APPENDIX A

Methodology Letter of Understanding

Methodology Letter of Understanding (MLOU)

Interstate 75 and Overpass Road Interchange Justification Report

Prepared for: **Pasco County and Florida Department of Transportation**

REVISED JULY 2010

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METHODOLOGY LETTER OF UNDERSTANDING - INTRODUCTION

This letter serves as the Methodology Letter of Understanding (MLOU) between the Federal Highway Administration (FHWA), the Florida Department of Transportation (FDOT) Office of Systems Planning (i.e., the Central Office), FDOT District Seven Interchange Review Committee (DIRC), and Pasco County (i.e., the Applicant), regarding the preparation of an Interchange Justification Report (IJR) for the proposed Overpass Road interchange on Interstate 75 (I-75) in Pasco County, Florida. See **Figure 1A** for the Project Location and Area of Influence and **Figure 1B** for the location of the Overpass Road extension corridor.

The IJR will be prepared in accordance with FDOT and FHWA's recommended format and will specifically address each of the following eight federal requirements, summarized from the Federal Register dated August 27, 2009:

1. *Existing system, even with reasonable improvements, is incapable of satisfactorily accommodating the design year traffic demands…*

2. *All reasonable alternatives to a new interchange have been considered including ramp metering, mass transit, and HOV facilities…*

3. *Proposal does not have a significant adverse impact on the operations and safety of the Interstate facility or on the local street network based on both the current and future traffic projections…*

4. *A full interchange with all traffic movements connecting to a public road is provided…*

5. *The proposal considers and is consistent with local and regional land use and transportation plans…*

6. *Consistency with long-range systems or network plans…*

7. *Coordinated with the area's development…*

8. *Request can be expected to be included as an alternative in the required environmental evaluation, review and processing.*

The project was screened through the Efficient Transportation Decision Making (ETDM) Process in 2008 as a Programming Screen. The Programming Screen Summary Report prepared as a result of the screening event will be utilized as a reference in the preparation of the IJR.

FIGURE 1A
NEW INTERCHANGE PROJECT LOCATION AND AREA OF INFLUENCE

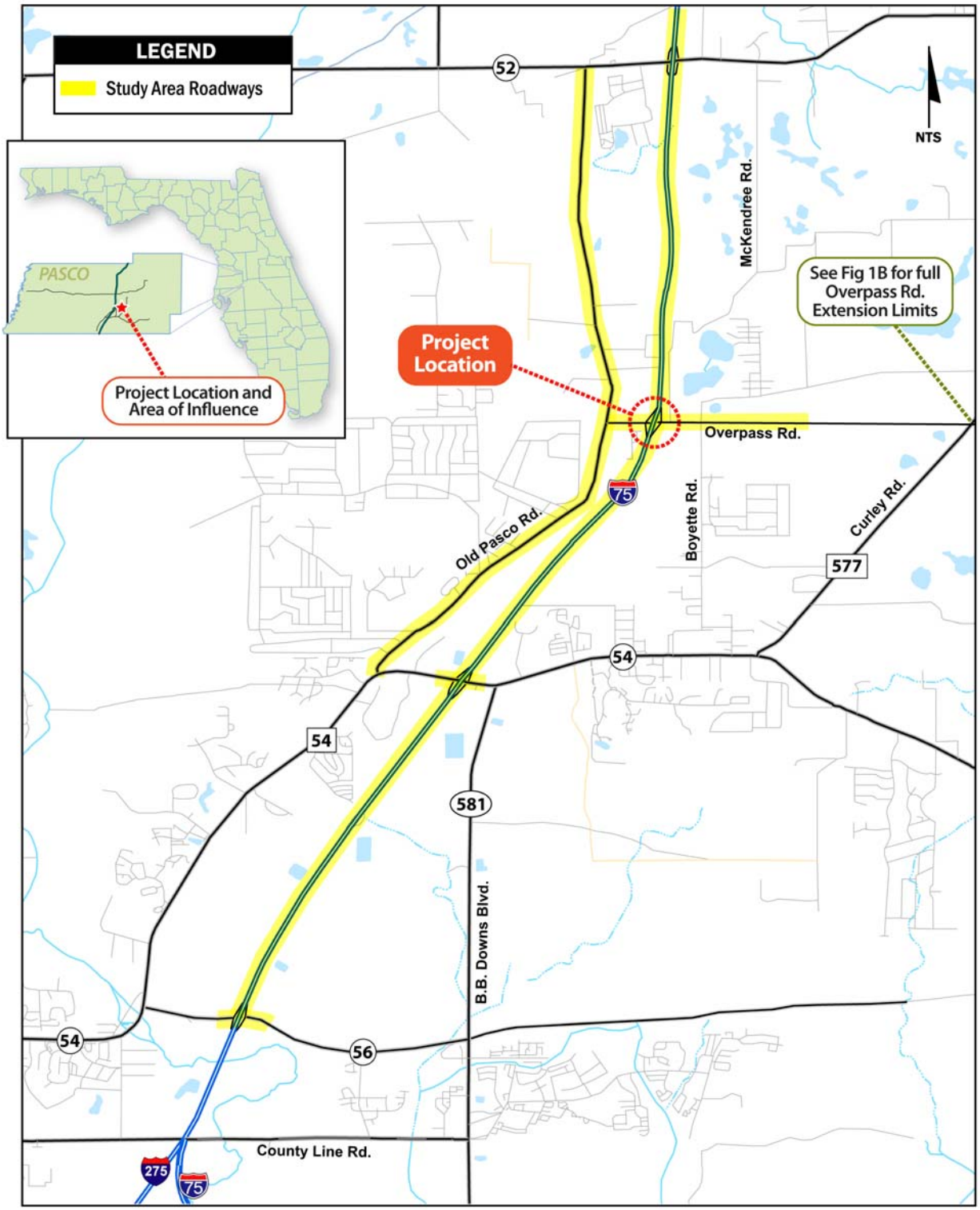
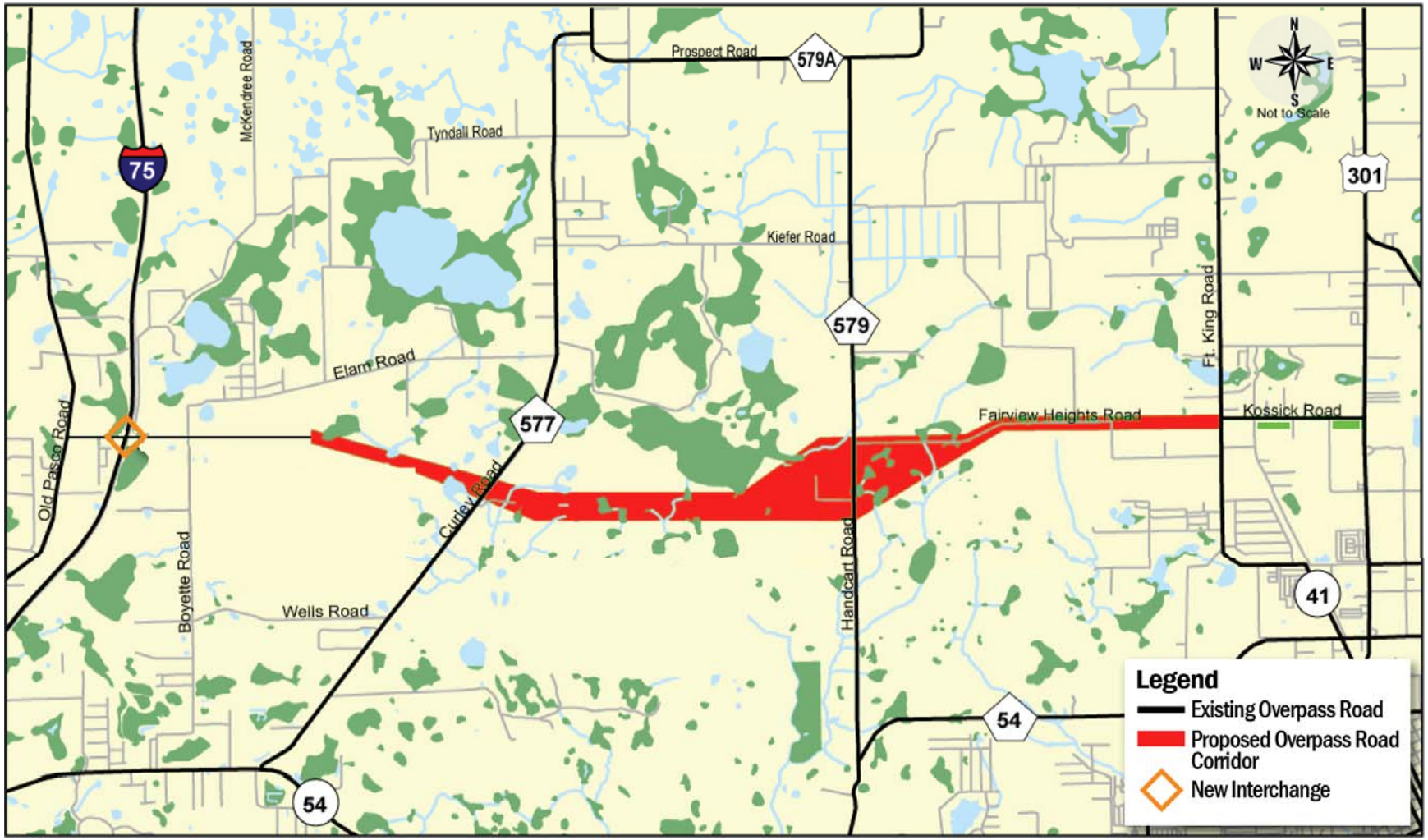


FIGURE 1B
LOCATION MAP – OVERPASS ROAD EXTENSION



Section 1.0
NEED FOR PROJECT

The Applicant is requesting approval of a new access point (i.e., interchange) on I-75 at Overpass Road, located in the Wesley Chapel area of Pasco County between existing interchanges at I-75 and County Road (CR) 54 and at I-75 and State Road (SR) 52. The large amount of population growth experienced in Pasco County, particularly in the Wesley Chapel area, has resulted in increased traffic volumes and congestion at the interchanges of I-75 with SR 56, CR 54, and SR 52. To address both social and economic needs created by this growth, the transportation infrastructure must be expanded to ensure that mobility is maintained on Florida's Interstate and Intrastate Highway Systems and to enhance mobility between existing and proposed developments and the roadway network.

In addition to the significant population increase in Pasco County, which is estimated at approximately 36.6 percent (or over 100,000 new residents) between 2000 and 2008[1], numerous developments, including the Pasadena Hills Area Plan, have been approved within and adjacent to the eastern central area of Pasco County and are in various stages of planning and construction. In 2008, Pasco County approved a Comprehensive Plan Amendment for Pasadena Hills consisting of 20,000 acres in south-central Pasco County. The intent of the plan is to create a buildable community that will attract residents and business owners to the county. Specific new land uses approved in the amendment include 41,987 residential units, 2.26 million non-residential square feet, and 500,000 square feet of office development.

The impact of these developments is reflected in the projected increases in population, employment, and the number of dwelling units. As reflected in the socioeconomic data for Pasco County Metropolitan Planning Organization's (MPO) Long Range Transportation Plan (LRTP) and the Tampa Bay Regional Planning Model (TBRPM), the population within the study area[2] is expected to increase from approximately 48,200 persons in 2006 (year of the TBRPM base year model validation) to 211,600 by the year 2035, while the number of dwelling units in the area is expected to increase from approximately 23,500 in 2006 to 94,200 in 2035. Employment within the eastern central area is also projected to increase from 16,200 jobs in 2006 to 56,900 jobs by the year 2035.

[1] http://quickfacts.census.gov/qfd/states/12/12101.html

[2] The study area, for purposes of travel demand forecasting in this IJR, is defined by SR 52 to the north, US 301 to the east, SR 56 to the south, and US 41 to the west.

The dramatic increases in population and employment projected to occur over the next 25 years in the eastern central area will likely result in significant increases in traffic volumes throughout the area. The existing interchanges located at I-75/SR 56, I-75/CR 54, and I-75/SR 52 are already experiencing congestion and are not expected to be able to effectively serve the future vehicular demand entering or exiting I-75 in the study area.

The need for improved access in the Wesley Chapel area of Pasco County has been recognized by Pasco County and the Pasco MPO and the proposed interchange at Overpass Road and I-75 is currently included in the MPO's adopted 2035 Cost-Affordable LRTP. Additionally, the location of the proposed interchange fully complies with the FDOT spacing criteria for transitioning areas, which is based upon reasonable accessibility to different area types, as is further detailed in Section 4.0 of this MLOU.

Section 2.0
PROJECT SCHEDULE

The proposed Interchange Justification Report (IJR) study is anticipated to be completed in approximately twenty-four (24) months, as summarized in the project schedule located in Appendix A.

The following activities have taken place prior to initiating the IJR effort:

Overpass Road Extension Corridor/Route Study	Completed in March 2005
Overpass Road and I-75 Interchange Feasibility Study	Completed in 2007
ETDM Programming Screen (ETDM #9871)	Completed in 2008

The following activities are currently underway:

Interchange Justification Report	January 2010 through June 2012
Overpass Road Extension Project Development and Environment (PD&E) Study	Currently programmed in Pasco County's Capital Improvement Projects (CIP) for FY 2011/2012

Section 3.0
STUDY AREA ROADWAY NETWORK

As shown in Figures 1A and 1B, the primary Area of Influence includes the following existing and proposed roadways and interchanges:

- I-75 from just south of SR 56 to just north of SR 52;
- Overpass Road from Old Pasco Road to its current terminus approximately 0.86 miles east of Boyette Road;
- Old Pasco Road from CR 54 to SR 52;
- I-75 interchanges with SR 56, CR 54, and SR 52; and
- Overpass Road Extension from its current terminus approximately 0.86 miles east of Boyette Road to Curley Road and from Curley Road to US 301[3].

I-75 is a four-lane freeway within the study area. Between the I-275/I-75 junction and the interchange at SR 56 there are four lanes provided in the northbound direction (two lanes and two auxiliary lanes) and four lanes provided in the southbound direction (two lanes and two auxiliary lanes) on I-75. From the SR 56 interchange north to the SR 52 interchange, I-75 is currently a four-lane divided freeway. The existing (2008) daily traffic ranges from 52,000 to 77,000.

SR 56 is a six-lane divided arterial within the study area from the intersection of SR 54 at CR 54 to SR 581/Bruce B. Downs Boulevard. The existing daily traffic ranges between 35,000 and 49,000 vehicles per day.

CR 54 and SR 54 have varying laneage within the study area. CR 54 is a two-lane undivided roadway from the intersection of SR 54 at SR 56 to Magnolia Boulevard. At this point, four lanes begin and continue through the interchange at I-75 to SR 581/Bruce B. Downs Boulevard. East of SR 581/Bruce B. Downs Boulevard, the roadway transitions to a state road (SR 54) and four lanes are provided for a short distance, ultimately tapering to two lanes. The existing daily traffic ranges between 29,300 and 38,000 vehicles per day.

SR 52 is a two-lane divided arterial within the study area, both west and east of I-75. The facility carries approximately 16,000 vehicles per day in the vicinity of the I-75 interchange.

[3] A travel demand sensitivity analysis will be performed as part of the IJR process to assess logical termini for the Overpass Road extension in terms of connecting to major traffic generators and providing sufficient vehicular demand to justify the new interchange in accordance to Part 2, Chapter 2 of the PD&E Manual.

Overpass Road is an east-west corridor that extends from Old Pasco Road to approximately 0.86 miles east of Boyette Road. It is currently a two-lane undivided roadway from Old Pasco Road to Boyette Road and a four-lane roadway from Boyette Road to the eastern boundary of the Palm Cove development at Atwood Drive. It is located between SR 52 and CR 54/SR 54 and traverses over I-75 without ramp connections to the interstate. The existing traffic is approximately 3,000 vehicles per day.

The interchanges at SR 56, CR 54, and SR 52 are all full diamond interchange configurations, with ramps to/from the north and to/from the south. The ramps to/from the north at the I-75/SR 56 interchange are single-lane ramps, while two-lane ramps are provided to/from the south. Currently, all four ramps at the I-75/CR 54 interchange and at the I-75/SR 52 interchange are single-lane ramps at the merge/diverge gores on the interstate mainline. It should be noted, however, that the I-75/CR 54 interchange is currently under construction to include a dual lane northbound off-ramp to CR 54.

Section 4.0
INTERCHANGE SPACING

The distance between the I-75/SR 56 interchange and the I-75/CR 54 interchange is approximately 3.43 miles. The distance between the I-75/CR 54 interchange and the I-75/SR 52 interchange is approximately 6.637 miles. The existing interchange spacing is illustrated in **Figure 2**.

The location of the proposed I-75/Overpass Road interchange is approximately 3.046 miles north of the I-75/CR 54 interchange and approximately 3.591 miles south of the I-75/SR 52 interchange. The proposed interchange spacing is illustrated in **Figure 3**.

The American Association of State Highway Officials (AASHTO) recommends a minimum interchange spacing of 3.0 miles in rural areas and 1.0 mile in urban areas. Also, FDOT recommends a minimum spacing of 2.0 miles for urbanized areas and 3.0 miles for transitioning urbanized areas. The Overpass Road proposed interchange with I-75 is in a transitioning area. Therefore, the proposed interchange at Overpass Road meets the general spacing criteria.

FIGURE 2
EXISTING INTERCHANGE SPACING

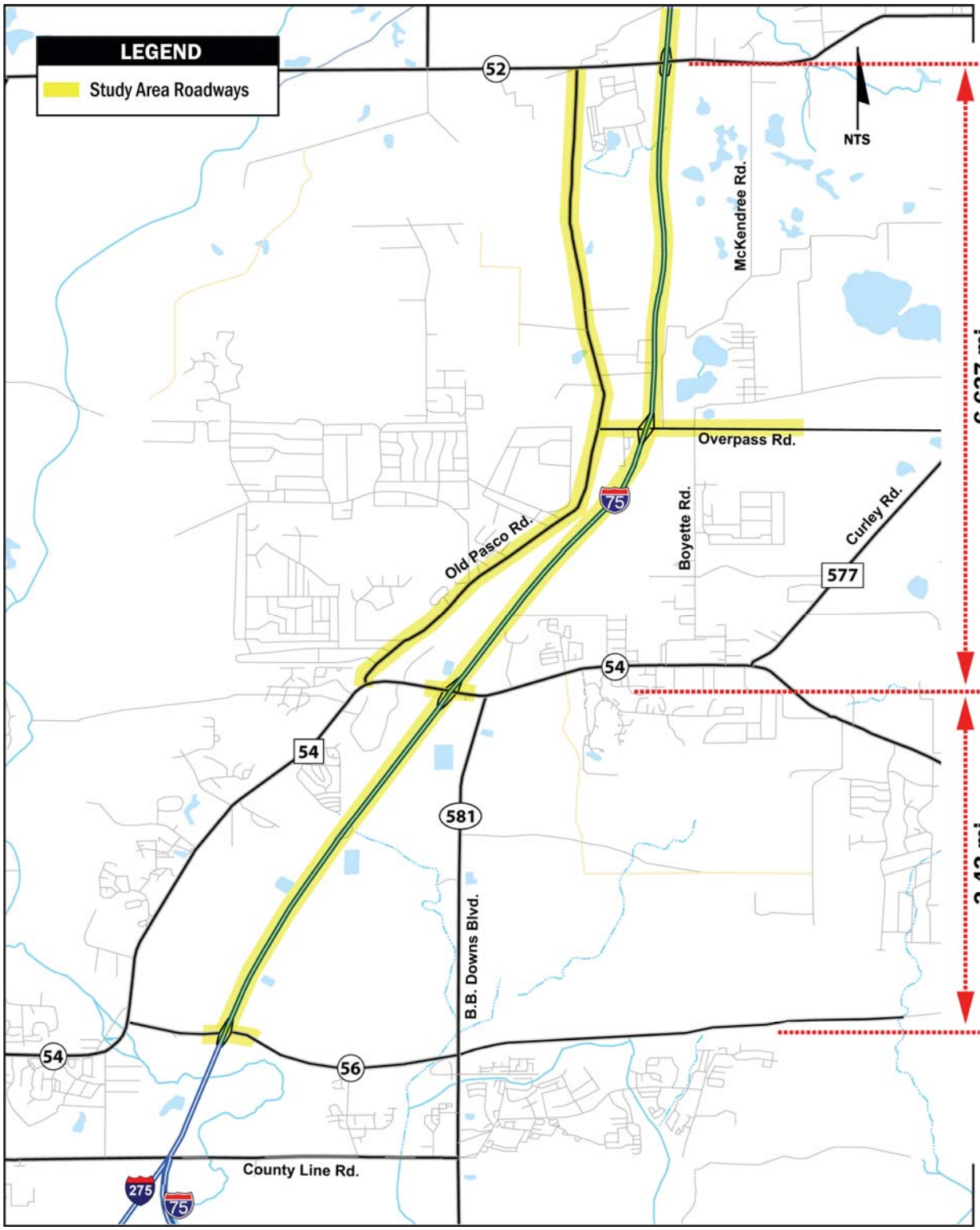
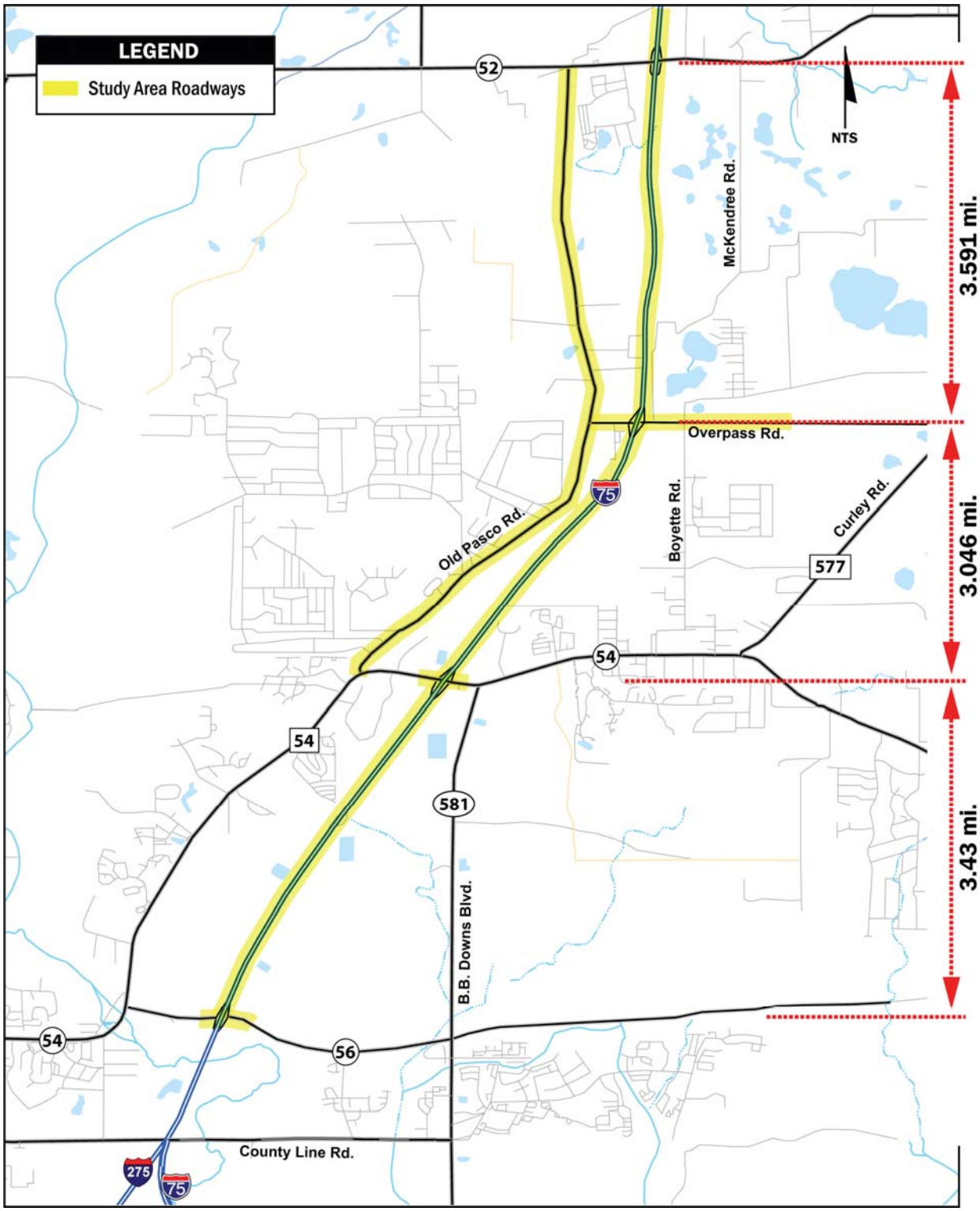


FIGURE 3
PROPOSED INTERCHANGE SPACING



Section 5.0
ANALYSIS YEARS

The analysis years to be used in the study are as follows:

- Existing Year: 2010
- Opening Year: 2022
- Interim Year: 2030
- Design Year: 2040[4]

[4] Typically the Design Year is 20 years from Opening Year. Given the uncertainty in projecting traffic more than five years over the travel demand horizon year (2035) it was decided to keep the Design Year to 2040, i.e. 18 years from Opening Year.

Section 6.0
CONSIDERATION OF OTHER INTERCHANGE AND ROADWAY IMPROVEMENT PROPOSALS

No other new interchanges are currently planned or proposed for I-75 in the study area; however, significant federal, state, and local funding commitments have been made to increase the capacity of the existing surface transportation system (including the adjacent interchanges) in the study area. The FDOT, the Pasco County MPO, and Pasco County have all recognized the additional demands that will be placed on the transportation system in the future as a result of the projected growth in population and employment.

Multiple activities are ongoing at the present time to help facilitate the implementation of the planned/programmed roadway improvements that are vital to the eastern and southern central areas of Pasco County. Key roadway improvements include the following:

- Widening of I-75 from north of CR 581/Bruce B. Downs Boulevard to south of SR 56 to a six-lane facility with auxiliary lanes.
  Status: *Right-of-way complete; Construction 2011.*
  Sources: Florida Department of Transportation Strategic Intermodal System Second Five Year Plan FY 2014/15-FY 2018/19 (FPN # 408459-3); Pasco County 2010-2014 Capital Improvement Projects (CIP #4205).

- Widening of I-75 from south of SR 56 to north of CR 54 to a six-lane facility with auxiliary lanes.
  Status: *Design ongoing; Right-of-way ongoing.*
  Sources: Florida Department of Transportation Strategic Intermodal System Cost Feasible Plan Highway Component 2020-2035 (FPN # 408459-4); Pasco County 2010-2014 Capital Improvement Projects (CIP #9019).

- Widening of I-75 from north of CR 54 to north of SR 52 to a six-lane facility.
  Status: *Design ongoing; Right-of-way initiated.*
  Sources: Florida Department of Transportation Strategic Intermodal System Cost Feasible Plan Highway Component 2020-2035 (FPN # 258736-2); Pasco County 2010-2014 Capital Improvement Projects (CIP #9020).

- Widening of I-75 from north SR 52 to the Pasco/Hernando County Line to a six-lane facility with auxiliary lanes.
  Status: *Design ongoing; Right-of-way 2013.*
  Source: Florida Department of Transportation Strategic Intermodal System Cost Feasible Plan Highway Component 2020-2035 (FPN # 411014-2).

- Widening of SR 54 from just west of SR 581/Bruce B. Downs Boulevard to east of CR 577/Curley Road to a six-lane facility.
  Status: *Construction ongoing.*
  Source: Pasco County 2010-2014 Capital Improvement Projects (CIP #4298 - CST FY 09/10).

- Widening of CR 54 from the intersection of SR 54 at SR 56 to Magnolia Boulevard to a four-lane facility.
  Status: *Design ongoing.*
  Source: Pasco County 2010-2014 Capital Improvement Projects (CIP #4040 - Design FY 08/09).

- Widening of SR 52 from I-75 to McKendree Road to a four-lane facility.
  Status: *Design ongoing.*
  Source: Pasco County 2010-2014 Capital Improvement Projects (CIP #4401 - CST FY 10/11).

Additional programmed roadway and intersection improvements in the study area are shown on the Pasco County 2010-2014 CIP Map, provided in Appendix B.

Section 7.0
DATA COLLECTION

New (year 2010) daily vehicle counts and turning movement counts will be taken in the study area. Daily vehicle counts will be conducted for up to seventy-two (72) hours and peak hour turning movement counts will be conducted from 7:00 to 9:00 a.m. and from 4:00 to 6:00 p.m. for the morning and evening peak hours, respectively. It is anticipated that traffic counts will be needed for the following roadways and intersections:

Roadways/Freeways

- I-75 just north of SR 52,
- I-75 between SR 52 and CR 54,
- I-75 between CR 54 and SR 56,
- I-75 between SR 56 and I-275,
- Old Pasco Road from SR 52 to CR 54, and
- Overpass Road from Old Pasco Road to its current terminus approximately 0.86 miles east of Boyette Road.

Intersections/Interchanges

- Overpass Road at Old Pasco Road,
- Overpass Road at Boyette Road,
- I-75 at SR 52,
- I-75 at CR 54, and
- I-75 at SR 56.

Section 8.0
EXISTING CONDITIONS ANALYSIS

8.1 TRAFFIC OPERATIONS ANALYSIS

Traffic operations analyses for the a.m. and p.m. peak hours will be conducted to document the existing levels of service within the IJR study area. The existing conditions analysis will be performed based on the latest version of the Highway Capacity Manual using HCS and will include all ramp merge/diverge areas, signalized ramp terminal intersections, major intersections, and roadway segments in the study area. The I-75 freeway facility from SR 56 to SR 52 will be analyzed using FDOT's FREEPLAN program. The results of the existing conditions analysis will be summarized in graphical and/or tabular format.

8.2 CRASH DATA ANALYSIS

The study will also include an evaluation of the most recent three years of crash records in the study area. The data collected shall include the number and type of accidents, accident locations, number of fatalities and injuries, and estimates of property damage and economic loss. Based on the information obtained from the crash data, the evaluation will identify safety deficiencies of the existing facility and propose improvements as needed.

Section 9.0
ALTERNATIVES DEVELOPMENT

Activities anticipated for this section of the Preliminary Interchange Justification Report (PIJR) process will include the development and evaluation of alternatives for a new interchange with I-75. The potential interchange configurations may include known configurations in the study area, such as:

- A diamond or tight diamond interchange,
- A single point urban interchange,
- A diverging diamond interchange, and/or
- Other alternatives suited for the specific constraints of the study area and the projected vehicular demand for each of the ramps.

Special consideration will be given to interchange concepts and/or ramp spacing that would not constrain the implementation of future improvements and also to control of access immediately adjacent to the interchange. Any alternatives analyzed will assess the operations along I-75 and attempt to minimize any potential impacts to the interstate system. Commitment by the state for implementation of a Full-Function Service Patrol (FFSP) Program throughout the study area will also be explored. Proposed alternatives will include a conceptual signing plan, per new FHWA requirements.

Due to its close proximity to I-75, it is anticipated that all alternatives will include a relocation of the existing McKendree Road and Overpass Road intersection to the east. A No-Build scenario and a Collector Distributor (C-D) system parallel to I-75 and feeding traffic into existing interchanges will be considered as valid alternatives. Additionally, the feasibility of new auxiliary lanes and parallel corridors and/or potential improvements to existing parallel arterials (i.e., Old Pasco Road) will be explored throughout the IJR process. An evaluation of pros and cons of each alternative, in terms of factors such as cost, right-of-way acquisition, community cohesion, and level of service will be made and an interchange configuration will be recommended for approval.

Section 10.0
ENVIRONMENTAL CONSIDERATIONS

An environmental evaluation, as required by the National Environmental Protection Act of 1969, will be conducted as part of the PD&E phase of the project, which is programmed in Pasco County's CIP for FY 2011/2012. The Applicant is fully aware that a new interchange will not be approved unless such a study is conducted and it shall include the evaluation of Overpass Road extension to its logical termini to the east.

A Programming Screening was conducted in 2008 as part of the ETDM Process for Overpass Road, including the potential I-75/Overpass Road interchange. Results show that various agencies assigned a "Substantial" Degree of Effect on areas pertaining to "Historic and Archaeological" and "Secondary and Cumulative Effects." Further coordination will occur with FHWA, FDOT District Seven and each review agency throughout the duration of this project. In addition, potential noise effects were not included in the ETDM screening and will be assessed during the PD&E stage.

A general summary of the conclusions and recommendations determined as part of the Programming Screen Summary Report will be provided in the IJR.

Section 11.0
TRAVEL DEMAND FORECASTING

In order to develop future year traffic volumes for the alternatives under consideration, the latest available version of the Tampa Bay Regional Planning Model (TBRPM) Version 7.0 will be utilized to develop the future year daily traffic projections. The TBRPM is based on the Florida Standard Urban Transportation Modeling Structure (FSUTMS) and is recognized by both FDOT District Seven, as well as the Tampa Bay Area MPOs as the accepted travel demand forecasting tool. The ultimate roadway network to be used reflects the Adopted Cost Affordable LRTPs for all counties in the district.

The TBRPM will be reviewed to ensure that it accurately reflects the characteristics of the study area and surrounding roadway network. The latest socioeconomic (SE) data approved and used for the Pasco County MPO's 2035 LRTP update will be obtained from Pasco County and FDOT and used in the development of the travel forecasts. This SE data will also be reviewed to ensure the latest approved development totals are included in the model. In addition, the Pasadena Hills Area Plan will be reviewed to ensure that the appropriate development levels are represented in the SE data. This area plan (approved by Pasco County) generally encompasses the eastern portion of the county located north of CR 54/Eiland Boulevard, south of SR 52, east of CR 577/Curley Road, and west of Handcart Road. **Figure 4** provides a graphical depiction of proposed developments in the study area and **Figure 5** depicts the Pasadena Hills Area Plan.

A linear interpolation of the SE data sets from 2006 to 2025 will be used to forecast the Opening Year (2022) traffic volumes. For the Interim Year (2030), a linear interpolation between the 2025 and 2035 SE data sets will be conducted. Traffic projections for 2040 will be developed by applying a 5 percent growth factor to the 2035 volumes. Relevant socioeconomic data and growth factor documentation are documented in Appendix C.

The Peak Season Weekday Average Daily Traffic (PSWADT) volumes obtained for all analysis years will be converted to the respective Annual Average Daily Traffic (AADT) volumes by multiplying it by a factor of 0.94. This value is the Model Conversion Factor (MOCF) for Pasco County.

Model socioeconomic data, network modifications and AADT projections shall be reviewed and approved by the DIRC and the Department's Central Office prior to proceeding with the development of the design hour traffic volumes. A ***Travel Demand Forecasting Technical Memorandum*** will be provided to facilitate such review and approval process. The Applicant will provide access to travel demand model files (input and output files) if requested by the FDOT for the purpose of reviewing and approving the future year traffic projections.

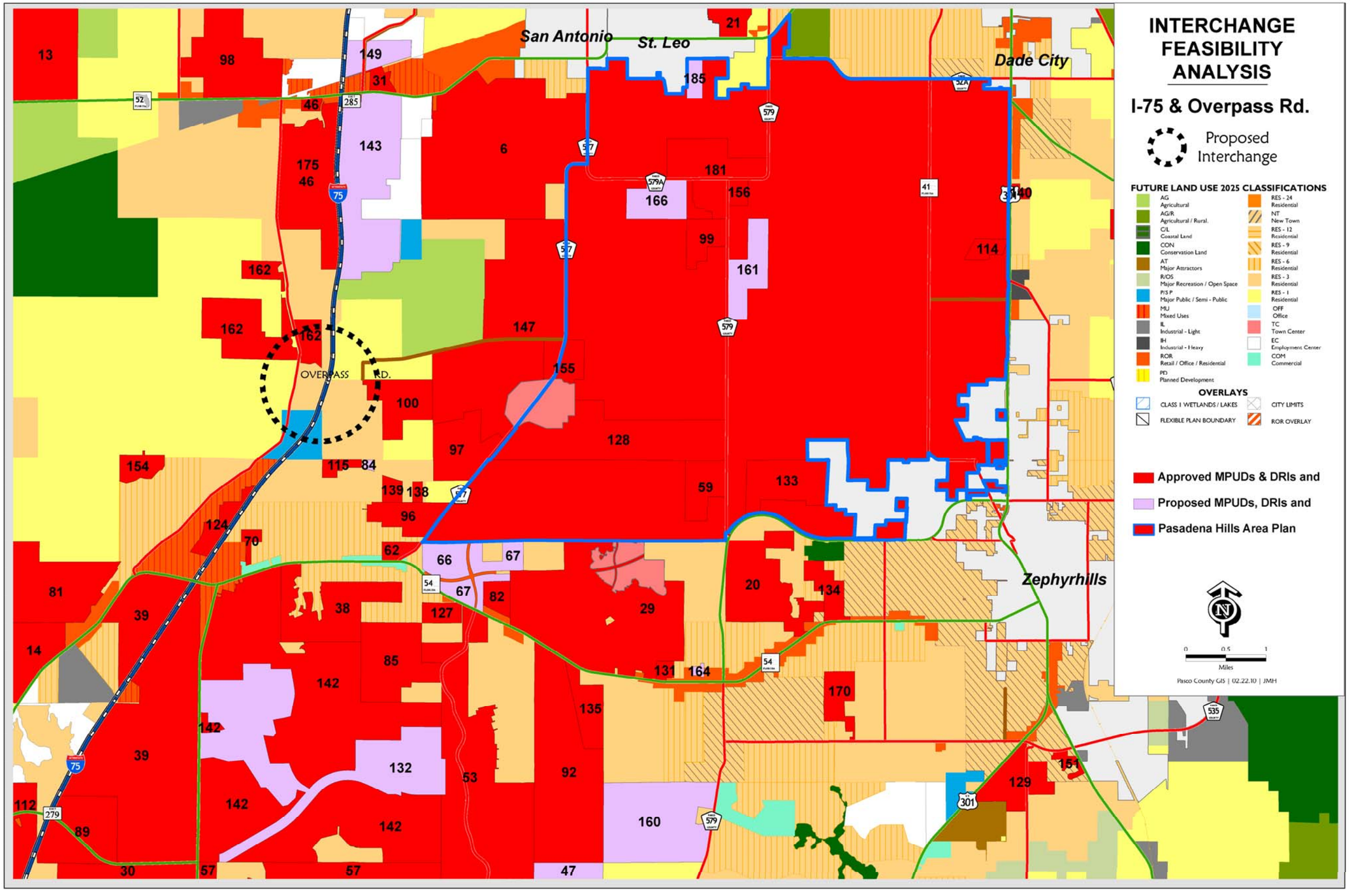


FIGURE 4
PROPOSED DEVELOPMENTS IN STUDY AREA

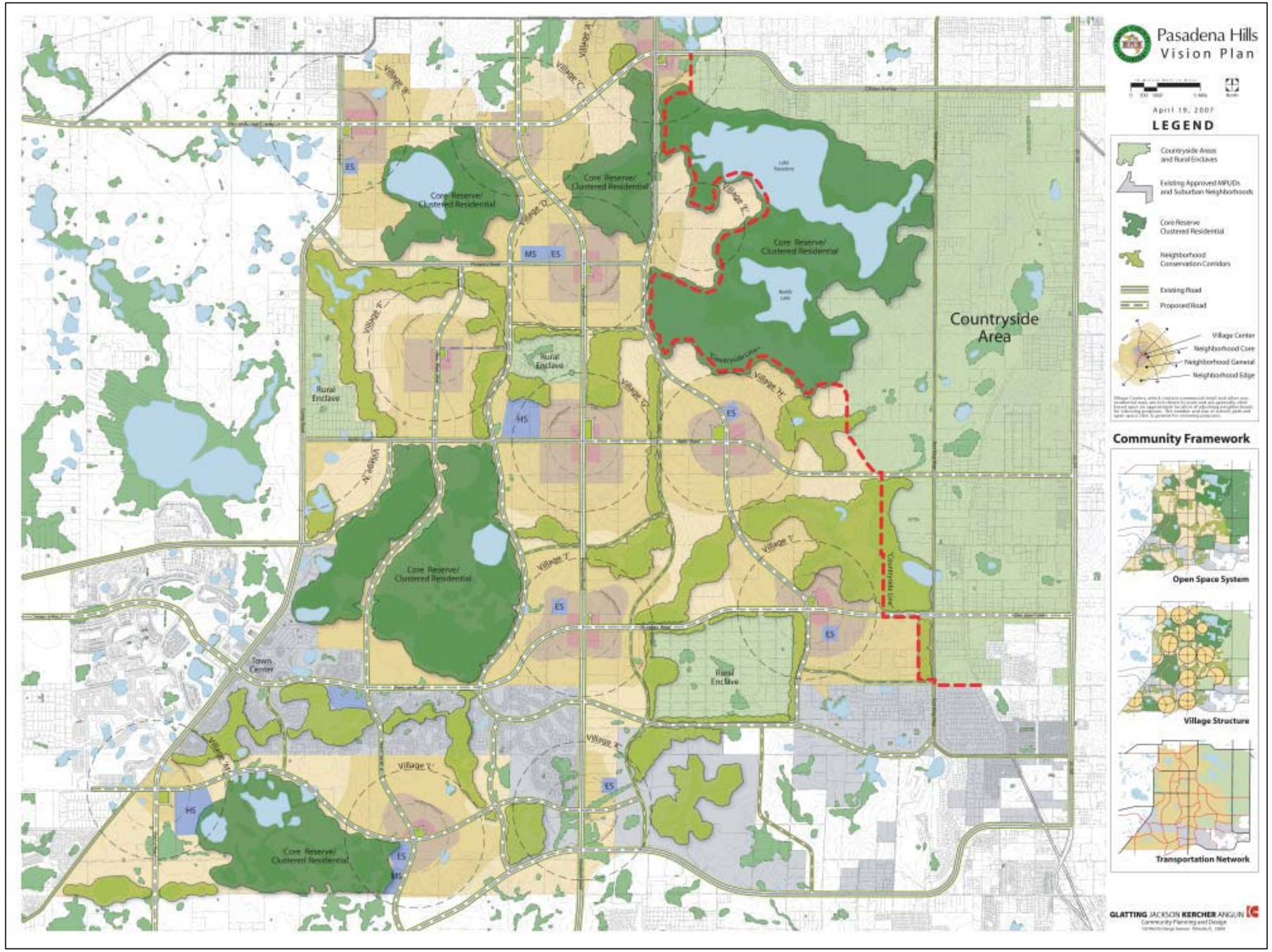


FIGURE 5
PASADENA HILLS AREA PLAN

Section 12.0
DEVELOPMENT OF DIRECTIONAL DESIGN HOURLY VOLUMES AND DESIGN TRAFFIC FACTORS

The directional design hour volumes will be derived from the future year AADT volumes using the appropriate K_{30}- and D_{30}- factors. These factors represent the percentage of daily traffic volume occurring during the peak hour and the proportion of traffic traveling in the peak direction during the 30th highest hour of the year, respectively, and represent the amount of traffic demand that a roadway is typically designed to accommodate.

The design traffic factors proposed to be utilized in this analysis were derived by considering historical traffic data, as well as the methodologies and factors used in the following approved studies: *I-75/CR 581 IMR* (June 1999), *Final Overpass Road Route Study* (March 2005), and the *I-75/Overpass Road Interchange Feasibility Study* (October 2006) and several subarea model studies done in support of the SR 54 PD&E and of DRIs in the area. Permanent and portable count stations along I-75 were used to determine the historical K_{30}- and D_{30}- values from 1997 to 2008. These values are documented in Appendix D. Based upon these findings and discussions during the MLOU methodology meeting, it was agreed that the analyses be conducted using a uniform set of K and D factors, as follows:

I-75

- K_{30}- factor = 9.4 percent
- D_{30}- factor = 55.0/45.0 percent for the peak/off-peak direction

SR 56, CR 54/SR 54, and SR 52

- K_{30}- factor = 9.4 percent
- D_{30}- factor = 55.0/45.0 percent in the peak/off-peak direction

Overpass Road and Old Pasco Road

- K_{30}- factor = 9.4 percent
- D_{30}- factor = 55.0/45.0 for the peak/off-peak direction
- All K and D factors are within acceptable ranges for freeways in accordance with FDOT and National Highway Capacity Manual (HCM) criteria.

Additional factors include:

- Peak Hour Factor = Actual PHF for existing conditions and 0.90 PHF for future conditions, as agreed upon during the MLOU methodology meeting.
- Population Factor = 0.95 (FDOT Statewide Default)
- Terrain = Level
- I-75 Design Speed = 70 miles per hour (mph)
- State and County Arterial Design Speed = 45 mph
- Design hour truck percentages: Half of the Daily Truck Percentage (T_{24})[5]

[5] Appropriateness of the application of T_{24} divided by two as the truck percentage for use in the study was confirmed in follow-up coordination efforts between Mr. Fawzi Bitar of FDOT and Mr. Domingo Noriega of URS after the MLOU meeting.

Section 13.0
OPERATIONAL ANALYSIS

Freeway, ramp merge/diverge, and weaving analyses will be conducted for Build Alternative interchange configurations. The HCS analyses of the merge/diverge areas will be conducted using a ramp free-flow speed of 45 mph for interchange ramps. The ramp free-flow speeds for proposed interchange flyover ramps (if any) will be based on the individual design speeds of the flyover ramps. Intersection analysis will be conducted at the ramp terminals and other intersections (signalized or unsignalized) within the study area utilizing HCS. Signalized intersections will be optimized where it is appropriate to do so based upon changes in geometry, lanes, parallel facilities or changes in future traffic demand and patterns. FDOT's FREEPLAN program based on the Highway Capacity Manual (HCM) will be utilized to assess the operations of the interstate.

The HCS analyses of the ramp terminal intersections will be conducted using the following parameter values:

- Duration of yellow phase = 4 seconds
- Duration of all-red phase = 1 second
- Extension of effective green time = 3 seconds
- Arrival type factor = 4 (peak direction) / 3 (off-peak direction)

The HCS default values for lane utilization factors will be used unless the volume-to-capacity (v/c) ratio for a given movement is projected to be equal to or greater than 0.90. A lane utilization factor of 1.00 will be used for all movements that are projected to have v/c ratios greater than or equal to 0.90.

The following Level of Service (LOS) standards will be used for the designated state study area roadways:

- I-75: South of SR 54 = LOS D; North of SR 54 = LOS C
- SR 56: LOS D
- SR 54: LOS D
- SR 52: LOS D

All other County/local roadways analyzed will utilize the County standard, which in all cases for the proposed project is LOS D. Signalized intersections analyzed will utilize the most conservative LOS standard applicable to each road at the intersection, whether it is LOS C or D.

Section 14.0
ANTICIPATED EXCEPTIONS

At the time of preparation of this MLOU, there are no known exceptions to any FDOT or FHWA policies, rules, or standards.

Section 15.0
CONCEPTUAL SIGNING PLAN

One of the requirements in the IJR approval process includes the preparation of a conceptual plan of the type and location of the signs proposed to support each alternative. As required, a conceptual signing plan in accordance to FHWA guidelines will be prepared for the proposed alternatives under consideration. The purpose of this signing plan is to demonstrate the ability to provide adequate advance signing and directions to drivers entering and or exiting a new interchange. Given the spacing between the proposed interchange at Overpass Road and the adjacent interchanges at SR 54 and SR 52 (at least 3 miles) it is anticipated that a signing concept for an isolated interchange will be included in the alternatives.

Section 16.0
CONCEPTUAL FUNDING PLAN

The IJR and the upcoming PD&E Study are being accomplished using Pasco County funds. The proposed interchange and the Overpass Road extension are included in the adopted Pasco County MPO's 2035 Financially Feasible LRTP. A detailed funding plan has not yet been developed for the project; however, it is anticipated that the funding sources may include a combination of County, State, Private Sector, and/or Federal contribution revenues. Pasco County is fully aware that a detailed funding plan must be included in the PIJR. This funding plan must be included in advance of submitting the document to FDOT District Seven and FDOT Central Office prior to submittal to the FHWA Florida Division Office. The Applicant is also aware that proceeding with the development of the IJR proposal is at the Applicant's risk and not binding upon FDOT or FHWA to approve the interchange proposal.

Section 17.0
MLOU CONCURRENCE

In summary, the FHWA, the FDOT Central Office Systems Planning Office, and the FDOT District Seven DIRC have reviewed the Applicant's MLOU and concur that it is acceptable for use in the I-75/Overpass Road PIJR. The Applicant acknowledges that this MLOU will not be binding upon the FDOT and the FHWA to approve the interchange proposal under any circumstances, nor will it nullify the FDOT's or FHWA's right to request changes to the study design or require additional data collection, analysis, or documentation at any point during the interchange proposal process. The Applicant also acknowledges that full compliance with all of the MLOU requirements does not obligate the FDOT and FHWA to approve the interchange proposal.

Bipin Parikh, PE
Assistant County Administrator
Development Services - Pasco County
(Applicant)

Waddah Farah
District Interchange Review Committee Chairman
FDOT District 7

Douglas S. McLeod
Statewide Interchange Access Management
FDOT Systems Planning Office

Monica Gourdine
Program Operations Engineer
Federal Highway Administration

APPENDIX B

Data Collection

Traffic Counts

I-75 NB Off Ramp to SR 56

URS Corporation
7650 W. Courtney Campbell Cswy
Tampa, Fl 33607-1462

Station ID: 0005
Site Code: ADR 5
Latitude: 28' 11.413 North
Longitude: 82' 23.113 West

Start Time	09-Mar-10 Tue	Lane 1 Morning	Lane 1 Afternoon	Hour Totals Morning	Hour Totals Afternoon
12:00		81	255		
12:15		73	264		
12:30		59	276		
12:45		54	260	267	1055
01:00		35	268		
01:15		47	272		
01:30		26	306		
01:45		30	285	138	1131
02:00		24	313		
02:15		33	356		
02:30		29	358		
02:45		27	397	113	1424
03:00		26	406		
03:15		20	482		
03:30		25	535		
03:45		29	689	100	2112
04:00		35	611		
04:15		28	700		
04:30		31	660		
04:45		39	652	133	2623
05:00		30	746		
05:15		45	769		
05:30		69	770		
05:45		76	751	220	3036
06:00		94	743		
06:15		128	765		
06:30		176	737		
06:45		189	463	587	2708
07:00		159	448		
07:15		220	487		
07:30		247	404		
07:45		251	372	877	1711
08:00		262	386		
08:15		261	313		
08:30		220	307		
08:45		244	273	987	1279
09:00		253	265		
09:15		217	322		
09:30		222	311		
09:45		247	275	939	1173
10:00		204	258		
10:15		178	216		
10:30		222	204		
10:45		204	160	808	838
11:00		241	119		
11:15		232	135		
11:30		204	133		
11:45		260	111	937	498
Total		6106	19588		
Percent		23.8%	76.2%		

I-75 NB Off Ramp to SR 56

URS Corporation
7650 W. Courtney Campbell Cswy
Tampa, Fl 33607-1462

Station ID: 0005
Site Code: ADR 5
Latitude: 28' 11.413 North
Longitude: 82' 23.113 West

Start Time	10-Mar-10 Wed	Lane 1 Morning	Lane 1 Afternoon	Hour Totals Morning	Hour Totals Afternoon
12:00		82	248		
12:15		82	293		
12:30		61	267		
12:45		61	321	286	1129
01:00		49	252		
01:15		45	287		
01:30		32	352		
01:45		29	370	155	1261
02:00		26	347		
02:15		34	372		
02:30		38	397		
02:45		32	421	130	1537
03:00		21	484		
03:15		29	510		
03:30		33	564		
03:45		19	660	102	2218
04:00		19	629		
04:15		26	722		
04:30		20	691		
04:45		36	745	101	2787
05:00		37	756		
05:15		39	756		
05:30		45	782		
05:45		70	779	191	3073
06:00		96	809		
06:15		134	807		
06:30		168	723		
06:45		189	639	587	2978
07:00		198	574		
07:15		232	461		
07:30		247	481		
07:45		241	448	918	1964
08:00		253	356		
08:15		270	311		
08:30		251	311		
08:45		222	308	996	1286
09:00		233	287		
09:15		192	286		
09:30		239	288		
09:45		204	266	868	1127
10:00		231	259		
10:15		204	193		
10:30		238	188		
10:45		254	178	927	818
11:00		230	167		
11:15		250	118		
11:30		246	128		
11:45		261	100	987	513
Total		6248	20691		
Percent		23.2%	76.8%		

I-75 NB Off Ramp to SR 56

URS Corporation
7650 W. Courtney Campbell Cswy
Tampa, Fl 33607-1462

Station ID: 0005
Site Code: ADR 5
Latitude: 28' 11.413 North
Longitude: 82' 23.113 West

Start Time	11-Mar-10 Thu	Lane 1 Morning	Lane 1 Afternoon	Hour Totals Morning	Hour Totals Afternoon
12:00		82	252		
12:15		78	279		
12:30		60	272		
12:45		58	291	278	1094
01:00		42	260		
01:15		46	280		
01:30		29	329		
01:45		30	328	147	1197
02:00		25	330		
02:15		34	364		
02:30		34	378		
02:45		30	409	123	1481
03:00		24	445		
03:15		25	496		
03:30		29	550		
03:45		24	675	102	2166
04:00		27	620		
04:15		27	711		
04:30		26	676		
04:45		38	699	118	2706
05:00		34	751		
05:15		42	763		
05:30		57	776		
05:45		73	765	206	3055
06:00		95	776		
06:15		131	786		
06:30		172	730		
06:45		189	551	587	2843
07:00		179	511		
07:15		226	474		
07:30		247	443		
07:45		246	410	898	1838
08:00		258	371		
08:15		266	312		
08:30		236	309		
08:45		233	291	993	1283
09:00		243	276		
09:15		205	304		
09:30		231	300		
09:45		226	271	905	1151
10:00		218	259		
10:15		191	205		
10:30		230	196		
10:45		229	169	868	829
11:00		236	143		
11:15		241	127		
11:30		225	131		
11:45		261	106	963	507
Total		6188	20150		
Percent		23.5%	76.5%		
Grand Total		18542		60429	
Percent		23.5%		76.5%	
ADT		ADT 22,428			AADT 22,428

I-75 Southbound Off to SR 56

URS Corporation
7650 W. Courtney Campbell Cswy
Tampa, Fl 33607-1462

Station ID: 0008
Site Code: N19
Latitude: 28' 11.720 North
Longitude: 82' 23.084 West

Start Time	09-Mar-10 Tue	Southbound Morning	Afternoon	Hour Totals Morning	Afternoon
12:00		14	87		
12:15		19	68		
12:30		21	96		
12:45		8	71	62	322
01:00		9	87		
01:15		15	77		
01:30		4	96		
01:45		11	70	39	330
02:00		2	87		
02:15		4	71		
02:30		6	78		
02:45		6	86	18	322
03:00		3	94		
03:15		7	74		
03:30		4	94		
03:45		8	90	22	352
04:00		6	98		
04:15		13	90		
04:30		5	110		
04:45		19	115	43	413
05:00		17	95		
05:15		18	82		
05:30		31	99		
05:45		40	99	106	375
06:00		43	75		
06:15		53	85		
06:30		50	75		
06:45		64	67	210	302
07:00		56	83		
07:15		75	76		
07:30		61	72		
07:45		83	59	275	290
08:00		80	50		
08:15		59	38		
08:30		68	49		
08:45		52	49	259	186
09:00		60	36		
09:15		88	38		
09:30		95	35		
09:45		96	40	339	149
10:00		72	31		
10:15		75	25		
10:30		90	42		
10:45		86	41	323	139
11:00		97	29		
11:15		95	16		
11:30		86	25		
11:45		88	22	366	92
Total		2062	3272		
Percent		38.7%	61.3%		

I-75 Southbound Off to SR 56

URS Corporation
7650 W. Courtney Campbell Cswy
Tampa, Fl 33607-1462

Station ID: 0008
Site Code: N19
Latitude: 28' 11.720 North
Longitude: 82' 23.084 West

Start Time	10-Mar-10 Wed	Southbound Morning	Afternoon	Hour Totals Morning	Afternoon
12:00		24	75		
12:15		17	91		
12:30		9	108		
12:45		15	85	65	359
01:00		10	77		
01:15		15	72		
01:30		13	100		
01:45		10	79	48	328
02:00		9	92		
02:15		6	83		
02:30		9	97		
02:45		7	79	31	351
03:00		4	75		
03:15		7	73		
03:30		12	96		
03:45		9	85	32	329
04:00		11	86		
04:15		7	85		
04:30		15	102		
04:45		22	112	55	385
05:00		8	96		
05:15		27	87		
05:30		36	89		
05:45		29	88	100	360
06:00		35	74		
06:15		36	86		
06:30		54	70		
06:45		72	81	197	311
07:00		51	65		
07:15		70	74		
07:30		56	74		
07:45		78	69	255	282
08:00		85	52		
08:15		64	48		
08:30		73	47		
08:45		57	47	279	194
09:00		80	34		
09:15		88	32		
09:30		88	37		
09:45		102	35	358	138
10:00		92	34		
10:15		99	26		
10:30		88	24		
10:45		93	19	372	103
11:00		98	16		
11:15		97	13		
11:30		99	16		
11:45		108	17	402	62
Total		2194	3202		
Percent		40.7%	59.3%		

I-75 Southbound Off to SR 56

URS Corporation
7650 W. Courtney Campbell Cswy
Tampa, Fl 33607-1462

Station ID: 0008
Site Code: N19
Latitude: 28' 11.720 North
Longitude: 82' 23.084 West

Start Time	11-Mar-10 Thu	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon
12:00		7	96		
12:15		9	80		
12:30		12	73		
12:45		10	83	38	332
01:00		3	67		
01:15		7	66		
01:30		4	81		
01:45		3	92	17	306
02:00		7	75		
02:15		7	91		
02:30		3	84		
02:45		3	80	20	330
03:00		7	95		
03:15		8	74		
03:30		6	62		
03:45		9	88	30	319
04:00		2	88		
04:15		3	87		
04:30		11	107		
04:45		15	118	31	400
05:00		17	83		
05:15		18	82		
05:30		30	92		
05:45		44	80	109	337
06:00		44	76		
06:15		52	83		
06:30		71	69		
06:45		68	65	235	293
07:00		52	54		
07:15		71	69		
07:30		57	61		
07:45		79	52	259	236
08:00		81	58		
08:15		60	45		
08:30		69	48		
08:45		53	47	263	198
09:00		69	33		
09:15		97	30		
09:30		91	34		
09:45		93	35	350	132
10:00		88	27		
10:15		70	38		
10:30		80	21		
10:45		65	29	303	115
11:00		69	18		
11:15		88	24		
11:30		73	12		
11:45		77	10	307	64
Total		1962	3062		
Percent		39.1%	60.9%		
Grand Total		6218		9536	
Percent		39.5%		60.5%	
	ADT	ADT 5,251			AADT 5,251

SR 56

I-75 NB On Ramp to I-75

URS Corporation
7650 W. Courtney Campbell Cswy
Tampa, Fl 33607-1462

Station ID: 00002
Site Code: PK 57
Latitude: 28' 11.872 North
Longitude: 82' 22.908 West

Start Time	09-Mar-10 Tue	Lane 1 Morning	Lane 1 Afternoon	Hour Totals Morning	Hour Totals Afternoon
12:00		16	106		
12:15		4	77		
12:30		12	90		
12:45		11	80	43	353
01:00		7	90		
01:15		10	76		
01:30		7	92		
01:45		3	81	27	339
02:00		4	73		
02:15		2	90		
02:30		5	93		
02:45		5	89	16	345
03:00		4	87		
03:15		9	117		
03:30		4	119		
03:45		10	105	27	428
04:00		11	92		
04:15		15	108		
04:30		9	120		
04:45		16	109	51	429
05:00		9	133		
05:15		20	119		
05:30		20	92		
05:45		31	120	80	464
06:00		50	97		
06:15		49	80		
06:30		78	91		
06:45		84	87	261	355
07:00		86	72		
07:15		91	77		
07:30		113	73		
07:45		106	46	396	268
08:00		92	60		
08:15		101	57		
08:30		96	49		
08:45		97	44	386	210
09:00		94	35		
09:15		92	43		
09:30		90	37		
09:45		106	40	382	155
10:00		99	33		
10:15		90	30		
10:30		82	25		
10:45		83	18	354	106
11:00		93	28		
11:15		72	18		
11:30		101	27		
11:45		94	19	360	92
Total		2383	3544		
Percent		40.2%	59.8%		

SR 56

I-75 NB On Ramp to I-75

URS Corporation
7650 W. Courtney Campbell Cswy
Tampa, Fl 33607-1462

Station ID: 00002
Site Code: PK 57
Latitude: 28' 11.872 North
Longitude: 82' 22.908 West

Start Time	10-Mar-10 Wed	Lane 1 Morning	Lane 1 Afternoon	Hour Totals Morning	Hour Totals Afternoon
12:00		18	96		
12:15		10	84		
12:30		10	80		
12:45		11	90	49	350
01:00		12	98		
01:15		9	111		
01:30		9	95		
01:45		9	101	39	405
02:00		2	99		
02:15		4	96		
02:30		4	78		
02:45		10	121	20	394
03:00		4	99		
03:15		5	92		
03:30		7	100		
03:45		6	112	22	403
04:00		7	122		
04:15		17	103		
04:30		10	121		
04:45		16	98	50	444
05:00		15	123		
05:15		21	106		
05:30		29	105		
05:45		23	98	88	432
06:00		43	92		
06:15		51	95		
06:30		80	103		
06:45		69	85	243	375
07:00		91	86		
07:15		102	83		
07:30		110	53		
07:45		109	67	412	289
08:00		103	54		
08:15		98	59		
08:30		107	49		
08:45		107	50	415	212
09:00		107	53		
09:15		105	49		
09:30		99	40		
09:45		96	45	407	187
10:00		84	30		
10:15		97	36		
10:30		91	16		
10:45		92	17	364	99
11:00		86	20		
11:15		82	10		
11:30		91	10		
11:45		70	15	329	55
Total		2438	3645		
Percent		40.1%	59.9%		

SR 56

~~I-75~~ NB On Ramp to I-75

URS Corporation
7650 W. Courtney Campbell Cswy
Tampa, Fl 33607-1462

Station ID: 00002
Site Code: PK 57
Latitude: 28' 11.872 North
Longitude: 82' 22.908 West

Start Time	11-Mar-10 Thu	Lane 1 Morning	Lane 1 Afternoon	Hour Totals Morning	Hour Totals Afternoon
12:00		11	81		
12:15		9	80		
12:30		9	100		
12:45		6	80	35	341
01:00		5	68		
01:15		4	80		
01:30		5	64		
01:45		4	89	18	301
02:00		2	93		
02:15		11	80		
02:30		2	110		
02:45		5	88	20	371
03:00		3	88		
03:15		9	102		
03:30		15	97		
03:45		10	98	37	385
04:00		7	73		
04:15		7	76		
04:30		14	102		
04:45		15	83	43	334
05:00		17	88		
05:15		18	64		
05:30		17	79		
05:45		33	66	85	297
06:00		36	95		
06:15		53	88		
06:30		71	97		
06:45		85	86	245	366
07:00		68	79		
07:15		123	80		
07:30		112	63		
07:45		113	57	416	279
08:00		109	57		
08:15		107	58		
08:30		109	49		
08:45		111	47	436	211
09:00		107	44		
09:15		100	46		
09:30		99	39		
09:45		90	43	396	172
10:00		80	32		
10:15		106	33		
10:30		90	21		
10:45		86	18	362	104
11:00		87	24		
11:15		93	14		
11:30		82	19		
11:45		91	17	353	74
Total		2446	3235		
Percent		43.1%	56.9%		
Grand Total		7267		10424	
Percent		41.1%		58.9%	
ADT		ADT 5,897			AADT 5,897

I-75 SB on ramp from SR 56

URS Corporation
7650 W. Courtney Campbell Cswy
Tampa, Fl 33607-1462

Station ID: 0006
Site Code: PK 34
Latitude: 28' 11.590 North
Longitude: 82' 23.132 West

Start Time	09-Mar-10 Tue	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon
12:00		36	331		
12:15		28	305		
12:30		11	310		
12:45		16	316	91	1262
01:00		32	287		
01:15		12	311		
01:30		24	259		
01:45		30	260	98	1117
02:00		13	301		
02:15		16	326		
02:30		26	283		
02:45		34	322	89	1232
03:00		28	314		
03:15		39	287		
03:30		61	312		
03:45		46	307	174	1220
04:00		71	279		
04:15		62	281		
04:30		107	332		
04:45		107	271	347	1163
05:00		123	301		
05:15		159	358		
05:30		264	333		
05:45		326	283	872	1275
06:00		429	308		
06:15		631	286		
06:30		782	244		
06:45		877	233	2719	1071
07:00		962	212		
07:15		967	206		
07:30		818	166		
07:45		780	160	3527	744
08:00		771	122		
08:15		729	146		
08:30		712	131		
08:45		631	112	2843	511
09:00		516	125		
09:15		521	117		
09:30		490	102		
09:45		433	80	1960	424
10:00		400	85		
10:15		403	70		
10:30		407	62		
10:45		311	73	1521	290
11:00		357	67		
11:15		335	59		
11:30		322	62		
11:45		296	35	1310	223
Total		15551	10532		
Percent		59.6%	40.4%		

I-75 SB on ramp from SR 56

URS Corporation
7650 W. Courtney Campbell Cswy
Tampa, Fl 33607-1462

Station ID: 0006
Site Code: PK 34
Latitude: 28' 11.590 North
Longitude: 82' 23.132 West

Start Time	10-Mar-10 Wed	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon
12:00		22	319		
12:15		31	322		
12:30		27	279		
12:45		36	350	116	1270
01:00		30	278		
01:15		25	292		
01:30		25	263		
01:45		28	264	108	1097
02:00		16	306		
02:15		23	296		
02:30		17	263		
02:45		33	297	89	1162
03:00		25	273		
03:15		36	291		
03:30		52	286		
03:45		55	330	168	1180
04:00		65	326		
04:15		64	333		
04:30		106	290		
04:45		96	303	331	1252
05:00		109	333		
05:15		152	346		
05:30		270	319		
05:45		305	301	836	1299
06:00		481	302		
06:15		608	295		
06:30		757	311		
06:45		866	219	2712	1127
07:00		928	245		
07:15		924	200		
07:30		908	167		
07:45		798	150	3558	762
08:00		727	143		
08:15		759	142		
08:30		723	136		
08:45		696	113	2905	534
09:00		548	138		
09:15		528	124		
09:30		514	118		
09:45		470	104	2060	484
10:00		414	77		
10:15		450	97		
10:30		429	81		
10:45		390	65	1683	320
11:00		341	50		
11:15		341	53		
11:30		352	36		
11:45		352	35	1386	174
Total		15952	10661		
Percent		59.9%	40.1%		

I-75 SB on ramp from SR 56

URS Corporation
7650 W. Courtney Campbell Cswy
Tampa, Fl 33607-1462

Station ID: 0006
Site Code: PK 34
Latitude: 28' 11.590 North
Longitude: 82' 23.132 West

Start Time	11-Mar-10 Thu	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon
12:00		26	322		
12:15		33	319		
12:30		16	301		
12:45		13	309	88	1251
01:00		30	293		
01:15		16	300		
01:30		26	269		
01:45		28	276	100	1138
02:00		21	291		
02:15		17	315		
02:30		25	280		
02:45		30	317	93	1203
03:00		24	286		
03:15		37	288		
03:30		53	299		
03:45		49	315	163	1188
04:00		68	188		
04:15		64	206		
04:30		105	234		
04:45		98	234	335	862
05:00		120	243		
05:15		145	203		
05:30		260	159		
05:45		319	166	844	771
06:00		449	296		
06:15		620	280		
06:30		776	256		
06:45		868	220	2713	1052
07:00		1061	225		
07:15		999	191		
07:30		935	167		
07:45		795	153	3790	736
08:00		777	132		
08:15		798	137		
08:30		701	137		
08:45		719	114	2995	520
09:00		530	131		
09:15		532	121		
09:30		505	106		
09:45		474	111	2041	469
10:00		410	78		
10:15		421	80		
10:30		415	80		
10:45		348	66	1594	304
11:00		335	55		
11:15		338	44		
11:30		340	47		
11:45		297	39	1310	185
Total		16066	9679		
Percent		62.4%	37.6%		
Grand Total		47569		30872	
Percent		60.6%		39.4%	
ADT		ADT 26,147			AADT 26,147

SR 56 Eastbound
West of I-75 SB Ramps

URS Corporation
7650 W. Courtney Campbell Cswy
Tampa, Fl 33607-1462

Station ID: 0010
Site Code: ADR 19
Latitude: 28' 11.684 North
Longitude: 82' 23.286 West

Start Time	09-Mar-10 Tue	EB Tamp Morning	EB Tamp Afternoon	Hour Totals Morning	Hour Totals Afternoon
12:00		58	406		
12:15		52	427		
12:30		34	419		
12:45		28	330	172	1582
01:00		27	421		
01:15		22	337		
01:30		28	442		
01:45		30	371	107	1571
02:00		25	382		
02:15		23	351		
02:30		27	388		
02:45		14	351	89	1472
03:00		13	338		
03:15		16	355		
03:30		26	369		
03:45		25	329	80	1391
04:00		28	409		
04:15		39	422		
04:30		38	418		
04:45		49	446	154	1695
05:00		59	407		
05:15		77	384		
05:30		96	396		
05:45		102	466	334	1653
06:00		151	438		
06:15		232	433		
06:30		273	425		
06:45		407	395	1063	1691
07:00		494	392		
07:15		591	409		
07:30		675	332		
07:45		687	283	2447	1416
08:00		749	283		
08:15		737	230		
08:30		642	216		
08:45		586	183	2714	912
09:00		689	176		
09:15		651	180		
09:30		660	170		
09:45		534	173	2534	699
10:00		535	163		
10:15		524	138		
10:30		511	127		
10:45		434	104	2004	532
11:00		461	98		
11:15		470	78		
11:30		447	62		
11:45		410	53	1788	291
Total		13486	14905		
Percent		47.5%	52.5%		

SR 56 Eastbound
West of I-75 SB Ramps

URS Corporation
7650 W. Courtney Campbell Cswy
Tampa, Fl 33607-1462

Station ID: 0010
Site Code: ADR 19
Latitude: 28' 11.684 North
Longitude: 82' 23.286 West

Start Time	10-Mar-10 Wed	EB Thru Morning	EB Thru Afternoon	Hour Totals Morning	Hour Totals Afternoon
12:00		62	394		
12:15		41	374		
12:30		48	312		
12:45		38	384	189	1464
01:00		35	341		
01:15		21	408		
01:30		20	368		
01:45		16	357	92	1474
02:00		18	371		
02:15		15	331		
02:30		12	355		
02:45		16	357	61	1414
03:00		25	337		
03:15		21	387		
03:30		21	367		
03:45		25	336	92	1427
04:00		33	320		
04:15		60	307		
04:30		33	332		
04:45		55	340	181	1299
05:00		45	313		
05:15		70	376		
05:30		93	399		
05:45		109	419	317	1507
06:00		127	393		
06:15		216	363		
06:30		288	288		
06:45		399	414	1030	1458
07:00		490	354		
07:15		658	305		
07:30		686	293		
07:45		725	251	2559	1203
08:00		707	248		
08:15		745	229		
08:30		616	179		
08:45		610	168	2678	824
09:00		645	174		
09:15		594	143		
09:30		589	140		
09:45		520	124	2348	581
10:00		527	125		
10:15		506	112		
10:30		502	108		
10:45		447	85	1982	430
11:00		372	93		
11:15		468	85		
11:30		410	70		
11:45		359	66	1609	314
Total		13138	13395		
Percent		49.5%	50.5%		

SR 56 Westbound
West of I-75 SB Ramps

URS Corporation
7650 W. Courtney Campbell Cswy
Tampa, Fl 33607-1462

Station ID: 0009
Site Code: DM4
Latitude: 28' 11.709 North
Longitude: 82' 23.277 West

Start Time	09-Mar-10 Tue	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon
12:00		87	306		
12:15		76	250		
12:30		65	299		
12:45		57	289	285	1144
01:00		46	296		
01:15		45	283		
01:30		28	324		
01:45		34	310	153	1213
02:00		22	354		
02:15		25	364		
02:30		21	352		
02:45		13	412	81	1482
03:00		20	444		
03:15		17	448		
03:30		47	544		
03:45		40	548	124	1984
04:00		26	459		
04:15		35	419		
04:30		33	564		
04:45		48	554	142	1996
05:00		35	564		
05:15		61	512		
05:30		85	549		
05:45		115	445	296	2070
06:00		123	591		
06:15		169	592		
06:30		212	569		
06:45		210	404	714	2156
07:00		159	408		
07:15		212	418		
07:30		315	371		
07:45		269	317	955	1514
08:00		297	338		
08:15		291	287		
08:30		253	281		
08:45		162	286	1003	1192
09:00		249	289		
09:15		245	297		
09:30		277	290		
09:45		302	243	1073	1119
10:00		237	237		
10:15		214	171		
10:30		261	157		
10:45		252	164	964	729
11:00		304	112		
11:15		299	117		
11:30		263	98		
11:45		306	99	1172	426
Total		6962	17025		
Percent		29.0%	71.0%		

SR 56 Westbound
West of I-75 SB Ramps

URS Corporation
7650 W. Courtney Campbell Cswy
Tampa, Fl 33607-1462

Station ID: 0009
Site Code: DM4
Latitude: 28' 11.709 North
Longitude: 82' 23.277 West

Start Time	10-Mar-10 Wed	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon
12:00		85	282		
12:15		60	352		
12:30		73	315		
12:45		56	353	274	1302
01:00		51	288		
01:15		44	318		
01:30		38	397		
01:45		34	345	167	1348
02:00		33	375		
02:15		31	371		
02:30		31	433		
02:45		21	437	116	1616
03:00		15	436		
03:15		30	467		
03:30		42	551		
03:45		20	571	107	2025
04:00		28	453		
04:15		37	418		
04:30		31	565		
04:45		57	551	153	1987
05:00		38	563		
05:15		62	508		
05:30		86	552		
05:45		91	440	277	2063
06:00		138	619		
06:15		178	600		
06:30		199	550		
06:45		232	511	747	2280
07:00		176	463		
07:15		215	384		
07:30		317	398		
07:45		288	387	996	1632
08:00		294	337		
08:15		300	283		
08:30		292	274		
08:45		168	268	1054	1162
09:00		254	265		
09:15		233	251		
09:30		288	251		
09:45		253	213	1028	980
10:00		254	232		
10:15		262	194		
10:30		276	167		
10:45		282	139	1074	732
11:00		302	140		
11:15		311	114		
11:30		299	104		
11:45		337	96	1249	454
Total		7242	17581		
Percent		29.2%	70.8%		

SR 56 Westbound
West of I-75 SB Ramps

URS Corporation
7650 W. Courtney Campbell Cswy
Tampa, Fl 33607-1462

Station ID: 0009
Site Code: DM4
Latitude: 28' 11.709 North
Longitude: 82' 23.277 West

Start Time	11-Mar-10 Thu	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon
12:00		64	304		
12:15		62	331		
12:30		70	293		
12:45		59	294	255	1222
01:00		41	336		
01:15		37	327		
01:30		36	343		
01:45		30	377	144	1383
02:00		34	377		
02:15		40	382		
02:30		23	378		
02:45		24	408	121	1545
03:00		35	489		
03:15		49	450		
03:30		35	483		
03:45		27	409	146	1831
04:00		32	455		
04:15		32	415		
04:30		30	560		
04:45		31	550	125	1980
05:00		45	562		
05:15		64	510		
05:30		82	547		
05:45		106	443	297	2062
06:00		144	544		
06:15		184	565		
06:30		198	462		
06:45		215	431	741	2002
07:00		156	397		
07:15		213	377		
07:30		311	401		
07:45		271	325	951	1500
08:00		302	284		
08:15		206	259		
08:30		230	256		
08:45		165	243	903	1042
09:00		248	267		
09:15		278	266		
09:30		256	203		
09:45		280	210	1062	946
10:00		263	191		
10:15		246	202		
10:30		270	170		
10:45		258	109	1037	672
11:00		295	119		
11:15		298	123		
11:30		322	78		
11:45		318	83	1233	403
Total		7015	16588		
Percent		29.7%	70.3%		
Grand Total		21219		51194	
Percent		29.3%		70.7%	
ADT		ADT 24,138			AADT 24,138

SR 56 Eastbound
East of I-75 NB Ramps

URS Corporation
7650 W. Courtney Campbell Cswy
Tampa, Fl 33607-1462

Station ID: 0008
Site Code: ADR 24
Latitude: 28' 11.404 North
Longitude: 82' 22.698 West

Start Time	09-Mar-10 Tue	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon
12:00		44	234		
12:15		44	262		
12:30		43	291		
12:45		25	264	156	1051
01:00		18	278		
01:15		20	274		
01:30		17	321		
01:45		13	274	68	1147
02:00		4	291		
02:15		18	281		
02:30		15	326		
02:45		8	332	45	1230
03:00		23	287		
03:15		15	378		
03:30		10	438		
03:45		11	476	59	1579
04:00		19	573		
04:15		6	647		
04:30		21	568		
04:45		25	616	71	2404
05:00		23	650		
05:15		27	712		
05:30		29	699		
05:45		38	695	117	2756
06:00		44	519		
06:15		68	568		
06:30		101	526		
06:45		164	365	377	1978
07:00		194	353		
07:15		181	366		
07:30		169	333		
07:45		201	270	745	1322
08:00		226	133		
08:15		261	195		
08:30		254	160		
08:45		203	169	944	657
09:00		236	156		
09:15		227	158		
09:30		248	145		
09:45		279	133	990	592
10:00		201	141		
10:15		211	117		
10:30		237	94		
10:45		241	77	890	429
11:00		257	77		
11:15		233	73		
11:30		233	68		
11:45		278	63	1001	281
Total		5463	15426		
Percent		26.2%	73.8%		

SR 56 Westbound
East of NB Ramps

URS Corporation
7650 W. Courtney Campbell Cswy
Tampa, Fl 33607-1462

Station ID: 0001
Site Code: N9
Latitude: 28' 11.520 North
Longitude: 82' 22.806 West

Start Time	09-Mar-10 Tue	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon
12:00		54	236		
12:15		31	244		
12:30		38	243		
12:45		26	244	149	967
01:00		32	222		
01:15		12	255		
01:30		28	268		
01:45		17	258	89	1003
02:00		6	283		
02:15		14	281		
02:30		17	277		
02:45		18	307	55	1148
03:00		20	289		
03:15		22	295		
03:30		44	302		
03:45		32	258	118	1144
04:00		29	331		
04:15		45	237		
04:30		51	312		
04:45		48	371	173	1251
05:00		46	295		
05:15		70	254		
05:30		94	239		
05:45		126	236	336	1024
06:00		213	237		
06:15		274	230		
06:30		386	175		
06:45		431	186	1304	828
07:00		526	195		
07:15		459	192		
07:30		455	217		
07:45		436	158	1876	762
08:00		468	171		
08:15		413	157		
08:30		367	170		
08:45		325	162	1573	660
09:00		302	176		
09:15		310	145		
09:30		262	121		
09:45		242	90	1116	532
10:00		263	83		
10:15		233	66		
10:30		237	60		
10:45		244	94	977	303
11:00		296	76		
11:15		264	68		
11:30		250	54		
11:45		274	48	1084	246
Total		8850	9868		
Percent		47.3%	52.7%		

URS Corporation
7650 W. Courtney Campbell Cswy
Tampa, Fl 33607 813-286-1711

Counter: 1102
Counted By: URS
Weather: Rain
Other:

File Name : 1192_sr56_75 SB West
Site Code : 00001102
Start Date : 3/11/2010
Page No : 1

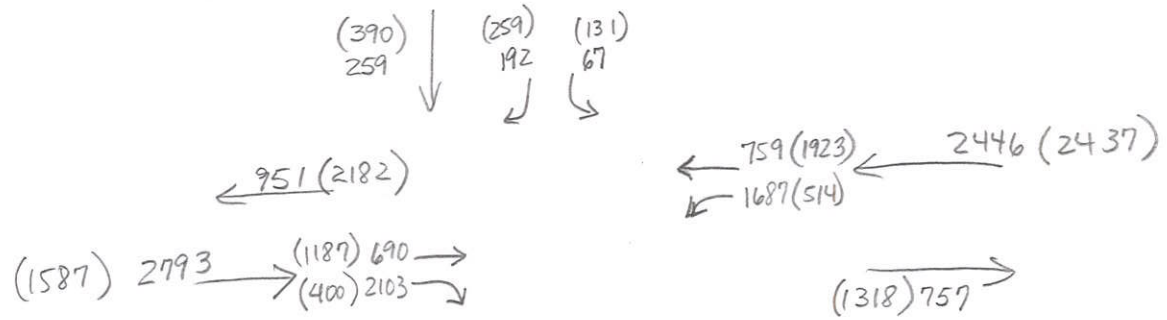
Groups Printed- Unshifted

	I-75 Ramps SB West Side South Bound				SR 56 West Bound				I-75 Ramps SB West Side North Bound				SR 56 East Bound				
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
07:00 AM	13	0	39	0	495	117	0	0	0	0	0	0	0	159	566	0	1389
07:15 AM	16	0	55	0	474	158	0	0	0	0	0	0	0	182	525	0	1410
07:30 AM	17	0	40	0	355	271	0	0	0	0	0	0	0	165	580	0	1428
07:45 AM	21	0	58	0	363	213	0	0	0	0	0	0	0	184	432	0	1271
Total	67	0	192	I 259 0	1687	759	0	I 2446 0	0	0	0	0	0	690	2103	I 2793 0	5498
08:00 AM	28	0	53	1	334	249	0	0	0	0	0	0	0	167	443	0	1275
08:15 AM	23	0	37	0	373	169	0	0	0	0	0	0	0	220	425	0	1247
08:30 AM	24	0	45	0	298	185	0	0	0	0	0	0	0	191	403	0	1146
08:45 AM	10	0	43	0	310	122	0	0	0	0	0	0	0	180	409	0	1074
Total	85	0	178	1	1315	725	0	0	0	0	0	0	0	758	1680	0	4742
04:00 PM	35	0	53	0	105	402	0	0	0	0	0	0	0	257	83	0	935
04:15 PM	21	0	66	0	147	349	0	0	0	0	0	0	0	254	59	0	896
04:30 PM	32	0	75	0	137	485	0	0	0	0	0	0	0	279	97	0	1105
04:45 PM	40	0	78	0	133	472	0	0	0	0	0	0	0	298	101	0	1122
Total	128	0	272	0	522	1708	0	0	0	0	0	0	0	1088	340	0	4058
05:00 PM	31	0	52	0	117	510	0	0	0	0	0	0	0	293	126	0	1129
05:15 PM	28	0	54	0	127	456	0	0	0	0	0	0	0	317	76	0	1058
05:30 PM	36	0	56	0	115	491	0	0	0	0	0	0	0	319	44	0	1061
05:45 PM	28	0	52	0	117	391	0	0	0	0	0	0	0	239	49	0	876
Total	123 131	0	214 259	T 390 0	476 514	1848 1923	0	Total 2437 0	0	0	0	0	0	1168 1187	295 400	I 1587 0	4124
Grand Total	403	0	856	1	4000	5040	0	0	0	0	0	0	0	3704	4418	0	18422
Apprch %	32.0	0.0	67.9	0.1	44.2	55.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	45.6	54.4	0.0	
Total %	2.2	0.0	4.6	0.0	21.7	27.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.1	24.0	0.0	

PHF = 5498 / (4 × 1428) = 0.96

4414

PHF = 0.98



URS Corporation
7650 W. Courtney Campbell Cswy
Tampa, Fl 33607 813.286.1711

Counter: 1099
Counted By: URS
Weather: Rain
Other:

File Name : sr56_I75_NB East
Site Code : 00001099
Start Date : 3/11/2010
Page No : 1

Groups Printed- Unshifted

	I-75 Ramps NB East Side South Bound					SR 56 West Bound					I-75 Ramps NB East Side North Bound					SR 56 East Bound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Factor	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		
07:00 AM	0	0	0	0	0	0	496	22	0	518	116	0	63	0	179	46	126	0	0	172	869
07:15 AM	0	0	0	0	0	0	471	36	0	507	161	0	65	0	226	87	111	0	0	198	931
07:30 AM	0	0	0	0	0	0	446	27	0	473	180	0	67	0	247	85	97	0	0	182	902
07:45 AM	0	0	0	0	0	0	411	23	0	434	165	0	81	0	246	90	115	0	0	205	885
Total	0	0	0	0	0	0	1824	108	0	1932	622	0	276	0	898	308	449	0	0	757	3587
08:00 AM	0	0	0	0	0	0	427	33	0	460	156	0	102	0	258	76	119	0	0	195	913
08:15 AM	0	0	0	0	0	0	371	25	0	396	171	0	95	0	266	82	161	0	0	243	905
08:30 AM	0	0	0	0	0	0	363	27	0	390	120	0	116	0	236	82	133	0	0	215	841
08:45 AM	0	0	0	0	0	0	294	24	0	318	138	0	95	0	233	87	103	0	0	190	741
Total	0	0	0	0	0	0	1455	109	0	1564	585	0	408	0	993	327	516	0	0	843	3400
04:00 PM	0	0	0	0	0	0	213	26	0	239	294	0	326	0	620	47	245	0	0	292	1151
04:15 PM	0	0	0	0	0	0	205	26	0	231	291	0	420	0	711	50	225	0	0	275	1217
04:30 PM	0	0	0	0	0	0	268	35	0	303	354	0	322	0	676	67	244	0	0	311	1290
04:45 PM	0	0	0	0	0	0	235	30	0	265	370	0	329	0	699	53	285	0	0	338	1302
Total	0	0	0	0	0	0	921	117	0	1038	1309	0	1397	0	2706	217	999	0	0	1216	4960
05:00 PM	0	0	0	0	0	0	259	29	0	288	368	0	383	0	751	59	265	0	0	324	1363
05:15 PM	0	0	0	0	0	0	220	29	0	249	363	0	400	0	763	35	310	0	0	345	1357
05:30 PM	0	0	0	0	0	0	227	24	0	251	379	0	397	0	776	55	300	0	0	355	1382
05:45 PM	0	0	0	0	0	0	211	24	0	235	297	0	468	0	765	42	225	0	0	267	1267
Total	0	0	0	0	0	0	917	106	0	1023	1407	0	1648	0	3055	191	1100	0	0	1291	5369
Grand Total	0	0	0	0	0	0	5117	440	0	5557	3923	0	3729	0	7652	1043	3064	0	0	4107	17316
Apprch %	0.0	0.0	0.0	0.0		0.0	92.1	7.9	0.0		51.3	0.0	48.7	0.0		25.4	74.6	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	29.6	2.5	0.0	32.1	22.7	0.0	21.5	0.0	44.2	6.0	17.7	0.0	0.0	23.7	

URS

Intersection Field Data Sheet

Date: 03/11/2010 **Count Time:**

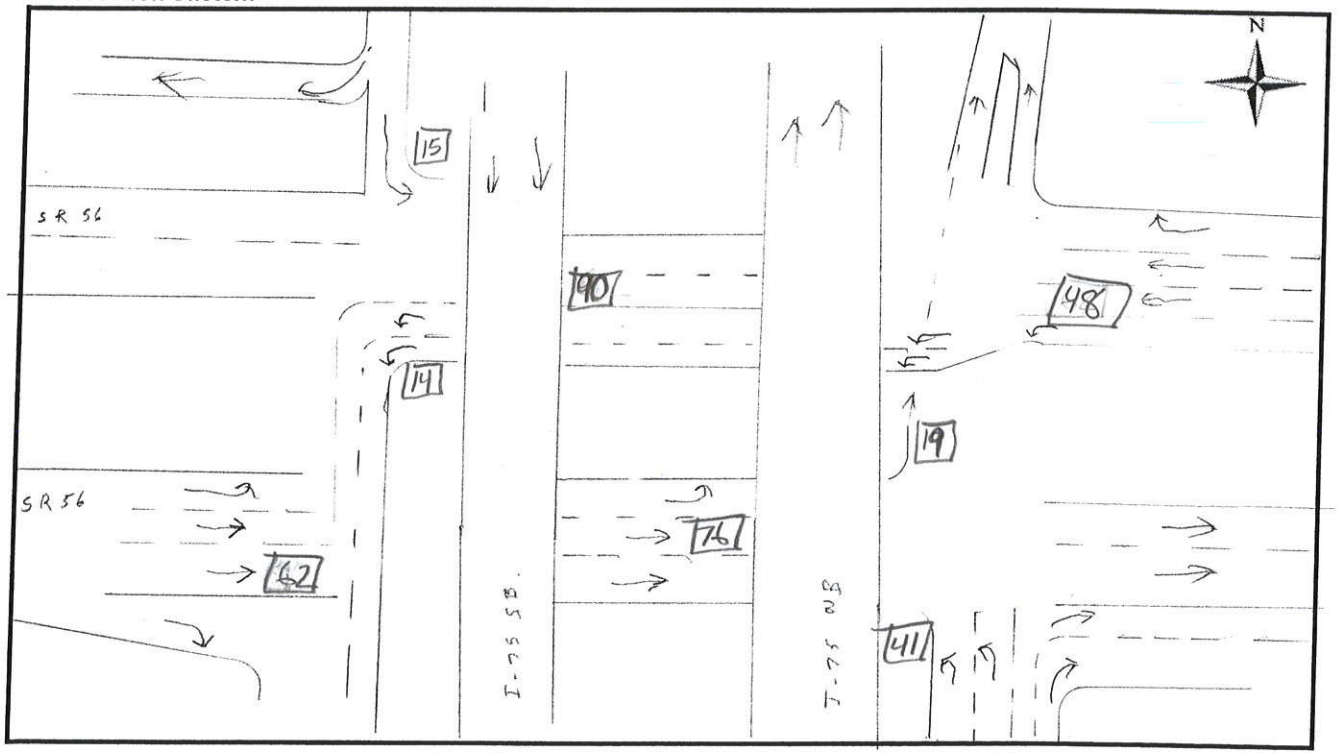
Major Street: SR 56 **Direction:** **Speed Limit:** 55

Minor Street: I-75 Ramps **Direction:** **Speed Limit:**

City/County: Pasco **Weather:**

Signal Timings:

Intersection Sketch:



Queue Notes/Observations:

West

15	
15	
60	
Total	100

East

50	
20	
40	
Total	120

URS

Intersection Field Data Sheet

Date: **Count Time:**

Major Street: **Direction:** **Speed Limit:**

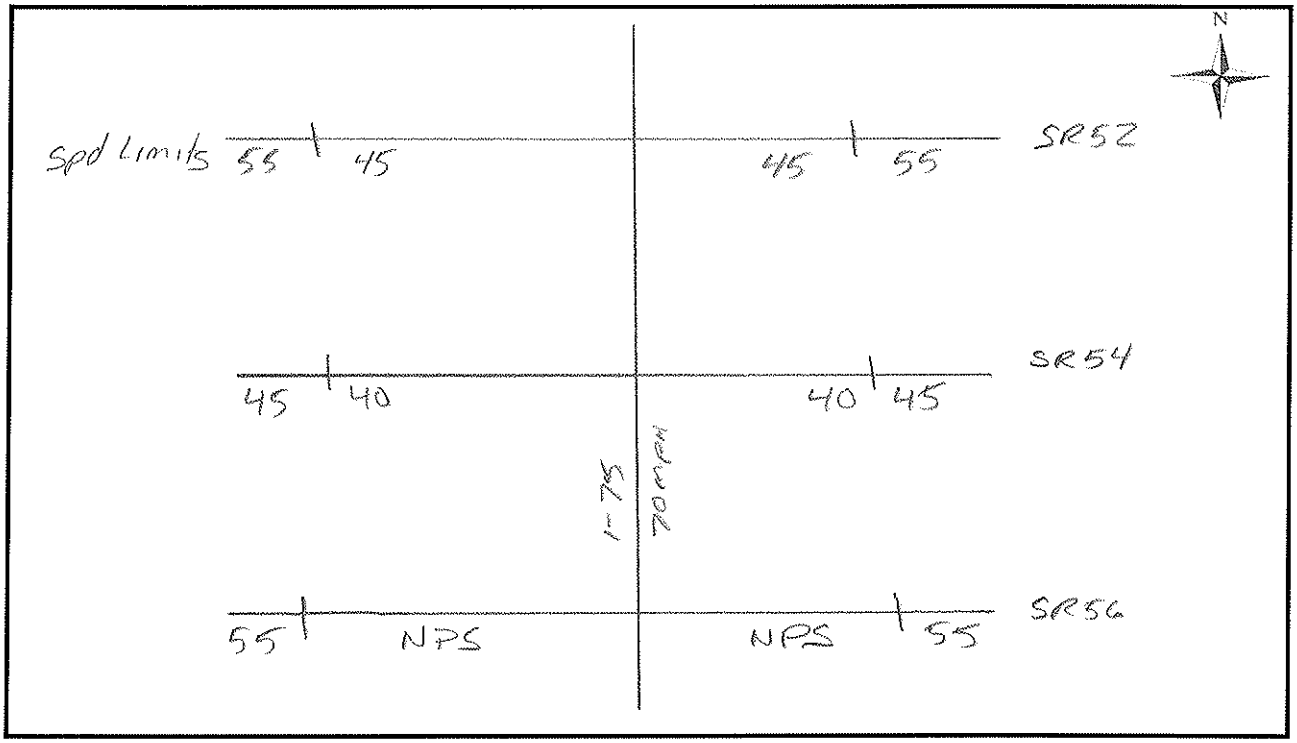
Minor Street: **Direction:** **Speed Limit:**

City/County: **Weather:**

Signal Timings:

Speed Limits in field

Intersection Sketch:



Queue Notes/Observations:

I-75 Southbound Off Ramp
to SR 54

URS Corporation
7650 W. Courtney Campbell Cswy
Tampa, Fl 33607-1462

Station ID: 004
Site Code: DM3
Latitude: 28' 14.437 North
Longitude: 82' 21.115 West

Start Time	09-Mar-10 Tue	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon
12:00		7	70		
12:15		9	56		
12:30		9	68		
12:45		2	67	27	261
01:00		4	51		
01:15		1	56		
01:30		0	50		
01:45		2	49	7	206
02:00		1	45		
02:15		2	47		
02:30		6	52		
02:45		1	53	10	197
03:00		4	44		
03:15		1	62		
03:30		1	41		
03:45		5	60	11	207
04:00		6	76		
04:15		4	82		
04:30		4	86		
04:45		10	86	24	330
05:00		7	90		
05:15		11	95		
05:30		19	81		
05:45		16	88	53	354
06:00		19	100		
06:15		16	59		
06:30		28	47		
06:45		46	46	109	252
07:00		42	44		
07:15		50	34		
07:30		51	29		
07:45		42	29	185	136
08:00		56	19		
08:15		47	29		
08:30		45	24		
08:45		48	21	196	93
09:00		38	24		
09:15		50	21		
09:30		36	15		
09:45		60	32	184	92
10:00		53	9		
10:15		62	10		
10:30		59	7		
10:45		54	20	228	46
11:00		60	20		
11:15		61	10		
11:30		41	9		
11:45		60	16	222	55
Total		1256	2229		
Percent		36.0%	64.0%		

3485

I-75 Southbound Off Ramp
to SR 54

URS Corporation
7650 W. Courtney Campbell Cswy
Tampa, Fl 33607-1462

Station ID: 004
Site Code: DM3
Latitude: 28' 14.437 North
Longitude: 82' 21.115 West

Start Time	10-Mar-10 Wed	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon
12:00		4	54		
12:15		2	50		
12:30		5	53		
12:45		7	56	18	213
01:00		5	63		
01:15		3	57		
01:30		6	62		
01:45		1	53	15	235
02:00		4	59		
02:15		4	49		
02:30		6	61		
02:45		3	49	17	218
03:00		1	48		
03:15		6	55		
03:30		5	56		
03:45		3	47	15	206
04:00		1	80		
04:15		2	81		
04:30		2	88		
04:45		8	78	13	327
05:00		8	88		
05:15		15	95		
05:30		13	85		
05:45		22	85	58	353
06:00		23	102		
06:15		24	63		
06:30		27	48		
06:45		46	45	120	258
07:00		35	36		
07:15		52	37		
07:30		41	37		
07:45		41	33	169	143
08:00		44	40		
08:15		50	26		
08:30		49	18		
08:45		53	36	196	120
09:00		43	35		
09:15		49	22		
09:30		71	12		
09:45		70	16	233	85
10:00		45	14		
10:15		56	17		
10:30		65	9		
10:45		66	12	232	52
11:00		63	5		
11:15		71	9		
11:30		78	2		
11:45		60	5	272	21
Total		1358	2231		
Percent		37.8%	62.2%		

3589

I-75 Southbound on Ramp
From SR 54

URS Corporation
7650 W. Courtney Campbell Cswy
Tampa, Fl 33607-1462

Station ID: 0001
Site Code: PK08
Latitude: 28' 13.778 North
Longitude: 82' 21.617 West

Start Time	09-Mar-10 Tue	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon
12:00		84	356		
12:15		88	315		
12:30		61	261		
12:45		78	300	311	1232
01:00		64	227		
01:15		76	257		
01:30		53	244		
01:45		60	216	253	944
02:00		58	229		
02:15		47	227		
02:30		33	206		
02:45		32	209	170	871
03:00		30	240		
03:15		19	206		
03:30		20	183		
03:45		15	199	84	828
04:00		15	179		
04:15		16	220		
04:30		13	164		
04:45		10	175	54	738
05:00		17	177		
05:15		10	163		
05:30		11	195		
05:45		14	168	52	703
06:00		15	199		
06:15		12	182		
06:30		16	188		
06:45		10	138	53	707
07:00		12	189		
07:15		14	213		
07:30		14	200		
07:45		21	178	61	780
08:00		46	163		
08:15		58	174		
08:30		67	169		
08:45		74	154	245	660
09:00		167	158		
09:15		227	152		
09:30		241	172		
09:45		357	140	992	622
10:00		432	152		
10:15		457	111		
10:30		491	109		
10:45		458	131	1838	503
11:00		438	115		
11:15		405	91		
11:30		361	101		
11:45		349	88	1553	395
Total		5666	8983		
Percent		38.7%	61.3%		

11/6/19

I-75 Southbound on Ramp
From SR 54

URS Corporation
7650 W. Courtney Campbell Cswy
Tampa, Fl 33607-1462

Station ID: 0001
Site Code: PK08
Latitude: 28' 13.778 North
Longitude: 82' 21.617 West

Start Time	10-Mar-10 Wed	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon
12:00		98	359		
12:15		77	301		
12:30		63	268		
12:45		79	233	317	1161
01:00		75	243		
01:15		64	242		
01:30		70	182		
01:45		59	216	268	883
02:00		48	215		
02:15		41	197		
02:30		31	177		
02:45		30	195	150	784
03:00		25	190		
03:15		23	163		
03:30		26	185		
03:45		25	186	99	724
04:00		12	187		
04:15		14	168		
04:30		15	175		
04:45		9	159	50	689
05:00		11	188		
05:15		12	168		
05:30		17	150		
05:45		13	173	53	679
06:00		12	193		
06:15		17	191		
06:30		8	159		
06:45		14	165	51	708
07:00		15	119		
07:15		18	131		
07:30		15	141		
07:45		32	172	80	563
08:00		52	162		
08:15		61	160		
08:30		75	168		
08:45		72	155	260	645
09:00		152	155		
09:15		228	149		
09:30		248	163		
09:45		336	149	964	616
10:00		454	147		
10:15		425	115		
10:30		490	104		
10:45		442	124	1811	490
11:00		432	101		
11:15		402	97		
11:30		363	91		
11:45		347	83	1544	372
Total		5647	8314		
Percent		40.4%	59.6%		

13961

I-75 Southbound on Ramp
From SR 54

URS Corporation
7650 W. Courtney Campbell Cswy
Tampa, Fl 33607-1462

Station ID: 0001
Site Code: PK08
Latitude: 28' 13.778 North
Longitude: 82' 21.617 West

Start Time	11-Mar-10 Thu	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon
12:00		91	358		
12:15		83	308		
12:30		62	265		
12:45		79	267	315	1198
01:00		70	235		
01:15		70	250		
01:30		62	213		
01:45		60	216	262	914
02:00		53	222		
02:15		44	212		
02:30		32	192		
02:45		31	202	160	828
03:00		28	215		
03:15		21	185		
03:30		23	184		
03:45		20	193	92	777
04:00		14	172		
04:15		15	162		
04:30		14	160		
04:45		10	168	53	662
05:00		14	155		
05:15		11	155		
05:30		14	149		
05:45		14	163	53	622
06:00		14	196		
06:15		15	187		
06:30		12	174		
06:45		25	152	66	709
07:00		45	154		
07:15		54	172		
07:30		64	171		
07:45		63	175	226	672
08:00		65	163		
08:15		75	167		
08:30		90	169		
08:45		75	155	305	654
09:00		160	157		
09:15		228	151		
09:30		245	168		
09:45		347	145	980	621
10:00		443	150		
10:15		441	113		
10:30		491	107		
10:45		450	128	1825	498
11:00		435	108		
11:15		404	94		
11:30		362	96		
11:45		348	86	1549	384
Total		5886	8539		
Percent		40.8%	59.2%		
Grand Total		17199		25836	
Percent		40.0%		60.0%	
ADT		ADT 14,361			AADT 14,361

345 ?

345

14425

I-75 Northbound Off Ramp
To SR 54

URS Corporation
7650 W. Courtney Campbell Cswy
Tampa, Fl 33607-1462

Station ID:
Site Code: N5
Latitude: 28' 13.938 North
Longitude: 82' 21.452 West

Start Time	09-Mar-10 Tue	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon
12:00		33	153		
12:15		31	152		
12:30		32	188		
12:45		22	165	118	658
01:00		14	172		
01:15		14	169		
01:30		21	200		
01:45		10	187	59	728
02:00		10	186		
02:15		10	208		
02:30		10	210		
02:45		12	233	42	837
03:00		15	215		
03:15		11	265		
03:30		13	229		
03:45		10	306	49	1015
04:00		15	300		
04:15		15	305		
04:30		12	325		
04:45		14	338	56	1268
05:00		11	350		
05:15		20	377		
05:30		23	359		
05:45		44	336	98	1422
06:00		53	356		
06:15		48	299		
06:30		92	318		
06:45		107	289	300	1262
07:00		104	274		
07:15		98	214		
07:30		121	208		
07:45		144	211	467	907
08:00		130	180		
08:15		142	197		
08:30		128	172		
08:45		132	142	532	691
09:00		126	106		
09:15		108	123		
09:30		133	137		
09:45		140	112	507	478
10:00		118	95		
10:15		129	78		
10:30		128	72		
10:45		117	52	492	297
11:00		148	54		
11:15		150	35		
11:30		148	55		
11:45		160	37	606	181
Total		3326	9744		
Percent		25.4%	74.6%		

13070

I-75 Northbound Off Ramp
To SR 54

URS Corporation
7650 W. Courtney Campbell Cswy
Tampa, Fl 33607-1462

Station ID:
Site Code: N5
Latitude: 28' 13.938 North
Longitude: 82' 21.452 West

Start Time	10-Mar-10 Wed	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon
12:00		44	158		
12:15		39	188		
12:30		25	158		
12:45		22	179	130	683
01:00		23	160		
01:15		23	179		
01:30		21	194		
01:45		12	185	79	718
02:00		14	191		
02:15		11	220		
02:30		16	211		
02:45		10	249	51	871
03:00		11	203		
03:15		14	252		
03:30		13	282		
03:45		12	301	50	1038
04:00		10	302		
04:15		17	308		
04:30		16	324		
04:45		16	349	59	1283
05:00		13	354		
05:15		18	335		
05:30		32	322		
05:45		40	370	103	1381
06:00		55	320		
06:15		64	356		
06:30		83	320		
06:45		102	283	304	1279
07:00		100	287		
07:15		115	234		
07:30		121	190		
07:45		150	221	486	932
08:00		149	181		
08:15		140	192		
08:30		132	172		
08:45		136	146	557	691
09:00		125	147		
09:15		129	145		
09:30		138	140		
09:45		142	115	534	547
10:00		131	83		
10:15		141	83		
10:30		162	74		
10:45		123	63	557	303
11:00		170	56		
11:15		175	52		
11:30		173	41		
11:45		144	39	662	188
Total		3572	9914		
Percent		26.5%	73.5%		

13486

I-75 Northbound On Ramp
From SR 54

URS Corporation
7650 W. Courtney Campbell Cswy
Tampa, Fl 33607-1462

Station ID: 0007
Site Code: ADR 1001
Latitude: 28' 14.508 North
Longitude: 82' 21.026 West

Start Time	09-Mar-10 Tue	Northbound Morning	Afternoon	Hour Totals Morning	Afternoon
12:00		8	17		
12:15		5	22		
12:30		5	35		
12:45		7	29	25	103
01:00		2	36		
01:15		3	35		
01:30		3	32		
01:45		2	0	10	103
02:00		0	38		
02:15		2	35		
02:30		1	22		
02:45		3	38	6	133
03:00		2	37		
03:15		1	39		
03:30		3	41		
03:45		4	41	10	158
04:00		6	32		
04:15		0	46		
04:30		7	40		
04:45		5	38	18	156
05:00		6	33		
05:15		6	52		
05:30		8	37		
05:45		7	34	27	156
06:00		11	42		
06:15		11	33		
06:30		12	21		
06:45		15	30	49	126
07:00		32	24		
07:15		34	25		
07:30		32	22		
07:45		48	20	146	91
08:00		36	21		
08:15		38	17		
08:30		30	13		
08:45		29	12	133	63
09:00		24	12		
09:15		15	10		
09:30		25	12		
09:45		18	11	82	45
10:00		36	15		
10:15		20	11		
10:30		29	8		
10:45		32	17	117	51
11:00		22	21		
11:15		24	5		
11:30		30	9		
11:45		24	6	100	41
Total		723	1226		
Percent		37.1%	62.9%		

1949

I-75 Northbound On-Ramp
From SR 54

URS Corporation
7650 W. Courtney Campbell Cswy
Tampa, Fl 33607-1462

Station ID: 0007
Site Code: ADR 1001
Latitude: 28' 14.508 North
Longitude: 82' 21.026 West

Start Time	10-Mar-10 Wed	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon
12:00		6	38		
12:15		6	31		
12:30		4	23		
12:45		4	47	20	139
01:00		4	32		
01:15		3	36		
01:30		5	32		
01:45		3	38	15	138
02:00		3	31		
02:15		2	45		
02:30		4	42		
02:45		1	43	10	161
03:00		2	30		
03:15		4	31		
03:30		1	23		
03:45		2	51	9	135
04:00		1	36		
04:15		2	45		
04:30		7	40		
04:45		4	45	14	166
05:00		2	34		
05:15		5	57		
05:30		6	27		
05:45		5	36	18	154
06:00		8	42		
06:15		10	39		
06:30		15	31		
06:45		17	33	50	145
07:00		33	35		
07:15		35	32		
07:30		32	25		
07:45		50	22	150	114
08:00		29	15		
08:15		45	15		
08:30		29	30		
08:45		23	26	126	86
09:00		41	17		
09:15		26	23		
09:30		27	14		
09:45		21	15	115	69
10:00		18	11		
10:15		42	12		
10:30		32	6		
10:45		30	6	122	35
11:00		23	8		
11:15		33	8		
11:30		37	6		
11:45		33	4	126	26
Total		775	1368		
Percent		36.2%	63.8%		

2143

SR 54 Directional Count
East of I-75 NB Ramps

URS Corporation
7650 W. Courtney Campbell Cswy
Tampa, Fl 33607-1462

Station ID: 0008
Site Code: ADR 15
Latitude: 28' 14.175 North
Longitude: 82' 21.071 West

Start Time	09-Mar-10 Tue	East Bound Morning	East Bound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		47	294			18	313				
12:15		40	272			24	336				
12:30		40	308			15	337				
12:45		30	313	157	1187	14	329	71	1315	228	2502
01:00		18	314			9	322				
01:15		17	291			10	343				
01:30		28	270			12	341				
01:45		17	305	80	1180	3	329	34	1335	114	2515
02:00		8	257			4	316				
02:15		16	303			7	323				
02:30		14	259			8	302				
02:45		10	324	48	1143	13	293	32	1234	80	2377
03:00		19	283			3	324				
03:15		15	320			7	373				
03:30		13	289			8	342				
03:45		24	346	71	1238	15	345	33	1384	104	2622
04:00		21	351			14	450				
04:15		27	305			30	123				
04:30		20	333			34	389				
04:45		23	410	91	1399	41	400	119	1362	210	2761
05:00		25	385			84	342				
05:15		32	462			109	442				
05:30		43	433			170	344				
05:45		69	380	169	1660	170	315	533	1443	702	3103
06:00		75	311			256	306				
06:15		97	314			325	307				
06:30		140	319			322	324				
06:45		196	319	508	1263	376	210	1279	1147	1787	2410
07:00		245	296			358	272				
07:15		225	295			342	242				
07:30		231	254			330	230				
07:45		225	228	926	1073	294	208	1324	952	2250	2025
08:00		265	216			322	160				
08:15		239	206			356	165				
08:30		236	212			296	155				
08:45		239	202	979	836	299	158	1273	638	2252	1474
09:00		207	174			264	112				
09:15		205	161			306	142				
09:30		217	172			302	143				
09:45		254	129	883	636	294	105	1166	502	2049	1138
10:00		212	150			323	87				
10:15		242	115			312	76				
10:30		265	104			320	71				
10:45		241	84	960	453	331	54	1286	288	2246	741
11:00		266	72			313	39				
11:15		259	59			315	25				
11:30		253	67			311	25				
11:45		260	62	1038	260	315	28	1254	117	2292	377
Total		5910	12328			8404	11717			14314	24045
Percent		32.4%	67.6%			41.8%	58.2%			37.3%	62.7%

EB 18238

WB 20121

SR 54 Directional Count
East of I-75 NB Ramps

URS Corporation
7650 W. Courtney Campbell Cswy
Tampa, Fl 33607-1462

Station ID: 0008
Site Code: ADR 15
Latitude: 28' 14.175 North
Longitude: 82' 21.071 West

Start Time	10-Mar-10 Wed	East Bound		Hour Totals		Westbound		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		51	277			16	365				
12:15		42	303			12	328				
12:30		34	263			8	333				
12:45		30	293	157	1136	15	359	51	1385	208	2521
01:00		29	310			11	304				
01:15		30	293			11	303				
01:30		29	300			13	329				
01:45		17	271	105	1174	4	295	39	1231	144	2405
02:00		17	281			6	330				
02:15		16	271			13	329				
02:30		14	335			4	354				
02:45		11	292	58	1179	2	340	25	1353	83	2532
03:00		15	320			7	286				
03:15		17	295			7	307				
03:30		16	332			7	354				
03:45		7	317	55	1264	6	356	27	1303	82	2567
04:00		13	359			6	435				
04:15		25	356			24	425				
04:30		30	411			56	378				
04:45		28	419	96	1545	44	400	130	1638	226	3183
05:00		21	389			81	378				
05:15		33	468			103	425				
05:30		45	428			177	353				
05:45		70	308	169	1593	169	351	530	1507	699	3100
06:00		76	350			240	339				
06:15		119	328			308	321				
06:30		123	380			327	310				
06:45		191	336	509	1394	392	342	1267	1312	1776	2706
07:00		256	326			368	303				
07:15		245	329			347	250				
07:30		250	234			337	243				
07:45		233	238	984	1127	330	183	1382	979	2366	2106
08:00		259	230			333	184				
08:15		256	272			333	188				
08:30		213	274			285	183				
08:45		230	219	958	995	273	130	1224	685	2182	1680
09:00		216	242			307	152				
09:15		214	191			308	136				
09:30		259	155			300	108				
09:45		258	144	947	732	321	107	1236	503	2183	1235
10:00		219	120			311	95				
10:15		246	101			284	80				
10:30		240	104			336	52				
10:45		242	91	947	416	317	60	1248	287	2195	703
11:00		291	77			320	57				
11:15		280	73			332	43				
11:30		271	54			328	49				
11:45		258	39	1100	243	339	31	1319	180	2419	423
Total		6085	12798			8478	12363			14563	25161
Percent		32.2%	67.8%			40.7%	59.3%			36.7%	63.3%

EB 18883

WB 20841

SR 54 Directional Count
East of I-75 NB Ramps

URS Corporation
7650 W. Courtney Campbell Cswy
Tampa, Fl 33607-1462

Station ID: 0008
Site Code: ADR 15
Latitude: 28' 14.175 North
Longitude: 82' 21.071 West

Start Time	11-Mar-10 Thu	East Bound Morning	East Bound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		52	253			35	311				
12:15		38	240			23	325				
12:30		23	287			21	287				
12:45		34	302	147	1082	21	313	100	1236	247	2318
01:00		21	267			19	259				
01:15		14	265			21	299				
01:30		17	303			14	265				
01:45		16	295	68	1130	9	301	63	1124	131	2254
02:00		21	263			14	281				
02:15		8	271			18	311				
02:30		14	268			11	319				
02:45		18	291	61	1093	13	335	56	1246	117	2339
03:00		19	254			19	294				
03:15		16	431			11	336				
03:30		17	337			15	304				
03:45		18	422	70	1444	15	302	60	1236	130	2680
04:00		20	369			18	448				
04:15		31	354			32	426				
04:30		17	412			51	385				
04:45		27	420	95	1555	55	401	156	1660	251	3215
05:00		20	392			85	355				
05:15		32	476			95	438				
05:30		53	437			159	337				
05:45		68	380	173	1685	175	298	514	1428	687	3113
06:00		71	323			212	251				
06:15		104	447			317	265				
06:30		131	394			311	226				
06:45		206	411	512	1575	347	241	1187	983	1699	2558
07:00		247	370			365	192				
07:15		240	364			334	208				
07:30		243	305			325	206				
07:45		224	297	954	1336	284	189	1308	795	2262	2131
08:00		268	236			311	166				
08:15		258	293			328	149				
08:30		206	292			283	141				
08:45		228	220	960	1041	288	133	1210	589	2170	1630
09:00		200	243			284	151				
09:15		223	176			304	111				
09:30		245	223			276	99				
09:45		217	160	885	802	276	75	1140	436	2025	1238
10:00		202	227			301	95				
10:15		222	146			300	102				
10:30		231	113			253	80				
10:45		216	118	871	604	269	60	1123	337	1994	941
11:00		211	93			286	67				
11:15		253	113			304	48				
11:30		238	79			316	55				
11:45		245	81	947	366	299	27	1205	197	2152	563
Total		5743	13713			8122	11267			13865	24980
Percent		29.5%	70.5%			41.9%	58.1%			35.7%	64.3%
Grand Total		17738	38839			25004	35347			42742	74186
Percent		31.4%	68.6%			41.4%	58.6%			36.6%	63.4%

ADT ADT 38,976 AADT 38,976

EB 19456 WB 19389

SR 54 Eastbound
West of I-75 SB Ramps

URS Corporation
7650 W. Courtney Campbell Cswy
Tampa, Fl 33607-1462

Station ID: 0002
Site Code: ADR 13
Latitude: 28' 14.222 North
Longitude: 82' 21.403 West

Start Time	09-Mar-10 Tue	EB Thru Morning	EB Thru Afternoon	Hour Totals Morning	Hour Totals Afternoon
12:00		17	260		
12:15		18	246		
12:30		10	253		
12:45		14	260	59	1019
01:00		16	251		
01:15		12	239		
01:30		10	254		
01:45		8	243	46	987
02:00		9	238		
02:15		7	244		
02:30		10	234		
02:45		18	234	44	950
03:00		19	236		
03:15		16	240		
03:30		12	241		
03:45		14	237	61	954
04:00		19	241		
04:15		22	226		
04:30		32	241		
04:45		38	257	111	965
05:00		50	284		
05:15		80	214		
05:30		103	259		
05:45		132	254	365	1011
06:00		167	236		
06:15		210	253		
06:30		305	232		
06:45		339	227	1021	948
07:00		371	221		
07:15		326	210		
07:30		311	194		
07:45		286	192	1294	817
08:00		298	167		
08:15		290	163		
08:30		251	169		
08:45		253	159	1092	658
09:00		232	145		
09:15		252	141		
09:30		254	122		
09:45		242	94	980	502
10:00		221	73		
10:15		251	80		
10:30		222	56		
10:45		237	44	931	253
11:00		244	30		
11:15		236	31		
11:30		253	28		
11:45		213	15	946	104
Total		6950	9168		
Percent		43.1%	56.9%		

16118

SR 54 Eastbound
West of I-75 SB Ramps

URS Corporation
7650 W. Courtney Campbell Cswy
Tampa, Fl 33607-1462

Station ID: 0002
Site Code: ADR 13
Latitude: 28' 14.222 North
Longitude: 82' 21.403 West

Start Time	10-Mar-10 Wed	EB Thru Morning	EB Thru Afternoon	Hour Totals Morning	Hour Totals Afternoon
12:00		15	268		
12:15		15	255		
12:30		10	245		
12:45		14	266	54	1034
01:00		13	258		
01:15		12	236		
01:30		11	248		
01:45		8	248	44	990
02:00		10	234		
02:15		13	237		
02:30		7	258		
02:45		20	239	50	968
03:00		20	233		
03:15		15	237		
03:30		19	244		
03:45		14	225	68	939
04:00		21	248		
04:15		22	228		
04:30		35	247		
04:45		32	260	110	983
05:00		52	289		
05:15		75	207		
05:30		107	255		
05:45		126	245	360	996
06:00		170	238		
06:15		220	259		
06:30		296	234		
06:45		348	227	1034	958
07:00		351	222		
07:15		323	201		
07:30		320	188		
07:45		298	185	1292	796
08:00		321	157		
08:15		312	173		
08:30		258	174		
08:45		266	166	1157	670
09:00		240	154		
09:15		255	144		
09:30		254	120		
09:45		247	99	996	517
10:00		219	77		
10:15		244	69		
10:30		236	63		
10:45		236	49	935	258
11:00		243	32		
11:15		246	35		
11:30		257	27		
11:45		218	17	964	111
Total		7064	9220		
Percent		43.4%	56.6%		

16284

SR 54 Eastbound
West of I-75 SB Ramps

URS Corporation
7650 W. Courtney Campbell Cswy
Tampa, Fl 33607-1462

Station ID: 0002
Site Code: ADR 13
Latitude: 28' 14.222 North
Longitude: 82' 21.403 West

Start Time	11-Mar-10 Thu	EB Thru Morning	EB Thru Afternoon	Hour Totals Morning	Hour Totals Afternoon
12:00		12	260		
12:15		16	240		
12:30		8	272		
12:45		17	255	53	1027
01:00		12	240		
01:15		18	254		
01:30		8	238		
01:45		8	235	46	967
02:00		9	230		
02:15		4	242		
02:30		8	240		
02:45		18	222	39	934
03:00		19	205		
03:15		15	235		
03:30		11	206		
03:45		11	234	56	880
04:00		19	189		
04:15		18	268		
04:30		30	275		
04:45		39	332	106	1064
05:00		57	319		
05:15		73	365		
05:30		98	347		
05:45		130	248	358	1279
06:00		159	236		
06:15		212	256		
06:30		305	238		
06:45		319	229	995	959
07:00		390	216		
07:15		362	209		
07:30		319	196		
07:45		286	198	1357	819
08:00		292	169		
08:15		310	177		
08:30		252	167		
08:45		246	164	1100	677
09:00		233	149		
09:15		250	151		
09:30		250	125		
09:45		251	101	984	526
10:00		224	78		
10:15		246	73		
10:30		223	69		
10:45		228	61	921	281
11:00		217	30		
11:15		246	26		
11:30		246	26		
11:45		216	15	925	97
Total		6940	9510		
Percent		42.2%	57.8%		
Grand Total		20954	27898		
Percent		42.9%	57.1%		
	ADT	ADT 16,284			AADT 16,284

16450

SR 54 Westbound
West of I-75 SB Ramps

URS Corporation
7650 W. Courtney Campbell Cswy
Tampa, Fl 33607-1462

Station ID: 0003
Site Code: ADR 11
Latitude: 28' 14.237 North
Longitude: 82' 21.392 West

Start Time	09-Mar-10 Tue	WB Thru Morning	WB Thru Afternoon	Hour Totals Morning	Hour Totals Afternoon
12:00		7	295		
12:15		5	291		
12:30		7	306		
12:45		2	305	21	1197
01:00		4	269		
01:15		2	310		
01:30		0	286		
01:45		1	300	7	1165
02:00		3	283		
02:15		1	305		
02:30		5	243		
02:45		2	291	11	1122
03:00		3	290		
03:15		3	375		
03:30		0	325		
03:45		8	352	14	1342
04:00		4	400		
04:15		11	410		
04:30		10	440		
04:45		12	450	37	1700
05:00		17	430		
05:15		31	500		
05:30		42	416		
05:45		59	378	149	1724
06:00		60	370		
06:15		90	372		
06:30		88	369		
06:45		121	297	359	1408
07:00		155	298		
07:15		132	280		
07:30		115	242		
07:45		115	255	517	1075
08:00		145	207		
08:15		188	194		
08:30		165	201		
08:45		174	171	672	773
09:00		171	130		
09:15		187	140		
09:30		199	145		
09:45		200	104	757	519
10:00		261	81		
10:15		221	81		
10:30		219	51		
10:45		240	50	941	263
11:00		255	32		
11:15		253	24		
11:30		235	18		
11:45		278	6	1021	80
Total		4506	12368		
Percent		26.7%	73.3%		

16814

URS Corporation
7650 W. Courtney Campbell Cswy
Tampa, Fl 33607 813-286-1711

Counter: 0233
Counted By: URS
Weather: Rain
Other:

File Name : 233_sr54_75 NB East
Site Code : 00000233
Start Date : 3/11/2010
Page No : 1

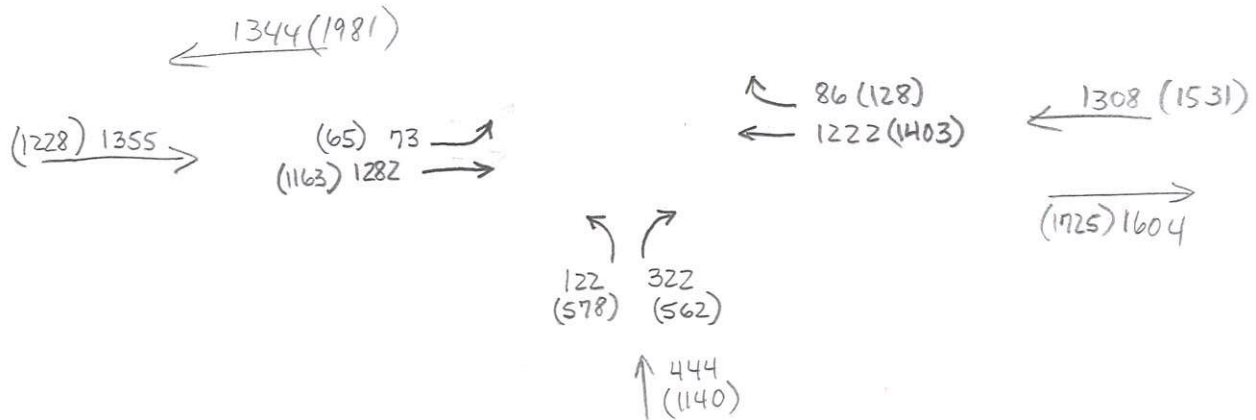
Groups Printed- Unshifted

	I-75 Ramps NB East Side South Bound					SR 54 West Bound					I-75 Ramps NB East Side North Bound					SR 54 East Bound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Factor	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		
07:00 AM	0	0	0	0	0	0	346	19	0	365	31	0	62	0	93	17	371	0	0	388	846
07:15 AM	0	0	0	0	0	0	316	18	0	334	24	0	67	0	91	21	346	0	0	367	792
07:30 AM	0	0	0	0	0	0	307	18	0	325	27	0	92	0	119	17	298	0	0	315	759
07:45 AM	0	0	0	0	0	0	253	31	0	284	40	0	101	0	141	18	267	0	0	285	710
Total	0	0	0	0	0	0	1222	86	0	1308	122	0	322	0	444	73	1282	0	0	1355	3107
08:00 AM	0	0	0	0	0	0	289	22	0	311	40	0	105	0	145	13	288	0	0	301	757
08:15 AM	0	0	0	0	0	0	307	21	0	328	42	0	98	0	140	20	293	0	0	313	781
08:30 AM	0	0	0	0	0	0	268	15	0	283	36	0	80	0	116	14	224	0	0	238	637
08:45 AM	0	0	0	0	0	0	265	23	0	288	49	0	97	0	146	15	230	0	0	245	679
Total	0	0	0	0	0	0	1129	81	0	1210	167	0	380	0	547	62	1035	0	0	1097	2854
04:00 PM	0	0	0	0	0	0	420	28	0	448	0	97	204	0	301	14	165	0	0	179	928
04:15 PM	0	0	0	0	0	0	397	29	0	426	0	91	107	0	198	15	247	0	0	262	886
04:30 PM	0	0	0	0	0	0	357	28	0	385	0	118	125	0	243	11	225	0	0	236	864
04:45 PM	0	0	0	0	0	0	372	29	0	401	0	135	139	0	274	22	281	0	0	303	978
Total	0	0	0	0	0	0	1546	114	0	1660	0	441	575	0	1016	62	918	0	0	980	3656
05:00 PM	0	0	0	0	0	0	315	40	0	355	0	134	125	0	259	10	267	0	0	277	891
05:15 PM	0	0	0	0	0	0	406	32	0	438	0	139	152	0	291	11	324	0	0	335	1064
05:30 PM	0	0	0	0	0	0	310	27	0	337	0	170	146	0	316	22	291	0	0	313	966
05:45 PM	0	0	0	0	0	0	278	20	0	298	0	127	175	0	302	18	205	0	0	223	823
Total	0	0	0	0	0	0	1309	119	0	1428	0	570	598	0	1168	61	1087	0	0	1148	3744
							1403	128		1531		578	562		1140	65	1163			1228	
Grand Total	0	0	0	0	0	0	5206	400	0	5606	289	1011	1875	0	3175	258	4322	0	0	4580	13361
Apprch %	0.0	0.0	0.0	0.0		0.0	92.9	7.1	0.0		9.1	31.8	59.1	0.0		5.6	94.4	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	39.0	3.0	0.0	42.0	2.2	7.6	14.0	0.0	23.8	1.9	32.3	0.0	0.0	34.3	

PHF=0.92

3899

PHF=0.92



URS Corporation
7650 W. Courtney Campbell Cswy
Tampa, Fl 33607 813-286-1711

Counter: 0899
Counted By: URS
Weather: Rain
Other:

File Name : 899_sr54 _75 SB West
Site Code : 00000899
Start Date : 3/11/2010
Page No : 1

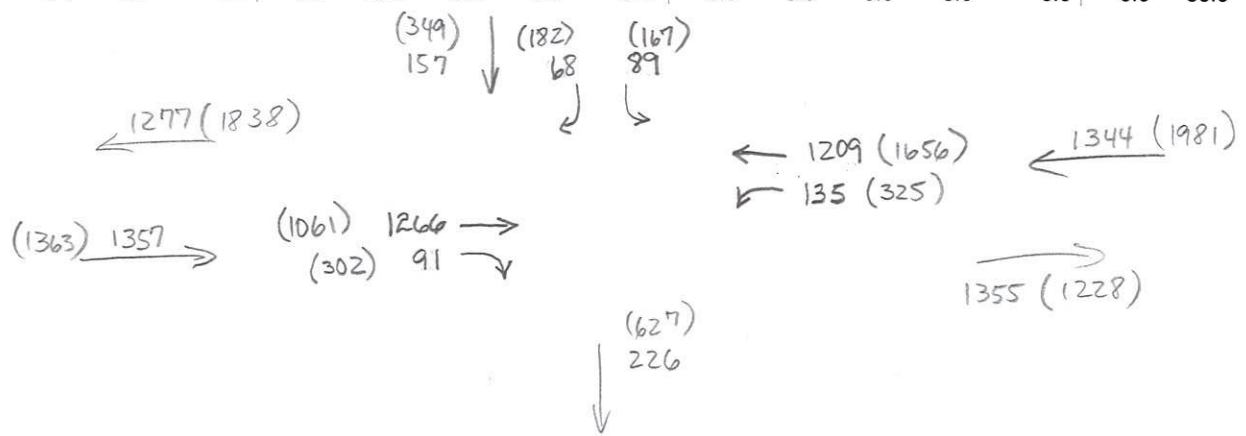
Groups Printed- Unshifted

	I-75 Ramps SB West side South Bound					SR 54 West Bound					I-75 Ramps SB West side North Bound					SR 54 East Bound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Factor	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		
07:00 AM	18	0	12	0	30	25	352	0	0	377	0	0	0	0	0	0	370	20	0	390	797
07:15 AM	29	0	26	0	55	30	310	0	0	340	0	0	0	0	0	0	338	24	0	362	757
07:30 AM	22	0	11	0	33	38	296	0	0	334	0	0	0	0	0	0	293	26	0	319	686
07:45 AM	20	0	19	0	39	42	251	0	0	293	0	0	0	0	0	0	265	21	0	286	618
Total	89	0	68	0	157	135	1209	0	0	1344	0	0	0	0	0	0	1266	91	0	1357	2858
08:00 AM	32	0	14	0	46	42	287	0	0	329	0	0	0	0	0	0	269	23	0	292	667
08:15 AM	28	0	27	0	55	50	299	0	0	349	0	0	0	0	0	0	285	25	0	310	714
08:30 AM	24	0	28	0	52	52	252	0	0	304	0	0	0	0	0	0	214	38	0	252	608
08:45 AM	32	0	21	0	53	42	272	0	0	314	0	0	0	0	0	0	213	33	0	246	613
Total	116	0	90	0	206	186	1110	0	0	1296	0	0	0	0	0	0	981	119	0	1100	2602
04:00 PM	31	0	47	0	78	131	386	0	0	517	0	0	0	0	0	0	148	41	0	189	784
04:15 PM	24	0	54	0	78	132	356	0	0	488	0	0	0	0	0	0	238	30	0	268	834
04:30 PM	34	0	54	0	88	87	388	0	0	475	0	0	0	0	0	0	202	73	0	275	838
04:45 PM	45	0	40	0	85	94	413	0	0	507	0	0	0	0	0	0	258	74	0	332	924
Total	134	0	195	0	329	444	1543	0	0	1987	0	0	0	0	0	0	846	218	0	1064	3380
05:00 PM	41	0	48	0	89	72	377	0	0	449	0	0	0	0	0	0	236	83	0	319	857
05:15 PM	42	0	52	0	94	83	462	0	0	545	0	0	0	0	0	0	293	72	0	365	1004
05:30 PM	39	0	42	0	81	76	404	0	0	480	0	0	0	0	0	0	274	73	0	347	908
05:45 PM	40	0	46	0	86	98	307	0	0	405	0	0	0	0	0	0	183	65	0	248	739
Total	162	0	188	0	350	329	1550	0	0	1879	0	0	0	0	0	0	986	293	0	1279	3508
	167		182		349	325	1656			1981							1061	302		1363	
Grand Total	501	0	541	0	1042	1094	5412	0	0	6506	0	0	0	0	0	0	4079	721	0	4800	12348
Apprch %	48.1	0.0	51.9	0.0		16.8	83.2	0.0	0.0		0.0	0.0	0.0	0.0		0.0	85.0	15.0	0.0		
Total %	4.1	0.0	4.4	0.0	8.4	8.9	43.8	0.0	0.0	52.7	0.0	0.0	0.0	0.0	0.0	0.0	33.0	5.8	0.0	38.9	

PHF = 0.90

3693

PHF = 0.92



I-75 Southbound Off Ramp
To SR 52

URS Corporation
7650 W. Courtney Campbell Cswy
Tampa, Fl 33607-1462

Station ID: 0004
Site Code: ADR 8
Latitude: 28' 19.542 North
Longitude: 82' 19.506 West

Start Time	09-Mar-10 Tue	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon
12:00		10	30		
12:15		8	34		
12:30		13	38		
12:45		17	42	48	144
01:00		4	39		
01:15		10	62		
01:30		11	52		
01:45		6	44	31	197
02:00		8	41		
02:15		8	57		
02:30		3	35		
02:45		7	42	26	175
03:00		8	40		
03:15		10	48		
03:30		9	47		
03:45		9	37	36	172
04:00		10	63		
04:15		20	50		
04:30		4	47		
04:45		9	51	43	211
05:00		10	48		
05:15		18	48		
05:30		7	36		
05:45		26	38	61	170
06:00		28	27		
06:15		39	52		
06:30		37	36		
06:45		31	36	135	151
07:00		51	34		
07:15		48	17		
07:30		54	22		
07:45		37	46	190	119
08:00		38	20		
08:15		30	35		
08:30		32	32		
08:45		47	29	147	116
09:00		37	14		
09:15		32	30		
09:30		30	23		
09:45		32	6	131	73
10:00		35	26		
10:15		36	19		
10:30		24	22		
10:45		40	9	135	76
11:00		52	19		
11:15		37	18		
11:30		36	10		
11:45		61	8	186	55
Total		1169	1659		
Percent		41.3%	58.7%		

2828

I-75 Southbound Off Ramp
To SR 52

URS Corporation
7650 W. Courtney Campbell Cswy
Tampa, Fl 33607-1462

Station ID: 0004
Site Code: ADR 8
Latitude: 28' 19.542 North
Longitude: 82' 19.506 West

Start Time	10-Mar-10 Wed	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon
12:00		13	47		
12:15		9	37		
12:30		6	24		
12:45		6	49	34	157
01:00		4	43		
01:15		13	45		
01:30		9	56		
01:45		3	54	29	198
02:00		7	72		
02:15		9	63		
02:30		7	62		
02:45		16	47	39	244
03:00		11	55		
03:15		11	44		
03:30		4	39		
03:45		9	65	35	203
04:00		5	64		
04:15		14	49		
04:30		8	46		
04:45		10	56	37	215
05:00		23	44		
05:15		23	40		
05:30		11	36		
05:45		29	33	86	153
06:00		30	38		
06:15		22	45		
06:30		28	42		
06:45		30	42	110	167
07:00		54	30		
07:15		52	40		
07:30		54	31		
07:45		36	18	196	119
08:00		39	22		
08:15		30	26		
08:30		37	26		
08:45		39	24	145	98
09:00		28	31		
09:15		40	33		
09:30		30	27		
09:45		27	21	125	112
10:00		35	11		
10:15		46	21		
10:30		42	21		
10:45		36	9	159	62
11:00		47	15		
11:15		33	19		
11:30		43	8		
11:45		35	12	158	54
Total		1153	1782		
Percent		39.3%	60.7%		

2935

I-75 Southbound Off Ramp
To SR 52

URS Corporation
7650 W. Courtney Campbell Cswy
Tampa, Fl 33607-1462

Station ID: 0004
Site Code: ADR 8
Latitude: 28' 19.542 North
Longitude: 82' 19.506 West

Start Time	11-Mar-10 Thu	Southbound Morning	Afternoon	Hour Totals Morning	Afternoon
12:00		13	46		
12:15		10	41		
12:30		10	53		
12:45		7	57	40	197
01:00		5	33		
01:15		1	31		
01:30		17	45		
01:45		6	43	29	152
02:00		12	47		
02:15		5	37		
02:30		11	62		
02:45		2	42	30	188
03:00		13	48		
03:15		13	31		
03:30		2	51		
03:45		8	62	36	192
04:00		12	62		
04:15		17	51		
04:30		13	51		
04:45		6	52	48	216
05:00		10	46		
05:15		17	42		
05:30		27	34		
05:45		31	35	85	157
06:00		26	35		
06:15		30	43		
06:30		26	36		
06:45		32	35	114	149
07:00		52	47		
07:15		50	34		
07:30		53	29		
07:45		35	39	190	149
08:00		37	43		
08:15		29	47		
08:30		36	34		
08:45		36	15	138	139
09:00		31	12		
09:15		41	40		
09:30		37	40		
09:45		38	29	147	121
10:00		28	28		
10:15		26	30		
10:30		54	27		
10:45		37	6	145	91
11:00		51	18		
11:15		37	7		
11:30		32	15		
11:45		47	5	167	45
Total		1169	1796		
Percent		39.4%	60.6%		
Grand Total		3491		5237	
Percent		40.0%		60.0%	
ADT		ADT 2,909			AADT 2,909

2965

SB On Ramp to I-75
From SR 52

URS Corporation
7650 W. Courtney Campbell Cswy
Tampa, Fl 33607-1462

Station ID: 0001
Site Code: ADR 3
Latitude: 28' 19.389 North
Longitude: 82' 19.501 West

Start Time	09-Mar-10 Tue	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon
12:00		25	126		
12:15		15	143		
12:30		16	152		
12:45		22	134	78	555
01:00		21	139		
01:15		15	129		
01:30		14	124		
01:45		7	107	57	499
02:00		14	126		
02:15		9	117		
02:30		16	127		
02:45		21	134	60	504
03:00		7	130		
03:15		27	163		
03:30		17	135		
03:45		17	134	68	562
04:00		34	126		
04:15		27	125		
04:30		28	142		
04:45		32	149	121	542
05:00		56	132		
05:15		57	122		
05:30		115	132		
05:45		142	115	370	501
06:00		143	126		
06:15		225	114		
06:30		171	100		
06:45		224	90	763	430
07:00		214	77		
07:15		239	78		
07:30		200	44		
07:45		179	63	832	262
08:00		177	51		
08:15		160	38		
08:30		176	60		
08:45		160	49	673	198
09:00		162	73		
09:15		157	57		
09:30		159	44		
09:45		187	58	665	232
10:00		153	29		
10:15		163	30		
10:30		155	19		
10:45		136	35	607	113
11:00		146	34		
11:15		144	32		
11:30		103	39		
11:45		153	21	546	126
Total		4840	4524		
Percent		51.7%	48.3%		

93611

SB On Ramp to I-75
From SR 52

URS Corporation
7650 W. Courtney Campbell Cswy
Tampa, Fl 33607-1462

Station ID: 0001
Site Code: ADR 3
Latitude: 28' 19.389 North
Longitude: 82' 19.501 West

Start Time	10-Mar-10 Wed	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon
12:00		17	149		
12:15		20	122		
12:30		6	143		
12:45		15	140	58	554
01:00		9	130		
01:15		16	128		
01:30		19	123		
01:45		12	130	56	511
02:00		19	134		
02:15		19	144		
02:30		15	139		
02:45		13	125	66	542
03:00		8	138		
03:15		24	148		
03:30		19	150		
03:45		18	145	69	581
04:00		29	135		
04:15		18	133		
04:30		49	137		
04:45		54	140	150	545
05:00		53	140		
05:15		87	125		
05:30		119	133		
05:45		128	115	387	513
06:00		169	144		
06:15		183	115		
06:30		188	103		
06:45		198	103	738	465
07:00		217	85		
07:15		223	74		
07:30		222	89		
07:45		189	56	851	304
08:00		175	71		
08:15		171	55		
08:30		175	48		
08:45		156	52	677	226
09:00		160	53		
09:15		155	42		
09:30		169	47		
09:45		184	27	668	169
10:00		147	41		
10:15		170	27		
10:30		161	27		
10:45		172	17	650	112
11:00		152	15		
11:15		139	18		
11:30		182	17		
11:45		132	10	605	60
Total		4975	4582		
Percent		52.1%	47.9%		

9557

SB On Ramp to I-75
From SR 52

URS Corporation
7650 W. Courtney Campbell Cswy
Tampa, Fl 33607-1462

Station ID: 0001
Site Code: ADR 3
Latitude: 28' 19.389 North
Longitude: 82' 19.501 West

Start Time	11-Mar-10 Thu	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon
12:00		15	126		
12:15		21	121		
12:30		8	146		
12:45		12	164	56	557
01:00		18	118		
01:15		6	121		
01:30		8	145		
01:45		22	111	54	495
02:00		18	148		
02:15		8	139		
02:30		13	126		
02:45		17	147	56	560
03:00		12	129		
03:15		12	134		
03:30		14	122		
03:45		14	134	52	519
04:00		16	132		
04:15		35	135		
04:30		43	138		
04:45		36	131	130	536
05:00		54	138		
05:15		61	123		
05:30		102	132		
05:45		155	100	372	493
06:00		161	108		
06:15		176	101		
06:30		200	85		
06:45		204	71	741	365
07:00		216	89		
07:15		245	74		
07:30		201	57		
07:45		185	52	847	272
08:00		176	51		
08:15		165	40		
08:30		174	55		
08:45		157	33	672	179
09:00		176	39		
09:15		132	46		
09:30		163	58		
09:45		159	45	630	188
10:00		134	31		
10:15		143	29		
10:30		129	28		
10:45		146	30	552	118
11:00		152	23		
11:15		130	29		
11:30		117	14		
11:45		123	21	522	87
Total		4684	4369		
Percent		51.7%	48.3%		
Grand Total		14499	13475		
Percent		51.8%	48.2%		
ADT		ADT 9,325			AADT 9,325

9053

I-75 NB Off Ramp
To SR 52

URS Corporation
7650 W. Courtney Campbell Cswy
Tampa, Fl 33607-1462

Station ID: 0009
Site Code: ADR 23
Latitude: 28' 19.386 North
Longitude: 82' 19.468 West

Start Time	09-Mar-10 Tue	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon
12:00		28	141		
12:15		35	136		
12:30		26	129		
12:45		20	156	109	562
01:00		12	130		
01:15		16	125		
01:30		19	167		
01:45		14	140	61	562
02:00		8	151		
02:15		6	173		
02:30		17	170		
02:45		9	180	40	674
03:00		18	176		
03:15		10	177		
03:30		10	182		
03:45		25	200	63	735
04:00		23	160		
04:15		8	154		
04:30		13	165		
04:45		16	174	60	653
05:00		19	236		
05:15		26	208		
05:30		32	214		
05:45		37	138	114	796
06:00		45	182		
06:15		78	194		
06:30		106	162		
06:45		106	175	335	713
07:00		105	123		
07:15		102	103		
07:30		142	112		
07:45		132	99	481	437
08:00		111	98		
08:15		116	85		
08:30		121	75		
08:45		116	85	464	343
09:00		139	70		
09:15		137	74		
09:30		124	78		
09:45		134	82	534	304
10:00		123	67		
10:15		131	60		
10:30		126	33		
10:45		119	56	499	216
11:00		146	52		
11:15		149	35		
11:30		150	40		
11:45		138	23	583	150
Total		3343	6145		
Percent		35.2%	64.8%		

9488

I-75 NB Off Ramp
To SR 52

URS Corporation
7650 W. Courtney Campbell Cswy
Tampa, Fl 33607-1462

Station ID: 0009
Site Code: ADR 23
Latitude: 28' 19.386 North
Longitude: 82' 19.468 West

Start Time	10-Mar-10 Wed	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon
12:00		29	166		
12:15		25	145		
12:30		21	128		
12:45		27	152	102	591
01:00		11	150		
01:15		23	138		
01:30		21	163		
01:45		10	150	65	601
02:00		11	160		
02:15		13	177		
02:30		11	140		
02:45		12	177	47	654
03:00		23	176		
03:15		16	168		
03:30		5	227		
03:45		14	223	58	794
04:00		21	148		
04:15		17	146		
04:30		16	247		
04:45		16	240	70	781
05:00		27	250		
05:15		31	210		
05:30		40	215		
05:45		25	145	123	820
06:00		54	186		
06:15		80	203		
06:30		121	176		
06:45		85	187	340	752
07:00		110	165		
07:15		101	151		
07:30		156	131		
07:45		130	126	497	573
08:00		121	105		
08:15		115	86		
08:30		118	111		
08:45		124	91	478	393
09:00		139	82		
09:15		122	94		
09:30		139	67		
09:45		129	95	529	338
10:00		123	67		
10:15		132	63		
10:30		142	42		
10:45		128	45	525	217
11:00		151	47		
11:15		167	31		
11:30		159	31		
11:45		124	22	601	131
Total		3435	6645		
Percent		34.1%	65.9%		

10090

I-75 NB Off Ramp
To SR 52

URS Corporation
7650 W. Courtney Campbell Cswy
Tampa, Fl 33607-1462

Station ID: 0009
Site Code: ADR 23
Latitude: 28' 19.386 North
Longitude: 82' 19.468 West

Start Time	11-Mar-10 Thu	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon
12:00		25	92		
12:15		20	64		
12:30		16	126		
12:45		16	151	77	433
01:00		21	184		
01:15		11	188		
01:30		28	176		
01:45		17	143	77	691
02:00		11	174		
02:15		9	148		
02:30		15	154		
02:45		11	157	46	633
03:00		11	156		
03:15		5	177		
03:30		5	121		
03:45		8	199	29	653
04:00		18	159		
04:15		7	146		
04:30		20	179		
04:45		19	189	64	673
05:00		16	260		
05:15		23	205		
05:30		23	205		
05:45		28	135	90	805
06:00		47	141		
06:15		77	147		
06:30		110	213		
06:45		112	147	346	648
07:00		88	141		
07:15		107	114		
07:30		166	103		
07:45		132	87	493	445
08:00		112	76		
08:15		111	82		
08:30		116	101		
08:45		115	78	454	337
09:00		124	61		
09:15		141	65		
09:30		128	76		
09:45		116	57	509	259
10:00		143	53		
10:15		117	55		
10:30		167	42		
10:45		169	57	596	207
11:00		153	40		
11:15		180	35		
11:30		189	36		
11:45		148	18	670	129
Total		3451	5913		
Percent		36.9%	63.1%		
Grand Total		10229		18703	
Percent		35.4%		64.6%	
	ADT	ADT 9,644			AADT 9,644

9364

I-75 Northbound On Ramp
From SR 52

URS Corporation
7650 W. Courtney Campbell Cswy
Tampa, Fl 33607-1462

Station ID: 0007
Site Code: ADR 10
Latitude: 28' 19.552 North
Longitude: 82' 19.440 West

Start Time	09-Mar-10 Tue	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon
12:00		20	50		
12:15		3	55		
12:30		11	65		
12:45		12	43	46	213
01:00		8	45		
01:15		3	52		
01:30		5	39		
01:45		18	46	34	182
02:00		7	54		
02:15		11	61		
02:30		8	76		
02:45		4	45	30	236
03:00		6	56		
03:15		22	49		
03:30		10	52		
03:45		8	55	46	212
04:00		5	40		
04:15		16	52		
04:30		16	52		
04:45		20	52	57	196
05:00		19	55		
05:15		14	46		
05:30		14	45		
05:45		18	47	65	193
06:00		25	36		
06:15		32	32		
06:30		42	38		
06:45		39	31	138	137
07:00		32	29		
07:15		30	39		
07:30		28	31		
07:45		32	19	122	118
08:00		36	33		
08:15		48	29		
08:30		46	24		
08:45		46	29	176	115
09:00		51	32		
09:15		37	33		
09:30		72	32		
09:45		72	15	232	112
10:00		55	20		
10:15		54	27		
10:30		61	11		
10:45		68	10	238	68
11:00		49	15		
11:15		60	15		
11:30		79	5		
11:45		52	12	240	47
Total		1424	1829		
Percent		43.8%	56.2%		

3253

I-75 Northbound On Ramp
From SR 52

URS Corporation
7650 W. Courtney Campbell Cswy
Tampa, Fl 33607-1462

Station ID: 0007
Site Code: ADR 10
Latitude: 28' 19.552 North
Longitude: 82' 19.440 West

Start Time	10-Mar-10 Wed	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon
12:00		4	73		
12:15		17	52		
12:30		6	49		
12:45		16	50	43	224
01:00		6	67		
01:15		7	71		
01:30		8	53		
01:45		6	65	27	256
02:00		6	53		
02:15		3	61		
02:30		11	74		
02:45		6	45	26	233
03:00		22	59		
03:15		10	58		
03:30		16	64		
03:45		12	65	60	246
04:00		16	43		
04:15		14	50		
04:30		17	46		
04:45		14	48	61	187
05:00		21	50		
05:15		26	42		
05:30		21	40		
05:45		33	46	101	178
06:00		17	43		
06:15		31	47		
06:30		33	36		
06:45		46	44	127	170
07:00		38	44		
07:15		23	42		
07:30		32	39		
07:45		36	32	129	157
08:00		38	32		
08:15		43	24		
08:30		49	24		
08:45		67	30	197	110
09:00		52	38		
09:15		57	28		
09:30		49	22		
09:45		58	21	216	109
10:00		72	13		
10:15		57	23		
10:30		47	17		
10:45		81	9	257	62
11:00		62	18		
11:15		56	17		
11:30		75	5		
11:45		58	10	251	50
Total		1495	1982		
Percent		43.0%	57.0%		

3477

I-75 Northbound On Ramp
From SR 52

URS Corporation
7650 W. Courtney Campbell Cswy
Tampa, Fl 33607-1462

Station ID: 0007
Site Code: ADR 10
Latitude: 28' 19.552 North
Longitude: 82' 19.440 West

Start Time	11-Mar-10 Thu	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon
12:00		4	58		
12:15		8	59		
12:30		12	57		
12:45		5	66	29	240
01:00		11	58		
01:15		8	61		
01:30		7	76		
01:45		7	49	33	244
02:00		5	68		
02:15		5	55		
02:30		8	54		
02:45		8	51	26	228
03:00		8	28		
03:15		13	30		
03:30		4	39		
03:45		10	27	35	124
04:00		4	45		
04:15		5	42		
04:30		11	47		
04:45		25	50	45	184
05:00		20	45		
05:15		14	44		
05:30		17	40		
05:45		30	45	81	174
06:00		25	33		
06:15		19	35		
06:30		25	34		
06:45		24	26	93	128
07:00		28	24		
07:15		29	41		
07:30		31	31		
07:45		36	23	124	119
08:00		36	15		
08:15		48	26		
08:30		39	23		
08:45		40	6	163	70
09:00		45	20		
09:15		63	26		
09:30		62	29		
09:45		62	25	232	100
10:00		66	16		
10:15		66	14		
10:30		50	15		
10:45		57	9	239	54
11:00		60	20		
11:15		68	12		
11:30		54	12		
11:45		81	9	263	53
Total		1363	1718		
Percent		44.2%	55.8%		
Grand Total			4282	5529	
Percent			43.6%	56.4%	
	ADT		ADT 3,270		AADT 3,270

3081

SR 52 Eastbound
West of I-75 SB Ramps

URS Corporation
7650 W. Courtney Campbell Cswy
Tampa, Fl 33607-1462

Station ID: 0002
Site Code: ADR 17
Latitude: 28' 19.501 North
Longitude: 82' 19.583 West

Start Time	09-Mar-10 Tue	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon
12:00		3	130		
12:15		10	126		
12:30		5	128		
12:45		6	140	24	524
01:00		7	116		
01:15		3	104		
01:30		8	108		
01:45		6	85	24	413
02:00		6	127		
02:15		8	114		
02:30		6	114		
02:45		2	105	22	460
03:00		7	115		
03:15		12	134		
03:30		6	103		
03:45		5	137	30	489
04:00		10	225		
04:15		14	258		
04:30		16	265		
04:45		20	255	60	1003
05:00		34	341		
05:15		41	253		
05:30		60	269		
05:45		77	216	212	1079
06:00		130	196		
06:15		134	178		
06:30		164	154		
06:45		148	144	576	672
07:00		161	95		
07:15		223	58		
07:30		198	56		
07:45		236	31	818	240
08:00		203	75		
08:15		172	26		
08:30		205	23		
08:45		221	24	801	148
09:00		228	42		
09:15		194	16		
09:30		175	21		
09:45		155	13	752	92
10:00		145	24		
10:15		162	14		
10:30		153	11		
10:45		142	6	602	55
11:00		141	7		
11:15		144	8		
11:30		135	2		
11:45		131	2	551	19
Total		4472	5194		
Percent		46.3%	53.7%		

9666

SR 52 Eastbound
West of I-75 SB Ramps

URS Corporation
7650 W. Courtney Campbell Cswy
Tampa, Fl 33607-1462

Station ID: 0002
Site Code: ADR 17
Latitude: 28' 19.501 North
Longitude: 82' 19.583 West

Start Time	10-Mar-10 Wed	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon
12:00		3	119		
12:15		8	127		
12:30		4	129		
12:45		2	119	17	494
01:00		4	124		
01:15		4	104		
01:30		8	89		
01:45		3	121	19	438
02:00		5	128		
02:15		9	112		
02:30		5	115		
02:45		1	101	20	456
03:00		10	117		
03:15		14	132		
03:30		3	104		
03:45		5	138	32	491
04:00		14	224		
04:15		6	259		
04:30		17	267		
04:45		25	255	62	1005
05:00		39	342		
05:15		43	255		
05:30		48	268		
05:45		58	215	188	1080
06:00		129	194		
06:15		137	179		
06:30		153	150		
06:45		147	145	566	668
07:00		162	92		
07:15		223	57		
07:30		200	57		
07:45		233	32	818	238
08:00		200	74		
08:15		170	25		
08:30		206	20		
08:45		220	24	796	143
09:00		229	45		
09:15		192	16		
09:30		179	20		
09:45		155	10	755	91
10:00		144	21		
10:15		167	13		
10:30		133	10		
10:45		152	6	596	50
11:00		134	6		
11:15		145	9		
11:30		145	2		
11:45		122	3	546	20
Total		4415	5174		
Percent		46.0%	54.0%		

9589

SR 52 Eastbound
West of I-75 SB Ramps

URS Corporation
7650 W. Courtney Campbell Cswy
Tampa, Fl 33607-1462

Station ID: 0002
Site Code: ADR 17
Latitude: 28' 19.501 North
Longitude: 82' 19.583 West

Start Time	11-Mar-10 Thu	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon
12:00		3	140		
12:15		12	125		
12:30		5	127		
12:45		9	160	29	552
01:00		9	107		
01:15		2	103		
01:30		7	126		
01:45		8	48	26	384
02:00		7	125		
02:15		6	115		
02:30		7	113		
02:45		3	109	23	462
03:00		3	112		
03:15		9	135		
03:30		8	102		
03:45		4	136	24	485
04:00		6	226		
04:15		22	256		
04:30		15	263		
04:45		15	254	58	999
05:00		28	340		
05:15		38	251		
05:30		71	270		
05:45		96	217	233	1078
06:00		130	198		
06:15		130	176		
06:30		175	157		
06:45		148	142	583	673
07:00		159	98		
07:15		223	58		
07:30		196	54		
07:45		238	30	816	240
08:00		205	75		
08:15		173	26		
08:30		203	25		
08:45		222	24	803	150
09:00		226	38		
09:15		196	15		
09:30		170	21		
09:45		154	15	746	89
10:00		146	26		
10:15		156	15		
10:30		173	12		
10:45		131	5	606	58
11:00		148	8		
11:15		143	6		
11:30		124	2		
11:45		139	1	554	17
Total		4501	5187		
Percent		46.5%	53.5%		
Grand Total		13388		15555	
Percent		46.3%		53.7%	
ADT		ADT 9,648			AADT 9,648

9688

SR 52 Westbound
West of I-75 SB Ramps

URS Corporation
7650 W. Courtney Campbell Cswy
Tampa, Fl 33607-1462

Station ID: 0003
Site Code: ADR 20
Latitude: 28' 19.515 North
Longitude: 82' 19.585 West

Start Time	09-Mar-10 Tue	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon
12:00		20	152		
12:15		21	182		
12:30		15	179		
12:45		25	187	81	700
01:00		16	174		
01:15		30	184		
01:30		25	169		
01:45		10	203	81	730
02:00		15	185		
02:15		13	226		
02:30		8	231		
02:45		5	234	41	876
03:00		12	229		
03:15		17	181		
03:30		10	223		
03:45		29	246	68	879
04:00		20	246		
04:15		26	290		
04:30		11	257		
04:45		25	281	82	1074
05:00		28	231		
05:15		47	256		
05:30		47	336		
05:45		72	261	194	1084
06:00		85	185		
06:15		183	207		
06:30		146	157		
06:45		153	153	567	702
07:00		212	118		
07:15		240	87		
07:30		210	125		
07:45		254	97	916	427
08:00		229	109		
08:15		200	85		
08:30		198	86		
08:45		211	90	838	370
09:00		151	68		
09:15		159	69		
09:30		154	77		
09:45		149	65	613	279
10:00		153	65		
10:15		141	55		
10:30		165	38		
10:45		162	38	621	196
11:00		189	42		
11:15		191	44		
11:30		155	37		
11:45		189	35	724	158
Total		4826	7475		
Percent		39.2%	60.8%		

12301

SR 52 Westbound
West of I-75 SB Ramps

URS Corporation
7650 W. Courtney Campbell Cswy
Tampa, Fl 33607-1462

Station ID: 0003
Site Code: ADR 20
Latitude: 28' 19.515 North
Longitude: 82' 19.585 West

Start Time	10-Mar-10 Wed	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon
12:00		21	206		
12:15		15	170		
12:30		21	168		
12:45		24	175	81	719
01:00		13	157		
01:15		16	135		
01:30		24	189		
01:45		10	160	63	641
02:00		13	207		
02:15		3	214		
02:30		10	170		
02:45		17	185	43	776
03:00		14	227		
03:15		17	251		
03:30		8	258		
03:45		19	271	58	1007
04:00		13	217		
04:15		32	270		
04:30		16	288		
04:45		29	294	90	1069
05:00		30	303		
05:15		78	305		
05:30		40	249		
05:45		78	249	226	1106
06:00		93	236		
06:15		138	214		
06:30		181	174		
06:45		125	161	537	785
07:00		214	201		
07:15		235	127		
07:30		202	127		
07:45		259	102	910	557
08:00		229	87		
08:15		215	107		
08:30		200	125		
08:45		215	97	859	416
09:00		135	103		
09:15		156	102		
09:30		129	90		
09:45		126	93	546	388
10:00		168	51		
10:15		177	72		
10:30		159	45		
10:45		157	40	661	208
11:00		161	37		
11:15		143	37		
11:30		183	28		
11:45		139	35	626	137
Total		4700	7809		
Percent		37.6%	62.4%		

12509

SR 52 Westbound
West of I-75 SB Ramps

URS Corporation
7650 W. Courtney Campbell Cswy
Tampa, Fl 33607-1462

Station ID: 0003
Site Code: ADR 20
Latitude: 28' 19.515 North
Longitude: 82' 19.585 West

Start Time	11-Mar-10 Thu	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon
12:00		23	142		
12:15		22	126		
12:30		31	111		
12:45		13	214	89	593
01:00		14	220		
01:15		7	204		
01:30		22	186		
01:45		11	201	54	811
02:00		12	243		
02:15		8	194		
02:30		12	216		
02:45		4	237	36	890
03:00		10	229		
03:15		13	284		
03:30		11	255		
03:45		18	268	52	1036
04:00		21	332		
04:15		11	245		
04:30		26	263		
04:45		26	319	84	1159
05:00		39	321		
05:15		47	325		
05:30		42	279		
05:45		86	284	214	1209
06:00		93	193		
06:15		121	210		
06:30		135	218		
06:45		134	153	483	774
07:00		218	174		
07:15		239	154		
07:30		208	125		
07:45		256	102	921	555
08:00		232	96		
08:15		219	114		
08:30		202	98		
08:45		216	79	869	387
09:00		141	56		
09:15		202	82		
09:30		141	97		
09:45		156	81	640	316
10:00		165	59		
10:15		144	74		
10:30		173	53		
10:45		226	38	708	224
11:00		184	43		
11:15		179	38		
11:30		183	34		
11:45		183	14	729	129
Total		4879	8083		
Percent		37.6%	62.4%		
Grand Total		14405		23367	
Percent		38.1%		61.9%	
	ADT		ADT 12,591		AADT 12,591

12962

SR 52 Directional COunt
East of I-75 NB Ramps

URS Corporation
7650 W. Courtney Campbell Cswy
Tampa, Fl 33607-1462

Station ID: 0008
Site Code: ADR 25
Latitude: 28' 19.523 North
Longitude: 82' 19.381 West

Start	09-Mar-10	Eastbound		Hour Totals		Westbound		Hour Totals		Combined Totals	
Time	Tue	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		34	151			29	153				
12:15		28	152			18	210				
12:30		35	159			22	171				
12:45		28	178	125	640	35	162	104	696	229	1336
01:00		10	142			23	176				
01:15		15	152			21	174				
01:30		25	196			10	140				
01:45		13	136	63	626	27	187	81	677	144	1303
02:00		12	166			19	166				
02:15		12	169			10	167				
02:30		17	180			17	210				
02:45		21	181	62	696	8	188	54	731	116	1427
03:00		21	180			12	231				
03:15		20	194			34	188				
03:30		15	127			17	242				
03:45		20	231	76	732	21	216	84	877	160	1609
04:00		17	352			23	203				
04:15		13	280			30	272				
04:30		18	332			32	288				
04:45		29	381	77	1345	38	257	123	1020	200	2365
05:00		24	423			34	320				
05:15		28	396			61	243				
05:30		51	347			98	272				
05:45		59	303	162	1469	109	212	302	1047	464	2516
06:00		70	196			113	223				
06:15		78	202			180	223				
06:30		131	220			172	212				
06:45		139	200	418	818	196	175	661	833	1079	1651
07:00		159	181			203	171				
07:15		169	149			269	156				
07:30		198	161			198	157				
07:45		246	97	772	588	281	85	951	569	1723	1157
08:00		196	93			231	79				
08:15		189	103			215	60				
08:30		175	78			236	87				
08:45		187	77	747	351	238	88	920	314	1667	665
09:00		201	82			147	87				
09:15		187	85			142	74				
09:30		167	78			182	71				
09:45		170	63	725	308	190	65	661	297	1386	605
10:00		183	62			161	59				
10:15		164	63			162	62				
10:30		122	57			162	41				
10:45		166	35	635	217	176	35	661	197	1296	414
11:00		162	46			163	39				
11:15		167	38			152	41				
11:30		169	29			157	42				
11:45		166	24	664	137	169	20	641	142	1305	279
Total		4526	7927			5243	7400			9769	15327
Percent		36.3%	63.7%			41.5%	58.5%			38.9%	61.1%

EB 12453 WB 12643

URS Corporation
7650 W. Courtney Campbell Cswy
Tampa, Fl 33607 813-286-1711

Counter: 0869
Counted By: URS
Weather: Rain
Other:

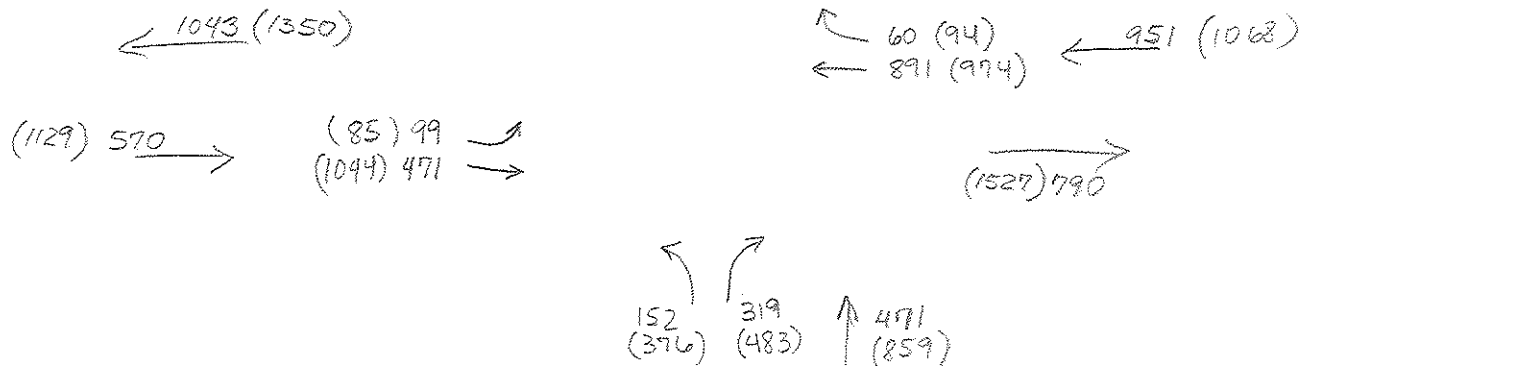
File Name : 869_sr52_75 NB East
Site Code : 00000869
Start Date : 3/11/2010
Page No : 1

Groups Printed- Unshifted

	I-75 Ramps NB East Side South Bound					SR 52 West Bound					I-75 Ramps NB East Side North Bound					SR 52 East Bound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Factor	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		
07:00 AM	0	0	0	0	0	0	189	11	0	200	32	0	56	0	88	17	99	0	0	116	404
07:15 AM	0	0	0	0	0	0	255	11	0	266	35	0	72	0	107	18	93	0	0	111	484
07:30 AM	0	0	0	0	0	0	184	11	0	195	55	0	111	0	166	20	83	0	0	103	464
07:45 AM	0	0	0	0	0	0	264	14	0	278	36	0	96	0	132	22	146	0	0	168	578
Total	0	0	0	0	0	0	892	47	0	939	158	0	335	0	493	77	421	0	0	498	1930
08:00 AM	0	0	0	0	0	0	217	11	0	228	38	0	74	0	112	25	118	0	0	143	483
08:15 AM	0	0	0	0	0	0	192	20	0	212	32	0	79	0	111	28	106	0	0	134	457
08:30 AM	0	0	0	0	0	0	218	15	0	233	46	0	70	0	116	24	101	0	0	125	474
08:45 AM	0	0	0	0	0	0	221	14	0	235	47	0	68	0	115	26	115	0	0	141	491
Total	0	0	0	0	0	0	~~848~~ 891	~~60~~ 60	0	~~908~~ 951	~~163~~ 152	0	~~291~~ 319	0	~~454~~ 471	~~103~~ 99	~~440~~ 471	0	0	~~543~~ 570	~~1905~~ 1992
04:00 PM	0	0	0	0	0	0	175	22	0	197	66	0	93	0	159	23	254	0	0	277	633
04:15 PM	0	0	0	0	0	0	246	20	0	266	52	0	94	0	146	22	181	0	0	203	615
04:30 PM	0	0	0	0	0	0	260	22	0	282	64	0	115	0	179	25	212	0	3	240	701
04:45 PM	0	0	0	0	0	0	222	29	0	251	89	0	100	0	189	21	276	0	0	297	737
Total	0	0	0	0	0	0	903	93	0	996	271	0	402	0	673	91	923	0	3	1017	~~2686~~ 3056
05:00 PM	0	0	0	0	0	0	290	24	0	314	106	0	154	0	260	21	264	0	0	285	859
05:15 PM	0	0	0	0	0	0	214	23	0	237	95	0	110	0	205	21	281	0	0	302	744
05:30 PM	0	0	0	0	0	0	248	18	2	268	86	0	119	0	205	22	223	0	0	245	716 ~~718~~
05:45 PM	0	0	0	0	0	0	182	24	0	206	78	0	57	0	135	21	241	0	0	262	603
Total	0	0	0	0	0	0	~~934~~ 974	89 ~~94~~	2	1025 ~~1068~~	~~365~~ 376	0	~~440~~ 483	0	~~805~~ 859	~~85~~ 95	~~1009~~ 1044	0	0	~~1094~~ 1129	2924
Grand Total	0	0	0	0	0	0	3577	289	2	3868	957	0	1468	0	2425	356	2793	0	3	3152	9445
Apprch %	0.0	0.0	0.0	0.0		0.0	92.5	7.5	0.1		39.5	0.0	60.5	0.0		11.3	88.6	0.0	0.1		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	37.9	3.1	0.0	41.0	10.1	0.0	15.5	0.0	25.7	3.8	29.6	0.0	0.0	33.4	

PHF = 0.86

PHF = 0.89



URS Corporation
7650 W. Courtney Campbell Cswy
Tampa, Fl 33607 813-286-1711

Counter: 0379
Counted By: URS
Weather: Rain
Other:

File Name : 379_sr52_SB West
Site Code : 00000379
Start Date : 3/11/2010
Page No : 1

Groups Printed- Unshifted

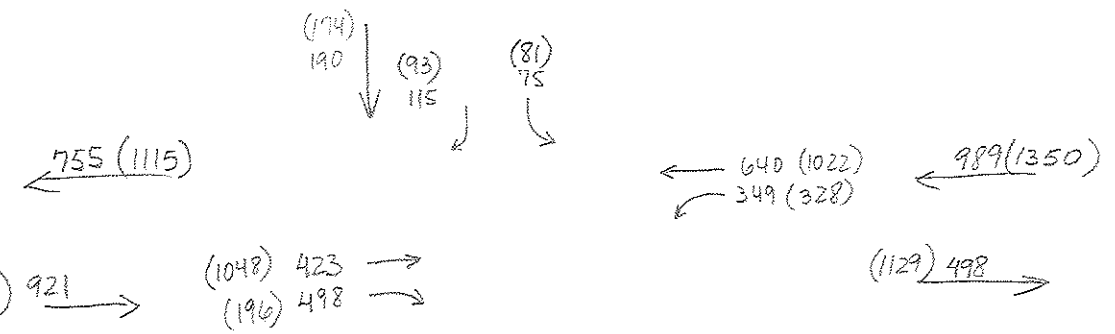
	I-75 Ramps SB West Side South Bound					SR 52 West Bound					I-75 Ramps SB West Side North Bound					SR 52 East Bound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Factor	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		
07:00 AM	30	0	22	0	52	84	137	0	0	221	0	0	0	0	0	0	86	132	0	218	491
07:15 AM	23	0	27	0	50	94	135	0	0	229	0	0	0	0	0	0	88	151	0	239	518
07:30 AM	10	0	43	0	53	86	153	0	0	239	0	0	0	0	0	0	93	115	0	208	500
07:45 AM	12	0	23	0	35	85	215	0	0	300	0	0	0	0	0	0	156	100	0	256	591
Total	75	0	115	0	190	349	640	0	0	989	0	0	0	0	0	0	423	498	0	921	2100
08:00 AM	13	0	24	0	37	74	181	0	0	255	0	0	0	0	0	0	130	102	0	232	524
08:15 AM	6	0	23	0	29	74	150	0	0	224	0	0	0	0	0	0	128	91	0	219	472
08:30 AM	7	0	29	0	36	90	174	0	0	264	0	0	0	0	0	0	118	84	0	202	502
08:45 AM	9	0	27	0	36	73	195	0	0	268	0	0	0	0	0	0	132	84	0	216	520
Total	35	0	103	0	138	311	700	0	0	1011	0	0	0	0	0	0	508	361	0	869	2018
04:00 PM	24	0	38	0	62	53	188	0	0	241	0	0	0	0	0	0	253	79	0	332	635
04:15 PM	21	0	30	0	51	72	226	0	0	298	0	0	0	0	0	0	182	63	0	245	594
04:30 PM	26	0	25	0	51	86	238	0	0	324	0	0	0	0	0	0	211	52	0	263	638
04:45 PM	29	0	23	0	52	80	231	0	0	311	0	0	0	0	0	0	268	51	0	319	682
Total	100	0	116	0	216	291	883	0	0	1174	0	0	0	0	0	0	914	245	0	1159	2549
05:00 PM	21	0	25	0	46	81	315	0	0	396	0	0	0	0	0	0	264	57	0	321	763
05:15 PM	16	0	26	0	42	84	225	0	0	309	0	0	0	0	0	0	286	39	0	325	676
05:30 PM	15	0	19	0	34	83	251	0	0	334	0	0	0	0	0	0	230	49	0	279	647
05:45 PM	12	0	23	0	35	66	194	0	0	260	0	0	0	0	0	0	250	34	0	284	579
Total	~~64~~	0	93	0	~~157~~	~~314~~	985	0	0	~~1299~~	0	0	0	0	0	0	~~1030~~	179	0	~~1209~~	2665
4:45 - 5:30	81		93		174	328	1022			1350							1048	196		1244	
Grand Total	274	0	427	0	701	1265	3208	0	0	4473	0	0	0	0	0	0	2875	1283	0	4158	9332
Apprch %	39.1	0.0	60.9	0.0		28.3	71.7	0.0	0.0		0.0	0.0	0.0	0.0		0.0	69.1	30.9	0.0		
Total %	2.9	0.0	4.6	0.0	7.5	13.6	34.4	0.0	0.0	47.9	0.0	0.0	0.0	0.0	0.0	0.0	30.8	13.7	0.0	44.6	

PHF = 0.89

2768

PHF = 0.91

4:45



URS

Intersection Field Data Sheet

Date: 03/11/2010 **Count Time:**

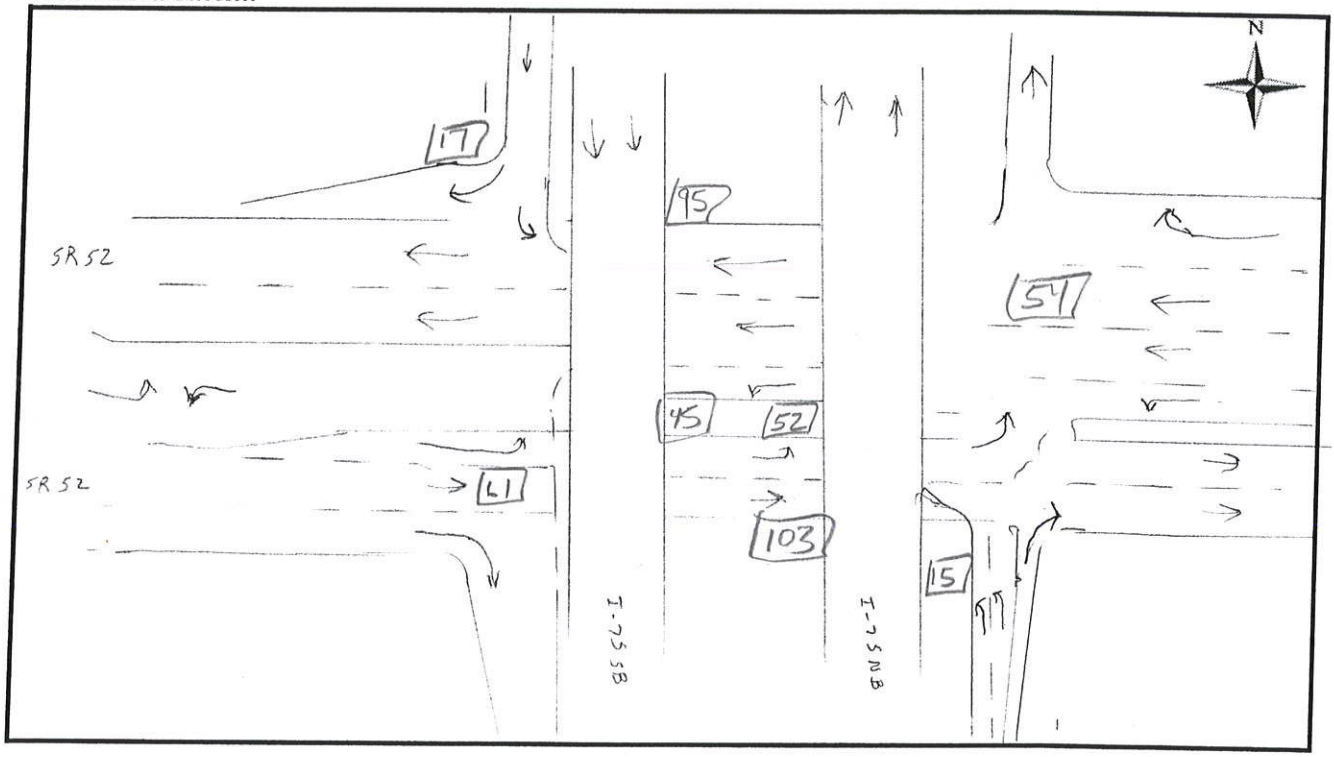
Major Street: SR 52 **Direction:** EB/WB **Speed Limit:** 45

Minor Street: I-75 Ramps **Direction:** NB/SB **Speed Limit:** —

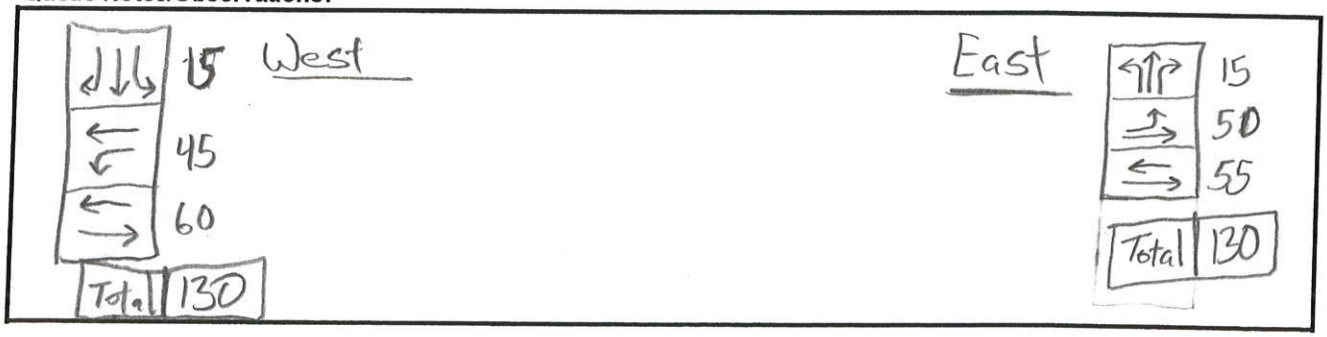
City/County: PASCO **Weather:**

Signal Timings:

Intersection Sketch:



Queue Notes/Observations:



URS Intersection Field Data Sheet

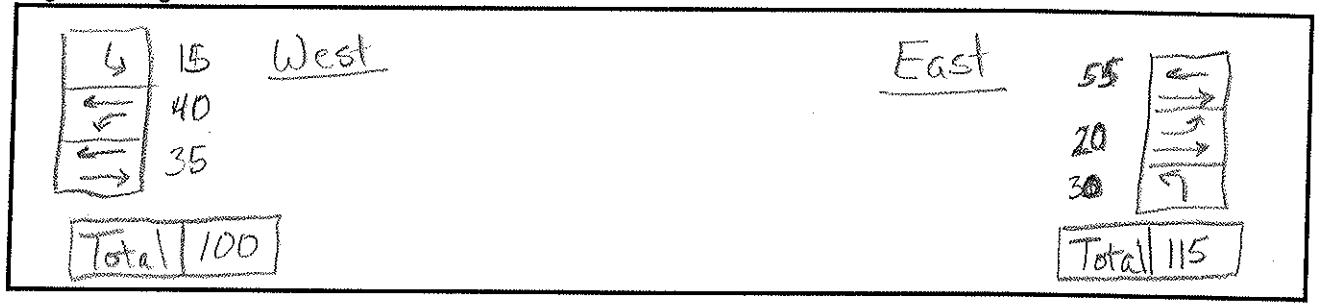
Date: 03-11-10 **Count Time:** 7:00AM - 9AM

Major Street: **Direction:** **Speed Limit:**

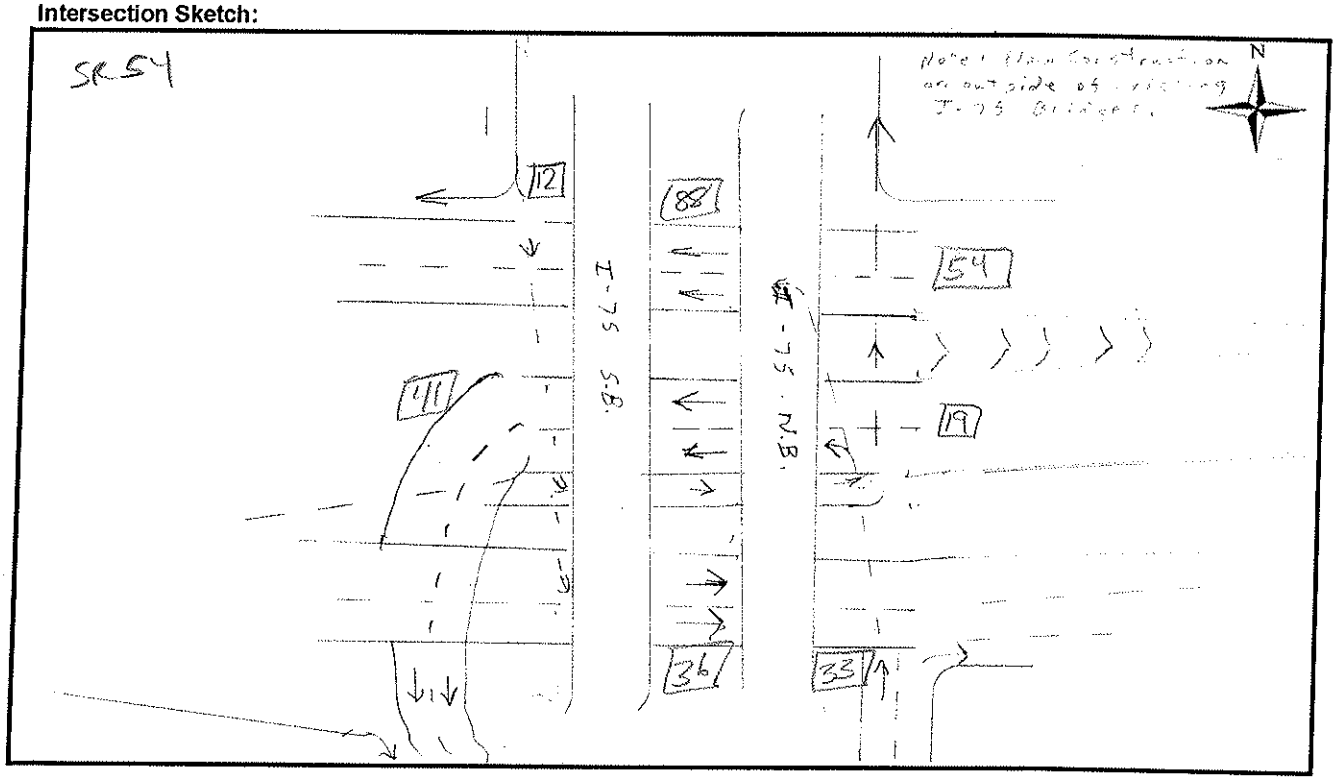
Minor Street: **Direction:** **Speed Limit:**

City/County: Pasco County **Weather:** Rain

Signal Timings:



Intersection Sketch:



Queue Notes/Observations:

No cycle where queue did not clear light.

7-8 incidents of vehicles changing from; West bound - south ramp to I-75 S.B.; To West bound through lanes after the piers.

3-4 incidents of vehicles changing from West bound through to west bound - south ramp to I-75 S.B. after the piers

URS Corporation
7650 W. Courtney Campbell Cswy
Tampa, Fl 33607-1462

Overpass Road
East of Old Pasco Road

Station ID: 0007
Site Code: ADR 25
Latitude: 28' 16.405 North
Longitude: 82' 19.993 West

Start Time	16-Mar-10 Tue	Eastbound		Hour Totals		Westbound		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		1	27			2	22				
12:15		3	28			5	33				
12:30		2	25			5	20				
12:45		7	30	13	110	0	26	12	101	25	211
01:00		1	16			0	19				
01:15		2	26			2	22				
01:30		0	35			1	8				
01:45		0	33	3	110	2	15	5	64	8	174
02:00		0	34			3	65				
02:15		1	34			0	35				
02:30		1	42			3	28				
02:45		1	44	3	154	2	37	8	165	11	319
03:00		0	44			1	52				
03:15		2	46			1	28				
03:30		1	48			1	50				
03:45		0	61	3	199	1	24	4	154	7	353
04:00		0	65			2	54				
04:15		0	63			2	42				
04:30		1	74			0	53				
04:45		3	100	4	302	4	32	8	181	12	483
05:00		0	99			5	35				
05:15		1	99			3	29				
05:30		4	94			8	52				
05:45		7	119	12	411	10	35	26	151	38	562
06:00		4	121			14	36				
06:15		9	93			16	47				
06:30		27	82			25	37				
06:45		48	61	88	357	31	29	86	149	174	506
07:00		74	66			39	24				
07:15		75	44			40	23				
07:30		25	43			62	37				
07:45		24	35	198	188	41	33	182	117	380	305
08:00		54	33			39	48				
08:15		52	23			51	37				
08:30		21	18			49	35				
08:45		17	30	144	104	33	28	172	148	316	252
09:00		38	11			41	24				
09:15		28	19			39	17				
09:30		31	12			34	7				
09:45		28	13	125	55	23	1	137	49	262	104
10:00		22	12			14	14				
10:15		20	9			27	13				
10:30		18	6			17	2				
10:45		15	7	75	34	13	7	71	36	146	70
11:00		21	6			24	2				
11:15		16	8			14	7				
11:30		25	10			23	6				
11:45		17	5	79	29	15	4	76	19	155	48
Total		747	2053			787	1334			1534	3387
Percent		26.7%	73.3%			37.1%	62.9%			31.2%	68.8%

EB 2800 WB 2121

Overpass Road
East of Old Pasco Road

URS Corporation
7650 W. Courtney Campbell Cswy
Tampa, Fl 33607-1462

Station ID: 0007
Site Code: ADR 25
Latitude: 28' 16.405 North
Longitude: 82' 19.993 West

Start Time	17-Mar-10 Wed	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		6	24			3	15				
12:15		3	28			2	18				
12:30		3	25			1	23				
12:45		1	26	13	103	3	24	9	80	22	183
01:00		1	22			0	19				
01:15		3	21			4	18				
01:30		3	37			1	19				
01:45		2	26	9	106	2	15	7	71	16	177
02:00		1	25			0	73				
02:15		1	36			1	46				
02:30		2	56			1	45				
02:45		1	35	5	152	0	32	2	196	7	348
03:00		0	44			0	48				
03:15		3	50			1	48				
03:30		1	53			0	42				
03:45		1	61	5	208	2	34	3	172	8	380
04:00		1	56			2	60				
04:15		0	64			1	40				
04:30		0	74			2	44				
04:45		1	60	2	254	3	42	8	186	10	440
05:00		2	87			5	37				
05:15		2	107			5	42				
05:30		2	95			9	76				
05:45		3	123	9	412	6	33	25	188	34	600
06:00		9	130			15	41				
06:15		9	105			17	41				
06:30		23	83			39	47				
06:45		40	64	81	382	49	51	120	180	201	562
07:00		78	58			45	29				
07:15		82	46			65	35				
07:30		20	42			85	33				
07:45		14	29	194	175	55	22	250	119	444	294
08:00		56	30			46	22				
08:15		49	32			61	42				
08:30		22	28			46	41				
08:45		15	37	142	127	27	24	180	129	322	256
09:00		22	33			38	8				
09:15		34	19			40	15				
09:30		31	20			26	13				
09:45		32	19	119	91	26	7	130	43	249	134
10:00		15	17			29	7				
10:15		17	12			24	7				
10:30		18	9			19	8				
10:45		22	4	72	42	19	5	91	27	163	69
11:00		18	3			17	8				
11:15		12	11			26	2				
11:30		12	5			17	5				
11:45		18	2	60	21	12	4	72	19	132	40
Total		711	2073			897	1410			1608	3483
Percent		25.5%	74.5%			38.9%	61.1%			31.6%	68.4%

EB 2784

WB 2307

URS Corporation
7650 W. Courtney Campbell Cswy
Tampa, Fl 33607-1462

Overpass Road
East of Old Pasco Road

Station ID: 0007
Site Code: ADR 25
Latitude: 28' 16.405 North
Longitude: 82' 19.993 West

Start Time	18-Mar-10 Thu	Eastbound		Hour Totals		Westbound		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		4	38			6	26				
12:15		4	31			2	15				
12:30		3	23			2	26				
12:45		4	26	15	118	2	20	12	87	27	205
01:00		3	23			1	22				
01:15		2	24			1	19				
01:30		0	27			1	24				
01:45		0	27	5	101	0	20	3	85	8	186
02:00		1	22			1	70				
02:15		1	52			1	42				
02:30		1	40			3	25				
02:45		0	37	3	151	0	35	5	172	8	323
03:00		1	28			0	41				
03:15		1	45			1	30				
03:30		2	47			0	41				
03:45		1	50	5	170	1	35	2	147	7	317
04:00		0	69			1	53				
04:15		1	67			1	47				
04:30		0	74			0	46				
04:45		1	88	2	298	1	56	3	202	5	500
05:00		1	93			2	54				
05:15		3	80			6	38				
05:30		3	84			10	56				
05:45		6	119	13	376	10	56	28	204	41	580
06:00		3	107			12	34				
06:15		7	85			14	33				
06:30		30	58			31	28				
06:45		41	71	81	321	30	26	87	121	168	442
07:00		67	44			25	26				
07:15		84	51			47	26				
07:30		26	34			50	43				
07:45		26	42	203	171	47	36	169	131	372	302
08:00		39	28			42	28				
08:15		40	24			52	33				
08:30		28	24			41	34				
08:45		19	17	126	93	37	19	172	114	298	207
09:00		19	21			35	31				
09:15		22	26			34	21				
09:30		25	29			37	16				
09:45		30	19	96	95	32	10	138	78	234	173
10:00		21	16			28	5				
10:15		11	19			16	3				
10:30		11	6			19	5				
10:45		23	11	66	52	20	6	83	19	149	71
11:00		25	9			18	7				
11:15		16	6			20	3				
11:30		23	4			18	6				
11:45		12	7	76	26	15	0	71	16	147	42
Total		691	1972			773	1376			1464	3348
Percent		25.9%	74.1%			36.0%	64.0%			30.4%	69.6%
Grand Total		2149	6098			2457	4120			4606	10218
Percent		26.1%	73.9%			37.4%	62.6%			31.1%	68.9%

ADT ADT 4,947 AADT 4,947

EB 2663 WB 2149

URS Corporation
7650 W. Courtney Campbell Cswy
Tampa, Fl 33607-1462

Overpass Road
East of Boyette Rd

Station ID: 0001
Site Code: ADR 3
Latitude: 28' 16.400 North
Longitude: 82' 19.173 West

Start Time	16-Mar-10 Tue	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		5	27			1	24				
12:15		2	31			0	32				
12:30		4	23			4	27				
12:45		5	23	16	104	0	24	5	107	21	211
01:00		1	12			0	19				
01:15		3	19			3	23				
01:30		0	14			0	14				
01:45		1	27	5	72	0	23	3	79	8	151
02:00		1	21			0	30				
02:15		1	29			0	26				
02:30		1	26			0	20				
02:45		2	30	5	106	0	25	0	101	5	207
03:00		4	28			1	25				
03:15		0	32			3	30				
03:30		0	25			2	34				
03:45		1	50	5	135	3	22	9	111	14	246
04:00		0	42			2	26				
04:15		1	43			2	20				
04:30		1	30			5	29				
04:45		3	57	5	172	9	19	18	94	23	266
05:00		1	46			5	41				
05:15		0	35			5	30				
05:30		0	63			12	29				
05:45		4	38	5	182	20	37	42	137	47	319
06:00		6	45			35	26				
06:15		10	51			44	29				
06:30		7	55			39	40				
06:45		8	41	31	192	48	16	166	111	197	303
07:00		18	41			52	18				
07:15		8	42			64	15				
07:30		12	37			46	17				
07:45		9	34	47	154	45	21	207	71	254	225
08:00		19	43			62	11				
08:15		25	35			40	12				
08:30		26	28			28	11				
08:45		10	32	80	138	39	15	169	49	249	187
09:00		24	19			58	10				
09:15		25	26			46	3				
09:30		28	28			44	4				
09:45		35	22	112	95	22	8	170	25	282	120
10:00		25	13			17	2				
10:15		12	17			35	3				
10:30		20	13			29	5				
10:45		16	14	73	57	18	2	99	12	172	69
11:00		10	14			21	1				
11:15		17	9			21	5				
11:30		18	14			17	3				
11:45		18	6	63	43	23	2	82	11	145	54
Total		447	1450			970	908			1417	2358
Percent		23.6%	76.4%			51.7%	48.3%			37.5%	62.5%

EB 1897

WB 1878

URS Corporation
7650 W. Courtney Campbell Cswy
Tampa, Fl 33607-1462

Overpass Road
East of Boyette Rd

Station ID: 0001
Site Code: ADR 3
Latitude: 28' 16.400 North
Longitude: 82' 19.173 West

Start	17-Mar-10	Eastbound		Hour Totals		Westbound		Hour Totals		Combined Totals	
Time	Wed	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		3	26			1	26				
12:15		2	25			1	32				
12:30		1	19			1	21				
12:45		7	22	13	92	3	23	6	102	19	194
01:00		3	21			0	23				
01:15		1	14			1	22				
01:30		0	25			0	22				
01:45		2	20	6	80	1	21	2	88	8	168
02:00		1	24			1	25				
02:15		1	22			1	27				
02:30		3	27			3	28				
02:45		3	24	8	97	0	13	5	93	13	190
03:00		0	26			0	31				
03:15		0	34			2	34				
03:30		2	35			0	32				
03:45		1	48	3	143	4	24	6	121	9	264
04:00		3	45			6	31				
04:15		1	46			5	25				
04:30		1	33			3	34				
04:45		2	60	7	184	4	24	18	114	25	298
05:00		0	49			10	46				
05:15		2	38			9	35				
05:30		3	66			13	34				
05:45		1	41	6	194	16	42	48	157	54	351
06:00		6	61			38	30				
06:15		11	47			31	38				
06:30		12	62			40	22				
06:45		10	51	39	221	49	30	158	120	197	341
07:00		21	43			57	22				
07:15		11	31			69	20				
07:30		15	27			51	16				
07:45		12	40	59	141	50	15	227	73	286	214
08:00		22	31			67	7				
08:15		28	33			45	12				
08:30		29	39			33	20				
08:45		13	37	92	140	44	17	189	56	281	196
09:00		26	38			49	12				
09:15		14	21			58	11				
09:30		35	29			35	10				
09:45		24	20	99	108	29	11	171	44	270	152
10:00		17	23			31	9				
10:15		16	21			22	4				
10:30		18	15			20	9				
10:45		15	6	66	65	19	3	92	25	158	90
11:00		13	12			19	5				
11:15		15	9			23	4				
11:30		21	8			25	1				
11:45		16	4	65	33	20	3	87	13	152	46
Total		463	1498			1009	1006			1472	2504
Percent		23.6%	76.4%			50.1%	49.9%			37.0%	63.0%

EB 1961

WB 2015

Overpass Road
East of Boyette Rd

URS Corporation
7650 W. Courtney Campbell Cswy
Tampa, Fl 33607-1462

Station ID: 0001
Site Code: ADR 3
Latitude: 28' 16.400 North
Longitude: 82' 19.173 West

Start Time	18-Mar-10 Thu	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		5	29			2	30				
12:15		3	28			2	19				
12:30		4	30			1	25				
12:45		2	18	14	105	2	21	7	95	21	200
01:00		5	24			1	21				
01:15		3	21			0	20				
01:30		2	30			0	26				
01:45		1	23	11	98	0	20	1	87	12	185
02:00		6	34			0	24				
02:15		3	31			1	26				
02:30		1	30			0	23				
02:45		1	25	11	120	1	26	2	99	13	219
03:00		0	29			0	14				
03:15		3	35			2	40				
03:30		2	36			1	29				
03:45		0	40	5	140	5	33	8	116	13	256
04:00		0	44			2	29				
04:15		1	45			4	23				
04:30		0	32			3	32				
04:45		1	59	2	180	6	22	15	106	17	286
05:00		0	48			5	44				
05:15		2	37			6	33				
05:30		1	65			10	32				
05:45		1	40	4	190	21	40	42	149	46	339
06:00		5	34			36	30				
06:15		7	42			33	23				
06:30		10	38			42	23				
06:45		8	43	30	157	51	18	162	94	192	251
07:00		20	30			55	22				
07:15		10	39			67	17				
07:30		14	29			49	18				
07:45		11	33	55	131	48	16	219	73	274	204
08:00		21	41			65	8				
08:15		27	29			43	9				
08:30		28	28			31	14				
08:45		12	23	88	121	42	6	181	37	269	158
09:00		28	28			36	7				
09:15		21	32			66	9				
09:30		35	28			40	12				
09:45		21	19	105	107	22	6	164	34	269	141
10:00		18	25			33	1				
10:15		20	15			21	5				
10:30		15	9			22	2				
10:45		16	11	69	60	22	6	98	14	167	74
11:00		9	9			23	6				
11:15		12	4			22	9				
11:30		20	10			35	5				
11:45		13	8	54	31	26	0	106	20	160	51
Total		448	1440			1005	924			1453	2364
Percent		23.7%	76.3%			52.1%	47.9%			38.1%	61.9%
Grand Total		1358	4388			2984	2838			4342	7226
Percent		23.6%	76.4%			51.3%	48.7%			37.5%	62.5%

ADT ADT 3,856 AADT 3,856

EB 1888 WB 1929

URS Corporation
7650 W. Courtney Campbell Cswy
Tampa, Fl 33607-1462

Overpass Road
West of Boyette rd

Station ID: 0010
Site Code: ADR 11
Latitude: 28' 16.404 North
Longitude: 82' 19.278 West

Start Time	16-Mar-10 Tue	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		1	26			1	11				
12:15		2	25			1	17				
12:30		2	28			3	10				
12:45		5	23	10	102	1	15	6	53	16	155
01:00		3	15			0	12				
01:15		1	25			2	10				
01:30		0	30			1	4				
01:45		0	31	4	101	1	9	4	35	8	136
02:00		0	32			1	33				
02:15		0	35			0	17				
02:30		0	42			0	15				
02:45		2	40	2	149	1	20	2	85	4	234
03:00		0	44			1	25				
03:15		2	43			1	14				
03:30		1	43			1	20				
03:45		1	54	4	184	1	16	4	75	8	259
04:00		1	60			1	29				
04:15		0	52			1	22				
04:30		0	75			1	28				
04:45		1	96	2	283	2	16	5	95	7	378
05:00		0	88			1	20				
05:15		1	75			1	18				
05:30		6	72			2	28				
05:45		5	83	12	318	6	21	10	87	22	405
06:00		6	69			8	21				
06:15		5	69			7	24				
06:30		26	69			13	20				
06:45		41	49	78	256	15	12	43	77	121	333
07:00		72	45			17	12				
07:15		81	35			24	11				
07:30		28	33			27	19				
07:45		23	35	204	148	22	10	90	52	294	200
08:00		51	23			18	12				
08:15		57	20			26	11				
08:30		22	11			21	7				
08:45		22	26	152	80	15	15	80	45	232	125
09:00		36	3			21	7				
09:15		29	14			18	7				
09:30		30	13			16	5				
09:45		31	7	126	37	11	5	66	24	192	61
10:00		19	12			8	4				
10:15		23	4			15	4				
10:30		16	8			9	2				
10:45		12	1	70	25	8	4	40	14	110	39
11:00		21	4			10	1				
11:15		12	5			7	6				
11:30		22	5			10	2				
11:45		18	4	73	18	9	3	36	12	109	30
Total		737	1701			386	654			1123	2355
Percent		30.2%	69.8%			37.1%	62.9%			32.3%	67.7%

EB 2438 WB 1640

Overpass Road
West of Boyette rd

URS Corporation
7650 W. Courtney Campbell Cswy
Tampa, Fl 33607-1462

Station ID: 0010
Site Code: ADR 11
Latitude: 28' 16.404 North
Longitude: 82' 19.278 West

Start Time	17-Mar-10 Wed	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		0	20			3	9				
12:15		0	19			2	11				
12:30		2	19			1	14				
12:45		0	21	2	79	3	12	9	46	11	125
01:00		0	10			1	10				
01:15		2	21			2	10				
01:30		0	34			2	7				
01:45		0	28	2	93	2	9	7	36	9	129
02:00		1	23			0	41				
02:15		0	25			1	21				
02:30		1	50			2	20				
02:45		1	38	3	136	0	16	3	98	6	234
03:00		0	31			0	29				
03:15		1	40			1	21				
03:30		0	49			1	20				
03:45		0	56	1	176	2	17	4	87	5	263
04:00		1	55			2	31				
04:15		0	62			1	22				
04:30		0	61			1	23				
04:45		0	55	1	233	1	19	5	95	6	328
05:00		1	69			2	22				
05:15		2	86			2	26				
05:30		1	73			4	36				
05:45		2	84	6	312	5	24	13	108	19	420
06:00		7	81			8	22				
06:15		10	73			9	20				
06:30		20	53			21	24				
06:45		39	54	76	261	21	22	59	88	135	349
07:00		65	29			26	17				
07:15		83	32			33	16				
07:30		19	17			42	13				
07:45		9	20	176	98	25	16	126	62	302	160
08:00		48	13			24	15				
08:15		57	14			28	18				
08:30		24	19			24	8				
08:45		16	18	145	64	12	18	88	59	233	123
09:00		24	14			18	12				
09:15		29	11			20	13				
09:30		35	16			13	9				
09:45		23	7	111	48	16	10	67	44	178	92
10:00		15	7			13	10				
10:15		16	5			11	7				
10:30		16	6			11	7				
10:45		13	1	60	19	12	4	47	28	107	47
11:00		16	0			10	4				
11:15		7	2			14	5				
11:30		9	1			9	3				
11:45		17	1	49	4	7	4	40	16	89	20
Total		632	1523			468	767			1100	2290
Percent		29.3%	70.7%			37.9%	62.1%			32.4%	67.6%

EB 2155 WB 1235

Overpass Road
West of Boyette rd

URS Corporation
7650 W. Courtney Campbell Cswy
Tampa, Fl 33607-1462

Station ID: 0010
Site Code: ADR 11
Latitude: 28' 16.404 North
Longitude: 82' 19.278 West

Start Time	18-Mar-10 Thu	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		0	16			3	10				
12:15		1	1			2	11				
12:30		0	11			2	11				
12:45		1	3	2	31	1	9	8	41	10	72
01:00		0	9			1	11				
01:15		0	13			1	9				
01:30		0	11			1	10				
01:45		0	11	0	44	1	10	4	40	4	84
02:00		0	10			1	21				
02:15		0	34			1	14				
02:30		0	18			1	12				
02:45		0	19	0	81	1	12	4	59	4	140
03:00		0	20			1	15				
03:15		0	24			1	11				
03:30		0	18			1	15				
03:45		0	21	0	83	1	15	4	56	4	139
04:00		0	68			1	56				
04:15		0	63			1	46				
04:30		0	73			0	47				
04:45		0	86	0	290	1	64	3	213	3	503
05:00		0	92			1	58				
05:15		3	65			2	37				
05:30		0	75			3	56				
05:45		0	87	3	319	4	59	10	210	13	529
06:00		0	21			4	24				
06:15		1	17			6	20				
06:30		8	3			10	18				
06:45		21	3	30	44	12	19	32	81	62	125
07:00		67	1			27	12				
07:15		81	2			51	14				
07:30		26	1			44	16				
07:45		25	1	199	5	50	13	172	55	371	60
08:00		41	1			47	11				
08:15		42	2			47	9				
08:30		28	0			36	7				
08:45		17	1	128	4	21	6	151	33	279	37
09:00		14	0			11	8				
09:15		7	1			14	11				
09:30		14	1			12	10				
09:45		27	1	62	3	10	6	47	35	109	38
10:00		12	0			10	7				
10:15		5	0			6	5				
10:30		2	1			7	4				
10:45		10	0	29	1	7	4	30	20	59	21
11:00		8	0			9	4				
11:15		8	0			8	3				
11:30		2	0			9	2				
11:45		2	0	20	0	7	3	33	12	53	12
Total		473	905			498	855			971	1760
Percent		34.3%	65.7%			36.8%	63.2%			35.6%	64.4%
Grand Total		1842	4129			1352	2276			3194	6405
Percent		30.8%	69.2%			37.3%	62.7%			33.3%	66.7%

ADT ADT 4,460 AADT 4,460

EB 1378 WB 1353

Intersection Field Data Sheet

Date:

Count Time:

Major Street: OVERPASS RD

Direction: E/W

Speed Limit: 30 MPH

Minor Street: BOYETTE RD

Direction: N/S

Speed Limit: 35 MPH

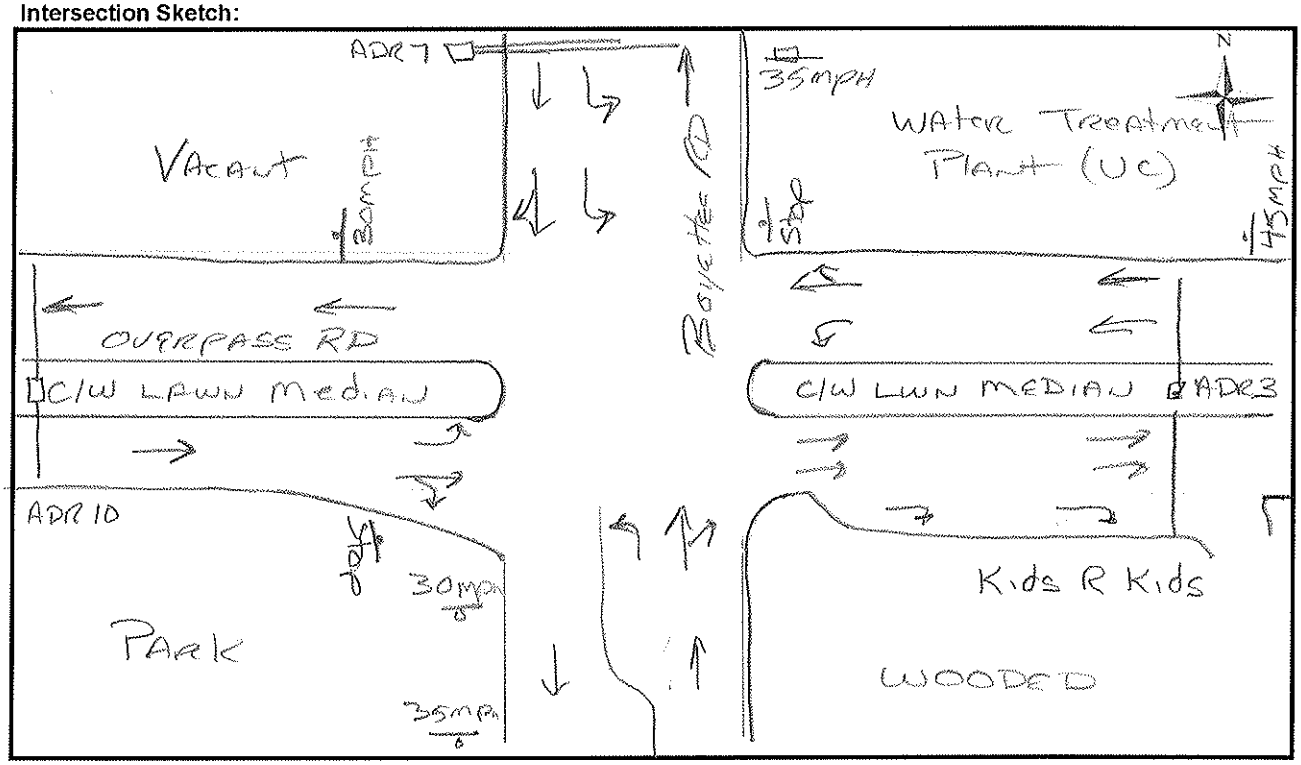
City/County: PASCO

Weather:

Signal Timings:

NA

Intersection Sketch:



Queue Notes/Observations:

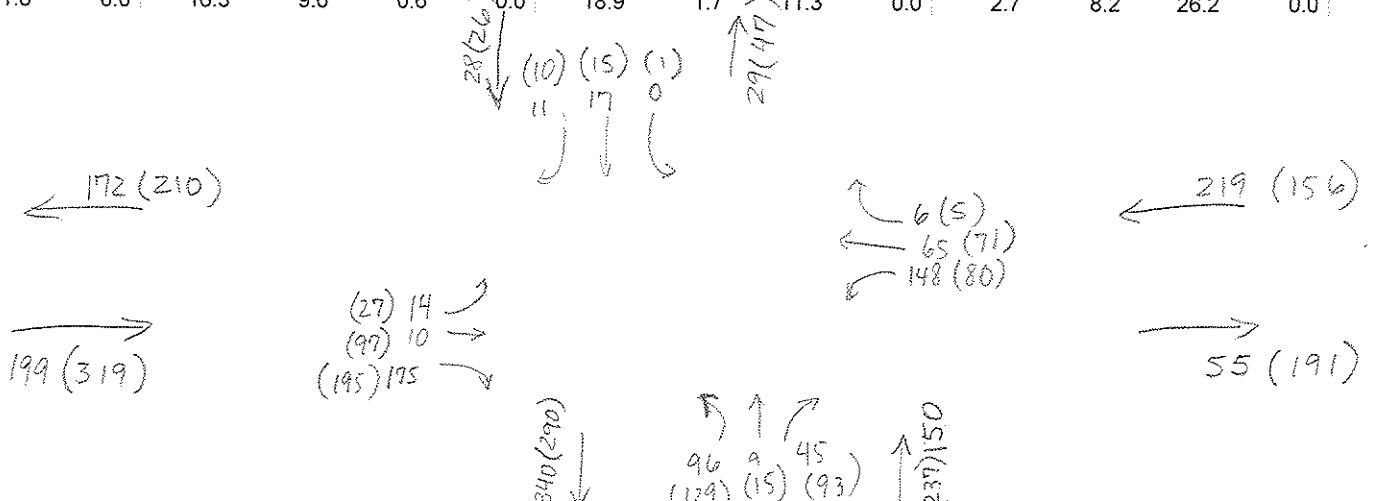
URS Corporation
7650 W. Courtney Campbell Cswy
Tampa, Fl 33607 813-286-1711

Counter:
Counted By:
Weather:
Other:

File Name : Boyette_Overpass
Site Code : 00002435
Start Date : 3/18/2010
Page No : 1

Groups Printed- Unshifted

	Boyette Rd South Bound				Overpass Rd West Bound				Boyette Rd North Bound				Overpass Rd East Bound				
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
07:00 AM	0	8	1	0	43	12	0	0	14	3	13	0	3	7	57	0	161
07:15 AM	0	4	2	0	48	19	0	0	30	4	10	0	4	0	77	0	198
07:30 AM	0	2	2	0	31	14	4	0	28	2	12	0	6	2	18	0	121
07:45 AM	0	3	6	0	26	20	2	0	24	0	10	0	1	1	23	0	116
Total	0	17	11	0	148	65	6	0	96	9	45	0	14	10	175	0	596
08:00 AM	2	6	4	0	43	21	1	0	22	1	10	0	3	6	32	0	151
08:15 AM	0	3	2	0	30	13	0	0	32	3	16	0	1	8	33	0	141
08:30 AM	1	1	1	0	20	9	2	0	26	0	17	1	2	6	20	0	106
08:45 AM	0	0	3	0	26	16	0	0	22	0	10	0	2	3	12	0	94
Total	3	10	10	0	119	59	3	0	102	4	53	1	8	23	97	0	492
04:00 PM	1	3	3	0	22	12	0	0	41	5	29	0	6	12	50	0	184
04:15 PM	1	4	3	0	12	13	1	0	30	2	28	0	5	18	40	0	157
04:30 PM	0	7	6	0	20	12	0	0	28	2	15	0	3	17	53	0	163
04:45 PM	2	1	2	0	11	10	1	0	52	5	23	0	5	29	52	0	193
Total	4	15	14	0	65	47	2	0	151	14	95	0	19	76	195	0	697
05:00 PM	0	1	2	0	21	28	2	0	28	3	19	0	8	30	54	0	196
05:15 PM	0	1	1	0	25	8	0	0	28	4	21	0	7	16	42	0	153
05:30 PM	1	8	3	0	15	15	2	0	38	5	36	0	6	28	41	0	198
05:45 PM	0	5	4	0	19	20	1	0	35	3	17	0	6	23	58	0	191
Total	1	15	10	0	80	71	5	0	129	15	93	0	27	97	195	0	738
Grand Total	8	57	45	0	412	242	16	0	478	42	286	1	68	206	662	0	2523
Apprch %	7.3	51.8	40.9	0.0	61.5	36.1	2.4	0.0	59.2	5.2	35.4	0.1	7.3	22.0	70.7	0.0	
Total %	0.3	2.3	1.8	0.0	16.3	9.6	0.6	0.0	18.9	1.7	11.3	0.0	2.7	8.2	26.2	0.0	



URS

Intersection Field Data Sheet

Date: 3/18/10

Count Time:

Major Street: Overpass Rd

Direction: E/W

Speed Limit: 30 mph

Minor Street: Old Pasco Rd

Direction: N/S

Speed Limit: 45/35

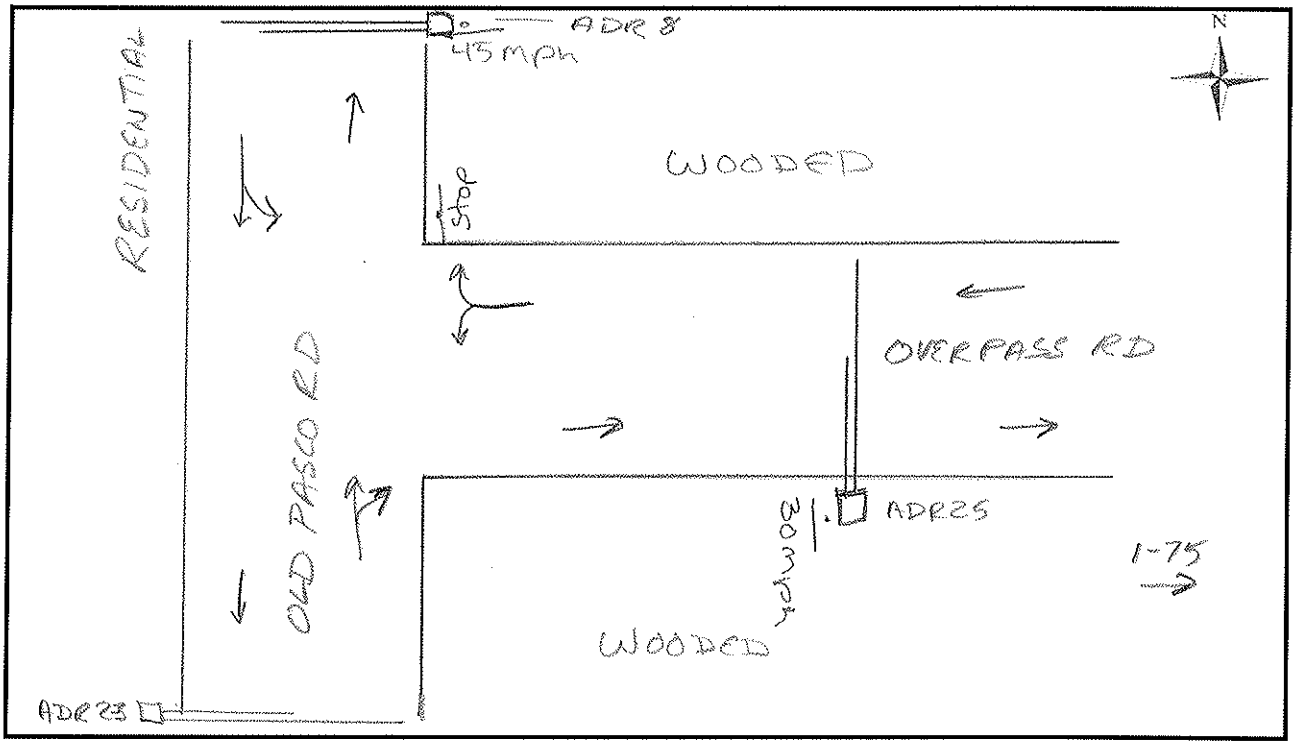
City/County: Pasco

Weather:

Signal Timings:

NA

Intersection Sketch:



Queue Notes/Observations:

URS Corporation
7650 W. Courtney Campbell Cswy
Tampa, Fl 33607 813-286-1711

Counter:
Counted By:
Weather:
Other:

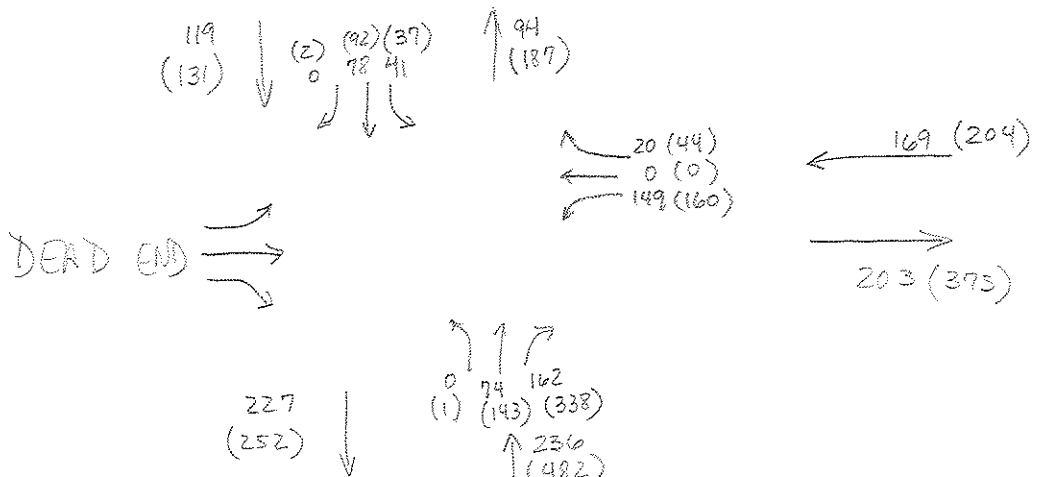
File Name : Old Pasco Rd - Overpass Rd
Site Code : 00002406
Start Date : 3/18/2010
Page No : 1

Groups Printed- Unshifted

	Old Pasco Rd South Bound				Overpass Rd West Bound				Old Pasco Rd North Bound				Dead End East Bound				
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
07:00 AM	13	12	0	0	20	0	5	0	0	23	54	0	0	0	0	0	127
07:15 AM	11	22	0	0	43	0	4	0	0	12	73	0	0	0	0	0	165
07:30 AM	8	24	0	0	47	0	3	0	0	14	18	0	0	0	0	0	114
07:45 AM	9	20	0	0	39	0	8	0	0	25	17	0	0	0	0	0	118
Total	41	78	0	0	149	0	20	0	0	74	162	0	0	0	0	0	524
08:00 AM	11	14	0	0	28	0	14	0	0	19	29	0	0	0	0	0	115
08:15 AM	9	23	0	0	48	0	4	0	0	14	29	0	0	0	0	0	127
08:30 AM	8	19	0	0	34	0	6	0	0	11	19	0	0	0	0	0	97
08:45 AM	4	24	0	0	33	0	4	0	0	5	13	0	0	0	0	0	83
Total	32	80	0	0	143	0	28	0	0	49	90	0	0	0	0	0	422
04:00 PM	4	21	0	0	40	0	13	0	1	29	64	0	0	0	0	0	172
04:15 PM	5	18	0	0	42	0	5	0	0	23	62	0	0	0	0	0	155
04:30 PM	5	22	1	0	41	0	5	0	0	29	69	0	0	0	0	0	172
04:45 PM	9	29	1	0	51	0	5	0	0	25	79	0	0	0	0	0	199
Total	23	90	2	0	174	0	28	0	1	106	274	0	0	0	0	0	698
05:00 PM	8	19	1	0	43	0	11	0	0	40	85	0	0	0	0	0	207
05:15 PM	6	30	0	0	29	0	9	0	1	34	74	0	0	0	0	0	183
05:30 PM	10	23	0	0	40	0	16	0	0	34	73	0	0	0	0	0	196
05:45 PM	13	20	1	0	48	0	8	0	0	35	106	0	0	0	0	0	231
Total	37	92	2	0	160	0	44	0	1	143	338	0	0	0	0	0	817
Grand Total	133	340	4	0	626	0	120	0	2	372	864	0	0	0	0	0	2461
Apprch %	27.9	71.3	0.8	0.0	83.9	0.0	16.1	0.0	0.2	30.0	69.8	0.0	0.0	0.0	0.0	0.0	
Total %	5.4	13.8	0.2	0.0	25.4	0.0	4.9	0.0	0.1	15.1	35.1	0.0	0.0	0.0	0.0	0.0	

PHF = 0.79

PHF = 0.88



Synopsis Report: 140156CL-20091026.syn
Page: 1

County: 14
Station: 0156
Description: SR 93/I-75, SOUTH OF SR 56
Start Date: 10/26/2009
Start Time: 1000

	Direction: N					Direction: S					Combined
Time	1st	2nd	3rd	4th	Total	1st	2nd	3rd	4th	Total	Total
0000	136	175	135	115	561	109	94	79	85	367	928
0100	61	90	84	70	305	75	66	65	42	248	553
0200	76	80	69	50	275	26	39	54	68	187	462
0300	59	61	87	79	286	70	87	85	104	346	632
0400	100	83	90	110	383	149	191	202	267	809	1192
0500	97	143	195	240	675	325	507	656	834	2322	2997
0600	302	380	429	461	1572	1075	1368	1542	1689	5674	7246
0700	458	549	522	549	2078	1705	1772	1572	1347	6396	8474
0800	579	601	582	526	2288	1428	1362	1334	1122	5246	7534
0900	541	565	560	525	2191	1078	1030	922	877	3907	6098
1000	582	637	575	613	2407	858	837	819	705	3219	5626
1100	651	616	617	664	2548	799	796	725	758	3078	5626
1200	627	653	685	691	2656	752	736	757	728	2973	5629
1300	651	662	681	699	2693	690	769	733	717	2909	5602
1400	678	854	746	718	2996	762	813	796	774	3145	6141
1500	804	973	1229	1313	4319	733	810	781	791	3115	7434
1600	1202	1382	1414	1517	5515	731	770	799	763	3063	8578
1700	1253	1120	1435	1492	5300	841	790	759	729	3119	8419
1800	1573	1482	1101	882	5038	686	699	559	505	2449	7487
1900	804	800	705	608	2917	503	478	400	351	1732	4649
2000	604	556	524	454	2138	376	368	361	302	1407	3545
2100	464	468	487	382	1801	314	293	248	238	1093	2894
2200	326	330	286	245	1187	222	192	196	162	772	1959
2300	204	243	196	162	805	147	165	124	109	545	1350
24-Hour Totals:					52934					58121	111055

Peak Volume Information

	Direction: N		Direction: S		Combined Directions	
	Hour	Volume	Hour	Volume	Hour	Volume
A.M.	0745	2311	0645	6738	0645	8728
P.M.	1730	5982	1630	3193	1730	8855
Daily	1730	5982	0645	6738	1730	8855

Truck Percentage 12.43 10.41 11.37

Classification Summary Database

Dir	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	TotTrk	TotVol
N	205	36366	9779	237	1413	386	34	899	3407	53	104	44	5	0	2	6582	52934
S	66	42168	9837	254	1353	217	113	1175	2734	62	101	38	3	0	0	6050	58121

Generated by SPS 5.0.16

County: 14
Station: 0156
Description: SR 93/I-75, SOUTH OF SR 56
Start Date: 10/27/2009
Start Time: 1000

	Direction: N					Direction: S					Combined
Time	1st	2nd	3rd	4th	Total	1st	2nd	3rd	4th	Total	Total
0000	159	155	105	121	540	86	78	72	82	318	858
0100	77	80	85	76	318	71	63	59	66	259	577
0200	57	76	65	64	262	66	54	72	61	253	515
0300	64	73	60	83	280	78	89	111	103	381	661
0400	99	85	120	109	413	118	139	206	265	728	1141
0500	99	156	198	230	683	347	492	609	809	2257	2940
0600	284	394	446	425	1549	1111	1371	1554	1689	5725	7274
0700	485	509	566	602	2162	1468	1322	1300	1320	5410	7572
0800	574	593	563	597	2327	1402	1351	1319	1116	5188	7515
0900	574	582	549	590	2295	1041	952	954	893	3840	6135
1000	511	596	528	556	2191	736	828	739	744	3047	5238
1100	571	622	614	535	2342	714	689	718	650	2771	5113
1200	609	658	606	721	2594	634	641	643	590	2508	5102
1300	631	677	731	730	2769	667	798	869	772	3106	5875
1400	789	768	774	893	3224	867	811	777	717	3172	6396
1500	895	1092	1175	1295	4457	668	755	759	632	2814	7271
1600	1287	1384	1449	1433	5553	656	610	676	642	2584	8137
1700	1480	1449	1537	1522	5988	701	765	745	755	2966	8954
1800	1398	1383	1109	782	4672	823	857	767	604	3051	7723
1900	757	781	752	666	2956	510	428	392	364	1694	4650
2000	619	583	562	563	2327	332	280	274	251	1137	3464
2100	490	488	405	419	1802	286	258	257	208	1009	2811
2200	368	363	296	295	1322	234	238	194	138	804	2126
2300	234	224	172	183	813	123	130	136	100	489	1302
24-Hour Totals:					53839					55511	109350

Peak Volume Information

	Direction: N		Direction: S		Combined Directions	
	Hour	Volume	Hour	Volume	Hour	Volume
A.M.	0730	2335	0615	6082	0630	7898
P.M.	1700	5988	1330	3319	1730	9020
Daily	1700	5988	0615	6082	1730	9020

Truck Percentage 12.06 11.32 11.69

Classification Summary Database

Dir	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	TotTrk	TotVol
N	215	37100	10027	294	1550	342	59	840	3200	71	89	42	7	0	3	6494	53839
S	73	39897	9254	262	1310	283	140	1058	3040	62	85	39	5	0	3	6284	55511

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County: 14
Station: 0087
Description: SR 93/I 75 SOUTH OF SR 54
Start Date: 08/25/2009
Start Time: 0400

	Direction: N					Direction: S					Combined
Time	1st	2nd	3rd	4th	Total	1st	2nd	3rd	4th	Total	Total
0000	123	114	113	111	461	127	112	90	93	422	883
0100	72	87	81	93	333	67	85	77	90	319	652
0200	74	76	70	93	313	75	93	90	91	349	662
0300	44	83	74	78	279	77	120	115	107	419	698
0400	109	95	123	132	459	105	153	182	263	703	1162
0500	107	156	190	210	663	285	347	452	619	1703	2366
0600	272	326	346	386	1330	720	883	881	893	3377	4707
0700	396	544	434	495	1869	927	823	1006	775	3531	5400
0800	473	493	567	517	2050	783	828	767	645	3023	5073
0900	513	606	534	524	2177	656	657	633	643	2589	4766
1000	534	554	531	558	2177	541	524	551	525	2141	4318
1100	563	522	595	537	2217	533	488	536	521	2078	4295
1200	494	592	612	602	2300	538	506	512	525	2081	4381
1300	609	570	600	590	2369	481	481	478	489	1929	4298
1400	577	673	697	655	2602	492	583	495	494	2064	4666
1500	605	678	740	801	2824	579	524	522	523	2148	4972
1600	732	699	688	689	2808	518	482	523	506	2029	4837
1700	766	663	751	757	2937	520	523	548	466	2057	4994
1800	791	780	660	621	2852	487	463	397	360	1707	4559
1900	559	527	499	421	2006	329	361	313	298	1301	3307
2000	398	385	378	328	1489	274	233	282	218	1007	2496
2100	320	327	292	283	1222	252	267	201	188	908	2130
2200	285	239	243	202	969	180	176	204	145	705	1674
2300	196	168	180	151	695	135	170	127	139	571	1266
24-Hour Totals:					39401					39161	78562

Peak Volume Information

	Direction: N		Direction: S		Combined Directions	
	Hour	Volume	Hour	Volume	Hour	Volume
A.M.	0830	2203	0645	3649	0645	5409
P.M.	1730	3079	1415	2151	1730	5043
Daily	1730	3079	0645	3649	0645	5409

County: 14
Station: 0087
Description: SR 93/I 75 SOUTH OF SR 54
Start Date: 08/26/2009
Start Time: 0400

	Direction: N					Direction: S					Combined
Time	1st	2nd	3rd	4th	Total	1st	2nd	3rd	4th	Total	Total
0000	133	118	109	116	476	103	106	98	114	421	897
0100	97	134	66	100	397	98	102	124	81	405	802
0200	104	72	78	70	324	82	118	95	81	376	700
0300	74	79	90	87	330	106	96	135	114	451	781
0400	80	110	103	131	424	100	188	187	249	724	1148
0500	114	169	186	237	706	298	356	538	517	1709	2415
0600	272	315	354	413	1354	729	830	879	900	3338	4692
0700	424	493	487	456	1860	894	942	922	834	3592	5452
0800	468	525	615	589	2197	838	780	816	669	3103	5300
0900	557	573	620	571	2321	674	689	549	583	2495	4816
1000	527	537	543	537	2144	557	571	520	516	2164	4308
1100	540	591	636	612	2379	520	575	519	532	2146	4525
1200	511	553	621	552	2237	538	539	540	487	2104	4341
1300	570	611	571	588	2340	523	514	505	488	2030	4370
1400	542	577	678	675	2472	488	502	587	445	2022	4494
1500	639	675	806	781	2901	529	533	547	555	2164	5065
1600	799	869	848	779	3295	472	537	580	516	2105	5400
1700	691	752	750	738	2931	532	511	572	546	2161	5092
1800	723	743	760	634	2860	484	484	419	421	1808	4668
1900	553	512	490	495	2050	372	324	318	228	1242	3292
2000	387	383	400	374	1544	227	278	265	229	999	2543
2100	344	374	357	311	1386	309	265	246	247	1067	2453
2200	292	253	241	232	1018	214	171	193	167	745	1763
2300	201	213	170	145	729	137	133	130	96	496	1225
24-Hour Totals:					40675					39867	80542

Peak Volume Information

	Direction: N		Direction: S		Combined Directions	
	Hour	Volume	Hour	Volume	Hour	Volume
A.M.	0845	2339	0645	3658	0645	5475
P.M.	1545	3297	1615	2165	1545	5441
Daily	1545	3297	0645	3658	0645	5475

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County: 14
Station: 0086
Description: SR 93/I-75, APPROX 1/2 MILE NORTH OF SR54
Start Date: 08/25/2009
Start Time: 0300

	Direction: N					Direction: S					Combined
Time	1st	2nd	3rd	4th	Total	1st	2nd	3rd	4th	Total	Total
0000	71	59	47	52	229	64	66	58	47	235	464
0100	39	35	36	48	158	42	56	44	44	186	344
0200	38	30	37	41	146	49	43	37	47	176	322
0300	30	41	52	36	159	43	51	50	55	199	358
0400	53	61	74	80	268	60	84	85	113	342	610
0500	67	97	121	142	427	149	184	211	325	869	1296
0600	164	227	226	236	853	338	417	463	427	1645	2498
0700	254	363	343	326	1286	454	406	430	387	1677	2963
0800	305	347	379	361	1392	445	414	380	374	1613	3005
0900	380	392	368	358	1498	360	395	363	368	1486	2984
1000	367	370	354	379	1470	314	332	320	312	1278	2748
1100	344	359	364	344	1411	317	332	336	358	1343	2754
1200	318	371	347	382	1418	337	328	323	342	1330	2748
1300	412	343	360	376	1491	311	306	337	319	1273	2764
1400	361	391	436	385	1573	360	353	346	350	1409	2982
1500	357	427	434	477	1695	418	367	381	350	1516	3211
1600	442	439	422	440	1743	355	366	379	370	1470	3213
1700	451	417	409	387	1664	365	405	378	322	1470	3134
1800	403	438	359	316	1516	328	316	258	249	1151	2667
1900	305	257	270	230	1062	230	242	222	189	883	1945
2000	177	182	190	167	716	191	157	138	159	645	1361
2100	189	152	146	138	625	182	156	115	120	573	1198
2200	158	115	126	94	493	112	131	109	91	443	936
2300	110	85	78	74	347	81	97	81	82	341	688
24-Hour Totals:					23640					23553	47193

Peak Volume Information

	Direction: N		Direction: S		Combined Directions	
	Hour	Volume	Hour	Volume	Hour	Volume
A.M.	0830	1512	0615	1761	0830	3021
P.M.	1530	1792	1630	1519	1630	3249
Daily	1530	1792	0615	1761	1630	3249

Truck Percentage 21.54 21.67 21.61

Classification Summary Database

Dir	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	TotTrk	TotVol
N	103	14478	3967	32	609	402	34	703	2965	174	95	42	36	0	0	5092	23640
S	93	13636	4719	36	655	214	270	761	2811	211	84	35	28	0	0	5105	23553

Generated by SPS 5.0.16

County: 14
Station: 0086
Description: SR 93/I-75, APPROX 1/2 MILE NORTH OF SR54
Start Date: 08/26/2009
Start Time: 0300

	Direction: N					Direction: S					Combined
Time	1st	2nd	3rd	4th	Total	1st	2nd	3rd	4th	Total	Total
0000	64	54	52	54	224	73	54	60	49	236	460
0100	51	47	42	48	188	46	54	50	44	194	382
0200	42	36	51	28	157	45	41	37	48	171	328
0300	20	42	42	41	145	46	52	60	49	207	352
0400	57	64	65	88	274	48	107	96	105	356	630
0500	74	114	124	151	463	138	190	257	290	875	1338
0600	191	228	238	271	928	376	387	424	421	1608	2536
0700	305	325	367	316	1313	414	441	451	423	1729	3042
0800	333	370	406	412	1521	447	392	400	372	1611	3132
0900	387	405	389	376	1557	394	328	346	351	1419	2976
1000	371	361	364	355	1451	341	365	323	355	1384	2835
1100	358	356	405	367	1486	321	342	362	317	1342	2828
1200	338	349	398	324	1409	340	371	312	326	1349	2758
1300	383	421	382	356	1542	349	336	312	296	1293	2835
1400	361	344	413	420	1538	342	342	380	288	1352	2890
1500	375	407	481	466	1729	388	365	368	372	1493	3222
1600	454	535	494	488	1971	369	368	425	333	1495	3466
1700	377	361	375	402	1515	373	382	409	371	1535	3050
1800	428	389	443	305	1565	320	317	264	284	1185	2750
1900	313	250	235	231	1029	280	238	217	183	918	1947
2000	224	195	201	182	802	196	162	172	144	674	1476
2100	162	179	183	155	679	172	141	150	140	603	1282
2200	139	106	104	114	463	129	114	102	99	444	907
2300	90	96	71	68	325	86	90	72	73	321	646
24-Hour Totals:					24274					23794	48068

Peak Volume Information

	Direction: N		Direction: S		Combined Directions	
	Hour	Volume	Hour	Volume	Hour	Volume
A.M.	0830	1610	0715	1762	0815	3133
P.M.	1600	1971	1700	1535	1545	3483
Daily	1600	1971	0715	1762	1545	3483

Truck Percentage 20.56 20.53 20.54

Classification Summary Database

Dir	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	TotTrk	TotVol
N	72	15257	3955	35	502	413	36	683	3014	133	94	45	35	0	0	4990	24274
S	62	14115	4732	29	620	210	253	689	2710	209	82	30	53	0	0	4885	23794

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County: 14
Station: 0093
Description: SR 93/I-75, NORTH OF SR 52
Start Date: 11/02/2009
Start Time: 2300

	Direction: N					Direction: S					Combined
Time	1st	2nd	3rd	4th	Total	1st	2nd	3rd	4th	Total	Total
0000	46	50	68	89	253	77	70	57	61	265	518
0100	43	43	38	35	159	48	56	45	52	201	360
0200	31	34	40	38	143	60	32	56	28	176	319
0300	43	30	43	50	166	41	32	51	68	192	358
0400	47	49	89	73	258	72	71	99	112	354	612
0500	90	100	121	148	459	115	166	151	212	644	1103
0600	147	177	195	197	716	234	278	252	290	1054	1770
0700	244	278	261	258	1041	265	278	282	268	1093	2134
0800	250	250	269	282	1051	299	301	278	313	1191	2242
0900	285	273	287	313	1158	294	319	278	286	1177	2335
1000	319	315	300	324	1258	317	297	305	322	1241	2499
1100	311	318	298	298	1225	325	320	322	321	1288	2513
1200	256	281	285	291	1113	312	305	324	305	1246	2359
1300	279	244	263	272	1058	322	300	330	309	1261	2319
1400	301	259	293	337	1190	329	357	356	328	1370	2560
1500	336	306	352	360	1354	349	338	323	357	1367	2721
1600	352	398	389	357	1496	335	342	347	335	1359	2855
1700	323	295	286	296	1200	329	329	296	275	1229	2429
1800	274	264	251	223	1012	295	284	239	199	1017	2029
1900	227	177	193	212	809	227	199	183	159	768	1577
2000	171	132	130	162	595	160	176	144	154	634	1229
2100	136	138	128	128	530	139	113	114	114	480	1010
2200	126	104	104	77	411	107	114	89	78	388	799
2300	89	70	79	73	311	86	73	72	76	307	618
24-Hour Totals:					18966					20302	39268

Peak Volume Information

	Direction: N		Direction: S		Combined Directions	
	Hour	Volume	Hour	Volume	Hour	Volume
A.M.	0915	1192	0830	1204	0915	2392
P.M.	1545	1499	1415	1390	1545	2880
Daily	1545	1499	1415	1390	1545	2880

Truck Percentage 26.44 22.37 24.34

Classification Summary Database

Dir	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	TotTrk	TotVol
N	82	10337	3533	32	584	303	9	646	3197	75	107	36	25	0	0	5014	18966
S	76	12084	3600	24	531	96	61	1090	2479	112	99	35	15	0	0	4542	20302

County: 14
Station: 0093
Description: SR 93/I-75, NORTH OF SR 52
Start Date: 11/03/2009
Start Time: 2300

	Direction: N					Direction: S					Combined
Time	1st	2nd	3rd	4th	Total	1st	2nd	3rd	4th	Total	Total
0000	105	63	46	47	261	46	53	47	45	191	452
0100	40	39	35	39	153	61	41	50	43	195	348
0200	36	35	24	50	145	38	41	43	46	168	313
0300	38	35	36	51	160	40	55	45	66	206	366
0400	54	53	70	78	255	60	73	89	92	314	569
0500	92	90	128	121	431	126	146	169	227	668	1099
0600	169	173	228	232	802	265	279	259	297	1100	1902
0700	245	245	292	286	1068	264	247	287	274	1072	2140
0800	280	296	312	323	1211	249	260	302	278	1089	2300
0900	290	305	329	337	1261	295	256	298	303	1152	2413
1000	314	321	370	317	1322	287	270	273	304	1134	2456
1100	337	329	315	328	1309	292	332	337	311	1272	2581
1200	384	317	341	307	1349	311	326	295	299	1231	2580
1300	320	324	308	313	1265	339	308	299	266	1212	2477
1400	303	325	341	362	1331	316	312	334	321	1283	2614
1500	355	347	384	372	1458	293	347	367	365	1372	2830
1600	374	368	412	406	1560	344	368	326	319	1357	2917
1700	322	363	312	331	1328	314	310	326	342	1292	2620
1800	297	316	312	304	1229	249	276	271	264	1060	2289
1900	275	238	236	198	947	226	228	192	187	833	1780
2000	206	162	144	134	646	186	184	160	122	652	1298
2100	145	114	41	59	359	124	132	115	101	472	831
2200	119	180	150	156	605	106	99	96	101	402	1007
2300	72	67	82	99	320	69	74	67	68	278	598
24-Hour Totals:					20775					20005	40780

Peak Volume Information

	Direction: N		Direction: S		Combined Directions	
	Hour	Volume	Hour	Volume	Hour	Volume
A.M.	0915	1285	0900	1152	0915	2429
P.M.	1600	1560	1530	1444	1530	2942
Daily	1600	1560	1530	1444	1530	2942

Truck Percentage 22.85 21.59 22.23

Classification Summary Database

Dir	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	TotTrk	TotVol
N	117	11753	4158	72	655	165	18	737	2861	73	102	38	26	0	0	4747	20775
S	71	12072	3542	25	491	92	74	1128	2262	91	99	32	26	0	0	4320	20005

URS Corporation
7650 W. Courtney Campbell Cswy
Tampa, Fl 33607-1462

I-75 Northbound
South of SR 54
North of SR 54

Station ID: 0020
Site Code: 20692
Latitude: 28' 12.262 North
Longitude: 82' 22.691 West

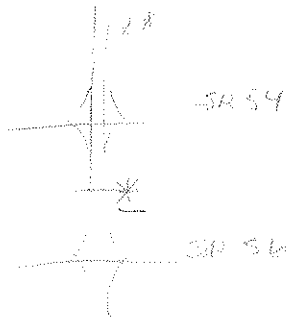
Start Time	09-Mar-10 Tue	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		124	665			123	607				
12:15		137	628			106	600				
12:30		96	612			80	580				
12:45		88	633	445	2538	115	563	424	2350	869	4888
01:00		94	646			116	577				
01:15		86	589			92	544				
01:30		100	654			106	555				
01:45		74	628	354	2517	100	519	414	2195	768	4712
02:00		81	630			73	618				
02:15		98	663			86	555				
02:30		62	597			74	534				
02:45		82	683	323	2573	79	539	312	2246	635	4819
03:00		75	689			80	616				
03:15		59	824			88	555				
03:30		81	749			92	549				
03:45		60	833	275	3095	87	594	347	2314	622	5409
04:00		82	899			104	567	1466 x4			
04:15		96	834			115	578	1412			
04:30		123	879			91	566	1145			
04:45		118	842	419	3454	177	537	1379 487	2248	906	5702
05:00		123	818			194	568				
05:15		144	819			201	576				
05:30		188	781			269	623				
05:45		223	772	678	3190	356	582	1020	2349	1698	5539
06:00		249	723			480	608				
06:15		323	748			576	549				
06:30		397	818			657	508				
06:45		397	619	1366	2908	803	493	2516	2158	3882	5066
07:00		433	576			875	512	1308		1308	
07:15		422	496			884	423	1306		1306	
07:30		523	514			901	375	1429 - SMAX		1429 x4 = 5696 AM	
07:45		486	503	1864	2089	899	372	1385 3559	1682	1385 5423	3771
08:00		468	540			765	334				
08:15		530	396			812	324				
08:30		534	425			764	280				
08:45		585	397	2117	1758	747	245	3088	1183	5205	2941
09:00		555	339			755	285				
09:15		596	357			696	281				
09:30		681	351			701	258				
09:45		604	381	2436	1428	691	299	2843	1123	5279	2551
10:00		672	306			680	242				
10:15		695	306			643	234				
10:30		673	260			589	196				
10:45		645	222	2685	1094	690	209	2602	881	5287	1975
11:00		693	203			646	202				
11:15		674	139			608	177				
11:30		673	148			670	175				
11:45		640	135	2680	625	621	145	2545	699	5225	1324
Total		15642	27269			20157	21428			35799	48697
Percent		36.5%	63.5%			48.5%	51.5%			42.4%	57.6%

5864 PM
PHF = 0.97

PHF = 0.95

NB 42911

SB 41585



I-75 Northbound
South of SR 54
North of SR 54

URS Corporation
7650 W. Courtney Campbell Cswy
Tampa, Fl 33607-1462

Station ID: 0020
Site Code: 20692
Latitude: 28' 12.262 North
Longitude: 82' 22.691 West

Start Time	10-Mar-10 Wed	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		122	663			146	668				
12:15		137	629			129	630				
12:30		96	610			117	608				
12:45		86	623	441	2525	138	549	530	2455	971	4980
01:00		86	641			107	594				
01:15		85	581			94	597				
01:30		99	687			84	507				
01:45		78	631	348	2540	86	532	371	2230	719	4770
02:00		81	593			115	556				
02:15		92	617			85	534				
02:30		61	598			76	599				
02:45		86	675	320	2483	79	575	355	2264	675	4747
03:00		74	603			84	639				
03:15		59	561			76	553				
03:30		80	568			87	499				
03:45		65	536	278	2268	102	543	349	2234	627	4502
04:00		87	571			94	644				
04:15		92	500			137	658				
04:30		124	495			110	610				
04:45		121	475	424	2041	160	630	501	2542	925	4583
05:00		128	510			176	614				
05:15		142	503			240	578				
05:30		202	407			281	631				
05:45		218	437	690	1857	397	581	1094	2404	1784	4261
06:00		269	428			455	561				
06:15		330	423			556	545				
06:30		401	440			631	550				
06:45		384	380	1384	1671	852	551	2494	2207	3878	3878
07:00		439	415			929	483				
07:15		428	343			925	443				
07:30		522	305			892	430				
07:45		485	295	1874	1358	902	405	3648	1761	5522	3119
08:00		469	278			821	372				
08:15		558	279			790	328				
08:30		516	278			789	317				
08:45		588	247	2131	1082	801	315	3201	1332	5332	2414
09:00		601	253			808	330				
09:15		607	243			706	274				
09:30		680	246			743	247				
09:45		611	220	2499	962	674	278	2931	1129	5430	2091
10:00		677	211			662	236				
10:15		697	201			719	229				
10:30		672	185			672	205				
10:45		648	172	2694	769	625	203	2678	873	5372	1642
11:00		697	165			645	197				
11:15		679	117			652	140				
11:30		673	131			634	155				
11:45		638	110	2687	523	618	130	2549	622	5236	1145
Total		15770	20079			20701	22053			36471	42132
Percent		44.0%	56.0%			48.4%	51.6%			46.4%	53.6%

1215 X4 = 4860
1158
1105
1105

PM PHF = 0.94

1368
1353
1414 X4 = 5656
1389 3648 1761 5522

0.98 PHF AM

NB 35849

SB 42754

Avg. AM PHF = 0.96

Avg PM PHF = 0.96

URS Corporation
7650 W. Courtney Campbell Cswy
Tampa, Fl 33607-1462

I-75 Northbound
South of SR 54
& North of SR 54

Station ID: 0020
Site Code: 20692
Latitude: 28' 12.262 North
Longitude: 82' 22.691 West

Start Time	11-Mar-10 Thu	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		121	664			135	638				
12:15		136	629			118	615				
12:30		93	611			99	594				
12:45		87	628	437	2532	127	556	479	2403	916	4935
01:00		81	644			112	586				
01:15		84	585			93	571				
01:30		103	671			95	531				
01:45		72	630	340	2530	93	526	393	2214	733	4744
02:00		80	612			94	587				
02:15		94	640			86	545				
02:30		65	598			75	567				
02:45		80	679	319	2529	79	557	334	2256	653	4785
03:00		75	714			82	628				
03:15		59	765			82	554				
03:30		80	769			90	524				
03:45		64	817	278	3065	95	569	349	2275	627	5340
04:00		85	909			99	606				
04:15		98	824			126	618				
04:30		120	888			101	588				
04:45		121	858	424	3479	169	584	495	2396	919	5875
05:00		125	829			185	591				
05:15		145	848			221	577				
05:30		201	803			275	627				
05:45		220	790	691	3270	377	582	1058	2377	1749	5647
06:00		248	718			468	585				
06:15		331	753			566	547				
06:30		398	792			644	529				
06:45		388	684	1365	2947	828	522	2506	2183	3871	5130
07:00		434	679			902	498				
07:15		429	550			905	433				
07:30		520	521			897	403				
07:45		489	506	1872	2256	901	389	3605	1723	5477	3979
08:00		472	496			793	353				
08:15		550	417			801	326				
08:30		525	394			777	299				
08:45		587	394	2134	1701	774	280	3145	1258	5279	2959
09:00		578	326			782	308				
09:15		602	341			701	278				
09:30		681	342			722	253				
09:45		608	334	2469	1343	683	289	2888	1128	5357	2471
10:00		675	303			671	239				
10:15		696	291			681	232				
10:30		673	262			631	201				
10:45		647	226	2691	1082	658	206	2641	878	5332	1960
11:00		695	213			646	200				
11:15		677	154			630	159				
11:30		673	164			652	165				
11:45		639	147	2684	678	620	138	2548	662	5232	1340
Total		15704	27412			20441	21753			36145	49165
Percent		36.4%	63.6%			48.4%	51.6%			42.4%	57.6%
Grand Total		47116	74760			61299	65234			108415	139994
Percent		38.7%	61.3%			48.4%	51.6%			43.6%	56.4%

ADT | ADT 42,769 | AADT 42,769

1515 XA
1492
1496
1442 → 6040 → 919 → 5875 0.97
PM PHF 0.97

1336
1324
1419 XA = 5668
1390 5477 3979
AM PHF = 0.97

108415
139994
248409
÷ 3
82803

NB 43116

SB 42194

I-75 South of SR 52
North of SR 54

URS Corporation
7650 W. Courtney Campbell Cswy
Tampa, Fl 33607-1462

Station ID: 0010
Site Code: 20689 N12
Latitude: 28' 12.269 North
Longitude: 82' 22.703 West

Start Time	09-Mar-10 Tue	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		66	447			130	630				
12:15		87	428			131	613				
12:30		54	334			94	637				
12:45		55	348	262	1557	126	634	481	2514	743	4071
01:00		45	330			120	598				
01:15		59	249			87	547				
01:30		57	330			90	574				
01:45		48	344	209	1253	99	549	396	2268	605	3521
02:00		61	291			102	614				
02:15		79	308			80	550				
02:30		43	271			71	569				
02:45		61	302	244	1172	89	598	342	2331	586	3503
03:00		56	374			80	646				
03:15		48	370			81	622				
03:30		66	440			85	572				
03:45		49	354	219	1538	95	658	341	2498	560	4036
04:00		59	489			87	648				
04:15		78	522			112	673				
04:30		92	503			88	658				
04:45		94	444	323	1958	138	636	425	2615	748	4573
05:00		100	358			104	667				
05:15		111	393			139	643				
05:30		161	329			163	695				
05:45		160	389	532	1469	306	609	712	2614	1244	4083
06:00		161	303			311	647				
06:15		209	325			303	580				
06:30		214	284			462	595				
06:45		193	282	777	1194	583	548	1659	2370	2436	3564
07:00		287	293			704	519				
07:15		268	243			771	453				
07:30		268	245			727	403				
07:45		263	231	1086	1012	760	404	2962	1779	4048	2791
08:00		248	263			666	365				
08:15		338	162			660	339				
08:30		320	139			700	332				
08:45		362	194	1268	758	714	259	2740	1295	4008	2053
09:00		357	162			778	308				
09:15		375	161			645	300				
09:30		446	144			702	305				
09:45		393	179	1571	646	707	309	2832	1222	4403	1868
10:00		427	173			634	211				
10:15		489	170			662	219				
10:30		405	163			634	208				
10:45		392	124	1713	630	687	197	2617	835	4330	1465
11:00		421	127			668	190				
11:15		362	82			625	172				
11:30		348	91			669	163				
11:45		373	102	1504	402	625	149	2587	674	4091	1076
Total		9708	13589			18094	23015			27802	36604
Percent		41.7%	58.3%			44.0%	56.0%			43.2%	56.8%

1135
1020
1148 x4 = 4592
1100 4403

1437
1195 x4 → 4780
1161
1080 748

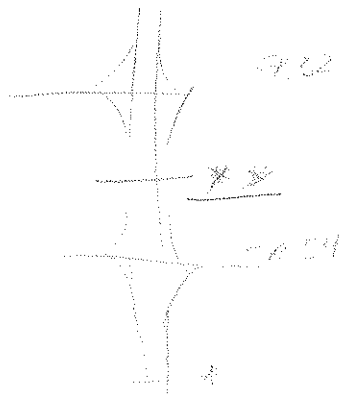
PHF = 0.96

AM PHF = 0.96

NB 23297

SB 41109

PHF avg = 0.96



I-75 South of SR 52
& North of SR 54

URS Corporation
7650 W. Courtney Campbell Cswy
Tampa, Fl 33607-1462

Station ID: 0010
Site Code: 20689 N12
Latitude: 28' 12.269 North
Longitude: 82' 22.703 West

Start Time	10-Mar-10 Wed	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		62	452			135	0				
12:15		83	433			136	0				
12:30		50	339			99	0				
12:45		51	353	246	1577	131	624	501	624	747	2201
01:00		41	335			125	588				
01:15		55	254			92	537				
01:30		53	335			95	564				
01:45		44	349	193	1273	104	539	416	2228	609	3501
02:00		57	296			107	604				
02:15		75	313			85	540				
02:30		39	276			76	559				
02:45		57	307	228	1192	94	588	362	2291	590	3483
03:00		52	379			85	636				
03:15		44	375			86	612				
03:30		62	445			90	562				
03:45		45	359	203	1558	100	648	361	2458	564	4016
04:00		55	494			92	638				
04:15		74	527			117	663				1190 x4 = 4760
04:30		88	508			93	648				
04:45		90	449	307	1978	143	626	445	2575	752	4553
05:00		96	363			109	657				
05:15		107	398			144	633				PM PHF = 0.96
05:30		157	334			168	685				
05:45		156	394	516	1489	311	599	732	2574	1248	4063
06:00		157	296			316	637				
06:15		205	318			308	570				
06:30		210	277			467	585				
06:45		189	275	761	1166	588	538	1679	2330	2440	3496
07:00		292	286			709	521				
07:15		273	236			776	455				
07:30		273	238			732	405				
07:45		268	224	1106	984	765	406	2982	1787	4088	2771
08:00		253	256			671	367				
08:15		343	155			665	341				
08:30		325	132			705	334				
08:45		367	187	1288	730	719	261	2760	1303	4048	2033
09:00		362	155			783	310				
09:15		380	154			650	302				
09:30		451	137			707	307				1158 x4 = 4632
09:45		398	172	1591	618	712	311	2852	1230	4443	1848
10:00		432	166			639	213				
10:15		494	163			0	221				AMPHF = 0.96
10:30		410	156			0	210				
10:45		397	117	1733	602	0	0	639	644	2372	1246
11:00		426	120			0	0				
11:15		367	75			0	0				
11:30		353	84			0	0				
11:45		378	95	1524	374	0	0	0	0	1524	374
Total		9696	13541			13729	20044			23425	33585
Percent		41.7%	58.3%			40.7%	59.3%			41.1%	58.9%

NB 23237

SB 33713

I-75 South of SR 52 * *
& North of SR 54

URS Corporation
7650 W. Courtney Campbell Cswy
Tampa, Fl 33607-1462

Station ID: 0010
Site Code: 20689 N12
Latitude: 28' 12.269 North
Longitude: 82' 22.703 West

Start Time	11-Mar-10 Thu	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		63	449			0	626				
12:15		84	430			0	609				
12:30		51	336			0	633				
12:45		52	350	250	1565	0	630	0	2498	250	4063
01:00		42	332			0	594				
01:15		56	251			0	543				
01:30		54	332			0	570				
01:45		45	346	197	1261	0	545	0	2252	197	3513
02:00		58	293			0	610				
02:15		76	310			0	546				
02:30		40	273			0	565				
02:45		58	304	232	1180	0	594	0	2315	232	3495
03:00		53	376			82	642				
03:15		45	372			83	618				
03:30		63	442			87	568				
03:45		46	356	207	1546	97	654	349	2482	556	4028
04:00		56	491			89	644				
04:15		75	524			114	669			1193 x 4 = 4772	
04:30		89	505			90	654				
04:45		91	446	311	1966	140	632	433	2599	744	4565
05:00		97	360			106	663				
05:15		108	395			141	639				0.96
05:30		158	331			165	691			PHF PM	
05:45		157	391	520	1477	308	605	720	2598	1240	4075
06:00		158	299			313	643				
06:15		206	321			305	576				
06:30		211	280			464	591				
06:45		190	278	765	1178	585	544	1667	2354	2432	3532
07:00		289	289			706	523				
07:15		270	239			773	457				
07:30		270	241			729	407				
07:45		265	227	1094	996	762	408	2970	1795	4064	2791
08:00		250	259			668	369				
08:15		340	158			662	343				
08:30		322	135			702	336				
08:45		364	190	1276	742	716	263	2748	1311	4024	2053
09:00		359	158			780	312				
09:15		377	157			647	304				
09:30		448	140			704	309			1152 x 4 = 4608	
09:45		395	175	1579	630	709	313	2840	1238	4419	1868
10:00		429	169			636	215			AM	
10:15		491	166			664	223			PHF = 0.96	
10:30		407	159			636	212				
10:45		394	120	1721	614	683	201	2619	851	4340	1465
11:00		423	123			664	194				
11:15		364	78			621	176				
11:30		350	87			665	167				
11:45		375	98	1512	386	621	153	2571	690	4083	1076
Total		9664	13541			16917	22983			26581	36524
Percent		41.6%	58.4%			42.4%	57.6%			42.1%	57.9%
Grand Total		29068	40671			48740	66042			77808	106713
Percent		41.7%	58.3%			42.5%	57.5%			42.2%	57.8%

ADT ADT 26,269 AADT 26,269

NB 23205 SB 39900

Signal Timing

WO#: **737** LAST UPDATE: 12/3/2009

LOCATIO **SR56 & I75 NB RAMP**

CONT:	ATC 2070	SER#:	6302	TYPE:	SIG	REPAIR	1
MONITOR	EDI 2010 ECL	SER#:	080310606	SOP:	15 MOD		
DETQUAN:	6	DETDELAY:	POWER	WREC	ACCT:	6932 010 632	
OTHER1:	RACK DET.			OPTICOM:	YES	STREET LIGHTS:	NO
OTHER2:				ENFORCEMENT	NO	STREET LIGHT QTY:	
SOLAR WARNING FLASHERS:			NO	MASTARMS:	YES	ILLUMINATED SIGNS:	NO
SOLAR WARNING FLASHERS QTY:				UPS:	YES	ILLUMINATED SIGNS	

PHAS	DIRECTION	MI	PAS	YEL	RC	MAX1	MAX2	WALK	PC	PHAS	MIN REC	MAX REC	ME M ON	ME M	CNA	DET SWITCH	FLASH COLOR
1	EBLT	**5**	**3**	**4.3**	**1.9**	**30**				**1**			**X**				**R**
2	WB	**15**	**3**	**4.3**	**1.8**	**60**				**2**	**X**			**X**			**Y**
3										**3**							
4										**4**							
5										**5**							
6	EB	**15**	**3**	**4.3**	**1.8**	**60**				**6**	**X**			**X**			**Y**
7										**7**							
8	NB	**10**	**4**	**3.2**	**3.3**	**60**				**8**			**X**				**R**

OVERLAP A
B
C
C
D

NOTE

FLASH TIMES
FROM:
TO:

SYSTEM
SYS#
ID#: 35

JURIS:
VALUE:
REIMBURSEME

FDOT
160,000
100%

POLE DATA

CORNER1:
CORNER2:
CORNER3:
CORNER4:

WO#: **736** LAST UPDATE: 12/3/2009

LOCATIO **SR56 & I75 SB RAMP**

CONT:	ATC 2070	SER#:	6765	TYPE:	SIG	REPAIR	1
MONITOR	EDI 2010 ECL	SER#:	03099922	SOP:	14 MOD		
DETQUAN:	5	DETDELAY:		POWER	WREC	ACCT:	6932 010 633
OTHER1:				OPTICOM:	YES	STREET LIGHTS:	NO
OTHER2:				ENFORCEMENT	NO	STREET LIGHT QTY:	
SOLAR WARNING FLASHERS:			NO	MASTARMS:	YES	ILLUMINATED SIGNS:	NO
SOLAR WARNING FLASHERS QTY:				UPS:	YES	ILLUMINATED SIGNS	

PHAS	DIRECTION	MI	PAS	YEL	RC	MAX1	MAX2	WALK	PC	PHAS	MIN REC	MAX REC	ME M ON	ME M	CNA	DET SWITCH	FLASH COLOR
1										**1**							
2	WB	**20**	**3**	**4.3**	**1.8**	**60**				**2**	**X**			**X**			**Y**
3										**3**							
4	SB	**10**	**4.7**	**3.2**	**3.2**	**30**				**4**			**X**				**R**
5	WBLT	**7**	**3**	**4.3**	**2**	**30**				**5**			**X**				**R**
6	EB	**20**	**3**	**4.3**	**1.8**	**60**				**6**	**X**			**X**			**Y**
7										**7**							
8										**8**							

OVERLAP A
B
C
C
D

NOTE

(0600-0900 M-F) PHASE 5 PROGRAMMED FOR NON EARLY RELEASE.

FLASH TIMES
FROM:
TO:

SYSTEM
SYS#
ID#: 34

JURIS:
VALUE:
REIMBURSEME

FDOT
160,000
100%

POLE DATA

CORNER1:
CORNER2:
CORNER3:
CORNER4:

WO#: **645** LAST UPDATE: 11/16/2009

LOCATIO **CR54 (WES CHAPEL) & I75**

CONT:	ASC/2S-2100	SER#:	29997	TYPE:		SIG SPEC	REPAIR 1
MONITOR	MMU-16E	SER#:	060706909	SOP:			
DETQUAN:	6	DETDELAY:		POWER	WREC	ACCT:	6932 010 547
OTHER1:	VIDEO DET			OPTICOM:	YES	STREET LIGHTS:	NO
OTHER2:				ENFORCEMENT	NO	STREET LIGHT QTY:	
SOLAR WARNING FLASHERS:			NO	MASTARMS:	YES	ILLUMINATED SIGNS:	NO
SOLAR WARNING FLASHERS QTY:				UPS:	YES	ILLUMINATED SIGNS	

PHAS	DIRECTION	MI	PAS	YEL	RC	MAX1	MAX2	WALK	PC	PHAS	MIN REC	MAX REC	ME M ON	ME M	CNA	DET SWITCH	FLASH COLOR
1	SB RAMP	**5**	**6**	**4**	**2**	**20**				**1**			**X**				**R**
2										**2**							
3	EB & WB	**20**	**4**	**4**	**2**	**35**		**5**	**9**	**3**	**X**		**X**				**Y**
4	WBLT	**5**	**4**	**4**	**2**	**15**		**5**	**9**	**4**			**X**				**R**
5	NB RAMP	**5**	**6**	**4**	**2**	**33**		**5**	**9**	**5**			**X**				**R**
6										**6**							
7										**7**							
8										**8**							

OVERLAP A
B
C
C
D

FLASH TIMES
FROM:
TO:

SYSTEM
SYS# 12
ID#: 5

JURIS:
VALUE: 175,000
REIMBURSEME

COUNTY

NOTE

TS-2 CABINET. *** 5 SEC EXTEND ON (WBLT APROACH LOOP) AND (NB RAMP LOOP). MODIFIED DIAMOND OPERATION - CONTROLLER PHASES 1, 3, 4, 5 ARE ASSIGNED TO DIFFERENT OUTPUTS. SPECIAL LOOP ASSIGNMENT. (SEE BACK OF BIBLE SHEET FOR ASSIGNMENTS AND DIAGRAM) *** DAY PLAN MON.- FRI. 0500-0800 C1,OF1,SP1, 0800-1000 C1,OF2, SP3, 1000-1500 FREE, 1500-1930 C2, OF2, SP2, 1930-0500 FREE, SAT. & SUN. FREE. *** NO PEDS AT THIS TIME. ***

POLE DATA

CORNER1:
CORNER2:
CORNER3:
CORNER4:

WO#: **644** LAST UPDATE: 6/22/2009

LOCATIO **SR52 & I75**

CONT:	ASC/2S-2100	SER#:	33150	TYPE:		SIG SPEC	REPAIR 1
MONITOR	MMU-16E	SER#:	070303304	SOP:			
DETQUAN:	6	DETDELAY:		POWER		WREC	ACCT: 6932 010 639
OTHER1:	VIDEO DET			OPTICOM:	YES	STREET LIGHTS:	NO
OTHER2:	ECONOLITE 56K MODEM			ENFORCEMENT	NO	STREET LIGHT QTY:	
SOLAR WARNING FLASHERS:			NO	MASTARMS:	YES	ILLUMINATED SIGNS:	NO
SOLAR WARNING FLASHERS QTY:				UPS:	YES	ILLUMINATED SIGNS	

PHAS	DIRECTION	MI	PAS	YEL	RC	MAX1	MAX2	WALK	PC	PHAS	MIN REC	MAX REC	ME M ON	ME M	CNA	DET SWITCH	FLASH COLOR
1	EBLT	**10**	**6**	**4**	**2**	**15**	**30**			**1**			**X**				**R**
2	EB & WB	**20**	**4**	**4**	**2**	**45**	**30**			**2**	**X**			**X**			**Y**
3	WBLT	**10**	**6**	**4**	**2**	**25**	**30**			**3**			**X**				
4	NB RAMP	**10**	**6**	**4**	**2**	**35**	**0**			**4**			**X**				**R**
5	SB RAMP	**10**	**6**	**4**	**2**	**30**	**30**			**5**			**X**				**R**
6										**6**							
7										**7**							
8										**8**							

OVERLAP A
B
C
C
D

FLASH TIMES
FROM:
TO:

SYSTEM
SYS# 13
ID#: 1

JURIS: FDOT
VALUE: 130,000
REIMBURSEME 100%

NOTE

TS-2 CABINET. MODIFIED DIAMOND OPERATION - CONTROLLER PHASES 1,2,3,4,5 ARE ASSIGNED TO DIFFERENT OUTPUTS.

POLE DATA

CORNER1:
CORNER2:
CORNER3:
CORNER4:

Seasonal Factors

2008 Peak Season Factor Category Report - Report Type: ALL

Category: 1400 PASCO COUNTYWIDE

MOCF: 0.93

Week	Dates	SF	PSCF
1	01/01/2008 - 01/05/2008	0.99	1.07
2	01/06/2008 - 01/12/2008	0.99	1.07
3	01/13/2008 - 01/19/2008	0.98	1.06
4	01/20/2008 - 01/26/2008	0.96	1.04
* 5	01/27/2008 - 02/02/2008	0.95	1.03
* 6	02/03/2008 - 02/09/2008	0.93	1.00
* 7	02/10/2008 - 02/16/2008	0.91	0.98
* 8	02/17/2008 - 02/23/2008	0.91	0.98
* 9	02/24/2008 - 03/01/2008	0.91	0.98
*10	03/02/2008 - 03/08/2008	0.91	0.98
*11	03/09/2008 - 03/15/2008	0.91	0.98
*12	03/16/2008 - 03/22/2008	0.91	0.98
*13	03/23/2008 - 03/29/2008	0.92	0.99
*14	03/30/2008 - 04/05/2008	0.93	1.00
*15	04/06/2008 - 04/12/2008	0.94	1.02
*16	04/13/2008 - 04/19/2008	0.94	1.02
*17	04/20/2008 - 04/26/2008	0.96	1.04
18	04/27/2008 - 05/03/2008	0.98	1.06
19	05/04/2008 - 05/10/2008	0.99	1.07
20	05/11/2008 - 05/17/2008	1.01	1.09
21	05/18/2008 - 05/24/2008	1.02	1.10
22	05/25/2008 - 05/31/2008	1.03	1.11
23	06/01/2008 - 06/07/2008	1.03	1.11
24	06/08/2008 - 06/14/2008	1.04	1.12
25	06/15/2008 - 06/21/2008	1.05	1.13
26	06/22/2008 - 06/28/2008	1.05	1.13
27	06/29/2008 - 07/05/2008	1.05	1.13
28	07/06/2008 - 07/12/2008	1.05	1.13
29	07/13/2008 - 07/19/2008	1.06	1.15
30	07/20/2008 - 07/26/2008	1.06	1.15
31	07/27/2008 - 08/02/2008	1.07	1.16
32	08/03/2008 - 08/09/2008	1.07	1.16
33	08/10/2008 - 08/16/2008	1.08	1.17
34	08/17/2008 - 08/23/2008	1.08	1.17
35	08/24/2008 - 08/30/2008	1.08	1.17
36	08/31/2008 - 09/06/2008	1.08	1.17
37	09/07/2008 - 09/13/2008	1.08	1.17
38	09/14/2008 - 09/20/2008	1.08	1.17
39	09/21/2008 - 09/27/2008	1.07	1.16
40	09/28/2008 - 10/04/2008	1.06	1.15
41	10/05/2008 - 10/11/2008	1.05	1.13
42	10/12/2008 - 10/18/2008	1.04	1.12
43	10/19/2008 - 10/25/2008	1.03	1.11
44	10/26/2008 - 11/01/2008	1.02	1.10
45	11/02/2008 - 11/08/2008	1.01	1.09
46	11/09/2008 - 11/15/2008	1.00	1.08
47	11/16/2008 - 11/22/2008	1.00	1.08
48	11/23/2008 - 11/29/2008	1.00	1.08
49	11/30/2008 - 12/06/2008	0.99	1.07
50	12/07/2008 - 12/13/2008	0.99	1.07
51	12/14/2008 - 12/20/2008	0.99	1.07
52	12/21/2008 - 12/27/2008	0.99	1.07
53	12/28/2008 - 12/31/2008	0.98	1.06

* Peak Season

2008 Peak Season Factor Category Report - Report Type: ALL

Category: 1475 PASCO I75

MOCF: 0.94

Week	Dates	SF	PSCF
* 1	01/01/2008 - 01/05/2008	0.92	0.97
* 2	01/06/2008 - 01/12/2008	0.95	1.01
* 3	01/13/2008 - 01/19/2008	0.97	1.03
* 4	01/20/2008 - 01/26/2008	0.97	1.03
* 5	01/27/2008 - 02/02/2008	0.97	1.03
* 6	02/03/2008 - 02/09/2008	0.96	1.02
* 7	02/10/2008 - 02/16/2008	0.96	1.02
* 8	02/17/2008 - 02/23/2008	0.95	1.01
* 9	02/24/2008 - 03/01/2008	0.94	1.00
*10	03/02/2008 - 03/08/2008	0.92	0.97
*11	03/09/2008 - 03/15/2008	0.91	0.96
*12	03/16/2008 - 03/22/2008	0.92	0.97
*13	03/23/2008 - 03/29/2008	0.94	1.00
14	03/30/2008 - 04/05/2008	0.95	1.01
15	04/06/2008 - 04/12/2008	0.97	1.03
16	04/13/2008 - 04/19/2008	0.98	1.04
17	04/20/2008 - 04/26/2008	1.00	1.06
18	04/27/2008 - 05/03/2008	1.01	1.07
19	05/04/2008 - 05/10/2008	1.02	1.08
20	05/11/2008 - 05/17/2008	1.04	1.10
21	05/18/2008 - 05/24/2008	1.04	1.10
22	05/25/2008 - 05/31/2008	1.04	1.10
23	06/01/2008 - 06/07/2008	1.05	1.11
24	06/08/2008 - 06/14/2008	1.05	1.11
25	06/15/2008 - 06/21/2008	1.05	1.11
26	06/22/2008 - 06/28/2008	1.05	1.11
27	06/29/2008 - 07/05/2008	1.05	1.11
28	07/06/2008 - 07/12/2008	1.05	1.11
29	07/13/2008 - 07/19/2008	1.05	1.11
30	07/20/2008 - 07/26/2008	1.06	1.12
31	07/27/2008 - 08/02/2008	1.07	1.13
32	08/03/2008 - 08/09/2008	1.07	1.13
33	08/10/2008 - 08/16/2008	1.08	1.14
34	08/17/2008 - 08/23/2008	1.08	1.14
35	08/24/2008 - 08/30/2008	1.09	1.15
36	08/31/2008 - 09/06/2008	1.09	1.15
37	09/07/2008 - 09/13/2008	1.10	1.16
38	09/14/2008 - 09/20/2008	1.10	1.16
39	09/21/2008 - 09/27/2008	1.08	1.14
40	09/28/2008 - 10/04/2008	1.06	1.12
41	10/05/2008 - 10/11/2008	1.03	1.09
42	10/12/2008 - 10/18/2008	1.01	1.07
43	10/19/2008 - 10/25/2008	1.00	1.06
44	10/26/2008 - 11/01/2008	0.99	1.05
45	11/02/2008 - 11/08/2008	0.97	1.03
46	11/09/2008 - 11/15/2008	0.96	1.02
47	11/16/2008 - 11/22/2008	0.95	1.01
48	11/23/2008 - 11/29/2008	0.94	1.00
49	11/30/2008 - 12/06/2008	0.94	1.00
50	12/07/2008 - 12/13/2008	0.93	0.98
51	12/14/2008 - 12/20/2008	0.92	0.97
52	12/21/2008 - 12/27/2008	0.95	1.01
53	12/28/2008 - 12/31/2008	0.97	1.03

* Peak Season

APPENDIX C

Existing Conditions Analysis

Freeway Analysis Results

FREEPLAN 2009 Conceptual Planning Analysis

Project Information

Analyst	URS	**Freeway Name**	I-75	**Study Period**	Dir Hr Demand Vol
Date Prepared	1/4/2011 1:07:37 PM	**From**	S of SR 56	**Program**	FREEPLAN 2009
Agency	FDOT	**To**	N of SR 52	**Version Date**	1/4/11
Area Type	Other Urbanized	**Peak Direction**	Southbound		
File Name	C:\Users\srinivas_meka\AppData\Local\Temp\preview.xml				
User Notes	Existing 2010 AM Northbound (Off-peak)				

Freeway Data

AADT	29400	**Freeway Input Volume**	2530	**Local Adjustment Factor**	0.96
K	0.09	**PHF**	0.96	**Ramp Metering Exists**	No
D	0.55	**Pecent Trucks Entering First Segment**	6		

Segment Data

Seg #	From	To	Type	Length	Between Length	Hourly Volume	# Thru Lanes	# Aux Lanes	Posted Speed	FFS	Terrain
1	S of SR56	SR 56	Basic Segment	9060	0	2530	4	0	70	70	Level
2	SR 56	SR 56	On Ramp	1500	0	2530	4	0	70	70	Level
3	SR 56	SR 54	Basic Segment	12500	0	2960	4	0	70	70	Level
4	SR 54	SR54	Diamond	5280	0	2960	3	0	70	70	Level
5	SR 54	SR52	Basic Segment	30000	0	2170	2	0	70	70	Level
6	SR 52	SR 52	Diamond	5280	0	2170	2	0	70	70	Level
7	SR 52	N of SR52	Basic Segment	5280	0	1685	2	0	70	70	Level

Interchange Distances

Segment	Type	Interchange Length	Distance Between Ramps			Auxiliary Lane?
			1 and 2	2 and 3	3 and 4	
4	Diamond	2280	2280	0	0	False
6	Diamond	2280	2280	0	0	False

Ramp Descriptions

Segment	Type	First Off-Ramp					First On-Ramp					Second Off-Ramp					Second On-Ramp				
		Vol	% HV	Lanes	Accel / Decel Length	FFS	Vol	% HV	Lanes	Accel / Decel Length	FFS	Vol	% HV	Lanes	Accel / Decel Length	FFS	Vol	% HV	Lanes	Accel / Decel Length	FFS
2	On Ramp						430	8.0	1	700	45										
4	Diamond	1055	8.0	2	1500	45	265	8.0	1	700	45										
6	Diamond	730	8.0	1	410	45	245	8.0	1	700	45										

Segment LOS

Seg	From	To	Type	Volume	Adj. Capacity	Speed	Density	LOS	Sig Impact

#									
1	S of SR56	SR 56	Basic Segment	2530	8590	70.0	10.1	A	N/A
2	SR 56	SR 56	On Ramp	2530	8411	65.4	12.9	B	No
3	SR 56	SR 54	Basic Segment	2960	8578	70.0	11.8	B	N/A
4	SR 54	SR54	Diamond	2960	6254	66.4	11.2	B	#
5	SR 54	SR52	Basic Segment	2170	4302	70.0	17.3	B	N/A
6	SR 52	SR 52	Diamond	2170	3943	64.3	15.5	B	#
7	SR 52	N of SR52	Basic Segment	1685	4316	70.0	13.4	B	N/A

Freeway Length	13.04924	FFS Delay	8.43	Threshold Delay	0.00	Avg. Speed	69.13	Density	13.5	LOS	B

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 2100 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
4	1480	2360	3120	3680	3700
6	2080	3400	4620	5560	5840
8	2720	4460	6120	7380	7980
10	3380	5560	7620	9200	10040
12	4180	7000	9580	11380	12280
Lanes	**Peak Hour Volume Both Directions**				
4	2690	4280	5690	6700	6720
6	3780	6190	8410	10110	10600
8	4960	8100	11140	13400	14510
10	6140	10100	13870	16730	18240
12	7600	12730	17410	20700	22330
Lanes	**Annual Average Daily Traffic**				
4	29800	47500	63200	74500	74700
6	42000	68700	93500	112400	117800
8	55100	89900	123800	148900	161300
10	68200	112200	154100	185900	202700
12	84400	141500	193500	229900	248100

 # Off-ramp storage is highly likely to overflow. The segment operations will likely be worse than indicated.
One or more segments have a demand-to-capacity ratio greater than 1.0; therefore, the performance measure values are highly unreliable.
Freeway LOS is defaulted to F. An operational level analysis tool is more appropriate for this situation.
*** For oversaturated conditions during the peak hour, subtract 10% from LOS E (capacity) volumes. This number becomes the new maximum service volume for LOS D, and LOS E cannot be achieved.**
**** Cannot be achieved based on input data provided.**
***** Not applicable for that level of service letter grade. See generalized tables notes for more details.**

FREEPLAN 2009 Conceptual Planning Analysis

Project Information

Analyst	URS	**Freeway Name**	I-75	**Study Period**	Dir Hr Demand Vol
Date Prepared	1/4/2011 1:07:37 PM	**From**	S of SR 56	**Program**	FREEPLAN 2009
Agency	FDOT	**To**	N of SR 52	**Version Date**	1/4/11
Area Type	Other Urbanized	**Peak Direction**	Southbound		
File Name	C:\Users\srinivas_meka\AppData\Local\Temp\preview.xml				
User Notes	Existing 2010 AM Southbound (Peak)				

Freeway Data

AADT	39200	**Freeway Input Volume**	1980	**Local Adjustment Factor**	0.96
K	0.09	**PHF**	0.96	**Ramp Metering Exists**	No
D	0.55	**Pecent Trucks Entering First Segment**	13		

Segment Data

Seg #	From	To	Type	Length	Between Length	Hourly Volume	# Thru Lanes	# Aux Lanes	Posted Speed	FFS	Terrain
1	N of SR 52	SR 52	Basic Segment	5280	0	1980	2	0	70	70	Level
2	SR 52	SR 52	Diamond	5280	0	1980	2	0	70	70	Level
3	SR 52	SR 54	Basic Segment	30000	0	2625	2	0	70	70	Level
4	SR 54	SR 54	Diamond	5280	0	2625	3	0	70	70	Level
5	SR 54	SR 56	Basic Segment	12500	0	3595	4	0	70	70	Level
6	SR 56	SR 56	Diamond	5280	0	3595	4	0	70	70	Level
7	SR 56	S of SR56	Basic Segment	5280	0	5840	6	0	70	75	Level

Interchange Distances

Segment	Type	Interchange Length	Distance Between Ramps			Auxiliary Lane?
			1 and 2	2 and 3	3 and 4	
2	Diamond	2280	2280	0	0	False
4	Diamond	2280	2280	0	0	False
6	Diamond	2280	2280	0	0	False

Ramp Descriptions

Segment	Type	First Off-Ramp					First On-Ramp					Second Off-Ramp					Second On-Ramp				
		Vol	% HV	Lanes	Accel / Decel Length	FFS	Vol	% HV	Lanes	Accel / Decel Length	FFS	Vol	% HV	Lanes	Accel / Decel Length	FFS	Vol	% HV	Lanes	Accel / Decel Length	FFS
2	Diamond	295	8.0	1	410	45	940	8.0	1	700	45										
4	Diamond	325	8.0	1	410	45	1295	8.0	1	1500	45										
6	Diamond	530	8.0	1	600	45	2775	8.0	2	1500	45										

Segment LOS

Seg #	From	To	Type	Volume	Adj. Capacity	Speed	Density	LOS	Sig Impact
1	N of SR 52	SR 52	Basic Segment	1980	4154	70.0	16.3	B	N/A
2	SR 52	SR 52	Diamond	1980	3808	64.2	18.7	C	No
3	SR 52	SR 54	Basic Segment	2625	4178	69.8	21.6	C	N/A
4	SR 54	SR 54	Diamond	2625	5919	66.5	15.2	B	No
5	SR 54	SR 56	Basic Segment	3595	8396	70.0	14.7	B	N/A
6	SR 56	SR 56	Diamond	3595	8046	65.4	16.1	B	No
7	SR 56	S of SR56	Basic Segment	5840	12657	74.9	14.8	B	N/A

Freeway Length	13.04924	FFS Delay	11.94	Threshold Delay	0.00	Avg. Speed	69.12	Density	17.3	LOS	C

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 2100 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
4	1000	1100	1300	1500	1700
6	900	1920	2420	2520	2620
8	1380	3060	4480	4680	4880
10	2020	4100	6020	6620	6640
12	2780	5460	7880	8700	***
Lanes	**Peak Hour Volume Both Directions**				
4	1820	2000	2370	2730	3100
6	1640	3500	4410	4600	4780
8	2500	5550	8140	8500	8870
10	3690	7460	10960	12050	12070
12	5050	9910	14320	15810	***
Lanes	**Annual Average Daily Traffic**				
4	20300	22300	26300	30400	34400
6	18200	38900	49000	51100	53100
8	27800	61700	90500	94500	98500
10	41000	82900	121800	133900	134100
12	56100	110200	159100	175700	***

 # Off-ramp storage is highly likely to overflow. The segment operations will likely be worse than indicated.
One or more segments have a demand-to-capacity ratio greater than 1.0; therefore, the performance measure values are highly unreliable.
Freeway LOS is defaulted to F. An operational level analysis tool is more appropriate for this situation.
*** For oversaturated conditions during the peak hour, subtract 10% from LOS E (capacity) volumes. This number becomes the new maximum service volume for LOS D, and LOS E cannot be achieved.**
**** Cannot be achieved based on input data provided.**
***** Not applicable for that level of service letter grade. See generalized tables notes for more details.**

FREEPLAN 2009 Conceptual Planning Analysis

Project Information

Analyst	URS	**Freeway Name**	I-75	**Study Period**	Dir Hr Demand Vol
Date Prepared	1/4/2011 1:07:37 PM	**From**	S of SR 56	**Program**	FREEPLAN 2009
Agency	FDOT	**To**	N of SR 52	**Version Date**	1/4/11
Area Type	Other Urbanized	**Peak Direction**	Northbound		
File Name	C:\Users\srinivas_meka\AppData\Local\Temp\preview.xml				
User Notes	Existing 2010 PM Northbound (Peak)				

Freeway Data

AADT	29400	**Freeway Input Volume**	3065	**Local Adjustment Factor**	0.96
K	0.09	**PHF**	0.96	**Ramp Metering Exists**	No
D	0.55	**Pecent Trucks Entering First Segment**	6		

Segment Data

Seg #	From	To	Type	Length	Between Length	Hourly Volume	# Thru Lanes	# Aux Lanes	Posted Speed	FFS	Terrain
1	S of SR56	SR 56	Basic Segment	9060	0	3065	4	0	70	70	Level
2	SR 56	SR 56	On Ramp	1500	0	3065	4	0	70	70	Level
3	SR 56	SR 54	Basic Segment	12500	0	3300	4	0	70	70	Level
4	SR 54	SR54	Diamond	5280	0	3300	3	0	70	70	Level
5	SR 54	SR52	Basic Segment	30000	0	2330	2	0	70	70	Level
6	SR 52	SR 52	Diamond	5280	0	2330	2	0	70	70	Level
7	SR 52	N of SR52	Basic Segment	5280	0	1685	2	0	70	70	Level

Interchange Distances

Segment	Type	Interchange Length	Distance Between Ramps			Auxiliary Lane?
			1 and 2	2 and 3	3 and 4	
4	Diamond	2280	2280	0	0	False
6	Diamond	2280	2280	0	0	False

Ramp Descriptions

Segment	Type	First Off-Ramp					First On-Ramp					Second Off-Ramp					Second On-Ramp				
		Vol	% HV	Lanes	Accel / Decel Length	FFS	Vol	% HV	Lanes	Accel / Decel Length	FFS	Vol	% HV	Lanes	Accel / Decel Length	FFS	Vol	% HV	Lanes	Accel / Decel Length	FFS
2	On Ramp						530	8.0	1	700	45										
4	Diamond	1295	8.0	2	1500	45	325	8.0	1	700	45										
6	Diamond	940	8.0	1	410	45	295	8.0	1	700	45										

Segment LOS

Seg	From	To	Type	Volume	Adj. Capacity	Speed	Density	LOS	Sig Impact

#									
1	S of SR56	SR 56	Basic Segment	3065	8590	70.0	12.2	B	N/A
2	SR 56	SR 56	On Ramp	3065	8411	65.0	15.6	B	No
3	SR 56	SR 54	Basic Segment	3300	8577	70.0	14.4	B	N/A
4	SR 54	SR54	Diamond	3300	6254	66.0	14.0	B	#
5	SR 54	SR52	Basic Segment	2330	4302	69.9	21.0	C	N/A
6	SR 52	SR 52	Diamond	2330	3943	64.0	18.3	C	#
7	SR 52	N of SR52	Basic Segment	1685	4318	70.0	15.7	B	N/A

Freeway Length	13.04924	FFS Delay	9.58	Threshold Delay	0.00	Avg. Speed	69.01	Density	16.4	LOS	B

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 2100 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
4	1480	2360	3180	3580	3600
6	2080	3460	4720	5640	5740
8	2720	4500	6180	7460	7880
10	3380	5560	7720	9300	9960
12	4180	7000	9620	11480	12180
Lanes	**Peak Hour Volume Both Directions**				
4	2690	4280	5780	6520	6540
6	3780	6280	8600	10260	10420
8	4960	8190	11230	13550	14330
10	6140	10100	14050	16900	18100
12	7600	12730	17500	20860	22150
Lanes	**Annual Average Daily Traffic**				
4	29800	47500	64200	72500	72700
6	42000	69700	95500	114000	115800
8	55100	91000	124800	150600	159200
10	68200	112200	156100	187700	201100
12	84400	141500	194500	231800	246100

 # Off-ramp storage is highly likely to overflow. The segment operations will likely be worse than indicated.
One or more segments have a demand-to-capacity ratio greater than 1.0; therefore, the performance measure values are highly unreliable.
Freeway LOS is defaulted to F. An operational level analysis tool is more appropriate for this situation.
*** For oversaturated conditions during the peak hour, subtract 10% from LOS E (capacity) volumes. This number becomes the new maximum service volume for LOS D, and LOS E cannot be achieved.**
**** Cannot be achieved based on input data provided.**
***** Not applicable for that level of service letter grade. See generalized tables notes for more details.**

FREEPLAN 2009 Conceptual Planning Analysis

Project Information

Analyst	URS	**Freeway Name**	I-75	**Study Period**	Dir Hr Demand Vol
Date Prepared	1/4/2011 1:07:37 PM	**From**	S of SR 56	**Program**	FREEPLAN 2009
Agency	FDOT	**To**	N of SR 52	**Version Date**	1/4/11
Area Type	Other Urbanized	**Peak Direction**	Northbound		
File Name	C:\Users\srinivas_meka\AppData\Local\Temp\preview.xml				
User Notes	Existing 2010 PM Southbound (Off-peak)				

Freeway Data

AADT	34000	**Freeway Input Volume**	1685	**Local Adjustment Factor**	0.96
K	0.09	**PHF**	0.96	**Ramp Metering Exists**	No
D	0.55	**Pecent Trucks Entering First Segment**	13		

Segment Data

Seg #	From	To	Type	Length	Between Length	Hourly Volume	# Thru Lanes	# Aux Lanes	Posted Speed	FFS	Terrain
1	N of SR 52	SR 52	Basic Segment	5280	0	1685	2	0	70	70	Level
2	SR 52	SR 52	Diamond	5280	0	1685	2	0	70	70	Level
3	SR 52	SR 54	Basic Segment	30000	0	2170	2	0	70	70	Level
4	SR 54	SR 54	Diamond	5280	0	2170	3	0	70	70	Level
5	SR 54	SR 56	Basic Segment	12500	0	2960	4	0	70	70	Level
6	SR 56	SR 56	Diamond	5280	0	2960	4	0	70	70	Level
7	SR 56	S of SR56	Basic Segment	5280	0	4780	6	0	70	75	Level

Interchange Distances

Segment	Type	Interchange Length	Distance Between Ramps			Auxiliary Lane?
			1 and 2	2 and 3	3 and 4	
2	Diamond	2280	2280	0	0	False
4	Diamond	2280	2280	0	0	False
6	Diamond	2280	2280	0	0	False

Ramp Descriptions

Segment	Type	First Off-Ramp					First On-Ramp					Second Off-Ramp					Second On-Ramp				
		Vol	% HV	Lanes	Accel / Decel Length	FFS	Vol	% HV	Lanes	Accel / Decel Length	FFS	Vol	% HV	Lanes	Accel / Decel Length	FFS	Vol	% HV	Lanes	Accel / Decel Length	FFS
2	Diamond	245	8.0	1	410	45	730	8.0	1	700	45										
4	Diamond	265	8.0	1	410	45	1055	8.0	1	1500	45										
6	Diamond	430	8.0	1	600	45	2250	8.0	2	1500	45										

Segment LOS

Seg #	From	To	Type	Volume	Adj. Capacity	Speed	Density	LOS	Sig Impact
1	N of SR 52	SR 52	Basic Segment	1685	4154	70.0	13.9	B	N/A
2	SR 52	SR 52	Diamond	1685	3808	64.6	15.8	B	No
3	SR 52	SR 54	Basic Segment	2170	4176	70.0	17.8	B	N/A
4	SR 54	SR 54	Diamond	2170	5915	66.7	12.5	B	No
5	SR 54	SR 56	Basic Segment	2960	8392	70.0	12.1	B	N/A
6	SR 56	SR 56	Diamond	2960	8043	67.0	13.1	B	No
7	SR 56	S of SR56	Basic Segment	4780	12653	74.9	12.1	B	N/A

Freeway Length	13.04924	FFS Delay	9.17	Threshold Delay	0.00	Avg. Speed	69.41	Density	14.2	LOS	B

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 2100 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
4	1000	1200	1400	1600	1800
6	900	2220	3120	3180	3220
8	1620	3300	4820	5200	5220
10	2220	4300	6280	7360	7380
12	3020	5760	8180	9440	9460
Lanes	**Peak Hour Volume Both Directions**				
4	1820	2190	2550	2910	3280
6	1640	4050	5690	5780	5870
8	2960	6000	8780	9470	9490
10	4050	7820	11410	13400	13410
12	5500	10460	14870	17180	17200
Lanes	**Annual Average Daily Traffic**				
4	20300	24300	28300	32400	36400
6	18200	45000	63200	64200	65200
8	32900	66700	97500	105200	105400
10	45000	86900	126800	148800	149000
12	61200	116200	165200	190900	191100

 # Off-ramp storage is highly likely to overflow. The segment operations will likely be worse than indicated.
One or more segments have a demand-to-capacity ratio greater than 1.0; therefore, the performance measure values are highly unreliable.
Freeway LOS is defaulted to F. An operational level analysis tool is more appropriate for this situation.
*** For oversaturated conditions during the peak hour, subtract 10% from LOS E (capacity) volumes. This number becomes the new maximum service volume for LOS D, and LOS E cannot be achieved.**
**** Cannot be achieved based on input data provided.**
***** Not applicable for that level of service letter grade. See generalized tables notes for more details.**

Ramps Analysis Results

Ramp Capacity Check: 2010 AM Peak Hour

Assumed Ramp Roadway Capacity (HCM 2000 Exhibit 25-3):

Ramp Free-Flow Speed, S_{FR} (mph)	Capacity (pc/h)	
	Single-Lane Ramps	Two-Lane Ramps
≥ 50	2200	4400
> 40 - 50	2100	4100
> 30 - 40	2000	3800
≥ 20 - 30	1900	3500
< 20	1800	3200

Location	Volume (veh/h)	FFS (S_{FR})	Lanes	% Trucks	PHF	E_T	f_{HV}	f_P	Flow Rate (pc/h)	Capacity (pc/h)	Over Capacity?
I-75 NB off to SR 56	2250	45	2	8.0%	0.96	1.5	0.962	0.95	2566	4100	No

Notes:

1. Volumes are converted to equivalent passenger cars per hour (pc/h) flow rates under base conditions during the peak 15 minutes of the hour using HCM 2000 Equation 25-1.

Ramp Capacity Check: 2010 PM Peak Hour

Assumed Ramp Roadway Capacity (HCM 2000 Exhibit 25-3):

Ramp Free-Flow Speed, S_{FR} (mph)	Capacity (pc/h)	
	Single-Lane Ramps	Two-Lane Ramps
> 50	2200	4400
> 40 - 50	2100	4100
> 30 - 40	2000	3800
≥ 20 - 30	1900	3500
< 20	1800	3200

Location	Volume (veh/h)	FFS (S_{FR})	Lanes	% Trucks	PHF	E_T	f_{HV}	f_P	Flow Rate (pc/h)	Capacity (pc/h)	Over Capacity?
I-75 NB off to SR 56	2775	45	2	8.0%	0.96	1.5	0.962	0.95	3165	4100	No

Notes:

1. Volumes are converted to equivalent passenger cars per hour (pc/h) flow rates under base conditions during the peak 15 minutes of the hour using HCM 2000 Equation 25-1.

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Northbound
Agency or Company	URS Corporation	Junction	SR 56 NB ON-RAMP
Date Performed	4/26/2010	Jurisdiction	Pasco County
Analysis Time Period	AM	Analysis Year	2010

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp
☑ Yes ☐ On
☐ No ☑ Off
L_{up} = 3300 ft
V_u = 2250 veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 45.0 mph
Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{down} = ft
V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	2530	0.96	Level	7	0	0.966	0.95	2871
Ramp	430	0.96	Level	8	0	0.962	0.95	490
UpStream	2250	0.96	Level	8	0	0.962	0.95	2566
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$
L_{EQ} = (Equation 25-2 or 25-3)
P_{FM} = 0.330 using Equation (Exhibit 25-5)
V_{12} = 947 pc/h
V_3 or V_{av34} 962 pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No
If Yes,V_{12a} = 1148 pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	3361	Exhibit 25-7		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	1638	Exhibit 25-7	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$
D_R = 13.6 (pc/mi/ln)
LOS = B (Exhibit 25-4)

Speed Determination

M_S = 0.278 (Exibit 25-19)
S_R= 62.2 mph (Exhibit 25-19)
S_0= 68.7 mph (Exhibit 25-19)
S = 65.4 mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$
L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = using Equation (Exhibit 25-12)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$
D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

D_s = (Exhibit 25-19)
S_R= mph (Exhibit 25-19)
S_0= mph (Exhibit 25-19)
S = mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Northbound
Agency or Company	URS Corporation	Junction	SR 56 NB ON-RAMP
Date Performed	4/27/2010	Jurisdiction	Pasco County
Analysis Time Period	PM	Analysis Year	2010

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp
☑ Yes ☐ On
☐ No ☑ Off
L_{up} = 3300 ft
V_u = 2775 veh/h

Terrain: Level
S_{FF} = 70.0 mph S_{FR} = 45.0 mph
Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{down} = ft
V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	3065	0.96	Level	7	0	0.966	0.95	3478
Ramp	530	0.96	Level	8	0	0.962	0.95	604
UpStream	2775	0.96	Level	8	0	0.962	0.95	3164
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)
P_{FM} = 0.142 using Equation (Exhibit 25-5)
V_{12} = 495 pc/h
V_3 or V_{av34} 1491 pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No
If Yes, V_{12a} = 1391 pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	4082	Exhibit 25-7		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	1995	Exhibit 25-7	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$

D_R = 16.4 (pc/mi/ln)
LOS = B (Exhibit 25-4)

Speed Determination

M_S = 0.287 (Exibit 25-19)
S_R = 62.0 mph (Exhibit 25-19)
S_0 = 68.0 mph (Exhibit 25-19)
S = 64.9 mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = using Equation (Exhibit 25-12)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086 V_{12} - 0.009 L_D$

D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

D_s = (Exhibit 25-19)
S_R = mph (Exhibit 25-19)
S_0 = mph (Exhibit 25-19)
S = mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Southbound
Agency or Company	URS Corporation	Junction	SR 56 SB OFF-RAMP
Date Performed	4/26/2010	Jurisdiction	Pasco County
Analysis Time Period	AM	Analysis Year	2010

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp	Terrain: Level	Downstream Adj Ramp
☐ Yes ☐ On		☑ Yes ☑ On
☑ No ☐ Off		☐ No ☐ Off
L_{up} = ft		L_{down} = 3300 ft
V_u = veh/h	S_{FF} = 70.0 mph S_{FR} = 45.0 mph Sketch (show lanes, L_A, L_D,V_R,V_f)	V_D = 2775 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	3595	0.96	Level	9	0	0.957	0.95	4119
Ramp	530	0.96	Level	8	0	0.962	0.95	604
UpStream								
DownStream	2775	0.96	Level	8	0	0.962	0.95	3164

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = using Equation (Exhibit 25-5)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = 0.436 using Equation (Exhibit 25-12)

V_{12} = 2137 pc/h

V_3 or V_{av34} 991 pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	4119	Exhibit 25-14	9600	No
$V_{FO} = V_F - V_R$	3515	Exhibit 25-14	9600	No
V_R	604	Exhibit 25-3	2100	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	2137	Exhibit 25-14	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086 V_{12} - 0.009 L_D$

D_R = 17.2 (pc/mi/ln)

LOS = B (Exhibit 25-4)

Speed Determination

D_s = 0.352 (Exhibit 25-19)

S_R= 60.1 mph (Exhibit 25-19)

S_0= 76.8 mph (Exhibit 25-19)

S = 67.1 mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Southbound
Agency or Company	URS Corporation	Junction	SR 56 SB OFF-RAMP
Date Performed	4/27/2010	Jurisdiction	Pasco County
Analysis Time Period	PM	Analysis Year	2010

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 45.0 mph

Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp
☑ Yes ☑ On
☐ No ☐ Off
L_{down} = 3300 ft
V_D = 2250 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	2960	0.96	Level	9	0	0.957	0.95	3392
Ramp	430	0.96	Level	8	0	0.962	0.95	490
UpStream								
DownStream	2250	0.96	Level	8	0	0.962	0.95	2566

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)
P_{FM} = using Equation (Exhibit 25-5)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$

D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)
S_R= mph (Exhibit 25-19)
S_0= mph (Exhibit 25-19)
S = mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = 0.436 using Equation (Exhibit 25-12)
V_{12} = 1755 pc/h
V_3 or V_{av34} 818 pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No
If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	3392	Exhibit 25-14	9600	No
$V_{FO} = V_F - V_R$	2902	Exhibit 25-14	9600	No
V_R	490	Exhibit 25-3	2100	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	1755	Exhibit 25-14	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086 V_{12} - 0.009 L_D$

D_R = 13.9 (pc/mi/ln)
LOS = B (Exhibit 25-4)

Speed Determination

D_s = 0.342 (Exhibit 25-19)
S_R= 60.4 mph (Exhibit 25-19)
S_0= 76.8 mph (Exhibit 25-19)
S = 67.3 mph (Exhibit 25-15)

Major Merge Capacity Check: 2010 AM Peak Hour
I-75 SB On Ramp from SR 56

Assumed Major Merge Capacity per Segment (based on HCM 2000 Exhibit 25-7):

Segment Free-Flow Speed (mph)	Capacity (pc/h)			
	2-Lanes	3-Lanes	4-Lanes	5-Lanes
≥ 70	4800	7200	9600	12000
65	4700	7050	9400	11750
60	4600	6900	9200	11500
55	4500	6750	9000	11250

Assumed Ramp Roadway Capacity (based on HCM 2000 Exhibit 25-3):

Free-Flow Speed of Ramp (mph)	Capacity (pc/h)	
	Single-Lane Ramp	Two-Lane Ramp
≥ 55	2200	4400
> 40-50	2100	4100
> 30-40	2000	3800
≥ 20-30	1900	3500
< 20	1800	3200

I-75 SB On Ramp from SR 56

Segment	Volume (veh/h)	FFS	Lanes	% Trucks	PHF	E_T	f_{HV}	f_P	Flow Rate (pc/h)	Capacity (pc/h)	Over Capacity?
Upstream	3065	70	4	9.0%	0.96	1.5	0.957	0.95	3512	9600	No
Merging	2775	45	2	8.0%	0.96	1.5	0.962	0.95	3165	4100	No
Downstream	5840	70	6	7.0%	0.96	1.5	0.966	0.95	6628	12000	No

Notes:
1. Volumes are converted to equivalent passenger cars per hour (pc/h) flow rates under base conditions during the peak 15 minutes of the hour using HCM 2000 Equation 25-1.

Major Merge Capacity Check: 2010 PM Peak Hour
I-75 SB On Ramp from SR 56

Assumed Major Merge Capacity per Segment (based on HCM 2000 Exhibit 25-7):

Segment Free-Flow Speed (mph)	Capacity (pc/h)			
	2-Lanes	3-Lanes	4-Lanes	5-Lanes
≥ 70	4800	7200	9600	12000
65	4700	7050	9400	11750
60	4600	6900	9200	11500
55	4500	6750	9000	11250

Assumed Ramp Roadway Capacity (based on HCM 2000 Exhibit 25-3):

Free-Flow Speed of Ramp (mph)	Capacity (pc/h)	
	Single-Lane Ramp	Two-Lane Ramp
≥ 55	2200	4400
> 40-50	2100	4100
> 30-40	2000	3800
≥ 20-30	1900	3500
< 20	1800	3200

I-75 SB On Ramp from SR 56

Segment	Volume (veh/h)	FFS	Lanes	% Trucks	PHF	E_T	f_{HV}	f_P	Flow Rate (pc/h)	Capacity (pc/h)	Over Capacity?
Upstream	2530	70	4	9.0%	0.96	1.5	0.957	0.95	2899	9600	No
Merging	2250	45	2	8.0%	0.96	1.5	0.962	0.95	2566	4100	No
Downstream	4780	70	6	7.0%	0.96	1.5	0.966	0.95	5425	12000	No

Notes:
1. Volumes are converted to equivalent passenger cars per hour (pc/h) flow rates under base conditions during the peak 15 minutes of the hour using HCM 2000 Equation 25-1.

Major Diverge Capacity Check: 2010 AM Peak Hour
I-75 NB Off Ramp to CR 54

Assumed Major Diverge Capacity per Segment (based on HCM 2000 Exhibit 25-14):

Segment Free-Flow Speed (mph)	Capacity (pc/h)			
	2-Lanes	3-Lanes	4-Lanes	5-Lanes
≥ 70	4800	7200	9600	12000
65	4700	7050	9400	11750
60	4600	6900	9200	11500
55	4500	6750	9000	11250

Assumed Ramp Roadway Capacity (based on HCM 2000 Exhibit 25-3):

Free-Flow Speed of Ramp (mph)	Capacity (pc/h)	
	Single-Lane Ramp	Two-Lane Ramp
≥ 55	2200	4400
> 40-50	2100	4100
> 30-40	2000	3800
≥ 20-30	1900	3500
< 20	1800	3200

Assumed Ramp Density and LOS (based on HCM 2000 Equation 25-12 and Exhibit 25-4)

Segment	Density[1]	LOS
Upstream	8.1	A

I-75 NB Off Ramp to CR 54

Segment	Volume (veh/h)	FFS	Lanes	% Trucks	PHF	E_T	f_{HV}	f_P	Flow Rate (pc/h)	Capacity (pc/h)	Over Capacity?
Upstream	2960	70	4	9.0%	0.96	1.5	0.957	0.95	3392	9600	No
Diverging	1055	45	2	8.0%	0.96	1.5	0.962	0.95	1204	4100	No
Downstream	1905	70	3	9.0%	0.96	1.5	0.957	0.95	2183	4800	No

Notes:
1. Volumes are converted to equivalent passenger cars per hour (pc/h) flow rates under base conditions during the peak 15 minutes of the hour using HCM 2000 Equation 25-1.

Major Diverge Capacity Check: 2010 PM Peak Hour
I-75 NB Off Ramp to CR 54

Assumed Major Diverge Capacity per Segment (based on HCM 2000 Exhibit 25-14):

Segment Free-Flow Speed (mph)	Capacity (pc/h)			
	2-Lanes	3-Lanes	4-Lanes	5-Lanes
≥ 70	4800	7200	9600	12000
65	4700	7050	9400	11750
60	4600	6900	9200	11500
55	4500	6750	9000	11250

Assumed Ramp Roadway Capacity (based on HCM 2000 Exhibit 25-3):

Free-Flow Speed of Ramp (mph)	Capacity (pc/h)	
	Single-Lane Ramp	Two-Lane Ramp
≥ 55	2200	4400
> 40-50	2100	4100
> 30-40	2000	3800
≥ 20-30	1900	3500
< 20	1800	3200

Assumed Ramp Density and LOS (based on HCM 2000 Equation 25-12 and Exhibit 25-4)

Segment	Density[1]	LOS
Upstream	9.8	A

I-75 NB Off Ramp to CR 54

Segment	Volume (veh/h)	FFS	Lanes	% Trucks	PHF	E_T	f_{HV}	f_P	Flow Rate (pc/h)	Capacity (pc/h)	Over Capacity?
Upstream	3595	70	4	9.0%	0.96	1.5	0.957	0.95	4120	9600	No
Diverging	1295	45	2	8.0%	0.96	1.5	0.962	0.95	1477	4100	No
Downstream	2300	70	3	9.0%	0.96	1.5	0.957	0.95	2636	4800	No

Notes:
1. Volumes are converted to equivalent passenger cars per hour (pc/h) flow rates under base conditions during the peak 15 minutes of the hour using HCM 2000 Equation 25-1.

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Northbound
Agency or Company	URS Corporation	Junction	CR 54 NB ON-RAMP
Date Performed	4/26/2010	Jurisdiction	Pasco County
Analysis Time Period	AM	Analysis Year	2010

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp
☑ Yes ☐ On
☐ No ☑ Off
L_{up} = 3500 ft
V_u = 1055 veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 45.0 mph
Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{down} = ft
V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	1905	0.96	Level	9	0	0.957	0.95	2183
Ramp	265	0.96	Level	8	0	0.962	0.95	302
UpStream	1055	0.96	Level	8	0	0.962	0.95	1203
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$
L_{EQ} = (Equation 25-2 or 25-3)
P_{FM} = 1.000 using Equation (Exhibit 25-5)
V_{12} = 2183 pc/h
V_3 or V_{av34} 0 pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No
If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	2485	Exhibit 25-7		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	2485	Exhibit 25-7	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$
D_R = 20.3 (pc/mi/ln)
LOS = C (Exhibit 25-4)

Speed Determination

M_S = 0.305 (Exibit 25-19)
S_R= 61.5 mph (Exhibit 25-19)
S_0= N/A mph (Exhibit 25-19)
S = 61.5 mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$
L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = using Equation (Exhibit 25-12)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086 V_{12} - 0.009 L_D$
D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

D_s = (Exhibit 25-19)
S_R= mph (Exhibit 25-19)
S_0= mph (Exhibit 25-19)
S = mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Northbound
Agency or Company	URS Corporation	Junction	CR 54 NB ON-RAMP
Date Performed	4/27/2010	Jurisdiction	Pasco County
Analysis Time Period	PM	Analysis Year	2010

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp
☑ Yes ☐ On
☐ No ☑ Off
L_{up} = 3500 ft
V_u = 1295 veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 45.0 mph
Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{down} = ft
V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	2300	0.96	Level	9	0	0.957	0.95	2635
Ramp	325	0.96	Level	8	0	0.962	0.95	371
UpStream	1295	0.96	Level	8	0	0.962	0.95	1477
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$
L_{EQ} = (Equation 25-2 or 25-3)
P_{FM} = 1.000 using Equation (Exhibit 25-5)
V_{12} = 2635 pc/h
V_3 or V_{av34} 0 pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No
If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	3006	Exhibit 25-7		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	3006	Exhibit 25-7	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$
D_R = 24.4 (pc/mi/ln)
LOS = C (Exhibit 25-4)

Speed Determination

M_S = 0.337 (Exibit 25-19)
S_R= 60.6 mph (Exhibit 25-19)
S_0= N/A mph (Exhibit 25-19)
S = 60.6 mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$
L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = using Equation (Exhibit 25-12)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086 V_{12} - 0.009 L_D$
D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

D_s = (Exhibit 25-19)
S_R= mph (Exhibit 25-19)
S_0= mph (Exhibit 25-19)
S = mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Southbound
Agency or Company	URS Corporation	Junction	CR 54 SB OFF-RAMP
Date Performed	4/26/2010	Jurisdiction	Pasco County
Analysis Time Period	AM	Analysis Year	2010

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 45.0 mph

Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp
☑ Yes ☑ On
☐ No ☐ Off
L_{down} = 3500 ft
V_D = 1295 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	2625	0.96	Level	12	0	0.943	0.95	3051
Ramp	325	0.96	Level	8	0	0.962	0.95	371
UpStream								
DownStream	1295	0.96	Level	8	0	0.962	0.95	1477

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)
P_{FM} = using Equation (Exhibit 25-5)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)
S_R= mph (Exhibit 25-19)
S_0= mph (Exhibit 25-19)
S = mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = 1.000 using Equation (Exhibit 25-12)
V_{12} = 3051 pc/h
V_3 or V_{av34} 0 pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No
If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	3051	Exhibit 25-14	4800	No
$V_{FO} = V_F - V_R$	2680	Exhibit 25-14	4800	No
V_R	371	Exhibit 25-3	2100	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	3051	Exhibit 25-14	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = 26.8 (pc/mi/ln)
LOS = C (Exhibit 25-4)

Speed Determination

D_s = 0.331 (Exhibit 25-19)
S_R= 60.7 mph (Exhibit 25-19)
S_0= N/A mph (Exhibit 25-19)
S = 60.7 mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Southbound
Agency or Company	URS Corporation	Junction	CR 54 SB OFF-RAMP
Date Performed	4/27/2010	Jurisdiction	Pasco County
Analysis Time Period	PM	Analysis Year	2010

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 45.0 mph

Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp
☑ Yes ☑ On
☐ No ☐ Off
L_{down} = 3500 ft
V_D = 1055 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	2170	0.96	Level	12	0	0.943	0.95	2522
Ramp	265	0.96	Level	8	0	0.962	0.95	302
UpStream								
DownStream	1055	0.96	Level	8	0	0.962	0.95	1203

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)
P_{FM} = using Equation (Exhibit 25-5)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)
S_R= mph (Exhibit 25-19)
S_0= mph (Exhibit 25-19)
S = mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = 1.000 using Equation (Exhibit 25-12)
V_{12} = 2522 pc/h
V_3 or V_{av34} 0 pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No
If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	2522	Exhibit 25-14	4800	No
$V_{FO} = V_F - V_R$	2220	Exhibit 25-14	4800	No
V_R	302	Exhibit 25-3	2100	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	2522	Exhibit 25-14	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = 22.3 (pc/mi/ln)
LOS = C (Exhibit 25-4)

Speed Determination

D_s = 0.325 (Exhibit 25-19)
S_R= 60.9 mph (Exhibit 25-19)
S_0= N/A mph (Exhibit 25-19)
S = 60.9 mph (Exhibit 25-15)

Ramp Capacity Check: 2010 AM Peak Hour

Assumed Ramp Roadway Capacity (HCM 2000 Exhibit 25-3):

Ramp Free-Flow Speed, S_{FR} (mph)	Capacity (pc/h)	
	Single-Lane Ramps	Two-Lane Ramps
> 50	2200	4400
> 40 - 50	2100	4100
> 30 - 40	2000	3800
≥ 20 - 30	1900	3500
< 20	1800	3200

Location	Volume (veh/h)	FFS (S_{FR})	Lanes	% Trucks	PHF	E_T	f_{HV}	f_P	Flow Rate (pc/h)	Capacity (pc/h)	Over Capacity?
I-75 SB on from CR 54	1295	45	1	8.0%	0.96	1.5	0.962	0.95	1477	2100	No

Notes:

1. Volumes are converted to equivalent passenger cars per hour (pc/h) flow rates under base conditions during the peak 15 minutes of the hour using HCM 2000 Equation 25-1.

Ramp Capacity Check: 2010 PM Peak Hour

Assumed Ramp Roadway Capacity (HCM 2000 Exhibit 25-3):

Ramp Free-Flow Speed, S_{FR} (mph)	Capacity (pc/h)	
	Single-Lane Ramps	Two-Lane Ramps
> 50	2200	4400
> 40 - 50	2100	4100
> 30 - 40	2000	3800
≥ 20 - 30	1900	3500
< 20	1800	3200

Location	Volume (veh/h)	FFS (S_{FR})	Lanes	% Trucks	PHF	E_T	f_{HV}	f_P	Flow Rate (pc/h)	Capacity (pc/h)	Over Capacity?
I-75 SB on from CR 54	1055	45	1	8.0%	0.96	1.5	0.962	0.95	1204	2100	No

Notes:

1. Volumes are converted to equivalent passenger cars per hour (pc/h) flow rates under base conditions during the peak 15 minutes of the hour using HCM 2000 Equation 25-1.

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Northbound
Agency or Company	URS Corporation	Junction	SR 52 NB OFF-RAMP
Date Performed	4/23/2010	Jurisdiction	Pasco County
Analysis Time Period	AM	Analysis Year	2010

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 45.0 mph
Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp
☑ Yes ☑ On
☐ No ☐ Off
L_{down} = 2000 ft
V_D = 245 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	2170	0.96	Level	12	0	0.943	0.95	2522
Ramp	730	0.96	Level	8	0	0.962	0.95	832
UpStream								
DownStream	245	0.96	Level	8	0	0.962	0.95	279

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$
L_{EQ} = (Equation 25-2 or 25-3)
P_{FM} = using Equation (Exhibit 25-5)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$
D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)
S_R= mph (Exhibit 25-19)
S_0= mph (Exhibit 25-19)
S = mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$
L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = 1.000 using Equation (Exhibit 25-12)
V_{12} = 2522 pc/h
V_3 or V_{av34} 0 pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No
If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	2522	Exhibit 25-14	4800	No
$V_{FO} = V_F - V_R$	1690	Exhibit 25-14	4800	No
V_R	832	Exhibit 25-3	2100	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	2522	Exhibit 25-14	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086 V_{12} - 0.009 L_D$
D_R = 22.3 (pc/mi/ln)
LOS = C (Exhibit 25-4)

Speed Determination

D_s = 0.373 (Exhibit 25-19)
S_R= 59.6 mph (Exhibit 25-19)
S_0= N/A mph (Exhibit 25-19)
S = 59.6 mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Northbound
Agency or Company	URS Corporation	Junction	SR 52 NB OFF-RAMP
Date Performed	4/27/2010	Jurisdiction	Pasco County
Analysis Time Period	PM	Analysis Year	2010

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 45.0 mph

Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp
☑ Yes ☑ On
☐ No ☐ Off
L_{down} = 2000 ft
V_D = 295 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	2625	0.96	Level	12	0	0.943	0.95	3051
Ramp	940	0.96	Level	8	0	0.962	0.95	1072
UpStream								
DownStream	295	0.96	Level	8	0	0.962	0.95	336

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)
P_{FM} = using Equation (Exhibit 25-5)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$

D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)
S_R= mph (Exhibit 25-19)
S_0= mph (Exhibit 25-19)
S = mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = 1.000 using Equation (Exhibit 25-12)
V_{12} = 3051 pc/h
V_3 or V_{av34} 0 pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No
If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	3051	Exhibit 25-14	4800	No
$V_{FO} = V_F - V_R$	1979	Exhibit 25-14	4800	No
V_R	1072	Exhibit 25-3	2100	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	3051	Exhibit 25-14	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086 V_{12} - 0.009 L_D$

D_R = 26.8 (pc/mi/ln)
LOS = C (Exhibit 25-4)

Speed Determination

D_s = 0.394 (Exhibit 25-19)
S_R= 59.0 mph (Exhibit 25-19)
S_0= N/A mph (Exhibit 25-19)
S = 59.0 mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Northbound
Agency or Company	URS Corporation	Junction	SR 52 NB ON-RAMP
Date Performed	4/26/2010	Jurisdiction	Pasco County
Analysis Time Period	AM	Analysis Year	2010

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp
☑ Yes ☐ On
☐ No ☑ Off
L_{up} = 2000 ft
V_u = 730 veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 45.0 mph
Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{down} = ft
V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	1440	0.96	Level	12	0	0.943	0.95	1674
Ramp	245	0.96	Level	8	0	0.962	0.95	279
UpStream	730	0.96	Level	8	0	0.962	0.95	832
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$
L_{EQ} = (Equation 25-2 or 25-3)
P_{FM} = 1.000 using Equation (Exhibit 25-5)
V_{12} = 1674 pc/h
V_3 or V_{av34} 0 pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No
If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	1953	Exhibit 25-7		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	1953	Exhibit 25-7	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$
D_R = 16.2 (pc/mi/ln)
LOS = B (Exhibit 25-4)

Speed Determination

M_S = 0.285 (Exibit 25-19)
S_R= 62.0 mph (Exhibit 25-19)
S_0= N/A mph (Exhibit 25-19)
S = 62.0 mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$
L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = using Equation (Exhibit 25-12)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086 V_{12} - 0.009 L_D$
D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

D_s = (Exhibit 25-19)
S_R= mph (Exhibit 25-19)
S_0= mph (Exhibit 25-19)
S = mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Northbound
Agency or Company	URS Corporation	Junction	SR 52 NB ON-RAMP
Date Performed	4/27/2010	Jurisdiction	Pasco County
Analysis Time Period	PM	Analysis Year	2010

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp
☑ Yes ☐ On
☐ No ☑ Off
L_{up} = 2000 ft
V_u = 940 veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 45.0 mph
Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{down} = ft
V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	1685	0.96	Level	12	0	0.943	0.95	1958
Ramp	295	0.96	Level	8	0	0.962	0.95	336
UpStream	940	0.96	Level	8	0	0.962	0.95	1072
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$
L_{EQ} = (Equation 25-2 or 25-3)
P_{FM} = 1.000 using Equation (Exhibit 25-5)
V_{12} = 1958 pc/h
V_3 or V_{av34} 0 pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No
If Yes, V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	2294	Exhibit 25-7		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	2294	Exhibit 25-7	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$
D_R = 18.8 (pc/mi/ln)
LOS = B (Exhibit 25-4)

Speed Determination

M_S = 0.297 (Exibit 25-19)
S_R = 61.7 mph (Exhibit 25-19)
S_0 = N/A mph (Exhibit 25-19)
S = 61.7 mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$
L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = using Equation (Exhibit 25-12)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086 V_{12} - 0.009 L_D$
D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

D_s = (Exhibit 25-19)
S_R = mph (Exhibit 25-19)
S_0 = mph (Exhibit 25-19)
S = mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Southbound
Agency or Company	URS Corporation	Junction	SR 52 SB OFF-RAMP
Date Performed	4/23/2010	Jurisdiction	Pasco County
Analysis Time Period	AM	Analysis Year	2010

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 45.0 mph

Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp
☑ Yes ☑ On
☐ No ☐ Off
L_{down} = 2000 ft
V_D = 940 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	1980	0.96	Level	15	0	0.930	0.95	2334
Ramp	295	0.96	Level	8	0	0.962	0.95	336
UpStream								
DownStream	940	0.96	Level	8	0	0.962	0.95	1072

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)
P_{FM} = using Equation (Exhibit 25-5)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)
S_R= mph (Exhibit 25-19)
S_0= mph (Exhibit 25-19)
S = mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = 1.000 using Equation (Exhibit 25-12)
V_{12} = 2334 pc/h
V_3 or V_{av34} 0 pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No
If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	2334	Exhibit 25-14	4800	No
$V_{FO} = V_F - V_R$	1998	Exhibit 25-14	4800	No
V_R	336	Exhibit 25-3	2100	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	2334	Exhibit 25-14	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = 20.6 (pc/mi/ln)
LOS = C (Exhibit 25-4)

Speed Determination

D_s = 0.328 (Exhibit 25-19)
S_R= 60.8 mph (Exhibit 25-19)
S_0= N/A mph (Exhibit 25-19)
S = 60.8 mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Southbound
Agency or Company	URS Corporation	Junction	SR 52 SB OFF-RAMP
Date Performed	4/27/2010	Jurisdiction	Pasco County
Analysis Time Period	PM	Analysis Year	2010

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 45.0 mph

Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp
☑ Yes ☑ On
☐ No ☐ Off
L_{down} = 2000 ft
V_D = 730 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	1685	0.96	Level	15	0	0.930	0.95	1986
Ramp	245	0.96	Level	8	0	0.962	0.95	279
UpStream								
DownStream	730	0.96	Level	8	0	0.962	0.95	832

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)
P_{FM} = using Equation (Exhibit 25-5)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$

D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)
S_R= mph (Exhibit 25-19)
S_0= mph (Exhibit 25-19)
S = mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = 1.000 using Equation (Exhibit 25-12)
V_{12} = 1986 pc/h
V_3 or V_{av34} 0 pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No
If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	1986	Exhibit 25-14	4800	No
$V_{FO} = V_F - V_R$	1707	Exhibit 25-14	4800	No
V_R	279	Exhibit 25-3	2100	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	1986	Exhibit 25-14	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086 V_{12} - 0.009 L_D$

D_R = 17.6 (pc/mi/ln)
LOS = B (Exhibit 25-4)

Speed Determination

D_s = 0.323 (Exhibit 25-19)
S_R= 61.0 mph (Exhibit 25-19)
S_0= N/A mph (Exhibit 25-19)
S = 61.0 mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Southbound
Agency or Company	URS Corporation	Junction	SR 52 SB ON-RAMP
Date Performed	4/26/2010	Jurisdiction	Pasco County
Analysis Time Period	AM	Analysis Year	2010

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp
☑ Yes ☐ On
☐ No ☑ Off
L_{up} = 2000 ft
V_u = 295 veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 45.0 mph
Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{down} = ft
V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	1685	0.96	Level	15	0	0.930	0.95	1986
Ramp	940	0.96	Level	8	0	0.962	0.95	1072
UpStream	295	0.96	Level	8	0	0.962	0.95	336
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$
L_{EQ} = (Equation 25-2 or 25-3)
P_{FM} = 1.000 using Equation (Exhibit 25-5)
V_{12} = 1986 pc/h
V_3 or V_{av34} 0 pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No
If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	3058	Exhibit 25-7		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	3058	Exhibit 25-7	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$
D_R = 24.4 (pc/mi/ln)
LOS = C (Exhibit 25-4)

Speed Determination

M_S = 0.341 (Exibit 25-19)
S_R= 60.5 mph (Exhibit 25-19)
S_0= N/A mph (Exhibit 25-19)
S = 60.5 mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$
L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = using Equation (Exhibit 25-12)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086 V_{12} - 0.009 L_D$
D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

D_s = (Exhibit 25-19)
S_R= mph (Exhibit 25-19)
S_0= mph (Exhibit 25-19)
S = mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Southbound
Agency or Company	URS Corporation	Junction	SR 52 SB ON-RAMP
Date Performed	4/27/2010	Jurisdiction	Pasco County
Analysis Time Period	PM	Analysis Year	2010

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp
☑ Yes ☐ On
☐ No ☑ Off
L_{up} = 2000 ft
V_u = 245 veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 45.0 mph
Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{down} = ft
V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	1440	0.96	Level	15	0	0.930	0.95	1697
Ramp	730	0.96	Level	8	0	0.962	0.95	832
UpStream	245	0.96	Level	8	0	0.962	0.95	279
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$
L_{EQ} = (Equation 25-2 or 25-3)
P_{FM} = 1.000 using Equation (Exhibit 25-5)
V_{12} = 1697 pc/h
V_3 or V_{av34} 0 pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No
If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	2529	Exhibit 25-7		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	2529	Exhibit 25-7	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$
D_R = 20.4 (pc/mi/ln)
LOS = C (Exhibit 25-4)

Speed Determination

M_S = 0.307 (Exibit 25-19)
S_R= 61.4 mph (Exhibit 25-19)
S_0= N/A mph (Exhibit 25-19)
S = 61.4 mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$
L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = using Equation (Exhibit 25-12)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086 V_{12} - 0.009 L_D$
D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

D_s = (Exhibit 25-19)
S_R= mph (Exhibit 25-19)
S_0= mph (Exhibit 25-19)
S = mph (Exhibit 25-15)

Intersection Analysis Results

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 NB Ramps at SR 56*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/18/2010*	Jurisdiction	*FDOT*
Time Period	*AM*	Analysis Year	*2010*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	*1*	*2*			*4*		*2*					
Lane Group	*L*	*T*			*T*		*L*					
Volume (vph)	*285*	*810*			*1830*		*1320*					
% Heavy Vehicles	*3*	*3*			*3*		*8*					
PHF	*0.96*	*0.96*			*0.96*		*0.96*					
Pretimed/Actuated (P/A)	*A*	*A*			*A*		*A*					
Startup Lost Time	*2.0*	*2.0*			*2.0*		*2.0*					
Extension of Effective Green	*2.0*	*2.0*			*2.0*		*2.0*					
Arrival Type	*3*	*3*			*3*		*3*					
Unit Extension	*3.0*	*3.0*			*3.0*		*3.0*					
Ped/Bike/RTOR Volume	*0*	*0*		*0*	*0*		*0*	*0*		*0*	*0*	
Lane Width	*12.0*	*12.0*			*12.0*		*12.0*					
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour	*0*	*0*			*0*		*0*					
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	EB Only	Thru Only	03	04	NB Only	06	07	08
Timing	G = *23.8*	G = *53.9*	G =	G =	G = *53.5*	G =	G =	G =
	Y = *6.2*	Y = *6.1*	Y =	Y =	Y = *6.5*	Y =	Y =	Y =
Duration of Analysis (hrs) = *0.25*						Cycle Length C = *150.0*		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	*297*	*844*			*1906*		*1375*					
Lane Group Capacity	*278*	*1964*			*2100*		*1158*					
v/c Ratio	*1.07*	*0.43*			*0.91*		*1.19*					
Green Ratio	*0.16*	*0.56*			*0.36*		*0.36*					
Uniform Delay d_1	*63.1*	*19.2*			*45.7*		*48.3*					
Delay Factor k	*0.50*	*0.11*			*0.43*		*0.50*					
Incremental Delay d_2	*73.3*	*0.2*			*6.3*		*93.2*					
PF Factor	*1.000*	*1.000*			*1.000*		*1.000*					
Control Delay	*136.4*	*19.3*			*51.9*		*141.5*					
Lane Group LOS	*F*	*B*			*D*		*F*					
Approach Delay	*49.8*			*51.9*			*141.5*					
Approach LOS	*D*			*D*			*F*					
Intersection Delay	*79.2*			Intersection LOS			*E*					

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group	*L*	*T*			*T*		*L*					
Initial Queue/Lane	*0.0*	*0.0*			*0.0*		*0.0*					
Flow Rate/Lane Group	*297*	*844*			*1906*		*1375*					
Satflow/Lane	*1752*	*1844*			*1844*		*1671*					
Capacity/Lane Group	*278*	*1964*			*2100*		*1158*					
Flow Ratio	*0.2*	*0.2*			*0.3*		*0.4*					
v/c Ratio	*1.07*	*0.43*			*0.91*		*1.19*					
I Factor	*1.000*	*1.000*			*1.000*		*1.000*					
Arrival Type	*3*	*3*			*3*		*3*					
Platoon Ratio	*1.00*	*1.00*			*1.00*		*1.00*					
PF Factor	*1.00*	*1.00*			*1.00*		*1.00*					
Q_1	*12.4*	*10.7*			*23.8*		*29.5*					
k_B	*0.4*	*1.0*			*0.7*		*0.7*					
Q_2	*5.4*	*0.7*			*4.5*		*17.5*					
Q Average	*17.8*	*11.4*			*28.3*		*47.0*					
Percentile Back of Queue (95th percentile)												
$f_{B\%}$	*1.7*	*1.8*			*1.6*		*1.5*					
Back of Queue	*30.6*	*20.8*			*46.0*		*72.5*					
Queue Storage Ratio												
Queue Spacing	*25.0*	*25.0*			*25.0*		*25.0*					
Queue Storage	*650*	*0*			*0*		*1100*					
Average Queue Storage Ratio	*0.7*						*1.1*					
95% Queue Storage Ratio	*1.2*						*1.6*					

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 NB Ramps at SR 56*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/18/2010*	Jurisdiction	*FDOT*
Time Period	*PM*	Analysis Year	*2010*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	*1*	*2*			*4*		*2*					
Lane Group	*L*	*T*			*T*		*L*					
Volume (vph)	*220*	*820*			*1430*		*1620*					
% Heavy Vehicles	*3*	*3*			*3*		*8*					
PHF	*0.96*	*0.96*			*0.96*		*0.96*					
Pretimed/Actuated (P/A)	*A*	*A*			*A*		*A*					
Startup Lost Time	*2.0*	*2.0*			*2.0*		*2.0*					
Extension of Effective Green	*2.0*	*2.0*			*2.0*		*2.0*					
Arrival Type	*3*	*3*			*3*		*3*					
Unit Extension	*3.0*	*3.0*			*3.0*		*3.0*					
Ped/Bike/RTOR Volume	*0*	*0*		*0*	*0*		*0*	*0*		*0*	*0*	
Lane Width	*12.0*	*12.0*			*12.0*		*12.0*					
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour	*0*	*0*			*0*		*0*					
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	EB Only	Thru Only	03	04	NB Only	06	07	08
Timing	G = *24.8*	G = *52.9*	G =	G =	G = *53.5*	G =	G =	G =
	Y = *6.2*	Y = *6.1*	Y =	Y =	Y = *6.5*	Y =	Y =	Y =

Duration of Analysis (hrs) = *0.25* | Cycle Length C = *150.0*

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	*229*	*854*			*1490*		*1688*					
Lane Group Capacity	*290*	*1964*			*2001*		*1158*					
v/c Ratio	*0.79*	*0.43*			*0.74*		*1.46*					
Green Ratio	*0.17*	*0.56*			*0.35*		*0.36*					
Uniform Delay d_1	*60.1*	*19.2*			*42.6*		*48.3*					
Delay Factor k	*0.34*	*0.11*			*0.30*		*0.50*					
Incremental Delay d_2	*13.7*	*0.2*			*1.6*		*210.8*					
PF Factor	*1.000*	*1.000*			*1.000*		*1.000*					
Control Delay	*73.8*	*19.4*			*44.2*		*259.0*					
Lane Group LOS	*E*	*B*			*D*		*F*					
Approach Delay	*30.9*			*44.2*			*259.0*					
Approach LOS	*C*			*D*			*F*					
Intersection Delay	*125.9*			Intersection LOS						*F*		

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group	*L*	*T*			*T*		*L*					
Initial Queue/Lane	*0.0*	*0.0*			*0.0*		*0.0*					
Flow Rate/Lane Group	*229*	*854*			*1490*		*1688*					
Satflow/Lane	*1752*	*1844*			*1844*		*1671*					
Capacity/Lane Group	*290*	*1964*			*2001*		*1158*					
Flow Ratio	*0.1*	*0.2*			*0.3*		*0.5*					
v/c Ratio	*0.79*	*0.43*			*0.74*		*1.46*					
I Factor	*1.000*	*1.000*			*1.000*		*1.000*					
Arrival Type	*3*	*3*			*3*		*3*					
Platoon Ratio	*1.00*	*1.00*			*1.00*		*1.00*					
PF Factor	*1.00*	*1.00*			*1.00*		*1.00*					
Q_1	*9.2*	*10.9*			*17.7*		*36.2*					
k_B	*0.4*	*1.0*			*0.7*		*0.7*					
Q_2	*1.4*	*0.7*			*1.9*		*36.2*					
Q Average	*10.6*	*11.6*			*19.6*		*72.4*					
Percentile Back of Queue (95th percentile)												
$f_{B\%}$	*1.8*	*1.8*			*1.7*		*1.5*					
Back of Queue	*19.4*	*21.0*			*33.4*		*109*					
Queue Storage Ratio												
Queue Spacing	*25.0*	*25.0*			*25.0*		*25.0*					
Queue Storage	*650*	*0*			*0*		*1100*					
Average Queue Storage Ratio	*0.4*						*1.6*					
95% Queue Storage Ratio	*0.7*						*2.5*					

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 SB Ramps at SR 56*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/18/2010*	Jurisdiction	*FDOT*
Time Period	*AM*	Analysis Year	*2010*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes		*2*		*2*	*2*					*1*		
Lane Group		*T*		*L*	*T*					*L*		
Volume (vph)		*785*		*1155*	*1995*					*310*		
% Heavy Vehicles		*3*		*3*	*3*					*8*		
PHF		*0.96*		*0.96*	*0.96*					*0.96*		
Pretimed/Actuated (P/A)		*A*		*A*	*A*					*A*		
Startup Lost Time		*2.0*		*2.0*	*2.0*					*2.0*		
Extension of Effective Green		*2.0*		*2.0*	*2.0*					*2.0*		
Arrival Type		*3*		*3*	*3*					*3*		
Unit Extension		*3.0*		*3.0*	*3.0*					*3.0*		
Ped/Bike/RTOR Volume	*0*	*0*		*0*	*0*		*0*	*0*		*0*	*0*	
Lane Width		*12.0*		*12.0*	*12.0*					*12.0*		
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour		*0*		*0*	*0*					*0*		
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	WB Only	Thru Only	03	04	SB Only	06	07	08
Timing	G = *53.7*	G = *53.9*	G =	G =	G = *23.6*	G =	G =	G =
	Y = *6.3*	Y = *6.1*	Y =	Y =	Y = *6.4*	Y =	Y =	Y =

Duration of Analysis (hrs) = *0.25* | Cycle Length C = *150.0*

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate		*818*		*1203*	*2078*					*323*		
Lane Group Capacity		*1262*		*1218*	*2667*					*263*		
v/c Ratio		*0.65*		*0.99*	*0.78*					*1.23*		
Green Ratio		*0.36*		*0.36*	*0.76*					*0.16*		
Uniform Delay d_1		*40.1*		*47.8*	*10.6*					*63.2*		
Delay Factor k		*0.23*		*0.49*	*0.33*					*0.50*		
Incremental Delay d_2		*1.2*		*22.8*	*1.5*					*131.4*		
PF Factor		*1.000*		*1.000*	*1.000*					*1.000*		
Control Delay		*41.3*		*70.6*	*12.2*					*194.6*		
Lane Group LOS		*D*		*E*	*B*					*F*		
Approach Delay	*41.3*			*33.6*						*194.6*		
Approach LOS	*D*			*C*						*F*		
Intersection Delay	*46.8*			Intersection LOS						*D*		

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group		*T*		*L*	*T*					*L*		
Initial Queue/Lane		*0.0*		*0.0*	*0.0*					*0.0*		
Flow Rate/Lane Group		*818*		*1203*	*2078*					*323*		
Satflow/Lane		*1844*		*1752*	*1844*					*1671*		
Capacity/Lane Group		*1262*		*1218*	*2667*					*263*		
Flow Ratio		*0.2*		*0.4*	*0.6*					*0.2*		
v/c Ratio		*0.65*		*0.99*	*0.78*					*1.23*		
I Factor		*1.000*		*1.000*	*1.000*					*1.000*		
Arrival Type		*3*		*3*	*3*					*3*		
Platoon Ratio		*1.00*		*1.00*	*1.00*					*1.00*		
PF Factor		*1.00*		*1.00*	*1.00*					*1.00*		
Q_1		*14.9*		*25.6*	*26.8*					*13.5*		
k_B		*0.7*		*0.7*	*1.1*					*0.4*		
Q_2		*1.3*		*6.9*	*3.7*					*9.3*		
Q Average		*16.2*		*32.5*	*30.5*					*22.8*		

Percentile Back of Queue (95th percentile)

$f_{B\%}$		*1.7*		*1.6*	*1.6*					*1.7*		
Back of Queue		*28.3*		*52.0*	*49.1*					*38.0*		

Queue Storage Ratio

Queue Spacing		*25.0*		*25.0*	*25.0*					*25.0*		
Queue Storage		*0*		*1500*	*0*					*700*		
Average Queue Storage Ratio				*0.5*						*0.8*		
95% Queue Storage Ratio				*0.9*						*1.4*		

HCS+™ Version 5.5 Generated: 6/7/2011 10:23 AM

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 SB Ramps at SR 56*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/18/2010*	Jurisdiction	*FDOT*
Time Period	*PM*	Analysis Year	*2010*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes		*2*		*2*	*2*					*1*		
Lane Group		*T*		*L*	*T*					*L*		
Volume (vph)		*895*		*930*	*2120*					*145*		
% Heavy Vehicles		*3*		*3*	*3*					*8*		
PHF		*0.96*		*0.96*	*0.96*					*0.96*		
Pretimed/Actuated (P/A)		*A*		*A*	*A*					*A*		
Startup Lost Time		*2.0*		*2.0*	*2.0*					*2.0*		
Extension of Effective Green		*2.0*		*2.0*	*2.0*					*2.0*		
Arrival Type		*3*		*3*	*3*					*3*		
Unit Extension		*3.0*		*3.0*	*3.0*					*3.0*		
Ped/Bike/RTOR Volume	*0*	*0*		*0*	*0*		*0*	*0*		*0*	*0*	
Lane Width		*12.0*		*12.0*	*12.0*					*12.0*		
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour		*0*		*0*	*0*					*0*		
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	WB Only	Thru Only	03	04	SB Only	06	07	08
Timing	G = *53.7*	G = *53.9*	G =	G =	G = *23.6*	G =	G =	G =
	Y = *6.3*	Y = *6.1*	Y =	Y =	Y = *6.4*	Y =	Y =	Y =

Duration of Analysis (hrs) = *0.25* — Cycle Length C = *150.0*

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate		*932*		*969*	*2208*					*151*		
Lane Group Capacity		*1262*		*1218*	*2667*					*263*		
v/c Ratio		*0.74*		*0.80*	*0.83*					*0.57*		
Green Ratio		*0.36*		*0.36*	*0.76*					*0.16*		
Uniform Delay d_1		*41.9*		*43.2*	*11.7*					*58.5*		
Delay Factor k		*0.30*		*0.34*	*0.37*					*0.17*		
Incremental Delay d_2		*2.3*		*3.8*	*2.3*					*3.0*		
PF Factor		*1.000*		*1.000*	*1.000*					*1.000*		
Control Delay		*44.2*		*47.0*	*14.0*					*61.6*		
Lane Group LOS		*D*		*D*	*B*					*E*		
Approach Delay	*44.2*			*24.1*						*61.6*		
Approach LOS	*D*			*C*						*E*		
Intersection Delay	*29.8*			Intersection LOS						*C*		

 HCS+™ Version 5.5 Generated: 6/7/2011 10:29 AM

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group		*T*		*L*	*T*					*L*		
Initial Queue/Lane		*0.0*		*0.0*	*0.0*					*0.0*		
Flow Rate/Lane Group		*932*		*969*	*2208*					*151*		
Satflow/Lane		*1844*		*1752*	*1844*					*1671*		
Capacity/Lane Group		*1262*		*1218*	*2667*					*263*		
Flow Ratio		*0.3*		*0.3*	*0.6*					*0.1*		
v/c Ratio		*0.74*		*0.80*	*0.83*					*0.57*		
I Factor		*1.000*		*1.000*	*1.000*					*1.000*		
Arrival Type		*3*		*3*	*3*					*3*		
Platoon Ratio		*1.00*		*1.00*	*1.00*					*1.00*		
PF Factor		*1.00*		*1.00*	*1.00*					*1.00*		
Q_1		*17.8*		*18.6*	*31.3*					*5.8*		
k_B		*0.7*		*0.7*	*1.1*					*0.4*		
Q_2		*1.9*		*2.4*	*4.8*					*0.5*		
Q Average		*19.7*		*21.0*	*36.1*					*6.4*		
Percentile Back of Queue (95th percentile)												
$f_{B\%}$		*1.7*		*1.7*	*1.6*					*1.9*		
Back of Queue		*33.5*		*35.4*	*57.0*					*12.2*		
Queue Storage Ratio												
Queue Spacing		*25.0*		*25.0*	*25.0*					*25.0*		
Queue Storage		*0*		*1500*	*0*					*700*		
Average Queue Storage Ratio				*0.3*						*0.2*		
95% Queue Storage Ratio				*0.6*						*0.4*		

HCS+™ Version 5.5 Generated: 6/7/2011 10:30 AM

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 NB Ramps at CR 54*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/20/2010*	Jurisdiction	*FDOT*
Time Period	*AM*	Analysis Year	*2010*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	*1*	*3*			*5*	*1*	*2*					
Lane Group	*L*	*T*			*T*	*R*	*L*					
Volume (vph)	*140*	*965*			*1530*	*125*	*480*					
% Heavy Vehicles	*2*	*2*			*2*	*2*	*8*					
PHF	*0.92*	*0.92*			*0.92*	*0.92*	*0.92*					
Pretimed/Actuated (P/A)	*A*	*A*			*A*	*A*	*A*					
Startup Lost Time	*2.0*	*2.0*			*2.0*	*2.0*	*2.0*					
Extension of Effective Green	*2.0*	*2.0*			*2.0*	*2.0*	*2.0*					
Arrival Type	*3*	*3*			*3*	*3*	*3*					
Unit Extension	*3.0*	*3.0*			*3.0*	*3.0*	*3.0*					
Ped/Bike/RTOR Volume	*0*	*0*		*0*	*0*	*0*	*0*	*0*		*0*	*0*	
Lane Width	*12.0*	*12.0*			*12.0*	*12.0*	*12.0*					
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour	*0*	*0*			*0*	*0*	*0*					
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	EB Only	Thru & RT	03	04	NB Only	06	07	08
Timing	G = *9.0*	G = *29.0*	G =	G =	G = *29.0*	G =	G =	G =
	Y = *6*	Y = *6*	Y =	Y =	Y = *6*	Y =	Y =	Y =

Duration of Analysis (hrs) = *0.25* | Cycle Length C = *85.0*

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	*152*	*1049*			*1663*	*136*	*522*					
Lane Group Capacity	*187*	*2627*			*2602*	*1192*	*1107*					
v/c Ratio	*0.81*	*0.40*			*0.64*	*0.11*	*0.47*					
Green Ratio	*0.11*	*0.52*			*0.34*	*0.75*	*0.34*					
Uniform Delay d_1	*37.2*	*12.5*			*23.6*	*2.8*	*22.0*					
Delay Factor k	*0.35*	*0.11*			*0.22*	*0.11*	*0.11*					
Incremental Delay d_2	*23.2*	*0.1*			*0.5*	*0.0*	*0.3*					
PF Factor	*1.000*	*1.000*			*1.000*	*1.000*	*1.000*					
Control Delay	*60.4*	*12.6*			*24.1*	*2.9*	*22.3*					
Lane Group LOS	*E*	*B*			*C*	*A*	*C*					
Approach Delay	*18.6*			*22.5*			*22.3*					
Approach LOS	*B*			*C*			*C*					
Intersection Delay	*21.2*			Intersection LOS						*C*		

HCS+™ Version 5.5 Generated: 2/13/2013 5:08 PM

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group	*L*	*T*			*T*	*R*	*L*					
Initial Queue/Lane	*0.0*	*0.0*			*0.0*	*0.0*	*0.0*					
Flow Rate/Lane Group	*152*	*1049*			*1663*	*136*	*522*					
Satflow/Lane	*1770*	*1862*			*1862*	*1583*	*1671*					
Capacity/Lane Group	*187*	*2627*			*2602*	*1192*	*1107*					
Flow Ratio	*0.1*	*0.2*			*0.2*	*0.1*	*0.2*					
v/c Ratio	*0.81*	*0.40*			*0.64*	*0.11*	*0.47*					
I Factor	*1.000*	*1.000*			*1.000*	*1.000*	*1.000*					
Arrival Type	*3*	*3*			*3*	*3*	*3*					
Platoon Ratio	*1.00*	*1.00*			*1.00*	*1.00*	*1.00*					
PF Factor	*1.00*	*1.00*			*1.00*	*1.00*	*1.00*					
Q_1	*3.5*	*5.5*			*8.1*	*0.9*	*5.0*					
k_B	*0.2*	*0.7*			*0.5*	*0.7*	*0.5*					
Q_2	*0.9*	*0.4*			*0.9*	*0.1*	*0.4*					
Q Average	*4.4*	*6.0*			*9.0*	*1.0*	*5.4*					
Percentile Back of Queue (95th percentile)												
$f_{B\%}$	*2.0*	*1.9*			*1.9*	*2.1*	*1.9*					
Back of Queue	*8.7*	*11.5*			*16.7*	*2.0*	*10.5*					
Queue Storage Ratio												
Queue Spacing	*25.0*	*25.0*			*25.0*	*25.0*	*25.0*					
Queue Storage	*1000*	*0*			*0*	*500*	*1100*					
Average Queue Storage Ratio	*0.1*					*0.0*	*0.1*					
95% Queue Storage Ratio	*0.2*					*0.1*	*0.2*					

 HCS+™ Version 5.5 Generated: 2/13/2013 5:12 PM

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 NB Ramps at CR 54*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/20/2010*	Jurisdiction	*FDOT*
Time Period	*PM*	Analysis Year	*2010*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	*1*	*3*			*5*	*1*	*2*					
Lane Group	*L*	*T*			*T*	*R*	*L*					
Volume (vph)	*120*	*910*			*1335*	*205*	*550*					
% Heavy Vehicles	*2*	*2*			*2*	*2*	*8*					
PHF	*0.92*	*0.92*			*0.92*	*0.92*	*0.92*					
Pretimed/Actuated (P/A)	*A*	*A*			*A*	*A*	*A*					
Startup Lost Time	*2.0*	*2.0*			*2.0*	*2.0*	*2.0*					
Extension of Effective Green	*2.0*	*2.0*			*2.0*	*2.0*	*2.0*					
Arrival Type	*3*	*3*			*3*	*3*	*3*					
Unit Extension	*3.0*	*3.0*			*3.0*	*3.0*	*3.0*					
Ped/Bike/RTOR Volume	*0*	*0*		*0*	*0*	*0*	*0*	*0*		*0*	*0*	
Lane Width	*12.0*	*12.0*			*12.0*	*12.0*	*12.0*					
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour	*0*	*0*			*0*	*0*	*0*					
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	EB Only	Thru & RT	03	04	NB Only	06	07	08
Timing	G = *9.0*	G = *29.0*	G =	G =	G = *29.0*	G =	G =	G =
	Y = *6*	Y = *6*	Y =	Y =	Y = *6*	Y =	Y =	Y =

Duration of Analysis (hrs) = *0.25* | Cycle Length C = *85.0*

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	*130*	*989*			*1451*	*223*	*598*					
Lane Group Capacity	*187*	*2627*			*2949*	*1192*	*1107*					
v/c Ratio	*0.70*	*0.38*			*0.49*	*0.19*	*0.54*					
Green Ratio	*0.11*	*0.52*			*0.34*	*0.75*	*0.34*					
Uniform Delay d_1	*36.7*	*12.3*			*22.2*	*3.0*	*22.6*					
Delay Factor k	*0.26*	*0.11*			*0.11*	*0.11*	*0.14*					
Incremental Delay d_2	*10.7*	*0.1*			*0.1*	*0.1*	*0.5*					
PF Factor	*1.000*	*1.000*			*1.000*	*1.000*	*1.000*					
Control Delay	*47.4*	*12.4*			*22.3*	*3.1*	*23.2*					
Lane Group LOS	*D*	*B*			*C*	*A*	*C*					
Approach Delay	*16.4*			*19.7*			*23.2*					
Approach LOS	*B*			*B*			*C*					
Intersection Delay	*19.3*			Intersection LOS			*B*					

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group	*L*	*T*			*T*	*R*	*L*					
Initial Queue/Lane	*0.0*	*0.0*			*0.0*	*0.0*	*0.0*					
Flow Rate/Lane Group	*130*	*989*			*1451*	*223*	*598*					
Satflow/Lane	*1770*	*1862*			*1862*	*1583*	*1671*					
Capacity/Lane Group	*187*	*2627*			*2949*	*1192*	*1107*					
Flow Ratio	*0.1*	*0.2*			*0.2*	*0.1*	*0.2*					
v/c Ratio	*0.70*	*0.38*			*0.49*	*0.19*	*0.54*					
I Factor	*1.000*	*1.000*			*1.000*	*1.000*	*1.000*					
Arrival Type	*3*	*3*			*3*	*3*	*3*					
Platoon Ratio	*1.00*	*1.00*			*1.00*	*1.00*	*1.00*					
PF Factor	*1.00*	*1.00*			*1.00*	*1.00*	*1.00*					
Q_1	*3.0*	*5.1*			*5.8*	*1.5*	*5.9*					
k_B	*0.2*	*0.7*			*0.5*	*0.7*	*0.5*					
Q_2	*0.5*	*0.4*			*0.5*	*0.2*	*0.5*					
Q Average	*3.5*	*5.5*			*6.3*	*1.7*	*6.4*					
Percentile Back of Queue (95th percentile)												
$f_{B\%}$	*2.0*	*1.9*			*1.9*	*2.0*	*1.9*					
Back of Queue	*6.9*	*10.7*			*12.1*	*3.4*	*12.3*					
Queue Storage Ratio												
Queue Spacing	*25.0*	*25.0*			*25.0*	*25.0*	*25.0*					
Queue Storage	*1000*	*0*			*0*	*500*	*1100*					
Average Queue Storage Ratio	*0.1*					*0.1*	*0.1*					
95% Queue Storage Ratio	*0.2*					*0.2*	*0.3*					

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 SB Ramps at CR 54*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/20/2010*	Jurisdiction	*FDOT*
Time Period	*AM*	Analysis Year	*2010*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes		*4*	*1*	*2*	*3*					*1*		*1*
Lane Group		*T*	*R*	*L*	*T*					*L*		*R*
Volume (vph)		*900*	*550*	*745*	*1265*					*205*		*120*
% Heavy Vehicles		*2*	*2*	*2*	*2*					*8*		*8*
PHF		*0.90*	*0.90*	*0.90*	*0.90*					*0.90*		*0.90*
Pretimed/Actuated (P/A)		*A*	*A*	*A*	*A*					*A*		*A*
Startup Lost Time		*2.0*	*2.0*	*2.0*	*2.0*					*2.0*		*2.0*
Extension of Effective Green		*2.0*	*2.0*	*2.0*	*2.0*					*2.0*		*2.0*
Arrival Type		*3*	*3*	*3*	*3*					*3*		*3*
Unit Extension		*3.0*	*3.0*	*3.0*	*3.0*					*3.0*		*3.0*
Ped/Bike/RTOR Volume	*0*	*0*	*0*	*0*	*0*		*0*	*0*		*0*	*0*	*0*
Lane Width		*12.0*	*12.0*	*12.0*	*12.0*					*12.0*		*12.0*
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour		*0*	*0*	*0*	*0*					*0*		*0*
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	WB Only	Thru & RT	03	04	SB Only	06	07	08
Timing	G = *24.0*	G = *29.0*	G =	G =	G = *14.0*	G =	G =	G =
	Y = *6*	Y = *6*	Y =	Y =	Y = *6*	Y =	Y =	Y =
Duration of Analysis (hrs) = *0.25*						Cycle Length C = *85.0*		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate		*1000*	*611*	*828*	*1406*					*228*		*133*
Lane Group Capacity		*2260*	*913*	*970*	*3522*					*275*		*246*
v/c Ratio		*0.44*	*0.67*	*0.85*	*0.40*					*0.83*		*0.54*
Green Ratio		*0.34*	*0.58*	*0.28*	*0.69*					*0.16*		*0.16*
Uniform Delay d_1		*21.7*	*12.4*	*28.8*	*5.5*					*34.3*		*32.6*
Delay Factor k		*0.11*	*0.24*	*0.39*	*0.11*					*0.37*		*0.14*
Incremental Delay d_2		*0.1*	*1.9*	*7.5*	*0.1*					*18.7*		*2.4*
PF Factor		*1.000*	*1.000*	*1.000*	*1.000*					*1.000*		*1.000*
Control Delay		*21.9*	*14.3*	*36.3*	*5.6*					*53.1*		*35.0*
Lane Group LOS		*C*	*B*	*D*	*A*					*D*		*C*
Approach Delay	*19.0*			*17.0*						*46.4*		
Approach LOS	*B*			*B*						*D*		
Intersection Delay	*20.3*			Intersection LOS						*C*		

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group		*T*	*R*	*L*	*T*					*L*		*R*
Initial Queue/Lane		*0.0*	*0.0*	*0.0*	*0.0*					*0.0*		*0.0*
Flow Rate/Lane Group		*1000*	*611*	*828*	*1406*					*228*		*133*
Satflow/Lane		*1862*	*1583*	*1770*	*1862*					*1671*		*1495*
Capacity/Lane Group		*2260*	*913*	*970*	*3522*					*275*		*246*
Flow Ratio		*0.2*	*0.4*	*0.2*	*0.3*					*0.1*		*0.1*
v/c Ratio		*0.44*	*0.67*	*0.85*	*0.40*					*0.83*		*0.54*
I Factor		*1.000*	*1.000*	*1.000*	*1.000*					*1.000*		*1.000*
Arrival Type		*3*	*3*	*3*	*3*					*3*		*3*
Platoon Ratio		*1.00*	*1.00*	*1.00*	*1.00*					*1.00*		*1.00*
PF Factor		*1.00*	*1.00*	*1.00*	*1.00*					*1.00*		*1.00*
Q_1		*5.1*	*9.9*	*9.5*	*5.2*					*5.2*		*2.9*
k_B		*0.5*	*0.6*	*0.4*	*0.8*					*0.3*		*0.3*
Q_2		*0.4*	*1.2*	*2.1*	*0.5*					*1.2*		*0.3*
Q Average		*5.5*	*11.2*	*11.6*	*5.7*					*6.4*		*3.2*
Percentile Back of Queue (95th percentile)												
$f_{B\%}$		*1.9*	*1.8*	*1.8*	*1.9*					*1.9*		*2.0*
Back of Queue		*10.8*	*20.4*	*21.1*	*11.0*					*12.4*		*6.4*
Queue Storage Ratio												
Queue Spacing		*25.0*	*25.0*	*25.0*	*25.0*					*25.0*		*25.0*
Queue Storage		*0*	*700*	*900*	*0*					*300*		*1000*
Average Queue Storage Ratio			*0.4*	*0.3*						*0.5*		*0.1*
95% Queue Storage Ratio			*0.7*	*0.6*						*1.0*		*0.2*

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 SB Ramps at CR 54*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/20/2010*	Jurisdiction	*FDOT*
Time Period	*PM*	Analysis Year	*2010*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes		*4*	*1*	*2*	*3*					*1*		*1*
Lane Group		*T*	*R*	*L*	*T*					*L*		*R*
Volume (vph)		*905*	*480*	*575*	*1310*					*125*		*140*
% Heavy Vehicles		*2*	*2*	*2*	*2*					*8*		*8*
PHF		*0.92*	*0.92*	*0.92*	*0.92*					*0.92*		*0.92*
Pretimed/Actuated (P/A)		*A*	*A*	*A*	*A*					*A*		*A*
Startup Lost Time		*2.0*	*2.0*	*2.0*	*2.0*					*2.0*		*2.0*
Extension of Effective Green		*2.0*	*2.0*	*2.0*	*2.0*					*2.0*		*2.0*
Arrival Type		*3*	*3*	*3*	*3*					*3*		*3*
Unit Extension		*3.0*	*3.0*	*3.0*	*3.0*					*3.0*		*3.0*
Ped/Bike/RTOR Volume	*0*	*0*	*0*	*0*	*0*		*0*	*0*		*0*	*0*	*0*
Lane Width		*12.0*	*12.0*	*12.0*	*12.0*					*12.0*		*12.0*
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour		*0*	*0*	*0*	*0*					*0*		*0*
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	WB Only	Thru & RT	03	04	SB Only	06	07	08
Timing	G = *24.0*	G = *29.0*	G =	G =	G = *14.0*	G =	G =	G =
	Y = *6*	Y = *6*	Y =	Y =	Y = *6*	Y =	Y =	Y =
Duration of Analysis (hrs) = *0.25*						Cycle Length C = *85.0*		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate		*984*	*522*	*625*	*1424*					*136*		*152*
Lane Group Capacity		*2209*	*913*	*970*	*3522*					*275*		*246*
v/c Ratio		*0.45*	*0.57*	*0.64*	*0.40*					*0.49*		*0.62*
Green Ratio		*0.34*	*0.58*	*0.28*	*0.69*					*0.16*		*0.16*
Uniform Delay d_1		*21.8*	*11.4*	*26.8*	*5.5*					*32.3*		*33.0*
Delay Factor k		*0.11*	*0.17*	*0.22*	*0.11*					*0.11*		*0.20*
Incremental Delay d_2		*0.1*	*0.9*	*1.5*	*0.1*					*1.4*		*4.7*
PF Factor		*1.000*	*1.000*	*1.000*	*1.000*					*1.000*		*1.000*
Control Delay		*21.9*	*12.2*	*28.2*	*5.6*					*33.7*		*37.7*
Lane Group LOS		*C*	*B*	*C*	*A*					*C*		*D*
Approach Delay		*18.6*			*12.5*					*35.8*		
Approach LOS		*B*			*B*					*D*		
Intersection Delay		*16.6*			Intersection LOS					*B*		

HCS+™ Version 5.5

Generated: 6/7/2011 10:27 AM

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group		*T*	*R*	*L*	*T*					*L*		*R*
Initial Queue/Lane		*0.0*	*0.0*	*0.0*	*0.0*					*0.0*		*0.0*
Flow Rate/Lane Group		*984*	*522*	*625*	*1424*					*136*		*152*
Satflow/Lane		*1862*	*1583*	*1770*	*1862*					*1671*		*1495*
Capacity/Lane Group		*2209*	*913*	*970*	*3522*					*275*		*246*
Flow Ratio		*0.2*	*0.3*	*0.2*	*0.3*					*0.1*		*0.1*
v/c Ratio		*0.45*	*0.57*	*0.64*	*0.40*					*0.49*		*0.62*
I Factor		*1.000*	*1.000*	*1.000*	*1.000*					*1.000*		*1.000*
Arrival Type		*3*	*3*	*3*	*3*					*3*		*3*
Platoon Ratio		*1.00*	*1.00*	*1.00*	*1.00*					*1.00*		*1.00*
PF Factor		*1.00*	*1.00*	*1.00*	*1.00*					*1.00*		*1.00*
Q_1		*5.2*	*7.8*	*6.6*	*5.2*					*2.9*		*3.3*
k_B		*0.5*	*0.6*	*0.4*	*0.8*					*0.3*		*0.3*
Q_2		*0.4*	*0.8*	*0.8*	*0.5*					*0.3*		*0.4*
Q Average		*5.6*	*8.6*	*7.4*	*5.8*					*3.2*		*3.8*

Percentile Back of Queue (95th percentile)

$f_{B\%}$		*1.9*	*1.9*	*1.9*	*1.9*					*2.0*		*2.0*
Back of Queue		*10.9*	*16.1*	*14.1*	*11.2*					*6.4*		*7.5*

Queue Storage Ratio

Queue Spacing		*25.0*	*25.0*	*25.0*	*25.0*					*25.0*		*25.0*
Queue Storage		*0*	*700*	*900*	*0*					*300*		*1000*
Average Queue Storage Ratio			*0.3*	*0.2*						*0.3*		*0.1*
95% Queue Storage Ratio			*0.6*	*0.4*						*0.5*		*0.2*

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TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	*URS*
Agency/Co.	*URS*
Date Performed	*5/20/2010*
Analysis Time Period	*AM*

Site Information

Intersection	*Overpass Rd at Boyette Rd*
Jurisdiction	*Pasco County*
Analysis Year	*2010*

Project Description *I-75 and Overpass Rd*

East/West Street: *Overpass Rd* | North/South Street: *Boyette Road*

Intersection Orientation: *East-West* | Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*10*	*130*	*50*	*90*	*170*	*10*
Peak-Hour Factor, PHF	*0.75*	*0.75*	*0.75*	*0.75*	*0.75*	*0.75*
Hourly Flow Rate, HFR (veh/h)	*13*	*173*	*66*	*120*	*226*	*13*
Percent Heavy Vehicles	*2*	*--*	*--*	*2*	*--*	*--*
Median Type	*Raised curb*					
RT Channelized			*0*			*0*
Lanes	*1*	*1*	*0*	*1*	*1*	*0*
Configuration	*L*		*TR*	*L*		*TR*
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*60*	*15*	*75*	*5*	*15*	*10*
Peak-Hour Factor, PHF	*0.75*	*0.75*	*0.75*	*0.75*	*0.75*	*0.75*
Hourly Flow Rate, HFR (veh/h)	*80*	*20*	*100*	*6*	*20*	*13*
Percent Heavy Vehicles	*2*	*0*	*0*	*2*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*1*	*1*	*0*	*1*	*1*	*0*
Configuration	*L*		*TR*	*L*		*TR*

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*L*	*L*	*L*		*TR*	*L*		*TR*
v (veh/h)	*13*	*120*	*80*		*120*	*6*		*33*
C (m) (veh/h)	*1328*	*1328*	*387*		*712*	*345*		*488*
v/c	*0.01*	*0.09*	*0.21*		*0.17*	*0.02*		*0.07*
95% queue length	*0.03*	*0.30*	*0.77*		*0.60*	*0.05*		*0.22*
Control Delay (s/veh)	*7.7*	*8.0*	*16.7*		*11.1*	*15.6*		*12.9*
LOS	*A*	*A*	*C*		*B*	*C*		*B*
Approach Delay (s/veh)	--	--	*13.3*			*13.3*		
Approach LOS	--	--	*B*			*B*		

TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	*URS*
Agency/Co.	*URS*
Date Performed	*5/20/2010*
Analysis Time Period	*PM*

Site Information

Intersection	*Overpass Rd at Boyette Rd*
Jurisdiction	*Pasco County*
Analysis Year	*2010*

Project Description *I-75 and Overpass Rd*

East/West Street: *Overpass Rd* | North/South Street: *Boyette Road*

Intersection Orientation: *East-West* | Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*10*	*170*	*60*	*75*	*130*	*5*
Peak-Hour Factor, PHF	*0.93*	*0.93*	*0.93*	*0.93*	*0.93*	*0.93*
Hourly Flow Rate, HFR (veh/h)	*10*	*182*	*64*	*80*	*139*	*5*
Percent Heavy Vehicles	*2*	*--*	*--*	*2*	*--*	*--*
Median Type	*Raised curb*					
RT Channelized			*0*			*0*
Lanes	*1*	*1*	*0*	*1*	*1*	*0*
Configuration	*L*		*TR*	*L*		*TR*
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*50*	*15*	*90*	*10*	*15*	*10*
Peak-Hour Factor, PHF	*0.93*	*0.93*	*0.93*	*0.93*	*0.93*	*0.93*
Hourly Flow Rate, HFR (veh/h)	*53*	*16*	*96*	*10*	*16*	*10*
Percent Heavy Vehicles	*2*	*0*	*0*	*2*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*1*	*1*	*0*	*1*	*1*	*0*
Configuration	*L*		*TR*	*L*		*TR*

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*L*	*L*	*L*		*TR*	*L*		*TR*
v (veh/h)	*10*	*80*	*53*		*112*	*10*		*26*
C (m) (veh/h)	*1438*	*1320*	*494*		*757*	*423*		*575*
v/c	*0.01*	*0.06*	*0.11*		*0.15*	*0.02*		*0.05*
95% queue length	*0.02*	*0.19*	*0.36*		*0.52*	*0.07*		*0.14*
Control Delay (s/veh)	*7.5*	*7.9*	*13.2*		*10.6*	*13.7*		*11.6*
LOS	*A*	*A*	*B*		*B*	*B*		*B*
Approach Delay (s/veh)	--	--	*11.4*			*12.2*		
Approach LOS	--	--	*B*			*B*		

TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	*URS*
Agency/Co.	*URS*
Date Performed	*5/20/2010*
Analysis Time Period	*AM*

Site Information

Intersection	*Overpass Rd at Old Pasco Rd*
Jurisdiction	*Pasco County*
Analysis Year	*2010*

Project Description *I-75 and Overpass Rd*

East/West Street: *Overpass Rd* | North/South Street: *Old Pasco Road*

Intersection Orientation: *North-South* | Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)		*95*	*150*	*40*	*90*	
Peak-Hour Factor, PHF	*1.00*	*0.80*	*0.80*	*0.80*	*0.80*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*118*	*187*	*49*	*112*	*0*
Percent Heavy Vehicles	*0*	--	--	*2*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration			*TR*	*LT*		
Upstream Signal		*0*			*0*	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)				*210*		*30*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*0.80*	*1.00*	*0.80*
Hourly Flow Rate, HFR (veh/h)	*0*	*0*	*0*	*262*	*0*	*37*
Percent Heavy Vehicles	*0*	*0*	*0*	*2*	*0*	*2*
Percent Grade (%)	*0*			*0*		
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*0*	*0*	*0*	*0*
Configuration					*LR*	

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		*LT*		*LR*				
v (veh/h)		*49*		*299*				
C (m) (veh/h)		*1256*		*588*				
v/c		*0.04*		*0.51*				
95% queue length		*0.12*		*2.87*				
Control Delay (s/veh)		*8.0*		*17.3*				
LOS		*A*		*C*				
Approach Delay (s/veh)	--	--	*17.3*					
Approach LOS	--	--	*C*					

TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	*URS*
Agency/Co.	*URS*
Date Performed	*5/20/2010*
Analysis Time Period	*PM*

Site Information

Intersection	*Overpass Rd at Old Pasco Rd*
Jurisdiction	*Pasco County*
Analysis Year	*2010*

Project Description *I-75 and Overpass Rd*

East/West Street: *Overpass Rd* | North/South Street: *Old Pasco Road*

Intersection Orientation: *North-South* | Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)		*90*	*210*	*30*	*95*	
Peak-Hour Factor, PHF	*1.00*	*0.88*	*0.88*	*0.88*	*0.88*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*102*	*238*	*34*	*107*	*0*
Percent Heavy Vehicles	*0*	--	--	*2*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration			*TR*	*LT*		
Upstream Signal		*0*			*0*	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)				*150*		*40*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*0.88*	*1.00*	*0.88*
Hourly Flow Rate, HFR (veh/h)	*0*	*0*	*0*	*170*	*0*	*45*
Percent Heavy Vehicles	*0*	*0*	*0*	*2*	*0*	*0*
Percent Grade (%)	*0*			*0*		
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*0*	*0*	*0*	*0*
Configuration					*LR*	

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		*LT*		*LR*				
v (veh/h)		*34*		*215*				
C (m) (veh/h)		*1219*		*629*				
v/c		*0.03*		*0.34*				
95% queue length		*0.09*		*1.51*				
Control Delay (s/veh)		*8.0*		*13.7*				
LOS		*A*		*B*				
Approach Delay (s/veh)	--	--	*13.7*					
Approach LOS	--	--	*B*					

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SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 NB Ramps at SR 52*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/20/2010*	Jurisdiction	*FDOT*
Time Period	*AM*	Analysis Year	*2010*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	*1*	*1*			*3*	*0*	*2*		*1*			
Lane Group	*L*	*T*			*TR*		*L*		*R*			
Volume (vph)	*125*	*450*			*910*	*120*	*230*		*500*			
% Heavy Vehicles	*6*	*6*			*6*	*6*	*8*		*8*			
PHF	*0.91*	*0.91*			*0.91*	*0.91*	*0.91*		*0.91*			
Pretimed/Actuated (P/A)	*A*	*A*			*A*	*A*	*A*		*A*			
Startup Lost Time	*2.0*	*2.0*			*2.0*		*2.0*		*2.0*			
Extension of Effective Green	*2.0*	*2.0*			*2.0*		*2.0*		*2.0*			
Arrival Type	*3*	*3*			*3*		*3*		*3*			
Unit Extension	*3.0*	*3.0*			*3.0*		*3.0*		*3.0*			
Ped/Bike/RTOR Volume	*0*	*0*		*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
Lane Width	*12.0*	*12.0*			*12.0*		*12.0*		*12.0*			
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour	*0*	*0*			*0*		*0*		*0*			
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	EB Only	Thru & RT	03	04	NB Only	06	07	08
Timing	G = *9.0*	G = *39.0*	G =	G =	G = *29.0*	G =	G =	G =
	Y = *6*	Y = *6*	Y =	Y =	Y = *6*	Y =	Y =	Y =
Duration of Analysis (hrs) = *0.25*						Cycle Length C = *95.0*		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	*137*	*495*			*1132*		*253*		*549*			
Lane Group Capacity	*161*	*1019*			*1414*		*991*		*456*			
v/c Ratio	*0.85*	*0.49*			*0.80*		*0.26*		*1.20*			
Green Ratio	*0.09*	*0.57*			*0.41*		*0.31*		*0.31*			
Uniform Delay d_1	*42.3*	*12.2*			*24.6*		*24.9*		*33.0*			
Delay Factor k	*0.38*	*0.11*			*0.34*		*0.11*		*0.50*			
Incremental Delay d_2	*32.9*	*0.4*			*3.4*		*0.1*		*111.0*			
PF Factor	*1.000*	*1.000*			*1.000*		*1.000*		*1.000*			
Control Delay	*75.2*	*12.6*			*28.0*		*25.0*		*144.0*			
Lane Group LOS	*E*	*B*			*C*		*C*		*F*			
Approach Delay	*26.2*			*28.0*			*106.5*					
Approach LOS	*C*			*C*			*F*					
Intersection Delay	*52.1*			Intersection LOS			*D*					

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group	*L*	*T*			*TR*		*L*		*R*			
Initial Queue/Lane	*0.0*	*0.0*			*0.0*		*0.0*		*0.0*			
Flow Rate/Lane Group	*137*	*495*			*1132*		*253*		*549*			
Satflow/Lane	*1703*	*1792*			*1761*		*1671*		*1495*			
Capacity/Lane Group	*161*	*1019*			*1414*		*991*		*456*			
Flow Ratio	*0.1*	*0.3*			*0.3*		*0.1*		*0.4*			
v/c Ratio	*0.85*	*0.49*			*0.80*		*0.26*		*1.20*			
I Factor	*1.000*	*1.000*			*1.000*		*1.000*		*1.000*			
Arrival Type	*3*	*3*			*3*		*3*		*3*			
Platoon Ratio	*1.00*	*1.00*			*1.00*		*1.00*		*1.00*			
PF Factor	*1.00*	*1.00*			*1.00*		*1.00*		*1.00*			
Q_1	*3.6*	*7.8*			*13.4*		*2.6*		*14.5*			
k_B	*0.2*	*0.7*			*0.6*		*0.5*		*0.4*			
Q_2	*1.0*	*0.7*			*2.1*		*0.2*		*13.8*			
Q Average	*4.6*	*8.5*			*15.5*		*2.7*		*28.3*			

Percentile Back of Queue (95th percentile)

$f_{B\%}$	*2.0*	*1.9*			*1.8*		*2.0*		*1.6*			
Back of Queue	*9.0*	*15.9*			*27.2*		*5.5*		*46.0*			

Queue Storage Ratio

Queue Spacing	*25.0*	*25.0*			*25.0*		*25.0*		*25.0*			
Queue Storage	*500*	*0*			*0*		*500*		*500*			
Average Queue Storage Ratio	*0.2*						*0.1*		*1.4*			
95% Queue Storage Ratio	*0.4*						*0.3*		*2.3*			

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 NB Ramps at SR 52*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/20/2010*	Jurisdiction	*FDOT*
Time Period	*PM*	Analysis Year	*2010*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	*1*	*1*			*3*	*0*	*2*		*1*			
Lane Group	*L*	*T*			*TR*		*L*		*R*			
Volume (vph)	*125*	*565*			*780*	*170*	*475*		*465*			
% Heavy Vehicles	*6*	*6*			*6*	*6*	*8*		*8*			
PHF	*0.89*	*0.89*			*0.89*	*0.89*	*0.89*		*0.89*			
Pretimed/Actuated (P/A)	*A*	*A*			*A*	*A*	*A*		*A*			
Startup Lost Time	*2.0*	*2.0*			*2.0*		*2.0*		*2.0*			
Extension of Effective Green	*2.0*	*2.0*			*2.0*		*2.0*		*2.0*			
Arrival Type	*3*	*3*			*3*		*3*		*3*			
Unit Extension	*3.0*	*3.0*			*3.0*		*3.0*		*3.0*			
Ped/Bike/RTOR Volume	*0*	*0*		*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
Lane Width	*12.0*	*12.0*			*12.0*		*12.0*		*12.0*			
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour	*0*	*0*			*0*		*0*		*0*			
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	EB Only	Thru & RT	03	04	NB Only	06	07	08
Timing	G = *9.0*	G = *39.0*	G =	G =	G = *29.0*	G =	G =	G =
	Y = *6*	Y = *6*	Y =	Y =	Y = *6*	Y =	Y =	Y =
Duration of Analysis (hrs) = *0.25*						Cycle Length C = *95.0*		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	*140*	*635*			*1067*		*534*		*522*			
Lane Group Capacity	*161*	*1019*			*1117*		*991*		*456*			
v/c Ratio	*0.87*	*0.62*			*0.96*		*0.54*		*1.14*			
Green Ratio	*0.09*	*0.57*			*0.41*		*0.31*		*0.31*			
Uniform Delay d_1	*42.4*	*13.7*			*27.2*		*27.4*		*33.0*			
Delay Factor k	*0.40*	*0.21*			*0.47*		*0.14*		*0.50*			
Incremental Delay d_2	*36.6*	*1.2*			*17.2*		*0.6*		*88.2*			
PF Factor	*1.000*	*1.000*			*1.000*		*1.000*		*1.000*			
Control Delay	*79.0*	*14.9*			*44.4*		*28.0*		*121.2*			
Lane Group LOS	*E*	*B*			*D*		*C*		*F*			
Approach Delay	*26.5*			*44.4*			*74.1*					
Approach LOS	*C*			*D*			*E*					
Intersection Delay	*50.4*			Intersection LOS						*D*		

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group	*L*	*T*			*TR*		*L*		*R*			
Initial Queue/Lane	*0.0*	*0.0*			*0.0*		*0.0*		*0.0*			
Flow Rate/Lane Group	*140*	*635*			*1067*		*534*		*522*			
Satflow/Lane	*1703*	*1792*			*1744*		*1671*		*1495*			
Capacity/Lane Group	*161*	*1019*			*1117*		*991*		*456*			
Flow Ratio	*0.1*	*0.4*			*0.4*		*0.2*		*0.3*			
v/c Ratio	*0.87*	*0.62*			*0.96*		*0.54*		*1.14*			
I Factor	*1.000*	*1.000*			*1.000*		*1.000*		*1.000*			
Arrival Type	*3*	*3*			*3*		*3*		*3*			
Platoon Ratio	*1.00*	*1.00*			*1.00*		*1.00*		*1.00*			
PF Factor	*1.00*	*1.00*			*1.00*		*1.00*		*1.00*			
Q_1	*3.6*	*11.2*			*17.5*		*6.0*		*13.8*			
k_B	*0.2*	*0.7*			*0.6*		*0.5*		*0.4*			
Q_2	*1.1*	*1.2*			*5.3*		*0.5*		*10.9*			
Q Average	*4.8*	*12.4*			*22.8*		*6.6*		*24.7*			

Percentile Back of Queue (95th percentile)

$f_{B\%}$	*2.0*	*1.8*			*1.7*		*1.9*		*1.7*			
Back of Queue	*9.3*	*22.3*			*38.0*		*12.6*		*40.8*			

Queue Storage Ratio

Queue Spacing	*25.0*	*25.0*			*25.0*		*25.0*		*25.0*			
Queue Storage	*500*	*0*			*0*		*500*		*500*			
Average Queue Storage Ratio	*0.2*						*0.3*		*1.2*			
95% Queue Storage Ratio	*0.5*						*0.6*		*2.0*			

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SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 SB Ramps at SR 52*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/20/2010*	Jurisdiction	*FDOT*
Time Period	*AM*	Analysis Year	*2010*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes		*2*		*1*	*2*					*1*		*1*
Lane Group		*T*		*L*	*T*					*L*		*R*
Volume (vph)		*405*		*465*	*675*					*170*		*125*
% Heavy Vehicles		*6*		*6*	*6*					*8*		*8*
PHF		*0.89*		*0.89*	*0.89*					*0.89*		*0.89*
Pretimed/Actuated (P/A)		*A*		*A*	*A*					*A*		*A*
Startup Lost Time		*2.0*		*2.0*	*2.0*					*2.0*		*2.0*
Extension of Effective Green		*2.0*		*2.0*	*2.0*					*2.0*		*2.0*
Arrival Type		*3*		*3*	*3*					*3*		*3*
Unit Extension		*3.0*		*3.0*	*3.0*					*3.0*		*3.0*
Ped/Bike/RTOR Volume	*0*	*0*		*0*	*0*		*0*	*0*		*0*	*0*	*0*
Lane Width		*12.0*		*12.0*	*12.0*					*12.0*		*12.0*
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour		*0*		*0*	*0*					*0*		*0*
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	WB Only	Thru Only	03	04	SB Only	06	07	08
Timing	G = *24.0*	G = *39.0*	G =	G =	G = *14.0*	G =	G =	G =
	Y = *6*	Y = *6*	Y =	Y =	Y = *6*	Y =	Y =	Y =

Duration of Analysis (hrs) = *0.25* | Cycle Length C = *95.0*

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate		*455*		*522*	*758*					*191*		*140*
Lane Group Capacity		*1064*		*430*	*2479*					*246*		*220*
v/c Ratio		*0.43*		*1.21*	*0.31*					*0.78*		*0.64*
Green Ratio		*0.41*		*0.25*	*0.73*					*0.15*		*0.15*
Uniform Delay d_1		*20.0*		*35.5*	*4.6*					*39.0*		*38.1*
Delay Factor k		*0.11*		*0.50*	*0.11*					*0.33*		*0.22*
Incremental Delay d_2		*0.3*		*116.0*	*0.1*					*14.5*		*6.0*
PF Factor		*1.000*		*1.000*	*1.000*					*1.000*		*1.000*
Control Delay		*20.3*		*151.5*	*4.6*					*53.5*		*44.1*
Lane Group LOS		*C*		*F*	*A*					*D*		*D*
Approach Delay		*20.3*			*64.5*						*49.5*	
Approach LOS		*C*			*E*						*D*	
Intersection Delay		*52.4*			Intersection LOS						*D*	

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BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group		*T*		*L*	*T*					*L*		*R*
Initial Queue/Lane		*0.0*		*0.0*	*0.0*					*0.0*		*0.0*
Flow Rate/Lane Group		*455*		*522*	*758*					*191*		*140*
Satflow/Lane		*1792*		*1703*	*1792*					*1671*		*1495*
Capacity/Lane Group		*1064*		*430*	*2479*					*246*		*220*
Flow Ratio		*0.2*		*0.3*	*0.2*					*0.1*		*0.1*
v/c Ratio		*0.43*		*1.21*	*0.31*					*0.78*		*0.64*
I Factor		*1.000*		*1.000*	*1.000*					*1.000*		*1.000*
Arrival Type		*3*		*3*	*3*					*3*		*3*
Platoon Ratio		*1.00*		*1.00*	*1.00*					*1.00*		*1.00*
PF Factor		*1.00*		*1.00*	*1.00*					*1.00*		*1.00*
Q_1		*5.9*		*13.8*	*3.7*					*4.9*		*3.5*
k_B		*0.6*		*0.4*	*0.8*					*0.3*		*0.3*
Q_2		*0.4*		*13.6*	*0.4*					*0.9*		*0.5*
Q Average		*6.4*		*27.3*	*4.1*					*5.8*		*4.0*
Percentile Back of Queue (95th percentile)												
$f_{B\%}$		*1.9*		*1.6*	*2.0*					*1.9*		*2.0*
Back of Queue		*12.2*		*44.6*	*8.0*					*11.2*		*7.8*
Queue Storage Ratio												
Queue Spacing		*25.0*		*25.0*	*25.0*					*25.0*		*25.0*
Queue Storage		*0*		*600*	*0*					*800*		*100*
Average Queue Storage Ratio				*1.1*						*0.2*		*1.0*
95% Queue Storage Ratio				*1.9*						*0.4*		*2.0*

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 SB Ramps at SR 52*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/20/2010*	Jurisdiction	*FDOT*
Time Period	*PM*	Analysis Year	*Existing*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes		*2*		*1*	*2*					*1*		*1*
Lane Group		*T*		*L*	*T*					*L*		*R*
Volume (vph)		*570*		*500*	*755*					*120*		*125*
% Heavy Vehicles		*6*		*6*	*6*					*8*		*8*
PHF		*0.86*		*0.86*	*0.86*					*0.86*		*0.86*
Pretimed/Actuated (P/A)		*A*		*A*	*A*					*A*		*A*
Startup Lost Time		*2.0*		*2.0*	*2.0*					*2.0*		*2.0*
Extension of Effective Green		*2.0*		*2.0*	*2.0*					*2.0*		*2.0*
Arrival Type		*3*		*3*	*3*					*3*		*3*
Unit Extension		*3.0*		*3.0*	*3.0*					*3.0*		*3.0*
Ped/Bike/RTOR Volume	*0*	*0*		*0*	*0*		*0*	*0*		*0*	*0*	*0*
Lane Width		*12.0*		*12.0*	*12.0*					*12.0*		*12.0*
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour		*0*		*0*	*0*					*0*		*0*
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	WB Only	Thru Only	03	04	SB Only	06	07	08
Timing	G = *24.0*	G = *39.0*	G =	G =	G = *14.0*	G =	G =	G =
	Y = *6*	Y = *6*	Y =	Y =	Y = *6*	Y =	Y =	Y =

Duration of Analysis (hrs) = *0.25* | Cycle Length C = *95.0*

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate		*663*		*581*	*878*					*140*		*145*
Lane Group Capacity		*942*		*430*	*2479*					*246*		*220*
v/c Ratio		*0.70*		*1.35*	*0.35*					*0.57*		*0.66*
Green Ratio		*0.41*		*0.25*	*0.73*					*0.15*		*0.15*
Uniform Delay d_1		*23.2*		*35.5*	*4.8*					*37.7*		*38.2*
Delay Factor k		*0.27*		*0.50*	*0.11*					*0.16*		*0.23*
Incremental Delay d_2		*2.4*		*172.8*	*0.1*					*3.1*		*7.1*
PF Factor		*1.000*		*1.000*	*1.000*					*1.000*		*1.000*
Control Delay		*25.6*		*208.3*	*4.9*					*40.8*		*45.3*
Lane Group LOS		*C*		*F*	*A*					*D*		*D*
Approach Delay	*25.6*			*85.9*						*43.1*		
Approach LOS	*C*			*F*						*D*		
Intersection Delay	*64.2*			Intersection LOS						*E*		

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group		*T*		*L*	*T*					*L*		*R*
Initial Queue/Lane		*0.0*		*0.0*	*0.0*					*0.0*		*0.0*
Flow Rate/Lane Group		*663*		*581*	*878*					*140*		*145*
Satflow/Lane		*1792*		*1703*	*1792*					*1671*		*1495*
Capacity/Lane Group		*942*		*430*	*2479*					*246*		*220*
Flow Ratio		*0.3*		*0.3*	*0.3*					*0.1*		*0.1*
v/c Ratio		*0.70*		*1.35*	*0.35*					*0.57*		*0.66*
I Factor		*1.000*		*1.000*	*1.000*					*1.000*		*1.000*
Arrival Type		*3*		*3*	*3*					*3*		*3*
Platoon Ratio		*1.00*		*1.00*	*1.00*					*1.00*		*1.00*
PF Factor		*1.00*		*1.00*	*1.00*					*1.00*		*1.00*
Q_1		*11.3*		*15.3*	*4.5*					*3.4*		*3.6*
k_B		*0.6*		*0.4*	*0.8*					*0.3*		*0.3*
Q_2		*1.3*		*20.4*	*0.5*					*0.4*		*0.5*
Q Average		*12.6*		*35.7*	*4.9*					*3.8*		*4.1*

Percentile Back of Queue (95th percentile)

$f_{B\%}$		*1.8*		*1.6*	*2.0*					*2.0*		*2.0*
Back of Queue		*22.7*		*56.5*	*9.7*					*7.6*		*8.2*

Queue Storage Ratio

Queue Spacing		*25.0*		*25.0*	*25.0*					*25.0*		*25.0*
Queue Storage		*0*		*600*	*0*					*800*		*100*
Average Queue Storage Ratio				*1.5*						*0.1*		*1.0*
95% Queue Storage Ratio				*2.4*						*0.2*		*2.0*

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APPENDIX D

Crash Data

SEGMENT CRASH RATE WORKSHEET

CITY/TOWN : Pasco County COUNT DATE : March, 2010

DISTRICT : 7

~ SEGMENT DATA ~

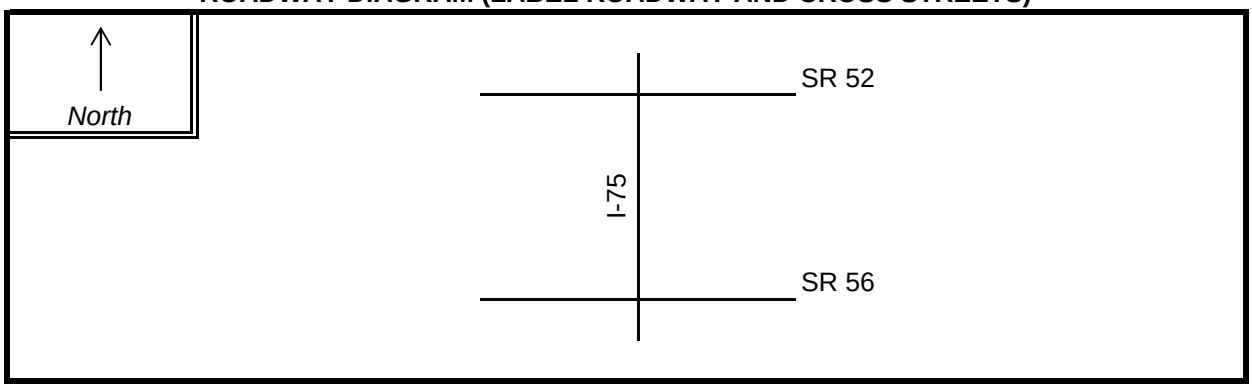
ROADWAY NAME: I-75 Overall Corridor

START POINT: SR 56 (MP - 1.358)

END POINT: SR 52 (MP - 11.878)

FUNCTIONAL CLASSIFICATION OF ROADWAY: Urban/Transitioning

ROADWAY DIAGRAM (LABEL ROADWAY AND CROSS STREETS)



AVERAGE DAILY TRAFFIC

SEGMENT LENGTH IN MILES (**L**):	**10.52**
AVERAGE DAILY TRAFFIC VOLUME (**V**):	59,400

TOTAL # OF CRASHES:	433	# OF YEARS :	3	AVERAGE # OF CRASHES PER YEAR (**A**) :	**144.33**

CRASH RATE CALCULATION : **0.633**

$$RATE = \frac{(A * 1{,}000{,}000)}{(L * V * 365)}$$

Comments : 2010 5-Year Florida Average Crash Rate Category 1 - Urban Interstate - 0.691

Project Title & Date: I-75 and Overpass Road IJR February, 2013

SEGMENT CRASH RATE WORKSHEET

CITY/TOWN : Pasco County COUNT DATE : March 2010

DISTRICT : 7

~ SEGMENT DATA ~

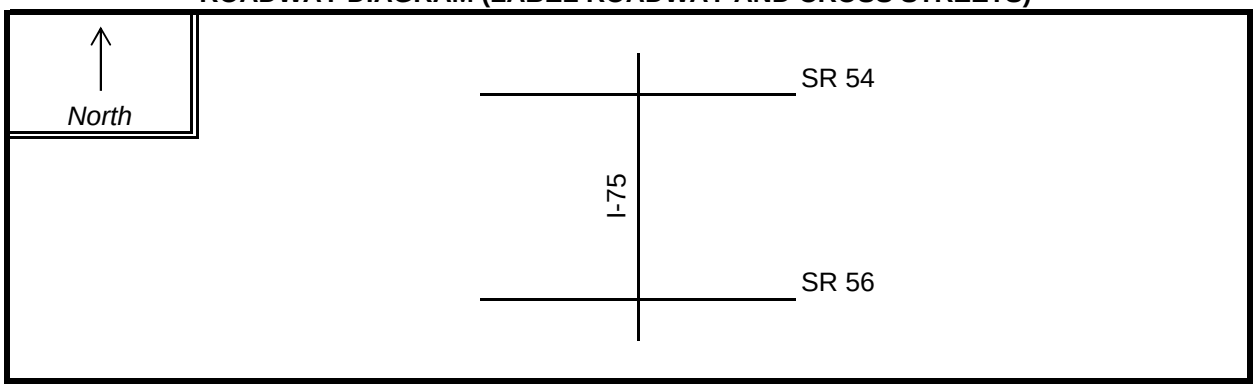
ROADWAY NAME: I-75 - Segment 1

START POINT: SR 56 (MP - 1.358)

END POINT: SR 54/CR 54 (MP - 5.127)

FUNCTIONAL CLASSIFICATION OF ROADWAY: Urban

ROADWAY DIAGRAM (LABEL ROADWAY AND CROSS STREETS)



AVERAGE DAILY TRAFFIC

SEGMENT LENGTH IN MILES (**L**):	**3.769**
AVERAGE DAILY TRAFFIC VOLUME (**V**):	77,300

TOTAL # OF CRASHES:	256	# OF YEARS :	3	AVERAGE # OF CRASHES PER YEAR (**A**) :	**85.33**

CRASH RATE CALCULATION : **0.802**

$$RATE = \frac{(A * 1{,}000{,}000)}{(L * V * 365)}$$

Comments : 2010 5-Year Florida Average Crash Rate Category 1 - Urban Interstate - 0.691

Project Title & Date: I-75 and Overpass Road IJR February, 2013

SEGMENT CRASH RATE WORKSHEET

CITY/TOWN : Pasco County COUNT DATE : March, 2010

DISTRICT : 7

~ SEGMENT DATA ~

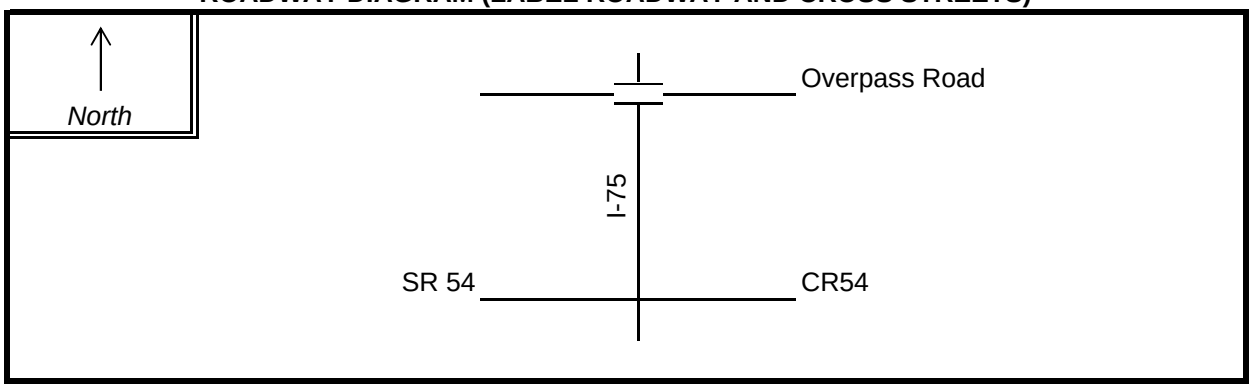
ROADWAY NAME: I-75 - Segment 2

START POINT: SR 54/CR 54 (MP - 5.127)

END POINT: Overpass Road (MP - 8.17)

FUNCTIONAL CLASSIFICATION OF ROADWAY: Transitioning

ROADWAY DIAGRAM (LABEL ROADWAY AND CROSS STREETS)



AVERAGE DAILY TRAFFIC

SEGMENT LENGTH IN MILES (**L**):	**3.043**
AVERAGE DAILY TRAFFIC VOLUME (**V**):	51,000

TOTAL # OF CRASHES:	82	# OF YEARS :	3	AVERAGE # OF CRASHES PER YEAR (**A**) :	**27.33**

CRASH RATE CALCULATION : **0.483**

$$RATE = \frac{(A * 1{,}000{,}000)}{(L * V * 365)}$$

Comments : 2010 5-Year Florida Average Crash Rate Category 1 - Urban Interstate - 0.691

Project Title & Date: I-75 and Overpass Road IJR February, 2013

SEGMENT CRASH RATE WORKSHEET

CITY/TOWN : Pasco County COUNT DATE : March 2010

DISTRICT : 7

~ SEGMENT DATA ~

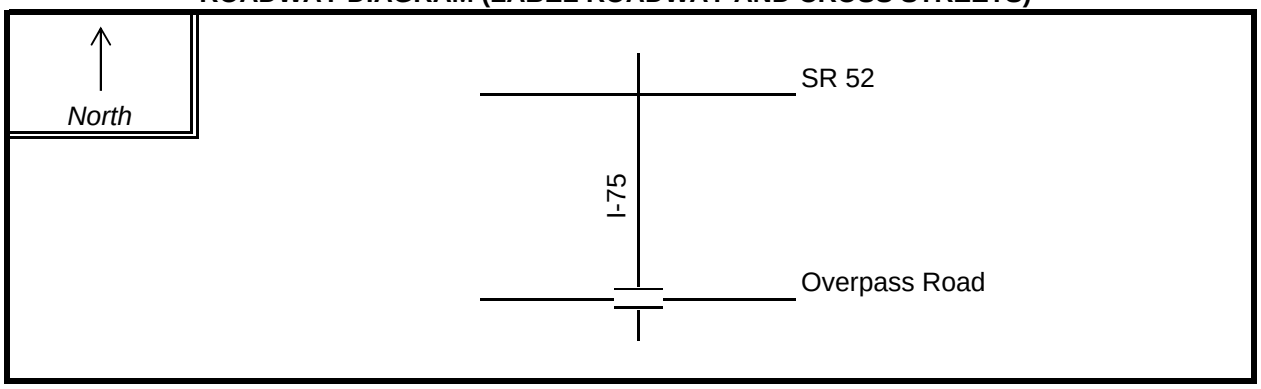
ROADWAY NAME: I-75 - Segment 3

START POINT: Overpass Road (MP - 8.17)

END POINT: SR 52 (MP - 11.878)

FUNCTIONAL CLASSIFICATION OF ROADWAY: Transitioning Interstate

ROADWAY DIAGRAM (LABEL ROADWAY AND CROSS STREETS)



AVERAGE DAILY TRAFFIC

SEGMENT LENGTH IN MILES (**L**):	**3.708**
AVERAGE DAILY TRAFFIC VOLUME (**V**):	49,900

TOTAL # OF CRASHES:	95	# OF YEARS :	3	AVERAGE # OF CRASHES PER YEAR (**A**) :	**31.67**

CRASH RATE CALCULATION : **0.469**

$$\text{RATE} = \frac{(A * 1{,}000{,}000)}{(L * V * 365)}$$

Comments : 2010 5-Year Florida Average Crash Rate Category 1 - Urban Interstate - 0.691

Project Title & Date: I-75 and Overpass Road IJR February, 2013

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Pasco County | COUNT DATE : March 2010

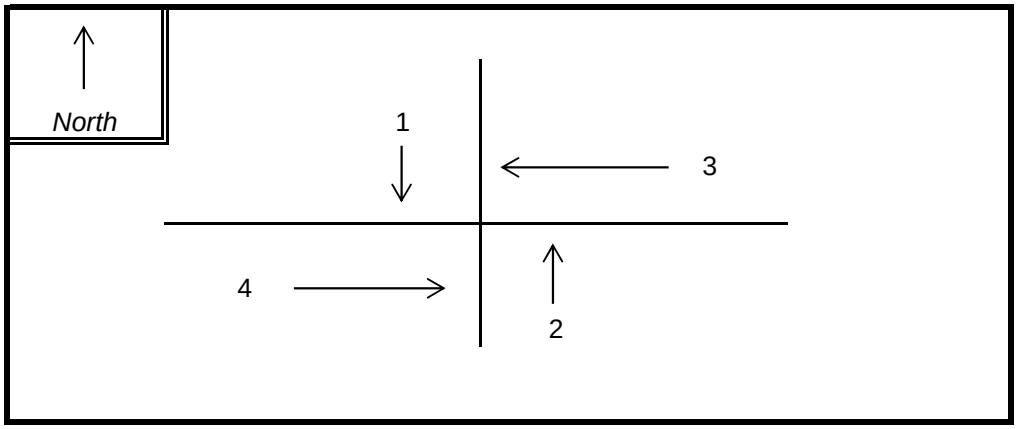
DISTRICT : 7 | UNSIGNALIZED : | SIGNALIZED : X

~ INTERSECTION DATA ~

MAJOR STREET : I-75

MINOR STREET(S) : SR 56

INTERSECTION DIAGRAM (Label Approaches)



PEAK HOUR VOLUMES

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :	north	south	east	west		
PEAK HOURLY VOLUMES (AM/PM) :	430	2,775	1,740	2,215		**7,160**

" K " FACTOR : **0.094**

INTERSECTION ADT (**V**) = TOTAL DAILY APPROACH VOLUME : **76,170**

TOTAL # OF CRASHES : 101

OF YEARS : 3

AVERAGE # OF CRASHES PER YEAR (**A**) : **33.67**

CRASH RATE CALCULATION : **1.211**

$$\text{RATE} = \frac{(A * 1{,}000{,}000)}{(V * 365)}$$

Comments : 2010 5-Year Florida Average Crash Rate Urban Spot Cat. 30 (6+Lanes 4 Legs) - 0.576

Project Title & Date: I-75 and Overpass Road IJR February, 2013

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Pasco County | COUNT DATE : March 2010

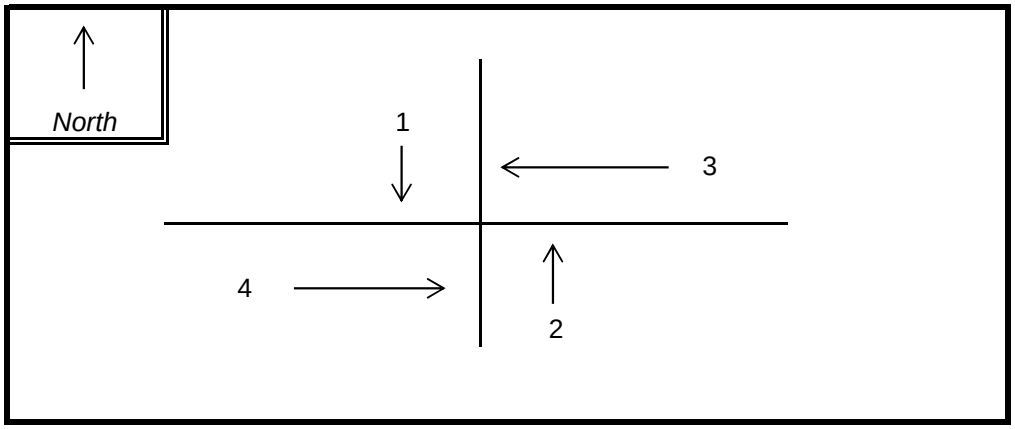
DISTRICT : 7 | UNSIGNALIZED : | SIGNALIZED : X

~ INTERSECTION DATA ~

MAJOR STREET : I-75

MINOR STREET(S) : SR 54/CR 54

INTERSECTION DIAGRAM (Label Approaches)



PEAK HOUR VOLUMES

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :	north	south	east	west		
PEAK HOURLY VOLUMES (AM/PM) :	265	1,295	1,540	1,385		**4,485**

" K " FACTOR : **0.094**

INTERSECTION ADT (**V**) = TOTAL DAILY APPROACH VOLUME : **47,713**

TOTAL # OF CRASHES : 63

OF YEARS : 3

AVERAGE # OF CRASHES PER YEAR (**A**) : **21.00**

CRASH RATE CALCULATION : 1.206

$$\text{RATE} = \frac{(A * 1{,}000{,}000)}{(V * 365)}$$

Comments : 2010 5-Year Florida Average Crash Rate Urban Spot Cat. 30 (6+Lanes 4 Legs) - 0.576

Project Title & Date: I-75 and Overpass Road IJR February, 2013

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Pasco County | COUNT DATE : March 2010

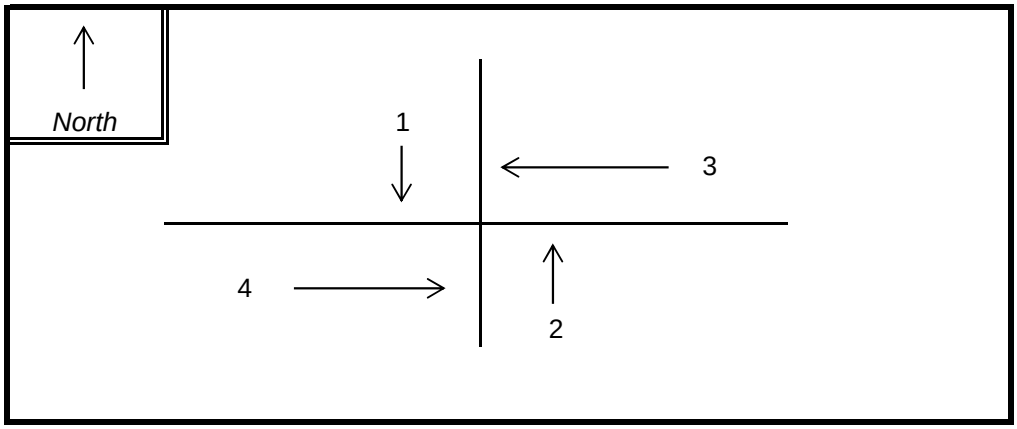
DISTRICT : 7 | UNSIGNALIZED : | SIGNALIZED : X

~ INTERSECTION DATA ~

MAJOR STREET : I-75

MINOR STREET(S) : SR 52

INTERSECTION DIAGRAM (Label Approaches)



PEAK HOUR VOLUMES

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :	north	south	east	west		
PEAK HOURLY VOLUMES (AM/PM) :	245	940	950	800		**2,935**

" K " FACTOR :	**0.094**	INTERSECTION ADT (**V**) = TOTAL DAILY APPROACH VOLUME :	**31,223**

TOTAL # OF CRASHES :	75	# OF YEARS :	3	AVERAGE # OF CRASHES PER YEAR (**A**) :	**25.00**

CRASH RATE CALCULATION : **2.194**

$$\text{RATE} = \frac{(A * 1{,}000{,}000)}{(V * 365)}$$

Comments : 2010 5-Year Florida Average Crash Rate Urban Spot Cat. 22 (4-5 2wy Undivided 4 Legs) - 0.517

Project Title & Date: I-75 and Overpass Road IJR February, 2013

Note : The I-75 NB Off-Ramp accounts for 23 crashes of the 75 crashes for the 3-year period.

SEGMENT CRASH RATE WORKSHEET

CITY/TOWN : Pasco County COUNT DATE : March 2010

DISTRICT : 7

~ SEGMENT DATA ~

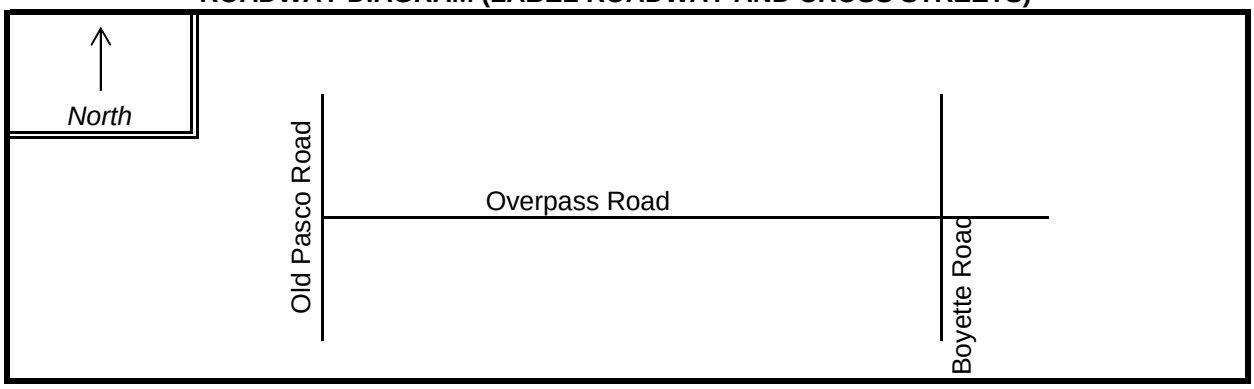
ROADWAY NAME: Overpass Road

START POINT: Old Pasco Road

END POINT: Boyette Road

FUNCTIONAL CLASSIFICATION OF ROADWAY: Transitioning Collector

ROADWAY DIAGRAM (LABEL ROADWAY AND CROSS STREETS)



AVERAGE DAILY TRAFFIC

SEGMENT LENGTH IN MILES (**L**):	**1.7**
AVERAGE DAILY TRAFFIC VOLUME (**V**):	4,500

TOTAL # OF CRASHES:	17	# OF YEARS :	3	AVERAGE # OF CRASHES PER YEAR (**A**) :	**5.67**

CRASH RATE CALCULATION : **2.029**

$$\text{RATE} = \frac{(A * 1{,}000{,}000)}{(L * V * 365)}$$

Comments : 2010 5-Year Florida Average Crash Rate Category 18 - Suburban Seg 2-Lane Undivided - 0.917

Project Title & Date: I-75 and Overpass Road IJR February, 2013

Florida Average Crash Rates for Urban Segments Crash Rates Per Million Vehicles								
CC	**Years……**	**2006**	**2007**	**2008**	**2009**	**2010**	**5 Year Average**	
40	One Way	*7.184*	*7.015*	*6.647*	*7.232*	*6.710*	*6.955*	
10	2-3 Lanes 2wy Div Rasd	*7.530*	*6.719*	*5.333*	*5.612*	*4.492*	*5.824*	
11	2-3 Lanes 2wy Div Pavd	*4.284*	*4.227*	*4.004*	*4.088*	*3.728*	*4.055*	
12	2-3 Lanes 2wy Undivided	*3.536*	*3.557*	*2.721*	*2.630*	*2.405*	*2.940*	
20	4-5 Lanes 2wy Div Rasd	*2.549*	*2.545*	*2.311*	*2.424*	*2.432*	*2.451*	
21	4-5 Lanes 2wy Div Pavd	*3.650*	*3.864*	*3.491*	*4.044*	*4.116*	*3.822*	
22	4-5 Lanes 2wy Undivided	*4.945*	*5.336*	*4.587*	*4.898*	*4.588*	*4.880*	
30	6+ Lanes 2wy Div Rasd	*3.212*	*3.149*	*3.046*	*3.177*	*3.318*	*3.181*	
31	6+ Lanes 2wy Div Pavd	*3.386*	*3.487*	*3.180*	*3.252*	*3.316*	*3.330*	
32	6+ Lanes 2wy Undivided	*1.234*	*8.264*	*24.561*	*44.483*	*41.512*	*26.402*	
1	Interstate	*0.682*	*0.747*	*0.643*	*0.681*	*0.706*	*0.691*	I-75
3	Toll Road	*0.626*	*0.669*	*0.584*	*0.530*	*0.601*	*0.602*	
7	Ramp	*0.000*	*0.000*	*0.000*	*0.000*	*0.000*	*0.000*	
5	Other Limited access	*1.102*	*1.104*	*1.054*	*1.075*	*1.456*	*1.141*	

Florida Average Crash Rates for Suburban Segments Crash Rates Per Million Vehicles								
CC	**Years……**	**2006**	**2007**	**2008**	**2009**	**2010**	**5 Year Average**	
41	One Way	*1.853*	*2.050*	*1.765*	*2.358*	*2.790*	*2.139*	
13	2-3 Lanes 2wy Div Rasd	*3.336*	*2.581*	*2.710*	*2.905*	*2.341*	*2.754*	
14	2-3 Lanes 2wy Div Pavd	*2.229*	*2.262*	*2.025*	*2.051*	*2.018*	*2.116*	
15	2-3 Lanes 2wy Undivided	*0.997*	*0.997*	*0.858*	*0.892*	*0.828*	*0.917*	Overpass Rd
23	4-5 Lanes 2wy Div Rasd	*1.376*	*1.461*	*1.277*	*1.314*	*1.344*	*1.355*	
24	4-5 Lanes 2wy Div Pavd	*2.063*	*2.113*	*1.938*	*1.763*	*1.962*	*1.964*	
25	4-5 Lanes 2wy Undivided	*1.182*	*1.872*	*0.904*	*1.094*	*1.256*	*1.279*	
33	6+ Lanes 2wy Div Rasd	*2.161*	*2.198*	*2.003*	*2.016*	*2.040*	*2.082*	
34	6+ Lanes 2wy Div Pavd	*2.377*	*2.825*	*2.287*	*1.430*	*1.356*	*1.763*	
35	6+ Lanes 2wy Undivided	*0.719*	*0.000*	*0.000*	*0.000*	*0.000*	*0.352*	

LEGEND	
Rasd	Raised Median
Pavd	Painted Median
OLA	Other Limited access
INT	Interstate
TOL	Toll Road

Florida Average Crash Rates for Urban Spots Crash Rates Per Million Vehicles								
CC	**Years……**	**2006**	**2007**	**2008**	**2009**	**2010**	**5 Year Average**	
40	One Way 3 Legs	*0.591*	*0.604*	*0.576*	*0.645*	*0.591*	*0.570*	
40	One Way 4 Legs	*0.729*	*0.705*	*0.673*	*0.716*	*0.634*	*0.674*	
40	One Way 5 Legs	*0.779*	*0.842*	*0.886*	*0.729*	*0.824*	*0.886*	
40	One Way 6 Legs	*0.629*	*0.380*	*0.814*	*0.443*	*0.426*	*0.537*	
10	2-3 Lanes 2wy Div Rasd 3 Legs	*0.608*	*0.552*	*0.338*	*0.430*	*0.439*	*0.450*	
10	2-3 Lanes 2wy Div Rasd 4 Legs	*0.618*	*0.444*	*0.350*	*0.376*	*0.387*	*0.444*	
10	2-3 Lanes 2wy Div Rasd 5 Legs	*0.229*	*0.313*	*0.220*	*0.175*	*0.296*	*0.277*	
10	2-3 Lanes 2wy Div Rasd 6 Legs	*0.000*	*0.000*	*0.000*	*0.000*	*0.000*	*0.000*	
11	2-3 Lanes 2wy Div Pavd 3 Legs	*0.296*	*0.301*	*0.285*	*0.300*	*0.259*	*0.276*	
11	2-3 Lanes 2wy Div Pavd 4 Legs	*0.356*	*0.334*	*0.389*	*0.407*	*0.410*	*0.428*	
11	2-3 Lanes 2wy Div Pavd 5 Legs	*0.687*	*0.735*	*0.544*	*0.511*	*0.694*	*0.728*	
11	2-3 Lanes 2wy Div Pavd 6 Legs	*0.000*	*0.000*	*0.000*	*0.000*	*0.000*	*0.000*	
12	2-3 Lanes 2wy Undivided 3 Legs	*0.258*	*0.270*	*0.215*	*0.225*	*0.253*	*0.235*	
12	2-3 Lanes 2wy Undivided 4 Legs	*0.400*	*0.408*	*0.300*	*0.321*	*0.293*	*0.317*	
12	2-3 Lanes 2wy Undivided 5 Legs	*0.315*	*0.161*	*0.127*	*0.046*	*0.074*	*0.140*	
12	2-3 Lanes 2wy Undivided 6 Legs	*0.000*	*0.000*	*0.000*	*0.000*	*0.000*	*0.000*	
20	4-5 Lanes 2wy Div Rasd 3 Legs	*0.274*	*0.287*	*0.257*	*0.273*	*0.278*	*0.268*	
20	4-5 Lanes 2wy Div Rasd 4 Legs	*0.411*	*0.415*	*0.391*	*0.404*	*0.411*	*0.406*	
20	4-5 Lanes 2wy Div Rasd 5 Legs	*0.544*	*0.587*	*0.507*	*0.522*	*0.540*	*0.548*	
20	4-5 Lanes 2wy Div Rasd 6 Legs	*1.370*	*1.461*	*2.055*	*0.454*	*1.108*	*1.063*	
21	4-5 Lanes 2wy Div Pavd 3 Legs	*0.305*	*0.326*	*0.294*	*0.340*	*0.350*	*0.330*	
21	4-5 Lanes 2wy Div Pavd 4 Legs	*0.484*	*0.504*	*0.460*	*0.531*	*0.524*	*0.501*	
21	4-5 Lanes 2wy Div Pavd 5 Legs	*0.777*	*0.721*	*0.666*	*0.767*	*0.641*	*0.696*	
21	4-5 Lanes 2wy Div Pavd 6 Legs	*0.709*	*0.806*	*0.744*	*0.578*	*0.595*	*0.673*	
22	4-5 Lanes 2wy Undivided 3 Legs	*0.416*	*0.450*	*0.388*	*0.427*	*0.396*	*0.406*	
22	4-5 Lanes 2wy Undivided 4 Legs	*0.537*	*0.591*	*0.496*	*0.521*	*0.510*	*0.517*	SR 52
22	4-5 Lanes 2wy Undivided 5 Legs	*0.488*	*0.663*	*0.526*	*0.643*	*0.764*	*0.597*	
22	4-5 Lanes 2wy Undivided 6 Legs	*0.000*	*0.000*	*0.000*	*0.000*	*0.000*	*0.000*	
30	6+ Lanes 2wy Div Rasd 3 Legs	*0.320*	*0.321*	*0.304*	*0.318*	*0.341*	*0.322*	
30	6+ Lanes 2wy Div Rasd 4 Legs	*0.567*	*0.561*	*0.556*	*0.579*	*0.611*	*0.576*	SR 56 & SR 54
30	6+ Lanes 2wy Div Rasd 5 Legs	*0.687*	*0.663*	*0.644*	*0.828*	*0.893*	*0.753*	
30	6+ Lanes 2wy Div Rasd 6 Legs	*0.517*	*0.505*	*0.586*	*0.718*	*0.515*	*0.568*	
31	6+ Lanes 2wy Div Pavd 3 Legs	*0.324*	*0.318*	*0.257*	*0.272*	*0.270*	*0.273*	
31	6+ Lanes 2wy Div Pavd 4 Legs	*0.512*	*0.522*	*0.444*	*0.461*	*0.479*	*0.472*	
31	6+ Lanes 2wy Div Pavd 5 Legs	*0.538*	*0.787*	*0.746*	*0.478*	*0.527*	*0.570*	
31	6+ Lanes 2wy Div Pavd 6 Legs	*1.604*	*1.644*	*1.174*	*1.113*	*1.595*	*1.423*	
32	6+ Lanes 2wy Undivided 3 Legs	*0.661*	*0.547*	*0.380*	*1.336*	*1.622*	*1.043*	
32	6+ Lanes 2wy Undivided 4 Legs	*0.000*	*0.000*	*2.163*	*4.144*	*3.238*	*3.192*	
32	6+ Lanes 2wy Undivided 5 Legs	*0.000*	*0.000*	*0.000*	*0.000*	*0.000*	*0.000*	
32	6+ Lanes 2wy Undivided 6 Legs	*0.000*	*0.000*	*0.000*	*0.000*	*0.000*	*0.000*	
1	Interstate 3 Legs	*0.126*	*0.136*	*0.116*	*0.117*	*0.126*	*0.123*	
1	Interstate 4 Legs	*0.103*	*0.087*	*0.066*	*0.076*	*0.090*	*0.083*	
3	Toll Road 3 Legs	*0.154*	*0.150*	*0.117*	*0.101*	*0.128*	*0.139*	
3	Toll Road 4 Legs	*0.291*	*0.207*	*0.268*	*0.197*	*0.203*	*0.213*	
7	Ramp 3 Legs	*0.000*	*0.154*	*0.000*	*0.000*	*0.931*	*0.912*	
7	Ramp 4 Legs	*0.000*	*0.000*	*0.000*	*0.000*	*0.572*	*0.572*	
5	Other Limited access 3 Legs	*0.211*	*0.212*	*0.209*	*0.206*	*0.249*	*0.234*	
5	Other Limited access 4 Legs	*0.478*	*0.477*	*0.405*	*0.338*	*0.832*	*0.818*	
5	Other Limited access 5 Legs	*0.264*	*0.081*	*0.214*	*0.574*	*0.300*	*0.282*	

I-75 AND OVERPASS ROAD IJR
2009-2011 CRASH DATA

CRASH LOCATION ID	CRASHNUM	CRASHDATE	CRASHTIME	ONROADNAME	INROADNAME	REFDIST	REFMEAS	REFDIR	ROADWAYID	MILEPT	NODE	HIGHESTINJ	INJURY_TYPE	CRSHEVENT1	CRASH EVENT_TYPE
I-75 - SR 56 to SR 54	776638010	1/5/2009	1627	SR 93	SR 56	1.00	MI	N	14140000	2.670	267	1	3 - PD	1	2 - REAR-END
I-75 - SR 56 to SR 54	776628860	1/13/2009	1314	SR 93	SR 56	100.00	FT	S	14140000	1.626	1905	1	3 - PD	6	3 - SIDESWIPE
I-75 - SR 56 to SR 54	776636150	1/18/2009	1343	I 75	SR 56	0.00	FT		14140000	1.358	1920	0	3 - PD-NOT CODED	10	6 - PED-PEDESTRIAN
I-75 - SR 56 to SR 54	776628910	1/21/2009	815	SR 93	SR 54	0.00	FT		14140001	0.239	265	1	3 - PD	1	2 - REAR-END
I-75 - SR 56 to SR 54	776637470	1/29/2009	1620	SR 93	SR 56	0.00	FT		14140000	1.358	1920	1	3 - PD	1	2 - REAR-END
I-75 - SR 56 to SR 54	776644300	2/6/2009	810	SR 93	SR 56	1200.00	FT	S	14140000	1.418	1921	2	2 - INJ-POSSIBLE	77	8 - OTHER
I-75 - SR 56 to SR 54	776654180	2/6/2009	1802	I 75	SR 54	0.20	MI	S	14140000	4.885	113	1	3 - PD	6	3 - SIDESWIPE
I-75 - SR 56 to SR 54	776636330	2/16/2009	2024	I 75	SR 56	900.00	FT	S	14140000	1.475	1921	2	2 - INJ-POSSIBLE	1	2 - REAR-END
I-75 - SR 56 to SR 54	776654420	2/16/2009	1557	SR 93	SR 54	0.60	MI	S	14140000	4.485	265	1	3 - PD	1	2 - REAR-END
I-75 - SR 56 to SR 54	776643290	2/18/2009	1511	SR 93	SR 54	1.00	MI	S	14140000	4.109	235	2	2 - INJ-POSSIBLE	18	7 - COLLISION-GUARDRAIL
I-75 - SR 56 to SR 54	776644400	2/19/2009	1317	SR 93	SR 56	0.00	FT		14140000	1.375	1921	2	2 - INJ-POSSIBLE	77	8 - OTHER
I-75 - SR 56 to SR 54	776645160	2/19/2009	1355	SR 93	SR 56	0.00	FT		14140000	1.358	1920	2	2 - INJ-POSSIBLE	1	2 - REAR-END
I-75 - SR 56 to SR 54	776527850	2/26/2009	1745	SR 93	SR 56	0.25	MI	S	14140000	1.395	1921	2	2 - INJ-POSSIBLE	31	5 - OVERTURNED
I-75 - SR 56 to SR 54	776675100	3/3/2009	1245	I 75	SR 56	1.50	MI	N	14140000	3.170	266	3	2 - INJ-NONINCAP	6	3 - SIDESWIPE
I-75 - SR 56 to SR 54	776655940	3/4/2009	1400	SR 93	SR 54	200.00	FT	S	14140000	4.810	265	1	3 - PD	77	8 - OTHER
I-75 - SR 56 to SR 54	776663820	3/10/2009	2045	I 75	SR 56	0.25	MI	S	14140000	1.395	1921	1	3 - PD	18	7 - COLLISION-GUARDRAIL
I-75 - SR 56 to SR 54	776684020	3/12/2009	650	SR 93	SR 56	1.00	MI	N	14140000	2.670	267	3	2 - INJ-NONINCAP	1	2 - REAR-END
I-75 - SR 56 to SR 54	776732050	3/13/2009	113	SR 93	SR 54	500.00	FT	S	14140000	5.014	265	1	3 - PD	29	7 - COLLISION-RAN INTO DITCH/CULVERT
I-75 - SR 56 to SR 54	776646240	3/17/2009	1706	SR 93	SR 54	100.00	FT	S	14140000	4.829	265	1	3 - PD	6	3 - SIDESWIPE
I-75 - SR 56 to SR 54	776675230	3/17/2009	654	I 75	SR 56	0.25	MI	S	14140000	1.395	1921	1	3 - PD	1	2 - REAR-END
I-75 - SR 56 to SR 54	776685570	3/19/2009	851	SR 93	SR 54	0.50	MI	S	14140000	4.585	265	1	3 - PD	3	1 - ANGLE
I-75 - SR 56 to SR 54	776628000	3/20/2009	1118	I 75	SR 56	2.00	MI	N	14140000	3.670	235	2	2 - INJ-POSSIBLE	1	2 - REAR-END
I-75 - SR 56 to SR 54	776671250	3/25/2009	2347	I 75	SR 54	100.00	FT	S	14140000	4.829	265	1	3 - PD	27	7 - COLLISION-HIT OTHER FIXED OBJ
I-75 - SR 56 to SR 54	776681220	4/2/2009	816	I 75	SR 56	0.00	FT		14140000	1.358	1920	1	3 - PD	9	8 - OTHER-MV ON RDWY
I-75 - SR 56 to SR 54	776694070	4/3/2009	1004	I 75	SR 56	150.00	FT	S	14140000	1.617	1905	1	3 - PD	1	2 - REAR-END
I-75 - SR 56 to SR 54	776646430	4/4/2009	1451	I 75	SR 54	20.00	FT	S	14140000	5.105	566	2	2 - INJ-POSSIBLE	1	2 - REAR-END
I-75 - SR 56 to SR 54	776650410	4/5/2009	2246	I 75	SR 54	500.00	FT	S	14140000	5.014	265	1	3 - PD	6	3 - SIDESWIPE
I-75 - SR 56 to SR 54	776671400	4/9/2009	2021	I 75	SR 56	1000.00	FT	N	14140000	1.859	1922	1	3 - PD	1	2 - REAR-END
I-75 - SR 56 to SR 54	776700710	4/10/2009	1545	I 75	NB ENT FROM REST AREA R	0.00	MI		14140000	3.609	235	1	3 - PD	0	8 - OTHER-NOT CODED
I-75 - SR 56 to SR 54	776645280	4/11/2009	1145	I 75	SR 54	0.75	MI	S	14140000	4.335	265	2	2 - INJ-POSSIBLE	1	2 - REAR-END
I-75 - SR 56 to SR 54	776527960	4/15/2009	950	SR 93	SR 54	0.50	MI	S	14140000	4.585	265	3	2 - INJ-NONINCAP	3	1 - ANGLE
I-75 - SR 56 to SR 54	776712540	4/17/2009	804	I 75	SR 54	0.50	MI	S	14140000	4.585	265	1	3 - PD	18	7 - COLLISION-GUARDRAIL
I-75 - SR 56 to SR 54	776712550	4/17/2009	804	I 75	SR 54	0.50	MI	S	14140000	4.585	265	1	3 - PD	77	8 - OTHER
I-75 - SR 56 to SR 54	776707600	4/22/2009	1401	I 75	SR 56	0.00	FT		14140000	1.358	1920	3	2 - INJ-NONINCAP	77	8 - OTHER
I-75 - SR 56 to SR 54	776696600	4/23/2009	1453	I 75	SR 54	1.00	MI	S	14140000	4.109	235	2	2 - INJ-POSSIBLE	6	3 - SIDESWIPE
I-75 - SR 56 to SR 54	776702930	5/3/2009	1347	I 75	SR 54	0.60	MI	S	14140000	4.485	265	1	3 - PD	77	8 - OTHER
I-75 - SR 56 to SR 54	776680260	5/10/2009	140	I 75	SR 56	200.00	FT	N	14140000	1.708	1906	1	3 - PD	29	7 - COLLISION-RAN INTO DITCH/CULVERT
I-75 - SR 56 to SR 54	776684300	5/11/2009	541	I 75	SR 54	750.00	FT	S	14140000	4.967	265	3	2 - INJ-NONINCAP	20	7 - COLLISION-CONCRETE BARRIER
I-75 - SR 56 to SR 54	776716570	5/15/2009	1935	I 75	SR 56	1.00	MI	N	14140000	2.670	267	3	2 - INJ-NONINCAP	29	7 - COLLISION-RAN INTO DITCH/CULVERT
I-75 - SR 56 to SR 54	776732160	5/16/2009	2322	SR 93	SR 56	0.00	FT		14140000	1.358	1920	1	3 - PD	18	7 - COLLISION-GUARDRAIL
I-75 - SR 56 to SR 54	776698830	5/26/2009	1714	SR 93	SR 56	200.00	FT	S	14140000	1.607	1905	2	2 - INJ-POSSIBLE	1	2 - REAR-END
I-75 - SR 56 to SR 54	776738510	5/27/2009	1320	SR 93	SR 56	0.00	FT		14140000	1.358	1920	2	2 - INJ-POSSIBLE	1	2 - REAR-END
I-75 - SR 56 to SR 54	776738180	6/11/2009	1602	I 75	SR 54	100.00	FT	S	14140000	5.090	566	1	3 - PD	20	7 - COLLISION-CONCRETE BARRIER
I-75 - SR 56 to SR 54	776712970	6/12/2009	1115	I 75	SR 56	0.25	MI	N	14140000	1.920	1922	1	3 - PD	1	2 - REAR-END
I-75 - SR 56 to SR 54	776713000	6/13/2009	1956	I 75	SR 54	0.25	MI	S	14140000	4.835	265	2	2 - INJ-POSSIBLE	77	8 - OTHER
I-75 - SR 56 to SR 54	776708800	6/15/2009	1239	I 75	SR 54	1.00	MI	S	14140000	4.109	235	1	3 - PD	6	3 - SIDESWIPE
I-75 - SR 56 to SR 54	804498520	6/17/2009	1700	SR 93	SR 56	500.00	FT	S	14140000	1.550	1905	2	2 - INJ-POSSIBLE	18	7 - COLLISION-GUARDRAIL
I-75 - SR 56 to SR 54	776738660	6/19/2009	1025	I 75	SR 54	80.00	FT	S	14140000	4.833	265	2	2 - INJ-POSSIBLE	6	3 - SIDESWIPE
I-75 - SR 56 to SR 54	776732420	6/26/2009	2049	SR 93	SR 56	0.00	FT		14140000	1.358	1920	2	2 - INJ-POSSIBLE	1	2 - REAR-END
I-75 - SR 56 to SR 54	804497110	6/26/2009	1847	SR 93	SR 56	250.00	FT	S	14140000	1.598	1905	4	2 - INJ-INCAP	9	8 - OTHER-MV ON RDWY
I-75 - SR 56 to SR 54	776747280	6/28/2009	1858	I 75	SR 56	900.00	FT	N	14140000	2.206	546	3	2 - INJ-NONINCAP	31	5 - OVERTURNED
I-75 - SR 56 to SR 54	804500070	6/30/2009	1009	I 75	SR 54	0.50	MI	S	14140000	4.585	265	2	2 - INJ-POSSIBLE	1	2 - REAR-END
I-75 - SR 56 to SR 54	804496810	7/5/2009	1638	I 75	SR 54	2.00	MI	S	14140000	3.109	267	1	3 - PD	6	3 - SIDESWIPE
I-75 - SR 56 to SR 54	804497260	7/9/2009	1918	SR 93	SR 56	0.00	FT		14140000	1.375	1921	1	3 - PD	29	7 - COLLISION-RAN INTO DITCH/CULVERT
I-75 - SR 56 to SR 54	776747380	7/10/2009	1822	I 75	SR 56	80.00	FT	S	14140000	1.630	1905	2	2 - INJ-POSSIBLE	1	2 - REAR-END
I-75 - SR 56 to SR 54	776747370	7/10/2009	1650	I 75	SR 56	0.00	FT		14140000	1.358	1920	2	2 - INJ-POSSIBLE	1	2 - REAR-END
I-75 - SR 56 to SR 54	773884240	7/17/2009	1643	I 75	SR 54	1.00	MI	S	14140000	4.109	235	1	3 - PD	77	8 - OTHER
I-75 - SR 56 to SR 54	804495320	7/30/2009	1605	I 75	SR 56	0.00	FT		14140000	1.358	1920	3	2 - INJ-NONINCAP	1	2 - REAR-END
I-75 - SR 56 to SR 54	804521220	8/4/2009	1640	I 75	SR 56	0.00	MI		14140000	1.375	1921	2	2 - INJ-POSSIBLE	0	8 - OTHER-NOT CODED
I-75 - SR 56 to SR 54	804500300	8/6/2009	701	I 75	SR 54	1.00	MI	S	14140000	4.109	235	2	2 - INJ-POSSIBLE	18	7 - COLLISION-GUARDRAIL
I-75 - SR 56 to SR 54	804536030	8/8/2009	1843	I 75	SR 56	0.05	MI	S	14140000	1.595	1905	1	3 - PD	18	7 - COLLISION-GUARDRAIL
I-75 - SR 56 to SR 54	776723490	8/15/2009	1630	SR 93	SR 56	500.00	FT	S	14140000	1.941	1922	1	3 - PD	18	7 - COLLISION-GUARDRAIL
I-75 - SR 56 to SR 54	804497480	8/17/2009	139	SR 93	SR 56	0.30	MI	N	14140000	1.970	1922	2	2 - INJ-POSSIBLE	22	7 - COLLISION-TREE/SHRUBBERY
I-75 - SR 56 to SR 54	804545600	8/31/2009	1658	I 75	SR 56	0.50	MI	N	14140000	2.170	546	1	3 - PD	77	8 - OTHER
I-75 - SR 56 to SR 54	804533380	9/5/2009	1709	I 75	SR 54	0.25	MI	S	14140000	4.835	265	1	3 - PD	1	2 - REAR-END
I-75 - SR 56 to SR 54	804495470	9/5/2009	1900	I 75	SR 54	0.10	MI	S	14140000	5.009	265	1	3 - PD	6	3 - SIDESWIPE
I-75 - SR 56 to SR 54	804542630	9/5/2009	2345	SR 93	SR 56	0.00	MI		14140000	2.036	1923	1	3 - PD	18	7 - COLLISION-GUARDRAIL
I-75 - SR 56 to SR 54	804533420	9/8/2009	849	I 75	SR 54	0.25	MI	S	14140000	4.835	265	1	3 - PD	6	3 - SIDESWIPE
I-75 - SR 56 to SR 54	804525270	9/20/2009	2059	I 75	SR 56	100.00	FT	N	14140000	1.689	1906	3	2 - INJ-NONINCAP	18	7 - COLLISION-GUARDRAIL
I-75 - SR 56 to SR 54	804549120	9/20/2009	1937	I 75	SR 56	295.00	FT	S	14140000	1.589	1905	5	1 - FATAL	0	8 - OTHER-NOT CODED

Source: FDOT Unified Basemap Repository

I-75 AND OVERPASS ROAD IJR
2009-2011 CRASH DATA

CRASH LOCATION ID	CRASHNUM	CRASHDATE	CRASHTIME	ONROADNAME	INROADNAME	REFDIST	REFMEAS	REFDIR	ROADWAYID	MILEPT	NODE	HIGHESTINJ	INJURY_TYPE	CRSHEVENT1	CRASH EVENT_TYPE
I-75 - SR 56 to SR 54	804549110	9/20/2009	1734	SR 93	SR 56	75.00	FT	S	14140000	1.631	1905	1	3 - PD	29	7 - COLLISION-RAN INTO DITCH/CULVERT
I-75 - SR 56 to SR 54	804554710	9/24/2009	1715	I 75	SR 56	0.00	FT		14140000	2.036	1923	1	3 - PD	0	8 - OTHER-NOT CODED
I-75 - SR 56 to SR 54	773977920	10/1/2009	1630	I 75	SR 54	1.20	MI	S	14140000	3.909	235	1	3 - PD	77	8 - OTHER
I-75 - SR 56 to SR 54	804549240	10/2/2009	141	I 75	SR 54	0.50	MI	S	14140000	4.585	265	3	2 - INJ-NONINCAP	20	7 - COLLISION-CONCRETE BARRIER
I-75 - SR 56 to SR 54	804522710	10/4/2009	825	I 75	SR 54	2.00	MI	S	14140000	3.109	267	1	3 - PD	6	3 - SIDESWIPE
I-75 - SR 56 to SR 54	804554810	10/4/2009	2109	I 75	SR 56	900.00	FT	S	14140000	1.475	1921	3	2 - INJ-NONINCAP	18	7 - COLLISION-GUARDRAIL
I-75 - SR 56 to SR 54	804544140	10/5/2009	808	I 75	SR 54	0.50	MI	S	14140000	4.585	265	1	3 - PD	1	2 - REAR-END
I-75 - SR 56 to SR 54	804549750	10/6/2009	1706	I 75	SR 56	0.00	FT		14140000	1.358	1920	1	3 - PD	1	2 - REAR-END
I-75 - SR 56 to SR 54	804556490	10/10/2009	1810	I 75	SR 56	0.00	FT		14140000	1.358	1920	1	3 - PD	1	2 - REAR-END
I-75 - SR 56 to SR 54	776723850	10/14/2009	2337	SR 93	SR 54	0.00	FT		14140000	4.925	265	2	2 - INJ-POSSIBLE	1	2 - REAR-END
I-75 - SR 56 to SR 54	776723860	10/15/2009	1208	SR 93	SR 56	0.00	FT		14140000	1.358	1920	3	2 - INJ-NONINCAP	1	2 - REAR-END
I-75 - SR 56 to SR 54	804525340	10/15/2009	121	I 75	SR 54	200.00	FT	S	14140000	5.071	566	2	2 - INJ-POSSIBLE	31	5 - OVERTURNED
I-75 - SR 56 to SR 54	804525370	10/22/2009	2100	I 75	SR 56	1.00	MI	N	14140000	2.670	267	5	1 - FATAL	0	8 - OTHER-NOT CODED
I-75 - SR 56 to SR 54	776611290	10/27/2009	2115	I 75	SR 56	0.00	FT		14140000	1.358	1920	1	3 - PD	18	7 - COLLISION-GUARDRAIL
I-75 - SR 56 to SR 54	773753830	10/28/2009	2141	I 75	SR 54	1.00	MI	S	14140000	4.109	235	2	2 - INJ-POSSIBLE	1	2 - REAR-END
I-75 - SR 56 to SR 54	804588020	10/28/2009	1451	I 75	SR 56	0.00	FT		14140000	1.358	1920	2	2 - INJ-POSSIBLE	1	2 - REAR-END
I-75 - SR 56 to SR 54	804577910	10/28/2009	730	I 75	SR 56	0.00	FT		14140000	1.375	1921	1	3 - PD	1	2 - REAR-END
I-75 - SR 56 to SR 54	804580090	10/29/2009	1732	I 75	SR 54	2.00	MI	S	14140000	3.109	267	1	3 - PD	16	7 - COLLISION-SIGN/POST
I-75 - SR 56 to SR 54	804594040	11/9/2009	1843	I 75	SR 54	0.50	MI	S	14140000	4.585	265	4	2 - INJ-INCAP	1	2 - REAR-END
I-75 - SR 56 to SR 54	804600010	11/11/2009	1250	I 75	SR 56	0.00	FT		14140000	1.358	1920	2	2 - INJ-POSSIBLE	18	7 - COLLISION-GUARDRAIL
I-75 - SR 56 to SR 54	804554480	11/11/2009	655	I 75	SR 56	0.00	FT		14140000	1.375	1921	2	2 - INJ-POSSIBLE	18	7 - COLLISION-GUARDRAIL
I-75 - SR 56 to SR 54	804530110	11/13/2009	1630	I 75	SR 56	1.00	MI	N	14140000	2.670	267	2	2 - INJ-POSSIBLE	1	2 - REAR-END
I-75 - SR 56 to SR 54	804530100	11/13/2009	1630	I 75	SR 56	1.00	MI	N	14140000	2.670	267	3	2 - INJ-NONINCAP	1	2 - REAR-END
I-75 - SR 56 to SR 54	768762060	11/24/2009	1545	SR 93	SR 56	1.50	MI	N	14140000	3.170	266	2	2 - INJ-POSSIBLE	1	2 - REAR-END
I-75 - SR 56 to SR 54	776723940	11/25/2009	928	SR 93	SR 56	0.00	FT		14140000	1.358	1920	2	2 - INJ-POSSIBLE	1	2 - REAR-END
I-75 - SR 56 to SR 54	804522860	11/25/2009	1215	I 75	SR 56	0.10	MI	S	14140000	1.545	1905	3	2 - INJ-NONINCAP	1	2 - REAR-END
I-75 - SR 56 to SR 54	804546890	11/25/2009	1239	I 75	SR 54	2.00	MI	S	14140000	3.109	267	4	2 - INJ-INCAP	1	2 - REAR-END
I-75 - SR 56 to SR 54	804591340	12/4/2009	2014	I 75	SR 56	0.00	FT		14140000	1.358	1920	1	3 - PD	18	7 - COLLISION-GUARDRAIL
I-75 - SR 56 to SR 54	804589230	12/4/2009	1742	I 75	SR 56	0.20	MI	S	14140000	1.445	1921	2	2 - INJ-POSSIBLE	1	2 - REAR-END
I-75 - SR 56 to SR 54	804594260	12/6/2009	1727	I 75	SR 54	0.50	MI	S	14140000	4.585	265	2	2 - INJ-POSSIBLE	26	7 - COLLISION-FIXED OBJECT
I-75 - SR 56 to SR 54	804601760	12/10/2009	829	I 75	SR 56	0.00	FT		14140000	1.358	1920	4	2 - INJ-INCAP	1	2 - REAR-END
I-75 - SR 56 to SR 54	804601770	12/10/2009	853	I 75	SR 56	0.00	FT		14140000	1.358	1920	1	3 - PD	77	8 - OTHER
I-75 - SR 56 to SR 54	804547000	12/12/2009	659	I 75	SR 54	300.00	FT	S	14140001	0.057	523	1	3 - PD	3	1 - ANGLE
I-75 - SR 56 to SR 54	804621020	12/18/2009	503	I 75	SR 56	0.50	MI	N	14140000	2.170	546	1	3 - PD	3	1 - ANGLE
I-75 - SR 56 to SR 54	804601880	12/18/2009	1233	I 75	SR 56	0.00	FT		14140000	1.358	1920	2	2 - INJ-POSSIBLE	18	7 - COLLISION-GUARDRAIL
I-75 - SR 56 to SR 54	804594450	12/19/2009	1835	I 75	SR 54	0.50	MI	S	14140000	4.585	265	2	2 - INJ-POSSIBLE	1	2 - REAR-END
I-75 - SR 56 to SR 54	804594500	12/24/2009	1442	I 75	SR 56	10.00	FT	S	14140000	1.643	1905	4	2 - INJ-INCAP	3	1 - ANGLE
I-75 - SR 56 to SR 54	804589420	12/25/2009	1626	I 75	CR 54	0	MI	S	14000000	0.000	0	3	2 - INJ-NONINCAP	31	5 - OVERTURNED
I-75 - SR 56 to SR 54	804633040	1/3/2010	1017	I 75	SR 54	0.3	MI	S	14140000	4.835	265	1	3 - PD	1	2 - REAR-END
I-75 - SR 56 to SR 54	804605660	1/4/2010	1717	I 75	SR 56	0.3	MI	N	14140000	1.920	1922	2	2 - INJ-POSSIBLE	1	2 - REAR-END
I-75 - SR 56 to SR 54	804629640	1/4/2010	1638	I 75	SR 56	400.0	FT	S	14140000	1.569	1905	2	2 - INJ-POSSIBLE	1	2 - REAR-END
I-75 - SR 56 to SR 54	804605650	1/4/2010	1620	I 75	SR 54	1.0	MI	S	14140000	4.109	235	2	2 - INJ-POSSIBLE	1	2 - REAR-END
I-75 - SR 56 to SR 54	804623050	1/5/2010	136	SR 93	SR 54	0.1	MI	S	14140000	5.009	265	1	3 - PD	20	7 - COLLISION-CONCRETE BARRIER
I-75 - SR 56 to SR 54	804615640	1/8/2010	1150	I 75	SR 56	0.0	FT		14140000	1.358	1920	2	2 - INJ-POSSIBLE	1	2 - REAR-END
I-75 - SR 56 to SR 54	804633080	1/9/2010	829	I 75	SR 56	0.3	MI	S	14140000	1.395	1921	1	3 - PD	77	8 - OTHER
I-75 - SR 56 to SR 54	804517620	1/11/2010	714	I 75	SR 54	0.3	MI	S	14140000	4.835	265	4	2 - INJ-INCAP	77	8 - OTHER
I-75 - SR 56 to SR 54	804624210	1/16/2010	2047	I 75	SR 56	0.0	MI		14140000	1.375	1921	2	2 - INJ-POSSIBLE	1	2 - REAR-END
I-75 - SR 56 to SR 54	804608730	1/23/2010	119	I 75	SR 54	500.0	FT	S	14140000	5.014	265	1	3 - PD	18	7 - COLLISION-GUARDRAIL
I-75 - SR 56 to SR 54	804635590	1/23/2010	1705	I 75	SR 56	0.5	MI	N	14140000	2.170	546	1	3 - PD	3	1 - ANGLE
I-75 - SR 56 to SR 54	804633250	1/27/2010	1858	I 75	SR 56	900.0	FT	S	14140000	1.475	1921	2	2 - INJ-POSSIBLE	77	8 - OTHER
I-75 - SR 56 to SR 54	804623130	1/30/2010	1539	SR 93	SR 56	0.0	FT		14140000	1.375	1921	1	3 - PD	29	7 - COLLISION-RAN INTO DITCH/CULVERT
I-75 - SR 56 to SR 54	804633320	2/1/2010	819	I 75	SR 56	0.0	FT		14140000	1.358	1920	1	3 - PD	3	1 - ANGLE
I-75 - SR 56 to SR 54	804621410	2/5/2010	2254	I 75	SR 56	0.0	FT		14140000	1.358	1920	1	3 - PD	18	7 - COLLISION-GUARDRAIL
I-75 - SR 56 to SR 54	804629930	2/5/2010	1856	I 75	SR 56	0.0	FT		14140000	1.358	1920	2	2 - INJ-POSSIBLE	1	2 - REAR-END
I-75 - SR 56 to SR 54	804621420	2/6/2010	138	I 75	SR 56	0.0	FT		14140000	1.375	1921	1	3 - PD	29	7 - COLLISION-RAN INTO DITCH/CULVERT
I-75 - SR 56 to SR 54	804621460	2/11/2010	2226	I 75	SR 56	1.0	MI	N	14140000	2.670	267	1	3 - PD	1	2 - REAR-END
I-75 - SR 56 to SR 54	804624400	2/18/2010	1750	I 75	SR 56	1.0	MI	N	14140000	2.670	267	1	3 - PD	6	3 - SIDESWIPE
I-75 - SR 56 to SR 54	804608850	2/27/2010	1235	SR 93	SR 54	1.0	MI	S	14140000	4.109	235	1	3 - PD	6	3 - SIDESWIPE
I-75 - SR 56 to SR 54	804666110	3/6/2010	1431	I 75	SR 56	550.0	FT	S	14140000	1.541	1905	1	3 - PD	77	8 - OTHER
I-75 - SR 56 to SR 54	804657390	3/7/2010	830	I 75	SR 54	0.3	MI	S	14140000	4.835	265	4	2 - INJ-INCAP	31	5 - OVERTURNED
I-75 - SR 56 to SR 54	804647940	3/12/2010	2319	I 75	SR 54	500.0	FT	S	14140000	5.014	265	2	2 - INJ-POSSIBLE	18	7 - COLLISION-GUARDRAIL
I-75 - SR 56 to SR 54	804667090	3/24/2010	655	I 75	SR 54	0.3	MI	S	14140000	4.835	265	1	3 - PD	3	1 - ANGLE
I-75 - SR 56 to SR 54	804690010	3/27/2010	1224	I 75	SR 54	0.5	MI	S	14140000	4.585	265	3	2 - INJ-NONINCAP	1	2 - REAR-END
I-75 - SR 56 to SR 54	804656320	3/31/2010	2215	I 75	SR 54	2.0	MI	S	14140000	3.109	267	1	3 - PD	1	2 - REAR-END
I-75 - SR 56 to SR 54	804681140	3/31/2010	1113	I 75	SR 56	0.2	MI	S	14140000	1.445	1921	1	3 - PD	6	3 - SIDESWIPE
I-75 - SR 56 to SR 54	804682580	4/1/2010	1936	SR 93	SR 56	1000.0	FT	N	14140000	1.859	1922	1	3 - PD	3	1 - ANGLE
I-75 - SR 56 to SR 54	804690090	4/3/2010	805	I 75	SR 56	300.0	FT	S	14140000	1.588	1905	2	2 - INJ-POSSIBLE	37	8 - OTHER-CARGO LOSS/SHIFT
I-75 - SR 56 to SR 54	804677160	4/10/2010	25	SR 93	SR 56	0.0	FT		14140000	1.358	1920	2	2 - INJ-POSSIBLE	1	2 - REAR-END
I-75 - SR 56 to SR 54	804675840	4/18/2010	1804	SR 93	SR 56	0.3	MI	S	14140000	1.395	1921	1	3 - PD	20	7 - COLLISION-CONCRETE BARRIER
I-75 - SR 56 to SR 54	804517640	4/21/2010	1305	I 75	SR 52	7.0	MI	S	14140000	4.738	265	4	2 - INJ-INCAP	6	3 - SIDESWIPE

Source: FDOT Unified Basemap Repository

I-75 AND OVERPASS ROAD IJR
2009-2011 CRASH DATA

CRASH LOCATION ID	CRASHNUM	CRASHDATE	CRASHTIME	ONROADNAME	INROADNAME	REFDIST	REFMEAS	REFDIR	ROADWAYID	MILEPT	NODE	HIGHESTINJ	INJURY_TYPE	CRSHEVENT1	CRASH EVENT_TYPE
I-75 - SR 56 to SR 54	804686050	4/23/2010	1420	SR 93	SR 54	0.1	MI	S	14140000	5.009	265	4	2 - INJ-INCAP	23	7 - COLLISION-CONSTRUCTION BARRICADE SIDE
I-75 - SR 56 to SR 54	804623310	4/25/2010	2117	SR 93	SR 56	0.0	FT		14140000	1.358	1920	1	3 - PD	1	2 - REAR-END
I-75 - SR 56 to SR 54	804690360	5/4/2010	1546	I 75	SR 56	500.0	FT	N	14140000	1.765	1906	4	2 - INJ-INCAP	0	8 - OTHER-NOT CODED
I-75 - SR 56 to SR 54	804684770	5/5/2010	713	I 75	SR 56	0.1	MI	S	14140000	1.545	1905	3	2 - INJ-NONINCAP	3	1 - ANGLE
I-75 - SR 56 to SR 54	804668350	5/7/2010	1755	I 75	SR 56	500.0	FT	N	14140000	1.765	1906	2	2 - INJ-POSSIBLE	31	5 - OVERTURNED
I-75 - SR 56 to SR 54	804690410	5/13/2010	1247	I 75	SR 54	300.0	FT	S	14140000	5.052	566	2	2 - INJ-POSSIBLE	1	2 - REAR-END
I-75 - SR 56 to SR 54	804712810	5/16/2010	1657	I 75	SR 56	0.5	MI	N	14140000	2.170	546	1	3 - PD	3	1 - ANGLE
I-75 - SR 56 to SR 54	804668410	5/19/2010	1935	I 75	SR 54	350.0	FT	S	14140003	0.130	164	1	3 - PD	1	2 - REAR-END
I-75 - SR 56 to SR 54	804718560	5/19/2010	1625	SR 93	SR 54	500.0	FT	S	14140003	0.101	164	3	2 - INJ-NONINCAP	1	2 - REAR-END
I-75 - SR 56 to SR 54	804718600	5/21/2010	1756	SR 93	SR 54	2.0	MI	S	14140000	3.109	267	1	3 - PD	1	2 - REAR-END
I-75 - SR 56 to SR 54	804730050	5/29/2010	1725	I 275	SR 56	0.3	MI	S	14140000	1.395	1921	1	3 - PD	20	7 - COLLISION-CONCRETE BARRIER
I-75 - SR 56 to SR 54	804702410	6/3/2010	530	SR 93	SR 56	2.0	MI	N	14140000	3.670	235	1	3 - PD	0	8 - OTHER-NOT CODED
I-75 - SR 56 to SR 54	804700970	6/4/2010	2222	I 75	REST AREA	0.0	MI		14140000	2.989	267	1	3 - PD	3	1 - ANGLE
I-75 - SR 56 to SR 54	804722260	6/21/2010	315	I 75	SR 54	0.3	MI	S	14140000	4.835	265	1	3 - PD	0	8 - OTHER-NOT CODED
I-75 - SR 56 to SR 54	804740070	6/22/2010	947	I 75	SR 56	0.0	FT		14140000	1.358	1920	2	2 - INJ-POSSIBLE	6	3 - SIDESWIPE
I-75 - SR 56 to SR 54	806058600	7/2/2010	1857	I 75	SR 54	1.0	MI	S	14140000	4.109	235	1	3 - PD	3	1 - ANGLE
I-75 - SR 56 to SR 54	804733440	7/5/2010	1918	SR 93	HILLSBOROUGH COUNTY LINE	2.8	MI	N	14140000	2.795	267	1	3 - PD	3	1 - ANGLE
I-75 - SR 56 to SR 54	806059240	7/6/2010	2116	I 75	SR 54	350.0	FT	S	14140001	0.066	523	1	3 - PD	3	1 - ANGLE
I-75 - SR 56 to SR 54	804739610	7/11/2010	648	I 75	SR 54	1000.0	FT	S	14140000	4.896	113	1	3 - PD	3	1 - ANGLE
I-75 - SR 56 to SR 54	806057310	7/12/2010	1755	I 75	SR 54	100.0	FT	S	14140000	5.090	566	1	3 - PD	6	3 - SIDESWIPE
I-75 - SR 56 to SR 54	804623420	7/17/2010	2145	SR 93	SR 56	0.5	MI	N	14140000	2.170	546	1	3 - PD	3	1 - ANGLE
I-75 - SR 56 to SR 54	804734250	7/26/2010	741	SR 93	SR 56	50.0	FT	N	14140000	1.679	1906	2	2 - INJ-POSSIBLE	1	2 - REAR-END
I-75 - SR 56 to SR 54	804670840	8/3/2010	2216	I 75	SR 54	0.3	MI	S	14140000	4.835	265	2	2 - INJ-POSSIBLE	3	1 - ANGLE
I-75 - SR 56 to SR 54	806109020	8/12/2010	1219	I 75	SR 56	10.0	FT	S	14140000	1.643	1905	1	3 - PD	6	3 - SIDESWIPE
I-75 - SR 56 to SR 54	806095600	8/21/2010	449	I 75	SR 56	0.3	MI	S	14140000	1.395	1921	2	2 - INJ-POSSIBLE	1	2 - REAR-END
I-75 - SR 56 to SR 54	804734450	8/27/2010	126	I 75	SR 54	0.5	MI	S	14140000	4.585	265	1	3 - PD	3	1 - ANGLE
I-75 - SR 56 to SR 54	804740390	8/31/2010	1016	I 75	SR 56	1.0	MI	N	14140000	2.670	267	1	3 - PD	77	8 - OTHER
I-75 - SR 56 to SR 54	806096710	9/4/2010	1	I 75	SR 54	0.7	MI	S	14140000	4.385	265	1	3 - PD	31	5 - OVERTURNED
I-75 - SR 56 to SR 54	806109070	9/5/2010	1001	I 75	SR 56	700.0	FT	S	14140000	1.512	1905	1	3 - PD	77	8 - OTHER
I-75 - SR 56 to SR 54	804740410	9/8/2010	1250	I 75	SR 54	2.0	MI	S	14140000	3.109	267	3	2 - INJ-NONINCAP	77	8 - OTHER
I-75 - SR 56 to SR 54	806117240	10/23/2010	1352	SR 93	SR 54	1.0	MI	S	14140000	4.085	235	2	2 - INJ-POSSIBLE	6	3 - SIDESWIPE
I-75 - SR 56 to SR 54	806133720	10/30/2010	1553	I 75	SR 54	1.5	MI	S	14140000	3.585	235	2	2 - INJ-POSSIBLE	18	7 - COLLISION-GUARDRAIL
I-75 - SR 56 to SR 54	819760040	11/19/2010	1530	I 75	SR 56	1.5	MI	N	14140000	3.170	266	1	3 - PD	1	2 - REAR-END
I-75 - SR 56 to SR 54	820007260	11/19/2010	0	SR 93	SR 54	0.3	MI	S	14140000	4.835	265	2	2 - INJ-POSSIBLE	1	2 - REAR-END
I-75 - SR 56 to SR 54	819728080	11/22/2010	1410	I 75	SR 54	500.0	FT	S	14140000	4.990	566	1	3 - PD	9	8 - OTHER-MV ON RDWY
I-75 - SR 56 to SR 54	819727240	11/23/2010	1835	SR 93	SR 56	0.3	MI	S	14140000	1.395	1921	1	3 - PD	1	2 - REAR-END
I-75 - SR 56 to SR 54	819664200	11/24/2010	1936	I 75	SR 56	150.0	FT	S	14140000	1.617	1905	2	2 - INJ-POSSIBLE	1	2 - REAR-END
I-75 - SR 56 to SR 54	819664180	11/24/2010	1818	I 75	SR 54	2.0	MI	S	14140000	3.085	267	2	2 - INJ-POSSIBLE	1	2 - REAR-END
I-75 - SR 56 to SR 54	819528880	11/28/2010	1255	I 75	SR 56	500.0	FT	N	14140000	1.765	1906	2	2 - INJ-POSSIBLE	1	2 - REAR-END
I-75 - SR 56 to SR 54	819664250	11/29/2010	1600	I 75	SR 54	1.0	MI	S	14140000	4.085	235	1	3 - PD	3	1 - ANGLE
I-75 - SR 56 to SR 54	819727380	12/6/2010	1615	SR 93	SR 56	0.0	MI		14140000	1.358	1920	1	3 - PD	77	8 - OTHER
I-75 - SR 56 to SR 54	819657430	12/11/2010	1150	I 75	SR 56	0.0	FT		14140000	1.358	1920	1	3 - PD	1	2 - REAR-END
I-75 - SR 56 to SR 54	819664550	12/12/2010	1519	I 75	SR 56	0.0	FT		14140021	0.297	1921	2	2 - INJ-POSSIBLE	17	7 - COLLISION-UTILPOLE
I-75 - SR 56 to SR 54	819727560	12/15/2010	1730	SR 93	SR 56	0.3	MI	S	14140000	1.395	1921	1	3 - PD	1	2 - REAR-END
I-75 - SR 56 to SR 54	819728340	12/16/2010	1436	I 75	SR 56	1.0	MI	N	14140000	2.670	267	3	2 - INJ-NONINCAP	31	5 - OVERTURNED
I-75 - SR 56 to SR 54	819656760	12/18/2010	1130	I 75	SR 54	0.0	FT		14140000	4.848	265	1	3 - PD	9	8 - OTHER-MV ON RDWY
I-75 - SR 56 to SR 54	819664620	12/20/2010	1614	I 75	SR 54	0.5	MI	S	14140000	4.585	265	2	2 - INJ-POSSIBLE	1	2 - REAR-END
I-75 - SR 56 to SR 54	819726690	12/23/2010	1421	I 75	SR 56	700.0	FT	N	14140000	1.803	1906	2	2 - INJ-POSSIBLE	1	2 - REAR-END
I-75 - SR 56 to SR 54	820614660	1/5/2011	1000	I 75	SR 56	500	FT	S	14140000	1.6	1905	1	3 - PD	9	8 - OTHER-MV ON RDWY
I-75 - SR 56 to SR 54	820603800	1/8/2011	1244	SR 93	SR 56	1	MI	N	14140000	2.7	267	1	3 - PD	37	8 - OTHER-CARGO LOSS/SHIFT
I-75 - SR 56 to SR 54	819904540	1/18/2011	1725	I 75	SR 56	0	MI	S	14140000	1.4	1921	2	2 - INJ-POSSIBLE	1	2 - REAR-END
I-75 - SR 56 to SR 54	820665920	1/21/2011	1533	I 75	SR 56	1500	FT	S	14140000	1.4	1920	1	3 - PD	1	2 - REAR-END
I-75 - SR 56 to SR 54	819726990	1/22/2011	2047	I 75	CR 54	2	MI	S	14140000	3.1	267	2	2 - INJ-POSSIBLE	1	2 - REAR-END
I-75 - SR 56 to SR 54	819728450	1/24/2011	2111	I 75	SR 56	0	FT		14140000	1.4	1921	1	3 - PD	77	8 - OTHER
I-75 - SR 56 to SR 54	820669330	1/25/2011	1000	I 75	SR 54 EXIT	0	FT		14140023	0.0	113	1	3 - PD	7	8 - OTHER-BACKED INTO
I-75 - SR 56 to SR 54	819657660	1/26/2011	632	I 75	SR 56	150	FT	S	14140000	1.6	1905	2	2 - INJ-POSSIBLE	1	2 - REAR-END
I-75 - SR 56 to SR 54	819657650	1/26/2011	618	I 75	SR 56	150	FT	S	14140000	1.6	1905	2	2 - INJ-POSSIBLE	20	7 - COLLISION-CONCRETE BARRIER
I-75 - SR 56 to SR 54	820671030	1/26/2011	1634	I 75	SR 56	700	FT	S	14140018	0.2	2196	1	3 - PD	1	2 - REAR-END
I-75 - SR 56 to SR 54	820579670	1/31/2011	1943	I 75	CR 54	1	MI	S	14140000	4.1	235	2	2 - INJ-POSSIBLE	1	2 - REAR-END
I-75 - SR 56 to SR 54	820698090	1/31/2011	1922	I 75	CR 54	1	MI	S	14140000	4.1	235	1	3 - PD	37	8 - OTHER-CARGO LOSS/SHIFT
I-75 - SR 56 to SR 54	819531730	2/3/2011	713	I 75	SR 56	0	MI	S	14140000	1.5	1905	2	2 - INJ-POSSIBLE	1	2 - REAR-END
I-75 - SR 56 to SR 54	819657810	2/11/2011	711	I 75	CR 54	150	FT	S	14140000	5.1	566	2	2 - INJ-POSSIBLE	1	2 - REAR-END
I-75 - SR 56 to SR 54	819729210	2/11/2011	726	I 75	SR 56	1000	FT	N	14140000	1.9	1922	4	2 - INJ-INCAP	3	1 - ANGLE
I-75 - SR 56 to SR 54	819657820	2/11/2011	711	I 75	CR 54	150	FT	S	14140000	5.1	566	4	2 - INJ-INCAP	1	2 - REAR-END
I-75 - SR 56 to SR 54	820782770	2/16/2011	2320	I 75	SR 56	3	MI	N	14140000	4.7	265	2	2 - INJ-POSSIBLE	9	8 - OTHER-MV ON RDWY
I-75 - SR 56 to SR 54	820663840	2/27/2011	954	I 75	CR 54	1	MI	S	14140000	4.1	235	3	2 - INJ-NONINCAP	9	8 - OTHER-MV ON RDWY
I-75 - SR 56 to SR 54	819700700	2/28/2011	2300	I 75	SR 56	50	FT	N	14140000	1.7	1906	1	3 - PD	77	8 - OTHER
I-75 - SR 56 to SR 54	820698410	2/28/2011	1431	I 75	CR 54	1000	FT	S	14140000	4.9	113	2	2 - INJ-POSSIBLE	1	2 - REAR-END
I-75 - SR 56 to SR 54	820669840	3/4/2011	1545	I 75	SR 56	1	MI	N	14140000	2.7	267	1	3 - PD	9	8 - OTHER-MV ON RDWY
I-75 - SR 56 to SR 54	820837470	3/11/2011	1700	I 75	SR 56	1000	FT	N	14140000	1.9	1922	4	2 - INJ-INCAP	1	2 - REAR-END

Source: FDOT Unified Basemap Repository

I-75 AND OVERPASS ROAD IJR
2009-2011 CRASH DATA

CRASH LOCATION ID	CRASHNUM	CRASHDATE	CRASHTIME	ONROADNAME	INROADNAME	REFDIST	REFMEAS	REFDIR	ROADWAYID	MILEPT	NODE	HIGHESTINJ	INJURY_TYPE	CRSHEVENT1	CRASH EVENT_TYPE
I-75 - SR 56 to SR 54	820698730	3/28/2011	957	SR 93	SR 56	25	FT	N	14140020	0.0	1943	3	2 - INJ-NONINCAP	1	2 - REAR-END
I-75 - SR 56 to SR 54	820888090	4/4/2011	828	I 75	SR 56	0	MI	N	14140000	2.1	1923	3	2 - INJ-NONINCAP	18	7 - COLLISION-GUARDRAIL
I-75 - SR 56 to SR 54	820912160	4/4/2011	951	I 75	SR 56	1	MI	N	14140000	2.7	267	1	3 - PD	1	2 - REAR-END
I-75 - SR 56 to SR 54	819547340	4/6/2011	722	I 75	CR 54	200	FT	S	14140001	0.0	112	1	3 - PD	9	8 - OTHER-MV ON RDWY
I-75 - SR 56 to SR 54	819673230	4/8/2011	1200	SR 93	SR 56	0	FT		14140000	2.0	1922	4	2 - INJ-INCAP	1	2 - REAR-END
I-75 - SR 56 to SR 54	820702730	4/13/2011	1655	I 75	SR 56	50	FT	N	14140020	0.0	1943	4	2 - INJ-INCAP	1	2 - REAR-END
I-75 - SR 56 to SR 54	820802190	4/28/2011	1722	I 75	SR 56	0	MI	S	14140000	1.6	1905	1	3 - PD	1	2 - REAR-END
I-75 - SR 56 to SR 54	819643110	4/29/2011	1500	I 75	CR 54	2	MI	S	14140000	3.6	235	1	3 - PD	9	8 - OTHER-MV ON RDWY
I-75 - SR 56 to SR 54	820838980	4/29/2011	2321	I 75	SR 56	1	MI	N	14140000	2.7	267	1	3 - PD	77	8 - OTHER
I-75 - SR 56 to SR 54	822440320	4/29/2011	1450	SR 93	CR 54	1	MI	S	14140000	4.6	265	3	2 - INJ-NONINCAP	1	2 - REAR-END
I-75 - SR 56 to SR 54	822420820	5/1/2011	1200	I 75	SR 56	1	MI	N	14140000	2.7	267	1	3 - PD	1	2 - REAR-END
I-75 - SR 56 to SR 54	820892170	5/2/2011	1500	SR 93	SR 56	200	FT	S	14140000	1.6	1905	1	3 - PD	1	2 - REAR-END
I-75 - SR 56 to SR 54	819673400	5/16/2011	1646	SR 93	SR 56	500	FT	S	14140000	1.6	1905	1	3 - PD	1	2 - REAR-END
I-75 - SR 56 to SR 54	819673390	5/16/2011	1606	SR 93	SR 56	500	FT	S	14140000	1.6	1905	3	2 - INJ-NONINCAP	1	2 - REAR-END
I-75 - SR 56 to SR 54	820883040	5/23/2011	1801	I 75	SR 56	1	MI	N	14140000	2.7	267	2	2 - INJ-POSSIBLE	1	2 - REAR-END
I-75 - SR 56 to SR 54	822406030	5/23/2011	935	I 75	CR 54	1000	FT	S	14140000	4.9	113	3	2 - INJ-NONINCAP	77	8 - OTHER
I-75 - SR 56 to SR 54	822406130	5/26/2011	1330	I 75	SR 54	1	MI	S	14140000	4.1	235	1	3 - PD	77	8 - OTHER
I-75 - SR 56 to SR 54	819869420	6/8/2011	2233	I 75	SR 56	400	FT	S	14140000	1.6	1905	4	2 - INJ-INCAP	77	8 - OTHER
I-75 - SR 56 to SR 54	822406280	6/14/2011	900	I 75	SR 56	0	FT		14140000	1.4	1920	4	2 - INJ-INCAP	25	7 - COLLISION-CRASH ATTENUATORS
I-75 - SR 56 to SR 54	822611870	6/18/2011	455	I 75	CR 54	1	MI	S	14140000	4.1	235	3	2 - INJ-NONINCAP	1	2 - REAR-END
I-75 - SR 56 to SR 54	822512960	6/30/2011	1400	I 75	SR 56	0	FT		14140020	0.0	1943	2	2 - INJ-POSSIBLE	1	2 - REAR-END
I-75 - SR 56 to SR 54	822612340	7/18/2011	2100	I 75	CR 54	1	MI	S	14140000	4.6	265	1	3 - PD	7	8 - OTHER-BACKED INTO
I-75 - SR 56 to SR 54	820348720	7/21/2011	1241	SR 93	CR 54	1	MI	S	14140000	4.1	235	2	2 - INJ-POSSIBLE	1	2 - REAR-END
I-75 - SR 56 to SR 54	828132040	8/5/2011	700	I 75	SR 56	1	MI	N	14140000	2.7	267	1	3 - PD	3	1 - ANGLE
I-75 - SR 56 to SR 54	822513130	8/6/2011	2230	I 75	CR 54	2	MI	S	14140000	3.1	267	3	2 - INJ-NONINCAP	18	7 - COLLISION-GUARDRAIL
I-75 - SR 56 to SR 54	822563630	8/7/2011	315	I 75	SR 56	0	FT		14140020	0.0	1923	4	2 - INJ-INCAP	1	2 - REAR-END
I-75 - SR 56 to SR 54	822563690	8/31/2011	1715	I 75	SR 56	1	MI	N	14140000	2.9	267	3	2 - INJ-NONINCAP	31	5 - OVERTURNED
I-75 - SR 56 to SR 54	828217620	9/22/2011	541	I 75	CR 54	2	MI	S	14140000	3.6	235	2	2 - INJ-POSSIBLE	77	8 - OTHER
I-75 - SR 56 to SR 54	828217680	9/29/2011	618	I 75	SR 56	0	MI	S	14140000	1.4	1921	1	3 - PD	3	1 - ANGLE
I-75 - SR 56 to SR 54	828239040	9/30/2011	1716	I 75	SR 56	2500	FT	N	14140000	2.1	546	3	2 - INJ-NONINCAP	9	8 - OTHER-MV ON RDWY
I-75 - SR 56 to SR 54	828289920	10/9/2011	313	I 75	SR 56	200	FT	N	14140000	1.7	1906	1	3 - PD	27	7 - COLLISION-HIT OTHER FIXED OBJ
I-75 - SR 56 to SR 54	828217120	10/9/2011	1543	I 75	CR 54	0	FT		14140001	0.2	265	1	3 - PD	18	7 - COLLISION-GUARDRAIL
I-75 - SR 56 to SR 54	828219990	11/3/2011	719	I 75	SR 56	0	MI	S	14140021	0.1	56	1	3 - PD	1	2 - REAR-END
I-75 - SR 56 to SR 54	828444390	11/7/2011	757	I 75	SR 56	50	FT	N	14140020	0.0	1943	3	2 - INJ-NONINCAP	1	2 - REAR-END
I-75 - SR 56 to SR 54	828495630	11/11/2011	1849	I 75	SR 56	150	FT	N	14140000	1.7	1906	1	3 - PD	1	2 - REAR-END
I-75 - SR 56 to SR 54	828252000	11/13/2011	212	I 75	CR 54	1	MI	S	14140000	4.1	235	2	2 - INJ-POSSIBLE	1	2 - REAR-END
I-75 - SR 56 to SR 54	828423950	11/16/2011	1808	I 75	SR 56	0	MI		14140018	0.0	1920	2	2 - INJ-POSSIBLE	1	2 - REAR-END
I-75 - SR 56 to SR 54	828522030	11/16/2011	1459	SR 93	SR 56	0	MI	S	14140018	0.1	1920	1	3 - PD	77	8 - OTHER
I-75 - SR 56 to SR 54	828479360	11/18/2011	1401	I 75	SR 56	0	MI	S	14140000	1.4	1921	2	2 - INJ-POSSIBLE	9	8 - OTHER-MV ON RDWY
I-75 - SR 56 to SR 54	828479400	11/22/2011	1630	I 75	SR 56	0	MI	N	14140019	0.3	1922	2	2 - INJ-POSSIBLE	1	2 - REAR-END
I-75 - SR 56 to SR 54	828303440	11/26/2011	1549	I 75	CR 54	2	MI	S	14140000	3.6	235	1	3 - PD	1	2 - REAR-END
I-75 - SR 56 to SR 54	828450350	11/26/2011	1206	SR 93	COUNTY LINE RD	4	MI	N	14140000	4.0	235	1	3 - PD	1	2 - REAR-END
I-75 - SR 56 to SR 54	828492450	11/28/2011	1515	I 75	SR 56	50	FT	S	14140000	1.4	1920	2	2 - INJ-POSSIBLE	27	7 - COLLISION-HIT OTHER FIXED OBJ
I-75 - SR 56 to SR 54	828429800	11/29/2011	1759	I 75	SR 56	0	MI		14140018	0.0	1920	1	3 - PD	1	2 - REAR-END
I-75 - SR 56 to SR 54	828444640	11/30/2011	624	I 75	SR 56	0	FT		14140000	1.4	1921	2	2 - INJ-POSSIBLE	1	2 - REAR-END
I-75 - SR 56 to SR 54	828393040	12/18/2011	221	SR 93	MILE MARKER #278	0	MI		14140000	4.4	265	4	2 - INJ-INCAP	1	2 - REAR-END
I-75 - SR 54 to Overpass Road	776650070	2/6/2009	343	I 75	SR 54	2.00	MI	N	14140000	7.132	238	1	3 - PD	6	3 - SIDESWIPE
I-75 - SR 54 to Overpass Road	776599400	2/8/2009	25	I 75	SR 54	1.00	MI	N	14140000	6.132	237	1	3 - PD	16	7 - COLLISION-SIGN/POST
I-75 - SR 54 to Overpass Road	776644740	2/9/2009	2008	I 75	OVERPASS RD	0.50	MI	S	14140000	7.666	238	3	2 - INJ-NONINCAP	1	2 - REAR-END
I-75 - SR 54 to Overpass Road	776684240	4/27/2009	1149	I 75	SR 54	1000.00	FT	N	14140000	5.321	237	1	3 - PD	6	3 - SIDESWIPE
I-75 - SR 54 to Overpass Road	776695300	5/20/2009	1100	I 75	SR 54	500.00	FT	N	14140000	5.217	44	1	3 - PD	27	7 - COLLISION-HIT OTHER FIXED OBJ
I-75 - SR 54 to Overpass Road	776645400	5/30/2009	1330	I 75	SR 54	3.00	MI	N	14140000	8.132	238	2	2 - INJ-POSSIBLE	6	3 - SIDESWIPE
I-75 - SR 54 to Overpass Road	773944980	6/30/2009	1947	SR 93	SR 56	6.00	MI	N	14140000	7.670	238	3	2 - INJ-NONINCAP	29	7 - COLLISION-RAN INTO DITCH/CULVERT
I-75 - SR 54 to Overpass Road	804500090	7/3/2009	544	I 75	SR 54	1.00	MI	N	14140000	6.132	237	4	2 - INJ-INCAP	31	5 - OVERTURNED
I-75 - SR 54 to Overpass Road	804496260	7/9/2009	914	I 75	SR 54	2.00	MI	N	14140000	7.132	238	3	2 - INJ-NONINCAP	18	7 - COLLISION-GUARDRAIL
I-75 - SR 54 to Overpass Road	804496250	7/9/2009	912	I 75	SR 54	2.00	MI	N	14140000	7.132	238	4	2 - INJ-INCAP	3	1 - ANGLE
I-75 - SR 54 to Overpass Road	776747420	7/12/2009	1649	I 75	SR 54	1.00	MI	N	14140000	6.132	237	2	2 - INJ-POSSIBLE	31	5 - OVERTURNED
I-75 - SR 54 to Overpass Road	804497460	8/16/2009	1742	SR 93	SR 54	1.50	MI	N	14140000	6.632	237	2	2 - INJ-POSSIBLE	22	7 - COLLISION-TREE/SHRUBBERY
I-75 - SR 54 to Overpass Road	804521270	8/17/2009	1734	I 75	SR 54	1.00	MI	N	14140000	6.132	237	2	2 - INJ-POSSIBLE	18	7 - COLLISION-GUARDRAIL
I-75 - SR 54 to Overpass Road	776723780	9/8/2009	1533	SR 93	SR 54	2.00	MI	N	14140000	7.132	238	4	2 - INJ-INCAP	22	7 - COLLISION-TREE/SHRUBBERY
I-75 - SR 54 to Overpass Road	804522650	9/15/2009	600	I 75	SR 54	1.00	MI	N	14140000	6.132	237	1	3 - PD	8	8 - OTHER-PARKED CAR
I-75 - SR 54 to Overpass Road	804533480	9/15/2009	1834	I 75	SR 54	1.50	MI	N	14140000	6.632	237	1	3 - PD	77	8 - OTHER
I-75 - SR 54 to Overpass Road	804554610	9/18/2009	1713	I 75	SR 54	2.00	MI	N	14140000	7.132	238	1	3 - PD	22	7 - COLLISION-TREE/SHRUBBERY
I-75 - SR 54 to Overpass Road	776611250	9/25/2009	1705	I 75	SR 54	0.30	MI	N	14140000	5.432	237	1	3 - PD	77	8 - OTHER
I-75 - SR 54 to Overpass Road	804556240	9/25/2009	1740	I 75	SR 54	1.00	MI	N	14140000	6.132	237	4	2 - INJ-INCAP	18	7 - COLLISION-GUARDRAIL
I-75 - SR 54 to Overpass Road	804556290	9/27/2009	1606	I 75	SR 54	1.00	MI	N	14140000	6.132	237	1	3 - PD	1	2 - REAR-END
I-75 - SR 54 to Overpass Road	804556300	9/27/2009	1626	I 75	SR 54	3.00	MI	N	14140000	8.132	238	1	3 - PD	1	2 - REAR-END
I-75 - SR 54 to Overpass Road	804563930	10/6/2009	1701	I 75	SR 54	2.00	MI	N	14140000	7.132	238	1	3 - PD	1	2 - REAR-END
I-75 - SR 54 to Overpass Road	804563920	10/6/2009	1700	I 75	SR 54	2.00	MI	N	14140000	7.132	238	1	3 - PD	18	7 - COLLISION-GUARDRAIL
I-75 - SR 54 to Overpass Road	804561890	10/26/2009	1632	I 75	SR 54	1.50	MI	N	14140000	6.632	237	3	2 - INJ-NONINCAP	1	2 - REAR-END

Source: FDOT Unified Basemap Repository

I-75 AND OVERPASS ROAD IJR
2009-2011 CRASH DATA

CRASH LOCATION ID	CRASHNUM	CRASHDATE	CRASHTIME	ONROADNAME	INROADNAME	REFDIST	REFMEAS	REFDIR	ROADWAYID	MILEPT	NODE	HIGHESTINJ	INJURY_TYPE	CRSHEVENT1	CRASH EVENT_TYPE
I-75 - SR 54 to Overpass Road	804622620	12/23/2009	715	I 75	SR 54	0.50	MI	N	14140000	5.632	237	1	3 - PD	3	1 - ANGLE
I-75 - SR 54 to Overpass Road	804620570	1/4/2010	730	I 75	SR 54	300.0	FT	N	14140000	5.189	2095	1	3 - PD	37	8 - OTHER-CARGO LOSS/SHIFT
I-75 - SR 54 to Overpass Road	804633150	1/15/2010	1242	I 75	SR 54	0.8	MI	N	14140000	5.882	237	4	2 - INJ-INCAP	1	2 - REAR-END
I-75 - SR 54 to Overpass Road	804633140	1/15/2010	1140	I 75	SR 54	0.8	MI	N	14140000	5.882	237	3	2 - INJ-NONINCAP	77	8 - OTHER
I-75 - SR 54 to Overpass Road	768847810	1/23/2010	9	I 75	SR 54	1.0	MI	N	14140000	6.132	237	4	2 - INJ-INCAP	0	8 - OTHER-NOT CODED
I-75 - SR 54 to Overpass Road	804635310	2/17/2010	2012	I 75	SR 54	0.0	FT		14140000	5.294	237	4	2 - INJ-INCAP	3	1 - ANGLE
I-75 - SR 54 to Overpass Road	804666060	3/1/2010	1633	I 75	SR 54	0.5	MI	N	14140000	5.632	237	1	3 - PD	6	3 - SIDESWIPE
I-75 - SR 54 to Overpass Road	804656250	3/11/2010	330	I 75	SR 54	2.0	MI	N	14140000	7.132	238	1	3 - PD	28	7 - COLLISION-MOVEABLE OBJ ON ROAD
I-75 - SR 54 to Overpass Road	804608970	3/13/2010	1513	I 75	SR 54	1.0	MI	N	14140000	6.132	237	3	2 - INJ-NONINCAP	3	1 - ANGLE
I-75 - SR 54 to Overpass Road	768858390	3/16/2010	740	I 75	SR 54	0.3	MI	N	14140000	5.432	237	1	3 - PD	23	7 - COLLISION-CONSTRUCTION BARRICADE SIDE
I-75 - SR 54 to Overpass Road	804638380	3/19/2010	828	I 75	SR 54	200.0	FT	N	14140000	5.170	2095	1	3 - PD	9	8 - OTHER-MV ON RDWY
I-75 - SR 54 to Overpass Road	804690040	3/30/2010	14	I 75	SR 54	1.0	MI	N	14140000	6.132	237	1	3 - PD	3	1 - ANGLE
I-75 - SR 54 to Overpass Road	804690160	4/6/2010	1300	I 75	SR 54	2.0	MI	N	14140000	7.132	238	4	2 - INJ-INCAP	37	8 - OTHER-CARGO LOSS/SHIFT
I-75 - SR 54 to Overpass Road	804658970	4/15/2010	124	I 75	SR 54	1.0	MI	N	14140000	6.132	237	3	2 - INJ-NONINCAP	18	7 - COLLISION-GUARDRAIL
I-75 - SR 54 to Overpass Road	804623250	4/19/2010	1656	SR 93	SR 54	2.0	MI	N	14140000	7.132	238	1	3 - PD	6	3 - SIDESWIPE
I-75 - SR 54 to Overpass Road	804702130	4/25/2010	422	SR 93	SR 54	2.0	MI	N	14140000	7.132	238	4	2 - INJ-INCAP	22	7 - COLLISION-TREE/SHRUBBERY
I-75 - SR 54 to Overpass Road	804705210	5/5/2010	445	I 75	SR 54	1.5	MI	N	14140000	6.632	237	2	2 - INJ-POSSIBLE	29	7 - COLLISION-RAN INTO DITCH/CULVERT
I-75 - SR 54 to Overpass Road	804713000	6/10/2010	1438	I 75	SR 54	2.0	MI	N	14140000	7.132	238	1	3 - PD	38	8 - OTHER-SEPARATION OF UNITS
I-75 - SR 54 to Overpass Road	804684970	6/13/2010	820	I 75	SR 54	500.0	FT	N	14140000	5.217	44	3	2 - INJ-NONINCAP	3	1 - ANGLE
I-75 - SR 54 to Overpass Road	804738200	6/15/2010	1450	I 75	SR 54	1.0	MI	N	14140000	6.132	237	2	2 - INJ-POSSIBLE	31	5 - OVERTURNED
I-75 - SR 54 to Overpass Road	804740060	6/18/2010	724	I 75	SR 54	3.0	MI	N	14140000	8.132	238	1	3 - PD	77	8 - OTHER
I-75 - SR 54 to Overpass Road	804667180	6/21/2010	935	I 75	OVERPASS RD	0.2	MI	S	14140000	7.966	238	2	2 - INJ-POSSIBLE	18	7 - COLLISION-GUARDRAIL
I-75 - SR 54 to Overpass Road	806057290	7/9/2010	1643	SR 93	SR 54	1.5	MI	N	14140000	6.632	237	1	3 - PD	22	7 - COLLISION-TREE/SHRUBBERY
I-75 - SR 54 to Overpass Road	804738390	7/10/2010	1545	I 75	SR 54	1.0	MI	N	14140000	6.132	237	2	2 - INJ-POSSIBLE	1	2 - REAR-END
I-75 - SR 54 to Overpass Road	806055770	7/10/2010	1504	I 75	SR 54	0.3	MI	N	14140000	5.382	237	1	3 - PD	1	2 - REAR-END
I-75 - SR 54 to Overpass Road	806055780	7/10/2010	1504	I 75	SR 54	0.3	MI	N	14140000	5.382	237	3	2 - INJ-NONINCAP	77	8 - OTHER
I-75 - SR 54 to Overpass Road	806054640	8/10/2010	1327	I 75	SR 54	2.0	MI	N	14140000	7.132	238	1	3 - PD	77	8 - OTHER
I-75 - SR 54 to Overpass Road	806065200	8/17/2010	1256	I 75	SR 54	200.0	FT	N	14140000	5.170	2095	3	2 - INJ-NONINCAP	20	7 - COLLISION-CONCRETE BARRIER
I-75 - SR 54 to Overpass Road	806054740	8/21/2010	829	I 75	SR 54	1.0	MI	N	14140000	6.132	237	1	3 - PD	18	7 - COLLISION-GUARDRAIL
I-75 - SR 54 to Overpass Road	806102580	9/8/2010	1934	SR 93	SR 54	1.0	MI	N	14140000	6.132	237	2	2 - INJ-POSSIBLE	22	7 - COLLISION-TREE/SHRUBBERY
I-75 - SR 54 to Overpass Road	806065390	9/14/2010	1107	I 75	SR 54	2.0	MI	N	14140000	7.132	238	3	2 - INJ-NONINCAP	31	5 - OVERTURNED
I-75 - SR 54 to Overpass Road	806122750	10/28/2010	816	I 75	OVERPASS RD	200.0	FT	S	14140000	8.128	238	2	2 - INJ-POSSIBLE	77	8 - OTHER
I-75 - SR 54 to Overpass Road	806146080	11/3/2010	2027	SR 93	SR 54	3.0	MI	N	14140000	8.122	238	4	2 - INJ-INCAP	18	7 - COLLISION-GUARDRAIL
I-75 - SR 54 to Overpass Road	806117300	11/10/2010	1736	I 75	SR 54	1.0	MI	N	14140000	6.122	237	1	3 - PD	1	2 - REAR-END
I-75 - SR 54 to Overpass Road	819548440	11/10/2010	2025	SR 93	SR 54	1.0	MI	N	14140000	6.122	237	2	2 - INJ-POSSIBLE	1	2 - REAR-END
I-75 - SR 54 to Overpass Road	819727040	11/13/2010	1443	SR 93	SR 54	0.5	MI	N	14140000	5.622	237	1	3 - PD	77	8 - OTHER
I-75 - SR 54 to Overpass Road	819547750	11/22/2010	406	I 75	SR 54	0.5	MI	N	14140000	5.622	237	1	3 - PD	15	7 - COLLISION-ANIMAL
I-75 - SR 54 to Overpass Road	819727220	11/23/2010	1415	SR 93	SR 54	1.0	MI	N	14140000	6.122	237	1	3 - PD	22	7 - COLLISION-TREE/SHRUBBERY
I-75 - SR 54 to Overpass Road	819664170	11/24/2010	1818	I 75	SR 54	2.0	MI	N	14140000	7.122	238	2	2 - INJ-POSSIBLE	1	2 - REAR-END
I-75 - SR 54 to Overpass Road	819759410	12/1/2010	1505	I 75	MILE MARKER #279	0.0	FT		14140000	5.406	237	1	3 - PD	3	1 - ANGLE
I-75 - SR 54 to Overpass Road	820671530	3/4/2011	1500	I 75	CR 54	1	MI	N	14140000	5.9	237	1	3 - PD	29	7 - COLLISION-RAN INTO DITCH/CULVERT
I-75 - SR 54 to Overpass Road	820671660	3/17/2011	640	I 75	CR 54	3	MI	N	14140000	8.1	238	2	2 - INJ-POSSIBLE	9	8 - OTHER-MV ON RDWY
I-75 - SR 54 to Overpass Road	820802030	4/4/2011	804	I 75	CR 54	1	MI	N	14140000	6.1	237	3	2 - INJ-NONINCAP	31	5 - OVERTURNED
I-75 - SR 54 to Overpass Road	820893920	5/1/2011	1643	I 75	CR 54	0	MI	S	14140000	5.3	118	4	2 - INJ-INCAP	18	7 - COLLISION-GUARDRAIL
I-75 - SR 54 to Overpass Road	819759260	5/14/2011	1615	I 75	CR 54	3	MI	N	14140000	8.1	238	2	2 - INJ-POSSIBLE	3	1 - ANGLE
I-75 - SR 54 to Overpass Road	820756550	6/17/2011	825	I 75	OVERPASS RD	1	MI	S	14140000	7.7	238	3	2 - INJ-NONINCAP	31	5 - OVERTURNED
I-75 - SR 54 to Overpass Road	819550750	7/5/2011	1115	SR 93	CR 54	0	MI	N	14140000	5.3	118	2	2 - INJ-POSSIBLE	77	8 - OTHER
I-75 - SR 54 to Overpass Road	822683430	7/16/2011	402	I 75	CR 54	1	MI	N	14140000	6.1	237	1	3 - PD	77	8 - OTHER
I-75 - SR 54 to Overpass Road	828222070	8/25/2011	900	I 75	CR 54	1000	FT	N	14140000	5.3	118	1	3 - PD	9	8 - OTHER-MV ON RDWY
I-75 - SR 54 to Overpass Road	828222720	10/14/2011	718	I 75	OVERPASS RD	700	FT	S	14140000	8.0	238	1	3 - PD	9	8 - OTHER-MV ON RDWY
I-75 - SR 54 to Overpass Road	828484140	11/11/2011	1246	SR 93	CR 54	3	MI	N	14140000	8.1	238	1	3 - PD	1	2 - REAR-END
I-75 - SR 54 to Overpass Road	828303430	11/26/2011	1541	I 75	CR 54	3	MI	N	14140000	8.1	238	1	3 - PD	1	2 - REAR-END
I-75 - SR 54 to Overpass Road	828483610	12/9/2011	1305	I 75	CR 54	1	MI	N	14140000	6.1	237	1	3 - PD	2	4 - HEAD-ON
I-75 - SR 54 to Overpass Road	828581970	12/9/2011	536	I 75	CR 54	1	MI	N	14140000	6.1	237	3	2 - INJ-NONINCAP	77	8 - OTHER
I-75 - SR 54 to Overpass Road	828429950	12/12/2011	608	I 75	CR 54	1	MI	N	14140000	6.1	237	1	3 - PD	15	7 - COLLISION-ANIMAL
I-75 - SR 54 to Overpass Road	828582210	12/27/2011	1422	I 75	SR 54	2	MI	N	14140000	6.6	237	2	2 - INJ-POSSIBLE	1	2 - REAR-END
I-75 - SR 54 to Overpass Road	828484880	12/29/2011	1011	I 75	CR 54	0	FT		14140000	5.3	118	3	2 - INJ-NONINCAP	3	1 - ANGLE
I-75 - SR 54 to Overpass Road	828608750	12/29/2011	1614	I 75	SR 54	1	MI	N	14140000	6.1	237	1	3 - PD	77	8 - OTHER
I-75 - Overpass Road to SR 52	776652020	1/23/2009	1116	I 75	SR 52	100.00	FT	S	14140000	11.719	748	3	2 - INJ-NONINCAP	1	2 - REAR-END
I-75 - Overpass Road to SR 52	776644270	2/5/2009	1515	SR 93	SR 52	0.00	FT		14140000	11.588	240	3	2 - INJ-NONINCAP	9	8 - OTHER-MV ON RDWY
I-75 - Overpass Road to SR 52	776619930	2/28/2009	716	SR 93	SR 52	2.00	MI	S	14140000	9.738	262	4	2 - INJ-INCAP	31	5 - OVERTURNED
I-75 - Overpass Road to SR 52	776712590	4/20/2009	1719	I 75	SR 52	350.00	FT	S	14140005	0.066	538	3	2 - INJ-NONINCAP	77	8 - OTHER
I-75 - Overpass Road to SR 52	776675860	4/22/2009	1423	I 75	SR 52	400.00	FT	S	14140000	11.662	261	3	2 - INJ-NONINCAP	3	1 - ANGLE
I-75 - Overpass Road to SR 52	776723510	5/3/2009	326	SR 93	SR 52	1.00	MI	S	14140000	10.738	240	1	3 - PD	27	7 - COLLISION-HIT OTHER FIXED OBJ
I-75 - Overpass Road to SR 52	776696760	5/18/2009	1435	I 75	OVERPASS RD	1.30	MI	N	14140000	9.474	262	4	2 - INJ-INCAP	3	1 - ANGLE
I-75 - Overpass Road to SR 52	776686970	5/20/2009	38	I 75	SR 52	3.00	MI	S	14140000	8.738	263	2	2 - INJ-POSSIBLE	22	7 - COLLISION-TREE/SHRUBBERY
I-75 - Overpass Road to SR 52	776684460	6/14/2009	1139	I 75	SR 52	1.00	MI	S	14140000	10.738	240	4	2 - INJ-INCAP	22	7 - COLLISION-TREE/SHRUBBERY
I-75 - Overpass Road to SR 52	776732410	6/22/2009	437	SR 93	SR 52	2.00	MI	S	14140000	9.738	262	1	3 - PD	29	7 - COLLISION-RAN INTO DITCH/CULVERT
I-75 - Overpass Road to SR 52	804500080	6/30/2009	1325	I 75	SR 52	1.00	MI	S	14140000	10.738	240	2	2 - INJ-POSSIBLE	22	7 - COLLISION-TREE/SHRUBBERY
I-75 - Overpass Road to SR 52	804502060	7/1/2009	737	I 75	SR 52	500.00	FT	S	14140000	11.643	261	3	2 - INJ-NONINCAP	31	5 - OVERTURNED

Source: FDOT Unified Basemap Repository

I-75 AND OVERPASS ROAD IJR
2009-2011 CRASH DATA

CRASH LOCATION ID	CRASHNUM	CRASHDATE	CRASHTIME	ONROADNAME	INROADNAME	REFDIST	REFMEAS	REFDIR	ROADWAYID	MILEPT	NODE	HIGHESTINJ	INJURY_TYPE	CRSHEVENT1	CRASH EVENT_TYPE
I-75 - Overpass Road to SR 52	776747360	7/8/2009	1623	I 75	SR 52	2.00	MI	S	14140000	9.738	262	4	2 - INJ-INCAP	22	7 - COLLISION-TREE/SHRUBBERY
I-75 - Overpass Road to SR 52	804496240	7/8/2009	1304	I 75	SR 52	550.00	FT	N	14140000	11.871	260	4	2 - INJ-INCAP	29	7 - COLLISION-RAN INTO DITCH/CULVERT
I-75 - Overpass Road to SR 52	804517020	7/17/2009	1500	I 75	OVERPASS RD	0.25	MI	N	14140000	8.424	263	1	3 - PD	0	8 - OTHER-NOT CODED
I-75 - Overpass Road to SR 52	804525030	7/26/2009	340	I 75	SR 52	1.00	MI	S	14140000	10.738	240	3	2 - INJ-NONINCAP	18	7 - COLLISION-GUARDRAIL
I-75 - Overpass Road to SR 52	776723620	8/1/2009	2344	SR 93	SR 52	150.00	FT	S	14140000	11.710	748	3	2 - INJ-NONINCAP	18	7 - COLLISION-GUARDRAIL
I-75 - Overpass Road to SR 52	804533100	8/15/2009	1608	I 75	SR 52	650.00	FT	S	14140000	11.615	261	3	2 - INJ-NONINCAP	77	8 - OTHER
I-75 - Overpass Road to SR 52	804519900	8/30/2009	221	I 75	SR 52	1.50	MI	S	14140000	10.238	262	4	2 - INJ-INCAP	18	7 - COLLISION-GUARDRAIL
I-75 - Overpass Road to SR 52	804521470	9/2/2009	1752	I 75	SR 52	1.00	MI	S	14140000	10.738	240	2	2 - INJ-POSSIBLE	22	7 - COLLISION-TREE/SHRUBBERY
I-75 - Overpass Road to SR 52	804556080	9/13/2009	1452	I 75	SR 52	0.10	MI	N	14140000	11.867	260	1	3 - PD	20	7 - COLLISION-CONCRETE BARRIER
I-75 - Overpass Road to SR 52	804533500	9/16/2009	925	I 75	SR 52	1.50	MI	S	14140000	10.238	262	4	2 - INJ-INCAP	77	8 - OTHER
I-75 - Overpass Road to SR 52	804546700	9/22/2009	1235	I 75	SR 52	2.00	MI	S	14140000	9.738	262	5	1 - FATAL	31	5 - OVERTURNED
I-75 - Overpass Road to SR 52	773929190	10/5/2009	1400	SR 93	SR 52	150.00	FT	N	14140000	11.795	747	1	3 - PD	77	8 - OTHER
I-75 - Overpass Road to SR 52	804567660	10/7/2009	730	I 75	SR 52	0.00	MI		14140007	0.000	240	3	2 - INJ-NONINCAP	31	5 - OVERTURNED
I-75 - Overpass Road to SR 52	804567180	10/28/2009	1930	I 75	SR 52	2.00	MI	S	14140000	9.738	262	1	3 - PD	34	8 - OTHER-FIRE
I-75 - Overpass Road to SR 52	804555000	11/3/2009	1457	I 75	SR 52	0.50	MI	S	14140000	11.238	240	1	3 - PD	77	8 - OTHER
I-75 - Overpass Road to SR 52	804601580	11/23/2009	1047	I 75	SR 52	650.00	FT	S	14140000	11.615	261	1	3 - PD	1	2 - REAR-END
I-75 - Overpass Road to SR 52	804591240	11/26/2009	27	I 75	SR 52	1.00	MI	S	14140000	10.738	240	1	3 - PD	29	7 - COLLISION-RAN INTO DITCH/CULVERT
I-75 - Overpass Road to SR 52	804622760	1/2/2010	1012	I 75	SR 52	50.0	FT	N	14140000	11.597	261	2	2 - INJ-POSSIBLE	1	2 - REAR-END
I-75 - Overpass Road to SR 52	804622780	1/2/2010	1016	I 75	SR 52	1.0	MI	S	14140000	10.738	240	2	2 - INJ-POSSIBLE	1	2 - REAR-END
I-75 - Overpass Road to SR 52	804522950	1/11/2010	845	I 75	SR 52	1.5	MI	S	14140000	10.238	262	1	3 - PD	1	2 - REAR-END
I-75 - Overpass Road to SR 52	804656120	2/23/2010	50	I 75	SR 52	2.5	MI	S	14140000	9.238	239	3	2 - INJ-NONINCAP	18	7 - COLLISION-GUARDRAIL
I-75 - Overpass Road to SR 52	804642210	2/25/2010	304	I 75	SR 52	2.0	MI	S	14140000	9.738	262	1	3 - PD	18	7 - COLLISION-GUARDRAIL
I-75 - Overpass Road to SR 52	804667050	3/11/2010	1155	I 75	SR 52	1.2	MI	S	14140000	10.538	240	3	2 - INJ-NONINCAP	39	8 - OTHER-MEDIAN CROSSOVER
I-75 - Overpass Road to SR 52	804658810	3/22/2010	2324	I 75	SR 52	0.5	MI	S	14140000	11.238	240	1	3 - PD	18	7 - COLLISION-GUARDRAIL
I-75 - Overpass Road to SR 52	804638440	3/29/2010	732	I 75	SR 54	5.0	MI	N	14140000	10.132	262	1	3 - PD	18	7 - COLLISION-GUARDRAIL
I-75 - Overpass Road to SR 52	804666320	3/30/2010	1659	I 75	SR 52	0.5	MI	S	14140000	11.238	240	1	3 - PD	1	2 - REAR-END
I-75 - Overpass Road to SR 52	804690070	4/2/2010	1017	I 75	SR 52	1.5	MI	S	14140000	10.238	262	4	2 - INJ-INCAP	22	7 - COLLISION-TREE/SHRUBBERY
I-75 - Overpass Road to SR 52	760286370	4/18/2010	1517	I 75	MILE MARKER #282	0.5	MI	N	14140000	8.899	239	1	3 - PD	18	7 - COLLISION-GUARDRAIL
I-75 - Overpass Road to SR 52	804690340	4/30/2010	829	I 75	SR 52	1000.0	FT	S	14140000	11.549	240	4	2 - INJ-INCAP	18	7 - COLLISION-GUARDRAIL
I-75 - Overpass Road to SR 52	804712610	5/1/2010	1436	I 75	SR 52	500.0	FT	S	14140000	11.643	261	4	2 - INJ-INCAP	6	3 - SIDESWIPE
I-75 - Overpass Road to SR 52	804690350	5/4/2010	758	I 75	SR 52	1.0	MI	S	14140000	10.738	240	2	2 - INJ-POSSIBLE	1	2 - REAR-END
I-75 - Overpass Road to SR 52	804662760	6/8/2010	225	SR 93	SR 52	0.4	MI	S	14140000	11.338	240	5	1 - FATAL	0	8 - OTHER-NOT CODED
I-75 - Overpass Road to SR 52	804740120	7/1/2010	1454	I 75	SR 52	2.0	MI	S	14140000	9.738	262	3	2 - INJ-NONINCAP	18	7 - COLLISION-GUARDRAIL
I-75 - Overpass Road to SR 52	806058750	7/28/2010	1538	SR 93	SR 52	500.0	FT	N	14140000	11.862	260	1	3 - PD	1	2 - REAR-END
I-75 - Overpass Road to SR 52	804740260	8/6/2010	1205	I 75	SR 52	1.0	MI	S	14140000	10.738	240	4	2 - INJ-INCAP	1	2 - REAR-END
I-75 - Overpass Road to SR 52	806058970	8/22/2010	1921	I 75	SR 52	100.0	FT	N	14140000	11.786	747	1	3 - PD	18	7 - COLLISION-GUARDRAIL
I-75 - Overpass Road to SR 52	806102510	8/22/2010	1432	SR 93	SR 52	150.0	FT	N	14140000	11.795	747	1	3 - PD	18	7 - COLLISION-GUARDRAIL
I-75 - Overpass Road to SR 52	806054410	8/26/2010	805	I 75	SR 52	3.0	MI	S	14140000	8.738	263	2	2 - INJ-POSSIBLE	1	2 - REAR-END
I-75 - Overpass Road to SR 52	806059000	9/3/2010	1923	SR 93	SR 52	1000.0	FT	S	14140000	11.549	240	1	3 - PD	77	8 - OTHER
I-75 - Overpass Road to SR 52	806110600	9/6/2010	1924	I 75	SR 52	1.0	MI	S	14140000	10.738	240	2	2 - INJ-POSSIBLE	22	7 - COLLISION-TREE/SHRUBBERY
I-75 - Overpass Road to SR 52	806117040	9/16/2010	1705	SR 93	SR 52	1000.0	FT	S	14140000	11.549	240	1	3 - PD	3	1 - ANGLE
I-75 - Overpass Road to SR 52	806065500	10/4/2010	1037	I 75	SR 52	1.0	MI	S	14140000	10.738	240	2	2 - INJ-POSSIBLE	1	2 - REAR-END
I-75 - Overpass Road to SR 52	806110960	10/11/2010	1857	I 75	SR 52	2.0	MI	S	14140000	9.738	262	4	2 - INJ-INCAP	3	1 - ANGLE
I-75 - Overpass Road to SR 52	806056450	11/3/2010	2250	I 75	SR 52	3.0	MI	S	14140000	8.738	263	1	3 - PD	28	7 - COLLISION-MOVEABLE OBJ ON ROAD
I-75 - Overpass Road to SR 52	806122860	11/13/2010	1144	I 75	SR 52	1.0	MI	S	14140000	10.738	240	3	2 - INJ-NONINCAP	3	1 - ANGLE
I-75 - Overpass Road to SR 52	819664110	11/19/2010	1845	I 75	SR 52	0.5	MI	S	14140000	11.238	240	5	1 - FATAL	31	5 - OVERTURNED
I-75 - Overpass Road to SR 52	819904280	12/1/2010	1353	I 75	SR 52	0.5	MI	S	14140000	11.238	240	4	2 - INJ-INCAP	37	8 - OTHER-CARGO LOSS/SHIFT
I-75 - Overpass Road to SR 52	819674170	12/12/2010	1320	I 75	SR 52	0.1	MI	S	14140007	0.061	240	1	3 - PD	27	7 - COLLISION-HIT OTHER FIXED OBJ
I-75 - Overpass Road to SR 52	819529030	12/15/2010	705	I 75	SR 52	500.0	FT	N	14140000	11.862	260	1	3 - PD	9	8 - OTHER-MV ON RDWY
I-75 - Overpass Road to SR 52	819727570	12/16/2010	1341	SR 93	OVERPASS RD	0.3	MI	N	14140000	8.424	263	2	2 - INJ-POSSIBLE	77	8 - OTHER
I-75 - Overpass Road to SR 52	819674330	12/20/2010	240	I 75	SR 52	2.0	MI	S	14140000	9.738	262	1	3 - PD	9	8 - OTHER-MV ON RDWY
I-75 - Overpass Road to SR 52	819903840	1/13/2011	1510	I 75	SR 52	1	MI	S	14140000	10.7	240	1	3 - PD	18	7 - COLLISION-GUARDRAIL
I-75 - Overpass Road to SR 52	819657710	1/29/2011	1215	I 75	MILE MARKER #284	0	FT		14140000	10.4	262	4	2 - INJ-INCAP	31	5 - OVERTURNED
I-75 - Overpass Road to SR 52	820669800	2/28/2011	1155	I 75	OVERPASS RD	0	FT		14140000	8.2	263	4	2 - INJ-INCAP	26	7 - COLLISION-FIXED OBJECT
I-75 - Overpass Road to SR 52	820755940	3/6/2011	452	I 75	SR 52	800	FT	S	14140000	11.6	240	3	2 - INJ-NONINCAP	31	5 - OVERTURNED
I-75 - Overpass Road to SR 52	820755960	3/7/2011	507	I 75	SR 52	1	MI	S	14140000	10.7	240	1	3 - PD	1	2 - REAR-END
I-75 - Overpass Road to SR 52	820813850	3/9/2011	1145	SR 93	SR 52	1000	FT	S	14140000	11.5	240	1	3 - PD	28	7 - COLLISION-MOVEABLE OBJ ON ROAD
I-75 - Overpass Road to SR 52	820698750	3/28/2011	1218	I 75	SR 52	1	MI	S	14140000	10.7	240	1	3 - PD	9	8 - OTHER-MV ON RDWY
I-75 - Overpass Road to SR 52	819560700	3/31/2011	1545	I 75	SR 54	0	MI	S	14140000	11.5	240	1	3 - PD	1	2 - REAR-END
I-75 - Overpass Road to SR 52	820814220	4/9/2011	1000	I 75	SR 52	1	MI	S	14140000	10.7	240	2	2 - INJ-POSSIBLE	1	2 - REAR-END
I-75 - Overpass Road to SR 52	820816810	4/15/2011	1841	SR 93	SR 52	1	MI	S	14140000	11.2	240	1	3 - PD	27	7 - COLLISION-HIT OTHER FIXED OBJ
I-75 - Overpass Road to SR 52	822405780	4/25/2011	1420	I 75	SR 52	1	MI	S	14140000	10.7	240	4	2 - INJ-INCAP	9	8 - OTHER-MV ON RDWY
I-75 - Overpass Road to SR 52	822440380	5/1/2011	1404	SR 93	SR 52	1	MI	S	14140000	10.7	240	1	3 - PD	9	8 - OTHER-MV ON RDWY
I-75 - Overpass Road to SR 52	822472710	5/18/2011	1511	I 75	SR 52	2	MI	S	14140000	10.2	262	4	2 - INJ-INCAP	77	8 - OTHER
I-75 - Overpass Road to SR 52	822465850	5/30/2011	110	I 75	OVERPASS RD	200	FT	N	14140000	8.2	263	3	2 - INJ-NONINCAP	1	2 - REAR-END
I-75 - Overpass Road to SR 52	822497610	5/30/2011	1746	I 75	SR 52	0	MI	S	14140000	11.5	240	1	3 - PD	28	7 - COLLISION-MOVEABLE OBJ ON ROAD
I-75 - Overpass Road to SR 52	820945290	6/14/2011	1608	I 75	MILE MARKER #283	0	FT		14140000	9.4	262	1	3 - PD	9	8 - OTHER-MV ON RDWY
I-75 - Overpass Road to SR 52	822489360	6/17/2011	1055	I 75	SR 52	500	FT	S	14140000	11.6	261	2	2 - INJ-POSSIBLE	22	7 - COLLISION-TREE/SHRUBBERY
I-75 - Overpass Road to SR 52	822627960	7/5/2011	906	I 75	SR 54	100	FT	N	14140000	11.8	747	1	3 - PD	9	8 - OTHER-MV ON RDWY
I-75 - Overpass Road to SR 52	828132070	8/6/2011	1330	I 75	SR 52	2	MI	S	14140000	9.7	262	4	2 - INJ-INCAP	77	8 - OTHER

Source: FDOT Unified Basemap Repository

I-75 AND OVERPASS ROAD IJR
2009-2011 CRASH DATA

CRASH LOCATION ID	CRASHNUM	CRASHDATE	CRASHTIME	ONROADNAME	INROADNAME	REFDIST	REFMEAS	REFDIR	ROADWAYID	MILEPT	NODE	HIGHESTINJ	INJURY_TYPE	CRSHEVENT1	CRASH EVENT_TYPE
I-75 - Overpass Road to SR 52	822513140	8/7/2011	200	I 75	SR 54	0	MI	S	14140000	11.5	240	3	2 - INJ-NONINCAP	77	8 - OTHER
I-75 - Overpass Road to SR 52	828170240	8/9/2011	1215	SR 93	SR 52	0	FT		14140000	11.6	261	3	2 - INJ-NONINCAP	18	7 - COLLISION-GUARDRAIL
I-75 - Overpass Road to SR 52	822682420	8/11/2011	1642	I 75	MILE MARKER #285	200	FT	S	14140000	11.4	240	3	2 - INJ-NONINCAP	77	8 - OTHER
I-75 - Overpass Road to SR 52	828170380	8/18/2011	1700	SR 93	SR 52	2	MI	S	14140000	9.7	262	2	2 - INJ-POSSIBLE	18	7 - COLLISION-GUARDRAIL
I-75 - Overpass Road to SR 52	828217630	9/22/2011	728	I 75	SR 52	2	MI	S	14140000	10.2	262	2	2 - INJ-POSSIBLE	1	2 - REAR-END
I-75 - Overpass Road to SR 52	822572360	10/4/2011	240	SR 93	SR 52	2	MI	S	14140000	9.7	262	4	2 - INJ-INCAP	8	8 - OTHER-PARKED CAR
I-75 - Overpass Road to SR 52	828170810	10/10/2011	830	I 75	SR 52	2	MI	S	14140000	9.7	262	1	3 - PD	1	2 - REAR-END
I-75 - Overpass Road to SR 52	828218010	10/19/2011	1622	I 75	SR 52	1	MI	S	14140000	11.2	240	1	3 - PD	1	2 - REAR-END
I-75 - Overpass Road to SR 52	828444420	11/9/2011	1235	I 75	SR 54	1500	FT	S	14140000	11.5	240	1	3 - PD	1	2 - REAR-END
I-75 - Overpass Road to SR 52	828550570	11/21/2011	2029	I 75	SR 52	0	FT		14140000	11.9	241	1	3 - PD	9	8 - OTHER-MV ON RDWY
I-75 - Overpass Road to SR 52	828550660	11/28/2011	149	I 75	SR 52	1	MI	S	14140000	10.7	240	3	2 - INJ-NONINCAP	1	2 - REAR-END
I-75 - Overpass Road to SR 52	828444660	12/1/2011	653	I 75	SR 52	1500	FT	S	14140000	11.5	240	1	3 - PD	37	8 - OTHER-CARGO LOSS/SHIFT
I-75 - Overpass Road to SR 52	828495910	12/3/2011	1229	I 75	MILE MARKER #282	0	MI	N	14140000	8.7	263	1	3 - PD	77	8 - OTHER
SR 52	776636090	1/11/2009	2155	SR 52	I 75	0.00	MI		14120000	23.373	538	1	3 - PD	4	1 - ANGLE-LEFT
SR 52	776619700	1/20/2009	810	SR 52	I 75	50.00	FT	W	14120000	23.388	930	2	2 - INJ-POSSIBLE	1	2 - REAR-END
SR 52	776643110	1/29/2009	1919	SR 52	I 75	0.00	FT		14120000	23.442	539	1	3 - PD	4	1 - ANGLE-LEFT
SR 52	776638180	2/7/2009	635	SR 52	I 75	50.00	FT	W	14120000	23.388	930	1	3 - PD	1	2 - REAR-END
SR 52	776644940	3/10/2009	1926	SR 52	I 75	0.00	FT		14120000	23.381	538	4	2 - INJ-INCAP	3	1 - ANGLE
SR 52	776670990	3/28/2009	2105	SR 52	I 75	0.00	FT		14120000	23.396	1902	3	2 - INJ-NONINCAP	3	1 - ANGLE
SR 52	776681230	4/2/2009	945	SR 52	I 75	0.00	FT		14120000	23.396	1902	1	3 - PD	3	1 - ANGLE
SR 52	776675700	4/7/2009	1307	I 75	SR 52	10.00	FT	S	14140007	0.159	539	1	3 - PD	1	2 - REAR-END
SR 52	776732010	4/8/2009	32	SR 52	SR 93	0.00	FT		14120000	23.396	1902	1	3 - PD	4	1 - ANGLE-LEFT
SR 52	776707580	4/17/2009	1528	I 75	SR 52	0.00	FT		14140007	0.161	539	1	3 - PD	1	2 - REAR-END
SR 52	776684250	4/28/2009	740	SR 52	I 75	500.00	FT	E	14120000	23.525	540	2	2 - INJ-POSSIBLE	3	1 - ANGLE
SR 52	776732310	6/17/2009	2023	SR 52	SR 93	20.00	FT	W	14120000	23.440	1904	1	3 - PD	1	2 - REAR-END
SR 52	776723590	6/30/2009	1724	SR 52	SR 93	20.00	FT	E	14120000	23.434	932	1	3 - PD	1	2 - REAR-END
SR 52	804496430	7/29/2009	1631	SR 52	I 75	700.00	FT	E	14120000	23.563	540	1	3 - PD	38	8 - OTHER-SEPARATION OF UNITS
SR 52	804530010	8/1/2009	1335	SR 52	I 75	250.00	FT	E	14120000	23.477	540	2	2 - INJ-POSSIBLE	22	7 - COLLISION-TREE/SHRUBBERY
SR 52	804533070	8/14/2009	1416	SR 52	I 75	0.00	FT		14120000	23.396	1902	4	2 - INJ-INCAP	3	1 - ANGLE
SR 52	804502470	8/15/2009	1943	SR 52	I 75	25.00	FT	E	14120000	23.449	351	1	3 - PD	3	1 - ANGLE
SR 52	804533170	8/17/2009	1329	I 75	SR 52	15.00	FT	S	14140007	0.158	2152	3	2 - INJ-NONINCAP	1	2 - REAR-END
SR 52	804533360	9/4/2009	1246	SR 52	I 75	125.00	FT	E	14120000	23.454	539	1	3 - PD	1	2 - REAR-END
SR 52	804563820	10/1/2009	1600	SR 52	I 75	400.00	FT	W	14120000	23.336	538	2	2 - INJ-POSSIBLE	3	1 - ANGLE
SR 52	804562130	10/5/2009	1415	SR 52	SR 93	500.00	FT	E	14120000	23.525	540	1	3 - PD	4	1 - ANGLE-LEFT
SR 52	804541810	10/6/2009	1927	I 75	SR 52	25.00	FT	S	14140007	0.156	2152	1	3 - PD	1	2 - REAR-END
SR 52	804546740	10/12/2009	1243	SR 52	I 75	50.00	FT	W	14120000	23.387	537	3	2 - INJ-NONINCAP	0	8 - OTHER-NOT CODED
SR 52	804561870	10/22/2009	1538	SR 52	SR 93	325.00	FT	W	14120000	23.382	538	4	2 - INJ-INCAP	77	8 - OTHER
SR 52	804517330	11/23/2009	1605	I 75	SR 52	0.00	FT		14140007	0.161	539	1	3 - PD	1	2 - REAR-END
SR 52	804588360	11/24/2009	1304	SR 52	I 75	25.00	FT	W	14120000	23.386	538	1	3 - PD	3	1 - ANGLE
SR 52	773884280	12/1/2009	1430	I 75	SR 52	100.00	FT	S	14140007	0.142	2152	1	3 - PD	1	2 - REAR-END
SR 52	804620590	1/6/2010	942	SR 52	I 75	0.0	FT		14120000	23.396	1902	3	2 - INJ-NONINCAP	4	1 - ANGLE-LEFT
SR 52	804624360	2/11/2010	1712	I 75	SR 52	80.0	FT	S	14140007	0.146	2152	1	3 - PD	6	3 - SIDESWIPE
SR 52	804620760	2/20/2010	1242	I 75	SR 52	10.0	FT	S	14140007	0.159	539	2	2 - INJ-POSSIBLE	1	2 - REAR-END
SR 52	804620900	3/10/2010	1247	SR 93	SR 52	0.0	FT		14140007	0.161	539	3	2 - INJ-NONINCAP	10	6 - PED-PEDESTRIAN
SR 52	804657990	4/5/2010	1302	SR 52	I 75	300.0	FT	W	14120000	23.355	538	1	3 - PD	6	3 - SIDESWIPE
SR 52	804690140	4/5/2010	1217	SR 52	I 75	0.0	FT		14120000	23.396	1902	3	2 - INJ-NONINCAP	3	1 - ANGLE
SR 52	804668170	4/11/2010	1533	SR 52	I 75	500.0	FT	W	14120000	23.317	538	1	3 - PD	3	1 - ANGLE
SR 52	804684660	4/16/2010	1028	I 75	SR 52	26.0	FT	S	14140007	0.156	2152	3	2 - INJ-NONINCAP	1	2 - REAR-END
SR 52	804623320	5/16/2010	2211	SR 93	SR 52	60.0	FT	S	14140005	0.011	538	3	2 - INJ-NONINCAP	29	7 - COLLISION-RAN INTO DITCH/CULVERT
SR 52	804740190	7/16/2010	839	I 75	SR 52	10.0	FT	S	14140007	0.159	539	2	2 - INJ-POSSIBLE	1	2 - REAR-END
SR 52	804738430	7/21/2010	1548	SR 52	I 75	0.0	FT		14120000	23.396	1902	2	2 - INJ-POSSIBLE	1	2 - REAR-END
SR 52	804734240	7/21/2010	741	SR 52	I 75	200.0	FT	W	14120000	23.374	538	1	3 - PD	77	8 - OTHER
SR 52	776728910	7/23/2010	1740	I 75	SR 52	25.0	FT	S	14140007	0.156	2152	1	3 - PD	6	3 - SIDESWIPE
SR 52	804734380	8/14/2010	317	I 75	SR 52	150.0	FT	S	14140007	0.133	2152	2	2 - INJ-POSSIBLE	77	8 - OTHER
SR 52	806065230	8/19/2010	737	I 75	SR 52	25.0	FT	S	14140007	0.156	2152	2	2 - INJ-POSSIBLE	1	2 - REAR-END
SR 52	806102530	8/24/2010	943	SR 52	SR 93	40.0	FT	W	14120000	23.404	1902	1	3 - PD	1	2 - REAR-END
SR 52	806054820	9/20/2010	815	SR 52	I 75	500.0	FT	E	14120000	23.525	540	1	3 - PD	4	1 - ANGLE-LEFT
SR 52	806056390	10/8/2010	820	I 75	SR 52	20.0	FT	S	14140007	0.157	2152	2	2 - INJ-POSSIBLE	1	2 - REAR-END
SR 52	806096260	10/13/2010	958	SR 93	SR 52	10.0	FT	S	14140007	0.159	539	1	3 - PD	1	2 - REAR-END
SR 52	806122730	10/26/2010	543	SR 52	I 75	0.0	FT		14120000	23.461	539	1	3 - PD	3	1 - ANGLE
SR 52	806125610	11/2/2010	1645	SR 52	I 75	0.0	FT		14120000	23.396	1902	1	3 - PD	1	2 - REAR-END
SR 52	819664270	11/29/2010	2240	SR 52	I 75	600.0	FT	E	14120000	23.544	540	4	2 - INJ-INCAP	1	2 - REAR-END
SR 52	819759400	12/1/2010	1405	SR 52	I 75	0.0	FT		14120000	23.381	538	1	3 - PD	7	8 - OTHER-BACKED INTO
SR 52	820594080	1/3/2011	2009	SR 52	I 75	0	FT		14120000	23.4	351	1	3 - PD	1	2 - REAR-END
SR 52	819529330	1/4/2011	650	SR 52	I 75	750	FT	W	14120000	23.3	1335	4	2 - INJ-INCAP	2	4 - HEAD-ON
SR 52	819726380	2/3/2011	2023	SR 52	I 75	0	FT		14120000	23.4	1902	2	2 - INJ-POSSIBLE	3	1 - ANGLE
SR 52	820669370	2/3/2011	545	SR 52	I 75	0	FT		14120000	23.4	1902	4	2 - INJ-INCAP	3	1 - ANGLE
SR 52	819657860	2/14/2011	1147	SR 52	I 75	0	FT		14120000	23.4	1904	4	2 - INJ-INCAP	1	2 - REAR-END
SR 52	820698780	3/29/2011	1231	I 75	SR 52	0	FT		14140007	0.2	539	2	2 - INJ-POSSIBLE	1	2 - REAR-END
SR 52	820912060	3/29/2011	1418	I 75	SR 52	0	FT		14140007	0.2	539	1	3 - PD	1	2 - REAR-END

I-75 AND OVERPASS ROAD IJR
2009-2011 CRASH DATA

CRASH LOCATION ID	CRASHNUM	CRASHDATE	CRASHTIME	ONROADNAME	INROADNAME	REFDIST	REFMEAS	REFDIR	ROADWAYID	MILEPT	NODE	HIGHESTINJ	INJURY_TYPE	CRSHEVENT1	CRASH EVENT_TYPE
SR 52	820814450	4/28/2011	820	SR 52	I 75	10	FT	E	14120000	23.4	351	3	2 - INJ-NONINCAP	3	1 - ANGLE
SR 52	820912400	5/13/2011	2149	I 75	SR 52	0	FT		14140007	0.2	539	1	3 - PD	1	2 - REAR-END
SR 52	822496790	5/28/2011	1853	I 75	SR 52	20	FT	S	14140007	0.2	2152	2	2 - INJ-POSSIBLE	1	2 - REAR-END
SR 52	822458580	6/2/2011	735	SR 52	I 75	500	FT	E	14120000	23.5	540	2	2 - INJ-POSSIBLE	3	1 - ANGLE
SR 52	822567520	6/8/2011	2205	SR 52	I 75	0	FT		14120000	23.4	1902	1	3 - PD	3	1 - ANGLE
SR 52	822406290	6/14/2011	1140	SR 52	I 75	100	FT	E	14120000	23.5	540	2	2 - INJ-POSSIBLE	1	2 - REAR-END
SR 52	822561720	6/21/2011	1845	I 75	SR 54	200	FT	S	14140007	0.1	2152	1	3 - PD	1	2 - REAR-END
SR 52	828170350	8/14/2011	1730	SR 52	SR 93	100	FT	W	14120000	23.4	537	1	3 - PD	9	8 - OTHER-MV ON RDWY
SR 52	828170390	8/18/2011	1715	SR 52	SR 93	100	FT	E	14120000	23.4	351	3	2 - INJ-NONINCAP	3	1 - ANGLE
SR 52	828237060	8/24/2011	0	I 75	SR 52	20	FT	N	14140006	0.1	537	1	3 - PD	1	2 - REAR-END
SR 52	828253860	10/19/2011	1430	I 75	SR 52	40	FT	S	14140005	0.0	538	2	2 - INJ-POSSIBLE	1	2 - REAR-END
SR 52	828219860	10/19/2011	639	SR 52	PASCO RD	700	FT	W	14120000	23.6	540	1	3 - PD	4	1 - ANGLE-LEFT
SR 52	822704390	10/22/2011	2245	I 75	SR 52	0	MI		14140007	0.2	2152	1	3 - PD	16	7 - COLLISION-SIGN/POST
SR 52	828217350	10/27/2011	1732	SR 52	PASCO RD	790	FT	W	14120000	23.5	540	3	2 - INJ-NONINCAP	3	1 - ANGLE
SR 52	828444330	10/28/2011	619	SR 52	I 75	50	FT	W	14120000	23.5	539	1	3 - PD	1	2 - REAR-END
SR 52	828484250	11/15/2011	1631	SR 93	SR 54	25	FT	S	14140007	0.2	2152	2	2 - INJ-POSSIBLE	1	2 - REAR-END
SR 52	828429730	11/21/2011	1632	SR 52	I 75	0	FT		14120000	23.4	351	1	3 - PD	4	1 - ANGLE-LEFT
SR 52	819661660	12/18/2011	1312	SR 52	SR 93	0	FT		14120000	23.4	930	1	3 - PD	3	1 - ANGLE
Overpass Road	776644700	2/7/2009	1550	OVERPASS RD	BLAIR RD	0	FT		14000000	0.000	0	3	2 - INJ-NONINCAP	3	1 - ANGLE
Overpass Road	776652860	4/6/2009	1900	OLD PASCO RD	OVERPASS RD	0	FT		14000000	0.000	0	4	2 - INJ-INCAP	9	8 - OTHER-MV ON RDWY
Overpass Road	804647590	2/7/2010	1658	BOYETTE ROAD	OVERPASS ROAD	0	FT		14000000	0	0	3	2 - INJ-NONINCAP	3	1 - ANGLE
Overpass Road	804647710	2/15/2010	934	BOYETTE ROAD	OVERPASS ROAD	0	FT		14000000	0	0	3	2 - INJ-NONINCAP	3	1 - ANGLE
Overpass Road	804692900	5/6/2010	2205	OVERPASS RD	OLD PASCO RD	200	FT	W	14000000	0	0	2	2 - INJ-POSSIBLE	22	7 - COLLISION-TREE/SHRUBBERY
Overpass Road	804724890	8/9/2010	2307	OVERPASS RD	OLD PASCO RD	25	FT	E	14000000	0	0	2	2 - INJ-POSSIBLE	9	8 - OTHER-MV ON RDWY
Overpass Road	806096560	8/15/2010	2312	OVERPASS RD	OLD PASCO RD	300	FT	E	14000000	0	0	3	2 - INJ-NONINCAP	9	8 - OTHER-MV ON RDWY
Overpass Road	806094080	9/8/2010	1843	BOYETTE RD	OVERPASS RD	0	FT		14000000	0	0	2	2 - INJ-POSSIBLE	3	1 - ANGLE
Overpass Road	806137570	10/23/2010	428	OVERPASS ROAD	OLD PASCO RD	0	FT		14000000	0	0	1	3 - PD	19	7 - COLLISION-FENCE
Overpass Road	819656650	12/5/2010	0	OVERPASS RD	BLAIR RD	3	FT	E	14000000	0	0	2	2 - INJ-POSSIBLE	1	2 - REAR-END
Overpass Road	819654620	12/20/2010	910	BOYETTE RD	OVERPASS RD	0	FT		14000000	0	0	3	2 - INJ-NONINCAP	3	1 - ANGLE
Overpass Road	820730440	3/1/2011	1700	OVERPASS RD	BLAIR DR	0	FT		14000000	0	0	3	2 - INJ-NONINCAP	3	1 - ANGLE
Overpass Road	820837900	3/31/2011	1430	OLD PASCO RD	OVERPASS ROAD	0	FT		14000000	0	0	4	2 - INJ-INCAP	1	2 - REAR-END
Overpass Road	828130430	8/15/2011	1628	BOYETTE RD	OVERPASS RD	0	FT		14000000	0	0	1	3 - PD	3	1 - ANGLE
Overpass Road	828222230	9/7/2011	1241	OLD PASCO RD	OVERPASS ROAD	0	FT		14000000	0	0	3	2 - INJ-NONINCAP	3	1 - ANGLE
Overpass Road	828483680	12/18/2011	500	OLD PASCO RD	OVERPASS RD	25	FT	W	14000000	0	0	1	3 - PD	3	1 - ANGLE
Overpass Road	828483690	12/18/2011	500	OLD PASCO RD	OVERPASS RD	100	FT	W	14000000	0	0	1	3 - PD	19	7 - COLLISION-FENCE
SR54/CR54	776646560	1/18/2009	2025	SR 54	OAKLEY BLVD	300	FT	E	14090000	0.000	0	1	3 - PD	6	3 - SIDESWIPE
SR54/CR54	776644090	1/21/2009	1921	SR 54	SR 93	450	FT	W	14090000	0.000	0	1	3 - PD	1	2 - REAR-END
SR54/CR54	773977760	4/7/2009	151	I 75	SR 54	0.00	FT		14140001	0.000	523	1	3 - PD	29	7 - COLLISION-RAN INTO DITCH/CULVERT
SR54/CR54	776534300	4/17/2009	920	SR 93	SR 54	0.00	FT		14140001	0.000	523	1	3 - PD	3	1 - ANGLE
SR54/CR54	776710140	4/21/2009	617	I 75	SR 54	0.00	FT		14140001	0.000	523	3	2 - INJ-NONINCAP	1	2 - REAR-END
SR54/CR54	776707630	4/24/2009	1747	I 75	SR 54	0.00	FT		14140001	0.000	523	2	2 - INJ-POSSIBLE	1	2 - REAR-END
SR54/CR54	776681320	4/25/2009	631	I 75	SR 54	0.00	FT		14140001	0.000	523	1	3 - PD	3	1 - ANGLE
SR54/CR54	776681390	5/7/2009	1807	SR 54	I 75 SR 93 N OFF RAMP	100	FT	E	14000000	0.000	0	2	2 - INJ-POSSIBLE	3	1 - ANGLE
SR54/CR54	776645420	6/17/2009	540	SR 93	SR 54	50.00	FT	S	14140001	0.009	523	1	3 - PD	6	3 - SIDESWIPE
SR54/CR54	804502080	7/1/2009	1021	SR 54	I 75 SR 93	50	FT	W	14000000	0.000	0	2	2 - INJ-POSSIBLE	1	2 - REAR-END
SR54/CR54	804496220	7/7/2009	1800	SR 54	I 75 SR 93	650	FT	E	14000000	0.000	0	2	2 - INJ-POSSIBLE	1	2 - REAR-END
SR54/CR54	804497320	7/28/2009	2117	SR 54	SR 93	75	FT	W	14000000	0.000	0	2	2 - INJ-POSSIBLE	9	8 - OTHER-MV ON RDWY
SR54/CR54	804521600	7/31/2009	1400	I 75	SR 54	0.00	FT		14140001	0.000	523	1	3 - PD	3	1 - ANGLE
SR54/CR54	804521090	8/1/2009	1308	SR 54	I 75	40	FT	E	14091000	1.683	1946	2	2 - INJ-POSSIBLE	6	3 - SIDESWIPE
SR54/CR54	804521210	8/4/2009	1532	SR 54	I 75	700	FT	E	14091000	1.808	1949	2	2 - INJ-POSSIBLE	1	2 - REAR-END
SR54/CR54	804517190	8/7/2009	1546	SR 54	I 75N	500	FT	E	14000000	0.000	0	1	3 - PD	1	2 - REAR-END
SR54/CR54	776723660	8/8/2009	1010	SR 54	SR 93	0	MI	E	14000000	0.000	0	4	2 - INJ-INCAP	4	1 - ANGLE-LEFT
SR54/CR54	804546650	9/15/2009	1251	SR 54	I 75 SR 93	200	FT	E	14000000	0.000	0	4	2 - INJ-INCAP	11	6 - PED-BICYCLE
SR54/CR54	804557090	10/7/2009	430	SR 54	SR 93	500	FT	E	14000000	0.000	0	2	2 - INJ-POSSIBLE	6	3 - SIDESWIPE
SR54/CR54	804584020	10/21/2009	927	SR 54	SR 93	1	MI	S	14000000	0.000	0	3	2 - INJ-NONINCAP	1	2 - REAR-END
SR54/CR54	804561930	11/6/2009	1731	SR 54	I 75	550	FT	E	14000000	0.000	0	4	2 - INJ-INCAP	1	2 - REAR-END
SR54/CR54	773884290	12/1/2009	2134	I 75	SR 54	0.00	FT		14140001	0.000	523	3	2 - INJ-NONINCAP	3	1 - ANGLE
SR54/CR54	804517380	12/5/2009	1818	I 75	CR 54	0.00	FT		14140004	0.000	526	1	3 - PD	3	1 - ANGLE
SR54/CR54	804620610	1/18/2010	1109	I 75	SR 54	0.0	FT		14140003	0.196	164	2	2 - INJ-POSSIBLE	3	1 - ANGLE
SR54/CR54	804641150	1/29/2010	800	I 75	SR 54	10.0	FT	S	14140003	0.194	164	1	3 - PD	1	2 - REAR-END
SR54/CR54	804657350	2/28/2010	1010	I 75	CR 54	120.0	FT	S	14140001	0.023	523	2	2 - INJ-POSSIBLE	18	7 - COLLISION-GUARDRAIL
SR54/CR54	804658720	3/12/2010	2251	CR 54	I 75	10	FT	W	14000000	0	0	1	3 - PD	1	2 - REAR-END
SR54/CR54	804658880	3/31/2010	212	I 75	SR 54	0.0	FT		14140001	0.000	523	2	2 - INJ-POSSIBLE	3	1 - ANGLE
SR54/CR54	804656340	4/2/2010	2350	SR 54	OAKLEY BLVD	200	FT	E	14090000	0	0	1	3 - PD	16	7 - COLLISION-SIGN/POST
SR54/CR54	804688220	4/17/2010	1738	I 75	SR 54	100.0	FT	S	14140001	0.019	523	2	2 - INJ-POSSIBLE	18	7 - COLLISION-GUARDRAIL
SR54/CR54	804690250	4/19/2010	836	I 75	SR 54	0.0	FT		14140001	0.000	523	4	2 - INJ-INCAP	3	1 - ANGLE
SR54/CR54	806055540	6/15/2010	1648	I 75	SR 54	75.0	FT	S	14140003	0.182	164	2	2 - INJ-POSSIBLE	1	2 - REAR-END
SR54/CR54	806055560	6/18/2010	1534	I 75	SR 54	0.0	FT		14140002	0.168	163	1	3 - PD	4	1 - ANGLE-LEFT
SR54/CR54	804623390	6/20/2010	2019	SR 54	SR 93	15	FT	E	14000000	0	0	2	2 - INJ-POSSIBLE	6	3 - SIDESWIPE
SR54/CR54	806055690	6/26/2010	1850	I 75	CR 54	0.0	FT		14140001	0.000	523	1	3 - PD	6	3 - SIDESWIPE

I-75 AND OVERPASS ROAD IJR
2009-2011 CRASH DATA

CRASH LOCATION ID	CRASHNUM	CRASHDATE	CRASHTIME	ONROADNAME	INROADNAME	REFDIST	REFMEAS	REFDIR	ROADWAYID	MILEPT	NODE	HIGHESTINJ	INJURY_TYPE	CRSHEVENT1	CRASH EVENT_TYPE
SR54/CR54	806057230	7/6/2010	1931	SR 54	SR 93	50	FT	W	14000000	0	0	2	2 - INJ-POSSIBLE	1	2 - REAR-END
SR54/CR54	804718210	7/7/2010	1232	I 75	SR 54	0.0	FT		14140002	0.168	163	2	2 - INJ-POSSIBLE	2	4 - HEAD-ON
SR54/CR54	806057240	7/7/2010	1646	I 75	SR 54	0.0	FT		14140001	0.000	523	1	3 - PD	6	3 - SIDESWIPE
SR54/CR54	806057320	7/13/2010	1750	SR 54	I 75	0	MI	E	14000000	0	0	1	3 - PD	4	1 - ANGLE-LEFT
SR54/CR54	806083530	7/26/2010	1734	SR 54	I 75	0	MI	E	14000000	0	0	2	2 - INJ-POSSIBLE	4	1 - ANGLE-LEFT
SR54/CR54	806055900	7/28/2010	1841	CR 54	CR 581 BRUCE B DOWNS	850	FT	W	14000000	0	0	2	2 - INJ-POSSIBLE	4	1 - ANGLE-LEFT
SR54/CR54	806058880	8/13/2010	1429	I 75	SR 54	50.0	FT	S	14140003	0.187	164	1	3 - PD	1	2 - REAR-END
SR54/CR54	806083920	9/19/2010	1446	CR 54	I 75	150	FT	E	14000000	0	0	1	3 - PD	6	3 - SIDESWIPE
SR54/CR54	806095870	9/23/2010	342	I 75	SR 54	10.0	FT	N	14140002	0.166	163	1	3 - PD	1	2 - REAR-END
SR54/CR54	804739960	10/10/2010	1146	SR 93	SR 54	0.0	FT		14140001	0.000	523	1	3 - PD	1	2 - REAR-END
SR54/CR54	806117250	10/23/2010	1534	CR 54	SR 93	10	FT	W	14000000	0	0	3	2 - INJ-NONINCAP	1	2 - REAR-END
SR54/CR54	806144050	10/28/2010	925	I 75	CR 54	150.0	FT	N	14140002	0.140	163	2	2 - INJ-POSSIBLE	1	2 - REAR-END
SR54/CR54	806109990	11/2/2010	1908	CR 54 WESLEY CHAPEL BLV	GATEWAY BLVD	1	MI	E	14000000	0	0	2	2 - INJ-POSSIBLE	1	2 - REAR-END
SR54/CR54	819663930	11/9/2010	1610	I 75	CR 54	0.0	FT		14140002	0.168	163	2	2 - INJ-POSSIBLE	3	1 - ANGLE
SR54/CR54	819547660	11/14/2010	2318	SR 54	I 75	50	FT	W	14000000	0	0	1	3 - PD	15	7 - COLLISION-ANIMAL
SR54/CR54	820838000	4/3/2011	1645	WESLEY CHAPEL BLVD (CR	I 75	200	FT	W	14000000	0	0	3	2 - INJ-NONINCAP	1	2 - REAR-END
SR54/CR54	819673370	5/12/2011	1822	CR 54	SR 93	0	MI	E	14000000	0	0	1	3 - PD	1	2 - REAR-END
SR54/CR54	828222200	9/6/2011	1410	I 75	CR 54	0	FT		14140023	0.2	136	3	2 - INJ-NONINCAP	3	1 - ANGLE
SR54/CR54	828222670	10/7/2011	927	CR 54	SR 581 (BRUCE B DOWNS)	800	FT	W	14000000	0	0	3	2 - INJ-NONINCAP	31	5 - OVERTURNED
SR54/CR54	822704360	10/16/2011	355	SR 93	CR 54	0	FT		14140023	0.2	136	1	3 - PD	3	1 - ANGLE
SR54/CR54	828218170	10/27/2011	1730	I 75	CR 54	15	FT	S	14140023	0.2	136	2	2 - INJ-POSSIBLE	1	2 - REAR-END
SR54/CR54	828429520	10/28/2011	1700	I 75	CR 54	75	FT	E	14000000	0	0	2	2 - INJ-POSSIBLE	1	2 - REAR-END
SR54/CR54	828444460	11/10/2011	1335	SR 54 (WESLEY CHAPEL BL	NB I 75	500	FT	E	14000000	0	0	1	3 - PD	7	8 - OTHER-BACKED INTO
SR54/CR54	828392690	11/11/2011	1045	CR 54	SR 93	500	FT	W	14000000	0	0	3	2 - INJ-NONINCAP	1	2 - REAR-END
SR54/CR54	828495720	11/16/2011	1943	CR 54(WESLEY CHAPEL BLV	I 75(SR-93)	0	FT		14000000	0	0	1	3 - PD	1	2 - REAR-END
SR54/CR54	828522050	11/23/2011	1349	CR 54	SR 93	0	FT		14000000	0	0	1	3 - PD	1	2 - REAR-END
SR54/CR54	828479440	11/28/2011	1711	CR 54	I 75	25	FT	E	14000000	0	0	2	2 - INJ-POSSIBLE	1	2 - REAR-END
SR54/CR54	828608770	12/31/2011	1021	I 75	CR 54	0	FT		14140001	0.0	523	2	2 - INJ-POSSIBLE	1	2 - REAR-END
SR56	776644230	1/31/2009	744	SR 56	I 75	450.00	FT	W	14091000	1.681	1946	2	2 - INJ-POSSIBLE	1	2 - REAR-END
SR56	776644250	2/4/2009	1847	SR 56	I 75	0.00	FT		14091000	1.766	1948	4	2 - INJ-INCAP	4	1 - ANGLE-LEFT
SR56	776671290	3/28/2009	11	SR 56	SR 93	0.00	FT		14091000	1.516	1942	1	3 - PD	1	2 - REAR-END
SR56	776672890	4/3/2009	750	SR 56	SR 93	150.00	FT	E	14091000	1.703	1946	3	2 - INJ-NONINCAP	1	2 - REAR-END
SR56	776684170	4/4/2009	928	SR 56	I 75	150.00	FT	W	14091000	1.586	1945	2	2 - INJ-POSSIBLE	1	2 - REAR-END
SR56	776681290	4/23/2009	907	SR 56	I 75	30.00	FT	W	14091000	1.510	1942	1	3 - PD	1	2 - REAR-END
SR56	776712740	5/13/2009	1416	SR 56	I 75	75.00	FT	W	14091000	1.752	1948	2	2 - INJ-POSSIBLE	1	2 - REAR-END
SR56	776634480	6/2/2009	2040	SR 56	I 75	0.00	FT		14091000	1.614	1945	4	2 - INJ-INCAP	1	2 - REAR-END
SR56	804496170	7/1/2009	757	SR 56	I 75	0.00	FT		14091000	1.766	1948	4	2 - INJ-INCAP	4	1 - ANGLE-LEFT
SR56	804496270	7/9/2009	1145	SR 56	I 75	150.00	FT	W	14091000	1.586	1945	1	3 - PD	1	2 - REAR-END
SR56	804496370	7/22/2009	1712	SR 56	I 75	400.00	FT	W	14091000	1.538	1943	2	2 - INJ-POSSIBLE	1	2 - REAR-END
SR56	804521060	7/27/2009	1420	SR 56	I 75	30.00	FT	W	14091000	1.760	1948	2	2 - INJ-POSSIBLE	1	2 - REAR-END
SR56	776723610	7/31/2009	1406	SR 56	SR 93	0.00	FT		14091000	1.783	1949	3	2 - INJ-NONINCAP	3	1 - ANGLE
SR56	804536040	8/8/2009	2006	SR 56	I 75	125.00	FT	E	14091000	1.699	1946	1	3 - PD	18	7 - COLLISION-GUARDRAIL
SR56	804542610	9/5/2009	2027	SR 56	SR 93	0.00	FT		14091000	1.783	1949	3	2 - INJ-NONINCAP	18	7 - COLLISION-GUARDRAIL
SR56	804554570	9/11/2009	1953	SR 56	I 75	0.00	FT		14091000	1.766	1948	2	2 - INJ-POSSIBLE	3	1 - ANGLE
SR56	776723800	9/16/2009	1933	SR 56	SR 93	0.10	MI	E	14091000	1.775	1949	1	3 - PD	34	8 - OTHER-FIRE
SR56	804546710	9/28/2009	724	SR 56	I 75	500.00	FT	E	14091000	1.770	1948	2	2 - INJ-POSSIBLE	1	2 - REAR-END
SR56	804543190	9/30/2009	1509	SR 56	I 75	0.00	FT		14091000	1.516	1942	1	3 - PD	1	2 - REAR-END
SR56	804577600	10/15/2009	615	SR 56	I 75	0.20	MI	W	14091000	1.414	1942	1	3 - PD	6	3 - SIDESWIPE
SR56	804546820	11/8/2009	719	SR 56	I 75	0.00	FT		14091000	1.766	1948	4	2 - INJ-INCAP	3	1 - ANGLE
SR56	804591350	12/4/2009	2125	SR 56	I 75	50.00	FT	W	14091000	1.605	1945	1	3 - PD	1	2 - REAR-END
SR56	804591470	12/12/2009	16	SR 56	I 75	75.00	FT	W	14091000	1.520	1942	1	3 - PD	18	7 - COLLISION-GUARDRAIL
SR56	804624080	12/24/2009	1630	SR 56	I 75	0.00	FT		14091000	1.516	1942	3	2 - INJ-NONINCAP	3	1 - ANGLE
SR56	804649340	3/17/2010	1516	SR 56	SR 93	20.0	FT	E	14091000	1.679	1946	2	2 - INJ-POSSIBLE	1	2 - REAR-END
SR56	804657480	3/29/2010	855	SR 56	I 75	0.0	FT		14091000	1.534	1943	2	2 - INJ-POSSIBLE	3	1 - ANGLE
SR56	804667110	4/5/2010	612	SR 56	I 75	0.0	FT		14091000	1.516	1942	3	2 - INJ-NONINCAP	3	1 - ANGLE
SR56	804682630	4/8/2010	1558	SR 56	SR 93	50.0	FT	E	14091000	1.684	1946	2	2 - INJ-POSSIBLE	1	2 - REAR-END
SR56	804690220	4/16/2010	932	SR 56	I 75	0.0	FT		14091000	1.614	1945	2	2 - INJ-POSSIBLE	0	8 - OTHER-NOT CODED
SR56	804712580	4/26/2010	1447	SR 56	I 75	700.0	FT	W	14091000	1.481	1942	1	3 - PD	6	3 - SIDESWIPE
SR56	804690290	4/27/2010	733	SR 56	I 75	200.0	FT	W	14091000	1.478	1942	4	2 - INJ-INCAP	1	2 - REAR-END
SR56	804724540	5/16/2010	2153	SR 56	SR 93	0.0	FT		14091000	1.783	1949	1	3 - PD	9	8 - OTHER-MV ON RDWY
SR56	804681450	5/27/2010	1044	SR 56	I 75	0.0	FT		14091000	1.534	1943	4	2 - INJ-INCAP	3	1 - ANGLE
SR56	806054090	6/14/2010	406	SR 56	I 75	0.0	FT		14091000	1.783	1949	2	2 - INJ-POSSIBLE	18	7 - COLLISION-GUARDRAIL
SR56	806059020	6/17/2010	2108	SR 56	SR 93	0.0	FT		14091000	1.516	1942	2	2 - INJ-POSSIBLE	3	1 - ANGLE
SR56	806062600	6/29/2010	510	SR 56	I 75	10.0	FT	E	14091000	1.768	1948	1	3 - PD	1	2 - REAR-END
SR56	804740140	7/2/2010	1226	I 75	SR 56	150.0	FT	S	14140018	0.283	1949	4	2 - INJ-INCAP	1	2 - REAR-END
SR56	804740210	7/18/2010	820	SR 56	I 75	0.0	FT		14091000	1.516	1942	3	2 - INJ-NONINCAP	3	1 - ANGLE
SR56	804741400	8/2/2010	2047	SR 56	I 75	0.0	FT		14091000	1.783	1949	2	2 - INJ-POSSIBLE	1	2 - REAR-END
SR56	806091580	8/2/2010	2223	SR 56	I 75 SR 93	0.0	FT		14091000	1.534	1943	2	2 - INJ-POSSIBLE	1	2 - REAR-END
SR56	806080360	8/8/2010	1757	I 75	SR 56	50.0	FT	S	14140018	0.302	1949	2	2 - INJ-POSSIBLE	1	2 - REAR-END
SR56	804623460	8/9/2010	1133	SR 56	SR 93	0.1	MI	E	14091000	1.775	1949	3	2 - INJ-NONINCAP	1	2 - REAR-END

Source: FDOT Unified Basemap Repository

I-75 AND OVERPASS ROAD IJR
2009-2011 CRASH DATA

CRASH LOCATION ID	CRASHNUM	CRASHDATE	CRASHTIME	ONROADNAME	INROADNAME	REFDIST	REFMEAS	REFDIR	ROADWAYID	MILEPT	NODE	HIGHESTINJ	INJURY_TYPE	CRSHEVENT1	CRASH EVENT_TYPE
SR56	806058950	8/21/2010	1823	SR 54	I 75	50.0	FT	E	14091000	1.684	1946	1	3 - PD	1	2 - REAR-END
SR56	806102520	8/22/2010	2037	SR 56	SR 93	0.0	FT		14091000	1.783	1949	3	2 - INJ-NONINCAP	5	1 - ANGLE-RIGHT
SR56	806054760	8/24/2010	750	SR 56	I 75	0.0	FT		14091000	1.783	1949	1	3 - PD	3	1 - ANGLE
SR56	804734260	9/4/2010	2315	SR 56	SR 93	0.0	FT		14091000	1.783	1949	2	2 - INJ-POSSIBLE	5	1 - ANGLE-RIGHT
SR56	806113570	9/9/2010	1646	I 75	SR 56	20.0	FT	S	14140018	0.307	1949	1	3 - PD	1	2 - REAR-END
SR56	806112680	9/24/2010	1220	SR 56	I 75	0.0	FT		14091000	1.766	1948	1	3 - PD	1	2 - REAR-END
SR56	806110850	10/1/2010	2101	SR 56	SR 93	30.0	FT	W	14091000	1.760	1948	2	2 - INJ-POSSIBLE	6	3 - SIDESWIPE
SR56	806134120	10/30/2010	203	SR 56	SR 93	0.0	FT		14091000	1.783	1949	2	2 - INJ-POSSIBLE	3	1 - ANGLE
SR56	819727140	11/19/2010	1506	SR 56	SR 93	300.0	FT	W	14091000	1.459	1942	1	3 - PD	1	2 - REAR-END
SR56	819664540	12/12/2010	1436	SR 93	SR 56	40.0	FT	S	14140021	0.008	1942	1	3 - PD	18	7 - COLLISION-GUARDRAIL
SR56	819728350	12/16/2010	1751	SR 56	I 75	300.0	FT	E	14091000	1.732	1948	1	3 - PD	9	8 - OTHER-MV ON RDWY
SR56	819726640	12/17/2010	740	SR 56	I 75	80.0	FT	E	14091000	1.690	1946	2	2 - INJ-POSSIBLE	31	5 - OVERTURNED
SR56	819672980	12/22/2010	2116	SR 93	SR 56	30.0	FT	S	14140018	0.305	1949	1	3 - PD	1	2 - REAR-END
SR56	819699640	1/5/2011	1045	SR 56	I 75	20	FT	E	14091000	1.7	1946	1	3 - PD	1	2 - REAR-END
SR56	820683330	1/21/2011	304	I 75	SR 56	0	FT		14140018	0.3	1949	3	2 - INJ-NONINCAP	1	2 - REAR-END
SR56	820604110	1/25/2011	1554	SR 93	SR 56	25	FT	S	14140018	0.3	1949	1	3 - PD	1	2 - REAR-END
SR56	819654800	1/26/2011	755	SR 56	SR 93	0	MI	E	14091000	1.9	1949	2	2 - INJ-POSSIBLE	1	2 - REAR-END
SR56	819657700	1/29/2011	732	SR 56	I 75	0	FT		14091000	1.8	1949	4	2 - INJ-INCAP	3	1 - ANGLE
SR56	819663890	2/5/2011	1330	I 75	SR 56	80	FT	S	14140018	0.3	1949	2	2 - INJ-POSSIBLE	1	2 - REAR-END
SR56	819904010	2/6/2011	115	SR 93	SR 56	25	FT	S	14140021	0.0	1942	3	2 - INJ-NONINCAP	18	7 - COLLISION-GUARDRAIL
SR56	819687780	2/11/2011	0	SR 56	I 75	35	FT	W	14091000	1.8	1949	2	2 - INJ-POSSIBLE	1	2 - REAR-END
SR56	820681490	3/3/2011	1838	I 75	SR 56	0	FT		14140018	0.3	1949	1	3 - PD	18	7 - COLLISION-GUARDRAIL
SR56	820813860	3/10/2011	550	SR 56	SR 93	5	FT	E	14091000	1.8	1949	3	2 - INJ-NONINCAP	3	1 - ANGLE
SR56	820698710	3/28/2011	718	SR 93	SR 56	300	FT	S	14140021	0.1	56	1	3 - PD	1	2 - REAR-END
SR56	820833570	3/31/2011	432	I 75	SR 56	25	FT	S	14140018	0.3	1949	2	2 - INJ-POSSIBLE	1	2 - REAR-END
SR56	820814140	4/3/2011	0	SR 93	SR 56	10	FT	S	14140018	0.3	1949	1	3 - PD	1	2 - REAR-END
SR56	820912310	4/12/2011	616	SR 56	I 75	75	FT	W	14091000	1.5	1942	1	3 - PD	1	2 - REAR-END
SR56	819673250	4/16/2011	1151	SR 93	SR 56	200	FT	S	14140018	0.3	1949	2	2 - INJ-POSSIBLE	1	2 - REAR-END
SR56	822440430	5/4/2011	1824	SR 56	SR 93	350	FT	E	14091000	1.7	1948	3	2 - INJ-NONINCAP	1	2 - REAR-END
SR56	822472550	5/5/2011	825	SR 56	I 75	0	MI	E	14091000	1.9	1949	3	2 - INJ-NONINCAP	1	2 - REAR-END
SR56	819673380	5/16/2011	1054	SR 56	SR 93	0	FT		14091000	1.5	1942	2	2 - INJ-POSSIBLE	3	1 - ANGLE
SR56	820944570	5/21/2011	103	I 75	SR 56	50	FT	S	14140018	0.3	1949	1	3 - PD	1	2 - REAR-END
SR56	822496900	6/3/2011	1135	SR 56	CYPRESS RIDGE BLVD	1	MI	W	14091000	1.9	1949	1	3 - PD	3	1 - ANGLE
SR56	822458610	6/8/2011	835	SR 56	I 75	100	FT	E	14091000	1.7	1946	3	2 - INJ-NONINCAP	31	5 - OVERTURNED
SR56	819673570	6/14/2011	1635	SR 93	SR 56	50	FT	S	14140018	0.3	1949	1	3 - PD	1	2 - REAR-END
SR56	819672890	6/14/2011	1645	SR 56	SR 93	0	MI	W	14091000	1.4	1942	2	2 - INJ-POSSIBLE	1	2 - REAR-END
SR56	822512800	6/17/2011	1330	SR 56	I 75	800	FT	E	14091000	1.8	1949	2	2 - INJ-POSSIBLE	77	8 - OTHER
SR56	819673610	6/24/2011	1426	SR 93	SR 56	100	FT	S	14140018	0.3	1949	2	2 - INJ-POSSIBLE	1	2 - REAR-END
SR56	822458730	6/25/2011	1950	I 75	SR 56	200	FT	S	14140018	0.3	1949	2	2 - INJ-POSSIBLE	1	2 - REAR-END
SR56	822497120	6/27/2011	2110	SR 56	I 75	0	FT		14091000	1.8	1949	2	2 - INJ-POSSIBLE	3	1 - ANGLE
SR56	819547510	6/28/2011	1004	SR 56	I 75	30	FT	E	14091000	1.5	1942	2	2 - INJ-POSSIBLE	1	2 - REAR-END
SR56	820957380	7/20/2011	1130	SR 56	I 75	100	FT	W	14091000	1.5	1942	1	3 - PD	1	2 - REAR-END
SR56	822489530	7/25/2011	1340	SR 56	SR 93	0	FT		14091000	1.5	1943	2	2 - INJ-POSSIBLE	3	1 - ANGLE
SR56	822513370	8/8/2011	2059	I 75	SR 56	40	FT	S	14140018	0.3	1949	1	3 - PD	18	7 - COLLISION-GUARDRAIL
SR56	828132160	8/16/2011	830	SR 56	I 75	25	FT	W	14091000	1.6	1945	1	3 - PD	9	8 - OTHER-MV ON RDWY
SR56	828132210	8/18/2011	1155	SR 56	I 75	0	FT		14091000	1.8	1948	4	2 - INJ-INCAP	3	1 - ANGLE
SR56	828222140	9/1/2011	653	I 75	SR 56	500	FT	S	14140018	0.2	2196	1	3 - PD	1	2 - REAR-END
SR56	828238180	9/21/2011	723	I 75	SR 56	100	FT	S	14140021	0.0	1942	1	3 - PD	1	2 - REAR-END
SR56	828219700	9/27/2011	1359	I 75	SR 56	168	FT	S	14140018	0.3	1949	1	3 - PD	1	2 - REAR-END
SR56	828216970	10/4/2011	725	SR 56	SR 93	200	FT	E	14091000	1.6	1943	1	3 - PD	1	2 - REAR-END
SR56	828217030	10/6/2011	929	SR 56	SR 93	40	FT	E	14091000	1.5	1942	3	2 - INJ-NONINCAP	1	2 - REAR-END
SR56	828238450	10/20/2011	1437	SR 56	I 75	200	FT	W	14091000	1.6	1945	1	3 - PD	9	8 - OTHER-MV ON RDWY
SR56	828303770	10/28/2011	640	SR 56	I 75	30	FT	E	14091000	1.5	1942	1	3 - PD	1	2 - REAR-END
SR56	828303410	11/25/2011	1813	SR 56	I 75	400	FT	W	14091000	1.5	1943	1	3 - PD	1	2 - REAR-END
SR56	828484380	11/27/2011	1203	SR 56	SR 93	0	FT		14091000	1.5	1942	1	3 - PD	1	2 - REAR-END
SR56	828483580	12/5/2011	1830	I 75	SR 56	100	FT	S	14140018	0.3	1949	1	3 - PD	1	2 - REAR-END
SR56	828522070	12/7/2011	1511	SR 93	SR 56	0	FT		14140018	0.3	1949	2	2 - INJ-POSSIBLE	3	1 - ANGLE
SR56	828430050	12/19/2011	716	SR 56	I 75	0	MI	E	14091000	1.9	1949	4	2 - INJ-INCAP	77	8 - OTHER
SR56	828665540	12/20/2011	1259	SR 56	SR 93	100	FT	W	14091000	1.6	1945	3	2 - INJ-NONINCAP	1	2 - REAR-END

I 75 @ SR 56

1/1/2007 to 12/31/2011 Crashes
within 500 ft of intersection

Pasco County Traffic Operations
7536 State St, Rm 124
New Port Richey, FL 34654
(727) 847-8139
(727) 815-7014 Fax

CASE ID	ON STREET	CROSS STREET	DATE	TIME	DIR	DIST	FATAL	INJ	V1 DIR	V2 DIR	IMPACT TYPE	HARM EVENT	CONT CAUSE
77135493	I 75	I 75	5/19/2007	721	N	50	0	0	S	S	Angle	No Data	Careless/Negligent
77378653	I 75	I 75	10/21/2007	1812		0	0	0	S	S	Front to Rear	No Data	Careless/Negligent
76876645	I 75	SR 56	2/1/2007	1713	N	500	0	0	N	N	Front to Rear	No Data	Careless/Negligent
7563500	I 75	SR 56	2/2/2007	855		0	0	0			No Data	Guardrail Face	Too Fast for Conditions
7563498	I 75	SR 56	2/2/2007	634	S	150	0	0			Angle	No Data	Other Actions
7564263	I 75	SR 56	2/9/2007	1540		0	0	0			Front to Rear	No Data	Careless/Negligent
7564465	I 75	SR 56	3/2/2007	1525	S	500	0	0			Front to Rear	No Data	Careless/Negligent
77135334	I 75	SR 56	3/12/2007	616	S	300	0	0	S	S	Front to Rear	No Data	Careless/Negligent
76875881	I 75	SR 56	3/26/2007	700	S	500	0	0	N	N	Front to Rear	No Data	Careless/Negligent
77138013	I 75	SR 56	4/1/2007	1942	S	500	0	0	S	S	No Data	Cargo Loss/Shift	No Data
77137426	I 75	SR 56	4/7/2007	1405	N	200	0	0	N	N	Angle	No Data	Careless/Negligent
7555173	I 75	SR 56	4/7/2007	1505	S	500	0	0			No Data	Guardrail Face	Careless/Negligent
77137925	I 75	SR 56	4/10/2007	934	N	100	0	0	S	S	Angle	No Data	Fail to Maintain Ln
77137876	I 75	SR 56	4/16/2007	1230	S	12	0	0	N	W	Sideswipe, same dir	No Data	No Cont Act
77136841	I 75	SR 56	4/17/2007	1408	N	50	0	0	S	S	No Data	Cargo Loss/Shift	No Data
77140254	I 75	SR 56	4/25/2007	1946	N	300	0	0	N	N	Front to Rear	No Data	Careless/Negligent
77141224	I 75	SR 56	5/22/2007	1437		0	0	0	N	N	Sideswipe, same dir	No Data	Fail to Maintain Ln
76875891	I 75	SR 56	6/1/2007	1655	N	250	0	0	N	N	Front to Rear	No Data	Careless/Negligent
77143415	I 75	SR 56	6/13/2007	656	S	200	0	0	S	S	Sideswipe, same dir	No Data	Careless/Negligent
77140682	I 75	SR 56	6/18/2007	1030	S	1	0	1	S		No Data	Other Fixed Obj	No Cont Act
7564967	I 75	SR 56	6/23/2007	825	S	300	0	0			Sideswipe, same dir	No Data	Other Actions
77145366	I 75	SR 56	7/10/2007	2225	S	10	0	1	N	N	Front to Rear	No Data	Careless/Negligent
7564973	I 75	SR 56	7/14/2007	1523	N	500	0	0			No Data	Tree	Careless/Negligent
77140697	I 75	SR 56	7/23/2007	1835	S	100	0	0	E		No Data	Ditch	Too Fast for Conditions
9609086	I 75	SR 56	8/2/2007	1357	S	5	0	0			No Data	No Data	Careless/Negligent
7558798	I 75	SR 56	8/31/2007	1442	S	100	0	0			No Data	Guardrail Face	Other Actions
7565642	I 75	SR 56	9/20/2007	1900		0	0	0			No Data	Guardrail Face	No Cont Act
77377461	I 75	SR 56	9/23/2007	1604		0	0	1	W		No Data	Guardrail Face	Too Fast for Conditions
77377010	I 75	SR 56	9/23/2007	1844	N	50	0	0	S		No Data	Guardrail Face	Other Actions
77147489	I 75	SR 56	10/1/2007	713	S	50	0	0	S	S	Sideswipe, same dir	No Data	Careless/Negligent
77149792	I 75	SR 56	10/21/2007	2220	S	100	0	0	N		No Data	Overturn	Other Actions
77379353	I 75	SR 56	10/26/2007	2233	S	500	0	0	N	N	Front to Rear	No Data	Careless/Negligent
77379354	I 75	SR 56	10/26/2007	2233	S	500	0	0	N	N	Front to Rear	No Data	Careless/Negligent
77380922	I 75	SR 56	12/11/2007	2121	N	50	0	0	S		No Data	Guardrail Face	No Cont Act
77380893	I 75	SR 56	12/14/2007	2020	S	500	0	0	S		No Data	Other Fixed Obj	Other Actions
7566564	I 75	SR 56	12/16/2007	358	S	200	0	0			No Data	Other Post/Pole	No Cont Act

I 75 @ SR 56

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CASE ID	ON STREET	CROSS STREET	DATE	TIME	DIR	DIST	FATAL	INJ	V1 DIR	V2 DIR	IMPACT TYPE	HARM EVENT	CONT CAUSE
77385371	I 75	SR 56	1/11/2008	430	S	300	0	0	S	S	Angle	No Data	Fail to Maintain Ln
7567367	I 75	SR 56	1/18/2008	700	S	200	0	0			Front to Rear	No Data	Careless/Negligent
7567368	I 75	SR 56	1/18/2008	700		0	0	0			Front to Rear	No Data	Careless/Negligent
7568465	I 75	SR 56	1/19/2008	1935		0	0	0			No Data	Other Fixed Obj	Careless/Negligent
77387030	I 75	SR 56	2/13/2008	656	S	50	0	1	N	S	Front to Rear	No Data	Careless/Negligent
7555181	I 75	SR 56	2/16/2008	852	S	500	0	0			Angle	No Data	Fail to Maintain Ln
77386048	I 75	SR 56	2/18/2008	1852	S	75	0	0	N	N	Angle	No Data	Careless/Negligent
77390560	I 75	SR 56	3/3/2008	747	S	125	0	0	N	N	Front to Rear	No Data	Careless/Negligent
7568304	I 75	SR 56	3/15/2008	803	S	10	0	0			No Data	Other Post/Pole	Careless/Negligent
77391953	I 75	SR 56	3/15/2008	146		0	0	0	N	N	Front to Rear	No Data	Careless/Negligent
77389883	I 75	SR 56	3/16/2008	1906	S	150	0	0	N	N	Front to Rear	No Data	No Data
7567378	I 75	SR 56	3/20/2008	735		0	0	0			Front to Rear	No Data	Other Actions
77396008	I 75	SR 56	5/10/2008	54	N	500	0	1	N	N	Angle	No Data	Followed too Closely
77394671	I 75	SR 56	6/2/2008	1354		0	0	0	E	E	Front to Rear	No Data	Careless/Negligent
77397564	I 75	SR 56	6/8/2008	1455	N	175	0	1	N		No Data	Other Fixed Obj	Other Actions
77397588	I 75	SR 56	7/10/2008	2138	S	150	0	0	N	N	Front to Rear	No Data	Careless/Negligent
77651155	I 75	SR 56	7/21/2008	1004	S	50	0	0	S	S	No Data	Cargo Loss/Shift	No Cont Act
77650410	I 75	SR 56	7/22/2008	1322	N	500	0	0	N		No Data	Tree	Careless/Negligent
77397598	I 75	SR 56	7/25/2008	920	N	200	0	0	N	N	No Data	Other Fixed Obj	Fail to Maintain Ln
77650268	I 75	SR 56	7/29/2008	1828	N	100	0	0	S	S	Angle	No Data	Other Actions
77397092	I 75	SR 56	7/31/2008	1937	S	150	0	0	N	N	Front to Rear	No Data	Careless/Negligent
77397538	I 75	SR 56	7/31/2008	1711	S	200	0	0	N	N	Front to Rear	No Data	Careless/Negligent
7568965	I 75	SR 56	8/15/2008	1314	S	100	0	0			No Data	Guardrail Face	Careless/Negligent
77653423	I 75	SR 56	8/24/2008	1558	S	50	0	0	N	N	Front to Rear	No Data	Careless/Negligent
77399150	I 75	SR 56	8/26/2008	1625	S	50	0	0	N	N	Front to Rear	No Data	Careless/Negligent
77653765	I 75	SR 56	8/29/2008	1858	N	200	0	1	S	S	Angle	No Data	Other Actions
7568328	I 75	SR 56	9/29/2008	1741	S	100	0	0			No Data	Other Fixed Obj	Other Actions
77654683	I 75	SR 56	10/4/2008	1719	S	100	0	0	N	N	Front to Rear	No Data	Careless/Negligent
77654687	I 75	SR 56	10/6/2008	1908	S	500	0	0	S		No Data	Guardrail Face	Other Actions
7554219	I 75	SR 56	10/9/2008	700	S	500	0	0			No Data	No Data	Fail to Maintain Ln
77397762	I 75	SR 56	11/2/2008	1719	S	300	0	0	N	N	Front to Rear	No Data	Careless/Negligent
77650033	I 75	SR 56	11/22/2008	1115	S	30	0	0	N	N	Front to Rear	No Data	Careless/Negligent
77659868	I 75	SR 56	11/25/2008	40		0	0	0	N		No Data	Ut/Lgt Pole	Careless/Negligent
77660703	I 75	SR 56	11/30/2008	1340	S	150	0	0	N	N	Front to Rear	No Data	Careless/Negligent
77660704	I 75	SR 56	11/30/2008	1350	S	175	0	0	N	N	Front to Rear	No Data	Careless/Negligent
77660713	I 75	SR 56	12/8/2008	727	S	50	0	0	N		No Data	Other Post/Pole	Careless/Negligent

I 75 @ SR 56

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CASE ID	ON STREET	CROSS STREET	DATE	TIME	DIR	DIST	FATAL	INJ	V1 DIR	V2 DIR	IMPACT TYPE	HARM EVENT	CONT CAUSE
7570282	I 75	SR 56	12/23/2008	1335	S	200	0	0			Front to Rear	No Data	Careless/Negligent
77663801	I 75	SR 56	1/5/2009	1627	NONE	0	0	0	N	N	Front to Rear		
7571455	I 75	SR 56	1/13/2009	1750	S	300	0	0			Front to Rear	No Data	Careless/Negligent
77662886	I 75	SR 56	1/13/2009	1314	S	100	0	0	N	N	Sideswipe, same dir	No Data	Other Actions
77663615	I 75	SR 56	1/18/2009	1343	S	10	0	0		N	No Data	Pedestrian	
77664420	I 75	SR 56	1/29/2009	1611	S	450	0	0	S		No Data	Ditch	Careless/Negligent
77663747	I 75	SR 56	1/29/2009	1620	S	25	0	0	N	N	Front to Rear	No Data	Careless/Negligent
7570557	I 75	SR 56	1/29/2009	1655	S	25	0	0			No Data	Guardrail Face	Careless/Negligent
7571467	I 75	SR 56	2/1/2009	615	S	500	0	0			No Data	Ditch	No Cont Act
7574640	I 75	SR 56	2/5/2009	1230	N	150	0	0			No Data	Guardrail Face	Careless/Negligent
77666211	I 75	SR 56	2/15/2009	1610	S	500	0	0	S		No Data	Other Fixed Obj	No Cont Act
77664516	I 75	SR 56	2/19/2009	1355	S	25	0	0	N	N	Front to Rear	No Data	Careless/Negligent
77666382	I 75	SR 56	3/10/2009	2045	NONE	0	0	0	S			Guardrail Face	
77669164	I 75	SR 56	3/29/2009	1652	NONE	0	0	0	S	S	Front to Rear		
77668122	I 75	SR 56	4/2/2009	816	S	150	0	0	N	N	No Data	MV in Transport	Careless/Negligent
77669407	I 75	SR 56	4/3/2009	1004		0	0	0	N	N	Front to Rear	No Data	Careless/Negligent
77671258	I 75	SR 56	4/20/2009	1607	S	400	0	0	S		No Data	Other Fixed Obj	No Cont Act
77670760	I 75	SR 56	4/22/2009	1401		0	0	1	N		No Data	Other Fixed Obj	Careless/Negligent
77668026	I 75	SR 56	5/10/2009	140	N	200	0	0	S		No Data	Ditch	Other Actions
77673216	I 75	SR 56	5/16/2009	2322	S	75	0	0	N		No Data	Guardrail Face	Too Fast for Conditions
77669883	I 75	SR 56	5/26/2009	1714	S	200	0	0	N	N	Front to Rear	No Data	Too Fast for Conditions
7572974	I 75	SR 56	5/29/2009	930	N	500	0	0			No Data	Ditch	Careless/Negligent
80449852	I 75	SR 56	6/17/2009	1700	S	500	0	0	S		No Data	Guardrail Face	Other Actions
77673242	I 75	SR 56	6/26/2009	2049	E	20	0	0	N	N	Front to Rear	No Data	Careless/Negligent
80449711	I 75	SR 56	6/26/2009	1847	S	250	0	1	S	S	No Data	MV in Transport	Other Actions
7573259	I 75	SR 56	6/27/2009	1612	S	300	0	0			No Data	Overturn	No Data
80449726	I 75	SR 56	7/9/2009	1918	S	200	0	0	S		No Data	Ditch	No Cont Act
77674737	I 75	SR 56	7/10/2009	1650	S	100	0	0	N	N	Front to Rear	No Data	Careless/Negligent
77674738	I 75	SR 56	7/10/2009	1822	S	80	0	0	N	N	Front to Rear	No Data	Careless/Negligent
7573263	I 75	SR 56	7/19/2009	1706	S	300	0	0			Front to Rear	No Data	Too Fast for Conditions
7571899	I 75	SR 56	7/23/2009	850	S	50	0	0			Front to Rear	No Data	Careless/Negligent
80449532	I 75	SR 56	7/30/2009	1605	S	500	0	1	N	N	Front to Rear	No Data	Careless/Negligent
80453603	I 75	SR 56	8/8/2009	1843	S	264	0	0	S		No Data	Guardrail Face	Other Actions
77672349	I 75	SR 56	8/15/2009	1630	S	500	0	0	S	S	No Data	Guardrail Face	Careless/Negligent
7573670	I 75	SR 56	8/17/2009	1450	S	150	0	0			No Data	Guardrail Face	Careless/Negligent
7573364	I 75	SR 56	8/18/2009	652	S	245	0	0			No Data	Guardrail Face	Careless/Negligent

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7573713	I 75	SR 56	8/27/2009	1155	S	200	0	0			No Data	No Data	Other Actions
80453335	I 75	SR 56	8/31/2009	1206	NONE	0	0	0	S	S	Front to Rear		
7573688	I 75	SR 56	9/5/2009	1326	N	100	0	0			Sideswipe, same dir	No Data	Fail to Maintain Ln
7573696	I 75	SR 56	9/12/2009	1035	S	200	0	0			No Data	Guardrail Face	Careless/Negligent
7573697	I 75	SR 56	9/12/2009	1202	S	100	0	0			No Data	No Data	Careless/Negligent
80454912	I 75	SR 56	9/20/2009	1937	S	295	1	0	S		No Data	Other Fixed Obj	Other Actions
80452527	I 75	SR 56	9/20/2009	2059	N	100	0	1	N		No Data	Guardrail Face	Careless/Negligent
80454975	I 75	SR 56	10/6/2009	1706	S	200	0	0	N	N	Front to Rear	No Data	Careless/Negligent
80455649	I 75	SR 56	10/10/2009	1810	S	30	0	0	N	N	Front to Rear	No Data	Careless/Negligent
77672386	I 75	SR 56	10/15/2009	1208	S	30	0	0	N	N	Front to Rear	No Data	Careless/Negligent
77661129	I 75	SR 56	10/27/2009	2115	S	50	0	0	N	N	No Data	Guardrail Face	No Cont Act
80458802	I 75	SR 56	10/28/2009	1451	S	200	0	0	N	N	Front to Rear	No Data	Careless/Negligent
80455448	I 75	SR 56	11/11/2009	655	S	200	0	0	S		No Data	Guardrail Face	Other Actions
80460001	I 75	SR 56	11/11/2009	1250	S	60	0	0	E		No Data	Guardrail Face	Other Actions
80449490	I 75	SR 56	11/22/2009	840	NONE	0	0	0	N			Guardrail Face	
7574630	I 75	SR 56	11/25/2009	1210	N	100	0	0			Front to Rear	No Data	Careless/Negligent
9613567	I 75	SR 56	11/25/2009	1234		0	0	0			Front to Rear	No Data	No Data
77672394	I 75	SR 56	11/25/2009	928	S	30	0	0	N	N	Front to Rear	No Data	Careless/Negligent
80459134	I 75	SR 56	12/4/2009	2014	S	75	0	0	N		No Data	Guardrail Face	Exceeded Posted Speed
80460176	I 75	SR 56	12/10/2009	829	S	475	0	1	N	N	Front to Rear	No Data	Careless/Negligent
80460177	I 75	SR 56	12/10/2009	853	S	50	0	0	N	N	No Data	Other Fixed Obj	Careless/Negligent
7573390	I 75	SR 56	12/18/2009	1145	S	175	0	0			No Data	Guardrail Face	No Cont Act
80460188	I 75	SR 56	12/18/2009	1233	S	175	0	0	N		No Data	Guardrail Face	No Cont Act
80459450	I 75	SR 56	12/24/2009	1442	S	10	0	2	S	S	Angle	No Data	Careless/Negligent
80462964	I 75	SR 56	1/4/2010	1638	S	400	0	0	N	N	Front to Rear	No Data	Careless/Negligent
80461564	I 75	SR 56	1/8/2010	1150		0	0	0	N	N	Front to Rear	No Data	Careless/Negligent
7800651	I 75	SR 56	1/9/2010	1047	S	175	0	0			No Data	Guardrail Face	No Cont Act
80462313	I 75	SR 56	1/30/2010	1539		0	0	0	S		No Data	Ditch	Careless/Negligent
80463332	I 75	SR 56	2/1/2010	819	S	450	0	0	N	N	Angle	No Data	Careless/Negligent
7575467	I 75	SR 56	2/2/2010	1044	S	50	0	0			No Data	Guardrail Face	Careless/Negligent
80462993	I 75	SR 56	2/5/2010	1856	S	50	0	0	N	N	Front to Rear	No Data	Careless/Negligent
7800704	I 75	SR 56	2/5/2010	1410	S	250	0	0			Front to Rear	No Data	Careless/Negligent
80462141	I 75	SR 56	2/5/2010	2254	S	50	0	0	N		No Data	Guardrail Face	Too Fast for Conditions
80462142	I 75	SR 56	2/6/2010	138	S	200	0	0	S		No Data	Ditch	Too Fast for Conditions
7575437	I 75	SR 56	3/11/2010	955	S	50	0	0			Front to Rear	No Data	Careless/Negligent
7574363	I 75	SR 56	3/20/2010	920	S	50	0	0			Front to Rear	No Data	Careless/Negligent

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80466815	I 75	SR 56	3/28/2010	1627	S	300	0	0	N	N	Front to Rear	No Data	Other Actions
80469009	I 75	SR 56	4/3/2010	805	S	300	0	0	S	S	No Data	Cargo Loss/Shift	No Data
80467716	I 75	SR 56	4/10/2010	25	S	40	0	0	N	N	Front to Rear	No Data	Careless/Negligent
7802605	I 75	SR 56	4/19/2010	850	S	200	0	0			Front to Rear	No Data	Careless/Negligent
80462331	I 75	SR 56	4/25/2010	2117		0	0	0	N	N	Front to Rear	No Data	Careless/Negligent
80469036	I 75	SR 56	5/4/2010	1546	N	500	0	1	S	S	No Data	Other Fixed Obj	Fail to Maintain Ln
7801567	I 75	SR 56	5/6/2010	914	N	25	0	0			Rear to Side	No Data	Improper Backing
80466835	I 75	SR 56	5/7/2010	1755	N	500	0	0	N		No Data	Overturn	Improper Passing
7802720	I 75	SR 56	5/10/2010	953	N	500	0	0			Sideswipe, same dir	No Data	Careless/Negligent
7802267	I 75	SR 56	6/23/2010	2321		0	0	0			No Data	MV in Transport	Careless/Negligent
80474014	I 75	SR 56	7/2/2010	1226	S	150	0	1	N	N	Front to Rear	No Data	Careless/Negligent
7804002	I 75	SR 56	7/2/2010	707	S	200	0	0			No Data	Guardrail Face	Too Fast for Conditions
80608036	I 75	SR 56	8/8/2010	1757	S	50	0	0	N	N	Front to Rear	No Data	Careless/Negligent
80610902	I 75	SR 56	8/12/2010	1219	S	10	0	0	N	N	Sideswipe, same dir	No Data	Fail to Maintain Ln
80611357	I 75	SR 56	9/9/2010	1646	S	20	0	0	N	N	Front to Rear	No Data	Careless/Negligent
80609235	I 75	SR 56	9/18/2010	1734	NONE	0	0	0	N			Concrete Barrier	
80612268	I 75	SR 56	10/18/2010	832	S	300	0	2	N	N	Front to Rear	No Data	Careless/Negligent
81966404	I 75	SR 56	11/17/2010	1550	NONE	0	0	0	N	N	Front to Rear		
81968731	I 75	SR 56	11/19/2010	220	NONE	0	0	0	N			Crash Cushion	
81976004	I 75	SR 56	11/19/2010	1530	NONE	0	0	0	N	N	Front to Rear		
81966416	I 75	SR 56	11/23/2010	1855	NONE	0	0	0		S			
81966419	I 75	SR 56	11/24/2010	1924	NONE	0	0	0	N	N		MV in Transport	
81966420	I 75	SR 56	11/24/2010	1936	NONE	0	0	0	S	S	Front to Rear		
81966489	I 75	SR 56	11/26/2010	917	NONE	0	0	0	N			Crash Cushion	
81952888	I 75	SR 56	11/28/2010	1255	NONE	0	0	0	N	N	Front to Rear		
82002533	I 75	SR 56	12/1/2010	714	NONE	0	0	0		N			
81972738	I 75	SR 56	12/6/2010	1615	NONE	0	0	0		N			
81965743	I 75	SR 56	12/11/2010	1150	NONE	0	0	0	N	N	Front to Rear		
81966455	I 75	SR 56	12/12/2010	1519	NONE	0	0	0	S			Ut/Lgt Pole	
81966454	I 75	SR 56	12/12/2010	1436	NONE	0	0	0	S			Guardrail Face	
81952905	I 75	SR 56	12/15/2010	1420	NONE	0	0	0	N	N		Other Fixed Obj	
81972756	I 75	SR 56	12/15/2010	1730	NONE	0	0	0	N	N	Front to Rear		
81972834	I 75	SR 56	12/16/2010	1436	NONE	0	0	0	N	N		Overturn	
81967431	I 75	SR 56	12/19/2010	2030	NONE	0	0	0		N			
81967298	I 75	SR 56	12/22/2010	2116	NONE	0	0	0	N	N	Front to Rear		
81972770	I 75	SR 56	12/27/2010	1350	NONE	0	0	0	N	N	Angle		

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82059393	I 75	SR 56	12/29/2010	1824	S	300	0	1	N	N	Front to Rear	MV in Transport	Careless/Negligent
82060363	I 75	SR 56	12/30/2010	1843	S	300	0	0	N	N	Sideswipe, same dir	MV in Transport	FTY ROW
81990477	I 75	SR 56	1/3/2011	1342		0	0	0	S	S	Other	Falling/Shifting Cargo	No Cont Act
82061466	I 75	SR 56	1/5/2011	1000	S	500	0	0	S	S	Sideswipe, same dir	MV in Transport	Improper Passing
81965576	I 75	SR 56	1/6/2011	830		0	0	0	S	S	Sideswipe, same dir	Guardrail Face	Careless/Negligent
82060384	I 75	SR 56	1/9/2011	1314	S	200	0	0	N	N	Front to Rear	MV in Transport	Careless/Negligent
81952946	I 75	SR 56	1/17/2011	630	S	200	0	0	S		Other	Overturn	Too Fast for Conditions
81972696	I 75	SR 56	1/17/2011	1524	S	250	0	0	N	N	Front to Rear	MV in Transport	Careless/Negligent
81990454	I 75	SR 56	1/18/2011	1725	S	0	0	0	N	N	Front to Rear	MV in Transport	Careless/Negligent
82068333	I 75	SR 56	1/21/2011	304		0	0	1	N	N	Front to Rear	MV in Transport	
82066932	I 75	SR 56	1/24/2011	945	S	200	0	0	N	N	Front to Rear	MV in Transport	Careless/Negligent
82060411	I 75	SR 56	1/25/2011	1554	S	25	0	0	N	N	Front to Rear	MV in Transport	Careless/Negligent
81965765	I 75	SR 56	1/26/2011	618		0	0	0	N		Angle	Concrete Barrier	No Cont Act
81965766	I 75	SR 56	1/26/2011	632		0	0	0	N	N	Front to Rear	MV in Transport	Careless/Negligent
81968463	I 75	SR 56	1/31/2011	702	S	0	0	0	S	S	Front to Rear	MV in Transport	Careless/Negligent
81953173	I 75	SR 56	2/3/2011	713	S	0	0	0	S	S	Front to Rear	MV in Transport	Careless/Negligent
81965387	I 75	SR 56	2/3/2011	810	S	150	0	0	N	N	Front to Rear	MV in Transport	Careless/Negligent
81966389	I 75	SR 56	2/5/2011	1330	S	80	0	0	N	N	Front to Rear	MV in Transport	Careless/Negligent
81990401	I 75	SR 56	2/6/2011	115	S	25	0	1	S		Other	Guardrail Face	Careless/Negligent
81990403	I 75	SR 56	2/7/2011	455	S	100	0	0	S	N	Angle	MV in Transport	Careless/Negligent
81965392	I 75	SR 56	2/10/2011	1055	S	350	0	0	E		Other	Guardrail End	Careless/Negligent
81970070	I 75	SR 56	2/28/2011	2300	N	50	0	0	N		Other	Thrown/Falling Obj	No Cont Act
82020144	I 75	SR 56	3/6/2011	355	S	20	0	0	N		Other	Traffic Sign Support	Careless/Negligent
82069871	I 75	SR 56	3/28/2011	718	S	300	0	0	S	S	Front to Rear	MV in Transport	Careless/Negligent
82069873	I 75	SR 56	3/28/2011	957	N	25	0	1	S	S	Front to Rear	MV in Transport	Careless/Negligent
82083357	I 75	SR 56	3/31/2011	432	S	25	0	0	N	N	Front to Rear	MV in Transport	Careless/Negligent
82081414	I 75	SR 56	4/3/2011	0	S	10	0	0	N	N	Front to Rear	MV in Transport	No Cont Act
81967323	I 75	SR 56	4/8/2011	1200		0	0	2	N	N	Front to Rear	MV in Transport	Careless/Negligent
82070273	I 75	SR 56	4/13/2011	1655	N	50	0	1	S	S	Front to Rear	MV in Transport	Careless/Negligent
81967325	I 75	SR 56	4/16/2011	1151	S	200	0	0	N	N	Front to Rear	MV in Transport	Careless/Negligent
82237605	I 75	SR 56	4/21/2011	1125	NONE	0	0	0	S	N	Angle		
82080219	I 75	SR 56	4/28/2011	1722	S	264	0	0	N	N	Front to Rear	MV in Transport	Careless/Negligent
82089217	I 75	SR 56	5/2/2011	1500	S	200	0	0	N	N	Front to Rear	MV in Transport	Careless/Negligent
82075638	I 75	SR 56	5/4/2011	1112	S	5	0	0	N	N	Front to Rear	MV in Transport	Careless/Negligent
81967339	I 75	SR 56	5/16/2011	1606	S	500	0	2	N	N	Front to Rear	MV in Transport	Careless/Negligent
81967340	I 75	SR 56	5/16/2011	1646	S	500	0	0	N	N	Front to Rear	MV in Transport	Careless/Negligent

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82094457	I 75	SR 56	5/21/2011	103	S	50	0	0	N	N	Front to Rear	MV in Transport	Careless/Negligent
82249750	I 75	SR 56	5/24/2011	1601	S	400	0	0	N	N	Sideswipe, Opposite Dir	MV in Transport	Fail to Maintain Ln
82240987	I 75	SR 56	5/26/2011	1547	N	10	0	0	N		Other	Guardrail Face	No Cont Act
82245859	I 75	SR 56	6/6/2011	1200	S	300	0	0	N	N	Other	Thrown/Falling Obj	No Cont Act
81986942	I 75	SR 56	6/8/2011	2233	NONE	0	0	0	S			Other Fixed Obj	
82243019	I 75	SR 56	6/12/2011	2134		0	0	0	S	S	Other	Embankment	
81967357	I 75	SR 56	6/14/2011	1635	S	50	0	0	N	N	Front to Rear	MV in Transport	Careless/Negligent
82260757	I 75	SR 56	6/24/2011	2250	N	100	0	0	N		Other	Other Non-Fixed Obj	No Cont Act
81967361	I 75	SR 56	6/24/2011	1426	S	100	0	0	N	N	Front to Rear	MV in Transport	Careless/Negligent
82245873	I 75	SR 56	6/25/2011	1950	S	200	0	0	N	N	Front to Rear	MV in Transport	Careless/Negligent
82249712	I 75	SR 56	6/27/2011	2110		0	0	0	E	E	Angle	MV in Transport	Careless/Negligent
82268188	I 75	SR 56	6/27/2011	638	S	75	0	0	N		Other	Guardrail Face	Too Fast for Conditions
82251296	I 75	SR 56	6/30/2011	1400		0	0	0	S	S	Front to Rear	MV in Transport	Careless/Negligent
82249726	I 75	SR 56	7/8/2011	810	NONE	0	0	0	S	S	Front to Rear		
82251337	I 75	SR 56	8/8/2011	2059	S	40	0	0	N		Other	Guardrail Face	Too Fast for Conditions
82813222	I 75	SR 56	8/18/2011	1600	N	100	0	0	S	S	Front to Rear	MV in Transport	Careless/Negligent
82823477	I 75	SR 56	8/23/2011	36		0	0	0		S	No Data	No Data	
82822214	I 75	SR 56	9/1/2011	653	N	500	0	0	N	N	Front to Rear	MV in Transport	Other Actions
82826067	I 75	SR 56	9/1/2011	1145		0	0	0	N		Other	Guardrail Face	Other Actions
82821952	I 75	SR 56	9/5/2011	2212	N	300	0	1	N		Other	Guardrail Face	Too Fast for Conditions
82821951	I 75	SR 56	9/5/2011	2115	S	300	0	0	S		Other	Guardrail Face	Too Fast for Conditions
82823818	I 75	SR 56	9/21/2011	7:23:00	S	100	0	0	S	S	Front to Rear	MV in Transport	Careless/Negligent
82081742	I 75	SR 56	9/25/2011	1710	S	50	0	0	N		Other	Guardrail Face	Careless/Negligent
82830295	I 75	SR 56	9/26/2011	1928	S	55	0	0	N		Other	Other Non-Coll	Other Actions
82821764	I 75	SR 56	9/26/2011	6:33:00	S	0	0	0	S	S	Other	MV in Transport	Swerved or Avoided
82821970	I 75	SR 56	9/27/2011	1359	S	168	0	0	N	N	Front to Rear	MV in Transport	No Cont Act
82821768	I 75	SR 56	9/29/2011	6:18:00	S	0	0	0	S	S	Angle	MV in Transport	Other Actions
82825164	I 75	SR 56	10/2/2011	4	N	300	0	0	S		Other	Animal	No Cont Act
82828992	I 75	SR 56	10/9/2011	3:13:00	N	200	0	0	N		Other	Other Fixed Obj	Other Actions
82830306	I 75	SR 56	10/12/2011	7:16:00	S	0	0	0	S	S	Front to Rear	MV in Transport	No Cont Act
82828999	I 75	SR 56	10/22/2011	2310		0	0	0	N	N	No Data	MV in Transport	
82823853	I 75	SR 56	11/3/2011	2216	S	0	0	0	E	S	Angle	MV in Transport	FTY ROW
82844439	I 75	SR 56	11/7/2011	757	S	50	0	1	S	S	Front to Rear	MV in Transport	Careless/Negligent
82849563	I 75	SR 56	11/11/2011	1849		0	0	0	N	N	Front to Rear	MV in Transport	Careless/Negligent
82844453	I 75	SR 56	11/17/2011	941	S	500	0	0	N		Other	Guardrail Face	Too Fast for Conditions
82847940	I 75	SR 56	11/22/2011	1630		0	0	0	N	N	Front to Rear	No Data	

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82849245	I 75	SR 56	11/28/2011	1515		0	0	0	E		No Data	Other Fixed Obj	
81954840	I 75	SR 56	11/28/2011	19:50:00	S	100	0	0	S		Other	Guardrail Face	Careless/Negligent
82842980	I 75	SR 56	11/29/2011	1759		0	0	0	N	N	Front to Rear	No Data	
82844464	I 75	SR 56	11/30/2011	624		0	0	0	S	S	Front to Rear	No Data	
82848358	I 75	SR 56	12/5/2011	1830		0	0	0	N	N	Front to Rear	No Data	
82852207	I 75	SR 56	12/7/2011	1511		0	0	0	N	N	Angle	No Data	
82848364	I 75	SR 56	12/12/2011	18:30:00	S	0	0	0	N		Front to Rear	MV in Transport	Careless/Negligent
7557909	I 75 ENT RMP	I 75	3/29/2010	705	N	500	0	0			Front to Rear	No Data	Careless/Negligent
7563491	I 75 ENT RMP	SR 56	1/25/2007	613	S	500	0	0			Front to Rear	No Data	Followed too Closely
80455471	I 75 EXIT RMP	SR 56	9/24/2009	1715		0	0	0	S	S	No Data	Other Fixed Obj	Other Actions
7564468	I 75 NB EXIT RMP	SR 56	3/3/2007	1355	S	300	0	0			Front to Rear	No Data	Too Fast for Conditions
77144593	I 75 NB EXIT RMP	SR 56	7/6/2007	1444	S	350	0	0	N	N	Front to Rear	No Data	Careless/Negligent
7565436	I 75 NB EXIT RMP	SR 56	10/9/2007	935	S	50	0	0			Front to Rear	No Data	Careless/Negligent
82839288	I 75 NB EXIT RMP	SR 56	11/28/2011	15:33:00	N	200	0	0	N		Other	Guardrail Face	Careless/Negligent
77137401	I 75 SB ENT RMP	SR 56	3/16/2007	729	S	500	0	0	S	S	Front to Rear	No Data	Careless/Negligent
77128777	SR 56	I 75	1/2/2007	1731	E	100	0	0	W	W	Front to Rear	No Data	Careless/Negligent
77130208	SR 56	I 75	1/2/2007	706	W	100	0	0	E	E	Front to Rear	No Data	Careless/Negligent
77131351	SR 56	I 75	1/4/2007	649	E	200	0	0	W	W	Front to Rear	No Data	Fail to Maintain Ln
77129171	SR 56	I 75	1/25/2007	1040	W	15	0	0	E	E	No Data	MV in Transport	Improper Backing
77129173	SR 56	I 75	2/3/2007	537		0	0	0	W	E	Angle	No Data	Improper Turn
77129746	SR 56	I 75	2/13/2007	946	E	25	0	0	W	W	Angle	No Data	Other Actions
7555170	SR 56	I 75	3/16/2007	145	E	500	0	0			No Data	Other Post/Pole	Careless/Negligent
77129196	SR 56	I 75	3/24/2007	1616		0	0	0	E	N	Angle	No Data	Ran Red Light
77143435	SR 56	I 75	6/27/2007	1717	W	20	0	1	E	E	Front to Rear	No Data	Careless/Negligent
77143444	SR 56	I 75	7/6/2007	800	E	100	0	0	W	W	Front to Rear	No Data	Careless/Negligent
77145409	SR 56	I 75	7/8/2007	325		0	0	0	E	E	Front to Rear	No Data	Careless/Negligent
77145105	SR 56	I 75	7/11/2007	1310		0	0	0	E	N	Angle	No Data	Ran Red Light
77134487	SR 56	I 75	7/27/2007	2225		0	0	2	E	W	No Data	No Data	Other Actions
77146585	SR 56	I 75	7/31/2007	1531	W	200	0	0	E	E	Front to Rear	No Data	Careless/Negligent
77143583	SR 56	I 75	8/2/2007	1312	E	5	0	0	W	W	Front to Rear	No Data	FTY ROW
77147612	SR 56	I 75	8/12/2007	2225		0	0	1	E	W	No Data	No Data	Ran Red Light
77149258	SR 56	I 75	8/23/2007	804	E	500	0	1	W	W	Front to Rear	No Data	Careless/Negligent
77149429	SR 56	I 75	9/5/2007	1041	W	500	0	0	E	E	Front to Rear	No Data	Careless/Negligent
77146737	SR 56	I 75	9/6/2007	1804	W	50	0	0	E	E	Sideswipe, same dir	No Data	Improper Passing
77375258	SR 56	I 75	9/12/2007	2045		0	0	0	W	W	Front to Rear	No Data	Other Actions
76882375	SR 56	I 75	9/15/2007	1825	W	25	0	0	E	E	Front to Rear	No Data	Careless/Negligent

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77377023	SR 56	I 75	9/28/2007	2014		0	0	0	W	E	Angle	No Data	Ran Red Light
77375214	SR 56	I 75	10/2/2007	717	N	150	0	0	S	N	Front to Rear	No Data	Careless/Negligent
7567057	SR 56	I 75	10/5/2007	1143	E	40	0	0			Front to Rear	No Data	Followed too Closely
77375928	SR 56	I 75	10/6/2007	351	W	50	0	1	E	E	Front to Rear	No Data	Careless/Negligent
7566955	SR 56	I 75	10/27/2007	902	E	100	0	0			No Data	Guardrail Face	Other Actions
77379357	SR 56	I 75	10/31/2007	1	S	250	0	0	S		No Data	Animal	No Cont Act
77375245	SR 56	I 75	11/10/2007	1756		0	0	0	W	W	Front to Rear	No Data	Careless/Negligent
77375729	SR 56	I 75	11/11/2007	7		0	0	0	E	N	No Data	MV in Transport	Ran Red Light
7567081	SR 56	I 75	11/21/2007	1300	W	350	0	0			Front to Rear	No Data	No Cont Act
77380880	SR 56	I 75	12/1/2007	1207	W	300	0	0	E	E	Front to Rear	No Data	Careless/Negligent
7567361	SR 56	I 75	12/17/2007	813	W	125	0	0			Front to Rear	No Data	Careless/Negligent
77385402	SR 56	I 75	12/19/2007	2013		0	0	0	W	E	Angle	No Data	Improper Turn
77385433	SR 56	I 75	1/12/2008	1934	E	100	0	1	W	W	Front to Rear	No Data	Careless/Negligent
77380120	SR 56	I 75	1/15/2008	1445		0	0	0	E	N	Angle	No Data	Ran Red Light
77382295	SR 56	I 75	1/21/2008	1226	E	20	0	0	W	W	Sideswipe, same dir	No Data	Other Actions
77386018	SR 56	I 75	1/22/2008	2311	N	300	0	1	S		No Data	Guardrail Face	Careless/Negligent
77386032	SR 56	I 75	1/26/2008	2017	E	250	0	0	E	W	Angle	No Data	Careless/Negligent
77385768	SR 56	I 75	2/1/2008	1230	E	12	0	0	W	W	Rear to Side	No Data	Improper Backing
7566712	SR 56	I 75	2/11/2008	1706	E	300	0	0			Angle	No Data	FTY ROW
77393951	SR 56	I 75	4/7/2008	939	W	350	0	1	E	E	Front to Rear	No Data	Careless/Negligent
7568904	SR 56	I 75	4/20/2008	1410		0	0	0			Sideswipe, same dir	No Data	Followed too Closely
77394703	SR 56	I 75	4/21/2008	1054		0	0	0	W	W	Front to Rear	No Data	Careless/Negligent
77393979	SR 56	I 75	5/3/2008	743		0	0	0	E	W	No Data	No Data	Ran Red Light
77396333	SR 56	I 75	6/6/2008	700		0	0	0	W	W	Front to Rear	No Data	Careless/Negligent
77397517	SR 56	I 75	6/15/2008	1823	E	75	0	0	N	E	No Data	Ditch	Careless/Negligent
77393194	SR 56	I 75	6/26/2008	1730	W	2	0	0	E	E	Front to Rear	No Data	Followed too Closely
77650955	SR 56	I 75	7/15/2008	757	W	200	0	0	W	W	Front to Rear	No Data	Careless/Negligent
77651301	SR 56	I 75	7/16/2008	2015	S	100	0	0	E	E	Angle	No Data	Careless/Negligent
77394698	SR 56	I 75	7/17/2008	2219		0	0	0	W	W	Sideswipe, same dir	No Data	Other Actions
77394286	SR 56	I 75	7/19/2008	1735		0	0	0	W	W	Sideswipe, same dir	No Data	Fail to Maintain Ln
77654611	SR 56	I 75	9/3/2008	1419		0	0	0	W	E	Angle	No Data	Other Actions
77656802	SR 56	I 75	10/6/2008	1907		0	0	0	W	N	Angle	No Data	Careless/Negligent
7570262	SR 56	I 75	10/15/2008	740		0	0	0			Front to Rear	No Data	Careless/Negligent
77654700	SR 56	I 75	10/16/2008	838	W	150	0	0	E	E	Front to Rear	No Data	Careless/Negligent
77650025	SR 56	I 75	10/21/2008	715		0	0	0	W	E	Angle	No Data	Ran Red Light
77656195	SR 56	I 75	11/2/2008	1844	W	500	0	0	E	E	Front to Rear	No Data	Careless/Negligent

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77656196	SR 56	I 75	11/2/2008	1844	W	75	0	0	E	E	Front to Rear	No Data	Careless/Negligent
77658917	SR 56	I 75	11/8/2008	1426		0	0	0	W	W	Sideswipe, same dir	No Data	Fail to Maintain Ln
77650643	SR 56	I 75	11/15/2008	954		0	0	0	S		No Data	Ditch	No Cont Act
77658936	SR 56	I 75	11/28/2008	1230		0	0	1	E	W	Angle	No Data	Other Actions
77656827	SR 56	I 75	11/29/2008	49	W	25	0	0	E	E	Angle	No Data	Careless/Negligent
7566728	SR 56	I 75	12/5/2008	747	E	50	0	0			Front to Rear	No Data	Careless/Negligent
7568336	SR 56	I 75	12/9/2008	1825	W	500	0	0			Angle	No Data	FTY ROW
7570293	SR 56	I 75	1/29/2009	1425		0	0	0			Angle	No Data	Careless/Negligent
77664423	SR 56	I 75	1/31/2009	744	W	450	0	0	E	E	Front to Rear	No Data	Careless/Negligent
77664425	SR 56	I 75	2/4/2009	1847		0	0	1	W	E	No Data	No Data	FTY ROW
7571851	SR 56	I 75	2/12/2009	825		0	0	0			Front to Rear	No Data	Careless/Negligent
7571488	SR 56	I 75	3/13/2009	830	E	100	0	0			Front to Rear	No Data	Careless/Negligent
77667129	SR 56	I 75	3/28/2009	11		0	0	0	W	W	Front to Rear	No Data	Careless/Negligent
77667289	SR 56	I 75	4/3/2009	750		0	0	1	W	W	Front to Rear	No Data	Careless/Negligent
77668417	SR 56	I 75	4/4/2009	928		0	0	0	E	E	Front to Rear	No Data	Careless/Negligent
77668129	SR 56	I 75	4/23/2009	907	W	30	0	0	E	E	Front to Rear	No Data	Careless/Negligent
77671274	SR 56	I 75	5/13/2009	1416	W	75	0	0	E	E	Front to Rear	No Data	Careless/Negligent
7571578	SR 56	I 75	5/22/2009	2131		0	0	0			No Data	Guardrail Face	No Cont Act
77663448	SR 56	I 75	6/2/2009	2040		0	0	1	W	W	Front to Rear	No Data	No Data
7573254	SR 56	I 75	6/20/2009	1341		0	0	0			Angle	No Data	Ran Red Light
80449617	SR 56	I 75	7/1/2009	757		0	0	1	N	W	No Data	No Data	FTY ROW
7572995	SR 56	I 75	7/6/2009	1207		0	0	0			Front to Rear	No Data	Careless/Negligent
80449627	SR 56	I 75	7/9/2009	1145	W	150	0	0	E	E	Front to Rear	No Data	Careless/Negligent
80449637	SR 56	I 75	7/22/2009	1712	W	400	0	0	E	E	Front to Rear	No Data	No Data
80452106	SR 56	I 75	7/27/2009	1420	W	30	0	0	E	E	Front to Rear	No Data	Careless/Negligent
77672361	SR 56	I 75	7/31/2009	1406		0	0	3	E	N	Angle	No Data	Ran Red Light
80453604	SR 56	I 75	8/8/2009	2006	E	125	0	0	E		No Data	Guardrail Face	Other Actions
7573675	SR 56	I 75	8/27/2009	716		0	0	0			Front to Rear	No Data	Careless/Negligent
80454261	SR 56	I 75	9/5/2009	2027		0	0	1	N		No Data	Guardrail Face	No Cont Act
80455457	SR 56	I 75	9/11/2009	1953		0	0	0	W	N	Angle	No Data	FTY ROW
80452520	SR 56	I 75	9/12/2009	2320		0	0	1	N	W	Angle	No Data	Improper Turn
80454671	SR 56	I 75	9/28/2009	724	E	500	0	0	W	W	Front to Rear	No Data	Careless/Negligent
80454319	SR 56	I 75	9/30/2009	1509		0	0	0	W	W	Front to Rear	No Data	Careless/Negligent
7573731	SR 56	I 75	10/13/2009	733	W	200	0	0			No Data	No Data	Fail to Maintain Ln
80457791	SR 56	I 75	10/28/2009	730	N	200	0	0	S	S	Front to Rear	No Data	Careless/Negligent
80454682	SR 56	I 75	11/8/2009	719		0	0	1	W	W	Angle	No Data	Improper Turn

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7574967	SR 56	I 75	11/19/2009	1921		0	0	0			Sideswipe, same dir	No Data	Fail to Maintain Ln
7573875	SR 56	I 75	11/23/2009	507		0	0	0			No Data	MV in Transport	FTY ROW
80459135	SR 56	I 75	12/4/2009	2125	W	50	0	0	W	W	Front to Rear	No Data	Careless/Negligent
7574642	SR 56	I 75	12/7/2009	630	W	300	0	0			Front to Rear	No Data	Careless/Negligent
80459147	SR 56	I 75	12/12/2009	16	W	75	0	0	S		No Data	Guardrail Face	Too Fast for Conditions
80462408	SR 56	I 75	12/24/2009	1630		0	0	1	E	E	Angle	No Data	Improper Turn
80464934	SR 56	I 75	3/17/2010	1516	E	20	0	0	W	W	Front to Rear	No Data	Careless/Negligent
7801472	SR 56	I 75	3/25/2010	2220	W	500	0	0			No Data	Fence	Careless/Negligent
80465748	SR 56	I 75	3/29/2010	855		0	0	0	W	S	Angle	No Data	Ran Red Light
80466711	SR 56	I 75	4/5/2010	612		0	0	2	E	W	Angle	No Data	Ran Red Light
80468263	SR 56	I 75	4/8/2010	1558	E	50	0	0	W	W	Front to Rear	No Data	Careless/Negligent
7801485	SR 56	I 75	4/9/2010	550	W	100	0	0			Front to Rear	No Data	Other Actions
80469022	SR 56	I 75	4/16/2010	932		0	0	0	W	W	No Data	Other Fixed Obj	No Data
7802704	SR 56	I 75	4/25/2010	2045	W	200	0	0			No Data	Other Fixed Obj	Careless/Negligent
80469029	SR 56	I 75	4/27/2010	733	W	200	0	1	E	E	Front to Rear	No Data	Careless/Negligent
80472454	SR 56	I 75	5/16/2010	2153		0	0	0	W	W	No Data	MV in Transport	Careless/Negligent
80468145	SR 56	I 75	5/27/2010	1044		0	0	2	S	W	Angle	No Data	No Cont Act
80605409	SR 56	I 75	6/14/2010	406		0	0	0	N		No Data	Guardrail Face	Careless/Negligent
80605902	SR 56	I 75	6/17/2010	2108		0	0	0	E	W	Angle	No Data	Ran Red Light
80606260	SR 56	I 75	6/29/2010	510	E	10	0	0	E	E	Front to Rear	No Data	Careless/Negligent
7574570	SR 56	I 75	7/4/2010	2258	E	75	0	0			No Data	Ditch	Too Fast for Conditions
7803020	SR 56	I 75	7/5/2010	701		0	0	0			No Data	No Data	Ran Red Light
80474021	SR 56	I 75	7/18/2010	820		0	0	1	E	W	Angle	No Data	Ran Red Light
80609158	SR 56	I 75	8/2/2010	2223		0	0	0	W	W	Front to Rear	No Data	Careless/Negligent
80474140	SR 56	I 75	8/2/2010	2047		0	0	0	E	E	Front to Rear	No Data	Ran Red Light
80610252	SR 56	I 75	8/22/2010	2037		0	0	0	N	E	No Data	No Data	Careless/Negligent
80605476	SR 56	I 75	8/24/2010	750	E	500	0	0	E	E	Angle	No Data	Careless/Negligent
80473426	SR 56	I 75	9/4/2010	2315		0	0	0	W	E	No Data	No Data	Improper Turn
80611268	SR 56	I 75	9/24/2010	1220		0	0	0	E	E	Front to Rear	No Data	Careless/Negligent
80611085	SR 56	I 75	10/1/2010	2101	W	30	0	0	E	E	Sideswipe, same dir	No Data	Careless/Negligent
80613412	SR 56	I 75	10/30/2010	203		0	0	0	N	E	Angle	No Data	Ran Red Light
81972714	SR 56	I 75	11/19/2010	1506	NONE	0	0	0	E	E	Front to Rear		
81972835	SR 56	I 75	12/16/2010	1751	NONE	0	0	0	W	W		MV in Transport	
81972664	SR 56	I 75	12/17/2010	740	E	80	0	0	W	W	Other	Overturn	No Cont Act
81969964	SR 56	I 75	1/5/2011	1045	E	20	0	0	W	W	Front to Rear	MV in Transport	Careless/Negligent
81965479	SR 56	I 75	1/26/2011	725	W	50	0	0	W	W	Front to Rear	MV in Transport	Careless/Negligent

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81965770	SR 56	I 75	1/29/2011	732		0	0	1	N	E	Angle	MV in Transport	No Cont Act
82060418	SR 56	I 75	2/3/2011	1947	E	20	0	0	W	W	Front to Rear	MV in Transport	Careless/Negligent
82067125	SR 56	I 75	2/11/2011	0		0	0	0	W	N	Angle	MV in Transport	Ran Red Light
81968778	SR 56	I 75	2/11/2011	0	W	35	0	0	W	W	Front to Rear	MV in Transport	No Cont Act
81990407	SR 56	I 75	2/12/2011	35	E	25	0	0	W		Other	Other Non-Fixed Obj	No Cont Act
81965401	SR 56	I 75	2/25/2011	1945		0	0	0	W	W	Sideswipe, same dir	MV in Transport	Fail to Maintain Ln
82012569	SR 56	I 75	2/25/2011	447	E	300	0	0	W	W	Front to Rear	MV in Transport	Followed too Closely
82068149	SR 56	I 75	3/3/2011	1838		0	0	0	E	E	Sideswipe, same dir	Guardrail Face	
82081386	SR 56	I 75	3/10/2011	550	E	5	0	1	N	W	Angle	MV in Transport	FTY ROW
82081387	SR 56	I 75	3/10/2011	735	N	5	0	0	S	S	Angle	MV in Transport	Careless/Negligent
82081388	SR 56	I 75	3/10/2011	905	N	5	0	0	S	S	Other	MV in Transport	Careless/Negligent
82091231	SR 56	I 75	4/12/2011	616	W	75	0	0	E	E	Front to Rear	MV in Transport	Careless/Negligent
82081433	SR 56	I 75	4/16/2011	1015	E	10	0	0	W	W	Front to Rear	MV in Transport	Careless/Negligent
82090537	SR 56	I 75	5/2/2011	2221		0	0	0	W	W	Angle	MV in Transport	Other Actions
82244043	SR 56	I 75	5/4/2011	1824	E	350	0	2	W	W	Front to Rear	MV in Transport	Careless/Negligent
82240599	SR 56	I 75	5/15/2011	1215		0	0	0	W	N	Angle	MV in Transport	FTY ROW
81967338	SR 56	I 75	5/16/2011	1054		0	0	0	W	E	Angle	MV in Transport	Improper Turn
82249677	SR 56	I 75	5/28/2011	1441		0	0	0	W	E	Other	MV in Transport	Improper Backing
82245861	SR 56	I 75	6/8/2011	835	E	100	0	1	W		Other	Overturn	No Cont Act
81954751	SR 56	I 75	6/28/2011	1004	E	30	0	0	W	W	Front to Rear	MV in Transport	Careless/Negligent
82251299	SR 56	I 75	6/30/2011	1810	E	100	0	0	W	W	Front to Rear	MV in Transport	Careless/Negligent
82095738	SR 56	I 75	7/20/2011	1130	W	100	0	0	E	E	Front to Rear	MV in Transport	Careless/Negligent
82248953	SR 56	I 75	7/25/2011	1340	S	100	0	0	W	S	Angle	MV in Transport	Careless/Negligent
82268236	SR 56	I 75	8/5/2011	1554	E	100	0	0	N	E	Angle	MV in Transport	Too Fast for Conditions
82813216	SR 56	I 75	8/16/2011	830	W	25	0	0	W	W	Sideswipe, same dir	MV in Transport	Other Actions
82813221	SR 56	I 75	8/18/2011	1155		0	0	4	E	W	Angle	MV in Transport	Disregard Other Sign
82253338	SR 56	I 75	8/24/2011	2110	W	200	0	0	W	W	Sideswipe, same dir	MV in Transport	No Cont Act
82821403	SR 56	I 75	9/10/2011	2100	E	50	0	0	W	E	Angle	MV in Transport	No Cont Act
82817065	SR 56	I 75	9/12/2011	2220	W	25	0	0	W	N	Front to Front	MV in Transport	Careless/Negligent
82822249	SR 56	I 75	9/25/2011	1547	E	75	0	0	W	W	Front to Rear	MV in Transport	Careless/Negligent
82821697	SR 56	I 75	10/4/2011	7:25:00	E	200	0	0	W	W	Front to Rear	MV in Transport	Careless/Negligent
82821700	SR 56	I 75	10/5/2011	7:00:00	E	0	0	0	W	W	Angle	MV in Transport	Careless/Negligent
82821703	SR 56	I 75	10/6/2011	9:29:00	E	40	0	1	W	W	Front to Rear	MV in Transport	Careless/Negligent
82825383	SR 56	I 75	10/19/2011	650	E	30	0	0	W	W	Front to Rear	MV in Transport	Careless/Negligent
82825384	SR 56	I 75	10/19/2011	847	E	40	0	0	W	W	Front to Rear	MV in Transport	Careless/Negligent
82823845	SR 56	I 75	10/20/2011	14:37:00	W	200	0	0	W	W	Sideswipe, same dir	MV in Transport	Fail to Maintain Ln

I 75 @ SR 56

1/1/2007 to 12/31/2011 Crashes
within 500 ft of intersection

Pasco County Traffic Operations
7536 State St, Rm 124
New Port Richey, FL 34654
(727) 847-8139
(727) 815-7014 Fax

CASE ID	ON STREET	CROSS STREET	DATE	TIME	DIR	DIST	FATAL	INJ	V1 DIR	V2 DIR	IMPACT TYPE	HARM EVENT	CONT CAUSE
82830377	SR 56	I 75	10/28/2011	640	E	30	0	0	W	W	Front to Rear	MV in Transport	
82830341	SR 56	I 75	11/25/2011	1813	W	400	0	0	E	E	Front to Rear	MV in Transport	Careless/Negligent
82848438	SR 56	I 75	11/27/2011	1203		0	0	0	W	W	Front to Rear	No Data	
82860840	SR 56	I 75	12/10/2011	20:00:00	W	100	0	0	W		Sideswipe, same dir	MV in Transport	FTY ROW
82843005	SR 56	I 75	12/19/2011	716		0	0	0	E	W	No Data	Other Fixed Obj	
82866554	SR 56	I 75	12/20/2011	12:59:00	W	100	0	2	E	E	Front to Rear	MV in Transport	Careless/Negligent
77141211	SR 56	I 75 NB ENT EXIT RMP	5/15/2007	606		0	0	0	W	E	Rear to Side	No Data	Improper Backing
77380853	SR 56	I 75 NB ENT EXIT RMP	11/7/2007	732	W	150	0	0	E	E	Front to Rear	No Data	Followed too Closely
77130233	SR 56	I 75 S RMP	1/22/2007	1752		0	0	0	E	E	Front to Rear	No Data	Careless/Negligent
77375942	SR 56	I 75 SB ENT RMP	10/29/2007	621	W	50	0	0	E	E	Front to Rear	No Data	Careless/Negligent

I 75 @ Wesley Chapel Bl

1/1/2007 to 12/31/2011 Crashes
within 250 ft of intersection

Pasco County Traffic Operations
7536 State St, Rm 124
New Port Richey, FL 34654
(727) 847-8139
(727) 815-7014 Fax

CASE ID	ON STREET	CROSS STREET	DATE	TIME	DIR	DIST	FATAL	INJ	V1 DIR	V2 DIR	IMPACT TYPE	HARM EVENT	CONT CAUSE
80463838	I 75	CR 54	3/19/2010	828	N	200	0	0	S	S	No Data	MV in Transport	Fail to Maintain Ln
81966393	I 75	CR 54	11/9/2010	1610		0	0	0	W	S	Angle		
82821817	I 75	CR 54	10/27/2011	1730	S	15	0	0	N	N	Front to Rear	MV in Transport	Careless/Negligent
82830344	I 75	CR 54	11/26/2011	1549		0	0	0	S	S	Front to Rear	No Data	
82830343	I 75	CR 54	11/26/2011	1541		0	0	0	S	S	Front to Rear	No Data	
82848361	I 75	CR 54	12/9/2011	1305		0	0	0	N	N	Front to Front	No Data	
82858197	I 75	CR 54	12/9/2011	536		0	0	0	N		No Data	Other Fixed Obj	
82842995	I 75	CR 54	12/12/2011	608		0	0	0	S		No Data	Animal	
81975941	I 75	MM 279	12/1/2010	1505		0	0	0	N	N	Angle		
81956093	I 75	MM 280	12/6/2011	14:15:00	S	50	0	0	N		Sideswipe, same dir	MV in Transport	Careless/Negligent
82094529	I 75	MM 283	6/14/2011	1608		0	0	0	N	N	Other	MV in Transport	No Cont Act
77128697	I 75	SR 54	1/2/2007	1131	S	200	0	0	N	N	Front to Rear	No Data	Careless/Negligent
77129172	I 75	SR 54	1/31/2007	636	S	500	0	0	S	S	Front to Rear	No Data	Too Fast for Conditions
7564109	I 75	SR 54	2/1/2007	1620		0	0	0			No Data	Ditch	No Cont Act
77133057	I 75	SR 54	2/8/2007	728	N	100	0	0	S	S	Front to Rear	No Data	Careless/Negligent
77130243	I 75	SR 54	2/8/2007	723	S	250	0	0	S	S	No Data	Other Fixed Obj	Other Cont Act
77129741	I 75	SR 54	2/12/2007	840	S	500	0	0	S	S	Front to Rear	No Data	Careless/Negligent
77129184	I 75	SR 54	3/3/2007	1550		0	0	1	S		No Data	Concrete Barrier	Too Fast for Conditions
77129183	I 75	SR 54	3/3/2007	1420	S	250	0	0	S	S	Front to Rear	No Data	Careless/Negligent
77134990	I 75	SR 54	3/9/2007	1222	S	300	0	1	S	S	No Data	Other Fixed Obj	Fail to Maintain Ln
77135535	I 75	SR 54	3/18/2007	1252	S	25	0	0	N		No Data	Guardrail Face	Other Cont Act
77137611	I 75	SR 54	4/2/2007	630		0	0	0	S	S	Front to Rear	No Data	Careless/Negligent
77137428	I 75	SR 54	4/7/2007	1647	S	100	0	0	S	S	Angle	No Data	Careless/Negligent
77133091	I 75	SR 54	4/7/2007	1611	S	100	0	0	S	S	Front to Rear	No Data	Careless/Negligent
5690420	I 75	SR 54	4/25/2007	NONE		0	0	0			No Data	MV in Transport	Careless/Negligent
77138218	I 75	SR 54	5/1/2007	1426	N	50	0	0	N	N	Sideswipe, same dir	No Data	Other Cont Act
8800477	I 75	SR 54	5/5/2007	1730		0	0	0			Front to Rear	No Data	Followed too Closely
77142223	I 75	SR 54	7/3/2007	1205	S	500	0	0	S		No Data	Guardrail Face	No Data
77138244	I 75	SR 54	7/16/2007	853	N	200	0	1	S	S	Front to Rear	No Data	Careless/Negligent
7566958	I 75	SR 54	11/3/2007	730	S	100	0	0			Front to Rear	No Data	No Cont Act
77379373	I 75	SR 54	11/17/2007	300	S	250	0	0	N		No Data	Overturn	Careless/Negligent
77380919	I 75	SR 54	12/7/2007	2152	S	500	0	0	N	N	Front to Rear	No Data	Careless/Negligent
9609236	I 75	SR 54	12/8/2007	1238		0	0	0			Front to Rear	No Data	Careless/Negligent
7566963	I 75	SR 54	12/17/2007	724	N	100	0	0			Front to Rear	No Data	Other Cont Act
77383538	I 75	SR 54	12/22/2007	1630		0	0	0	S	S	Front to Rear	No Data	Careless/Negligent
77382588	I 75	SR 54	12/26/2007	1249	N	100	0	0	S	S	Sideswipe, same dir	No Data	Careless/Negligent
77382323	I 75	SR 54	1/2/2008	1308	S	100	0	1	N		No Data	Guardrail Face	Other Cont Act
7568473	I 75	SR 54	1/28/2008	1925	N	200	0	0			Front to Rear	No Data	Careless/Negligent
77385929	I 75	SR 54	1/30/2008	1040	S	500	0	0	N	N	Sideswipe, same dir	No Data	Fail to Maintain Ln

I 75 @ Wesley Chapel Bl

1/1/2007 to 12/31/2011 Crashes
within 250 ft of intersection

Pasco County Traffic Operations
7536 State St, Rm 124
New Port Richey, FL 34654
(727) 847-8139
(727) 815-7014 Fax

CASE ID	ON STREET	CROSS STREET	DATE	TIME	DIR	DIST	FATAL	INJ	V1 DIR	V2 DIR	IMPACT TYPE	HARM EVENT	CONT CAUSE
77385598	I 75	SR 54	2/16/2008	1349	S	500	0	0	S	S	Front to Rear	No Data	Careless/Negligent
77381598	I 75	SR 54	4/5/2008	100	N	100	0	1	S	S	No Data	Guardrail Face	Too Fast for Conditions
77392764	I 75	SR 54	4/14/2008	948	N	50	0	0	S	S	Front to Rear	No Data	Careless/Negligent
77391168	I 75	SR 54	4/14/2008	11		0	0	1	S		No Data	Guardrail Face	Careless/Negligent
77392763	I 75	SR 54	4/14/2008	809	S	100	0	0	S	S	Angle	No Data	Other Cont Act
77392775	I 75	SR 54	4/25/2008	951	N	150	0	0	N		No Data	Overturn	Too Fast for Conditions
77390191	I 75	SR 54	4/28/2008	1843	S	25	0	0	S		No Data	Overturn	Careless/Negligent
77392778	I 75	SR 54	5/1/2008	1829	S	100	0	1	N	N	Front to Rear	No Data	Careless/Negligent
77650403	I 75	SR 54	7/7/2008	1605		0	0	0	S	S	Front to Rear	No Data	Careless/Negligent
77394700	I 75	SR 54	7/18/2008	2326	S	20	0	0	N	N	Front to Rear	No Data	Careless/Negligent
77399124	I 75	SR 54	7/27/2008	1615	N	500	0	0	S	S	Front to Rear	No Data	Careless/Negligent
77650467	I 75	SR 54	7/29/2008	1859	S	50	0	0	N	N	Sideswipe, same dir	No Data	Fail to Maintain Ln
77652753	I 75	SR 54	7/31/2008	1733		0	0	1	N	N	Front to Rear	No Data	Careless/Negligent
77650473	I 75	SR 54	8/8/2008	1329	S	30	0	0	S	N	Rear to Side	No Data	Improper Backing
77652535	I 75	SR 54	8/19/2008	1820	S	450	0	0	N	N	Front to Rear	No Data	No Data
77399143	I 75	SR 54	8/21/2008	1455	S	150	0	0	N	N	Front to Rear	No Data	Careless/Negligent
77654672	I 75	SR 54	9/27/2008	1437	N	300	0	0	S		No Data	Other Fixed Obj	Other Cont Act
77658004	I 75	SR 54	10/24/2008	655	S	300	0	0	S	S	Front to Rear	No Data	Careless/Negligent
77654575	I 75	SR 54	11/11/2008	734	N	200	0	0	N	S	Sideswipe, same dir	No Data	Other Cont Act
77659235	I 75	SR 54	11/22/2008	1559	S	500	0	0	S	S	No Data	Other Fixed Obj	Other Cont Act
77659862	I 75	SR 54	12/5/2008	38	N	200	0	0	S		No Data	Guardrail Face	Careless/Negligent
77658945	I 75	SR 54	12/6/2008	1347	S	300	0	0	N	N	Front to Rear	No Data	Careless/Negligent
77660679	I 75	SR 54	12/13/2008	1357	S	400	0	0	N	N	Front to Rear	No Data	Careless/Negligent
7568342	I 75	SR 54	12/21/2008	1337		0	0	0			Front to Rear	No Data	Careless/Negligent
77662891	I 75	SR 54	1/21/2009	815	S	200	0	0	S	S	Front to Rear	No Data	Careless/Negligent
77665417	I 75	SR 54	2/6/2009	1553	S	20	0	0	N	N	Front to Rear	No Data	Careless/Negligent
77665594	I 75	SR 54	3/4/2009	1400	S	200	0	0	S	S	No Data	Other Fixed Obj	No Data
77673205	I 75	SR 54	3/13/2009	113	S	500	0	0	N		No Data	Ditch	Careless/Negligent
77664624	I 75	SR 54	3/17/2009	1706	S	100	0	0	S	S	Sideswipe, same dir	No Data	Fail to Maintain Ln
77667125	I 75	SR 54	3/25/2009	2347	S	100	0	0	S		No Data	Other Fixed Obj	Careless/Negligent
7571867	I 75	SR 54	3/28/2009	1118		0	0	0			Front to Rear	No Data	Careless/Negligent
77664643	I 75	SR 54	4/4/2009	1451	S	20	0	0	S	S	Front to Rear	No Data	Careless/Negligent
77665041	I 75	SR 54	4/5/2009	2246	S	500	0	0	N	N	Sideswipe, same dir	No Data	Careless/Negligent
77669530	I 75	SR 54	5/20/2009	1100	N	500	0	0	S		No Data	Other Fixed Obj	Other Cont Act
77673851	I 75	SR 54	5/27/2009	1320		0	0	0	N	N	Front to Rear	No Data	Careless/Negligent
77673818	I 75	SR 54	6/11/2009	1602	S	100	0	0	S		No Data	Concrete Barrier	Other Cont Act
80449603	I 75	SR 54	6/15/2009	749	S	85	0	0	N	N	Front to Rear	No Data	Careless/Negligent
77664542	I 75	SR 54	6/17/2009	540	S	50	0	0	S	S	Sideswipe, same dir	No Data	Fail to Maintain Ln
77673866	I 75	SR 54	6/19/2009	1025	S	80	0	0	S	S	Sideswipe, same dir	No Data	Fail to Maintain Ln

I 75 @ Wesley Chapel Bl

1/1/2007 to 12/31/2011 Crashes
within 250 ft of intersection

Pasco County Traffic Operations
7536 State St, Rm 124
New Port Richey, FL 34654
(727) 847-8139
(727) 815-7014 Fax

CASE ID	ON STREET	CROSS STREET	DATE	TIME	DIR	DIST	FATAL	INJ	V1 DIR	V2 DIR	IMPACT TYPE	HARM EVENT	CONT CAUSE
7571584	I 75	SR 54	6/22/2009	1945	S	100	0	0			No Data	Other Fixed Obj	Careless/Negligent
80452030	I 75	SR 54	8/15/2009	808		0	0	0	N	N	Front to Rear	No Data	Careless/Negligent
7572919	I 75	SR 54	9/17/2009	2115	S	500	0	0			Front to Rear	No Data	Careless/Negligent
7573375	I 75	SR 54	9/30/2009	1015	S	20	0	0			Front to Rear	No Data	Careless/Negligent
77672385	I 75	SR 54	10/14/2009	2337		0	0	0	S	S	Front to Rear	No Data	Careless/Negligent
80452534	I 75	SR 54	10/15/2009	121	S	200	0	0	N		No Data	Overturn	Careless/Negligent
7573919	I 75	SR 54	10/21/2009	512	N	100	0	0			No Data	Animal	No Cont Act
7573921	I 75	SR 54	11/3/2009	2144	S	200	0	0			Front to Rear	No Data	Careless/Negligent
7574636	I 75	SR 54	12/2/2009	708	S	100	0	0			Angle	No Data	FTY ROW
80454700	I 75	SR 54	12/12/2009	659	S	300	0	0	S	S	Angle	No Data	Other Cont Act
7575402	I 75	SR 54	12/21/2009	915	S	100	0	0			Sideswipe, same dir	No Data	Other Cont Act
80462057	I 75	SR 54	1/4/2010	730	N	300	0	0	N	N	No Data	Cargo Loss/Shift	No Data
7575314	I 75	SR 54	1/4/2010	952		0	0	0			No Data	Concrete Barrier	Other Cont Act
7575411	I 75	SR 54	1/11/2010	640	S	250	0	0			Front to Rear	No Data	Careless/Negligent
80460873	I 75	SR 54	1/23/2010	119	S	500	0	0	N		No Data	Guardrail Face	Careless/Negligent
80464115	I 75	SR 54	1/29/2010	800	S	10	0	0	N	N	Front to Rear	No Data	Careless/Negligent
7575333	I 75	SR 54	2/4/2010	1442		0	0	0			Front to Rear	No Data	Followed too Closely
7575344	I 75	SR 54	2/13/2010	58	N	300	0	0			No Data	Guardrail Face	Other Cont Act
80465735	I 75	SR 54	2/28/2010	1010	S	120	0	0	S		No Data	Guardrail Face	Careless/Negligent
80464794	I 75	SR 54	3/12/2010	2319	S	500	0	0	S	S	No Data	Guardrail Face	Careless/Negligent
80468822	I 75	SR 54	4/17/2010	1738	S	100	0	0	S		No Data	Guardrail Face	Other Cont Act
80469041	I 75	SR 54	5/13/2010	1247	S	300	0	0	N	N	Front to Rear	No Data	Careless/Negligent
80466841	I 75	SR 54	5/19/2010	1935	S	350	0	0	S	S	Front to Rear	No Data	Careless/Negligent
80471856	I 75	SR 54	5/19/2010	1625	S	500	0	1	N	N	Front to Rear	No Data	Careless/Negligent
7803009	I 75	SR 54	5/26/2010	658	S	25	0	0			Front to Rear	No Data	Careless/Negligent
80468497	I 75	SR 54	6/13/2010	820	N	500	0	2	N	N	Angle	No Data	Fail to Maintain Ln
80605554	I 75	SR 54	6/15/2010	1648	S	75	0	0	N	N	Front to Rear	No Data	No Data
80605924	I 75	SR 54	7/6/2010	2116	S	350	0	0	S	S	Angle	No Data	Other Cont Act
80605731	I 75	SR 54	7/12/2010	1755	S	100	0	0	S	S	Sideswipe, same dir	No Data	Other Cont Act
7804026	I 75	SR 54	8/6/2010	2254	S	300	0	0			Sideswipe, same dir	No Data	Careless/Negligent
80605888	I 75	SR 54	8/13/2010	1429	S	50	0	0	N	N	Front to Rear	No Data	Careless/Negligent
80606520	I 75	SR 54	8/17/2010	1256	N	200	0	1	N		No Data	Concrete Barrier	No Cont Act
80609587	I 75	SR 54	9/23/2010	342	N	10	0	0	S	S	Front to Rear	No Data	Careless/Negligent
80614405	I 75	SR 54	10/28/2010	925	N	150	0	0	S	S	Front to Rear	No Data	Careless/Negligent
81954844	I 75	SR 54	11/10/2010	2025		0	0	0	N	N	Front to Rear		
81972704	I 75	SR 54	11/13/2010	1443		0	0	0	S	S		Other Fixed Obj	
81954775	I 75	SR 54	11/22/2010	406		0	0	0	S			Animal	
81972808	I 75	SR 54	11/22/2010	1410		0	0	0	S	S		MV in Transport	
81972722	I 75	SR 54	11/23/2010	1415		0	0	0	S			Tree	

I 75 @ Wesley Chapel Bl

1/1/2007 to 12/31/2011 Crashes
within 250 ft of intersection

Pasco County Traffic Operations
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CASE ID	ON STREET	CROSS STREET	DATE	TIME	DIR	DIST	FATAL	INJ	V1 DIR	V2 DIR	IMPACT TYPE	HARM EVENT	CONT CAUSE
81966418	I 75	SR 54	11/24/2010	1818		0	0	0	S	S	Front to Rear		
81966417	I 75	SR 54	11/24/2010	1818		0	0	0	S	S	Front to Rear		
81966425	I 75	SR 54	11/29/2010	1600		0	0	0	N	N	Angle		
81965676	I 75	SR 54	12/18/2010	1130		0	0	0	S	S		MV in Transport	
81966462	I 75	SR 54	12/20/2010	1614		0	0	0	N	N	Front to Rear		
81972673	I 75	SR 54	1/1/2011	303	S	60	0	0	S	S	Front to Rear	MV in Transport	Followed too Closely
82060394	I 75	SR 54	1/16/2011	1633	S	75	0	0	S	S	Front to Rear	MV in Transport	Careless/Negligent
82072657	I 75	SR 54	1/24/2011	2200	S	0	0	0	N		Other	Culvert	
82066933	I 75	SR 54	1/25/2011	1000	S	25	0	0	N	N	Other	MV in Transport	Improper Backing
81965781	I 75	SR 54	2/11/2011	711		0	0	0	S	S	Front to Rear	MV in Transport	Careless/Negligent
81965782	I 75	SR 54	2/11/2011	711		0	0	1	S	S	Front to Rear	MV in Transport	Careless/Negligent
82081415	I 75	SR 54	4/4/2011	0	N	10	0	0	S	S	Sideswipe, same dir	MV in Transport	
81954734	I 75	SR 54	4/6/2011	722	S	200	0	0	S	S	Sideswipe, same dir	MV in Transport	Other Cont Act
82089392	I 75	SR 54	5/1/2011	1643	N	52.8	0	3	S		Other	Guardrail Face	Careless/Negligent
82256172	I 75	SR 54	6/21/2011	1845	S	200	0	0	N	N	Front to Rear	MV in Transport	Careless/Negligent
82262796	I 75	SR 54	7/5/2011	906	N	100	0	0	N	N	Sideswipe, same dir	MV in Transport	Fail to Maintain Ln
82816136	I 75	SR 54	8/17/2011	25		0	0	0	N		Other	Concrete Barrier	
82821407	I 75	SR 54	9/14/2011	630	N	50	0	0	S	S	Front to Rear	MV in Transport	Careless/Negligent
82821762	I 75	SR 54	9/22/2011	5:41:00	S	0	0	0	S	S	Front to Rear	MV in Transport	Careless/Negligent
82823828	I 75	SR 54	9/29/2011	13:26:00	N	0	0	0	S	S	Sideswipe, same dir	MV in Transport	Fail to Maintain Ln
82830305	I 75	SR 54	10/12/2011	635	S	5	0	0	S	S	Front to Rear	MV in Transport	Careless/Negligent
82270436	I 75	SR 54	10/16/2011	3:55:00		0	0	0	N	E	Angle	MV in Transport	Improper Turn
82817085	I 75	SR 54	10/17/2011	8:50:00	N	0	0	1	N		Other	Overturn	Careless/Negligent
82848425	I 75	SR 54	11/15/2011	1631		0	0	0	N	N	Front to Rear	No Data	
82865943	I 75	SR 54	12/18/2011	20:05:00	N	30	0	0	S		Front to Rear	MV in Transport	Careless/Negligent
82839304	I 75	SR 54	12/18/2011	2:21:00	N	0	0	2	N	N	Front to Rear	MV in Transport	Careless/Negligent
82860864	I 75	SR 54	12/23/2011	15:12:00	N	0	0	0		S	Front to Rear	MV in Transport	
82855085	I 75	SR 54	12/23/2011	4:05:00	S	0	0	2	N		Other	Overturn	Careless/Negligent
82858221	I 75	SR 54	12/27/2011	14:22:00	N	0	0	0	S	S	Front to Rear	MV in Transport	
82860875	I 75	SR 54	12/29/2011	16:14:00	N	0	0	0	N		Other	Work Zone	No Cont Act
77143627	I 75 EXIT RMP	SR 54	7/27/2007	29	N	300	0	0	S		No Data	Other Fixed Obj	Other Cont Act
77375453	I 75 EXIT RMP	SR 54	9/1/2007	1450	S	75	0	0	N	S	Front to Rear	No Data	Careless/Negligent
7569397	I 75 EXIT RMP	SR 54	7/29/2009	1550	S	200	0	0			Front to Rear	No Data	Careless/Negligent
82867266	I 75 EXIT RMP	SR 54	12/23/2011	15:06:00	S	150	0	0	N		Front to Rear	MV in Transport	Careless/Negligent
7564108	I 75 NB EXIT RMP	SR 54	2/1/2007	1552	S	200	0	0			Front to Rear	No Data	Careless/Negligent
77141226	I 75 NB EXIT RMP	SR 54	5/23/2007	1232	S	250	0	0	N	N	Sideswipe, same dir	No Data	Fail to Maintain Ln
7563797	I 75 NB EXIT RMP	SR 54	9/24/2007	1740		0	0	0			Front to Rear	No Data	Careless/Negligent
7574999	I 75 SB	CR 54	1/2/2010	1345	S	500	0	0			Sideswipe, same dir	No Data	Fail to Maintain Ln
80458937	I 75 SB ENT RMP	I 75	12/20/2009	1541	W	500	0	0	S	S	Sideswipe, same dir	No Data	FTY ROW

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CASE ID	ON STREET	CROSS STREET	DATE	TIME	DIR	DIST	FATAL	INJ	V1 DIR	V2 DIR	IMPACT TYPE	HARM EVENT	CONT CAUSE
7575440	I 75 SB ENT RMP	I 75	3/12/2010	635		0	0	0			No Data	Other Fixed Obj	Other Cont Act
7565632	I 75 SB ENT RMP	SR 54	9/3/2007	1325		0	0	0			Angle	No Data	Fail to Maintain Ln
77375939	I 75 SB ENT RMP	SR 54	10/18/2007	652	S	150	0	0	S	S	Front to Rear	No Data	Followed too Closely
7559420	I 75 SB EXIT RMP	SR 54	1/8/2007	1623	N	50	0	0			Sideswipe, same dir	No Data	Fail to Maintain Ln
7563485	I 75 SB EXIT RMP	SR 54	1/17/2007	1205	N	200	0	0			Front to Rear	No Data	Careless/Negligent
76884320	SR 54	I 75	1/8/2007	1826	W	15	0	0	E	E	Front to Rear	No Data	Careless/Negligent
77131556	SR 54	I 75	1/11/2007	1447	E	200	0	0	W	W	Front to Rear	No Data	Careless/Negligent
77130238	SR 54	I 75	1/26/2007	1702	E	100	0	0	E	E	Front to Rear	No Data	Careless/Negligent
76897945	SR 54	I 75	1/27/2007	1239	W	100	0	0	E	E	Front to Rear	No Data	Other Cont Act
77131392	SR 54	I 75	2/3/2007	2117		0	0	0	W	N	Angle	No Data	Ran Red Light
77133118	SR 54	I 75	2/21/2007	1656	E	100	0	0	E	E	Front to Rear	No Data	Careless/Negligent
77135458	SR 54	I 75	3/3/2007	434	E	250	0	0	W	W	Front to Rear	No Data	Other Cont Act
77135335	SR 54	I 75	3/12/2007	719	W	300	0	0	E	E	Front to Rear	No Data	Careless/Negligent
77134998	SR 54	I 75	3/16/2007	1033		0	0	0	N	E	Angle	No Data	FTY ROW
77138002	SR 54	I 75	3/25/2007	1152	E	150	0	0	E	W	No Data	No Data	Ran Red Light
7564149	SR 54	I 75	3/27/2007	1130	W	150	0	0			Front to Rear	No Data	Careless/Negligent
77135482	SR 54	I 75	5/3/2007	2046	E	300	0	0	W	W	Angle	No Data	Fail to Maintain Ln
77141362	SR 54	I 75	6/2/2007	1110	E	250	0	0	W	W	Front to Rear	No Data	Careless/Negligent
77140676	SR 54	I 75	6/6/2007	1358		0	0	0	W	S	Angle	No Data	Ran Red Light
77143361	SR 54	I 75	6/7/2007	1722	E	30	0	0	W	W	Front to Rear	No Data	Careless/Negligent
77139547	SR 54	I 75	6/27/2007	2145		0	0	1	E	W	Angle	No Data	Ran Red Light
77143093	SR 54	I 75	7/12/2007	8	E	100	0	0	W	W	Front to Rear	No Data	Careless/Negligent
77146560	SR 54	I 75	7/14/2007	1626	E	300	0	0	E	E	Angle	No Data	Careless/Negligent
77147152	SR 54	I 75	7/24/2007	1147		0	0	0	W	W	Front to Rear	No Data	Other Cont Act
77147153	SR 54	I 75	7/24/2007	1259	E	500	0	0	W	W	Front to Rear	No Data	Other Cont Act
77136867	SR 54	I 75	8/5/2007	1207		0	0	0	W	S	No Data	Other Fixed Obj	Ran Red Light
7565425	SR 54	I 75	9/1/2007	1430		0	0	0			Front to Rear	No Data	Careless/Negligent
77147484	SR 54	I 75	9/24/2007	1447	E	200	0	0	W	W	Front to Rear	No Data	Careless/Negligent
7564988	SR 54	I 75	9/27/2007	2134	W	200	0	0			No Data	Other Fixed Obj	Careless/Negligent
7565434	SR 54	I 75	10/2/2007	1337		0	0	0			Angle	No Data	Ran Red Light
77147490	SR 54	I 75	10/2/2007	628	E	50	0	1	W	E	Angle	No Data	Improper Turn
77147491	SR 54	I 75	10/2/2007	737	E	75	0	0	W	W	Front to Rear	No Data	Careless/Negligent
77378310	SR 54	I 75	10/5/2007	2000	E	300	0	0	W	W	Front to Rear	No Data	Careless/Negligent
7567065	SR 54	I 75	10/20/2007	1530	W	150	0	0			Front to Rear	No Data	Fail to Maintain Ln
77375231	SR 54	I 75	10/26/2007	1020	W	150	0	0	E	E	Front to Rear	No Data	Careless/Negligent
77379022	SR 54	I 75	10/29/2007	1610	E	200	0	1	W	W	Front to Rear	No Data	Careless/Negligent
77376334	SR 54	I 75	10/31/2007	1513	E	100	0	0	W	W	Front to Rear	No Data	Careless/Negligent
77376336	SR 54	I 75	11/1/2007	1409		0	0	0	W	W	Front to Rear	No Data	Careless/Negligent
77379039	SR 54	I 75	11/5/2007	1640	E	100	0	0	W	W	Front to Rear	No Data	Careless/Negligent

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7567354	SR 54	I 75	11/25/2007	1915	W	175	0	0			Front to Rear	No Data	Careless/Negligent
77381245	SR 54	I 75	12/4/2007	1640		0	0	0	W	W	Front to Rear	No Data	Careless/Negligent
77380884	SR 54	I 75	12/5/2007	1845	W	5	0	0	E	E	Front to Rear	No Data	Careless/Negligent
77377182	SR 54	I 75	12/5/2007	825	W	500	0	0	E	E	Front to Rear	No Data	Careless/Negligent
77381418	SR 54	I 75	12/7/2007	1757	E	75	0	0	W	W	Front to Rear	No Data	Careless/Negligent
77381171	SR 54	I 75	12/9/2007	819	E	50	0	0	W	W	Front to Rear	No Data	Careless/Negligent
77381562	SR 54	I 75	12/11/2007	1302	W	200	0	0	W	W	Sideswipe, same dir	No Data	Fail to Maintain Ln
77380124	SR 54	I 75	1/21/2008	1500		0	0	0	W	W	Front to Rear	No Data	Careless/Negligent
77385771	SR 54	I 75	2/2/2008	1615	E	200	0	0	W	W	Front to Rear	No Data	Careless/Negligent
77390151	SR 54	I 75	2/24/2008	1414	E	150	0	0	W	W	Front to Rear	No Data	Careless/Negligent
77387893	SR 54	I 75	3/6/2008	915		0	0	1	E	W	Angle	No Data	Ran Red Light
77380142	SR 54	I 75	3/8/2008	1200		0	0	0	W	W	Front to Rear	No Data	Careless/Negligent
77387781	SR 54	I 75	3/8/2008	2052	E	80	0	0	W	W	Front to Rear	No Data	Careless/Negligent
77389891	SR 54	I 75	3/23/2008	1357	E	500	0	0	W	W	Front to Rear	No Data	Careless/Negligent
77392109	SR 54	I 75	3/23/2008	1257	E	300	0	0	E	E	Angle	No Data	Fail to Maintain Ln
77393154	SR 54	I 75	4/2/2008	1930	E	50	0	0	W	W	Front to Rear	No Data	Followed too Closely
7567382	SR 54	I 75	4/3/2008	155		0	0	0			Angle	No Data	FTY ROW
77394251	SR 54	I 75	4/9/2008	1954	E	400	0	1	W	W	Front to Rear	No Data	Careless/Negligent
77392341	SR 54	I 75	4/18/2008	2049	E	500	0	0	W	W	Front to Rear	No Data	Careless/Negligent
77392347	SR 54	I 75	4/23/2008	2203	E	500	0	0	W	W	Front to Rear	No Data	Careless/Negligent
8799516	SR 54	I 75	5/2/2008	1830		0	0	0			Front to Rear	No Data	Careless/Negligent
8799517	SR 54	I 75	5/9/2008	1828	E	150	0	0			Front to Rear	No Data	Careless/Negligent
77395284	SR 54	I 75	5/31/2008	2311	W	50	0	0	W	W	Angle	No Data	Disregard Other Sign
77394843	SR 54	I 75	6/21/2008	1432	E	20	0	0	W	W	Front to Rear	No Data	Careless/Negligent
77397079	SR 54	I 75	7/6/2008	1224	E	50	0	0	E	E	Front to Rear	No Data	Careless/Negligent
77394696	SR 54	I 75	7/9/2008	709		0	0	0	W	S	Angle	No Data	FTY ROW
77653759	SR 54	I 75	8/22/2008	1811		0	0	0	W	N	Angle	No Data	Careless/Negligent
77654608	SR 54	I 75	8/29/2008	1147		0	0	0	W	W	Front to Rear	No Data	Careless/Negligent
77653781	SR 54	I 75	9/17/2008	2112		0	0	0	E	S	Angle	No Data	Other Cont Act
77655125	SR 54	I 75	9/30/2008	1135	W	250	0	0	N	W	Sideswipe, same dir	No Data	FTY ROW
77654631	SR 54	I 75	9/30/2008	2059		0	0	0	W	W	Front to Rear	No Data	Careless/Negligent
77654093	SR 54	I 75	10/7/2008	1356	E	500	0	0	E	E	Angle	No Data	Fail to Maintain Ln
77654644	SR 54	I 75	10/22/2008	745		0	0	0	W	W	Angle	No Data	Other Cont Act
77658906	SR 54	I 75	10/29/2008	1744	E	500	0	0	W	E	Angle	No Data	FTY ROW
77653795	SR 54	I 75	11/2/2008	2043		0	0	0	W	W	Front to Rear	No Data	Careless/Negligent
77658914	SR 54	I 75	11/3/2008	1708	E	500	0	0	W	E	Angle	No Data	FTY ROW
77659405	SR 54	I 75	11/9/2008	1931	E	20	0	0	W	W	Front to Rear	No Data	Careless/Negligent
77650032	SR 54	I 75	11/13/2008	1822	E	300	0	0	W	E	No Data	No Data	FTY ROW
7568973	SR 54	I 75	11/19/2008	1749	W	100	0	0			No Data	No Data	Careless/Negligent

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77658928	SR 54	I 75	11/21/2008	1610	E	500	0	0	W	E	Angle	No Data	FTY ROW
77658931	SR 54	I 75	11/23/2008	1119		0	0	0	E	E	Angle	No Data	Fail to Maintain Ln
77658949	SR 54	I 75	12/7/2008	1629		0	0	0	W	W	Front to Rear	No Data	Careless/Negligent
7568984	SR 54	I 75	12/9/2008	1900	W	100	0	0			Angle	No Data	Careless/Negligent
7568989	SR 54	I 75	12/19/2008	1540	E	400	0	0			Angle	No Data	Careless/Negligent
77664409	SR 54	I 75	1/21/2009	1921	W	450	0	0	E	E	Front to Rear	No Data	Careless/Negligent
7571620	SR 54	I 75	3/5/2009	1703		0	0	0			Angle	No Data	Other Cont Act
77397776	SR 54	I 75	4/7/2009	151		0	0	0	E		No Data	Ditch	No Data
77653430	SR 54	I 75	4/17/2009	920	N	200	0	0	S	S	Angle	No Data	Other Cont Act
77671014	SR 54	I 75	4/21/2009	617		0	0	1	W	W	Front to Rear	No Data	Careless/Negligent
77670763	SR 54	I 75	4/24/2009	1747		0	0	0	W	W	Front to Rear	No Data	Careless/Negligent
77668132	SR 54	I 75	4/25/2009	631		0	0	0	W	W	Angle	No Data	Fail to Maintain Ln
7572957	SR 54	I 75	4/28/2009	817	W	150	0	0			Front to Rear	No Data	Careless/Negligent
7564092	SR 54	I 75	5/6/2009	2059		0	0	0			No Data	No Data	Fail to Maintain Ln
77668139	SR 54	I 75	5/7/2009	1807	E	100	0	0	W	E	Angle	No Data	FTY ROW
7572965	SR 54	I 75	5/8/2009	805	E	200	0	0			Angle	No Data	Fail to Maintain Ln
77671940	SR 54	I 75	6/2/2009	2122	E	75	0	0	W	E	No Data	MV in Transport	Ran Red Light
77671947	SR 54	I 75	6/8/2009	2145	W	75	0	1	E	E	No Data	MV in Transport	Careless/Negligent
80450006	SR 54	I 75	6/30/2009	546		0	0	0	W	W	Angle	No Data	Fail to Maintain Ln
80450208	SR 54	I 75	7/1/2009	1021	W	50	0	0	E	E	Front to Rear	No Data	Careless/Negligent
80449732	SR 54	I 75	7/28/2009	2117	W	75	0	0	E	E	No Data	MV in Transport	Careless/Negligent
80452160	SR 54	I 75	7/31/2009	1400	N	60	0	0	W	W	Angle	No Data	Other Cont Act
80452109	SR 54	I 75	8/1/2009	1308	E	40	0	0	W	W	Sideswipe, same dir	No Data	Careless/Negligent
80451719	SR 54	I 75	8/7/2009	1546	E	500	0	0	W	W	Front to Rear	No Data	Careless/Negligent
80454665	SR 54	I 75	9/15/2009	1251	E	200	0	1	E	E	No Data	Pedalcycle	Careless/Negligent
80454171	SR 54	I 75	9/28/2009	1709		0	0	0	E	N	Angle	No Data	FTY ROW
80455709	SR 54	I 75	10/7/2009	430	E	500	0	0	W	W	Sideswipe, same dir	No Data	Fail to Maintain Ln
7574627	SR 54	I 75	11/22/2009	1315	E	300	0	0			Front to Rear	No Data	Careless/Negligent
77388429	SR 54	I 75	12/1/2009	2134		0	0	1	W	E	Angle	No Data	Ran Red Light
80451738	SR 54	I 75	12/5/2009	1818		0	0	0	E	W	Angle	No Data	Other Cont Act
7572928	SR 54	I 75	12/21/2009	1745	E	300	0	0			Sideswipe, same dir	No Data	Fail to Maintain Ln
9613573	SR 54	I 75	12/28/2009	745		0	0	0			Front to Rear	No Data	Careless/Negligent
80462061	SR 54	I 75	1/18/2010	1109		0	0	0	N	N	Angle	No Data	Other Cont Act
80463531	SR 54	I 75	2/17/2010	2012		0	0	2	W	E	Angle	No Data	No Cont Act
7575345	SR 54	I 75	2/19/2010	933	W	200	0	0			Front to Rear	No Data	Careless/Negligent
7801461	SR 54	I 75	3/10/2010	652	E	500	0	0			Front to Rear	No Data	Careless/Negligent
7801462	SR 54	I 75	3/10/2010	652	E	500	0	0			Front to Rear	No Data	Careless/Negligent
80465872	SR 54	I 75	3/12/2010	2251	W	10	0	0	E	E	Front to Rear	No Data	Careless/Negligent
80465888	SR 54	I 75	3/31/2010	212		0	0	0	W	E	Angle	No Data	Other Cont Act

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80469025	SR 54	I 75	4/19/2010	836		0	0	2	E	W	Angle	No Data	Other Cont Act
80605556	SR 54	I 75	6/18/2010	1534		0	0	0	S	W	No Data	No Data	Other Cont Act
7802747	SR 54	I 75	6/18/2010	1220		0	0	0			Angle	No Data	Fail to Maintain Ln
80462339	SR 54	I 75	6/20/2010	2019	E	15	0	0	W	W	Sideswipe, same dir	No Data	Careless/Negligent
80605569	SR 54	I 75	6/26/2010	1850		0	0	0	W	W	Sideswipe, same dir	No Data	Fail to Maintain Ln
80605723	SR 54	I 75	7/6/2010	1931	W	50	0	0	E	E	Front to Rear	No Data	Careless/Negligent
80471821	SR 54	I 75	7/7/2010	1232		0	0	0	W	S	Front to Front	No Data	Ran Red Light
80605724	SR 54	I 75	7/7/2010	1646	E	100	0	0	W	W	Sideswipe, same dir	No Data	Fail to Maintain Ln
80605732	SR 54	I 75	7/13/2010	1750	E	264	0	0	W	E	No Data	No Data	FTY ROW
80605895	SR 54	I 75	8/21/2010	1823	E	50	0	0	W	W	Front to Rear	No Data	Careless/Negligent
80608392	SR 54	I 75	9/19/2010	1446		0	0	0	W	W	Sideswipe, same dir	No Data	Fail to Maintain Ln
80473996	SR 54	I 75	10/10/2010	1146	W	40	0	0	E	E	Front to Rear	No Data	Careless/Negligent
80611725	SR 54	I 75	10/23/2010	1534	W	10	0	0	E	E	Front to Rear	No Data	Careless/Negligent
81954766	SR 54	I 75	11/14/2010	2318		0	0	0	W			Animal	
81952919	SR 54	I 75	12/26/2010	915		0	0	0	E	E	Angle	MV in Transport	Fail to Maintain Ln
82091208	SR 54	I 75	3/30/2011	911	E	200	0	0	E	E	Front to Rear	MV in Transport	Careless/Negligent
82083800	SR 54	I 75	4/3/2011	1645	W	200	0	1	E	E	Front to Rear	MV in Transport	Careless/Negligent
82083801	SR 54	I 75	4/3/2011	2010	E	500	0	0	E	E	Sideswipe, same dir	MV in Transport	Fail to Maintain Ln
82240568	SR 54	I 75	4/20/2011	1745	E	250	0	0	W	W	Front to Rear	MV in Transport	Careless/Negligent
82249792	SR 54	I 75	6/20/2011	746	E	200	0	0	W	W	Sideswipe, same dir	MV in Transport	Fail to Maintain Ln
82261241	SR 54	I 75	7/25/2011	1540	W	500	0	0	W	W	Front to Rear	MV in Transport	Careless/Negligent
82813213	SR 54	I 75	8/14/2011	1130	E	75	0	0	N	E	Sideswipe, same dir	MV in Transport	FTY ROW
82821151	SR 54	I 75	8/14/2011	1215	E	500	0	0	W	W	Front to Rear	MV in Transport	Careless/Negligent
82823376	SR 54	I 75	8/23/2011	1650	E	20	0	0	W	W	Angle	MV in Transport	FTY ROW
82822216	SR 54	I 75	9/6/2011	650	W	500	0	0	E	E	Front to Rear	MV in Transport	Careless/Negligent
82822220	SR 54	I 75	9/6/2011	1410		0	0	1	E	N	Angle	MV in Transport	Ran Red Light
82822228	SR 54	I 75	9/10/2011	1400	W	200	0	0	W	W	Sideswipe, same dir	MV in Transport	Fail to Maintain Ln
82821712	SR 54	I 75	10/9/2011	15:43:00		0	0	0	S		Other	Guardrail Face	Careless/Negligent
82842952	SR 54	I 75	10/28/2011	1700	E	75	0	0	W	W	Front to Rear	MV in Transport	Careless/Negligent
82844443	SR 54	I 75	11/9/2011	2056	E	300	0	0	W	W	Sideswipe, same dir	MV in Transport	Fail to Maintain Ln
82844446	SR 54	I 75	11/10/2011	1335	E	500	0	0	N	W	Rear to Side	MV in Transport	Improper Backing
82839269	SR 54	I 75	11/11/2011	1045	W	500	0	1	W	W	Front to Rear	MV in Transport	Careless/Negligent
82849572	SR 54	I 75	11/16/2011	1943		0	0	0	W	W	Front to Rear	MV in Transport	
82844458	SR 54	I 75	11/22/2011	602		0	0	0	W	E	Angle	MV in Transport	No Cont Act
82852205	SR 54	I 75	11/23/2011	1349		0	0	0	W	W	Front to Rear	No Data	
82847944	SR 54	I 75	11/28/2011	1711	E	25	0	0	W	W	Front to Rear	No Data	
82860835	SR 54	I 75	12/9/2011	18:00:00	E	20	0	0	W		Front to Rear	MV in Transport	Careless/Negligent
82860865	SR 54	I 75	12/23/2011	18:07:00	E	20	0	2	W		Front to Rear	MV in Transport	Careless/Negligent
82860877	SR 54	I 75	12/31/2011	10:21:00	E	50	0	0	W	W	Front to Rear	MV in Transport	Careless/Negligent

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77141214	SR 54	I 75 EXIT RMP	5/16/2007	718		0	0	0	E	W	No Data	No Data	FTY ROW
82848488	SR 54	I 75 EXIT RMP	12/29/2011	10:11:00		0	0	1	W	S	Angle	MV in Transport	Ran Red Light
77146251	SR 54	I 75 NB EXIT RMP	7/9/2007	1525		0	0	1	E	N	Angle	No Data	Ran Red Light
82849590	SR 54	I 75 NB EXIT RMP	12/3/2011	10:55:00	N	80	0	0	E		Front to Rear	MV in Transport	Fail to Maintain Ln
77138209	SR 54	I 75 NB EXT RMP	4/18/2007	1315		0	0	0	S	S	Rear to Side	No Data	Improper Backing
77143411	SR 54	I 75 SB ENT RMP	6/7/2007	521		0	0	0	E	W	Angle	No Data	Ran Red Light

Overpass Rd, Old Pasco Rd to Boyette Rd

1/1/2007 to 12/31/2011 Crashes
within 500 ft of the primary street

Pasco County Traffic Operations
7536 State St, Rm 124
New Port Richey, FL 34654
(727) 847-8139
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CASE ID	ON STREET	CROSS STREET	DATE	TIME	DIR	DIST	FATAL	INJ	V1 DIR	V2 DIR	IMPACT TYPE	HARM EVENT	CONT CAUSE
77141221	BOYETTE RD	OVERPASS RD	5/21/2007	1440		0	0	1	E	N	Angle	No Data	FTY ROW
77380122	BOYETTE RD	OVERPASS RD	1/18/2008	1745		0	0	1	E	S	Angle	No Data	Ran Stop Sign
77397072	BOYETTE RD	OVERPASS RD	6/14/2008	2127		0	0	0	N	S	Angle	No Data	Improper Turn
77653768	BOYETTE RD	OVERPASS RD	8/29/2008	2227		0	0	0	N		No Data	Other Fixed Obj	Careless/Negligent
77654559	BOYETTE RD	OVERPASS RD	9/21/2008	1106		0	1	1	W	N	No Data	Other Fixed Obj	FTY ROW
80464759	BOYETTE RD	OVERPASS RD	2/7/2010	1658		0	0	1	E	N	Angle	No Data	FTY ROW
80464771	BOYETTE RD	OVERPASS RD	2/15/2010	934		0	0	1	E	N	Angle	No Data	FTY ROW
80609408	BOYETTE RD	OVERPASS RD	9/8/2010	1843		0	0	0	W	S	Angle	No Data	FTY ROW
81965462	BOYETTE RD	OVERPASS RD	12/20/2010	910		0	0	0	E	N	Angle		
82813043	BOYETTE RD	OVERPASS RD	8/15/2011	1628		0	0	0	E	S	Angle	MV in Transport	FTY ROW
77147980	I 75	OVERPASS RD	10/9/2007	1208		0	0	0	N		No Data	Bridge Overhead	Other Cont Act
80612275	I 75	OVERPASS RD	10/28/2010	816	S	200	0	0	S	S	No Data	Other Fixed Obj	No Cont Act
81972757	I 75	OVERPASS RD	12/16/2010	1341		0	0	0	N	N		Other Fixed Obj	
82066980	I 75	OVERPASS RD	2/28/2011	1155		0	0	2	N	N	Other	Bridge Overhead	No Cont Act
82246585	I 75	OVERPASS RD	5/30/2011	110	N	200	0	6	S	S	Front to Rear	MV in Transport	Careless/Negligent
82268242	I 75	OVERPASS RD	8/11/2011	1642	S	200	0	1	N		Other	Overturn	No Cont Act
77381822	MCKENDREE RD	OVERPASS RD	12/4/2007	1650	N	500	0	0	N	S	Angle	No Data	Other Cont Act
7563798	OLD PASCO RD	OVERPASS RD	10/2/2007	1757		0	0	0			Angle	No Data	FTY ROW
77379370	OLD PASCO RD	OVERPASS RD	11/15/2007	2245		0	0	0	N		No Data	Animal	No Cont Act
77650408	OLD PASCO RD	OVERPASS RD	7/15/2008	1817		0	0	0	W	N	No Data	No Data	Careless/Negligent
77665286	OLD PASCO RD	OVERPASS RD	4/6/2009	1900		0	0	1	S	N	No Data	MV in Transport	FTY ROW
7567337	OLD PASCO RD	OVERPASS RD	9/17/2009	1721	N	300	0	0			No Data	Fence	Careless/Negligent
82083790	OLD PASCO RD	OVERPASS RD	3/31/2011	1430		0	0	2	W	S	Front to Rear	MV in Transport	FTY ROW
82261207	OLD PASCO RD	OVERPASS RD	7/3/2011	245	N	20	0	0	N		Other	Fence	Careless/Negligent
82822223	OLD PASCO RD	OVERPASS RD	9/7/2011	1241		0	0	1	W	N	Angle	MV in Transport	Ran Stop Sign
82848368	OLD PASCO RD	OVERPASS RD	12/18/2011	500	W	25	0	0	W		Angle	No Data	
82848369	OLD PASCO RD	OVERPASS RD	12/18/2011	500	W	100	0	0	W		No Data	Fence	
82073044	OVERPASS RD	BLAIR DR	3/1/2011	1700		0	0	1	N	E	Angle	MV in Transport	Ran Stop Sign
77664470	OVERPASS RD	BLAIR RD	2/7/2009	1550		0	0	1	N	E	Angle	No Data	FTY ROW
81965665	OVERPASS RD	BLAIR RD	12/5/2010	0		0	0	0	W	W	Front to Rear		
7802333	OVERPASS RD	BOYETTE RD	5/14/2010	1442		0	0	0			Angle	No Data	Careless/Negligent
80469290	OVERPASS RD	OLD PASCO RD	5/6/2010	2205	W	200	0	0	W		No Data	Tree	Other Cont Act
80472489	OVERPASS RD	OLD PASCO RD	8/9/2010	2307	E	25	0	0	W	W	No Data	MV in Transport	Careless/Negligent
80609656	OVERPASS RD	OLD PASCO RD	8/15/2010	2312	E	300	0	1	W	W	No Data	MV in Transport	Careless/Negligent
80613757	OVERPASS RD	OLD PASCO RD	10/23/2010	428		0	0	0	E		No Data	Fence	Careless/Negligent

I 75 @ SR 52

1/1/2007 to 12/31/2011 Crashes
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CASE ID	ON STREET	CROSS STREET	DATE	TIME	DIR	DIST	FATAL	INJ	V1 DIR	V2 DIR	IMPACT TYPE	HARM EVENT	CONT CAUSE
81965771	I 75	MM 284	1/29/2011	1215		0	0	2	N		Other	Overturn	Careless/Negligent Manner
82264104	I 75	MM 284	6/29/2011	1524		0	0	0	S	S	Sideswipe, same dir	MV in Transport	FTY ROW
82849602	I 75	MM 286	12/19/2011	16:03:00		0	0	0	N		Sideswipe, same dir	MV in Transport	Careless/Negligent Manner
81954745	I 75	MM 287	6/1/2011	1706		0	0	0	N	N	Sideswipe, same dir	MV in Transport	No Cont Act
77128792	I 75	SR 52	1/23/2007	802	N	10	0	0	S	S	Rear to Side	No Data	Improper Backing
77129739	I 75	SR 52	2/8/2007	700	S	50	0	0		S	No Data	Other Fixed Obj	Fail to Maintain Ln
7564129	I 75	SR 52	2/19/2007	1802		0	0	0			No Data	Guardrail Face	No Cont Act
7563786	I 75	SR 52	3/10/2007	239	N	20	0	0			No Data	Ditch	Careless/Negligent Manner
77137806	I 75	SR 52	3/28/2007		S	50	0	0	N	N	Front to Rear	No Data	Careless/Negligent Manner
77137950	I 75	SR 52	4/21/2007	1306	S	10	0	0	N	N	Front to Rear	No Data	Careless/Negligent Manner
7564955	I 75	SR 52	4/23/2007	1234	N	100	0	0			No Data	Oth Non-Fixed Obj	No Cont Act
77140295	I 75	SR 52	5/18/2007	654	S	100	0	0	S		No Data	Overturn	Careless/Negligent Manner
77143056	I 75	SR 52	6/3/2007	1417		0	0	0	S	S	Front to Rear	No Data	Careless/Negligent Manner
77143429	I 75	SR 52	6/22/2007	1056	N	100	0	0	N	N	Sideswipe, same dir	No Data	Fail to Maintain Ln
7555715	I 75	SR 52	6/23/2007	1631		0	0	0			No Data	Guardrail Face	Other Cont Act
77143388	I 75	SR 52	7/2/2007	1520	N	200	0	0	N	N	Angle	No Data	Fail to Maintain Ln
77143445	I 75	SR 52	7/6/2007	1303	N	500	0	0	N	N	Sideswipe, same dir	No Data	Fail to Maintain Ln
7564980	I 75	SR 52	7/29/2007	1205	N	300	0	0			No Data	Guardrail Face	Careless/Negligent Manner
77147485	I 75	SR 52	9/25/2007	1237	S	45	0	0	N	N	Front to Rear	No Data	Careless/Negligent Manner
77379854	I 75	SR 52	10/25/2007	931		0	0	0	N	N	Front to Rear	No Data	Careless/Negligent Manner
76884343	I 75	SR 52	10/26/2007	856		0	0	0	S		No Data	Guardrail Face	Careless/Negligent Manner
76880729	I 75	SR 52	10/26/2007	901	N	300	0	1	S	S	Front to Rear	No Data	Careless/Negligent Manner
77381555	I 75	SR 52	11/17/2007	1520	S	500	0	1	S	S	No Data	Other Fixed Obj	Fail to Maintain Ln
77381214	I 75	SR 52	11/17/2007	1525	S	100	0	0	S	S	Front to Rear	No Data	Careless/Negligent Manner
7566960	I 75	SR 52	11/21/2007	1518		0	0	0			No Data	Guardrail Face	No Cont Act
77377176	I 75	SR 52	11/22/2007	1150	S	500	0	0	N	N	Sideswipe, same dir	No Data	Fail to Maintain Ln
77380909	I 75	SR 52	11/22/2007	1242		0	0	0	N	N	Front to Rear	No Data	Careless/Negligent Manner
77383156	I 75	SR 52	12/5/2007	2250	S	300	0	0	N		No Data	Guardrail Face	Careless/Negligent Manner
77381876	I 75	SR 52	12/28/2007	1248	N	500	0	0	N	N	Sideswipe, same dir	No Data	Careless/Negligent Manner
77383550	I 75	SR 52	12/28/2007	1840	N	200	0	0	S	S	No Data	Other Fixed Obj	Fail to Maintain Ln
77385367	I 75	SR 52	1/6/2008	2225	S	100	0	0	S		No Data	Overturn	Careless/Negligent Manner
77386116	I 75	SR 52	1/17/2008	2233	N	300	0	1	S	S	Angle	No Data	Careless/Negligent Manner
7555179	I 75	SR 52	1/30/2008	1042		0	0	0			No Data	Tree	Careless/Negligent Manner
77389860	I 75	SR 52	2/23/2008	1322	S	50	0	0	N	N	Front to Rear	No Data	Careless/Negligent Manner
77389869	I 75	SR 52	3/3/2008	1823	N	25	0	0	S	S	Front to Rear	No Data	Followed too Closely
77388403	I 75	SR 52	3/14/2008	1315	S	25	0	0	N	N	Sideswipe, same dir	No Data	Careless/Negligent Manner

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CASE ID	ON STREET	CROSS STREET	DATE	TIME	DIR	DIST	FATAL	INJ	V1 DIR	V2 DIR	IMPACT TYPE	HARM EVENT	CONT CAUSE
77388405	I 75	SR 52	3/16/2008	1930	S	25	0	0	N	N	Front to Rear	No Data	Careless/Negligent Manner
77381593	I 75	SR 52	3/29/2008	741		0	0	0	N	N	Front to Rear	No Data	Other Cont Act
77392339	I 75	SR 52	4/17/2008	2332	S	500	0	1	N	N	Front to Rear	No Data	Other Cont Act
77394661	I 75	SR 52	5/4/2008	343		0	0	1	N		No Data	Guardrail Face	Careless/Negligent Manner
77394817	I 75	SR 52	5/13/2008	1412	S	50	0	0	N	N	Front to Rear	No Data	Careless/Negligent Manner
77378695	I 75	SR 52	5/20/2008	1954	S	25	0	0	S	S	Front to Rear	No Data	Careless/Negligent Manner
77396320	I 75	SR 52	5/24/2008	1050	S	300	0	0	N		No Data	Guardrail Face	No Cont Act
7569010	I 75	SR 52	6/17/2008	753	S	10	0	0			Front to Rear	No Data	Careless/Negligent Manner
77394840	I 75	SR 52	6/20/2008	1722	S	10	0	0	N	N	Front to Rear	No Data	Careless/Negligent Manner
7568931	I 75	SR 52	6/22/2008	1725		0	0	0			Front to Rear	No Data	Careless/Negligent Manner
77650952	I 75	SR 52	7/14/2008	742	N	150	0	0	N		No Data	Guardrail Face	Careless/Negligent Manner
77650951	I 75	SR 52	7/14/2008	742	N	100	0	0	N	N	Front to Rear	No Data	Careless/Negligent Manner
77397088	I 75	SR 52	7/29/2008	1929	S	50	0	0	S		No Data	Guardrail Face	Other Cont Act
77652508	I 75	SR 52	7/31/2008	1640	S	150	0	0	N	N	Front to Rear	No Data	Other Cont Act
7568323	I 75	SR 52	7/31/2008	1400	S	100	0	0			No Data	Guardrail Face	Careless/Negligent Manner
77652866	I 75	SR 52	8/21/2008	1030	S	200	0	0	N		No Data	Fence	Careless/Negligent Manner
77654636	I 75	SR 52	10/4/2008	1837		0	0	1	S	S	Front to Rear	No Data	Careless/Negligent Manner
77657627	I 75	SR 52	11/25/2008	914	S	150	0	0	S	S	Angle	No Data	Other Cont Act
77388419	I 75	SR 52	11/26/2008	1315	S	50	0	0	N	N	Front to Rear	No Data	Careless/Negligent Manner
7564073	I 75	SR 52	12/11/2008	1229	S	25	0	0			Front to Rear	No Data	Careless/Negligent Manner
77659925	I 75	SR 52	1/5/2009	1752		0	0	0	N			Other Fixed Obj	
77665202	I 75	SR 52	1/23/2009	1116	S	100	0	1	N	N	Front to Rear	No Data	No Cont Act
7564084	I 75	SR 52	3/23/2009	1219	S	15	0	0			Front to Rear	No Data	Careless/Negligent Manner
77667570	I 75	SR 52	4/7/2009	1307	S	10	0	0	N	N	Front to Rear	No Data	Careless/Negligent Manner
77670758	I 75	SR 52	4/17/2009	1528		0	0	0	N	N	Front to Rear	No Data	Careless/Negligent Manner
77671259	I 75	SR 52	4/20/2009	1719	S	350	0	1	S		No Data	Other Fixed Obj	No Contributing Action
77667586	I 75	SR 52	4/22/2009	1423	S	400	0	1	N	N	Angle	No Data	Fail to Maintain Ln
80450206	I 75	SR 52	7/1/2009	737	S	500	0	1	S		No Data	Overturn	Careless/Negligent Manner
77672362	I 75	SR 52	8/1/2009	2344		0	0	1	N		No Data	Guardrail Face	No Cont Act
7573668	I 75	SR 52	8/15/2009	928	S	10	0	0			Front to Rear	No Data	Careless/Negligent Manner
80453317	I 75	SR 52	8/17/2009	1329	S	15	0	0	N	N	Front to Rear	No Data	Careless/Negligent Manner
77392919	I 75	SR 52	10/5/2009	1400		0	0	0	S	S	No Data	Other Fixed Obj	Other Cont Act
80454181	I 75	SR 52	10/6/2009	1927	S	25	0	0	N	N	Front to Rear	No Data	Careless/Negligent Manner
80451733	I 75	SR 52	11/23/2009	1605		0	0	0	S	N	Front to Rear	No Data	Careless/Negligent Manner
7573280	I 75	SR 52	11/25/2009	1817	S	125	0	0			No Data	Overturn	Too Fast for Conditions
7574632	I 75	SR 52	11/25/2009	1544	N	500	0	0			Front to Rear	No Data	Careless/Negligent Manner

I 75 @ SR 52

1/1/2007 to 12/31/2011 Crashes
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77388428	I 75	SR 52	12/1/2009	1430	S	100	0	0	N	N	Front to Rear	No Data	Careless/Negligent Manner
7573393	I 75	SR 52	12/22/2009	1807	S	20	0	0			Front to Rear	No Data	Careless/Negligent Manner
80462276	I 75	SR 52	1/2/2010	1012	N	50	0	0	N	N	Front to Rear	No Data	Careless/Negligent Manner
7575410	I 75	SR 52	1/7/2010	810		0	0	0			Front to Rear	No Data	Careless/Negligent Manner
7575414	I 75	SR 52	1/13/2010	1234	N	300	0	0			Sideswipe, same dir	No Data	Fail to Maintain Ln
80462436	I 75	SR 52	2/11/2010	1712	S	80	0	0	N	N	Sideswipe, same dir	No Data	Careless/Negligent Manner
80462076	I 75	SR 52	2/20/2010	1242	S	10	0	0	N	N	Front to Rear	No Data	Careless/Negligent Manner
7565485	I 75	SR 52	3/19/2010	537	S	500	0	0			No Data	Overturn	Careless/Negligent Manner
7802305	I 75	SR 52	4/2/2010	1454	S	50	0	0			Front to Rear	No Data	Careless/Negligent Manner
80468466	I 75	SR 52	4/16/2010	1028	S	26	0	0	N	N	Front to Rear	No Data	Careless/Negligent Manner
80471261	I 75	SR 52	5/1/2010	1436	S	500	0	1	S	S	Sideswipe, same dir	No Data	Fail to Maintain Ln
7802329	I 75	SR 52	5/9/2010	1656		0	0	0			Front to Rear	No Data	Careless/Negligent Manner
7802330	I 75	SR 52	5/9/2010	1614	S	500	0	0			No Data	Guardrail Face	No Cont Act
80462332	I 75	SR 52	5/16/2010	2211	S	60	0	1	E		No Data	Ditch	Careless/Negligent Manner
7800736	I 75	SR 52	5/29/2010	1330	S	200	0	0			No Data	Guardrail Face	No Cont Act
80474019	I 75	SR 52	7/16/2010	839	S	10	0	0	N	N	Front to Rear	No Data	Careless/Negligent Manner
7802626	I 75	SR 52	7/16/2010	1100	S	150	0	0			No Data	Other Post/Pole	No Cont Act
77672891	I 75	SR 52	7/23/2010	1740	S	25	0	0	N	N	Sideswipe, same dir	No Data	Fail to Maintain Ln
80605875	I 75	SR 52	7/28/2010	1538	N	500	0	0	N	N	Front to Rear	No Data	Careless/Negligent Manner
7803961	I 75	SR 52	8/10/2010	1726	N	155	0	0			No Data	Ditch	No Cont Act
80473438	I 75	SR 52	8/14/2010	317	S	150	0	0	N	N	No Data	Other Fixed Obj	Fail to Maintain Ln
80606523	I 75	SR 52	8/19/2010	737	S	25	0	0	N	N	Front to Rear	No Data	Careless/Negligent Manner
80605897	I 75	SR 52	8/22/2010	1921	N	100	0	0	N		No Data	Guardrail Face	Careless/Negligent Manner
80610251	I 75	SR 52	8/22/2010	1432		0	0	0	N		No Data	Guardrail Face	No Cont Act
80605639	I 75	SR 52	10/8/2010	820	S	20	0	0	N	N	Front to Rear	No Data	Careless/Negligent Manner
80609626	I 75	SR 52	10/13/2010	958	S	10	0	0	N	N	Front to Rear	No Data	Careless/Negligent Manner
81972706	I 75	SR 52	11/14/2010	1842		0	0	0	N	N	Front to Front		
81972707	I 75	SR 52	11/14/2010	1929		0	0	0	N	N	Front to Rear		
81966411	I 75	SR 52	11/19/2010	18:45:00	S	0	1	3	N		Other	Overturn	Other Cont Act
81990344	I 75	SR 52	11/22/2010	1545		0	0	0	N	N	Front to Rear		
81968735	I 75	SR 52	11/26/2010	305		0	0	0	N			Overturn	
81954780	I 75	SR 52	11/27/2010	210		0	0	0	N			Ditch	
81990428	I 75	SR 52	12/1/2010	1353		0	0	0	N			Cargo Loss/Shift	
81967417	I 75	SR 52	12/12/2010	1320		0	0	0	N			Other Fixed Obj	
81952903	I 75	SR 52	12/15/2010	705		0	0	0	N	N		MV in Transport	
81972661	I 75	SR 52	12/16/2010	1640		0	0	0	N	N	Front to Rear		

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81952909	I 75	SR 52	12/16/2010	745		0	0	0	S	S		Other Fixed Obj	
81990463	I 75	SR 52	12/19/2010	1557		0	0	0		S			
81970022	I 75	SR 52	12/20/2010	1044		0	0	0	S			Tree	
81967433	I 75	SR 52	12/20/2010	240		0	0	0		S			
82066931	I 75	SR 52	1/24/2011	855	S	15	0	0	N	N	Front to Rear	MV in Transport	Careless/Negligent Manner
82072484	I 75	SR 52	2/21/2011	1844	S	10	0	0	N	N	Front to Rear	MV in Transport	Careless/Negligent Manner
82069878	I 75	SR 52	3/29/2011	1231		0	0	0	N	N	Front to Rear	MV in Transport	Careless/Negligent Manner
82091206	I 75	SR 52	3/29/2011	1418		0	0	0	N	N	Front to Rear	MV in Transport	Careless/Negligent Manner
82083793	I 75	SR 52	4/1/2011	1635	S	15	0	0	N	N	Front to Rear	MV in Transport	Careless/Negligent Manner
82091240	I 75	SR 52	5/13/2011	2149		0	0	0	N	N	Front to Rear	MV in Transport	Careless/Negligent Manner
82249679	I 75	SR 52	5/28/2011	1853	S	20	0	0	N	N	Front to Rear	MV in Transport	Careless/Negligent Manner
82094807	I 75	SR 52	6/2/2011	1550	S	5	0	0	N	N	Front to Rear	MV in Transport	Careless/Negligent Manner
82248936	I 75	SR 52	6/17/2011	1055	S	500	0	0	S		Other	Tree	No Cont Act
82248955	I 75	SR 52	7/26/2011	825	S	10	0	0	N	N	Front to Rear	MV in Transport	Careless/Negligent Manner
82817024	I 75	SR 52	8/9/2011	1215	S	25	0	1	S		Other	Guardrail Face	Careless/Negligent Manner
82823706	I 75	SR 52	8/24/2011	0	N	20	0	0	S	S	Front to Rear	MV in Transport	
82821763	I 75	SR 52	9/22/2011	7:28:00	S	0	0	0	S	S	Front to Rear	MV in Transport	Careless/Negligent Manner
82257236	I 75	SR 52	10/4/2011	2:40:00	S	0	0	1	S	S	Sideswipe, same dir	Parked MV	Fail to Maintain Ln
82825386	I 75	SR 52	10/19/2011	14:30:00	S	40	0	0	S	S	Front to Rear	MV in Transport	Careless/Negligent Manner
82821801	I 75	SR 52	10/19/2011	16:22:00	S	0	0	0	N	N	Front to Rear	MV in Transport	Careless/Negligent Manner
82270439	I 75	SR 52	10/22/2011	22:45:00	S	0	0	0	N		Unknown	Traffic Sign	Careless/Negligent Manner
81954837	I 75	SR 52	11/26/2011	11:04:00	N	0	0	0	N		Sideswipe, same dir	MV in Transport	Fail to Maintain Ln
82855066	I 75	SR 52	11/28/2011	149		0	0	0	S	S	Front to Rear	No Data	
82844466	I 75	SR 52	12/1/2011	653		0	0	0	N	N	No Data	Cargo Loss/Shift	
82016003	I 75	SR 52	12/2/2011	2100		0	0	0			No Data	No Data	
82848380	I 75	SR 52	12/25/2011	11:55:00	S	0	0	0	S		Front to Rear	MV in Transport	
7571583	I 75 EXIT RMP	SR 52	6/14/2009	2229		0	0	0			Front to Rear	No Data	Careless/Negligent Manner
7573948	I 75 EXIT RMP	SR 52	3/20/2010	1603		0	0	0			Front to Rear	No Data	Careless/Negligent Manner
7564470	I 75 NB EXT RMP	SR 52	3/4/2007	1635	S	15	0	0			Front to Rear	No Data	Careless/Negligent Manner
7565432	I 75 SB ENT RMP	SR 52	9/8/2007	1800	S	150	0	0			No Data	Overturn	Too Fast for Conditions
77134992	I 75 SB EXIT RMP	SR 52	3/11/2007	1157	N	50	0	0	S	S	Front to Rear	No Data	Careless/Negligent Manner
7564101	SR 52	I 75	1/5/2007	600	E	50	0	0			No Data	No Data	FTY ROW
77130108	SR 52	I 75	1/22/2007	1403	W	105	0	1	W	E	No Data	No Data	FTY ROW
5693235	SR 52	I 75	1/25/2007	750		0	0	0			Front to Rear	No Data	Careless/Negligent Manner
77130388	SR 52	I 75	2/8/2007	1430	W	50	0	0	W	W	Angle	No Data	Careless/Negligent Manner
7556251	SR 52	I 75	2/12/2007	1700		0	0	0			Front to Rear	No Data	Careless/Negligent Manner

I 75 @ SR 52

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77135525	SR 52	I 75	3/15/2007	1627		0	0	0	W	E	No Data	No Data	FTY ROW
7564489	SR 52	I 75	4/27/2007	1012		0	0	0			Angle	No Data	FTY ROW
77138216	SR 52	I 75	4/28/2007	630		0	0	0	W	E	Angle	No Data	Other Cont Act
77143408	SR 52	I 75	6/6/2007	1131		0	0	0	W	E	Angle	No Data	FTY ROW
77140880	SR 52	I 75	6/6/2007	834		0	0	0	W	W	Sideswipe, same dir	No Data	FTY ROW
77142243	SR 52	I 75	7/27/2007	700	E	500	0	0	N	W	Angle	No Data	FTY ROW
77146579	SR 52	I 75	7/27/2007	1729		0	0	0	W	E	Angle	No Data	FTY ROW
77146065	SR 52	I 75	8/2/2007	747	E	300	0	0	E	W	No Data	No Data	FTY ROW
77135586	SR 52	I 75	8/8/2007	1720		0	0	1	W	E	No Data	No Data	No Cont Act
77135589	SR 52	I 75	8/17/2007	1730	E	100	0	0	W	W	Front to Rear	No Data	Careless/Negligent Manner
77149268	SR 52	I 75	9/3/2007	1252	E	50	0	0	W	W	Angle	No Data	Careless/Negligent Manner
77147820	SR 52	I 75	10/19/2007	930	E	500	0	0	E	W	No Data	No Data	FTY ROW
77375294	SR 52	I 75	10/30/2007	1009	E	10	0	0	W	W	No Data	Other Fixed Obj	Careless/Negligent Manner
77380863	SR 52	I 75	11/16/2007	1227		0	0	0	W	E	No Data	No Data	FTY ROW
7567351	SR 52	I 75	11/17/2007	1536	W	15	0	0			Front to Rear	No Data	Careless/Negligent Manner
77381812	SR 52	I 75	11/26/2007	704		0	0	1	W	E	Angle	No Data	FTY ROW
77377193	SR 52	I 75	12/31/2007	730		0	0	1	N	E	No Data	Other Fixed Obj	Careless/Negligent Manner
77385418	SR 52	I 75	1/2/2008	1414	W	500	0	0	N	W	Angle	No Data	FTY ROW
77386659	SR 52	I 75	1/16/2008	1722	W	500	0	0	E	E	Angle	No Data	FTY ROW
77385921	SR 52	I 75	1/23/2008	827		0	0	0	W	E	Angle	No Data	FTY ROW
77378676	SR 52	I 75	1/26/2008	1915	W	75	0	1	E	E	Front to Rear	No Data	Careless/Negligent Manner
77388608	SR 52	I 75	2/11/2008	720	W	500	0	1	N	E	Angle	No Data	FTY ROW
77394702	SR 52	I 75	4/21/2008	815	W	100	0	0	E	E	Front to Rear	No Data	Careless/Negligent Manner
77393970	SR 52	I 75	4/24/2008	628	W	150	0	2	W	E	Front to Front	No Data	FTY ROW
77650980	SR 52	I 75	8/8/2008	1303		0	0	0	E	E	Front to Rear	No Data	Careless/Negligent Manner
77650484	SR 52	I 75	9/1/2008	1405	W	250	0	0	E	E	Front to Rear	No Data	Fail to Maintain Ln
77655108	SR 52	I 75	9/9/2008	1620	E	350	0	0	W	W	Sideswipe, same dir	No Data	Fail to Maintain Ln
7566719	SR 52	I 75	9/26/2008	1313	W	75	0	0			Front to Rear	No Data	Followed too Closely
77652762	SR 52	I 75	10/3/2008	1757	E	60	0	0	W	W	Angle	No Data	Fail to Maintain Ln
77650024	SR 52	I 75	10/16/2008	705	W	250	0	0	E	E	Front to Rear	No Data	Careless/Negligent Manner
77654699	SR 52	I 75	10/16/2008	631		0	0	0	W	W	Sideswipe, same dir	No Data	Fail to Maintain Ln
77657617	SR 52	I 75	11/1/2008	1819		0	0	0	W	E	Angle	No Data	Improper Turn
7565945	SR 52	I 75	11/30/2008	1820	E	200	0	0			Front to Rear	No Data	Careless/Negligent Manner
77654582	SR 52	I 75	12/2/2008	550		0	0	0	W	E	Angle	No Data	FTY ROW
77654583	SR 52	I 75	12/2/2008	746		0	0	0	W	W	Front to Rear	No Data	Followed too Closely
77660722	SR 52	I 75	12/11/2008	1103	W	250	0	0	E	E	Sideswipe, same dir	No Data	Followed too Closely

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77654584	SR 52	I 75	12/12/2008	1308	W	400	0	0	E	W	Angle	No Data	FTY ROW
77650037	SR 52	I 75	12/12/2008	1820	W	500	0	0	N	E	No Data	No Data	FTY ROW
77654585	SR 52	I 75	12/14/2008	934	W	400	0	1	W	W	Angle	No Data	Other Cont Act
77659637	SR 52	I 75	12/22/2008	1122	E	500	0	1	E	W	Angle	No Data	FTY ROW
77661970	SR 52	I 75	1/20/2009	810	W	50	0	0	E	E	Front to Rear	No Data	Careless/Negligent Manner
77664311	SR 52	I 75	1/29/2009	1919		0	0	0	W	W	No Data	No Data	Careless/Negligent Manner
77663818	SR 52	I 75	2/7/2009	635	W	50	0	0	E	E	Front to Rear	No Data	Careless/Negligent Manner
77664494	SR 52	I 75	3/10/2009	1926		0	0	0	W	E	Angle	No Data	FTY ROW
77668111	SR 52	I 75	3/20/2009	1106	W	500	0	0	E	E	No Data	Parked MV	Careless/Negligent Manner
77667099	SR 52	I 75	3/28/2009	2105		0	0	1	S	E	Angle	No Data	FTY ROW
77668123	SR 52	I 75	4/2/2009	945		0	0	0	W	E	Angle	No Data	Improper Turn
77673201	SR 52	I 75	4/8/2009	32		0	0	0	W	E	No Data	No Data	FTY ROW
74621026	SR 52	I 75	4/27/2009	700		500	0	0			No Data	No Data	Improper Turn
77668425	SR 52	I 75	4/28/2009	740	E	500	0	0	E	W	Angle	No Data	FTY ROW
7573155	SR 52	I 75	5/31/2009	1756	E	25	0	0			Front to Rear	No Data	Careless/Negligent Manner
77673231	SR 52	I 75	6/17/2009	2023	E	20	0	0	E	E	Front to Rear	No Data	Careless/Negligent Manner
77672359	SR 52	I 75	6/30/2009	1724	E	20	0	0	W	W	Front to Rear	No Data	Careless/Negligent Manner
80453001	SR 52	I 75	8/1/2009	1335	E	250	0	0	S		No Data	Tree	Careless/Negligent Manner
80453307	SR 52	I 75	8/14/2009	1416		0	0	0	W	E	Angle	No Data	Ran Red Light
80450247	SR 52	I 75	8/15/2009	1943	E	25	0	0	W	W	Angle	No Data	Other Cont Act
80453336	SR 52	I 75	9/4/2009	1246	E	125	0	0	W	W	Front to Rear	No Data	Careless/Negligent Manner
9609593	SR 52	I 75	9/26/2009	500		0	0	0			Rear to Side	No Data	Improper Backing
80456382	SR 52	I 75	10/1/2009	1600	W	400	0	0	W	E	Angle	No Data	FTY ROW
80456213	SR 52	I 75	10/5/2009	1415	E	500	0	0	E	W	No Data	No Data	FTY ROW
80454674	SR 52	I 75	10/12/2009	1243	W	50	0	2	E	E	No Data	Other Fixed Obj	Ran Stop Sign
80456187	SR 52	I 75	10/22/2009	1538	W	325	0	1	W		No Data	Other Fixed Obj	Other Cont Act
80458836	SR 52	I 75	11/24/2009	1304	W	25	0	0	S	W	Angle	No Data	FTY ROW
7574647	SR 52	I 75	12/11/2009	1306		0	0	0			Angle	No Data	Fail to Maintain Ln
80462059	SR 52	I 75	1/6/2010	942		0	0	1	W	E	No Data	No Data	Improper Turn
80462070	SR 52	I 75	2/11/2010	1138	E	500	0	1	S		No Data	Pedestrian	Other Cont Act
80462090	SR 52	I 75	3/10/2010	1247	E	100	0	1	N		No Data	Pedestrian	FTY ROW
80465877	SR 52	I 75	3/18/2010	212	E	500	0	0	S	N	Rear to Side	No Data	Improper Backing
80469014	SR 52	I 75	4/5/2010	1217		0	0	1	W	E	Angle	No Data	FTY ROW
80465799	SR 52	I 75	4/5/2010	1302	W	300	0	0	E	E	Sideswipe, same dir	No Data	Fail to Maintain Ln
80466817	SR 52	I 75	4/11/2010	1533	W	500	0	0	N	E	Angle	No Data	FTY ROW
7800722	SR 52	I 75	4/19/2010	1637	W	200	0	0			Sideswipe, same dir	No Data	Careless/Negligent Manner

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80470208	SR 52	I 75	4/23/2010	821	E	100	0	0	S	N	No Data	Parked MV	Careless/Negligent Manner
80474004	SR 52	I 75	6/15/2010	907	E	300	0	1	N		No Data	Pedestrian	Careless/Negligent Manner
7802611	SR 52	I 75	6/21/2010	835		0	0	0			Angle	No Data	FTY ROW
80474015	SR 52	I 75	7/5/2010	637	E	500	0	0	N		No Data	Parked MV	Improper Backing
80473843	SR 52	I 75	7/21/2010	1548		0	0	0	W	W	Front to Rear	No Data	Careless/Negligent Manner
80473424	SR 52	I 75	7/21/2010	741	W	200	0	0	E	S	No Data	Other Fixed Obj	No Data
7804023	SR 52	I 75	8/2/2010	610	W	100	0	0			Front to Rear	No Data	Careless/Negligent Manner
80474031	SR 52	I 75	8/16/2010	510	E	500	0	0	S		Angle	No Data	Careless/Negligent Manner
80610253	SR 52	I 75	8/24/2010	943	W	40	0	0	E	E	Front to Rear	No Data	Careless/Negligent Manner
80605482	SR 52	I 75	9/20/2010	815	E	500	0	0	W	W	No Data	No Data	FTY ROW
80606545	SR 52	I 75	9/25/2010	912	E	500	0	0	S	S	Angle	No Data	Careless/Negligent Manner
80612273	SR 52	I 75	10/26/2010	543	E	200	0	0	N	E	Angle	No Data	FTY ROW
80612561	SR 52	I 75	11/2/2010	1645		0	0	0	W	W	Front to Rear	No Data	Careless/Negligent Manner
81972645	SR 52	I 75	11/29/2010	1512		0	0	0	W	W	Angle		
81966427	SR 52	I 75	11/29/2010	2240		0	0	0	W	W	Front to Rear		
81975940	SR 52	I 75	12/1/2010	1405		0	0	0	E	E	Rear to Side		
82059408	SR 52	I 75	1/3/2011	2009		0	0	0	W	W	Front to Rear	MV in Transport	Careless/Negligent Manner
81952942	SR 52	I 75	1/13/2011	750	E	500	0	0	E	N	Angle	Parked MV	Careless/Negligent Manner
82066937	SR 52	I 75	2/3/2011	545		0	0	1	W	E	Angle	MV in Transport	FTY ROW
81972638	SR 52	I 75	2/3/2011	2023		0	0	0	W	E	Angle	MV in Transport	FTY ROW
81965786	SR 52	I 75	2/14/2011	1147		0	0	1	W	W	Front to Rear	MV in Transport	Careless/Negligent Manner
82066959	SR 52	I 75	2/18/2011	1030	W	500	0	0	N	E	Rear to Side	MV in Transport	Improper Backing
82066967	SR 52	I 75	2/23/2011	625	E	500	0	0	E	N	Angle	Parked MV	Careless/Negligent Manner
82083766	SR 52	I 75	3/20/2011	1545	E	300	0	0	N	S	Rear to Side	MV in Transport	
82070257	SR 52	I 75	3/22/2011	1400	N	200	0	0	S	S	Sideswipe, same dir	Parked MV	
82240564	SR 52	I 75	4/20/2011	1315	E	500	0	0	S	S	Front to Rear	Parked MV	Careless/Negligent Manner
82081445	SR 52	I 75	4/28/2011	820	E	10	0	1	N	W	Angle	MV in Transport	FTY ROW
82245858	SR 52	I 75	6/2/2011	735	E	500	0	0	E	W	Angle	MV in Transport	FTY ROW
82256752	SR 52	I 75	6/8/2011	2205	W	0	0	0	S	E	Angle	MV in Transport	Improper Turn
82240629	SR 52	I 75	6/14/2011	1140	E	100	0	0	W	W	Front to Rear	MV in Transport	Careless/Negligent Manner
82251287	SR 52	I 75	6/23/2011	1600	E	500	0	0	S	W	Angle	MV in Transport	FTY ROW
81986956	SR 52	I 75	8/11/2011	630	E	50	0	0	E	N	Angle	Parked MV	Careless/Negligent Manner
82817035	SR 52	I 75	8/14/2011	1730	W	100	0	0	E	E	Sideswipe, same dir	MV in Transport	
82817039	SR 52	I 75	8/18/2011	1715	E	100	0	1	E	W	Angle	MV in Transport	FTY ROW
82825343	SR 52	I 75	9/8/2011	214	E	300	0	0	S	S	Sideswipe, same dir	Pared MV	Careless/Negligent Manner
82830375	SR 52	I 75	10/25/2011	16:00:00	E	500	0	0	S	S	Angle	Parked MV	Careless/Negligent Manner

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82821735	SR 52	I 75	10/27/2011	1732	S	10	0	1	E	W	Angle	MV in Transport	FTY ROW
82844433	SR 52	I 75	10/28/2011	6:19:00	W	50	0	0	W	W	Front to Rear	MV in Transport	
82842973	SR 52	I 75	11/21/2011	1632		0	0	0	N	N	No Data	No Data	
81966166	SR 52	I 75	12/18/2011	1312		0	0	0	E	W	Angle	No Data	
76876109	SR 52	I 75 ENT RMP	3/23/2007	1111		0	0	1	W	E	Sideswipe, same dir	No Data	Other Cont Act
7564473	SR 52	I 75 SB ENT RMP	3/9/2007	1820		0	0	0			Angle	No Data	FTY ROW
77146292	SR 52	I 75 SB ENT RMP	8/30/2007	1622		0	0	0	W	E	No Data	No Data	FTY ROW
9610285	SR 52	SR 52	6/1/2010	1513		0	0	0			Front to Rear	No Data	Followed too Closely

APPENDIX E

Travel Demand Model Plots and Socioeconomic Data

List of Developments Shown on Figure 3-1

Map No.	Development Name
6	Cannon Ranch
13	Fort King Ranch
14	Grand Oaks
20	Lake Bernadette
21	Lake Jovita
29	New River
30	Northwood
31	One Pasco Center
38	Saddlebrook Resorts
39	Seven Oaks
46	Tampa Bay Golf and Tennis
47	Livingston (nka Golden Ranch)
53	Wesley Chapel Lakes
57	Meadow Pointe
59	Oak Creek
62	Pine Ridge/54 Fork
66 & 67	Chapel Crossings (fka Harrison Bennett)
70	Wesley Pointe
81	Lexington Oaks
82	Aberdeen Lakes
84	Lykes Wells Road
85	Country Walk (fka Palm Pointe)
89	Cypress Creek
92	Wyndfields
96	Chapel Pines
97	Bridgewater
98	Hillcrest Preserve
99	Lange Equestrian Village
100	Boyette Road (aka Palm Cove)
112	Cypress Creek Town Center
114	Chapel Hill
115	Boyette Oaks
124	The Grove at Wesley Chapel
127	Ho (aka Ashey Pines)
128	Watergrass (fka Comas)
129	Rucks (aka Cobblestone Preserve)
131	Parkview - Serino (aka Hamilton Park)
132 & 142	Wiregrass Ranch/Pulte SR 56
133	Chapel Creek
134	Zephyr Ridge (fka Geiger Hill)
135	Ashton Oaks (fka Houck Property/Crossings)
139	Christopher/Sims
140	Hillside
143	Pasco Town Centre
147	Epperson Ranch
149	Pasco Commerce Center
151	Feliciano (aka Legacy Hills)
154	Quail Woods
155	Ashley Groves
156	Main Street at Grandview Village Center (Pasadena Hills Area Plan) Village D
160	River Landing
161	Evans Parcel G-1 (Villages of Pasadena Hills) Village G
162	Grantham
164	Wyndrush
166	Evans Parcel F-1 (Villages of Pasadena Hills) Village F
170	Stanley Meadows
181	Harvest Hills (Villages of Pasadena Hills) Village D
185	Evans Parcel C-1 (Villages of Pasadena Hills) Village C

Pasadena Hills Area Plan

Area Plan Boundary: Z-ByPass to SR 52, Curley Rd - US 301

	TAZ No.	Dwelling Units & Population						Employees		
		2006		2025		2035		2006	2025	2035
		Population	DU	Population	DU	Population	DU	Employees	Employees	Employees
	2296	244	114	**2775**	1293	4431	2065	130	791	1265
	2297	29	12	3455	1435	5660	2351	17	41	188
	2298	722	333	2864	1321	4241	1956	56	68	74
	2299	880	364	1878	777	2806	1161	265	321	339
	2304	2	1	3052	1553	3958	2011	18	440	842
	2305	35	15	2719	1168	4511	1938	58	342	802
	2306	16	7	1721	732	2851	1212	13	471	800
	2307	673	312	918	426	1200	557	104	112	114
	2314	0	0	2502	1325	3442	1823	10	514	931
	2315	0	0	2350	1240	2894	1527	10	420	660
	2316	126	50	2855	1132	3702	1467	10	207	288
	2346	3181	1966	3467	2143	3790	2343	1288	1295	1296
	2349	1072	1812	2142	1267	2521	1491	49	49	49
	2361	14	10	2104	877	3471	1447	8	537	917
	2362	267	113	2689	1203	4273	1916	3	157	260
	2363	23	10	2755	1219	4547	2012	34	535	1022
	2364	0	0	637	371	1061	618	27	583	1028
	2365	11	4	2898	943	4820	1568	6	304	554
	2366	22	9	2098	761	3484	1263	8	33	42
	2367	13	4	1966	701	3263	1164	12	23	29
	2368	36	17	2212	1054	3176	1513	0	381	682
	2369	80	41	2994	1535	3774	1940	20	379	637
Pasadena Hills Area Plan	2370	123	64	1292	536	2068	849	10	276	465
(Includes Ashley Grove, Chapel Creek, Lange Equestrian Village, Oak Creek, & Watergrass MPUDs)	2371	322	163	1517	631	2283	931	2,156	14	19
	Sum	**7,891**	**5,421**	**55,860**	**25,643**	**82,227**	**37,123**	**4,312**	**8,293**	**13,303**

Source: TBRPM Version 7.0 ZDATA

Other Surrounding DRIs

DRI Name	TAZ No.	Dwelling Units & Population						Employees		
		2006		2025		2035		2006	2025	2035
		Population	DU	Population	DU	Population	DU	Employees	Employees	Employees
Cannon Ranch	2255	21	7	1644	548	2481	827	27	1409	1947
	2256	3	1	563	216	1735	666	50	168	328
	2257	48	15	1858	581	2839	888	0	0	80
Connerton	2216	0	0	0	0	0	0	463	463	463
	2217	0	0	0	0	0	0	0	778	828
	2218	0	0	0	0	0	0	0	0	0
Cypress Creek	2287	911	464	1964	1001	2010	1024		893	1463
Cypress Creek Town Center	2286	14	5	2640	942	3669	1309	26	2334	3479
Epperson Ranch	2269	1443	641	2416	1073	2880	1279	104	108	110
Pasco Town Center	2254	36	13	2900	1049	5803	2099	2	9247	14680
Pasco Industrial & One Pasco Center	2072	38	19	222	444	906	453	834	2209	2616
New River	2318	29	13	4406	1974	5239	2347	323	958	1478
Northwood	2290	2864	1014	4050	1434	4109	1455	138	907	1500
	2291	801	285	1884	671	1884	671	681	771	771
McKendree Ranch	2253	1623	1029	2632	1669	2798	1774	185	482	487
Oakley Plaza	2264	4	2	238	119	504	252	51	456	569
	2265	2	1	484	242	734	367	436	1058	1389
Seven Oaks	2273	2600	1150	3175	1404	3821	1690	715	2822	3896
	2274	0	0	210	123	446	261	33	1347	1700
	2277	1247	662	2954	1569	3022	1605	633	849	1015
	2288	1911	974	2007	1023	2113	1077	321	395	398
Wesley Chapel Lakes DRI & Wynfields MPUD	2321	1228	465	3311	1254	3979	1507	142	749	1150
	2329	337	112	2408	800	2824	938	115	120	416
	2342	308	161	987	516	1513	791	0	3	4
	2280	142	103	1467	1063	1962	1421	20	70	170
	2337	5	2	1788	683	2458	939	0	212	395
Wiregrass	2275	0	0	714	238	1425	475	479	2132	3056
	2278	0	0	3180	1060	5886	1962	26	2432	4177
	2279	0	0	897	587	1587	1039	0	0	0
	2281	0	0	2731	1584	4372	2536	0	80	560
	2282	0	0	1220	723	1296	768	0	103	103
	2283	40	28	626	438	626	438	0	0	100
	2284	0	0	357	357	413	413	0	110	244
	2285	0	0	960	560	960	560	0	105	206
	2289	0	0	103	60	220	128	206	1356	2196
	Sum	**15,655**	**7,166**	**56,996**	**26,005**	**76,514**	**33,959**	**6,010**	**35,126**	**51,974**

Source: TBRPM Version 7.0 ZDATA

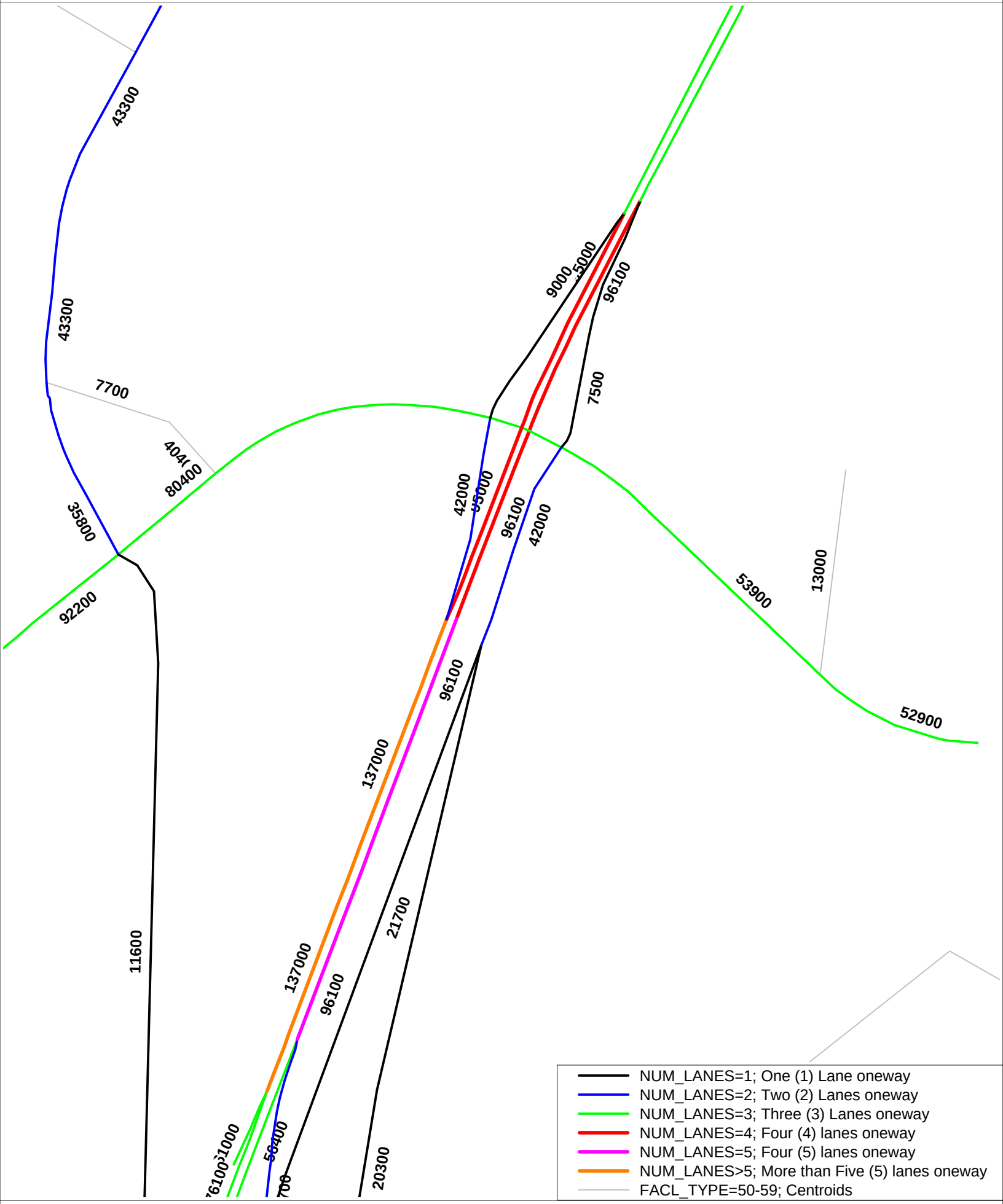
Other Surrounding MPUDs

MPUD Name	TAZ No.	Dwelling Units & Population						Employees		
		2006		2025		2035		2006	2025	2035
		Population	DU	Population	DU	Population	DU	Employees	Employees	Employees
Boyette Road & Bridgewater	2268	1799	842	1520	655	1599	689	644	648	650
Boyette Oaks	2267	1214	627	1318	537	2155	878	63	67	68
Collier Place	2239	1354	546	6357	2382	6746	2528	202	202	202
Cracchiolo Comp Plan	2374	0	0	0	0	0	0	0	300	502
Dupree Preserves	2233	850	413	2034	989	2486	1209	430	444	447
Gateway Hub Comp Plan	2048,2049,2372	0	0	2060	6532	2627	8274	0	1101	1584
Grantham	2258	2926	1010	4023	1389	4266	1473	246	251	418
Lake Padgett Pines	2227	326	116	1174	418	2134	760	387	390	390
Lexington Oaks & Grand Oaks	2272	1857	744	5453	2103	5518	2128	128	161	171
Pine Ridge/54 Fork, Chapel Pines, Hall/Sims, & Christopher/Sims	2270	1849	1046	2622	1103	2907	1223	105	197	253
Plantation Palms	2240	3994	1377	4027	1388	4054	1397	123	123	123
Quail Woods	2263	5063	1945	6090	2339	7016	2695	2069	319	321
Sable Ridge, Enclave at Lake Padgett, & Peninsular Preserve	2238	1180	463	1700	667	2072	813	446	464	469
Saddlebrook	2276	1876	1232	3125	2052	3588	2356	1116	1344	1512
	2225	2564	1490	5578	3242	6591	3831	164	833	1318
Wesley Chapel Marketplace,Harrison-Bennet	2317	1308	610	3344	1559	3344	1559	53	370	571
	2322	1033	703	1774	1208	2197	1496	261	323	330
Wildcat Groves Comp Plan	2373	0	0				600	0	500	1000
	Sum	**29,193**	**13,164**	**52,199**	**28,563**	**59,300**	**33,909**	**6,437**	**8,037**	**10,329**

Source: TBRPM Version 7.0 ZDATA & Pasco County Planning Dept.

	2006		2025		2035		2006	2025	2035
	Population	DU	Population	DU	Population	DU	Employees	Employees	Employees
Grand Total	**52,739**	**25,751**	**165,055**	**80,211**	**218,041**	**104,991**	**16,759**	**51,456**	**75,606**

I-75 Overpass IJR
NO BUILD 2040 AADT



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I-75 Overpass IJR
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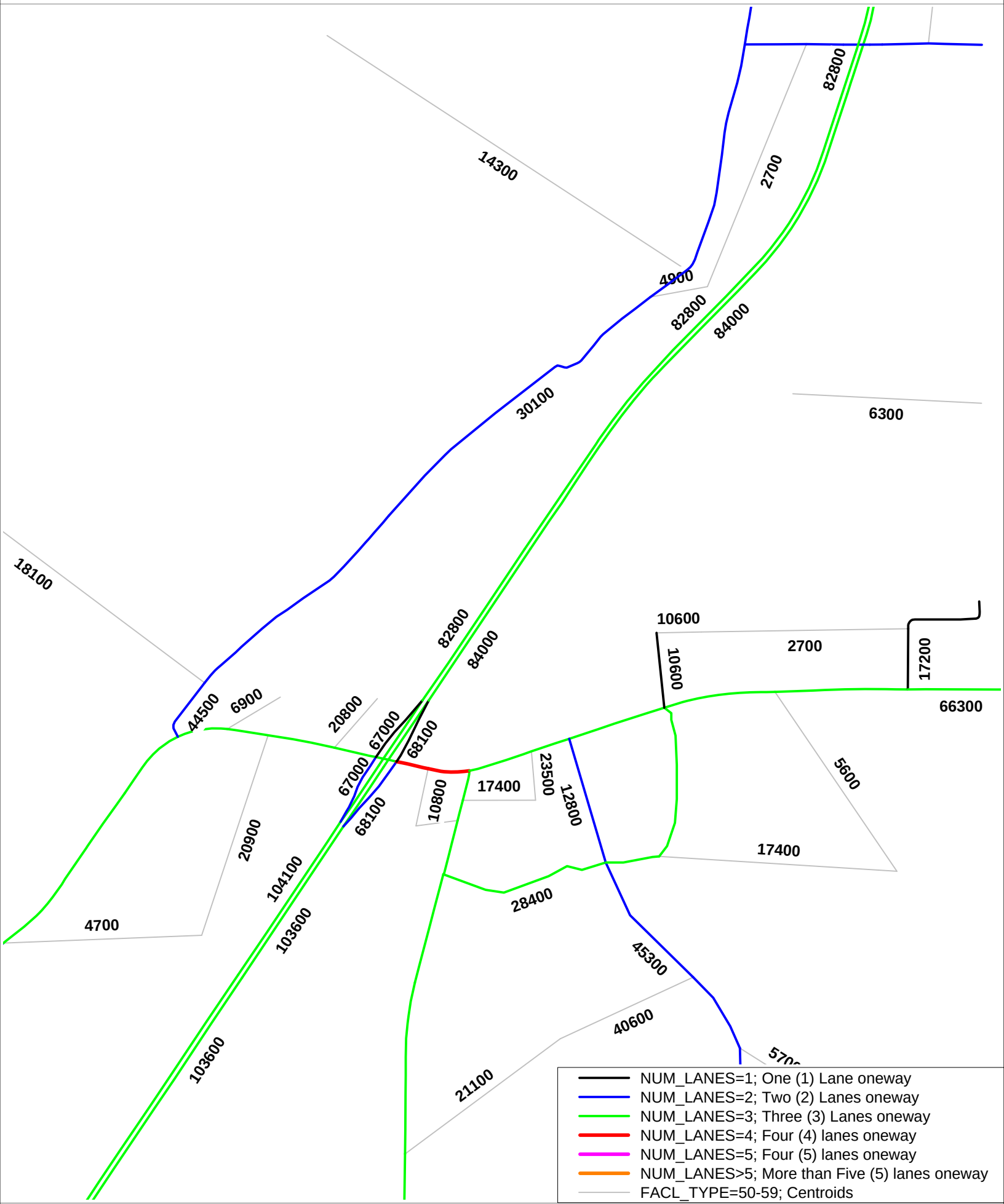

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I-75 Overpass IJR
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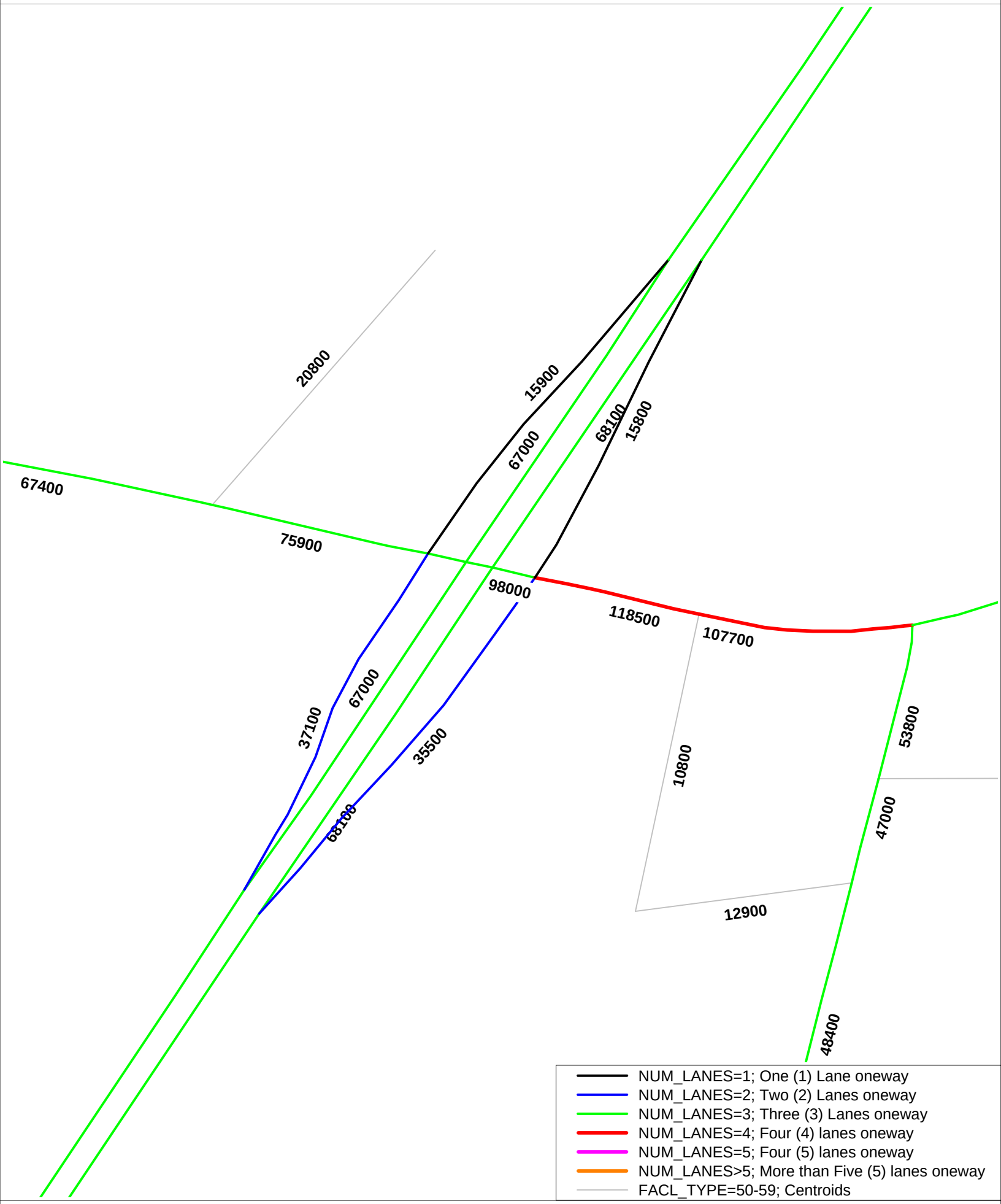

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I-75 Overpass IJR
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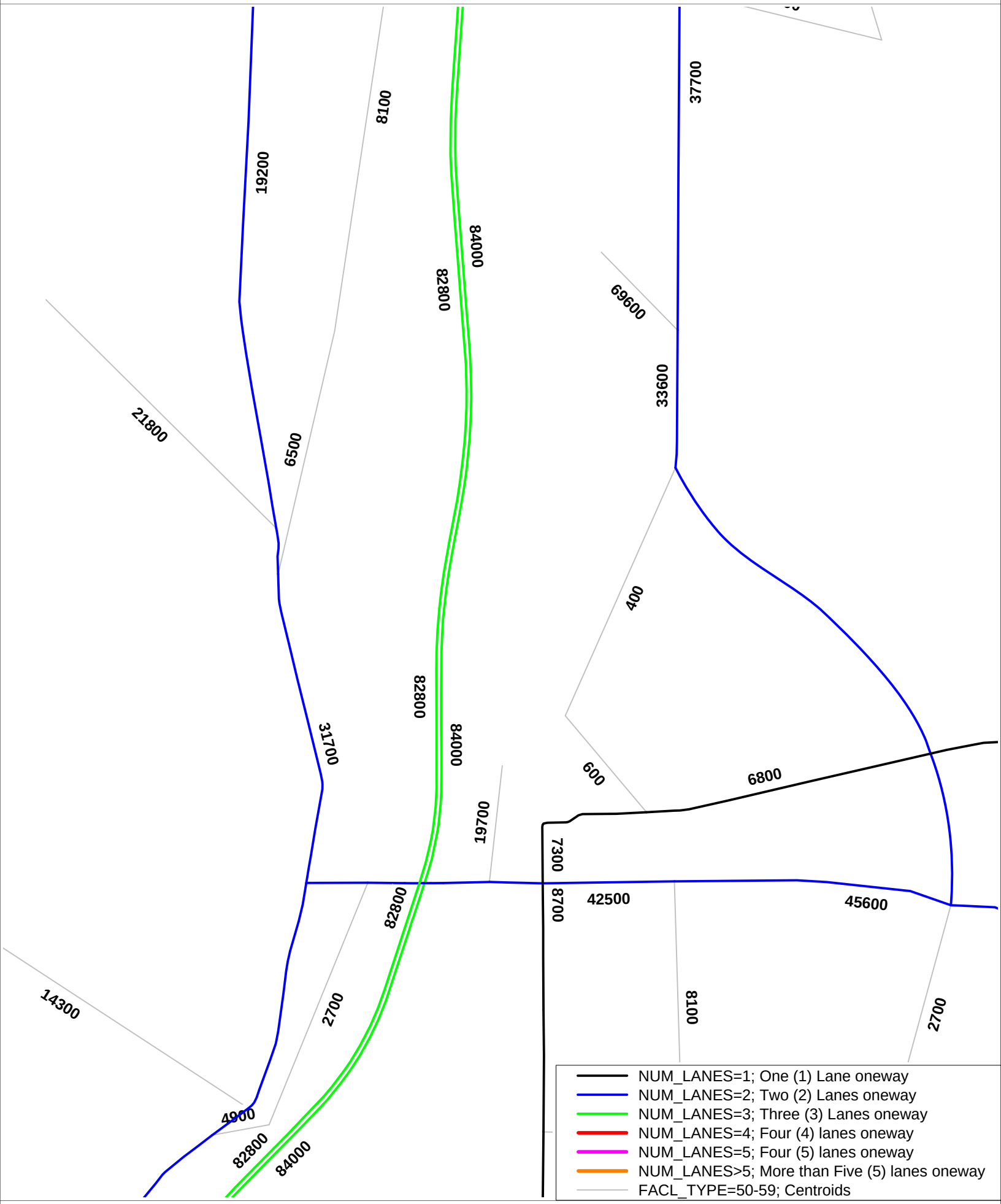

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I-75 Overpass IJR
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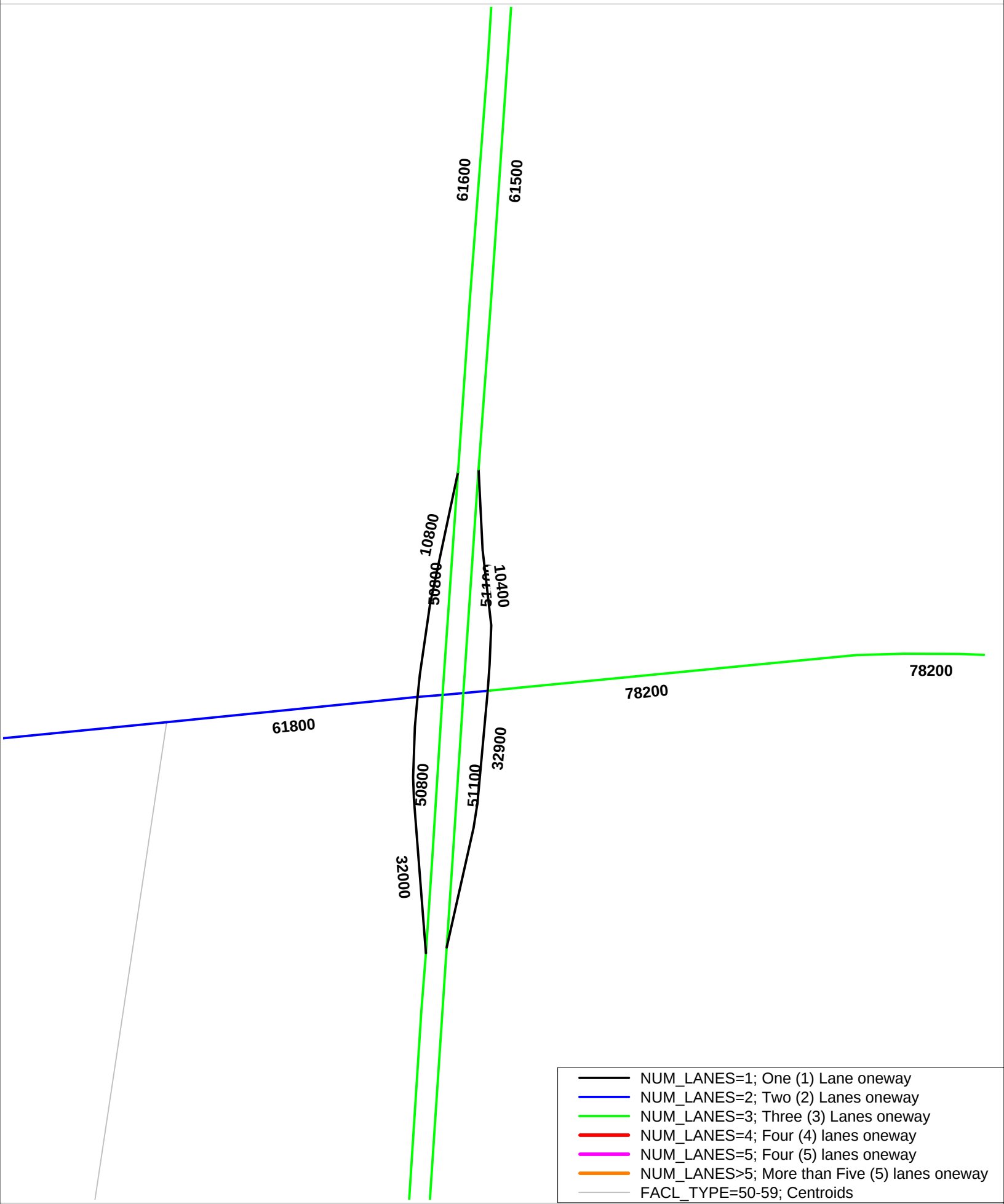

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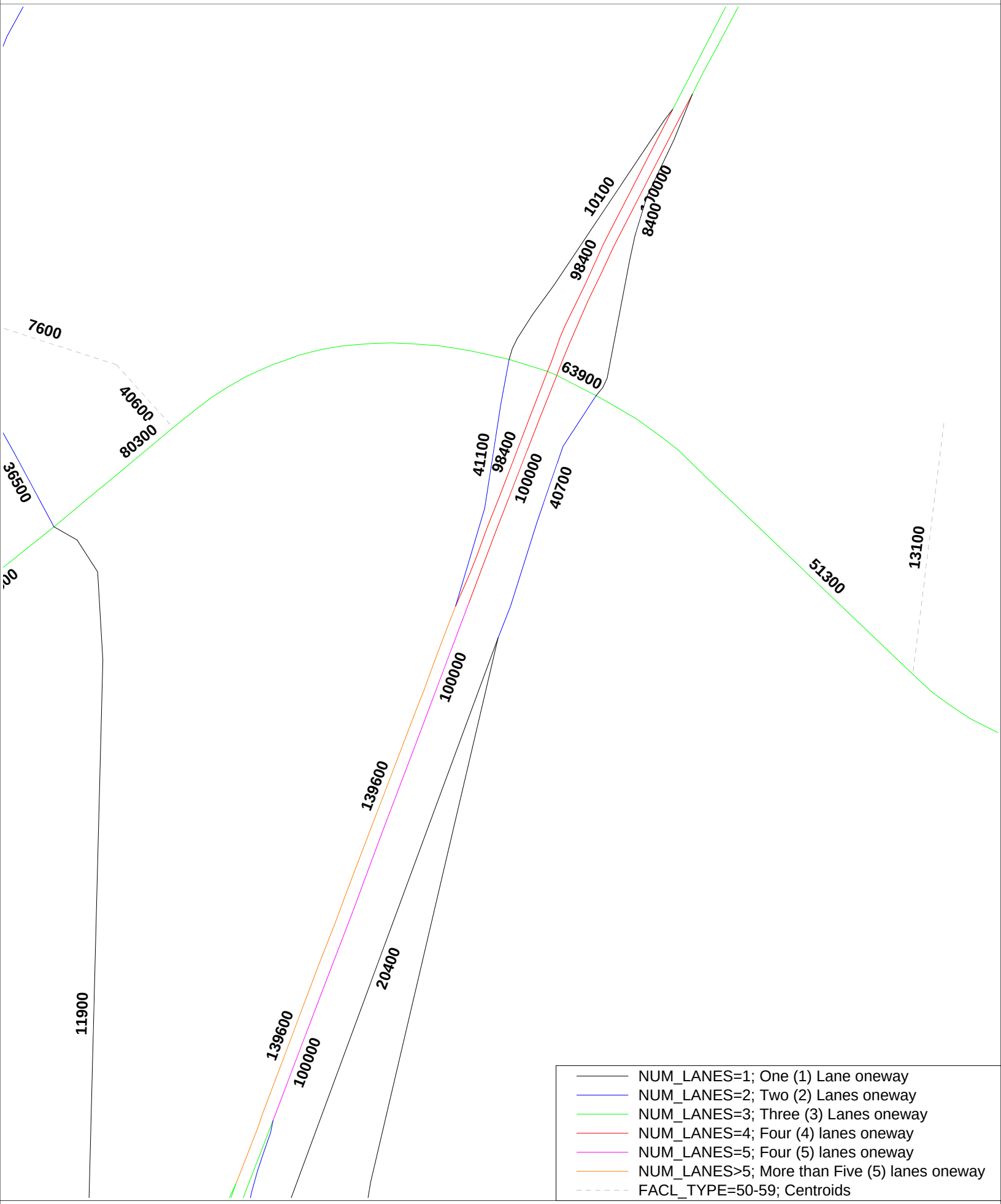
I-75 and Overpass Road IJR
Build 2040 AADT



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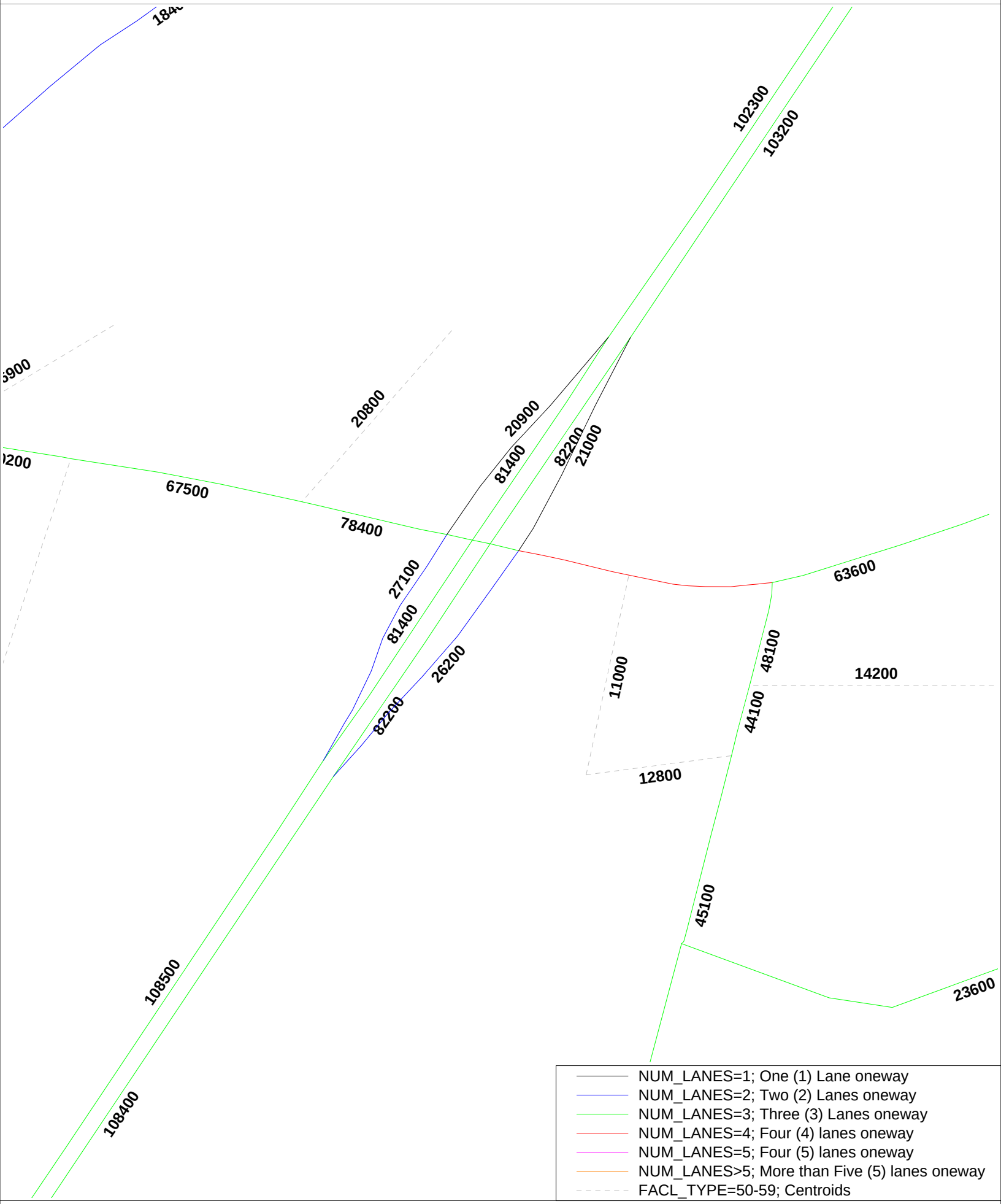
I-75 and Overpass Road IJR
Build 2040 AADT



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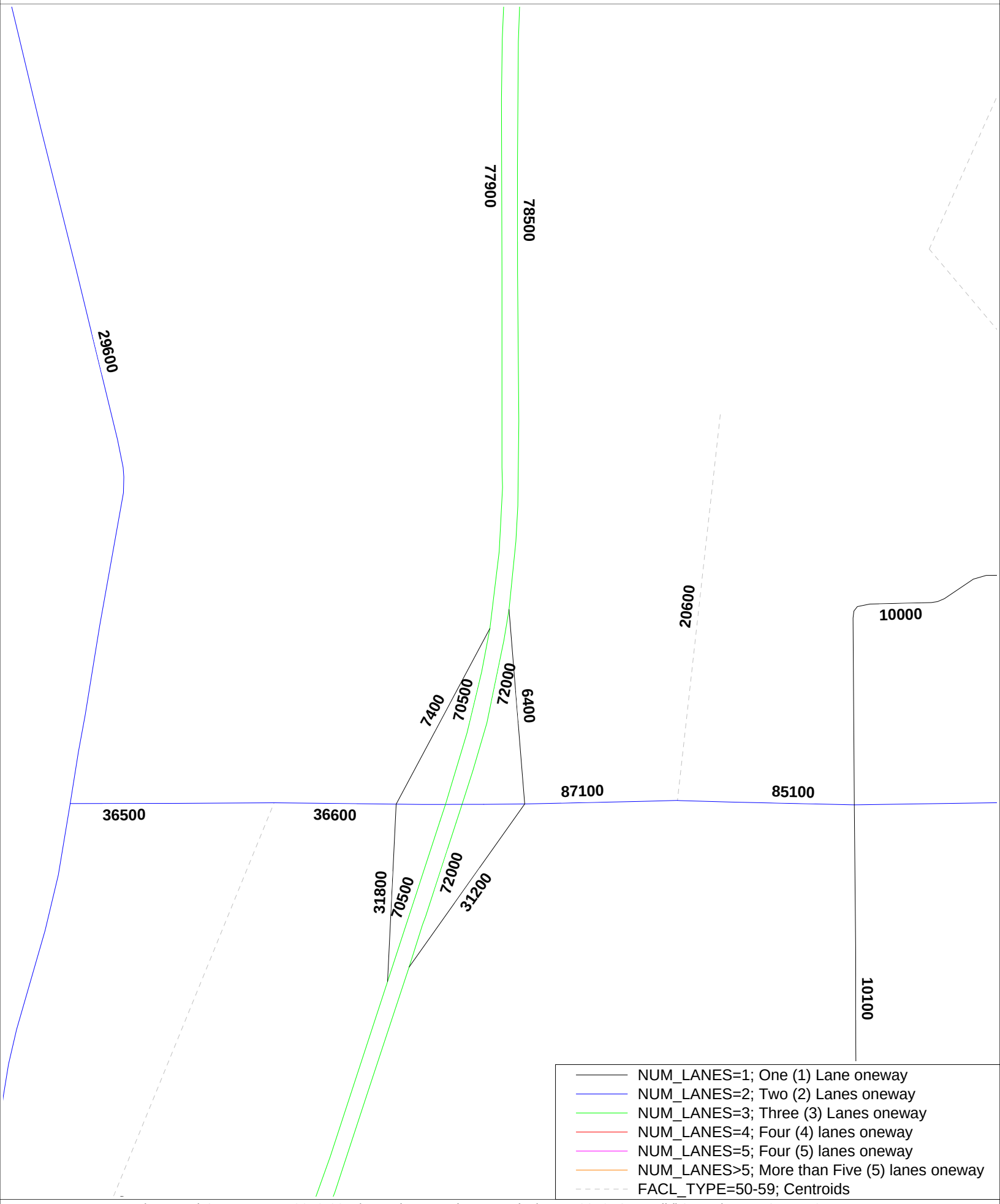
I-75 and Overpass Road IJR
Build 2040 AADT



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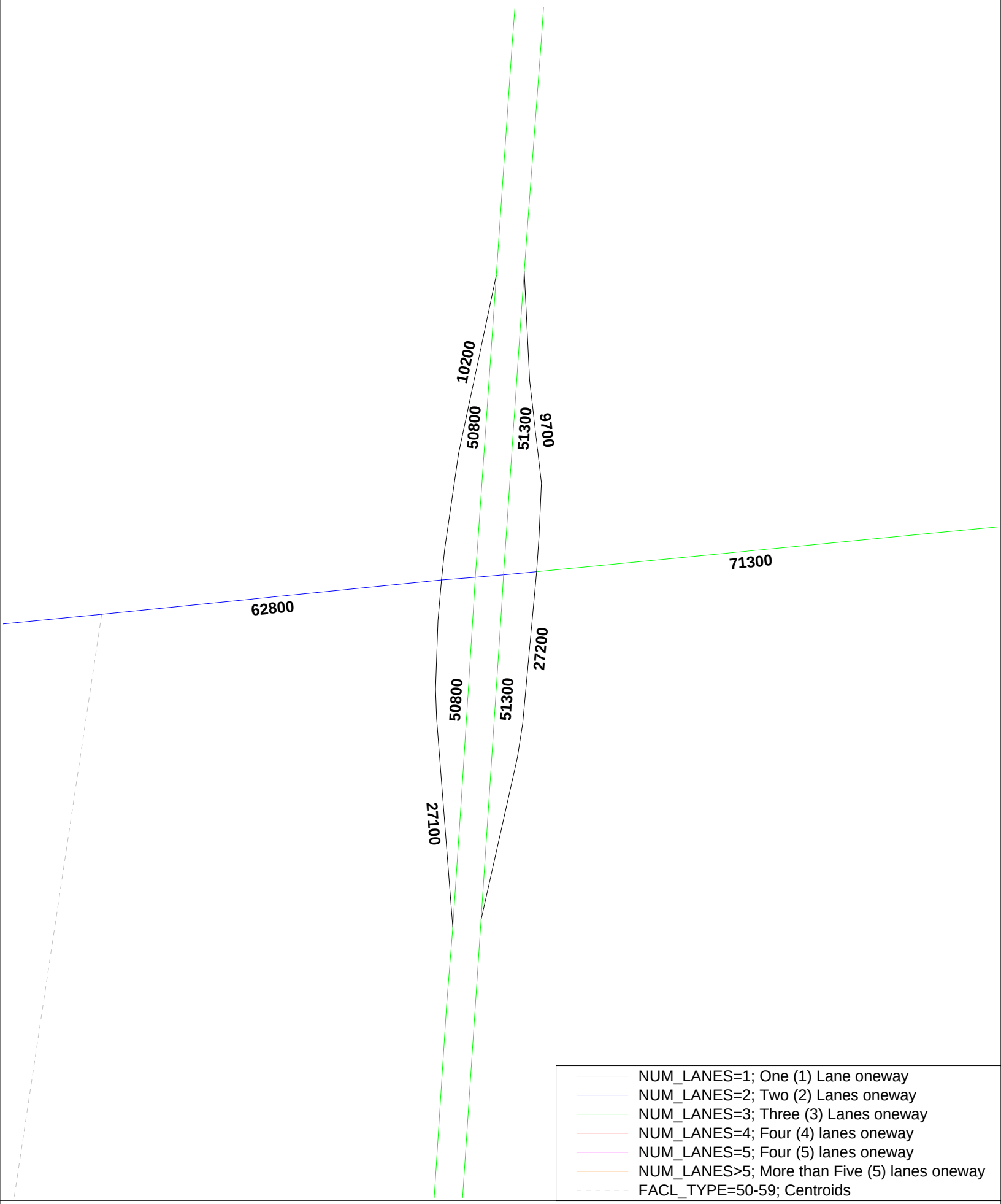
I-75 and Overpass Road IJR
Build 2040 AADT



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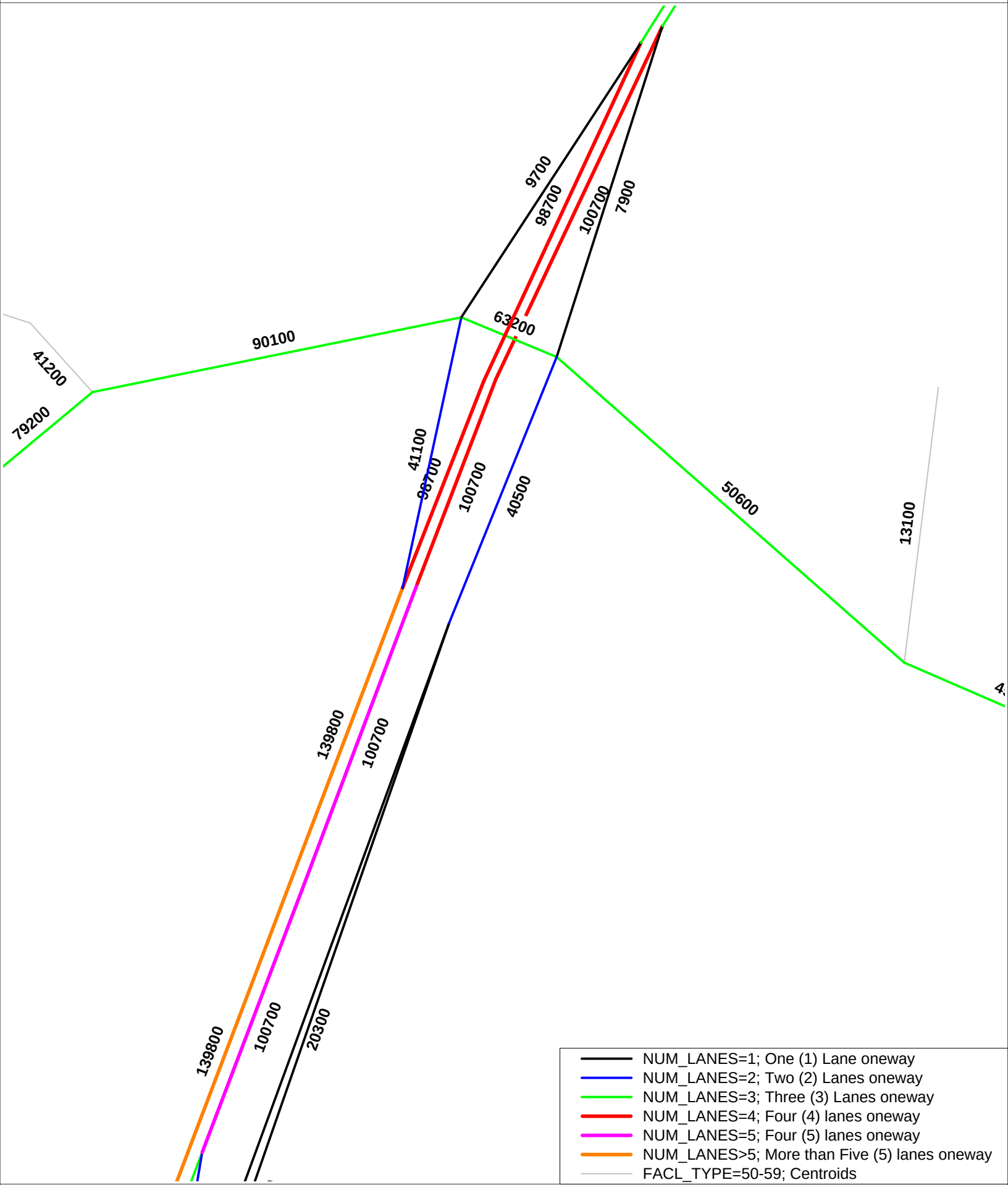
I-75 and Overpass Road IJR
2040 AADT Volumes with N-S Road
2040 AADT Volumes



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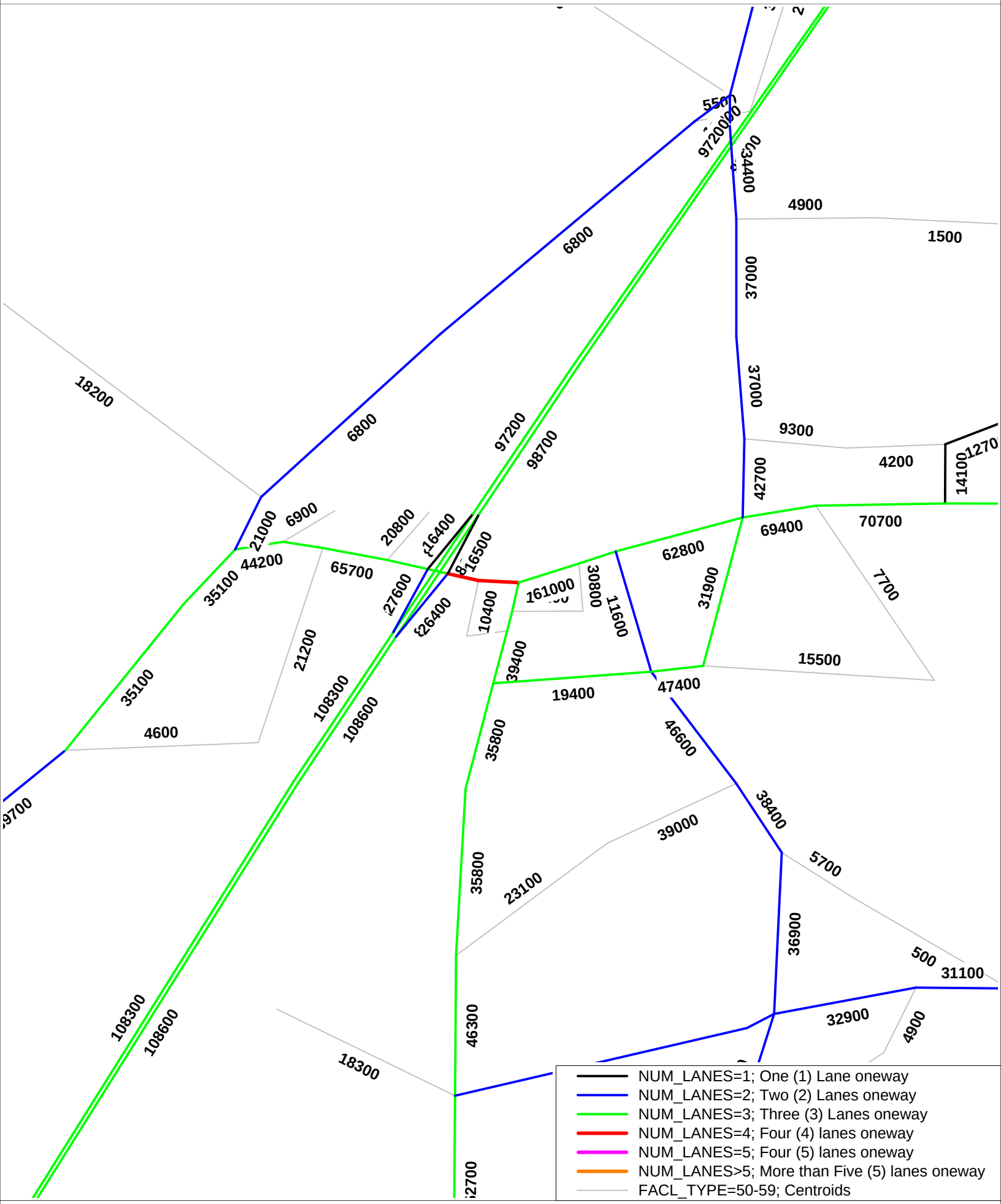
I-75 and Overpass Road IJR
2040 AADT Volumes with N-S Road



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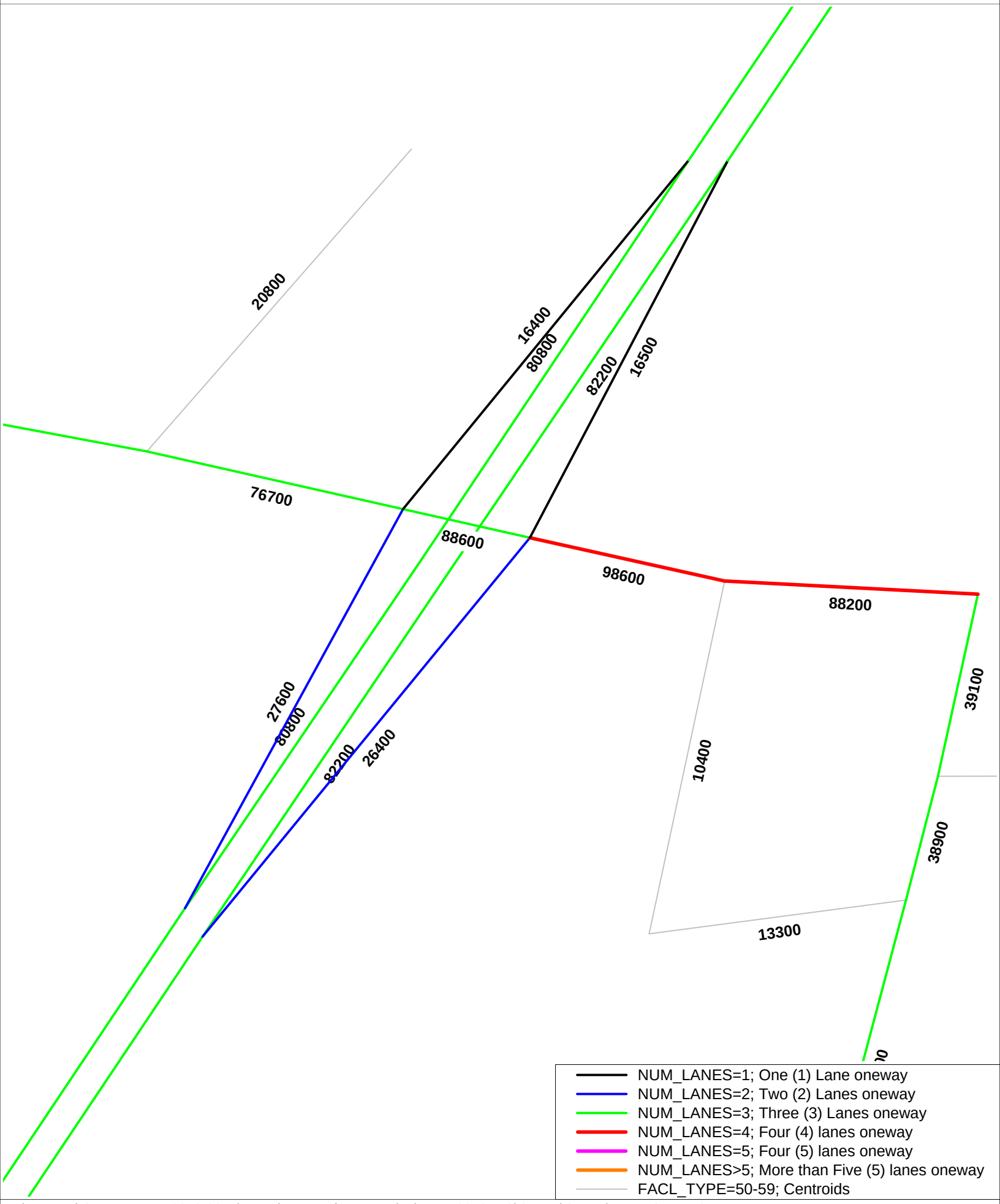
I-75 and Overpass Road IJR
2040 AADT Volumes with N-S Road



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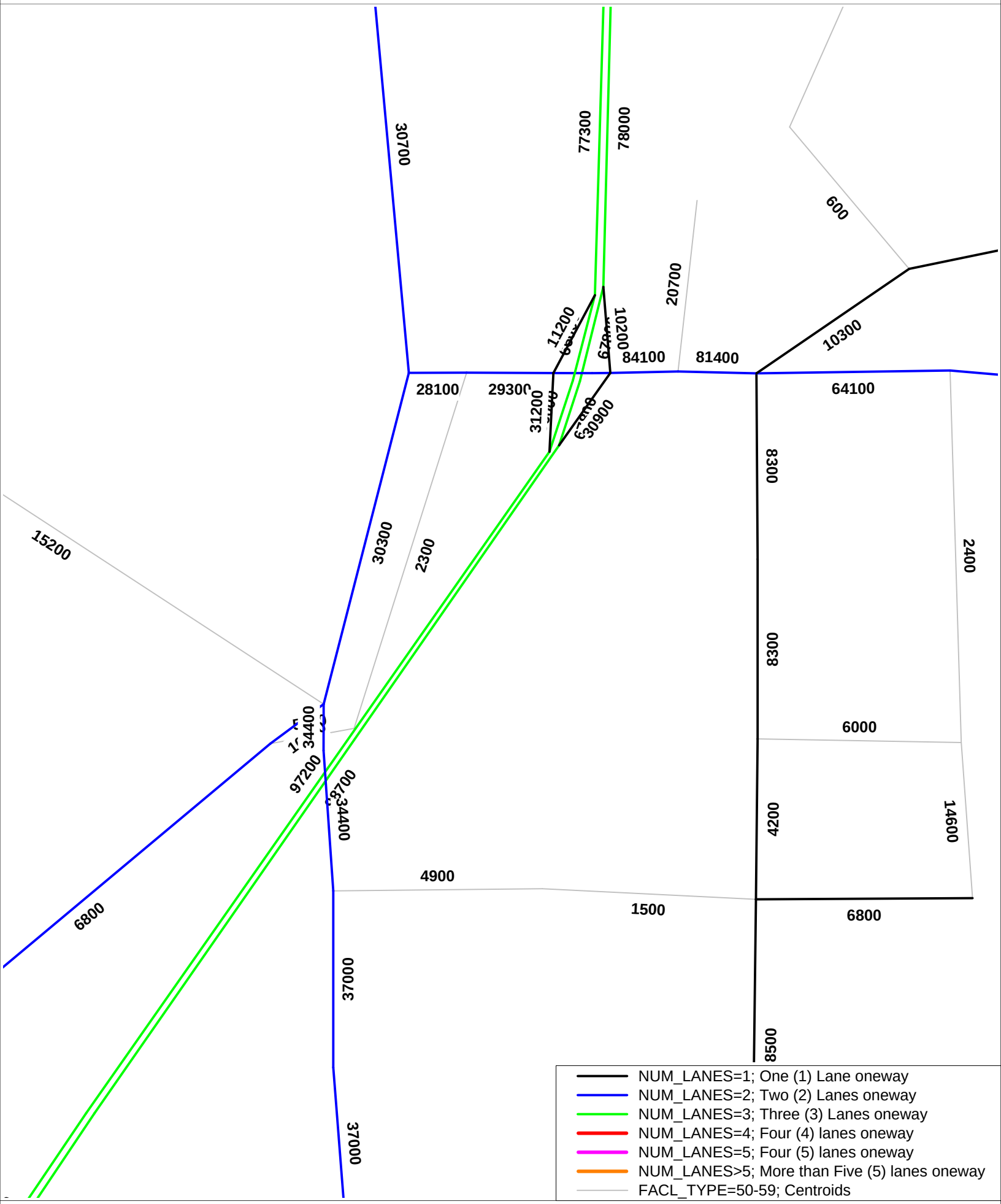
I-75 and Overpass Road IJR
2040 AADT Volumes with N-S Road



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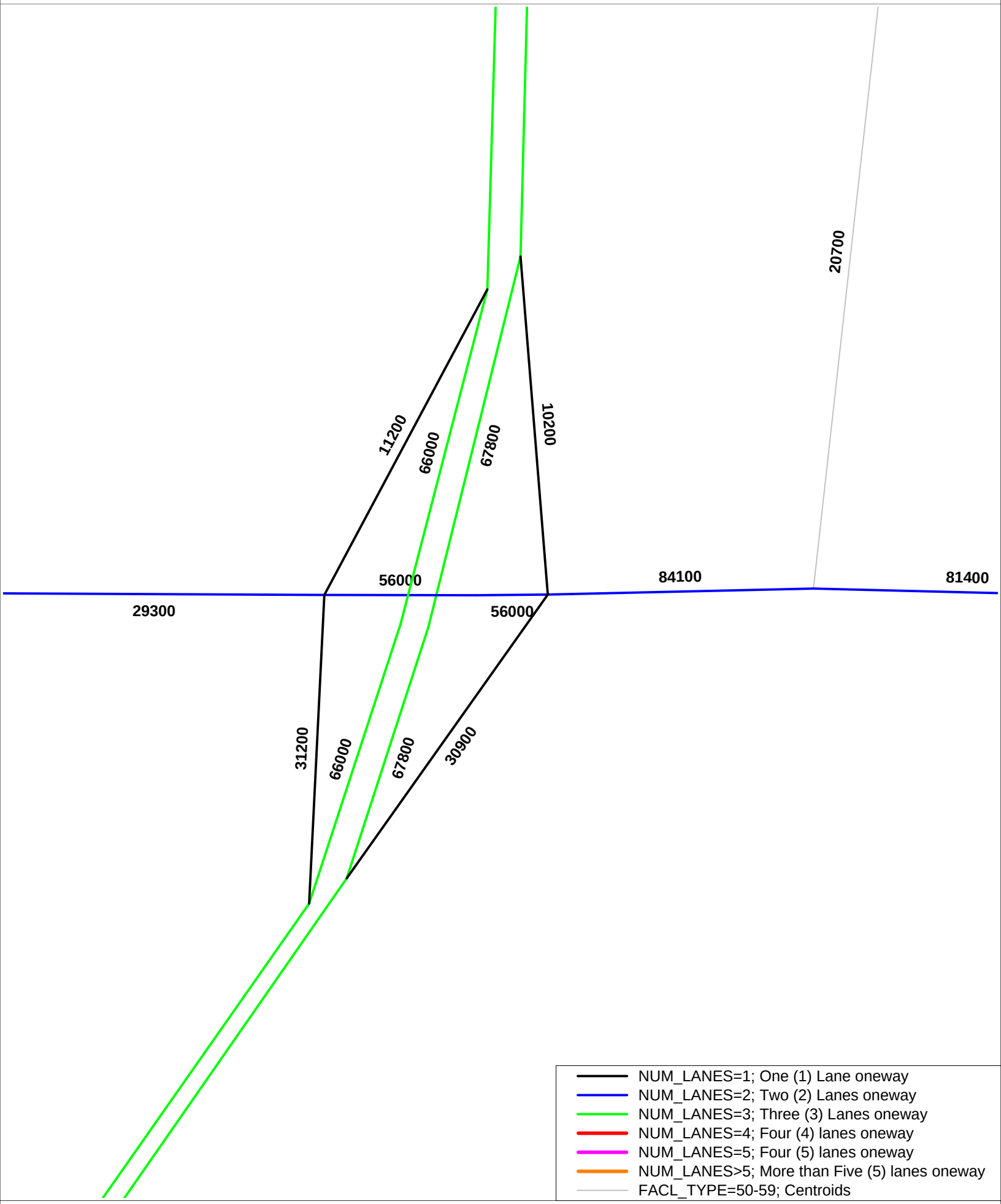
I-75 and Overpass Road IJR
2040 AADT Volumes with N-S Road



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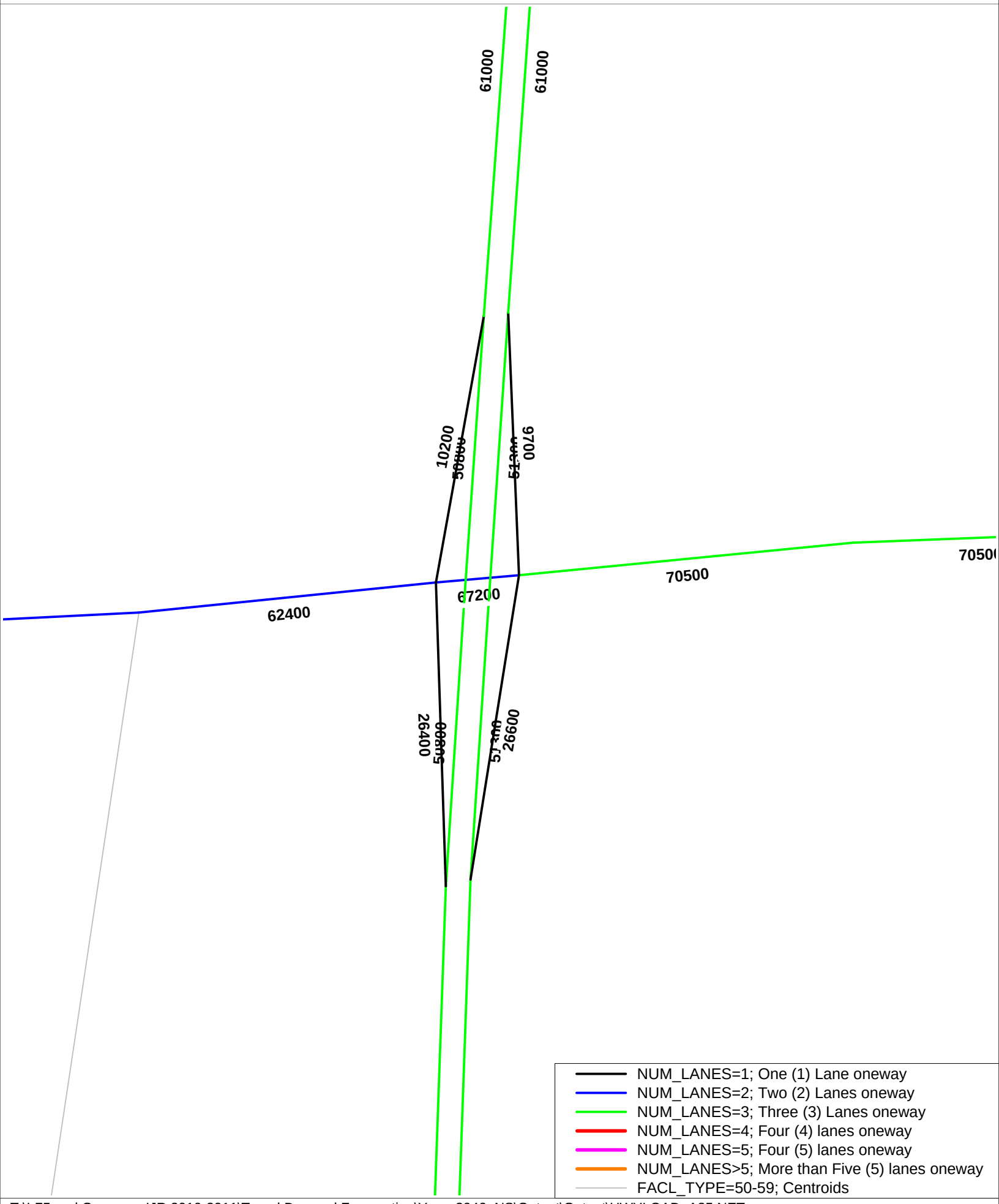
I-75 and Overpass Road IJR
2040 AADT Volumes with N-S Road



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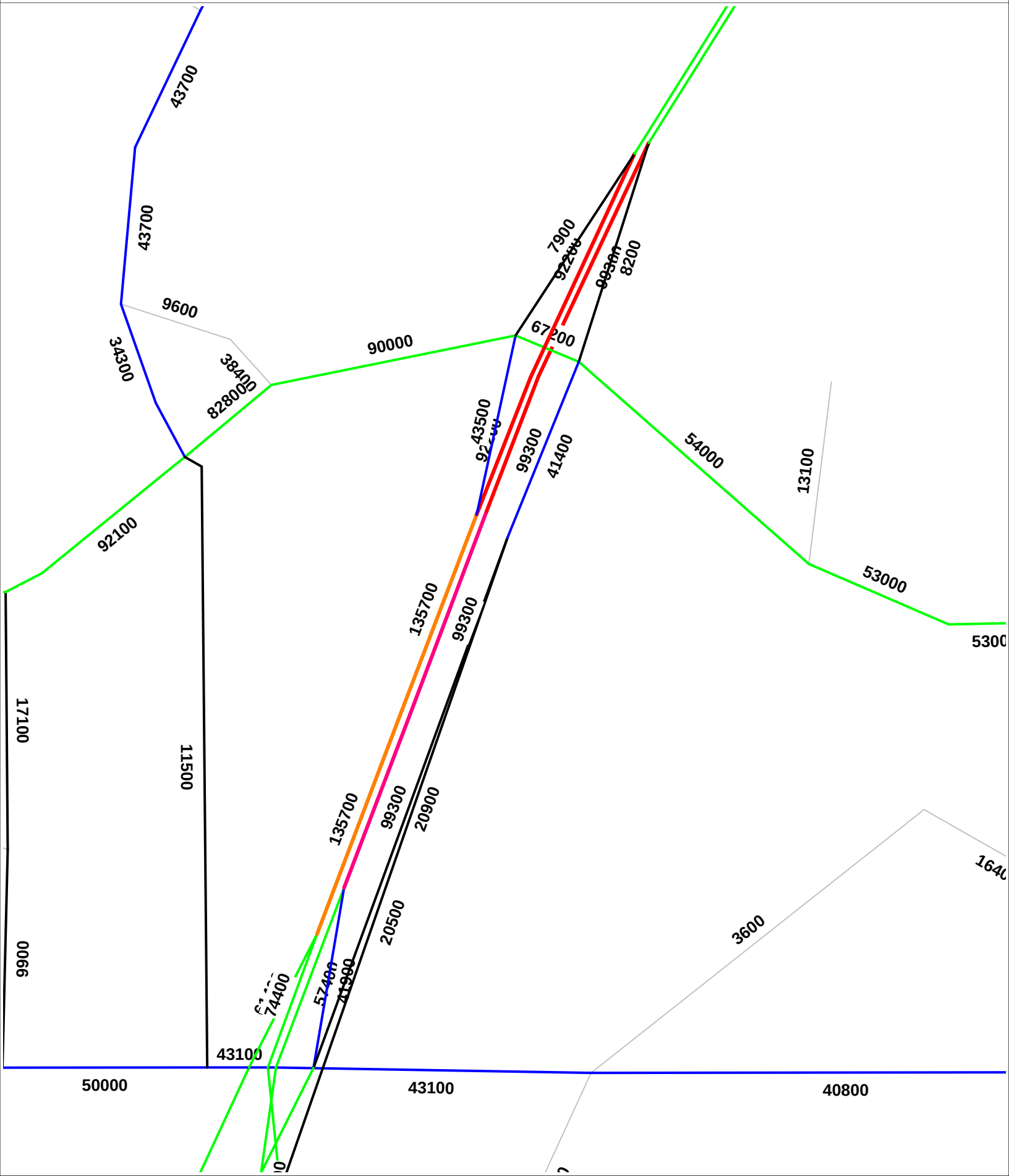
Tampa Bay Regional Planning Model 7.0
I-75 OverpassIJR with $0.25Toll
2040 AADT Volumes



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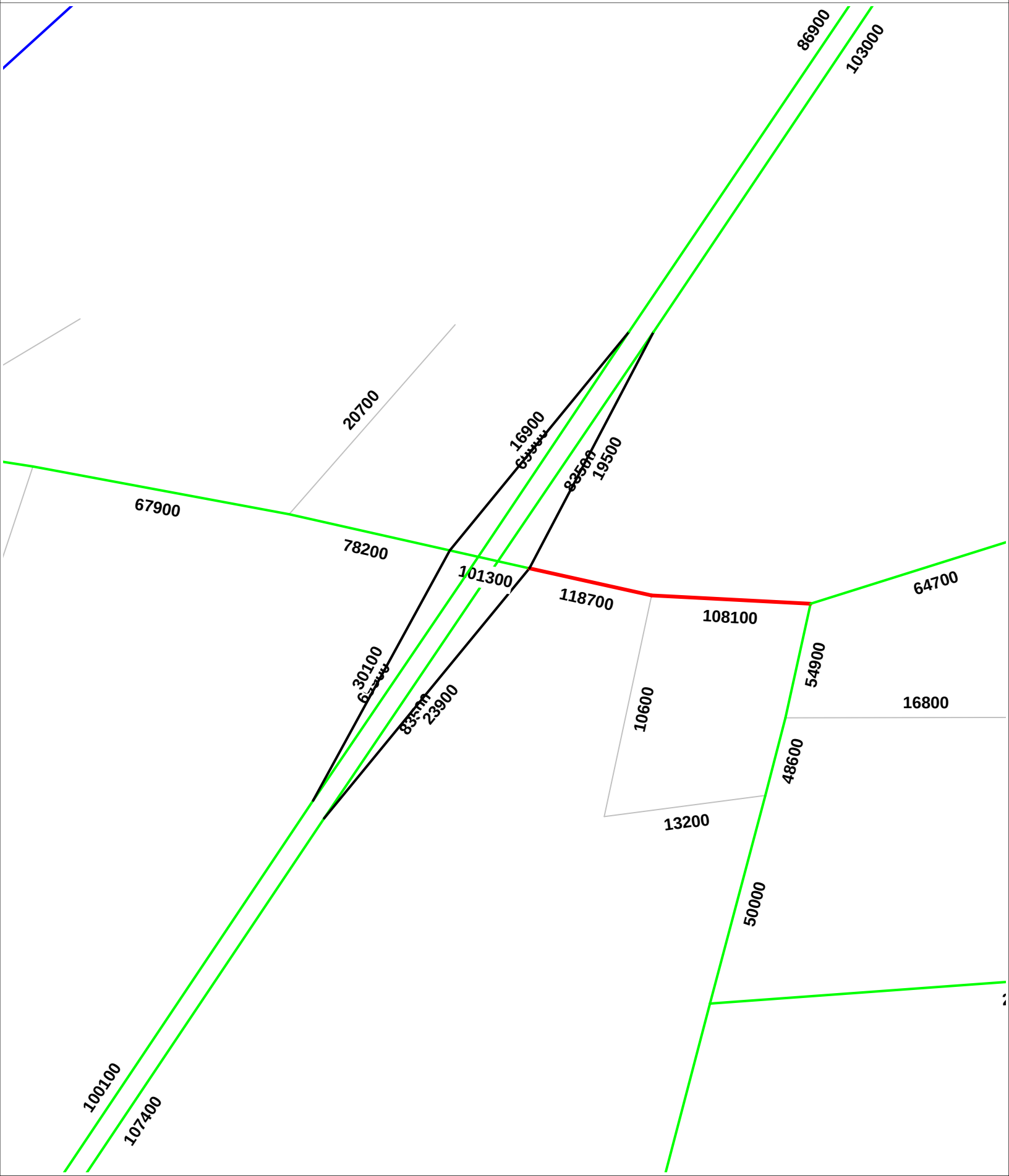
Tampa Bay Regional Planning Model 7.0
I-75 OverpassIJR with $0.25Toll
2040 AADT Volumes



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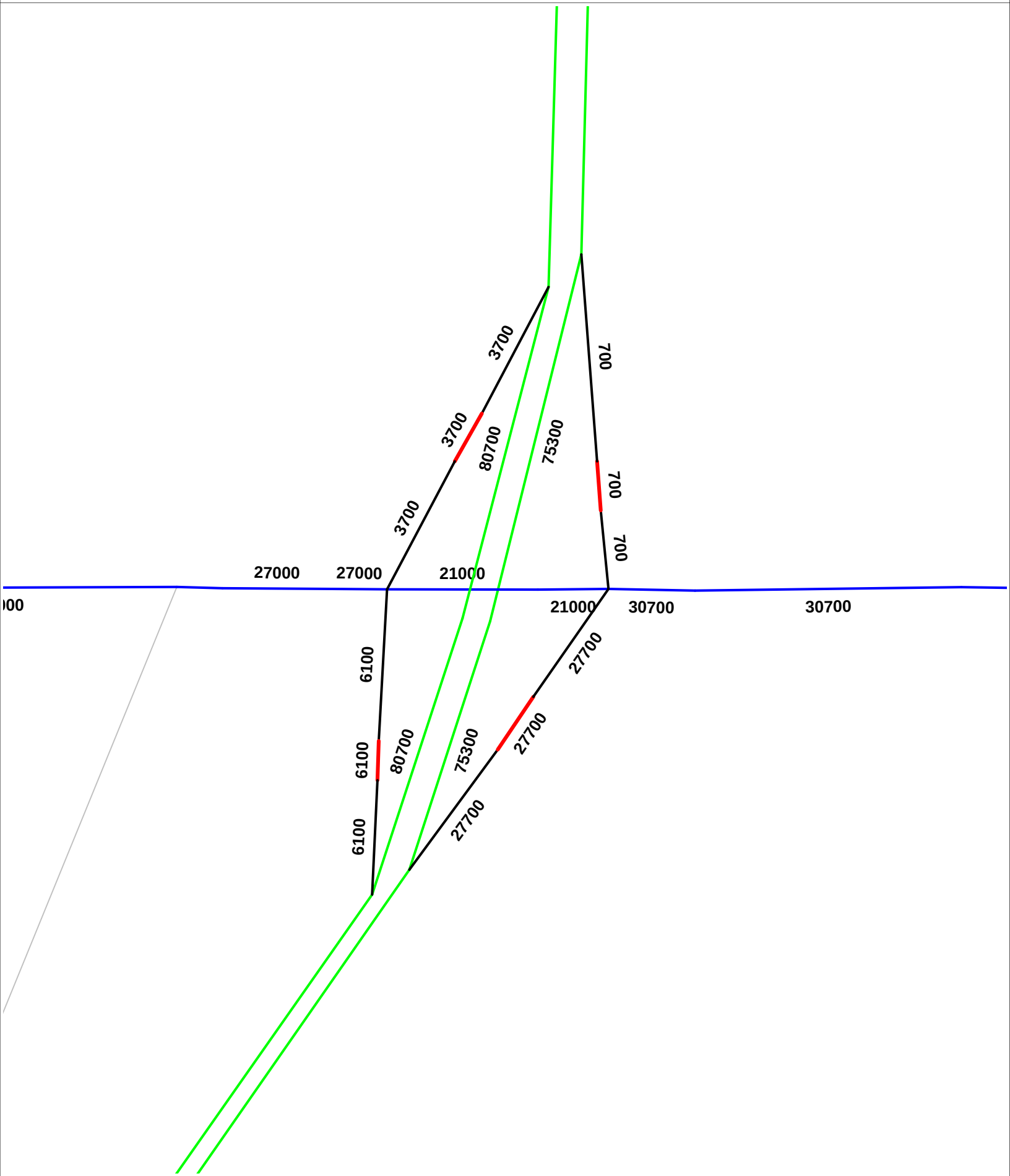
Tampa Bay Regional Planning Model 7.0
I-75 OverpassIJR with $0.25Toll
2040 AADT Volumes



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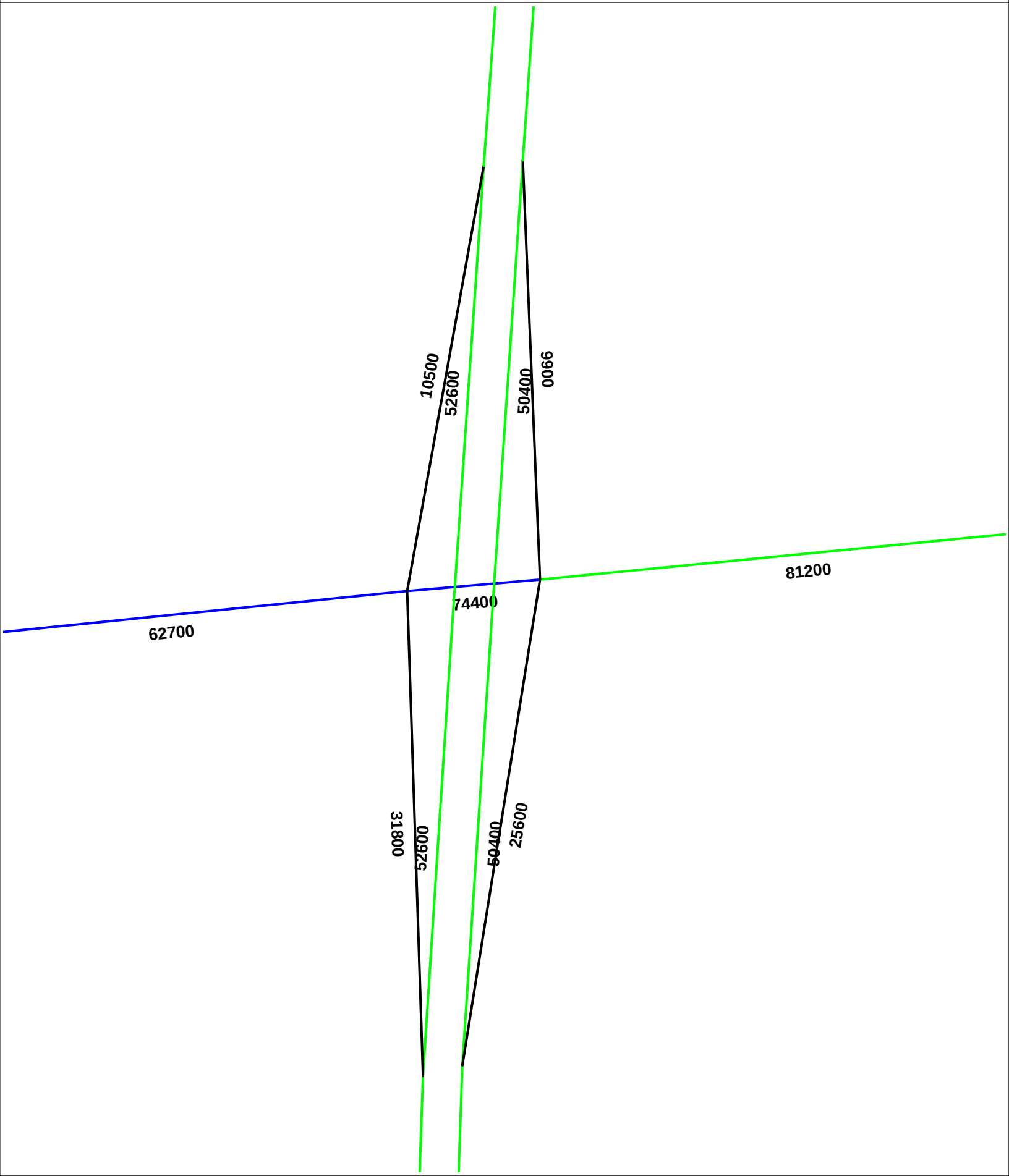
Tampa Bay Regional Planning Model 7.0
I-75 OverpassIJR with $0.25Toll
2040 AADT Volumes



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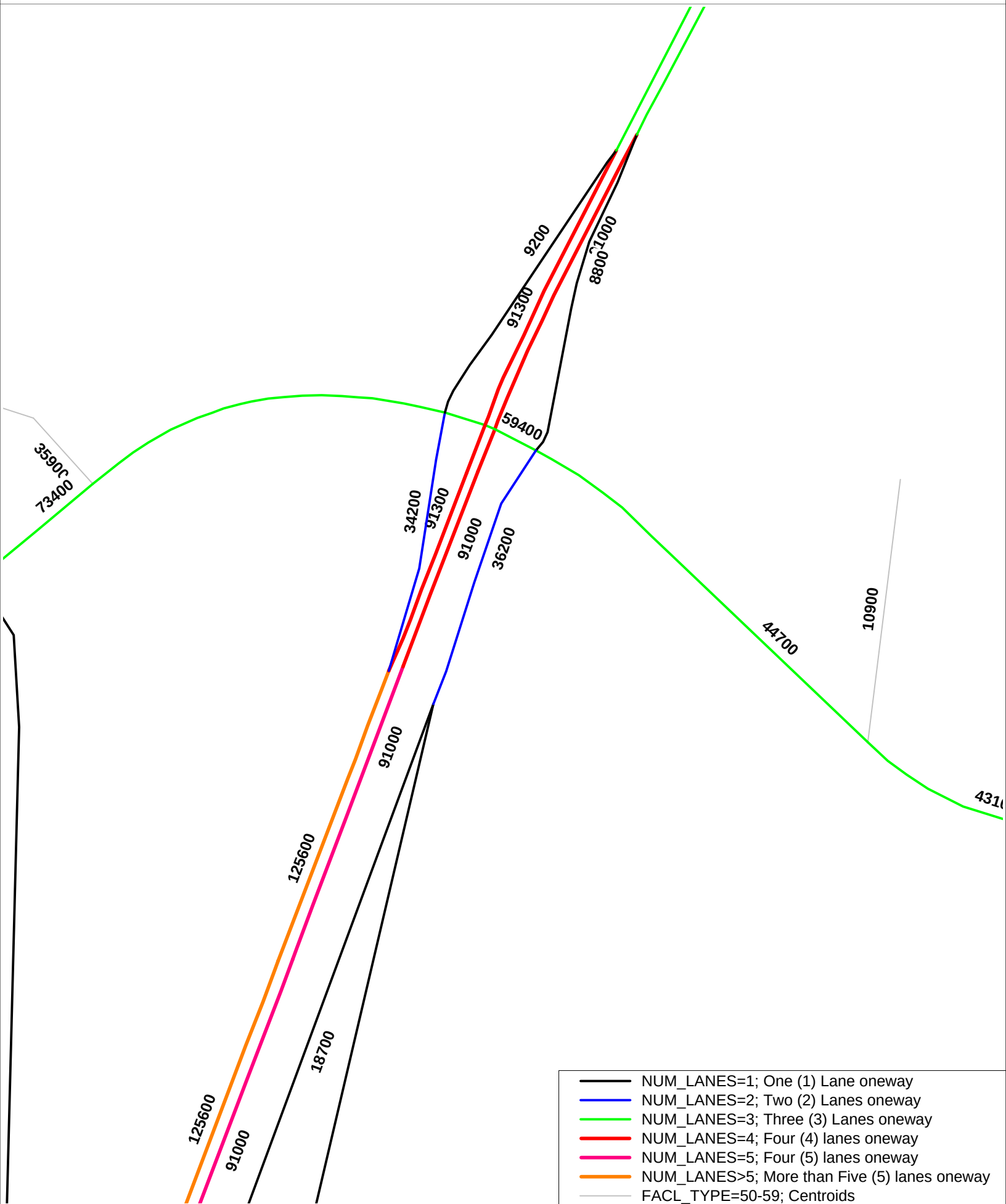
I-75 and Overpass Road IJR
2030 Build AADT



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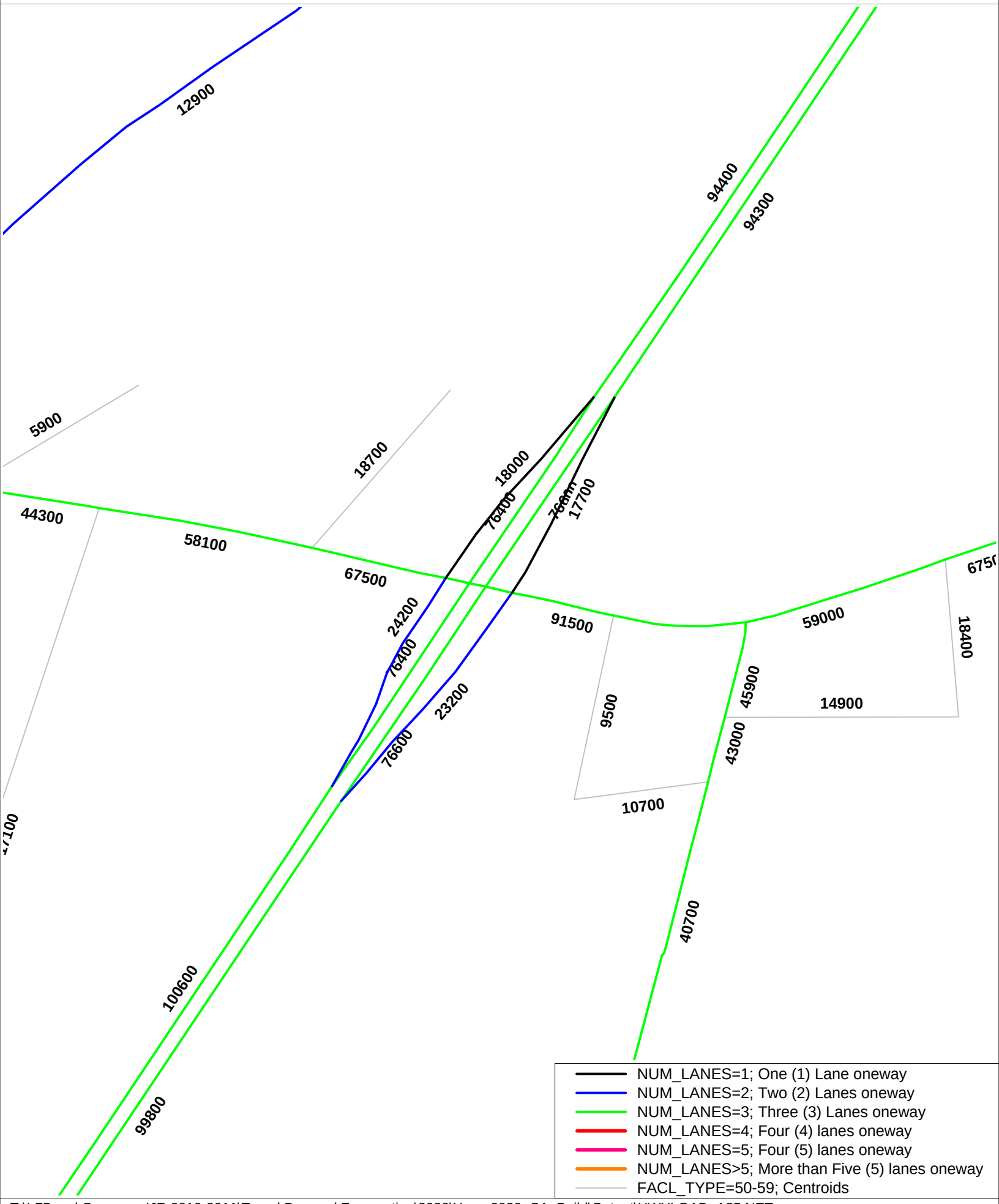
I-75 and Overpass Road IJR
2030 Build AADT



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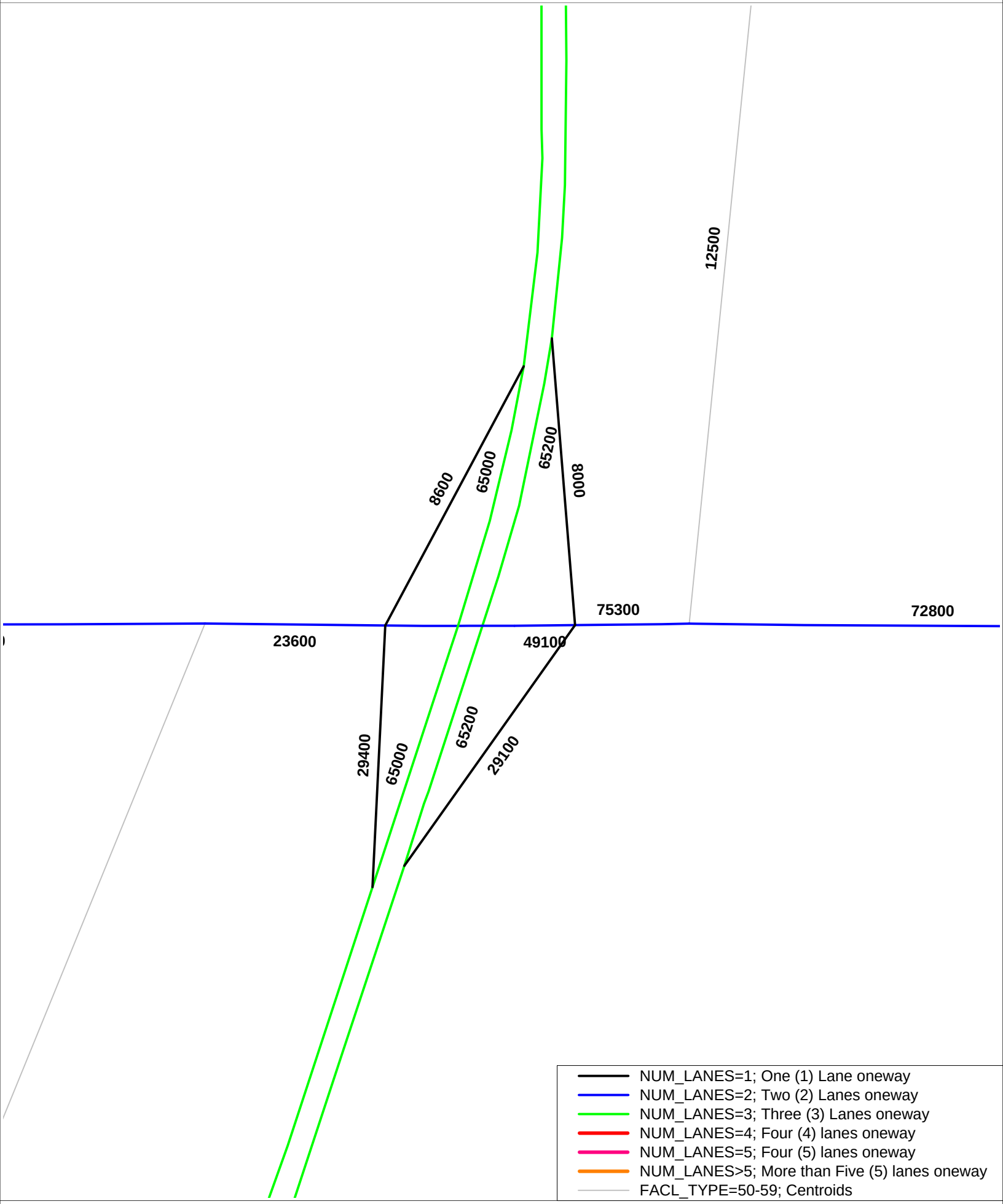
I-75 and Overpass Road IJR
2030 Build AADT



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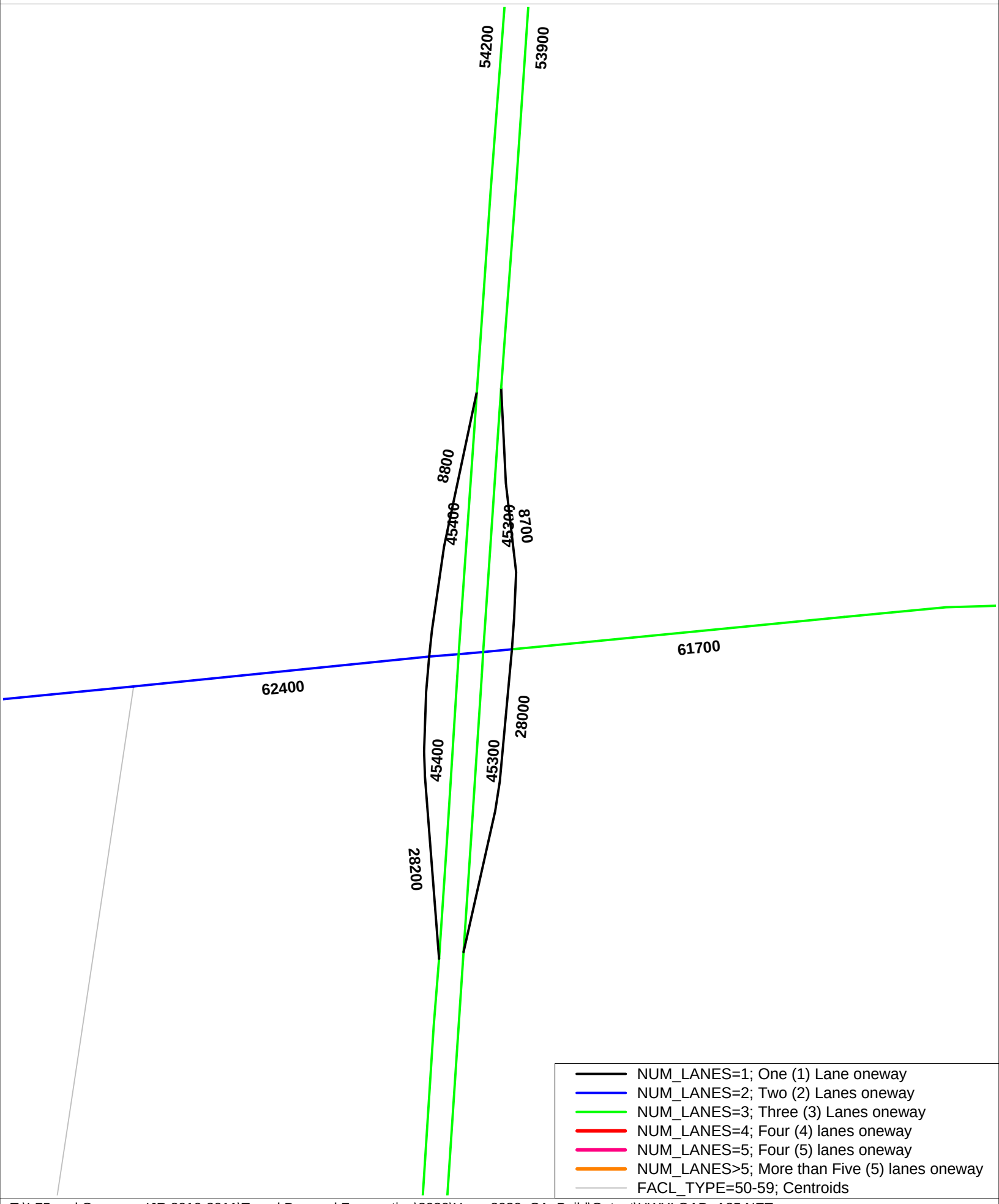
I-75 and Overpass Road IJR
2030 Build AADT



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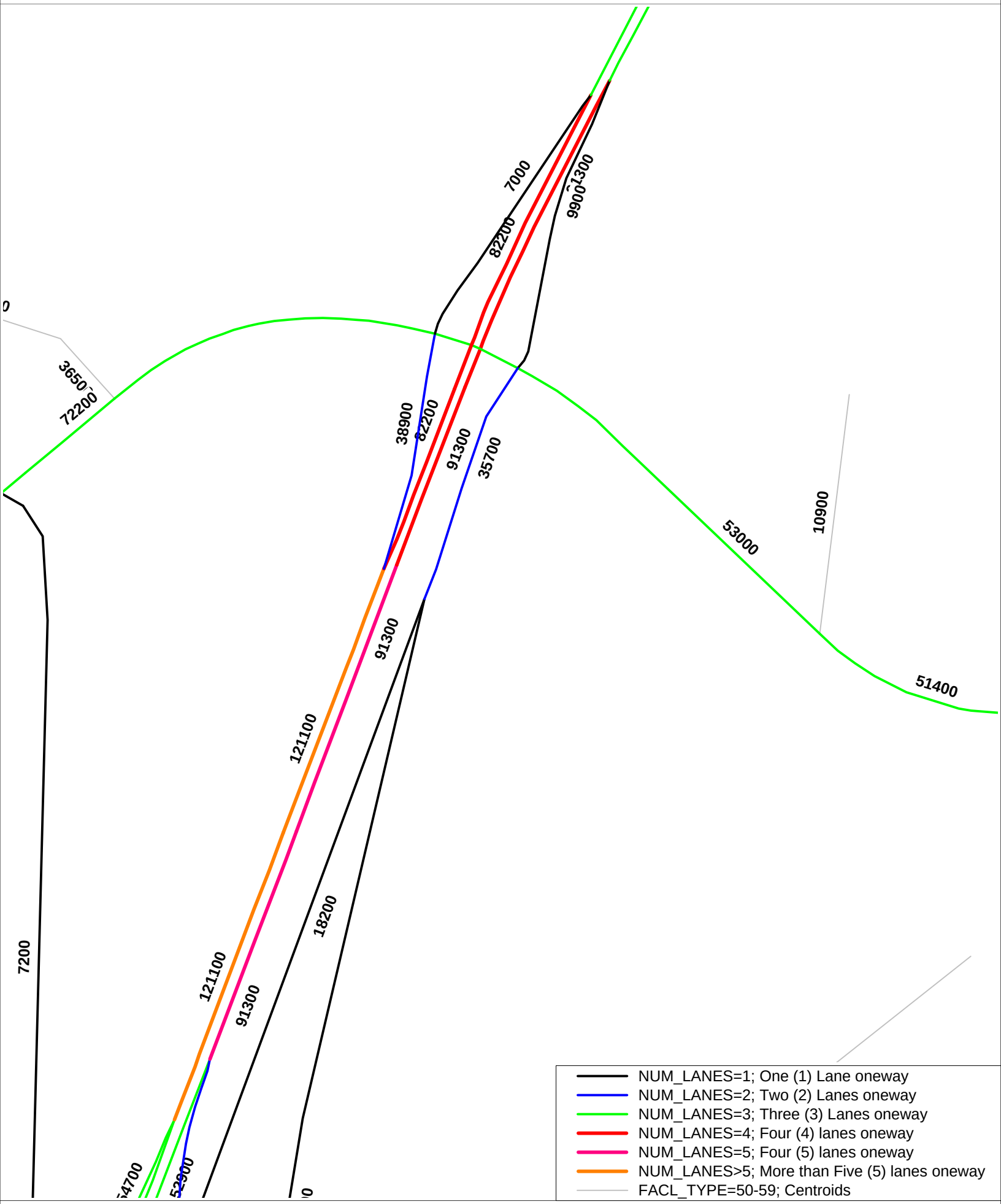
I-75 and Overpass Road IJR
2030 AADT with N-S Road



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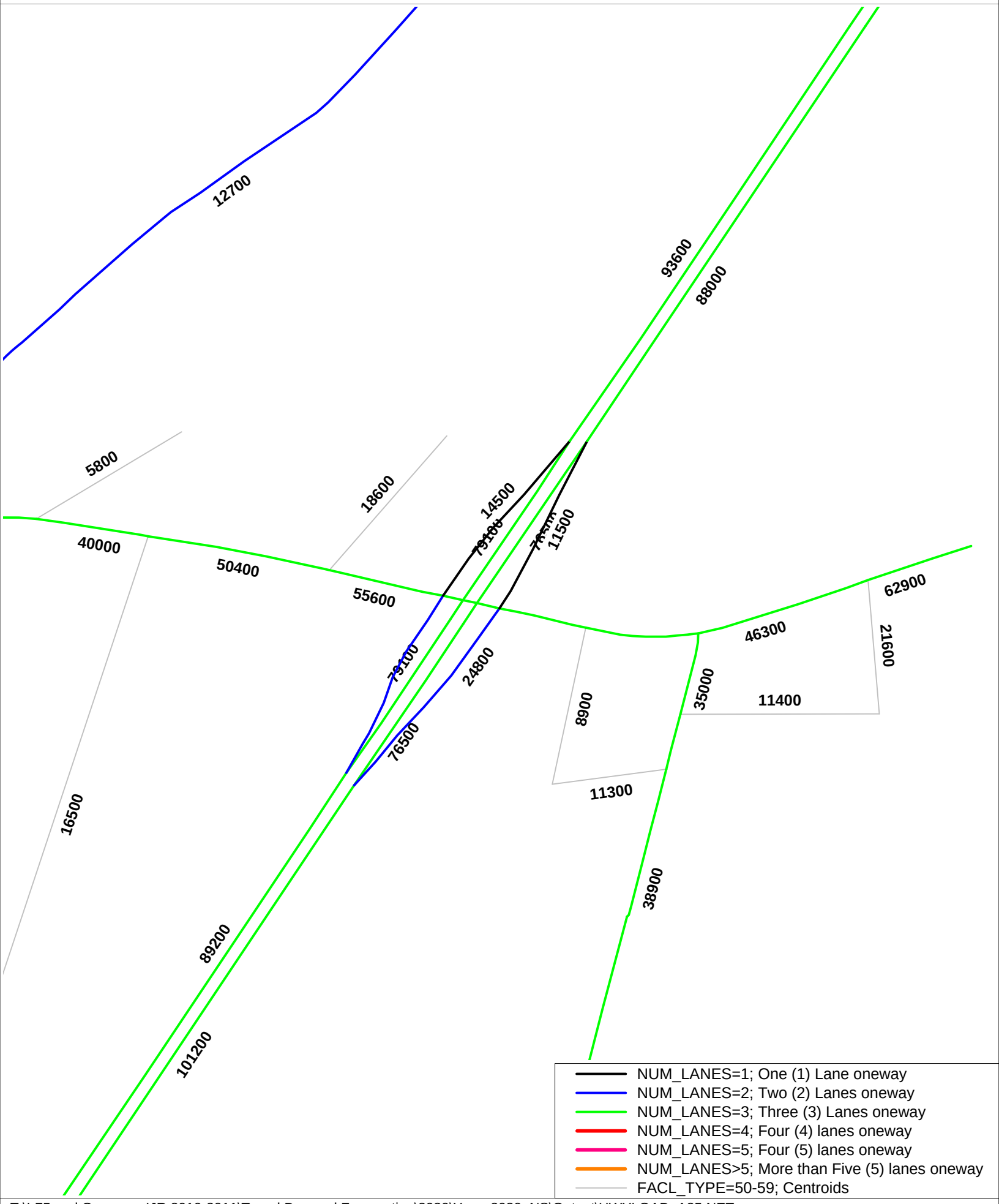
I-75 and Overpass Road IJR
2030 AADT with N-S Road



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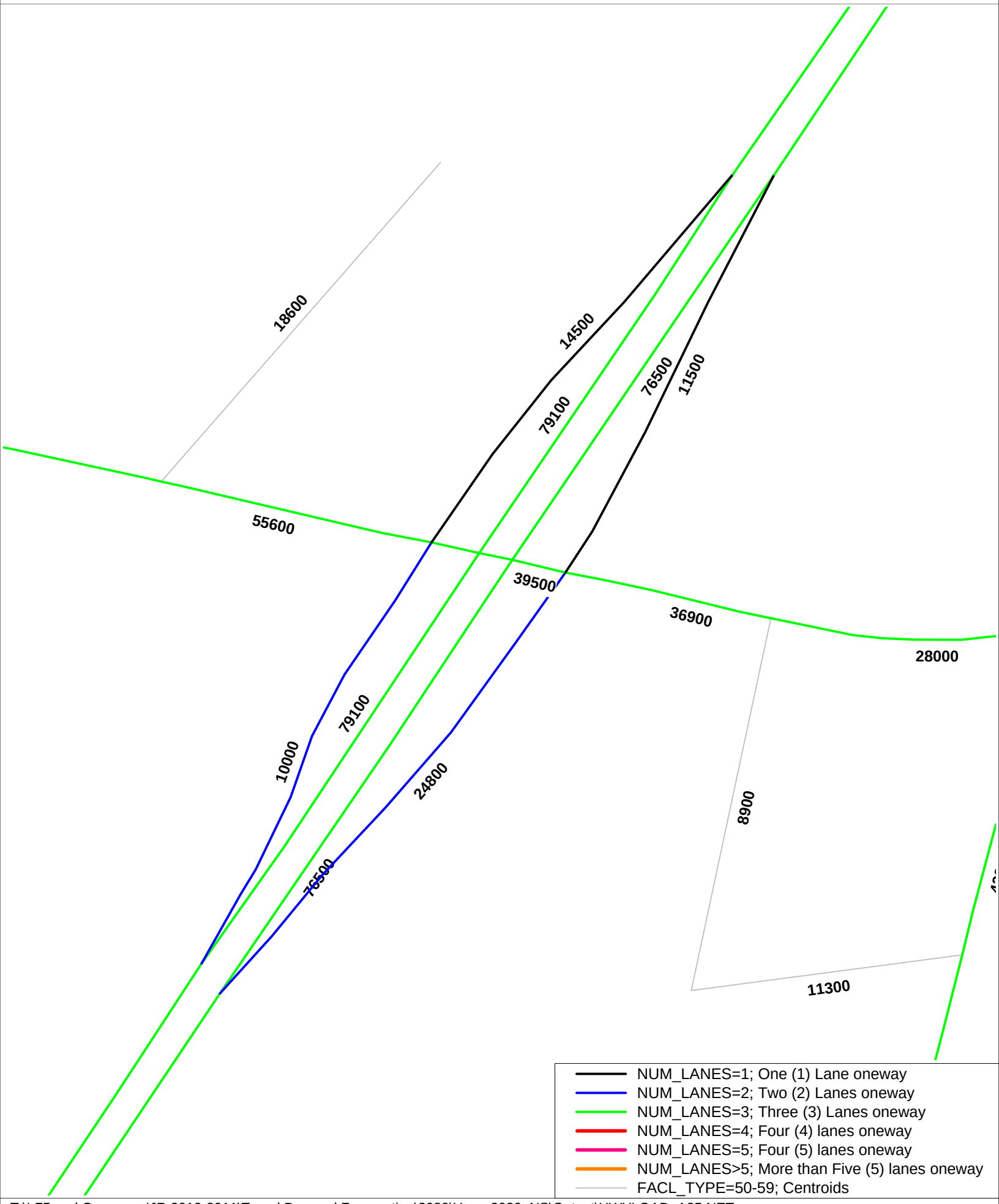
I-75 and Overpass Road IJR
2030 AADT with N-S Road



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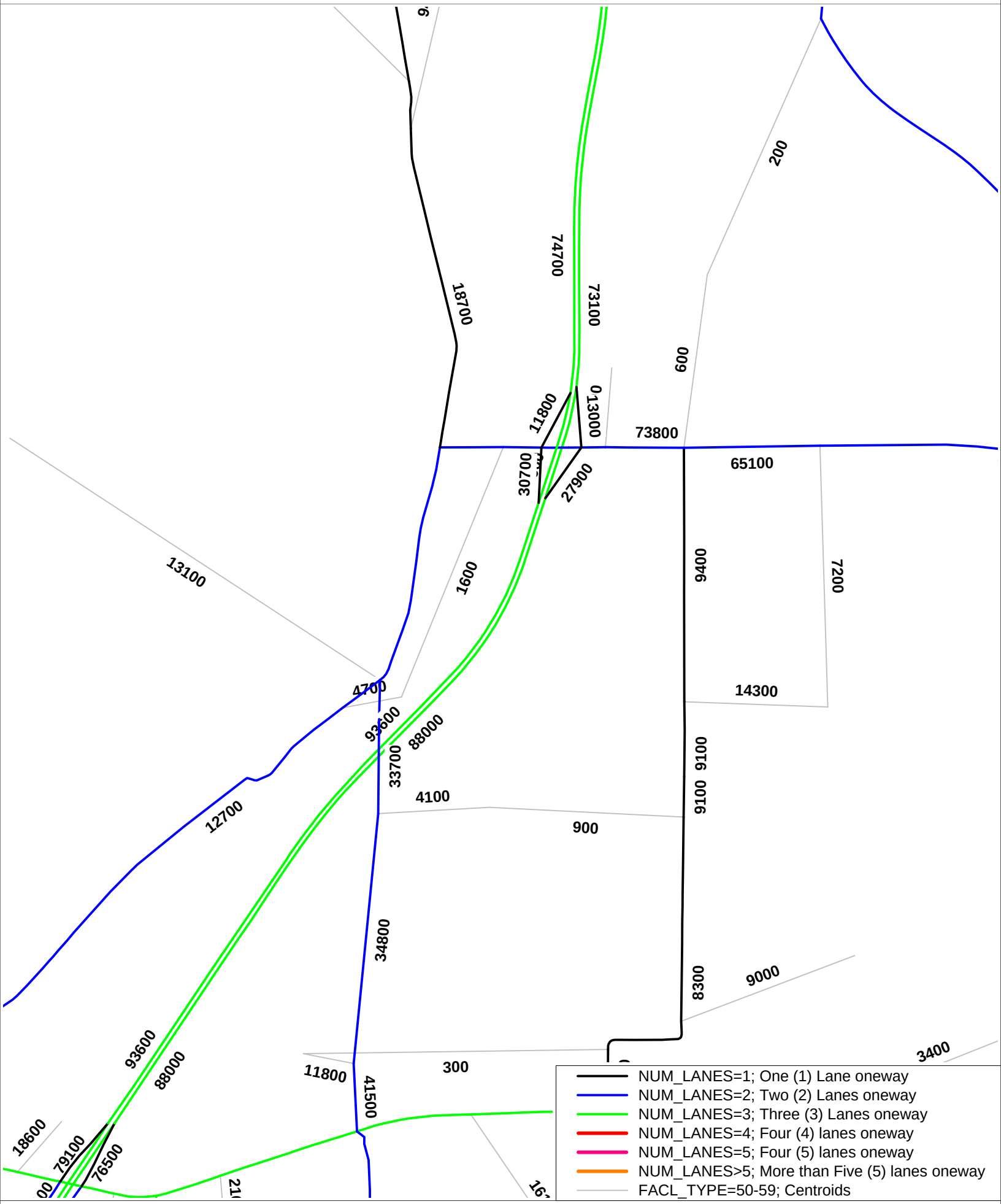
I-75 and Overpass Road IJR
2030 AADT with N-S Road



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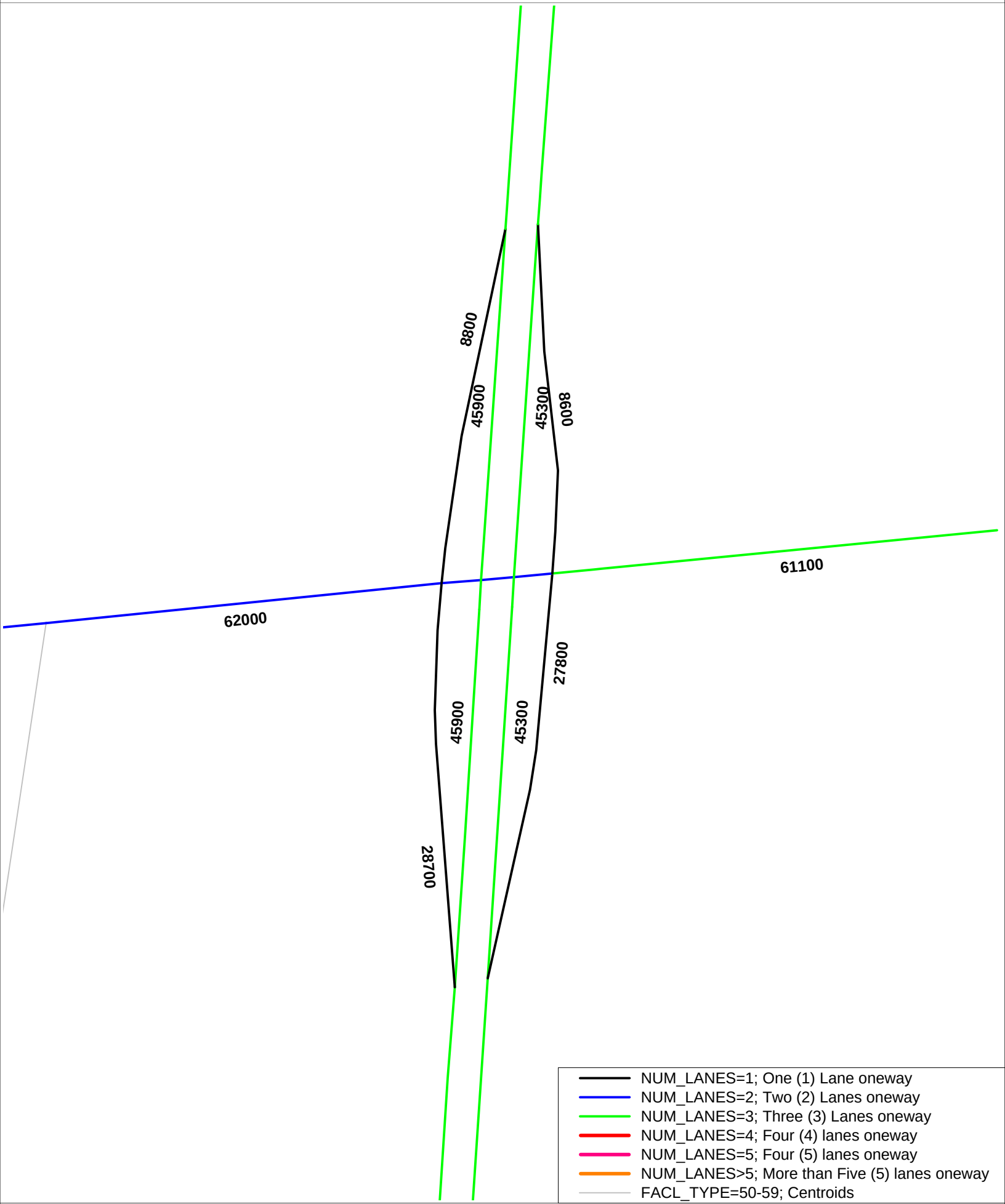
I-75 and Overpass Road IJR
2030 AADT with N-S Road



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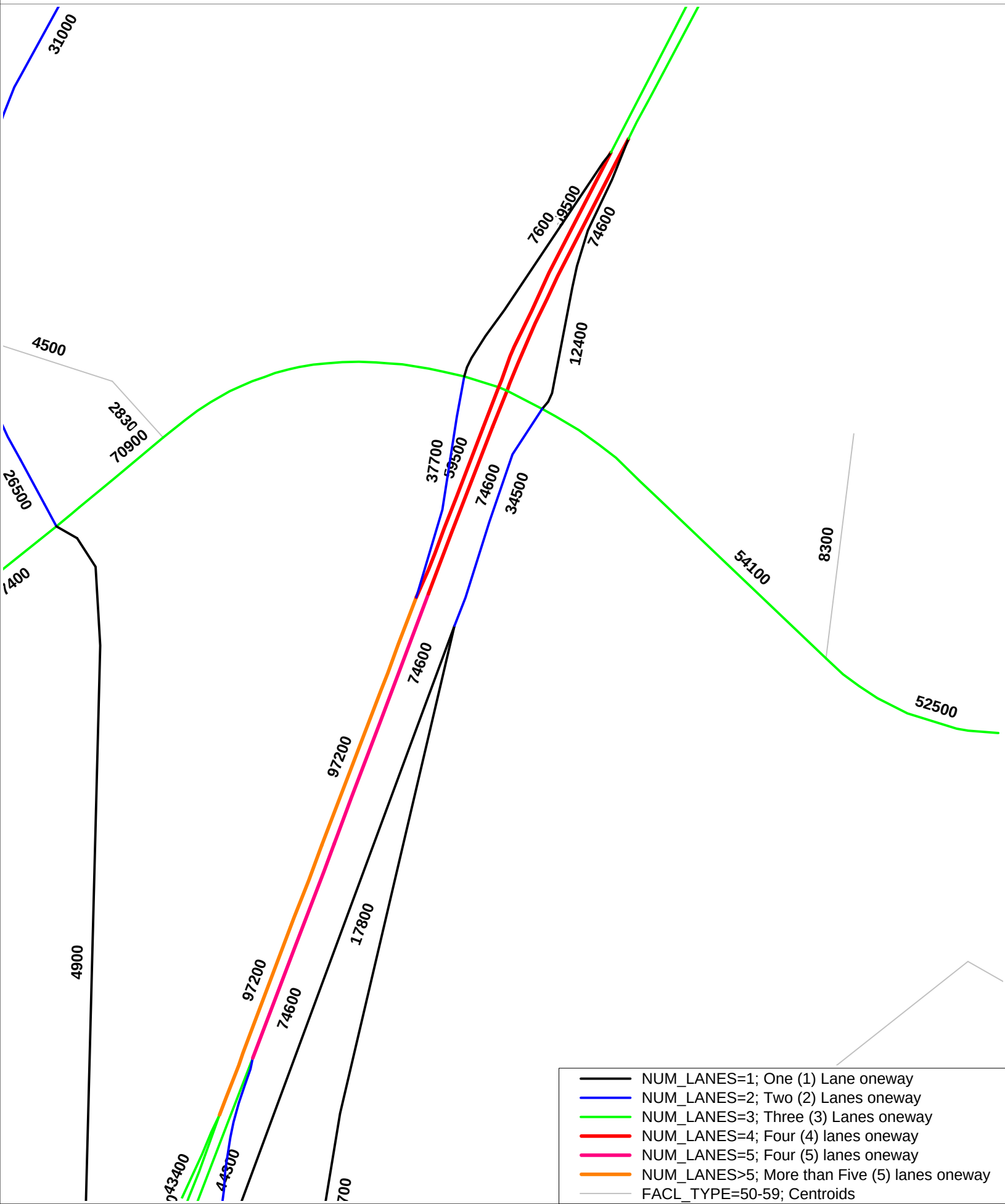
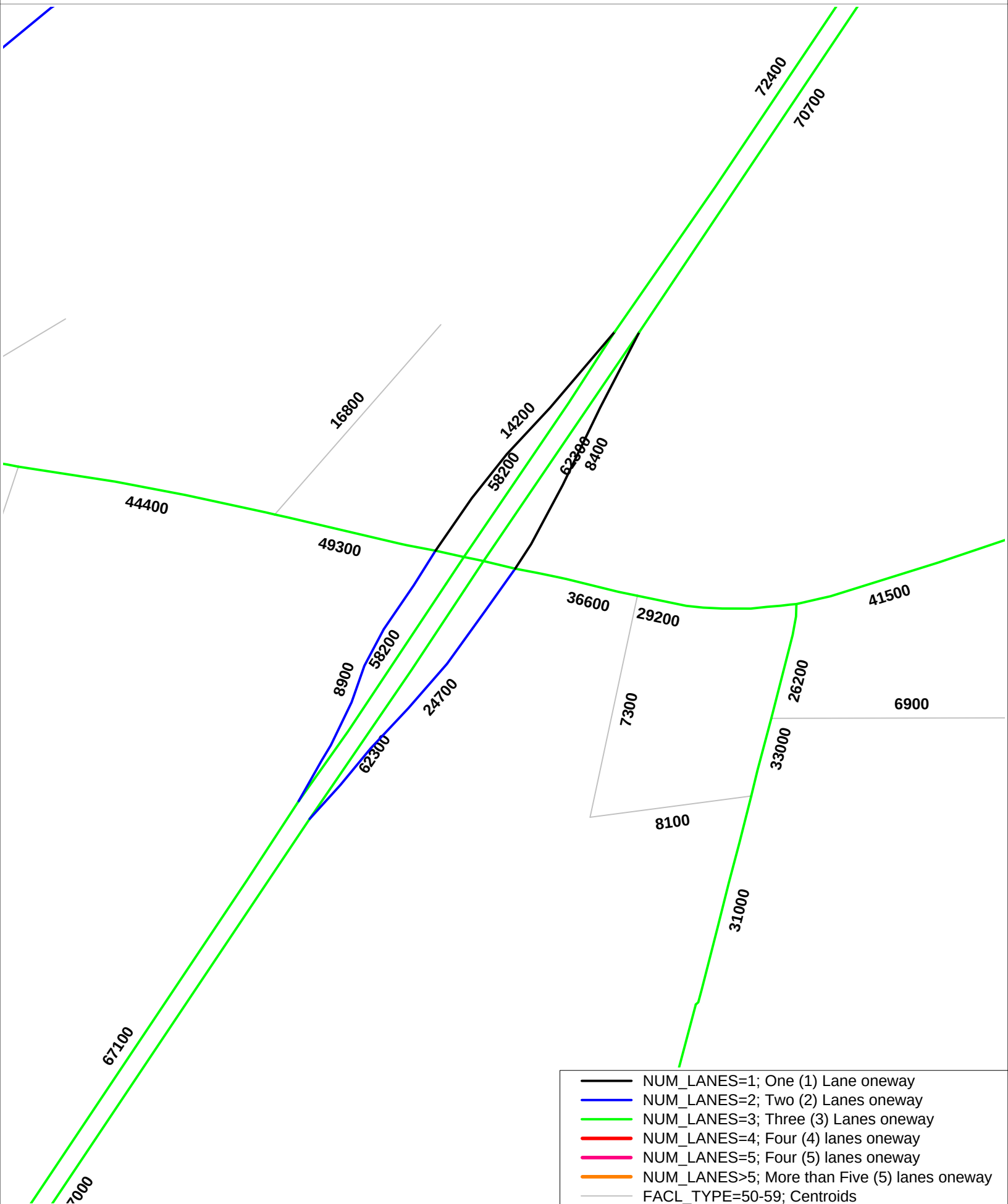
I-75 and Overpass Road
2022 AADT Build AADT



I-75 and Overpass Road
2022 AADT Build AADT



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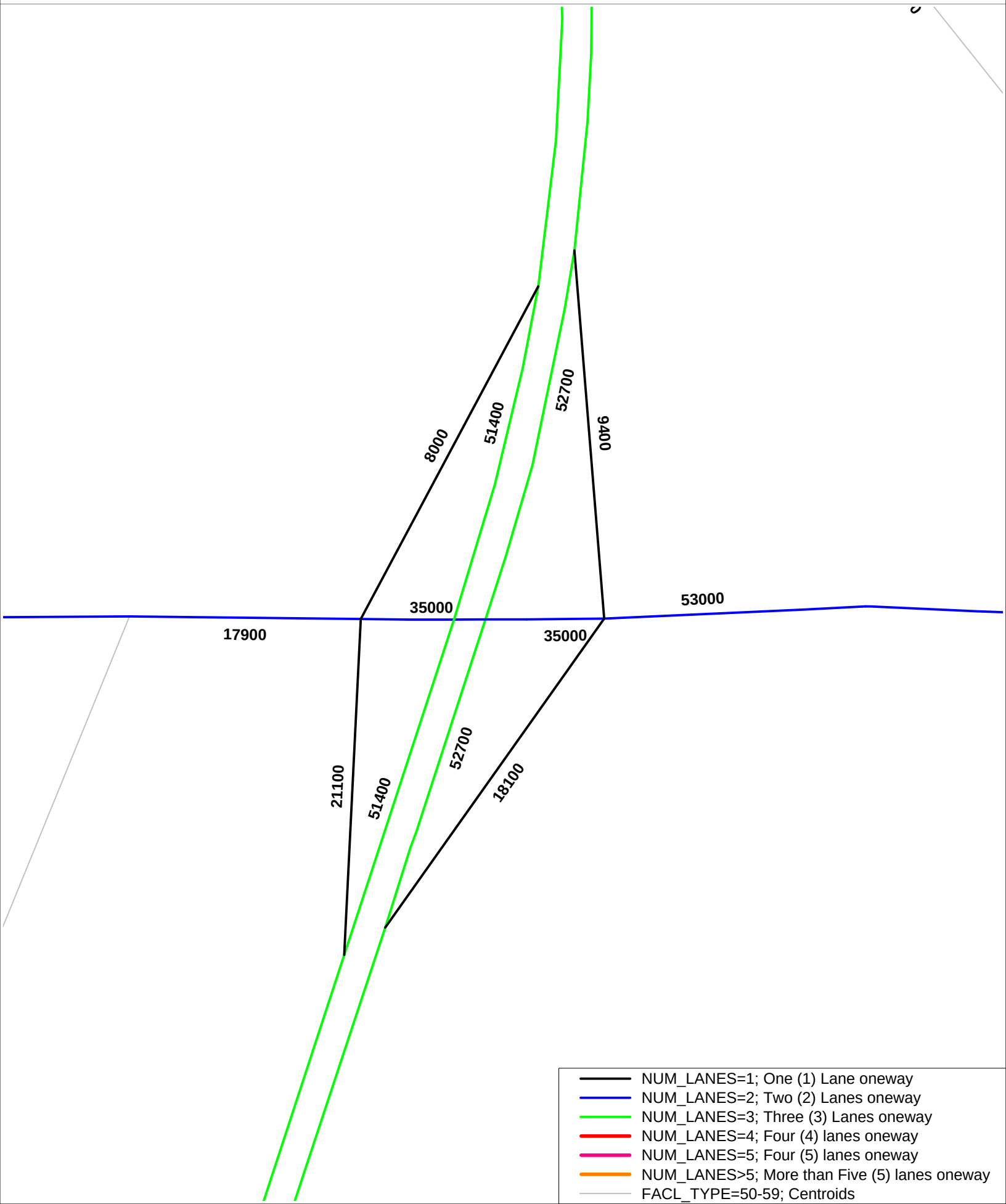
I-75 and Overpass Road
2022 AADT Build AADT



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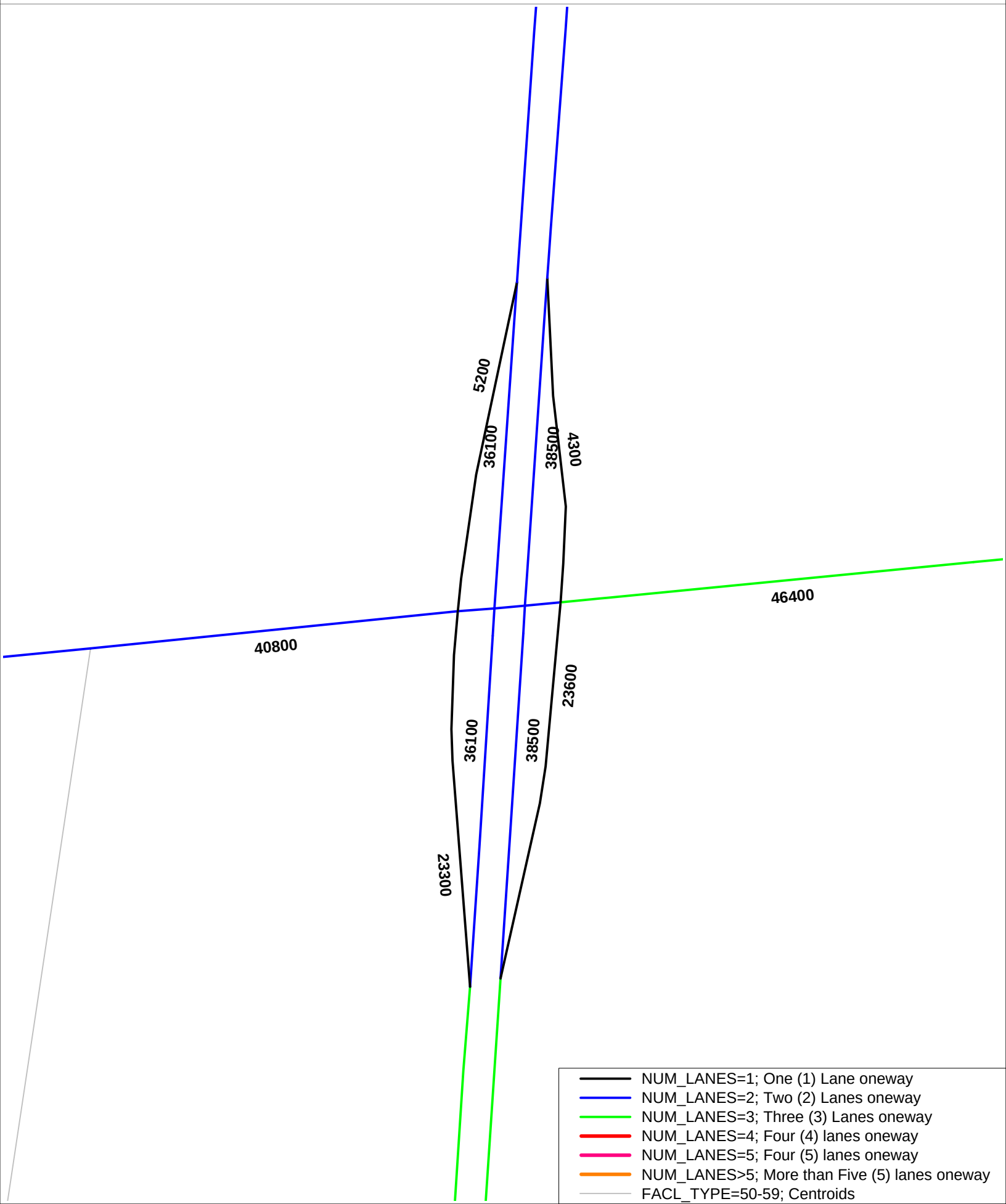
I-75 and Overpass Road
2022 AADT Build AADT



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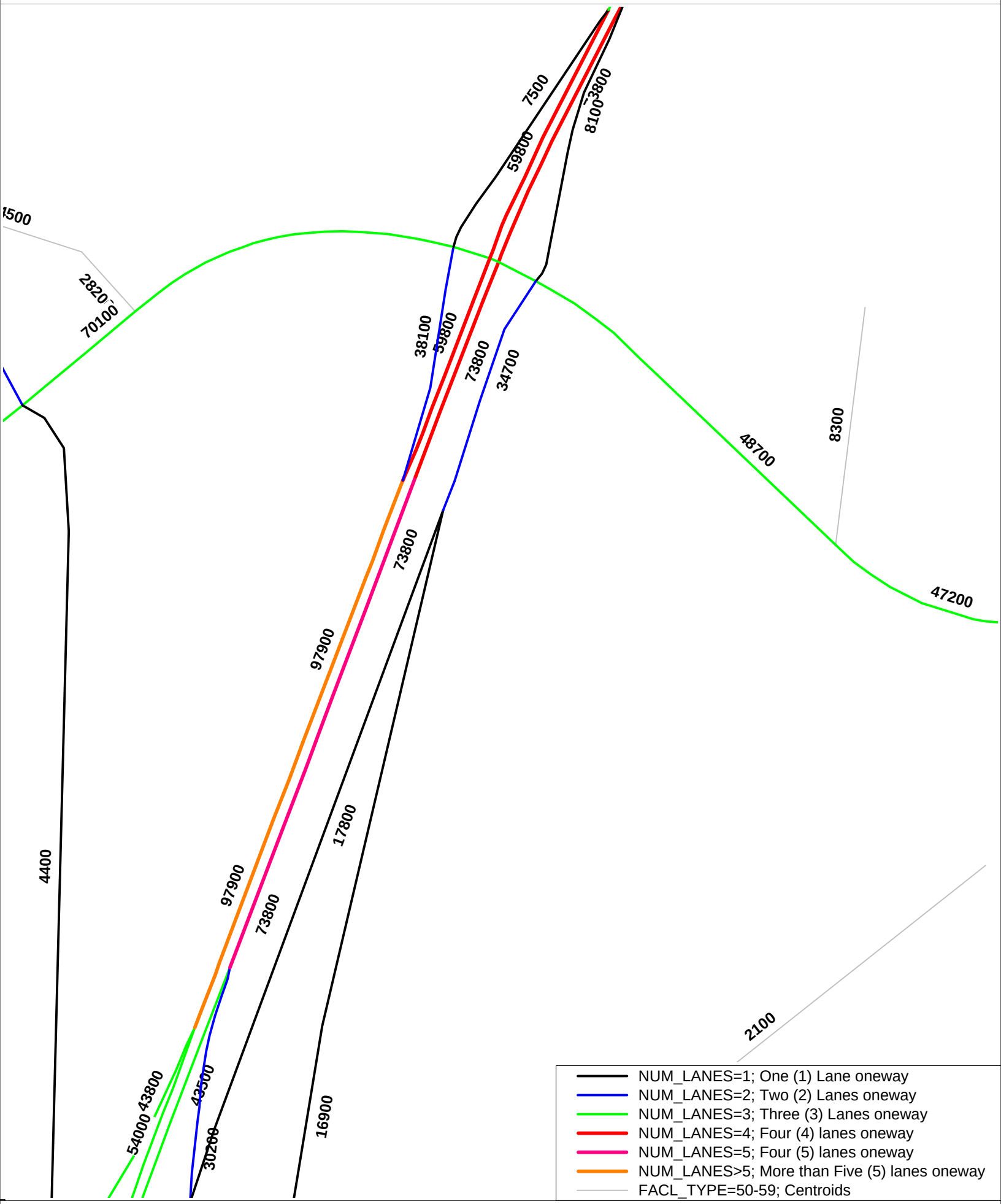
cube

I-75 and Overpass Road IJR
2022 AADT with N-S Road



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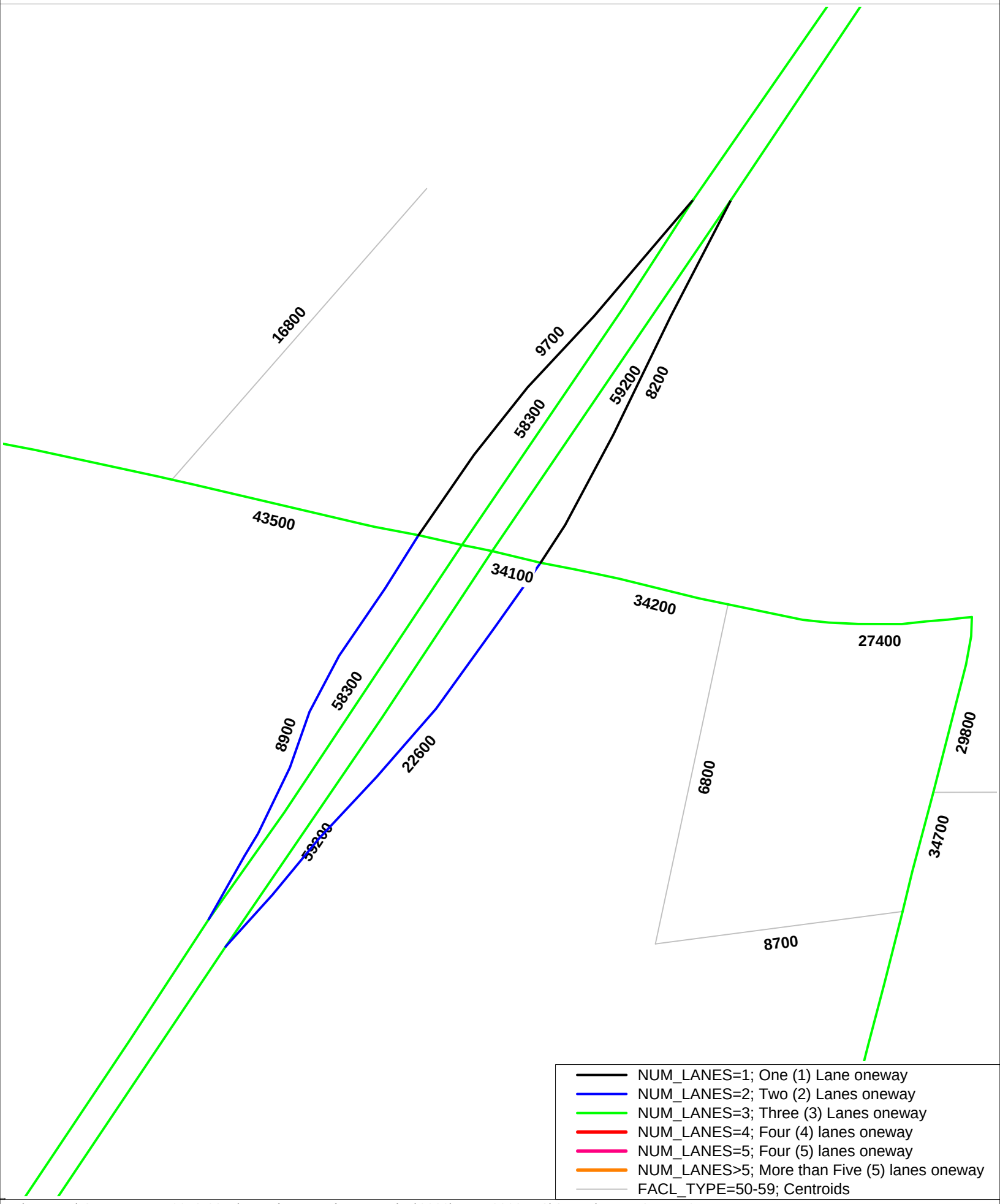
I-75 and Overpass Road IJR
2022 AADT with N-S Road



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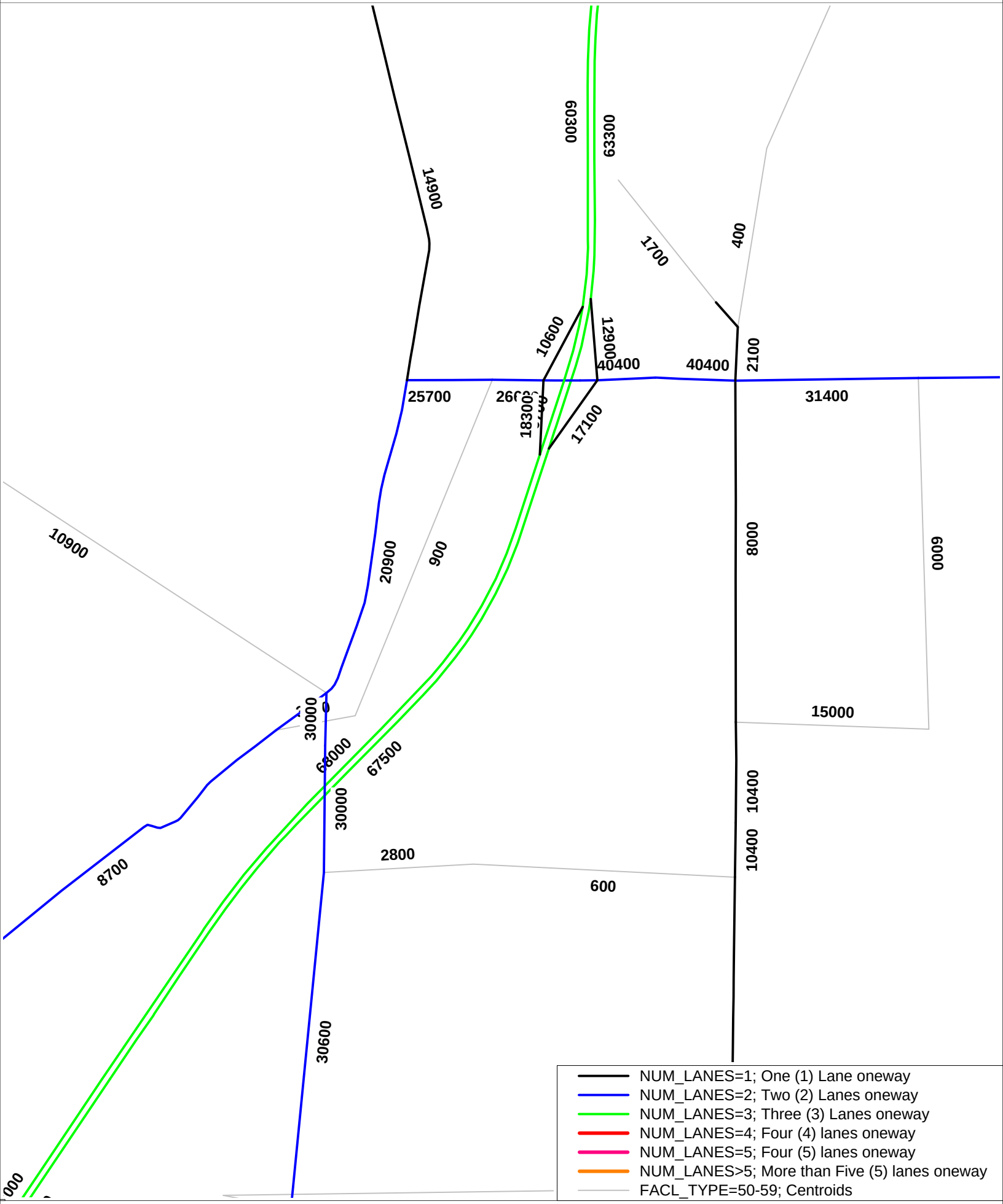
cube

I-75 and Overpass Road IJR
2022 AADT with N-S Road



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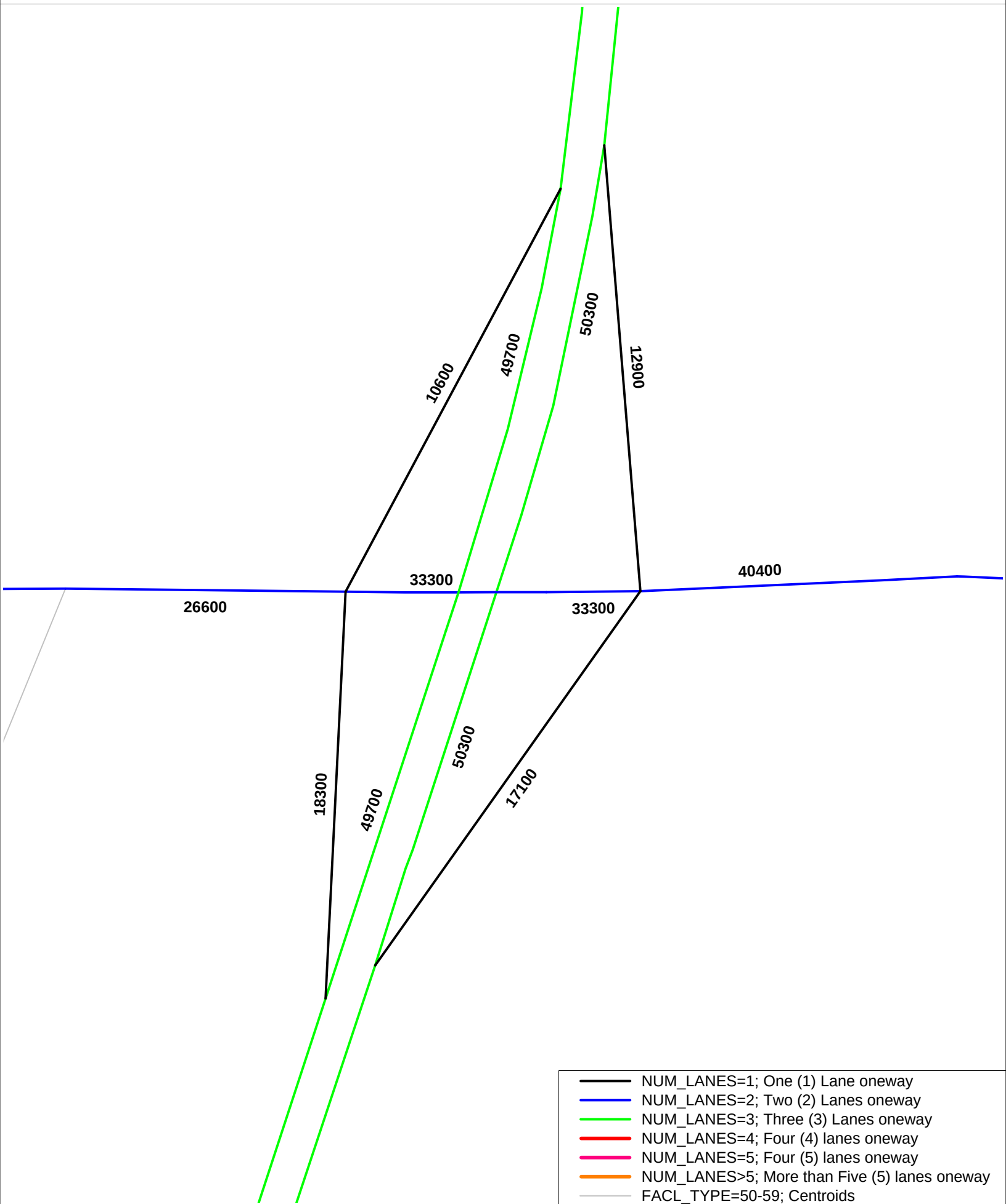
I-75 and Overpass Road IJR
2022 AADT with N-S Road



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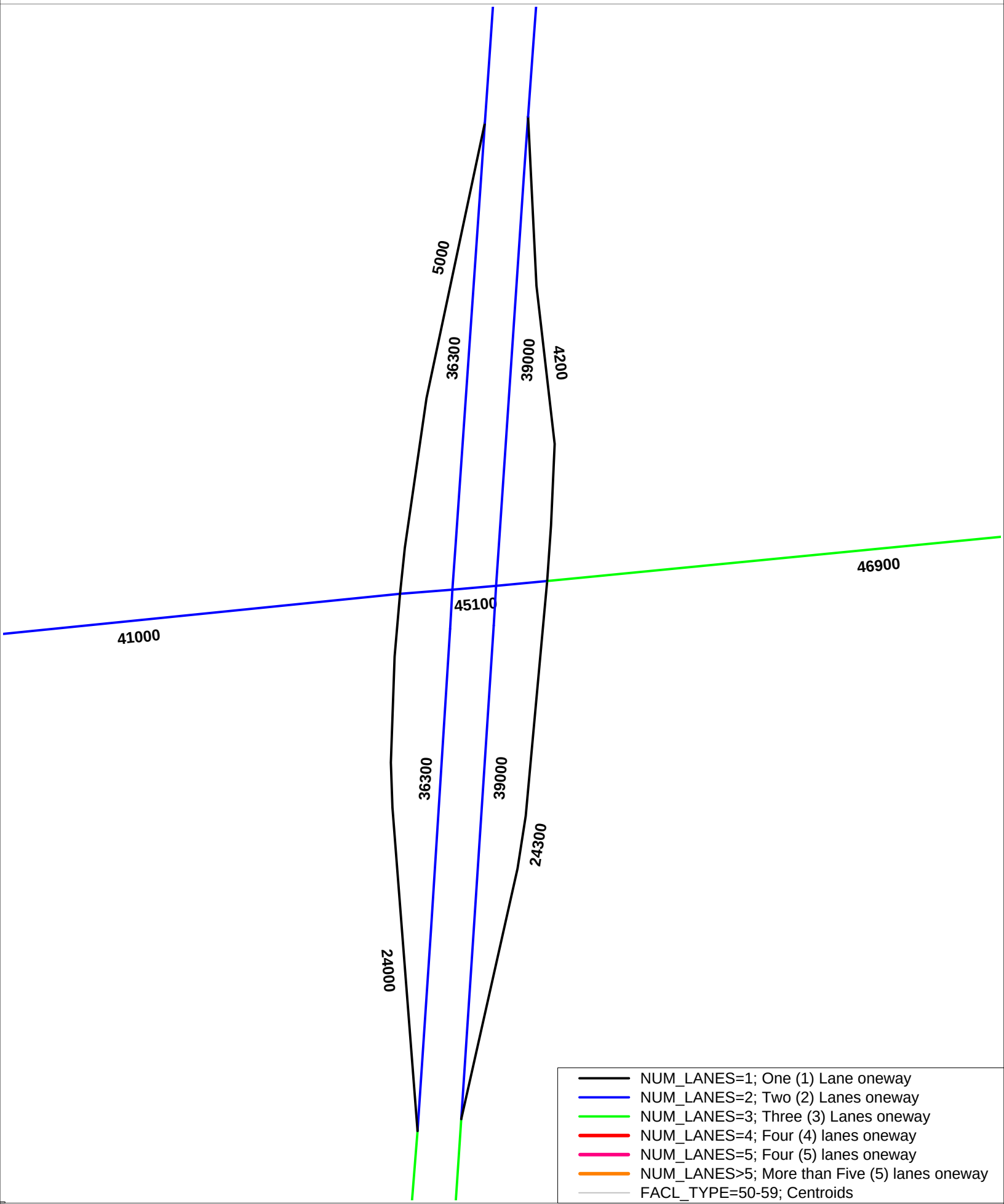
I-75 and Overpass Road IJR
2022 AADT with N-S Road



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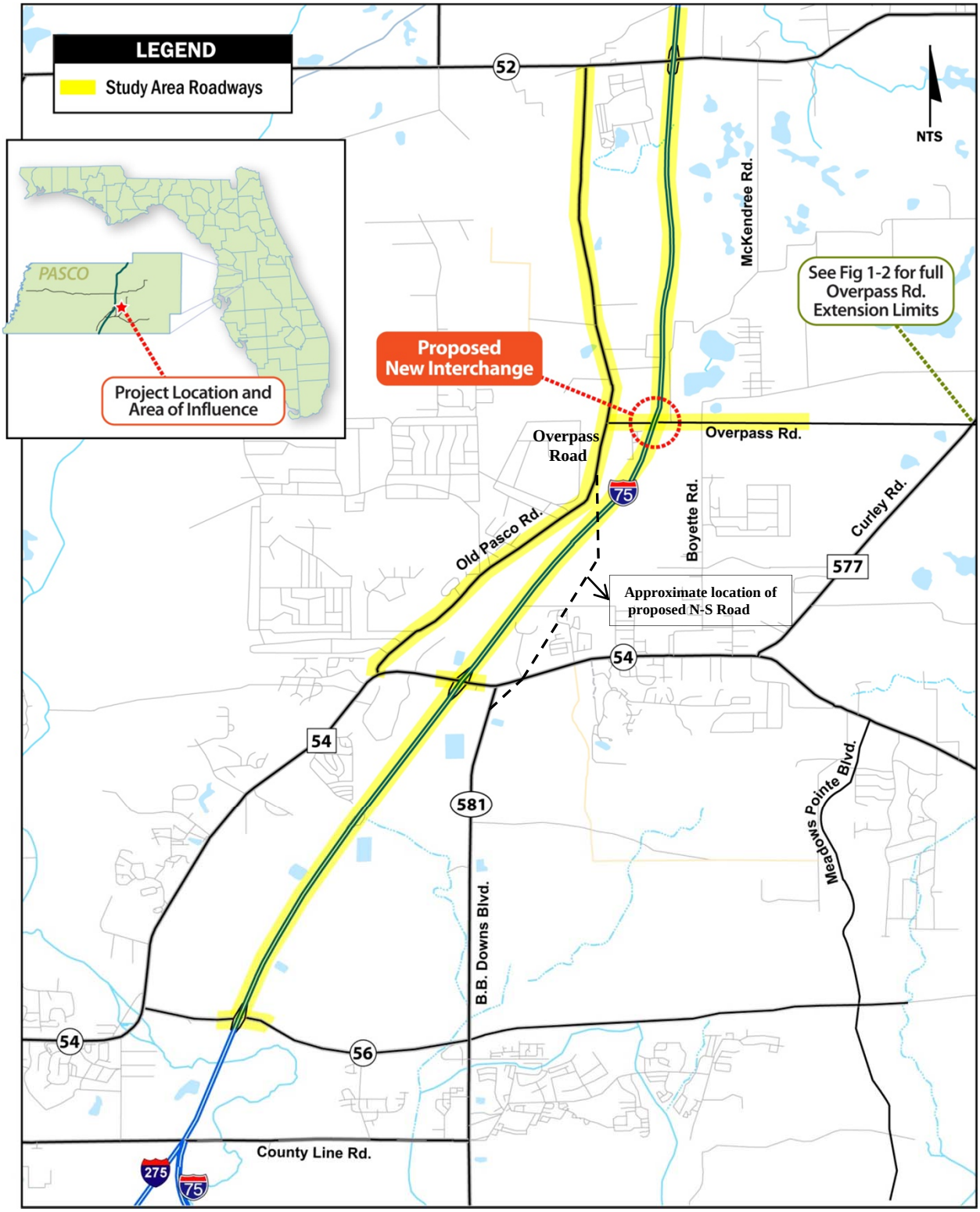
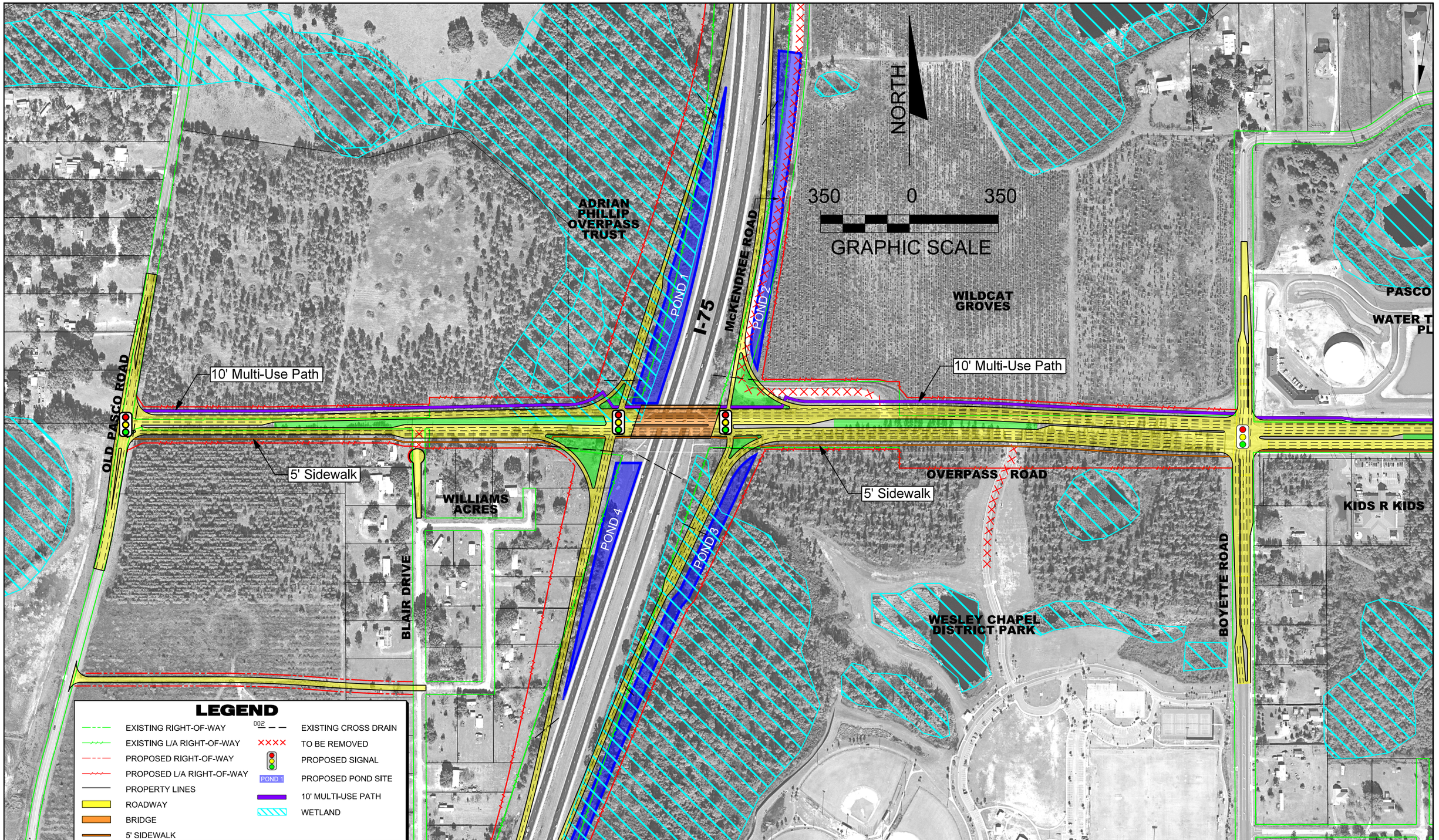
Approximate location of proposed N-S Road



APPENDIX F

Plan Sheets and Typical Sections for Interchange Alternatives



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I-75 and Overpass Road
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Pasco County

DIAMOND INTERCHANGE ALTERNATIVE

SHEET NO.
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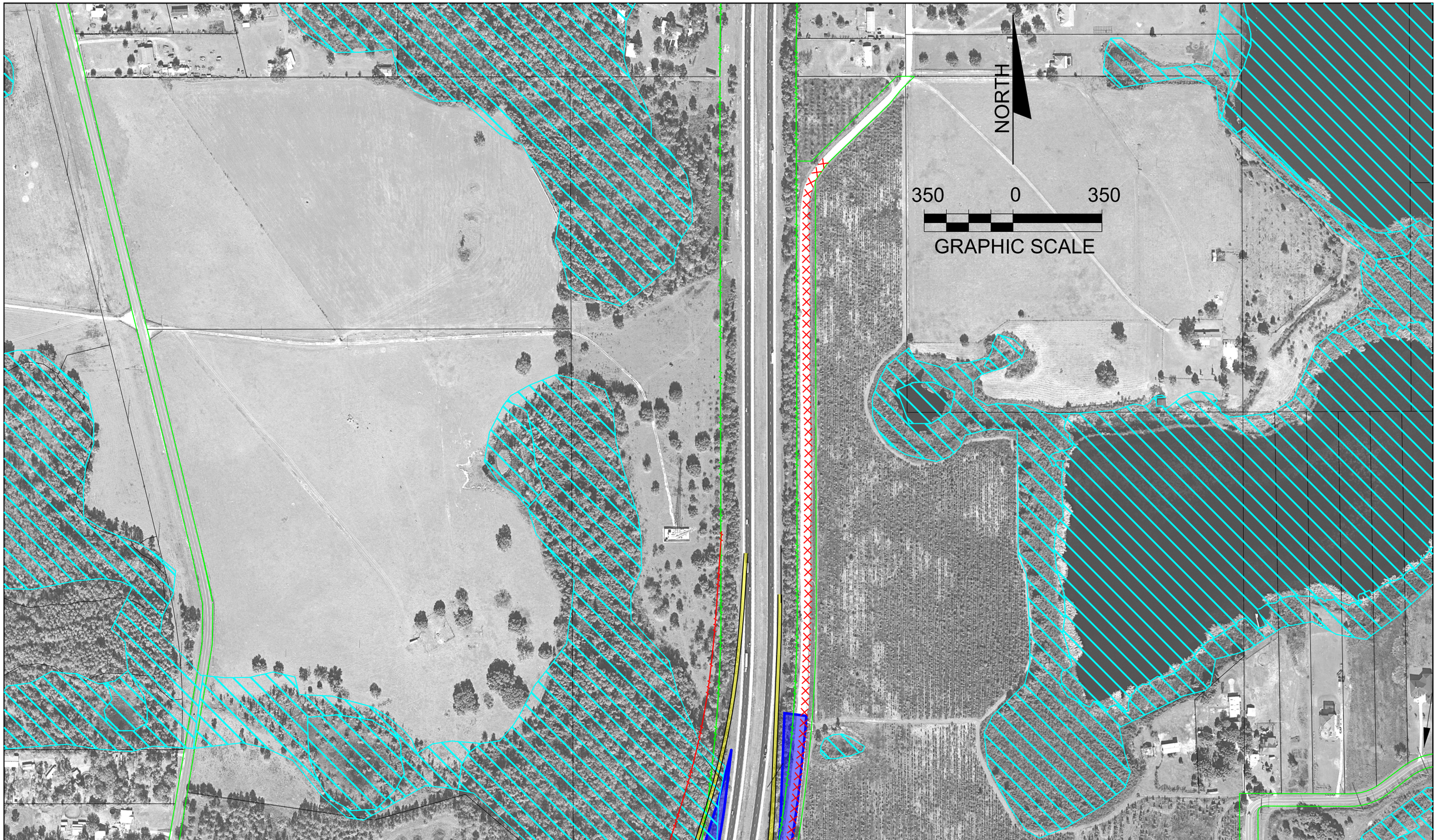

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DIAMOND INTERCHANGE
ALTERNATIVE

SHEET NO.
1A

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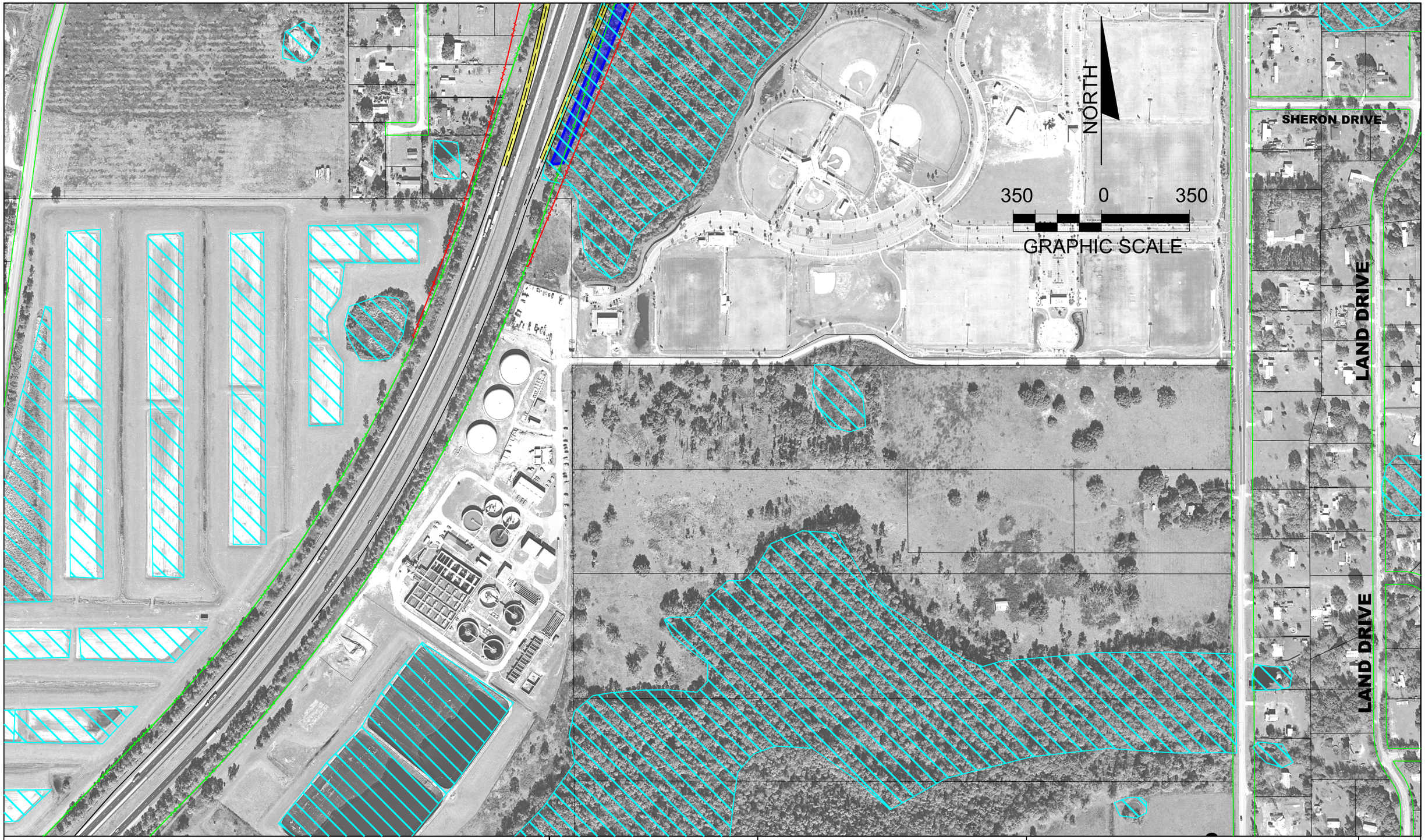

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DIAMOND INTERCHANGE
ALTERNATIVE

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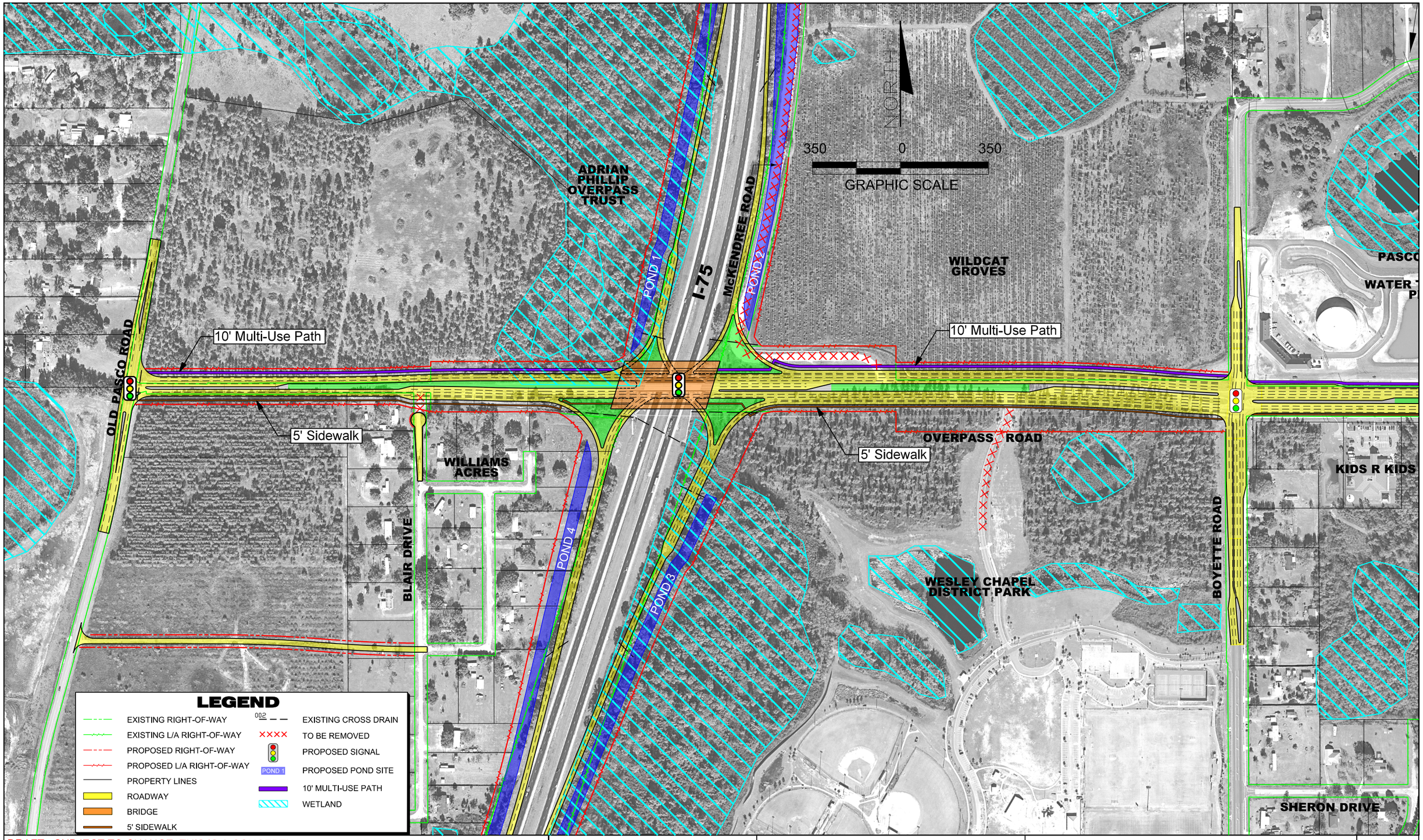

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SINGLE POINT URBAN INTERCHANGE (SPUI) ALTERNATIVE

SHEET NO.
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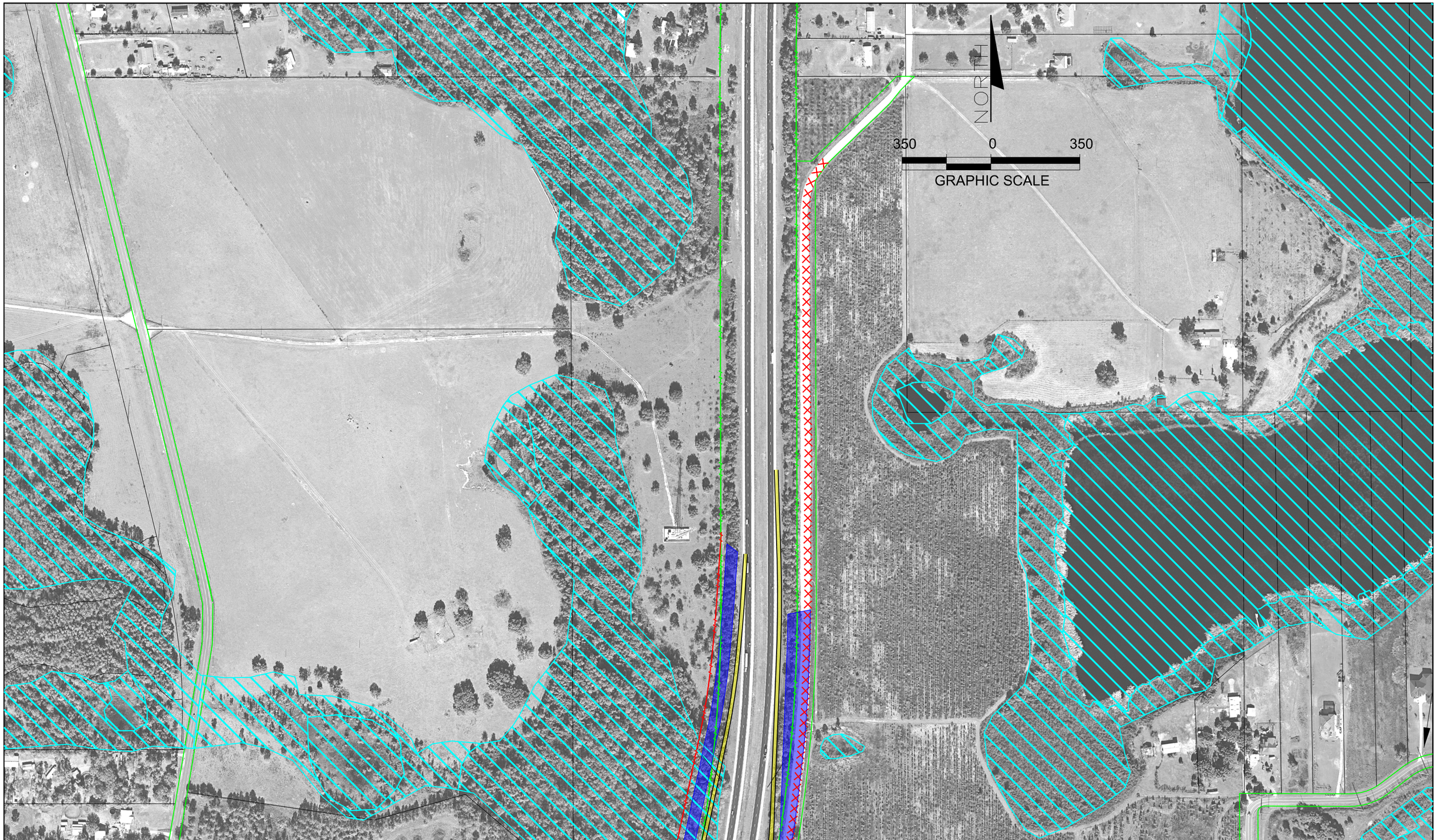

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SINGLE POINT URBAN INTERCHANGE (SPUI) ALTERNATIVE

SHEET NO.
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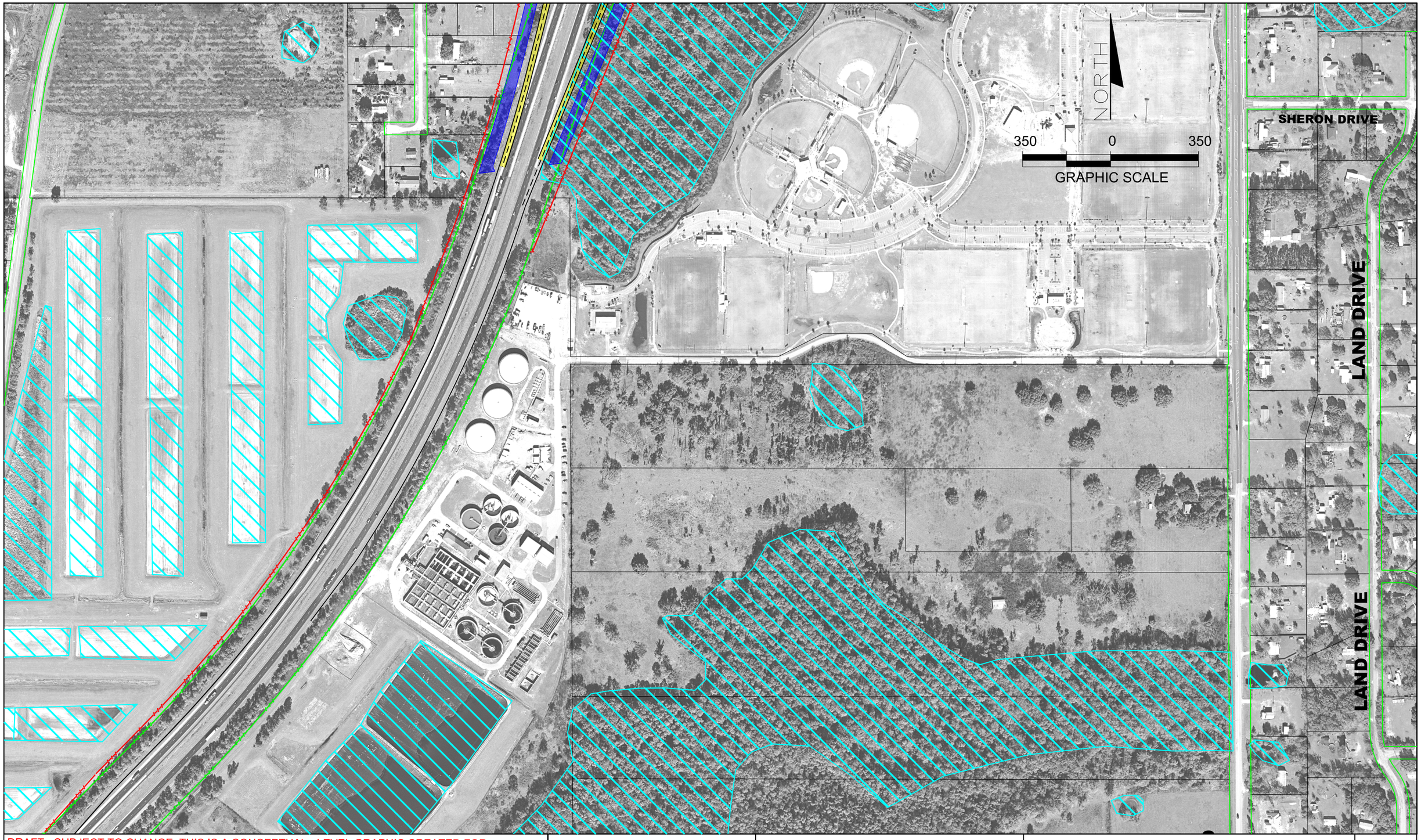

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SINGLE POINT URBAN INTERCHANGE (SPUI) ALTERNATIVE

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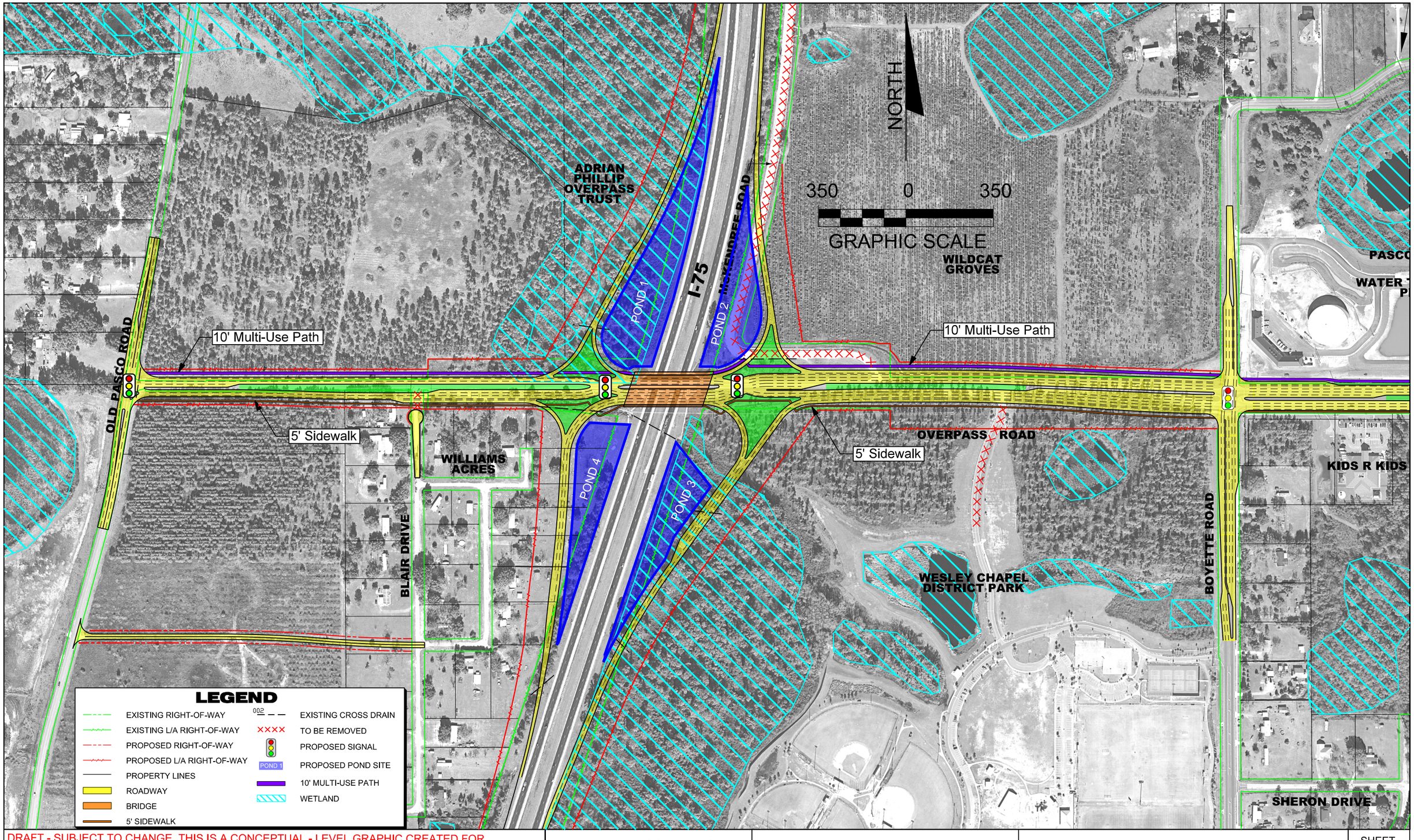

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DIVERGING DIAMOND INTERCHANGE ALTERNATIVE

SHEET NO. 1

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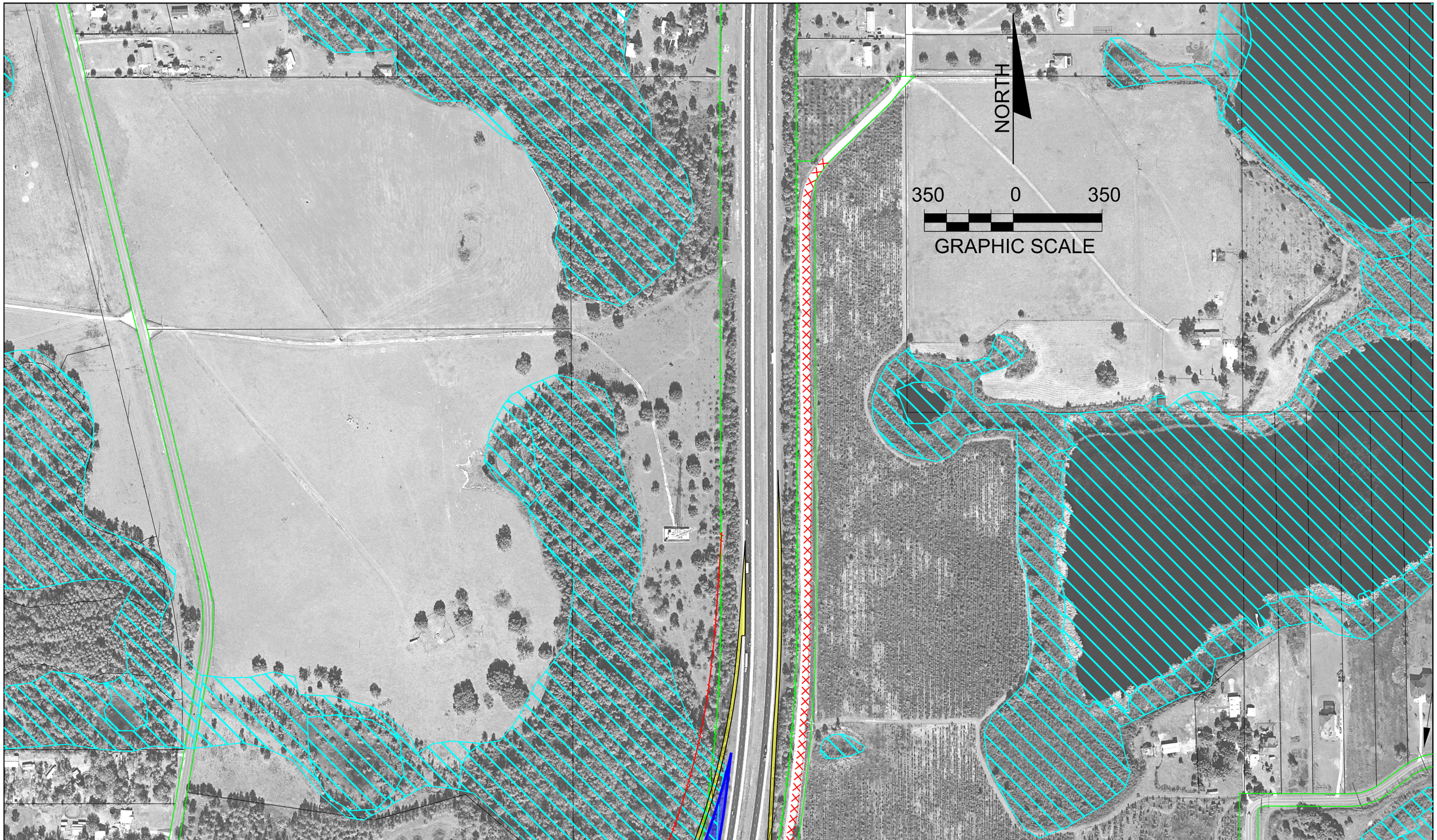

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DIVERGING DIAMOND INTERCHANGE ALTERNATIVE

SHEET NO.
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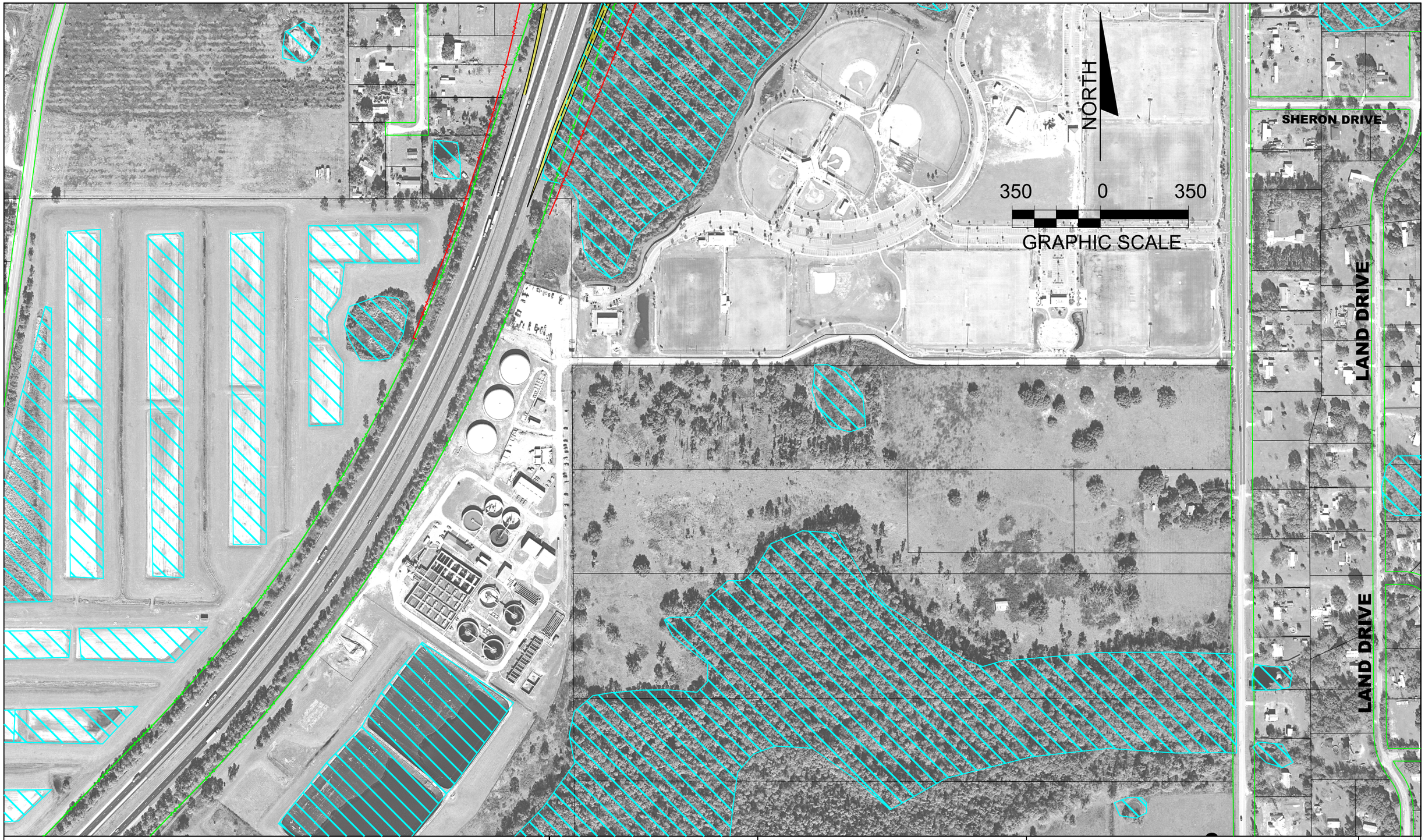

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DIVERGING
DIAMOND INTERCHANGE
ALTERNATIVE

SHEET NO.
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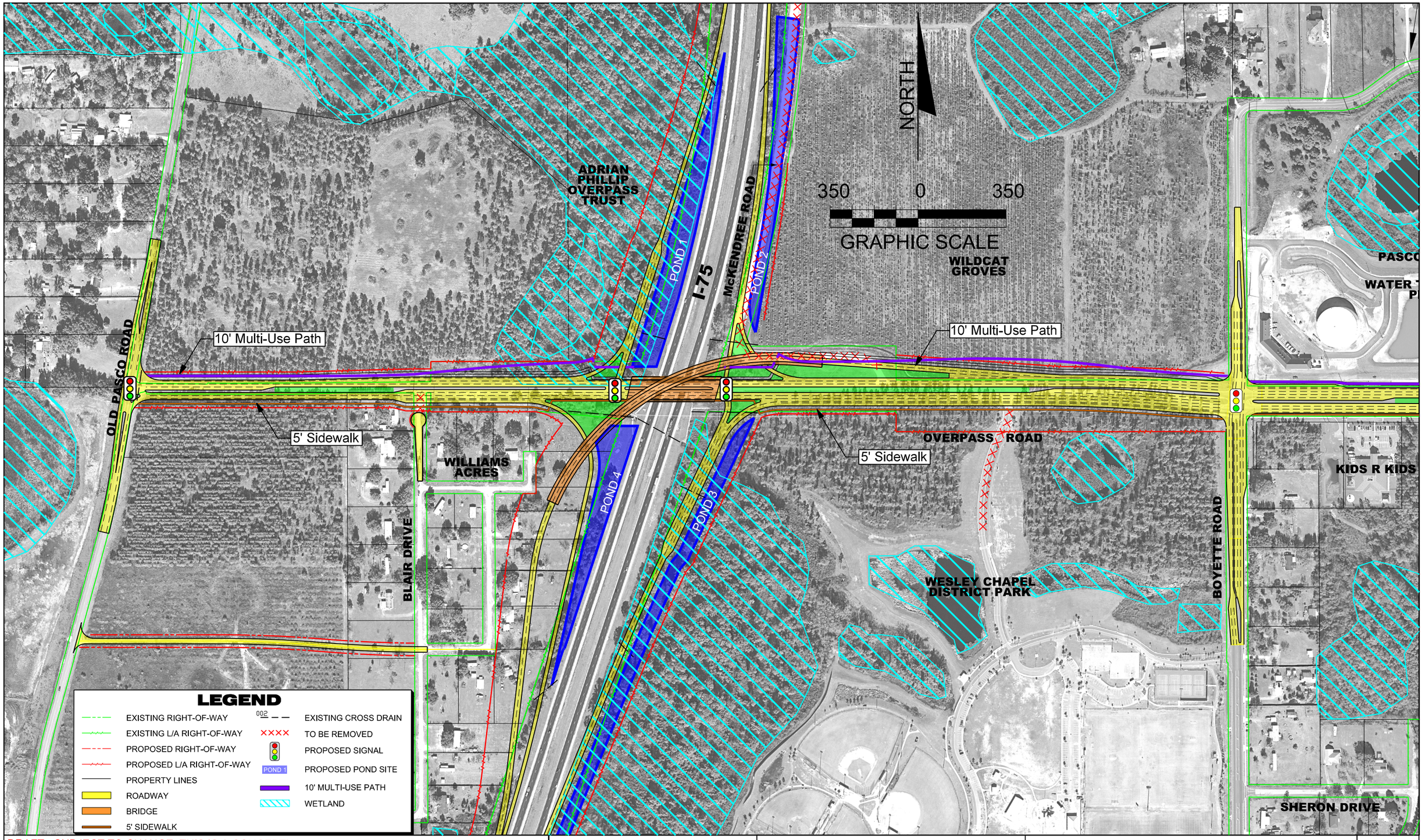

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FLYOVER RAMP ALTERNATIVE

SHEET NO. 1

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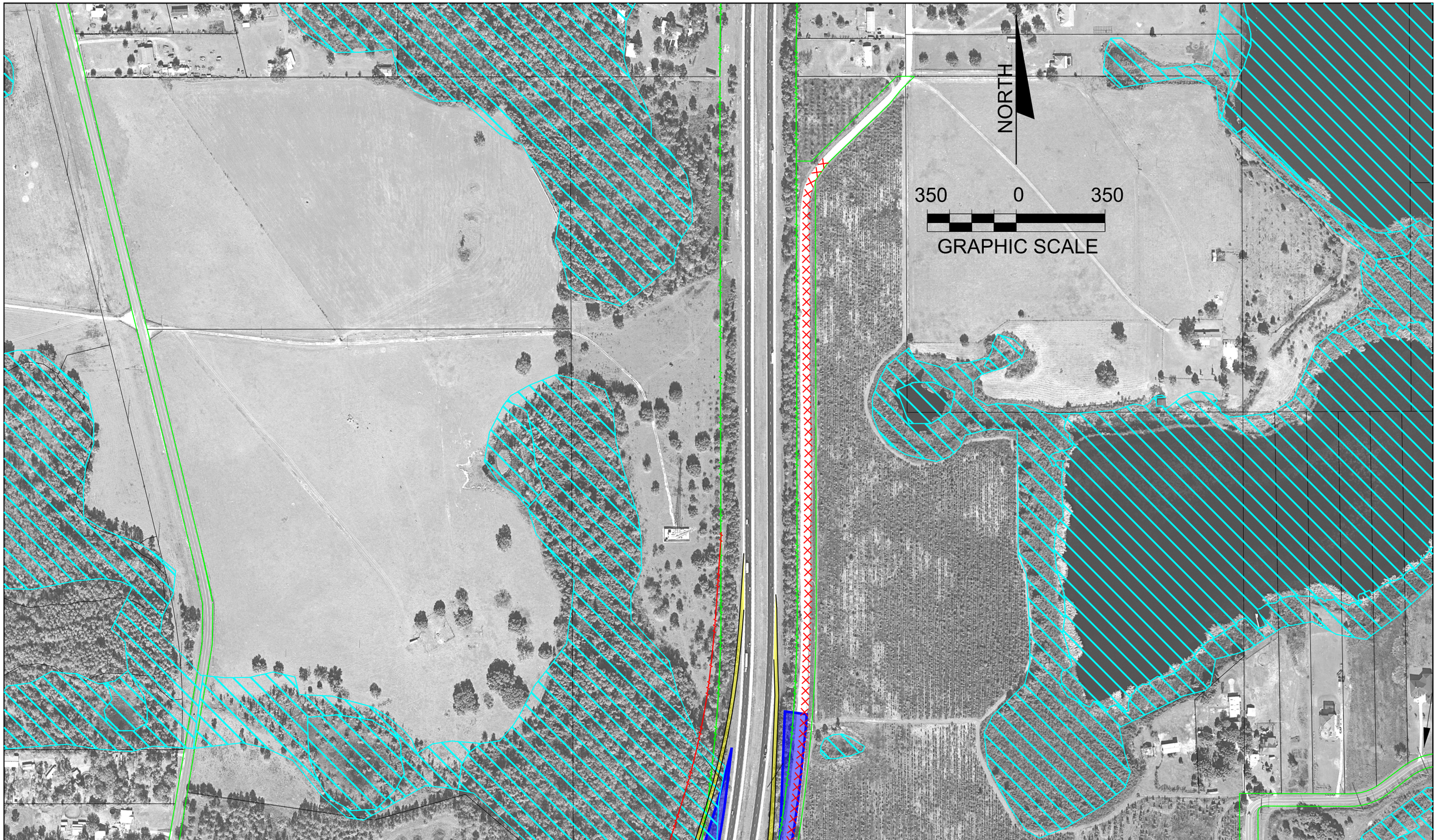

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FLYOVER RAMP
ALTERNATIVE

SHEET NO.
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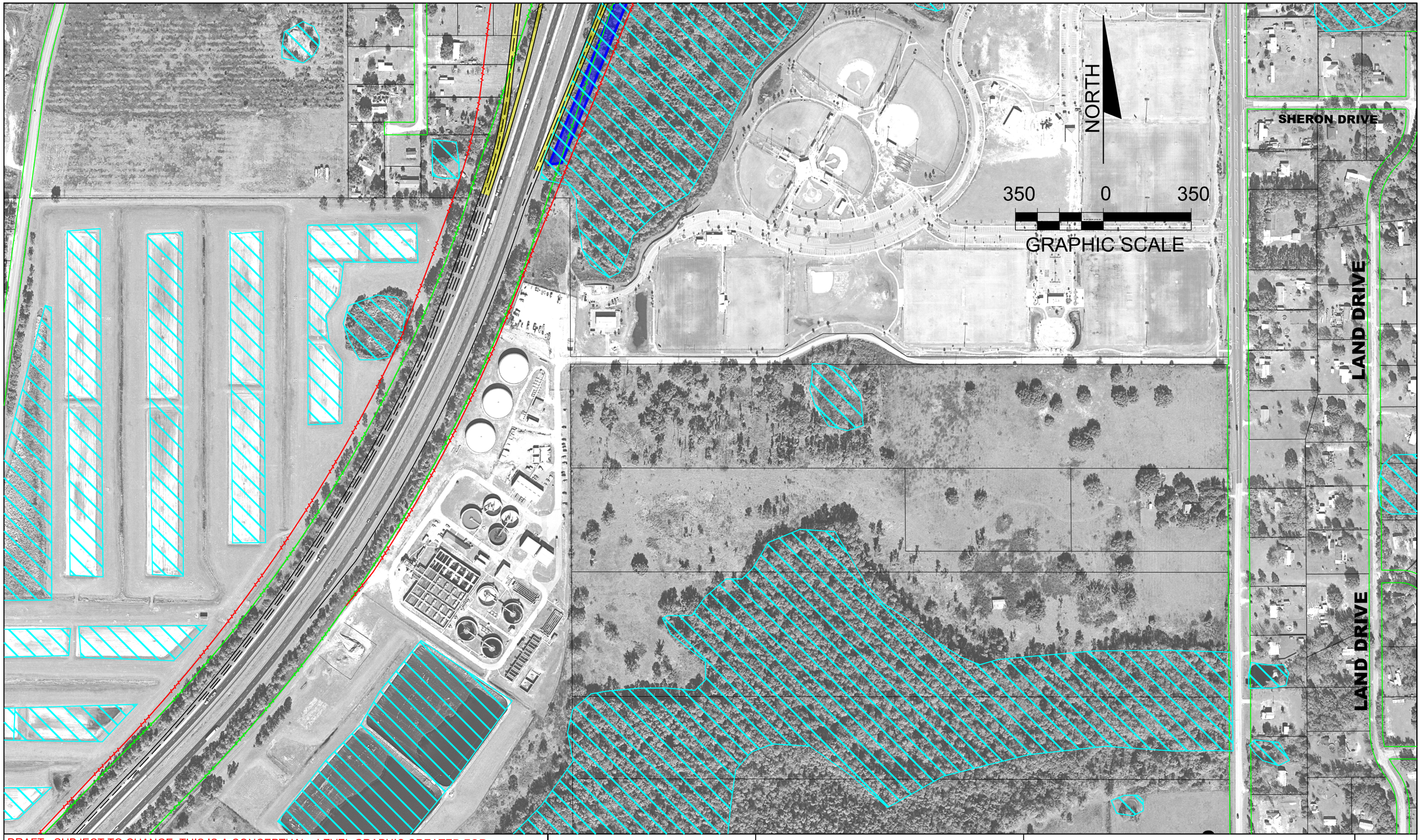

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FLYOVER RAMP
ALTERNATIVE

SHEET NO.
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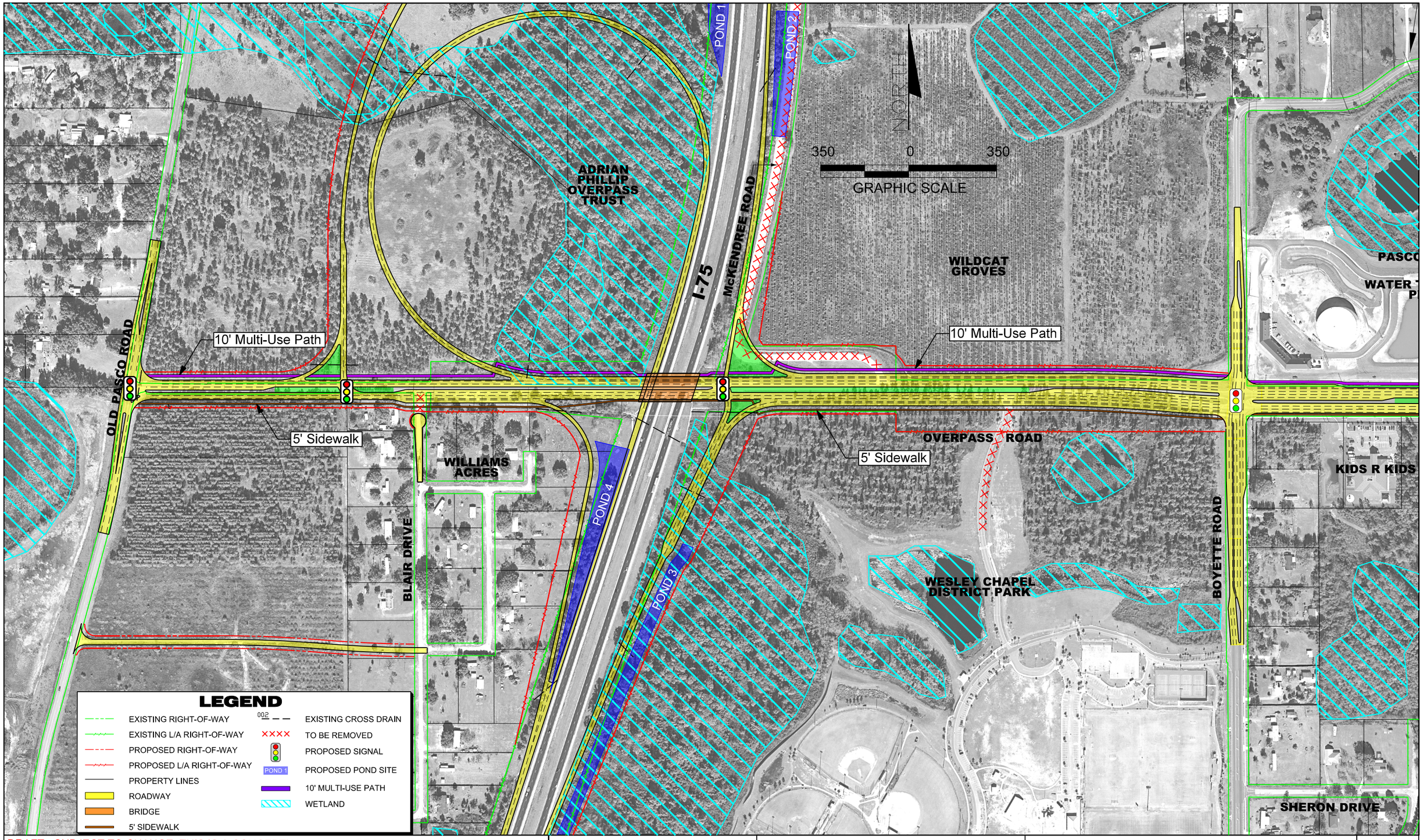

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LOOP RAMP ALTERNATIVE

SHEET NO. 1

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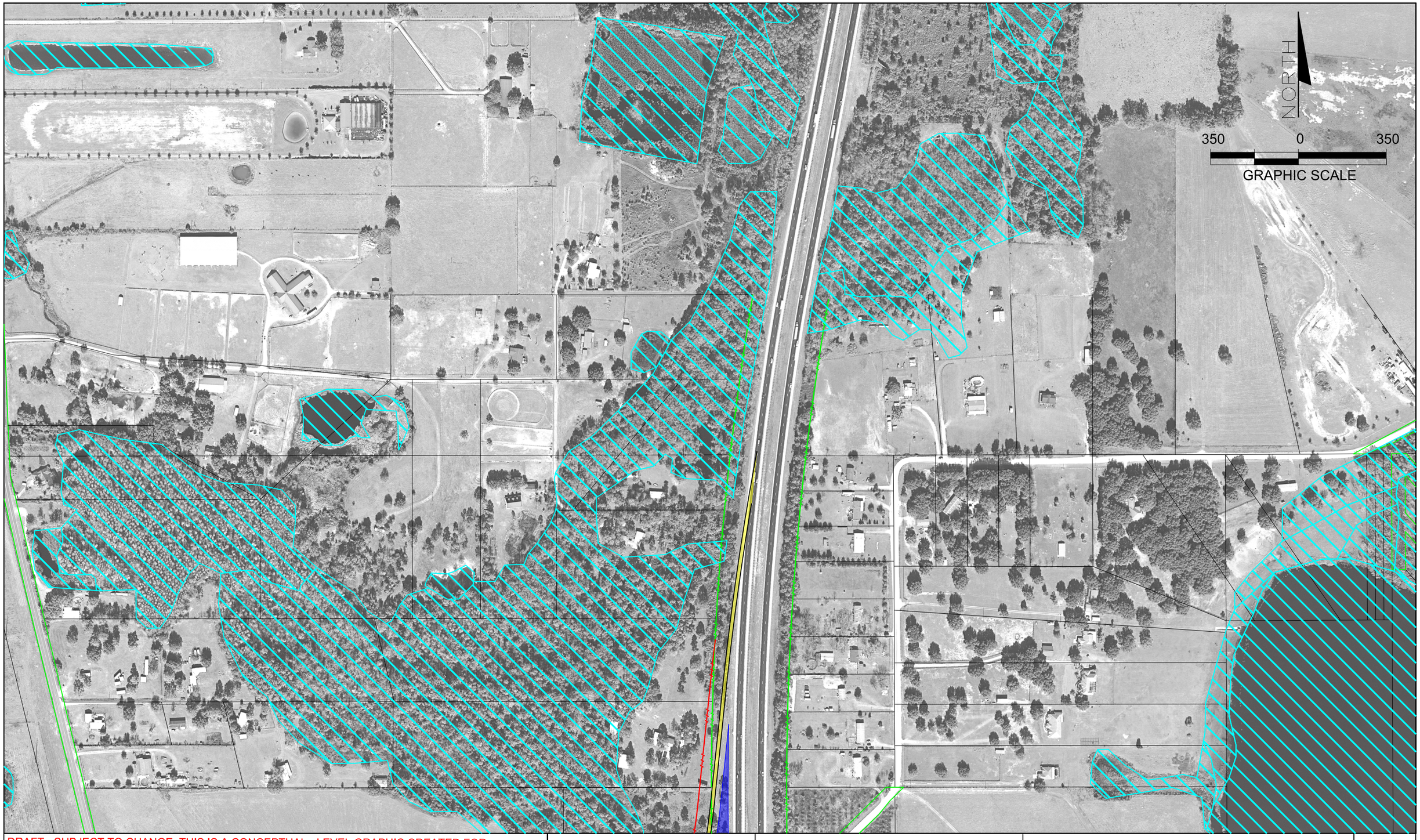

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LOOP RAMP
ALTERNATIVE

SHEET NO.
1A

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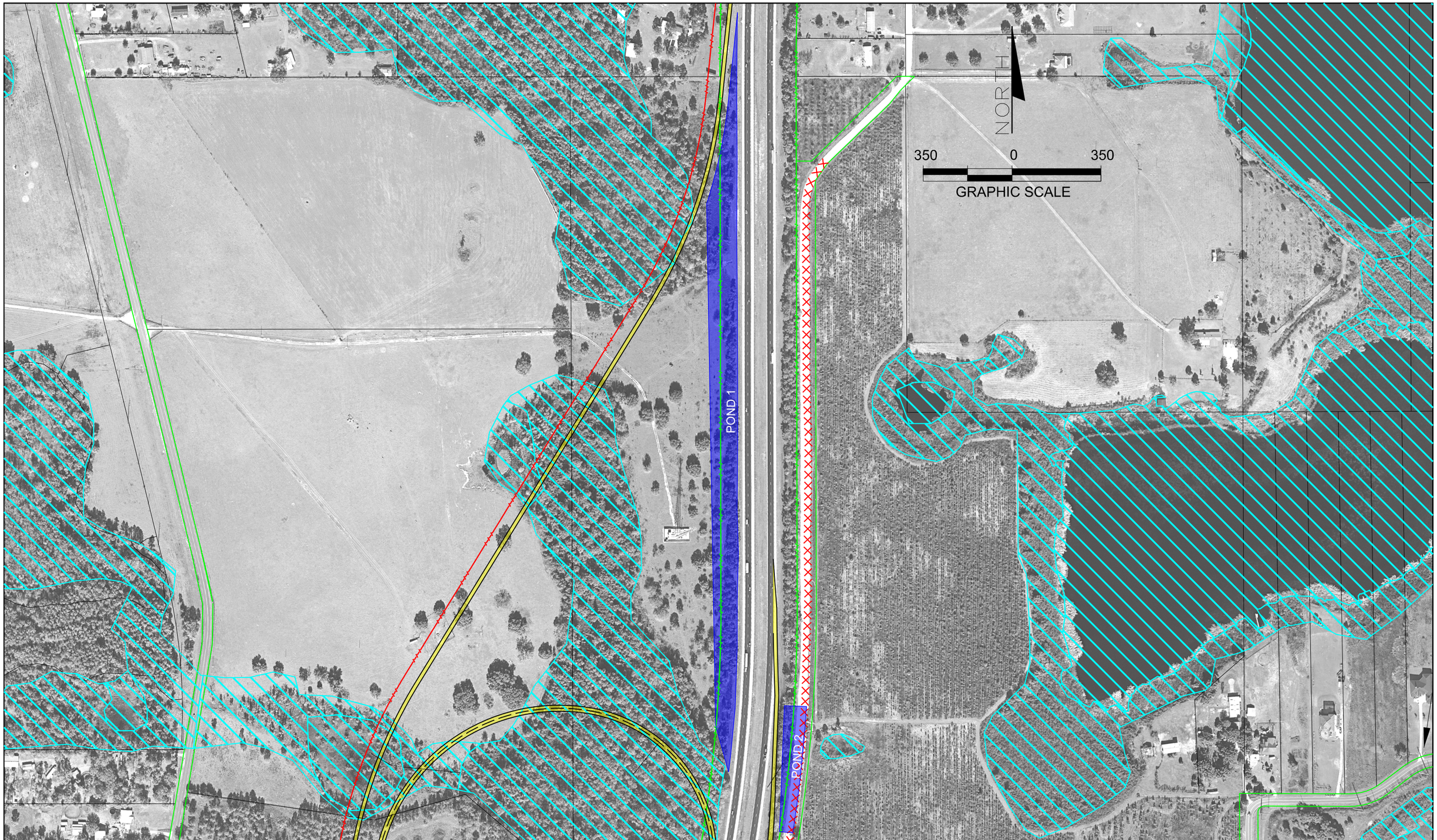

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Pasco County

LOOP RAMP
ALTERNATIVE

SHEET NO.
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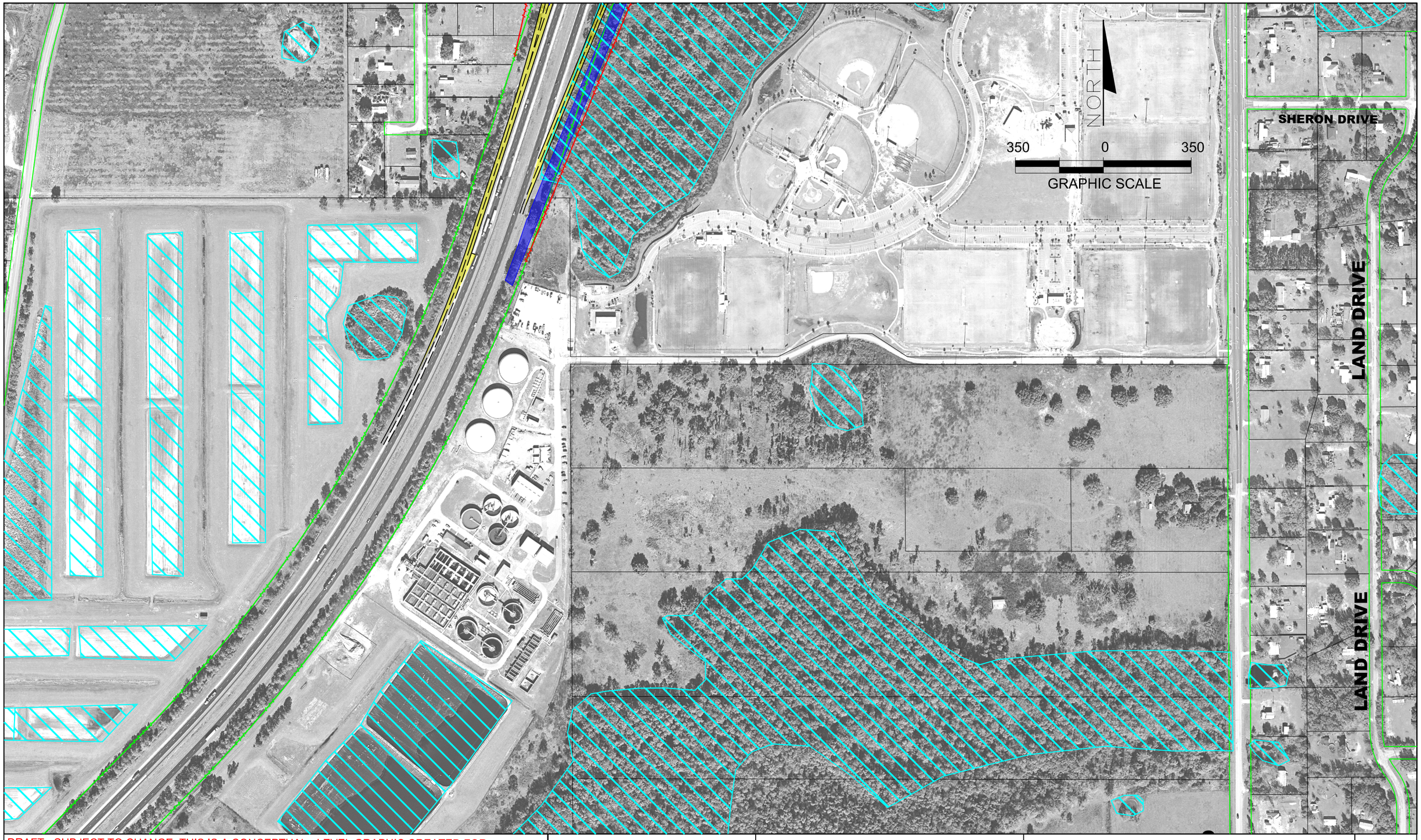

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LOOP RAMP
ALTERNATIVE

SHEET NO.
1C

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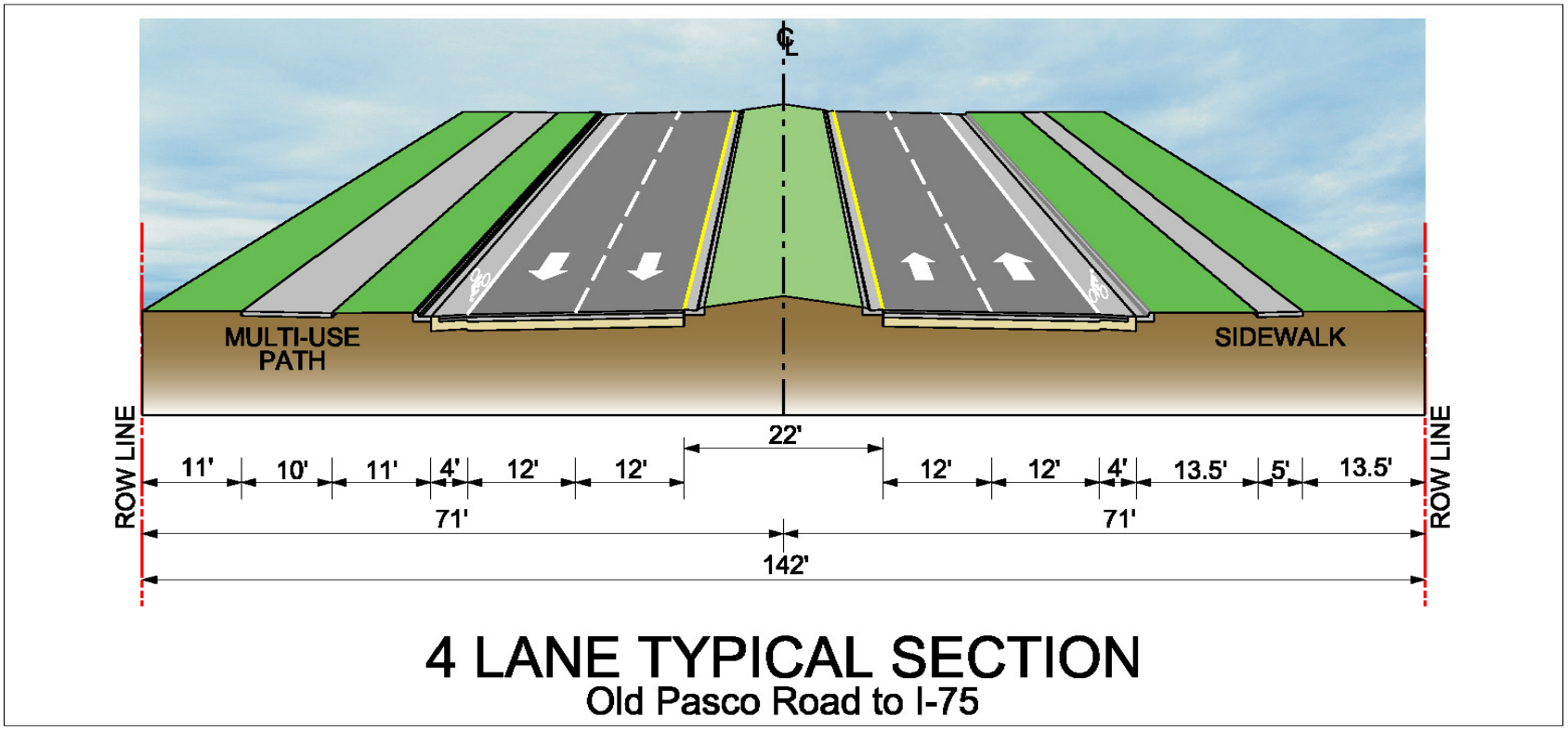
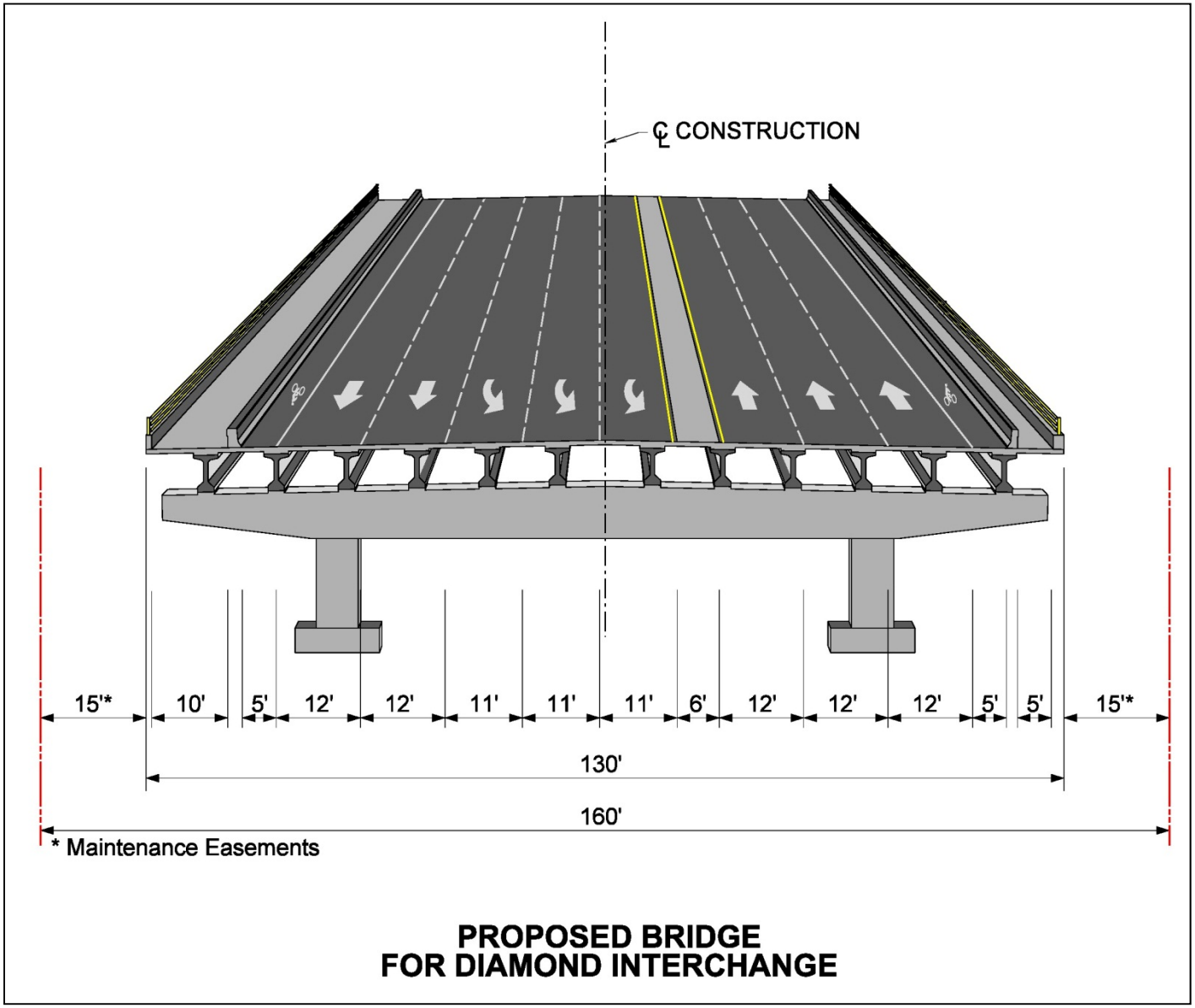
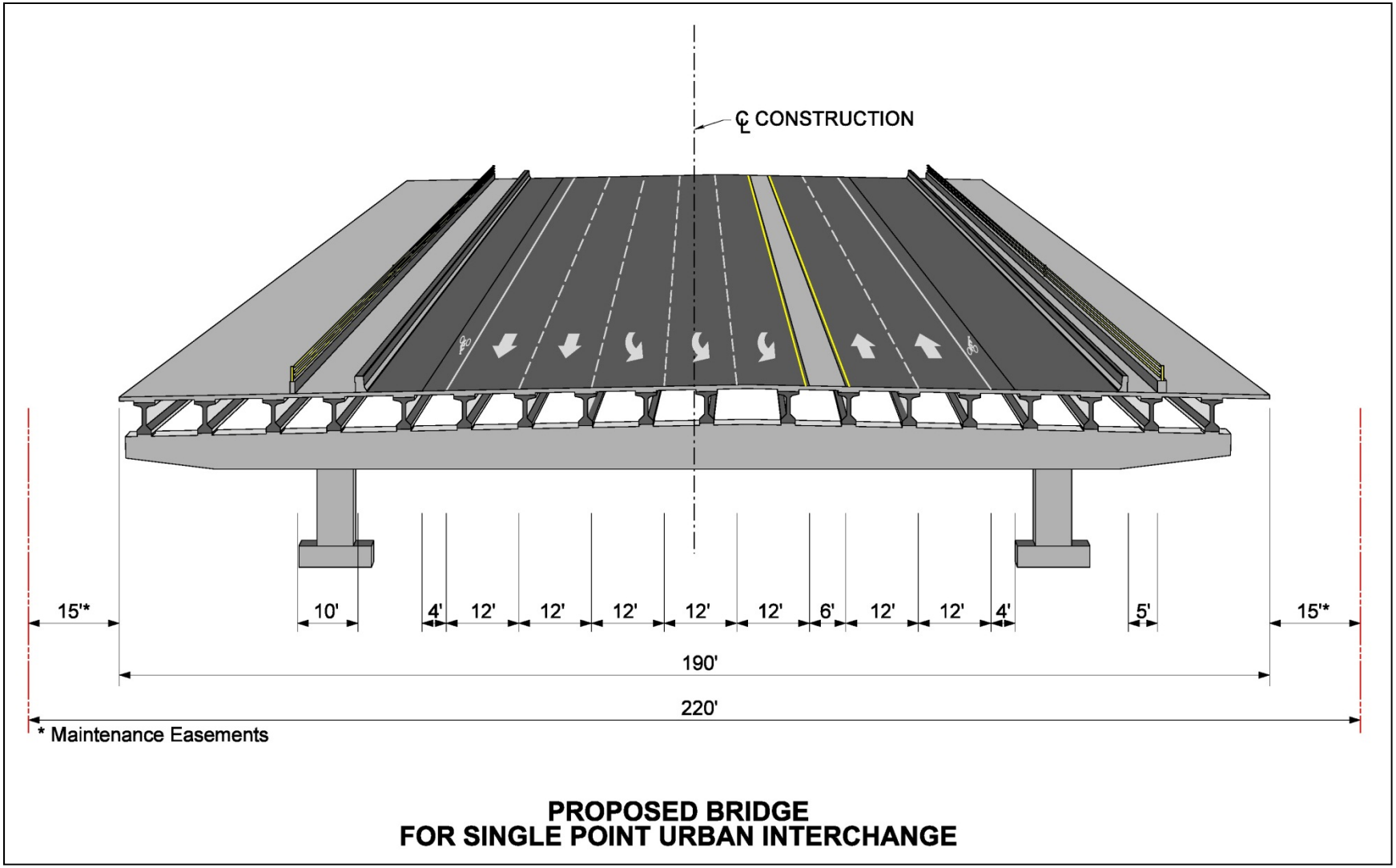
PROPOSED TYPICAL SECTION FOR OVERPASS ROAD (FROM OLD PASCO ROAD TO I-75)



PROPOSED BRIDGE TYPICAL SECTION FOR DIAMOND INTERCHANGE ALTERNATIVE

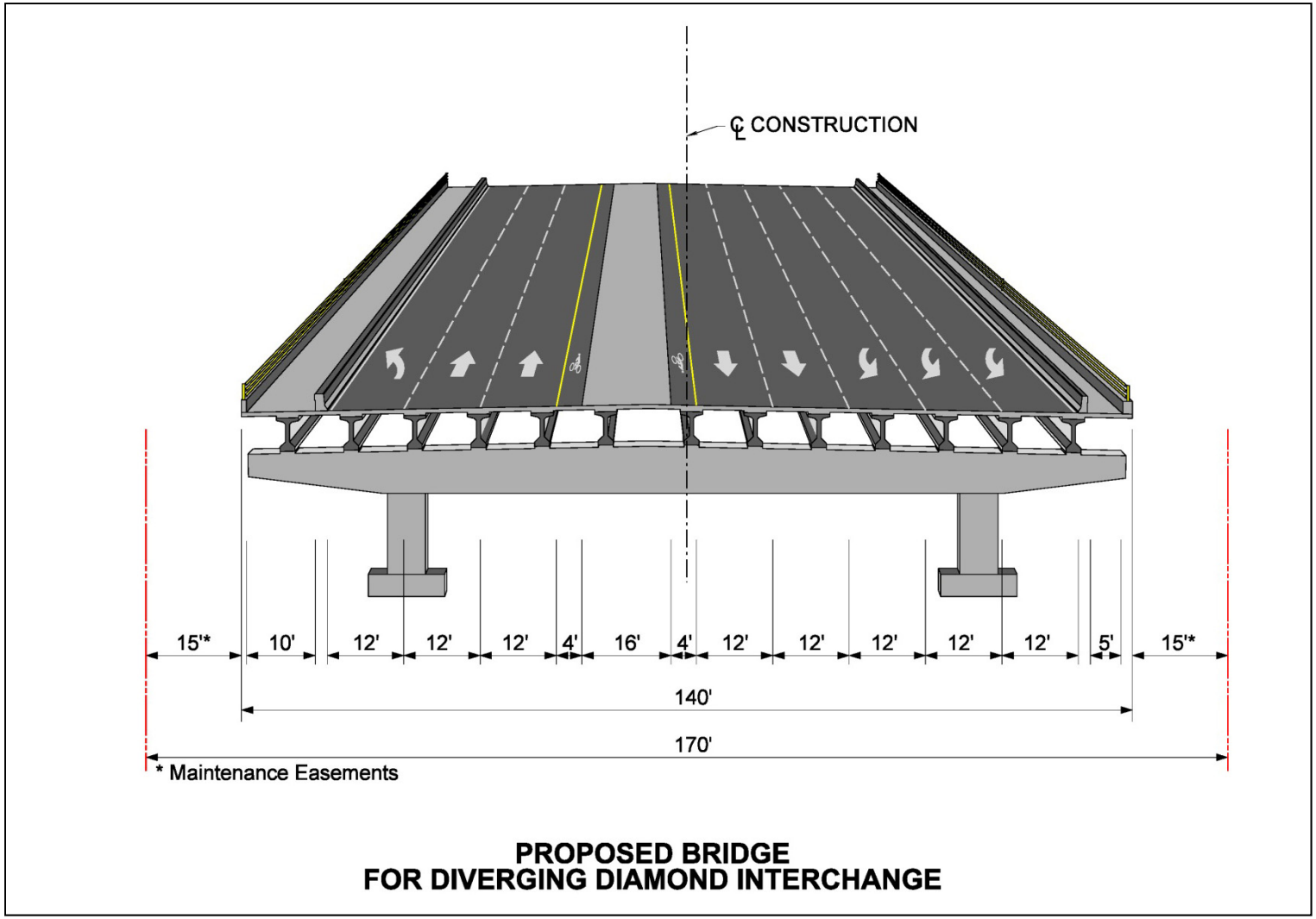


PROPOSED OVERPASS ROAD BRIDGE TYPICAL SECTION FOR SPUR ALTERNATIVE



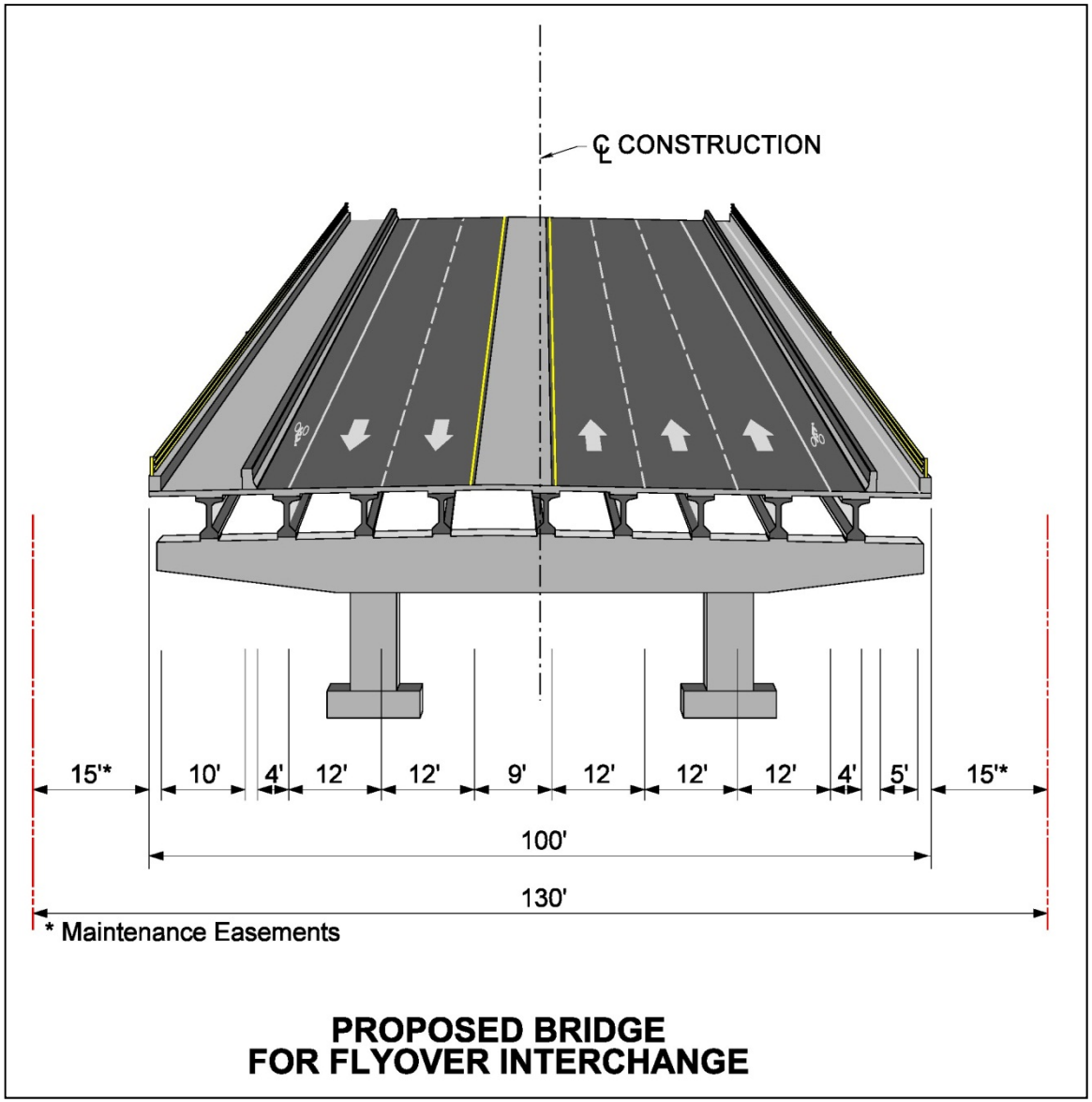
PROPOSED BRIDGE
FOR SINGLE POINT URBAN INTERCHANGE

PROPOSED OVERPASS ROAD BRIDGE TYPICAL SECTION FOR DDI ALTERNATIVE

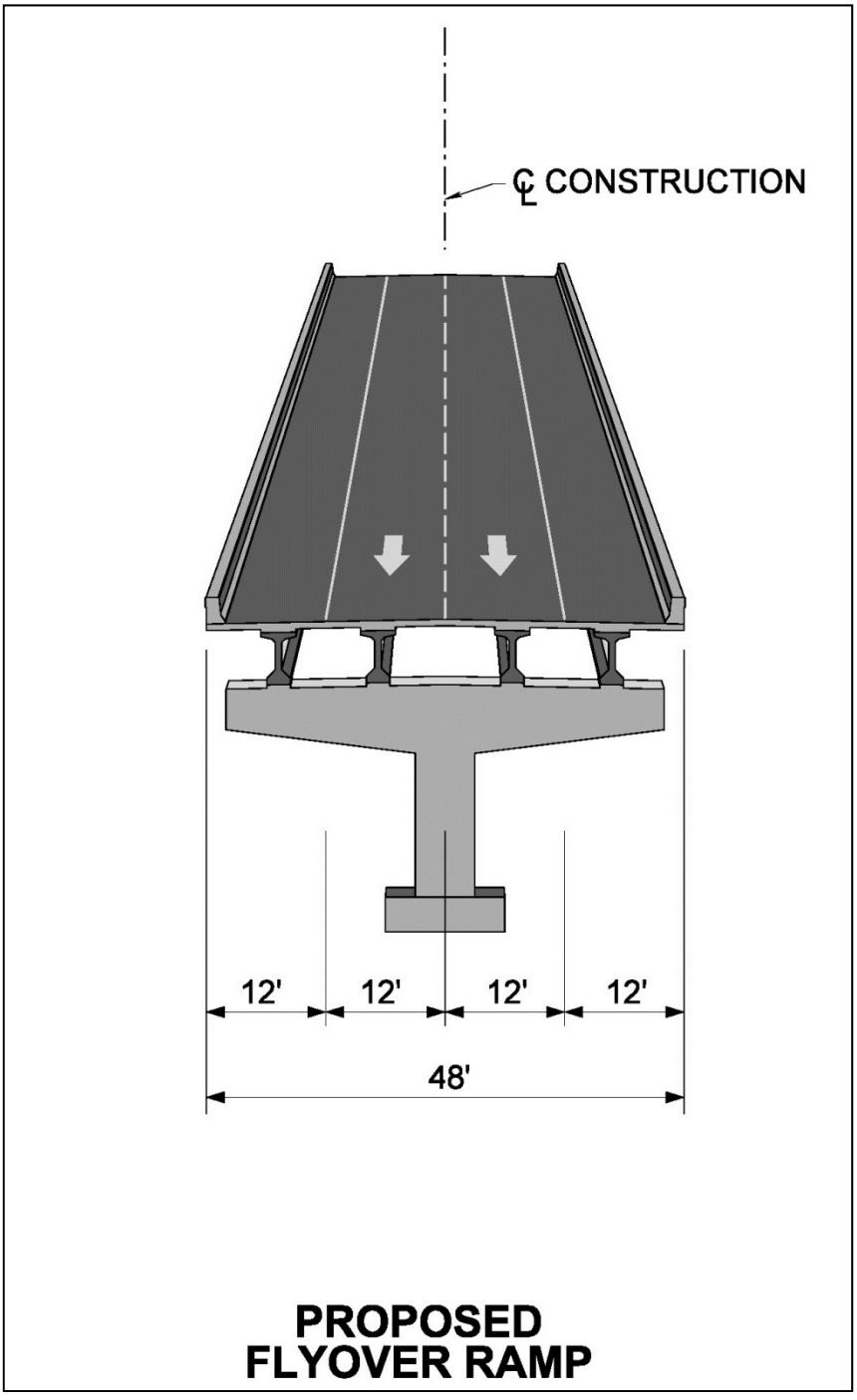


PROPOSED BRIDGE
FOR DIVERGING DIAMOND INTERCHANGE

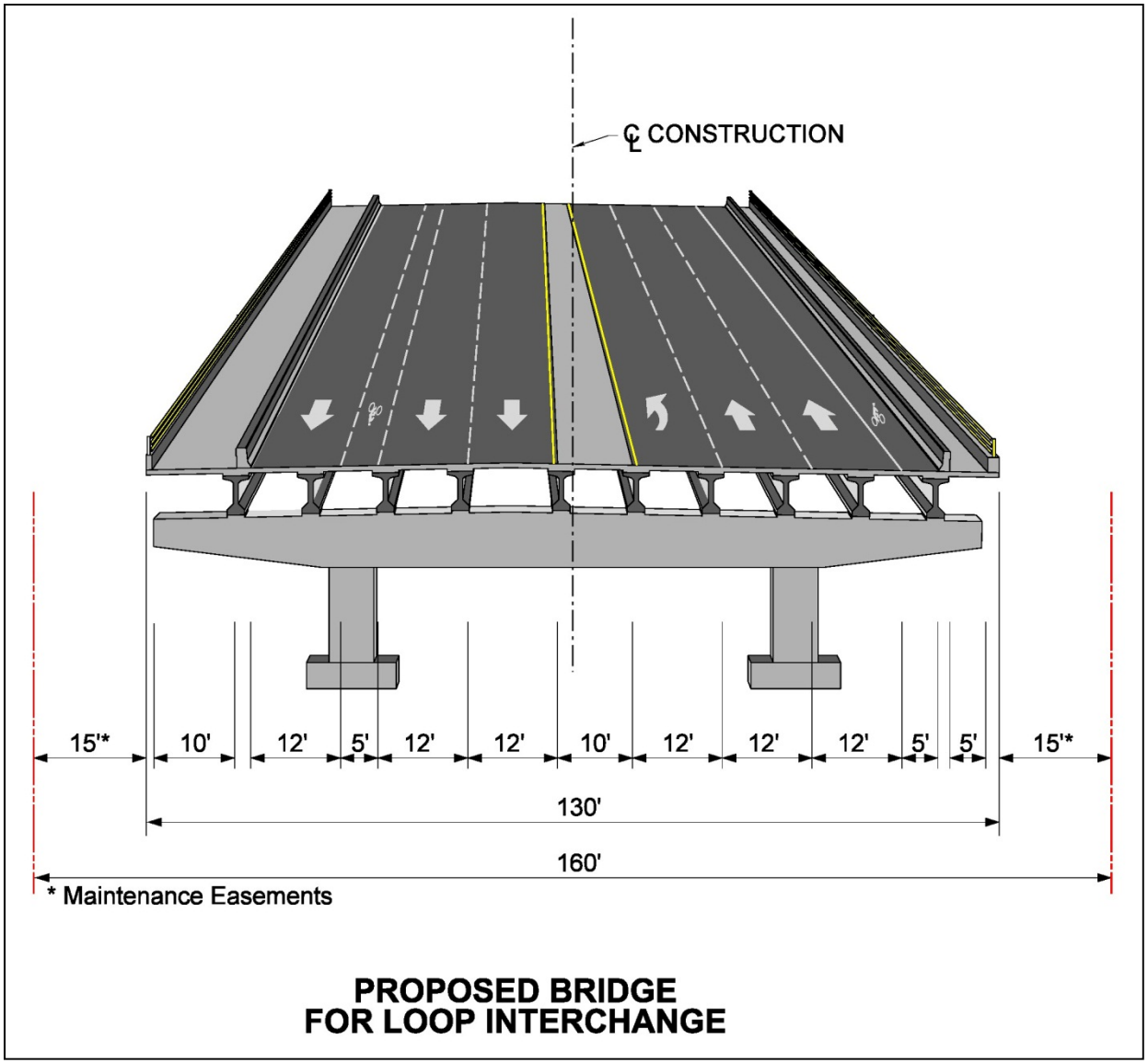
PROPOSED OVERPASS ROAD BRIDGE TYPICAL SECTION FOR FLYOVER ALTERNATIVE



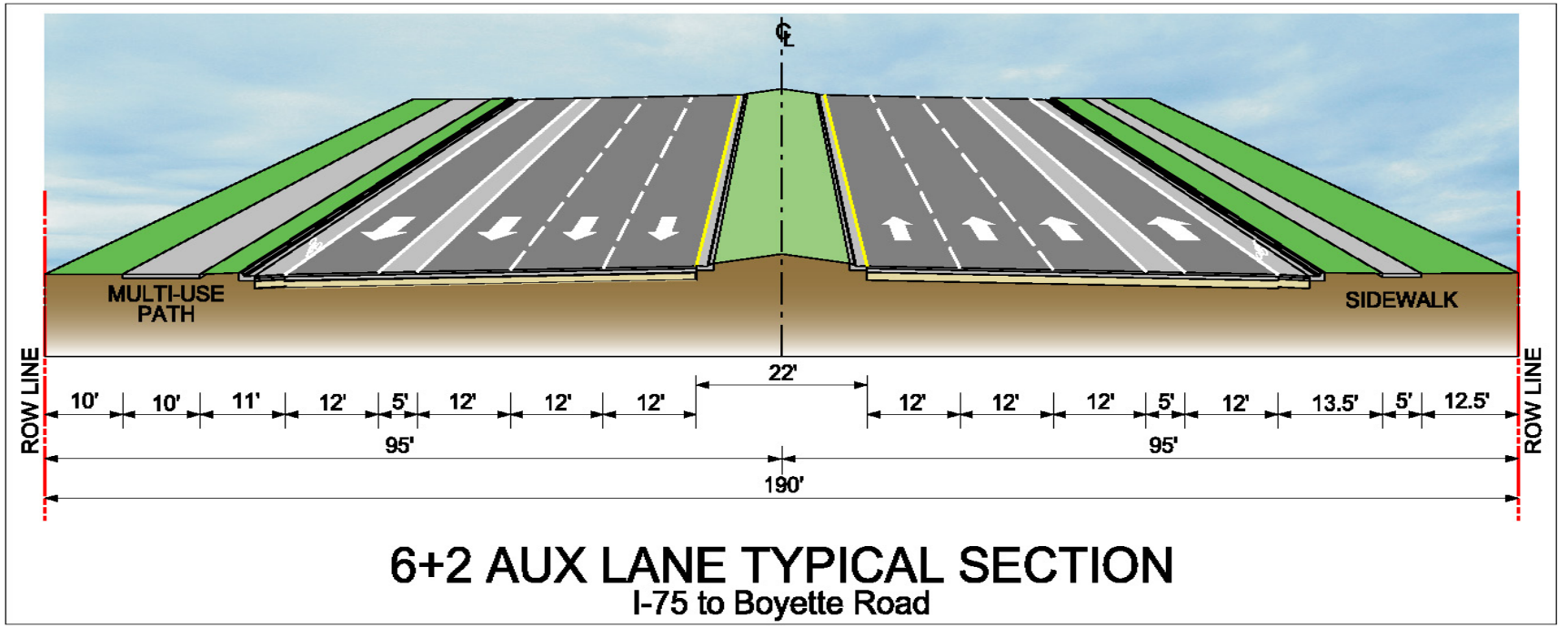
PROPOSED BRIDGE TYPICAL SECTION FOR FLYOVER RAMP



PROPOSED OVERPASS ROAD BRIDGE TYPICAL SECTION FOR THE LOOP RAMP ALTERNATIVE



PROPOSED TYPICAL SECTION FOR OVERPASS ROAD (FROM I-75 TO BOYETTE ROAD)



APPENDIX G

Opening Year (2022) Analysis

2022 No-Build Freeway Analysis Results

FREEPLAN 2009 Conceptual Planning Analysis

Project Information

Analyst	URS	**Freeway Name**	I-75	**Study Period**	Dir Hr Demand Vol
Date Prepared	1/4/2011 1:07:37 PM	**From**	S of SR 56	**Program**	FREEPLAN 2009
Agency	FDOT	**To**	N of SR 52	**Version Date**	12/12/10
Area Type	Other Urbanized	**Peak Direction**	Southbound		
File Name	C:\Documents and Settings\srinivas_meka\Local Settings\Temp\preview.xml				
User Notes	No Build 2022 AM Northbound (Off-peak)				

Freeway Data

AADT	60500	**Freeway Input Volume**	5120	**Local Adjustment Factor**	0.95
K	0.09	**PHF**	0.95	**Ramp Metering Exists**	No
D	0.55	**Pecent Trucks Entering First Segment**	7		

Segment Data

Seg #	From	To	Type	Length	Between Length	Hourly Volume	# Thru Lanes	# Aux Lanes	Posted Speed	FFS	Terrain
1	S of SR56	SR 56	Basic Segment	9060	0	5120	4	0	70	70	Level
2	SR 56	SR 56	On Ramp	1500	0	5120	4	0	70	70	Level
3	SR 56	SR 54	Basic Segment	12500	0	5680	4	0	70	70	Level
4	SR 54	SR54	Diamond	5280	0	5680	3	0	70	70	Level
5	SR 54	SR52	Basic Segment	29500	0	4410	3	0	70	70	Level
6	SR 52	SR 52	Diamond	5280	0	4410	3	0	70	70	Level
7	SR 52	N of SR52	Basic Segment	5280	0	3080	3	0	70	70	Level

Interchange Distances

Segment	Type	Interchange Length	Distance Between Ramps			Auxiliary Lane?
			1 and 2	2 and 3	3 and 4	
4	Diamond	2280	2280	0	0	False
6	Diamond	2280	2280	0	0	False

Ramp Descriptions

Segment	Type	First Off-Ramp					First On-Ramp					Second Off-Ramp					Second On-Ramp				
		Vol	% HV	Lanes	Accel / Decel Length	FFS	Vol	% HV	Lanes	Accel / Decel Length	FFS	Vol	% HV	Lanes	Accel / Decel Length	FFS	Vol	% HV	Lanes	Accel / Decel Length	FFS
2	On Ramp						560	8.0	1	700	45										
4	Diamond	2030	8.0	2	1500	45	760	8.0	1	700	45										
6	Diamond	1780	8.0	1	410	45	450	8.0	1	700	45										

Segment LOS

Seg	From	To	Type	Volume	Adj. Capacity	Speed	Density	LOS	Sig Impact

#									
1	S of SR56	SR 56	Basic Segment	5120	8371	69.2	21.2	C	N/A
2	SR 56	SR 56	On Ramp	5120	8197	63.1	25.5	C	No
3	SR 56	SR 54	Basic Segment	5680	8367	67.9	24.0	C	N/A
4	SR 54	SR54	Diamond	5680	6101	64.4	24.3	C	#
5	SR 54	SR52	Basic Segment	4410	6283	67.3	25.0	C	N/A
6	SR 52	SR 52	Diamond	4410	5934	65.1	19.3	C	#
7	SR 52	N of SR52	Basic Segment	3080	6298	70.0	16.8	B	N/A

Freeway Length	12.95455	FFS Delay	26.48	Threshold Delay	0.00	Avg. Speed	67.32	Density	23.2	LOS	C

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 2100 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
4					
6					
8					
10					
12					
Lanes	**Peak Hour Volume Both Directions**				
4					
6					
8					
10					
12					
Lanes	**Annual Average Daily Traffic**				
4					
6					
8					
10					
12					

 # Off-ramp storage is highly likely to overflow. The segment operations will likely be worse than indicated.
One or more segments have a demand-to-capacity ratio greater than 1.0; therefore, the performance measure values are highly unreliable.
Freeway LOS is defaulted to F. An operational level analysis tool is more appropriate for this situation.
*** For oversaturated conditions during the peak hour, subtract 10% from LOS E (capacity) volumes. This number becomes the new maximum service volume for LOS D, and LOS E cannot be achieved.**
**** Cannot be achieved based on input data provided.**
***** Not applicable for that level of service letter grade. See generalized tables notes for more details.**

FREEPLAN 2009 Conceptual Planning Analysis

Project Information

Analyst	URS	**Freeway Name**	I-75	**Study Period**	Dir Hr Demand Vol
Date Prepared	4/5/2011 1:07:37 PM	**From**	S of SR 56	**Program**	FREEPLAN 2009
Agency	FDOT	**To**	N of SR 52	**Version Date**	12/12/10
Area Type	Other Urbanized	**Peak Direction**	Southbound		
File Name	C:\Documents and Settings\srinivas_meka\Local Settings\Temp\preview.xml				
User Notes	No Build 2022 AM Southbound (Peak)				

Freeway Data

AADT	72600	**Freeway Input Volume**	3750	**Local Adjustment Factor**	0.95
K	0.09	**PHF**	0.95	**Ramp Metering Exists**	No
D	0.55	**Pecent Trucks Entering First Segment**	15		

Segment Data

Seg #	From	To	Type	Length	Between Length	Hourly Volume	# Thru Lanes	# Aux Lanes	Posted Speed	FFS	Terrain
1	N of SR 52	SR 52	Basic Segment	5280	0	3750	3	0	70	70	Level
2	SR 52	SR 52	Diamond	5280	0	3750	3	0	70	70	Level
3	SR 52	SR 54	Basic Segment	29500	0	5400	3	0	70	70	Level
4	SR 54	SR 54	Diamond	5280	0	5400	3	0	70	70	Level
5	SR 54	SR 56	Basic Segment	12500	0	6865	4	0	70	70	Level
6	SR 56	SR 56	Diamond	5280	0	6865	4	0	70	70	Level
7	SR 56	S of SR56	Basic Segment	5280	0	9590	6	0	70	70	Level

Interchange Distances

Segment	Type	Interchange Length	Distance Between Ramps			Auxiliary Lane?
			1 and 2	2 and 3	3 and 4	
2	Diamond	2280	2280	0	0	False
4	Diamond	2280	2280	0	0	False
6	Diamond	2280	2280	0	0	False

Ramp Descriptions

Segment	Type	First Off-Ramp					First On-Ramp					Second Off-Ramp					Second On-Ramp				
		Vol	% HV	Lanes	Accel / Decel Length	FFS	Vol	% HV	Lanes	Accel / Decel Length	FFS	Vol	% HV	Lanes	Accel / Decel Length	FFS	Vol	% HV	Lanes	Accel / Decel Length	FFS
2	Diamond	550	8.0	1	410	45	2200	8.0	1	700	45										
4	Diamond	930	8.0	1	410	45	2395	8.0	2	1500	45										
6	Diamond	680	8.0	1	600	45	3405	8.0	2	1500	45										

Segment LOS

Seg #	From	To	Type	Volume	Adj. Capacity	Speed	Density	LOS	Sig Impact
1	N of SR 52	SR 52	Basic Segment	3750	6045	69.0	21.6	C	N/A
2	SR 52	SR 52	Diamond	3750	5709	62.4	24.1	C	No
3	SR 52	SR 54	Basic Segment	5400	6105	60.1	35.3	E	N/A
4	SR 54	SR 54	Diamond	5400	5766	##	##	F	#
5	SR 54	SR 56	Basic Segment	6865	8180	62.3	32.3	D	N/A
6	SR 56	SR 56	Diamond	6865	7840	##	##	F	#
7	SR 56	S of SR56	Basic Segment	9590	12334	64.9	28.8	D	N/A

Freeway Length	12.95455	FFS Delay	##	Threshold Delay	##	Avg. Speed	##	Density	##	LOS	F

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 2100 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
4					
6					
8					
10					
12					
Lanes	**Peak Hour Volume Both Directions**				
4					
6					
8					
10					
12					
Lanes	**Annual Average Daily Traffic**				
4					
6					
8					
10					
12					

 # Off-ramp storage is highly likely to overflow. The segment operations will likely be worse than indicated.
One or more segments have a demand-to-capacity ratio greater than 1.0; therefore, the performance measure values are highly unreliable.
Freeway LOS is defaulted to F. An operational level analysis tool is more appropriate for this situation.
*** For oversaturated conditions during the peak hour, subtract 10% from LOS E (capacity) volumes. This number becomes the new maximum service volume for LOS D, and LOS E cannot be achieved.**
**** Cannot be achieved based on input data provided.**
***** Not applicable for that level of service letter grade. See generalized tables notes for more details.**

FREEPLAN 2009 Conceptual Planning Analysis

Project Information

Analyst	URS	**Freeway Name**	I-75	**Study Period**	Dir Hr Demand Vol
Date Prepared	4/5/2011 1:07:37 PM	**From**	S of SR 56	**Program**	FREEPLAN 2009
Agency	FDOT	**To**	N of SR 52	**Version Date**	12/12/10
Area Type	Other Urbanized	**Peak Direction**	Northbound		
File Name	C:\Documents and Settings\srinivas_meka\Local Settings\Temp\preview.xml				
User Notes	No Build 2022 PM Northbound (Peak)				

Freeway Data

AADT	60500	**Freeway Input Volume**	6255	**Local Adjustment Factor**	0.95
K	0.09	**PHF**	0.95	**Ramp Metering Exists**	No
D	0.55	**Pecent Trucks Entering First Segment**	7		

Segment Data

Seg #	From	To	Type	Length	Between Length	Hourly Volume	# Thru Lanes	# Aux Lanes	Posted Speed	FFS	Terrain
1	S of SR56	SR 56	Basic Segment	9060	0	6255	4	0	70	70	Level
2	SR 56	SR 56	On Ramp	1500	0	6255	4	0	70	70	Level
3	SR 56	SR 54	Basic Segment	12500	0	6935	4	0	70	70	Level
4	SR 54	SR54	Diamond	5280	0	6935	3	0	70	70	Level
5	SR 54	SR52	Basic Segment	29500	0	5470	3	0	70	70	Level
6	SR 52	SR 52	Diamond	5280	0	5470	3	0	70	70	Level
7	SR 52	N of SR52	Basic Segment	5280	0	3820	3	0	70	70	Level

Interchange Distances

Segment	Type	Interchange Length	Distance Between Ramps			Auxiliary Lane?
			1 and 2	2 and 3	3 and 4	
4	Diamond	2280	2280	0	0	False
6	Diamond	2280	2280	0	0	False

Ramp Descriptions

Segment	Type	First Off-Ramp					First On-Ramp					Second Off-Ramp					Second On-Ramp				
		Vol	% HV	Lanes	Accel / Decel Length	FFS	Vol	% HV	Lanes	Accel / Decel Length	FFS	Vol	% HV	Lanes	Accel / Decel Length	FFS	Vol	% HV	Lanes	Accel / Decel Length	FFS
2	On Ramp						680	8.0	1	700	45										
4	Diamond	2395	8.0	2	1500	45	930	8.0	1	700	45										
6	Diamond	2200	8.0	1	410	45	550	8.0	1	700	45										

Segment LOS

Seg	From	To	Type	Volume	Adj. Capacity	Speed	Density	LOS	Sig Impact

#									
1	S of SR56	SR 56	Basic Segment	6255	8371	65.9	27.2	D	N/A
2	SR 56	SR 56	On Ramp	6255	8197	61.2	32.4	D	#
3	SR 56	SR 54	Basic Segment	6935	8367	62.8	31.7	D	N/A
4	SR 54	SR54	Diamond	6935	6101	##	##	F	#
5	SR 54	SR52	Basic Segment	5470	6283	60.8	34.4	D	N/A
6	SR 52	SR 52	Diamond	5470	5934	64.5	23.9	C	#
7	SR 52	N of SR52	Basic Segment	3820	6298	69.2	21.0	C	N/A

Freeway Length	12.95455	FFS Delay	##	Threshold Delay	##	Avg. Speed	##	Density	##	LOS	F

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 2100 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
4					
6					
8					
10					
12					
Lanes	**Peak Hour Volume Both Directions**				
4					
6					
8					
10					
12					
Lanes	**Annual Average Daily Traffic**				
4					
6					
8					
10					
12					

 # Off-ramp storage is highly likely to overflow. The segment operations will likely be worse than indicated.
One or more segments have a demand-to-capacity ratio greater than 1.0; therefore, the performance measure values are highly unreliable.
Freeway LOS is defaulted to F. An operational level analysis tool is more appropriate for this situation.
*** For oversaturated conditions during the peak hour, subtract 10% from LOS E (capacity) volumes. This number becomes the new maximum service volume for LOS D, and LOS E cannot be achieved.**
**** Cannot be achieved based on input data provided.**
***** Not applicable for that level of service letter grade. See generalized tables notes for more details.**

FREEPLAN 2009 Conceptual Planning Analysis

Project Information

Analyst	URS	**Freeway Name**	I-75	**Study Period**	Dir Hr Demand Vol
Date Prepared	4/5/2011 1:07:37 PM	**From**	S of SR 56	**Program**	FREEPLAN 2009
Agency	FDOT	**To**	N of SR 52	**Version Date**	12/12/10
Area Type	Other Urbanized	**Peak Direction**	Northbound		
File Name	C:\Documents and Settings\srinivas_meka\Local Settings\Temp\preview.xml				
User Notes	No Build 2022 PM Southbound (Off-peak)				

Freeway Data

AADT	60000	**Freeway Input Volume**	3080	**Local Adjustment Factor**	0.95
K	0.09	**PHF**	0.95	**Ramp Metering Exists**	No
D	0.55	**Pecent Trucks Entering First Segment**	15		

Segment Data

Seg #	From	To	Type	Length	Between Length	Hourly Volume	# Thru Lanes	# Aux Lanes	Posted Speed	FFS	Terrain
1	N of SR 52	SR 52	Basic Segment	5280	0	3080	3	0	70	70	Level
2	SR 52	SR 52	Diamond	5280	0	3080	3	0	70	70	Level
3	SR 52	SR 54	Basic Segment	29500	0	4410	3	0	70	70	Level
4	SR 54	SR 54	Diamond	5280	0	4410	3	0	70	70	Level
5	SR 54	SR 56	Basic Segment	12500	0	5680	4	0	70	70	Level
6	SR 56	SR 56	Diamond	5280	0	5680	4	0	70	70	Level
7	SR 56	S of SR56	Basic Segment	5280	0	7890	6	0	70	70	Level

Interchange Distances

Segment	Type	Interchange Length	Distance Between Ramps			Auxiliary Lane?
			1 and 2	2 and 3	3 and 4	
2	Diamond	2280	2280	0	0	False
4	Diamond	2280	2280	0	0	False
6	Diamond	2280	2280	0	0	False

Ramp Descriptions

Segment	Type	First Off-Ramp					First On-Ramp					Second Off-Ramp					Second On-Ramp				
		Vol	% HV	Lanes	Accel / Decel Length	FFS	Vol	% HV	Lanes	Accel / Decel Length	FFS	Vol	% HV	Lanes	Accel / Decel Length	FFS	Vol	% HV	Lanes	Accel / Decel Length	FFS
2	Diamond	450	8.0	1	410	45	1780	8.0	1	700	45										
4	Diamond	930	8.0	1	410	45	2200	8.0	1	1500	45										
6	Diamond	560	8.0	1	600	45	2770	8.0	2	1500	45										

Segment LOS

Seg #	From	To	Type	Volume	Adj. Capacity	Speed	Density	LOS	Sig Impact
1	N of SR 52	SR 52	Basic Segment	3080	6045	70.0	17.5	B	N/A
2	SR 52	SR 52	Diamond	3080	5709	65.0	19.8	C	No
3	SR 52	SR 54	Basic Segment	4410	6105	66.7	26.0	C	N/A
4	SR 54	SR 54	Diamond	4410	5765	61.2	25.3	C	#
5	SR 54	SR 56	Basic Segment	5680	8181	67.5	24.7	C	N/A
6	SR 56	SR 56	Diamond	5680	7841	58.3	25.9	C	No
7	SR 56	S of SR56	Basic Segment	7890	12334	68.7	22.3	C	N/A

Freeway Length	12.95455	FFS Delay	41.39	Threshold Delay	0.00	Avg. Speed	65.91	Density	24.2	LOS	D

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 2100 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
4					
6					
8					
10					
12					
Lanes	**Peak Hour Volume Both Directions**				
4					
6					
8					
10					
12					
Lanes	**Annual Average Daily Traffic**				
4					
6					
8					
10					
12					

 # Off-ramp storage is highly likely to overflow. The segment operations will likely be worse than indicated.
One or more segments have a demand-to-capacity ratio greater than 1.0; therefore, the performance measure values are highly unreliable.
Freeway LOS is defaulted to F. An operational level analysis tool is more appropriate for this situation.
*** For oversaturated conditions during the peak hour, subtract 10% from LOS E (capacity) volumes. This number becomes the new maximum service volume for LOS D, and LOS E cannot be achieved.**
**** Cannot be achieved based on input data provided.**
***** Not applicable for that level of service letter grade. See generalized tables notes for more details.**

2022 No-Build Ramps Analysis Results

Ramp Capacity Check: No Build 2022 AM Peak Hour

Assumed Ramp Roadway Capacity (HCM 2000 Exhibit 25-3):

Ramp Free-Flow Speed, S_{FR} (mph)	Capacity (pc/h)	
	Single-Lane Ramps	Two-Lane Ramps
≥ 50	2200	4400
> 40 - 50	2100	4100
> 30 - 40	2000	3800
≥ 20 - 30	1900	3500
< 20	1800	3200

Location	Volume (veh/h)	FFS (S_{FR})	Lanes	% Trucks	PHF	E_T	f_{HV}	f_P	Flow Rate (pc/h)	Capacity (pc/h)	Over Capacity?
I-75 NB off to SR 56	2770	45	2	8.0%	0.95	1.5	0.962	0.95	3193	4100	No

Notes:

1. Volumes are converted to equivalent passenger cars per hour (pc/h) flow rates under base conditions during the peak 15 minutes of the hour using HCM 2000 Equation 25-1.

Ramp Capacity Check: No Build 2022 PM Peak Hour

Assumed Ramp Roadway Capacity (HCM 2000 Exhibit 25-3):

Ramp Free-Flow Speed, S_{FR} (mph)	Capacity (pc/h)	
	Single-Lane Ramps	Two-Lane Ramps
≥ 50	2200	4400
> 40 - 50	2100	4100
> 30 - 40	2000	3800
≥ 20 - 30	1900	3500
< 20	1800	3200

Location	Volume (veh/h)	FFS (S_{FR})	Lanes	% Trucks	PHF	E_T	f_{HV}	f_P	Flow Rate (pc/h)	Capacity (pc/h)	Over Capacity?
I-75 NB off to SR 56	3405	45	2	8.0%	0.95	1.5	0.962	0.95	3924	4100	No

Notes:

1. Volumes are converted to equivalent passenger cars per hour (pc/h) flow rates under base conditions during the peak 15 minutes of the hour using HCM 2000 Equation 25-1.

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Northbound
Agency or Company	URS Corporation	Junction	SR 56 NB ON-RAMP
Date Performed	4/26/2010	Jurisdiction	Pasco County
Analysis Time Period	AM	Analysis Year	No Build 2022

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 45.0 mph
Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp
☑ Yes ☐ On
☐ No ☑ Off
L_{down} = 4800 ft
V_D = 2030 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	5120	0.95	Level	7	0	0.966	0.95	5872
Ramp	560	0.95	Level	8	0	0.962	0.95	645
UpStream								
DownStream	2030	0.95	Level	8	0	0.962	0.95	2339

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)
P_{FM} = 0.137 using Equation (Exhibit 25-5)
V_{12} = 805 pc/h
V_3 or V_{av34} 2533 pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No
If Yes,V_{12a} = 2348 pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	6517	Exhibit 25-7		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	2993	Exhibit 25-7	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 24.1 (pc/mi/ln)
LOS = C (Exhibit 25-4)

Speed Determination

M_S = 0.336 (Exibit 25-19)
S_R= 60.6 mph (Exhibit 25-19)
S_0= 65.5 mph (Exhibit 25-19)
S = 63.1 mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = using Equation (Exhibit 25-12)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

D_s = (Exhibit 25-19)
S_R= mph (Exhibit 25-19)
S_0= mph (Exhibit 25-19)
S = mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Northbound
Agency or Company	URS Corporation	Junction	SR 56 NB ON-RAMP
Date Performed	4/27/2010	Jurisdiction	Pasco County
Analysis Time Period	PM	Analysis Year	No Build 2022

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 45.0 mph
Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp
☑ Yes ☐ On
☐ No ☑ Off
L_{down} = 4800 ft
V_D = 2395 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	6255	0.95	Level	7	0	0.966	0.95	7173
Ramp	680	0.95	Level	8	0	0.962	0.95	784
UpStream								
DownStream	2395	0.95	Level	8	0	0.962	0.95	2760

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)
P_{FM} = 0.120 using Equation (Exhibit 25-5)
V_{12} = 859 pc/h
V_3 or V_{av34} 3157 pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No
If Yes,V_{12a} = 2869 pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	7957	Exhibit 25-7		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	3653	Exhibit 25-7	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 29.2 (pc/mi/ln)
LOS = D (Exhibit 25-4)

Speed Determination

M_S = 0.409 (Exibit 25-19)
S_R= 58.6 mph (Exhibit 25-19)
S_0= 64.1 mph (Exhibit 25-19)
S = 61.4 mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = using Equation (Exhibit 25-12)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

D_s = (Exhibit 25-19)
S_R= mph (Exhibit 25-19)
S_0= mph (Exhibit 25-19)
S = mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Southbound
Agency or Company	URS Corporation	Junction	SR 56 SB OFF-RAMP
Date Performed	4/26/2010	Jurisdiction	Pasco County
Analysis Time Period	AM	Analysis Year	No Build 2022

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp	Terrain: Level	Downstream Adj Ramp
☐ Yes ☐ On		☑ Yes ☑ On
☑ No ☐ Off		☐ No ☐ Off
L_{up} = ft		L_{down} = 3300 ft
V_u = veh/h	S_{FF} = 70.0 mph S_{FR} = 45.0 mph Sketch (show lanes, L_A, L_D,V_R,V_f)	V_D = 3405 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	6935	0.95	Level	9	0	0.957	0.95	8030
Ramp	680	0.95	Level	8	0	0.962	0.95	784
UpStream								
DownStream	3405	0.95	Level	8	0	0.962	0.95	3924

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = using Equation (Exhibit 25-5)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = 0.436 using Equation (Exhibit 25-12)

V_{12} = 3943 pc/h

V_3 or V_{av34} 2043 pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	8030	Exhibit 25-14	9600	No
$V_{FO} = V_F - V_R$	7246	Exhibit 25-14	9600	No
V_R	784	Exhibit 25-3	2100	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	3943	Exhibit 25-14	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086 V_{12} - 0.009 L_D$

D_R = 32.8 (pc/mi/ln)

LOS = D (Exhibit 25-4)

Speed Determination

D_s = 0.369 (Exhibit 25-19)

S_R= 59.7 mph (Exhibit 25-19)

S_0= 72.7 mph (Exhibit 25-19)

S = 65.7 mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Southbound
Agency or Company	URS Corporation	Junction	SR 56 SB OFF-RAMP
Date Performed	4/27/2010	Jurisdiction	Pasco County
Analysis Time Period	PM	Analysis Year	No Build 2022

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 45.0 mph

Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp
☑ Yes ☑ On
☐ No ☐ Off
L_{down} = 3300 ft
V_D = 2770 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	5680	0.95	Level	9	0	0.957	0.95	6577
Ramp	560	0.95	Level	8	0	0.962	0.95	645
UpStream								
DownStream	2770	0.95	Level	8	0	0.962	0.95	3192

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)
P_{FM} = using Equation (Exhibit 25-5)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$

D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)
S_R= mph (Exhibit 25-19)
S_0= mph (Exhibit 25-19)
S = mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = 0.436 using Equation (Exhibit 25-12)
V_{12} = 3231 pc/h
V_3 or V_{av34} 1673 pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No
If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	6577	Exhibit 25-14	9600	No
$V_{FO} = V_F - V_R$	5932	Exhibit 25-14	9600	No
V_R	645	Exhibit 25-3	2100	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	3231	Exhibit 25-14	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086 V_{12} - 0.009 L_D$

D_R = 26.6 (pc/mi/ln)
LOS = C (Exhibit 25-4)

Speed Determination

D_s = 0.356 (Exhibit 25-19)
S_R= 60.0 mph (Exhibit 25-19)
S_0= 74.2 mph (Exhibit 25-19)
S = 66.5 mph (Exhibit 25-15)

Major Merge Capacity Check: **No Build 2022 AM Peak Hour**
I-75 SB On Ramp from SR 56

Assumed Major Merge Capacity per Segment (based on HCM 2000 Exhibit 25-7):

Segment Free-Flow Speed (mph)	Capacity (pc/h)			
	2-Lanes	3-Lanes	4-Lanes	5-Lanes
≥ 70	4800	7200	9600	12000
65	4700	7050	9400	11750
60	4600	6900	9200	11500
55	4500	6750	9000	11250

Assumed Ramp Roadway Capacity (based on HCM 2000 Exhibit 25-3):

Free-Flow Speed of Ramp (mph)	Capacity (pc/h)	
	Single-Lane Ramp	Two-Lane Ramp
≥ 55	2200	4400
> 40-50	2100	4100
> 30-40	2000	3800
≥ 20-30	1900	3500
< 20	1800	3200

I-75 SB On Ramp from SR 56

Segment	Volume (veh/h)	FFS	Lanes	% Trucks	PHF	E_T	f_{HV}	f_P	Flow Rate (pc/h)	Capacity (pc/h)	Over Capacity?
Upstream	6255	70	4	9.0%	0.95	1.5	0.957	0.95	7243	9600	No
Merging	3405	45	2	8.0%	0.95	1.5	0.962	0.95	3924	4100	No
Downstream	9660	70	6	7.0%	0.95	1.5	0.966	0.95	11079	14400	No

Notes:
1. Volumes are converted to equivalent passenger cars per hour (pc/h) flow rates under base conditions during the peak 15 minutes of the hour using HCM 2000 Equation 25-1.

Major Merge Capacity Check: No Build 2022 PM Peak Hour
I-75 SB On Ramp from SR 56

Assumed Major Merge Capacity per Segment (based on HCM 2000 Exhibit 25-7):

Segment Free-Flow Speed (mph)	Capacity (pc/h)			
	2-Lanes	3-Lanes	4-Lanes	5-Lanes
≥ 70	4800	7200	9600	12000
65	4700	7050	9400	11750
60	4600	6900	9200	11500
55	4500	6750	9000	11250

Assumed Ramp Roadway Capacity (based on HCM 2000 Exhibit 25-3):

Free-Flow Speed of Ramp (mph)	Capacity (pc/h)	
	Single-Lane Ramp	Two-Lane Ramp
≥ 55	2200	4400
> 40-50	2100	4100
> 30-40	2000	3800
≥ 20-30	1900	3500
< 20	1800	3200

Segment	Volume (veh/h)	FFS	Lanes	% Trucks	PHF	E_T	f_{HV}	f_P	Flow Rate (pc/h)	Capacity (pc/h)	Over Capacity?
Upstream	5120	70	4	9.0%	0.95	1.5	0.957	0.95	5929	9600	No
Merging	2770	45	2	8.0%	0.95	1.5	0.962	0.95	3193	4100	No
Downstream	7890	70	6	7.0%	0.95	1.5	0.966	0.95	9049	14400	No

Notes:
1. Volumes are converted to equivalent passenger cars per hour (pc/h) flow rates under base conditions during the peak 15 minutes of the hour using HCM 2000 Equation 25-1.

Major Diverge Capacity Check: No Build 2022 AM Peak Hour
I-75 NB Off Ramp to CR 54

Assumed Major Diverge Capacity per Segment (based on HCM 2000 Exhibit 25-14):

Segment Free-Flow Speed (mph)	Capacity (pc/h)			
	2-Lanes	3-Lanes	4-Lanes	5-Lanes
≥ 70	4800	7200	9600	12000
65	4700	7050	9400	11750
60	4600	6900	9200	11500
55	4500	6750	9000	11250

Assumed Ramp Roadway Capacity (based on HCM 2000 Exhibit 25-3):

Free-Flow Speed of Ramp (mph)	Capacity (pc/h)	
	Single-Lane Ramp	Two-Lane Ramp
≥ 55	2200	4400
> 40-50	2100	4100
> 30-40	2000	3800
≥ 20-30	1900	3500
< 20	1800	3200

Assumed Ramp Density and LOS (based on HCM 2000 Equation 25-12 and Exhibit 25-4)

Segment	Density[1]	LOS
Upstream	15.5	B

Segment	Volume (veh/h)	FFS	Lanes	% Trucks	PHF	E_T	f_{HV}	f_P	Flow Rate (pc/h)	Capacity (pc/h)	Over Capacity?
Upstream	5680	70	4	9.0%	0.96	1.5	0.957	0.95	6509	9600	No
Diverging	2030	45	2	8.0%	0.96	1.5	0.962	0.95	2315	4100	No
Downstream	3650	70	3	9.0%	0.96	1.5	0.957	0.95	4183	7200	No

Notes:
1. Volumes are converted to equivalent passenger cars per hour (pc/h) flow rates under base conditions during the peak 15 minutes of the hour using HCM 2000 Equation 25-1.

Major Diverge Capacity Check: No Build 2022 PM Peak Hour
I-75 NB Off Ramp to CR 54

Assumed Major Diverge Capacity per Segment (based on HCM 2000 Exhibit 25-14):

Segment Free-Flow Speed (mph)	Capacity (pc/h)			
	2-Lanes	3-Lanes	4-Lanes	5-Lanes
≥ 70	4800	7200	9600	12000
65	4700	7050	9400	11750
60	4600	6900	9200	11500
55	4500	6750	9000	11250

Assumed Ramp Roadway Capacity (based on HCM 2000 Exhibit 25-3):

Free-Flow Speed of Ramp (mph)	Capacity (pc/h)	
	Single-Lane Ramp	Two-Lane Ramp
≥ 55	2200	4400
> 40-50	2100	4100
> 30-40	2000	3800
≥ 20-30	1900	3500
< 20	1800	3200

Assumed Ramp Density and LOS (based on HCM 2000 Equation 25-12 and Exhibit 25-4)

Segment	Density[1]	LOS
Upstream	18.9	B

I-75 NB Off Ramp to CR 54

Segment	Volume (veh/h)	FFS	Lanes	% Trucks	PHF	E_T	f_{HV}	f_P	Flow Rate (pc/h)	Capacity (pc/h)	Over Capacity?
Upstream	6935	70	4	9.0%	0.95	1.5	0.957	0.95	8030	9600	No
Diverging	2395	45	2	8.0%	0.95	1.5	0.962	0.95	2760	4100	No
Downstream	4540	70	3	9.0%	0.95	1.5	0.957	0.95	5257	7200	No

Notes:
1. Volumes are converted to equivalent passenger cars per hour (pc/h) flow rates under base conditions during the peak 15 minutes of the hour using HCM 2000 Equation 25-1.

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Northbound
Agency or Company	URS Corporation	Junction	CR 54 NB ON-RAMP
Date Performed	4/26/2010	Jurisdiction	Pasco County
Analysis Time Period	AM	Analysis Year	No Build 2022

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp
☑ Yes ☐ On
☐ No ☑ Off
L_{up} = 3500 ft
V_u = 2030 veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 45.0 mph
Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{down} = ft
V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	3650	0.95	Level	9	0	0.957	0.95	4226
Ramp	760	0.95	Level	8	0	0.962	0.95	876
UpStream	2030	0.95	Level	8	0	0.962	0.95	2339
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = 1354.03 (Equation 25-2 or 25-3)
P_{FM} = 0.597 using Equation (Exhibit 25-5)
V_{12} = 2523 pc/h
V_3 or V_{av34} 1703 pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No
If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	5102	Exhibit 25-7		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	3399	Exhibit 25-7	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$

D_R = 27.2 (pc/mi/ln)
LOS = C (Exhibit 25-4)

Speed Determination

M_S = 0.375 (Exibit 25-19)
S_R= 59.5 mph (Exhibit 25-19)
S_0= 65.7 mph (Exhibit 25-19)
S = 61.4 mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = using Equation (Exhibit 25-12)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086 V_{12} - 0.009 L_D$

D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

D_s = (Exhibit 25-19)
S_R= mph (Exhibit 25-19)
S_0= mph (Exhibit 25-19)
S = mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Northbound
Agency or Company	URS Corporation	Junction	CR 54 NB ON-RAMP
Date Performed	4/27/2010	Jurisdiction	Pasco County
Analysis Time Period	PM	Analysis Year	No Build 2022

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp
☑ Yes ☐ On
☐ No ☑ Off
L_{up} = 3500 ft
V_u = 2395 veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 45.0 mph

Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{down} = ft
V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	4540	0.95	Level	9	0	0.957	0.95	5257
Ramp	930	0.95	Level	8	0	0.962	0.95	1072
UpStream	2395	0.95	Level	8	0	0.962	0.95	2760
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = 1616.61 (Equation 25-2 or 25-3)
P_{FM} = 0.597 using Equation (Exhibit 25-5)
V_{12} = 3139 pc/h
V_3 or V_{av34} 2118 pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No
If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	6329	Exhibit 25-7		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	4211	Exhibit 25-7	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$

D_R = 33.4 (pc/mi/ln)
LOS = D (Exhibit 25-4)

Speed Determination

M_S = 0.521 (Exibit 25-19)
S_R= 55.4 mph (Exhibit 25-19)
S_0= 64.2 mph (Exhibit 25-19)
S = 58.1 mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = using Equation (Exhibit 25-12)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086 V_{12} - 0.009 L_D$

D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

D_s = (Exhibit 25-19)
S_R= mph (Exhibit 25-19)
S_0= mph (Exhibit 25-19)
S = mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Southbound
Agency or Company	URS Corporation	Junction	CR 54 SB OFF-RAMP
Date Performed	4/26/2010	Jurisdiction	Pasco County
Analysis Time Period	AM	Analysis Year	No Build 2022

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 45.0 mph

Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp
☑ Yes ☑ On
☐ No ☐ Off
L_{down} = 3500 ft
V_D = 2395 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	5470	0.95	Level	12	0	0.943	0.95	6425
Ramp	930	0.95	Level	8	0	0.962	0.95	1072
UpStream								
DownStream	2395	0.95	Level	8	0	0.962	0.95	2760

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)
P_{FM} = using Equation (Exhibit 25-5)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$

D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)
S_R= mph (Exhibit 25-19)
S_0= mph (Exhibit 25-19)
S = mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = 0.550 using Equation (Exhibit 25-12)
V_{12} = 4016 pc/h
V_3 or V_{av34} 2409 pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No
If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	6425	Exhibit 25-14	7200	No
$V_{FO} = V_F - V_R$	5353	Exhibit 25-14	7200	No
V_R	1072	Exhibit 25-3	2100	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	4016	Exhibit 25-14	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086 V_{12} - 0.009 L_D$

D_R = 35.1 (pc/mi/ln)
LOS = E (Exhibit 25-4)

Speed Determination

D_s = 0.394 (Exhibit 25-19)
S_R= 59.0 mph (Exhibit 25-19)
S_0= 71.3 mph (Exhibit 25-19)
S = 63.0 mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Southbound
Agency or Company	URS Corporation	Junction	CR 54 SB OFF-RAMP
Date Performed	4/27/2010	Jurisdiction	Pasco County
Analysis Time Period	PM	Analysis Year	No Build 2022

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp	Terrain: Level	Downstream Adj Ramp
☐ Yes ☐ On		☑ Yes ☑ On
☑ No ☐ Off		☐ No ☐ Off
L_{up} = ft		L_{down} = 3500 ft
V_u = veh/h	S_{FF} = 70.0 mph S_{FR} = 45.0 mph Sketch (show lanes, L_A, L_D,V_R,V_f)	V_D = 2030 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	4410	0.95	Level	12	0	0.943	0.95	5180
Ramp	760	0.95	Level	8	0	0.962	0.95	876
UpStream								
DownStream	2030	0.95	Level	8	0	0.962	0.95	2339

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = using Equation (Exhibit 25-5)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = 0.590 using Equation (Exhibit 25-12)

V_{12} = 3416 pc/h

V_3 or V_{av34} 1764 pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	5180	Exhibit 25-14	7200	No
$V_{FO} = V_F - V_R$	4304	Exhibit 25-14	7200	No
V_R	876	Exhibit 25-3	2100	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	3416	Exhibit 25-14	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = 29.9 (pc/mi/ln)

LOS = D (Exhibit 25-4)

Speed Determination

D_s = 0.377 (Exhibit 25-19)

S_R= 59.4 mph (Exhibit 25-19)

S_0= 73.8 mph (Exhibit 25-19)

S = 63.7 mph (Exhibit 25-15)

Ramp Capacity Check: No Build 2022 AM Peak Hour

Assumed Ramp Roadway Capacity (HCM 2000 Exhibit 25-3):

Ramp Free-Flow Speed, S_{FR} (mph)	Capacity (pc/h)	
	Single-Lane Ramps	Two-Lane Ramps
> 50	2200	4400
> 40 - 50	2100	4100
> 30 - 40	2000	3800
≥ 20 - 30	1900	3500
< 20	1800	3200

Location	Volume (veh/h)	FFS (S_{FR})	Lanes	% Trucks	PHF	E_T	f_{HV}	f_P	Flow Rate (pc/h)	Capacity (pc/h)	Over Capacity?
I-75 SB on from CR 54	2395	45	2	8.0%	0.95	1.5	0.962	0.95	2760	4100	No

Notes:

1. Volumes are converted to equivalent passenger cars per hour (pc/h) flow rates under base conditions during the peak 15 minutes of the hour using HCM 2000 Equation 25-1.

Ramp Capacity Check: No Build 2022 PM Peak Hour

Assumed Ramp Roadway Capacity (HCM 2000 Exhibit 25-3):

Ramp Free-Flow Speed, S_{FR} (mph)	Capacity (pc/h)	
	Single-Lane Ramps	Two-Lane Ramps
> 50	2200	4400
> 40 - 50	2100	4100
> 30 - 40	2000	3800
≥ 20 - 30	1900	3500
< 20	1800	3200

Location	Volume (veh/h)	FFS (S_{FR})	Lanes	% Trucks	PHF	E_T	f_{HV}	f_P	Flow Rate (pc/h)	Capacity (pc/h)	Over Capacity?
I-75 SB on from CR 54	2030	45	2	8.0%	0.95	1.5	0.962	0.95	2340	4100	No

Notes:

1. Volumes are converted to equivalent passenger cars per hour (pc/h) flow rates under base conditions during the peak 15 minutes of the hour using HCM 2000 Equation 25-1.

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Northbound
Agency or Company	URS Corporation	Junction	SR 52 NB OFF-RAMP
Date Performed	4/23/2010	Jurisdiction	Pasco County
Analysis Time Period	AM	Analysis Year	No Build 2022

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp	Terrain: Level	Downstream Adj Ramp
☐ Yes ☐ On		☑ Yes ☑ On
☑ No ☐ Off		☐ No ☐ Off
L_{up} = ft		L_{down} = 2000 ft
V_u = veh/h	S_{FF} = 70.0 mph S_{FR} = 45.0 mph Sketch (show lanes, L_A, L_D,V_R,V_f)	V_D = 450 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	4410	0.95	Level	12	0	0.943	0.95	5180
Ramp	1780	0.95	Level	8	0	0.962	0.95	2051
UpStream								
DownStream	450	0.95	Level	8	0	0.962	0.95	519

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = using Equation (Exhibit 25-5)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = 0.536 using Equation (Exhibit 25-12)

V_{12} = 3729 pc/h

V_3 or V_{av34} 1451 pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	5180	Exhibit 25-14	7200	No
$V_{FO} = V_F - V_R$	3129	Exhibit 25-14	7200	No
V_R	2051	Exhibit 25-3	2100	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	3729	Exhibit 25-14	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = 32.6 (pc/mi/ln)

LOS = D (Exhibit 25-4)

Speed Determination

D_s = 0.483 (Exhibit 25-19)

S_R= 56.5 mph (Exhibit 25-19)

S_0= 75.0 mph (Exhibit 25-19)

S = 60.7 mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Northbound
Agency or Company	URS Corporation	Junction	SR 52 NB OFF-RAMP
Date Performed	4/27/2010	Jurisdiction	Pasco County
Analysis Time Period	PM	Analysis Year	No Build 2022

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp	Terrain: Level	Downstream Adj Ramp
☐ Yes ☐ On		☑ Yes ☑ On
☑ No ☐ Off		☐ No ☐ Off
L_{up} = ft		L_{down} = 2000 ft
V_u = veh/h	S_{FF} = 70.0 mph S_{FR} = 45.0 mph Sketch (show lanes, L_A, L_D,V_R,V_f)	V_D = 550 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	5470	0.95	Level	12	0	0.943	0.95	6425
Ramp	2270	0.95	Level	8	0	0.962	0.95	2616
UpStream								
DownStream	550	0.95	Level	8	0	0.962	0.95	634

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = using Equation (Exhibit 25-5)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = 0.479 using Equation (Exhibit 25-12)

V_{12} = 4441 pc/h

V_3 or V_{av34} 1984 pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	6425	Exhibit 25-14	7200	No
$V_{FO} = V_F - V_R$	3809	Exhibit 25-14	7200	No
V_R	2616	Exhibit 25-3	2100	Yes

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	4441	Exhibit 25-14	4400:All	Yes

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = 38.8 (pc/mi/ln)

LOS = F (Exhibit 25-4)

Speed Determination

D_s = 0.533 (Exhibit 25-19)

S_R= 55.1 mph (Exhibit 25-19)

S_0= 73.0 mph (Exhibit 25-19)

S = 59.6 mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Northbound
Agency or Company	URS Corporation	Junction	SR 52 NB ON-RAMP
Date Performed	4/26/2010	Jurisdiction	Pasco County
Analysis Time Period	AM	Analysis Year	No Build 2022

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp
☑ Yes ☐ On
☐ No ☑ Off
L_{up} = 2000 ft
V_u = 1780 veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 45.0 mph
Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{down} = ft
V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	2630	0.95	Level	12	0	0.943	0.95	3089
Ramp	450	0.95	Level	8	0	0.962	0.95	519
UpStream	1780	0.95	Level	8	0	0.962	0.95	2051
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = 1034.31 (Equation 25-2 or 25-3)
P_{FM} = 0.597 using Equation (Exhibit 25-5)
V_{12} = 1844 pc/h
V_3 or V_{av34} 1245 pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No
If Yes, V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	3608	Exhibit 25-7		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	2363	Exhibit 25-7	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$

D_R = 19.3 (pc/mi/ln)
LOS = B (Exhibit 25-4)

Speed Determination

M_S = 0.299 (Exibit 25-19)
S_R = 61.6 mph (Exhibit 25-19)
S_0 = 67.3 mph (Exhibit 25-19)
S = 63.5 mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = using Equation (Exhibit 25-12)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086 V_{12} - 0.009 L_D$

D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

D_s = (Exhibit 25-19)
S_R = mph (Exhibit 25-19)
S_0 = mph (Exhibit 25-19)
S = mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Northbound
Agency or Company	URS Corporation	Junction	SR 52 NB ON-RAMP
Date Performed	4/27/2010	Jurisdiction	Pasco County
Analysis Time Period	PM	Analysis Year	No Build 2022

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp
☑ Yes ☐ On
☐ No ☑ Off
L_{up} = 2000 ft
V_u = 2270 veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 45.0 mph
Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{down} = ft
V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	3200	0.95	Level	12	0	0.943	0.95	3758
Ramp	550	0.95	Level	8	0	0.962	0.95	634
UpStream	2270	0.95	Level	8	0	0.962	0.95	2616
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = 1202.09 (Equation 25-2 or 25-3)
P_{FM} = 0.597 using Equation (Exhibit 25-5)
V_{12} = 2244 pc/h
V_3 or V_{av34} 1514 pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No
If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	4392	Exhibit 25-7		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	2878	Exhibit 25-7	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 23.2 (pc/mi/ln)
LOS = C (Exhibit 25-4)

Speed Determination

M_S = 0.327 (Exibit 25-19)
S_R= 60.8 mph (Exhibit 25-19)
S_0= 66.3 mph (Exhibit 25-19)
S = 62.6 mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = using Equation (Exhibit 25-12)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

D_s = (Exhibit 25-19)
S_R= mph (Exhibit 25-19)
S_0= mph (Exhibit 25-19)
S = mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Southbound
Agency or Company	URS Corporation	Junction	SR 52 SB OFF-RAMP
Date Performed	4/23/2010	Jurisdiction	Pasco County
Analysis Time Period	AM	Analysis Year	No Build 2022

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 45.0 mph

Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp
☑ Yes ☑ On
☐ No ☐ Off
L_{down} = 2000 ft
V_D = 2270 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	3750	0.95	Level	15	0	0.930	0.95	4467
Ramp	550	0.95	Level	8	0	0.962	0.95	634
UpStream								
DownStream	2270	0.95	Level	8	0	0.962	0.95	2616

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)
P_{FM} = using Equation (Exhibit 25-5)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)
S_R= mph (Exhibit 25-19)
S_0= mph (Exhibit 25-19)
S = mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = 0.619 using Equation (Exhibit 25-12)
V_{12} = 3007 pc/h
V_3 or V_{av34} 1460 pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No
If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	4467	Exhibit 25-14	7200	No
$V_{FO} = V_F - V_R$	3833	Exhibit 25-14	7200	No
V_R	634	Exhibit 25-3	2100	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	3007	Exhibit 25-14	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = 26.4 (pc/mi/ln)
LOS = C (Exhibit 25-4)

Speed Determination

D_s = 0.355 (Exhibit 25-19)
S_R= 60.1 mph (Exhibit 25-19)
S_0= 75.0 mph (Exhibit 25-19)
S = 64.2 mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Southbound
Agency or Company	URS Corporation	Junction	SR 52 SB OFF-RAMP
Date Performed	4/27/2010	Jurisdiction	Pasco County
Analysis Time Period	PM	Analysis Year	No Build 2022

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 45.0 mph

Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp
☑ Yes ☑ On
☐ No ☐ Off
L_{down} = 2000 ft
V_D = 1780 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	3080	0.95	Level	15	0	0.930	0.95	3669
Ramp	450	0.95	Level	8	0	0.962	0.95	519
UpStream								
DownStream	1780	0.95	Level	8	0	0.962	0.95	2051

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)
P_{FM} = using Equation (Exhibit 25-5)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)
S_R= mph (Exhibit 25-19)
S_0= mph (Exhibit 25-19)
S = mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = 0.644 using Equation (Exhibit 25-12)
V_{12} = 2549 pc/h
V_3 or V_{av34} 1120 pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No
If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	3669	Exhibit 25-14	7200	No
$V_{FO} = V_F - V_R$	3150	Exhibit 25-14	7200	No
V_R	519	Exhibit 25-3	2100	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	2549	Exhibit 25-14	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = 22.5 (pc/mi/ln)
LOS = C (Exhibit 25-4)

Speed Determination

D_s = 0.345 (Exhibit 25-19)
S_R= 60.3 mph (Exhibit 25-19)
S_0= 76.3 mph (Exhibit 25-19)
S = 64.5 mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Southbound
Agency or Company	URS Corporation	Junction	SR 52 SB ON-RAMP
Date Performed	4/26/2010	Jurisdiction	Pasco County
Analysis Time Period	AM	Analysis Year	No Build 2022

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp
☑ Yes ☐ On
☐ No ☑ Off
L_{up} = 2000 ft
V_u = 550 veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 45.0 mph
Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{down} = ft
V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	3200	0.95	Level	15	0	0.930	0.95	3812
Ramp	2270	0.95	Level	8	0	0.962	0.95	2616
UpStream	550	0.95	Level	8	0	0.962	0.95	634
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = 1637.79 (Equation 25-2 or 25-3)
P_{FM} = 0.597 using Equation (Exhibit 25-5)
V_{12} = 2276 pc/h
V_3 or V_{av34} 1536 pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No
If Yes, V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	6428	Exhibit 25-7		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	4892	Exhibit 25-7	4600:All	Yes

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 38.0 (pc/mi/ln)
LOS = E (Exhibit 25-4)

Speed Determination

M_S = 0.778 (Exibit 25-19)
S_R = 48.2 mph (Exhibit 25-19)
S_0 = 66.3 mph (Exhibit 25-19)
S = 51.6 mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = using Equation (Exhibit 25-12)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

D_s = (Exhibit 25-19)
S_R = mph (Exhibit 25-19)
S_0 = mph (Exhibit 25-19)
S = mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Southbound
Agency or Company	URS Corporation	Junction	SR 52 SB ON-RAMP
Date Performed	4/27/2010	Jurisdiction	Pasco County
Analysis Time Period	PM	Analysis Year	No Build 2022

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp
☑ Yes ☐ On
☐ No ☑ Off
L_{up} = 2000 ft
V_u = 450 veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 45.0 mph
Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{down} = ft
V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	2630	0.95	Level	15	0	0.930	0.95	3133
Ramp	1780	0.95	Level	8	0	0.962	0.95	2051
UpStream	450	0.95	Level	8	0	0.962	0.95	519
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = 1371.58 (Equation 25-2 or 25-3)
P_{FM} = 0.597 using Equation (Exhibit 25-5)
V_{12} = 1871 pc/h
V_3 or V_{av34} 1262 pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No
If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	5184	Exhibit 25-7		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	3922	Exhibit 25-7	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$

D_R = 30.7 (pc/mi/ln)
LOS = D (Exhibit 25-4)

Speed Determination

M_S = 0.455 (Exibit 25-19)
S_R= 57.3 mph (Exhibit 25-19)
S_0= 67.3 mph (Exhibit 25-19)
S = 59.4 mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = using Equation (Exhibit 25-12)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086 V_{12} - 0.009 L_D$

D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

D_s = (Exhibit 25-19)
S_R= mph (Exhibit 25-19)
S_0= mph (Exhibit 25-19)
S = mph (Exhibit 25-15)

2022 No-Build Intersection Analysis Results

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 NB Ramps at SR 56*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/18/2010*	Jurisdiction	*FDOT*
Time Period	*AM*	Analysis Year	*No Build 2022*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	*1*	*2*			*4*		*2*					
Lane Group	*L*	*T*			*T*		*L*					
Volume (vph)	*335*	*1425*			*2575*		*1650*					
% Heavy Vehicles	*3*	*3*			*3*		*8*					
PHF	*0.95*	*0.95*			*0.95*		*0.95*					
Pretimed/Actuated (P/A)	*A*	*A*			*A*		*A*					
Startup Lost Time	*2.0*	*2.0*			*2.0*		*2.0*					
Extension of Effective Green	*2.0*	*2.0*			*2.0*		*2.0*					
Arrival Type	*3*	*3*			*3*		*3*					
Unit Extension	*3.0*	*3.0*			*3.0*		*3.0*					
Ped/Bike/RTOR Volume	*0*	*0*		*0*	*0*		*0*	*0*		*0*	*0*	
Lane Width	*12.0*	*12.0*			*12.0*		*12.0*					
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour	*0*	*0*			*0*		*0*					
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	EB Only	Thru Only	03	04	NB Only	06	07	08
Timing	G = *21.3*	G = *70.5*	G =	G =	G = *59.4*	G =	G =	G =
	Y = *6.2*	Y = *6.1*	Y =	Y =	Y = *6.5*	Y =	Y =	Y =
Duration of Analysis (hrs) = *0.25*						Cycle Length C = *170.0*		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	*353*	*1500*			*2711*		*1737*					
Lane Group Capacity	*220*	*2025*			*2424*		*1134*					
v/c Ratio	*1.60*	*0.74*			*1.12*		*1.53*					
Green Ratio	*0.13*	*0.58*			*0.41*		*0.35*					
Uniform Delay d_1	*74.3*	*26.6*			*49.8*		*55.3*					
Delay Factor k	*0.50*	*0.30*			*0.50*		*0.50*					
Incremental Delay d_2	*292.3*	*1.5*			*59.6*		*243.8*					
PF Factor	*1.000*	*1.000*			*1.000*		*1.000*					
Control Delay	*366.6*	*28.1*			*109.3*		*299.1*					
Lane Group LOS	*F*	*C*			*F*		*F*					
Approach Delay	*92.6*			*109.3*			*299.1*					
Approach LOS	*F*			*F*			*F*					
Intersection Delay	*156.7*			Intersection LOS			*F*					

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group	*L*	*T*			*T*		*L*					
Initial Queue/Lane	*0.0*	*0.0*			*0.0*		*0.0*					
Flow Rate/Lane Group	*353*	*1500*			*2711*		*1737*					
Satflow/Lane	*1752*	*1844*			*1844*		*1671*					
Capacity/Lane Group	*220*	*2025*			*2424*		*1134*					
Flow Ratio	*0.2*	*0.4*			*0.5*		*0.5*					
v/c Ratio	*1.60*	*0.74*			*1.12*		*1.53*					
I Factor	*1.000*	*1.000*			*1.000*		*1.000*					
Arrival Type	*3*	*3*			*3*		*3*					
Platoon Ratio	*1.00*	*1.00*			*1.00*		*1.00*					
PF Factor	*1.00*	*1.00*			*1.00*		*1.00*					
Q_1	*16.7*	*27.5*			*40.4*		*42.2*					
k_B	*0.4*	*1.0*			*0.9*		*0.7*					
Q_2	*17.6*	*2.8*			*16.7*		*40.9*					
Q Average	*34.3*	*30.2*			*57.1*		*83.1*					
Percentile Back of Queue (95th percentile)												
$f_{B\%}$	*1.6*	*1.6*			*1.5*		*1.5*					
Back of Queue	*54.5*	*48.7*			*87.1*		*125*					
Queue Storage Ratio												
Queue Spacing	*25.0*	*25.0*			*25.0*		*25.0*					
Queue Storage	*650*	*0*			*0*		*1100*					
Average Queue Storage Ratio	*1.3*						*1.9*					
95% Queue Storage Ratio	*2.1*						*2.8*					

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 NB Ramps at SR 56*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/18/2010*	Jurisdiction	*FDOT*
Time Period	*PM*	Analysis Year	*No Build 2022*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	*1*	*2*			*4*		*2*					
Lane Group	*L*	*T*			*T*		*L*					
Volume (vph)	*275*	*1360*			*2140*		*1965*					
% Heavy Vehicles	*3*	*3*			*3*		*8*					
PHF	*0.95*	*0.95*			*0.95*		*0.95*					
Pretimed/Actuated (P/A)	*A*	*A*			*A*		*A*					
Startup Lost Time	*2.0*	*2.0*			*2.0*		*2.0*					
Extension of Effective Green	*2.0*	*2.0*			*2.0*		*2.0*					
Arrival Type	*3*	*3*			*3*		*3*					
Unit Extension	*3.0*	*3.0*			*3.0*		*3.0*					
Ped/Bike/RTOR Volume	*0*	*0*		*0*	*0*		*0*	*0*		*0*	*0*	
Lane Width	*12.0*	*12.0*			*12.0*		*12.0*					
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour	*0*	*0*			*0*		*0*					
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	EB Only	Thru Only	03	04	NB Only	06	07	08
Timing	G = *24.8*	G = *52.9*	G =	G =	G = *53.5*	G =	G =	G =
	Y = *6.2*	Y = *6.1*	Y =	Y =	Y = *6.5*	Y =	Y =	Y =

Duration of Analysis (hrs) = *0.25* | Cycle Length C = *150.0*

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	*289*	*1432*			*2253*		*2068*					
Lane Group Capacity	*290*	*1964*			*2001*		*1158*					
v/c Ratio	*1.00*	*0.73*			*1.13*		*1.79*					
Green Ratio	*0.17*	*0.56*			*0.35*		*0.36*					
Uniform Delay d_1	*62.6*	*24.6*			*48.5*		*48.3*					
Delay Factor k	*0.50*	*0.29*			*0.50*		*0.50*					
Incremental Delay d_2	*51.8*	*1.4*			*63.8*		*357.1*					
PF Factor	*1.000*	*1.000*			*1.000*		*1.000*					
Control Delay	*114.4*	*26.0*			*112.4*		*405.4*					
Lane Group LOS	*F*	*C*			*F*		*F*					
Approach Delay	*40.8*			*112.4*			*405.4*					
Approach LOS	*D*			*F*			*F*					
Intersection Delay	*192.3*			Intersection LOS			*F*					

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group	*L*	*T*			*T*		*L*					
Initial Queue/Lane	*0.0*	*0.0*			*0.0*		*0.0*					
Flow Rate/Lane Group	*289*	*1432*			*2253*		*2068*					
Satflow/Lane	*1752*	*1844*			*1844*		*1671*					
Capacity/Lane Group	*290*	*1964*			*2001*		*1158*					
Flow Ratio	*0.2*	*0.4*			*0.4*		*0.6*					
v/c Ratio	*1.00*	*0.73*			*1.13*		*1.79*					
I Factor	*1.000*	*1.000*			*1.000*		*1.000*					
Arrival Type	*3*	*3*			*3*		*3*					
Platoon Ratio	*1.00*	*1.00*			*1.00*		*1.00*					
PF Factor	*1.00*	*1.00*			*1.00*		*1.00*					
Q_1	*12.0*	*23.3*			*30.5*		*44.3*					
k_B	*0.4*	*1.0*			*0.7*		*0.7*					
Q_2	*4.0*	*2.4*			*14.7*		*60.0*					
Q Average	*16.0*	*25.7*			*45.2*		*104.4*					
Percentile Back of Queue (95th percentile)												
$f_{B\%}$	*1.7*	*1.6*			*1.5*		*1.5*					
Back of Queue	*27.9*	*42.3*			*70.1*		*157*					
Queue Storage Ratio												
Queue Spacing	*25.0*	*25.0*			*25.0*		*25.0*					
Queue Storage	*650*	*0*			*0*		*1100*					
Average Queue Storage Ratio	*0.6*						*2.4*					
95% Queue Storage Ratio	*1.1*						*3.6*					

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SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 SB Ramps at SR 56*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/18/2010*	Jurisdiction	*FDOT*
Time Period	*AM*	Analysis Year	*No Build 2022*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes		*2*		*2*	*2*					*1*		
Lane Group		*T*		*L*	*T*					*L*		
Volume (vph)		*1355*		*1440*	*2785*					*405*		
% Heavy Vehicles		*3*		*3*	*3*					*8*		
PHF		*0.95*		*0.95*	*0.95*					*0.95*		
Pretimed/Actuated (P/A)		*A*		*A*	*A*					*A*		
Startup Lost Time		*2.0*		*2.0*	*2.0*					*2.0*		
Extension of Effective Green		*2.0*		*2.0*	*2.0*					*2.0*		
Arrival Type		*3*		*3*	*3*					*3*		
Unit Extension		*3.0*		*3.0*	*3.0*					*3.0*		
Ped/Bike/RTOR Volume	*0*	*0*		*0*	*0*		*0*	*0*		*0*	*0*	
Lane Width		*12.0*		*12.0*	*12.0*					*12.0*		
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour		*0*		*0*	*0*					*0*		
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	WB Only	Thru Only	03	04	SB Only	06	07	08
Timing	G = *53.7*	G = *53.9*	G =	G =	G = *23.6*	G =	G =	G =
	Y = *6.3*	Y = *6.1*	Y =	Y =	Y = *6.4*	Y =	Y =	Y =
Duration of Analysis (hrs) = *0.25*						Cycle Length C = *150.0*		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate		*1426*		*1516*	*2932*					*426*		
Lane Group Capacity		*1262*		*1218*	*2667*					*263*		
v/c Ratio		*1.13*		*1.24*	*1.10*					*1.62*		
Green Ratio		*0.36*		*0.36*	*0.76*					*0.16*		
Uniform Delay d_1		*48.0*		*48.1*	*18.0*					*63.2*		
Delay Factor k		*0.50*		*0.50*	*0.50*					*0.50*		
Incremental Delay d_2		*69.0*		*117.2*	*51.2*					*295.8*		
PF Factor		*1.000*		*1.000*	*1.000*					*1.000*		
Control Delay		*117.0*		*165.3*	*69.3*					*359.0*		
Lane Group LOS		*F*		*F*	*E*					*F*		
Approach Delay	*117.0*			*102.0*						*359.0*		
Approach LOS	*F*			*F*						*F*		
Intersection Delay	*122.8*			Intersection LOS						*F*		

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group		*T*		*L*	*T*					*L*		
Initial Queue/Lane		*0.0*		*0.0*	*0.0*					*0.0*		
Flow Rate/Lane Group		*1426*		*1516*	*2932*					*426*		
Satflow/Lane		*1844*		*1752*	*1844*					*1671*		
Capacity/Lane Group		*1262*		*1218*	*2667*					*263*		
Flow Ratio		*0.4*		*0.4*	*0.8*					*0.3*		
v/c Ratio		*1.13*		*1.24*	*1.10*					*1.62*		
I Factor		*1.000*		*1.000*	*1.000*					*1.000*		
Arrival Type		*3*		*3*	*3*					*3*		
Platoon Ratio		*1.00*		*1.00*	*1.00*					*1.00*		
PF Factor		*1.00*		*1.00*	*1.00*					*1.00*		
Q_1		*31.2*		*32.5*	*64.1*					*17.8*		
k_B		*0.7*		*0.7*	*1.1*					*0.4*		
Q_2		*15.2*		*22.2*	*25.9*					*21.4*		
Q Average		*46.4*		*54.7*	*90.0*					*39.2*		
Percentile Back of Queue (95th percentile)												
$f_{B\%}$		*1.5*		*1.5*	*1.5*					*1.6*		
Back of Queue		*71.7*		*83.7*	*135*					*61.4*		
Queue Storage Ratio												
Queue Spacing		*25.0*		*25.0*	*25.0*					*25.0*		
Queue Storage		*0*		*1500*	*0*					*700*		
Average Queue Storage Ratio				*0.9*						*1.4*		
95% Queue Storage Ratio				*1.4*						*2.2*		

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 SB Ramps at SR 56*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/18/2010*	Jurisdiction	*FDOT*
Time Period	*PM*	Analysis Year	*No Build 2022*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes		*2*		*2*	*2*					*1*		
Lane Group		*T*		*L*	*T*					*L*		
Volume (vph)		*1410*		*1120*	*2985*					*225*		
% Heavy Vehicles		*3*		*3*	*3*					*8*		
PHF		*0.95*		*0.95*	*0.95*					*0.95*		
Pretimed/Actuated (P/A)		*A*		*A*	*A*					*A*		
Startup Lost Time		*2.0*		*2.0*	*2.0*					*2.0*		
Extension of Effective Green		*2.0*		*2.0*	*2.0*					*2.0*		
Arrival Type		*3*		*3*	*3*					*3*		
Unit Extension		*3.0*		*3.0*	*3.0*					*3.0*		
Ped/Bike/RTOR Volume	*0*	*0*		*0*	*0*		*0*	*0*		*0*	*0*	
Lane Width		*12.0*		*12.0*	*12.0*					*12.0*		
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour		*0*		*0*	*0*					*0*		
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	WB Only	Thru Only	03	04	SB Only	06	07	08
Timing	G = *53.7*	G = *53.9*	G =	G =	G = *23.6*	G =	G =	G =
	Y = *6.3*	Y = *6.1*	Y =	Y =	Y = *6.4*	Y =	Y =	Y =

Duration of Analysis (hrs) = *0.25* — Cycle Length C = *150.0*

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate		*1484*		*1179*	*3142*					*237*		
Lane Group Capacity		*1262*		*1218*	*2667*					*263*		
v/c Ratio		*1.18*		*0.97*	*1.18*					*0.90*		
Green Ratio		*0.36*		*0.36*	*0.76*					*0.16*		
Uniform Delay d_1		*48.0*		*47.3*	*18.0*					*62.1*		
Delay Factor k		*0.50*		*0.48*	*0.50*					*0.42*		
Incremental Delay d_2		*87.8*		*18.6*	*84.4*					*31.1*		
PF Factor		*1.000*		*1.000*	*1.000*					*1.000*		
Control Delay		*135.8*		*65.9*	*102.4*					*93.1*		
Lane Group LOS		*F*		*E*	*F*					*F*		
Approach Delay	*135.8*			*92.5*						*93.1*		
Approach LOS	*F*			*F*						*F*		
Intersection Delay	*103.1*			Intersection LOS						*F*		

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group		*T*		*L*	*T*					*L*		
Initial Queue/Lane		*0.0*		*0.0*	*0.0*					*0.0*		
Flow Rate/Lane Group		*1484*		*1179*	*3142*					*237*		
Satflow/Lane		*1844*		*1752*	*1844*					*1671*		
Capacity/Lane Group		*1262*		*1218*	*2667*					*263*		
Flow Ratio		*0.4*		*0.3*	*0.9*					*0.1*		
v/c Ratio		*1.18*		*0.97*	*1.18*					*0.90*		
I Factor		*1.000*		*1.000*	*1.000*					*1.000*		
Arrival Type		*3*		*3*	*3*					*3*		
Platoon Ratio		*1.00*		*1.00*	*1.00*					*1.00*		
PF Factor		*1.00*		*1.00*	*1.00*					*1.00*		
Q_1		*32.5*		*24.8*	*68.8*					*9.7*		
k_B		*0.7*		*0.7*	*1.1*					*0.4*		
Q_2		*18.5*		*6.2*	*37.6*					*2.3*		
Q Average		*50.9*		*31.0*	*106.3*					*12.0*		

Percentile Back of Queue (95th percentile)

$f_{B\%}$		*1.5*		*1.6*	*1.5*					*1.8*		
Back of Queue		*78.2*		*49.9*	*160*					*21.6*		

Queue Storage Ratio

Queue Spacing		*25.0*		*25.0*	*25.0*					*25.0*		
Queue Storage		*0*		*1500*	*0*					*700*		
Average Queue Storage Ratio				*0.5*						*0.4*		
95% Queue Storage Ratio				*0.8*						*0.8*		

HCS+™ Version 5.5 Generated: 6/7/2011 11:56 AM

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 NB Ramps at SR 54*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/20/2010*	Jurisdiction	*FDOT*
Time Period	*AM*	Analysis Year	*No Build 2022*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	*1*	*3*			*5*	*1*	*2*					
Lane Group	*L*	*T*			*T*	*R*	*L*					
Volume (vph)	*375*	*1625*			*2520*	*385*	*1075*					
% Heavy Vehicles	*2*	*2*			*2*	*2*	*8*					
PHF	*0.95*	*0.95*			*0.95*	*0.95*	*0.95*					
Pretimed/Actuated (P/A)	*A*	*A*			*A*	*A*	*A*					
Startup Lost Time	*2.0*	*2.0*			*2.0*	*2.0*	*2.0*					
Extension of Effective Green	*2.0*	*2.0*			*2.0*	*2.0*	*2.0*					
Arrival Type	*3*	*3*			*3*	*3*	*3*					
Unit Extension	*3.0*	*3.0*			*3.0*	*3.0*	*3.0*					
Ped/Bike/RTOR Volume	*0*	*0*		*0*	*0*	*0*	*0*	*0*		*0*	*0*	
Lane Width	*12.0*	*12.0*			*12.0*	*12.0*	*12.0*					
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour	*0*	*0*			*0*	*0*	*0*					
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	EB Only	Thru & RT	03	04	NB Only	06	07	08
Timing	G = *9.0*	G = *29.0*	G =	G =	G = *29.0*	G =	G =	G =
	Y = *6*	Y = *6*	Y =	Y =	Y = *6*	Y =	Y =	Y =

Duration of Analysis (hrs) = *0.25* | Cycle Length C = *85.0*

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	*395*	*1711*			*2653*	*405*	*1132*					
Lane Group Capacity	*187*	*2627*			*2602*	*1192*	*1107*					
v/c Ratio	*2.11*	*0.65*			*1.02*	*0.34*	*1.02*					
Green Ratio	*0.11*	*0.52*			*0.34*	*0.75*	*0.34*					
Uniform Delay d_1	*38.0*	*14.9*			*28.0*	*3.5*	*28.0*					
Delay Factor k	*0.50*	*0.23*			*0.50*	*0.11*	*0.50*					
Incremental Delay d_2	*518.2*	*0.6*			*22.8*	*0.2*	*32.9*					
PF Factor	*1.000*	*1.000*			*1.000*	*1.000*	*1.000*					
Control Delay	*556.2*	*15.5*			*50.8*	*3.7*	*60.9*					
Lane Group LOS	*F*	*B*			*D*	*A*	*E*					
Approach Delay	*116.9*			*44.5*			*60.9*					
Approach LOS	*F*			*D*			*E*					
Intersection Delay	*71.7*			Intersection LOS						*E*		

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group	*L*	*T*			*T*	*R*	*L*					
Initial Queue/Lane	*0.0*	*0.0*			*0.0*	*0.0*	*0.0*					
Flow Rate/Lane Group	*395*	*1711*			*2653*	*405*	*1132*					
Satflow/Lane	*1770*	*1862*			*1862*	*1583*	*1671*					
Capacity/Lane Group	*187*	*2627*			*2602*	*1192*	*1107*					
Flow Ratio	*0.2*	*0.3*			*0.3*	*0.3*	*0.3*					
v/c Ratio	*2.11*	*0.65*			*1.02*	*0.34*	*1.02*					
I Factor	*1.000*	*1.000*			*1.000*	*1.000*	*1.000*					
Arrival Type	*3*	*3*			*3*	*3*	*3*					
Platoon Ratio	*1.00*	*1.00*			*1.00*	*1.00*	*1.00*					
PF Factor	*1.00*	*1.00*			*1.00*	*1.00*	*1.00*					
Q_1	*9.3*	*10.8*			*15.3*	*3.2*	*13.7*					
k_B	*0.2*	*0.7*			*0.5*	*0.7*	*0.5*					
Q_2	*26.5*	*1.2*			*7.2*	*0.4*	*6.7*					
Q Average	*35.8*	*12.0*			*22.5*	*3.6*	*20.4*					
Percentile Back of Queue (95th percentile)												
$f_{B\%}$	*1.6*	*1.8*			*1.7*	*2.0*	*1.7*					
Back of Queue	*56.6*	*21.7*			*37.6*	*7.1*	*34.6*					
Queue Storage Ratio												
Queue Spacing	*25.0*	*25.0*			*25.0*	*25.0*	*25.0*					
Queue Storage	*1000*	*0*			*0*	*500*	*1100*					
Average Queue Storage Ratio	*0.9*					*0.2*	*0.5*					
95% Queue Storage Ratio	*1.4*					*0.4*	*0.8*					

 HCS+™ Version 5.5 Generated: 2/14/2013 5:26 PM

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 NB Ramps at SR 54*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/20/2010*	Jurisdiction	*FDOT*
Time Period	*PM*	Analysis Year	*No Build 2022*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	*1*	*3*			*5*	*1*	*2*					
Lane Group	*L*	*T*			*T*	*R*	*L*					
Volume (vph)	*430*	*1400*			*2080*	*500*	*890*					
% Heavy Vehicles	*2*	*2*			*2*	*2*	*8*					
PHF	*0.95*	*0.95*			*0.95*	*0.95*	*0.95*					
Pretimed/Actuated (P/A)	*A*	*A*			*A*	*A*	*A*					
Startup Lost Time	*2.0*	*2.0*			*2.0*	*2.0*	*2.0*					
Extension of Effective Green	*2.0*	*2.0*			*2.0*	*2.0*	*2.0*					
Arrival Type	*3*	*3*			*3*	*3*	*3*					
Unit Extension	*3.0*	*3.0*			*3.0*	*3.0*	*3.0*					
Ped/Bike/RTOR Volume	*0*	*0*		*0*	*0*	*0*	*0*	*0*		*0*	*0*	
Lane Width	*12.0*	*12.0*			*12.0*	*12.0*	*12.0*					
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour	*0*	*0*			*0*	*0*	*0*					
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	EB Only	Thru & RT	03	04	NB Only	06	07	08
Timing	G = *9.0*	G = *29.0*	G =	G =	G = *29.0*	G =	G =	G =
	Y = *6*	Y = *6*	Y =	Y =	Y = *6*	Y =	Y =	Y =

Duration of Analysis (hrs) = *0.25* | Cycle Length C = *85.0*

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	*453*	*1474*			*2189*	*526*	*937*					
Lane Group Capacity	*187*	*2627*			*2949*	*1192*	*1107*					
v/c Ratio	*2.42*	*0.56*			*0.74*	*0.44*	*0.85*					
Green Ratio	*0.11*	*0.52*			*0.34*	*0.75*	*0.34*					
Uniform Delay d_1	*38.0*	*13.9*			*24.7*	*3.9*	*25.9*					
Delay Factor k	*0.50*	*0.16*			*0.30*	*0.11*	*0.38*					
Incremental Delay d_2	*656.1*	*0.3*			*1.0*	*0.3*	*6.2*					
PF Factor	*1.000*	*1.000*			*1.000*	*1.000*	*1.000*					
Control Delay	*694.1*	*14.2*			*25.7*	*4.1*	*32.2*					
Lane Group LOS	*F*	*B*			*C*	*A*	*C*					
Approach Delay	*174.0*			*21.6*			*32.2*					
Approach LOS	*F*			*C*			*C*					
Intersection Delay	*76.0*			Intersection LOS			*E*					

HCS+™ Version 5.5

Generated: 2/14/2013 5:28 PM

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group	*L*	*T*			*T*	*R*	*L*					
Initial Queue/Lane	*0.0*	*0.0*			*0.0*	*0.0*	*0.0*					
Flow Rate/Lane Group	*453*	*1474*			*2189*	*526*	*937*					
Satflow/Lane	*1770*	*1862*			*1862*	*1583*	*1671*					
Capacity/Lane Group	*187*	*2627*			*2949*	*1192*	*1107*					
Flow Ratio	*0.3*	*0.3*			*0.3*	*0.3*	*0.3*					
v/c Ratio	*2.42*	*0.56*			*0.74*	*0.44*	*0.85*					
I Factor	*1.000*	*1.000*			*1.000*	*1.000*	*1.000*					
Arrival Type	*3*	*3*			*3*	*3*	*3*					
Platoon Ratio	*1.00*	*1.00*			*1.00*	*1.00*	*1.00*					
PF Factor	*1.00*	*1.00*			*1.00*	*1.00*	*1.00*					
Q_1	*10.7*	*8.7*			*9.8*	*4.6*	*10.5*					
k_B	*0.2*	*0.7*			*0.5*	*0.7*	*0.5*					
Q_2	*33.7*	*0.8*			*1.4*	*0.6*	*2.2*					
Q Average	*44.4*	*9.5*			*11.2*	*5.2*	*12.7*					
Percentile Back of Queue (95th percentile)												
$f_{B\%}$	*1.6*	*1.9*			*1.8*	*2.0*	*1.8*					
Back of Queue	*68.8*	*17.6*			*20.4*	*10.1*	*22.8*					
Queue Storage Ratio												
Queue Spacing	*25.0*	*25.0*			*25.0*	*25.0*	*25.0*					
Queue Storage	*1000*	*0*			*0*	*500*	*1100*					
Average Queue Storage Ratio	*1.1*					*0.3*	*0.3*					
95% Queue Storage Ratio	*1.7*					*0.5*	*0.5*					

 HCS+™ Version 5.5 Generated: 2/14/2013 5:28 PM

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 SB Ramps at CR 54*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/20/2010*	Jurisdiction	*FDOT*
Time Period	*AM*	Analysis Year	*No Build 2022*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes		*4*	*1*	*2*	*3*					*1*		*1*
Lane Group		*T*	*R*	*L*	*T*					*L*		*R*
Volume (vph)		*1500*	*890*	*1505*	*2090*					*500*		*430*
% Heavy Vehicles		*2*	*2*	*2*	*2*					*8*		*8*
PHF		*0.95*	*0.95*	*0.95*	*0.95*					*0.95*		*0.95*
Pretimed/Actuated (P/A)		*A*	*A*	*A*	*A*					*A*		*A*
Startup Lost Time		*2.0*	*2.0*	*2.0*	*2.0*					*2.0*		*2.0*
Extension of Effective Green		*2.0*	*2.0*	*2.0*	*2.0*					*2.0*		*2.0*
Arrival Type		*3*	*3*	*3*	*3*					*3*		*3*
Unit Extension		*3.0*	*3.0*	*3.0*	*3.0*					*3.0*		*3.0*
Ped/Bike/RTOR Volume	*0*	*0*	*0*	*0*	*0*		*0*	*0*		*0*	*0*	*0*
Lane Width		*12.0*	*12.0*	*12.0*	*12.0*					*12.0*		*12.0*
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour		*0*	*0*	*0*	*0*					*0*		*0*
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	WB Only	Thru & RT	03	04	SB Only	06	07	08
Timing	G = *24.0*	G = *29.0*	G =	G =	G = *14.0*	G =	G =	G =
	Y = *6*	Y = *6*	Y =	Y =	Y = *6*	Y =	Y =	Y =
Duration of Analysis (hrs) = *0.25*						Cycle Length C = *85.0*		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate		*1579*	*937*	*1584*	*2200*					*526*		*453*
Lane Group Capacity		*2260*	*913*	*970*	*3522*					*275*		*246*
v/c Ratio		*0.70*	*1.03*	*1.63*	*0.62*					*1.91*		*1.84*
Green Ratio		*0.34*	*0.58*	*0.28*	*0.69*					*0.16*		*0.16*
Uniform Delay d_1		*24.2*	*18.0*	*30.5*	*7.0*					*35.5*		*35.5*
Delay Factor k		*0.26*	*0.50*	*0.50*	*0.21*					*0.50*		*0.50*
Incremental Delay d_2		*1.0*	*36.7*	*289.6*	*0.4*					*424.0*		*394.0*
PF Factor		*1.000*	*1.000*	*1.000*	*1.000*					*1.000*		*1.000*
Control Delay		*25.2*	*54.7*	*320.1*	*7.4*					*459.5*		*429.5*
Lane Group LOS		*C*	*D*	*F*	*A*					*F*		*F*
Approach Delay		*36.2*			*138.3*						*445.6*	
Approach LOS		*D*			*F*						*F*	
Intersection Delay		*144.3*			Intersection LOS						*F*	

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group		*T*	*R*	*L*	*T*					*L*		*R*
Initial Queue/Lane		*0.0*	*0.0*	*0.0*	*0.0*					*0.0*		*0.0*
Flow Rate/Lane Group		*1579*	*937*	*1584*	*2200*					*526*		*453*
Satflow/Lane		*1862*	*1583*	*1770*	*1862*					*1671*		*1495*
Capacity/Lane Group		*2260*	*913*	*970*	*3522*					*275*		*246*
Flow Ratio		*0.2*	*0.6*	*0.5*	*0.4*					*0.3*		*0.3*
v/c Ratio		*0.70*	*1.03*	*1.63*	*0.62*					*1.91*		*1.84*
I Factor		*1.000*	*1.000*	*1.000*	*1.000*					*1.000*		*1.000*
Arrival Type		*3*	*3*	*3*	*3*					*3*		*3*
Platoon Ratio		*1.00*	*1.00*	*1.00*	*1.00*					*1.00*		*1.00*
PF Factor		*1.00*	*1.00*	*1.00*	*1.00*					*1.00*		*1.00*
Q_1		*9.1*	*22.1*	*19.2*	*10.3*					*12.4*		*10.7*
k_B		*0.5*	*0.6*	*0.4*	*0.8*					*0.3*		*0.3*
Q_2		*1.1*	*10.2*	*40.6*	*1.3*					*32.0*		*26.5*
Q Average		*10.2*	*32.4*	*59.8*	*11.6*					*44.4*		*37.2*

Percentile Back of Queue (95th percentile)

$f_{B\%}$		*1.8*	*1.6*	*1.5*	*1.8*					*1.6*		*1.6*
Back of Queue		*18.8*	*51.7*	*91.1*	*21.0*					*68.9*		*58.6*

Queue Storage Ratio

Queue Spacing		*25.0*	*25.0*	*25.0*	*25.0*					*25.0*		*25.0*
Queue Storage		*0*	*700*	*900*	*0*					*300*		*1000*
Average Queue Storage Ratio			*1.2*	*1.7*						*3.7*		*0.9*
95% Queue Storage Ratio			*1.8*	*2.5*						*5.7*		*1.5*

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SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 SB Ramps at CR 54*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/20/2010*	Jurisdiction	*FDOT*
Time Period	*PM*	Analysis Year	*No Build 2022*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes		*4*	*1*	*2*	*3*					*1*		*1*
Lane Group		*T*	*R*	*L*	*T*					*L*		*R*
Volume (vph)		*1445*	*1075*	*955*	*2015*					*385*		*375*
% Heavy Vehicles		*2*	*2*	*2*	*2*					*8*		*8*
PHF		*0.95*	*0.95*	*0.95*	*0.95*					*0.95*		*0.95*
Pretimed/Actuated (P/A)		*A*	*A*	*A*	*A*					*A*		*A*
Startup Lost Time		*2.0*	*2.0*	*2.0*	*2.0*					*2.0*		*2.0*
Extension of Effective Green		*2.0*	*2.0*	*2.0*	*2.0*					*2.0*		*2.0*
Arrival Type		*3*	*3*	*3*	*3*					*3*		*3*
Unit Extension		*3.0*	*3.0*	*3.0*	*3.0*					*3.0*		*3.0*
Ped/Bike/RTOR Volume	*0*	*0*	*0*	*0*	*0*		*0*	*0*		*0*	*0*	*0*
Lane Width		*12.0*	*12.0*	*12.0*	*12.0*					*12.0*		*12.0*
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour		*0*	*0*	*0*	*0*					*0*		*0*
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	WB Only	Thru & RT	03	04	SB Only	06	07	08
Timing	G = *24.0*	G = *29.0*	G =	G =	G = *14.0*	G =	G =	G =
	Y = *6*	Y = *6*	Y =	Y =	Y = *6*	Y =	Y =	Y =
Duration of Analysis (hrs) = *0.25*						Cycle Length C = *85.0*		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate		*1521*	*1132*	*1005*	*2121*					*405*		*395*
Lane Group Capacity		*2209*	*913*	*970*	*3522*					*275*		*246*
v/c Ratio		*0.69*	*1.24*	*1.04*	*0.60*					*1.47*		*1.61*
Green Ratio		*0.34*	*0.58*	*0.28*	*0.69*					*0.16*		*0.16*
Uniform Delay d_1		*24.1*	*18.0*	*30.5*	*6.8*					*35.5*		*35.5*
Delay Factor k		*0.26*	*0.50*	*0.50*	*0.19*					*0.50*		*0.50*
Incremental Delay d_2		*0.9*	*117.3*	*38.6*	*0.3*					*231.5*		*290.7*
PF Factor		*1.000*	*1.000*	*1.000*	*1.000*					*1.000*		*1.000*
Control Delay		*25.0*	*135.3*	*69.1*	*7.1*					*267.0*		*326.2*
Lane Group LOS		*C*	*F*	*E*	*A*					*F*		*F*
Approach Delay		*72.1*			*27.1*						*296.2*	
Approach LOS		*E*			*C*						*F*	
Intersection Delay		*77.9*			Intersection LOS						*E*	

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group		*T*	*R*	*L*	*T*					*L*		*R*
Initial Queue/Lane		*0.0*	*0.0*	*0.0*	*0.0*					*0.0*		*0.0*
Flow Rate/Lane Group		*1521*	*1132*	*1005*	*2121*					*405*		*395*
Satflow/Lane		*1862*	*1583*	*1770*	*1862*					*1671*		*1495*
Capacity/Lane Group		*2209*	*913*	*970*	*3522*					*275*		*246*
Flow Ratio		*0.2*	*0.7*	*0.3*	*0.4*					*0.2*		*0.3*
v/c Ratio		*0.69*	*1.24*	*1.04*	*0.60*					*1.47*		*1.61*
I Factor		*1.000*	*1.000*	*1.000*	*1.000*					*1.000*		*1.000*
Arrival Type		*3*	*3*	*3*	*3*					*3*		*3*
Platoon Ratio		*1.00*	*1.00*	*1.00*	*1.00*					*1.00*		*1.00*
PF Factor		*1.00*	*1.00*	*1.00*	*1.00*					*1.00*		*1.00*
Q_1		*8.9*	*26.7*	*12.2*	*9.7*					*9.6*		*9.3*
k_B		*0.5*	*0.6*	*0.4*	*0.8*					*0.3*		*0.3*
Q_2		*1.1*	*30.3*	*6.6*	*1.2*					*17.2*		*19.4*
Q Average		*10.0*	*57.0*	*18.8*	*10.8*					*26.7*		*28.7*

Percentile Back of Queue (95th percentile)

$f_{B\%}$		*1.8*	*1.5*	*1.7*	*1.8*					*1.6*		*1.6*
Back of Queue		*18.4*	*87.0*	*32.1*	*19.8*					*43.7*		*46.5*

Queue Storage Ratio

Queue Spacing		*25.0*	*25.0*	*25.0*	*25.0*					*25.0*		*25.0*
Queue Storage		*0*	*700*	*900*	*0*					*300*		*1000*
Average Queue Storage Ratio			*2.0*	*0.5*						*2.2*		*0.7*
95% Queue Storage Ratio			*3.1*	*0.9*						*3.6*		*1.2*

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TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	*URS*
Agency/Co.	*URS*
Date Performed	*5/20/2010*
Analysis Time Period	*AM*

Site Information

Intersection	*Overpass Rd at Boyette Rd*
Jurisdiction	*Pasco County*
Analysis Year	*No Build 2022*

Project Description *I-75 and Overpass Rd*

East/West Street: *Overpass Rd* | North/South Street: *Boyette Road*

Intersection Orientation: *East-West* | Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*50*	*650*	*175*	*130*	*815*	*20*
Peak-Hour Factor, PHF	*0.95*	*0.95*	*0.95*	*0.95*	*0.95*	*0.95*
Hourly Flow Rate, HFR (veh/h)	*52*	*684*	*184*	*136*	*857*	*21*
Percent Heavy Vehicles	*2*	--	--	*2*	--	--
Median Type	*Raised curb*					
RT Channelized			*0*			*0*
Lanes	*1*	*2*	*0*	*1*	*2*	*0*
Configuration	*L*	*T*	*TR*	*L*	*T*	*TR*
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*160*	*30*	*125*	*20*	*45*	*45*
Peak-Hour Factor, PHF	*0.95*	*0.95*	*0.95*	*0.95*	*0.95*	*0.95*
Hourly Flow Rate, HFR (veh/h)	*168*	*31*	*131*	*21*	*47*	*47*
Percent Heavy Vehicles	*2*	*2*	*2*	*2*	*2*	*2*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*1*	*1*	*0*	*1*	*1*	*0*
Configuration	*L*		*TR*	*L*		*TR*

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*L*	*L*	*L*		*TR*	*L*		*TR*
v (veh/h)	*52*	*136*	*168*		*162*	*21*		*94*
C (m) (veh/h)	*765*	*772*	*116*		*347*	*108*		*181*
v/c	*0.07*	*0.18*	*1.45*		*0.47*	*0.19*		*0.52*
95% queue length	*0.22*	*0.64*	*11.83*		*2.38*	*0.68*		*2.61*
Control Delay (s/veh)	*10.0*	*10.7*	*311.2*		*24.1*	*46.2*		*44.6*
LOS	*B*	*B*	*F*		*C*	*E*		*E*
Approach Delay (s/veh)	--	--	*170.3*			*44.9*		
Approach LOS	--	--	*F*			*E*		

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TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	*URS*
Agency/Co.	*URS*
Date Performed	*5/20/2010*
Analysis Time Period	*PM*

Site Information

Intersection	*Overpass Rd at Boyette Rd*
Jurisdiction	*Pasco County*
Analysis Year	*No Build 2022*

Project Description *I-75 and Overpass Rd*

East/West Street: *Overpass Rd* | North/South Street: *Boyette Road*

Intersection Orientation: *East-West* | Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*45*	*815*	*160*	*125*	*650*	*20*
Peak-Hour Factor, PHF	*0.95*	*0.95*	*0.95*	*0.95*	*0.95*	*0.95*
Hourly Flow Rate, HFR (veh/h)	*47*	*857*	*168*	*131*	*684*	*21*
Percent Heavy Vehicles	*2*	--	--	*2*	--	--
Median Type	*Raised curb*					
RT Channelized			*0*			*0*
Lanes	*1*	*2*	*0*	*1*	*2*	*0*
Configuration	*L*	*T*	*TR*	*L*	*T*	*TR*
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*175*	*45*	*130*	*20*	*30*	*50*
Peak-Hour Factor, PHF	*0.95*	*0.95*	*0.95*	*0.95*	*0.95*	*0.95*
Hourly Flow Rate, HFR (veh/h)	*184*	*47*	*136*	*21*	*31*	*52*
Percent Heavy Vehicles	*2*	*2*	*2*	*2*	*2*	*2*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*1*	*1*	*0*	*1*	*1*	*0*
Configuration	*L*		*TR*	*L*		*TR*

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*L*	*L*	*L*		*TR*	*L*		*TR*
v (veh/h)	*47*	*131*	*184*		*183*	*21*		*83*
C (m) (veh/h)	*889*	*673*	*126*		*308*	*103*		*210*
v/c	*0.05*	*0.19*	*1.46*		*0.59*	*0.20*		*0.40*
95% queue length	*0.17*	*0.72*	*12.69*		*3.57*	*0.72*		*1.76*
Control Delay (s/veh)	*9.3*	*11.6*	*308.9*		*32.4*	*48.7*		*32.9*
LOS	*A*	*B*	*F*		*D*	*E*		*D*
Approach Delay (s/veh)	--	--	*171.1*			*36.1*		
Approach LOS	--	--	*F*			*E*		

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TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	*URS*
Agency/Co.	*URS*
Date Performed	*5/20/2010*
Analysis Time Period	*AM*

Site Information

Intersection	*Overpass Rd at Old Pasco Rd*
Jurisdiction	*Pasco County*
Analysis Year	*No Build 2022*

Project Description *I-75 and Overpass Rd*

East/West Street: *Overpass Rd* | North/South Street: *Old Pasco Road*

Intersection Orientation: *North-South* | Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)		*125*		*450*	*120*	
Peak-Hour Factor, PHF	*1.00*	*0.95*	*0.80*	*0.95*	*0.95*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*131*	*0*	*473*	*126*	*0*
Percent Heavy Vehicles	*0*	--	--	*2*	--	--
Median Type	*Raised curb*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*1*	*2*	*0*
Configuration		*T*		*L*	*T*	
Upstream Signal		*0*			*0*	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)				*645*		*375*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*0.95*	*1.00*	*0.95*
Hourly Flow Rate, HFR (veh/h)	*0*	*0*	*0*	*678*	*0*	*394*
Percent Heavy Vehicles	*0*	*0*	*0*	*2*	*0*	*2*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*1*
Lanes	*0*	*0*	*0*	*1*	*0*	*1*
Configuration				*L*		*R*

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		*L*	*L*		*R*			
v (veh/h)		*473*	*678*		*394*			
C (m) (veh/h)		*1452*	*186*		*917*			
v/c		*0.33*	*3.65*		*0.43*			
95% queue length		*1.43*	*65.39*		*2.19*			
Control Delay (s/veh)		*8.7*	*1241*		*11.9*			
LOS		*A*	*F*		*B*			
Approach Delay (s/veh)	--	--	*789.1*					
Approach LOS	--	--	*F*					

TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	*URS*
Agency/Co.	*URS*
Date Performed	*5/20/2010*
Analysis Time Period	*PM*

Site Information

Intersection	*Overpass Rd at Old Pasco Rd*
Jurisdiction	*Pasco County*
Analysis Year	*No Build 2022*

Project Description *I-75 and Overpass Rd*

East/West Street: *Overpass Rd* | North/South Street: *Old Pasco Road*

Intersection Orientation: *North-South* | Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)		*120*		*375*	*125*	
Peak-Hour Factor, PHF	*1.00*	*0.95*	*0.88*	*0.95*	*0.95*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*126*	*0*	*394*	*131*	*0*
Percent Heavy Vehicles	*0*	--	--	*2*	--	--
Median Type	*Raised curb*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*1*	*2*	*0*
Configuration		*T*		*L*	*T*	
Upstream Signal		*0*			*0*	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)				*425*		*450*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*0.95*	*1.00*	*0.95*
Hourly Flow Rate, HFR (veh/h)	*0*	*0*	*0*	*447*	*0*	*473*
Percent Heavy Vehicles	*0*	*0*	*0*	*2*	*0*	*2*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*1*
Lanes	*0*	*0*	*0*	*1*	*0*	*1*
Configuration				*L*		*R*

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		*L*	*L*		*R*			
v (veh/h)		*394*	*447*		*473*			
C (m) (veh/h)		*1458*	*241*		*923*			
v/c		*0.27*	*1.85*		*0.51*			
95% queue length		*1.10*	*31.13*		*2.99*			
Control Delay (s/veh)		*8.4*	*434.6*		*12.9*			
LOS		*A*	*F*		*B*			
Approach Delay (s/veh)	--	--	*217.8*					
Approach LOS	--	--	*F*					

HCS+™ Version 5.5

Generated: 6/7/2011 12:00 PM

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 NB Ramps at SR 52*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/20/2010*	Jurisdiction	*FDOT*
Time Period	*AM*	Analysis Year	*No Build 2022*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	*1*	*2*			*3*	*0*	*2*					
Lane Group	*L*	*T*			*TR*		*L*					
Volume (vph)	*275*	*1325*			*2110*	*175*	*1000*					
% Heavy Vehicles	*6*	*6*			*6*	*6*	*8*					
PHF	*0.95*	*0.95*			*0.95*	*0.95*	*0.95*					
Pretimed/Actuated (P/A)	*A*	*A*			*A*	*A*	*A*					
Startup Lost Time	*2.0*	*2.0*			*2.0*		*2.0*					
Extension of Effective Green	*2.0*	*2.0*			*2.0*		*2.0*					
Arrival Type	*3*	*3*			*3*		*3*					
Unit Extension	*3.0*	*3.0*			*3.0*		*3.0*					
Ped/Bike/RTOR Volume	*0*	*0*		*0*	*0*	*0*	*0*	*0*		*0*	*0*	
Lane Width	*12.0*	*12.0*			*12.0*		*12.0*					
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour	*0*	*0*			*0*		*0*					
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	EB Only	Thru & RT	03	04	NB Only	06	07	08
Timing	G = *12.2*	G = *77.3*	G =	G =	G = *32.5*	G =	G =	G =
	Y = *6*	Y = *6*	Y =	Y =	Y = *6*	Y =	Y =	Y =
Duration of Analysis (hrs) = *0.25*						Cycle Length C = *140.0*		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	*289*	*1395*			*2405*		*1053*					
Lane Group Capacity	*148*	*2328*			*1914*		*754*					
v/c Ratio	*1.95*	*0.60*			*1.26*		*1.40*					
Green Ratio	*0.09*	*0.68*			*0.55*		*0.23*					
Uniform Delay d_1	*63.9*	*12.0*			*31.4*		*53.8*					
Delay Factor k	*0.50*	*0.19*			*0.50*		*0.50*					
Incremental Delay d_2	*452.3*	*0.4*			*119.9*		*186.5*					
PF Factor	*1.000*	*1.000*			*1.000*		*1.000*					
Control Delay	*516.2*	*12.4*			*151.2*		*240.2*					
Lane Group LOS	*F*	*B*			*F*		*F*					
Approach Delay	*98.9*			*151.2*			*240.2*					
Approach LOS	*F*			*F*			*F*					
Intersection Delay	*152.3*			Intersection LOS			*F*					

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group	*L*	*T*			*TR*		*L*					
Initial Queue/Lane	*0.0*	*0.0*			*0.0*		*0.0*					
Flow Rate/Lane Group	*289*	*1395*			*2405*		*1053*					
Satflow/Lane	*1703*	*1792*			*1771*		*1671*					
Capacity/Lane Group	*148*	*2328*			*1914*		*754*					
Flow Ratio	*0.2*	*0.4*			*0.7*		*0.3*					
v/c Ratio	*1.95*	*0.60*			*1.26*		*1.40*					
I Factor	*1.000*	*1.000*			*1.000*		*1.000*					
Arrival Type	*3*	*3*			*3*		*3*					
Platoon Ratio	*1.00*	*1.00*			*1.00*		*1.00*					
PF Factor	*1.00*	*1.00*			*1.00*		*1.00*					
Q_1	*11.2*	*15.3*			*47.8*		*21.1*					
k_B	*0.3*	*1.0*			*0.9*		*0.5*					
Q_2	*18.2*	*1.5*			*35.2*		*20.9*					
Q Average	*29.4*	*16.8*			*83.0*		*42.0*					

Percentile Back of Queue (95th percentile)

$f_{B\%}$	*1.6*	*1.7*			*1.5*		*1.6*					
Back of Queue	*47.6*	*29.1*			*125*		*65.4*					

Queue Storage Ratio

Queue Spacing	*25.0*	*25.0*			*25.0*		*25.0*					
Queue Storage	*500*	*0*			*0*		*500*					
Average Queue Storage Ratio	*1.5*						*2.1*					
95% Queue Storage Ratio	*2.4*						*3.3*					

HCS+™ Version 5.5 Generated: 6/7/2011 11:17 AM

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 NB Ramps at SR 52*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/20/2010*	Jurisdiction	*FDOT*
Time Period	*PM*	Analysis Year	*No Build 2022*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	*1*	*2*			*3*	*0*	*2*					
Lane Group	*L*	*T*			*TR*		*L*					
Volume (vph)	*250*	*955*			*1805*	*300*	*940*					
% Heavy Vehicles	*6*	*6*			*6*	*6*	*8*					
PHF	*0.95*	*0.95*			*0.95*	*0.95*	*0.95*					
Pretimed/Actuated (P/A)	*A*	*A*			*A*	*A*	*A*					
Startup Lost Time	*2.0*	*2.0*			*2.0*		*2.0*					
Extension of Effective Green	*2.0*	*2.0*			*2.0*		*2.0*					
Arrival Type	*3*	*3*			*3*		*3*					
Unit Extension	*3.0*	*3.0*			*3.0*		*3.0*					
Ped/Bike/RTOR Volume	*0*	*0*		*0*	*0*	*0*	*0*	*0*		*0*	*0*	
Lane Width	*12.0*	*12.0*			*12.0*		*12.0*					
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour	*0*	*0*			*0*		*0*					
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	EB Only	Thru & RT	03	04	NB Only	06	07	08
Timing	G = *12.5*	G = *86.5*	G =	G =	G = *33.0*	G =	G =	G =
	Y = *6*	Y = *6*	Y =	Y =	Y = *6*	Y =	Y =	Y =
Duration of Analysis (hrs) = *0.25*						Cycle Length C = *150.0*		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	*263*	*1005*			*2216*		*989*					
Lane Group Capacity	*142*	*2389*			*1578*		*714*					
v/c Ratio	*1.85*	*0.42*			*1.40*		*1.39*					
Green Ratio	*0.08*	*0.70*			*0.58*		*0.22*					
Uniform Delay d_1	*68.8*	*9.6*			*31.8*		*58.5*					
Delay Factor k	*0.50*	*0.11*			*0.50*		*0.50*					
Incremental Delay d_2	*409.3*	*0.1*			*185.8*		*182.0*					
PF Factor	*1.000*	*1.000*			*1.000*		*1.000*					
Control Delay	*478.0*	*9.7*			*217.6*		*240.5*					
Lane Group LOS	*F*	*A*			*F*		*F*					
Approach Delay	*106.8*			*217.6*			*240.5*					
Approach LOS	*F*			*F*			*F*					
Intersection Delay	*191.2*			Intersection LOS			*F*					

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group	*L*	*T*			*TR*		*L*					
Initial Queue/Lane	*0.0*	*0.0*			*0.0*		*0.0*					
Flow Rate/Lane Group	*263*	*1005*			*2216*		*989*					
Satflow/Lane	*1703*	*1792*			*1753*		*1671*					
Capacity/Lane Group	*142*	*2389*			*1578*		*714*					
Flow Ratio	*0.2*	*0.3*			*0.8*		*0.3*					
v/c Ratio	*1.85*	*0.42*			*1.40*		*1.39*					
I Factor	*1.000*	*1.000*			*1.000*		*1.000*					
Arrival Type	*3*	*3*			*3*		*3*					
Platoon Ratio	*1.00*	*1.00*			*1.00*		*1.00*					
PF Factor	*1.00*	*1.00*			*1.00*		*1.00*					
Q_1	*11.0*	*9.3*			*59.2*		*21.2*					
k_B	*0.3*	*1.1*			*0.9*		*0.5*					
Q_2	*15.7*	*0.8*			*54.2*		*19.4*					
Q Average	*26.7*	*10.1*			*113.4*		*40.6*					

Percentile Back of Queue (95th percentile)

$f_{B\%}$	*1.6*	*1.8*			*1.5*		*1.6*					
Back of Queue	*43.7*	*18.6*			*170*		*63.5*					

Queue Storage Ratio

Queue Spacing	*25.0*	*25.0*			*25.0*		*25.0*					
Queue Storage	*500*	*0*			*0*		*500*					
Average Queue Storage Ratio	*1.3*						*2.0*					
95% Queue Storage Ratio	*2.2*						*3.2*					

HCS+™ Version 5.5 Generated: 6/7/2011 11:53 AM

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 SB Ramps at SR 52*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/20/2010*	Jurisdiction	*FDOT*
Time Period	*AM*	Analysis Year	*No Build 2022*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes		*3*		*1*	*2*					*1*		*1*
Lane Group		*T*		*L*	*T*					*L*		*R*
Volume (vph)		*1300*		*1330*	*1780*					*300*		*250*
% Heavy Vehicles		*6*		*6*	*6*					*8*		*8*
PHF		*0.95*		*0.95*	*0.95*					*0.95*		*0.95*
Pretimed/Actuated (P/A)		*A*		*A*	*A*					*A*		*A*
Startup Lost Time		*2.0*		*2.0*	*2.0*					*2.0*		*2.0*
Extension of Effective Green		*2.0*		*2.0*	*2.0*					*2.0*		*2.0*
Arrival Type		*3*		*3*	*3*					*3*		*3*
Unit Extension		*3.0*		*3.0*	*3.0*					*3.0*		*3.0*
Ped/Bike/RTOR Volume	*0*	*0*		*0*	*0*		*0*	*0*		*0*	*0*	*0*
Lane Width		*12.0*		*12.0*	*12.0*					*12.0*		*12.0*
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour		*0*		*0*	*0*					*0*		*0*
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	WB Only	Thru Only	03	04	SB Only	06	07	08
Timing	G = *66.9*	G = *45.2*	G =	G =	G = *19.9*	G =	G =	G =
	Y = *6*	Y = *6*	Y =	Y =	Y = *6*	Y =	Y =	Y =
Duration of Analysis (hrs) = *0.25*						Cycle Length C = *150.0*		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate		*1368*		*1400*	*1874*					*316*		*263*
Lane Group Capacity		*1172*		*760*	*2687*					*222*		*198*
v/c Ratio		*1.17*		*1.84*	*0.70*					*1.42*		*1.33*
Green Ratio		*0.30*		*0.45*	*0.79*					*0.13*		*0.13*
Uniform Delay d_1		*52.4*		*41.5*	*7.5*					*65.1*		*65.1*
Delay Factor k		*0.50*		*0.50*	*0.26*					*0.50*		*0.50*
Incremental Delay d_2		*84.8*		*384.1*	*0.8*					*214.7*		*178.2*
PF Factor		*1.000*		*1.000*	*1.000*					*1.000*		*1.000*
Control Delay		*137.2*		*425.6*	*8.3*					*279.8*		*243.3*
Lane Group LOS		*F*		*F*	*A*					*F*		*F*
Approach Delay	*137.2*			*186.8*						*263.2*		
Approach LOS	*F*			*F*						*F*		
Intersection Delay	*182.2*			Intersection LOS						*F*		

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group		*T*		*L*	*T*					*L*		*R*
Initial Queue/Lane		*0.0*		*0.0*	*0.0*					*0.0*		*0.0*
Flow Rate/Lane Group		*1368*		*1400*	*1874*					*316*		*263*
Satflow/Lane		*1792*		*1703*	*1792*					*1671*		*1495*
Capacity/Lane Group		*1172*		*760*	*2687*					*222*		*198*
Flow Ratio		*0.4*		*0.8*	*0.5*					*0.2*		*0.2*
v/c Ratio		*1.17*		*1.84*	*0.70*					*1.42*		*1.33*
I Factor		*1.000*		*1.000*	*1.000*					*1.000*		*1.000*
Arrival Type		*3*		*3*	*3*					*3*		*3*
Platoon Ratio		*1.00*		*1.00*	*1.00*					*1.00*		*1.00*
PF Factor		*1.00*		*1.00*	*1.00*					*1.00*		*1.00*
Q_1		*26.3*		*58.3*	*19.3*					*13.2*		*11.0*
k_B		*0.6*		*0.8*	*1.2*					*0.4*		*0.4*
Q_2		*14.7*		*81.7*	*2.5*					*12.9*		*9.4*
Q Average		*41.0*		*140.0*	*21.9*					*26.1*		*20.3*
Percentile Back of Queue (95th percentile)												
$f_{B\%}$		*1.6*		*1.5*	*1.7*					*1.6*		*1.7*
Back of Queue		*64.0*		*210*	*36.7*					*42.8*		*34.4*
Queue Storage Ratio												
Queue Spacing		*25.0*		*25.0*	*25.0*					*25.0*		*25.0*
Queue Storage		*0*		*600*	*0*					*800*		*100*
Average Queue Storage Ratio				*5.8*						*0.8*		*5.1*
95% Queue Storage Ratio				*8.8*						*1.3*		*8.6*

HCS+™ Version 5.5 Generated: 6/7/2011 11:49 AM

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 SB Ramps at SR 52*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/20/2010*	Jurisdiction	*FDOT*
Time Period	*PM*	Analysis Year	*No Build 2022*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes		*3*		*1*	*2*					*1*		*1*
Lane Group		*T*		*L*	*T*					*L*		*R*
Volume (vph)		*1030*		*780*	*1965*					*175*		*275*
% Heavy Vehicles		*6*		*6*	*6*					*8*		*8*
PHF		*0.95*		*0.95*	*0.95*					*0.95*		*0.95*
Pretimed/Actuated (P/A)		*A*		*A*	*A*					*A*		*A*
Startup Lost Time		*2.0*		*2.0*	*2.0*					*2.0*		*2.0*
Extension of Effective Green		*2.0*		*2.0*	*2.0*					*2.0*		*2.0*
Arrival Type		*3*		*3*	*3*					*3*		*3*
Unit Extension		*3.0*		*3.0*	*3.0*					*3.0*		*3.0*
Ped/Bike/RTOR Volume	*0*	*0*		*0*	*0*		*0*	*0*		*0*	*0*	*0*
Lane Width		*12.0*		*12.0*	*12.0*					*12.0*		*12.0*
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour		*0*		*0*	*0*					*0*		*0*
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	WB Only	Thru Only	03	04	SB Only	06	07	08
Timing	G = *63.4*	G = *46.6*	G =	G =	G = *22.0*	G =	G =	G =
	Y = *6*	Y = *6*	Y =	Y =	Y = *6*	Y =	Y =	Y =

Duration of Analysis (hrs) = *0.25* | Cycle Length C = *150.0*

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate		*1084*		*821*	*2068*					*184*		*289*
Lane Group Capacity		*1069*		*720*	*2639*					*245*		*219*
v/c Ratio		*1.01*		*1.14*	*0.78*					*0.75*		*1.32*
Green Ratio		*0.31*		*0.42*	*0.77*					*0.15*		*0.15*
Uniform Delay d_1		*51.7*		*43.3*	*9.8*					*61.4*		*64.0*
Delay Factor k		*0.50*		*0.50*	*0.33*					*0.31*		*0.50*
Incremental Delay d_2		*31.1*		*79.3*	*1.6*					*12.2*		*172.2*
PF Factor		*1.000*		*1.000*	*1.000*					*1.000*		*1.000*
Control Delay		*82.8*		*122.6*	*11.4*					*73.6*		*236.2*
Lane Group LOS		*F*		*F*	*B*					*E*		*F*
Approach Delay		*82.8*			*43.0*						*172.9*	
Approach LOS		*F*			*D*						*F*	
Intersection Delay		*66.5*			Intersection LOS						*E*	

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group		*T*		*L*	*T*					*L*		*R*
Initial Queue/Lane		*0.0*		*0.0*	*0.0*					*0.0*		*0.0*
Flow Rate/Lane Group		*1084*		*821*	*2068*					*184*		*289*
Satflow/Lane		*1792*		*1703*	*1792*					*1671*		*1495*
Capacity/Lane Group		*1069*		*720*	*2639*					*245*		*219*
Flow Ratio		*0.3*		*0.5*	*0.6*					*0.1*		*0.2*
v/c Ratio		*1.01*		*1.14*	*0.78*					*0.75*		*1.32*
I Factor		*1.000*		*1.000*	*1.000*					*1.000*		*1.000*
Arrival Type		*3*		*3*	*3*					*3*		*3*
Platoon Ratio		*1.00*		*1.00*	*1.00*					*1.00*		*1.00*
PF Factor		*1.00*		*1.00*	*1.00*					*1.00*		*1.00*
Q_1		*23.5*		*34.2*	*26.0*					*7.4*		*12.0*
k_B		*0.7*		*0.8*	*1.1*					*0.4*		*0.4*
Q_2		*7.3*		*17.2*	*3.8*					*1.1*		*10.1*
Q Average		*30.8*		*51.4*	*29.8*					*8.4*		*22.1*
Percentile Back of Queue (95th percentile)												
$f_{B\%}$		*1.6*		*1.5*	*1.6*					*1.9*		*1.7*
Back of Queue		*49.6*		*78.9*	*48.1*					*15.8*		*37.1*
Queue Storage Ratio												
Queue Spacing		*25.0*		*25.0*	*25.0*					*25.0*		*25.0*
Queue Storage		*0*		*600*	*0*					*800*		*100*
Average Queue Storage Ratio				*2.1*						*0.3*		*5.5*
95% Queue Storage Ratio				*3.3*						*0.5*		*9.3*

2022 Build Freeway Analysis Results

FREEPLAN 2009 Conceptual Planning Analysis

Project Information

Analyst	URS	**Freeway Name**	I-75	**Study Period**	Dir Hr Demand Vol
Date Prepared	1/4/2011 1:07:37 PM	**From**	S of SR 56	**Program**	FREEPLAN 2009
Agency	FDOT	**To**	N of SR 52	**Version Date**	12/12/10
Area Type	Other Urbanized	**Peak Direction**	Southbound		
File Name	C:\Documents and Settings\srinivas_meka\Local Settings\Temp\preview.xml				
User Notes	Build 2022 AM Northbound (Off-peak)				

Freeway Data

AADT	64700	**Freeway Input Volume**	5220	**Local Adjustment Factor**	0.95
K	0.09	**PHF**	0.95	**Ramp Metering Exists**	No
D	0.55	**Pecent Trucks Entering First Segment**	7		

Segment Data

Seg #	From	To	Type	Length	Between Length	Hourly Volume	# Thru Lanes	# Aux Lanes	Posted Speed	FFS	Terrain
1	S of SR56	SR 56	Basic Segment	9060	0	5220	4	0	70	70	Level
2	SR 56	SR 56	On Ramp	1500	0	5220	4	0	70	70	Level
3	SR 56	SR 54	Basic Segment	12500	0	5875	4	0	70	70	Level
4	SR 54	SR54	Diamond	5280	0	5875	3	0	70	70	Level
5	SR 54	Overpass Rd	Basic Segment	13460	0	5550	3	0	70	70	Level
6	Overpass Rd	Overpass Rd	Diamond	5280	0	5550	3	0	70	70	Level
7	Overpass Rd	SR52	Basic Segment	11260	0	4610	3	0	70	70	Level
8	SR 52	SR 52	Diamond	5280	0	4610	3	0	70	70	Level
9	SR 52	N of SR52	Basic Segment	5280	0	3485	3	0	70	70	Level

Interchange Distances

Segment	Type	Interchange Length	Distance Between Ramps			Auxiliary Lane?
			1 and 2	2 and 3	3 and 4	
4	Diamond	2280	2280	0	0	False
6	Diamond	2280	2280	0	0	False
8	Diamond	2280	2280	0	0	False

Ramp Descriptions

Segment	Type	First Off-Ramp					First On-Ramp					Second Off-Ramp					Second On-Ramp				
		Vol	% HV	Lanes	Accel / Decel Length	FFS	Vol	% HV	Lanes	Accel / Decel Length	FFS	Vol	% HV	Lanes	Accel / Decel Length	FFS	Vol	% HV	Lanes	Accel / Decel Length	FFS
2	On Ramp						655	8.0	1	700	45										
4	Diamond	1320	8.0	2	1500	45	995	8.0	1	700	45										
6	Diamond	1530	2.0	1	500	45	590	2.0	1	500	45										

8	Diamond	1575	8.0	1	410	45	450	8.0	1	700	45

Segment LOS

Seg #	From	To	Type	Volume	Adj. Capacity	Speed	Density	LOS	Sig Impact
1	S of SR56	SR 56	Basic Segment	5220	8371	69.0	21.7	C	N/A
2	SR 56	SR 56	On Ramp	5220	8197	62.8	26.4	C	#
3	SR 56	SR 54	Basic Segment	5875	8367	67.3	25.1	C	N/A
4	SR 54	SR54	Diamond	5875	6101	62.6	29.3	D	#
5	SR 54	Overpass Rd	Basic Segment	5550	6276	60.1	35.3	E	N/A
6	Overpass Rd	Overpass Rd	Diamond	5550	5928	64.3	27.6	D	#
7	Overpass Rd	SR52	Basic Segment	4610	6245	66.2	26.8	D	N/A
8	SR 52	SR 52	Diamond	4610	5898	65.2	21.4	C	#
9	SR 52	N of SR52	Basic Segment	3485	6244	69.8	19.2	C	N/A

Freeway Length	13.04924	FFS Delay	50.30	Threshold Delay	0.00	Avg. Speed	65.12	Density	26.4	LOS	D

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 2100 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
4					
6					
8					
10					
12					
Lanes	**Peak Hour Volume Both Directions**				
4					
6					
8					
10					
12					
Lanes	**Annual Average Daily Traffic**				
4					
6					
8					
10					
12					

 # Off-ramp storage is highly likely to overflow. The segment operations will likely be worse than indicated.
One or more segments have a demand-to-capacity ratio greater than 1.0; therefore, the performance measure values are highly unreliable.
Freeway LOS is defaulted to F. An operational level analysis tool is more appropriate for this situation.
*** For oversaturated conditions during the peak hour, subtract 10% from LOS E (capacity) volumes. This number becomes the new maximum service volume for LOS D, and LOS E cannot be achieved.**
**** Cannot be achieved based on input data provided.**
***** Not applicable for that level of service letter grade. See generalized tables notes for more details.**

FREEPLAN 2009 Conceptual Planning Analysis

Project Information

Analyst	URS	**Freeway Name**	I-75	**Study Period**	Dir Hr Demand Vol
Date Prepared	4/5/2011 1:07:37 PM	**From**	S of SR 56	**Program**	FREEPLAN 2009
Agency	FDOT	**To**	N of SR 52	**Version Date**	12/12/10
Area Type	Other Urbanized	**Peak Direction**	Northbound		
File Name	C:\Documents and Settings\srinivas_meka\Local Settings\Temp\preview.xml				
User Notes	Build 2022 PM Northbound (Peak)				

Freeway Data

AADT	64700	**Freeway Input Volume**	6825	**Local Adjustment Factor**	0.95
K	0.09	**PHF**	0.95	**Ramp Metering Exists**	No
D	0.55	**Pecent Trucks Entering First Segment**	7		

Segment Data

Seg #	From	To	Type	Length	Between Length	Hourly Volume	# Thru Lanes	# Aux Lanes	Posted Speed	FFS	Terrain
1	S of SR56	SR 56	Basic Segment	9060	0	6825	4	0	70	70	Level
2	SR 56	SR 56	On Ramp	1500	0	6825	4	0	70	70	Level
3	SR 56	SR 54	Basic Segment	12500	0	7610	4	0	70	70	Level
4	SR 54	SR54	Diamond	5280	0	7610	3	0	70	70	Level
5	SR 54	Overpass Rd	Basic Segment	13460	0	6875	3	0	70	70	Level
6	Overpass Rd	Overpass Rd	Diamond	5280	0	6875	3	0	70	70	Level
7	Overpass Rd	SR52	Basic Segment	11260	0	5765	3	0	70	70	Level
8	SR 52	SR 52	Diamond	5280	0	5765	3	0	70	70	Level
9	SR 52	N of SR52	Basic Segment	5280	0	4270	3	0	70	70	Level

Interchange Distances

Segment	Type	Interchange Length	Distance Between Ramps			Auxiliary Lane?
			1 and 2	2 and 3	3 and 4	
4	Diamond	2280	2280	0	0	False
6	Diamond	2280	2280	0	0	False
8	Diamond	2280	2280	0	0	False

Ramp Descriptions

Segment	Type	First Off-Ramp					First On-Ramp					Second Off-Ramp					Second On-Ramp				
		Vol	% HV	Lanes	Accel / Decel Length	FFS	Vol	% HV	Lanes	Accel / Decel Length	FFS	Vol	% HV	Lanes	Accel / Decel Length	FFS	Vol	% HV	Lanes	Accel / Decel Length	FFS
2	On Ramp						785	8.0	1	700	45										
4	Diamond	1835	8.0	2	1500	45	1100	8.0	1	700	45										
6	Diamond	1835	2.0	1	500	45	725	2.0	1	500	45										

8	Diamond	2045	8.0	1	410	45	550	8.0	1	700	45

Segment LOS

Seg #	From	To	Type	Volume	Adj. Capacity	Speed	Density	LOS	Sig Impact
1	S of SR56	SR 56	Basic Segment	6825	8371	63.4	30.9	D	N/A
2	SR 56	SR 56	On Ramp	6825	8197	60.5	35.4	E	#
3	SR 56	SR 54	Basic Segment	7610	8367	58.8	37.1	E	N/A
4	SR 54	SR54	Diamond	7610	6101	##	##	F	#
5	SR 54	Overpass Rd	Basic Segment	6875	6278	##	##	F	N/A
6	Overpass Rd	Overpass Rd	Diamond	6875	5929	##	##	F	#
7	Overpass Rd	SR52	Basic Segment	5765	6249	58.1	38.1	E	N/A
8	SR 52	SR 52	Diamond	5765	5902	64.4	26.5	D	#
9	SR 52	N of SR52	Basic Segment	4270	6249	67.8	24.2	C	N/A

Freeway Length	13.04924	FFS Delay	##	Threshold Delay	##	Avg. Speed	##	Density	##	LOS	F

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 2100 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
4					
6					
8					
10					
12					
Lanes	**Peak Hour Volume Both Directions**				
4					
6					
8					
10					
12					
Lanes	**Annual Average Daily Traffic**				
4					
6					
8					
10					
12					

 # Off-ramp storage is highly likely to overflow. The segment operations will likely be worse than indicated.
One or more segments have a demand-to-capacity ratio greater than 1.0; therefore, the performance measure values are highly unreliable.
Freeway LOS is defaulted to F. An operational level analysis tool is more appropriate for this situation.
*** For oversaturated conditions during the peak hour, subtract 10% from LOS E (capacity) volumes. This number becomes the new maximum service volume for LOS D, and LOS E cannot be achieved.**
**** Cannot be achieved based on input data provided.**
***** Not applicable for that level of service letter grade. See generalized tables notes for more details.**

FREEPLAN 2009 Conceptual Planning Analysis

Project Information

Analyst	URS	**Freeway Name**	I-75	**Study Period**	Dir Hr Demand Vol
Date Prepared	4/5/2011 1:07:37 PM	**From**	S of SR 56	**Program**	FREEPLAN 2009
Agency	FDOT	**To**	N of SR 52	**Version Date**	12/12/10
Area Type	Other Urbanized	**Peak Direction**	Southbound		
File Name	C:\Documents and Settings\srinivas_meka\Local Settings\Temp\preview.xml				
User Notes	Build 2022 AM Southbound (Peak)				

Freeway Data

AADT	83200	**Freeway Input Volume**	4270	**Local Adjustment Factor**	0.95
K	0.09	**PHF**	0.95	**Ramp Metering Exists**	No
D	0.55	**Pecent Trucks Entering First Segment**	15		

Segment Data

Seg #	From	To	Type	Length	Between Length	Hourly Volume	# Thru Lanes	# Aux Lanes	Posted Speed	FFS	Terrain
1	N of SR 52	SR 52	Basic Segment	5280	0	4270	3	0	70	70	Level
2	SR 52	SR 52	Diamond	5280	0	4270	3	0	70	70	Level
3	SR 52	Overpass Rd	Basic Segment	11260	0	5765	3	0	70	70	Level
4	Overpass Rd	Overpass Rd	Diamond	5280	0	5765	3	0	70	70	Level
5	Overpass Rd	SR 54	Basic Segment	13460	0	6875	3	0	70	70	Level
6	SR 54	SR 54	Diamond	5280	0	6875	3	0	70	70	Level
7	SR 54	SR 56	Basic Segment	12500	0	7610	4	0	70	70	Level
8	SR 56	SR 56	Diamond	5280	0	7610	4	0	70	70	Level
9	SR 56	S of SR56	Basic Segment	5280	0	10365	6	0	70	70	Level

Interchange Distances

Segment	Type	Interchange Length	Distance Between Ramps			Auxiliary Lane?
			1 and 2	2 and 3	3 and 4	
2	Diamond	2280	2280	0	0	False
4	Diamond	2280	2280	0	0	False
6	Diamond	2280	2280	0	0	False
8	Diamond	2280	2280	0	0	False

Ramp Descriptions

Segment	Type	First Off-Ramp					First On-Ramp					Second Off-Ramp					Second On-Ramp				
		Vol	% HV	Lanes	Accel / Decel Length	FFS	Vol	% HV	Lanes	Accel / Decel Length	FFS	Vol	% HV	Lanes	Accel / Decel Length	FFS	Vol	% HV	Lanes	Accel / Decel Length	FFS
2	Diamond	550	8.0	1	410	45	2045	8.0	1	700	45										
4	Diamond	725	2.0	1	500	45	1835	2.0	1	500	45										

6	Diamond	1100	8.0	1	410	45	1835	8.0	2	1500	45
8	Diamond	785	8.0	1	600	45	3540	8.0	2	1500	45

Segment LOS

Seg #	From	To	Type	Volume	Adj. Capacity	Speed	Density	LOS	Sig Impact
1	N of SR 52	SR 52	Basic Segment	4270	6045	67.2	25.2	C	N/A
2	SR 52	SR 52	Diamond	4270	5709	61.2	27.1	D	No
3	SR 52	Overpass Rd	Basic Segment	5765	6096	56.7	40.0	E	N/A
4	Overpass Rd	Overpass Rd	Diamond	5765	5757	##	##	F	#
5	Overpass Rd	SR 54	Basic Segment	6875	6148	##	##	F	N/A
6	SR 54	SR 54	Diamond	6875	5807	##	##	F	#
7	SR 54	SR 56	Basic Segment	7610	8210	57.8	38.5	E	N/A
8	SR 56	SR 56	Diamond	7610	7868	##	##	F	#
9	SR 56	S of SR56	Basic Segment	10365	12363	62.3	32.3	D	N/A

Freeway Length	13.04924	FFS Delay	##	Threshold Delay	##	Avg. Speed	##	Density	##	LOS	F

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 2100 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
4					
6					
8					
10					
12					
Lanes	**Peak Hour Volume Both Directions**				
4					
6					
8					
10					
12					
Lanes	**Annual Average Daily Traffic**				
4					
6					
8					
10					
12					

 # Off-ramp storage is highly likely to overflow. The segment operations will likely be worse than indicated.
One or more segments have a demand-to-capacity ratio greater than 1.0; therefore, the performance measure values are highly unreliable.
Freeway LOS is defaulted to F. An operational level analysis tool is more appropriate for this situation.
*** For oversaturated conditions during the peak hour, subtract 10% from LOS E (capacity) volumes. This number becomes the new maximum service volume for LOS D, and LOS E cannot be achieved.**
**** Cannot be achieved based on input data provided.**
***** Not applicable for that level of service letter grade. See generalized tables notes for more details.**

FREEPLAN 2009 Conceptual Planning Analysis

Project Information

Analyst	URS	**Freeway Name**	I-75	**Study Period**	Dir Hr Demand Vol
Date Prepared	4/5/2011 1:07:37 PM	**From**	S of SR 56	**Program**	FREEPLAN 2009
Agency	FDOT	**To**	N of SR 52	**Version Date**	12/12/10
Area Type	Other Urbanized	**Peak Direction**	Northbound		
File Name	C:\Documents and Settings\srinivas_meka\Local Settings\Temp\preview.xml				
User Notes	Build 2022 PM Southbound (Off-peak)				

Freeway Data

AADT	70000	**Freeway Input Volume**	3485	**Local Adjustment Factor**	0.95
K	0.09	**PHF**	0.95	**Ramp Metering Exists**	No
D	0.55	**Pecent Trucks Entering First Segment**	15		

Segment Data

Seg #	From	To	Type	Length	Between Length	Hourly Volume	# Thru Lanes	# Aux Lanes	Posted Speed	FFS	Terrain
1	N of SR 52	SR 52	Basic Segment	5280	0	3485	3	0	70	70	Level
2	SR 52	SR 52	Diamond	5280	0	3485	3	0	70	70	Level
3	SR 52	Overpass Rd	Basic Segment	11260	0	4610	3	0	70	70	Level
4	Overpass Rd	Overpass Rd	Diamond	5280	0	4610	3	0	70	70	Level
5	Overpass Rd	SR 54	Basic Segment	13460	0	5550	3	0	70	70	Level
6	SR 54	SR 54	Diamond	5280	0	5550	3	0	70	70	Level
7	SR 54	SR 56	Basic Segment	12500	0	5875	4	0	70	70	Level
8	SR 56	SR 56	Diamond	5280	0	5875	4	0	70	70	Level
9	SR 56	S of SR56	Basic Segment	5280	0	8040	6	0	70	70	Level

Interchange Distances

Segment	Type	Interchange Length	Distance Between Ramps			Auxiliary Lane?
			1 and 2	2 and 3	3 and 4	
2	Diamond	2280	2280	0	0	False
4	Diamond	2280	2280	0	0	False
6	Diamond	2280	2280	0	0	False
8	Diamond	2280	2280	0	0	False

Ramp Descriptions

Segment	Type	First Off-Ramp					First On-Ramp					Second Off-Ramp					Second On-Ramp				
		Vol	% HV	Lanes	Accel / Decel Length	FFS	Vol	% HV	Lanes	Accel / Decel Length	FFS	Vol	% HV	Lanes	Accel / Decel Length	FFS	Vol	% HV	Lanes	Accel / Decel Length	FFS
2	Diamond	450	8.0	1	410	45	1575	8.0	1	700	45										
4	Diamond	590	2.0	1	500	45	1530	2.0	2	500	45										

6	Diamond	995	8.0	1	410	45	1320	8.0	2	1500	45
8	Diamond	655	8.0	1	600	45	2820	8.0	2	1500	45

Segment LOS

Seg #	From	To	Type	Volume	Adj. Capacity	Speed	Density	LOS	Sig Impact
1	N of SR 52	SR 52	Basic Segment	3485	6045	69.6	19.9	C	N/A
2	SR 52	SR 52	Diamond	3485	5709	65.0	21.9	C	No
3	SR 52	Overpass Rd	Basic Segment	4610	6093	65.6	27.7	D	N/A
4	Overpass Rd	Overpass Rd	Diamond	4610	5755	63.2	28.2	D	No
5	Overpass Rd	SR 54	Basic Segment	5550	6148	59.2	36.6	E	N/A
6	SR 54	SR 54	Diamond	5550	5807	62.3	30.9	D	#
7	SR 54	SR 56	Basic Segment	5875	8205	66.9	25.7	C	N/A
8	SR 56	SR 56	Diamond	5875	7863	56.7	26.5	D	#
9	SR 56	S of SR56	Basic Segment	8040	12358	68.5	22.8	C	N/A

Freeway Length	13.04924	FFS Delay	66.48	Threshold Delay	0.00	Avg. Speed	63.69	Density	27.4	LOS	D

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 2100 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
4					
6					
8					
10					
12					
Lanes	**Peak Hour Volume Both Directions**				
4					
6					
8					
10					
12					
Lanes	**Annual Average Daily Traffic**				
4					
6					
8					
10					
12					

 # Off-ramp storage is highly likely to overflow. The segment operations will likely be worse than indicated.
One or more segments have a demand-to-capacity ratio greater than 1.0; therefore, the performance measure values are highly unreliable.
Freeway LOS is defaulted to F. An operational level analysis tool is more appropriate for this situation.
*** For oversaturated conditions during the peak hour, subtract 10% from LOS E (capacity) volumes. This number becomes the new maximum service volume for LOS D, and LOS E cannot be achieved.**
**** Cannot be achieved based on input data provided.**
***** Not applicable for that level of service letter grade. See generalized tables notes for more details.**

2022 Build Ramps Analysis Results

Ramp Capacity Check: Build 2022 AM Peak Hour

Assumed Ramp Roadway Capacity (HCM 2000 Exhibit 25-3):

Ramp Free-Flow Speed, S_{FR} (mph)	Capacity (pc/h)	
	Single-Lane Ramps	Two-Lane Ramps
≥ 50	2200	4400
> 40 - 50	2100	4100
> 30 - 40	2000	3800
≥ 20 - 30	1900	3500
< 20	1800	3200

Location	Volume (veh/h)	FFS (S_{FR})	Lanes	% Trucks	PHF	E_T	f_{HV}	f_P	Flow Rate (pc/h)	Capacity (pc/h)	Over Capacity?
I-75 NB off to SR 56	2820	45	2	8.0%	0.95	1.5	0.962	0.95	3250	4100	No

Notes:

1. Volumes are converted to equivalent passenger cars per hour (pc/h) flow rates under base conditions during the peak 15 minutes of the hour using HCM 2000 Equation 25-1.

Ramp Capacity Check: Build 2022 PM Peak Hour

Assumed Ramp Roadway Capacity (HCM 2000 Exhibit 25-3):

Ramp Free-Flow Speed, S_{FR} (mph)	Capacity (pc/h)	
	Single-Lane Ramps	Two-Lane Ramps
≥ 50	2200	4400
> 40 - 50	2100	4100
> 30 - 40	2000	3800
≥ 20 - 30	1900	3500
< 20	1800	3200

Location	Volume (veh/h)	FFS (S_{FR})	Lanes	% Trucks	PHF	E_T	f_{HV}	f_P	Flow Rate (pc/h)	Capacity (pc/h)	Over Capacity?
I-75 NB off to SR 56	3540	45	2	8.0%	0.95	1.5	0.962	0.95	4080	4100	No

Notes:

1. Volumes are converted to equivalent passenger cars per hour (pc/h) flow rates under base conditions during the peak 15 minutes of the hour using HCM 2000 Equation 25-1.

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Northbound
Agency or Company	URS Corporation	Junction	SR 56 NB ON-RAMP
Date Performed	4/26/2010	Jurisdiction	Pasco County
Analysis Time Period	AM	Analysis Year	Build 2022

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 45.0 mph
Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp
☑ Yes ☐ On
☐ No ☑ Off
L_{down} = 9999 ft
V_D = 1320 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	5220	0.95	Level	7	0	0.966	0.95	5986
Ramp	655	0.95	Level	8	0	0.962	0.95	755
UpStream								
DownStream	1320	0.95	Level	8	0	0.962	0.95	1521

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)
P_{FM} = 0.123 using Equation (Exhibit 25-5)
V_{12} = 739 pc/h
V_3 or V_{av34} 2623 pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No
If Yes,V_{12a} = 2394 pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	6741	Exhibit 25-7		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	3149	Exhibit 25-7	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$

D_R = 25.3 (pc/mi/ln)
LOS = C (Exhibit 25-4)

Speed Determination

M_S = 0.349 (Exibit 25-19)
S_R= 60.2 mph (Exhibit 25-19)
S_0= 65.3 mph (Exhibit 25-19)
S = 62.8 mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = using Equation (Exhibit 25-12)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086 V_{12} - 0.009 L_D$

D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

D_s = (Exhibit 25-19)
S_R= mph (Exhibit 25-19)
S_0= mph (Exhibit 25-19)
S = mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Northbound
Agency or Company	URS Corporation	Junction	SR 56 NB ON-RAMP
Date Performed	4/27/2010	Jurisdiction	Pasco County
Analysis Time Period	PM	Analysis Year	Build 2022

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 45.0 mph
Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp
☑ Yes ☐ On
☐ No ☑ Off
L_{down} = 4800 ft
V_D = 1835 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	6825	0.95	Level	7	0	0.966	0.95	7827
Ramp	785	0.95	Level	8	0	0.962	0.95	905
UpStream								
DownStream	1835	0.95	Level	8	0	0.962	0.95	2115

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)
P_{FM} = 0.105 using Equation (Exhibit 25-5)
V_{12} = 819 pc/h
V_3 or V_{av34} 3504 pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No
If Yes,V_{12a} = 3130 pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	8732	Exhibit 25-7		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	4035	Exhibit 25-7	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$

D_R = 32.1 (pc/mi/ln)
LOS = D (Exhibit 25-4)

Speed Determination

M_S = 0.479 (Exibit 25-19)
S_R= 56.6 mph (Exhibit 25-19)
S_0= 63.2 mph (Exhibit 25-19)
S = 60.0 mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = using Equation (Exhibit 25-12)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086 V_{12} - 0.009 L_D$

D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

D_s = (Exhibit 25-19)
S_R= mph (Exhibit 25-19)
S_0= mph (Exhibit 25-19)
S = mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Southbound
Agency or Company	URS Corporation	Junction	SR 56 SB OFF-RAMP
Date Performed	4/26/2010	Jurisdiction	Pasco County
Analysis Time Period	AM	Analysis Year	Build 2022

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp	Terrain: Level	Downstream Adj Ramp
☐ Yes ☐ On		☑ Yes ☑ On
☑ No ☐ Off		☐ No ☐ Off
L_{up} = ft		L_{down} = 3300 ft
V_u = veh/h	S_{FF} = 70.0 mph S_{FR} = 45.0 mph Sketch (show lanes, L_A, L_D,V_R,V_f)	V_D = 3540 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	7610	0.95	Level	9	0	0.957	0.95	8812
Ramp	785	0.95	Level	8	0	0.962	0.95	905
UpStream								
DownStream	3540	0.95	Level	8	0	0.962	0.95	4079

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = using Equation (Exhibit 25-5)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = 0.436 using Equation (Exhibit 25-12)

V_{12} = 4352 pc/h

V_3 or V_{av34} 2230 pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	8812	Exhibit 25-14	9600	No
$V_{FO} = V_F - V_R$	7907	Exhibit 25-14	9600	No
V_R	905	Exhibit 25-3	2100	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	4352	Exhibit 25-14	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086 V_{12} - 0.009 L_D$

D_R = 36.3 (pc/mi/ln)

LOS = E (Exhibit 25-4)

Speed Determination

D_s = 0.379 (Exhibit 25-19)

S_R= 59.4 mph (Exhibit 25-19)

S_0= 72.0 mph (Exhibit 25-19)

S = 65.2 mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Southbound
Agency or Company	URS Corporation	Junction	SR 56 SB OFF-RAMP
Date Performed	4/27/2010	Jurisdiction	Pasco County
Analysis Time Period	PM	Analysis Year	Build 2022

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp	Terrain: Level	Downstream Adj Ramp
☐ Yes ☐ On		☑ Yes ☑ On
☑ No ☐ Off		☐ No ☐ Off
L_{up} = ft		L_{down} = 3300 ft
V_u = veh/h	S_{FF} = 70.0 mph S_{FR} = 45.0 mph Sketch (show lanes, L_A, L_D,V_R,V_f)	V_D = 2820 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	5875	0.95	Level	9	0	0.957	0.95	6803
Ramp	655	0.95	Level	8	0	0.962	0.95	755
UpStream								
DownStream	2820	0.95	Level	8	0	0.962	0.95	3250

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = using Equation (Exhibit 25-5)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = 0.436 using Equation (Exhibit 25-12)

V_{12} = 3392 pc/h

V_3 or V_{av34} 1705 pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	6803	Exhibit 25-14	9600	No
$V_{FO} = V_F - V_R$	6048	Exhibit 25-14	9600	No
V_R	755	Exhibit 25-3	2100	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	3392	Exhibit 25-14	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086 V_{12} - 0.009 L_D$

D_R = 28.0 (pc/mi/ln)

LOS = D (Exhibit 25-4)

Speed Determination

D_s = 0.366 (Exhibit 25-19)

S_R= 59.8 mph (Exhibit 25-19)

S_0= 74.0 mph (Exhibit 25-19)

S = 66.2 mph (Exhibit 25-15)

Major Merge Capacity Check: **Build 2022 AM Peak Hour**
I-75 SB On Ramp from SR 56

Assumed Major Merge Capacity per Segment (based on HCM 2000 Exhibit 25-7):

Segment Free-Flow Speed (mph)	Capacity (pc/h)			
	2-Lanes	3-Lanes	4-Lanes	5-Lanes
≥ 70	4800	7200	9600	12000
65	4700	7050	9400	11750
60	4600	6900	9200	11500
55	4500	6750	9000	11250

Assumed Ramp Roadway Capacity (based on HCM 2000 Exhibit 25-3):

Free-Flow Speed of Ramp (mph)	Capacity (pc/h)	
	Single-Lane Ramp	Two-Lane Ramp
≥ 55	2200	4400
> 40-50	2100	4100
> 30-40	2000	3800
≥ 20-30	1900	3500
< 20	1800	3200

Segment	Volume (veh/h)	FFS	Lanes	% Trucks	PHF	E_T	f_{HV}	f_P	Flow Rate (pc/h)	Capacity (pc/h)	Over Capacity?
Upstream	6825	70	4	9.0%	0.95	1.5	0.957	0.95	7903	9600	No
Merging	3540	45	2	8.0%	0.95	1.5	0.962	0.95	4080	4100	No
Downstream	10365	70	6	7.0%	0.95	1.5	0.966	0.95	11887	14400	No

Notes:
1. Volumes are converted to equivalent passenger cars per hour (pc/h) flow rates under base conditions during the peak 15 minutes of the hour using HCM 2000 Equation 25-1.

Major Merge Capacity Check: **Build 2022 PM Peak Hour**
I-75 SB On Ramp from SR 56

Assumed Major Merge Capacity per Segment (based on HCM 2000 Exhibit 25-7):

Segment Free-Flow Speed (mph)	Capacity (pc/h)			
	2-Lanes	3-Lanes	4-Lanes	5-Lanes
≥ 70	4800	7200	9600	12000
65	4700	7050	9400	11750
60	4600	6900	9200	11500
55	4500	6750	9000	11250

Assumed Ramp Roadway Capacity (based on HCM 2000 Exhibit 25-3):

Free-Flow Speed of Ramp (mph)	Capacity (pc/h)	
	Single-Lane Ramp	Two-Lane Ramp
≥ 55	2200	4400
> 40-50	2100	4100
> 30-40	2000	3800
≥ 20-30	1900	3500
< 20	1800	3200

Segment	Volume (veh/h)	FFS	Lanes	% Trucks	PHF	E_T	f_{HV}	f_P	Flow Rate (pc/h)	Capacity (pc/h)	Over Capacity?
Upstream	5220	70	4	9.0%	0.95	1.5	0.957	0.95	6045	9600	No
Merging	2820	45	2	8.0%	0.95	1.5	0.962	0.95	3250	4100	No
Downstream	8040	70	6	7.0%	0.95	1.5	0.966	0.95	9221	14400	No

Notes:
1. Volumes are converted to equivalent passenger cars per hour (pc/h) flow rates under base conditions during the peak 15 minutes of the hour using HCM 2000 Equation 25-1.

Major Diverge Capacity Check: Build 2022 AM Peak Hour
I-75 NB Off Ramp to CR 54

Assumed Major Diverge Capacity per Segment (based on HCM 2000 Exhibit 25-14):

Segment Free-Flow Speed (mph)	Capacity (pc/h)			
	2-Lanes	3-Lanes	4-Lanes	5-Lanes
≥ 70	4800	7200	9600	12000
65	4700	7050	9400	11750
60	4600	6900	9200	11500
55	4500	6750	9000	11250

Assumed Ramp Roadway Capacity (based on HCM 2000 Exhibit 25-3):

Free-Flow Speed of Ramp (mph)	Capacity (pc/h)	
	Single-Lane Ramp	Two-Lane Ramp
≥ 55	2200	4400
> 40-50	2100	4100
> 30-40	2000	3800
≥ 20-30	1900	3500
< 20	1800	3200

Assumed Ramp Density and LOS (based on HCM 2000 Equation 25-12 and Exhibit 25-4)

Segment	Density[1]	LOS
Upstream	16.0	B

I-75 NB Off Ramp to CR 54

Segment	Volume (veh/h)	FFS	Lanes	% Trucks	PHF	E_T	f_{HV}	f_P	Flow Rate (pc/h)	Capacity (pc/h)	Over Capacity?
Upstream	5875	70	4	9.0%	0.95	1.5	0.957	0.95	6803	9600	No
Diverging	1320	45	2	8.0%	0.95	1.5	0.962	0.95	1522	4100	No
Downstream	4555	70	3	9.0%	0.95	1.5	0.957	0.95	5275	7200	No

Notes:
1. Volumes are converted to equivalent passenger cars per hour (pc/h) flow rates under base conditions during the peak 15 minutes of the hour using HCM 2000 Equation 25-1.

Major Diverge Capacity Check: Build 2022 PM Peak Hour
I-75 NB Off Ramp to CR 54

Assumed Major Diverge Capacity per Segment (based on HCM 2000 Exhibit 25-14):

Segment Free-Flow Speed (mph)	Capacity (pc/h)			
	2-Lanes	3-Lanes	4-Lanes	5-Lanes
≥ 70	4800	7200	9600	12000
65	4700	7050	9400	11750
60	4600	6900	9200	11500
55	4500	6750	9000	11250

Assumed Ramp Roadway Capacity (based on HCM 2000 Exhibit 25-3):

Free-Flow Speed of Ramp (mph)	Capacity (pc/h)	
	Single-Lane Ramp	Two-Lane Ramp
≥ 55	2200	4400
> 40-50	2100	4100
> 30-40	2000	3800
≥ 20-30	1900	3500
< 20	1800	3200

Assumed Ramp Density and LOS (based on HCM 2000 Equation 25-12 and Exhibit 25-4)

Segment	Density[1]	LOS
Upstream	20.7	C

Segment	Volume (veh/h)	FFS	Lanes	% Trucks	PHF	E_T	f_{HV}	f_P	Flow Rate (pc/h)	Capacity (pc/h)	Over Capacity?
Upstream	7610	70	4	9.0%	0.95	1.5	0.957	0.95	8812	9600	No
Diverging	1835	45	2	8.0%	0.95	1.5	0.962	0.95	2115	4100	No
Downstream	5775	70	3	9.0%	0.95	1.5	0.957	0.95	6687	7200	No

Notes:
1. Volumes are converted to equivalent passenger cars per hour (pc/h) flow rates under base conditions during the peak 15 minutes of the hour using HCM 2000 Equation 25-1.

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Northbound
Agency or Company	URS Corporation	Junction	CR 54 NB ON-RAMP
Date Performed	4/26/2010	Jurisdiction	Pasco County
Analysis Time Period	AM	Analysis Year	Build 2022

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp
☑ Yes ☐ On
☐ No ☑ Off
L_{up} = 3500 ft
V_u = 1320 veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 45.0 mph
Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{down} = ft
V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	4555	0.95	Level	9	0	0.957	0.95	5274
Ramp	995	0.95	Level	8	0	0.962	0.95	1147
UpStream	1320	0.95	Level	8	0	0.962	0.95	1521
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)
P_{FM} = 0.074 using Equation (Exhibit 25-5)
V_{12} = 393 pc/h
V_3 or V_{av34} 2440 pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No
If Yes, V_{12a} = 2109 pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	6421	Exhibit 25-7		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	3256	Exhibit 25-7	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$

D_R = 26.0 (pc/mi/ln)
LOS = C (Exhibit 25-4)

Speed Determination

M_S = 0.359 (Exibit 25-19)
S_R = 59.9 mph (Exhibit 25-19)
S_0 = 66.1 mph (Exhibit 25-19)
S = 62.8 mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = using Equation (Exhibit 25-12)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086 V_{12} - 0.009 L_D$

D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

D_s = (Exhibit 25-19)
S_R = mph (Exhibit 25-19)
S_0 = mph (Exhibit 25-19)
S = mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Northbound
Agency or Company	URS Corporation	Junction	CR 54 NB ON-RAMP
Date Performed	4/27/2010	Jurisdiction	Pasco County
Analysis Time Period	PM	Analysis Year	Build 2022

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp
☑ Yes ☐ On
☐ No ☑ Off
L_{up} = 3500 ft
V_u = 1835 veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 45.0 mph
Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{down} = ft
V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	5775	0.95	Level	9	0	0.957	0.95	6687
Ramp	1100	0.95	Level	8	0	0.962	0.95	1268
UpStream	1835	0.95	Level	8	0	0.962	0.95	2115
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = 1964.57 (Equation 25-2 or 25-3)
P_{FM} = 0.597 using Equation (Exhibit 25-5)
V_{12} = 3993 pc/h
V_3 or V_{av34} 2694 pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No
If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	7955	Exhibit 25-7		Yes

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	5261	Exhibit 25-7	4600:All	Yes

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$

D_R = 41.5 (pc/mi/ln)
LOS = F (Exhibit 25-4)

Speed Determination

M_S = 1.009 (Exibit 25-19)
S_R= 41.7 mph (Exhibit 25-19)
S_0= 61.1 mph (Exhibit 25-19)
S = 46.8 mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = using Equation (Exhibit 25-12)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086 V_{12} - 0.009 L_D$

D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

D_s = (Exhibit 25-19)
S_R= mph (Exhibit 25-19)
S_0= mph (Exhibit 25-19)
S = mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Southbound
Agency or Company	URS Corporation	Junction	CR 54 SB OFF-RAMP
Date Performed	4/26/2010	Jurisdiction	Pasco County
Analysis Time Period	AM	Analysis Year	Build 2022

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 45.0 mph

Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp
☑ Yes ☑ On
☐ No ☐ Off
L_{down} = 3500 ft
V_D = 1835 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	6875	0.95	Level	12	0	0.943	0.95	8075
Ramp	1100	0.95	Level	8	0	0.962	0.95	1268
UpStream								
DownStream	1835	0.95	Level	8	0	0.962	0.95	2115

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)
P_{FM} = using Equation (Exhibit 25-5)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$

D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)
S_R= mph (Exhibit 25-19)
S_0= mph (Exhibit 25-19)
S = mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = 0.436 using Equation (Exhibit 25-12)
V_{12} = 4236 pc/h
V_3 or V_{av34} 1919 pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No
If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	8075	Exhibit 25-14	9600	No
$V_{FO} = V_F - V_R$	6807	Exhibit 25-14	9600	No
V_R	1268	Exhibit 25-3	2100	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	4236	Exhibit 25-14	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086 V_{12} - 0.009 L_D$

D_R = 37.0 (pc/mi/ln)
LOS = E (Exhibit 25-4)

Speed Determination

D_s = 0.412 (Exhibit 25-19)
S_R= 58.5 mph (Exhibit 25-19)
S_0= 73.2 mph (Exhibit 25-19)
S = 64.7 mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Southbound
Agency or Company	URS Corporation	Junction	CR 54 SB OFF-RAMP
Date Performed	4/27/2010	Jurisdiction	Pasco County
Analysis Time Period	PM	Analysis Year	Build 2022

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 45.0 mph

Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp
☑ Yes ☑ On
☐ No ☐ Off
L_{down} = 3500 ft
V_D = 1320 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	5550	0.95	Level	12	0	0.943	0.95	6519
Ramp	995	0.95	Level	8	0	0.962	0.95	1147
UpStream								
DownStream	1320	0.95	Level	8	0	0.962	0.95	1521

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)
P_{FM} = using Equation (Exhibit 25-5)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$

D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)
S_R= mph (Exhibit 25-19)
S_0= mph (Exhibit 25-19)
S = mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = 0.544 using Equation (Exhibit 25-12)
V_{12} = 4071 pc/h
V_3 or V_{av34} 2448 pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No
If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	6519	Exhibit 25-14	7200	No
$V_{FO} = V_F - V_R$	5372	Exhibit 25-14	7200	No
V_R	1147	Exhibit 25-3	2100	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	4071	Exhibit 25-14	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086 V_{12} - 0.009 L_D$

D_R = 35.6 (pc/mi/ln)
LOS = E (Exhibit 25-4)

Speed Determination

D_s = 0.401 (Exhibit 25-19)
S_R= 58.8 mph (Exhibit 25-19)
S_0= 71.1 mph (Exhibit 25-19)
S = 62.9 mph (Exhibit 25-15)

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Major Merge Capacity Check: **Build 2022 AM Peak Hour**
I-75 SB On Ramp from CR 54

Assumed Major Merge Capacity per Segment (based on HCM 2000 Exhibit 25-7):

Segment Free-Flow Speed (mph)	Capacity (pc/h)			
	2-Lanes	3-Lanes	4-Lanes	5-Lanes
≥ 70	4800	7200	9600	12000
65	4700	7050	9400	11750
60	4600	6900	9200	11500
55	4500	6750	9000	11250

Assumed Ramp Roadway Capacity (based on HCM 2000 Exhibit 25-3):

Free-Flow Speed of Ramp (mph)	Capacity (pc/h)	
	Single-Lane Ramp	Two-Lane Ramp
≥ 55	2200	4400
> 40-50	2100	4100
> 30-40	2000	3800
≥ 20-30	1900	3500
< 20	1800	3200

Segment	Volume (veh/h)	FFS	Lanes	% Trucks	PHF	E_T	f_{HV}	f_P	Flow Rate (pc/h)	Capacity (pc/h)	Over Capacity?
Upstream	5775	70	3	9.0%	0.95	1.5	0.957	0.95	6687	7200	No
Merging	1835	45	2	8.0%	0.95	1.5	0.962	0.95	2115	4100	No
Downstream	7610	70	4	8.0%	0.95	1.5	0.962	0.95	8770	9600	No

Notes:
1. Volumes are converted to equivalent passenger cars per hour (pc/h) flow rates under base conditions during the peak 15 minutes of the hour using HCM 2000 Equation 25-1.

Major Merge Capacity Check: **Build 2022 PM Peak Hour**
I-75 SB On Ramp from CR 54

Assumed Major Merge Capacity per Segment (based on HCM 2000 Exhibit 25-7):

Segment Free-Flow Speed (mph)	Capacity (pc/h)			
	2-Lanes	3-Lanes	4-Lanes	5-Lanes
≥ 70	4800	7200	9600	12000
65	4700	7050	9400	11750
60	4600	6900	9200	11500
55	4500	6750	9000	11250

Assumed Ramp Roadway Capacity (based on HCM 2000 Exhibit 25-3):

Free-Flow Speed of Ramp (mph)	Capacity (pc/h)	
	Single-Lane Ramp	Two-Lane Ramp
≥ 55	2200	4400
> 40-50	2100	4100
> 30-40	2000	3800
≥ 20-30	1900	3500
< 20	1800	3200

Segment	Volume (veh/h)	FFS	Lanes	% Trucks	PHF	E_T	f_{HV}	f_P	Flow Rate (pc/h)	Capacity (pc/h)	Over Capacity?
Upstream	4555	70	3	9.0%	0.95	1.5	0.957	0.95	5275	7200	No
Merging	1320	45	2	8.0%	0.95	1.5	0.962	0.95	1522	4100	No
Downstream	5875	70	4	8.0%	0.95	1.5	0.962	0.95	6771	9600	No

Notes:
1. Volumes are converted to equivalent passenger cars per hour (pc/h) flow rates under base conditions during the peak 15 minutes of the hour using HCM 2000 Equation 25-1.

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Northbound
Agency or Company	URS Corporation	Junction	OVERPASS RD NB OFF-RAMP
Date Performed	4/23/2010	Jurisdiction	Pasco County
Analysis Time Period	AM	Analysis Year	Build 2022

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp	Terrain: Level	Downstream Adj Ramp
☐ Yes ☐ On		☑ Yes ☑ On
☑ No ☐ Off		☐ No ☐ Off
L_{up} = ft		L_{down} = 3500 ft
V_u = veh/h	S_{FF} = 70.0 mph S_{FR} = 45.0 mph Sketch (show lanes, L_A, L_D,V_R,V_f)	V_D = 590 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	5550	0.95	Level	12	0	0.943	0.95	6519
Ramp	1530	0.95	Level	2	0	0.990	0.95	1712
UpStream								
DownStream	590	0.95	Level	2	0	0.990	0.95	660

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = using Equation (Exhibit 25-5)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = 0.518 using Equation (Exhibit 25-12)

V_{12} = 4203 pc/h

V_3 or V_{av34} 2316 pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	6519	Exhibit 25-14	7200	No
$V_{FO} = V_F - V_R$	4807	Exhibit 25-14	7200	No
V_R	1712	Exhibit 25-3	2100	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	4203	Exhibit 25-14	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086 V_{12} - 0.009 L_D$

D_R = 35.9 (pc/mi/ln)

LOS = E (Exhibit 25-4)

Speed Determination

D_s = 0.452 (Exhibit 25-19)

S_R= 57.3 mph (Exhibit 25-19)

S_0= 71.7 mph (Exhibit 25-19)

S = 61.7 mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Northbound
Agency or Company	URS Corporation	Junction	Overpass Road NB OFF-RAMP
Date Performed	4/27/2010	Jurisdiction	Pasco County
Analysis Time Period	PM	Analysis Year	Build 2022

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 45.0 mph

Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp
☑ Yes ☑ On
☐ No ☐ Off
L_{down} = 3500 ft
V_D = 725 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	6875	0.95	Level	12	0	0.943	0.95	8075
Ramp	1835	0.95	Level	2	0	0.990	0.95	2054
UpStream								
DownStream	725	0.95	Level	2	0	0.990	0.95	811

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)
P_{FM} = using Equation (Exhibit 25-5)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)
S_R= mph (Exhibit 25-19)
S_0= mph (Exhibit 25-19)
S = mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = 0.464 using Equation (Exhibit 25-12)
V_{12} = 4846 pc/h
V_3 or V_{av34} 3229 pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No
If Yes,V_{12a} = 5375 pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	8075	Exhibit 25-14	7200	Yes
$V_{FO} = V_F - V_R$	6021	Exhibit 25-14	7200	No
V_R	2054	Exhibit 25-3	2100	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	4846	Exhibit 25-14	4400:All	Yes

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = 46.0 (pc/mi/ln)
LOS = F (Exhibit 25-4)

Speed Determination

D_s = 0.483 (Exhibit 25-19)
S_R= 56.5 mph (Exhibit 25-19)
S_0= 70.2 mph (Exhibit 25-19)
S = 60.4 mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Northbound
Agency or Company	URS Corporation	Junction	OVERPASS RD NB ON-RAMP
Date Performed	4/26/2010	Jurisdiction	Pasco County
Analysis Time Period	AM	Analysis Year	Build 2022

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp	Terrain: Level	Downstream Adj Ramp
☑ Yes ☐ On		☐ Yes ☐ On
☐ No ☑ Off		☑ No ☐ Off
L_{up} = 3500 ft		L_{down} = ft
V_u = 1530 veh/h	S_{FF} = 70.0 mph S_{FR} = 45.0 mph Sketch (show lanes, L_A, L_D, V_R, V_f)	V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	4020	0.95	Level	12	0	0.943	0.95	4722
Ramp	590	0.95	Level	2	0	0.990	0.95	660
UpStream	1530	0.95	Level	2	0	0.990	0.95	1712
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = 1325.15 (Equation 25-2 or 25-3)

P_{FM} = 0.591 using Equation (Exhibit 25-5)

V_{12} = 2793 pc/h

V_3 or V_{av34} 1929 pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes, V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	5382	Exhibit 25-7		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	3453	Exhibit 25-7	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$

D_R = 29.0 (pc/mi/ln)

LOS = D (Exhibit 25-4)

Speed Determination

M_S = 0.399 (Exibit 25-19)

S_R = 58.8 mph (Exhibit 25-19)

S_0 = 64.9 mph (Exhibit 25-19)

S = 60.9 mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = using Equation (Exhibit 25-12)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086 V_{12} - 0.009 L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

D_s = (Exhibit 25-19)

S_R = mph (Exhibit 25-19)

S_0 = mph (Exhibit 25-19)

S = mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Northbound
Agency or Company	URS Corporation	Junction	Overpass Road NB ON-RAMP
Date Performed	4/27/2010	Jurisdiction	Pasco County
Analysis Time Period	PM	Analysis Year	Build 2022

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp	Terrain: Level	Downstream Adj Ramp
☑ Yes ☐ On		☐ Yes ☐ On
☐ No ☑ Off		☑ No ☐ Off
L_{up} = 3500 ft		L_{down} = ft
V_u = 1835 veh/h	S_{FF} = 70.0 mph S_{FR} = 45.0 mph Sketch (show lanes, L_A, L_D, V_R, V_f)	V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	5040	0.95	Level	12	0	0.943	0.95	5920
Ramp	725	0.95	Level	2	0	0.990	0.95	811
UpStream	1835	0.95	Level	2	0	0.990	0.95	2054
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = 1613.83 (Equation 25-2 or 25-3)

P_{FM} = 0.591 using Equation (Exhibit 25-5)

V_{12} = 3502 pc/h

V_3 or V_{av34} 2418 pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes, V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	6731	Exhibit 25-7		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	4313	Exhibit 25-7	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$

D_R = 35.6 (pc/mi/ln)

LOS = E (Exhibit 25-4)

Speed Determination

M_S = 0.567 (Exibit 25-19)

S_R = 54.1 mph (Exhibit 25-19)

S_0 = 62.8 mph (Exhibit 25-19)

S = 56.9 mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = using Equation (Exhibit 25-12)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086 V_{12} - 0.009 L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

D_s = (Exhibit 25-19)

S_R = mph (Exhibit 25-19)

S_0 = mph (Exhibit 25-19)

S = mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Southbound
Agency or Company	URS Corporation	Junction	Overpass Road SB OFF-RAMP
Date Performed	4/27/2010	Jurisdiction	Pasco County
Analysis Time Period	AM	Analysis Year	Build 2022

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp	Terrain: Level	Downstream Adj Ramp
☐ Yes ☐ On		☑ Yes ☑ On
☑ No ☐ Off		☐ No ☐ Off
L_{up} = ft		L_{down} = 3500 ft
V_u = veh/h	S_{FF} = 70.0 mph S_{FR} = 45.0 mph Sketch (show lanes, L_A, L_D,V_R,V_f)	V_D = 1835 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	5765	0.95	Level	12	0	0.943	0.95	6771
Ramp	725	0.95	Level	2	0	0.990	0.95	811
UpStream								
DownStream	1835	0.95	Level	2	0	0.990	0.95	2054

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = using Equation (Exhibit 25-5)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = 0.553 using Equation (Exhibit 25-12)

V_{12} = 4109 pc/h

V_3 or V_{av34} 2662 pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	6771	Exhibit 25-14	7200	No
$V_{FO} = V_F - V_R$	5960	Exhibit 25-14	7200	No
V_R	811	Exhibit 25-3	2100	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	4109	Exhibit 25-14	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086 V_{12} - 0.009 L_D$

D_R = 35.1 (pc/mi/ln)

LOS = E (Exhibit 25-4)

Speed Determination

D_s = 0.371 (Exhibit 25-19)

S_R= 59.6 mph (Exhibit 25-19)

S_0= 70.3 mph (Exhibit 25-19)

S = 63.4 mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Southbound
Agency or Company	URS Corporation	Junction	Overpass Road SB OFF-RAMP
Date Performed	4/27/2010	Jurisdiction	Pasco County
Analysis Time Period	PM	Analysis Year	Build 2022

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 45.0 mph

Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp
☑ Yes ☑ On
☐ No ☐ Off
L_{down} = 3500 ft
V_D = 1530 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	4610	0.95	Level	12	0	0.943	0.95	5415
Ramp	590	0.95	Level	2	0	0.990	0.95	660
UpStream								
DownStream	1530	0.95	Level	2	0	0.990	0.95	1712

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)
P_{FM} = using Equation (Exhibit 25-5)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$

D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)
S_R= mph (Exhibit 25-19)
S_0= mph (Exhibit 25-19)
S = mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = 0.594 using Equation (Exhibit 25-12)
V_{12} = 3486 pc/h
V_3 or V_{av34} 1929 pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No
If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	5415	Exhibit 25-14	7200	No
$V_{FO} = V_F - V_R$	4755	Exhibit 25-14	7200	No
V_R	660	Exhibit 25-3	2100	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	3486	Exhibit 25-14	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086 V_{12} - 0.009 L_D$

D_R = 29.7 (pc/mi/ln)
LOS = D (Exhibit 25-4)

Speed Determination

D_s = 0.357 (Exhibit 25-19)
S_R= 60.0 mph (Exhibit 25-19)
S_0= 73.2 mph (Exhibit 25-19)
S = 64.1 mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Southbound
Agency or Company	URS Corporation	Junction	Overpass Road SB ON-RAMP
Date Performed	4/27/2010	Jurisdiction	Pasco County
Analysis Time Period	AM	Analysis Year	Build 2022

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp
☑ Yes ☐ On
☐ No ☑ Off
L_{up} = 3500 ft
V_u = 725 veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 45.0 mph
Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{down} = ft
V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	5040	0.95	Level	12	0	0.943	0.95	5920
Ramp	1835	0.95	Level	2	0	0.990	0.95	2054
UpStream	725	0.95	Level	2	0	0.990	0.95	811
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$
L_{EQ} = 1879.84 (Equation 25-2 or 25-3)
P_{FM} = 0.591 using Equation (Exhibit 25-5)
V_{12} = 3502 pc/h
V_3 or V_{av34} 2418 pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No
If Yes, V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	7974	Exhibit 25-7		Yes

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	5556	Exhibit 25-7	4600:All	Yes

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$
D_R = 44.7 (pc/mi/ln)
LOS = F (Exhibit 25-4)

Speed Determination

M_S = 1.285 (Exibit 25-19)
S_R = 34.0 mph (Exhibit 25-19)
S_0 = 62.8 mph (Exhibit 25-19)
S = 39.5 mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$
L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = using Equation (Exhibit 25-12)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086 V_{12} - 0.009 L_D$
D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

D_s = (Exhibit 25-19)
S_R = mph (Exhibit 25-19)
S_0 = mph (Exhibit 25-19)
S = mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Southbound
Agency or Company	URS Corporation	Junction	Overpass Road SB ON-RAMP
Date Performed	4/27/2010	Jurisdiction	Pasco County
Analysis Time Period	PM	Analysis Year	Build 2022

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp
☑ Yes ☐ On
☐ No ☑ Off
L_{up} = 3500 ft
V_u = 590 veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 45.0 mph
Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{down} = ft
V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	4020	0.95	Level	12	0	0.943	0.95	4722
Ramp	1530	0.95	Level	2	0	0.990	0.95	1712
UpStream	590	0.95	Level	2	0	0.990	0.95	660
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = 1550.28 (Equation 25-2 or 25-3)
P_{FM} = 0.591 using Equation (Exhibit 25-5)
V_{12} = 2793 pc/h
V_3 or V_{av34} 1929 pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No
If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	6434	Exhibit 25-7		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	4505	Exhibit 25-7	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 36.7 (pc/mi/ln)
LOS = E (Exhibit 25-4)

Speed Determination

M_S = 0.629 (Exibit 25-19)
S_R= 52.4 mph (Exhibit 25-19)
S_0= 64.9 mph (Exhibit 25-19)
S = 55.6 mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = using Equation (Exhibit 25-12)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

D_s = (Exhibit 25-19)
S_R= mph (Exhibit 25-19)
S_0= mph (Exhibit 25-19)
S = mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Northbound
Agency or Company	URS Corporation	Junction	SR 52 NB OFF-RAMP
Date Performed	4/23/2010	Jurisdiction	Pasco County
Analysis Time Period	AM	Analysis Year	Build 2022

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 45.0 mph

Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp
☑ Yes ☑ On
☐ No ☐ Off
L_{down} = 2000 ft
V_D = 450 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	4610	0.95	Level	12	0	0.943	0.95	5415
Ramp	1575	0.95	Level	8	0	0.962	0.95	1815
UpStream								
DownStream	450	0.95	Level	8	0	0.962	0.95	519

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)
P_{FM} = using Equation (Exhibit 25-5)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)
S_R= mph (Exhibit 25-19)
S_0= mph (Exhibit 25-19)
S = mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = 0.541 using Equation (Exhibit 25-12)
V_{12} = 3763 pc/h
V_3 or V_{av34} 1652 pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No
If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	5415	Exhibit 25-14	7200	No
$V_{FO} = V_F - V_R$	3600	Exhibit 25-14	7200	No
V_R	1815	Exhibit 25-3	2100	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	3763	Exhibit 25-14	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = 32.9 (pc/mi/ln)
LOS = D (Exhibit 25-4)

Speed Determination

D_s = 0.461 (Exhibit 25-19)
S_R= 57.1 mph (Exhibit 25-19)
S_0= 74.2 mph (Exhibit 25-19)
S = 61.4 mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Northbound
Agency or Company	URS Corporation	Junction	SR 52 NB OFF-RAMP
Date Performed	4/27/2010	Jurisdiction	Pasco County
Analysis Time Period	PM	Analysis Year	Build 2022

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 45.0 mph

Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp
☑ Yes ☑ On
☐ No ☐ Off
L_{down} = 2000 ft
V_D = 550 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	5765	0.95	Level	12	0	0.943	0.95	6771
Ramp	2045	0.95	Level	8	0	0.962	0.95	2357
UpStream								
DownStream	550	0.95	Level	8	0	0.962	0.95	634

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = using Equation (Exhibit 25-5)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = 0.482 using Equation (Exhibit 25-12)

V_{12} = 4486 pc/h

V_3 or V_{av34} 2285 pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	6771	Exhibit 25-14	7200	No
$V_{FO} = V_F - V_R$	4414	Exhibit 25-14	7200	No
V_R	2357	Exhibit 25-3	2100	Yes

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	4486	Exhibit 25-14	4400:All	Yes

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086 V_{12} - 0.009 L_D$

D_R = 39.1 (pc/mi/ln)

LOS = F (Exhibit 25-4)

Speed Determination

D_s = 0.510 (Exhibit 25-19)

S_R= 55.7 mph (Exhibit 25-19)

S_0= 71.8 mph (Exhibit 25-19)

S = 60.3 mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Northbound
Agency or Company	URS Corporation	Junction	SR 52 NB ON-RAMP
Date Performed	4/26/2010	Jurisdiction	Pasco County
Analysis Time Period	AM	Analysis Year	Build 2022

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp

☑ Yes ☐ On

☐ No ☑ Off

L_{up} = 2000 ft

V_u = 1575 veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 45.0 mph

Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	3035	0.95	Level	12	0	0.943	0.95	3565
Ramp	450	0.95	Level	8	0	0.962	0.95	519
UpStream	1575	0.95	Level	8	0	0.962	0.95	1815
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = 1136.18 (Equation 25-2 or 25-3)

P_{FM} = 0.597 using Equation (Exhibit 25-5)

V_{12} = 2129 pc/h

V_3 or V_{av34} 1436 pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	4084	Exhibit 25-7		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	2648	Exhibit 25-7	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 21.5 (pc/mi/ln)

LOS = C (Exhibit 25-4)

Speed Determination

M_S = 0.313 (Exibit 25-19)

S_R= 61.2 mph (Exhibit 25-19)

S_0= 66.6 mph (Exhibit 25-19)

S = 63.0 mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = using Equation (Exhibit 25-12)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

D_s = (Exhibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Northbound
Agency or Company	URS Corporation	Junction	SR 52 NB ON-RAMP
Date Performed	4/27/2010	Jurisdiction	Pasco County
Analysis Time Period	PM	Analysis Year	Build 2022

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp
☑ Yes ☐ On
☐ No ☑ Off
L_{up} = 2000 ft
V_u = 2045 veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 45.0 mph
Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{down} = ft
V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	3720	0.95	Level	12	0	0.943	0.95	4369
Ramp	550	0.95	Level	8	0	0.962	0.95	634
UpStream	2045	0.95	Level	8	0	0.962	0.95	2357
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = 1332.84 (Equation 25-2 or 25-3)
P_{FM} = 0.597 using Equation (Exhibit 25-5)
V_{12} = 2609 pc/h
V_3 or V_{av34} 1760 pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No
If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	5003	Exhibit 25-7		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	3243	Exhibit 25-7	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$

D_R = 26.1 (pc/mi/ln)
LOS = C (Exhibit 25-4)

Speed Determination

M_S = 0.358 (Exibit 25-19)
S_R= 60.0 mph (Exhibit 25-19)
S_0= 65.5 mph (Exhibit 25-19)
S = 61.8 mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = using Equation (Exhibit 25-12)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086 V_{12} - 0.009 L_D$

D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

D_s = (Exhibit 25-19)
S_R= mph (Exhibit 25-19)
S_0= mph (Exhibit 25-19)
S = mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Southbound
Agency or Company	URS Corporation	Junction	SR 52 SB OFF-RAMP
Date Performed	4/23/2010	Jurisdiction	Pasco County
Analysis Time Period	AM	Analysis Year	Build 2022

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 45.0 mph

Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp
☑ Yes ☑ On
☐ No ☐ Off
L_{down} = 2000 ft
V_D = 2045 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	4270	0.95	Level	15	0	0.930	0.95	5086
Ramp	550	0.95	Level	8	0	0.962	0.95	634
UpStream								
DownStream	2045	0.95	Level	8	0	0.962	0.95	2357

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)
P_{FM} = using Equation (Exhibit 25-5)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)
S_R= mph (Exhibit 25-19)
S_0= mph (Exhibit 25-19)
S = mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = 0.604 using Equation (Exhibit 25-12)
V_{12} = 3322 pc/h
V_3 or V_{av34} 1764 pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No
If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	5086	Exhibit 25-14	7200	No
$V_{FO} = V_F - V_R$	4452	Exhibit 25-14	7200	No
V_R	634	Exhibit 25-3	2100	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	3322	Exhibit 25-14	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = 29.1 (pc/mi/ln)
LOS = D (Exhibit 25-4)

Speed Determination

D_s = 0.355 (Exhibit 25-19)
S_R= 60.1 mph (Exhibit 25-19)
S_0= 73.8 mph (Exhibit 25-19)
S = 64.2 mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Southbound
Agency or Company	URS Corporation	Junction	SR 52 SB OFF-RAMP
Date Performed	4/27/2010	Jurisdiction	Pasco County
Analysis Time Period	PM	Analysis Year	Build 2022

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 45.0 mph

Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp
☑ Yes ☑ On
☐ No ☐ Off
L_{down} = 2000 ft
V_D = 1575 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	3485	0.95	Level	15	0	0.930	0.95	4151
Ramp	450	0.95	Level	8	0	0.962	0.95	519
UpStream								
DownStream	1575	0.95	Level	8	0	0.962	0.95	1815

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)
P_{FM} = using Equation (Exhibit 25-5)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$

D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)
S_R= mph (Exhibit 25-19)
S_0= mph (Exhibit 25-19)
S = mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = 0.632 using Equation (Exhibit 25-12)
V_{12} = 2816 pc/h
V_3 or V_{av34} 1335 pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No
If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	4151	Exhibit 25-14	7200	No
$V_{FO} = V_F - V_R$	3632	Exhibit 25-14	7200	No
V_R	519	Exhibit 25-3	2100	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	2816	Exhibit 25-14	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086 V_{12} - 0.009 L_D$

D_R = 24.8 (pc/mi/ln)
LOS = C (Exhibit 25-4)

Speed Determination

D_s = 0.345 (Exhibit 25-19)
S_R= 60.3 mph (Exhibit 25-19)
S_0= 75.5 mph (Exhibit 25-19)
S = 64.5 mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Southbound
Agency or Company	URS Corporation	Junction	SR 52 SB ON-RAMP
Date Performed	4/26/2010	Jurisdiction	Pasco County
Analysis Time Period	AM	Analysis Year	Build 2022

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp
☑ Yes ☐ On
☐ No ☑ Off
L_{up} = 2000 ft
V_u = 550 veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 45.0 mph
Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{down} = ft
V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	3720	0.95	Level	15	0	0.930	0.95	4431
Ramp	2045	0.95	Level	8	0	0.962	0.95	2357
UpStream	550	0.95	Level	8	0	0.962	0.95	634
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = 1714.83 (Equation 25-2 or 25-3)
P_{FM} = 0.597 using Equation (Exhibit 25-5)
V_{12} = 2646 pc/h
V_3 or V_{av34} 1785 pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No
If Yes, V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	6788	Exhibit 25-7		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	5003	Exhibit 25-7	4600:All	Yes

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$

D_R = 39.0 (pc/mi/ln)
LOS = E (Exhibit 25-4)

Speed Determination

M_S = 0.839 (Exibit 25-19)
S_R = 46.5 mph (Exhibit 25-19)
S_0 = 65.4 mph (Exhibit 25-19)
S = 50.3 mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = using Equation (Exhibit 25-12)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086 V_{12} - 0.009 L_D$

D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

D_s = (Exhibit 25-19)
S_R = mph (Exhibit 25-19)
S_0 = mph (Exhibit 25-19)
S = mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Southbound
Agency or Company	URS Corporation	Junction	SR 52 SB ON-RAMP
Date Performed	4/27/2010	Jurisdiction	Pasco County
Analysis Time Period	PM	Analysis Year	Build 2022

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp
☑ Yes ☐ On
☐ No ☑ Off
L_{up} = 2000 ft
V_u = 450 veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 45.0 mph
Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{down} = ft
V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	3035	0.95	Level	15	0	0.930	0.95	3615
Ramp	1575	0.95	Level	8	0	0.962	0.95	1815
UpStream	450	0.95	Level	8	0	0.962	0.95	519
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = 1424.22 (Equation 25-2 or 25-3)
P_{FM} = 0.597 using Equation (Exhibit 25-5)
V_{12} = 2159 pc/h
V_3 or V_{av34} 1456 pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No
If Yes, V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	5430	Exhibit 25-7		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	3974	Exhibit 25-7	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$

D_R = 31.2 (pc/mi/ln)
LOS = D (Exhibit 25-4)

Speed Determination

M_S = 0.465 (Exibit 25-19)
S_R = 57.0 mph (Exhibit 25-19)
S_0 = 66.6 mph (Exhibit 25-19)
S = 59.3 mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = using Equation (Exhibit 25-12)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086 V_{12} - 0.009 L_D$

D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

D_s = (Exhibit 25-19)
S_R = mph (Exhibit 25-19)
S_0 = mph (Exhibit 25-19)
S = mph (Exhibit 25-15)

2022 Build Intersection Analysis Results

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 NB Ramps at SR 56*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/18/2010*	Jurisdiction	*FDOT*
Time Period	*AM*	Analysis Year	*Build 2022*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	*1*	*2*			*4*		*2*					
Lane Group	*L*	*T*			*T*		*L*					
Volume (vph)	*410*	*1425*			*2670*		*1650*					
% Heavy Vehicles	*3*	*3*			*3*		*8*					
PHF	*0.95*	*0.95*			*0.95*		*0.95*					
Pretimed/Actuated (P/A)	*A*	*A*			*A*		*A*					
Startup Lost Time	*2.0*	*2.0*			*2.0*		*2.0*					
Extension of Effective Green	*3.0*	*3.0*			*3.0*		*3.0*					
Arrival Type	*3*	*3*			*4*		*3*					
Unit Extension	*3.0*	*3.0*			*3.0*		*3.0*					
Ped/Bike/RTOR Volume	*0*	*0*		*0*	*0*		*0*	*0*		*0*	*0*	
Lane Width	*12.0*	*12.0*			*12.0*		*12.0*					
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour	*0*	*0*			*0*		*0*					
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	EB Only	Thru Only	03	04	NB Only	06	07	08
Timing	G = *17.5*	G = *48.8*	G =	G =	G = *48.7*	G =	G =	G =
	Y = *5*	Y = *5*	Y =	Y =	Y = *5*	Y =	Y =	Y =
Duration of Analysis (hrs) = *0.25*						Cycle Length C = *130.0*		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	*432*	*1500*			*2811*		*1737*					
Lane Group Capacity	*249*	*2052*			*2827*		*1278*					
v/c Ratio	*1.73*	*0.73*			*0.99*		*1.36*					
Green Ratio	*0.14*	*0.56*			*0.38*		*0.38*					
Uniform Delay d_1	*55.8*	*21.6*			*40.0*		*40.1*					
Delay Factor k	*0.50*	*0.29*			*0.50*		*0.50*					
Incremental Delay d_2	*347.0*	*1.4*			*15.6*		*166.8*					
PF Factor	*1.000*	*1.000*			*0.912*		*1.000*					
Control Delay	*402.7*	*22.9*			*52.0*		*206.9*					
Lane Group LOS	*F*	*C*			*D*		*F*					
Approach Delay	*107.9*			*52.0*			*206.9*					
Approach LOS	*F*			*D*			*F*					
Intersection Delay	*110.2*			Intersection LOS			*F*					

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group	*L*	*T*			*T*		*L*					
Initial Queue/Lane	*0.0*	*0.0*			*0.0*		*0.0*					
Flow Rate/Lane Group	*432*	*1500*			*2811*		*1737*					
Satflow/Lane	*1752*	*1844*			*1844*		*1672*					
Capacity/Lane Group	*249*	*2052*			*2827*		*1278*					
Flow Ratio	*0.2*	*0.4*			*0.4*		*0.5*					
v/c Ratio	*1.73*	*0.73*			*0.99*		*1.36*					
I Factor	*1.000*	*1.000*			*1.000*		*1.000*					
Arrival Type	*3*	*3*			*4*		*3*					
Platoon Ratio	*1.00*	*1.00*			*1.33*		*1.00*					
PF Factor	*1.00*	*1.00*			*1.00*		*1.00*					
Q_1	*15.6*	*20.3*			*25.2*		*31.3*					
k_B	*0.4*	*0.9*			*0.7*		*0.7*					
Q_2	*23.7*	*2.2*			*7.6*		*30.9*					
Q Average	*39.3*	*22.5*			*32.8*		*62.3*					
Percentile Back of Queue (95th percentile)												
$f_{B\%}$	*1.6*	*1.7*			*1.6*		*1.5*					
Back of Queue	*61.6*	*37.6*			*52.3*		*94.6*					
Queue Storage Ratio												
Queue Spacing	*25.0*	*25.0*			*25.0*		*25.0*					
Queue Storage	*650*	*0*			*0*		*1100*					
Average Queue Storage Ratio	*1.5*						*1.4*					
95% Queue Storage Ratio	*2.4*						*2.1*					

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 NB Ramps at SR 56*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/18/2010*	Jurisdiction	*FDOT*
Time Period	*PM*	Analysis Year	*Build 2022*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	*1*	*2*			*4*		*2*					
Lane Group	*L*	*T*			*T*		*L*					
Volume (vph)	*305*	*1370*			*2115*		*1995*					
% Heavy Vehicles	*3*	*3*			*3*		*8*					
PHF	*0.95*	*0.95*			*0.95*		*0.95*					
Pretimed/Actuated (P/A)	*A*	*A*			*A*		*A*					
Startup Lost Time	*2.0*	*2.0*			*2.0*		*2.0*					
Extension of Effective Green	*3.0*	*3.0*			*3.0*		*3.0*					
Arrival Type	*3*	*3*			*4*		*3*					
Unit Extension	*3.0*	*3.0*			*3.0*		*3.0*					
Ped/Bike/RTOR Volume	*0*	*0*		*0*	*0*		*0*	*0*		*0*	*0*	
Lane Width	*12.0*	*12.0*			*12.0*		*12.0*					
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour	*0*	*0*			*0*		*0*					
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	EB Only	Thru Only	03	04	NB Only	06	07	08
Timing	G = *15.4*	G = *61.3*	G =	G =	G = *78.3*	G =	G =	G =
	Y = *5*	Y = *5*	Y =	Y =	Y = *5*	Y =	Y =	Y =
Duration of Analysis (hrs) = *0.25*						Cycle Length C = *170.0*		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	*321*	*1442*			*2226*		*2100*					
Lane Group Capacity	*169*	*1708*			*2079*		*1514*					
v/c Ratio	*1.90*	*0.84*			*1.07*		*1.39*					
Green Ratio	*0.10*	*0.49*			*0.37*		*0.47*					
Uniform Delay d_1	*76.8*	*38.0*			*53.8*		*45.3*					
Delay Factor k	*0.50*	*0.38*			*0.50*		*0.50*					
Incremental Delay d_2	*426.1*	*4.1*			*41.8*		*178.3*					
PF Factor	*1.000*	*1.000*			*0.928*		*1.000*					
Control Delay	*502.9*	*42.1*			*91.8*		*223.7*					
Lane Group LOS	*F*	*D*			*F*		*F*					
Approach Delay	*126.0*			*91.8*			*223.7*					
Approach LOS	*F*			*F*			*F*					
Intersection Delay	*147.2*			Intersection LOS			*F*					

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group	*L*	*T*			*T*		*L*					
Initial Queue/Lane	*0.0*	*0.0*			*0.0*		*0.0*					
Flow Rate/Lane Group	*321*	*1442*			*2226*		*2100*					
Satflow/Lane	*1752*	*1844*			*1844*		*1671*					
Capacity/Lane Group	*169*	*1708*			*2079*		*1514*					
Flow Ratio	*0.2*	*0.4*			*0.4*		*0.6*					
v/c Ratio	*1.90*	*0.84*			*1.07*		*1.39*					
I Factor	*1.000*	*1.000*			*1.000*		*1.000*					
Arrival Type	*3*	*3*			*4*		*3*					
Platoon Ratio	*1.00*	*1.00*			*1.33*		*1.00*					
PF Factor	*1.00*	*1.00*			*1.00*		*1.00*					
Q_1	*15.2*	*31.1*			*34.1*		*51.0*					
k_B	*0.3*	*0.9*			*0.8*		*0.9*					
Q_2	*19.7*	*4.1*			*12.0*		*40.6*					
Q Average	*34.9*	*35.3*			*46.2*		*91.7*					
Percentile Back of Queue (95th percentile)												
$f_{B\%}$	*1.6*	*1.6*			*1.5*		*1.5*					
Back of Queue	*55.3*	*55.9*			*71.4*		*138*					
Queue Storage Ratio												
Queue Spacing	*25.0*	*25.0*			*25.0*		*25.0*					
Queue Storage	*650*	*0*			*0*		*1100*					
Average Queue Storage Ratio	*1.3*						*2.1*					
95% Queue Storage Ratio	*2.1*						*3.1*					

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 SB Ramps at SR 56*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/18/2010*	Jurisdiction	*FDOT*
Time Period	*AM*	Analysis Year	*Build 2022*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes		*2*		*2*	*2*					*1*		
Lane Group		*T*		*L*	*T*					*L*		
Volume (vph)		*1355*		*1545*	*2775*					*480*		
% Heavy Vehicles		*3*		*3*	*3*					*8*		
PHF		*0.95*		*0.95*	*0.95*					*0.95*		
Pretimed/Actuated (P/A)		*A*		*A*	*A*					*A*		
Startup Lost Time		*2.0*		*2.0*	*2.0*					*2.0*		
Extension of Effective Green		*3.0*		*3.0*	*3.0*					*3.0*		
Arrival Type		*3*		*4*	*4*					*3*		
Unit Extension		*3.0*		*3.0*	*3.0*					*3.0*		
Ped/Bike/RTOR Volume	*0*	*0*		*0*	*0*		*0*	*0*		*0*	*0*	
Lane Width		*12.0*		*12.0*	*12.0*					*12.0*		
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour		*0*		*0*	*0*					*0*		
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	WB Only	Thru Only	03	04	SB Only	06	07	08
Timing	G = *65.5*	G = *56.1*	G =	G =	G = *23.4*	G =	G =	G =
	Y = *5*	Y = *5*	Y =	Y =	Y = *5*	Y =	Y =	Y =

Duration of Analysis (hrs) = *0.25* | Cycle Length C = *160.0*

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate		*1426*		*1626*	*2921*					*505*		
Lane Group Capacity		*1317*		*1457*	*2942*					*255*		
v/c Ratio		*1.08*		*1.12*	*0.99*					*1.98*		
Green Ratio		*0.36*		*0.42*	*0.80*					*0.15*		
Uniform Delay d_1		*51.5*		*46.8*	*15.8*					*67.8*		
Delay Factor k		*0.50*		*0.50*	*0.49*					*0.50*		
Incremental Delay d_2		*50.4*		*62.2*	*14.9*					*455.0*		
PF Factor		*1.000*		*0.877*	*0.284*					*1.000*		
Control Delay		*101.9*		*103.2*	*19.4*					*522.8*		
Lane Group LOS		*F*		*F*	*B*					*F*		
Approach Delay	*101.9*			*49.4*						*522.8*		
Approach LOS	*F*			*D*						*F*		
Intersection Delay	*97.8*			Intersection LOS						*F*		

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BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group		*T*		*L*	*T*					*L*		
Initial Queue/Lane		*0.0*		*0.0*	*0.0*					*0.0*		
Flow Rate/Lane Group		*1426*		*1626*	*2921*					*505*		
Satflow/Lane		*1844*		*1752*	*1844*					*1671*		
Capacity/Lane Group		*1317*		*1457*	*2942*					*255*		
Flow Ratio		*0.4*		*0.5*	*0.8*					*0.3*		
v/c Ratio		*1.08*		*1.12*	*0.99*					*1.98*		
I Factor		*1.000*		*1.000*	*1.000*					*1.000*		
Arrival Type		*3*		*4*	*4*					*3*		
Platoon Ratio		*1.00*		*1.33*	*1.19*					*1.00*		
PF Factor		*1.00*		*1.00*	*0.90*					*1.00*		
Q_1		*31.7*		*36.1*	*57.0*					*22.4*		
k_B		*0.8*		*0.8*	*1.2*					*0.4*		
Q_2		*12.3*		*15.8*	*14.3*					*32.1*		
Q Average		*44.0*		*51.9*	*71.3*					*54.5*		
Percentile Back of Queue (95th percentile)												
$f_{B\%}$		*1.6*		*1.5*	*1.5*					*1.5*		
Back of Queue		*68.3*		*79.6*	*108*					*83.4*		
Queue Storage Ratio												
Queue Spacing		*25.0*		*25.0*	*25.0*					*25.0*		
Queue Storage		*0*		*1500*	*0*					*700*		
Average Queue Storage Ratio				*0.9*						*1.9*		
95% Queue Storage Ratio				*1.3*						*3.0*		

HCS+™ Version 5.5 Generated: 6/7/2011 12:34 PM

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 SB Ramps at SR 56*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/18/2010*	Jurisdiction	*FDOT*
Time Period	*PM*	Analysis Year	*Build 2022*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes		*2*		*2*	*2*					*1*		
Lane Group		*T*		*L*	*T*					*L*		
Volume (vph)		*1430*		*1170*	*2940*					*245*		
% Heavy Vehicles		*3*		*3*	*3*					*8*		
PHF		*0.95*		*0.95*	*0.95*					*0.95*		
Pretimed/Actuated (P/A)		*A*		*A*	*A*					*A*		
Startup Lost Time		*2.0*		*2.0*	*2.0*					*2.0*		
Extension of Effective Green		*3.0*		*3.0*	*3.0*					*3.0*		
Arrival Type		*3*		*4*	*4*					*3*		
Unit Extension		*3.0*		*3.0*	*3.0*					*3.0*		
Ped/Bike/RTOR Volume	*0*	*0*		*0*	*0*		*0*	*0*		*0*	*0*	
Lane Width		*12.0*		*12.0*	*12.0*					*12.0*		
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour		*0*		*0*	*0*					*0*		
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	WB Only	Thru Only	03	04	SB Only	06	07	08
Timing	G = *61.5*	G = *70.9*	G =	G =	G = *12.6*	G =	G =	G =
	Y = *5*	Y = *5*	Y =	Y =	Y = *5*	Y =	Y =	Y =

Duration of Analysis (hrs) = *0.25* | Cycle Length C = *160.0*

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate		*1505*		*1232*	*3095*					*258*		
Lane Group Capacity		*1578*		*1329*	*3038*					*142*		
v/c Ratio		*0.95*		*0.93*	*1.02*					*1.82*		
Green Ratio		*0.45*		*0.39*	*0.86*					*0.09*		
Uniform Delay d_1		*42.4*		*46.6*	*10.8*					*73.2*		
Delay Factor k		*0.46*		*0.44*	*0.50*					*0.50*		
Incremental Delay d_2		*13.3*		*11.3*	*21.2*					*393.9*		
PF Factor		*1.000*		*0.904*	*0.575*					*1.000*		
Control Delay		*55.8*		*53.4*	*27.4*					*467.1*		
Lane Group LOS		*E*		*D*	*C*					*F*		
Approach Delay	*55.8*			*34.8*						*467.1*		
Approach LOS	*E*			*C*						*F*		
Intersection Delay	*58.3*			Intersection LOS						*E*		

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group		*T*		*L*	*T*					*L*		
Initial Queue/Lane		*0.0*		*0.0*	*0.0*					*0.0*		
Flow Rate/Lane Group		*1505*		*1232*	*3095*					*258*		
Satflow/Lane		*1844*		*1752*	*1844*					*1671*		
Capacity/Lane Group		*1578*		*1329*	*3038*					*142*		
Flow Ratio		*0.4*		*0.4*	*0.9*					*0.2*		
v/c Ratio		*0.95*		*0.93*	*1.02*					*1.82*		
I Factor		*1.000*		*1.000*	*1.000*					*1.000*		
Arrival Type		*3*		*4*	*4*					*3*		
Platoon Ratio		*1.00*		*1.33*	*1.08*					*1.00*		
PF Factor		*1.00*		*0.97*	*1.00*					*1.00*		
Q_1		*33.8*		*26.1*	*72.2*					*11.5*		
k_B		*0.9*		*0.8*	*1.3*					*0.3*		
Q_2		*7.2*		*5.3*	*18.2*					*15.1*		
Q Average		*41.0*		*31.4*	*90.4*					*26.6*		
Percentile Back of Queue (95th percentile)												
$f_{B\%}$		*1.6*		*1.6*	*1.5*					*1.6*		
Back of Queue		*64.1*		*50.4*	*136*					*43.6*		
Queue Storage Ratio												
Queue Spacing		*25.0*		*25.0*	*25.0*					*25.0*		
Queue Storage		*0*		*1500*	*0*					*700*		
Average Queue Storage Ratio				*0.5*						*1.0*		
95% Queue Storage Ratio				*0.8*						*1.6*		

HCS+™ Version 5.5 Generated: 6/7/2011 1:05 PM

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 NB Ramps at SR 54*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/20/2010*	Jurisdiction	*FDOT*
Time Period	*AM*	Analysis Year	*Build 2022*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	*1*	*3*			*5*	*1*	*2*					
Lane Group	*L*	*T*			*T*	*R*	*L*					
Volume (vph)	*510*	*1570*			*1985*	*485*	*640*					
% Heavy Vehicles	*2*	*2*			*2*	*2*	*8*					
PHF	*0.95*	*0.95*			*0.95*	*0.95*	*0.95*					
Pretimed/Actuated (P/A)	*A*	*A*			*A*	*A*	*A*					
Startup Lost Time	*2.0*	*2.0*			*2.0*	*2.0*	*2.0*					
Extension of Effective Green	*3.0*	*3.0*			*3.0*	*3.0*	*3.0*					
Arrival Type	*3*	*3*			*4*	*4*	*3*					
Unit Extension	*3.0*	*3.0*			*3.0*	*3.0*	*3.0*					
Ped/Bike/RTOR Volume	*0*	*0*		*0*	*0*	*0*	*0*	*0*		*0*	*0*	
Lane Width	*12.0*	*12.0*			*12.0*	*12.0*	*12.0*					
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour	*0*	*0*			*0*	*0*	*0*					
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	EB Only	Thru & RT	03	04	NB Only	06	07	08
Timing	G = *20.3*	G = *20.6*	G =	G =	G = *14.1*	G =	G =	G =
	Y = *5*	Y = *5*	Y =	Y =	Y = *5*	Y =	Y =	Y =
Duration of Analysis (hrs) = *0.25*						Cycle Length C = *70.0*		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	*537*	*1653*			*2089*	*511*	*674*					
Lane Group Capacity	*539*	*3400*			*2354*	*920*	*721*					
v/c Ratio	*1.00*	*0.49*			*0.89*	*0.56*	*0.93*					
Green Ratio	*0.30*	*0.67*			*0.31*	*0.58*	*0.22*					
Uniform Delay d_1	*24.3*	*5.7*			*23.0*	*9.1*	*27.0*					
Delay Factor k	*0.50*	*0.11*			*0.41*	*0.15*	*0.45*					
Incremental Delay d_2	*37.8*	*0.1*			*4.6*	*0.7*	*19.4*					
PF Factor	*1.000*	*1.000*			*0.979*	*0.618*	*1.000*					
Control Delay	*62.1*	*5.8*			*27.1*	*6.3*	*46.3*					
Lane Group LOS	*E*	*A*			*C*	*A*	*D*					
Approach Delay	*19.6*			*23.0*			*46.3*					
Approach LOS	*B*			*C*			*D*					
Intersection Delay	*24.5*			Intersection LOS						*C*		

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BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group	*L*	*T*			*T*	*R*	*L*					
Initial Queue/Lane	*0.0*	*0.0*			*0.0*	*0.0*	*0.0*					
Flow Rate/Lane Group	*537*	*1653*			*2089*	*511*	*674*					
Satflow/Lane	*1770*	*1862*			*1862*	*1583*	*1672*					
Capacity/Lane Group	*539*	*3400*			*2354*	*920*	*721*					
Flow Ratio	*0.3*	*0.3*			*0.3*	*0.3*	*0.2*					
v/c Ratio	*1.00*	*0.49*			*0.89*	*0.56*	*0.93*					
I Factor	*1.000*	*1.000*			*1.000*	*1.000*	*1.000*					
Arrival Type	*3*	*3*			*4*	*4*	*3*					
Platoon Ratio	*1.00*	*1.00*			*1.33*	*1.33*	*1.00*					
PF Factor	*1.00*	*1.00*			*0.97*	*0.64*	*1.00*					
Q_1	*10.4*	*5.8*			*9.2*	*3.9*	*6.4*					
k_B	*0.4*	*0.7*			*0.4*	*0.6*	*0.3*					
Q_2	*5.1*	*0.6*			*2.6*	*0.7*	*2.5*					
Q Average	*15.5*	*6.4*			*11.8*	*4.6*	*9.0*					
Percentile Back of Queue (95th percentile)												
$f_{B\%}$	*1.8*	*1.9*			*1.8*	*2.0*	*1.9*					
Back of Queue	*27.2*	*12.3*			*21.3*	*9.1*	*16.7*					
Queue Storage Ratio												
Queue Spacing	*25.0*	*25.0*			*25.0*	*25.0*	*25.0*					
Queue Storage	*1000*	*0*			*0*	*500*	*1100*					
Average Queue Storage Ratio	*0.4*					*0.2*	*0.2*					
95% Queue Storage Ratio	*0.7*					*0.5*	*0.4*					

HCS+™ Version 5.5 Generated: 6/7/2011 12:21 PM

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 NB Ramps at CR 54*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/20/2010*	Jurisdiction	*FDOT*
Time Period	*PM*	Analysis Year	*Build 2022*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	*1*	*3*			*5*	*1*	*2*					
Lane Group	*L*	*T*			*T*	*R*	*L*					
Volume (vph)	*480*	*1435*			*1630*	*620*	*800*					
% Heavy Vehicles	*2*	*2*			*2*	*2*	*8*					
PHF	*0.95*	*0.95*			*0.95*	*0.95*	*0.95*					
Pretimed/Actuated (P/A)	*A*	*A*			*A*	*A*	*A*					
Startup Lost Time	*2.0*	*2.0*			*2.0*	*2.0*	*2.0*					
Extension of Effective Green	*2.0*	*2.0*			*2.0*	*2.0*	*2.0*					
Arrival Type	*3*	*3*			*4*	*4*	*4*					
Unit Extension	*3.0*	*3.0*			*3.0*	*3.0*	*3.0*					
Ped/Bike/RTOR Volume	*0*	*0*		*0*	*0*	*0*	*0*	*0*		*0*	*0*	
Lane Width	*12.0*	*12.0*			*12.0*	*12.0*	*12.0*					
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour	*0*	*0*			*0*	*0*	*0*					
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	EB Only	Thru & RT	03	04	NB Only	06	07	08
Timing	G = *19.6*	G = *16.3*	G =	G =	G = *19.1*	G =	G =	G =
	Y = *5*	Y = *5*	Y =	Y =	Y = *5*	Y =	Y =	Y =
Duration of Analysis (hrs) = *0.25*						Cycle Length C = *70.0*		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	*505*	*1511*			*1716*	*653*	*842*					
Lane Group Capacity	*496*	*2965*			*2013*	*914*	*912*					
v/c Ratio	*1.02*	*0.51*			*0.85*	*0.71*	*0.92*					
Green Ratio	*0.28*	*0.58*			*0.23*	*0.58*	*0.27*					
Uniform Delay d_1	*25.2*	*8.6*			*25.7*	*10.6*	*24.7*					
Delay Factor k	*0.50*	*0.12*			*0.38*	*0.28*	*0.44*					
Incremental Delay d_2	*45.1*	*0.1*			*3.8*	*2.7*	*14.7*					
PF Factor	*1.000*	*1.000*			*1.000*	*0.627*	*1.000*					
Control Delay	*70.3*	*8.8*			*29.5*	*9.4*	*39.4*					
Lane Group LOS	*E*	*A*			*C*	*A*	*D*					
Approach Delay	*24.2*			*23.9*			*39.4*					
Approach LOS	*C*			*C*			*D*					
Intersection Delay	*26.5*			Intersection LOS						*C*		

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group	*L*	*T*			*T*	*R*	*L*					
Initial Queue/Lane	*0.0*	*0.0*			*0.0*	*0.0*	*0.0*					
Flow Rate/Lane Group	*505*	*1511*			*1716*	*653*	*842*					
Satflow/Lane	*1770*	*1862*			*1862*	*1583*	*1672*					
Capacity/Lane Group	*496*	*2965*			*2013*	*914*	*912*					
Flow Ratio	*0.3*	*0.3*			*0.2*	*0.4*	*0.3*					
v/c Ratio	*1.02*	*0.51*			*0.85*	*0.71*	*0.92*					
I Factor	*1.000*	*1.000*			*1.000*	*1.000*	*1.000*					
Arrival Type	*3*	*3*			*4*	*4*	*4*					
Platoon Ratio	*1.00*	*1.00*			*1.33*	*1.33*	*1.33*					
PF Factor	*1.00*	*1.00*			*0.98*	*0.71*	*0.99*					
Q_1	*9.8*	*6.4*			*6.7*	*6.5*	*7.8*					
k_B	*0.4*	*0.6*			*0.4*	*0.6*	*0.4*					
Q_2	*5.6*	*0.6*			*1.7*	*1.4*	*2.7*					
Q Average	*15.4*	*7.0*			*8.4*	*7.9*	*10.6*					
Percentile Back of Queue (95th percentile)												
$f_{B\%}$	*1.8*	*1.9*			*1.9*	*1.9*	*1.8*					
Back of Queue	*27.0*	*13.4*			*15.8*	*14.8*	*19.4*					
Queue Storage Ratio												
Queue Spacing	*25.0*	*25.0*			*25.0*	*25.0*	*25.0*					
Queue Storage	*1000*	*0*			*0*	*500*	*1100*					
Average Queue Storage Ratio	*0.4*					*0.4*	*0.2*					
95% Queue Storage Ratio	*0.7*					*0.7*	*0.4*					

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SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 SB Ramps at CR 54*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/20/2010*	Jurisdiction	*FDOT*
Time Period	*AM*	Analysis Year	*Build 2022*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes		*4*	*1*	*2*	*3*					*1*		
Lane Group		*T*	*R*	*L*	*T*					*L*		
Volume (vph)		*1460*	*800*	*1035*	*1590*					*620*		
% Heavy Vehicles		*2*	*2*	*2*	*2*					*8*		
PHF		*0.95*	*0.95*	*0.95*	*0.95*					*0.95*		
Pretimed/Actuated (P/A)		*A*	*A*	*A*	*A*					*A*		
Startup Lost Time		*2.0*	*2.0*	*2.0*	*2.0*					*2.0*		
Extension of Effective Green		*3.0*	*3.0*	*3.0*	*3.0*					*3.0*		
Arrival Type		*3*	*3*	*4*	*4*					*3*		
Unit Extension		*3.0*	*3.0*	*3.0*	*3.0*					*3.0*		
Ped/Bike/RTOR Volume	*0*	*0*	*0*	*0*	*0*		*0*	*0*		*0*	*0*	
Lane Width		*12.0*	*12.0*	*12.0*	*12.0*					*12.0*		
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour		*0*	*0*	*0*	*0*					*0*		
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	WB Only	Thru & RT	03	04	SB Only	06	07	08
Timing	G = *26.9*	G = *19.1*	G =	G =	G = *29.0*	G =	G =	G =
	Y = *5*	Y = *5*	Y =	Y =	Y = *5*	Y =	Y =	Y =
Duration of Analysis (hrs) = *0.25*						Cycle Length C = *90.0*		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate		*1537*	*842*	*1089*	*1674*					*653*		
Lane Group Capacity		*1664*	*952*	*1097*	*2932*					*557*		
v/c Ratio		*0.92*	*0.88*	*0.99*	*0.57*					*1.17*		
Green Ratio		*0.22*	*0.60*	*0.31*	*0.58*					*0.33*		
Uniform Delay d_1		*34.2*	*15.3*	*30.9*	*12.0*					*30.0*		
Delay Factor k		*0.44*	*0.41*	*0.49*	*0.17*					*0.50*		
Incremental Delay d_2		*9.1*	*10.0*	*25.3*	*0.3*					*95.4*		
PF Factor		*1.000*	*1.000*	*0.978*	*0.625*					*1.000*		
Control Delay		*43.3*	*25.2*	*55.6*	*7.8*					*125.4*		
Lane Group LOS		*D*	*C*	*E*	*A*					*F*		
Approach Delay	*36.9*			*26.6*						*125.4*		
Approach LOS	*D*			*C*						*F*		
Intersection Delay	*42.0*			Intersection LOS						*D*		

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group		*T*	*R*	*L*	*T*					*L*		
Initial Queue/Lane		*0.0*	*0.0*	*0.0*	*0.0*					*0.0*		
Flow Rate/Lane Group		*1537*	*842*	*1089*	*1674*					*653*		
Satflow/Lane		*1862*	*1583*	*1770*	*1862*					*1671*		
Capacity/Lane Group		*1664*	*952*	*1097*	*2932*					*557*		
Flow Ratio		*0.2*	*0.5*	*0.3*	*0.3*					*0.4*		
v/c Ratio		*0.92*	*0.88*	*0.99*	*0.57*					*1.17*		
I Factor		*1.000*	*1.000*	*1.000*	*1.000*					*1.000*		
Arrival Type		*3*	*3*	*4*	*4*					*3*		
Platoon Ratio		*1.00*	*1.00*	*1.33*	*1.33*					*1.00*		
PF Factor		*1.00*	*1.00*	*1.00*	*0.65*					*1.00*		
Q_1		*9.4*	*17.9*	*13.5*	*6.3*					*16.3*		
k_B		*0.4*	*0.7*	*0.5*	*0.7*					*0.5*		
Q_2		*2.9*	*4.0*	*5.5*	*0.9*					*14.7*		
Q Average		*12.2*	*21.9*	*19.0*	*7.2*					*31.0*		
Percentile Back of Queue (95th percentile)												
$f_{B\%}$		*1.8*	*1.7*	*1.7*	*1.9*					*1.6*		
Back of Queue		*22.1*	*36.7*	*32.5*	*13.8*					*49.9*		
Queue Storage Ratio												
Queue Spacing		*25.0*	*25.0*	*25.0*	*25.0*					*25.0*		
Queue Storage		*0*	*700*	*900*	*0*					*300*		
Average Queue Storage Ratio			*0.8*	*0.5*						*2.6*		
95% Queue Storage Ratio			*1.3*	*0.9*						*4.2*		

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 SB Ramps at CR 54*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/20/2010*	Jurisdiction	*FDOT*
Time Period	*PM*	Analysis Year	*Build 2022*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes		*4*	*1*	*2*	*3*					*1*		
Lane Group		*T*	*R*	*L*	*T*					*L*		
Volume (vph)		*1430*	*640*	*680*	*1750*					*485*		
% Heavy Vehicles		*2*	*2*	*2*	*2*					*8*		
PHF		*0.95*	*0.95*	*0.95*	*0.95*					*0.95*		
Pretimed/Actuated (P/A)		*A*	*A*	*A*	*A*					*A*		
Startup Lost Time		*2.0*	*2.0*	*2.0*	*2.0*					*2.0*		
Extension of Effective Green		*3.0*	*3.0*	*3.0*	*3.0*					*3.0*		
Arrival Type		*3*	*3*	*3*	*4*					*3*		
Unit Extension		*3.0*	*3.0*	*3.0*	*3.0*					*3.0*		
Ped/Bike/RTOR Volume	*0*	*0*	*0*	*0*	*0*		*0*	*0*		*0*	*0*	
Lane Width		*12.0*	*12.0*	*12.0*	*12.0*					*12.0*		
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour		*0*	*0*	*0*	*0*					*0*		
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	WB Only	Thru & RT	03	04	SB Only	06	07	08
Timing	G = *18.1*	G = *22.0*	G =	G =	G = *21.9*	G =	G =	G =
	Y = *6*	Y = *6*	Y =	Y =	Y = *6*	Y =	Y =	Y =
Duration of Analysis (hrs) = *0.25*						Cycle Length C = *80.0*		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate		*1505*	*674*	*716*	*1842*					*511*		
Lane Group Capacity		*1862*	*1007*	*821*	*2987*					*478*		
v/c Ratio		*0.81*	*0.67*	*0.87*	*0.62*					*1.07*		
Green Ratio		*0.29*	*0.64*	*0.24*	*0.59*					*0.29*		
Uniform Delay d_1		*26.5*	*9.2*	*29.3*	*10.6*					*28.5*		
Delay Factor k		*0.35*	*0.24*	*0.40*	*0.20*					*0.50*		
Incremental Delay d_2		*2.8*	*1.7*	*10.2*	*0.4*					*60.8*		
PF Factor		*1.000*	*1.000*	*1.000*	*0.601*					*1.000*		
Control Delay		*29.2*	*10.9*	*39.4*	*6.8*					*89.4*		
Lane Group LOS		*C*	*B*	*D*	*A*					*F*		
Approach Delay		*23.6*			*15.9*					*89.4*		
Approach LOS		*C*			*B*					*F*		
Intersection Delay		*26.2*			Intersection LOS					*C*		

HCS+™ Version 5.5

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BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group		*T*	*R*	*L*	*T*					*L*		
Initial Queue/Lane		*0.0*	*0.0*	*0.0*	*0.0*					*0.0*		
Flow Rate/Lane Group		*1505*	*674*	*716*	*1842*					*511*		
Satflow/Lane		*1862*	*1583*	*1770*	*1862*					*1671*		
Capacity/Lane Group		*1862*	*1007*	*821*	*2987*					*478*		
Flow Ratio		*0.2*	*0.4*	*0.2*	*0.4*					*0.3*		
v/c Ratio		*0.81*	*0.67*	*0.87*	*0.62*					*1.07*		
I Factor		*1.000*	*1.000*	*1.000*	*1.000*					*1.000*		
Arrival Type		*3*	*3*	*3*	*4*					*3*		
Platoon Ratio		*1.00*	*1.00*	*1.00*	*1.33*					*1.00*		
PF Factor		*1.00*	*1.00*	*1.00*	*0.65*					*1.00*		
Q_1		*8.9*	*9.5*	*7.9*	*6.3*					*11.4*		
k_B		*0.4*	*0.6*	*0.4*	*0.7*					*0.4*		
Q_2		*1.6*	*1.3*	*2.0*	*1.1*					*7.6*		
Q Average		*10.6*	*10.8*	*9.9*	*7.3*					*19.0*		
Percentile Back of Queue (95th percentile)												
$f_{B\%}$		*1.8*	*1.8*	*1.8*	*1.9*					*1.7*		
Back of Queue		*19.3*	*19.7*	*18.2*	*13.9*					*32.4*		
Queue Storage Ratio												
Queue Spacing		*25.0*	*25.0*	*25.0*	*25.0*					*25.0*		
Queue Storage		*0*	*700*	*900*	*0*					*300*		
Average Queue Storage Ratio			*0.4*	*0.3*						*1.6*		
95% Queue Storage Ratio			*0.7*	*0.5*						*2.7*		

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 NB Ramps at SR 52*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/20/2010*	Jurisdiction	*FDOT*
Time Period	*AM*	Analysis Year	*Build 2022*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	*1*	*2*			*3*	*0*	*2*					
Lane Group	*L*	*T*			*TR*		*L*					
Volume (vph)	*255*	*955*			*1800*	*0*	*730*					
% Heavy Vehicles	*6*	*6*			*6*	*2*	*8*					
PHF	*0.95*	*0.95*			*0.95*	*0.92*	*0.95*					
Pretimed/Actuated (P/A)	*A*	*A*			*A*	*A*	*A*					
Startup Lost Time	*2.0*	*2.0*			*2.0*		*2.0*					
Extension of Effective Green	*3.0*	*3.0*			*3.0*		*3.0*					
Arrival Type	*3*	*3*			*4*		*3*					
Unit Extension	*3.0*	*3.0*			*3.0*		*3.0*					
Ped/Bike/RTOR Volume	*0*	*0*		*0*	*0*	*0*	*0*	*0*		*0*	*0*	
Lane Width	*12.0*	*12.0*			*12.0*		*12.0*					
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour	*0*	*0*			*0*		*0*					
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	EB Only	Thru & RT	03	04	NB Only	06	07	08
Timing	G = *8.5*	G = *24.9*	G =	G =	G = *11.6*	G =	G =	G =
	Y = *5*	Y = *5*	Y =	Y =	Y = *5*	Y =	Y =	Y =
Duration of Analysis (hrs) = *0.25*						Cycle Length C = *60.0*		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	*268*	*1005*			*1895*		*768*					
Lane Group Capacity	*270*	*2241*			*2321*		*702*					
v/c Ratio	*0.99*	*0.45*			*0.82*		*1.09*					
Green Ratio	*0.16*	*0.66*			*0.43*		*0.21*					
Uniform Delay d_1	*25.2*	*5.0*			*15.0*		*23.7*					
Delay Factor k	*0.49*	*0.11*			*0.36*		*0.50*					
Incremental Delay d_2	*52.6*	*0.1*			*2.4*		*62.5*					
PF Factor	*1.000*	*1.000*			*0.859*		*1.000*					
Control Delay	*77.8*	*5.2*			*15.2*		*86.2*					
Lane Group LOS	*E*	*A*			*B*		*F*					
Approach Delay	*20.5*			*15.2*			*86.2*					
Approach LOS	*C*			*B*			*F*					
Intersection Delay	*30.8*			Intersection LOS						*C*		

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BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group	*L*	*T*			*TR*		*L*					
Initial Queue/Lane	*0.0*	*0.0*			*0.0*		*0.0*					
Flow Rate/Lane Group	*268*	*1005*			*1895*		*768*					
Satflow/Lane	*1703*	*1792*			*1792*		*1672*					
Capacity/Lane Group	*270*	*2241*			*2321*		*702*					
Flow Ratio	*0.2*	*0.3*			*0.4*		*0.2*					
v/c Ratio	*0.99*	*0.45*			*0.82*		*1.09*					
I Factor	*1.000*	*1.000*			*1.000*		*1.000*					
Arrival Type	*3*	*3*			*4*		*3*					
Platoon Ratio	*1.00*	*1.00*			*1.33*		*1.00*					
PF Factor	*1.00*	*1.00*			*0.91*		*1.00*					
Q_1	*4.5*	*4.3*			*8.4*		*6.4*					
k_B	*0.2*	*0.6*			*0.5*		*0.3*					
Q_2	*2.8*	*0.5*			*1.9*		*6.3*					
Q Average	*7.2*	*4.8*			*10.3*		*12.7*					
Percentile Back of Queue (95th percentile)												
$f_{B\%}$	*1.9*	*2.0*			*1.8*		*1.8*					
Back of Queue	*13.7*	*9.3*			*18.9*		*22.8*					
Queue Storage Ratio												
Queue Spacing	*25.0*	*25.0*			*25.0*		*25.0*					
Queue Storage	*500*	*0*			*0*		*500*					
Average Queue Storage Ratio	*0.4*						*0.6*					
95% Queue Storage Ratio	*0.7*						*1.1*					

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 NB Ramps at SR 52*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/20/2010*	Jurisdiction	*FDOT*
Time Period	*PM*	Analysis Year	*Build 2022*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	*1*	*2*			*3*	*0*	*2*					
Lane Group	*L*	*T*			*TR*		*L*					
Volume (vph)	*245*	*945*			*1495*	*0*	*995*					
% Heavy Vehicles	*6*	*6*			*6*	*2*	*8*					
PHF	*0.95*	*0.95*			*0.95*	*0.95*	*0.95*					
Pretimed/Actuated (P/A)	*A*	*A*			*A*	*A*	*A*					
Startup Lost Time	*2.0*	*2.0*			*2.0*		*2.0*					
Extension of Effective Green	*3.0*	*3.0*			*3.0*		*3.0*					
Arrival Type	*3*	*3*			*4*		*3*					
Unit Extension	*3.0*	*3.0*			*3.0*		*3.0*					
Ped/Bike/RTOR Volume	*0*	*0*		*0*	*0*	*0*	*0*	*0*		*0*	*0*	
Lane Width	*12.0*	*12.0*			*12.0*		*12.0*					
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour	*0*	*0*			*0*		*0*					
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	EB Only	Thru & RT	03	04	NB Only	06	07	08
Timing	G = *12.4*	G = *26.3*	G =	G =	G = *26.3*	G =	G =	G =
	Y = *5*	Y = *5*	Y =	Y =	Y = *5*	Y =	Y =	Y =
Duration of Analysis (hrs) = *0.25*						Cycle Length C = *80.0*		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	*258*	*995*			*1574*		*1047*					
Lane Group Capacity	*285*	*1907*			*1835*		*1141*					
v/c Ratio	*0.91*	*0.52*			*0.86*		*0.92*					
Green Ratio	*0.17*	*0.56*			*0.34*		*0.34*					
Uniform Delay d_1	*32.7*	*11.0*			*24.5*		*25.3*					
Delay Factor k	*0.43*	*0.13*			*0.39*		*0.44*					
Incremental Delay d_2	*30.1*	*0.3*			*4.3*		*11.7*					
PF Factor	*1.000*	*1.000*			*0.951*		*1.000*					
Control Delay	*62.8*	*11.3*			*27.7*		*36.9*					
Lane Group LOS	*E*	*B*			*C*		*D*					
Approach Delay	*21.9*			*27.7*			*36.9*					
Approach LOS	*C*			*C*			*D*					
Intersection Delay	*28.3*			Intersection LOS						*C*		

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BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group	*L*	*T*			*TR*		*L*					
Initial Queue/Lane	*0.0*	*0.0*			*0.0*		*0.0*					
Flow Rate/Lane Group	*258*	*995*			*1574*		*1047*					
Satflow/Lane	*1703*	*1792*			*1792*		*1672*					
Capacity/Lane Group	*285*	*1907*			*1835*		*1141*					
Flow Ratio	*0.2*	*0.3*			*0.3*		*0.3*					
v/c Ratio	*0.91*	*0.52*			*0.86*		*0.92*					
I Factor	*1.000*	*1.000*			*1.000*		*1.000*					
Arrival Type	*3*	*3*			*4*		*3*					
Platoon Ratio	*1.00*	*1.00*			*1.33*		*1.00*					
PF Factor	*1.00*	*1.00*			*0.96*		*1.00*					
Q_1	*5.6*	*7.2*			*10.4*		*11.1*					
k_B	*0.3*	*0.6*			*0.5*		*0.5*					
Q_2	*1.9*	*0.7*			*2.4*		*3.3*					
Q Average	*7.5*	*7.9*			*12.8*		*14.4*					
Percentile Back of Queue (95th percentile)												
$f_{B\%}$	*1.9*	*1.9*			*1.8*		*1.8*					
Back of Queue	*14.2*	*14.9*			*22.9*		*25.5*					
Queue Storage Ratio												
Queue Spacing	*25.0*	*25.0*			*25.0*		*25.0*					
Queue Storage	*500*	*0*			*0*		*500*					
Average Queue Storage Ratio	*0.4*						*0.7*					
95% Queue Storage Ratio	*0.7*						*1.3*					

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 SB Ramps at SR 52*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/20/2010*	Jurisdiction	*FDOT*
Time Period	*AM*	Analysis Year	*Build 2022*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes		*3*		*1*	*2*					*1*		*1*
Lane Group		*T*		*L*	*T*					*L*		*R*
Volume (vph)		*905*		*1050*	*1480*					*305*		*245*
% Heavy Vehicles		*6*		*6*	*6*					*8*		*8*
PHF		*0.95*		*0.95*	*0.95*					*0.95*		*0.95*
Pretimed/Actuated (P/A)		*A*		*A*	*A*					*A*		*A*
Startup Lost Time		*2.0*		*2.0*	*2.0*					*2.0*		*2.0*
Extension of Effective Green		*3.0*		*3.0*	*3.0*					*3.0*		*3.0*
Arrival Type		*3*		*4*	*4*					*3*		*3*
Unit Extension		*3.0*		*3.0*	*3.0*					*3.0*		*3.0*
Ped/Bike/RTOR Volume	*0*	*0*		*0*	*0*		*0*	*0*		*0*	*0*	*0*
Lane Width		*12.0*		*12.0*	*12.0*					*12.0*		*12.0*
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour		*0*		*0*	*0*					*0*		*0*
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	WB Only	Thru Only	03	04	SB Only	06	07	08
Timing	G = *69.2*	G = *23.1*	G =	G =	G = *22.7*	G =	G =	G =
	Y = *5*	Y = *5*	Y =	Y =	Y = *5*	Y =	Y =	Y =
Duration of Analysis (hrs) = *0.25*						Cycle Length C = *130.0*		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate		*953*		*1105*	*1558*					*321*		*258*
Lane Group Capacity		*997*		*920*	*2581*					*305*		*273*
v/c Ratio		*0.96*		*1.20*	*0.60*					*1.05*		*0.95*
Green Ratio		*0.19*		*0.54*	*0.76*					*0.18*		*0.18*
Uniform Delay d_1		*52.4*		*29.9*	*7.1*					*53.1*		*52.5*
Delay Factor k		*0.47*		*0.50*	*0.19*					*0.50*		*0.46*
Incremental Delay d_2		*18.7*		*101.0*	*0.4*					*66.0*		*39.8*
PF Factor		*1.000*		*0.700*	*0.236*					*1.000*		*1.000*
Control Delay		*71.2*		*121.9*	*2.1*					*119.1*		*92.3*
Lane Group LOS		*E*		*F*	*A*					*F*		*F*
Approach Delay	*71.2*			*51.8*						*107.2*		
Approach LOS	*E*			*D*						*F*		
Intersection Delay	*63.8*			Intersection LOS						*E*		

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group		*T*		*L*	*T*					*L*		*R*
Initial Queue/Lane		*0.0*		*0.0*	*0.0*					*0.0*		*0.0*
Flow Rate/Lane Group		*953*		*1105*	*1558*					*321*		*258*
Satflow/Lane		*1792*		*1703*	*1792*					*1671*		*1495*
Capacity/Lane Group		*997*		*920*	*2581*					*305*		*273*
Flow Ratio		*0.2*		*0.6*	*0.5*					*0.2*		*0.2*
v/c Ratio		*0.96*		*1.20*	*0.60*					*1.05*		*0.95*
I Factor		*1.000*		*1.000*	*1.000*					*1.000*		*1.000*
Arrival Type		*3*		*4*	*4*					*3*		*3*
Platoon Ratio		*1.00*		*1.33*	*1.26*					*1.00*		*1.00*
PF Factor		*1.00*		*1.00*	*0.26*					*1.00*		*1.00*
Q_1		*11.3*		*39.9*	*3.5*					*11.6*		*9.2*
k_B		*0.4*		*0.8*	*1.0*					*0.4*		*0.4*
Q_2		*3.4*		*27.3*	*1.5*					*5.2*		*2.7*
Q Average		*14.7*		*67.2*	*5.0*					*16.8*		*12.0*
Percentile Back of Queue (95th percentile)												
$f_{B\%}$		*1.8*		*1.5*	*2.0*					*1.7*		*1.8*
Back of Queue		*25.9*		*102*	*9.8*					*29.2*		*21.6*
Queue Storage Ratio												
Queue Spacing		*25.0*		*25.0*	*25.0*					*25.0*		*25.0*
Queue Storage		*0*		*600*	*0*					*800*		*100*
Average Queue Storage Ratio				*2.8*						*0.5*		*3.0*
95% Queue Storage Ratio				*4.2*						*0.9*		*5.4*

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 SB Ramps at SR 52*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/20/2010*	Jurisdiction	*FDOT*
Time Period	*PM*	Analysis Year	*Build 2022*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes		*3*		*1*	*2*					*1*		*1*
Lane Group		*T*		*L*	*T*					*L*		*R*
Volume (vph)		*995*		*845*	*1645*					*195*		*255*
% Heavy Vehicles		*0*		*0*	*0*					*0*		*0*
PHF		*0.95*		*0.95*	*0.95*					*0.95*		*0.95*
Pretimed/Actuated (P/A)		*A*		*A*	*A*					*A*		*A*
Startup Lost Time		*2.0*		*2.0*	*2.0*					*2.0*		*2.0*
Extension of Effective Green		*3.0*		*3.0*	*3.0*					*3.0*		*3.0*
Arrival Type		*3*		*4*	*4*					*3*		*3*
Unit Extension		*3.0*		*3.0*	*3.0*					*3.0*		*3.0*
Ped/Bike/RTOR Volume	*0*	*0*		*0*	*0*		*0*	*0*		*0*	*0*	*0*
Lane Width		*12.0*		*12.0*	*12.0*					*12.0*		*12.0*
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour		*0*		*0*	*0*					*0*		*0*
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	WB Only	Thru Only	03	04	SB Only	06	07	08
Timing	G = *54.3*	G = *34.4*	G =	G =	G = *16.3*	G =	G =	G =
	Y = *5*	Y = *5*	Y =	Y =	Y = *5*	Y =	Y =	Y =

Duration of Analysis (hrs) = *0.25* | Cycle Length C = *120.0*

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate		*1047*		*889*	*1732*					*205*		*268*
Lane Group Capacity		*1076*		*832*	*2855*					*260*		*233*
v/c Ratio		*0.97*		*1.07*	*0.61*					*0.79*		*1.15*
Green Ratio		*0.30*		*0.46*	*0.79*					*0.14*		*0.14*
Uniform Delay d_1		*41.8*		*32.3*	*5.1*					*49.6*		*51.3*
Delay Factor k		*0.48*		*0.50*	*0.19*					*0.34*		*0.50*
Incremental Delay d_2		*21.1*		*51.2*	*0.4*					*14.9*		*105.5*
PF Factor		*1.000*		*0.822*	*0.273*					*1.000*		*1.000*
Control Delay		*62.9*		*77.8*	*1.8*					*64.5*		*156.8*
Lane Group LOS		*E*		*E*	*A*					*E*		*F*
Approach Delay		*62.9*			*27.5*						*116.8*	
Approach LOS		*E*			*C*						*F*	
Intersection Delay		*46.7*			Intersection LOS						*D*	

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BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group		*T*		*L*	*T*					*L*		*R*
Initial Queue/Lane		*0.0*		*0.0*	*0.0*					*0.0*		*0.0*
Flow Rate/Lane Group		*1047*		*889*	*1732*					*205*		*268*
Satflow/Lane		*1900*		*1805*	*1900*					*1805*		*1615*
Capacity/Lane Group		*1076*		*832*	*2855*					*260*		*233*
Flow Ratio		*0.3*		*0.5*	*0.5*					*0.1*		*0.2*
v/c Ratio		*0.97*		*1.07*	*0.61*					*0.79*		*1.15*
I Factor		*1.000*		*1.000*	*1.000*					*1.000*		*1.000*
Arrival Type		*3*		*4*	*4*					*3*		*3*
Platoon Ratio		*1.00*		*1.33*	*1.20*					*1.00*		*1.00*
PF Factor		*1.00*		*1.00*	*0.29*					*1.00*		*1.00*
Q_1		*18.0*		*29.6*	*3.6*					*6.6*		*8.9*
k_B		*0.6*		*0.7*	*1.0*					*0.4*		*0.3*
Q_2		*5.4*		*13.3*	*1.6*					*1.2*		*6.2*
Q Average		*23.4*		*42.9*	*5.2*					*7.8*		*15.2*
Percentile Back of Queue (95th percentile)												
$f_{B\%}$		*1.7*		*1.6*	*2.0*					*1.9*		*1.8*
Back of Queue		*38.9*		*66.7*	*10.0*					*14.7*		*26.6*
Queue Storage Ratio												
Queue Spacing		*25.0*		*25.0*	*25.0*					*25.0*		*25.0*
Queue Storage		*0*		*600*	*0*					*800*		*100*
Average Queue Storage Ratio				*1.8*						*0.2*		*3.8*
95% Queue Storage Ratio				*2.8*						*0.5*		*6.7*

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SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*Overpass Rd at Boyette Rd*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*4/27/2011*	Jurisdiction	*FDOT*
Time Period	*AM*	Analysis Year	*Build 2022*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	*1*	*2*		*1*	*2*	*0*	*2*	*1*	*1*	*1*	*1*	
Lane Group	*L*	*T*		*L*	*TR*		*L*	*T*	*R*	*L*	*T*	
Volume (vph)	*150*	*1655*		*120*	*1885*	*40*	*290*	*50*	*90*	*30*	*75*	
% Heavy Vehicles	*2*	*2*		*2*	*2*	*2*	*2*	*2*	*2*	*2*	*2*	
PHF	*0.95*	*0.95*		*0.95*	*0.95*	*0.95*	*0.95*	*0.95*	*0.95*	*0.95*	*0.95*	
Pretimed/Actuated (P/A)	*A*	*A*		*A*	*A*	*A*	*A*	*A*	*A*	*A*	*A*	
Startup Lost Time	*2.0*	*2.0*		*2.0*	*2.0*		*2.0*	*2.0*	*2.0*	*2.0*	*2.0*	
Extension of Effective Green	*3.0*	*3.0*		*3.0*	*3.0*		*3.0*	*3.0*	*2.0*	*2.0*	*3.0*	
Arrival Type	*3*	*3*		*4*	*4*		*3*	*3*	*3*	*3*	*3*	
Unit Extension	*3.0*	*3.0*		*3.0*	*3.0*		*3.0*	*3.0*	*3.0*	*3.0*	*3.0*	
Ped/Bike/RTOR Volume	*0*	*0*		*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
Lane Width	*12.0*	*12.0*		*12.0*	*12.0*		*12.0*	*12.0*	*12.0*	*12.0*	*12.0*	
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour	*0*	*0*		*0*	*0*		*0*	*0*	*0*	*0*	*0*	
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08
Timing	G = *10.1*	G = *79.1*	G =	G =	G = *12.5*	G = *8.3*	G =	G =
	Y = *5*	Y = *5*	Y =	Y =	Y = *5*	Y = *5*	Y =	Y =
Duration of Analysis (hrs) = *0.25*						Cycle Length C = *130.0*		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	*158*	*1742*		*126*	*2026*		*305*	*53*	*95*	*32*	*79*	
Lane Group Capacity	*151*	*2185*		*151*	*2179*		*357*	*133*	*101*	*170*	*133*	
v/c Ratio	*1.05*	*0.80*		*0.83*	*0.93*		*0.85*	*0.40*	*0.94*	*0.19*	*0.59*	
Green Ratio	*0.09*	*0.62*		*0.09*	*0.62*		*0.10*	*0.07*	*0.06*	*0.10*	*0.07*	
Uniform Delay d_1	*59.5*	*18.8*		*58.5*	*22.4*		*57.3*	*57.7*	*60.6*	*54.1*	*58.5*	
Delay Factor k	*0.50*	*0.34*		*0.37*	*0.45*		*0.39*	*0.11*	*0.45*	*0.11*	*0.18*	
Incremental Delay d_2	*86.1*	*2.2*		*31.4*	*7.8*		*17.9*	*2.0*	*70.4*	*0.5*	*7.0*	
PF Factor	*1.000*	*1.000*		*1.000*	*0.535*		*1.000*	*1.000*	*1.000*	*1.000*	*1.000*	
Control Delay	*145.5*	*21.0*		*89.9*	*19.8*		*75.2*	*59.6*	*131.0*	*54.6*	*65.5*	
Lane Group LOS	*F*	*C*		*F*	*B*		*E*	*E*	*F*	*D*	*E*	
Approach Delay	*31.3*			*23.9*			*85.1*			*62.4*		
Approach LOS	*C*			*C*			*F*			*E*		
Intersection Delay	*33.9*			Intersection LOS						*C*		

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group	*L*	*T*		*L*	*TR*		*L*	*T*	*R*	*L*	*T*	
Initial Queue/Lane	*0.0*	*0.0*		*0.0*	*0.0*		*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	
Flow Rate/Lane Group	*158*	*1742*		*126*	*2026*		*305*	*53*	*95*	*32*	*79*	
Satflow/Lane	*1770*	*1862*		*1770*	*1857*		*1770*	*1863*	*1583*	*1770*	*1863*	
Capacity/Lane Group	*151*	*2185*		*151*	*2179*		*357*	*133*	*101*	*170*	*133*	
Flow Ratio	*0.1*	*0.5*		*0.1*	*0.6*		*0.1*	*0.0*	*0.1*	*0.0*	0.0	
v/c Ratio	*1.05*	*0.80*		*0.83*	*0.93*		*0.85*	*0.40*	*0.94*	*0.19*	*0.59*	
I Factor	*1.000*	*1.000*		*1.000*	*1.000*		*1.000*	*1.000*	*1.000*	*1.000*	*1.000*	
Arrival Type	*3*	*3*		*4*	*4*		*3*	*3*	*3*	*3*	*3*	
Platoon Ratio	*1.00*	*1.00*		*1.33*	*1.33*		*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	
PF Factor	*1.00*	*1.00*		*0.99*	*0.84*		*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	
Q_1	*5.7*	*24.9*		*4.5*	*29.1*		*5.6*	*1.8*	*3.4*	*1.1*	*2.8*	
k_B	*0.3*	*0.9*		*0.3*	*0.9*		*0.3*	*0.3*	*0.2*	*0.3*	*0.3*	
Q_2	*2.8*	*3.3*		*1.0*	*7.2*		*1.3*	*0.2*	*1.3*	*0.1*	*0.4*	
Q Average	*8.5*	*28.2*		*5.5*	*36.3*		*6.9*	*2.0*	*4.7*	*1.1*	*3.1*	

Percentile Back of Queue (95th percentile)

$f_{B\%}$	*1.9*	*1.6*		*1.9*	*1.6*		*1.9*	*2.0*	*2.0*	*2.1*	*2.0*	
Back of Queue	*16.0*	*45.8*		*10.7*	*57.3*		*13.2*	*4.1*	*9.2*	*2.3*	*6.3*	

Queue Storage Ratio

Queue Spacing	*25.0*	*25.0*		*25.0*	*25.0*		*25.0*	*25.0*	*25.0*	*25.0*	*25.0*	
Queue Storage	*500*	*0*		*500*	*0*		*500*	*0*	*0*	*0*	*0*	
Average Queue Storage Ratio	*0.4*			*0.3*			*0.3*					
95% Queue Storage Ratio	*0.8*			*0.5*			*0.7*					

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SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*Overpass Rd at Boyette Rd*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*4/27/2011*	Jurisdiction	*FDOT*
Time Period	*PM*	Analysis Year	*Build 2022*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	*1*	*2*		*1*	*2*	*0*	*2*	*1*	*1*	*1*	*1*	
Lane Group	*L*	*T*		*L*	*TR*		*L*	*T*	*R*	*L*	*T*	
Volume (vph)	*175*	*1885*		*90*	*1655*	*30*	*285*	*75*	*120*	*40*	*50*	
% Heavy Vehicles	*2*	*2*		*2*	*2*	*2*	*2*	*2*	*2*	*2*	*2*	
PHF	*0.95*	*0.95*		*0.95*	*0.95*	*0.95*	*0.95*	*0.95*	*0.95*	*0.95*	*0.95*	
Pretimed/Actuated (P/A)	*A*	*A*		*A*	*A*	*A*	*A*	*A*	*A*	*A*	*A*	
Startup Lost Time	*2.0*	*2.0*		*2.0*	*2.0*		*2.0*	*2.0*	*2.0*	*2.0*	*2.0*	
Extension of Effective Green	*3.0*	*3.0*		*3.0*	*3.0*		*3.0*	*3.0*	*3.0*	*3.0*	*3.0*	
Arrival Type	*4*	*4*		*3*	*3*		*3*	*3*	*3*	*3*	*3*	
Unit Extension	*3.0*	*3.0*		*3.0*	*3.0*		*3.0*	*3.0*	*3.0*	*3.0*	*3.0*	
Ped/Bike/RTOR Volume	*0*	*0*		*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
Lane Width	*12.0*	*12.0*		*12.0*	*12.0*		*12.0*	*12.0*	*12.0*	*12.0*	*12.0*	
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour	*0*	*0*		*0*	*0*		*0*	*0*	*0*	*0*	*0*	
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08
Timing	G = *9.9*	G = *69.5*	G =	G =	G = *11.3*	G = *9.3*	G =	G =
	Y = *5*	Y = *5*	Y =	Y =	Y = *5*	Y = *5*	Y =	Y =
Duration of Analysis (hrs) = *0.25*						Cycle Length C = *120.0*		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	*184*	*1984*		*95*	*1774*		*300*	*79*	*126*	*42*	*53*	
Lane Group Capacity	*161*	*2188*		*161*	*2078*		*352*	*160*	*136*	*181*	*160*	
v/c Ratio	*1.14*	*0.91*		*0.59*	*0.85*		*0.85*	*0.49*	*0.93*	*0.23*	*0.33*	
Green Ratio	*0.09*	*0.59*		*0.09*	*0.59*		*0.10*	*0.09*	*0.09*	*0.10*	*0.09*	
Uniform Delay d_1	*54.6*	*21.8*		*52.4*	*20.5*		*53.0*	*52.4*	*54.5*	*49.5*	*51.6*	
Delay Factor k	*0.50*	*0.43*		*0.18*	*0.39*		*0.38*	*0.11*	*0.44*	*0.11*	*0.11*	
Incremental Delay d_2	*114.5*	*6.0*		*5.6*	*3.7*		*17.9*	*2.4*	*55.3*	*0.7*	*1.2*	
PF Factor	*1.000*	*0.604*		*1.000*	*1.000*		*1.000*	*1.000*	*1.000*	*1.000*	*1.000*	
Control Delay	*169.1*	*19.2*		*58.0*	*24.2*		*70.8*	*54.7*	*109.8*	*50.2*	*52.8*	
Lane Group LOS	*F*	*B*		*E*	*C*		*E*	*D*	*F*	*D*	*D*	
Approach Delay	*31.9*			*25.9*			*78.0*			*51.7*		
Approach LOS	*C*			*C*			*E*			*D*		
Intersection Delay	*34.9*			Intersection LOS						*C*		

HCS+™ Version 5.5

Generated: 6/7/2011 1:05 PM

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group	*L*	*T*		*L*	*TR*		*L*	*T*	*R*	*L*	*T*	
Initial Queue/Lane	*0.0*	*0.0*		*0.0*	*0.0*		*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	
Flow Rate/Lane Group	*184*	*1984*		*95*	*1774*		*300*	*79*	*126*	*42*	*53*	
Satflow/Lane	*1770*	*1862*		*1770*	*1857*		*1770*	*1863*	*1583*	*1770*	*1863*	
Capacity/Lane Group	*161*	*2188*		*161*	*2078*		*352*	*160*	*136*	*181*	*160*	
Flow Ratio	*0.1*	*0.5*		*0.1*	*0.5*		*0.1*	*0.0*	*0.1*	*0.0*	0.0	
v/c Ratio	*1.14*	*0.91*		*0.59*	*0.85*		*0.85*	*0.49*	*0.93*	*0.23*	*0.33*	
I Factor	*1.000*	*1.000*		*1.000*	*1.000*		*1.000*	*1.000*	*1.000*	*1.000*	*1.000*	
Arrival Type	*4*	*4*		*3*	*3*		*3*	*3*	*3*	*3*	*3*	
Platoon Ratio	*1.33*	*1.33*		*1.00*	*1.00*		*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	
PF Factor	*1.00*	*0.85*		*1.00*	*1.00*		*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	
Q_1	*6.1*	*24.7*		*3.0*	*25.7*		*5.0*	*2.5*	*4.2*	*1.3*	*1.7*	
k_B	*0.3*	*0.9*		*0.3*	*0.9*		*0.3*	*0.3*	*0.2*	*0.3*	*0.3*	
Q_2	*4.3*	*5.8*		*0.4*	*4.2*		*1.2*	*0.3*	*1.4*	*0.1*	*0.1*	
Q Average	*10.5*	*30.5*		*3.4*	*29.8*		*6.3*	*2.8*	*5.6*	*1.4*	*1.8*	

Percentile Back of Queue (95th percentile)

$f_{B\%}$	*1.8*	*1.6*		*2.0*	*1.6*		*1.9*	*2.0*	*1.9*	*2.1*	*2.0*	
Back of Queue	*19.2*	*49.1*		*6.8*	*48.2*		*12.1*	*5.6*	*10.9*	*2.8*	*3.7*	

Queue Storage Ratio

Queue Spacing	*25.0*	*25.0*		*25.0*	*25.0*		*25.0*	*25.0*	*25.0*	*25.0*	*25.0*	
Queue Storage	*500*	*0*		*500*	*0*		*500*	*0*	*500*	*500*	*0*	
Average Queue Storage Ratio	*0.5*			*0.2*			*0.3*		*0.3*	*0.1*		
95% Queue Storage Ratio	*1.0*			*0.3*			*0.6*		*0.5*	*0.1*		

HCS+™ Version 5.5 Generated: 6/7/2011 1:05 PM

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*Overpass Rd at Old Pasco Rd*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*4/27/2011*	Jurisdiction	*FDOT*
Time Period	*AM*	Analysis Year	*Build 2022*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes				*1*		*1*		*1*		*1*	*1*	
Lane Group				*L*		*R*		*T*		*L*	*T*	
Volume (vph)				*450*		*370*		*120*		*400*	*150*	
% Heavy Vehicles				*2*		*2*		*2*		*2*	*2*	
PHF				*0.95*		*0.95*		*0.95*		*0.95*	*0.95*	
Pretimed/Actuated (P/A)				*A*		*A*		*A*		*A*	*A*	
Startup Lost Time				*2.0*		*2.0*		*2.0*		*2.0*	*2.0*	
Extension of Effective Green				*3.0*		*2.0*		*3.0*		*3.0*	*3.0*	
Arrival Type				*4*		*3*		*3*		*3*	*3*	
Unit Extension				*3.0*		*3.0*		*3.0*		*3.0*	*3.0*	
Ped/Bike/RTOR Volume	*0*	*0*		*0*	*0*	*0*	*0*	*0*		*0*	*0*	
Lane Width				*12.0*		*12.0*		*12.0*		*12.0*	*12.0*	
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour				*0*		*0*		*0*		*0*	*0*	
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	WB Only	02	03	04	SB Only	Thru Only	07	08
Timing	G = *23.5*	G =	G =	G =	G = *16.1*	G = *5.4*	G =	G =
	Y = *5*	Y =	Y =	Y =	Y = *5*	Y = *5*	Y =	Y =

Duration of Analysis (hrs) = *0.25* | Cycle Length C = *60.0*

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate				*474*		*389*		*126*		*421*	*158*	
Lane Group Capacity				*723*		*620*		*199*		*504*	*854*	
v/c Ratio				*0.66*		*0.63*		*0.63*		*0.84*	*0.19*	
Green Ratio				*0.41*		*0.39*		*0.11*		*0.28*	*0.46*	
Uniform Delay d_1				*14.3*		*14.7*		*25.7*		*20.1*	*9.6*	
Delay Factor k				*0.23*		*0.21*		*0.21*		*0.37*	*0.11*	
Incremental Delay d_2				*2.2*		*2.0*		*6.4*		*11.6*	*0.1*	
PF Factor				*0.885*		*1.000*		*1.000*		*1.000*	*1.000*	
Control Delay				*14.9*		*16.7*		*32.1*		*31.8*	*9.7*	
Lane Group LOS				*B*		*B*		*C*		*C*	*A*	
Approach Delay				*15.7*			*32.1*			*25.7*		
Approach LOS				*B*			*C*			*C*		
Intersection Delay	*20.7*			Intersection LOS						*C*		

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group				*L*		*R*		*T*		*L*	*T*	
Initial Queue/Lane				*0.0*		*0.0*		*0.0*		*0.0*	*0.0*	
Flow Rate/Lane Group				*474*		*389*		*126*		*421*	*158*	
Satflow/Lane				*1770*		*1583*		*1863*		*1770*	*1863*	
Capacity/Lane Group				*723*		*620*		*199*		*504*	*854*	
Flow Ratio				*0.3*		*0.2*		*0.1*		*0.2*	0.1	
v/c Ratio				*0.66*		*0.63*		*0.63*		*0.84*	*0.19*	
I Factor				*1.000*		*1.000*		*1.000*		*1.000*	*1.000*	
Arrival Type				*4*		*3*		*3*		*3*	*3*	
Platoon Ratio				*1.33*		*1.00*		*1.00*		*1.00*	*1.00*	
PF Factor				*0.88*		*1.00*		*1.00*		*1.00*	*1.00*	
Q_1				*5.6*		*5.2*		*2.0*		*6.6*	*1.6*	
k_B				*0.4*		*0.4*		*0.2*		*0.4*	*0.5*	
Q_2				*0.8*		*0.7*		*0.3*		*1.6*	*0.1*	
Q Average				*6.4*		*5.9*		*2.4*		*8.2*	*1.7*	
Percentile Back of Queue (95th percentile)												
$f_{B\%}$				*1.9*		*1.9*		*2.0*		*1.9*	*2.0*	
Back of Queue				*12.3*		*11.4*		*4.8*		*15.4*	*3.4*	
Queue Storage Ratio												
Queue Spacing				*25.0*		*25.0*		*25.0*		*25.0*	*25.0*	
Queue Storage				*0*		*0*		*0*		*500*	*0*	
Average Queue Storage Ratio										*0.4*		
95% Queue Storage Ratio										*0.8*		

HCS+™ Version 5.5 Generated: 6/7/2011 12:36 PM

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*Overpass Rd at Old Pasco Rd*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*4/27/2011*	Jurisdiction	*FDOT*
Time Period	*PM*	Analysis Year	*Build 2022*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes				*1*		*1*		*1*		*1*	*1*	
Lane Group				*L*		*R*		*T*		*L*	*T*	
Volume (vph)				*330*		*400*		*150*		*370*	*120*	
% Heavy Vehicles				*2*		*2*		*2*		*2*	*2*	
PHF				*0.95*		*0.95*		*0.95*		*0.95*	*0.95*	
Pretimed/Actuated (P/A)				*A*		*A*		*A*		*A*	*A*	
Startup Lost Time				*2.0*		*2.0*		*2.0*		*2.0*	*2.0*	
Extension of Effective Green				*3.0*		*2.0*		*3.0*		*3.0*	*3.0*	
Arrival Type				*4*		*3*		*3*		*3*	*3*	
Unit Extension				*3.0*		*3.0*		*3.0*		*3.0*	*3.0*	
Ped/Bike/RTOR Volume	*0*	*0*		*0*	*0*	*0*	*0*	*0*		*0*	*0*	
Lane Width				*12.0*		*12.0*		*12.0*		*12.0*	*12.0*	
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour				*0*		*0*		*0*		*0*	*0*	
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	WB Only	02	03	04	SB Only	Thru Only	07	08
Timing	G = *19.9*	G =	G =	G =	G = *18.1*	G = *7.0*	G =	G =
	Y = *5*	Y =	Y =	Y =	Y = *5*	Y = *5*	Y =	Y =

Duration of Analysis (hrs) = *0.25* | Cycle Length C = *60.0*

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate				*347*		*421*		*158*		*389*	*126*	
Lane Group Capacity				*617*		*525*		*248*		*563*	*966*	
v/c Ratio				*0.56*		*0.80*		*0.64*		*0.69*	*0.13*	
Green Ratio				*0.35*		*0.33*		*0.13*		*0.32*	*0.52*	
Uniform Delay d_1				*15.8*		*18.3*		*24.6*		*17.9*	*7.5*	
Delay Factor k				*0.16*		*0.35*		*0.22*		*0.26*	*0.11*	
Incremental Delay d_2				*1.2*		*8.7*		*5.4*		*3.6*	*0.1*	
PF Factor				*0.945*		*1.000*		*1.000*		*1.000*	*1.000*	
Control Delay				*16.2*		*27.0*		*30.0*		*21.5*	*7.5*	
Lane Group LOS				*B*		*C*		*C*		*C*	*A*	
Approach Delay				*22.1*			*30.0*			*18.1*		
Approach LOS				*C*			*C*			*B*		
Intersection Delay	*21.5*			Intersection LOS						*C*		

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group				*L*		*R*		*T*		*L*	*T*	
Initial Queue/Lane				*0.0*		*0.0*		*0.0*		*0.0*	*0.0*	
Flow Rate/Lane Group				*347*		*421*		*158*		*389*	*126*	
Satflow/Lane				*1770*		*1583*		*1863*		*1770*	*1863*	
Capacity/Lane Group				*617*		*525*		*248*		*563*	*966*	
Flow Ratio				*0.2*		*0.3*		*0.1*		*0.2*	0.1	
v/c Ratio				*0.56*		*0.80*		*0.64*		*0.69*	*0.13*	
I Factor				*1.000*		*1.000*		*1.000*		*1.000*	*1.000*	
Arrival Type				*4*		*3*		*3*		*3*	*3*	
Platoon Ratio				*1.33*		*1.00*		*1.00*		*1.00*	*1.00*	
PF Factor				*0.89*		*1.00*		*1.00*		*1.00*	*1.00*	
Q_1				*4.2*		*6.4*		*2.5*		*5.7*	*1.1*	
k_B				*0.4*		*0.4*		*0.2*		*0.4*	*0.5*	
Q_2				*0.5*		*1.3*		*0.4*		*0.8*	*0.1*	
Q Average				*4.7*		*7.7*		*2.9*		*6.5*	*1.2*	
Percentile Back of Queue (95th percentile)												
$f_{B\%}$				*2.0*		*1.9*		*2.0*		*1.9*	*2.1*	
Back of Queue				*9.2*		*14.6*		*5.8*		*12.5*	*2.4*	
Queue Storage Ratio												
Queue Spacing				*25.0*		*25.0*		*25.0*		*25.0*	*25.0*	
Queue Storage				*0*		*0*		*0*		*500*	*0*	
Average Queue Storage Ratio										*0.3*		
95% Queue Storage Ratio										*0.6*		

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 NB Ramps at Overpass*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/20/2010*	Jurisdiction	*FDOT*
Time Period	*AM*	Analysis Year	*Build 2022-Diamond*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	*1*	*2*			*4*	*1*	*1*					
Lane Group	*L*	*T*			*T*	*R*	*L*					
Volume (vph)	*100*	*940*			*1860*	*490*	*380*					
% Heavy Vehicles	*2*	*2*			*2*	*2*	*2*					
PHF	*0.95*	*0.95*			*0.95*	*0.95*	*0.95*					
Pretimed/Actuated (P/A)	*A*	*A*			*A*	*A*	*A*					
Startup Lost Time	*2.0*	*2.0*			*2.0*	*2.0*	*2.0*					
Extension of Effective Green	*3.0*	*3.0*			*3.0*	*2.0*	*3.0*					
Arrival Type	*3*	*3*			*3*	*3*	*4*					
Unit Extension	*3.0*	*3.0*			*3.0*	*3.0*	*3.0*					
Ped/Bike/RTOR Volume	*0*	*0*		*0*	*0*	*0*	*0*	*0*		*0*	*0*	
Lane Width	*12.0*	*12.0*			*12.0*	*12.0*	*12.0*					
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour	*0*	*0*			*0*	*0*	*0*					
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	EB Only	Thru & RT	03	04	NB Only	06	07	08
Timing	G = *6.9*	G = *44.8*	G =	G =	G = *23.3*	G =	G =	G =
	Y = *5*	Y = *5*	Y =	Y =	Y = *5*	Y =	Y =	Y =
Duration of Analysis (hrs) = *0.25*						Cycle Length C = *90.0*		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	*105*	*989*			*1958*	*516*	*400*					
Lane Group Capacity	*155*	*2274*			*3443*	*788*	*478*					
v/c Ratio	*0.68*	*0.43*			*0.57*	*0.65*	*0.84*					
Green Ratio	*0.09*	*0.64*			*0.51*	*0.50*	*0.27*					
Uniform Delay d_1	*39.8*	*8.0*			*15.3*	*16.8*	*31.0*					
Delay Factor k	*0.25*	*0.11*			*0.16*	*0.23*	*0.37*					
Incremental Delay d_2	*11.2*	*0.1*			*0.2*	*2.0*	*12.3*					
PF Factor	*1.000*	*1.000*			*1.000*	*1.000*	*1.000*					
Control Delay	*51.1*	*8.2*			*15.5*	*18.8*	*43.3*					
Lane Group LOS	*D*	*A*			*B*	*B*	*D*					
Approach Delay	*12.3*			*16.2*			*43.3*					
Approach LOS	*B*			*B*			*D*					
Intersection Delay	*17.8*			Intersection LOS			*B*					

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group	*L*	*T*			*T*	*R*	*L*					
Initial Queue/Lane	*0.0*	*0.0*			*0.0*	*0.0*	*0.0*					
Flow Rate/Lane Group	*105*	*989*			*1958*	*516*	*400*					
Satflow/Lane	*1770*	*1862*			*1862*	*1583*	*1770*					
Capacity/Lane Group	*155*	*2274*			*3443*	*788*	*478*					
Flow Ratio	*0.1*	*0.3*			*0.3*	*0.3*	*0.2*					
v/c Ratio	*0.68*	*0.43*			*0.57*	*0.65*	*0.84*					
I Factor	*1.000*	*1.000*			*1.000*	*1.000*	*1.000*					
Arrival Type	*3*	*3*			*3*	*3*	*4*					
Platoon Ratio	*1.00*	*1.00*			*1.00*	*1.00*	*1.33*					
PF Factor	*1.00*	*1.00*			*1.00*	*1.00*	*0.97*					
Q_1	*2.5*	*6.5*			*9.3*	*9.6*	*9.2*					
k_B	*0.2*	*0.8*			*0.7*	*0.6*	*0.4*					
Q_2	*0.4*	*0.6*			*0.9*	*1.1*	*1.9*					
Q Average	*3.0*	*7.0*			*10.2*	*10.7*	*11.1*					
Percentile Back of Queue (95th percentile)												
$f_{B\%}$	*2.0*	*1.9*			*1.8*	*1.8*	*1.8*					
Back of Queue	*6.0*	*13.4*			*18.7*	*19.6*	*20.2*					
Queue Storage Ratio												
Queue Spacing	*25.0*	*25.0*			*25.0*	*25.0*	*25.0*					
Queue Storage	*1000*	*0*			*0*	*0*	*1100*					
Average Queue Storage Ratio	*0.1*						*0.3*					
95% Queue Storage Ratio	*0.2*						*0.5*					

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 NB Ramps at Overpass*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/20/2010*	Jurisdiction	*FDOT*
Time Period	*PM*	Analysis Year	*Build 2022-Diamond*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	*1*	*2*			*4*	*1*	*1*					
Lane Group	*L*	*T*			*T*	*R*	*L*					
Volume (vph)	*120*	*810*			*1485*	*0*	*295*					
% Heavy Vehicles	*2*	*2*			*2*	*2*	*2*					
PHF	*0.95*	*0.95*			*0.95*	*0.95*	*0.95*					
Pretimed/Actuated (P/A)	*A*	*A*			*A*	*A*	*A*					
Startup Lost Time	*2.0*	*2.0*			*2.0*	*2.0*	*2.0*					
Extension of Effective Green	*3.0*	*3.0*			*3.0*	*2.0*	*3.0*					
Arrival Type	*3*	*3*			*3*	*3*	*4*					
Unit Extension	*3.0*	*3.0*			*3.0*	*3.0*	*3.0*					
Ped/Bike/RTOR Volume	*0*	*0*		*0*	*0*	*0*	*0*	*0*		*0*	*0*	
Lane Width	*12.0*	*12.0*			*12.0*	*12.0*	*12.0*					
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour	*0*	*0*			*0*	*0*	*0*					
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	EB Only	Thru & RT	03	04	NB Only	06	07	08
Timing	G = *5.4*	G = *27.1*	G =	G =	G = *12.5*	G =	G =	G =
	Y = *5*	Y = *5*	Y =	Y =	Y = *5*	Y =	Y =	Y =
Duration of Analysis (hrs) = *0.25*						Cycle Length C = *60.0*		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	*126*	*853*			*1563*	*0*	*311*					
Lane Group Capacity	*189*	*2276*			*3168*	*1177*	*398*					
v/c Ratio	*0.67*	*0.37*			*0.49*	*0.00*	*0.78*					
Green Ratio	*0.11*	*0.64*			*0.47*	*0.74*	*0.22*					
Uniform Delay d_1	*25.8*	*5.1*			*11.0*	*2.0*	*21.9*					
Delay Factor k	*0.24*	*0.11*			*0.11*	*0.11*	*0.33*					
Incremental Delay d_2	*8.6*	*0.1*			*0.1*	*0.0*	*9.7*					
PF Factor	*1.000*	*1.000*			*1.000*	*1.000*	*1.000*					
Control Delay	*34.4*	*5.2*			*11.1*	*2.0*	*31.6*					
Lane Group LOS	*C*	*A*			*B*	*A*	*C*					
Approach Delay	*8.9*			*11.1*			*31.6*					
Approach LOS	*A*			*B*			*C*					
Intersection Delay	*12.6*			Intersection LOS			*B*					

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group	*L*	*T*			*T*	*R*	*L*					
Initial Queue/Lane	*0.0*	*0.0*			*0.0*	*0.0*	*0.0*					
Flow Rate/Lane Group	*126*	*853*			*1563*	*0*	*311*					
Satflow/Lane	*1770*	*1862*			*1862*	*1583*	*1770*					
Capacity/Lane Group	*189*	*2276*			*3168*	*1177*	*398*					
Flow Ratio	*0.1*	*0.2*			*0.2*	*0.0*	*0.2*					
v/c Ratio	*0.67*	*0.37*			*0.49*	*0.00*	*0.78*					
I Factor	*1.000*	*1.000*			*1.000*	*1.000*	*1.000*					
Arrival Type	*3*	*3*			*3*	*3*	*4*					
Platoon Ratio	*1.00*	*1.00*			*1.00*	*1.00*	*1.33*					
PF Factor	*1.00*	*1.00*			*1.00*	*1.00*	*0.97*					
Q_1	*2.0*	*3.5*			*5.0*	*0.0*	*4.7*					
k_B	*0.2*	*0.6*			*0.5*	*0.6*	*0.3*					
Q_2	*0.4*	*0.4*			*0.5*	*0.0*	*1.0*					
Q Average	*2.4*	*3.9*			*5.4*	*0.0*	*5.8*					
Percentile Back of Queue (95th percentile)												
$f_{B\%}$	*2.0*	*2.0*			*1.9*	*2.1*	*1.9*					
Back of Queue	*4.9*	*7.7*			*10.6*	*0.0*	*11.1*					
Queue Storage Ratio												
Queue Spacing	*25.0*	*25.0*			*25.0*	*25.0*	*25.0*					
Queue Storage	*1000*	*0*			*0*	*0*	*1100*					
Average Queue Storage Ratio	*0.1*						*0.1*					
95% Queue Storage Ratio	*0.1*						*0.3*					

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 SB Ramps at Overpass*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/20/2010*	Jurisdiction	*FDOT*
Time Period	*AM*	Analysis Year	*Build 2022-Diamond*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes		*3*	*1*	*2*	*2*					*2*		*1*
Lane Group		*T*	*R*	*L*	*T*					*L*		*R*
Volume (vph)		*435*	*295*	*1540*	*700*					*605*		*120*
% Heavy Vehicles		*2*	*2*	*2*	*2*					*2*		*2*
PHF		*0.95*	*0.95*	*0.95*	*0.95*					*0.95*		*0.95*
Pretimed/Actuated (P/A)		*A*	*A*	*A*	*A*					*A*		*A*
Startup Lost Time		*2.0*	*2.0*	*2.0*	*2.0*					*2.0*		*2.0*
Extension of Effective Green		*3.0*	*3.0*	*3.0*	*3.0*					*3.0*		*3.0*
Arrival Type		*3*	*3*	*3*	*3*					*3*		*3*
Unit Extension		*3.0*	*3.0*	*3.0*	*3.0*					*3.0*		*3.0*
Ped/Bike/RTOR Volume	*0*	*0*	*0*	*0*	*0*		*0*	*0*		*0*	*0*	*0*
Lane Width		*12.0*	*12.0*	*12.0*	*12.0*					*12.0*		*12.0*
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour		*0*	*0*	*0*	*0*					*0*		*0*
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	WB Only	Thru & RT	03	04	SB Only	06	07	08
Timing	G = *40.7*	G = *7.5*	G =	G =	G = *16.8*	G =	G =	G =
	Y = *5*	Y = *5*	Y =	Y =	Y = *5*	Y =	Y =	Y =
Duration of Analysis (hrs) = *0.25*						Cycle Length C = *80.0*		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate		*458*	*311*	*1621*	*737*					*637*		*126*
Lane Group Capacity		*539*	*600*	*1792*	*2403*					*765*		*352*
v/c Ratio		*0.85*	*0.52*	*0.90*	*0.31*					*0.83*		*0.36*
Green Ratio		*0.11*	*0.38*	*0.52*	*0.68*					*0.22*		*0.22*
Uniform Delay d_1		*35.1*	*19.2*	*17.3*	*5.3*					*29.7*		*26.3*
Delay Factor k		*0.38*	*0.12*	*0.43*	*0.11*					*0.37*		*0.11*
Incremental Delay d_2		*12.2*	*0.8*	*7.0*	*0.1*					*7.8*		*0.6*
PF Factor		*1.000*	*1.000*	*1.000*	*1.000*					*1.000*		*1.000*
Control Delay		*47.4*	*20.0*	*24.3*	*5.3*					*37.5*		*26.9*
Lane Group LOS		*D*	*C*	*C*	*A*					*D*		*C*
Approach Delay	*36.3*			*18.4*						*35.8*		
Approach LOS	*D*			*B*						*D*		
Intersection Delay	*25.3*			Intersection LOS						*C*		

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group		*T*	*R*	*L*	*T*					*L*		*R*
Initial Queue/Lane		*0.0*	*0.0*	*0.0*	*0.0*					*0.0*		*0.0*
Flow Rate/Lane Group		*458*	*311*	*1621*	*737*					*637*		*126*
Satflow/Lane		*1862*	*1583*	*1770*	*1862*					*1770*		*1583*
Capacity/Lane Group		*539*	*600*	*1792*	*2403*					*765*		*352*
Flow Ratio		*0.1*	*0.2*	*0.5*	*0.2*					*0.2*		*0.1*
v/c Ratio		*0.85*	*0.52*	*0.90*	*0.31*					*0.83*		*0.36*
I Factor		*1.000*	*1.000*	*1.000*	*1.000*					*1.000*		*1.000*
Arrival Type		*3*	*3*	*3*	*3*					*3*		*3*
Platoon Ratio		*1.00*	*1.00*	*1.00*	*1.00*					*1.00*		*1.00*
PF Factor		*1.00*	*1.00*	*1.00*	*1.00*					*1.00*		*1.00*
Q_1		*3.7*	*5.3*	*16.8*	*3.5*					*7.0*		*2.4*
k_B		*0.2*	*0.5*	*0.6*	*0.7*					*0.4*		*0.3*
Q_2		*1.1*	*0.5*	*4.2*	*0.3*					*1.6*		*0.2*
Q Average		*4.8*	*5.8*	*21.0*	*3.8*					*8.5*		*2.6*
Percentile Back of Queue (95th percentile)												
$f_{B\%}$		*2.0*	*1.9*	*1.7*	*2.0*					*1.9*		*2.0*
Back of Queue		*9.3*	*11.3*	*35.4*	*7.6*					*16.0*		*5.2*
Queue Storage Ratio												
Queue Spacing		*25.0*	*25.0*	*25.0*	*25.0*					*25.0*		*25.0*
Queue Storage		*0*	*1000*	*500*	*0*					*1100*		*1100*
Average Queue Storage Ratio			*0.1*	*1.0*						*0.2*		*0.1*
95% Queue Storage Ratio			*0.3*	*1.8*						*0.4*		*0.1*

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 SB Ramps at Overpass*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/20/2010*	Jurisdiction	*FDOT*
Time Period	*PM*	Analysis Year	*Build 2022-Diamond*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes		*3*	*1*	*2*	*2*					*2*		*1*
Lane Group		*T*	*R*	*L*	*T*					*L*		*R*
Volume (vph)		*440*	*380*	*1150*	*630*					*490*		*100*
% Heavy Vehicles		*2*	*2*	*2*	*2*					*2*		*2*
PHF		*0.95*	*0.95*	*0.95*	*0.95*					*0.95*		*0.95*
Pretimed/Actuated (P/A)		*A*	*A*	*A*	*A*					*A*		*A*
Startup Lost Time		*2.0*	*2.0*	*2.0*	*2.0*					*2.0*		*2.0*
Extension of Effective Green		*3.0*	*3.0*	*3.0*	*3.0*					*3.0*		*3.0*
Arrival Type		*3*	*3*	*3*	*3*					*3*		*3*
Unit Extension		*3.0*	*3.0*	*3.0*	*3.0*					*3.0*		*3.0*
Ped/Bike/RTOR Volume	*0*	*0*	*0*	*0*	*0*		*0*	*0*		*0*	*0*	*0*
Lane Width		*12.0*	*12.0*	*12.0*	*12.0*					*12.0*		*12.0*
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour		*0*	*0*	*0*	*0*					*0*		*0*
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	WB Only	Thru & RT	03	04	SB Only	06	07	08
Timing	G = *19.4*	G = *7.4*	G =	G =	G = *8.2*	G =	G =	G =
	Y = *5*	Y = *5*	Y =	Y =	Y = *5*	Y =	Y =	Y =
Duration of Analysis (hrs) = *0.25*						Cycle Length C = *50.0*		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate		*463*	*400*	*1211*	*663*					*516*		*105*
Lane Group Capacity		*852*	*684*	*1402*	*2327*					*632*		*291*
v/c Ratio		*0.54*	*0.58*	*0.86*	*0.28*					*0.82*		*0.36*
Green Ratio		*0.17*	*0.43*	*0.41*	*0.66*					*0.18*		*0.18*
Uniform Delay d_1		*19.0*	*10.8*	*13.5*	*3.6*					*19.6*		*17.8*
Delay Factor k		*0.14*	*0.18*	*0.39*	*0.11*					*0.36*		*0.11*
Incremental Delay d_2		*0.7*	*1.3*	*5.9*	*0.1*					*8.2*		*0.8*
PF Factor		*1.000*	*1.000*	*1.000*	*1.000*					*1.000*		*1.000*
Control Delay		*19.8*	*12.1*	*19.4*	*3.7*					*27.8*		*18.6*
Lane Group LOS		*B*	*B*	*B*	*A*					*C*		*B*
Approach Delay		*16.2*			*13.8*					*26.3*		
Approach LOS		*B*			*B*					*C*		
Intersection Delay		*16.7*			Intersection LOS					*B*		

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group		*T*	*R*	*L*	*T*					*L*		*R*
Initial Queue/Lane		*0.0*	*0.0*	*0.0*	*0.0*					*0.0*		*0.0*
Flow Rate/Lane Group		*463*	*400*	*1211*	*663*					*516*		*105*
Satflow/Lane		*1862*	*1583*	*1770*	*1862*					*1770*		*1583*
Capacity/Lane Group		*852*	*684*	*1402*	*2327*					*632*		*291*
Flow Ratio		*0.1*	*0.3*	*0.4*	*0.2*					*0.1*		*0.1*
v/c Ratio		*0.54*	*0.58*	*0.86*	*0.28*					*0.82*		*0.36*
I Factor		*1.000*	*1.000*	*1.000*	*1.000*					*1.000*		*1.000*
Arrival Type		*3*	*3*	*3*	*3*					*3*		*3*
Platoon Ratio		*1.00*	*1.00*	*1.00*	*1.00*					*1.00*		*1.00*
PF Factor		*1.00*	*1.00*	*1.00*	*1.00*					*1.00*		*1.00*
Q_1		*2.1*	*4.2*	*7.9*	*2.0*					*3.5*		*1.3*
k_B		*0.2*	*0.4*	*0.4*	*0.5*					*0.2*		*0.2*
Q_2		*0.3*	*0.5*	*2.2*	*0.2*					*1.0*		*0.1*
Q Average		*2.4*	*4.8*	*10.1*	*2.3*					*4.5*		*1.4*
Percentile Back of Queue (95th percentile)												
$f_{B\%}$		*2.0*	*2.0*	*1.8*	*2.0*					*2.0*		*2.1*
Back of Queue		*4.9*	*9.3*	*18.6*	*4.6*					*8.9*		*2.9*
Queue Storage Ratio												
Queue Spacing		*25.0*	*25.0*	*25.0*	*25.0*					*25.0*		*25.0*
Queue Storage		*0*	*1000*	*500*	*0*					*1100*		*1100*
Average Queue Storage Ratio			*0.1*	*0.5*						*0.1*		*0.0*
95% Queue Storage Ratio			*0.2*	*0.9*						*0.2*		*0.1*

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 at Overpass*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/20/2010*	Jurisdiction	*FDOT*
Time Period	*AM*	Analysis Year	*Build 2022-SPUI*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	*1*	*2*		*2*	*2*		*1*			*2*		
Lane Group	*L*	*T*		*L*	*T*		*L*			*L*		
Volume (vph)	*100*	*335*		*1540*	*320*		*380*			*605*		
% Heavy Vehicles	*2*	*2*		*2*	*2*		*2*			*2*		
PHF	*0.95*	*0.95*		*0.95*	*0.95*		*0.95*			*0.95*		
Pretimed/Actuated (P/A)	*A*	*A*		*A*	*A*		*A*			*A*		
Startup Lost Time	*2.0*	*2.0*		*2.0*	*2.0*		*2.0*			*2.0*		
Extension of Effective Green	*3.0*	*3.0*		*2.0*	*3.0*		*3.0*			*2.0*		
Arrival Type	*3*	*3*		*3*	*3*		*3*			*3*		
Unit Extension	*3.0*	*3.0*		*3.0*	*3.0*		*3.0*			*3.0*		
Ped/Bike/RTOR Volume	*0*	*0*		*0*	*0*		*0*	*0*		*0*	*0*	
Lane Width	*12.0*	*12.0*		*12.0*	*12.0*		*12.0*			*12.0*		
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour	*0*	*0*		*0*	*0*		*0*			*0*		
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	Excl. Left	Thru Only	03	04	Excl. Left	06	07	08
Timing	G = *39.4*	G = *8.9*	G =	G =	G = *16.7*	G =	G =	G =
	Y = *5*	Y = *5*	Y =	Y =	Y = *5*	Y =	Y =	Y =
Duration of Analysis (hrs) = *0.25*						Cycle Length C = *80.0*		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	*105*	*353*		*1621*	*337*		*400*			*637*		
Lane Group Capacity	*894*	*439*		*1693*	*439*		*392*			*717*		
v/c Ratio	*0.12*	*0.80*		*0.96*	*0.77*		*1.02*			*0.89*		
Green Ratio	*0.50*	*0.12*		*0.49*	*0.12*		*0.22*			*0.21*		
Uniform Delay d_1	*10.4*	*34.1*		*19.5*	*33.9*		*31.1*			*30.7*		
Delay Factor k	*0.11*	*0.35*		*0.47*	*0.32*		*0.50*			*0.41*		
Incremental Delay d_2	*0.1*	*10.4*		*13.2*	*8.0*		*50.7*			*13.1*		
PF Factor	*1.000*	*1.000*		*1.000*	*1.000*		*1.000*			*1.000*		
Control Delay	*10.5*	*44.6*		*32.7*	*42.0*		*81.9*			*43.8*		
Lane Group LOS	*B*	*D*		*C*	*D*		*F*			*D*		
Approach Delay	*36.7*			*34.3*			*81.9*			*43.8*		
Approach LOS	*D*			*C*			*F*			*D*		
Intersection Delay	*41.9*			Intersection LOS						*D*		

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group	*L*	*T*		*L*	*T*		*L*			*L*		
Initial Queue/Lane	*0.0*	*0.0*		*0.0*	*0.0*		*0.0*			*0.0*		
Flow Rate/Lane Group	*105*	*353*		*1621*	*337*		*400*			*637*		
Satflow/Lane	*1770*	*1862*		*1770*	*1862*		*1770*			*1770*		
Capacity/Lane Group	*894*	*439*		*1693*	*439*		*392*			*717*		
Flow Ratio	*0.1*	*0.1*		*0.5*	*0.1*		*0.2*			*0.2*		
v/c Ratio	*0.12*	*0.80*		*0.96*	*0.77*		*1.02*			*0.89*		
I Factor	*1.000*	*1.000*		*1.000*	*1.000*		*1.000*			*1.000*		
Arrival Type	*3*	*3*		*3*	*3*		*3*			*3*		
Platoon Ratio	*1.00*	*1.00*		*1.00*	*1.00*		*1.00*			*1.00*		
PF Factor	*1.00*	*1.00*		*1.00*	*1.00*		*1.00*			*1.00*		
Q_1	*1.2*	*4.0*		*17.8*	*3.8*		*8.9*			*7.1*		
k_B	*0.6*	*0.3*		*0.6*	*0.3*		*0.4*			*0.4*		
Q_2	*0.1*	*0.9*		*5.9*	*0.8*		*4.8*			*2.0*		
Q Average	*1.3*	*4.9*		*23.7*	*4.6*		*13.7*			*9.1*		
Percentile Back of Queue (95th percentile)												
$f_{B\%}$	*2.1*	*2.0*		*1.7*	*2.0*		*1.8*			*1.9*		
Back of Queue	*2.7*	*9.7*		*39.3*	*9.0*		*24.4*			*17.0*		
Queue Storage Ratio												
Queue Spacing	*25.0*	*25.0*		*25.0*	*25.0*		*25.0*			*25.0*		
Queue Storage	*1000*	*0*		*0*	*0*		*1100*			*0*		
Average Queue Storage Ratio	*0.0*						*0.3*					
95% Queue Storage Ratio	*0.1*						*0.6*					

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 at Overpass*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/20/2010*	Jurisdiction	*FDOT*
Time Period	*PM*	Analysis Year	*Build 2022-SPUI*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	*1*	*2*		*2*	*2*		*1*			*2*		
Lane Group	*L*	*T*		*L*	*T*		*L*			*L*		
Volume (vph)	*120*	*320*		*1150*	*335*		*295*			*490*		
% Heavy Vehicles	*2*	*2*		*2*	*2*		*2*			*2*		
PHF	*0.95*	*0.95*		*0.95*	*0.95*		*0.95*			*0.95*		
Pretimed/Actuated (P/A)	*A*	*A*		*A*	*A*		*A*			*A*		
Startup Lost Time	*2.0*	*2.0*		*2.0*	*2.0*		*2.0*			*2.0*		
Extension of Effective Green	*3.0*	*3.0*		*2.0*	*3.0*		*3.0*			*2.0*		
Arrival Type	*3*	*3*		*3*	*3*		*3*			*3*		
Unit Extension	*3.0*	*3.0*		*3.0*	*3.0*		*3.0*			*3.0*		
Ped/Bike/RTOR Volume	*0*	*0*		*0*	*0*		*0*	*0*		*0*	*0*	
Lane Width	*12.0*	*12.0*		*12.0*	*12.0*		*12.0*			*12.0*		
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour	*0*	*0*		*0*	*0*		*0*			*0*		
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	Excl. Left	Thru Only	03	04	Excl. Left	06	07	08
Timing	G = *24.6*	G = *7.9*	G =	G =	G = *12.5*	G =	G =	G =
	Y = *5*	Y = *5*	Y =	Y =	Y = *5*	Y =	Y =	Y =

Duration of Analysis (hrs) = *0.25*	Cycle Length C = *60.0*

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	*126*	*337*		*1211*	*353*		*311*			*516*		
Lane Group Capacity	*755*	*526*		*1409*	*526*		*398*			*716*		
v/c Ratio	*0.17*	*0.64*		*0.86*	*0.67*		*0.78*			*0.72*		
Green Ratio	*0.43*	*0.15*		*0.41*	*0.15*		*0.22*			*0.21*		
Uniform Delay d_1	*10.6*	*24.0*		*16.1*	*24.2*		*21.9*			*22.1*		
Delay Factor k	*0.11*	*0.22*		*0.39*	*0.24*		*0.33*			*0.28*		
Incremental Delay d_2	*0.1*	*2.6*		*5.6*	*3.3*		*9.7*			*3.6*		
PF Factor	*1.000*	*1.000*		*1.000*	*1.000*		*1.000*			*1.000*		
Control Delay	*10.7*	*26.7*		*21.7*	*27.5*		*31.6*			*25.7*		
Lane Group LOS	*B*	*C*		*C*	*C*		*C*			*C*		
Approach Delay	*22.3*			*23.0*			*31.6*			*25.7*		
Approach LOS	*C*			*C*			*C*			*C*		
Intersection Delay	*24.3*			Intersection LOS			*C*					

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group	*L*	*T*		*L*	*T*		*L*			*L*		
Initial Queue/Lane	*0.0*	*0.0*		*0.0*	*0.0*		*0.0*			*0.0*		
Flow Rate/Lane Group	*126*	*337*		*1211*	*353*		*311*			*516*		
Satflow/Lane	*1770*	*1862*		*1770*	*1862*		*1770*			*1770*		
Capacity/Lane Group	*755*	*526*		*1409*	*526*		*398*			*716*		
Flow Ratio	*0.1*	*0.1*		*0.4*	*0.1*		*0.2*			*0.1*		
v/c Ratio	*0.17*	*0.64*		*0.86*	*0.67*		*0.78*			*0.72*		
I Factor	*1.000*	*1.000*		*1.000*	*1.000*		*1.000*			*1.000*		
Arrival Type	*3*	*3*		*3*	*3*		*3*			*3*		
Platoon Ratio	*1.00*	*1.00*		*1.00*	*1.00*		*1.00*			*1.00*		
PF Factor	*1.00*	*1.00*		*1.00*	*1.00*		*1.00*			*1.00*		
Q_1	*1.3*	*2.8*		*9.5*	*2.9*		*4.9*			*4.1*		
k_B	*0.5*	*0.2*		*0.4*	*0.2*		*0.3*			*0.3*		
Q_2	*0.1*	*0.4*		*2.3*	*0.5*		*1.0*			*0.7*		
Q Average	*1.4*	*3.2*		*11.8*	*3.4*		*5.9*			*4.8*		
Percentile Back of Queue (95th percentile)												
$f_{B\%}$	*2.1*	*2.0*		*1.8*	*2.0*		*1.9*			*2.0*		
Back of Queue	*2.9*	*6.4*		*21.3*	*6.8*		*11.4*			*9.5*		
Queue Storage Ratio												
Queue Spacing	*25.0*	*25.0*		*25.0*	*25.0*		*25.0*			*25.0*		
Queue Storage	*1000*	*0*		*0*	*0*		*1100*			*0*		
Average Queue Storage Ratio	*0.0*						*0.1*					
95% Queue Storage Ratio	*0.1*						*0.3*					

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 NB Ramps at Overpass*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/20/2010*	Jurisdiction	*FDOT*
Time Period	*AM*	Analysis Year	*Build 2022-DDI*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes		*2*			*4*							
Lane Group		*T*			*T*							
Volume (vph)		*940*			*1860*							
% Heavy Vehicles		*2*			*2*							
PHF		*0.95*			*0.95*							
Pretimed/Actuated (P/A)		*A*			*A*							
Startup Lost Time		*2.0*			*2.0*							
Extension of Effective Green		*3.0*			*3.0*							
Arrival Type		*3*			*3*							
Unit Extension		*3.0*			*3.0*							
Ped/Bike/RTOR Volume	*0*	*0*		*0*	*0*		*0*	*0*		*0*	*0*	
Lane Width		*12.0*			*12.0*							
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour		*0*			*0*							
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	EB Only	WB Only	03	04	05	06	07	08
Timing	G = *25.1*	G = *24.9*	G =	G =	G =	G =	G =	G =
	Y = *5*	Y = *5*	Y =	Y =	Y =	Y =	Y =	Y =

Duration of Analysis (hrs) = *0.25*

Cycle Length C = *60.0*

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate		*989*			*1958*							
Lane Group Capacity		*1543*			*2920*							
v/c Ratio		*0.64*			*0.67*							
Green Ratio		*0.44*			*0.43*							
Uniform Delay d_1		*13.3*			*13.6*							
Delay Factor k		*0.22*			*0.24*							
Incremental Delay d_2		*0.9*			*0.6*							
PF Factor		*1.000*			*1.000*							
Control Delay		*14.2*			*14.2*							
Lane Group LOS		*B*			*B*							
Approach Delay	*14.2*			*14.2*								
Approach LOS	*B*			*B*								
Intersection Delay	*14.2*			Intersection LOS						*B*		

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group		*T*			*T*							
Initial Queue/Lane		*0.0*			*0.0*							
Flow Rate/Lane Group		*989*			*1958*							
Satflow/Lane		*1862*			*1862*							
Capacity/Lane Group		*1543*			*2920*							
Flow Ratio		*0.3*			*0.3*							
v/c Ratio		*0.64*			*0.67*							
I Factor		*1.000*			*1.000*							
Arrival Type		*3*			*3*							
Platoon Ratio		*1.00*			*1.00*							
PF Factor		*1.00*			*1.00*							
Q_1		*6.8*			*7.2*							
k_B		*0.5*			*0.5*							
Q_2		*0.8*			*0.9*							
Q Average		*7.6*			*8.1*							
Percentile Back of Queue (95th percentile)												
$f_{B\%}$		*1.9*			*1.9*							
Back of Queue		*14.4*			*15.3*							
Queue Storage Ratio												
Queue Spacing		*25.0*			*25.0*							
Queue Storage		*0*			*0*							
Average Queue Storage Ratio												
95% Queue Storage Ratio												

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 NB Ramps at Overpass*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/20/2010*	Jurisdiction	*FDOT*
Time Period	*PM*	Analysis Year	*Build 2022-DDI*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes		*2*			*4*							
Lane Group		*T*			*T*							
Volume (vph)		*810*			*1485*							
% Heavy Vehicles		*2*			*2*							
PHF		*0.95*			*0.95*							
Pretimed/Actuated (P/A)		*A*			*A*							
Startup Lost Time		*2.0*			*2.0*							
Extension of Effective Green		*3.0*			*3.0*							
Arrival Type		*3*			*3*							
Unit Extension		*3.0*			*3.0*							
Ped/Bike/RTOR Volume	*0*	*0*		*0*	*0*		*0*	*0*		*0*	*0*	
Lane Width		*12.0*			*12.0*							
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour		*0*			*0*							
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	EB Only	WB Only	03	04	05	06	07	08
Timing	G = *25.0*	G = *25.0*	G =	G =	G =	G =	G =	G =
	Y = *5*	Y = *5*	Y =	Y =	Y =	Y =	Y =	Y =

Duration of Analysis (hrs) = *0.25* | Cycle Length C = *60.0*

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate		*853*			*1563*							
Lane Group Capacity		*1537*			*2932*							
v/c Ratio		*0.55*			*0.53*							
Green Ratio		*0.43*			*0.43*							
Uniform Delay d_1		*12.7*			*12.5*							
Delay Factor k		*0.15*			*0.14*							
Incremental Delay d_2		*0.4*			*0.2*							
PF Factor		*1.000*			*1.000*							
Control Delay		*13.1*			*12.7*							
Lane Group LOS		*B*			*B*							
Approach Delay	*13.1*			*12.7*								
Approach LOS	*B*			*B*								
Intersection Delay	*12.9*			Intersection LOS						*B*		

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group		*T*	*R*	*L*	*T*					*L*		*R*
Initial Queue/Lane		*0.0*	*0.0*	*0.0*	*0.0*					*0.0*		*0.0*
Flow Rate/Lane Group		*458*	*311*	*1621*	*737*					*637*		*126*
Satflow/Lane		*1862*	*1583*	*1770*	*1862*					*1770*		*1583*
Capacity/Lane Group		*539*	*600*	*1792*	*2403*					*765*		*352*
Flow Ratio		*0.1*	*0.2*	*0.5*	*0.2*					*0.2*		*0.1*
v/c Ratio		*0.85*	*0.52*	*0.90*	*0.31*					*0.83*		*0.36*
I Factor		*1.000*	*1.000*	*1.000*	*1.000*					*1.000*		*1.000*
Arrival Type		*3*	*3*	*3*	*3*					*3*		*3*
Platoon Ratio		*1.00*	*1.00*	*1.00*	*1.00*					*1.00*		*1.00*
PF Factor		*1.00*	*1.00*	*1.00*	*1.00*					*1.00*		*1.00*
Q_1		*3.7*	*5.3*	*16.8*	*3.5*					*7.0*		*2.4*
k_B		*0.2*	*0.5*	*0.6*	*0.7*					*0.4*		*0.3*
Q_2		*1.1*	*0.5*	*4.2*	*0.3*					*1.6*		*0.2*
Q Average		*4.8*	*5.8*	*21.0*	*3.8*					*8.5*		*2.6*
Percentile Back of Queue (95th percentile)												
$f_{B\%}$		*2.0*	*1.9*	*1.7*	*2.0*					*1.9*		*2.0*
Back of Queue		*9.3*	*11.3*	*35.4*	*7.6*					*16.0*		*5.2*
Queue Storage Ratio												
Queue Spacing		*25.0*	*25.0*	*25.0*	*25.0*					*25.0*		*25.0*
Queue Storage		*0*	*1000*	*500*	*0*					*1100*		*1100*
Average Queue Storage Ratio			*0.1*	*1.0*						*0.2*		*0.1*
95% Queue Storage Ratio			*0.3*	*1.8*						*0.4*		*0.1*

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 SB Ramps at Overpass*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/20/2010*	Jurisdiction	*FDOT*
Time Period	*AM*	Analysis Year	*Build 2022-DDI*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes		*3*			*2*							
Lane Group		*T*			*T*							
Volume (vph)		*435*			*700*							
% Heavy Vehicles		*2*			*2*							
PHF		*0.95*			*0.95*							
Pretimed/Actuated (P/A)		*A*			*A*							
Startup Lost Time		*2.0*			*2.0*							
Extension of Effective Green		*3.0*			*3.0*							
Arrival Type		*3*			*3*							
Unit Extension		*3.0*			*3.0*							
Ped/Bike/RTOR Volume	*0*	*0*		*0*	*0*		*0*	*0*		*0*	*0*	
Lane Width		*12.0*			*12.0*							
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour		*0*			*0*							
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	EB Only	WB Only	03	04	05	06	07	08
Timing	G = *25.0*	G = *25.0*	G =	G =	G =	G =	G =	G =
	Y = *5*	Y = *5*	Y =	Y =	Y =	Y =	Y =	Y =

Duration of Analysis (hrs) = *0.25* | Cycle Length C = *60.0*

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate		*458*			*737*							
Lane Group Capacity		*2199*			*1537*							
v/c Ratio		*0.21*			*0.48*							
Green Ratio		*0.43*			*0.43*							
Uniform Delay d_1		*10.6*			*12.2*							
Delay Factor k		*0.11*			*0.11*							
Incremental Delay d_2		*0.0*			*0.2*							
PF Factor		*1.000*			*1.000*							
Control Delay		*10.6*			*12.4*							
Lane Group LOS		*B*			*B*							
Approach Delay	*10.6*			*12.4*								
Approach LOS	*B*			*B*								
Intersection Delay	*11.7*			Intersection LOS						*B*		

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group		*T*			*T*							
Initial Queue/Lane		*0.0*			*0.0*							
Flow Rate/Lane Group		*458*			*737*							
Satflow/Lane		*1862*			*1862*							
Capacity/Lane Group		*2199*			*1537*							
Flow Ratio		*0.1*			*0.2*							
v/c Ratio		*0.21*			*0.48*							
I Factor		*1.000*			*1.000*							
Arrival Type		*3*			*3*							
Platoon Ratio		*1.00*			*1.00*							
PF Factor		*1.00*			*1.00*							
Q_1		*1.7*			*4.6*							
k_B		*0.5*			*0.5*							
Q_2		*0.1*			*0.4*							
Q Average		*1.9*			*5.0*							
Percentile Back of Queue (95th percentile)												
$f_{B\%}$		*2.0*			*2.0*							
Back of Queue		*3.8*			*9.9*							
Queue Storage Ratio												
Queue Spacing		*25.0*			*25.0*							
Queue Storage		*0*			*0*							
Average Queue Storage Ratio												
95% Queue Storage Ratio												

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 SB Ramps at Overpass*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/20/2010*	Jurisdiction	*FDOT*
Time Period	*PM*	Analysis Year	*Build 2022-DDI*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes		*3*			*2*							
Lane Group		*T*			*T*							
Volume (vph)		*440*			*630*							
% Heavy Vehicles		*2*			*2*							
PHF		*0.95*			*0.95*							
Pretimed/Actuated (P/A)		*A*			*A*							
Startup Lost Time		*2.0*			*2.0*							
Extension of Effective Green		*3.0*			*3.0*							
Arrival Type		*3*			*3*							
Unit Extension		*3.0*			*3.0*							
Ped/Bike/RTOR Volume	*0*	*0*		*0*	*0*		*0*	*0*		*0*	*0*	
Lane Width		*12.0*			*12.0*							
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour		*0*			*0*							
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	EB Only	WB Only	03	04	05	06	07	08
Timing	G = *25.0*	G = *25.0*	G =	G =	G =	G =	G =	G =
	Y = *5*	Y = *5*	Y =	Y =	Y =	Y =	Y =	Y =

Duration of Analysis (hrs) = *0.25* | Cycle Length C = *60.0*

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate		*463*			*663*							
Lane Group Capacity		*2199*			*1537*							
v/c Ratio		*0.21*			*0.43*							
Green Ratio		*0.43*			*0.43*							
Uniform Delay d_1		*10.6*			*11.8*							
Delay Factor k		*0.11*			*0.11*							
Incremental Delay d_2		*0.0*			*0.2*							
PF Factor		*1.000*			*1.000*							
Control Delay		*10.6*			*12.0*							
Lane Group LOS		*B*			*B*							
Approach Delay	*10.6*			*12.0*								
Approach LOS	*B*			*B*								
Intersection Delay	*11.5*			Intersection LOS						*B*		

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group		*T*			*T*							
Initial Queue/Lane		*0.0*			*0.0*							
Flow Rate/Lane Group		*463*			*663*							
Satflow/Lane		*1862*			*1862*							
Capacity/Lane Group		*2199*			*1537*							
Flow Ratio		*0.1*			*0.2*							
v/c Ratio		*0.21*			*0.43*							
I Factor		*1.000*			*1.000*							
Arrival Type		*3*			*3*							
Platoon Ratio		*1.00*			*1.00*							
PF Factor		*1.00*			*1.00*							
Q_1		*1.8*			*4.0*							
k_B		*0.5*			*0.5*							
Q_2		*0.1*			*0.4*							
Q Average		*1.9*			*4.4*							
Percentile Back of Queue (95th percentile)												
$f_{B\%}$		*2.0*			*2.0*							
Back of Queue		*3.8*			*8.7*							
Queue Storage Ratio												
Queue Spacing		*25.0*			*25.0*							
Queue Storage		*0*			*0*							
Average Queue Storage Ratio												
95% Queue Storage Ratio												

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 NB Ramps at Overpass*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/20/2010*	Jurisdiction	*FDOT*
Time Period	*AM*	Analysis Year	*Build 2022-Flyover*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	*1*	*2*			*2*	*1*	*1*					
Lane Group	*L*	*T*			*T*	*R*	*L*					
Volume (vph)	*100*	*940*			*320*	*490*	*380*					
% Heavy Vehicles	*2*	*2*			*2*	*2*	*2*					
PHF	*0.95*	*0.95*			*0.95*	*0.95*	*0.95*					
Pretimed/Actuated (P/A)	*A*	*A*			*A*	*A*	*A*					
Startup Lost Time	*2.0*	*2.0*			*2.0*	*2.0*	*2.0*					
Extension of Effective Green	*3.0*	*3.0*			*3.0*	*2.0*	*3.0*					
Arrival Type	*3*	*3*			*3*	*3*	*4*					
Unit Extension	*3.0*	*3.0*			*3.0*	*3.0*	*3.0*					
Ped/Bike/RTOR Volume	*0*	*0*		*0*	*0*	*0*	*0*	*0*		*0*	*0*	
Lane Width	*12.0*	*12.0*			*12.0*	*12.0*	*12.0*					
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour	*0*	*0*			*0*	*0*	*0*					
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	EB Only	Thru & RT	03	04	NB Only	06	07	08
Timing	G = *5.1*	G = *24.8*	G =	G =	G = *15.1*	G =	G =	G =
	Y = *5*	Y = *5*	Y =	Y =	Y = *5*	Y =	Y =	Y =
Duration of Analysis (hrs) = *0.25*						Cycle Length C = *60.0*		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	*105*	*989*			*337*	*516*	*400*					
Lane Group Capacity	*180*	*2122*			*1525*	*654*	*475*					
v/c Ratio	*0.58*	*0.47*			*0.22*	*0.79*	*0.84*					
Green Ratio	*0.10*	*0.60*			*0.43*	*0.41*	*0.27*					
Uniform Delay d_1	*25.7*	*6.7*			*10.8*	*15.3*	*20.7*					
Delay Factor k	*0.17*	*0.11*			*0.11*	*0.34*	*0.38*					
Incremental Delay d_2	*4.8*	*0.2*			*0.1*	*6.5*	*12.9*					
PF Factor	*1.000*	*1.000*			*1.000*	*1.000*	*1.000*					
Control Delay	*30.5*	*6.9*			*10.8*	*21.8*	*33.6*					
Lane Group LOS	*C*	*A*			*B*	*C*	*C*					
Approach Delay	*9.1*			*17.5*			*33.6*					
Approach LOS	*A*			*B*			*C*					
Intersection Delay	*16.3*			Intersection LOS			*B*					

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group	*L*	*T*			*T*	*R*	*L*					
Initial Queue/Lane	*0.0*	*0.0*			*0.0*	*0.0*	*0.0*					
Flow Rate/Lane Group	*105*	*989*			*337*	*516*	*400*					
Satflow/Lane	*1770*	*1862*			*1862*	*1583*	*1770*					
Capacity/Lane Group	*180*	*2122*			*1525*	*654*	*475*					
Flow Ratio	*0.1*	*0.3*			*0.1*	*0.3*	*0.2*					
v/c Ratio	*0.58*	*0.47*			*0.22*	*0.79*	*0.84*					
I Factor	*1.000*	*1.000*			*1.000*	*1.000*	*1.000*					
Arrival Type	*3*	*3*			*3*	*3*	*4*					
Platoon Ratio	*1.00*	*1.00*			*1.00*	*1.00*	*1.33*					
PF Factor	*1.00*	*1.00*			*1.00*	*1.00*	*0.97*					
Q_1	*1.7*	*4.8*			*1.8*	*7.5*	*6.1*					
k_B	*0.2*	*0.6*			*0.5*	*0.4*	*0.3*					
Q_2	*0.3*	*0.5*			*0.1*	*1.4*	*1.6*					
Q Average	*1.9*	*5.3*			*2.0*	*8.9*	*7.7*					
Percentile Back of Queue (95th percentile)												
$f_{B\%}$	*2.0*	*1.9*			*2.0*	*1.9*	*1.9*					
Back of Queue	*3.9*	*10.4*			*4.0*	*16.7*	*14.6*					
Queue Storage Ratio												
Queue Spacing	*25.0*	*25.0*			*25.0*	*25.0*	*25.0*					
Queue Storage	*1000*	*0*			*0*	*0*	*1100*					
Average Queue Storage Ratio	*0.0*						*0.2*					
95% Queue Storage Ratio	*0.1*						*0.3*					

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 NB Ramps at Overpass*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/20/2010*	Jurisdiction	*FDOT*
Time Period	*PM*	Analysis Year	*Build 2022-Flyover*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	*1*	*2*			*2*	*1*	*1*					
Lane Group	*L*	*T*			*T*	*R*	*L*					
Volume (vph)	*120*	*810*			*335*	*0*	*295*					
% Heavy Vehicles	*2*	*2*			*2*	*2*	*2*					
PHF	*0.95*	*0.95*			*0.95*	*0.95*	*0.95*					
Pretimed/Actuated (P/A)	*A*	*A*			*A*	*A*	*A*					
Startup Lost Time	*2.0*	*2.0*			*2.0*	*2.0*	*2.0*					
Extension of Effective Green	*3.0*	*3.0*			*3.0*	*2.0*	*3.0*					
Arrival Type	*3*	*3*			*3*	*3*	*4*					
Unit Extension	*3.0*	*3.0*			*3.0*	*3.0*	*3.0*					
Ped/Bike/RTOR Volume	*0*	*0*		*0*	*0*	*0*	*0*	*0*		*0*	*0*	
Lane Width	*12.0*	*12.0*			*12.0*	*12.0*	*12.0*					
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour	*0*	*0*			*0*	*0*	*0*					
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	EB Only	Thru & RT	03	04	NB Only	06	07	08
Timing	G = *13.3*	G = *15.4*	G =	G =	G = *16.3*	G =	G =	G =
	Y = *5*	Y = *5*	Y =	Y =	Y = *5*	Y =	Y =	Y =
Duration of Analysis (hrs) = *0.25*						Cycle Length C = *60.0*		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	*126*	*853*			*353*	*0*	*311*					
Lane Group Capacity	*422*	*2051*			*970*	*968*	*510*					
v/c Ratio	*0.30*	*0.42*			*0.36*	*0.00*	*0.61*					
Green Ratio	*0.24*	*0.58*			*0.27*	*0.61*	*0.29*					
Uniform Delay d_1	*18.7*	*7.0*			*17.6*	*4.5*	*18.4*					
Delay Factor k	*0.11*	*0.11*			*0.11*	*0.11*	*0.20*					
Incremental Delay d_2	*0.4*	*0.1*			*0.2*	*0.0*	*2.1*					
PF Factor	*1.000*	*1.000*			*1.000*	*1.000*	*0.995*					
Control Delay	*19.1*	*7.2*			*17.8*	*4.5*	*20.5*					
Lane Group LOS	*B*	*A*			*B*	*A*	*C*					
Approach Delay	*8.7*			*17.8*			*20.5*					
Approach LOS	*A*			*B*			*C*					
Intersection Delay	*12.9*			Intersection LOS						*B*		

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group	*L*	*T*			*T*	*R*	*L*					
Initial Queue/Lane	*0.0*	*0.0*			*0.0*	*0.0*	*0.0*					
Flow Rate/Lane Group	*126*	*853*			*353*	*0*	*311*					
Satflow/Lane	*1770*	*1862*			*1862*	*1583*	*1770*					
Capacity/Lane Group	*422*	*2051*			*970*	*968*	*510*					
Flow Ratio	*0.1*	*0.2*			*0.1*	*0.0*	*0.2*					
v/c Ratio	*0.30*	*0.42*			*0.36*	*0.00*	*0.61*					
I Factor	*1.000*	*1.000*			*1.000*	*1.000*	*1.000*					
Arrival Type	*3*	*3*			*3*	*3*	*4*					
Platoon Ratio	*1.00*	*1.00*			*1.00*	*1.00*	*1.33*					
PF Factor	*1.00*	*1.00*			*1.00*	*1.00*	*0.93*					
Q_1	*1.7*	*4.1*			*2.5*	*0.0*	*4.2*					
k_B	*0.3*	*0.6*			*0.4*	*0.5*	*0.4*					
Q_2	*0.1*	*0.4*			*0.2*	*0.0*	*0.6*					
Q Average	*1.9*	*4.5*			*2.7*	*0.0*	*4.7*					

Percentile Back of Queue (95th percentile)

$f_{B\%}$	*2.0*	*2.0*			*2.0*	*2.1*	*2.0*					
Back of Queue	*3.8*	*8.9*			*5.4*	*0.0*	*9.3*					

Queue Storage Ratio

Queue Spacing	*25.0*	*25.0*			*25.0*	*25.0*	*25.0*					
Queue Storage	*1000*	*0*			*0*	*0*	*1100*					
Average Queue Storage Ratio	*0.0*						*0.1*					
95% Queue Storage Ratio	*0.1*						*0.2*					

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 SB Ramps at Overpass*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/20/2010*	Jurisdiction	*FDOT*
Time Period	*AM*	Analysis Year	*Build 2022-Flyover*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes		*3*	*1*		*2*					*2*		*1*
Lane Group		*T*	*R*		*T*					*L*		*R*
Volume (vph)		*435*	*295*		*700*					*605*		*120*
% Heavy Vehicles		*2*	*2*		*2*					*2*		*2*
PHF		*0.95*	*0.95*		*0.95*					*0.95*		*0.95*
Pretimed/Actuated (P/A)		*A*	*A*		*A*					*A*		*A*
Startup Lost Time		*2.0*	*2.0*		*2.0*					*2.0*		*2.0*
Extension of Effective Green		*3.0*	*3.0*		*3.0*					*3.0*		*3.0*
Arrival Type		*3*	*3*		*3*					*3*		*3*
Unit Extension		*3.0*	*3.0*		*3.0*					*3.0*		*3.0*
Ped/Bike/RTOR Volume	*0*	*0*	*0*	*0*	*0*		*0*	*0*		*0*	*0*	*0*
Lane Width		*12.0*	*12.0*		*12.0*					*12.0*		*12.0*
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour		*0*	*0*		*0*					*0*		*0*
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	Thru & RT	02	03	04	SB Only	06	07	08
Timing	G = *28.6*	G =	G =	G =	G = *21.4*	G =	G =	G =
	Y = *5*	Y =	Y =	Y =	Y = *5*	Y =	Y =	Y =
Duration of Analysis (hrs) = *0.25*						Cycle Length C = *60.0*		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate		*458*	*311*		*737*					*637*		*126*
Lane Group Capacity		*2503*	*1583*		*1750*					*1283*		*591*
v/c Ratio		*0.18*	*0.20*		*0.42*					*0.50*		*0.21*
Green Ratio		*0.49*	*1.00*		*0.49*					*0.37*		*0.37*
Uniform Delay d_1		*8.5*	*0.0*		*9.7*					*14.5*		*12.8*
Delay Factor k		*0.11*	*0.11*		*0.11*					*0.11*		*0.11*
Incremental Delay d_2		*0.0*	*0.1*		*0.2*					*0.3*		*0.2*
PF Factor		*1.000*	*0.950*		*1.000*					*1.000*		*1.000*
Control Delay		*8.5*	*0.1*		*9.9*					*14.8*		*13.0*
Lane Group LOS		*A*	*A*		*A*					*B*		*B*
Approach Delay		*5.1*			*9.9*					*14.5*		
Approach LOS		*A*			*A*					*B*		
Intersection Delay		*9.8*			Intersection LOS					*A*		

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group		*T*	*R*		*T*					*L*		*R*
Initial Queue/Lane		*0.0*	*0.0*		*0.0*					*0.0*		*0.0*
Flow Rate/Lane Group		*458*	*311*		*737*					*637*		*126*
Satflow/Lane		*1862*	*1583*		*1862*					*1770*		*1583*
Capacity/Lane Group		*2503*	*1583*		*1750*					*1283*		*591*
Flow Ratio		*0.1*	*0.2*		*0.2*					*0.2*		*0.1*
v/c Ratio		*0.18*	*0.20*		*0.42*					*0.50*		*0.21*
I Factor		*1.000*	*1.000*		*1.000*					*1.000*		*1.000*
Arrival Type		*3*	*3*		*3*					*3*		*3*
Platoon Ratio		*1.00*	*1.00*		*1.00*					*1.00*		*1.00*
PF Factor		*1.00*	*1.00*		*1.00*					*1.00*		*1.00*
Q_1		*1.6*	*0.0*		*4.1*					*4.2*		*1.4*
k_B		*0.5*	*0.7*		*0.5*					*0.4*		*0.4*
Q_2		*0.1*	*0.2*		*0.4*					*0.4*		*0.1*
Q Average		*1.7*	*0.2*		*4.5*					*4.6*		*1.5*
Percentile Back of Queue (95th percentile)												
$f_{B\%}$		*2.0*	*2.1*		*2.0*					*2.0*		*2.1*
Back of Queue		*3.4*	*0.4*		*8.8*					*9.1*		*3.2*
Queue Storage Ratio												
Queue Spacing		*25.0*	*25.0*		*25.0*					*25.0*		*25.0*
Queue Storage		*0*	*1000*		*0*					*1100*		*1100*
Average Queue Storage Ratio			*0.0*							*0.1*		*0.0*
95% Queue Storage Ratio			*0.0*							*0.2*		*0.1*

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 SB Ramps at Overpass*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/20/2010*	Jurisdiction	*FDOT*
Time Period	*PM*	Analysis Year	*Build 2022-Flyover*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes		*3*	*1*		*2*					*2*		*1*
Lane Group		*T*	*R*		*T*					*L*		*R*
Volume (vph)		*440*	*380*		*630*					*490*		*100*
% Heavy Vehicles		*2*	*2*		*2*					*2*		*2*
PHF		*0.95*	*0.95*		*0.95*					*0.95*		*0.95*
Pretimed/Actuated (P/A)		*A*	*A*		*A*					*A*		*A*
Startup Lost Time		*2.0*	*2.0*		*2.0*					*2.0*		*2.0*
Extension of Effective Green		*3.0*	*3.0*		*3.0*					*3.0*		*3.0*
Arrival Type		*3*	*3*		*3*					*3*		*3*
Unit Extension		*3.0*	*3.0*		*3.0*					*3.0*		*3.0*
Ped/Bike/RTOR Volume	*0*	*0*	*0*	*0*	*0*		*0*	*0*		*0*	*0*	*0*
Lane Width		*12.0*	*12.0*		*12.0*					*12.0*		*12.0*
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour		*0*	*0*		*0*					*0*		*0*
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	Thru & RT	02	03	04	SB Only	06	07	08
Timing	G = *31.6*	G =	G =	G =	G = *18.4*	G =	G =	G =
	Y = *5*	Y =	Y =	Y =	Y = *5*	Y =	Y =	Y =
Duration of Analysis (hrs) = *0.25*						Cycle Length C = *60.0*		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate		*463*	*400*		*663*					*516*		*105*
Lane Group Capacity		*2757*	*1583*		*1927*					*1111*		*512*
v/c Ratio		*0.17*	*0.25*		*0.34*					*0.46*		*0.21*
Green Ratio		*0.54*	*1.00*		*0.54*					*0.32*		*0.32*
Uniform Delay d_1		*6.9*	*0.0*		*7.7*					*16.2*		*14.7*
Delay Factor k		*0.11*	*0.11*		*0.11*					*0.11*		*0.11*
Incremental Delay d_2		*0.0*	*0.1*		*0.1*					*0.3*		*0.2*
PF Factor		*1.000*	*0.950*		*1.000*					*1.000*		*1.000*
Control Delay		*6.9*	*0.1*		*7.8*					*16.5*		*14.9*
Lane Group LOS		*A*	*A*		*A*					*B*		*B*
Approach Delay		*3.7*			*7.8*					*16.2*		
Approach LOS		*A*			*A*					*B*		
Intersection Delay		*8.6*			Intersection LOS					*A*		

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group		*T*	*R*		*T*					*L*		*R*
Initial Queue/Lane		*0.0*	*0.0*		*0.0*					*0.0*		*0.0*
Flow Rate/Lane Group		*463*	*400*		*663*					*516*		*105*
Satflow/Lane		*1862*	*1583*		*1862*					*1770*		*1583*
Capacity/Lane Group		*2757*	*1583*		*1927*					*1111*		*512*
Flow Ratio		*0.1*	*0.3*		*0.2*					*0.1*		*0.1*
v/c Ratio		*0.17*	*0.25*		*0.34*					*0.46*		*0.21*
I Factor		*1.000*	*1.000*		*1.000*					*1.000*		*1.000*
Arrival Type		*3*	*3*		*3*					*3*		*3*
Platoon Ratio		*1.00*	*1.00*		*1.00*					*1.00*		*1.00*
PF Factor		*1.00*	*1.00*		*1.00*					*1.00*		*1.00*
Q_1		*1.4*	*0.0*		*3.3*					*3.5*		*1.3*
k_B		*0.5*	*0.7*		*0.5*					*0.4*		*0.4*
Q_2		*0.1*	*0.2*		*0.3*					*0.3*		*0.1*
Q Average		*1.5*	*0.2*		*3.5*					*3.8*		*1.4*
Percentile Back of Queue (95th percentile)												
$f_{B\%}$		*2.1*	*2.1*		*2.0*					*2.0*		*2.1*
Back of Queue		*3.1*	*0.5*		*7.1*					*7.6*		*2.8*
Queue Storage Ratio												
Queue Spacing		*25.0*	*25.0*		*25.0*					*25.0*		*25.0*
Queue Storage		*0*	*1000*		*0*					*1100*		*1100*
Average Queue Storage Ratio			*0.0*							*0.1*		*0.0*
95% Queue Storage Ratio			*0.0*							*0.2*		*0.1*

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 NB Ramps at Overpass*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/20/2010*	Jurisdiction	*FDOT*
Time Period	*AM*	Analysis Year	*Build 2022-Loop*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	*1*	*2*			*3*	*1*	*1*					
Lane Group	*L*	*T*			*T*	*R*	*L*					
Volume (vph)	*100*	*940*			*1860*	*490*	*380*					
% Heavy Vehicles	*2*	*2*			*2*	*2*	*2*					
PHF	*0.95*	*0.95*			*0.95*	*0.95*	*0.95*					
Pretimed/Actuated (P/A)	*A*	*A*			*A*	*A*	*A*					
Startup Lost Time	*2.0*	*2.0*			*2.0*	*2.0*	*2.0*					
Extension of Effective Green	*3.0*	*3.0*			*3.0*	*2.0*	*3.0*					
Arrival Type	*3*	*3*			*3*	*3*	*4*					
Unit Extension	*3.0*	*3.0*			*3.0*	*3.0*	*3.0*					
Ped/Bike/RTOR Volume	*0*	*0*		*0*	*0*	*0*	*0*	*0*		*0*	*0*	
Lane Width	*12.0*	*12.0*			*12.0*	*12.0*	*12.0*					
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour	*0*	*0*			*0*	*0*	*0*					
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	EB Only	Thru & RT	03	04	NB Only	06	07	08
Timing	G = *5.0*	G = *32.5*	G =	G =	G = *17.5*	G =	G =	G =
	Y = *5*	Y = *5*	Y =	Y =	Y = *5*	Y =	Y =	Y =

Duration of Analysis (hrs) = *0.25* | Cycle Length C = *70.0*

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	*105*	*989*			*1958*	*516*	*400*					
Lane Group Capacity	*152*	*2204*			*2428*	*735*	*468*					
v/c Ratio	*0.69*	*0.45*			*0.81*	*0.70*	*0.85*					
Green Ratio	*0.09*	*0.62*			*0.48*	*0.46*	*0.26*					
Uniform Delay d_1	*31.1*	*7.0*			*15.5*	*14.9*	*24.5*					
Delay Factor k	*0.26*	*0.11*			*0.35*	*0.27*	*0.39*					
Incremental Delay d_2	*12.6*	*0.1*			*2.1*	*3.0*	*14.3*					
PF Factor	*1.000*	*1.000*			*1.000*	*1.000*	*1.000*					
Control Delay	*43.7*	*7.1*			*17.6*	*17.9*	*38.8*					
Lane Group LOS	*D*	*A*			*B*	*B*	*D*					
Approach Delay	*10.6*			*17.7*			*38.8*					
Approach LOS	*B*			*B*			*D*					
Intersection Delay	*17.9*			Intersection LOS						*B*		

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group	*L*	*T*			*T*	*R*	*L*					
Initial Queue/Lane	*0.0*	*0.0*			*0.0*	*0.0*	*0.0*					
Flow Rate/Lane Group	*105*	*989*			*1958*	*516*	*400*					
Satflow/Lane	*1770*	*1862*			*1862*	*1583*	*1770*					
Capacity/Lane Group	*152*	*2204*			*2428*	*735*	*468*					
Flow Ratio	*0.1*	*0.3*			*0.4*	*0.3*	*0.2*					
v/c Ratio	*0.69*	*0.45*			*0.81*	*0.70*	*0.85*					
I Factor	*1.000*	*1.000*			*1.000*	*1.000*	*1.000*					
Arrival Type	*3*	*3*			*3*	*3*	*4*					
Platoon Ratio	*1.00*	*1.00*			*1.00*	*1.00*	*1.33*					
PF Factor	*1.00*	*1.00*			*1.00*	*1.00*	*0.98*					
Q_1	*2.0*	*5.3*			*11.8*	*8.0*	*7.2*					
k_B	*0.2*	*0.6*			*0.6*	*0.5*	*0.4*					
Q_2	*0.4*	*0.5*			*2.1*	*1.1*	*1.8*					
Q Average	*2.4*	*5.8*			*13.9*	*9.1*	*9.0*					
Percentile Back of Queue (95th percentile)												
$f_{B\%}$	*2.0*	*1.9*			*1.8*	*1.9*	*1.9*					
Back of Queue	*4.8*	*11.3*			*24.8*	*16.9*	*16.8*					
Queue Storage Ratio												
Queue Spacing	*25.0*	*25.0*			*25.0*	*25.0*	*25.0*					
Queue Storage	*1000*	*0*			*0*	*0*	*1100*					
Average Queue Storage Ratio	*0.1*						*0.2*					
95% Queue Storage Ratio	*0.1*						*0.4*					

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 NB Ramps at Overpass*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/20/2010*	Jurisdiction	*FDOT*
Time Period	*PM*	Analysis Year	*Build 2022-Loop*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	*1*	*2*			*3*	*1*	*1*					
Lane Group	*L*	*T*			*T*	*R*	*L*					
Volume (vph)	*120*	*810*			*1485*	*0*	*295*					
% Heavy Vehicles	*2*	*2*			*2*	*2*	*2*					
PHF	*0.95*	*0.95*			*0.95*	*0.95*	*0.95*					
Pretimed/Actuated (P/A)	*A*	*A*			*A*	*A*	*A*					
Startup Lost Time	*2.0*	*2.0*			*2.0*	*2.0*	*2.0*					
Extension of Effective Green	*3.0*	*3.0*			*3.0*	*2.0*	*3.0*					
Arrival Type	*3*	*3*			*3*	*3*	*4*					
Unit Extension	*3.0*	*3.0*			*3.0*	*3.0*	*3.0*					
Ped/Bike/RTOR Volume	*0*	*0*		*0*	*0*	*0*	*0*	*0*		*0*	*0*	
Lane Width	*12.0*	*12.0*			*12.0*	*12.0*	*12.0*					
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour	*0*	*0*			*0*	*0*	*0*					
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	EB Only	Thru & RT	03	04	NB Only	06	07	08
Timing	G = *5.4*	G = *27.1*	G =	G =	G = *12.5*	G =	G =	G =
	Y = *5*	Y = *5*	Y =	Y =	Y = *5*	Y =	Y =	Y =
Duration of Analysis (hrs) = *0.25*						Cycle Length C = *60.0*		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	*126*	*853*			*1563*	*0*	*311*					
Lane Group Capacity	*189*	*2276*			*2376*	*1177*	*398*					
v/c Ratio	*0.67*	*0.37*			*0.66*	*0.00*	*0.78*					
Green Ratio	*0.11*	*0.64*			*0.47*	*0.74*	*0.22*					
Uniform Delay d_1	*25.8*	*5.1*			*12.3*	*2.0*	*21.9*					
Delay Factor k	*0.24*	*0.11*			*0.23*	*0.11*	*0.33*					
Incremental Delay d_2	*8.6*	*0.1*			*0.7*	*0.0*	*9.7*					
PF Factor	*1.000*	*1.000*			*1.000*	*1.000*	*1.000*					
Control Delay	*34.4*	*5.2*			*12.9*	*2.0*	*31.6*					
Lane Group LOS	*C*	*A*			*B*	*A*	*C*					
Approach Delay	*8.9*			*12.9*			*31.6*					
Approach LOS	*A*			*B*			*C*					
Intersection Delay	*13.6*			Intersection LOS			*B*					

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group	*L*	*T*			*T*	*R*	*L*					
Initial Queue/Lane	*0.0*	*0.0*			*0.0*	*0.0*	*0.0*					
Flow Rate/Lane Group	*126*	*853*			*1563*	*0*	*311*					
Satflow/Lane	*1770*	*1862*			*1862*	*1583*	*1770*					
Capacity/Lane Group	*189*	*2276*			*2376*	*1177*	*398*					
Flow Ratio	*0.1*	*0.2*			*0.3*	*0.0*	*0.2*					
v/c Ratio	*0.67*	*0.37*			*0.66*	*0.00*	*0.78*					
I Factor	*1.000*	*1.000*			*1.000*	*1.000*	*1.000*					
Arrival Type	*3*	*3*			*3*	*3*	*4*					
Platoon Ratio	*1.00*	*1.00*			*1.00*	*1.00*	*1.33*					
PF Factor	*1.00*	*1.00*			*1.00*	*1.00*	*0.97*					
Q_1	*2.0*	*3.5*			*7.3*	*0.0*	*4.7*					
k_B	*0.2*	*0.6*			*0.5*	*0.6*	*0.3*					
Q_2	*0.4*	*0.4*			*0.9*	*0.0*	*1.0*					
Q Average	*2.4*	*3.9*			*8.3*	*0.0*	*5.8*					
Percentile Back of Queue (95th percentile)												
$f_{B\%}$	*2.0*	*2.0*			*1.9*	*2.1*	*1.9*					
Back of Queue	*4.9*	*7.7*			*15.5*	*0.0*	*11.1*					
Queue Storage Ratio												
Queue Spacing	*25.0*	*25.0*			*25.0*	*25.0*	*25.0*					
Queue Storage	*1000*	*0*			*0*	*0*	*1100*					
Average Queue Storage Ratio	*0.1*						*0.1*					
95% Queue Storage Ratio	*0.1*						*0.3*					

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 SB Ramps at Overpass*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/20/2010*	Jurisdiction	*FDOT*
Time Period	*AM*	Analysis Year	*Build 2022-Loop*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes		*3*	*1*		*2*					*2*		*1*
Lane Group		*T*	*R*		*T*					*L*		*R*
Volume (vph)		*435*	*295*		*700*					*605*		*120*
% Heavy Vehicles		*2*	*2*		*2*					*2*		*2*
PHF		*0.95*	*0.95*		*0.95*					*0.95*		*0.95*
Pretimed/Actuated (P/A)		*A*	*A*		*A*					*A*		*A*
Startup Lost Time		*2.0*	*2.0*		*2.0*					*2.0*		*2.0*
Extension of Effective Green		*3.0*	*3.0*		*3.0*					*3.0*		*3.0*
Arrival Type		*3*	*3*		*3*					*3*		*3*
Unit Extension		*3.0*	*3.0*		*3.0*					*3.0*		*3.0*
Ped/Bike/RTOR Volume	*0*	*0*	*0*	*0*	*0*		*0*	*0*		*0*	*0*	*0*
Lane Width		*12.0*	*12.0*		*12.0*					*12.0*		*12.0*
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour		*0*	*0*		*0*					*0*		*0*
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	Thru & RT	02	03	04	SB Only	06	07	08
Timing	G = *30.0*	G =	G =	G =	G = *20.0*	G =	G =	G =
	Y = *5*	Y =	Y =	Y =	Y = *5*	Y =	Y =	Y =

Duration of Analysis (hrs) = *0.25* | Cycle Length C = *60.0*

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate		*458*	*311*		*737*					*637*		*126*
Lane Group Capacity		*2622*	*1583*		*1833*					*1203*		*554*
v/c Ratio		*0.17*	*0.20*		*0.40*					*0.53*		*0.23*
Green Ratio		*0.52*	*1.00*		*0.52*					*0.35*		*0.35*
Uniform Delay d_1		*7.7*	*0.0*		*8.8*					*15.6*		*13.8*
Delay Factor k		*0.11*	*0.11*		*0.11*					*0.13*		*0.11*
Incremental Delay d_2		*0.0*	*0.1*		*0.1*					*0.4*		*0.2*
PF Factor		*1.000*	*0.950*		*1.000*					*1.000*		*1.000*
Control Delay		*7.7*	*0.1*		*9.0*					*16.0*		*14.0*
Lane Group LOS		*A*	*A*		*A*					*B*		*B*
Approach Delay		*4.6*			*9.0*					*15.7*		
Approach LOS		*A*			*A*					*B*		
Intersection Delay		*9.8*			Intersection LOS					*A*		

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group		*T*	*R*		*T*					*L*		*R*
Initial Queue/Lane		*0.0*	*0.0*		*0.0*					*0.0*		*0.0*
Flow Rate/Lane Group		*458*	*311*		*737*					*637*		*126*
Satflow/Lane		*1862*	*1583*		*1862*					*1770*		*1583*
Capacity/Lane Group		*2622*	*1583*		*1833*					*1203*		*554*
Flow Ratio		*0.1*	*0.2*		*0.2*					*0.2*		*0.1*
v/c Ratio		*0.17*	*0.20*		*0.40*					*0.53*		*0.23*
I Factor		*1.000*	*1.000*		*1.000*					*1.000*		*1.000*
Arrival Type		*3*	*3*		*3*					*3*		*3*
Platoon Ratio		*1.00*	*1.00*		*1.00*					*1.00*		*1.00*
PF Factor		*1.00*	*1.00*		*1.00*					*1.00*		*1.00*
Q_1		*1.5*	*0.0*		*3.9*					*4.4*		*1.5*
k_B		*0.5*	*0.7*		*0.5*					*0.4*		*0.4*
Q_2		*0.1*	*0.2*		*0.4*					*0.5*		*0.1*
Q Average		*1.6*	*0.2*		*4.3*					*4.8*		*1.6*
Percentile Back of Queue (95th percentile)												
$f_{B\%}$		*2.0*	*2.1*		*2.0*					*2.0*		*2.0*
Back of Queue		*3.3*	*0.4*		*8.5*					*9.4*		*3.3*
Queue Storage Ratio												
Queue Spacing		*25.0*	*25.0*		*25.0*					*25.0*		*25.0*
Queue Storage		*0*	*1000*		*0*					*1100*		*1100*
Average Queue Storage Ratio			*0.0*							*0.1*		*0.0*
95% Queue Storage Ratio			*0.0*							*0.2*		*0.1*

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 SB Ramps at Overpass*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/20/2010*	Jurisdiction	*FDOT*
Time Period	*PM*	Analysis Year	*Build 2022-Loop*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes		*3*	*1*		*2*					*2*		*1*
Lane Group		*T*	*R*		*T*					*L*		*R*
Volume (vph)		*440*	*380*		*630*					*490*		*100*
% Heavy Vehicles		*2*	*2*		*2*					*2*		*2*
PHF		*0.95*	*0.95*		*0.95*					*0.95*		*0.95*
Pretimed/Actuated (P/A)		*A*	*A*		*A*					*A*		*A*
Startup Lost Time		*2.0*	*2.0*		*2.0*					*2.0*		*2.0*
Extension of Effective Green		*3.0*	*3.0*		*3.0*					*3.0*		*3.0*
Arrival Type		*3*	*3*		*3*					*3*		*3*
Unit Extension		*3.0*	*3.0*		*3.0*					*3.0*		*3.0*
Ped/Bike/RTOR Volume	*0*	*0*	*0*	*0*	*0*		*0*	*0*		*0*	*0*	*0*
Lane Width		*12.0*	*12.0*		*12.0*					*12.0*		*12.0*
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour		*0*	*0*		*0*					*0*		*0*
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	Thru & RT	02	03	04	SB Only	06	07	08
Timing	G = *31.6*	G =	G =	G =	G = *18.4*	G =	G =	G =
	Y = *5*	Y =	Y =	Y =	Y = *5*	Y =	Y =	Y =
Duration of Analysis (hrs) = *0.25*						Cycle Length C = *60.0*		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate		*463*	*400*		*663*					*516*		*105*
Lane Group Capacity		*2757*	*1583*		*1927*					*1111*		*512*
v/c Ratio		*0.17*	*0.25*		*0.34*					*0.46*		*0.21*
Green Ratio		*0.54*	*1.00*		*0.54*					*0.32*		*0.32*
Uniform Delay d_1		*6.9*	*0.0*		*7.7*					*16.2*		*14.7*
Delay Factor k		*0.11*	*0.11*		*0.11*					*0.11*		*0.11*
Incremental Delay d_2		*0.0*	*0.1*		*0.1*					*0.3*		*0.2*
PF Factor		*1.000*	*0.950*		*1.000*					*1.000*		*1.000*
Control Delay		*6.9*	*0.1*		*7.8*					*16.5*		*14.9*
Lane Group LOS		*A*	*A*		*A*					*B*		*B*
Approach Delay		*3.7*			*7.8*					*16.2*		
Approach LOS		*A*			*A*					*B*		
Intersection Delay		*8.6*			Intersection LOS					*A*		

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group		*T*	*R*		*T*					*L*		*R*
Initial Queue/Lane		*0.0*	*0.0*		*0.0*					*0.0*		*0.0*
Flow Rate/Lane Group		*463*	*400*		*663*					*516*		*105*
Satflow/Lane		*1862*	*1583*		*1862*					*1770*		*1583*
Capacity/Lane Group		*2757*	*1583*		*1927*					*1111*		*512*
Flow Ratio		*0.1*	*0.3*		*0.2*					*0.1*		*0.1*
v/c Ratio		*0.17*	*0.25*		*0.34*					*0.46*		*0.21*
I Factor		*1.000*	*1.000*		*1.000*					*1.000*		*1.000*
Arrival Type		*3*	*3*		*3*					*3*		*3*
Platoon Ratio		*1.00*	*1.00*		*1.00*					*1.00*		*1.00*
PF Factor		*1.00*	*1.00*		*1.00*					*1.00*		*1.00*
Q_1		*1.4*	*0.0*		*3.3*					*3.5*		*1.3*
k_B		*0.5*	*0.7*		*0.5*					*0.4*		*0.4*
Q_2		*0.1*	*0.2*		*0.3*					*0.3*		*0.1*
Q Average		*1.5*	*0.2*		*3.5*					*3.8*		*1.4*
Percentile Back of Queue (95th percentile)												
$f_{B\%}$		*2.1*	*2.1*		*2.0*					*2.0*		*2.1*
Back of Queue		*3.1*	*0.5*		*7.1*					*7.6*		*2.8*
Queue Storage Ratio												
Queue Spacing		*25.0*	*25.0*		*25.0*					*25.0*		*25.0*
Queue Storage		*0*	*1000*		*0*					*1100*		*1100*
Average Queue Storage Ratio			*0.0*							*0.1*		*0.0*
95% Queue Storage Ratio			*0.0*							*0.2*		*0.1*

APPENDIX H

Interim Year (2030) Analysis

2030 No-Build Freeway Analysis Results

FREEPLAN 2009 Conceptual Planning Analysis

Project Information

Analyst	URS	**Freeway Name**	I-75	**Study Period**	Dir Hr Demand Vol
Date Prepared	1/4/2011 1:07:37 PM	**From**	S of SR 56	**Program**	FREEPLAN 2009
Agency	FDOT	**To**	N of SR 52	**Version Date**	12/12/10
Area Type	Other Urbanized	**Peak Direction**	Southbound		
File Name	C:\Documents and Settings\srinivas_meka\Local Settings\Temp\preview.xml				
User Notes	No Build 2030 AM Northbound (Off-peak)				

Freeway Data

AADT	88100	**Freeway Input Volume**	7445	**Local Adjustment Factor**	0.95
K	0.09	**PHF**	0.95	**Ramp Metering Exists**	No
D	0.55	**Pecent Trucks Entering First Segment**	7		

Segment Data

Seg #	From	To	Type	Length	Between Length	Hourly Volume	# Thru Lanes	# Aux Lanes	Posted Speed	FFS	Terrain
1	S of SR56	SR 56	Basic Segment	9060	0	7445	4	0	70	70	Level
2	SR 56	SR 56	On Ramp	1500	0	7445	4	0	70	70	Level
3	SR 56	SR 54	Basic Segment	12500	0	8115	4	0	70	70	Level
4	SR 54	SR54	Diamond	5280	0	8115	3	0	70	70	Level
5	SR 54	SR52	Basic Segment	29500	0	6580	3	0	70	70	Level
6	SR 52	SR 52	Diamond	5280	0	6580	3	0	70	70	Level
7	SR 52	N of SR52	Basic Segment	5280	0	4855	3	0	70	70	Level

Interchange Distances

Segment	Type	Interchange Length	Distance Between Ramps			Auxiliary Lane?
			1 and 2	2 and 3	3 and 4	
4	Diamond	2280	2280	0	0	False
6	Diamond	2280	2280	0	0	False

Ramp Descriptions

Segment	Type	First Off-Ramp					First On-Ramp					Second Off-Ramp					Second On-Ramp				
		Vol	% HV	Lanes	Accel / Decel Length	FFS	Vol	% HV	Lanes	Accel / Decel Length	FFS	Vol	% HV	Lanes	Accel / Decel Length	FFS	Vol	% HV	Lanes	Accel / Decel Length	FFS
2	On Ramp						670	8.0	1	700	45										
4	Diamond	2650	8.0	2	1500	45	1115	8.0	1	700	45										
6	Diamond	2505	8.0	2	410	45	780	8.0	1	700	45										

Segment LOS

Seg #	From	To	Type	Volume	Adj. Capacity	Speed	Density	LOS	Sig Impact

1	S of SR56	SR 56	Basic Segment	7445	8371	59.9	35.7	E	N/A
2	SR 56	SR 56	On Ramp	7445	8197	59.4	37.7	E	#
3	SR 56	SR 54	Basic Segment	8115	8368	55.3	42.1	E	N/A
4	SR 54	SR54	Diamond	8115	6101	##	##	F	#
5	SR 54	SR52	Basic Segment	6580	6282	##	##	F	N/A
6	SR 52	SR 52	Diamond	6580	5933	##	##	F	#
7	SR 52	N of SR52	Basic Segment	4855	6294	65.1	28.4	D	N/A

Freeway Length	12.95455	FFS Delay	##	Threshold Delay	##	Avg. Speed	##	Density	##	LOS	F

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 2100 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
4					
6					
8					
10					
12					
Lanes	**Peak Hour Volume Both Directions**				
4					
6					
8					
10					
12					
Lanes	**Annual Average Daily Traffic**				
4					
6					
8					
10					
12					

 # Off-ramp storage is highly likely to overflow. The segment operations will likely be worse than indicated.
One or more segments have a demand-to-capacity ratio greater than 1.0; therefore, the performance measure values are highly unreliable.
Freeway LOS is defaulted to F. An operational level analysis tool is more appropriate for this situation.
*** For oversaturated conditions during the peak hour, subtract 10% from LOS E (capacity) volumes. This number becomes the new maximum service volume for LOS D, and LOS E cannot be achieved.**
**** Cannot be achieved based on input data provided.**
***** Not applicable for that level of service letter grade. See generalized tables notes for more details.**

FREEPLAN 2009 Conceptual Planning Analysis

Project Information

Analyst	URS	**Freeway Name**	I-75	**Study Period**	Dir Hr Demand Vol
Date Prepared	4/5/2011 1:07:37 PM	**From**	S of SR 56	**Program**	FREEPLAN 2009
Agency	FDOT	**To**	N of SR 52	**Version Date**	12/12/10
Area Type	Other Urbanized	**Peak Direction**	Southbound		
File Name	C:\Documents and Settings\srinivas_meka\Local Settings\Temp\preview.xml				
User Notes	No Build 2030 AM Southbound (Peak)				

Freeway Data

AADT	110200	**Freeway Input Volume**	5510	**Local Adjustment Factor**	0.95
K	0.09	**PHF**	0.95	**Ramp Metering Exists**	No
D	0.55	**Pecent Trucks Entering First Segment**	15		

Segment Data

Seg #	From	To	Type	Length	Between Length	Hourly Volume	# Thru Lanes	# Aux Lanes	Posted Speed	FFS	Terrain
1	N of SR 52	SR 52	Basic Segment	5280	0	5510	3	0	70	70	Level
2	SR 52	SR 52	Diamond	5280	0	5510	3	0	70	70	Level
3	SR 52	SR 54	Basic Segment	29500	0	7795	3	0	70	70	Level
4	SR 54	SR 54	Diamond	5280	0	7795	3	0	70	70	Level
5	SR 54	SR 56	Basic Segment	12500	0	9915	4	0	70	70	Level
6	SR 56	SR 56	Diamond	5280	0	9915	4	0	70	70	Level
7	SR 56	S of SR56	Basic Segment	5280	0	12840	6	0	70	70	Level

Interchange Distances

Segment	Type	Interchange Length	Distance Between Ramps			Auxiliary Lane?
			1 and 2	2 and 3	3 and 4	
2	Diamond	2280	2280	0	0	False
4	Diamond	2280	2280	0	0	False
6	Diamond	2280	2280	0	0	False

Ramp Descriptions

Segment	Type	First Off-Ramp					First On-Ramp					Second Off-Ramp					Second On-Ramp				
		Vol	% HV	Lanes	Accel / Decel Length	FFS	Vol	% HV	Lanes	Accel / Decel Length	FFS	Vol	% HV	Lanes	Accel / Decel Length	FFS	Vol	% HV	Lanes	Accel / Decel Length	FFS
2	Diamond	900	8.0	1	410	45	3185	8.0	2	700	45										
4	Diamond	1340	8.0	1	410	45	3460	8.0	2	1500	45										
6	Diamond	800	8.0	1	600	45	3725	8.0	2	1500	45										

Segment LOS

Seg #	From	To	Type	Volume	Adj. Capacity	Speed	Density	LOS	Sig Impact
1	N of SR 52	SR 52	Basic Segment	5510	6045	58.7	37.3	E	N/A
2	SR 52	SR 52	Diamond	5510	5709	##	##	F	#
3	SR 52	SR 54	Basic Segment	7795	6103	##	##	F	N/A
4	SR 54	SR 54	Diamond	7795	5764	##	##	F	#
5	SR 54	SR 56	Basic Segment	9915	8178	##	##	F	N/A
6	SR 56	SR 56	Diamond	9915	7837	##	##	F	#
7	SR 56	S of SR56	Basic Segment	12840	12318	##	##	F	N/A

Freeway Length	12.95455	FFS Delay	##	Threshold Delay	##	Avg. Speed	##	Density	##	LOS	F

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 2100 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
4					
6					
8					
10					
12					
Lanes	**Peak Hour Volume Both Directions**				
4					
6					
8					
10					
12					
Lanes	**Annual Average Daily Traffic**				
4					
6					
8					
10					
12					

 # Off-ramp storage is highly likely to overflow. The segment operations will likely be worse than indicated.
One or more segments have a demand-to-capacity ratio greater than 1.0; therefore, the performance measure values are highly unreliable.
Freeway LOS is defaulted to F. An operational level analysis tool is more appropriate for this situation.
*** For oversaturated conditions during the peak hour, subtract 10% from LOS E (capacity) volumes. This number becomes the new maximum service volume for LOS D, and LOS E cannot be achieved.**
**** Cannot be achieved based on input data provided.**
***** Not applicable for that level of service letter grade. See generalized tables notes for more details.**

FREEPLAN 2009 Conceptual Planning Analysis

Project Information

Analyst	URS	**Freeway Name**	I-75	**Study Period**	Dir Hr Demand Vol
Date Prepared	4/5/2011 1:07:37 PM	**From**	S of SR 56	**Program**	FREEPLAN 2009
Agency	FDOT	**To**	N of SR 52	**Version Date**	12/12/10
Area Type	Other Urbanized	**Peak Direction**	Northbound		
File Name	C:\Documents and Settings\srinivas_meka\Local Settings\Temp\preview.xml				
User Notes	No Build 2030 PM Northbound (Peak)				

Freeway Data

AADT	88100	**Freeway Input Volume**	9115	**Local Adjustment Factor**	0.95
K	0.09	**PHF**	0.95	**Ramp Metering Exists**	No
D	0.55	**Pecent Trucks Entering First Segment**	7		

Segment Data

Seg #	From	To	Type	Length	Between Length	Hourly Volume	# Thru Lanes	# Aux Lanes	Posted Speed	FFS	Terrain
1	S of SR56	SR 56	Basic Segment	9060	0	9115	4	0	70	70	Level
2	SR 56	SR 56	On Ramp	1500	0	9115	4	0	70	70	Level
3	SR 56	SR 54	Basic Segment	12500	0	9915	4	0	70	70	Level
4	SR 54	SR54	Diamond	5280	0	9915	3	0	70	70	Level
5	SR 54	SR52	Basic Segment	29500	0	7795	3	0	70	70	Level
6	SR 52	SR 52	Diamond	5280	0	7795	3	0	70	70	Level
7	SR 52	N of SR52	Basic Segment	5280	0	5510	3	0	70	70	Level

Interchange Distances

Segment	Type	Interchange Length	Distance Between Ramps			Auxiliary Lane?
			1 and 2	2 and 3	3 and 4	
4	Diamond	2280	2280	0	0	False
6	Diamond	2280	2280	0	0	False

Ramp Descriptions

Segment	Type	First Off-Ramp					First On-Ramp					Second Off-Ramp					Second On-Ramp				
		Vol	% HV	Lanes	Accel / Decel Length	FFS	Vol	% HV	Lanes	Accel / Decel Length	FFS	Vol	% HV	Lanes	Accel / Decel Length	FFS	Vol	% HV	Lanes	Accel / Decel Length	FFS
2	On Ramp						800	8.0	1	700	45										
4	Diamond	3460	8.0	2	1500	45	1340	8.0	1	700	45										
6	Diamond	3185	8.0	2	410	45	900	8.0	1	700	45										

Segment LOS

Seg #	From	To	Type	Volume	Adj. Capacity	Speed	Density	LOS	Sig Impact

1	S of SR56	SR 56	Basic Segment	9115	8371	##	##	F	N/A
2	SR 56	SR 56	On Ramp	9115	8197	##	##	F	#
3	SR 56	SR 54	Basic Segment	9915	8368	##	##	F	N/A
4	SR 54	SR54	Diamond	9915	6101	##	##	F	#
5	SR 54	SR52	Basic Segment	7795	6283	##	##	F	N/A
6	SR 52	SR 52	Diamond	7795	5934	##	##	F	#
7	SR 52	N of SR52	Basic Segment	5510	6298	60.6	34.6	D	N/A

Freeway Length	12.95455	FFS Delay	##	Threshold Delay	##	Avg. Speed	##	Density	##	LOS	F

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 2100 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
4					
6					
8					
10					
12					
Lanes	**Peak Hour Volume Both Directions**				
4					
6					
8					
10					
12					
Lanes	**Annual Average Daily Traffic**				
4					
6					
8					
10					
12					

 # Off-ramp storage is highly likely to overflow. The segment operations will likely be worse than indicated.
One or more segments have a demand-to-capacity ratio greater than 1.0; therefore, the performance measure values are highly unreliable.
Freeway LOS is defaulted to F. An operational level analysis tool is more appropriate for this situation.
*** For oversaturated conditions during the peak hour, subtract 10% from LOS E (capacity) volumes. This number becomes the new maximum service volume for LOS D, and LOS E cannot be achieved.**
**** Cannot be achieved based on input data provided.**
***** Not applicable for that level of service letter grade. See generalized tables notes for more details.**

FREEPLAN 2009 Conceptual Planning Analysis

Project Information

Analyst	URS	**Freeway Name**	I-75	**Study Period**	Dir Hr Demand Vol
Date Prepared	4/5/2011 1:07:37 PM	**From**	S of SR 56	**Program**	FREEPLAN 2009
Agency	FDOT	**To**	N of SR 52	**Version Date**	12/12/10
Area Type	Other Urbanized	**Peak Direction**	Northbound		
File Name	C:\Documents and Settings\srinivas_meka\Local Settings\Temp\preview.xml				
User Notes	No Build 2030 PM Southbound (Off-peak)				

Freeway Data

AADT	94000	**Freeway Input Volume**	4855	**Local Adjustment Factor**	0.95
K	0.09	**PHF**	0.95	**Ramp Metering Exists**	No
D	0.55	**Pecent Trucks Entering First Segment**	15		

Segment Data

Seg #	From	To	Type	Length	Between Length	Hourly Volume	# Thru Lanes	# Aux Lanes	Posted Speed	FFS	Terrain
1	N of SR 52	SR 52	Basic Segment	5280	0	4855	3	0	70	70	Level
2	SR 52	SR 52	Diamond	5280	0	4855	3	0	70	70	Level
3	SR 52	SR 54	Basic Segment	29500	0	6580	3	0	70	70	Level
4	SR 54	SR 54	Diamond	5280	0	6580	3	0	70	70	Level
5	SR 54	SR 56	Basic Segment	12500	0	8115	4	0	70	70	Level
6	SR 56	SR 56	Diamond	5280	0	8115	4	0	70	70	Level
7	SR 56	S of SR56	Basic Segment	5280	0	10490	6	0	70	70	Level

Interchange Distances

Segment	Type	Interchange Length	Distance Between Ramps			Auxiliary Lane?
			1 and 2	2 and 3	3 and 4	
2	Diamond	2280	2280	0	0	False
4	Diamond	2280	2280	0	0	False
6	Diamond	2280	2280	0	0	False

Ramp Descriptions

Segment	Type	First Off-Ramp					First On-Ramp					Second Off-Ramp					Second On-Ramp				
		Vol	% HV	Lanes	Accel / Decel Length	FFS	Vol	% HV	Lanes	Accel / Decel Length	FFS	Vol	% HV	Lanes	Accel / Decel Length	FFS	Vol	% HV	Lanes	Accel / Decel Length	FFS
2	Diamond	780	8.0	1	410	45	2505	8.0	2	700	45										
4	Diamond	1115	8.0	1	410	45	2650	8.0	2	1500	45										
6	Diamond	670	8.0	1	600	45	3045	8.0	2	1500	45										

Segment LOS

Seg #	From	To	Type	Volume	Adj. Capacity	Speed	Density	LOS	Sig Impact
1	N of SR 52	SR 52	Basic Segment	4855	6045	63.9	30.2	D	N/A
2	SR 52	SR 52	Diamond	4855	5709	##	##	F	#
3	SR 52	SR 54	Basic Segment	6580	6097	##	##	F	N/A
4	SR 54	SR 54	Diamond	6580	5758	##	##	F	#
5	SR 54	SR 56	Basic Segment	8115	8166	53.7	44.4	E	N/A
6	SR 56	SR 56	Diamond	8115	7826	##	##	F	#
7	SR 56	S of SR56	Basic Segment	10490	12305	61.7	33.2	D	N/A

Freeway Length	12.95455	FFS Delay	##	Threshold Delay	##	Avg. Speed	##	Density	##	LOS	F

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 2100 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
4					
6					
8					
10					
12					
Lanes	**Peak Hour Volume Both Directions**				
4					
6					
8					
10					
12					
Lanes	**Annual Average Daily Traffic**				
4					
6					
8					
10					
12					

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One or more segments have a demand-to-capacity ratio greater than 1.0; therefore, the performance measure values are highly unreliable.
Freeway LOS is defaulted to F. An operational level analysis tool is more appropriate for this situation.
*** For oversaturated conditions during the peak hour, subtract 10% from LOS E (capacity) volumes. This number becomes the new maximum service volume for LOS D, and LOS E cannot be achieved.**
**** Cannot be achieved based on input data provided.**
***** Not applicable for that level of service letter grade. See generalized tables notes for more details.**

2030 No-Build Ramps Analysis Results

Ramp Capacity Check: No Build 2030 AM Peak Hour

Assumed Ramp Roadway Capacity (HCM 2000 Exhibit 25-3):

Ramp Free-Flow Speed, S_{FR} (mph)	Capacity (pc/h)	
	Single-Lane Ramps	Two-Lane Ramps
≥ 50	2200	4400
> 40 - 50	2100	4100
> 30 - 40	2000	3800
≥ 20 - 30	1900	3500
< 20	1800	3200

Location	Volume (veh/h)	FFS (S_{FR})	Lanes	% Trucks	PHF	E_T	f_{HV}	f_P	Flow Rate (pc/h)	Capacity (pc/h)	Over Capacity?
I-75 NB off to SR 56	3045	45	2	8.0%	0.95	1.5	0.962	0.95	3509	4100	No

Notes:

1. Volumes are converted to equivalent passenger cars per hour (pc/h) flow rates under base conditions during the peak 15 minutes of the hour using HCM 2000 Equation 25-1.

Ramp Capacity Check: No Build 2030 PM Peak Hour

Assumed Ramp Roadway Capacity (HCM 2000 Exhibit 25-3):

Ramp Free-Flow Speed, S_{FR} (mph)	Capacity (pc/h)	
	Single-Lane Ramps	Two-Lane Ramps
≥ 50	2200	4400
> 40 - 50	2100	4100
> 30 - 40	2000	3800
≥ 20 - 30	1900	3500
< 20	1800	3200

Location	Volume (veh/h)	FFS (S_{FR})	Lanes	% Trucks	PHF	E_T	f_{HV}	f_P	Flow Rate (pc/h)	Capacity (pc/h)	Over Capacity?
I-75 NB off to SR 56	3725	45	2	8.0%	0.95	1.5	0.962	0.95	4293	4100	Yes

Notes:

1. Volumes are converted to equivalent passenger cars per hour (pc/h) flow rates under base conditions during the peak 15 minutes of the hour using HCM 2000 Equation 25-1.

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Northbound
Agency or Company	URS Corporation	Junction	SR 56 NB ON-RAMP
Date Performed	4/26/2010	Jurisdiction	Pasco County
Analysis Time Period	AM	Analysis Year	No Build 2030

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 45.0 mph

Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp
☑ Yes ☐ On
☐ No ☑ Off
L_{down} = 4800 ft
V_D = 2650 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	7445	0.95	Level	7	0	0.966	0.95	8538
Ramp	670	0.95	Level	8	0	0.962	0.95	772
UpStream								
DownStream	2650	0.95	Level	8	0	0.962	0.95	3054

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = 0.121 using Equation (Exhibit 25-5)

V_{12} = 1036 pc/h

V_3 or V_{av34} 3751 pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes,V_{12a} = 3415 pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	9310	Exhibit 25-7		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	4187	Exhibit 25-7	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 33.4 (pc/mi/ln)

LOS = D (Exhibit 25-4)

Speed Determination

M_S = 0.515 (Exibit 25-19)

S_R= 55.6 mph (Exhibit 25-19)

S_0= 61.9 mph (Exhibit 25-19)

S = 58.9 mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = using Equation (Exhibit 25-12)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

D_s = (Exhibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Northbound
Agency or Company	URS Corporation	Junction	SR 56 NB ON-RAMP
Date Performed	4/27/2010	Jurisdiction	Pasco County
Analysis Time Period	PM	Analysis Year	No Build 2030

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 45.0 mph

Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp
☑ Yes ☐ On
☐ No ☑ Off
L_{down} = 4800 ft
V_D = 3460 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	9115	0.95	Level	7	0	0.966	0.95	10453
Ramp	800	0.95	Level	8	0	0.962	0.95	922
UpStream								
DownStream	3460	0.95	Level	8	0	0.962	0.95	3987

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = 0.103 using Equation (Exhibit 25-5)

V_{12} = 1072 pc/h

V_3 or V_{av34} 4690 pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes,V_{12a} = 4181 pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	11375	Exhibit 25-7		Yes

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	5103	Exhibit 25-7	4600:All	Yes

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 40.5 (pc/mi/ln)

LOS = F (Exhibit 25-4)

Speed Determination

M_S = 0.900 (Exibit 25-19)

S_R= 44.8 mph (Exhibit 25-19)

S_0= 58.5 mph (Exhibit 25-19)

S = 51.4 mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = using Equation (Exhibit 25-12)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

D_s = (Exhibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Southbound
Agency or Company	URS Corporation	Junction	SR 56 SB OFF-RAMP
Date Performed	4/26/2010	Jurisdiction	Pasco County
Analysis Time Period	AM	Analysis Year	No Build 2030

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 45.0 mph

Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp
☑ Yes ☑ On
☐ No ☐ Off
L_{down} = 3300 ft
V_D = 3725 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	9915	0.95	Level	9	0	0.957	0.95	11481
Ramp	800	0.95	Level	8	0	0.962	0.95	922
UpStream								
DownStream	3725	0.95	Level	8	0	0.962	0.95	4293

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)
P_{FM} = using Equation (Exhibit 25-5)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$

D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)
S_R= mph (Exhibit 25-19)
S_0= mph (Exhibit 25-19)
S = mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = 0.436 using Equation (Exhibit 25-12)
V_{12} = 5526 pc/h
V_3 or V_{av34} 2977 pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No
If Yes,V_{12a} = 6081 pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	11481	Exhibit 25-14	9600	Yes
$V_{FO} = V_F - V_R$	10559	Exhibit 25-14	9600	Yes
V_R	922	Exhibit 25-3	2100	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	5526	Exhibit 25-14	4400:All	Yes

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086 V_{12} - 0.009 L_D$

D_R = 51.1 (pc/mi/ln)
LOS = F (Exhibit 25-4)

Speed Determination

D_s = 0.381 (Exhibit 25-19)
S_R= 59.3 mph (Exhibit 25-19)
S_0= 70.2 mph (Exhibit 25-19)
S = 64.0 mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Southbound
Agency or Company	URS Corporation	Junction	SR 56 SB OFF-RAMP
Date Performed	4/27/2010	Jurisdiction	Pasco County
Analysis Time Period	PM	Analysis Year	No Build 2030

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp	Terrain: Level	Downstream Adj Ramp
☐ Yes ☐ On		☑ Yes ☑ On
☑ No ☐ Off		☐ No ☐ Off
L_{up} = ft		L_{down} = 3300 ft
V_u = veh/h	S_{FF} = 70.0 mph S_{FR} = 45.0 mph Sketch (show lanes, L_A, L_D, V_R, V_f)	V_D = 3045 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	8115	0.95	Level	9	0	0.957	0.95	9396
Ramp	670	0.95	Level	8	0	0.962	0.95	772
UpStream								
DownStream	3045	0.95	Level	8	0	0.962	0.95	3509

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = using Equation (Exhibit 25-5)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)

S_R = mph (Exhibit 25-19)

S_0 = mph (Exhibit 25-19)

S = mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = 0.436 using Equation (Exhibit 25-12)

V_{12} = 4532 pc/h

V_3 or V_{av34} 2432 pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	9396	Exhibit 25-14	9600	No
$V_{FO} = V_F - V_R$	8624	Exhibit 25-14	9600	No
V_R	772	Exhibit 25-3	2100	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	4532	Exhibit 25-14	4400:All	Yes

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086 V_{12} - 0.009 L_D$

D_R = 37.8 (pc/mi/ln)

LOS = E (Exhibit 25-4)

Speed Determination

D_s = 0.367 (Exhibit 25-19)

S_R = 59.7 mph (Exhibit 25-19)

S_0 = 71.2 mph (Exhibit 25-19)

S = 65.2 mph (Exhibit 25-15)

Major Merge Capacity Check: **No Build 2030 AM Peak Hour**
I-75 SB On Ramp from SR 56

Assumed Major Merge Capacity per Segment (based on HCM 2000 Exhibit 25-7):

Segment Free-Flow Speed (mph)	Capacity (pc/h)			
	2-Lanes	3-Lanes	4-Lanes	5-Lanes
≥ 70	4800	7200	9600	12000
65	4700	7050	9400	11750
60	4600	6900	9200	11500
55	4500	6750	9000	11250

Assumed Ramp Roadway Capacity (based on HCM 2000 Exhibit 25-3):

Free-Flow Speed of Ramp (mph)	Capacity (pc/h)	
	Single-Lane Ramp	Two-Lane Ramp
≥ 55	2200	4400
> 40-50	2100	4100
> 30-40	2000	3800
≥ 20-30	1900	3500
< 20	1800	3200

I-75 SB On Ramp from SR 56

Segment	Volume (veh/h)	FFS	Lanes	% Trucks	PHF	E_T	f_{HV}	f_P	Flow Rate (pc/h)	Capacity (pc/h)	Over Capacity?
Upstream	9115	70	4	9.0%	0.95	1.5	0.957	0.95	10555	9600	Yes
Merging	3725	45	2	8.0%	0.95	1.5	0.962	0.95	4293	4100	Yes
Downstream	12840	70	6	7.0%	0.95	1.5	0.966	0.95	14726	14400	Yes

Notes:
1. Volumes are converted to equivalent passenger cars per hour (pc/h) flow rates under base conditions during the peak 15 minutes of the hour using HCM 2000 Equation 25-1.

Major Merge Capacity Check: **No Build 2030 PM Peak Hour**
I-75 SB On Ramp from SR 56

Assumed Major Merge Capacity per Segment (based on HCM 2000 Exhibit 25-7):

Segment Free-Flow Speed (mph)	Capacity (pc/h)			
	2-Lanes	3-Lanes	4-Lanes	5-Lanes
≥ 70	4800	7200	9600	12000
65	4700	7050	9400	11750
60	4600	6900	9200	11500
55	4500	6750	9000	11250

Assumed Ramp Roadway Capacity (based on HCM 2000 Exhibit 25-3):

Free-Flow Speed of Ramp (mph)	Capacity (pc/h)	
	Single-Lane Ramp	Two-Lane Ramp
≥ 55	2200	4400
> 40-50	2100	4100
> 30-40	2000	3800
≥ 20-30	1900	3500
< 20	1800	3200

I-75 SB On Ramp from SR 56

Segment	Volume (veh/h)	FFS	Lanes	% Trucks	PHF	E_T	f_{HV}	f_P	Flow Rate (pc/h)	Capacity (pc/h)	Over Capacity?
Upstream	7445	70	4	9.0%	0.95	1.5	0.957	0.95	8621	9600	No
Merging	3045	45	2	8.0%	0.95	1.5	0.962	0.95	3509	4100	No
Downstream	10490	70	6	7.0%	0.95	1.5	0.966	0.95	12031	14400	No

Notes:
1. Volumes are converted to equivalent passenger cars per hour (pc/h) flow rates under base conditions during the peak 15 minutes of the hour using HCM 2000 Equation 25-1.

Major Diverge Capacity Check: No Build 2030 AM Peak Hour
I-75 NB Off Ramp to CR 54

Assumed Major Diverge Capacity per Segment (based on HCM 2000 Exhibit 25-14):

Segment Free-Flow Speed (mph)	Capacity (pc/h)			
	2-Lanes	3-Lanes	4-Lanes	5-Lanes
≥ 70	4800	7200	9600	12000
65	4700	7050	9400	11750
60	4600	6900	9200	11500
55	4500	6750	9000	11250

Assumed Ramp Roadway Capacity (based on HCM 2000 Exhibit 25-3):

Free-Flow Speed of Ramp (mph)	Capacity (pc/h)	
	Single-Lane Ramp	Two-Lane Ramp
≥ 55	2200	4400
> 40-50	2100	4100
> 30-40	2000	3800
≥ 20-30	1900	3500
< 20	1800	3200

Assumed Ramp Density and LOS (based on HCM 2000 Equation 25-12 and Exhibit 25-4)

Segment	Density[1]	LOS
Upstream	22.1	C

I-75 NB Off Ramp to CR 54

Segment	Volume (veh/h)	FFS	Lanes	% Trucks	PHF	E_T	f_{HV}	f_P	Flow Rate (pc/h)	Capacity (pc/h)	Over Capacity?
Upstream	8115	70	4	9.0%	0.95	1.5	0.957	0.95	9397	9600	No
Diverging	2650	45	2	8.0%	0.95	1.5	0.962	0.95	3054	4100	No
Downstream	5465	70	3	9.0%	0.95	1.5	0.957	0.95	6328	7200	No

Notes:
1. Volumes are converted to equivalent passenger cars per hour (pc/h) flow rates under base conditions during the peak 15 minutes of the hour using HCM 2000 Equation 25-1.

Major Diverge Capacity Check: No Build 2030 PM Peak Hour
I-75 NB Off Ramp to CR 54

Assumed Major Diverge Capacity per Segment (based on HCM 2000 Exhibit 25-14):

Segment Free-Flow Speed (mph)	Capacity (pc/h)			
	2-Lanes	3-Lanes	4-Lanes	5-Lanes
≥ 70	4800	7200	9600	12000
65	4700	7050	9400	11750
60	4600	6900	9200	11500
55	4500	6750	9000	11250

Assumed Ramp Roadway Capacity (based on HCM 2000 Exhibit 25-3):

Free-Flow Speed of Ramp (mph)	Capacity (pc/h)	
	Single-Lane Ramp	Two-Lane Ramp
≥ 55	2200	4400
> 40-50	2100	4100
> 30-40	2000	3800
≥ 20-30	1900	3500
< 20	1800	3200

Assumed Ramp Density and LOS (based on HCM 2000 Equation 25-12 and Exhibit 25-4)

Segment	Density[1]	LOS
Upstream	27.0	C

I-75 NB Off Ramp to CR 54

Segment	Volume (veh/h)	FFS	Lanes	% Trucks	PHF	E_T	f_{HV}	f_P	Flow Rate (pc/h)	Capacity (pc/h)	Over Capacity?
Upstream	9915	70	4	9.0%	0.95	1.5	0.957	0.95	11481	9600	Yes
Diverging	3460	45	2	8.0%	0.95	1.5	0.962	0.95	3988	4100	No
Downstream	6455	70	3	9.0%	0.95	1.5	0.957	0.95	7475	7200	Yes

Notes:
1. Volumes are converted to equivalent passenger cars per hour (pc/h) flow rates under base conditions during the peak 15 minutes of the hour using HCM 2000 Equation 25-1.

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Northbound
Agency or Company	URS Corporation	Junction	CR 54 NB ON-RAMP
Date Performed	4/26/2010	Jurisdiction	Pasco County
Analysis Time Period	AM	Analysis Year	No Build 2030

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp
☑ Yes ☐ On
☐ No ☑ Off
L_{up} = 3500 ft
V_u = 2650 veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 45.0 mph
Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{down} = ft
V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	5465	0.95	Level	9	0	0.957	0.95	6328
Ramp	1115	0.95	Level	8	0	0.962	0.95	1285
UpStream	2650	0.95	Level	8	0	0.962	0.95	3054
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = 1891.38 (Equation 25-2 or 25-3)
P_{FM} = 0.597 using Equation (Exhibit 25-5)
V_{12} = 3778 pc/h
V_3 or V_{av34} 2550 pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No
If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	7613	Exhibit 25-7		Yes

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	5063	Exhibit 25-7	4600:All	Yes

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 40.0 (pc/mi/ln)
LOS = F (Exhibit 25-4)

Speed Determination

M_S = 0.874 (Exibit 25-19)
S_R= 45.5 mph (Exhibit 25-19)
S_0= 62.0 mph (Exhibit 25-19)
S = 50.0 mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = using Equation (Exhibit 25-12)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

D_s = (Exhibit 25-19)
S_R= mph (Exhibit 25-19)
S_0= mph (Exhibit 25-19)
S = mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Northbound
Agency or Company	URS Corporation	Junction	CR 54 NB ON-RAMP
Date Performed	4/27/2010	Jurisdiction	Pasco County
Analysis Time Period	PM	Analysis Year	No Build 2030

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp

☑ Yes ☐ On

☐ No ☑ Off

L_{up} = 3500 ft

V_u = 3460 veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 45.0 mph

Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	6455	0.95	Level	9	0	0.957	0.95	7474
Ramp	1340	0.95	Level	8	0	0.962	0.95	1544
UpStream	3460	0.95	Level	8	0	0.962	0.95	3987
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = 2192.05 (Equation 25-2 or 25-3)

P_{FM} = 0.597 using Equation (Exhibit 25-5)

V_{12} = 4463 pc/h

V_3 or V_{av34} 3011 pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = 4774 pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	9018	Exhibit 25-7		Yes

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	6318	Exhibit 25-7	4600:All	Yes

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 49.7 (pc/mi/ln)

LOS = F (Exhibit 25-4)

Speed Determination

M_S = 2.420 (Exibit 25-19)

S_R= 2.2 mph (Exhibit 25-19)

S_0= 61.1 mph (Exhibit 25-19)

S = 3.1 mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = using Equation (Exhibit 25-12)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

D_s = (Exhibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Southbound
Agency or Company	URS Corporation	Junction	CR 54 SB OFF-RAMP
Date Performed	4/26/2010	Jurisdiction	Pasco County
Analysis Time Period	AM	Analysis Year	No Build 2030

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 45.0 mph

Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp
☑ Yes ☑ On
☐ No ☐ Off
L_{down} = 3500 ft
V_D = 3460 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	7795	0.95	Level	12	0	0.943	0.95	9155
Ramp	1340	0.95	Level	8	0	0.962	0.95	1544
UpStream								
DownStream	3460	0.95	Level	8	0	0.962	0.95	3987

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)
P_{FM} = using Equation (Exhibit 25-5)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)
S_R= mph (Exhibit 25-19)
S_0= mph (Exhibit 25-19)
S = mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = 0.460 using Equation (Exhibit 25-12)
V_{12} = 5046 pc/h
V_3 or V_{av34} 4109 pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No
If Yes,V_{12a} = 6455 pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	9155	Exhibit 25-14	7200	Yes
$V_{FO} = V_F - V_R$	7611	Exhibit 25-14	7200	Yes
V_R	1544	Exhibit 25-3	2100	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	5046	Exhibit 25-14	4400:All	Yes

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = 56.1 (pc/mi/ln)
LOS = F (Exhibit 25-4)

Speed Determination

D_s = 0.437 (Exhibit 25-19)
S_R= 57.8 mph (Exhibit 25-19)
S_0= 70.2 mph (Exhibit 25-19)
S = 60.9 mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Southbound
Agency or Company	URS Corporation	Junction	CR 54 SB OFF-RAMP
Date Performed	4/27/2010	Jurisdiction	Pasco County
Analysis Time Period	PM	Analysis Year	No Build 2030

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 45.0 mph

Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp
☑ Yes ☑ On
☐ No ☐ Off
L_{down} = 3500 ft
V_D = 2650 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	6580	0.95	Level	12	0	0.943	0.95	7728
Ramp	1115	0.95	Level	8	0	0.962	0.95	1285
UpStream								
DownStream	2650	0.95	Level	8	0	0.962	0.95	3054

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)
P_{FM} = using Equation (Exhibit 25-5)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$

D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)
S_R= mph (Exhibit 25-19)
S_0= mph (Exhibit 25-19)
S = mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = 0.508 using Equation (Exhibit 25-12)
V_{12} = 4556 pc/h
V_3 or V_{av34} 3172 pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No
If Yes,V_{12a} = 5028 pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	7728	Exhibit 25-14	7200	Yes
$V_{FO} = V_F - V_R$	6443	Exhibit 25-14	7200	No
V_R	1285	Exhibit 25-3	2100	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	4556	Exhibit 25-14	4400:All	Yes

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086 V_{12} - 0.009 L_D$

D_R = 43.8 (pc/mi/ln)
LOS = F (Exhibit 25-4)

Speed Determination

D_s = 0.414 (Exhibit 25-19)
S_R= 58.4 mph (Exhibit 25-19)
S_0= 70.2 mph (Exhibit 25-19)
S = 62.0 mph (Exhibit 25-15)

Ramp Capacity Check: No Build 2030 AM Peak Hour

Assumed Ramp Roadway Capacity (HCM 2000 Exhibit 25-3):

Ramp Free-Flow Speed, S_{FR} (mph)	Capacity (pc/h)	
	Single-Lane Ramps	Two-Lane Ramps
> 50	2200	4400
> 40 - 50	2100	4100
> 30 - 40	2000	3800
≥ 20 - 30	1900	3500
< 20	1800	3200

Location	Volume (veh/h)	FFS (S_{FR})	Lanes	% Trucks	PHF	E_T	f_{HV}	f_P	Flow Rate (pc/h)	Capacity (pc/h)	Over Capacity?
I-75 SB on from CR 54	3460	45	2	8.0%	0.95	1.5	0.962	0.95	3988	4100	No

Notes:

1. Volumes are converted to equivalent passenger cars per hour (pc/h) flow rates under base conditions during the peak 15 minutes of the hour using HCM 2000 Equation 25-1.

Ramp Capacity Check: No Build 2030 PM Peak Hour

Assumed Ramp Roadway Capacity (HCM 2000 Exhibit 25-3):

Ramp Free-Flow Speed, S_{FR} (mph)	Capacity (pc/h)	
	Single-Lane Ramps	Two-Lane Ramps
> 50	2200	4400
> 40 - 50	2100	4100
> 30 - 40	2000	3800
≥ 20 - 30	1900	3500
< 20	1800	3200

Location	Volume (veh/h)	FFS (S_{FR})	Lanes	% Trucks	PHF	E_T	f_{HV}	f_P	Flow Rate (pc/h)	Capacity (pc/h)	Over Capacity?
I-75 SB on from CR 54	2650	45	2	8.0%	0.95	1.5	0.962	0.95	3054	4100	No

Notes:

1. Volumes are converted to equivalent passenger cars per hour (pc/h) flow rates under base conditions during the peak 15 minutes of the hour using HCM 2000 Equation 25-1.

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Northbound
Agency or Company	URS Corporation	Junction	SR 52 NB OFF-RAMP
Date Performed	4/23/2010	Jurisdiction	Pasco County
Analysis Time Period	AM	Analysis Year	No Build 2030

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 45.0 mph

Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp
☑ Yes ☑ On
☐ No ☐ Off
L_{down} = 2000 ft
V_D = 780 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	6580	0.95	Level	12	0	0.943	0.95	7728
Ramp	2505	0.95	Level	8	0	0.962	0.95	2887
UpStream								
DownStream	780	0.95	Level	8	0	0.962	0.95	899

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)
P_{FM} = using Equation (Exhibit 25-5)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)
S_R= mph (Exhibit 25-19)
S_0= mph (Exhibit 25-19)
S = mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = 0.434 using Equation (Exhibit 25-12)
V_{12} = 4988 pc/h
V_3 or V_{av34} 2740 pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No
If Yes,V_{12a} = 5028 pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	7728	Exhibit 25-14	7200	Yes
$V_{FO} = V_F - V_R$	4841	Exhibit 25-14	7200	No
V_R	2887	Exhibit 25-3	2100	Yes

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	4988	Exhibit 25-14	4400:All	Yes

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = 43.8 (pc/mi/ln)
LOS = F (Exhibit 25-4)

Speed Determination

D_s = 0.558 (Exhibit 25-19)
S_R= 54.4 mph (Exhibit 25-19)
S_0= 70.2 mph (Exhibit 25-19)
S = 59.0 mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Northbound
Agency or Company	URS Corporation	Junction	SR 52 NB OFF-RAMP
Date Performed	4/27/2010	Jurisdiction	Pasco County
Analysis Time Period	PM	Analysis Year	No Build 2030

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 45.0 mph

Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp
☑ Yes ☑ On
☐ No ☐ Off
L_{down} = 2000 ft
V_D = 900 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	7795	0.95	Level	12	0	0.943	0.95	9155
Ramp	3185	0.95	Level	8	0	0.962	0.95	3670
UpStream								
DownStream	900	0.95	Level	8	0	0.962	0.95	1037

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)
P_{FM} = using Equation (Exhibit 25-5)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$

D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)
S_R= mph (Exhibit 25-19)
S_0= mph (Exhibit 25-19)
S = mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = 0.362 using Equation (Exhibit 25-12)
V_{12} = 5657 pc/h
V_3 or V_{av34} 3498 pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No
If Yes,V_{12a} = 6455 pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	9155	Exhibit 25-14	7200	Yes
$V_{FO} = V_F - V_R$	5485	Exhibit 25-14	7200	No
V_R	3670	Exhibit 25-3	2100	Yes

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	5657	Exhibit 25-14	4400:All	Yes

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086 V_{12} - 0.009 L_D$

D_R = 56.1 (pc/mi/ln)
LOS = F (Exhibit 25-4)

Speed Determination

D_s = 0.628 (Exhibit 25-19)
S_R= 52.4 mph (Exhibit 25-19)
S_0= 70.2 mph (Exhibit 25-19)
S = 56.6 mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Northbound
Agency or Company	URS Corporation	Junction	SR 52 NB ON-RAMP
Date Performed	4/26/2010	Jurisdiction	Pasco County
Analysis Time Period	AM	Analysis Year	No Build 2030

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp
☑ Yes ☐ On
☐ No ☑ Off
L_{up} = 2000 ft
V_u = 2505 veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 45.0 mph

Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{down} = ft
V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	4075	0.95	Level	12	0	0.943	0.95	4786
Ramp	780	0.95	Level	8	0	0.962	0.95	899
UpStream	2505	0.95	Level	8	0	0.962	0.95	2887
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = 1478.79 (Equation 25-2 or 25-3)
P_{FM} = 0.597 using Equation (Exhibit 25-5)
V_{12} = 2858 pc/h
V_3 or V_{av34} 1928 pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No
If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	5685	Exhibit 25-7		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	3757	Exhibit 25-7	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 30.0 (pc/mi/ln)
LOS = D (Exhibit 25-4)

Speed Determination

M_S = 0.425 (Exibit 25-19)
S_R= 58.1 mph (Exhibit 25-19)
S_0= 64.9 mph (Exhibit 25-19)
S = 60.2 mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = using Equation (Exhibit 25-12)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

D_s = (Exhibit 25-19)
S_R= mph (Exhibit 25-19)
S_0= mph (Exhibit 25-19)
S = mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Northbound
Agency or Company	URS Corporation	Junction	SR 52 NB ON-RAMP
Date Performed	4/27/2010	Jurisdiction	Pasco County
Analysis Time Period	PM	Analysis Year	No Build 2030

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp
☑ Yes ☐ On
☐ No ☑ Off
L_{up} = 2000 ft
V_u = 3185 veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 45.0 mph
Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{down} = ft
V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	4610	0.95	Level	12	0	0.943	0.95	5415
Ramp	900	0.95	Level	8	0	0.962	0.95	1037
UpStream	3185	0.95	Level	8	0	0.962	0.95	3670
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = 1642.93 (Equation 25-2 or 25-3)
P_{FM} = 0.597 using Equation (Exhibit 25-5)
V_{12} = 3233 pc/h
V_3 or V_{av34} 2182 pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No
If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	6452	Exhibit 25-7		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	4270	Exhibit 25-7	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 33.9 (pc/mi/ln)
LOS = D (Exhibit 25-4)

Speed Determination

M_S = 0.537 (Exibit 25-19)
S_R= 55.0 mph (Exhibit 25-19)
S_0= 63.9 mph (Exhibit 25-19)
S = 57.7 mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = using Equation (Exhibit 25-12)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

D_s = (Exhibit 25-19)
S_R= mph (Exhibit 25-19)
S_0= mph (Exhibit 25-19)
S = mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Southbound
Agency or Company	URS Corporation	Junction	SR 52 SB OFF-RAMP
Date Performed	4/23/2010	Jurisdiction	Pasco County
Analysis Time Period	AM	Analysis Year	No Build 2030

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 45.0 mph

Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp
☑ Yes ☑ On
☐ No ☐ Off
L_{down} = 2000 ft
V_D = 3185 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	5510	0.95	Level	15	0	0.930	0.95	6563
Ramp	900	0.95	Level	8	0	0.962	0.95	1037
UpStream								
DownStream	3185	0.95	Level	8	0	0.962	0.95	3670

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)
P_{FM} = using Equation (Exhibit 25-5)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$

D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)
S_R= mph (Exhibit 25-19)
S_0= mph (Exhibit 25-19)
S = mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = 0.548 using Equation (Exhibit 25-12)
V_{12} = 4066 pc/h
V_3 or V_{av34} 2497 pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No
If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	6563	Exhibit 25-14	7200	No
$V_{FO} = V_F - V_R$	5526	Exhibit 25-14	7200	No
V_R	1037	Exhibit 25-3	2100	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	4066	Exhibit 25-14	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086 V_{12} - 0.009 L_D$

D_R = 35.5 (pc/mi/ln)
LOS = E (Exhibit 25-4)

Speed Determination

D_s = 0.391 (Exhibit 25-19)
S_R= 59.0 mph (Exhibit 25-19)
S_0= 71.0 mph (Exhibit 25-19)
S = 63.1 mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Southbound
Agency or Company	URS Corporation	Junction	SR 52 SB OFF-RAMP
Date Performed	4/27/2010	Jurisdiction	Pasco County
Analysis Time Period	PM	Analysis Year	No Build 2030

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 45.0 mph

Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp
☑ Yes ☑ On
☐ No ☐ Off
L_{down} = 2000 ft
V_D = 2505 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	4855	0.95	Level	15	0	0.930	0.95	5783
Ramp	780	0.95	Level	8	0	0.962	0.95	899
UpStream								
DownStream	2505	0.95	Level	8	0	0.962	0.95	2887

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)
P_{FM} = using Equation (Exhibit 25-5)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)
S_R= mph (Exhibit 25-19)
S_0= mph (Exhibit 25-19)
S = mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = 0.574 using Equation (Exhibit 25-12)
V_{12} = 3703 pc/h
V_3 or V_{av34} 2080 pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No
If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	5783	Exhibit 25-14	7200	No
$V_{FO} = V_F - V_R$	4884	Exhibit 25-14	7200	No
V_R	899	Exhibit 25-3	2100	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	3703	Exhibit 25-14	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = 32.4 (pc/mi/ln)
LOS = D (Exhibit 25-4)

Speed Determination

D_s = 0.379 (Exhibit 25-19)
S_R= 59.4 mph (Exhibit 25-19)
S_0= 72.6 mph (Exhibit 25-19)
S = 63.5 mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Southbound
Agency or Company	URS Corporation	Junction	SR 52 SB ON-RAMP
Date Performed	4/26/2010	Jurisdiction	Pasco County
Analysis Time Period	AM	Analysis Year	No Build 2030

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp
☑ Yes ☐ On
☐ No ☑ Off
L_{up} = 2000 ft
V_u = 900 veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 45.0 mph

Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{down} = ft
V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	4610	0.95	Level	15	0	0.930	0.95	5491
Ramp	3185	0.95	Level	8	0	0.962	0.95	3670
UpStream	900	0.96	Level	8	0	0.962	0.95	1026
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = 2222.65 (Equation 25-2 or 25-3)
P_{FM} = 0.583 using Equation (Exhibit 25-5)
V_{12} = 3201 pc/h
V_3 or V_{av34} 2290 pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No
If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	9161	Exhibit 25-7		Yes

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	6871	Exhibit 25-7	4600:All	Yes

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 53.0 (pc/mi/ln)
LOS = F (Exhibit 25-4)

Speed Determination

M_S = 4.017 (Exibit 25-19)
S_R= -42.5 mph (Exhibit 25-19)
S_0= 63.6 mph (Exhibit 25-19)
S = mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = using Equation (Exhibit 25-12)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

D_s = (Exhibit 25-19)
S_R= mph (Exhibit 25-19)
S_0= mph (Exhibit 25-19)
S = mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Southbound
Agency or Company	URS Corporation	Junction	SR 52 SB ON-RAMP
Date Performed	4/27/2010	Jurisdiction	Pasco County
Analysis Time Period	PM	Analysis Year	No Build 2030

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp
☑ Yes ☐ On
☐ No ☑ Off
L_{up} = 2000 ft
V_u = 780 veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 45.0 mph

Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{down} = ft
V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	4075	0.95	Level	15	0	0.930	0.95	4854
Ramp	2505	0.95	Level	8	0	0.962	0.95	2887
UpStream	780	0.95	Level	8	0	0.962	0.95	899
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = 1918.77 (Equation 25-2 or 25-3)
P_{FM} = 0.597 using Equation (Exhibit 25-5)
V_{12} = 2898 pc/h
V_3 or V_{av34} 1956 pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No
If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	7741	Exhibit 25-7		Yes

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	5785	Exhibit 25-7	4600:All	Yes

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 44.9 (pc/mi/ln)
LOS = F (Exhibit 25-4)

Speed Determination

M_S = 1.527 (Exibit 25-19)
S_R= 27.2 mph (Exhibit 25-19)
S_0= 64.8 mph (Exhibit 25-19)
S = 31.9 mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = using Equation (Exhibit 25-12)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

D_s = (Exhibit 25-19)
S_R= mph (Exhibit 25-19)
S_0= mph (Exhibit 25-19)
S = mph (Exhibit 25-15)

2030 No-Build Intersection Analysis Results

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 NB Ramps at SR 56*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/18/2010*	Jurisdiction	*FDOT*
Time Period	*AM*	Analysis Year	*No Build 2030*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	*1*	*2*			*4*		*2*					
Lane Group	*L*	*T*			*T*		*L*					
Volume (vph)	*410*	*1620*			*2855*		*1805*					
% Heavy Vehicles	*3*	*3*			*3*		*8*					
PHF	*0.95*	*0.95*			*0.95*		*0.95*					
Pretimed/Actuated (P/A)	*A*	*A*			*A*		*A*					
Startup Lost Time	*2.0*	*2.0*			*2.0*		*2.0*					
Extension of Effective Green	*2.0*	*2.0*			*2.0*		*2.0*					
Arrival Type	*3*	*3*			*3*		*3*					
Unit Extension	*3.0*	*3.0*			*3.0*		*3.0*					
Ped/Bike/RTOR Volume	*0*	*0*		*0*	*0*		*0*	*0*		*0*	*0*	
Lane Width	*12.0*	*12.0*			*12.0*		*12.0*					
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour	*0*	*0*			*0*		*0*					
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	EB Only	Thru Only	03	04	NB Only	06	07	08
Timing	G = *26.8*	G = *71.0*	G =	G =	G = *53.4*	G =	G =	G =
	Y = *6.2*	Y = *6.1*	Y =	Y =	Y = *6.5*	Y =	Y =	Y =
Duration of Analysis (hrs) = *0.25*						Cycle Length C = *170.0*		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	*432*	*1705*			*3005*		*1900*					
Lane Group Capacity	*276*	*2149*			*2441*		*1020*					
v/c Ratio	*1.57*	*0.79*			*1.23*		*1.86*					
Green Ratio	*0.16*	*0.61*			*0.42*		*0.31*					
Uniform Delay d_1	*71.6*	*24.9*			*49.5*		*58.3*					
Delay Factor k	*0.50*	*0.34*			*0.50*		*0.50*					
Incremental Delay d_2	*271.3*	*2.1*			*107.8*		*392.0*					
PF Factor	*1.000*	*1.000*			*1.000*		*1.000*					
Control Delay	*342.9*	*27.0*			*157.3*		*450.3*					
Lane Group LOS	*F*	*C*			*F*		*F*					
Approach Delay	*90.9*			*157.3*			*450.3*					
Approach LOS	*F*			*F*			*F*					
Intersection Delay	*216.2*			Intersection LOS			*F*					

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group	*L*	*T*			*T*		*L*					
Initial Queue/Lane	*0.0*	*0.0*			*0.0*		*0.0*					
Flow Rate/Lane Group	*432*	*1705*			*3005*		*1900*					
Satflow/Lane	*1752*	*1844*			*1844*		*1671*					
Capacity/Lane Group	*276*	*2149*			*2441*		*1020*					
Flow Ratio	*0.2*	*0.5*			*0.5*		*0.6*					
v/c Ratio	*1.57*	*0.79*			*1.23*		*1.86*					
I Factor	*1.000*	*1.000*			*1.000*		*1.000*					
Arrival Type	*3*	*3*			*3*		*3*					
Platoon Ratio	*1.00*	*1.00*			*1.00*		*1.00*					
PF Factor	*1.00*	*1.00*			*1.00*		*1.00*					
Q_1	*20.4*	*31.9*			*44.8*		*46.2*					
k_B	*0.5*	*1.1*			*0.9*		*0.7*					
Q_2	*20.7*	*3.7*			*26.2*		*58.1*					
Q Average	*41.1*	*35.6*			*70.9*		*104.3*					
Percentile Back of Queue (95th percentile)												
$f_{B\%}$	*1.6*	*1.6*			*1.5*		*1.5*					
Back of Queue	*64.2*	*56.3*			*107*		*157*					
Queue Storage Ratio												
Queue Spacing	*25.0*	*25.0*			*25.0*		*25.0*					
Queue Storage	*650*	*0*			*0*		*1100*					
Average Queue Storage Ratio	*1.6*						*2.4*					
95% Queue Storage Ratio	*2.5*						*3.6*					

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 NB Ramps at SR 56*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/18/2010*	Jurisdiction	*FDOT*
Time Period	*PM*	Analysis Year	*No Build 2030*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	*1*	*2*			*4*		*2*					
Lane Group	*L*	*T*			*T*		*L*					
Volume (vph)	*300*	*1540*			*2360*		*2150*					
% Heavy Vehicles	*3*	*3*			*3*		*8*					
PHF	*0.95*	*0.95*			*0.95*		*0.95*					
Pretimed/Actuated (P/A)	*A*	*A*			*A*		*A*					
Startup Lost Time	*2.0*	*2.0*			*2.0*		*2.0*					
Extension of Effective Green	*2.0*	*2.0*			*2.0*		*2.0*					
Arrival Type	*3*	*3*			*3*		*3*					
Unit Extension	*3.0*	*3.0*			*3.0*		*3.0*					
Ped/Bike/RTOR Volume	*0*	*0*		*0*	*0*		*0*	*0*		*0*	*0*	
Lane Width	*12.0*	*12.0*			*12.0*		*12.0*					
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour	*0*	*0*			*0*		*0*					
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	EB Only	Thru Only	03	04	NB Only	06	07	08
Timing	G = *20.1*	G = *56.4*	G =	G =	G = *64.7*	G =	G =	G =
	Y = *6.2*	Y = *6.1*	Y =	Y =	Y = *6.5*	Y =	Y =	Y =
Duration of Analysis (hrs) = *0.25*						Cycle Length C = *160.0*		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	*316*	*1621*			*2484*		*2263*					
Lane Group Capacity	*220*	*1815*			*2000*		*1313*					
v/c Ratio	*1.44*	*0.89*			*1.24*		*1.72*					
Green Ratio	*0.13*	*0.52*			*0.35*		*0.40*					
Uniform Delay d_1	*69.9*	*34.7*			*51.8*		*47.7*					
Delay Factor k	*0.50*	*0.42*			*0.50*		*0.50*					
Incremental Delay d_2	*220.4*	*6.1*			*113.3*		*328.8*					
PF Factor	*1.000*	*1.000*			*1.000*		*1.000*					
Control Delay	*290.3*	*40.8*			*165.1*		*376.5*					
Lane Group LOS	*F*	*D*			*F*		*F*					
Approach Delay	*81.5*			*165.1*			*376.5*					
Approach LOS	*F*			*F*			*F*					
Intersection Delay	*212.5*			Intersection LOS			*F*					

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group	*L*	*T*			*T*		*L*					
Initial Queue/Lane	*0.0*	*0.0*			*0.0*		*0.0*					
Flow Rate/Lane Group	*316*	*1621*			*2484*		*2263*					
Satflow/Lane	*1752*	*1844*			*1844*		*1671*					
Capacity/Lane Group	*220*	*1815*			*2000*		*1313*					
Flow Ratio	*0.2*	*0.5*			*0.4*		*0.7*					
v/c Ratio	*1.44*	*0.89*			*1.24*		*1.72*					
I Factor	*1.000*	*1.000*			*1.000*		*1.000*					
Arrival Type	*3*	*3*			*3*		*3*					
Platoon Ratio	*1.00*	*1.00*			*1.00*		*1.00*					
PF Factor	*1.00*	*1.00*			*1.00*		*1.00*					
Q_1	*14.0*	*33.9*			*35.9*		*51.8*					
k_B	*0.4*	*0.9*			*0.8*		*0.8*					
Q_2	*13.2*	*5.5*			*22.9*		*62.9*					
Q Average	*27.2*	*39.4*			*58.8*		*114.7*					
Percentile Back of Queue (95th percentile)												
$f_{B\%}$	*1.6*	*1.6*			*1.5*		*1.5*					
Back of Queue	*44.4*	*61.8*			*89.5*		*172*					
Queue Storage Ratio												
Queue Spacing	*25.0*	*25.0*			*25.0*		*25.0*					
Queue Storage	*650*	*0*			*0*		*1100*					
Average Queue Storage Ratio	*1.0*						*2.6*					
95% Queue Storage Ratio	*1.7*						*3.9*					

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 SB Ramps at SR 56*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/18/2010*	Jurisdiction	*FDOT*
Time Period	*AM*	Analysis Year	*No Build 2030*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes		*2*		*2*	*2*					*1*		
Lane Group		*T*		*L*	*T*					*L*		
Volume (vph)		*1530*		*1575*	*3085*					*500*		
% Heavy Vehicles		*3*		*3*	*3*					*8*		
PHF		*0.95*		*0.95*	*0.95*					*0.95*		
Pretimed/Actuated (P/A)		*A*		*A*	*A*					*A*		
Startup Lost Time		*2.0*		*2.0*	*2.0*					*2.0*		
Extension of Effective Green		*2.0*		*2.0*	*2.0*					*2.0*		
Arrival Type		*3*		*3*	*3*					*3*		
Unit Extension		*3.0*		*3.0*	*3.0*					*3.0*		
Ped/Bike/RTOR Volume	*0*	*0*		*0*	*0*		*0*	*0*		*0*	*0*	
Lane Width		*12.0*		*12.0*	*12.0*					*12.0*		
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour		*0*		*0*	*0*					*0*		
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	WB Only	Thru Only	03	04	SB Only	06	07	08
Timing	G = *73.0*	G = *64.2*	G =	G =	G = *24.0*	G =	G =	G =
	Y = *6.3*	Y = *6.1*	Y =	Y =	Y = *6.4*	Y =	Y =	Y =

Duration of Analysis (hrs) = *0.25* | Cycle Length C = *180.0*

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate		*1611*		*1658*	*3247*					*526*		
Lane Group Capacity		*1253*		*1380*	*2800*					*223*		
v/c Ratio		*1.29*		*1.20*	*1.16*					*2.36*		
Green Ratio		*0.36*		*0.41*	*0.80*					*0.13*		
Uniform Delay d_1		*57.9*		*53.5*	*18.3*					*78.0*		
Delay Factor k		*0.50*		*0.50*	*0.50*					*0.50*		
Incremental Delay d_2		*134.7*		*97.9*	*76.2*					*625.1*		
PF Factor		*1.000*		*1.000*	*1.000*					*1.000*		
Control Delay		*192.6*		*151.4*	*94.5*					*703.1*		
Lane Group LOS		*F*		*F*	*F*					*F*		
Approach Delay	*192.6*			*113.7*						*703.1*		
Approach LOS	*F*			*F*						*F*		
Intersection Delay	*175.8*			Intersection LOS						*F*		

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group		*T*		*L*	*T*					*L*		
Initial Queue/Lane		*0.0*		*0.0*	*0.0*					*0.0*		
Flow Rate/Lane Group		*1611*		*1658*	*3247*					*526*		
Satflow/Lane		*1844*		*1752*	*1844*					*1671*		
Capacity/Lane Group		*1253*		*1380*	*2800*					*223*		
Flow Ratio		*0.5*		*0.5*	*0.9*					*0.3*		
v/c Ratio		*1.29*		*1.20*	*1.16*					*2.36*		
I Factor		*1.000*		*1.000*	*1.000*					*1.000*		
Arrival Type		*3*		*3*	*3*					*3*		
Platoon Ratio		*1.00*		*1.00*	*1.00*					*1.00*		
PF Factor		*1.00*		*1.00*	*1.00*					*1.00*		
Q_1		*42.3*		*42.7*	*85.3*					*26.3*		
k_B		*0.8*		*0.9*	*1.3*					*0.4*		
Q_2		*26.7*		*22.0*	*37.0*					*38.6*		
Q Average		*69.0*		*64.7*	*122.2*					*64.9*		
Percentile Back of Queue (95th percentile)												
$f_{B\%}$		*1.5*		*1.5*	*1.5*					*1.5*		
Back of Queue		*104*		*98.0*	*183*					*98.4*		
Queue Storage Ratio												
Queue Spacing		*25.0*		*25.0*	*25.0*					*25.0*		
Queue Storage		*0*		*1500*	*0*					*700*		
Average Queue Storage Ratio				*1.1*						*2.3*		
95% Queue Storage Ratio				*1.6*						*3.5*		

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 SB Ramps at SR 56*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/18/2010*	Jurisdiction	*FDOT*
Time Period	*PM*	Analysis Year	*No Build 2030*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes		*2*		*2*	*2*					*1*		
Lane Group		*T*		*L*	*T*					*L*		
Volume (vph)		*1580*		*1240*	*3270*					*260*		
% Heavy Vehicles		*3*		*3*	*3*					*8*		
PHF		*0.95*		*0.95*	*0.95*					*0.95*		
Pretimed/Actuated (P/A)		*A*		*A*	*A*					*A*		
Startup Lost Time		*2.0*		*2.0*	*2.0*					*2.0*		
Extension of Effective Green		*2.0*		*2.0*	*2.0*					*2.0*		
Arrival Type		*3*		*3*	*3*					*3*		
Unit Extension		*3.0*		*3.0*	*3.0*					*3.0*		
Ped/Bike/RTOR Volume	*0*	*0*		*0*	*0*		*0*	*0*		*0*	*0*	
Lane Width		*12.0*		*12.0*	*12.0*					*12.0*		
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour		*0*		*0*	*0*					*0*		
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	WB Only	Thru Only	03	04	SB Only	06	07	08
Timing	G = *65.1*	G = *75.0*	G =	G =	G = *11.1*	G =	G =	G =
	Y = *6.3*	Y = *6.1*	Y =	Y =	Y = *6.4*	Y =	Y =	Y =

Duration of Analysis (hrs) = *0.25* — Cycle Length C = *170.0*

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate		*1663*		*1305*	*3442*					*274*		
Lane Group Capacity		*1549*		*1303*	*3024*					*109*		
v/c Ratio		*1.07*		*1.00*	*1.14*					*2.51*		
Green Ratio		*0.44*		*0.38*	*0.86*					*0.07*		
Uniform Delay d_1		*47.5*		*52.5*	*11.8*					*79.4*		
Delay Factor k		*0.50*		*0.50*	*0.50*					*0.50*		
Incremental Delay d_2		*45.5*		*25.3*	*66.8*					*707.6*		
PF Factor		*1.000*		*1.000*	*1.000*					*1.000*		
Control Delay		*93.0*		*77.7*	*78.6*					*787.0*		
Lane Group LOS		*F*		*E*	*E*					*F*		
Approach Delay	*93.0*			*78.3*						*787.0*		
Approach LOS	*F*			*E*						*F*		
Intersection Delay	*111.0*			Intersection LOS						*F*		

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group		*T*		*L*	*T*					*L*		
Initial Queue/Lane		*0.0*		*0.0*	*0.0*					*0.0*		
Flow Rate/Lane Group		*1663*		*1305*	*3442*					*274*		
Satflow/Lane		*1844*		*1752*	*1844*					*1671*		
Capacity/Lane Group		*1549*		*1303*	*3024*					*109*		
Flow Ratio		*0.5*		*0.4*	*1.0*					*0.2*		
v/c Ratio		*1.07*		*1.00*	*1.14*					*2.51*		
I Factor		*1.000*		*1.000*	*1.000*					*1.000*		
Arrival Type		*3*		*3*	*3*					*3*		
Platoon Ratio		*1.00*		*1.00*	*1.00*					*1.00*		
PF Factor		*1.00*		*1.00*	*1.00*					*1.00*		
Q_1		*41.2*		*31.7*	*85.3*					*12.9*		
k_B		*0.9*		*0.8*	*1.3*					*0.3*		
Q_2		*14.3*		*8.2*	*35.8*					*21.1*		
Q Average		*55.5*		*39.9*	*121.1*					*34.0*		

Percentile Back of Queue (95th percentile)

$f_{B\%}$		*1.5*		*1.6*	*1.5*					*1.6*		
Back of Queue		*84.8*		*62.5*	*182*					*54.1*		

Queue Storage Ratio

Queue Spacing		*25.0*		*25.0*	*25.0*					*25.0*		
Queue Storage		*0*		*1500*	*0*					*700*		
Average Queue Storage Ratio				*0.7*						*1.2*		
95% Queue Storage Ratio				*1.0*						*1.9*		

SHORT REPORT

General Information		Site Information	
Analyst	URS	Intersection	I-75 NB Ramps at SR 54
Agency or Co.	URS	Area Type	All other areas
Date Performed	5/20/2010	Jurisdiction	FDOT
Time Period	AM	Analysis Year	No Build 2030

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	1	3			5	1	2					
Lane Group	L	T			T	R	L					
Volume (vph)	550	2235			3240	565	1405					
% Heavy Vehicles	2	2			2	2	8					
PHF	0.95	0.95			0.95	0.95	0.95					
Pretimed/Actuated (P/A)	A	A			A	A	A					
Startup Lost Time	2.0	2.0			2.0	2.0	2.0					
Extension of Effective Green	2.0	2.0			2.0	2.0	2.0					
Arrival Type	3	3			3	3	3					
Unit Extension	3.0	3.0			3.0	3.0	3.0					
Ped/Bike/RTOR Volume	0	0		0	0	0	0	0		0	0	
Lane Width	12.0	12.0			12.0	12.0	12.0					
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/Hour												
Bus Stops/Hour	0	0			0	0	0					
Minimum Pedestrian Time		3.2			3.2			3.2			3.2	

Phasing	EB Only	Thru & RT	03	04	NB Only	06	07	08
Timing	G = 20.0	G = 67.8	G =	G =	G = 54.2	G =	G =	G =
	Y = 6	Y = 6	Y =	Y =	Y = 6	Y =	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 160.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	579	2353			3411	595	1479					
Lane Group Capacity	221	2975			3232	1266	1100					
v/c Ratio	2.62	0.79			1.06	0.47	1.34					
Green Ratio	0.13	0.59			0.42	0.80	0.34					
Uniform Delay d_1	70.0	25.5			46.1	5.1	52.9					
Delay Factor k	0.50	0.34			0.50	0.11	0.50					
Incremental Delay d_2	741.9	1.5			32.9	0.3	161.2					
PF Factor	1.000	1.000			1.000	1.000	1.000					
Control Delay	811.9	27.1			79.0	5.4	214.1					
Lane Group LOS	F	C			E	A	F					
Approach Delay	182.0			68.1			214.1					
Approach LOS	F			E			F					
Intersection Delay	133.4			Intersection LOS			F					

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group	*L*	*T*			*T*	*R*	*L*					
Initial Queue/Lane	*0.0*	*0.0*			*0.0*	*0.0*	*0.0*					
Flow Rate/Lane Group	*579*	*2353*			*3411*	*595*	*1479*					
Satflow/Lane	*1770*	*1862*			*1862*	*1583*	*1671*					
Capacity/Lane Group	*221*	*2975*			*3232*	*1266*	*1100*					
Flow Ratio	*0.3*	*0.5*			*0.4*	*0.4*	*0.5*					
v/c Ratio	*2.62*	*0.79*			*1.06*	*0.47*	*1.34*					
I Factor	*1.000*	*1.000*			*1.000*	*1.000*	*1.000*					
Arrival Type	*3*	*3*			*3*	*3*	*3*					
Platoon Ratio	*1.00*	*1.00*			*1.00*	*1.00*	*1.00*					
PF Factor	*1.00*	*1.00*			*1.00*	*1.00*	*1.00*					
Q_1	*25.7*	*29.6*			*37.0*	*8.5*	*33.8*					
k_B	*0.4*	*1.0*			*0.8*	*1.1*	*0.7*					
Q_2	*45.4*	*3.5*			*12.4*	*1.0*	*26.8*					
Q Average	*71.1*	*33.0*			*49.4*	*9.5*	*60.7*					
Percentile Back of Queue (95th percentile)												
$f_{B\%}$	*1.5*	*1.6*			*1.5*	*1.9*	*1.5*					
Back of Queue	*107*	*52.7*			*76.0*	*17.5*	*92.2*					
Queue Storage Ratio												
Queue Spacing	*25.0*	*25.0*			*25.0*	*25.0*	*25.0*					
Queue Storage	*1000*	*0*			*0*	*500*	*1100*					
Average Queue Storage Ratio	*1.8*					*0.5*	*1.4*					
95% Queue Storage Ratio	*2.7*					*0.9*	*2.1*					

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SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 NB Ramps at SR 54*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/20/2010*	Jurisdiction	*FDOT*
Time Period	*PM*	Analysis Year	*No Build 2030*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	*1*	*3*			*5*	*1*	*2*					
Lane Group	*L*	*T*			*T*	*R*	*L*					
Volume (vph)	*620*	*1585*			*2760*	*720*	*1240*					
% Heavy Vehicles	*2*	*2*			*2*	*2*	*8*					
PHF	*0.95*	*0.95*			*0.95*	*0.95*	*0.95*					
Pretimed/Actuated (P/A)	*A*	*A*			*A*	*A*	*A*					
Startup Lost Time	*2.0*	*2.0*			*2.0*	*2.0*	*2.0*					
Extension of Effective Green	*2.0*	*2.0*			*2.0*	*2.0*	*2.0*					
Arrival Type	*3*	*3*			*3*	*3*	*3*					
Unit Extension	*3.0*	*3.0*			*3.0*	*3.0*	*3.0*					
Ped/Bike/RTOR Volume	*0*	*0*		*0*	*0*	*0*	*0*	*0*		*0*	*0*	
Lane Width	*12.0*	*12.0*			*12.0*	*12.0*	*12.0*					
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour	*0*	*0*			*0*	*0*	*0*					
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	EB Only	Thru & RT	03	04	NB Only	06	07	08
Timing	G = *36.0*	G = *67.3*	G =	G =	G = *58.7*	G =	G =	G =
	Y = *6*	Y = *6*	Y =	Y =	Y = *6*	Y =	Y =	Y =
Duration of Analysis (hrs) = *0.25*						Cycle Length C = *180.0*		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	*653*	*1668*			*2905*	*758*	*1305*					
Lane Group Capacity	*354*	*3081*			*3232*	*1161*	*1059*					
v/c Ratio	*1.84*	*0.54*			*0.90*	*0.65*	*1.23*					
Green Ratio	*0.20*	*0.61*			*0.37*	*0.73*	*0.33*					
Uniform Delay d_1	*72.0*	*20.7*			*53.1*	*12.3*	*60.7*					
Delay Factor k	*0.50*	*0.14*			*0.42*	*0.23*	*0.50*					
Incremental Delay d_2	*390.9*	*0.2*			*3.8*	*1.3*	*112.9*					
PF Factor	*1.000*	*1.000*			*1.000*	*1.000*	*1.000*					
Control Delay	*462.9*	*20.9*			*57.0*	*13.6*	*173.5*					
Lane Group LOS	*F*	*C*			*E*	*B*	*F*					
Approach Delay	*145.2*			*48.0*			*173.5*					
Approach LOS	*F*			*D*			*F*					
Intersection Delay	*101.4*			Intersection LOS			*F*					

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BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group	*L*	*T*			*T*	*R*	*L*					
Initial Queue/Lane	*0.0*	*0.0*			*0.0*	*0.0*	*0.0*					
Flow Rate/Lane Group	*653*	*1668*			*2905*	*758*	*1305*					
Satflow/Lane	*1770*	*1862*			*1862*	*1583*	*1671*					
Capacity/Lane Group	*354*	*3081*			*3232*	*1161*	*1059*					
Flow Ratio	*0.4*	*0.3*			*0.3*	*0.5*	*0.4*					
v/c Ratio	*1.84*	*0.54*			*0.90*	*0.65*	*1.23*					
I Factor	*1.000*	*1.000*			*1.000*	*1.000*	*1.000*					
Arrival Type	*3*	*3*			*3*	*3*	*3*					
Platoon Ratio	*1.00*	*1.00*			*1.00*	*1.00*	*1.00*					
PF Factor	*1.00*	*1.00*			*1.00*	*1.00*	*1.00*					
Q_1	*32.7*	*17.9*			*29.5*	*19.4*	*33.5*					
k_B	*0.6*	*1.1*			*0.8*	*1.1*	*0.7*					
Q_2	*38.6*	*1.3*			*4.8*	*2.1*	*19.0*					
Q Average	*71.2*	*19.2*			*34.4*	*21.5*	*52.5*					
Percentile Back of Queue (95th percentile)												
$f_{B\%}$	*1.5*	*1.7*			*1.6*	*1.7*	*1.5*					
Back of Queue	*108*	*32.8*			*54.6*	*36.1*	*80.5*					
Queue Storage Ratio												
Queue Spacing	*25.0*	*25.0*			*25.0*	*25.0*	*25.0*					
Queue Storage	*1000*	*0*			*0*	*500*	*1100*					
Average Queue Storage Ratio	*1.8*					*1.1*	*1.2*					
95% Queue Storage Ratio	*2.7*					*1.8*	*1.8*					

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SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 SB Ramps at CR 54*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/20/2010*	Jurisdiction	*FDOT*
Time Period	*AM*	Analysis Year	*No Build 2030*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes		*4*	*1*	*2*	*3*					*1*		*1*
Lane Group		*T*	*R*	*L*	*T*					*L*		*R*
Volume (vph)		*2065*	*1240*	*2220*	*2425*					*720*		*620*
% Heavy Vehicles		*2*	*2*	*2*	*2*					*8*		*8*
PHF		*0.95*	*0.95*	*0.95*	*0.95*					*0.95*		*0.95*
Pretimed/Actuated (P/A)		*A*	*A*	*A*	*A*					*A*		*A*
Startup Lost Time		*2.0*	*2.0*	*2.0*	*2.0*					*2.0*		*2.0*
Extension of Effective Green		*2.0*	*2.0*	*2.0*	*2.0*					*2.0*		*2.0*
Arrival Type		*3*	*3*	*3*	*3*					*3*		*3*
Unit Extension		*3.0*	*3.0*	*3.0*	*3.0*					*3.0*		*3.0*
Ped/Bike/RTOR Volume	*0*	*0*	*0*	*0*	*0*		*0*	*0*		*0*	*0*	*0*
Lane Width		*12.0*	*12.0*	*12.0*	*12.0*					*12.0*		*12.0*
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour		*0*	*0*	*0*	*0*					*0*		*0*
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	WB Only	Thru & RT	03	04	SB Only	06	07	08
Timing	G = *59.8*	G = *50.5*	G =	G =	G = *51.7*	G =	G =	G =
	Y = *6*	Y = *6*	Y =	Y =	Y = *6*	Y =	Y =	Y =
Duration of Analysis (hrs) = *0.25*						Cycle Length C = *180.0*		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate		*2174*	*1305*	*2337*	*2553*					*758*		*653*
Lane Group Capacity		*1858*	*952*	*1142*	*3278*					*480*		*429*
v/c Ratio		*1.17*	*1.37*	*2.05*	*0.78*					*1.58*		*1.52*
Green Ratio		*0.28*	*0.60*	*0.33*	*0.65*					*0.29*		*0.29*
Uniform Delay d_1		*64.8*	*35.9*	*60.1*	*22.7*					*64.2*		*64.2*
Delay Factor k		*0.50*	*0.50*	*0.50*	*0.33*					*0.50*		*0.50*
Incremental Delay d_2		*82.7*	*173.6*	*473.9*	*1.3*					*270.5*		*246.6*
PF Factor		*1.000*	*1.000*	*1.000*	*1.000*					*1.000*		*1.000*
Control Delay		*147.5*	*209.5*	*534.0*	*23.9*					*334.6*		*310.8*
Lane Group LOS		*F*	*F*	*F*	*C*					*F*		*F*
Approach Delay	*170.7*			*267.7*						*323.6*		
Approach LOS	*F*			*F*						*F*		
Intersection Delay	*241.3*			Intersection LOS						*F*		

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group		*T*	*R*	*L*	*T*					*L*		*R*
Initial Queue/Lane		*0.0*	*0.0*	*0.0*	*0.0*					*0.0*		*0.0*
Flow Rate/Lane Group		*2174*	*1305*	*2337*	*2553*					*758*		*653*
Satflow/Lane		*1862*	*1583*	*1770*	*1862*					*1671*		*1495*
Capacity/Lane Group		*1858*	*952*	*1142*	*3278*					*480*		*429*
Flow Ratio		*0.3*	*0.8*	*0.7*	*0.5*					*0.5*		*0.4*
v/c Ratio		*1.17*	*1.37*	*2.05*	*0.78*					*1.58*		*1.52*
I Factor		*1.000*	*1.000*	*1.000*	*1.000*					*1.000*		*1.000*
Arrival Type		*3*	*3*	*3*	*3*					*3*		*3*
Platoon Ratio		*1.00*	*1.00*	*1.00*	*1.00*					*1.00*		*1.00*
PF Factor		*1.00*	*1.00*	*1.00*	*1.00*					*1.00*		*1.00*
Q_1		*30.5*	*65.3*	*60.2*	*33.4*					*37.9*		*32.7*
k_B		*0.7*	*1.0*	*0.8*	*1.2*					*0.7*		*0.6*
Q_2		*14.8*	*47.6*	*78.3*	*3.7*					*36.5*		*29.7*
Q Average		*45.3*	*112.9*	*138.5*	*37.1*					*74.4*		*62.4*
Percentile Back of Queue (95th percentile)												
$f_{B\%}$		*1.5*	*1.5*	*1.5*	*1.6*					*1.5*		*1.5*
Back of Queue		*70.2*	*169*	*208*	*58.5*					*112*		*94.7*
Queue Storage Ratio												
Queue Spacing		*25.0*	*25.0*	*25.0*	*25.0*					*25.0*		*25.0*
Queue Storage		*0*	*700*	*900*	*0*					*300*		*1000*
Average Queue Storage Ratio			*4.0*	*3.8*						*6.2*		*1.6*
95% Queue Storage Ratio			*6.1*	*5.8*						*9.4*		*2.4*

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 SB Ramps at CR 54*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/20/2010*	Jurisdiction	*FDOT*
Time Period	*PM*	Analysis Year	*No Build 2030*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes		*4*	*1*	*2*	*3*					*1*		*1*
Lane Group		*T*	*R*	*L*	*T*					*L*		*R*
Volume (vph)		*1640*	*1405*	*1245*	*2755*					*565*		*550*
% Heavy Vehicles		*2*	*2*	*2*	*2*					*8*		*8*
PHF		*0.95*	*0.95*	*0.95*	*0.95*					*0.95*		*0.95*
Pretimed/Actuated (P/A)		*A*	*A*	*A*	*A*					*A*		*A*
Startup Lost Time		*2.0*	*2.0*	*2.0*	*2.0*					*2.0*		*2.0*
Extension of Effective Green		*2.0*	*2.0*	*2.0*	*2.0*					*2.0*		*2.0*
Arrival Type		*3*	*3*	*3*	*3*					*3*		*3*
Unit Extension		*3.0*	*3.0*	*3.0*	*3.0*					*3.0*		*3.0*
Ped/Bike/RTOR Volume	*0*	*0*	*0*	*0*	*0*		*0*	*0*		*0*	*0*	*0*
Lane Width		*12.0*	*12.0*	*12.0*	*12.0*					*12.0*		*12.0*
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour		*0*	*0*	*0*	*0*					*0*		*0*
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	WB Only	Thru & RT	03	04	SB Only	06	07	08
Timing	G = *38.9*	G = *40.4*	G =	G =	G = *42.7*	G =	G =	G =
	Y = *6*	Y = *6*	Y =	Y =	Y = *6*	Y =	Y =	Y =

Duration of Analysis (hrs) = *0.25* | Cycle Length C = *140.0*

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate		*1726*	*1479*	*1311*	*2900*					*595*		*579*
Lane Group Capacity		*1869*	*1007*	*955*	*3092*					*510*		*456*
v/c Ratio		*0.92*	*1.47*	*1.37*	*0.94*					*1.17*		*1.27*
Green Ratio		*0.29*	*0.64*	*0.28*	*0.61*					*0.31*		*0.31*
Uniform Delay d_1		*48.3*	*25.4*	*50.5*	*24.9*					*48.6*		*48.6*
Delay Factor k		*0.44*	*0.50*	*0.50*	*0.45*					*0.50*		*0.50*
Incremental Delay d_2		*8.3*	*216.4*	*174.4*	*6.5*					*94.6*		*137.8*
PF Factor		*1.000*	*1.000*	*1.000*	*1.000*					*1.000*		*1.000*
Control Delay		*56.6*	*241.8*	*225.0*	*31.4*					*143.2*		*186.4*
Lane Group LOS		*E*	*F*	*F*	*C*					*F*		*F*
Approach Delay	*142.1*			*91.7*						*164.5*		
Approach LOS	*F*			*F*						*F*		
Intersection Delay	*120.4*			Intersection LOS						*F*		

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group		*T*	*R*	*L*	*T*					*L*		*R*
Initial Queue/Lane		*0.0*	*0.0*	*0.0*	*0.0*					*0.0*		*0.0*
Flow Rate/Lane Group		*1726*	*1479*	*1311*	*2900*					*595*		*579*
Satflow/Lane		*1862*	*1583*	*1770*	*1862*					*1671*		*1495*
Capacity/Lane Group		*1869*	*1007*	*955*	*3092*					*510*		*456*
Flow Ratio		*0.3*	*0.9*	*0.4*	*0.6*					*0.4*		*0.4*
v/c Ratio		*0.92*	*1.47*	*1.37*	*0.94*					*1.17*		*1.27*
I Factor		*1.000*	*1.000*	*1.000*	*1.000*					*1.000*		*1.000*
Arrival Type		*3*	*3*	*3*	*3*					*3*		*3*
Platoon Ratio		*1.00*	*1.00*	*1.00*	*1.00*					*1.00*		*1.00*
PF Factor		*1.00*	*1.00*	*1.00*	*1.00*					*1.00*		*1.00*
Q_1		*18.7*	*57.5*	*26.3*	*37.7*					*23.1*		*22.5*
k_B		*0.6*	*0.9*	*0.6*	*1.0*					*0.6*		*0.6*
Q_2		*4.1*	*61.7*	*25.0*	*7.8*					*13.8*		*17.7*
Q Average		*22.9*	*119.2*	*51.2*	*45.5*					*37.0*		*40.2*
Percentile Back of Queue (95th percentile)												
$f_{B\%}$		*1.7*	*1.5*	*1.5*	*1.5*					*1.6*		*1.6*
Back of Queue		*38.1*	*179*	*78.6*	*70.4*					*58.3*		*62.9*
Queue Storage Ratio												
Queue Spacing		*25.0*	*25.0*	*25.0*	*25.0*					*25.0*		*25.0*
Queue Storage		*0*	*700*	*900*	*0*					*300*		*1000*
Average Queue Storage Ratio			*4.3*	*1.4*						*3.1*		*1.0*
95% Queue Storage Ratio			*6.4*	*2.2*						*4.9*		*1.6*

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 NB Ramps at SR 52*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/20/2010*	Jurisdiction	*FDOT*
Time Period	*AM*	Analysis Year	*No Build 2030*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	*1*	*2*			*3*	*0*	*2*					
Lane Group	*L*	*T*			*TR*		*L*					
Volume (vph)	*480*	*1505*			*2890*	*300*	*1095*					
% Heavy Vehicles	*6*	*6*			*6*	*6*	*8*					
PHF	*0.95*	*0.95*			*0.95*	*0.95*	*0.95*					
Pretimed/Actuated (P/A)	*A*	*A*			*A*	*A*	*A*					
Startup Lost Time	*2.0*	*2.0*			*2.0*		*2.0*					
Extension of Effective Green	*2.0*	*2.0*			*2.0*		*2.0*					
Arrival Type	*3*	*3*			*3*		*3*					
Unit Extension	*3.0*	*3.0*			*3.0*		*3.0*					
Ped/Bike/RTOR Volume	*0*	*0*		*0*	*0*	*0*	*0*	*0*		*0*	*0*	
Lane Width	*12.0*	*12.0*			*12.0*		*12.0*					
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour	*0*	*0*			*0*		*0*					
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	EB Only	Thru & RT	03	04	NB Only	06	07	08
Timing	G = *22.2*	G = *102.8*	G =	G =	G = *37.0*	G =	G =	G =
	Y = *6*	Y = *6*	Y =	Y =	Y = *6*	Y =	Y =	Y =
Duration of Analysis (hrs) = *0.25*						Cycle Length C = *180.0*		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	*505*	*1584*			*3358*		*1153*					
Lane Group Capacity	*210*	*2484*			*1974*		*667*					
v/c Ratio	*2.40*	*0.64*			*1.70*		*1.73*					
Green Ratio	*0.12*	*0.73*			*0.57*		*0.21*					
Uniform Delay d_1	*78.9*	*12.4*			*38.6*		*71.5*					
Delay Factor k	*0.50*	*0.22*			*0.50*		*0.50*					
Incremental Delay d_2	*646.5*	*0.6*			*317.7*		*334.2*					
PF Factor	*1.000*	*1.000*			*1.000*		*1.000*					
Control Delay	*725.4*	*13.0*			*356.3*		*405.7*					
Lane Group LOS	*F*	*B*			*F*		*F*					
Approach Delay	*185.2*			*356.3*			*405.7*					
Approach LOS	*F*			*F*			*F*					
Intersection Delay	*310.8*			Intersection LOS			*F*					

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group	*L*	*T*			*TR*		*L*					
Initial Queue/Lane	*0.0*	*0.0*			*0.0*		*0.0*					
Flow Rate/Lane Group	*505*	*1584*			*3358*		*1153*					
Satflow/Lane	*1703*	*1792*			*1767*		*1671*					
Capacity/Lane Group	*210*	*2484*			*1974*		*667*					
Flow Ratio	*0.3*	*0.5*			*1.0*		*0.4*					
v/c Ratio	*2.40*	*0.64*			*1.70*		*1.73*					
I Factor	*1.000*	*1.000*			*1.000*		*1.000*					
Arrival Type	*3*	*3*			*3*		*3*					
Platoon Ratio	*1.00*	*1.00*			*1.00*		*1.00*					
PF Factor	*1.00*	*1.00*			*1.00*		*1.00*					
Q_1	*25.3*	*21.1*			*85.8*		*29.6*					
k_B	*0.4*	*1.2*			*1.1*		*0.6*					
Q_2	*37.6*	*2.1*			*90.9*		*32.5*					
Q Average	*62.8*	*23.2*			*176.7*		*62.2*					
Percentile Back of Queue (95th percentile)												
$f_{B\%}$	*1.5*	*1.7*			*1.5*		*1.5*					
Back of Queue	*95.4*	*38.6*			*265*		*94.4*					
Queue Storage Ratio												
Queue Spacing	*25.0*	*25.0*			*25.0*		*25.0*					
Queue Storage	*500*	*0*			*0*		*500*					
Average Queue Storage Ratio	*3.1*						*3.1*					
95% Queue Storage Ratio	*4.8*						*4.7*					

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 NB Ramps at SR 52*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/20/2010*	Jurisdiction	*FDOT*
Time Period	*PM*	Analysis Year	*No Build 2030*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	*1*	*2*			*3*	*0*	*2*					
Lane Group	*L*	*T*			*TR*		*L*					
Volume (vph)	*415*	*1385*			*2430*	*485*	*1380*					
% Heavy Vehicles	*6*	*6*			*6*	*6*	*8*					
PHF	*0.95*	*0.95*			*0.95*	*0.95*	*0.95*					
Pretimed/Actuated (P/A)	*A*	*A*			*A*	*A*	*A*					
Startup Lost Time	*2.0*	*2.0*			*2.0*		*2.0*					
Extension of Effective Green	*2.0*	*2.0*			*2.0*		*2.0*					
Arrival Type	*3*	*3*			*3*		*3*					
Unit Extension	*3.0*	*3.0*			*3.0*		*3.0*					
Ped/Bike/RTOR Volume	*0*	*0*		*0*	*0*	*0*	*0*	*0*		*0*	*0*	
Lane Width	*12.0*	*12.0*			*12.0*		*12.0*					
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour	*0*	*0*			*0*		*0*					
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	EB Only	Thru & RT	03	04	NB Only	06	07	08
Timing	G = *18.6*	G = *82.2*	G =	G =	G = *31.2*	G =	G =	G =
	Y = *6*	Y = *6*	Y =	Y =	Y = *6*	Y =	Y =	Y =
Duration of Analysis (hrs) = *0.25*						Cycle Length C = *150.0*		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	*437*	*1458*			*3069*		*1453*					
Lane Group Capacity	*211*	*2430*			*1494*		*675*					
v/c Ratio	*2.07*	*0.60*			*2.05*		*2.15*					
Green Ratio	*0.12*	*0.71*			*0.55*		*0.21*					
Uniform Delay d_1	*65.7*	*10.9*			*33.9*		*59.4*					
Delay Factor k	*0.50*	*0.19*			*0.50*		*0.50*					
Incremental Delay d_2	*498.0*	*0.4*			*476.7*		*523.6*					
PF Factor	*1.000*	*1.000*			*1.000*		*1.000*					
Control Delay	*563.7*	*11.3*			*510.6*		*583.0*					
Lane Group LOS	*F*	*B*			*F*		*F*					
Approach Delay	*138.7*			*510.6*			*583.0*					
Approach LOS	*F*			*F*			*F*					
Intersection Delay	*417.2*			Intersection LOS			*F*					

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group	*L*	*T*			*TR*		*L*					
Initial Queue/Lane	*0.0*	*0.0*			*0.0*		*0.0*					
Flow Rate/Lane Group	*437*	*1458*			*3069*		*1453*					
Satflow/Lane	*1703*	*1792*			*1747*		*1671*					
Capacity/Lane Group	*211*	*2430*			*1494*		*675*					
Flow Ratio	*0.3*	*0.4*			*1.1*		*0.4*					
v/c Ratio	*2.07*	*0.60*			*2.05*		*2.15*					
I Factor	*1.000*	*1.000*			*1.000*		*1.000*					
Arrival Type	*3*	*3*			*3*		*3*					
Platoon Ratio	*1.00*	*1.00*			*1.00*		*1.00*					
PF Factor	*1.00*	*1.00*			*1.00*		*1.00*					
Q_1	*18.2*	*16.0*			*82.0*		*31.2*					
k_B	*0.4*	*1.1*			*0.9*		*0.5*					
Q_2	*28.9*	*1.6*			*128.0*		*51.0*					
Q Average	*47.2*	*17.6*			*210.0*		*82.2*					
Percentile Back of Queue (95th percentile)												
$f_{B\%}$	*1.5*	*1.7*			*1.5*		*1.5*					
Back of Queue	*72.8*	*30.4*			*315*		*124*					
Queue Storage Ratio												
Queue Spacing	*25.0*	*25.0*			*25.0*		*25.0*					
Queue Storage	*500*	*0*			*0*		*500*					
Average Queue Storage Ratio	*2.4*						*4.1*					
95% Queue Storage Ratio	*3.6*						*6.2*					

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 SB Ramps at SR 52*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/20/2010*	Jurisdiction	*FDOT*
Time Period	*AM*	Analysis Year	*No Build 2030*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes		*3*		*1*	*2*					*1*		*1*
Lane Group		*T*		*L*	*T*					*L*		*R*
Volume (vph)		*1500*		*1805*	*2180*					*485*		*415*
% Heavy Vehicles		*6*		*6*	*6*					*8*		*8*
PHF		*0.95*		*0.95*	*0.95*					*0.95*		*0.95*
Pretimed/Actuated (P/A)		*A*		*A*	*A*					*A*		*A*
Startup Lost Time		*2.0*		*2.0*	*2.0*					*2.0*		*2.0*
Extension of Effective Green		*2.0*		*2.0*	*2.0*					*2.0*		*2.0*
Arrival Type		*3*		*3*	*3*					*3*		*3*
Unit Extension		*3.0*		*3.0*	*3.0*					*3.0*		*3.0*
Ped/Bike/RTOR Volume	*0*	*0*		*0*	*0*		*0*	*0*		*0*	*0*	*0*
Lane Width		*12.0*		*12.0*	*12.0*					*12.0*		*12.0*
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour		*0*		*0*	*0*					*0*		*0*
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	WB Only	Thru Only	03	04	SB Only	06	07	08
Timing	G = *87.4*	G = *46.0*	G =	G =	G = *28.6*	G =	G =	G =
	Y = *6*	Y = *6*	Y =	Y =	Y = *6*	Y =	Y =	Y =

Duration of Analysis (hrs) = *0.25* | Cycle Length C = *180.0*

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate		*1579*		*1900*	*2295*					*511*		*437*
Lane Group Capacity		*994*		*827*	*2643*					*266*		*238*
v/c Ratio		*1.59*		*2.30*	*0.87*					*1.92*		*1.84*
Green Ratio		*0.26*		*0.49*	*0.77*					*0.16*		*0.16*
Uniform Delay d_1		*67.0*		*46.3*	*14.0*					*75.7*		*75.7*
Delay Factor k		*0.50*		*0.50*	*0.40*					*0.50*		*0.50*
Incremental Delay d_2		*269.6*		*587.7*	*3.4*					*428.1*		*392.2*
PF Factor		*1.000*		*1.000*	*1.000*					*1.000*		*1.000*
Control Delay		*336.6*		*634.0*	*17.4*					*503.8*		*467.9*
Lane Group LOS		*F*		*F*	*B*					*F*		*F*
Approach Delay		*336.6*			*296.6*						*487.3*	
Approach LOS		*F*			*F*						*F*	
Intersection Delay		*332.9*			Intersection LOS						*F*	

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group		*T*		*L*	*T*					*L*		*R*
Initial Queue/Lane		*0.0*		*0.0*	*0.0*					*0.0*		*0.0*
Flow Rate/Lane Group		*1579*		*1900*	*2295*					*511*		*437*
Satflow/Lane		*1792*		*1703*	*1792*					*1671*		*1495*
Capacity/Lane Group		*994*		*827*	*2643*					*266*		*238*
Flow Ratio		*0.4*		*1.1*	*0.7*					*0.3*		*0.3*
v/c Ratio		*1.59*		*2.30*	*0.87*					*1.92*		*1.84*
I Factor		*1.000*		*1.000*	*1.000*					*1.000*		*1.000*
Arrival Type		*3*		*3*	*3*					*3*		*3*
Platoon Ratio		*1.00*		*1.00*	*1.00*					*1.00*		*1.00*
PF Factor		*1.00*		*1.00*	*1.00*					*1.00*		*1.00*
Q_1		*36.3*		*95.0*	*41.5*					*25.5*		*21.9*
k_B		*0.7*		*0.9*	*1.3*					*0.5*		*0.4*
Q_2		*35.3*		*135.8*	*6.5*					*31.6*		*25.8*
Q Average		*71.7*		*230.8*	*48.0*					*57.1*		*47.7*

Percentile Back of Queue (95th percentile)

$f_{B\%}$		*1.5*		*1.5*	*1.5*					*1.5*		*1.5*
Back of Queue		*108*		*346*	*74.0*					*87.1*		*73.5*

Queue Storage Ratio

Queue Spacing		*25.0*		*25.0*	*25.0*					*25.0*		*25.0*
Queue Storage		*0*		*600*	*0*					*800*		*100*
Average Queue Storage Ratio				*9.6*						*1.8*		*11.9*
95% Queue Storage Ratio				*14.4*						*2.7*		*18.4*

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 SB Ramps at SR 52*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/20/2010*	Jurisdiction	*FDOT*
Time Period	*PM*	Analysis Year	*No Build 2030*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes		*3*		*1*	*2*					*1*		*1*
Lane Group		*T*		*L*	*T*					*L*		*R*
Volume (vph)		*1500*		*1410*	*2400*					*300*		*480*
% Heavy Vehicles		*6*		*6*	*6*					*8*		*8*
PHF		*0.95*		*0.95*	*0.95*					*0.95*		*0.95*
Pretimed/Actuated (P/A)		*A*		*A*	*A*					*A*		*A*
Startup Lost Time		*2.0*		*2.0*	*2.0*					*2.0*		*2.0*
Extension of Effective Green		*2.0*		*2.0*	*2.0*					*2.0*		*2.0*
Arrival Type		*3*		*3*	*3*					*3*		*3*
Unit Extension		*3.0*		*3.0*	*3.0*					*3.0*		*3.0*
Ped/Bike/RTOR Volume	*0*	*0*		*0*	*0*		*0*	*0*		*0*	*0*	*0*
Lane Width		*12.0*		*12.0*	*12.0*					*12.0*		*12.0*
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour		*0*		*0*	*0*					*0*		*0*
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	WB Only	Thru Only	03	04	SB Only	06	07	08
Timing	G = *80.3*	G = *55.2*	G =	G =	G = *26.5*	G =	G =	G =
	Y = *6*	Y = *6*	Y =	Y =	Y = *6*	Y =	Y =	Y =

Duration of Analysis (hrs) = *0.25* | Cycle Length C = *180.0*

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate		*1579*		*1484*	*2526*					*316*		*505*
Lane Group Capacity		*1056*		*760*	*2683*					*246*		*220*
v/c Ratio		*1.50*		*1.95*	*0.94*					*1.28*		*2.30*
Green Ratio		*0.31*		*0.45*	*0.79*					*0.15*		*0.15*
Uniform Delay d_1		*62.4*		*49.8*	*15.8*					*76.8*		*76.8*
Delay Factor k		*0.50*		*0.50*	*0.45*					*0.50*		*0.50*
Incremental Delay d_2		*227.9*		*433.5*	*7.6*					*155.3*		*597.1*
PF Factor		*1.000*		*1.000*	*1.000*					*1.000*		*1.000*
Control Delay		*290.3*		*483.3*	*23.5*					*232.0*		*673.9*
Lane Group LOS		*F*		*F*	*C*					*F*		*F*
Approach Delay	*290.3*			*193.6*						*503.8*		
Approach LOS	*F*			*F*						*F*		
Intersection Delay	*257.2*			Intersection LOS						*F*		

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group		*T*		*L*	*T*					*L*		*R*
Initial Queue/Lane		*0.0*		*0.0*	*0.0*					*0.0*		*0.0*
Flow Rate/Lane Group		*1579*		*1484*	*2526*					*316*		*505*
Satflow/Lane		*1792*		*1703*	*1792*					*1671*		*1495*
Capacity/Lane Group		*1056*		*760*	*2683*					*246*		*220*
Flow Ratio		*0.5*		*0.9*	*0.7*					*0.2*		*0.3*
v/c Ratio		*1.50*		*1.95*	*0.94*					*1.28*		*2.30*
I Factor		*1.000*		*1.000*	*1.000*					*1.000*		*1.000*
Arrival Type		*3*		*3*	*3*					*3*		*3*
Platoon Ratio		*1.00*		*1.00*	*1.00*					*1.00*		*1.00*
PF Factor		*1.00*		*1.00*	*1.00*					*1.00*		*1.00*
Q_1		*41.1*		*74.2*	*54.5*					*15.8*		*25.3*
k_B		*0.7*		*0.9*	*1.3*					*0.5*		*0.4*
Q_2		*36.1*		*92.3*	*10.3*					*10.5*		*36.4*
Q Average		*77.2*		*166.5*	*64.8*					*26.3*		*61.6*
Percentile Back of Queue (95th percentile)												
$f_{B\%}$		*1.5*		*1.5*	*1.5*					*1.6*		*1.5*
Back of Queue		*116*		*250*	*98.3*					*43.0*		*93.6*
Queue Storage Ratio												
Queue Spacing		*25.0*		*25.0*	*25.0*					*25.0*		*25.0*
Queue Storage		*0*		*600*	*0*					*800*		*100*
Average Queue Storage Ratio				*6.9*						*0.8*		*15.4*
95% Queue Storage Ratio				*10.4*						*1.3*		*23.4*

TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	*URS*
Agency/Co.	*URS*
Date Performed	*5/20/2010*
Analysis Time Period	*AM*

Site Information

Intersection	*Overpass Rd at Boyette Rd*
Jurisdiction	*Pasco County*
Analysis Year	*No Build 2030*

Project Description *I-75 and Overpass Rd*

East/West Street: *Overpass Rd* | North/South Street: *Boyette Road*

Intersection Orientation: *East-West* | Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*60*	*1035*	*205*	*160*	*1195*	*30*
Peak-Hour Factor, PHF	*0.95*	*0.95*	*0.95*	*0.95*	*0.95*	*0.95*
Hourly Flow Rate, HFR (veh/h)	*63*	*1089*	*215*	*168*	*1257*	*31*
Percent Heavy Vehicles	*2*	*--*	*--*	*2*	*--*	*--*
Median Type	*Raised curb*					
RT Channelized			*0*			*0*
Lanes	*1*	*2*	*0*	*1*	*2*	*0*
Configuration	*L*	*T*	*TR*	*L*	*T*	*TR*
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*195*	*40*	*140*	*30*	*60*	*60*
Peak-Hour Factor, PHF	*0.95*	*0.95*	*0.95*	*0.95*	*0.95*	*0.95*
Hourly Flow Rate, HFR (veh/h)	*205*	*42*	*147*	*31*	*63*	*63*
Percent Heavy Vehicles	*2*	*0*	*0*	*2*	*0*	*0*
Percent Grade (%)	*0*			*0*		
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*1*	*1*	*0*	*1*	*1*	*0*
Configuration	*L*		*TR*	*L*		*TR*

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*L*	*L*	*L*		*TR*	*L*		*TR*
v (veh/h)	*63*	*168*	*205*		*189*	*31*		*126*
C (m) (veh/h)	*534*	*527*	*5*		*133*	*17*		*18*
v/c	*0.12*	*0.32*	*41.00*		*1.42*	*1.82*		*7.00*
95% queue length	*0.40*	*1.36*	*27.77*		*12.62*	*4.40*		*16.38*
Control Delay (s/veh)	*12.6*	*15.0*	*19435*		*288.9*	*858.2*		*3121*
LOS	*B*	*B*	*F*		*F*	*F*		*F*
Approach Delay (s/veh)	--	--	*10251*			*2674*		
Approach LOS	--	--	*F*			*F*		

TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	*URS*
Agency/Co.	*URS*
Date Performed	*5/20/2010*
Analysis Time Period	*PM*

Site Information

Intersection	*Overpass Rd at Boyette Rd*
Jurisdiction	*Pasco County*
Analysis Year	*No Build 2030*

Project Description *I-75 and Overpass Rd*

East/West Street: *Overpass Rd* | North/South Street: *Boyette Road*

Intersection Orientation: *East-West* | Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*60*	*1195*	*195*	*140*	*1035*	*30*
Peak-Hour Factor, PHF	*0.95*	*0.95*	*0.95*	*0.95*	*0.95*	*0.95*
Hourly Flow Rate, HFR (veh/h)	*63*	*1257*	*205*	*147*	*1089*	*31*
Percent Heavy Vehicles	*2*	*--*	*--*	*2*	*--*	*--*
Median Type	*Raised curb*					
RT Channelized			*0*			*0*
Lanes	*1*	*2*	*0*	*1*	*2*	*0*
Configuration	*L*	*T*	*TR*	*L*	*T*	*TR*
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*205*	*60*	*160*	*30*	*40*	*60*
Peak-Hour Factor, PHF	*0.95*	*0.95*	*0.95*	*0.95*	*0.95*	*0.95*
Hourly Flow Rate, HFR (veh/h)	*215*	*63*	*168*	*31*	*42*	*63*
Percent Heavy Vehicles	*2*	*0*	*0*	*2*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*1*	*1*	*0*	*1*	*1*	*0*
Configuration	*L*		*TR*	*L*		*TR*

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*L*	*L*	*L*		*TR*	*L*		*TR*
v (veh/h)	*63*	*147*	*215*		*231*	*31*		*105*
C (m) (veh/h)	*619*	*458*			*144*	*0*		*0*
v/c	*0.10*	*0.32*			*1.60*			
95% queue length	*0.34*	*1.37*			*16.22*			
Control Delay (s/veh)	*11.5*	*16.5*			*357.1*			
LOS	*B*	*C*			*F*	*F*		*F*
Approach Delay (s/veh)	--	--						
Approach LOS	--	--						

TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	*URS*
Agency/Co.	*URS*
Date Performed	*5/20/2010*
Analysis Time Period	*AM*

Site Information

Intersection	*Overpass Rd at Old Pasco Rd*
Jurisdiction	*Pasco County*
Analysis Year	*No Build 2030*

Project Description *I-75 and Overpass Rd*

East/West Street: *Overpass Rd* | North/South Street: *Old Pasco Road*

Intersection Orientation: *North-South* | Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)		*170*		*675*	*205*	
Peak-Hour Factor, PHF	*1.00*	*0.95*	*0.80*	*0.95*	*0.95*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*178*	*0*	*710*	*215*	*0*
Percent Heavy Vehicles	*0*	--	--	*2*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*2*	*0*	*1*	*2*	*0*
Configuration		*T*		*L*	*T*	
Upstream Signal		*0*			*0*	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)				*820*		*630*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*0.95*	*1.00*	*0.95*
Hourly Flow Rate, HFR (veh/h)	*0*	*0*	*0*	*863*	*0*	*663*
Percent Heavy Vehicles	*0*	*0*	*0*	*2*	*0*	*2*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*1*
Lanes	*0*	*0*	*0*	*1*	*0*	*1*
Configuration				*L*		*R*

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		*L*	*L*		*R*			
v (veh/h)		*710*	*863*		*663*			
C (m) (veh/h)		*1395*	*40*		*968*			
v/c		*0.51*	*21.58*		*0.68*			
95% queue length		*3.00*	*105.93*		*5.68*			
Control Delay (s/veh)		*10.2*	*9447*		*16.4*			
LOS		*B*	*F*		*C*			
Approach Delay (s/veh)	--	--	*5350*					
Approach LOS	--	--	*F*					

TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	*URS*
Agency/Co.	*URS*
Date Performed	*5/20/2010*
Analysis Time Period	*PM*

Site Information

Intersection	*Overpass Rd at Old Pasco Rd*
Jurisdiction	*Pasco County*
Analysis Year	*No Build 2030*

Project Description *I-75 and Overpass Rd*

East/West Street: *Overpass Rd* | North/South Street: *Old Pasco Road*

Intersection Orientation: *North-South* | Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)		*205*		*630*	*170*	
Peak-Hour Factor, PHF	*1.00*	*0.95*	*0.88*	*0.95*	*0.95*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*215*	*0*	*663*	*178*	*0*
Percent Heavy Vehicles	*0*	--	--	*2*	--	--
Median Type	*Raised curb*					
RT Channelized			*0*			*0*
Lanes	*0*	*2*	*0*	*1*	*2*	*0*
Configuration		*T*		*L*	*T*	
Upstream Signal		*0*			*0*	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)				*625*		*675*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*0.95*	*1.00*	*0.95*
Hourly Flow Rate, HFR (veh/h)	*0*	*0*	*0*	*657*	*0*	*710*
Percent Heavy Vehicles	*0*	*0*	*0*	*2*	*0*	*2*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*1*
Lanes	*0*	*0*	*0*	*1*	*0*	*1*
Configuration				*L*		*R*

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		*L*	*L*		*R*			
v (veh/h)		*663*	*657*		*710*			
C (m) (veh/h)		*1352*	*86*		*945*			
v/c		*0.49*	*7.64*		*0.75*			
95% queue length		*2.80*	*74.67*		*7.27*			
Control Delay (s/veh)		*10.2*	*3082*		*19.3*			
LOS		*B*	*F*		*C*			
Approach Delay (s/veh)	--	--	*1491*					
Approach LOS	--	--	*F*					

2030 Build Freeway Analysis Results

FREEPLAN 2009 Conceptual Planning Analysis

Project Information

Analyst	URS	**Freeway Name**	I-75	**Study Period**	Dir Hr Demand Vol
Date Prepared	1/4/2011 1:07:37 PM	**From**	S of SR 56	**Program**	FREEPLAN 2009
Agency	FDOT	**To**	N of SR 52	**Version Date**	12/12/10
Area Type	Other Urbanized	**Peak Direction**	Southbound		
File Name	C:\Documents and Settings\srinivas_meka\Local Settings\Temp\preview.xml				
User Notes	Build 2030 AM Northbound (Off-peak)				

Freeway Data

AADT	89700	**Freeway Input Volume**	7390	**Local Adjustment Factor**	0.95
K	0.09	**PHF**	0.95	**Ramp Metering Exists**	No
D	0.55	**Pecent Trucks Entering First Segment**	7		

Segment Data

Seg #	From	To	Type	Length	Between Length	Hourly Volume	# Thru Lanes	# Aux Lanes	Posted Speed	FFS	Terrain
1	S of SR56	SR 56	Basic Segment	9060	0	7390	4	0	70	70	Level
2	SR 56	SR 56	On Ramp	1500	0	7390	4	0	70	70	Level
3	SR 56	CR 54	Basic Segment	12500	0	8150	4	0	70	70	Level
4	CR 54	CR54	Diamond	5280	0	8150	3	0	70	70	Level
5	CR 54	Overpass Road	Basic Segment	13460	0	7895	3	0	70	70	Level
6	Overpass Road	Overpass Road	Diamond	5280	0	7895	3	0	70	70	Level
7	Overpass Road	SR52	Basic Segment	11260	0	6320	3	0	70	70	Level
8	SR 52	SR 52	Diamond	5280	0	6320	3	0	70	70	Level
9	SR 52	N of SR52	Basic Segment	5280	0	5005	3	0	70	70	Level

Interchange Distances

Segment	Type	Interchange Length	Distance Between Ramps			Auxiliary Lane?
			1 and 2	2 and 3	3 and 4	
4	Diamond	2280	2280	0	0	False
6	Diamond	2280	2280	0	0	False
8	Diamond	2280	2280	0	0	False

Ramp Descriptions

Segment	Type	First Off-Ramp					First On-Ramp					Second Off-Ramp					Second On-Ramp				
		Vol	% HV	Lanes	Accel / Decel Length	FFS	Vol	% HV	Lanes	Accel / Decel Length	FFS	Vol	% HV	Lanes	Accel / Decel Length	FFS	Vol	% HV	Lanes	Accel / Decel Length	FFS
2	On Ramp						760	8.0	1	700	45										
4	Diamond	1770	8.0	2	1500	45	1515	8.0	1	700	45										

6	Diamond	2250	2.0	2	500	45	675	2.0	1	500	45											
8	Diamond	1950	8.0	1	410	45	635	8.0	1	700	45											

Segment LOS

Seg #	From	To	Type	Volume	Adj. Capacity	Speed	Density	LOS	Sig Impact
1	S of SR56	SR 56	Basic Segment	7390	8371	60.2	35.2	E	N/A
2	SR 56	SR 56	On Ramp	7390	8197	59.3	37.8	E	#
3	SR 56	CR 54	Basic Segment	8150	8367	55.0	42.5	E	N/A
4	CR 54	CR54	Diamond	8150	6101	##	##	F	#
5	CR 54	Overpass Road	Basic Segment	7895	6276	##	##	F	N/A
6	Overpass Road	Overpass Road	Diamond	7895	5928	##	##	F	#
7	Overpass Road	SR52	Basic Segment	6320	6238	##	##	F	N/A
8	SR 52	SR 52	Diamond	6320	5892	##	##	F	#
9	SR 52	N of SR52	Basic Segment	5005	6236	63.9	30.2	D	N/A

Freeway Length	13.04924	FFS Delay	##	Threshold Delay	##	Avg. Speed	##	Density	##	LOS	F

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 2100 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
4					
6					
8					
10					
12					
Lanes	**Peak Hour Volume Both Directions**				
4					
6					
8					
10					
12					
Lanes	**Annual Average Daily Traffic**				
4					
6					
8					
10					
12					

 # Off-ramp storage is highly likely to overflow. The segment operations will likely be worse than indicated.
One or more segments have a demand-to-capacity ratio greater than 1.0; therefore, the performance measure values are highly unreliable.
Freeway LOS is defaulted to F. An operational level analysis tool is more appropriate for this situation.
*** For oversaturated conditions during the peak hour, subtract 10% from LOS E (capacity) volumes. This number becomes the new maximum service volume for LOS D, and LOS E cannot be achieved.**
**** Cannot be achieved based on input data provided.**
***** Not applicable for that level of service letter grade. See generalized tables notes for more details.**

FREEPLAN 2009 Conceptual Planning Analysis

Project Information

Analyst	URS	**Freeway Name**	I-75	**Study Period**	Dir Hr Demand Vol
Date Prepared	4/5/2011 1:07:37 PM	**From**	S of SR 56	**Program**	FREEPLAN 2009
Agency	FDOT	**To**	N of SR 52	**Version Date**	12/12/10
Area Type	Other Urbanized	**Peak Direction**	Southbound		

File Name	C:\Documents and Settings\srinivas_meka\Local Settings\Temp\preview.xml
User Notes	Build 2030 AM Southbound (Peak)

Freeway Data

AADT	117200	**Freeway Input Volume**	6075	**Local Adjustment Factor**	0.95
K	0.09	**PHF**	0.95	**Ramp Metering Exists**	No
D	0.55	**Pecent Trucks Entering First Segment**	15		

Segment Data

Seg #	From	To	Type	Length	Between Length	Hourly Volume	# Thru Lanes	# Aux Lanes	Posted Speed	FFS	Terrain
1	N of SR 52	SR 52	Basic Segment	5280	0	6075	3	0	70	70	Level
2	SR 52	SR 52	Diamond	5280	0	6075	3	0	70	70	Level
3	SR 52	Overpass Road	Basic Segment	11260	0	7860	3	0	70	70	Level
4	Overpass Road	Overpass Road	Diamond	5280	0	7860	3	0	70	70	Level
5	Overpass Road	CR 54	Basic Segment	13460	0	9645	3	0	70	70	Level
6	CR 54	CR 54	Diamond	5280	0	9645	3	0	70	70	Level
7	CR 54	SR 56	Basic Segment	12500	0	10405	4	0	70	70	Level
8	SR 56	SR 56	Diamond	5280	0	10405	4	0	70	70	Level
9	SR 56	S of SR56	Basic Segment	5280	0	13320	6	0	70	70	Level

Interchange Distances

Segment	Type	Interchange Length	Distance Between Ramps			Auxiliary Lane?
			1 and 2	2 and 3	3 and 4	
2	Diamond	2280	2280	0	0	False
4	Diamond	2280	2280	0	0	False
6	Diamond	2280	2280	0	0	False
8	Diamond	2280	2280	0	0	False

Ramp Descriptions

Segment	Type	First Off-Ramp					First On-Ramp					Second Off-Ramp					Second On-Ramp				
		Vol	% HV	Lanes	Accel / Decel Length	FFS	Vol	% HV	Lanes	Accel / Decel Length	FFS	Vol	% HV	Lanes	Accel / Decel Length	FFS	Vol	% HV	Lanes	Accel / Decel Length	FFS
2	Diamond	775	8.0	1	410	45	2560	8.0	2	700	45										

4	Diamond	825	2.0	1	500	45	2610	2.0	2	500	45										
6	Diamond	1750	8.0	1	410	45	2510	8.0	2	1500	45										
8	Diamond	910	8.0	1	600	45	3825	8.0	2	1500	45										

Segment LOS

Seg #	From	To	Type	Volume	Adj. Capacity	Speed	Density	LOS	Sig Impact
1	N of SR 52	SR 52	Basic Segment	6075	6045	##	##	F	N/A
2	SR 52	SR 52	Diamond	6075	5709	##	##	F	#
3	SR 52	Overpass Road	Basic Segment	7860	6090	##	##	F	N/A
4	Overpass Road	Overpass Road	Diamond	7860	5751	##	##	F	#
5	Overpass Road	CR 54	Basic Segment	9645	6151	##	##	F	N/A
6	CR 54	CR 54	Diamond	9645	5809	##	##	F	#
7	CR 54	SR 56	Basic Segment	10405	8210	##	##	F	N/A
8	SR 56	SR 56	Diamond	10405	7868	##	##	F	#
9	SR 56	S of SR56	Basic Segment	13320	12354	##	##	F	N/A

Freeway Length	13.04924	FFS Delay	##	Threshold Delay	##	Avg. Speed	##	Density	##	LOS	F

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 2100 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
4	1000	1100	1200	1300	***
6	1000	1100	1200	1300	***
8	1000	1100	1300	1500	1700
10	900	1880	3180	3280	3380
12	960	3280	5180	5220	5280
Lanes	**Peak Hour Volume Both Directions**				
4	1820	2000	2190	2370	***
6	1810	2000	2180	2360	***
8	1810	2000	2360	2720	3090
10	1640	3410	5780	5960	6140
12	1730	5960	9410	9500	9600
Lanes	**Annual Average Daily Traffic**				
4	20300	22300	24300	26300	***
6	20200	22200	24200	26200	***
8	20200	22200	26200	30300	34300
10	18200	37900	64200	66200	68200
12	19200	66200	104600	105600	106600

 # Off-ramp storage is highly likely to overflow. The segment operations will likely be worse than indicated.
One or more segments have a demand-to-capacity ratio greater than 1.0; therefore, the performance measure values are highly unreliable.
Freeway LOS is defaulted to F. An operational level analysis tool is more appropriate for this situation.
*** For oversaturated conditions during the peak hour, subtract 10% from LOS E (capacity) volumes. This number becomes the new maximum service volume for LOS D, and LOS E cannot be achieved.**
**** Cannot be achieved based on input data provided.**
***** Not applicable for that level of service letter grade. See generalized tables notes for more details.**

FREEPLAN 2009 Conceptual Planning Analysis

Project Information

Analyst	URS	**Freeway Name**	I-75	**Study Period**	Dir Hr Demand Vol
Date Prepared	4/5/2011 1:07:37 PM	**From**	S of SR 56	**Program**	FREEPLAN 2009
Agency	FDOT	**To**	N of SR 52	**Version Date**	12/12/10
Area Type	Other Urbanized	**Peak Direction**	Northbound		
File Name	C:\Documents and Settings\srinivas_meka\Local Settings\Temp\preview.xml				
User Notes	Build 2030 PM Northbound (Peak)				

Freeway Data

AADT	89700	**Freeway Input Volume**	9495	**Local Adjustment Factor**	0.95
K	0.09	**PHF**	0.95	**Ramp Metering Exists**	No
D	0.55	**Pecent Trucks Entering First Segment**	7		

Segment Data

Seg #	From	To	Type	Length	Between Length	Hourly Volume	# Thru Lanes	# Aux Lanes	Posted Speed	FFS	Terrain
1	S of SR56	SR 56	Basic Segment	9060	0	9495	4	0	70	70	Level
2	SR 56	SR 56	On Ramp	1500	0	9495	4	0	70	70	Level
3	SR 56	CR 54	Basic Segment	12500	0	10405	4	0	70	70	Level
4	CR 54	CR54	Diamond	5280	0	10405	3	0	70	70	Level
5	CR 54	Overpass Road	Basic Segment	13460	0	9645	3	0	70	70	Level
6	Overpass Road	Overpass Road	Diamond	5280	0	9645	3	0	70	70	Level
7	Overpass Road	SR52	Basic Segment	11260	0	7860	3	0	70	70	Level
8	SR 52	SR 52	Diamond	5280	0	7860	3	0	70	70	Level
9	SR 52	N of SR52	Basic Segment	5280	0	6075	3	0	70	70	Level

Interchange Distances

Segment	Type	Interchange Length	Distance Between Ramps			Auxiliary Lane?
			1 and 2	2 and 3	3 and 4	
4	Diamond	2280	2280	0	0	False
6	Diamond	2280	2280	0	0	False
8	Diamond	2280	2280	0	0	False

Ramp Descriptions

Segment	Type	First Off-Ramp					First On-Ramp					Second Off-Ramp					Second On-Ramp				
		Vol	% HV	Lanes	Accel / Decel Length	FFS	Vol	% HV	Lanes	Accel / Decel Length	FFS	Vol	% HV	Lanes	Accel / Decel Length	FFS	Vol	% HV	Lanes	Accel / Decel Length	FFS
2	On Ramp						910	8.0	1	700	45										
4	Diamond	2510	8.0	2	1500	45	1750	8.0	1	700	45										

6	Diamond	2610	2.0	2	500	45	825	2.0	1	500	45											
8	Diamond	2560	8.0	2	410	45	775	8.0	1	700	45											

Segment LOS

Seg #	From	To	Type	Volume	Adj. Capacity	Speed	Density	LOS	Sig Impact
1	S of SR56	SR 56	Basic Segment	9495	8371	##	##	F	N/A
2	SR 56	SR 56	On Ramp	9495	8197	##	##	F	#
3	SR 56	CR 54	Basic Segment	10405	8367	##	##	F	N/A
4	CR 54	CR54	Diamond	10405	6101	##	##	F	#
5	CR 54	Overpass Road	Basic Segment	9645	6278	##	##	F	N/A
6	Overpass Road	Overpass Road	Diamond	9645	5929	##	##	F	#
7	Overpass Road	SR52	Basic Segment	7860	6243	##	##	F	N/A
8	SR 52	SR 52	Diamond	7860	5897	##	##	F	#
9	SR 52	N of SR52	Basic Segment	6075	6242	55.0	42.4	E	N/A

Freeway Length	13.04924	FFS Delay	##	Threshold Delay	##	Avg. Speed	##	Density	##	LOS	F

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 2100 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
4					
6					
8					
10					
12					
Lanes	**Peak Hour Volume Both Directions**				
4					
6					
8					
10					
12					
Lanes	**Annual Average Daily Traffic**				
4					
6					
8					
10					
12					

 # Off-ramp storage is highly likely to overflow. The segment operations will likely be worse than indicated.
One or more segments have a demand-to-capacity ratio greater than 1.0; therefore, the performance measure values are highly unreliable.
Freeway LOS is defaulted to F. An operational level analysis tool is more appropriate for this situation.
*** For oversaturated conditions during the peak hour, subtract 10% from LOS E (capacity) volumes. This number becomes the new maximum service volume for LOS D, and LOS E cannot be achieved.**
**** Cannot be achieved based on input data provided.**
***** Not applicable for that level of service letter grade. See generalized tables notes for more details.**

FREEPLAN 2009 Conceptual Planning Analysis

Project Information

Analyst	URS	**Freeway Name**	I-75	**Study Period**	Dir Hr Demand Vol
Date Prepared	4/5/2011 1:07:37 PM	**From**	S of SR 56	**Program**	FREEPLAN 2009
Agency	FDOT	**To**	N of SR 52	**Version Date**	12/12/10
Area Type	Other Urbanized	**Peak Direction**	Northbound		

File Name	C:\Documents and Settings\srinivas_meka\Local Settings\Temp\preview.xml
User Notes	Build 2030 PM Southbound (Off-peak)

Freeway Data

AADT	97200	**Freeway Input Volume**	5005	**Local Adjustment Factor**	0.95
K	0.09	**PHF**	0.95	**Ramp Metering Exists**	No
D	0.55	**Pecent Trucks Entering First Segment**	15		

Segment Data

Seg #	From	To	Type	Length	Between Length	Hourly Volume	# Thru Lanes	# Aux Lanes	Posted Speed	FFS	Terrain
1	N of SR 52	SR 52	Basic Segment	5280	0	5005	3	0	70	70	Level
2	SR 52	SR 52	Diamond	5280	0	5005	3	0	70	70	Level
3	SR 52	Overpass Road	Basic Segment	11260	0	6320	3	0	70	70	Level
4	Overpass Road	Overpass Road	Diamond	5280	0	6320	3	0	70	70	Level
5	Overpass Road	CR 54	Basic Segment	13460	0	7895	3	0	70	70	Level
6	CR 54	CR 54	Diamond	5280	0	7895	3	0	70	70	Level
7	CR 54	SR 56	Basic Segment	12500	0	8150	4	0	70	70	Level
8	SR 56	SR 56	Diamond	5280	0	8150	4	0	70	70	Level
9	SR 56	S of SR56	Basic Segment	5280	0	10420	6	0	70	70	Level

Interchange Distances

Segment	Type	Interchange Length	Distance Between Ramps			Auxiliary Lane?
			1 and 2	2 and 3	3 and 4	
2	Diamond	2280	2280	0	0	False
4	Diamond	2280	2280	0	0	False
6	Diamond	2280	2280	0	0	False
8	Diamond	2280	2280	0	0	False

Ramp Descriptions

Segment	Type	First Off-Ramp					First On-Ramp					Second Off-Ramp					Second On-Ramp				
		Vol	% HV	Lanes	Accel / Decel Length	FFS	Vol	% HV	Lanes	Accel / Decel Length	FFS	Vol	% HV	Lanes	Accel / Decel Length	FFS	Vol	% HV	Lanes	Accel / Decel Length	FFS
2	Diamond	635	8.0	1	410	45	1950	8.0	1	700	45										

4	Diamond	675	2.0	1	500	45	2250	2.0	2	500	45										
6	Diamond	1515	8.0	1	410	45	1770	8.0	2	1500	45										
8	Diamond	760	8.0	1	600	45	3030	8.0	2	1500	45										

Segment LOS

Seg #	From	To	Type	Volume	Adj. Capacity	Speed	Density	LOS	Sig Impact
1	N of SR 52	SR 52	Basic Segment	5005	6045	62.8	31.6	D	N/A
2	SR 52	SR 52	Diamond	5005	5709	##	##	F	No
3	SR 52	Overpass Road	Basic Segment	6320	6086	##	##	F	N/A
4	Overpass Road	Overpass Road	Diamond	6320	5748	##	##	F	#
5	Overpass Road	CR 54	Basic Segment	7895	6152	##	##	F	N/A
6	CR 54	CR 54	Diamond	7895	5810	##	##	F	#
7	CR 54	SR 56	Basic Segment	8150	8207	53.8	44.3	E	N/A
8	SR 56	SR 56	Diamond	8150	7865	##	##	F	#
9	SR 56	S of SR56	Basic Segment	10420	12350	62.1	32.6	D	N/A

Freeway Length	13.04924	FFS Delay	##	Threshold Delay	##	Avg. Speed	##	Density	##	LOS	F

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 2100 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
4					
6					
8					
10					
12					
Lanes	**Peak Hour Volume Both Directions**				
4					
6					
8					
10					
12					
Lanes	**Annual Average Daily Traffic**				
4					
6					
8					
10					
12					

 # Off-ramp storage is highly likely to overflow. The segment operations will likely be worse than indicated.
One or more segments have a demand-to-capacity ratio greater than 1.0; therefore, the performance measure values are highly unreliable.
Freeway LOS is defaulted to F. An operational level analysis tool is more appropriate for this situation.
*** For oversaturated conditions during the peak hour, subtract 10% from LOS E (capacity) volumes. This number becomes the new maximum service volume for LOS D, and LOS E cannot be achieved.**
**** Cannot be achieved based on input data provided.**
***** Not applicable for that level of service letter grade. See generalized tables notes for more details.**

2030 Build Ramps Analysis Results

Ramp Capacity Check: Build 2030 AM Peak Hour

Assumed Ramp Roadway Capacity (HCM 2000 Exhibit 25-3):

Ramp Free-Flow Speed, S_{FR} (mph)	Capacity (pc/h)	
	Single-Lane Ramps	Two-Lane Ramps
≥ 50	2200	4400
> 40 - 50	2100	4100
> 30 - 40	2000	3800
≥ 20 - 30	1900	3500
< 20	1800	3200

Location	Volume (veh/h)	FFS (S_{FR})	Lanes	% Trucks	PHF	E_T	f_{HV}	f_P	Flow Rate (pc/h)	Capacity (pc/h)	Over Capacity?
I-75 NB off to SR 56	3030	45	2	8.0%	0.95	1.5	0.962	0.95	3492	4100	No

Notes:

1. Volumes are converted to equivalent passenger cars per hour (pc/h) flow rates under base conditions during the peak 15 minutes of the hour using HCM 2000 Equation 25-1.

Ramp Capacity Check: Build 2030 PM Peak Hour

Assumed Ramp Roadway Capacity (HCM 2000 Exhibit 25-3):

Ramp Free-Flow Speed, S_{FR} (mph)	Capacity (pc/h)	
	Single-Lane Ramps	Two-Lane Ramps
≥ 50	2200	4400
> 40 - 50	2100	4100
> 30 - 40	2000	3800
≥ 20 - 30	1900	3500
< 20	1800	3200

Location	Volume (veh/h)	FFS (S_{FR})	Lanes	% Trucks	PHF	E_T	f_{HV}	f_P	Flow Rate (pc/h)	Capacity (pc/h)	Over Capacity?
I-75 NB off to SR 56	3825	45	2	8.0%	0.95	1.5	0.962	0.95	4408	4100	Yes

Notes:

1. Volumes are converted to equivalent passenger cars per hour (pc/h) flow rates under base conditions during the peak 15 minutes of the hour using HCM 2000 Equation 25-1.

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Northbound
Agency or Company	URS Corporation	Junction	SR 56 NB ON-RAMP
Date Performed	4/26/2010	Jurisdiction	Pasco County
Analysis Time Period	AM	Analysis Year	Build 2030

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 45.0 mph

Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp
☑ Yes ☐ On
☐ No ☑ Off
L_{down} = 5000 ft
V_D = 1770 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	7390	0.95	Level	7	0	0.966	0.95	8475
Ramp	760	0.95	Level	8	0	0.962	0.95	876
UpStream								
DownStream	1770	0.95	Level	8	0	0.962	0.95	2040

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = 0.108 using Equation (Exhibit 25-5)

V_{12} = 918 pc/h

V_3 or V_{av34} 3778 pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes,V_{12a} = 3390 pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	9351	Exhibit 25-7		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	4266	Exhibit 25-7	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 34.0 (pc/mi/ln)

LOS = D (Exhibit 25-4)

Speed Determination

M_S = 0.536 (Exibit 25-19)

S_R= 55.0 mph (Exhibit 25-19)

S_0= 62.0 mph (Exhibit 25-19)

S = 58.6 mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = using Equation (Exhibit 25-12)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

D_s = (Exhibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Northbound
Agency or Company	URS Corporation	Junction	SR 56 NB ON-RAMP
Date Performed	4/27/2010	Jurisdiction	Pasco County
Analysis Time Period	PM	Analysis Year	Build 2030

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 45.0 mph
Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp
☑ Yes ☐ On
☐ No ☑ Off
L_{down} = 4800 ft
V_D = 2510 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	9495	0.95	Level	7	0	0.966	0.95	10889
Ramp	910	0.95	Level	8	0	0.962	0.95	1049
UpStream								
DownStream	2510	0.95	Level	8	0	0.962	0.95	2892

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)
P_{FM} = 0.087 using Equation (Exhibit 25-5)
V_{12} = 944 pc/h
V_3 or V_{av34} 4972 pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No
If Yes,V_{12a} = 4355 pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	11938	Exhibit 25-7		Yes

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	5404	Exhibit 25-7	4600:All	Yes

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 42.8 (pc/mi/ln)
LOS = F (Exhibit 25-4)

Speed Determination

M_S = 1.125 (Exibit 25-19)
S_R= 38.5 mph (Exhibit 25-19)
S_0= 57.7 mph (Exhibit 25-19)
S = 47.1 mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = using Equation (Exhibit 25-12)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

D_s = (Exhibit 25-19)
S_R= mph (Exhibit 25-19)
S_0= mph (Exhibit 25-19)
S = mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Southbound
Agency or Company	URS Corporation	Junction	SR 56 SB OFF-RAMP
Date Performed	4/26/2010	Jurisdiction	Pasco County
Analysis Time Period	AM	Analysis Year	Build 2030

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 45.0 mph

Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp
☑ Yes ☑ On
☐ No ☐ Off
L_{down} = 3300 ft
V_D = 3825 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	10405	0.95	Level	9	0	0.957	0.95	12048
Ramp	910	0.95	Level	8	0	0.962	0.95	1049
UpStream								
DownStream	3825	0.95	Level	8	0	0.962	0.95	4408

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)
P_{FM} = using Equation (Exhibit 25-5)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)
S_R= mph (Exhibit 25-19)
S_0= mph (Exhibit 25-19)
S = mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = 0.436 using Equation (Exhibit 25-12)
V_{12} = 5845 pc/h
V_3 or V_{av34} 3101 pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No
If Yes,V_{12a} = 6648 pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	12048	Exhibit 25-14	9600	Yes
$V_{FO} = V_F - V_R$	10999	Exhibit 25-14	9600	Yes
V_R	1049	Exhibit 25-3	2100	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	5845	Exhibit 25-14	4400:All	Yes

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = 56.0 (pc/mi/ln)
LOS = F (Exhibit 25-4)

Speed Determination

D_s = 0.392 (Exhibit 25-19)
S_R= 59.0 mph (Exhibit 25-19)
S_0= 70.2 mph (Exhibit 25-19)
S = 63.5 mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Southbound
Agency or Company	URS Corporation	Junction	SR 56 SB OFF-RAMP
Date Performed	4/27/2010	Jurisdiction	Pasco County
Analysis Time Period	PM	Analysis Year	Build 2030

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 45.0 mph

Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp
☑ Yes ☑ On
☐ No ☐ Off
L_{down} = 3300 ft
V_D = 3030 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	8150	0.95	Level	9	0	0.957	0.95	9437
Ramp	760	0.95	Level	8	0	0.962	0.95	876
UpStream								
DownStream	3030	0.95	Level	8	0	0.962	0.95	3492

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)
P_{FM} = using Equation (Exhibit 25-5)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$

D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)
S_R= mph (Exhibit 25-19)
S_0= mph (Exhibit 25-19)
S = mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = 0.436 using Equation (Exhibit 25-12)
V_{12} = 4609 pc/h
V_3 or V_{av34} 2414 pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No
If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	9437	Exhibit 25-14	9600	No
$V_{FO} = V_F - V_R$	8561	Exhibit 25-14	9600	No
V_R	876	Exhibit 25-3	2100	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	4609	Exhibit 25-14	4400:All	Yes

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086 V_{12} - 0.009 L_D$

D_R = 38.5 (pc/mi/ln)
LOS = E (Exhibit 25-4)

Speed Determination

D_s = 0.377 (Exhibit 25-19)
S_R= 59.4 mph (Exhibit 25-19)
S_0= 71.3 mph (Exhibit 25-19)
S = 65.0 mph (Exhibit 25-15)

Major Merge Capacity Check: **Build 2030 AM Peak Hour**
I-75 SB On Ramp from SR 56

Assumed Major Merge Capacity per Segment (based on HCM 2000 Exhibit 25-7):

Segment Free-Flow Speed (mph)	Capacity (pc/h)			
	2-Lanes	3-Lanes	4-Lanes	5-Lanes
≥ 70	4800	7200	9600	12000
65	4700	7050	9400	11750
60	4600	6900	9200	11500
55	4500	6750	9000	11250

Assumed Ramp Roadway Capacity (based on HCM 2000 Exhibit 25-3):

Free-Flow Speed of Ramp (mph)	Capacity (pc/h)	
	Single-Lane Ramp	Two-Lane Ramp
≥ 55	2200	4400
> 40-50	2100	4100
> 30-40	2000	3800
≥ 20-30	1900	3500
< 20	1800	3200

I-75 SB On Ramp from SR 56

Segment	Volume (veh/h)	FFS	Lanes	% Trucks	PHF	E_T	f_{HV}	f_P	Flow Rate (pc/h)	Capacity (pc/h)	Over Capacity?
Upstream	9495	70	4	9.0%	0.95	1.5	0.957	0.95	10995	9600	Yes
Merging	3825	45	2	8.0%	0.95	1.5	0.962	0.95	4408	4100	Yes
Downstream	13320	70	6	7.0%	0.95	1.5	0.966	0.95	15276	14400	Yes

Notes:
1. Volumes are converted to equivalent passenger cars per hour (pc/h) flow rates under base conditions during the peak 15 minutes of the hour using HCM 2000 Equation 25-1.

Major Merge Capacity Check: Build 2030 PM Peak Hour
I-75 SB On Ramp from SR 56

Assumed Major Merge Capacity per Segment (based on HCM 2000 Exhibit 25-7):

Segment Free-Flow Speed (mph)	Capacity (pc/h)			
	2-Lanes	3-Lanes	4-Lanes	5-Lanes
≥ 70	4800	7200	9600	12000
65	4700	7050	9400	11750
60	4600	6900	9200	11500
55	4500	6750	9000	11250

Assumed Ramp Roadway Capacity (based on HCM 2000 Exhibit 25-3):

Free-Flow Speed of Ramp (mph)	Capacity (pc/h)	
	Single-Lane Ramp	Two-Lane Ramp
≥ 55	2200	4400
> 40-50	2100	4100
> 30-40	2000	3800
≥ 20-30	1900	3500
< 20	1800	3200

I-75 SB On Ramp from SR 56

Segment	Volume (veh/h)	FFS	Lanes	% Trucks	PHF	E_T	f_{HV}	f_P	Flow Rate (pc/h)	Capacity (pc/h)	Over Capacity?
Upstream	7390	70	4	9.0%	0.95	1.5	0.957	0.95	8557	9600	No
Merging	3030	45	2	8.0%	0.95	1.5	0.962	0.95	3492	4100	No
Downstream	10420	70	6	7.0%	0.95	1.5	0.966	0.95	11950	14400	No

Notes:
1. Volumes are converted to equivalent passenger cars per hour (pc/h) flow rates under base conditions during the peak 15 minutes of the hour using HCM 2000 Equation 25-1.

Major Diverge Capacity Check: Build 2030 AM Peak Hour
I-75 NB Off Ramp to CR 54

Assumed Major Diverge Capacity per Segment (based on HCM 2000 Exhibit 25-14):

Segment Free-Flow Speed (mph)	Capacity (pc/h)			
	2-Lanes	3-Lanes	4-Lanes	5-Lanes
≥ 70	4800	7200	9600	12000
65	4700	7050	9400	11750
60	4600	6900	9200	11500
55	4500	6750	9000	11250

Assumed Ramp Roadway Capacity (based on HCM 2000 Exhibit 25-3):

Free-Flow Speed of Ramp (mph)	Capacity (pc/h)	
	Single-Lane Ramp	Two-Lane Ramp
≥ 55	2200	4400
> 40-50	2100	4100
> 30-40	2000	3800
≥ 20-30	1900	3500
< 20	1800	3200

Assumed Ramp Density and LOS (based on HCM 2000 Equation 25-12 and Exhibit 25-4)

Segment	Density[1]	LOS
Upstream	22.2	C

I-75 NB Off Ramp to CR 54

Segment	Volume (veh/h)	FFS	Lanes	% Trucks	PHF	E_T	f_{HV}	f_P	Flow Rate (pc/h)	Capacity (pc/h)	Over Capacity?
Upstream	8150	70	4	9.0%	0.95	1.5	0.957	0.95	9437	9600	No
Diverging	1770	45	2	8.0%	0.95	1.5	0.962	0.95	2040	4100	No
Downstream	6380	70	3	9.0%	0.95	1.5	0.957	0.95	7388	7200	Yes

Notes:
1. Volumes are converted to equivalent passenger cars per hour (pc/h) flow rates under base conditions during the peak 15 minutes of the hour using HCM 2000 Equation 25-1.

Major Diverge Capacity Check: Build 2030 PM Peak Hour
I-75 NB Off Ramp to CR 54

Assumed Major Diverge Capacity per Segment (based on HCM 2000 Exhibit 25-14):

Segment Free-Flow Speed (mph)	Capacity (pc/h)			
	2-Lanes	3-Lanes	4-Lanes	5-Lanes
≥ 70	4800	7200	9600	12000
65	4700	7050	9400	11750
60	4600	6900	9200	11500
55	4500	6750	9000	11250

Assumed Ramp Roadway Capacity (based on HCM 2000 Exhibit 25-3):

Free-Flow Speed of Ramp (mph)	Capacity (pc/h)	
	Single-Lane Ramp	Two-Lane Ramp
≥ 55	2200	4400
> 40-50	2100	4100
> 30-40	2000	3800
≥ 20-30	1900	3500
< 20	1800	3200

Assumed Ramp Density and LOS (based on HCM 2000 Equation 25-12 and Exhibit 25-4)

Segment	Density[1]	LOS
Upstream	28.4	D

I-75 NB Off Ramp to CR 54

Segment	Volume (veh/h)	FFS	Lanes	% Trucks	PHF	E_T	f_{HV}	f_P	Flow Rate (pc/h)	Capacity (pc/h)	Over Capacity?
Upstream	10405	70	4	9.0%	0.95	1.5	0.957	0.95	12048	9600	Yes
Diverging	2510	45	2	8.0%	0.95	1.5	0.962	0.95	2893	4100	No
Downstream	7895	70	3	9.0%	0.95	1.5	0.957	0.95	9142	7200	Yes

Notes:
1. Volumes are converted to equivalent passenger cars per hour (pc/h) flow rates under base conditions during the peak 15 minutes of the hour using HCM 2000 Equation 25-1.

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Northbound
Agency or Company	URS Corporation	Junction	CR 54 NB ON-RAMP
Date Performed	4/26/2010	Jurisdiction	Pasco County
Analysis Time Period	AM	Analysis Year	Build 2030

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp
☑ Yes ☐ On
☐ No ☑ Off
L_{up} = 3500 ft
V_u = 1770 veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 45.0 mph
Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{down} = ft
V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	6380	0.95	Level	9	0	0.957	0.95	7387
Ramp	1515	0.95	Level	8	0	0.962	0.95	1746
UpStream	1770	0.95	Level	8	0	0.962	0.95	2040
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = 2216.66 (Equation 25-2 or 25-3)
P_{FM} = 0.597 using Equation (Exhibit 25-5)
V_{12} = 4411 pc/h
V_3 or V_{av34} 2976 pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No
If Yes,V_{12a} = 4687 pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	9133	Exhibit 25-7		Yes

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	6433	Exhibit 25-7	4600:All	Yes

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 50.5 (pc/mi/ln)
LOS = F (Exhibit 25-4)

Speed Determination

M_S = 2.684 (Exibit 25-19)
S_R= -5.2 mph (Exhibit 25-19)
S_0= 61.1 mph (Exhibit 25-19)
S = mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = using Equation (Exhibit 25-12)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

D_s = (Exhibit 25-19)
S_R= mph (Exhibit 25-19)
S_0= mph (Exhibit 25-19)
S = mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Northbound
Agency or Company	URS Corporation	Junction	CR 54 NB ON-RAMP
Date Performed	4/27/2010	Jurisdiction	Pasco County
Analysis Time Period	PM	Analysis Year	Build 2030

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp

☑ Yes ☐ On

☐ No ☑ Off

L_{up} = 3500 ft

V_u = 2510 veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 45.0 mph

Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	7895	0.95	Level	9	0	0.957	0.95	9142
Ramp	1750	0.95	Level	8	0	0.962	0.95	2017
UpStream	2510	0.95	Level	8	0	0.962	0.95	2892
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = 2650.23 (Equation 25-2 or 25-3)

P_{FM} = 0.597 using Equation (Exhibit 25-5)

V_{12} = 5459 pc/h

V_3 or V_{av34} 3683 pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = 6442 pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	11159	Exhibit 25-7		Yes

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	8459	Exhibit 25-7	4600:All	Yes

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 66.1 (pc/mi/ln)

LOS = F (Exhibit 25-4)

Speed Determination

M_S = 18.656 (Exibit 25-19)

S_R= -452.4 mph (Exhibit 25-19)

S_0= 61.1 mph (Exhibit 25-19)

S = 437.4 mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = using Equation (Exhibit 25-12)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

D_s = (Exhibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Southbound
Agency or Company	URS Corporation	Junction	CR 54 SB OFF-RAMP
Date Performed	4/26/2010	Jurisdiction	Pasco County
Analysis Time Period	AM	Analysis Year	Build 2030

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 45.0 mph

Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp
☑ Yes ☑ On
☐ No ☐ Off
L_{down} = 3500 ft
V_D = 2510 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	9645	0.95	Level	12	0	0.943	0.95	11328
Ramp	1750	0.95	Level	8	0	0.962	0.95	2017
UpStream								
DownStream	2510	0.95	Level	8	0	0.962	0.95	2892

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)
P_{FM} = using Equation (Exhibit 25-5)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$

D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)
S_R= mph (Exhibit 25-19)
S_0= mph (Exhibit 25-19)
S = mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = 0.384 using Equation (Exhibit 25-12)
V_{12} = 5593 pc/h
V_3 or V_{av34} 5735 pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No
If Yes,V_{12a} = 8628 pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	11328	Exhibit 25-14	7200	Yes
$V_{FO} = V_F - V_R$	9311	Exhibit 25-14	7200	Yes
V_R	2017	Exhibit 25-3	2100	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	5593	Exhibit 25-14	4400:All	Yes

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086 V_{12} - 0.009 L_D$

D_R = 74.8 (pc/mi/ln)
LOS = F (Exhibit 25-4)

Speed Determination

D_s = 0.480 (Exhibit 25-19)
S_R= 56.6 mph (Exhibit 25-19)
S_0= 70.2 mph (Exhibit 25-19)
S = 59.3 mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Southbound
Agency or Company	URS Corporation	Junction	CR 54 SB OFF-RAMP
Date Performed	4/27/2010	Jurisdiction	Pasco County
Analysis Time Period	PM	Analysis Year	Build 2030

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 45.0 mph

Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp
☑ Yes ☑ On
☐ No ☐ Off
L_{down} = 3500 ft
V_D = 1770 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	7895	0.95	Level	12	0	0.943	0.95	9273
Ramp	1515	0.95	Level	8	0	0.962	0.95	1746
UpStream								
DownStream	1770	0.95	Level	8	0	0.962	0.95	2040

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)
P_{FM} = using Equation (Exhibit 25-5)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)
S_R= mph (Exhibit 25-19)
S_0= mph (Exhibit 25-19)
S = mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = 0.448 using Equation (Exhibit 25-12)
V_{12} = 5117 pc/h
V_3 or V_{av34} 4156 pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No
If Yes,V_{12a} = 6573 pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	9273	Exhibit 25-14	7200	Yes
$V_{FO} = V_F - V_R$	7527	Exhibit 25-14	7200	Yes
V_R	1746	Exhibit 25-3	2100	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	5117	Exhibit 25-14	4400:All	Yes

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = 57.1 (pc/mi/ln)
LOS = F (Exhibit 25-4)

Speed Determination

D_s = 0.455 (Exhibit 25-19)
S_R= 57.3 mph (Exhibit 25-19)
S_0= 70.2 mph (Exhibit 25-19)
S = 60.5 mph (Exhibit 25-15)

Major Merge Capacity Check: **Build 2030 AM Peak Hour**
I-75 SB On Ramp from CR 54

Assumed Major Merge Capacity per Segment (based on HCM 2000 Exhibit 25-7):

Segment Free-Flow Speed (mph)	Capacity (pc/h)			
	2-Lanes	3-Lanes	4-Lanes	5-Lanes
≥ 70	4800	7200	9600	12000
65	4700	7050	9400	11750
60	4600	6900	9200	11500
55	4500	6750	9000	11250

Assumed Ramp Roadway Capacity (based on HCM 2000 Exhibit 25-3):

Free-Flow Speed of Ramp (mph)	Capacity (pc/h)	
	Single-Lane Ramp	Two-Lane Ramp
≥ 55	2200	4400
> 40-50	2100	4100
> 30-40	2000	3800
≥ 20-30	1900	3500
< 20	1800	3200

I-75 SB On Ramp from CR 54

Segment	Volume (veh/h)	FFS	Lanes	% Trucks	PHF	E_T	f_{HV}	f_P	Flow Rate (pc/h)	Capacity (pc/h)	Over Capacity?
Upstream	7895	70	3	9.0%	0.95	1.5	0.957	0.95	9142	7200	Yes
Merging	2510	45	2	8.0%	0.95	1.5	0.962	0.95	2893	4100	No
Downstream	10405	70	4	7.0%	0.95	1.5	0.966	0.95	11933	9600	Yes

Notes:
1. Volumes are converted to equivalent passenger cars per hour (pc/h) flow rates under base conditions during the peak 15 minutes of the hour using HCM 2000 Equation 25-1.

Major Merge Capacity Check: **Build 2030 PM Peak Hour**
I-75 SB On Ramp from CR 54

Assumed Major Merge Capacity per Segment (based on HCM 2000 Exhibit 25-7):

Segment Free-Flow Speed (mph)	Capacity (pc/h)			
	2-Lanes	3-Lanes	4-Lanes	5-Lanes
≥ 70	4800	7200	9600	12000
65	4700	7050	9400	11750
60	4600	6900	9200	11500
55	4500	6750	9000	11250

Assumed Ramp Roadway Capacity (based on HCM 2000 Exhibit 25-3):

Free-Flow Speed of Ramp (mph)	Capacity (pc/h)	
	Single-Lane Ramp	Two-Lane Ramp
≥ 55	2200	4400
> 40-50	2100	4100
> 30-40	2000	3800
≥ 20-30	1900	3500
< 20	1800	3200

I-75 SB On Ramp from CR 54

Segment	Volume (veh/h)	FFS	Lanes	% Trucks	PHF	E_T	f_{HV}	f_P	Flow Rate (pc/h)	Capacity (pc/h)	Over Capacity?
Upstream	6380	70	3	9.0%	0.95	1.5	0.957	0.95	7388	7200	Yes
Merging	1770	45	2	8.0%	0.95	1.5	0.962	0.95	2040	4100	No
Downstream	8150	70	4	7.0%	0.95	1.5	0.966	0.95	9347	9600	No

Notes:
1. Volumes are converted to equivalent passenger cars per hour (pc/h) flow rates under base conditions during the peak 15 minutes of the hour using HCM 2000 Equation 25-1.

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Northbound
Agency or Company	URS Corporation	Junction	OVERPASS RD NB OFF-RAMP
Date Performed	4/23/2010	Jurisdiction	Pasco County
Analysis Time Period	AM	Analysis Year	Build 2030

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 45.0 mph

Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp
☑ Yes ☑ On
☐ No ☐ Off
L_{down} = 3500 ft
V_D = 675 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	7895	0.95	Level	12	0	0.943	0.95	9273
Ramp	2250	0.95	Level	2	0	0.990	0.95	2518
UpStream								
DownStream	675	0.95	Level	2	0	0.990	0.95	755

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)
P_{FM} = using Equation (Exhibit 25-5)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)
S_R= mph (Exhibit 25-19)
S_0= mph (Exhibit 25-19)
S = mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = 0.450 using Equation (Exhibit 25-12)
V_{12} = 5558 pc/h
V_3 or V_{av34} 3715 pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No
If Yes,V_{12a} = 6573 pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	9273	Exhibit 25-14	7200	Yes
$V_{FO} = V_F - V_R$	6755	Exhibit 25-14	7200	No
V_R	2518	Exhibit 25-3	4100	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	5558	Exhibit 25-14	4400:All	Yes

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = 41.0 (pc/mi/ln)
LOS = F (Exhibit 25-4)

Speed Determination

D_s = 0.525 (Exhibit 25-19)
S_R= 55.3 mph (Exhibit 25-19)
S_0= 70.2 mph (Exhibit 25-19)
S = 58.9 mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Northbound
Agency or Company	URS Corporation	Junction	Overpass Road NB OFF-RAMP
Date Performed	4/27/2010	Jurisdiction	Pasco County
Analysis Time Period	PM	Analysis Year	Build 2030

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 45.0 mph

Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp
☑ Yes ☑ On
☐ No ☐ Off
L_{down} = 3500 ft
V_D = 825 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	9645	0.95	Level	12	0	0.943	0.95	11328
Ramp	2610	0.95	Level	2	0	0.990	0.95	2921
UpStream								
DownStream	825	0.95	Level	2	0	0.990	0.95	923

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)
P_{FM} = using Equation (Exhibit 25-5)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$

D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)
S_R= mph (Exhibit 25-19)
S_0= mph (Exhibit 25-19)
S = mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = 0.450 using Equation (Exhibit 25-12)
V_{12} = 6704 pc/h
V_3 or V_{av34} 4624 pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No
If Yes,V_{12a} = 8628 pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	11328	Exhibit 25-14	7200	Yes
$V_{FO} = V_F - V_R$	8407	Exhibit 25-14	7200	Yes
V_R	2921	Exhibit 25-3	4100	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	6704	Exhibit 25-14	4400:All	Yes

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086 V_{12} - 0.009 L_D$

D_R = 58.7 (pc/mi/ln)
LOS = F (Exhibit 25-4)

Speed Determination

D_s = 0.561 (Exhibit 25-19)
S_R= 54.3 mph (Exhibit 25-19)
S_0= 70.2 mph (Exhibit 25-19)
S = 57.4 mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Northbound
Agency or Company	URS Corporation	Junction	OVERPASS RD NB ON-RAMP
Date Performed	4/26/2010	Jurisdiction	Pasco County
Analysis Time Period	AM	Analysis Year	Build 2030

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp	Terrain: Level	Downstream Adj Ramp
☑ Yes ☐ On		☐ Yes ☐ On
☐ No ☑ Off		☑ No ☐ Off
L_{up} = 3500 ft	S_{FF} = 70.0 mph S_{FR} = 45.0 mph	L_{down} = ft
V_u = 2250 veh/h	Sketch (show lanes, L_A, L_D,V_R,V_f)	V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	5645	0.95	Level	12	0	0.943	0.95	6630
Ramp	675	0.95	Level	2	0	0.990	0.95	755
UpStream	2250	0.95	Level	2	0	0.990	0.95	2518
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = 1753.79 (Equation 25-2 or 25-3)

P_{FM} = 0.591 using Equation (Exhibit 25-5)

V_{12} = 3922 pc/h

V_3 or V_{av34} 2708 pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = 3930 pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	7385	Exhibit 25-7		Yes

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	4685	Exhibit 25-7	4600:All	Yes

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 38.5 (pc/mi/ln)

LOS = F (Exhibit 25-4)

Speed Determination

M_S = 0.698 (Exibit 25-19)

S_R= 50.4 mph (Exhibit 25-19)

S_0= 61.1 mph (Exhibit 25-19)

S = 53.9 mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = using Equation (Exhibit 25-12)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

D_s = (Exhibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Northbound
Agency or Company	URS Corporation	Junction	Overpass Road NB ON-RAMP
Date Performed	4/27/2010	Jurisdiction	Pasco County
Analysis Time Period	PM	Analysis Year	Build 2030

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp
☑ Yes ☐ On
☐ No ☑ Off
L_{up} = 3000 ft
V_u = 2610 veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 45.0 mph

Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{down} = ft
V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	7035	0.95	Level	12	0	0.943	0.95	8263
Ramp	825	0.95	Level	2	0	0.990	0.95	923
UpStream	2610	0.95	Level	2	0	0.990	0.95	2921
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = 2139.20 (Equation 25-2 or 25-3)
P_{FM} = 0.591 using Equation (Exhibit 25-5)
V_{12} = 4888 pc/h
V_3 or V_{av34} 3375 pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No
If Yes,V_{12a} = 5563 pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	9186	Exhibit 25-7		Yes

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	6486	Exhibit 25-7	4600:All	Yes

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 52.5 (pc/mi/ln)
LOS = F (Exhibit 25-4)

Speed Determination

M_S = 2.834 (Exibit 25-19)
S_R= -9.4 mph (Exhibit 25-19)
S_0= 61.1 mph (Exhibit 25-19)
S = mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = using Equation (Exhibit 25-12)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

D_s = (Exhibit 25-19)
S_R= mph (Exhibit 25-19)
S_0= mph (Exhibit 25-19)
S = mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Southbound
Agency or Company	URS Corporation	Junction	Overpass Road SB OFF-RAMP
Date Performed	4/27/2010	Jurisdiction	Pasco County
Analysis Time Period	AM	Analysis Year	Build 2030

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 45.0 mph

Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp
☑ Yes ☑ On
☐ No ☐ Off
L_{down} = 3500 ft
V_D = 2610 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	7860	0.95	Level	12	0	0.943	0.95	9232
Ramp	825	0.95	Level	2	0	0.990	0.95	923
UpStream								
DownStream	2610	0.95	Level	2	0	0.990	0.95	2921

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)
P_{FM} = using Equation (Exhibit 25-5)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$

D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)
S_R= mph (Exhibit 25-19)
S_0= mph (Exhibit 25-19)
S = mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = 0.487 using Equation (Exhibit 25-12)
V_{12} = 4967 pc/h
V_3 or V_{av34} 4265 pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No
If Yes,V_{12a} = 6532 pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	9232	Exhibit 25-14	7200	Yes
$V_{FO} = V_F - V_R$	8309	Exhibit 25-14	7200	Yes
V_R	923	Exhibit 25-3	2100	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	4967	Exhibit 25-14	4400:All	Yes

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086 V_{12} - 0.009 L_D$

D_R = 55.9 (pc/mi/ln)
LOS = F (Exhibit 25-4)

Speed Determination

D_s = 0.381 (Exhibit 25-19)
S_R= 59.3 mph (Exhibit 25-19)
S_0= 70.2 mph (Exhibit 25-19)
S = 62.1 mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Southbound
Agency or Company	URS Corporation	Junction	Overpass Road SB OFF-RAMP
Date Performed	4/27/2010	Jurisdiction	Pasco County
Analysis Time Period	PM	Analysis Year	Build 2030

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 45.0 mph
Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp
☑ Yes ☑ On
☐ No ☐ Off
L_{down} = 3500 ft
V_D = 2250 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	6320	0.95	Level	12	0	0.943	0.95	7423
Ramp	675	0.95	Level	2	0	0.990	0.95	755
UpStream								
DownStream	2250	0.95	Level	2	0	0.990	0.95	2518

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$
L_{EQ} = (Equation 25-2 or 25-3)
P_{FM} = using Equation (Exhibit 25-5)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$
D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)
S_R= mph (Exhibit 25-19)
S_0= mph (Exhibit 25-19)
S = mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$
L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = 0.540 using Equation (Exhibit 25-12)
V_{12} = 4354 pc/h
V_3 or V_{av34} 3069 pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No
If Yes,V_{12a} = 4723 pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	7423	Exhibit 25-14	7200	Yes
$V_{FO} = V_F - V_R$	6668	Exhibit 25-14	7200	No
V_R	755	Exhibit 25-3	2100	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	4354	Exhibit 25-14	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086 V_{12} - 0.009 L_D$
D_R = 40.4 (pc/mi/ln)
LOS = F (Exhibit 25-4)

Speed Determination

D_s = 0.366 (Exhibit 25-19)
S_R= 59.8 mph (Exhibit 25-19)
S_0= 70.2 mph (Exhibit 25-19)
S = 63.2 mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Southbound
Agency or Company	URS Corporation	Junction	Overpass Road SB ON-RAMP
Date Performed	4/27/2010	Jurisdiction	Pasco County
Analysis Time Period	AM	Analysis Year	Build 2030

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp
☑ Yes ☐ On
☐ No ☑ Off
L_{up} = 3500 ft
V_u = 825 veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 45.0 mph

Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{down} = ft
V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	7035	0.95	Level	12	0	0.943	0.95	8263
Ramp	2610	0.95	Level	2	0	0.990	0.95	2921
UpStream	825	0.95	Level	2	0	0.990	0.95	923
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = 0.555 using Equation (Exhibit 25-5)

V_{12} = 4586 pc/h

V_3 or V_{av34} 3677 pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = 5563 pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	11184	Exhibit 25-7		Yes

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	8484	Exhibit 25-7	4600:All	Yes

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 56.5 (pc/mi/ln)

LOS = F (Exhibit 25-4)

Speed Determination

M_S = 18.986 (Exibit 25-19)

S_R= -461.6 mph (Exhibit 25-19)

S_0= 61.1 mph (Exhibit 25-19)

S = 432.9 mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = using Equation (Exhibit 25-12)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

D_s = (Exhibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Southbound
Agency or Company	URS Corporation	Junction	Overpass Road SB ON-RAMP
Date Performed	4/27/2010	Jurisdiction	Pasco County
Analysis Time Period	PM	Analysis Year	Build 2030

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp

☑ Yes ☐ On

☐ No ☑ Off

L_{up} = 3500 ft

V_u = 675 veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 45.0 mph

Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	5645	0.95	Level	12	0	0.943	0.95	6630
Ramp	2250	0.95	Level	2	0	0.990	0.95	2518
UpStream	675	0.95	Level	2	0	0.990	0.95	755
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = 0.555 using Equation (Exhibit 25-5)

V_{12} = 3680 pc/h

V_3 or V_{av34} 2950 pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes, V_{12a} = 3788 pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	9148	Exhibit 25-7		Yes

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	6306	Exhibit 25-7	4600:All	Yes

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 39.7 (pc/mi/ln)

LOS = F (Exhibit 25-4)

Speed Determination

M_S = 2.260 (Exibit 25-19)

S_R = 6.7 mph (Exhibit 25-19)

S_0 = 60.2 mph (Exhibit 25-19)

S = 9.3 mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = using Equation (Exhibit 25-12)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

D_s = (Exhibit 25-19)

S_R = mph (Exhibit 25-19)

S_0 = mph (Exhibit 25-19)

S = mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Northbound
Agency or Company	URS Corporation	Junction	SR 52 NB OFF-RAMP
Date Performed	4/23/2010	Jurisdiction	Pasco County
Analysis Time Period	AM	Analysis Year	Build 2030

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 45.0 mph
Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp
☑ Yes ☑ On
☐ No ☐ Off
L_{down} = 2000 ft
V_D = 635 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	6320	0.95	Level	12	0	0.943	0.95	7423
Ramp	1950	0.95	Level	8	0	0.962	0.95	2247
UpStream								
DownStream	635	0.95	Level	8	0	0.962	0.95	732

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$
L_{EQ} = (Equation 25-2 or 25-3)
P_{FM} = using Equation (Exhibit 25-5)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$
D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)
S_R= mph (Exhibit 25-19)
S_0= mph (Exhibit 25-19)
S = mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$
L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = 0.471 using Equation (Exhibit 25-12)
V_{12} = 4685 pc/h
V_3 or V_{av34} 2738 pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No
If Yes,V_{12a} = 4723 pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	7423	Exhibit 25-14	7200	Yes
$V_{FO} = V_F - V_R$	5176	Exhibit 25-14	7200	No
V_R	2247	Exhibit 25-3	2100	Yes

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	4685	Exhibit 25-14	4400:All	Yes

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086 V_{12} - 0.009 L_D$
D_R = 41.2 (pc/mi/ln)
LOS = F (Exhibit 25-4)

Speed Determination

D_s = 0.500 (Exhibit 25-19)
S_R= 56.0 mph (Exhibit 25-19)
S_0= 70.2 mph (Exhibit 25-19)
S = 60.4 mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Northbound
Agency or Company	URS Corporation	Junction	SR 52 NB OFF-RAMP
Date Performed	4/27/2010	Jurisdiction	Pasco County
Analysis Time Period	PM	Analysis Year	Build 2030

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 45.0 mph

Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp
☑ Yes ☑ On
☐ No ☐ Off
L_{down} = 2000 ft
V_D = 775 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	7860	0.95	Level	12	0	0.943	0.95	9232
Ramp	2560	0.95	Level	8	0	0.962	0.95	2950
UpStream								
DownStream	775	0.95	Level	8	0	0.962	0.95	893

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)
P_{FM} = using Equation (Exhibit 25-5)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)
S_R= mph (Exhibit 25-19)
S_0= mph (Exhibit 25-19)
S = mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = 0.394 using Equation (Exhibit 25-12)
V_{12} = 5422 pc/h
V_3 or V_{av34} 3810 pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No
If Yes,V_{12a} = 6532 pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	9232	Exhibit 25-14	7200	Yes
$V_{FO} = V_F - V_R$	6282	Exhibit 25-14	7200	No
V_R	2950	Exhibit 25-3	2100	Yes

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	5422	Exhibit 25-14	4400:All	Yes

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = 56.7 (pc/mi/ln)
LOS = F (Exhibit 25-4)

Speed Determination

D_s = 0.563 (Exhibit 25-19)
S_R= 54.2 mph (Exhibit 25-19)
S_0= 70.2 mph (Exhibit 25-19)
S = 58.1 mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Northbound
Agency or Company	URS Corporation	Junction	SR 52 NB ON-RAMP
Date Performed	4/26/2010	Jurisdiction	Pasco County
Analysis Time Period	AM	Analysis Year	Build 2030

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp
☑ Yes ☐ On
☐ No ☑ Off
L_{up} = 2000 ft
V_u = 1950 veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 45.0 mph
Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{down} = ft
V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	4370	0.95	Level	12	0	0.943	0.95	5133
Ramp	635	0.95	Level	8	0	0.962	0.95	732
UpStream	1950	0.95	Level	8	0	0.962	0.95	2247
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = 1517.31 (Equation 25-2 or 25-3)
P_{FM} = 0.597 using Equation (Exhibit 25-5)
V_{12} = 3065 pc/h
V_3 or V_{av34} 2068 pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No
If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	5865	Exhibit 25-7		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	3797	Exhibit 25-7	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 30.4 (pc/mi/ln)
LOS = D (Exhibit 25-4)

Speed Determination

M_S = 0.432 (Exibit 25-19)
S_R= 57.9 mph (Exhibit 25-19)
S_0= 64.4 mph (Exhibit 25-19)
S = 60.0 mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = using Equation (Exhibit 25-12)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

D_s = (Exhibit 25-19)
S_R= mph (Exhibit 25-19)
S_0= mph (Exhibit 25-19)
S = mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Northbound
Agency or Company	URS Corporation	Junction	SR 52 NB ON-RAMP
Date Performed	4/27/2010	Jurisdiction	Pasco County
Analysis Time Period	PM	Analysis Year	Build 2030

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp

☑ Yes ☐ On

☐ No ☑ Off

L_{up} = 2000 ft

V_u = 2560 veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 45.0 mph

Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	5300	0.95	Level	12	0	0.943	0.95	6225
Ramp	775	0.95	Level	8	0	0.962	0.95	893
UpStream	2560	0.95	Level	8	0	0.962	0.95	2950
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = 1785.45 (Equation 25-2 or 25-3)

P_{FM} = 0.597 using Equation (Exhibit 25-5)

V_{12} = 3717 pc/h

V_3 or V_{av34} 2508 pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	7118	Exhibit 25-7		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	4610	Exhibit 25-7	4600:All	Yes

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 36.6 (pc/mi/ln)

LOS = E (Exhibit 25-4)

Speed Determination

M_S = 0.650 (Exibit 25-19)

S_R= 51.8 mph (Exhibit 25-19)

S_0= 62.2 mph (Exhibit 25-19)

S = 55.1 mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = using Equation (Exhibit 25-12)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

D_s = (Exhibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Southbound
Agency or Company	URS Corporation	Junction	SR 52 SB OFF-RAMP
Date Performed	4/23/2010	Jurisdiction	Pasco County
Analysis Time Period	AM	Analysis Year	Build 2030

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 45.0 mph

Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp
☑ Yes ☑ On
☐ No ☐ Off
L_{down} = 2000 ft
V_D = 2560 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	6075	0.95	Level	15	0	0.930	0.95	7236
Ramp	775	0.95	Level	8	0	0.962	0.95	893
UpStream								
DownStream	2560	0.95	Level	8	0	0.962	0.95	2950

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)
P_{FM} = using Equation (Exhibit 25-5)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$

D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)
S_R= mph (Exhibit 25-19)
S_0= mph (Exhibit 25-19)
S = mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = 0.538 using Equation (Exhibit 25-12)
V_{12} = 4306 pc/h
V_3 or V_{av34} 2930 pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No
If Yes,V_{12a} = 4536 pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	7236	Exhibit 25-14	7200	Yes
$V_{FO} = V_F - V_R$	6343	Exhibit 25-14	7200	No
V_R	893	Exhibit 25-3	2100	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	4306	Exhibit 25-14	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086 V_{12} - 0.009 L_D$

D_R = 39.6 (pc/mi/ln)
LOS = F (Exhibit 25-4)

Speed Determination

D_s = 0.378 (Exhibit 25-19)
S_R= 59.4 mph (Exhibit 25-19)
S_0= 70.2 mph (Exhibit 25-19)
S = 63.0 mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Southbound
Agency or Company	URS Corporation	Junction	SR 52 SB OFF-RAMP
Date Performed	4/27/2010	Jurisdiction	Pasco County
Analysis Time Period	PM	Analysis Year	Build 2030

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 45.0 mph
Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp
☑ Yes ☑ On
☐ No ☐ Off
L_{down} = 2000 ft
V_D = 1950 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	5005	0.95	Level	15	0	0.930	0.95	5962
Ramp	635	0.95	Level	8	0	0.962	0.95	732
UpStream								
DownStream	1950	0.95	Level	8	0	0.962	0.95	2247

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$
L_{EQ} = (Equation 25-2 or 25-3)
P_{FM} = using Equation (Exhibit 25-5)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$
D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)
S_R= mph (Exhibit 25-19)
S_0= mph (Exhibit 25-19)
S = mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$
L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = 0.577 using Equation (Exhibit 25-12)
V_{12} = 3751 pc/h
V_3 or V_{av34} 2211 pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No
If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	5962	Exhibit 25-14	7200	No
$V_{FO} = V_F - V_R$	5230	Exhibit 25-14	7200	No
V_R	732	Exhibit 25-3	2100	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	3751	Exhibit 25-14	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086 V_{12} - 0.009 L_D$
D_R = 32.8 (pc/mi/ln)
LOS = D (Exhibit 25-4)

Speed Determination

D_s = 0.364 (Exhibit 25-19)
S_R= 59.8 mph (Exhibit 25-19)
S_0= 72.1 mph (Exhibit 25-19)
S = 63.8 mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Southbound
Agency or Company	URS Corporation	Junction	SR 52 SB ON-RAMP
Date Performed	4/26/2010	Jurisdiction	Pasco County
Analysis Time Period	AM	Analysis Year	Build 2030

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp
☑ Yes ☐ On
☐ No ☑ Off
L_{up} = 2000 ft
V_u = 775 veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 45.0 mph
Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{down} = ft
V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	5300	0.95	Level	15	0	0.930	0.95	6313
Ramp	2560	0.95	Level	8	0	0.962	0.95	2950
UpStream	775	0.95	Level	8	0	0.962	0.95	893
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = 2244.48 (Equation 25-2 or 25-3)
P_{FM} = 0.582 using Equation (Exhibit 25-5)
V_{12} = 3671 pc/h
V_3 or V_{av34} 2642 pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No
If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	9263	Exhibit 25-7		Yes

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	6621	Exhibit 25-7	4600:All	Yes

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 51.4 (pc/mi/ln)
LOS = F (Exhibit 25-4)

Speed Determination

M_S = 3.186 (Exibit 25-19)
S_R= -19.2 mph (Exhibit 25-19)
S_0= 61.4 mph (Exhibit 25-19)
S = mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = using Equation (Exhibit 25-12)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

D_s = (Exhibit 25-19)
S_R= mph (Exhibit 25-19)
S_0= mph (Exhibit 25-19)
S = mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Southbound
Agency or Company	URS Corporation	Junction	SR 52 SB ON-RAMP
Date Performed	4/27/2010	Jurisdiction	Pasco County
Analysis Time Period	PM	Analysis Year	Build 2030

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp

☑ Yes ☐ On

☐ No ☑ Off

L_{up} = 2000 ft

V_u = 635 veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 45.0 mph

Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	4370	0.95	Level	15	0	0.930	0.95	5205
Ramp	1950	0.95	Level	8	0	0.962	0.95	2247
UpStream	635	0.95	Level	8	0	0.962	0.95	732
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = 1856.93 (Equation 25-2 or 25-3)

P_{FM} = 0.597 using Equation (Exhibit 25-5)

V_{12} = 3108 pc/h

V_3 or V_{av34} 2097 pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes, V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	7452	Exhibit 25-7		Yes

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	5355	Exhibit 25-7	4600:All	Yes

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 41.8 (pc/mi/ln)

LOS = F (Exhibit 25-4)

Speed Determination

M_S = 1.083 (Exibit 25-19)

S_R = 39.7 mph (Exhibit 25-19)

S_0 = 64.3 mph (Exhibit 25-19)

S = 44.4 mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = using Equation (Exhibit 25-12)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

D_s = (Exhibit 25-19)

S_R = mph (Exhibit 25-19)

S_0 = mph (Exhibit 25-19)

S = mph (Exhibit 25-15)

2030 Build Intersection Analysis Results

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 NB Ramps at SR 56*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/18/2010*	Jurisdiction	*FDOT*
Time Period	*AM*	Analysis Year	*Build 2030*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	*1*	*2*			*4*		*2*					
Lane Group	*L*	*T*			*T*		*L*					
Volume (vph)	*475*	*1720*			*2960*		*1800*					
% Heavy Vehicles	*3*	*3*			*3*		*8*					
PHF	*0.95*	*0.95*			*0.95*		*0.95*					
Pretimed/Actuated (P/A)	*A*	*A*			*A*		*A*					
Startup Lost Time	*2.0*	*2.0*			*2.0*		*2.0*					
Extension of Effective Green	*3.0*	*3.0*			*3.0*		*3.0*					
Arrival Type	*3*	*3*			*4*		*3*					
Unit Extension	*3.0*	*3.0*			*3.0*		*3.0*					
Ped/Bike/RTOR Volume	*0*	*0*		*0*	*0*		*0*	*0*		*0*	*0*	
Lane Width	*12.0*	*12.0*			*12.0*		*12.0*					
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour	*0*	*0*			*0*		*0*					
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	EB Only	Thru Only	03	04	NB Only	06	07	08
Timing	G = *20.3*	G = *60.7*	G =	G =	G = *54.0*	G =	G =	G =
	Y = *5*	Y = *5*	Y =	Y =	Y = *5*	Y =	Y =	Y =
Duration of Analysis (hrs) = *0.25*						Cycle Length C = *150.0*		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	*500*	*1811*			*3116*		*1895*					
Lane Group Capacity	*249*	*2140*			*3035*		*1226*					
v/c Ratio	*2.01*	*0.85*			*1.03*		*1.55*					
Green Ratio	*0.14*	*0.58*			*0.41*		*0.37*					
Uniform Delay d_1	*64.3*	*26.0*			*44.1*		*47.5*					
Delay Factor k	*0.50*	*0.38*			*0.50*		*0.50*					
Incremental Delay d_2	*467.6*	*3.4*			*23.6*		*249.6*					
PF Factor	*1.000*	*1.000*			*0.882*		*1.000*					
Control Delay	*531.9*	*29.3*			*62.6*		*297.1*					
Lane Group LOS	*F*	*C*			*E*		*F*					
Approach Delay	*138.1*			*62.6*			*297.1*					
Approach LOS	*F*			*E*			*F*					
Intersection Delay	*147.1*			Intersection LOS			*F*					

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group	*L*	*T*			*T*		*L*					
Initial Queue/Lane	*0.0*	*0.0*			*0.0*		*0.0*					
Flow Rate/Lane Group	*500*	*1811*			*3116*		*1895*					
Satflow/Lane	*1752*	*1844*			*1844*		*1672*					
Capacity/Lane Group	*249*	*2140*			*3035*		*1226*					
Flow Ratio	*0.3*	*0.5*			*0.4*		*0.6*					
v/c Ratio	*2.01*	*0.85*			*1.03*		*1.55*					
I Factor	*1.000*	*1.000*			*1.000*		*1.000*					
Arrival Type	*3*	*3*			*4*		*3*					
Platoon Ratio	*1.00*	*1.00*			*1.33*		*1.00*					
PF Factor	*1.00*	*1.00*			*1.00*		*1.00*					
Q_1	*20.8*	*31.1*			*32.5*		*39.5*					
k_B	*0.4*	*1.0*			*0.8*		*0.7*					
Q_2	*32.2*	*4.4*			*10.2*		*43.6*					
Q Average	*53.0*	*35.5*			*42.7*		*83.1*					
Percentile Back of Queue (95th percentile)												
$f_{B\%}$	*1.5*	*1.6*			*1.6*		*1.5*					
Back of Queue	*81.2*	*56.2*			*66.4*		*125*					
Queue Storage Ratio												
Queue Spacing	*25.0*	*25.0*			*25.0*		*25.0*					
Queue Storage	*650*	*0*			*0*		*1100*					
Average Queue Storage Ratio	*2.0*						*1.9*					
95% Queue Storage Ratio	*3.1*						*2.8*					

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 NB Ramps at SR 56*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/18/2010*	Jurisdiction	*FDOT*
Time Period	*PM*	Analysis Year	*Build 2030*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	*1*	*2*			*4*		*2*					
Lane Group	*L*	*T*			*T*		*L*					
Volume (vph)	*350*	*1520*			*2390*		*2100*					
% Heavy Vehicles	*3*	*3*			*3*		*8*					
PHF	*0.95*	*0.95*			*0.95*		*0.95*					
Pretimed/Actuated (P/A)	*A*	*A*			*A*		*A*					
Startup Lost Time	*2.0*	*2.0*			*2.0*		*2.0*					
Extension of Effective Green	*3.0*	*3.0*			*3.0*		*3.0*					
Arrival Type	*3*	*3*			*4*		*3*					
Unit Extension	*3.0*	*3.0*			*3.0*		*3.0*					
Ped/Bike/RTOR Volume	*0*	*0*		*0*	*0*		*0*	*0*		*0*	*0*	
Lane Width	*12.0*	*12.0*			*12.0*		*12.0*					
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour	*0*	*0*			*0*		*0*					
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	EB Only	Thru Only	03	04	NB Only	06	07	08
Timing	G = *13.0*	G = *59.4*	G =	G =	G = *62.6*	G =	G =	G =
	Y = *5*	Y = *5*	Y =	Y =	Y = *5*	Y =	Y =	Y =

Duration of Analysis (hrs) = *0.25* | Cycle Length C = *150.0*

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	*368*	*1600*			*2516*		*2211*					
Lane Group Capacity	*164*	*1836*			*2285*		*1376*					
v/c Ratio	*2.24*	*0.87*			*1.10*		*1.61*					
Green Ratio	*0.09*	*0.52*			*0.40*		*0.42*					
Uniform Delay d_1	*68.0*	*31.4*			*44.8*		*43.2*					
Delay Factor k	*0.50*	*0.40*			*0.50*		*0.50*					
Incremental Delay d_2	*578.9*	*4.9*			*52.9*		*276.5*					
PF Factor	*1.000*	*1.000*			*0.892*		*1.000*					
Control Delay	*646.9*	*36.3*			*92.8*		*319.7*					
Lane Group LOS	*F*	*D*			*F*		*F*					
Approach Delay	*150.5*			*92.8*			*319.7*					
Approach LOS	*F*			*F*			*F*					
Intersection Delay	*184.7*			Intersection LOS			*F*					

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group	*L*	*T*			*T*		*L*					
Initial Queue/Lane	*0.0*	*0.0*			*0.0*		*0.0*					
Flow Rate/Lane Group	*368*	*1600*			*2516*		*2211*					
Satflow/Lane	*1752*	*1844*			*1844*		*1671*					
Capacity/Lane Group	*164*	*1836*			*2285*		*1376*					
Flow Ratio	*0.2*	*0.5*			*0.4*		*0.7*					
v/c Ratio	*2.24*	*0.87*			*1.10*		*1.61*					
I Factor	*1.000*	*1.000*			*1.000*		*1.000*					
Arrival Type	*3*	*3*			*4*		*3*					
Platoon Ratio	*1.00*	*1.00*			*1.33*		*1.00*					
PF Factor	*1.00*	*1.00*			*1.00*		*1.00*					
Q_1	*15.3*	*30.7*			*34.0*		*47.4*					
k_B	*0.3*	*0.9*			*0.8*		*0.8*					
Q_2	*26.1*	*4.8*			*14.8*		*55.7*					
Q Average	*41.4*	*35.4*			*48.8*		*103.1*					
Percentile Back of Queue (95th percentile)												
$f_{B\%}$	*1.6*	*1.6*			*1.5*		*1.5*					
Back of Queue	*64.6*	*56.1*			*75.2*		*155*					
Queue Storage Ratio												
Queue Spacing	*25.0*	*25.0*			*25.0*		*25.0*					
Queue Storage	*650*	*0*			*0*		*1100*					
Average Queue Storage Ratio	*1.6*						*2.3*					
95% Queue Storage Ratio	*2.5*						*3.5*					

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 SB Ramps at SR 56*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/18/2010*	Jurisdiction	*FDOT*
Time Period	*AM*	Analysis Year	*Build 2030*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes		*2*		*2*	*2*					*1*		
Lane Group		*T*		*L*	*T*					*L*		
Volume (vph)		*1635*		*1725*	*3035*					*560*		
% Heavy Vehicles		*3*		*3*	*3*					*8*		
PHF		*0.95*		*0.95*	*0.95*					*0.95*		
Pretimed/Actuated (P/A)		*A*		*A*	*A*					*A*		
Startup Lost Time		*2.0*		*2.0*	*2.0*					*2.0*		
Extension of Effective Green		*3.0*		*3.0*	*3.0*					*3.0*		
Arrival Type		*3*		*4*	*4*					*3*		
Unit Extension		*3.0*		*3.0*	*3.0*					*3.0*		
Ped/Bike/RTOR Volume	*0*	*0*		*0*	*0*		*0*	*0*		*0*	*0*	
Lane Width		*12.0*		*12.0*	*12.0*					*12.0*		
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour		*0*		*0*	*0*					*0*		
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	WB Only	Thru Only	03	04	SB Only	06	07	08
Timing	G = *70.5*	G = *68.3*	G =	G =	G = *26.2*	G =	G =	G =
	Y = *5*	Y = *5*	Y =	Y =	Y = *5*	Y =	Y =	Y =

Duration of Analysis (hrs) = *0.25* | Cycle Length C = *180.0*

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate		*1721*		*1816*	*3195*					*589*		
Lane Group Capacity		*1420*		*1392*	*2968*					*253*		
v/c Ratio		*1.21*		*1.30*	*1.08*					*2.33*		
Green Ratio		*0.39*		*0.40*	*0.80*					*0.15*		
Uniform Delay d_1		*55.3*		*54.3*	*17.6*					*76.4*		
Delay Factor k		*0.50*		*0.50*	*0.50*					*0.50*		
Incremental Delay d_2		*102.2*		*142.4*	*41.5*					*609.9*		
PF Factor		*1.000*		*0.897*	*0.691*					*1.000*		
Control Delay		*157.5*		*191.1*	*53.7*					*686.3*		
Lane Group LOS		*F*		*F*	*D*					*F*		
Approach Delay	*157.5*			*103.5*						*686.3*		
Approach LOS	*F*			*F*						*F*		
Intersection Delay	*163.1*			Intersection LOS						*F*		

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group		*T*		*L*	*T*					*L*		
Initial Queue/Lane		*0.0*		*0.0*	*0.0*					*0.0*		
Flow Rate/Lane Group		*1721*		*1816*	*3195*					*589*		
Satflow/Lane		*1844*		*1752*	*1844*					*1671*		
Capacity/Lane Group		*1420*		*1392*	*2968*					*253*		
Flow Ratio		*0.5*		*0.5*	*0.9*					*0.4*		
v/c Ratio		*1.21*		*1.30*	*1.08*					*2.33*		
I Factor		*1.000*		*1.000*	*1.000*					*1.000*		
Arrival Type		*3*		*4*	*4*					*3*		
Platoon Ratio		*1.00*		*1.33*	*1.10*					*1.00*		
PF Factor		*1.00*		*1.00*	*1.00*					*1.00*		
Q_1		*43.0*		*45.4*	*79.8*					*29.5*		
k_B		*0.9*		*0.8*	*1.3*					*0.5*		
Q_2		*22.8*		*29.7*	*24.8*					*42.8*		
Q Average		*65.8*		*75.1*	*104.6*					*72.2*		

Percentile Back of Queue (95th percentile)

$f_{B\%}$		*1.5*		*1.5*	*1.5*					*1.5*		
Back of Queue		*99.7*		*113*	*157*					*109*		

Queue Storage Ratio

Queue Spacing		*25.0*		*25.0*	*25.0*					*25.0*		
Queue Storage		*0*		*1500*	*0*					*700*		
Average Queue Storage Ratio				*1.3*						*2.6*		
95% Queue Storage Ratio				*1.9*						*3.9*		

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 SB Ramps at SR 56*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/18/2010*	Jurisdiction	*FDOT*
Time Period	*PM*	Analysis Year	*Build 2030*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes		*2*		*2*	*2*					*1*		
Lane Group		*T*		*L*	*T*					*L*		
Volume (vph)		*1585*		*1230*	*3260*					*285*		
% Heavy Vehicles		*3*		*3*	*3*					*8*		
PHF		*0.95*		*0.95*	*0.95*					*0.95*		
Pretimed/Actuated (P/A)		*A*		*A*	*A*					*A*		
Startup Lost Time		*2.0*		*2.0*	*2.0*					*2.0*		
Extension of Effective Green		*3.0*		*3.0*	*3.0*					*3.0*		
Arrival Type		*3*		*4*	*4*					*3*		
Unit Extension		*3.0*		*3.0*	*3.0*					*3.0*		
Ped/Bike/RTOR Volume	*0*	*0*		*0*	*0*		*0*	*0*		*0*	*0*	
Lane Width		*12.0*		*12.0*	*12.0*					*12.0*		
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour		*0*		*0*	*0*					*0*		
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	WB Only	Thru Only	03	04	SB Only	06	07	08
Timing	G = *66.6*	G = *71.3*	G =	G =	G = *27.1*	G =	G =	G =
	Y = *5*	Y = *5*	Y =	Y =	Y = *5*	Y =	Y =	Y =

Duration of Analysis (hrs) = *0.25* | Cycle Length C = *180.0*

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate		*1668*		*1295*	*3432*					*300*		
Lane Group Capacity		*1411*		*1278*	*2808*					*261*		
v/c Ratio		*1.18*		*1.01*	*1.22*					*1.15*		
Green Ratio		*0.40*		*0.38*	*0.80*					*0.16*		
Uniform Delay d_1		*53.8*		*56.2*	*18.1*					*75.9*		
Delay Factor k		*0.50*		*0.50*	*0.50*					*0.50*		
Incremental Delay d_2		*89.5*		*28.5*	*103.4*					*102.2*		
PF Factor		*1.000*		*0.919*	*1.000*					*1.000*		
Control Delay		*143.4*		*80.2*	*121.5*					*178.1*		
Lane Group LOS		*F*		*F*	*F*					*F*		
Approach Delay	*143.4*			*110.2*						*178.1*		
Approach LOS	*F*			*F*						*F*		
Intersection Delay	*121.5*			Intersection LOS						*F*		

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group		*T*		*L*	*T*					*L*		
Initial Queue/Lane		*0.0*		*0.0*	*0.0*					*0.0*		
Flow Rate/Lane Group		*1668*		*1295*	*3432*					*300*		
Satflow/Lane		*1844*		*1752*	*1844*					*1671*		
Capacity/Lane Group		*1411*		*1278*	*2808*					*261*		
Flow Ratio		*0.5*		*0.4*	*1.0*					*0.2*		
v/c Ratio		*1.18*		*1.01*	*1.22*					*1.15*		
I Factor		*1.000*		*1.000*	*1.000*					*1.000*		
Arrival Type		*3*		*4*	*4*					*3*		
Platoon Ratio		*1.00*		*1.33*	*1.00*					*1.00*		
PF Factor		*1.00*		*1.00*	*1.00*					*1.00*		
Q_1		*43.8*		*33.3*	*90.1*					*15.0*		
k_B		*0.9*		*0.8*	*1.3*					*0.5*		
Q_2		*21.4*		*8.7*	*47.3*					*7.3*		
Q Average		*65.2*		*42.0*	*137.4*					*22.3*		

Percentile Back of Queue (95th percentile)

$f_{B\%}$		*1.5*		*1.6*	*1.5*					*1.7*		
Back of Queue		*98.8*		*65.5*	*206*					*37.3*		

Queue Storage Ratio

Queue Spacing		*25.0*		*25.0*	*25.0*					*25.0*		
Queue Storage		*0*		*1500*	*0*					*700*		
Average Queue Storage Ratio				*0.7*						*0.8*		
95% Queue Storage Ratio				*1.1*						*1.3*		

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 NB Ramps at SR 54*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/20/2010*	Jurisdiction	*FDOT*
Time Period	*AM*	Analysis Year	*Build 2030*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	*1*	*3*			*5*	*1*	*2*					
Lane Group	*L*	*T*			*T*	*R*	*L*					
Volume (vph)	*740*	*2285*			*2575*	*775*	*970*					
% Heavy Vehicles	*2*	*2*			*2*	*2*	*8*					
PHF	*0.95*	*0.95*			*0.95*	*0.95*	*0.95*					
Pretimed/Actuated (P/A)	*A*	*A*			*A*	*A*	*A*					
Startup Lost Time	*2.0*	*2.0*			*2.0*	*2.0*	*2.0*					
Extension of Effective Green	*3.0*	*3.0*			*3.0*	*3.0*	*3.0*					
Arrival Type	*3*	*3*			*4*	*4*	*3*					
Unit Extension	*3.0*	*3.0*			*3.0*	*3.0*	*3.0*					
Ped/Bike/RTOR Volume	*0*	*0*		*0*	*0*	*0*	*0*	*0*		*0*	*0*	
Lane Width	*12.0*	*12.0*			*12.0*	*12.0*	*12.0*					
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour	*0*	*0*			*0*	*0*	*0*					
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	EB Only	Thru & RT	03	04	NB Only	06	07	08
Timing	G = *31.4*	G = *45.9*	G =	G =	G = *27.7*	G =	G =	G =
	Y = *5*	Y = *5*	Y =	Y =	Y = *5*	Y =	Y =	Y =

Duration of Analysis (hrs) = *0.25* | Cycle Length C = *120.0*

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	*779*	*2405*			*2711*	*816*	*1021*					
Lane Group Capacity	*478*	*3522*			*2981*	*1050*	*800*					
v/c Ratio	*1.63*	*0.68*			*0.91*	*0.78*	*1.28*					
Green Ratio	*0.27*	*0.69*			*0.39*	*0.66*	*0.24*					
Uniform Delay d_1	*43.8*	*10.7*			*34.5*	*14.0*	*45.6*					
Delay Factor k	*0.50*	*0.25*			*0.43*	*0.33*	*0.50*					
Incremental Delay d_2	*292.8*	*0.6*			*4.7*	*3.8*	*134.0*					
PF Factor	*1.000*	*1.000*			*0.904*	*0.395*	*1.000*					
Control Delay	*336.6*	*11.2*			*35.9*	*9.3*	*179.6*					
Lane Group LOS	*F*	*B*			*D*	*A*	*F*					
Approach Delay	*90.8*			*29.7*			*179.6*					
Approach LOS	*F*			*C*			*F*					
Intersection Delay	*74.7*			Intersection LOS			*E*					

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group	*L*	*T*			*T*	*R*	*L*					
Initial Queue/Lane	*0.0*	*0.0*			*0.0*	*0.0*	*0.0*					
Flow Rate/Lane Group	*779*	*2405*			*2711*	*816*	*1021*					
Satflow/Lane	*1770*	*1862*			*1862*	*1583*	*1672*					
Capacity/Lane Group	*478*	*3522*			*2981*	*1050*	*800*					
Flow Ratio	*0.4*	*0.5*			*0.4*	*0.5*	*0.3*					
v/c Ratio	*1.63*	*0.68*			*0.91*	*0.78*	*1.28*					
I Factor	*1.000*	*1.000*			*1.000*	*1.000*	*1.000*					
Arrival Type	*3*	*3*			*4*	*4*	*3*					
Platoon Ratio	*1.00*	*1.00*			*1.33*	*1.33*	*1.00*					
PF Factor	*1.00*	*1.00*			*0.96*	*0.53*	*1.00*					
Q_1	*26.0*	*17.1*			*20.1*	*10.1*	*17.0*					
k_B	*0.5*	*1.0*			*0.7*	*0.8*	*0.5*					
Q_2	*38.9*	*2.0*			*4.5*	*2.7*	*15.7*					
Q Average	*64.9*	*19.1*			*24.6*	*12.7*	*32.7*					

Percentile Back of Queue (95th percentile)

$f_{B\%}$	*1.5*	*1.7*			*1.7*	*1.8*	*1.6*					
Back of Queue	*98.4*	*32.6*			*40.6*	*22.9*	*52.2*					

Queue Storage Ratio

Queue Spacing	*25.0*	*25.0*			*25.0*	*25.0*	*25.0*					
Queue Storage	*1000*	*0*			*0*	*500*	*1100*					
Average Queue Storage Ratio	*1.6*					*0.6*	*0.7*					
95% Queue Storage Ratio	*2.5*					*1.1*	*1.2*					

HCS+™ Version 5.5 Generated: 2/12/2013 6:28 PM

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 NB Ramps at SR 54*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/20/2010*	Jurisdiction	*FDOT*
Time Period	*PM*	Analysis Year	*Build 2030*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	*1*	*3*			*5*	*1*	*2*					
Lane Group	*L*	*T*			*T*	*R*	*L*					
Volume (vph)	*830*	*1850*			*2165*	*920*	*1010*					
% Heavy Vehicles	*2*	*2*			*2*	*2*	*8*					
PHF	*0.95*	*0.95*			*0.95*	*0.95*	*0.95*					
Pretimed/Actuated (P/A)	*A*	*A*			*A*	*A*	*A*					
Startup Lost Time	*2.0*	*2.0*			*2.0*	*2.0*	*2.0*					
Extension of Effective Green	*2.0*	*2.0*			*2.0*	*2.0*	*2.0*					
Arrival Type	*3*	*3*			*4*	*4*	*4*					
Unit Extension	*3.0*	*3.0*			*3.0*	*3.0*	*3.0*					
Ped/Bike/RTOR Volume	*0*	*0*		*0*	*0*	*0*	*0*	*0*		*0*	*0*	
Lane Width	*12.0*	*12.0*			*12.0*	*12.0*	*12.0*					
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour	*0*	*0*			*0*	*0*	*0*					
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	EB Only	Thru & RT	03	04	NB Only	06	07	08
Timing	G = *42.6*	G = *57.1*	G =	G =	G = *35.3*	G =	G =	G =
	Y = *5*	Y = *5*	Y =	Y =	Y = *5*	Y =	Y =	Y =
Duration of Analysis (hrs) = *0.25*						Cycle Length C = *150.0*		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	*874*	*1947*			*2279*	*968*	*1063*					
Lane Group Capacity	*503*	*3542*			*3290*	*1028*	*787*					
v/c Ratio	*1.74*	*0.55*			*0.69*	*0.94*	*1.35*					
Green Ratio	*0.28*	*0.70*			*0.38*	*0.65*	*0.24*					
Uniform Delay d_1	*53.7*	*11.1*			*39.1*	*23.7*	*57.4*					
Delay Factor k	*0.50*	*0.15*			*0.26*	*0.45*	*0.50*					
Incremental Delay d_2	*340.1*	*0.2*			*0.6*	*16.0*	*166.2*					
PF Factor	*1.000*	*1.000*			*0.914*	*0.440*	*1.000*					
Control Delay	*393.8*	*11.3*			*36.4*	*26.4*	*223.5*					
Lane Group LOS	*F*	*B*			*D*	*C*	*F*					
Approach Delay	*129.8*			*33.4*			*223.5*					
Approach LOS	*F*			*C*			*F*					
Intersection Delay	*99.9*			Intersection LOS			*F*					

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group	*L*	*T*			*T*	*R*	*L*					
Initial Queue/Lane	*0.0*	*0.0*			*0.0*	*0.0*	*0.0*					
Flow Rate/Lane Group	*874*	*1947*			*2279*	*968*	*1063*					
Satflow/Lane	*1770*	*1862*			*1862*	*1583*	*1672*					
Capacity/Lane Group	*503*	*3542*			*3290*	*1028*	*787*					
Flow Ratio	*0.5*	*0.4*			*0.3*	*0.6*	*0.3*					
v/c Ratio	*1.74*	*0.55*			*0.69*	*0.94*	*1.35*					
I Factor	*1.000*	*1.000*			*1.000*	*1.000*	*1.000*					
Arrival Type	*3*	*3*			*4*	*4*	*4*					
Platoon Ratio	*1.00*	*1.00*			*1.33*	*1.33*	*1.33*					
PF Factor	*1.00*	*1.00*			*0.90*	*0.81*	*1.00*					
Q_1	*36.4*	*14.6*			*15.5*	*29.3*	*22.1*					
k_B	*0.6*	*1.1*			*0.8*	*1.0*	*0.5*					
Q_2	*47.8*	*1.3*			*1.6*	*7.6*	*19.1*					
Q Average	*84.2*	*15.9*			*17.2*	*36.9*	*41.2*					

Percentile Back of Queue (95th percentile)

$f_{B\%}$	*1.5*	*1.7*			*1.7*	*1.6*	*1.6*					
Back of Queue	*127*	*27.8*			*29.7*	*58.2*	*64.4*					

Queue Storage Ratio

Queue Spacing	*25.0*	*25.0*			*25.0*	*25.0*	*25.0*					
Queue Storage	*1000*	*0*			*0*	*500*	*1100*					
Average Queue Storage Ratio	*2.1*					*1.8*	*0.9*					
95% Queue Storage Ratio	*3.2*					*2.9*	*1.5*					

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 SB Ramps at CR 54*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/20/2010*	Jurisdiction	*FDOT*
Time Period	*AM*	Analysis Year	*Build 2030*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes		*4*	*1*	*2*	*3*					*1*		
Lane Group		*T*	*R*	*L*	*T*					*L*		
Volume (vph)		*2105*	*1010*	*1500*	*2045*					*920*		
% Heavy Vehicles		*2*	*2*	*2*	*2*					*8*		
PHF		*0.95*	*0.95*	*0.95*	*0.95*					*0.95*		
Pretimed/Actuated (P/A)		*A*	*A*	*A*	*A*					*A*		
Startup Lost Time		*2.0*	*2.0*	*2.0*	*2.0*					*2.0*		
Extension of Effective Green		*3.0*	*3.0*	*3.0*	*3.0*					*3.0*		
Arrival Type		*3*	*3*	*4*	*4*					*3*		
Unit Extension		*3.0*	*3.0*	*3.0*	*3.0*					*3.0*		
Ped/Bike/RTOR Volume	*0*	*0*	*0*	*0*	*0*		*0*	*0*		*0*	*0*	
Lane Width		*12.0*	*12.0*	*12.0*	*12.0*					*12.0*		
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour		*0*	*0*	*0*	*0*					*0*		
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	WB Only	Thru & RT	03	04	SB Only	06	07	08
Timing	G = *46.1*	G = *44.5*	G =	G =	G = *44.4*	G =	G =	G =
	Y = *5*	Y = *5*	Y =	Y =	Y = *5*	Y =	Y =	Y =
Duration of Analysis (hrs) = *0.25*						Cycle Length C = *150.0*		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate		*2216*	*1063*	*1579*	*2153*					*968*		
Lane Group Capacity		*2260*	*1002*	*1111*	*3268*					*506*		
v/c Ratio		*0.98*	*1.06*	*1.42*	*0.66*					*1.91*		
Green Ratio		*0.30*	*0.63*	*0.31*	*0.64*					*0.30*		
Uniform Delay d_1		*51.8*	*27.6*	*51.5*	*16.5*					*52.3*		
Delay Factor k		*0.48*	*0.50*	*0.50*	*0.23*					*0.50*		
Incremental Delay d_2		*14.6*	*46.0*	*194.9*	*0.5*					*418.2*		
PF Factor		*1.000*	*1.000*	*0.975*	*0.457*					*1.000*		
Control Delay		*66.4*	*73.6*	*245.0*	*8.0*					*470.5*		
Lane Group LOS		*E*	*E*	*F*	*A*					*F*		
Approach Delay	*68.7*			*108.3*						*470.5*		
Approach LOS	*E*			*F*						*F*		
Intersection Delay	*136.0*			Intersection LOS						*F*		

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group		*T*	*R*	*L*	*T*					*L*		
Initial Queue/Lane		*0.0*	*0.0*	*0.0*	*0.0*					*0.0*		
Flow Rate/Lane Group		*2216*	*1063*	*1579*	*2153*					*968*		
Satflow/Lane		*1862*	*1583*	*1770*	*1862*					*1671*		
Capacity/Lane Group		*2260*	*1002*	*1111*	*3268*					*506*		
Flow Ratio		*0.3*	*0.7*	*0.4*	*0.4*					*0.6*		
v/c Ratio		*0.98*	*1.06*	*1.42*	*0.66*					*1.91*		
I Factor		*1.000*	*1.000*	*1.000*	*1.000*					*1.000*		
Arrival Type		*3*	*3*	*4*	*4*					*3*		
Platoon Ratio		*1.00*	*1.00*	*1.33*	*1.33*					*1.00*		
PF Factor		*1.00*	*1.00*	*1.00*	*0.53*					*1.00*		
Q_1		*22.9*	*44.3*	*32.9*	*10.7*					*40.3*		
k_B		*0.7*	*0.9*	*0.7*	*1.0*					*0.6*		
Q_2		*6.1*	*15.6*	*31.3*	*1.9*					*59.0*		
Q Average		*29.0*	*59.9*	*64.2*	*12.7*					*99.4*		
Percentile Back of Queue (95th percentile)												
$f_{B\%}$		*1.6*	*1.5*	*1.5*	*1.8*					*1.5*		
Back of Queue		*47.0*	*91.1*	*97.4*	*22.7*					*149*		
Queue Storage Ratio												
Queue Spacing		*25.0*	*25.0*	*25.0*	*25.0*					*25.0*		
Queue Storage		*0*	*700*	*900*	*0*					*300*		
Average Queue Storage Ratio			*2.1*	*1.8*						*8.3*		
95% Queue Storage Ratio			*3.3*	*2.7*						*12.4*		

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 SB Ramps at CR 54*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/20/2010*	Jurisdiction	*FDOT*
Time Period	*PM*	Analysis Year	*Build 2030*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes		*4*	*1*	*2*	*3*					*1*		
Lane Group		*T*	*R*	*L*	*T*					*L*		
Volume (vph)		*1905*	*970*	*800*	*2375*					*775*		
% Heavy Vehicles		*2*	*2*	*2*	*2*					*8*		
PHF		*0.95*	*0.95*	*0.95*	*0.95*					*0.95*		
Pretimed/Actuated (P/A)		*A*	*A*	*A*	*A*					*A*		
Startup Lost Time		*2.0*	*2.0*	*2.0*	*2.0*					*2.0*		
Extension of Effective Green		*3.0*	*3.0*	*3.0*	*3.0*					*3.0*		
Arrival Type		*3*	*3*	*3*	*4*					*3*		
Unit Extension		*3.0*	*3.0*	*3.0*	*3.0*					*3.0*		
Ped/Bike/RTOR Volume	*0*	*0*	*0*	*0*	*0*		*0*	*0*		*0*	*0*	
Lane Width		*12.0*	*12.0*	*12.0*	*12.0*					*12.0*		
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour		*0*	*0*	*0*	*0*					*0*		
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	WB Only	Thru & RT	03	04	SB Only	06	07	08
Timing	G = *34.1*	G = *61.7*	G =	G =	G = *36.2*	G =	G =	G =
	Y = *6*	Y = *6*	Y =	Y =	Y = *6*	Y =	Y =	Y =
Duration of Analysis (hrs) = *0.25*						Cycle Length C = *150.0*		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate		*2005*	*1021*	*842*	*2500*					*816*		
Lane Group Capacity		*2707*	*662*	*804*	*3477*					*414*		
v/c Ratio		*0.74*	*1.54*	*1.05*	*0.72*					*1.97*		
Green Ratio		*0.42*	*0.42*	*0.23*	*0.69*					*0.25*		
Uniform Delay d_1		*36.8*	*43.7*	*57.5*	*14.6*					*56.4*		
Delay Factor k		*0.30*	*0.50*	*0.50*	*0.28*					*0.50*		
Incremental Delay d_2		*1.1*	*251.5*	*44.8*	*0.7*					*445.6*		
PF Factor		*1.000*	*1.000*	*1.000*	*0.315*					*1.000*		
Control Delay		*37.9*	*295.2*	*102.3*	*5.4*					*502.0*		
Lane Group LOS		*D*	*F*	*F*	*A*					*F*		
Approach Delay	*124.7*			*29.8*						*502.0*		
Approach LOS	*F*			*C*						*F*		
Intersection Delay	*123.4*			Intersection LOS						*F*		

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group		*T*	*R*	*L*	*T*					*L*		
Initial Queue/Lane		*0.0*	*0.0*	*0.0*	*0.0*					*0.0*		
Flow Rate/Lane Group		*2005*	*1021*	*842*	*2500*					*816*		
Satflow/Lane		*1862*	*1583*	*1770*	*1862*					*1671*		
Capacity/Lane Group		*2707*	*662*	*804*	*3477*					*414*		
Flow Ratio		*0.3*	*0.6*	*0.2*	*0.5*					*0.5*		
v/c Ratio		*0.74*	*1.54*	*1.05*	*0.72*					*1.97*		
I Factor		*1.000*	*1.000*	*1.000*	*1.000*					*1.000*		
Arrival Type		*3*	*3*	*3*	*4*					*3*		
Platoon Ratio		*1.00*	*1.00*	*1.00*	*1.33*					*1.00*		
PF Factor		*1.00*	*1.00*	*1.00*	*0.41*					*1.00*		
Q_1		*20.2*	*42.5*	*18.0*	*9.6*					*34.0*		
k_B		*0.8*	*0.7*	*0.6*	*1.1*					*0.6*		
Q_2		*2.1*	*46.9*	*6.8*	*2.6*					*51.3*		
Q Average		*22.3*	*89.4*	*24.8*	*12.2*					*85.3*		
Percentile Back of Queue (95th percentile)												
$f_{B\%}$		*1.7*	*1.5*	*1.7*	*1.8*					*1.5*		
Back of Queue		*37.4*	*134*	*41.0*	*22.0*					*128*		
Queue Storage Ratio												
Queue Spacing		*25.0*	*25.0*	*25.0*	*25.0*					*25.0*		
Queue Storage		*0*	*700*	*900*	*0*					*300*		
Average Queue Storage Ratio			*3.2*	*0.7*						*7.1*		
95% Queue Storage Ratio			*4.8*	*1.1*						*10.7*		

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 NB Ramps at SR 52*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/20/2010*	Jurisdiction	*FDOT*
Time Period	*AM*	Analysis Year	*Build 2030*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	*1*	*2*			*3*	*0*	*2*					
Lane Group	*L*	*T*			*TR*		*L*					
Volume (vph)	*350*	*1515*			*2635*	*0*	*800*					
% Heavy Vehicles	*6*	*6*			*6*	*2*	*8*					
PHF	*0.95*	*0.95*			*0.95*	*0.95*	*0.95*					
Pretimed/Actuated (P/A)	*A*	*A*			*A*	*A*	*A*					
Startup Lost Time	*2.0*	*2.0*			*2.0*		*2.0*					
Extension of Effective Green	*3.0*	*3.0*			*3.0*		*3.0*					
Arrival Type	*3*	*3*			*4*		*3*					
Unit Extension	*3.0*	*3.0*			*3.0*		*3.0*					
Ped/Bike/RTOR Volume	*0*	*0*		*0*	*0*	*0*	*0*	*0*		*0*	*0*	
Lane Width	*12.0*	*12.0*			*12.0*		*12.0*					
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour	*0*	*0*			*0*		*0*					
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	EB Only	Thru & RT	03	04	NB Only	06	07	08
Timing	G = *15.0*	G = *65.1*	G =	G =	G = *24.9*	G =	G =	G =
	Y = *5*	Y = *5*	Y =	Y =	Y = *5*	Y =	Y =	Y =
Duration of Analysis (hrs) = *0.25*						Cycle Length C = *120.0*		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	*368*	*1595*			*2774*		*842*					
Lane Group Capacity	*227*	*2449*			*2962*		*722*					
v/c Ratio	*1.62*	*0.65*			*0.94*		*1.17*					
Green Ratio	*0.13*	*0.72*			*0.55*		*0.22*					
Uniform Delay d_1	*52.0*	*9.0*			*25.0*		*47.0*					
Delay Factor k	*0.50*	*0.23*			*0.45*		*0.50*					
Incremental Delay d_2	*298.9*	*0.6*			*6.6*		*89.4*					
PF Factor	*1.000*	*1.000*			*0.680*		*1.000*					
Control Delay	*350.9*	*9.6*			*23.6*		*136.5*					
Lane Group LOS	*F*	*A*			*C*		*F*					
Approach Delay	*73.6*			*23.6*			*136.5*					
Approach LOS	*E*			*C*			*F*					
Intersection Delay	*58.2*			Intersection LOS			*E*					

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group	*L*	*T*			*TR*		*L*					
Initial Queue/Lane	*0.0*	*0.0*			*0.0*		*0.0*					
Flow Rate/Lane Group	*368*	*1595*			*2774*		*842*					
Satflow/Lane	*1703*	*1792*			*1792*		*1672*					
Capacity/Lane Group	*227*	*2449*			*2962*		*722*					
Flow Ratio	*0.2*	*0.5*			*0.5*		*0.3*					
v/c Ratio	*1.62*	*0.65*			*0.94*		*1.17*					
I Factor	*1.000*	*1.000*			*1.000*		*1.000*					
Arrival Type	*3*	*3*			*4*		*3*					
Platoon Ratio	*1.00*	*1.00*			*1.33*		*1.00*					
PF Factor	*1.00*	*1.00*			*0.92*		*1.00*					
Q_1	*12.3*	*14.8*			*26.2*		*14.0*					
k_B	*0.3*	*1.0*			*0.8*		*0.4*					
Q_2	*18.5*	*1.7*			*6.5*		*9.9*					
Q Average	*30.7*	*16.5*			*32.7*		*23.9*					
Percentile Back of Queue (95th percentile)												
$f_{B\%}$	*1.6*	*1.7*			*1.6*		*1.7*					
Back of Queue	*49.4*	*28.7*			*52.2*		*39.7*					
Queue Storage Ratio												
Queue Spacing	*25.0*	*25.0*			*25.0*		*25.0*					
Queue Storage	*500*	*0*			*0*		*500*					
Average Queue Storage Ratio	*1.5*						*1.2*					
95% Queue Storage Ratio	*2.5*						*2.0*					

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 NB Ramps at SR 52*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/20/2010*	Jurisdiction	*FDOT*
Time Period	*PM*	Analysis Year	*Build 2030*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	*1*	*2*			*3*	*0*	*2*					
Lane Group	*L*	*T*			*TR*		*L*					
Volume (vph)	*350*	*1495*			*2240*	*0*	*1135*					
% Heavy Vehicles	*6*	*6*			*6*	*2*	*8*					
PHF	*0.95*	*0.95*			*0.95*	*0.95*	*0.95*					
Pretimed/Actuated (P/A)	*A*	*A*			*A*	*A*	*A*					
Startup Lost Time	*2.0*	*2.0*			*2.0*		*2.0*					
Extension of Effective Green	*3.0*	*3.0*			*3.0*		*3.0*					
Arrival Type	*3*	*3*			*4*		*3*					
Unit Extension	*3.0*	*3.0*			*3.0*		*3.0*					
Ped/Bike/RTOR Volume	*0*	*0*		*0*	*0*	*0*	*0*	*0*		*0*	*0*	
Lane Width	*12.0*	*12.0*			*12.0*		*12.0*					
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour	*0*	*0*			*0*		*0*					
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	EB Only	Thru & RT	03	04	NB Only	06	07	08
Timing	G = *17.2*	G = *53.7*	G =	G =	G = *34.1*	G =	G =	G =
	Y = *5*	Y = *5*	Y =	Y =	Y = *5*	Y =	Y =	Y =
Duration of Analysis (hrs) = *0.25*						Cycle Length C = *120.0*		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	*368*	*1574*			*2358*		*1195*					
Lane Group Capacity	*258*	*2187*			*2451*		*978*					
v/c Ratio	*1.43*	*0.72*			*0.96*		*1.22*					
Green Ratio	*0.15*	*0.64*			*0.46*		*0.29*					
Uniform Delay d_1	*50.9*	*14.4*			*31.6*		*42.5*					
Delay Factor k	*0.50*	*0.28*			*0.47*		*0.50*					
Incremental Delay d_2	*212.9*	*1.2*			*10.8*		*109.1*					
PF Factor	*1.000*	*1.000*			*0.829*		*1.000*					
Control Delay	*263.8*	*15.5*			*37.0*		*151.6*					
Lane Group LOS	*F*	*B*			*D*		*F*					
Approach Delay	*62.6*			*37.0*			*151.6*					
Approach LOS	*E*			*D*			*F*					
Intersection Delay	*70.9*			Intersection LOS			*E*					

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group	*L*	*T*			*TR*		*L*					
Initial Queue/Lane	*0.0*	*0.0*			*0.0*		*0.0*					
Flow Rate/Lane Group	*368*	*1574*			*2358*		*1195*					
Satflow/Lane	*1703*	*1792*			*1792*		*1672*					
Capacity/Lane Group	*258*	*2187*			*2451*		*978*					
Flow Ratio	*0.2*	*0.5*			*0.4*		*0.4*					
v/c Ratio	*1.43*	*0.72*			*0.96*		*1.22*					
I Factor	*1.000*	*1.000*			*1.000*		*1.000*					
Arrival Type	*3*	*3*			*4*		*3*					
Platoon Ratio	*1.00*	*1.00*			*1.33*		*1.00*					
PF Factor	*1.00*	*1.00*			*0.97*		*1.00*					
Q_1	*12.3*	*18.4*			*24.7*		*19.9*					
k_B	*0.4*	*0.9*			*0.7*		*0.5*					
Q_2	*14.9*	*2.2*			*6.7*		*16.0*					
Q Average	*27.1*	*20.5*			*31.5*		*35.9*					
Percentile Back of Queue (95th percentile)												
$f_{B\%}$	*1.6*	*1.7*			*1.6*		*1.6*					
Back of Queue	*44.3*	*34.7*			*50.5*		*56.8*					
Queue Storage Ratio												
Queue Spacing	*25.0*	*25.0*			*25.0*		*25.0*					
Queue Storage	*500*	*0*			*0*		*500*					
Average Queue Storage Ratio	*1.4*						*1.8*					
95% Queue Storage Ratio	*2.2*						*2.8*					

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 SB Ramps at SR 52*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/20/2010*	Jurisdiction	*FDOT*
Time Period	*AM*	Analysis Year	*Build 2030*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes		*3*		*1*	*2*					*1*		*1*
Lane Group		*T*		*L*	*T*					*L*		*R*
Volume (vph)		*1440*		*1410*	*1560*					*425*		*350*
% Heavy Vehicles		*6*		*6*	*6*					*8*		*8*
PHF		*0.95*		*0.95*	*0.95*					*0.95*		*0.95*
Pretimed/Actuated (P/A)		*A*		*A*	*A*					*A*		*A*
Startup Lost Time		*2.0*		*2.0*	*2.0*					*2.0*		*2.0*
Extension of Effective Green		*3.0*		*3.0*	*3.0*					*3.0*		*3.0*
Arrival Type		*3*		*4*	*4*					*3*		*3*
Unit Extension		*3.0*		*3.0*	*3.0*					*3.0*		*3.0*
Ped/Bike/RTOR Volume	*0*	*0*		*0*	*0*		*0*	*0*		*0*	*0*	*0*
Lane Width		*12.0*		*12.0*	*12.0*					*12.0*		*12.0*
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour		*0*		*0*	*0*					*0*		*0*
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	WB Only	Thru Only	03	04	SB Only	06	07	08
Timing	G = *77.8*	G = *40.8*	G =	G =	G = *26.4*	G =	G =	G =
	Y = *5*	Y = *5*	Y =	Y =	Y = *5*	Y =	Y =	Y =

Duration of Analysis (hrs) = *0.25* | Cycle Length C = *160.0*

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate		*1516*		*1484*	*1642*					*447*		*368*
Lane Group Capacity		*1405*		*839*	*2658*					*286*		*256*
v/c Ratio		*1.08*		*1.77*	*0.62*					*1.56*		*1.44*
Green Ratio		*0.26*		*0.49*	*0.78*					*0.17*		*0.17*
Uniform Delay d_1		*59.1*		*40.6*	*7.5*					*66.3*		*66.3*
Delay Factor k		*0.50*		*0.50*	*0.20*					*0.50*		*0.50*
Incremental Delay d_2		*48.4*		*350.8*	*0.4*					*269.7*		*217.8*
PF Factor		*1.000*		*1.000*	*0.260*					*1.000*		*1.000*
Control Delay		*107.5*		*391.4*	*2.4*					*336.0*		*284.1*
Lane Group LOS		*F*		*F*	*A*					*F*		*F*
Approach Delay	*107.5*			*187.1*						*312.6*		
Approach LOS	*F*			*F*						*F*		
Intersection Delay	*183.7*			Intersection LOS						*F*		

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group		*T*		*L*	*T*					*L*		*R*
Initial Queue/Lane		*0.0*		*0.0*	*0.0*					*0.0*		*0.0*
Flow Rate/Lane Group		*1516*		*1484*	*1642*					*447*		*368*
Satflow/Lane		*1792*		*1703*	*1792*					*1671*		*1495*
Capacity/Lane Group		*1405*		*839*	*2658*					*286*		*256*
Flow Ratio		*0.3*		*0.9*	*0.5*					*0.3*		*0.2*
v/c Ratio		*1.08*		*1.77*	*0.62*					*1.56*		*1.44*
I Factor		*1.000*		*1.000*	*1.000*					*1.000*		*1.000*
Arrival Type		*3*		*4*	*4*					*3*		*3*
Platoon Ratio		*1.00*		*1.09*	*1.22*					*1.00*		*1.00*
PF Factor		*1.00*		*1.00*	*0.28*					*1.00*		*1.00*
Q_1		*22.4*		*66.0*	*4.6*					*19.9*		*16.4*
k_B		*0.6*		*0.9*	*1.2*					*0.5*		*0.4*
Q_2		*9.0*		*82.6*	*1.9*					*21.3*		*15.3*
Q Average		*31.4*		*148.5*	*6.5*					*41.2*		*31.6*
Percentile Back of Queue (95th percentile)												
$f_{B\%}$		*1.6*		*1.5*	*1.9*					*1.6*		*1.6*
Back of Queue		*50.4*		*223*	*12.5*					*64.3*		*50.7*
Queue Storage Ratio												
Queue Spacing		*25.0*		*25.0*	*25.0*					*25.0*		*25.0*
Queue Storage		*0*		*600*	*0*					*800*		*100*
Average Queue Storage Ratio				*6.2*						*1.3*		*7.9*
95% Queue Storage Ratio				*9.3*						*2.0*		*12.7*

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 SB Ramps at SR 52*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/20/2010*	Jurisdiction	*FDOT*
Time Period	*PM*	Analysis Year	*Build 2030*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes		*3*		*1*	*2*					*1*		*1*
Lane Group		*T*		*L*	*T*					*L*		*R*
Volume (vph)		*1560*		*1150*	*2225*					*285*		*350*
% Heavy Vehicles		*6*		*6*	*6*					*8*		*8*
PHF		*0.95*		*0.95*	*0.95*					*0.95*		*0.95*
Pretimed/Actuated (P/A)		*A*		*A*	*A*					*A*		*A*
Startup Lost Time		*2.0*		*2.0*	*2.0*					*2.0*		*2.0*
Extension of Effective Green		*3.0*		*3.0*	*3.0*					*3.0*		*3.0*
Arrival Type		*3*		*4*	*4*					*3*		*3*
Unit Extension		*3.0*		*3.0*	*3.0*					*3.0*		*3.0*
Ped/Bike/RTOR Volume	*0*	*0*		*0*	*0*		*0*	*0*		*0*	*0*	*0*
Lane Width		*12.0*		*12.0*	*12.0*					*12.0*		*12.0*
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour		*0*		*0*	*0*					*0*		*0*
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	WB Only	Thru Only	03	04	SB Only	06	07	08
Timing	G = *61.5*	G = *60.2*	G =	G =	G = *23.3*	G =	G =	G =
	Y = *5*	Y = *5*	Y =	Y =	Y = *5*	Y =	Y =	Y =
Duration of Analysis (hrs) = *0.25*						Cycle Length C = *160.0*		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate		*1642*		*1211*	*2342*					*300*		*368*
Lane Group Capacity		*1317*		*665*	*2724*					*254*		*227*
v/c Ratio		*1.25*		*1.82*	*0.86*					*1.18*		*1.62*
Green Ratio		*0.38*		*0.39*	*0.80*					*0.15*		*0.15*
Uniform Delay d_1		*49.4*		*48.8*	*10.4*					*67.8*		*67.8*
Delay Factor k		*0.50*		*0.50*	*0.39*					*0.50*		*0.50*
Incremental Delay d_2		*117.6*		*375.4*	*3.0*					*114.4*		*298.9*
PF Factor		*1.000*		*0.904*	*0.285*					*1.000*		*1.000*
Control Delay		*167.0*		*419.5*	*6.0*					*182.3*		*366.7*
Lane Group LOS		*F*		*F*	*A*					*F*		*F*
Approach Delay	*167.0*			*146.9*						*283.9*		
Approach LOS	*F*			*F*						*F*		
Intersection Delay	*168.1*			Intersection LOS						*F*		

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group		*T*		*L*	*T*					*L*		*R*
Initial Queue/Lane		*0.0*		*0.0*	*0.0*					*0.0*		*0.0*
Flow Rate/Lane Group		*1642*		*1211*	*2342*					*300*		*368*
Satflow/Lane		*1792*		*1703*	*1792*					*1671*		*1495*
Capacity/Lane Group		*1317*		*665*	*2724*					*254*		*227*
Flow Ratio		*0.5*		*0.7*	*0.7*					*0.2*		*0.2*
v/c Ratio		*1.25*		*1.82*	*0.86*					*1.18*		*1.62*
I Factor		*1.000*		*1.000*	*1.000*					*1.000*		*1.000*
Arrival Type		*3*		*4*	*4*					*3*		*3*
Platoon Ratio		*1.00*		*1.33*	*1.19*					*1.00*		*1.00*
PF Factor		*1.00*		*1.00*	*0.42*					*1.00*		*1.00*
Q_1		*38.0*		*53.8*	*14.9*					*13.3*		*16.4*
k_B		*0.8*		*0.8*	*1.2*					*0.4*		*0.4*
Q_2		*24.6*		*69.9*	*6.0*					*7.8*		*18.6*
Q Average		*62.6*		*123.7*	*20.9*					*21.1*		*35.0*

Percentile Back of Queue (95th percentile)

$f_{B\%}$		*1.5*		*1.5*	*1.7*					*1.7*		*1.6*
Back of Queue		*95.1*		*186*	*35.3*					*35.6*		*55.5*

Queue Storage Ratio

Queue Spacing		*25.0*		*25.0*	*25.0*					*25.0*		*25.0*
Queue Storage		*0*		*600*	*0*					*800*		*100*
Average Queue Storage Ratio				*5.2*						*0.7*		*8.7*
95% Queue Storage Ratio				*7.7*						*1.1*		*13.9*

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*Overpass Rd at Boyette Rd*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*4/27/2011*	Jurisdiction	*FDOT*
Time Period	*AM*	Analysis Year	*Build 2030*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	*1*	*3*		*1*	*3*	*1*	*2*	*1*	*1*	*1*	*1*	
Lane Group	*L*	*T*		*L*	*T*	*R*	*L*	*T*	*R*	*L*	*T*	
Volume (vph)	*190*	*2235*		*150*	*2455*	*60*	*370*	*70*	*100*	*40*	*100*	
% Heavy Vehicles	*2*	*2*		*2*	*2*	*2*	*2*	*2*	*2*	*2*	*2*	
PHF	*0.95*	*0.95*		*0.95*	*0.95*	*0.95*	*0.95*	*0.95*	*0.95*	*0.95*	*0.95*	
Pretimed/Actuated (P/A)	*A*	*A*		*A*	*A*	*A*	*A*	*A*	*A*	*A*	*A*	
Startup Lost Time	*2.0*	*2.0*		*2.0*	*2.0*	*2.0*	*2.0*	*2.0*	*2.0*	*2.0*	*2.0*	
Extension of Effective Green	*3.0*	*3.0*		*3.0*	*3.0*	*2.0*	*3.0*	*3.0*	*3.0*	*3.0*	*3.0*	
Arrival Type	*3*	*3*		*4*	*4*	*3*	*3*	*3*	*3*	*3*	*3*	
Unit Extension	*3.0*	*3.0*		*3.0*	*3.0*	*3.0*	*3.0*	*3.0*	*3.0*	*3.0*	*3.0*	
Ped/Bike/RTOR Volume	*0*	*0*		*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
Lane Width	*12.0*	*12.0*		*12.0*	*12.0*	*12.0*	*12.0*	*12.0*	*12.0*	*12.0*	*12.0*	
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour	*0*	*0*		*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08
Timing	G = *15.0*	G = *66.6*	G =	G =	G = *12.1*	G = *6.3*	G =	G =
	Y = *5*	Y = *5*	Y =	Y =	Y = *5*	Y = *5*	Y =	Y =
Duration of Analysis (hrs) = *0.25*					Cycle Length C = *120.0*			

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	*200*	*2353*		*158*	*2584*	*63*	*389*	*74*	*105*	*42*	*105*	
Lane Group Capacity	*236*	*2858*		*236*	*2858*	*879*	*375*	*113*	*360*	*193*	*113*	
v/c Ratio	*0.85*	*0.82*		*0.67*	*0.90*	*0.07*	*1.04*	*0.65*	*0.29*	*0.22*	*0.93*	
Green Ratio	*0.13*	*0.56*		*0.13*	*0.56*	*0.56*	*0.11*	*0.06*	*0.23*	*0.11*	*0.06*	
Uniform Delay d_1	*50.8*	*21.3*		*49.5*	*23.3*	*12.4*	*53.5*	*55.1*	*38.4*	*48.8*	*56.1*	
Delay Factor k	*0.38*	*0.36*		*0.24*	*0.43*	*0.11*	*0.50*	*0.23*	*0.11*	*0.11*	*0.44*	
Incremental Delay d_2	*23.9*	*2.1*		*7.1*	*4.6*	*0.0*	*56.5*	*12.9*	*0.5*	*0.6*	*62.7*	
PF Factor	*1.000*	*1.000*		*1.000*	*0.655*	*1.000*	*1.000*	*1.000*	*1.000*	*1.000*	*1.000*	
Control Delay	*74.7*	*23.4*		*56.6*	*19.9*	*12.4*	*109.9*	*68.0*	*38.8*	*49.3*	*118.8*	
Lane Group LOS	*E*	*C*		*E*	*B*	*B*	*F*	*E*	*D*	*D*	*F*	
Approach Delay	*27.4*			*21.8*			*91.3*			*98.9*		
Approach LOS	*C*			*C*			*F*			*F*		
Intersection Delay	*32.5*			Intersection LOS			*C*					

HCS+™ Version 5.5

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BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group	*L*	*T*		*L*	*T*	*R*	*L*	*T*	*R*	*L*	*T*	
Initial Queue/Lane	*0.0*	*0.0*		*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	
Flow Rate/Lane Group	*200*	*2353*		*158*	*2584*	*63*	*389*	*74*	*105*	*42*	*105*	
Satflow/Lane	*1770*	*1862*		*1770*	*1862*	*1583*	*1770*	*1863*	*1583*	*1770*	*1863*	
Capacity/Lane Group	*236*	*2858*		*236*	*2858*	*879*	*375*	*113*	*360*	*193*	*113*	
Flow Ratio	*0.1*	*0.5*		*0.1*	*0.5*	*0.0*	*0.1*	*0.0*	*0.1*	*0.0*	0.1	
v/c Ratio	*0.85*	*0.82*		*0.67*	*0.90*	*0.07*	*1.04*	*0.65*	*0.29*	*0.22*	*0.93*	
I Factor	*1.000*	*1.000*		*1.000*	*1.000*	*1.000*	*1.000*	*1.000*	*1.000*	*1.000*	*1.000*	
Arrival Type	*3*	*3*		*4*	*4*	*3*	*3*	*3*	*3*	*3*	*3*	
Platoon Ratio	*1.00*	*1.00*		*1.33*	*1.33*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	
PF Factor	*1.00*	*1.00*		*0.98*	*0.87*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	
Q_1	*6.5*	*23.4*		*4.9*	*24.5*	*1.0*	*6.7*	*2.4*	*2.9*	*1.3*	*3.5*	
k_B	*0.3*	*0.8*		*0.3*	*0.8*	*0.8*	*0.3*	*0.2*	*0.4*	*0.3*	*0.2*	
Q_2	*1.4*	*3.4*		*0.7*	*5.5*	*0.1*	*3.2*	*0.4*	*0.2*	*0.1*	*1.3*	
Q Average	*8.0*	*26.8*		*5.6*	*30.0*	*1.0*	*9.9*	*2.8*	*3.1*	*1.4*	*4.8*	

Percentile Back of Queue (95th percentile)

$f_{B\%}$	*1.9*	*1.6*		*1.9*	*1.6*	*2.1*	*1.8*	*2.0*	*2.0*	*2.1*	*2.0*	
Back of Queue	*15.0*	*43.9*		*10.8*	*48.4*	*2.1*	*18.3*	*5.6*	*6.2*	*2.8*	*9.3*	

Queue Storage Ratio

Queue Spacing	*25.0*	*25.0*		*25.0*	*25.0*	*25.0*	*25.0*	*25.0*	*25.0*	*25.0*	*25.0*	
Queue Storage	*500*	*0*		*500*	*0*	*0*	*500*	*0*	*500*	*500*	*0*	
Average Queue Storage Ratio	*0.4*			*0.3*			*0.5*		*0.2*	*0.1*		
95% Queue Storage Ratio	*0.8*			*0.5*			*0.9*		*0.3*	*0.1*		

HCS+™ Version 5.5 Generated: 2/14/2013 6:16 PM

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*Overpass Rd at Boyette Rd*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*4/27/2011*	Jurisdiction	*FDOT*
Time Period	*PM*	Analysis Year	*Build 2030*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	*1*	*3*		*1*	*3*	*1*	*2*	*1*	*1*	*1*	*1*	
Lane Group	*L*	*T*		*L*	*T*	*R*	*L*	*T*	*R*	*L*	*T*	
Volume (vph)	*250*	*2455*		*100*	*2235*	*40*	*350*	*100*	*150*	*60*	*70*	
% Heavy Vehicles	*2*	*2*		*2*	*2*	*2*	*2*	*2*	*2*	*2*	*2*	
PHF	*0.95*	*0.95*		*0.95*	*0.95*	*0.95*	*0.95*	*0.95*	*0.95*	*0.95*	*0.95*	
Pretimed/Actuated (P/A)	*A*	*A*		*A*	*A*	*A*	*A*	*A*	*A*	*A*	*A*	
Startup Lost Time	*2.0*	*2.0*		*2.0*	*2.0*	*2.0*	*2.0*	*2.0*	*2.0*	*2.0*	*2.0*	
Extension of Effective Green	*3.0*	*3.0*		*3.0*	*3.0*	*2.0*	*3.0*	*3.0*	*3.0*	*3.0*	*3.0*	
Arrival Type	*3*	*3*		*4*	*4*	*3*	*3*	*3*	*3*	*3*	*3*	
Unit Extension	*3.0*	*3.0*		*3.0*	*3.0*	*3.0*	*3.0*	*3.0*	*3.0*	*3.0*	*3.0*	
Ped/Bike/RTOR Volume	*0*	*0*		*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
Lane Width	*12.0*	*12.0*		*12.0*	*12.0*	*12.0*	*12.0*	*12.0*	*12.0*	*12.0*	*12.0*	
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour	*0*	*0*		*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08
Timing	G = *14.7*	G = *59.2*	G =	G =	G = *10.8*	G = *5.3*	G =	G =
	Y = *5*	Y = *5*	Y =	Y =	Y = *5*	Y = *5*	Y =	Y =
Duration of Analysis (hrs) = *0.25*						Cycle Length C = *110.0*		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	*263*	*2584*		*105*	*2353*	*42*	*368*	*105*	*158*	*63*	*74*	
Lane Group Capacity	*253*	*2777*		*253*	*2777*	*852*	*369*	*107*	*374*	*190*	*107*	
v/c Ratio	*1.04*	*0.93*		*0.42*	*0.85*	*0.05*	*1.00*	*0.98*	*0.42*	*0.33*	*0.69*	
Green Ratio	*0.14*	*0.55*		*0.14*	*0.55*	*0.54*	*0.11*	*0.06*	*0.24*	*0.11*	*0.06*	
Uniform Delay d_1	*47.2*	*23.0*		*43.0*	*21.0*	*12.0*	*49.1*	*51.8*	*35.6*	*45.4*	*50.9*	
Delay Factor k	*0.50*	*0.45*		*0.11*	*0.38*	*0.11*	*0.50*	*0.49*	*0.11*	*0.11*	*0.26*	
Incremental Delay d_2	*67.3*	*6.4*		*1.1*	*2.6*	*0.0*	*46.1*	*80.8*	*0.8*	*1.0*	*17.4*	
PF Factor	*1.000*	*1.000*		*1.000*	*0.687*	*1.000*	*1.000*	*1.000*	*1.000*	*1.000*	*1.000*	
Control Delay	*114.4*	*29.4*		*44.1*	*17.1*	*12.1*	*95.2*	*132.6*	*36.4*	*46.5*	*68.3*	
Lane Group LOS	*F*	*C*		*D*	*B*	*B*	*F*	*F*	*D*	*D*	*E*	
Approach Delay	*37.2*			*18.1*			*86.7*			*58.3*		
Approach LOS	*D*			*B*			*F*			*E*		
Intersection Delay	*35.0*			Intersection LOS						*C*		

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group	*L*	*T*		*L*	*T*	*R*	*L*	*T*	*R*	*L*	*T*	
Initial Queue/Lane	*0.0*	*0.0*		*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	
Flow Rate/Lane Group	*263*	*2584*		*105*	*2353*	*42*	*368*	*105*	*158*	*63*	*74*	
Satflow/Lane	*1770*	*1862*		*1770*	*1862*	*1583*	*1770*	*1863*	*1583*	*1770*	*1863*	
Capacity/Lane Group	*253*	*2777*		*253*	*2777*	*852*	*369*	*107*	*374*	*190*	*107*	
Flow Ratio	*0.1*	*0.5*		*0.1*	*0.5*	*0.0*	*0.1*	*0.1*	*0.1*	*0.0*	0.0	
v/c Ratio	*1.04*	*0.93*		*0.42*	*0.85*	*0.05*	*1.00*	*0.98*	*0.42*	*0.33*	*0.69*	
I Factor	*1.000*	*1.000*		*1.000*	*1.000*	*1.000*	*1.000*	*1.000*	*1.000*	*1.000*	*1.000*	
Arrival Type	*3*	*3*		*4*	*4*	*3*	*3*	*3*	*3*	*3*	*3*	
Platoon Ratio	*1.00*	*1.00*		*1.33*	*1.33*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	
PF Factor	*1.00*	*1.00*		*0.96*	*0.84*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	
Q_1	*8.0*	*26.7*		*2.8*	*18.7*	*0.6*	*5.8*	*3.2*	*4.1*	*1.8*	*2.2*	
k_B	*0.3*	*0.8*		*0.3*	*0.8*	*0.7*	*0.3*	*0.2*	*0.4*	*0.3*	*0.2*	
Q_2	*4.0*	*6.2*		*0.2*	*3.7*	*0.0*	*2.5*	*1.5*	*0.3*	*0.1*	*0.4*	
Q Average	*12.1*	*32.9*		*3.1*	*22.3*	*0.6*	*8.3*	*4.7*	*4.4*	*1.9*	*2.6*	

Percentile Back of Queue (95th percentile)

$f_{B\%}$	*1.8*	*1.6*		*2.0*	*1.7*	*2.1*	*1.9*	*2.0*	*2.0*	*2.0*	*2.0*	
Back of Queue	*21.8*	*52.5*		*6.1*	*37.4*	*1.3*	*15.6*	*9.3*	*8.7*	*3.9*	*5.3*	

Queue Storage Ratio

Queue Spacing	*25.0*	*25.0*		*25.0*	*25.0*	*25.0*	*25.0*	*25.0*	*25.0*	*25.0*	*25.0*	
Queue Storage	*500*	*0*		*500*	*0*	*0*	*500*	*0*	*500*	*500*	*0*	
Average Queue Storage Ratio	*0.6*			*0.2*			*0.4*		*0.2*	*0.1*		
95% Queue Storage Ratio	*1.1*			*0.3*			*0.8*		*0.4*	*0.2*		

HCS+™ Version 5.5 Generated: 2/14/2013 6:25 PM

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*Overpass Rd at Old Pasco Rd*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*4/27/2011*	Jurisdiction	*FDOT*
Time Period	*AM*	Analysis Year	*Build 2030*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes				*2*				*1*		*1*	*2*	
Lane Group				*L*				*T*		*L*	*T*	
Volume (vph)				*650*				*205*		*620*	*230*	
% Heavy Vehicles				*2*				*2*		*2*	*2*	
PHF				*0.95*				*0.95*		*0.95*	*0.95*	
Pretimed/Actuated (P/A)				*A*				*A*		*A*	*A*	
Startup Lost Time				*2.0*				*2.0*		*2.0*	*2.0*	
Extension of Effective Green				*3.0*				*3.0*		*3.0*	*3.0*	
Arrival Type				*4*				*3*		*3*	*3*	
Unit Extension				*3.0*				*3.0*		*3.0*	*3.0*	
Ped/Bike/RTOR Volume	*0*	*0*		*0*	*0*		*0*	*0*		*0*	*0*	
Lane Width				*12.0*				*12.0*		*12.0*	*12.0*	
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour				*0*				*0*		*0*	*0*	
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	WB Only	02	03	04	SB Only	Thru Only	07	08
Timing	G = *18.8*	G =	G =	G =	G = *35.2*	G = *11.0*	G =	G =
	Y = *5*	Y =	Y =	Y =	Y = *5*	Y = *5*	Y =	Y =

Duration of Analysis (hrs) = *0.25* | Cycle Length C = *80.0*

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate				*684*				*216*		*653*	*242*	
Lane Group Capacity				*876*				*279*		*801*	*2314*	
v/c Ratio				*0.78*				*0.77*		*0.82*	*0.10*	
Green Ratio				*0.25*				*0.15*		*0.45*	*0.65*	
Uniform Delay d_1				*28.1*				*32.7*		*19.0*	*5.2*	
Delay Factor k				*0.33*				*0.32*		*0.36*	*0.11*	
Incremental Delay d_2				*4.6*				*12.7*		*6.5*	*0.0*	
PF Factor				*1.000*				*1.000*		*1.000*	*1.000*	
Control Delay				*32.7*				*45.4*		*25.5*	*5.2*	
Lane Group LOS				*C*				*D*		*C*	*A*	
Approach Delay				*32.7*			*45.4*			*20.0*		
Approach LOS				*C*			*D*			*C*		
Intersection Delay	*27.9*			Intersection LOS						*C*		

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group				*L*				*T*		*L*	*T*	
Initial Queue/Lane				*0.0*				*0.0*		*0.0*	*0.0*	
Flow Rate/Lane Group				*684*				*216*		*653*	*242*	
Satflow/Lane				*1770*				*1863*		*1770*	*1862*	
Capacity/Lane Group				*876*				*279*		*801*	*2314*	
Flow Ratio				*0.2*				*0.1*		*0.4*	0.1	
v/c Ratio				*0.78*				*0.77*		*0.82*	*0.10*	
I Factor				*1.000*				*1.000*		*1.000*	*1.000*	
Arrival Type				*4*				*3*		*3*	*3*	
Platoon Ratio				*1.33*				*1.00*		*1.00*	*1.00*	
PF Factor				*0.97*				*1.00*		*1.00*	*1.00*	
Q_1				*6.9*				*4.6*		*12.6*	*1.1*	
k_B				*0.4*				*0.3*		*0.6*	*0.7*	
Q_2				*1.3*				*0.9*		*2.2*	*0.1*	
Q Average				*8.1*				*5.5*		*14.8*	*1.1*	
Percentile Back of Queue (95th percentile)												
$f_{B\%}$				*1.9*				*1.9*		*1.8*	*2.1*	
Back of Queue				*15.3*				*10.7*		*26.1*	*2.3*	
Queue Storage Ratio												
Queue Spacing				*25.0*				*25.0*		*25.0*	*25.0*	
Queue Storage				*0*				*0*		*500*	*0*	
Average Queue Storage Ratio										*0.7*		
95% Queue Storage Ratio										*1.3*		

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*Overpass Rd at Old Pasco Rd*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*4/27/2011*	Jurisdiction	*FDOT*
Time Period	*PM*	Analysis Year	*Build 2030*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes				*2*				*1*		*1*	*2*	
Lane Group				*L*				*T*		*L*	*T*	
Volume (vph)				*460*				*230*		*550*	*205*	
% Heavy Vehicles				*2*				*2*		*2*	*2*	
PHF				*0.95*				*0.95*		*0.95*	*0.95*	
Pretimed/Actuated (P/A)				*A*				*A*		*A*	*A*	
Startup Lost Time				*2.0*				*2.0*		*2.0*	*2.0*	
Extension of Effective Green				*3.0*				*3.0*		*3.0*	*3.0*	
Arrival Type				*4*				*3*		*3*	*3*	
Unit Extension				*3.0*				*3.0*		*3.0*	*3.0*	
Ped/Bike/RTOR Volume	*0*	*0*		*0*	*0*		*0*	*0*		*0*	*0*	
Lane Width				*12.0*				*12.0*		*12.0*	*12.0*	
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour				*0*				*0*		*0*	*0*	
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	WB Only	02	03	04	SB Only	Thru Only	07	08
Timing	G = *17.5*	G =	G =	G =	G = *36.1*	G = *11.4*	G =	G =
	Y = *5*	Y =	Y =	Y =	Y = *5*	Y = *5*	Y =	Y =

Duration of Analysis (hrs) = *0.25* | Cycle Length C = *80.0*

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate				*484*				*242*		*579*	*216*	
Lane Group Capacity				*818*				*289*		*821*	*2372*	
v/c Ratio				*0.59*				*0.84*		*0.71*	*0.09*	
Green Ratio				*0.23*				*0.16*		*0.46*	*0.67*	
Uniform Delay d_1				*27.4*				*32.8*		*17.1*	*4.7*	
Delay Factor k				*0.18*				*0.37*		*0.27*	*0.11*	
Incremental Delay d_2				*1.2*				*19.0*		*2.8*	*0.0*	
PF Factor				*1.000*				*1.000*		*1.000*	*1.000*	
Control Delay				*28.5*				*51.8*		*19.9*	*4.7*	
Lane Group LOS				*C*				*D*		*B*	*A*	
Approach Delay				*28.5*			*51.8*			*15.7*		
Approach LOS				*C*			*D*			*B*		
Intersection Delay	*25.6*			Intersection LOS						*C*		

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group				*L*				*T*		*L*	*T*	
Initial Queue/Lane				*0.0*				*0.0*		*0.0*	*0.0*	
Flow Rate/Lane Group				*484*				*242*		*579*	*216*	
Satflow/Lane				*1770*				*1863*		*1770*	*1862*	
Capacity/Lane Group				*818*				*289*		*821*	*2372*	
Flow Ratio				*0.1*				*0.1*		*0.3*	0.1	
v/c Ratio				*0.59*				*0.84*		*0.71*	*0.09*	
I Factor				*1.000*				*1.000*		*1.000*	*1.000*	
Arrival Type				*4*				*3*		*3*	*3*	
Platoon Ratio				*1.33*				*1.00*		*1.00*	*1.00*	
PF Factor				*0.95*				*1.00*		*1.00*	*1.00*	
Q_1				*4.5*				*5.2*		*10.3*	*0.9*	
k_B				*0.4*				*0.3*		*0.6*	*0.7*	
Q_2				*0.5*				*1.3*		*1.3*	*0.1*	
Q Average				*5.1*				*6.5*		*11.6*	*1.0*	
Percentile Back of Queue (95th percentile)												
$f_{B\%}$				*2.0*				*1.9*		*1.8*	*2.1*	
Back of Queue				*9.9*				*12.5*		*21.0*	*2.0*	
Queue Storage Ratio												
Queue Spacing				*25.0*				*25.0*		*25.0*	*25.0*	
Queue Storage				*0*				*0*		*500*	*0*	
Average Queue Storage Ratio										*0.6*		
95% Queue Storage Ratio										*1.0*		

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 NB Ramps at Overpass*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/20/2010*	Jurisdiction	*FDOT*
Time Period	*AM*	Analysis Year	*Build 2030-Diamond*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	*1*	*2*			*5*	*1*	*2*					
Lane Group	*L*	*T*			*T*	*R*	*L*					
Volume (vph)	*130*	*1010*			*2530*	*545*	*515*					
% Heavy Vehicles	*2*	*2*			*2*	*2*	*2*					
PHF	*0.95*	*0.95*			*0.95*	*0.95*	*0.95*					
Pretimed/Actuated (P/A)	*A*	*A*			*A*	*A*	*A*					
Startup Lost Time	*2.0*	*2.0*			*2.0*	*2.0*	*2.0*					
Extension of Effective Green	*3.0*	*3.0*			*3.0*	*2.0*	*3.0*					
Arrival Type	*3*	*3*			*3*	*3*	*4*					
Unit Extension	*3.0*	*3.0*			*3.0*	*3.0*	*3.0*					
Ped/Bike/RTOR Volume	*0*	*0*		*0*	*0*	*0*	*0*	*0*		*0*	*0*	
Lane Width	*12.0*	*12.0*			*12.0*	*12.0*	*12.0*					
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour	*0*	*0*			*0*	*0*	*0*					
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	EB Only	Thru & RT	03	04	NB Only	06	07	08
Timing	G = *5.0*	G = *27.4*	G =	G =	G = *12.6*	G =	G =	G =
	Y = *5*	Y = *5*	Y =	Y =	Y = *5*	Y =	Y =	Y =
Duration of Analysis (hrs) = *0.25*						Cycle Length C = *60.0*		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	*137*	*1063*			*2663*	*574*	*542*					
Lane Group Capacity	*177*	*2270*			*4003*	*723*	*779*					
v/c Ratio	*0.77*	*0.47*			*0.67*	*0.79*	*0.70*					
Green Ratio	*0.10*	*0.64*			*0.47*	*0.46*	*0.23*					
Uniform Delay d_1	*26.3*	*5.6*			*12.1*	*13.9*	*21.3*					
Delay Factor k	*0.32*	*0.11*			*0.24*	*0.34*	*0.26*					
Incremental Delay d_2	*19.0*	*0.2*			*0.4*	*6.1*	*2.7*					
PF Factor	*1.000*	*1.000*			*1.000*	*1.000*	*1.000*					
Control Delay	*45.3*	*5.7*			*12.6*	*20.0*	*24.0*					
Lane Group LOS	*D*	*A*			*B*	*B*	*C*					
Approach Delay	*10.2*			*13.9*			*24.0*					
Approach LOS	*B*			*B*			*C*					
Intersection Delay	*14.1*			Intersection LOS			*B*					

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group	*L*	*T*			*T*	*R*	*L*					
Initial Queue/Lane	*0.0*	*0.0*			*0.0*	*0.0*	*0.0*					
Flow Rate/Lane Group	*137*	*1063*			*2663*	*574*	*542*					
Satflow/Lane	*1770*	*1862*			*1862*	*1583*	*1770*					
Capacity/Lane Group	*177*	*2270*			*4003*	*723*	*779*					
Flow Ratio	*0.1*	*0.3*			*0.3*	*0.4*	*0.2*					
v/c Ratio	*0.77*	*0.47*			*0.67*	*0.79*	*0.70*					
I Factor	*1.000*	*1.000*			*1.000*	*1.000*	*1.000*					
Arrival Type	*3*	*3*			*3*	*3*	*4*					
Platoon Ratio	*1.00*	*1.00*			*1.00*	*1.00*	*1.33*					
PF Factor	*1.00*	*1.00*			*1.00*	*1.00*	*0.96*					
Q_1	*2.2*	*4.8*			*7.5*	*8.2*	*4.1*					
k_B	*0.2*	*0.6*			*0.5*	*0.4*	*0.3*					
Q_2	*0.6*	*0.5*			*1.0*	*1.6*	*0.7*					
Q Average	*2.8*	*5.3*			*8.5*	*9.7*	*4.8*					
Percentile Back of Queue (95th percentile)												
$f_{B\%}$	*2.0*	*1.9*			*1.9*	*1.8*	*2.0*					
Back of Queue	*5.7*	*10.3*			*15.9*	*18.0*	*9.4*					
Queue Storage Ratio												
Queue Spacing	*25.0*	*25.0*			*25.0*	*25.0*	*25.0*					
Queue Storage	*1000*	*0*			*0*	*0*	*1100*					
Average Queue Storage Ratio	*0.1*						*0.1*					
95% Queue Storage Ratio	*0.1*						*0.2*					

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 NB Ramps at Overpass*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/20/2010*	Jurisdiction	*FDOT*
Time Period	*PM*	Analysis Year	*Build 2030-Diamond*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	*1*	*2*			*5*	*1*	*2*					
Lane Group	*L*	*T*			*T*	*R*	*L*					
Volume (vph)	*205*	*1025*			*2155*	*620*	*560*					
% Heavy Vehicles	*2*	*2*			*2*	*2*	*2*					
PHF	*0.95*	*0.95*			*0.95*	*0.95*	*0.95*					
Pretimed/Actuated (P/A)	*A*	*A*			*A*	*A*	*A*					
Startup Lost Time	*2.0*	*2.0*			*2.0*	*2.0*	*2.0*					
Extension of Effective Green	*3.0*	*3.0*			*3.0*	*2.0*	*3.0*					
Arrival Type	*3*	*3*			*3*	*3*	*4*					
Unit Extension	*3.0*	*3.0*			*3.0*	*3.0*	*3.0*					
Ped/Bike/RTOR Volume	*0*	*0*		*0*	*0*	*0*	*0*	*0*		*0*	*0*	
Lane Width	*12.0*	*12.0*			*12.0*	*12.0*	*12.0*					
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour	*0*	*0*			*0*	*0*	*0*					
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	EB Only	Thru & RT	03	04	NB Only	06	07	08
Timing	G = *10.0*	G = *31.2*	G =	G =	G = *13.8*	G =	G =	G =
	Y = *5*	Y = *5*	Y =	Y =	Y = *5*	Y =	Y =	Y =
Duration of Analysis (hrs) = *0.25*						Cycle Length C = *70.0*		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	*216*	*1079*			*2268*	*653*	*589*					
Lane Group Capacity	*278*	*2392*			*3890*	*706*	*727*					
v/c Ratio	*0.78*	*0.45*			*0.58*	*0.92*	*0.81*					
Green Ratio	*0.16*	*0.67*			*0.46*	*0.45*	*0.21*					
Uniform Delay d_1	*28.3*	*5.3*			*13.9*	*18.3*	*26.3*					
Delay Factor k	*0.33*	*0.11*			*0.17*	*0.44*	*0.35*					
Incremental Delay d_2	*13.0*	*0.1*			*0.2*	*18.1*	*6.9*					
PF Factor	*1.000*	*1.000*			*1.000*	*1.000*	*1.000*					
Control Delay	*41.3*	*5.5*			*14.2*	*36.4*	*33.1*					
Lane Group LOS	*D*	*A*			*B*	*D*	*C*					
Approach Delay	*11.5*			*19.1*			*33.1*					
Approach LOS	*B*			*B*			*C*					
Intersection Delay	*18.8*			Intersection LOS			*B*					

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group	*L*	*T*			*T*	*R*	*L*					
Initial Queue/Lane	*0.0*	*0.0*			*0.0*	*0.0*	*0.0*					
Flow Rate/Lane Group	*216*	*1079*			*2268*	*653*	*589*					
Satflow/Lane	*1770*	*1862*			*1862*	*1583*	*1770*					
Capacity/Lane Group	*278*	*2392*			*3890*	*706*	*727*					
Flow Ratio	*0.1*	*0.3*			*0.3*	*0.4*	*0.2*					
v/c Ratio	*0.78*	*0.45*			*0.58*	*0.92*	*0.81*					
I Factor	*1.000*	*1.000*			*1.000*	*1.000*	*1.000*					
Arrival Type	*3*	*3*			*3*	*3*	*4*					
Platoon Ratio	*1.00*	*1.00*			*1.00*	*1.00*	*1.33*					
PF Factor	*1.00*	*1.00*			*1.00*	*1.00*	*0.98*					
Q_1	*4.0*	*5.1*			*7.2*	*12.0*	*5.5*					
k_B	*0.3*	*0.7*			*0.5*	*0.5*	*0.3*					
Q_2	*0.9*	*0.6*			*0.7*	*3.8*	*1.2*					
Q Average	*4.9*	*5.7*			*7.9*	*15.8*	*6.7*					
Percentile Back of Queue (95th percentile)												
$f_{B\%}$	*2.0*	*1.9*			*1.9*	*1.8*	*1.9*					
Back of Queue	*9.6*	*11.0*			*14.9*	*27.6*	*12.8*					
Queue Storage Ratio												
Queue Spacing	*25.0*	*25.0*			*25.0*	*25.0*	*25.0*					
Queue Storage	*1000*	*0*			*0*	*0*	*1100*					
Average Queue Storage Ratio	*0.1*						*0.2*					
95% Queue Storage Ratio	*0.2*						*0.3*					

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 SB Ramps at Overpass*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/20/2010*	Jurisdiction	*FDOT*
Time Period	*AM*	Analysis Year	*Build 2030-Diamond*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes		*3*	*1*	*3*	*2*					*2*		*1*
Lane Group		*T*	*R*	*L*	*T*					*L*		*R*
Volume (vph)		*520*	*560*	*2050*	*995*					*620*		*205*
% Heavy Vehicles		*2*	*2*	*2*	*2*					*2*		*2*
PHF		*0.95*	*0.95*	*0.95*	*0.95*					*0.95*		*0.95*
Pretimed/Actuated (P/A)		*A*	*A*	*A*	*A*					*A*		*A*
Startup Lost Time		*2.0*	*2.0*	*2.0*	*2.0*					*2.0*		*2.0*
Extension of Effective Green		*3.0*	*3.0*	*3.0*	*3.0*					*3.0*		*3.0*
Arrival Type		*3*	*3*	*3*	*3*					*3*		*3*
Unit Extension		*3.0*	*3.0*	*3.0*	*3.0*					*3.0*		*3.0*
Ped/Bike/RTOR Volume	*0*	*0*	*0*	*0*	*0*		*0*	*0*		*0*	*0*	*0*
Lane Width		*12.0*	*12.0*	*12.0*	*12.0*					*12.0*		*12.0*
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour		*0*	*0*	*0*	*0*					*0*		*0*
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	WB Only	Thru & RT	03	04	SB Only	06	07	08
Timing	G = *33.2*	G = *8.2*	G =	G =	G = *13.6*	G =	G =	G =
	Y = *5*	Y = *5*	Y =	Y =	Y = *5*	Y =	Y =	Y =

Duration of Analysis (hrs) = *0.25* | Cycle Length C = *70.0*

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate		*547*	*589*	*2158*	*1047*					*653*		*216*
Lane Group Capacity		*667*	*629*	*2355*	*2402*					*717*		*330*
v/c Ratio		*0.82*	*0.94*	*0.92*	*0.44*					*0.91*		*0.65*
Green Ratio		*0.13*	*0.40*	*0.49*	*0.68*					*0.21*		*0.21*
Uniform Delay d_1		*29.6*	*20.3*	*16.6*	*5.2*					*27.1*		*25.4*
Delay Factor k		*0.36*	*0.45*	*0.43*	*0.11*					*0.43*		*0.23*
Incremental Delay d_2		*8.0*	*21.6*	*6.2*	*0.1*					*15.8*		*4.6*
PF Factor		*1.000*	*1.000*	*1.000*	*1.000*					*1.000*		*1.000*
Control Delay		*37.6*	*41.9*	*22.8*	*5.3*					*42.9*		*30.0*
Lane Group LOS		*D*	*D*	*C*	*A*					*D*		*C*
Approach Delay	*39.8*			*17.1*						*39.7*		
Approach LOS	*D*			*B*						*D*		
Intersection Delay	*25.8*			Intersection LOS						*C*		

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group		*T*	*R*	*L*	*T*					*L*		*R*
Initial Queue/Lane		*0.0*	*0.0*	*0.0*	*0.0*					*0.0*		*0.0*
Flow Rate/Lane Group		*547*	*589*	*2158*	*1047*					*653*		*216*
Satflow/Lane		*1862*	*1583*	*1769*	*1862*					*1770*		*1583*
Capacity/Lane Group		*667*	*629*	*2355*	*2402*					*717*		*330*
Flow Ratio		*0.1*	*0.4*	*0.4*	*0.3*					*0.2*		*0.1*
v/c Ratio		*0.82*	*0.94*	*0.92*	*0.44*					*0.91*		*0.65*
I Factor		*1.000*	*1.000*	*1.000*	*1.000*					*1.000*		*1.000*
Arrival Type		*3*	*3*	*3*	*3*					*3*		*3*
Platoon Ratio		*1.00*	*1.00*	*1.00*	*1.00*					*1.00*		*1.00*
PF Factor		*1.00*	*1.00*	*1.00*	*1.00*					*1.00*		*1.00*
Q_1		*3.8*	*11.0*	*14.3*	*4.9*					*6.4*		*3.8*
k_B		*0.3*	*0.4*	*0.5*	*0.7*					*0.3*		*0.3*
Q_2		*1.0*	*3.8*	*4.1*	*0.5*					*2.2*		*0.6*
Q Average		*4.8*	*14.8*	*18.4*	*5.4*					*8.6*		*4.4*
Percentile Back of Queue (95th percentile)												
$f_{B\%}$		*2.0*	*1.8*	*1.7*	*1.9*					*1.9*		*2.0*
Back of Queue		*9.3*	*26.0*	*31.5*	*10.5*					*16.0*		*8.7*
Queue Storage Ratio												
Queue Spacing		*25.0*	*25.0*	*25.0*	*25.0*					*25.0*		*25.0*
Queue Storage		*0*	*1000*	*500*	*0*					*1100*		*1100*
Average Queue Storage Ratio			*0.4*	*0.9*						*0.2*		*0.1*
95% Queue Storage Ratio			*0.7*	*1.6*						*0.4*		*0.2*

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 SB Ramps at Overpass*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/20/2010*	Jurisdiction	*FDOT*
Time Period	*PM*	Analysis Year	*Build 2030-Diamond*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes		*3*	*1*	*3*	*2*					*2*		*1*
Lane Group		*T*	*R*	*L*	*T*					*L*		*R*
Volume (vph)		*685*	*515*	*1765*	*950*					*545*		*130*
% Heavy Vehicles		*2*	*2*	*2*	*2*					*2*		*2*
PHF		*0.95*	*0.95*	*0.95*	*0.95*					*0.95*		*0.95*
Pretimed/Actuated (P/A)		*A*	*A*	*A*	*A*					*A*		*A*
Startup Lost Time		*2.0*	*2.0*	*2.0*	*2.0*					*2.0*		*2.0*
Extension of Effective Green		*3.0*	*3.0*	*3.0*	*3.0*					*3.0*		*3.0*
Arrival Type		*3*	*3*	*3*	*3*					*3*		*3*
Unit Extension		*3.0*	*3.0*	*3.0*	*3.0*					*3.0*		*3.0*
Ped/Bike/RTOR Volume	*0*	*0*	*0*	*0*	*0*		*0*	*0*		*0*	*0*	*0*
Lane Width		*12.0*	*12.0*	*12.0*	*12.0*					*12.0*		*12.0*
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour		*0*	*0*	*0*	*0*					*0*		*0*
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	WB Only	Thru & RT	03	04	SB Only	06	07	08
Timing	G = *24.1*	G = *9.5*	G =	G =	G = *11.4*	G =	G =	G =
	Y = *5*	Y = *5*	Y =	Y =	Y = *5*	Y =	Y =	Y =
Duration of Analysis (hrs) = *0.25*						Cycle Length C = *60.0*		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate		*721*	*542*	*1858*	*1000*					*574*		*137*
Lane Group Capacity		*888*	*710*	*2016*	*2341*					*710*		*327*
v/c Ratio		*0.81*	*0.76*	*0.92*	*0.43*					*0.81*		*0.42*
Green Ratio		*0.17*	*0.45*	*0.42*	*0.66*					*0.21*		*0.21*
Uniform Delay d_1		*23.8*	*13.9*	*16.5*	*4.8*					*22.7*		*20.7*
Delay Factor k		*0.35*	*0.32*	*0.44*	*0.11*					*0.35*		*0.11*
Incremental Delay d_2		*5.8*	*4.9*	*7.6*	*0.1*					*6.9*		*0.9*
PF Factor		*1.000*	*1.000*	*1.000*	*1.000*					*1.000*		*1.000*
Control Delay		*29.6*	*18.8*	*24.1*	*5.0*					*29.6*		*21.5*
Lane Group LOS		*C*	*B*	*C*	*A*					*C*		*C*
Approach Delay	*25.0*			*17.4*						*28.1*		
Approach LOS	*C*			*B*						*C*		
Intersection Delay	*20.9*			Intersection LOS						*C*		

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group		*T*	*R*	*L*	*T*					*L*		*R*
Initial Queue/Lane		*0.0*	*0.0*	*0.0*	*0.0*					*0.0*		*0.0*
Flow Rate/Lane Group		*721*	*542*	*1858*	*1000*					*574*		*137*
Satflow/Lane		*1862*	*1583*	*1769*	*1862*					*1770*		*1583*
Capacity/Lane Group		*888*	*710*	*2016*	*2341*					*710*		*327*
Flow Ratio		*0.1*	*0.3*	*0.4*	*0.3*					*0.2*		*0.1*
v/c Ratio		*0.81*	*0.76*	*0.92*	*0.43*					*0.81*		*0.42*
I Factor		*1.000*	*1.000*	*1.000*	*1.000*					*1.000*		*1.000*
Arrival Type		*3*	*3*	*3*	*3*					*3*		*3*
Platoon Ratio		*1.00*	*1.00*	*1.00*	*1.00*					*1.00*		*1.00*
PF Factor		*1.00*	*1.00*	*1.00*	*1.00*					*1.00*		*1.00*
Q_1		*4.2*	*7.6*	*10.8*	*4.1*					*4.7*		*2.0*
k_B		*0.3*	*0.4*	*0.5*	*0.6*					*0.3*		*0.3*
Q_2		*1.0*	*1.3*	*3.6*	*0.5*					*1.1*		*0.2*
Q Average		*5.3*	*8.9*	*14.3*	*4.6*					*5.8*		*2.2*
Percentile Back of Queue (95th percentile)												
$f_{B\%}$		*1.9*	*1.9*	*1.8*	*2.0*					*1.9*		*2.0*
Back of Queue		*10.3*	*16.6*	*25.4*	*9.0*					*11.2*		*4.4*
Queue Storage Ratio												
Queue Spacing		*25.0*	*25.0*	*25.0*	*25.0*					*25.0*		*25.0*
Queue Storage		*0*	*1000*	*500*	*0*					*1100*		*1100*
Average Queue Storage Ratio			*0.2*	*0.7*						*0.1*		*0.0*
95% Queue Storage Ratio			*0.4*	*1.3*						*0.3*		*0.1*

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 at Overpass*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/20/2010*	Jurisdiction	*FDOT*
Time Period	*AM*	Analysis Year	*Build 2030-SPUI*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	*1*	*2*		*3*	*2*		*2*			*2*		
Lane Group	*L*	*T*		*L*	*T*		*L*			*L*		
Volume (vph)	*130*	*390*		*2050*	*480*		*515*			*620*		
% Heavy Vehicles	*2*	*2*		*2*	*2*		*2*			*2*		
PHF	*0.95*	*0.95*		*0.95*	*0.95*		*0.95*			*0.95*		
Pretimed/Actuated (P/A)	*A*	*A*		*A*	*A*		*A*			*A*		
Startup Lost Time	*2.0*	*2.0*		*2.0*	*2.0*		*2.0*			*2.0*		
Extension of Effective Green	*3.0*	*3.0*		*2.0*	*3.0*		*3.0*			*2.0*		
Arrival Type	*3*	*3*		*3*	*3*		*3*			*3*		
Unit Extension	*3.0*	*3.0*		*3.0*	*3.0*		*3.0*			*3.0*		
Ped/Bike/RTOR Volume	*0*	*0*		*0*	*0*		*0*	*0*		*0*	*0*	
Lane Width	*12.0*	*12.0*		*12.0*	*12.0*		*12.0*			*12.0*		
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour	*0*	*0*		*0*	*0*		*0*			*0*		
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	EB Only	WB Only	03	04	Excl. Left	06	07	08
Timing	G = *17.0*	G = *61.8*	G =	G =	G = *26.2*	G =	G =	G =
	Y = *5*	Y = *5*	Y =	Y =	Y = *5*	Y =	Y =	Y =

Duration of Analysis (hrs) = *0.25* | Cycle Length C = *120.0*

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	*137*	*411*		*2158*	*505*		*542*			*653*		
Lane Group Capacity	*266*	*532*		*2482*	*1856*		*779*			*750*		
v/c Ratio	*0.52*	*0.77*		*0.87*	*0.27*		*0.70*			*0.87*		
Green Ratio	*0.15*	*0.15*		*0.52*	*0.52*		*0.23*			*0.22*		
Uniform Delay d_1	*47.0*	*49.0*		*25.6*	*15.9*		*42.6*			*45.3*		
Delay Factor k	*0.12*	*0.32*		*0.40*	*0.11*		*0.26*			*0.40*		
Incremental Delay d_2	*1.7*	*6.9*		*3.6*	*0.1*		*2.7*			*10.9*		
PF Factor	*1.000*	*1.000*		*1.000*	*1.000*		*1.000*			*1.000*		
Control Delay	*48.7*	*56.0*		*29.2*	*16.0*		*45.3*			*56.1*		
Lane Group LOS	*D*	*E*		*C*	*B*		*D*			*E*		
Approach Delay	*54.2*			*26.7*			*45.3*			*56.1*		
Approach LOS	*D*			*C*			*D*			*E*		
Intersection Delay	*36.8*			Intersection LOS			*D*					

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group	*L*	*T*		*L*	*T*		*L*			*L*		
Initial Queue/Lane	*0.0*	*0.0*		*0.0*	*0.0*		*0.0*			*0.0*		
Flow Rate/Lane Group	*137*	*411*		*2158*	*505*		*542*			*653*		
Satflow/Lane	*1770*	*1862*		*1769*	*1862*		*1770*			*1770*		
Capacity/Lane Group	*266*	*532*		*2482*	*1856*		*779*			*750*		
Flow Ratio	*0.1*	*0.1*		*0.4*	*0.1*		*0.2*			*0.2*		
v/c Ratio	*0.52*	*0.77*		*0.87*	*0.27*		*0.70*			*0.87*		
I Factor	*1.000*	*1.000*		*1.000*	*1.000*		*1.000*			*1.000*		
Arrival Type	*3*	*3*		*3*	*3*		*3*			*3*		
Platoon Ratio	*1.00*	*1.00*		*1.00*	*1.00*		*1.00*			*1.00*		
PF Factor	*1.00*	*1.00*		*1.00*	*1.00*		*1.00*			*1.00*		
Q_1	*4.2*	*6.9*		*23.2*	*4.9*		*8.5*			*10.8*		
k_B	*0.4*	*0.4*		*0.8*	*0.8*		*0.5*			*0.5*		
Q_2	*0.4*	*1.1*		*4.1*	*0.3*		*1.0*			*2.3*		
Q Average	*4.6*	*8.0*		*27.2*	*5.2*		*9.6*			*13.1*		
Percentile Back of Queue (95th percentile)												
$f_{B\%}$	*2.0*	*1.9*		*1.6*	*1.9*		*1.9*			*1.8*		
Back of Queue	*9.0*	*15.1*		*44.5*	*10.2*		*17.7*			*23.4*		
Queue Storage Ratio												
Queue Spacing	*25.0*	*25.0*		*25.0*	*25.0*		*25.0*			*25.0*		
Queue Storage	*1000*	*0*		*0*	*0*		*1100*			*0*		
Average Queue Storage Ratio	*0.1*						*0.2*					
95% Queue Storage Ratio	*0.2*						*0.4*					

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 at Overpass*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/20/2010*	Jurisdiction	*FDOT*
Time Period	*PM*	Analysis Year	*Build 2030-SPUI*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	*1*	*2*		*3*	*2*		*2*			*2*		
Lane Group	*L*	*T*		*L*	*T*		*L*			*L*		
Volume (vph)	*205*	*480*		*1765*	*390*		*560*			*545*		
% Heavy Vehicles	*2*	*2*		*2*	*2*		*2*			*2*		
PHF	*0.95*	*0.95*		*0.95*	*0.95*		*0.95*			*0.95*		
Pretimed/Actuated (P/A)	*A*	*A*		*A*	*A*		*A*			*A*		
Startup Lost Time	*2.0*	*2.0*		*2.0*	*2.0*		*2.0*			*2.0*		
Extension of Effective Green	*3.0*	*3.0*		*2.0*	*3.0*		*3.0*			*2.0*		
Arrival Type	*3*	*3*		*3*	*3*		*3*			*3*		
Unit Extension	*3.0*	*3.0*		*3.0*	*3.0*		*3.0*			*3.0*		
Ped/Bike/RTOR Volume	*0*	*0*		*0*	*0*		*0*	*0*		*0*	*0*	
Lane Width	*12.0*	*12.0*		*12.0*	*12.0*		*12.0*			*12.0*		
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour	*0*	*0*		*0*	*0*		*0*			*0*		
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	EB Only	WB Only	03	04	Excl. Left	06	07	08
Timing	G = *13.2*	G = *35.3*	G =	G =	G = *16.5*	G =	G =	G =
	Y = *5*	Y = *5*	Y =	Y =	Y = *5*	Y =	Y =	Y =
Duration of Analysis (hrs) = *0.25*						Cycle Length C = *80.0*		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	*216*	*505*		*1858*	*411*		*589*			*574*		
Lane Group Capacity	*314*	*630*		*2127*	*1609*		*752*			*709*		
v/c Ratio	*0.69*	*0.80*		*0.87*	*0.26*		*0.78*			*0.81*		
Green Ratio	*0.18*	*0.18*		*0.44*	*0.45*		*0.22*			*0.21*		
Uniform Delay d_1	*30.8*	*31.5*		*20.3*	*13.5*		*29.5*			*30.3*		
Delay Factor k	*0.26*	*0.35*		*0.40*	*0.11*		*0.33*			*0.35*		
Incremental Delay d_2	*6.2*	*7.4*		*4.4*	*0.1*		*5.4*			*7.0*		
PF Factor	*1.000*	*1.000*		*1.000*	*1.000*		*1.000*			*1.000*		
Control Delay	*37.0*	*38.9*		*24.7*	*13.6*		*34.9*			*37.3*		
Lane Group LOS	*D*	*D*		*C*	*B*		*C*			*D*		
Approach Delay	*38.3*			*22.7*			*34.9*			*37.3*		
Approach LOS	*D*			*C*			*C*			*D*		
Intersection Delay	*29.1*			Intersection LOS						*C*		

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group	*L*	*T*		*L*	*T*		*L*			*L*		
Initial Queue/Lane	*0.0*	*0.0*		*0.0*	*0.0*		*0.0*			*0.0*		
Flow Rate/Lane Group	*216*	*505*		*1858*	*411*		*589*			*574*		
Satflow/Lane	*1770*	*1862*		*1769*	*1862*		*1770*			*1770*		
Capacity/Lane Group	*314*	*630*		*2127*	*1609*		*752*			*709*		
Flow Ratio	*0.1*	*0.1*		*0.4*	*0.1*		*0.2*			*0.2*		
v/c Ratio	*0.69*	*0.80*		*0.87*	*0.26*		*0.78*			*0.81*		
I Factor	*1.000*	*1.000*		*1.000*	*1.000*		*1.000*			*1.000*		
Arrival Type	*3*	*3*		*3*	*3*		*3*			*3*		
Platoon Ratio	*1.00*	*1.00*		*1.00*	*1.00*		*1.00*			*1.00*		
PF Factor	*1.00*	*1.00*		*1.00*	*1.00*		*1.00*			*1.00*		
Q_1	*4.5*	*5.6*		*13.8*	*3.0*		*6.3*			*6.2*		
k_B	*0.3*	*0.3*		*0.6*	*0.6*		*0.4*			*0.4*		
Q_2	*0.7*	*1.2*		*3.1*	*0.2*		*1.2*			*1.3*		
Q Average	*5.2*	*6.8*		*16.9*	*3.1*		*7.5*			*7.5*		
Percentile Back of Queue (95th percentile)												
$f_{B\%}$	*2.0*	*1.9*		*1.7*	*2.0*		*1.9*			*1.9*		
Back of Queue	*10.1*	*13.0*		*29.3*	*6.3*		*14.3*			*14.3*		
Queue Storage Ratio												
Queue Spacing	*25.0*	*25.0*		*25.0*	*25.0*		*25.0*			*25.0*		
Queue Storage	*1000*	*0*		*0*	*0*		*1100*			*0*		
Average Queue Storage Ratio	*0.1*						*0.2*					
95% Queue Storage Ratio	*0.3*						*0.3*					

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 NB Ramps at Overpass*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/20/2010*	Jurisdiction	*FDOT*
Time Period	*AM*	Analysis Year	*Build 2030-DDI*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes		*2*			*5*							
Lane Group		*T*			*T*							
Volume (vph)		*1010*			*2530*							
% Heavy Vehicles		*2*			*2*							
PHF		*0.95*			*0.95*							
Pretimed/Actuated (P/A)		*A*			*A*							
Startup Lost Time		*2.0*			*2.0*							
Extension of Effective Green		*3.0*			*3.0*							
Arrival Type		*3*			*3*							
Unit Extension		*3.0*			*3.0*							
Ped/Bike/RTOR Volume	*0*	*0*		*0*	*0*		*0*	*0*		*0*	*0*	
Lane Width		*12.0*			*12.0*							
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour		*0*			*0*							
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	EB Only	WB Only	03	04	05	06	07	08
Timing	G = *25.0*	G = *25.0*	G =	G =	G =	G =	G =	G =
	Y = *5*	Y = *5*	Y =	Y =	Y =	Y =	Y =	Y =

Duration of Analysis (hrs) = *0.25* | Cycle Length C = *60.0*

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate		*1063*			*2663*							
Lane Group Capacity		*1537*			*3665*							
v/c Ratio		*0.69*			*0.73*							
Green Ratio		*0.43*			*0.43*							
Uniform Delay d_1		*13.8*			*14.1*							
Delay Factor k		*0.26*			*0.29*							
Incremental Delay d_2		*1.3*			*0.7*							
PF Factor		*1.000*			*1.000*							
Control Delay		*15.1*			*14.8*							
Lane Group LOS		*B*			*B*							
Approach Delay	*15.1*			*14.8*								
Approach LOS	*B*			*B*								
Intersection Delay	*14.9*			Intersection LOS						*B*		

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group		*T*			*T*							
Initial Queue/Lane		*0.0*			*0.0*							
Flow Rate/Lane Group		*1063*			*2663*							
Satflow/Lane		*1862*			*1862*							
Capacity/Lane Group		*1537*			*3665*							
Flow Ratio		*0.3*			*0.3*							
v/c Ratio		*0.69*			*0.73*							
I Factor		*1.000*			*1.000*							
Arrival Type		*3*			*3*							
Platoon Ratio		*1.00*			*1.00*							
PF Factor		*1.00*			*1.00*							
Q_1		*7.5*			*8.1*							
k_B		*0.5*			*0.5*							
Q_2		*1.0*			*1.2*							
Q Average		*8.6*			*9.3*							
Percentile Back of Queue (95th percentile)												
$f_{B\%}$		*1.9*			*1.9*							
Back of Queue		*16.0*			*17.3*							
Queue Storage Ratio												
Queue Spacing		*25.0*			*25.0*							
Queue Storage		*0*			*0*							
Average Queue Storage Ratio												
95% Queue Storage Ratio												

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 NB Ramps at Overpass*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/20/2010*	Jurisdiction	*FDOT*
Time Period	*PM*	Analysis Year	*Build 2030-DDI*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes		*2*			*5*							
Lane Group		*T*			*T*							
Volume (vph)		*1025*			*2155*							
% Heavy Vehicles		*2*			*2*							
PHF		*0.95*			*0.95*							
Pretimed/Actuated (P/A)		*A*			*A*							
Startup Lost Time		*2.0*			*2.0*							
Extension of Effective Green		*3.0*			*3.0*							
Arrival Type		*3*			*3*							
Unit Extension		*3.0*			*3.0*							
Ped/Bike/RTOR Volume	*0*	*0*		*0*	*0*		*0*	*0*		*0*	*0*	
Lane Width		*12.0*			*12.0*							
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour		*0*			*0*							
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	EB Only	WB Only	03	04	05	06	07	08
Timing	G = *25.0*	G = *25.0*	G =	G =	G =	G =	G =	G =
	Y = *5*	Y = *5*	Y =	Y =	Y =	Y =	Y =	Y =

Duration of Analysis (hrs) = *0.25* | Cycle Length C = *60.0*

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate		*1079*			*2268*							
Lane Group Capacity		*1537*			*3665*							
v/c Ratio		*0.70*			*0.62*							
Green Ratio		*0.43*			*0.43*							
Uniform Delay d_1		*13.8*			*13.2*							
Delay Factor k		*0.27*			*0.20*							
Incremental Delay d_2		*1.5*			*0.3*							
PF Factor		*1.000*			*1.000*							
Control Delay		*15.3*			*13.5*							
Lane Group LOS		*B*			*B*							
Approach Delay	*15.3*			*13.5*								
Approach LOS	*B*			*B*								
Intersection Delay	*14.1*			Intersection LOS						*B*		

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group		*T*			*T*							
Initial Queue/Lane		*0.0*			*0.0*							
Flow Rate/Lane Group		*1079*			*2268*							
Satflow/Lane		*1862*			*1862*							
Capacity/Lane Group		*1537*			*3665*							
Flow Ratio		*0.3*			*0.3*							
v/c Ratio		*0.70*			*0.62*							
I Factor		*1.000*			*1.000*							
Arrival Type		*3*			*3*							
Platoon Ratio		*1.00*			*1.00*							
PF Factor		*1.00*			*1.00*							
Q_1		*7.7*			*6.4*							
k_B		*0.5*			*0.5*							
Q_2		*1.1*			*0.8*							
Q Average		*8.8*			*7.2*							
Percentile Back of Queue (95th percentile)												
$f_{B\%}$		*1.9*			*1.9*							
Back of Queue		*16.4*			*13.7*							
Queue Storage Ratio												
Queue Spacing		*25.0*			*25.0*							
Queue Storage		*0*			*0*							
Average Queue Storage Ratio												
95% Queue Storage Ratio												

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 SB Ramps at Overpass*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/20/2010*	Jurisdiction	*FDOT*
Time Period	*AM*	Analysis Year	*Build 2030-DDI*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes		*3*			*2*							
Lane Group		*T*			*T*							
Volume (vph)		*520*			*995*							
% Heavy Vehicles		*2*			*2*							
PHF		*0.95*			*0.95*							
Pretimed/Actuated (P/A)		*A*			*A*							
Startup Lost Time		*2.0*			*2.0*							
Extension of Effective Green		*3.0*			*3.0*							
Arrival Type		*3*			*3*							
Unit Extension		*3.0*			*3.0*							
Ped/Bike/RTOR Volume	*0*	*0*		*0*	*0*		*0*	*0*		*0*	*0*	
Lane Width		*12.0*			*12.0*							
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour		*0*			*0*							
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	EB Only	WB Only	03	04	05	06	07	08
Timing	G = *15.6*	G = *34.4*	G =	G =	G =	G =	G =	G =
	Y = *5*	Y = *5*	Y =	Y =	Y =	Y =	Y =	Y =

Duration of Analysis (hrs) = *0.25* | Cycle Length C = *60.0*

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate		*547*			*1047*							
Lane Group Capacity		*1404*			*2093*							
v/c Ratio		*0.39*			*0.50*							
Green Ratio		*0.28*			*0.59*							
Uniform Delay d_1		*17.6*			*7.2*							
Delay Factor k		*0.11*			*0.11*							
Incremental Delay d_2		*0.2*			*0.2*							
PF Factor		*1.000*			*1.000*							
Control Delay		*17.8*			*7.3*							
Lane Group LOS		*B*			*A*							
Approach Delay	*17.8*			*7.3*								
Approach LOS	*B*			*A*								
Intersection Delay	*10.9*			Intersection LOS						*B*		

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group		*T*			*T*							
Initial Queue/Lane		*0.0*			*0.0*							
Flow Rate/Lane Group		*547*			*1047*							
Satflow/Lane		*1862*			*1862*							
Capacity/Lane Group		*1404*			*2093*							
Flow Ratio		*0.1*			*0.3*							
v/c Ratio		*0.39*			*0.50*							
I Factor		*1.000*			*1.000*							
Arrival Type		*3*			*3*							
Platoon Ratio		*1.00*			*1.00*							
PF Factor		*1.00*			*1.00*							
Q_1		*2.7*			*5.3*							
k_B		*0.4*			*0.6*							
Q_2		*0.2*			*0.6*							
Q Average		*2.9*			*5.9*							
Percentile Back of Queue (95th percentile)												
$f_{B\%}$		*2.0*			*1.9*							
Back of Queue		*5.9*			*11.4*							
Queue Storage Ratio												
Queue Spacing		*25.0*			*25.0*							
Queue Storage		*0*			*0*							
Average Queue Storage Ratio												
95% Queue Storage Ratio												

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 SB Ramps at Overpass*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/20/2010*	Jurisdiction	*FDOT*
Time Period	*PM*	Analysis Year	*Build 2030-DDI*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes		*3*			*2*							
Lane Group		*T*			*T*							
Volume (vph)		*685*			*950*							
% Heavy Vehicles		*2*			*2*							
PHF		*0.95*			*0.95*							
Pretimed/Actuated (P/A)		*A*			*A*							
Startup Lost Time		*2.0*			*2.0*							
Extension of Effective Green		*3.0*			*3.0*							
Arrival Type		*3*			*3*							
Unit Extension		*3.0*			*3.0*							
Ped/Bike/RTOR Volume	*0*	*0*		*0*	*0*		*0*	*0*		*0*	*0*	
Lane Width		*12.0*			*12.0*							
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour		*0*			*0*							
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	EB Only	WB Only	03	04	05	06	07	08
Timing	G = *16.6*	G = *33.4*	G =	G =	G =	G =	G =	G =
	Y = *5*	Y = *5*	Y =	Y =	Y =	Y =	Y =	Y =

Duration of Analysis (hrs) = *0.25* | Cycle Length C = *60.0*

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate		*721*			*1000*							
Lane Group Capacity		*1488*			*2034*							
v/c Ratio		*0.48*			*0.49*							
Green Ratio		*0.29*			*0.57*							
Uniform Delay d_1		*17.5*			*7.6*							
Delay Factor k		*0.11*			*0.11*							
Incremental Delay d_2		*0.2*			*0.2*							
PF Factor		*1.000*			*1.000*							
Control Delay		*17.7*			*7.8*							
Lane Group LOS		*B*			*A*							
Approach Delay	*17.7*			*7.8*								
Approach LOS	*B*			*A*								
Intersection Delay	*11.9*			Intersection LOS						*B*		

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group		*T*			*T*							
Initial Queue/Lane		*0.0*			*0.0*							
Flow Rate/Lane Group		*721*			*1000*							
Satflow/Lane		*1862*			*1862*							
Capacity/Lane Group		*1488*			*2034*							
Flow Ratio		*0.1*			*0.3*							
v/c Ratio		*0.48*			*0.49*							
I Factor		*1.000*			*1.000*							
Arrival Type		*3*			*3*							
Platoon Ratio		*1.00*			*1.00*							
PF Factor		*1.00*			*1.00*							
Q_1		*3.6*			*5.2*							
k_B		*0.4*			*0.6*							
Q_2		*0.3*			*0.5*							
Q Average		*4.0*			*5.7*							
Percentile Back of Queue (95th percentile)												
$f_{B\%}$		*2.0*			*1.9*							
Back of Queue		*7.9*			*11.1*							
Queue Storage Ratio												
Queue Spacing		*25.0*			*25.0*							
Queue Storage		*0*			*0*							
Average Queue Storage Ratio												
95% Queue Storage Ratio												

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 NB Ramps at Overpass*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/20/2010*	Jurisdiction	*FDOT*
Time Period	*AM*	Analysis Year	*Build 2030-Flyover*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	*1*	*2*			*2*	*1*	*1*					
Lane Group	*L*	*T*			*T*	*R*	*L*					
Volume (vph)	*130*	*1010*			*420*	*545*	*515*					
% Heavy Vehicles	*2*	*2*			*2*	*2*	*2*					
PHF	*0.95*	*0.95*			*0.95*	*0.95*	*0.95*					
Pretimed/Actuated (P/A)	*A*	*A*			*A*	*A*	*A*					
Startup Lost Time	*2.0*	*2.0*			*2.0*	*2.0*	*2.0*					
Extension of Effective Green	*3.0*	*3.0*			*3.0*	*2.0*	*3.0*					
Arrival Type	*3*	*3*			*3*	*3*	*4*					
Unit Extension	*3.0*	*3.0*			*3.0*	*3.0*	*3.0*					
Ped/Bike/RTOR Volume	*0*	*0*		*0*	*0*	*0*	*0*	*0*		*0*	*0*	
Lane Width	*12.0*	*12.0*			*12.0*	*12.0*	*12.0*					
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour	*0*	*0*			*0*	*0*	*0*					
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	EB Only	Thru & RT	03	04	NB Only	06	07	08
Timing	G = *6.4*	G = *27.4*	G =	G =	G = *21.2*	G =	G =	G =
	Y = *5*	Y = *5*	Y =	Y =	Y = *5*	Y =	Y =	Y =
Duration of Analysis (hrs) = *0.25*						Cycle Length C = *70.0*		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	*137*	*1063*			*442*	*574*	*542*					
Lane Group Capacity	*187*	*2017*			*1439*	*620*	*561*					
v/c Ratio	*0.73*	*0.53*			*0.31*	*0.93*	*0.97*					
Green Ratio	*0.11*	*0.57*			*0.41*	*0.39*	*0.32*					
Uniform Delay d_1	*30.3*	*9.3*			*14.1*	*20.3*	*23.5*					
Delay Factor k	*0.29*	*0.13*			*0.11*	*0.44*	*0.47*					
Incremental Delay d_2	*13.8*	*0.3*			*0.1*	*20.0*	*29.5*					
PF Factor	*1.000*	*1.000*			*1.000*	*1.000*	*0.972*					
Control Delay	*44.1*	*9.6*			*14.2*	*40.4*	*52.4*					
Lane Group LOS	*D*	*A*			*B*	*D*	*D*					
Approach Delay	*13.5*			*29.0*			*52.4*					
Approach LOS	*B*			*C*			*D*					
Intersection Delay	*26.9*			Intersection LOS						*C*		

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group	*L*	*T*			*T*	*R*	*L*					
Initial Queue/Lane	*0.0*	*0.0*			*0.0*	*0.0*	*0.0*					
Flow Rate/Lane Group	*137*	*1063*			*442*	*574*	*542*					
Satflow/Lane	*1770*	*1862*			*1862*	*1583*	*1770*					
Capacity/Lane Group	*187*	*2017*			*1439*	*620*	*561*					
Flow Ratio	*0.1*	*0.3*			*0.1*	*0.4*	*0.3*					
v/c Ratio	*0.73*	*0.53*			*0.31*	*0.93*	*0.97*					
I Factor	*1.000*	*1.000*			*1.000*	*1.000*	*1.000*					
Arrival Type	*3*	*3*			*3*	*3*	*4*					
Platoon Ratio	*1.00*	*1.00*			*1.00*	*1.00*	*1.33*					
PF Factor	*1.00*	*1.00*			*1.00*	*1.00*	*0.99*					
Q_1	*2.6*	*6.7*			*3.1*	*10.7*	*10.3*					
k_B	*0.2*	*0.6*			*0.5*	*0.4*	*0.4*					
Q_2	*0.5*	*0.7*			*0.2*	*3.5*	*4.3*					
Q Average	*3.1*	*7.4*			*3.3*	*14.1*	*14.6*					
Percentile Back of Queue (95th percentile)												
$f_{B\%}$	*2.0*	*1.9*			*2.0*	*1.8*	*1.8*					
Back of Queue	*6.3*	*14.0*			*6.6*	*25.0*	*25.7*					
Queue Storage Ratio												
Queue Spacing	*25.0*	*25.0*			*25.0*	*25.0*	*25.0*					
Queue Storage	*1000*	*0*			*0*	*0*	*1100*					
Average Queue Storage Ratio	*0.1*						*0.3*					
95% Queue Storage Ratio	*0.2*						*0.6*					

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 NB Ramps at Overpass*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/20/2010*	Jurisdiction	*FDOT*
Time Period	*PM*	Analysis Year	*Build 2030-Flyover*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	*1*	*2*			*2*	*1*	*1*					
Lane Group	*L*	*T*			*T*	*R*	*L*					
Volume (vph)	*205*	*1025*			*390*	*620*	*560*					
% Heavy Vehicles	*2*	*2*			*2*	*2*	*2*					
PHF	*0.95*	*0.95*			*0.95*	*0.95*	*0.95*					
Pretimed/Actuated (P/A)	*A*	*A*			*A*	*A*	*A*					
Startup Lost Time	*2.0*	*2.0*			*2.0*	*2.0*	*2.0*					
Extension of Effective Green	*3.0*	*3.0*			*3.0*	*2.0*	*3.0*					
Arrival Type	*3*	*3*			*3*	*3*	*4*					
Unit Extension	*3.0*	*3.0*			*3.0*	*3.0*	*3.0*					
Ped/Bike/RTOR Volume	*0*	*0*		*0*	*0*	*0*	*0*	*0*		*0*	*0*	
Lane Width	*12.0*	*12.0*			*12.0*	*12.0*	*12.0*					
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour	*0*	*0*			*0*	*0*	*0*					
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	EB Only	Thru & RT	03	04	NB Only	06	07	08
Timing	G = *11.0*	G = *40.8*	G =	G =	G = *33.2*	G =	G =	G =
	Y = *5*	Y = *5*	Y =	Y =	Y = *5*	Y =	Y =	Y =
Duration of Analysis (hrs) = *0.25*						Cycle Length C = *100.0*		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	*216*	*1079*			*411*	*653*	*589*					
Lane Group Capacity	*212*	*2050*			*1483*	*646*	*605*					
v/c Ratio	*1.02*	*0.53*			*0.28*	*1.01*	*0.97*					
Green Ratio	*0.12*	*0.58*			*0.42*	*0.41*	*0.34*					
Uniform Delay d_1	*44.0*	*12.8*			*19.2*	*29.6*	*32.5*					
Delay Factor k	*0.50*	*0.13*			*0.11*	*0.50*	*0.48*					
Incremental Delay d_2	*66.8*	*0.3*			*0.1*	*38.1*	*29.9*					
PF Factor	*1.000*	*1.000*			*1.000*	*1.000*	*0.951*					
Control Delay	*110.8*	*13.1*			*19.3*	*67.7*	*60.8*					
Lane Group LOS	*F*	*B*			*B*	*E*	*E*					
Approach Delay	*29.4*			*49.0*			*60.8*					
Approach LOS	*C*			*D*			*E*					
Intersection Delay	*42.7*			Intersection LOS			*D*					

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group	*L*	*T*			*T*	*R*	*L*					
Initial Queue/Lane	*0.0*	*0.0*			*0.0*	*0.0*	*0.0*					
Flow Rate/Lane Group	*216*	*1079*			*411*	*653*	*589*					
Satflow/Lane	*1770*	*1862*			*1862*	*1583*	*1770*					
Capacity/Lane Group	*212*	*2050*			*1483*	*646*	*605*					
Flow Ratio	*0.1*	*0.3*			*0.1*	*0.4*	*0.3*					
v/c Ratio	*1.02*	*0.53*			*0.28*	*1.01*	*0.97*					
I Factor	*1.000*	*1.000*			*1.000*	*1.000*	*1.000*					
Arrival Type	*3*	*3*			*3*	*3*	*4*					
Platoon Ratio	*1.00*	*1.00*			*1.00*	*1.00*	*1.33*					
PF Factor	*1.00*	*1.00*			*1.00*	*1.00*	*0.99*					
Q_1	*6.0*	*9.5*			*3.9*	*18.1*	*16.0*					
k_B	*0.3*	*0.8*			*0.6*	*0.6*	*0.5*					
Q_2	*3.1*	*0.8*			*0.2*	*7.2*	*5.4*					
Q Average	*9.1*	*10.4*			*4.2*	*25.4*	*21.4*					
Percentile Back of Queue (95th percentile)												
$f_{B\%}$	*1.9*	*1.8*			*2.0*	*1.6*	*1.7*					
Back of Queue	*16.9*	*19.1*			*8.2*	*41.8*	*36.0*					
Queue Storage Ratio												
Queue Spacing	*25.0*	*25.0*			*25.0*	*25.0*	*25.0*					
Queue Storage	*1000*	*0*			*0*	*0*	*1100*					
Average Queue Storage Ratio	*0.2*						*0.5*					
95% Queue Storage Ratio	*0.4*						*0.8*					

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 SB Ramps at Overpass*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/20/2010*	Jurisdiction	*FDOT*
Time Period	*AM*	Analysis Year	*Build 2030-Flyover*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes		*3*	*1*		*2*					*2*		*1*
Lane Group		*T*	*R*		*T*					*L*		*R*
Volume (vph)		*520*	*560*		*995*					*620*		*205*
% Heavy Vehicles		*2*	*2*		*2*					*2*		*2*
PHF		*0.95*	*0.95*		*0.95*					*0.95*		*0.95*
Pretimed/Actuated (P/A)		*A*	*A*		*A*					*A*		*A*
Startup Lost Time		*2.0*	*2.0*		*2.0*					*2.0*		*2.0*
Extension of Effective Green		*3.0*	*3.0*		*3.0*					*3.0*		*3.0*
Arrival Type		*3*	*3*		*3*					*3*		*3*
Unit Extension		*3.0*	*3.0*		*3.0*					*3.0*		*3.0*
Ped/Bike/RTOR Volume	*0*	*0*	*0*	*0*	*0*		*0*	*0*		*0*	*0*	*0*
Lane Width		*12.0*	*12.0*		*12.0*					*12.0*		*12.0*
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour		*0*	*0*		*0*					*0*		*0*
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	Thru & RT	02	03	04	SB Only	06	07	08
Timing	G = *33.6*	G =	G =	G =	G = *16.4*	G =	G =	G =
	Y = *5*	Y =	Y =	Y =	Y = *5*	Y =	Y =	Y =
Duration of Analysis (hrs) = *0.25*						Cycle Length C = *60.0*		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate		*547*	*589*		*1047*					*653*		*216*
Lane Group Capacity		*2926*	*1583*		*2045*					*997*		*459*
v/c Ratio		*0.19*	*0.37*		*0.51*					*0.65*		*0.47*
Green Ratio		*0.58*	*1.00*		*0.58*					*0.29*		*0.29*
Uniform Delay d_1		*6.0*	*0.0*		*7.6*					*18.7*		*17.5*
Delay Factor k		*0.11*	*0.11*		*0.12*					*0.23*		*0.11*
Incremental Delay d_2		*0.0*	*0.1*		*0.2*					*1.6*		*0.8*
PF Factor		*1.000*	*0.950*		*1.000*					*1.000*		*1.000*
Control Delay		*6.1*	*0.1*		*7.8*					*20.2*		*18.3*
Lane Group LOS		*A*	*A*		*A*					*C*		*B*
Approach Delay		*3.0*			*7.8*					*19.7*		
Approach LOS		*A*			*A*					*B*		
Intersection Delay		*9.4*			Intersection LOS					*A*		

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group		*T*	*R*		*T*					*L*		*R*
Initial Queue/Lane		*0.0*	*0.0*		*0.0*					*0.0*		*0.0*
Flow Rate/Lane Group		*547*	*589*		*1047*					*653*		*216*
Satflow/Lane		*1862*	*1583*		*1862*					*1770*		*1583*
Capacity/Lane Group		*2926*	*1583*		*2045*					*997*		*459*
Flow Ratio		*0.1*	*0.4*		*0.3*					*0.2*		*0.1*
v/c Ratio		*0.19*	*0.37*		*0.51*					*0.65*		*0.47*
I Factor		*1.000*	*1.000*		*1.000*					*1.000*		*1.000*
Arrival Type		*3*	*3*		*3*					*3*		*3*
Platoon Ratio		*1.00*	*1.00*		*1.00*					*1.00*		*1.00*
PF Factor		*1.00*	*1.00*		*1.00*					*1.00*		*1.00*
Q_1		*1.6*	*0.0*		*5.5*					*4.9*		*3.0*
k_B		*0.6*	*0.7*		*0.6*					*0.4*		*0.3*
Q_2		*0.1*	*0.4*		*0.6*					*0.7*		*0.3*
Q Average		*1.7*	*0.4*		*6.1*					*5.6*		*3.3*
Percentile Back of Queue (95th percentile)												
$f_{B\%}$		*2.0*	*2.1*		*1.9*					*1.9*		*2.0*
Back of Queue		*3.5*	*0.9*		*11.7*					*10.8*		*6.5*
Queue Storage Ratio												
Queue Spacing		*25.0*	*25.0*		*25.0*					*25.0*		*25.0*
Queue Storage		*0*	*1000*		*0*					*1100*		*1100*
Average Queue Storage Ratio			*0.0*							*0.1*		*0.1*
95% Queue Storage Ratio			*0.0*							*0.2*		*0.1*

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 SB Ramps at Overpass*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/20/2010*	Jurisdiction	*FDOT*
Time Period	*PM*	Analysis Year	*Build 2030-Flyover*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes		*3*	*1*		*2*					*2*		*1*
Lane Group		*T*	*R*		*T*					*L*		*R*
Volume (vph)		*685*	*515*		*950*					*545*		*130*
% Heavy Vehicles		*2*	*2*		*2*					*2*		*2*
PHF		*0.95*	*0.95*		*0.95*					*0.95*		*0.95*
Pretimed/Actuated (P/A)		*A*	*A*		*A*					*A*		*A*
Startup Lost Time		*2.0*	*2.0*		*2.0*					*2.0*		*2.0*
Extension of Effective Green		*3.0*	*3.0*		*3.0*					*3.0*		*3.0*
Arrival Type		*3*	*3*		*3*					*3*		*3*
Unit Extension		*3.0*	*3.0*		*3.0*					*3.0*		*3.0*
Ped/Bike/RTOR Volume	*0*	*0*	*0*	*0*	*0*		*0*	*0*		*0*	*0*	*0*
Lane Width		*12.0*	*12.0*		*12.0*					*12.0*		*12.0*
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour		*0*	*0*		*0*					*0*		*0*
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	Thru & RT	02	03	04	SB Only	06	07	08
Timing	G = *34.4*	G =	G =	G =	G = *15.6*	G =	G =	G =
	Y = *5*	Y =	Y =	Y =	Y = *5*	Y =	Y =	Y =
Duration of Analysis (hrs) = *0.25*						Cycle Length C = *60.0*		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate		*721*	*542*		*1000*					*574*		*137*
Lane Group Capacity		*2994*	*1583*		*2093*					*951*		*438*
v/c Ratio		*0.24*	*0.34*		*0.48*					*0.60*		*0.31*
Green Ratio		*0.59*	*1.00*		*0.59*					*0.28*		*0.28*
Uniform Delay d_1		*5.9*	*0.0*		*7.0*					*18.8*		*17.2*
Delay Factor k		*0.11*	*0.11*		*0.11*					*0.19*		*0.11*
Incremental Delay d_2		*0.0*	*0.1*		*0.2*					*1.1*		*0.4*
PF Factor		*1.000*	*0.950*		*1.000*					*1.000*		*1.000*
Control Delay		*5.9*	*0.1*		*7.2*					*19.9*		*17.6*
Lane Group LOS		*A*	*A*		*A*					*B*		*B*
Approach Delay		*3.4*			*7.2*					*19.5*		
Approach LOS		*A*			*A*					*B*		
Intersection Delay		*8.5*			Intersection LOS					*A*		

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group		*T*	*R*		*T*					*L*		*R*
Initial Queue/Lane		*0.0*	*0.0*		*0.0*					*0.0*		*0.0*
Flow Rate/Lane Group		*721*	*542*		*1000*					*574*		*137*
Satflow/Lane		*1862*	*1583*		*1862*					*1770*		*1583*
Capacity/Lane Group		*2994*	*1583*		*2093*					*951*		*438*
Flow Ratio		*0.1*	*0.3*		*0.3*					*0.2*		*0.1*
v/c Ratio		*0.24*	*0.34*		*0.48*					*0.60*		*0.31*
I Factor		*1.000*	*1.000*		*1.000*					*1.000*		*1.000*
Arrival Type		*3*	*3*		*3*					*3*		*3*
Platoon Ratio		*1.00*	*1.00*		*1.00*					*1.00*		*1.00*
PF Factor		*1.00*	*1.00*		*1.00*					*1.00*		*1.00*
Q_1		*2.1*	*0.0*		*5.0*					*4.3*		*1.8*
k_B		*0.6*	*0.7*		*0.6*					*0.4*		*0.3*
Q_2		*0.2*	*0.4*		*0.5*					*0.5*		*0.1*
Q Average		*2.3*	*0.4*		*5.5*					*4.8*		*2.0*
Percentile Back of Queue (95th percentile)												
$f_{B\%}$		*2.0*	*2.1*		*1.9*					*2.0*		*2.0*
Back of Queue		*4.6*	*0.8*		*10.7*					*9.4*		*4.0*
Queue Storage Ratio												
Queue Spacing		*25.0*	*25.0*		*25.0*					*25.0*		*25.0*
Queue Storage		*0*	*1000*		*0*					*1100*		*1100*
Average Queue Storage Ratio			*0.0*							*0.1*		*0.0*
95% Queue Storage Ratio			*0.0*							*0.2*		*0.1*

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 NB Ramps at Overpass*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/20/2010*	Jurisdiction	*FDOT*
Time Period	*AM*	Analysis Year	*Build 2030-Loop*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	*1*	*2*			*3*	*1*	*2*					
Lane Group	*L*	*T*			*T*	*R*	*L*					
Volume (vph)	*130*	*1010*			*2530*	*545*	*515*					
% Heavy Vehicles	*2*	*2*			*2*	*2*	*2*					
PHF	*0.95*	*0.95*			*0.95*	*0.95*	*0.95*					
Pretimed/Actuated (P/A)	*A*	*A*			*A*	*A*	*A*					
Startup Lost Time	*2.0*	*2.0*			*2.0*	*2.0*	*2.0*					
Extension of Effective Green	*3.0*	*3.0*			*3.0*	*2.0*	*3.0*					
Arrival Type	*3*	*3*			*3*	*3*	*4*					
Unit Extension	*3.0*	*3.0*			*3.0*	*3.0*	*3.0*					
Ped/Bike/RTOR Volume	*0*	*0*		*0*	*0*	*0*	*0*	*0*		*0*	*0*	
Lane Width	*12.0*	*12.0*			*12.0*	*12.0*	*12.0*					
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour	*0*	*0*			*0*	*0*	*0*					
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	EB Only	Thru & RT	03	04	NB Only	06	07	08
Timing	G = *6.6*	G = *55.2*	G =	G =	G = *23.2*	G =	G =	G =
	Y = *5*	Y = *5*	Y =	Y =	Y = *5*	Y =	Y =	Y =

Duration of Analysis (hrs) = *0.25* | Cycle Length C = *100.0*

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	*137*	*1063*			*2663*	*574*	*542*					
Lane Group Capacity	*135*	*2405*			*2852*	*874*	*832*					
v/c Ratio	*1.01*	*0.44*			*0.93*	*0.66*	*0.65*					
Green Ratio	*0.08*	*0.68*			*0.56*	*0.55*	*0.24*					
Uniform Delay d_1	*46.2*	*7.4*			*20.2*	*15.7*	*34.1*					
Delay Factor k	*0.50*	*0.11*			*0.45*	*0.23*	*0.23*					
Incremental Delay d_2	*81.4*	*0.1*			*6.5*	*1.8*	*1.8*					
PF Factor	*1.000*	*1.000*			*1.000*	*1.000*	*1.000*					
Control Delay	*127.6*	*7.5*			*26.7*	*17.6*	*35.9*					
Lane Group LOS	*F*	*A*			*C*	*B*	*D*					
Approach Delay	*21.2*			*25.1*			*35.9*					
Approach LOS	*C*			*C*			*D*					
Intersection Delay	*25.3*			Intersection LOS			*C*					

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BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group	*L*	*T*			*T*	*R*	*L*					
Initial Queue/Lane	*0.0*	*0.0*			*0.0*	*0.0*	*0.0*					
Flow Rate/Lane Group	*137*	*1063*			*2663*	*574*	*542*					
Satflow/Lane	*1770*	*1862*			*1862*	*1583*	*1770*					
Capacity/Lane Group	*135*	*2405*			*2852*	*874*	*832*					
Flow Ratio	*0.1*	*0.3*			*0.5*	*0.4*	*0.2*					
v/c Ratio	*1.01*	*0.44*			*0.93*	*0.66*	*0.65*					
I Factor	*1.000*	*1.000*			*1.000*	*1.000*	*1.000*					
Arrival Type	*3*	*3*			*3*	*3*	*4*					
Platoon Ratio	*1.00*	*1.00*			*1.00*	*1.00*	*1.33*					
PF Factor	*1.00*	*1.00*			*1.00*	*1.00*	*0.95*					
Q_1	*3.8*	*7.1*			*25.0*	*11.2*	*6.6*					
k_B	*0.2*	*0.8*			*0.8*	*0.7*	*0.4*					
Q_2	*2.1*	*0.7*			*6.2*	*1.3*	*0.8*					
Q Average	*5.9*	*7.8*			*31.2*	*12.5*	*7.4*					
Percentile Back of Queue (95th percentile)												
$f_{B\%}$	*1.9*	*1.9*			*1.6*	*1.8*	*1.9*					
Back of Queue	*11.4*	*14.7*			*50.2*	*22.4*	*14.1*					
Queue Storage Ratio												
Queue Spacing	*25.0*	*25.0*			*25.0*	*25.0*	*25.0*					
Queue Storage	*1000*	*0*			*0*	*0*	*1100*					
Average Queue Storage Ratio	*0.1*						*0.2*					
95% Queue Storage Ratio	*0.3*						*0.3*					

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SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 NB Ramps at Overpass*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/20/2010*	Jurisdiction	*FDOT*
Time Period	*PM*	Analysis Year	*Build 2030-Loop*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	*1*	*2*			*3*	*1*	*2*					
Lane Group	*L*	*T*			*T*	*R*	*L*					
Volume (vph)	*205*	*1025*			*2155*	*620*	*560*					
% Heavy Vehicles	*2*	*2*			*2*	*2*	*2*					
PHF	*0.95*	*0.95*			*0.95*	*0.95*	*0.95*					
Pretimed/Actuated (P/A)	*A*	*A*			*A*	*A*	*A*					
Startup Lost Time	*2.0*	*2.0*			*2.0*	*2.0*	*2.0*					
Extension of Effective Green	*3.0*	*3.0*			*3.0*	*2.0*	*3.0*					
Arrival Type	*3*	*3*			*3*	*3*	*4*					
Unit Extension	*3.0*	*3.0*			*3.0*	*3.0*	*3.0*					
Ped/Bike/RTOR Volume	*0*	*0*		*0*	*0*	*0*	*0*	*0*		*0*	*0*	
Lane Width	*12.0*	*12.0*			*12.0*	*12.0*	*12.0*					
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour	*0*	*0*			*0*	*0*	*0*					
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	EB Only	Thru & RT	03	04	NB Only	06	07	08
Timing	G = *9.6*	G = *48.3*	G =	G =	G = *17.1*	G =	G =	G =
	Y = *5*	Y = *5*	Y =	Y =	Y = *5*	Y =	Y =	Y =
Duration of Analysis (hrs) = *0.25*						Cycle Length C = *90.0*		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	*216*	*1079*			*2268*	*653*	*589*					
Lane Group Capacity	*208*	*2518*			*2779*	*850*	*691*					
v/c Ratio	*1.04*	*0.43*			*0.82*	*0.77*	*0.85*					
Green Ratio	*0.12*	*0.71*			*0.55*	*0.54*	*0.20*					
Uniform Delay d_1	*39.7*	*5.4*			*16.6*	*16.4*	*34.7*					
Delay Factor k	*0.50*	*0.11*			*0.36*	*0.32*	*0.38*					
Incremental Delay d_2	*72.8*	*0.1*			*2.0*	*4.3*	*10.1*					
PF Factor	*1.000*	*1.000*			*1.000*	*1.000*	*1.000*					
Control Delay	*112.5*	*5.6*			*18.6*	*20.7*	*44.7*					
Lane Group LOS	*F*	*A*			*B*	*C*	*D*					
Approach Delay	*23.4*			*19.1*			*44.7*					
Approach LOS	*C*			*B*			*D*					
Intersection Delay	*23.4*			Intersection LOS						*C*		

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BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group	*L*	*T*			*T*	*R*	*L*					
Initial Queue/Lane	*0.0*	*0.0*			*0.0*	*0.0*	*0.0*					
Flow Rate/Lane Group	*216*	*1079*			*2268*	*653*	*589*					
Satflow/Lane	*1770*	*1862*			*1862*	*1583*	*1770*					
Capacity/Lane Group	*208*	*2518*			*2779*	*850*	*691*					
Flow Ratio	*0.1*	*0.3*			*0.4*	*0.4*	*0.2*					
v/c Ratio	*1.04*	*0.43*			*0.82*	*0.77*	*0.85*					
I Factor	*1.000*	*1.000*			*1.000*	*1.000*	*1.000*					
Arrival Type	*3*	*3*			*3*	*3*	*4*					
Platoon Ratio	*1.00*	*1.00*			*1.00*	*1.00*	*1.33*					
PF Factor	*1.00*	*1.00*			*1.00*	*1.00*	*0.98*					
Q_1	*5.4*	*5.9*			*17.0*	*12.9*	*7.2*					
k_B	*0.3*	*0.8*			*0.7*	*0.6*	*0.4*					
Q_2	*3.2*	*0.6*			*2.8*	*1.9*	*1.7*					
Q Average	*8.6*	*6.5*			*19.8*	*14.8*	*8.9*					
Percentile Back of Queue (95th percentile)												
$f_{B\%}$	*1.9*	*1.9*			*1.7*	*1.8*	*1.9*					
Back of Queue	*16.2*	*12.5*			*33.6*	*26.1*	*16.6*					
Queue Storage Ratio												
Queue Spacing	*25.0*	*25.0*			*25.0*	*25.0*	*25.0*					
Queue Storage	*1000*	*0*			*0*	*0*	*1100*					
Average Queue Storage Ratio	*0.2*						*0.2*					
95% Queue Storage Ratio	*0.4*						*0.4*					

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SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 SB Ramps at Overpass*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/20/2010*	Jurisdiction	*FDOT*
Time Period	*AM*	Analysis Year	*Build 2030-Loop*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes		*3*	*1*		*2*					*2*		*1*
Lane Group		*T*	*R*		*T*					*L*		*R*
Volume (vph)		*520*	*560*		*995*					*620*		*205*
% Heavy Vehicles		*2*	*2*		*2*					*2*		*2*
PHF		*0.95*	*0.95*		*0.95*					*0.95*		*0.95*
Pretimed/Actuated (P/A)		*A*	*A*		*A*					*A*		*A*
Startup Lost Time		*2.0*	*2.0*		*2.0*					*2.0*		*2.0*
Extension of Effective Green		*3.0*	*3.0*		*3.0*					*3.0*		*3.0*
Arrival Type		*3*	*3*		*3*					*3*		*3*
Unit Extension		*3.0*	*3.0*		*3.0*					*3.0*		*3.0*
Ped/Bike/RTOR Volume	*0*	*0*	*0*	*0*	*0*		*0*	*0*		*0*	*0*	*0*
Lane Width		*12.0*	*12.0*		*12.0*					*12.0*		*12.0*
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour		*0*	*0*		*0*					*0*		*0*
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	Thru & RT	02	03	04	SB Only	06	07	08
Timing	G = *33.6*	G =	G =	G =	G = *16.4*	G =	G =	G =
	Y = *5*	Y =	Y =	Y =	Y = *5*	Y =	Y =	Y =
Duration of Analysis (hrs) = *0.25*						Cycle Length C = *60.0*		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate		*547*	*589*		*1047*					*653*		*216*
Lane Group Capacity		*2926*	*1583*		*2045*					*997*		*459*
v/c Ratio		*0.19*	*0.37*		*0.51*					*0.65*		*0.47*
Green Ratio		*0.58*	*1.00*		*0.58*					*0.29*		*0.29*
Uniform Delay d_1		*6.0*	*0.0*		*7.6*					*18.7*		*17.5*
Delay Factor k		*0.11*	*0.11*		*0.12*					*0.23*		*0.11*
Incremental Delay d_2		*0.0*	*0.1*		*0.2*					*1.6*		*0.8*
PF Factor		*1.000*	*0.950*		*1.000*					*1.000*		*1.000*
Control Delay		*6.1*	*0.1*		*7.8*					*20.2*		*18.3*
Lane Group LOS		*A*	*A*		*A*					*C*		*B*
Approach Delay		*3.0*			*7.8*					*19.7*		
Approach LOS		*A*			*A*					*B*		
Intersection Delay		*9.4*			Intersection LOS					*A*		

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group		*T*	*R*		*T*					*L*		*R*
Initial Queue/Lane		*0.0*	*0.0*		*0.0*					*0.0*		*0.0*
Flow Rate/Lane Group		*547*	*589*		*1047*					*653*		*216*
Satflow/Lane		*1862*	*1583*		*1862*					*1770*		*1583*
Capacity/Lane Group		*2926*	*1583*		*2045*					*997*		*459*
Flow Ratio		*0.1*	*0.4*		*0.3*					*0.2*		*0.1*
v/c Ratio		*0.19*	*0.37*		*0.51*					*0.65*		*0.47*
I Factor		*1.000*	*1.000*		*1.000*					*1.000*		*1.000*
Arrival Type		*3*	*3*		*3*					*3*		*3*
Platoon Ratio		*1.00*	*1.00*		*1.00*					*1.00*		*1.00*
PF Factor		*1.00*	*1.00*		*1.00*					*1.00*		*1.00*
Q_1		*1.6*	*0.0*		*5.5*					*4.9*		*3.0*
k_B		*0.6*	*0.7*		*0.6*					*0.4*		*0.3*
Q_2		*0.1*	*0.4*		*0.6*					*0.7*		*0.3*
Q Average		*1.7*	*0.4*		*6.1*					*5.6*		*3.3*
Percentile Back of Queue (95th percentile)												
$f_{B\%}$		*2.0*	*2.1*		*1.9*					*1.9*		*2.0*
Back of Queue		*3.5*	*0.9*		*11.7*					*10.8*		*6.5*
Queue Storage Ratio												
Queue Spacing		*25.0*	*25.0*		*25.0*					*25.0*		*25.0*
Queue Storage		*0*	*1000*		*0*					*1100*		*1100*
Average Queue Storage Ratio			*0.0*							*0.1*		*0.1*
95% Queue Storage Ratio			*0.0*							*0.2*		*0.1*

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 SB Ramps at Overpass*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/20/2010*	Jurisdiction	*FDOT*
Time Period	*PM*	Analysis Year	*Build 2030-Loop*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes		*3*	*1*		*2*					*2*		*1*
Lane Group		*T*	*R*		*T*					*L*		*R*
Volume (vph)		*685*	*515*		*950*					*545*		*130*
% Heavy Vehicles		*2*	*2*		*2*					*2*		*2*
PHF		*0.95*	*0.95*		*0.95*					*0.95*		*0.95*
Pretimed/Actuated (P/A)		*A*	*A*		*A*					*A*		*A*
Startup Lost Time		*2.0*	*2.0*		*2.0*					*2.0*		*2.0*
Extension of Effective Green		*3.0*	*3.0*		*3.0*					*3.0*		*3.0*
Arrival Type		*3*	*3*		*3*					*3*		*3*
Unit Extension		*3.0*	*3.0*		*3.0*					*3.0*		*3.0*
Ped/Bike/RTOR Volume	*0*	*0*	*0*	*0*	*0*		*0*	*0*		*0*	*0*	*0*
Lane Width		*12.0*	*12.0*		*12.0*					*12.0*		*12.0*
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour		*0*	*0*		*0*					*0*		*0*
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	Thru & RT	02	03	04	SB Only	06	07	08
Timing	G = *34.4*	G =	G =	G =	G = *15.6*	G =	G =	G =
	Y = *5*	Y =	Y =	Y =	Y = *5*	Y =	Y =	Y =
Duration of Analysis (hrs) = *0.25*						Cycle Length C = *60.0*		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate		*721*	*542*		*1000*					*574*		*137*
Lane Group Capacity		*2994*	*1583*		*2093*					*951*		*438*
v/c Ratio		*0.24*	*0.34*		*0.48*					*0.60*		*0.31*
Green Ratio		*0.59*	*1.00*		*0.59*					*0.28*		*0.28*
Uniform Delay d_1		*5.9*	*0.0*		*7.0*					*18.8*		*17.2*
Delay Factor k		*0.11*	*0.11*		*0.11*					*0.19*		*0.11*
Incremental Delay d_2		*0.0*	*0.1*		*0.2*					*1.1*		*0.4*
PF Factor		*1.000*	*0.950*		*1.000*					*1.000*		*1.000*
Control Delay		*5.9*	*0.1*		*7.2*					*19.9*		*17.6*
Lane Group LOS		*A*	*A*		*A*					*B*		*B*
Approach Delay		*3.4*			*7.2*					*19.5*		
Approach LOS		*A*			*A*					*B*		
Intersection Delay		*8.5*			Intersection LOS					*A*		

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group		*T*	*R*		*T*					*L*		*R*
Initial Queue/Lane		*0.0*	*0.0*		*0.0*					*0.0*		*0.0*
Flow Rate/Lane Group		*721*	*542*		*1000*					*574*		*137*
Satflow/Lane		*1862*	*1583*		*1862*					*1770*		*1583*
Capacity/Lane Group		*2994*	*1583*		*2093*					*951*		*438*
Flow Ratio		*0.1*	*0.3*		*0.3*					*0.2*		*0.1*
v/c Ratio		*0.24*	*0.34*		*0.48*					*0.60*		*0.31*
I Factor		*1.000*	*1.000*		*1.000*					*1.000*		*1.000*
Arrival Type		*3*	*3*		*3*					*3*		*3*
Platoon Ratio		*1.00*	*1.00*		*1.00*					*1.00*		*1.00*
PF Factor		*1.00*	*1.00*		*1.00*					*1.00*		*1.00*
Q_1		*2.1*	*0.0*		*5.0*					*4.3*		*1.8*
k_B		*0.6*	*0.7*		*0.6*					*0.4*		*0.3*
Q_2		*0.2*	*0.4*		*0.5*					*0.5*		*0.1*
Q Average		*2.3*	*0.4*		*5.5*					*4.8*		*2.0*
Percentile Back of Queue (95th percentile)												
$f_{B\%}$		*2.0*	*2.1*		*1.9*					*2.0*		*2.0*
Back of Queue		*4.6*	*0.8*		*10.7*					*9.4*		*4.0*
Queue Storage Ratio												
Queue Spacing		*25.0*	*25.0*		*25.0*					*25.0*		*25.0*
Queue Storage		*0*	*1000*		*0*					*1100*		*1100*
Average Queue Storage Ratio			*0.0*							*0.1*		*0.0*
95% Queue Storage Ratio			*0.0*							*0.2*		*0.1*

APPENDIX I

Design Year (2040) Analysis

2040 No-Build Freeway Analysis Results

FREEPLAN 2009 Conceptual Planning Analysis

Project Information

Analyst	URS	**Freeway Name**	I-75	**Study Period**	Dir Hr Demand Vol
Date Prepared	1/4/2011 1:07:37 PM	**From**	S of SR 56	**Program**	FREEPLAN 2009
Agency	FDOT	**To**	N of SR 52	**Version Date**	12/12/10
Area Type	Other Urbanized	**Peak Direction**	Southbound		
File Name	C:\Documents and Settings\srinivas_meka\Local Settings\Temp\preview.xml				
User Notes	No Build 2040 AM Northbound (Off-peak)				

Freeway Data

AADT	94900	**Freeway Input Volume**	7790	**Local Adjustment Factor**	0.95
K	0.09	**PHF**	0.95	**Ramp Metering Exists**	No
D	0.55	**Pecent Trucks Entering First Segment**	7		

Segment Data

Seg #	From	To	Type	Length	Between Length	Hourly Volume	# Thru Lanes	# Aux Lanes	Posted Speed	FFS	Terrain
1	S of SR56	SR 56	Basic Segment	9060	0	7790	4	0	70	70	Level
2	SR 56	SR 56	On Ramp	1500	0	7790	4	0	70	70	Level
3	SR 56	SR 54	Basic Segment	12500	0	8550	4	0	70	70	Level
4	SR 54	SR54	Diamond	5280	0	8550	3	0	70	70	Level
5	SR 54	SR52	Basic Segment	29500	0	6955	3	0	70	70	Level
6	SR 52	SR 52	Diamond	5280	0	6955	3	0	70	70	Level
7	SR 52	N of SR52	Basic Segment	5280	0	5155	3	0	70	70	Level

Interchange Distances

Segment	Type	Interchange Length	Distance Between Ramps			Auxiliary Lane?
			1 and 2	2 and 3	3 and 4	
4	Diamond	2280	2280	0	0	False
6	Diamond	2280	2280	0	0	False

Ramp Descriptions

Segment	Type	First Off-Ramp					First On-Ramp					Second Off-Ramp					Second On-Ramp				
		Vol	% HV	Lanes	Accel / Decel Length	FFS	Vol	% HV	Lanes	Accel / Decel Length	FFS	Vol	% HV	Lanes	Accel / Decel Length	FFS	Vol	% HV	Lanes	Accel / Decel Length	FFS
2	On Ramp						760	8.0	1	700	45										
4	Diamond	2940	8.0	2	1500	45	1345	8.0	1	700	45										
6	Diamond	2700	8.0	2	410	45	900	8.0	1	700	45										

Segment LOS

Seg #	From	To	Type	Volume	Adj. Capacity	Speed	Density	LOS	Sig Impact

1	S of SR56	SR 56	Basic Segment	7790	8371	57.6	38.8	E	N/A
2	SR 56	SR 56	On Ramp	7790	8197	##	##	F	#
3	SR 56	SR 54	Basic Segment	8550	8367	##	##	F	N/A
4	SR 54	SR54	Diamond	8550	6101	##	##	F	#
5	SR 54	SR52	Basic Segment	6955	6282	##	##	F	N/A
6	SR 52	SR 52	Diamond	6955	5933	##	##	F	#
7	SR 52	N of SR52	Basic Segment	5155	6294	63.2	31.1	D	N/A

Freeway Length	12.95455	FFS Delay	##	Threshold Delay	##	Avg. Speed	##	Density	##	LOS	F

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 2100 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
4					
6					
8					
10					
12					
Lanes	**Peak Hour Volume Both Directions**				
4					
6					
8					
10					
12					
Lanes	**Annual Average Daily Traffic**				
4					
6					
8					
10					
12					

 # Off-ramp storage is highly likely to overflow. The segment operations will likely be worse than indicated.
One or more segments have a demand-to-capacity ratio greater than 1.0; therefore, the performance measure values are highly unreliable.
Freeway LOS is defaulted to F. An operational level analysis tool is more appropriate for this situation.
*** For oversaturated conditions during the peak hour, subtract 10% from LOS E (capacity) volumes. This number becomes the new maximum service volume for LOS D, and LOS E cannot be achieved.**
**** Cannot be achieved based on input data provided.**
***** Not applicable for that level of service letter grade. See generalized tables notes for more details.**

FREEPLAN 2009 Conceptual Planning Analysis

Project Information

Analyst	URS	**Freeway Name**	I-75	**Study Period**	Dir Hr Demand Vol
Date Prepared	4/5/2011 1:07:37 PM	**From**	S of SR 56	**Program**	FREEPLAN 2009
Agency	FDOT	**To**	N of SR 52	**Version Date**	12/12/10
Area Type	Other Urbanized	**Peak Direction**	Southbound		
File Name	C:\Documents and Settings\srinivas_meka\Local Settings\Temp\preview.xml				
User Notes	No Build 2040 AM Southbound (Peak)				

Freeway Data

AADT	122200	**Freeway Input Volume**	6295	**Local Adjustment Factor**	0.95
K	0.09	**PHF**	0.95	**Ramp Metering Exists**	No
D	0.55	**Pecent Trucks Entering First Segment**	15		

Segment Data

Seg #	From	To	Type	Length	Between Length	Hourly Volume	# Thru Lanes	# Aux Lanes	Posted Speed	FFS	Terrain
1	N of SR 52	SR 52	Basic Segment	5280	0	6295	3	0	70	70	Level
2	SR 52	SR 52	Diamond	5280	0	6295	3	0	70	70	Level
3	SR 52	SR 54	Basic Segment	29500	0	8650	3	0	70	70	Level
4	SR 54	SR 54	Diamond	5280	0	8650	3	0	70	70	Level
5	SR 54	SR 56	Basic Segment	12500	0	10940	4	0	70	70	Level
6	SR 56	SR 56	Diamond	5280	0	10940	4	0	70	70	Level
7	SR 56	S of SR56	Basic Segment	5280	0	14245	6	0	70	70	Level

Interchange Distances

Segment	Type	Interchange Length	Distance Between Ramps			Auxiliary Lane?
			1 and 2	2 and 3	3 and 4	
2	Diamond	2280	2280	0	0	False
4	Diamond	2280	2280	0	0	False
6	Diamond	2280	2280	0	0	False

Ramp Descriptions

Segment	Type	First Off-Ramp					First On-Ramp					Second Off-Ramp					Second On-Ramp				
		Vol	% HV	Lanes	Accel / Decel Length	FFS	Vol	% HV	Lanes	Accel / Decel Length	FFS	Vol	% HV	Lanes	Accel / Decel Length	FFS	Vol	% HV	Lanes	Accel / Decel Length	FFS
2	Diamond	1095	8.0	1	410	45	3450	8.0	2	700	45										
4	Diamond	1645	8.0	1	410	45	3935	8.0	2	1500	45										
6	Diamond	930	8.0	1	600	45	4235	8.0	2	1500	45										

Segment LOS

Seg #	From	To	Type	Volume	Adj. Capacity	Speed	Density	LOS	Sig Impact
1	N of SR 52	SR 52	Basic Segment	6295	6045	##	##	F	N/A
2	SR 52	SR 52	Diamond	6295	5709	##	##	F	#
3	SR 52	SR 54	Basic Segment	8650	6099	##	##	F	N/A
4	SR 54	SR 54	Diamond	8650	5760	##	##	F	#
5	SR 54	SR 56	Basic Segment	10940	8173	##	##	F	N/A
6	SR 56	SR 56	Diamond	10940	7832	##	##	F	#
7	SR 56	S of SR56	Basic Segment	14245	12313	##	##	F	N/A

Freeway Length	12.95455	FFS Delay	##	Threshold Delay	##	Avg. Speed	##	Density	##	LOS	F

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 2100 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
4					
6					
8					
10					
12					
Lanes	**Peak Hour Volume Both Directions**				
4					
6					
8					
10					
12					
Lanes	**Annual Average Daily Traffic**				
4					
6					
8					
10					
12					

 # Off-ramp storage is highly likely to overflow. The segment operations will likely be worse than indicated.
One or more segments have a demand-to-capacity ratio greater than 1.0; therefore, the performance measure values are highly unreliable.
Freeway LOS is defaulted to F. An operational level analysis tool is more appropriate for this situation.
*** For oversaturated conditions during the peak hour, subtract 10% from LOS E (capacity) volumes. This number becomes the new maximum service volume for LOS D, and LOS E cannot be achieved.**
**** Cannot be achieved based on input data provided.**
***** Not applicable for that level of service letter grade. See generalized tables notes for more details.**

FREEPLAN 2009 Conceptual Planning Analysis

Project Information

Analyst	URS	**Freeway Name**	I-75	**Study Period**	Dir Hr Demand Vol
Date Prepared	4/5/2011 1:07:37 PM	**From**	S of SR 56	**Program**	FREEPLAN 2009
Agency	FDOT	**To**	N of SR 52	**Version Date**	12/12/10
Area Type	Other Urbanized	**Peak Direction**	Northbound		
File Name	C:\Documents and Settings\srinivas_meka\Local Settings\Temp\preview.xml				
User Notes	No Build 2040 PM Northbound (Peak)				

Freeway Data

AADT	94900	**Freeway Input Volume**	10010	**Local Adjustment Factor**	0.95
K	0.09	**PHF**	0.95	**Ramp Metering Exists**	No
D	0.55	**Pecent Trucks Entering First Segment**	7		

Segment Data

Seg #	From	To	Type	Length	Between Length	Hourly Volume	# Thru Lanes	# Aux Lanes	Posted Speed	FFS	Terrain
1	S of SR56	SR 56	Basic Segment	9060	0	10010	4	0	70	70	Level
2	SR 56	SR 56	On Ramp	1500	0	10010	4	0	70	70	Level
3	SR 56	SR 54	Basic Segment	12500	0	10940	4	0	70	70	Level
4	SR 54	SR54	Diamond	5280	0	10940	3	0	70	70	Level
5	SR 54	SR52	Basic Segment	29500	0	8650	3	0	70	70	Level
6	SR 52	SR 52	Diamond	5280	0	8650	3	0	70	70	Level
7	SR 52	N of SR52	Basic Segment	5280	0	6295	3	0	70	70	Level

Interchange Distances

Segment	Type	Interchange Length	Distance Between Ramps			Auxiliary Lane?
			1 and 2	2 and 3	3 and 4	
4	Diamond	2280	2280	0	0	False
6	Diamond	2280	2280	0	0	False

Ramp Descriptions

Segment	Type	First Off-Ramp					First On-Ramp					Second Off-Ramp					Second On-Ramp				
		Vol	% HV	Lanes	Accel / Decel Length	FFS	Vol	% HV	Lanes	Accel / Decel Length	FFS	Vol	% HV	Lanes	Accel / Decel Length	FFS	Vol	% HV	Lanes	Accel / Decel Length	FFS
2	On Ramp						930	8.0	1	700	45										
4	Diamond	3935	8.0	2	1500	45	1645	8.0	1	700	45										
6	Diamond	3450	8.0	2	410	45	1095	8.0	1	700	45										

Segment LOS

Seg #	From	To	Type	Volume	Adj. Capacity	Speed	Density	LOS	Sig Impact

1	S of SR56	SR 56	Basic Segment	10010	8371	##	##	F	N/A
2	SR 56	SR 56	On Ramp	10010	8197	##	##	F	#
3	SR 56	SR 54	Basic Segment	10940	8368	##	##	F	N/A
4	SR 54	SR54	Diamond	10940	6101	##	##	F	#
5	SR 54	SR52	Basic Segment	8650	6283	##	##	F	N/A
6	SR 52	SR 52	Diamond	8650	5934	##	##	F	#
7	SR 52	N of SR52	Basic Segment	6295	6296	##	##	F	N/A

Freeway Length	12.95455	FFS Delay	##	Threshold Delay	##	Avg. Speed	##	Density	##	LOS	F

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 2100 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
4					
6					
8					
10					
12					
Lanes	**Peak Hour Volume Both Directions**				
4					
6					
8					
10					
12					
Lanes	**Annual Average Daily Traffic**				
4					
6					
8					
10					
12					

 # Off-ramp storage is highly likely to overflow. The segment operations will likely be worse than indicated.
One or more segments have a demand-to-capacity ratio greater than 1.0; therefore, the performance measure values are highly unreliable.
Freeway LOS is defaulted to F. An operational level analysis tool is more appropriate for this situation.
*** For oversaturated conditions during the peak hour, subtract 10% from LOS E (capacity) volumes. This number becomes the new maximum service volume for LOS D, and LOS E cannot be achieved.**
**** Cannot be achieved based on input data provided.**
***** Not applicable for that level of service letter grade. See generalized tables notes for more details.**

FREEPLAN 2009 Conceptual Planning Analysis

Project Information

Analyst	URS	**Freeway Name**	I-75	**Study Period**	Dir Hr Demand Vol
Date Prepared	4/5/2011 1:07:37 PM	**From**	S of SR 56	**Program**	FREEPLAN 2009
Agency	FDOT	**To**	N of SR 52	**Version Date**	12/12/10
Area Type	Other Urbanized	**Peak Direction**	Northbound		
File Name	C:\Documents and Settings\srinivas_meka\Local Settings\Temp\preview.xml				
User Notes	No Build 2040 PM Southbound (Off-peak)				

Freeway Data

AADT	95000	**Freeway Input Volume**	5155	**Local Adjustment Factor**	0.95
K	0.09	**PHF**	0.95	**Ramp Metering Exists**	No
D	0.55	**Pecent Trucks Entering First Segment**	15		

Segment Data

Seg #	From	To	Type	Length	Between Length	Hourly Volume	# Thru Lanes	# Aux Lanes	Posted Speed	FFS	Terrain
1	N of SR 52	SR 52	Basic Segment	5280	0	5155	3	0	70	70	Level
2	SR 52	SR 52	Diamond	5280	0	5155	3	0	70	70	Level
3	SR 52	SR 54	Basic Segment	29500	0	6955	3	0	70	70	Level
4	SR 54	SR 54	Diamond	5280	0	6955	3	0	70	70	Level
5	SR 54	SR 56	Basic Segment	12500	0	8550	4	0	70	70	Level
6	SR 56	SR 56	Diamond	5280	0	8550	4	0	70	70	Level
7	SR 56	S of SR56	Basic Segment	5280	0	11175	6	0	70	70	Level

Interchange Distances

Segment	Type	Interchange Length	Distance Between Ramps			Auxiliary Lane?
			1 and 2	2 and 3	3 and 4	
2	Diamond	2280	2280	0	0	False
4	Diamond	2280	2280	0	0	False
6	Diamond	2280	2280	0	0	False

Ramp Descriptions

Segment	Type	First Off-Ramp					First On-Ramp					Second Off-Ramp					Second On-Ramp				
		Vol	% HV	Lanes	Accel / Decel Length	FFS	Vol	% HV	Lanes	Accel / Decel Length	FFS	Vol	% HV	Lanes	Accel / Decel Length	FFS	Vol	% HV	Lanes	Accel / Decel Length	FFS
2	Diamond	900	8.0	1	410	45	2700	8.0	2	700	45										
4	Diamond	1345	8.0	1	410	45	2940	8.0	2	1500	45										
6	Diamond	760	8.0	1	600	45	3385	8.0	2	1500	45										

Segment LOS

Seg #	From	To	Type	Volume	Adj. Capacity	Speed	Density	LOS	Sig Impact
1	N of SR 52	SR 52	Basic Segment	5155	6045	61.7	33.2	D	N/A
2	SR 52	SR 52	Diamond	5155	5709	##	##	F	#
3	SR 52	SR 54	Basic Segment	6955	6096	##	##	F	N/A
4	SR 54	SR 54	Diamond	6955	5757	##	##	F	#
5	SR 54	SR 56	Basic Segment	8550	8165	##	##	F	N/A
6	SR 56	SR 56	Diamond	8550	7825	##	##	F	#
7	SR 56	S of SR56	Basic Segment	11175	12305	58.9	37.0	E	N/A

Freeway Length	12.95455	FFS Delay	##	Threshold Delay	##	Avg. Speed	##	Density	##	LOS	F

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 2100 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
4					
6					
8					
10					
12					
Lanes	**Peak Hour Volume Both Directions**				
4					
6					
8					
10					
12					
Lanes	**Annual Average Daily Traffic**				
4					
6					
8					
10					
12					

 # Off-ramp storage is highly likely to overflow. The segment operations will likely be worse than indicated.
One or more segments have a demand-to-capacity ratio greater than 1.0; therefore, the performance measure values are highly unreliable.
Freeway LOS is defaulted to F. An operational level analysis tool is more appropriate for this situation.
*** For oversaturated conditions during the peak hour, subtract 10% from LOS E (capacity) volumes. This number becomes the new maximum service volume for LOS D, and LOS E cannot be achieved.**
**** Cannot be achieved based on input data provided.**
***** Not applicable for that level of service letter grade. See generalized tables notes for more details.**

2040 No-Build Ramps Analysis Results

Ramp Capacity Check: No Build 2040 AM Peak Hour

Assumed Ramp Roadway Capacity (HCM 2000 Exhibit 25-3):

Ramp Free-Flow Speed, S_{FR} (mph)	Capacity (pc/h)	
	Single-Lane Ramps	Two-Lane Ramps
≥ 50	2200	4400
> 40 - 50	2100	4100
> 30 - 40	2000	3800
≥ 20 - 30	1900	3500
< 20	1800	3200

Location	Volume (veh/h)	FFS (S_{FR})	Lanes	% Trucks	PHF	E_T	f_{HV}	f_P	Flow Rate (pc/h)	Capacity (pc/h)	Over Capacity?
I-75 NB off to SR 56	3385	45	2	8.0%	0.95	1.5	0.962	0.95	3901	4100	No

Notes:

1. Volumes are converted to equivalent passenger cars per hour (pc/h) flow rates under base conditions during the peak 15 minutes of the hour using HCM 2000 Equation 25-1.

Ramp Capacity Check: No Build 2040 PM Peak Hour

Assumed Ramp Roadway Capacity (HCM 2000 Exhibit 25-3):

Ramp Free-Flow Speed, S_{FR} (mph)	Capacity (pc/h)	
	Single-Lane Ramps	Two-Lane Ramps
≥ 50	2200	4400
> 40 - 50	2100	4100
> 30 - 40	2000	3800
≥ 20 - 30	1900	3500
< 20	1800	3200

Location	Volume (veh/h)	FFS (S_{FR})	Lanes	% Trucks	PHF	E_T	f_{HV}	f_P	Flow Rate (pc/h)	Capacity (pc/h)	Over Capacity?
I-75 NB off to SR 56	4235	45	2	8.0%	0.95	1.5	0.962	0.95	4881	4100	Yes

Notes:

1. Volumes are converted to equivalent passenger cars per hour (pc/h) flow rates under base conditions during the peak 15 minutes of the hour using HCM 2000 Equation 25-1.

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Northbound
Agency or Company	URS Corporation	Junction	SR 56 NB ON-RAMP
Date Performed	4/26/2010	Jurisdiction	Pasco County
Analysis Time Period	AM	Analysis Year	No Build 2040

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 45.0 mph

Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp
☑ Yes ☐ On
☐ No ☑ Off
L_{down} = 4800 ft
V_D = 2940 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	7790	0.95	Level	7	0	0.966	0.95	8934
Ramp	760	0.95	Level	8	0	0.962	0.95	876
UpStream								
DownStream	2940	0.95	Level	8	0	0.962	0.95	3388

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = 0.108 using Equation (Exhibit 25-5)

V_{12} = 968 pc/h

V_3 or V_{av34} 3983 pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes,V_{12a} = 3573 pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	9810	Exhibit 25-7		Yes

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	4449	Exhibit 25-7	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 35.4 (pc/mi/ln)

LOS = F (Exhibit 25-4)

Speed Determination

M_S = 0.592 (Exibit 25-19)

S_R= 53.4 mph (Exhibit 25-19)

S_0= 61.2 mph (Exhibit 25-19)

S = 57.4 mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = using Equation (Exhibit 25-12)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

D_s = (Exhibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Northbound
Agency or Company	URS Corporation	Junction	SR 56 NB ON-RAMP
Date Performed	4/27/2010	Jurisdiction	Pasco County
Analysis Time Period	PM	Analysis Year	No Build 2040

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp	Terrain: Level	Downstream Adj Ramp
☐ Yes ☐ On		☑ Yes ☐ On
☑ No ☐ Off		☐ No ☑ Off
L_{up} = ft		L_{down} = 4800 ft
V_u = veh/h	S_{FF} = 70.0 mph S_{FR} = 45.0 mph Sketch (show lanes, L_A, L_D,V_R,V_f)	V_D = 3935 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	10010	0.95	Level	7	0	0.966	0.95	11480
Ramp	930	0.95	Level	8	0	0.962	0.95	1072
UpStream								
DownStream	3935	0.95	Level	8	0	0.962	0.95	4535

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = 0.084 using Equation (Exhibit 25-5)

V_{12} = 962 pc/h

V_3 or V_{av34} 5259 pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes,V_{12a} = 4592 pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	12552	Exhibit 25-7		Yes

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	5664	Exhibit 25-7	4600:All	Yes

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 44.8 (pc/mi/ln)

LOS = F (Exhibit 25-4)

Speed Determination

M_S = 1.382 (Exibit 25-19)

S_R= 31.3 mph (Exhibit 25-19)

S_0= 56.6 mph (Exhibit 25-19)

S = 41.5 mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = using Equation (Exhibit 25-12)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

D_s = (Exhibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Southbound
Agency or Company	URS Corporation	Junction	SR 56 SB OFF-RAMP
Date Performed	4/26/2010	Jurisdiction	Pasco County
Analysis Time Period	AM	Analysis Year	No Build 2040

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 45.0 mph

Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp
☑ Yes ☑ On
☐ No ☐ Off
L_{down} = 3300 ft
V_D = 4235 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	10940	0.95	Level	9	0	0.957	0.95	12667
Ramp	930	0.95	Level	8	0	0.962	0.95	1072
UpStream								
DownStream	4235	0.95	Level	8	0	0.962	0.95	4880

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)
P_{FM} = using Equation (Exhibit 25-5)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$

D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)
S_R= mph (Exhibit 25-19)
S_0= mph (Exhibit 25-19)
S = mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = 0.436 using Equation (Exhibit 25-12)
V_{12} = 6127 pc/h
V_3 or V_{av34} 3270 pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No
If Yes,V_{12a} = 7267 pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	12667	Exhibit 25-14	9600	Yes
$V_{FO} = V_F - V_R$	11595	Exhibit 25-14	9600	Yes
V_R	1072	Exhibit 25-3	2100	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	6127	Exhibit 25-14	4400:All	Yes

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086 V_{12} - 0.009 L_D$

D_R = 61.3 (pc/mi/ln)
LOS = F (Exhibit 25-4)

Speed Determination

D_s = 0.394 (Exhibit 25-19)
S_R= 59.0 mph (Exhibit 25-19)
S_0= 70.2 mph (Exhibit 25-19)
S = 63.3 mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Southbound
Agency or Company	URS Corporation	Junction	SR 56 SB OFF-RAMP
Date Performed	4/27/2010	Jurisdiction	Pasco County
Analysis Time Period	PM	Analysis Year	No Build 2040

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp	Terrain: Level	Downstream Adj Ramp
☐ Yes ☐ On		☑ Yes ☑ On
☑ No ☐ Off		☐ No ☐ Off
L_{up} = ft		L_{down} = 3300 ft
V_u = veh/h	S_{FF} = 70.0 mph S_{FR} = 45.0 mph Sketch (show lanes, L_A, L_D,V_R,V_f)	V_D = 3385 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	8550	0.95	Level	9	0	0.957	0.95	9900
Ramp	760	0.95	Level	8	0	0.962	0.95	876
UpStream								
DownStream	3385	0.95	Level	8	0	0.962	0.95	3901

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = using Equation (Exhibit 25-5)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = 0.436 using Equation (Exhibit 25-12)

V_{12} = 4810 pc/h

V_3 or V_{av34} 2545 pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	9900	Exhibit 25-14	9600	Yes
$V_{FO} = V_F - V_R$	9024	Exhibit 25-14	9600	No
V_R	876	Exhibit 25-3	2100	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	4810	Exhibit 25-14	4400:All	Yes

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086 V_{12} - 0.009 L_D$

D_R = 40.2 (pc/mi/ln)

LOS = F (Exhibit 25-4)

Speed Determination

D_s = 0.377 (Exhibit 25-19)

S_R= 59.4 mph (Exhibit 25-19)

S_0= 70.8 mph (Exhibit 25-19)

S = 64.8 mph (Exhibit 25-15)

Major Merge Capacity Check: **No Build 2040 AM Peak Hour**
I-75 SB On Ramp from SR 56

Assumed Major Merge Capacity per Segment (based on HCM 2000 Exhibit 25-7):

Segment Free-Flow Speed (mph)	Capacity (pc/h)			
	2-Lanes	3-Lanes	4-Lanes	5-Lanes
≥ 70	4800	7200	9600	12000
65	4700	7050	9400	11750
60	4600	6900	9200	11500
55	4500	6750	9000	11250

Assumed Ramp Roadway Capacity (based on HCM 2000 Exhibit 25-3):

Free-Flow Speed of Ramp (mph)	Capacity (pc/h)	
	Single-Lane Ramp	Two-Lane Ramp
≥ 55	2200	4400
> 40-50	2100	4100
> 30-40	2000	3800
≥ 20-30	1900	3500
< 20	1800	3200

I-75 SB On Ramp from SR 56

Segment	Volume (veh/h)	FFS	Lanes	% Trucks	PHF	E_T	f_{HV}	f_P	Flow Rate (pc/h)	Capacity (pc/h)	Over Capacity?
Upstream	10010	70	4	9.0%	0.95	1.5	0.957	0.95	11591	9600	Yes
Merging	4235	45	2	8.0%	0.95	1.5	0.962	0.95	4881	4100	Yes
Downstream	14245	70	6	7.0%	0.95	1.5	0.966	0.95	16337	14400	Yes

Notes:
1. Volumes are converted to equivalent passenger cars per hour (pc/h) flow rates under base conditions during the peak 15 minutes of the hour using HCM 2000 Equation 25-1.

Major Merge Capacity Check: **No Build 2040 PM Peak Hour**
I-75 SB On Ramp from SR 56

Assumed Major Merge Capacity per Segment (based on HCM 2000 Exhibit 25-7):

Segment Free-Flow Speed (mph)	Capacity (pc/h)			
	2-Lanes	3-Lanes	4-Lanes	5-Lanes
≥ 70	4800	7200	9600	12000
65	4700	7050	9400	11750
60	4600	6900	9200	11500
55	4500	6750	9000	11250

Assumed Ramp Roadway Capacity (based on HCM 2000 Exhibit 25-3):

Free-Flow Speed of Ramp (mph)	Capacity (pc/h)	
	Single-Lane Ramp	Two-Lane Ramp
≥ 55	2200	4400
> 40-50	2100	4100
> 30-40	2000	3800
≥ 20-30	1900	3500
< 20	1800	3200

I-75 SB On Ramp from SR 56

Segment	Volume (veh/h)	FFS	Lanes	% Trucks	PHF	E_T	f_{HV}	f_P	Flow Rate (pc/h)	Capacity (pc/h)	Over Capacity?
Upstream	7790	70	4	9.0%	0.96	1.5	0.957	0.95	8927	9600	No
Merging	3385	45	2	8.0%	0.96	1.5	0.962	0.95	3861	4100	No
Downstream	11175	70	6	7.0%	0.96	1.5	0.966	0.95	12683	12000	Yes

Notes:
1. Volumes are converted to equivalent passenger cars per hour (pc/h) flow rates under base conditions during the peak 15 minutes of the hour using HCM 2000 Equation 25-1.

Major Diverge Capacity Check: No Build 2040 AM Peak Hour
I-75 NB Off Ramp to CR 54

Assumed Major Diverge Capacity per Segment (based on HCM 2000 Exhibit 25-14):

Segment Free-Flow Speed (mph)	Capacity (pc/h)			
	2-Lanes	3-Lanes	4-Lanes	5-Lanes
≥ 70	4800	7200	9600	12000
65	4700	7050	9400	11750
60	4600	6900	9200	11500
55	4500	6750	9000	11250

Assumed Ramp Roadway Capacity (based on HCM 2000 Exhibit 25-3):

Free-Flow Speed of Ramp (mph)	Capacity (pc/h)	
	Single-Lane Ramp	Two-Lane Ramp
≥ 55	2200	4400
> 40-50	2100	4100
> 30-40	2000	3800
≥ 20-30	1900	3500
< 20	1800	3200

Assumed Ramp Density and LOS (based on HCM 2000 Equation 25-12 and Exhibit 25-4)

Segment	Density[1]	LOS
Upstream	23.3	C

I-75 NB Off Ramp to CR 54

Segment	Volume (veh/h)	FFS	Lanes	% Trucks	PHF	E_T	f_{HV}	f_P	Flow Rate (pc/h)	Capacity (pc/h)	Over Capacity?
Upstream	8550	70	4	9.0%	0.95	1.5	0.957	0.95	9900	9600	Yes
Diverging	2940	45	2	8.0%	0.95	1.5	0.962	0.95	3388	4100	No
Downstream	5610	70	3	9.0%	0.95	1.5	0.957	0.95	6496	7200	No

Notes:
1. Volumes are converted to equivalent passenger cars per hour (pc/h) flow rates under base conditions during the peak 15 minutes of the hour using HCM 2000 Equation 25-1.

Major Diverge Capacity Check: No Build 2040 PM Peak Hour
I-75 NB Off Ramp to CR 54

Assumed Major Diverge Capacity per Segment (based on HCM 2000 Exhibit 25-14):

Segment Free-Flow Speed (mph)	Capacity (pc/h)			
	2-Lanes	3-Lanes	4-Lanes	5-Lanes
≥ 70	4800	7200	9600	12000
65	4700	7050	9400	11750
60	4600	6900	9200	11500
55	4500	6750	9000	11250

Assumed Ramp Roadway Capacity (based on HCM 2000 Exhibit 25-3):

Free-Flow Speed of Ramp (mph)	Capacity (pc/h)	
	Single-Lane Ramp	Two-Lane Ramp
≥ 55	2200	4400
> 40-50	2100	4100
> 30-40	2000	3800
≥ 20-30	1900	3500
< 20	1800	3200

Assumed Ramp Density and LOS (based on HCM 2000 Equation 25-12 and Exhibit 25-4)

Segment	Density[1]	LOS
Upstream	29.8	D

I-75 NB Off Ramp to CR 54

Segment	Volume (veh/h)	FFS	Lanes	% Trucks	PHF	E_T	f_{HV}	f_P	Flow Rate (pc/h)	Capacity (pc/h)	Over Capacity?
Upstream	10940	70	4	9.0%	0.95	1.5	0.957	0.95	12668	9600	Yes
Diverging	3935	45	2	8.0%	0.95	1.5	0.962	0.95	4535	4100	Yes
Downstream	7005	70	3	9.0%	0.95	1.5	0.957	0.95	8112	7600	Yes

Notes:
1. Volumes are converted to equivalent passenger cars per hour (pc/h) flow rates under base conditions during the peak 15 minutes of the hour using HCM 2000 Equation 25-1.

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Northbound
Agency or Company	URS Corporation	Junction	CR 54 NB ON-RAMP
Date Performed	4/26/2010	Jurisdiction	Pasco County
Analysis Time Period	AM	Analysis Year	No Build 2040

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp
☑ Yes ☐ On
☐ No ☑ Off
L_{up} = 3500 ft
V_u = 2940 veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 45.0 mph

Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{down} = ft
V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	5610	0.95	Level	9	0	0.957	0.95	6496
Ramp	1345	0.95	Level	8	0	0.962	0.95	1550
UpStream	2940	0.95	Level	8	0	0.962	0.95	3388
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = 1984.04 (Equation 25-2 or 25-3)
P_{FM} = 0.597 using Equation (Exhibit 25-5)
V_{12} = 3879 pc/h
V_3 or V_{av34} 2617 pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No
If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	8046	Exhibit 25-7		Yes

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	5429	Exhibit 25-7	4600:All	Yes

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 42.7 (pc/mi/ln)
LOS = F (Exhibit 25-4)

Speed Determination

M_S = 1.147 (Exibit 25-19)
S_R= 37.9 mph (Exhibit 25-19)
S_0= 61.6 mph (Exhibit 25-19)
S = 43.3 mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = using Equation (Exhibit 25-12)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

D_s = (Exhibit 25-19)
S_R= mph (Exhibit 25-19)
S_0= mph (Exhibit 25-19)
S = mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Northbound
Agency or Company	URS Corporation	Junction	CR 54 NB ON-RAMP
Date Performed	4/27/2010	Jurisdiction	Pasco County
Analysis Time Period	PM	Analysis Year	No Build 2040

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp
☑ Yes ☐ On
☐ No ☑ Off
L_{up} = 3500 ft
V_u = 3935 veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 45.0 mph
Sketch (show lanes, L_A, L_D, V_R, V_f)

Downstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{down} = ft
V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	7005	0.95	Level	9	0	0.957	0.95	8111
Ramp	1645	0.95	Level	8	0	0.962	0.95	1896
UpStream	3935	0.95	Level	8	0	0.962	0.95	4535
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = 2403.70 (Equation 25-2 or 25-3)
P_{FM} = 0.597 using Equation (Exhibit 25-5)
V_{12} = 4843 pc/h
V_3 or V_{av34} 3268 pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No
If Yes, V_{12a} = 5411 pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	10007	Exhibit 25-7		Yes

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	7307	Exhibit 25-7	4600:All	Yes

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 57.2 (pc/mi/ln)
LOS = F (Exhibit 25-4)

Speed Determination

M_S = 6.072 (Exibit 25-19)
S_R = -100.0 mph (Exhibit 25-19)
S_0 = 61.1 mph (Exhibit 25-19)
S = mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = using Equation (Exhibit 25-12)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes, V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

D_s = (Exhibit 25-19)
S_R = mph (Exhibit 25-19)
S_0 = mph (Exhibit 25-19)
S = mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Southbound
Agency or Company	URS Corporation	Junction	CR 54 SB OFF-RAMP
Date Performed	4/26/2010	Jurisdiction	Pasco County
Analysis Time Period	AM	Analysis Year	No Build 2040

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 45.0 mph

Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp
☑ Yes ☑ On
☐ No ☐ Off
L_{down} = 3500 ft
V_D = 3935 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	8650	0.95	Level	12	0	0.943	0.95	10160
Ramp	1645	0.95	Level	8	0	0.962	0.95	1896
UpStream								
DownStream	3935	0.95	Level	8	0	0.962	0.95	4535

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)
P_{FM} = using Equation (Exhibit 25-5)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)
S_R= mph (Exhibit 25-19)
S_0= mph (Exhibit 25-19)
S = mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = 0.419 using Equation (Exhibit 25-12)
V_{12} = 5357 pc/h
V_3 or V_{av34} 4803 pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No
If Yes,V_{12a} = 7460 pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	10160	Exhibit 25-14	7200	Yes
$V_{FO} = V_F - V_R$	8264	Exhibit 25-14	7200	Yes
V_R	1896	Exhibit 25-3	2100	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	5357	Exhibit 25-14	4400:All	Yes

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = 64.7 (pc/mi/ln)
LOS = F (Exhibit 25-4)

Speed Determination

D_s = 0.469 (Exhibit 25-19)
S_R= 56.9 mph (Exhibit 25-19)
S_0= 70.2 mph (Exhibit 25-19)
S = 59.9 mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Southbound
Agency or Company	URS Corporation	Junction	CR 54 SB OFF-RAMP
Date Performed	4/27/2010	Jurisdiction	Pasco County
Analysis Time Period	PM	Analysis Year	No Build 2040

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 45.0 mph

Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp
☑ Yes ☑ On
☐ No ☐ Off
L_{down} = 3500 ft
V_D = 2940 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	6955	0.95	Level	12	0	0.943	0.95	8169
Ramp	1345	0.95	Level	8	0	0.962	0.95	1550
UpStream								
DownStream	2940	0.95	Level	8	0	0.962	0.95	3388

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)
P_{FM} = using Equation (Exhibit 25-5)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)
S_R= mph (Exhibit 25-19)
S_0= mph (Exhibit 25-19)
S = mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = 0.484 using Equation (Exhibit 25-12)
V_{12} = 4757 pc/h
V_3 or V_{av34} 3412 pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No
If Yes,V_{12a} = 5469 pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	8169	Exhibit 25-14	7200	Yes
$V_{FO} = V_F - V_R$	6619	Exhibit 25-14	7200	No
V_R	1550	Exhibit 25-3	2100	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	4757	Exhibit 25-14	4400:All	Yes

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = 47.6 (pc/mi/ln)
LOS = F (Exhibit 25-4)

Speed Determination

D_s = 0.438 (Exhibit 25-19)
S_R= 57.8 mph (Exhibit 25-19)
S_0= 70.2 mph (Exhibit 25-19)
S = 61.3 mph (Exhibit 25-15)

Ramp Capacity Check: No Build 2040 AM Peak Hour

Assumed Ramp Roadway Capacity (HCM 2000 Exhibit 25-3):

Ramp Free-Flow Speed, S_{FR} (mph)	Capacity (pc/h)	
	Single-Lane Ramps	Two-Lane Ramps
> 50	2200	4400
> 40 - 50	2100	4100
> 30 - 40	2000	3800
≥ 20 - 30	1900	3500
< 20	1800	3200

Location	Volume (veh/h)	FFS (S_{FR})	Lanes	% Trucks	PHF	E_T	f_{HV}	f_P	Flow Rate (pc/h)	Capacity (pc/h)	Over Capacity?
I-75 SB on from CR 54	3935	45	2	8.0%	0.95	1.5	0.962	0.95	4535	4100	Yes

Notes:

1. Volumes are converted to equivalent passenger cars per hour (pc/h) flow rates under base conditions during the peak 15 minutes of the hour using HCM 2000 Equation 25-1.

Ramp Capacity Check: No Build 2040 PM Peak Hour

Assumed Ramp Roadway Capacity (HCM 2000 Exhibit 25-3):

Ramp Free-Flow Speed, S_{FR} (mph)	Capacity (pc/h)	
	Single-Lane Ramps	Two-Lane Ramps
> 50	2200	4400
> 40 - 50	2100	4100
> 30 - 40	2000	3800
≥ 20 - 30	1900	3500
< 20	1800	3200

Location	Volume (veh/h)	FFS (S_{FR})	Lanes	% Trucks	PHF	E_T	f_{HV}	f_P	Flow Rate (pc/h)	Capacity (pc/h)	Over Capacity?
I-75 SB on from CR 54	2940	45	2	8.0%	0.95	1.5	0.962	0.95	3388	4100	No

Notes:

1. Volumes are converted to equivalent passenger cars per hour (pc/h) flow rates under base conditions during the peak 15 minutes of the hour using HCM 2000 Equation 25-1.

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Northbound
Agency or Company	URS Corporation	Junction	SR 52 NB OFF-RAMP
Date Performed	4/23/2010	Jurisdiction	Pasco County
Analysis Time Period	AM	Analysis Year	No Build 2040

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 45.0 mph
Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp
☑ Yes ☑ On
☐ No ☐ Off
L_{down} = 2000 ft
V_D = 900 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	6955	0.95	Level	12	0	0.943	0.95	8169
Ramp	2700	0.95	Level	8	0	0.962	0.95	3111
UpStream								
DownStream	900	0.95	Level	8	0	0.962	0.95	1037

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$
L_{EQ} = (Equation 25-2 or 25-3)
P_{FM} = using Equation (Exhibit 25-5)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$
D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)
S_R= mph (Exhibit 25-19)
S_0= mph (Exhibit 25-19)
S = mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$
L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = 0.413 using Equation (Exhibit 25-12)
V_{12} = 5198 pc/h
V_3 or V_{av34} 2971 pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No
If Yes,V_{12a} = 5469 pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	8169	Exhibit 25-14	7200	Yes
$V_{FO} = V_F - V_R$	5058	Exhibit 25-14	7200	No
V_R	3111	Exhibit 25-3	2100	Yes

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	5198	Exhibit 25-14	4400:All	Yes

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086 V_{12} - 0.009 L_D$
D_R = 47.6 (pc/mi/ln)
LOS = F (Exhibit 25-4)

Speed Determination

D_s = 0.578 (Exhibit 25-19)
S_R= 53.8 mph (Exhibit 25-19)
S_0= 70.2 mph (Exhibit 25-19)
S = 58.3 mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Northbound
Agency or Company	URS Corporation	Junction	SR 52 NB OFF-RAMP
Date Performed	4/27/2010	Jurisdiction	Pasco County
Analysis Time Period	PM	Analysis Year	No Build 2040

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 45.0 mph

Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp
☑ Yes ☑ On
☐ No ☐ Off
L_{down} = 2000 ft
V_D = 1095 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	8650	0.95	Level	12	0	0.943	0.95	10160
Ramp	3450	0.95	Level	8	0	0.962	0.95	3976
UpStream								
DownStream	1095	0.95	Level	8	0	0.962	0.95	1262

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)
P_{FM} = using Equation (Exhibit 25-5)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)
S_R= mph (Exhibit 25-19)
S_0= mph (Exhibit 25-19)
S = mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = 0.323 using Equation (Exhibit 25-12)
V_{12} = 5974 pc/h
V_3 or V_{av34} 4186 pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No
If Yes,V_{12a} = 7460 pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	10160	Exhibit 25-14	7200	Yes
$V_{FO} = V_F - V_R$	6184	Exhibit 25-14	7200	No
V_R	3976	Exhibit 25-3	2100	Yes

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	5974	Exhibit 25-14	4400:All	Yes

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = 64.7 (pc/mi/ln)
LOS = F (Exhibit 25-4)

Speed Determination

D_s = 0.656 (Exhibit 25-19)
S_R= 51.6 mph (Exhibit 25-19)
S_0= 70.2 mph (Exhibit 25-19)
S = 55.5 mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Northbound
Agency or Company	URS Corporation	Junction	SR 52 NB ON-RAMP
Date Performed	4/26/2010	Jurisdiction	Pasco County
Analysis Time Period	AM	Analysis Year	No Build 2040

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp

☑ Yes ☐ On

☐ No ☑ Off

L_{up} = 2000 ft

V_u = 2700 veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 45.0 mph

Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	4255	0.95	Level	12	0	0.943	0.95	4998
Ramp	900	0.95	Level	8	0	0.962	0.95	1037
UpStream	2700	0.95	Level	8	0	0.962	0.95	3111
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = 1553.69 (Equation 25-2 or 25-3)

P_{FM} = 0.597 using Equation (Exhibit 25-5)

V_{12} = 2984 pc/h

V_3 or V_{av34} 2014 pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	6035	Exhibit 25-7		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	4021	Exhibit 25-7	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 32.0 (pc/mi/ln)

LOS = D (Exhibit 25-4)

Speed Determination

M_S = 0.475 (Exibit 25-19)

S_R= 56.7 mph (Exhibit 25-19)

S_0= 64.5 mph (Exhibit 25-19)

S = 59.1 mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = using Equation (Exhibit 25-12)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

D_s = (Exhibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Northbound
Agency or Company	URS Corporation	Junction	SR 52 NB ON-RAMP
Date Performed	4/27/2010	Jurisdiction	Pasco County
Analysis Time Period	PM	Analysis Year	No Build 2040

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp
☑ Yes ☐ On
☐ No ☑ Off
L_{up} = 2000 ft
V_u = 3450 veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 45.0 mph
Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{down} = ft
V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	5200	0.95	Level	12	0	0.943	0.95	6107
Ramp	1095	0.95	Level	8	0	0.962	0.95	1262
UpStream	3450	0.95	Level	8	0	0.962	0.95	3976
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = 1839.17 (Equation 25-2 or 25-3)
P_{FM} = 0.597 using Equation (Exhibit 25-5)
V_{12} = 3646 pc/h
V_3 or V_{av34} 2461 pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No
If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	7369	Exhibit 25-7		Yes

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	4908	Exhibit 25-7	4600:All	Yes

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 38.8 (pc/mi/ln)
LOS = F (Exhibit 25-4)

Speed Determination

M_S = 0.786 (Exibit 25-19)
S_R= 48.0 mph (Exhibit 25-19)
S_0= 62.5 mph (Exhibit 25-19)
S = 52.0 mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = using Equation (Exhibit 25-12)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

D_s = (Exhibit 25-19)
S_R= mph (Exhibit 25-19)
S_0= mph (Exhibit 25-19)
S = mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Southbound
Agency or Company	URS Corporation	Junction	SR 52 SB OFF-RAMP
Date Performed	4/23/2010	Jurisdiction	Pasco County
Analysis Time Period	AM	Analysis Year	No Build 2040

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 45.0 mph

Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp
☑ Yes ☑ On
☐ No ☐ Off
L_{down} = 2000 ft
V_D = 3450 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	6295	0.95	Level	15	0	0.930	0.95	7498
Ramp	1095	0.95	Level	8	0	0.962	0.95	1262
UpStream								
DownStream	3450	0.95	Level	8	0	0.962	0.95	3976

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)
P_{FM} = using Equation (Exhibit 25-5)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$

D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)
S_R= mph (Exhibit 25-19)
S_0= mph (Exhibit 25-19)
S = mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = 0.514 using Equation (Exhibit 25-12)
V_{12} = 4470 pc/h
V_3 or V_{av34} 3028 pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No
If Yes,V_{12a} = 4798 pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	7498	Exhibit 25-14	7200	Yes
$V_{FO} = V_F - V_R$	6236	Exhibit 25-14	7200	No
V_R	1262	Exhibit 25-3	2100	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	4470	Exhibit 25-14	4400:All	Yes

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086 V_{12} - 0.009 L_D$

D_R = 41.8 (pc/mi/ln)
LOS = F (Exhibit 25-4)

Speed Determination

D_s = 0.412 (Exhibit 25-19)
S_R= 58.5 mph (Exhibit 25-19)
S_0= 70.2 mph (Exhibit 25-19)
S = 62.2 mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Southbound
Agency or Company	URS Corporation	Junction	SR 52 SB OFF-RAMP
Date Performed	4/27/2010	Jurisdiction	Pasco County
Analysis Time Period	PM	Analysis Year	No Build 2040

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 45.0 mph
Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp
☑ Yes ☑ On
☐ No ☐ Off
L_{down} = 2000 ft
V_D = 2700 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	5155	0.95	Level	15	0	0.930	0.95	6140
Ramp	900	0.95	Level	8	0	0.962	0.95	1037
UpStream								
DownStream	2700	0.95	Level	8	0	0.962	0.95	3111

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$
L_{EQ} = (Equation 25-2 or 25-3)
P_{FM} = using Equation (Exhibit 25-5)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$
D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)
S_R= mph (Exhibit 25-19)
S_0= mph (Exhibit 25-19)
S = mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$
L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = 0.559 using Equation (Exhibit 25-12)
V_{12} = 3889 pc/h
V_3 or V_{av34} 2251 pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No
If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	6140	Exhibit 25-14	7200	No
$V_{FO} = V_F - V_R$	5103	Exhibit 25-14	7200	No
V_R	1037	Exhibit 25-3	2100	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	3889	Exhibit 25-14	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086 V_{12} - 0.009 L_D$
D_R = 34.0 (pc/mi/ln)
LOS = D (Exhibit 25-4)

Speed Determination

D_s = 0.391 (Exhibit 25-19)
S_R= 59.0 mph (Exhibit 25-19)
S_0= 71.9 mph (Exhibit 25-19)
S = 63.2 mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Southbound
Agency or Company	URS Corporation	Junction	SR 52 SB ON-RAMP
Date Performed	4/26/2010	Jurisdiction	Pasco County
Analysis Time Period	AM	Analysis Year	No Build 2040

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp
☑ Yes ☐ On
☐ No ☑ Off
L_{up} = 2000 ft
V_u = 1095 veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 45.0 mph
Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{down} = ft
V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	5200	0.95	Level	15	0	0.930	0.95	6194
Ramp	3450	0.95	Level	8	0	0.962	0.95	3976
UpStream	1095	0.95	Level	8	0	0.962	0.95	1262
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = 2438.58 (Equation 25-2 or 25-3)
P_{FM} = 0.569 using Equation (Exhibit 25-5)
V_{12} = 3526 pc/h
V_3 or V_{av34} 2668 pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No
If Yes,V_{12a} = 3539 pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	10170	Exhibit 25-7		Yes

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	7515	Exhibit 25-7	4600:All	Yes

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 57.9 (pc/mi/ln)
LOS = F (Exhibit 25-4)

Speed Determination

M_S = 7.416 (Exibit 25-19)
S_R= -137.6 mph (Exhibit 25-19)
S_0= 61.3 mph (Exhibit 25-19)
S = mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = using Equation (Exhibit 25-12)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

D_s = (Exhibit 25-19)
S_R= mph (Exhibit 25-19)
S_0= mph (Exhibit 25-19)
S = mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Southbound
Agency or Company	URS Corporation	Junction	SR 52 SB ON-RAMP
Date Performed	4/27/2010	Jurisdiction	Pasco County
Analysis Time Period	PM	Analysis Year	No Build 2040

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp

☑ Yes ☐ On

☐ No ☑ Off

L_{up} = 2000 ft

V_u = 900 veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 45.0 mph

Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	4255	0.95	Level	15	0	0.930	0.95	5068
Ramp	2700	0.95	Level	8	0	0.962	0.95	3111
UpStream	900	0.95	Level	8	0	0.962	0.95	1037
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = 2012.51 (Equation 25-2 or 25-3)

P_{FM} = 0.596 using Equation (Exhibit 25-5)

V_{12} = 3021 pc/h

V_3 or V_{av34} 2047 pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	8179	Exhibit 25-7		Yes

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	6132	Exhibit 25-7	4600:All	Yes

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 47.5 (pc/mi/ln)

LOS = F (Exhibit 25-4)

Speed Determination

M_S = 2.053 (Exibit 25-19)

S_R= 12.5 mph (Exhibit 25-19)

S_0= 64.4 mph (Exhibit 25-19)

S = 15.7 mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = using Equation (Exhibit 25-12)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

D_s = (Exhibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-15)

2040 No-Build Intersection Analysis Results

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 NB Ramps at SR 56*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/18/2010*	Jurisdiction	*FDOT*
Time Period	*AM*	Analysis Year	*No Build 2040*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	*1*	*2*			*4*		*2*					
Lane Group	*L*	*T*			*T*		*L*					
Volume (vph)	*460*	*1845*			*3205*		*2005*					
% Heavy Vehicles	*3*	*3*			*3*		*8*					
PHF	*0.95*	*0.95*			*0.95*		*0.95*					
Pretimed/Actuated (P/A)	*A*	*A*			*A*		*A*					
Startup Lost Time	*2.0*	*2.0*			*2.0*		*2.0*					
Extension of Effective Green	*2.0*	*2.0*			*2.0*		*2.0*					
Arrival Type	*3*	*3*			*3*		*3*					
Unit Extension	*3.0*	*3.0*			*3.0*		*3.0*					
Ped/Bike/RTOR Volume	*0*	*0*		*0*	*0*		*0*	*0*		*0*	*0*	
Lane Width	*12.0*	*12.0*			*12.0*		*12.0*					
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour	*0*	*0*			*0*		*0*					
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	EB Only	Thru Only	03	04	NB Only	06	07	08
Timing	G = *18.8*	G = *64.1*	G =	G =	G = *48.3*	G =	G =	G =
	Y = *6.2*	Y = *6.1*	Y =	Y =	Y = *6.5*	Y =	Y =	Y =
Duration of Analysis (hrs) = *0.25*						Cycle Length C = *150.0*		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	*484*	*1942*			*3374*		*2111*					
Lane Group Capacity	*220*	*2086*			*2497*		*1045*					
v/c Ratio	*2.20*	*0.93*			*1.35*		*2.02*					
Green Ratio	*0.13*	*0.59*			*0.43*		*0.32*					
Uniform Delay d_1	*65.6*	*27.7*			*42.9*		*50.8*					
Delay Factor k	*0.50*	*0.45*			*0.50*		*0.50*					
Incremental Delay d_2	*554.6*	*8.2*			*160.8*		*462.4*					
PF Factor	*1.000*	*1.000*			*1.000*		*1.000*					
Control Delay	*620.2*	*35.9*			*203.7*		*513.3*					
Lane Group LOS	*F*	*D*			*F*		*F*					
Approach Delay	*152.4*			*203.7*			*513.3*					
Approach LOS	*F*			*F*			*F*					
Intersection Delay	*270.6*			Intersection LOS			*F*					

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group	*L*	*T*			*T*		*L*					
Initial Queue/Lane	*0.0*	*0.0*			*0.0*		*0.0*					
Flow Rate/Lane Group	*484*	*1942*			*3374*		*2111*					
Satflow/Lane	*1752*	*1844*			*1844*		*1671*					
Capacity/Lane Group	*220*	*2086*			*2497*		*1045*					
Flow Ratio	*0.3*	*0.6*			*0.6*		*0.7*					
v/c Ratio	*2.20*	*0.93*			*1.35*		*2.02*					
I Factor	*1.000*	*1.000*			*1.000*		*1.000*					
Arrival Type	*3*	*3*			*3*		*3*					
Platoon Ratio	*1.00*	*1.00*			*1.00*		*1.00*					
PF Factor	*1.00*	*1.00*			*1.00*		*1.00*					
Q_1	*20.2*	*38.5*			*44.4*		*45.3*					
k_B	*0.4*	*1.0*			*0.8*		*0.6*					
Q_2	*33.7*	*7.4*			*37.5*		*69.9*					
Q Average	*53.8*	*46.0*			*81.9*		*115.2*					
Percentile Back of Queue (95th percentile)												
$f_{B\%}$	*1.5*	*1.5*			*1.5*		*1.5*					
Back of Queue	*82.4*	*71.1*			*123*		*173*					
Queue Storage Ratio												
Queue Spacing	*25.0*	*25.0*			*25.0*		*25.0*					
Queue Storage	*650*	*0*			*0*		*1100*					
Average Queue Storage Ratio	*2.1*						*2.6*					
95% Queue Storage Ratio	*3.2*						*3.9*					

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 NB Ramps at SR 56*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/18/2010*	Jurisdiction	*FDOT*
Time Period	*PM*	Analysis Year	*No Build 2040*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	*1*	*2*			*4*		*2*					
Lane Group	*L*	*T*			*T*		*L*					
Volume (vph)	*350*	*1690*			*2645*		*2420*					
% Heavy Vehicles	*3*	*3*			*3*		*8*					
PHF	*0.95*	*0.95*			*0.95*		*0.95*					
Pretimed/Actuated (P/A)	*A*	*A*			*A*		*A*					
Startup Lost Time	*2.0*	*2.0*			*2.0*		*2.0*					
Extension of Effective Green	*2.0*	*2.0*			*2.0*		*2.0*					
Arrival Type	*3*	*3*			*3*		*3*					
Unit Extension	*3.0*	*3.0*			*3.0*		*3.0*					
Ped/Bike/RTOR Volume	*0*	*0*		*0*	*0*		*0*	*0*		*0*	*0*	
Lane Width	*12.0*	*12.0*			*12.0*		*12.0*					
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour	*0*	*0*			*0*		*0*					
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	EB Only	Thru Only	03	04	NB Only	06	07	08
Timing	G = *20.1*	G = *54.2*	G =	G =	G = *66.9*	G =	G =	G =
	Y = *6.2*	Y = *6.1*	Y =	Y =	Y = *6.5*	Y =	Y =	Y =
Duration of Analysis (hrs) = *0.25*						Cycle Length C = *160.0*		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	*368*	*1779*			*2784*		*2547*					
Lane Group Capacity	*220*	*1767*			*1922*		*1357*					
v/c Ratio	*1.67*	*1.01*			*1.45*		*1.88*					
Green Ratio	*0.13*	*0.50*			*0.34*		*0.42*					
Uniform Delay d_1	*69.9*	*39.8*			*52.9*		*46.5*					
Delay Factor k	*0.50*	*0.50*			*0.50*		*0.50*					
Incremental Delay d_2	*321.9*	*23.1*			*204.8*		*397.4*					
PF Factor	*1.000*	*1.000*			*1.000*		*1.000*					
Control Delay	*391.8*	*62.8*			*257.7*		*444.0*					
Lane Group LOS	*F*	*E*			*F*		*F*					
Approach Delay	*119.2*			*257.7*			*444.0*					
Approach LOS	*F*			*F*			*F*					
Intersection Delay	*281.4*			Intersection LOS			*F*					

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group	*L*	*T*			*T*		*L*					
Initial Queue/Lane	*0.0*	*0.0*			*0.0*		*0.0*					
Flow Rate/Lane Group	*368*	*1779*			*2784*		*2547*					
Satflow/Lane	*1752*	*1844*			*1844*		*1671*					
Capacity/Lane Group	*220*	*1767*			*1922*		*1357*					
Flow Ratio	*0.2*	*0.5*			*0.5*		*0.8*					
v/c Ratio	*1.67*	*1.01*			*1.45*		*1.88*					
I Factor	*1.000*	*1.000*			*1.000*		*1.000*					
Arrival Type	*3*	*3*			*3*		*3*					
Platoon Ratio	*1.00*	*1.00*			*1.00*		*1.00*					
PF Factor	*1.00*	*1.00*			*1.00*		*1.00*					
Q_1	*16.4*	*41.5*			*40.2*		*58.3*					
k_B	*0.4*	*0.9*			*0.7*		*0.8*					
Q_2	*19.4*	*10.8*			*37.4*		*78.3*					
Q Average	*35.8*	*52.3*			*77.6*		*136.5*					
Percentile Back of Queue (95th percentile)												
$f_{B\%}$	*1.6*	*1.5*			*1.5*		*1.5*					
Back of Queue	*56.6*	*80.2*			*117*		*205*					
Queue Storage Ratio												
Queue Spacing	*25.0*	*25.0*			*25.0*		*25.0*					
Queue Storage	*650*	*0*			*0*		*1100*					
Average Queue Storage Ratio	*1.4*						*3.1*					
95% Queue Storage Ratio	*2.2*						*4.7*					

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 SB Ramps at SR 56*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/18/2010*	Jurisdiction	*FDOT*
Time Period	*AM*	Analysis Year	*No Build 2040*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes		*2*		*2*	*2*					*1*		
Lane Group		*T*		*L*	*T*					*L*		
Volume (vph)		*1725*		*1815*	*3395*					*580*		
% Heavy Vehicles		*3*		*3*	*3*					*8*		
PHF		*0.95*		*0.95*	*0.95*					*0.95*		
Pretimed/Actuated (P/A)		*A*		*A*	*A*					*A*		
Startup Lost Time		*2.0*		*2.0*	*2.0*					*2.0*		
Extension of Effective Green		*2.0*		*2.0*	*2.0*					*2.0*		
Arrival Type		*3*		*3*	*3*					*3*		
Unit Extension		*3.0*		*3.0*	*3.0*					*3.0*		
Ped/Bike/RTOR Volume	*0*	*0*		*0*	*0*		*0*	*0*		*0*	*0*	
Lane Width		*12.0*		*12.0*	*12.0*					*12.0*		
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour		*0*		*0*	*0*					*0*		
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	WB Only	Thru Only	03	04	SB Only	06	07	08
Timing	G = *55.4*	G = *55.1*	G =	G =	G = *20.7*	G =	G =	G =
	Y = *6.3*	Y = *6.1*	Y =	Y =	Y = *6.4*	Y =	Y =	Y =

Duration of Analysis (hrs) = *0.25* | Cycle Length C = *150.0*

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate		*1816*		*1911*	*3574*					*611*		
Lane Group Capacity		*1290*		*1257*	*2735*					*231*		
v/c Ratio		*1.41*		*1.52*	*1.31*					*2.65*		
Green Ratio		*0.37*		*0.37*	*0.78*					*0.14*		
Uniform Delay d_1		*47.5*		*47.3*	*16.6*					*64.7*		
Delay Factor k		*0.50*		*0.50*	*0.50*					*0.50*		
Incremental Delay d_2		*188.2*		*238.2*	*140.8*					*752.6*		
PF Factor		*1.000*		*1.000*	*1.000*					*1.000*		
Control Delay		*235.6*		*285.5*	*157.4*					*817.2*		
Lane Group LOS		*F*		*F*	*F*					*F*		
Approach Delay	*235.6*			*202.0*						*817.2*		
Approach LOS	*F*			*F*						*F*		
Intersection Delay	*257.3*			Intersection LOS						*F*		

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group		*T*		*L*	*T*					*L*		
Initial Queue/Lane		*0.0*		*0.0*	*0.0*					*0.0*		
Flow Rate/Lane Group		*1816*		*1911*	*3574*					*611*		
Satflow/Lane		*1844*		*1752*	*1844*					*1671*		
Capacity/Lane Group		*1290*		*1257*	*2735*					*231*		
Flow Ratio		*0.5*		*0.6*	*1.0*					*0.4*		
v/c Ratio		*1.41*		*1.52*	*1.31*					*2.65*		
I Factor		*1.000*		*1.000*	*1.000*					*1.000*		
Arrival Type		*3*		*3*	*3*					*3*		
Platoon Ratio		*1.00*		*1.00*	*1.00*					*1.00*		
PF Factor		*1.00*		*1.00*	*1.00*					*1.00*		
Q_1		*39.7*		*41.0*	*78.2*					*25.5*		
k_B		*0.7*		*0.7*	*1.2*					*0.4*		
Q_2		*36.9*		*44.1*	*59.7*					*48.1*		
Q Average		*76.6*		*85.1*	*137.9*					*73.6*		
Percentile Back of Queue (95th percentile)												
$f_{B\%}$		*1.5*		*1.5*	*1.5*					*1.5*		
Back of Queue		*116*		*128*	*207*					*111*		
Queue Storage Ratio												
Queue Spacing		*25.0*		*25.0*	*25.0*					*25.0*		
Queue Storage		*0*		*1500*	*0*					*700*		
Average Queue Storage Ratio				*1.4*						*2.6*		
95% Queue Storage Ratio				*2.1*						*4.0*		

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 SB Ramps at SR 56*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/18/2010*	Jurisdiction	*FDOT*
Time Period	*PM*	Analysis Year	*No Build 2040*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes		*2*		*2*	*2*					*1*		
Lane Group		*T*		*L*	*T*					*L*		
Volume (vph)		*1740*		*1380*	*3685*					*300*		
% Heavy Vehicles		*3*		*3*	*3*					*8*		
PHF		*0.95*		*0.95*	*0.95*					*0.95*		
Pretimed/Actuated (P/A)		*A*		*A*	*A*					*A*		
Startup Lost Time		*2.0*		*2.0*	*2.0*					*2.0*		
Extension of Effective Green		*2.0*		*2.0*	*2.0*					*2.0*		
Arrival Type		*3*		*3*	*3*					*3*		
Unit Extension		*3.0*		*3.0*	*3.0*					*3.0*		
Ped/Bike/RTOR Volume	*0*	*0*		*0*	*0*		*0*	*0*		*0*	*0*	
Lane Width		*12.0*		*12.0*	*12.0*					*12.0*		
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour		*0*		*0*	*0*					*0*		
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	WB Only	Thru Only	03	04	SB Only	06	07	08
Timing	G = *65.1*	G = *75.0*	G =	G =	G = *11.1*	G =	G =	G =
	Y = *6.3*	Y = *6.1*	Y =	Y =	Y = *6.4*	Y =	Y =	Y =

Duration of Analysis (hrs) = *0.25* | Cycle Length C = *170.0*

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate		*1832*		*1453*	*3879*					*316*		
Lane Group Capacity		*1549*		*1303*	*3024*					*109*		
v/c Ratio		*1.18*		*1.12*	*1.28*					*2.90*		
Green Ratio		*0.44*		*0.38*	*0.86*					*0.07*		
Uniform Delay d_1		*47.5*		*52.5*	*11.8*					*79.4*		
Delay Factor k		*0.50*		*0.50*	*0.50*					*0.50*		
Incremental Delay d_2		*89.2*		*62.8*	*129.9*					*879.1*		
PF Factor		*1.000*		*1.000*	*1.000*					*1.000*		
Control Delay		*136.7*		*115.3*	*141.7*					*958.5*		
Lane Group LOS		*F*		*F*	*F*					*F*		
Approach Delay	*136.7*			*134.5*						*958.5*		
Approach LOS	*F*			*F*						*F*		
Intersection Delay	*169.8*			Intersection LOS						*F*		

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group		*T*		*L*	*T*					*L*		
Initial Queue/Lane		*0.0*		*0.0*	*0.0*					*0.0*		
Flow Rate/Lane Group		*1832*		*1453*	*3879*					*316*		
Satflow/Lane		*1844*		*1752*	*1844*					*1671*		
Capacity/Lane Group		*1549*		*1303*	*3024*					*109*		
Flow Ratio		*0.5*		*0.4*	*1.1*					*0.2*		
v/c Ratio		*1.18*		*1.12*	*1.28*					*2.90*		
I Factor		*1.000*		*1.000*	*1.000*					*1.000*		
Arrival Type		*3*		*3*	*3*					*3*		
Platoon Ratio		*1.00*		*1.00*	*1.00*					*1.00*		
PF Factor		*1.00*		*1.00*	*1.00*					*1.00*		
Q_1		*45.4*		*35.3*	*96.2*					*14.9*		
k_B		*0.9*		*0.8*	*1.3*					*0.3*		
Q_2		*23.2*		*14.8*	*61.6*					*26.3*		
Q Average		*68.7*		*50.1*	*157.8*					*41.2*		
Percentile Back of Queue (95th percentile)												
$f_{B\%}$		*1.5*		*1.5*	*1.5*					*1.6*		
Back of Queue		*104*		*77.0*	*237*					*64.3*		
Queue Storage Ratio												
Queue Spacing		*25.0*		*25.0*	*25.0*					*25.0*		
Queue Storage		*0*		*1500*	*0*					*700*		
Average Queue Storage Ratio				*0.8*						*1.5*		
95% Queue Storage Ratio				*1.3*						*2.3*		

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 NB Ramps at SR 54*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/20/2010*	Jurisdiction	*FDOT*
Time Period	*AM*	Analysis Year	*No Build 2040*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	*1*	*3*			*5*	*1*	*2*					
Lane Group	*L*	*T*			*T*	*R*	*L*					
Volume (vph)	*665*	*2645*			*3750*	*680*	*1505*					
% Heavy Vehicles	*2*	*2*			*2*	*2*	*8*					
PHF	*0.95*	*0.95*			*0.95*	*0.95*	*0.95*					
Pretimed/Actuated (P/A)	*A*	*A*			*A*	*A*	*A*					
Startup Lost Time	*2.0*	*2.0*			*2.0*	*2.0*	*2.0*					
Extension of Effective Green	*2.0*	*2.0*			*2.0*	*2.0*	*2.0*					
Arrival Type	*3*	*3*			*3*	*3*	*3*					
Unit Extension	*3.0*	*3.0*			*3.0*	*3.0*	*3.0*					
Ped/Bike/RTOR Volume	*0*	*0*		*0*	*0*	*0*	*0*	*0*		*0*	*0*	
Lane Width	*12.0*	*12.0*			*12.0*	*12.0*	*12.0*					
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour	*0*	*0*			*0*	*0*	*0*					
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	EB Only	Thru & RT	03	04	NB Only	06	07	08
Timing	G = *27.8*	G = *78.2*	G =	G =	G = *41.0*	G =	G =	G =
	Y = *6*	Y = *6*	Y =	Y =	Y = *6*	Y =	Y =	Y =
Duration of Analysis (hrs) = *0.25*						Cycle Length C = *165.0*		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	*700*	*2784*			*3947*	*716*	*1584*					
Lane Group Capacity	*298*	*3444*			*3615*	*1201*	*807*					
v/c Ratio	*2.35*	*0.81*			*1.09*	*0.60*	*1.96*					
Green Ratio	*0.17*	*0.68*			*0.47*	*0.76*	*0.25*					
Uniform Delay d_1	*68.6*	*18.9*			*43.4*	*8.8*	*62.0*					
Delay Factor k	*0.50*	*0.35*			*0.50*	*0.19*	*0.50*					
Incremental Delay d_2	*617.4*	*1.5*			*46.6*	*0.8*	*437.8*					
PF Factor	*1.000*	*1.000*			*1.000*	*1.000*	*1.000*					
Control Delay	*686.0*	*20.4*			*90.0*	*9.6*	*499.8*					
Lane Group LOS	*F*	*C*			*F*	*A*	*F*					
Approach Delay	*154.1*			*77.6*			*499.8*					
Approach LOS	*F*			*E*			*F*					
Intersection Delay	*173.7*			Intersection LOS						*F*		

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group	*L*	*T*			*T*	*R*	*L*					
Initial Queue/Lane	*0.0*	*0.0*			*0.0*	*0.0*	*0.0*					
Flow Rate/Lane Group	*700*	*2784*			*3947*	*716*	*1584*					
Satflow/Lane	*1770*	*1862*			*1862*	*1583*	*1671*					
Capacity/Lane Group	*298*	*3444*			*3615*	*1201*	*807*					
Flow Ratio	*0.4*	*0.5*			*0.5*	*0.5*	*0.5*					
v/c Ratio	*2.35*	*0.81*			*1.09*	*0.60*	*1.96*					
I Factor	*1.000*	*1.000*			*1.000*	*1.000*	*1.000*					
Arrival Type	*3*	*3*			*3*	*3*	*3*					
Platoon Ratio	*1.00*	*1.00*			*1.00*	*1.00*	*1.00*					
PF Factor	*1.00*	*1.00*			*1.00*	*1.00*	*1.00*					
Q_1	*32.1*	*33.3*			*44.1*	*14.5*	*37.4*					
k_B	*0.5*	*1.1*			*0.9*	*1.1*	*0.6*					
Q_2	*51.1*	*4.2*			*16.7*	*1.6*	*51.2*					
Q Average	*83.2*	*37.6*			*60.9*	*16.0*	*88.5*					

Percentile Back of Queue (95th percentile)

$f_{B\%}$	*1.5*	*1.6*			*1.5*	*1.7*	*1.5*					
Back of Queue	*125*	*59.2*			*92.6*	*28.0*	*133*					

Queue Storage Ratio

Queue Spacing	*25.0*	*25.0*			*25.0*	*25.0*	*25.0*					
Queue Storage	*1000*	*0*			*0*	*500*	*1100*					
Average Queue Storage Ratio	*2.1*					*0.8*	*2.0*					
95% Queue Storage Ratio	*3.1*					*1.4*	*3.0*					

HCS+™ Version 5.5

Generated: 2/15/2013 10:35 AM

SHORT REPORT

General Information		Site Information	
Analyst	URS	Intersection	I-75 NB Ramps at SR 54
Agency or Co.	URS	Area Type	All other areas
Date Performed	5/20/2010	Jurisdiction	FDOT
Time Period	PM	Analysis Year	No Build 2040

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	1	3			5	1	2					
Lane Group	L	T			T	R	L					
Volume (vph)	775	1950			3210	870	1455					
% Heavy Vehicles	2	2			2	2	8					
PHF	0.95	0.95			0.95	0.95	0.95					
Pretimed/Actuated (P/A)	A	A			A	A	A					
Startup Lost Time	2.0	2.0			2.0	2.0	2.0					
Extension of Effective Green	2.0	2.0			2.0	2.0	2.0					
Arrival Type	3	3			3	3	3					
Unit Extension	3.0	3.0			3.0	3.0	3.0					
Ped/Bike/RTOR Volume	0	0		0	0	0	0	0		0	0	
Lane Width	12.0	12.0			12.0	12.0	12.0					
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/Hour												
Bus Stops/Hour	0	0			0	0	0					
Minimum Pedestrian Time		3.2			3.2			3.2			3.2	

Phasing	EB Only	Thru & RT	03	04	NB Only	06	07	08
Timing	G = 39.5	G = 73.9	G =	G =	G = 48.6	G =	G =	G =
	Y = 6	Y = 6	Y =	Y =	Y = 6	Y =	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 180.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	816	2053			3379	916	1532					
Lane Group Capacity	388	3366			3548	1130	876					
v/c Ratio	2.10	0.61			0.95	0.81	1.75					
Green Ratio	0.22	0.66			0.41	0.71	0.27					
Uniform Delay d_1	70.3	17.1			51.3	17.5	65.7					
Delay Factor k	0.50	0.20			0.46	0.35	0.50					
Incremental Delay d_2	505.1	0.3			7.1	4.6	341.7					
PF Factor	1.000	1.000			1.000	1.000	1.000					
Control Delay	575.3	17.5			58.4	22.0	407.4					
Lane Group LOS	F	B			E	C	F					
Approach Delay	176.1			50.7			407.4					
Approach LOS	F			D			F					
Intersection Delay	154.9			Intersection LOS			F					

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group	*L*	*T*			*T*	*R*	*L*					
Initial Queue/Lane	*0.0*	*0.0*			*0.0*	*0.0*	*0.0*					
Flow Rate/Lane Group	*816*	*2053*			*3379*	*916*	*1532*					
Satflow/Lane	*1770*	*1862*			*1862*	*1583*	*1671*					
Capacity/Lane Group	*388*	*3366*			*3548*	*1130*	*876*					
Flow Ratio	*0.5*	*0.4*			*0.4*	*0.6*	*0.5*					
v/c Ratio	*2.10*	*0.61*			*0.95*	*0.81*	*1.75*					
I Factor	*1.000*	*1.000*			*1.000*	*1.000*	*1.000*					
Arrival Type	*3*	*3*			*3*	*3*	*3*					
Platoon Ratio	*1.00*	*1.00*			*1.00*	*1.00*	*1.00*					
PF Factor	*1.00*	*1.00*			*1.00*	*1.00*	*1.00*					
Q_1	*40.8*	*21.3*			*35.2*	*31.1*	*39.4*					
k_B	*0.6*	*1.2*			*0.9*	*1.1*	*0.6*					
Q_2	*54.6*	*1.8*			*7.0*	*4.2*	*43.6*					
Q Average	*95.4*	*23.1*			*42.3*	*35.3*	*83.0*					

Percentile Back of Queue (95th percentile)

$f_{B\%}$	*1.5*	*1.7*			*1.6*	*1.6*	*1.5*					
Back of Queue	*143*	*38.5*			*65.8*	*55.9*	*125*					

Queue Storage Ratio

Queue Spacing	*25.0*	*25.0*			*25.0*	*25.0*	*25.0*					
Queue Storage	*1000*	*0*			*0*	*500*	*1100*					
Average Queue Storage Ratio	*2.4*					*1.8*	*1.9*					
95% Queue Storage Ratio	*3.6*					*2.8*	*2.8*					

HCS+™ Version 5.5 Generated: 2/15/2013 10:37 AM

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 SB Ramps at CR 54*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/20/2010*	Jurisdiction	*FDOT*
Time Period	*AM*	Analysis Year	*No Build 2040*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes		*4*	*1*	*2*	*3*					*1*		*1*
Lane Group		*T*	*R*	*L*	*T*					*L*		*R*
Volume (vph)		*2440*	*1455*	*2480*	*2775*					*870*		*775*
% Heavy Vehicles		*2*	*2*	*2*	*2*					*8*		*8*
PHF		*0.95*	*0.95*	*0.95*	*0.95*					*0.95*		*0.95*
Pretimed/Actuated (P/A)		*A*	*A*	*A*	*A*					*A*		*A*
Startup Lost Time		*2.0*	*2.0*	*2.0*	*2.0*					*2.0*		*2.0*
Extension of Effective Green		*2.0*	*2.0*	*2.0*	*2.0*					*2.0*		*2.0*
Arrival Type		*3*	*3*	*3*	*3*					*3*		*3*
Unit Extension		*3.0*	*3.0*	*3.0*	*3.0*					*3.0*		*3.0*
Ped/Bike/RTOR Volume	*0*	*0*	*0*	*0*	*0*		*0*	*0*		*0*	*0*	*0*
Lane Width		*12.0*	*12.0*	*12.0*	*12.0*					*12.0*		*12.0*
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour		*0*	*0*	*0*	*0*					*0*		*0*
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	WB Only	Thru & RT	03	04	SB Only	06	07	08
Timing	G = *55.7*	G = *32.5*	G =	G =	G = *33.8*	G =	G =	G =
	Y = *6*	Y = *6*	Y =	Y =	Y = *6*	Y =	Y =	Y =
Duration of Analysis (hrs) = *0.25*						Cycle Length C = *140.0*		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate		*2568*	*1532*	*2611*	*2921*					*916*		*816*
Lane Group Capacity		*1538*	*818*	*1367*	*3414*					*403*		*361*
v/c Ratio		*1.67*	*1.87*	*1.91*	*0.86*					*2.27*		*2.26*
Green Ratio		*0.23*	*0.52*	*0.40*	*0.67*					*0.24*		*0.24*
Uniform Delay d_1		*53.8*	*33.8*	*42.1*	*17.7*					*53.1*		*53.1*
Delay Factor k		*0.50*	*0.50*	*0.50*	*0.39*					*0.50*		*0.50*
Incremental Delay d_2		*304.3*	*397.5*	*412.3*	*2.3*					*580.7*		*576.0*
PF Factor		*1.000*	*1.000*	*1.000*	*1.000*					*1.000*		*1.000*
Control Delay		*358.0*	*431.3*	*454.4*	*20.0*					*633.8*		*629.1*
Lane Group LOS		*F*	*F*	*F*	*B*					*F*		*F*
Approach Delay		*385.4*			*225.0*					*631.6*		
Approach LOS		*F*			*F*					*F*		
Intersection Delay		*344.8*			Intersection LOS					*F*		

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group		*T*	*R*	*L*	*T*					*L*		*R*
Initial Queue/Lane		*0.0*	*0.0*	*0.0*	*0.0*					*0.0*		*0.0*
Flow Rate/Lane Group		*2568*	*1532*	*2611*	*2921*					*916*		*816*
Satflow/Lane		*1862*	*1583*	*1770*	*1862*					*1671*		*1495*
Capacity/Lane Group		*1538*	*818*	*1367*	*3414*					*403*		*361*
Flow Ratio		*0.4*	*1.0*	*0.8*	*0.6*					*0.5*		*0.5*
v/c Ratio		*1.67*	*1.87*	*1.91*	*0.86*					*2.27*		*2.26*
I Factor		*1.000*	*1.000*	*1.000*	*1.000*					*1.000*		*1.000*
Arrival Type		*3*	*3*	*3*	*3*					*3*		*3*
Platoon Ratio		*1.00*	*1.00*	*1.00*	*1.00*					*1.00*		*1.00*
PF Factor		*1.00*	*1.00*	*1.00*	*1.00*					*1.00*		*1.00*
Q_1		*28.1*	*59.6*	*52.3*	*32.1*					*35.6*		*31.7*
k_B		*0.5*	*0.8*	*0.7*	*1.0*					*0.5*		*0.5*
Q_2		*37.6*	*90.9*	*81.6*	*5.0*					*65.0*		*57.7*
Q Average		*65.6*	*150.5*	*133.9*	*37.1*					*100.7*		*89.5*
Percentile Back of Queue (95th percentile)												
$f_{B\%}$		*1.5*	*1.5*	*1.5*	*1.6*					*1.5*		*1.5*
Back of Queue		*99.5*	*226*	*201*	*58.5*					*151*		*135*
Queue Storage Ratio												
Queue Spacing		*25.0*	*25.0*	*25.0*	*25.0*					*25.0*		*25.0*
Queue Storage		*0*	*700*	*900*	*0*					*300*		*1000*
Average Queue Storage Ratio			*5.4*	*3.7*						*8.4*		*2.2*
95% Queue Storage Ratio			*8.1*	*5.6*						*12.6*		*3.4*

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 SB Ramps at CR 54*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/20/2010*	Jurisdiction	*FDOT*
Time Period	*PM*	Analysis Year	*No Build 2040*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes		*4*	*1*	*2*	*3*					*1*		*1*
Lane Group		*T*	*R*	*L*	*T*					*L*		*R*
Volume (vph)		*2045*	*1505*	*1435*	*3230*					*680*		*665*
% Heavy Vehicles		*2*	*2*	*2*	*2*					*8*		*8*
PHF		*0.95*	*0.95*	*0.95*	*0.95*					*0.95*		*0.95*
Pretimed/Actuated (P/A)		*A*	*A*	*A*	*A*					*A*		*A*
Startup Lost Time		*2.0*	*2.0*	*2.0*	*2.0*					*2.0*		*2.0*
Extension of Effective Green		*2.0*	*2.0*	*2.0*	*2.0*					*2.0*		*2.0*
Arrival Type		*3*	*3*	*3*	*3*					*3*		*3*
Unit Extension		*3.0*	*3.0*	*3.0*	*3.0*					*3.0*		*3.0*
Ped/Bike/RTOR Volume	*0*	*0*	*0*	*0*	*0*		*0*	*0*		*0*	*0*	*0*
Lane Width		*12.0*	*12.0*	*12.0*	*12.0*					*12.0*		*12.0*
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour		*0*	*0*	*0*	*0*					*0*		*0*
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	WB Only	Thru & RT	03	04	SB Only	06	07	08
Timing	G = *44.7*	G = *59.9*	G =	G =	G = *37.4*	G =	G =	G =
	Y = *6*	Y = *6*	Y =	Y =	Y = *6*	Y =	Y =	Y =
Duration of Analysis (hrs) = *0.25*						Cycle Length C = *160.0*		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate		*2153*	*1584*	*1511*	*3400*					*716*		*700*
Lane Group Capacity		*2424*	*1022*	*960*	*3507*					*391*		*349*
v/c Ratio		*0.89*	*1.55*	*1.57*	*0.97*					*1.83*		*2.01*
Green Ratio		*0.37*	*0.65*	*0.28*	*0.69*					*0.23*		*0.23*
Uniform Delay d_1		*46.9*	*28.4*	*57.6*	*23.1*					*61.3*		*61.3*
Delay Factor k		*0.41*	*0.50*	*0.50*	*0.48*					*0.50*		*0.50*
Incremental Delay d_2		*4.5*	*252.3*	*263.3*	*9.3*					*383.9*		*462.6*
PF Factor		*1.000*	*1.000*	*1.000*	*1.000*					*1.000*		*1.000*
Control Delay		*51.4*	*280.7*	*321.0*	*32.4*					*445.2*		*523.9*
Lane Group LOS		*D*	*F*	*F*	*C*					*F*		*F*
Approach Delay	*148.6*			*121.2*						*484.1*		
Approach LOS	*F*			*F*						*F*		
Intersection Delay	*182.4*			Intersection LOS						*F*		

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group		*T*	*R*	*L*	*T*					*L*		*R*
Initial Queue/Lane		*0.0*	*0.0*	*0.0*	*0.0*					*0.0*		*0.0*
Flow Rate/Lane Group		*2153*	*1584*	*1511*	*3400*					*716*		*700*
Satflow/Lane		*1862*	*1583*	*1770*	*1862*					*1671*		*1495*
Capacity/Lane Group		*2424*	*1022*	*960*	*3507*					*391*		*349*
Flow Ratio		*0.3*	*1.0*	*0.4*	*0.7*					*0.4*		*0.5*
v/c Ratio		*0.89*	*1.55*	*1.57*	*0.97*					*1.83*		*2.01*
I Factor		*1.000*	*1.000*	*1.000*	*1.000*					*1.000*		*1.000*
Arrival Type		*3*	*3*	*3*	*3*					*3*		*3*
Platoon Ratio		*1.00*	*1.00*	*1.00*	*1.00*					*1.00*		*1.00*
PF Factor		*1.00*	*1.00*	*1.00*	*1.00*					*1.00*		*1.00*
Q_1		*25.8*	*70.4*	*34.6*	*51.9*					*31.8*		*31.1*
k_B		*0.8*	*1.0*	*0.6*	*1.1*					*0.6*		*0.5*
Q_2		*4.3*	*72.9*	*37.2*	*11.1*					*41.8*		*44.9*
Q Average		*30.1*	*143.3*	*71.7*	*63.0*					*73.6*		*76.0*
Percentile Back of Queue (95th percentile)												
$f_{B\%}$		*1.6*	*1.5*	*1.5*	*1.5*					*1.5*		*1.5*
Back of Queue		*48.5*	*215*	*108*	*95.7*					*111*		*115*
Queue Storage Ratio												
Queue Spacing		*25.0*	*25.0*	*25.0*	*25.0*					*25.0*		*25.0*
Queue Storage		*0*	*700*	*900*	*0*					*300*		*1000*
Average Queue Storage Ratio			*5.1*	*2.0*						*6.1*		*1.9*
95% Queue Storage Ratio			*7.7*	*3.0*						*9.3*		*2.9*

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 NB Ramps at SR 52*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/20/2010*	Jurisdiction	*FDOT*
Time Period	*AM*	Analysis Year	*No Build 2040*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	*1*	*2*			*3*	*0*	*2*					
Lane Group	*L*	*T*			*TR*		*L*					
Volume (vph)	*550*	*1670*			*3120*	*350*	*1190*					
% Heavy Vehicles	*6*	*6*			*6*	*6*	*8*					
PHF	*0.95*	*0.95*			*0.95*	*0.95*	*0.95*					
Pretimed/Actuated (P/A)	*A*	*A*			*A*	*A*	*A*					
Startup Lost Time	*2.0*	*2.0*			*2.0*		*2.0*					
Extension of Effective Green	*2.0*	*2.0*			*2.0*		*2.0*					
Arrival Type	*3*	*3*			*3*		*3*					
Unit Extension	*3.0*	*3.0*			*3.0*		*3.0*					
Ped/Bike/RTOR Volume	*0*	*0*		*0*	*0*	*0*	*0*	*0*		*0*	*0*	
Lane Width	*12.0*	*12.0*			*12.0*		*12.0*					
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour	*0*	*0*			*0*		*0*					
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	EB Only	Thru & RT	03	04	NB Only	06	07	08
Timing	G = *21.8*	G = *94.4*	G =	G =	G = *35.8*	G =	G =	G =
	Y = *6*	Y = *6*	Y =	Y =	Y = *6*	Y =	Y =	Y =
Duration of Analysis (hrs) = *0.25*						Cycle Length C = *170.0*		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	*579*	*1758*			*3652*		*1253*					
Lane Group Capacity	*218*	*2453*			*1917*		*684*					
v/c Ratio	*2.66*	*0.72*			*1.91*		*1.83*					
Green Ratio	*0.13*	*0.72*			*0.56*		*0.21*					
Uniform Delay d_1	*74.1*	*13.9*			*37.8*		*67.1*					
Delay Factor k	*0.50*	*0.28*			*0.50*		*0.50*					
Incremental Delay d_2	*758.2*	*1.0*			*409.2*		*380.1*					
PF Factor	*1.000*	*1.000*			*1.000*		*1.000*					
Control Delay	*832.3*	*14.9*			*447.0*		*447.2*					
Lane Group LOS	*F*	*B*			*F*		*F*					
Approach Delay	*217.4*			*447.0*			*447.2*					
Approach LOS	*F*			*F*			*F*					
Intersection Delay	*373.0*			Intersection LOS			*F*					

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group	*L*	*T*			*TR*		*L*					
Initial Queue/Lane	*0.0*	*0.0*			*0.0*		*0.0*					
Flow Rate/Lane Group	*579*	*1758*			*3652*		*1253*					
Satflow/Lane	*1703*	*1792*			*1765*		*1671*					
Capacity/Lane Group	*218*	*2453*			*1917*		*684*					
Flow Ratio	*0.3*	*0.5*			*1.1*		*0.4*					
v/c Ratio	*2.66*	*0.72*			*1.91*		*1.83*					
I Factor	*1.000*	*1.000*			*1.000*		*1.000*					
Arrival Type	*3*	*3*			*3*		*3*					
Platoon Ratio	*1.00*	*1.00*			*1.00*		*1.00*					
PF Factor	*1.00*	*1.00*			*1.00*		*1.00*					
Q_1	*27.3*	*25.3*			*88.2*		*30.5*					
k_B	*0.4*	*1.2*			*1.0*		*0.5*					
Q_2	*45.8*	*2.8*			*112.9*		*37.8*					
Q Average	*73.1*	*28.1*			*201.1*		*68.2*					
Percentile Back of Queue (95th percentile)												
$f_{B\%}$	*1.5*	*1.6*			*1.5*		*1.5*					
Back of Queue	*110*	*45.7*			*302*		*103*					
Queue Storage Ratio												
Queue Spacing	*25.0*	*25.0*			*25.0*		*25.0*					
Queue Storage	*500*	*0*			*0*		*500*					
Average Queue Storage Ratio	*3.7*						*3.4*					
95% Queue Storage Ratio	*5.5*						*5.2*					

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 NB Ramps at SR 52*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/20/2010*	Jurisdiction	*FDOT*
Time Period	*PM*	Analysis Year	*No Build 2040*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	*1*	*2*			*3*	*0*	*2*					
Lane Group	*L*	*T*			*TR*		*L*					
Volume (vph)	*535*	*1510*			*2620*	*560*	*1490*					
% Heavy Vehicles	*6*	*6*			*6*	*6*	*8*					
PHF	*0.95*	*0.95*			*0.95*	*0.95*	*0.95*					
Pretimed/Actuated (P/A)	*A*	*A*			*A*	*A*	*A*					
Startup Lost Time	*2.0*	*2.0*			*2.0*		*2.0*					
Extension of Effective Green	*2.0*	*2.0*			*2.0*		*2.0*					
Arrival Type	*3*	*3*			*3*		*3*					
Unit Extension	*3.0*	*3.0*			*3.0*		*3.0*					
Ped/Bike/RTOR Volume	*0*	*0*		*0*	*0*	*0*	*0*	*0*		*0*	*0*	
Lane Width	*12.0*	*12.0*			*12.0*		*12.0*					
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour	*0*	*0*			*0*		*0*					
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	EB Only	Thru & RT	03	04	NB Only	06	07	08
Timing	G = *23.7*	G = *89.2*	G =	G =	G = *39.1*	G =	G =	G =
	Y = *6*	Y = *6*	Y =	Y =	Y = *6*	Y =	Y =	Y =
Duration of Analysis (hrs) = *0.25*						Cycle Length C = *170.0*		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	*563*	*1589*			*3347*		*1568*					
Lane Group Capacity	*237*	*2387*			*1428*		*747*					
v/c Ratio	*2.38*	*0.67*			*2.34*		*2.10*					
Green Ratio	*0.14*	*0.70*			*0.52*		*0.23*					
Uniform Delay d_1	*73.2*	*14.4*			*40.4*		*65.5*					
Delay Factor k	*0.50*	*0.24*			*0.50*		*0.50*					
Incremental Delay d_2	*631.8*	*0.7*			*606.9*		*499.1*					
PF Factor	*1.000*	*1.000*			*1.000*		*1.000*					
Control Delay	*705.0*	*15.1*			*647.3*		*564.6*					
Lane Group LOS	*F*	*B*			*F*		*F*					
Approach Delay	*195.6*			*647.3*			*564.6*					
Approach LOS	*F*			*F*			*F*					
Intersection Delay	*491.4*			Intersection LOS			*F*					

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group	*L*	*T*			*TR*		*L*					
Initial Queue/Lane	*0.0*	*0.0*			*0.0*		*0.0*					
Flow Rate/Lane Group	*563*	*1589*			*3347*		*1568*					
Satflow/Lane	*1703*	*1792*			*1744*		*1671*					
Capacity/Lane Group	*237*	*2387*			*1428*		*747*					
Flow Ratio	*0.3*	*0.5*			*1.2*		*0.5*					
v/c Ratio	*2.38*	*0.67*			*2.34*		*2.10*					
I Factor	*1.000*	*1.000*			*1.000*		*1.000*					
Arrival Type	*3*	*3*			*3*		*3*					
Platoon Ratio	*1.00*	*1.00*			*1.00*		*1.00*					
PF Factor	*1.00*	*1.00*			*1.00*		*1.00*					
Q_1	*26.6*	*22.1*			*101.3*		*38.1*					
k_B	*0.4*	*1.2*			*1.0*		*0.6*					
Q_2	*41.5*	*2.2*			*155.4*		*53.9*					
Q Average	*68.1*	*24.4*			*256.7*		*92.0*					

Percentile Back of Queue (95th percentile)

$f_{B\%}$	*1.5*	*1.7*			*1.5*		*1.5*					
Back of Queue	*103*	*40.3*			*385*		*138*					

Queue Storage Ratio

Queue Spacing	*25.0*	*25.0*			*25.0*		*25.0*					
Queue Storage	*500*	*0*			*0*		*500*					
Average Queue Storage Ratio	*3.4*						*4.6*					
95% Queue Storage Ratio	*5.2*						*6.9*					

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 SB Ramps at SR 52*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/20/2010*	Jurisdiction	*FDOT*
Time Period	*AM*	Analysis Year	*No Build 2040*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes		*3*		*1*	*2*					*1*		*1*
Lane Group		*T*		*L*	*T*					*L*		*R*
Volume (vph)		*1660*		*1960*	*2350*					*560*		*535*
% Heavy Vehicles		*6*		*6*	*6*					*8*		*8*
PHF		*0.95*		*0.95*	*0.95*					*0.95*		*0.95*
Pretimed/Actuated (P/A)		*A*		*A*	*A*					*A*		*A*
Startup Lost Time		*2.0*		*2.0*	*2.0*					*2.0*		*2.0*
Extension of Effective Green		*2.0*		*2.0*	*2.0*					*2.0*		*2.0*
Arrival Type		*3*		*3*	*3*					*3*		*3*
Unit Extension		*3.0*		*3.0*	*3.0*					*3.0*		*3.0*
Ped/Bike/RTOR Volume	*0*	*0*		*0*	*0*		*0*	*0*		*0*	*0*	*0*
Lane Width		*12.0*		*12.0*	*12.0*					*12.0*		*12.0*
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour		*0*		*0*	*0*					*0*		*0*
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	WB Only	Thru Only	03	04	SB Only	06	07	08
Timing	G = *82.7*	G = *45.2*	G =	G =	G = *34.1*	G =	G =	G =
	Y = *6*	Y = *6*	Y =	Y =	Y = *6*	Y =	Y =	Y =

Duration of Analysis (hrs) = *0.25* | Cycle Length C = *180.0*

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate		*1747*		*2063*	*2474*					*589*		*563*
Lane Group Capacity		*976*		*782*	*2539*					*317*		*283*
v/c Ratio		*1.79*		*2.64*	*0.97*					*1.86*		*1.99*
Green Ratio		*0.25*		*0.46*	*0.74*					*0.19*		*0.19*
Uniform Delay d_1		*67.4*		*48.7*	*21.5*					*72.9*		*72.9*
Delay Factor k		*0.50*		*0.50*	*0.48*					*0.50*		*0.50*
Incremental Delay d_2		*359.6*		*740.8*	*12.5*					*398.0*		*457.7*
PF Factor		*1.000*		*1.000*	*1.000*					*1.000*		*1.000*
Control Delay		*427.0*		*789.5*	*33.9*					*471.0*		*530.6*
Lane Group LOS		*F*		*F*	*C*					*F*		*F*
Approach Delay	*427.0*			*377.5*						*500.1*		
Approach LOS	*F*			*F*						*F*		
Intersection Delay	*408.1*			Intersection LOS						*F*		

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group		*T*		*L*	*T*					*L*		*R*
Initial Queue/Lane		*0.0*		*0.0*	*0.0*					*0.0*		*0.0*
Flow Rate/Lane Group		*1747*		*2063*	*2474*					*589*		*563*
Satflow/Lane		*1792*		*1703*	*1792*					*1671*		*1495*
Capacity/Lane Group		*976*		*782*	*2539*					*317*		*283*
Flow Ratio		*0.4*		*1.2*	*0.7*					*0.4*		*0.4*
v/c Ratio		*1.79*		*2.64*	*0.97*					*1.86*		*1.99*
I Factor		*1.000*		*1.000*	*1.000*					*1.000*		*1.000*
Arrival Type		*3*		*3*	*3*					*3*		*3*
Platoon Ratio		*1.00*		*1.00*	*1.00*					*1.00*		*1.00*
PF Factor		*1.00*		*1.00*	*1.00*					*1.00*		*1.00*
Q_1		*40.3*		*103.2*	*60.5*					*29.5*		*28.1*
k_B		*0.6*		*0.9*	*1.2*					*0.5*		*0.5*
Q_2		*45.9*		*161.6*	*12.2*					*35.1*		*36.0*
Q Average		*86.2*		*264.7*	*72.7*					*64.5*		*64.1*

Percentile Back of Queue (95th percentile)

$f_{B\%}$		*1.5*		*1.5*	*1.5*					*1.5*		*1.5*
Back of Queue		*130*		*397*	*110*					*97.9*		*97.3*

Queue Storage Ratio

Queue Spacing		*25.0*		*25.0*	*25.0*					*25.0*		*25.0*
Queue Storage		*0*		*600*	*0*					*800*		*100*
Average Queue Storage Ratio				*11.0*						*2.0*		*16.0*
95% Queue Storage Ratio				*16.5*						*3.1*		*24.3*

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 SB Ramps at SR 52*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/20/2010*	Jurisdiction	*FDOT*
Time Period	*PM*	Analysis Year	*No Build 2040*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes		*3*		*1*	*2*					*1*		*1*
Lane Group		*T*		*L*	*T*					*L*		*R*
Volume (vph)		*1695*		*1510*	*2600*					*350*		*550*
% Heavy Vehicles		*6*		*6*	*6*					*8*		*8*
PHF		*0.95*		*0.95*	*0.95*					*0.95*		*0.95*
Pretimed/Actuated (P/A)		*A*		*A*	*A*					*A*		*A*
Startup Lost Time		*2.0*		*2.0*	*2.0*					*2.0*		*2.0*
Extension of Effective Green		*2.0*		*2.0*	*2.0*					*2.0*		*2.0*
Arrival Type		*3*		*3*	*3*					*3*		*3*
Unit Extension		*3.0*		*3.0*	*3.0*					*3.0*		*3.0*
Ped/Bike/RTOR Volume	*0*	*0*		*0*	*0*		*0*	*0*		*0*	*0*	*0*
Lane Width		*12.0*		*12.0*	*12.0*					*12.0*		*12.0*
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour		*0*		*0*	*0*					*0*		*0*
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	WB Only	Thru Only	03	04	SB Only	06	07	08
Timing	G = *69.5*	G = *55.6*	G =	G =	G = *26.9*	G =	G =	G =
	Y = *6*	Y = *6*	Y =	Y =	Y = *6*	Y =	Y =	Y =

Duration of Analysis (hrs) = *0.25* | Cycle Length C = *170.0*

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate		*1784*		*1589*	*2737*					*368*		*579*
Lane Group Capacity		*1126*		*696*	*2632*					*264*		*237*
v/c Ratio		*1.58*		*2.28*	*1.04*					*1.39*		*2.44*
Green Ratio		*0.33*		*0.41*	*0.77*					*0.16*		*0.16*
Uniform Delay d_1		*57.2*		*50.3*	*19.4*					*71.6*		*71.6*
Delay Factor k		*0.50*		*0.50*	*0.50*					*0.50*		*0.50*
Incremental Delay d_2		*267.2*		*581.9*	*29.0*					*198.8*		*662.0*
PF Factor		*1.000*		*1.000*	*1.000*					*1.000*		*1.000*
Control Delay		*324.4*		*632.2*	*48.4*					*270.3*		*733.5*
Lane Group LOS		*F*		*F*	*D*					*F*		*F*
Approach Delay		*324.4*			*262.9*						*553.5*	
Approach LOS		*F*			*F*						*F*	
Intersection Delay		*317.4*			Intersection LOS						*F*	

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group		*T*		*L*	*T*					*L*		*R*
Initial Queue/Lane		*0.0*		*0.0*	*0.0*					*0.0*		*0.0*
Flow Rate/Lane Group		*1784*		*1589*	*2737*					*368*		*579*
Satflow/Lane		*1792*		*1703*	*1792*					*1671*		*1495*
Capacity/Lane Group		*1126*		*696*	*2632*					*264*		*237*
Flow Ratio		*0.5*		*0.9*	*0.8*					*0.2*		*0.4*
v/c Ratio		*1.58*		*2.28*	*1.04*					*1.39*		*2.44*
I Factor		*1.000*		*1.000*	*1.000*					*1.000*		*1.000*
Arrival Type		*3*		*3*	*3*					*3*		*3*
Platoon Ratio		*1.00*		*1.00*	*1.00*					*1.00*		*1.00*
PF Factor		*1.00*		*1.00*	*1.00*					*1.00*		*1.00*
Q_1		*43.9*		*75.0*	*67.9*					*17.4*		*27.3*
k_B		*0.7*		*0.8*	*1.2*					*0.5*		*0.4*
Q_2		*44.8*		*113.1*	*18.7*					*14.4*		*43.5*
Q Average		*88.6*		*188.1*	*86.5*					*31.8*		*70.8*
Percentile Back of Queue (95th percentile)												
$f_{B\%}$		*1.5*		*1.5*	*1.5*					*1.6*		*1.5*
Back of Queue		*133*		*282*	*130*					*51.0*		*107*
Queue Storage Ratio												
Queue Spacing		*25.0*		*25.0*	*25.0*					*25.0*		*25.0*
Queue Storage		*0*		*600*	*0*					*800*		*100*
Average Queue Storage Ratio				*7.8*						*1.0*		*17.7*
95% Queue Storage Ratio				*11.8*						*1.6*		*26.8*

TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	*URS*
Agency/Co.	*URS*
Date Performed	*5/20/2010*
Analysis Time Period	*AM*

Site Information

Intersection	*Overpass Rd at Boyette Rd*
Jurisdiction	*Pasco County*
Analysis Year	*No Build 2040*

Project Description *I-75 and Overpass Rd*

East/West Street: *Overpass Rd* | North/South Street: *Boyette Road*

Intersection Orientation: *East-West* | Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*70*	*1345*	*250*	*175*	*1545*	*40*
Peak-Hour Factor, PHF	*0.95*	*0.95*	*0.95*	*0.95*	*0.95*	*0.95*
Hourly Flow Rate, HFR (veh/h)	*73*	*1415*	*263*	*184*	*1626*	*42*
Percent Heavy Vehicles	*2*	*--*	*--*	*2*	*--*	*--*
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*1*	*2*	*0*	*1*	*2*	*0*
Configuration	*L*	*T*	*TR*	*L*	*T*	*TR*
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*230*	*50*	*160*	*35*	*80*	*75*
Peak-Hour Factor, PHF	*0.95*	*0.95*	*0.95*	*0.95*	*0.95*	*0.95*
Hourly Flow Rate, HFR (veh/h)	*242*	*52*	*168*	*36*	*84*	*78*
Percent Heavy Vehicles	*2*	*2*	*2*	*2*	*2*	*0*
Percent Grade (%)	*0*			*0*		
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*1*	*1*	*0*	*1*	*1*	*0*
Configuration	*L*		*TR*	*L*		*TR*

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*L*	*L*	*L*		*TR*	*L*		*TR*
v (veh/h)	*73*	*184*	*242*		*220*	*36*		*162*
C (m) (veh/h)	*381*	*378*	*0*		*8*	*0*		*4*
v/c	*0.19*	*0.49*			*27.50*			*40.50*
95% queue length	*0.70*	*2.57*			*29.31*			*22.46*
Control Delay (s/veh)	*16.7*	*23.2*			*12830*			*19559*
LOS	*C*	*C*	*F*		*F*	*F*		*F*
Approach Delay (s/veh)	--	--						
Approach LOS	--	--						

TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	*URS*
Agency/Co.	*URS*
Date Performed	*5/20/2010*
Analysis Time Period	*PM*

Site Information

Intersection	*Overpass Rd at Boyette Rd*
Jurisdiction	*Pasco County*
Analysis Year	*No Build 2040*

Project Description *I-75 and Overpass Rd*

East/West Street: *Overpass Rd* | North/South Street: *Boyette Road*

Intersection Orientation: *East-West* | Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*75*	*1545*	*230*	*160*	*1345*	*35*
Peak-Hour Factor, PHF	*0.95*	*0.95*	*0.95*	*0.95*	*0.95*	*0.95*
Hourly Flow Rate, HFR (veh/h)	*78*	*1626*	*242*	*168*	*1415*	*36*
Percent Heavy Vehicles	*2*	*--*	*--*	*2*	*--*	*--*
Median Type	*Raised curb*					
RT Channelized			*0*			*0*
Lanes	*1*	*2*	*0*	*1*	*2*	*0*
Configuration	*L*	*T*	*TR*	*L*	*T*	*TR*
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*250*	*80*	*175*	*40*	*50*	*70*
Peak-Hour Factor, PHF	*0.95*	*0.95*	*0.95*	*0.95*	*0.95*	*0.95*
Hourly Flow Rate, HFR (veh/h)	*263*	*84*	*184*	*42*	*52*	*73*
Percent Heavy Vehicles	*2*	*0*	*0*	*2*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*1*	*1*	*0*	*1*	*1*	*0*
Configuration	*L*		*TR*	*L*		*TR*

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*L*	*L*	*L*		*TR*	*L*		*TR*
v (veh/h)	*78*	*168*	*263*		*268*	*42*		*125*
C (m) (veh/h)	*463*	*319*			*0*			*0*
v/c	*0.17*	*0.53*						
95% queue length	*0.60*	*2.89*						
Control Delay (s/veh)	*14.3*	*28.2*						
LOS	*B*	*D*			*F*			*F*
Approach Delay (s/veh)	--	--						
Approach LOS	--	--						

TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	*URS*
Agency/Co.	*URS*
Date Performed	*5/20/2010*
Analysis Time Period	*AM*

Site Information

Intersection	*Overpass Rd at Old Pasco Rd*
Jurisdiction	*Pasco County*
Analysis Year	*No Build 2040*

Project Description *I-75 and Overpass Rd*

East/West Street: *Overpass Rd* | North/South Street: *Old Pasco Road*

Intersection Orientation: *North-South* | Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)		*200*		*850*	*400*	
Peak-Hour Factor, PHF	*1.00*	*0.95*	*0.80*	*0.95*	*0.95*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*210*	*0*	*894*	*421*	*0*
Percent Heavy Vehicles	*0*	--	--	*2*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*1*	*1*	*0*
Configuration		*T*		*L*	*T*	
Upstream Signal		*0*			*0*	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)				*950*		*895*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*0.95*	*1.00*	*0.95*
Hourly Flow Rate, HFR (veh/h)	*0*	*0*	*0*	*1000*	*0*	*942*
Percent Heavy Vehicles	*0*	*0*	*0*	*2*	*0*	*2*
Percent Grade (%)	*0*			*0*		
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*1*
Lanes	*0*	*0*	*0*	*1*	*0*	*1*
Configuration				*L*		*R*

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		*L*	*L*		*R*			
v (veh/h)		*894*	*1000*		*942*			
C (m) (veh/h)		*1361*	*12*		*830*			
v/c		*0.66*	*83.33*		*1.13*			
95% queue length		*5.27*	*126.47*		*27.06*			
Control Delay (s/veh)		*12.6*	*37656*		*95.7*			
LOS		*B*	*F*		*F*			
Approach Delay (s/veh)	--	--	*19437*					
Approach LOS	--	--	*F*					

TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	*URS*
Agency/Co.	*URS*
Date Performed	*5/20/2010*
Analysis Time Period	*PM*

Site Information

Intersection	*Overpass Rd at Old Pasco Rd*
Jurisdiction	*Pasco County*
Analysis Year	*No Build 2040*

Project Description *I-75 and Overpass Rd*

East/West Street: *Overpass Rd* | North/South Street: *Old Pasco Road*

Intersection Orientation: *North-South* | Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)		*400*		*895*	*200*	
Peak-Hour Factor, PHF	*1.00*	*0.95*	*0.95*	*0.95*	*0.95*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*421*	*0*	*942*	*210*	*0*
Percent Heavy Vehicles	*0*	--	--	*2*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*1*	*1*	*0*
Configuration		*T*		*L*	*T*	
Upstream Signal		*0*			*0*	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)				*815*		*850*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*0.95*	*1.00*	*0.95*
Hourly Flow Rate, HFR (veh/h)	*0*	*0*	*0*	*857*	*0*	*894*
Percent Heavy Vehicles	*0*	*0*	*0*	*2*	*0*	*2*
Percent Grade (%)	*0*			*0*		
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*1*
Lanes	*0*	*0*	*0*	*1*	*0*	*1*
Configuration				*L*		*R*

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		*L*	*L*		*R*			
v (veh/h)		*942*	*857*		*894*			
C (m) (veh/h)		*1138*	*5*		*632*			
v/c		*0.83*	*171.40*		*1.41*			
95% queue length		*10.18*	*109.44*		*40.94*			
Control Delay (s/veh)		*21.2*	*78123*		*215.0*			
LOS		*C*	*F*		*F*			
Approach Delay (s/veh)	--	--	*38346*					
Approach LOS	--	--	*F*					

2040 Build Freeway Analysis Results

FREEPLAN 2009 Conceptual Planning Analysis

Project Information

Analyst	URS	**Freeway Name**	I-75	**Study Period**	Dir Hr Demand Vol
Date Prepared	1/4/2011 1:07:37 PM	**From**	S of SR 56	**Program**	FREEPLAN 2009
Agency	FDOT	**To**	N of SR 52	**Version Date**	12/12/10
Area Type	Other Urbanized	**Peak Direction**	Southbound		
File Name	C:\Documents and Settings\srinivas_meka\Local Settings\Temp\preview.xml				
User Notes	Build 2040 AM Northbound (Off-peak)				

Freeway Data

AADT	97300	**Freeway Input Volume**	8005	**Local Adjustment Factor**	0.95
K	0.09	**PHF**	0.95	**Ramp Metering Exists**	No
D	0.55	**Pecent Trucks Entering First Segment**	7		

Segment Data

Seg #	From	To	Type	Length	Between Length	Hourly Volume	# Thru Lanes	# Aux Lanes	Posted Speed	FFS	Terrain
1	S of SR56	SR 56	Basic Segment	9060	0	8005	4	0	70	70	Level
2	SR 56	SR 56	On Ramp	1500	0	8005	4	0	70	70	Level
3	SR 56	CR 54	Basic Segment	12500	0	8860	4	0	70	70	Level
4	CR 54	CR 54	Diamond	5280	0	8860	3	0	70	70	Level
5	CR 54	Overpass Rd	Basic Segment	13460	0	8545	3	0	70	70	Level
6	Overpass Rd	Overpass Rd	Diamond	5280	0	8545	3	0	70	70	Level
7	Overpass Rd	SR52	Basic Segment	11260	0	6840	3	0	70	70	Level
8	SR 52	SR 52	Diamond	5280	0	6840	3	0	70	70	Level
9	SR 52	N of SR52	Basic Segment	5280	0	5400	3	0	70	70	Level

Interchange Distances

Segment	Type	Interchange Length	Distance Between Ramps			Auxiliary Lane?
			1 and 2	2 and 3	3 and 4	
4	Diamond	2280	2280	0	0	False
6	Diamond	2280	2280	0	0	False
8	Diamond	2280	2280	0	0	False

Ramp Descriptions

Segment	Type	First Off-Ramp					First On-Ramp					Second Off-Ramp					Second On-Ramp				
		Vol	% HV	Lanes	Accel / Decel Length	FFS	Vol	% HV	Lanes	Accel / Decel Length	FFS	Vol	% HV	Lanes	Accel / Decel Length	FFS	Vol	% HV	Lanes	Accel / Decel Length	FFS
2	On Ramp						855	8.0	1	700	45										
4	Diamond	2100	8.0	2	1500	45	1785	8.0	1	700	45										
6	Diamond	2465	2.0	2	500	45	760	2.0	1	500	45										

8	Diamond	2200	8.0	1	410	45	760	8.0	1	700	45

Segment LOS

Seg #	From	To	Type	Volume	Adj. Capacity	Speed	Density	LOS	Sig Impact
1	S of SR56	SR 56	Basic Segment	8005	8371	56.1	40.9	E	N/A
2	SR 56	SR 56	On Ramp	8005	8197	##	##	F	#
3	SR 56	CR 54	Basic Segment	8860	8367	##	##	F	N/A
4	CR 54	CR 54	Diamond	8860	6101	##	##	F	#
5	CR 54	Overpass Rd	Basic Segment	8545	6276	##	##	F	N/A
6	Overpass Rd	Overpass Rd	Diamond	8545	5928	##	##	F	#
7	Overpass Rd	SR52	Basic Segment	6840	6238	##	##	F	N/A
8	SR 52	SR 52	Diamond	6840	5892	##	##	F	#
9	SR 52	N of SR52	Basic Segment	5400	6236	61.1	34.0	D	N/A

Freeway Length	13.04924	FFS Delay	##	Threshold Delay	##	Avg. Speed	##	Density	##	LOS	F

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 2100 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
4					
6					
8					
10					
12					
Lanes	**Peak Hour Volume Both Directions**				
4					
6					
8					
10					
12					
Lanes	**Annual Average Daily Traffic**				
4					
6					
8					
10					
12					

 # Off-ramp storage is highly likely to overflow. The segment operations will likely be worse than indicated.
One or more segments have a demand-to-capacity ratio greater than 1.0; therefore, the performance measure values are highly unreliable.
Freeway LOS is defaulted to F. An operational level analysis tool is more appropriate for this situation.
*** For oversaturated conditions during the peak hour, subtract 10% from LOS E (capacity) volumes. This number becomes the new maximum service volume for LOS D, and LOS E cannot be achieved.**
**** Cannot be achieved based on input data provided.**
***** Not applicable for that level of service letter grade. See generalized tables notes for more details.**

FREEPLAN 2009 Conceptual Planning Analysis

Project Information

Analyst	URS	**Freeway Name**	I-75	**Study Period**	Dir Hr Demand Vol
Date Prepared	4/5/2011 1:07:37 PM	**From**	S of SR 56	**Program**	FREEPLAN 2009
Agency	FDOT	**To**	N of SR 52	**Version Date**	12/12/10
Area Type	Other Urbanized	**Peak Direction**	Southbound		
File Name	C:\Documents and Settings\srinivas_meka\Local Settings\Temp\preview.xml				
User Notes	Build 2040 AM Southbound (Peak)				

Freeway Data

AADT	127800	**Freeway Input Volume**	6560	**Local Adjustment Factor**	0.95
K	0.09	**PHF**	0.95	**Ramp Metering Exists**	No
D	0.55	**Pecent Trucks Entering First Segment**	15		

Segment Data

Seg #	From	To	Type	Length	Between Length	Hourly Volume	# Thru Lanes	# Aux Lanes	Posted Speed	FFS	Terrain
1	N of SR 52	SR 52	Basic Segment	5280	0	6560	3	0	70	70	Level
2	SR 52	SR 52	Diamond	5280	0	6560	3	0	70	70	Level
3	SR 52	Overpass Rd	Basic Segment	11260	0	8540	3	0	70	70	Level
4	Overpass Rd	Overpass Rd	Diamond	5280	0	8540	3	0	70	70	Level
5	Overpass Rd	CR 54	Basic Segment	13460	0	10565	3	0	70	70	Level
6	CR 54	CR 54	Diamond	5280	0	10565	3	0	70	70	Level
7	CR 54	SR 56	Basic Segment	12500	0	11465	4	0	70	70	Level
8	SR 56	SR 56	Diamond	5280	0	11465	4	0	70	70	Level
9	SR 56	S of SR56	Basic Segment	5280	0	14820	6	0	70	70	Level

Interchange Distances

Segment	Type	Interchange Length	Distance Between Ramps			Auxiliary Lane?
			1 and 2	2 and 3	3 and 4	
2	Diamond	2280	2280	0	0	False
4	Diamond	2280	2280	0	0	False
6	Diamond	2280	2280	0	0	False
8	Diamond	2280	2280	0	0	False

Ramp Descriptions

Segment	Type	First Off-Ramp					First On-Ramp					Second Off-Ramp					Second On-Ramp				
		Vol	% HV	Lanes	Accel / Decel Length	FFS	Vol	% HV	Lanes	Accel / Decel Length	FFS	Vol	% HV	Lanes	Accel / Decel Length	FFS	Vol	% HV	Lanes	Accel / Decel Length	FFS
2	Diamond	930	8.0	1	410	45	2910	8.0	2	700	45										
4	Diamond	970	2.0	1	500	45	2995	2.0	2	500	45										

6	Diamond	2060	8.0	1	410	45	2960	8.0	2	1500	45
8	Diamond	1045	8.0	1	600	45	4400	8.0	2	1500	45

Segment LOS

Seg #	From	To	Type	Volume	Adj. Capacity	Speed	Density	LOS	Sig Impact
1	N of SR 52	SR 52	Basic Segment	6560	6045	##	##	F	N/A
2	SR 52	SR 52	Diamond	6560	5709	##	##	F	#
3	SR 52	Overpass Rd	Basic Segment	8540	6091	##	##	F	N/A
4	Overpass Rd	Overpass Rd	Diamond	8540	5752	##	##	F	#
5	Overpass Rd	CR 54	Basic Segment	10565	6154	##	##	F	N/A
6	CR 54	CR 54	Diamond	10565	5812	##	##	F	#
7	CR 54	SR 56	Basic Segment	11465	8214	##	##	F	N/A
8	SR 56	SR 56	Diamond	11465	7872	##	##	F	#
9	SR 56	S of SR56	Basic Segment	14820	12361	##	##	F	N/A

Freeway Length	13.04924	FFS Delay	##	Threshold Delay	##	Avg. Speed	##	Density	##	LOS	F

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 2100 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
4					
6					
8					
10					
12					
Lanes	**Peak Hour Volume Both Directions**				
4					
6					
8					
10					
12					
Lanes	**Annual Average Daily Traffic**				
4					
6					
8					
10					
12					

 # Off-ramp storage is highly likely to overflow. The segment operations will likely be worse than indicated.
One or more segments have a demand-to-capacity ratio greater than 1.0; therefore, the performance measure values are highly unreliable.
Freeway LOS is defaulted to F. An operational level analysis tool is more appropriate for this situation.
*** For oversaturated conditions during the peak hour, subtract 10% from LOS E (capacity) volumes. This number becomes the new maximum service volume for LOS D, and LOS E cannot be achieved.**
**** Cannot be achieved based on input data provided.**
***** Not applicable for that level of service letter grade. See generalized tables notes for more details.**

FREEPLAN 2009 Conceptual Planning Analysis

Project Information

Analyst	URS	**Freeway Name**	I-75	**Study Period**	Dir Hr Demand Vol
Date Prepared	4/5/2011 1:07:37 PM	**From**	S of SR 56	**Program**	FREEPLAN 2009
Agency	FDOT	**To**	N of SR 52	**Version Date**	12/12/10
Area Type	Other Urbanized	**Peak Direction**	Northbound		

File Name	C:\Documents and Settings\srinivas_meka\Local Settings\Temp\preview.xml
User Notes	Build 2040 PM Northbound (Peak)

Freeway Data

AADT	97300	**Freeway Input Volume**	10420	**Local Adjustment Factor**	0.95
K	0.09	**PHF**	0.95	**Ramp Metering Exists**	No
D	0.55	**Pecent Trucks Entering First Segment**	7		

Segment Data

Seg #	From	To	Type	Length	Between Length	Hourly Volume	# Thru Lanes	# Aux Lanes	Posted Speed	FFS	Terrain
1	S of SR56	SR 56	Basic Segment	9060	0	10420	4	0	70	70	Level
2	SR 56	SR 56	On Ramp	1500	0	10420	4	0	70	70	Level
3	SR 56	CR 54	Basic Segment	12500	0	11465	4	0	70	70	Level
4	CR 54	CR 54	Diamond	5280	0	11465	3	0	70	70	Level
5	CR 54	Overpass Rd	Basic Segment	13460	0	10565	3	0	70	70	Level
6	Overpass Rd	Overpass Rd	Diamond	5280	0	10565	3	0	70	70	Level
7	Overpass Rd	SR52	Basic Segment	11260	0	8540	3	0	70	70	Level
8	SR 52	SR 52	Diamond	5280	0	8540	3	0	70	70	Level
9	SR 52	N of SR52	Basic Segment	5280	0	6560	3	0	70	70	Level

Interchange Distances

Segment	Type	Interchange Length	Distance Between Ramps			Auxiliary Lane?
			1 and 2	2 and 3	3 and 4	
4	Diamond	2280	2280	0	0	False
6	Diamond	2280	2280	0	0	False
8	Diamond	2280	2280	0	0	False

Ramp Descriptions

Segment	Type	First Off-Ramp					First On-Ramp					Second Off-Ramp					Second On-Ramp				
		Vol	% HV	Lanes	Accel / Decel Length	FFS	Vol	% HV	Lanes	Accel / Decel Length	FFS	Vol	% HV	Lanes	Accel / Decel Length	FFS	Vol	% HV	Lanes	Accel / Decel Length	FFS
2	On Ramp						1045	8.0	1	700	45										
4	Diamond	2960	8.0	2	1500	45	2060	8.0	1	700	45										
6	Diamond	2995	2.0	2	500	45	970	2.0	1	500	45										

8	Diamond	2910	8.0	2	410	45	930	8.0	1	700	45

Segment LOS

Seg #	From	To	Type	Volume	Adj. Capacity	Speed	Density	LOS	Sig Impact
1	S of SR56	SR 56	Basic Segment	10420	8371	##	##	F	N/A
2	SR 56	SR 56	On Ramp	10420	8197	##	##	F	#
3	SR 56	CR 54	Basic Segment	11465	8367	##	##	F	N/A
4	CR 54	CR 54	Diamond	11465	6101	##	##	F	#
5	CR 54	Overpass Rd	Basic Segment	10565	6278	##	##	F	N/A
6	Overpass Rd	Overpass Rd	Diamond	10565	5929	##	##	F	#
7	Overpass Rd	SR52	Basic Segment	8540	6242	##	##	F	N/A
8	SR 52	SR 52	Diamond	8540	5895	##	##	F	#
9	SR 52	N of SR52	Basic Segment	6560	6240	##	##	F	N/A

Freeway Length	13.04924	FFS Delay	##	Threshold Delay	##	Avg. Speed	##	Density	##	LOS	F

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 2100 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
4					
6					
8					
10					
12					
Lanes	**Peak Hour Volume Both Directions**				
4					
6					
8					
10					
12					
Lanes	**Annual Average Daily Traffic**				
4					
6					
8					
10					
12					

 # Off-ramp storage is highly likely to overflow. The segment operations will likely be worse than indicated.
One or more segments have a demand-to-capacity ratio greater than 1.0; therefore, the performance measure values are highly unreliable.
Freeway LOS is defaulted to F. An operational level analysis tool is more appropriate for this situation.
*** For oversaturated conditions during the peak hour, subtract 10% from LOS E (capacity) volumes. This number becomes the new maximum service volume for LOS D, and LOS E cannot be achieved.**
**** Cannot be achieved based on input data provided.**
***** Not applicable for that level of service letter grade. See generalized tables notes for more details.**

FREEPLAN 2009 Conceptual Planning Analysis

Project Information

Analyst	URS	**Freeway Name**	I-75	**Study Period**	Dir Hr Demand Vol
Date Prepared	4/5/2011 1:07:37 PM	**From**	S of SR 56	**Program**	FREEPLAN 2009
Agency	FDOT	**To**	N of SR 52	**Version Date**	12/12/10
Area Type	Other Urbanized	**Peak Direction**	Northbound		
File Name	C:\Documents and Settings\srinivas_meka\Local Settings\Temp\preview.xml				
User Notes	Build 2040 PM Southbound (Off-peak)				

Freeway Data

AADT	105000	**Freeway Input Volume**	5400	**Local Adjustment Factor**	0.95
K	0.09	**PHF**	0.95	**Ramp Metering Exists**	No
D	0.55	**Pecent Trucks Entering First Segment**	15		

Segment Data

Seg #	From	To	Type	Length	Between Length	Hourly Volume	# Thru Lanes	# Aux Lanes	Posted Speed	FFS	Terrain
1	N of SR 52	SR 52	Basic Segment	5280	0	5400	3	0	70	70	Level
2	SR 52	SR 52	Diamond	5280	0	5400	3	0	70	70	Level
3	SR 52	Overpass Rd	Basic Segment	11260	0	6840	3	0	70	70	Level
4	Overpass Rd	Overpass Rd	Diamond	5280	0	6840	3	0	70	70	Level
5	Overpass Rd	CR 54	Basic Segment	13460	0	8545	3	0	70	70	Level
6	CR 54	CR 54	Diamond	5280	0	8545	3	0	70	70	Level
7	CR 54	SR 56	Basic Segment	12500	0	8860	4	0	70	70	Level
8	SR 56	SR 56	Diamond	5280	0	8860	4	0	70	70	Level
9	SR 56	S of SR56	Basic Segment	5280	0	11505	6	0	70	70	Level

Interchange Distances

Segment	Type	Interchange Length	Distance Between Ramps			Auxiliary Lane?
			1 and 2	2 and 3	3 and 4	
2	Diamond	2280	2280	0	0	False
4	Diamond	2280	2280	0	0	False
6	Diamond	2280	2280	0	0	False
8	Diamond	2280	2280	0	0	False

Ramp Descriptions

Segment	Type	First Off-Ramp					First On-Ramp					Second Off-Ramp					Second On-Ramp				
		Vol	% HV	Lanes	Accel / Decel Length	FFS	Vol	% HV	Lanes	Accel / Decel Length	FFS	Vol	% HV	Lanes	Accel / Decel Length	FFS	Vol	% HV	Lanes	Accel / Decel Length	FFS
2	Diamond	760	8.0	1	410	45	2200	8.0	1	700	45										
4	Diamond	760	2.0	1	500	45	2465	2.0	2	500	45										

6	Diamond	1785	8.0	1	410	45	2100	8.0	2	1500	45
8	Diamond	855	8.0	1	600	45	3500	8.0	2	1500	45

Segment LOS

Seg #	From	To	Type	Volume	Adj. Capacity	Speed	Density	LOS	Sig Impact
1	N of SR 52	SR 52	Basic Segment	5400	6045	59.7	35.9	E	N/A
2	SR 52	SR 52	Diamond	5400	5709	##	##	F	#
3	SR 52	Overpass Rd	Basic Segment	6840	6086	##	##	F	N/A
4	Overpass Rd	Overpass Rd	Diamond	6840	5748	##	##	F	#
5	Overpass Rd	CR 54	Basic Segment	8545	6153	##	##	F	N/A
6	CR 54	CR 54	Diamond	8545	5811	##	##	F	#
7	CR 54	SR 56	Basic Segment	8860	8208	##	##	F	N/A
8	SR 56	SR 56	Diamond	8860	7866	##	##	F	#
9	SR 56	S of SR56	Basic Segment	11505	12354	57.6	38.8	E	N/A

Freeway Length	13.04924	FFS Delay	##	Threshold Delay	##	Avg. Speed	##	Density	##	LOS	F

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 2100 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
4					
6					
8					
10					
12					
Lanes	**Peak Hour Volume Both Directions**				
4					
6					
8					
10					
12					
Lanes	**Annual Average Daily Traffic**				
4					
6					
8					
10					
12					

 # Off-ramp storage is highly likely to overflow. The segment operations will likely be worse than indicated.
One or more segments have a demand-to-capacity ratio greater than 1.0; therefore, the performance measure values are highly unreliable.
Freeway LOS is defaulted to F. An operational level analysis tool is more appropriate for this situation.
*** For oversaturated conditions during the peak hour, subtract 10% from LOS E (capacity) volumes. This number becomes the new maximum service volume for LOS D, and LOS E cannot be achieved.**
**** Cannot be achieved based on input data provided.**
***** Not applicable for that level of service letter grade. See generalized tables notes for more details.**

2040 Build Ramps Analysis Results

Ramp Capacity Check: Build 2040 AM Peak Hour

Assumed Ramp Roadway Capacity (HCM 2000 Exhibit 25-3):

Ramp Free-Flow Speed, S_{FR} (mph)	Capacity (pc/h)	
	Single-Lane Ramps	Two-Lane Ramps
≥ 50	2200	4400
> 40 - 50	2100	4100
> 30 - 40	2000	3800
≥ 20 - 30	1900	3500
< 20	1800	3200

Location	Volume (veh/h)	FFS (S_{FR})	Lanes	% Trucks	PHF	E_T	f_{HV}	f_P	Flow Rate (pc/h)	Capacity (pc/h)	Over Capacity?
I-75 NB off to SR 56	3500	45	2	8.0%	0.95	1.5	0.962	0.95	4034	4100	No

Notes:

1. Volumes are converted to equivalent passenger cars per hour (pc/h) flow rates under base conditions during the peak 15 minutes of the hour using HCM 2000 Equation 25-1.

Ramp Capacity Check: Build 2040 PM Peak Hour

Assumed Ramp Roadway Capacity (HCM 2000 Exhibit 25-3):

Ramp Free-Flow Speed, S_{FR} (mph)	Capacity (pc/h)	
	Single-Lane Ramps	Two-Lane Ramps
≥ 50	2200	4400
> 40 - 50	2100	4100
> 30 - 40	2000	3800
≥ 20 - 30	1900	3500
< 20	1800	3200

Location	Volume (veh/h)	FFS (S_{FR})	Lanes	% Trucks	PHF	E_T	f_{HV}	f_P	Flow Rate (pc/h)	Capacity (pc/h)	Over Capacity?
I-75 NB off to SR 56	4440	45	2	8.0%	0.95	1.5	0.962	0.95	5117	4100	Yes

Notes:

1. Volumes are converted to equivalent passenger cars per hour (pc/h) flow rates under base conditions during the peak 15 minutes of the hour using HCM 2000 Equation 25-1.

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Northbound
Agency or Company	URS Corporation	Junction	SR 56 NB ON-RAMP
Date Performed	4/26/2010	Jurisdiction	Pasco County
Analysis Time Period	AM	Analysis Year	Build 2040

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 45.0 mph

Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp
☑ Yes ☑ On
☐ No ☐ Off
L_{down} = 9999 ft
V_D = 2100 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	8005	0.95	Level	7	0	0.966	0.95	9180
Ramp	855	0.95	Level	8	0	0.962	0.95	985
UpStream								
DownStream	2100	0.95	Level	8	0	0.962	0.95	2420

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = 0.095 using Equation (Exhibit 25-5)

V_{12} = 869 pc/h

V_3 or V_{av34} 4155 pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes,V_{12a} = 3672 pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	10165	Exhibit 25-7		Yes

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	4657	Exhibit 25-7	4600:All	Yes

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 37.0 (pc/mi/ln)

LOS = F (Exhibit 25-4)

Speed Determination

M_S = 0.669 (Exibit 25-19)

S_R= 51.3 mph (Exhibit 25-19)

S_0= 60.7 mph (Exhibit 25-19)

S = 56.0 mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = using Equation (Exhibit 25-12)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

D_s = (Exhibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Northbound
Agency or Company	URS Corporation	Junction	SR 56 NB ON-RAMP
Date Performed	4/27/2010	Jurisdiction	Pasco County
Analysis Time Period	PM	Analysis Year	Build 2040

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 45.0 mph

Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp
☑ Yes ☐ On
☐ No ☑ Off
L_{down} = 9999 ft
V_D = 2960 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	10420	0.95	Level	7	0	0.966	0.95	11950
Ramp	1045	0.95	Level	8	0	0.962	0.95	1204
UpStream								
DownStream	2960	0.95	Level	8	0	0.962	0.95	3411

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = 0.067 using Equation (Exhibit 25-5)

V_{12} = 804 pc/h

V_3 or V_{av34} 5573 pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes,V_{12a} = 4780 pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	13154	Exhibit 25-7		Yes

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	5984	Exhibit 25-7	4600:All	Yes

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 47.2 (pc/mi/ln)

LOS = F (Exhibit 25-4)

Speed Determination

M_S = 1.806 (Exibit 25-19)

S_R= 19.4 mph (Exhibit 25-19)

S_0= 55.8 mph (Exhibit 25-19)

S = 30.1 mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = using Equation (Exhibit 25-12)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

D_s = (Exhibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Southbound
Agency or Company	URS Corporation	Junction	SR 56 SB OFF-RAMP
Date Performed	4/26/2010	Jurisdiction	Pasco County
Analysis Time Period	AM	Analysis Year	Build 2040

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 45.0 mph

Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp
☑ Yes ☑ On
☐ No ☐ Off
L_{down} = 3300 ft
V_D = 4440 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	11465	0.95	Level	9	0	0.957	0.95	13275
Ramp	1045	0.95	Level	8	0	0.962	0.95	1204
UpStream								
DownStream	4440	0.95	Level	8	0	0.962	0.95	5116

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)
P_{FM} = using Equation (Exhibit 25-5)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$

D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)
S_R= mph (Exhibit 25-19)
S_0= mph (Exhibit 25-19)
S = mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = 0.436 using Equation (Exhibit 25-12)
V_{12} = 6467 pc/h
V_3 or V_{av34} 3404 pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No
If Yes,V_{12a} = 7875 pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	13275	Exhibit 25-14	9600	Yes
$V_{FO} = V_F - V_R$	12071	Exhibit 25-14	9600	Yes
V_R	1204	Exhibit 25-3	2100	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	6467	Exhibit 25-14	4400:All	Yes

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086 V_{12} - 0.009 L_D$

D_R = 66.6 (pc/mi/ln)
LOS = F (Exhibit 25-4)

Speed Determination

D_s = 0.406 (Exhibit 25-19)
S_R= 58.6 mph (Exhibit 25-19)
S_0= 70.2 mph (Exhibit 25-19)
S = 62.8 mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Southbound
Agency or Company	URS Corporation	Junction	SR 56 SB OFF-RAMP
Date Performed	4/27/2010	Jurisdiction	Pasco County
Analysis Time Period	PM	Analysis Year	Build 2040

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 45.0 mph

Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp
☑ Yes ☑ On
☐ No ☐ Off
L_{down} = 3300 ft
V_D = 3500 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	8860	0.95	Level	9	0	0.957	0.95	10259
Ramp	855	0.95	Level	8	0	0.962	0.95	985
UpStream								
DownStream	3500	0.95	Level	8	0	0.962	0.95	4033

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)
P_{FM} = using Equation (Exhibit 25-5)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$

D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)
S_R= mph (Exhibit 25-19)
S_0= mph (Exhibit 25-19)
S = mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = 0.436 using Equation (Exhibit 25-12)
V_{12} = 5028 pc/h
V_3 or V_{av34} 2615 pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No
If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	10259	Exhibit 25-14	9600	Yes
$V_{FO} = V_F - V_R$	9274	Exhibit 25-14	9600	No
V_R	985	Exhibit 25-3	2100	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	5028	Exhibit 25-14	4400:All	Yes

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086 V_{12} - 0.009 L_D$

D_R = 42.1 (pc/mi/ln)
LOS = F (Exhibit 25-4)

Speed Determination

D_s = 0.387 (Exhibit 25-19)
S_R= 59.2 mph (Exhibit 25-19)
S_0= 70.5 mph (Exhibit 25-19)
S = 64.5 mph (Exhibit 25-15)

Major Merge Capacity Check: Build 2040 AM Peak Hour
I-75 SB On Ramp from SR 56

Assumed Major Merge Capacity per Segment (based on HCM 2000 Exhibit 25-7):

Segment Free-Flow Speed (mph)	Capacity (pc/h)			
	2-Lanes	3-Lanes	4-Lanes	5-Lanes
≥ 70	4800	7200	9600	12000
65	4700	7050	9400	11750
60	4600	6900	9200	11500
55	4500	6750	9000	11250

Assumed Ramp Roadway Capacity (based on HCM 2000 Exhibit 25-3):

Free-Flow Speed of Ramp (mph)	Capacity (pc/h)	
	Single-Lane Ramp	Two-Lane Ramp
≥ 55	2200	4400
> 40-50	2100	4100
> 30-40	2000	3800
≥ 20-30	1900	3500
< 20	1800	3200

I-75 SB On Ramp from SR 56

Segment	Volume (veh/h)	FFS	Lanes	% Trucks	PHF	E_T	f_{HV}	f_P	Flow Rate (pc/h)	Capacity (pc/h)	Over Capacity?
Upstream	10420	70	4	9.0%	0.95	1.5	0.957	0.95	12066	9600	Yes
Merging	4440	45	2	8.0%	0.95	1.5	0.962	0.95	5117	4100	Yes
Downstream	14860	70	6	7.0%	0.95	1.5	0.966	0.95	17042	14400	Yes

Notes:
1. Volumes are converted to equivalent passenger cars per hour (pc/h) flow rates under base conditions during the peak 15 minutes of the hour using HCM 2000 Equation 25-1.

Major Merge Capacity Check: Build 2040 PM Peak Hour
I-75 SB On Ramp from SR 56

Assumed Major Merge Capacity per Segment (based on HCM 2000 Exhibit 25-7):

Segment Free-Flow Speed (mph)	Capacity (pc/h)			
	2-Lanes	3-Lanes	4-Lanes	5-Lanes
≥ 70	4800	7200	9600	12000
65	4700	7050	9400	11750
60	4600	6900	9200	11500
55	4500	6750	9000	11250

Assumed Ramp Roadway Capacity (based on HCM 2000 Exhibit 25-3):

Free-Flow Speed of Ramp (mph)	Capacity (pc/h)	
	Single-Lane Ramp	Two-Lane Ramp
≥ 55	2200	4400
> 40-50	2100	4100
> 30-40	2000	3800
≥ 20-30	1900	3500
< 20	1800	3200

I-75 SB On Ramp from SR 56

Segment	Volume (veh/h)	FFS	Lanes	% Trucks	PHF	E_T	f_{HV}	f_P	Flow Rate (pc/h)	Capacity (pc/h)	Over Capacity?
Upstream	8005	70	4	9.0%	0.95	1.5	0.957	0.95	9269	9600	No
Merging	3500	45	2	8.0%	0.95	1.5	0.962	0.95	4034	4100	No
Downstream	11505	70	6	7.0%	0.95	1.5	0.966	0.95	13195	14400	No

Notes:
1. Volumes are converted to equivalent passenger cars per hour (pc/h) flow rates under base conditions during the peak 15 minutes of the hour using HCM 2000 Equation 25-1.

Major Diverge Capacity Check: Build 2040 AM Peak Hour
I-75 NB Off Ramp to CR 54

Assumed Major Diverge Capacity per Segment (based on HCM 2000 Exhibit 25-14):

Segment Free-Flow Speed (mph)	Capacity (pc/h)			
	2-Lanes	3-Lanes	4-Lanes	5-Lanes
≥ 70	4800	7200	9600	12000
65	4700	7050	9400	11750
60	4600	6900	9200	11500
55	4500	6750	9000	11250

Assumed Ramp Roadway Capacity (based on HCM 2000 Exhibit 25-3):

Free-Flow Speed of Ramp (mph)	Capacity (pc/h)	
	Single-Lane Ramp	Two-Lane Ramp
≥ 55	2200	4400
> 40-50	2100	4100
> 30-40	2000	3800
≥ 20-30	1900	3500
< 20	1800	3200

Assumed Ramp Density and LOS (based on HCM 2000 Equation 25-12 and Exhibit 25-4)

Segment	Density[1]	LOS
Upstream	24.1	C

I-75 NB Off Ramp to CR 54

Segment	Volume (veh/h)	FFS	Lanes	% Trucks	PHF	E_T	f_{HV}	f_P	Flow Rate (pc/h)	Capacity (pc/h)	Over Capacity?
Upstream	8860	70	4	9.0%	0.95	1.5	0.957	0.95	10259	9600	Yes
Diverging	2100	45	2	8.0%	0.95	1.5	0.962	0.95	2420	4100	No
Downstream	6760	70	3	9.0%	0.95	1.5	0.957	0.95	7828	7200	Yes

Notes:
1. Volumes are converted to equivalent passenger cars per hour (pc/h) flow rates under base conditions during the peak 15 minutes of the hour using HCM 2000 Equation 25-1.

Major Diverge Capacity Check: Build 2040 PM Peak Hour
I-75 NB Off Ramp to CR 54

Assumed Major Diverge Capacity per Segment (based on HCM 2000 Exhibit 25-14):

Segment Free-Flow Speed (mph)	Capacity (pc/h)			
	2-Lanes	3-Lanes	4-Lanes	5-Lanes
≥ 70	4800	7200	9600	12000
65	4700	7050	9400	11750
60	4600	6900	9200	11500
55	4500	6750	9000	11250

Assumed Ramp Roadway Capacity (based on HCM 2000 Exhibit 25-3):

Free-Flow Speed of Ramp (mph)	Capacity (pc/h)	
	Single-Lane Ramp	Two-Lane Ramp
≥ 55	2200	4400
> 40-50	2100	4100
> 30-40	2000	3800
≥ 20-30	1900	3500
< 20	1800	3200

Assumed Ramp Density and LOS (based on HCM 2000 Equation 25-12 and Exhibit 25-4)

Segment	Density[1]	LOS
Upstream	31.2	D

I-75 NB Off Ramp to CR 54

Segment	Volume (veh/h)	FFS	Lanes	% Trucks	PHF	E_T	f_{HV}	f_P	Flow Rate (pc/h)	Capacity (pc/h)	Over Capacity?
Upstream	11465	70	4	9.0%	0.95	1.5	0.957	0.95	13276	9600	Yes
Diverging	2960	45	2	8.0%	0.95	1.5	0.962	0.95	3411	4100	No
Downstream	8505	70	3	9.0%	0.95	1.5	0.957	0.95	9848	7200	Yes

Notes:
1. Volumes are converted to equivalent passenger cars per hour (pc/h) flow rates under base conditions during the peak 15 minutes of the hour using HCM 2000 Equation 25-1.

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Northbound
Agency or Company	URS Corporation	Junction	CR 54 NB ON-RAMP
Date Performed	4/26/2010	Jurisdiction	Pasco County
Analysis Time Period	AM	Analysis Year	Build 2040

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp
☑ Yes ☐ On
☐ No ☑ Off
L_{up} = 3500 ft
V_u = 2100 veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 45.0 mph
Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{down} = ft
V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	6760	0.95	Level	9	0	0.957	0.95	7827
Ramp	1785	0.95	Level	8	0	0.962	0.95	2057
UpStream	2100	0.95	Level	8	0	0.962	0.95	2420
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = 2377.38 (Equation 25-2 or 25-3)
P_{FM} = 0.597 using Equation (Exhibit 25-5)
V_{12} = 4674 pc/h
V_3 or V_{av34} 3153 pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No
If Yes,V_{12a} = 5127 pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	9884	Exhibit 25-7		Yes

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	7184	Exhibit 25-7	4600:All	Yes

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 56.2 (pc/mi/ln)
LOS = F (Exhibit 25-4)

Speed Determination

M_S = 5.399 (Exibit 25-19)
S_R= -81.2 mph (Exhibit 25-19)
S_0= 61.1 mph (Exhibit 25-19)
S = mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = using Equation (Exhibit 25-12)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

D_s = (Exhibit 25-19)
S_R= mph (Exhibit 25-19)
S_0= mph (Exhibit 25-19)
S = mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Northbound
Agency or Company	URS Corporation	Junction	CR 54 NB ON-RAMP
Date Performed	4/27/2010	Jurisdiction	Pasco County
Analysis Time Period	PM	Analysis Year	Build 2040

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp

☑ Yes ☐ On

☐ No ☑ Off

L_{up} = 3500 ft

V_u = 2960 veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 45.0 mph

Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	8505	0.95	Level	9	0	0.957	0.95	9848
Ramp	2060	0.95	Level	8	0	0.962	0.95	2374
UpStream	2960	0.95	Level	8	0	0.962	0.95	3411
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = 2877.71 (Equation 25-2 or 25-3)

P_{FM} = 0.597 using Equation (Exhibit 25-5)

V_{12} = 5880 pc/h

V_3 or V_{av34} 3968 pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = 7148 pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	12222	Exhibit 25-7		Yes

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	9522	Exhibit 25-7	4600:All	Yes

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 74.3 (pc/mi/ln)

LOS = F (Exhibit 25-4)

Speed Determination

M_S = 53.520 (Exibit 25-19)

S_R= -1428.6 mph (Exhibit 25-19)

S_0= 61.1 mph (Exhibit 25-19)

S = 325.5 mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = using Equation (Exhibit 25-12)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

D_s = (Exhibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Southbound
Agency or Company	URS Corporation	Junction	CR 54 SB OFF-RAMP
Date Performed	4/26/2010	Jurisdiction	Pasco County
Analysis Time Period	AM	Analysis Year	Build 2040

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 45.0 mph

Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp
☑ Yes ☑ On
☐ No ☐ Off
L_{down} = 3500 ft
V_D = 2960 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	10565	0.95	Level	12	0	0.943	0.95	12409
Ramp	2060	0.95	Level	8	0	0.962	0.95	2374
UpStream								
DownStream	2960	0.95	Level	8	0	0.962	0.95	3411

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)
P_{FM} = using Equation (Exhibit 25-5)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$

D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)
S_R= mph (Exhibit 25-19)
S_0= mph (Exhibit 25-19)
S = mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = 0.341 using Equation (Exhibit 25-12)
V_{12} = 5792 pc/h
V_3 or V_{av34} 6617 pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No
If Yes,V_{12a} = 9709 pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	12409	Exhibit 25-14	7200	Yes
$V_{FO} = V_F - V_R$	10035	Exhibit 25-14	7200	Yes
V_R	2374	Exhibit 25-3	2100	Yes

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	5792	Exhibit 25-14	4400:All	Yes

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086 V_{12} - 0.009 L_D$

D_R = 84.1 (pc/mi/ln)
LOS = F (Exhibit 25-4)

Speed Determination

D_s = 0.512 (Exhibit 25-19)
S_R= 55.7 mph (Exhibit 25-19)
S_0= 70.2 mph (Exhibit 25-19)
S = 58.3 mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Southbound
Agency or Company	URS Corporation	Junction	CR 54 SB OFF-RAMP
Date Performed	4/27/2010	Jurisdiction	Pasco County
Analysis Time Period	PM	Analysis Year	Build 2040

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 45.0 mph
Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp
☑ Yes ☑ On
☐ No ☐ Off
L_{down} = 3500 ft
V_D = 2100 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	8545	0.95	Level	12	0	0.943	0.95	10036
Ramp	1785	0.95	Level	8	0	0.962	0.95	2057
UpStream								
DownStream	2100	0.95	Level	8	0	0.962	0.95	2420

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$
L_{EQ} = (Equation 25-2 or 25-3)
P_{FM} = using Equation (Exhibit 25-5)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$
D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)
S_R= mph (Exhibit 25-19)
S_0= mph (Exhibit 25-19)
S = mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$
L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = 0.414 using Equation (Exhibit 25-12)
V_{12} = 5364 pc/h
V_3 or V_{av34} 4672 pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No
If Yes,V_{12a} = 7336 pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	10036	Exhibit 25-14	7200	Yes
$V_{FO} = V_F - V_R$	7979	Exhibit 25-14	7200	Yes
V_R	2057	Exhibit 25-3	2100	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	5364	Exhibit 25-14	4400:All	Yes

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086 V_{12} - 0.009 L_D$
D_R = 63.7 (pc/mi/ln)
LOS = F (Exhibit 25-4)

Speed Determination

D_s = 0.483 (Exhibit 25-19)
S_R= 56.5 mph (Exhibit 25-19)
S_0= 70.2 mph (Exhibit 25-19)
S = 59.6 mph (Exhibit 25-15)

Major Merge Capacity Check: **Build 2040 AM Peak Hour**
I-75 SB On Ramp from CR 54

Assumed Major Merge Capacity per Segment (based on HCM 2000 Exhibit 25-7):

Segment Free-Flow Speed (mph)	Capacity (pc/h)			
	2-Lanes	3-Lanes	4-Lanes	5-Lanes
≥ 70	4800	7200	9600	12000
65	4700	7050	9400	11750
60	4600	6900	9200	11500
55	4500	6750	9000	11250

Assumed Ramp Roadway Capacity (based on HCM 2000 Exhibit 25-3):

Free-Flow Speed of Ramp (mph)	Capacity (pc/h)	
	Single-Lane Ramp	Two-Lane Ramp
≥ 55	2200	4400
> 40-50	2100	4100
> 30-40	2000	3800
≥ 20-30	1900	3500
< 20	1800	3200

I-75 SB On Ramp from CR 54

Segment	Volume (veh/h)	FFS	Lanes	% Trucks	PHF	E_T	f_{HV}	f_P	Flow Rate (pc/h)	Capacity (pc/h)	Over Capacity?
Upstream	8505	70	3	9.0%	0.95	1.5	0.957	0.95	9848	7200	Yes
Merging	2960	45	2	8.0%	0.95	1.5	0.962	0.95	3411	4100	No
Downstream	11465	70	4	7.0%	0.95	1.5	0.966	0.95	13149	9600	Yes

Notes:
1. Volumes are converted to equivalent passenger cars per hour (pc/h) flow rates under base conditions during the peak 15 minutes of the hour using HCM 2000 Equation 25-1.

Major Merge Capacity Check: **Build 2040 PM Peak Hour**
I-75 SB On Ramp from CR 54

Assumed Major Merge Capacity per Segment (based on HCM 2000 Exhibit 25-7):

Segment Free-Flow Speed (mph)	Capacity (pc/h)			
	2-Lanes	3-Lanes	4-Lanes	5-Lanes
≥ 70	4800	7200	9600	12000
65	4700	7050	9400	11750
60	4600	6900	9200	11500
55	4500	6750	9000	11250

Assumed Ramp Roadway Capacity (based on HCM 2000 Exhibit 25-3):

Free-Flow Speed of Ramp (mph)	Capacity (pc/h)	
	Single-Lane Ramp	Two-Lane Ramp
≥ 55	2200	4400
> 40-50	2100	4100
> 30-40	2000	3800
≥ 20-30	1900	3500
< 20	1800	3200

I-75 SB On Ramp from CR 54

Segment	Volume (veh/h)	FFS	Lanes	% Trucks	PHF	E_T	f_{HV}	f_P	Flow Rate (pc/h)	Capacity (pc/h)	Over Capacity?
Upstream	6760	70	3	9.0%	0.95	1.5	0.957	0.95	7828	7200	Yes
Merging	2100	45	2	8.0%	0.95	1.5	0.962	0.95	2420	4100	No
Downstream	8860	70	4	7.0%	0.95	1.5	0.966	0.95	10161	9600	Yes

Notes:
1. Volumes are converted to equivalent passenger cars per hour (pc/h) flow rates under base conditions during the peak 15 minutes of the hour using HCM 2000 Equation 25-1.

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Northbound
Agency or Company	URS Corporation	Junction	OVERPASS RD NB OFF-RAMP
Date Performed	4/23/2010	Jurisdiction	Pasco County
Analysis Time Period	AM	Analysis Year	Build 2040

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 45.0 mph
Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp
☑ Yes ☑ On
☐ No ☐ Off
L_{down} = 3500 ft
V_D = 760 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	8545	0.95	Level	12	0	0.943	0.95	10036
Ramp	2465	0.95	Level	2	0	0.990	0.95	2759
UpStream								
DownStream	760	0.95	Level	2	0	0.990	0.95	851

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$
L_{EQ} = (Equation 25-2 or 25-3)
P_{FM} = using Equation (Exhibit 25-5)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$
D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)
S_R= mph (Exhibit 25-19)
S_0= mph (Exhibit 25-19)
S = mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$
L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = 0.450 using Equation (Exhibit 25-12)
V_{12} = 6034 pc/h
V_3 or V_{av34} 4002 pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No
If Yes,V_{12a} = 7336 pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	10036	Exhibit 25-14	7200	Yes
$V_{FO} = V_F - V_R$	7277	Exhibit 25-14	7200	Yes
V_R	2759	Exhibit 25-3	4100	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	6034	Exhibit 25-14	4400:All	Yes

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086 V_{12} - 0.009 L_D$
D_R = 53.8 (pc/mi/ln)
LOS = F (Exhibit 25-4)

Speed Determination

D_s = 0.546 (Exhibit 25-19)
S_R= 54.7 mph (Exhibit 25-19)
S_0= 70.2 mph (Exhibit 25-19)
S = 58.1 mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Northbound
Agency or Company	URS Corporation	Junction	Overpass Road NB OFF-RAMP
Date Performed	4/27/2010	Jurisdiction	Pasco County
Analysis Time Period	PM	Analysis Year	Build 2040

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 45.0 mph
Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp
☑ Yes ☑ On
☐ No ☐ Off
L_{down} = 3500 ft
V_D = 970 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	10565	0.95	Level	12	0	0.943	0.95	12409
Ramp	2995	0.95	Level	2	0	0.990	0.95	3352
UpStream								
DownStream	970	0.95	Level	2	0	0.990	0.95	1086

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$
L_{EQ} = (Equation 25-2 or 25-3)
P_{FM} = using Equation (Exhibit 25-5)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$
D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)
S_R= mph (Exhibit 25-19)
S_0= mph (Exhibit 25-19)
S = mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$
L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = 0.450 using Equation (Exhibit 25-12)
V_{12} = 7428 pc/h
V_3 or V_{av34} 4981 pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No
If Yes,V_{12a} = 9709 pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	12409	Exhibit 25-14	7200	Yes
$V_{FO} = V_F - V_R$	9057	Exhibit 25-14	7200	Yes
V_R	3352	Exhibit 25-3	4100	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	7428	Exhibit 25-14	4400:All	Yes

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086 V_{12} - 0.009 L_D$
D_R = 74.2 (pc/mi/ln)
LOS = F (Exhibit 25-4)

Speed Determination

D_s = 0.600 (Exhibit 25-19)
S_R= 53.2 mph (Exhibit 25-19)
S_0= 70.2 mph (Exhibit 25-19)
S = 56.2 mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Northbound
Agency or Company	URS Corporation	Junction	OVERPASS RD NB ON-RAMP
Date Performed	4/26/2010	Jurisdiction	Pasco County
Analysis Time Period	AM	Analysis Year	Build 2040

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp
☑ Yes ☐ On
☐ No ☑ Off
L_{up} = 3500 ft
V_u = 2465 veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 45.0 mph
Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{down} = ft
V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	6080	0.95	Level	12	0	0.943	0.95	7141
Ramp	760	0.95	Level	2	0	0.990	0.95	851
UpStream	2465	0.95	Level	2	0	0.990	0.95	2759
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = 1883.69 (Equation 25-2 or 25-3)
P_{FM} = 0.591 using Equation (Exhibit 25-5)
V_{12} = 4224 pc/h
V_3 or V_{av34} 2917 pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No
If Yes,V_{12a} = 4441 pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	7992	Exhibit 25-7		Yes

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	5292	Exhibit 25-7	4600:All	Yes

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 43.2 (pc/mi/ln)
LOS = F (Exhibit 25-4)

Speed Determination

M_S = 1.051 (Exibit 25-19)
S_R= 40.6 mph (Exhibit 25-19)
S_0= 61.1 mph (Exhibit 25-19)
S = 45.8 mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = using Equation (Exhibit 25-12)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

D_s = (Exhibit 25-19)
S_R= mph (Exhibit 25-19)
S_0= mph (Exhibit 25-19)
S = mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Northbound
Agency or Company	URS Corporation	Junction	Overpass Road NB ON-RAMP
Date Performed	4/27/2010	Jurisdiction	Pasco County
Analysis Time Period	PM	Analysis Year	Build 2040

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp
☑ Yes ☐ On
☐ No ☑ Off
L_{up} = 3500 ft
V_u = 2995 veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 45.0 mph

Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{down} = ft
V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	7570	0.95	Level	9	0	0.957	0.95	8765
Ramp	970	0.95	Level	2	0	0.990	0.95	1086
UpStream	2995	0.95	Level	2	0	0.990	0.95	3352
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = 2281.51 (Equation 25-2 or 25-3)
P_{FM} = 0.591 using Equation (Exhibit 25-5)
V_{12} = 5184 pc/h
V_3 or V_{av34} 3581 pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No
If Yes,V_{12a} = 6065 pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	9851	Exhibit 25-7		Yes

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	7151	Exhibit 25-7	4600:All	Yes

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 57.6 (pc/mi/ln)
LOS = F (Exhibit 25-4)

Speed Determination

M_S = 5.250 (Exibit 25-19)
S_R= -77.0 mph (Exhibit 25-19)
S_0= 61.1 mph (Exhibit 25-19)
S = mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = using Equation (Exhibit 25-12)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

D_s = (Exhibit 25-19)
S_R= mph (Exhibit 25-19)
S_0= mph (Exhibit 25-19)
S = mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Southbound
Agency or Company	URS Corporation	Junction	Overpass Road SB OFF-RAMP
Date Performed	4/27/2010	Jurisdiction	Pasco County
Analysis Time Period	AM	Analysis Year	Build 2040

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 45.0 mph
Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp
☑ Yes ☑ On
☐ No ☐ Off
L_{down} = 3500 ft
V_D = 2995 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	8540	0.95	Level	12	0	0.943	0.95	10030
Ramp	970	0.95	Level	2	0	0.990	0.95	1086
UpStream								
DownStream	2995	0.95	Level	2	0	0.990	0.95	3352

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$
L_{EQ} = (Equation 25-2 or 25-3)
P_{FM} = using Equation (Exhibit 25-5)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$
D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)
S_R= mph (Exhibit 25-19)
S_0= mph (Exhibit 25-19)
S = mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$
L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = 0.459 using Equation (Exhibit 25-12)
V_{12} = 5194 pc/h
V_3 or V_{av34} 4836 pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No
If Yes,V_{12a} = 7330 pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	10030	Exhibit 25-14	7200	Yes
$V_{FO} = V_F - V_R$	8944	Exhibit 25-14	7200	Yes
V_R	1086	Exhibit 25-3	2100	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	5194	Exhibit 25-14	4400:All	Yes

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$
D_R = 62.8 (pc/mi/ln)
LOS = F (Exhibit 25-4)

Speed Determination

D_s = 0.396 (Exhibit 25-19)
S_R= 58.9 mph (Exhibit 25-19)
S_0= 70.2 mph (Exhibit 25-19)
S = 61.6 mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Southbound
Agency or Company	URS Corporation	Junction	Overpass Road SB OFF-RAMP
Date Performed	4/27/2010	Jurisdiction	Pasco County
Analysis Time Period	PM	Analysis Year	Build 2040

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 45.0 mph

Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp
☑ Yes ☑ On
☐ No ☐ Off
L_{down} = 3500 ft
V_D = 2665 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	6840	0.95	Level	12	0	0.943	0.95	8034
Ramp	760	0.95	Level	2	0	0.990	0.95	851
UpStream								
DownStream	2665	0.95	Level	2	0	0.990	0.95	2982

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)
P_{FM} = using Equation (Exhibit 25-5)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)
S_R= mph (Exhibit 25-19)
S_0= mph (Exhibit 25-19)
S = mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = 0.520 using Equation (Exhibit 25-12)
V_{12} = 4586 pc/h
V_3 or V_{av34} 3448 pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No
If Yes,V_{12a} = 5334 pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	8034	Exhibit 25-14	7200	Yes
$V_{FO} = V_F - V_R$	7183	Exhibit 25-14	7200	No
V_R	851	Exhibit 25-3	2100	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	4586	Exhibit 25-14	4400:All	Yes

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = 45.6 (pc/mi/ln)
LOS = F (Exhibit 25-4)

Speed Determination

D_s = 0.375 (Exhibit 25-19)
S_R= 59.5 mph (Exhibit 25-19)
S_0= 70.2 mph (Exhibit 25-19)
S = 62.7 mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Southbound
Agency or Company	URS Corporation	Junction	Overpass Road SB ON-RAMP
Date Performed	4/27/2010	Jurisdiction	Pasco County
Analysis Time Period	AM	Analysis Year	Build 2040

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp
☑ Yes ☐ On
☐ No ☑ Off
L_{up} = 3500 ft
V_u = 970 veh/h

Terrain: Level
S_{FF} = 70.0 mph S_{FR} = 45.0 mph
Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{down} = ft
V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	7570	0.95	Level	12	0	0.943	0.95	8891
Ramp	2995	0.95	Level	2	0	0.990	0.95	3352
UpStream	970	0.95	Level	2	0	0.990	0.95	1086
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)
P_{FM} = 0.555 using Equation (Exhibit 25-5)
V_{12} = 4935 pc/h
V_3 or V_{av34} 3956 pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No
If Yes,V_{12a} = 6191 pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	12243	Exhibit 25-7		Yes

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	9543	Exhibit 25-7	4600:All	Yes

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 69.0 (pc/mi/ln)
LOS = F (Exhibit 25-4)

Speed Determination

M_S = 54.578 (Exibit 25-19)
S_R= -1458.2 mph (Exhibit 25-19)
S_0= 61.1 mph (Exhibit 25-19)
S = 325.0 mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = using Equation (Exhibit 25-12)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

D_s = (Exhibit 25-19)
S_R= mph (Exhibit 25-19)
S_0= mph (Exhibit 25-19)
S = mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Southbound
Agency or Company	URS Corporation	Junction	Overpass Road SB ON-RAMP
Date Performed	4/27/2010	Jurisdiction	Pasco County
Analysis Time Period	PM	Analysis Year	Build 2040

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp
☑ Yes ☐ On
☐ No ☑ Off
L_{up} = 3500 ft
V_u = 760 veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 45.0 mph

Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{down} = ft
V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	6080	0.95	Level	12	0	0.943	0.95	7141
Ramp	2465	0.95	Level	2	0	0.990	0.95	2759
UpStream	760	0.95	Level	2	0	0.990	0.95	851
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)

P_{FM} = 0.555 using Equation (Exhibit 25-5)

V_{12} = 3963 pc/h

V_3 or V_{av34} 3178 pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = 4441 pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	9900	Exhibit 25-7		Yes

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	7200	Exhibit 25-7	4600:All	Yes

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 51.0 (pc/mi/ln)

LOS = F (Exhibit 25-4)

Speed Determination

M_S = 5.410 (Exibit 25-19)

S_R= -81.5 mph (Exhibit 25-19)

S_0= 61.1 mph (Exhibit 25-19)

S = mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = using Equation (Exhibit 25-12)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

D_s = (Exhibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Northbound
Agency or Company	URS Corporation	Junction	SR 52 NB OFF-RAMP
Date Performed	4/23/2010	Jurisdiction	Pasco County
Analysis Time Period	AM	Analysis Year	Build 2040

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 45.0 mph
Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp
☑ Yes ☑ On
☐ No ☐ Off
L_{down} = 2000 ft
V_D = 760 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	6840	0.95	Level	12	0	0.943	0.95	8034
Ramp	2200	0.95	Level	8	0	0.962	0.95	2535
UpStream								
DownStream	760	0.95	Level	8	0	0.962	0.95	876

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$
L_{EQ} = (Equation 25-2 or 25-3)
P_{FM} = using Equation (Exhibit 25-5)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$
D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)
S_R= mph (Exhibit 25-19)
S_0= mph (Exhibit 25-19)
S = mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$
L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = 0.443 using Equation (Exhibit 25-12)
V_{12} = 4969 pc/h
V_3 or V_{av34} 3065 pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No
If Yes,V_{12a} = 5334 pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	8034	Exhibit 25-14	7200	Yes
$V_{FO} = V_F - V_R$	5499	Exhibit 25-14	7200	No
V_R	2535	Exhibit 25-3	2100	Yes

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	4969	Exhibit 25-14	4400:All	Yes

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086 V_{12} - 0.009 L_D$
D_R = 46.4 (pc/mi/ln)
LOS = F (Exhibit 25-4)

Speed Determination

D_s = 0.526 (Exhibit 25-19)
S_R= 55.3 mph (Exhibit 25-19)
S_0= 70.2 mph (Exhibit 25-19)
S = 59.5 mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Northbound
Agency or Company	URS Corporation	Junction	SR 52 NB OFF-RAMP
Date Performed	4/27/2010	Jurisdiction	Pasco County
Analysis Time Period	PM	Analysis Year	Build 2040

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 45.0 mph
Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp
☑ Yes ☑ On
☐ No ☐ Off
L_{down} = 2000 ft
V_D = 930 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	8540	0.95	Level	12	0	0.943	0.95	10030
Ramp	2910	0.95	Level	8	0	0.962	0.95	3353
UpStream								
DownStream	930	0.95	Level	8	0	0.962	0.95	1072

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$
L_{EQ} = (Equation 25-2 or 25-3)
P_{FM} = using Equation (Exhibit 25-5)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$
D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)
S_R= mph (Exhibit 25-19)
S_0= mph (Exhibit 25-19)
S = mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$
L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = 0.355 using Equation (Exhibit 25-12)
V_{12} = 5723 pc/h
V_3 or V_{av34} 4307 pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No
If Yes,V_{12a} = 7330 pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	10030	Exhibit 25-14	7200	Yes
$V_{FO} = V_F - V_R$	6677	Exhibit 25-14	7200	No
V_R	3353	Exhibit 25-3	2100	Yes

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	5723	Exhibit 25-14	4400:All	Yes

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086 V_{12} - 0.009 L_D$
D_R = 63.6 (pc/mi/ln)
LOS = F (Exhibit 25-4)

Speed Determination

D_s = 0.600 (Exhibit 25-19)
S_R= 53.2 mph (Exhibit 25-19)
S_0= 70.2 mph (Exhibit 25-19)
S = 56.9 mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Northbound
Agency or Company	URS Corporation	Junction	SR 52 NB ON-RAMP
Date Performed	4/26/2010	Jurisdiction	Pasco County
Analysis Time Period	AM	Analysis Year	Build 2040

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp
☑ Yes ☐ On
☐ No ☑ Off
L_{up} = 2000 ft
V_u = 2200 veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 45.0 mph
Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{down} = ft
V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	4640	0.95	Level	12	0	0.943	0.95	5450
Ramp	760	0.95	Level	8	0	0.962	0.95	876
UpStream	2200	0.95	Level	8	0	0.962	0.95	2535
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = 1615.96 (Equation 25-2 or 25-3)
P_{FM} = 0.597 using Equation (Exhibit 25-5)
V_{12} = 3254 pc/h
V_3 or V_{av34} 2196 pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No
If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	6326	Exhibit 25-7		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	4130	Exhibit 25-7	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 32.9 (pc/mi/ln)
LOS = D (Exhibit 25-4)

Speed Determination

M_S = 0.500 (Exibit 25-19)
S_R= 56.0 mph (Exhibit 25-19)
S_0= 63.9 mph (Exhibit 25-19)
S = 58.5 mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = using Equation (Exhibit 25-12)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

D_s = (Exhibit 25-19)
S_R= mph (Exhibit 25-19)
S_0= mph (Exhibit 25-19)
S = mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Northbound
Agency or Company	URS Corporation	Junction	SR 52 NB ON-RAMP
Date Performed	4/27/2010	Jurisdiction	Pasco County
Analysis Time Period	PM	Analysis Year	Build 2040

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp
☑ Yes ☐ On
☐ No ☑ Off
L_{up} = 2000 ft
V_u = 2910 veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 45.0 mph

Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{down} = ft
V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	5630	0.95	Level	12	0	0.943	0.95	6613
Ramp	930	0.95	Level	8	0	0.962	0.95	1072
UpStream	2910	0.95	Level	8	0	0.962	0.95	3353
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = 1906.79 (Equation 25-2 or 25-3)
P_{FM} = 0.597 using Equation (Exhibit 25-5)
V_{12} = 3949 pc/h
V_3 or V_{av34} 2664 pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No
If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	7685	Exhibit 25-7		Yes

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	5021	Exhibit 25-7	4600:All	Yes

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 39.8 (pc/mi/ln)
LOS = F (Exhibit 25-4)

Speed Determination

M_S = 0.849 (Exibit 25-19)
S_R= 46.2 mph (Exhibit 25-19)
S_0= 61.3 mph (Exhibit 25-19)
S = 50.5 mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = using Equation (Exhibit 25-12)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

D_s = (Exhibit 25-19)
S_R= mph (Exhibit 25-19)
S_0= mph (Exhibit 25-19)
S = mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Southbound
Agency or Company	URS Corporation	Junction	SR 52 SB OFF-RAMP
Date Performed	4/23/2010	Jurisdiction	Pasco County
Analysis Time Period	AM	Analysis Year	Build 2040

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 45.0 mph

Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp
☑ Yes ☑ On
☐ No ☐ Off
L_{down} = 2000 ft
V_D = 2910 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	6560	0.95	Level	15	0	0.930	0.95	7814
Ramp	930	0.95	Level	8	0	0.962	0.95	1072
UpStream								
DownStream	2910	0.95	Level	8	0	0.962	0.95	3353

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)
P_{FM} = using Equation (Exhibit 25-5)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$

D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)
S_R= mph (Exhibit 25-19)
S_0= mph (Exhibit 25-19)
S = mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = 0.515 using Equation (Exhibit 25-12)
V_{12} = 4546 pc/h
V_3 or V_{av34} 3268 pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No
If Yes,V_{12a} = 5114 pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	7814	Exhibit 25-14	7200	Yes
$V_{FO} = V_F - V_R$	6742	Exhibit 25-14	7200	No
V_R	1072	Exhibit 25-3	2100	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	4546	Exhibit 25-14	4400:All	Yes

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086 V_{12} - 0.009 L_D$

D_R = 44.5 (pc/mi/ln)
LOS = F (Exhibit 25-4)

Speed Determination

D_s = 0.394 (Exhibit 25-19)
S_R= 59.0 mph (Exhibit 25-19)
S_0= 70.2 mph (Exhibit 25-19)
S = 62.4 mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Southbound
Agency or Company	URS Corporation	Junction	SR 52 SB OFF-RAMP
Date Performed	4/27/2010	Jurisdiction	Pasco County
Analysis Time Period	PM	Analysis Year	Build 2040

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 45.0 mph

Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp
☑ Yes ☑ On
☐ No ☐ Off
L_{down} = 2000 ft
V_D = 2200 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	5400	0.95	Level	15	0	0.930	0.95	6432
Ramp	760	0.95	Level	8	0	0.962	0.95	876
UpStream								
DownStream	2200	0.95	Level	8	0	0.962	0.95	2535

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 25-2 or 25-3)
P_{FM} = using Equation (Exhibit 25-5)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 25-4 or 25-5)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 25-7		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 25-7		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)
LOS = (Exhibit 25-4)

Speed Determination

M_S = (Exibit 25-19)
S_R= mph (Exhibit 25-19)
S_0= mph (Exhibit 25-19)
S = mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)
P_{FD} = 0.559 using Equation (Exhibit 25-12)
V_{12} = 3981 pc/h
V_3 or V_{av34} 2451 pc/h (Equation 25-15 or 25-16)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No
If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	6432	Exhibit 25-14	7200	No
$V_{FO} = V_F - V_R$	5556	Exhibit 25-14	7200	No
V_R	876	Exhibit 25-3	2100	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	3981	Exhibit 25-14	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = 34.8 (pc/mi/ln)
LOS = D (Exhibit 25-4)

Speed Determination

D_s = 0.377 (Exhibit 25-19)
S_R= 59.4 mph (Exhibit 25-19)
S_0= 71.1 mph (Exhibit 25-19)
S = 63.4 mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Southbound
Agency or Company	URS Corporation	Junction	SR 52 SB ON-RAMP
Date Performed	4/26/2010	Jurisdiction	Pasco County
Analysis Time Period	AM	Analysis Year	Build 2040

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp

☑ Yes ☐ On

☐ No ☑ Off

L_{up} = 2000 ft

V_u = 930 veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 45.0 mph

Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	5630	0.95	Level	15	0	0.930	0.95	6706
Ramp	2910	0.95	Level	8	0	0.962	0.95	3353
UpStream	930	0.95	Level	8	0	0.962	0.95	1072
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = 2414.83 (Equation 25-2 or 25-3)

P_{FM} = 0.571 using Equation (Exhibit 25-5)

V_{12} = 3828 pc/h

V_3 or V_{av34} 2878 pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = 4006 pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	10059	Exhibit 25-7		Yes

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	7359	Exhibit 25-7	4600:All	Yes

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 56.9 (pc/mi/ln)

LOS = F (Exhibit 25-4)

Speed Determination

M_S = 6.382 (Exibit 25-19)

S_R= -108.7 mph (Exhibit 25-19)

S_0= 61.1 mph (Exhibit 25-19)

S = mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = using Equation (Exhibit 25-12)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

D_s = (Exhibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-15)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	URS Corporation	Freeway/Dir of Travel	I-75 / Southbound
Agency or Company	URS Corporation	Junction	SR 52 SB ON-RAMP
Date Performed	4/27/2010	Jurisdiction	Pasco County
Analysis Time Period	PM	Analysis Year	Build 2040

Project Description I-75 and Overpass Road IJR

Inputs

Upstream Adj Ramp

☑ Yes ☐ On

☐ No ☑ Off

L_{up} = 2000 ft

V_u = 760 veh/h

Terrain: Level

S_{FF} = 70.0 mph S_{FR} = 45.0 mph

Sketch (show lanes, L_A, L_D,V_R,V_f)

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	4640	0.95	Level	15	0	0.930	0.95	5527
Ramp	2200	0.95	Level	8	0	0.962	0.95	2535
UpStream	760	0.95	Level	8	0	0.962	0.95	876
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = 1987.47 (Equation 25-2 or 25-3)

P_{FM} = 0.597 using Equation (Exhibit 25-5)

V_{12} = 3300 pc/h

V_3 or V_{av34} 2227 pc/h (Equation 25-4 or 25-5)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = pc/h (Equation 25-8)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	8062	Exhibit 25-7		Yes

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	5835	Exhibit 25-7	4600:All	Yes

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 45.4 (pc/mi/ln)

LOS = F (Exhibit 25-4)

Speed Determination

M_S = 1.592 (Exibit 25-19)

S_R= 25.4 mph (Exhibit 25-19)

S_0= 63.8 mph (Exhibit 25-19)

S = 30.5 mph (Exhibit 25-14)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 25-8 or 25-9)

P_{FD} = using Equation (Exhibit 25-12)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 25-15 or 25-16)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 25-18)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 25-14		
$V_{FO} = V_F - V_R$		Exhibit 25-14		
V_R		Exhibit 25-3		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 25-14		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 25-4)

Speed Determination

D_s = (Exhibit 25-19)

S_R= mph (Exhibit 25-19)

S_0= mph (Exhibit 25-19)

S = mph (Exhibit 25-15)

2040 Build Intersection Analysis Results

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 NB Ramps at SR 56*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/18/2010*	Jurisdiction	*FDOT*
Time Period	*AM*	Analysis Year	*Build 2040*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	*1*	*2*			*4*		*2*					
Lane Group	*L*	*T*			*T*		*L*					
Volume (vph)	*520*	*1770*			*3185*		*2070*					
% Heavy Vehicles	*3*	*3*			*3*		*8*					
PHF	*0.95*	*0.95*			*0.95*		*0.95*					
Pretimed/Actuated (P/A)	*A*	*A*			*A*		*A*					
Startup Lost Time	*2.0*	*2.0*			*2.0*		*2.0*					
Extension of Effective Green	*3.0*	*3.0*			*3.0*		*3.0*					
Arrival Type	*3*	*3*			*4*		*3*					
Unit Extension	*3.0*	*3.0*			*3.0*		*3.0*					
Ped/Bike/RTOR Volume	*0*	*0*		*0*	*0*		*0*	*0*		*0*	*0*	
Lane Width	*12.0*	*12.0*			*12.0*		*12.0*					
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour	*0*	*0*			*0*		*0*					
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	EB Only	Thru Only	03	04	NB Only	06	07	08
Timing	G = *22.0*	G = *70.5*	G =	G =	G = *62.5*	G =	G =	G =
	Y = *5*	Y = *5*	Y =	Y =	Y = *5*	Y =	Y =	Y =

Duration of Analysis (hrs) = *0.25* | Cycle Length C = *170.0*

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	*547*	*1863*			*3353*		*2179*					
Lane Group Capacity	*237*	*2137*			*3104*		*1249*					
v/c Ratio	*2.31*	*0.87*			*1.08*		*1.74*					
Green Ratio	*0.14*	*0.58*			*0.42*		*0.37*					
Uniform Delay d_1	*73.5*	*30.4*			*49.3*		*53.3*					
Delay Factor k	*0.50*	*0.40*			*0.50*		*0.50*					
Incremental Delay d_2	*601.7*	*4.3*			*42.7*		*338.4*					
PF Factor	*1.000*	*1.000*			*0.872*		*1.000*					
Control Delay	*675.2*	*34.6*			*85.6*		*391.7*					
Lane Group LOS	*F*	*C*			*F*		*F*					
Approach Delay	*180.0*			*85.6*			*391.7*					
Approach LOS	*F*			*F*			*F*					
Intersection Delay	*198.2*			Intersection LOS			*F*					

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group	*L*	*T*			*T*		*L*					
Initial Queue/Lane	*0.0*	*0.0*			*0.0*		*0.0*					
Flow Rate/Lane Group	*547*	*1863*			*3353*		*2179*					
Satflow/Lane	*1752*	*1844*			*1844*		*1672*					
Capacity/Lane Group	*237*	*2137*			*3104*		*1249*					
Flow Ratio	*0.3*	*0.5*			*0.5*		*0.7*					
v/c Ratio	*2.31*	*0.87*			*1.08*		*1.74*					
I Factor	*1.000*	*1.000*			*1.000*		*1.000*					
Arrival Type	*3*	*3*			*4*		*3*					
Platoon Ratio	*1.00*	*1.00*			*1.33*		*1.00*					
PF Factor	*1.00*	*1.00*			*1.00*		*1.00*					
Q_1	*25.8*	*37.4*			*39.6*		*51.4*					
k_B	*0.4*	*1.1*			*0.9*		*0.8*					
Q_2	*39.5*	*5.4*			*14.2*		*59.9*					
Q Average	*65.3*	*42.8*			*53.7*		*111.3*					
Percentile Back of Queue (95th percentile)												
$f_{B\%}$	*1.5*	*1.6*			*1.5*		*1.5*					
Back of Queue	*99.0*	*66.6*			*82.2*		*167*					
Queue Storage Ratio												
Queue Spacing	*25.0*	*25.0*			*25.0*		*25.0*					
Queue Storage	*650*	*0*			*0*		*1100*					
Average Queue Storage Ratio	*2.5*						*2.5*					
95% Queue Storage Ratio	*3.8*						*3.8*					

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 NB Ramps at SR 56*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/18/2010*	Jurisdiction	*FDOT*
Time Period	*PM*	Analysis Year	*Build 2040*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	*1*	*2*			*4*		*2*					
Lane Group	*L*	*T*			*T*		*L*					
Volume (vph)	*395*	*1570*			*2550*		*2490*					
% Heavy Vehicles	*3*	*3*			*3*		*8*					
PHF	*0.95*	*0.95*			*0.95*		*0.95*					
Pretimed/Actuated (P/A)	*A*	*A*			*A*		*A*					
Startup Lost Time	*2.0*	*2.0*			*2.0*		*2.0*					
Extension of Effective Green	*3.0*	*3.0*			*3.0*		*3.0*					
Arrival Type	*3*	*3*			*4*		*3*					
Unit Extension	*3.0*	*3.0*			*3.0*		*3.0*					
Ped/Bike/RTOR Volume	*0*	*0*		*0*	*0*		*0*	*0*		*0*	*0*	
Lane Width	*12.0*	*12.0*			*12.0*		*12.0*					
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour	*0*	*0*			*0*		*0*					
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	EB Only	Thru Only	03	04	NB Only	06	07	08
Timing	G = *22.5*	G = *60.1*	G =	G =	G = *72.3*	G =	G =	G =
	Y = *5*	Y = *5*	Y =	Y =	Y = *5*	Y =	Y =	Y =
Duration of Analysis (hrs) = *0.25*						Cycle Length C = *169.9*		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	*416*	*1653*			*2684*		*2621*					
Lane Group Capacity	*242*	*1831*			*2041*		*1400*					
v/c Ratio	*1.72*	*0.90*			*1.32*		*1.87*					
Green Ratio	*0.14*	*0.52*			*0.36*		*0.43*					
Uniform Delay d_1	*73.2*	*36.8*			*54.4*		*48.3*					
Delay Factor k	*0.50*	*0.42*			*0.50*		*0.50*					
Incremental Delay d_2	*340.5*	*6.7*			*145.4*		*395.2*					
PF Factor	*1.000*	*1.000*			*0.935*		*1.000*					
Control Delay	*413.7*	*43.5*			*196.2*		*443.5*					
Lane Group LOS	*F*	*D*			*F*		*F*					
Approach Delay	*117.9*			*196.2*			*443.5*					
Approach LOS	*F*			*F*			*F*					
Intersection Delay	*262.1*			Intersection LOS			*F*					

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group	*L*	*T*			*T*		*L*					
Initial Queue/Lane	*0.0*	*0.0*			*0.0*		*0.0*					
Flow Rate/Lane Group	*416*	*1653*			*2684*		*2621*					
Satflow/Lane	*1752*	*1844*			*1844*		*1671*					
Capacity/Lane Group	*242*	*1831*			*2041*		*1400*					
Flow Ratio	*0.2*	*0.5*			*0.5*		*0.8*					
v/c Ratio	*1.72*	*0.90*			*1.32*		*1.87*					
I Factor	*1.000*	*1.000*			*1.000*		*1.000*					
Arrival Type	*3*	*3*			*4*		*3*					
Platoon Ratio	*1.00*	*1.00*			*1.33*		*1.00*					
PF Factor	*1.00*	*1.00*			*1.00*		*1.00*					
Q_1	*19.6*	*37.1*			*41.2*		*63.7*					
k_B	*0.4*	*1.0*			*0.8*		*0.8*					
Q_2	*22.7*	*6.1*			*29.1*		*80.4*					
Q Average	*42.4*	*43.1*			*70.2*		*144.0*					

Percentile Back of Queue (95th percentile)

$f_{B\%}$	*1.6*	*1.6*			*1.5*		*1.5*					
Back of Queue	*66.0*	*67.0*			*106*		*216*					

Queue Storage Ratio

Queue Spacing	*25.0*	*25.0*			*25.0*		*25.0*					
Queue Storage	*650*	*0*			*0*		*1100*					
Average Queue Storage Ratio	*1.6*						*3.3*					
95% Queue Storage Ratio	*2.5*						*4.9*					

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 SB Ramps at SR 56*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/18/2010*	Jurisdiction	*FDOT*
Time Period	*AM*	Analysis Year	*Build 2040*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes		*2*		*2*	*2*					*1*		
Lane Group		*T*		*L*	*T*					*L*		
Volume (vph)		*1640*		*1950*	*3305*					*650*		
% Heavy Vehicles		*3*		*3*	*3*					*8*		
PHF		*0.95*		*0.95*	*0.95*					*0.95*		
Pretimed/Actuated (P/A)		*A*		*A*	*A*					*A*		
Startup Lost Time		*2.0*		*2.0*	*2.0*					*2.0*		
Extension of Effective Green		*3.0*		*3.0*	*3.0*					*3.0*		
Arrival Type		*3*		*4*	*4*					*3*		
Unit Extension		*3.0*		*3.0*	*3.0*					*3.0*		
Ped/Bike/RTOR Volume	*0*	*0*		*0*	*0*		*0*	*0*		*0*	*0*	
Lane Width		*12.0*		*12.0*	*12.0*					*12.0*		
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour		*0*		*0*	*0*					*0*		
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	WB Only	Thru Only	03	04	SB Only	06	07	08
Timing	G = *79.0*	G = *59.9*	G =	G =	G = *26.1*	G =	G =	G =
	Y = *5*	Y = *5*	Y =	Y =	Y = *5*	Y =	Y =	Y =

Duration of Analysis (hrs) = *0.25* | Cycle Length C = *180.0*

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate		*1726*		*2053*	*3479*					*684*		
Lane Group Capacity		*1248*		*1558*	*2970*					*252*		
v/c Ratio		*1.38*		*1.32*	*1.17*					*2.71*		
Green Ratio		*0.34*		*0.44*	*0.80*					*0.15*		
Uniform Delay d_1		*59.5*		*50.0*	*17.6*					*76.4*		
Delay Factor k		*0.50*		*0.50*	*0.50*					*0.50*		
Incremental Delay d_2		*177.4*		*147.6*	*81.1*					*782.6*		
PF Factor		*1.000*		*0.843*	*1.000*					*1.000*		
Control Delay		*237.0*		*189.8*	*98.6*					*859.0*		
Lane Group LOS		*F*		*F*	*F*					*F*		
Approach Delay	*237.0*			*132.4*						*859.0*		
Approach LOS	*F*			*F*						*F*		
Intersection Delay	*217.7*			Intersection LOS						*F*		

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group		*T*		*L*	*T*					*L*		
Initial Queue/Lane		*0.0*		*0.0*	*0.0*					*0.0*		
Flow Rate/Lane Group		*1726*		*2053*	*3479*					*684*		
Satflow/Lane		*1844*		*1752*	*1844*					*1671*		
Capacity/Lane Group		*1248*		*1558*	*2970*					*252*		
Flow Ratio		*0.5*		*0.6*	*0.9*					*0.4*		
v/c Ratio		*1.38*		*1.32*	*1.17*					*2.71*		
I Factor		*1.000*		*1.000*	*1.000*					*1.000*		
Arrival Type		*3*		*4*	*4*					*3*		
Platoon Ratio		*1.00*		*1.33*	*1.01*					*1.00*		
PF Factor		*1.00*		*1.00*	*1.00*					*1.00*		
Q_1		*43.2*		*51.3*	*86.9*					*34.2*		
k_B		*0.8*		*0.9*	*1.3*					*0.5*		
Q_2		*32.5*		*34.2*	*39.1*					*54.7*		
Q Average		*75.6*		*85.5*	*126.1*					*88.9*		
Percentile Back of Queue (95th percentile)												
$f_{B\%}$		*1.5*		*1.5*	*1.5*					*1.5*		
Back of Queue		*114*		*129*	*189*					*134*		
Queue Storage Ratio												
Queue Spacing		*25.0*		*25.0*	*25.0*					*25.0*		
Queue Storage		*0*		*1500*	*0*					*700*		
Average Queue Storage Ratio				*1.4*						*3.2*		
95% Queue Storage Ratio				*2.1*						*4.8*		

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 SB Ramps at SR 56*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/18/2010*	Jurisdiction	*FDOT*
Time Period	*PM*	Analysis Year	*Build 2040*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes		*2*		*2*	*2*					*1*		
Lane Group		*T*		*L*	*T*					*L*		
Volume (vph)		*1630*		*1430*	*3610*					*335*		
% Heavy Vehicles		*3*		*3*	*3*					*8*		
PHF		*0.95*		*0.95*	*0.95*					*0.95*		
Pretimed/Actuated (P/A)		*A*		*A*	*A*					*A*		
Startup Lost Time		*2.0*		*2.0*	*2.0*					*2.0*		
Extension of Effective Green		*3.0*		*3.0*	*3.0*					*3.0*		
Arrival Type		*3*		*4*	*4*					*3*		
Unit Extension		*3.0*		*3.0*	*3.0*					*3.0*		
Ped/Bike/RTOR Volume	*0*	*0*		*0*	*0*		*0*	*0*		*0*	*0*	
Lane Width		*12.0*		*12.0*	*12.0*					*12.0*		
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour		*0*		*0*	*0*					*0*		
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	WB Only	Thru Only	03	04	SB Only	06	07	08
Timing	G = *71.3*	G = *79.0*	G =	G =	G = *14.7*	G =	G =	G =
	Y = *5*	Y = *5*	Y =	Y =	Y = *5*	Y =	Y =	Y =

Duration of Analysis (hrs) = *0.25* | Cycle Length C = *180.0*

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate		*1716*		*1505*	*3800*					*353*		
Lane Group Capacity		*1561*		*1367*	*3050*					*146*		
v/c Ratio		*1.10*		*1.10*	*1.25*					*2.42*		
Green Ratio		*0.44*		*0.40*	*0.87*					*0.09*		
Uniform Delay d_1		*50.0*		*53.8*	*11.8*					*82.2*		
Delay Factor k		*0.50*		*0.50*	*0.50*					*0.50*		
Incremental Delay d_2		*55.0*		*56.9*	*113.6*					*658.4*		
PF Factor		*1.000*		*0.893*	*1.000*					*1.000*		
Control Delay		*105.0*		*105.0*	*125.4*					*740.5*		
Lane Group LOS		*F*		*F*	*F*					*F*		
Approach Delay	*105.0*			*119.6*						*740.5*		
Approach LOS	*F*			*F*						*F*		
Intersection Delay	*145.9*			Intersection LOS						*F*		

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group		*T*		*L*	*T*					*L*		
Initial Queue/Lane		*0.0*		*0.0*	*0.0*					*0.0*		
Flow Rate/Lane Group		*1716*		*1505*	*3800*					*353*		
Satflow/Lane		*1844*		*1752*	*1844*					*1671*		
Capacity/Lane Group		*1561*		*1367*	*3050*					*146*		
Flow Ratio		*0.5*		*0.4*	*1.1*					*0.2*		
v/c Ratio		*1.10*		*1.10*	*1.25*					*2.42*		
I Factor		*1.000*		*1.000*	*1.000*					*1.000*		
Arrival Type		*3*		*4*	*4*					*3*		
Platoon Ratio		*1.00*		*1.33*	*1.00*					*1.00*		
PF Factor		*1.00*		*1.00*	*1.00*					*1.00*		
Q_1		*45.0*		*38.7*	*99.8*					*17.6*		
k_B		*0.9*		*0.8*	*1.4*					*0.3*		
Q_2		*16.6*		*14.5*	*55.5*					*26.4*		
Q Average		*61.6*		*53.2*	*155.2*					*44.1*		
Percentile Back of Queue (95th percentile)												
$f_{B\%}$		*1.5*		*1.5*	*1.5*					*1.6*		
Back of Queue		*93.6*		*81.5*	*233*					*68.4*		
Queue Storage Ratio												
Queue Spacing		*25.0*		*25.0*	*25.0*					*25.0*		
Queue Storage		*0*		*1500*	*0*					*700*		
Average Queue Storage Ratio				*0.9*						*1.6*		
95% Queue Storage Ratio				*1.4*						*2.4*		

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 NB Ramps at SR 54*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/20/2010*	Jurisdiction	*FDOT*
Time Period	*AM*	Analysis Year	*Build 2040*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	*1*	*3*			*5*	*1*	*2*					
Lane Group	*L*	*T*			*T*	*R*	*L*					
Volume (vph)	*880*	*2640*			*2995*	*905*	*1140*					
% Heavy Vehicles	*2*	*2*			*2*	*2*	*8*					
PHF	*0.95*	*0.95*			*0.95*	*0.95*	*0.95*					
Pretimed/Actuated (P/A)	*A*	*A*			*A*	*A*	*A*					
Startup Lost Time	*2.0*	*2.0*			*2.0*	*2.0*	*2.0*					
Extension of Effective Green	*3.0*	*3.0*			*3.0*	*3.0*	*3.0*					
Arrival Type	*3*	*3*			*4*	*4*	*3*					
Unit Extension	*3.0*	*3.0*			*3.0*	*3.0*	*3.0*					
Ped/Bike/RTOR Volume	*0*	*0*		*0*	*0*	*0*	*0*	*0*		*0*	*0*	
Lane Width	*12.0*	*12.0*			*12.0*	*12.0*	*12.0*					
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour	*0*	*0*			*0*	*0*	*0*					
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	EB Only	Thru & RT	03	04	NB Only	06	07	08
Timing	G = *36.0*	G = *55.7*	G =	G =	G = *33.3*	G =	G =	G =
	Y = *5*	Y = *5*	Y =	Y =	Y = *5*	Y =	Y =	Y =
Duration of Analysis (hrs) = *0.25*						Cycle Length C = *140.0*		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	*926*	*2779*			*3153*	*953*	*1200*					
Lane Group Capacity	*468*	*3541*			*3089*	*1074*	*819*					
v/c Ratio	*1.98*	*0.78*			*1.02*	*0.89*	*1.47*					
Green Ratio	*0.26*	*0.70*			*0.41*	*0.68*	*0.24*					
Uniform Delay d_1	*51.5*	*14.1*			*41.7*	*18.2*	*52.9*					
Delay Factor k	*0.50*	*0.33*			*0.50*	*0.41*	*0.50*					
Incremental Delay d_2	*448.0*	*1.2*			*21.7*	*9.2*	*216.0*					
PF Factor	*1.000*	*1.000*			*0.889*	*0.341*	*1.000*					
Control Delay	*499.5*	*15.3*			*58.7*	*15.4*	*268.9*					
Lane Group LOS	*F*	*B*			*E*	*B*	*F*					
Approach Delay	*136.4*			*48.7*			*268.9*					
Approach LOS	*F*			*D*			*F*					
Intersection Delay	*114.0*			Intersection LOS						*F*		

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group	*L*	*T*			*T*	*R*	*L*					
Initial Queue/Lane	*0.0*	*0.0*			*0.0*	*0.0*	*0.0*					
Flow Rate/Lane Group	*926*	*2779*			*3153*	*953*	*1200*					
Satflow/Lane	*1770*	*1862*			*1862*	*1583*	*1672*					
Capacity/Lane Group	*468*	*3541*			*3089*	*1074*	*819*					
Flow Ratio	*0.5*	*0.5*			*0.4*	*0.6*	*0.4*					
v/c Ratio	*1.98*	*0.78*			*1.02*	*0.89*	*1.47*					
I Factor	*1.000*	*1.000*			*1.000*	*1.000*	*1.000*					
Arrival Type	*3*	*3*			*4*	*4*	*3*					
Platoon Ratio	*1.00*	*1.00*			*1.33*	*1.33*	*1.00*					
PF Factor	*1.00*	*1.00*			*1.00*	*0.60*	*1.00*					
Q_1	*36.0*	*26.5*			*29.9*	*17.9*	*23.3*					
k_B	*0.6*	*1.1*			*0.8*	*0.9*	*0.5*					
Q_2	*58.4*	*3.5*			*9.5*	*5.4*	*25.4*					
Q Average	*94.4*	*30.0*			*39.4*	*23.3*	*48.8*					
Percentile Back of Queue (95th percentile)												
$f_{B\%}$	*1.5*	*1.6*			*1.6*	*1.7*	*1.5*					
Back of Queue	*142*	*48.4*			*61.8*	*38.8*	*75.1*					
Queue Storage Ratio												
Queue Spacing	*25.0*	*25.0*			*25.0*	*25.0*	*25.0*					
Queue Storage	*1000*	*0*			*0*	*500*	*1100*					
Average Queue Storage Ratio	*2.4*					*1.2*	*1.1*					
95% Queue Storage Ratio	*3.5*					*1.9*	*1.7*					

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 NB Ramps at SR 54*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/20/2010*	Jurisdiction	*FDOT*
Time Period	*PM*	Analysis Year	*Build 2040*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	*1*	*3*			*5*	*1*	*2*					
Lane Group	*L*	*T*			*T*	*R*	*L*					
Volume (vph)	*970*	*2050*			*2510*	*1090*	*1110*					
% Heavy Vehicles	*2*	*2*			*2*	*2*	*8*					
PHF	*0.95*	*0.95*			*0.95*	*0.95*	*0.95*					
Pretimed/Actuated (P/A)	*A*	*A*			*A*	*A*	*A*					
Startup Lost Time	*2.0*	*2.0*			*2.0*	*2.0*	*2.0*					
Extension of Effective Green	*2.0*	*2.0*			*2.0*	*2.0*	*2.0*					
Arrival Type	*3*	*3*			*4*	*4*	*4*					
Unit Extension	*3.0*	*3.0*			*3.0*	*3.0*	*3.0*					
Ped/Bike/RTOR Volume	*0*	*0*		*0*	*0*	*0*	*0*	*0*		*0*	*0*	
Lane Width	*12.0*	*12.0*			*12.0*	*12.0*	*12.0*					
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour	*0*	*0*			*0*	*0*	*0*					
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	EB Only	Thru & RT	03	04	NB Only	06	07	08
Timing	G = *45.4*	G = *47.4*	G =	G =	G = *42.2*	G =	G =	G =
	Y = *5*	Y = *5*	Y =	Y =	Y = *5*	Y =	Y =	Y =
Duration of Analysis (hrs) = *0.25*						Cycle Length C = *150.0*		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	*1021*	*2158*			*2642*	*1147*	*1168*					
Lane Group Capacity	*536*	*3308*			*2731*	*998*	*940*					
v/c Ratio	*1.90*	*0.65*			*0.97*	*1.15*	*1.24*					
Green Ratio	*0.30*	*0.65*			*0.32*	*0.63*	*0.28*					
Uniform Delay d_1	*52.3*	*15.8*			*50.5*	*27.7*	*53.9*					
Delay Factor k	*0.50*	*0.23*			*0.47*	*0.50*	*0.50*					
Incremental Delay d_2	*414.1*	*0.5*			*10.7*	*79.0*	*118.2*					
PF Factor	*1.000*	*1.000*			*0.973*	*0.539*	*1.000*					
Control Delay	*466.4*	*16.3*			*59.9*	*93.9*	*172.1*					
Lane Group LOS	*F*	*B*			*E*	*F*	*F*					
Approach Delay	*160.9*			*70.2*			*172.1*					
Approach LOS	*F*			*E*			*F*					
Intersection Delay	*120.2*			Intersection LOS						*F*		

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group	*L*	*T*			*T*	*R*	*L*					
Initial Queue/Lane	*0.0*	*0.0*			*0.0*	*0.0*	*0.0*					
Flow Rate/Lane Group	*1021*	*2158*			*2642*	*1147*	*1168*					
Satflow/Lane	*1770*	*1862*			*1862*	*1583*	*1672*					
Capacity/Lane Group	*536*	*3308*			*2731*	*998*	*940*					
Flow Ratio	*0.6*	*0.4*			*0.3*	*0.7*	*0.3*					
v/c Ratio	*1.90*	*0.65*			*0.97*	*1.15*	*1.24*					
I Factor	*1.000*	*1.000*			*1.000*	*1.000*	*1.000*					
Arrival Type	*3*	*3*			*4*	*4*	*4*					
Platoon Ratio	*1.00*	*1.00*			*1.33*	*1.31*	*1.33*					
PF Factor	*1.00*	*1.00*			*0.99*	*1.00*	*1.00*					
Q_1	*42.5*	*20.0*			*23.2*	*47.8*	*24.3*					
k_B	*0.6*	*1.1*			*0.7*	*0.9*	*0.6*					
Q_2	*62.0*	*1.9*			*5.9*	*24.2*	*16.8*					
Q Average	*104.5*	*21.9*			*29.0*	*72.0*	*41.2*					
Percentile Back of Queue (95th percentile)												
$f_{B\%}$	*1.5*	*1.7*			*1.6*	*1.5*	*1.6*					
Back of Queue	*157*	*36.7*			*47.0*	*109*	*64.3*					
Queue Storage Ratio												
Queue Spacing	*25.0*	*25.0*			*25.0*	*25.0*	*25.0*					
Queue Storage	*1000*	*0*			*0*	*500*	*1100*					
Average Queue Storage Ratio	*2.6*					*3.6*	*0.9*					
95% Queue Storage Ratio	*3.9*					*5.4*	*1.5*					

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 SB Ramps at CR 54*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/20/2010*	Jurisdiction	*FDOT*
Time Period	*AM*	Analysis Year	*Build 2040*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes		*4*	*1*	*2*	*3*					*1*		
Lane Group		*T*	*R*	*L*	*T*					*L*		
Volume (vph)		*2430*	*1110*	*1850*	*2285*					*1090*		
% Heavy Vehicles		*2*	*2*	*2*	*2*					*8*		
PHF		*0.95*	*0.95*	*0.95*	*0.95*					*0.95*		
Pretimed/Actuated (P/A)		*A*	*A*	*A*	*A*					*A*		
Startup Lost Time		*2.0*	*2.0*	*2.0*	*2.0*					*2.0*		
Extension of Effective Green		*3.0*	*3.0*	*3.0*	*3.0*					*3.0*		
Arrival Type		*3*	*3*	*4*	*4*					*3*		
Unit Extension		*3.0*	*3.0*	*3.0*	*3.0*					*3.0*		
Ped/Bike/RTOR Volume	*0*	*0*	*0*	*0*	*0*		*0*	*0*		*0*	*0*	
Lane Width		*12.0*	*12.0*	*12.0*	*12.0*					*12.0*		
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour		*0*	*0*	*0*	*0*					*0*		
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	WB Only	Thru & RT	03	04	SB Only	06	07	08
Timing	G = *52.9*	G = *51.9*	G =	G =	G = *50.2*	G =	G =	G =
	Y = *5*	Y = *5*	Y =	Y =	Y = *5*	Y =	Y =	Y =
Duration of Analysis (hrs) = *0.25*						Cycle Length C = *170.0*		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate		*2558*	*1168*	*1947*	*2405*					*1147*		
Lane Group Capacity		*2319*	*1007*	*1122*	*3307*					*503*		
v/c Ratio		*1.10*	*1.16*	*1.74*	*0.73*					*2.28*		
Green Ratio		*0.31*	*0.64*	*0.32*	*0.65*					*0.30*		
Uniform Delay d_1		*58.5*	*30.9*	*58.0*	*19.6*					*59.4*		
Delay Factor k		*0.50*	*0.50*	*0.50*	*0.29*					*0.50*		
Incremental Delay d_2		*53.6*	*83.2*	*334.6*	*0.8*					*582.4*		
PF Factor		*1.000*	*1.000*	*0.972*	*0.433*					*1.000*		
Control Delay		*112.1*	*114.1*	*391.1*	*9.3*					*641.8*		
Lane Group LOS		*F*	*F*	*F*	*A*					*F*		
Approach Delay	*112.7*			*180.1*						*641.8*		
Approach LOS	*F*			*F*						*F*		
Intersection Delay	*210.3*			Intersection LOS						*F*		

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group		*T*	*R*	*L*	*T*					*L*		
Initial Queue/Lane		*0.0*	*0.0*	*0.0*	*0.0*					*0.0*		
Flow Rate/Lane Group		*2558*	*1168*	*1947*	*2405*					*1147*		
Satflow/Lane		*1862*	*1583*	*1770*	*1862*					*1671*		
Capacity/Lane Group		*2319*	*1007*	*1122*	*3307*					*503*		
Flow Ratio		*0.3*	*0.7*	*0.5*	*0.5*					*0.7*		
v/c Ratio		*1.10*	*1.16*	*1.74*	*0.73*					*2.28*		
I Factor		*1.000*	*1.000*	*1.000*	*1.000*					*1.000*		
Arrival Type		*3*	*3*	*4*	*4*					*3*		
Platoon Ratio		*1.00*	*1.00*	*1.33*	*1.33*					*1.00*		
PF Factor		*1.00*	*1.00*	*1.00*	*0.54*					*1.00*		
Q_1		*30.2*	*55.2*	*45.9*	*14.8*					*54.2*		
k_B		*0.7*	*1.0*	*0.7*	*1.1*					*0.7*		
Q_2		*12.2*	*25.9*	*53.1*	*2.8*					*81.7*		
Q Average		*42.4*	*81.0*	*99.1*	*17.6*					*135.8*		

Percentile Back of Queue (95th percentile)

$f_{B\%}$		*1.6*	*1.5*	*1.5*	*1.7*					*1.5*		
Back of Queue		*66.0*	*122*	*149*	*30.4*					*204*		

Queue Storage Ratio

Queue Spacing		*25.0*	*25.0*	*25.0*	*25.0*					*25.0*		
Queue Storage		*0*	*700*	*900*	*0*					*300*		
Average Queue Storage Ratio			*2.9*	*2.8*						*11.3*		
95% Queue Storage Ratio			*4.4*	*4.1*						*17.0*		

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 SB Ramps at CR 54*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/20/2010*	Jurisdiction	*FDOT*
Time Period	*PM*	Analysis Year	*Build 2040*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes		*4*	*1*	*2*	*3*					*1*		
Lane Group		*T*	*R*	*L*	*T*					*L*		
Volume (vph)		*2115*	*1140*	*960*	*2660*					*905*		
% Heavy Vehicles		*2*	*2*	*2*	*2*					*8*		
PHF		*0.95*	*0.95*	*0.95*	*0.95*					*0.95*		
Pretimed/Actuated (P/A)		*A*	*A*	*A*	*A*					*A*		
Startup Lost Time		*2.0*	*2.0*	*2.0*	*2.0*					*2.0*		
Extension of Effective Green		*3.0*	*3.0*	*3.0*	*3.0*					*3.0*		
Arrival Type		*3*	*3*	*3*	*4*					*3*		
Unit Extension		*3.0*	*3.0*	*3.0*	*3.0*					*3.0*		
Ped/Bike/RTOR Volume	*0*	*0*	*0*	*0*	*0*		*0*	*0*		*0*	*0*	
Lane Width		*12.0*	*12.0*	*12.0*	*12.0*					*12.0*		
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour		*0*	*0*	*0*	*0*					*0*		
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	WB Only	Thru & RT	03	04	SB Only	06	07	08
Timing	G = *36.6*	G = *65.0*	G =	G =	G = *40.4*	G =	G =	G =
	Y = *6*	Y = *6*	Y =	Y =	Y = *6*	Y =	Y =	Y =
Duration of Analysis (hrs) = *0.25*						Cycle Length C = *160.0*		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate		*2226*	*1200*	*1011*	*2800*					*953*		
Lane Group Capacity		*2671*	*653*	*808*	*3444*					*432*		
v/c Ratio		*0.83*	*1.84*	*1.25*	*0.81*					*2.21*		
Green Ratio		*0.41*	*0.41*	*0.23*	*0.68*					*0.26*		
Uniform Delay d_1		*42.1*	*47.0*	*61.2*	*18.4*					*59.3*		
Delay Factor k		*0.37*	*0.50*	*0.50*	*0.35*					*0.50*		
Incremental Delay d_2		*2.4*	*382.9*	*123.2*	*1.6*					*550.2*		
PF Factor		*1.000*	*1.000*	*1.000*	*0.340*					*1.000*		
Control Delay		*44.5*	*429.9*	*184.4*	*7.8*					*609.5*		
Lane Group LOS		*D*	*F*	*F*	*A*					*F*		
Approach Delay	*179.5*			*54.7*						*609.5*		
Approach LOS	*F*			*D*						*F*		
Intersection Delay	*171.5*			Intersection LOS						*F*		

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group		*T*	*R*	*L*	*T*					*L*		
Initial Queue/Lane		*0.0*	*0.0*	*0.0*	*0.0*					*0.0*		
Flow Rate/Lane Group		*2226*	*1200*	*1011*	*2800*					*953*		
Satflow/Lane		*1862*	*1583*	*1770*	*1862*					*1671*		
Capacity/Lane Group		*2671*	*653*	*808*	*3444*					*432*		
Flow Ratio		*0.3*	*0.8*	*0.3*	*0.6*					*0.6*		
v/c Ratio		*0.83*	*1.84*	*1.25*	*0.81*					*2.21*		
I Factor		*1.000*	*1.000*	*1.000*	*1.000*					*1.000*		
Arrival Type		*3*	*3*	*3*	*4*					*3*		
Platoon Ratio		*1.00*	*1.00*	*1.00*	*1.33*					*1.00*		
PF Factor		*1.00*	*1.00*	*1.00*	*0.50*					*1.00*		
Q_1		*25.5*	*53.3*	*23.1*	*16.4*					*42.4*		
k_B		*0.8*	*0.8*	*0.6*	*1.1*					*0.6*		
Q_2		*3.4*	*70.0*	*15.4*	*4.2*					*66.2*		
Q Average		*28.9*	*123.3*	*38.5*	*20.6*					*108.5*		

Percentile Back of Queue (95th percentile)

$f_{B\%}$		*1.6*	*1.5*	*1.6*	*1.7*					*1.5*		
Back of Queue		*46.8*	*185*	*60.5*	*34.9*					*163*		

Queue Storage Ratio

Queue Spacing		*25.0*	*25.0*	*25.0*	*25.0*					*25.0*		
Queue Storage		*0*	*700*	*900*	*0*					*300*		
Average Queue Storage Ratio			*4.4*	*1.1*						*9.0*		
95% Queue Storage Ratio			*6.6*	*1.7*						*13.6*		

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 NB Ramps at SR 52*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/20/2010*	Jurisdiction	*FDOT*
Time Period	*AM*	Analysis Year	*Build 2040*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	*1*	*2*			*3*	*0*	*2*					
Lane Group	*L*	*T*			*TR*		*L*					
Volume (vph)	*420*	*1595*			*2895*	*340*	*850*					
% Heavy Vehicles	*6*	*6*			*6*	*2*	*8*					
PHF	*0.95*	*0.95*			*0.95*	*0.95*	*0.95*					
Pretimed/Actuated (P/A)	*A*	*A*			*A*	*A*	*A*					
Startup Lost Time	*2.0*	*2.0*			*2.0*		*2.0*					
Extension of Effective Green	*3.0*	*3.0*			*3.0*		*3.0*					
Arrival Type	*3*	*3*			*4*		*3*					
Unit Extension	*3.0*	*3.0*			*3.0*		*3.0*					
Ped/Bike/RTOR Volume	*0*	*0*		*0*	*0*	*0*	*0*	*0*		*0*	*0*	
Lane Width	*12.0*	*12.0*			*12.0*		*12.0*					
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour	*0*	*0*			*0*		*0*					
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	EB Only	Thru & RT	03	04	NB Only	06	07	08
Timing	G = *22.8*	G = *100.7*	G =	G =	G = *31.5*	G =	G =	G =
	Y = *5*	Y = *5*	Y =	Y =	Y = *5*	Y =	Y =	Y =

Duration of Analysis (hrs) = *0.25* | Cycle Length C = *170.0*

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	*442*	*1679*			*3405*		*895*					
Lane Group Capacity	*238*	*2600*			*3179*		*639*					
v/c Ratio	*1.86*	*0.65*			*1.07*		*1.40*					
Green Ratio	*0.14*	*0.76*			*0.60*		*0.19*					
Uniform Delay d_1	*73.1*	*9.5*			*34.2*		*68.8*					
Delay Factor k	*0.50*	*0.22*			*0.50*		*0.50*					
Incremental Delay d_2	*401.5*	*0.6*			*39.0*		*189.6*					
PF Factor	*1.000*	*1.000*			*0.579*		*1.000*					
Control Delay	*474.6*	*10.1*			*58.8*		*258.4*					
Lane Group LOS	*F*	*B*			*E*		*F*					
Approach Delay	*106.9*			*58.8*			*258.4*					
Approach LOS	*F*			*E*			*F*					
Intersection Delay	*102.5*			Intersection LOS			*F*					

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group	*L*	*T*			*TR*		*L*					
Initial Queue/Lane	*0.0*	*0.0*			*0.0*		*0.0*					
Flow Rate/Lane Group	*442*	*1679*			*3405*		*895*					
Satflow/Lane	*1703*	*1792*			*1771*		*1672*					
Capacity/Lane Group	*238*	*2600*			*3179*		*639*					
Flow Ratio	*0.3*	*0.5*			*0.6*		*0.3*					
v/c Ratio	*1.86*	*0.65*			*1.07*		*1.40*					
I Factor	*1.000*	*1.000*			*1.000*		*1.000*					
Arrival Type	*3*	*3*			*4*		*3*					
Platoon Ratio	*1.00*	*1.00*			*1.33*		*1.00*					
PF Factor	*1.00*	*1.00*			*1.00*		*1.00*					
Q_1	*20.9*	*19.5*			*53.6*		*21.1*					
k_B	*0.4*	*1.2*			*1.0*		*0.5*					
Q_2	*26.4*	*2.1*			*17.8*		*17.6*					
Q Average	*47.3*	*21.6*			*71.4*		*38.7*					
Percentile Back of Queue (95th percentile)												
$f_{B\%}$	*1.5*	*1.7*			*1.5*		*1.6*					
Back of Queue	*73.0*	*36.4*			*108*		*60.8*					
Queue Storage Ratio												
Queue Spacing	*25.0*	*25.0*			*25.0*		*25.0*					
Queue Storage	*500*	*0*			*0*		*500*					
Average Queue Storage Ratio	*2.4*						*1.9*					
95% Queue Storage Ratio	*3.6*						*3.0*					

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 NB Ramps at SR 52*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/20/2010*	Jurisdiction	*FDOT*
Time Period	*PM*	Analysis Year	*Build 2040*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	*1*	*2*			*3*	*0*	*2*					
Lane Group	*L*	*T*			*TR*		*L*					
Volume (vph)	*455*	*1575*			*2420*	*475*	*1250*					
% Heavy Vehicles	*6*	*6*			*6*	*2*	*8*					
PHF	*0.95*	*0.95*			*0.95*	*0.95*	*0.95*					
Pretimed/Actuated (P/A)	*A*	*A*			*A*	*A*	*A*					
Startup Lost Time	*2.0*	*2.0*			*2.0*		*2.0*					
Extension of Effective Green	*3.0*	*3.0*			*3.0*		*3.0*					
Arrival Type	*3*	*3*			*4*		*3*					
Unit Extension	*3.0*	*3.0*			*3.0*		*3.0*					
Ped/Bike/RTOR Volume	*0*	*0*		*0*	*0*	*0*	*0*	*0*		*0*	*0*	
Lane Width	*12.0*	*12.0*			*12.0*		*12.0*					
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour	*0*	*0*			*0*		*0*					
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	EB Only	Thru & RT	03	04	NB Only	06	07	08
Timing	G = *23.6*	G = *86.7*	G =	G =	G = *44.7*	G =	G =	G =
	Y = *5*	Y = *5*	Y =	Y =	Y = *5*	Y =	Y =	Y =

Duration of Analysis (hrs) = *0.25* | Cycle Length C = *170.0*

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	*479*	*1658*			*3047*		*1316*					
Lane Group Capacity	*246*	*2335*			*2723*		*899*					
v/c Ratio	*1.95*	*0.71*			*1.12*		*1.46*					
Green Ratio	*0.14*	*0.68*			*0.52*		*0.27*					
Uniform Delay d_1	*72.7*	*16.5*			*41.2*		*62.1*					
Delay Factor k	*0.50*	*0.27*			*0.50*		*0.50*					
Incremental Delay d_2	*440.8*	*1.0*			*59.2*		*214.9*					
PF Factor	*1.000*	*1.000*			*0.742*		*1.000*					
Control Delay	*513.5*	*17.5*			*89.7*		*277.0*					
Lane Group LOS	*F*	*B*			*F*		*F*					
Approach Delay	*128.7*			*89.7*			*277.0*					
Approach LOS	*F*			*F*			*F*					
Intersection Delay	*140.4*			Intersection LOS			*F*					

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group	*L*	*T*			*TR*		*L*					
Initial Queue/Lane	*0.0*	*0.0*			*0.0*		*0.0*					
Flow Rate/Lane Group	*479*	*1658*			*3047*		*1316*					
Satflow/Lane	*1703*	*1792*			*1759*		*1672*					
Capacity/Lane Group	*246*	*2335*			*2723*		*899*					
Flow Ratio	*0.3*	*0.5*			*0.6*		*0.4*					
v/c Ratio	*1.95*	*0.71*			*1.12*		*1.46*					
I Factor	*1.000*	*1.000*			*1.000*		*1.000*					
Arrival Type	*3*	*3*			*4*		*3*					
Platoon Ratio	*1.00*	*1.00*			*1.33*		*1.00*					
PF Factor	*1.00*	*1.00*			*1.00*		*1.00*					
Q_1	*22.6*	*25.2*			*47.9*		*31.1*					
k_B	*0.4*	*1.1*			*1.0*		*0.6*					
Q_2	*30.0*	*2.6*			*19.7*		*28.0*					
Q Average	*52.6*	*27.9*			*67.6*		*59.0*					
Percentile Back of Queue (95th percentile)												
$f_{B\%}$	*1.5*	*1.6*			*1.5*		*1.5*					
Back of Queue	*80.6*	*45.3*			*102*		*89.9*					
Queue Storage Ratio												
Queue Spacing	*25.0*	*25.0*			*25.0*		*25.0*					
Queue Storage	*500*	*0*			*0*		*500*					
Average Queue Storage Ratio	*2.6*						*3.0*					
95% Queue Storage Ratio	*4.0*						*4.5*					

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 SB Ramps at SR 52*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/20/2010*	Jurisdiction	*FDOT*
Time Period	*AM*	Analysis Year	*Build 2040*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes		*3*		*1*	*2*					*1*		*1*
Lane Group		*T*		*L*	*T*					*L*		*R*
Volume (vph)		*1540*		*1660*	*2085*					*475*		*455*
% Heavy Vehicles		*6*		*6*	*6*					*8*		*8*
PHF		*0.95*		*0.95*	*0.95*					*0.95*		*0.95*
Pretimed/Actuated (P/A)		*A*		*A*	*A*					*A*		*A*
Startup Lost Time		*2.0*		*2.0*	*2.0*					*2.0*		*2.0*
Extension of Effective Green		*3.0*		*3.0*	*3.0*					*3.0*		*3.0*
Arrival Type		*3*		*4*	*4*					*3*		*3*
Unit Extension		*3.0*		*3.0*	*3.0*					*3.0*		*3.0*
Ped/Bike/RTOR Volume	*0*	*0*		*0*	*0*		*0*	*0*		*0*	*0*	*0*
Lane Width		*12.0*		*12.0*	*12.0*					*12.0*		*12.0*
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour		*0*		*0*	*0*					*0*		*0*
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	WB Only	Thru Only	03	04	SB Only	06	07	08
Timing	G = *76.7*	G = *41.5*	G =	G =	G = *26.8*	G =	G =	G =
	Y = *5*	Y = *5*	Y =	Y =	Y = *5*	Y =	Y =	Y =
Duration of Analysis (hrs) = *0.25*						Cycle Length C = *160.0*		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate		*1621*		*1747*	*2195*					*500*		*479*
Lane Group Capacity		*1428*		*827*	*2649*					*290*		*260*
v/c Ratio		*1.14*		*2.11*	*0.83*					*1.72*		*1.84*
Green Ratio		*0.27*		*0.49*	*0.78*					*0.17*		*0.17*
Uniform Delay d_1		*58.8*		*41.2*	*11.2*					*66.1*		*66.1*
Delay Factor k		*0.50*		*0.50*	*0.37*					*0.50*		*0.50*
Incremental Delay d_2		*70.0*		*504.7*	*2.3*					*340.0*		*393.6*
PF Factor		*1.000*		*1.000*	*0.257*					*1.000*		*1.000*
Control Delay		*128.8*		*545.9*	*5.2*					*406.1*		*459.7*
Lane Group LOS		*F*		*F*	*A*					*F*		*F*
Approach Delay	*128.8*			*244.8*						*432.3*		
Approach LOS	*F*			*F*						*F*		
Intersection Delay	*244.1*			Intersection LOS						*F*		

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group		*T*		*L*	*T*					*L*		*R*
Initial Queue/Lane		*0.0*		*0.0*	*0.0*					*0.0*		*0.0*
Flow Rate/Lane Group		*1621*		*1747*	*2195*					*500*		*479*
Satflow/Lane		*1792*		*1703*	*1792*					*1671*		*1495*
Capacity/Lane Group		*1428*		*827*	*2649*					*290*		*260*
Flow Ratio		*0.3*		*1.0*	*0.6*					*0.3*		*0.3*
v/c Ratio		*1.14*		*2.11*	*0.83*					*1.72*		*1.84*
I Factor		*1.000*		*1.000*	*1.000*					*1.000*		*1.000*
Arrival Type		*3*		*4*	*4*					*3*		*3*
Platoon Ratio		*1.00*		*1.00*	*1.22*					*1.00*		*1.00*
PF Factor		*1.00*		*1.00*	*0.37*					*1.00*		*1.00*
Q_1		*24.0*		*77.6*	*12.0*					*22.2*		*21.3*
k_B		*0.6*		*0.9*	*1.2*					*0.5*		*0.4*
Q_2		*11.6*		*116.6*	*4.9*					*27.3*		*28.3*
Q Average		*35.6*		*194.3*	*16.9*					*49.5*		*49.6*

Percentile Back of Queue (95th percentile)

$f_{B\%}$		*1.6*		*1.5*	*1.7*					*1.5*		*1.5*
Back of Queue		*56.4*		*291*	*29.3*					*76.2*		*76.3*

Queue Storage Ratio

Queue Spacing		*25.0*		*25.0*	*25.0*					*25.0*		*25.0*
Queue Storage		*0*		*600*	*0*					*800*		*100*
Average Queue Storage Ratio				*8.1*						*1.5*		*12.4*
95% Queue Storage Ratio				*12.1*						*2.4*		*19.1*

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 SB Ramps at SR 52*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/20/2010*	Jurisdiction	*FDOT*
Time Period	*PM*	Analysis Year	*Build 2040*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes		*3*		*1*	*2*					*1*		*1*
Lane Group		*T*		*L*	*T*					*L*		*R*
Volume (vph)		*1690*		*1350*	*2370*					*340*		*420*
% Heavy Vehicles		*6*		*6*	*6*					*8*		*8*
PHF		*0.95*		*0.95*	*0.95*					*0.95*		*0.95*
Pretimed/Actuated (P/A)		*A*		*A*	*A*					*A*		*A*
Startup Lost Time		*2.0*		*2.0*	*2.0*					*2.0*		*2.0*
Extension of Effective Green		*3.0*		*3.0*	*3.0*					*3.0*		*3.0*
Arrival Type		*3*		*4*	*4*					*3*		*3*
Unit Extension		*3.0*		*3.0*	*3.0*					*3.0*		*3.0*
Ped/Bike/RTOR Volume	*0*	*0*		*0*	*0*		*0*	*0*		*0*	*0*	*0*
Lane Width		*12.0*		*12.0*	*12.0*					*12.0*		*12.0*
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour		*0*		*0*	*0*					*0*		*0*
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	WB Only	Thru Only	03	04	SB Only	06	07	08
Timing	G = *67.1*	G = *56.0*	G =	G =	G = *21.9*	G =	G =	G =
	Y = *5*	Y = *5*	Y =	Y =	Y = *5*	Y =	Y =	Y =
Duration of Analysis (hrs) = *0.25*						Cycle Length C = *160.0*		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate		*1779*		*1421*	*2495*					*358*		*442*
Lane Group Capacity		*1226*		*725*	*2754*					*239*		*214*
v/c Ratio		*1.45*		*1.96*	*0.91*					*1.50*		*2.07*
Green Ratio		*0.36*		*0.43*	*0.81*					*0.14*		*0.14*
Uniform Delay d_1		*51.5*		*46.0*	*11.1*					*68.6*		*68.6*
Delay Factor k		*0.50*		*0.50*	*0.43*					*0.50*		*0.50*
Incremental Delay d_2		*207.6*		*437.0*	*4.8*					*244.8*		*495.2*
PF Factor		*1.000*		*1.000*	*0.298*					*1.000*		*1.000*
Control Delay		*259.1*		*483.0*	*8.1*					*313.3*		*563.8*
Lane Group LOS		*F*		*F*	*A*					*F*		*F*
Approach Delay	*259.1*			*180.4*						*451.7*		
Approach LOS	*F*			*F*						*F*		
Intersection Delay	*235.4*			Intersection LOS						*F*		

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group		*T*		*L*	*T*					*L*		*R*
Initial Queue/Lane		*0.0*		*0.0*	*0.0*					*0.0*		*0.0*
Flow Rate/Lane Group		*1779*		*1421*	*2495*					*358*		*442*
Satflow/Lane		*1792*		*1703*	*1792*					*1671*		*1495*
Capacity/Lane Group		*1226*		*725*	*2754*					*239*		*214*
Flow Ratio		*0.5*		*0.8*	*0.7*					*0.2*		*0.3*
v/c Ratio		*1.45*		*1.96*	*0.91*					*1.50*		*2.07*
I Factor		*1.000*		*1.000*	*1.000*					*1.000*		*1.000*
Arrival Type		*3*		*4*	*4*					*3*		*3*
Platoon Ratio		*1.00*		*1.14*	*1.18*					*1.00*		*1.00*
PF Factor		*1.00*		*1.00*	*0.50*					*1.00*		*1.00*
Q_1		*41.2*		*63.2*	*20.9*					*15.9*		*19.6*
k_B		*0.7*		*0.8*	*1.2*					*0.4*		*0.4*
Q_2		*38.3*		*88.6*	*8.0*					*16.0*		*29.2*
Q Average		*79.4*		*151.8*	*28.9*					*31.9*		*48.9*
Percentile Back of Queue (95th percentile)												
$f_{B\%}$		*1.5*		*1.5*	*1.6*					*1.6*		*1.5*
Back of Queue		*120*		*228*	*46.8*					*51.2*		*75.3*
Queue Storage Ratio												
Queue Spacing		*25.0*		*25.0*	*25.0*					*25.0*		*25.0*
Queue Storage		*0*		*600*	*0*					*800*		*100*
Average Queue Storage Ratio				*6.3*						*1.0*		*12.2*
95% Queue Storage Ratio				*9.5*						*1.6*		*18.8*

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*Overpass Rd at Boyette Rd*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*4/27/2011*	Jurisdiction	*FDOT*
Time Period	*AM*	Analysis Year	*Build 2040*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	*2*	*3*		*1*	*3*	*1*	*2*	*1*	*1*	*1*	*1*	
Lane Group	*L*	*T*		*L*	*T*	*R*	*L*	*T*	*R*	*L*	*T*	
Volume (vph)	*250*	*2430*		*180*	*2795*	*75*	*495*	*80*	*120*	*50*	*120*	
% Heavy Vehicles	*2*	*2*		*2*	*2*	*2*	*2*	*2*	*2*	*2*	*2*	
PHF	*0.95*	*0.95*		*0.95*	*0.95*	*0.95*	*0.95*	*0.95*	*0.95*	*0.95*	*0.95*	
Pretimed/Actuated (P/A)	*A*	*A*		*A*	*A*	*A*	*A*	*A*	*A*	*A*	*A*	
Startup Lost Time	*2.0*	*2.0*		*2.0*	*2.0*	*2.0*	*2.0*	*2.0*	*2.0*	*2.0*	*2.0*	
Extension of Effective Green	*3.0*	*3.0*		*3.0*	*3.0*	*2.0*	*3.0*	*3.0*	*2.0*	*2.0*	*3.0*	
Arrival Type	*3*	*3*		*4*	*4*	*3*	*3*	*3*	*3*	*3*	*3*	
Unit Extension	*3.0*	*3.0*		*3.0*	*3.0*	*3.0*	*3.0*	*3.0*	*3.0*	*3.0*	*3.0*	
Ped/Bike/RTOR Volume	*0*	*0*		*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
Lane Width	*12.0*	*12.0*		*12.0*	*12.0*	*12.0*	*12.0*	*12.0*	*12.0*	*12.0*	*12.0*	
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour	*0*	*0*		*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08
Timing	G = *12.3*	G = *90.2*	G =	G =	G = *20.8*	G = *6.7*	G =	G =
	Y = *5*	Y = *5*	Y =	Y =	Y = *5*	Y = *5*	Y =	Y =
Duration of Analysis (hrs) = *0.25*					Cycle Length C = *150.0*			

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	*263*	*2558*		*189*	*2942*	*79*	*521*	*84*	*126*	*53*	*126*	
Lane Group Capacity	*305*	*3085*		*157*	*3085*	*1224*	*500*	*96*	*253*	*245*	*96*	
v/c Ratio	*0.86*	*0.83*		*1.20*	*0.95*	*0.06*	*1.04*	*0.88*	*0.50*	*0.22*	*1.31*	
Green Ratio	*0.09*	*0.61*		*0.09*	*0.61*	*0.77*	*0.15*	*0.05*	*0.16*	*0.14*	*0.05*	
Uniform Delay d_1	*67.4*	*23.2*		*68.3*	*27.4*	*4.1*	*64.1*	*70.7*	*57.5*	*57.4*	*71.2*	
Delay Factor k	*0.39*	*0.37*		*0.50*	*0.46*	*0.11*	*0.50*	*0.40*	*0.11*	*0.11*	*0.50*	
Incremental Delay d_2	*21.5*	*2.0*		*137.0*	*8.0*	*0.0*	*51.6*	*53.9*	*1.5*	*0.4*	*196.9*	
PF Factor	*1.000*	*1.000*		*1.000*	*0.555*	*1.000*	*1.000*	*1.000*	*1.000*	*1.000*	*1.000*	
Control Delay	*89.0*	*25.3*		*205.4*	*23.3*	*4.1*	*115.7*	*124.6*	*59.0*	*57.8*	*268.0*	
Lane Group LOS	*F*	*C*		*F*	*C*	*A*	*F*	*F*	*E*	*E*	*F*	
Approach Delay	*31.2*			*33.5*			*107.0*			*205.8*		
Approach LOS	*C*			*C*			*F*			*F*		
Intersection Delay	*44.8*			Intersection LOS			*D*					

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group	*L*	*T*		*L*	*T*	*R*	*L*	*T*	*R*	*L*	*T*	
Initial Queue/Lane	*0.0*	*0.0*		*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	
Flow Rate/Lane Group	*263*	*2558*		*189*	*2942*	*79*	*521*	*84*	*126*	*53*	*126*	
Satflow/Lane	*1770*	*1862*		*1770*	*1862*	*1583*	*1770*	*1863*	*1583*	*1770*	*1863*	
Capacity/Lane Group	*305*	*3085*		*157*	*3085*	*1224*	*500*	*96*	*253*	*245*	*96*	
Flow Ratio	*0.1*	*0.5*		*0.1*	*0.6*	*0.0*	*0.2*	*0.0*	*0.1*	*0.0*	0.1	
v/c Ratio	*0.86*	*0.83*		*1.20*	*0.95*	*0.06*	*1.04*	*0.88*	*0.50*	*0.22*	*1.31*	
I Factor	*1.000*	*1.000*		*1.000*	*1.000*	*1.000*	*1.000*	*1.000*	*1.000*	*1.000*	*1.000*	
Arrival Type	*3*	*3*		*4*	*4*	*3*	*3*	*3*	*3*	*3*	*3*	
Platoon Ratio	*1.00*	*1.00*		*1.33*	*1.33*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	
PF Factor	*1.00*	*1.00*		*1.00*	*0.90*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	
Q_1	*5.5*	*30.9*		*7.9*	*37.6*	*0.8*	*11.2*	*3.5*	*4.8*	*2.0*	*5.3*	
k_B	*0.3*	*1.0*		*0.3*	*1.0*	*1.1*	*0.4*	*0.2*	*0.4*	*0.4*	*0.2*	
Q_2	*1.3*	*4.2*		*5.4*	*8.9*	*0.1*	*4.5*	*1.0*	*0.4*	*0.1*	*4.5*	
Q Average	*6.8*	*35.1*		*13.2*	*46.5*	*0.9*	*15.6*	*4.4*	*5.2*	*2.1*	*9.8*	

Percentile Back of Queue (95th percentile)

$f_{B\%}$	*1.9*	*1.6*		*1.8*	*1.5*	*2.1*	*1.8*	*2.0*	*1.9*	*2.0*	*1.8*	
Back of Queue	*13.1*	*55.7*		*23.7*	*71.8*	*1.8*	*27.4*	*8.8*	*10.1*	*4.2*	*18.1*	

Queue Storage Ratio

Queue Spacing	*25.0*	*25.0*		*25.0*	*25.0*	*25.0*	*25.0*	*25.0*	*25.0*	*25.0*	*25.0*	
Queue Storage	*500*	*0*		*500*	*0*	*0*	*500*	*0*	*0*	*0*	*0*	
Average Queue Storage Ratio	*0.3*			*0.7*			*0.8*					
95% Queue Storage Ratio	*0.7*			*1.2*			*1.4*					

HCS+™ Version 5.5 Generated: 2/15/2013 2:37 PM

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*Overpass Rd at Boyette Rd*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*4/27/2011*	Jurisdiction	*FDOT*
Time Period	*PM*	Analysis Year	*Build 2040*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	*2*	*3*		*1*	*3*	*1*	*2*	*1*	*1*	*1*	*1*	
Lane Group	*L*	*T*		*L*	*T*	*R*	*L*	*T*	*R*	*L*	*T*	
Volume (vph)	*350*	*2795*		*120*	*2430*	*50*	*470*	*120*	*180*	*75*	*80*	
% Heavy Vehicles	*2*	*2*		*2*	*2*	*2*	*2*	*2*	*2*	*2*	*2*	
PHF	*0.95*	*0.95*		*0.95*	*0.95*	*0.95*	*0.95*	*0.95*	*0.95*	*0.95*	*0.95*	
Pretimed/Actuated (P/A)	*A*	*A*		*A*	*A*	*A*	*A*	*A*	*A*	*A*	*A*	
Startup Lost Time	*2.0*	*2.0*		*2.0*	*2.0*	*2.0*	*2.0*	*2.0*	*2.0*	*2.0*	*2.0*	
Extension of Effective Green	*3.0*	*3.0*		*3.0*	*3.0*	*2.0*	*3.0*	*3.0*	*2.0*	*2.0*	*3.0*	
Arrival Type	*3*	*3*		*4*	*4*	*3*	*3*	*3*	*3*	*3*	*3*	
Unit Extension	*3.0*	*3.0*		*3.0*	*3.0*	*3.0*	*3.0*	*3.0*	*3.0*	*3.0*	*3.0*	
Ped/Bike/RTOR Volume	*0*	*0*		*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
Lane Width	*12.0*	*12.0*		*12.0*	*12.0*	*12.0*	*12.0*	*12.0*	*12.0*	*12.0*	*12.0*	
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour	*0*	*0*		*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08
Timing	G = *16.0*	G = *94.6*	G =	G =	G = *21.0*	G = *8.4*	G =	G =
	Y = *5*	Y = *5*	Y =	Y =	Y = *5*	Y = *5*	Y =	Y =
Duration of Analysis (hrs) = *0.25*					Cycle Length C = *160.0*			

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	*368*	*2942*		*126*	*2558*	*53*	*495*	*126*	*189*	*79*	*84*	
Lane Group Capacity	*365*	*3032*		*188*	*3032*	*936*	*473*	*109*	*291*	*232*	*109*	
v/c Ratio	*1.01*	*0.97*		*0.67*	*0.84*	*0.06*	*1.05*	*1.16*	*0.65*	*0.34*	*0.77*	
Green Ratio	*0.11*	*0.60*		*0.11*	*0.60*	*0.59*	*0.14*	*0.06*	*0.18*	*0.13*	*0.06*	
Uniform Delay d_1	*71.5*	*30.8*		*68.8*	*26.1*	*13.8*	*69.0*	*75.3*	*60.5*	*63.2*	*74.2*	
Delay Factor k	*0.50*	*0.48*		*0.24*	*0.38*	*0.11*	*0.50*	*0.50*	*0.23*	*0.11*	*0.32*	
Incremental Delay d_2	*49.2*	*10.4*		*8.9*	*2.3*	*0.0*	*54.1*	*134.2*	*5.0*	*0.9*	*28.0*	
PF Factor	*1.000*	*1.000*		*1.000*	*0.581*	*1.000*	*1.000*	*1.000*	*1.000*	*1.000*	*1.000*	
Control Delay	*120.7*	*41.2*		*77.7*	*17.5*	*13.9*	*123.1*	*209.5*	*65.6*	*64.1*	*102.3*	
Lane Group LOS	*F*	*D*		*E*	*B*	*B*	*F*	*F*	*E*	*E*	*F*	
Approach Delay	*50.1*			*20.2*			*123.1*			*83.8*		
Approach LOS	*D*			*C*			*F*			*F*		
Intersection Delay	*47.6*			Intersection LOS			*D*					

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group	*L*	*T*		*L*	*T*	*R*	*L*	*T*	*R*	*L*	*T*	
Initial Queue/Lane	*0.0*	*0.0*		*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	
Flow Rate/Lane Group	*368*	*2942*		*126*	*2558*	*53*	*495*	*126*	*189*	*79*	*84*	
Satflow/Lane	*1770*	*1862*		*1770*	*1862*	*1583*	*1770*	*1863*	*1583*	*1770*	*1863*	
Capacity/Lane Group	*365*	*3032*		*188*	*3032*	*936*	*473*	*109*	*291*	*232*	*109*	
Flow Ratio	*0.1*	*0.6*		*0.1*	*0.5*	*0.0*	*0.1*	*0.1*	*0.1*	*0.0*	0.0	
v/c Ratio	*1.01*	*0.97*		*0.67*	*0.84*	*0.06*	*1.05*	*1.16*	*0.65*	*0.34*	*0.77*	
I Factor	*1.000*	*1.000*		*1.000*	*1.000*	*1.000*	*1.000*	*1.000*	*1.000*	*1.000*	*1.000*	
Arrival Type	*3*	*3*		*4*	*4*	*3*	*3*	*3*	*3*	*3*	*3*	
Platoon Ratio	*1.00*	*1.00*		*1.33*	*1.33*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	
PF Factor	*1.00*	*1.00*		*0.99*	*0.76*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	
Q_1	*8.4*	*46.0*		*5.3*	*25.9*	*1.0*	*11.3*	*5.6*	*7.8*	*3.2*	*3.7*	
k_B	*0.4*	*1.0*		*0.4*	*1.0*	*0.9*	*0.4*	*0.3*	*0.5*	*0.4*	*0.3*	
Q_2	*3.0*	*10.0*		*0.7*	*4.6*	*0.1*	*4.4*	*3.3*	*0.8*	*0.2*	*0.7*	
Q Average	*11.4*	*55.9*		*6.0*	*30.5*	*1.1*	*15.7*	*8.9*	*8.6*	*3.4*	*4.4*	

Percentile Back of Queue (95th percentile)

$f_{B\%}$	*1.8*	*1.5*		*1.9*	*1.6*	*2.1*	*1.8*	*1.9*	*1.9*	*2.0*	*2.0*	
Back of Queue	*20.8*	*85.4*		*11.5*	*49.1*	*2.2*	*27.5*	*16.7*	*16.1*	*6.8*	*8.6*	

Queue Storage Ratio

Queue Spacing	*25.0*	*25.0*		*25.0*	*25.0*	*25.0*	*25.0*	*25.0*	*25.0*	*25.0*	*25.0*	
Queue Storage	*500*	*0*		*500*	*0*	*0*	*500*	*0*	*0*	*0*	*0*	
Average Queue Storage Ratio	*0.6*			*0.3*			*0.8*					
95% Queue Storage Ratio	*1.0*			*0.6*			*1.4*					

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SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*Overpass Rd at Old Pasco Rd*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*4/27/2011*	Jurisdiction	*FDOT*
Time Period	*AM*	Analysis Year	*Build 2040*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes				*2*				*1*		*1*	*2*	
Lane Group				*L*				*T*		*L*	*T*	
Volume (vph)				*865*				*275*		*705*	*295*	
% Heavy Vehicles				*2*				*2*		*2*	*2*	
PHF				*0.95*				*0.95*		*0.95*	*0.95*	
Pretimed/Actuated (P/A)				*A*				*A*		*A*	*A*	
Startup Lost Time				*2.0*				*2.0*		*2.0*	*2.0*	
Extension of Effective Green				*3.0*				*3.0*		*3.0*	*3.0*	
Arrival Type				*4*				*3*		*3*	*3*	
Unit Extension				*3.0*				*3.0*		*3.0*	*3.0*	
Ped/Bike/RTOR Volume	*0*	*0*		*0*	*0*		*0*	*0*		*0*	*0*	
Lane Width				*12.0*				*12.0*		*12.0*	*12.0*	
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour				*0*				*0*		*0*	*0*	
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	WB Only	02	03	04	SB Only	Thru Only	07	08
Timing	G = *26.2*	G =	G =	G =	G = *42.9*	G = *15.9*	G =	G =
	Y = *5*	Y =	Y =	Y =	Y = *5*	Y = *5*	Y =	Y =

Duration of Analysis (hrs) = *0.25* | Cycle Length C = *100.0*

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate				*911*				*289*		*742*	*311*	
Lane Group Capacity				*963*				*315*		*777*	*2298*	
v/c Ratio				*0.95*				*0.92*		*0.95*	*0.14*	
Green Ratio				*0.27*				*0.17*		*0.44*	*0.65*	
Uniform Delay d_1				*35.7*				*40.9*		*27.1*	*6.8*	
Delay Factor k				*0.46*				*0.44*		*0.46*	*0.11*	
Incremental Delay d_2				*17.5*				*30.4*		*21.9*	*0.0*	
PF Factor				*1.000*				*1.000*		*1.000*	*1.000*	
Control Delay				*53.1*				*71.3*		*49.0*	*6.8*	
Lane Group LOS				*D*				*E*		*D*	*A*	
Approach Delay				*53.1*			*71.3*			*36.6*		
Approach LOS				*D*			*E*			*D*		
Intersection Delay	*47.7*			Intersection LOS						*D*		

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group				*L*				*T*		*L*	*T*	
Initial Queue/Lane				*0.0*				*0.0*		*0.0*	*0.0*	
Flow Rate/Lane Group				*911*				*289*		*742*	*311*	
Satflow/Lane				*1770*				*1863*		*1770*	*1862*	
Capacity/Lane Group				*963*				*315*		*777*	*2298*	
Flow Ratio				*0.3*				*0.2*		*0.4*	0.1	
v/c Ratio				*0.95*				*0.92*		*0.95*	*0.14*	
I Factor				*1.000*				*1.000*		*1.000*	*1.000*	
Arrival Type				*4*				*3*		*3*	*3*	
Platoon Ratio				*1.33*				*1.00*		*1.00*	*1.00*	
PF Factor				*0.99*				*1.00*		*1.00*	*1.00*	
Q_1				*12.3*				*7.9*		*19.9*	*1.7*	
k_B				*0.5*				*0.4*		*0.6*	*0.8*	
Q_2				*3.8*				*2.4*		*5.8*	*0.1*	
Q Average				*16.1*				*10.3*		*25.7*	*1.9*	
Percentile Back of Queue (95th percentile)												
$f_{B\%}$				*1.7*				*1.8*		*1.6*	*2.0*	
Back of Queue				*28.1*				*18.9*		*42.2*	*3.8*	
Queue Storage Ratio												
Queue Spacing				*25.0*				*25.0*		*25.0*	*25.0*	
Queue Storage				*0*				*0*		*500*	*0*	
Average Queue Storage Ratio										*1.3*		
95% Queue Storage Ratio										*2.1*		

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*Overpass Rd at Old Pasco Rd*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*4/27/2011*	Jurisdiction	*FDOT*
Time Period	*PM*	Analysis Year	*Build 2040*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes				*2*				*1*		*1*	*2*	
Lane Group				*L*				*T*		*L*	*T*	
Volume (vph)				*615*				*295*		*625*	*275*	
% Heavy Vehicles				*2*				*2*		*2*	*2*	
PHF				*0.95*				*0.95*		*0.95*	*0.95*	
Pretimed/Actuated (P/A)				*A*				*A*		*A*	*A*	
Startup Lost Time				*2.0*				*2.0*		*2.0*	*2.0*	
Extension of Effective Green				*3.0*				*3.0*		*3.0*	*3.0*	
Arrival Type				*4*				*3*		*3*	*3*	
Unit Extension				*3.0*				*3.0*		*3.0*	*3.0*	
Ped/Bike/RTOR Volume	*0*	*0*		*0*	*0*		*0*	*0*		*0*	*0*	
Lane Width				*12.0*				*12.0*		*12.0*	*12.0*	
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour				*0*				*0*		*0*	*0*	
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	WB Only	02	03	04	SB Only	Thru Only	07	08
Timing	G = *15.0*	G =	G =	G =	G = *28.4*	G = *11.6*	G =	G =
	Y = *5*	Y =	Y =	Y =	Y = *5*	Y = *5*	Y =	Y =

Duration of Analysis (hrs) = *0.25*

Cycle Length C = *70.0*

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate				*647*				*311*		*658*	*289*	
Lane Group Capacity				*809*				*335*		*743*	*2331*	
v/c Ratio				*0.80*				*0.93*		*0.89*	*0.12*	
Green Ratio				*0.23*				*0.18*		*0.42*	*0.66*	
Uniform Delay d_1				*25.5*				*28.3*		*18.7*	*4.5*	
Delay Factor k				*0.34*				*0.44*		*0.41*	*0.11*	
Incremental Delay d_2				*5.7*				*31.4*		*12.4*	*0.0*	
PF Factor				*1.000*				*1.000*		*1.000*	*1.000*	
Control Delay				*31.2*				*59.6*		*31.2*	*4.5*	
Lane Group LOS				*C*				*E*		*C*	*A*	
Approach Delay				*31.2*			*59.6*			*23.0*		
Approach LOS				*C*			*E*			*C*		
Intersection Delay	*31.8*			Intersection LOS						*C*		

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group				*L*				*T*		*L*	*T*	
Initial Queue/Lane				*0.0*				*0.0*		*0.0*	*0.0*	
Flow Rate/Lane Group				*647*				*311*		*658*	*289*	
Satflow/Lane				*1770*				*1863*		*1770*	*1862*	
Capacity/Lane Group				*809*				*335*		*743*	*2331*	
Flow Ratio				*0.2*				*0.2*		*0.4*	0.1	
v/c Ratio				*0.80*				*0.93*		*0.89*	*0.12*	
I Factor				*1.000*				*1.000*		*1.000*	*1.000*	
Arrival Type				*4*				*3*		*3*	*3*	
Platoon Ratio				*1.33*				*1.00*		*1.00*	*1.00*	
PF Factor				*0.97*				*1.00*		*1.00*	*1.00*	
Q_1				*5.8*				*6.0*		*11.8*	*1.1*	
k_B				*0.3*				*0.3*		*0.5*	*0.7*	
Q_2				*1.2*				*2.3*		*3.0*	*0.1*	
Q Average				*7.0*				*8.2*		*14.8*	*1.2*	
Percentile Back of Queue (95th percentile)												
$f_{B\%}$				*1.9*				*1.9*		*1.8*	*2.1*	
Back of Queue				*13.3*				*15.5*		*26.1*	*2.5*	
Queue Storage Ratio												
Queue Spacing				*25.0*				*25.0*		*25.0*	*25.0*	
Queue Storage				*0*				*0*		*500*	*0*	
Average Queue Storage Ratio										*0.7*		
95% Queue Storage Ratio										*1.3*		

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 NB Ramps at Overpass*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/20/2010*	Jurisdiction	*FDOT*
Time Period	*AM*	Analysis Year	*Build 2040-Diamond*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	*1*	*2*			*5*	*1*	*2*					
Lane Group	*L*	*T*			*T*	*R*	*L*					
Volume (vph)	*145*	*1310*			*3025*	*615*	*625*					
% Heavy Vehicles	*2*	*2*			*2*	*2*	*2*					
PHF	*0.95*	*0.95*			*0.95*	*0.95*	*0.95*					
Pretimed/Actuated (P/A)	*A*	*A*			*A*	*A*	*A*					
Startup Lost Time	*2.0*	*2.0*			*2.0*	*2.0*	*2.0*					
Extension of Effective Green	*3.0*	*3.0*			*3.0*	*2.0*	*3.0*					
Arrival Type	*3*	*3*			*3*	*3*	*4*					
Unit Extension	*3.0*	*3.0*			*3.0*	*3.0*	*3.0*					
Ped/Bike/RTOR Volume	*0*	*0*		*0*	*0*	*0*	*0*	*0*		*0*	*0*	
Lane Width	*12.0*	*12.0*			*12.0*	*12.0*	*12.0*					
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour	*0*	*0*			*0*	*0*	*0*					
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	EB Only	Thru & RT	03	04	NB Only	06	07	08
Timing	G = *5.0*	G = *27.4*	G =	G =	G = *12.6*	G =	G =	G =
	Y = *5*	Y = *5*	Y =	Y =	Y = *5*	Y =	Y =	Y =
Duration of Analysis (hrs) = *0.25*						Cycle Length C = *60.0*		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	*153*	*1379*			*3184*	*647*	*658*					
Lane Group Capacity	*177*	*2270*			*4003*	*723*	*779*					
v/c Ratio	*0.86*	*0.61*			*0.80*	*0.89*	*0.84*					
Green Ratio	*0.10*	*0.64*			*0.47*	*0.46*	*0.23*					
Uniform Delay d_1	*26.6*	*6.4*			*13.3*	*15.0*	*22.2*					
Delay Factor k	*0.39*	*0.19*			*0.34*	*0.42*	*0.38*					
Incremental Delay d_2	*33.1*	*0.5*			*1.2*	*13.7*	*8.5*					
PF Factor	*1.000*	*1.000*			*1.000*	*1.000*	*1.000*					
Control Delay	*59.7*	*6.8*			*14.5*	*28.7*	*30.7*					
Lane Group LOS	*E*	*A*			*B*	*C*	*C*					
Approach Delay	*12.1*			*16.9*			*30.7*					
Approach LOS	*B*			*B*			*C*					
Intersection Delay	*17.2*			Intersection LOS			*B*					

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group	*L*	*T*			*T*	*R*	*L*					
Initial Queue/Lane	*0.0*	*0.0*			*0.0*	*0.0*	*0.0*					
Flow Rate/Lane Group	*153*	*1379*			*3184*	*647*	*658*					
Satflow/Lane	*1770*	*1862*			*1862*	*1583*	*1770*					
Capacity/Lane Group	*177*	*2270*			*4003*	*723*	*779*					
Flow Ratio	*0.1*	*0.4*			*0.4*	*0.4*	*0.2*					
v/c Ratio	*0.86*	*0.61*			*0.80*	*0.89*	*0.84*					
I Factor	*1.000*	*1.000*			*1.000*	*1.000*	*1.000*					
Arrival Type	*3*	*3*			*3*	*3*	*4*					
Platoon Ratio	*1.00*	*1.00*			*1.00*	*1.00*	*1.33*					
PF Factor	*1.00*	*1.00*			*1.00*	*1.00*	*0.98*					
Q_1	*2.5*	*7.1*			*9.9*	*9.9*	*5.3*					
k_B	*0.2*	*0.6*			*0.5*	*0.4*	*0.3*					
Q_2	*0.9*	*0.9*			*1.8*	*2.9*	*1.4*					
Q Average	*3.4*	*8.0*			*11.7*	*12.8*	*6.7*					
Percentile Back of Queue (95th percentile)												
$f_{B\%}$	*2.0*	*1.9*			*1.8*	*1.8*	*1.9*					
Back of Queue	*6.9*	*15.1*			*21.2*	*23.0*	*12.8*					
Queue Storage Ratio												
Queue Spacing	*25.0*	*25.0*			*25.0*	*25.0*	*25.0*					
Queue Storage	*1000*	*0*			*0*	*0*	*1100*					
Average Queue Storage Ratio	*0.1*						*0.2*					
95% Queue Storage Ratio	*0.2*						*0.3*					

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 NB Ramps at Overpass*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/20/2010*	Jurisdiction	*FDOT*
Time Period	*PM*	Analysis Year	*Build 2040-Diamond*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	*1*	*2*			*5*	*1*	*2*					
Lane Group	*L*	*T*			*T*	*R*	*L*					
Volume (vph)	*235*	*1245*			*2415*	*735*	*600*					
% Heavy Vehicles	*2*	*2*			*2*	*2*	*2*					
PHF	*0.95*	*0.95*			*0.95*	*0.95*	*0.95*					
Pretimed/Actuated (P/A)	*A*	*A*			*A*	*A*	*A*					
Startup Lost Time	*2.0*	*2.0*			*2.0*	*2.0*	*2.0*					
Extension of Effective Green	*3.0*	*3.0*			*3.0*	*2.0*	*3.0*					
Arrival Type	*3*	*3*			*3*	*3*	*4*					
Unit Extension	*3.0*	*3.0*			*3.0*	*3.0*	*3.0*					
Ped/Bike/RTOR Volume	*0*	*0*		*0*	*0*	*0*	*0*	*0*		*0*	*0*	
Lane Width	*12.0*	*12.0*			*12.0*	*12.0*	*12.0*					
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour	*0*	*0*			*0*	*0*	*0*					
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	EB Only	Thru & RT	03	04	NB Only	06	07	08
Timing	G = *12.5*	G = *44.0*	G =	G =	G = *18.5*	G =	G =	G =
	Y = *5*	Y = *5*	Y =	Y =	Y = *5*	Y =	Y =	Y =
Duration of Analysis (hrs) = *0.25*						Cycle Length C = *90.0*		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	*247*	*1311*			*2542*	*774*	*632*					
Lane Group Capacity	*266*	*2463*			*4229*	*774*	*745*					
v/c Ratio	*0.93*	*0.53*			*0.60*	*1.00*	*0.85*					
Green Ratio	*0.15*	*0.69*			*0.50*	*0.49*	*0.22*					
Uniform Delay d_1	*37.8*	*6.7*			*16.1*	*23.0*	*33.8*					
Delay Factor k	*0.44*	*0.14*			*0.19*	*0.50*	*0.38*					
Incremental Delay d_2	*36.6*	*0.2*			*0.2*	*32.3*	*9.1*					
PF Factor	*1.000*	*1.000*			*1.000*	*1.000*	*1.000*					
Control Delay	*74.3*	*6.9*			*16.3*	*55.3*	*42.9*					
Lane Group LOS	*E*	*A*			*B*	*E*	*D*					
Approach Delay	*17.6*			*25.4*			*42.9*					
Approach LOS	*B*			*C*			*D*					
Intersection Delay	*25.2*			Intersection LOS						*C*		

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group	*L*	*T*			*T*	*R*	*L*					
Initial Queue/Lane	*0.0*	*0.0*			*0.0*	*0.0*	*0.0*					
Flow Rate/Lane Group	*247*	*1311*			*2542*	*774*	*632*					
Satflow/Lane	*1770*	*1862*			*1862*	*1583*	*1770*					
Capacity/Lane Group	*266*	*2463*			*4229*	*774*	*745*					
Flow Ratio	*0.1*	*0.4*			*0.3*	*0.5*	*0.2*					
v/c Ratio	*0.93*	*0.53*			*0.60*	*1.00*	*0.85*					
I Factor	*1.000*	*1.000*			*1.000*	*1.000*	*1.000*					
Arrival Type	*3*	*3*			*3*	*3*	*4*					
Platoon Ratio	*1.00*	*1.00*			*1.00*	*1.00*	*1.33*					
PF Factor	*1.00*	*1.00*			*1.00*	*1.00*	*0.98*					
Q_1	*6.1*	*8.3*			*10.0*	*19.4*	*7.7*					
k_B	*0.3*	*0.8*			*0.7*	*0.6*	*0.4*					
Q_2	*2.1*	*0.9*			*1.0*	*7.6*	*1.8*					
Q Average	*8.2*	*9.2*			*11.0*	*26.9*	*9.4*					
Percentile Back of Queue (95th percentile)												
$f_{B\%}$	*1.9*	*1.9*			*1.8*	*1.6*	*1.9*					
Back of Queue	*15.5*	*17.2*			*20.0*	*44.0*	*17.5*					
Queue Storage Ratio												
Queue Spacing	*25.0*	*25.0*			*25.0*	*25.0*	*25.0*					
Queue Storage	*1000*	*0*			*0*	*0*	*1100*					
Average Queue Storage Ratio	*0.2*						*0.2*					
95% Queue Storage Ratio	*0.4*						*0.4*					

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 SB Ramps at Overpass*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/20/2010*	Jurisdiction	*FDOT*
Time Period	*AM*	Analysis Year	*Build 2040-Diamond*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes		*3*	*1*	*3*	*2*					*2*		*1*
Lane Group		*T*	*R*	*L*	*T*					*L*		*R*
Volume (vph)		*720*	*600*	*2395*	*1255*					*735*		*235*
% Heavy Vehicles		*2*	*2*	*2*	*2*					*2*		*2*
PHF		*0.95*	*0.95*	*0.95*	*0.95*					*0.95*		*0.95*
Pretimed/Actuated (P/A)		*A*	*A*	*A*	*A*					*A*		*A*
Startup Lost Time		*2.0*	*2.0*	*2.0*	*2.0*					*2.0*		*2.0*
Extension of Effective Green		*3.0*	*3.0*	*3.0*	*3.0*					*3.0*		*3.0*
Arrival Type		*3*	*3*	*3*	*3*					*3*		*3*
Unit Extension		*3.0*	*3.0*	*3.0*	*3.0*					*3.0*		*3.0*
Ped/Bike/RTOR Volume	*0*	*0*	*0*	*0*	*0*		*0*	*0*		*0*	*0*	*0*
Lane Width		*12.0*	*12.0*	*12.0*	*12.0*					*12.0*		*12.0*
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour		*0*	*0*	*0*	*0*					*0*		*0*
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	WB Only	Thru & RT	03	04	SB Only	06	07	08
Timing	G = *49.9*	G = *14.3*	G =	G =	G = *20.8*	G =	G =	G =
	Y = *5*	Y = *5*	Y =	Y =	Y = *5*	Y =	Y =	Y =
Duration of Analysis (hrs) = *0.25*						Cycle Length C = *100.0*		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate		*758*	*632*	*2521*	*1321*					*774*		*247*
Lane Group Capacity		*776*	*651*	*2453*	*2490*					*749*		*345*
v/c Ratio		*0.98*	*0.97*	*1.03*	*0.53*					*1.03*		*0.72*
Green Ratio		*0.15*	*0.41*	*0.51*	*0.70*					*0.22*		*0.22*
Uniform Delay d_1		*42.2*	*28.9*	*24.5*	*7.1*					*39.1*		*36.2*
Delay Factor k		*0.48*	*0.48*	*0.50*	*0.13*					*0.50*		*0.28*
Incremental Delay d_2		*26.6*	*28.0*	*25.7*	*0.2*					*41.8*		*6.9*
PF Factor		*1.000*	*1.000*	*1.000*	*1.000*					*1.000*		*1.000*
Control Delay		*68.7*	*56.9*	*50.2*	*7.3*					*80.9*		*43.2*
Lane Group LOS		*E*	*E*	*D*	*A*					*F*		*D*
Approach Delay	*63.3*			*35.5*						*71.8*		
Approach LOS	*E*			*D*						*E*		
Intersection Delay	*47.6*			Intersection LOS						*D*		

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group		*T*	*R*	*L*	*T*					*L*		*R*
Initial Queue/Lane		*0.0*	*0.0*	*0.0*	*0.0*					*0.0*		*0.0*
Flow Rate/Lane Group		*758*	*632*	*2521*	*1321*					*774*		*247*
Satflow/Lane		*1862*	*1583*	*1769*	*1862*					*1770*		*1583*
Capacity/Lane Group		*776*	*651*	*2453*	*2490*					*749*		*345*
Flow Ratio		*0.1*	*0.4*	*0.5*	*0.4*					*0.2*		*0.2*
v/c Ratio		*0.98*	*0.97*	*1.03*	*0.53*					*1.03*		*0.72*
I Factor		*1.000*	*1.000*	*1.000*	*1.000*					*1.000*		*1.000*
Arrival Type		*3*	*3*	*3*	*3*					*3*		*3*
Platoon Ratio		*1.00*	*1.00*	*1.00*	*1.00*					*1.00*		*1.00*
PF Factor		*1.00*	*1.00*	*1.00*	*1.00*					*1.00*		*1.00*
Q_1		*7.7*	*17.2*	*25.7*	*9.1*					*11.1*		*6.4*
k_B		*0.3*	*0.6*	*0.7*	*0.9*					*0.4*		*0.4*
Q_2		*3.1*	*5.6*	*10.6*	*1.0*					*5.4*		*0.9*
Q Average		*10.8*	*22.8*	*36.3*	*10.1*					*16.5*		*7.3*
Percentile Back of Queue (95th percentile)												
$f_{B\%}$		*1.8*	*1.7*	*1.6*	*1.8*					*1.7*		*1.9*
Back of Queue		*19.8*	*38.1*	*57.4*	*18.6*					*28.7*		*13.8*
Queue Storage Ratio												
Queue Spacing		*25.0*	*25.0*	*25.0*	*25.0*					*25.0*		*25.0*
Queue Storage		*0*	*1000*	*500*	*0*					*1100*		*1100*
Average Queue Storage Ratio			*0.6*	*1.8*						*0.4*		*0.2*
95% Queue Storage Ratio			*1.0*	*2.9*						*0.7*		*0.3*

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 SB Ramps at Overpass*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/20/2010*	Jurisdiction	*FDOT*
Time Period	*PM*	Analysis Year	*Build 2040-Diamond*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes		*3*	*1*	*3*	*2*					*2*		*1*
Lane Group		*T*	*R*	*L*	*T*					*L*		*R*
Volume (vph)		*865*	*625*	*1840*	*1175*					*615*		*145*
% Heavy Vehicles		*2*	*2*	*2*	*2*					*2*		*2*
PHF		*0.95*	*0.95*	*0.95*	*0.95*					*0.95*		*0.95*
Pretimed/Actuated (P/A)		*A*	*A*	*A*	*A*					*A*		*A*
Startup Lost Time		*2.0*	*2.0*	*2.0*	*2.0*					*2.0*		*2.0*
Extension of Effective Green		*3.0*	*3.0*	*3.0*	*3.0*					*3.0*		*3.0*
Arrival Type		*3*	*3*	*3*	*3*					*3*		*3*
Unit Extension		*3.0*	*3.0*	*3.0*	*3.0*					*3.0*		*3.0*
Ped/Bike/RTOR Volume	*0*	*0*	*0*	*0*	*0*		*0*	*0*		*0*	*0*	*0*
Lane Width		*12.0*	*12.0*	*12.0*	*12.0*					*12.0*		*12.0*
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour		*0*	*0*	*0*	*0*					*0*		*0*
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	WB Only	Thru & RT	03	04	SB Only	06	07	08
Timing	G = *29.0*	G = *12.0*	G =	G =	G = *14.0*	G =	G =	G =
	Y = *5*	Y = *5*	Y =	Y =	Y = *5*	Y =	Y =	Y =
Duration of Analysis (hrs) = *0.25*						Cycle Length C = *70.0*		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate		*911*	*658*	*1937*	*1237*					*647*		*153*
Lane Group Capacity		*942*	*724*	*2066*	*2382*					*737*		*339*
v/c Ratio		*0.97*	*0.91*	*0.94*	*0.52*					*0.88*		*0.45*
Green Ratio		*0.19*	*0.46*	*0.43*	*0.67*					*0.21*		*0.21*
Uniform Delay d_1		*28.3*	*17.6*	*19.1*	*5.8*					*26.6*		*23.9*
Delay Factor k		*0.47*	*0.43*	*0.45*	*0.13*					*0.40*		*0.11*
Incremental Delay d_2		*21.6*	*15.4*	*9.0*	*0.2*					*11.7*		*1.0*
PF Factor		*1.000*	*1.000*	*1.000*	*1.000*					*1.000*		*1.000*
Control Delay		*49.9*	*33.1*	*28.1*	*6.0*					*38.3*		*24.9*
Lane Group LOS		*D*	*C*	*C*	*A*					*D*		*C*
Approach Delay		*42.9*			*19.5*					*35.8*		
Approach LOS		*D*			*B*					*D*		
Intersection Delay		*28.4*			Intersection LOS					*C*		

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group		*T*	*R*	*L*	*T*					*L*		*R*
Initial Queue/Lane		*0.0*	*0.0*	*0.0*	*0.0*					*0.0*		*0.0*
Flow Rate/Lane Group		*911*	*658*	*1937*	*1237*					*647*		*153*
Satflow/Lane		*1862*	*1583*	*1769*	*1862*					*1770*		*1583*
Capacity/Lane Group		*942*	*724*	*2066*	*2382*					*737*		*339*
Flow Ratio		*0.2*	*0.4*	*0.4*	*0.3*					*0.2*		*0.1*
v/c Ratio		*0.97*	*0.91*	*0.94*	*0.52*					*0.88*		*0.45*
I Factor		*1.000*	*1.000*	*1.000*	*1.000*					*1.000*		*1.000*
Arrival Type		*3*	*3*	*3*	*3*					*3*		*3*
Platoon Ratio		*1.00*	*1.00*	*1.00*	*1.00*					*1.00*		*1.00*
PF Factor		*1.00*	*1.00*	*1.00*	*1.00*					*1.00*		*1.00*
Q_1		*6.4*	*11.9*	*13.2*	*6.4*					*6.3*		*2.6*
k_B		*0.3*	*0.5*	*0.5*	*0.7*					*0.3*		*0.3*
Q_2		*3.0*	*3.4*	*4.4*	*0.7*					*1.8*		*0.3*
Q Average		*9.4*	*15.3*	*17.6*	*7.1*					*8.1*		*2.8*
Percentile Back of Queue (95th percentile)												
$f_{B\%}$		*1.9*	*1.8*	*1.7*	*1.9*					*1.9*		*2.0*
Back of Queue		*17.5*	*26.9*	*30.3*	*13.5*					*15.2*		*5.7*
Queue Storage Ratio												
Queue Spacing		*25.0*	*25.0*	*25.0*	*25.0*					*25.0*		*25.0*
Queue Storage		*0*	*1000*	*500*	*0*					*1100*		*1100*
Average Queue Storage Ratio			*0.4*	*0.9*						*0.2*		*0.1*
95% Queue Storage Ratio			*0.7*	*1.5*						*0.3*		*0.1*

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 at Overpass*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/20/2010*	Jurisdiction	*FDOT*
Time Period	*AM*	Analysis Year	*Build 2040-SPUI*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	*1*	*2*		*3*	*2*		*2*			*2*		
Lane Group	*L*	*T*		*L*	*T*		*L*			*L*		
Volume (vph)	*145*	*575*		*2395*	*630*		*605*			*735*		
% Heavy Vehicles	*2*	*2*		*2*	*2*		*2*			*2*		
PHF	*0.95*	*0.95*		*0.95*	*0.95*		*0.95*			*0.95*		
Pretimed/Actuated (P/A)	*A*	*A*		*A*	*A*		*A*			*A*		
Startup Lost Time	*2.0*	*2.0*		*2.0*	*2.0*		*2.0*			*2.0*		
Extension of Effective Green	*2.0*	*3.0*		*3.0*	*2.0*		*2.0*			*2.0*		
Arrival Type	*3*	*3*		*3*	*3*		*3*			*3*		
Unit Extension	*3.0*	*3.0*		*3.0*	*3.0*		*3.0*			*3.0*		
Ped/Bike/RTOR Volume	*0*	*0*		*0*	*0*		*0*	*0*		*0*	*0*	
Lane Width	*12.0*	*12.0*		*12.0*	*12.0*		*12.0*			*12.0*		
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour	*0*	*0*		*0*	*0*		*0*			*0*		
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	EB Only	WB Only	03	04	Excl. Left	06	07	08
Timing	G = *18.0*	G = *61.0*	G =	G =	G = *26.0*	G =	G =	G =
	Y = *5*	Y = *5*	Y =	Y =	Y = *5*	Y =	Y =	Y =

Duration of Analysis (hrs) = *0.25* | Cycle Length C = *120.0*

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	*153*	*605*		*2521*	*663*		*637*			*774*		
Lane Group Capacity	*266*	*562*		*2611*	*1803*		*745*			*745*		
v/c Ratio	*0.58*	*1.08*		*0.97*	*0.37*		*0.86*			*1.04*		
Green Ratio	*0.15*	*0.16*		*0.52*	*0.51*		*0.22*			*0.22*		
Uniform Delay d_1	*47.4*	*50.5*		*28.0*	*17.8*		*45.2*			*47.0*		
Delay Factor k	*0.17*	*0.50*		*0.47*	*0.11*		*0.39*			*0.50*		
Incremental Delay d_2	*3.0*	*60.2*		*10.8*	*0.1*		*9.6*			*43.5*		
PF Factor	*1.000*	*1.000*		*1.000*	*1.000*		*1.000*			*1.000*		
Control Delay	*50.5*	*110.7*		*38.7*	*18.0*		*54.8*			*90.5*		
Lane Group LOS	*D*	*F*		*D*	*B*		*D*			*F*		
Approach Delay	*98.5*			*34.4*			*54.8*			*90.5*		
Approach LOS	*F*			*C*			*D*			*F*		
Intersection Delay	*54.0*			Intersection LOS			*D*					

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group	*L*	*T*		*L*	*T*		*L*			*L*		
Initial Queue/Lane	*0.0*	*0.0*		*0.0*	*0.0*		*0.0*			*0.0*		
Flow Rate/Lane Group	*153*	*605*		*2521*	*663*		*637*			*774*		
Satflow/Lane	*1770*	*1862*		*1770*	*1862*		*1770*			*1770*		
Capacity/Lane Group	*266*	*562*		*2611*	*1803*		*745*			*745*		
Flow Ratio	*0.1*	*0.2*		*0.5*	*0.2*		*0.2*			*0.2*		
v/c Ratio	*0.58*	*1.08*		*0.97*	*0.37*		*0.86*			*1.04*		
I Factor	*1.000*	*1.000*		*1.000*	*1.000*		*1.000*			*1.000*		
Arrival Type	*3*	*3*		*3*	*3*		*3*			*3*		
Platoon Ratio	*1.00*	*1.00*		*1.00*	*1.00*		*1.00*			*1.00*		
PF Factor	*1.00*	*1.00*		*1.00*	*1.00*		*1.00*			*1.00*		
Q_1	*4.7*	*10.6*		*28.3*	*7.0*		*10.5*			*13.3*		
k_B	*0.4*	*0.4*		*0.8*	*0.8*		*0.5*			*0.5*		
Q_2	*0.5*	*5.6*		*7.5*	*0.5*		*2.1*			*5.8*		
Q Average	*5.2*	*16.1*		*35.8*	*7.5*		*12.6*			*19.1*		
Percentile Back of Queue (95th percentile)												
$f_{B\%}$	*1.9*	*1.7*		*1.6*	*1.9*		*1.8*			*1.7*		
Back of Queue	*10.2*	*28.1*		*56.7*	*14.2*		*22.7*			*32.6*		
Queue Storage Ratio												
Queue Spacing	*25.0*	*25.0*		*25.0*	*25.0*		*25.0*			*25.0*		
Queue Storage	*1000*	*0*		*0*	*0*		*1100*			*0*		
Average Queue Storage Ratio	*0.1*						*0.3*					
95% Queue Storage Ratio	*0.3*						*0.5*					

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 at Overpass*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/20/2010*	Jurisdiction	*FDOT*
Time Period	*PM*	Analysis Year	*Build 2040-SPUI*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	*1*	*2*		*3*	*2*		*2*			*2*		
Lane Group	*L*	*T*		*L*	*T*		*L*			*L*		
Volume (vph)	*235*	*630*		*1840*	*575*		*600*			*615*		
% Heavy Vehicles	*2*	*2*		*2*	*2*		*2*			*2*		
PHF	*0.95*	*0.95*		*0.95*	*0.95*		*0.95*			*0.95*		
Pretimed/Actuated (P/A)	*A*	*A*		*A*	*A*		*A*			*A*		
Startup Lost Time	*2.0*	*2.0*		*2.0*	*2.0*		*2.0*			*2.0*		
Extension of Effective Green	*3.0*	*3.0*		*2.0*	*3.0*		*3.0*			*2.0*		
Arrival Type	*3*	*3*		*3*	*3*		*3*			*3*		
Unit Extension	*3.0*	*3.0*		*3.0*	*3.0*		*3.0*			*3.0*		
Ped/Bike/RTOR Volume	*0*	*0*		*0*	*0*		*0*	*0*		*0*	*0*	
Lane Width	*12.0*	*12.0*		*12.0*	*12.0*		*12.0*			*12.0*		
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour	*0*	*0*		*0*	*0*		*0*			*0*		
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	EB Only	WB Only	03	04	Excl. Left	06	07	08
Timing	G = *14.2*	G = *33.6*	G =	G =	G = *17.2*	G =	G =	G =
	Y = *5*	Y = *5*	Y =	Y =	Y = *5*	Y =	Y =	Y =
Duration of Analysis (hrs) = *0.25*						Cycle Length C = *80.0*		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	*247*	*663*		*1937*	*605*		*632*			*647*		
Lane Group Capacity	*336*	*674*		*2024*	*1534*		*782*			*739*		
v/c Ratio	*0.74*	*0.98*		*0.96*	*0.39*		*0.81*			*0.88*		
Green Ratio	*0.19*	*0.19*		*0.42*	*0.43*		*0.23*			*0.22*		
Uniform Delay d_1	*30.5*	*32.3*		*22.5*	*15.5*		*29.2*			*30.4*		
Delay Factor k	*0.29*	*0.49*		*0.47*	*0.11*		*0.35*			*0.40*		
Incremental Delay d_2	*8.2*	*30.5*		*11.6*	*0.2*		*6.3*			*11.5*		
PF Factor	*1.000*	*1.000*		*1.000*	*1.000*		*1.000*			*1.000*		
Control Delay	*38.7*	*62.7*		*34.1*	*15.7*		*35.6*			*41.8*		
Lane Group LOS	*D*	*E*		*C*	*B*		*D*			*D*		
Approach Delay	*56.2*			*29.7*			*35.6*			*41.8*		
Approach LOS	*E*			*C*			*D*			*D*		
Intersection Delay	*37.2*			Intersection LOS						*D*		

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group	*L*	*T*		*L*	*T*		*L*			*L*		
Initial Queue/Lane	*0.0*	*0.0*		*0.0*	*0.0*		*0.0*			*0.0*		
Flow Rate/Lane Group	*247*	*663*		*1937*	*605*		*632*			*647*		
Satflow/Lane	*1770*	*1862*		*1769*	*1862*		*1770*			*1770*		
Capacity/Lane Group	*336*	*674*		*2024*	*1534*		*782*			*739*		
Flow Ratio	*0.1*	*0.2*		*0.4*	*0.2*		*0.2*			*0.2*		
v/c Ratio	*0.74*	*0.98*		*0.96*	*0.39*		*0.81*			*0.88*		
I Factor	*1.000*	*1.000*		*1.000*	*1.000*		*1.000*			*1.000*		
Arrival Type	*3*	*3*		*3*	*3*		*3*			*3*		
Platoon Ratio	*1.00*	*1.00*		*1.00*	*1.00*		*1.00*			*1.00*		
PF Factor	*1.00*	*1.00*		*1.00*	*1.00*		*1.00*			*1.00*		
Q_1	*5.2*	*7.7*		*15.3*	*4.8*		*6.8*			*7.2*		
k_B	*0.3*	*0.3*		*0.5*	*0.6*		*0.4*			*0.4*		
Q_2	*0.9*	*3.6*		*5.2*	*0.4*		*1.4*			*1.9*		
Q Average	*6.0*	*11.3*		*20.5*	*5.2*		*8.2*			*9.1*		
Percentile Back of Queue (95th percentile)												
$f_{B\%}$	*1.9*	*1.8*		*1.7*	*1.9*		*1.9*			*1.9*		
Back of Queue	*11.6*	*20.5*		*34.7*	*10.1*		*15.4*			*16.9*		
Queue Storage Ratio												
Queue Spacing	*25.0*	*25.0*		*25.0*	*25.0*		*25.0*			*25.0*		
Queue Storage	*1000*	*0*		*0*	*0*		*1100*			*0*		
Average Queue Storage Ratio	*0.2*						*0.2*					
95% Queue Storage Ratio	*0.3*						*0.4*					

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 NB Ramps at Overpass*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/20/2010*	Jurisdiction	*FDOT*
Time Period	*AM*	Analysis Year	*Build 2040-DDI*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes		*2*			*5*							
Lane Group		*T*			*T*							
Volume (vph)		*1310*			*3025*							
% Heavy Vehicles		*2*			*2*							
PHF		*0.95*			*0.95*							
Pretimed/Actuated (P/A)		*A*			*A*							
Startup Lost Time		*2.0*			*2.0*							
Extension of Effective Green		*3.0*			*3.0*							
Arrival Type		*3*			*3*							
Unit Extension		*3.0*			*3.0*							
Ped/Bike/RTOR Volume	*0*	*0*		*0*	*0*		*0*	*0*		*0*	*0*	
Lane Width		*12.0*			*12.0*							
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour		*0*			*0*							
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	EB Only	WB Only	03	04	05	06	07	08
Timing	G = *25.0*	G = *25.0*	G =	G =	G =	G =	G =	G =
	Y = *5*	Y = *5*	Y =	Y =	Y =	Y =	Y =	Y =

Duration of Analysis (hrs) = *0.25* | Cycle Length C = *60.0*

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate		*1379*			*3184*							
Lane Group Capacity		*1537*			*3665*							
v/c Ratio		*0.90*			*0.87*							
Green Ratio		*0.43*			*0.43*							
Uniform Delay d_1		*15.8*			*15.4*							
Delay Factor k		*0.42*			*0.40*							
Incremental Delay d_2		*7.4*			*2.5*							
PF Factor		*1.000*			*1.000*							
Control Delay		*23.2*			*17.9*							
Lane Group LOS		*C*			*B*							
Approach Delay	*23.2*			*17.9*								
Approach LOS	*C*			*B*								
Intersection Delay	*19.5*			Intersection LOS						*B*		

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group		*T*			*T*							
Initial Queue/Lane		*0.0*			*0.0*							
Flow Rate/Lane Group		*1379*			*3184*							
Satflow/Lane		*1862*			*1862*							
Capacity/Lane Group		*1537*			*3665*							
Flow Ratio		*0.4*			*0.4*							
v/c Ratio		*0.90*			*0.87*							
I Factor		*1.000*			*1.000*							
Arrival Type		*3*			*3*							
Platoon Ratio		*1.00*			*1.00*							
PF Factor		*1.00*			*1.00*							
Q_1		*11.2*			*10.6*							
k_B		*0.5*			*0.5*							
Q_2		*3.2*			*2.6*							
Q Average		*14.4*			*13.2*							
Percentile Back of Queue (95th percentile)												
$f_{B\%}$		*1.8*			*1.8*							
Back of Queue		*25.4*			*23.7*							
Queue Storage Ratio												
Queue Spacing		*25.0*			*25.0*							
Queue Storage		*0*			*0*							
Average Queue Storage Ratio												
95% Queue Storage Ratio												

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 NB Ramps at Overpass*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/20/2010*	Jurisdiction	*FDOT*
Time Period	*PM*	Analysis Year	*Build 2040-DDI*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes		*2*			*5*							
Lane Group		*T*			*T*							
Volume (vph)		*1245*			*2415*							
% Heavy Vehicles		*2*			*2*							
PHF		*0.95*			*0.95*							
Pretimed/Actuated (P/A)		*A*			*A*							
Startup Lost Time		*2.0*			*2.0*							
Extension of Effective Green		*3.0*			*3.0*							
Arrival Type		*3*			*3*							
Unit Extension		*3.0*			*3.0*							
Ped/Bike/RTOR Volume	*0*	*0*		*0*	*0*		*0*	*0*		*0*	*0*	
Lane Width		*12.0*			*12.0*							
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour		*0*			*0*							
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	EB Only	WB Only	03	04	05	06	07	08
Timing	G = *25.7*	G = *24.3*	G =	G =	G =	G =	G =	G =
	Y = *5*	Y = *5*	Y =	Y =	Y =	Y =	Y =	Y =

Duration of Analysis (hrs) = *0.25* | Cycle Length C = *60.0*

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate		*1311*			*2542*							
Lane Group Capacity		*1578*			*3566*							
v/c Ratio		*0.83*			*0.71*							
Green Ratio		*0.45*			*0.42*							
Uniform Delay d_1		*14.7*			*14.3*							
Delay Factor k		*0.37*			*0.28*							
Incremental Delay d_2		*3.9*			*0.7*							
PF Factor		*1.000*			*1.000*							
Control Delay		*18.6*			*15.0*							
Lane Group LOS		*B*			*B*							
Approach Delay		*18.6*			*15.0*							
Approach LOS		*B*			*B*							
Intersection Delay		*16.2*			Intersection LOS						*B*	

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group		*T*			*T*							
Initial Queue/Lane		*0.0*			*0.0*							
Flow Rate/Lane Group		*1311*			*2542*							
Satflow/Lane		*1862*			*1862*							
Capacity/Lane Group		*1578*			*3566*							
Flow Ratio		*0.4*			*0.3*							
v/c Ratio		*0.83*			*0.71*							
I Factor		*1.000*			*1.000*							
Arrival Type		*3*			*3*							
Platoon Ratio		*1.00*			*1.00*							
PF Factor		*1.00*			*1.00*							
Q_1		*10.1*			*7.7*							
k_B		*0.5*			*0.5*							
Q_2		*2.1*			*1.1*							
Q Average		*12.2*			*8.8*							
Percentile Back of Queue (95th percentile)												
$f_{B\%}$		*1.8*			*1.9*							
Back of Queue		*22.0*			*16.5*							
Queue Storage Ratio												
Queue Spacing		*25.0*			*25.0*							
Queue Storage		*0*			*0*							
Average Queue Storage Ratio												
95% Queue Storage Ratio												

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 SB Ramps at Overpass*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/20/2010*	Jurisdiction	*FDOT*
Time Period	*AM*	Analysis Year	*Build 2040-DDI*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes		*3*			*2*							
Lane Group		*T*			*T*							
Volume (vph)		*720*			*1255*							
% Heavy Vehicles		*2*			*2*							
PHF		*0.95*			*0.95*							
Pretimed/Actuated (P/A)		*A*			*A*							
Startup Lost Time		*2.0*			*2.0*							
Extension of Effective Green		*3.0*			*3.0*							
Arrival Type		*3*			*3*							
Unit Extension		*3.0*			*3.0*							
Ped/Bike/RTOR Volume	*0*	*0*		*0*	*0*		*0*	*0*		*0*	*0*	
Lane Width		*12.0*			*12.0*							
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour		*0*			*0*							
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	EB Only	WB Only	03	04	05	06	07	08
Timing	G = *15.7*	G = *34.3*	G =	G =	G =	G =	G =	G =
	Y = *5*	Y = *5*	Y =	Y =	Y =	Y =	Y =	Y =
Duration of Analysis (hrs) = *0.25*						Cycle Length C = *60.0*		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate		*758*			*1321*							
Lane Group Capacity		*1412*			*2087*							
v/c Ratio		*0.54*			*0.63*							
Green Ratio		*0.28*			*0.59*							
Uniform Delay d_1		*18.4*			*8.1*							
Delay Factor k		*0.14*			*0.21*							
Incremental Delay d_2		*0.4*			*0.6*							
PF Factor		*1.000*			*1.000*							
Control Delay		*18.8*			*8.7*							
Lane Group LOS		*B*			*A*							
Approach Delay	*18.8*			*8.7*								
Approach LOS	*B*			*A*								
Intersection Delay	*12.4*			Intersection LOS						*B*		

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group		*T*			*T*							
Initial Queue/Lane		*0.0*			*0.0*							
Flow Rate/Lane Group		*758*			*1321*							
Satflow/Lane		*1862*			*1862*							
Capacity/Lane Group		*1412*			*2087*							
Flow Ratio		*0.1*			*0.4*							
v/c Ratio		*0.54*			*0.63*							
I Factor		*1.000*			*1.000*							
Arrival Type		*3*			*3*							
Platoon Ratio		*1.00*			*1.00*							
PF Factor		*1.00*			*1.00*							
Q_1		*3.9*			*7.6*							
k_B		*0.4*			*0.6*							
Q_2		*0.4*			*1.0*							
Q Average		*4.3*			*8.5*							
Percentile Back of Queue (95th percentile)												
$f_{B\%}$		*2.0*			*1.9*							
Back of Queue		*8.6*			*16.0*							
Queue Storage Ratio												
Queue Spacing		*25.0*			*25.0*							
Queue Storage		*0*			*0*							
Average Queue Storage Ratio												
95% Queue Storage Ratio												

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 SB Ramps at Overpass*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/20/2010*	Jurisdiction	*FDOT*
Time Period	*PM*	Analysis Year	*Build 2040-DDI*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes		*3*			*2*							
Lane Group		*T*			*T*							
Volume (vph)		*865*			*1175*							
% Heavy Vehicles		*2*			*2*							
PHF		*0.95*			*0.95*							
Pretimed/Actuated (P/A)		*A*			*A*							
Startup Lost Time		*2.0*			*2.0*							
Extension of Effective Green		*3.0*			*3.0*							
Arrival Type		*3*			*3*							
Unit Extension		*3.0*			*3.0*							
Ped/Bike/RTOR Volume	*0*	*0*		*0*	*0*		*0*	*0*		*0*	*0*	
Lane Width		*12.0*			*12.0*							
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour		*0*			*0*							
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	EB Only	WB Only	03	04	05	06	07	08
Timing	G = *16.9*	G = *33.1*	G =	G =	G =	G =	G =	G =
	Y = *5*	Y = *5*	Y =	Y =	Y =	Y =	Y =	Y =
Duration of Analysis (hrs) = *0.25*						Cycle Length C = *60.0*		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate		*911*			*1237*							
Lane Group Capacity		*1514*			*2016*							
v/c Ratio		*0.60*			*0.61*							
Green Ratio		*0.30*			*0.57*							
Uniform Delay d_1		*18.0*			*8.6*							
Delay Factor k		*0.19*			*0.20*							
Incremental Delay d_2		*0.7*			*0.6*							
PF Factor		*1.000*			*1.000*							
Control Delay		*18.7*			*9.1*							
Lane Group LOS		*B*			*A*							
Approach Delay	*18.7*			*9.1*								
Approach LOS	*B*			*A*								
Intersection Delay	*13.2*			Intersection LOS						*B*		

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group		*T*			*T*							
Initial Queue/Lane		*0.0*			*0.0*							
Flow Rate/Lane Group		*911*			*1237*							
Satflow/Lane		*1862*			*1862*							
Capacity/Lane Group		*1514*			*2016*							
Flow Ratio		*0.2*			*0.3*							
v/c Ratio		*0.60*			*0.61*							
I Factor		*1.000*			*1.000*							
Arrival Type		*3*			*3*							
Platoon Ratio		*1.00*			*1.00*							
PF Factor		*1.00*			*1.00*							
Q_1		*4.8*			*7.2*							
k_B		*0.4*			*0.6*							
Q_2		*0.6*			*0.9*							
Q Average		*5.3*			*8.0*							
Percentile Back of Queue (95th percentile)												
$f_{B\%}$		*1.9*			*1.9*							
Back of Queue		*10.4*			*15.1*							
Queue Storage Ratio												
Queue Spacing		*25.0*			*25.0*							
Queue Storage		*0*			*0*							
Average Queue Storage Ratio												
95% Queue Storage Ratio												

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 NB Ramps at Overpass*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/20/2010*	Jurisdiction	*FDOT*
Time Period	*AM*	Analysis Year	*Build 2040-Flyover*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	*1*	*2*			*2*	*1*	*2*					
Lane Group	*L*	*T*			*T*	*R*	*L*					
Volume (vph)	*145*	*1310*			*630*	*615*	*625*					
% Heavy Vehicles	*2*	*2*			*2*	*2*	*2*					
PHF	*0.95*	*0.95*			*0.95*	*0.95*	*0.95*					
Pretimed/Actuated (P/A)	*A*	*A*			*A*	*A*	*A*					
Startup Lost Time	*2.0*	*2.0*			*2.0*	*2.0*	*2.0*					
Extension of Effective Green	*3.0*	*3.0*			*3.0*	*2.0*	*3.0*					
Arrival Type	*3*	*3*			*3*	*3*	*4*					
Unit Extension	*3.0*	*3.0*			*3.0*	*3.0*	*3.0*					
Ped/Bike/RTOR Volume	*0*	*0*		*0*	*0*	*0*	*0*	*0*		*0*	*0*	
Lane Width	*12.0*	*12.0*			*12.0*	*12.0*	*12.0*					
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour	*0*	*0*			*0*	*0*	*0*					
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	EB Only	Thru & RT	03	04	NB Only	06	07	08
Timing	G = *5.0*	G = *27.4*	G =	G =	G = *12.6*	G =	G =	G =
	Y = *5*	Y = *5*	Y =	Y =	Y = *5*	Y =	Y =	Y =
Duration of Analysis (hrs) = *0.25*						Cycle Length C = *60.0*		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	*153*	*1379*			*663*	*647*	*658*					
Lane Group Capacity	*177*	*2270*			*1679*	*723*	*779*					
v/c Ratio	*0.86*	*0.61*			*0.39*	*0.89*	*0.84*					
Green Ratio	*0.10*	*0.64*			*0.47*	*0.46*	*0.23*					
Uniform Delay d_1	*26.6*	*6.4*			*10.2*	*15.0*	*22.2*					
Delay Factor k	*0.39*	*0.19*			*0.11*	*0.42*	*0.38*					
Incremental Delay d_2	*33.1*	*0.5*			*0.2*	*13.7*	*8.5*					
PF Factor	*1.000*	*1.000*			*1.000*	*1.000*	*1.000*					
Control Delay	*59.7*	*6.8*			*10.4*	*28.7*	*30.7*					
Lane Group LOS	*E*	*A*			*B*	*C*	*C*					
Approach Delay	*12.1*			*19.4*			*30.7*					
Approach LOS	*B*			*B*			*C*					
Intersection Delay	*18.3*			Intersection LOS			*B*					

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group	*L*	*T*			*T*	*R*	*L*					
Initial Queue/Lane	*0.0*	*0.0*			*0.0*	*0.0*	*0.0*					
Flow Rate/Lane Group	*153*	*1379*			*663*	*647*	*658*					
Satflow/Lane	*1770*	*1862*			*1862*	*1583*	*1770*					
Capacity/Lane Group	*177*	*2270*			*1679*	*723*	*779*					
Flow Ratio	*0.1*	*0.4*			*0.2*	*0.4*	*0.2*					
v/c Ratio	*0.86*	*0.61*			*0.39*	*0.89*	*0.84*					
I Factor	*1.000*	*1.000*			*1.000*	*1.000*	*1.000*					
Arrival Type	*3*	*3*			*3*	*3*	*4*					
Platoon Ratio	*1.00*	*1.00*			*1.00*	*1.00*	*1.33*					
PF Factor	*1.00*	*1.00*			*1.00*	*1.00*	*0.98*					
Q_1	*2.5*	*7.1*			*3.8*	*9.9*	*5.3*					
k_B	*0.2*	*0.6*			*0.5*	*0.4*	*0.3*					
Q_2	*0.9*	*0.9*			*0.3*	*2.9*	*1.4*					
Q Average	*3.4*	*8.0*			*4.1*	*12.8*	*6.7*					
Percentile Back of Queue (95th percentile)												
$f_{B\%}$	*2.0*	*1.9*			*2.0*	*1.8*	*1.9*					
Back of Queue	*6.9*	*15.1*			*8.1*	*23.0*	*12.8*					
Queue Storage Ratio												
Queue Spacing	*25.0*	*25.0*			*25.0*	*25.0*	*25.0*					
Queue Storage	*1000*	*0*			*0*	*0*	*1100*					
Average Queue Storage Ratio	*0.1*						*0.2*					
95% Queue Storage Ratio	*0.2*						*0.3*					

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 NB Ramps at Overpass*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/20/2010*	Jurisdiction	*FDOT*
Time Period	*PM*	Analysis Year	*Build 2040-Flyover*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	*1*	*2*			*2*	*1*	*2*					
Lane Group	*L*	*T*			*T*	*R*	*L*					
Volume (vph)	*175*	*1505*			*835*	*795*	*600*					
% Heavy Vehicles	*2*	*2*			*2*	*2*	*2*					
PHF	*0.95*	*0.95*			*0.95*	*0.95*	*0.95*					
Pretimed/Actuated (P/A)	*A*	*A*			*A*	*A*	*A*					
Startup Lost Time	*2.0*	*2.0*			*2.0*	*2.0*	*2.0*					
Extension of Effective Green	*3.0*	*3.0*			*3.0*	*2.0*	*3.0*					
Arrival Type	*3*	*3*			*3*	*3*	*4*					
Unit Extension	*3.0*	*3.0*			*3.0*	*3.0*	*3.0*					
Ped/Bike/RTOR Volume	*0*	*0*		*0*	*0*	*0*	*0*	*0*		*0*	*0*	
Lane Width	*12.0*	*12.0*			*12.0*	*12.0*	*12.0*					
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour	*0*	*0*			*0*	*0*	*0*					
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	EB Only	Thru & RT	03	04	NB Only	06	07	08
Timing	G = *11.9*	G = *59.8*	G =	G =	G = *23.3*	G =	G =	G =
	Y = *5*	Y = *5*	Y =	Y =	Y = *5*	Y =	Y =	Y =
Duration of Analysis (hrs) = *0.25*						Cycle Length C = *110.0*		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	*184*	*1584*			*879*	*837*	*632*					
Lane Group Capacity	*208*	*2505*			*1961*	*861*	*759*					
v/c Ratio	*0.88*	*0.63*			*0.45*	*0.97*	*0.83*					
Green Ratio	*0.12*	*0.71*			*0.55*	*0.54*	*0.22*					
Uniform Delay d_1	*47.8*	*8.6*			*14.6*	*24.3*	*40.9*					
Delay Factor k	*0.41*	*0.21*			*0.11*	*0.48*	*0.37*					
Incremental Delay d_2	*33.2*	*0.5*			*0.2*	*24.0*	*7.9*					
PF Factor	*1.000*	*1.000*			*1.000*	*1.000*	*1.000*					
Control Delay	*81.0*	*9.1*			*14.8*	*48.3*	*48.8*					
Lane Group LOS	*F*	*A*			*B*	*D*	*D*					
Approach Delay	*16.6*			*31.1*			*48.8*					
Approach LOS	*B*			*C*			*D*					
Intersection Delay	*27.6*			Intersection LOS						*C*		

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group	*L*	*T*			*T*	*R*	*L*					
Initial Queue/Lane	*0.0*	*0.0*			*0.0*	*0.0*	*0.0*					
Flow Rate/Lane Group	*184*	*1584*			*879*	*837*	*632*					
Satflow/Lane	*1770*	*1862*			*1862*	*1583*	*1770*					
Capacity/Lane Group	*208*	*2505*			*1961*	*861*	*759*					
Flow Ratio	*0.1*	*0.4*			*0.2*	*0.5*	*0.2*					
v/c Ratio	*0.88*	*0.63*			*0.45*	*0.97*	*0.83*					
I Factor	*1.000*	*1.000*			*1.000*	*1.000*	*1.000*					
Arrival Type	*3*	*3*			*3*	*3*	*4*					
Platoon Ratio	*1.00*	*1.00*			*1.00*	*1.00*	*1.33*					
PF Factor	*1.00*	*1.00*			*1.00*	*1.00*	*0.98*					
Q_1	*5.5*	*13.5*			*8.4*	*24.8*	*9.3*					
k_B	*0.3*	*0.9*			*0.8*	*0.7*	*0.4*					
Q_2	*1.5*	*1.5*			*0.6*	*7.3*	*1.8*					
Q Average	*7.1*	*15.0*			*9.0*	*32.0*	*11.1*					
Percentile Back of Queue (95th percentile)												
$f_{B\%}$	*1.9*	*1.8*			*1.9*	*1.6*	*1.8*					
Back of Queue	*13.5*	*26.4*			*16.8*	*51.3*	*20.2*					
Queue Storage Ratio												
Queue Spacing	*25.0*	*25.0*			*25.0*	*25.0*	*25.0*					
Queue Storage	*1000*	*0*			*0*	*0*	*1100*					
Average Queue Storage Ratio	*0.2*						*0.3*					
95% Queue Storage Ratio	*0.3*						*0.5*					

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 SB Ramps at Overpass*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/20/2010*	Jurisdiction	*FDOT*
Time Period	*AM*	Analysis Year	*Build 2040-Flyover*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes		*3*	*1*		*2*					*2*		*1*
Lane Group		*T*	*R*		*T*					*L*		*R*
Volume (vph)		*720*	*600*		*1255*					*735*		*235*
% Heavy Vehicles		*2*	*2*		*2*					*2*		*2*
PHF		*0.95*	*0.95*		*0.95*					*0.95*		*0.95*
Pretimed/Actuated (P/A)		*A*	*A*		*A*					*A*		*A*
Startup Lost Time		*2.0*	*2.0*		*2.0*					*2.0*		*2.0*
Extension of Effective Green		*3.0*	*3.0*		*3.0*					*3.0*		*3.0*
Arrival Type		*3*	*3*		*3*					*3*		*3*
Unit Extension		*3.0*	*3.0*		*3.0*					*3.0*		*3.0*
Ped/Bike/RTOR Volume	*0*	*0*	*0*	*0*	*0*		*0*	*0*		*0*	*0*	*0*
Lane Width		*12.0*	*12.0*		*12.0*					*12.0*		*12.0*
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour		*0*	*0*		*0*					*0*		*0*
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	Thru & RT	02	03	04	SB Only	06	07	08
Timing	G = *33.0*	G =	G =	G =	G = *17.0*	G =	G =	G =
	Y = *5*	Y =	Y =	Y =	Y = *5*	Y =	Y =	Y =
Duration of Analysis (hrs) = *0.25*						Cycle Length C = *60.0*		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate		*758*	*632*		*1321*					*774*		*247*
Lane Group Capacity		*2875*	*1583*		*2010*					*1031*		*475*
v/c Ratio		*0.26*	*0.40*		*0.66*					*0.75*		*0.52*
Green Ratio		*0.57*	*1.00*		*0.57*					*0.30*		*0.30*
Uniform Delay d_1		*6.6*	*0.0*		*9.0*					*19.0*		*17.4*
Delay Factor k		*0.11*	*0.11*		*0.23*					*0.31*		*0.13*
Incremental Delay d_2		*0.0*	*0.2*		*0.8*					*3.1*		*1.0*
PF Factor		*1.000*	*0.950*		*1.000*					*1.000*		*1.000*
Control Delay		*6.7*	*0.2*		*9.8*					*22.1*		*18.4*
Lane Group LOS		*A*	*A*		*A*					*C*		*B*
Approach Delay		*3.7*			*9.8*					*21.2*		
Approach LOS		*A*			*A*					*C*		
Intersection Delay		*10.6*			Intersection LOS					*B*		

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group		*T*	*R*		*T*					*L*		*R*
Initial Queue/Lane		*0.0*	*0.0*		*0.0*					*0.0*		*0.0*
Flow Rate/Lane Group		*758*	*632*		*1321*					*774*		*247*
Satflow/Lane		*1862*	*1583*		*1862*					*1770*		*1583*
Capacity/Lane Group		*2875*	*1583*		*2010*					*1031*		*475*
Flow Ratio		*0.1*	*0.4*		*0.4*					*0.2*		*0.2*
v/c Ratio		*0.26*	*0.40*		*0.66*					*0.75*		*0.52*
I Factor		*1.000*	*1.000*		*1.000*					*1.000*		*1.000*
Arrival Type		*3*	*3*		*3*					*3*		*3*
Platoon Ratio		*1.00*	*1.00*		*1.00*					*1.00*		*1.00*
PF Factor		*1.00*	*1.00*		*1.00*					*1.00*		*1.00*
Q_1		*2.4*	*0.0*		*8.0*					*6.0*		*3.4*
k_B		*0.6*	*0.7*		*0.6*					*0.4*		*0.3*
Q_2		*0.2*	*0.5*		*1.0*					*1.0*		*0.4*
Q Average		*2.6*	*0.5*		*9.0*					*7.0*		*3.8*
Percentile Back of Queue (95th percentile)												
$f_{B\%}$		*2.0*	*2.1*		*1.9*					*1.9*		*2.0*
Back of Queue		*5.2*	*1.0*		*16.8*					*13.4*		*7.5*
Queue Storage Ratio												
Queue Spacing		*25.0*	*25.0*		*25.0*					*25.0*		*25.0*
Queue Storage		*0*	*1000*		*0*					*1100*		*1100*
Average Queue Storage Ratio			*0.0*							*0.2*		*0.1*
95% Queue Storage Ratio			*0.0*							*0.3*		*0.2*

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 SB Ramps at Overpass*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/20/2010*	Jurisdiction	*FDOT*
Time Period	*PM*	Analysis Year	*Build 2040-Flyover*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes		*3*	*1*		*2*					*2*		*1*
Lane Group		*T*	*R*		*T*					*L*		*R*
Volume (vph)		*1065*	*825*		*1435*					*615*		*145*
% Heavy Vehicles		*2*	*2*		*2*					*2*		*2*
PHF		*0.95*	*0.95*		*0.95*					*0.95*		*0.95*
Pretimed/Actuated (P/A)		*A*	*A*		*A*					*A*		*A*
Startup Lost Time		*2.0*	*2.0*		*2.0*					*2.0*		*2.0*
Extension of Effective Green		*3.0*	*3.0*		*3.0*					*3.0*		*3.0*
Arrival Type		*3*	*3*		*3*					*3*		*3*
Unit Extension		*3.0*	*3.0*		*3.0*					*3.0*		*3.0*
Ped/Bike/RTOR Volume	*0*	*0*	*0*	*0*	*0*		*0*	*0*		*0*	*0*	*0*
Lane Width		*12.0*	*12.0*		*12.0*					*12.0*		*12.0*
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour		*0*	*0*		*0*					*0*		*0*
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	Thru & RT	02	03	04	SB Only	06	07	08
Timing	G = *34.6*	G =	G =	G =	G = *15.4*	G =	G =	G =
	Y = *5*	Y =	Y =	Y =	Y = *5*	Y =	Y =	Y =
Duration of Analysis (hrs) = *0.25*						Cycle Length C = *60.0*		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate		*1121*	*868*		*1511*					*647*		*153*
Lane Group Capacity		*3011*	*1583*		*2105*					*939*		*433*
v/c Ratio		*0.37*	*0.55*		*0.72*					*0.69*		*0.35*
Green Ratio		*0.59*	*1.00*		*0.59*					*0.27*		*0.27*
Uniform Delay d_1		*6.4*	*0.0*		*8.6*					*19.5*		*17.5*
Delay Factor k		*0.11*	*0.15*		*0.28*					*0.26*		*0.11*
Incremental Delay d_2		*0.1*	*0.4*		*1.2*					*2.2*		*0.5*
PF Factor		*1.000*	*0.950*		*1.000*					*1.000*		*1.000*
Control Delay		*6.4*	*0.4*		*9.8*					*21.7*		*18.0*
Lane Group LOS		*A*	*A*		*A*					*C*		*B*
Approach Delay		*3.8*			*9.8*					*21.0*		
Approach LOS		*A*			*A*					*C*		
Intersection Delay		*9.1*			Intersection LOS					*A*		

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group		*T*	*R*		*T*					*L*		*R*
Initial Queue/Lane		*0.0*	*0.0*		*0.0*					*0.0*		*0.0*
Flow Rate/Lane Group		*1121*	*868*		*1511*					*647*		*153*
Satflow/Lane		*1862*	*1583*		*1862*					*1770*		*1583*
Capacity/Lane Group		*3011*	*1583*		*2105*					*939*		*433*
Flow Ratio		*0.2*	*0.5*		*0.4*					*0.2*		*0.1*
v/c Ratio		*0.37*	*0.55*		*0.72*					*0.69*		*0.35*
I Factor		*1.000*	*1.000*		*1.000*					*1.000*		*1.000*
Arrival Type		*3*	*3*		*3*					*3*		*3*
Platoon Ratio		*1.00*	*1.00*		*1.00*					*1.00*		*1.00*
PF Factor		*1.00*	*1.00*		*1.00*					*1.00*		*1.00*
Q_1		*3.6*	*0.0*		*9.4*					*5.0*		*2.1*
k_B		*0.6*	*0.7*		*0.6*					*0.3*		*0.3*
Q_2		*0.3*	*0.9*		*1.4*					*0.7*		*0.2*
Q Average		*3.9*	*0.9*		*10.8*					*5.7*		*2.2*
Percentile Back of Queue (95th percentile)												
$f_{B\%}$		*2.0*	*2.1*		*1.8*					*1.9*		*2.0*
Back of Queue		*7.8*	*1.8*		*19.7*					*11.1*		*4.5*
Queue Storage Ratio												
Queue Spacing		*25.0*	*25.0*		*25.0*					*25.0*		*25.0*
Queue Storage		*0*	*1000*		*0*					*1100*		*1100*
Average Queue Storage Ratio			*0.0*							*0.1*		*0.1*
95% Queue Storage Ratio			*0.0*							*0.3*		*0.1*

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 NB Ramps at Overpass*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/20/2010*	Jurisdiction	*FDOT*
Time Period	*AM*	Analysis Year	*Build 2040-Loop*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	*1*	*2*			*4*	*1*	*2*					
Lane Group	*L*	*T*			*T*	*R*	*L*					
Volume (vph)	*145*	*1310*			*3025*	*615*	*625*					
% Heavy Vehicles	*2*	*2*			*2*	*2*	*2*					
PHF	*0.95*	*0.95*			*0.95*	*0.95*	*0.95*					
Pretimed/Actuated (P/A)	*A*	*A*			*A*	*A*	*A*					
Startup Lost Time	*2.0*	*2.0*			*2.0*	*2.0*	*2.0*					
Extension of Effective Green	*3.0*	*3.0*			*3.0*	*2.0*	*3.0*					
Arrival Type	*3*	*3*			*3*	*3*	*4*					
Unit Extension	*3.0*	*3.0*			*3.0*	*3.0*	*3.0*					
Ped/Bike/RTOR Volume	*0*	*0*		*0*	*0*	*0*	*0*	*0*		*0*	*0*	
Lane Width	*12.0*	*12.0*			*12.0*	*12.0*	*12.0*					
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour	*0*	*0*			*0*	*0*	*0*					
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	EB Only	Thru & RT	03	04	NB Only	06	07	08
Timing	G = *5.5*	G = *34.5*	G =	G =	G = *15.0*	G =	G =	G =
	Y = *5*	Y = *5*	Y =	Y =	Y = *5*	Y =	Y =	Y =
Duration of Analysis (hrs) = *0.25*						Cycle Length C = *70.0*		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	*153*	*1379*			*3184*	*647*	*658*					
Lane Group Capacity	*164*	*2331*			*3431*	*780*	*786*					
v/c Ratio	*0.93*	*0.59*			*0.93*	*0.83*	*0.84*					
Green Ratio	*0.09*	*0.66*			*0.51*	*0.49*	*0.23*					
Uniform Delay d_1	*31.5*	*6.7*			*16.1*	*15.2*	*25.8*					
Delay Factor k	*0.45*	*0.18*			*0.44*	*0.37*	*0.37*					
Incremental Delay d_2	*50.9*	*0.4*			*5.2*	*7.5*	*7.9*					
PF Factor	*1.000*	*1.000*			*1.000*	*1.000*	*1.000*					
Control Delay	*82.4*	*7.1*			*21.2*	*22.7*	*33.7*					
Lane Group LOS	*F*	*A*			*C*	*C*	*C*					
Approach Delay	*14.7*			*21.5*			*33.7*					
Approach LOS	*B*			*C*			*C*					
Intersection Delay	*21.1*			Intersection LOS						*C*		

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group	*L*	*T*			*T*	*R*	*L*					
Initial Queue/Lane	*0.0*	*0.0*			*0.0*	*0.0*	*0.0*					
Flow Rate/Lane Group	*153*	*1379*			*3184*	*647*	*658*					
Satflow/Lane	*1770*	*1862*			*1862*	*1583*	*1770*					
Capacity/Lane Group	*164*	*2331*			*3431*	*780*	*786*					
Flow Ratio	*0.1*	*0.4*			*0.5*	*0.4*	*0.2*					
v/c Ratio	*0.93*	*0.59*			*0.93*	*0.83*	*0.84*					
I Factor	*1.000*	*1.000*			*1.000*	*1.000*	*1.000*					
Arrival Type	*3*	*3*			*3*	*3*	*4*					
Platoon Ratio	*1.00*	*1.00*			*1.00*	*1.00*	*1.33*					
PF Factor	*1.00*	*1.00*			*1.00*	*1.00*	*0.98*					
Q_1	*3.0*	*7.9*			*15.9*	*10.8*	*6.1*					
k_B	*0.2*	*0.7*			*0.6*	*0.5*	*0.3*					
Q_2	*1.4*	*1.0*			*4.7*	*2.2*	*1.5*					
Q Average	*4.3*	*8.9*			*20.6*	*13.0*	*7.6*					
Percentile Back of Queue (95th percentile)												
$f_{B\%}$	*2.0*	*1.9*			*1.7*	*1.8*	*1.9*					
Back of Queue	*8.6*	*16.5*			*34.8*	*23.3*	*14.4*					
Queue Storage Ratio												
Queue Spacing	*25.0*	*25.0*			*25.0*	*25.0*	*25.0*					
Queue Storage	*1000*	*0*			*0*	*0*	*1100*					
Average Queue Storage Ratio	*0.1*						*0.2*					
95% Queue Storage Ratio	*0.2*						*0.3*					

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 NB Ramps at Overpass*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/20/2010*	Jurisdiction	*FDOT*
Time Period	*PM*	Analysis Year	*Build 2040-Loop*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	*1*	*2*			*4*	*1*	*2*					
Lane Group	*L*	*T*			*T*	*R*	*L*					
Volume (vph)	*175*	*1505*			*2675*	*795*	*600*					
% Heavy Vehicles	*2*	*2*			*2*	*2*	*2*					
PHF	*0.95*	*0.95*			*0.95*	*0.95*	*0.95*					
Pretimed/Actuated (P/A)	*A*	*A*			*A*	*A*	*A*					
Startup Lost Time	*2.0*	*2.0*			*2.0*	*2.0*	*2.0*					
Extension of Effective Green	*3.0*	*3.0*			*3.0*	*2.0*	*3.0*					
Arrival Type	*3*	*3*			*3*	*3*	*4*					
Unit Extension	*3.0*	*3.0*			*3.0*	*3.0*	*3.0*					
Ped/Bike/RTOR Volume	*0*	*0*		*0*	*0*	*0*	*0*	*0*		*0*	*0*	
Lane Width	*12.0*	*12.0*			*12.0*	*12.0*	*12.0*					
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour	*0*	*0*			*0*	*0*	*0*					
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	EB Only	Thru & RT	03	04	NB Only	06	07	08
Timing	G = *6.4*	G = *41.4*	G =	G =	G = *17.2*	G =	G =	G =
	Y = *5*	Y = *5*	Y =	Y =	Y = *5*	Y =	Y =	Y =
Duration of Analysis (hrs) = *0.25*						Cycle Length C = *80.0*		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	*184*	*1584*			*2816*	*837*	*632*					
Lane Group Capacity	*164*	*2385*			*3585*	*819*	*782*					
v/c Ratio	*1.12*	*0.66*			*0.79*	*1.02*	*0.81*					
Green Ratio	*0.09*	*0.67*			*0.53*	*0.52*	*0.23*					
Uniform Delay d_1	*36.3*	*7.8*			*15.1*	*19.3*	*29.2*					
Delay Factor k	*0.50*	*0.24*			*0.33*	*0.50*	*0.35*					
Incremental Delay d_2	*106.8*	*0.7*			*1.2*	*37.1*	*6.3*					
PF Factor	*1.000*	*1.000*			*1.000*	*1.000*	*1.000*					
Control Delay	*143.1*	*8.5*			*16.3*	*56.4*	*35.6*					
Lane Group LOS	*F*	*A*			*B*	*E*	*D*					
Approach Delay	*22.5*			*25.5*			*35.6*					
Approach LOS	*C*			*C*			*D*					
Intersection Delay	*25.7*			Intersection LOS						*C*		

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group	*L*	*T*			*T*	*R*	*L*					
Initial Queue/Lane	*0.0*	*0.0*			*0.0*	*0.0*	*0.0*					
Flow Rate/Lane Group	*184*	*1584*			*2816*	*837*	*632*					
Satflow/Lane	*1770*	*1862*			*1862*	*1583*	*1770*					
Capacity/Lane Group	*164*	*2385*			*3585*	*819*	*782*					
Flow Ratio	*0.1*	*0.4*			*0.4*	*0.5*	*0.2*					
v/c Ratio	*1.12*	*0.66*			*0.79*	*1.02*	*0.81*					
I Factor	*1.000*	*1.000*			*1.000*	*1.000*	*1.000*					
Arrival Type	*3*	*3*			*3*	*3*	*4*					
Platoon Ratio	*1.00*	*1.00*			*1.00*	*1.00*	*1.33*					
PF Factor	*1.00*	*1.00*			*1.00*	*1.00*	*0.97*					
Q_1	*4.1*	*10.9*			*13.9*	*18.6*	*6.7*					
k_B	*0.2*	*0.7*			*0.6*	*0.6*	*0.4*					
Q_2	*3.8*	*1.4*			*2.2*	*8.9*	*1.4*					
Q Average	*7.9*	*12.3*			*16.0*	*27.5*	*8.0*					
Percentile Back of Queue (95th percentile)												
$f_{B\%}$	*1.9*	*1.8*			*1.7*	*1.6*	*1.9*					
Back of Queue	*14.9*	*22.2*			*28.0*	*44.9*	*15.1*					
Queue Storage Ratio												
Queue Spacing	*25.0*	*25.0*			*25.0*	*25.0*	*25.0*					
Queue Storage	*1000*	*0*			*0*	*0*	*1100*					
Average Queue Storage Ratio	*0.2*						*0.2*					
95% Queue Storage Ratio	*0.4*						*0.3*					

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 SB Ramps at Overpass*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/20/2010*	Jurisdiction	*FDOT*
Time Period	*AM*	Analysis Year	*Build 2040-Loop*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes		*3*	*1*		*2*					*2*		*1*
Lane Group		*T*	*R*		*T*					*L*		*R*
Volume (vph)		*720*	*600*		*1255*					*735*		*235*
% Heavy Vehicles		*2*	*2*		*2*					*2*		*2*
PHF		*0.95*	*0.95*		*0.95*					*0.95*		*0.95*
Pretimed/Actuated (P/A)		*A*	*A*		*A*					*A*		*A*
Startup Lost Time		*2.0*	*2.0*		*2.0*					*2.0*		*2.0*
Extension of Effective Green		*3.0*	*3.0*		*3.0*					*3.0*		*3.0*
Arrival Type		*3*	*3*		*3*					*3*		*3*
Unit Extension		*3.0*	*3.0*		*3.0*					*3.0*		*3.0*
Ped/Bike/RTOR Volume	*0*	*0*	*0*	*0*	*0*		*0*	*0*		*0*	*0*	*0*
Lane Width		*12.0*	*12.0*		*12.0*					*12.0*		*12.0*
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour		*0*	*0*		*0*					*0*		*0*
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	Thru & RT	02	03	04	SB Only	06	07	08
Timing	G = *33.0*	G =	G =	G =	G = *17.0*	G =	G =	G =
	Y = *5*	Y =	Y =	Y =	Y = *5*	Y =	Y =	Y =
Duration of Analysis (hrs) = *0.25*						Cycle Length C = *60.0*		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate		*758*	*632*		*1321*					*774*		*247*
Lane Group Capacity		*2875*	*1583*		*2010*					*1031*		*475*
v/c Ratio		*0.26*	*0.40*		*0.66*					*0.75*		*0.52*
Green Ratio		*0.57*	*1.00*		*0.57*					*0.30*		*0.30*
Uniform Delay d_1		*6.6*	*0.0*		*9.0*					*19.0*		*17.4*
Delay Factor k		*0.11*	*0.11*		*0.23*					*0.31*		*0.13*
Incremental Delay d_2		*0.0*	*0.2*		*0.8*					*3.1*		*1.0*
PF Factor		*1.000*	*0.950*		*1.000*					*1.000*		*1.000*
Control Delay		*6.7*	*0.2*		*9.8*					*22.1*		*18.4*
Lane Group LOS		*A*	*A*		*A*					*C*		*B*
Approach Delay		*3.7*			*9.8*					*21.2*		
Approach LOS		*A*			*A*					*C*		
Intersection Delay		*10.6*			Intersection LOS					*B*		

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group		*T*	*R*		*T*					*L*		*R*
Initial Queue/Lane		*0.0*	*0.0*		*0.0*					*0.0*		*0.0*
Flow Rate/Lane Group		*758*	*632*		*1321*					*774*		*247*
Satflow/Lane		*1862*	*1583*		*1862*					*1770*		*1583*
Capacity/Lane Group		*2875*	*1583*		*2010*					*1031*		*475*
Flow Ratio		*0.1*	*0.4*		*0.4*					*0.2*		*0.2*
v/c Ratio		*0.26*	*0.40*		*0.66*					*0.75*		*0.52*
I Factor		*1.000*	*1.000*		*1.000*					*1.000*		*1.000*
Arrival Type		*3*	*3*		*3*					*3*		*3*
Platoon Ratio		*1.00*	*1.00*		*1.00*					*1.00*		*1.00*
PF Factor		*1.00*	*1.00*		*1.00*					*1.00*		*1.00*
Q_1		*2.4*	*0.0*		*8.0*					*6.0*		*3.4*
k_B		*0.6*	*0.7*		*0.6*					*0.4*		*0.3*
Q_2		*0.2*	*0.5*		*1.0*					*1.0*		*0.4*
Q Average		*2.6*	*0.5*		*9.0*					*7.0*		*3.8*
Percentile Back of Queue (95th percentile)												
$f_{B\%}$		*2.0*	*2.1*		*1.9*					*1.9*		*2.0*
Back of Queue		*5.2*	*1.0*		*16.8*					*13.4*		*7.5*
Queue Storage Ratio												
Queue Spacing		*25.0*	*25.0*		*25.0*					*25.0*		*25.0*
Queue Storage		*0*	*1000*		*0*					*1100*		*1100*
Average Queue Storage Ratio			*0.0*							*0.2*		*0.1*
95% Queue Storage Ratio			*0.0*							*0.3*		*0.2*

SHORT REPORT

General Information		Site Information	
Analyst	*URS*	Intersection	*I-75 SB Ramps at Overpass*
Agency or Co.	*URS*	Area Type	*All other areas*
Date Performed	*5/20/2010*	Jurisdiction	*FDOT*
Time Period	*PM*	Analysis Year	*Build 2040-Loop*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes		*3*	*1*		*2*					*2*		*1*
Lane Group		*T*	*R*		*T*					*L*		*R*
Volume (vph)		*1065*	*825*		*1435*					*615*		*145*
% Heavy Vehicles		*2*	*2*		*2*					*2*		*2*
PHF		*0.95*	*0.95*		*0.95*					*0.95*		*0.95*
Pretimed/Actuated (P/A)		*A*	*A*		*A*					*A*		*A*
Startup Lost Time		*2.0*	*2.0*		*2.0*					*2.0*		*2.0*
Extension of Effective Green		*3.0*	*3.0*		*3.0*					*3.0*		*3.0*
Arrival Type		*3*	*3*		*3*					*3*		*3*
Unit Extension		*3.0*	*3.0*		*3.0*					*3.0*		*3.0*
Ped/Bike/RTOR Volume	*0*	*0*	*0*	*0*	*0*		*0*	*0*		*0*	*0*	*0*
Lane Width		*12.0*	*12.0*		*12.0*					*12.0*		*12.0*
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour		*0*	*0*		*0*					*0*		*0*
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*			*3.2*	

Phasing	Thru & RT	02	03	04	SB Only	06	07	08
Timing	G = *34.6*	G =	G =	G =	G = *15.4*	G =	G =	G =
	Y = *5*	Y =	Y =	Y =	Y = *5*	Y =	Y =	Y =
Duration of Analysis (hrs) = *0.25*						Cycle Length C = *60.0*		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate		*1121*	*868*		*1511*					*647*		*153*
Lane Group Capacity		*3011*	*1583*		*2105*					*939*		*433*
v/c Ratio		*0.37*	*0.55*		*0.72*					*0.69*		*0.35*
Green Ratio		*0.59*	*1.00*		*0.59*					*0.27*		*0.27*
Uniform Delay d_1		*6.4*	*0.0*		*8.6*					*19.5*		*17.5*
Delay Factor k		*0.11*	*0.15*		*0.28*					*0.26*		*0.11*
Incremental Delay d_2		*0.1*	*0.4*		*1.2*					*2.2*		*0.5*
PF Factor		*1.000*	*0.950*		*1.000*					*1.000*		*1.000*
Control Delay		*6.4*	*0.4*		*9.8*					*21.7*		*18.0*
Lane Group LOS		*A*	*A*		*A*					*C*		*B*
Approach Delay	*3.8*			*9.8*						*21.0*		
Approach LOS	*A*			*A*						*C*		
Intersection Delay	*9.1*			Intersection LOS						*A*		

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *I-75 and Overpass Road*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group		*T*	*R*		*T*					*L*		*R*
Initial Queue/Lane		*0.0*	*0.0*		*0.0*					*0.0*		*0.0*
Flow Rate/Lane Group		*1121*	*868*		*1511*					*647*		*153*
Satflow/Lane		*1862*	*1583*		*1862*					*1770*		*1583*
Capacity/Lane Group		*3011*	*1583*		*2105*					*939*		*433*
Flow Ratio		*0.2*	*0.5*		*0.4*					*0.2*		*0.1*
v/c Ratio		*0.37*	*0.55*		*0.72*					*0.69*		*0.35*
I Factor		*1.000*	*1.000*		*1.000*					*1.000*		*1.000*
Arrival Type		*3*	*3*		*3*					*3*		*3*
Platoon Ratio		*1.00*	*1.00*		*1.00*					*1.00*		*1.00*
PF Factor		*1.00*	*1.00*		*1.00*					*1.00*		*1.00*
Q_1		*3.6*	*0.0*		*9.4*					*5.0*		*2.1*
k_B		*0.6*	*0.7*		*0.6*					*0.3*		*0.3*
Q_2		*0.3*	*0.9*		*1.4*					*0.7*		*0.2*
Q Average		*3.9*	*0.9*		*10.8*					*5.7*		*2.2*
Percentile Back of Queue (95th percentile)												
$f_{B\%}$		*2.0*	*2.1*		*1.8*					*1.9*		*2.0*
Back of Queue		*7.8*	*1.8*		*19.7*					*11.1*		*4.5*
Queue Storage Ratio												
Queue Spacing		*25.0*	*25.0*		*25.0*					*25.0*		*25.0*
Queue Storage		*0*	*1000*		*0*					*1100*		*1100*
Average Queue Storage Ratio			*0.0*							*0.1*		*0.1*
95% Queue Storage Ratio			*0.0*							*0.3*		*0.1*

APPENDIX J

Analysis for PD&E – Overpass Road
Extension from East of Boyette Road to US 301

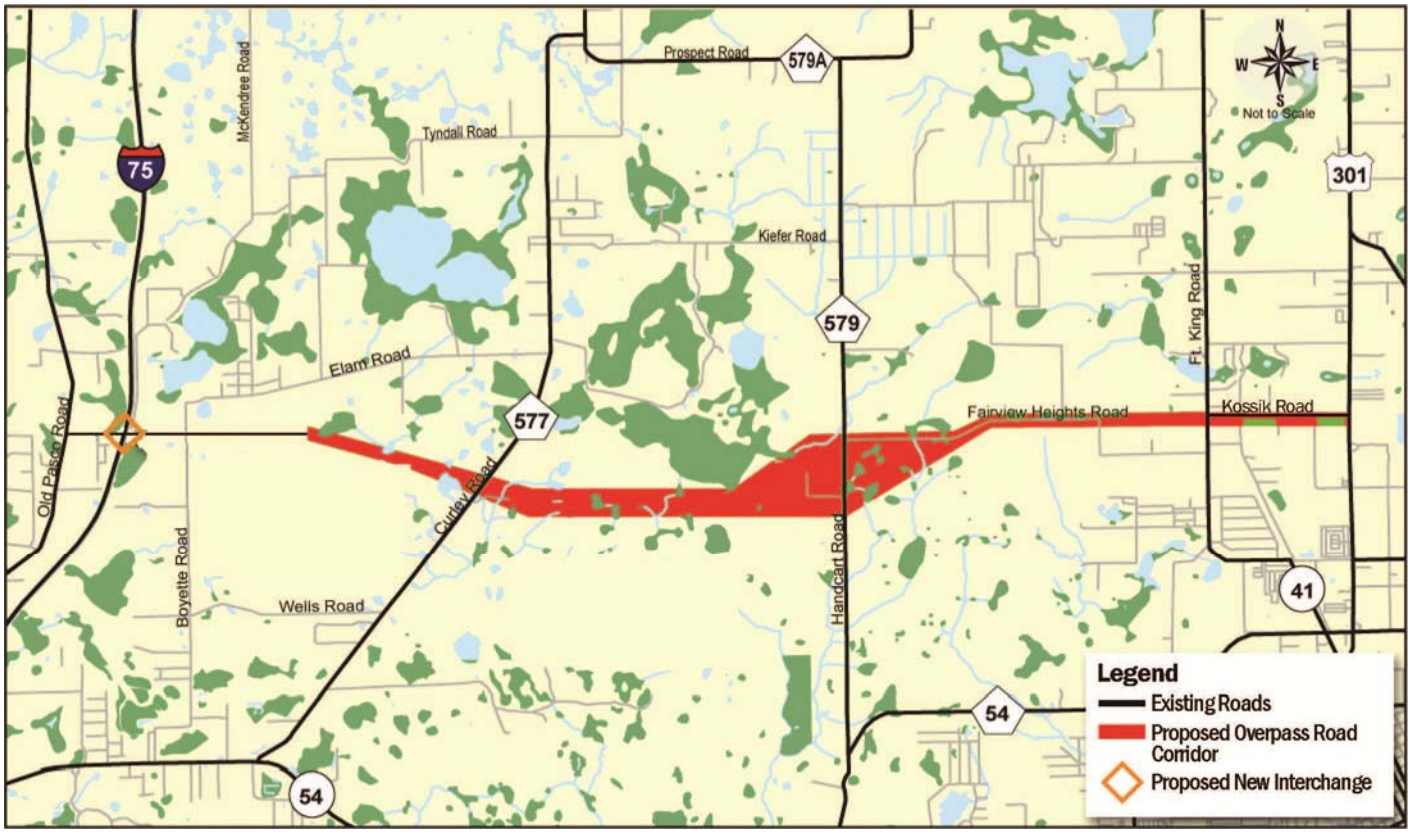
OVERPASS ROAD FROM EAST BOYETTE ROAD TO US 301
Traffic Operations Analysis

1.0 INTRODUCTION

Pasco County, Florida is conducting a Project Development and Environment (PD&E) study for Overpass Road Corridor from Old Pasco Road to US 301 along with the proposal to construct a new interchange on Interstate 75 (I-75) at Overpass Road, located in the Wesley Chapel area of Pasco County between existing interchanges at I-75 and County Road (CR) 54 and at I-75 and State Road (SR) 52. A Preliminary Interchange Justification Report (PIJR) has been initiated by Pasco County in collaboration with the Federal Highway Administration (FHWA), the Florida Department of Transportation (FDOT) Office of Systems Planning (i.e., the Central Office), and the FDOT District Seven Interchange Review Committee (DIRC). Currently, Overpass Road runs from Old Pasco Road to just east of Boyette Road and as an overpass at I-75. The PIJR documents traffic operations from Old Pasco Road to east of Boyette Road. The purpose of this document is to summarize the future traffic volumes and traffic operations for Overpass Road from east of Boyette Road to US 301. This memorandum will also establish geometry needs for this corridor. There is no existing roadway for this corridor and a new alignment is being developed as part of the PD&E study.

Based on formal comments received from the Florida Department of Transportation (FDOT), the PIJR's eastern limit for Overpass Road was defined as immediately east of Boyette Road, as such it was recommended the Overpass Road extension east of Boyette Road to US 301 should be documented as a separate technical memorandum to be referenced as part of the Appendix to the PIJR. **Figure 1** shows the Overpass Road extension corridor as proposed by Pasco County.

FIGURE 1
OVERPASS ROAD EXTENSION CORRIDOR



2.0 TRAVEL DEMAND MODEL

Travel demand forecasting for this project was performed using TBRPM (version 7.0). The TBRPM is based on the Florida Standard Urban Transportation Modeling Structure (FSUTMS) and is recognized by both FDOT District Seven, as well as the Tampa Bay Area MPOs as the accepted travel demand forecasting tool. The TBRPM was validated to the year 2006 and also includes Cost Feasible network and socioeconomic (SE) data for the years 2025 and 2035. The ultimate roadway network reflects the Adopted Cost Affordable LRTP for all counties in the District. This modeling process is consistent with the model used for the PIJR.

The TBRPM was reviewed and the land use data, roadway network, and TAZs were updated to reflect recent approved developments in the study area. In addition, appropriate development levels for the Pasadena Hills Area Plan are represented in the SE data. This area plan (approved by Pasco County) encompasses the eastern portion of the county located north of SR 54, south of SR 52, east of CR 577/Curley Road, and west of Handcart Road. Based on the updated SE data used in this analysis, the study area is projected to have 105,000 dwelling units and 75,600 employees by 2035 and 80,200 dwelling units and 51,450 employees by 2025.

The SE data for the Opening Year (2022) was developed from the linear interpolation of the SE data sets for 2006 and 2025. The 2022 roadway network used in the model was derived from the TBRPM 2025 Cost Affordable model network and includes the existing network plus any roadway improvements that are expected to be under construction by the year 2022 as identified in the County's LRTP. The major roadway improvements assumed for the Opening Year are:

- A diamond interchange at I-75 and Overpass Road
- Six lanes on I-75 between SR 56 and the Hernando County line,
- Eight lanes on I-75 between I-275 and SR 56,
- Two-lane ramps to/from the south at the CR 54/I-75 Interchange,
- Four lanes on Overpass Road from Old Pasco Road to Curley Road,
- Four lanes on Old Pasco Road from CR 54 to Overpass Road,
- Four lanes on CR 54 from Old Pasco Road to SR 56, and
- Four lanes on the Zephyrhills Bypass from SR 54 to Handcart Road.

Similarly, the SE data for the Interim Year (2030) was developed from the linear interpolation of the SE data sets for 2025 and 2035. The 2030 roadway network used in the model was derived from the TBRPM 2025 Cost Affordable model network and represents all the improvements for the Opening Year plus roadway improvements that are expected to be under construction by the year 2030, as identified in the County's LRTP. For the Design Year (2040), the model was run using the 2035 network and SE data and the traffic projections were obtained by applying a one percent per year growth rate to the 2035 volumes.

3.0 FUTURE YEAR TRAFFIC VOLUMES

Future year AADTs and DDHVs for Overpass Road extension from east of Boyette Road to US 301 were developed using the methodology presented in the PIJR. Future year AADTs for Opening Year (2022), Interim Year (2030), and Design Year (2040) were developed from the TBRPM. The model was run for each of these years for each alternative after applicable adjustments were made to roadway network and SE data. The Peak Season Weekday Average Daily Traffic (PSWADT) volumes were obtained from the model output. The PSWADT was converted to AADT by applying the Model Conversion Factor (MOCF) of 0.95.

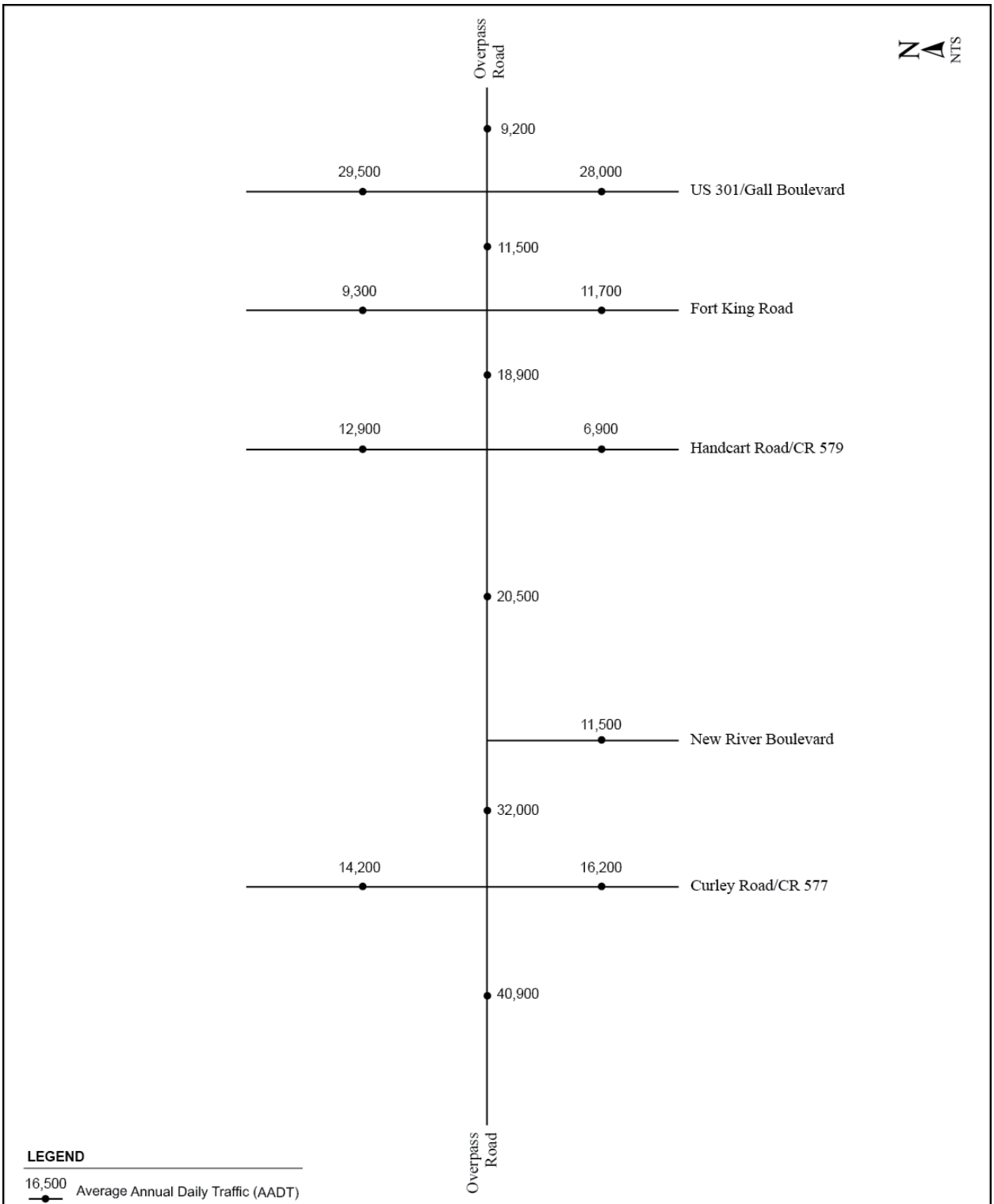
MOCF = Model Output Conversion Factor (0.95)

Based upon the historic data and discussions held during the MLOU methodology meeting, it was agreed that the analyses be conducted using a uniform set of K and D factors, as follows:

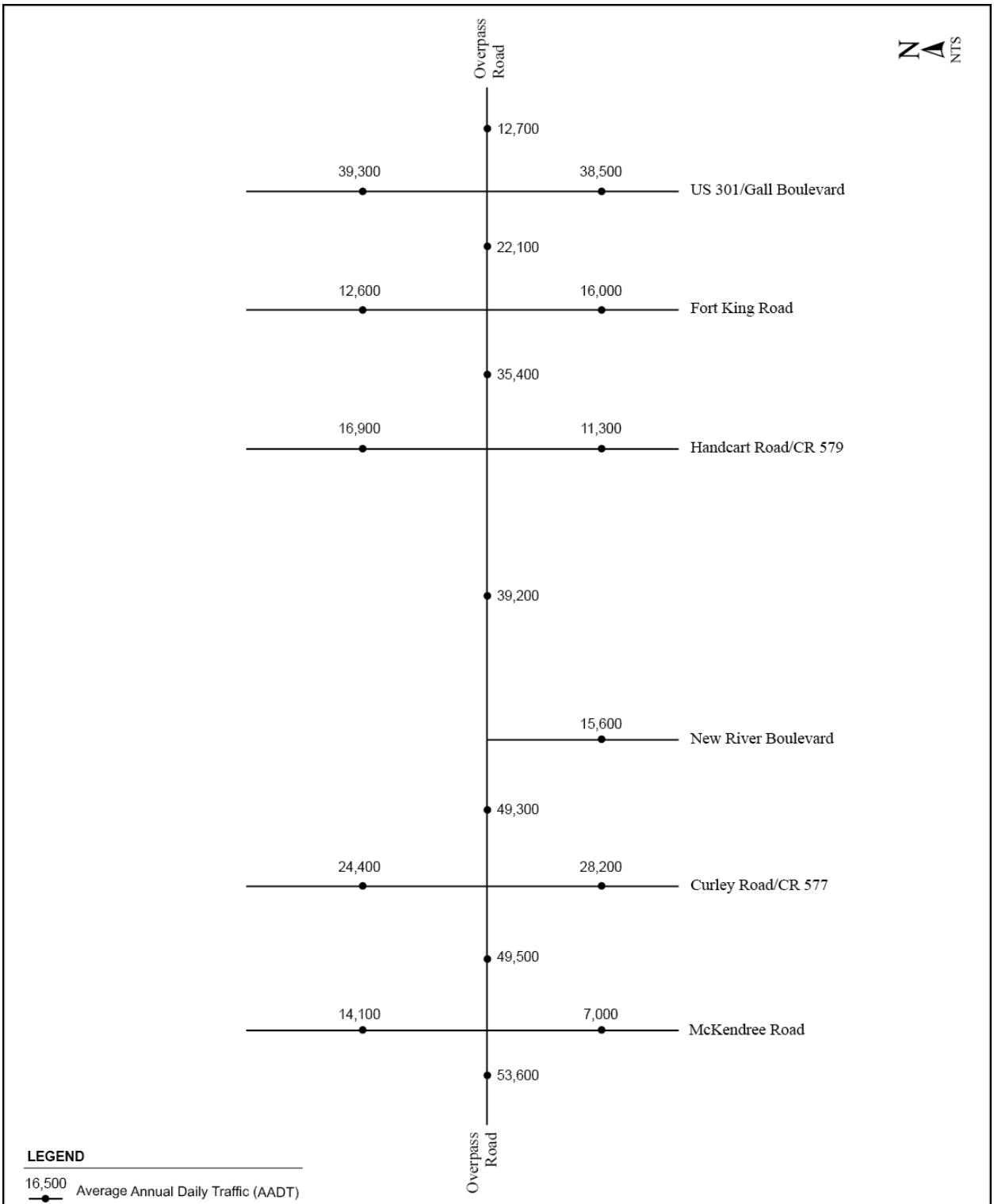
- K_{30} factor = 9.4 percent
- D_{30} factor = 55.0/45.0 percent for the peak/off-peak direction

These factors have been used to develop the Directional Design Hour Volumes (DDHVs) from the existing Annual Average Daily Traffic (AADT) and to develop the future DDHVs from model derived AADTs. Calculations showing AADTs and DDHVs are shown in the **Appendix.**

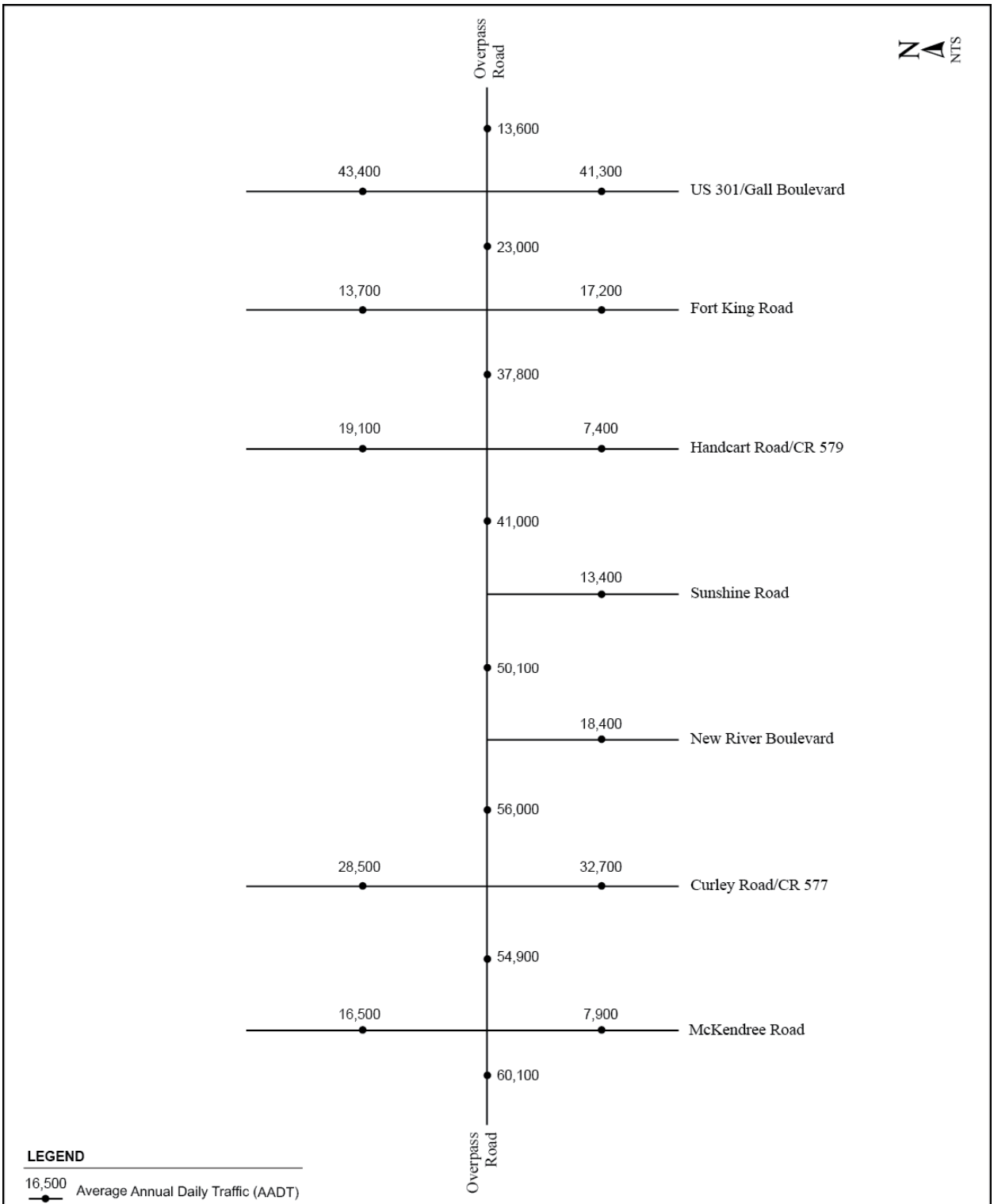
The Opening Year (2022), Interim Year (2030), and Design Year (2040) AADTs are shown in **Figures 2 through 4**. The Opening Year (2022), Interim Year (2030), and Design Year (2040) DDHVs and intersection turning movements are shown in **Figures 5 through 10.**



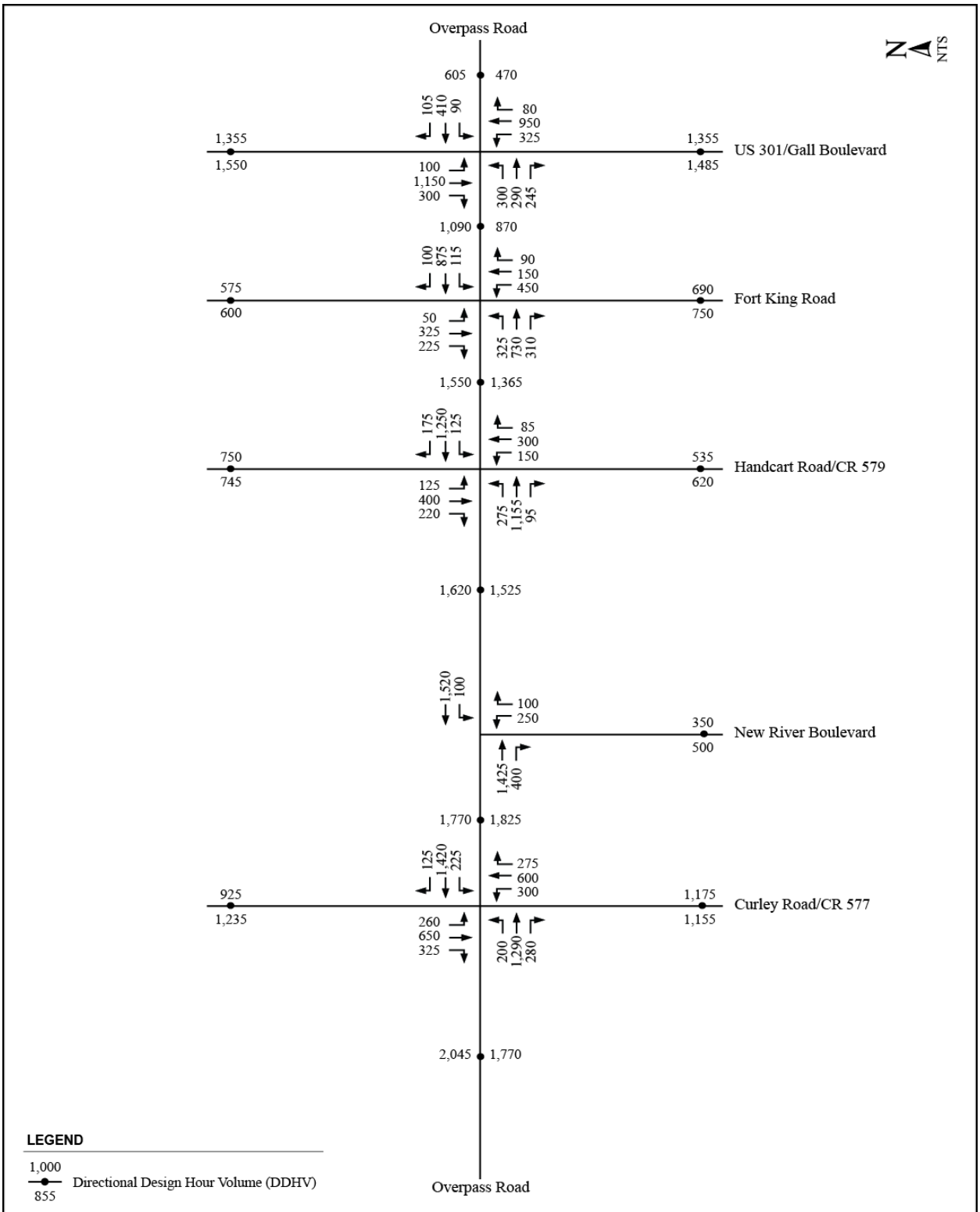
I-75 and Overpass Road Preliminary Interchange Justification Report	Opening Year (2022) Build Alternative AADT Volumes	Figure 2



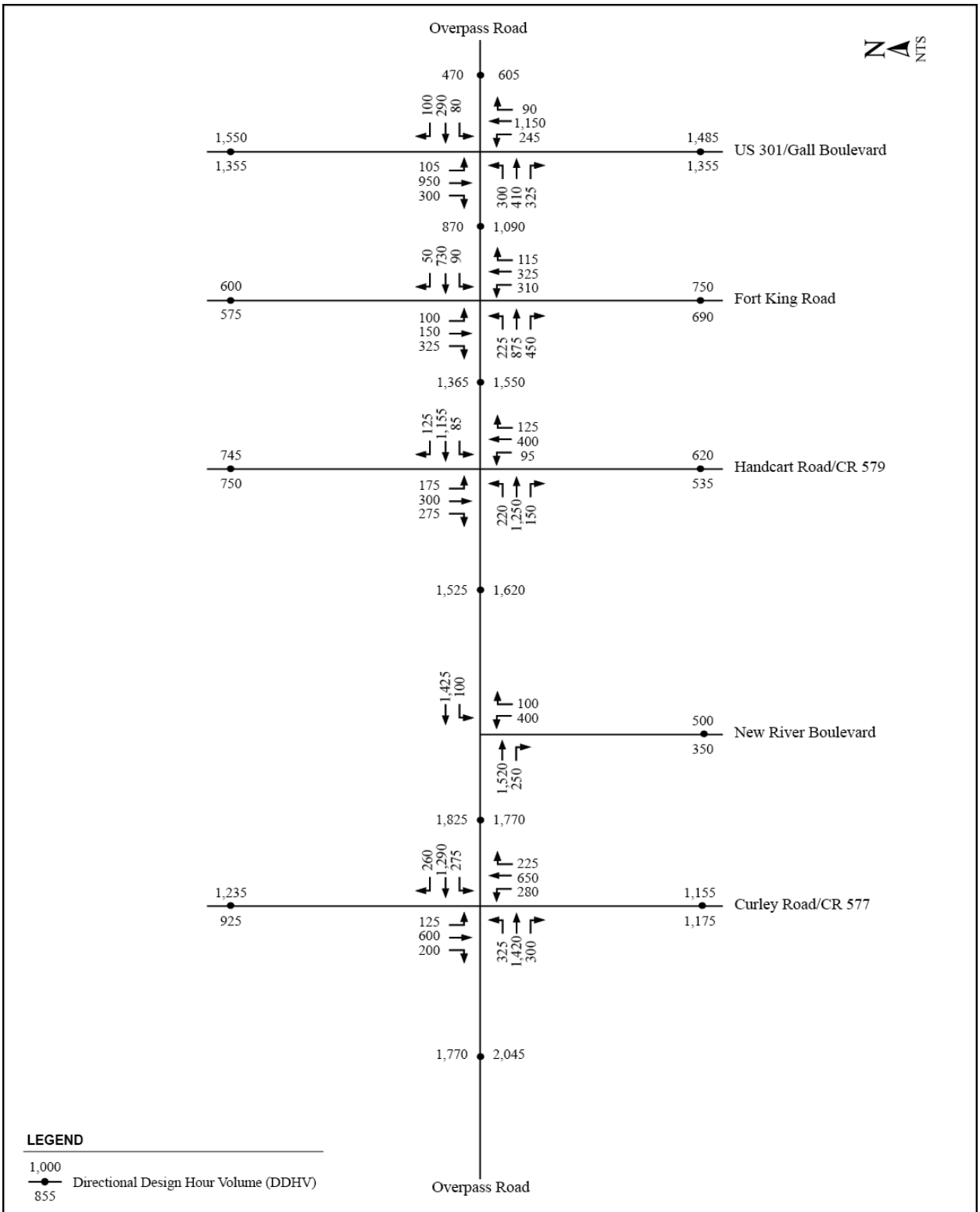
I-75 and Overpass Road Preliminary Interchange Justification Report	Interim Year (2030) Build Alternative AADT Volumes	Figure 3



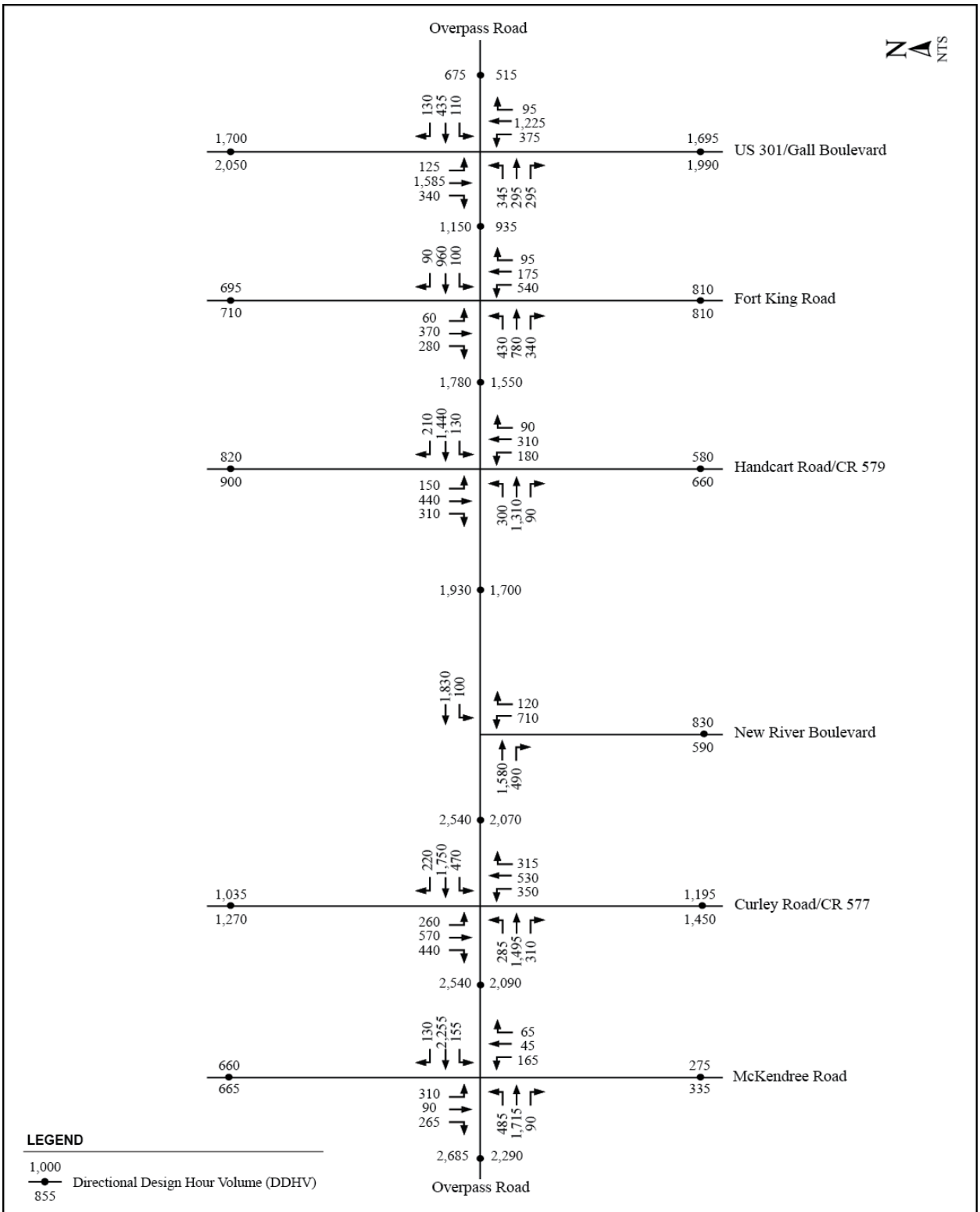
I-75 and Overpass Road Preliminary Interchange Justification Report	Design Year (2040) Build Alternative AADT Volumes	Figure 4



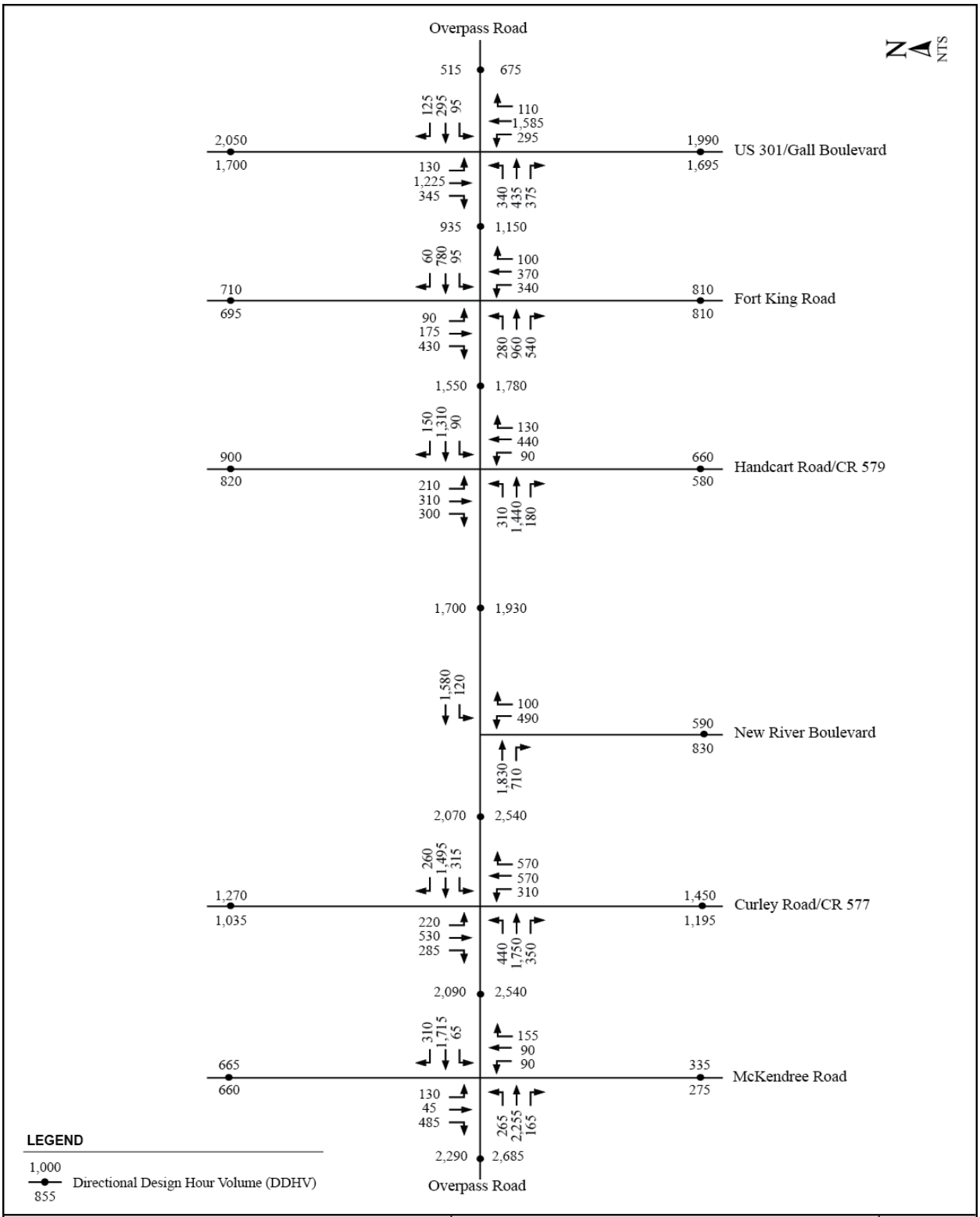
I-75 and Overpass Road Preliminary Interchange Justification Report	Opening Year (2022) Build Alternative AM Peak Hour Volume	Figure 5



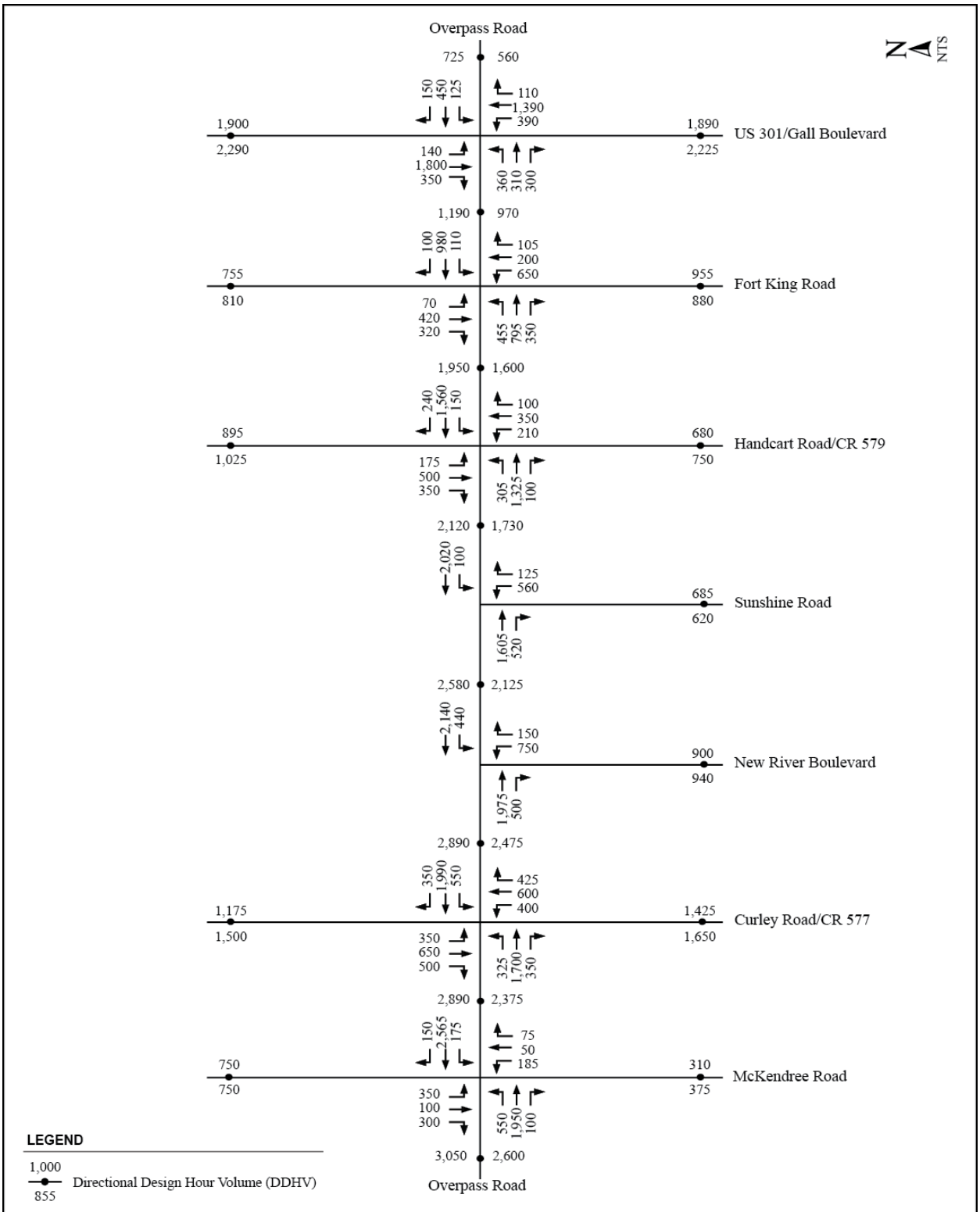
I-75 and Overpass Road Preliminary Interchange Justification Report	Opening Year (2022) Build Alternative PM Peak Hour Volume	Figure 6



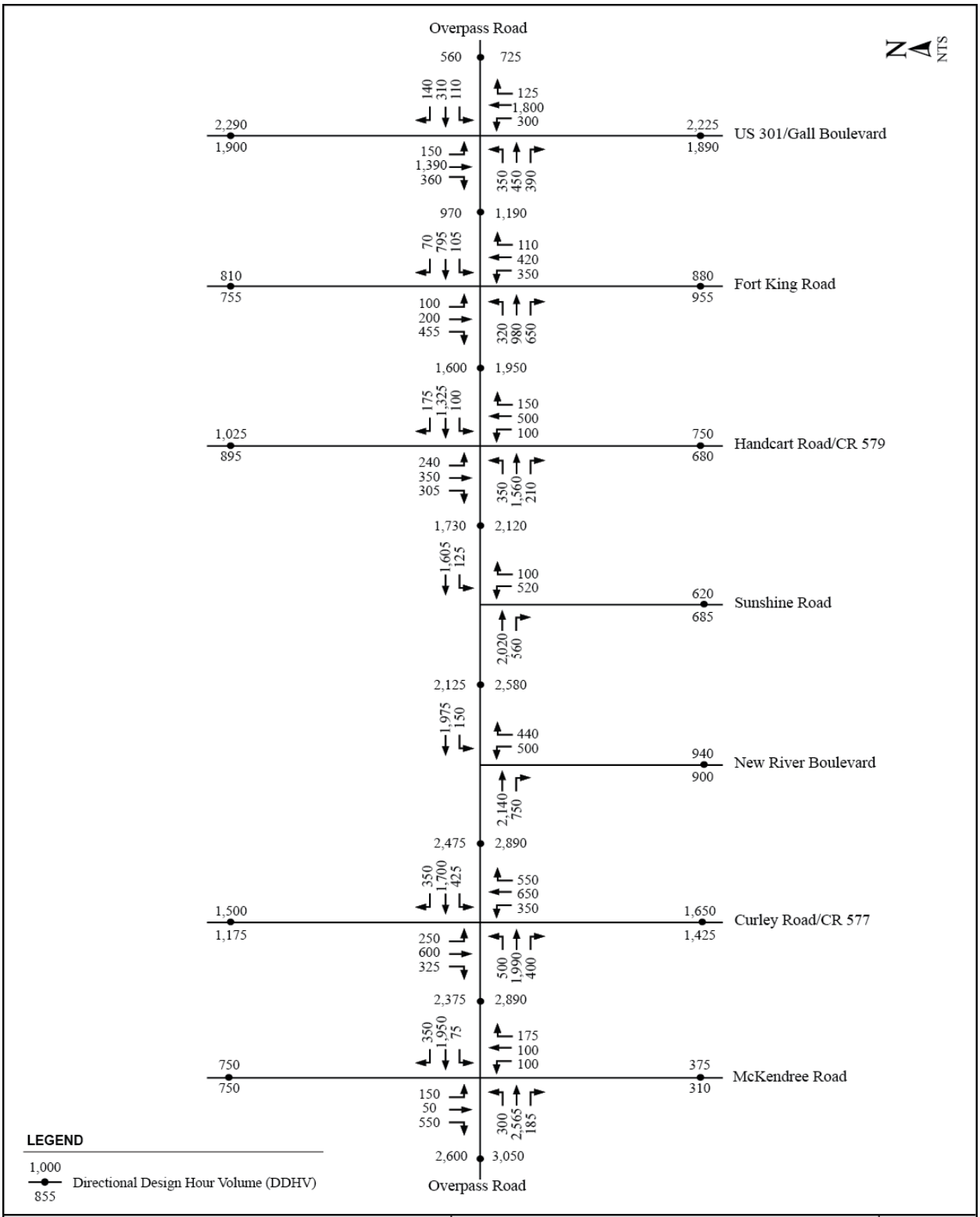
I-75 and Overpass Road Preliminary Interchange Justification Report	Interim Year (2030) Build Alternative AM Peak Hour Volumes	Figure 7



I-75 and Overpass Road Preliminary Interchange Justification Report	Interim Year (2030) Build Alternative PM Peak Hour Volumes	Figure 8



I-75 and Overpass Road Preliminary Interchange Justification Report	Design Year (2040) Build Alternative AM Peak Hour Volumes	Figure 9



I-75/Overpass Road Preliminary Interchange Justification Report	Design Year (2040) Build Alternative PM Peak Hour Volumes	Figure 10

4.0 FUTURE YEAR TRAFFIC OPERATIONS ANALYSIS

The future conditions traffic operations analysis consisted of analyzing the study corridor intersections utilizing HCM methodologies. This was done using Synchro Software to get optimal signal timings and to evaluate the effect of traffic on adjacent intersections. The parameters used in this analysis are consistent with those used in PIJR and the proposed interchange at I-75 and Overpass Road is assumed in this analysis. Using this analysis the needed geometry for the corridor including signalizations along Overpass Road between east of Boyette Road to US 301 through Design Year (2040) were established. Opening year, interim year, and design year traffic analysis was conducted using the established geometry. The LOS results for the a.m. and p.m. peak hour for each of the analysis years are presented in **Tables 1 through 3**. The analysis worksheets are provided in the **Appendix**.

The geometry and LOS for opening year, interim year and design year are shown in **Figures 11 through 13.**

TABLE 1
2022 BUILD ALTERNATIVE_INTERSECTIONS LOS

Intersection	Control Type	AM Peak		PM Peak	
		Delay	LOS	Delay	LOS
Overpass Road at Curley Road/CR 577	Signalized	44.3	D	43.7	D
Overpass Road at New River Boulevard	Signalized	10.3	B	12.4	B
Overpass Road at Handcart Road/CR 579	Signalized	30.4	C	27.8	C
Overpass Road at Fort King Road	Signalized	29.7	C	22.2	C
Overpass Road at US 301/Gall Boulevard	Signalized	35.4	D	28.5	C

Notes: 1.Delay reported is in seconds per vehicle (sec/veh);
2. McKendree Road realignment was not assumed in the opening year model.
3. Sunshine Road was not assumed in opening year.

TABLE 2
INTERIM YEAR (2030) BUILD ALTERNATIVE INTERSECTION LOS

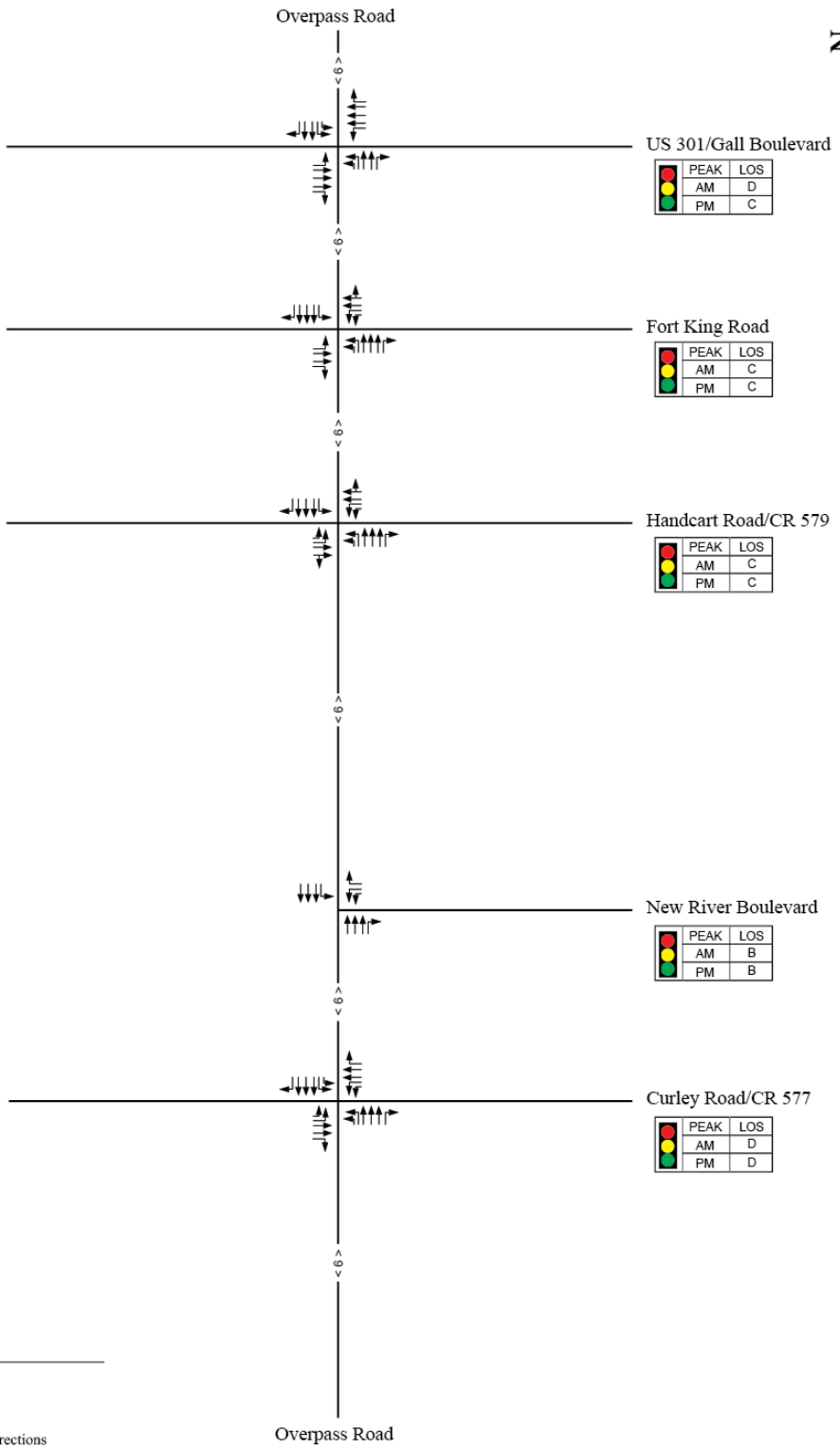
Intersection	Control Type	AM Peak		PM Peak	
		Delay	LOS	Delay	LOS
Overpass Road at McKendree Road	Signalized	49.0	D	45.0	D
Overpass Road at Curley Road/CR 577	Signalized	47.7	D	43.9	D
Overpass Road at New River Boulevard	Signalized	21.9	C	17.3	B
Overpass Road at Handcart Road/CR 579	Signalized	33.9	C	31.8	C
Overpass Road at Fort King Road	Signalized	33.5	C	27.4	C
Overpass Road at US 301/Gall Boulevard	Signalized	44.7	D	31.4	C

Notes: 1.Delay reported is in seconds per vehicle (sec/veh);
2. Sunshine Road was not assumed in the interim year.

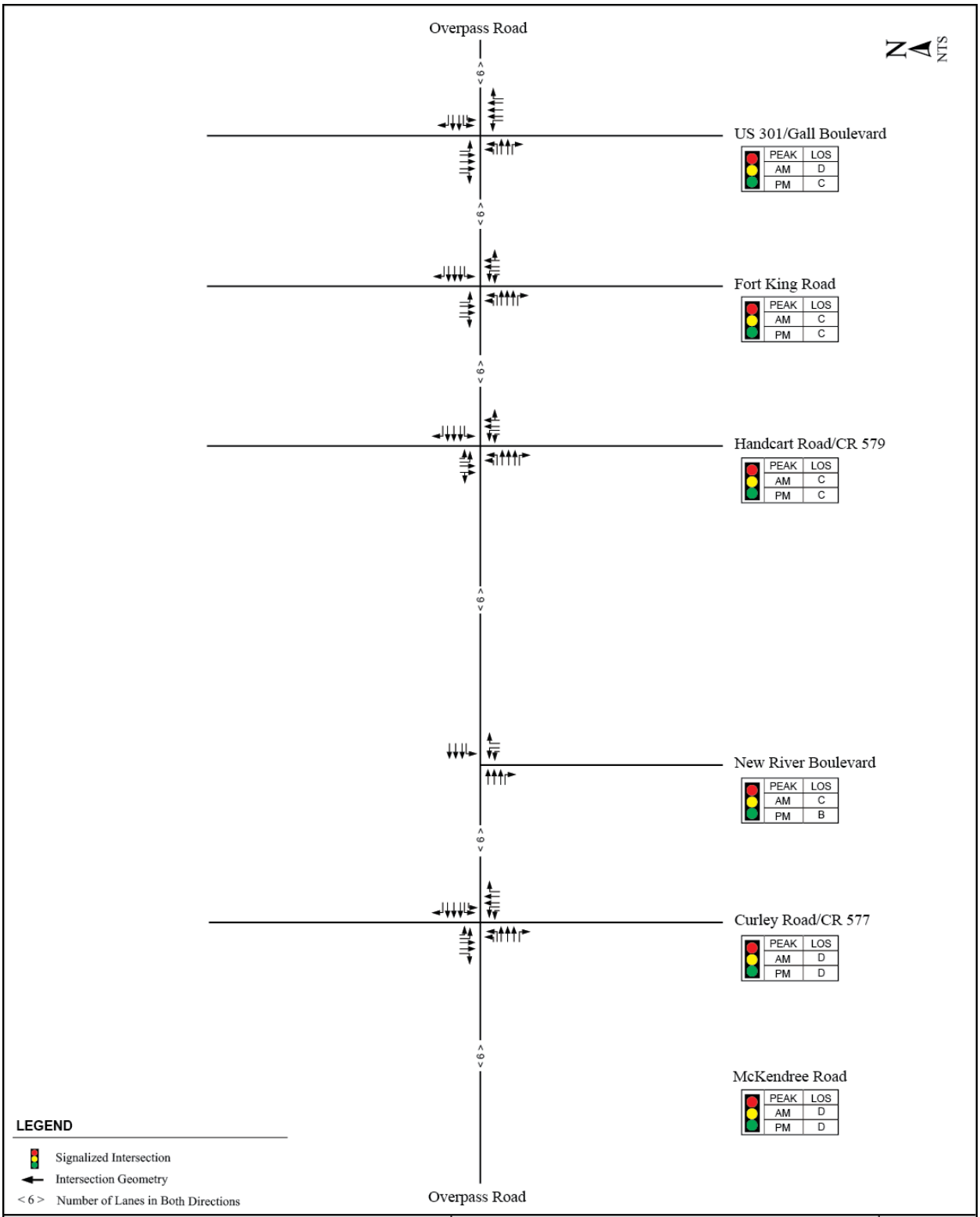
TABLE 3
DESIGN YEAR (2040) BUILD ALTERNATIVE INTERSECTION LOS

Intersection	Control Type	AM Peak		PM Peak	
		Delay	LOS	Delay	LOS
Overpass Road at McKendree Road	Signalized	68.8	**E**	67.8	**E**
Overpass Road at Curley Road/CR 577	Signalized	70.0	**E**	72.8	**E**
Overpass Road at New River Boulevard	Signalized	42.8	D	21.1	C
Overpass Road at Sunshine Road	Signalized	23.0	C	25.5	D
Overpass Road at Handcart Road/CR 579	Signalized	39.7	D	35.1	D
Overpass Road at Fort King Road	Signalized	45.1	D	29.3	C
Overpass Road at US 301/Gall Boulevard	Signalized	53.3	D	39.2	D

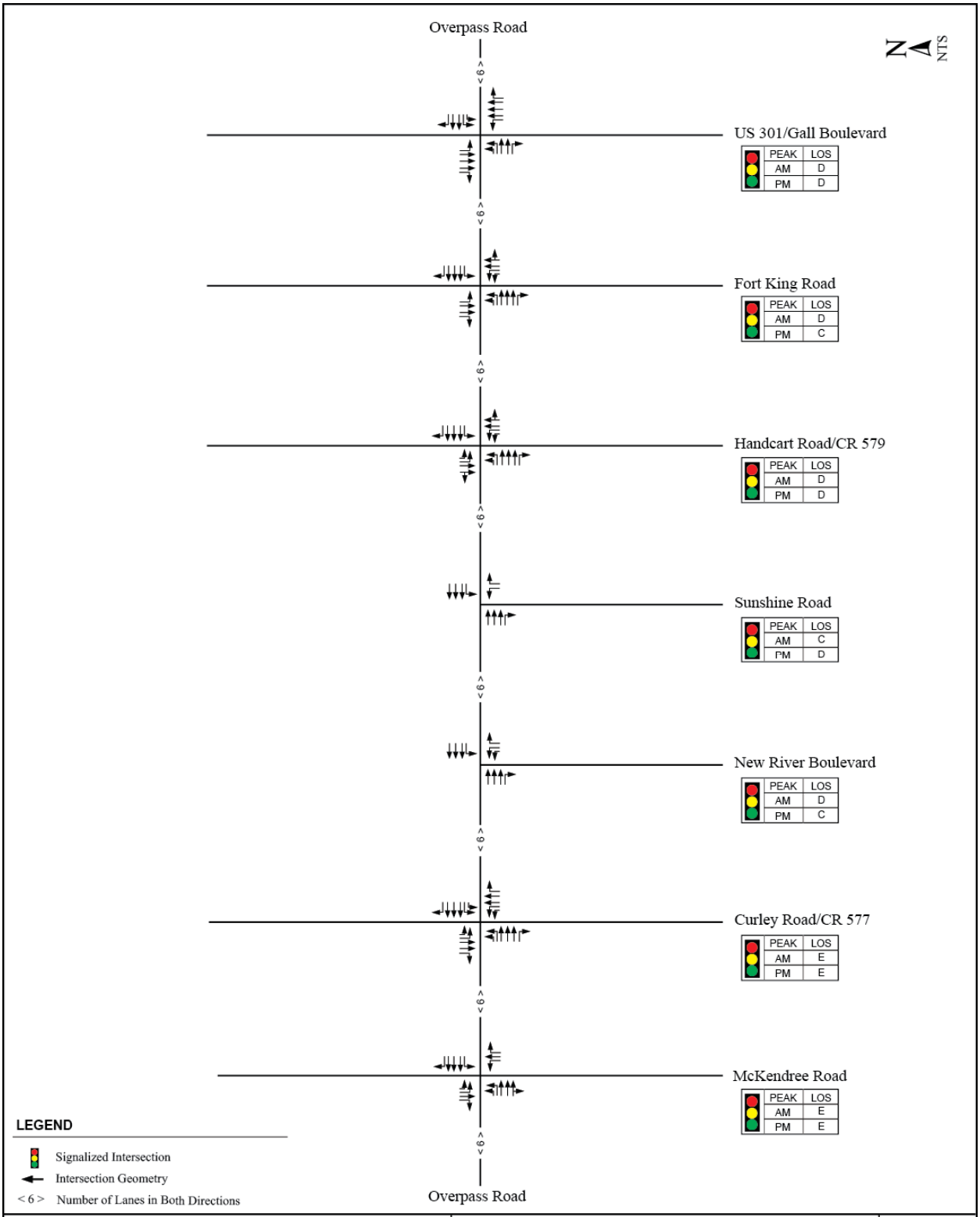
Note: 1. Delay reported is in seconds per vehicle (sec/veh).



I-75 and Overpass Road Preliminary Interchange Justification Report	Opening Year (2022) Build Alternative Geometry & Peak Hour LOS Analysis	Figure 11



I-75 and Overpass Road Preliminary Interchange Justification Report	Interim Year (2030) Build Alternative Geometry & Peak Hour LOS Analysis	Figure 12



I-75 and Overpass Road Preliminary Interchange Justification Report	Design Year (2040) Build Alternative Geometry & Peak Hour LOS Analysis	Figure 13

6.0 DESIGN YEAR QUEUING ANALYSIS

Queue lengths for all the movements at the key study area intersections were determined from the intersection analysis provided in Appendix. These queue lengths are based on 95th percentile queue plus the deceleration lengths. **Table 4** summarizes the turn lane lengths.

TABLE 4
DESIGN YEAR QUEUE LENGTHS

Intersection	Lane Group	Lanes	Queue		Turn lane length Recommended
			A.M.	P.M.	
Overpass Road and McKendree Road Realignment	EBL	2	450	215	690
	EBTR	3	695	1145	1385
	WBL	1	295	190	535
	WBT	3	1140	675	1380
	WBR	1	40	55	295
	NBL	1	370	230	610
	NBT	1	95	145	385
	NBR	1	40	145	385
	SBL	1	300	105	540
	SBT	1	165	75	405
	SBR	2	215	675	915
Overpass Road and Curley Road	EBL	2	250	375	615
	EBT	3	680	850	1090
	EBR	1	150	185	425
	WBL	2	385	340	625
	WBT	3	770	690	1010
	WBR	1	95	220	460
	NBL	2	295	260	535
	NBT	2	345	370	610
	NBR	1	300	765	1005
	SBL	2	245	230	485
	SBT	2	400	365	640
	SBR	1	585	135	825
Overpass Road and New River Road	EBT	3	825	400	1065
	EBR	1	70	50	310
	WBL	1	635	75	875
	WBT	3	490	230	730

	NBL	2	425	150	665
	NBR	1	60	335	575
Overpass Road and Sunshine Road	EBT	3	340	485	725
	EBR	1	60	55	300
	WBL	1	55	100	340
	WBT	3	365	260	605
	NBL	1	440	495	735
	NBR	1	30	35	275
Overpass Road and Handcart Road	EBL	2	175	165	415
	EBT	3	305	315	555
	EBR	1	30	40	280
	WBL	1	195	140	435
	WBT	3	370	280	610
	WBR	1	45	40	285
	NBL	2	135	55	375
	NBTR	2	170	250	490
	SBL	2	85	125	365
	SBTR	2	350	145	590
Overpass Road and Fort King Road	EBL	2	250	150	490
	EBT	3	175	180	420
	EBR	1	60	250	490
	WBL	1	70	75	315
	WBT	3	245	150	485
	WBR	1	40	25	280
	NBL	2	330	155	570
	NBTR	2	80	140	380
	SBL	1	50	50	290
	SBT	2	180	60	420
	SBR	1	220	215	460
Overpass Road and US 301	EBL	2	260	200	500
	EBT	2	170	180	420
	EBR	1	185	175	425
	WBL	2	85	60	325
	WBT	2	310	130	550
	WBR	21	110	75	350
	NBL	1	540	340	780
	NBT	3	370	490	730
	NBR	1	35	35	275

	SBL	1	175	205	445
	SBT	3	665	400	905

Notes: 1. Queue lengths are per lane based on 95th percentile queue. Free-flow movements are excluded.

2. Deceleration length is based design speeds and FDOT index 301 and turn lane length is based on maximum of A.M. and P.M. peak queue to nearest 5 feet.

3. for approaches with lower than 45mph posted speeds, a minimum deceleration length of 240 feet was used.

6.0 SUMMARY

This analysis establishes the geometry needs for the Overpass Road corridor to be used in the PD&E study for the development of alternatives. Geometry needs to obtain acceptable LOS (D or better) for the design year were identified.

The traffic analysis shows that the Overpass Road segment from Boyette Road to east of Curley Road would need eight lanes to obtain acceptable LOS through the design year. However, Pasco County MPO policy allows only a maximum of six through lanes on arterials beyond which alternative routes and/or transit alternatives would be evaluated. Therefore, a maximum of six through lanes are provided along Overpass Road. In addition, as result of previous conditions of approval for developments located along the Overpass Road corridor, following exceptions were required:

- As part of the Master Planned Unit Development (MPUD) process for the Promenade Town Center, the segment of Overpass Road from west of Curley Road to east of Curley Road has been approved for a maximum width of 128 feet of ROW and a 30 mph design speed. This segment includes six 11-foot travel lanes (3 in each direction), 4-foot bike lanes on the northern and southern sides of the roadway, a 22-foot median, a 12-foot utility accommodation on the south side that includes a 5-foot sidewalk and a 20-foot utility accommodation on the north side that includes a 10-foot multi-use path.
- Due to previous conditions of approval for Neukom Properties development located along the Overpass Road corridor east of Ft. King Highway, the segment of Overpass Road from Ft. King Highway to US 301 has been approved for a maximum width of 128 feet of ROW. This segment includes four 12-foot travel lanes (2 in each direction), 4-foot bike lanes on the northern and southern sides of the roadway, a 22-foot median, a 12-foot utility accommodation on the south side that includes a 5-foot sidewalk and a 30-foot utility accommodation on the north side that includes a 10-foot multi-use path.

These exceptions were incorporated in the development of typical sections in the PD&E study. Proposed typical sections for various segments of Overpass Road are included in the Appendix.

APPENDIX

DDHV Calculations
Traffic Operational Analysis
Proposed Typical Sections

OVERPASS ROAD PD&E
2040 PM

McKendree Rd

Curley Rd. CR577

				K		0.091						**K**		0.094				
						1500								**2675**				
				AADT		**16500**						AADT		**28500**				
		D	0.500	**750**	**750**	0.500	D			D	0.439	**1175**	**1500**	0.561	D			
					350								350					
	0.46				1950				0.45				1700					0.46
	2600	550	50	150	75				**2375**	325	600	250	425					**2475**
	3050			300	100	100	175		**2890**			500	350	650	650			**2890**
	0.54			2565					0.55			1990						0.54
				185								400						
		D	0.453	**310**	**375**	0.547	D			D	0.463	**1425**	**1650**	0.537	D			
				AADT	**7900**							AADT	**32700**					
				DDHV	**685**							DDHV	**3075**					
				K	0.087							K	0.094					

	5650		**5265**	**5365**
AADT	**60100**	AADT	**54900**	AADT **56000**
K	0.094	K	0.096	K 0.096

New River Blvd **Sunshine Rd** **Handcart Rd,CR579**

K 0.101
1920
AADT **19100**
D 0.466 **895** **1025** 0.534 D

175
1975 0.45 1605 0.45 1325
150 **2125** 125 **1730** 305 350 240 100
500 440 **2580** 520 100 **2120** 350 100 500 150
2140 0.55 2020 0.55 1560
750 560 230

D 0.489 **900** **940** 0.511 D D 0.525 **685** **620** 0.475 D D 0.476 **680** **750** 0.524 D
AADT **18400** AADT **13400** AADT **7400**
DDHV **1840** DDHV **1305** DDHV **1430**
K 0.100 K 0.097 K 0.193

4705 **3850** **3550**
AADT **50100** AADT **41000** AADT **37800**
K 0.094 K 0.094 K 0.094

Ft.King Rd

Gall Blvd, US301

					K	0.125									**K**	0.097						
						1570										**4190**						
					AADT	**12600**									AADT	**43400**						
			D	0.481	**755**	**815**	0.519	D					D	0.453	**1900**	**2290**	0.547	D				
						75										140						
		0.45				795					0.45					310					0.44	
		1600	455	200	100	105					**975**	360	1390	150		110					**560**	
		1950			320	350	420	110			**1190**			350		300	1800	125			**725**	
		0.55			980						0.55			450							0.56	
					650									390								
			D	0.520	**955**	**880**	0.480	D					D	0.459	**1890**	**2225**	0.541	D				
					AADT	**17200**									AADT	**41300**						
					DDHV	**1835**									DDHV	**4115**						
					K	0.107									K	0.100						

	2165	
AADT	**23000**	
K	0.094	

	1285	
AADT	**13600**	
K	0.094	

OVERPASS ROAD PD&E
2030 PM

McKendree Rd

Curley Rd. CR577

				K	0.094							**K**	0.094					
					1325								**2305**					
				AADT	**14100**							AADT	**24400**					
		D	0.498	**660**	**665**	0.502	D				D	0.449	**1035**	**1270**	0.551	D		
					310									260				
	0.46				1715				0.45					1495				0.45
	2290	485	45	130	65				**2090**	285	530	220	315					**2070**
	2685			265	90	90	155		**2540**			440	310	570	570			**2540**
	0.54			2255					0.55			1750						0.55
				165								350						
		D	0.451	**275**	**335**	0.549	D				D	0.452	**1195**	**1450**	0.548	D		
				AADT	**7000**							AADT	**28200**					
				DDHV	**610**							DDHV	**2645**					
				K	0.087							K	0.094					

	4975		**4630**	**4610**
AADT	**53600**	AADT	**49500**	AADT **49300**
K	0.093	K	0.094	K 0.094

New River Blvd **Handcart Rd,CR579** **Ft.King Rd**

K 0.102 **K**

1720

AADT **16900** AADT

D 0.477 **820** **900** 0.523 D D 0.484 **665**

150

1580 0.46 1160 0.44

120 **1700** 300 310 210 90 **1400** 400 175 90

490 150 **1980** 310 90 440 130 **1780** 280

1830 0.54 1440 0.56 960

710 180 640

D 0.565 **830** **640** 0.435 D D 0.468 **580** **660** 0.532 D D 0.529 **910**

AADT **15600** AADT **11300** AADT

DDHV **1470** DDHV **1240** DDHV

K 0.094 K 0.110 K

3680 **3180**

AADT **39200** AADT **33800**

K 0.094 K 0.094

Gall Blvd, US301

0.109						**K**	0.095				
1375							**3750**				
12600						AADT	**39300**				
710	0.516	D		D	0.453	**1700**	**2050**	0.547	D		
60							125				
780			0.45				295				0.43
95			**935**	345	1225	130	95				**515**
340	370	100	**1150**			340	295	1585	110		**675**
			0.55			435					0.57
						375					
810	0.471	D		D	0.460	**1695**	**1990**	0.540	D		
16000						AADT	**38500**				
1720						DDHV	**3685**				
0.108						K	0.096				

	2085
AADT	**22100**
K	0.094

	1190
AADT	**12700**
K	0.094

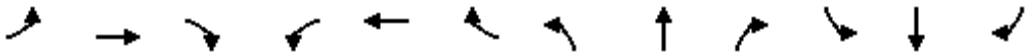
OVERPASS ROAD PD&E
2022 PM

Curley Rd. CR577

			K	0.114			
				2790			
			AADT	**24400**			
	D	0.452	**1260**	**1530**	0.548	D	
				60			
0.46				575			0.45
1775	800	360	100	50			**685**
2045			900	400	570	30	**830**
0.54			700				0.55
			445				
	D	0.461	**855**	**1000**	0.539	D	
			AADT	**17000**			
			DDHV	**1855**			
			K	0.109			

	3820
AADT	**40900**
K	0.093

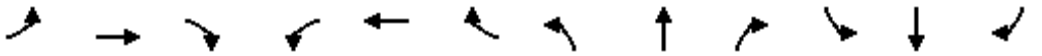
	1515
AADT	**16100**
K	0.094



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	211	1358	295	237	1495	132	316	632	289	274	684	342
v/c Ratio	0.62	0.66	0.34	0.63	0.71	0.18	0.78	0.83	0.55	0.68	0.90	0.69
Control Delay	64.5	34.0	8.2	62.7	34.2	4.5	70.0	59.2	23.6	64.0	65.3	27.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	64.5	34.0	8.2	62.7	34.2	4.5	70.0	59.2	23.6	64.0	65.3	27.7
Queue Length 50th (ft)	89	340	57	100	382	0	134	270	127	114	297	114
Queue Length 95th (ft)	131	415	92	139	440	39	#187	#344	178	162	#403	227
Internal Link Dist (ft)		3204			5030			3340			3476	
Turn Bay Length (ft)	500		500	500		500	500		500	500		500
Base Capacity (vph)	343	2053	870	555	2102	732	423	762	609	423	762	495
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.62	0.66	0.34	0.43	0.71	0.18	0.75	0.83	0.47	0.65	0.90	0.69

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	200	1290	280	225	1420	125	300	600	275	260	650	325
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lane Util. Factor	0.97	0.91	1.00	0.97	0.91	1.00	0.97	0.95	1.00	0.97	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3433	5085	1583	3433	5085	1583	3433	3539	1583	3433	3539	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3433	5085	1583	3433	5085	1583	3433	3539	1583	3433	3539	1583
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	211	1358	295	237	1495	132	316	632	289	274	684	342
RTOR Reduction (vph)	0	0	36	0	0	78	0	0	13	0	0	154
Lane Group Flow (vph)	211	1358	259	237	1495	54	316	632	276	274	684	188
Turn Type	Prot		pm+ov	Prot		Perm	Prot		pt+ov	Prot		Perm
Protected Phases	5	2	3	1	6		3	8	8 1	7	4	
Permitted Phases			2			6						4
Actuated Green, G (s)	13.1	52.4	67.7	14.3	53.6	53.6	15.3	28.0	42.3	15.3	28.0	28.0
Effective Green, g (s)	13.1	52.4	67.7	14.3	53.6	53.6	15.3	28.0	42.3	15.3	28.0	28.0
Actuated g/C Ratio	0.10	0.40	0.52	0.11	0.41	0.41	0.12	0.22	0.33	0.12	0.22	0.22
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	346	2050	824	378	2097	653	404	762	515	404	762	341
v/s Ratio Prot	0.06	c0.27	0.04	0.07	c0.29		c0.09	0.18	0.17	0.08	c0.19	
v/s Ratio Perm			0.13			0.03						0.12
v/c Ratio	0.61	0.66	0.31	0.63	0.71	0.08	0.78	0.83	0.54	0.68	0.90	0.55
Uniform Delay, d1	56.0	31.6	17.8	55.3	31.8	23.2	55.7	48.7	35.8	55.0	49.6	45.4
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	3.0	1.7	0.2	3.2	2.1	0.3	9.5	10.1	1.1	4.5	15.5	6.3
Delay (s)	59.0	33.3	18.1	58.5	33.9	23.5	65.2	58.9	36.9	59.5	65.1	51.7
Level of Service	E	C	B	E	C	C	E	E	D	E	E	D
Approach Delay (s)		33.8			36.3			55.4			60.4	
Approach LOS		C			D			E			E	

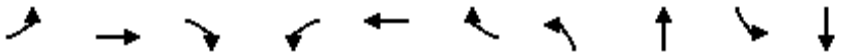
Intersection Summary			
HCM Average Control Delay	44.3	HCM Level of Service	D
HCM Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	76.3%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Group Flow (vph)	1500	421	105	1600	263	105
v/c Ratio	0.43	0.35	0.36	0.40	0.63	0.37
Control Delay	9.2	1.6	6.3	4.2	55.0	12.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	9.2	1.6	6.3	4.2	55.0	12.4
Queue Length 50th (ft)	162	0	14	107	96	0
Queue Length 95th (ft)	238	36	30	151	140	51
Internal Link Dist (ft)	5030			8426	3550	
Turn Bay Length (ft)		500	500			
Base Capacity (vph)	3465	1213	591	4023	1164	606
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.43	0.35	0.18	0.40	0.23	0.17

Intersection Summary

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	1425	400	100	1520	250	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Lane Util. Factor	0.91	1.00	1.00	0.91	0.97	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	5085	1583	1770	5085	3433	1583
Flt Permitted	1.00	1.00	0.13	1.00	0.95	1.00
Satd. Flow (perm)	5085	1583	244	5085	3433	1583
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	1500	421	105	1600	263	105
RTOR Reduction (vph)	0	134	0	0	0	92
Lane Group Flow (vph)	1500	287	105	1600	263	13
Turn Type		Perm	pm+pt			Perm
Protected Phases	2		1	6	8	
Permitted Phases		2	6			8
Actuated Green, G (s)	78.4	78.4	91.0	91.0	14.0	14.0
Effective Green, g (s)	78.4	78.4	91.0	91.0	14.0	14.0
Actuated g/C Ratio	0.68	0.68	0.79	0.79	0.12	0.12
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	3467	1079	294	4024	418	193
v/s Ratio Prot	c0.29		0.02	c0.31	c0.08	
v/s Ratio Perm		0.18	0.26			0.01
v/c Ratio	0.43	0.27	0.36	0.40	0.63	0.07
Uniform Delay, d1	8.3	7.1	4.4	3.7	48.0	44.7
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.4	0.6	0.7	0.3	3.0	0.1
Delay (s)	8.7	7.7	5.1	3.9	51.0	44.9
Level of Service	A	A	A	A	D	D
Approach Delay (s)	8.5			4.0	49.2	
Approach LOS	A			A	D	

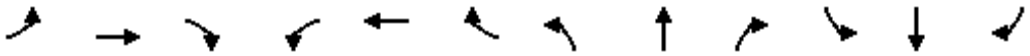
Intersection Summary			
HCM Average Control Delay	10.3	HCM Level of Service	B
HCM Volume to Capacity ratio	0.47		
Actuated Cycle Length (s)	115.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	52.7%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	289	1216	100	132	1316	184	158	405	132	653
v/c Ratio	0.81	0.68	0.16	0.68	0.73	0.27	0.67	0.51	0.44	0.73
Control Delay	58.3	26.4	4.9	57.3	27.0	4.1	55.3	30.3	43.4	31.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	58.3	26.4	4.9	57.3	27.0	4.1	55.3	30.3	43.4	31.3
Queue Length 50th (ft)	84	207	0	73	225	0	46	98	37	153
Queue Length 95th (ft)	#152	256	31	#154	276	41	#89	145	65	216
Internal Link Dist (ft)		8426			13637			5892		5302
Turn Bay Length (ft)	500		500	500		500	500		500	
Base Capacity (vph)	355	1931	663	204	1989	731	237	793	316	892
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.81	0.63	0.15	0.65	0.66	0.25	0.67	0.51	0.42	0.73

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	275	1155	95	125	1250	175	150	300	85	125	400	220
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Lane Util. Factor	0.97	0.91	1.00	1.00	0.91	1.00	0.97	0.95		0.97	0.95	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.97		1.00	0.95	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	3433	5085	1583	1770	5085	1583	3433	3423		3433	3351	
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	3433	5085	1583	1770	5085	1583	3433	3423		3433	3351	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	289	1216	100	132	1316	184	158	316	89	132	421	232
RTOR Reduction (vph)	0	0	65	0	0	119	0	28	0	0	82	0
Lane Group Flow (vph)	289	1216	35	132	1316	65	158	377	0	132	571	0
Turn Type	Prot		Perm	Prot		Perm	Prot			Prot		
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6						
Actuated Green, G (s)	9.0	30.5	30.5	9.5	31.0	31.0	6.0	19.5		7.6	21.1	
Effective Green, g (s)	9.0	30.5	30.5	9.5	31.0	31.0	6.0	19.5		7.6	21.1	
Actuated g/C Ratio	0.10	0.35	0.35	0.11	0.36	0.36	0.07	0.22		0.09	0.24	
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	355	1781	554	193	1810	563	236	766		300	812	
v/s Ratio Prot	c0.08	0.24		0.07	c0.26		c0.05	0.11		0.04	c0.17	
v/s Ratio Perm			0.02			0.04						
v/c Ratio	0.81	0.68	0.06	0.68	0.73	0.12	0.67	0.49		0.44	0.70	
Uniform Delay, d1	38.2	24.2	18.8	37.4	24.4	18.8	39.6	29.5		37.7	30.1	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	13.3	1.1	0.0	9.6	1.5	0.1	7.0	2.3		1.0	5.1	
Delay (s)	51.6	25.3	18.9	47.0	25.9	18.9	46.6	31.7		38.8	35.2	
Level of Service	D	C	B	D	C	B	D	C		D	D	
Approach Delay (s)		29.6			26.8			35.9			35.8	
Approach LOS		C			C			D			D	

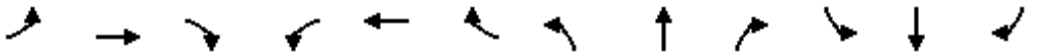
Intersection Summary			
HCM Average Control Delay	30.4	HCM Level of Service	C
HCM Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	87.1	Sum of lost time (s)	10.0
Intersection Capacity Utilization	71.0%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	342	768	326	121	921	105	474	253	53	342	237
v/c Ratio	0.74	0.40	0.41	0.37	0.62	0.20	0.76	0.22	0.19	0.61	0.58
Control Delay	47.1	21.9	4.4	17.2	29.1	6.4	42.6	14.1	19.1	39.1	15.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.1	21.9	4.4	17.2	29.1	6.4	42.6	14.1	19.1	39.1	15.0
Queue Length 50th (ft)	95	120	0	37	164	0	129	34	18	94	23
Queue Length 95th (ft)	#155	160	56	70	213	37	185	62	40	138	92
Internal Link Dist (ft)		13637			4953			3336		3754	
Turn Bay Length (ft)	500		500	500		500	500		500		500
Base Capacity (vph)	482	1917	800	335	1488	538	683	1189	278	663	451
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.71	0.40	0.41	0.36	0.62	0.20	0.69	0.21	0.19	0.52	0.53

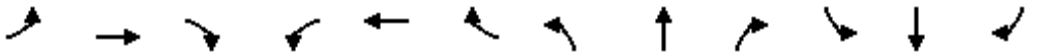
Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	325	730	310	115	875	100	450	150	90	50	325	225
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0
Lane Util. Factor	0.97	0.91	1.00	1.00	0.91	1.00	0.97	0.95		1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.94		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3433	5085	1583	1770	5085	1583	3433	3340		1770	3539	1583
Flt Permitted	0.95	1.00	1.00	0.35	1.00	1.00	0.95	1.00		0.60	1.00	1.00
Satd. Flow (perm)	3433	5085	1583	650	5085	1583	3433	3340		1108	3539	1583
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	342	768	326	121	921	105	474	158	95	53	342	237
RTOR Reduction (vph)	0	0	208	0	0	74	0	65	0	0	0	156
Lane Group Flow (vph)	342	768	118	121	921	31	474	188	0	53	342	81
Turn Type	Prot		Perm	pm+pt		Perm	Prot			pm+pt		Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2	6		6				4		4
Actuated Green, G (s)	11.6	32.3	32.3	31.7	26.2	26.2	15.5	28.3		18.6	15.7	15.7
Effective Green, g (s)	11.6	32.3	32.3	31.7	26.2	26.2	15.5	28.3		18.6	15.7	15.7
Actuated g/C Ratio	0.13	0.36	0.36	0.36	0.29	0.29	0.17	0.32		0.21	0.18	0.18
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	447	1845	575	301	1497	466	598	1062		253	624	279
v/s Ratio Prot	c0.10	0.15		0.02	c0.18		c0.14	0.06		0.01	c0.10	
v/s Ratio Perm			0.07	0.12		0.02				0.04		0.05
v/c Ratio	0.77	0.42	0.21	0.40	0.62	0.07	0.79	0.18		0.21	0.55	0.29
Uniform Delay, d1	37.4	21.3	19.5	19.8	27.1	22.6	35.2	21.9		28.7	33.4	31.8
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	7.6	0.7	0.8	0.9	1.9	0.3	7.1	0.1		0.4	1.0	0.6
Delay (s)	45.0	22.0	20.3	20.7	29.0	22.9	42.3	22.0		29.1	34.4	32.4
Level of Service	D	C	C	C	C	C	D	C		C	C	C
Approach Delay (s)		27.1			27.5			35.3			33.2	
Approach LOS		C			C			D			C	

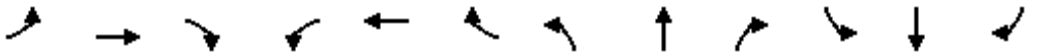
Intersection Summary			
HCM Average Control Delay	29.7	HCM Level of Service	C
HCM Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	89.0	Sum of lost time (s)	20.0
Intersection Capacity Utilization	64.7%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	316	305	258	100	432	116	342	1000	84	111	1211	316
v/c Ratio	0.75	0.42	0.36	0.41	0.79	0.26	0.82	0.45	0.11	0.57	0.77	0.20
Control Delay	60.6	41.7	11.3	56.9	58.4	14.4	58.6	24.0	5.0	60.3	40.1	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	60.6	41.7	11.3	56.9	58.4	14.4	58.6	24.0	5.0	60.3	40.1	0.3
Queue Length 50th (ft)	119	104	67	37	164	31	245	191	0	81	306	0
Queue Length 95th (ft)	173	153	109	67	229	62	#357	250	32	138	378	0
Internal Link Dist (ft)		4953			3290			3869			3711	
Turn Bay Length (ft)	500		500	500		500	500		500	500		500
Base Capacity (vph)	457	787	784	274	597	522	487	2216	737	283	1580	1583
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.69	0.39	0.33	0.36	0.72	0.22	0.70	0.45	0.11	0.39	0.77	0.20

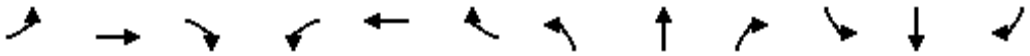
Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	300	290	245	95	410	110	325	950	80	105	1150	300
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	4.0
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	1.00	0.91	1.00	1.00	0.91	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3433	3539	1583	3433	3539	1583	1770	5085	1583	1770	5085	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3433	3539	1583	3433	3539	1583	1770	5085	1583	1770	5085	1583
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	316	305	258	100	432	116	342	1000	84	111	1211	316
RTOR Reduction (vph)	0	0	26	0	0	27	0	0	47	0	0	0
Lane Group Flow (vph)	316	305	232	100	432	89	342	1000	37	111	1211	316
Turn Type	Prot		pm+ov	Prot		pm+ov	Prot		Perm	Prot		Free
Protected Phases	7	4	5	3	8	1	5	2		1	6	
Permitted Phases			4			8			2			Free
Actuated Green, G (s)	13.9	23.2	49.8	8.1	17.4	29.8	26.6	49.4	49.4	12.4	35.2	113.1
Effective Green, g (s)	13.9	23.2	49.8	8.1	17.4	29.8	26.6	49.4	49.4	12.4	35.2	113.1
Actuated g/C Ratio	0.12	0.21	0.44	0.07	0.15	0.26	0.24	0.44	0.44	0.11	0.31	1.00
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	422	726	697	246	544	417	416	2221	691	194	1583	1583
v/s Ratio Prot	c0.09	0.09	0.08	0.03	c0.12	0.02	c0.19	0.20		0.06	c0.24	
v/s Ratio Perm			0.07			0.03			0.02			0.20
v/c Ratio	0.75	0.42	0.33	0.41	0.79	0.21	0.82	0.45	0.05	0.57	0.77	0.20
Uniform Delay, d1	47.9	39.1	20.8	50.2	46.1	32.5	41.0	22.3	18.4	47.8	35.2	0.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	7.1	0.4	0.3	1.1	7.8	0.3	12.3	0.7	0.1	4.0	3.6	0.3
Delay (s)	55.0	39.5	21.0	51.3	54.0	32.8	53.3	23.0	18.5	51.9	38.8	0.3
Level of Service	E	D	C	D	D	C	D	C	B	D	D	A
Approach Delay (s)		39.7			49.8			30.0			32.2	
Approach LOS		D			D			C			C	

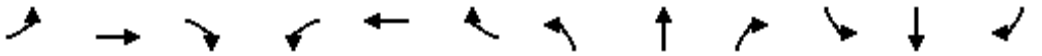
Intersection Summary			
HCM Average Control Delay	35.4	HCM Level of Service	D
HCM Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	113.1	Sum of lost time (s)	20.0
Intersection Capacity Utilization	76.8%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	342	1495	316	289	1358	274	295	684	237	132	632	211
v/c Ratio	1.00	0.98	0.49	0.98	0.93	0.46	0.86	0.65	0.37	0.67	0.78	0.40
Control Delay	83.0	44.6	11.6	84.1	38.1	9.7	57.0	25.6	11.2	51.3	33.6	6.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	83.0	44.6	11.6	84.1	38.1	9.7	57.0	25.6	11.2	51.3	33.6	6.3
Queue Length 50th (ft)	77	231	50	65	207	26	65	139	46	29	135	0
Queue Length 95th (ft)	#157	#333	88	#139	#298	85	#130	196	83	#67	#208	48
Internal Link Dist (ft)		3204			5030			3340			3476	
Turn Bay Length (ft)	500		500	500		500	500		500	500		500
Base Capacity (vph)	343	1526	646	294	1453	590	343	1052	634	196	809	525
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.00	0.98	0.49	0.98	0.93	0.46	0.86	0.65	0.37	0.67	0.78	0.40

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	325	1420	300	275	1290	260	280	650	225	125	600	200
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lane Util. Factor	0.97	0.91	1.00	0.97	0.91	1.00	0.97	0.95	1.00	0.97	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3433	5085	1583	3433	5085	1583	3433	3539	1583	3433	3539	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3433	5085	1583	3433	5085	1583	3433	3539	1583	3433	3539	1583
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	342	1495	316	289	1358	274	295	684	237	132	632	211
RTOR Reduction (vph)	0	0	13	0	0	141	0	0	6	0	0	163
Lane Group Flow (vph)	342	1495	303	289	1358	133	295	684	231	132	632	48
Turn Type	Prot		pm+ov	Prot		Perm	Prot		pt+ov	Prot		Perm
Protected Phases	5	2	3	1	6		3	8	8 1	7	4	
Permitted Phases			2			6						4
Actuated Green, G (s)	7.0	20.0	28.0	6.0	19.0	19.0	8.0	20.8	26.8	3.2	16.0	16.0
Effective Green, g (s)	7.0	20.0	28.0	6.0	19.0	19.0	8.0	20.8	26.8	3.2	16.0	16.0
Actuated g/C Ratio	0.10	0.29	0.40	0.09	0.27	0.27	0.11	0.30	0.38	0.05	0.23	0.23
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	343	1453	633	294	1380	430	392	1052	606	157	809	362
v/s Ratio Prot	c0.10	c0.29	0.05	0.08	0.27		c0.09	0.19	0.15	0.04	c0.18	
v/s Ratio Perm			0.14			0.08						0.03
v/c Ratio	1.00	1.03	0.48	0.98	0.98	0.31	0.75	0.65	0.38	0.84	0.78	0.13
Uniform Delay, d1	31.5	25.0	15.6	31.9	25.3	20.3	30.0	21.4	15.6	33.1	25.4	21.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	47.5	31.3	0.6	47.5	20.7	1.9	8.0	3.1	0.4	31.3	7.4	0.8
Delay (s)	79.0	56.3	16.2	79.5	46.1	22.2	38.0	24.5	16.0	64.5	32.7	22.2
Level of Service	E	E	B	E	D	C	D	C	B	E	C	C
Approach Delay (s)		54.0			47.7			26.1			34.8	
Approach LOS		D			D			C			C	

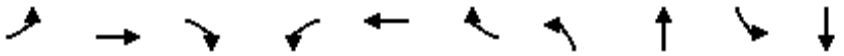
Intersection Summary			
HCM Average Control Delay	43.7	HCM Level of Service	D
HCM Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	76.5%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Group Flow (vph)	1600	263	105	1500	421	105
v/c Ratio	0.53	0.25	0.40	0.42	0.68	0.28
Control Delay	12.8	2.2	9.2	6.1	39.0	8.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	12.8	2.2	9.2	6.1	39.0	8.5
Queue Length 50th (ft)	189	0	15	106	111	0
Queue Length 95th (ft)	275	36	37	158	159	41
Internal Link Dist (ft)	5030			8426	3550	
Turn Bay Length (ft)		500	500			
Base Capacity (vph)	2992	1040	423	3578	1544	770
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.53	0.25	0.25	0.42	0.27	0.14

Intersection Summary

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	1520	250	100	1425	400	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Lane Util. Factor	0.91	1.00	1.00	0.91	0.97	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	5085	1583	1770	5085	3433	1583
Flt Permitted	1.00	1.00	0.10	1.00	0.95	1.00
Satd. Flow (perm)	5085	1583	186	5085	3433	1583
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	1600	263	105	1500	421	105
RTOR Reduction (vph)	0	110	0	0	0	86
Lane Group Flow (vph)	1600	153	105	1500	421	19
Turn Type		Perm	pm+pt			Perm
Protected Phases	2		1	6	8	
Permitted Phases		2	6			8
Actuated Green, G (s)	51.1	51.1	62.1	62.1	15.7	15.7
Effective Green, g (s)	51.1	51.1	62.1	62.1	15.7	15.7
Actuated g/C Ratio	0.58	0.58	0.71	0.71	0.18	0.18
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	2959	921	240	3597	614	283
v/s Ratio Prot	c0.31		0.03	c0.29	c0.12	
v/s Ratio Perm		0.10	0.28			0.01
v/c Ratio	0.54	0.17	0.44	0.42	0.69	0.07
Uniform Delay, d1	11.2	8.5	6.9	5.3	33.7	30.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.7	0.4	1.3	0.4	3.2	0.1
Delay (s)	11.9	8.9	8.2	5.7	36.9	30.1
Level of Service	B	A	A	A	D	C
Approach Delay (s)	11.5			5.9	35.5	
Approach LOS	B			A	D	

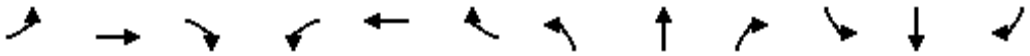
Intersection Summary			
HCM Average Control Delay	12.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	87.8	Sum of lost time (s)	15.0
Intersection Capacity Utilization	58.8%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	232	1316	158	89	1216	132	100	553	184	605
v/c Ratio	0.87	0.77	0.25	0.65	0.79	0.23	0.47	0.62	0.86	0.55
Control Delay	63.4	24.2	4.5	53.8	25.1	4.9	37.1	22.7	68.8	14.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	63.4	24.2	4.5	53.8	25.1	4.9	37.1	22.7	68.8	14.3
Queue Length 50th (ft)	47	176	0	35	158	0	20	91	38	62
Queue Length 95th (ft)	#106	#232	36	#98	206	33	41	138	#91	110
Internal Link Dist (ft)		8426			13637			5892		5302
Turn Bay Length (ft)	500		500	500		500	500		500	
Base Capacity (vph)	266	1699	634	137	1578	582	213	893	213	1092
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.87	0.77	0.25	0.65	0.77	0.23	0.47	0.62	0.86	0.55

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



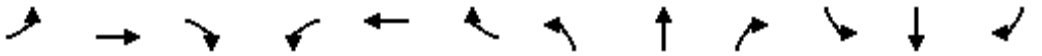
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	220	1250	150	85	1155	125	95	400	125	175	300	275
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Lane Util. Factor	0.97	0.91	1.00	1.00	0.91	1.00	0.97	0.95		0.97	0.95	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.96		1.00	0.93	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	3433	5085	1583	1770	5085	1583	3433	3412		3433	3286	
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	3433	5085	1583	1770	5085	1583	3433	3412		3433	3286	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	232	1316	158	89	1216	132	100	421	132	184	316	289
RTOR Reduction (vph)	0	0	107	0	0	91	0	45	0	0	184	0
Lane Group Flow (vph)	232	1316	51	89	1216	41	100	508	0	184	421	0
Turn Type	Prot		Perm	Prot		Perm	Prot			Prot		
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6						
Actuated Green, G (s)	5.0	21.5	21.5	4.0	20.5	20.5	3.2	17.1		4.0	17.9	
Effective Green, g (s)	5.0	21.5	21.5	4.0	20.5	20.5	3.2	17.1		4.0	17.9	
Actuated g/C Ratio	0.08	0.32	0.32	0.06	0.31	0.31	0.05	0.26		0.06	0.27	
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	258	1642	511	106	1565	487	165	876		206	883	
v/s Ratio Prot	0.07	c0.26		0.05	c0.24		0.03	c0.15		c0.05	0.13	
v/s Ratio Perm			0.03			0.03						
v/c Ratio	0.90	0.80	0.10	0.84	0.78	0.08	0.61	0.58		0.89	0.48	
Uniform Delay, d1	30.6	20.6	15.8	31.0	21.0	16.4	31.1	21.6		31.1	20.4	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	30.6	2.9	0.1	41.2	2.5	0.1	6.2	2.8		34.9	1.8	
Delay (s)	61.2	23.5	15.9	72.2	23.5	16.4	37.2	24.4		66.0	22.3	
Level of Service	E	C	B	E	C	B	D	C		E	C	
Approach Delay (s)		27.9			25.8			26.4			32.5	
Approach LOS		C			C			C			C	

Intersection Summary			
HCM Average Control Delay	27.8	HCM Level of Service	C
HCM Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	66.6	Sum of lost time (s)	15.0
Intersection Capacity Utilization	66.0%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	237	921	474	95	768	53	326	463	105	158	342
v/c Ratio	0.63	0.50	0.54	0.43	0.54	0.11	0.68	0.54	0.34	0.28	0.67
Control Delay	37.0	18.6	4.8	25.7	21.7	7.1	35.9	21.2	16.8	24.7	11.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	37.0	18.6	4.8	25.7	21.7	7.1	35.9	21.2	16.8	24.7	11.7
Queue Length 50th (ft)	45	104	0	28	91	0	62	73	26	28	11
Queue Length 95th (ft)	#96	163	62	68	143	24	#125	115	54	52	75
Internal Link Dist (ft)		13637			4953			3336		3754	
Turn Bay Length (ft)	500		500	500		500	500		500		500
Base Capacity (vph)	376	1826	872	220	1433	484	484	1064	308	886	630
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.63	0.50	0.54	0.43	0.54	0.11	0.67	0.44	0.34	0.18	0.54

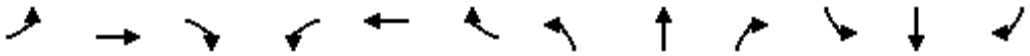
Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



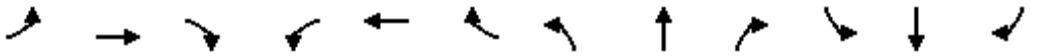
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	225	875	450	90	730	50	310	325	115	100	150	325
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0
Lane Util. Factor	0.97	0.91	1.00	1.00	0.91	1.00	0.97	0.95		1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.96		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3433	5085	1583	1770	5085	1583	3433	3400		1770	3539	1583
Flt Permitted	0.95	1.00	1.00	0.27	1.00	1.00	0.95	1.00		0.49	1.00	1.00
Satd. Flow (perm)	3433	5085	1583	497	5085	1583	3433	3400		905	3539	1583
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	237	921	474	95	768	53	326	342	121	105	158	342
RTOR Reduction (vph)	0	0	309	0	0	38	0	53	0	0	0	259
Lane Group Flow (vph)	237	921	165	95	768	15	326	410	0	105	158	83
Turn Type	Prot		Perm	pm+pt		Perm	Prot			pm+pt		Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2	6		6				4		4
Actuated Green, G (s)	8.0	23.0	23.0	18.1	18.1	18.1	8.9	15.3		15.8	11.1	11.1
Effective Green, g (s)	8.0	23.0	23.0	18.1	18.1	18.1	8.9	15.3		15.8	11.1	11.1
Actuated g/C Ratio	0.12	0.35	0.35	0.27	0.27	0.27	0.13	0.23		0.24	0.17	0.17
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	415	1769	551	196	1392	433	462	787		278	594	266
v/s Ratio Prot	0.07	c0.18		0.02	c0.15		c0.09	c0.12		0.03	0.04	
v/s Ratio Perm			0.10	0.11		0.01				0.06		0.05
v/c Ratio	0.57	0.52	0.30	0.48	0.55	0.03	0.71	0.52		0.38	0.27	0.31
Uniform Delay, d1	27.4	17.2	15.7	19.2	20.5	17.6	27.3	22.2		20.3	24.0	24.2
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	1.9	1.1	1.4	1.9	1.6	0.1	4.9	0.6		0.9	0.2	0.7
Delay (s)	29.3	18.3	17.1	21.1	22.1	17.7	32.2	22.8		21.2	24.2	24.8
Level of Service	C	B	B	C	C	B	C	C		C	C	C
Approach Delay (s)		19.5			21.8			26.7			24.0	
Approach LOS		B			C			C			C	

Intersection Summary			
HCM Average Control Delay	22.2	HCM Level of Service	C
HCM Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	66.1	Sum of lost time (s)	15.0
Intersection Capacity Utilization	56.8%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	316	432	342	84	305	111	258	1211	100	116	1000	316
v/c Ratio	0.67	0.53	0.46	0.33	0.61	0.26	0.71	0.63	0.15	0.53	0.66	0.20
Control Delay	45.9	34.7	11.1	46.2	43.3	12.8	46.4	26.1	5.4	47.6	31.7	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	45.9	34.7	11.1	46.2	43.3	12.8	46.4	26.1	5.4	47.6	31.7	0.3
Queue Length 50th (ft)	90	120	74	24	89	25	143	212	0	65	188	0
Queue Length 95th (ft)	145	177	123	51	138	51	235	294	35	122	262	0
Internal Link Dist (ft)		4953			3290			3869			3711	
Turn Bay Length (ft)	500		500	500		500	500		500	500		500
Base Capacity (vph)	529	903	783	265	623	518	448	1922	661	312	1512	1583
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.60	0.48	0.44	0.32	0.49	0.21	0.58	0.63	0.15	0.37	0.66	0.20

Intersection Summary



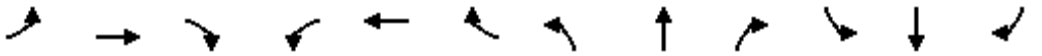
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	300	410	325	80	290	105	245	1150	95	110	950	300
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	4.0
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	1.00	0.91	1.00	1.00	0.91	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3433	3539	1583	3433	3539	1583	1770	5085	1583	1770	5085	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3433	3539	1583	3433	3539	1583	1770	5085	1583	1770	5085	1583
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	316	432	342	84	305	111	258	1211	100	116	1000	316
RTOR Reduction (vph)	0	0	34	0	0	17	0	0	63	0	0	0
Lane Group Flow (vph)	316	432	308	84	305	94	258	1211	37	116	1000	316
Turn Type	Prot		pm+ov	Prot		pm+ov	Prot		Perm	Prot		Free
Protected Phases	7	4	5	3	8	1	5	2		1	6	
Permitted Phases			4			8			2			Free
Actuated Green, G (s)	13.7	21.2	39.9	5.4	12.9	24.2	18.7	34.6	34.6	11.3	27.2	92.5
Effective Green, g (s)	13.7	21.2	39.9	5.4	12.9	24.2	18.7	34.6	34.6	11.3	27.2	92.5
Actuated g/C Ratio	0.15	0.23	0.43	0.06	0.14	0.26	0.20	0.37	0.37	0.12	0.29	1.00
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	508	811	683	200	494	414	358	1902	592	216	1495	1583
v/s Ratio Prot	0.09	c0.12	0.09	0.02	c0.09	0.03	0.15	c0.24		0.07	c0.20	
v/s Ratio Perm			0.10			0.03			0.02			0.20
v/c Ratio	0.62	0.53	0.45	0.42	0.62	0.23	0.72	0.64	0.06	0.54	0.67	0.20
Uniform Delay, d1	37.0	31.3	18.6	42.0	37.5	26.8	34.5	23.8	18.6	38.1	28.7	0.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	2.4	0.7	0.5	1.4	2.3	0.3	7.0	1.6	0.2	2.6	2.4	0.3
Delay (s)	39.3	32.0	19.0	43.5	39.8	27.1	41.4	25.4	18.8	40.7	31.1	0.3
Level of Service	D	C	B	D	D	C	D	C	B	D	C	A
Approach Delay (s)		30.1			37.6			27.6			25.1	
Approach LOS		C			D			C			C	

Intersection Summary			
HCM Average Control Delay	28.5	HCM Level of Service	C
HCM Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	92.5	Sum of lost time (s)	10.0
Intersection Capacity Utilization	65.2%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	511	1900	163	2374	137	174	47	68	326	95	279
v/c Ratio	0.94	0.71	0.75	0.95	0.16	0.92	0.24	0.30	0.89	0.48	0.70
Control Delay	87.6	28.8	83.6	45.2	3.5	112.6	64.8	16.5	91.6	71.7	19.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	87.6	28.8	83.6	45.2	3.5	112.6	64.8	16.5	91.6	71.7	19.1
Queue Length 50th (ft)	258	501	156	793	0	172	43	0	164	89	17
Queue Length 95th (ft)	#365	591	232	869	36	#320	86	49	#253	152	117
Internal Link Dist (ft)		2210		6487			756			1213	
Turn Bay Length (ft)	500		500		500	500		500	500		500
Base Capacity (vph)	550	2675	271	2512	851	189	199	230	367	199	401
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.93	0.71	0.60	0.95	0.16	0.92	0.24	0.30	0.89	0.48	0.70

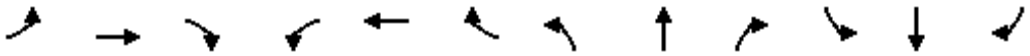
Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	485	1715	90	155	2255	130	165	45	65	310	90	265
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lane Util. Factor	0.97	0.91		1.00	0.91	1.00	1.00	1.00	1.00	0.97	1.00	1.00
Frt	1.00	0.99		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3433	5047		1770	5085	1583	1770	1863	1583	3433	1863	1583
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3433	5047		1770	5085	1583	1770	1863	1583	3433	1863	1583
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	511	1805	95	163	2374	137	174	47	68	326	95	279
RTOR Reduction (vph)	0	4	0	0	0	69	0	0	61	0	0	232
Lane Group Flow (vph)	511	1896	0	163	2374	68	174	47	7	326	95	47
Turn Type	Prot			Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases						6			8			4
Actuated Green, G (s)	23.8	79.3		18.5	74.0	74.0	16.0	16.0	16.0	16.0	16.0	16.0
Effective Green, g (s)	23.8	79.3		18.5	74.0	74.0	16.0	16.0	16.0	16.0	16.0	16.0
Actuated g/C Ratio	0.16	0.53		0.12	0.49	0.49	0.11	0.11	0.11	0.11	0.11	0.11
Clearance Time (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	545	2672		219	2512	782	189	199	169	367	199	169
v/s Ratio Prot	c0.15	0.38		0.09	c0.47		c0.10	0.03		c0.09	0.05	
v/s Ratio Perm						0.04			0.00			0.03
v/c Ratio	0.94	0.71		0.74	0.95	0.09	0.92	0.24	0.04	0.89	0.48	0.28
Uniform Delay, d1	62.3	26.6		63.4	36.0	20.0	66.3	61.3	60.0	66.0	63.0	61.6
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	23.8	0.9		12.8	8.3	0.0	43.5	0.6	0.1	25.8	8.0	4.0
Delay (s)	86.1	27.5		76.2	44.3	20.1	109.7	61.9	60.1	91.8	71.0	65.6
Level of Service	F	C		E	D	C	F	E	E	F	E	E
Approach Delay (s)		39.9			45.0			90.3			78.5	
Approach LOS		D			D			F			E	

Intersection Summary			
HCM Average Control Delay	49.0	HCM Level of Service	D
HCM Volume to Capacity ratio	0.93		
Actuated Cycle Length (s)	149.8	Sum of lost time (s)	20.0
Intersection Capacity Utilization	85.7%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

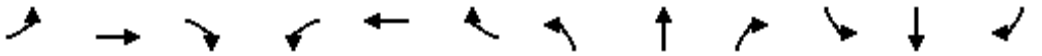


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	300	1574	326	495	1842	337	368	558	332	274	600	463
v/c Ratio	0.98	0.96	0.47	0.93	0.93	0.42	0.97	0.79	0.58	0.80	0.90	1.02
Control Delay	90.6	45.4	11.5	63.4	36.5	5.1	79.9	43.5	17.6	58.1	54.0	72.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	90.6	45.4	11.5	63.4	36.5	5.1	79.9	43.5	17.6	58.1	54.0	72.1
Queue Length 50th (ft)	89	319	57	144	360	12	109	160	94	79	176	~179
Queue Length 95th (ft)	#172	#424	92	#237	#468	65	#197	#226	150	#141	#274	#377
Internal Link Dist (ft)		6487			5030			3340			3476	
Turn Bay Length (ft)	500		500	500		500	500		500	500		500
Base Capacity (vph)	305	1639	694	534	1978	801	381	708	568	343	668	452
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.98	0.96	0.47	0.93	0.93	0.42	0.97	0.79	0.58	0.80	0.90	1.02

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	285	1495	310	470	1750	320	350	530	315	260	570	440
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lane Util. Factor	0.97	0.91	1.00	0.97	0.91	1.00	0.97	0.95	1.00	0.97	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3433	5085	1583	3433	5085	1583	3433	3539	1583	3433	3539	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3433	5085	1583	3433	5085	1583	3433	3539	1583	3433	3539	1583
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	300	1574	326	495	1842	337	368	558	332	274	600	463
RTOR Reduction (vph)	0	0	8	0	0	186	0	0	5	0	0	153
Lane Group Flow (vph)	300	1574	318	495	1842	151	368	558	327	274	600	310
Turn Type	Prot		pm+ov	Prot		Perm	Prot		pt+ov	Prot		Perm
Protected Phases	5	2	3	1	6		3	8	8 1	7	4	
Permitted Phases			2			6						4
Actuated Green, G (s)	8.0	29.0	39.0	14.0	35.0	35.0	10.0	18.0	32.0	9.0	17.0	17.0
Effective Green, g (s)	8.0	29.0	39.0	14.0	35.0	35.0	10.0	18.0	32.0	9.0	17.0	17.0
Actuated g/C Ratio	0.09	0.32	0.43	0.16	0.39	0.39	0.11	0.20	0.36	0.10	0.19	0.19
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	305	1639	686	534	1978	616	381	708	563	343	668	299
v/s Ratio Prot	0.09	c0.31	0.05	0.14	c0.36		c0.11	0.16	0.21	0.08	0.17	
v/s Ratio Perm			0.15			0.10						c0.20
v/c Ratio	0.98	0.96	0.46	0.93	0.93	0.25	0.97	0.79	0.58	0.80	0.90	1.04
Uniform Delay, d1	40.9	29.9	18.1	37.5	26.3	18.6	39.8	34.2	23.5	39.6	35.7	36.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	46.7	14.6	0.5	22.2	9.4	0.9	36.8	8.7	1.5	12.2	17.3	61.6
Delay (s)	87.7	44.6	18.6	59.7	35.8	19.5	76.7	42.9	25.1	51.8	52.9	98.1
Level of Service	F	D	B	E	D	B	E	D	C	D	D	F
Approach Delay (s)		46.6			38.2			48.1			68.4	
Approach LOS		D			D			D			E	

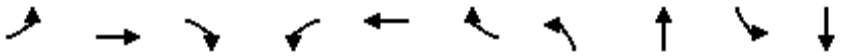
Intersection Summary			
HCM Average Control Delay	47.7	HCM Level of Service	D
HCM Volume to Capacity ratio	0.94		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	84.7%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Group Flow (vph)	1663	516	105	1926	747	126
v/c Ratio	0.59	0.47	0.49	0.57	0.84	0.25
Control Delay	21.5	3.0	18.3	13.4	54.4	7.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.5	3.0	18.3	13.4	54.4	7.0
Queue Length 50th (ft)	320	0	29	298	307	0
Queue Length 95th (ft)	473	60	72	422	379	47
Internal Link Dist (ft)	5030			5203	3550	
Turn Bay Length (ft)		500	500			
Base Capacity (vph)	2820	1108	302	3369	1164	620
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.59	0.47	0.35	0.57	0.64	0.20

Intersection Summary

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	1580	490	100	1830	710	120
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Lane Util. Factor	0.91	1.00	1.00	0.91	0.97	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	5085	1583	1770	5085	3433	1583
Flt Permitted	1.00	1.00	0.08	1.00	0.95	1.00
Satd. Flow (perm)	5085	1583	156	5085	3433	1583
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	1663	516	105	1926	747	126
RTOR Reduction (vph)	0	230	0	0	0	93
Lane Group Flow (vph)	1663	286	105	1926	747	33
Turn Type		Perm	pm+pt			Perm
Protected Phases	2		1	6	8	
Permitted Phases		2	6			8
Actuated Green, G (s)	72.2	72.2	86.2	86.2	33.9	33.9
Effective Green, g (s)	72.2	72.2	86.2	86.2	33.9	33.9
Actuated g/C Ratio	0.55	0.55	0.66	0.66	0.26	0.26
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	2822	878	215	3369	895	412
v/s Ratio Prot	0.33		0.03	c0.38	c0.22	
v/s Ratio Perm		0.18	0.29			0.02
v/c Ratio	0.59	0.33	0.49	0.57	0.83	0.08
Uniform Delay, d1	19.1	15.7	13.6	11.9	45.5	36.3
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.9	1.0	1.7	0.7	6.8	0.1
Delay (s)	20.1	16.7	15.4	12.6	52.2	36.4
Level of Service	C	B	B	B	D	D
Approach Delay (s)	19.3			12.8	49.9	
Approach LOS	B			B	D	

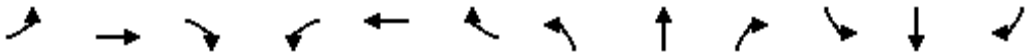
Intersection Summary			
HCM Average Control Delay	21.9	HCM Level of Service	C
HCM Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	130.1	Sum of lost time (s)	10.0
Intersection Capacity Utilization	68.8%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	316	1379	95	137	1516	221	189	421	158	789
v/c Ratio	0.76	0.74	0.15	0.72	0.85	0.32	0.70	0.55	0.53	0.89
Control Delay	51.2	27.6	4.9	60.9	32.2	4.3	55.4	31.6	46.0	39.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.2	27.6	4.9	60.9	32.2	4.3	55.4	31.6	46.0	39.8
Queue Length 50th (ft)	91	245	0	76	286	0	55	102	44	181
Queue Length 95th (ft)	#148	300	30	#161	346	46	#102	151	76	#290
Internal Link Dist (ft)		3469			13637			5892		5302
Turn Bay Length (ft)	500		500	500		500	500		500	
Base Capacity (vph)	424	1883	646	199	1825	710	270	768	308	886
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.75	0.73	0.15	0.69	0.83	0.31	0.70	0.55	0.51	0.89

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



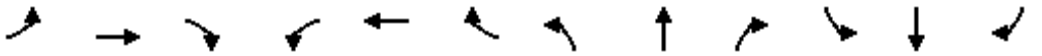
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	300	1310	90	130	1440	210	180	310	90	150	440	310
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Lane Util. Factor	0.97	0.91	1.00	1.00	0.91	1.00	0.97	0.95		0.97	0.95	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.97		1.00	0.94	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	3433	5085	1583	1770	5085	1583	3433	3419		3433	3320	
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	3433	5085	1583	1770	5085	1583	3433	3419		3433	3320	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	316	1379	95	137	1516	221	189	326	95	158	463	326
RTOR Reduction (vph)	0	0	60	0	0	143	0	30	0	0	141	0
Lane Group Flow (vph)	316	1379	35	137	1516	78	189	391	0	158	648	0
Turn Type	Prot		Perm	Prot		Perm	Prot			Prot		
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6						
Actuated Green, G (s)	10.8	32.6	32.6	9.6	31.4	31.4	7.0	19.3		7.8	20.1	
Effective Green, g (s)	10.8	32.6	32.6	9.6	31.4	31.4	7.0	19.3		7.8	20.1	
Actuated g/C Ratio	0.12	0.37	0.37	0.11	0.35	0.35	0.08	0.22		0.09	0.23	
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	415	1856	578	190	1788	557	269	739		300	747	
v/s Ratio Prot	c0.09	0.27		0.08	c0.30		c0.06	0.11		0.05	c0.20	
v/s Ratio Perm			0.02			0.05						
v/c Ratio	0.76	0.74	0.06	0.72	0.85	0.14	0.70	0.53		0.53	0.87	
Uniform Delay, d1	38.0	24.7	18.4	38.6	26.7	19.7	40.1	31.0		39.0	33.3	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	8.0	1.6	0.0	12.6	3.9	0.1	8.1	2.7		1.7	13.0	
Delay (s)	46.0	26.3	18.4	51.2	30.7	19.9	48.2	33.7		40.7	46.3	
Level of Service	D	C	B	D	C	B	D	C		D	D	
Approach Delay (s)		29.4			30.9			38.2			45.3	
Approach LOS		C			C			D			D	

Intersection Summary					
HCM Average Control Delay	33.9	HCM Level of Service		C	
HCM Volume to Capacity ratio	0.77				
Actuated Cycle Length (s)	89.3	Sum of lost time (s)		15.0	
Intersection Capacity Utilization	80.3%	ICU Level of Service		D	
Analysis Period (min)	15				
c Critical Lane Group					

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	453	821	358	116	1011	95	568	284	63	389	295
v/c Ratio	0.84	0.45	0.45	0.53	0.79	0.20	0.84	0.24	0.23	0.67	0.58
Control Delay	52.1	23.8	4.6	37.0	36.4	7.3	46.7	14.8	19.1	40.5	9.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	52.1	23.8	4.6	37.0	36.4	7.3	46.7	14.8	19.1	40.5	9.3
Queue Length 50th (ft)	130	136	0	53	198	0	160	38	20	108	0
Queue Length 95th (ft)	#209	175	60	100	249	37	#240	69	44	156	69
Internal Link Dist (ft)		13637			4953			3336		3754	
Turn Bay Length (ft)	500		500	500		500	500		500		500
Base Capacity (vph)	551	1824	797	219	1281	470	708	1188	279	649	531
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.82	0.45	0.45	0.53	0.79	0.20	0.80	0.24	0.23	0.60	0.56

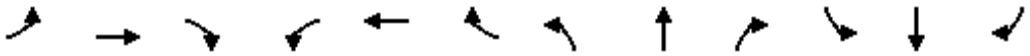
Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	430	780	340	110	960	90	540	175	95	60	370	280
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0
Lane Util. Factor	0.97	0.91	1.00	1.00	0.91	1.00	0.97	0.95		1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.95		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3433	5085	1583	1770	5085	1583	3433	3352		1770	3539	1583
Flt Permitted	0.95	1.00	1.00	0.24	1.00	1.00	0.95	1.00		0.58	1.00	1.00
Satd. Flow (perm)	3433	5085	1583	449	5085	1583	3433	3352		1076	3539	1583
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	453	821	358	116	1011	95	568	184	100	63	389	295
RTOR Reduction (vph)	0	0	233	0	0	72	0	68	0	0	0	244
Lane Group Flow (vph)	453	821	125	116	1011	23	568	216	0	63	389	51
Turn Type	Prot		Perm	pm+pt		Perm	Prot			pm+pt		Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2	6		6				4		4
Actuated Green, G (s)	14.8	31.4	31.4	22.1	22.1	22.1	17.2	28.9		19.5	15.6	15.6
Effective Green, g (s)	14.8	31.4	31.4	22.1	22.1	22.1	17.2	28.9		19.5	15.6	15.6
Actuated g/C Ratio	0.16	0.35	0.35	0.25	0.25	0.25	0.19	0.32		0.22	0.17	0.17
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	566	1780	554	192	1253	390	658	1080		264	615	275
v/s Ratio Prot	c0.13	0.16		0.04	c0.20		c0.17	0.06		0.01	c0.11	
v/s Ratio Perm			0.08	0.11		0.01				0.04		0.03
v/c Ratio	0.80	0.46	0.23	0.60	0.81	0.06	0.86	0.20		0.24	0.63	0.19
Uniform Delay, d1	36.0	22.6	20.6	28.1	31.8	25.9	35.1	22.0		28.5	34.4	31.6
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	8.0	0.9	0.9	5.3	5.6	0.3	11.3	0.1		0.5	2.1	0.3
Delay (s)	44.0	23.5	21.5	33.4	37.4	26.1	46.4	22.1		29.0	36.5	32.0
Level of Service	D	C	C	C	D	C	D	C		C	D	C
Approach Delay (s)		28.7			36.2			38.3			34.1	
Approach LOS		C			D			D			C	

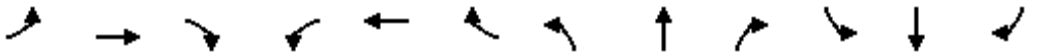
Intersection Summary			
HCM Average Control Delay	33.5	HCM Level of Service	C
HCM Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	89.7	Sum of lost time (s)	20.0
Intersection Capacity Utilization	73.1%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	363	311	311	116	458	137	395	1289	100	132	1668	358
v/c Ratio	0.97	0.50	0.47	0.52	0.97	0.34	0.96	0.53	0.12	0.67	0.91	0.23
Control Delay	94.1	47.7	17.8	63.0	86.2	21.4	81.8	23.1	3.9	67.2	45.6	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	94.1	47.7	17.8	63.0	86.2	21.4	81.8	23.1	3.9	67.2	45.6	0.3
Queue Length 50th (ft)	146	115	117	45	188	53	304	251	0	99	448	0
Queue Length 95th (ft)	#245	163	178	77	#296	93	#500	304	30	164	#522	0
Internal Link Dist (ft)		4953			3290			3869			3711	
Turn Bay Length (ft)	500		500	500		500	500		500	500		500
Base Capacity (vph)	373	627	662	229	473	439	414	2437	811	236	1825	1583
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.97	0.50	0.47	0.51	0.97	0.31	0.95	0.53	0.12	0.56	0.91	0.23

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



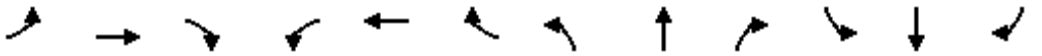
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	345	295	295	110	435	130	375	1225	95	125	1585	340
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	4.0
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	1.00	0.91	1.00	1.00	0.91	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3433	3539	1583	3433	3539	1583	1770	5085	1583	1770	5085	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3433	3539	1583	3433	3539	1583	1770	5085	1583	1770	5085	1583
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	363	311	311	116	458	137	395	1289	100	132	1668	358
RTOR Reduction (vph)	0	0	12	0	0	16	0	0	52	0	0	0
Lane Group Flow (vph)	363	311	299	116	458	121	395	1289	48	132	1668	358
Turn Type	Prot		pm+ov	Prot		pm+ov	Prot		Perm	Prot		Free
Protected Phases	7	4	5	3	8	1	5	2		1	6	
Permitted Phases			4			8			2			Free
Actuated Green, G (s)	13.0	21.2	49.0	7.8	16.0	29.4	27.8	57.4	57.4	13.4	43.0	119.8
Effective Green, g (s)	13.0	21.2	49.0	7.8	16.0	29.4	27.8	57.4	57.4	13.4	43.0	119.8
Actuated g/C Ratio	0.11	0.18	0.41	0.07	0.13	0.25	0.23	0.48	0.48	0.11	0.36	1.00
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	373	626	647	224	473	388	411	2436	758	198	1825	1583
v/s Ratio Prot	c0.11	0.09	0.11	0.03	c0.13	0.03	c0.22	0.25		0.07	c0.33	
v/s Ratio Perm			0.08			0.04			0.03			0.23
v/c Ratio	0.97	0.50	0.46	0.52	0.97	0.31	0.96	0.53	0.06	0.67	0.91	0.23
Uniform Delay, d1	53.2	44.5	25.8	54.2	51.6	36.9	45.5	21.8	16.8	51.1	36.6	0.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	39.2	0.6	0.5	2.0	32.9	0.5	34.2	0.8	0.2	8.2	8.6	0.3
Delay (s)	92.5	45.1	26.3	56.2	84.5	37.4	79.7	22.6	16.9	59.3	45.2	0.3
Level of Service	F	D	C	E	F	D	E	C	B	E	D	A
Approach Delay (s)		56.6			70.8			34.9			38.6	
Approach LOS		E			E			C			D	

Intersection Summary			
HCM Average Control Delay	44.7	HCM Level of Service	D
HCM Volume to Capacity ratio	0.94		
Actuated Cycle Length (s)	119.8	Sum of lost time (s)	20.0
Intersection Capacity Utilization	89.9%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	279	2548	68	1805	326	95	95	163	137	47	511
v/c Ratio	0.71	0.97	0.55	0.77	0.36	0.97	0.55	0.55	0.23	0.12	0.97
Control Delay	65.2	41.3	74.6	31.6	3.3	143.9	67.2	15.2	48.3	42.9	60.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	65.2	41.3	74.6	31.6	3.3	143.9	67.2	15.2	48.3	42.9	60.5
Queue Length 50th (ft)	117	757	56	454	0	82	78	0	52	33	258
Queue Length 95th (ft)	165	#900	107	517	52	#198	132	66	87	67	#495
Internal Link Dist (ft)		2210		6487			756			1213	
Turn Bay Length (ft)	500		500		500	500		500	500		500
Base Capacity (vph)	435	2634	140	2420	924	98	265	365	605	398	525
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.64	0.97	0.49	0.75	0.35	0.97	0.36	0.45	0.23	0.12	0.97

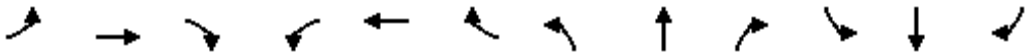
Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	265	2255	165	65	1715	310	90	90	155	130	45	485
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lane Util. Factor	0.97	0.91		1.00	0.91	1.00	1.00	1.00	1.00	0.97	1.00	1.00
Frt	1.00	0.99		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3433	5033		1770	5085	1583	1770	1863	1583	3433	1863	1583
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3433	5033		1770	5085	1583	1770	1863	1583	3433	1863	1583
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	279	2374	174	68	1805	326	95	95	163	137	47	511
RTOR Reduction (vph)	0	6	0	0	0	175	0	0	148	0	0	187
Lane Group Flow (vph)	279	2542	0	68	1805	151	95	95	15	137	47	324
Turn Type	Prot			Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases						6			8			4
Actuated Green, G (s)	14.5	66.2		7.5	59.2	59.2	7.0	11.8	11.8	22.3	27.1	27.1
Effective Green, g (s)	14.5	66.2		7.5	59.2	59.2	7.0	11.8	11.8	22.3	27.1	27.1
Actuated g/C Ratio	0.11	0.52		0.06	0.46	0.46	0.05	0.09	0.09	0.17	0.21	0.21
Clearance Time (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	390	2607		104	2355	733	97	172	146	599	395	336
v/s Ratio Prot	0.08	c0.50		0.04	c0.35		c0.05	0.05		0.04	0.03	
v/s Ratio Perm						0.10			0.01			c0.20
v/c Ratio	0.72	0.97		0.65	0.77	0.21	0.98	0.55	0.10	0.23	0.12	0.97
Uniform Delay, d1	54.7	30.0		58.9	28.5	20.4	60.3	55.5	53.2	45.4	40.7	49.9
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	6.1	12.3		13.8	1.5	0.1	83.7	3.8	0.3	0.9	0.6	41.0
Delay (s)	60.8	42.3		72.7	30.1	20.5	144.0	59.3	53.5	46.2	41.3	90.9
Level of Service	E	D		E	C	C	F	E	D	D	D	F
Approach Delay (s)		44.1			30.0			79.4			78.7	
Approach LOS		D			C			E			E	

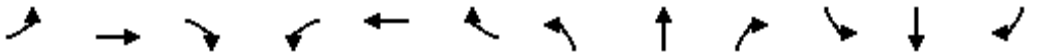
Intersection Summary			
HCM Average Control Delay	45.0	HCM Level of Service	D
HCM Volume to Capacity ratio	0.93		
Actuated Cycle Length (s)	127.8	Sum of lost time (s)	15.0
Intersection Capacity Utilization	80.7%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	463	1842	368	332	1574	274	326	600	495	232	558	300
v/c Ratio	0.93	0.93	0.46	0.97	0.90	0.39	0.86	0.80	1.00	0.87	0.89	0.57
Control Delay	66.4	36.5	9.8	83.4	36.4	6.9	61.6	43.3	62.5	72.4	54.0	8.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	66.4	36.5	9.8	83.4	36.4	6.9	61.6	43.3	62.5	72.4	54.0	8.8
Queue Length 50th (ft)	136	360	63	98	307	18	95	171	193	68	164	0
Queue Length 95th (ft)	#227	#468	101	#184	#384	73	#167	#249	#387	#134	#257	69
Internal Link Dist (ft)		6487			5030			3340			3476	
Turn Bay Length (ft)	500		500	500		500	500		500	500		500
Base Capacity (vph)	496	1978	799	343	1752	694	381	747	496	267	629	528
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.93	0.93	0.46	0.97	0.90	0.39	0.86	0.80	1.00	0.87	0.89	0.57

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	440	1750	350	315	1495	260	310	570	470	220	530	285
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lane Util. Factor	0.97	0.91	1.00	0.97	0.91	1.00	0.97	0.95	1.00	0.97	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3433	5085	1583	3433	5085	1583	3433	3539	1583	3433	3539	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3433	5085	1583	3433	5085	1583	3433	3539	1583	3433	3539	1583
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	463	1842	368	332	1574	274	326	600	495	232	558	300
RTOR Reduction (vph)	0	0	7	0	0	149	0	0	3	0	0	247
Lane Group Flow (vph)	463	1842	361	332	1574	125	326	600	492	232	558	53
Turn Type	Prot		pm+ov	Prot		Perm	Prot		pt+ov	Prot		Perm
Protected Phases	5	2	3	1	6		3	8	8 1	7	4	
Permitted Phases			2			6						4
Actuated Green, G (s)	13.0	35.0	45.0	9.0	31.0	31.0	10.0	19.0	28.0	7.0	16.0	16.0
Effective Green, g (s)	13.0	35.0	45.0	9.0	31.0	31.0	10.0	19.0	28.0	7.0	16.0	16.0
Actuated g/C Ratio	0.14	0.39	0.50	0.10	0.34	0.34	0.11	0.21	0.31	0.08	0.18	0.18
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	496	1978	792	343	1752	545	381	747	492	267	629	281
v/s Ratio Prot	0.13	c0.36	0.05	0.10	c0.31		c0.09	0.17	c0.31	0.07	0.16	
v/s Ratio Perm			0.18			0.08						0.03
v/c Ratio	0.93	0.93	0.46	0.97	0.90	0.23	0.86	0.80	1.00	0.87	0.89	0.19
Uniform Delay, d1	38.1	26.3	14.6	40.4	28.0	21.0	39.3	33.7	31.0	41.0	36.1	31.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	24.8	9.4	0.4	39.6	7.8	1.0	16.9	8.9	40.0	24.5	16.9	1.5
Delay (s)	62.8	35.8	15.0	80.0	35.8	22.0	56.2	42.7	71.0	65.5	53.0	33.0
Level of Service	E	D	B	E	D	C	E	D	E	E	D	C
Approach Delay (s)		37.6			40.8			55.6			50.2	
Approach LOS		D			D			E			D	

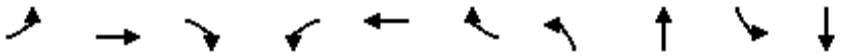
Intersection Summary			
HCM Average Control Delay	43.9	HCM Level of Service	D
HCM Volume to Capacity ratio	1.00		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	20.0
Intersection Capacity Utilization	83.0%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Group Flow (vph)	1926	747	126	1663	516	105
v/c Ratio	0.63	0.60	0.59	0.45	0.78	0.27
Control Delay	17.6	3.3	27.7	7.7	54.2	9.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.6	3.3	27.7	7.7	54.2	9.0
Queue Length 50th (ft)	321	0	32	168	195	0
Queue Length 95th (ft)	483	58	104	245	255	47
Internal Link Dist (ft)	5030			5203	3550	
Turn Bay Length (ft)		500	500			
Base Capacity (vph)	3051	1249	305	3673	1269	651
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.63	0.60	0.41	0.45	0.41	0.16

Intersection Summary

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	1830	710	120	1580	490	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Lane Util. Factor	0.91	1.00	1.00	0.91	0.97	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	5085	1583	1770	5085	3433	1583
Flt Permitted	1.00	1.00	0.06	1.00	0.95	1.00
Satd. Flow (perm)	5085	1583	114	5085	3433	1583
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	1926	747	126	1663	516	105
RTOR Reduction (vph)	0	299	0	0	0	85
Lane Group Flow (vph)	1926	448	126	1663	516	20
Turn Type		Perm	pm+pt			Perm
Protected Phases	2		1	6	8	
Permitted Phases		2	6			8
Actuated Green, G (s)	71.5	71.5	86.1	86.1	23.1	23.1
Effective Green, g (s)	71.5	71.5	86.1	86.1	23.1	23.1
Actuated g/C Ratio	0.60	0.60	0.72	0.72	0.19	0.19
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	3050	950	216	3673	665	307
v/s Ratio Prot	c0.38		c0.05	0.33	c0.15	
v/s Ratio Perm		0.28	0.37			0.01
v/c Ratio	0.63	0.47	0.58	0.45	0.78	0.07
Uniform Delay, d1	15.4	13.3	18.3	6.8	45.6	39.2
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.0	1.7	4.0	0.4	5.7	0.1
Delay (s)	16.4	15.0	22.3	7.2	51.3	39.3
Level of Service	B	B	C	A	D	D
Approach Delay (s)	16.0			8.3	49.2	
Approach LOS	B			A	D	

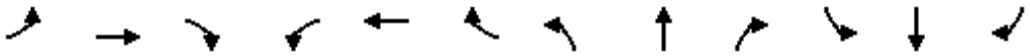
Intersection Summary			
HCM Average Control Delay	17.3	HCM Level of Service	B
HCM Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	119.2	Sum of lost time (s)	15.0
Intersection Capacity Utilization	68.5%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	326	1516	189	95	1379	158	95	600	221	642
v/c Ratio	0.78	0.76	0.26	0.53	0.79	0.24	0.36	0.78	0.71	0.63
Control Delay	52.0	27.0	4.1	49.4	29.8	4.5	43.5	39.3	53.3	21.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	52.0	27.0	4.1	49.4	29.8	4.5	43.5	39.3	53.3	21.6
Queue Length 50th (ft)	94	280	0	52	250	0	26	160	64	107
Queue Length 95th (ft)	#156	339	42	100	305	39	51	#230	#114	168
Internal Link Dist (ft)		3469			13637			5892		5302
Turn Bay Length (ft)	500		500	500		500	500		500	
Base Capacity (vph)	428	2003	738	201	1844	675	272	767	311	1024
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.76	0.76	0.26	0.47	0.75	0.23	0.35	0.78	0.71	0.63

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



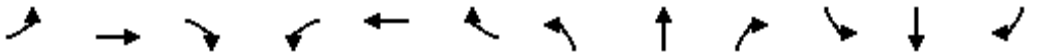
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	310	1440	180	90	1310	150	90	440	130	210	310	300
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Lane Util. Factor	0.97	0.91	1.00	1.00	0.91	1.00	0.97	0.95		0.97	0.95	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.97		1.00	0.93	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	3433	5085	1583	1770	5085	1583	3433	3418		3433	3278	
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	3433	5085	1583	1770	5085	1583	3433	3418		3433	3278	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	326	1516	189	95	1379	158	95	463	137	221	326	316
RTOR Reduction (vph)	0	0	116	0	0	103	0	30	0	0	188	0
Lane Group Flow (vph)	326	1516	73	95	1379	55	95	570	0	221	454	0
Turn Type	Prot		Perm	Prot		Perm	Prot			Prot		
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6						
Actuated Green, G (s)	10.8	34.8	34.8	7.6	31.6	31.6	5.5	20.1		8.0	22.6	
Effective Green, g (s)	10.8	34.8	34.8	7.6	31.6	31.6	5.5	20.1		8.0	22.6	
Actuated g/C Ratio	0.12	0.38	0.38	0.08	0.35	0.35	0.06	0.22		0.09	0.25	
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	410	1955	609	149	1776	553	209	759		303	819	
v/s Ratio Prot	c0.09	c0.30		0.05	0.27		0.03	c0.17		c0.06	0.14	
v/s Ratio Perm			0.05			0.03						
v/c Ratio	0.80	0.78	0.12	0.64	0.78	0.10	0.45	0.75		0.73	0.55	
Uniform Delay, d1	38.8	24.4	18.0	40.1	26.3	19.9	41.1	32.9		40.2	29.6	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	10.2	2.0	0.1	8.6	2.2	0.1	1.6	6.7		8.5	2.7	
Delay (s)	49.0	26.4	18.1	48.8	28.5	19.9	42.6	39.6		48.7	32.3	
Level of Service	D	C	B	D	C	B	D	D		D	C	
Approach Delay (s)		29.3			28.8			40.0			36.5	
Approach LOS		C			C			D			D	

Intersection Summary			
HCM Average Control Delay	31.8	HCM Level of Service	C
HCM Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	90.5	Sum of lost time (s)	20.0
Intersection Capacity Utilization	73.1%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	295	1011	568	100	821	63	358	494	95	184	453
v/c Ratio	0.56	0.53	0.60	0.44	0.60	0.13	0.63	0.47	0.38	0.32	0.78
Control Delay	37.6	23.4	5.2	32.4	29.7	8.2	37.8	23.8	22.5	32.6	17.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	37.6	23.4	5.2	32.4	29.7	8.2	37.8	23.8	22.5	32.6	17.6
Queue Length 50th (ft)	76	164	0	43	144	0	94	105	31	45	34
Queue Length 95th (ft)	122	221	75	89	197	31	138	151	61	79	#160
Internal Link Dist (ft)		13637			4953			3336		3754	
Turn Bay Length (ft)	500		500	500		500	500		500		500
Base Capacity (vph)	588	1901	948	233	1369	472	756	1242	252	693	616
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.50	0.53	0.60	0.43	0.60	0.13	0.47	0.40	0.38	0.27	0.74

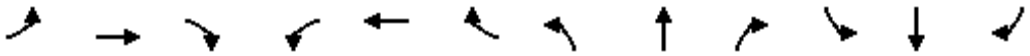
Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	280	960	540	95	780	60	340	370	100	90	175	430
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0
Lane Util. Factor	0.97	0.91	1.00	1.00	0.91	1.00	0.97	0.95		1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.97		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3433	5085	1583	1770	5085	1583	3433	3426		1770	3539	1583
Flt Permitted	0.95	1.00	1.00	0.24	1.00	1.00	0.95	1.00		0.47	1.00	1.00
Satd. Flow (perm)	3433	5085	1583	444	5085	1583	3433	3426		878	3539	1583
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	295	1011	568	100	821	63	358	389	105	95	184	453
RTOR Reduction (vph)	0	0	361	0	0	47	0	28	0	0	0	315
Lane Group Flow (vph)	295	1011	207	100	821	16	358	466	0	95	184	138
Turn Type	Prot		Perm	pm+pt		Perm	Prot			pm+pt		Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2	6		6				4		4
Actuated Green, G (s)	14.1	30.9	30.9	22.2	22.2	22.2	13.8	24.7		18.5	14.7	14.7
Effective Green, g (s)	14.1	30.9	30.9	22.2	22.2	22.2	13.8	24.7		18.5	14.7	14.7
Actuated g/C Ratio	0.17	0.36	0.36	0.26	0.26	0.26	0.16	0.29		0.22	0.17	0.17
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	571	1853	577	201	1331	414	559	998		232	613	274
v/s Ratio Prot	0.09	c0.20		0.03	c0.16		c0.10	c0.14		0.02	0.05	
v/s Ratio Perm			0.13	0.10		0.01				0.07		0.09
v/c Ratio	0.52	0.55	0.36	0.50	0.62	0.04	0.64	0.47		0.41	0.30	0.50
Uniform Delay, d1	32.2	21.4	19.7	25.5	27.6	23.3	33.2	24.6		27.4	30.6	31.7
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	0.8	1.2	1.7	1.9	2.2	0.2	2.5	0.3		1.2	0.3	1.5
Delay (s)	33.0	22.5	21.4	27.4	29.7	23.5	35.7	25.0		28.6	30.8	33.2
Level of Service	C	C	C	C	C	C	D	C		C	C	C
Approach Delay (s)		23.9			29.1			29.5			32.0	
Approach LOS		C			C			C			C	

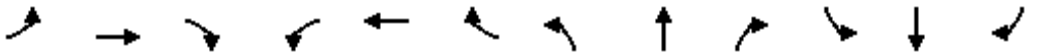
Intersection Summary			
HCM Average Control Delay	27.4	HCM Level of Service	C
HCM Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	84.8	Sum of lost time (s)	10.0
Intersection Capacity Utilization	63.9%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	358	458	395	100	311	132	311	1668	116	137	1289	363
v/c Ratio	0.90	0.59	0.55	0.42	0.60	0.33	0.85	0.81	0.16	0.76	0.84	0.23
Control Delay	66.2	34.7	13.9	45.2	39.7	17.0	56.7	27.1	4.2	65.4	35.1	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	66.2	34.7	13.9	45.2	39.7	17.0	56.7	27.1	4.2	65.4	35.1	0.3
Queue Length 50th (ft)	101	123	98	27	84	37	164	289	0	74	241	0
Queue Length 95th (ft)	#190	173	159	54	126	70	#320	373	32	#173	#321	0
Internal Link Dist (ft)		4953			3290			3869			3711	
Turn Bay Length (ft)	500		500	500		500	500		500	500		500
Base Capacity (vph)	397	854	697	238	654	400	368	2057	710	184	1528	1583
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.90	0.54	0.57	0.42	0.48	0.33	0.85	0.81	0.16	0.74	0.84	0.23

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	340	435	375	95	295	125	295	1585	110	130	1225	345
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	4.0
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	1.00	0.91	1.00	1.00	0.91	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3433	3539	1583	3433	3539	1583	1770	5085	1583	1770	5085	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3433	3539	1583	3433	3539	1583	1770	5085	1583	1770	5085	1583
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	358	458	395	100	311	132	311	1668	116	137	1289	363
RTOR Reduction (vph)	0	0	20	0	0	4	0	0	70	0	0	0
Lane Group Flow (vph)	358	458	375	100	311	128	311	1668	46	137	1289	363
Turn Type	Prot		pm+ov	Prot		pm+ov	Prot		Perm	Prot		Free
Protected Phases	7	4	5	3	8	1	5	2		1	6	
Permitted Phases			4			8			2			Free
Actuated Green, G (s)	11.0	19.0	36.9	4.7	12.7	21.6	17.9	35.0	35.0	8.9	26.0	87.6
Effective Green, g (s)	11.0	19.0	36.9	4.7	12.7	21.6	17.9	35.0	35.0	8.9	26.0	87.6
Actuated g/C Ratio	0.13	0.22	0.42	0.05	0.14	0.25	0.20	0.40	0.40	0.10	0.30	1.00
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	431	768	667	184	513	390	362	2032	632	180	1509	1583
v/s Ratio Prot	c0.10	0.13	0.11	0.03	c0.09	0.03	0.18	c0.33		0.08	c0.25	
v/s Ratio Perm			0.12			0.05			0.03			0.23
v/c Ratio	0.83	0.60	0.56	0.54	0.61	0.33	0.86	0.82	0.07	0.76	0.85	0.23
Uniform Delay, d1	37.4	30.9	19.2	40.4	35.1	27.1	33.6	23.5	16.3	38.3	29.0	0.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	12.8	1.3	1.1	3.3	2.0	0.5	18.0	3.9	0.2	17.1	6.4	0.3
Delay (s)	50.2	32.1	20.3	43.7	37.1	27.6	51.6	27.4	16.5	55.5	35.4	0.3
Level of Service	D	C	C	D	D	C	D	C	B	E	D	A
Approach Delay (s)		33.6			36.0			30.4			29.8	
Approach LOS		C			D			C			C	

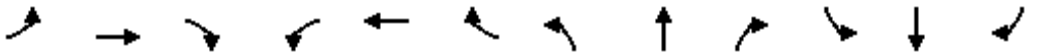
Intersection Summary			
HCM Average Control Delay	31.4	HCM Level of Service	C
HCM Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	87.6	Sum of lost time (s)	15.0
Intersection Capacity Utilization	74.5%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	579	2158	184	2700	158	195	53	79	368	105	316
v/c Ratio	1.10	0.81	0.84	1.06	0.18	1.03	0.27	0.33	1.01	0.53	0.81
Control Delay	126.6	32.1	94.1	73.4	3.2	137.4	65.5	16.0	113.9	73.8	33.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	126.6	32.1	94.1	73.4	3.2	137.4	65.5	16.0	113.9	73.8	33.2
Queue Length 50th (ft)	~330	630	177	~1061	0	~204	49	0	~190	99	66
Queue Length 95th (ft)	#452	695	#296	#1141	38	#370	95	53	#301	165	#217
Internal Link Dist (ft)		2210		6487			756			1213	
Turn Bay Length (ft)	500		500		500	500		500	500		500
Base Capacity (vph)	526	2678	236	2543	871	189	199	239	366	199	388
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.10	0.81	0.78	1.06	0.18	1.03	0.27	0.33	1.01	0.53	0.81

Intersection Summary

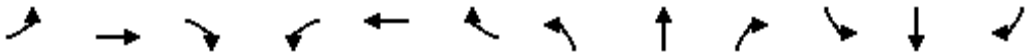
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	550	1950	100	175	2565	150	185	50	75	350	100	300
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lane Util. Factor	0.97	0.91		1.00	0.91	1.00	1.00	1.00	1.00	0.97	1.00	1.00
Frt	1.00	0.99		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3433	5048		1770	5085	1583	1770	1863	1583	3433	1863	1583
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3433	5048		1770	5085	1583	1770	1863	1583	3433	1863	1583
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	579	2053	105	184	2700	158	195	53	79	368	105	316
RTOR Reduction (vph)	0	4	0	0	0	79	0	0	71	0	0	219
Lane Group Flow (vph)	579	2154	0	184	2700	79	195	53	8	368	105	97
Turn Type	Prot			Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases						6			8			4
Actuated Green, G (s)	23.0	79.4		18.6	75.0	75.0	16.0	16.0	16.0	16.0	16.0	16.0
Effective Green, g (s)	23.0	79.4		18.6	75.0	75.0	16.0	16.0	16.0	16.0	16.0	16.0
Actuated g/C Ratio	0.15	0.53		0.12	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
Clearance Time (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	526	2672		219	2543	792	189	199	169	366	199	169
v/s Ratio Prot	c0.17	0.43		0.10	c0.53		c0.11	0.03		c0.11	0.06	
v/s Ratio Perm						0.05			0.01			0.06
v/c Ratio	1.10	0.81		0.84	1.06	0.10	1.03	0.27	0.05	1.01	0.53	0.57
Uniform Delay, d1	63.5	29.0		64.2	37.5	19.7	67.0	61.6	60.2	67.0	63.4	63.8
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	69.7	1.9		24.1	36.9	0.1	74.0	0.7	0.1	48.4	9.7	13.5
Delay (s)	133.2	30.8		88.3	74.4	19.8	141.0	62.3	60.3	115.4	73.1	77.2
Level of Service	F	C		F	E	B	F	E	E	F	E	E
Approach Delay (s)		52.5			72.4			108.8			94.5	
Approach LOS		D			E			F			F	

Intersection Summary			
HCM Average Control Delay	68.8	HCM Level of Service	E
HCM Volume to Capacity ratio	1.06		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	20.0
Intersection Capacity Utilization	94.7%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

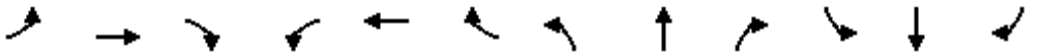


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	342	1789	368	579	2095	368	421	632	447	368	684	526
v/c Ratio	1.00	1.02	0.49	1.04	1.01	0.44	1.00	0.83	0.74	0.87	0.90	1.08
Control Delay	106.0	67.7	14.4	102.3	60.7	6.3	99.3	59.2	28.8	77.1	65.3	94.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	106.0	67.7	14.4	102.3	60.7	6.3	99.3	59.2	28.8	77.1	65.3	94.4
Queue Length 50th (ft)	151	~582	103	~272	~655	25	185	270	209	159	297	~363
Queue Length 95th (ft)	#253	#679	150	#388	#772	96	#295	#344	298	#243	#403	#588
Internal Link Dist (ft)		6487			5030			3340			3476	
Turn Bay Length (ft)	500		500	500		500	500		500	500		500
Base Capacity (vph)	343	1760	749	555	2073	834	423	762	600	423	762	488
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.00	1.02	0.49	1.04	1.01	0.44	1.00	0.83	0.74	0.87	0.90	1.08

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	325	1700	350	550	1990	350	400	600	425	350	650	500
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lane Util. Factor	0.97	0.91	1.00	0.97	0.91	1.00	0.97	0.95	1.00	0.97	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3433	5085	1583	3433	5085	1583	3433	3539	1583	3433	3539	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3433	5085	1583	3433	5085	1583	3433	3539	1583	3433	3539	1583
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	342	1789	368	579	2095	368	421	632	447	368	684	526
RTOR Reduction (vph)	0	0	6	0	0	188	0	0	4	0	0	147
Lane Group Flow (vph)	342	1789	362	579	2095	180	421	632	443	368	684	379
Turn Type	Prot		pm+ov	Prot		Perm	Prot		pt+ov	Prot		Perm
Protected Phases	5	2	3	1	6		3	8	8 1	7	4	
Permitted Phases			2			6						4
Actuated Green, G (s)	13.0	45.0	61.0	21.0	53.0	53.0	16.0	28.0	49.0	16.0	28.0	28.0
Effective Green, g (s)	13.0	45.0	61.0	21.0	53.0	53.0	16.0	28.0	49.0	16.0	28.0	28.0
Actuated g/C Ratio	0.10	0.35	0.47	0.16	0.41	0.41	0.12	0.22	0.38	0.12	0.22	0.22
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	343	1760	743	555	2073	645	423	762	597	423	762	341
v/s Ratio Prot	0.10	c0.35	0.06	0.17	c0.41		c0.12	0.18	0.28	0.11	0.19	
v/s Ratio Perm			0.17			0.11						c0.24
v/c Ratio	1.00	1.02	0.49	1.04	1.01	0.28	1.00	0.83	0.74	0.87	0.90	1.11
Uniform Delay, d1	58.5	42.5	23.7	54.5	38.5	25.7	57.0	48.7	35.0	56.0	49.6	51.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	47.5	25.7	0.5	49.9	22.4	1.1	42.3	10.1	5.0	17.1	15.5	82.5
Delay (s)	106.0	68.2	24.2	104.4	60.9	26.8	99.2	58.9	40.0	73.1	65.1	133.5
Level of Service	F	E	C	F	E	C	F	E	D	E	E	F
Approach Delay (s)		66.9			65.1			64.6			89.8	
Approach LOS		E			E			E			F	

Intersection Summary			
HCM Average Control Delay	70.0	HCM Level of Service	E
HCM Volume to Capacity ratio	1.06		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	20.0
Intersection Capacity Utilization	94.6%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Group Flow (vph)	2079	526	463	2253	789	158
v/c Ratio	1.00	0.55	1.04	0.66	0.89	0.30
Control Delay	58.7	4.5	95.3	15.1	61.5	8.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	58.7	4.5	95.3	15.1	61.5	8.0
Queue Length 50th (ft)	~697	0	~407	427	348	4
Queue Length 95th (ft)	#827	72	#637	491	428	59
Internal Link Dist (ft)	5030			5203	3550	
Turn Bay Length (ft)		500	500			
Base Capacity (vph)	2089	960	444	3395	982	562
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.00	0.55	1.04	0.66	0.80	0.28

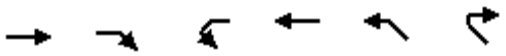
Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	1975	500	440	2140	750	150
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Lane Util. Factor	0.91	1.00	1.00	0.91	0.97	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	5085	1583	1770	5085	3433	1583
Flt Permitted	1.00	1.00	0.07	1.00	0.95	1.00
Satd. Flow (perm)	5085	1583	122	5085	3433	1583
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	2079	526	463	2253	789	158
RTOR Reduction (vph)	0	310	0	0	0	113
Lane Group Flow (vph)	2079	216	463	2253	789	45
Turn Type		Perm	pm+pt			Perm
Protected Phases	2		1	6	8	
Permitted Phases		2	6			8
Actuated Green, G (s)	56.1	56.1	91.1	91.1	35.3	35.3
Effective Green, g (s)	56.1	56.1	91.1	91.1	35.3	35.3
Actuated g/C Ratio	0.41	0.41	0.67	0.67	0.26	0.26
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	2091	651	444	3396	888	410
v/s Ratio Prot	0.41		c0.23	0.44	c0.23	
v/s Ratio Perm		0.14	c0.47			0.03
v/c Ratio	0.99	0.33	1.04	0.66	0.89	0.11
Uniform Delay, d1	40.0	27.4	45.5	13.5	48.7	38.6
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	18.4	1.4	54.3	1.0	10.7	0.1
Delay (s)	58.4	28.7	99.8	14.5	59.4	38.7
Level of Service	E	C	F	B	E	D
Approach Delay (s)	52.4			29.1	55.9	
Approach LOS	D			C	E	

Intersection Summary			
HCM Average Control Delay	42.8	HCM Level of Service	D
HCM Volume to Capacity ratio	0.98		
Actuated Cycle Length (s)	136.4	Sum of lost time (s)	10.0
Intersection Capacity Utilization	96.4%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			



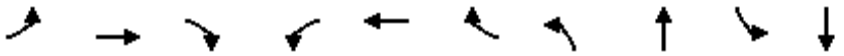
Lane Group	EBT	EBR	WBL	WBT	NWL	NWR
Lane Group Flow (vph)	1689	547	105	2126	589	132
v/c Ratio	0.82	0.56	0.55	0.83	0.92	0.20
Control Delay	24.9	4.3	22.4	19.7	44.9	4.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.9	4.3	22.4	19.7	44.9	4.1
Queue Length 50th (ft)	264	0	25	298	251	0
Queue Length 95th (ft)	#339	60	#56	365	#443	32
Internal Link Dist (ft)	5203			3469	3369	
Turn Bay Length (ft)		500	500			500
Base Capacity (vph)	2068	969	191	2557	674	684
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.82	0.56	0.55	0.83	0.87	0.19

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBT	EBR	WBL	WBT	NWL	NWR
Lane Configurations						
Volume (vph)	1605	520	100	2020	560	125
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Lane Util. Factor	0.91	1.00	1.00	0.91	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	5085	1583	1770	5085	1770	1583
Flt Permitted	1.00	1.00	0.11	1.00	0.95	1.00
Satd. Flow (perm)	5085	1583	213	5085	1770	1583
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	1689	547	105	2126	589	132
RTOR Reduction (vph)	0	327	0	0	0	85
Lane Group Flow (vph)	1689	220	105	2126	589	47
Turn Type		Perm	pm+pt			Perm
Protected Phases	2		1	6	8	
Permitted Phases		2	6			8
Actuated Green, G (s)	30.0	30.0	38.1	38.1	26.6	26.6
Effective Green, g (s)	30.0	30.0	38.1	38.1	26.6	26.6
Actuated g/C Ratio	0.40	0.40	0.51	0.51	0.36	0.36
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	2042	636	173	2594	630	564
v/s Ratio Prot	0.33		0.03	c0.42	c0.33	
v/s Ratio Perm		0.14	0.28			0.03
v/c Ratio	0.83	0.35	0.61	0.82	0.93	0.08
Uniform Delay, d1	20.0	15.5	13.9	15.4	23.2	16.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	4.0	1.5	5.9	3.0	21.2	0.1
Delay (s)	24.0	17.0	19.8	18.4	44.4	16.0
Level of Service	C	B	B	B	D	B
Approach Delay (s)	22.3			18.5	39.2	
Approach LOS	C			B	D	

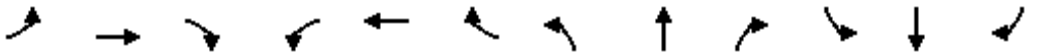
Intersection Summary			
HCM Average Control Delay	23.0	HCM Level of Service	C
HCM Volume to Capacity ratio	0.87		
Actuated Cycle Length (s)	74.7	Sum of lost time (s)	10.0
Intersection Capacity Utilization	80.1%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	321	1395	105	158	1642	253	221	473	184	894
v/c Ratio	0.93	0.75	0.16	0.81	0.86	0.34	0.97	0.62	0.61	0.98
Control Delay	76.2	27.9	4.8	70.6	31.4	3.9	94.8	33.7	48.9	52.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	76.2	27.9	4.8	70.6	31.4	3.9	94.8	33.7	48.9	52.8
Queue Length 50th (ft)	94	249	0	89	308	0	65	119	53	218
Queue Length 95th (ft)	#175	304	32	#193	372	46	#137	171	87	#351
Internal Link Dist (ft)		3469			13637			5892		5302
Turn Bay Length (ft)	500		500	500		500	500		500	
Base Capacity (vph)	344	1869	648	197	1925	756	229	759	306	916
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.93	0.75	0.16	0.80	0.85	0.33	0.97	0.62	0.60	0.98

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	305	1325	100	150	1560	240	210	350	100	175	500	350
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Lane Util. Factor	0.97	0.91	1.00	1.00	0.91	1.00	0.97	0.95		0.97	0.95	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.97		1.00	0.94	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	3433	5085	1583	1770	5085	1583	3433	3421		3433	3321	
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	3433	5085	1583	1770	5085	1583	3433	3421		3433	3321	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	321	1395	105	158	1642	253	221	368	105	184	526	368
RTOR Reduction (vph)	0	0	66	0	0	158	0	29	0	0	140	0
Lane Group Flow (vph)	321	1395	39	158	1642	95	221	444	0	184	754	0
Turn Type	Prot		Perm	Prot		Perm	Prot			Prot		
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6						
Actuated Green, G (s)	9.0	33.0	33.0	9.9	33.9	33.9	6.0	19.1		7.9	21.0	
Effective Green, g (s)	9.0	33.0	33.0	9.9	33.9	33.9	6.0	19.1		7.9	21.0	
Actuated g/C Ratio	0.10	0.37	0.37	0.11	0.38	0.38	0.07	0.21		0.09	0.23	
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	344	1867	581	195	1917	597	229	727		302	776	
v/s Ratio Prot	c0.09	0.27		0.09	c0.32		c0.06	0.13		0.05	c0.23	
v/s Ratio Perm			0.02			0.06						
v/c Ratio	0.93	0.75	0.07	0.81	0.86	0.16	0.97	0.61		0.61	0.97	
Uniform Delay, d1	40.2	24.8	18.5	39.1	25.8	18.6	41.8	32.0		39.5	34.2	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	31.6	1.7	0.0	21.8	4.0	0.1	49.2	3.8		3.5	26.0	
Delay (s)	71.8	26.5	18.5	60.9	29.8	18.7	91.1	35.8		43.0	60.2	
Level of Service	E	C	B	E	C	B	F	D		D	E	
Approach Delay (s)		34.0			30.8			53.4			57.3	
Approach LOS		C			C			D			E	

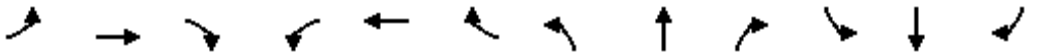
Intersection Summary			
HCM Average Control Delay	39.7	HCM Level of Service	D
HCM Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	89.9	Sum of lost time (s)	10.0
Intersection Capacity Utilization	86.5%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	479	837	368	116	1032	105	684	322	74	442	337
v/c Ratio	1.03	0.45	0.45	0.38	0.72	0.20	1.04	0.27	0.27	0.74	0.81
Control Delay	90.7	23.4	4.5	18.3	32.5	6.4	83.9	15.6	20.2	43.4	33.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	90.7	23.4	4.5	18.3	32.5	6.4	83.9	15.6	20.2	43.4	33.1
Queue Length 50th (ft)	~154	137	0	36	194	0	~221	46	25	125	85
Queue Length 95th (ft)	#251	176	59	68	243	37	#329	79	51	177	#221
Internal Link Dist (ft)		13637			4953			3336		3754	
Turn Bay Length (ft)	500		500	500		500	500		500		500
Base Capacity (vph)	463	1856	812	305	1429	520	655	1175	275	636	432
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.03	0.45	0.45	0.38	0.72	0.20	1.04	0.27	0.27	0.69	0.78

Intersection Summary

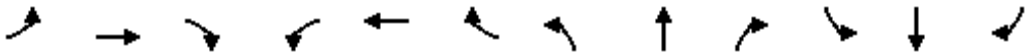
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	455	795	350	110	980	100	650	200	105	70	420	320
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0
Lane Util. Factor	0.97	0.91	1.00	1.00	0.91	1.00	0.97	0.95		1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.95		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3433	5085	1583	1770	5085	1583	3433	3356		1770	3539	1583
Flt Permitted	0.95	1.00	1.00	0.32	1.00	1.00	0.95	1.00		0.56	1.00	1.00
Satd. Flow (perm)	3433	5085	1583	593	5085	1583	3433	3356		1037	3539	1583
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	479	837	368	116	1032	105	684	211	111	74	442	337
RTOR Reduction (vph)	0	0	237	0	0	75	0	76	0	0	0	147
Lane Group Flow (vph)	479	837	131	116	1032	30	684	246	0	74	442	190
Turn Type	Prot		Perm	pm+pt		Perm	Prot			pm+pt		Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2	6		6				4		4
Actuated Green, G (s)	12.0	32.5	32.5	31.5	26.0	26.0	17.0	29.1		20.1	16.1	16.1
Effective Green, g (s)	12.0	32.5	32.5	31.5	26.0	26.0	17.0	29.1		20.1	16.1	16.1
Actuated g/C Ratio	0.13	0.36	0.36	0.35	0.29	0.29	0.19	0.32		0.22	0.18	0.18
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	452	1814	565	276	1451	452	641	1072		261	625	280
v/s Ratio Prot	c0.14	0.16		0.03	c0.20		c0.20	0.07		0.01	c0.12	
v/s Ratio Perm			0.08	0.12		0.02				0.05		0.12
v/c Ratio	1.06	0.46	0.23	0.42	0.71	0.07	1.07	0.23		0.28	0.71	0.68
Uniform Delay, d1	39.5	22.6	20.6	20.9	29.2	23.7	37.0	22.8		28.9	35.3	35.1
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	59.0	0.8	1.0	1.0	3.0	0.3	54.8	0.1		0.6	3.7	6.4
Delay (s)	98.6	23.4	21.5	21.9	32.2	24.0	91.8	22.9		29.5	38.9	41.4
Level of Service	F	C	C	C	C	C	F	C		C	D	D
Approach Delay (s)		44.4			30.5			69.8			39.1	
Approach LOS		D			C			E			D	

Intersection Summary			
HCM Average Control Delay	45.1	HCM Level of Service	D
HCM Volume to Capacity ratio	0.85		
Actuated Cycle Length (s)	91.1	Sum of lost time (s)	20.0
Intersection Capacity Utilization	78.7%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

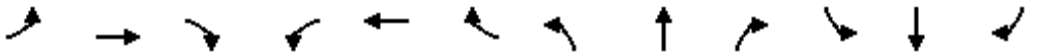


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	379	326	316	132	474	158	411	1463	116	147	1895	368
v/c Ratio	1.02	0.54	0.50	0.54	1.00	0.38	1.03	0.61	0.14	0.68	1.02	0.23
Control Delay	104.3	49.5	18.9	62.1	94.5	23.4	99.5	25.5	4.0	66.0	62.8	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	104.3	49.5	18.9	62.1	94.5	23.4	99.5	25.5	4.0	66.0	62.8	0.3
Queue Length 50th (ft)	~160	123	122	51	~196	67	~342	304	0	110	~552	0
Queue Length 95th (ft)	#260	172	185	85	#311	109	#541	371	34	176	#664	0
Internal Link Dist (ft)		4953			3290			3869			3711	
Turn Bay Length (ft)	500		500	500		500	500		500	500		500
Base Capacity (vph)	372	602	637	257	472	456	398	2388	805	266	1865	1583
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.02	0.54	0.50	0.51	1.00	0.35	1.03	0.61	0.14	0.55	1.02	0.23

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	360	310	300	125	450	150	390	1390	110	140	1800	350
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	4.0
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	1.00	0.91	1.00	1.00	0.91	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3433	3539	1583	3433	3539	1583	1770	5085	1583	1770	5085	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3433	3539	1583	3433	3539	1583	1770	5085	1583	1770	5085	1583
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	379	326	316	132	474	158	411	1463	116	147	1895	368
RTOR Reduction (vph)	0	0	12	0	0	8	0	0	61	0	0	0
Lane Group Flow (vph)	379	326	304	132	474	150	411	1463	55	147	1895	368
Turn Type	Prot		pm+ov	Prot		pm+ov	Prot		Perm	Prot		Free
Protected Phases	7	4	5	3	8	1	5	2		1	6	
Permitted Phases			4			8			2			Free
Actuated Green, G (s)	13.0	20.4	47.4	8.6	16.0	30.6	27.0	56.4	56.4	14.6	44.0	120.0
Effective Green, g (s)	13.0	20.4	47.4	8.6	16.0	30.6	27.0	56.4	56.4	14.6	44.0	120.0
Actuated g/C Ratio	0.11	0.17	0.39	0.07	0.13	0.26	0.22	0.47	0.47	0.12	0.37	1.00
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	372	602	625	246	472	404	398	2390	744	215	1865	1583
v/s Ratio Prot	c0.11	0.09	0.11	0.04	c0.13	0.05	c0.23	0.29		0.08	c0.37	
v/s Ratio Perm			0.08			0.05			0.03			0.23
v/c Ratio	1.02	0.54	0.49	0.54	1.00	0.37	1.03	0.61	0.07	0.68	1.02	0.23
Uniform Delay, d1	53.5	45.5	27.2	53.8	52.0	36.8	46.5	23.7	17.5	50.5	38.0	0.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	51.5	1.0	0.6	2.2	42.5	0.6	53.8	1.2	0.2	8.7	24.9	0.3
Delay (s)	105.0	46.5	27.8	56.0	94.5	37.4	100.3	24.8	17.6	59.2	62.9	0.3
Level of Service	F	D	C	E	F	D	F	C	B	E	E	A
Approach Delay (s)		62.4			76.0			40.0			53.1	
Approach LOS		E			E			D			D	

Intersection Summary			
HCM Average Control Delay	53.3	HCM Level of Service	D
HCM Volume to Capacity ratio	1.02		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	20.0
Intersection Capacity Utilization	95.8%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	316	2895	79	2053	368	105	105	184	158	53	579
v/c Ratio	0.79	1.07	1.04	0.87	0.40	1.04	0.34	0.53	0.40	0.13	1.11
Control Delay	75.5	72.0	177.2	39.1	3.4	162.6	55.5	29.7	61.0	44.8	105.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	75.5	72.0	177.2	39.1	3.4	162.6	55.5	29.7	61.0	44.8	105.2
Queue Length 50th (ft)	146	~1068	~78	604	0	~103	86	66	70	39	~439
Queue Length 95th (ft)	#215	#1149	#189	674	55	#228	145	147	107	78	#675
Internal Link Dist (ft)		2210		6487			770			1213	
Turn Bay Length (ft)	500		500		500	500		500	500		500
Base Capacity (vph)	398	2702	76	2361	932	101	306	346	392	413	520
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.79	1.07	1.04	0.87	0.39	1.04	0.34	0.53	0.40	0.13	1.11

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
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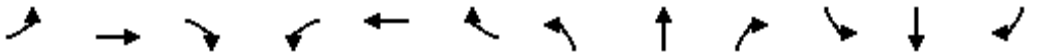
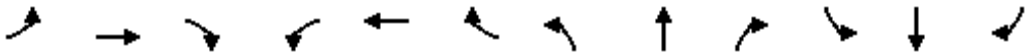
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	300	2565	185	75	1950	350	100	100	175	150	50	550
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lane Util. Factor	0.97	0.91		1.00	0.91	1.00	1.00	1.00	1.00	0.97	1.00	1.00
Frt	1.00	0.99		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3433	5034		1770	5085	1583	1770	1863	1583	3433	1863	1583
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3433	5034		1770	5085	1583	1770	1863	1583	3433	1863	1583
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	316	2700	195	79	2053	368	105	105	184	158	53	579
RTOR Reduction (vph)	0	6	0	0	0	198	0	0	86	0	0	170
Lane Group Flow (vph)	316	2889	0	79	2053	170	105	105	98	158	53	409
Turn Type	Prot			Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases						6			8			4
Actuated Green, G (s)	16.2	75.0		6.0	64.8	64.8	8.0	23.0	23.0	16.0	31.0	31.0
Effective Green, g (s)	16.2	75.0		6.0	64.8	64.8	8.0	23.0	23.0	16.0	31.0	31.0
Actuated g/C Ratio	0.12	0.54		0.04	0.46	0.46	0.06	0.16	0.16	0.11	0.22	0.22
Clearance Time (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	397	2697		76	2354	733	101	306	260	392	413	351
v/s Ratio Prot	0.09	c0.57		0.04	c0.40		c0.06	0.06		0.05	0.03	
v/s Ratio Perm						0.11			0.06			c0.26
v/c Ratio	0.80	1.07		1.04	0.87	0.23	1.04	0.34	0.38	0.40	0.13	1.17
Uniform Delay, d1	60.3	32.5		67.0	33.9	22.6	66.0	51.8	52.1	57.6	43.7	54.5
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	10.6	40.1		114.5	3.9	0.2	100.7	0.7	0.9	3.1	0.6	101.3
Delay (s)	70.9	72.6		181.5	37.7	22.8	166.7	52.5	53.0	60.6	44.3	155.8
Level of Service	E	E		F	D	C	F	D	D	E	D	F
Approach Delay (s)		72.5			40.1			83.2			129.3	
Approach LOS		E			D			F			F	

Intersection Summary			
HCM Average Control Delay	67.8	HCM Level of Service	E
HCM Volume to Capacity ratio	1.10		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	20.0
Intersection Capacity Utilization	89.8%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

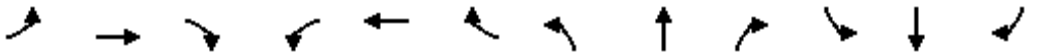


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	526	2095	421	447	1789	368	368	684	684	263	632	342
v/c Ratio	1.02	1.05	0.51	1.07	0.97	0.53	0.88	0.71	1.10	1.07	0.81	0.59
Control Delay	102.9	75.4	14.3	121.4	57.9	18.9	83.1	50.9	94.7	137.9	60.7	13.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	102.9	75.4	14.3	121.4	57.9	18.9	83.1	50.9	94.7	137.9	60.7	13.1
Queue Length 50th (ft)	~261	~758	133	~232	583	122	172	297	~517	~136	289	36
Queue Length 95th (ft)	#377	#851	188	#343	#693	222	#259	369	#763	#229	363	136
Internal Link Dist (ft)		6487			5030			3340			3476	
Turn Bay Length (ft)	500		500	500		500	500		500	500		500
Base Capacity (vph)	515	1998	822	417	1852	699	417	961	623	245	784	579
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.02	1.05	0.51	1.07	0.97	0.53	0.88	0.71	1.10	1.07	0.81	0.59

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	500	1990	400	425	1700	350	350	650	650	250	600	325
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lane Util. Factor	0.97	0.91	1.00	0.97	0.91	1.00	0.97	0.95	1.00	0.97	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3433	5085	1583	3433	5085	1583	3433	3539	1583	3433	3539	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3433	5085	1583	3433	5085	1583	3433	3539	1583	3433	3539	1583
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	526	2095	421	447	1789	368	368	684	684	263	632	342
RTOR Reduction (vph)	0	0	8	0	0	122	0	0	1	0	0	228
Lane Group Flow (vph)	526	2095	413	447	1789	246	368	684	683	263	632	114
Turn Type	Prot		pm+ov	Prot		Perm	Prot		pt+ov	Prot		Perm
Protected Phases	5	2	3	1	6		3	8	8 1	7	4	
Permitted Phases			2			6						4
Actuated Green, G (s)	21.0	55.0	72.0	17.0	51.0	51.0	17.0	38.0	55.0	10.0	31.0	31.0
Effective Green, g (s)	21.0	55.0	72.0	17.0	51.0	51.0	17.0	38.0	55.0	10.0	31.0	31.0
Actuated g/C Ratio	0.15	0.39	0.51	0.12	0.36	0.36	0.12	0.27	0.39	0.07	0.22	0.22
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	515	1998	814	417	1852	577	417	961	622	245	784	351
v/s Ratio Prot	0.15	c0.41	0.06	0.13	c0.35		c0.11	0.19	c0.43	0.08	0.18	
v/s Ratio Perm			0.20			0.16						0.07
v/c Ratio	1.02	1.05	0.51	1.07	0.97	0.43	0.88	0.71	1.10	1.07	0.81	0.32
Uniform Delay, d1	59.5	42.5	22.3	61.5	43.6	33.5	60.5	46.1	42.5	65.0	51.7	45.7
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	45.2	34.3	0.5	64.6	13.7	0.5	19.2	4.5	65.7	78.4	8.7	2.4
Delay (s)	104.7	76.8	22.8	126.1	57.3	34.0	79.7	50.5	108.2	143.4	60.3	48.2
Level of Service	F	E	C	F	E	C	E	D	F	F	E	D
Approach Delay (s)		74.1			65.8			79.5			74.6	
Approach LOS		E			E			E			E	

Intersection Summary			
HCM Average Control Delay	72.8	HCM Level of Service	E
HCM Volume to Capacity ratio	1.03		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	98.3%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

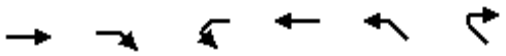
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Group Flow (vph)	2253	789	158	2079	526	463
v/c Ratio	0.91	0.67	0.76	0.67	0.63	0.98
Control Delay	24.0	4.3	33.9	10.1	27.7	60.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.0	4.3	33.9	10.1	27.7	60.1
Queue Length 50th (ft)	309	0	25	187	104	153
Queue Length 95th (ft)	#404	53	#78	234	152	#337
Internal Link Dist (ft)	5030			5203	3550	
Turn Bay Length (ft)		500	500			
Base Capacity (vph)	2470	1175	208	3124	834	472
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.91	0.67	0.76	0.67	0.63	0.98

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	2140	750	150	1975	500	440
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Lane Util. Factor	0.91	1.00	1.00	0.91	0.97	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	5085	1583	1770	5085	3433	1583
Flt Permitted	1.00	1.00	0.10	1.00	0.95	1.00
Satd. Flow (perm)	5085	1583	191	5085	3433	1583
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	2253	789	158	2079	526	463
RTOR Reduction (vph)	0	406	0	0	0	88
Lane Group Flow (vph)	2253	383	158	2079	526	375
Turn Type		Perm	pm+pt			Perm
Protected Phases	2		1	6	8	
Permitted Phases		2	6			8
Actuated Green, G (s)	34.0	34.0	43.0	43.0	17.0	17.0
Effective Green, g (s)	34.0	34.0	43.0	43.0	17.0	17.0
Actuated g/C Ratio	0.49	0.49	0.61	0.61	0.24	0.24
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	2470	769	208	3124	834	384
v/s Ratio Prot	c0.44		0.04	c0.41	0.15	
v/s Ratio Perm		0.24	0.42			c0.24
v/c Ratio	0.91	0.50	0.76	0.67	0.63	0.98
Uniform Delay, d1	16.6	12.2	13.8	8.8	23.7	26.3
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	6.5	2.3	14.7	1.1	1.6	39.4
Delay (s)	23.1	14.5	28.5	9.9	25.3	65.7
Level of Service	C	B	C	A	C	E
Approach Delay (s)	20.9			11.3	44.2	
Approach LOS	C			B	D	

Intersection Summary			
HCM Average Control Delay	21.1	HCM Level of Service	C
HCM Volume to Capacity ratio	0.94		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	76.9%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



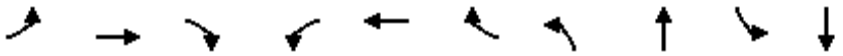
Lane Group	EBT	EBR	WBL	WBT	NWL	NWR
Lane Group Flow (vph)	2126	589	132	1689	547	105
v/c Ratio	0.91	0.56	0.81	0.59	0.95	0.18
Control Delay	29.7	3.7	49.0	14.1	57.1	6.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	29.7	3.7	49.0	14.1	57.1	6.2
Queue Length 50th (ft)	400	0	34	219	297	3
Queue Length 95th (ft)	#487	56	#102	263	#497	37
Internal Link Dist (ft)	5203			3469	3369	
Turn Bay Length (ft)		500	500			500
Base Capacity (vph)	2340	1047	163	2853	596	598
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.91	0.56	0.81	0.59	0.92	0.18

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBT	EBR	WBL	WBT	NWL	NWR
Lane Configurations						
Volume (vph)	2020	560	125	1605	520	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Lane Util. Factor	0.91	1.00	1.00	0.91	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	5085	1583	1770	5085	1770	1583
Flt Permitted	1.00	1.00	0.09	1.00	0.95	1.00
Satd. Flow (perm)	5085	1583	162	5085	1770	1583
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	2126	589	132	1689	547	105
RTOR Reduction (vph)	0	318	0	0	0	66
Lane Group Flow (vph)	2126	271	132	1689	547	39
Turn Type		Perm	pm+pt			Perm
Protected Phases	2		1	6	8	
Permitted Phases		2	6			8
Actuated Green, G (s)	41.0	41.0	50.0	50.0	29.1	29.1
Effective Green, g (s)	41.0	41.0	50.0	50.0	29.1	29.1
Actuated g/C Ratio	0.46	0.46	0.56	0.56	0.33	0.33
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	2340	728	163	2854	578	517
v/s Ratio Prot	c0.42		0.04	c0.33	c0.31	
v/s Ratio Perm		0.17	0.42			0.02
v/c Ratio	0.91	0.37	0.81	0.59	0.95	0.08
Uniform Delay, d1	22.3	15.7	18.3	12.8	29.2	20.7
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	6.6	1.5	24.8	0.9	24.6	0.1
Delay (s)	28.9	17.1	43.1	13.8	53.8	20.8
Level of Service	C	B	D	B	D	C
Approach Delay (s)	26.3			15.9	48.5	
Approach LOS	C			B	D	

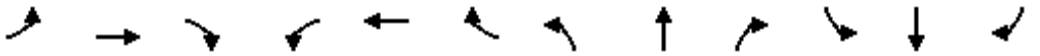
Intersection Summary			
HCM Average Control Delay	25.5	HCM Level of Service	C
HCM Volume to Capacity ratio	0.93		
Actuated Cycle Length (s)	89.1	Sum of lost time (s)	15.0
Intersection Capacity Utilization	87.3%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	368	1642	221	105	1395	184	105	684	253	689
v/c Ratio	0.89	0.87	0.30	0.89	0.86	0.29	0.57	0.89	0.92	0.64
Control Delay	59.0	27.9	3.8	96.8	30.6	4.6	48.0	43.0	74.4	18.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	59.0	27.9	3.8	96.8	30.6	4.6	48.0	43.0	74.4	18.0
Queue Length 50th (ft)	88	253	0	50	220	0	25	152	61	89
Queue Length 95th (ft)	#163	315	40	#139	#280	41	#55	#251	#128	147
Internal Link Dist (ft)		3469			13637			5892		5302
Turn Bay Length (ft)	500		500	500		500	500		500	
Base Capacity (vph)	412	1898	729	118	1627	632	183	766	275	1073
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.89	0.87	0.30	0.89	0.86	0.29	0.57	0.89	0.92	0.64

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	350	1560	210	100	1325	175	100	500	150	240	350	305
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Lane Util. Factor	0.97	0.91	1.00	1.00	0.91	1.00	0.97	0.95		0.97	0.95	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.97		1.00	0.93	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	3433	5085	1583	1770	5085	1583	3433	3417		3433	3292	
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	3433	5085	1583	1770	5085	1583	3433	3417		3433	3292	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	368	1642	221	105	1395	184	105	526	158	253	368	321
RTOR Reduction (vph)	0	0	141	0	0	128	0	37	0	0	205	0
Lane Group Flow (vph)	368	1642	80	105	1395	56	105	647	0	253	484	0
Turn Type	Prot		Perm	Prot		Perm	Prot			Prot		
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6						
Actuated Green, G (s)	9.0	27.0	27.0	5.0	23.0	23.0	3.2	17.0		6.0	19.8	
Effective Green, g (s)	9.0	27.0	27.0	5.0	23.0	23.0	3.2	17.0		6.0	19.8	
Actuated g/C Ratio	0.12	0.36	0.36	0.07	0.31	0.31	0.04	0.23		0.08	0.26	
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	412	1831	570	118	1559	485	146	775		275	869	
v/s Ratio Prot	0.11	c0.32		0.06	c0.27		0.03	c0.19		c0.07	0.15	
v/s Ratio Perm			0.05			0.04						
v/c Ratio	0.89	0.90	0.14	0.89	0.89	0.12	0.72	0.83		0.92	0.56	
Uniform Delay, d1	32.5	22.7	16.2	34.7	24.8	18.7	35.5	27.7		34.3	23.8	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	21.0	7.4	0.5	49.7	8.3	0.5	15.6	10.3		33.8	2.6	
Delay (s)	53.5	30.1	16.7	84.4	33.2	19.2	51.0	38.0		68.1	26.4	
Level of Service	D	C	B	F	C	B	D	D		E	C	
Approach Delay (s)		32.6			34.9			39.7			37.6	
Approach LOS		C			C			D			D	

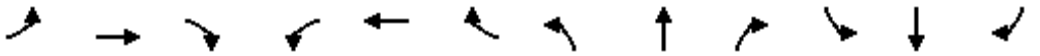
Intersection Summary					
HCM Average Control Delay	35.1	HCM Level of Service		D	
HCM Volume to Capacity ratio	0.84				
Actuated Cycle Length (s)	75.0	Sum of lost time (s)		15.0	
Intersection Capacity Utilization	77.8%	ICU Level of Service		D	
Analysis Period (min)	15				
c Critical Lane Group					

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	337	1032	684	111	837	74	368	558	105	211	479
v/c Ratio	1.02	0.63	0.79	0.49	0.64	0.16	0.95	0.59	0.33	0.28	0.85
Control Delay	86.5	21.4	14.2	28.0	23.7	6.7	66.6	21.7	14.8	21.3	25.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	86.5	21.4	14.2	28.0	23.7	6.7	66.6	21.7	14.8	21.3	25.5
Queue Length 50th (ft)	~77	135	50	35	109	0	76	92	24	35	63
Queue Length 95th (ft)	#152	179	#251	#74	148	27	#156	139	51	61	#214
Internal Link Dist (ft)		13637			4953			3336		3754	
Turn Bay Length (ft)	500		500	500		500	500		500		500
Base Capacity (vph)	332	1642	867	225	1313	463	388	994	319	913	625
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.02	0.63	0.79	0.49	0.64	0.16	0.95	0.56	0.33	0.23	0.77

Intersection Summary

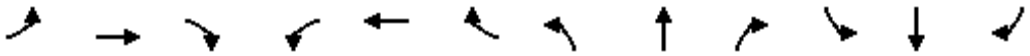
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	320	980	650	105	795	70	350	420	110	100	200	455
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0
Lane Util. Factor	0.97	0.91	1.00	1.00	0.91	1.00	0.97	0.95		1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.97		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3433	5085	1583	1770	5085	1583	3433	3429		1770	3539	1583
Flt Permitted	0.95	1.00	1.00	0.31	1.00	1.00	0.95	1.00		0.38	1.00	1.00
Satd. Flow (perm)	3433	5085	1583	573	5085	1583	3433	3429		707	3539	1583
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	337	1032	684	111	837	74	368	442	116	105	211	479
RTOR Reduction (vph)	0	0	361	0	0	56	0	36	0	0	0	228
Lane Group Flow (vph)	337	1032	323	111	837	19	368	522	0	105	211	251
Turn Type	Prot		Perm	pm+pt		Perm	Prot			pm+pt		Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2	6		6				4		4
Actuated Green, G (s)	7.1	20.1	20.1	16.1	16.1	16.1	7.0	16.5		18.9	14.2	14.2
Effective Green, g (s)	7.1	20.1	20.1	16.1	16.1	16.1	7.0	16.5		18.9	14.2	14.2
Actuated g/C Ratio	0.11	0.31	0.31	0.25	0.25	0.25	0.11	0.26		0.29	0.22	0.22
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	378	1587	494	201	1271	396	373	879		285	780	349
v/s Ratio Prot	c0.10	0.20		0.03	c0.16		c0.11	0.15		0.03	0.06	
v/s Ratio Perm			0.20	0.11		0.01				0.08		c0.16
v/c Ratio	0.89	0.65	0.65	0.55	0.66	0.05	0.99	0.59		0.37	0.27	0.72
Uniform Delay, d1	28.3	19.1	19.1	20.3	21.7	18.3	28.7	21.0		17.1	20.8	23.3
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	22.2	2.1	6.6	3.3	2.7	0.2	42.6	1.1		0.8	0.2	7.1
Delay (s)	50.4	21.2	25.7	23.5	24.4	18.5	71.3	22.1		17.9	21.0	30.4
Level of Service	D	C	C	C	C	B	E	C		B	C	C
Approach Delay (s)		27.5			23.9			41.6			26.3	
Approach LOS		C			C			D			C	

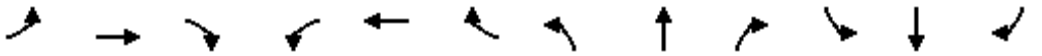
Intersection Summary			
HCM Average Control Delay	29.3	HCM Level of Service	C
HCM Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	64.4	Sum of lost time (s)	20.0
Intersection Capacity Utilization	66.0%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	368	474	411	116	326	147	316	1895	132	158	1463	379
v/c Ratio	0.93	0.61	0.60	0.47	0.62	0.36	0.91	0.93	0.18	0.86	0.93	0.51
Control Delay	71.4	35.4	15.7	46.0	40.0	17.6	67.7	34.6	4.1	79.7	41.1	5.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	71.4	35.4	15.7	46.0	40.0	17.6	67.7	34.6	4.1	79.7	41.1	5.8
Queue Length 50th (ft)	105	128	111	31	89	43	172	355	0	87	283	4
Queue Length 95th (ft)	#197	179	177	60	132	77	#339	#492	34	#205	#399	70
Internal Link Dist (ft)		4953			3290			3869			3711	
Turn Bay Length (ft)	500		500	500		500	500		500	500		500
Base Capacity (vph)	395	852	688	248	651	403	346	2046	716	183	1578	745
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.93	0.56	0.60	0.47	0.50	0.36	0.91	0.93	0.18	0.86	0.93	0.51

Intersection Summary

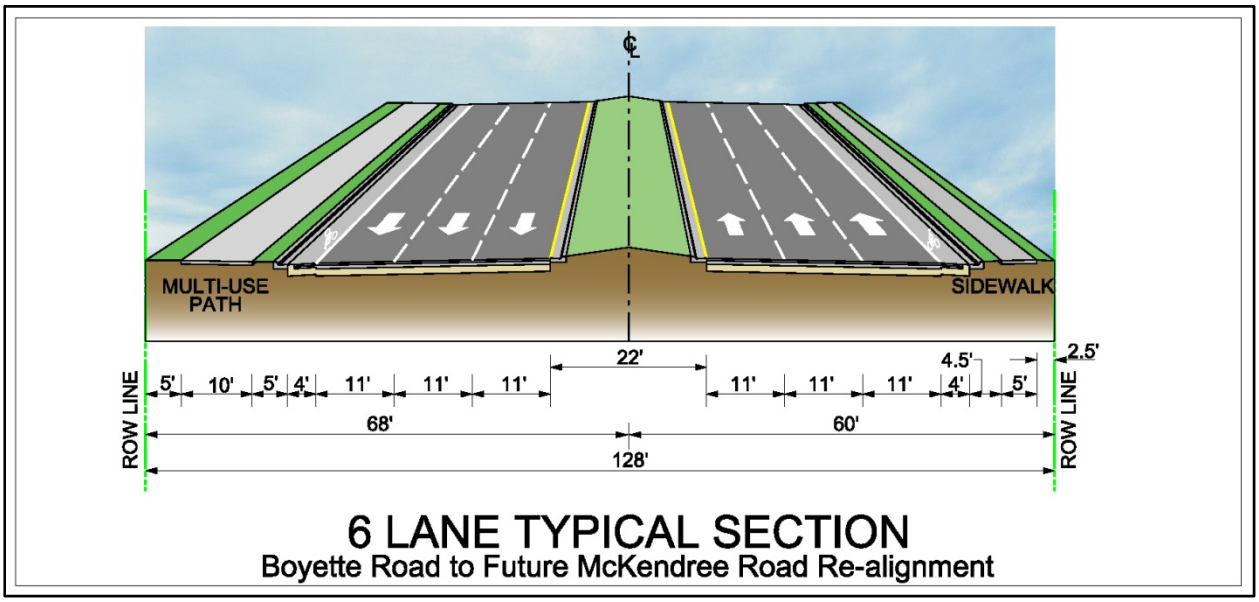
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



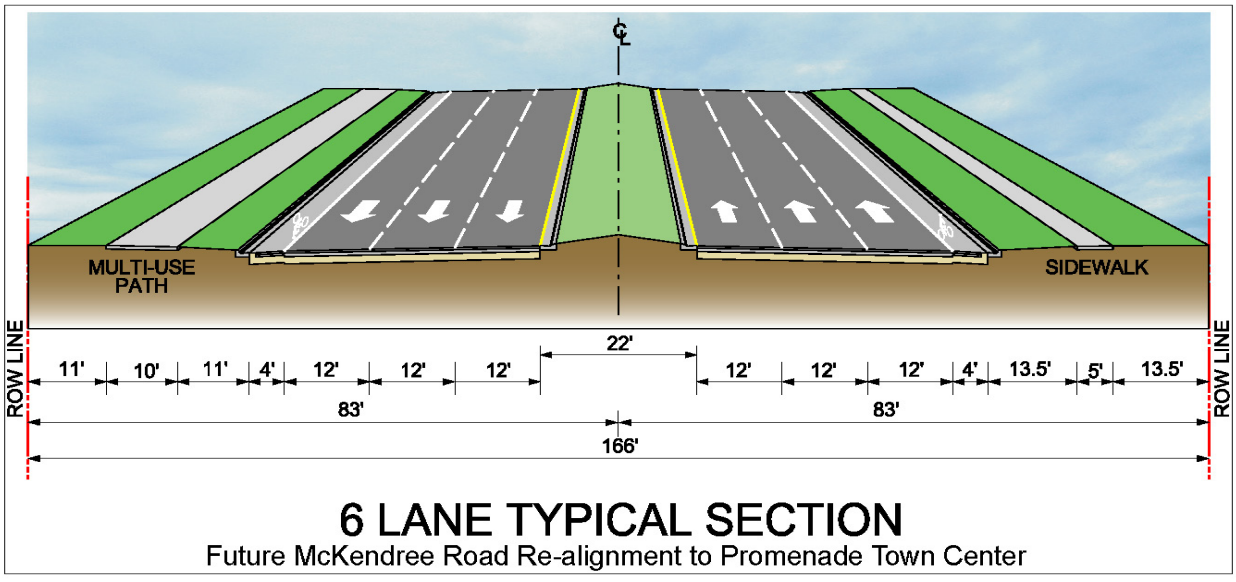
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	350	450	390	110	310	140	300	1800	125	150	1390	360
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	1.00	0.91	1.00	1.00	0.91	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3433	3539	1583	3433	3539	1583	1770	5085	1583	1770	5085	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3433	3539	1583	3433	3539	1583	1770	5085	1583	1770	5085	1583
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	368	474	411	116	326	147	316	1895	132	158	1463	379
RTOR Reduction (vph)	0	0	14	0	0	3	0	0	80	0	0	255
Lane Group Flow (vph)	368	474	397	116	326	144	316	1895	53	158	1463	124
Turn Type	Prot		pm+ov	Prot		pm+ov	Prot		Perm	Prot		Perm
Protected Phases	7	4	5	3	8	1	5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	10.0	19.0	36.0	5.0	14.0	23.0	17.0	35.0	35.0	9.0	27.0	27.0
Effective Green, g (s)	10.0	19.0	36.0	5.0	14.0	23.0	17.0	35.0	35.0	9.0	27.0	27.0
Actuated g/C Ratio	0.11	0.22	0.41	0.06	0.16	0.26	0.19	0.40	0.40	0.10	0.31	0.31
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	390	764	648	195	563	414	342	2022	630	181	1560	486
v/s Ratio Prot	c0.11	c0.13	0.12	0.03	c0.09	0.04	0.18	c0.37		0.09	c0.29	
v/s Ratio Perm			0.13			0.06			0.03			0.08
v/c Ratio	0.94	0.62	0.61	0.59	0.58	0.35	0.92	0.94	0.08	0.87	0.94	0.25
Uniform Delay, d1	38.7	31.2	20.5	40.5	34.3	26.4	34.9	25.4	16.5	38.9	29.7	22.9
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	31.3	1.6	1.7	4.8	1.4	0.5	29.8	9.9	0.3	33.9	12.1	1.3
Delay (s)	70.0	32.8	22.2	45.3	35.7	26.9	64.7	35.3	16.8	72.9	41.8	24.2
Level of Service	E	C	C	D	D	C	E	D	B	E	D	C
Approach Delay (s)		40.3			35.4			38.2			40.9	
Approach LOS		D			D			D			D	

Intersection Summary			
HCM Average Control Delay	39.2	HCM Level of Service	D
HCM Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	88.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	78.7%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

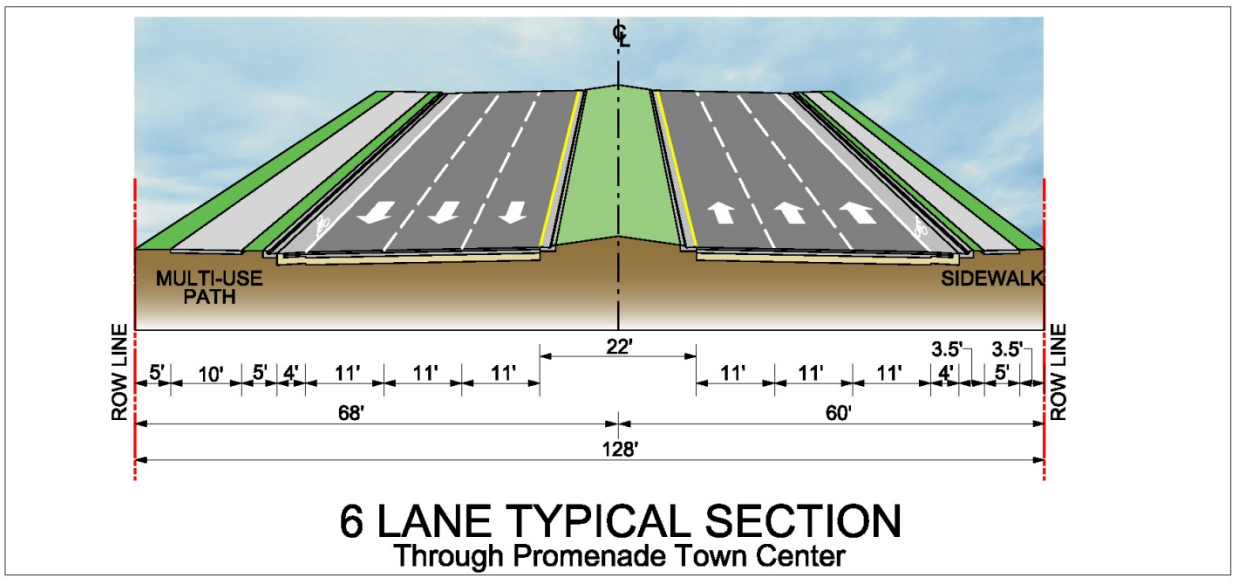
TYPICAL SECTION FROM BOYETTE ROAD TO THE FUTURE MCKENDREE ROAD RE-ALIGNMENT



TYPICAL SECTIOIN FROM THE FUTURE MCKENDREE ROAD RE-ALIGNMENT TO PROMENDADE TOWN CENTER

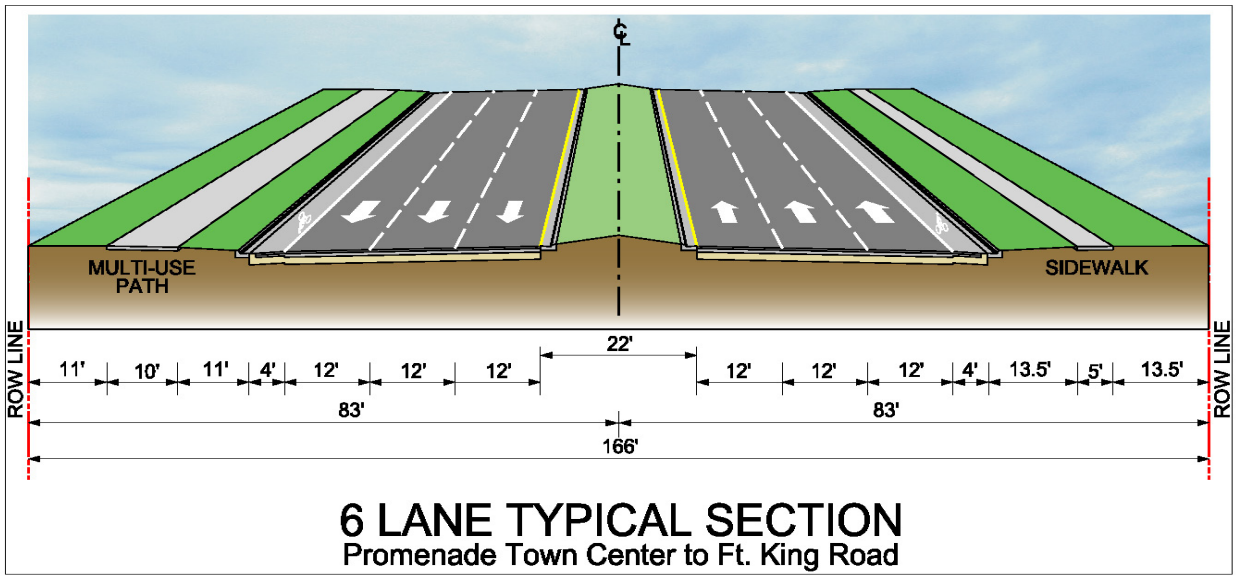


TYPICAL SECTION THROUGH PROMENDATE TOWN CENTER



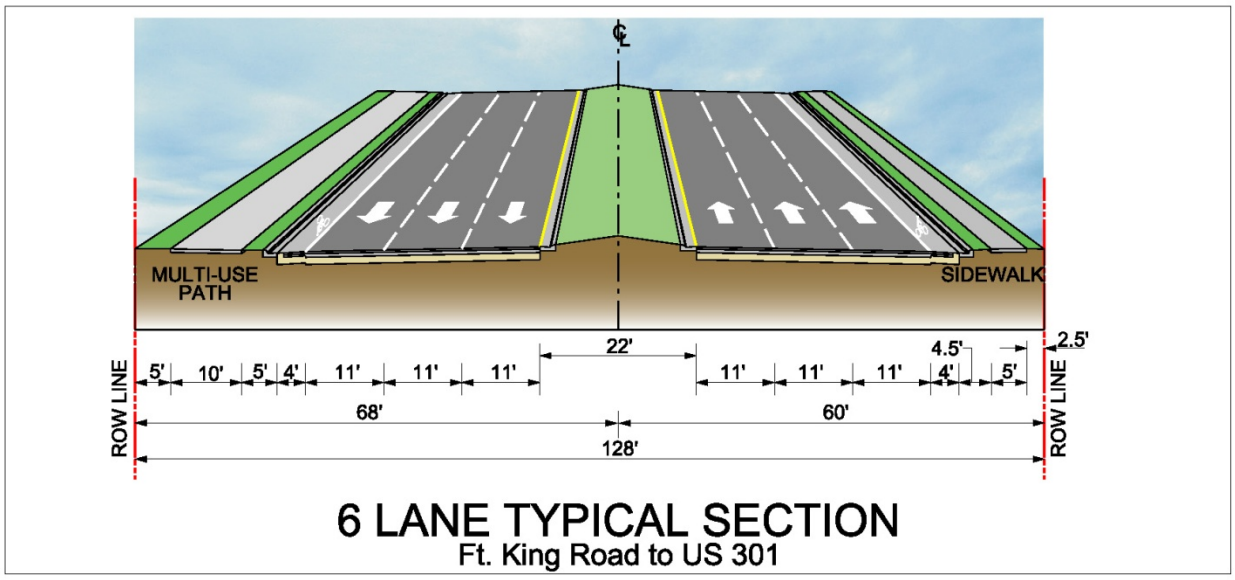
6 LANE TYPICAL SECTION
Through Promenade Town Center

TYPICAL SECTION FROM PROMENADE TOWN CENTER TO FT. KING ROAD



6 LANE TYPICAL SECTION
Promenade Town Center to Ft. King Road

TYPICAL SECTION FROM FT. KING ROAD TO US 301



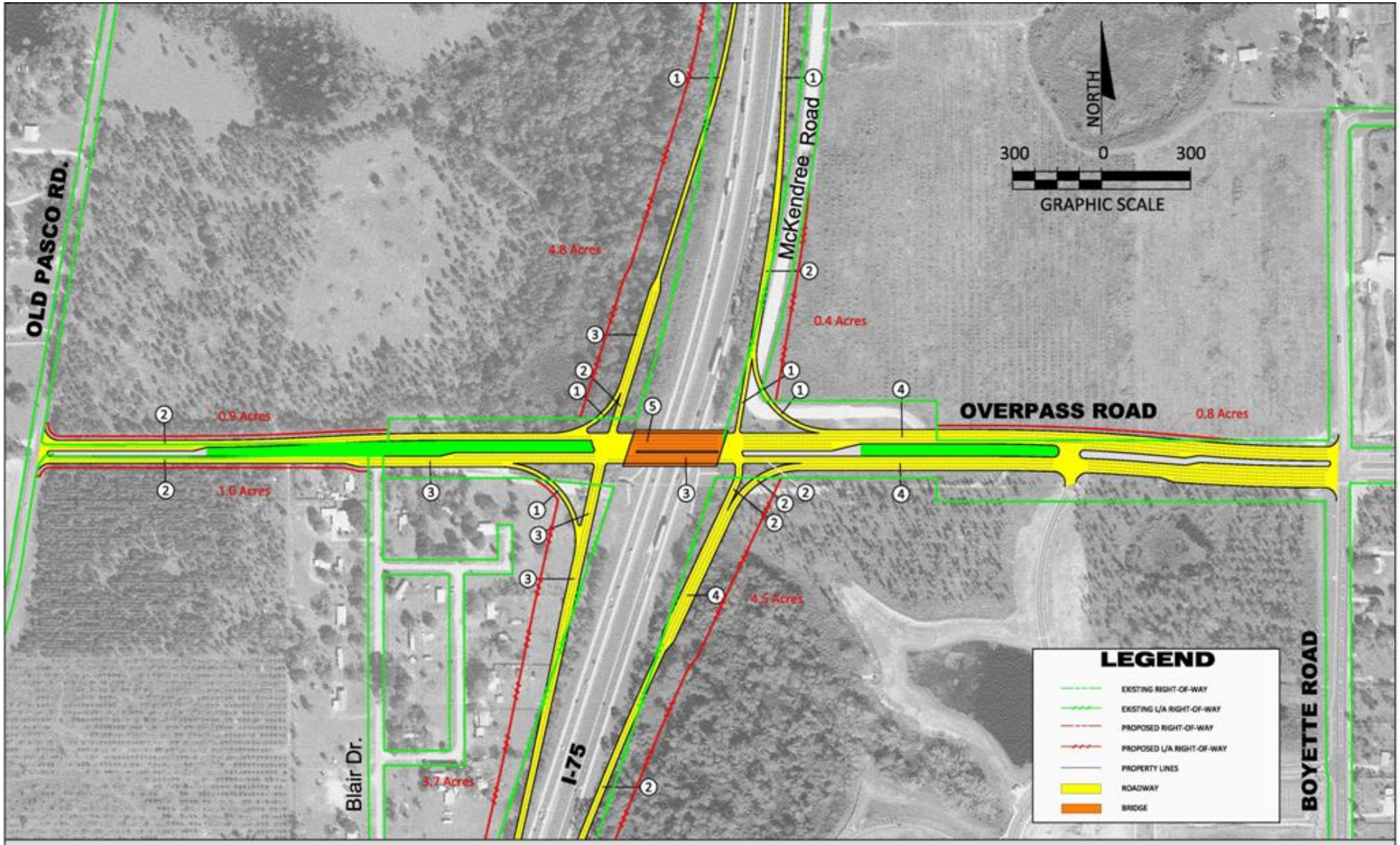
6 LANE TYPICAL SECTION

Ft. King Road to US 301

APPENDIX K

Drainage Calculations

Diamond Interchange Alternative Calculations



REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

URS
URS Corporation Southern
7650 West Courtney
Campbell Causeway
Tampa, FL 33607-1462
No. 00000002

I-75 and Overpass Road
Preliminary Interchange Justification Report
Pasco County

Preliminary Diamond Interchange Configuration

Figure
A-1

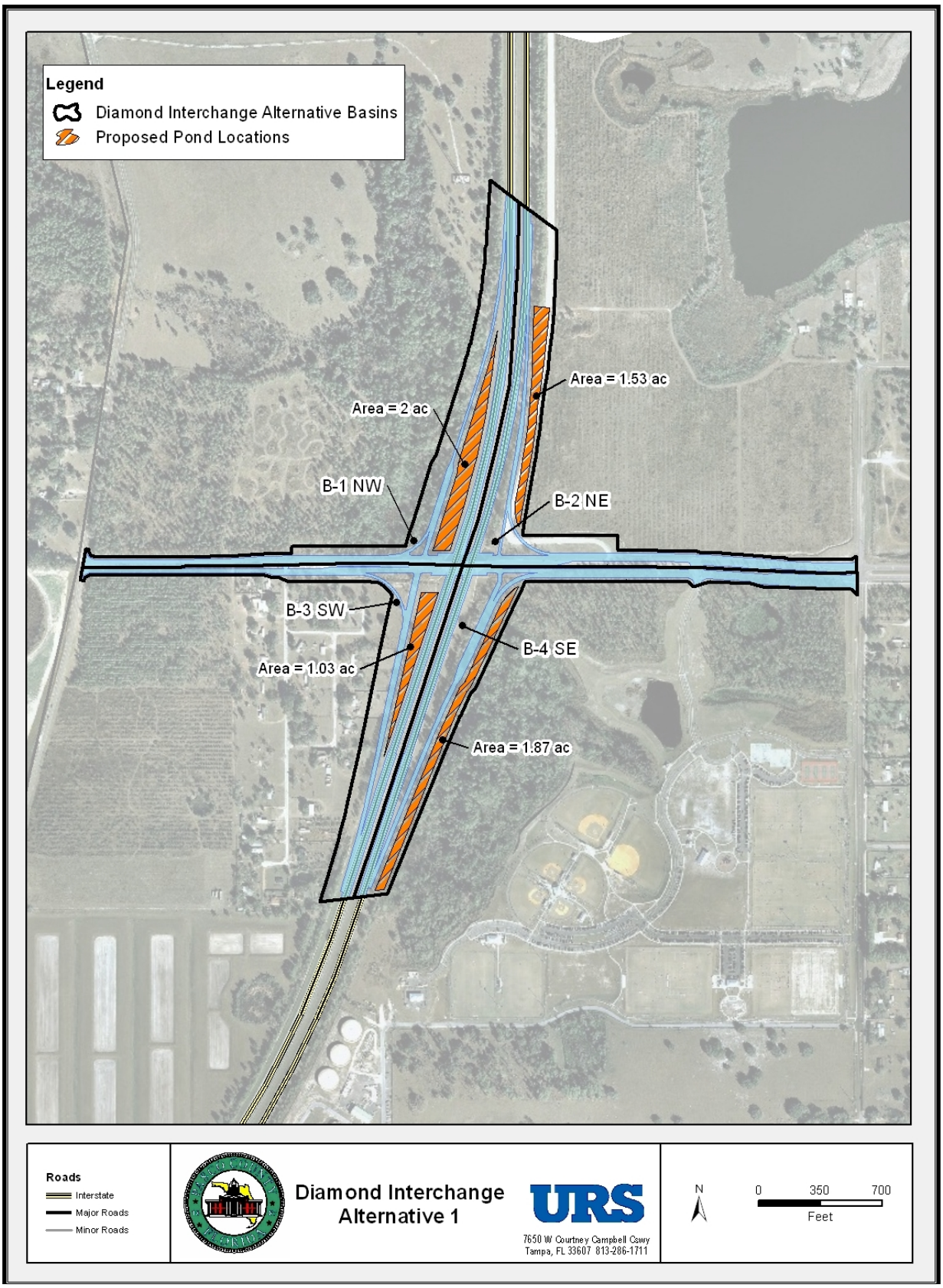


Figure A-2: Alternative 1 Diamond Interchange Proposed Pond Locations

Table A-1: Required Pond Areas Alternative 1 - Diamond Interchange Basin B-1 NW

SCS Runoff Attenuation Volume						
Existing Conditions						
Basin	**Total Area (ac)**	**CN**	**100 Yr/24 Hr Rainfall Depth P (in)**	**S=(100/CN)-10 (in)**	**100 Yr/24 Hr Runoff $Q=(P-0.2S)^2/(P+0.8S)$ (in)**	**V=Q*A (ac-ft)**
B-1 NW	16.2	83	12	2.048	9.850	13.30
Proposed Conditions						
B-1 NW	16.2	85	12	1.765	10.115	13.65
					Difference (ac-ft)	0.36
					Water Quality Treatment Storage Volume (ac-ft)	1.35
					TOTAL REQUIRED STORAGE VOLUME (ac-ft)	**1.71**
					TOTAL PROVIDED STORAGE VOLUME (ac-ft)	**3.51**

INPUT INFO:

A = 2.00 ac A = Area at Top of Pond

P = 2674 feet P = Perimeter at Top of Pond

E_1-E_2 = 2 feet E_1-E_2 = Pond Depth

H = 0.1 feet H = Stage Increment

Table A-2: Pond Sizing Calculations Alternative 1 - Diamond Interchange Basin B-1 NW

Stage (ft)	Area (ac)	Incremental Volume (ac-ft)	Cumulative Volume (ac-ft)
83.00	1.509	0.000	0.000
83.10	1.533	0.152	0.152
83.20	1.558	0.155	0.307
83.30	1.583	0.157	0.464
83.40	1.607	0.159	0.623
83.50	1.632	0.162	0.785
83.60	1.656	0.164	0.950
83.70	1.681	0.167	1.116
83.80	1.705	0.169	1.286
83.90	1.730	0.172	1.457
84.00	1.754	0.174	1.632
84.10	1.779	0.177	1.808
84.20	1.804	0.179	1.987
84.30	1.828	0.182	2.169
84.40	1.853	0.184	2.353
84.50	1.877	0.186	2.540
84.60	1.902	0.189	2.729
84.70	1.926	0.191	2.920
84.80	1.951	0.194	3.114
84.90	1.975	0.196	3.310
85.00	2.000	0.199	3.509

Table A-3: Required Pond Areas Alternative 1 - Diamond Interchange Basin B-2 NE

SCS Runoff Attenuation Volume						
Existing Conditions						
Basin	**Total Area (ac)**	**CN**	**100 Yr/24 Hr Rainfall Depth P (in)**	**S=(100/CN)-10 (in)**	**100 Yr/24 Hr Runoff $Q=(P-0.2S)^2/(P+0.8S)$ (in)**	**V=Q*A (ac-ft)**
B-2 NE	15.5	55	12	8.182	5.791	7.48
Proposed Conditions						
B-2 NE	15.5	67	12	4.925	7.611	9.86
					Difference (ac-ft)	2.38
					Water Quality Treatment Storage Volume (ac-ft)	1.30
					TOTAL REQUIRED STORAGE VOLUME (ac-ft)	**3.67**
					TOTAL PROVIDED STORAGE VOLUME (ac-ft)	**4.21**

INPUT INFO:

A = 1.530 ac A = Area at Top of Pond

P = 2602 feet P = Perimeter at Top of Pond

E_1-E_2= 4 feet E_1-E_2 = Pond Depth

H = 0.1 feet H = Stage Increment

Table A-4: Pond Sizing Calculations Alternative 1 - Diamond Interchange Basin B-2 NE

Stage (ft)	Area (ac)	Incremental Volume (ac-ft)	Cumulative Volume (ac-ft)
94.00	0.574	0.000	0.000
94.20	0.622	0.120	0.120
94.40	0.670	0.129	0.249
94.60	0.718	0.139	0.388
94.80	0.765	0.148	0.536
95.00	0.813	0.158	0.694
95.20	0.861	0.167	0.861
95.40	0.909	0.177	1.038
95.60	0.957	0.187	1.225
95.80	1.004	0.196	1.421
96.00	1.052	0.206	1.626
96.20	1.100	0.215	1.842
96.40	1.148	0.225	2.066
96.60	1.195	0.234	2.301
96.80	1.243	0.244	2.545
97.00	1.291	0.253	2.798
97.20	1.339	0.263	3.061
97.40	1.387	0.273	3.334
97.60	1.434	0.282	3.616
97.80	1.482	0.292	3.907
98.00	1.530	0.301	4.209

Table A-5: Required Pond Areas Alternative 1 - Diamond Interchange Basin B-3 SE

SCS Runoff Attenuation Volume						
Existing Conditions						
Basin	**Total Area (ac)**	**CN**	**100 Yr/24 Hr Rainfall Depth P (in)**	**S=(100/CN)-10 (in)**	**100 Yr/24 Hr Runoff $Q=(P-0.2S)^2/(P+0.8S)$ (in)**	**V=Q*A (ac-ft)**
B-3 SE	14.4	83	12	2.048	9.850	11.82
Proposed Conditions						
B-3 SE	14.4	88	12	1.364	10.506	12.59
					Difference (ac-ft)	0.77
					Water Quality Treatment Storage Volume (ac-ft)	1.20
					TOTAL REQUIRED STORAGE VOLUME (ac-ft)	**1.97**
					TOTAL PROVIDED STORAGE VOLUME (ac-ft)	**2.25**

INPUT INFO:

A = 1.030 ac A = Area at Top of Pond

P = 2034 feet P = Perimeter at Top of Pond

E_1-E_2 = 3 feet E_1-E_2 = Pond Depth

H = 0.2 feet H = Stage Increment

Table A-6: Pond Sizing Calculations Alternative 1 - Diamond Interchange Basin B-3 SE

Stage (ft)	Area (ac)	Incremental Volume (ac-ft)	Cumulative Volume (ac-ft)
92.00	0.470	0.000	0.000
92.20	0.507	0.098	0.098
92.40	0.544	0.105	0.203
92.60	0.582	0.113	0.315
92.80	0.619	0.120	0.436
93.00	0.656	0.128	0.563
93.20	0.694	0.135	0.698
93.40	0.731	0.142	0.841
93.60	0.769	0.150	0.991
93.80	0.806	0.157	1.148
94.00	0.843	0.165	1.313
94.20	0.881	0.172	1.485
94.40	0.918	0.180	1.665
94.60	0.955	0.187	1.852
94.80	0.993	0.195	2.047
95.00	1.030	0.202	2.250

Table A-7: Required Pond Areas Alternative 1 - Diamond Interchange Basin B-4 SW

SCS Runoff Attenuation Volume						
Existing Conditions						
Basin	**Total Area (ac)**	**CN**	**100 Yr/24 Hr Rainfall Depth P (in)**	**S=(100/CN)-10 (in)**	**100 Yr/24 Hr Runoff $Q=(P-0.2S)^2/(P+0.8S)$ (in)**	**V=Q*A (ac-ft)**
B-4 SW	15.3	79	12	2.658	9.310	11.87
Proposed Conditions						
B-4 SW	15.3	89	12	1.236	10.634	13.73
					Difference (ac-ft)	1.70
					Water Quality Treatment Storage Volume (ac-ft)	1.28
					TOTAL REQUIRED STORAGE VOLUME (ac-ft)	**2.97**
					TOTAL PROVIDED STORAGE VOLUME (ac-ft)	**4.65**

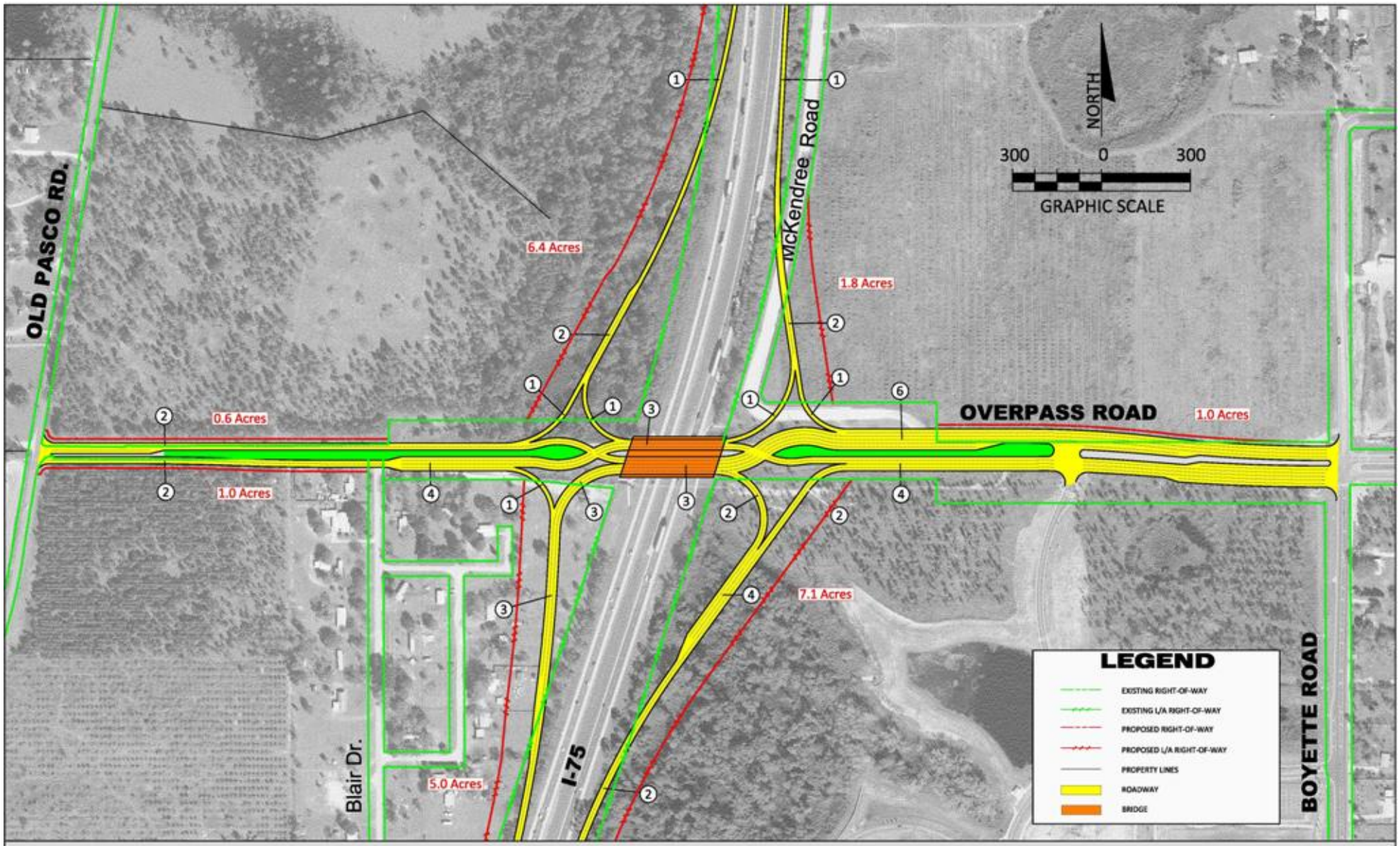
INPUT INFO:

A = 1.030 ac A = Area at Top of Pond
P = 2034 feet P = Perimeter at Top of Pond
E_1-E_2 = 3 feet E_1-E_2 = Pond Depth
H = 0.2 feet H = Stage Increment

Table A-8: Pond Sizing Calculations Alternative 1 - Diamond Interchange Basin B-4 SW

Stage (ft)	Area (ac)	Incremental Volume (ac-ft)	Cumulative Volume (ac-ft)
89.00	0.457	0.000	0.000
89.20	0.528	0.098	0.098
89.40	0.598	0.113	0.211
89.60	0.669	0.127	0.338
89.80	0.740	0.141	0.479
90.00	0.810	0.155	0.634
90.20	0.881	0.169	0.803
90.40	0.952	0.183	0.986
90.60	1.022	0.197	1.183
90.80	1.093	0.212	1.395
91.00	1.163	0.226	1.620
91.20	1.234	0.240	1.860
91.40	1.305	0.254	2.114
91.60	1.375	0.268	2.382
91.80	1.446	0.282	2.664
92.00	1.517	0.296	2.961
92.20	1.587	0.310	3.271
92.40	1.658	0.325	3.596
92.60	1.729	0.339	3.934
92.80	1.799	0.353	4.287
93.00	1.870	0.367	4.654

Diverging Diamond Interchange (DDI) Alternative Calculations



REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

URS Corporation Southern
7650 West Courtney
Campbell Causeway
Tampa, FL 33607-1462
No. 00000002

I-75 and Overpass Road
Preliminary Interchange Justification Report
Pasco County

Preliminary Diverging Diamond Interchange Configuration

Figure
B-1

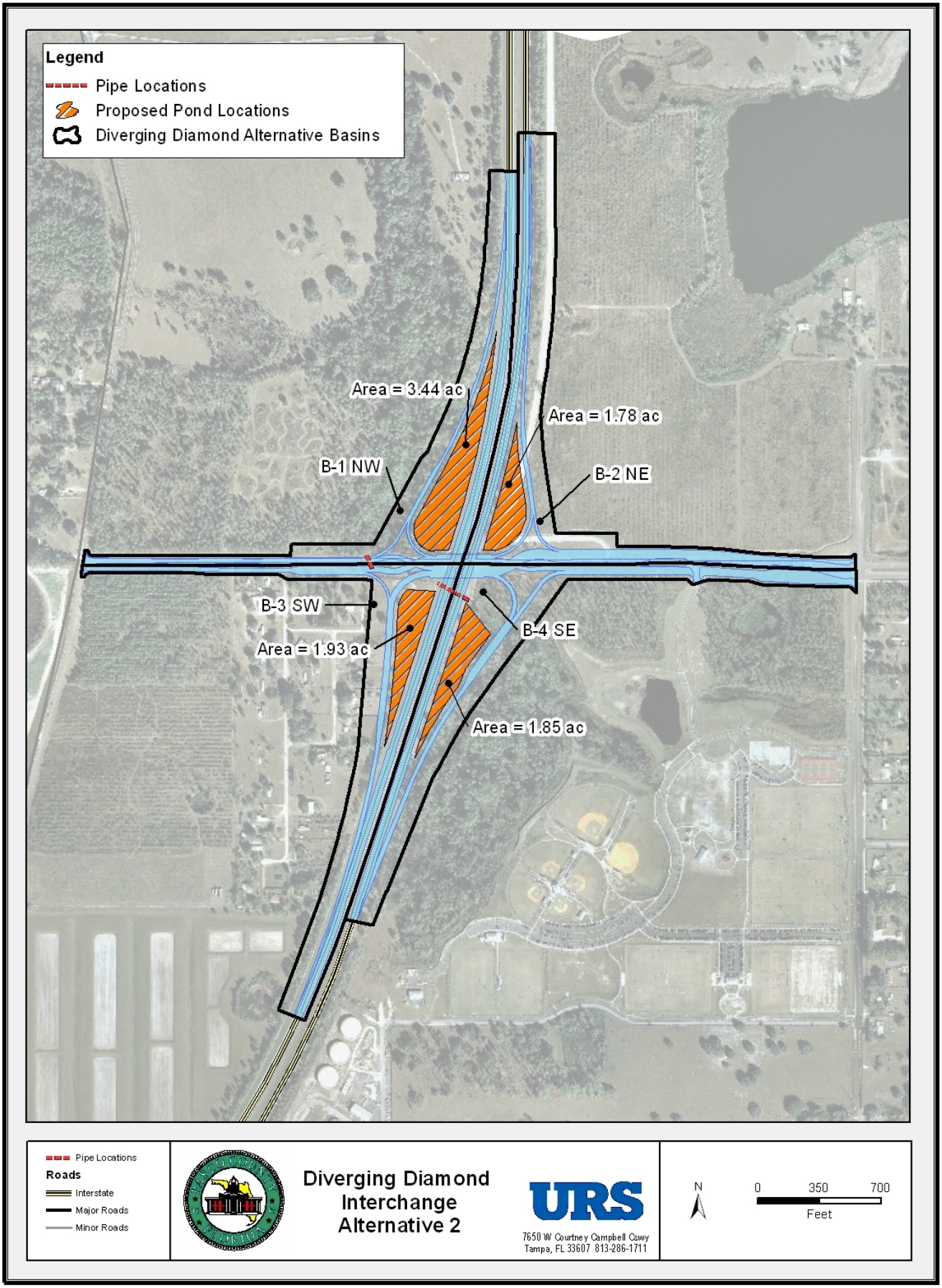


Figure B-2: Alternative 2 Diverging Diamond Interchange Proposed Pond Locations

Table B-1: Required Pond Areas Alternative 2 - Diverging Diamond Interchange Basin B-1 NW

SCS Runoff Attenuation Volume						
Existing Conditions						
Basin	**Total Area (ac)**	**CN**	**100 Yr/24 Hr Rainfall Depth P (in)**	**S=(100/CN)-10 (in)**	**100 Yr/24 Hr Runoff $Q=(P-0.2S)^2/(P+0.8S)$ (in)**	**V=Q*A (ac-ft)**
B-1 NW	18.4	83	12	2.048	9.850	15.10
Proposed Conditions						
B-1 NW	18.4	88	12	1.364	10.506	16.06
					Difference (ac-ft)	0.96
					Water Quality Treatment Storage Volume (ac-ft)	1.53
					TOTAL REQUIRED STORAGE VOLUME (ac-ft)	**2.49**
					TOTAL PROVIDED STORAGE VOLUME (ac-ft)	**6.37**

INPUT INFO:

A = 3.44 ac A = Area at Top of Pond

P = 2767 feet P = Perimeter at Top of Pond

E_1-E_2 = 2 feet E_1-E_2 = Pond Depth

H = 0.1 feet H = Stage Increment

Table B-2: Pond Sizing Calculations Alternative 2 - Diverging Diamond Interchange Basin B-1 NW

Stage (ft)	Area (ac)	Incremental Volume (ac-ft)	Cumulative Volume (ac-ft)
83.00	2.932	0.000	0.000
83.10	2.957	0.294	0.294
83.20	2.983	0.297	0.591
83.30	3.008	0.300	0.891
83.40	3.033	0.302	1.193
83.50	3.059	0.305	1.498
83.60	3.084	0.307	1.805
83.70	3.110	0.310	2.115
83.80	3.135	0.312	2.427
83.90	3.161	0.315	2.742
84.00	3.186	0.317	3.059
84.10	3.211	0.320	3.379
84.20	3.237	0.322	3.701
84.30	3.262	0.325	4.026
84.40	3.288	0.327	4.354
84.50	3.313	0.330	4.684
84.60	3.338	0.333	5.016
84.70	3.364	0.335	5.351
84.80	3.389	0.338	5.689
84.90	3.415	0.340	6.029
85.00	3.440	0.343	6.372

Table B-3: Required Pond Areas Alternative 2 - Diverging Diamond Interchange Basin B-2 NE

SCS Runoff Attenuation Volume						
Existing Conditions						
Basin	**Total Area (ac)**	**CN**	**100 Yr/24 Hr Rainfall Depth P (in)**	**S=(100/CN)-10 (in)**	**100 Yr/24 Hr Runoff $Q=(P-0.2S)^2/(P+0.8S)$ (in)**	**V=Q*A (ac-ft)**
B-2 NE	19.1	54	12	8.519	5.635	8.97
Proposed Conditions						
B-2 NE	19.1	68	12	4.706	7.758	12.33
					Difference (ac-ft)	3.36
					Water Quality Treatment Storage Volume (ac-ft)	1.59
					TOTAL REQUIRED STORAGE VOLUME (ac-ft)	**4.95**
					TOTAL PROVIDED STORAGE VOLUME (ac-ft)	**5.92**

INPUT INFO:

A = 1.780 ac A = Area at Top of Pond

P = 1633 feet P = Perimeter at Top of Pond

E_1-E_2= 4 feet E_1-E_2 = Pond Depth

H = 0.2 feet H = Stage Increment

Table B-4: Pond Sizing Calculations Alternative 2 - Diverging Diamond Interchange Basin B-2 NE

Stage (ft)	Area (ac)	Incremental Volume (ac-ft)	Cumulative Volume (ac-ft)
94.00	1.180	0.000	0.000
94.20	1.210	0.239	0.239
94.40	1.240	0.245	0.484
94.60	1.270	0.251	0.735
94.80	1.300	0.257	0.992
95.00	1.330	0.263	1.255
95.20	1.360	0.269	1.524
95.40	1.390	0.275	1.799
95.60	1.420	0.281	2.080
95.80	1.450	0.287	2.367
96.00	1.480	0.293	2.660
96.20	1.510	0.299	2.959
96.40	1.540	0.305	3.264
96.60	1.570	0.311	3.575
96.80	1.600	0.317	3.892
97.00	1.630	0.323	4.215
97.20	1.660	0.329	4.544
97.40	1.690	0.335	4.879
97.60	1.720	0.341	5.220
97.80	1.750	0.347	5.567
98.00	1.780	0.353	5.920

Table B-5: Required Pond Areas Alternative 2 - Diverging Diamond Interchange Basin B-3 SE

SCS Runoff Attenuation Volume						
Existing Conditions						
Basin	**Total Area (ac)**	**CN**	**100 Yr/24 Hr Rainfall Depth P (in)**	**S=(100/CN)-10 (in)**	**100 Yr/24 Hr Runoff $Q=(P-0.2S)^2/(P+0.8S)$ (in)**	**V=Q*A (ac-ft)**
B-3 SE	18.1	84	12	1.905	9.983	15.06
Proposed Conditions						
B-3 SE	18.1	88	12	1.364	10.506	15.85
					Difference (ac-ft)	0.79
					Water Quality Treatment Storage Volume (ac-ft)	1.51
					TOTAL REQUIRED STORAGE VOLUME (ac-ft)	**2.30**
					TOTAL PROVIDED STORAGE VOLUME (ac-ft)	**4.96**

INPUT INFO:

A= 1.930 ac A = Area at Top of Pond

P = 1998 feet P = Perimeter at Top of Pond

E_1-E_2 = 3 feet E_1-E_2 = Pond Depth

H = 0.2 feet H = Stage Increment

Table B-6: Pond Sizing Calculations Alternative 2 - Diverging Diamond Interchange Basin B-3 SE

Stage (ft)	Area (ac)	Incremental Volume (ac-ft)	Cumulative Volume (ac-ft)
92.00	1.380	0.000	0.000
92.20	1.416	0.280	0.280
92.40	1.453	0.287	0.567
92.60	1.490	0.294	0.861
92.80	1.526	0.302	1.162
93.00	1.563	0.309	1.471
93.20	1.600	0.316	1.788
93.40	1.636	0.324	2.111
93.60	1.673	0.331	2.442
93.80	1.710	0.338	2.780
94.00	1.747	0.346	3.126
94.20	1.783	0.353	3.479
94.40	1.820	0.360	3.839
94.60	1.857	0.368	4.207
94.80	1.893	0.375	4.582
95.00	1.930	0.382	4.964

Table B-7: Required Pond Areas Alternative 2 - Diverging Diamond Interchange Basin B-4 SW

SCS Runoff Attenuation Volume						
Existing Conditions						
Basin	**Total Area (ac)**	**CN**	**100 Yr/24 Hr Rainfall Depth P (in)**	**S=(100/CN)-10 (in)**	**100 Yr/24 Hr Runoff $Q=(P-0.2S)^2/(P+0.8S)$ (in)**	**V=Q*A (ac-ft)**
B-4 SW	18.9	80	12	2.500	9.446	14.88
Proposed Conditions						
B-4 SW	18.9	90	12	1.111	10.762	16.99
					Difference (ac-ft)	2.11
					Water Quality Treatment Storage Volume (ac-ft)	1.58
					TOTAL REQUIRED STORAGE VOLUME (ac-ft)	**3.69**
					TOTAL PROVIDED STORAGE VOLUME (ac-ft)	**5.95**

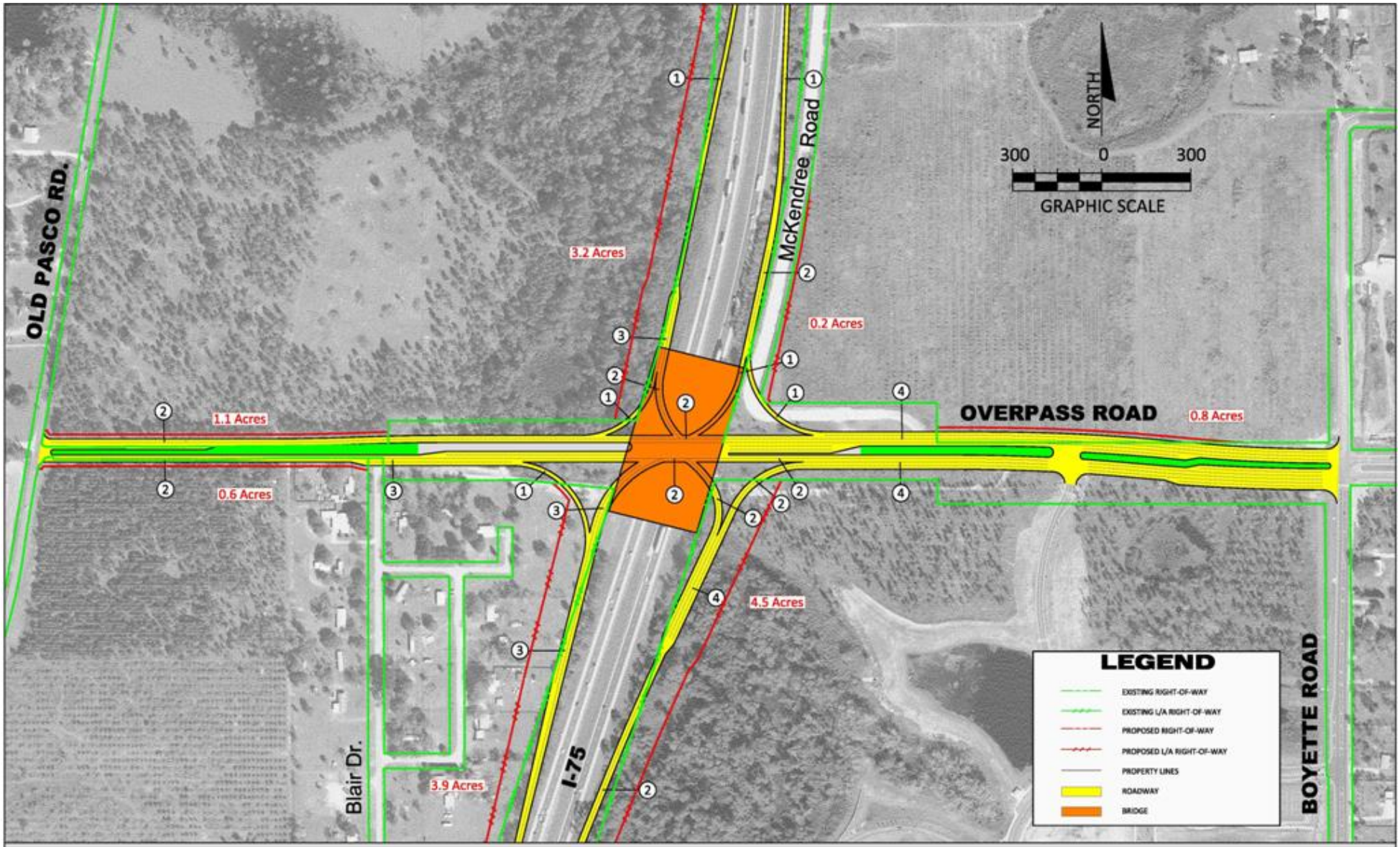
INPUT INFO:

A = 1.850 ac A = Area at Top of Pond
P = 1978 feet P = Perimeter at Top of Pond
E_1-E_2 = 4 feet E_1-E_2 = Pond Depth
H = 0.2 feet H = Stage Increment

Table B-8: Pond Sizing Calculations Alternative 2 – Diverging Diamond Interchange Basin B-4 SW

Stage (ft)	Area (ac)	Incremental Volume (ac-ft)	Cumulative Volume (ac-ft)
89.00	1.123	0.000	0.000
89.20	1.160	0.228	0.228
89.40	1.196	0.236	0.464
89.60	1.232	0.243	0.707
89.80	1.269	0.250	0.957
90.00	1.305	0.257	1.214
90.20	1.341	0.265	1.479
90.40	1.378	0.272	1.751
90.60	1.414	0.279	2.030
90.80	1.450	0.286	2.316
91.00	1.487	0.294	2.610
91.20	1.523	0.301	2.911
91.40	1.559	0.308	3.219
91.60	1.596	0.316	3.535
91.80	1.632	0.323	3.858
92.00	1.668	0.330	4.188
92.20	1.705	0.337	4.525
92.40	1.741	0.345	4.870
92.60	1.777	0.352	5.221
92.80	1.814	0.359	5.581
93.00	1.850	0.366	5.947

SPUI Alternative Calculations



REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

URS Corporation Southern
7650 West Courtney
Campbell Causeway
Tampa, FL 33607-1462
No. 00000002

I-75 and Overpass Road
Preliminary Interchange Justification Report
Pasco County

Preliminary SPUI Interchange Configuration

Figure
C-1

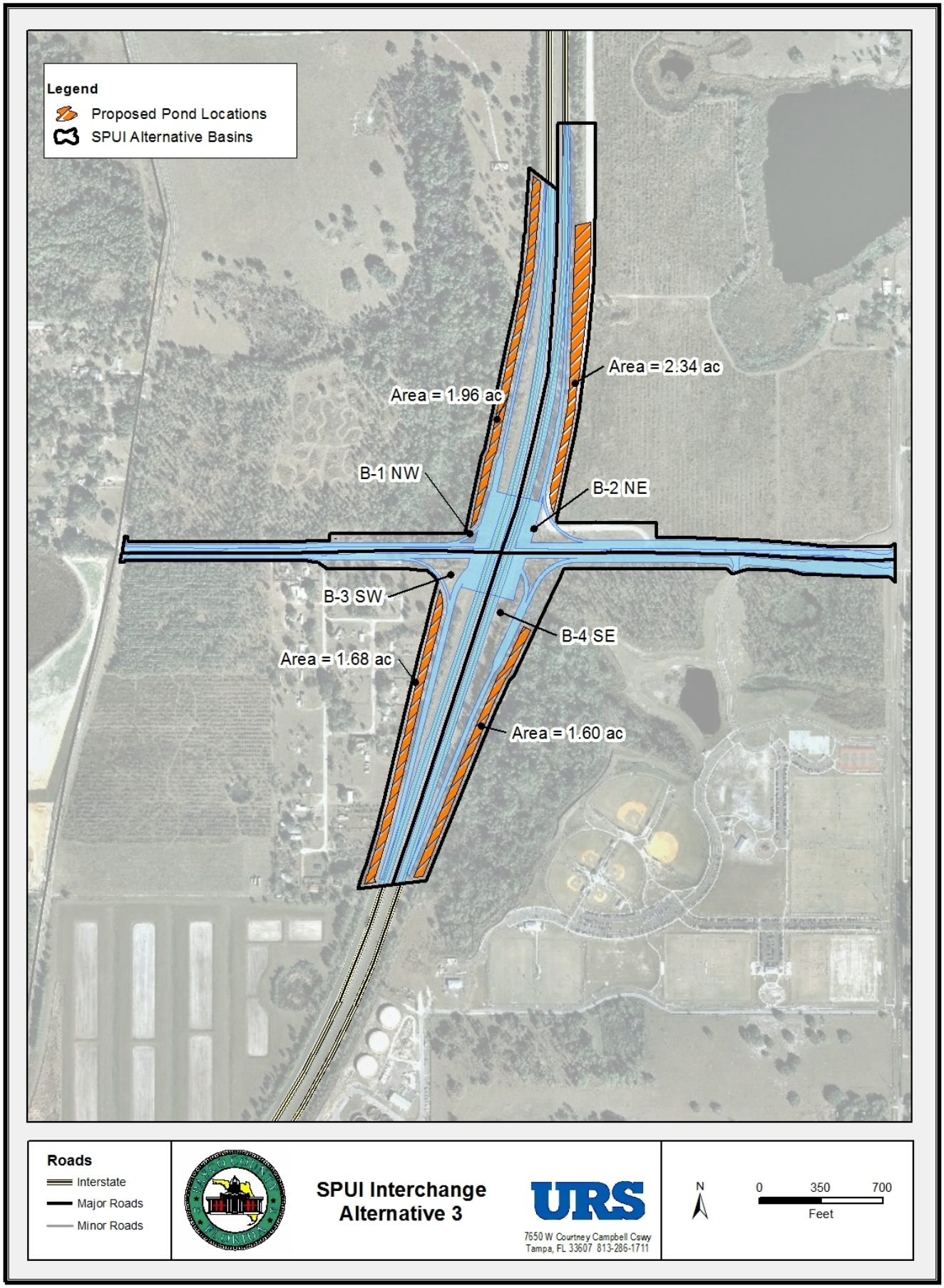


Figure C-2: Alternative 3 SPUI Interchange Proposed Pond Locations

Table C-1: Required Pond Areas Alternative 3 - SPUI Interchange Basin B-1 NW

SCS Runoff Attenuation Volume						
Existing Conditions						
Basin	**Total Area (ac)**	**CN**	**100 Yr/24 Hr Rainfall Depth P (in)**	**S=(100/CN)-10 (in)**	**100 Yr/24 Hr Runoff $Q=(P-0.2S)^2/(P+0.8S)$ (in)**	**V=Q*A (ac-ft)**
B-1 NW	14.8	80	12	2.500	9.446	11.65
Proposed Conditions						
B-1 NW	14.8	87	12	1.494	10.376	12.75
					Difference (ac-ft)	1.10
					Water Quality Treatment Storage Volume (ac-ft)	1.23
					TOTAL REQUIRED STORAGE VOLUME (ac-ft)	**2.33**
					TOTAL PROVIDED STORAGE VOLUME (ac-ft)	**4.18**

INPUT INFO:

A = 1.960 ac A = Area at Top of Pond

P = 4119 feet P = Perimeter at Top of Pond

E_1-E_2 = 3 feet E_1-E_2 = Pond Depth

H = 0.2 feet H = Stage Increment

Table C-2: Pond Sizing Calculations Alternative 3 - SPUI Interchange Basin B-1 NW

Stage (ft)	Area (ac)	Incremental Volume (ac-ft)	Cumulative Volume (ac-ft)
82.00	0.825	0.000	0.000
82.20	0.901	0.173	0.173
82.40	0.977	0.188	0.360
82.60	1.052	0.203	0.563
82.80	1.128	0.218	0.781
83.00	1.204	0.233	1.014
83.20	1.279	0.248	1.263
83.40	1.355	0.263	1.526
83.60	1.430	0.279	1.805
83.80	1.506	0.294	2.098
84.00	1.582	0.309	2.407
84.20	1.657	0.324	2.731
84.40	1.733	0.339	3.070
84.60	1.809	0.354	3.424
84.80	1.884	0.369	3.793
85.00	1.960	0.384	4.178

Table C-3: Required Pond Areas Alternative 3 - SPUI Interchange Basin B-2 NE

SCS Runoff Attenuation Volume						
Existing Conditions						
Basin	**Total Area (ac)**	**CN**	**100 Yr/24 Hr Rainfall Depth P (in)**	**S=(100/CN)-10 (in)**	**100 Yr/24 Hr Runoff $Q=(P-0.2S)^2/(P+0.8S)$ (in)**	**V=Q*A (ac-ft)**
B-2 NE	17.3	56	12	7.857	5.948	8.57
Proposed Conditions						
B-2 NE	17.3	69	12	4.493	7.903	11.42
					Difference (ac-ft)	2.85
					Water Quality Treatment Storage Volume (ac-ft)	1.45
					TOTAL REQUIRED STORAGE VOLUME (ac-ft)	**4.29**
					TOTAL PROVIDED STORAGE VOLUME (ac-ft)	**5.19**

INPUT INFO:

A = 2.340 ac A = Area at Top of Pond

P = 4438 feet P = Perimeter at Top of Pond

E_1-E_2 = 2 feet E_1-E_2= Pond Depth

H = 0.2 feet H = Stage Increment

Table C-4: Pond Sizing Calculations Alternative 3 - SPUI Interchange Basin B-2 NE

Stage (ft)	Area (ac)	Incremental Volume (ac-ft)	Cumulative Volume (ac-ft)
95.00	1.117	0.000	0.000
95.20	1.199	0.232	0.232
95.40	1.280	0.248	0.480
95.60	1.362	0.264	0.744
95.80	1.443	0.281	1.024
96.00	1.525	0.297	1.321
96.20	1.606	0.313	1.634
96.40	1.688	0.329	1.964
96.60	1.769	0.346	2.309
96.80	1.851	0.362	2.672
97.00	1.932	0.378	3.050
97.20	2.014	0.395	3.445
97.40	2.095	0.411	3.855
97.60	2.177	0.427	4.283
97.80	2.258	0.444	4.726
98.00	2.340	0.460	5.186

Table C-5: Required Pond Areas Alternative 3 - SPUI Interchange Basin B-3 SE

SCS Runoff Attenuation Volume						
Existing Conditions						
Basin	**Total Area (ac)**	**CN**	**100 Yr/24 Hr Rainfall Depth P (in)**	**S=(100/CN)-10 (in)**	**100 Yr/24 Hr Runoff $Q=(P-0.2S)^2/(P+0.8S)$ (in)**	**V=Q*A (ac-ft)**
B-3 SE	13.7	83	12	2.048	9.850	11.25
Proposed Conditions						
B-3 SE	13.7	89	12	1.236	10.634	12.12
					Difference (ac-ft)	0.88
					Water Quality Treatment Storage Volume (ac-ft)	1.14
					TOTAL REQUIRED STORAGE VOLUME (ac-ft)	**2.02**
					TOTAL PROVIDED STORAGE VOLUME (ac-ft)	**3.59**

INPUT INFO:

A=1.680 ac	A = Area at Top of Pond
P=3504 feet	P = Perimeter at Top of Pond
E_1-E_2=3 feet	E_1-E_2=Pond Depth
H= 0.2 feet	H = Stage Increment

Table C-6: Pond Sizing Calculations Alternative 3 - SPUI Interchange Basin B-3 SE

Stage (ft)	Area (ac)	Incremental Volume (ac-ft)	Cumulative Volume (ac-ft)
92.00	0.715	0.000	0.000
92.20	0.779	0.149	0.149
92.40	0.843	0.162	0.312
92.60	0.908	0.175	0.487
92.80	0.972	0.188	0.675
93.00	1.036	0.201	0.876
93.20	1.101	0.214	1.089
93.40	1.165	0.227	1.316
93.60	1.230	0.239	1.555
93.80	1.294	0.252	1.808
94.00	1.358	0.265	2.073
94.20	1.423	0.278	2.351
94.40	1.487	0.291	2.642
94.60	1.551	0.304	2.946
94.80	1.616	0.317	3.263
95.00	1.680	0.330	3.592

Table C-7: Required Pond Areas Alternative 3 - SPUI Interchange Basin B-4 SW

SCS Runoff Attenuation Volume						
Existing Conditions						
Basin	**Total Area (ac)**	**CN**	**100 Yr/24 Hr Rainfall Depth P (in)**	**S=(100/CN)-10 (in)**	**100 Yr/24 Hr Runoff $Q=(P-0.2S)^2/(P+0.8S)$ (in)**	**V=Q*A (ac-ft)**
B-4 SW	15.5	84	12	1.905	9.983	12.89
Proposed Conditions						
B-4 SW	15.5	91	12	0.989	10.890	14.09
					Difference (ac-ft)	1.20
					Water Quality Treatment Storage Volume (ac-ft)	1.29
					TOTAL REQUIRED STORAGE VOLUME (ac-ft)	**2.49**
					TOTAL PROVIDED STORAGE VOLUME (ac-ft)	**4.06**

INPUT INFO:

A = 1.60 ac A = Area at Top of Pond

P = 3183 feet P = Perimeter at Top of Pond

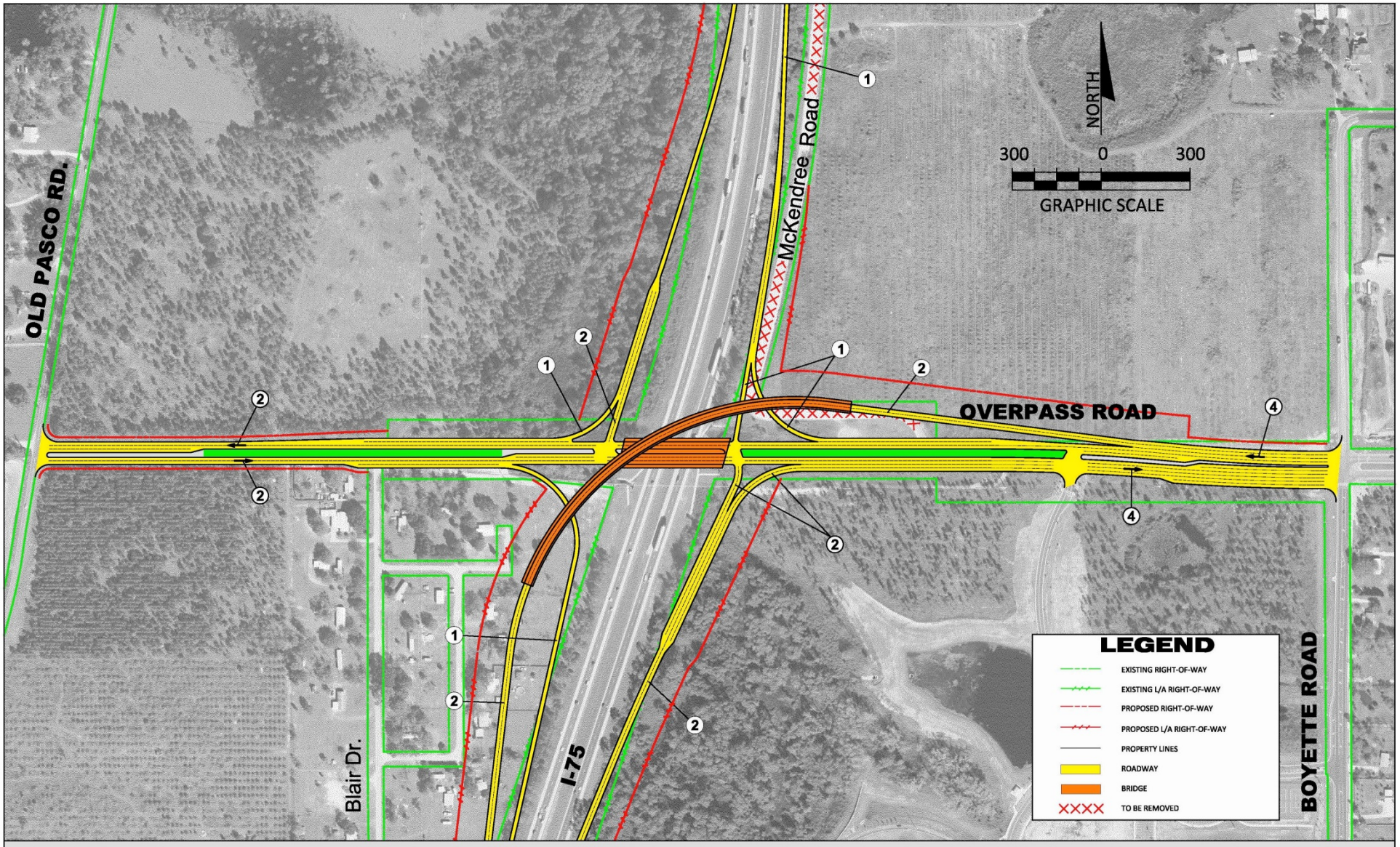
E_1-E_2 = 4 feet E_1-E_2 = Pond Depth

H = 0.2 feet H = Stage Increment

Table C-8: Pond Sizing Calculations Alternative 3 - SPUI Interchange Basin B-4 SW

Stage (ft)	Area (ac)	Incremental Volume (ac-ft)	Cumulative Volume (ac-ft)
89.00	0.431	0.000	0.000
89.20	0.489	0.092	0.092
89.40	0.548	0.104	0.196
89.60	0.606	0.115	0.311
89.80	0.665	0.127	0.438
90.00	0.723	0.139	0.577
90.20	0.782	0.150	0.727
90.40	0.840	0.162	0.890
90.60	0.899	0.174	1.063
90.80	0.957	0.186	1.249
91.00	1.015	0.197	1.446
91.20	1.074	0.209	1.655
91.40	1.132	0.221	1.876
91.60	1.191	0.232	2.108
91.80	1.249	0.244	2.352
92.00	1.308	0.256	2.608
92.20	1.366	0.267	2.875
92.40	1.425	0.279	3.154
92.60	1.483	0.291	3.445
92.80	1.542	0.302	3.748
93.00	1.600	0.314	4.062

Flyover Ramp Alternative Calculations



REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

URS Corporation Southern
7650 West Courtney
Campbell Causeway
Tampa, FL 33607-1462
No. 00000002

PASCO COUNTY

OVERPASS ROAD / I-75 INTERCHANGE
PRELIMINARY FLYOVER RAMP CONFIGURATION

SHEET NO. D-1

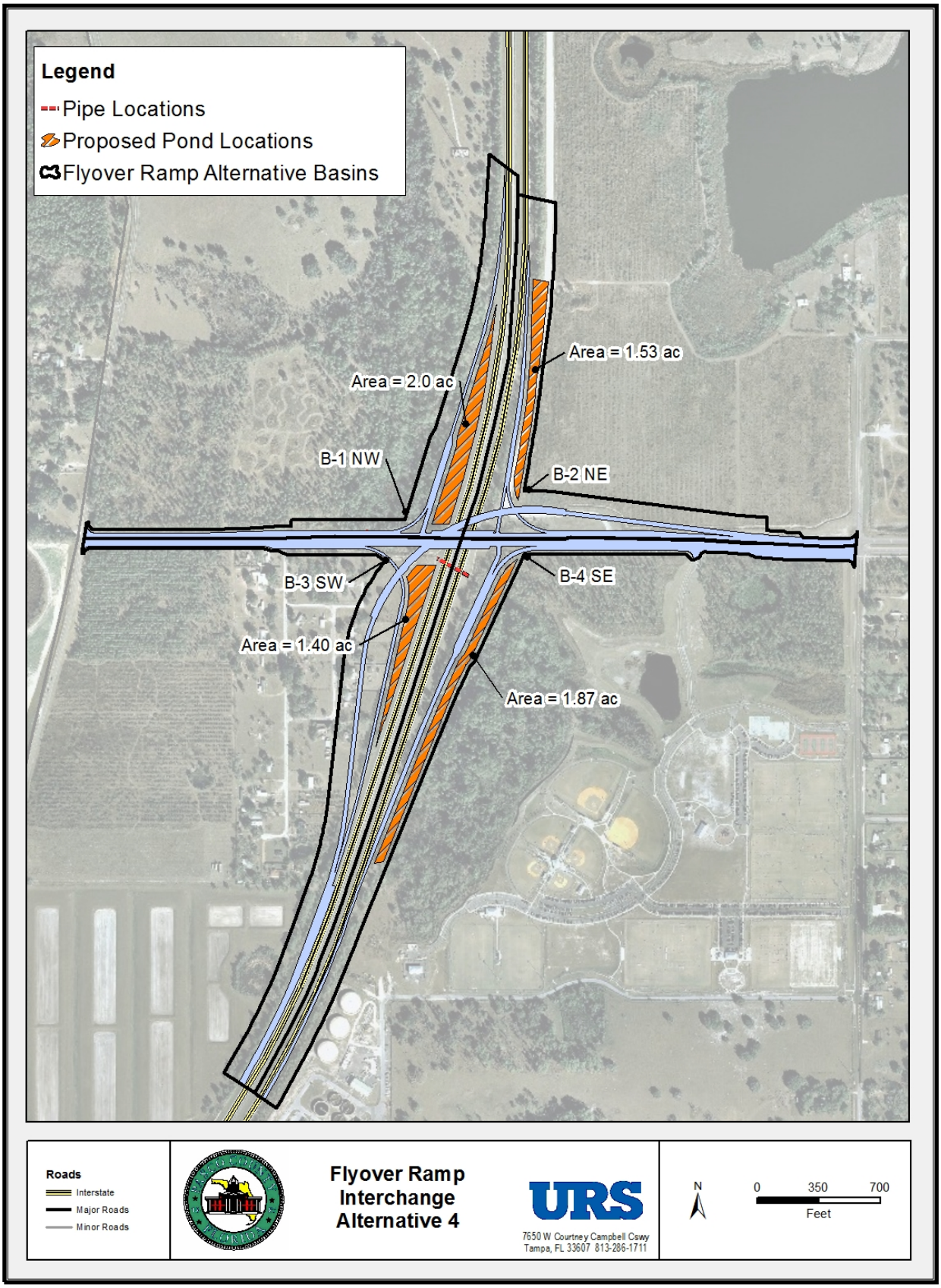


Figure D-2: Alternative 4 Flyover Ramp Interchange Proposed Pond Locations

Table D-1: Required Pond Areas Alternative 4 – Flyover Ramp Interchange Basin B-1 NW

SCS Runoff Attenuation Volume						
Existing Conditions						
Basin	**Total Area (ac)**	**CN**	**100 Yr/24 Hr Rainfall Depth P (in)**	**S=(100/CN)-10 (in)**	**100 Yr/24 Hr Runoff $Q=(P-0.2S)^2/(P+0.8S)$ (in)**	**V=Q*A (ac-ft)**
B-1 NW	16.1	83	12	2.048	9.850	13.22
Proposed Conditions						
B-1 NW	16.1	84	12	1.905	9.983	13.39
					Difference (ac-ft)	0.18
					Water Quality Treatment Storage Volume (ac-ft)	1.34
					TOTAL REQUIRED STORAGE VOLUME (ac-ft)	**1.52**
					TOTAL PROVIDED STORAGE VOLUME (ac-ft)	**3.51**

INPUT INFO:

A = 2.000 ac A = Area at Top of Pond

P = 2674 feet P = Perimeter at Top of Pond

E_1-E_2 = 2 feet E_1-E_2=Pond Depth

H = 0.1 feet H = Stage Increment

Table D-2: Pond Sizing Calculations Alternative 4 – Flyover Ramp Interchange Basin B-1 NW

Stage (ft)	Area (ac)	Incremental Volume (ac-ft)	Cumulative Volume (ac-ft)
83.00	1.509	0.000	0.000
83.10	1.533	0.152	0.152
83.20	1.558	0.155	0.307
83.30	1.583	0.157	0.464
83.40	1.607	0.159	0.623
83.50	1.632	0.162	0.785
83.60	1.656	0.164	0.950
83.70	1.681	0.167	1.116
83.80	1.705	0.169	1.286
83.90	1.730	0.172	1.457
84.00	1.754	0.174	1.632
84.10	1.779	0.177	1.808
84.20	1.804	0.179	1.987
84.30	1.828	0.182	2.169
84.40	1.853	0.184	2.353
84.50	1.877	0.186	2.540
84.60	1.902	0.189	2.729
84.70	1.926	0.191	2.920
84.80	1.951	0.194	3.114
84.90	1.975	0.196	3.310
85.00	2.000	0.199	3.509

Table D-3: Required Pond Areas Alternative 4 – Flyover Ramp Interchange Basin B-2 NE

SCS Runoff Attenuation Volume						
Existing Conditions						
Basin	**Total Area (ac)**	**CN**	**100 Yr/24 Hr Rainfall Depth P (in)**	**S=(100/CN)-10 (in)**	**100 Yr/24 Hr Runoff $Q=(P-0.2S)^2/(P+0.8S)$ (in)**	**V=Q*A (ac-ft)**
B-2 NE	17.7	56	12	7.857	.948	8.77
Proposed Conditions						
B-2 NE	17.7	67	12	4.925	7.611	11.23
					Difference (ac-ft)	2.45
					Water Quality Treatment Storage Volume (ac-ft)	1.48
					TOTAL REQUIRED STORAGE VOLUME (ac-ft)	**3.93**
					TOTAL PROVIDED STORAGE VOLUME (ac-ft)	**4.21**

INPUT INFO:

A = 1.530 ac A = Area at Top of Pond
P = 2602 feet P = Perimeter at Top of Pond
E_1-E_2 = 4 feet E_1-E_2 = Pond Depth
H = 0.2 feet H = Stage Increment

Table D-4: Pond Sizing Calculations Alternative 4 – Flyover Ramp Interchange Basin B-2 NE

Stage (ft)	Area (ac)	Incremental Volume (ac-ft)	Cumulative Volume (ac-ft)
94.00	0.574	0.000	0.000
94.20	0.622	0.120	0.120
94.40	0.670	0.129	0.249
94.60	0.718	0.139	0.388
94.80	0.765	0.148	0.536
95.00	0.813	0.158	0.694
95.20	0.861	0.167	0.861
95.40	0.909	0.177	1.038
95.60	0.957	0.187	1.225
95.80	1.004	0.196	1.421
96.00	1.052	0.206	1.626
96.20	1.100	0.215	1.842
96.40	1.148	0.225	2.066
96.60	1.195	0.234	2.301
96.80	1.243	0.244	2.545
97.00	1.291	0.253	2.798
97.20	1.339	0.263	3.061
97.40	1.387	0.273	3.334
97.60	1.434	0.282	3.616
97.80	1.482	0.292	3.907
98.00	1.530	0.301	4.209

Table D-5: Required Pond Areas Alternative 4 – Flyover Ramp Interchange Basin B-3 SE

SCS Runoff Attenuation Volume						
Existing Conditions						
Basin	**Total Area (ac)**	**CN**	**100 Yr/24 Hr Rainfall Depth P (in)**	**S=(100/CN)-10 (in)**	**100 Yr/24 Hr Runoff $Q=(P-0.2S)^2/(P+0.8S)$ (in)**	**V=Q*A (ac-ft)**
B-3 SE	25.2	84	12	1.905	9.983	20.96
Proposed Conditions						
B-3 SE	25.2	87	12	1.494	10.376	21.79
					Difference (ac-ft)	0.83
					Water Quality Treatment Storage Volume (ac-ft)	2.10
					TOTAL REQUIRED STORAGE VOLUME (ac-ft)	**2.93**
					TOTAL PROVIDED STORAGE VOLUME (ac-ft)	**3.26**

INPUT INFO:

A = 1.400 ac A = Area at Top of Pond

P = 2266 feet P = Perimeter at Top of Pond

E_1-E_2 = 3 feet E_1-E_2 = Pond Depth

H = 0.2 feet H = Stage Increment

Table D-6: Pond Sizing Calculations Alternative 4 – Flyover Ramp Interchange Basin B-3 SE

Stage (ft)	Area (ac)	Incremental Volume (ac-ft)	Cumulative Volume (ac-ft)
92.00	0.776	0.000	0.000
92.20	0.817	0.159	0.159
92.40	0.859	0.168	0.327
92.60	0.901	0.176	0.503
92.80	0.942	0.184	0.687
93.00	0.984	0.193	0.880
93.20	1.025	0.201	1.081
93.40	1.067	0.209	1.290
93.60	1.109	0.218	1.508
93.80	1.150	0.226	1.733
94.00	1.192	0.234	1.968
94.20	1.234	0.243	2.210
94.40	1.275	0.251	2.461
94.60	1.317	0.259	2.720
94.80	1.358	0.268	2.988
95.00	1.400	0.276	3.264

Table D-7: Required Pond Areas Alternative 4 – Flyover Ramp Basin B-4 SW

SCS Runoff Attenuation Volume						
Existing Conditions						
Basin	**Total Area (ac)**	**CN**	**100 Yr/24 Hr Rainfall Depth P (in)**	**S=(100/CN)-10 (in)**	**100 Yr/24 Hr Runoff $Q=(P-0.2S)^2/(P+0.8S)$ (in)**	**V=Q*A (ac-ft)**
B-4 SW	20.4	84	12	1.905	9.983	16.97
Proposed Conditions						
B-4 SW	20.4	92	12	0.870	11.016	18.73
					Difference (ac-ft)	1.76
					Water Quality Treatment Storage Volume (ac-ft)	1.70
					TOTAL REQUIRED STORAGE VOLUME (ac-ft)	**3.46**
					TOTAL PROVIDED STORAGE VOLUME (ac-ft)	**4.65**

INPUT INFO:

A = 1.87 ac A = Area at Top of Pond

P = 3847 feet P = Perimeter at Top of Pond

E_1-E_2 = 4 feet E_1-E_2 = Pond Depth

H = 0.2 feet H = Stage Increment

Table D-8: Pond Sizing Calculations Alternative 4 – Flyover Ramp Basin B-4 SW

Stage (ft)	Area (ac)	Incremental Volume (ac-ft)	Cumulative Volume (ac-ft)
89.00	0.457	0.000	0.000
89.20	0.528	0.098	0.098
89.40	0.598	0.113	0.211
89.60	0.669	0.127	0.338
89.80	0.740	0.141	0.479
90.00	0.810	0.155	0.634
90.20	0.881	0.169	0.803
90.40	0.952	0.183	0.986
90.60	1.022	0.197	1.183
90.80	1.093	0.212	1.395
91.00	1.163	0.226	1.620
91.20	1.234	0.240	1.860
91.40	1.305	0.254	2.114
91.60	1.375	0.268	2.382
91.80	1.446	0.282	2.664
92.00	1.517	0.296	2.961
92.20	1.587	0.310	3.271
92.40	1.658	0.325	3.596
92.60	1.729	0.339	3.934
92.80	1.799	0.353	4.287
93.00	1.870	0.367	4.654

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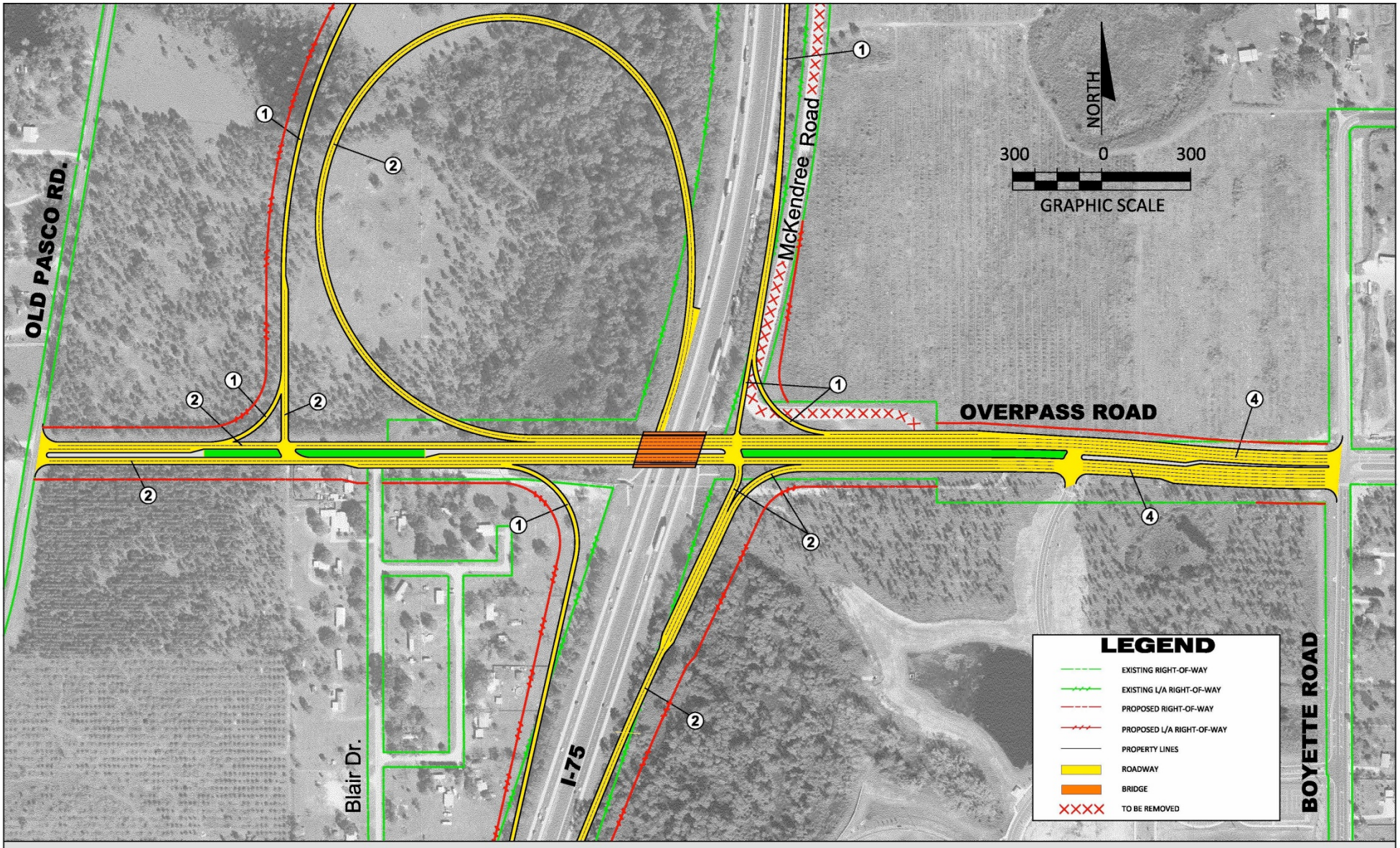
Loop Ramp Alternative Calculations



REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

URS Corporation Southern
7650 West Courtney
Campbell Causeway
Tampa, FL 33607-1462
No. 00000002

PASCO COUNTY

OVERPASS ROAD / I-75 INTERCHANGE

PRELIMINARY LOOP RAMP CONFIGURATION

SHEET NO.

E-1

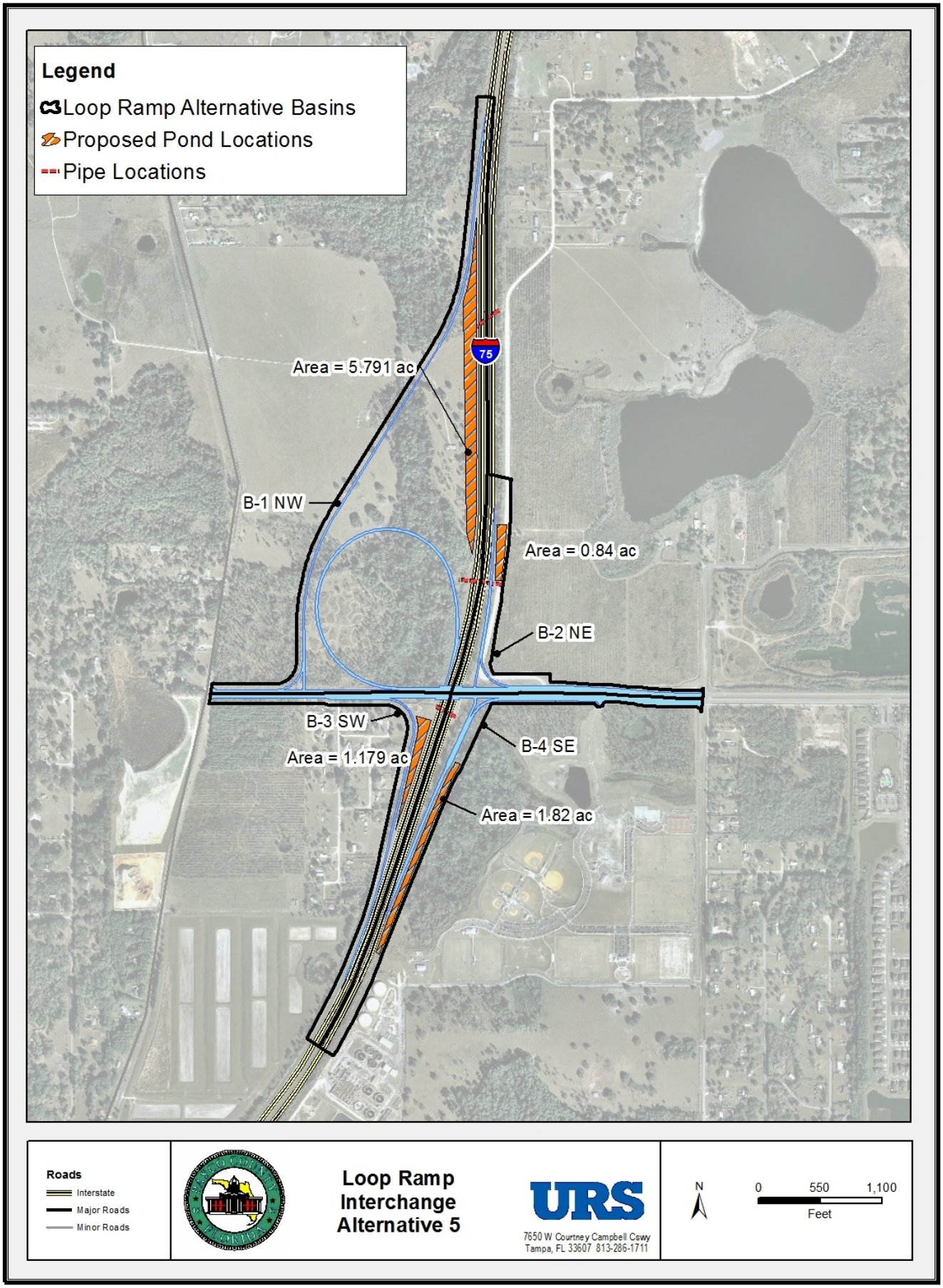


Figure E-2: Alternative 5 Loop Ramp Interchange Proposed Pond Locations

Table E-1: Required Pond Areas Alternative 5 –Loop Ramp Interchange Basin B-1 NW

SCS Runoff Attenuation Volume						
Existing Conditions						
Basin	**Total Area (ac)**	**CN**	**100 Yr/24 Hr Rainfall Depth P (in)**	**S=(100/CN)-10 (in)**	**100 Yr/24 Hr Runoff $Q=(P-0.2S)^2/(P+0.8S)$ (in)**	**V=Q*A (ac-ft)**
B-1 NW	101.6	80	12	2.500	9.446	79.98
Proposed Conditions						
B-1 NW	101.6	81	12	2.346	9.582	81.13
					Difference (ac-ft)	1.15
					Water Quality Treatment Storage Volume (ac-ft)	8.47
					TOTAL REQUIRED STORAGE VOLUME (ac-ft)	**9.61**
					TOTAL PROVIDED STORAGE VOLUME (ac-ft)	**12.75**

INPUT INFO:

A = 5.791 ac A = Area at Top of Pond

P = 6012feet P = Perimeter at Top of Pond

E_1-E_2 = 2.5 feet E_1-E_2 = Pond Depth

H = 0.1 feet H = Stage Increment

Table E-2: Pond Sizing Calculations Alternative 5 –Loop Ramp Interchange Basin B-1 NW

Stage (ft)	Area (ac)	Incremental Volume (ac-ft)	Cumulative Volume (ac-ft)
82.50	4.411	0.000	0.000
82.60	4.466	0.444	0.444
82.70	4.521	0.449	0.893
82.80	4.576	0.455	1.348
82.90	4.632	0.460	1.808
83.00	4.687	0.466	2.274
83.10	4.742	0.471	2.746
83.20	4.797	0.477	3.223
83.30	4.852	0.482	3.705
83.40	4.908	0.488	4.193
83.50	4.963	0.494	4.687
83.60	5.018	0.499	5.186
83.70	5.073	0.505	5.690
83.80	5.129	0.510	6.201
83.90	5.184	0.516	6.716
84.00	5.239	0.521	7.237
84.10	5.294	0.527	7.764
84.20	5.349	0.532	8.296
84.30	5.405	0.538	8.834
84.40	5.460	0.543	9.377
84.50	5.515	0.549	9.926
84.60	5.570	0.554	10.480
84.70	5.625	0.560	11.040
84.80	5.681	0.565	11.605
84.90	5.736	0.571	12.176
85.00	5.791	0.576	12.752

Table E-3: Required Pond Areas Alternative 5 –Loop Ramp Interchange Basin B-2 NE

SCS Runoff Attenuation Volume						
Existing Conditions						
Basin	**Total Area (ac)**	**CN**	**100 Yr/24 Hr Rainfall Depth P (in)**	**S=(100/CN)-10 (in)**	**100 Yr/24 Hr Runoff $Q=(P-0.2S)^2/(P+0.8S)$ (in)**	**V=Q*A (ac-ft)**
B-2 NE	15.1	60	12	6.667	6.564	8.26
Proposed Conditions						
B-2 NE	15.1	66	12	5.152	7.464	9.39
					Difference (ac-ft)	1.13
					Water Quality Treatment Storage Volume (ac-ft)	1.26
					TOTAL REQUIRED STORAGE VOLUME (ac-ft)	**2.39**
					TOTAL PROVIDED STORAGE VOLUME (ac-ft)	**2.54**

INPUT INFO:

A = 0.844 ac A = Area at Top of Pond

P = 1140 feet P = Perimeter at Top of Pond

E_1-E_2 = 4 feet E_1-E_2 = Pond Depth

H = 0.2 feet H = Stage Increment

Table E-4: Pond Sizing Calculations Alternative 5 –Loop Ramp Interchange Basin B-2 NE

Stage (ft)	Area (ac)	Incremental Volume (ac-ft)	Cumulative Volume (ac-ft)
94.00	0.426	0.000	0.000
94.20	0.447	0.087	0.087
94.40	0.468	0.091	0.179
94.60	0.488	0.096	0.274
94.80	0.509	0.100	0.374
95.00	0.530	0.104	0.478
95.20	0.551	0.108	0.586
95.40	0.572	0.112	0.699
95.60	0.593	0.117	0.815
95.80	0.614	0.121	0.936
96.00	0.635	0.125	1.061
96.20	0.656	0.129	1.190
96.40	0.677	0.133	1.323
96.60	0.698	0.137	1.461
96.80	0.719	0.142	1.602
97.00	0.740	0.146	1.748
97.20	0.761	0.150	1.898
97.40	0.782	0.154	2.052
97.60	0.803	0.158	2.211
97.80	0.823	0.163	2.373
98.00	0.844	0.167	2.540

Table E-5: Required Pond Areas Alternative 5 –Loop Ramp Interchange Basin B-3 SE

SCS Runoff Attenuation Volume						
Existing Conditions						
Basin	**Total Area (ac)**	**CN**	**100 Yr/24 Hr Rainfall Depth P (in)**	**S=(100/CN)-10 (in)**	**100 Yr/24 Hr Runoff $Q=(P-0.2S)^2/(P+0.8S)$ (in)**	**V=Q*A (ac-ft)**
B-3 SE	18.2	84	12	1.905	9.983	15.14
Proposed Conditions						
B-3 SE	18.2	88	12	1.364	10.506	15.93
					Difference (ac-ft)	0.79
					Water Quality Treatment Storage Volume (ac-ft)	1.52
					TOTAL REQUIRED STORAGE VOLUME (ac-ft)	**2.31**
					TOTAL PROVIDED STORAGE VOLUME (ac-ft)	**2.63**

INPUT INFO:

A = 1.179 ac A = Area at Top of Pond

P = 2192 feet P = Perimeter at Top of Pond

E_1-E_2 = 3 feet E_1-E_2 = Pond Depth

H = 0.2 feet H = Stage Increment

Table E-6: Pond Sizing Calculations Alternative 5 –Loop Ramp Interchange Basin B-3 SE

Stage (ft)	Area (ac)	Incremental Volume (ac-ft)	Cumulative Volume (ac-ft)
92.00	0.575	0.000	0.000
92.20	0.615	0.119	0.119
92.40	0.656	0.127	0.246
92.60	0.696	0.135	0.381
92.80	0.736	0.143	0.525
93.00	0.776	0.151	0.676
93.20	0.817	0.159	0.835
93.40	0.857	0.167	1.002
93.60	0.897	0.175	1.178
93.80	0.937	0.183	1.361
94.00	0.978	0.192	1.553
94.20	1.018	0.200	1.752
94.40	1.058	0.208	1.960
94.60	1.098	0.216	2.176
94.80	1.139	0.224	2.399
95.00	1.179	0.232	2.631

Table E-7: Required Pond Areas Alternative 5 –Loop Interchange Basin B-4 SW

SCS Runoff Attenuation Volume						
Existing Conditions						
Basin	**Total Area (ac)**	**CN**	**100 Yr/24 Hr Rainfall Depth P (in)**	**S=(100/CN)-10 (in)**	**100 Yr/24 Hr Runoff $Q=(P-0.2S)^2/(P+0.8S)$ (in)**	**V=Q*A (ac-ft)**
B-4 SW	20.4	84	12	1.905	9.983	16.97
Proposed Conditions						
B-4 SW	20.4	92	12	0.870	11.016	18.73
					Difference (ac-ft)	1.76
					Water Quality Treatment Storage Volume (ac-ft)	1.70
					TOTAL REQUIRED STORAGE VOLUME (ac-ft)	**3.46**
					TOTAL PROVIDED STORAGE VOLUME (ac-ft)	**4.52**

INPUT INFO:

A = 1.82 ac A = Area at Top of Pond

P = 3762 feet P = Perimeter at Top of Pond

E_1-E_2 = 4 feet E_1-E_2 = Pond Depth

H = 0.2 feet H = Stage Increment

Table E-8: Pond Sizing Calculations Alternative 5 –Loop Interchange Basin B-4 SW

Stage (ft)	Area (ac)	Incremental Volume (ac-ft)	Cumulative Volume (ac-ft)
89.00	0.438	0.000	0.000
89.20	0.507	0.095	0.095
89.40	0.576	0.108	0.203
89.60	0.645	0.122	0.325
89.80	0.715	0.136	0.461
90.00	0.784	0.150	0.611
90.20	0.853	0.164	0.775
90.40	0.922	0.177	0.952
90.60	0.991	0.191	1.143
90.80	1.060	0.205	1.348
91.00	1.129	0.219	1.567
91.20	1.198	0.233	1.800
91.40	1.267	0.247	2.047
91.60	1.336	0.260	2.307
91.80	1.405	0.274	2.581
92.00	1.475	0.288	2.869
92.20	1.544	0.302	3.171
92.40	1.613	0.316	3.487
92.60	1.682	0.329	3.816
92.80	1.751	0.343	4.159
93.00	1.820	0.357	4.516

APPENDIX L

Preliminary Cost Estimates

OVERPASS ROAD / I-75 INTERCHANGE

7/20/2012

Construction Cost Estimate Summary

DIAMOND INTERCHANGE

SEGMENT	SEGMENT TITLE	SEGMENT COST
1	1 - 2 LANE NB OFF RAMP TO OVERPASS ROAD	$1,137,000
2	2 - 4 LANE NB OFF RAMP TO OVERPASS ROAD	$1,355,000
3	3 - 2 LANE NB OFF RAMP TO WB OVERPASS ROAD	$186,000
4	4 - 2 LANE NB OFF RAMP TO EB OVERPASS ROAD	$164,000
5	5 - 1 LANE NB ON RAMP TO NB I-75	$441,000
6	6 - 1 LANE NB ON RAMP TO NB I-75	$592,000
7	7 - 2 LANE NB ON RAMP TO NB I-75	$1,257,000
8	8 - 1 LANE NB ON RAMP TO NB I-75	$806,000
9	9 - 2 LANE SB ON RAMP TO I-75	$1,103,000
10	10 - 3 LANE SB ON RAMP TO I-75	$1,229,000
11	11 - 1 LANE SB ON RAMP TO SB I-75	$498,000
12	12 - 1 LANE SB OFF RAMP TO WB OVERPASS ROAD	$274,000
13	13 - 2 LANE SB OFF RAMP TO OVERPASS ROAD	$218,000
14	14 - 3 LANE SB OFF RAMP TO OVERPASS ROAD	$922,000
15	15- 1 LANE SB OFF RAMP TO OVERPASS ROAD	$1,133,000
16	16- 2 LANE EB OVERPASS ROAD	$822,000
17	17- 3 LANE EB OVERPASS ROAD	$512,000
18	18 - 4 LANE EB OVERPASS ROAD	$535,000
19	19 - 3 LANE EB OVERPASS ROAD	$447,000
20	20 - 2 LANE MEDIAN WEST OF BRIDGE	$401,000
21	21 - 2 LANE MEDIAN EAST OF BRIDGE	$364,000
22	22 - 2 LANE EB OVERPASS ROAD	$237,000
23	23 - 4 LANE EB OVERPASS ROAD	$2,634,000
24	24- 6 LANE EB OVERPASS ROAD	$614,000
25	25 - 3 LANE WB OVERPASS ROAD	$390,000
26	26 - 2 LANE WB OVERPASS ROAD	$1,979,000
27	27 - 3 LANE WB OVERPASS ROAD INCLUDES BRIDGE OVER I-75	$9,277,000
28	28 - 4 LANE WB OVERPASS ROAD	$2,738,000

DIAMOND INTERCHANGE - CONSTRUCTION TOTAL	**$32,265,000**

OVERPASS ROAD / I-75 INTERCHANGE
DIAMOND INTERCHANGE
1 - 2 LANE NB OFF RAMP TO OVERPASS ROAD

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$817,294**
CLEARING & GRUBBING		1.96	ac	$25,000.00	$49,000
EROSION CONTROL		0.240	mi	$22,625.30	$5,421
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		17,958	cy	$9.17	$164,675
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.24	miles	$133,699.30	$32,032
TYPE B STABILIZATION		7,028	sy	$2.63	$18,484
ROADWAY - OPTIONAL BASE, BASE GROUP 11		3,514	sy	$38.75	$136,168
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		758.0	tons	$96.75	$73,337
SHOULDER - OPTIONAL BASE, BASE GROUP 04		2,811.0	sy	$7.16	$20,127
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		232.0	tons	$96.75	$22,446
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		201.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK			sy	$32.38	
GRASSING		3,303	sy	$2.25	$7,432
SIGNS (Post & Misc.)		0.24	Miles	$20,655.74	$4,949
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"		1,265	lf	$0.82	$1,037
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		2,530	lf	$1.32	$3,340
RETRO-REFLECTIVE PAVEMENT MARKERS		32	ea	$8.15	$258
SIGN LT'D OVHD TRUSS-MONOTUBE, T 101-120,S >700		1	ea		
CANTILEVER SIGNS - None			ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	None				
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					
RETAINING WALL SYSTEM, PERMANENT, EXCLUDING BARRIER		5930	SF	$25.35	$150,326
CONCRETE TRAFFIC RAILING BARRIER, RETAINING WALL SYSTEM MOUNTED WITH		575	LF	$223.07	$128,265

STRUCTURES			
APPROACH SLAB CONCRETE		cy	$387.70
APPROACH SLAB REINFORCING		lbs	$0.80

SUBTOTAL		**$817,294**
MOT	10.0%	$81,729
Mobilization	10.0%	$89,902
SUBTOTAL		**$988,926**
Contingency	15.0%	$148,339
CONSTRUCTION TOTAL (Rounded)		**$1,137,000**

OVERPASS ROAD / I-75 INTERCHANGE
DIAMOND INTERCHANGE
2 - 4 LANE NB OFF RAMP TO OVERPASS ROAD

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$973,853**
CLEARING & GRUBBING		1.37	ac	$25,000.00	$34,250
EROSION CONTROL		0.102	mi	$22,625.30	$2,314
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		36,079	cy	$9.17	$330,844
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.10	miles	$133,699.30	$13,674
TYPE B STABILIZATION		4,440	sy	$2.63	$11,677
ROADWAY - OPTIONAL BASE, BASE GROUP 11		2,940	sy	$38.75	$113,925
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		640.0	tons	$96.75	$61,920
SHOULDER - OPTIONAL BASE, BASE GROUP 04		1,200.0	sy	$7.16	$8,592
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		99.0	tons	$96.75	$9,578
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		165.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK			sy	$32.38	
GRASSING		2,564	sy	$2.25	$5,769
SIGNS (Post & Misc.)		0.10	Miles	$20,655.74	$2,113
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"		1,620	lf	$0.82	$1,328
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		1,080	lf	$1.32	$1,426
RETRO-REFLECTIVE PAVEMENT MARKERS		41	ea	$8.15	$330
SIGN LT'D OVHD TRUSS-MONOTUBE, T 101-120,S >700		1	ea		
CANTILEVER SIGNS - None			ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	None				
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					
RETAINING WALL SYSTEM, PERMANENT, EXCLUDING BARRIER		10085	SF	$25.35	$255,655
CONCRETE TRAFFIC RAILING BARRIER, RETAINING WALL SYSTEM MOUNTED WITH S		540	LF	$223.07	$120,458

STRUCTURES			
APPROACH SLAB CONCRETE	cy	$387.70	
APPROACH SLAB REINFORCING	lbs	$0.80	

SUBTOTAL		**$973,853**
MOT	10.0%	$97,385
Mobilization	10.0%	$107,124
SUBTOTAL		**$1,178,362**
Contingency	15.0%	$176,754
CONSTRUCTION TOTAL (Rounded)		**$1,355,000**

OVERPASS ROAD / I-75 INTERCHANGE
DIAMOND INTERCHANGE
3 - 2 LANE NB OFF RAMP TO WB OVERPASS ROAD

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$133,412**
CLEARING & GRUBBING		0.17	ac	$25,000.00	$4,250
EROSION CONTROL		0.016	mi	$22,625.30	$364
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		4,095	cy	$9.17	$37,551
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.02	miles	$133,699.30	$2,152
TYPE B STABILIZATION		472	sy	$2.63	$1,241
ROADWAY - OPTIONAL BASE, BASE GROUP 11		236	sy	$38.75	$9,145
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		51.0	tons	$96.75	$4,934
SHOULDER - OPTIONAL BASE, BASE GROUP 04		189.0	sy	$7.16	$1,353
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		16.0	tons	$96.75	$1,548
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		14.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK			sy	$32.38	
GRASSING		410	sy	$2.25	$923
SIGNS (Post & Misc.)		0.02	Miles	$20,655.74	$333
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"		85	lf	$0.82	$70
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		170	lf	$1.32	$224
RETRO-REFLECTIVE PAVEMENT MARKERS		2	ea	$8.15	$17
TRUSS SIGNS - None			ea		
CANTILEVER SIGNS - None			ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	None				
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					
RETAINING WALL SYSTEM, PERMANENT, EXCLUDING BARRIER		1986	SF	$25.35	$50,345
CONCRETE TRAFFIC RAILING BARRIER, RETAINING WALL SYSTEM MOUNTED WITH S		85	LF	$223.07	$18,961

STRUCTURES			
APPROACH SLAB CONCRETE	cy	$387.70	
APPROACH SLAB REINFORCING	lbs	$0.80	

SUBTOTAL		**$133,412**
MOT	10.0%	$13,341
Mobilization	10.0%	$14,675
SUBTOTAL		**$161,429**
Contingency	15.0%	$24,214
CONSTRUCTION TOTAL (Rounded)		**$186,000**

OVERPASS ROAD / I-75 INTERCHANGE
DIAMOND INTERCHANGE
4 - 2 LANE NB OFF RAMP TO EB OVERPASS ROAD

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$117,502**
CLEARING & GRUBBING		0.31	ac	$25,000.00	$7,750
EROSION CONTROL		0.030	mi	$22,625.30	$668
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		7,515	cy	$9.17	$68,913
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.03	miles	$133,699.30	$3,950
TYPE B STABILIZATION		867	sy	$2.63	$2,280
ROADWAY - OPTIONAL BASE, BASE GROUP 11		433	sy	$38.75	$16,779
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		93.0	tons	$96.75	$8,998
SHOULDER - OPTIONAL BASE, BASE GROUP 04		347.0	sy	$7.16	$2,485
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		29.0	tons	$96.75	$2,806
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		25.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK			sy	$32.38	
GRASSING		752	sy	$2.25	$1,692
SIGNS (Post & Misc.)		0.03	Miles	$20,655.74	$610
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"		156	lf	$0.82	$128
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		312	lf	$1.32	$412
RETRO-REFLECTIVE PAVEMENT MARKERS		4	ea	$8.15	$32
TRUSS SIGNS - None			ea		
CANTILEVER SIGNS - None			ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	None				
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					

STRUCTURES			
APPROACH SLAB CONCRETE	cy	$387.70	
APPROACH SLAB REINFORCING	lbs	$0.80	

SUBTOTAL		**$117,502**
MOT	10.0%	$11,750
Mobilization	10.0%	$12,925
SUBTOTAL		**$142,177**
Contingency	15.0%	$21,327
CONSTRUCTION TOTAL (Rounded)		**$164,000**

OVERPASS ROAD / I-75 INTERCHANGE
DIAMOND INTERCHANGE
5 - 1 LANE NB ON RAMP TO NB I-75

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$317,242**
CLEARING & GRUBBING		0.41	ac	$25,000.00	$10,250
EROSION CONTROL		0.044	mi	$22,625.30	$986
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		8,757	cy	$9.17	$80,302
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.04	miles	$133,699.30	$5,824
TYPE B STABILIZATION		1,048	sy	$2.63	$2,756
ROADWAY - OPTIONAL BASE, BASE GROUP 11		409	sy	$38.75	$15,849
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		87.0	tons	$96.75	$8,417
SHOULDER - OPTIONAL BASE, BASE GROUP 04		511.0	sy	$7.16	$3,659
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		42.0	tons	$96.75	$4,064
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		24.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK			sy	$32.38	
GRASSING		1,080	sy	$2.25	$2,430
SIGNS (Post & Misc.)		0.04	Miles	$20,655.74	$900
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"			lf	$0.82	
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		460	lf	$1.32	$607
RETRO-REFLECTIVE PAVEMENT MARKERS			ea	$8.15	
TRUSS SIGNS - None			ea		
CANTILEVER SIGNS - None			ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	None				
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					
RETAINING WALL SYSTEM, PERMANENT, EXCLUDING BARRIER		5124	SF	$25.35	$129,893
CONCRETE TRAFFIC RAILING BARRIER, RETAINING WALL SYSTEM MOUNTED WITH S		230	LF	$223.07	$51,306

STRUCTURES			
APPROACH SLAB CONCRETE	cy	$387.70	
APPROACH SLAB REINFORCING	lbs	$0.80	

SUBTOTAL		**$317,242**
MOT	10.0%	$31,724
Mobilization	10.0%	$34,897
SUBTOTAL		**$383,863**
Contingency	15.0%	$57,579
CONSTRUCTION TOTAL (Rounded)		**$441,000**

OVERPASS ROAD / I-75 INTERCHANGE
DIAMOND INTERCHANGE
6 - 1 LANE NB ON RAMP TO NB I-75

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$425,627**
CLEARING & GRUBBING		0.53	ac	$25,000.00	$13,250
EROSION CONTROL		0.058	mi	$22,625.30	$1,307
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		10,794	cy	$9.17	$98,981
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.06	miles	$133,699.30	$7,723
TYPE B STABILIZATION		1,389	sy	$2.63	$3,653
ROADWAY - OPTIONAL BASE, BASE GROUP 11		542	sy	$38.75	$21,003
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		116.0	tons	$96.75	$11,223
SHOULDER - OPTIONAL BASE, BASE GROUP 04		678.0	sy	$7.16	$4,854
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		56.0	tons	$96.75	$5,418
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		32.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK			sy	$32.38	
GRASSING		1,389	sy	$2.25	$3,125
SIGNS (Post & Misc.)		0.06	Miles	$20,655.74	$1,193
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"			lf	$0.82	
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		610	lf	$1.32	$805
RETRO-REFLECTIVE PAVEMENT MARKERS			ea	$8.15	
TRUSS SIGNS - None			ea		
CANTILEVER SIGNS - None			ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	None				
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					
RETAINING WALL SYSTEM, PERMANENT, EXCLUDING BARRIER		7300	SF	$25.35	$185,055
CONCRETE TRAFFIC RAILING BARRIER, RETAINING WALL SYSTEM MOUNTED WITH S		305	LF	$223.07	$68,036

STRUCTURES			
APPROACH SLAB CONCRETE	cy	$387.70	
APPROACH SLAB REINFORCING	lbs	$0.80	

SUBTOTAL		**$425,627**
MOT	10.0%	$42,563
Mobilization	10.0%	$46,819
SUBTOTAL		**$515,009**
Contingency	15.0%	$77,251
CONSTRUCTION TOTAL (Rounded)		**$592,000**

OVERPASS ROAD / I-75 INTERCHANGE
DIAMOND INTERCHANGE
7 - 2 LANE NB ON RAMP TO NB I-75

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$903,100**
CLEARING & GRUBBING		0.84	ac	$25,000.00	$21,000
EROSION CONTROL		0.108	mi	$22,625.30	$2,443
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		15,122	cy	$9.17	$138,669
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.11	miles	$133,699.30	$14,433
TYPE B STABILIZATION		3,167	sy	$2.63	$8,329
ROADWAY - OPTIONAL BASE, BASE GROUP 11		1,583	sy	$38.75	$61,341
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		341.0	tons	$96.75	$32,992
SHOULDER - OPTIONAL BASE, BASE GROUP 04		1,267.0	sy	$7.16	$9,072
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		105.0	tons	$96.75	$10,159
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		91.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK			sy	$32.38	
GRASSING		1,267	sy	$2.25	$2,851
SIGNS (Post & Misc.)		0.11	Miles	$20,655.74	$2,230
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"		570	lf	$0.82	$467
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		1,140	lf	$1.32	$1,505
RETRO-REFLECTIVE PAVEMENT MARKERS		14	ea	$8.15	$116
SIGN LT'D OVHD TRUSS-MONOTUBE, T 101-120,S >700		1	ea		
CANTILEVER SIGNS - None			ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	None				
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					
RETAINING WALL SYSTEM, PERMANENT, EXCLUDING BARRIER		18554	SF	$25.35	$470,344
CONCRETE TRAFFIC RAILING BARRIER, RETAINING WALL SYSTEM MOUNTED WITH S		570	LF	$223.07	$127,150

STRUCTURES			
APPROACH SLAB CONCRETE	cy	$387.70	
APPROACH SLAB REINFORCING	lbs	$0.80	

SUBTOTAL		**$903,100**
MOT	10.0%	$90,310
Mobilization	10.0%	$99,341
SUBTOTAL		**$1,092,751**
Contingency	15.0%	$163,913
CONSTRUCTION TOTAL (Rounded)		**$1,257,000**

OVERPASS ROAD / I-75 INTERCHANGE
DIAMOND INTERCHANGE
8 - 1 LANE NB ON RAMP TO NB I-75

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$579,470**
CLEARING & GRUBBING		1.33	ac	$25,000.00	$33,250
EROSION CONTROL		0.199	mi	$22,625.30	$4,499
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		7,911	cy	$9.17	$72,544
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.20	miles	$133,699.30	$26,588
TYPE B STABILIZATION		4,783	sy	$2.63	$12,579
ROADWAY - OPTIONAL BASE, BASE GROUP 11		1,867	sy	$38.75	$72,346
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		398.0	tons	$96.75	$38,507
SHOULDER - OPTIONAL BASE, BASE GROUP 04		2,333.0	sy	$7.16	$16,704
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		192.0	tons	$96.75	$18,576
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		109.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK			sy	$32.38	
GRASSING		2,333	sy	$2.25	$5,249
SIGNS (Post & Misc.)		0.20	Miles	$20,655.74	$4,108
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"			lf	$0.82	
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		2,100	lf	$1.32	$2,772
RETRO-REFLECTIVE PAVEMENT MARKERS			ea	$8.15	
TRUSS SIGNS - None			ea		
CANTILEVER SIGNS - None			ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	None				
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					
RETAINING WALL SYSTEM, PERMANENT, EXCLUDING BARRIER		7200	SF	$25.35	$182,520
CONCRETE TRAFFIC RAILING BARRIER, RETAINING WALL SYSTEM MOUNTED WITH S		400	LF	$223.07	$89,228

STRUCTURES			
APPROACH SLAB CONCRETE		cy	$387.70
APPROACH SLAB REINFORCING		lbs	$0.80

SUBTOTAL		**$579,470**
MOT	10.0%	$57,947
Mobilization	10.0%	$63,742
SUBTOTAL		**$701,159**
Contingency	15.0%	$105,174
CONSTRUCTION TOTAL (Rounded)		**$806,000**

OVERPASS ROAD / I-75 INTERCHANGE
DIAMOND INTERCHANGE
9 - 2 LANE SB ON RAMP TO I-75

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$792,678**
CLEARING & GRUBBING		2.00	ac	$25,000.00	$50,000
EROSION CONTROL		0.227	mi	$22,625.30	$5,142
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		15,186	cy	$9.17	$139,256
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.23	miles	$133,699.30	$30,386
TYPE B STABILIZATION		6,667	sy	$2.63	$17,534
ROADWAY - OPTIONAL BASE, BASE GROUP 11		3,333	sy	$38.75	$129,154
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		719.0	tons	$96.75	$69,563
SHOULDER - OPTIONAL BASE, BASE GROUP 04		2,667.0	sy	$7.16	$19,096
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		220.0	tons	$96.75	$21,285
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		191.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK			sy	$32.38	
GRASSING		3,833	sy	$2.25	$8,624
SIGNS (Post & Misc.)		0.23	Miles	$20,655.74	$4,694
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"		1,200	lf	$0.82	$984
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		2,400	lf	$1.32	$3,168
RETRO-REFLECTIVE PAVEMENT MARKERS		30	ea	$8.15	$245
SIGN LT'D OVHD TRUSS-MONOTUBE, T 101-120,S >700		1	ea		
CANTILEVER SIGNS - None			ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	None				
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					
RETAINING WALL SYSTEM, PERMANENT, EXCLUDING BARRIER		6300	SF	$25.35	$159,705
CONCRETE TRAFFIC RAILING BARRIER, RETAINING WALL SYSTEM MOUNTED WITH S		600	LF	$223.07	$133,842

STRUCTURES			
APPROACH SLAB CONCRETE	cy	$387.70	
APPROACH SLAB REINFORCING	lbs	$0.80	

SUBTOTAL		**$792,678**
MOT	10.0%	$79,268
Mobilization	10.0%	$87,195
SUBTOTAL		**$959,141**
Contingency	15.0%	$143,871
CONSTRUCTION TOTAL (Rounded)		**$1,103,000**

OVERPASS ROAD / I-75 INTERCHANGE
DIAMOND INTERCHANGE
10 - 3 LANE SB ON RAMP TO I-75

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$883,553**
CLEARING & GRUBBING		1.05	ac	$25,000.00	$26,250
EROSION CONTROL		0.114	mi	$22,625.30	$2,571
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		24,267	cy	$9.17	$222,528
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.11	miles	$133,699.30	$15,193
TYPE B STABILIZATION		4,133	sy	$2.63	$10,870
ROADWAY - OPTIONAL BASE, BASE GROUP 11		2,467	sy	$38.75	$95,596
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		535.0	tons	$96.75	$51,761
SHOULDER - OPTIONAL BASE, BASE GROUP 04		1,333.0	sy	$7.16	$9,544
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		110.0	tons	$96.75	$10,643
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		139.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK			sy	$32.38	
GRASSING		1,333	sy	$2.25	$2,999
SIGNS (Post & Misc.)		0.11	Miles	$20,655.74	$2,347
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"		1,200	lf	$0.82	$984
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		1,200	lf	$1.32	$1,584
RETRO-REFLECTIVE PAVEMENT MARKERS		30	ea	$8.15	$245
TRUSS SIGNS - None			ea		
CANTILEVER SIGNS - None			ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	None				
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					
RETAINING WALL SYSTEM, PERMANENT, EXCLUDING BARRIER		11700	SF	$25.35	$296,595
CONCRETE TRAFFIC RAILING BARRIER, RETAINING WALL SYSTEM MOUNTED WITH S		600	LF	$223.07	$133,842

STRUCTURES			
APPROACH SLAB CONCRETE	cy	$387.70	
APPROACH SLAB REINFORCING	lbs	$0.80	

SUBTOTAL		**$883,553**
MOT	10.0%	$88,355
Mobilization	10.0%	$97,191
SUBTOTAL		**$1,069,099**
Contingency	15.0%	$160,365
CONSTRUCTION TOTAL (Rounded)		**$1,229,000**

OVERPASS ROAD / I-75 INTERCHANGE
DIAMOND INTERCHANGE
11 - 1 LANE SB ON RAMP TO SB I-75

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$357,956**
CLEARING & GRUBBING		0.50	ac	$25,000.00	$12,500
EROSION CONTROL		0.057	mi	$22,625.30	$1,286
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		8,729	cy	$9.17	$80,045
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.06	miles	$133,699.30	$7,597
TYPE B STABILIZATION		1,367	sy	$2.63	$3,595
ROADWAY - OPTIONAL BASE, BASE GROUP 11		533	sy	$38.75	$20,654
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		114.0	tons	$96.75	$11,030
SHOULDER - OPTIONAL BASE, BASE GROUP 04		667.0	sy	$7.16	$4,776
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		55.0	tons	$96.75	$5,321
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		31.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK			sy	$32.38	
GRASSING		1,263	sy	$2.25	$2,842
SIGNS (Post & Misc.)		0.06	Miles	$20,655.74	$1,174
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"			lf	$0.82	
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		600	lf	$1.32	$792
RETRO-REFLECTIVE PAVEMENT MARKERS			ea	$8.15	
TRUSS SIGNS - None			ea		
CANTILEVER SIGNS - None			ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	None				
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					
RETAINING WALL SYSTEM, PERMANENT, EXCLUDING BARRIER		5500	SF	$25.35	$139,425
CONCRETE TRAFFIC RAILING BARRIER, RETAINING WALL SYSTEM MOUNTED WITH S		300	LF	$223.07	$66,921

STRUCTURES			
APPROACH SLAB CONCRETE	cy	$387.70	
APPROACH SLAB REINFORCING	lbs	$0.80	

SUBTOTAL		**$357,956**
MOT	10.0%	$35,796
Mobilization	10.0%	$39,375
SUBTOTAL		**$433,127**
Contingency	15.0%	$64,969
CONSTRUCTION TOTAL (Rounded)		**$498,000**

OVERPASS ROAD / I-75 INTERCHANGE
DIAMOND INTERCHANGE
12 - 1 LANE SB OFF RAMP TO WB OVERPASS ROAD

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$197,081**
CLEARING & GRUBBING		0.25	ac	$25,000.00	$6,250
EROSION CONTROL		0.027	mi	$22,625.30	$600
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		5,531	cy	$9.17	$50,719
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.03	miles	$133,699.30	$3,545
TYPE B STABILIZATION		638	sy	$2.63	$1,678
ROADWAY - OPTIONAL BASE, BASE GROUP 11		249	sy	$38.75	$9,649
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		53.0	tons	$96.75	$5,128
SHOULDER - OPTIONAL BASE, BASE GROUP 04		311.0	sy	$7.16	$2,227
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		26.0	tons	$96.75	$2,516
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		15.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK			sy	$32.38	
GRASSING		668	sy	$2.25	$1,503
SIGNS (Post & Misc.)		0.03	Miles	$20,655.74	$548
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"			lf	$0.82	
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		280	lf	$1.32	$370
RETRO-REFLECTIVE PAVEMENT MARKERS			ea	$8.15	
TRUSS SIGNS - None			ea		
CANTILEVER SIGNS - None			ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	None				
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					
RETAINING WALL SYSTEM, PERMANENT, EXCLUDING BARRIER		3200	SF	$25.35	$81,120
CONCRETE TRAFFIC RAILING BARRIER, RETAINING WALL SYSTEM MOUNTED WITH S		140	LF	$223.07	$31,230

STRUCTURES			
APPROACH SLAB CONCRETE	cy	$387.70	
APPROACH SLAB REINFORCING	lbs	$0.80	

SUBTOTAL		**$197,081**
MOT	10.0%	$19,708
Mobilization	10.0%	$21,679
SUBTOTAL		**$238,468**
Contingency	15.0%	$35,770
CONSTRUCTION TOTAL (Rounded)		**$274,000**

OVERPASS ROAD / I-75 INTERCHANGE
DIAMOND INTERCHANGE
13 - 2 LANE SB OFF RAMP TO OVERPASS ROAD

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$156,341**
CLEARING & GRUBBING		0.20	ac	$25,000.00	$5,000
EROSION CONTROL		0.019	mi	$22,625.30	$429
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		4,790	cy	$9.17	$43,924
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.02	miles	$133,699.30	$2,532
TYPE B STABILIZATION		556	sy	$2.63	$1,462
ROADWAY - OPTIONAL BASE, BASE GROUP 11		278	sy	$38.75	$10,773
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		60.0	tons	$96.75	$5,805
SHOULDER - OPTIONAL BASE, BASE GROUP 04		222.0	sy	$7.16	$1,590
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		18.0	tons	$96.75	$1,742
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		16.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK			sy	$32.38	
GRASSING		481	sy	$2.25	$1,082
SIGNS (Post & Misc.)		0.02	Miles	$20,655.74	$391
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"		100	lf	$0.82	$82
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		200	lf	$1.32	$264
RETRO-REFLECTIVE PAVEMENT MARKERS		3	ea	$8.15	$20
TRUSS SIGNS - None			ea		
CANTILEVER SIGNS - None			ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	None				
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					
RETAINING WALL SYSTEM, PERMANENT, EXCLUDING BARRIER		2325	SF	$25.35	$58,939
CONCRETE TRAFFIC RAILING BARRIER, RETAINING WALL SYSTEM MOUNTED WITH S		100	LF	$223.07	$22,307

STRUCTURES			
APPROACH SLAB CONCRETE	cy	$387.70	
APPROACH SLAB REINFORCING	lbs	$0.80	

SUBTOTAL		**$156,341**
MOT	10.0%	$15,634
Mobilization	10.0%	$17,198
SUBTOTAL		**$189,173**
Contingency	15.0%	$28,376
CONSTRUCTION TOTAL (Rounded)		**$218,000**

OVERPASS ROAD / I-75 INTERCHANGE
DIAMOND INTERCHANGE
14 - 3 LANE SB OFF RAMP TO OVERPASS ROAD

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$662,935**
CLEARING & GRUBBING		0.94	ac	$25,000.00	$23,500
EROSION CONTROL		0.081	mi	$22,625.30	$1,843
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		20,155	cy	$9.17	$184,821
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.08	miles	$133,699.30	$10,888
TYPE B STABILIZATION		2,962	sy	$2.63	$7,790
ROADWAY - OPTIONAL BASE, BASE GROUP 11		1,768	sy	$38.75	$68,510
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		384.0	tons	$96.75	$37,152
SHOULDER - OPTIONAL BASE, BASE GROUP 04		956.0	sy	$7.16	$6,845
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		79.0	tons	$96.75	$7,643
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		100.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK			sy	$32.38	
GRASSING		1,877	sy	$2.25	$4,223
SIGNS (Post & Misc.)		0.08	Miles	$20,655.74	$1,682
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"		860	lf	$0.82	$705
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		860	lf	$1.32	$1,135
RETRO-REFLECTIVE PAVEMENT MARKERS		22	ea	$8.15	$175
TRUSS SIGNS - None			ea		
CANTILEVER SIGNS - None			ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	None				
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					
RETAINING WALL SYSTEM, PERMANENT, EXCLUDING BARRIER		8288	SF	$25.35	$210,101
CONCRETE TRAFFIC RAILING BARRIER, RETAINING WALL SYSTEM MOUNTED WITH S		430	LF	$223.07	$95,920

STRUCTURES			
APPROACH SLAB CONCRETE	cy	$387.70	
APPROACH SLAB REINFORCING	lbs	$0.80	

SUBTOTAL		**$662,935**
MOT	10.0%	$66,293
Mobilization	10.0%	$72,923
SUBTOTAL		**$802,151**
Contingency	15.0%	$120,323
CONSTRUCTION TOTAL (Rounded)		**$922,000**

OVERPASS ROAD / I-75 INTERCHANGE
DIAMOND INTERCHANGE
15- 1 LANE SB OFF RAMP TO OVERPASS ROAD

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$814,577**
CLEARING & GRUBBING		1.97	ac	$25,000.00	$49,250
EROSION CONTROL		0.295	mi	$22,625.30	$6,685
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		14,022	cy	$9.17	$128,582
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.30	miles	$133,699.30	$39,502
TYPE B STABILIZATION		7,107	sy	$2.63	$18,691
ROADWAY - OPTIONAL BASE, BASE GROUP 11		2,773	sy	$38.75	$107,454
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		591.0	tons	$96.75	$57,179
SHOULDER - OPTIONAL BASE, BASE GROUP 04		3,467.0	sy	$7.16	$24,824
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		286.0	tons	$96.75	$27,671
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		162.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK			sy	$32.38	
GRASSING		3,467	sy	$2.25	$7,801
SIGNS (Post & Misc.)		0.30	Miles	$20,655.74	$6,103
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"			lf	$0.82	
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		3,120	lf	$1.32	$4,118
RETRO-REFLECTIVE PAVEMENT MARKERS			ea	$8.15	
TRUSS SIGNS - None			ea		
CANTILEVER SIGNS - None			ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	None				
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					
RETAINING WALL SYSTEM, PERMANENT, EXCLUDING BARRIER		7387	SF	$25.35	$187,260
CONCRETE TRAFFIC RAILING BARRIER, RETAINING WALL SYSTEM MOUNTED WITH S		670	LF	$223.07	$149,457

STRUCTURES			
APPROACH SLAB CONCRETE	cy	$387.70	
APPROACH SLAB REINFORCING	lbs	$0.80	

SUBTOTAL		**$814,577**
MOT	10.0%	$81,458
Mobilization	10.0%	$89,603
SUBTOTAL		**$985,638**
Contingency	15.0%	$147,846
CONSTRUCTION TOTAL (Rounded)		**$1,133,000**

OVERPASS ROAD / I-75 INTERCHANGE
DIAMOND INTERCHANGE
16- 2 LANE EB OVERPASS ROAD

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$590,896**
CLEARING & GRUBBING		1.83	ac	$25,000.00	$45,750
EROSION CONTROL		0.197	mi	$22,625.30	$4,456
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		8,554	cy	$9.17	$78,440
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.20	miles	$133,699.30	$26,335
TYPE B STABILIZATION		6,240	sy	$2.63	$16,411
ROADWAY - OPTIONAL BASE, BASE GROUP 11		3,351	sy	$38.75	$129,851
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		725.0	tons	$96.75	$70,144
SHOULDER - OPTIONAL BASE, BASE GROUP 04		2,311.0	sy	$7.16	$16,547
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		191.0	tons	$96.75	$18,479
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		191.0	tons		
MILLING & OVERLAY			sy		
CONCRETE CURB & GUTTER, TYPE F			lf	$15.84	
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK		578	sy	$32.38	$18,716
GRASSING		2,716	sy	$2.25	$6,111
SIGNS (Post & Misc.)		0.20	Miles	$20,655.74	$4,069
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"		1,040	lf	$0.82	$853
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		2,080	lf	$1.32	$2,746
RETRO-REFLECTIVE PAVEMENT MARKERS		26	ea	$8.15	$212
TRUSS SIGNS - None			ea		
SIGN LT'D OVHD CTLVR-MONOTUBE, C 21- 30, S 151-200		1	ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	None				
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					
RETAINING WALL SYSTEM, PERMANENT, EXCLUDING BARRIER		2270	SF	$25.35	$57,545
CONCRETE TRAFFIC RAILING BARRIER, RETAINING WALL SYSTEM MOUNTED WITH S		280	LF	$223.07	$62,460
CONCRETE TRAFFIC SEPARATOR, SPECIAL- VARIABLE WIDTH		645	SY	$49.26	$31,773

STRUCTURES			
APPROACH SLAB CONCRETE	cy	$387.70	
APPROACH SLAB REINFORCING	lbs	$0.80	

SUBTOTAL		**$590,896**
MOT	10.0%	$59,090
Mobilization	10.0%	$64,999
SUBTOTAL		**$714,984**
Contingency	15.0%	$107,248
CONSTRUCTION TOTAL (Rounded)		**$822,000**

OVERPASS ROAD / I-75 INTERCHANGE
DIAMOND INTERCHANGE
17- 3 LANE EB OVERPASS ROAD

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$368,237**
CLEARING & GRUBBING		0.68	ac	$25,000.00	$17,000
EROSION CONTROL		0.061	mi	$22,625.30	$1,371
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		5,827	cy	$9.17	$53,434
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.06	miles	$133,699.30	$8,103
TYPE B STABILIZATION		2,346	sy	$2.63	$6,170
ROADWAY - OPTIONAL BASE, BASE GROUP 11		1,457	sy	$38.75	$56,459
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		317.0	tons	$96.75	$30,670
SHOULDER - OPTIONAL BASE, BASE GROUP 04		711.0	sy	$7.16	$5,091
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		59.0	tons	$96.75	$5,708
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		82.0	tons		
MILLING & OVERLAY			sy		
CONCRETE CURB & GUTTER, TYPE F			lf	$15.84	
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK		178	sy	$32.38	$5,764
GRASSING		966	sy	$2.25	$2,174
SIGNS (Post & Misc.)		0.06	Miles	$20,655.74	$1,252
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"		640	lf	$0.82	$525
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		640	lf	$1.32	$845
RETRO-REFLECTIVE PAVEMENT MARKERS		16	ea	$8.15	$130
TRUSS SIGNS - None			ea		
SIGN LT'D OVHD CTLVR-MONOTUBE, C 21- 30, S 151-200		1	ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	None				
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					
RETAINING WALL SYSTEM, PERMANENT, EXCLUDING BARRIER		4030	SF	$25.35	$102,161
CONCRETE TRAFFIC RAILING BARRIER, RETAINING WALL SYSTEM MOUNTED WITH S		320	LF	$223.07	$71,382

STRUCTURES			
APPROACH SLAB CONCRETE	cy	$387.70	
APPROACH SLAB REINFORCING	lbs	$0.80	

SUBTOTAL		**$368,237**
MOT	10.0%	$36,824
Mobilization	10.0%	$40,506
SUBTOTAL		**$445,567**
Contingency	15.0%	$66,835
CONSTRUCTION TOTAL (Rounded)		**$512,000**

OVERPASS ROAD / I-75 INTERCHANGE
DIAMOND INTERCHANGE
18 - 4 LANE EB OVERPASS ROAD

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$384,617**
CLEARING & GRUBBING		0.60	ac	$25,000.00	$15,000
EROSION CONTROL		0.044	mi	$22,625.30	$986
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		12,166	cy	$9.17	$111,562
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.04	miles	$133,699.30	$5,824
TYPE B STABILIZATION		1,993	sy	$2.63	$5,242
ROADWAY - OPTIONAL BASE, BASE GROUP 11		1,354	sy	$38.75	$52,468
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		295.0	tons	$96.75	$28,541
SHOULDER - OPTIONAL BASE, BASE GROUP 04		511.0	sy	$7.16	$3,659
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		42.0	tons	$96.75	$4,064
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		76.0	tons		
MILLING & OVERLAY			sy		
CONCRETE CURB & GUTTER, TYPE F			lf	$15.84	
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK		128	sy	$32.38	$4,145
GRASSING		939	sy	$2.25	$2,113
SIGNS (Post & Misc.)		0.04	Miles	$20,655.74	$900
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"		690	lf	$0.82	$566
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		460	lf	$1.32	$607
RETRO-REFLECTIVE PAVEMENT MARKERS		17	ea	$8.15	$141
TRUSS SIGNS - None			ea		
CANTILEVER SIGNS - None			ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	None				
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					
RETAINING WALL SYSTEM, PERMANENT, EXCLUDING BARRIER		3846	SF	$25.35	$97,496
CONCRETE TRAFFIC RAILING BARRIER, RETAINING WALL SYSTEM MOUNTED WITH S		230	LF	$223.07	$51,306

STRUCTURES			
APPROACH SLAB CONCRETE	cy	$387.70	
APPROACH SLAB REINFORCING	lbs	$0.80	

SUBTOTAL		**$384,617**
MOT	10.0%	$38,462
Mobilization	10.0%	$42,308
SUBTOTAL		**$465,387**
Contingency	15.0%	$69,808
CONSTRUCTION TOTAL (Rounded)		**$535,000**

OVERPASS ROAD / I-75 INTERCHANGE
DIAMOND INTERCHANGE
19 - 3 LANE EB OVERPASS ROAD

Construction Cost Estimate — **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$321,368**
CLEARING & GRUBBING		0.86	ac	$25,000.00	$21,500
EROSION CONTROL		0.070	mi	$22,625.30	$1,585
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		16,941	cy	$9.17	$155,349
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.07	miles	$133,699.30	$9,369
TYPE B STABILIZATION		2,713	sy	$2.63	$7,135
ROADWAY - OPTIONAL BASE, BASE GROUP 11		1,685	sy	$38.75	$65,294
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		366.0	tons	$96.75	$35,411
SHOULDER - OPTIONAL BASE, BASE GROUP 04		822.0	sy	$7.16	$5,886
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		68.0	tons	$96.75	$6,579
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		95.0	tons		
MILLING & OVERLAY			sy		
CONCRETE CURB & GUTTER, TYPE F			lf	$15.84	
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK		206	sy	$32.38	$6,670
GRASSING		1,515	sy	$2.25	$3,409
SIGNS (Post & Misc.)		0.07	Miles	$20,655.74	$1,447
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"		740	lf	$0.82	$607
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		740	lf	$1.32	$977
RETRO-REFLECTIVE PAVEMENT MARKERS		19	ea	$8.15	$151
TRUSS SIGNS - None			ea		
CANTILEVER SIGNS - None			ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	None				
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					

STRUCTURES			
APPROACH SLAB CONCRETE	cy	$387.70	
APPROACH SLAB REINFORCING	lbs	$0.80	

SUBTOTAL		**$321,368**
MOT	10.0%	$32,137
Mobilization	10.0%	$35,351
SUBTOTAL		**$388,856**
Contingency	15.0%	$58,328
CONSTRUCTION TOTAL (Rounded)		**$447,000**

OVERPASS ROAD / I-75 INTERCHANGE
DIAMOND INTERCHANGE
20 - 2 LANE MEDIAN WEST OF BRIDGE

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$288,343**
CLEARING & GRUBBING		0.18	ac	$25,000.00	$4,500
EROSION CONTROL		0.023	mi	$22,625.30	$514
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		3,293	cy	$9.17	$30,197
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.02	miles	$133,699.30	$3,039
TYPE B STABILIZATION		667	sy	$2.63	$1,754
ROADWAY - OPTIONAL BASE, BASE GROUP 11		333	sy	$38.75	$12,904
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		72.0	tons	$96.75	$6,966
SHOULDER - OPTIONAL BASE, BASE GROUP 04		267.0	sy	$7.16	$1,912
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		22.0	tons	$96.75	$2,129
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		19.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK			sy	$32.38	
GRASSING		267	sy	$2.25	$601
SIGNS (Post & Misc.)		0.02	Miles	$20,655.74	$469
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"		360	lf	$0.82	$295
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		240	lf	$1.32	$317
RETRO-REFLECTIVE PAVEMENT MARKERS		9	ea	$8.15	$73
TRUSS SIGNS - None			ea		
CANTILEVER SIGNS - None			ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	Mast Arm - 6 Lanes	1	pi	$222,673.93	$222,674
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					

STRUCTURES			
APPROACH SLAB CONCRETE	cy	$387.70	
APPROACH SLAB REINFORCING	lbs	$0.80	

SUBTOTAL		**$288,343**
MOT	10.0%	$28,834
Mobilization	10.0%	$31,718
SUBTOTAL		**$348,895**
Contingency	15.0%	$52,334
CONSTRUCTION TOTAL (Rounded)		**$401,000**

OVERPASS ROAD / I-75 INTERCHANGE
DIAMOND INTERCHANGE
21 - 2 LANE MEDIAN EAST OF BRIDGE

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$261,676**
CLEARING & GRUBBING		0.10	ac	$25,000.00	$2,500
EROSION CONTROL		0.013	mi	$22,625.30	$300
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		2,025	cy	$9.17	$18,569
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.01	miles	$133,699.30	$1,773
TYPE B STABILIZATION		389	sy	$2.63	$1,023
ROADWAY - OPTIONAL BASE, BASE GROUP 11		194	sy	$38.75	$7,518
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		42.0	tons	$96.75	$4,064
SHOULDER - OPTIONAL BASE, BASE GROUP 04		156.0	sy	$7.16	$1,117
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		13.0	tons	$96.75	$1,258
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		11.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK			sy	$32.38	
GRASSING		156	sy	$2.25	$351
SIGNS (Post & Misc.)		0.01	Miles	$20,655.74	$274
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"		70	lf	$0.82	$57
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		140	lf	$1.32	$185
RETRO-REFLECTIVE PAVEMENT MARKERS		2	ea	$8.15	$14
TRUSS SIGNS - None			ea		
CANTILEVER SIGNS - None			ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	Mast Arm - 6 Lanes	1	pi	$222,673.93	$222,674
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					

STRUCTURES			
APPROACH SLAB CONCRETE	cy	$387.70	
APPROACH SLAB REINFORCING	lbs	$0.80	

SUBTOTAL		**$261,676**
MOT	10.0%	$26,168
Mobilization	10.0%	$28,784
SUBTOTAL		**$316,628**
Contingency	15.0%	$47,494
CONSTRUCTION TOTAL (Rounded)		**$364,000**

OVERPASS ROAD / I-75 INTERCHANGE
DIAMOND INTERCHANGE
22 - 2 LANE EB OVERPASS ROAD

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$170,665**
CLEARING & GRUBBING		0.44	ac	$25,000.00	$11,000
EROSION CONTROL		0.038	mi	$22,625.30	$857
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		10,708	cy	$9.17	$98,192
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.04	miles	$133,699.30	$5,064
TYPE B STABILIZATION		1,200	sy	$2.63	$3,156
ROADWAY - OPTIONAL BASE, BASE GROUP 11		644	sy	$38.75	$24,955
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		139.0	tons	$96.75	$13,448
SHOULDER - OPTIONAL BASE, BASE GROUP 04		444.0	sy	$7.16	$3,179
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		37.0	tons	$96.75	$3,580
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		37.0	tons		
MILLING & OVERLAY			sy		
CONCRETE CURB & GUTTER, TYPE F			lf	$15.84	
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK		111	sy	$32.38	$3,594
GRASSING		944	sy	$2.25	$2,124
SIGNS (Post & Misc.)		0.04	Miles	$20,655.74	$782
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"		200	lf	$0.82	$164
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		400	lf	$1.32	$528
RETRO-REFLECTIVE PAVEMENT MARKERS		5	ea	$8.15	$41
TRUSS SIGNS - None			ea		
CANTILEVER SIGNS - None			ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	None				
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					

STRUCTURES			
APPROACH SLAB CONCRETE	cy	$387.70	
APPROACH SLAB REINFORCING	lbs	$0.80	

SUBTOTAL		**$170,665**
MOT	10.0%	$17,067
Mobilization	10.0%	$18,773
SUBTOTAL		**$206,505**
Contingency	15.0%	$30,976
CONSTRUCTION TOTAL (Rounded)		**$237,000**

OVERPASS ROAD / I-75 INTERCHANGE
DIAMOND INTERCHANGE
23 - 4 LANE EB OVERPASS ROAD

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$1,892,604**
CLEARING & GRUBBING		4.16	ac	$25,000.00	$104,000
EROSION CONTROL		0.311	mi	$22,625.30	$7,028
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		48,554	cy	$9.17	$445,240
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.31	miles	$133,699.30	$41,528
TYPE B STABILIZATION		14,213	sy	$2.63	$37,380
ROADWAY - OPTIONAL BASE, BASE GROUP 11		9,658	sy	$38.75	$374,248
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		2,105.0	tons	$96.75	$203,659
SHOULDER - OPTIONAL BASE, BASE GROUP 04		3,644.0	sy	$7.16	$26,091
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		301.0	tons	$96.75	$29,122
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		541.0	tons		
MILLING & OVERLAY			sy		
CONCRETE CURB & GUTTER, TYPE F			lf	$15.84	
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK		911	sy	$32.38	$29,498
GRASSING		6,104	sy	$2.25	$13,734
SIGNS (Post & Misc.)		0.31	Miles	$20,655.74	$6,416
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"		4,920	lf	$0.82	$4,034
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		3,280	lf	$1.32	$4,330
RETRO-REFLECTIVE PAVEMENT MARKERS		123	ea	$8.15	$1,002
TRUSS SIGNS - None			ea		
CANTILEVER SIGNS - None			ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	None				
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					
RETAINING WALL SYSTEM, PERMANENT, EXCLUDING BARRIER		13500	SF	$25.35	$342,225
CONCRETE TRAFFIC RAILING BARRIER, RETAINING WALL SYSTEM MOUNTED WITH S		1000	LF	$223.07	$223,070

STRUCTURES			
APPROACH SLAB CONCRETE	cy	$387.70	
APPROACH SLAB REINFORCING	lbs	$0.80	

SUBTOTAL		**$1,892,604**
MOT	10.0%	$189,260
Mobilization	10.0%	$208,186
SUBTOTAL		**$2,290,051**
Contingency	15.0%	$343,508
CONSTRUCTION TOTAL (Rounded)		**$2,634,000**

OVERPASS ROAD / I-75 INTERCHANGE
DIAMOND INTERCHANGE
24- 6 LANE EB OVERPASS ROAD

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$441,485**
CLEARING & GRUBBING		0.70	ac	$25,000.00	$17,500
EROSION CONTROL		0.054	mi	$22,625.30	$1,217
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		3,157	cy	$9.17	$28,950
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.05	miles	$133,699.30	$7,191
TYPE B STABILIZATION		2,840	sy	$2.63	$7,469
ROADWAY - OPTIONAL BASE, BASE GROUP 11		2,051	sy	$38.75	$79,476
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		448.0	tons	$96.75	$43,344
SHOULDER - OPTIONAL BASE, BASE GROUP 04		631.0	sy	$7.16	$4,518
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		52.0	tons	$96.75	$5,031
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		115.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK			sy	$32.38	
GRASSING		742	sy	$2.25	$1,670
SIGNS (Post & Misc.)		0.05	Miles	$20,655.74	$1,111
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"		1,420	lf	$0.82	$1,164
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		568	lf	$1.32	$750
RETRO-REFLECTIVE PAVEMENT MARKERS		36	ea	$8.15	$289
TRUSS SIGNS - None			ea		
CANTILEVER SIGNS - None			ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	Mast Arm - 6 Lanes	1	pi	$222,673.93	$222,674
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					
TRAFFIC SEPARATOR CONCRETE- TYPE IV, 8.5' WIDE		316	LF	$60.54	$19,131

STRUCTURES			
APPROACH SLAB CONCRETE		cy	$387.70
APPROACH SLAB REINFORCING		lbs	$0.80

SUBTOTAL		**$441,485**
MOT	10.0%	$44,149
Mobilization	10.0%	$48,563
SUBTOTAL		**$534,197**
Contingency	15.0%	$80,130
CONSTRUCTION TOTAL (Rounded)		**$614,000**

OVERPASS ROAD / I-75 INTERCHANGE
DIAMOND INTERCHANGE
25 - 3 LANE WB OVERPASS ROAD

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$280,278**
CLEARING & GRUBBING		1.04	ac	$25,000.00	$26,000
EROSION CONTROL		0.102	mi	$22,625.30	$2,314
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		4,322	cy	$9.17	$39,633
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.10	miles	$133,699.30	$13,674
TYPE B STABILIZATION		3,959	sy	$2.63	$10,412
ROADWAY - OPTIONAL BASE, BASE GROUP 11		2,459	sy	$38.75	$95,286
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		534.0	tons	$96.75	$51,665
SHOULDER - OPTIONAL BASE, BASE GROUP 04		1,200.0	sy	$7.16	$8,592
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		99.0	tons	$96.75	$9,578
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		139.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK			sy	$32.38	
GRASSING		1,410	sy	$2.25	$3,173
SIGNS (Post & Misc.)		0.10	Miles	$20,655.74	$2,113
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"		1,080	lf	$0.82	$886
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		1,080	lf	$1.32	$1,426
RETRO-REFLECTIVE PAVEMENT MARKERS		27	ea	$8.15	$220
TRUSS SIGNS - None			ea		
CANTILEVER SIGNS - None			ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	None				
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					
10' WIDTH MULTI-USE PATH		600	SY	$24.00	$14,400
THERMOPLASTIC, STANDARD, WHITE, SOLID, 6"		540	LF	$1.15	$621
THERMOPLASTIC, STANDARD, WHITE, MESSAGE		2	EACH	$143.45	$287

STRUCTURES			
APPROACH SLAB CONCRETE	cy	$387.70	
APPROACH SLAB REINFORCING	lbs	$0.80	

SUBTOTAL		**$280,278**
MOT	10.0%	$28,028
Mobilization	10.0%	$30,831
SUBTOTAL		**$339,136**
Contingency	15.0%	$50,870
CONSTRUCTION TOTAL (Rounded)		**$390,000**

OVERPASS ROAD / I-75 INTERCHANGE
DIAMOND INTERCHANGE
26 - 2 LANE WB OVERPASS ROAD

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$1,422,148**
CLEARING & GRUBBING		2.30	ac	$25,000.00	$57,500
EROSION CONTROL		0.265	mi	$22,625.30	$5,999
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		38,290	cy	$9.17	$351,119
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.27	miles	$133,699.30	$35,451
TYPE B STABILIZATION		8,400	sy	$2.63	$22,092
ROADWAY - OPTIONAL BASE, BASE GROUP 11		4,511	sy	$38.75	$174,801
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		975.0	tons	$96.75	$94,331
SHOULDER - OPTIONAL BASE, BASE GROUP 04		3,111.0	sy	$7.16	$22,275
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		257.0	tons	$96.75	$24,865
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		257.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK			sy	$32.38	
GRASSING		3,656	sy	$2.25	$8,226
SIGNS (Post & Misc.)		0.27	Miles	$20,655.74	$5,477
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"		1,400	lf	$0.82	$1,148
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		2,800	lf	$1.32	$3,696
RETRO-REFLECTIVE PAVEMENT MARKERS		35	ea	$8.15	$285
TRUSS SIGNS - None			ea		
SIGN LT'D OVHD CTLVR-MONOTUBE, C 21- 30, S 151-200		1	ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	None				
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					
RETAINING WALL SYSTEM, PERMANENT, EXCLUDING BARRIER		12000	SF	$25.35	$304,200
CONCRETE TRAFFIC RAILING BARRIER, RETAINING WALL SYSTEM MOUNTED WITH S		1200	LF	$223.07	$267,684
10' WIDTH MULTI-USE PATH		1689	SY	$24.00	$40,533
THERMOPLASTIC, STANDARD, WHITE, SOLID, 6"		1520	LF	$1.15	$1,748
THERMOPLASTIC, STANDARD, WHITE, MESSAGE		5	EACH	$143.45	$717

STRUCTURES			
APPROACH SLAB CONCRETE	cy	$387.70	
APPROACH SLAB REINFORCING	lbs	$0.80	

SUBTOTAL		**$1,422,148**
MOT	10.0%	$142,215
Mobilization	10.0%	$156,436
SUBTOTAL		**$1,720,799**
Contingency	15.0%	$258,120
CONSTRUCTION TOTAL (Rounded)		**$1,979,000**

OVERPASS ROAD / I-75 INTERCHANGE
DIAMOND INTERCHANGE
27 - 3 LANE WB OVERPASS ROAD INCLUDES BRIDGE OVER I-75

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$254,888**
CLEARING & GRUBBING		0.67	ac	$25,000.00	$16,750
EROSION CONTROL		0.057	mi	$22,625.30	$1,286
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		12,655	cy	$9.17	$116,046
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.06	miles	$133,699.30	$7,597
TYPE B STABILIZATION		2,200	sy	$2.63	$5,786
ROADWAY - OPTIONAL BASE, BASE GROUP 11		1,366	sy	$38.75	$52,933
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		297.0	tons	$96.75	$28,735
SHOULDER - OPTIONAL BASE, BASE GROUP 04		667.0	sy	$7.16	$4,776
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		55.0	tons	$96.75	$5,321
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		77.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK			sy	$32.38	
GRASSING		1,222	sy	$2.25	$2,750
SIGNS (Post & Misc.)		0.06	Miles	$20,655.74	$1,174
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"		900	lf	$0.82	$738
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		600	lf	$1.32	$792
RETRO-REFLECTIVE PAVEMENT MARKERS		23	ea	$8.15	$183
TRUSS SIGNS - None			ea		
CANTILEVER SIGNS - None			ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	None				
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					
10' WIDTH MULTI-USE PATH		389	SY	$24.00	$9,333
THERMOPLASTIC, STANDARD, WHITE, SOLID, 6"		350	LF	$1.15	$403
THERMOPLASTIC, STANDARD, WHITE, MESSAGE		2	EACH	$143.45	$287

STRUCTURES					**$6,411,980**
APPROACH SLAB CONCRETE		275	cy	$387.70	$106,592
APPROACH SLAB REINFORCING		57,736	lbs	$0.80	$46,189
OVER I- OVERPASS RD OVER I-75	PRESTRESS.CONC.GIRDER (CONT.SPAN)	38,400.00	sf	$163.00	$6,259,200

SUBTOTAL		**$6,666,868**
MOT	10.0%	$666,687
Mobilization	10.0%	$733,356
SUBTOTAL		**$8,066,911**
Contingency	15.0%	$1,210,037
CONSTRUCTION TOTAL (Rounded)		**$9,277,000**

OVERPASS ROAD / I-75 INTERCHANGE
DIAMOND INTERCHANGE
28 - 4 LANE WB OVERPASS ROAD

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$1,967,315**
CLEARING & GRUBBING		4.36	ac	$25,000.00	$109,000
EROSION CONTROL		0.341	mi	$22,625.30	$7,713
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		46,690	cy	$9.17	$428,147
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.34	miles	$133,699.30	$45,579
TYPE B STABILIZATION		15,600	sy	$2.63	$41,028
ROADWAY - OPTIONAL BASE, BASE GROUP 11		10,600	sy	$38.75	$410,750
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		2,310.0	tons	$96.75	$223,493
SHOULDER - OPTIONAL BASE, BASE GROUP 04		4,000.0	sy	$7.16	$28,640
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		330.0	tons	$96.75	$31,928
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		594.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK			sy	$32.38	
GRASSING		6,686	sy	$2.25	$15,044
SIGNS (Post & Misc.)		0.34	Miles	$20,655.74	$7,042
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"		5,400	lf	$0.82	$4,428
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		3,600	lf	$1.32	$4,752
RETRO-REFLECTIVE PAVEMENT MARKERS		135	ea	$8.15	$1,100
SIGN LT'D OVHD TRUSS-MONOTUBE, T 101-120,S >700		1	ea		
CANTILEVER SIGNS - None			ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	None				
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					
RETAINING WALL SYSTEM, PERMANENT, EXCLUDING BARRIER		13290	SF	$25.35	$336,902
CONCRETE TRAFFIC RAILING BARRIER, RETAINING WALL SYSTEM MOUNTED WITH S		990	LF	$223.07	$220,839
10' WIDTH MULTI-USE PATH		2000	SY	$24.00	$48,000
THERMOPLASTIC, STANDARD, WHITE, SOLID, 6"		1800	LF	$1.15	$2,070
THERMOPLASTIC, STANDARD, WHITE, MESSAGE		6	EACH	$143.45	$861

STRUCTURES			
APPROACH SLAB CONCRETE	cy	$387.70	
APPROACH SLAB REINFORCING	lbs	$0.80	

SUBTOTAL		**$1,967,315**
MOT	10.0%	$196,731
Mobilization	10.0%	$216,405
SUBTOTAL		**$2,380,451**
Contingency	15.0%	$357,068
CONSTRUCTION TOTAL (Rounded)		**$2,738,000**

OVERPASS ROAD / I-75 INTERCHANGE

7/23/2012

Construction Cost Estimate Summary

SPUI CONFIGURATION

SEGMENT	SEGMENT TITLE	SEGMENT COST
1	1 - 2 LANE NB OFF RAMP TO OVERPASS ROAD	$1,104,000
2	2 - 4 LANE NB OFF RAMP TO OVERPASS ROAD	$895,000
3	3 - 2 LANE NB OFF RAMP TO WB OVERPASS ROAD	$460,000
4	4 - 2 LANE NB OFF RAMP TO EB OVERPASS ROAD	$698,000
5	5 - 1 LANE NB ON RAMP TO NB I-75	$361,000
6	6 - 1 LANE NB ON RAMP TO NB I-75	$508,000
7	7 - 2 LANE NB ON RAMP TO NB I-75	$998,000
8	8 - 1 LANE NB ON RAMP TO NB I-75	$779,000
9	9 - 2 LANE SB ON RAMP TO I-75	$725,000
10	10 - 3 LANE SB ON RAMP TO I-75	$1,886,000
11	11 - 1 LANE SB ON RAMP TO SB I-75	$557,000
12	12 - 1 LANE SB OFF RAMP TO WB OVERPASS ROAD	$239,000
13	13 - 2 LANE SB OFF RAMP TO EB OVERPASS ROAD	$229,000
14	14 - 3 LANE SB OFF RAMP TO OVERPASS ROAD	$706,000
15	15 - 1 LANE SB OFF RAMP TO OVERPASS ROAD	$1,279,000
16	16 - 2 LANE EB OVERPASS ROAD	$899,000
17	17 - 3 LANE EB OVERPASS ROAD	$449,000
18	18 - 4 LANE EB OVERPASS ROAD	$823,000
19	19 - 3 LANE EB OVERPASS ROAD	$406,000
20	20 - 2 LANE EB OVERPASS ROAD	$271,000
21	21 - 4 LANE EB OVERPASS ROAD	$2,360,000
22	22 - 5 LANE EB OVERPASS ROAD	$949,000
23	23 - 3 LANE WB OVERPASS ROAD	$432,000
24	24 - 2 LANE WB OVERPASS ROAD	$2,184,000
25	25 - 5 LANE WB OVERPASS ROAD INCLUDES BRIDGE OVER I-75	$22,147,000

SPUI CONFIGURATION - CONSTRUCTION TOTAL	**$42,344,000**

OVERPASS ROAD / I-75 INTERCHANGE
PRELIMINARY SPUI CONFIGURATION
1 - 2 LANE NB OFF RAMP TO OVERPASS ROAD

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$793,061**
CLEARING & GRUBBING		2.15	ac	$25,000.00	$53,750
EROSION CONTROL		0.244	mi	$22,625.30	$5,528
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		14,882	cy	$9.17	$136,468
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.24	miles	$133,699.30	$32,665
TYPE B STABILIZATION		7,167	sy	$2.63	$18,849
ROADWAY - OPTIONAL BASE, BASE GROUP 11		3,583	sy	$38.75	$138,841
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		773.0	tons	$96.75	$74,788
SHOULDER - OPTIONAL BASE, BASE GROUP 04		2,867.0	sy	$7.16	$20,528
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		237.0	tons	$96.75	$22,930
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		205.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK			sy	$32.38	
GRASSING		4,099	sy	$2.25	$9,223
SIGNS (Post & Misc.)		0.24	Miles	$20,655.74	$5,047
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"		1,290	lf	$0.82	$1,058
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		2,580	lf	$1.32	$3,406
RETRO-REFLECTIVE PAVEMENT MARKERS		32	ea	$8.15	$263
SIGN LT'D OVHD TRUSS-MONOTUBE, T 101-120,S >700		1	ea		
CANTILEVER SIGNS - None			ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	None				
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					
RETAINING WALL SYSTEM, PERMANENT, EXCLUDING BARRIER		5712	SF	$25.35	$144,799
CONCRETE TRAFFIC RAILING BARRIER, RETAINING WALL SYSTEM MOUNTED WITH S		560	LF	$223.07	$124,919

STRUCTURES			
APPROACH SLAB CONCRETE	cy	$387.70	
APPROACH SLAB REINFORCING	lbs	$0.80	

SUBTOTAL		**$793,061**
MOT	10.0%	$79,306
Mobilization	10.0%	$87,237
SUBTOTAL		**$959,603**
Contingency	15.0%	$143,940
CONSTRUCTION TOTAL (Rounded)		**$1,104,000**

OVERPASS ROAD / I-75 INTERCHANGE
PRELIMINARY SPUI CONFIGURATION
2 - 4 LANE NB OFF RAMP TO OVERPASS ROAD

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$642,990**
CLEARING & GRUBBING		0.97	ac	$25,000.00	$24,250
EROSION CONTROL		0.076	mi	$22,625.30	$1,714
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		19,772	cy	$9.17	$181,309
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.08	miles	$133,699.30	$10,129
TYPE B STABILIZATION		3,289	sy	$2.63	$8,650
ROADWAY - OPTIONAL BASE, BASE GROUP 11		2,178	sy	$38.75	$84,398
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		474.0	tons	$96.75	$45,860
SHOULDER - OPTIONAL BASE, BASE GROUP 04		889.0	sy	$7.16	$6,365
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		73.0	tons	$96.75	$7,063
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		122.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK			sy	$32.38	
GRASSING		1,662	sy	$2.25	$3,740
SIGNS (Post & Misc.)		0.08	Miles	$20,655.74	$1,565
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"		1,200	lf	$0.82	$984
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		800	lf	$1.32	$1,056
RETRO-REFLECTIVE PAVEMENT MARKERS		30	ea	$8.15	$245
SIGN LT'D OVHD TRUSS-MONOTUBE, T 101-120,S >700		1	ea		
CANTILEVER SIGNS - None			ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	None				
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					
RETAINING WALL SYSTEM, PERMANENT, EXCLUDING BARRIER		6960	SF	$25.35	$176,436
CONCRETE TRAFFIC RAILING BARRIER, RETAINING WALL SYSTEM MOUNTED WITH S		400	LF	$223.07	$89,228

STRUCTURES			
APPROACH SLAB CONCRETE	cy	$387.70	
APPROACH SLAB REINFORCING	lbs	$0.80	

SUBTOTAL		**$642,990**
MOT	10.0%	$64,299
Mobilization	10.0%	$70,729
SUBTOTAL		**$778,018**
Contingency	15.0%	$116,703
CONSTRUCTION TOTAL (Rounded)		**$895,000**

OVERPASS ROAD / I-75 INTERCHANGE
PRELIMINARY SPUI CONFIGURATION
3 - 2 LANE NB OFF RAMP TO WB OVERPASS ROAD

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$330,703**
CLEARING & GRUBBING		0.43	ac	$25,000.00	$10,750
EROSION CONTROL		0.042	mi	$22,625.30	$943
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		9,859	cy	$9.17	$90,407
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.04	miles	$133,699.30	$5,571
TYPE B STABILIZATION		1,222	sy	$2.63	$3,214
ROADWAY - OPTIONAL BASE, BASE GROUP 11		611	sy	$38.75	$23,676
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		132.0	tons	$96.75	$12,771
SHOULDER - OPTIONAL BASE, BASE GROUP 04		489.0	sy	$7.16	$3,501
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		40.0	tons	$96.75	$3,870
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		35.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK			sy	$32.38	
GRASSING		1,027	sy	$2.25	$2,311
SIGNS (Post & Misc.)		0.04	Miles	$20,655.74	$861
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"		220	lf	$0.82	$180
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		440	lf	$1.32	$581
RETRO-REFLECTIVE PAVEMENT MARKERS		6	ea	$8.15	$45
TRUSS SIGNS - None			ea		
CANTILEVER SIGNS - None			ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	None				
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					
RETAINING WALL SYSTEM, PERMANENT, EXCLUDING BARRIER		4850	SF	$25.35	$122,948
CONCRETE TRAFFIC RAILING BARRIER, RETAINING WALL SYSTEM MOUNTED WITH S		220	LF	$223.07	$49,075

STRUCTURES			
APPROACH SLAB CONCRETE	cy	$387.70	
APPROACH SLAB REINFORCING	lbs	$0.80	

SUBTOTAL		**$330,703**
MOT	10.0%	$33,070
Mobilization	10.0%	$36,377
SUBTOTAL		**$400,151**
Contingency	15.0%	$60,023
CONSTRUCTION TOTAL (Rounded)		**$460,000**

OVERPASS ROAD / I-75 INTERCHANGE
PRELIMINARY SPUI CONFIGURATION
4 - 2 LANE NB OFF RAMP TO EB OVERPASS ROAD

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$501,884**
CLEARING & GRUBBING		0.67	ac	$25,000.00	$16,750
EROSION CONTROL		0.064	mi	$22,625.30	$1,457
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		14,782	cy	$9.17	$135,551
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.06	miles	$133,699.30	$8,609
TYPE B STABILIZATION		1,889	sy	$2.63	$4,968
ROADWAY - OPTIONAL BASE, BASE GROUP 11		944	sy	$38.75	$36,580
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		204.0	tons	$96.75	$19,737
SHOULDER - OPTIONAL BASE, BASE GROUP 04		756.0	sy	$7.16	$5,413
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		62.0	tons	$96.75	$5,999
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		54.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK			sy	$32.38	
GRASSING		1,566	sy	$2.25	$3,524
SIGNS (Post & Misc.)		0.06	Miles	$20,655.74	$1,330
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"		340	lf	$0.82	$279
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		680	lf	$1.32	$898
RETRO-REFLECTIVE PAVEMENT MARKERS		9	ea	$8.15	$69
TRUSS SIGNS - None			ea		
CANTILEVER SIGNS - None			ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	None				
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					
RETAINING WALL SYSTEM, PERMANENT, EXCLUDING BARRIER		7293	SF	$25.35	$184,878
CONCRETE TRAFFIC RAILING BARRIER, RETAINING WALL SYSTEM MOUNTED WITH S		340	LF	$223.07	$75,844

STRUCTURES			
APPROACH SLAB CONCRETE	cy	$387.70	
APPROACH SLAB REINFORCING	lbs	$0.80	

SUBTOTAL		**$501,884**
MOT	10.0%	$50,188
Mobilization	10.0%	$55,207
SUBTOTAL		**$607,280**
Contingency	15.0%	$91,092
CONSTRUCTION TOTAL (Rounded)		**$698,000**

OVERPASS ROAD / I-75 INTERCHANGE
PRELIMINARY SPUI CONFIGURATION
5 - 1 LANE NB ON RAMP TO NB I-75

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$259,634**
CLEARING & GRUBBING		0.34	ac	$25,000.00	$8,500
EROSION CONTROL		0.036	mi	$22,625.30	$814
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		7,121	cy	$9.17	$65,300
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.04	miles	$133,699.30	$4,811
TYPE B STABILIZATION		866	sy	$2.63	$2,278
ROADWAY - OPTIONAL BASE, BASE GROUP 11		338	sy	$38.75	$13,098
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		72.0	tons	$96.75	$6,966
SHOULDER - OPTIONAL BASE, BASE GROUP 04		422.0	sy	$7.16	$3,022
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		35.0	tons	$96.75	$3,386
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		20.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK			sy	$32.38	
GRASSING		887	sy	$2.25	$1,996
SIGNS (Post & Misc.)		0.04	Miles	$20,655.74	$743
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"			lf	$0.82	
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		380	lf	$1.32	$502
RETRO-REFLECTIVE PAVEMENT MARKERS			ea	$8.15	
TRUSS SIGNS - None			ea		
CANTILEVER SIGNS - None			ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	None				
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					
RETAINING WALL SYSTEM, PERMANENT, EXCLUDING BARRIER		4175	SF	$25.35	$105,836
CONCRETE TRAFFIC RAILING BARRIER, RETAINING WALL SYSTEM MOUNTED WITH S		190	LF	$223.07	$42,383

STRUCTURES			
APPROACH SLAB CONCRETE	cy	$387.70	
APPROACH SLAB REINFORCING	lbs	$0.80	

SUBTOTAL		**$259,634**
MOT	10.0%	$25,963
Mobilization	10.0%	$28,560
SUBTOTAL		**$314,157**
Contingency	15.0%	$47,124
CONSTRUCTION TOTAL (Rounded)		**$361,000**

OVERPASS ROAD / I-75 INTERCHANGE
PRELIMINARY SPUI CONFIGURATION
6 - 1 LANE NB ON RAMP TO NB I-75

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$364,773**
CLEARING & GRUBBING		0.57	ac	$25,000.00	$14,250
EROSION CONTROL		0.061	mi	$22,625.30	$1,371
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		11,994	cy	$9.17	$109,985
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.06	miles	$133,699.30	$8,103
TYPE B STABILIZATION		1,458	sy	$2.63	$3,835
ROADWAY - OPTIONAL BASE, BASE GROUP 11		569	sy	$38.75	$22,049
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		121.0	tons	$96.75	$11,707
SHOULDER - OPTIONAL BASE, BASE GROUP 04		711.0	sy	$7.16	$5,091
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		59.0	tons	$96.75	$5,708
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		33.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK			sy	$32.38	
GRASSING		1,493	sy	$2.25	$3,359
SIGNS (Post & Misc.)		0.06	Miles	$20,655.74	$1,252
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"			lf	$0.82	
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		640	lf	$1.32	$845
RETRO-REFLECTIVE PAVEMENT MARKERS			ea	$8.15	
TRUSS SIGNS - None			ea		
CANTILEVER SIGNS - None			ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	None				
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					
RETAINING WALL SYSTEM, PERMANENT, EXCLUDING BARRIER		4175	SF	$25.35	$105,836
CONCRETE TRAFFIC RAILING BARRIER, RETAINING WALL SYSTEM MOUNTED WITH S		320	LF	$223.07	$71,382

STRUCTURES			
APPROACH SLAB CONCRETE	cy	$387.70	
APPROACH SLAB REINFORCING	lbs	$0.80	

SUBTOTAL		**$364,773**
MOT	10.0%	$36,477
Mobilization	10.0%	$40,125
SUBTOTAL		**$441,375**
Contingency	15.0%	$66,206
CONSTRUCTION TOTAL (Rounded)		**$508,000**

OVERPASS ROAD / I-75 INTERCHANGE
PRELIMINARY SPUI CONFIGURATION
7 - 2 LANE NB ON RAMP TO NB I-75

Construction Cost Estimate

URS Corporation /

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$716,999**
CLEARING & GRUBBING		0.91	ac	$25,000.00	$22,750
EROSION CONTROL		0.117	mi	$22,625.30	$2,657
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		16,065	cy	$9.17	$147,316
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.12	miles	$133,699.30	$15,700
TYPE B STABILIZATION		3,444	sy	$2.63	$9,058
ROADWAY - OPTIONAL BASE, BASE GROUP 11		1,722	sy	$38.75	$66,728
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		371.0	tons	$96.75	$35,894
SHOULDER - OPTIONAL BASE, BASE GROUP 04		1,378.0	sy	$7.16	$9,866
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		114.0	tons	$96.75	$11,030
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		99.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK			sy	$32.38	
GRASSING		1,378	sy	$2.25	$3,101
SIGNS (Post & Misc.)		0.12	Miles	$20,655.74	$2,425
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"		620	lf	$0.82	$508
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		1,240	lf	$1.32	$1,637
RETRO-REFLECTIVE PAVEMENT MARKERS		16	ea	$8.15	$126
SIGN LT'D OVHD TRUSS-MONOTUBE, T 101-120,S >700		1	ea		
CANTILEVER SIGNS - None			ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	None				
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					
RETAINING WALL SYSTEM, PERMANENT, EXCLUDING BARRIER		9858	SF	$25.35	$249,900
CONCRETE TRAFFIC RAILING BARRIER, RETAINING WALL SYSTEM MOUNTED WITH S		620	LF	$223.07	$138,303

STRUCTURES			
APPROACH SLAB CONCRETE	cy	$387.70	
APPROACH SLAB REINFORCING	lbs	$0.80	

SUBTOTAL		**$716,999**
MOT	10.0%	$71,700
Mobilization	10.0%	$78,870
SUBTOTAL		**$867,569**
Contingency	15.0%	$130,135
CONSTRUCTION TOTAL (Rounded)		**$998,000**

OVERPASS ROAD / I-75 INTERCHANGE
PRELIMINARY SPUI CONFIGURATION
8 - 1 LANE NB ON RAMP TO NB I-75

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$559,536**
CLEARING & GRUBBING		1.87	ac	$25,000.00	$46,750
EROSION CONTROL		0.280	mi	$22,625.30	$6,342
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		8,022	cy	$9.17	$73,562
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.28	miles	$133,699.30	$37,476
TYPE B STABILIZATION		6,742	sy	$2.63	$17,731
ROADWAY - OPTIONAL BASE, BASE GROUP 11		2,631	sy	$38.75	$101,951
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		561.0	tons	$96.75	$54,277
SHOULDER - OPTIONAL BASE, BASE GROUP 04		3,289.0	sy	$7.16	$23,549
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		271.0	tons	$96.75	$26,219
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		154.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK			sy	$32.38	
GRASSING		3,289	sy	$2.25	$7,400
SIGNS (Post & Misc.)		0.28	Miles	$20,655.74	$5,790
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"			lf	$0.82	
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		2,960	lf	$1.32	$3,907
RETRO-REFLECTIVE PAVEMENT MARKERS			ea	$8.15	
TRUSS SIGNS - None			ea		
CANTILEVER SIGNS - None			ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	None				
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					
RETAINING WALL SYSTEM, PERMANENT, EXCLUDING BARRIER		3018	SF	$25.35	$76,506
CONCRETE TRAFFIC RAILING BARRIER, RETAINING WALL SYSTEM MOUNTED WITH S		350	LF	$223.07	$78,075

STRUCTURES			
APPROACH SLAB CONCRETE	cy	$387.70	
APPROACH SLAB REINFORCING	lbs	$0.80	

SUBTOTAL		**$559,536**
MOT	10.0%	$55,954
Mobilization	10.0%	$61,549
SUBTOTAL		**$677,039**
Contingency	15.0%	$101,556
CONSTRUCTION TOTAL (Rounded)		**$779,000**

OVERPASS ROAD / I-75 INTERCHANGE
PRELIMINARY SPUI CONFIGURATION
9 - 2 LANE SB ON RAMP TO I-75

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$521,131**
CLEARING & GRUBBING		1.44	ac	$25,000.00	$36,000
EROSION CONTROL		0.167	mi	$22,625.30	$3,771
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		7,154	cy	$9.17	$65,602
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.17	miles	$133,699.30	$22,283
TYPE B STABILIZATION		4,889	sy	$2.63	$12,858
ROADWAY - OPTIONAL BASE, BASE GROUP 11		2,444	sy	$38.75	$94,705
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		527.0	tons	$96.75	$50,987
SHOULDER - OPTIONAL BASE, BASE GROUP 04		1,956.0	sy	$7.16	$14,005
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		161.0	tons	$96.75	$15,577
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		140.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK			sy	$32.38	
GRASSING		2,676	sy	$2.25	$6,021
SIGNS (Post & Misc.)		0.17	Miles	$20,655.74	$3,443
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"		880	lf	$0.82	$722
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		1,760	lf	$1.32	$2,323
RETRO-REFLECTIVE PAVEMENT MARKERS		22	ea	$8.15	$179
SIGN LT'D OVHD TRUSS-MONOTUBE, T 101-120,S >700		1	ea		
CANTILEVER SIGNS - None			ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	None				
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					
RETAINING WALL SYSTEM, PERMANENT, EXCLUDING BARRIER		3552	SF	$25.35	$90,043
CONCRETE TRAFFIC RAILING BARRIER, RETAINING WALL SYSTEM MOUNTED WITH S		460	LF	$223.07	$102,612

STRUCTURES			
APPROACH SLAB CONCRETE	cy	$387.70	
APPROACH SLAB REINFORCING	lbs	$0.80	

SUBTOTAL		**$521,131**
MOT	10.0%	$52,113
Mobilization	10.0%	$57,324
SUBTOTAL		**$630,569**
Contingency	15.0%	$94,585
CONSTRUCTION TOTAL (Rounded)		**$725,000**

OVERPASS ROAD / I-75 INTERCHANGE
PRELIMINARY SPUI CONFIGURATION
10 - 3 LANE SB ON RAMP TO I-75

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$1,355,236**
CLEARING & GRUBBING		1.78	ac	$25,000.00	$44,500
EROSION CONTROL		0.193	mi	$22,625.30	$4,371
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		35,393	cy	$9.17	$324,554
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.19	miles	$133,699.30	$25,828
TYPE B STABILIZATION		7,027	sy	$2.63	$18,481
ROADWAY - OPTIONAL BASE, BASE GROUP 11		4,193	sy	$38.75	$162,479
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		910.0	tons	$96.75	$88,043
SHOULDER - OPTIONAL BASE, BASE GROUP 04		2,267.0	sy	$7.16	$16,232
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		187.0	tons	$96.75	$18,092
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		237.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK			sy	$32.38	
GRASSING		2,267	sy	$2.25	$5,101
SIGNS (Post & Misc.)		0.19	Miles	$20,655.74	$3,990
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"		2,040	lf	$0.82	$1,673
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		2,040	lf	$1.32	$2,693
RETRO-REFLECTIVE PAVEMENT MARKERS		51	ea	$8.15	$416
TRUSS SIGNS - None			ea		
CANTILEVER SIGNS - None			ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	None				
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					
RETAINING WALL SYSTEM, PERMANENT, EXCLUDING BARRIER		16223	SF	$25.35	$411,253
CONCRETE TRAFFIC RAILING BARRIER, RETAINING WALL SYSTEM MOUNTED WITH S		1020	LF	$223.07	$227,531

STRUCTURES			
APPROACH SLAB CONCRETE	cy	$387.70	
APPROACH SLAB REINFORCING	lbs	$0.80	

SUBTOTAL		**$1,355,236**
MOT	10.0%	$135,524
Mobilization	10.0%	$149,076
SUBTOTAL		**$1,639,835**
Contingency	15.0%	$245,975
CONSTRUCTION TOTAL (Rounded)		**$1,886,000**

OVERPASS ROAD / I-75 INTERCHANGE
PRELIMINARY SPUI CONFIGURATION
11 - 1 LANE SB ON RAMP TO SB I-75

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$400,301**
CLEARING & GRUBBING		0.54	ac	$25,000.00	$13,500
EROSION CONTROL		0.060	mi	$22,625.30	$1,350
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		10,327	cy	$9.17	$94,699
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.06	miles	$133,699.30	$7,976
TYPE B STABILIZATION		1,435	sy	$2.63	$3,774
ROADWAY - OPTIONAL BASE, BASE GROUP 11		560	sy	$38.75	$21,700
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		119.0	tons	$96.75	$11,513
SHOULDER - OPTIONAL BASE, BASE GROUP 04		700.0	sy	$7.16	$5,012
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		58.0	tons	$96.75	$5,612
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		33.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK			sy	$32.38	
GRASSING		1,391	sy	$2.25	$3,130
SIGNS (Post & Misc.)		0.06	Miles	$20,655.74	$1,232
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"			lf	$0.82	
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		630	lf	$1.32	$832
RETRO-REFLECTIVE PAVEMENT MARKERS			ea	$8.15	
TRUSS SIGNS - None			ea		
CANTILEVER SIGNS - None			ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	None				
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					
RETAINING WALL SYSTEM, PERMANENT, EXCLUDING BARRIER		6300	SF	$25.35	$159,705
CONCRETE TRAFFIC RAILING BARRIER, RETAINING WALL SYSTEM MOUNTED WITH S		315	LF	$223.07	$70,267

STRUCTURES			
APPROACH SLAB CONCRETE		cy	$387.70
APPROACH SLAB REINFORCING		lbs	$0.80

SUBTOTAL		**$400,301**
MOT	10.0%	$40,030
Mobilization	10.0%	$44,033
SUBTOTAL		**$484,365**
Contingency	15.0%	$72,655
CONSTRUCTION TOTAL (Rounded)		**$557,000**

OVERPASS ROAD / I-75 INTERCHANGE
PRELIMINARY SPUI CONFIGURATION
12 - 1 LANE SB OFF RAMP TO WB OVERPASS ROAD

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$171,665**
CLEARING & GRUBBING		0.24	ac	$25,000.00	$6,000
EROSION CONTROL		0.025	mi	$22,625.30	$574
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		5,380	cy	$9.17	$49,335
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.03	miles	$133,699.30	$3,393
TYPE B STABILIZATION		610	sy	$2.63	$1,604
ROADWAY - OPTIONAL BASE, BASE GROUP 11		238	sy	$38.75	$9,223
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		51.0	tons	$96.75	$4,934
SHOULDER - OPTIONAL BASE, BASE GROUP 04		298.0	sy	$7.16	$2,134
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		25.0	tons	$96.75	$2,419
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		14.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK			sy	$32.38	
GRASSING		644	sy	$2.25	$1,449
SIGNS (Post & Misc.)		0.03	Miles	$20,655.74	$524
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"			lf	$0.82	
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		268	lf	$1.32	$354
RETRO-REFLECTIVE PAVEMENT MARKERS			ea	$8.15	
TRUSS SIGNS - None			ea		
CANTILEVER SIGNS - None			ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	None				
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					
RETAINING WALL SYSTEM, PERMANENT, EXCLUDING BARRIER		2325	SF	$25.35	$58,939
CONCRETE TRAFFIC RAILING BARRIER, RETAINING WALL SYSTEM MOUNTED WITH S		138	LF	$223.07	$30,784

STRUCTURES			
APPROACH SLAB CONCRETE	cy	$387.70	
APPROACH SLAB REINFORCING	lbs	$0.80	

SUBTOTAL		**$171,665**
MOT	10.0%	$17,166
Mobilization	10.0%	$18,883
SUBTOTAL		**$207,714**
Contingency	15.0%	$31,157
CONSTRUCTION TOTAL (Rounded)		**$239,000**

OVERPASS ROAD / I-75 INTERCHANGE
PRELIMINARY SPUI CONFIGURATION
13 - 2 LANE SB OFF RAMP TO EB OVERPASS ROAD

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$164,560**
CLEARING & GRUBBING		0.24	ac	$25,000.00	$6,000
EROSION CONTROL		0.023	mi	$22,625.30	$514
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		5,748	cy	$9.17	$52,709
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.02	miles	$133,699.30	$3,039
TYPE B STABILIZATION		667	sy	$2.63	$1,754
ROADWAY - OPTIONAL BASE, BASE GROUP 11		333	sy	$38.75	$12,904
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		72.0	tons	$96.75	$6,966
SHOULDER - OPTIONAL BASE, BASE GROUP 04		267.0	sy	$7.16	$1,912
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		22.0	tons	$96.75	$2,129
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		19.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK			sy	$32.38	
GRASSING		577	sy	$2.25	$1,298
SIGNS (Post & Misc.)		0.02	Miles	$20,655.74	$469
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"		120	lf	$0.82	$98
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		240	lf	$1.32	$317
RETRO-REFLECTIVE PAVEMENT MARKERS		3	ea	$8.15	$24
TRUSS SIGNS - None			ea		
CANTILEVER SIGNS - None			ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	None				
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					
RETAINING WALL SYSTEM, PERMANENT, EXCLUDING BARRIER		1880	SF	$25.35	$47,658
CONCRETE TRAFFIC RAILING BARRIER, RETAINING WALL SYSTEM MOUNTED WITH S		120	LF	$223.07	$26,768

STRUCTURES			
APPROACH SLAB CONCRETE	cy	$387.70	
APPROACH SLAB REINFORCING	lbs	$0.80	

SUBTOTAL		**$164,560**
MOT	10.0%	$16,456
Mobilization	10.0%	$18,102
SUBTOTAL		**$199,118**
Contingency	15.0%	$29,868
CONSTRUCTION TOTAL (Rounded)		**$229,000**

OVERPASS ROAD / I-75 INTERCHANGE
PRELIMINARY SPUI CONFIGURATION
14 - 3 LANE SB OFF RAMP TO OVERPASS ROAD

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$507,296**
CLEARING & GRUBBING		0.59	ac	$25,000.00	$14,750
EROSION CONTROL		0.064	mi	$22,625.30	$1,457
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		14,068	cy	$9.17	$129,004
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.06	miles	$133,699.30	$8,609
TYPE B STABILIZATION		2,342	sy	$2.63	$6,159
ROADWAY - OPTIONAL BASE, BASE GROUP 11		1,398	sy	$38.75	$54,173
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		303.0	tons	$96.75	$29,315
SHOULDER - OPTIONAL BASE, BASE GROUP 04		756.0	sy	$7.16	$5,413
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		62.0	tons	$96.75	$5,999
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		79.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK			sy	$32.38	
GRASSING		756	sy	$2.25	$1,701
SIGNS (Post & Misc.)		0.06	Miles	$20,655.74	$1,330
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"		680	lf	$0.82	$558
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		680	lf	$1.32	$898
RETRO-REFLECTIVE PAVEMENT MARKERS		17	ea	$8.15	$139
TRUSS SIGNS - None			ea		
CANTILEVER SIGNS - None			ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	None				
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					
RETAINING WALL SYSTEM, PERMANENT, EXCLUDING BARRIER		6783	SF	$25.35	$171,949
CONCRETE TRAFFIC RAILING BARRIER, RETAINING WALL SYSTEM MOUNTED WITH S		340	LF	$223.07	$75,844

STRUCTURES			
APPROACH SLAB CONCRETE	cy	$387.70	
APPROACH SLAB REINFORCING	lbs	$0.80	

SUBTOTAL		**$507,296**
MOT	10.0%	$50,730
Mobilization	10.0%	$55,803
SUBTOTAL		**$613,829**
Contingency	15.0%	$92,074
CONSTRUCTION TOTAL (Rounded)		**$706,000**

OVERPASS ROAD / I-75 INTERCHANGE
PRELIMINARY SPUI CONFIGURATION
15 - 1 LANE SB OFF RAMP TO OVERPASS ROAD

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$919,266**
CLEARING & GRUBBING		2.39	ac	$25,000.00	$59,750
EROSION CONTROL		0.295	mi	$22,625.30	$6,685
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		17,446	cy	$9.17	$159,980
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.30	miles	$133,699.30	$39,502
TYPE B STABILIZATION		7,107	sy	$2.63	$18,691
ROADWAY - OPTIONAL BASE, BASE GROUP 11		2,773	sy	$38.75	$107,454
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		591.0	tons	$96.75	$57,179
SHOULDER - OPTIONAL BASE, BASE GROUP 04		3,467.0	sy	$7.16	$24,824
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		286.0	tons	$96.75	$27,671
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		162.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK			sy	$32.38	
GRASSING		5,495	sy	$2.25	$12,364
SIGNS (Post & Misc.)		0.30	Miles	$20,655.74	$6,103
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"			lf	$0.82	
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		3,120	lf	$1.32	$4,118
RETRO-REFLECTIVE PAVEMENT MARKERS			ea	$8.15	
TRUSS SIGNS - None			ea		
CANTILEVER SIGNS - None			ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	None				
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					
RETAINING WALL SYSTEM, PERMANENT, EXCLUDING BARRIER		8892	SF	$25.35	$225,412
CONCRETE TRAFFIC RAILING BARRIER, RETAINING WALL SYSTEM MOUNTED WITH S		760	LF	$223.07	$169,533

STRUCTURES			
APPROACH SLAB CONCRETE	cy	$387.70	
APPROACH SLAB REINFORCING	lbs	$0.80	

SUBTOTAL		**$919,266**
MOT	10.0%	$91,927
Mobilization	10.0%	$101,119
SUBTOTAL		**$1,112,311**
Contingency	15.0%	$166,847
CONSTRUCTION TOTAL (Rounded)		**$1,279,000**

OVERPASS ROAD / I-75 INTERCHANGE
PRELIMINARY SPUI CONFIGURATION
16 - 2 LANE EB OVERPASS ROAD

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$645,847**
CLEARING & GRUBBING		1.91	ac	$25,000.00	$47,750
EROSION CONTROL		0.206	mi	$22,625.30	$4,671
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		10,605	cy	$9.17	$97,248
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.21	miles	$133,699.30	$27,601
TYPE B STABILIZATION		6,540	sy	$2.63	$17,200
ROADWAY - OPTIONAL BASE, BASE GROUP 11		3,512	sy	$38.75	$136,090
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		759.0	tons	$96.75	$73,433
SHOULDER - OPTIONAL BASE, BASE GROUP 04		2,422.0	sy	$7.16	$17,342
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		200.0	tons	$96.75	$19,350
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		200.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK		606	sy	$32.38	$19,622
GRASSING		2,846	sy	$2.25	$6,404
SIGNS (Post & Misc.)		0.21	Miles	$20,655.74	$4,264
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"		1,090	lf	$0.82	$894
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		2,180	lf	$1.32	$2,878
RETRO-REFLECTIVE PAVEMENT MARKERS		27	ea	$8.15	$222
TRUSS SIGNS - None			ea		
SIGN LT'D OVHD CTLVR-MONOTUBE, C 21- 30, S 151-200		1	ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	None				
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					
RETAINING WALL SYSTEM, PERMANENT, EXCLUDING BARRIER		2580	SF	$25.35	$65,403
CONCRETE TRAFFIC RAILING BARRIER, RETAINING WALL SYSTEM MOUNTED WITH S		310	LF	$223.07	$69,152
TRAFFIC SEPARATOR CONCRETE- TYPE IV, 8.5' WIDE		600	LF	$60.54	$36,324

STRUCTURES			
APPROACH SLAB CONCRETE	cy	$387.70	
APPROACH SLAB REINFORCING	lbs	$0.80	

SUBTOTAL		**$645,847**
MOT	10.0%	$64,585
Mobilization	10.0%	$71,043
SUBTOTAL		**$781,474**
Contingency	15.0%	$117,221
CONSTRUCTION TOTAL (Rounded)		**$899,000**

OVERPASS ROAD / I-75 INTERCHANGE
PRELIMINARY SPUI CONFIGURATION
17 - 3 LANE EB OVERPASS ROAD

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$322,319**
CLEARING & GRUBBING		0.56	ac	$25,000.00	$14,000
EROSION CONTROL		0.047	mi	$22,625.30	$1,071
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		8,267	cy	$9.17	$75,808
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.05	miles	$133,699.30	$6,330
TYPE B STABILIZATION		1,833	sy	$2.63	$4,821
ROADWAY - OPTIONAL BASE, BASE GROUP 11		1,139	sy	$38.75	$44,136
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		247.0	tons	$96.75	$23,897
SHOULDER - OPTIONAL BASE, BASE GROUP 04		556.0	sy	$7.16	$3,981
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		46.0	tons	$96.75	$4,451
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		64.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK		139	sy	$32.38	$4,501
GRASSING		904	sy	$2.25	$2,034
SIGNS (Post & Misc.)		0.05	Miles	$20,655.74	$978
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"		500	lf	$0.82	$410
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		500	lf	$1.32	$660
RETRO-REFLECTIVE PAVEMENT MARKERS		13	ea	$8.15	$102
TRUSS SIGNS - None			ea		
SIGN LT'D OVHD CTLVR-MONOTUBE, C 21- 30, S 151-200		1	ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	None				
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					
RETAINING WALL SYSTEM, PERMANENT, EXCLUDING BARRIER		3131	SF	$25.35	$79,371
CONCRETE TRAFFIC RAILING BARRIER, RETAINING WALL SYSTEM MOUNTED WITH S		250	LF	$223.07	$55,768

STRUCTURES			
APPROACH SLAB CONCRETE	cy	$387.70	
APPROACH SLAB REINFORCING	lbs	$0.80	

SUBTOTAL		**$322,319**
MOT	10.0%	$32,232
Mobilization	10.0%	$35,455
SUBTOTAL		**$390,006**
Contingency	15.0%	$58,501
CONSTRUCTION TOTAL (Rounded)		**$449,000**

OVERPASS ROAD / I-75 INTERCHANGE
PRELIMINARY SPUI CONFIGURATION
18 - 4 LANE EB OVERPASS ROAD

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$591,517**
CLEARING & GRUBBING		0.92	ac	$25,000.00	$23,000
EROSION CONTROL		0.066	mi	$22,625.30	$1,500
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		18,878	cy	$9.17	$173,111
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.07	miles	$133,699.30	$8,863
TYPE B STABILIZATION		3,033	sy	$2.63	$7,977
ROADWAY - OPTIONAL BASE, BASE GROUP 11		2,061	sy	$38.75	$79,864
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		449.0	tons	$96.75	$43,441
SHOULDER - OPTIONAL BASE, BASE GROUP 04		778.0	sy	$7.16	$5,570
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		64.0	tons	$96.75	$6,192
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		116.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK		194	sy	$32.38	$6,282
GRASSING		1,440	sy	$2.25	$3,240
SIGNS (Post & Misc.)		0.07	Miles	$20,655.74	$1,369
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"		1,050	lf	$0.82	$861
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		700	lf	$1.32	$924
RETRO-REFLECTIVE PAVEMENT MARKERS		26	ea	$8.15	$214
TRUSS SIGNS - None			ea		
CANTILEVER SIGNS - None			ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	None				
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					
RETAINING WALL SYSTEM, PERMANENT, EXCLUDING BARRIER		5958	SF	$25.35	$151,035
CONCRETE TRAFFIC RAILING BARRIER, RETAINING WALL SYSTEM MOUNTED WITH S		350	LF	$223.07	$78,075

STRUCTURES			
APPROACH SLAB CONCRETE	cy	$387.70	
APPROACH SLAB REINFORCING	lbs	$0.80	

SUBTOTAL		**$591,517**
MOT	10.0%	$59,152
Mobilization	10.0%	$65,067
SUBTOTAL		**$715,736**
Contingency	15.0%	$107,360
CONSTRUCTION TOTAL (Rounded)		**$823,000**

OVERPASS ROAD / I-75 INTERCHANGE
PRELIMINARY SPUI CONFIGURATION
19 - 3 LANE EB OVERPASS ROAD

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$291,721**
CLEARING & GRUBBING		0.71	ac	$25,000.00	$17,750
EROSION CONTROL		0.055	mi	$22,625.30	$1,243
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		17,490	cy	$9.17	$160,383
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.05	miles	$133,699.30	$7,343
TYPE B STABILIZATION		2,126	sy	$2.63	$5,591
ROADWAY - OPTIONAL BASE, BASE GROUP 11		1,321	sy	$38.75	$51,189
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		287.0	tons	$96.75	$27,767
SHOULDER - OPTIONAL BASE, BASE GROUP 04		644.0	sy	$7.16	$4,611
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		53.0	tons	$96.75	$5,128
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		74.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK		161	sy	$32.38	$5,213
GRASSING		1,337	sy	$2.25	$3,008
SIGNS (Post & Misc.)		0.05	Miles	$20,655.74	$1,135
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"		580	lf	$0.82	$476
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		580	lf	$1.32	$766
RETRO-REFLECTIVE PAVEMENT MARKERS		15	ea	$8.15	$118
TRUSS SIGNS - None			ea		
CANTILEVER SIGNS - None			ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	None				
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				

Extra Items

STRUCTURES			
APPROACH SLAB CONCRETE	cy	$387.70	
APPROACH SLAB REINFORCING	lbs	$0.80	

SUBTOTAL		**$291,721**
MOT	10.0%	$29,172
Mobilization	10.0%	$32,089
SUBTOTAL		**$352,982**
Contingency	15.0%	$52,947
CONSTRUCTION TOTAL (Rounded)		**$406,000**

OVERPASS ROAD / I-75 INTERCHANGE
PRELIMINARY SPUI CONFIGURATION
20 - 2 LANE EB OVERPASS ROAD

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$194,881**
CLEARING & GRUBBING		0.44	ac	$25,000.00	$11,000
EROSION CONTROL		0.038	mi	$22,625.30	$857
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		10,708	cy	$9.17	$98,192
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.04	miles	$133,699.30	$5,064
TYPE B STABILIZATION		1,200	sy	$2.63	$3,156
ROADWAY - OPTIONAL BASE, BASE GROUP 11		644	sy	$38.75	$24,955
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		139.0	tons	$96.75	$13,448
SHOULDER - OPTIONAL BASE, BASE GROUP 04		444.0	sy	$7.16	$3,179
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		37.0	tons	$96.75	$3,580
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		37.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK		111	sy	$32.38	$3,594
GRASSING		944	sy	$2.25	$2,124
SIGNS (Post & Misc.)		0.04	Miles	$20,655.74	$782
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"		200	lf	$0.82	$164
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		400	lf	$1.32	$528
RETRO-REFLECTIVE PAVEMENT MARKERS		5	ea	$8.15	$41
TRUSS SIGNS - None			ea		
CANTILEVER SIGNS - None			ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	None				
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					
TRAFFIC SEPARATOR CONCRETE- TYPE IV, 8.5' WIDE		400	LF	$60.54	$24,216

STRUCTURES			
APPROACH SLAB CONCRETE	cy	$387.70	
APPROACH SLAB REINFORCING	lbs	$0.80	

SUBTOTAL		**$194,881**
MOT	10.0%	$19,488
Mobilization	10.0%	$21,437
SUBTOTAL		**$235,806**
Contingency	15.0%	$35,371
CONSTRUCTION TOTAL (Rounded)		**$271,000**

OVERPASS ROAD / I-75 INTERCHANGE
PRELIMINARY SPUI CONFIGURATION
21 - 4 LANE EB OVERPASS ROAD

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$1,696,095**
CLEARING & GRUBBING		3.37	ac	$25,000.00	$84,250
EROSION CONTROL		0.252	mi	$22,625.30	$5,699
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		45,319	cy	$9.17	$415,575
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.25	miles	$133,699.30	$33,678
TYPE B STABILIZATION		11,527	sy	$2.63	$30,316
ROADWAY - OPTIONAL BASE, BASE GROUP 11		7,832	sy	$38.75	$303,490
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		1,707.0	tons	$96.75	$165,152
SHOULDER - OPTIONAL BASE, BASE GROUP 04		2,956.0	sy	$7.16	$21,165
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		244.0	tons	$96.75	$23,607
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		439.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK		739	sy	$32.38	$23,929
GRASSING		4,951	sy	$2.25	$11,140
SIGNS (Post & Misc.)		0.25	Miles	$20,655.74	$5,203
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"		3,990	lf	$0.82	$3,272
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		2,660	lf	$1.32	$3,511
RETRO-REFLECTIVE PAVEMENT MARKERS		100	ea	$8.15	$813
TRUSS SIGNS - None			ea		
CANTILEVER SIGNS - None			ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	None				
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					
RETAINING WALL SYSTEM, PERMANENT, EXCLUDING BARRIER		13500	SF	$25.35	$342,225
CONCRETE TRAFFIC RAILING BARRIER, RETAINING WALL SYSTEM MOUNTED WITH S		1000	LF	$223.07	$223,070

STRUCTURES			
APPROACH SLAB CONCRETE	cy	$387.70	
APPROACH SLAB REINFORCING	lbs	$0.80	

SUBTOTAL		**$1,696,095**
MOT	10.0%	$169,610
Mobilization	10.0%	$186,570
SUBTOTAL		**$2,052,275**
Contingency	15.0%	$307,841
CONSTRUCTION TOTAL (Rounded)		**$2,360,000**

OVERPASS ROAD / I-75 INTERCHANGE
PRELIMINARY SPUI CONFIGURATION
22 - 5 LANE EB OVERPASS ROAD

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$681,737**
CLEARING & GRUBBING		1.50	ac	$25,000.00	$37,500
EROSION CONTROL		0.110	mi	$22,625.30	$2,485
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		6,823	cy	$9.17	$62,567
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.11	miles	$133,699.30	$14,687
TYPE B STABILIZATION		5,800	sy	$2.63	$15,254
ROADWAY - OPTIONAL BASE, BASE GROUP 11		4,189	sy	$38.75	$162,324
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		914.0	tons	$96.75	$88,430
SHOULDER - OPTIONAL BASE, BASE GROUP 04		1,289.0	sy	$7.16	$9,229
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		106.0	tons	$96.75	$10,256
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		234.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK		322	sy	$32.38	$10,426
GRASSING		1,514	sy	$2.25	$3,407
SIGNS (Post & Misc.)		0.11	Miles	$20,655.74	$2,269
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"		2,320	lf	$0.82	$1,902
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		1,160	lf	$1.32	$1,531
RETRO-REFLECTIVE PAVEMENT MARKERS		58	ea	$8.15	$473
TRUSS SIGNS - None			ea		
CANTILEVER SIGNS - None			ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	Mast Arm - 6 Lanes	1	pi	$222,673.93	$222,674
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					
TRAFFIC SEPARATOR CONCRETE- TYPE IV, 8.5' WIDE		600	LF	$60.54	$36,324

STRUCTURES			
APPROACH SLAB CONCRETE		cy	$387.70
APPROACH SLAB REINFORCING		lbs	$0.80

SUBTOTAL		**$681,737**
MOT	10.0%	$68,174
Mobilization	10.0%	$74,991
SUBTOTAL		**$824,902**
Contingency	15.0%	$123,735
CONSTRUCTION TOTAL (Rounded)		**$949,000**

OVERPASS ROAD / I-75 INTERCHANGE
PRELIMINARY SPUI CONFIGURATION
23 - 3 LANE WB OVERPASS ROAD

Construction Cost Estimate — **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$310,794**
CLEARING & GRUBBING		1.15	ac	$25,000.00	$28,750
EROSION CONTROL		0.114	mi	$22,625.30	$2,571
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		4,802	cy	$9.17	$44,034
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.11	miles	$133,699.30	$15,193
TYPE B STABILIZATION		4,399	sy	$2.63	$11,569
ROADWAY - OPTIONAL BASE, BASE GROUP 11		2,733	sy	$38.75	$105,904
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		594.0	tons	$96.75	$57,470
SHOULDER - OPTIONAL BASE, BASE GROUP 04		1,333.0	sy	$7.16	$9,544
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		110.0	tons	$96.75	$10,643
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		154.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK			sy	$32.38	
GRASSING		1,567	sy	$2.25	$3,526
SIGNS (Post & Misc.)		0.11	Miles	$20,655.74	$2,347
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"		1,200	lf	$0.82	$984
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		1,200	lf	$1.32	$1,584
RETRO-REFLECTIVE PAVEMENT MARKERS		30	ea	$8.15	$245
TRUSS SIGNS - None			ea		
CANTILEVER SIGNS - None			ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	None				
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					
10' WIDTH MULTI-USE PATH		667	SY	$24.00	$16,000
THERMOPLASTIC, REFURBISHMENT, WHITE, SOLID, 6"		600	LF		
THERMOPLASTIC, STANDARD, WHITE, MESSAGE		3	EACH	$143.45	$430

STRUCTURES			
APPROACH SLAB CONCRETE	cy	$387.70	
APPROACH SLAB REINFORCING	lbs	$0.80	

SUBTOTAL		**$310,794**
MOT	10.0%	$31,079
Mobilization	10.0%	$34,187
SUBTOTAL		**$376,060**
Contingency	15.0%	$56,409
CONSTRUCTION TOTAL (Rounded)		**$432,000**

OVERPASS ROAD / I-75 INTERCHANGE
PRELIMINARY SPUI CONFIGURATION
24 - 2 LANE WB OVERPASS ROAD

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$1,569,300**
CLEARING & GRUBBING		2.30	ac	$25,000.00	$57,500
EROSION CONTROL		0.265	mi	$22,625.30	$5,999
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		38,290	cy	$9.17	$351,119
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.27	miles	$133,699.30	$35,451
TYPE B STABILIZATION		8,400	sy	$2.63	$22,092
ROADWAY - OPTIONAL BASE, BASE GROUP 11		4,511	sy	$38.75	$174,801
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		975.0	tons	$96.75	$94,331
SHOULDER - OPTIONAL BASE, BASE GROUP 04		3,111.0	sy	$7.16	$22,275
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		257.0	tons	$96.75	$24,865
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		257.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK			sy	$32.38	
GRASSING		3,656	sy	$2.25	$8,226
SIGNS (Post & Misc.)		0.27	Miles	$20,655.74	$5,477
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"		1,400	lf	$0.82	$1,148
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		2,800	lf	$1.32	$3,696
RETRO-REFLECTIVE PAVEMENT MARKERS		35	ea	$8.15	$285
TRUSS SIGNS - None			ea		
SIGN LT'D OVHD CTLVR-MONOTUBE, C 21- 30, S 151-200		1	ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	None				
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					
RETAINING WALL SYSTEM, PERMANENT, EXCLUDING BARRIER		18000	SF	$25.35	$456,300
CONCRETE TRAFFIC RAILING BARRIER, RETAINING WALL SYSTEM MOUNTED WITH S		1200	LF	$223.07	$267,684
10' WIDTH MULTI-USE PATH		1556	SY	$24.00	$37,333
THERMOPLASTIC, REFURBISHMENT, WHITE, SOLID, 6"		1400	LF		
THERMOPLASTIC, STANDARD, WHITE, MESSAGE		5	EACH	$143.45	$717

STRUCTURES			
APPROACH SLAB CONCRETE	cy	$387.70	
APPROACH SLAB REINFORCING	lbs	$0.80	

SUBTOTAL		**$1,569,300**
MOT	10.0%	$156,930
Mobilization	10.0%	$172,623
SUBTOTAL		**$1,898,853**
Contingency	15.0%	$284,828
CONSTRUCTION TOTAL (Rounded)		**$2,184,000**

OVERPASS ROAD / I-75 INTERCHANGE
PRELIMINARY SPUI CONFIGURATION
25 - 5 LANE WB OVERPASS ROAD INCLUDES BRIDGE OVER I-75

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$2,230,434**
CLEARING & GRUBBING		5.79	ac	$25,000.00	$144,750
EROSION CONTROL		0.402	mi	$22,625.30	$9,084
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		71,435	cy	$9.17	$655,059
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.40	miles	$133,699.30	$53,682
TYPE B STABILIZATION		21,200	sy	$2.63	$55,756
ROADWAY - OPTIONAL BASE, BASE GROUP 11		15,311	sy	$38.75	$593,301
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		3,343.0	tons	$96.75	$323,435
SHOULDER - OPTIONAL BASE, BASE GROUP 04		4,711.0	sy	$7.16	$33,731
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		389.0	tons	$96.75	$37,636
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		855.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK			sy	$32.38	
GRASSING		8,244	sy	$2.25	$18,549
SIGNS (Post & Misc.)		0.40	Miles	$20,655.74	$8,294
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"		8,480	lf	$0.82	$6,954
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		4,240	lf	$1.32	$5,597
RETRO-REFLECTIVE PAVEMENT MARKERS		212	ea	$8.15	$1,728
TRUSS SIGNS - None			ea		
CANTILEVER SIGNS - None			ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	Mast Arm - 6 Lanes	1	pi	$222,673.93	$222,674
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					
10' WIDTH MULTI-USE PATH		2467	SY	$24.00	$59,200
THERMOPLASTIC, REFURBISHMENT, WHITE, SOLID, 6"		2220	LF		
THERMOPLASTIC, STANDARD, WHITE, MESSAGE		7	EACH	$143.45	$1,004

STRUCTURES					**$13,685,834**
APPROACH SLAB CONCRETE		458	cy	$387.70	$177,653
APPROACH SLAB REINFORCING		96,227	lbs	$0.80	$76,981
OVER I- OVERPASS RD OVER I-75	PRESTRESS.CONC.GIRDER (CONT.SPAN)	80,000.00	sf	$167.89	$13,431,200

SUBTOTAL		**$15,916,268**
MOT	10.0%	$1,591,627
Mobilization	10.0%	$1,750,789
SUBTOTAL		**$19,258,684**
Contingency	15.0%	$2,888,803
CONSTRUCTION TOTAL (Rounded)		**$22,147,000**

OVERPASS ROAD / I-75 INTERCHANGE

7/23/2012

Construction Cost Estimate Summary

DIVERGING DIAMOND INTERCHANGE

SEGMENT	SEGMENT TITLE	SEGMENT COST
1	1 - 2 LANE NB OFF RAMP TO OVERPASS ROAD	$1,260,000
2	2 - 4 LANE NB OFF RAMP TO OVERPASS ROAD	$1,110,000
3	3 - 2 LANE NB OFF RAMP TO WB OVERPASS ROAD	$409,000
4	4 - 2 LANE NB OFF RAMP TO EB OVERPASS ROAD	$479,000
5	5 - 1 LANE NB ON RAMP TO NB I-75	$405,000
6	6 - 1 LANE NB ON RAMP TO NB I-75	$368,000
7	7 - 2 LANE NB ON RAMP TO NB I-75	$1,234,000
8	8 - 1 LANE NB ON RAMP TO NB I-75	$906,000
9	9 - 2 LANE SB ON RAMP TO I-75	$591,000
10	10 - 3 LANE SB ON RAMP TO I-75	$1,429,000
11	11 - 1 LANE SB ON RAMP TO SB I-75	$287,000
12	12 - 1 LANE SB OFF RAMP TO WB OVERPASS ROAD	$369,000
13	13 - 1 LANE SB OFF RAMP TO EB OVERPASS ROAD	$408,000
14	14 - 1 LANE SB OFF RAMP TO OVERPASS ROAD	$379,000
15	15 - 2 LANE SB OFF RAMP TO OVERPASS ROAD	$1,187,000
16	16 - 1 LANE SB OFF RAMP TO OVERPASS ROAD	$1,129,000
17	17 - 2 LANE EB OVERPASS ROAD	$1,085,000
19	19 - 3 LANE EB OVERPASS ROAD	$792,000
20	20 - 2 LANE EB OVERPASS ROAD	$794,000
21	21 - 4 LANE EB OVERPASS ROAD	$2,303,000
22	22 - 5 LANE EB OVERPASS ROAD	$606,000
23	23 - 3 LANE WB OVERPASS ROAD	$289,000
24	24 - 2 LANE WB OVERPASS ROAD	$1,936,000
25	25 - 3 LANE WB OVERPASS ROAD INCLUDES BRIDGE OVER I-75	$8,966,000
26	26 - 4 LANE WB OVERPASS ROAD	$2,407,000

DIVERGING DIAMOND INTERCHANGE - CONSTRUCTION TOTAL	**$31,128,000**

OVERPASS ROAD / I-75 INTERCHANGE
DIVERGING DIAMOND INTERCHANGE
1 - 2 LANE NB OFF RAMP TO OVERPASS ROAD

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$905,360**
CLEARING & GRUBBING		2.37	ac	$25,000.00	$59,250
EROSION CONTROL		0.252	mi	$22,625.30	$5,699
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		26,502	cy	$9.17	$243,023
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.25	miles	$133,699.30	$33,678
TYPE B STABILIZATION		7,389	sy	$2.63	$19,433
ROADWAY - OPTIONAL BASE, BASE GROUP 11		3,694	sy	$38.75	$143,143
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		797.0	tons	$96.75	$77,110
SHOULDER - OPTIONAL BASE, BASE GROUP 04		2,956.0	sy	$7.16	$21,165
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		244.0	tons	$96.75	$23,607
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		211.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK			sy	$32.38	
GRASSING		4,953	sy	$2.25	$11,144
SIGNS (Post & Misc.)		0.25	Miles	$20,655.74	$5,203
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"		1,330	lf	$0.82	$1,091
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		2,660	lf	$1.32	$3,511
RETRO-REFLECTIVE PAVEMENT MARKERS		33	ea	$8.15	$271
SIGN LT'D OVHD TRUSS-MONOTUBE, T 101-120,S >700		1	ea		
CANTILEVER SIGNS - None			ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	None				
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					
RETAINING WALL SYSTEM, PERMANENT, EXCLUDING BARRIER		5427	SF	$25.35	$137,574
CONCRETE TRAFFIC RAILING BARRIER, RETAINING WALL SYSTEM MOUNTED WITH S		540	LF	$223.07	$120,458

STRUCTURES			
APPROACH SLAB CONCRETE	cy	$387.70	
APPROACH SLAB REINFORCING	lbs	$0.80	

SUBTOTAL		**$905,360**
MOT	10.0%	$90,536
Mobilization	10.0%	$99,590
SUBTOTAL		**$1,095,486**
Contingency	15.0%	$164,323
CONSTRUCTION TOTAL (Rounded)		**$1,260,000**

OVERPASS ROAD / I-75 INTERCHANGE
DIVERGING DIAMOND INTERCHANGE
2 - 4 LANE NB OFF RAMP TO OVERPASS ROAD

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$797,909**
CLEARING & GRUBBING		1.19	ac	$25,000.00	$29,750
EROSION CONTROL		0.093	mi	$22,625.30	$2,100
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		24,810	cy	$9.17	$227,508
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.09	miles	$133,699.30	$12,408
TYPE B STABILIZATION		4,029	sy	$2.63	$10,596
ROADWAY - OPTIONAL BASE, BASE GROUP 11		2,668	sy	$38.75	$103,385
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		581.0	tons	$96.75	$56,212
SHOULDER - OPTIONAL BASE, BASE GROUP 04		1,089.0	sy	$7.16	$7,797
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		90.0	tons	$96.75	$8,708
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		150.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK			sy	$32.38	
GRASSING		2,057	sy	$2.25	$4,628
SIGNS (Post & Misc.)		0.09	Miles	$20,655.74	$1,917
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"		1,470	lf	$0.82	$1,205
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		980	lf	$1.32	$1,294
RETRO-REFLECTIVE PAVEMENT MARKERS		37	ea	$8.15	$300
SIGN LT'D OVHD TRUSS-MONOTUBE, T 101-120,S >700		1	ea		
CANTILEVER SIGNS - None			ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	None				
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					
RETAINING WALL SYSTEM, PERMANENT, EXCLUDING BARRIER		8710	SF	$25.35	$220,799
CONCRETE TRAFFIC RAILING BARRIER, RETAINING WALL SYSTEM MOUNTED WITH S		490	LF	$223.07	$109,304

STRUCTURES			
APPROACH SLAB CONCRETE	cy	$387.70	
APPROACH SLAB REINFORCING	lbs	$0.80	

SUBTOTAL		**$797,909**
MOT	10.0%	$79,791
Mobilization	10.0%	$87,770
SUBTOTAL		**$965,470**
Contingency	15.0%	$144,821
CONSTRUCTION TOTAL (Rounded)		**$1,110,000**

OVERPASS ROAD / I-75 INTERCHANGE
DIVERGING DIAMOND INTERCHANGE
3 - 2 LANE NB OFF RAMP TO WB OVERPASS ROAD

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$293,812**
CLEARING & GRUBBING		0.46	ac	$25,000.00	$11,500
EROSION CONTROL		0.047	mi	$22,625.30	$1,071
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		8,253	cy	$9.17	$75,680
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.05	miles	$133,699.30	$6,330
TYPE B STABILIZATION		1,389	sy	$2.63	$3,653
ROADWAY - OPTIONAL BASE, BASE GROUP 11		694	sy	$38.75	$26,893
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		150.0	tons	$96.75	$14,513
SHOULDER - OPTIONAL BASE, BASE GROUP 04		556.0	sy	$7.16	$3,981
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		46.0	tons	$96.75	$4,451
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		40.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK			sy	$32.38	
GRASSING		1,027	sy	$2.25	$2,311
SIGNS (Post & Misc.)		0.05	Miles	$20,655.74	$978
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"		250	lf	$0.82	$205
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		500	lf	$1.32	$660
RETRO-REFLECTIVE PAVEMENT MARKERS		6	ea	$8.15	$51
TRUSS SIGNS - None			ea		
CANTILEVER SIGNS - None			ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	None				
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					
RETAINING WALL SYSTEM, PERMANENT, EXCLUDING BARRIER		3005	SF	$25.35	$76,177
CONCRETE TRAFFIC RAILING BARRIER, RETAINING WALL SYSTEM MOUNTED WITH S		293	LF	$223.07	$65,360

STRUCTURES				
APPROACH SLAB CONCRETE		cy	$387.70	
APPROACH SLAB REINFORCING		lbs	$0.80	

SUBTOTAL		**$293,812**
MOT	10.0%	$29,381
Mobilization	10.0%	$32,319
SUBTOTAL		**$355,513**
Contingency	15.0%	$53,327
CONSTRUCTION TOTAL (Rounded)		**$409,000**

OVERPASS ROAD / I-75 INTERCHANGE
DIVERGING DIAMOND INTERCHANGE
4 - 2 LANE NB OFF RAMP TO EB OVERPASS ROAD

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$344,147**
CLEARING & GRUBBING		0.54	ac	$25,000.00	$13,500
EROSION CONTROL		0.055	mi	$22,625.30	$1,243
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		10,081	cy	$9.17	$92,443
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.05	miles	$133,699.30	$7,343
TYPE B STABILIZATION		1,611	sy	$2.63	$4,237
ROADWAY - OPTIONAL BASE, BASE GROUP 11		806	sy	$38.75	$31,233
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		174.0	tons	$96.75	$16,835
SHOULDER - OPTIONAL BASE, BASE GROUP 04		644.0	sy	$7.16	$4,611
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		53.0	tons	$96.75	$5,128
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		46.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK			sy	$32.38	
GRASSING		1,216	sy	$2.25	$2,736
SIGNS (Post & Misc.)		0.05	Miles	$20,655.74	$1,135
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"		290	lf	$0.82	$238
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		580	lf	$1.32	$766
RETRO-REFLECTIVE PAVEMENT MARKERS		7	ea	$8.15	$59
TRUSS SIGNS - None			ea		
CANTILEVER SIGNS - None			ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	None				
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					
RETAINING WALL SYSTEM, PERMANENT, EXCLUDING BARRIER		3864	SF	$25.35	$97,952
CONCRETE TRAFFIC RAILING BARRIER, RETAINING WALL SYSTEM MOUNTED WITH S		290	LF	$223.07	$64,690

STRUCTURES			
APPROACH SLAB CONCRETE	cy	$387.70	
APPROACH SLAB REINFORCING	lbs	$0.80	

SUBTOTAL		**$344,147**
MOT	10.0%	$34,415
Mobilization	10.0%	$37,856
SUBTOTAL		**$416,418**
Contingency	15.0%	$62,463
CONSTRUCTION TOTAL (Rounded)		**$479,000**

OVERPASS ROAD / I-75 INTERCHANGE
DIVERGING DIAMOND INTERCHANGE
5 - 1 LANE NB ON RAMP TO NB I-75

Construction Cost Estimate

URS Corporation /

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$291,356**
CLEARING & GRUBBING		0.45	ac	$25,000.00	$11,250
EROSION CONTROL		0.052	mi	$22,625.30	$1,178
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		7,054	cy	$9.17	$64,685
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.05	miles	$133,699.30	$6,964
TYPE B STABILIZATION		1,253	sy	$2.63	$3,295
ROADWAY - OPTIONAL BASE, BASE GROUP 11		489	sy	$38.75	$18,949
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		104.0	tons	$96.75	$10,062
SHOULDER - OPTIONAL BASE, BASE GROUP 04		611.0	sy	$7.16	$4,375
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		50.0	tons	$96.75	$4,838
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		29.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK			sy	$32.38	
GRASSING		1,103	sy	$2.25	$2,482
SIGNS (Post & Misc.)		0.05	Miles	$20,655.74	$1,076
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"			lf	$0.82	
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		550	lf	$1.32	$726
RETRO-REFLECTIVE PAVEMENT MARKERS			ea	$8.15	
TRUSS SIGNS - None			ea		
CANTILEVER SIGNS - None			ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	None				
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					
RETAINING WALL SYSTEM, PERMANENT, EXCLUDING BARRIER		3950	SF	$25.35	$100,133
CONCRETE TRAFFIC RAILING BARRIER, RETAINING WALL SYSTEM MOUNTED WITH S		275	LF	$223.07	$61,344

STRUCTURES			
APPROACH SLAB CONCRETE	cy	$387.70	
APPROACH SLAB REINFORCING	lbs	$0.80	

SUBTOTAL		**$291,356**
MOT	10.0%	$29,136
Mobilization	10.0%	$32,049
SUBTOTAL		**$352,541**
Contingency	15.0%	$52,881
CONSTRUCTION TOTAL (Rounded)		**$405,000**

OVERPASS ROAD / I-75 INTERCHANGE
DIVERGING DIAMOND INTERCHANGE
6 - 1 LANE NB ON RAMP TO NB I-75

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$264,318**
CLEARING & GRUBBING		0.36	ac	$25,000.00	$9,000
EROSION CONTROL		0.042	mi	$22,625.30	$943
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		6,009	cy	$9.17	$55,103
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.04	miles	$133,699.30	$5,571
TYPE B STABILIZATION		1,002	sy	$2.63	$2,635
ROADWAY - OPTIONAL BASE, BASE GROUP 11		391	sy	$38.75	$15,151
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		83.0	tons	$96.75	$8,030
SHOULDER - OPTIONAL BASE, BASE GROUP 04		489.0	sy	$7.16	$3,501
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		40.0	tons	$96.75	$3,870
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		23.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK			sy	$32.38	
GRASSING		903	sy	$2.25	$2,032
SIGNS (Post & Misc.)		0.04	Miles	$20,655.74	$861
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"			lf	$0.82	
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		440	lf	$1.32	$581
RETRO-REFLECTIVE PAVEMENT MARKERS			ea	$8.15	
TRUSS SIGNS - None			ea		
CANTILEVER SIGNS - None			ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	None				
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					
RETAINING WALL SYSTEM, PERMANENT, EXCLUDING BARRIER		3863	SF	$25.35	$97,927
CONCRETE TRAFFIC RAILING BARRIER, RETAINING WALL SYSTEM MOUNTED WITH S		265	LF	$223.07	$59,114

STRUCTURES			
APPROACH SLAB CONCRETE	cy	$387.70	
APPROACH SLAB REINFORCING	lbs	$0.80	

SUBTOTAL		**$264,318**
MOT	10.0%	$26,432
Mobilization	10.0%	$29,075
SUBTOTAL		**$319,825**
Contingency	15.0%	$47,974
CONSTRUCTION TOTAL (Rounded)		**$368,000**

OVERPASS ROAD / I-75 INTERCHANGE
DIVERGING DIAMOND INTERCHANGE
7 - 2 LANE NB ON RAMP TO NB I-75

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$887,131**
CLEARING & GRUBBING		0.84	ac	$25,000.00	$21,000
EROSION CONTROL		0.108	mi	$22,625.30	$2,443
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		15,958	cy	$9.17	$146,335
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.11	miles	$133,699.30	$14,433
TYPE B STABILIZATION		3,167	sy	$2.63	$8,329
ROADWAY - OPTIONAL BASE, BASE GROUP 11		1,583	sy	$38.75	$61,341
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		341.0	tons	$96.75	$32,992
SHOULDER - OPTIONAL BASE, BASE GROUP 04		1,267.0	sy	$7.16	$9,072
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		105.0	tons	$96.75	$10,159
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		91.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK			sy	$32.38	
GRASSING		1,267	sy	$2.25	$2,851
SIGNS (Post & Misc.)		0.11	Miles	$20,655.74	$2,230
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"		570	lf	$0.82	$467
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		1,140	lf	$1.32	$1,505
RETRO-REFLECTIVE PAVEMENT MARKERS		14	ea	$8.15	$116
SIGN LT'D OVHD TRUSS-MONOTUBE, T 101-120,S >700		1	ea		
CANTILEVER SIGNS - None			ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	None				
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					
RETAINING WALL SYSTEM, PERMANENT, EXCLUDING BARRIER		9790	SF	$25.35	$248,177
CONCRETE TRAFFIC RAILING BARRIER, RETAINING WALL SYSTEM MOUNTED WITH S		1460	LF	$223.07	$325,682

STRUCTURES			
APPROACH SLAB CONCRETE	cy	$387.70	
APPROACH SLAB REINFORCING	lbs	$0.80	

SUBTOTAL		**$887,131**
MOT	10.0%	$88,713
Mobilization	10.0%	$97,584
SUBTOTAL		**$1,073,429**
Contingency	15.0%	$161,014
CONSTRUCTION TOTAL (Rounded)		**$1,234,000**

OVERPASS ROAD / I-75 INTERCHANGE
DIVERGING DIAMOND INTERCHANGE
8 - 1 LANE NB ON RAMP TO NB I-75

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$650,795**
CLEARING & GRUBBING		1.82	ac	$25,000.00	$45,500
EROSION CONTROL		0.274	mi	$22,625.30	$6,192
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		10,551	cy	$9.17	$96,753
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.27	miles	$133,699.30	$36,590
TYPE B STABILIZATION		6,583	sy	$2.63	$17,313
ROADWAY - OPTIONAL BASE, BASE GROUP 11		2,569	sy	$38.75	$99,549
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		547.0	tons	$96.75	$52,922
SHOULDER - OPTIONAL BASE, BASE GROUP 04		3,211.0	sy	$7.16	$22,991
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		265.0	tons	$96.75	$25,639
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		150.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK			sy	$32.38	
GRASSING		3,211	sy	$2.25	$7,225
SIGNS (Post & Misc.)		0.27	Miles	$20,655.74	$5,653
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"			lf	$0.82	
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		2,890	lf	$1.32	$3,815
RETRO-REFLECTIVE PAVEMENT MARKERS			ea	$8.15	
TRUSS SIGNS - None			ea		
CANTILEVER SIGNS - None			ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	None				
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					
RETAINING WALL SYSTEM, PERMANENT, EXCLUDING BARRIER		4347	SF	$25.35	$110,196
CONCRETE TRAFFIC RAILING BARRIER, RETAINING WALL SYSTEM MOUNTED WITH S		540	LF	$223.07	$120,458

STRUCTURES			
APPROACH SLAB CONCRETE		cy	$387.70
APPROACH SLAB REINFORCING		lbs	$0.80

SUBTOTAL		**$650,795**
MOT	10.0%	$65,080
Mobilization	10.0%	$71,587
SUBTOTAL		**$787,462**
Contingency	15.0%	$118,119
CONSTRUCTION TOTAL (Rounded)		**$906,000**

OVERPASS ROAD / I-75 INTERCHANGE
DIVERGING DIAMOND INTERCHANGE
9 - 2 LANE SB ON RAMP TO I-75

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$425,024**
CLEARING & GRUBBING		1.06	ac	$25,000.00	$26,500
EROSION CONTROL		0.121	mi	$22,625.30	$2,742
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		7,485	cy	$9.17	$68,637
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.12	miles	$133,699.30	$16,206
TYPE B STABILIZATION		3,556	sy	$2.63	$9,352
ROADWAY - OPTIONAL BASE, BASE GROUP 11		1,778	sy	$38.75	$68,898
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		383.0	tons	$96.75	$37,055
SHOULDER - OPTIONAL BASE, BASE GROUP 04		1,422.0	sy	$7.16	$10,182
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		117.0	tons	$96.75	$11,320
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		102.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK			sy	$32.38	
GRASSING		1,983	sy	$2.25	$4,462
SIGNS (Post & Misc.)		0.12	Miles	$20,655.74	$2,504
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"		640	lf	$0.82	$525
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		1,280	lf	$1.32	$1,690
RETRO-REFLECTIVE PAVEMENT MARKERS		16	ea	$8.15	$130
SIGN LT'D OVHD TRUSS-MONOTUBE, T 101-120,S >700		1	ea		
CANTILEVER SIGNS - None			ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	None				
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					
RETAINING WALL SYSTEM, PERMANENT, EXCLUDING BARRIER		3246	SF	$25.35	$82,286
CONCRETE TRAFFIC RAILING BARRIER, RETAINING WALL SYSTEM MOUNTED WITH S		370	LF	$223.07	$82,536

STRUCTURES			
APPROACH SLAB CONCRETE	cy	$387.70	
APPROACH SLAB REINFORCING	lbs	$0.80	

SUBTOTAL		**$425,024**
MOT	10.0%	$42,502
Mobilization	10.0%	$46,753
SUBTOTAL		**$514,280**
Contingency	15.0%	$77,142
CONSTRUCTION TOTAL (Rounded)		**$591,000**

OVERPASS ROAD / I-75 INTERCHANGE
DIVERGING DIAMOND INTERCHANGE
10 - 3 LANE SB ON RAMP TO I-75

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$1,027,119**
CLEARING & GRUBBING		1.31	ac	$25,000.00	$32,750
EROSION CONTROL		0.142	mi	$22,625.30	$3,214
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		26,724	cy	$9.17	$245,059
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.14	miles	$133,699.30	$18,991
TYPE B STABILIZATION		5,167	sy	$2.63	$13,589
ROADWAY - OPTIONAL BASE, BASE GROUP 11		3,083	sy	$38.75	$119,466
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		669.0	tons	$96.75	$64,726
SHOULDER - OPTIONAL BASE, BASE GROUP 04		1,667.0	sy	$7.16	$11,936
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		138.0	tons	$96.75	$13,352
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		174.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK			sy	$32.38	
GRASSING		1,667	sy	$2.25	$3,751
SIGNS (Post & Misc.)		0.14	Miles	$20,655.74	$2,934
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"		1,500	lf	$0.82	$1,230
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		1,500	lf	$1.32	$1,980
RETRO-REFLECTIVE PAVEMENT MARKERS		38	ea	$8.15	$306
TRUSS SIGNS - None			ea		
CANTILEVER SIGNS - None			ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	None				
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					
RETAINING WALL SYSTEM, PERMANENT, EXCLUDING BARRIER		12881	SF	$25.35	$326,533
CONCRETE TRAFFIC RAILING BARRIER, RETAINING WALL SYSTEM MOUNTED WITH S		750	LF	$223.07	$167,303

STRUCTURES			
APPROACH SLAB CONCRETE	cy	$387.70	
APPROACH SLAB REINFORCING	lbs	$0.80	

SUBTOTAL		**$1,027,119**
MOT	10.0%	$102,712
Mobilization	10.0%	$112,983
SUBTOTAL		**$1,242,814**
Contingency	15.0%	$186,422
CONSTRUCTION TOTAL (Rounded)		**$1,429,000**

OVERPASS ROAD / I-75 INTERCHANGE
DIVERGING DIAMOND INTERCHANGE
11 - 1 LANE SB ON RAMP TO SB I-75

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$206,485**
CLEARING & GRUBBING		0.34	ac	$25,000.00	$8,500
EROSION CONTROL		0.036	mi	$22,625.30	$814
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		7,690	cy	$9.17	$70,517
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.04	miles	$133,699.30	$4,811
TYPE B STABILIZATION		866	sy	$2.63	$2,278
ROADWAY - OPTIONAL BASE, BASE GROUP 11		338	sy	$38.75	$13,098
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		72.0	tons	$96.75	$6,966
SHOULDER - OPTIONAL BASE, BASE GROUP 04		422.0	sy	$7.16	$3,022
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		35.0	tons	$96.75	$3,386
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		20.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK			sy	$32.38	
GRASSING		916	sy	$2.25	$2,061
SIGNS (Post & Misc.)		0.04	Miles	$20,655.74	$743
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"			lf	$0.82	
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		380	lf	$1.32	$502
RETRO-REFLECTIVE PAVEMENT MARKERS			ea	$8.15	
TRUSS SIGNS - None			ea		
CANTILEVER SIGNS - None			ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	None				
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					
RETAINING WALL SYSTEM, PERMANENT, EXCLUDING BARRIER		1870	SF	$25.35	$47,405
CONCRETE TRAFFIC RAILING BARRIER, RETAINING WALL SYSTEM MOUNTED WITH S		190	LF	$223.07	$42,383

STRUCTURES			
APPROACH SLAB CONCRETE	cy	$387.70	
APPROACH SLAB REINFORCING	lbs	$0.80	

SUBTOTAL		**$206,485**
MOT	10.0%	$20,649
Mobilization	10.0%	$22,713
SUBTOTAL		**$249,847**
Contingency	15.0%	$37,477
CONSTRUCTION TOTAL (Rounded)		**$287,000**

OVERPASS ROAD / I-75 INTERCHANGE
DIVERGING DIAMOND INTERCHANGE
12 - 1 LANE SB OFF RAMP TO WB OVERPASS ROAD

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$265,299**
CLEARING & GRUBBING		0.47	ac	$25,000.00	$11,750
EROSION CONTROL		0.049	mi	$22,625.30	$1,114
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		10,523	cy	$9.17	$96,496
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.05	miles	$133,699.30	$6,584
TYPE B STABILIZATION		1,184	sy	$2.63	$3,114
ROADWAY - OPTIONAL BASE, BASE GROUP 11		462	sy	$38.75	$17,903
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		99.0	tons	$96.75	$9,578
SHOULDER - OPTIONAL BASE, BASE GROUP 04		578.0	sy	$7.16	$4,138
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		48.0	tons	$96.75	$4,644
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		27.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK			sy	$32.38	
GRASSING		1,254	sy	$2.25	$2,822
SIGNS (Post & Misc.)		0.05	Miles	$20,655.74	$1,017
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"			lf	$0.82	
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		520	lf	$1.32	$686
RETRO-REFLECTIVE PAVEMENT MARKERS			ea	$8.15	
TRUSS SIGNS - None			ea		
CANTILEVER SIGNS - None			ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	None				
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					
RETAINING WALL SYSTEM, PERMANENT, EXCLUDING BARRIER		1872	SF	$25.35	$47,455
CONCRETE TRAFFIC RAILING BARRIER, RETAINING WALL SYSTEM MOUNTED WITH S		260	LF	$223.07	$57,998

STRUCTURES			
APPROACH SLAB CONCRETE	cy	$387.70	
APPROACH SLAB REINFORCING	lbs	$0.80	

SUBTOTAL		**$265,299**
MOT	10.0%	$26,530
Mobilization	10.0%	$29,183
SUBTOTAL		**$321,012**
Contingency	15.0%	$48,152
CONSTRUCTION TOTAL (Rounded)		**$369,000**

OVERPASS ROAD / I-75 INTERCHANGE
DIVERGING DIAMOND INTERCHANGE
13 - 1 LANE SB OFF RAMP TO EB OVERPASS ROAD

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$293,060**
CLEARING & GRUBBING		0.43	ac	$25,000.00	$10,750
EROSION CONTROL		0.045	mi	$22,625.30	$1,028
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		9,383	cy	$9.17	$86,042
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.05	miles	$133,699.30	$6,077
TYPE B STABILIZATION		1,093	sy	$2.63	$2,875
ROADWAY - OPTIONAL BASE, BASE GROUP 11		427	sy	$38.75	$16,546
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		91.0	tons	$96.75	$8,804
SHOULDER - OPTIONAL BASE, BASE GROUP 04		533.0	sy	$7.16	$3,816
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		44.0	tons	$96.75	$4,257
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		25.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK			sy	$32.38	
GRASSING		1,140	sy	$2.25	$2,565
SIGNS (Post & Misc.)		0.05	Miles	$20,655.74	$939
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"			lf	$0.82	
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		480	lf	$1.32	$634
RETRO-REFLECTIVE PAVEMENT MARKERS			ea	$8.15	
TRUSS SIGNS - None			ea		
CANTILEVER SIGNS - None			ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	None				
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					
RETAINING WALL SYSTEM, PERMANENT, EXCLUDING BARRIER		3755	SF	$25.35	$95,189
CONCRETE TRAFFIC RAILING BARRIER, RETAINING WALL SYSTEM MOUNTED WITH S		240	LF	$223.07	$53,537

STRUCTURES			
APPROACH SLAB CONCRETE	cy	$387.70	
APPROACH SLAB REINFORCING	lbs	$0.80	

SUBTOTAL		**$293,060**
MOT	10.0%	$29,306
Mobilization	10.0%	$32,237
SUBTOTAL		**$354,602**
Contingency	15.0%	$53,190
CONSTRUCTION TOTAL (Rounded)		**$408,000**

OVERPASS ROAD / I-75 INTERCHANGE
DIVERGING DIAMOND INTERCHANGE
14 - 1 LANE SB OFF RAMP TO OVERPASS ROAD

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$272,283**
CLEARING & GRUBBING		0.41	ac	$25,000.00	$10,250
EROSION CONTROL		0.044	mi	$22,625.30	$986
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		8,992	cy	$9.17	$82,457
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.04	miles	$133,699.30	$5,824
TYPE B STABILIZATION		1,048	sy	$2.63	$2,756
ROADWAY - OPTIONAL BASE, BASE GROUP 11		409	sy	$38.75	$15,849
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		87.0	tons	$96.75	$8,417
SHOULDER - OPTIONAL BASE, BASE GROUP 04		511.0	sy	$7.16	$3,659
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		42.0	tons	$96.75	$4,064
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		24.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK			sy	$32.38	
GRASSING		1,093	sy	$2.25	$2,459
SIGNS (Post & Misc.)		0.04	Miles	$20,655.74	$900
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"		230	lf	$0.82	$189
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		460	lf	$1.32	$607
RETRO-REFLECTIVE PAVEMENT MARKERS		6	ea	$8.15	$47
TRUSS SIGNS - None			ea		
CANTILEVER SIGNS - None			ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	None				
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					
RETAINING WALL SYSTEM, PERMANENT, EXCLUDING BARRIER		3255	SF	$25.35	$82,514
CONCRETE TRAFFIC RAILING BARRIER, RETAINING WALL SYSTEM MOUNTED WITH S		230	LF	$223.07	$51,306

STRUCTURES			
APPROACH SLAB CONCRETE	cy	$387.70	
APPROACH SLAB REINFORCING	lbs	$0.80	

SUBTOTAL		**$272,283**
MOT	10.0%	$27,228
Mobilization	10.0%	$29,951
SUBTOTAL		**$329,462**
Contingency	15.0%	$49,419
CONSTRUCTION TOTAL (Rounded)		**$379,000**

OVERPASS ROAD / I-75 INTERCHANGE
DIVERGING DIAMOND INTERCHANGE
15 - 2 LANE SB OFF RAMP TO OVERPASS ROAD

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$852,772**
CLEARING & GRUBBING		2.64	ac	$25,000.00	$66,000
EROSION CONTROL		0.313	mi	$22,625.30	$7,075
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		12,547	cy	$9.17	$115,056
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.31	miles	$133,699.30	$41,806
TYPE B STABILIZATION		9,172	sy	$2.63	$24,122
ROADWAY - OPTIONAL BASE, BASE GROUP 11		4,586	sy	$38.75	$177,708
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		989.0	tons	$96.75	$95,686
SHOULDER - OPTIONAL BASE, BASE GROUP 04		3,669.0	sy	$7.16	$26,270
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		303.0	tons	$96.75	$29,315
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		262.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK			sy	$32.38	
GRASSING		4,693	sy	$2.25	$10,559
SIGNS (Post & Misc.)		0.31	Miles	$20,655.74	$6,459
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"			lf	$0.82	
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		3,302	lf	$1.32	$4,359
RETRO-REFLECTIVE PAVEMENT MARKERS			ea	$8.15	
TRUSS SIGNS - None			ea		
CANTILEVER SIGNS - None			ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	None				
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					
RETAINING WALL SYSTEM, PERMANENT, EXCLUDING BARRIER		3831	SF	$25.35	$97,116
CONCRETE TRAFFIC RAILING BARRIER, RETAINING WALL SYSTEM MOUNTED WITH S		678	LF	$223.07	$151,241

STRUCTURES			
APPROACH SLAB CONCRETE	cy	$387.70	
APPROACH SLAB REINFORCING	lbs	$0.80	

SUBTOTAL		**$852,772**
MOT	10.0%	$85,277
Mobilization	10.0%	$93,805
SUBTOTAL		**$1,031,854**
Contingency	15.0%	$154,778
CONSTRUCTION TOTAL (Rounded)		**$1,187,000**

OVERPASS ROAD / I-75 INTERCHANGE
DIVERGING DIAMOND INTERCHANGE
16 - 1 LANE SB OFF RAMP TO OVERPASS ROAD

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$811,317**
CLEARING & GRUBBING		2.27	ac	$25,000.00	$56,750
EROSION CONTROL		0.284	mi	$22,625.30	$6,423
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		14,536	cy	$9.17	$133,295
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.28	miles	$133,699.30	$37,957
TYPE B STABILIZATION		6,829	sy	$2.63	$17,960
ROADWAY - OPTIONAL BASE, BASE GROUP 11		2,665	sy	$38.75	$103,269
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		568.0	tons	$96.75	$54,954
SHOULDER - OPTIONAL BASE, BASE GROUP 04		3,331.0	sy	$7.16	$23,850
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		275.0	tons	$96.75	$26,606
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		156.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK			sy	$32.38	
GRASSING		5,148	sy	$2.25	$11,583
SIGNS (Post & Misc.)		0.28	Miles	$20,655.74	$5,864
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"		1,499	lf	$0.82	$1,229
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		2,998	lf	$1.32	$3,957
RETRO-REFLECTIVE PAVEMENT MARKERS		37	ea	$8.15	$305
TRUSS SIGNS - None			ea		
SIGN LT'D OVHD CTLVR-MONOTUBE, C 21- 30, S 151-200		1	ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	None				
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					
RETAINING WALL SYSTEM, PERMANENT, EXCLUDING BARRIER		7148	SF	$25.35	$181,202
CONCRETE TRAFFIC RAILING BARRIER, RETAINING WALL SYSTEM MOUNTED WITH S		655	LF	$223.07	$146,111

STRUCTURES			
APPROACH SLAB CONCRETE		cy	$387.70
APPROACH SLAB REINFORCING		lbs	$0.80

SUBTOTAL		**$811,317**
MOT	10.0%	$81,132
Mobilization	10.0%	$89,245
SUBTOTAL		**$981,694**
Contingency	15.0%	$147,254
CONSTRUCTION TOTAL (Rounded)		**$1,129,000**

OVERPASS ROAD / I-75 INTERCHANGE
DIVERGING DIAMOND INTERCHANGE
17 - 2 LANE EB OVERPASS ROAD

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$780,059**
CLEARING & GRUBBING		2.11	ac	$25,000.00	$52,750
EROSION CONTROL		0.227	mi	$22,625.30	$5,142
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		14,836	cy	$9.17	$136,046
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.23	miles	$133,699.30	$30,386
TYPE B STABILIZATION		7,200	sy	$2.63	$18,936
ROADWAY - OPTIONAL BASE, BASE GROUP 11		3,867	sy	$38.75	$149,846
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		836.0	tons	$96.75	$80,883
SHOULDER - OPTIONAL BASE, BASE GROUP 04		2,667.0	sy	$7.16	$19,096
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		220.0	tons	$96.75	$21,285
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		220.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK		667	sy	$32.38	$21,597
GRASSING		3,133	sy	$2.25	$7,049
SIGNS (Post & Misc.)		0.23	Miles	$20,655.74	$4,694
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"		3,600	lf	$0.82	$2,952
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		2,400	lf	$1.32	$3,168
RETRO-REFLECTIVE PAVEMENT MARKERS		90	ea	$8.15	$734
TRUSS SIGNS - None			ea		
SIGN LT'D OVHD CTLVR-MONOTUBE, C 21- 30, S 151-200		1	ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	None				
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					
RETAINING WALL SYSTEM, PERMANENT, EXCLUDING BARRIER		4092	SF	$25.35	$103,732
CONCRETE TRAFFIC RAILING BARRIER, RETAINING WALL SYSTEM MOUNTED WITH S		440	LF	$223.07	$98,151
TRAFFIC SEPARATOR CONCRETE- TYPE IV, 8.5' WIDE		390	LF	$60.54	$23,611

STRUCTURES			
APPROACH SLAB CONCRETE	cy	$387.70	
APPROACH SLAB REINFORCING	lbs	$0.80	

SUBTOTAL		**$780,059**
MOT	10.0%	$78,006
Mobilization	10.0%	$85,806
SUBTOTAL		**$943,871**
Contingency	15.0%	$141,581
CONSTRUCTION TOTAL (Rounded)		**$1,085,000**

OVERPASS ROAD / I-75 INTERCHANGE
DIVERGING DIAMOND INTERCHANGE
18 - 4 LANE EB OVERPASS ROAD

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$714,883**
CLEARING & GRUBBING		1.14	ac	$25,000.00	$28,500
EROSION CONTROL		0.083	mi	$22,625.30	$1,885
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		22,011	cy	$9.17	$201,841
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.08	miles	$133,699.30	$11,142
TYPE B STABILIZATION		3,813	sy	$2.63	$10,028
ROADWAY - OPTIONAL BASE, BASE GROUP 11		2,591	sy	$38.75	$100,401
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		565.0	tons	$96.75	$54,664
SHOULDER - OPTIONAL BASE, BASE GROUP 04		978.0	sy	$7.16	$7,002
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		81.0	tons	$96.75	$7,837
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		145.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK		244	sy	$32.38	$7,901
GRASSING		1,755	sy	$2.25	$3,949
SIGNS (Post & Misc.)		0.08	Miles	$20,655.74	$1,721
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"		1,320	lf	$0.82	$1,082
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		880	lf	$1.32	$1,162
RETRO-REFLECTIVE PAVEMENT MARKERS		33	ea	$8.15	$269
TRUSS SIGNS - None			ea		
SIGN LT'D OVHD CTLVR-MONOTUBE, C 21- 30, S 151-200		1	ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	None				
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					
RETAINING WALL SYSTEM, PERMANENT, EXCLUDING BARRIER		6996	SF	$25.35	$177,349
CONCRETE TRAFFIC RAILING BARRIER, RETAINING WALL SYSTEM MOUNTED WITH S		440	LF	$223.07	$98,151

STRUCTURES			
APPROACH SLAB CONCRETE		cy	$387.70
APPROACH SLAB REINFORCING		lbs	$0.80

SUBTOTAL		**$714,883**
MOT	10.0%	$71,488
Mobilization	10.0%	$78,637
SUBTOTAL		**$865,009**
Contingency	15.0%	$129,751
CONSTRUCTION TOTAL (Rounded)		**$995,000**

OVERPASS ROAD / I-75 INTERCHANGE
DIVERGING DIAMOND INTERCHANGE
19 - 3 LANE EB OVERPASS ROAD

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$569,192**
CLEARING & GRUBBING		0.74	ac	$25,000.00	$18,500
EROSION CONTROL		0.072	mi	$22,625.30	$1,628
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		19,757	cy	$9.17	$181,172
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.07	miles	$133,699.30	$9,622
TYPE B STABILIZATION		2,786	sy	$2.63	$7,327
ROADWAY - OPTIONAL BASE, BASE GROUP 11		1,731	sy	$38.75	$67,076
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		376.0	tons	$96.75	$36,378
SHOULDER - OPTIONAL BASE, BASE GROUP 04		844.0	sy	$7.16	$6,043
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		70.0	tons	$96.75	$6,773
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		98.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK		211	sy	$32.38	$6,832
GRASSING		844	sy	$2.25	$1,899
SIGNS (Post & Misc.)		0.07	Miles	$20,655.74	$1,487
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"		760	lf	$0.82	$623
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		760	lf	$1.32	$1,003
RETRO-REFLECTIVE PAVEMENT MARKERS		19	ea	$8.15	$155
TRUSS SIGNS - None			ea		
CANTILEVER SIGNS - None			ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	Mast Arm - 6 Lanes	1	pi	$222,673.93	$222,674
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					

STRUCTURES			
APPROACH SLAB CONCRETE	cy	$387.70	
APPROACH SLAB REINFORCING	lbs	$0.80	

SUBTOTAL		**$569,192**
MOT	10.0%	$56,919
Mobilization	10.0%	$62,611
SUBTOTAL		**$688,723**
Contingency	15.0%	$103,308
CONSTRUCTION TOTAL (Rounded)		**$792,000**

OVERPASS ROAD / I-75 INTERCHANGE
DIVERGING DIAMOND INTERCHANGE
20 - 2 LANE EB OVERPASS ROAD

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$570,791**
CLEARING & GRUBBING		0.74	ac	$25,000.00	$18,500
EROSION CONTROL		0.070	mi	$22,625.30	$1,585
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		19,832	cy	$9.17	$181,859
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.07	miles	$133,699.30	$9,369
TYPE B STABILIZATION		2,796	sy	$2.63	$7,353
ROADWAY - OPTIONAL BASE, BASE GROUP 11		1,768	sy	$38.75	$68,510
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		384.0	tons	$96.75	$37,152
SHOULDER - OPTIONAL BASE, BASE GROUP 04		822.0	sy	$7.16	$5,886
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		68.0	tons	$96.75	$6,579
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		99.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK		206	sy	$32.38	$6,670
GRASSING		822	sy	$2.25	$1,850
SIGNS (Post & Misc.)		0.07	Miles	$20,655.74	$1,447
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"		370	lf	$0.82	$303
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		740	lf	$1.32	$977
RETRO-REFLECTIVE PAVEMENT MARKERS		9	ea	$8.15	$75
TRUSS SIGNS - None			ea		
CANTILEVER SIGNS - None			ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	Mast Arm - 6 Lanes	1	pi	$222,673.93	$222,674
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					

STRUCTURES			
APPROACH SLAB CONCRETE	cy	$387.70	
APPROACH SLAB REINFORCING	lbs	$0.80	

SUBTOTAL		**$570,791**
MOT	10.0%	$57,079
Mobilization	10.0%	$62,787
SUBTOTAL		**$690,657**
Contingency	15.0%	$103,599
CONSTRUCTION TOTAL (Rounded)		**$794,000**

OVERPASS ROAD / I-75 INTERCHANGE
DIVERGING DIAMOND INTERCHANGE
21 - 4 LANE EB OVERPASS ROAD

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$1,655,363**
CLEARING & GRUBBING		3.73	ac	$25,000.00	$93,250
EROSION CONTROL		0.280	mi	$22,625.30	$6,342
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		40,991	cy	$9.17	$375,887
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.28	miles	$133,699.30	$37,476
TYPE B STABILIZATION		12,827	sy	$2.63	$33,735
ROADWAY - OPTIONAL BASE, BASE GROUP 11		8,716	sy	$38.75	$337,745
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		1,899.0	tons	$96.75	$183,728
SHOULDER - OPTIONAL BASE, BASE GROUP 04		3,289.0	sy	$7.16	$23,549
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		271.0	tons	$96.75	$26,219
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		488.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK		822	sy	$32.38	$26,616
GRASSING		5,374	sy	$2.25	$12,092
SIGNS (Post & Misc.)		0.28	Miles	$20,655.74	$5,790
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"		4,440	lf	$0.82	$3,641
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		2,960	lf	$1.32	$3,907
RETRO-REFLECTIVE PAVEMENT MARKERS		111	ea	$8.15	$905
TRUSS SIGNS - None			ea		
CANTILEVER SIGNS - None			ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	None				
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					
RETAINING WALL SYSTEM, PERMANENT, EXCLUDING BARRIER		11280	SF	$25.35	$285,948
CONCRETE TRAFFIC RAILING BARRIER, RETAINING WALL SYSTEM MOUNTED WITH S		890	LF	$223.07	$198,532

STRUCTURES			
APPROACH SLAB CONCRETE	cy	$387.70	
APPROACH SLAB REINFORCING	lbs	$0.80	

SUBTOTAL		**$1,655,363**
MOT	10.0%	$165,536
Mobilization	10.0%	$182,090
SUBTOTAL		**$2,002,989**
Contingency	15.0%	$300,448
CONSTRUCTION TOTAL (Rounded)		**$2,303,000**

OVERPASS ROAD / I-75 INTERCHANGE
DIVERGING DIAMOND INTERCHANGE
22 - 5 LANE EB OVERPASS ROAD

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$435,363**
CLEARING & GRUBBING		0.70	ac	$25,000.00	$17,500
EROSION CONTROL		0.051	mi	$22,625.30	$1,157
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		3,176	cy	$9.17	$29,124
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.05	miles	$133,699.30	$6,837
TYPE B STABILIZATION		2,700	sy	$2.63	$7,101
ROADWAY - OPTIONAL BASE, BASE GROUP 11		1,950	sy	$38.75	$75,563
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		426.0	tons	$96.75	$41,216
SHOULDER - OPTIONAL BASE, BASE GROUP 04		600.0	sy	$7.16	$4,296
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		50.0	tons	$96.75	$4,838
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		109.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK		150	sy	$32.38	$4,857
GRASSING		705	sy	$2.25	$1,586
SIGNS (Post & Misc.)		0.05	Miles	$20,655.74	$1,056
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"		1,080	lf	$0.82	$886
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		540	lf	$1.32	$713
RETRO-REFLECTIVE PAVEMENT MARKERS		27	ea	$8.15	$220
TRUSS SIGNS - None			ea		
CANTILEVER SIGNS - None			ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	Mast Arm - 6 Lanes	1	pi	$222,673.93	$222,674
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					
TRAFFIC SEPARATOR CONCRETE- TYPE IV, 8.5' WIDE		260	LF	$60.54	$15,740

STRUCTURES			
APPROACH SLAB CONCRETE		cy	$387.70
APPROACH SLAB REINFORCING		lbs	$0.80

SUBTOTAL		**$435,363**
MOT	10.0%	$43,536
Mobilization	10.0%	$47,890
SUBTOTAL		**$526,789**
Contingency	15.0%	$79,018
CONSTRUCTION TOTAL (Rounded)		**$606,000**

OVERPASS ROAD / I-75 INTERCHANGE
DIVERGING DIAMOND INTERCHANGE
23 - 3 LANE WB OVERPASS ROAD

Construction Cost Estimate

URS Corporation /

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$207,706**
CLEARING & GRUBBING		0.77	ac	$25,000.00	$19,250
EROSION CONTROL		0.076	mi	$22,625.30	$1,714
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		3,201	cy	$9.17	$29,353
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.08	miles	$133,699.30	$10,129
TYPE B STABILIZATION		2,933	sy	$2.63	$7,714
ROADWAY - OPTIONAL BASE, BASE GROUP 11		1,822	sy	$38.75	$70,603
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		396.0	tons	$96.75	$38,313
SHOULDER - OPTIONAL BASE, BASE GROUP 04		889.0	sy	$7.16	$6,365
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		73.0	tons	$96.75	$7,063
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		103.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK			sy	$32.38	
GRASSING		1,044	sy	$2.25	$2,349
SIGNS (Post & Misc.)		0.08	Miles	$20,655.74	$1,565
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"		800	lf	$0.82	$656
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		800	lf	$1.32	$1,056
RETRO-REFLECTIVE PAVEMENT MARKERS		20	ea	$8.15	$163
TRUSS SIGNS - None			ea		
CANTILEVER SIGNS - None			ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	None				
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					
10' WIDTH MULTI-USE PATH		444	SY	$24.00	$10,667
THERMOPLASTIC, STANDARD, WHITE, SOLID, 6"		400	LF	$1.15	$460
THERMOPLASTIC, STANDARD, WHITE, MESSAGE		2	EACH	$143.45	$287

STRUCTURES			
APPROACH SLAB CONCRETE	cy	$387.70	
APPROACH SLAB REINFORCING	lbs	$0.80	

SUBTOTAL		**$207,706**
MOT	10.0%	$20,771
Mobilization	10.0%	$22,848
SUBTOTAL		**$251,324**
Contingency	15.0%	$37,699
CONSTRUCTION TOTAL (Rounded)		**$289,000**

OVERPASS ROAD / I-75 INTERCHANGE
DIVERGING DIAMOND INTERCHANGE
24 - 2 LANE WB OVERPASS ROAD

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$1,391,385**
CLEARING & GRUBBING		2.59	ac	$25,000.00	$64,750
EROSION CONTROL		0.299	mi	$22,625.30	$6,770
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		39,451	cy	$9.17	$361,766
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.30	miles	$133,699.30	$40,009
TYPE B STABILIZATION		9,480	sy	$2.63	$24,932
ROADWAY - OPTIONAL BASE, BASE GROUP 11		5,091	sy	$38.75	$197,276
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		1,101.0	tons	$96.75	$106,522
SHOULDER - OPTIONAL BASE, BASE GROUP 04		3,511.0	sy	$7.16	$25,139
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		290.0	tons	$96.75	$28,058
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		290.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK			sy	$32.38	
GRASSING		4,126	sy	$2.25	$9,284
SIGNS (Post & Misc.)		0.30	Miles	$20,655.74	$6,181
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"		1,580	lf	$0.82	$1,296
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		3,160	lf	$1.32	$4,171
RETRO-REFLECTIVE PAVEMENT MARKERS		40	ea	$8.15	$322
TRUSS SIGNS - None			ea		
SIGN LT'D OVHD CTLVR-MONOTUBE, C 21- 30, S 151-200		1	ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	None				
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					
RETAINING WALL SYSTEM, PERMANENT, EXCLUDING BARRIER		10900	SF	$25.35	$276,315
CONCRETE TRAFFIC RAILING BARRIER, RETAINING WALL SYSTEM MOUNTED WITH S		870	LF	$223.07	$194,071
10' WIDTH MULTI-USE PATH		1756	SY	$24.00	$42,133
THERMOPLASTIC, STANDARD, WHITE, SOLID, 6"		1580	LF	$1.15	$1,817
THERMOPLASTIC, STANDARD, WHITE, MESSAGE		4	EACH	$143.45	$574

STRUCTURES			
APPROACH SLAB CONCRETE	cy	$387.70	
APPROACH SLAB REINFORCING	lbs	$0.80	

SUBTOTAL		**$1,391,385**
MOT	10.0%	$139,138
Mobilization	10.0%	$153,052
SUBTOTAL		**$1,683,575**
Contingency	15.0%	$252,536
CONSTRUCTION TOTAL (Rounded)		**$1,936,000**

OVERPASS ROAD / I-75 INTERCHANGE
DIVERGING DIAMOND INTERCHANGE
25 - 3 LANE WB OVERPASS ROAD INCLUDES BRIDGE OVER I-75

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$393,645**
CLEARING & GRUBBING		0.93	ac	$25,000.00	$23,250
EROSION CONTROL		0.076	mi	$22,625.30	$1,714
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		21,930	cy	$9.17	$201,098
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.08	miles	$133,699.30	$10,129
TYPE B STABILIZATION		2,933	sy	$2.63	$7,714
ROADWAY - OPTIONAL BASE, BASE GROUP 11		1,822	sy	$38.75	$70,603
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		396.0	tons	$96.75	$38,313
SHOULDER - OPTIONAL BASE, BASE GROUP 04		889.0	sy	$7.16	$6,365
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		73.0	tons	$96.75	$7,063
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		103.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK			sy	$32.38	
GRASSING		1,822	sy	$2.25	$4,100
SIGNS (Post & Misc.)		0.08	Miles	$20,655.74	$1,565
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"		1,600	lf	$0.82	$1,312
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		800	lf	$1.32	$1,056
RETRO-REFLECTIVE PAVEMENT MARKERS		40	ea	$8.15	$326
TRUSS SIGNS - None			ea		
CANTILEVER SIGNS - None			ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	None				
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					
10' WIDTH MULTI-USE PATH		556	SY	$24.00	$13,333
THERMOPLASTIC, STANDARD, WHITE, SOLID, 6"		500	LF	$1.15	$575
THERMOPLASTIC, STANDARD, WHITE, MESSAGE		2	EACH	$143.45	$287
TRAFFIC SEPARATOR CONCRETE- TYPE IV, 8.5' WIDE		80	LF	$60.54	$4,843

STRUCTURES					**$6,049,777**
APPROACH SLAB CONCRETE		252	cy	$387.70	$97,709
APPROACH SLAB REINFORCING		52,925	lbs	$0.80	$42,340
OVER I- OVERPASS RD OVER I-75	PRESTRESS.CONC.GIRDER (CONT.SPAN)	35,200.00	sf	$167.89	$5,909,728

SUBTOTAL		**$6,443,422**
MOT	10.0%	$644,342
Mobilization	10.0%	$708,776
SUBTOTAL		**$7,796,540**
Contingency	15.0%	$1,169,481
CONSTRUCTION TOTAL (Rounded)		**$8,966,000**

OVERPASS ROAD / I-75 INTERCHANGE
DIVERGING DIAMOND INTERCHANGE
26 - 4 LANE WB OVERPASS ROAD

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$1,729,974**
CLEARING & GRUBBING		4.18	ac	$25,000.00	$104,500
EROSION CONTROL		0.331	mi	$22,625.30	$7,499
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		38,824	cy	$9.17	$356,016
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.33	miles	$133,699.30	$44,313
TYPE B STABILIZATION		15,167	sy	$2.63	$39,889
ROADWAY - OPTIONAL BASE, BASE GROUP 11		10,306	sy	$38.75	$399,358
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		2,246.0	tons	$96.75	$217,301
SHOULDER - OPTIONAL BASE, BASE GROUP 04		3,889.0	sy	$7.16	$27,845
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		321.0	tons	$96.75	$31,057
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		578.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK			sy	$32.38	
GRASSING		6,222	sy	$2.25	$14,000
SIGNS (Post & Misc.)		0.33	Miles	$20,655.74	$6,846
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"		5,250	lf	$0.82	$4,305
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		3,500	lf	$1.32	$4,620
RETRO-REFLECTIVE PAVEMENT MARKERS		131	ea	$8.15	$1,070
TRUSS SIGNS - None			ea		
CANTILEVER SIGNS - None			ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	None				
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					
RETAINING WALL SYSTEM, PERMANENT, EXCLUDING BARRIER		9600	SF	$25.35	$243,360
CONCRETE TRAFFIC RAILING BARRIER, RETAINING WALL SYSTEM MOUNTED WITH S		800	LF	$223.07	$178,456
10' WIDTH MULTI-USE PATH		1944	SY	$24.00	$46,667
THERMOPLASTIC, STANDARD, WHITE, SOLID, 6"		1750	LF	$1.15	$2,013
THERMOPLASTIC, STANDARD, WHITE, MESSAGE		6	EACH	$143.45	$861

STRUCTURES			
APPROACH SLAB CONCRETE	cy	$387.70	
APPROACH SLAB REINFORCING	lbs	$0.80	

SUBTOTAL		**$1,729,974**
MOT	10.0%	$172,997
Mobilization	10.0%	$190,297
SUBTOTAL		**$2,093,268**
Contingency	15.0%	$313,990
CONSTRUCTION TOTAL (Rounded)		**$2,407,000**

OVERPASS ROAD / I-75 INTERCHANGE

7/23/2012

Construction Cost Estimate Summary

FLYOVER RAMP CONFIGURATION

SEGMENT	SEGMENT TITLE	SEGMENT COST
1	1 - 2 LANE NB OFF RAMP TO OVERPASS ROAD	$1,622,000
2	2 - 4 LANE NB OFF RAMP TO OVERPASS ROAD	$1,317,000
3	3 - 2 LANE NB OFF RAMP TO WB OVERPASS ROAD	$199,000
4	4 - 2 LANE NB OFF RAMP TO EB OVERPASS ROAD	$347,000
5	5 - 1 LANE NB ON RAMP TO NB I-75	$460,000
6	6 - 1 LANE NB ON RAMP TO NB I-75	$593,000
7	7 - 2 LANE NB ON RAMP TO NB I-75	$1,160,000
8	8 - 1 LANE NB ON RAMP TO NB I-75	$615,000
9	9 - 2 LANE SB ON RAMP TO I-75	$686,000
10	10 - 3 LANE SB ON RAMP TO I-75	$1,474,000
11	11 - 1 LANE SB ON RAMP TO SB I-75	$2,693,000
12	12 - 1 LANE SB OFF RAMP TO WB OVERPASS ROAD	$153,000
13	13 - 2 LANE SB OFF RAMP TO OVERPASS ROAD	$115,000
14	14 - 3 LANE SB OFF RAMP TO OVERPASS ROAD	$525,000
15	15- 1 LANE SB OFF RAMP TO OVERPASS ROAD	$657,000
16	16- 2 LANE EB OVERPASS ROAD	$823,000
17	17- 3 LANE EB OVERPASS ROAD	$1,972,000
18	18 - MEDIAN WEST OF BRIDGE ON OVERPASS ROAD	$371,000
19	19 - MEDIAN EAST OF BRIDGE ON OVERPASS ROAD	$351,000
20	20 - 2 LANE EB OVERPASS ROAD	$226,000
21	21 - 4 LANE EB OVERPASS ROAD	$2,387,000
22	22- 5 LANE EB OVERPASS ROAD	$946,000
23	23 - 3 LANE WB OVERPASS ROAD	$390,000
24	24 - 2 LANE WB OVERPASS ROAD	$1,247,000
25	25 - 3 LANE WB OVERPASS ROAD INCLUDES BRIDGE OVER I-75	$9,789,000
26	26 - 2 LANE WB OVERPASS ROAD	$9,789,000
27	27 - 3 LANE WB OVERPASS ROAD	$186,598
28	28 - 4 LANE WB OVERPASS ROAD	$590,000
29	29 - 2 LANE WB FLYOVER RAMP OVER I-75	$17,574,000

FLYOVER RAMP CONFIGURATION - CONSTRUCTION TOTAL	**$59,257,598**

OVERPASS ROAD / I-75 INTERCHANGE
FLYOVER RAMP CONFIGURATION
1 - 2 LANE NB OFF RAMP TO OVERPASS ROAD

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$1,165,833**
CLEARING & GRUBBING		3.64	ac	$25,000.00	$91,000
EROSION CONTROL		0.445	mi	$22,625.30	$10,070
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		20,682	cy	$9.17	$189,654
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.45	miles	$133,699.30	$59,506
TYPE B STABILIZATION		13,056	sy	$2.63	$34,337
ROADWAY - OPTIONAL BASE, BASE GROUP 11		6,528	sy	$38.75	$252,960
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		1,407.0	tons	$96.75	$136,127
SHOULDER - OPTIONAL BASE, BASE GROUP 04		5,222.0	sy	$7.16	$37,390
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		431.0	tons	$96.75	$41,699
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		373.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK			sy	$32.38	
GRASSING		6,136	sy	$2.25	$13,806
SIGNS (Post & Misc.)		0.45	Miles	$20,655.74	$9,193
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"		2,350	lf	$0.82	$1,927
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		4,700	lf	$1.32	$6,204
RETRO-REFLECTIVE PAVEMENT MARKERS		59	ea	$8.15	$479
SIGN LT'D OVHD TRUSS-MONOTUBE, T 101-120,S >700		1	ea		
CANTILEVER SIGNS - None			ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	None				
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					
RETAINING WALL SYSTEM, PERMANENT, EXCLUDING BARRIER		6000	SF	$25.35	$152,100
CONCRETE TRAFFIC RAILING BARRIER, RETAINING WALL SYSTEM MOUNTED WITH S		580	LF	$223.07	$129,381

STRUCTURES			
APPROACH SLAB CONCRETE	cy	$387.70	
APPROACH SLAB REINFORCING	lbs	$0.80	

SUBTOTAL		**$1,165,833**
MOT	10.0%	$116,583
Mobilization	10.0%	$128,242
SUBTOTAL		**$1,410,658**
Contingency	15.0%	$211,599
CONSTRUCTION TOTAL (Rounded)		**$1,622,000**

OVERPASS ROAD / I-75 INTERCHANGE
FLYOVER RAMP CONFIGURATION
2 - 4 LANE NB OFF RAMP TO OVERPASS ROAD

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$946,559**
CLEARING & GRUBBING		1.37	ac	$25,000.00	$34,250
EROSION CONTROL		0.106	mi	$22,625.30	$2,400
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		30,360	cy	$9.17	$278,401
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.11	miles	$133,699.30	$14,180
TYPE B STABILIZATION		4,604	sy	$2.63	$12,109
ROADWAY - OPTIONAL BASE, BASE GROUP 11		3,049	sy	$38.75	$118,149
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		664.0	tons	$96.75	$64,242
SHOULDER - OPTIONAL BASE, BASE GROUP 04		1,244.0	sy	$7.16	$8,907
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		103.0	tons	$96.75	$9,965
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		171.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK			sy	$32.38	
GRASSING		2,420	sy	$2.25	$5,445
SIGNS (Post & Misc.)		0.11	Miles	$20,655.74	$2,191
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"		1,680	lf	$0.82	$1,378
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		1,120	lf	$1.32	$1,478
RETRO-REFLECTIVE PAVEMENT MARKERS		42	ea	$8.15	$342
SIGN LT'D OVHD TRUSS-MONOTUBE, T 101-120,S >700		1	ea		
CANTILEVER SIGNS - None			ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	None				
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					
RETAINING WALL SYSTEM, PERMANENT, EXCLUDING BARRIER		10580	SF	$25.35	$268,203
CONCRETE TRAFFIC RAILING BARRIER, RETAINING WALL SYSTEM MOUNTED WITH S		560	LF	$223.07	$124,919

STRUCTURES			
APPROACH SLAB CONCRETE	cy	$387.70	
APPROACH SLAB REINFORCING	lbs	$0.80	

SUBTOTAL		**$946,559**
MOT	10.0%	$94,656
Mobilization	10.0%	$104,121
SUBTOTAL		**$1,145,336**
Contingency	15.0%	$171,800
CONSTRUCTION TOTAL (Rounded)		**$1,317,000**

OVERPASS ROAD / I-75 INTERCHANGE
FLYOVER RAMP CONFIGURATION
3 - 2 LANE NB OFF RAMP TO WB OVERPASS ROAD

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$143,110**
CLEARING & GRUBBING		0.18	ac	$25,000.00	$4,500
EROSION CONTROL		0.017	mi	$22,625.30	$386
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		4,378	cy	$9.17	$40,146
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.02	miles	$133,699.30	$2,279
TYPE B STABILIZATION		500	sy	$2.63	$1,315
ROADWAY - OPTIONAL BASE, BASE GROUP 11		250	sy	$38.75	$9,688
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		54.0	tons	$96.75	$5,225
SHOULDER - OPTIONAL BASE, BASE GROUP 04		200.0	sy	$7.16	$1,432
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		17.0	tons	$96.75	$1,645
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		14.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK			sy	$32.38	
GRASSING		436	sy	$2.25	$981
SIGNS (Post & Misc.)		0.02	Miles	$20,655.74	$352
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"		90	lf	$0.82	$74
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		180	lf	$1.32	$238
RETRO-REFLECTIVE PAVEMENT MARKERS		2	ea	$8.15	$18
TRUSS SIGNS - None			ea		
CANTILEVER SIGNS - None			ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	None				
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					
RETAINING WALL SYSTEM, PERMANENT, EXCLUDING BARRIER		2160	SF	$25.35	$54,756
CONCRETE TRAFFIC RAILING BARRIER, RETAINING WALL SYSTEM MOUNTED WITH S		90	LF	$223.07	$20,076

STRUCTURES			
APPROACH SLAB CONCRETE	cy	$387.70	
APPROACH SLAB REINFORCING	lbs	$0.80	

SUBTOTAL		**$143,110**
MOT	10.0%	$14,311
Mobilization	10.0%	$15,742
SUBTOTAL		**$173,163**
Contingency	15.0%	$25,974
CONSTRUCTION TOTAL (Rounded)		**$199,000**

OVERPASS ROAD / I-75 INTERCHANGE
FLYOVER RAMP CONFIGURATION
4 - 2 LANE NB OFF RAMP TO EB OVERPASS ROAD

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$249,716**
CLEARING & GRUBBING		0.32	ac	$25,000.00	$8,000
EROSION CONTROL		0.030	mi	$22,625.30	$673
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		7,638	cy	$9.17	$70,040
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.03	miles	$133,699.30	$3,976
TYPE B STABILIZATION		872	sy	$2.63	$2,293
ROADWAY - OPTIONAL BASE, BASE GROUP 11		436	sy	$38.75	$16,895
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		94.0	tons	$96.75	$9,095
SHOULDER - OPTIONAL BASE, BASE GROUP 04		349.0	sy	$7.16	$2,499
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		29.0	tons	$96.75	$2,806
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		25.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK			sy	$32.38	
GRASSING		760	sy	$2.25	$1,710
SIGNS (Post & Misc.)		0.03	Miles	$20,655.74	$614
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"		157	lf	$0.82	$129
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		314	lf	$1.32	$414
RETRO-REFLECTIVE PAVEMENT MARKERS		4	ea	$8.15	$32
TRUSS SIGNS - None			ea		
CANTILEVER SIGNS - None			ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	None				
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					
RETAINING WALL SYSTEM, PERMANENT, EXCLUDING BARRIER		3768	SF	$25.35	$95,519
CONCRETE TRAFFIC RAILING BARRIER, RETAINING WALL SYSTEM MOUNTED WITH S		157	LF	$223.07	$35,022

STRUCTURES			
APPROACH SLAB CONCRETE	cy	$387.70	
APPROACH SLAB REINFORCING	lbs	$0.80	

SUBTOTAL		**$249,716**
MOT	10.0%	$24,972
Mobilization	10.0%	$27,469
SUBTOTAL		**$302,157**
Contingency	15.0%	$45,324
CONSTRUCTION TOTAL (Rounded)		**$347,000**

OVERPASS ROAD / I-75 INTERCHANGE
FLYOVER RAMP CONFIGURATION
5 - 1 LANE NB ON RAMP TO NB I-75

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$330,279**
CLEARING & GRUBBING		0.43	ac	$25,000.00	$10,750
EROSION CONTROL		0.045	mi	$22,625.30	$1,028
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		9,097	cy	$9.17	$83,419
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.05	miles	$133,699.30	$6,077
TYPE B STABILIZATION		1,093	sy	$2.63	$2,875
ROADWAY - OPTIONAL BASE, BASE GROUP 11		427	sy	$38.75	$16,546
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		91.0	tons	$96.75	$8,804
SHOULDER - OPTIONAL BASE, BASE GROUP 04		533.0	sy	$7.16	$3,816
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		44.0	tons	$96.75	$4,257
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		25.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK			sy	$32.38	
GRASSING		1,125	sy	$2.25	$2,531
SIGNS (Post & Misc.)		0.05	Miles	$20,655.74	$939
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"			lf	$0.82	
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		480	lf	$1.32	$634
RETRO-REFLECTIVE PAVEMENT MARKERS			ea	$8.15	
TRUSS SIGNS - None			ea		
CANTILEVER SIGNS - None			ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	None				
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					
RETAINING WALL SYSTEM, PERMANENT, EXCLUDING BARRIER		5328	SF	$25.35	$135,065
CONCRETE TRAFFIC RAILING BARRIER, RETAINING WALL SYSTEM MOUNTED WITH S		240	LF	$223.07	$53,537

STRUCTURES			
APPROACH SLAB CONCRETE		cy	$387.70
APPROACH SLAB REINFORCING		lbs	$0.80

SUBTOTAL		**$330,279**
MOT	10.0%	$33,028
Mobilization	10.0%	$36,331
SUBTOTAL		**$399,637**
Contingency	15.0%	$59,946
CONSTRUCTION TOTAL (Rounded)		**$460,000**

OVERPASS ROAD / I-75 INTERCHANGE
FLYOVER RAMP CONFIGURATION
6 - 1 LANE NB ON RAMP TO NB I-75

Construction Cost Estimate

URS Corporation /

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$426,352**
CLEARING & GRUBBING		0.53	ac	$25,000.00	$13,250
EROSION CONTROL		0.057	mi	$22,625.30	$1,286
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		11,371	cy	$9.17	$104,272
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.06	miles	$133,699.30	$7,597
TYPE B STABILIZATION		1,367	sy	$2.63	$3,595
ROADWAY - OPTIONAL BASE, BASE GROUP 11		533	sy	$38.75	$20,654
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		114.0	tons	$96.75	$11,030
SHOULDER - OPTIONAL BASE, BASE GROUP 04		667.0	sy	$7.16	$4,776
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		55.0	tons	$96.75	$5,321
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		31.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK			sy	$32.38	
GRASSING		1,407	sy	$2.25	$3,166
SIGNS (Post & Misc.)		0.06	Miles	$20,655.74	$1,174
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"			lf	$0.82	
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		600	lf	$1.32	$792
RETRO-REFLECTIVE PAVEMENT MARKERS			ea	$8.15	
TRUSS SIGNS - None			ea		
CANTILEVER SIGNS - None			ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	None				
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					
RETAINING WALL SYSTEM, PERMANENT, EXCLUDING BARRIER		7200	SF	$25.35	$182,520
CONCRETE TRAFFIC RAILING BARRIER, RETAINING WALL SYSTEM MOUNTED WITH S		300	LF	$223.07	$66,921

STRUCTURES			
APPROACH SLAB CONCRETE		cy	$387.70
APPROACH SLAB REINFORCING		lbs	$0.80

SUBTOTAL		**$426,352**
MOT	10.0%	$42,635
Mobilization	10.0%	$46,899
SUBTOTAL		**$515,886**
Contingency	15.0%	$77,383
CONSTRUCTION TOTAL (Rounded)		**$593,000**

OVERPASS ROAD / I-75 INTERCHANGE
FLYOVER RAMP CONFIGURATION
7 - 2 LANE NB ON RAMP TO NB I-75

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$833,369**
CLEARING & GRUBBING		1.10	ac	$25,000.00	$27,500
EROSION CONTROL		0.142	mi	$22,625.30	$3,214
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		18,064	cy	$9.17	$165,647
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.14	miles	$133,699.30	$18,991
TYPE B STABILIZATION		4,167	sy	$2.63	$10,959
ROADWAY - OPTIONAL BASE, BASE GROUP 11		2,083	sy	$38.75	$80,716
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		449.0	tons	$96.75	$43,441
SHOULDER - OPTIONAL BASE, BASE GROUP 04		1,667.0	sy	$7.16	$11,936
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		138.0	tons	$96.75	$13,352
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		119.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK			sy	$32.38	
GRASSING		1,667	sy	$2.25	$3,751
SIGNS (Post & Misc.)		0.14	Miles	$20,655.74	$2,934
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"		750	lf	$0.82	$615
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		1,500	lf	$1.32	$1,980
RETRO-REFLECTIVE PAVEMENT MARKERS		19	ea	$8.15	$153
SIGN LT'D OVHD TRUSS-MONOTUBE, T 101-120,S >700		1	ea		
CANTILEVER SIGNS - None			ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	None				
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					
RETAINING WALL SYSTEM, PERMANENT, EXCLUDING BARRIER		11080	SF	$25.35	$280,878
CONCRETE TRAFFIC RAILING BARRIER, RETAINING WALL SYSTEM MOUNTED WITH S		750	LF	$223.07	$167,303

STRUCTURES			
APPROACH SLAB CONCRETE	cy	$387.70	
APPROACH SLAB REINFORCING	lbs	$0.80	

SUBTOTAL		**$833,369**
MOT	10.0%	$83,337
Mobilization	10.0%	$91,671
SUBTOTAL		**$1,008,376**
Contingency	15.0%	$151,256
CONSTRUCTION TOTAL (Rounded)		**$1,160,000**

OVERPASS ROAD / I-75 INTERCHANGE
FLYOVER RAMP CONFIGURATION
8 - 1 LANE NB ON RAMP TO NB I-75

Construction Cost Estimate

URS Corporation /

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$442,074**
CLEARING & GRUBBING		1.57	ac	$25,000.00	$39,250
EROSION CONTROL		0.235	mi	$22,625.30	$5,314
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		7,203	cy	$9.17	$66,052
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.23	miles	$133,699.30	$31,399
TYPE B STABILIZATION		5,649	sy	$2.63	$14,857
ROADWAY - OPTIONAL BASE, BASE GROUP 11		2,204	sy	$38.75	$85,405
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		470.0	tons	$96.75	$45,473
SHOULDER - OPTIONAL BASE, BASE GROUP 04		2,756.0	sy	$7.16	$19,733
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		227.0	tons	$96.75	$21,962
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		129.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK			sy	$32.38	
GRASSING		2,756	sy	$2.25	$6,201
SIGNS (Post & Misc.)		0.23	Miles	$20,655.74	$4,851
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"			lf	$0.82	
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		2,480	lf	$1.32	$3,274
RETRO-REFLECTIVE PAVEMENT MARKERS			ea	$8.15	
TRUSS SIGNS - None			ea		
CANTILEVER SIGNS - None			ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	None				
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					
RETAINING WALL SYSTEM, PERMANENT, EXCLUDING BARRIER		1590	SF	$25.35	$40,307
CONCRETE TRAFFIC RAILING BARRIER, RETAINING WALL SYSTEM MOUNTED WITH S		260	LF	$223.07	$57,998

STRUCTURES			
APPROACH SLAB CONCRETE	cy	$387.70	
APPROACH SLAB REINFORCING	lbs	$0.80	

SUBTOTAL		**$442,074**
MOT	10.0%	$44,207
Mobilization	10.0%	$48,628
SUBTOTAL		**$534,909**
Contingency	15.0%	$80,236
CONSTRUCTION TOTAL (Rounded)		**$615,000**

OVERPASS ROAD / I-75 INTERCHANGE
FLYOVER RAMP CONFIGURATION
9 - 2 LANE SB ON RAMP TO I-75

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$492,948**
CLEARING & GRUBBING		2.17	ac	$25,000.00	$54,250
EROSION CONTROL		0.265	mi	$22,625.30	$5,999
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		8,620	cy	$9.17	$79,045
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.27	miles	$133,699.30	$35,451
TYPE B STABILIZATION		7,778	sy	$2.63	$20,456
ROADWAY - OPTIONAL BASE, BASE GROUP 11		3,889	sy	$38.75	$150,699
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		838.0	tons	$96.75	$81,077
SHOULDER - OPTIONAL BASE, BASE GROUP 04		3,111.0	sy	$7.16	$22,275
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		257.0	tons	$96.75	$24,865
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		222.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK			sy	$32.38	
GRASSING		3,656	sy	$2.25	$8,226
SIGNS (Post & Misc.)		0.27	Miles	$20,655.74	$5,477
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"		1,400	lf	$0.82	$1,148
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		2,800	lf	$1.32	$3,696
RETRO-REFLECTIVE PAVEMENT MARKERS		35	ea	$8.15	$285
SIGN LT'D OVHD TRUSS-MONOTUBE, T 101-120,S >700		1	ea		
CANTILEVER SIGNS - None			ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	None				
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					

STRUCTURES				
APPROACH SLAB CONCRETE		cy	$387.70	
APPROACH SLAB REINFORCING		lbs	$0.80	

SUBTOTAL		**$492,948**
MOT	10.0%	$49,295
Mobilization	10.0%	$54,224
SUBTOTAL		**$596,467**
Contingency	15.0%	$89,470
CONSTRUCTION TOTAL (Rounded)		**$686,000**

OVERPASS ROAD / I-75 INTERCHANGE
FLYOVER RAMP CONFIGURATION
10 - 3 LANE SB ON RAMP TO I-75

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$1,059,380**
CLEARING & GRUBBING		4.10	ac	$25,000.00	$102,500
EROSION CONTROL		0.445	mi	$22,625.30	$10,070
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		17,059	cy	$9.17	$156,431
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.45	miles	$133,699.30	$59,506
TYPE B STABILIZATION		16,189	sy	$2.63	$42,577
ROADWAY - OPTIONAL BASE, BASE GROUP 11		9,661	sy	$38.75	$374,364
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		2,097.0	tons	$96.75	$202,885
SHOULDER - OPTIONAL BASE, BASE GROUP 04		5,222.0	sy	$7.16	$37,390
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		431.0	tons	$96.75	$41,699
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		546.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK			sy	$32.38	
GRASSING		5,222	sy	$2.25	$11,750
SIGNS (Post & Misc.)		0.45	Miles	$20,655.74	$9,193
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"		4,700	lf	$0.82	$3,854
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		4,700	lf	$1.32	$6,204
RETRO-REFLECTIVE PAVEMENT MARKERS		118	ea	$8.15	$958
TRUSS SIGNS - None			ea		
CANTILEVER SIGNS - None			ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	None				
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					

STRUCTURES			
APPROACH SLAB CONCRETE	cy	$387.70	
APPROACH SLAB REINFORCING	lbs	$0.80	

SUBTOTAL		**$1,059,380**
MOT	10.0%	$105,938
Mobilization	10.0%	$116,532
SUBTOTAL		**$1,281,850**
Contingency	15.0%	$192,277
CONSTRUCTION TOTAL (Rounded)		**$1,474,000**

OVERPASS ROAD / I-75 INTERCHANGE
FLYOVER RAMP CONFIGURATION
11 - 1 LANE SB ON RAMP TO SB I-75

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$1,935,633**
CLEARING & GRUBBING		2.55	ac	$25,000.00	$63,750
EROSION CONTROL		0.360	mi	$22,625.30	$8,142
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		27,749	cy	$9.17	$254,458
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.36	miles	$133,699.30	$48,111
TYPE B STABILIZATION		8,656	sy	$2.63	$22,765
ROADWAY - OPTIONAL BASE, BASE GROUP 11		3,378	sy	$38.75	$130,898
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		720.0	tons	$96.75	$69,660
SHOULDER - OPTIONAL BASE, BASE GROUP 04		4,222.0	sy	$7.16	$30,230
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		348.0	tons	$96.75	$33,669
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		197.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK			sy	$32.38	
GRASSING		4,961	sy	$2.25	$11,162
SIGNS (Post & Misc.)		0.36	Miles	$20,655.74	$7,433
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"			lf	$0.82	
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		3,800	lf	$1.32	$5,016
RETRO-REFLECTIVE PAVEMENT MARKERS			ea	$8.15	
TRUSS SIGNS - None			ea		
CANTILEVER SIGNS - None			ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	None				
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					
RETAINING WALL SYSTEM, PERMANENT, EXCLUDING BARRIER		28204	SF	$25.35	$714,971
CONCRETE TRAFFIC RAILING BARRIER, RETAINING WALL SYSTEM MOUNTED WITH S		2400	LF	$223.07	$535,368

STRUCTURES			
APPROACH SLAB CONCRETE	cy	$387.70	
APPROACH SLAB REINFORCING	lbs	$0.80	

SUBTOTAL		**$1,935,633**
MOT	10.0%	$193,563
Mobilization	10.0%	$212,920
SUBTOTAL		**$2,342,116**
Contingency	15.0%	$351,317
CONSTRUCTION TOTAL (Rounded)		**$2,693,000**

OVERPASS ROAD / I-75 INTERCHANGE
FLYOVER RAMP CONFIGURATION
12 - 1 LANE SB OFF RAMP TO WB OVERPASS ROAD

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$109,669**
CLEARING & GRUBBING		0.32	ac	$25,000.00	$8,000
EROSION CONTROL		0.034	mi	$22,625.30	$771
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		7,200	cy	$9.17	$66,024
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.03	miles	$133,699.30	$4,558
TYPE B STABILIZATION		820	sy	$2.63	$2,157
ROADWAY - OPTIONAL BASE, BASE GROUP 11		320	sy	$38.75	$12,400
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		68.0	tons	$96.75	$6,579
SHOULDER - OPTIONAL BASE, BASE GROUP 04		400.0	sy	$7.16	$2,864
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		33.0	tons	$96.75	$3,193
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		19.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK			sy	$32.38	
GRASSING		864	sy	$2.25	$1,944
SIGNS (Post & Misc.)		0.03	Miles	$20,655.74	$704
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"			lf	$0.82	
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		360	lf	$1.32	$475
RETRO-REFLECTIVE PAVEMENT MARKERS			ea	$8.15	
TRUSS SIGNS - None			ea		
CANTILEVER SIGNS - None			ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	None				
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					

STRUCTURES			
APPROACH SLAB CONCRETE	cy	$387.70	
APPROACH SLAB REINFORCING	lbs	$0.80	

SUBTOTAL		**$109,669**
MOT	10.0%	$10,967
Mobilization	10.0%	$12,064
SUBTOTAL		**$132,699**
Contingency	15.0%	$19,905
CONSTRUCTION TOTAL (Rounded)		**$153,000**

OVERPASS ROAD / I-75 INTERCHANGE
FLYOVER RAMP CONFIGURATION
13 - 2 LANE SB OFF RAMP TO OVERPASS ROAD

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$82,453**
CLEARING & GRUBBING		0.22	ac	$25,000.00	$5,500
EROSION CONTROL		0.021	mi	$22,625.30	$471
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		5,250	cy	$9.17	$48,143
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.02	miles	$133,699.30	$2,785
TYPE B STABILIZATION		611	sy	$2.63	$1,607
ROADWAY - OPTIONAL BASE, BASE GROUP 11		306	sy	$38.75	$11,858
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		66.0	tons	$96.75	$6,386
SHOULDER - OPTIONAL BASE, BASE GROUP 04		244.0	sy	$7.16	$1,747
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		20.0	tons	$96.75	$1,935
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		17.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK			sy	$32.38	
GRASSING		528	sy	$2.25	$1,188
SIGNS (Post & Misc.)		0.02	Miles	$20,655.74	$430
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"		110	lf	$0.82	$90
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		220	lf	$1.32	$290
RETRO-REFLECTIVE PAVEMENT MARKERS		3	ea	$8.15	$22
TRUSS SIGNS - None			ea		
CANTILEVER SIGNS - None			ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	None				
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					

STRUCTURES			
APPROACH SLAB CONCRETE	cy	$387.70	
APPROACH SLAB REINFORCING	lbs	$0.80	

SUBTOTAL		**$82,453**
MOT	10.0%	$8,245
Mobilization	10.0%	$9,070
SUBTOTAL		**$99,768**
Contingency	15.0%	$14,965
CONSTRUCTION TOTAL (Rounded)		**$115,000**

OVERPASS ROAD / I-75 INTERCHANGE
FLYOVER RAMP CONFIGURATION
14 - 3 LANE SB OFF RAMP TO OVERPASS ROAD

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$377,028**
CLEARING & GRUBBING		1.00	ac	$25,000.00	$25,000
EROSION CONTROL		0.087	mi	$22,625.30	$1,971
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		21,075	cy	$9.17	$193,258
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.09	miles	$133,699.30	$11,648
TYPE B STABILIZATION		3,169	sy	$2.63	$8,334
ROADWAY - OPTIONAL BASE, BASE GROUP 11		1,891	sy	$38.75	$73,276
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		410.0	tons	$96.75	$39,668
SHOULDER - OPTIONAL BASE, BASE GROUP 04		1,022.0	sy	$7.16	$7,318
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		84.0	tons	$96.75	$8,127
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		107.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK			sy	$32.38	
GRASSING		1,988	sy	$2.25	$4,473
SIGNS (Post & Misc.)		0.09	Miles	$20,655.74	$1,800
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"		920	lf	$0.82	$754
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		920	lf	$1.32	$1,214
RETRO-REFLECTIVE PAVEMENT MARKERS		23	ea	$8.15	$187
TRUSS SIGNS - None			ea		
CANTILEVER SIGNS - None			ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	None				
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					

STRUCTURES			
APPROACH SLAB CONCRETE	cy	$387.70	
APPROACH SLAB REINFORCING	lbs	$0.80	

SUBTOTAL		**$377,028**
MOT	10.0%	$37,703
Mobilization	10.0%	$41,473
SUBTOTAL		**$456,204**
Contingency	15.0%	$68,431
CONSTRUCTION TOTAL (Rounded)		**$525,000**

OVERPASS ROAD / I-75 INTERCHANGE
FLYOVER RAMP CONFIGURATION
15- 1 LANE SB OFF RAMP TO OVERPASS ROAD

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$472,192**
CLEARING & GRUBBING		1.97	ac	$25,000.00	$49,250
EROSION CONTROL		0.295	mi	$22,625.30	$6,685
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		13,404	cy	$9.17	$122,915
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.30	miles	$133,699.30	$39,502
TYPE B STABILIZATION		7,107	sy	$2.63	$18,691
ROADWAY - OPTIONAL BASE, BASE GROUP 11		2,773	sy	$38.75	$107,454
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		591.0	tons	$96.75	$57,179
SHOULDER - OPTIONAL BASE, BASE GROUP 04		3,467.0	sy	$7.16	$24,824
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		286.0	tons	$96.75	$27,671
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		162.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK			sy	$32.38	
GRASSING		3,467	sy	$2.25	$7,801
SIGNS (Post & Misc.)		0.30	Miles	$20,655.74	$6,103
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"			lf	$0.82	
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		3,120	lf	$1.32	$4,118
RETRO-REFLECTIVE PAVEMENT MARKERS			ea	$8.15	
TRUSS SIGNS - None			ea		
CANTILEVER SIGNS - None			ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	None				
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					

STRUCTURES			
APPROACH SLAB CONCRETE	cy	$387.70	
APPROACH SLAB REINFORCING	lbs	$0.80	

SUBTOTAL		**$472,192**
MOT	10.0%	$47,219
Mobilization	10.0%	$51,941
SUBTOTAL		**$571,352**
Contingency	15.0%	$85,703
CONSTRUCTION TOTAL (Rounded)		**$657,000**

OVERPASS ROAD / I-75 INTERCHANGE
FLYOVER RAMP CONFIGURATION
16- 2 LANE EB OVERPASS ROAD

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$591,738**
CLEARING & GRUBBING		1.88	ac	$25,000.00	$47,000
EROSION CONTROL		0.203	mi	$22,625.30	$4,585
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		10,193	cy	$9.17	$93,470
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.20	miles	$133,699.30	$27,094
TYPE B STABILIZATION		6,420	sy	$2.63	$16,885
ROADWAY - OPTIONAL BASE, BASE GROUP 11		3,448	sy	$38.75	$133,610
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		745.0	tons	$96.75	$72,079
SHOULDER - OPTIONAL BASE, BASE GROUP 04		2,378.0	sy	$7.16	$17,026
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		196.0	tons	$96.75	$18,963
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		196.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK		594	sy	$32.38	$19,234
GRASSING		2,794	sy	$2.25	$6,287
SIGNS (Post & Misc.)		0.20	Miles	$20,655.74	$4,186
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"		1,070	lf	$0.82	$877
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		2,140	lf	$1.32	$2,825
RETRO-REFLECTIVE PAVEMENT MARKERS		27	ea	$8.15	$218
TRUSS SIGNS - None			ea		
SIGN LT'D OVHD CTLVR-MONOTUBE, C 21- 30, S 151-200		1	ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	None				
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					
RETAINING WALL SYSTEM, PERMANENT, EXCLUDING BARRIER		1208	SF	$25.35	$30,623
CONCRETE TRAFFIC RAILING BARRIER, RETAINING WALL SYSTEM MOUNTED WITH S		290	LF	$223.07	$64,690
TRAFFIC SEPARATOR CONCRETE- TYPE IV, 8.5' WIDE		530	LF	$60.54	$32,086

STRUCTURES			
APPROACH SLAB CONCRETE	cy	$387.70	
APPROACH SLAB REINFORCING	lbs	$0.80	

SUBTOTAL		**$591,738**
MOT	10.0%	$59,174
Mobilization	10.0%	$65,091
SUBTOTAL		**$716,003**
Contingency	15.0%	$107,400
CONSTRUCTION TOTAL (Rounded)		**$823,000**

OVERPASS ROAD / I-75 INTERCHANGE
FLYOVER RAMP CONFIGURATION
17- 3 LANE EB OVERPASS ROAD

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$1,416,897**
CLEARING & GRUBBING		2.13	ac	$25,000.00	$53,250
EROSION CONTROL		0.172	mi	$22,625.30	$3,899
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		42,605	cy	$9.17	$390,688
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.17	miles	$133,699.30	$23,043
TYPE B STABILIZATION		6,672	sy	$2.63	$17,547
ROADWAY - OPTIONAL BASE, BASE GROUP 11		4,145	sy	$38.75	$160,619
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		901.0	tons	$96.75	$87,172
SHOULDER - OPTIONAL BASE, BASE GROUP 04		2,022.0	sy	$7.16	$14,478
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		167.0	tons	$96.75	$16,157
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		234.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK		506	sy	$32.38	$16,384
GRASSING		3,759	sy	$2.25	$8,458
SIGNS (Post & Misc.)		0.17	Miles	$20,655.74	$3,560
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"		1,820	lf	$0.82	$1,492
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		1,820	lf	$1.32	$2,402
RETRO-REFLECTIVE PAVEMENT MARKERS		46	ea	$8.15	$371
TRUSS SIGNS - None			ea		
SIGN LT'D OVHD CTLVR-MONOTUBE, C 21- 30, S 151-200		1	ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	None				
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					
RETAINING WALL SYSTEM, PERMANENT, EXCLUDING BARRIER		15630	SF	$25.35	$396,221
CONCRETE TRAFFIC RAILING BARRIER, RETAINING WALL SYSTEM MOUNTED WITH S		910	LF	$223.07	$202,994
TRAFFIC SEPARATOR CONCRETE- TYPE IV, 8.5' WIDE		300	LF	$60.54	$18,162

STRUCTURES		
APPROACH SLAB CONCRETE	cy	$387.70
APPROACH SLAB REINFORCING	lbs	$0.80

SUBTOTAL		**$1,416,897**
MOT	10.0%	$141,690
Mobilization	10.0%	$155,859
SUBTOTAL		**$1,714,445**
Contingency	15.0%	$257,167
CONSTRUCTION TOTAL (Rounded)		**$1,972,000**

OVERPASS ROAD / I-75 INTERCHANGE
FLYOVER RAMP CONFIGURATION
18 - MEDIAN WEST OF BRIDGE ON OVERPASS ROAD

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$266,734**
CLEARING & GRUBBING		0.14	ac	$25,000.00	$3,500
EROSION CONTROL		0.015	mi	$22,625.30	$343
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		2,987	cy	$9.17	$27,391
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.02	miles	$133,699.30	$2,026
TYPE B STABILIZATION		320	sy	$2.63	$842
ROADWAY - OPTIONAL BASE, BASE GROUP 11		98	sy	$38.75	$3,798
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		21.0	tons	$96.75	$2,032
SHOULDER - OPTIONAL BASE, BASE GROUP 04		178.0	sy	$7.16	$1,274
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		15.0	tons	$96.75	$1,451
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		6.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK			sy	$32.38	
GRASSING		391	sy	$2.25	$880
SIGNS (Post & Misc.)		0.02	Miles	$20,655.74	$313
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"			lf	$0.82	
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		160	lf	$1.32	$211
RETRO-REFLECTIVE PAVEMENT MARKERS			ea	$8.15	
TRUSS SIGNS - None			ea		
CANTILEVER SIGNS - None			ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	Mast Arm - 6 Lanes	1	pi	$222,673.93	$222,674
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
STRUCTURES					
APPROACH SLAB CONCRETE			cy	$387.70	
APPROACH SLAB REINFORCING			lbs	$0.80	

SUBTOTAL		**$266,734**
MOT	10.0%	$26,673
Mobilization	10.0%	$29,341
SUBTOTAL		**$322,748**
Contingency	15.0%	$48,412
CONSTRUCTION TOTAL (Rounded)		**$371,000**

OVERPASS ROAD / I-75 INTERCHANGE
FLYOVER RAMP CONFIGURATION
19 - MEDIAN EAST OF BRIDGE ON OVERPASS ROAD

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$252,077**
CLEARING & GRUBBING		0.07	ac	$25,000.00	$1,750
EROSION CONTROL		0.009	mi	$22,625.30	$214
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		1,778	cy	$9.17	$16,304
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.01	miles	$133,699.30	$1,266
TYPE B STABILIZATION		256	sy	$2.63	$673
ROADWAY - OPTIONAL BASE, BASE GROUP 11		117	sy	$38.75	$4,534
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		25.0	tons	$96.75	$2,419
SHOULDER - OPTIONAL BASE, BASE GROUP 04		111.0	sy	$7.16	$795
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		9.0	tons	$96.75	$871
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		7.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK			sy	$32.38	
GRASSING		111	sy	$2.25	$250
SIGNS (Post & Misc.)		0.01	Miles	$20,655.74	$196
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"			lf	$0.82	
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		100	lf	$1.32	$132
RETRO-REFLECTIVE PAVEMENT MARKERS			ea	$8.15	
TRUSS SIGNS - None			ea		
CANTILEVER SIGNS - None			ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	Mast Arm - 6 Lanes	1	pi	$222,673.93	$222,674
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				

Extra Items

STRUCTURES			
APPROACH SLAB CONCRETE	cy	$387.70	
APPROACH SLAB REINFORCING	lbs	$0.80	

SUBTOTAL		**$252,077**
MOT	10.0%	$25,208
Mobilization	10.0%	$27,728
SUBTOTAL		**$305,013**
Contingency	15.0%	$45,752
CONSTRUCTION TOTAL (Rounded)		**$351,000**

OVERPASS ROAD / I-75 INTERCHANGE
FLYOVER RAMP CONFIGURATION
20 - 2 LANE EB OVERPASS ROAD

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$162,583**
CLEARING & GRUBBING		0.42	ac	$25,000.00	$10,500
EROSION CONTROL		0.036	mi	$22,625.30	$814
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		10,215	cy	$9.17	$93,672
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.04	miles	$133,699.30	$4,811
TYPE B STABILIZATION		1,140	sy	$2.63	$2,998
ROADWAY - OPTIONAL BASE, BASE GROUP 11		612	sy	$38.75	$23,715
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		132.0	tons	$96.75	$12,771
SHOULDER - OPTIONAL BASE, BASE GROUP 04		422.0	sy	$7.16	$3,022
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		35.0	tons	$96.75	$3,386
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		35.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK		106	sy	$32.38	$3,432
GRASSING		899	sy	$2.25	$2,023
SIGNS (Post & Misc.)		0.04	Miles	$20,655.74	$743
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"		190	lf	$0.82	$156
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		380	lf	$1.32	$502
RETRO-REFLECTIVE PAVEMENT MARKERS		5	ea	$8.15	$39
TRUSS SIGNS - None			ea		
CANTILEVER SIGNS - None			ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	None				
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					

STRUCTURES			
APPROACH SLAB CONCRETE	cy	$387.70	
APPROACH SLAB REINFORCING	lbs	$0.80	

SUBTOTAL		**$162,583**
MOT	10.0%	$16,258
Mobilization	10.0%	$17,884
SUBTOTAL		**$196,726**
Contingency	15.0%	$29,509
CONSTRUCTION TOTAL (Rounded)		**$226,000**

OVERPASS ROAD / I-75 INTERCHANGE
FLYOVER RAMP CONFIGURATION
21 - 4 LANE EB OVERPASS ROAD

Construction Cost Estimate

URS Corporation /

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$1,715,512**
CLEARING & GRUBBING		3.40	ac	$25,000.00	$85,000
EROSION CONTROL		0.254	mi	$22,625.30	$5,742
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		46,009	cy	$9.17	$421,903
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.25	miles	$133,699.30	$33,931
TYPE B STABILIZATION		11,613	sy	$2.63	$30,542
ROADWAY - OPTIONAL BASE, BASE GROUP 11		7,891	sy	$38.75	$305,776
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		1,720.0	tons	$96.75	$166,410
SHOULDER - OPTIONAL BASE, BASE GROUP 04		2,978.0	sy	$7.16	$21,322
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		246.0	tons	$96.75	$23,801
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		442.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK		744	sy	$32.38	$24,091
GRASSING		5,000	sy	$2.25	$11,250
SIGNS (Post & Misc.)		0.25	Miles	$20,655.74	$5,242
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"		4,020	lf	$0.82	$3,296
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		2,680	lf	$1.32	$3,538
RETRO-REFLECTIVE PAVEMENT MARKERS		101	ea	$8.15	$819
TRUSS SIGNS - None			ea		
CANTILEVER SIGNS - None			ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	None				
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					
RETAINING WALL SYSTEM, PERMANENT, EXCLUDING BARRIER		13710	SF	$25.35	$347,549
CONCRETE TRAFFIC RAILING BARRIER, RETAINING WALL SYSTEM MOUNTED WITH S		1010	LF	$223.07	$225,301

STRUCTURES			
APPROACH SLAB CONCRETE	cy	$387.70	
APPROACH SLAB REINFORCING	lbs	$0.80	

SUBTOTAL		**$1,715,512**
MOT	10.0%	$171,551
Mobilization	10.0%	$188,706
SUBTOTAL		**$2,075,770**
Contingency	15.0%	$311,366
CONSTRUCTION TOTAL (Rounded)		**$2,387,000**

OVERPASS ROAD / I-75 INTERCHANGE
FLYOVER RAMP CONFIGURATION
22- 5 LANE EB OVERPASS ROAD

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$679,921**
CLEARING & GRUBBING		1.50	ac	$25,000.00	$37,500
EROSION CONTROL		0.110	mi	$22,625.30	$2,485
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		6,823	cy	$9.17	$62,567
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.11	miles	$133,699.30	$14,687
TYPE B STABILIZATION		5,800	sy	$2.63	$15,254
ROADWAY - OPTIONAL BASE, BASE GROUP 11		4,189	sy	$38.75	$162,324
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		914.0	tons	$96.75	$88,430
SHOULDER - OPTIONAL BASE, BASE GROUP 04		1,289.0	sy	$7.16	$9,229
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		106.0	tons	$96.75	$10,256
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		234.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK		322	sy	$32.38	$10,426
GRASSING		1,514	sy	$2.25	$3,407
SIGNS (Post & Misc.)		0.11	Miles	$20,655.74	$2,269
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"		2,320	lf	$0.82	$1,902
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		1,160	lf	$1.32	$1,531
RETRO-REFLECTIVE PAVEMENT MARKERS		58	ea	$8.15	$473
TRUSS SIGNS - None			ea		
CANTILEVER SIGNS - None			ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	Mast Arm - 6 Lanes	1	pi	$222,673.93	$222,674
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					
TRAFFIC SEPARATOR CONCRETE- TYPE IV, 8.5' WIDE		570	LF	$60.54	$34,508

STRUCTURES			
APPROACH SLAB CONCRETE		cy	$387.70
APPROACH SLAB REINFORCING		lbs	$0.80

SUBTOTAL		**$679,921**
MOT	10.0%	$67,992
Mobilization	10.0%	$74,791
SUBTOTAL		**$822,704**
Contingency	15.0%	$123,406
CONSTRUCTION TOTAL (Rounded)		**$946,000**

OVERPASS ROAD / I-75 INTERCHANGE
FLYOVER RAMP CONFIGURATION
23 - 3 LANE WB OVERPASS ROAD

Construction Cost Estimate

URS Corporation /

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$280,278**
CLEARING & GRUBBING		1.04	ac	$25,000.00	$26,000
EROSION CONTROL		0.102	mi	$22,625.30	$2,314
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		4,322	cy	$9.17	$39,633
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.10	miles	$133,699.30	$13,674
TYPE B STABILIZATION		3,959	sy	$2.63	$10,412
ROADWAY - OPTIONAL BASE, BASE GROUP 11		2,459	sy	$38.75	$95,286
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		534.0	tons	$96.75	$51,665
SHOULDER - OPTIONAL BASE, BASE GROUP 04		1,200.0	sy	$7.16	$8,592
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		99.0	tons	$96.75	$9,578
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		139.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK			sy	$32.38	
GRASSING		1,410	sy	$2.25	$3,173
SIGNS (Post & Misc.)		0.10	Miles	$20,655.74	$2,113
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"		1,080	lf	$0.82	$886
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		1,080	lf	$1.32	$1,426
RETRO-REFLECTIVE PAVEMENT MARKERS		27	ea	$8.15	$220
TRUSS SIGNS - None			ea		
CANTILEVER SIGNS - None			ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	None				
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					
10' WIDTH MULTI-USE PATH		600	SY	$24.00	$14,400
THERMOPLASTIC, STANDARD, WHITE, SOLID, 6"		540	LF	$1.15	$621
THERMOPLASTIC, STANDARD, WHITE, MESSAGE		2	EACH	$143.45	$287

STRUCTURES			
APPROACH SLAB CONCRETE	cy	$387.70	
APPROACH SLAB REINFORCING	lbs	$0.80	

SUBTOTAL		**$280,278**
MOT	10.0%	$28,028
Mobilization	10.0%	$30,831
SUBTOTAL		**$339,136**
Contingency	15.0%	$50,870
CONSTRUCTION TOTAL (Rounded)		**$390,000**

OVERPASS ROAD / I-75 INTERCHANGE
FLYOVER RAMP CONFIGURATION
24 - 2 LANE WB OVERPASS ROAD

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$895,938**
CLEARING & GRUBBING		0.94	ac	$25,000.00	$23,500
EROSION CONTROL		0.108	mi	$22,625.30	$2,443
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		7,427	cy	$9.17	$68,106
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.11	miles	$133,699.30	$14,433
TYPE B STABILIZATION		3,420	sy	$2.63	$8,995
ROADWAY - OPTIONAL BASE, BASE GROUP 11		1,837	sy	$38.75	$71,184
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		397.0	tons	$96.75	$38,410
SHOULDER - OPTIONAL BASE, BASE GROUP 04		1,267.0	sy	$7.16	$9,072
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		105.0	tons	$96.75	$10,159
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		105.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK			sy	$32.38	
GRASSING		1,488	sy	$2.25	$3,348
SIGNS (Post & Misc.)		0.11	Miles	$20,655.74	$2,230
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"		1,140	lf	$0.82	$935
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		1,140	lf	$1.32	$1,505
RETRO-REFLECTIVE PAVEMENT MARKERS		29	ea	$8.15	$232
TRUSS SIGNS - None			ea		
SIGN LT'D OVHD CTLVR-MONOTUBE, C 21- 30, S 151-200		1	ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	None				
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					
RETAINING WALL SYSTEM, PERMANENT, EXCLUDING BARRIER		14105	SF	$25.35	$357,562
CONCRETE TRAFFIC RAILING BARRIER, RETAINING WALL SYSTEM MOUNTED WITH S		1200	LF	$223.07	$267,684
10' WIDTH MULTI-USE PATH		633	SY	$24.00	$15,200
THERMOPLASTIC, STANDARD, WHITE, SOLID, 6"		570	LF	$1.15	$656
THERMOPLASTIC, STANDARD, WHITE, MESSAGE		2	EACH	$143.45	$287

STRUCTURES		
APPROACH SLAB CONCRETE	cy	$387.70
APPROACH SLAB REINFORCING	lbs	$0.80

SUBTOTAL		**$895,938**
MOT	10.0%	$89,594
Mobilization	10.0%	$98,553
SUBTOTAL		**$1,084,085**
Contingency	15.0%	$162,613
CONSTRUCTION TOTAL (Rounded)		**$1,247,000**

OVERPASS ROAD / I-75 INTERCHANGE
FLYOVER RAMP CONFIGURATION
25 - 3 LANE WB OVERPASS ROAD INCLUDES BRIDGE OVER I-75

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$1,202,845**
CLEARING & GRUBBING		1.88	ac	$25,000.00	$47,000
EROSION CONTROL		0.159	mi	$22,625.30	$3,599
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		37,908	cy	$9.17	$347,616
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.16	miles	$133,699.30	$21,270
TYPE B STABILIZATION		6,159	sy	$2.63	$16,198
ROADWAY - OPTIONAL BASE, BASE GROUP 11		3,826	sy	$38.75	$148,258
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		831.0	tons	$96.75	$80,399
SHOULDER - OPTIONAL BASE, BASE GROUP 04		1,867.0	sy	$7.16	$13,368
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		154.0	tons	$96.75	$14,900
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		216.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK			sy	$32.38	
GRASSING		3,519	sy	$2.25	$7,918
SIGNS (Post & Misc.)		0.16	Miles	$20,655.74	$3,286
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"		1,680	lf	$0.82	$1,378
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		1,680	lf	$1.32	$2,218
RETRO-REFLECTIVE PAVEMENT MARKERS		42	ea	$8.15	$342
SIGN LT'D OVHD TRUSS-MONOTUBE, T 101-120,S >700		1	ea		
CANTILEVER SIGNS - None			ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	None				
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					
RETAINING WALL SYSTEM, PERMANENT, EXCLUDING BARRIER		11200	SF	$25.35	$283,920
CONCRETE TRAFFIC RAILING BARRIER, RETAINING WALL SYSTEM MOUNTED WITH S		840	LF	$223.07	$187,379
10' WIDTH MULTI-USE PATH		933	SY	$24.00	$22,400
THERMOPLASTIC, STANDARD, WHITE, SOLID, 6"		840	LF	$1.15	$966
THERMOPLASTIC, STANDARD, WHITE, MESSAGE		3	EACH	$143.45	$430
STRUCTURES					**$5,832,317**
APPROACH SLAB CONCRETE		229	cy	$387.70	$88,826
APPROACH SLAB REINFORCING		48,113	lbs	$0.80	$38,491
OVER I- OVERPASS RD OVER I-75	PRESTRESS.CONC.GIRDER (CONT.SPAN)	35,000.00	sf	$163.00	$5,705,000

SUBTOTAL		**$7,035,162**
MOT	10.0%	$703,516
Mobilization	10.0%	$773,868
SUBTOTAL		**$8,512,546**
Contingency	15.0%	$1,276,882
CONSTRUCTION TOTAL (Rounded)		**$9,789,000**

OVERPASS ROAD / I-75 INTERCHANGE
FLYOVER RAMP CONFIGURATION
26 - 2 LANE WB OVERPASS ROAD

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$205,043**
CLEARING & GRUBBING		0.52	ac	$25,000.00	$13,000
EROSION CONTROL		0.047	mi	$22,625.30	$1,071
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		12,103	cy	$9.17	$110,985
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.05	miles	$133,699.30	$6,330
TYPE B STABILIZATION		1,500	sy	$2.63	$3,945
ROADWAY - OPTIONAL BASE, BASE GROUP 11		806	sy	$38.75	$31,233
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		174.0	tons	$96.75	$16,835
SHOULDER - OPTIONAL BASE, BASE GROUP 04		556.0	sy	$7.16	$3,981
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		46.0	tons	$96.75	$4,451
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		46.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK			sy	$32.38	
GRASSING		1,170	sy	$2.25	$2,633
SIGNS (Post & Misc.)		0.05	Miles	$20,655.74	$978
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"		500	lf	$0.82	$410
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		500	lf	$1.32	$660
RETRO-REFLECTIVE PAVEMENT MARKERS		13	ea	$8.15	$102
TRUSS SIGNS - None			ea		
CANTILEVER SIGNS - None			ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	None				
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					
10' WIDTH MULTI-USE PATH		333	SY	$24.00	$8,000
THERMOPLASTIC, STANDARD, WHITE, SOLID, 6"		250	LF	$1.15	$288
THERMOPLASTIC, STANDARD, WHITE, MESSAGE		1	EACH	$143.45	$143

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
STRUCTURES					
APPROACH SLAB CONCRETE			cy	$387.70	
APPROACH SLAB REINFORCING			lbs	$0.80	

SUBTOTAL		**$205,043**
MOT	10.0%	$20,504
Mobilization	10.0%	$22,555
SUBTOTAL		**$248,102**
Contingency	15.0%	$37,215
CONSTRUCTION TOTAL (Rounded)		**$285,000**

OVERPASS ROAD / I-75 INTERCHANGE
FLYOVER RAMP CONFIGURATION
27 - 3 LANE WB OVERPASS ROAD

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$1,028,089**
CLEARING & GRUBBING		2.65	ac	$25,000.00	$66,250
EROSION CONTROL		0.214	mi	$22,625.30	$4,842
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		55,327	cy	$9.17	$507,349
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.21	miles	$133,699.30	$28,614
TYPE B STABILIZATION		8,285	sy	$2.63	$21,790
ROADWAY - OPTIONAL BASE, BASE GROUP 11		5,147	sy	$38.75	$199,446
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		1,118.0	tons	$96.75	$108,167
SHOULDER - OPTIONAL BASE, BASE GROUP 04		2,511.0	sy	$7.16	$17,979
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		207.0	tons	$96.75	$20,027
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		290.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK			sy	$32.38	
GRASSING		5,290	sy	$2.25	$11,903
SIGNS (Post & Misc.)		0.21	Miles	$20,655.74	$4,421
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"		2,260	lf	$0.82	$1,853
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		2,260	lf	$1.32	$2,983
RETRO-REFLECTIVE PAVEMENT MARKERS		57	ea	$8.15	$460
TRUSS SIGNS - None			ea		
CANTILEVER SIGNS - None			ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	None				
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					
10' WIDTH MULTI-USE PATH		1256	SY	$24.00	$30,133
THERMOPLASTIC, STANDARD, WHITE, SOLID, 6"		1130	LF	$1.15	$1,300
THERMOPLASTIC, STANDARD, WHITE, MESSAGE		4	EACH	$143.45	$574

STRUCTURES			
APPROACH SLAB CONCRETE	cy	$387.70	
APPROACH SLAB REINFORCING	lbs	$0.80	

SUBTOTAL		**$1,028,089**
MOT	10.0%	$102,809
Mobilization	10.0%	$113,090
SUBTOTAL		**$1,243,988**
Contingency	15.0%	$186,598
CONSTRUCTION TOTAL (Rounded)		**$1,431,000**

OVERPASS ROAD / I-75 INTERCHANGE
FLYOVER RAMP CONFIGURATION
28 - 4 LANE WB OVERPASS ROAD

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$424,072**
CLEARING & GRUBBING		1.49	ac	$25,000.00	$37,250
EROSION CONTROL		0.129	mi	$22,625.30	$2,914
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		6,501	cy	$9.17	$59,614
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.13	miles	$133,699.30	$17,219
TYPE B STABILIZATION		5,893	sy	$2.63	$15,499
ROADWAY - OPTIONAL BASE, BASE GROUP 11		4,004	sy	$38.75	$155,155
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		873.0	tons	$96.75	$84,463
SHOULDER - OPTIONAL BASE, BASE GROUP 04		1,511.0	sy	$7.16	$10,819
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		125.0	tons	$96.75	$12,094
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		224.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK			sy	$32.38	
GRASSING		1,776	sy	$2.25	$3,996
SIGNS (Post & Misc.)		0.13	Miles	$20,655.74	$2,660
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"		1,360	lf	$0.82	$1,115
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		1,360	lf	$1.32	$1,795
RETRO-REFLECTIVE PAVEMENT MARKERS		34	ea	$8.15	$277
TRUSS SIGNS - None			ea		
CANTILEVER SIGNS - None			ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	None				
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					
10' WIDTH MULTI-USE PATH		756	SY	$24.00	$18,133
THERMOPLASTIC, STANDARD, WHITE, SOLID, 6"		680	LF	$1.15	$782
THERMOPLASTIC, STANDARD, WHITE, MESSAGE		2	EACH	$143.45	$287

STRUCTURES			
APPROACH SLAB CONCRETE	cy	$387.70	
APPROACH SLAB REINFORCING	lbs	$0.80	

SUBTOTAL		**$424,072**
MOT	10.0%	$42,407
Mobilization	10.0%	$46,648
SUBTOTAL		**$513,127**
Contingency	15.0%	$76,969
CONSTRUCTION TOTAL (Rounded)		**$590,000**

OVERPASS ROAD / I-75 INTERCHANGE
FLYOVER RAMP CONFIGURATION
29 - 2 LANE WB FLYOVER RAMP OVER I-75

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$1,360,957**
CLEARING & GRUBBING		4.36	ac	$25,000.00	$109,000
EROSION CONTROL		0.480	mi	$22,625.30	$10,863
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		66,896	cy	$9.17	$613,436
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.48	miles	$133,699.30	$64,191
TYPE B STABILIZATION		12,957	sy	$2.63	$34,077
ROADWAY - OPTIONAL BASE, BASE GROUP 11		7,042	sy	$38.75	$272,878
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		1,518.0	tons	$96.75	$146,867
SHOULDER - OPTIONAL BASE, BASE GROUP 04		4,507.0	sy	$7.16	$32,270
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		372.0	tons	$96.75	$35,991
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		403.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK			sy	$32.38	
GRASSING		9,858	sy	$2.25	$22,181
SIGNS (Post & Misc.)		0.48	Miles	$20,655.74	$9,917
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"		2,535	lf	$0.82	$2,079
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		5,070	lf	$1.32	$6,692
RETRO-REFLECTIVE PAVEMENT MARKERS		63	ea	$8.15	$517
TRUSS SIGNS - None			ea		
CANTILEVER SIGNS - None			ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	None				
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					

STRUCTURES					**$11,268,357**
APPROACH SLAB CONCRETE		99	cy	$387.70	$38,266
APPROACH SLAB REINFORCING		20,727	lbs	$0.80	$16,582
OVER I- OVERPASS RD OVER I-75	STEEL BOX GIRDER BRIDGE	57,727.20	sf	$194.25	$11,213,509

SUBTOTAL		**$12,629,314**
MOT	10.0%	$1,262,931
Mobilization	10.0%	$1,389,225
SUBTOTAL		**$15,281,470**
Contingency	15.0%	$2,292,220
CONSTRUCTION TOTAL (Rounded)		**$17,574,000**

OVERPASS ROAD / I-75 INTERCHANGE

7/23/2012

Construction Cost Estimate Summary

LOOP RAMP CONFIGURATION

SEGMENT	SEGMENT TITLE	SEGMENT COST
1	1 - 2 LANE NB OFF RAMP TO OVERPASS ROAD	$1,542,000
2	2 - 4 LANE NB OFF RAMP TO OVERPASS ROAD	$1,317,000
3	3 - 2 LANE NB OFF RAMP TO WB OVERPASS ROAD	$199,000
4	4 - 2 LANE NB OFF RAMP TO EB OVERPASS ROAD	$347,000
5	5 - 1 LANE NB ON RAMP TO NB I-75	$460,000
6	6 - 1 LANE NB ON RAMP TO NB I-75	$593,000
7	7 - 2 LANE NB ON RAMP TO NB I-75	$1,160,000
8	8 - 1 LANE NB ON RAMP TO NB I-75	$615,000
9	9 - 1 LANE SB ON RAMP TO I-75	$2,583,000
10	10 - 2 LANE LOOP RAMP TO SB I-75	$2,386,000
11	11 - 1 LANE SB OFF RAMP TO OVERPASS ROAD	$90,000
12	12 - 2 LANE SB OFF RAMP TO EB OVERPASS ROAD	$258,000
13	13 - 1 LANE OFF RAMP TO WB OVERPASS RD	$1,893,000
14	14 - 2 LANE EB OVERPASS ROAD	$1,103,000
15	15 - 3 LANE EB OVERPASS ROAD	$455,000
16	16 - 4 LANE EB OVERPASS ROAD	$644,000
17	17 - 3 LANE EB OVERPASS ROAD	$1,016,000
18	18 - 1 LANE MEDIAN EAST OF BRIDGE	$42,000
19	19 - 3 LANE EB EAST OF BRIDGE	$2,157,000
20	20 - 2 LANE EB EAST OF BRIDGE	$168,000
21	21 - 4 LANE EB EAST OF BRIDGE	$2,157,000
22	22 - 5 LANE EB OVERPASS ROAD	$929,000
23	23 - 3 LANE WB OVERPASS ROAD	$390,000
24	24 - 2 LANE WB OVERPASS ROAD	$1,237,000
25	25 - 3 LANE WB OVERPASS ROAD	$1,150,000
26	26 - 3 LANE WB OVERPASS ROAD W/ BRIDGE	$6,720,000
27	27 - 4 LANE WB OVERPASS ROAD	$2,536,000

LOOP RAMP CONFIGURATION - CONSTRUCTION TOTAL	$34,147,000

OVERPASS ROAD / I-75 INTERCHANGE
LOOP RAMP CONFIGURATION
1 - 2 LANE NB OFF RAMP TO OVERPASS ROAD

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$1,107,985**
CLEARING & GRUBBING		3.64	ac	$25,000.00	$91,000
EROSION CONTROL		0.445	mi	$22,625.30	$10,070
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		20,682	cy	$9.17	$189,654
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.45	miles	$133,699.30	$59,506
TYPE B STABILIZATION		13,056	sy	$2.63	$34,337
ROADWAY - OPTIONAL BASE, BASE GROUP 11		6,528	sy	$38.75	$252,960
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		1,407.0	tons	$96.75	$136,127
SHOULDER - OPTIONAL BASE, BASE GROUP 04		5,222.0	sy	$7.16	$37,390
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		431.0	tons	$96.75	$41,699
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		373.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK			sy	$32.38	
GRASSING		6,136	sy	$2.25	$13,806
SIGNS (Post & Misc.)		0.45	Miles	$20,655.74	$9,193
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"		2,350	lf	$0.82	$1,927
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		4,700	lf	$1.32	$6,204
RETRO-REFLECTIVE PAVEMENT MARKERS		59	ea	$8.15	$479
SIGN LT'D OVHD TRUSS-MONOTUBE, T 101-120,S >700		1	ea		
CANTILEVER SIGNS - None			ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	None				
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					
RETAINING WALL SYSTEM, PERMANENT, EXCLUDING BARRIER		3762	SF	$25.35	$95,367
CONCRETE TRAFFIC RAILING BARRIER, RETAINING WALL SYSTEM MOUNTED WITH S		575	LF	$223.07	$128,265

STRUCTURES			
APPROACH SLAB CONCRETE	cy	$387.70	
APPROACH SLAB REINFORCING	lbs	$0.80	

SUBTOTAL		**$1,107,985**
MOT	10.0%	$110,798
Mobilization	10.0%	$121,878
SUBTOTAL		**$1,340,661**
Contingency	15.0%	$201,099
CONSTRUCTION TOTAL (Rounded)		**$1,542,000**

OVERPASS ROAD / I-75 INTERCHANGE
LOOP RAMP CONFIGURATION
2 - 4 LANE NB OFF RAMP TO OVERPASS ROAD

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$946,559**
CLEARING & GRUBBING		1.37	ac	$25,000.00	$34,250
EROSION CONTROL		0.106	mi	$22,625.30	$2,400
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		30,360	cy	$9.17	$278,401
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.11	miles	$133,699.30	$14,180
TYPE B STABILIZATION		4,604	sy	$2.63	$12,109
ROADWAY - OPTIONAL BASE, BASE GROUP 11		3,049	sy	$38.75	$118,149
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		664.0	tons	$96.75	$64,242
SHOULDER - OPTIONAL BASE, BASE GROUP 04		1,244.0	sy	$7.16	$8,907
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		103.0	tons	$96.75	$9,965
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		171.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK			sy	$32.38	
GRASSING		2,420	sy	$2.25	$5,445
SIGNS (Post & Misc.)		0.11	Miles	$20,655.74	$2,191
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"		1,680	lf	$0.82	$1,378
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		1,120	lf	$1.32	$1,478
RETRO-REFLECTIVE PAVEMENT MARKERS		42	ea	$8.15	$342
SIGN LT'D OVHD TRUSS-MONOTUBE, T 101-120,S >700		1	ea		
CANTILEVER SIGNS - None			ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	None				
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					
RETAINING WALL SYSTEM, PERMANENT, EXCLUDING BARRIER		10580	SF	$25.35	$268,203
CONCRETE TRAFFIC RAILING BARRIER, RETAINING WALL SYSTEM MOUNTED WITH S		560	LF	$223.07	$124,919

STRUCTURES			
APPROACH SLAB CONCRETE	cy	$387.70	
APPROACH SLAB REINFORCING	lbs	$0.80	

SUBTOTAL		**$946,559**
MOT	10.0%	$94,656
Mobilization	10.0%	$104,121
SUBTOTAL		**$1,145,336**
Contingency	15.0%	$171,800
CONSTRUCTION TOTAL (Rounded)		**$1,317,000**

OVERPASS ROAD / I-75 INTERCHANGE
LOOP RAMP CONFIGURATION
3 - 2 LANE NB OFF RAMP TO WB OVERPASS ROAD

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$143,110**
CLEARING & GRUBBING		0.18	ac	$25,000.00	$4,500
EROSION CONTROL		0.017	mi	$22,625.30	$386
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		4,378	cy	$9.17	$40,146
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.02	miles	$133,699.30	$2,279
TYPE B STABILIZATION		500	sy	$2.63	$1,315
ROADWAY - OPTIONAL BASE, BASE GROUP 11		250	sy	$38.75	$9,688
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		54.0	tons	$96.75	$5,225
SHOULDER - OPTIONAL BASE, BASE GROUP 04		200.0	sy	$7.16	$1,432
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		17.0	tons	$96.75	$1,645
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		14.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK			sy	$32.38	
GRASSING		436	sy	$2.25	$981
SIGNS (Post & Misc.)		0.02	Miles	$20,655.74	$352
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"		90	lf	$0.82	$74
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		180	lf	$1.32	$238
RETRO-REFLECTIVE PAVEMENT MARKERS		2	ea	$8.15	$18
TRUSS SIGNS - None			ea		
CANTILEVER SIGNS - None			ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	None				
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					
RETAINING WALL SYSTEM, PERMANENT, EXCLUDING BARRIER		2160	SF	$25.35	$54,756
CONCRETE TRAFFIC RAILING BARRIER, RETAINING WALL SYSTEM MOUNTED WITH S		90	LF	$223.07	$20,076

STRUCTURES			
APPROACH SLAB CONCRETE		cy	$387.70
APPROACH SLAB REINFORCING		lbs	$0.80

SUBTOTAL		**$143,110**
MOT	10.0%	$14,311
Mobilization	10.0%	$15,742
SUBTOTAL		**$173,163**
Contingency	15.0%	$25,974
CONSTRUCTION TOTAL (Rounded)		**$199,000**

OVERPASS ROAD / I-75 INTERCHANGE
LOOP RAMP CONFIGURATION
4 - 2 LANE NB OFF RAMP TO EB OVERPASS ROAD

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$249,716**
CLEARING & GRUBBING		0.32	ac	$25,000.00	$8,000
EROSION CONTROL		0.030	mi	$22,625.30	$673
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		7,638	cy	$9.17	$70,040
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.03	miles	$133,699.30	$3,976
TYPE B STABILIZATION		872	sy	$2.63	$2,293
ROADWAY - OPTIONAL BASE, BASE GROUP 11		436	sy	$38.75	$16,895
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		94.0	tons	$96.75	$9,095
SHOULDER - OPTIONAL BASE, BASE GROUP 04		349.0	sy	$7.16	$2,499
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		29.0	tons	$96.75	$2,806
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		25.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK			sy	$32.38	
GRASSING		760	sy	$2.25	$1,710
SIGNS (Post & Misc.)		0.03	Miles	$20,655.74	$614
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"		157	lf	$0.82	$129
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		314	lf	$1.32	$414
RETRO-REFLECTIVE PAVEMENT MARKERS		4	ea	$8.15	$32
TRUSS SIGNS - None			ea		
CANTILEVER SIGNS - None			ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	None				
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					
RETAINING WALL SYSTEM, PERMANENT, EXCLUDING BARRIER		3768	SF	$25.35	$95,519
CONCRETE TRAFFIC RAILING BARRIER, RETAINING WALL SYSTEM MOUNTED WITH S		157	LF	$223.07	$35,022

STRUCTURES			
APPROACH SLAB CONCRETE	cy	$387.70	
APPROACH SLAB REINFORCING	lbs	$0.80	

SUBTOTAL		**$249,716**
MOT	10.0%	$24,972
Mobilization	10.0%	$27,469
SUBTOTAL		**$302,157**
Contingency	15.0%	$45,324
CONSTRUCTION TOTAL (Rounded)		**$347,000**

OVERPASS ROAD / I-75 INTERCHANGE
LOOP RAMP CONFIGURATION
5 - 1 LANE NB ON RAMP TO NB I-75

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$330,279**
CLEARING & GRUBBING		0.43	ac	$25,000.00	$10,750
EROSION CONTROL		0.045	mi	$22,625.30	$1,028
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		9,097	cy	$9.17	$83,419
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.05	miles	$133,699.30	$6,077
TYPE B STABILIZATION		1,093	sy	$2.63	$2,875
ROADWAY - OPTIONAL BASE, BASE GROUP 11		427	sy	$38.75	$16,546
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		91.0	tons	$96.75	$8,804
SHOULDER - OPTIONAL BASE, BASE GROUP 04		533.0	sy	$7.16	$3,816
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		44.0	tons	$96.75	$4,257
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		25.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK			sy	$32.38	
GRASSING		1,125	sy	$2.25	$2,531
SIGNS (Post & Misc.)		0.05	Miles	$20,655.74	$939
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"			lf	$0.82	
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		480	lf	$1.32	$634
RETRO-REFLECTIVE PAVEMENT MARKERS			ea	$8.15	
TRUSS SIGNS - None			ea		
CANTILEVER SIGNS - None			ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	None				
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					
RETAINING WALL SYSTEM, PERMANENT, EXCLUDING BARRIER		5328	SF	$25.35	$135,065
CONCRETE TRAFFIC RAILING BARRIER, RETAINING WALL SYSTEM MOUNTED WITH S		240	LF	$223.07	$53,537

STRUCTURES			
APPROACH SLAB CONCRETE		cy	$387.70
APPROACH SLAB REINFORCING		lbs	$0.80

SUBTOTAL		**$330,279**
MOT	10.0%	$33,028
Mobilization	10.0%	$36,331
SUBTOTAL		**$399,637**
Contingency	15.0%	$59,946
CONSTRUCTION TOTAL (Rounded)		**$460,000**

OVERPASS ROAD / I-75 INTERCHANGE
LOOP RAMP CONFIGURATION
6 - 1 LANE NB ON RAMP TO NB I-75

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$426,352**
CLEARING & GRUBBING		0.53	ac	$25,000.00	$13,250
EROSION CONTROL		0.057	mi	$22,625.30	$1,286
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		11,371	cy	$9.17	$104,272
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.06	miles	$133,699.30	$7,597
TYPE B STABILIZATION		1,367	sy	$2.63	$3,595
ROADWAY - OPTIONAL BASE, BASE GROUP 11		533	sy	$38.75	$20,654
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		114.0	tons	$96.75	$11,030
SHOULDER - OPTIONAL BASE, BASE GROUP 04		667.0	sy	$7.16	$4,776
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		55.0	tons	$96.75	$5,321
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		31.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK			sy	$32.38	
GRASSING		1,407	sy	$2.25	$3,166
SIGNS (Post & Misc.)		0.06	Miles	$20,655.74	$1,174
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"			lf	$0.82	
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		600	lf	$1.32	$792
RETRO-REFLECTIVE PAVEMENT MARKERS			ea	$8.15	
TRUSS SIGNS - None			ea		
CANTILEVER SIGNS - None			ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	None				
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					
RETAINING WALL SYSTEM, PERMANENT, EXCLUDING BARRIER		7200	SF	$25.35	$182,520
CONCRETE TRAFFIC RAILING BARRIER, RETAINING WALL SYSTEM MOUNTED WITH S		300	LF	$223.07	$66,921

STRUCTURES			
APPROACH SLAB CONCRETE		cy	$387.70
APPROACH SLAB REINFORCING		lbs	$0.80

SUBTOTAL		**$426,352**
MOT	10.0%	$42,635
Mobilization	10.0%	$46,899
SUBTOTAL		**$515,886**
Contingency	15.0%	$77,383
CONSTRUCTION TOTAL (Rounded)		**$593,000**

OVERPASS ROAD / I-75 INTERCHANGE
LOOP RAMP CONFIGURATION
7 - 2 LANE NB ON RAMP TO NB I-75

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$833,369**
CLEARING & GRUBBING		1.10	ac	$25,000.00	$27,500
EROSION CONTROL		0.142	mi	$22,625.30	$3,214
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		18,064	cy	$9.17	$165,647
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.14	miles	$133,699.30	$18,991
TYPE B STABILIZATION		4,167	sy	$2.63	$10,959
ROADWAY - OPTIONAL BASE, BASE GROUP 11		2,083	sy	$38.75	$80,716
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		449.0	tons	$96.75	$43,441
SHOULDER - OPTIONAL BASE, BASE GROUP 04		1,667.0	sy	$7.16	$11,936
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		138.0	tons	$96.75	$13,352
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		119.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK			sy	$32.38	
GRASSING		1,667	sy	$2.25	$3,751
SIGNS (Post & Misc.)		0.14	Miles	$20,655.74	$2,934
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"		750	lf	$0.82	$615
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		1,500	lf	$1.32	$1,980
RETRO-REFLECTIVE PAVEMENT MARKERS		19	ea	$8.15	$153
SIGN LT'D OVHD TRUSS-MONOTUBE, T 101-120,S >700		1	ea		
CANTILEVER SIGNS - None			ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	None				
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					
RETAINING WALL SYSTEM, PERMANENT, EXCLUDING BARRIER		11080	SF	$25.35	$280,878
CONCRETE TRAFFIC RAILING BARRIER, RETAINING WALL SYSTEM MOUNTED WITH S		750	LF	$223.07	$167,303

STRUCTURES			
APPROACH SLAB CONCRETE	cy	$387.70	
APPROACH SLAB REINFORCING	lbs	$0.80	

SUBTOTAL		**$833,369**
MOT	10.0%	$83,337
Mobilization	10.0%	$91,671
SUBTOTAL		**$1,008,376**
Contingency	15.0%	$151,256
CONSTRUCTION TOTAL (Rounded)		**$1,160,000**

OVERPASS ROAD / I-75 INTERCHANGE
LOOP RAMP CONFIGURATION
8 - 1 LANE NB ON RAMP TO NB I-75

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$442,074**
CLEARING & GRUBBING		1.57	ac	$25,000.00	$39,250
EROSION CONTROL		0.235	mi	$22,625.30	$5,314
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		7,203	cy	$9.17	$66,052
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.23	miles	$133,699.30	$31,399
TYPE B STABILIZATION		5,649	sy	$2.63	$14,857
ROADWAY - OPTIONAL BASE, BASE GROUP 11		2,204	sy	$38.75	$85,405
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		470.0	tons	$96.75	$45,473
SHOULDER - OPTIONAL BASE, BASE GROUP 04		2,756.0	sy	$7.16	$19,733
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		227.0	tons	$96.75	$21,962
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		129.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK			sy	$32.38	
GRASSING		2,756	sy	$2.25	$6,201
SIGNS (Post & Misc.)		0.23	Miles	$20,655.74	$4,851
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"			lf	$0.82	
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		2,480	lf	$1.32	$3,274
RETRO-REFLECTIVE PAVEMENT MARKERS			ea	$8.15	
TRUSS SIGNS - None			ea		
CANTILEVER SIGNS - None			ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	None				
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					
RETAINING WALL SYSTEM, PERMANENT, EXCLUDING BARRIER		1590	SF	$25.35	$40,307
CONCRETE TRAFFIC RAILING BARRIER, RETAINING WALL SYSTEM MOUNTED WITH S		260	LF	$223.07	$57,998

STRUCTURES			
APPROACH SLAB CONCRETE	cy	$387.70	
APPROACH SLAB REINFORCING	lbs	$0.80	

SUBTOTAL		**$442,074**
MOT	10.0%	$44,207
Mobilization	10.0%	$48,628
SUBTOTAL		**$534,909**
Contingency	15.0%	$80,236
CONSTRUCTION TOTAL (Rounded)		**$615,000**

OVERPASS ROAD / I-75 INTERCHANGE
LOOP RAMP CONFIGURATION
9 - 1 LANE SB ON RAMP TO I-75

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$1,856,462**
CLEARING & GRUBBING		2.74	ac	$25,000.00	$68,500
EROSION CONTROL		0.360	mi	$22,625.30	$8,142
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		18,167	cy	$9.17	$166,591
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.36	miles	$133,699.30	$48,111
TYPE B STABILIZATION		8,656	sy	$2.63	$22,765
ROADWAY - OPTIONAL BASE, BASE GROUP 11		3,378	sy	$38.75	$130,898
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		720.0	tons	$96.75	$69,660
SHOULDER - OPTIONAL BASE, BASE GROUP 04		4,222.0	sy	$7.16	$30,230
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		348.0	tons	$96.75	$33,669
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		197.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK			sy	$32.38	
GRASSING		5,850	sy	$2.25	$13,163
SIGNS (Post & Misc.)		0.36	Miles	$20,655.74	$7,433
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"		1,900	lf	$0.82	$1,558
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		3,800	lf	$1.32	$5,016
RETRO-REFLECTIVE PAVEMENT MARKERS		48	ea	$8.15	$387
SIGN LT'D OVHD TRUSS-MONOTUBE, T 101-120,S >700		1	ea		
CANTILEVER SIGNS - None			ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	None				
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					
RETAINING WALL SYSTEM, PERMANENT, EXCLUDING BARRIER		28204	SF	$25.35	$714,971
CONCRETE TRAFFIC RAILING BARRIER, RETAINING WALL SYSTEM MOUNTED WITH S		2400	LF	$223.07	$535,368

STRUCTURES			
APPROACH SLAB CONCRETE	cy	$387.70	
APPROACH SLAB REINFORCING	lbs	$0.80	

SUBTOTAL		**$1,856,462**
MOT	10.0%	$185,646
Mobilization	10.0%	$204,211
SUBTOTAL		**$2,246,319**
Contingency	15.0%	$336,948
CONSTRUCTION TOTAL (Rounded)		**$2,583,000**

OVERPASS ROAD / I-75 INTERCHANGE
LOOP RAMP CONFIGURATION
10 - 2 LANE LOOP RAMP TO SB I-75

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$1,714,702**
CLEARING & GRUBBING		5.54	ac	$25,000.00	$138,500
EROSION CONTROL		0.695	mi	$22,625.30	$15,726
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		30,447	cy	$9.17	$279,199
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.70	miles	$133,699.30	$92,931
TYPE B STABILIZATION		20,389	sy	$2.63	$53,623
ROADWAY - OPTIONAL BASE, BASE GROUP 11		10,194	sy	$38.75	$395,018
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		2,198.0	tons	$96.75	$212,657
SHOULDER - OPTIONAL BASE, BASE GROUP 04		8,156.0	sy	$7.16	$58,397
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		673.0	tons	$96.75	$65,113
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		583.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK			sy	$32.38	
GRASSING		8,869	sy	$2.25	$19,955
SIGNS (Post & Misc.)		0.70	Miles	$20,655.74	$14,357
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"		3,670	lf	$0.82	$3,009
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		7,340	lf	$1.32	$9,689
RETRO-REFLECTIVE PAVEMENT MARKERS		92	ea	$8.15	$748
TRUSS SIGNS - None			ea		
CANTILEVER SIGNS - None			ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	None				
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					
RETAINING WALL SYSTEM, PERMANENT, EXCLUDING BARRIER		7875	SF	$25.35	$199,631
CONCRETE TRAFFIC RAILING BARRIER, RETAINING WALL SYSTEM MOUNTED WITH S		700	LF	$223.07	$156,149

STRUCTURES			
APPROACH SLAB CONCRETE	cy	$387.70	
APPROACH SLAB REINFORCING	lbs	$0.80	

SUBTOTAL		**$1,714,702**
MOT	10.0%	$171,470
Mobilization	10.0%	$188,617
SUBTOTAL		**$2,074,789**
Contingency	15.0%	$311,218
CONSTRUCTION TOTAL (Rounded)		**$2,386,000**

OVERPASS ROAD / I-75 INTERCHANGE
LOOP RAMP CONFIGURATION
11 - 1 LANE SB OFF RAMP TO OVERPASS ROAD

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$1,360,573**
CLEARING & GRUBBING		6.76	ac	$25,000.00	$169,000
EROSION CONTROL		0.953	mi	$22,625.30	$21,554
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		23,962	cy	$9.17	$219,732
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.95	miles	$133,699.30	$127,369
TYPE B STABILIZATION		22,914	sy	$2.63	$60,264
ROADWAY - OPTIONAL BASE, BASE GROUP 11		8,942	sy	$38.75	$346,503
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		1,906.0	tons	$96.75	$184,406
SHOULDER - OPTIONAL BASE, BASE GROUP 04		11,178.0	sy	$7.16	$80,034
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		922.0	tons	$96.75	$89,204
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		523.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK			sy	$32.38	
GRASSING		13,134	sy	$2.25	$29,552
SIGNS (Post & Misc.)		0.95	Miles	$20,655.74	$19,678
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"			lf	$0.82	
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		10,060	lf	$1.32	$13,279
RETRO-REFLECTIVE PAVEMENT MARKERS			ea	$8.15	
TRUSS SIGNS - None			ea		
CANTILEVER SIGNS - None			ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	None				
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					

STRUCTURES			
APPROACH SLAB CONCRETE	cy	$387.70	
APPROACH SLAB REINFORCING	lbs	$0.80	

SUBTOTAL		**$1,360,573**
MOT	10.0%	$136,057
Mobilization	10.0%	$149,663
SUBTOTAL		**$1,646,293**
Contingency	15.0%	$246,944
CONSTRUCTION TOTAL (Rounded)		**$1,893,000**

OVERPASS ROAD / I-75 INTERCHANGE
LOOP RAMP CONFIGURATION
12 - 2 LANE SB OFF RAMP TO EB OVERPASS ROAD

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$185,414**
CLEARING & GRUBBING		0.82	ac	$25,000.00	$20,500
EROSION CONTROL		0.100	mi	$22,625.30	$2,271
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		3,143	cy	$9.17	$28,821
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.10	miles	$133,699.30	$13,421
TYPE B STABILIZATION		2,944	sy	$2.63	$7,743
ROADWAY - OPTIONAL BASE, BASE GROUP 11		1,472	sy	$38.75	$57,040
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		317.0	tons	$96.75	$30,670
SHOULDER - OPTIONAL BASE, BASE GROUP 04		1,178.0	sy	$7.16	$8,434
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		97.0	tons	$96.75	$9,385
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		84.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK			sy	$32.38	
GRASSING		1,384	sy	$2.25	$3,114
SIGNS (Post & Misc.)		0.10	Miles	$20,655.74	$2,073
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"		530	lf	$0.82	$435
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		1,060	lf	$1.32	$1,399
RETRO-REFLECTIVE PAVEMENT MARKERS		13	ea	$8.15	$108
TRUSS SIGNS - None			ea		
CANTILEVER SIGNS - None			ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	None				
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					

STRUCTURES			
APPROACH SLAB CONCRETE	cy	$387.70	
APPROACH SLAB REINFORCING	lbs	$0.80	

SUBTOTAL		**$185,414**
MOT	10.0%	$18,541
Mobilization	10.0%	$20,396
SUBTOTAL		**$224,351**
Contingency	15.0%	$33,653
CONSTRUCTION TOTAL (Rounded)		**$258,000**

OVERPASS ROAD / I-75 INTERCHANGE
LOOP RAMP CONFIGURATION
13 - 1 LANE OFF RAMP TO WB OVERPASS RD

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$64,869**
CLEARING & GRUBBING		0.32	ac	$25,000.00	$8,000
EROSION CONTROL		0.045	mi	$22,625.30	$1,028
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		1,143	cy	$9.17	$10,481
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.05	miles	$133,699.30	$6,077
TYPE B STABILIZATION		1,093	sy	$2.63	$2,875
ROADWAY - OPTIONAL BASE, BASE GROUP 11		427	sy	$38.75	$16,546
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		91.0	tons	$96.75	$8,804
SHOULDER - OPTIONAL BASE, BASE GROUP 04		533.0	sy	$7.16	$3,816
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		44.0	tons	$96.75	$4,257
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		25.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK			sy	$32.38	
GRASSING		627	sy	$2.25	$1,411
SIGNS (Post & Misc.)		0.05	Miles	$20,655.74	$939
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"			lf	$0.82	
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		480	lf	$1.32	$634
RETRO-REFLECTIVE PAVEMENT MARKERS			ea	$8.15	
TRUSS SIGNS - None			ea		
CANTILEVER SIGNS - None			ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	None				
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					

STRUCTURES			
APPROACH SLAB CONCRETE	cy	$387.70	
APPROACH SLAB REINFORCING	lbs	$0.80	

SUBTOTAL		**$64,869**
MOT	10.0%	$6,487
Mobilization	10.0%	$7,136
SUBTOTAL		**$78,491**
Contingency	15.0%	$11,774
CONSTRUCTION TOTAL (Rounded)		**$90,000**

OVERPASS ROAD / I-75 INTERCHANGE
LOOP RAMP CONFIGURATION
14 - 2 LANE EB OVERPASS ROAD

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$792,797**
CLEARING & GRUBBING		1.88	ac	$25,000.00	$47,000
EROSION CONTROL		0.203	mi	$22,625.30	$4,585
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		9,119	cy	$9.17	$83,621
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.20	miles	$133,699.30	$27,094
TYPE B STABILIZATION		6,420	sy	$2.63	$16,885
ROADWAY - OPTIONAL BASE, BASE GROUP 11		3,448	sy	$38.75	$133,610
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		745.0	tons	$96.75	$72,079
SHOULDER - OPTIONAL BASE, BASE GROUP 04		2,378.0	sy	$7.16	$17,026
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		196.0	tons	$96.75	$18,963
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		196.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK		594	sy	$32.38	$19,234
GRASSING		2,794	sy	$2.25	$6,287
SIGNS (Post & Misc.)		0.20	Miles	$20,655.74	$4,186
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"		1,070	lf	$0.82	$877
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		2,140	lf	$1.32	$2,825
RETRO-REFLECTIVE PAVEMENT MARKERS		27	ea	$8.15	$218
TRUSS SIGNS - None			ea		
SIGN LT'D OVHD CTLVR-MONOTUBE, C 21- 30, S 151-200		1	ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	Mast Arm - 6 Lanes	1	pi	$222,673.93	$222,674
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					
RETAINING WALL SYSTEM, PERMANENT, EXCLUDING BARRIER		1500	SF	$25.35	$38,025
CONCRETE TRAFFIC RAILING BARRIER, RETAINING WALL SYSTEM MOUNTED WITH S		200	LF	$223.07	$44,614
TRAFFIC SEPARATOR CONCRETE- TYPE IV, 8.5' WIDE		545	LF	$60.54	$32,994

STRUCTURES			
APPROACH SLAB CONCRETE	cy	$387.70	
APPROACH SLAB REINFORCING	lbs	$0.80	

SUBTOTAL		**$792,797**
MOT	10.0%	$79,280
Mobilization	10.0%	$87,208
SUBTOTAL		**$959,284**
Contingency	15.0%	$143,893
CONSTRUCTION TOTAL (Rounded)		**$1,103,000**

OVERPASS ROAD / I-75 INTERCHANGE
LOOP RAMP CONFIGURATION
15 - 3 LANE EB OVERPASS ROAD

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$327,114**
CLEARING & GRUBBING		0.60	ac	$25,000.00	$15,000
EROSION CONTROL		0.051	mi	$22,625.30	$1,157
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		7,777	cy	$9.17	$71,315
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.05	miles	$133,699.30	$6,837
TYPE B STABILIZATION		1,980	sy	$2.63	$5,207
ROADWAY - OPTIONAL BASE, BASE GROUP 11		1,230	sy	$38.75	$47,663
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		267.0	tons	$96.75	$25,832
SHOULDER - OPTIONAL BASE, BASE GROUP 04		600.0	sy	$7.16	$4,296
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		50.0	tons	$96.75	$4,838
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		69.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK		150	sy	$32.38	$4,857
GRASSING		931	sy	$2.25	$2,095
SIGNS (Post & Misc.)		0.05	Miles	$20,655.74	$1,056
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"		540	lf	$0.82	$443
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		540	lf	$1.32	$713
RETRO-REFLECTIVE PAVEMENT MARKERS		14	ea	$8.15	$110
TRUSS SIGNS - None			ea		
SIGN LT'D OVHD CTLVR-MONOTUBE, C 21- 30, S 151-200		1	ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	None				
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					
RETAINING WALL SYSTEM, PERMANENT, EXCLUDING BARRIER		2977	SF	$25.35	$75,467
CONCRETE TRAFFIC RAILING BARRIER, RETAINING WALL SYSTEM MOUNTED WITH S		270	LF	$223.07	$60,229

STRUCTURES			
APPROACH SLAB CONCRETE	cy	$387.70	
APPROACH SLAB REINFORCING	lbs	$0.80	

SUBTOTAL		**$327,114**
MOT	10.0%	$32,711
Mobilization	10.0%	$35,983
SUBTOTAL		**$395,808**
Contingency	15.0%	$59,371
CONSTRUCTION TOTAL (Rounded)		**$455,000**

OVERPASS ROAD / I-75 INTERCHANGE
LOOP RAMP CONFIGURATION
16 - 4 LANE EB OVERPASS ROAD

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$463,021**
CLEARING & GRUBBING		0.74	ac	$25,000.00	$18,500
EROSION CONTROL		0.057	mi	$22,625.30	$1,286
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		13,541	cy	$9.17	$124,171
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.06	miles	$133,699.30	$7,597
TYPE B STABILIZATION		2,600	sy	$2.63	$6,838
ROADWAY - OPTIONAL BASE, BASE GROUP 11		1,767	sy	$38.75	$68,471
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		385.0	tons	$96.75	$37,249
SHOULDER - OPTIONAL BASE, BASE GROUP 04		667.0	sy	$7.16	$4,776
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		55.0	tons	$96.75	$5,321
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		99.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK			sy	$32.38	
GRASSING		1,177	sy	$2.25	$2,648
SIGNS (Post & Misc.)		0.06	Miles	$20,655.74	$1,174
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"		900	lf	$0.82	$738
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		600	lf	$1.32	$792
RETRO-REFLECTIVE PAVEMENT MARKERS		23	ea	$8.15	$183
TRUSS SIGNS - None			ea		
CANTILEVER SIGNS - None			ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	None				
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					
RETAINING WALL SYSTEM, PERMANENT, EXCLUDING BARRIER		4590	SF	$25.35	$116,357
CONCRETE TRAFFIC RAILING BARRIER, RETAINING WALL SYSTEM MOUNTED WITH S		300	LF	$223.07	$66,921

STRUCTURES			
APPROACH SLAB CONCRETE	cy	$387.70	
APPROACH SLAB REINFORCING	lbs	$0.80	

SUBTOTAL		**$463,021**
MOT	10.0%	$46,302
Mobilization	10.0%	$50,932
SUBTOTAL		**$560,255**
Contingency	15.0%	$84,038
CONSTRUCTION TOTAL (Rounded)		**$644,000**

OVERPASS ROAD / I-75 INTERCHANGE
LOOP RAMP CONFIGURATION
17 - 3 LANE EB OVERPASS ROAD

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$730,504**
CLEARING & GRUBBING		0.97	ac	$25,000.00	$24,250
EROSION CONTROL		0.081	mi	$22,625.30	$1,843
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		20,438	cy	$9.17	$187,416
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.08	miles	$133,699.30	$10,888
TYPE B STABILIZATION		3,153	sy	$2.63	$8,292
ROADWAY - OPTIONAL BASE, BASE GROUP 11		1,958	sy	$38.75	$75,873
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		426.0	tons	$96.75	$41,216
SHOULDER - OPTIONAL BASE, BASE GROUP 04		956.0	sy	$7.16	$6,845
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		79.0	tons	$96.75	$7,643
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		110.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK			sy	$32.38	
GRASSING		1,841	sy	$2.25	$4,142
SIGNS (Post & Misc.)		0.08	Miles	$20,655.74	$1,682
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"		860	lf	$0.82	$705
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		860	lf	$1.32	$1,135
RETRO-REFLECTIVE PAVEMENT MARKERS		22	ea	$8.15	$175
TRUSS SIGNS - None			ea		
CANTILEVER SIGNS - None			ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	None				
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					
RETAINING WALL SYSTEM, PERMANENT, EXCLUDING BARRIER		7966	SF	$25.35	$201,938
CONCRETE TRAFFIC RAILING BARRIER, RETAINING WALL SYSTEM MOUNTED WITH S		430	LF	$223.07	$95,920
TRAFFIC SEPARATOR CONCRETE- TYPE IV, 8.5' WIDE		1000	LF	$60.54	$60,540

STRUCTURES			
APPROACH SLAB CONCRETE		cy	$387.70
APPROACH SLAB REINFORCING		lbs	$0.80

SUBTOTAL		**$730,504**
MOT	10.0%	$73,050
Mobilization	10.0%	$80,355
SUBTOTAL		**$883,910**
Contingency	15.0%	$132,587
CONSTRUCTION TOTAL (Rounded)		**$1,016,000**

OVERPASS ROAD / I-75 INTERCHANGE
LOOP RAMP CONFIGURATION
18 - 1 LANE MEDIAN EAST OF BRIDGE

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$30,188**
CLEARING & GRUBBING		0.08	ac	$25,000.00	$2,000
EROSION CONTROL		0.013	mi	$22,625.30	$300
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		1,867	cy	$9.17	$17,120
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.01	miles	$133,699.30	$1,773
TYPE B STABILIZATION		280	sy	$2.63	$736
ROADWAY - OPTIONAL BASE, BASE GROUP 11		86	sy	$38.75	$3,333
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		18.0	tons	$96.75	$1,742
SHOULDER - OPTIONAL BASE, BASE GROUP 04		156.0	sy	$7.16	$1,117
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		13.0	tons	$96.75	$1,258
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		5.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK			sy	$32.38	
GRASSING		156	sy	$2.25	$351
SIGNS (Post & Misc.)		0.01	Miles	$20,655.74	$274
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"			lf	$0.82	
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		140	lf	$1.32	$185
RETRO-REFLECTIVE PAVEMENT MARKERS			ea	$8.15	
TRUSS SIGNS - None			ea		
CANTILEVER SIGNS - None			ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	None				
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					

STRUCTURES			
APPROACH SLAB CONCRETE	cy	$387.70	
APPROACH SLAB REINFORCING	lbs	$0.80	

SUBTOTAL		**$30,188**
MOT	10.0%	$3,019
Mobilization	10.0%	$3,321
SUBTOTAL		**$36,527**
Contingency	15.0%	$5,479
CONSTRUCTION TOTAL (Rounded)		**$42,000**

OVERPASS ROAD / I-75 INTERCHANGE
LOOP RAMP CONFIGURATION
19 - 3 LANE EB EAST OF BRIDGE

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$500,885**
CLEARING & GRUBBING		0.31	ac	$25,000.00	$7,750
EROSION CONTROL		0.030	mi	$22,625.30	$686
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		8,781	cy	$9.17	$80,522
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.03	miles	$133,699.30	$4,051
TYPE B STABILIZATION		1,173	sy	$2.63	$3,085
ROADWAY - OPTIONAL BASE, BASE GROUP 11		729	sy	$38.75	$28,249
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		158.0	tons	$96.75	$15,287
SHOULDER - OPTIONAL BASE, BASE GROUP 04		356.0	sy	$7.16	$2,549
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		29.0	tons	$96.75	$2,806
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		41.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK		89	sy	$32.38	$2,882
GRASSING		356	sy	$2.25	$801
SIGNS (Post & Misc.)		0.03	Miles	$20,655.74	$626
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"		320	lf	$0.82	$262
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		320	lf	$1.32	$422
RETRO-REFLECTIVE PAVEMENT MARKERS		8	ea	$8.15	$65
TRUSS SIGNS - None			ea		
CANTILEVER SIGNS - None			ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	Mast Arm - 6 Lanes	1	pi	$222,673.93	$222,674
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					
RETAINING WALL SYSTEM, PERMANENT, EXCLUDING BARRIER		3648	SF	$25.35	$92,477
CONCRETE TRAFFIC RAILING BARRIER, RETAINING WALL SYSTEM MOUNTED WITH S		160	LF	$223.07	$35,691

STRUCTURES			
APPROACH SLAB CONCRETE	cy	$387.70	
APPROACH SLAB REINFORCING	lbs	$0.80	

SUBTOTAL		**$500,885**
MOT	10.0%	$50,088
Mobilization	10.0%	$55,097
SUBTOTAL		**$606,070**
Contingency	15.0%	$90,911
CONSTRUCTION TOTAL (Rounded)		**$697,000**

OVERPASS ROAD / I-75 INTERCHANGE
LOOP RAMP CONFIGURATION
20 - 2 LANE EB EAST OF BRIDGE

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$120,662**
CLEARING & GRUBBING		0.27	ac	$25,000.00	$6,750
EROSION CONTROL		0.030	mi	$22,625.30	$686
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		7,161	cy	$9.17	$65,666
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.03	miles	$133,699.30	$4,051
TYPE B STABILIZATION		960	sy	$2.63	$2,525
ROADWAY - OPTIONAL BASE, BASE GROUP 11		516	sy	$38.75	$19,995
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		111.0	tons	$96.75	$10,739
SHOULDER - OPTIONAL BASE, BASE GROUP 04		356.0	sy	$7.16	$2,549
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		29.0	tons	$96.75	$2,806
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		29.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK		89	sy	$32.38	$2,882
GRASSING		356	sy	$2.25	$801
SIGNS (Post & Misc.)		0.03	Miles	$20,655.74	$626
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"		160	lf	$0.82	$131
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		320	lf	$1.32	$422
RETRO-REFLECTIVE PAVEMENT MARKERS		4	ea	$8.15	$33
TRUSS SIGNS - None			ea		
CANTILEVER SIGNS - None			ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	None				
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					

STRUCTURES			
APPROACH SLAB CONCRETE	cy	$387.70	
APPROACH SLAB REINFORCING	lbs	$0.80	

SUBTOTAL		**$120,662**
MOT	10.0%	$12,066
Mobilization	10.0%	$13,273
SUBTOTAL		**$146,001**
Contingency	15.0%	$21,900
CONSTRUCTION TOTAL (Rounded)		**$168,000**

OVERPASS ROAD / I-75 INTERCHANGE
LOOP RAMP CONFIGURATION
21 - 4 LANE EB EAST OF BRIDGE

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$1,549,939**
CLEARING & GRUBBING		2.94	ac	$25,000.00	$73,500
EROSION CONTROL		0.250	mi	$22,625.30	$5,656
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		38,020	cy	$9.17	$348,643
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.25	miles	$133,699.30	$33,425
TYPE B STABILIZATION		11,440	sy	$2.63	$30,087
ROADWAY - OPTIONAL BASE, BASE GROUP 11		7,773	sy	$38.75	$301,204
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		1,694.0	tons	$96.75	$163,895
SHOULDER - OPTIONAL BASE, BASE GROUP 04		2,933.0	sy	$7.16	$21,000
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		242.0	tons	$96.75	$23,414
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		436.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK		733	sy	$32.38	$23,735
GRASSING		2,933	sy	$2.25	$6,599
SIGNS (Post & Misc.)		0.25	Miles	$20,655.74	$5,164
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"		3,960	lf	$0.82	$3,247
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		2,640	lf	$1.32	$3,485
RETRO-REFLECTIVE PAVEMENT MARKERS		99	ea	$8.15	$807
TRUSS SIGNS - None			ea		
CANTILEVER SIGNS - None			ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	None				
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					
RETAINING WALL SYSTEM, PERMANENT, EXCLUDING BARRIER		11868	SF	$25.35	$300,854
CONCRETE TRAFFIC RAILING BARRIER, RETAINING WALL SYSTEM MOUNTED WITH S		920	LF	$223.07	$205,224

STRUCTURES			
APPROACH SLAB CONCRETE	cy	$387.70	
APPROACH SLAB REINFORCING	lbs	$0.80	

SUBTOTAL		**$1,549,939**
MOT	10.0%	$154,994
Mobilization	10.0%	$170,493
SUBTOTAL		**$1,875,426**
Contingency	15.0%	$281,314
CONSTRUCTION TOTAL (Rounded)		**$2,157,000**

OVERPASS ROAD / I-75 INTERCHANGE
LOOP RAMP CONFIGURATION
22 - 5 LANE EB OVERPASS ROAD

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$667,297**
CLEARING & GRUBBING		1.45	ac	$25,000.00	$36,250
EROSION CONTROL		0.106	mi	$22,625.30	$2,400
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		6,588	cy	$9.17	$60,412
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.11	miles	$133,699.30	$14,180
TYPE B STABILIZATION		5,600	sy	$2.63	$14,728
ROADWAY - OPTIONAL BASE, BASE GROUP 11		4,044	sy	$38.75	$156,705
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		883.0	tons	$96.75	$85,430
SHOULDER - OPTIONAL BASE, BASE GROUP 04		1,244.0	sy	$7.16	$8,907
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		103.0	tons	$96.75	$9,965
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		226.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK		311	sy	$32.38	$10,070
GRASSING		1,462	sy	$2.25	$3,290
SIGNS (Post & Misc.)		0.11	Miles	$20,655.74	$2,191
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"		2,240	lf	$0.82	$1,837
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		1,120	lf	$1.32	$1,478
RETRO-REFLECTIVE PAVEMENT MARKERS		56	ea	$8.15	$456
TRUSS SIGNS - None			ea		
CANTILEVER SIGNS - None			ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	Mast Arm - 6 Lanes	1	pi	$222,673.93	$222,674
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					
TRAFFIC SEPARATOR CONCRETE- TYPE IV, 8.5' WIDE		600	LF	$60.54	$36,324

STRUCTURES			
APPROACH SLAB CONCRETE	cy	$387.70	
APPROACH SLAB REINFORCING	lbs	$0.80	

SUBTOTAL		**$667,297**
MOT	10.0%	$66,730
Mobilization	10.0%	$73,403
SUBTOTAL		**$807,430**
Contingency	15.0%	$121,114
CONSTRUCTION TOTAL (Rounded)		**$929,000**

OVERPASS ROAD / I-75 INTERCHANGE
LOOP RAMP CONFIGURATION
23 - 3 LANE WB OVERPASS ROAD

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$280,278**
CLEARING & GRUBBING		1.04	ac	$25,000.00	$26,000
EROSION CONTROL		0.102	mi	$22,625.30	$2,314
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		4,322	cy	$9.17	$39,633
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.10	miles	$133,699.30	$13,674
TYPE B STABILIZATION		3,959	sy	$2.63	$10,412
ROADWAY - OPTIONAL BASE, BASE GROUP 11		2,459	sy	$38.75	$95,286
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		534.0	tons	$96.75	$51,665
SHOULDER - OPTIONAL BASE, BASE GROUP 04		1,200.0	sy	$7.16	$8,592
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		99.0	tons	$96.75	$9,578
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		139.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK			sy	$32.38	
GRASSING		1,410	sy	$2.25	$3,173
SIGNS (Post & Misc.)		0.10	Miles	$20,655.74	$2,113
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"		1,080	lf	$0.82	$886
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		1,080	lf	$1.32	$1,426
RETRO-REFLECTIVE PAVEMENT MARKERS		27	ea	$8.15	$220
TRUSS SIGNS - None			ea		
CANTILEVER SIGNS - None			ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	None				
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					
10' MULTI-USE PATH		600	SY	$24.00	$14,400
THERMOPLASTIC, STANDARD, WHITE, SOLID, 6"		540	LF	$1.15	$621
THERMOPLASTIC, STANDARD, WHITE, MESSAGE		2	EACH	$143.45	$287
				$20.43	

STRUCTURES		
APPROACH SLAB CONCRETE	cy	$387.70
APPROACH SLAB REINFORCING	lbs	$0.80

SUBTOTAL		**$280,278**
MOT	10.0%	$28,028
Mobilization	10.0%	$30,831
SUBTOTAL		**$339,136**
Contingency	15.0%	$50,870
CONSTRUCTION TOTAL (Rounded)		**$390,000**

OVERPASS ROAD / I-75 INTERCHANGE
LOOP RAMP CONFIGURATION
24 - 2 LANE WB OVERPASS ROAD

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$889,241**
CLEARING & GRUBBING		1.71	ac	$25,000.00	$42,750
EROSION CONTROL		0.197	mi	$22,625.30	$4,456
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		17,834	cy	$9.17	$163,538
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.20	miles	$133,699.30	$26,335
TYPE B STABILIZATION		6,240	sy	$2.63	$16,411
ROADWAY - OPTIONAL BASE, BASE GROUP 11		3,351	sy	$38.75	$129,851
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		725.0	tons	$96.75	$70,144
SHOULDER - OPTIONAL BASE, BASE GROUP 04		2,311.0	sy	$7.16	$16,547
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		191.0	tons	$96.75	$18,479
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		191.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK			sy	$32.38	
GRASSING		2,716	sy	$2.25	$6,111
SIGNS (Post & Misc.)		0.20	Miles	$20,655.74	$4,069
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"		1,040	lf	$0.82	$853
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		2,080	lf	$1.32	$2,746
RETRO-REFLECTIVE PAVEMENT MARKERS		26	ea	$8.15	$212
TRUSS SIGNS - None			ea		
SIGN LT'D OVHD CTLVR-MONOTUBE, C 21- 30, S 151-200		1	ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	None				
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					
RETAINING WALL SYSTEM, PERMANENT, EXCLUDING BARRIER		7875	SF	$25.35	$199,631
CONCRETE TRAFFIC RAILING BARRIER, RETAINING WALL SYSTEM MOUNTED WITH S		700	LF	$223.07	$156,149
10' MULTI-USE PATH		1222	SY	$24.00	$29,333
THERMOPLASTIC, STANDARD, WHITE, SOLID, 6"		1040	LF	$1.15	$1,196
THERMOPLASTIC, STANDARD, WHITE, MESSAGE		3	EACH	$143.45	$430

STRUCTURES			
APPROACH SLAB CONCRETE		cy	$387.70
APPROACH SLAB REINFORCING		lbs	$0.80

SUBTOTAL		**$889,241**
MOT	10.0%	$88,924
Mobilization	10.0%	$97,817
SUBTOTAL		**$1,075,982**
Contingency	15.0%	$161,397
CONSTRUCTION TOTAL (Rounded)		**$1,237,000**

OVERPASS ROAD / I-75 INTERCHANGE
LOOP RAMP CONFIGURATION
25 - 3 LANE WB OVERPASS ROAD

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$826,610**
CLEARING & GRUBBING		1.15	ac	$25,000.00	$28,750
EROSION CONTROL		0.095	mi	$22,625.30	$2,143
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		26,293	cy	$9.17	$241,107
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.09	miles	$133,699.30	$12,661
TYPE B STABILIZATION		3,666	sy	$2.63	$9,642
ROADWAY - OPTIONAL BASE, BASE GROUP 11		2,277	sy	$38.75	$88,234
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		495.0	tons	$96.75	$47,891
SHOULDER - OPTIONAL BASE, BASE GROUP 04		1,111.0	sy	$7.16	$7,955
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		92.0	tons	$96.75	$8,901
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		128.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK			sy	$32.38	
GRASSING		2,236	sy	$2.25	$5,031
SIGNS (Post & Misc.)		0.09	Miles	$20,655.74	$1,956
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"		500	lf	$0.82	$410
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		1,000	lf	$1.32	$1,320
RETRO-REFLECTIVE PAVEMENT MARKERS		13	ea	$8.15	$102
TRUSS SIGNS - None			ea		
SIGN LT'D OVHD CTLVR-MONOTUBE, C 21- 30, S 151-200		1	ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	None				
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					
RETAINING WALL SYSTEM, PERMANENT, EXCLUDING BARRIER		7875	SF	$25.35	$199,631
CONCRETE TRAFFIC RAILING BARRIER, RETAINING WALL SYSTEM MOUNTED WITH S		700	LF	$223.07	$156,149
10' MULTI-USE PATH		578	SY	$24.00	$13,867
THERMOPLASTIC, STANDARD, WHITE, SOLID, 6"		500	LF	$1.15	$575
THERMOPLASTIC, STANDARD, WHITE, MESSAGE		2	EACH	$143.45	$287

STRUCTURES			
APPROACH SLAB CONCRETE	cy	$387.70	
APPROACH SLAB REINFORCING	lbs	$0.80	

SUBTOTAL		**$826,610**
MOT	10.0%	$82,661
Mobilization	10.0%	$90,927
SUBTOTAL		**$1,000,199**
Contingency	15.0%	$150,030
CONSTRUCTION TOTAL (Rounded)		**$1,150,000**

OVERPASS ROAD / I-75 INTERCHANGE
LOOP RAMP CONFIGURATION
26 - 3 LANE WB OVERPASS ROAD W/ BRIDGE

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$568,857**
CLEARING & GRUBBING		0.96	ac	$25,000.00	$24,000
EROSION CONTROL		0.070	mi	$22,625.30	$1,585
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		24,035	cy	$9.17	$220,401
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.07	miles	$133,699.30	$9,369
TYPE B STABILIZATION		3,207	sy	$2.63	$8,434
ROADWAY - OPTIONAL BASE, BASE GROUP 11		2,179	sy	$38.75	$84,436
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		475.0	tons	$96.75	$45,956
SHOULDER - OPTIONAL BASE, BASE GROUP 04		822.0	sy	$7.16	$5,886
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		68.0	tons	$96.75	$6,579
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		122.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK			sy	$32.38	
GRASSING		1,695	sy	$2.25	$3,814
SIGNS (Post & Misc.)		0.07	Miles	$20,655.74	$1,447
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"		1,110	lf	$0.82	$910
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		740	lf	$1.32	$977
RETRO-REFLECTIVE PAVEMENT MARKERS		28	ea	$8.15	$226
SIGN LT'D OVHD TRUSS-MONOTUBE, T 101-120,S >700		1	ea		
CANTILEVER SIGNS - None			ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	None				
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					
RETAINING WALL SYSTEM, PERMANENT, EXCLUDING BARRIER		2325	SF	$25.35	$58,939
CONCRETE TRAFFIC RAILING BARRIER, RETAINING WALL SYSTEM MOUNTED WITH S		370	LF	$223.07	$82,536
10' MULTI-USE PATH		522	SY	$24.00	$12,533
THERMOPLASTIC, STANDARD, WHITE, SOLID, 6"		470	LF	$1.15	$541
THERMOPLASTIC, STANDARD, WHITE, MESSAGE		2	EACH	$143.45	$287
STRUCTURES					**$4,260,380**
APPROACH SLAB CONCRETE		275	cy	$387.70	$106,592
APPROACH SLAB REINFORCING		57,736	lbs	$0.80	$46,189
OVER I- OVERPASS RD OVER I-75	PRESTRESS.CONC.GIRDER (CONT.SPAN)	25,200.00	sf	$163.00	$4,107,600

SUBTOTAL		**$4,829,237**
MOT	10.0%	$482,924
Mobilization	10.0%	$531,216
SUBTOTAL		**$5,843,377**
Contingency	15.0%	$876,507
CONSTRUCTION TOTAL (Rounded)		**$6,720,000**

OVERPASS ROAD / I-75 INTERCHANGE
LOOP RAMP CONFIGURATION
27 - 4 LANE WB OVERPASS ROAD

Construction Cost Estimate **URS Corporation /**

DESCRIPTION		QUANTITY	UNIT	U.P.	COST
ROADWAY					**$1,822,621**
CLEARING & GRUBBING		4.36	ac	$25,000.00	$109,000
EROSION CONTROL		0.345	mi	$22,625.30	$7,799
REGULAR EXCAVATION			cy	$4.64	
EMBANKMENT (BORROW)(BANK MEAS.)		40,199	cy	$9.17	$368,625
POND CONSTRUCTION	1 acres each		each	$309,606.95	
STORM DRAINAGE SYSTEM	NUR	0.34	miles	$133,699.30	$46,086
TYPE B STABILIZATION		15,773	sy	$2.63	$41,483
ROADWAY - OPTIONAL BASE, BASE GROUP 11		10,718	sy	$38.75	$415,323
ROADWAY - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (4 in)		2,336.0	tons	$96.75	$226,008
SHOULDER - OPTIONAL BASE, BASE GROUP 04		4,044.0	sy	$7.16	$28,955
SHOULDER - SUPERPAVE ASPHALTIC CONC, TRAFFIC D (1.5 in)		334.0	tons	$96.75	$32,315
ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER		601.0	tons		
MILLING & OVERLAY			sy		
			lf		
SHOULDER GUTTER- CONCRETE			lf	$13.87	
MISCELLANEOUS ASPHALT PAVEMENT			tons	$143.63	
SIDEWALK CONCRETE, 4" THICK			sy	$32.38	
GRASSING		6,562	sy	$2.25	$14,765
SIGNS (Post & Misc.)		0.34	Miles	$20,655.74	$7,120
THERMOPLASTIC, STANDARD, WHITE, SKIP, 6"		5,460	lf	$0.82	$4,477
TRAFFIC STRIPE SOLID- THERMOPLASTIC, WHITE, 6"		3,640	lf	$1.32	$4,805
RETRO-REFLECTIVE PAVEMENT MARKERS		137	ea	$8.15	$1,112
TRUSS SIGNS - None			ea		
CANTILEVER SIGNS - None			ea		
LIGHTING	None		ea		
TRAFFIC SIGNALS (Model 1)	None				
TRAFFIC SIGNALS (Model 2)	None				
TRAFFIC SIGNALS (Model 3)	None				
Extra Items					
RETAINING WALL SYSTEM, PERMANENT, EXCLUDING BARRIER		10707	SF	$25.35	$271,422
CONCRETE TRAFFIC RAILING BARRIER, RETAINING WALL SYSTEM MOUNTED WITH S		860	LF	$223.07	$191,840
10' MULTI-USE PATH		2022	SY	$24.00	$48,533
THERMOPLASTIC, STANDARD, WHITE, SOLID, 6"		1820	LF	$1.15	$2,093
THERMOPLASTIC, STANDARD, WHITE, MESSAGE		6	EACH	$143.45	$861

STRUCTURES			
APPROACH SLAB CONCRETE	cy	$387.70	
APPROACH SLAB REINFORCING	lbs	$0.80	

SUBTOTAL		**$1,822,621**
MOT	10.0%	$182,262
Mobilization	10.0%	$200,488
SUBTOTAL		**$2,205,372**
Contingency	15.0%	$330,806
CONSTRUCTION TOTAL (Rounded)		**$2,536,000**

Overpass Road and I-75 IJR
ROW Cost Estimates (DRAFT)

Diamond Interchange

Quadrant	Required ROW		Unit Cost	Existing Value	Value X 2.5	25% Contingency	Total Cost
	Acres	Sq Ft	$/Sq Ft	$	$	$	$
Northwest	1.40	60984	$8	$487,872	$1,219,680	$304,920	$1,524,600
Northeast	1.35	58806	$10	$588,060	$1,470,150	$367,538	$1,837,688
Southwest	5.10	222156	$8	$1,777,248	$4,443,120	$1,110,780	$5,553,900
Southeast	4.60	200376	$5	$1,001,880	$2,504,700	$626,175	$3,130,875
	12.45					**Total**	**$12,047,063**

SPUI

Quadrant	Required ROW		Unit Cost	Existing Value	Value X 2.5	25% Contingency	Total Cost
	Acres	Sq Ft	$/Sq Ft	$	$	$	$
Northwest	1.60	69696	$8	$557,568	$1,393,920	$348,480	$1,742,400
Northeast	1.20	52272	$10	$522,720	$1,306,800	$326,700	$1,633,500
Southwest	5.20	226512	$8	$1,812,096	$4,530,240	$1,132,560	$5,662,800
Southeast	4.80	209088	$5	$1,045,440	$2,613,600	$653,400	$3,267,000
	12.80					**Total**	**$12,305,700**

DDI

Quadrant	Required ROW		Unit Cost	Existing Value	Value X 2.5	25% Contingency	Total Cost
	Acres	Sq Ft	$/Sq Ft	$	$	$	$
Northwest	1.20	52272	$8	$418,176	$1,045,440	$261,360	$1,306,800
Northeast	3.20	139392	$10	$1,393,920	$3,484,800	$871,200	$4,356,000
Southwest	6.50	283140	$8	$2,265,120	$5,662,800	$1,415,700	$7,078,500
Southeast	7.10	309276	$5	$1,546,380	$3,865,950	$966,488	$4,832,438
	18.00					**Total**	**$17,573,738**

WB to SB Flyover

Quadrant	Required ROW		Unit Cost	Existing Value	Value X 2.5	25% Contingency	Total Cost
	Acres	Sq Ft	$/Sq Ft	$	$	$	$
Northwest	1.30	56628	$8	$453,024	$1,132,560	$283,140	$1,415,700
Northeast	4.10	178596	$10	$1,785,960	$4,464,900	$1,116,225	$5,581,125
Southwest	12.30	535788	$8	$4,286,304	$10,715,760	$2,678,940	$13,394,700
Southeast	5.30	230868	$5	$1,154,340	$2,885,850	$721,463	$3,607,313
	23.00					**Total**	**$23,998,838**

WB to SB Loop

Quadrant	Required ROW		Unit Cost	Existing Value	Value X 2.5	25% Contingency	Total Cost
	Acres	Sq Ft	$/Sq Ft	$	$	$	$
Northwest	39.00	1698840	$8	$13,590,720	$33,976,800	$8,494,200	$42,471,000
Northeast	2.00	87120	$10	$871,200	$2,178,000	$544,500	$2,722,500
Southwest	3.70	161172	$8	$1,289,376	$3,223,440	$805,860	$4,029,300
Southeast	4.40	191664	$5	$958,320	$2,395,800	$598,950	$2,994,750
	49.10					**Total**	**$52,217,550**

1 These value are estimates only and do not reflect a detailed assesment by a certified property appraiser
2 Existing values based on Commercial Zoning and Pasco County Property appraiser's estimated value for land
3 A 2.5 multiplier was used to cover acquisition costs
4 A 25% contingency factor was added to reach the total cost
5 Inflation was not considered
6 In the NW quadrant, approximately 40 acres of ROW was already acquired part of a comprehensive plan amendment
Only impacts outside this parcel are included in the cost estimates

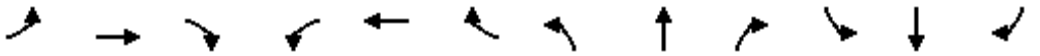
APPENDIX M

Design Year (2040) Queue Analysis

Flyover Alternative with Ramp from the Median

Lane Group	EBT	EBR	WBT	SBL	SBR
Lane Group Flow (vph)	758	632	1321	774	247
v/c Ratio	0.27	0.55	0.68	0.71	0.46
Control Delay	8.1	2.9	15.6	32.8	22.3
Queue Delay	0.0	0.0	0.1	0.0	0.0
Total Delay	8.1	2.9	15.7	32.8	22.3
Queue Length 50th (ft)	64	25	348	220	98
Queue Length 95th (ft)	81	90	393	295	148
Internal Link Dist (ft)	1675		564		
Turn Bay Length (ft)		500		750	750
Base Capacity (vph)	2812	1158	1957	1090	533
Starvation Cap Reductn	0	0	89	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.27	0.55	0.71	0.71	0.46

Intersection Summary



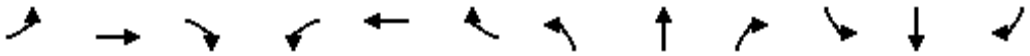
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	720	600	0	1255	0	0	0	0	735	0	235
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0	5.0		5.0					6.0		6.0
Lane Util. Factor		0.91	1.00		0.95					0.97		1.00
Frt		1.00	0.85		1.00					1.00		0.85
Flt Protected		1.00	1.00		1.00					0.95		1.00
Satd. Flow (prot)		5085	1583		3539					3433		1583
Flt Permitted		1.00	1.00		1.00					0.95		1.00
Satd. Flow (perm)		5085	1583		3539					3433		1583
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	758	632	0	1321	0	0	0	0	774	0	247
RTOR Reduction (vph)	0	0	283	0	0	0	0	0	0	0	0	30
Lane Group Flow (vph)	0	758	349	0	1321	0	0	0	0	774	0	217
Turn Type			Perm							Prot		custom
Protected Phases		1 2			1 2					4 12		
Permitted Phases			1 2									4 12
Actuated Green, G (s)		94.0	94.0		94.0					56.0		56.0
Effective Green, g (s)		94.0	94.0		94.0					56.0		56.0
Actuated g/C Ratio		0.55	0.55		0.55					0.33		0.33
Clearance Time (s)												
Vehicle Extension (s)												
Lane Grp Cap (vph)		2812	875		1957					1131		521
v/s Ratio Prot		0.15			c0.37					c0.23		
v/s Ratio Perm			0.22									0.14
v/c Ratio		0.27	0.40		0.68					0.68		0.42
Uniform Delay, d1		20.0	21.8		27.1					49.3		44.3
Progression Factor		0.71	1.62		0.91					1.00		1.00
Incremental Delay, d2		0.0	0.3		0.8					1.7		0.5
Delay (s)		14.2	35.6		25.6					51.1		44.9
Level of Service		B	D		C					D		D
Approach Delay (s)		23.9			25.6			0.0			49.6	
Approach LOS		C			C			A			D	

Intersection Summary			
HCM Average Control Delay	31.5	HCM Level of Service	C
HCM Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	170.0	Sum of lost time (s)	22.0
Intersection Capacity Utilization	75.9%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBT	WBR	NBL	NBR
Lane Group Flow (vph)	153	1379	663	647	658	1937
v/c Ratio	0.48	0.78	0.57	0.68	0.50	0.70
Control Delay	84.6	17.7	33.8	3.6	24.3	1.5
Queue Delay	0.0	0.1	0.0	0.0	0.0	0.0
Total Delay	84.6	17.8	33.8	3.6	24.3	1.5
Queue Length 50th (ft)	178	448	262	39	169	0
Queue Length 95th (ft)	255	408	m274	m51	205	0
Internal Link Dist (ft)		564	844			
Turn Bay Length (ft)				500	750	750
Base Capacity (vph)	458	2040	1166	955	1316	2787
Starvation Cap Reductn	0	75	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.33	0.70	0.57	0.68	0.50	0.70

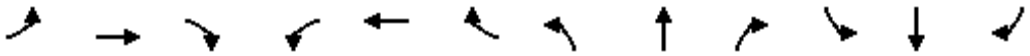
Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	145	1310	0	0	630	615	625	0	1840	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0			4.0	4.0	4.0		4.0			
Lane Util. Factor	1.00	0.95			0.95	1.00	0.97		0.88			
Frt	1.00	1.00			1.00	0.85	1.00		0.85			
Flt Protected	0.95	1.00			1.00	1.00	0.95		1.00			
Satd. Flow (prot)	1770	3539			3539	1583	3433		2787			
Flt Permitted	0.95	1.00			1.00	1.00	0.95		1.00			
Satd. Flow (perm)	1770	3539			3539	1583	3433		2787			
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	153	1379	0	0	663	647	658	0	1937	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	434	0	0	0	0	0	0
Lane Group Flow (vph)	153	1379	0	0	663	213	658	0	1937	0	0	0
Turn Type	Prot					Perm	Prot		Free			
Protected Phases	5	5 6			6		16 8					
Permitted Phases						6			Free			
Actuated Green, G (s)	30.8	86.8			56.0	56.0	65.2		170.0			
Effective Green, g (s)	30.8	86.8			56.0	56.0	65.2		170.0			
Actuated g/C Ratio	0.18	0.51			0.33	0.33	0.38		1.00			
Clearance Time (s)	6.0				4.0	4.0						
Vehicle Extension (s)	3.0				3.0	3.0						
Lane Grp Cap (vph)	321	1807			1166	521	1317		2787			
v/s Ratio Prot	0.09	c0.39			0.19		0.19					
v/s Ratio Perm						0.13			c0.70			
v/c Ratio	0.48	0.76			0.57	0.41	0.50		0.70			
Uniform Delay, d1	62.4	33.4			47.0	44.2	40.0		0.0			
Progression Factor	1.30	0.74			0.70	0.72	1.00		1.00			
Incremental Delay, d2	1.1	1.7			0.8	0.9	0.3		1.5			
Delay (s)	82.2	26.3			33.5	32.6	40.3		1.5			
Level of Service	F	C			C	C	D		A			
Approach Delay (s)		31.8			33.1			11.3			0.0	
Approach LOS		C			C			B			A	

Intersection Summary			
HCM Average Control Delay	22.3	HCM Level of Service	C
HCM Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	170.0	Sum of lost time (s)	0.0
Intersection Capacity Utilization	75.9%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

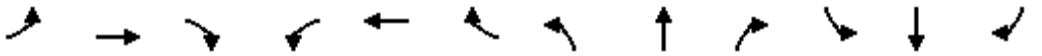


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	263	2558	495	189	2942	79	521	84	126	53	126	368
v/c Ratio	1.00	0.91	0.31	0.95	0.98	0.09	1.03	0.21	0.28	0.31	0.72	0.23
Control Delay	113.5	31.3	0.4	126.1	48.5	8.9	117.0	57.2	9.8	54.4	97.3	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	113.5	31.3	0.4	126.1	48.5	8.9	117.0	57.2	9.8	54.4	97.3	0.3
Queue Length 50th (ft)	~150	604	0	213	1094	18	~319	79	0	45	139	0
Queue Length 95th (ft)	#255	689	0	#381	#1178	45	#442	134	60	84	#236	0
Internal Link Dist (ft)		876			934			310			370	
Turn Bay Length (ft)	750			500		250	650		250	250		250
Base Capacity (vph)	263	2811	1583	198	2998	912	505	408	445	173	175	1583
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.00	0.91	0.31	0.95	0.98	0.09	1.03	0.21	0.28	0.31	0.72	0.23

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	250	2430	470	180	2795	75	495	80	120	50	120	350
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	4.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	4.0
Lane Util. Factor	0.97	*0.95	1.00	1.00	*0.95	1.00	0.97	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3433	5309	1583	1770	5309	1583	3433	1863	1583	1770	1863	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.63	1.00	1.00
Satd. Flow (perm)	3433	5309	1583	1770	5309	1583	3433	1863	1583	1173	1863	1583
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	263	2558	495	189	2942	79	521	84	126	53	126	368
RTOR Reduction (vph)	0	0	0	0	0	18	0	0	99	0	0	0
Lane Group Flow (vph)	263	2558	495	189	2942	61	521	84	27	53	126	368
Turn Type	Prot		Free	Prot		Perm	Prot		Perm	pm+pt		Free
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			Free			8			2	6		Free
Actuated Green, G (s)	13.0	90.0	170.0	19.0	96.0	96.0	26.0	36.2	36.2	19.8	15.0	170.0
Effective Green, g (s)	13.0	90.0	170.0	19.0	96.0	96.0	26.0	36.2	36.2	19.8	15.0	170.0
Actuated g/C Ratio	0.08	0.53	1.00	0.11	0.56	0.56	0.15	0.21	0.21	0.12	0.09	1.00
Clearance Time (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	263	2811	1583	198	2998	894	525	397	337	153	164	1583
v/s Ratio Prot	0.08	c0.48		0.11	c0.55		c0.15	0.05		0.01	c0.07	
v/s Ratio Perm			0.31			0.04			0.02	0.03		0.23
v/c Ratio	1.00	0.91	0.31	0.95	0.98	0.07	0.99	0.21	0.08	0.35	0.77	0.23
Uniform Delay, d1	78.5	36.3	0.0	75.1	36.1	16.8	71.9	55.1	53.6	70.6	75.8	0.0
Progression Factor	0.86	0.74	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	47.0	3.6	0.4	50.6	12.4	0.0	37.1	1.2	0.5	1.4	28.6	0.3
Delay (s)	114.7	30.4	0.4	125.6	48.5	16.8	109.0	56.4	54.0	72.0	104.4	0.3
Level of Service	F	C	A	F	D	B	F	E	D	E	F	A
Approach Delay (s)		32.6			52.2			93.5			31.2	
Approach LOS		C			D			F			C	

Intersection Summary			
HCM Average Control Delay	46.3	HCM Level of Service	D
HCM Volume to Capacity ratio	0.94		
Actuated Cycle Length (s)	170.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	94.4%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	911	658	289	647	371	682
v/c Ratio	0.96	0.42	0.83	0.41	0.51	0.38
Control Delay	61.8	0.6	86.3	0.8	36.1	18.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	61.8	0.6	86.3	0.8	36.1	18.2
Queue Length 50th (ft)	390	0	316	0	319	170
Queue Length 95th (ft)	#629	0	#475	0	434	207
Internal Link Dist (ft)	1675		964			513
Turn Bay Length (ft)	300				250	
Base Capacity (vph)	969	1583	349	1583	729	1802
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.94	0.42	0.83	0.41	0.51	0.38

Intersection Summary

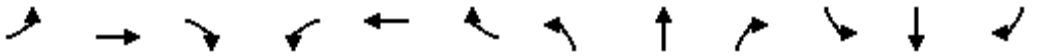
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	865	625	275	615	705	295
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	4.0	5.0	4.0	4.0	5.0
Lane Util. Factor	0.97	1.00	1.00	1.00	0.91	0.91
Frt	1.00	0.85	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00	1.00	1.00	0.95	0.97
Satd. Flow (prot)	3433	1583	1863	1583	1610	3300
Flt Permitted	0.95	1.00	1.00	1.00	0.95	0.54
Satd. Flow (perm)	3433	1583	1863	1583	1610	1831
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	911	658	289	647	742	311
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	911	658	289	647	371	682
Turn Type		Free		Free	Prot	
Protected Phases	8		2		1	6
Permitted Phases		Free		Free		
Actuated Green, G (s)	47.1	170.0	31.9	170.0	77.0	113.9
Effective Green, g (s)	47.1	170.0	31.9	170.0	77.0	113.9
Actuated g/C Ratio	0.28	1.00	0.19	1.00	0.45	0.67
Clearance Time (s)	5.0		5.0		4.0	5.0
Vehicle Extension (s)	3.0		3.0		3.0	3.0
Lane Grp Cap (vph)	951	1583	350	1583	729	1892
v/s Ratio Prot	c0.27		c0.16		c0.23	0.16
v/s Ratio Perm		0.42		0.41		0.08
v/c Ratio	0.96	0.42	0.83	0.41	0.51	0.36
Uniform Delay, d1	60.5	0.0	66.4	0.0	33.1	12.2
Progression Factor	0.74	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	16.3	0.6	19.5	0.8	0.6	0.1
Delay (s)	60.9	0.6	85.9	0.8	33.6	12.3
Level of Service	E	A	F	A	C	B
Approach Delay (s)	35.6		27.1			19.8
Approach LOS	D		C			B

Intersection Summary			
HCM Average Control Delay	28.7	HCM Level of Service	C
HCM Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	170.0	Sum of lost time (s)	14.0
Intersection Capacity Utilization	71.2%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	EBR	WBT	SBL	SBR
Lane Group Flow (vph)	911	658	1237	647	153
v/c Ratio	0.36	0.59	0.69	0.51	0.25
Control Delay	11.1	2.9	13.8	31.6	17.2
Queue Delay	0.0	0.0	0.1	0.0	0.0
Total Delay	11.1	2.9	13.9	31.6	17.2
Queue Length 50th (ft)	91	41	221	211	59
Queue Length 95th (ft)	111	26	482	256	103
Internal Link Dist (ft)	1675		564		
Turn Bay Length (ft)		500		750	750
Base Capacity (vph)	2662	1142	1853	1260	610
Starvation Cap Reductn	0	0	94	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.34	0.58	0.70	0.51	0.25

Intersection Summary



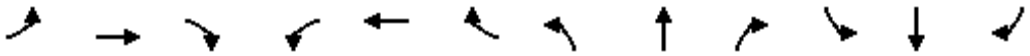
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	865	625	0	1175	0	0	0	0	615	0	145
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0	5.0		5.0					6.0		6.0
Lane Util. Factor		0.91	1.00		0.95					0.97		1.00
Frt		1.00	0.85		1.00					1.00		0.85
Flt Protected		1.00	1.00		1.00					0.95		1.00
Satd. Flow (prot)		5085	1583		3539					3433		1583
Flt Permitted		1.00	1.00		1.00					0.95		1.00
Satd. Flow (perm)		5085	1583		3539					3433		1583
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	911	658	0	1237	0	0	0	0	647	0	153
RTOR Reduction (vph)	0	0	327	0	0	0	0	0	0	0	0	29
Lane Group Flow (vph)	0	911	331	0	1237	0	0	0	0	647	0	124
Turn Type			Perm							Prot		custom
Protected Phases		1 2			1 2					4 12		
Permitted Phases			1 2									4 12
Actuated Green, G (s)		85.6	85.6		85.6					64.4		64.4
Effective Green, g (s)		85.6	85.6		85.6					64.4		64.4
Actuated g/C Ratio		0.50	0.50		0.50					0.38		0.38
Clearance Time (s)												
Vehicle Extension (s)												
Lane Grp Cap (vph)		2560	797		1782					1301		600
v/s Ratio Prot		0.18			c0.35					c0.19		
v/s Ratio Perm			0.21									0.08
v/c Ratio		0.36	0.42		0.69					0.50		0.21
Uniform Delay, d1		25.5	26.5		32.2					40.4		35.6
Progression Factor		0.76	1.12		0.66					1.00		1.00
Incremental Delay, d2		0.1	0.3		1.0					0.3		0.2
Delay (s)		19.6	30.1		22.2					40.7		35.8
Level of Service		B	C		C					D		D
Approach Delay (s)		24.0			22.2			0.0			39.8	
Approach LOS		C			C			A			D	

Intersection Summary			
HCM Average Control Delay	26.9	HCM Level of Service	C
HCM Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	170.0	Sum of lost time (s)	22.0
Intersection Capacity Utilization	87.3%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBT	WBR	NBL	NBR
Lane Group Flow (vph)	247	1311	605	774	632	2521
v/c Ratio	0.72	0.62	0.42	0.72	0.64	0.90
Control Delay	63.2	16.1	13.7	5.8	36.0	5.6
Queue Delay	0.0	0.1	0.0	0.0	0.0	0.0
Total Delay	63.2	16.2	13.7	5.8	36.0	5.6
Queue Length 50th (ft)	205	376	164	96	199	0
Queue Length 95th (ft)	375	447	m178	m155	243	0
Internal Link Dist (ft)		564	844			
Turn Bay Length (ft)				500	750	750
Base Capacity (vph)	385	2186	1457	1082	986	2787
Starvation Cap Reductn	0	139	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.64	0.64	0.42	0.72	0.64	0.90

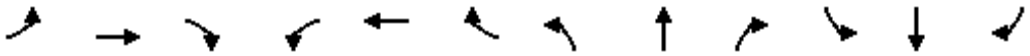
Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	235	1245	0	0	575	735	600	0	2395	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0			4.0	4.0	4.0		4.0			
Lane Util. Factor	1.00	0.95			0.95	1.00	0.97		0.88			
Frt	1.00	1.00			1.00	0.85	1.00		0.85			
Flt Protected	0.95	1.00			1.00	1.00	0.95		1.00			
Satd. Flow (prot)	1770	3539			3539	1583	3433		2787			
Flt Permitted	0.95	1.00			1.00	1.00	0.95		1.00			
Satd. Flow (perm)	1770	3539			3539	1583	3433		2787			
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	247	1311	0	0	605	774	632	0	2521	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	430	0	0	0	0	0	0
Lane Group Flow (vph)	247	1311	0	0	605	344	632	0	2521	0	0	0
Turn Type	Prot					Perm	Prot		Free			
Protected Phases	5	5 6			6		16 8					
Permitted Phases						6			Free			
Actuated Green, G (s)	33.2	103.2			70.0	70.0	48.8		170.0			
Effective Green, g (s)	33.2	103.2			70.0	70.0	48.8		170.0			
Actuated g/C Ratio	0.20	0.61			0.41	0.41	0.29		1.00			
Clearance Time (s)	6.0				4.0	4.0						
Vehicle Extension (s)	3.0				3.0	3.0						
Lane Grp Cap (vph)	346	2148			1457	652	985		2787			
v/s Ratio Prot	0.14	0.37			0.17		0.18					
v/s Ratio Perm						0.22			c0.90			
v/c Ratio	0.71	0.61			0.42	0.53	0.64		0.90			
Uniform Delay, d1	64.0	20.8			35.5	37.6	53.0		0.0			
Progression Factor	0.81	1.27			0.37	1.15	1.00		1.00			
Incremental Delay, d2	6.5	0.5			0.4	1.4	1.4		5.4			
Delay (s)	58.5	26.9			13.6	44.8	54.4		5.4			
Level of Service	E	C			B	D	D		A			
Approach Delay (s)		31.9			31.1			15.2			0.0	
Approach LOS		C			C			B			A	

Intersection Summary			
HCM Average Control Delay	23.1	HCM Level of Service	C
HCM Volume to Capacity ratio	0.90		
Actuated Cycle Length (s)	170.0	Sum of lost time (s)	0.0
Intersection Capacity Utilization	87.3%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	368	2942	521	126	2558	53	495	126	189	79	84	263
v/c Ratio	0.91	0.96	0.33	1.01	0.91	0.06	1.02	0.35	0.45	0.52	0.48	0.17
Control Delay	84.9	34.0	0.3	157.7	42.3	10.3	116.0	62.4	21.3	67.3	82.9	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	84.9	34.0	0.3	157.7	42.3	10.3	116.0	62.4	21.3	67.3	82.9	0.2
Queue Length 50th (ft)	214	806	0	~145	890	13	~300	123	48	68	90	0
Queue Length 95th (ft)	m#264	822	m0	#294	952	37	#421	192	131	117	153	0
Internal Link Dist (ft)		876			934			310			370	
Turn Bay Length (ft)	750			500		250	650		250	250		250
Base Capacity (vph)	404	3060	1583	125	2811	852	485	362	419	152	175	1583
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.91	0.96	0.33	1.01	0.91	0.06	1.02	0.35	0.45	0.52	0.48	0.17

Intersection Summary

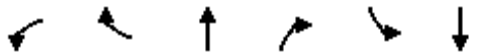
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	350	2795	495	120	2430	50	470	120	180	75	80	250
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	4.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	4.0
Lane Util. Factor	0.97	*0.95	1.00	1.00	*0.95	1.00	0.97	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3433	5309	1583	1770	5309	1583	3433	1863	1583	1770	1863	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.45	1.00	1.00
Satd. Flow (perm)	3433	5309	1583	1770	5309	1583	3433	1863	1583	841	1863	1583
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	368	2942	521	126	2558	53	495	126	189	79	84	263
RTOR Reduction (vph)	0	0	0	0	0	14	0	0	111	0	0	0
Lane Group Flow (vph)	368	2942	521	126	2558	39	495	126	78	79	84	263
Turn Type	Prot		Free	Prot		Perm	Prot		Perm	pm+pt		Free
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			Free			8			2	6		Free
Actuated Green, G (s)	20.0	98.0	170.0	12.0	90.0	90.0	24.0	33.0	33.0	23.0	16.0	170.0
Effective Green, g (s)	20.0	98.0	170.0	12.0	90.0	90.0	24.0	33.0	33.0	23.0	16.0	170.0
Actuated g/C Ratio	0.12	0.58	1.00	0.07	0.53	0.53	0.14	0.19	0.19	0.14	0.09	1.00
Clearance Time (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	404	3060	1583	125	2811	838	485	362	307	152	175	1583
v/s Ratio Prot	0.11	c0.55		0.07	c0.48		c0.14	0.07		0.02	0.05	
v/s Ratio Perm			0.33			0.02			0.05	c0.05		0.17
v/c Ratio	0.91	0.96	0.33	1.01	0.91	0.05	1.02	0.35	0.25	0.52	0.48	0.17
Uniform Delay, d1	74.1	34.2	0.0	79.0	36.3	19.3	73.0	59.2	58.1	72.8	73.1	0.0
Progression Factor	0.91	0.81	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	16.0	5.9	0.3	82.6	4.9	0.0	46.2	2.6	2.0	3.0	9.1	0.2
Delay (s)	83.4	33.5	0.3	161.6	41.2	19.3	119.2	61.8	60.0	75.8	82.2	0.2
Level of Service	F	C	A	F	D	B	F	E	E	E	F	A
Approach Delay (s)		33.7			46.3			96.5			30.4	
Approach LOS		C			D			F			C	

Intersection Summary			
HCM Average Control Delay	44.5	HCM Level of Service	D
HCM Volume to Capacity ratio	0.93		
Actuated Cycle Length (s)	170.0	Sum of lost time (s)	20.0
Intersection Capacity Utilization	93.2%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			



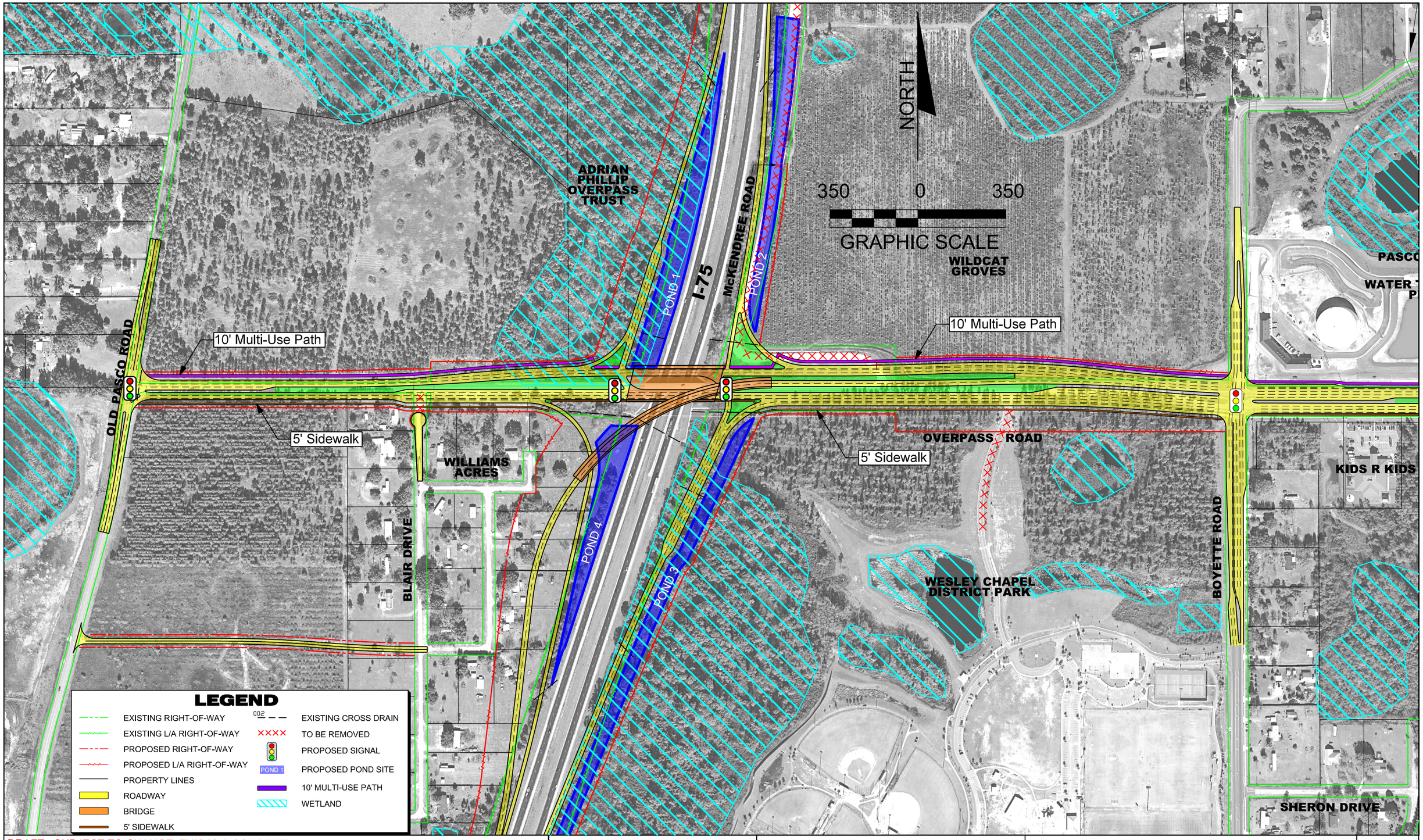
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	647	742	311	911	329	618
v/c Ratio	0.94	0.47	0.46	0.58	0.76	0.41
Control Delay	42.9	3.4	25.1	1.5	39.2	6.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.9	3.4	25.1	1.5	39.2	6.2
Queue Length 50th (ft)	160	80	125	0	176	60
Queue Length 95th (ft)	#277	105	230	0	245	84
Internal Link Dist (ft)	1675		964			513
Turn Bay Length (ft)	300				250	
Base Capacity (vph)	687	1583	680	1583	663	1490
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.94	0.47	0.46	0.58	0.50	0.41

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	615	705	295	865	625	275
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	4.0	5.0	4.0	4.0	5.0
Lane Util. Factor	0.97	1.00	1.00	1.00	0.91	0.91
Frt	1.00	0.85	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00	1.00	1.00	0.95	0.97
Satd. Flow (prot)	3433	1583	1863	1583	1610	3302
Flt Permitted	0.95	1.00	1.00	1.00	0.95	0.60
Satd. Flow (perm)	3433	1583	1863	1583	1610	2030
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	647	742	311	911	658	289
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	647	742	311	911	329	618
Turn Type		Free		Free	Prot	
Protected Phases	8		2		1	6
Permitted Phases		Free		Free		
Actuated Green, G (s)	17.0	85.0	31.0	85.0	23.0	58.0
Effective Green, g (s)	17.0	85.0	31.0	85.0	23.0	58.0
Actuated g/C Ratio	0.20	1.00	0.36	1.00	0.27	0.68
Clearance Time (s)	5.0		5.0		4.0	5.0
Vehicle Extension (s)	3.0		3.0		3.0	3.0
Lane Grp Cap (vph)	687	1583	679	1583	436	1729
v/s Ratio Prot	c0.19		0.17		c0.20	0.10
v/s Ratio Perm		0.47		c0.58		0.15
v/c Ratio	0.94	0.47	0.46	0.58	0.75	0.36
Uniform Delay, d1	33.5	0.0	20.6	0.0	28.4	5.7
Progression Factor	0.67	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	17.8	0.8	2.2	1.5	7.3	0.1
Delay (s)	40.2	0.8	22.8	1.5	35.7	5.8
Level of Service	D	A	C	A	D	A
Approach Delay (s)	19.1		6.9			16.2
Approach LOS	B		A			B

Intersection Summary			
HCM Average Control Delay	14.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	85.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	62.9%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



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No. 00000002

I-75 and Overpass Road
Preliminary Interchange Justification Report
Pasco County

FLYOVER RAMP
FROM THE MEDIAN

SHEET NO.
1

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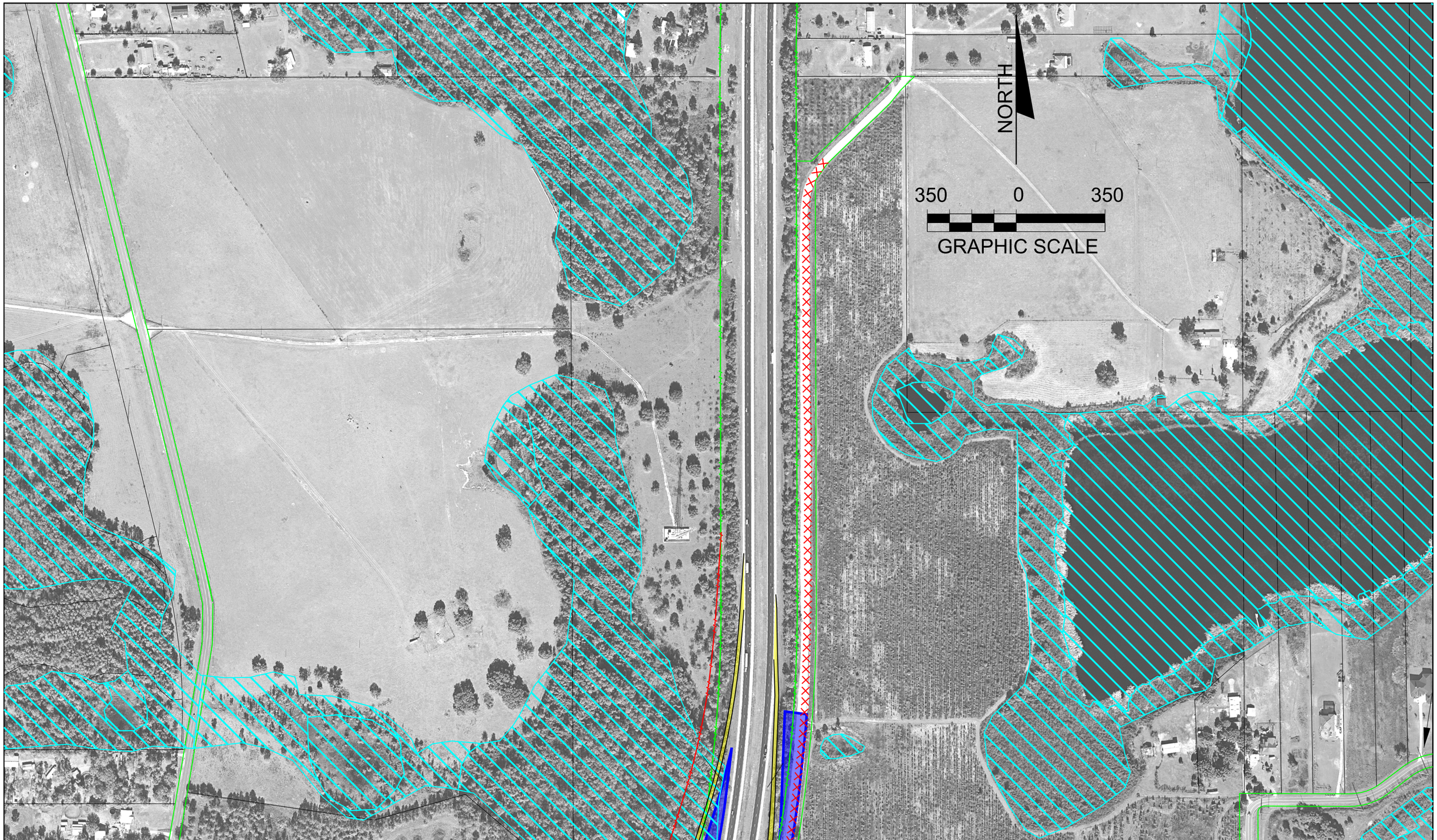

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I-75 and Overpass Road
Preliminary Interchange Justification Report
Pasco County

FLYOVER RAMP
FROM THE MEDIAN

SHEET NO.
1A

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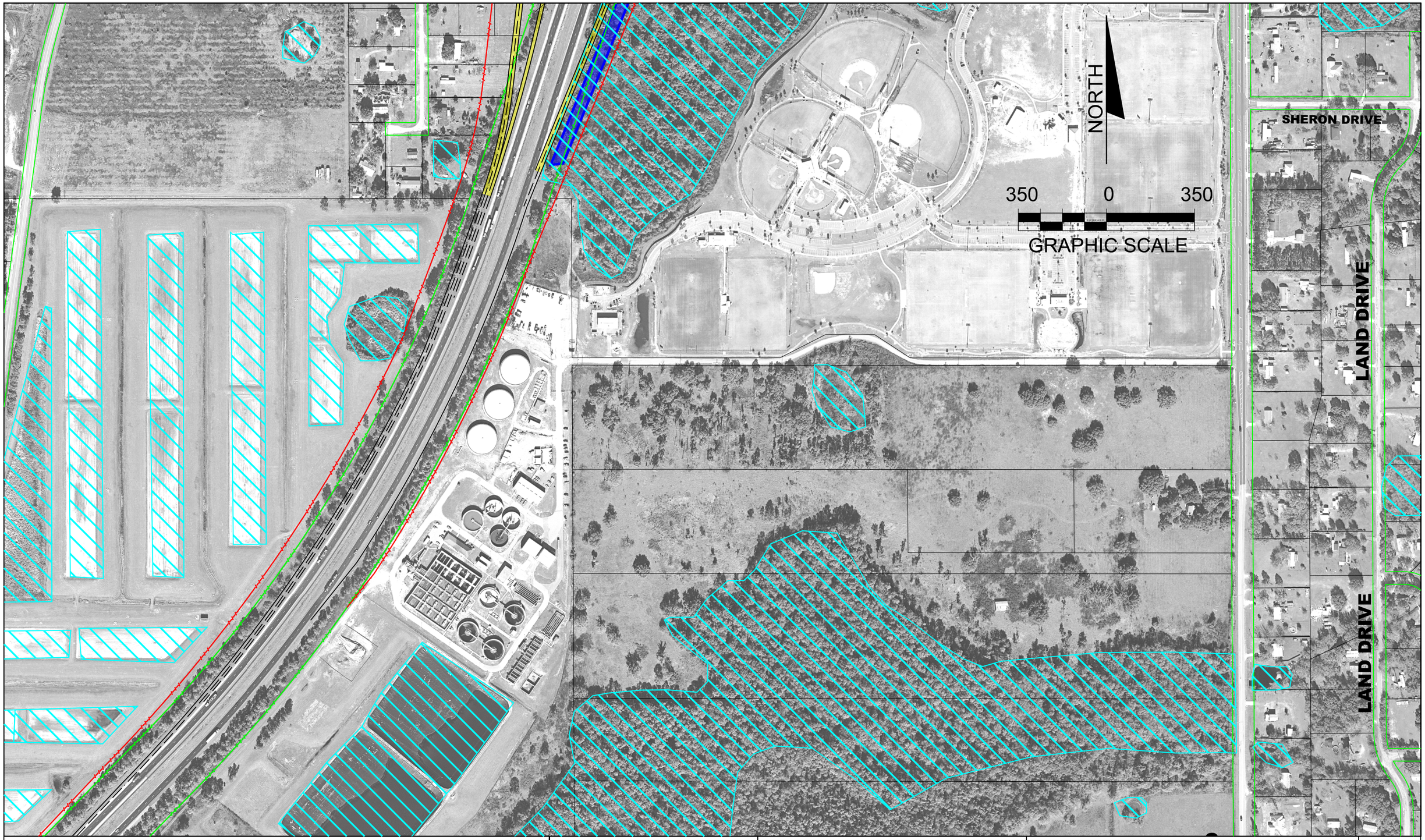

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Preliminary Interchange Justification Report
Pasco County

FLYOVER RAMP
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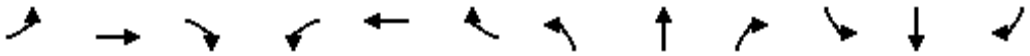
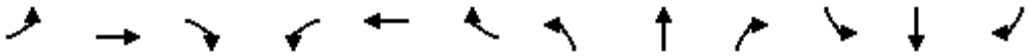
Design Year (2040) Analysis with Northbound to Eastbound Triple Rights



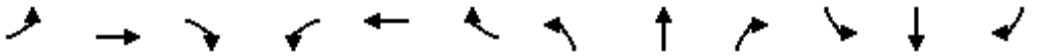
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱		↑↑					↰↰		↱
Volume (vph)	0	720	600	0	1255	0	0	0	0	735	0	235
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0	5.0		5.0					6.0		6.0
Lane Util. Factor		0.91	1.00		0.95					0.97		1.00
Frt		1.00	0.85		1.00					1.00		0.85
Flt Protected		1.00	1.00		1.00					0.95		1.00
Satd. Flow (prot)		5085	1583		3539					3433		1583
Flt Permitted		1.00	1.00		1.00					0.95		1.00
Satd. Flow (perm)		5085	1583		3539					3433		1583
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	758	632	0	1321	0	0	0	0	774	0	247
RTOR Reduction (vph)	0	0	342	0	0	0	0	0	0	0	0	14
Lane Group Flow (vph)	0	758	290	0	1321	0	0	0	0	774	0	233
Turn Type			Perm							Prot		custom
Protected Phases		1 2			1 2					4 12		
Permitted Phases			1 2									4 12
Actuated Green, G (s)		64.3	64.3		64.3					55.7		55.7
Effective Green, g (s)		64.3	64.3		64.3					55.7		55.7
Actuated g/C Ratio		0.46	0.46		0.46					0.40		0.40
Clearance Time (s)												
Vehicle Extension (s)												
Lane Grp Cap (vph)		2335	727		1625					1366		630
v/s Ratio Prot		0.15			c0.37					c0.23		
v/s Ratio Perm			0.18									0.15
v/c Ratio		0.32	0.40		0.81					0.57		0.37
Uniform Delay, d1		24.1	25.1		32.7					32.8		29.8
Progression Factor		0.64	0.77		0.80					1.00		1.00
Incremental Delay, d2		0.1	0.3		3.0					0.5		0.4
Delay (s)		15.4	19.5		29.2					33.3		30.1
Level of Service		B	B		C					C		C
Approach Delay (s)		17.3			29.2			0.0			32.5	
Approach LOS		B			C			A			C	

Intersection Summary			
HCM Average Control Delay	25.7	HCM Level of Service	C
HCM Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	22.0
Intersection Capacity Utilization	85.8%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	145	1310	0	0	630	615	625	0	1840	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0	4.0		4.0			
Lane Util. Factor	1.00	0.95			0.95	1.00	0.97		*0.80			
Frt	1.00	1.00			1.00	0.85	1.00		0.85			
Flt Protected	0.95	1.00			1.00	1.00	0.95		1.00			
Satd. Flow (prot)	1770	3539			3539	1583	3433		3800			
Flt Permitted	0.29	1.00			1.00	1.00	0.95		1.00			
Satd. Flow (perm)	536	3539			3539	1583	3433		3800			
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	153	1379	0	0	663	647	658	0	1937	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	153	1379	0	0	663	647	658	0	1937	0	0	0
Turn Type	Perm					custom	Prot		custom			
Protected Phases		6			6		16 8		16 8			
Permitted Phases	6					16 6 8			8			
Actuated Green, G (s)	57.0	57.0			57.0	140.0	75.0		75.0			
Effective Green, g (s)	57.0	57.0			57.0	140.0	75.0		75.0			
Actuated g/C Ratio	0.41	0.41			0.41	1.00	0.54		0.54			
Clearance Time (s)	4.0	4.0			4.0							
Vehicle Extension (s)	3.0	3.0			3.0							
Lane Grp Cap (vph)	218	1441			1441	1583	1839		2036			
v/s Ratio Prot		c0.39			0.19		0.19		c0.51			
v/s Ratio Perm	0.29					0.41						
v/c Ratio	0.70	0.96			0.46	0.41	0.36		0.95			
Uniform Delay, d1	34.4	40.3			30.3	0.0	18.7		30.8			
Progression Factor	0.87	0.82			1.00	1.00	1.00		1.00			
Incremental Delay, d2	16.7	14.3			1.1	0.2	0.1		10.7			
Delay (s)	46.7	47.3			31.3	0.2	18.8		41.5			
Level of Service	D	D			C	A	B		D			
Approach Delay (s)		47.2			15.9			35.7			0.0	
Approach LOS		D			B			D			A	

Intersection Summary			
HCM Average Control Delay	34.2	HCM Level of Service	C
HCM Volume to Capacity ratio	0.95		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	85.8%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

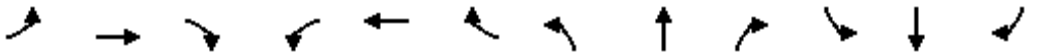


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	250	2430	470	180	2795	75	495	80	120	50	120	350
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	4.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	4.0
Lane Util. Factor	0.97	*0.95	1.00	1.00	*0.95	1.00	0.97	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3433	5309	1583	1770	5309	1583	3433	1863	1583	1770	1863	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3433	5309	1583	1770	5309	1583	3433	1863	1583	1770	1863	1583
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	263	2558	495	189	2942	79	521	84	126	53	126	368
RTOR Reduction (vph)	0	0	0	0	0	19	0	0	100	0	0	0
Lane Group Flow (vph)	263	2558	495	189	2942	60	521	84	26	53	126	368
Turn Type	Prot		Free	Prot		Perm	Prot		Perm	Prot		Free
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			Free			8			2			Free
Actuated Green, G (s)	12.0	82.0	161.0	18.0	88.0	88.0	25.0	33.3	33.3	7.7	16.0	161.0
Effective Green, g (s)	12.0	82.0	161.0	18.0	88.0	88.0	25.0	33.3	33.3	7.7	16.0	161.0
Actuated g/C Ratio	0.07	0.51	1.00	0.11	0.55	0.55	0.16	0.21	0.21	0.05	0.10	1.00
Clearance Time (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	256	2704	1583	198	2902	865	533	385	327	85	185	1583
v/s Ratio Prot	0.08	c0.48		0.11	c0.55		c0.15	0.05		0.03	c0.07	
v/s Ratio Perm			0.31			0.04			0.02			0.23
v/c Ratio	1.03	0.95	0.31	0.95	1.01	0.07	0.98	0.22	0.08	0.62	0.68	0.23
Uniform Delay, d1	74.5	37.4	0.0	71.1	36.5	17.2	67.7	53.0	51.5	75.2	70.0	0.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	63.5	7.9	0.5	50.6	20.2	0.0	32.9	1.3	0.5	13.4	18.4	0.3
Delay (s)	138.0	45.3	0.5	121.7	56.7	17.2	100.6	54.3	52.0	88.6	88.5	0.3
Level of Service	F	D	A	F	E	B	F	D	D	F	F	A
Approach Delay (s)		46.0			59.6			86.9			29.2	
Approach LOS		D			E			F			C	

Intersection Summary			
HCM Average Control Delay	54.2	HCM Level of Service	D
HCM Volume to Capacity ratio	0.98		
Actuated Cycle Length (s)	161.0	Sum of lost time (s)	20.0
Intersection Capacity Utilization	94.4%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

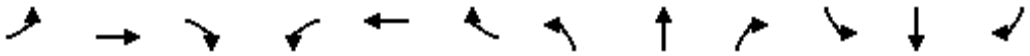
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	865	625	275	615	705	295
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	4.0	5.0	4.0	4.0	5.0
Lane Util. Factor	0.97	1.00	1.00	1.00	1.00	0.95
Frt	1.00	0.85	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	3433	1583	1863	1583	1770	3539
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	3433	1583	1863	1583	1770	3539
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	911	658	289	647	742	311
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	911	658	289	647	742	311
Turn Type		Free		Free	Prot	
Protected Phases	8		2		1	6
Permitted Phases		Free		Free		
Actuated Green, G (s)	38.6	140.0	25.4	140.0	62.0	91.4
Effective Green, g (s)	38.6	140.0	25.4	140.0	62.0	91.4
Actuated g/C Ratio	0.28	1.00	0.18	1.00	0.44	0.65
Clearance Time (s)	5.0		5.0		4.0	5.0
Vehicle Extension (s)	3.0		3.0		3.0	3.0
Lane Grp Cap (vph)	947	1583	338	1583	784	2310
v/s Ratio Prot	c0.27		c0.16		c0.42	0.09
v/s Ratio Perm		0.42		0.41		
v/c Ratio	0.96	0.42	0.86	0.41	0.95	0.13
Uniform Delay, d1	50.0	0.0	55.5	0.0	37.4	9.2
Progression Factor	0.73	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	15.5	0.5	23.2	0.8	20.0	0.1
Delay (s)	51.7	0.5	78.7	0.8	57.4	9.4
Level of Service	D	A	E	A	E	A
Approach Delay (s)	30.3		24.8			43.2
Approach LOS	C		C			D

Intersection Summary			
HCM Average Control Delay	32.7	HCM Level of Service	C
HCM Volume to Capacity ratio	0.93		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	14.0
Intersection Capacity Utilization	89.9%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



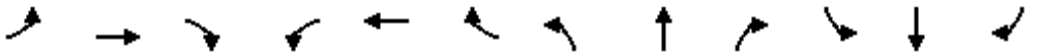
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	865	625	0	1175	0	0	0	0	615	0	145
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0	5.0		5.0					6.0		6.0
Lane Util. Factor		0.91	1.00		0.95					0.97		1.00
Frt		1.00	0.85		1.00					1.00		0.85
Flt Protected		1.00	1.00		1.00					0.95		1.00
Satd. Flow (prot)		5085	1583		3539					3433		1583
Flt Permitted		1.00	1.00		1.00					0.95		1.00
Satd. Flow (perm)		5085	1583		3539					3433		1583
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	911	658	0	1237	0	0	0	0	647	0	153
RTOR Reduction (vph)	0	0	315	0	0	0	0	0	0	0	0	25
Lane Group Flow (vph)	0	911	343	0	1237	0	0	0	0	647	0	128
Turn Type			Perm							Prot		custom
Protected Phases		1 2			1 2					4 12		
Permitted Phases			1 2									4 12
Actuated Green, G (s)		57.3	57.3		57.3					32.7		32.7
Effective Green, g (s)		57.3	57.3		57.3					32.7		32.7
Actuated g/C Ratio		0.52	0.52		0.52					0.30		0.30
Clearance Time (s)												
Vehicle Extension (s)												
Lane Grp Cap (vph)		2649	825		1843					1021		471
v/s Ratio Prot		0.18			c0.35					c0.19		
v/s Ratio Perm			0.22									0.08
v/c Ratio		0.34	0.42		0.67					0.63		0.27
Uniform Delay, d1		15.4	16.1		19.4					33.5		29.5
Progression Factor		1.00	1.00		1.01					1.00		1.00
Incremental Delay, d2		0.1	0.3		0.9					1.3		0.3
Delay (s)		15.5	16.5		20.6					34.8		29.9
Level of Service		B	B		C					C		C
Approach Delay (s)		15.9			20.6			0.0			33.8	
Approach LOS		B			C			A			C	

Intersection Summary			
HCM Average Control Delay	21.5	HCM Level of Service	C
HCM Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	22.0
Intersection Capacity Utilization	96.9%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	235	1245	0	0	575	735	600	0	2395	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0	4.0		4.0			
Lane Util. Factor	1.00	0.95			0.95	1.00	0.97		*0.90			
Frt	1.00	1.00			1.00	0.85	1.00		0.85			
Flt Protected	0.95	1.00			1.00	1.00	0.95		1.00			
Satd. Flow (prot)	1770	3539			3539	1583	3433		4275			
Flt Permitted	0.30	1.00			1.00	1.00	0.95		1.00			
Satd. Flow (perm)	550	3539			3539	1583	3433		4275			
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	247	1311	0	0	605	774	632	0	2521	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	247	1311	0	0	605	774	632	0	2521	0	0	0
Turn Type	Perm					custom	Prot		custom			
Protected Phases		6			6		16 8		16 8			
Permitted Phases	6					16 6 8			8			
Actuated Green, G (s)	38.0	38.0			38.0	110.0	64.0		64.0			
Effective Green, g (s)	38.0	38.0			38.0	110.0	64.0		64.0			
Actuated g/C Ratio	0.35	0.35			0.35	1.00	0.58		0.58			
Clearance Time (s)	4.0	4.0			4.0							
Vehicle Extension (s)	3.0	3.0			3.0							
Lane Grp Cap (vph)	190	1223			1223	1583	1997		2487			
v/s Ratio Prot		0.37			0.17		0.18		c0.59			
v/s Ratio Perm	c0.45					0.49						
v/c Ratio	1.30	1.07			0.49	0.49	0.32		1.01			
Uniform Delay, d1	36.0	36.0			28.4	0.0	11.8		23.0			
Progression Factor	0.86	0.86			1.00	1.00	1.00		1.00			
Incremental Delay, d2	166.8	46.1			1.4	0.2	0.1		21.5			
Delay (s)	197.7	77.2			29.9	0.2	11.9		44.5			
Level of Service	F	E			C	A	B		D			
Approach Delay (s)		96.3			13.2			38.0			0.0	
Approach LOS		F			B			D			A	

Intersection Summary			
HCM Average Control Delay	47.3	HCM Level of Service	D
HCM Volume to Capacity ratio	1.12		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	96.9%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	350	2795	495	120	2430	50	470	120	180	50	120	350
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	4.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	4.0
Lane Util. Factor	0.97	*0.95	1.00	1.00	*0.95	1.00	0.97	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3433	5309	1583	1770	5309	1583	3433	1863	1583	1770	1863	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3433	5309	1583	1770	5309	1583	3433	1863	1583	1770	1863	1583
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	368	2942	521	126	2558	53	495	126	189	53	126	368
RTOR Reduction (vph)	0	0	0	0	0	16	0	0	131	0	0	0
Lane Group Flow (vph)	368	2942	521	126	2558	37	495	126	58	53	126	368
Turn Type	Prot		Free	Prot		Perm	Prot		Perm	Prot		Free
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			Free			8			2			Free
Actuated Green, G (s)	17.0	82.0	150.0	11.0	76.0	76.0	22.0	29.4	29.4	7.6	15.0	150.0
Effective Green, g (s)	17.0	82.0	150.0	11.0	76.0	76.0	22.0	29.4	29.4	7.6	15.0	150.0
Actuated g/C Ratio	0.11	0.55	1.00	0.07	0.51	0.51	0.15	0.20	0.20	0.05	0.10	1.00
Clearance Time (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	389	2902	1583	130	2690	802	504	365	310	90	186	1583
v/s Ratio Prot	c0.11	c0.55		0.07	0.48		c0.14	0.07		0.03	c0.07	
v/s Ratio Perm			0.33			0.02			0.04			0.23
v/c Ratio	0.95	1.01	0.33	0.97	0.95	0.05	0.98	0.35	0.19	0.59	0.68	0.23
Uniform Delay, d1	66.0	34.0	0.0	69.3	35.2	18.7	63.8	52.0	50.3	69.7	65.2	0.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	31.8	20.2	0.6	68.6	8.6	0.0	35.3	2.6	1.3	9.5	18.1	0.3
Delay (s)	97.8	54.2	0.6	137.9	43.8	18.7	99.1	54.6	51.7	79.2	83.2	0.3
Level of Service	F	D	A	F	D	B	F	D	D	E	F	A
Approach Delay (s)		51.1			47.7			81.1			27.1	
Approach LOS		D			D			F			C	

Intersection Summary			
HCM Average Control Delay	51.3	HCM Level of Service	D
HCM Volume to Capacity ratio	0.95		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	93.2%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	615	705	295	865	705	295
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	4.0	5.0	4.0	4.0	5.0
Lane Util. Factor	0.97	1.00	1.00	1.00	0.91	0.91
Frt	1.00	0.85	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00	1.00	1.00	0.95	0.97
Satd. Flow (prot)	3433	1583	1863	1583	1610	3300
Flt Permitted	0.95	1.00	1.00	1.00	0.95	0.64
Satd. Flow (perm)	3433	1583	1863	1583	1610	2153
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	647	742	311	911	742	311
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	647	742	311	911	371	682
Turn Type		Free		Free	Prot	
Protected Phases	8		2		1	6
Permitted Phases		Free		Free		
Actuated Green, G (s)	14.9	60.0	17.1	60.0	14.0	36.1
Effective Green, g (s)	14.9	60.0	17.1	60.0	14.0	36.1
Actuated g/C Ratio	0.25	1.00	0.29	1.00	0.23	0.60
Clearance Time (s)	5.0		5.0		4.0	5.0
Vehicle Extension (s)	3.0		3.0		3.0	3.0
Lane Grp Cap (vph)	853	1583	531	1583	376	1563
v/s Ratio Prot	0.19		0.17		c0.23	0.10
v/s Ratio Perm		0.47		c0.58		0.16
v/c Ratio	0.76	0.47	0.59	0.58	0.99	1.02dl
Uniform Delay, d1	20.9	0.0	18.4	0.0	22.9	6.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	3.9	1.0	4.7	1.5	42.5	0.2
Delay (s)	24.8	1.0	23.1	1.5	65.4	6.7
Level of Service	C	A	C	A	E	A
Approach Delay (s)	12.1		7.0			27.3
Approach LOS	B		A			C

Intersection Summary			
HCM Average Control Delay	14.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	4.0
Intersection Capacity Utilization	65.1%	ICU Level of Service	C
Analysis Period (min)	15		

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

c Critical Lane Group

APPENDIX N

Conceptual Signing Plan

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

URS Corporation Southern
7650 West Courtney
Campbell Causeway
Tampa, FL 33607-1462
No, 00000002

PASCO COUNTY
ENGINEERING SERVICES
PROJECT NUMBER: 1201044

OVERPASS ROAD
DIAMOND INTERCHANGE

From Old Pasco Road to US 301
Pasco County Florida

SHEET NO. 1

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

URS Corporation Southern
7650 West Courtney
Campbell Causeway
Tampa, FL 33607-1462
No. 00000002

PASCO COUNTY
ENGINEERING SERVICES
PROJECT NUMBER: 1201044

OVERPASS ROAD
DIAMOND INTERCHANGE

From Old Pasco Road to US 301
Pasco County Florida

SHEET NO.
1A

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

URS Corporation Southern
7650 West Courtney
Campbell Causeway
Tampa, FL 33607-1462
No. 00000002

PASCO COUNTY
ENGINEERING SERVICES
PROJECT NUMBER: 1201044

OVERPASS ROAD
DIAMOND INTERCHANGE

From Old Pasco Road to US 301
Pasco County Florida

SHEET NO.
1B

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

URS Corporation Southern
7650 West Courtney
Campbell Causeway
Tampa, FL 33607-1462
No. 00000002

PASCO COUNTY
ENGINEERING SERVICES
PROJECT NUMBER: 1201044

OVERPASS ROAD
DIAMOND INTERCHANGE

From Old Pasco Road to US 301
Pasco County Florida

SHEET NO.
2A

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

URS Corporation Southern
7650 West Courtney
Campbell Causeway
Tampa, FL 33607-1462
No. 00000002

PASCO COUNTY
ENGINEERING SERVICES
PROJECT NUMBER: 1201044

OVERPASS ROAD
DIAMOND INTERCHANGE

From Old Pasco Road to US 301
Pasco County Florida

SHEET NO.
2B

NORTH

300 0 300

GRAPHIC SCALE

EXIT 282

Overpass Road

666

1/2 MILE

LEGEND

- EXISTING RIGHT-OF-WAY
- EXISTING L/A RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PROPOSED L/A RIGHT-OF-WAY
- PROPERTY LINES
- ROADWAY
- BRIDGE
- TO BE REMOVED
- SIGNAL

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

URS Corporation Southern
7650 West Courtney
Campbell Causeway
Tampa, FL 33607-1462
No. 00000002

PASCO COUNTY
ENGINEERING SERVICES
PROJECT NUMBER: 1201044

OVERPASS ROAD
DIAMOND INTERCHANGE

From Old Pasco Road to US 301
Pasco County Florida

SHEET NO.

3A

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

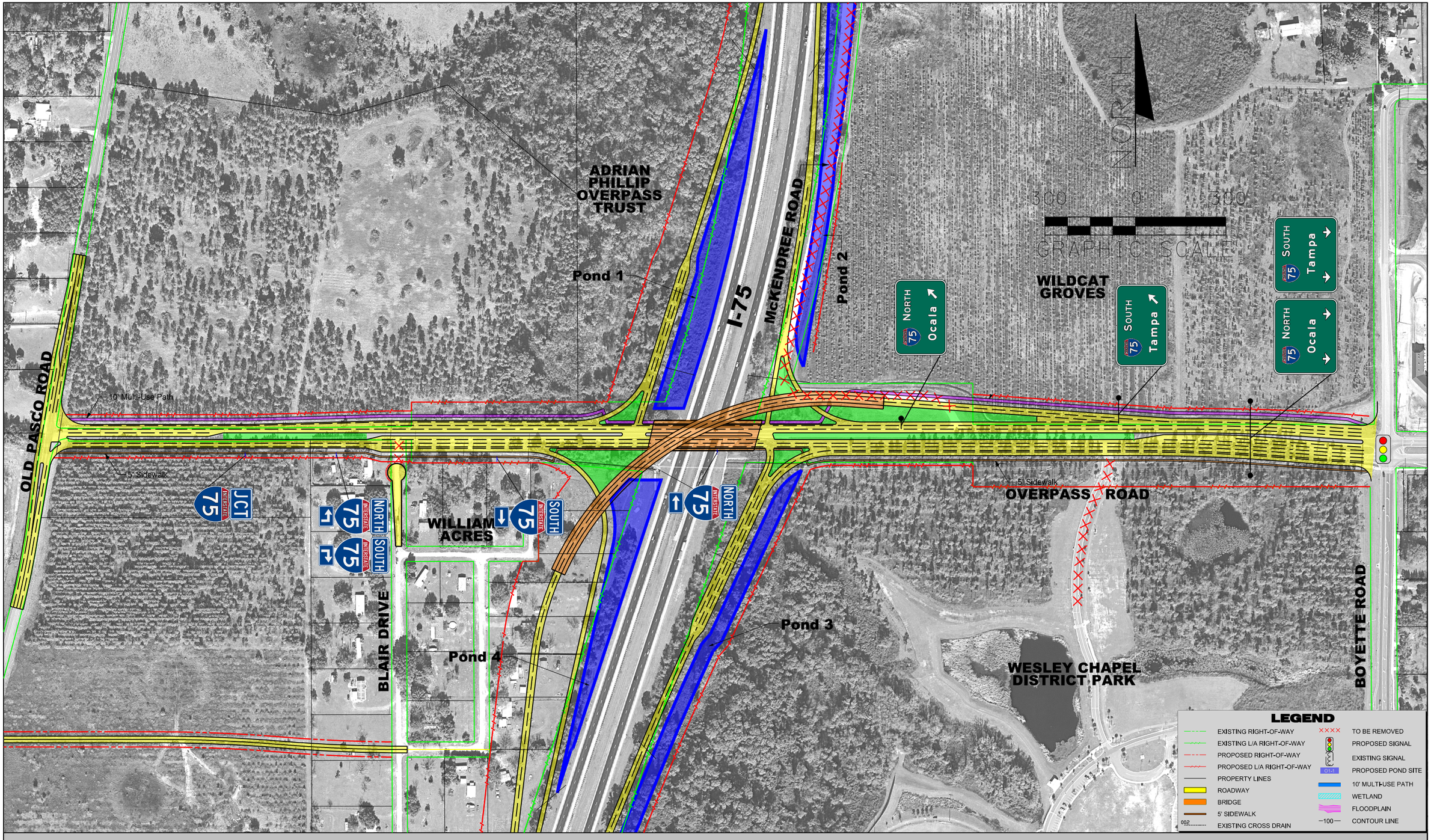
URS Corporation Southern
7650 West Courtney
Campbell Causeway
Tampa, FL 33607-1462
No. 00000002

PASCO COUNTY
ENGINEERING SERVICES
PROJECT NUMBER: 1201044

OVERPASS ROAD
DIAMOND INTERCHANGE

From Old Pasco Road to US 301
Pasco County Florida

SHEET NO.
4A



REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

URS Corporation Southern
7650 West Courtney
Campbell Causeway
Tampa, FL 33607-1462
No. 00000002

PASCO COUNTY
ENGINEERING SERVICES
PROJECT NUMBER: 1201044

OVERPASS ROAD FLYOVER RAMP CONFIGURATION

From Old Pasco Road to US 301
Pasco County Florida

SHEET NO.
1

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

URS Corporation Southern
7650 West Courtney
Campbell Causeway
Tampa, FL 33607-1462
No. 00000002

PASCO COUNTY
ENGINEERING SERVICES
PROJECT NUMBER: 1201044

OVERPASS ROAD FLYOVER RAMP CONFIGURATION

From Old Pasco Road to US 301
Pasco County Florida

SHEET NO.
1A

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

URS Corporation Southern
7650 West Courtney
Campbell Causeway
Tampa, FL 33607-1462
No. 00000002

PASCO COUNTY
ENGINEERING SERVICES
PROJECT NUMBER: 1201044

OVERPASS ROAD FLYOVER RAMP CONFIGURATION

From Old Pasco Road to US 301
Pasco County Florida

SHEET NO.
1B

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

URS Corporation Southern
7650 West Courtney
Campbell Causeway
Tampa, FL 33607-1462
No. 00000002

PASCO COUNTY
ENGINEERING SERVICES
PROJECT NUMBER: 1201044

OVERPASS ROAD FLYOVER RAMP CONFIGURATION

From Old Pasco Road to US 301
Pasco County Florida

SHEET NO.

1C

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

URS Corporation Southern
7650 West Courtney
Campbell Causeway
Tampa, FL 33607-1462
No. 00000002

PASCO COUNTY
ENGINEERING SERVICES
PROJECT NUMBER: 1201044

OVERPASS ROAD FLYOVER RAMP CONFIGURATION

From Old Pasco Road to US 301
Pasco County Florida

SHEET NO.
2A

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

URS Corporation Southern
7650 West Courtney
Campbell Causeway
Tampa, FL 33607-1462
No. 00000002

PASCO COUNTY
ENGINEERING SERVICES
PROJECT NUMBER: 1201044

OVERPASS ROAD FLYOVER RAMP CONFIGURATION

From Old Pasco Road to US 301
Pasco County Florida

SHEET NO.
2B

APPENDIX O

Select-Link Analysis

Overpass Road Trace at Roadway Link located East of Boyette Road - Percentage of Traffic (2035)

7/1/2013 C:\FSUTMS\D7\TBRPM_7.0\Base\Year_2040_CA_Build\Output\SLK_HWYLOAD_A35.NET

cube

Overpass Road Trace at Roadway Link located East of Boyette Road – Percentage of Traffic (2035)

7/1/2013 C:\FSUTMS\D7\TBRPM_7.0\Base\Year_2040_CA_Build\Output\SLK_HWYLOAD_A35.NET

APPENDIX P

Correspondence

URS

MEMORANDUM

DATE: August 30, 2013

TO: Waddah Farah, FDOT Project Development and Analysis Administrator-DIRC Chairman

CC: Kevin Sumner, Ali Atefi, James Edwards and Deborah Bolduc, Pasco County
Sri Meka and Megan McKinney, URS

FROM: Domingo Noriega, P.E., URS

SUBJECT: Responses/Proposed Actions for FHWA Comments dated June 20, 2013 Re: Interstate 75 and Overpass Road Preliminary Interchange Justification Report (Draft Final, February 2013)

We have received and evaluated the comments dated June 20, 2013 from the Federal Highway Administration (FHWA) regarding the Interstate 75 (I-75) and Overpass Road Preliminary Interchange Justification Report (PIJR) (Draft Final, February 2013) and have prepared the following responses pertaining to revisions and upcoming actions. For ease of review, the original agency comments are reproduced below in **bold font**, followed by the applicant's proposed response and/or action.

1. **ES-1/Policy Point #1: This section of FHWA's policy must determine that all prudent and feasible alternatives to existing roadways and interchanges has been accomplished in order to achieve the need for a new interchange. Based on the data provided, it would seem that the existing interchanges within the area of influence are not programmed to be improved. Please detail if these can be improved.**

   The existing interchanges of I-75 with SR 56 and CR 54 within the area of influence have recently been improved (see Section 2.0) and these improvements have been accounted for in the analysis conducted for the proposed interchange. In addition, the improvements programmed and/or planned within the Pasco County MPO Cost-Affordable LRTP were also accounted for. Further improvements in the study area have been determined through the LRTP process to be not feasible due to land use/environmental constraints and/or non-consistency with County policy. As such, it has been determined through development of the Pasco County MPO LRTP and the current analysis presented in this PIJR that all reasonable improvements have been explored and will not satisfactorily accommodate the design year traffic demands served by the proposed interchange.

   Per request from FHWA at a meeting held on July 29, 2013 regarding the PIJR, the information provided in this response has been clarified in the text of FHWA Policy Requirement #1 (see pages ES-1 and ES-2).

2. **ES-1/Policy Point #1: Include future LOS with the new interchange. Would the LOS at each interchange be acceptable? On page ES-3 there is a sentence that indicates that all alternatives provide acceptable LOS at the interchange. Briefly describe the LOS impacts in other interchanges to the north and south of proposed interchange.**

   With the proposed new interchange at Overpass Road, the delays at adjacent interchanges are significantly lower than the No-Build Alternative, with a greater reduction in delay occurring in the peak direction of travel (PM – northbound; AM-southbound). However, the LOS at the adjacent interchanges still remains at F. The delays for Design Year 2040 at the adjacent interchanges (SR 56, CR 54 and SR 52) are shown in Table 5-17 and 5-20 of the PIJR. A summary of these tables is provided below:

Intersection	AM Peak Delay (sec/veh)		PM Peak Delay (sec/veh)	
	No-Build	Build	No-Build	Build
I-75 northbound ramps at SR 56	270.6	198.2	281.4	262.1
I-75 southbound ramps at SR 56	257.3	217.7	169.8	145.9
I-75 northbound ramps at CR 54	173.7	114.0	154.9	120.2
I-75 southbound ramps at CR 54	344.8	210.3	182.4	171.5
I-75 northbound ramps at SR 52	373.0	102.5	491.4	140.4
I-75 southbound ramps at SR 52	408.1	244.1	317.4	235.4

   Per request from FHWA at a meeting held on July 29, 2013 regarding the PIJR, the information provided in this response has been clarified in the text of FHWA Policy Requirement #1 (see pages ES-1 and ES-2; Table ES-1).

3. **ES-2/Point #3: There is no mention of the LOS on mainline. There should be clear explanation of the effects this interchange would have on mainline.**

   In the peak direction of travel for the Design Year 2040, the LOS on the mainline does not change between the No-Build and Build Alternatives, with the LOS remaining at F and densities greater than 45.0 passenger cars per mile per lane (pcpmpl). In the off-peak direction of travel, the LOS is generally also consistent between the No-Build and Build Alternatives, with the exception of the freeway segment north of SR 52. At this location, while the LOS on the mainline is D (33.2 pcpmpl) for the No-Build Alternative and E (35.9 pcpmpl) for the Build Alternative, the increase in density is minimal at 2.7 pcpmpl. The mainline LOS results for the No-Build and Build Alternatives are provided in Tables 5-15 and 5-18 of the PIJR, respectively.

   It is important to note that with or without the proposed interchange at Overpass Road, the FDOT Strategic Intermodal System (SIS) Plan indicates that additional lanes (beyond six lanes) will be needed in the future. As such, FDOT District Seven will be further evaluating improvements to address the mainline deficiencies outside of the PIJR.
   Per request from FHWA at a meeting held on July 29, 2013 regarding the PIJR, the information provided in this response has been clarified in the text of FHWA Policy Requirement #3 (see pages ES-2 and ES-3).

4. **ES-3/Paragraph 1: If response times for emergency vehicles are identified as a need for this new interchange, please provide specific MOEs and data that justifies this.**

   The primary purpose and need for the proposed interchange at I-75 and Overpass Road is to increase available capacity in order to alleviate congestion and accommodate the future travel demand at the existing adjacent interchanges of SR 56, CR 54 and SR 52. An improvement in response times for emergency vehicles is a secondary need and logical benefit realized through improved mobility, roadway connectivity and access to the interstate system. Currently, access to I-75 via existing adjacent interchanges at CR 54 and SR 52 is limited, with 6.625 miles separating these two locations. Therefore, if an incident occurs on I-75 near the existing bridge at Overpass Road, emergency vehicles in the project vicinity are required to utilize these two interchanges, which are already experiencing heavy delays and will only be exacerbated in the future without the proposed interchange. Since the PIJR has demonstrated that there is a reduction in vehicular delay at adjacent interchanges and an additional access to the interstate system would be provided, it is reasonable to recognize an improvement in response times. Therefore, as the primary need of this project is not based on safety, it is respectfully requested that an improvement in emergency response times be accepted as a logical benefit of the proposed project without the need for further analysis.

   Per discussion with FHWA at a meeting held on July 29, 2013 regarding the PIJR, specific MOEs for response times are not required at this time. Instead, the text of FHWA Policy Requirement #3 (see pages ES-2 and ES-3) was revised to clarify that incident/emergency management capabilities are a tertiary need and logical benefit realized through improved mobility, roadway connectivity and access to the interstate system. Additionally, in order to avoid redundant information in the Executive Summary, all supportive statements have also been relocated under the appropriate FHWA Policy Requirement.

5. **Pg. 2-1/Section 2.1: Please add information on the I-75 Design/Build project from CR54 to SR 52 that was advanced. Final RFP's were already released. Section 6 of the MLOU included a list of projects to be considered.**

   Information on the I-75 Design-Build projects from *North of SR 54/CR 54 to North of SR 52* (FDOT FPN 258736-2) and from *North of SR 52 to the Pasco/Hernando County Line* (FDOT FPN 411014-2) have been added to the text of Section 2.1 (see page 2-2), as requested.

6. **Pg. 2-4/Figure 2-1: Graphic may be updated because FDOT has advanced two widening projects in this section of I-75. Author can put a note clarifying that widening of interstate was programmed already.**

   Figure 2-1 (page 2-4) has been updated to include a footnote referencing the I-75 Design-Build project from *North of SR 54/CR 54 to North of SR 52* (FDOT FPN 258736-2), as requested. Note that the second project, *North of SR 52 to the Pasco/Hernando County Line* (FDOT FPN 411014-2), was not referenced on the graphic because it is outside of the study area of the PIJR.

7. **Pg. 2-9/Section 2.4: fourth and ninth bullet: Should it be SR54/CR54?**

   Revisions have been made to reflect CR 54 (fourth bullet) and CR 54/SR 54 (ninth bullet), as requested (see page 2-9).

8. **Pg. 2-20/Section 2.8.1: As evident in the data provided, the instance of rear-end collisions are the prevailing safety issue. At what location(s) did these occur, as the new proposed interchange could affect these. Furthermore, did any alternative mitigate or exacerbate these issues?**

   The rear-end collisions were most prevalent on I-75 between SR 56 and CR 54 (105 crashes on this segment, compared to just 34 crashes on the rest of I-75 in the study area). Rear-end crashes are not predominant in the vicinity of the proposed interchange at Overpass Road. Having an alternative interchange to SR 56 and CR 54 is anticipated to relieve some of the congestion at these locations and potentially reduce the number of rear-end collisions, which are primarily caused by driver distraction in congested areas.

   Per request from FHWA at a meeting held on July 29, 2013 regarding the PIJR, quantitative information showing a reduction in queue lengths and spillback onto I-75 at the adjacent interchanges of CR 54 and SR 52 (at the northbound ramp terminal intersections) has been provided in the text of FHWA Policy Requirement #3 (see pages ES-2 and ES-3).

9. **Pg. 2-23/Section 2.8.2/Para 1: What does FDOT propose to do regarding the areas with higher-than-average crashes?**

   Comment acknowledged. This comment is directly addressed to FDOT regarding safety improvements at the adjacent interchanges of I-75 with SR 56, CR 54, and SR 52, which currently encounter higher-than-average (statewide) crash rates; these are not safety deficiencies that are specifically caused by the proposed new interchange at I-75 and Overpass Road. Note that the availability of a new interchange at I-75 and Overpass Road relieves future traffic demand at the adjacent interchanges. Therefore, the addition of the interchange is anticipated to help relieve some of the crashes at these locations.

   Per request from FHWA at a meeting held on July 29, 2013 regarding the PIJR, quantitative information showing a reduction in queue lengths and spillback onto I-75 at the adjacent interchanges of CR 54 and SR 52 (at the northbound ramp terminal intersections) has been provided in the text of FHWA Policy Requirement #3 (see pages ES-2 and ES-3).

10. **Pg. 2-25/Section 2.9: Please update information with the latest bridge inspection report, if available.**

    The latest *Bridge Inspection Report* available is dated July 1, 2013, with the last inspection for the Overpass Road Bridge (No. 140052) conducted on January 2, 2013. The information in the PIJR has been updated using the latest available data, as requested (see page 2-25).

11. **Pg. 3-1/Section 3.2: How has the economic recession affected this area's projections? Addressing this issue is necessary.**

    The growth rates and AADT projections have been based on the approved regional model used for planning and project development in the Tampa Bay Region. All land uses included have been based on the Pasco County MPO LRTP and other approved developments in the area, the majority of which are still active and plan to develop in the future. Kindly note that a review of the latest version of the regional planning model (completed this year) shows even higher traffic growth for this area. In

addition, Pasco County population growth has historically exceeded Bureau of Economic and Business Research (BEBR) projections. Therefore, the Pasco County MPO has determined that the BEBR "High" projections will be used for the update of the LRTP to year 2040.

In an attempt to stimulate the economy, the State has passed growth management legislation which includes build-out date extensions, development incentives and local government control over concurrency provisions in their jurisdictions. As such, Pasco County is one of only a handful of local governments that has rescinded transportation concurrency county-wide and now implements a "Mobility Fee" structure where the County has agreed to subsidize development fees for preferred land uses. Although it is understood that short-term delays in development have occurred, the long-term vision of Pasco County (as reflected in their Comprehensive Plan) includes a significant increase in residential, commercial, industrial and employment land uses.

Per request from FHWA at a meeting held on July 29, 2013 regarding the PIJR, the information provided in this response has been clarified in the text of Section 3.0 (see pages 3-1 and 3-4).

12. **Pg. 3-5/Section 3.2.3: Why is the north-south road included when it is just a concept? Was there an evaluation of the road with the no build alternative? We would need to know the outcome of the analysis and how the road would affect travelers using the interchange. Also see section 3.4, 5th bullet, on page 3-6. N-S Road will not be further evaluated but was it evaluated without the interchange?**

The North-South Road alignment has not been studied in detail, is not included in the Pasco County MPO 2035 LRTP and is conceptual only at this time. During the initial development of future traffic volumes, a sensitivity analysis was conducted at the request of Pasco County using the travel demand model in order to assess the potential positive impact that the addition of a north-south roadway may have on the roadway network. The roadway was not conceptualized to occur without the proposed interchange; rather, it was intended to provide an additional north-south facility serving mainly local trips. Therefore, although the North-South Road Build Alternative is anticipated to divert approximately 10,000 vehicles per day in the design year (2040) from the I-75 mainline between CR 54 and Overpass Road, it has no significant impact in terms of diverting traffic from the proposed I-75/Overpass Road Interchange. Hence, it was determined that no detailed analysis of this alternative would be performed in the PIJR. It should be noted that the need in the study area for additional north-south capacity to relieve mainline I-75 (including the conceptual North-South Road) will be further evaluated by Pasco County in the update of the LRTP to year 2040.

Per request from FHWA at a meeting held on July 29, 2013 regarding the PIJR, the information provided in this response has been clarified in the text of Section 3.2.3 (see page 3-5).

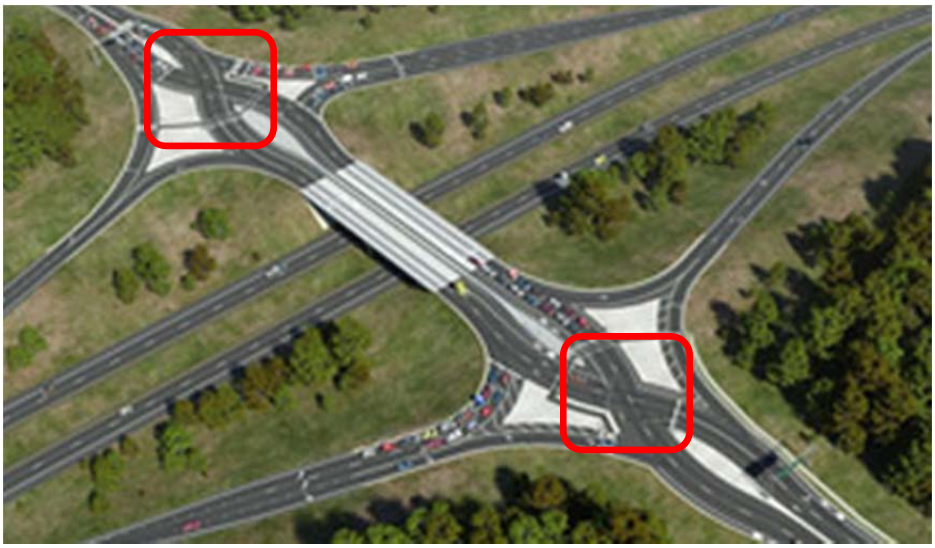
13. **Pg. 3-5/Section 3.2.4: Tolling of the road near the ramps is a topic that would need to be further discussed. This constitutes tolling the interstate.**

Comment understood. Note that the recommended alternative presented in the PIJR (Flyover Ramp Interchange) does not include a toll component. The "Build Alternative with Toll" scenario was modeled mainly to provide Pasco County with a preliminary assessment of the travel demand at the proposed interchange if tolls were to be introduced.

Per request from FHWA at a meeting held on July 29, 2013 regarding the PIJR, the information provided in this response has been clarified in the text of Section 3.2.4 (see page 3-6).

14. Pg. 4-5/Section 4.3.3 / Para. 2: What is the "signalized eye brows"?

In a Diverging Diamond Interchange (DDI) configuration, the intersections along the arterial on either side of the mainline form a shape that resembles an "eye brow". This is the point where traffic flow shifts from the right side of the roadway to the left side of the roadway and vice versa. Please refer to the figure on the following page for a graphical representation of the signalized "eye brows". Based on a meeting held with FHWA on July 29, 2013 regarding the PIJR, no revisions are required for this comment.



15. Pg. 4-5/Section 4.3.5 / Para. 2: First sentence, please note the typo.

The typo has been corrected to reflect "for", as requested (see page 4-5).

16. Pg. 4-9 to 4-11/Section 4.4.3: Since the WB Overpass Rd. to SB I-75 is such a heavy movement, and traffic studies show the need for 8 lanes in certain segments, has the County considered revising their policy? What other alternatives have been looked at and have those been incorporated here? Please clarify why in chapter 5 (see pages 5-35 & 5-37) we are looking at Overpass Rd. as an 8-lane facility east of I-75 (clarify geometry). That seems to conflict with the statement in chapter 4 related to the County's policy not to have roads wider than 6 lanes.

The geometry proposed for Overpass Road between I-75 and Boyette Road includes six through lanes plus two auxiliary lanes. The text in Section 4.4.3 provides this information and it is graphically depicted on Figure 4-6 "*Proposed Typical Sections*", as well as in Appendix F. The auxiliary lanes are provided to aid the traffic flow between the interchange and the Boyette Road intersection. In order to clarify the geometry on the graphics provided in Sections 4.0 and 5.0, the reference to <8> lanes has been replaced with <6 + 2 Aux> (see Figures 4-6, 5-4A through 5-4E, and 5-6A through 5-6E).

Note that at this time, Pasco County does not have plans to revise their policy; rather, they are evaluating alternate transportation capacity improvements such as transit and managed lanes on other

major corridors in the County. However, these types of alternatives are not being evaluated for this segment of Overpass Road, as it is less than a ½-mile in length.

17. **Pg 5-6/Table 5-4: When comparing this table with the no-build alternative on page 5-4, Table 5-1, it seems that the new interchange causes multiple mainline failures. Please show what commitments will be made to mitigate this to satisfy Policy Point 3.**

    While there will be slightly higher traffic on the mainline in the Opening Year 2022, it should be noted that the FDOT Strategic Intermodal System (SIS) Plan indicates that additional lanes (beyond the six-lane widening) will be needed in the future. As such, FDOT District Seven will be further evaluating improvements to address the mainline deficiencies outside of the PIJR.

    Per request from FHWA at a meeting held on July 29, 2013 regarding the PIJR, the information provided in this response has been clarified in the text of Policy Requirement #3 (see pages ES-2 and ES-3) and has been included in the text of Section 5.0 (see Section 5.2, page 5-6; Section 5.6, page 5-38; Section 5.7.2, page 5-40; and Section 7.2, page 7-1).

18. **Pg 5-31: Basic number of lanes is ok but there is a concern about lane balance. Lane balance may be achieved in certain configurations (i.e. I-75 SB on ramp) with the appropriate use of auxiliary lanes. There would be a need to have close coordination with the FDOT's D/B contractor to 1) ensure there are appropriate tie ins, and 2) potential re-work along the interstate is minimized. Please also clarify gray and black number of lanes. Which ones are existing and which ones are proposed.**

    While it is understood that an auxiliary lane between the Overpass Road on-ramp and the CR 54 off-ramp in the southbound direction may help merge area operations, it could degrade the mainline by 1) introducing weaving issues and 2) encouraging local traffic use of the interstate between CR 54 and Overpass. As such, the precise tie-ins and/or need for auxiliary lanes at the referenced location will be evaluated during the Design phase of the project, in coordination with the I-75 Design Build team.

    Per request from FHWA at a meeting held on July 29, 2013 regarding the PIJR, the information provided in this response has been clarified in the text of Section 5.0 (Section 5.4, page 5-26 and Section 5.6, page 5-38).

    As provided in the legend of the graphic, the number of lanes provided in gray text depicts the "Existing Plus Programmed" geometry described in Section 2.1; the number of lanes provided in black text depicts the "LRTP Cost-Feasible plus Overpass Road Build Geometry".

19. **Section 6.0 – Drainage: Please revise this section to better align and answer Policy Point 8. Also, the MLOU indicated there would be a summary of the ETDM Programming Screen Summary Report. Section 7.4 on page 7-6 mentions the Wesley Chapel District Park. There should be a discussion of impacts to the resource by each alternative.**

    Potential impacts (in terms of acreage) to the Wesley Chapel District Park for each interchange are as follows: Diamond Interchange – 4.60 acres; SPUI – 4.80 acres; DDI – 7.10 acres; Flyover Ramp – 5.30 acres; and Loop Ramp – 4.40 acres. However, it is important to note that Pasco County designed the park anticipating the widening of the I-75 mainline and/or the addition of an interchange at Overpass Road. Therefore, no park facilities are currently located or planned within the areas that

are potentially impacted by the interchange. Per request from FHWA at a meeting held on July 29, 2013 regarding the PIJR, the information provided in this response has been clarified in the text of Section 6.0 (see Section 6.1, page 6-1; Section 6.2, page 6-2; Section 6.3, page 6-3; Section 6.4, page 6-4; and Section 6.5, page 6-5).

At the time of preparation of the MLOU, the ETDM screening reflected the only available information within the area of influence. The project was screened in 2008 and consisted of a single line connected from I-75 to US 301 and a diamond polygon around the interchange area, and was not specifically screened for each Build Interchange Alternative presented in the PIJR. Therefore, the agency comments received during the screening are 1) not necessarily representative of the latest available data 2) focused more on the nine-mile extension of the roadway with minimal comments provided specific to the interchange and 3) do not specifically address each of the proposed Build Interchange Alternatives. More recent data has been utilized to further evaluate each of the five Build Interchange Alternatives, as presented in the PIJR.

Additionally, note that an evaluation of the proposed interchange and roadway alternatives utilizing current data has been conducted as part of the Overpass Road PD&E Study (which began in February 2012 and is well underway) and an Alternatives Public Workshop was held on November 29, 2012. The Pasco County Board of County Commissioners has also approved a recommended interchange and roadway alternative for further study in the environmental (NEPA) documents. Therefore, it was respectfully requested at a meeting held on July 29, 2013 with FHWA that the need to include a summary of the ETDM Programming Screen Summary Report be reconsidered at this time. Based on this meeting, the information provided in this response has been clarified in the text of Section 6.0 (see page 6-1). In addition, Section 6.0 has been retitled "Environmental Considerations" and restructured to document a summary of potential environmental issues and drainage requirements for the five Build Interchange Alternatives, consistent with FHWA Policy Requirement #8. Note that any specific environmental impacts identified for the proposed interchange will be fully evaluated and documented during the *Overpass Road PD&E Study*, following all procedures and requirements of the NEPA process.

20. Appendices: Please provide a select-link analysis or something similar for the new section of Overpass Rd. to help show that this is not a local need. Please see FHWA Interstate Access Systems Information Guide, pages 22 and 23, as a reference.

The select-link analysis has been conducted and is provided in Appendix O of the PIJR. Results of this analysis indicate that approximately 66 percent of the trips coming to/from the extension of Overpass Road east of Boyette Road are traveling to/from I-75.

21. Appendix N: Please provide the conceptual signing plan in Appendix N.

The conceptual signing plan for the recommended interchange Build Alternative (Flyover Ramp) has been added to Appendix N of the PIJR.

URS

MEMORANDUM

DATE: October 28, 2011

TO: Waddah Farah, FDOT Project Development and Analysis Administrator-DIRC Chairman

CC: Jim Edwards and Ali Atefi, Pasco County MPO
Susan VanHoose, SIS Coordinator/Growth Management Coordinator, District 7
Srinivas Meka, P.E., PTOE, URS Corporation
Megan McKinney, E.I., URS Corporation

FROM: Domingo Noriega, P.E., URS Corporation

SUBJECT: Responses/Proposed Actions for FDOT comments re: Interstate 75 and Overpass Road proposed Interchange Justification Report: Draft Traffic and Alternatives Analysis Report

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We have received and evaluated the FDOT comments dated October 24, 2011 regarding the I-75 and Overpass Road Draft Traffic and Alternatives Analysis Report (version dated June 2011) and have prepared the following responses pertaining to revisions. For ease of review, the original agency comments are reproduced below in **bold font**, followed by the proposed response. These responses have been incorporated into the Draft IJR being submitted.

Traffic Operations:

It is so good that the interchange @ Overpass Rd will be justified. However, we have a "major" issue – traffic growth rate is way too high (un-reasonable) for Overpass Rd.

Per Figure 2-5 (page 2-10) for the existing 2010 AADT, Overpass has AADT of 4,500. Per Figure 3-6 (page 3-9) for the 2022 opening year, the AADT is shown as 47,800 a 22% annual growth rate.

From year 2022 to year 2030 (figure 3-7 on page 3-10), AADT jumps from 47,800 to 62,200 a 3.5% annual growth rate.

Does the regional FSUTMS model + DRIs support this kind of huge growth rate along Overpass Rd?

The other issue is that in the "2022 opening" year of this interchange as well as in the 2030 design year for Overpass Rd interchange. URS is expecting more traffic on these ramps (to and from Tampa) than on CR 54 (existing Wesley Chapel ramps that are very heavily loaded now). That just doesn't make sense since CR 54 (previous SR 54 alignment before SR 56 was constructed), has lots of developments including "the Grove," the theater, and all of the restaurants and hotels and things accessible from 54.

Comment acknowledged. All volumes are obtained from the most recent TBRPM model which has been carefully updated to ensure proposed land uses are properly incorporated. Please note that the proposed Overpass Road will connect most of the Central-East Pasco and will serve several proposed large developments. As such, this will be a new arterial that once it opens to new traffic will experience a much

larger vehicular demand than the existing short segment between Old Pasco and Boyette Road. Please note that this typically happens when a minor roadway is expanded or a new facility is opened. For example when SR 56 was opened the AADT was 16,000 and went up to 39,000 by 2010.

Traffic Design

1. **Professional Engineering Certification Page: Please replace 'have' with 'has' in 1st sentence.**
2. **Professional Engineering Certification Page: Please replace 'and' with 'with the' between 'accordance' and 'following' in 3rd sentence.**
3. **Professional Engineering Certification Page: Please add 'report' between 'analysis' and 'has' in 5th sentence.**
4. **Page iii: Please specify where appendices are located (attached CD or under separate cover).**
5. **Please provide a 'glossary of terms' for acronyms used in the report.**
6. **Page 1-1, Section 1.2: Please delete 'is estimated' in 4th sentence.**

   For comments 1 through 6, applicable revisions were made as suggested. Please note that each acronym has been spelled out at its first occurrence and therefore no glossary of terms has been provided.

7. **Page 1-2, Figure 1-1 and all applicable figures in the report: Please correct geometry/alignment for intersection of SR 54/SR 56/CR 54 where SR 54 and SR 56 are aligned as the main roadway and CR 54 terminates at SR 54/SR 56.**

   Figures 1-1, 1-3 and 1-4 have been updated to show SR 54 and SR 56 aligned as main roadway.

8. **Page 1-5: Please consider using macroscopic operational models (such as Synchro or Corsim) for network analysis to better identify and report operational impacts of interdependent network elements. This comment would apply to several sections within the report.**

   As per the methodology, all the analysis were to be conducted using HCS. However per the reviewer's comments a CORSIM analysis was performed for the design year build alternatives and is included in the Draft IJR report.

9. **Page 2-1: Please replace 'is' with 'are' in 1st sentence.**

   OK. The text has been revised.

10. **Page 2-1, Section 2: Please consider including operational impacts on CR 54 and associated signalized intersections. CR 54 is parallel highway to I-75 that accommodates north-south traffic movements to/from the proposed overpass. As such, operational capacity of CR 54 and associated signalized intersections will be significant to operational success of the study network with and without the proposed interchange.**

    A comparison of traffic volumes along CR 54 with and without the proposed interchange at Overpass is presented in section 3 and section 5 of the Draft IJR.

11. **Page 2-1, Section 2.1: Please consider adding a graphical figure that presents improvements at I-75/I-275 apex to SR 56 (to augment the provided description) for ease of understanding.**

    These improvements are depicted in Figure 2-1. A figure showing the details of the improvements at I-75 and I-275 will be considered in a future submittal.

12. Page 2-1, footnote: Please consider replacing 'to justify' with 'investigate the justification of' so as to avoid the perception of this justification is already a foregone conclusion.

13. Page 2-11: Please replace 'was' with 'were' in 5th sentence.

14. Page 2-18, Table 2-4 notes: Please delete 'Movement with' in 1srt sentence since it appears to be redundant.

For comments 12 through 14, applicable revisions were made as suggested.

15. **Page 2-19: Would analysis be more representative if crash rates for transitioning segments are compared with <u>average</u> statewide urban and rural crash rates rather than 'urban crash rates?' If so, please update the applicable text and tables accordingly.**

We believe it is more representative to compare the crash rates for transition segments with urban crash rates. Also please note that most of the study area is considered urbanized based on the future land use classifications.

16. **Page 2-19, Section 2.8.2: Please replace 'was' with 'were' in 3rd sentence.**

17. Page 2-22, Section 2.9: Please consider adding 'as' after 'designated' in 5th sentence.

18. Page 2-24: Please consider adding 'as' after 'designated' in second paragraph, 3rd sentence.

For comments 16 through 18, applicable revisions were made as suggested.

19. Page 3-4, 1st paragraph under bullet points: Please provide basis for use of 'one percent per year growth rate to the 2035 volumes.'

The one percent growth rate was applied to obtain 2040 volumes from 2035 model output volumes. This was agreed upon during the MLOU process.

Please note that most of the future developments in the area are already included in the 2035 land use data and therefore the likely growth beyond 2035 would be limited.

20. Page 3-4, Section 3.2.1: Please move 'in' from before 'previously' to after in 3rd sentence.

21. Page 3-4, Section 3.2.2: Please move 'in' from before 'previously' to after in 5th sentence.

22. Page 3-15, Section 3.4, last bullet: Please correct typo 'dat' with 'date.'

23. Page 4-2, Section 4.1: Please clarify reference to 'the next 2 years; in the first paragraph (e.g., remaining duration of a 5-year work program, etc.).

For comments 20 through 23, applicable revisions were made as suggested.

24. Section 4: Given the findings, conclusions, and recommendations in Section 5, where Diamond Interchange seems to be a more viable option, the reader would benefit from inclusion of analysis figures and tables for Diamond Interchange (in addition to DDI and SPUI). Please consider adding the applicable analysis results (figures and tables) as well as including Diamond Interchange findings in the comparative discussions.

Analysis results for all the five build alternative configurations are included in the comparative analysis.

25. **Page 4-11: Please replace 'was' with 'were' in 6th sentence.**

26. Page 4-20: Please replace 'was' with 'were' in 2nd sentence.

For comments 25 and 26, applicable revisions were made as suggested.

27. Page 4-29, Table 4-22: Please note the last 4 rows in this table and correct description of analysis locations.

The last four rows in Table 4-22 (now Table 5-27) have been revised.

28. Section 5: Please correct placement of Figures 5-1, 5-2, and 5-3 in the report.

Figures 5-1 through 5-3 (now Figures 4-1 through 4-3) have been placed in section four with the reorganization of the report.

Also, Design Traffic Consultants had few comments/clarification as follows:

In general the reasonableness of assumptions and conclusions in the report are acceptable. The more meaningful comments that pertain to your question are listed below for your convenience.

10. Page 2-1, Section 2: Please consider including operational impacts on CR 54 and associated signalized intersections. CR 54 is parallel highway to I-75 that accommodates north-south traffic movements to/from the proposed overpass. As such, operational capacity of CR 54 and associated signalized intersections will be significant to operational success of the study network with and without the proposed interchange.

15. Page 2-19: Would analysis be more representative if crash rates for transitioning segments are compared with average statewide urban and rural crash rates rather than 'urban crash rates?' If so, please update the applicable text and tables accordingly.

19. Page 3-4, 1st paragraph under bullet points: Please provide basis for use of 'one percent per year growth rate to the 2035 volumes.'

Comments 10, 15, and 19 have been addressed above.

Planning & Planning Consultants responded with no further comments.

2040 No-Build Ramp Analysis:

The volume shown as upstream in the I-75 NB/SR 56 on-ramp AM peak analysis should be shown as downstream. Please revise and make any necessary revisions to Table 4-16 and Figure 4-5.

The volumes for this location match the volumes from Figures in section 3.

2040 No-Build Intersection Analysis:

The SB through volume was not included in the AM peak analysis of Overpass Road at Old Pasco Road. Please revise the HCS file and make the revisions to Table 4-17 and Figure 4-5.

The HCS file for this location will be reviewed and revised.

2040 Build Ramp Analysis:

The following files are missing on Appendix H for the PM peak hour: all the ramps for I-75/Overpass Road and I-75 NB off-ramp/SR 52. The AM files were included instead. Please include the files on Appendix H.

The missing PM peak hour files will be included in Appendix H.

2040 Build Intersection Analysis:

a. **The volume for the WB left-turn volume shown on the AM SPUI analysis at Overpass Road does not match the volume shown on Figure 3-23. Please revise the file and make the necessary revisions on Table 4-21 and Figure 4-6B.**

   The WB left-turn volume at this intersection will be reviewed and revised.

b. **The Diverge Diamond Interchange (DDI) analysis at both ramp termini at Overpass Road for AM and PM peak hours only include the EB and WB through volumes and does not include the NB and SB ramps volumes. Please revise and make the necessary revisions on Table 4-21 and Figure 4-6C.**

   For the diverging diamond configuration, the NB left movement operates concurrent with EB through movement. This combination cannot be coded in HCS. It is assumed that the green time provided for the EB through will be sufficient to clear the NB lefts. We propose to analyze the DDI using CORSIM for the design year to show all the movements.

URS

MEMORANDUM

DATE: September 15, 2011

TO: Waddah Farah, FDOT Project Development and Analysis Administrator-DIRC Chairman

CC: Jim Edwards and Ali Atefi, Pasco County MPO
Susan VanHoose, SIS Coordinator/Growth Management Coordinator, District 7
Srinivas Meka, P.E., PTOE, URS Corporation
Megan McKinney, E.I., URS Corporation

FROM: Domingo Noriega, P.E., URS Corporation

SUBJECT: Responses/Proposed Actions for FDOT comments re: Interstate 75 and Overpass Road proposed Interchange Justification Report: Draft Traffic and Alternatives Analysis Report

---

We have received and evaluated the FDOT comments dated August 09, 2011 regarding the I-75 and Overpass Road Draft Traffic and Alternatives Analysis Report (version dated June 2011) and have prepared the following responses pertaining to revisions and upcoming actions. For ease of review, the original agency comments are reproduced below in **bold font**, followed by the proposed response and/or action:

Previous comments not yet addressed:

1. **Cover Page. Please consider the revising the cover to read, "Prepared for: Federal Highway Administration" and Prepared by: Pasco County in coordination with the Florida Department of Transportation."**
   URS Response: The cover page will be revised as suggested.
   Comment: The revision has not been made.

   Response: The upcoming report deliverable will be issued as the first draft of the Preliminary Interchange Justification Report. The cover page of the PIJR will include the correct headings and agencies as requested.

New general comments:

1. **The Build Alternatives for the proposed I-75/Overpass Road interchange were analyzed using the Highway Capacity Software (HCS). In general, the HCS treats intersections as an isolated node in a roadway system, rather than a coordinated network of nodes. In the conventional diamond interchange (DI) and diverging diamond interchange (DDI), vehicle queuing between closely spaced**

signal-controlled intersections will govern the overall operations of the subject interchange. As such, it is recommended that CORSIM be employed to analyze the ramp terminal intersections. The use of micro-simulation will better assist in determining operational characteristics (advantages/ disadvantages) of the three proposed Build Alternatives.

Comment noted. The upcoming version of the PIJR will include a CORSIM analysis of the proposed interchange for the year 2040 build alternatives.

2. **Please provide a comparison of the estimated vehicle queue lengths for the three Build Alternatives in the design year 2040.**

   Estimated 95th percentile queue lengths at I-75 and Overpass Road interchange will be provided for the three Build Alternatives in the design year.

3. **The off-ramp movements of the DDI are shown in Figure 5-3 to operate freely, concurrent with the eastbound/westbound through movements on Overpass Road. A significant vehicle weaving movement will occur between traffic exiting the I-75 off-ramps and traffic on Overpass Road entering the I-75 on-ramps. Please analyze the weaving maneuver using traffic simulation.**

   Please note that the off-ramp right turn movements were analyzed as free-flow and they have been provided with additional receiving lanes. The off-ramp left-turn movements will operate under a signal and will not operate concurrent with through movements. There is no weaving movement in this scenario.

4. **The analyses at I-75 SB at Overpass Road included a triple westbound left-turn lane from Overpass Road to the I-75 SB on-ramp for all three interchange configurations analyzed. Please provide an example. Are there examples of a triple left-turn from arterial to interstate? Safety is a concern for the triple left-turn, especially with heavy vehicles. SR 56 and CR 54 will carry about the same amount of vehicles during the peak hour and only two westbound left-turn lanes are provided from the arterial to the interstate ramp. The report states "adequate geometry and signalization were provided for intersections along Overpass Road to obtain acceptable LOS. Triple westbound left-turn from Overpass Road to the SB ramp might not be acceptable by FHWA.**

   The recently approved PD&E for I-75 in Sarasota and Manatee Counties included similar triple left-turn lane configurations onto I-75 for the US 301, SR 64 and SR 70 interchanges. Please note that dual WB to SB left-turn lanes will be sufficient to handle the traffic anticipated for opening and interim year conditions and it is very likely that the design year traffic will be accommodated without the need for triple lefts as the traffic projected for 2040 may not materialize. However; we do acknowledge the reviewer's concern and will include in the analysis other lane configurations (i.e. a loop or flyover ramp for the WB to SB movement) to achieve an acceptable level of service for design year conditions.

5. **What is the distance between the ramp taper and the 1st driveway? Also, between the taper and the 1st median opening?**

   Note: Based on follow up discussions with Pasco County staff related to access management, the segments of Overpass Road between Old Pasco Road and I-75 and between I-75 and Boyette Road are anticipated to <u>not have</u> any access points. All properties in these segments will be able to safely and effortlessly enter and exit either via Old Pasco Road or via Boyette Road. This proposed access management plan will serve two purposes: 1) allow room to develop an adequate interchange footprint with room for expansion if needed; and 2) eliminate unnecessary conflict points.

6. **Could you also update us on your PD&E efforts as related to this project.**

   Funding for the PD&E is anticipated for FY2011-12 (begins 10/1/11). The PD&E Task Work Order will be submitted to BCC in November, along with a time extension to the IJR Task Order

New section-specific comments:

1. **Figure 2-4b is described as "Bicycles Facilities on Overpass Road and Boyette Road Intersection", but there are no bicycles facilities shown. Please revise to read "Pedestrian Crossing on Overpass Road and Boyette Road Intersection" to match the text describing the figure on Page 2-3.**

   The title for Figure 2-4b will be revised as suggested.

2. **Page 2-12 and Page 2-13. The 2010 EB and WB approach volumes were revised for the AM and PM peak hours as shown in Figures 2-6 and 2-7, but the HCS files included in Appendix C were not updated. Please update the HCS files and make the necessary revisions to Table 2-3, Figure 2-8, and Table 2-4.**

   The HCS files will be reviewed and updated to match the volumes shown on figures.

3. **Page 2-15. Table 2-2: Please revise the density shown on for I-75 northbound on-ramp from CR 54 p.m. peak hour to read 22.4 instead of 244.**

   This was a typographical error. The density for I-75 northbound on-ramp from CR 54 p.m. peak hour will be revised to 22.4.

4. **Page 3-8. Figure 3-5 and Table 3-1: The Design Year 2040 AADT shown on for I-75 between CR 54 and SR 52 should read 165,800 instead of 165,400. Please revise.**

   The Design Year 2040 AADT will be revised to 165,800.

5. **Page 3-15. Section 3.4, fourth bullet: Please revise the AADT reduction at I-75/SR 52 interchange (Sum of all SR 52 ramps to/from I-75) to read 13,600 instead of 14,000 indicated in the report.**

   The AADT reduction at I-75/SR 52 interchange will be revised to 13600 from 14000.

6. **Page 3-22. Figure 3-16: Please revise the total EB volume on Overpass Road east of the Boyette Road intersection to read 1,760 instead of the 1,910 shown in the figure.**

   EB volume on Overpass Road east of the Boyette Road intersection will be revised to 1760.

7. **Page 4-1, Section 4.0 Future Conditions Traffic Operation Analysis, second paragraph. Please document in the bulleted list the parameter used for design hour truck percentages to be consistent with the bulleted list of key parameters shown on Page 2-11.**

   Design hour truck percentage will be added to the bulleted list on page 4-1.

8. **Page 4-2, Section 4.1 Opening Year (2022) No-Build Analysis, second paragraph. Please document the source for the list of additional improvements above-and-beyond the existing plus programmed improvements. Please indicate whether or not these projects are developer funded and are part of Pasco County's Transportation Improvement Program (TIP).**

   The additional improvements assumed in this study are consistent with the Pasco County Cost-Feasible Long Range Transportation Plan (LRTP) network.

9. **Page 4-5, Section 4.2 (Opening Year 2022 Build Analysis): This section describes the improvements assumed for the Opening Year Build Alternative. The section indicates "Overpass Road is six lanes**

between I-75 and Boyette Road. Years 2030 and 2040 analysis has eight lanes on Overpass Road but no description of this improvement is found along the report or recommendation is given that Overpass Road will need eight lanes in design year 2040.

The segment of Overpass Road between the proposed interchange and Boyette Road is anticipated to require eight lanes by 2030 according to the traffic projections contained in the travel demand model. It has been stated in Section 4.4 (Year 2030) and section 4.6 (year 2040) that adequate geometry has been assumed along Overpass Road to attain acceptable LOS. Reference to the eight-lane needs will be added in Sections 4.4 and 4.6.

10. **Page 4-6, Section 4.2: indicates that all four ramps at Overpass Road will operate below level of service for Opening Year 2022. This means the ramps to/from Overpass Road do not help the operations of the interstate on opening year. Also, the ramps at Overpass Road were evaluated as one-lane ramps based on Figure 4-2A. Consider evaluating the ramps as two-lane ramps on Opening Year as was done on Interim and Design Year.**

    The ramps analysis in HCS indicated that single-lane ramps are sufficient to handle the Opening Year traffic volumes. The ramp junction failure resulted from freeway deficiencies upstream of the junction. This also occurs in the Interim and Design year analysis, even with two-lane ramps. The deficiency can only be eliminated if additional capacity is provided on the interstate mainline. No revision is suggested.

11. **Page 4-3, Figure 4-1. Please verify the accuracy of the basic freeway LOS reported on northbound and southbound I-75 between the on/off-ramps at CR 54. In the southbound direction the reported LOS on I-75 is worse (LOS F) downstream of the off-ramp to CR 54 even though there is the same number of lanes (3) north and south of the off-ramp. LOS is expected to improve, not worsen, with traffic exiting the I-75 mainline. Similarly in the northbound direction, LOS improves with adding traffic from CR 54 even though there is the same number of lanes.**

    This appears to be an issue with FreePlan 2009. For the interchange segments (between off-ramp and on-ramp) FreePlan uses the same volume as the upstream segment. The software re-computes the volume downstream of the interchange. Since both segments use same demand volume and Freeplan assigns slightly less capacity to interchange segments than basic freeway segments, the interchange segments results in worse LOS. This occurs for all the interchanges. We propose to remove the LOS calls for segments between off-ramp and on-ramps (the junctions are analyzed in the ramps module) from the freeway figures or analyze them as isolated segments and report the LOS accordingly.

12. **Page 4-19, Table 4-14. Please verify the accuracy of the reported control delays in Table 4-14, since the delays for the Interim Year (2030) are shown to be less than the delays reported in Table 4-7 for Opening Year (2022).**

    The intersection analysis will be reviewed and revised if necessary. However please note that the Opening Year geometry has fewer lanes at the ramp terminal intersection and therefore may show higher delays for some lane groups resulting in a higher overall control delay in comparison to the Interim Year.

13. **Page 4-30, Table 4-23: Please revise the table title to read "Opening Year (2022) Traffic Operations Comparison" instead of "Design Year (2040) Traffic Operations Comparison."**

    The title for Table 4-23 will be revised.

14. **Page 5-4, Figure 5-1. Please document the future status of McKendree Road as the proposed concept impacts its connection with Overpass Road. Please discuss whether or not McKendree Road will be realigned to still provide access to parcels in the northeast quadrant of the proposed I-75/Overpass Road interchange.**

Pasco County plans to realign McKendree Road. The roadway will run in a southeast direction and will eventually connect to Overpass Road at a location east of Boyette Road. The proposed alignment is depicted in the model network (Appendix E of the report). Properties on the NE quadrant of the interchange are anticipated to connect to Boyette Road only. Access management at the vicinity of the interchange will be fully compliant with FDOT Access Management standards for limited access facilities as indicated in new General Comment # 5.

15. **Page 5-4, Figure 5-1. Please consider documenting the access management plan proposed on Overpass Road. The concept plans show a full median opening on Overpass Road only 850 east of the northbound I-75 ramp serving the northbound-to-eastbound movement. Since the plans show Overpass Road to be widened to eight lanes between I-75 and Boyette Road, traffic signalization may be needed to safely serve the ingress/egress of traffic movements from the existing driveway. In lieu of a traffic signal, please consider closing the median east of I-75, or providing a directional median opening.**

    See response to general comment number 5

16. **Page 5-4, Figure 5-1. The symbol for property lines in the legend does not appear to be used in the graphic. As such, please consider removing.**

    The legend for Figure 5-1will be revised.

17. **Page 5-6, Figure 5-2. Please verify the accuracy of the graphical illustration for the proposed Overpass Road Bridge over I-75. There appears to be an excess amount of structure used to form the grade separation, and the illustration gives the impression that I-75 is to be carried over Overpass Road instead of Overpass Road going over I-75.**

    The concepts were developed conforming to the current FDOT guidelines. The graphic will be reviewed and revised if necessary.

18. **Page 5-8, Figure 5-3. Please revise the designated number of lanes on westbound Overpass Road between the northbound I-75 off-ramp and southbound I-75 on-ramp to be five instead of three lanes. Also, please consider illustrating traffic control on the concept plans.**

    The number of lanes on westbound Overpass Road will be revised to five (5) lanes.

19. **The analyses at I-75 SB at Overpass Road included a triple westbound left-turn lane from Overpass Road to the I-75 SB on-ramp for all three interchange configurations analyzed. Please provide an example. Are there examples of a triple left-turn from arterial to interstate? Safety is a concern for the triple left-turn, especially with heavy vehicles. SR 56 and CR 54 will carry about the same amount of vehicles during the peak hour and only two westbound left-turn lanes are provided from the arterial to the interstate ramp. The report states "adequate geometry and signalization were provided for intersections along Overpass Road to obtain acceptable LOS. Triple westbound left-turn from Overpass Road to the SB ramp might not be acceptable by FHWA.**

    Please see response to comment #4 under general comments.

20. **The following comments apply to Appendix F: Opening Year (2022) Analysis:**

2022 No-Build Freeway Analysis

a. The volumes used for the 2022 No-Build Freeway analysis AM peak southbound direction do not match the volumes shown on Figure 3-13. Please revise and make the necessary corrections to Table 4-1 and Figure 4-1.

FreePlan 2009 doesn't allow volumes of more than 2,200 per single lane ramps. The SR 52 southbound on-ramp is a single lane ramp and therefore we could only enter a maximum of 2200 vph, losing 70 vph. This difference is carried to the downstream segments.

b. The volume used for I-75 north of SR 52 on the 2022 No-Build Freeway PM peak northbound analysis does not match the volume shown on Figure 3-12. Please revise and make any necessary correction on Table 4-1 and Figure 4-1.

Please see response to comment #a above.

c. The density shown on Table 4-1 for the segments of I-75 from SR 54 to South of SR 56 on the 2022 No-Build southbound PM peak analysis does not match the results shown on Appendix F. Please revise Table 4-1.

The density for this segment will be revised in Table 4-1 to match the FreePlan output.

2022 No-Build Ramp Analysis

a. The volume shown as upstream in the I-75 NB/SR 56 on-ramp AM peak analysis should be shown as downstream. Please revise and make any revisions, if necessary, to Table 4-2 and Figure 4-1.

b. The volume shown for downstream on the I-75 NB/SR 56 on-ramp PM peak analysis does not match Figure 3-12. Please revise and make the necessary revisions on Table 4-2 and Figure 4-1.

c. The volume shown for downstream on the I-75 SB/SR 56 off-ramp AM peak analysis does not match Figure 3-13. Please revise and make the necessary revisions on Table 4-2 and Figure 4-1.

d. The volume shown for merging and downstream on the I-75 SB/SR 56 on-ramp Major Merge AM peak analysis does not match Figure 3-13. Please revise and make the necessary revisions on Table 4-2 and Figure 4-1.

e. The volume shown for downstream on the I-75 SB/SR 52 on-ramp AM peak analysis does not match Figure 3-13. Please revise and make the necessary revisions on Table 4-2 and Figure 4-1.

For comments a through e, traffic volumes will be checked between Figures and HCS and necessary changes will be made.

2022 No-Build Intersection Analysis

The I-75 SB Ramp at SR 52 shows 2 lanes for EB through movement on the PM peak hour analysis and it should be 3 lanes based on Figure 4-1. Please revise and make the necessary revisions on Table 4-3.

The intersection analysis will be revised to show three EB lanes.

2022 Build Intersection Analysis

The Diverge Diamond Interchange (DDI) analysis at both ramp termini at Overpass Road for AM and PM peak hours only include the EB and WB through volumes and does not include the NB and SB ramps volumes. Please revise and make the necessary revisions on Table 4-7 and Figure 4-2C.

For the diverging diamond configuration, the NB left movement operates concurrent with EB through movement. This combination cannot be coded in HCS. It is assumed that the green time provided for the EB through will be sufficient to clear the NB lefts. We propose to analyze the DDI using CORSIM for the design year to show all the movements.

21. The following comments apply to Appendix G: Interim Year (2030) Analysis:

2030 No-Build Ramp Analysis

The volume shown as upstream in the I-75 NB/SR 56 on-ramp AM peak analysis should be shown as downstream. Also, this volume does not match the volume shown on Figure 3-15. Please revise and make the necessary revisions to Table 4-9 and Figure 4-3.

The volumes for this ramp junction match the volumes from Figure 3-15.

2030 Build Freeway Analysis

For the AM peak southbound analysis please revise the input volumes for I-75 north of SR 52, SR 52 interchange, and the SR 52 on-ramp. Make any necessary revisions to Table 4-11 and Figure 4-4A.

The volumes at the SR 52 interchange will be reviewed and revised to match Figure 3-21.

2030 Build Ramp Analysis

a. The volume shown as upstream in the I-75 NB/SR 56 on-ramp AM peak analysis should be shown as downstream. Please revise and make any revisions, if necessary, to Table 4-12 and Figure 4-4A.

b. The volume shown as upstream in the I-75 NB/Overpass Road on-ramp PM peak analysis does not match the volume shown in Figure 3-20. Please revise and make the necessary revisions to Table 4-12 and Figure 4-4A.

c. The volume shown as downstream in the I-75 SB off-ramp/Overpass Road PM peak analysis does not match the volume shown in Figure 3-20. Please revise and make the necessary revisions to Table 4-12 and Figure 4-4A.

For comments a, b, and c, the volumes match the volumes from Figures in section 3.

2030 Intersection Analysis

The Diverge Diamond Interchange (DDI) analysis at both ramp termini at Overpass Road for AM and PM peak hours only include the EB and WB through volumes and does not include the NB and SB ramps volumes. Please revise and make the necessary revisions on Table 4-14 and Figure 4-4C.

For the diverging diamond configuration, the NB left movement operates concurrent with EB through movement. This combination cannot be coded in HCS. It is assumed that the green time provided for the EB through will be sufficient to clear the NB lefts. We propose to analyze the DDI using CORSIM for the design year to show all the movements.

22. The following comments apply to Appendix H: Design Year (2040) Analysis:

URS

MEMORANDUM

DATE: March 09, 2011

TO: Waddah Farah, Chairman,District Interchange Review Committee/Project Development and Analysis Administrator, FDOT District 7

CC: Jim Edwards, AICP, Pasco County MPO
Ali Atefi, P.E., Pasco County MPO
Susan VanHoose, SIS Coordinator/Development Review Coordinator, FDOT District 7
Srinivas Meka, P.E., PTOE, URS Corporation
Megan McKinney, E.I., URS Corporation

FROM: Domingo Noriega, P.E., URS Corporation

SUBJECT: Responses/Proposed Actions for FDOT comments re: I-75 and Overpass Road Preliminary Interchange Justification Report: Draft Existing Conditions, Travel Demand Forecasting, and Design Hour Traffic Report-Review Comments

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We have received and evaluated the FDOT comments dated February 21, 2010 regarding the I-75 and Overpass Road Preliminary Interchange Justification Report: Draft Existing Conditions, Travel Demand Forecasting, and Design Hour Traffic Report (version dated January 2011) and have prepared the following responses pertaining to revisions and upcoming actions. For ease of review, the original agency comments are reproduced below in **bold font**, followed by the proposed response and/or action:

Previous comments made on the September 2010 Preliminary IJR submittal that were not addressed:

1. **Cover Page. Please consider revising the cover to read, "Prepared for: Federal Highway Administration" and "Prepared by: Pasco County in coordination with the Florida Department of Transportation." Also, please coordinate with Kirk Bogen and/or Larry Taylor to obtain the Financial Project Identification (FPID) number for this Local Agency Program (LAP) project.**

   The cover page will be revised as suggested. The FPID number for the project will be obtained from FDOT, if available.

2. **Please provide in the appendix a map depicting the SR 581/ SR 54 realignment and North-South Parallel Road.**

   A map showing the draft alignment for the N-S Road will be provided in the Appendix.

3. **Appendix C, Major Diverge Capacity Check Sheet: I-75 Northbound Off-Ramp to SR 56.**

   a. **Please change the free flow speed in the table to ≥ 50 mph to match Exhibit 25-3 of the Highway Capacity Manual (HCM);**

      The free-flow speed will be changed to ≥ 50 mph.

   b. **Please remove reference of the "I-275 NB Off Ramp to MLK";**

The reference will be removed as requested.

4. **Appendix C. Ramp merge/diverge analysis.**

   a. **Please use painted gore areas instead of physical gore areas when calculating distances to adjacent ramps and lengths of acceleration and deceleration lanes. The painted gore area will be the location where mainline traffic interacts with ramp traffic;**

      The distances used in the analysis are based upon painted gore areas. Please note that the distances are approximate and may deviate by a few feet. In addition, note that the impact of adjacent ramps located 1,500 feet or more apart is minimal on the LOS.

   b. **For the southbound I-75 off-ramp to SR 56 during the PM peak hour, please change the position of the adjacent ramp to read "downstream" instead of "upstream"; and**

      The revision will be made as requested.

   c. **For the northbound I-75 on-ramp from SR 54 during the PM peak hour, please change the volume on freeway from 2,300 vph to 2,370 vph.**

      The volume used (2,300 vph) is correct and no revision is necessary.

5. **Original FDOT Comment 14e: Page 2-1, Section 2.1 – Existing Transportation Network, second paragraph. The fourth sentence indicates that "…the I-75 segment, between SR 56 to north of CR 54, has been programmed in the current Transportation Improvement Program (TIP) to be widened from four to six lanes. The construction is expected to begin in 2010." First, it should be noted that construction is programmed in the Work Program for 2011 (FPN 408459-4). Also, please consider showing these six lanes on I-75. Please note that in order to maintain the existing two-lane on-ramp from SR 56 to southbound I-75, five lanes on southbound I-75 (south of SR 56) must be shown.**

   URS Response: Figure 2-1 will be revised to show the six-lane improvement on I-75 between SR 56 and CR 54 and five lanes on I-75 southbound south of SR 56, as requested. Additionally, there will be auxiliary lanes (three plus one auxiliary lane) on I-75 between SR 56 and CR 54.

   Comment: Figure 2-1 does not match the response given above. Please revise.

   FDOT has modified the improvements for I-75 to include four lanes in each direction between SR 56 and CR 54, and six southbound lanes south of SR 56. This improvement will be reflected in the revised report and figure 2-1.

6. **Original FDOT Comment 38b: Please provide a footnote explaining why the segment lengths shown in the table differ from the segment lengths shown on Figure 1-3.**

   URS Response: The segment lengths in Table 2-6 will be made consistent with those shown on Figure 1-4.

   Comment: The segment lengths shown in Table 2-6 are still not consistent with Figure 1-4.

   Please note that the segment lengths shown in Figure 1-3 are measured from center to center of the interchanges while the segment lengths shown in Table 2-6 are inclusive of the gore areas. Therefore, they are slightly different and do not require revision.

7. **Original FDOT Comment 43: Page 4-5, Section 4.2.3 Build Alternative with North-South Parallel Road. Please provide a map showing the proposed alignment of the north-south roadway. It is indicated that the north south roadway originates from SR 54 east of I-75. Please confirm whether or not the origination point would be east of SR 581. Any additional access on CR 54 between I-75 and SR 581 would not be advisable.**

   URS Response: The exact location and alignment of a North-South Parallel Road has not yet been determined. However, it is envisioned that the southern terminus will be near or aligning with the proposed intersection of the realigned SR 581 and SR 54, east of the existing CR 54/SR 581 intersection. This realignment of SR 581is reflected in the Wiregrass DRI Master Roadway Plan. A map depicting the SR 581/SR 54 realignment and North-South Parallel Road will be included in the appendix of the revised

report. Note, however, that the roadway alignment north of SR 54 has not been studied in detail and will be conceptual only.

<u>Comment:</u> The map depicting the SR 581/SR 54 realignment and the North-South Parallel Road has not been included in the Appendix.

A map showing the draft alignment for the N-S Road will be provided in the Appendix.

<u>General Comments related to the January 2011 Preliminary IJR submittal</u>:

1. **Please consistently use the word "Preliminary" when referencing the IJR throughout the entire document. Please refer to Section 1.1 as an example where the word "Preliminary" is not used.**

   The word "preliminary" will consistently be used, as requested.

2. **Please consider removing all figures showing traffic projections on Overpass Road east of Boyette Road. As indicated on Figure 1-3, the study area of the Preliminary IJR ends on Overpass Road immediately east of Boyette Road. The figures showing traffic volumes on Overpass Road east of Boyette Road could be incorporated into a separate technical memorandum to be referenced as part of the Preliminary IJR's Appendix. In addition, please verify the validity of providing stop control at many of the intersections along Overpass Road, as the forecasted traffic volumes may warrant traffic signalization. In the cases where traffic signalization is needed to meet adopted level of service standards, please consider providing a symbol showing a proposed signal and indicate in the legend that the signal is "proposed when warranted". Please also confirm if the proposed connection of Overpass Road at US 301 is really the existing intersection of Kossik Road and US 301.**

   The signalization needs for these future intersections will be evaluated as part of the future traffic operations analysis.

3. **The crash summary provided in Table 2-7 calculates crash rates based on functional class of an interchange. Please confirm with FDOT Traffic Operations that the statewide average crash rates used to calculate critical crash rates include crashes at both ramp terminal intersections in a diamond interchange configuration. Alternatively, please verify whether or not each ramp terminal intersection should be evaluated independently as a spot location, rather than aggregating both ramp terminal intersections. This may dictate whether the study interchanges are really in fact accident prone as evidenced by the documented safety ratios greater than 1.0.**

   We will confirm it with FDOT Traffic Operations and update Table 2-7, if necessary.

<u>New Comments:</u>

1. **Section 1.4 First Paragraph: The interchange spacing mentioned in this paragraph does not match Figure 1-4. Please revise.**

   The interchange spacing between Overpass Road and SR 52 will be changed from 3.591 to 3.582 miles in Section 1.4. All other interchange spacing provided in Section 1.4 and Figure 1-4 is consistent.

2. **Section 2.1 Third Paragraph: The third sentence states "Northbound I-75 will be widened to accommodate three lanes from *I-275 plus two lanes from I-275*"…. Please revise to reference the receiving lanes from I-275 and I-75.**

   The sentence will be revised as requested.

3. **The following comments apply to Figure 2-6. Please revise the Figure and any applicable HCS analysis.**

   a. **SR 52 WB volume: The sum of the ramp and the through movement is 880 instead of the 885 shown on the Figure.**

b. **CR 54 EB volume: The sum of the ramp and the through movement volume is 1655 instead of the 1650 shown on the Figure.**

c. **SR 56: The eastbound through volume at SR 56 and I-75 NB Ramp should be 820 instead of the 825 shown.**

The revisions will be made as requested.

4. **Why Section 3.0 is not part of Section 2.0? It is less than one page summarizing the findings on Section 2.0.**

Section 3.0 will be moved as a subsection to Section 2.0 (as Section 2.10)

5. **Section 4.3 First Paragraph: Please include the missing parenthesis on the first line of the paragraph, before 2040.**

The revision will be made as requested.

6. **The following comments apply to Figure 4-4a:**

a. **The year 2030 No-Build AADT for SR 56 east of the I-75 is lower than year 2022 No-Build. Please explain.**

b. **The year 2030 AADT for CR 54 east of I-75 is shown as 99,600 while year 2022 AADT is 37,600. That's a growth of 165% in 8-years. Please explain.**

A review of the model output indicates that in the year 2022, there is a large directional imbalance for AADT on I-75 between SR 56 and CR 54 (86,200 northbound and 63,600 southbound). There is also a large imbalance in the model AADT for the northbound off-ramp to CR 54 (31,900) and southbound on-ramp from CR 54 (15,900). This assignment appears illogical and we propose to manually adjust AADTs on I-75 between SR 56 and CR 54, and also on the SR 56 and CR 54 segments east of I-75.

7. **The following comments apply to Figure 4-5a and 4-5b:**

a. **The 2040 No-Build AADT for SR 56 east of the I-75 is lower than year 2022 No-Build. Please explain.**

Please see the response to comment #6.

b. **The 2040 No-Build AADT shown for the segment of Overpass Road between Boyette Road and McKendree Road is 69,600 compared to the 39,200 in year 2030 No-Build, but the others segments do not experience the same growth. Where is this traffic coming from? McKendree Road shows lower AADT in year 2040 than year 2030.**

The 2040 AADT has been reported in error. The AADT should have been 44,000, which represents reasonable growth from 2030.

8. **The AADTs along I-75 on Figure 4-6 (Opening Year 2022 AADT) does not balance. Please revise.**

The AADTs along I-75 on all figures balance with the exception of a 100 vph discrepancy at some locations. This discrepancy is due to the rounding of the AADT to the nearest hundred. Please note that the northbound off-ramp to SR 56 is separated from the mainline as a C-D system.

9. **The following comments apply to Figure 4-7a:**

a. **The AADTs along I-75 on Figure 4-6 (Opening Year 2022 AADT) does not balance. Please revise.**

Please refer to the response to comment #8.

b. **The year 2030 Build AADT for SR 56 east of the I-75 is lower than year 2022 Build. Please explain.**

c. **The year 2030 AADT for CR 54 east of I-75 is shown as 89,000 while year 2022 AADT is 36,600. That's a growth of 143% in 8-years. Please explain.**

For b and c, please refer to the response to comment #6.

10. **The following comments apply to Figure 4-8a and 4-8b:**

    a. **The AADTs along I-75 on Figure 4-6 (Opening Year 2022 AADT) does not balance. Please revise.**

       Please refer to the response to comment #8.

    b. **Some of the ramps to/from CR 54 and SR 52 have lower AADTs than 2030 Build. Please explain.**

       It appears that in 2040 and 2030 the model is diverting traffic from I-75 between Overpass Road and SR 52 to Old Pasco Road. This results in some reduction in ramp volumes. We propose to manually adjust the volumes for these ramps to make them more reasonable.

    c. **The 2040 Build AADT for SR 56 east of the I-75 is lower than year 2022 Build. Please explain.**

       Please see the response to comment #6.

    d. **The 2030 and 2040 Build AADT shown for the segment of Overpass Road between Boyette Road and McKendree Road are the same. Is this correct? Others segments along Overpass road shows growth on year 2040 Build.**

       The 2030 AADT should be 64,800 and 2040 should be 66,700. The revision will be made, accordingly.

    e. **With the amount if traffic projected on Overpass Road, there is a need for at least 10-lanes between NB I-75 and Boyette Road and 8-lanes between Boyette Road and Curley Road. Monitoring the roadway as development happens needs to occur to be sure the new interchange at Overpass Road will not operate at deficient LOS in 18 years after opening year.**

       Comment noted.

11. **Figure 4-9: Please check AADT balancing along I-75.**

    Please see response to comment #8.

12. **The following comments apply to Figure 4-11 (North-South Road Build Alternative):**

    a. **The AADTs along I-75 on Figure 4-6 (Opening Year 2022 AADT) does not balance. Please revise.**

       Please refer to the response to comment #8.

    b. **The northbound on-ramp and southbound off-ramp at I-75 and Overpass Road interchange have lower AADT than years 2022 and 2030.**

       Please refer to the response to comment #10b.

    c. **The northbound off-ramp and southbound on-ramp at I-75 and SR 52 interchange have lower AADT than year 2030.**

       Please refer to the comment #10b.

    d. **The AADT for CR 54 east of I-75 was shown for 2022 as 34,200; for 2030 as 37,700; and for 2040 as 96,000. Please explain the big increase.**

       i. **In the Build Alternative shown in Figures 4-6 to 4-8 the big increase on ADDT along 2040 occurs in year 2030. Please explain the difference with this alternative.**

          Please refer to the response to comment #6.

13. **Please add the No-Build AADT for years 2022 and 2030 in Table 4-1.**

    The AADTs will be included in Table 4-1, as requested.

14. **The following comments apply to Figure 4-14a (No-Build Alternative 2030 AM peak hour volumes)**

    a. **The 2030 AM peak hour volumes for the intersection of CR 54 and I-75 NB shows 1,100 vehicles making the left-turn and 1,700 making the right-turn. Opening year 2022 AM peak hour volumes (Figure 4-12) shows 1,730 making the left-turn ad 300 making the right turn at the same**

intersection. There is a significant discrepancy in distribution between opening and interim year. Please explain.

The turning percentages were modified to obtain K and D factors on receiving links closer to the approved K and D factors. The turning movement splits will be revised to make the higher percentage of traffic turn left at this location for consistency among analysis years.

b. **AM peak volumes at the intersection of Overpass Road and Boyette Road are lower than the year 2022 volumes. Please revise.**

The AM peak hour volumes at this intersection will be revised, as requested.

15. **The following comments apply to Figure 4-15a (No-Build Alternative 2030 PM peak hour volumes)**

a. The 2030 PM peak hour volumes for the intersection of CR 54 and I-75 NB shows 730 vehicles making the left-turn and 2,700 making the right-turn. Opening year 2022 AM peak hour volumes (Figure 4-13) shows 1,430 making the left-turn and 1,050 making the right turn at the same intersection. There is a significant discrepancy in distribution between opening and interim year. Please explain.

Please refer to the response to comment #14a.

b. There is a big increase in design hour volume on CR 54 east of I-75 between year 2022 and year 2030. Please explain.

This was a result of huge increase in AADT for this link. This volume will be reduced to represent more reasonable growth once the AADTs are revised as proposed in response to comment #6.

c. The AM volumes on along SR 56, including the I-75 ramps, are lower than year 2022. Please explain.

Please refer to the response to #15b above.

d. The EB right at CR 54 at I-75 SB Ramp shows a volume of 1,110 while year 2022 shows a volume of 1,730. Please explain.

The volumes at this intersection will be revised.

e. PM peak volumes at the intersection of Overpass Road and Boyette Road are lower than the year 2022 volumes. Please revise.

The AM peak hour volumes at this intersection will be revised.

16. **The following comments apply to Figure 4-20a (Build Alternative 2030 AM peak hour volumes)**

a. The 2030 AM peak hour volumes for the intersection of CR 54 and I-75 NB shows 670 vehicles making the left-turn and 1,300 making the right-turn. Opening year 2022 AM peak hour volumes (Figure 4-182) shows 1,120 making the left-turn ad 300 making the right turn at the same intersection. There is a significant discrepancy in distribution between opening and interim year. Please explain.

Please refer to the response to comment #14a.

b. There is a big increase in design hour volume on CR 54 east of I-75 between year 2022 and year 2030.

Please refer to the response to comment #15b.

c. The EB right at CR 54 at I-75 SB Ramp shows less volume in year 2030 than year 2022. Please revise.

The volumes at this intersection will be revised as requested.

d. The EB right at Overpass Road at I-75 SB Ramp shows a volume of 100 while year 2022 shows a volume of 600. Please explain.

The volumes at this intersection will be revised.

e. The northbound on-ramp and southbound off-ramp at I-75 and Overpass Road interchange have lower volume than year 2022.

Please refer to the response to comment #12b.

17. **The following comments apply to Figure 4-21a (Build Alternative 2030 PM peak hour volumes)**

a. There is a big increase in design hour volume on CR 54 east of I-75 between year 2022 and year 2030.

Please refer to the response to comment #15b.

b. The EB right at CR 54 at I-75 SB Ramp shows less volume in year 2030 than year 2022. Please revise.

The volume for this movement will be revised as requested.

c. The EB through at Overpass Road at I-75 SB Ramp less volume in year 2030 when compared to year 2022.

The volume for this movement will be revised as requested.

d. The northbound on-ramp and southbound off-ramp at I-75 and Overpass Road interchange have lower volume than year 2022.

Please refer to the response to comment #12b.

e. The NB left at I-75 NB ramp at Overpass Road shows a volume of 600 in year 2022 and a volume of 100 in year 2030.

The volume for this movement will be revised for consistency among analysis years.

18. **The following comments apply to Figure 4-26a (North-South Road Build Alternative 2030 AM peak hour volumes)**

a. **There is a significant decrease in volume on the northbound off-ramp and southbound on-ramp at the I-75 and SR 56 interchange when compared to year 2022 volumes. Please explain.**

In the North-South Alternative, the 2030 AADT volumes are slightly greater than the 2022 AADT volumes for the SR 56 NB off-ramp and SB on-ramp. The DDHVs reported on Figure 4-26a for this interchange are incorrect and will be revised to address this comment.

b. There is a significant increase in volume on the northbound off-ramp and southbound on-ramp at the I-75 and Overpass Road interchange when compared to year 2022 volumes. Please explain.

In 2022 the Overpass Road is only extended to Curley Road while in 2030 and 2040 it is extended all the way to US 301. This results in significant increase in volumes at Overpass Road interchange (especially for ramps to/from the south) in the year 2030 and 2040 when compared to 2022.

c. The EB right at I-75 SB ramps and Overpass Road shoes less volume when compared to year 2022.

The volume for this movement will be revised as requested.

19. **On the title of Figure 4-26b, please change PM for AM.**

The title will be corrected as requested.

20. **The following comments apply to Figure 4-27a (North-South Road Build Alternative 2030 PM peak hour volumes)**

a. There is a significant decrease in volume on the northbound off-ramp and southbound on-ramp at the I-75 and SR 56 interchange when compared to year 2022 volumes. Please explain.

Please refer to the response to comment #18a.

b. There is a significant increase in volume on the northbound off-ramp and southbound on-ramp at the I-75 and Overpass Road interchange when compared to year 2022 volumes. Please explain.

Please refer to the response to comment #18b.

c. The EB right at I-75 SB ramps and Overpass Road shows less volume when compared to year 2022.

The volume for this movement will be revised.

d. The EB right at I-75 SB ramps and Overpass Road shows less volume when compared to year 2022.

This comment repeats comment c above.

e. The 2030 PM peak hour volumes for the intersection of CR 54 and I-75 NB shows 1,500 vehicles making the left-turn and 300 making the right-turn. Opening year 2022 AM peak hour volumes (Figure 4-182) shows 330 making the left-turn and 1,300 making the right turn at the same intersection. There is a significant discrepancy in distribution between opening and interim year. Please explain.

Please refer to the response to #14a.

<u>Page Specific Comments</u>:

21. **Page ii, List of Tables. Please revise the page number of Figure 4-1 to be Page 4-22.**
22. **Page iii, List of Figures. Please remove the words "and PM" from the title of Figure 4-26. Please also change the reference of the PM peak hour in the title of Figure 4-26b on Page 4-47 to be AM peak hour.**
23. **Page 2-18, fourth sentence. Please add the word "up" between the words "rounded to."**
24. **Page 2-18, Table 2-5. Please change the PM peak hour queue length from 750 feet to 1025 feet for the northbound right turn movement at the I-75 northbound ramps at SR 52.**
25. **Page 2-20, Table 2-6. Please correct the misspelling of the word "Ratio" in the title of the last column of the table.**
26. **Page 4-4, Section 4.2.2 Build Alternative, last sentence. Please remove the double apostrophe from at the end of the sentence.**

    For comments 21 through 26, the editorial and typographical errors will be fixed.

27. **Page 4-5, Section 4.3 Future Year AADTs.**

    a. Please provide a left parenthesis around the number 2040 in the first sentences of the first two paragraphs.

    b. Please use the TBRPM reference only in the first sentence of paragraph one, since the TBRPM acronym is referenced previously on Page 4-1.

    c. Please change the reference of AADT to read, "Annual Average Daily Traffic" and remove the word "Volume" when referencing AADT and PSWADT so that the number of letters in the acronym matches the description.

    For comments 27a through 27c, the revisions will be made in the text, as requested.

    d. Please revise the AADT volumes reported on the south oriented ramps of the I-75/SR 52 interchange in Figure 4-5a to match the statement that reads, "The AADTs were balanced along I-75 through the interchanges and are rounded to the nearest one hundred."

    The AADT volumes at this interchange will be balanced.

28. **Figures 4-3 through 4-29.**

a. Please remove the borders and title blocks to be consistent with the appearance of traffic volume graphics shown in Figures 2-5 through 2-7.

The appearance of the figures shown in Section 2 and Section 4 will be made consistent.

b. Please vertically rotate the symbol for signalized intersections to match the appearance of the symbol in the legend.

The symbol was rotated due to space constraints on the graphics. We propose to revise the orientation in the legend.

c. Please graphically illustrate whether the unsignalized intersections are all-way stop controlled or two-way stop controlled.

There are no all-way stop-controlled intersections. Therefore, the legend will be revised to read two-way stop controlled intersection.

d. Please provide the word "Preliminary" in referencing IJR in the title block.

The title block will be revised as requested.

e. Please eliminate the depiction of the western leg of the Old Pasco Road/Overpass Road intersection, or provide traffic volumes for this leg.

The western leg will be removed, as this is a T-intersection.

29. **Page 4-6, Figure 4-3.**

a. Please provide an AADT volume for the north leg of the Overpass Road/Boyette Road intersection.

The AADT will be added as requested.

b. Please verify the accuracy of the 2022 AADT volume forecasted on CR 54 east of I-75, as the reported volume (37,600 vehicles/day [vpd]) is only slightly higher than the existing 2010 traffic volume (35,500 vpd). Please explain why the forecasted traffic volume on CR 54 west of I-75 increases from 30,800 vpd to 51,200 vpd, but east of I-75 there is minimal growth.

Please refer to the response to comment #6b. We propose to revise the 2022 AADTs for several segments.

30. **Page 4-7, Figure 4-4a.**

a. Please correct the erroneous volume reported for the north leg of the Old Pasco Road/Overpass Road intersection. Also, please verify the accuracy of the AADT volume reported on the south leg, since the reported 25,000 vpd in 2030 is identical to the volume reported in 2022.

The AADT will be reviewed and revised.

b. Please provide an AADT volume for the north leg of the Overpass Road/Boyette Road intersection.

The AADT will be added as requested.

c. Please verify the accuracy of the reported AADT volumes for SR 56 east of I-75 and the north oriented I-75 ramps to/from SR 56 since the 2030 traffic volumes are shown to be less than the 2022 traffic volumes.

Please refer to the response to comment #6b. We propose to revise the 2022 AADTs for several segments.

d. Please document the reason why traffic volume on CR 54 east of I-75 in 2030 (99,600 vpd) is nearly triple the volume in 2022 (37,600 vpd). What is the reason for traffic to change that drastically in an 8 year time frame?

Please refer to the response to comment #6b. We propose to revise the 2022 AADTs for several s egments.

31. **Page 4-8, Figure 4-4b. Please round the reported AADT volume on Overpass Road east of Gall Boulevard (US 301) to 100 so that it would be consistent with the method of reporting the other AADT volumes in the graphic.**

    The revision will be made as requested.

32. **Page 4-9, Figure 4-5a. Please verify the accuracy of the reported AADT volumes for SR 56 east of I-75 and the north oriented I-75 ramps to/from SR 56 since the 2030 traffic volumes are shown to be less than the 2022 traffic volumes.**

    Please refer to the response to comment #6b. We propose to revise the 2022 AADTs for several segments.

33. **Page 4-10, Figure 4-5b. Please verify the accuracy of the reported AADT volumes for the following intersection legs since the 2040 volumes are less than the 2030 AADTs:**

    - **North leg of McKendree Road and Overpass Road**
    - **South leg of Handcart Road (CR 579) and Overpass Road**
    - **South leg of Fort King Road and Overpass Road**

    The AADT for these locations will be reviewed and revised if necessary.

34. **Page 4-11, Figure 4-6.**

    a. **Please revise the AADT volumes on I-75 between Overpass Road and north of SR 52 to ensure that the volumes balance.**

       The AADT north of SR 52 will be revised to 84,000 to balance the volumes.

    b. **Please provide an AADT on the north leg of the Boyette Road/Overpass Road intersection**

       The AADT will be added as requested.

35. **Page 4-12, Figure 4-7a.**

    a. **Please revise the AADT volumes on I-75 between CR 54 and Overpass Road and north of SR 52 to ensure that the volumes balance.**

       The AADT will be checked and revised, if necessary.

    b. **Please provide an AADT on the north leg of the Boyette Road/Overpass Road intersection**

       The AADT will be added as requested.

    c. **Please verify the validity of the reported AADT volumes on the I-75 north oriented ramps to/from Overpass Road as the 2030 traffic volumes are less than the 2022 traffic volumes.**

       Please refer to the response to comment #10b.

    d. **Please verify the validity of the AADT volume on SR 56 east of I-75 as the 2030 traffic volume is less than the 2022 traffic volume.**

       Please refer to the response to comment #6b.

    e. **Please verify the validity of the reported AADT volumes on the I-75 north oriented ramps to/from SR 56 as the 2030 traffic volumes are less than the 2022 traffic volumes**

       Please refer to the response to comment #6b.

36. **Page 4-13, Figure 4-7b. Please verify the accuracy of the reported AADT volumes for the following intersection legs since the 2030 Build AADTs are less than the 2030 No-Build AADTs:**

    - **South leg of Curley Road (CR 577) and Overpass Road**

- **North and south legs of Handcart Road (CR 579) and Overpass Road**
- **South leg of Fort King Road and Overpass Road**
- **South leg of Gall Boulevard (US 301) and Overpass Road**

The AADT volumes and DDHVs for these intersections will be reviewed and revised for consistency among analysis years.

37. **Page 4-14, Figure 4-8a.**

    a. Please verify the accuracy of the reported AADT volumes for the I-75 north oriented ramps to/from Overpass Road and to/from SR 56 since the 2040 Build AADTs are less than the 2022 Build AADTs.

    Please refer to the response to comment #6b.

    b. Please correct the imbalance of traffic volumes on I-75.

    Please refer to the response to comment #8.

38. **Page 4-15, Figure 4-8b. Please verify the accuracy of the reported AADT volumes for the following intersection legs since the 2040 Build AADTs are less than the 2030 Build AADTs:**

- **North leg of McKendree Road and Overpass Road**
- **South leg of Handcart Road (CR 579) and Overpass Road**

  The volumes for these locations will be reviewed and revised for consistency among analysis years.

- **Page 4-16, Figure 4-9.**
  - **Please correct the imbalance of traffic volumes on the I-75 mainline.**

    Please refer to the response to comment #8.
  - **Please provide an AADT on the north leg of the Overpass Road/Boyette Road intersection**

    The AADT for this location will be added as requested.
- **Page 4-17, Figure 4-10a. Please provide an AADT on the north leg of the Overpass Road/Boyette Road intersection**

  The AADT for this location will be added as requested.
- **Page 4-18, Figure 10b.**
  - **Please round the AADT reported on the north leg of the Overpass Road/Fort King Road intersection to 100.**

    The revision will be made as requested.
  - **Please correct the erroneous volume on Overpass Road between Fort King Road and Gall Boulevard**

    The typographical error will be corrected.
- **Page 4-19, Figure 4-11a.**
  - **Please resolve the imbalance in traffic volumes on I-75.**

    Please refer to the response to comment #8.
  - **Please verify the accuracy of the reported traffic volumes for the following locations, since the 2030 AADT volumes in Figure 4-10a are higher than the 2040 AADT volumes in Figure 4-11a:**
    - **South oriented I-75 ramps to/from SR 52**

- **Boyette Road south of Overpass Road**
- **SR 56 east of I-75**
- **Overpass Road west of I-75.**

The AADTs for these locations will be reviewed and revised for consistency among analysis years.

- **Page 4-20, Figure 4-11b. Please verify the accuracy of the reported traffic volumes for the following locations, since the 2030 AADT volumes in Figure 4-10b are higher than the 2040 AADT volumes in Figure 4-11b:**
  - **North leg of Overpass Road/McKendree Road intersection**
  - **Overpass Road between McKendree Road and Fort King Road**
  - **South leg of Overpass Road/Handcart Road intersection**
  - **South Leg of Overpass Road/Fort King Road intersection**

  The AADTs for these locations will be reviewed and revised for consistency among analysis years.
- **Page 4-21, Section 4.5 – Future Year DDHVs.**
  - **Please add a left parentheses around the number 2040 in the first and third sentences**
  - **Please revise the second sentence to read, "The procedures used to develop DDHVs are consistent with the approved MLOU."**
  - **Please change to Annual Average Daily Traffic in the third sentence and consider using the abbreviation instead.**
  - **Please change the reference of "factors" to a singular tense in the last sentence.**

  The text will be revised to address these comments.
- **Page 4-22, Table 4-1. Please revise Table 4-1 to exactly match the traffic volumes shown in the figures. In addition to the apparent differences in ramp volumes between Table 4-1 and the figures, the following locations should be revised for consistency:**

2040 Design Year No-Build

- **I-75 from CR 54 to SR 52**
- **Overpass Road from Old Pasco Road to McKendree Road**

2040 Design Year Build

- **Overpass Road from Boyette Road to McKendree Road**

2040 Design Year Build with N-S Road

- **Overpass Road from Old Pasco Road to McKendree Road**

2030 Interim Year Build

- **I-75 north of SR 52**
- **Overpass Road from Boyette Road to McKendree Road**
- **Southbound on-ramp at I-75/CR 54 Interchange**

2030 Interim Year Build with N-S Road

- **Overpass Road from Old Pasco Road to I-75**
- **Overpass Road from McKendree Road to Curley Road**

2022 Opening Year Build

- **Overpass Road from I-75 to Boyette Road**

Table 4-1 and the AADT figures will be reviewed and revised to ensure that they are consistent.

39. **Page 4-22, Table 4-1. For consistency purposes, please provide a figure showing the roadway network and traffic volumes for the 2040 build with $0.25 Toll Alternative.**

    A model plot showing the AADTs for the Toll alternative will be included in Appendix.

40. **Page 4-23, last paragraph.**

    a. **Please provide a left parenthesis around the number 2040 in the first sentence.**

    b. **Please revise the last sentence to read, "Similarly, the DDHVs for the Build Alternative with the diamond interchange and the Build Alternative with the North-South Road are shown in Figures 4-18 through 4-29."**

    The revisions to the text will be made as requested.

41. **Page 4-24, Figure 4-12.**

    a. **Please revise the traffic volumes turning onto the southbound I-75 on-ramp at SR 52 such that the sum of the turning volumes equals the volume reported on the ramp.**

    The turning movements at this location will be reviewed and revised to balance.

    b. **The calculated K_{30} factor (0.092) on Overpass Road east and west of I-75 is lower than the approved K_{30} factor of 0.094. Please revise.**

    Some of the future volumes (especially for ramps and side streets) deviated from the approved K_{30} factor as a result of adjustments and balancing. In all instances the factors were maintained within acceptable range of values from FDOT's Project Traffic Forecasting Handbook.

    Effort will be made to achieve K_{30} factors as close as possible to the approved factor during the revisions to the DDHVs.

42. **Page 4-25, Figure 4-13.**

    a. **Please revise the turning movement volumes on the northbound I-75 off-ramp at SR 52 such that the sum of the volumes for the left and right turn movements equal the volume reported on the ramp.**

    The turning movements at this location will be reviewed and revised to balance.

    b. **The calculated K_{30} factor (0.092) on Overpass Road east and west of I-75 is lower than the approved K_{30} factor of 0.094. Please revise.**

    Please refer to the response to comment #41b.

43. **Pages 4-30 and 4-32, Figures 4-16a and 4-17a.**

    a. **Please ensure that the approved K_{30} factor of 0.094 is used for the following locations:**

2040 Design Year No-Build

- **I-75 from CR 54 to SR 52**
- **Overpass Road from Old Pasco Road to McKendree Road**

2040 Design Year Build

- **Overpass Road from Boyette Road to McKendree Road**

2040 Design Year Build with N-S Road

- **Overpass Road from Old Pasco Road to McKendree Road**

2030 Interim Year Build

- **I-75 north of SR 52**
- **Overpass Road from Boyette Road to McKendree Road**
- **Southbound on-ramp at I-75/CR 54 Interchange**

2030 Interim Year Build with N-S Road

- **Overpass Road from Old Pasco Road to I-75**
- **Overpass Road from McKendree Road to Curley Road**

2022 Opening Year Build

- **Overpass Road from I-75 to Boyette Road**

Please refer to the response to comment #41b.

44. **Page 4-22, Table 4-1. For consistency purposes, please provide a figure showing the roadway network and traffic volumes for the 2040 build with $0.25 Toll Alternative.**

    This comment is a repeat of comment #39.

45. **Page 4-23, last paragraph.**

    a. **Please provide a left parenthesis around the number 2040 in the first sentence.**

    b. **Please revise the last sentence to read, "Similarly, the DDHVs for the Build Alternative with the diamond interchange and the Build Alternative with the North-South Road are shown in Figures 4-18 through 4-29."**

    Revisions will be made to text as commented.

46. **Page 4-24, Figure 4-12.**

    a. **Please revise the traffic volumes turning onto the southbound I-75 on-ramp at SR 52 such that the sum of the turning volumes equals the volume reported on the ramp.**

    The turning movements at this location will be reviewed and revised to balance.

    b. **The calculated K_{30} factor (0.092) on Overpass Road east and west of I-75 is lower than the approved K_{30} factor of 0.094. Please revise.**

    Please refer to the response to comment #41b.

47. **Page 4-25, Figure 4-13.**

    a. **Please revise the turning movement volumes on the northbound I-75 off-ramp at SR 52 such that the sum of the volumes for the left and right turn movements equal the volume reported on the ramp.**

    The turning movements at this location will be reviewed and revised to balance.

    b. **The calculated K_{30} factor (0.092) on Overpass Road east and west of I-75 is lower than the approved K_{30} factor of 0.094. Please revise.**

    Please refer to the response to comment #41b.

48. **Pages 4-30 and 4-32, Figures 4-16a and 4-17a.**

    a. **Please ensure that the approved K_{30} factor of 0.094 is used for the following locations:**

    This comment is a repeat of comment #50. Please refer to the response to comment #50.

49. **Page 4-25, Figure 4-13.**

a. **Please revise the turning movement volumes on the northbound I-75 off-ramp at SR 52 such that the sum of the volumes for the left and right turn movements equal the volume reported on the ramp.**

The turning movements at this location will be reviewed and revised to balance.

b. **The calculated K_{30} factor (0.092) on Overpass Road east and west of I-75 is lower than the approved K_{30} factor of 0.094. Please revise.**

Please refer to the response to comment #41b.

50. **Pages 4-30 and 4-32, Figures 4-16a and 4-17a.**

a. **Please ensure that the approved K_{30} factor of 0.094 is used for the following locations:**

i. **South oriented I-75 ramps to/from CR 54**

ii. **North oriented I-75 ramps to/from SR 56**

iii. **SR 52 east and west of I-75**

iv. **CR 54 west of I-75**

v. **SR 56 west of I-75**

Please refer to the response to comment #41b.

51. **Page 4-34, Figure 4-18. The DDHVs on I-75 between CR 54 and Overpass Road are transposed. Please correct and ensure that traffic volumes on I-75 are balanced.**

The DDHVs on Figure 4-18 will be reviewed and revised, if necessary.

52. **Pages 4-34 and 4-35, Figures 4-18 and 4-19. Please ensure that the approved K_{30} factor of 0.094 is used for the following locations:**

i. **South oriented I-75 ramps to/from SR 52**

ii. **Overpass Road west of I-75**

iii. **SR 56 east of I-75**

Please refer to the response to comment #41b.

53. **Pages 4-36 and 4-38, Figures 4-20a and 4-21a. Please ensure that the approved K_{30} factor of 0.094 is used for the following locations:**

i. **South oriented I-75 ramps to/from SR 52**

ii. **North oriented I-75 ramps to/from SR 56**

iii. **Overpass Road east and west of I-75**

Please refer to the response to comment #41b.

54. **Page 4-40, Figure 4-22a.**

a. **Please resolve the imbalance in traffic volumes on southbound I-75 between CR 54 and SR 56.**

On Figure 4-22a, for the CR 54 ramps, the PM peak volumes were inadvertently shown as AM peak volumes. These volumes will be revised.

b. **Please resolve the imbalance in traffic volumes on northbound I-75 between SR 56 and Overpass Road.**

This imbalance will be eliminated as a result of response to comment #54a.

c. **Please revise the turning movement volumes at the northbound I-75 on-ramp at CR 54 such that the sum of the volume for the left and right turn movements equal the volume reported on the ramp.**

The turning movements at this location will be reviewed and revised to balance.

d. The directional distribution of traffic volumes on the CR 54 ramps are opposite to the peak direction of travel. Please revise.

On Figure 4-22a, for the CR 54 ramps, the PM peak volumes were inadvertently shown as AM peak volumes. These volumes will be revised.

e. The directional distribution of traffic on I-75 is not the approved D_{30} of 55.0 percent south of SR 56.

This link is the last link of the study network and after balancing we could only achieve a D_{30} factor of 52.0 percent. We will review the volumes and attempt to improve the D_{30} factor to be as close as possible to 55.0 percent.

f. Please ensure that the approved K_{30} factor of 0.094 is used for the following locations:

i. North oriented I-75 ramps to/from Overpass Road

ii. I-75 ramps to/from CR 54

iii. Overpass Road east of I-75

Please refer to the response to comment #41b.

55. **Page 4-42, Figure 4-23a.**

a. Please ensure that the approved K_{30} factor of 0.094 is used for the following locations:

i. North oriented I-75 ramps to/from Overpass Road

ii. I-75 ramps to/from CR 54

iii. Overpass Road east of I-75

Please refer to the response to comment #41b.

56. **Page 4-44, Figure 4-24.**

a. Please revise the turning movement volumes at the southbound I-75 on-ramp at CR 54 such that the sum of left and right turn movements equal the volume reported on the ramp.

b. The traffic volumes between ramp terminal intersections do not balance on eastbound SR 52 and westbound CR 54.

c. The reported DDHVs do not equal the sum of turning movement volumes at the following locations:

i. Eastbound SR 52, east and west of I-75

ii. Westbound CR 54, west of I-75

For comments a, b, and c, the turning movements at these locations will be reviewed and revised to balance.

57. **Pages 4-44 and 4-45, Figures 4-24 and 4-25. Please ensure that the approved K_{30} factor of 0.094 is used for the following locations:**

i. North oriented I-75 ramps to/from Overpass Road

ii. Overpass Road west of I-75

Please refer to the response to comment #41b.

58. **Pages 4-46 and 4-48, Figures 4-26a and 4-27a. Please ensure that the approved K_{30} factor of 0.094 is used for the following locations:**

i. I-75 ramps to/from SR 56

ii. I-75 south of SR 56

Please refer to the response to comment #41b.

59. **Pages 4-50 and 4-52, Figures 4-28a and 4-29a. Please revise the turning movement volumes at the northbound I-75 on-ramp at SR 56 such that the sum of the volume for the left and right turn movements equals the volume reported on the ramp.**

The turning movement volumes at this location will be reviewed and revised to balance.

60. **Page 4-52, Figure 4-29a. Please exchange the apostrophe for a comma in the reported traffic volume on southbound I-75, south of SR 56.**

The revision will be made, as requested.

URS

MEMORANDUM

DATE: November 29, 2010

TO: Waddah Farah and Susan Van Hoose, FDOT

CC: Jim Edwards, Kevin Sumner, Deborah Bolduc and Ali Atefi, Pasco County
Srinivas Meka, Kevin Gu and Megan McKinney, URS

FROM: Domingo Noriega, URS

SUBJECT: Responses/Proposed Actions for FDOT comments re: Interstate 75 and Overpass Road proposed Interchange Justification Report: Review of Draft Existing Conditions and Travel Demand Forecasting Report

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We have received and evaluated the FDOT comments dated October 19, 2010 regarding the I-75 and Overpass Road Draft Existing Conditions and Travel Demand Forecasting Report (version dated September 2010) and have prepared the following responses pertaining to revisions and upcoming actions. For ease of review, the original agency comments are reproduced below in **bold font**, followed by the proposed response and/or action:

General Comments:

1. **It is not clear who the Applicant is in this IJR, since the cover page indicates that the IJR is being prepared for Pasco County and the FDOT. Please revise to indicate that Pasco County is the Applicant. Also, please indicate and reference throughout that it is a proposed IJR until FHWA approval.**

   The cover page will be revised to clearly designate Pasco County as the applicant, as requested. While it is noted that the interchange itself is "proposed", we request to refer to the IJR as "preliminary" prior to FHWA approval. Therefore, the Preliminary Interchange Justification Report (PIJR) will be referenced throughout.

2. **Please reference on the cover page the Pasco County Transportation Improvement Program (TIP) Number and/or FDOT Financial Project Identification Number (FPID) assigned to this project (if applicable).**

   Pasco County Capital Improvement Program (CIP) number 5020 will be added to the cover page. Note that a FDOT FPID is not available for this project at this time.

3. **The first two Federal requirements provided on Page 1-4 address the question of whether or not the proposed interchange is needed. Please consider adding to Section 4.2 an alternative that considers a No-Build (no interchange) with Transportation System Management (TSM) improvements. It will be advantageous to show that even with improvements made to the**

adjacent I-75 interchanges at CR 54 and SR 52, failing levels of service are projected unless the proposed I-75 interchange at Overpass Road is constructed.

The Transportation Systems Management (TSM) approach to congestion mitigation seeks to identify improvements to enhance the capacity of the existing system of an operational nature. TSM projects can complement the major capacity improvements and infrastructure by providing improved traffic flow on arterials and local streets. The No-Build Alternative will assess potential TSM improvements as part of the PIJR's alternatives development section.

4. **Please consider providing a brief discussion of any plans (or lack thereof) for extending Overpass west of Old Pasco Road. The utility of Overpass Road to serve as a regional east-west roadway within the Pasco County transportation network would increase if Overpass Road's western terminus connected with another major north-south roadway such as US 301 (SR 39/Gall Boulevard) to the east. A possible major north-south roadway located to the west could be US 41 (SR 45) at its connection with Connerton Boulevard.**

   Comment noted. It is agreed that the utility of Overpass Road will most likely increase if the road is extended to the west; however, such an extension will most likely not have a significant direct impact on north/south travel demand in the I-75 corridor. The extension to the west is not in the adopted LRTP (Needs or Cost Affordable) or shown in the Pasco County Comprehensive Plan. However, evaluation of a western connection could be considered in future scheduled updates of the LRTP.

5. **Please indicate the current functional classification of Overpass Road and its future designation. Does the future designation lend itself to accommodating regional trips, not just local trips for new land uses immediately adjacent to the interchange? What is the average trip length for trips accessing the proposed interchange? Will the new interchange serve local trips or regional trips?**

   As stated in section 2.21 of the report, the current functional classification for Overpass Road is a two-lane undivided rural collector between Old Pasco Road and Boyette Road and a four-lane divided urban collector east of Boyette Road to the existing terminus. The roadway currently serves mostly local trips.

   In the future, the roadway is included in Pasco County Comprehensive Plan's Highway Vision Plan Map with a functional classification of arterial from Old Pasco Road to US 301. Additionally, the roadway is included in the County's 2035 Cost Affordable LRTP as a four-lane divided arterial in the 2016-2020 timeframe. Therefore, Overpass Road is considered part of the County's future regional network and will serve both regional and local trips.

6. **In several instances throughout the report, the Pasadena Hills Area development is referenced as a major generator of traffic projected to access the proposed interchange. If this development does not materialize, is the interchange still needed? Similarly, if the planned development wills directly impact I-75 and its proposed access at Overpass, has proportionate share payment for impacts to the State Highway System (SHS) been secured by Pasco County and coordinated with the FDOT?**

   There will be a need for the interchange even if the development proposed in the Pasadena Hills area does not fully materialize, as there are numerous other major DRIs/MPUDs in the area to support the need for the interchange, such as Epperson Ranch, Pasco Town Center, Watergrass, Ashley Groves, Palm Cove, Cannon Ranch/Bella Verde, and Wiregrass. Please refer to Figure 4-1and Appendix C of the report, which show the developments in the area of the proposed interchange. The area has also experienced a dramatic historic growth of traffic, which has resulted in severely congested interchanges adjacent to the proposed new interchange.

   It should be noted that the Pasadena Hills Area Plan is part of a large-scale Comprehensive Plan Amendment approved by the County and consists of multiple "villages" of development with a build-out year of approximately 2050. A detailed document entitled, "*Villages of Pasadena Hills*

Financial Plan", January 2009, has been adopted to explain how these plans will mitigate their traffic impacts. A combination of revenue sources such as Development Fees, impact fees plus an appropriate surcharge fee and a tax increment may be collected as the individual villages are approved. To date, several villages have come in for site plan approval and have contributed money to this fund to be used for improvements in the area which may include funding for the new interchange.

7. **Please consider using the word "programmed" instead of the term "committed" when referencing FDOT or Pasco County improvements that are currently under construction or planned to be constructed in the near future.**

   The word "committed" will be replaced with "programmed" when referencing improvements that are currently under construction or planned to be constructed in the near future (funded for construction within the County CIP or FDOT Work Program), as requested.

8. **The calculation of segment crash rates on SR 56, CR 54, Overpass Road and SR 52 in this IJR are based on the number of crashes per million vehicles miles traveled (MVMT). The calculation of interchange crash rates should be performed on the basis of the number of crashes per million entering vehicles (MEV) given that there is a short spacing between ramp terminal intersections. In almost all cases, the calculated crash rate is greater than the statewide average crash rate because the segment length used in the analysis is very short (0.7 miles or less) and not comparable to the lengths of other segments throughout the State of Florida.**

   The crash rate calculations for SR 56, CR 54 and SR 52 segments will be revised based upon the number of crashes per million entering vehicles (MEV), as requested.

9. **Please provide documentation of the vehicle classification counts recorded within the study area and indicate the source for the truck percentages used in the highway capacity analysis.**

   As agreed upon in the approved MLOU (page 12-2), the truck percentages used in the highway capacity analysis are based upon data contained on the FDOT Traffic Information DVD. The peak hour truck factor was calculated as half of the T_{24} factor. Appropriateness of the application of T_{24} divided by two as the truck percentage for use in the study was confirmed in follow-up coordination efforts (phone calls and emails dated March 22, 2010) between Mr. Fawzi Bitar of FDOT and Mr. Domingo Noriega of URS, as documented in the MLOU.

10. **The I-75 ramp terminal intersections within the study area were analyzed as uncoordinated signals. Please obtain signal coordination plans from Pasco County and reanalyze the signalized intersections assuming signal coordination.**

    All ramp terminal intersections were analyzed in HCS using the signal timings obtained from Pasco County and all applicable movements have been coded as actuated.

    The HCS+ version of the Highway Capacity Software allows the ramp terminal intersections to be analyzed in a single file based on the interchange configuration. The ramp terminal intersections will be revised using the interchange module to better account for internal queuing.

11. **Please consider referencing in the IJR the FDOT's Efficient Transportation Decision Making (ETDM) Summary Screen Report for the I-75 Overpass Road extension.**

    The project was screened through the Efficient Transportation Decision Making (ETDM) Process in 2008 as a Programming Screen. As agreed to in the approved MLOU, the Programming Screen Summary Report prepared as a result of the screening event will be utilized as a reference in the preparation of the PIJR/IJR. Note that the ETDM Process consists of environmental, social and cultural issues and will therefore be referenced at the appropriate stage of the PIJR/IJR process.

12. **In the analysis of a diamond interchange, please adjust the lane utilization of the lane group representing through movement, which operates as pre-storage for the left-turn movement at the downstream ramp terminal intersection by using the following formula:**

Lane Utilization = Total Volume of Lane Group / (Highest Volume in One Lane x No. of Lanes in Lane Group)

Adjusting the lane utilization factor will better replicate the pre-positioning of vehicles upstream of a heavy left-turn movement.

The lane utilization factors for the through movement, which operate as pre-storage for the left-turn movement at the downstream ramp terminal intersection, will be adjusted as requested.

Section Specific Comments:

1. **Page ii, List of Tables. Please add SR 54 to the title of Table 2-7 to be consistent with the title on page 2-21.**

   The title of Table 2-7 on page ii will be edited to include SR 54 to be consistent with page 2-21, as requested.

2. **Page 1-1, Section 1.2 – Need for Project, first paragraph, second sentence. The referenced population growth of 36.6 percent between 2000 and 2008 forms a baseline condition, but does not specify if the past growth is expected to continue into the future. Please consider providing population growth estimates from the 2035 socio-economic zonal data (ZDATA) of the Tampa Bay Regional Planning Model (TBRPM) to compare future growth with the baseline condition.**

   A ZDATA comparison between the 2006 and 2035 TBRPM models for DRI and MPUD projects in the surrounding area of the project indicates that that the population in these TAZs is projected to grow from 53,000 in the year 2006 to 218,000 in the year 2035, with an estimated growth of 400% between 2006 and 2035. This comparison is provided in Appendix E of the report and will also be referenced in Section 1.2.

3. **Page 1-1, Section 1.2 - Need for Project, first paragraph, fourth sentence. Please confirm that the reference of "south-central" should instead read "east central area" so that it consistent with the preceding sentence and the first sentence of paragraph two of Section 1.2.**

   In section 1.2, the reference of "south-central" will be changed to "east central area" for consistency, as requested.

4. **Page 1-2, Figure 1-1 – Project Location and Area of Influence. Please label the north-south roadway (Meadow Pointe Boulevard?) that SR 56 currently connects to at its eastern terminus.**

   The intersection of SR 56 and Meadow Pointe Boulevard will be labeled in Figure 1-1, as requested.

5. **Page 1-3, Figure 1-2 – Overpass Road-Extension Corridor. Please place the word "Proposed" before the reference of "New Interchange" in the Legend.**

   The word "proposed" will be added to the legend of Figure 1-2, as requested.

6. **Page 1-4, Section 1.3 – Methodology. The cover of the Methodology Letter of Understanding (MLOU) included in Appendix A is dated as "Revised July 2010." Please consider revising the cover to read, "Cover Updated September 2010" so that it is consistent with the September 2010 approval date.**

   The MLOU was revised and transmitted to FDOT/FHWA in July 2010. The official approval date of the MLOU was August 26, 2010 per the FHWA approval letter. No changes were made to the MLOU version dated July 2010, except that the signature page has been inserted. Therefore, no changes to the cover should be required.

7. **Page 1-5, Section 1.4 – Interchange Spacing, second paragraph, first sentence. Please revise the reference of "American Association of State Highway Officials (AASHTO)" to read, "American Association of State Highway and Transportation Officials (AASHTO)." Instead of referencing AASHTO as the governing body for minimum interchange spacing criteria, should the Florida Statutes for minimum interchange spacing [FS 14-97.003(1)] be referenced instead?**

In section 1.4, the reference of AASHTO will be revised to read, "American Association of State Highway and Transportation Officials (AASHTO). Additionally, the Florida Statutes for minimum interchange spacing [FS 14-97.003(1)] will be referenced.

8. **Page 2-1, Section 2.1 – Existing Transportation Network, second paragraph, fourth sentence. Please place the words "Pasco County" in front of the reference of the "Transportation Improvement Program."**

   The reference to "TIP" was in error; the section should reference the Pasco County Capital Improvement Program (CIP). This revision will be made in the next submittal.

9. **Page 2-1, Section 2.1 – Existing Transportation Network, second paragraph, first bullet. Please add the word "the" in front of the reference of the word "south."**

   The word "the" will be added in front of the word "south" in section 2.1, as requested.

10. **Page 2-2, Section 2.1 – Existing Transportation Network, first paragraph, and first sentence. Please revise the statement to read, "SR 56 is a six-lane divided arterial within the study area from the intersection of SR 54 at CR 54 to SR 581/Bruce B. Downs Boulevard, except between the I-75 ramp terminal intersections where four through lanes are provided".**

    In section 2.1, the description of SR 56 will be revised to read "SR 56 is a six-lane divided arterial within the study area from the intersection of SR 54 at CR 54 to SR 581/Bruce B. Downs Boulevard, except between the I-75 ramp terminal intersections where four through lanes are provided", as requested.

11. **Page 2-2, Section 2.1 – Existing Transportation Network, second paragraph, last sentence. Please confirm whether or not the reference of the future six lanes on CR 54/SR 54 should begin east of the northbound I-75 ramp terminal intersection instead of east of SR 581/Bruce B. Downs Boulevard.**

    In section 2.1, the reference of the future six lanes on CR 54/SR 54 will be restated to begin west of I-75 to east of Curley Road (CR 577) per the latest Pasco County CIP (#4298).

12. **Page 2-2, Section 2.1 – Existing Transportation Network, third paragraph. Please consider indicating that two westbound through lanes are provided on SR 52 from the eastern access driveway of the Flying J truck stop to west of the southbound I-75 ramp terminal intersection. The two westbound through lanes are needed to receive traffic from two left-turn lanes on the northbound I-75 off-ramp.**

    In section 2.1, the description for westbound SR 52 will be revised to indicate that two westbound through lanes are provided on SR 52 from the eastern access driveway of the Flying J truck stop to west of the southbound I-75 ramp terminal intersection. It will be further stated that these two westbound through lanes are needed to receive traffic from two left-turn lanes on the northbound I-75 off-ramp, as requested.

13. **Page 2-2, Section 2.1 – Existing Transportation Network, fifth paragraph. Please indicate the date when the committed improvements are to be open to traffic.**

    The expected completion dates for the committed improvements will be included in section 2.1 as follows:
    - CR 54/SR 54 from west of I-75 to east of Curley Road - Under construction, expected completion 2012
    - I-275/I-75 exit ramps to SR 56 - Under construction, expected completion summer 2012
    - I-75 from SR 56 to SR 54 - Construction, FY 2010/2011, expected completion 2013

14. **Page 2-3, Figure 2-1 – Existing (2010) Plus Committed Geometry. Please update the graphic to reflect the following revisions:**

    a. **The description for SR 52 indicates the road is a two-lane divided within the study area, both west and east of the interstate. Figure 2-1 shows 4-lanes for SR 52 east and west of**

the interstate. It is recommended to add to the description SR 52 is a four lane roadway around just east and west of the interstate;

The description for SR 52 on page 2-3 will be revised to state that SR 52 is a four-lane roadway around just east and west of the interstate, as requested.

b. On Page 2-2 it is indicated that "…SR 54 from east of SR 581 to Curley is currently under construction to be widened to six lanes.", but six lanes are shown on CR 54 from Old Pasco Road to CR 54. Please either describe the six lane improvement project on Page 2-2, or revise Figure 2-1 to be consistent with the description on Page 2-2;

The description on page 2-2 and Figure 2-2 will be made consistent to state that CR 54/SR 54 from west of I-75 to east of Curley Road is currently under construction to be widened to six lanes (CIP #4298).

c. The lane geometry of the northbound I-75 to eastbound CR 54 right-turn movement is shown on Figure 2-1 as a single lane that is assumed to operated permissively (there is no lane addition on eastbound CR 54 to make maintain the existing free flow movement). The lane geometry of this movement will need to modified to include dual right-turn lanes or a fourth (auxiliary) lane on eastbound CR 54 to make it free flow;

Design plans for the future geometry were reviewed and it was confirmed that there is a lane addition on eastbound CR 54 (4 lanes between I-75 NB ramp and SR 581) that will drop into SR 581. Therefore, the northbound right turn movement will be analyzed as free-flow.

d. Please show four eastbound lanes on SR 56 east of the northbound I-75 ramp terminal intersection tapering into three eastbound lanes. The dual northbound to eastbound right turn lanes on the northbound I-75 off-ramp operate free flow because there are four lanes downstream on SR 56;

Figure 2-1 will be revised to show four eastbound lanes on SR 56 east of I-75 NB ramp terminal tapering into three eastbound lanes, as requested.

e. Page 2-1, Section 2.1 – Existing Transportation Network, second paragraph. The fourth sentence indicates that "…the I-75 segment, between SR 56 to north of CR 54, has been programmed in the current Transportation Improvement Program (TIP) to be widened from four to six lanes. The construction is expected to begin in 2010." Please consider showing these six lanes on I-75. Please note that in order to maintain the existing two-lane on-ramp from SR 56 to southbound I-75, five lanes on southbound I-75 (south of SR 56) must be shown;

Figure 2-1 will be revised to show the six-lane improvement on I-75 between SR 56 and CR 54 and five lanes on I-75 southbound south of SR 56, as requested. Additionally, there will be auxiliary lanes (three plus one auxiliary lane) on I-75 between SR 56 and CR 54.

f. The FDOT is currently reconstructing northbound I-75 to include four mainline lanes between I-275 and SR 56. These four lanes would have no access to SR 56; instead, a two-lane collector-distributor (CD) roadway located adjacent to the mainline lanes would be dedicated for traffic destined to SR 56. Please consider this improvement as an existing plus committed project; and

Figure 2-1 will be revised to show the NB I-75/I-275 exit ramps C-D system to SR 56, as requested.

g. **Please differentiate in the Legend whether the unsignalized intersection in the study area are All-Way Stop Controlled (AWSC) or Two-Way Stop Controlled (TWSC) intersections.**

The legend for Figure 2-1 will be modified to indicate the Two-Way Stop Controlled (TWSC) intersections. Note that there are no All-Way Stop Controlled (AWSC) intersections in the study area.

15. **Pages 2-6, Figure 2-4. Please indicate the viewpoint for each photo. As an example, "Overpass Road east of Boyette Road looking north, south, east, or west." Figure 2-10 provides a viewpoint for the corresponding photograph.**

    The viewpoint describing the direction will be added to aerial photos in Figures 2-2 through 2-4 and Figure 2-9, as requested.

16. **Page 2-7, Section 2.2.8 – Lighting. Please indicate that electric utility poles are located on the south side of Overpass Road from Old Pasco Road to Boyette Road and on the north side of Overpass Road from Boyette Road to the eastern terminus of Overpass Road.**

    The location of electric utility poles along Old Pasco Road will be clarified in section 2.2.8, as requested.

17. **Page 2-8, Section 2.4 – Traffic Data Collection, bullet list. Please indicate whether or not link counts were taken on I-75 for the segments south of SR 56 and north of SR 52. Traffic volumes are shown on Figure 2-5 through Figure 2-7 for these segments, but the list of count locations does not include these locations.**

    Traffic counts for I-75 south of SR 56 and north of SR 52 were not collected. They were derived from the ramp counts and mainline counts upstream/downstream.

18. **Page 2-9, Section 2.5 – Design Traffic Factors, second paragraph. Please rephrase the paragraph/sentence to read, "These factors have been used to develop the Directional Design Hour Volumes (DDHVs) from the existing Annual Average Daily Traffic (AADT) and to develop the future DDHVs from the model derived AADTs."**

    The text in section 2.5 will be rephrased to read "These factors have been used to develop the Directional Design Hour Volumes (DDHVs) from the existing Annual Average Daily Traffic (AADT) and to develop the future DDHVs from the model derived AADTs", as requested.

19. **Page 2-9, Section 2.6 – Existing AADT and Design Hour Traffic, first paragraph, second sentence. Please verify that the reference of the 2008 Florida Traffic Information DVD should instead be 2009.**

    The reference to the 2008 Florida Traffic Information DVD in section 2.6 is correct. The design factors were established during the MLOU process before the 2009 Florida Traffic Information DVD became available.

20. **Page 2-10, Figure 2-5. The AADT volume on I-75 north of SR 52 does not balance. Please revise the reference of 39,900 vehicles/day (vpd) to show 40,200 vpd. Also, please consider centering the graphic. Likewise, starting from the north, the resulting AADT south of SR 56 is 112,700 instead of 113,000 with the use of 39,900 vpd north of SR 52.**

    The AADT on I-75 north of SR 52 should have been 40,200 vpd. Figure 2-5 will be revised to show this. All other segment volumes were checked and balanced, accordingly.

21. **Page 2-11, Figure 2-6. Please make the following revisions to Figure 2-6:**

    a. **The NB volume north CR 54 should be 2,625 instead of 2,695 shown in the figure. The NB volume north of SR 52 should be 2,000 instead of the 2,070 shown in the figure. Please revise the figure and the appropriate analysis and results tables**

       The NB volume north of SR 52 will be changed to 2,000 and the NB volume north of CR 54 will be revised to 2,625, as requested.

    b. **The approach and departure volumes on eastbound SR 56 do not balance between the I-75 ramp terminal intersections. Please change the reference of 755 vehicles/hour (vph) for the eastbound through movement at the northbound I-75 off-ramp to show 820 vph;**

       The eastbound through volume at the SR 56/I-75 NB off-ramp will be revised to 820 vph, as requested.

c. The traffic volume shown on the northbound I-75 off-ramp to SR 52 should be 940 vph in order to match the sum of the downstream traffic volumes: left-turn (475 vph) and right-turn (465 vph) movements;

The traffic volume for the NB I-75 off-ramp to SR 52 will be revised to 940 vph from 920 vph, as requested.

d. The traffic volume shown on northbound I-75 between SR 56 and CR 54 does not balance. Please change the referenced volume of 3,595 vph to show 3,665 vph; and

The traffic volume for northbound I-75 between SR 56 and CR 54 does balance on Figure 2-6. Therefore, no revision is necessary.

e. Please consider centering the graphic.

The graphic will be centered, as requested.

22. Page 2-12, Figure 2-7. Please make the following revisions to Figure 2-7:

a. The approach and departure volumes on eastbound SR 56 do not balance between the I-75 ramp terminal intersections. Please change the reference of 670 vph for the eastbound through movement at the northbound I-75 off-ramp to show 810 vph.

b. The traffic volume shown on the southbound I-75 on-ramp from SR 52 should be 940 vph in order to match the sum of the upstream traffic volumes: westbound left-turn (465 vph) and eastbound right-turn (475 vph).

c. The traffic volume shown on southbound I-75 between SR 56 and CR 54 does not balance. Please change the referenced volume of 3,595 vph to show 3,665 vph.

The A.M. peak volumes in Figure 2-7 will be revised to reflect the changes in P.M. peak volumes in Figure 2-6 (comment #21) to address comments a-c above. The analysis files will be updated, accordingly.

d. Please consider centering the graphic.

The graphic will be centered, as requested.

23. Please explain the use of 2007 FREEPLAN instead of the 2009 FREEPLAN.

An older version of FREEPLAN was inadvertently used. FREEPLAN 2007 was integrated with the HCS+ program interface while the 2009 FREEPLAN was not. When FREEPLAN was launched from HCS+ it by default launches FREEPLAN 2007 and not the latest version. All of the freeway segment analysis will be revised using FREEPLAN 2009.

24. Page 2-13, Section 2.7 – Existing Conditions Traffic Operations, second paragraph, bullet list. The fourth and fifth bullets indicate that the design speed for I-75 and State/County arterials are 70 miles per hour (mph) and 45 mph, respectively. Documented on Pages 2-1 and 2-2 are the posted speed limits for I-75 (70 mph), SR 56 (55 mph), CR 54/SR 54 (50 mph), SR 52 (55mph) and Overpass Road (45mph). Design speed is typically assumed to be 5 mph greater than the posted speed limit. Please consider changing the design speed reference to an alternative speed: average operating speed, free-flow speed, analysis speed, etc. It might advantageous to also indicate what the 70 and 45 mph speeds are being used for: basic freeway segments, freeway weaving and ramp merge/diverge analysis.

The reference of design speed will be changed to free-flow speed. The 70 mph and 45 mph speeds are being used for the freeway segments, freeway weaving, and ramp merge/diverge analysis.

25. Page 2-13, Section 2.7 – Existing Conditions Traffic Operations, fourth paragraph, second sentence. The statement that as density increases speed and flow decrease is not entirely accurate. Exhibit 7-2 of the Highway Capacity Manual (HCM 2000) indicates that prior to reaching optimum density, speed and flow increase with increasing density. Please consider rephrasing the sentence to clarify.

The statement on page 2-13 will be revised to read "as density increases the LOS declines."

26. Page 2-14, Section 2.7 – Existing Conditions Traffic Operations, first paragraph, fifth sentence. It is stated that, "For the purpose of weaving analysis, it was assumed that the traffic to/from SR 56 is distributed 50 percent to/from I-275 and 50 percent to/from I-75." Please consider estimating this percentage based on actual traffic counts of the peak hour volumes for the upstream I-275 and I-75 movements.

This assumption was originally based on the relative AADTs for upstream locations on I-275 (50,000) and I-75 (60,000). However, per the comment, the percentage will be revised based upon the pm peak hour volumes for the upstream I-275 and I-75 movements.

27. Page 2-14, Section 2.7 – Existing Conditions Traffic Operations, Table 2-2. Exhibit 13-9a of the HCM portrays the exact geometric layout on northbound I-75 at the off-ramp to SR 56. The geometric configuration is referenced in the HCM as a Type B weaving segment, not Type A as indicated in Table 2-2. Please revise accordingly.

The weaving configuration for NB I-75 at SR 56 will be revised to Type B weaving, as requested.

28. Page 2-15, Section 2.7 – Existing Conditions Traffic Operations, Table 2-3.

a. Please resolve the discrepancy in AM peak hour freeway volume for the I-75 southbound off-ramp to SR 56. Table 2-3 shows 3,900 vph, but Figure 2-7 shows 3,595 vph;

The AM peak hour freeway volume for I-75 SB off-ramp to SR 56 in Table 2-3 will be revised to 3,595 vph.

b. Please provide density and LOS results of the I-75 northbound off-ramp to SR 56 in order to be consistent with the results shown for the I-75 northbound off-ramp to SR 54;

The configuration of SR 56 NB off-ramp involves a lane drop while the off-ramp to CR 54 does not. They are analyzed differently per the HCM and for lane drop configurations only capacity checks are performed.

c. Please change the first note to read, "For major merge/diverge areas, capacity checks were…"

The note will be revised, as requested.

29. Page 2-15, Section 2.7 – Existing Conditions Traffic Operations, second paragraph, fourth sentence. Please specify that "For <u>two-way stop controlled (TWSC)</u> intersections, the LOS is…"

The text will be revised, as requested.

30. Page 2-15, Section 2.7 – Existing Conditions Traffic Operations, second paragraph, second and third sentences. Please revise to read, "…LOS during <u>the</u> p.m. peak <u>period</u>." And "…at SR 52 operates below acceptable LOS during both peak periods."

The text will be revised, as requested.

31. Page 2-16, Figure 2-8.

a. Please resolve the discrepancy in LOS for the northbound I-75 ramp terminal intersection at SR 52. Figure 2-8 shows the p.m. peak hour LOS as LOS E, but Table 2-4 shows LOS C;

The LOS for this intersection will be revised to LOS C on Figure 2-8.

b. Please show both AM and PM LOS for the I-75 free-way segments using peak and off-peak analyses;

The AM and PM LOS for off-peak directions will be added to Figure 2-8.

c. Provide a separate symbol in the Legend for weaving area LOS, since the LOS in Table 2-3 does not match the LOS on Figure 2-8 for the I-75 freeway segments south of SR 56; and

The legend for Figure 2-8 will be revised to include weaving LOS.

d. Please indicate AWSC or TWSC for unsignalized intersections.

The legend for Figure 2-8 will be revised to indicate Two-Way Stop Controlled (TWSC) intersections. Note that there are no All-Way Stop Controlled (AWSC) intersections in the study area.

32. Page 2-17, Table 2-4 – Existing (2010) Intersection LOS.

a. For the Overpass Road/ Boyette Road intersection, please provide the estimate AM peak hour delay for the critical movement, not for the approach;

It is common practice to report delays only for the major street left-turn and minor street approach delays for unsignalized intersections. Therefore, no revisions are necessary.

b. Please revise the PM peak hour delay for the I-75 southbound Ramps at SR 56 to be 62.3 seconds/vehicle to match the HCS output in Appendix C.

The PM peak hour delay for the I-75 southbound ramps at SR 56 will be revised to 62.3 sec/veh, consistent with the HCS output.

33. Page 2-5, Table 2-5 – Existing (2010) Queue Lengths.

a. Please revise the AM and maximum queue length reported for the northbound left-turn movement at the Overpass Road/Boyette Road intersection. The queue length should be 25 feet, not 50 feet; and

The queue length reported will be revised to 25 feet, as requested.

b. Please provide in Appendix C the HCS output that shows the back of queue estimates for signalized intersections. The reviewer was unable to verify the accuracy of the queue lengths shown in Table 2-4 because the HCS output was not provided.

The HCS output that shows the back of queue estimates for signalized intersections will be included in Appendix C, as requested.

34. Page 2-18, first paragraph, bullet list.

a. Table 2-5 indicates that there are ten movements where the estimated vehicle queue exceeds storage, but only eight movements are listed on Page 2-18. Please revise accordingly; and

All movements for which the queue lengths are exceeding the storage will be checked for accuracy and listed on page 2-18.

b. Please confirm the accuracy of the vehicle queue reported for the northbound I-75 to eastbound CR 54 right-turn movement. There should be a minimal vehicle queue associated with this right-turn movement since it operates free flow.

The northbound right-turn was analyzed as a permissive movement. However, it has recently been confirmed that an additional receiving lane will be provided on CR 54 eastbound CR 54. Therefore, the northbound right turn will be analyzed as free-flow and the queue is expected to be reduced.

35. Page 2-18, Section 2.8 – Crash Data Analysis, first paragraph, first sentence. If applicable, please provide more recent crash data than December 2008 for I-75.

The analyzed crash data represents the most recent records available at the time the analysis was conducted.

36. **Page 2-18, Section 2.8 – Crash Data Analysis, first paragraph, last sentence. Please consider discussing whether or not a filtering process was undertaken to ensure that there was no double counting of crash records since the Pasco County and FDOT count data include duplicative records.**

    Crash data obtained from FDOT and Pasco County were compared to ensure that no double counting occurred.

37. **Page 2-18, Section 2.8.1 – I-75 Corridor, first paragraph, last sentence. Please add the word "the" in front of the word "statewide".**

    The revision will be made, as requested.

38. **Page 2-19, Table 2-6.**

    a. **Please provide in the table estimates for the critical crash rate, safety ratio and economic loss;**

    The critical crash rate and safety ratio will be added in Tables 2-6. However, please note that the economic loss data is not available for all the crashes and, therefore, will not be included.

    b. **Please provide a footnote explaining why the segment lengths shown in the table differ from the segment lengths shown on Figure 1-3; and**

    The segment lengths in Table 2-6 will be made consistent with those shown on Figure 1-4.

    c. **Please explain the occurrence of left and right-turn crashes on I-75. There should not be any of these crash types recorded on I-75, since I-75 is a limited access freeway facility that does not provide any turning opportunities.**

    The crash data for I-75 has been reviewed. There are no right-turn crashes and two left-turn crashes at the merge areas with mainline I-75. Footnote 1 for Table 2-6 will be revised to reflect this information, accordingly.

39. **Page 2-20, Section 2.8.1 – I-75 Corridor, first paragraph, second sentence. Please describe what is meant by "collision" crashes, as all crashes involve some sort of collision. Please explain if the reference of "collision" crashes is meant to represent single vehicle crashes with fixed objects, overturned vehicles, or run-off-the-road crashes.**

    As explained in footnote 2 of Table 2-6, the "collision" category includes crashes with objects other than moving vehicles.

40. **Page 2-20, Section 2.8.2 – Side Streets, first paragraph, first sentence. Please add the word "the" in front of the word "statewide".**

    The revision will be made, as requested.

41. **Page 3-2, Section 3.0 – Existing Conditions Analysis Summary, first paragraph, third bullet. It is stated that, "Both ramp terminal intersections at the SR 56 interchange operate below acceptable LOS during both peak hours." This statement contradicts the second sentence in the second paragraph of Page 2-15: "…ramp terminal intersections at SR 56 operate at a deficient LOS during p.m. peak periods." Please revise for consistency;**

    The text in Section 3.0 will be revised to state that both ramp terminal intersections at SR 56 operate at a deficient LOS during p.m. peak periods.

42. **Page 4-4, Section 4.2.2 – Build Alternative. It is indicated that, "The Build Alternative includes a diamond interchange at I-75 and Overpass Road." This statement limits the number of design options proposed for the I-75/Overpass Road interchange. Please consider rephrasing this sentence to read, "Several interchange configurations (diamond, single point urban, partial cloverleaf, directional, diverging diamond) will be evaluated as part of the Build Alternative. For travel demand forecasting purposes, a conventional diamond interchange will be coded into the TBRPM. Model derived AADT volumes will be assigned to the various interchange configurations that are to be analyzed as part of the Build Alternative.**

Per the comment, the Build Alternative description in Section 4.2.2 will be revised to read "Several interchange configurations (diamond, single point urban, partial cloverleaf, directional, diverging diamond) will be evaluated as part of the Build Alternative. For travel demand forecasting purposes, a conventional diamond interchange will be coded into the TBRPM. Model derived AADT volumes will be assigned to the various interchange configurations that are to be analyzed as part of the Build Alternative."

43. Page 4-5, Section 4.2.3 Build Alternative with North-South Parallel Road. Please provide a map showing the proposed alignment of the north-south roadway. It is indicated that the north-south roadway originates from SR 54 east of I-75. Please confirm whether or not the origination point would be east of SR 581. Any additional access on CR 54 between I-75 and SR 581 would not be advisable.

The exact location and alignment of a North-South Parallel Road has not yet been determined. However, it is envisioned that the southern terminus will be near or aligning with the proposed intersection of the realigned SR 581 and SR 54, east of the existing CR 54/SR 581 intersection. This realignment of SR 581is reflected in the Wiregrass DRI Master Roadway Plan. A map depicting the SR 581/SR 54 realignment and North-South Parallel Road will be included in the appendix of the revised report. Note, however, that the roadway alignment north of SR 54 has not been studied in detail and will be conceptual only.

44. Page 4-5, Section 4.2.4 – Build Alternative with Toll.

a. Please document the significance of the proposed $0.25 toll and how that value was derived;

A model run with tolls on the ramps to and from the proposed interchange was modeled in order to provide a preliminary assessment of the travel demand at the proposed interchange if tolls are introduced. The $0.25 cent toll was selected for illustrative purposes only. At this point, the Applicant has not decided if a toll facility will be proposed for Overpass Road but it is not discarding this option as a potential funding source for the construction of the interchange and/or the Overpass Road extension. The Applicant is also aware that the actual toll of such alternative is provided for illustration purposes only and the actual feasibility of such toll alternative will need to be validated by a separate toll revenue feasibility study outside the scope of this PIJR.

b. Please remove the second and third paragraphs from Section 4.2.4 and place them into a new sub-section (Section 4.2.5) as the bullet summary of key volumes is not specific to the Build Alternative with Toll;

These paragraphs will be placed under a new sub-section 4.2.5, as requested.

c. Please be consistent with rounding of volumes in the bullet list as opposed to reporting volumes directly from Table 4-1;

The AADT volumes reported in both locations will be revised to be consistent, as requested.

d. In the third bullet, please indicate what road (on I-75, on Overpass Road, or on all interchange ramps to/from Overpass Road) and alternative (TBRPM Base, No-Build, Build, Build with North-South Road, Build with $0.25 toll) the 2040 AADT at the Overpass Road interchange is 77,000 vpd;

These volumes are based upon the sum of the ramps to/from Overpass Road at the interchange in the 2040 Design Year Build alternative.

e. In the fourth bullet, please indicate what road, alternative, and year the AADT is reduced by 8,100 vpd for the CR 54 interchange and 11,600 for the SR 52 interchange. Please revise to read, "…the AADT at the SR 52 interchange is reduced by 11,600 vpd"; and

The volumes are based upon the difference between the sum of the ramps to/from the respective interchanges in the 2040 Design Year Build alternative and the sum of the ramps to/from the respective interchanges in the 2040 Design Year No-Build alternative.

f. In the last bullet, please indicate the year and road that the demand at the new interchange is reduced from 76,800 vpd to 38,200 vpd.

An AADT of 76,800 vpd is based upon the sum of the ramps to/from Overpass Road at the interchange in the 2040 Design Year Build alternative. The AADT of 38,200 vpd is based upon the sum of the ramps to/from Overpass Road at the interchange in the 2040 Design Year Build with $0.25 Toll alternative.

45. The future year AADTs shown in Table 4-1 for the segment of Overpass Road between Old Pasco Road and I-75 indicate a higher AADT for the 2040 No-Build than the 2040 Build.

a. For the same road segment it shows the following AADTs for Build with N-S Road: 26,200 for year 2022; 31,400 for year 2030 and 28,700 for year 2040. Please explain why the volume decreases in year 2040.

The 3,000 vpd decrease in daily volume for 2040 compared to 2030 on Overpass Road between Old Pasco Road and I-75 appears to be the result of a shift in traffic between the Overpass Road interchange and the CR 54 interchange as seen from the decrease in traffic to/from the north at the Overpass Road interchange and increase in traffic to/from the north at CR 54 interchange. In addition, the roadway network used in developing the 2040 volumes includes eight-lanes on CR 54 from I-75 to SR 581 and the realignment of SR 581 to the east resulting in differences in traffic loading and distribution.

b. The Build AADT for year 2022 is shown as 17,900; for 2030 is shown as 23,600; and for 2040 is shown as 36,600. The 2040 appear to increase at a higher rate than between year 2022 and 2030. Please explain.

Year 2022 does not include Overpass Road east of Curley Road, while years 2030 and 2040 do include the Overpass Road extension east to US 301. This was based upon the timeframe of the extension as outlined in Pasco County's LRTP. In the years 2030 and 2040, the connection of Overpass Road to the east significantly increases the volumes along Overpass Road compared with the year 2022. The rate of growth is expected to be larger given the magnitude of development that will be developed (mainly the Pasadena Hills area) by the year 2040 that was not included in the year 2030.

46. Page 4-6, Table 4-1. Please provide in Table 4-1 AADT volumes for the SR 56, SR 54, and SR 52 roadway segments east and west of I-75.

The information will be provided in the revised submittal, as requested.

47. Appendix C, Freeway Analysis Results

a. FREEPLAN is the FDOT's planning and preliminary engineering software for freeways. The software evaluates the impacts of ramps, interchanges ramps terminals, auxiliary lanes, among others, to the entire freeway system evaluated; not just merely the freeway segments as a basic segment analysis. The FREEPLAN analysis should include the whole freeway corridor with the interchanges included. Please explain/revise.

Freeway segments will be combined into one file in FREEPLAN software, as requested.

b. On the freeway weaving analysis for I-75 NB during the PM peak hour, the freeway volume adds to 6,137 vph instead of the 5,847 vph shown in Figure 2-6. Please revise.

The freeway volume will be revised to be 5,840 (which is the volume shown in Figure 2-6).

48. Appendix C, Major Diverge Capacity Check Sheet: I-75 Northbound Off-Ramp to SR 56.

a. Please change the free flow speed in the table to ≥ 50 mph to match Exhibit 25-3 of the HCM;

The free flow speed in the table will be revised to be consistent with Exhibit 25-3 of the HCM.

b. The tables for major diverge capacity check refers to I-275 and MLK instead of I-75 and SR 56;

The table title will be revised to read I-75 and SR 56. The table title was inadvertently copied from a previous table template.

c. Please resolve the discrepancy of the 75 mph free-flow speed and the 70 mph design speed stated on Page 2-12;

The design speed will be revised to 70 mph.

d. Please use actual values for percent trucks and peak hour factors in the analysis per the key parameters documented on Page 2-13;

The truck percentages will be checked with page 2-13 for consistency.

e. A driver population factor of 1.00 was used even though a value of 0.95 is stated on Page 2-12;

The driver population factor will be changed to 0.95.

f. When using Equation 25-12 from the HCM, please use the calculated flow rate instead of volume.

The calculated flow rate will be used, as requested.

49. Appendix C. Ramp merge/diverge analysis.

a. Please use painted gore areas instead of physical gore areas when calculating distances to adjacent ramps and lengths of acceleration and deceleration lanes. The painted gore area will be the location where mainline traffic interacts with ramp traffic;

The distances used in the analysis were based upon the painted gore area. The distances will be verified based upon this comment.

b. For the southbound I-75 off-ramp to SR 56 during the PM peak hour, please change the position of the adjacent ramp to read "downstream" instead of "upstream"; and

The position of the adjacent ramp will be changed to "downstream", as requested.

c. For the northbound I-75 on-ramp from SR 54 during the PM peak hour, please change the volume on freeway from 2,300 vph to 2,370 vph.

The volume for the northbound I-75 on-ramp from CR 54 will be changed to 2,370 vph, as requested.

50. Appendix C. Intersection analysis.

a. The volume of the eastbound through movement at the northbound I-75/SR 56 ramp terminal intersection should be 810 vph instead of 670 vph;

The eastbound through movement volume at the northbound I-75/SR 56 ramp terminal intersection will be changed to 810 vph, as requested.

b. Southbound I-75/SR 56 ramp terminal intersection: the first phase representing the westbound left-turn and through movements should be 30 seconds green and the second phase representing the eastbound/westbound through movements should be 60 seconds;

The signal timing for the Southbound I-75/SR 56 ramp terminal intersection will be adjusted, as requested.

c. The existing signal timing for the northbound I-75 off-ramp at SR 54 assumes a free-flow northbound-to-eastbound right-turn lane. The signal timing would need to be modified to better accommodate the future condition where the northbound-to-eastbound right turn lane is not operated under free flow conditions. Please coordinate with the District Interchange Review Committee (DIRC) Chairperson (Waddah Farah) to assess the feasibility of providing dual northbound-to-eastbound right-turn lanes operated under signal control;

Design plans provided by Pasco County with the future geometry were reviewed and it was confirmed that a lane addition is proposed on eastbound CR 54 (4 lanes between I-75 NB ramp and SR 581) that will drop into SR 581. Therefore, the northbound right turn movement will operate as free-flow. Additionally, please note that the future geometry based upon the current plans shows only a single northbound right turn lane at this ramp terminal and no modifications are anticipated at this time.

d. Please consider removing the eastbound SR 52 to southbound I-75 right-turn movement from the analysis, since this movement can operate concurrent with westbound SR 52 to southbound I-75; and

The eastbound to southbound movement at the SR 52 and I-75 southbound ramp intersection will be adjusted to operate under free-flow conditions, as requested.

e. The volume of the eastbound through movement at the northbound I-75/SR 56 ramp terminal intersection should be 820 vph instead of 755 vph.

The volume of the eastbound through movement at the northbound I-75/SR 56 ramp terminal intersection will be changed to 820 vph, as requested.