I-75 (SR 93A)

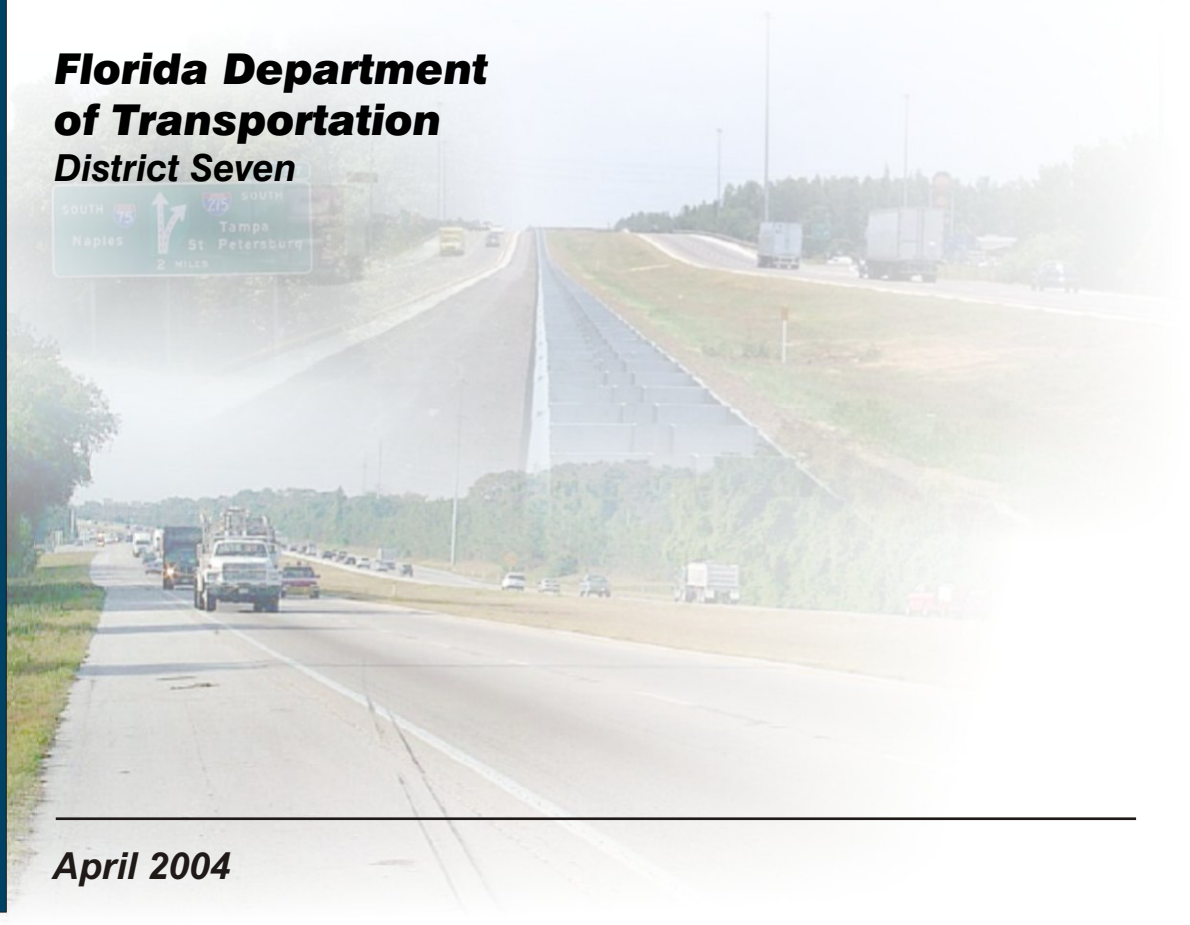
FINAL AIR QUALITY REPORT

PD&E Study from South of Fowler Avenue, Hillsborough County, to South of SR 56, Pasco County

WPI Segment No.: 408459 1
Federal Aid Project Number: 0751 105 I

Reevaluation Study from South of SR 56 to CR 54, Pasco County

WPI Segment No.: 258736 1
Federal Aid Project Number: NH-75-1(91)275



Florida Department of Transportation
District Seven

April 2004

FINAL

AIR QUALITY REPORT

I-75 Hillsborough and Pasco Counties Project Development & Environment Study

PD&E Study from South of Fowler Avenue, Hillsborough County to South of SR 56, Pasco County

WPI Segment Number: 408459 1
Federal Aid Project Number: 0751 105 I

Reevaluation Study from South of SR 56 to CR 54, Pasco County

WPI Segment Number: 258736 1
Federal Aid Project Number: NH-75-1-(91)275

The proposed action involves improvements to I-75 from south of Fowler Avenue to County Road 54, a distance of approximately 13.9 miles.

Florida Department of Transportation
District Seven

Prepared by:
Parsons Brinckerhoff Quade & Douglas, Inc.

April 5, 2004

EXECUTIVE SUMMARY

The Florida Department of Transportation (FDOT) has conducted studies to evaluate and document the proposed improvements to Interstate 75 (I-75) from south of Fowler Avenue in Hillsborough County to County Road (CR) 54 in Pasco County. A Project Development and Environment (PD&E) Study was conducted for the I-75 segment from south of Fowler Avenue to south of SR 56 in Hillsborough and Pasco Counties, Florida. A Design Change Reevaluation has been approved by the Federal Highway Administration (FHWA) for the remaining I-75 segment from south of SR 56 to CR 54 in Pasco County. The Reevaluation Study compared and documented the new approved design concepts to those contained in the I-75 PD&E Study that was approved by the FHWA on November 27, 2000. The combined length of these studies was approximately 13.9 miles.

The objective of the air quality analysis is to evaluate the air quality effects that would be caused by the proposed improvements and to determine whether project-related motor vehicle emissions will cause or contribute to an exceedance of the National Ambient Air Quality Standard (NAAQS) for carbon monoxide (CO). Hillsborough and Pasco Counties, including the I-75 project corridor, are located in the West Central Florida Intrastate Air Quality Control Region as defined in Section 302(f) of the Clean Air Act, 42 U.S.C. 1857h(f). The I-75 project corridor located in Pasco County is currently designated as an attainment area for all automobile-related pollutant standards; therefore, conformity does not apply. The I-75 project corridor located in Hillsborough County is in an area that has been designated as maintenance for the ozone standards under the criteria provided in the Clean Air Act Amendments of 1990. This project is included in the urban area's current approved conforming Transportation Improvement Plan (TIP). This project is included in the area's Conformity Determination report that was approved by the Metropolitan Planning Organization and the FHWA/Federal Transit Administration. The project's design concept and scope are the same as that found in the conforming plan and TIP.

This Air Quality Report was prepared in accordance with the methodology established in the FDOT PD&E Manual, Part 2, Chapter 16. The proposed alternatives were analyzed using FDOT's COSCREEN98 (revised August 2000 & September 2002) air quality screening model. The screening test is intended to allow an appropriate level of analysis for highway projects that have very little or no impact on air quality. The COSCREEN98 computer program makes a number of conservative assumptions about the project and indicates whether the project needs a more detailed computer analysis. The results of the COSCREEN98 program indicate that a detailed analysis is not necessary.

Using the COSCREEN98 program, CO concentrations were calculated at the closest receptor to the No-Build and Build Alternatives for both the Opening Year (2008) and the Design Year (2028) of the project. The NAAQS for CO are 35 parts per million (ppm) for the 1-hour period and 9 ppm for the 8-hour period. The results of this air quality analysis show that the predicted CO concentrations, including background, will fall below the NAAQS for CO for all alternatives. Therefore, it is anticipated that this project will not have a significant effect on air quality.

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1.0 INTRODUCTION

The Florida Department of Transportation (FDOT) has conducted studies to evaluate and document the proposed improvements to Interstate 75 (I-75) from south of Fowler Avenue in Hillsborough County to County Road (CR) 54 in Pasco County. A Project Development and Environment (PD&E) Study was conducted for the I-75 segment from south of Fowler Avenue to south of SR 56 in Hillsborough and Pasco Counties, Florida. A Design Change Reevaluation has been approved by the Federal Highway Administration (FHWA) for the remaining I-75 segment from south of SR 56 to CR 54 in Pasco County. The Reevaluation Study compared and documented the new approved design concepts to those contained in the I-75 PD&E Study that was approved by the FHWA on November 27, 2000. The combined length of these studies was approximately 13.9 miles. Figure 1 indicates the limits of the PD&E and Reevaluation Studies.

The general objective of both Studies was to provide documented information necessary for the FDOT to reach a decision on the type, design and location of improvements to I-75. This study incorporated all recommended improvements contained in the FHWA approved Interchange Modification Report for I-75 at CR 581 (Bruce B. Downs Boulevard), hereinafter referred to as the I-75/CR 581 IMR.

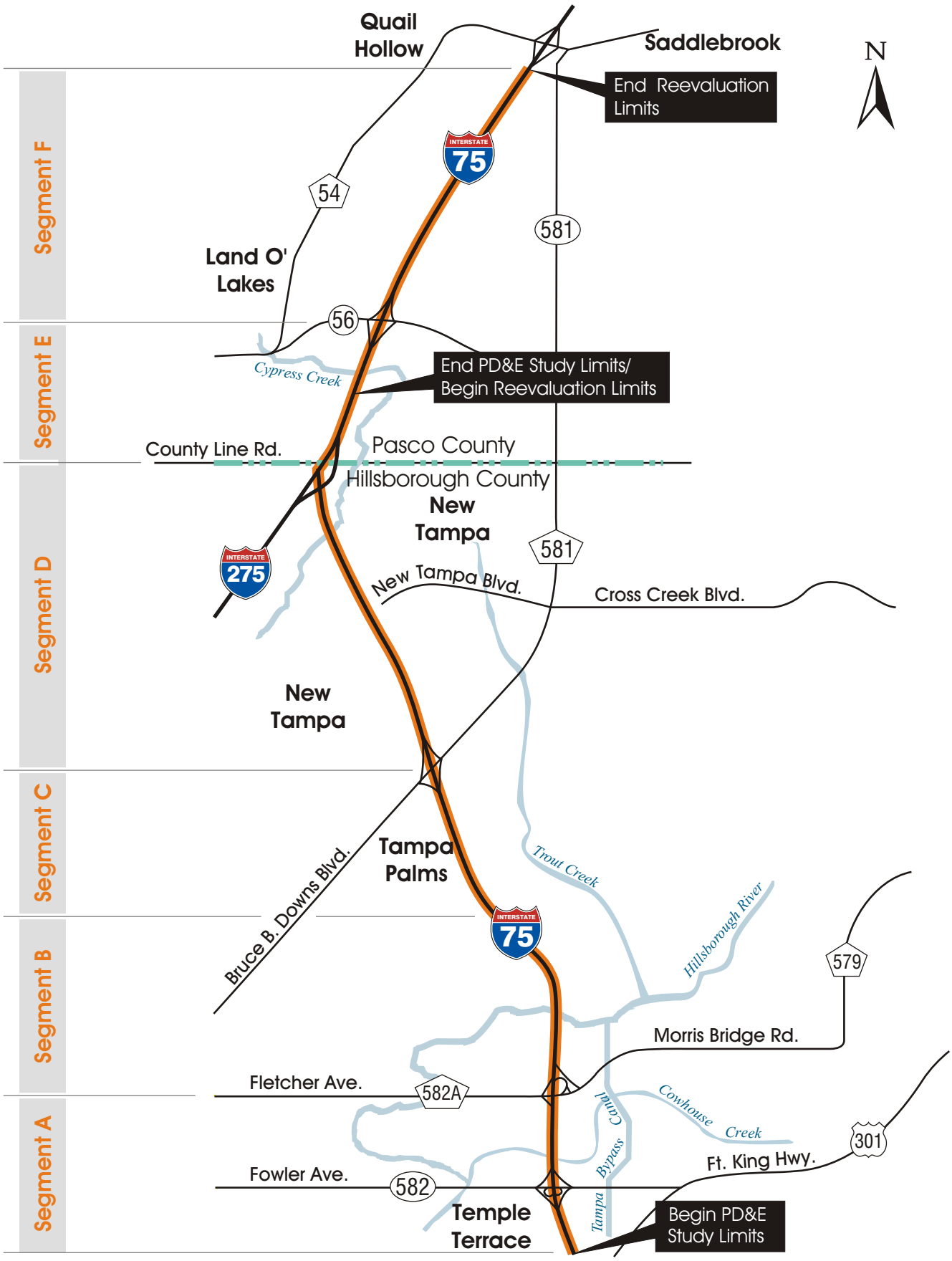
1.1 Purpose

The objective of this Air Quality Report is to document whether project-related motor vehicle emissions will cause or contribute to an exceedance of the National Ambient Air Quality Standard (NAAQS) for carbon monoxide (CO).

1.2 Project Description

The PD&E Study addressed proposed improvements to I-75 from south of Fowler Avenue in Hillsborough County to south of SR 56 in Pasco County. The existing facility is typically a four-lane limited access highway. This Study evaluated six-lane and six-lane with auxiliary lanes typical section alternatives and a No-Build Alternative.

A Design Change Reevaluation of Work Program Item Segment No. 258736 1 was approved by the FHWA for the I-75 section from south of SR 56 to CR 54. The previous PD&E Study, approved by the FHWA on November 27, 2000, evaluated adding two lanes (one lane in each direction) to the existing roadway from south of SR 56 to north of SR 52. This Reevaluation Study evaluated design changes within a portion of this original Study.



I - 75 PD&E Study

from south of Fowler Avenue to CR 54
Hillsborough and Pasco Counties

WPI Seg. No: 408459 1 / FAP No: 0751 105 I
WPI Seg. No: 258736 1 / FAP No: NH-75-1-(91)275

PROJECT LOCATION MAP

Figure 1

In order to simplify the alternatives analysis, the I-75 project corridor was divided into the following study segments:

- Segment A – from south of Fowler Avenue to Fletcher Avenue
- Segment B – from Fletcher Avenue to 3,000 feet north of the Hillsborough River
- Segment C – from 3,000 feet north of the Hillsborough River to Bruce B. Downs Boulevard
- Segment D – from Bruce B. Downs Boulevard to the I-275 interchange
- Segment E – from the I-275 interchange to SR 56
- Segment F – from SR 56 to CR 54

All segments were evaluated to determine the effects of providing additional capacity to accommodate future traffic demand.

2.0 PROPOSED IMPROVEMENTS

The study alternatives considered for the I-75 project were construction alternatives because the No-Build, Multimodal and TSM Alternatives do not meet the future transportation needs of the region. Without improvements to I-75, transportation congestion will increase as the level of service falls to an unacceptable level, and emergency response times and social services transport eventually deteriorate.

The roadway typical sections in each segment are described below. For further details on the bridge typical sections, alignments and interchanges, refer to the Preliminary Engineering Report.

2.1 Segment A - Fowler Avenue to Fletcher Avenue

The existing roadway geometry is in transition from south of Fowler Avenue to Fletcher Avenue. Generally speaking, improvements would include adding one travel lane and one auxiliary lane in each direction of travel. A minimum 64-foot median would be provided. The transitions would minimize effects to existing ramps, preserve the 64-foot median, and set the alignment to avoid effects to the large sinkhole situated in the center of the median north of Fowler Avenue. In this segment, I-75 would have six 12-foot travel lanes (three in each direction), two 12-foot auxiliary lanes (one in each direction), one merge/diverge ramp lane for the on- and off-ramp (in each direction), and 12-foot inside and outside shoulders (10 feet paved). No graphical typical section figure is provided for the I-75 mainline in Segment A because there is no continuous typical section in the segment.

2.2 Segment B – Fletcher Avenue to 3,000 Feet North of the Hillsborough River

In this segment, two typical sections would be used. Both typical sections would add an additional through lane and an auxiliary lane in each direction.

From Fletcher Avenue to just south of the Hillsborough River, the widening would be to the outside to avoid effects to the sinkhole located north of Fowler Avenue. The facility in this

segment would include three through lanes and an auxiliary lane in each direction of travel. The median width varies with a minimum width of 88 feet.

From south of the Hillsborough River to 3,000 feet north of the Hillsborough River, the through lane would be constructed to the inside and the auxiliary lane to the outside of the existing lanes. The median would be a minimum of 64 feet wide. In segment B, I-75 would have six 12-foot travel lanes (three in each direction), two 12-foot auxiliary lanes (one in each direction) and 12-foot inside and outside shoulders (10 feet paved). The proposed typical sections for Segment B are shown in Figure 2 and Figure 3.

2.3 Segment C – 3,000 Feet North of the Hillsborough River to Bruce B. Downs Boulevard

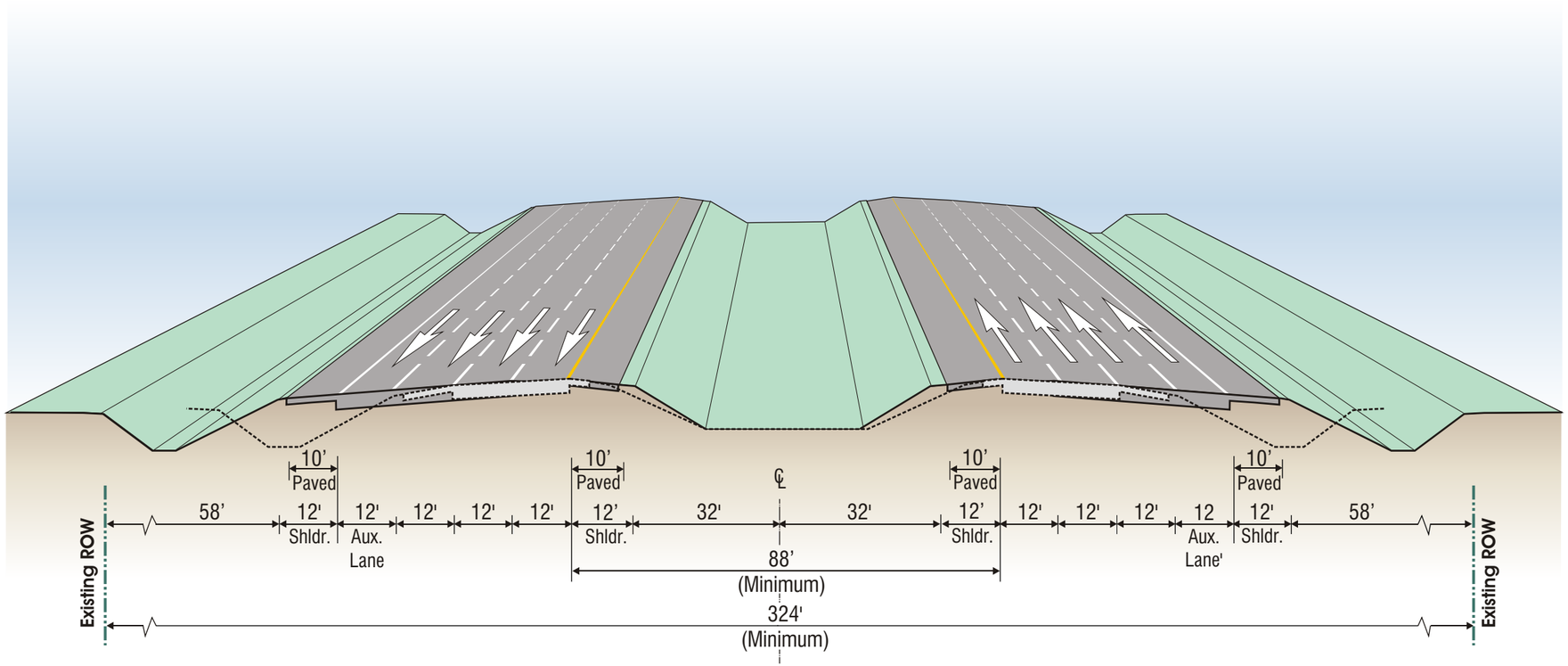
From approximately 3,000 feet north of the Hillsborough River to Bruce B. Downs Boulevard, the typical section for Segment C would be a continuation of that provided for the northern portion of Segment B (six travel lanes with two auxiliary lanes). See Figure 3.

2.4 Segment D – Bruce B. Downs Boulevard to the I-275 Interchange

From Bruce B. Downs Boulevard to the I-275 interchange, a six-lane typical section would be provided by adding one lane to the median in each direction. In this segment, the typical section would consist of six 12-foot travel lanes (three in each direction), 12-foot inside and outside shoulders (10 feet paved) and a 64-foot median. The typical section for Segment D is shown in Figure 4.

2.5 Segment E – I-275 Interchange to SR 56

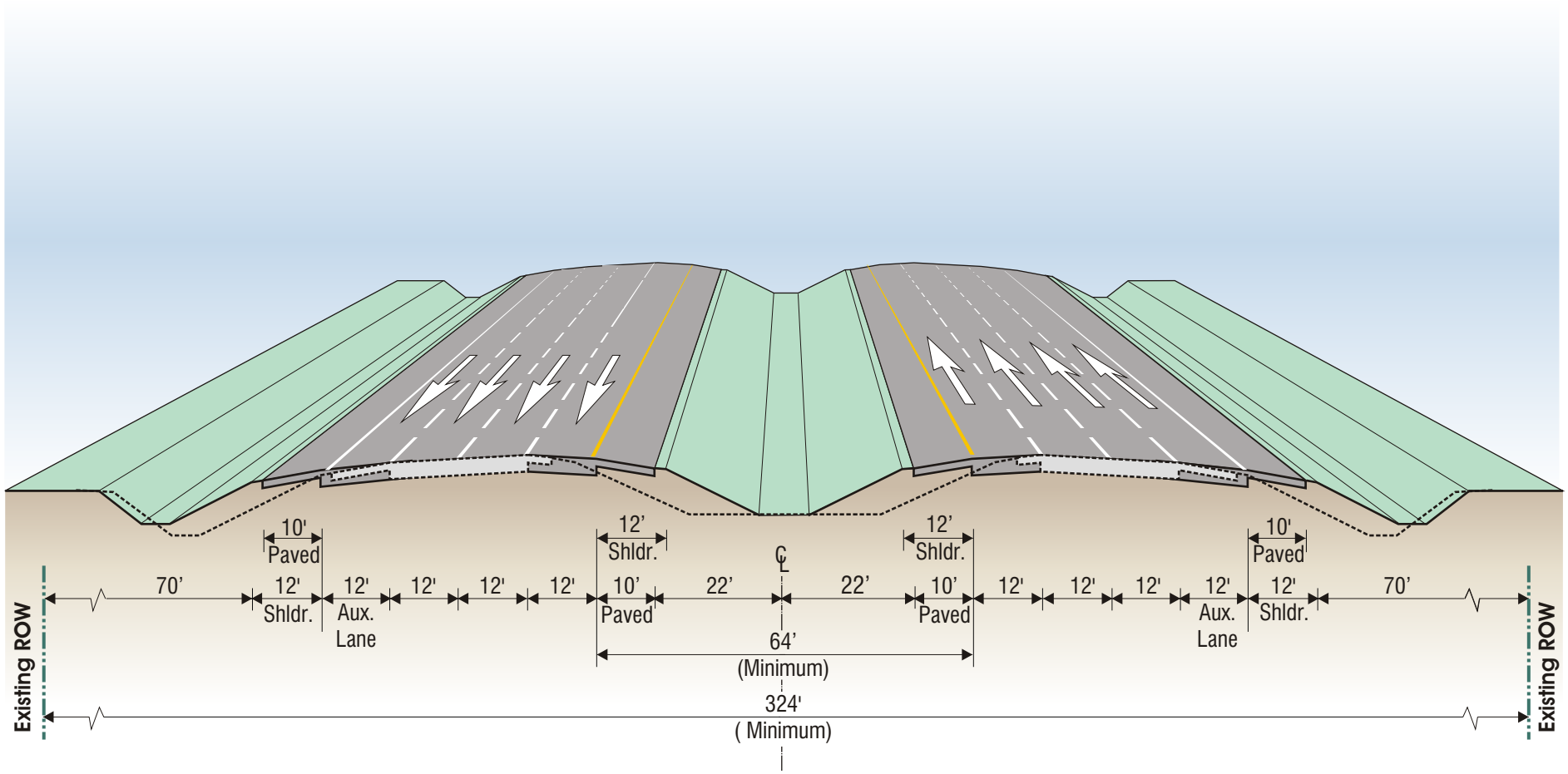
From the I-275 interchange to SR 56, the typical section that was selected was determined by the interchange configuration that was selected for I-75/I-275. The typical section for the I-275/I-75 interchange would consist of six 12-foot travel lanes (three in each direction), three 12-foot auxiliary lanes in the southbound direction, one 12-foot auxiliary lane in the northbound direction, 12-foot shoulders (10 feet paved) and a 64-foot median. A two-lane ramp would run parallel to the mainline. This typical section is shown in Figure 5.



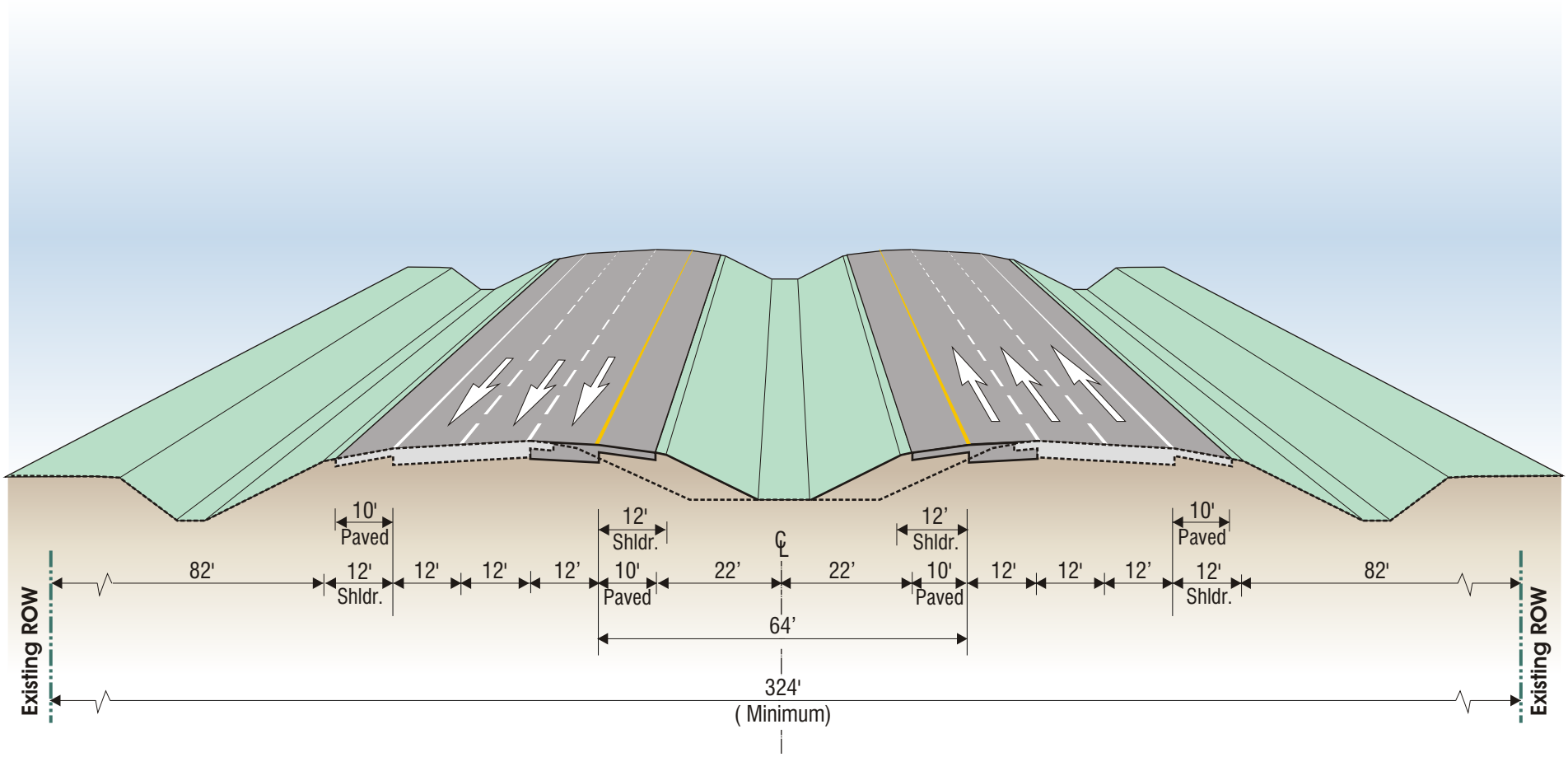
I - 75 PD&E Study
from south of Fowler Avenue to CR 54
Hillsborough and Pasco Counties
WPI Seg. No: 408459 1 / FAP No: 0751 105 I
WPI Seg. No: 258736 1 / FAP No: NH-75-1-(91)275

PROPOSED SIX-LANE TYPICAL SECTION WITH AUXILIARY LANES - SOUTHERN PORTION OF SEGMENT B
FROM FLETCHER AVENUE TO 3000’ NORTH OF THE HILLSBOROUGH RIVER
Six General Purpose Lanes with Two Auxiliary Lanes

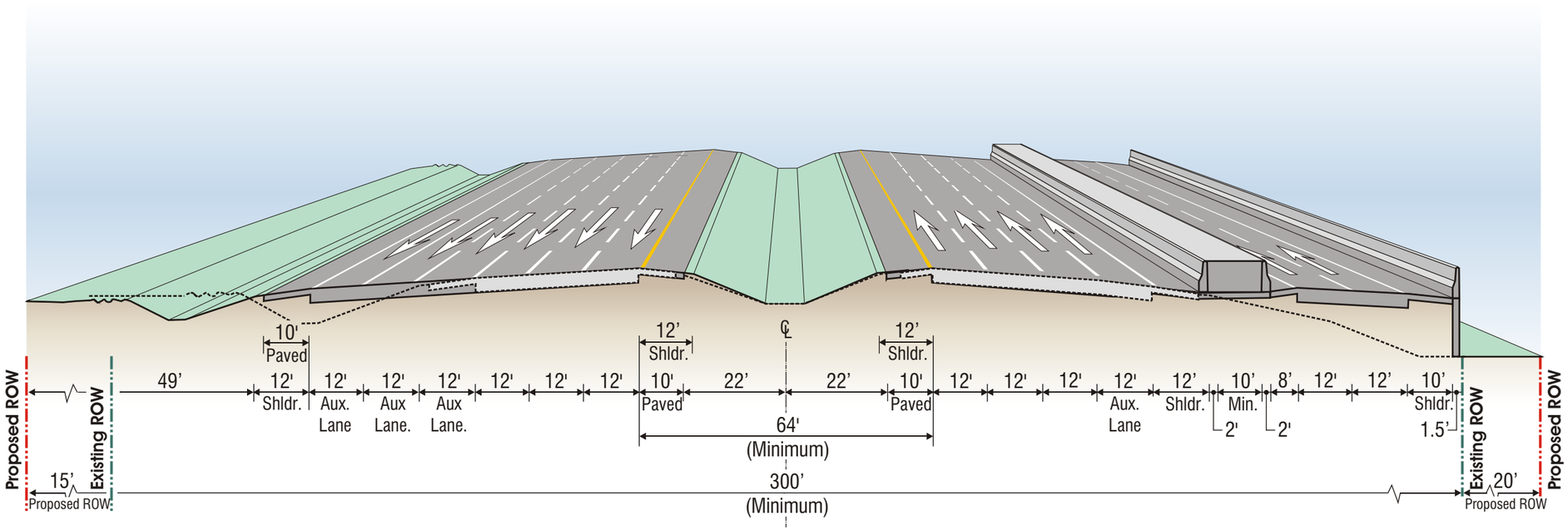
Figure
2



I - 75 PD&E Study from south of Fowler Avenue to CR 54 Hillsborough and Pasco Counties WPI Seg. No: 408459 1 / FAP No: 0751 105 I WPI Seg. No: 258736 1 / FAP No: NH-75-1-(91)275	PROPOSED SIX-LANE TYPICAL SECTION WITH AUXILIARY LANES - NORTH PORTION OF SEGMENT B & C FROM 3000' NORTH OF THE HILLSBOROUGH RIVER TO BRUCE B. DOWNS BOULEVARD Six General Purpose Lanes with Two Auxiliary Lanes	Figure 3



I - 75 PD&E Study from south of Fowler Avenue to CR 54 Hillsborough and Pasco Counties WPI Seg. No: 408459 1 / FAP No: 0751 105 I WPI Seg. No: 258736 1 / FAP No: NH-75-1-(91)275	PROPOSED SIX-LANE TYPICAL SECTION - SEGMENT D FROM BRUCE B. DOWNS BOULEVARD TO THE I-75/I-275 INTERCHANGE Six General Purpose Lanes	Figure 4



I - 75 PD&E Study
from south of Fowler Avenue to CR 54
Hillsborough and Pasco Counties
WPI Seg. No: 408459 1 / FAP No: 0751 105 I
WPI Seg. No: 258736 1 / FAP No: NH-75-1-(91)275

PROPOSED SIX-LANE TYPICAL SECTION WITH AUXILIARY LANES (Option 3)- SEGMENT E
FROM THE I-75 / I-275 APEX TO THE SR 56 EXIT RAMP
Six General Purpose Lanes with Four Auxiliary Lanes

Figure
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2.6 Segment F – SR 56 to CR 54

In this segment, I-75 would have six 12-foot travel lanes (three in each direction), two 12-foot auxiliary lanes (one in each direction) and 12-foot inside and outside shoulders (10 feet paved). The median would be 64 feet wide. Two typical sections would be used from the SR 56 interchange to CR 54.

Both south and north of the North Tampa Aero Park Airport, one through lane and one auxiliary lane would be provided for each direction of travel to the outside of the existing lanes. This would preserve the 64-foot median. This typical section is provided in Figure 6.

In the vicinity of the airport, a typical section that holds the western edge of pavement constant would be used. This would avoid effects to the airport that already has a displaced threshold due to glide slope constraints. This typical section would widen in the existing median for the southbound direction. For the northbound direction, new construction would occur to the outside of the existing lanes. The two existing northbound lanes would be demolished. This typical section is provided in Figure 7.

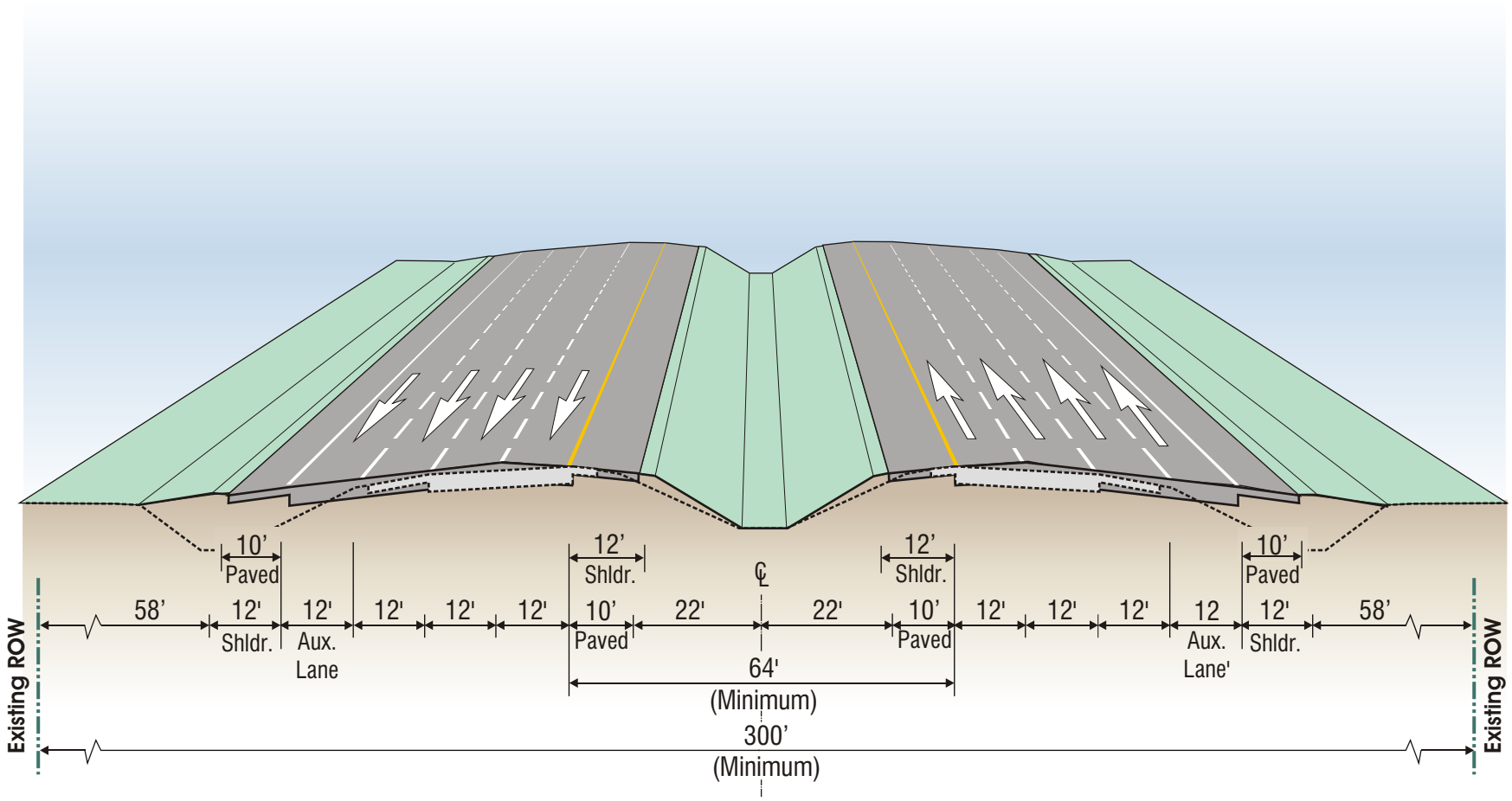
3.0 METHODOLOGY

An air quality screening analysis, specifically an analysis of CO concentrations, was performed in accordance with the methodology established in the FDOT PD&E Manual, Part 2, Chapter 16. The proposed alternatives were evaluated using FDOT's COSCREEN98 (revised August 2000 and September 2002) air quality screening model for the Opening Year (2008) and Design Year (2028) with and without the proposed improvements.

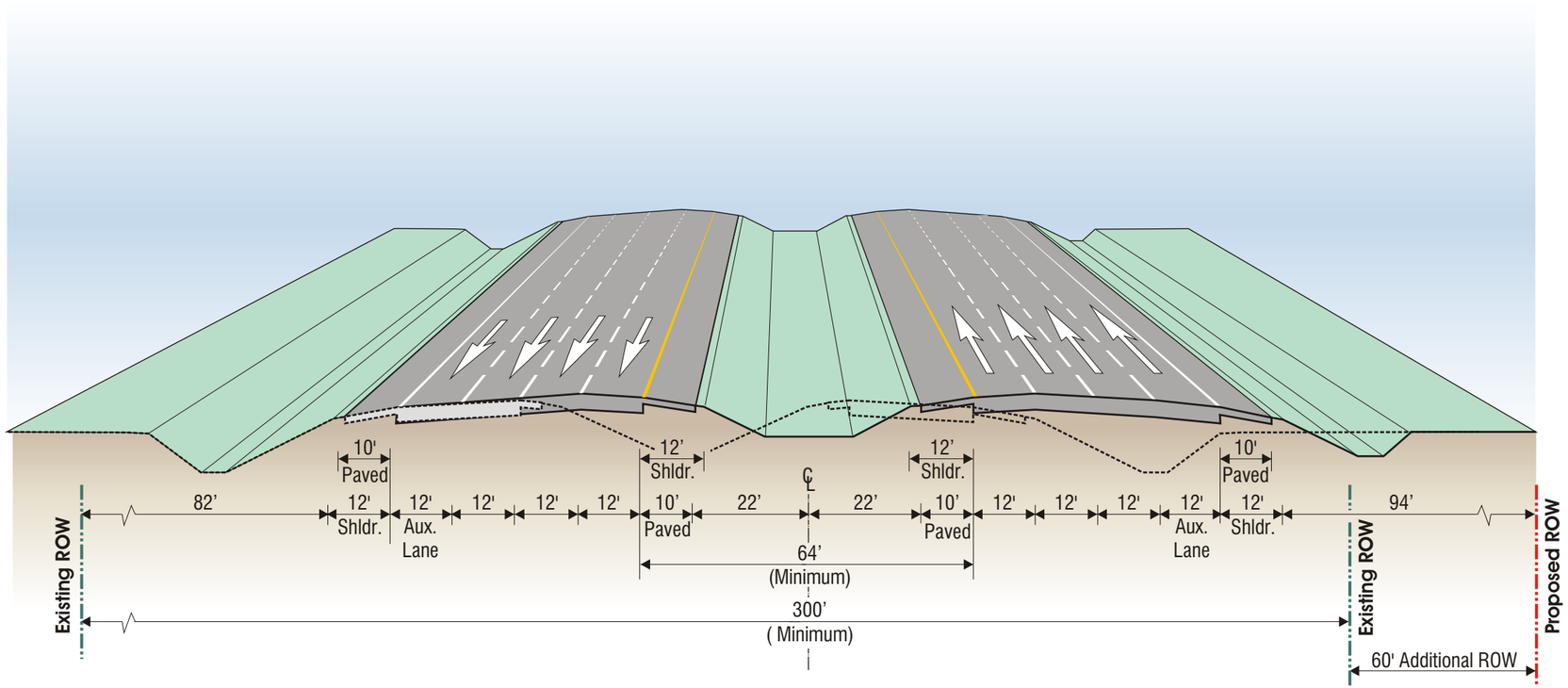
The purposes of this analysis were to evaluate the air quality effects that would be caused by the proposed improvements and to determine whether the project would cause or contribute to an exceedance of the National Ambient Air Quality Standards (NAAQS) for CO.

3.1 National Ambient Air Quality Standards

The US Environmental Protection Agency (EPA) has established NAAQS to protect public health, the environment and the quality of life from the detrimental effects of ambient (i.e., outdoor) air pollution. These standards, which are summarized in Table 1, have also been adopted as the ambient air quality standards for Florida. The "primary" standards have been established to protect the public health. The "secondary" standards are intended to protect the nation's welfare and account for air pollutant effects on soil, water, visibility, materials, vegetation, and other aspects of the general welfare.



I - 75 PD&E Study from south of Fowler Avenue to CR 54 Hillsborough and Pasco Counties WPI Seg. No: 408459 1 / FAP No: 0751 105 I WPI Seg. No: 258736 1 / FAP No: NH-75-1-(91)275	PROPOSED SIX-LANE TYPICAL SECTION WITH AUXILIARY LANES- SEGMENT F NORTH AND SOUTH OF THE AIRPORT FROM SR 56 TO SOUTH OF CR 54 Six General Purpose Lanes with Two Auxiliary Lanes	Figure 6



I - 75 PD&E Study
from south of Fowler Avenue to CR 54
Hillsborough and Pasco Counties
WPI Seg. No: 408459 1 / FAP No: 0751 105 I
WPI Seg. No: 258736 1 / FAP No: NH-75-1-(91)275

PROPOSED SIX-LANE TYPICAL SECTION WITH AUXILIARY LANES - SEGMENT F
IN THE VICINITY OF THE AIRPORT FROM SR 56 TO SOUTH OF CR 54
Six General Purpose Lanes with Two Auxiliary Lanes

Figure
7

Table 1
National Ambient Air Quality Standards (NAAQS)

Pollutant	Averaging Period	National/State Standards	
		Primary	Secondary
Ozone (O_3)	1-Hour[1]	0.12 ppm (235 µg/m^3)	Same as Primary Standard
	8-Hour[2]	0.08 ppm (157 µg/m^3)	Same as Primary Standard
Carbon Monoxide (CO)	8-Hour[3]	9 ppm (10 mg/m^3)	Same as Primary Standard
	1-Hour[3]	35 ppm (40 mg/m^3)	Same as Primary Standard
Nitrogen Dioxide (NO_2)	Annual Average	0.053 ppm (100 µg/m^3)	Same as Primary Standard
Sulfur Dioxide (SO_2)	Annual Average	80 µg/m^3 (0.03 ppm)	none
	24-Hour[3]	0.14 ppm (365 µg/m^3)	none
Suspended Particulate Matter (PM_{10})	24-Hour[4]	150 µg/m^3	Same as Primary Standard
	Annual Arithmetic Mean	50 µg/m^3	Same as Primary Standard
Suspended Fine Particulate Matter ($PM_{2.5}$)	24-Hour[4]	65 µg/m^3	Same as Primary Standard
	Annual Arithmetic Mean	15 µg/m^3	Same as Primary Standard
Lead (Pb)	Quarterly Mean	1.5 µg/m^3	Same as Primary Standard

Sources: US EPA, "National Primary and Secondary Ambient Air Quality Standards" (49 CFR 50)

Abbreviations: ppm - parts per million, µg/m^3 - micrograms per cubic meter, mg/m^3 - milligrams per cubic meter

Notes:
1 Applicable to current non-attainment areas until such areas meet the standard for three consecutive years.
2 New Standards effective September 16, 1997 (final rules can be found in Federal Register July 18, 1997).
3 Not to be exceeded more than once a year per site.
4 The number of days with hourly levels greater than the standards is not to be exceeded more than once per year.

3.2 Criteria Pollutants

The pollutants that are most important for transportation air quality analyses are those that can be traced principally to motor vehicles. Pollutants that can be attributed to motor vehicles include hydrocarbons (HC), NO_X, O_3, PM_{10} and $PM_{2.5}$, and CO. Emissions of NO_X, PM_{10} and $PM_{2.5}$ come from both mobile and stationary sources. Transportation sources account for a very small percentage of regional emissions of SO_X and Pb, and therefore these pollutants are not evaluated in a mobile source study.

HC and NO_X emissions from motor vehicles are precursors in the formation of O_3. O_3 is formed through a series of reactions that take place in the atmosphere in the presence of sunlight. Since the reactions are slow and occur as the pollutants diffuse downwind, elevated levels of O_3 are often found many miles from the source of the precursor pollutants. Therefore, the effects of HC and NO_X are examined during the regional planning process, not during a project-level analysis.

CO is a colorless and odorless gas, associated primarily with the incomplete combustion of fossil fuels. CO concentrations can vary greatly over comparatively short distances. Relatively high concentrations are typically found near crowded intersections, along heavily traveled and congested roadways and at relatively low elevations. Therefore, motor vehicle CO concentrations associated with the I-75 improvements were analyzed as a part of this study.

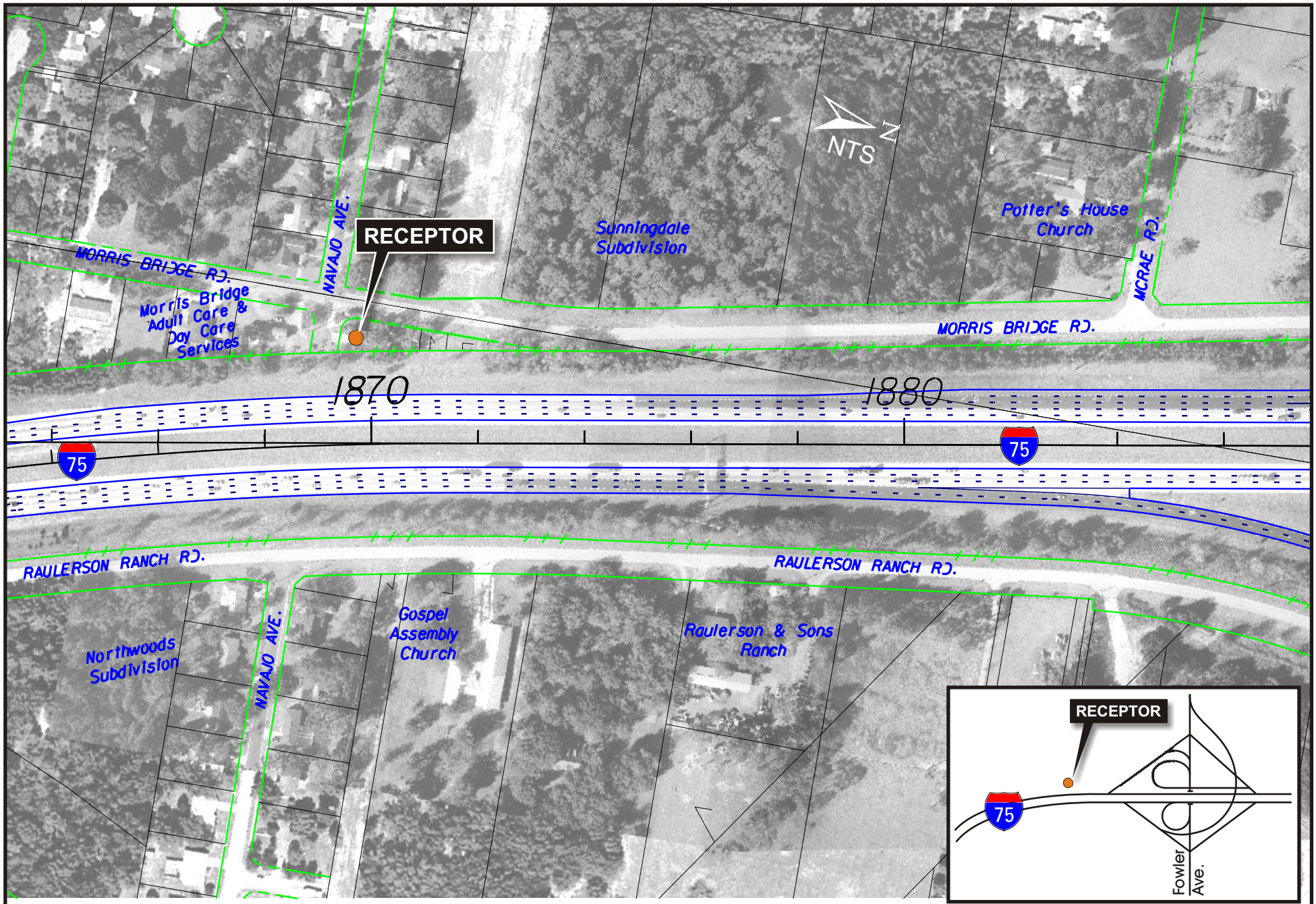
3.3 Receptor

The closest possible air quality sensitive site (receptor) is a residence which was determined to be approximately 107 feet west of the existing I-75 edge-of-pavement and approximately 611 feet south of the Fowler Avenue existing edge-of-pavement, just northeast of the Morris Bridge Road/Navajo Avenue intersection. This is the closest available air quality receptor to I-75 within the PD&E Study area and is considered the “worst-case” receptor since it is in proximity to the most congested (heaviest traffic) area of the I-75 project corridor. The location of the “worst-case” receptor is shown in Figure 8.

3.4 Traffic

The design hour traffic volumes and average speeds used in COSCREEN98 were developed specifically for this analysis and are shown in Table 2 of Section 4.0.

The documented traffic data are included in Appendix A.



I - 75 PD&E Study from south of Fowler Avenue to CR 54 Hillsborough and Pasco Counties WPI Seg. No: 408459 1 / FAP No: 0751 105 I WPI Seg. No: 258736 1 / FAP No: NH-75-1-(91)275	AIR QUALITY RECEPTOR	Figure 8

4.0 RESULTS

CO concentrations associated with the proposed action were calculated at the selected receptor location for the Opening Year (2008) and Design Year (2028) with and without the proposed improvements. COSCREEN98 calculates the maximum 1-hour and 8-hour CO concentrations in parts per million (ppm). Background concentrations are added to the modeling results to estimate total pollutant concentration at the receptor location. Background CO concentrations of 5.0 ppm for 1-hour and 3.0 ppm for 8-hour were applied to the calculated concentrations under all alternatives considered. The background level accounts for CO entering the area from other sources upwind from the receptor locations at which the modeling predictions are being made.

The traffic data used in COSCREEN98 and maximum 1-hour and 8-hour CO concentrations, including background, for the receptor west of I-75 and south of Fowler Avenue are shown in Table 2.

Table 2
Predicted Maximum CO Concentrations

Year	Alternative	Average Speed (mph)	Directional Design Hour Traffic (vph)	1-hour Conc. (ppm)	8-hour Conc. (ppm)
2008	No-Build	65	7,111	11.8	7.1
	Build	65	7,111	12.1	7.3
2028	No-Build	65	9,300	12.6	7.6
	Build	65	9,300	13.0	7.8

The NAAQS for CO are 35 ppm for the 1-hour period and 9 ppm for the 8-hour period. Since the maximum 8-hour CO concentrations do not exceed the NAAQS of 9 ppm for any of the alternatives, a more detailed computer analysis is not necessary. As shown in Table 2, CO concentrations are predicted to be below the NAAQS for CO for all alternatives. Therefore, this project is not expected to have a significant effect on air quality. The output files from COSCREEN98 for each alternative are provided in Appendix B.

Hillsborough and Pasco Counties, including the I-75 project corridor, are located in the West Central Florida Intrastate Air Quality Control Region as defined in Section 302(f) of the Clean Air Act, 42 U.S.C. 1857h(f). The I-75 project corridor located in Pasco County is currently designated as an attainment area for all automobile-related pollutant standards; therefore, conformity does not apply. The I-75 project corridor located in Hillsborough County is in an area that has been designated as maintenance for the ozone standards under the criteria provided in the Clean Air Act Amendments of 1990. This project is included in the urban area's current approved conforming Transportation Improvement Plan (TIP). This project is included in the area's Conformity Determination report that was approved by the Metropolitan Planning Organization and the FHWA/Federal Transit Administration. The project's design concept and scope are the same as that found in the conforming plan and TIP. The FDOT memorandum documenting conformity is provided in Appendix C of this report.

5.0 CONSTRUCTION

Construction activities will cause minor short-term air quality impacts in the form of dust from earthwork and unpaved roads. These impacts will be minimized by adherence to all state and local regulations and to the latest edition of FDOT's Standard Specifications for Road and Bridge Construction.

Appendix A
Documented Traffic Data

TRAFFIC DATA FOR AIR STUDY

DATE:	1/21/05
PREPARED BY:	

Project Description(s): I-75 PD&E, Fowler Ave. to SR 54

Project Number(s):

Work Program Number(s): 408459-1

Federal Aid Number(s): C1C1-105-1

NOTE: the most congested intersection is the intersection with the highest total volume and lowest departure speeds and it could be two different intersections based on the "Build" vs. "No-Build" alternatives. The traffic volumes are to be the VPH of the most congested leg approaching the intersection. The speeds are to be the average cruise speed for the most congested leg no closer than 152.4 meters (500 feet) from the intersection.

OPENING YEAR: 2008

BUILD	NO-BUILD
Most Congested Intersection or Free Flow Segment:	Most Congested Intersection or Free Flow Segment:
Design/Peak Hour Traffic for most congested leg (DDHV): 7,111	Design/Peak Hour Traffic for most congested leg (DDHV): 7,111
Specify leg: South of Fowler	Specify leg: South of Fowler
Approach Speed:	Approach Speed:

DESIGN YEAR: 2028

BUILD	NO-BUILD
Most Congested Intersection or Free Flow Segment:	Most Congested Intersection or Free Flow Segment:
Design/Peak Hour Traffic for most congested leg (DDHV): 9,360	Design/Peak Hour Traffic for most congested leg (DDHV): 9,360
Specify leg: South of Fowler	Specify leg: South of Fowler
Approach Speed:	Approach Speed:

PB PARSONS BRINCKERHOFF

TRAFFIC DATA FOR AIR STUDY

DATE:	04/22/03
PREPARED BY:	SP

Project Description(s): I-75 PD:E, Fowler Ave. to SR 54

Project Number(s):

Work Program Number(s): 408459-1

Federal Aid Number(s): 0751-105-1

NOTE: the most congested intersection is the intersection with the highest total volume and lowest departure speeds and it could be two different intersections based on the "Build" vs. "No-Build" alternatives. The traffic volumes are to be the VPH of the most congested leg approaching the intersection. The speeds are to be the average cruise speed for the most congested leg no closer than 152.4 meters (500 feet) from the intersection.

OPENING YEAR: 2008

BUILD	NO-BUILD
Most Congested Intersection or Free Flow Segment:	Most Congested Intersection or Free Flow Segment:
Design/Peak Hour Traffic for most congested leg (DDHV): 6,116 vph	Design/Peak Hour Traffic for most congested leg (DDHV): 6,116 vph
Specify leg: Fowler to Fletcher	Specify leg: Fowler to Fletcher
Approach Speed:	Approach Speed:

AADT

DESIGN YEAR: 2028

BUILD	NO-BUILD
Most Congested Intersection or Free Flow Segment:	Most Congested Intersection or Free Flow Segment:
Design/Peak Hour Traffic for most congested leg (DDHV): 8,495	Design/Peak Hour Traffic for most congested leg (DDHV): 8,495
Specify leg: Fowler to Fletcher	Specify leg: Fowler to Fletcher
Approach Speed:	Approach Speed:

PB PARSONS BRINCKERHOFF

TRAFFIC DATA FOR AIR STUDY

DATE:	04/22/03
PREPARED BY:	SP

Project Description(s): I-75 PD&E (Fowler Ave to SR54)

Project Number(s):

Work Program Number(s): 408459-1

Federal Aid Number(s): 0751-105-I

NOTE: the most congested intersection is the intersection with the highest total volume and lowest departure speeds and it could be two different intersections based on the "Build" vs. "No-Build" alternatives. The traffic volumes are to be the VPH of the most congested leg approaching the intersection. The speeds are to be the average cruise speed for the most congested leg no closer than 152.4 meters (500 feet) from the intersection.

OPENING YEAR: 2008

BUILD	NO-BUILD
Most Congested Intersection or Free Flow Segment:	Most Congested Intersection or Free Flow Segment:
Design/Peak Hour Traffic for most congested leg (DDHV): 4,977	Design/Peak Hour Traffic for most congested leg (DDHV): 4,977
Specify leg: Fletcher to BBD	Specify leg: Fletcher to BBD
Approach Speed:	Approach Speed:

DESIGN YEAR: 2028

BUILD	NO-BUILD
Most Congested Intersection or Free Flow Segment:	Most Congested Intersection or Free Flow Segment:
Design/Peak Hour Traffic for most congested leg (DDHV): 7,360	Design/Peak Hour Traffic for most congested leg (DDHV): 7,360
Specify leg: Fletcher to BBD	Specify leg: Fletcher to BBD
Approach Speed:	Approach Speed:

PB PARSONS BRINCKERHOFF

TRAFFIC DATA FOR AIR STUDY

DATE:	04/22/03
PREPARED BY:	SP

Project Description(s): I-75 PD&E (Fowler Ave to SR 54)

Project Number(s):

Work Program Number(s): 408459-1

Federal Aid Number(s): 0751-105-1

NOTE: the most congested intersection is the intersection with the highest total volume and lowest departure speeds and it could be two different intersections based on the "Build" vs. "No-Build" alternatives. The traffic volumes are to be the VPH of the most congested leg approaching the intersection. The speeds are to be the average cruise speed for the most congested leg no closer than 152.4 meters (500 feet) from the intersection.

OPENING YEAR: 2008

BUILD	NO-BUILD
Most Congested Intersection or Free Flow Segment:	Most Congested Intersection or Free Flow Segment:
Design/Peak Hour Traffic for most congested leg (DDHV): 3,072	Design/Peak Hour Traffic for most congested leg (DDHV): 3,072
Specify leg: BBD to I-275	Specify leg: BBD to I-275
Approach Speed:	Approach Speed:

DESIGN YEAR: 2028

BUILD	NO-BUILD
Most Congested Intersection or Free Flow Segment:	Most Congested Intersection or Free Flow Segment:
Design/Peak Hour Traffic for most congested leg (DDHV): 4,990	Design/Peak Hour Traffic for most congested leg (DDHV): 4,990
Specify leg: BBD to I-275	Specify leg: BBD to I-275
Approach Speed:	Approach Speed:

PB PARSONS BRINCKERHOFF

TRAFFIC DATA FOR AIR STUDY

DATE:	04/22/03
PREPARED BY:	SP

Project Description(s): I-75 PD&E (Fowler Ave. to SR54)

Project Number(s):

Work Program Number(s): 408459 - 1

Federal Aid Number(s): 0751 - 105 - 1

NOTE: the most congested intersection is the intersection with the highest total volume and lowest departure speeds and it could be two different intersections based on the "Build" vs. "No-Build" alternatives. The traffic volumes are to be the VPH of the most congested leg approaching the intersection. The speeds are to be the average cruise speed for the most congested leg no closer than 152.4 meters (500 feet) from the intersection.

OPENING YEAR: 2008

BUILD	NO-BUILD
Most Congested Intersection or Free Flow Segment:	Most Congested Intersection or Free Flow Segment:
Design/Peak Hour Traffic for most congested leg (DDHV): 4,932	Design/Peak Hour Traffic for most congested leg (DDHV): 4,932
Specify leg: I-275 to SR56	Specify leg: I-275 to SR56
Approach Speed:	Approach Speed:

DESIGN YEAR: 2028

BUILD	NO-BUILD
Most Congested Intersection or Free Flow Segment:	Most Congested Intersection or Free Flow Segment:
Design/Peak Hour Traffic for most congested leg (DDHV): 7,360	Design/Peak Hour Traffic for most congested leg (DDHV): 7,360
Specify leg: I-275 to SR56	Specify leg: I-275 to SR56
Approach Speed:	Approach Speed:

PB PARSONS BRINCKERHOFF

TRAFFIC DATA FOR AIR STUDY

DATE:	04/22/03
PREPARED BY:	SP

Project Description(s): I-75 PD&E (Fowler Ave. TO SR 54)

Project Number(s):

Work Program Number(s): 408459 - 1

Federal Aid Number(s): 0751-105-I

NOTE: the most congested intersection is the intersection with the highest total volume and lowest departure speeds and it could be two different intersections based on the "Build" vs. "No-Build" alternatives. The traffic volumes are to be the VPH of the most congested leg approaching the intersection. The speeds are to be the average cruise speed for the most congested leg no closer than 152.4 meters (500 feet) from the intersection.

OPENING YEAR: 2008

BUILD	NO-BUILD
Most Congested Intersection or Free Flow Segment:	Most Congested Intersection or Free Flow Segment:
Design/Peak Hour Traffic for most congested leg (DDHV): 4,062	Design/Peak Hour Traffic for most congested leg (DDHV): 4,062
Specify leg: SR 56 to SR 54	Specify leg: SR 56 to SR 54
Approach Speed:	Approach Speed:

DESIGN YEAR: 2028

BUILD	NO-BUILD
Most Congested Intersection or Free Flow Segment:	Most Congested Intersection or Free Flow Segment:
Design/Peak Hour Traffic for most congested leg (DDHV): 5,585	Design/Peak Hour Traffic for most congested leg (DDHV): 5,585
Specify leg: SR 56 to SR 54	Specify leg: SR 56 to SR 54
Approach Speed:	Approach Speed:

PB PARSONS BRINCKERHOFF

Appendix B
COSCREEN98 Output Files

04-22-2003

COSCREEN98
revised August 2000 to remove I/M options)

I-75 PD&E Study, South of Fowler to CR 54

I-75, South of Fowler No-Build Alternative for Opening Year 2008

Analyst: PBQD (Donahoo)

MOBILE5 Emission Factors Based On:

User-supplied Data:

Region:	4: Hillsborough / Pinellas
Year:	2008
Speed:	65

Default Data:

Ambient Temperature:	60
Maximum Temperature:	70
Minimum Temperature:	50

Facility Data:

Max Approach Traffic Volume:	7111 veh/hour
Environment:	Urban
Background Concentration:	1-hr = 5.0 ppm 8-hr = 3.0 ppm

Receptor Data:

Receptor Name	East-West Distance from Intersection	North-South Distance from Intersection	Receptor Height
Rec 1-4	107	611	5

All distances are in feet

****

RESULTS

Receptor Name	Max 1-Hr Conc (ppm)	Max 8-Hr Conc (ppm)
Rec 1-4	11.8	7.1

Maximum concentrations include background CO

****

04-22-2003

COSCREEN98
(revised August 2000 to remove I/M options)

I-75 PD&E Study, South of Fowler to CR 54
I-75, South of Fowler Build Alternative for Opening Year 2008
Analyst: PBQD (Donahoo)

MOBILE5 Emission Factors Based On:

User-supplied Data:

Region:	4: Hillsborough / Pinellas
Year:	2008
Speed:	65

Default Data:

Ambient Temperature:	60
Maximum Temperature:	70
Minimum Temperature:	50

Facility Data:

Max Approach Traffic Volume:	7111 veh/hour
Environment:	Urban
Background Concentration:	1-hr = 5.0 ppm 8-hr = 3.0 ppm

Receptor Data:

Receptor Name	East-West Distance from Intersection	North-South Distance from Intersection	Receptor Height
Rec 1-4	96	562	5

All distances are in feet

****

RESULTS

Receptor Name	Max 1-Hr Conc (ppm)	Max 8-Hr Conc (ppm)
Rec 1-4	12.1	7.3

Maximum concentrations include background CO

04-22-2003

COSCREEN98
(revised August 2000 to remove I/M options)

I-75 PD&E Study, South of Fowler to CR 54
I-75, South of Fowler No-Build Alternative for Design Year 2028
Analyst: PBQD (Donahoo)

MOBILE5 Emission Factors Based On:

User-supplied Data:

Region:	4: Hillsborough / Pinellas
Year:	2020
Speed:	65

Default Data:

Ambient Temperature:	60
Maximum Temperature:	70
Minimum Temperature:	50

Facility Data:

Max Approach Traffic Volume:	9300 veh/hour
Environment:	Urban
Background Concentration:	1-hr = 5.0 ppm 8-hr = 3.0 ppm

Receptor Data:

Receptor Name	East-West Distance from Intersection	North-South Distance from Intersection	Receptor Height
Rec 1-4	107	611	5

All distances are in feet

****

RESULTS

Receptor Name	Max 1-Hr Conc (ppm)	Max 8-Hr Conc (ppm)
Rec 1-4	12.6	7.6

Maximum concentrations include background CO

****

04-22-2003

COSCREEN98
(revised August 2000 to remove I/M options)

I-75 PD&E Study, South of Fowler to CR 54
I-75, South of Fowler Build Alternative for Design Year 2028

Analyst: PBQD (Donahoo)

MOBILE5 Emission Factors Based On:

User-supplied Data:

Region:	4: Hillsborough / Pinellas
Year:	2020
Speed:	65

Default Data:

Ambient Temperature:	60
Maximum Temperature:	70
Minimum Temperature:	50

Facility Data:

Max Approach Traffic Volume:	9300 veh/hour
Environment:	Urban
Background Concentration:	1-hr = 5.0 ppm 8-hr = 3.0 ppm

Receptor Data:

Receptor Name	East-West Distance from Intersection	North-South Distance from Intersection	Receptor Height
Rec 1-4	96	562	5

All distances are in feet

****

RESULTS

Receptor Name	Max 1-Hr Conc (ppm)	Max 8-Hr Conc (ppm)
Rec 1-4	13.0	7.8

Maximum concentrations include background CO

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Appendix C
FDOT Conformity Memorandum

MEMORANDUM

Department of Transportation
District Seven Planning MS 7-500

DATE: March 4, 2004

TO: Robin Rhinesmith, EMO Department

FROM: Fawzi Bitar, Systems Planning Coordinator FB

COPIES: File

SUBJECT: **F.P.N. : 408459-1**
State Road : I-75/SR 93A (S. of Fowler Ave to SR 56) PD&E Study
County : Hillsborough, Pasco

Per Mr. Finck's E-mail dated March 2, 2004, this is to certify that the above referenced projects are in conformance with the State Implementation Plan (SIP) and are in the Federal Highway Administration (FHWA) approved Hillsborough and Pasco County Urban Area MPO's Transportation Implementation Plan (TIP), Fiscal Year 2003/04 thru 2008/09.

/FKB