# DRAFT
# CONCEPT REPORT

## SR 694 (Gandy Boulevard) at Grand Avenue
**Pinellas County, Florida**

**Work Program Item Segment No.: 256931-1**

Prepared for:

**Florida Department of Transportation**
**District Seven**
**11201 North McKinley Drive**
**Tampa, Florida 33612-6456**

**June 2010**

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**District Seven**
**11201 N. Malcolm McKinley Drive**
**Tampa, Florida 33612**

Prepared by:

**4030 West Boy Scout Boulevard**
**Suite 700**
**Tampa, Florida 33607**

**June 2010**

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## 1.0 INTRODUCTION

The Florida Department of Transportation (FDOT) conducted a Project Development and Environment (PD&E) Study to evaluate improvement alternatives along SR 694, hereafter referred to as Gandy Boulevard, from west of US 19 to east of 4th Street in the cities of Pinellas Park and St. Petersburg in Pinellas County, Florida. The project location map in **Figure 1-1** illustrates the location and limits of the study. The PD&E Study, approved in August 2002, recommended an overpass and interchange at a location approximately 250 feet (ft) to the east of the existing Grand Avenue intersection with Gandy Boulevard passing over the realigned Grand Avenue. The *Final Preliminary Engineering Report*[1] includes detailed information on the PD&E Study.

In 2009, Mr. Grady Pridgen, a property owner, had requested a reconfiguration of the PD&E Study's proposed interchange at the intersection of Gandy Boulevard and Grand Avenue in Pinellas Park. Originally, the recommended interchange layout included the relocation of Grand Avenue approximately 250 ft east of its current intersection with Gandy Boulevard. The property owner has requested that the overpass at Grand Avenue be relocated back to the existing connection to Gandy Boulevard. This could allow the property owner the opportunity to maximize development of the property. This overpass would be constructed in conjunction with the larger overall reconstruction of Gandy Boulevard from west of US 19 to west of I-275. This concept study will evaluate the feasibility of the Gandy Boulevard overpass and interchange concept located at the existing Grand Avenue alignment.

In addition, there is a 50-ft strip of existing FDOT right-of-way (ROW) located on the north side of Gandy Boulevard from Grand Avenue to a point approximately 900 ft east. This land is directly adjacent to the property owner's property. The strip of land was not identified in the PD&E Study as being needed for the roadway improvements but could be used for a linear stormwater pond. The property owner has inquired about acquiring this property in exchange for providing the proposed PD&E Study improvements' drainage needs within the property owner's own ponds. This would maximize the use of the property for land development opportunities. This concept study will evaluate the drainage capacity of the 50-ft strip of ROW for consideration of the property owner providing ROW with an equivalent drainage capacity.

By 2010, the property previously owned by Mr. Grady Pridgen had been sold. Therefore, the property owner's request and interest to reconfigure the interchange no longer stands. However, the evaluation may have benefits to future phases of the overall Gandy Boulevard improvement project, including a reevaluation of reduced ROW impacts and traffic operations.

SR 694 (GANDY BOULEVARD) AT GRAND AVENUE
INTERCHANGE REALIGNMENT
Project Location Map
FIGURE 1-1
DISTRICT 7
N
End 2002 PD&E Study
Begin 2002 PD&E Study
Location of Concept Study
Gandy Blvd.
Grand Ave.
Park Blvd.
28th St.
9th St.
4th St.
275
694
19

## 1.1 Study Objective

This study objective is to review the above issues to determine if the property owner's request can be reasonably implemented without limiting the PD&E Study's planned future interchange options, stormwater design needs or environmental mitigation commitments previously made in the Federal Highway Administration (FHWA) approved PD&E Study.

This work effort will be done in accordance with the standard procedures acceptable to the FDOT and other local agencies and including the criteria set forth in the FDOT *Plans Preparation Manual*[2] and American Association of State Highway and Transportation Officials (AASHTO).

## 1.2 Study Limitations

This concept study included an engineering evaluation and development of one new viable conceptual geometric alternative. Field reviews were performed to verify existing conditions. Traffic operational and environmental impact analyses were not performed.

# 2.0 EXISTING CONDITIONS

Gandy Boulevard is currently a six-lane arterial roadway with a varying width depressed median and flush shoulders as shown in **Figure 2-1**. Two-way frontage roads carry local traffic on the north and south sides of Gandy Boulevard.

Existing land uses between US 19 and I-275 include commercial, high-density residential, and industrial uses as shown on the aerial concept maps in **Appendix A and B**. Grand Avenue provides access to the Gateway Center, a partially developed mixed-use commercial and residential development to the north, and to an industrial area and cemetery to the south.

## 2.1 Potential Contamination Sites

The *Final Preliminary Engineering Report* referenced several potential contamination sites in the vicinity of the Grand Avenue intersection. These sites are included on the concept plans in **Appendix A and B.**

# 3.0 CONCEPTUAL DESIGN AND FEASIBILITY ANALYSIS

## 3.1 Design Criteria

The design criteria used to develop typical sections and alternative alignments are shown in **Table 3-1.** All design criteria meets standards outlined in the FDOT *Plans Preparation Manual*.

According to the FDOT Straight Line Diagram (SLD), Gandy Boulevard is functionally classified as an urban other principal arterial. Grand Avenue is a local road within Pinellas Park.

EXISTING R/W
VARIES
12′
12′
VARIES
10′
12′
12′
12′
12′
5′
8′
VARIES
24′ to 60′
GANDY BOULEVARD
5′
8′
12′
12′
12′
12′
10′
12′
VARIES
12′
12′
VARIES
NORTH FRONTAGE ROAD
WESTBOUND
EASTBOUND
SOUTH FRONTAGE ROAD
EXISTING R/W
EXISTING ROADWAY
TYPICAL SECTION
GANDY BOULEVARD
FIGURE 2-1
SR 694 (GANDY BOULEVARD) AT GRAND AVENUE
INTERCHANGE REALIGNMENT
WPI SEG NO.: 2569311
DISTRICT 7
STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION

**Table 3-1**
**Proposed Design Criteria**

| Criteria | Value/Designation | Documentation |
|---|---|---|
| **Functional Classification:** | | |
| Gandy Boulevard (SR 694) | Urban Principal Arterial | FDOT SLD |
| Collector-Distributor | Collector | *Pinellas County Comprehensive Plan*[3] |
| Grand Ave (N of Gandy Blvd) | Local Collector | City of Pinellas Park |
| Grand Ave (S of Gandy Blvd) | No classification | City of Pinellas Park |
| **Design Speed:** | | |
| Gandy Boulevard (SR 694) | 60 mph | *PPM* |
| Collector-Distributor Road | 50 mph | Section 1.9 |
| Ramps | 50 mph | Tables 1.9.1 & 1.9.2 |
| Grand Ave (N of Gandy Blvd) | 30 mph | |
| Grand Ave (S of Gandy Blvd) | 20 mph | |
| **Lane Width:** | | |
| Travel Lane | 12.0 ft. | *PPM* |
| Collector-Distributor Road | 12.0 ft. | Table 2.1.1, 2.1.2, & 2.1.3 |
| Single Lane Ramp | 15.0 ft. | |
| Bicycle Lane | 4.0 ft. | |
| **Median Width (Gandy Blvd):** | | |
| Roadway | 40.0 ft. | *PPM* |
| Roadway with barrier | 26.0 ft. (Minimum) | Table 2.2.1 |
| **Roadway Shoulder Width:** | | |
| Gandy Blvd | | *PPM* |
| Outside | 12.0 ft. total (5.0 ft. paved ) | Table 2.3.2 |
| Median or Left | 12.0 ft. total (0.0 ft. paved) | (Based on high volume roadway) |
| Frontage Road | | |
| Outside | 12.0 ft. total (5.0 ft. paved) | *PPM* |
| Median or Left | 8.0 ft. total (0.0 ft. paved) | Table 2.3.4 |
| Ramp (Single Lane) | | |
| Inside | 6.0 ft. total (2.0 ft. paved) | *PPM* |
| Outside | 6.0 ft. total (5.0 ft. paved) | Table 2.3.2 |
| **Sidewalk Width:** | | *PPM* |
| Standard | 5.0 ft. | Section 8.3.1 |
| **Border Width: (Gandy Blvd)** | | *PPM* |
| Flush Shoulder | 40.0 ft. (Design Speed > 45 mph) | Table 2.5.1 |
| **K Values:** | **Gandy Blvd over Grand Ave** | *PPM* |
| K Crest Value | 245 | Table 2.8.5 |
| K Sag Value | 136 | Table 2.8.6 |

**Table 3-1 (Continued)**
**Proposed Design Criteria**

| Criteria | Value/Designation | Documentation |
|---|---|---|
| **Clear Zone**<br>Gandy Blvd<br>Collector-Distributor Road | <br>36 ft<br>24 ft | *PPM*<br>Table 2.11.11 |
| **Maximum Grades:**<br>Gandy Blvd<br>Collector-Distributor Road | <br>5 %<br>9 % | *PPM*<br>Table 2.6.1 |
| **Stopping Sight Distance (Min):**<br>Gandy Blvd<br>Gandy Blvd Bridges Ascent<br>Gandy Blvd Bridges Descent<br>Collector-Distributor Road<br>Grand Ave | <br>570 ft<br>598 ft<br>538 ft<br>425 ft<br>200 ft | *PPM*<br><br>Table 2.7.1 |
| **Maximum Superelevation Rate**<br>Gandy Blvd<br>Collector-Distributor Road | <br>e = 0.10 ft/ft<br>e = 0.10 ft/ft | *PPM*<br>Section 2.9 |
| **Maximum Degree of Curvature:**<br>Gandy Blvd<br>Collector-Distributor Road | <br>D = 5° 15'<br>D = 8° 15' | *PPM*<br>Table 2.8.3 |
| **Minimum Vertical Clearance**<br>Gandy Blvd over Grand Ave | <br>16.5 ft | *PPM*<br>Section 2.10 |

## 3.2 Proposed Typical Sections

The proposed Gandy Boulevard typical section from US 19 to Grand Avenue is shown in **Figure 3-1**. It includes three mainline lanes in each direction with a two-lane one-way collector-distributor system. The proposed Gandy Boulevard bridge typical section is also shown for the overpass at Grand Avenue.

The proposed Gandy Boulevard typical section from Grand Avenue to I-275 is the same as described above, with the addition of a two-lane two-way frontage road for local access, as shown in **Figure 3-2**.

The proposed typical sections for Grand Avenue are shown in **Figure 3-3** for conditions north and south of Gandy Boulevard, as well as the condition under the Gandy Boulevard overpass.

GANDY BOULEVARD MAINLINE OVERPASS AT GRAND AVENUE
12'
36'
12'
60'
12'
36'
12'
160.66'
GANDY BOULEVARD WEST OF GRAND AVENUE
EXISTING R/W
5'
2'
3'
2'
4'
12'
12'
COLLECTOR-DISTRIBUTOR
12'
8'
2'
12'
12'
12'
12'
12'
12'
VARIES 26' - 40'
GANDY BLVD. MAINLINE
12'
12'
12'
2'
8'
12'
12'
COLLECTOR-DISTRIBUTOR
4'
2'
3'
2'
5'
EXISTING R/W
PROPOSED ROADWAY
TYPICAL SECTIONS
GANDY BOULEVARD
FIGURE 3-1
SR 694 (GANDY BOULEVARD) AT GRAND AVENUE
INTERCHANGE REALIGNMENT
WPI SEG NO: 2569311
DISTRICT 7
STATE OF FLORIDA - DEPARTMENT OF TRANSPORTATION

EXISTING R/W
2' 5' 3' 2' 4' 12' 12' 8' 2' 10' 12' 12' 10' 2' 12' 12' 12' 12' 12' VARIES 26' - 40' [2] 12' 12' 12' 12' 12' 2' 8' 12' 12' 12' 2' 10' 12' 2' 8' 12' 2' 4' 3' 2' 5'
VARIES 314' to 328'
NORTH FRONTAGE ROAD
COLLECTOR-DISTRIBUTOR
EXPRESSWAY MAINLINE
COLLECTOR-DISTRIBUTOR
SOUTH FRONTAGE ROAD
EXISTING R/W
GANDY BOULEVARD EAST OF GRAND AVENUE
DISTRICT 7
STATE OF FLORIDA - DEPARTMENT OF TRANSPORTATION
SR 694 (GANDY BOULEVARD) AT GRAND AVENUE
INTERCHANGE REALIGNMENT
WPI SEG NO: 2569311
PROPOSED ROADWAY
TYPICAL SECTION
GANDY BOULEVARD
FIGURE 3-2

EXISTING R/W
2′ 5′ 3′ 3′ 5′ 12′ 12′ 20′ 12′ 12′ 5′ 3′ 3′ 5′ 2′
104′
EXISTING R/W
GRAND AVENUE NORTH OF GANDY BOULEVARD
MIN. VERT. CLEARANCE 16.5′
MIN. VERT. CLEARANCE 16.5′
18.56′ 5′ 2′ 2′ 4′ 15′ 20′ 15′ 4′ 2′ 2′ 5′ 3.24′
99.8′
GRAND AVENUE AT OVERPASS
PROPOSED R/W
9′ 3′ 5′ 12′ 12′ 5′ 3′ 2′ 5′ 2′
PROPOSED R/W
FRONTAGE ROAD SOUTH OF GANDY BOULEVARD
PROPOSED ROADWAY TYPICAL SECTIONS GRAND AVENUE
FIGURE 3-3
SR 694 (GANDY BOULEVARD) AT GRAND AVENUE
INTERCHANGE REALIGNMENT
WPI SEG NO: 2569311
DISTRICT 7
STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION

## 3.3 Summary of Traffic Conditions

Existing year (2000) and design year (2025) traffic projections and Level of Service (LOS) were evaluated during the 2002 PD&E Study. The 2025 intersection and arterial LOS are shown in **Table 3-2** for the area near Grand Avenue. The lane configurations for Gandy Boulevard, Grand Avenue, collector-distributor system, ramps, frontage roads and the signalized intersection developed in this concept study are consistent with the lane configurations evaluated in the PD&E Study. It is recommended that traffic projections be updated to 2030 or 2035 design year since the operations of the signalized intersections (C-D system and slip-ramp) at Grand Avenue will require five phases overall, with full directional separation. The interconnected traffic signals would operate inefficient at best, and may not meet established LOS C criteria for the intersection for later design years. It is recommended that additional concepts be evaluated which could include east-west through movements at the US 19 interchange, which were not considered during the PD&E Study. Concepts may be developed that would negate the need for the left-hand off-ramp and U-turns at US 19 while simplifying the Grand Avenue intersection, leading to more efficient operations overall.

**Table 3-2**
**Year 2025 Projected Levels of Service**

| Segment or Junction | Build 2025 Peak Hour | |
|---|---|---|
| | AM | PM |
| Eastbound Slip Ramp at Grand Avenue Signalized Intersection | B | A |
| Eastbound Collector-Distributor at Grand Avenue Signalized Intersection | B | A |
| Westbound Collector-Distributor at Grand Avenue Signalized Intersection | C | E |
| Westbound Off Ramp to Grand Avenue Arterial Segment | E | F |

## 3.4 Concept Alternatives

### 3.4.1 Alternative 1

Alternative 1 is the 2002 PD&E Study Recommended Alternative, included in **Appendix A**. The PD&E Study Recommended Alternative provides a six-lane divided controlled access facility. Access between the frontage roads and the mainline expressway is provided by one-lane on-ramps between Gandy Boulevard and Grand Avenue, and one-lane off-ramps between Grand Avenue and I-275. The Grand Avenue alignment is moved approximately 250 ft to the east, with the Gandy Boulevard mainline expressway crossing over Grand Avenue on an overpass. Traffic traveling eastbound on Gandy Boulevard will access Grand Avenue via a left-exit slip-ramp. Traffic traveling eastbound on the frontage road will be able to make a left turn through a signalized intersection, crossing under the overpass, to access Grand Avenue. A CORSIM analysis was run during the PD&E Study and confirmed that the six-lane section would accommodate the traffic at an acceptable LOS for design year 2025 conditions.

### 3.4.2 Alternative 2

Alternative 2 is a new alternative that maintains the existing alignment of Grand Avenue north of Gandy Boulevard as shown in **Appendix B**. Grand Avenue under the overpass will be skewed approximately 65 degrees to avoid impacts to the Roberts Mobile Home RV Resort and the Harberson RV parking area. Lane configurations are identical to Alternative 1.

## 3.5 Drainage Considerations

The purpose of the drainage evaluation is to determine the approximate area within the proposed ROW at the northeast quadrant of the Grand Avenue interchange. Once this area is determined, a potential land swap agreement can take place between the FDOT and the developer, should the revised interchange design be considered feasible and approved by the FDOT. The land swap agreement should include language that identifies the location(s) and area within the developer's site to be used as a stormwater management facility (SMF) for the FDOT. The agreement should also include language if the proposed SMF area within the developer's land could be used as a joint use pond. This discussion and land swap agreement will take place between the FDOT and the developer.

Preliminary analysis was conducted to determine the approximate linear SMF area available within the northeast corner of Gandy Boulevard and Grand Avenue interchange between the proposed retaining wall and existing FDOT ROW. The total available area is approximately 1.30 acres (ac). The average ground elevation within the linear SMF is 13.0 ft (U.S.C. & G Datum), which was determined from the Southwest Florida Water Management District (SWFWMD) contour map. The estimated seasonal high water table (SHWT) elevation based on the National Resource Conservation Survey (NRCS) soils map is approximately 1-ft below existing ground at the linear SMF location. After reviewing the SWFWMD aerials, the soils information, and the revised PD&E Study interchange layouts at Grand Avenue, there is approximately 0.80 ac of SMF surface area available for stormwater management within the northeast quadrant of the interchange. Please refer to **Figure 3-4** below for approximate SMF layout.

The following assumptions were made to determine the SMF surface area: 1:4 side slopes, 10-ft offset from the proposed retaining wall, 10-ft offset away from the Grand Avenue proposed sidewalk, 12-ft offset from the FDOT ROW to accommodate tie down and a 5 to 15-ft berm area from the Gandy Boulevard North Frontage road.

During the design phase for this project, the drainage area for this linear SMF or the offsite SMF with the land swap agreement will be finalized. The stormwater management for this project may need to meet the Total Maximum Daily Loading (TMDL) criteria or the proposed Florida Department of Environmental Protection (FDEP) Statewide Stormwater Treatment Rule (SSTR). These rules are more stringent than the current water quality rules. This linear SMF may not be large enough to meet the current water quality rules since the drainage area is unknown and will not likely meet the TMDL or SSTR requirements. An alternative SMF site may be required to meet the total basin requirements, and this analysis will be performed during the design phase of this project.

SR 694 (GANDY BOULEVARD) AT GRAND AVENUE
INTERCHANGE REALIGNMENT
WPI SEG NO: 2569311
DISTRICT 7
STATE OF FLORIDA · DEPARTMENT OF TRANSPORTATION
APPROXIMATE STORMWATER MANAGEMENT FACILITY LAYOUT
FIGURE 3-4
GRAND AVE
GATEWAY CENTER (DEMOLISHED)
0.80 AC SMF
FDOT R/W
GANDY BLVD
GANDY BLVD NORTH FRONTAGE RD
GANDY BLVD SOUTH FRONTAGE RD
AMERICAST
VALBRUNA STAINLESS
HARBERSON RV
50
55
60
65
NTS

## 3.6 Advantages and Disadvantages

While both alternatives are feasible, the two alternatives were qualitatively compared and then evaluated quantitatively for cost and impacts in order to determine the overall feasibility of revising the concept to suit the property owner's request. Advantages and disadvantages for each Alternative are summarized in **Table 3-3**.

**Table 3-3**
**Advantages and Disadvantages**

| Alternative | Advantages | Disadvantages |
|---|---|---|
| **Alternative 1** 2002 PD&E Study Alternative | Approved concept from PD&E Study | Impacts development potential of Gateway Center |
| | Desirable geometry (perpendicular) at Grand Avenue overpass | Significant ROW impacts to Gateway Center development |
| | Avoids Robert's Mobile Home RV Resort | Significant impacts to Harberson RV parking area |
| | Does not require excess ROW in northeast quadrant for roadway improvements | Inefficient traffic operations at intersection |
| **Alternative 2** Existing Grand Avenue, skewed overpass | Avoids ROW impacts to Gateway Center development | Skewed geometry at Grand Avenue overpass |
| | Maximizes development potential of Gateway Center | Inefficient traffic operations at intersection |
| | Avoids Harberson RV parking area and Robert's Mobile Home RV Resort | |
| | Does not require excess ROW in northeast quadrant for roadway improvements | |

## 3.7 Alternatives Evaluation

In order to further evaluate the viable project alternatives, an evaluation matrix was prepared. The matrix data was developed utilizing raster-based aerial photography depicting the proposed ROW needs for each alternative. The evaluation matrix is shown in **Table 3-4**.

The construction costs were prepared using the FDOT Long Range Estimate (LRE) computer program and are attached in **Appendix C and D**. The ROW cost for Alternative 1 was estimated using FDOT's standard procedure, and is attached in **Appendix E**. Alternative 2 has no ROW impact; therefore there is no cost estimate.

## 3.8 NEPA Documentation Requirements

Any changes to the PD&E Study Recommended Alternative resulting from this study that affect ROW, access, relocations, or result in significant changes to environmental impacts will require a Design Change Reevaluation be prepared.

**Table 3-4**
**Alternatives Impact Evaluation Matrix**

| EVALUATION FACTORS | Alternatives | |
|---|---|---|
| | **1**<br>**2002 PD&E Study** | **2**<br>**2010 Realigned Interchange** |
| **BUSINESS AND RESIDENTIAL RELOCATIONS** | | |
| Number of businesses estimated to be relocated | 1 | 0 |
| Number of residences estimated to be relocated | 0 | 0 |
| **PARCEL IMPACTS** | | |
| Number of parcels impacted | 4 | 0 |
| Total area of right-of-way acquired in acres | 4.46 | 0 |
| **NATURAL ENVIRONMENT INVOLVEMENT** | | |
| Estimated total wetland involvement area in acres | 0.25 | 0.02 |
| Area of 100-year floodplain encroachment in acres | 0.93 | 0.45 |
| **POTENTIAL CONTAMINATED SITES (within or adjacent to ROW)** | | |
| Number of potential contaminated sites | 6 | 6 |
| **ESTIMATED PROJECT COSTS (Present value in million $)** | | |
| Design (15% of Construction Cost) | $5,326,373 | $4,868,792 |
| ROW | $11,119,800 | $0 |
| Construction | $35,509,153 | $32,458,615 |
| CEI (15% of Construction Cost) | $5,326,373 | $4,868,792 |
| **TOTAL COST** | **$57,281,699** | **$42,196,200** |

## 4.0 CONCLUSION

It is viable to construct the Grand Avenue overpass at the existing Grand Avenue with a skewed bridge structure.

## 5.0 REFERENCES


1. *Final Preliminary Engineering Report*; PBS&J; Tampa, Florida; August, 2002.

2. *Plans Preparation Manual*; Florida Department of Transportation; Tallahassee, Florida; January 2010.

3. *Pinellas County Comprehensive Plan*; Pinellas County Planning Department; Clearwater, Florida, adopted February 17, 1998, Last Amended April 4, 2006.

# APPENDICES

**Appendix A:** **Preliminary Design Concept: Alternative 1 (2002 PD&E Study)**

**Appendix B:** **Preliminary Design Concept: Alternative 2 (2010 Realigned Interchange)**

**Appendix C:** **LRE Cost Estimate: Alternative 1 (2002 PD&E Study)**

**Appendix D:** **LRE Cost Estimate: Alternative 2 (2010 Realigned Interchange)**

**Appendix E:** **Right-of-Way Cost Estimates: Alternative 1 (2002 PD&E Study)**

# APPENDIX A

## Preliminary Design Concept: Alternative 1 (2002 PD&E Study)

DISTRICT 7

STATE OF FLORIDA · DEPARTMENT OF TRANSPORTATION

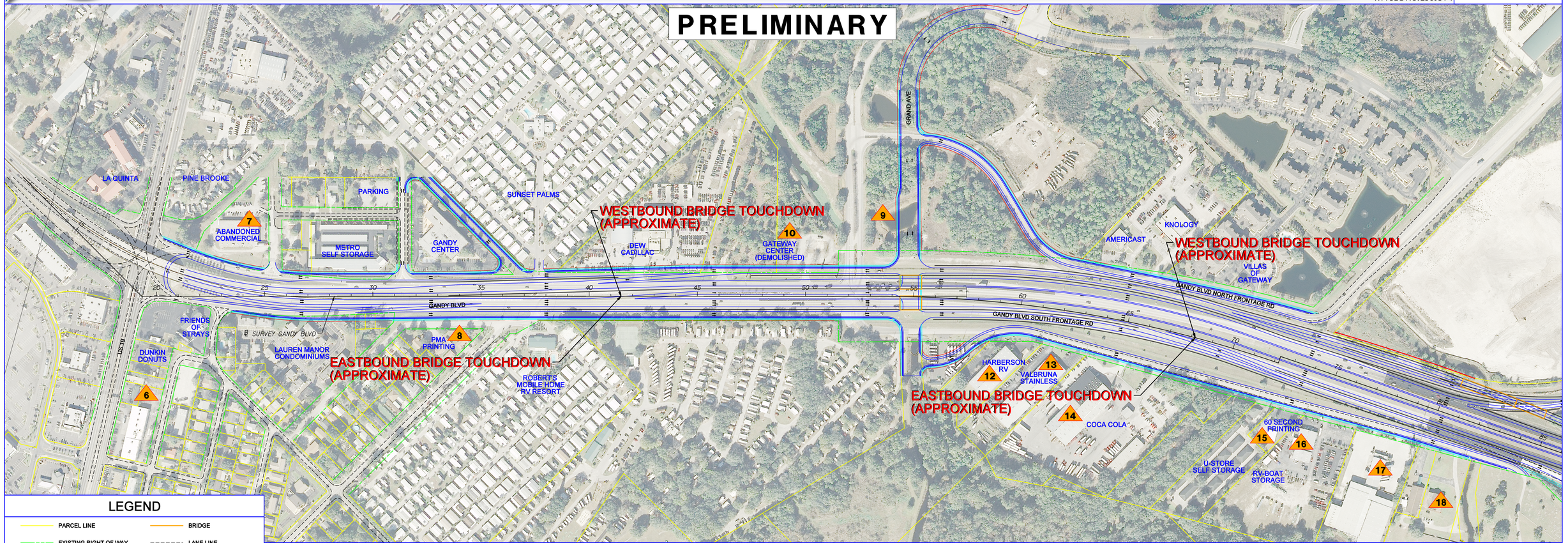
# SR 694 (GANDY BOULEVARD) AT GRAND AVENUE

## INTERCHANGE REALIGNMENT - ALTERNATIVE 1

WPI SEG NO: 256931 1

0 100 200 Feet

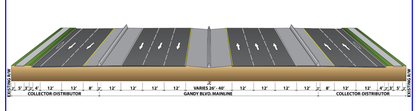
**PRELIMINARY**



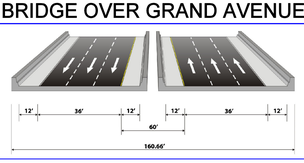

### LEGEND

- PARCEL LINE
- EXISTING RIGHT OF WAY
- PROPOSED RIGHT OF WAY
- EDGE OF EXISTING ROADWAY
- EDGE OF PROPOSED ROADWAY
- EDGE OF PROPOSED SHOULDER
- BRIDGE
- LANE LINE
- BARRIER WALL
- SIDEWALK
- 40 BASELINE SURVEY
- POTENTIAL CONTAMINATION SITE

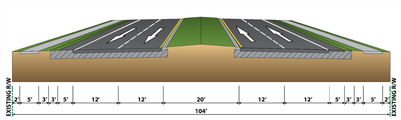
### GANDY BLVD WEST OF GRAND AVENUE



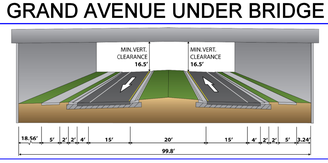
### BRIDGE OVER GRAND AVENUE



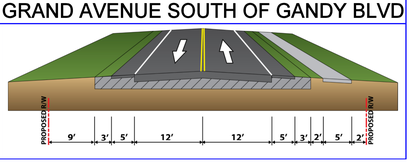

### GRAND AVENUE NORTH OF GANDY BLVD




### GRAND AVENUE UNDER BRIDGE




### GRAND AVENUE SOUTH OF GANDY BLVD



# APPENDIX B

## Preliminary Design Concept: Alternative 2 (2010 Realigned Interchange)

DISTRICT 7

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION

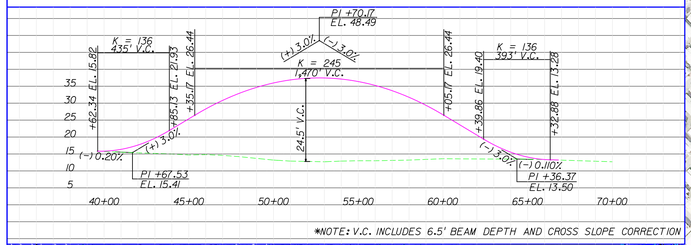
# SR 694 (GANDY BOULEVARD) AT GRAND AVENUE

## INTERCHANGE REALIGNMENT - ALTERNATIVE 2

WPI SEG NO: 256931 1

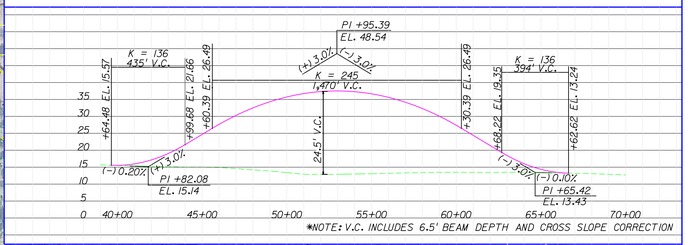
0 100 200 Feet

### WESTBOUND BRIDGE OVER GRAND AVENUE

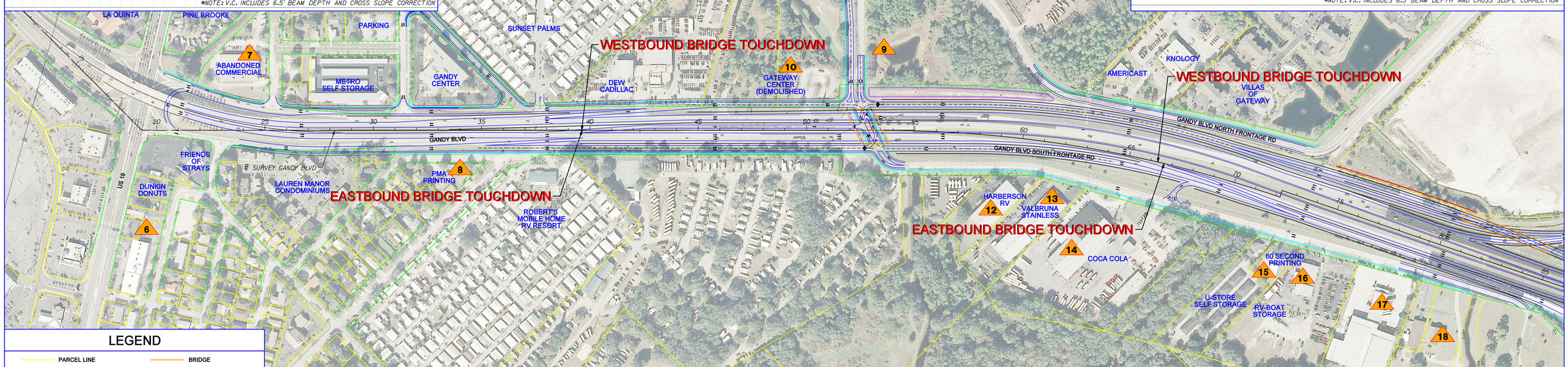



*NOTE: V.C. INCLUDES 6.5' BEAM DEPTH AND CROSS SLOPE CORRECTION

### EASTBOUND BRIDGE OVER GRAND AVENUE




*NOTE: V.C. INCLUDES 6.5' BEAM DEPTH AND CROSS SLOPE CORRECTION

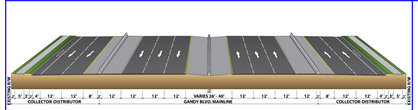

PRELIMINARY



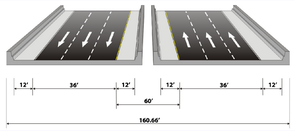
### LEGEND

| | |
|---|---|
| PARCEL LINE | BRIDGE |
| EXISTING RIGHT OF WAY | BRIDGE ABUTMENT |
| PROPOSED RIGHT OF WAY | LANE LINE |
| EDGE OF EXISTING ROADWAY | BARRIER WALL |
| EDGE OF PROPOSED ROADWAY | SIDEWALK |
| EDGE OF PROPOSED SHOULDER | BASELINE SURVEY |
| PROPOSED POND SITE | POTENTIAL CONTAMINATION SITE |

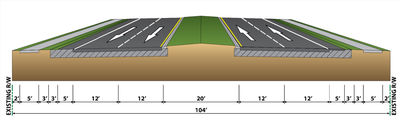
### GANDY BLVD WEST OF GRAND AVENUE



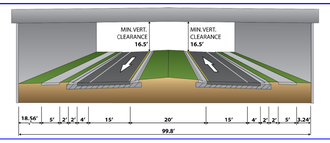
### BRIDGE OVER GRAND AVENUE



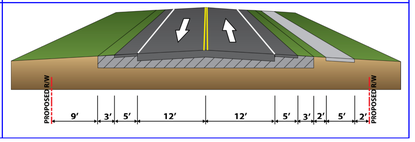
### GRAND AVENUE NORTH OF GANDY BLVD



### GRAND AVENUE UNDER BRIDGE



### GRAND AVENUE SOUTH OF GANDY BLVD



# APPENDIX C

## LRE Cost Estimate: Alternative 1 (2002 PD&E Study)

**WPI 256931-1**
**Gandy Boulevard (SR 694) at Grand Avenue**
**2002 PD&E Recommended Alternative**

| LRE Component | Sequence 1<br>Mainline, One-way, Two-lane, At grade | Sequence 2<br>Mainline, One-way, Two-lane, MSE | Sequence 3<br>Mainline, One-way, Three-lane, At grade | Sequence 4<br>Mainline, One-way, Three-lane, MSE | Sequence 5<br>Mainline, Two-way, Six-lane, Structure | Sequence 6<br>Ramp, One-way, One-lane, At grade | Sequence 7<br>Ramp, One-Way, One-lane, MSE | Sequence 8<br>C-D Road West of Grand Ave | Sequence 9<br>C-D Road East of Grand Ave | Sequence 10<br>Grand Ave North of Gandy Blvd | Sequence 11<br>Grand Ave Under Gandy Blvd | Sequence 12<br>Grand Ave South of Gandy Blvd | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Earthwork | | | | | | | | | | | | | |
| Clearing and Grubbing | $415,150.82 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | |
| Embankment | $16,213.74 | $427,069.87 | $76,930.17 | $1,803,997.51 | N/A | $60,377.36 | $212,007.30 | $279,784.05 | $87,586.04 | $204,802.96 | $71,050.98 | $40,557.70 | |
| Total Earthwork | $431,364.56 | $427,069.87 | $76,930.17 | $1,803,997.51 | $0.00 | $60,377.36 | $212,007.30 | $279,784.05 | $87,586.04 | $204,802.96 | $71,050.98 | $40,557.70 | $3,695,529 |
| Bridge | N/A | N/A | N/A | N/A | $3,803,517.20 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | $3,803,517 |
| Roadway | | | | | | | | | | | | | |
| Roadway | $199,603.91 | $646,095.45 | $793,156.36 | $1,982,532.83 | $306.67 | $672,863.57 | $501,874.99 | $1,226,184.39 | $666,215.78 | $383,126.65 | $72,570.56 | $70,561.23 | |
| Retaining Wall | N/A | $829,564.35 | N/A | $2,861,226.24 | $108,274.32 | N/A | $695,043.80 | N/A | N/A | N/A | N/A | N/A | |
| Total Roadway | $199,603.91 | $1,475,659.80 | $793,156.36 | $4,843,759.07 | $108,580.99 | $672,863.57 | $1,196,918.79 | $1,226,184.39 | $666,215.78 | $383,126.65 | $72,570.56 | $70,561.23 | $11,709,201 |
| Shoulder | $32,877.00 | $78,643.38 | $122,461.74 | $217,001.55 | $3,047.64 | $92,021.95 | $46,649.96 | $285,749.61 | $150,760.63 | $110,544.99 | $29,748.72 | $31,922.50 | $1,201,430 |
| Median | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | $43,085.39 | $9,890.11 | N/A | $52,976 |
| Drainage | | | | | | | | | | | | | |
| Retention Basin | $967,188.88 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | |
| Drainage | $28,027.77 | $65,063.18 | $101,814.03 | $177,976.11 | N/A | $50,613.74 | $25,277.83 | $86,757.84 | $144,522.30 | $31,263.93 | $88,648.61 | $14,076.99 | |
| Total Drainage | $995,216.65 | $65,063.18 | $101,814.03 | $177,976.11 | $0.00 | $50,613.74 | $25,277.83 | $86,757.84 | $144,522.30 | $31,263.93 | $88,648.61 | $14,076.99 | $1,781,231 |
| Signing | $9,033.38 | $15,626.85 | $21,548.96 | $37,847.17 | $7,690.66 | $9,153.51 | $6,468.07 | $20,724.46 | $31,253.70 | $9,633.62 | $7,933.53 | $5,125.35 | $182,039 |
| Signalization | $302,878.06 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | $302,878 |
| Lighting | $649,152.00 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | $649,152 |
| Subtotal 1 | $2,620,125.56 | $2,062,063.08 | $1,115,911.26 | $7,080,581.41 | $3,922,836.49 | $885,030.13 | $1,487,321.95 | $1,899,200.35 | $1,080,338.45 | $782,457.54 | $279,842.51 | $162,243.77 | $23,377,953 |
| Maintenance of Traffic (10%) | | | | | | | | | | | | | $2,337,795 |
| Mobilization (10%) | | | | | | | | | | | | | $2,571,575 |
| Initial Contingency | | | | | | | | | | | | | $150,000 |
| Subtotal 2 | | | | | | | | | | | | | $28,437,322 |
| Project Unknowns (25%)* | | | | | | | | | | | | | $7,071,831 |
| **Total Project Cost** | | | | | | | | | | | | | **$35,509,153** |

*Project Unkowns 25% factor applied to sum of Subtotal 1, Maintenance of Traffic, and Mobilization.

Date: 4/30/2010 4:34:13 PM

# FDOT Long Range Estimating System - Production

## R3: Project Details by Sequence Report

**Project:** 256931-1-20-10 **Letting Date:** 01/2099

**Description:** WPI 256931-1 2010 Revision Gandy Boulevard (SR 694) at Grand Avenue

**District:** 07 **County:** 15 PINELLAS **Market Area:** 08 **Units:** English

**Contract Class:** **Lump Sum Project:** N **Design/Build:** N **Project Length:** 0.758 MI

**Project Manager:**

**Version 1-P Project Grand Total** **$28,437,322.53**

**Description:** WPI 256931-1 2010 Revision Gandy Boulevard (SR 694) at Grand Avenue This version applies to the original 2002 PD&E concept.

**Sequence:** 1 NDR - New Construction, Divided, Rural **Net Length:** 0.102 MI 539 LF

**Description:** Mainline One-way; Two-lane; At grade; 12-ft Paved Inside & Outside Shoulders; Barrier Walls

**Special Conditions:** Sequence includes Clearing and Grubbing, Retention Basins, Signalizations, and Lighting components for entire project; the remaining sequences will not include these items. Sequence 1 also includes one 600-SF field office for a 365-day duration.

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### EARTHWORK COMPONENT

**User Input Data**

| Description | Value |
|---|---|
| Standard Clearing and Grubbing Limits L/R | 0.00 / 0.00 |
| Incidental Clearing and Grubbing Area | 35.22 |
| | |
| Alignment Number | 1 |
| Distance | 0.102 |
| Top of Structural Course For Begin Section | 103.00 |
| Top of Structural Course For End Section | 103.00 |
| Horizontal Elevation For Begin Section | 100.00 |
| Horizontal Elevation For End Section | 100.00 |
| Front Slope L/R | 0 to 1 / 0 to 1 |
| Median Slope L/R | 0 to 1 / 0 to 1 |
| Median Shoulder Cross Slope L/R | 5.00 % / 5.00 % |
| Outside Shoulder Cross Slope L/R | 6.00 % / 6.00 % |
| Roadway Cross Slope L/R | 2.00 % / 2.00 % |

**Pay Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 110-1-1 | CLEARING & GRUBBING | 35.22 | AC | $11,787.36 | $415,150.82 |
| 120-6 | EMBANKMENT | 1,187.82 | CY | $13.65 | $16,213.74 |
| | **Earthwork Component Total** | | | | $431,364.56 |

## ROADWAY COMPONENT

### User Input Data

| Description | Value |
|---|---|
| Number of Lanes | 2 |
| Roadway Pavement Width L/R | 0.00 / 24.00 |
| Structural Spread Rate | 330 |
| Friction Course Spread Rate | 80 |

### Pay Items

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 160-4 | TYPE B STABILIZATION | 2,875.14 | SY | $3.16 | $9,085.44 |
| 285-709 | OPTIONAL BASE,BASE GROUP 09 | 1,477.10 | SY | $12.23 | $18,064.93 |
| 334-1-13 | SUPERPAVE ASPHALTIC CONC, TRAFFIC C | 237.20 | TN | $81.82 | $19,407.70 |
| 337-7-5 | ASPH CONC FC, INC BIT/ RUBBER, FC-5 | 57.50 | TN | $103.50 | $5,951.25 |

### X-Items

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 109-71-2 | FIELD OFFICE, 600 SQ FT | 365.00 | DA | $58.21 | $21,246.65 |
| 521-72-3 | SHLDR CONC BARRIER WALL, RIGID-SHLDR | 1,078.00 | LF | $116.30 | $125,371.40 |
| 710-11-131 | PAINTED PAVT MARK,STD, WHITE,SKIP, 6" | 0.20 | GM | $388.09 | $77.62 |
| 710-11-211 | PAINTED PAVT MARK,STD, YELLOW,SOLID,6" | 0.20 | NM | $868.92 | $173.78 |

### Pavement Marking Subcomponent

| Description | Value |
|---|---|
| Solid Stripe No. of Stripes | 1 |
| Solid Stripe No. of Applications | 2 |
| Skip Stripe No. of Stripes | 0 |
| Skip Stripe No. of Applications | 2 |
| Top Layer Thermoplastic | N |

**Pay Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 706-3 | RETRO-REFLECTIVE PAVEMENT MARKERS | 14.00 | EA | $3.72 | $52.08 |
| 710-11-111 | PAINTED PAVT MARK,STD, WHITE,SOLID,6" | 0.20 | NM | $865.32 | $173.06 |
| | **Roadway Component Total** | | | | $199,603.91 |

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## SHOULDER COMPONENT

**User Input Data**

| Description | Value |
|---|---|
| Total Outside Shoulder Width L/R | 12.00 / 12.00 |
| Total Outside Shoulder Perf. Turf Width L/R | 0.00 / 0.00 |
| Paved Outside Shoulder Width L/R | 12.00 / 12.00 |
| Structural Spread Rate | 110 |
| Friction Course Spread Rate | 80 |
| Total Width (T) / 8" Overlap (O) | T |
| Rumble Strips No. of Sides | 0 |

**Pay Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 285-704 | OPTIONAL BASE,BASE GROUP 04 | 1,477.10 | SY | $9.97 | $14,726.69 |
| 334-1-13 | SUPERPAVE ASPHALTIC CONC, TRAFFIC C | 79.07 | TN | $81.82 | $6,469.51 |
| 337-7-5 | ASPH CONC FC, INC BIT/ RUBBER, FC-5 | 57.50 | TN | $103.50 | $5,951.25 |

**Erosion Control**

**Pay Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 104-4 | MOWING | 0.33 | AC | $163.13 | $53.83 |
| 104-10-2 | SYNTHETIC BALES | 323.45 | LF | $6.49 | $2,099.19 |
| 104-11 | FLOATING TURBIDITY BARRIER | 25.52 | LF | $8.30 | $211.82 |
| 104-12 | STAKED TURBIDITY BARRIER-NYL REINF PVC | 25.52 | LF | $4.53 | $115.61 |
| 104-13-1 | STAKED SILT FENCE, TYPE III | 1,078.18 | LF | $0.96 | $1,035.05 |
| 104-15 | SOIL TRACKING PREVENTION DEVICE | 1.00 | EA | $2,214.05 | $2,214.05 |

**Shoulder Component Total** $32,877.00

---

## DRAINAGE COMPONENT

**Pay Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 400-2-2 | CONC CLASS II, ENDWALLS | 1.84 | CY | $696.69 | $1,281.91 |
| 425-1-551 | INLETS, DT BOT, TYPE E, <10' | 1.00 | EA | $2,248.48 | $2,248.48 |
| 430-172-101 | PIPE CULV OPT MATL, ROUND, 0-24", CD | 40.00 | LF | $119.93 | $4,797.20 |
| 430-172-102 | PIPE CULV OPT MATL, ROUND, 25-36", CD | 32.00 | LF | $92.39 | $2,956.48 |
| 430-174-101 | PIPE CULV, OPT MATL, ROUND,0-24"SD | 88.00 | LF | $43.45 | $3,823.60 |
| 430-984-129 | MITERED END SECT, OPTIONAL RD, 24" SD | 5.00 | EA | $1,238.73 | $6,193.65 |
| 524-1-1 | CONCRETE DITCH PAVT, NR, 3" | 204.20 | SY | $32.68 | $6,673.26 |
| 570-1-1 | PERFORMANCE TURF | 71.88 | SY | $0.74 | $53.19 |

**Retention Basin 1**

| Description | Value |
|---|---|
| Size | 2.5 AC |
| Multiplier | 2 |
| Depth | 6.00 |

**Pay Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 110-1-1 | CLEARING & GRUBBING | 5.00 | AC | $11,787.36 | $58,936.80 |
| 120-1 | REGULAR EXCAVATION | 48,400.00 | CY | $5.30 | $256,520.00 |
| 400-2-2 | CONC CLASS II, ENDWALLS | 36.00 | CY | $696.69 | $25,080.84 |
| 425-1-361 | INLETS, CURB, TYPE P-6, <10' | 2.00 | EA | $3,734.28 | $7,468.56 |
| 425-2-71 | MANHOLES, J-7, <10' | 2.00 | EA | $3,704.73 | $7,409.46 |
| 430-171-103 | PIPE CULV OPT MATL, ROUND, 37-48", SS | 112.00 | LF | $137.23 | $15,369.76 |
| 430-171-104 | PIPE CULV OPT MATL, ROUND, 49-60", SS | 400.00 | LF | $195.73 | $78,292.00 |
| 550-10-220 | FENCING, TYPE B, 5.1-6.0, STANDARD | 2,670.00 | LF | $9.48 | $25,311.60 |
| 550-60-234 | FENCE GATE,TYP B,SLIDE/ CANT,18.1-20'OPEN | 2.00 | EA | $1,780.00 | $3,560.00 |
| 570-1-1 | PERFORMANCE TURF | 24,200.00 | SY | $0.74 | $17,908.00 |

**Retention Basin 2**

| Description | Value |
|---|---|
| Size | 5 AC |
| Multiplier | 1 |
| Depth | 6.00 |

**Pay Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 110-1-1 | CLEARING & GRUBBING | 5.00 | AC | $11,787.36 | $58,936.80 |
| 120-1 | REGULAR EXCAVATION | 48,400.00 | CY | $5.30 | $256,520.00 |
| 400-2-2 | CONC CLASS II, ENDWALLS | 30.00 | CY | $696.69 | $20,900.70 |
| 425-1-541 | INLETS, DT BOT, TYPE D, <10' | 1.00 | EA | $2,487.22 | $2,487.22 |
| 425-2-71 | MANHOLES, J-7, <10' | 2.00 | EA | $3,704.73 | $7,409.46 |
| 430-171-103 | PIPE CULV OPT MATL, ROUND, 37-48", SS | 56.00 | LF | $137.23 | $7,684.88 |
| 430-171-104 | PIPE CULV OPT MATL, ROUND, 49-60", SS | 400.00 | LF | $195.73 | $78,292.00 |
| 550-10-220 | FENCING, TYPE B, 5.1-6.0, STANDARD | 1,860.00 | LF | $9.48 | $17,632.80 |
| 550-60-234 | FENCE GATE,TYP B,SLIDE/ CANT,18.1-20'OPEN | 2.00 | EA | $1,780.00 | $3,560.00 |
| 570-1-1 | PERFORMANCE TURF | 24,200.00 | SY | $0.74 | $17,908.00 |
| | **Drainage Component Total** | | | | $995,216.65 |

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**SIGNING COMPONENT**

**Pay Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 700-20-11 | SINGLE POST SIGN, F&I, LESS THAN 12 SF | 1.00 | AS | $242.87 | $242.87 |
| 700-20-12 | SINGLE POST SIGN, F&I, 12-20 SF | 3.00 | AS | $671.36 | $2,014.08 |
| 700-21-11 | MULTI- POST SIGN, F&I, 50 OR < | 1.00 | AS | $2,868.40 | $2,868.40 |
| 700-21-12 | MULTI- POST SIGN, F&I, 51-100 | 1.00 | AS | $3,908.03 | $3,908.03 |
| | **Signing Component Total** | | | | $9,033.38 |

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**SIGNALIZATIONS COMPONENT**

**Signalization 1**

| Description | Value |
|---|---|
| Type | 4 Lane Mast Arm |
| Multiplier | 2 |

**Pay Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 630-1-12 | CONDUIT-SIGNALS, F& I, UNDERGROUND | 1,500.00 | LF | $4.04 | $6,060.00 |
| 630-1-14 | CONDUIT-SIGNALS,F& I, UG JACKED | 500.00 | LF | $11.63 | $5,815.00 |
| 632-7-1 | CABLE, SIGNAL, FURNISH & INSTALL | 2.00 | PI | $3,899.54 | $7,799.08 |
| 635-1-11 | PULL & JUNCTION BOXES, F&I, PULL BOX | 32.00 | EA | $266.59 | $8,530.88 |
| 639-1-22 | SIGNAL,ELECT POWER SERV, UG,PUR CONT | 2.00 | AS | $1,189.38 | $2,378.76 |
| 639-2-1 | SIGNAL,ELECTRICAL SERVICE WIRE | 120.00 | LF | $1.34 | $160.80 |
| 649-31-103 | M/ARM,F&I, WS-150,SINGLE ARM,W/0 LUM-60 | 4.00 | EA | $23,931.14 | $95,724.56 |
| 650-51-311 | TRAFFIC SIGNAL, F&I, 3 SECT, 1 WAY, STD | 8.00 | AS | $792.69 | $6,341.52 |
| 653-191 | PEDESTRIAN SIGNAL, F&I, LED-COUNT DWN, 1 | 12.00 | AS | $635.66 | $7,627.92 |
| 659-101 | SGNL HEAD AUXIL, F&I, BACK PLT 3 SECT | 8.00 | EA | $99.26 | $794.08 |
| 659-109 | SGNL HEAD AUXIL, F&I, CONC PED TYP II | 2.00 | EA | $730.69 | $1,461.38 |
| 660-1-102 | LOOP DETECTOR INDUCTIVE, F&I, TYPE 2 | 14.00 | EA | $146.52 | $2,051.28 |
| 660-2-106 | LOOP ASSEMBLY, F&I, TYPE F | 14.00 | AS | $742.66 | $10,397.24 |
| 665-11 | PED DET, F&I, DET STA POLE OR CAB MTD | 8.00 | EA | $156.26 | $1,250.08 |
| 670-5-111 | TRAF CNTL ASSEM, F&I, NEMA, 1 PREEMPT | 2.00 | AS | $19,900.62 | $39,801.24 |
| 700-48-19 | SIGN PANELS, F & I, 16 - 100 | 8.00 | EA | $1,959.77 | $15,678.16 |

**X-Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 650-51-511 | TRAFFIC SIGNAL, F&I, 5 SECT, 1 WAY, STD | 4.00 | AS | $1,174.44 | $4,697.76 |

| | | | | | |
|---|---|---|---|---|---|
| 659-118 | SGNL HEAD AUX,F&I, BACK PLT 5 SECT CLU | 4.00 | EA | $164.85 | $659.40 |

**Signalization 2**

| Description | Value |
|---|---|
| Type | 2 Lane Mast Arm |
| Multiplier | 1 |

**Pay Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 630-1-12 | CONDUIT-SIGNALS, F& I, UNDERGROUND | 800.00 | LF | $4.04 | $3,232.00 |
| 630-1-14 | CONDUIT-SIGNALS,F& I, UG JACKED | 200.00 | LF | $11.63 | $2,326.00 |
| 632-7-1 | CABLE, SIGNAL, FURNISH & INSTALL | 1.00 | PI | $3,899.54 | $3,899.54 |
| 635-1-11 | PULL & JUNCTION BOXES, F&I, PULL BOX | 3.00 | EA | $266.59 | $799.77 |
| 639-1-22 | SIGNAL,ELECT POWER SERV, UG,PUR CONT | 1.00 | AS | $1,189.38 | $1,189.38 |
| 639-2-1 | SIGNAL,ELECTRICAL SERVICE WIRE | 60.00 | LF | $1.34 | $80.40 |
| 649-31-111 | M/ARM,F&I, WS-150,DBL ARM, W/0 LU 36-46 | 1.00 | EA | $22,225.00 | $22,225.00 |
| 650-51-311 | TRAFFIC SIGNAL, F&I, 3 SECT, 1 WAY, STD | 1.00 | AS | $792.69 | $792.69 |
| 653-191 | PEDESTRIAN SIGNAL, F&I, LED-COUNT DWN, 1 | 2.00 | AS | $635.66 | $1,271.32 |
| 659-101 | SGNL HEAD AUXIL, F&I, BACK PLT 3 SECT | 1.00 | EA | $99.26 | $99.26 |
| 659-109 | SGNL HEAD AUXIL, F&I, CONC PED TYP II | 1.00 | EA | $730.69 | $730.69 |
| 660-1-102 | LOOP DETECTOR INDUCTIVE, F&I, TYPE 2 | 2.00 | EA | $146.52 | $293.04 |
| 660-2-106 | LOOP ASSEMBLY, F&I, TYPE F | 2.00 | AS | $742.66 | $1,485.32 |
| 665-11 | PED DET, F&I, DET STA POLE OR CAB MTD | 2.00 | EA | $156.26 | $312.52 |
| 670-5-111 | TRAF CNTL ASSEM, F&I, NEMA, 1 PREEMPT | 1.00 | AS | $19,900.62 | $19,900.62 |
| 700-48-19 | SIGN PANELS, F & I, 16 - 100 | 4.00 | EA | $1,959.77 | $7,839.08 |

**X-Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|

| | | | | | |
|---|---|---|---|---|---|
| 650-51-511 | TRAFFIC SIGNAL, F&I, 5 SECT, 1 WAY, STD | 1.00 | AS | $1,174.44 | $1,174.44 |
| 659-118 | SGNL HEAD AUX,F&I, BACK PLT 5 SECT CLU | 1.00 | EA | $164.85 | $164.85 |

**Interconnect Subcomponent**

| Description | Value |
|---|---|
| Type | U |
| Length of Fiber Run | 375.00 |
| Number of Intersections | 3 |
| Percentage of Underpavement Conduit | 90.00 |

**Pay Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 630-1-12 | CONDUIT-SIGNALS, F& I, UNDERGROUND | 37.50 | LF | $4.04 | $151.50 |
| 630-1-13 | CONDUIT-SIGNALS, F&I, UNDER EXIST PAVT | 337.50 | LF | $14.60 | $4,927.50 |
| 633-123-2 | CAB-FIB OPT, F&I, UG, COMP, 26- 50 PR | 275.00 | LF | $3.14 | $863.50 |
| 633-132-1 | CAB-FIB OPT, F&I,DROP,MULTI MODE,1 -25PR | 30.00 | LF | $10.10 | $303.00 |
| 635-1-16 | PULL & JUNCTION BOX, F&I, SPECIAL | 3.00 | EA | $1,567.50 | $4,702.50 |
| 660-2-102 | LOOP ASSEMBLY, F&I, TYPE B | 12.00 | AS | $573.75 | $6,885.00 |
| | **Signalizations Component Total** | | | | $302,878.06 |

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## LIGHTING COMPONENT

**Rural Lighting Subcomponent**

| Description | Value |
|---|---|
| Multiplier (Number of Poles) | 112 |

**Pay Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 715-1-13 | LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2 | 67,200.00 | LF | $1.53 | $102,816.00 |
| 715-2-11 | LIGHTING-CONDUIT, F&I, UNDERGROUND | 22,400.00 | LF | $3.86 | $86,464.00 |
| 715-4-122 | LIGHT POLE COMP, F&I, WS130, 45' | 112.00 | EA | $4,106.00 | $459,872.00 |
| | **Subcomponent Total** | | | | $649,152.00 |

| | |
|---|---|
| **Lighting Component Total** | $649,152.00 |

| | |
|---|---|
| **Sequence 1 Total** | $2,620,125.56 |

**Sequence:** 2 NDR - New Construction, Divided, Rural **Net Length:** 0.255 MI 1,344 LF

**Description:** Mainline One-way; Two-lane; MSE; 12-ft Paved Inside & Outside Shoulders; Barrier Walls

## EARTHWORK COMPONENT

### User Input Data

| Description | Value |
|---|---|
| Standard Clearing and Grubbing Limits L/R | 0.00 / 0.00 |
| Incidental Clearing and Grubbing Area | 0.00 |
| | |
| Alignment Number | 1 |
| Distance | 0.255 |
| Top of Structural Course For Begin Section | 103.00 |
| Top of Structural Course For End Section | 103.00 |
| Horizontal Elevation For Begin Section | 100.00 |
| Horizontal Elevation For End Section | 100.00 |
| Front Slope L/R | 0 to 1 / 0 to 1 |
| Median Slope L/R | 0 to 1 / 0 to 1 |
| Median Shoulder Cross Slope L/R | 5.00 % / 5.00 % |
| Outside Shoulder Cross Slope L/R | 6.00 % / 6.00 % |
| Roadway Cross Slope L/R | 2.00 % / 2.00 % |

### Pay Items

| Pay item | Description | Quantity Unit | Unit Price | Extended Amount |
|---|---|---|---|---|
| 120-6 | EMBANKMENT | 2,969.56 CY | $13.65 | $40,534.49 |

### X-Items

| Pay item | Description | Quantity Unit | Unit Price | Extended Amount |
|---|---|---|---|---|
| 120-6 | EMBANKMENT | 28,317.61 CY | $13.65 | $386,535.38 |

**Earthwork Component Total** $427,069.87

## ROADWAY COMPONENT

### User Input Data

| Description | Value |
|---|---|
| Number of Lanes | 2 |
| Roadway Pavement Width L/R | 0.00 / 24.00 |
| Structural Spread Rate | 330 |
| Friction Course Spread Rate | 80 |

**Pay Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 160-4 | TYPE B STABILIZATION | 7,166.72 | SY | $3.16 | $22,646.84 |
| 285-709 | OPTIONAL BASE,BASE GROUP 09 | 3,681.90 | SY | $12.23 | $45,029.64 |
| 334-1-13 | SUPERPAVE ASPHALTIC CONC, TRAFFIC C | 591.25 | TN | $81.82 | $48,376.08 |
| 337-7-5 | ASPH CONC FC, INC BIT/ RUBBER, FC-5 | 143.33 | TN | $103.50 | $14,834.66 |

**X-Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 521-8-1 | CONC TRAF RAIL BAR,RET WALL SYS,32"F SHP | 2,688.00 | LF | $191.22 | $513,999.36 |
| 710-11-131 | PAINTED PAVT MARK,STD, WHITE,SKIP, 6" | 0.51 | GM | $388.09 | $197.93 |
| 710-11-211 | PAINTED PAVT MARK,STD, YELLOW,SOLID,6" | 0.51 | NM | $868.92 | $443.15 |

**Pavement Marking Subcomponent**

| Description | Value |
|---|---|
| Solid Stripe No. of Stripes | 1 |
| Solid Stripe No. of Applications | 2 |
| Skip Stripe No. of Stripes | 0 |
| Skip Stripe No. of Applications | 2 |
| Top Layer Thermoplastic | N |

**Pay Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 706-3 | RETRO-REFLECTIVE PAVEMENT MARKERS | 34.00 | EA | $3.72 | $126.48 |
| 710-11-111 | PAINTED PAVT MARK,STD, WHITE,SOLID,6" | 0.51 | NM | $865.32 | $441.31 |
| | **Roadway Component Total** | | | | $646,095.45 |

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**SHOULDER COMPONENT**

**User Input Data**

| Description | Value |
|---|---|
| Total Outside Shoulder Width L/R | 12.00 / 12.00 |
| Total Outside Shoulder Perf. Turf Width L/R | 0.00 / 0.00 |
| Paved Outside Shoulder Width L/R | 12.00 / 12.00 |
| Structural Spread Rate | 110 |
| Friction Course Spread Rate | 80 |
| Total Width (T) / 8" Overlap (O) | T |
| Rumble Strips No. of Sides | 0 |

**Pay Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 285-704 | OPTIONAL BASE,BASE GROUP 04 | 3,681.90 | SY | $9.97 | $36,708.54 |
| 334-1-13 | SUPERPAVE ASPHALTIC CONC, TRAFFIC C | 197.08 | TN | $81.82 | $16,125.09 |
| 337-7-5 | ASPH CONC FC, INC BIT/ RUBBER, FC-5 | 143.33 | TN | $103.50 | $14,834.66 |

**Erosion Control**

**Pay Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 104-4 | MOWING | 0.81 | AC | $163.13 | $132.14 |
| 104-10-2 | SYNTHETIC BALES | 806.26 | LF | $6.49 | $5,232.63 |
| 104-11 | FLOATING TURBIDITY BARRIER | 63.62 | LF | $8.30 | $528.05 |
| 104-12 | STAKED TURBIDITY BARRIER-NYL REINF PVC | 63.62 | LF | $4.53 | $288.20 |
| 104-13-1 | STAKED SILT FENCE, TYPE III | 2,687.52 | LF | $0.96 | $2,580.02 |
| 104-15 | SOIL TRACKING PREVENTION DEVICE | 1.00 | EA | $2,214.05 | $2,214.05 |
| | **Shoulder Component Total** | | | | $78,643.38 |

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**DRAINAGE COMPONENT**

**Pay Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 400-2-2 | CONC CLASS II, ENDWALLS | 4.58 | CY | $696.69 | $3,190.84 |
| 425-1-551 | INLETS, DT BOT, TYPE E, <10' | 2.00 | EA | $2,248.48 | $4,496.96 |

| | | | | |
|---|---|---|---|---|
| 430-172-101 | PIPE CULV OPT MATL, ROUND, 0-24", CD | 88.00 LF | $119.93 | $10,553.84 |
| 430-172-102 | PIPE CULV OPT MATL, ROUND, 25-36", CD | 80.00 LF | $92.39 | $7,391.20 |
| 430-174-101 | PIPE CULV, OPT MATL, ROUND,0-24"SD | 208.00 LF | $43.45 | $9,037.60 |
| 430-984-129 | MITERED END SECT, OPTIONAL RD, 24" SD | 11.00 EA | $1,238.73 | $13,626.03 |
| 524-1-1 | CONCRETE DITCH PAVT, NR, 3" | 509.00 SY | $32.68 | $16,634.12 |
| 570-1-1 | PERFORMANCE TURF | 179.17 SY | $0.74 | $132.59 |
| | **Drainage Component Total** | | | $65,063.18 |

## SIGNING COMPONENT

**Pay Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 700-20-11 | SINGLE POST SIGN, F&I, LESS THAN 12 SF | 1.00 | AS | $242.87 | $242.87 |
| 700-20-12 | SINGLE POST SIGN, F&I, 12-20 SF | 7.00 | AS | $671.36 | $4,699.52 |
| 700-21-11 | MULTI- POST SIGN, F&I, 50 OR < | 1.00 | AS | $2,868.40 | $2,868.40 |
| 700-21-12 | MULTI- POST SIGN, F&I, 51-100 | 2.00 | AS | $3,908.03 | $7,816.06 |
| | **Signing Component Total** | | | | $15,626.85 |

## RETAINING WALLS COMPONENT

**X-Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 548-12 | RETAINING WALL SYSTEM, PERM, EXC BAR. | 31,857.31 | SF | $26.04 | $829,564.35 |
| | **Retaining Walls Component Total** | | | | $829,564.35 |

**Sequence 2 Total** $2,062,063.08

**Sequence:** 3 NDR - New Construction, Divided, Rural **Net Length:** 0.400 MI 2,114 LF

**Description:** Mainline One-way; Three-lane; At grade; 12-ft Paved Inside & Outside Shoulders; Barrier Walls

## EARTHWORK COMPONENT

### User Input Data

| Description | Value |
|---|---|
| Standard Clearing and Grubbing Limits L/R | 0.00 / 0.00 |
| Incidental Clearing and Grubbing Area | 0.00 |
| | |
| Alignment Number | 1 |
| Distance | 0.400 |
| Top of Structural Course For Begin Section | 103.00 |
| Top of Structural Course For End Section | 103.00 |
| Horizontal Elevation For Begin Section | 100.00 |
| Horizontal Elevation For End Section | 100.00 |
| Front Slope L/R | 0 to 1 / 0 to 1 |
| Median Slope L/R | 0 to 1 / 0 to 1 |
| Median Shoulder Cross Slope L/R | 5.00 % / 5.00 % |
| Outside Shoulder Cross Slope L/R | 6.00 % / 6.00 % |
| Roadway Cross Slope L/R | 2.00 % / 2.00 % |

### Pay Items

| Pay item | Description | Quantity Unit | Unit Price | Extended Amount |
|---|---|---|---|---|
| 120-6 | EMBANKMENT | 5,635.91 CY | $13.65 | $76,930.17 |
| | **Earthwork Component Total** | | | $76,930.17 |

## ROADWAY COMPONENT

### User Input Data

| Description | Value |
|---|---|
| Number of Lanes | 3 |
| Roadway Pavement Width L/R | 0.00 / 36.00 |
| Structural Spread Rate | 330 |
| Friction Course Spread Rate | 80 |

### Pay Items

| Pay item | Description | Quantity Unit | Unit Price | Extended Amount |
|---|---|---|---|---|
| 160-4 | TYPE B STABILIZATION | 14,094.08 SY | $3.16 | $44,537.29 |

| | | | | | |
|---|---|---|---|---|---|
| 285-709 | OPTIONAL BASE,BASE GROUP 09 | 8,611.48 | SY | $12.23 | $105,318.40 |
| 334-1-13 | SUPERPAVE ASPHALTIC CONC, TRAFFIC C | 1,395.31 | TN | $81.82 | $114,164.26 |
| 337-7-5 | ASPH CONC FC, INC BIT/ RUBBER, FC-5 | 338.26 | TN | $103.50 | $35,009.91 |

**X-Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 521-72-3 | SHLDR CONC BARRIER WALL, RIGID-SHLDR | 4,228.00 | LF | $116.30 | $491,716.40 |
| 710-11-131 | PAINTED PAVT MARK,STD, WHITE,SKIP, 6" | 0.80 | GM | $388.09 | $310.47 |
| 710-11-211 | PAINTED PAVT MARK,STD, YELLOW,SOLID,6" | 0.80 | NM | $868.92 | $695.14 |

**Pavement Marking Subcomponent**

| Description | Value |
|---|---|
| Solid Stripe No. of Stripes | 1 |
| Solid Stripe No. of Applications | 2 |
| Skip Stripe No. of Stripes | 1 |
| Skip Stripe No. of Applications | 2 |
| Top Layer Thermoplastic | N |

**Pay Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 706-3 | RETRO-REFLECTIVE PAVEMENT MARKERS | 108.00 | EA | $3.72 | $401.76 |
| 710-11-111 | PAINTED PAVT MARK,STD, WHITE,SOLID,6" | 0.80 | NM | $865.32 | $692.26 |
| 710-11-131 | PAINTED PAVT MARK,STD, WHITE,SKIP, 6" | 0.80 | GM | $388.09 | $310.47 |
| | **Roadway Component Total** | | | | $793,156.36 |

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## SHOULDER COMPONENT

**User Input Data**

| Description | Value |
|---|---|
| Total Outside Shoulder Width L/R | 12.00 / 12.00 |
| Total Outside Shoulder Perf. Turf Width L/R | 0.00 / 0.00 |
| Paved Outside Shoulder Width L/R | 12.00 / 12.00 |
| Structural Spread Rate | 110 |
| Friction Course Spread Rate | 80 |
| Total Width (T) / 8" Overlap (O) | T |
| Rumble Strips No. of Sides | 0 |

**Pay Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 285-704 | OPTIONAL BASE,BASE GROUP 04 | 5,792.67 | SY | $9.97 | $57,752.92 |
| 334-1-13 | SUPERPAVE ASPHALTIC CONC, TRAFFIC C | 310.07 | TN | $81.82 | $25,369.93 |
| 337-7-5 | ASPH CONC FC, INC BIT/ RUBBER, FC-5 | 225.51 | TN | $103.50 | $23,340.28 |

**Erosion Control**

**Pay Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 104-4 | MOWING | 1.28 | AC | $163.13 | $208.81 |
| 104-10-2 | SYNTHETIC BALES | 1,268.47 | LF | $6.49 | $8,232.37 |
| 104-11 | FLOATING TURBIDITY BARRIER | 100.10 | LF | $8.30 | $830.83 |
| 104-12 | STAKED TURBIDITY BARRIER-NYL REINF PVC | 100.10 | LF | $4.53 | $453.45 |
| 104-13-1 | STAKED SILT FENCE, TYPE III | 4,228.22 | LF | $0.96 | $4,059.09 |
| 104-15 | SOIL TRACKING PREVENTION DEVICE | 1.00 | EA | $2,214.05 | $2,214.05 |
| | **Shoulder Component Total** | | | | $122,461.74 |

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**DRAINAGE COMPONENT**

**Pay Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 400-2-2 | CONC CLASS II, ENDWALLS | 7.21 | CY | $696.69 | $5,023.13 |
| 425-1-551 | INLETS, DT BOT, TYPE E, <10' | 3.00 | EA | $2,248.48 | $6,745.44 |

| | | | | |
|---|---|---|---|---|
| 430-172-101 | PIPE CULV OPT MATL, ROUND, 0-24", CD | 144.00 LF | $119.93 | $17,269.92 |
| 430-172-102 | PIPE CULV OPT MATL, ROUND, 25-36", CD | 120.00 LF | $92.39 | $11,086.80 |
| 430-174-101 | PIPE CULV, OPT MATL, ROUND,0-24"SD | 328.00 LF | $43.45 | $14,251.60 |
| 430-984-129 | MITERED END SECT, OPTIONAL RD, 24" SD | 17.00 EA | $1,238.73 | $21,058.41 |
| 524-1-1 | CONCRETE DITCH PAVT, NR, 3" | 800.80 SY | $32.68 | $26,170.14 |
| 570-1-1 | PERFORMANCE TURF | 281.88 SY | $0.74 | $208.59 |
| | **Drainage Component Total** | | | $101,814.03 |

## SIGNING COMPONENT

**Pay Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 700-20-11 | SINGLE POST SIGN, F&I, LESS THAN 12 SF | 1.00 | AS | $242.87 | $242.87 |
| 700-20-12 | SINGLE POST SIGN, F&I, 12-20 SF | 10.00 | AS | $671.36 | $6,713.60 |
| 700-21-11 | MULTI- POST SIGN, F&I, 50 OR < | 1.00 | AS | $2,868.40 | $2,868.40 |
| 700-21-12 | MULTI- POST SIGN, F&I, 51-100 | 3.00 | AS | $3,908.03 | $11,724.09 |
| | **Signing Component Total** | | | | $21,548.96 |

**Sequence 3 Total** $1,115,911.26

**Sequence:** 4 NDR - New Construction, Divided, Rural **Net Length:** 0.715 MI 3,776 LF

**Description:** Mainline One-way; Three-lane; MSE; 12-ft Paved Inside & Outside Shoulders; Barrier Walls

## EARTHWORK COMPONENT

### User Input Data

| Description | Value |
|---|---|
| Standard Clearing and Grubbing Limits L/R | 0.00 / 0.00 |
| Incidental Clearing and Grubbing Area | 0.00 |
| | |
| Alignment Number | 1 |
| Distance | 0.715 |
| Top of Structural Course For Begin Section | 103.00 |
| Top of Structural Course For End Section | 103.00 |
| Horizontal Elevation For Begin Section | 100.00 |
| Horizontal Elevation For End Section | 100.00 |
| Front Slope L/R | 0 to 1 / 0 to 1 |
| Median Slope L/R | 0 to 1 / 0 to 1 |
| Median Shoulder Cross Slope L/R | 5.00 % / 5.00 % |
| Outside Shoulder Cross Slope L/R | 6.00 % / 6.00 % |
| Roadway Cross Slope L/R | 2.00 % / 2.00 % |

### Pay Items

| Pay item | Description | Quantity Unit | Unit Price | Extended Amount |
|---|---|---|---|---|
| 120-6 | EMBANKMENT | 10,074.19 CY | $13.65 | $137,512.69 |

### X-Items

| Pay item | Description | Quantity Unit | Unit Price | Extended Amount |
|---|---|---|---|---|
| 120-6 | EMBANKMENT | 122,086.80 CY | $13.65 | $1,666,484.82 |

**Earthwork Component Total** $1,803,997.51

## ROADWAY COMPONENT

### User Input Data

| Description | Value |
|---|---|
| Number of Lanes | 3 |
| Roadway Pavement Width L/R | 0.00 / 36.00 |
| Structural Spread Rate | 330 |
| Friction Course Spread Rate | 80 |

**Pay Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 160-4 | TYPE B STABILIZATION | 25,175.04 | SY | $3.16 | $79,553.13 |
| 285-709 | OPTIONAL BASE,BASE GROUP 09 | 15,381.95 | SY | $12.23 | $188,121.25 |
| 334-1-13 | SUPERPAVE ASPHALTIC CONC, TRAFFIC C | 2,492.33 | TN | $81.82 | $203,922.44 |
| 337-7-5 | ASPH CONC FC, INC BIT/ RUBBER, FC-5 | 604.20 | TN | $103.50 | $62,534.70 |

**X-Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 521-8-1 | CONC TRAF RAIL BAR,RET WALL SYS,32"F SHP | 7,552.00 | LF | $191.22 | $1,444,093.44 |
| 710-11-131 | PAINTED PAVT MARK,STD, WHITE,SKIP, 6" | 1.43 | GM | $388.09 | $554.97 |
| 710-11-211 | PAINTED PAVT MARK,STD, YELLOW,SOLID,6" | 1.43 | NM | $868.92 | $1,242.56 |

**Pavement Marking Subcomponent**

| Description | Value |
|---|---|
| Solid Stripe No. of Stripes | 1 |
| Solid Stripe No. of Applications | 2 |
| Skip Stripe No. of Stripes | 1 |
| Skip Stripe No. of Applications | 2 |
| Top Layer Thermoplastic | N |

**Pay Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 706-3 | RETRO-REFLECTIVE PAVEMENT MARKERS | 193.00 | EA | $3.72 | $717.96 |
| 710-11-111 | PAINTED PAVT MARK,STD, WHITE,SOLID,6" | 1.43 | NM | $865.32 | $1,237.41 |
| 710-11-131 | PAINTED PAVT MARK,STD, WHITE,SKIP, 6" | 1.43 | GM | $388.09 | $554.97 |
| | **Roadway Component Total** | | | | $1,982,532.83 |

## SHOULDER COMPONENT

### User Input Data

| Description | Value |
|---|---|
| Total Outside Shoulder Width L/R | 12.00 / 12.00 |
| Total Outside Shoulder Perf. Turf Width L/R | 0.00 / 0.00 |
| Paved Outside Shoulder Width L/R | 12.00 / 12.00 |
| Structural Spread Rate | 110 |
| Friction Course Spread Rate | 80 |
| Total Width (T) / 8" Overlap (O) | T |
| Rumble Strips No. of Sides | 0 |

### Pay Items

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 285-704 | OPTIONAL BASE,BASE GROUP 04 | 10,346.94 | SY | $9.97 | $103,158.99 |
| 334-1-13 | SUPERPAVE ASPHALTIC CONC, TRAFFIC C | 553.85 | TN | $81.82 | $45,316.01 |
| 337-7-5 | ASPH CONC FC, INC BIT/ RUBBER, FC-5 | 402.80 | TN | $103.50 | $41,689.80 |

### Erosion Control

### Pay Items

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 104-4 | MOWING | 2.29 | AC | $163.13 | $373.57 |
| 104-10-2 | SYNTHETIC BALES | 2,265.75 | LF | $6.49 | $14,704.72 |
| 104-11 | FLOATING TURBIDITY BARRIER | 178.80 | LF | $8.30 | $1,484.04 |
| 104-12 | STAKED TURBIDITY BARRIER-NYL REINF PVC | 178.80 | LF | $4.53 | $809.96 |
| 104-13-1 | STAKED SILT FENCE, TYPE III | 7,552.51 | LF | $0.96 | $7,250.41 |
| 104-15 | SOIL TRACKING PREVENTION DEVICE | 1.00 | EA | $2,214.05 | $2,214.05 |
| | **Shoulder Component Total** | | | | $217,001.55 |

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## DRAINAGE COMPONENT

### Pay Items

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 400-2-2 | CONC CLASS II, ENDWALLS | 12.87 | CY | $696.69 | $8,966.40 |

| | | | | |
|---|---|---|---|---|
| 425-1-551 | INLETS, DT BOT, TYPE E, <10' | 5.00 EA | $2,248.48 | $11,242.40 |
| 430-172-101 | PIPE CULV OPT MATL, ROUND, 0-24", CD | 248.00 LF | $119.93 | $29,742.64 |
| 430-172-102 | PIPE CULV OPT MATL, ROUND, 25-36", CD | 216.00 LF | $92.39 | $19,956.24 |
| 430-174-101 | PIPE CULV, OPT MATL, ROUND,0-24"SD | 576.00 LF | $43.45 | $25,027.20 |
| 430-984-129 | MITERED END SECT, OPTIONAL RD, 24" SD | 29.00 EA | $1,238.73 | $35,923.17 |
| 524-1-1 | CONCRETE DITCH PAVT, NR, 3" | 1,430.40 SY | $32.68 | $46,745.47 |
| 570-1-1 | PERFORMANCE TURF | 503.50 SY | $0.74 | $372.59 |
| | **Drainage Component Total** | | | $177,976.11 |

## SIGNING COMPONENT

**Pay Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 700-20-11 | SINGLE POST SIGN, F&I, LESS THAN 12 SF | 2.00 | AS | $242.87 | $485.74 |
| 700-20-12 | SINGLE POST SIGN, F&I, 12-20 SF | 18.00 | AS | $671.36 | $12,084.48 |
| 700-21-11 | MULTI- POST SIGN, F&I, 50 OR < | 2.00 | AS | $2,868.40 | $5,736.80 |
| 700-21-12 | MULTI- POST SIGN, F&I, 51-100 | 5.00 | AS | $3,908.03 | $19,540.15 |
| | **Signing Component Total** | | | | $37,847.17 |

## RETAINING WALLS COMPONENT

**X-Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 548-12 | RETAINING WALL SYSTEM, PERM, EXC BAR. | 109,878.12 | SF | $26.04 | $2,861,226.24 |
| | **Retaining Walls Component Total** | | | | $2,861,226.24 |

**Sequence 4 Total** $7,080,581.41

**Sequence:** 5 NDR - New Construction, Divided, Rural **Net Length:** 0.024 MI 128 LF

**Description:** Mainline Two-way; Six-lane Divided Structure; 12-ft Paved Inside & Outside Shoulders

**Special Conditions:** Twin single span bridges, 128' long by 63' wide (each), Florida I-Beam (FIB) girders. Note: LRE system does not include the FIB as an available girder choice; for this reason the Bulb-T is used instead. FIB and Bulb-T are of similar cost and design.

## ROADWAY COMPONENT

### User Input Data

| Description | Value |
|---|---|
| Number of Lanes | 6 |
| Roadway Pavement Width L/R | 36.00 / 36.00 |
| Structural Spread Rate | 440 |
| Friction Course Spread Rate | 80 |

### X-Items

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 710-11-211 | PAINTED PAVT MARK,STD, YELLOW,SOLID,6" | 0.10 | NM | $868.92 | $86.89 |

### Pavement Marking Subcomponent

| Description | Value |
|---|---|
| Solid Stripe No. of Stripes | 2 |
| Solid Stripe No. of Applications | 2 |
| Skip Stripe No. of Stripes | 4 |
| Skip Stripe No. of Applications | 2 |
| Top Layer Thermoplastic | N |

### Pay Items

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 706-3 | RETRO-REFLECTIVE PAVEMENT MARKERS | 16.00 | EA | $3.72 | $59.52 |
| 710-11-111 | PAINTED PAVT MARK,STD, WHITE,SOLID,6" | 0.10 | NM | $865.32 | $86.53 |
| 710-11-131 | PAINTED PAVT MARK,STD, WHITE,SKIP, 6" | 0.19 | GM | $388.09 | $73.74 |
| | **Roadway Component Total** | | | | $306.67 |

## SHOULDER COMPONENT

### User Input Data

| Description | Value |
|---|---|
| Total Outside Shoulder Width L/R | 12.00 / 12.00 |
| Total Outside Shoulder Perf. Turf Width L/R | 0.00 / 0.00 |
| Paved Outside Shoulder Width L/R | 12.00 / 12.00 |
| Structural Spread Rate | 220 |
| Friction Course Spread Rate | 80 |
| Total Width (T) / 8" Overlap (O) | O |
| Rumble Strips No. of Sides | 2 |

### Erosion Control

### Pay Items

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 104-4 | MOWING | 0.08 | AC | $163.13 | $13.05 |
| 104-10-2 | SYNTHETIC BALES | 76.67 | LF | $6.49 | $497.59 |
| 104-11 | FLOATING TURBIDITY BARRIER | 6.05 | LF | $8.30 | $50.22 |
| 104-12 | STAKED TURBIDITY BARRIER-NYL REINF PVC | 6.05 | LF | $4.53 | $27.41 |
| 104-13-1 | STAKED SILT FENCE, TYPE III | 255.55 | LF | $0.96 | $245.33 |
| 104-15 | SOIL TRACKING PREVENTION DEVICE | 1.00 | EA | $2,214.05 | $2,214.05 |
| | **Shoulder Component Total** | | | | $3,047.64 |

## SIGNING COMPONENT

### Pay Items

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 700-20-11 | SINGLE POST SIGN, F&I, LESS THAN 12 SF | 1.00 | AS | $242.87 | $242.87 |
| 700-20-12 | SINGLE POST SIGN, F&I, 12-20 SF | 1.00 | AS | $671.36 | $671.36 |
| 700-21-11 | MULTI- POST SIGN, F&I, 50 OR < | 1.00 | AS | $2,868.40 | $2,868.40 |
| 700-21-12 | MULTI- POST SIGN, F&I, 51-100 | 1.00 | AS | $3,908.03 | $3,908.03 |
| | **Signing Component Total** | | | | $7,690.66 |

## BRIDGES COMPONENT

### Bridge LEFT

| Description | Value |
|---|---|
| Length | 128.00 |
| Width | 63.00 |
| Type | Overpass Bridge |
| Substructure Type | Pile Bents |
| Superstructure Type | Eau Gallie Bulb T |
| Cost Factor | 1.90 |
| Removal of existing structures area | 0.00 |
| Default Cost per SF | $120.00 |
| Factored Cost per SF | $228.00 |
| Final Cost per SF | $235.83 |
| Basic Bridge Cost | $1,838,592.00 |
| Description | |

**Pay Items**

| Pay item | Description | Quantity Unit | Unit Price | Extended Amount |
|---|---|---|---|---|
| 400-2-10 | CONC CLASS II, APPROACH SLABS | 140.00 CY | $325.19 | $45,526.60 |
| 415-1-9 | REINF STEEL- APPROACH SLABS | 24,500.00 LB | $0.72 | $17,640.00 |
| | **Bridge LEFT Total** | | | $1,901,758.60 |

### Bridge RIGHT

| Description | Value |
|---|---|
| Length | 128.00 |
| Width | 63.00 |
| Type | Overpass Bridge |
| Substructure Type | Pile Bents |
| Superstructure Type | Eau Gallie Bulb T |
| Cost Factor | 1.90 |
| Removal of existing structures area | 0.00 |
| Default Cost per SF | $120.00 |
| Factored Cost per SF | $228.00 |
| Final Cost per SF | $235.83 |
| Basic Bridge Cost | $1,838,592.00 |
| Description | |

**Pay Items**

| Pay item | Description | Quantity Unit | Unit Price | Extended Amount |
|---|---|---|---|---|

| | | | | |
|---|---|---|---|---|
| 400-2-10 | CONC CLASS II, APPROACH SLABS | 140.00 CY | $325.19 | $45,526.60 |
| 415-1-9 | REINF STEEL- APPROACH SLABS | 24,500.00 LB | $0.72 | $17,640.00 |
| | **Bridge RIGHT Total** | | | $1,901,758.60 |
| | **Bridges Component Total** | | | $3,803,517.20 |

## RETAINING WALLS COMPONENT

**X-Items**

| Pay item | Description | Quantity Unit | Unit Price | Extended Amount |
|---|---|---|---|---|
| 548-12 | RETAINING WALL SYSTEM, PERM, EXC BAR. | 4,158.00 SF | $26.04 | $108,274.32 |
| | **Retaining Walls Component Total** | | | $108,274.32 |

**Sequence 5 Total** $3,922,836.49

**Sequence:** 6 NUR - New Construction, Undivided, Rural **Net Length:** 0.431 MI 2,277 LF

**Description:** Ramp One-way; One-lane; At grade; 6-ft Paved Inside & Outside Shoulders; Barrier Walls

## EARTHWORK COMPONENT

### User Input Data

| Description | Value |
|---|---|
| Standard Clearing and Grubbing Limits L/R | 0.00 / 0.00 |
| Incidental Clearing and Grubbing Area | 0.00 |
| | |
| Alignment Number | 1 |
| Distance | 0.431 |
| Top of Structural Course For Begin Section | 103.00 |
| Top of Structural Course For End Section | 103.00 |
| Horizontal Elevation For Begin Section | 100.00 |
| Horizontal Elevation For End Section | 100.00 |
| Front Slope L/R | 0 to 1 / 0 to 1 |
| Outside Shoulder Cross Slope L/R | 6.00 % / 6.00 % |
| Roadway Cross Slope L/R | 2.00 % / 2.00 % |

### Pay Items

| Pay item | Description | Quantity Unit | Unit Price | Extended Amount |
|---|---|---|---|---|
| 120-6 | EMBANKMENT | 4,423.25 CY | $13.65 | $60,377.36 |
| | **Earthwork Component Total** | | | $60,377.36 |

## ROADWAY COMPONENT

### User Input Data

| Description | Value |
|---|---|
| Number of Lanes | 1 |
| Roadway Pavement Width L/R | 7.50 / 7.50 |
| Structural Spread Rate | 330 |
| Friction Course Spread Rate | 80 |

### Pay Items

| Pay item | Description | Quantity Unit | Unit Price | Extended Amount |
|---|---|---|---|---|
| 160-4 | TYPE B STABILIZATION | 6,831.79 SY | $3.16 | $21,588.46 |
| 285-709 | OPTIONAL BASE,BASE GROUP 09 | 3,962.44 SY | $12.23 | $48,460.64 |

| | | | | |
|---|---|---|---|---|
| 334-1-23 | SUPERPAVE ASPH CONC, TRAF C, PG76-22 | 626.25 TN | $88.55 | $55,454.44 |
| 337-7-22 | ASPH CONC FC,INC BIT,FC-5, PG76-22 | 151.82 TN | $111.87 | $16,984.10 |

**X-Items**

| Pay item | Description | Quantity Unit | Unit Price | Extended Amount |
|---|---|---|---|---|
| 521-72-3 | SHLDR CONC BARRIER WALL, RIGID-SHLDR | 4,554.00 LF | $116.30 | $529,630.20 |
| 710-11-211 | PAINTED PAVT MARK,STD, YELLOW,SOLID,6" | 0.43 NM | $868.92 | $373.64 |

**Pavement Marking Subcomponent**

| Description | Value |
|---|---|
| Solid Stripe No. of Stripes | 1 |
| Solid Stripe No. of Applications | 1 |
| Skip Stripe No. of Stripes | 0 |
| Skip Stripe No. of Applications | 1 |
| Top Layer Thermoplastic | N |

**Pay Items**

| Pay item | Description | Quantity Unit | Unit Price | Extended Amount |
|---|---|---|---|---|
| 710-11-111 | PAINTED PAVT MARK,STD, WHITE,SOLID,6" | 0.43 NM | $865.32 | $372.09 |
| | **Roadway Component Total** | | | $672,863.57 |

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## SHOULDER COMPONENT

**User Input Data**

| Description | Value |
|---|---|
| Total Outside Shoulder Width L/R | 6.00 / 6.00 |
| Total Outside Shoulder Perf. Turf Width L/R | 0.00 / 0.00 |
| Paved Outside Shoulder Width L/R | 6.00 / 6.00 |
| Structural Spread Rate | 220 |
| Friction Course Spread Rate | 80 |
| Total Width (T) / 8" Overlap (O) | T |
| Rumble Strips No. of Sides | 0 |

**Pay Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 285-704 | OPTIONAL BASE,BASE GROUP 04 | 3,203.35 | SY | $9.97 | $31,937.40 |
| 334-1-23 | SUPERPAVE ASPH CONC, TRAF C, PG76-22 | 334.00 | TN | $88.55 | $29,575.70 |
| 337-7-22 | ASPH CONC FC,INC BIT,FC-5, PG76-22 | 121.45 | TN | $111.87 | $13,586.61 |

**Erosion Control**

**Pay Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 104-4 | MOWING | 0.52 | AC | $163.13 | $84.83 |
| 104-10-2 | SYNTHETIC BALES | 1,366.36 | LF | $6.49 | $8,867.68 |
| 104-11 | FLOATING TURBIDITY BARRIER | 107.82 | LF | $8.30 | $894.91 |
| 104-12 | STAKED TURBIDITY BARRIER-NYL REINF PVC | 107.82 | LF | $4.53 | $488.42 |
| 104-13-1 | STAKED SILT FENCE, TYPE III | 4,554.53 | LF | $0.96 | $4,372.35 |
| 104-15 | SOIL TRACKING PREVENTION DEVICE | 1.00 | EA | $2,214.05 | $2,214.05 |
| | **Shoulder Component Total** | | | | $92,021.95 |

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**DRAINAGE COMPONENT**

**Pay Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 400-2-2 | CONC CLASS II, ENDWALLS | 7.76 | CY | $696.69 | $5,406.31 |
| 430-172-102 | PIPE CULV OPT MATL, ROUND, 25-36", CD | 80.00 | LF | $92.39 | $7,391.20 |
| 430-174-101 | PIPE CULV, OPT MATL, ROUND,0-24"SD | 352.00 | LF | $43.45 | $15,294.40 |
| 430-984-129 | MITERED END SECT, OPTIONAL RD, 24" SD | 18.00 | EA | $1,238.73 | $22,297.14 |
| 570-1-1 | PERFORMANCE TURF | 303.64 | SY | $0.74 | $224.69 |
| | **Drainage Component Total** | | | | $50,613.74 |

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**SIGNING COMPONENT**

**Pay Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 700-20-11 | SINGLE POST SIGN, F&I, LESS THAN 12 SF | 1.00 | AS | $242.87 | $242.87 |
| 700-20-12 | SINGLE POST SIGN, F&I, 12-20 SF | 9.00 | AS | $671.36 | $6,042.24 |
| 700-21-11 | MULTI- POST SIGN, F&I, 50 OR < | 1.00 | AS | $2,868.40 | $2,868.40 |
| | **Signing Component Total** | | | | $9,153.51 |

**Sequence 6 Total** $885,030.13

**Sequence:** 7 NUR - New Construction, Undivided, Rural **Net Length:** 0.213 MI 1,127 LF

**Description:** Ramp One-way; One-lane; MSE; 6-ft Paved Inside & Outside Shoulders; Barrier Walls

## EARTHWORK COMPONENT

### User Input Data

| Description | Value |
|---|---|
| Standard Clearing and Grubbing Limits L/R | 0.00 / 0.00 |
| Incidental Clearing and Grubbing Area | 0.00 |
| | |
| Alignment Number | 1 |
| Distance | 0.213 |
| Top of Structural Course For Begin Section | 103.00 |
| Top of Structural Course For End Section | 103.00 |
| Horizontal Elevation For Begin Section | 100.00 |
| Horizontal Elevation For End Section | 100.00 |
| Front Slope L/R | 0 to 1 / 0 to 1 |
| Outside Shoulder Cross Slope L/R | 6.00 % / 6.00 % |
| Roadway Cross Slope L/R | 2.00 % / 2.00 % |

### Pay Items

| Pay item | Description | Quantity Unit | Unit Price | Extended Amount |
|---|---|---|---|---|
| 120-6 | EMBANKMENT | 2,185.97 CY | $13.65 | $29,838.49 |

### X-Items

| Pay item | Description | Quantity Unit | Unit Price | Extended Amount |
|---|---|---|---|---|
| 120-6 | EMBANKMENT | 13,345.70 CY | $13.65 | $182,168.80 |
| | **Earthwork Component Total** | | | $212,007.30 |

## ROADWAY COMPONENT

### User Input Data

| Description | Value |
|---|---|
| Number of Lanes | 1 |
| Roadway Pavement Width L/R | 7.50 / 7.50 |
| Structural Spread Rate | 330 |
| Friction Course Spread Rate | 80 |

### Pay Items

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 160-4 | TYPE B STABILIZATION | 3,380.26 | SY | $3.16 | $10,681.62 |
| 285-709 | OPTIONAL BASE,BASE GROUP 09 | 1,960.55 | SY | $12.23 | $23,977.53 |
| 334-1-23 | SUPERPAVE ASPH CONC, TRAF C, PG76-22 | 309.86 | TN | $88.55 | $27,438.10 |
| 337-7-22 | ASPH CONC FC,INC BIT,FC-5, PG76-22 | 75.12 | TN | $111.87 | $8,403.67 |

**X-Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 521-8-1 | CONC TRAF RAIL BAR,RET WALL SYS,32"F SHP | 2,254.00 | LF | $191.22 | $431,009.88 |
| 710-11-211 | PAINTED PAVT MARK,STD, YELLOW,SOLID,6" | 0.21 | NM | $868.92 | $182.47 |

**Pavement Marking Subcomponent**

| Description | Value |
|---|---|
| Solid Stripe No. of Stripes | 1 |
| Solid Stripe No. of Applications | 1 |
| Skip Stripe No. of Stripes | 0 |
| Skip Stripe No. of Applications | 1 |
| Top Layer Thermoplastic | N |

**Pay Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 710-11-111 | PAINTED PAVT MARK,STD, WHITE,SOLID,6" | 0.21 | NM | $865.32 | $181.72 |
| | **Roadway Component Total** | | | | $501,874.99 |

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## SHOULDER COMPONENT

**User Input Data**

| Description | Value |
|---|---|
| Total Outside Shoulder Width L/R | 6.00 / 6.00 |
| Total Outside Shoulder Perf. Turf Width L/R | 0.00 / 0.00 |
| Paved Outside Shoulder Width L/R | 6.00 / 6.00 |
| Structural Spread Rate | 220 |
| Friction Course Spread Rate | 80 |
| Total Width (T) / 8" Overlap (O) | T |
| Rumble Strips No. of Sides | 0 |

**Pay Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 285-704 | OPTIONAL BASE,BASE GROUP 04 | 1,584.96 | SY | $9.97 | $15,802.05 |
| 334-1-23 | SUPERPAVE ASPH CONC, TRAF C, PG76-22 | 165.26 | TN | $88.55 | $14,633.77 |
| 337-7-22 | ASPH CONC FC,INC BIT,FC-5, PG76-22 | 60.09 | TN | $111.87 | $6,722.27 |

**Erosion Control**

**Pay Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 104-4 | MOWING | 0.26 | AC | $163.13 | $42.41 |
| 104-10-2 | SYNTHETIC BALES | 676.05 | LF | $6.49 | $4,387.56 |
| 104-11 | FLOATING TURBIDITY BARRIER | 53.35 | LF | $8.30 | $442.80 |
| 104-12 | STAKED TURBIDITY BARRIER-NYL REINF PVC | 53.35 | LF | $4.53 | $241.68 |
| 104-13-1 | STAKED SILT FENCE, TYPE III | 2,253.50 | LF | $0.96 | $2,163.36 |
| 104-15 | SOIL TRACKING PREVENTION DEVICE | 1.00 | EA | $2,214.05 | $2,214.05 |
| | **Shoulder Component Total** | | | | $46,649.96 |

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**DRAINAGE COMPONENT**

**Pay Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 400-2-2 | CONC CLASS II, ENDWALLS | 3.84 | CY | $696.69 | $2,675.29 |
| 430-172-102 | PIPE CULV OPT MATL, ROUND, 25-36", CD | 40.00 | LF | $92.39 | $3,695.60 |

| | | | | |
|---|---|---|---|---|
| 430-174-101 | PIPE CULV, OPT MATL, ROUND,0-24"SD | 176.00 LF | $43.45 | $7,647.20 |
| 430-984-129 | MITERED END SECT, OPTIONAL RD, 24" SD | 9.00 EA | $1,238.73 | $11,148.57 |
| 570-1-1 | PERFORMANCE TURF | 150.23 SY | $0.74 | $111.17 |
| | **Drainage Component Total** | | | $25,277.83 |

## SIGNING COMPONENT

**Pay Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 700-20-11 | SINGLE POST SIGN, F&I, LESS THAN 12 SF | 1.00 | AS | $242.87 | $242.87 |
| 700-20-12 | SINGLE POST SIGN, F&I, 12-20 SF | 5.00 | AS | $671.36 | $3,356.80 |
| 700-21-11 | MULTI- POST SIGN, F&I, 50 OR < | 1.00 | AS | $2,868.40 | $2,868.40 |
| | **Signing Component Total** | | | | $6,468.07 |

## RETAINING WALLS COMPONENT

**X-Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 548-12 | RETAINING WALL SYSTEM, PERM, EXC BAR. | 26,691.39 | SF | $26.04 | $695,043.80 |
| | **Retaining Walls Component Total** | | | | $695,043.80 |

**Sequence 7 Total** $1,487,321.95

**Sequence:** 8 NDS - New, Divided, Suburban (Urban In/Rural Out) **Net Length:** 0.989 MI 5,220 LF

**Description:** C-D Road West of Grand Ave One-way; Two-lane; 8-ft Paved Inside Shldrs; Bike Lanes, Curb & Gutter, Sidewalks on Outside; Barrier Walls

## EARTHWORK COMPONENT

### User Input Data

| Description | Value |
|---|---|
| Standard Clearing and Grubbing Limits L/R | 0.00 / 0.00 |
| Incidental Clearing and Grubbing Area | 0.00 |
| | |
| Alignment Number | 1 |
| Distance | 0.989 |
| Top of Structural Course For Begin Section | 103.00 |
| Top of Structural Course For End Section | 103.00 |
| Horizontal Elevation For Begin Section | 100.00 |
| Horizontal Elevation For End Section | 100.00 |
| Front Slope L/R | 0 to 1 / 0 to 1 |
| Median Shoulder Cross Slope L/R | 4.00 % / 4.00 % |
| Outside Shoulder Cross Slope L/R | 2.00 % / 2.00 % |
| Roadway Cross Slope L/R | 2.00 % / 2.00 % |

### Pay Items

| Pay item | Description | Quantity Unit | Unit Price | Extended Amount |
|---|---|---|---|---|
| 120-6 | EMBANKMENT | 20,497.00 CY | $13.65 | $279,784.05 |
| | **Earthwork Component Total** | | | $279,784.05 |

## ROADWAY COMPONENT

### User Input Data

| Description | Value |
|---|---|
| Number of Lanes | 2 |
| Roadway Pavement Width L/R | 0.00 / 28.00 |
| Structural Spread Rate | 330 |
| Friction Course Spread Rate | 80 |

### Pay Items

| Pay item | Description | Quantity Unit | Unit Price | Extended Amount |
|---|---|---|---|---|
| 160-4 | TYPE B STABILIZATION | 29,671.71 SY | $3.16 | $93,762.60 |

| | | | | | |
|---|---|---|---|---|---|
| 285-709 | OPTIONAL BASE,BASE GROUP 09 | 16,622.19 | SY | $12.23 | $203,289.38 |
| 334-1-13 | SUPERPAVE ASPHALTIC CONC, TRAFFIC C | 2,679.50 | TN | $81.82 | $219,236.69 |
| 337-7-5 | ASPH CONC FC, INC BIT/ RUBBER, FC-5 | 649.58 | TN | $103.50 | $67,231.53 |

**X-Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 521-72-3 | SHLDR CONC BARRIER WALL, RIGID-SHLDR | 5,220.00 | LF | $116.30 | $607,086.00 |
| 710-11-131 | PAINTED PAVT MARK,STD, WHITE,SKIP, 6" | 1.98 | GM | $388.09 | $768.42 |
| 710-11-211 | PAINTED PAVT MARK,STD, YELLOW,SOLID,6" | 1.98 | NM | $868.92 | $1,720.46 |

**Turnouts/Crossovers Subcomponent**

| Description | Value |
|---|---|
| Asphalt Adjustment | 5.00 |
| Stabilization Code | Y |
| Base Code | Y |
| Friction Course Code | Y |

**Pay Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 160-4 | TYPE B STABILIZATION | 1,483.59 | SY | $3.16 | $4,688.14 |
| 285-709 | OPTIONAL BASE,BASE GROUP 09 | 831.11 | SY | $12.23 | $10,164.48 |
| 334-1-13 | SUPERPAVE ASPHALTIC CONC, TRAFFIC C | 133.98 | TN | $81.82 | $10,962.24 |
| 337-7-5 | ASPH CONC FC, INC BIT/ RUBBER, FC-5 | 32.48 | TN | $103.50 | $3,361.68 |

**Pavement Marking Subcomponent**

| Description | Value |
|---|---|
| Solid Stripe No. of Stripes | 2 |
| Solid Stripe No. of Applications | 2 |
| Skip Stripe No. of Stripes | 0 |
| Skip Stripe No. of Applications | 2 |
| Top Layer Thermoplastic | N |

**Pay Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 706-3 | RETRO-REFLECTIVE PAVEMENT MARKERS | 133.00 | EA | $3.72 | $494.76 |
| 710-11-111 | PAINTED PAVT MARK,STD, WHITE,SOLID,6" | 3.95 | NM | $865.32 | $3,418.01 |
| | **Roadway Component Total** | | | | $1,226,184.39 |

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## SHOULDER COMPONENT

**User Input Data**

| Description | Value |
|---|---|
| Total Outside Shoulder Width L/R | 8.00 / 10.00 |
| Total Outside Shoulder Perf. Turf Width L/R | 0.00 / 5.00 |
| Paved Outside Shoulder Width L/R | 8.00 / 0.00 |
| Structural Spread Rate | 110 |
| Friction Course Spread Rate | 80 |
| Total Width (T) / 8" Overlap (O) | T |
| Rumble Strips No. of Sides | 0 |

**Pay Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 285-704 | OPTIONAL BASE,BASE GROUP 04 | 4,831.22 | SY | $9.97 | $48,167.26 |
| 334-1-13 | SUPERPAVE ASPHALTIC CONC, TRAFFIC C | 255.19 | TN | $81.82 | $20,879.65 |
| 337-7-5 | ASPH CONC FC, INC BIT/ RUBBER, FC-5 | 185.59 | TN | $103.50 | $19,208.56 |
| 570-1-1 | PERFORMANCE TURF | 2,899.89 | SY | $0.74 | $2,145.92 |

**X-Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 520-1-10 | CONCRETE CURB & GUTTER, TYPE F | 5,220.00 | LF | $14.93 | $77,934.60 |
| 522-1 | SIDEWALK CONC, 4" THICK | 2,900.00 | SY | $28.06 | $81,374.00 |

**Erosion Control**

**Pay Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 104-4 | MOWING | 1.88 | AC | $163.13 | $306.68 |
| 104-10-2 | SYNTHETIC BALES | 3,131.88 | LF | $6.49 | $20,325.90 |
| 104-11 | FLOATING TURBIDITY BARRIER | 247.15 | LF | $8.30 | $2,051.34 |
| 104-12 | STAKED TURBIDITY BARRIER-NYL REINF PVC | 247.15 | LF | $4.53 | $1,119.59 |
| 104-13-1 | STAKED SILT FENCE, TYPE III | 10,439.62 | LF | $0.96 | $10,022.04 |
| 104-15 | SOIL TRACKING PREVENTION DEVICE | 1.00 | EA | $2,214.05 | $2,214.05 |
| | **Shoulder Component Total** | | | | $285,749.61 |

## DRAINAGE COMPONENT

**Pay Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 400-2-2 | CONC CLASS II, ENDWALLS | 17.79 | CY | $696.69 | $12,394.12 |
| 425-1-551 | INLETS, DT BOT, TYPE E, <10' | 8.00 | EA | $2,248.48 | $17,987.84 |
| 430-171-101 | PIPE CULV OPT MATL, ROUND, 0-24", SS | 416.00 | LF | $57.72 | $24,011.52 |
| 430-172-102 | PIPE CULV OPT MATL, ROUND, 25-36", CD | 240.00 | LF | $92.39 | $22,173.60 |
| 430-984-129 | MITERED END SECT, OPTIONAL RD, 24" SD | 8.00 | EA | $1,238.73 | $9,909.84 |
| 570-1-1 | PERFORMANCE TURF | 379.62 | SY | $0.74 | $280.92 |
| | **Drainage Component Total** | | | | $86,757.84 |

## SIGNING COMPONENT

**Pay Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 700-20-11 | SINGLE POST SIGN, F&I, LESS THAN 12 SF | 24.00 | AS | $242.87 | $5,828.88 |
| 700-20-12 | SINGLE POST SIGN, F&I, 12-20 SF | 2.00 | AS | $671.36 | $1,342.72 |
| 700-21-11 | MULTI- POST SIGN, F&I, 50 OR < | 2.00 | AS | $2,868.40 | $5,736.80 |
| 700-21-12 | MULTI- POST SIGN, F&I, 51-100 | 2.00 | AS | $3,908.03 | $7,816.06 |

| | |
|---|---|
| **Signing Component Total** | $20,724.46 |

| | |
|---|---|
| **Sequence 8 Total** | $1,899,200.35 |

**Sequence:** 9 NDR - New Construction, Divided, Rural **Net Length:** 0.579 MI 3,056 LF

**Description:** C-D Road East of Grand Ave One-way; Two-lane; 10-ft Paved Inside & Outside Shldrs; Barrier Walls

## EARTHWORK COMPONENT

### User Input Data

| Description | Value |
|---|---|
| Standard Clearing and Grubbing Limits L/R | 0.00 / 0.00 |
| Incidental Clearing and Grubbing Area | 0.00 |
| | |
| Alignment Number | 1 |
| Distance | 0.579 |
| Top of Structural Course For Begin Section | 103.00 |
| Top of Structural Course For End Section | 103.00 |
| Horizontal Elevation For Begin Section | 100.00 |
| Horizontal Elevation For End Section | 100.00 |
| Front Slope L/R | 0 to 1 / 0 to 1 |
| Median Slope L/R | 0 to 1 / 0 to 1 |
| Median Shoulder Cross Slope L/R | 5.00 % / 5.00 % |
| Outside Shoulder Cross Slope L/R | 6.00 % / 6.00 % |
| Roadway Cross Slope L/R | 2.00 % / 2.00 % |

### Pay Items

| Pay item | Description | Quantity Unit | Unit Price | Extended Amount |
|---|---|---|---|---|
| 120-6 | EMBANKMENT | 6,416.56 CY | $13.65 | $87,586.04 |
| | **Earthwork Component Total** | | | $87,586.04 |

## ROADWAY COMPONENT

### User Input Data

| Description | Value |
|---|---|
| Number of Lanes | 2 |
| Roadway Pavement Width L/R | 0.00 / 24.00 |
| Structural Spread Rate | 330 |
| Friction Course Spread Rate | 80 |

### Pay Items

| Pay item | Description | Quantity Unit | Unit Price | Extended Amount |
|---|---|---|---|---|

| | | | | | |
|---|---|---|---|---|---|
| 160-4 | TYPE B STABILIZATION | 14,940.76 | SY | $3.16 | $47,212.80 |
| 285-709 | OPTIONAL BASE,BASE GROUP 09 | 8,373.62 | SY | $12.23 | $102,409.37 |
| 334-1-13 | SUPERPAVE ASPHALTIC CONC, TRAFFIC C | 1,344.67 | TN | $81.82 | $110,020.90 |
| 337-7-5 | ASPH CONC FC, INC BIT/ RUBBER, FC-5 | 325.98 | TN | $103.50 | $33,738.93 |

**X-Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 521-72-3 | SHLDR CONC BARRIER WALL, RIGID-SHLDR | 3,056.00 | LF | $116.30 | $355,412.80 |
| 710-11-131 | PAINTED PAVT MARK,STD, WHITE,SKIP, 6" | 1.16 | GM | $388.09 | $450.18 |
| 710-11-211 | PAINTED PAVT MARK,STD, YELLOW,SOLID,6" | 1.16 | NM | $868.92 | $1,007.95 |

**Turnouts/Crossovers Subcomponent**

| Description | Value |
|---|---|
| Asphalt Adjustment | 5.00 |
| Stabilization Code | Y |
| Base Code | Y |
| Friction Course Code | Y |

**Pay Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 160-4 | TYPE B STABILIZATION | 747.04 | SY | $3.16 | $2,360.65 |
| 285-709 | OPTIONAL BASE,BASE GROUP 09 | 418.68 | SY | $12.23 | $5,120.46 |
| 334-1-13 | SUPERPAVE ASPHALTIC CONC, TRAFFIC C | 67.23 | TN | $81.82 | $5,500.76 |
| 337-7-5 | ASPH CONC FC, INC BIT/ RUBBER, FC-5 | 16.30 | TN | $103.50 | $1,687.05 |

**Pavement Marking Subcomponent**

| Description | Value |
|---|---|
| Solid Stripe No. of Stripes | 1 |
| Solid Stripe No. of Applications | 2 |
| Skip Stripe No. of Stripes | 0 |
| Skip Stripe No. of Applications | 2 |
| Top Layer Thermoplastic | N |

**Pay Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 706-3 | RETRO-REFLECTIVE PAVEMENT MARKERS | 78.00 | EA | $3.72 | $290.16 |
| 710-11-111 | PAINTED PAVT MARK,STD, WHITE,SOLID,6" | 1.16 | NM | $865.32 | $1,003.77 |
| | **Roadway Component Total** | | | | $666,215.78 |

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## SHOULDER COMPONENT

**User Input Data**

| Description | Value |
|---|---|
| Total Outside Shoulder Width L/R | 10.00 / 10.00 |
| Total Outside Shoulder Perf. Turf Width L/R | 0.00 / 0.00 |
| Paved Outside Shoulder Width L/R | 10.00 / 10.00 |
| Structural Spread Rate | 110 |
| Friction Course Spread Rate | 80 |
| Total Width (T) / 8" Overlap (O) | T |
| Rumble Strips No. of Sides | 0 |

**Pay Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 285-704 | OPTIONAL BASE,BASE GROUP 04 | 7,015.36 | SY | $9.97 | $69,943.14 |
| 334-1-13 | SUPERPAVE ASPHALTIC CONC, TRAFFIC C | 373.52 | TN | $81.82 | $30,561.41 |
| 337-7-5 | ASPH CONC FC, INC BIT/ RUBBER, FC-5 | 271.65 | TN | $103.50 | $28,115.78 |

**Erosion Control**

**Pay Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 104-4 | MOWING | 1.85 | AC | $163.13 | $301.79 |
| 104-10-2 | SYNTHETIC BALES | 1,833.64 | LF | $6.49 | $11,900.32 |
| 104-11 | FLOATING TURBIDITY BARRIER | 144.70 | LF | $8.30 | $1,201.01 |
| 104-12 | STAKED TURBIDITY BARRIER-NYL REINF PVC | 144.70 | LF | $4.53 | $655.49 |

| | | | | |
|---|---|---|---|---|
| 104-13-1 | STAKED SILT FENCE, TYPE III | 6,112.13 LF | $0.96 | $5,867.64 |
| 104-15 | SOIL TRACKING PREVENTION DEVICE | 1.00 EA | $2,214.05 | $2,214.05 |
| | **Shoulder Component Total** | | | $150,760.63 |

## DRAINAGE COMPONENT

**Pay Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 400-2-2 | CONC CLASS II, ENDWALLS | 10.42 | CY | $696.69 | $7,259.51 |
| 425-1-551 | INLETS, DT BOT, TYPE E, <10' | 4.00 | EA | $2,248.48 | $8,993.92 |
| 430-172-101 | PIPE CULV OPT MATL, ROUND, 0-24", CD | 200.00 | LF | $119.93 | $23,986.00 |
| 430-172-102 | PIPE CULV OPT MATL, ROUND, 25-36", CD | 176.00 | LF | $92.39 | $16,260.64 |
| 430-174-101 | PIPE CULV, OPT MATL, ROUND,0-24"SD | 464.00 | LF | $43.45 | $20,160.80 |
| 430-984-129 | MITERED END SECT, OPTIONAL RD, 24" SD | 24.00 | EA | $1,238.73 | $29,729.52 |
| 524-1-1 | CONCRETE DITCH PAVT, NR, 3" | 1,157.60 | SY | $32.68 | $37,830.37 |
| 570-1-1 | PERFORMANCE TURF | 407.48 | SY | $0.74 | $301.54 |
| | **Drainage Component Total** | | | | $144,522.30 |

## SIGNING COMPONENT

**Pay Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 700-20-11 | SINGLE POST SIGN, F&I, LESS THAN 12 SF | 2.00 | AS | $242.87 | $485.74 |
| 700-20-12 | SINGLE POST SIGN, F&I, 12-20 SF | 14.00 | AS | $671.36 | $9,399.04 |
| 700-21-11 | MULTI- POST SIGN, F&I, 50 OR < | 2.00 | AS | $2,868.40 | $5,736.80 |
| 700-21-12 | MULTI- POST SIGN, F&I, 51-100 | 4.00 | AS | $3,908.03 | $15,632.12 |
| | **Signing Component Total** | | | | $31,253.70 |

**Sequence 9 Total** $1,080,338.45

**Sequence:** 10 NDS - New, Divided, Suburban (Urban In/Rural Out) **Net Length:** 0.340 MI 1,794 LF

**Description:** Grand Ave North of Gandy Two-way, Four-lane Divided Suburban with 5-ft Sidewalks on Outside; 20-ft Grass Median; Curb & Gutter on Inside; 8-ft Shldr Outside (5-ft paved)

## EARTHWORK COMPONENT

### User Input Data

| Description | Value |
|---|---|
| Standard Clearing and Grubbing Limits L/R | 0.00 / 0.00 |
| Incidental Clearing and Grubbing Area | 0.00 |
| | |
| Alignment Number | 1 |
| Distance | 0.340 |
| Top of Structural Course For Begin Section | 103.00 |
| Top of Structural Course For End Section | 103.00 |
| Horizontal Elevation For Begin Section | 100.00 |
| Horizontal Elevation For End Section | 100.00 |
| Front Slope L/R | 6 to 1 / 6 to 1 |
| Median Shoulder Cross Slope L/R | 4.00 % / 4.00 % |
| Outside Shoulder Cross Slope L/R | 6.00 % / 6.00 % |
| Roadway Cross Slope L/R | 2.00 % / 2.00 % |

### Pay Items

| Pay item | Description | Quantity Unit | Unit Price | Extended Amount |
|---|---|---|---|---|
| 120-6 | EMBANKMENT | 15,003.88 CY | $13.65 | $204,802.96 |
| | **Earthwork Component Total** | | | $204,802.96 |

## ROADWAY COMPONENT

### User Input Data

| Description | Value |
|---|---|
| Number of Lanes | 4 |
| Roadway Pavement Width L/R | 24.00 / 24.00 |
| Structural Spread Rate | 330 |
| Friction Course Spread Rate | 80 |

### Pay Items

| Pay item | Description | Quantity Unit | Unit Price | Extended Amount |
|---|---|---|---|---|
| 160-4 | TYPE B STABILIZATION | 17,773.99 SY | $3.16 | $56,165.81 |

| | | | | | |
|---|---|---|---|---|---|
| 285-709 | OPTIONAL BASE,BASE GROUP 09 | 9,831.91 | SY | $12.23 | $120,244.26 |
| 334-1-13 | SUPERPAVE ASPHALTIC CONC, TRAFFIC C | 1,578.85 | TN | $81.82 | $129,181.51 |
| 337-7-5 | ASPH CONC FC, INC BIT/ RUBBER, FC-5 | 382.75 | TN | $103.50 | $39,614.62 |

**X-Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 710-11-211 | PAINTED PAVT MARK,STD, YELLOW,SOLID,6" | 1.36 | NM | $868.92 | $1,181.73 |

**Turnouts/Crossovers Subcomponent**

| Description | Value |
|---|---|
| Asphalt Adjustment | 10.00 |
| Stabilization Code | Y |
| Base Code | Y |
| Friction Course Code | Y |

**Pay Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 160-4 | TYPE B STABILIZATION | 1,777.40 | SY | $3.16 | $5,616.58 |
| 285-709 | OPTIONAL BASE,BASE GROUP 09 | 983.19 | SY | $12.23 | $12,024.41 |
| 334-1-13 | SUPERPAVE ASPHALTIC CONC, TRAFFIC C | 157.88 | TN | $81.82 | $12,917.74 |
| 337-7-5 | ASPH CONC FC, INC BIT/ RUBBER, FC-5 | 38.28 | TN | $103.50 | $3,961.98 |

**Pavement Marking Subcomponent**

| Description | Value |
|---|---|
| Solid Stripe No. of Stripes | 2 |
| Solid Stripe No. of Applications | 2 |
| Skip Stripe No. of Stripes | 2 |
| Skip Stripe No. of Applications | 2 |
| Top Layer Thermoplastic | N |

**Pay Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|

| | | | | | |
|---|---|---|---|---|---|
| 706-3 | RETRO-REFLECTIVE PAVEMENT MARKERS | 138.00 | EA | $3.72 | $513.36 |
| 710-11-111 | PAINTED PAVT MARK,STD, WHITE,SOLID,6" | 1.36 | NM | $865.32 | $1,176.84 |
| 710-11-131 | PAINTED PAVT MARK,STD, WHITE,SKIP, 6" | 1.36 | GM | $388.09 | $527.80 |
| | **Roadway Component Total** | | | | $383,126.65 |

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## SHOULDER COMPONENT

**User Input Data**

| Description | Value |
|---|---|
| Total Outside Shoulder Width L/R | 18.00 / 18.00 |
| Total Outside Shoulder Perf. Turf Width L/R | 8.00 / 8.00 |
| Paved Outside Shoulder Width L/R | 5.00 / 5.00 |
| Structural Spread Rate | 110 |
| Friction Course Spread Rate | 80 |
| Total Width (T) / 8" Overlap (O) | T |
| Rumble Strips No. of Sides | 0 |

**Pay Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 285-704 | OPTIONAL BASE,BASE GROUP 04 | 2,125.06 | SY | $9.97 | $21,186.85 |
| 334-1-13 | SUPERPAVE ASPHALTIC CONC, TRAFFIC C | 109.64 | TN | $81.82 | $8,970.74 |
| 337-7-5 | ASPH CONC FC, INC BIT/ RUBBER, FC-5 | 79.74 | TN | $103.50 | $8,253.09 |
| 570-1-1 | PERFORMANCE TURF | 3,189.59 | SY | $0.74 | $2,360.30 |

**X-Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 522-1 | SIDEWALK CONC, 4" THICK | 1,993.33 | SY | $28.06 | $55,932.84 |

**Erosion Control**

**Pay Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 104-4 | MOWING | 0.65 | AC | $163.13 | $106.03 |

| | | | | |
|---|---|---|---|---|
| 104-10-2 | SYNTHETIC BALES | 1,076.49 LF | $6.49 | $6,986.42 |
| 104-11 | FLOATING TURBIDITY BARRIER | 84.95 LF | $8.30 | $705.08 |
| 104-12 | STAKED TURBIDITY BARRIER-NYL REINF PVC | 84.95 LF | $4.53 | $384.82 |
| 104-13-1 | STAKED SILT FENCE, TYPE III | 3,588.29 LF | $0.96 | $3,444.76 |
| 104-15 | SOIL TRACKING PREVENTION DEVICE | 1.00 EA | $2,214.05 | $2,214.05 |
| | **Shoulder Component Total** | | | $110,544.99 |

## MEDIAN COMPONENT

**User Input Data**

| Description | Value |
|---|---|
| Total Median Width | 20.00 |
| Performance Turf Width | 15.50 |

**Pay Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 520-1-7 | CONCRETE CURB & GUTTER, TYPE E | 3,588.29 | LF | $11.37 | $40,798.86 |
| 570-1-1 | PERFORMANCE TURF | 3,089.91 | SY | $0.74 | $2,286.53 |
| | **Median Component Total** | | | | $43,085.39 |

## DRAINAGE COMPONENT

**Pay Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 400-2-2 | CONC CLASS II, ENDWALLS | 6.12 | CY | $696.69 | $4,263.74 |
| 425-1-551 | INLETS, DT BOT, TYPE E, <10' | 3.00 | EA | $2,248.48 | $6,745.44 |
| 430-171-101 | PIPE CULV OPT MATL, ROUND, 0-24", SS | 144.00 | LF | $57.72 | $8,311.68 |
| 430-172-102 | PIPE CULV OPT MATL, ROUND, 25-36", CD | 88.00 | LF | $92.39 | $8,130.32 |
| 430-984-129 | MITERED END SECT, OPTIONAL RD, 24" SD | 3.00 | EA | $1,238.73 | $3,716.19 |
| 570-1-1 | PERFORMANCE TURF | 130.48 | SY | $0.74 | $96.56 |

**Drainage Component Total** $31,263.93

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## SIGNING COMPONENT

**Pay Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 700-20-11 | SINGLE POST SIGN, F&I, LESS THAN 12 SF | 9.00 | AS | $242.87 | $2,185.83 |
| 700-20-12 | SINGLE POST SIGN, F&I, 12-20 SF | 1.00 | AS | $671.36 | $671.36 |
| 700-21-11 | MULTI- POST SIGN, F&I, 50 OR < | 1.00 | AS | $2,868.40 | $2,868.40 |
| 700-21-12 | MULTI- POST SIGN, F&I, 51-100 | 1.00 | AS | $3,908.03 | $3,908.03 |

**Signing Component Total** $9,633.62

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**Sequence 10 Total** $782,457.54

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**Sequence:** 11 NDU - New Construction, Divided, Urban **Net Length:** 0.078 MI 412 LF

**Description:** Grand Ave Under Gandy Two-way, Two-lane Divided Urban with 5-ft Sidewalks on Outside; 20-ft Grass Median; Curb & Gutter on Inside and Outside; Bike Lanes Outside

## EARTHWORK COMPONENT

### User Input Data

| Description | Value |
|---|---|
| Standard Clearing and Grubbing Limits L/R | 0.00 / 0.00 |
| Incidental Clearing and Grubbing Area | 0.00 |
| | |
| Alignment Number | 1 |
| Distance | 0.078 |
| Top of Structural Course For Begin Section | 103.00 |
| Top of Structural Course For End Section | 103.00 |
| Horizontal Elevation For Begin Section | 100.00 |
| Horizontal Elevation For End Section | 100.00 |
| Front Slope L/R | 6 to 1 / 6 to 1 |
| Median Shoulder Cross Slope L/R | 4.00 % / 4.00 % |
| Outside Shoulder Cross Slope L/R | 2.00 % / 2.00 % |
| Roadway Cross Slope L/R | 2.00 % / 2.00 % |

### Pay Items

| Pay item | Description | Quantity Unit | Unit Price | Extended Amount |
|---|---|---|---|---|
| 120-6 | EMBANKMENT | 5,205.20 CY | $13.65 | $71,050.98 |
| | **Earthwork Component Total** | | | $71,050.98 |

## ROADWAY COMPONENT

### User Input Data

| Description | Value |
|---|---|
| Number of Lanes | 2 |
| Roadway Pavement Width L/R | 19.00 / 19.00 |
| Structural Spread Rate | 330 |
| Friction Course Spread Rate | 165 |

### Pay Items

| Pay item | Description | Quantity Unit | Unit Price | Extended Amount |
|---|---|---|---|---|
| 160-4 | TYPE B STABILIZATION | 2,211.12 SY | $3.16 | $6,987.14 |

| | | | | | |
|---|---|---|---|---|---|
| 285-709 | OPTIONAL BASE,BASE GROUP 09 | 1,738.88 | SY | $12.23 | $21,266.50 |
| 334-1-13 | SUPERPAVE ASPHALTIC CONC, TRAFFIC C | 286.92 | TN | $81.82 | $23,475.79 |
| 337-7-33 | ASPH CONC FC,TRAFFIC C,FC-12.5,RUBBER | 143.46 | TN | $95.62 | $13,717.65 |

**X-Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 710-11-211 | PAINTED PAVT MARK,STD, YELLOW,SOLID,6" | 0.31 | NM | $868.92 | $269.37 |

**Turnouts/Crossovers Subcomponent**

| Description | Value |
|---|---|
| Asphalt Adjustment | 10.00 |
| Stabilization Code | Y |
| Base Code | Y |
| Friction Course Code | Y |

**Pay Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 160-4 | TYPE B STABILIZATION | 221.11 | SY | $3.16 | $698.71 |
| 285-709 | OPTIONAL BASE,BASE GROUP 09 | 173.89 | SY | $12.23 | $2,126.67 |
| 334-1-13 | SUPERPAVE ASPHALTIC CONC, TRAFFIC C | 28.69 | TN | $81.82 | $2,347.42 |
| 337-7-33 | ASPH CONC FC,TRAFFIC C,FC-12.5,RUBBER | 14.35 | TN | $95.62 | $1,372.15 |

**Pavement Marking Subcomponent**

| Description | Value |
|---|---|
| Solid Stripe No. of Stripes | 2 |
| Solid Stripe No. of Applications | 2 |
| Skip Stripe No. of Stripes | 0 |
| Skip Stripe No. of Applications | 2 |
| Top Layer Thermoplastic | N |

**Pay Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|

| | | | | | |
|---|---|---|---|---|---|
| 706-3 | RETRO-REFLECTIVE PAVEMENT MARKERS | 11.00 | EA | $3.72 | $40.92 |
| 710-11-111 | PAINTED PAVT MARK,STD, WHITE,SOLID,6" | 0.31 | NM | $865.32 | $268.25 |
| | **Roadway Component Total** | | | | $72,570.56 |

## SHOULDER COMPONENT

**User Input Data**

| Description | Value |
|---|---|
| Total Outside Shoulder Width L/R | 27.81 / 14.49 |
| Total Outside Shoulder Perf. Turf Width L/R | 20.56 / 7.24 |
| Sidewalk Width L/R | 5.00 / 5.00 |

**Pay Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 520-1-10 | CONCRETE CURB & GUTTER, TYPE F | 411.84 | LF | $14.93 | $6,148.77 |
| 520-1-10 | CONCRETE CURB & GUTTER, TYPE F | 411.84 | LF | $14.93 | $6,148.77 |
| 522-1 | SIDEWALK CONC, 4" THICK | 457.60 | SY | $28.06 | $12,840.26 |
| 570-1-1 | PERFORMANCE TURF | 1,272.13 | SY | $0.74 | $941.38 |

**Erosion Control**

**Pay Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 104-4 | MOWING | 0.15 | AC | $163.13 | $24.47 |
| 104-11 | FLOATING TURBIDITY BARRIER | 19.50 | LF | $8.30 | $161.85 |
| 104-12 | STAKED TURBIDITY BARRIER-NYL REINF PVC | 19.50 | LF | $4.53 | $88.34 |
| 104-13-1 | STAKED SILT FENCE, TYPE III | 823.68 | LF | $0.96 | $790.73 |
| 104-15 | SOIL TRACKING PREVENTION DEVICE | 1.00 | EA | $2,214.05 | $2,214.05 |
| 104-16 | ROCK BAG | 83.00 | EA | $4.70 | $390.10 |
| | **Shoulder Component Total** | | | | $29,748.72 |

## MEDIAN COMPONENT

**User Input Data**

| Description | Value |
|---|---|
| Total Median Width | 20.00 |
| Performance Turf Width | 15.50 |

**Pay Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 520-1-7 | CONCRETE CURB & GUTTER, TYPE E | 823.68 | LF | $11.37 | $9,365.24 |
| 570-1-1 | PERFORMANCE TURF | 709.28 | SY | $0.74 | $524.87 |
| | **Median Component Total** | | | | $9,890.11 |

## DRAINAGE COMPONENT

**Pay Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 400-2-2 | CONC CLASS II, ENDWALLS | 1.40 | CY | $696.69 | $975.37 |
| 425-1-351 | INLETS, CURB, TYPE P-5, <10' | 3.00 | EA | $3,429.13 | $10,287.39 |
| 425-1-451 | INLETS, CURB, TYPE J-5, <10' | 1.00 | EA | $5,144.00 | $5,144.00 |
| 425-1-521 | INLETS, DT BOT, TYPE C, <10' | 1.00 | EA | $1,857.93 | $1,857.93 |
| 425-2-41 | MANHOLES, P-7, <10' | 1.00 | EA | $2,349.09 | $2,349.09 |
| 430-171-101 | PIPE CULV OPT MATL, ROUND, 0-24", SS | 208.00 | LF | $57.72 | $12,005.76 |
| 430-171-103 | PIPE CULV OPT MATL, ROUND, 37-48", SS | 392.00 | LF | $137.23 | $53,794.16 |
| 430-172-102 | PIPE CULV OPT MATL, ROUND, 25-36", CD | 24.00 | LF | $92.39 | $2,217.36 |
| 570-1-1 | PERFORMANCE TURF | 23.71 | SY | $0.74 | $17.55 |
| | **Drainage Component Total** | | | | $88,648.61 |

## SIGNING COMPONENT

**Pay Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|

| | | | | |
|---|---|---|---|---|
| 700-20-11 | SINGLE POST SIGN, F&I, LESS THAN 12 SF | 2.00 AS | $242.87 | $485.74 |
| 700-20-12 | SINGLE POST SIGN, F&I, 12-20 SF | 1.00 AS | $671.36 | $671.36 |
| 700-21-11 | MULTI- POST SIGN, F&I, 50 OR < | 1.00 AS | $2,868.40 | $2,868.40 |
| 700-21-12 | MULTI- POST SIGN, F&I, 51-100 | 1.00 AS | $3,908.03 | $3,908.03 |
| | **Signing Component Total** | | | $7,933.53 |

**Sequence 11 Total** $279,842.51

**Sequence:** 12 NUR - New Construction, Undivided, Rural **Net Length:** 0.114 MI 604 LF

**Description:** Grand Ave South of Gandy Two-way, Two-lane Undivided Rural with 5-ft Sidewalk on South Side; 8-ft Shldrs Outside (5-ft paved)

## EARTHWORK COMPONENT

### User Input Data

| Description | Value |
|---|---|
| Standard Clearing and Grubbing Limits L/R | 0.00 / 0.00 |
| Incidental Clearing and Grubbing Area | 0.00 |
| | |
| Alignment Number | 1 |
| Distance | 0.114 |
| Top of Structural Course For Begin Section | 103.00 |
| Top of Structural Course For End Section | 103.00 |
| Horizontal Elevation For Begin Section | 100.00 |
| Horizontal Elevation For End Section | 100.00 |
| Front Slope L/R | 6 to 1 / 6 to 1 |
| Outside Shoulder Cross Slope L/R | 6.00 % / 6.00 % |
| Roadway Cross Slope L/R | 2.00 % / 2.00 % |

### Pay Items

| Pay item | Description | Quantity Unit | Unit Price | Extended Amount |
|---|---|---|---|---|
| 120-6 | EMBANKMENT | 2,971.26 CY | $13.65 | $40,557.70 |
| | **Earthwork Component Total** | | | $40,557.70 |

## ROADWAY COMPONENT

### User Input Data

| Description | Value |
|---|---|
| Number of Lanes | 2 |
| Roadway Pavement Width L/R | 12.00 / 12.00 |
| Structural Spread Rate | 275 |
| Friction Course Spread Rate | 165 |

### Pay Items

| Pay item | Description | Quantity Unit | Unit Price | Extended Amount |
|---|---|---|---|---|
| 160-4 | TYPE B STABILIZATION | 3,892.65 SY | $3.16 | $12,300.77 |

| | | | | | |
|---|---|---|---|---|---|
| 285-709 | OPTIONAL BASE,BASE GROUP 09 | 1,655.05 | SY | $12.23 | $20,241.26 |
| 334-1-13 | SUPERPAVE ASPHALTIC CONC, TRAFFIC C | 221.48 | TN | $81.82 | $18,121.49 |
| 337-7-33 | ASPH CONC FC,TRAFFIC C,FC-12.5,RUBBER | 132.89 | TN | $95.62 | $12,706.94 |

**X-Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 710-11-211 | PAINTED PAVT MARK,STD, YELLOW,SOLID,6" | 0.46 | NM | $868.92 | $399.70 |

**Turnouts/Crossovers Subcomponent**

| Description | Value |
|---|---|
| Asphalt Adjustment | 10.00 |
| Stabilization Code | Y |
| Base Code | Y |
| Friction Course Code | Y |

**Pay Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 160-4 | TYPE B STABILIZATION | 389.26 | SY | $3.16 | $1,230.06 |
| 285-709 | OPTIONAL BASE,BASE GROUP 09 | 165.50 | SY | $12.23 | $2,024.06 |
| 334-1-13 | SUPERPAVE ASPHALTIC CONC, TRAFFIC C | 22.15 | TN | $81.82 | $1,812.31 |
| 337-7-33 | ASPH CONC FC,TRAFFIC C,FC-12.5,RUBBER | 13.29 | TN | $95.62 | $1,270.79 |

**Pavement Marking Subcomponent**

| Description | Value |
|---|---|
| Solid Stripe No. of Stripes | 2 |
| Solid Stripe No. of Applications | 2 |
| Skip Stripe No. of Stripes | 1 |
| Skip Stripe No. of Applications | 2 |
| Top Layer Thermoplastic | N |

**Pay Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|

| | | | | | |
|---|---|---|---|---|---|
| 706-3 | RETRO-REFLECTIVE PAVEMENT MARKERS | 15.00 | EA | $3.72 | $55.80 |
| 710-11-111 | PAINTED PAVT MARK,STD, WHITE,SOLID,6" | 0.46 | NM | $865.32 | $398.05 |
| | **Roadway Component Total** | | | | $70,561.23 |

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## SHOULDER COMPONENT

### User Input Data

| Description | Value |
|---|---|
| Total Outside Shoulder Width L/R | 17.00 / 17.00 |
| Total Outside Shoulder Perf. Turf Width L/R | 12.00 / 7.00 |
| Paved Outside Shoulder Width L/R | 5.00 / 5.00 |
| Structural Spread Rate | 110 |
| Friction Course Spread Rate | 165 |
| Total Width (T) / 8" Overlap (O) | T |
| Rumble Strips No. of Sides | 0 |

### Pay Items

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 285-704 | OPTIONAL BASE,BASE GROUP 04 | 715.44 | SY | $9.97 | $7,132.94 |
| 334-1-13 | SUPERPAVE ASPHALTIC CONC, TRAFFIC C | 36.91 | TN | $81.82 | $3,019.98 |
| 337-7-33 | ASPH CONC FC,TRAFFIC C,FC-12.5,RUBBER | 55.37 | TN | $95.62 | $5,294.48 |
| 570-1-1 | PERFORMANCE TURF | 1,275.18 | SY | $0.74 | $943.63 |

### X-Items

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 522-1 | SIDEWALK CONC, 4" THICK | 335.56 | SY | $28.06 | $9,415.81 |

### Erosion Control

### Pay Items

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 104-4 | MOWING | 0.14 | AC | $163.13 | $22.84 |
| 104-10-2 | SYNTHETIC BALES | 362.42 | LF | $6.49 | $2,352.11 |
| 104-11 | FLOATING TURBIDITY BARRIER | 28.60 | LF | $8.30 | $237.38 |

| | | | | |
|---|---|---|---|---|
| 104-12 | STAKED TURBIDITY BARRIER-NYL REINF PVC | 28.60 LF | $4.53 | $129.56 |
| 104-13-1 | STAKED SILT FENCE, TYPE III | 1,208.06 LF | $0.96 | $1,159.74 |
| 104-15 | SOIL TRACKING PREVENTION DEVICE | 1.00 EA | $2,214.05 | $2,214.05 |
| | **Shoulder Component Total** | | | $31,922.50 |

## DRAINAGE COMPONENT

**Pay Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 400-2-2 | CONC CLASS II, ENDWALLS | 2.06 | CY | $696.69 | $1,435.18 |
| 430-172-102 | PIPE CULV OPT MATL, ROUND, 25-36", CD | 24.00 | LF | $92.39 | $2,217.36 |
| 430-174-101 | PIPE CULV, OPT MATL, ROUND,0-24"SD | 96.00 | LF | $43.45 | $4,171.20 |
| 430-984-129 | MITERED END SECT, OPTIONAL RD, 24" SD | 5.00 | EA | $1,238.73 | $6,193.65 |
| 570-1-1 | PERFORMANCE TURF | 80.54 | SY | $0.74 | $59.60 |
| | **Drainage Component Total** | | | | $14,076.99 |

## SIGNING COMPONENT

**Pay Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 700-20-11 | SINGLE POST SIGN, F&I, LESS THAN 12 SF | 1.00 | AS | $242.87 | $242.87 |
| 700-20-12 | SINGLE POST SIGN, F&I, 12-20 SF | 3.00 | AS | $671.36 | $2,014.08 |
| 700-21-11 | MULTI- POST SIGN, F&I, 50 OR < | 1.00 | AS | $2,868.40 | $2,868.40 |
| | **Signing Component Total** | | | | $5,125.35 |

**Sequence 12 Total** $162,243.77

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# FDOT Long Range Estimating System - Production

## R3: Project Details by Sequence Report

**Project:** 256931-1-20-10 **Letting Date:** 01/2099

**Description:** WPI 256931-1 2010 Revision Gandy Boulevard (SR 694) at Grand Avenue

**District:** 07 **County:** 15 PINELLAS **Market Area:** 08 **Units:** English

**Contract Class:** **Lump Sum Project:** N **Design/Build:** N **Project Length:** 0.758 MI

**Project Manager:**

**Version 1-P Project Grand Total** **$28,437,322.53**

**Description:** WPI 256931-1 2010 Revision Gandy Boulevard (SR 694) at Grand Avenue This version applies to the original 2002 PD&E concept.

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| | | | |
|---|---|---|---|
| **Project Sequences Subtotal** | | | **$23,377,952.50** |
| 102-1 | Maintenance of Traffic | 10.00 % | $2,337,795.25 |
| 101-1 | Mobilization | 10.00 % | $2,571,574.78 |
| **Project Sequences Total** | | | **$28,287,322.53** |
| Project Unknowns | | 0.00 % | $0.00 |
| Design/Build | | 0.00 % | $0.00 |

**Non-Bid Components:**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 999-25 | INITIAL CONTINGENCY AMOUNT (DO NOT BID) | | LS | $150,000.00 | $150,000.00 |
| **Project Non-Bid Subtotal** | | | | | **$150,000.00** |
| **Version 1-P Project Grand Total** | | | | | **$28,437,322.53** |

**2002 PD&E Recommended Alternative**

**Summary of Sequences**

| Sequence | Description | Sequence Length (FT) | Sequence Length (MI) | Sequence Type | Number of Lanes | Lane Width (FT) | Bike Lane (FT) | Curb and Gutter | Sidewalk (SY) | Inside Paved Shoulder (FT) | Outside Paved Shoulder (FT) | Outside Unpaved Shoulder (FT) | Inside Shoulder Barrier (LF) | Outside Shoulder Barrier (LF) | Total Shoulder Barrier (LF) | Retaining Wall (SF) | Embankment (CY) | Retention Basin (AC) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Mainline<br>One-way; Two-lane; At grade;<br>12-ft Paved Inside & Outside Shoulders; Barrier Walls | 539 | 0.102 | NDR | 2 | 12 | | | | 12 | 12 | | 539 | 539 | 1,078 | | | 0.20 |
| 2 | Mainline<br>One-way; Two-lane; MSE;<br>12-ft Paved Inside & Outside Shoulders; Barrier Walls | 1,344 | 0.255 | NDR | 2 | 12 | | | | 12 | 12 | | 1,344 | 1,344 | 2,688 | 31,857.31 | 28,317.61 | 0.51 |
| 3 | Mainline<br>One-way; Three-lane; At grade;<br>12-ft Paved Inside & Outside Shoulders; Barrier Walls | 2,114 | 0.400 | NDR | 3 | 12 | | | | 12 | 12 | | 2,114 | 2,114 | 4,228 | | | 1.20 |
| 4 | Mainline<br>One-way; Three-lane; MSE;<br>12-ft Paved Inside & Outside Shoulders; Barrier Walls | 3,776 | 0.715 | NDR | 3 | 12 | | | | 12 | 12 | | 3,776 | 3,776 | 7,552 | 109,878.12 | 122,086.80 | 2.15 |
| 5 | Mainline<br>Two-way; Divided; Six-lane; Structure;<br>12-ft Paved Inside & Outside Shoulders | 128 | 0.024 | NDR | 6 | 12 | | | | 12 | 12 | | Barrier Walls are Included in Structure Cost | | | 4,158.00 | | 0.15 |
| 6 | Ramp<br>One-way; One-lane; At grade;<br>6-ft Paved Inside & Outside Shoulders; Barrier Walls | 2,277 | 0.431 | NUR | 1 | 15 | | | | 6 | 6 | | 2,277 | 2,277 | 4,554 | | | 0.43 |
| 7 | Ramp<br>One-way; One-lane; MSE;<br>6-ft Paved Inside & Outside Shoulders; Barrier Walls | 1,127 | 0.213 | NUR | 1 | 15 | | | | 6 | 6 | | 1,127 | 1,127 | 2,254 | 26,691.39 | 13,345.70 | 0.21 |
| 8 | C-D Road West of Grand Ave<br>One-way; Two-lane; 8-ft Paved Inside Shldrs;<br>Bike Lanes, Curb & Gutter, Sidewalk on One Side; Barrier Walls | 5,220 | 0.989 | NDS | 2 | 12 | 4 | Outside, Type F | 2,900.00 | 8 | | | 5,220 | | 5,220 | | | 1.98 |
| 9 | C-D Road East of Grand Ave<br>One-way; Two-lane;<br>10-ft Paved Inside & Outside Shldrs; Barrier Walls | 3,056 | 0.579 | NDR | 2 | 12 | | | | 10 | 10 | | 3,056 | | 3,056 | | | 1.16 |
| 10 | Grand Ave North of Gandy<br>Two-way, Four-lane Divided Suburban with 5-ft Sidewalks on Outside;<br>20-ft Grass Median; Curb & Gutter on Inside; 8-ft Shldr Outside (5-ft paved) | 1,794 | 0.340 | NDS | 4 | 12 | | Inside, Type E | 1,993.33 | | 5 | 3 | | | | | | 1.36 |
| 11 | Grand Ave Under Gandy<br>Two-way, Two-lane Divided Urban with 5-ft Sidewalks on Outside;<br>20-ft Grass Median; Curb & Gutter on Inside and Outside; Bike Lanes Outside | 412 | 0.078 | NDU | 2 | 15 | 4 | Inside, Type E<br>Outside, Type F | 457.78 | | | | | | | | | 0.16 |
| 12 | Grand Ave South of Gandy<br>Two-way, Two-lane Undivided Rural with 5-ft Sidewalk on South Side;<br>8-ft Shldr Outside (5-ft paved) | 604 | 0.114 | NUR | 2 | 12 | | | 335.56 | | 5 | 3 | | | | | | 0.23 |

**Miscellaneous Items**

| Sequence | Item | Quantity |
|---|---|---|
| 1 | **Clearing and Grubbing for All Sequences** | 35.22 Acres |
| 1 | **Retention Basins for All Sequences** | 10 Acres |
| 1 | **Signalizations** | **3** |
| A | Eastbound C-D Road at Grand Ave<br>Minor-Minor Intersection with two 5-section heads, four 3-section heads, two single mast arms, four ped poles, and six ped heads | 1 |
| B | Eastbound Ramp at Grand Ave<br>Minor-Minor Intersection with one 5-section head, one 3-section head, one single mast arm, two ped poles, and two ped heads | 1 |
| C | Westbound C-D Road at Grand Ave<br>Minor-Minor Intersection with two 5-section heads, four 3-section heads, two single mast arms, four ped poles, and six ped heads | 1 |
| 1 | **Lighting for All Sequences** | 112 Poles |

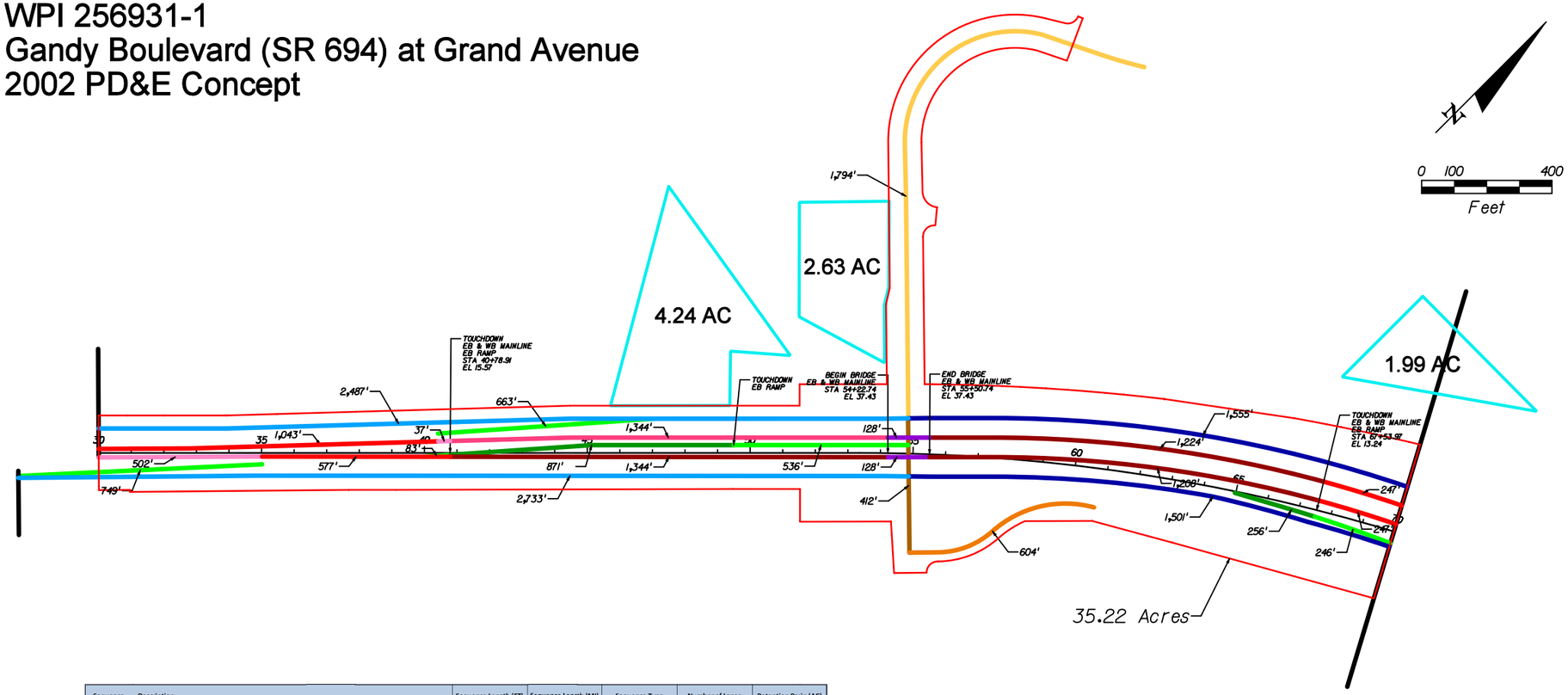
**2002 PD&E Recommended Alternative**
**Retaining Wall Quantities**

| Sequence | Description | Sequence Length (FT) | Beginning Elevation (FT) | Ending Elevation (FT) | Change in Elevation (FT) | Grade | Width of Section (FT) | Height of Wall (FT) | Retaining Wall (SF) |
|---|---|---|---|---|---|---|---|---|---|
| **2** | **Mainline<br>One-way; Two-lane; MSE;<br>12-ft Paved Inside & Outside Shoulders; Barrier Walls** | | | | | | | | **31,857.31** |
| A | Westbound, West of Grand Ave | 1344 | 15.57 | 37.43 | 21.86 | 3.0% | | | 31,857.31 |
| **4** | **Mainline<br>One-way; Three-lane; MSE;<br>12-ft Paved Inside & Outside Shoulders; Barrier Walls** | | | | | | | | **109,878.12** |
| A | Eastbound, West of Grand Ave | 1344 | 15.57 | 37.43 | 21.86 | 3.0% | | | 31,857.31 |
| B | Eastbound, East of Grand Ave | 1208 | 37.43 | 13.24 | 24.19 | 3.0% | | | 39,010.41 |
| C | Westbound, East of Grand Ave | 1224 | 37.43 | 13.24 | 24.19 | 3.0% | | | 39,010.41 |
| **5** | **Mainline<br>One-way; Three-lane; Structure;<br>12-ft Paved Inside & Outside Shoulders; Barrier Walls** | | | | | | | | **4,158.00** |
| A | Eastbound, Over Grand Ave, Wall at Abutment | 128 | | | | | 63.00 | 16.50 | 2,079.00 |
| B | Westbound, Over Grand Ave, Wall at Abutment | 128 | | | | | 63.00 | 16.50 | 2,079.00 |
| **7** | **Ramp<br>One-way; One-lane; MSE;<br>6-ft Paved Inside & Outside Shoulders; Barrier Walls** | | | | | | | | **26,691.39** |
| A1 | Eastbound Mainline to Grand Ave, West of Grand Ave, Grade Up | 436 | 15.57 | 28.64 | 13.07 | 3.0% | | | 11,379.62 |
| A2 | Eastbound Mainline to Grand Ave, West of Grand Ave, Grade Down | 436 | 28.64 | 15.57 | 13.07 | 3.0% | | | 11,379.62 |
| B | Eastbound Mainline to Eastbound C-D Road, East of Grand Ave | 256 | 20.92 | 13.24 | 7.68 | 3.0% | | | 3,932.16 |

## 2002 PD&E Recommended Alternative
## Embankment Quantities

| Sequence | Description | Retaining Wall Area (SF) | Width of Section (FT) | Embankment (CF) | Embankment (CY) |
|---|---|---|---|---|---|
| **2** | **Mainline<br>One-way; Two-lane; MSE;<br>12-ft Paved Inside & Outside Shoulders; Barrier Walls** | | | **764,575.36** | **28,317.61** |
| A | Westbound, West of Grand Ave | 15,928.65 | 48.00 | 764,575.36 | 28,317.61 |
| | | | | | |
| **4** | **Mainline<br>One-way; Three-lane; MSE;<br>12-ft Paved Inside & Outside Shoulders; Barrier Walls** | | | **3,296,343.60** | **122,086.80** |
| A | Eastbound, West of Grand Ave | 15,928.65 | 60.00 | 955,719.20 | 35,397.01 |
| B | Eastbound, East of Grand Ave | 19,505.20 | 60.00 | 1,170,312.20 | 43,344.90 |
| C | Westbound, East of Grand Ave | 19,505.20 | 60.00 | 1,170,312.20 | 43,344.90 |
| | | | | | |
| **7** | **Ramp<br>One-way; One-lane; MSE;<br>6-ft Paved Inside & Outside Shoulders; Barrier Walls** | | | **360,333.77** | **13,345.70** |
| A1 | Eastbound Mainline to Grand Ave, West of Grand Ave, Grade Up | 5,689.81 | 27.00 | 153,624.80 | 5,689.81 |
| A2 | Eastbound Mainline to Grand Ave, West of Grand Ave, Grade Down | 5,689.81 | 27.00 | 153,624.80 | 5,689.81 |
| B | Eastbound Mainline to Eastbound C-D Road, East of Grand Ave | 1,966.08 | 27.00 | 53,084.16 | 1,966.08 |

# WPI 256931-1
# Gandy Boulevard (SR 694) at Grand Avenue
# 2002 PD&E Concept




| Sequence | Description | Sequence Length (FT) | Sequence Length (MI) | Sequence Type | Number of Lanes | Retention Basin (AC) |
|---|---|---|---|---|---|---|
| 1 | Mainline<br>One-way; Two-lane; At grade;<br>12-ft Paved Inside & Outside Shoulders; Barrier Walls | 539 | 0.102 | NDR | 2 | 0.20 |
| 2 | Mainline<br>One-way; Two-lane; MSE;<br>12-ft Paved Inside & Outside Shoulders; Barrier Walls | 1,344 | 0.255 | NDR | 2 | 0.51 |
| 3 | Mainline<br>One-way; Three-lane; At grade;<br>12-ft Paved Inside & Outside Shoulders; Barrier Walls | 2,114 | 0.400 | NDR | 3 | 1.20 |
| 4 | Mainline<br>One-way; Three-lane; MSE;<br>12-ft Paved Inside & Outside Shoulders; Barrier Walls | 3,776 | 0.715 | NDR | 3 | 2.15 |
| 5 | Mainline<br>Two-way; Six-lane; Structure;<br>12-ft Paved Inside & Outside Shoulders; Barrier Walls | 128 | 0.024 | NDR | 6 | 0.15 |
| 6 | Ramp<br>One-way; One-lane; At grade;<br>6-ft Paved Inside & Outside Shoulders; Barrier Walls | 2,277 | 0.431 | NUR | 1 | 0.43 |
| 7 | Ramp<br>One-way; One-lane; MSE;<br>6-ft Paved Inside & Outside Shoulders; Barrier Walls | 1,127 | 0.213 | NUR | 1 | 0.21 |
| 8 | C-D Road West of Grand Ave<br>One-way; Two-lane; 8-ft Paved Inside Shldrs;<br>Bike Lanes, Curb & Gutter, Sidewalks on Outside; Barrier Walls | 5,220 | 0.989 | NDS | 2 | 1.98 |
| 9 | C-D Road East of Grand Ave<br>One-way; Two-lane;<br>10-ft Paved Inside & Outside Shldrs; Barrier Walls | 3,056 | 0.579 | NDR | 2 | 1.16 |
| 10 | Grand Ave North of Gandy<br>Two-way, Four-lane Divided Suburban with 5-ft Sidewalks on Outside;<br>20-ft Grass Median; Curb & Gutter on Inside; 6-ft Shldr Outside (4-ft paved) | 1,794 | 0.340 | NDS | 4 | 1.36 |
| 11 | Grand Ave Under Gandy<br>Two-way, Two-lane Divided Suburban with 5-ft Sidewalks on Outside;<br>20-ft Paved Median; Curb & Gutter on Inside; 6-ft Paved Shldr Outside | 412 | 0.078 | NDS | 2 | 0.16 |
| 12 | Grand Ave South of Gandy<br>Two-way, Two-lane Undivided Rural with 5-ft Sidewalk on South Side;<br>6-ft Shldrs Outside (4-ft paved) | 604 | 0.114 | NUR | 2 | 0.23 |
| | | | | | Retention Basins for All Sequences | 10 Acres |

Clearing and Grubbing = 35.22 AC

Retention Area from Original Study* = 8.86 AC

*For 2010 LRE, 10 AC will be used. This area is based on the standard cost estimating assumption of one 6-ft-deep 1-acre pond per lane per mile of roadway, and rounded up to the nearest acre.

USER: 15309 4/12/2010 12:38:46 PM T:\25693\25201\roadway\Working\PDE\Grand Ave\Quantities.dgn

*Florida Department of Transportation*

CHARLIE CRIST
GOVERNOR

605 Suwannee Street
Tallahassee, FL 32399-0450

STEPHANIE C. KOPELOUSOS
SECRETARY

# TEMPORARY DESIGN BULLETIN C09-01

DATE: January 21, 2009

TO: District Directors of Production, District Design Engineers, District Structures Design Engineers, District Construction Engineers, District Materials Engineers

FROM: Robert Robertson, P.E., State Structures Design Engineer

COPIES: Lora Hollingsworth, Brian Blanchard, Ghulam Mujtaba, Tom Malerk, Jeffrey Ger (FHWA)

SUBJECT: Implementation Plan for the Adoption of Florida I-Beams as New Standard Prestressed Concrete Beams

## REQUIREMENTS

The new Florida I-Beams (FIB's) are standard prestressed concrete beams and will be used in all new bridge and bridge widening designs where applicable.

AASHTO and Florida Bulb-T Beams will not be used in new designs. This TDB does not affect Florida U and Florida Inverted-T Beams.

## COMMENTARY

The following attachments may be used to assist in preliminary design and cost estimating:

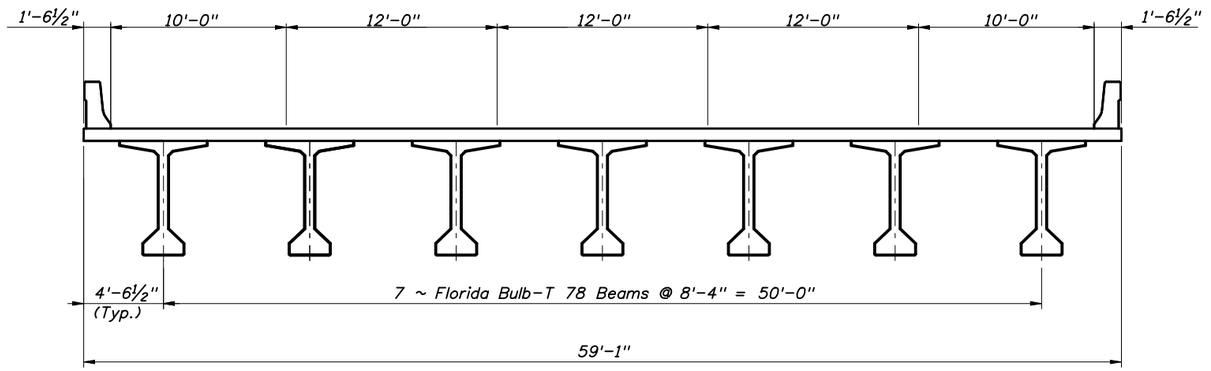
Attachment 'A'- FIB Section Dimensions
Attachment 'B'- FIB Section Properties
Attachment 'C'- FIB Estimated Maximum Span versus Spacing Charts.
Attachment 'D'- Preliminary Bridge Cost Comparisons
Attachment 'E'- FIB Table of Approximate Beam Cost per Linear Foot

# COST COMPARISON B; 3 ~ 155 FT. SPANS BRIDGE

## OPTION B-1, CURRENT FDOT STANDARD BEAMS

FBT-78:

(155 ft.) x (3 spans) x (7 beams) = 3255 LF
3255 LF @ $255/LF = $830,000

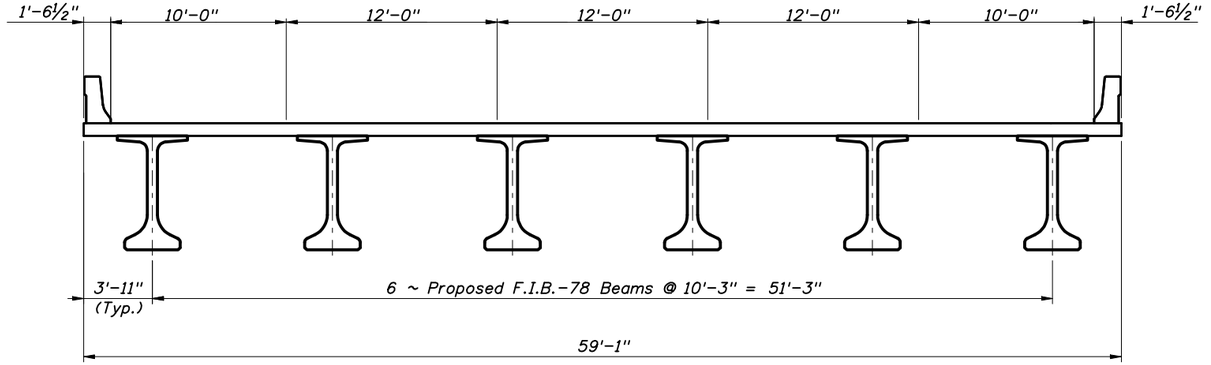



OPTION B-1, CURRENT FDOT STANDARD BEAMS
"Bulb-T 78" w/52 ~ 0.6 Low Lax Strands
2008 FDOT Standards Index No. 20178 Reinforcing Steel
8.5 ksi Concrete; 6 ksi @ Release

## OPTION B-2, FLORIDA I-BEAMS

FIB-78:

(155 ft.) x (3 spans) x (6 beams) = 2790 LF
2790 LF @ $275/LF = $767,300




OPTION B-2, PROPOSED BEAMS
"Florida I-Beam 78" w/60 ~ 0.6 Low Lax Strands
2008 FDOT Standards Index No. 20178 Reinforcing Steel
8.5 ksi Concrete; 6 ksi @ Release

## ESTIMATED SAVINGS:

$830,000 - $767,300 = $62,700
$62,700/$830,000 = 7.5 %

Note:
Costs per linear foot were determined using price estimates from manufactures and contractors. The values above include only bridge items affected by differing beam types. These items include beam fabrication, beam placement, placed bearing pads, placed diaphragms, placed stay-in-place forms, and placed deck rebar seats.

| REVISIONS | | | | | |
|---|---|---|---|---|---|
| DATE | BY | DESCRIPTION | DATE | BY | DESCRIPTION |
| | | | | | |


STRUCTURES DESIGN OFFICE
CENTRAL OFFICE
605 Suwannee Street, MS 33
Tallahassee, Florida 32399-0450


DRAWN BY: RMS 09-08
CHECKED BY: N/A
DESIGNED BY: N/A
CHECKED BY: N/A

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

| ROAD NO. | COUNTY | FINANCIAL PROJECT ID |
|---|---|---|
| N/A | | N/A |

SHEET TITLE: COST COMPARISON SPANS OLD STANDARD VS. FLORIDA I-BEAMS

REF. DWG. NO.:

PROJECT NAME: N/A

SHEET NO.: 2 OF 2

# APPENDIX D

## LRE Cost Estimate: Alternative 2 (2010 Realigned Interchange)

**WPI 256931-1**
**Gandy Boulevard (SR 694) at Grand Avenue**
**2010 Revised Concept**

| LRE Component | Sequence 1<br>Mainline, One-way, Two-lane, At grade | Sequence 2<br>Mainline, One-way, Two-lane, MSE | Sequence 3<br>Mainline, One-way, Three-lane, At grade | Sequence 4<br>Mainline, One-way, Three-lane, MSE | Sequence 5<br>Mainline, Two-way, Six-lane, Structure | Sequence 6<br>Ramp, One-way, One-lane, At grade | Sequence 7<br>Ramp, One-Way, One-lane, MSE | Sequence 8<br>C-D Road West of Grand Ave | Sequence 9<br>C-D Road East of Grand Ave | Sequence 10<br>Grand Ave North of Gandy Blvd | Sequence 11<br>Grand Ave Under Gandy Blvd | Sequence 12<br>Grand Ave South of Gandy Blvd | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Earthwork | | | | | | | | | | | | | |
| Clearing and Grubbing | $361,282.58 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | |
| Embankment | $34,176.19 | $413,353.94 | $54,812.80 | $1,657,811.75 | N/A | $73,965.66 | $105,306.75 | $258,283.94 | $99,082.62 | $12,047.22 | $34,614.63 | $29,884.63 | |
| Total Earthwork | $395,458.77 | $413,353.94 | $54,812.80 | $1,657,811.75 | $0.00 | $73,965.66 | $105,306.75 | $258,283.94 | $99,082.62 | $12,047.22 | $34,614.63 | $29,884.63 | $3,134,623 |
| Bridge | N/A | N/A | N/A | N/A | $3,803,517.20 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | $3,803,517 |
| Roadway | | | | | | | | | | | | | |
| Roadway | $396,506.24 | $596,583.48 | $564,626.76 | $2,043,905.59 | $306.68 | $823,277.23 | $341,146.30 | $1,132,502.99 | $753,379.99 | $22,885.31 | $35,074.91 | $51,995.89 | |
| Retaining Wall | N/A | $806,951.22 | N/A | $2,602,971.94 | $108,274.32 | N/A | $324,285.49 | N/A | N/A | N/A | N/A | N/A | |
| Total Roadway | $396,506.24 | $1,403,534.70 | $564,626.76 | $4,646,877.53 | $108,581.00 | $823,277.23 | $665,431.79 | $1,132,502.99 | $753,379.99 | $22,885.31 | $35,074.91 | $51,995.89 | $10,604,674 |
| Shoulder | $66,723.16 | $72,787.93 | $87,803.82 | $223,639.30 | $3,047.65 | $112,094.19 | $32,427.48 | $264,084.54 | $170,188.41 | $8,680.13 | $15,521.49 | $24,103.95 | $1,081,102 |
| Median | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | $2,573.99 | $4,780.20 | N/A | $7,354 |
| Drainage | | | | | | | | | | | | | |
| Retention Basin | $895,083.00 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | |
| Drainage | $55,647.51 | $59,902.17 | $71,435.81 | $183,343.25 | N/A | $60,698.65 | $17,496.81 | $81,731.45 | $162,049.65 | $5,413.40 | $49,781.67 | $10,664.45 | |
| Total Drainage | $950,730.51 | $59,902.17 | $71,435.81 | $183,343.25 | $0.00 | $60,698.65 | $17,496.81 | $81,731.45 | $162,049.65 | $5,413.40 | $49,781.67 | $10,664.45 | $1,653,248 |
| Signing | $14,955.49 | $14,955.49 | $15,626.85 | $37,847.17 | $7,690.66 | $13,607.50 | $5,125.35 | $20,238.72 | $32,596.42 | $7,690.66 | $7,690.66 | $4,453.99 | $182,479 |
| Signalization | $302,878.06 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | $302,878 |
| Lighting | $591,192.00 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | $591,192 |
| Subtotal 1 | $2,718,444.23 | $1,964,534.23 | $794,306.04 | $6,749,519.00 | $3,922,836.51 | $1,083,643.23 | $825,788.18 | $1,756,841.64 | $1,217,297.09 | $59,290.71 | $147,463.56 | $121,102.91 | $21,361,067 |
| Maintenance of Traffic (10%) | | | | | | | | | | | | | $2,136,107 |
| Mobilization (10%) | | | | | | | | | | | | | $2,349,717 |
| Initial Contingency | | | | | | | | | | | | | $150,000 |
| Subtotal 2 | | | | | | | | | | | | | $25,996,892 |
| Project Unknowns (25%)* | | | | | | | | | | | | | $6,461,723 |
| **Total Project Cost** | | | | | | | | | | | | | **$32,458,615** |

*Project Unkowns 25% factor applied to sum of Subtotal 1, Maintenance of Traffic, and Mobilization.

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# FDOT Long Range Estimating System - Production

## R3: Project Details by Sequence Report

**Project:** 256931-1-20-10 **Letting Date:** 01/2099

**Description:** WPI 256931-1 2010 Revision Gandy Boulevard (SR 694) at Grand Avenue

**District:** 07 **County:** 15 PINELLAS **Market Area:** 08 **Units:** English

**Contract Class:** **Lump Sum Project:** N **Design/Build:** N **Project Length:** 0.758 MI

**Project Manager:**

**Version 3 Project Grand Total** **$25,996,891.47**

**Description:** WPI 256931-1 2010 Revision Gandy Boulevard (SR 694) at Grand Avenue This version applies to the 2010 revised concept (skewed intersection at Grand Ave).

**Sequence:** 1 NDR - New Construction, Divided, Rural **Net Length:** 0.215 MI 1,134 LF

**Description:** Mainline One-way; Two-lane; At grade; 12-ft Paved Inside & Outside Shoulders; Barrier Walls

**Special Conditions:** Sequence includes Clearing and Grubbing, Retention Basins, Signalizations, and Lighting components for entire project; the remaining sequences will not include these items. Sequence 1 also includes one 600-SF field office for a 365-day duration.

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### EARTHWORK COMPONENT

**User Input Data**

| Description | Value |
|---|---|
| Standard Clearing and Grubbing Limits L/R | 0.00 / 0.00 |
| Incidental Clearing and Grubbing Area | 30.65 |
| | |
| Alignment Number | 1 |
| Distance | 0.215 |
| Top of Structural Course For Begin Section | 103.00 |
| Top of Structural Course For End Section | 103.00 |
| Horizontal Elevation For Begin Section | 100.00 |
| Horizontal Elevation For End Section | 100.00 |
| Front Slope L/R | 0 to 1 / 0 to 1 |
| Median Slope L/R | 0 to 1 / 0 to 1 |
| Median Shoulder Cross Slope L/R | 5.00 % / 5.00 % |
| Outside Shoulder Cross Slope L/R | 6.00 % / 6.00 % |
| Roadway Cross Slope L/R | 2.00 % / 2.00 % |

**Pay Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 110-1-1 | CLEARING & GRUBBING | 30.65 | AC | $11,787.36 | $361,282.58 |
| 120-6 | EMBANKMENT | 2,503.75 | CY | $13.65 | $34,176.19 |
| | **Earthwork Component Total** | | | | $395,458.77 |

## ROADWAY COMPONENT

### User Input Data

| Description | Value |
|---|---|
| Number of Lanes | 2 |
| Roadway Pavement Width L/R | 0.00 / 24.00 |
| Structural Spread Rate | 330 |
| Friction Course Spread Rate | 80 |

### Pay Items

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 160-4 | TYPE B STABILIZATION | 6,048.77 | SY | $3.16 | $19,114.11 |
| 285-709 | OPTIONAL BASE,BASE GROUP 09 | 3,107.55 | SY | $12.23 | $38,005.34 |
| 334-1-13 | SUPERPAVE ASPHALTIC CONC, TRAFFIC C | 499.02 | TN | $81.82 | $40,829.82 |
| 337-7-5 | ASPH CONC FC, INC BIT/ RUBBER, FC-5 | 120.98 | TN | $103.50 | $12,521.43 |

### X-Items

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 109-71-2 | FIELD OFFICE, 600 SQ FT | 365.00 | DA | $58.21 | $21,246.65 |
| 521-72-3 | SHLDR CONC BARRIER WALL, RIGID-SHLDR | 2,268.00 | LF | $116.30 | $263,768.40 |
| 710-11-131 | PAINTED PAVT MARK,STD, WHITE,SKIP, 6" | 0.43 | GM | $388.09 | $166.88 |
| 710-11-211 | PAINTED PAVT MARK,STD, YELLOW,SOLID,6" | 0.43 | NM | $868.92 | $373.64 |

### Pavement Marking Subcomponent

| Description | Value |
|---|---|
| Solid Stripe No. of Stripes | 1 |
| Solid Stripe No. of Applications | 2 |
| Skip Stripe No. of Stripes | 0 |
| Skip Stripe No. of Applications | 2 |
| Top Layer Thermoplastic | N |

**Pay Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 706-3 | RETRO-REFLECTIVE PAVEMENT MARKERS | 29.00 | EA | $3.72 | $107.88 |
| 710-11-111 | PAINTED PAVT MARK,STD, WHITE,SOLID,6" | 0.43 | NM | $865.32 | $372.09 |
| | **Roadway Component Total** | | | | $396,506.24 |

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## SHOULDER COMPONENT

**User Input Data**

| Description | Value |
|---|---|
| Total Outside Shoulder Width L/R | 12.00 / 12.00 |
| Total Outside Shoulder Perf. Turf Width L/R | 0.00 / 0.00 |
| Paved Outside Shoulder Width L/R | 12.00 / 12.00 |
| Structural Spread Rate | 110 |
| Friction Course Spread Rate | 80 |
| Total Width (T) / 8" Overlap (O) | T |
| Rumble Strips No. of Sides | 0 |

**Pay Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 285-704 | OPTIONAL BASE,BASE GROUP 04 | 3,107.55 | SY | $9.97 | $30,982.27 |
| 334-1-13 | SUPERPAVE ASPHALTIC CONC, TRAFFIC C | 166.34 | TN | $81.82 | $13,609.94 |
| 337-7-5 | ASPH CONC FC, INC BIT/ RUBBER, FC-5 | 120.98 | TN | $103.50 | $12,521.43 |

**Erosion Control**

**Pay Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 104-4 | MOWING | 0.69 | AC | $163.13 | $112.56 |
| 104-10-2 | SYNTHETIC BALES | 680.49 | LF | $6.49 | $4,416.38 |
| 104-11 | FLOATING TURBIDITY BARRIER | 53.70 | LF | $8.30 | $445.71 |
| 104-12 | STAKED TURBIDITY BARRIER-NYL REINF PVC | 53.70 | LF | $4.53 | $243.26 |
| 104-13-1 | STAKED SILT FENCE, TYPE III | 2,268.29 | LF | $0.96 | $2,177.56 |
| 104-15 | SOIL TRACKING PREVENTION DEVICE | 1.00 | EA | $2,214.05 | $2,214.05 |

**Shoulder Component Total** $66,723.16

---

## DRAINAGE COMPONENT

### Pay Items

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 400-2-2 | CONC CLASS II, ENDWALLS | 3.87 | CY | $696.69 | $2,696.19 |
| 425-1-551 | INLETS, DT BOT, TYPE E, <10' | 2.00 | EA | $2,248.48 | $4,496.96 |
| 430-172-101 | PIPE CULV OPT MATL, ROUND, 0-24", CD | 80.00 | LF | $119.93 | $9,594.40 |
| 430-172-102 | PIPE CULV OPT MATL, ROUND, 25-36", CD | 64.00 | LF | $92.39 | $5,912.96 |
| 430-174-101 | PIPE CULV, OPT MATL, ROUND,0-24"SD | 176.00 | LF | $43.45 | $7,647.20 |
| 430-984-129 | MITERED END SECT, OPTIONAL RD, 24" SD | 9.00 | EA | $1,238.73 | $11,148.57 |
| 524-1-1 | CONCRETE DITCH PAVT, NR, 3" | 429.60 | SY | $32.68 | $14,039.33 |
| 570-1-1 | PERFORMANCE TURF | 151.22 | SY | $0.74 | $111.90 |

### Retention Basin 1

| Description | Value |
|---|---|
| Size | 2 AC |
| Multiplier | 2 |
| Depth | 6.00 |

### Pay Items

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 110-1-1 | CLEARING & GRUBBING | 4.00 | AC | $11,787.36 | $47,149.44 |
| 120-1 | REGULAR EXCAVATION | 38,720.00 | CY | $5.30 | $205,216.00 |
| 400-2-2 | CONC CLASS II, ENDWALLS | 36.00 | CY | $696.69 | $25,080.84 |
| 425-1-541 | INLETS, DT BOT, TYPE D, <10' | 2.00 | EA | $2,487.22 | $4,974.44 |
| 425-2-71 | MANHOLES, J-7, <10' | 2.00 | EA | $3,704.73 | $7,409.46 |
| 430-171-103 | PIPE CULV OPT MATL, ROUND, 37-48", SS | 112.00 | LF | $137.23 | $15,369.76 |
| 430-171-104 | PIPE CULV OPT MATL, ROUND, 49-60", SS | 400.00 | LF | $195.73 | $78,292.00 |
| 550-10-220 | FENCING, TYPE B, 5.1-6.0, STANDARD | 2,360.00 | LF | $9.48 | $22,372.80 |
| 550-60-234 | FENCE GATE,TYP B,SLIDE/ CANT,18.1-20'OPEN | 2.00 | EA | $1,780.00 | $3,560.00 |
| 570-1-1 | PERFORMANCE TURF | 19,360.00 | SY | $0.74 | $14,326.40 |

**Retention Basin 2**

| Description | Value |
|---|---|
| Size | 5 AC |
| Multiplier | 1 |
| Depth | 6.00 |

**Pay Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 110-1-1 | CLEARING & GRUBBING | 5.00 | AC | $11,787.36 | $58,936.80 |
| 120-1 | REGULAR EXCAVATION | 48,400.00 | CY | $5.30 | $256,520.00 |
| 400-2-2 | CONC CLASS II, ENDWALLS | 30.00 | CY | $696.69 | $20,900.70 |
| 425-1-541 | INLETS, DT BOT, TYPE D, <10' | 1.00 | EA | $2,487.22 | $2,487.22 |
| 425-2-71 | MANHOLES, J-7, <10' | 2.00 | EA | $3,704.73 | $7,409.46 |
| 430-171-103 | PIPE CULV OPT MATL, ROUND, 37-48", SS | 56.00 | LF | $137.23 | $7,684.88 |
| 430-171-104 | PIPE CULV OPT MATL, ROUND, 49-60", SS | 400.00 | LF | $195.73 | $78,292.00 |
| 550-10-220 | FENCING, TYPE B, 5.1-6.0, STANDARD | 1,860.00 | LF | $9.48 | $17,632.80 |
| 550-60-234 | FENCE GATE,TYP B,SLIDE/ CANT,18.1-20'OPEN | 2.00 | EA | $1,780.00 | $3,560.00 |
| 570-1-1 | PERFORMANCE TURF | 24,200.00 | SY | $0.74 | $17,908.00 |
| | **Drainage Component Total** | | | | $950,730.51 |

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**SIGNING COMPONENT**

**Pay Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 700-20-11 | SINGLE POST SIGN, F&I, LESS THAN 12 SF | 1.00 | AS | $242.87 | $242.87 |
| 700-20-12 | SINGLE POST SIGN, F&I, 12-20 SF | 6.00 | AS | $671.36 | $4,028.16 |
| 700-21-11 | MULTI- POST SIGN, F&I, 50 OR < | 1.00 | AS | $2,868.40 | $2,868.40 |
| 700-21-12 | MULTI- POST SIGN, F&I, 51-100 | 2.00 | AS | $3,908.03 | $7,816.06 |
| | **Signing Component Total** | | | | $14,955.49 |

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**SIGNALIZATIONS COMPONENT**

**Signalization 1**

| Description | Value |
|---|---|
| Type | 4 Lane Mast Arm |
| Multiplier | 2 |

**Pay Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 630-1-12 | CONDUIT-SIGNALS, F& I, UNDERGROUND | 1,500.00 | LF | $4.04 | $6,060.00 |
| 630-1-14 | CONDUIT-SIGNALS,F& I, UG JACKED | 500.00 | LF | $11.63 | $5,815.00 |
| 632-7-1 | CABLE, SIGNAL, FURNISH & INSTALL | 2.00 | PI | $3,899.54 | $7,799.08 |
| 635-1-11 | PULL & JUNCTION BOXES, F&I, PULL BOX | 32.00 | EA | $266.59 | $8,530.88 |
| 639-1-22 | SIGNAL,ELECT POWER SERV, UG,PUR CONT | 2.00 | AS | $1,189.38 | $2,378.76 |
| 639-2-1 | SIGNAL,ELECTRICAL SERVICE WIRE | 120.00 | LF | $1.34 | $160.80 |
| 649-31-103 | M/ARM,F&I, WS-150,SINGLE ARM,W/0 LUM-60 | 4.00 | EA | $23,931.14 | $95,724.56 |
| 650-51-311 | TRAFFIC SIGNAL, F&I, 3 SECT, 1 WAY, STD | 8.00 | AS | $792.69 | $6,341.52 |
| 653-191 | PEDESTRIAN SIGNAL, F&I, LED-COUNT DWN, 1 | 12.00 | AS | $635.66 | $7,627.92 |
| 659-101 | SGNL HEAD AUXIL, F&I, BACK PLT 3 SECT | 8.00 | EA | $99.26 | $794.08 |
| 659-109 | SGNL HEAD AUXIL, F&I, CONC PED TYP II | 2.00 | EA | $730.69 | $1,461.38 |
| 660-1-102 | LOOP DETECTOR INDUCTIVE, F&I, TYPE 2 | 14.00 | EA | $146.52 | $2,051.28 |
| 660-2-106 | LOOP ASSEMBLY, F&I, TYPE F | 14.00 | AS | $742.66 | $10,397.24 |
| 665-11 | PED DET, F&I, DET STA POLE OR CAB MTD | 8.00 | EA | $156.26 | $1,250.08 |
| 670-5-111 | TRAF CNTL ASSEM, F&I, NEMA, 1 PREEMPT | 2.00 | AS | $19,900.62 | $39,801.24 |
| 700-48-19 | SIGN PANELS, F & I, 16 - 100 | 8.00 | EA | $1,959.77 | $15,678.16 |

**X-Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 650-51-511 | TRAFFIC SIGNAL, F&I, 5 SECT, 1 WAY, STD | 4.00 | AS | $1,174.44 | $4,697.76 |

| | | | | | |
|---|---|---|---|---|---|
| 659-118 | SGNL HEAD AUX,F&I, BACK PLT 5 SECT CLU | 4.00 | EA | $164.85 | $659.40 |

**Signalization 2**

| Description | Value |
|---|---|
| Type | 2 Lane Mast Arm |
| Multiplier | 1 |

**Pay Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 630-1-12 | CONDUIT-SIGNALS, F& I, UNDERGROUND | 800.00 | LF | $4.04 | $3,232.00 |
| 630-1-14 | CONDUIT-SIGNALS,F& I, UG JACKED | 200.00 | LF | $11.63 | $2,326.00 |
| 632-7-1 | CABLE, SIGNAL, FURNISH & INSTALL | 1.00 | PI | $3,899.54 | $3,899.54 |
| 635-1-11 | PULL & JUNCTION BOXES, F&I, PULL BOX | 3.00 | EA | $266.59 | $799.77 |
| 639-1-22 | SIGNAL,ELECT POWER SERV, UG,PUR CONT | 1.00 | AS | $1,189.38 | $1,189.38 |
| 639-2-1 | SIGNAL,ELECTRICAL SERVICE WIRE | 60.00 | LF | $1.34 | $80.40 |
| 649-31-111 | M/ARM,F&I, WS-150,DBL ARM, W/0 LU 36-46 | 1.00 | EA | $22,225.00 | $22,225.00 |
| 650-51-311 | TRAFFIC SIGNAL, F&I, 3 SECT, 1 WAY, STD | 1.00 | AS | $792.69 | $792.69 |
| 653-191 | PEDESTRIAN SIGNAL, F&I, LED-COUNT DWN, 1 | 2.00 | AS | $635.66 | $1,271.32 |
| 659-101 | SGNL HEAD AUXIL, F&I, BACK PLT 3 SECT | 1.00 | EA | $99.26 | $99.26 |
| 659-109 | SGNL HEAD AUXIL, F&I, CONC PED TYP II | 1.00 | EA | $730.69 | $730.69 |
| 660-1-102 | LOOP DETECTOR INDUCTIVE, F&I, TYPE 2 | 2.00 | EA | $146.52 | $293.04 |
| 660-2-106 | LOOP ASSEMBLY, F&I, TYPE F | 2.00 | AS | $742.66 | $1,485.32 |
| 665-11 | PED DET, F&I, DET STA POLE OR CAB MTD | 2.00 | EA | $156.26 | $312.52 |
| 670-5-111 | TRAF CNTL ASSEM, F&I, NEMA, 1 PREEMPT | 1.00 | AS | $19,900.62 | $19,900.62 |
| 700-48-19 | SIGN PANELS, F & I, 16 - 100 | 4.00 | EA | $1,959.77 | $7,839.08 |

**X-Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|

| | | | | | |
|---|---|---|---|---|---|
| 650-51-511 | TRAFFIC SIGNAL, F&I, 5 SECT, 1 WAY, STD | 1.00 | AS | $1,174.44 | $1,174.44 |
| 659-118 | SGNL HEAD AUX,F&I, BACK PLT 5 SECT CLU | 1.00 | EA | $164.85 | $164.85 |

**Interconnect Subcomponent**

| Description | Value |
|---|---|
| Type | U |
| Length of Fiber Run | 375.00 |
| Number of Intersections | 3 |
| Percentage of Underpavement Conduit | 90.00 |

**Pay Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 630-1-12 | CONDUIT-SIGNALS, F& I, UNDERGROUND | 37.50 | LF | $4.04 | $151.50 |
| 630-1-13 | CONDUIT-SIGNALS, F&I, UNDER EXIST PAVT | 337.50 | LF | $14.60 | $4,927.50 |
| 633-123-2 | CAB-FIB OPT, F&I, UG, COMP, 26- 50 PR | 275.00 | LF | $3.14 | $863.50 |
| 633-132-1 | CAB-FIB OPT, F&I,DROP,MULTI MODE,1 -25PR | 30.00 | LF | $10.10 | $303.00 |
| 635-1-16 | PULL & JUNCTION BOX, F&I, SPECIAL | 3.00 | EA | $1,567.50 | $4,702.50 |
| 660-2-102 | LOOP ASSEMBLY, F&I, TYPE B | 12.00 | AS | $573.75 | $6,885.00 |
| | **Signalizations Component Total** | | | | $302,878.06 |

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## LIGHTING COMPONENT

**Rural Lighting Subcomponent**

| Description | Value |
|---|---|
| Multiplier (Number of Poles) | 102 |

**Pay Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 715-1-13 | LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2 | 61,200.00 | LF | $1.53 | $93,636.00 |
| 715-2-11 | LIGHTING-CONDUIT, F&I, UNDERGROUND | 20,400.00 | LF | $3.86 | $78,744.00 |
| 715-4-122 | LIGHT POLE COMP, F&I, WS130, 45' | 102.00 | EA | $4,106.00 | $418,812.00 |
| | **Subcomponent Total** | | | | $591,192.00 |

| | |
|---|---|
| **Lighting Component Total** | $591,192.00 |

| | |
|---|---|
| **Sequence 1 Total** | $2,718,444.23 |

**Sequence:** 2 NDR - New Construction, Divided, Rural **Net Length:** 0.235 MI 1,241 LF

**Description:** Mainline One-way; Two-lane; MSE; 12-ft Paved Inside & Outside Shoulders; Barrier Walls

## EARTHWORK COMPONENT

### User Input Data

| Description | Value |
|---|---|
| Standard Clearing and Grubbing Limits L/R | 0.00 / 0.00 |
| Incidental Clearing and Grubbing Area | 0.00 |
| | |
| Alignment Number | 1 |
| Distance | 0.235 |
| Top of Structural Course For Begin Section | 103.00 |
| Top of Structural Course For End Section | 103.00 |
| Horizontal Elevation For Begin Section | 100.00 |
| Horizontal Elevation For End Section | 100.00 |
| Front Slope L/R | 0 to 1 / 0 to 1 |
| Median Slope L/R | 0 to 1 / 0 to 1 |
| Median Shoulder Cross Slope L/R | 5.00 % / 5.00 % |
| Outside Shoulder Cross Slope L/R | 6.00 % / 6.00 % |
| Roadway Cross Slope L/R | 2.00 % / 2.00 % |

### Pay Items

| Pay item | Description | Quantity Unit | Unit Price | Extended Amount |
|---|---|---|---|---|
| 120-6 | EMBANKMENT | 2,736.65 CY | $13.65 | $37,355.27 |

### X-Items

| Pay item | Description | Quantity Unit | Unit Price | Extended Amount |
|---|---|---|---|---|
| 120-6 | EMBANKMENT | 27,545.69 CY | $13.65 | $375,998.67 |

**Earthwork Component Total** $413,353.94

## ROADWAY COMPONENT

### User Input Data

| Description | Value |
|---|---|
| Number of Lanes | 2 |
| Roadway Pavement Width L/R | 0.00 / 24.00 |
| Structural Spread Rate | 330 |
| Friction Course Spread Rate | 80 |

**Pay Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 160-4 | TYPE B STABILIZATION | 6,617.60 | SY | $3.16 | $20,911.62 |
| 285-709 | OPTIONAL BASE,BASE GROUP 09 | 3,399.79 | SY | $12.23 | $41,579.43 |
| 334-1-13 | SUPERPAVE ASPHALTIC CONC, TRAFFIC C | 545.95 | TN | $81.82 | $44,669.63 |
| 337-7-5 | ASPH CONC FC, INC BIT/ RUBBER, FC-5 | 132.35 | TN | $103.50 | $13,698.22 |

**X-Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 521-8-1 | CONC TRAF RAIL BAR,RET WALL SYS,32"F SHP | 2,482.00 | LF | $191.22 | $474,608.04 |
| 710-11-131 | PAINTED PAVT MARK,STD, WHITE,SKIP, 6" | 0.47 | GM | $388.09 | $182.40 |
| 710-11-211 | PAINTED PAVT MARK,STD, YELLOW,SOLID,6" | 0.47 | NM | $868.92 | $408.39 |

**Pavement Marking Subcomponent**

| Description | Value |
|---|---|
| Solid Stripe No. of Stripes | 1 |
| Solid Stripe No. of Applications | 2 |
| Skip Stripe No. of Stripes | 0 |
| Skip Stripe No. of Applications | 2 |
| Top Layer Thermoplastic | N |

**Pay Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 706-3 | RETRO-REFLECTIVE PAVEMENT MARKERS | 32.00 | EA | $3.72 | $119.04 |
| 710-11-111 | PAINTED PAVT MARK,STD, WHITE,SOLID,6" | 0.47 | NM | $865.32 | $406.70 |
| | **Roadway Component Total** | | | | $596,583.48 |

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**SHOULDER COMPONENT**

**User Input Data**

| Description | Value |
|---|---|
| Total Outside Shoulder Width L/R | 12.00 / 12.00 |
| Total Outside Shoulder Perf. Turf Width L/R | 0.00 / 0.00 |
| Paved Outside Shoulder Width L/R | 12.00 / 12.00 |
| Structural Spread Rate | 110 |
| Friction Course Spread Rate | 80 |
| Total Width (T) / 8" Overlap (O) | T |
| Rumble Strips No. of Sides | 0 |

**Pay Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 285-704 | OPTIONAL BASE,BASE GROUP 04 | 3,399.79 | SY | $9.97 | $33,895.91 |
| 334-1-13 | SUPERPAVE ASPHALTIC CONC, TRAFFIC C | 181.98 | TN | $81.82 | $14,889.60 |
| 337-7-5 | ASPH CONC FC, INC BIT/ RUBBER, FC-5 | 132.35 | TN | $103.50 | $13,698.22 |

**Erosion Control**

**Pay Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 104-4 | MOWING | 0.75 | AC | $163.13 | $122.35 |
| 104-10-2 | SYNTHETIC BALES | 744.48 | LF | $6.49 | $4,831.68 |
| 104-11 | FLOATING TURBIDITY BARRIER | 58.75 | LF | $8.30 | $487.62 |
| 104-12 | STAKED TURBIDITY BARRIER-NYL REINF PVC | 58.75 | LF | $4.53 | $266.14 |
| 104-13-1 | STAKED SILT FENCE, TYPE III | 2,481.60 | LF | $0.96 | $2,382.34 |
| 104-15 | SOIL TRACKING PREVENTION DEVICE | 1.00 | EA | $2,214.05 | $2,214.05 |
| | **Shoulder Component Total** | | | | $72,787.93 |

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**DRAINAGE COMPONENT**

**Pay Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 400-2-2 | CONC CLASS II, ENDWALLS | 4.23 | CY | $696.69 | $2,947.00 |
| 425-1-551 | INLETS, DT BOT, TYPE E, <10' | 2.00 | EA | $2,248.48 | $4,496.96 |

| | | | | |
|---|---|---|---|---|
| 430-172-101 | PIPE CULV OPT MATL, ROUND, 0-24", CD | 80.00 LF | $119.93 | $9,594.40 |
| 430-172-102 | PIPE CULV OPT MATL, ROUND, 25-36", CD | 72.00 LF | $92.39 | $6,652.08 |
| 430-174-101 | PIPE CULV, OPT MATL, ROUND,0-24"SD | 192.00 LF | $43.45 | $8,342.40 |
| 430-984-129 | MITERED END SECT, OPTIONAL RD, 24" SD | 10.00 EA | $1,238.73 | $12,387.30 |
| 524-1-1 | CONCRETE DITCH PAVT, NR, 3" | 470.00 SY | $32.68 | $15,359.60 |
| 570-1-1 | PERFORMANCE TURF | 165.44 SY | $0.74 | $122.43 |
| | **Drainage Component Total** | | | $59,902.17 |

## SIGNING COMPONENT

**Pay Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 700-20-11 | SINGLE POST SIGN, F&I, LESS THAN 12 SF | 1.00 | AS | $242.87 | $242.87 |
| 700-20-12 | SINGLE POST SIGN, F&I, 12-20 SF | 6.00 | AS | $671.36 | $4,028.16 |
| 700-21-11 | MULTI- POST SIGN, F&I, 50 OR < | 1.00 | AS | $2,868.40 | $2,868.40 |
| 700-21-12 | MULTI- POST SIGN, F&I, 51-100 | 2.00 | AS | $3,908.03 | $7,816.06 |
| | **Signing Component Total** | | | | $14,955.49 |

## RETAINING WALLS COMPONENT

**X-Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 548-12 | RETAINING WALL SYSTEM, PERM, EXC BAR. | 30,988.91 | SF | $26.04 | $806,951.22 |
| | **Retaining Walls Component Total** | | | | $806,951.22 |

**Sequence 2 Total** $1,964,534.23

**Sequence:** 3 NDR - New Construction, Divided, Rural **Net Length:** 0.285 MI 1,505 LF

**Description:** Mainline One-way; Three-lane; At grade; 12-ft Paved Inside & Outside Shoulders; Barrier Walls

## EARTHWORK COMPONENT

### User Input Data

| Description | Value |
|---|---|
| Standard Clearing and Grubbing Limits L/R | 0.00 / 0.00 |
| Incidental Clearing and Grubbing Area | 0.00 |
| | |
| Alignment Number | 1 |
| Distance | 0.285 |
| Top of Structural Course For Begin Section | 103.00 |
| Top of Structural Course For End Section | 103.00 |
| Horizontal Elevation For Begin Section | 100.00 |
| Horizontal Elevation For End Section | 100.00 |
| Front Slope L/R | 0 to 1 / 0 to 1 |
| Median Slope L/R | 0 to 1 / 0 to 1 |
| Median Shoulder Cross Slope L/R | 5.00 % / 5.00 % |
| Outside Shoulder Cross Slope L/R | 6.00 % / 6.00 % |
| Roadway Cross Slope L/R | 2.00 % / 2.00 % |

### Pay Items

| Pay item | Description | Quantity Unit | Unit Price | Extended Amount |
|---|---|---|---|---|
| 120-6 | EMBANKMENT | 4,015.59 CY | $13.65 | $54,812.80 |
| | **Earthwork Component Total** | | | $54,812.80 |

## ROADWAY COMPONENT

### User Input Data

| Description | Value |
|---|---|
| Number of Lanes | 3 |
| Roadway Pavement Width L/R | 0.00 / 36.00 |
| Structural Spread Rate | 330 |
| Friction Course Spread Rate | 80 |

### Pay Items

| Pay item | Description | Quantity Unit | Unit Price | Extended Amount |
|---|---|---|---|---|
| 160-4 | TYPE B STABILIZATION | 10,032.00 SY | $3.16 | $31,701.12 |

| | | | | | |
|---|---|---|---|---|---|
| 285-709 | OPTIONAL BASE,BASE GROUP 09 | 6,129.55 | SY | $12.23 | $74,964.40 |
| 334-1-13 | SUPERPAVE ASPHALTIC CONC, TRAFFIC C | 993.17 | TN | $81.82 | $81,261.17 |
| 337-7-5 | ASPH CONC FC, INC BIT/ RUBBER, FC-5 | 240.77 | TN | $103.50 | $24,919.70 |

**X-Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 521-72-3 | SHLDR CONC BARRIER WALL, RIGID-SHLDR | 3,010.00 | LF | $116.30 | $350,063.00 |
| 710-11-131 | PAINTED PAVT MARK,STD, WHITE,SKIP, 6" | 0.57 | GM | $388.09 | $221.21 |
| 710-11-211 | PAINTED PAVT MARK,STD, YELLOW,SOLID,6" | 0.57 | NM | $868.92 | $495.28 |

**Pavement Marking Subcomponent**

| Description | Value |
|---|---|
| Solid Stripe No. of Stripes | 1 |
| Solid Stripe No. of Applications | 2 |
| Skip Stripe No. of Stripes | 1 |
| Skip Stripe No. of Applications | 2 |
| Top Layer Thermoplastic | N |

**Pay Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 706-3 | RETRO-REFLECTIVE PAVEMENT MARKERS | 77.00 | EA | $3.72 | $286.44 |
| 710-11-111 | PAINTED PAVT MARK,STD, WHITE,SOLID,6" | 0.57 | NM | $865.32 | $493.23 |
| 710-11-131 | PAINTED PAVT MARK,STD, WHITE,SKIP, 6" | 0.57 | GM | $388.09 | $221.21 |
| | **Roadway Component Total** | | | | $564,626.76 |

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## SHOULDER COMPONENT

**User Input Data**

| Description | Value |
|---|---|
| Total Outside Shoulder Width L/R | 12.00 / 12.00 |
| Total Outside Shoulder Perf. Turf Width L/R | 0.00 / 0.00 |
| Paved Outside Shoulder Width L/R | 12.00 / 12.00 |
| Structural Spread Rate | 110 |
| Friction Course Spread Rate | 80 |
| Total Width (T) / 8" Overlap (O) | T |
| Rumble Strips No. of Sides | 0 |

**Pay Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 285-704 | OPTIONAL BASE,BASE GROUP 04 | 4,123.15 | SY | $9.97 | $41,107.81 |
| 334-1-13 | SUPERPAVE ASPHALTIC CONC, TRAFFIC C | 220.70 | TN | $81.82 | $18,057.67 |
| 337-7-5 | ASPH CONC FC, INC BIT/ RUBBER, FC-5 | 160.51 | TN | $103.50 | $16,612.78 |

**Erosion Control**

**Pay Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 104-4 | MOWING | 0.91 | AC | $163.13 | $148.45 |
| 104-10-2 | SYNTHETIC BALES | 902.88 | LF | $6.49 | $5,859.69 |
| 104-11 | FLOATING TURBIDITY BARRIER | 71.25 | LF | $8.30 | $591.38 |
| 104-12 | STAKED TURBIDITY BARRIER-NYL REINF PVC | 71.25 | LF | $4.53 | $322.76 |
| 104-13-1 | STAKED SILT FENCE, TYPE III | 3,009.60 | LF | $0.96 | $2,889.22 |
| 104-15 | SOIL TRACKING PREVENTION DEVICE | 1.00 | EA | $2,214.05 | $2,214.05 |
| | **Shoulder Component Total** | | | | $87,803.82 |

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**DRAINAGE COMPONENT**

**Pay Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 400-2-2 | CONC CLASS II, ENDWALLS | 5.13 | CY | $696.69 | $3,574.02 |
| 425-1-551 | INLETS, DT BOT, TYPE E, <10' | 2.00 | EA | $2,248.48 | $4,496.96 |

| | | | | |
|---|---|---|---|---|
| 430-172-101 | PIPE CULV OPT MATL, ROUND, 0-24", CD | 96.00 LF | $119.93 | $11,513.28 |
| 430-172-102 | PIPE CULV OPT MATL, ROUND, 25-36", CD | 88.00 LF | $92.39 | $8,130.32 |
| 430-174-101 | PIPE CULV, OPT MATL, ROUND,0-24"SD | 232.00 LF | $43.45 | $10,080.40 |
| 430-984-129 | MITERED END SECT, OPTIONAL RD, 24" SD | 12.00 EA | $1,238.73 | $14,864.76 |
| 524-1-1 | CONCRETE DITCH PAVT, NR, 3" | 570.00 SY | $32.68 | $18,627.60 |
| 570-1-1 | PERFORMANCE TURF | 200.64 SY | $0.74 | $148.47 |
| | **Drainage Component Total** | | | $71,435.81 |

## SIGNING COMPONENT

**Pay Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 700-20-11 | SINGLE POST SIGN, F&I, LESS THAN 12 SF | 1.00 | AS | $242.87 | $242.87 |
| 700-20-12 | SINGLE POST SIGN, F&I, 12-20 SF | 7.00 | AS | $671.36 | $4,699.52 |
| 700-21-11 | MULTI- POST SIGN, F&I, 50 OR < | 1.00 | AS | $2,868.40 | $2,868.40 |
| 700-21-12 | MULTI- POST SIGN, F&I, 51-100 | 2.00 | AS | $3,908.03 | $7,816.06 |
| | **Signing Component Total** | | | | $15,626.85 |

**Sequence 3 Total** $794,306.04

**Sequence:** 4 NDR - New Construction, Divided, Rural **Net Length:** 0.737 MI 3,893 LF

**Description:** Mainline One-way; Three-lane; MSE; 12-ft Paved Inside & Outside Shoulders; Barrier Walls

## EARTHWORK COMPONENT

### User Input Data

| Description | Value |
|---|---|
| Standard Clearing and Grubbing Limits L/R | 0.00 / 0.00 |
| Incidental Clearing and Grubbing Area | 0.00 |
| | |
| Alignment Number | 1 |
| Distance | 0.737 |
| Top of Structural Course For Begin Section | 103.00 |
| Top of Structural Course For End Section | 103.00 |
| Horizontal Elevation For Begin Section | 100.00 |
| Horizontal Elevation For End Section | 100.00 |
| Front Slope L/R | 0 to 1 / 0 to 1 |
| Median Slope L/R | 0 to 1 / 0 to 1 |
| Median Shoulder Cross Slope L/R | 5.00 % / 5.00 % |
| Outside Shoulder Cross Slope L/R | 6.00 % / 6.00 % |
| Roadway Cross Slope L/R | 2.00 % / 2.00 % |

### Pay Items

| Pay item | Description | Quantity Unit | Unit Price | Extended Amount |
|---|---|---|---|---|
| 120-6 | EMBANKMENT | 10,384.17 CY | $13.65 | $141,743.92 |

### X-Items

| Pay item | Description | Quantity Unit | Unit Price | Extended Amount |
|---|---|---|---|---|
| 120-6 | EMBANKMENT | 111,067.24 CY | $13.65 | $1,516,067.83 |
| | **Earthwork Component Total** | | | $1,657,811.75 |

## ROADWAY COMPONENT

### User Input Data

| Description | Value |
|---|---|
| Number of Lanes | 3 |
| Roadway Pavement Width L/R | 0.00 / 36.00 |
| Structural Spread Rate | 330 |
| Friction Course Spread Rate | 80 |

**Pay Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 160-4 | TYPE B STABILIZATION | 25,952.96 | SY | $3.16 | $82,011.35 |
| 285-709 | OPTIONAL BASE,BASE GROUP 09 | 15,857.26 | SY | $12.23 | $193,934.29 |
| 334-1-13 | SUPERPAVE ASPHALTIC CONC, TRAFFIC C | 2,569.34 | TN | $81.82 | $210,223.40 |
| 337-7-5 | ASPH CONC FC, INC BIT/ RUBBER, FC-5 | 622.87 | TN | $103.50 | $64,467.04 |

**X-Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 521-8-1 | CONC TRAF RAIL BAR,RET WALL SYS,32"F SHP | 7,786.00 | LF | $191.22 | $1,488,838.92 |
| 710-11-131 | PAINTED PAVT MARK,STD, WHITE,SKIP, 6" | 1.47 | GM | $388.09 | $570.49 |
| 710-11-211 | PAINTED PAVT MARK,STD, YELLOW,SOLID,6" | 1.47 | NM | $868.92 | $1,277.31 |

**Pavement Marking Subcomponent**

| Description | Value |
|---|---|
| Solid Stripe No. of Stripes | 1 |
| Solid Stripe No. of Applications | 2 |
| Skip Stripe No. of Stripes | 1 |
| Skip Stripe No. of Applications | 2 |
| Top Layer Thermoplastic | N |

**Pay Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 706-3 | RETRO-REFLECTIVE PAVEMENT MARKERS | 199.00 | EA | $3.72 | $740.28 |
| 710-11-111 | PAINTED PAVT MARK,STD, WHITE,SOLID,6" | 1.47 | NM | $865.32 | $1,272.02 |
| 710-11-131 | PAINTED PAVT MARK,STD, WHITE,SKIP, 6" | 1.47 | GM | $388.09 | $570.49 |
| | **Roadway Component Total** | | | | $2,043,905.59 |

## SHOULDER COMPONENT

### User Input Data

| Description | Value |
|---|---|
| Total Outside Shoulder Width L/R | 12.00 / 12.00 |
| Total Outside Shoulder Perf. Turf Width L/R | 0.00 / 0.00 |
| Paved Outside Shoulder Width L/R | 12.00 / 12.00 |
| Structural Spread Rate | 110 |
| Friction Course Spread Rate | 80 |
| Total Width (T) / 8" Overlap (O) | T |
| Rumble Strips No. of Sides | 0 |

### Pay Items

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 285-704 | OPTIONAL BASE,BASE GROUP 04 | 10,666.67 | SY | $9.97 | $106,346.70 |
| 334-1-13 | SUPERPAVE ASPHALTIC CONC, TRAFFIC C | 570.97 | TN | $81.82 | $46,716.77 |
| 337-7-5 | ASPH CONC FC, INC BIT/ RUBBER, FC-5 | 415.25 | TN | $103.50 | $42,978.38 |

### Erosion Control

### Pay Items

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 104-4 | MOWING | 2.36 | AC | $163.13 | $384.99 |
| 104-10-2 | SYNTHETIC BALES | 2,335.77 | LF | $6.49 | $15,159.15 |
| 104-11 | FLOATING TURBIDITY BARRIER | 184.32 | LF | $8.30 | $1,529.86 |
| 104-12 | STAKED TURBIDITY BARRIER-NYL REINF PVC | 184.32 | LF | $4.53 | $834.97 |
| 104-13-1 | STAKED SILT FENCE, TYPE III | 7,785.89 | LF | $0.96 | $7,474.45 |
| 104-15 | SOIL TRACKING PREVENTION DEVICE | 1.00 | EA | $2,214.05 | $2,214.05 |
| | **Shoulder Component Total** | | | | $223,639.30 |

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## DRAINAGE COMPONENT

### Pay Items

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 400-2-2 | CONC CLASS II, ENDWALLS | 13.27 | CY | $696.69 | $9,245.08 |

| | | | | |
|---|---|---|---|---|
| 425-1-551 | INLETS, DT BOT, TYPE E, <10' | 5.00 EA | $2,248.48 | $11,242.40 |
| 430-172-101 | PIPE CULV OPT MATL, ROUND, 0-24", CD | 256.00 LF | $119.93 | $30,702.08 |
| 430-172-102 | PIPE CULV OPT MATL, ROUND, 25-36", CD | 224.00 LF | $92.39 | $20,695.36 |
| 430-174-101 | PIPE CULV, OPT MATL, ROUND,0-24"SD | 592.00 LF | $43.45 | $25,722.40 |
| 430-984-129 | MITERED END SECT, OPTIONAL RD, 24" SD | 30.00 EA | $1,238.73 | $37,161.90 |
| 524-1-1 | CONCRETE DITCH PAVT, NR, 3" | 1,474.60 SY | $32.68 | $48,189.93 |
| 570-1-1 | PERFORMANCE TURF | 519.06 SY | $0.74 | $384.10 |
| | **Drainage Component Total** | | | $183,343.25 |

## SIGNING COMPONENT

**Pay Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 700-20-11 | SINGLE POST SIGN, F&I, LESS THAN 12 SF | 2.00 | AS | $242.87 | $485.74 |
| 700-20-12 | SINGLE POST SIGN, F&I, 12-20 SF | 18.00 | AS | $671.36 | $12,084.48 |
| 700-21-11 | MULTI- POST SIGN, F&I, 50 OR < | 2.00 | AS | $2,868.40 | $5,736.80 |
| 700-21-12 | MULTI- POST SIGN, F&I, 51-100 | 5.00 | AS | $3,908.03 | $19,540.15 |
| | **Signing Component Total** | | | | $37,847.17 |

## RETAINING WALLS COMPONENT

**X-Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 548-12 | RETAINING WALL SYSTEM, PERM, EXC BAR. | 99,960.52 | SF | $26.04 | $2,602,971.94 |
| | **Retaining Walls Component Total** | | | | $2,602,971.94 |

**Sequence 4 Total** $6,749,519.00

**Sequence:** 5 NDR - New Construction, Divided, Rural **Net Length:** 0.024 MI 128 LF

**Description:** Mainline Two-way; Six-lane Divided Structure; 12-ft Paved Inside & Outside Shoulders

**Special Conditions:** Twin single span bridges, 128' long by 63' wide (each), Florida I-Beam (FIB) girders. Note: LRE system does not include the FIB as an available girder choice; for this reason the Bulb-T is used instead. FIB and Bulb-T are of similar cost and design.

## ROADWAY COMPONENT

### User Input Data

| Description | Value |
|---|---|
| Number of Lanes | 6 |
| Roadway Pavement Width L/R | 36.00 / 36.00 |
| Structural Spread Rate | 440 |
| Friction Course Spread Rate | 80 |

### X-Items

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 710-11-211 | PAINTED PAVT MARK,STD, YELLOW,SOLID,6" | 0.10 | NM | $868.92 | $86.89 |

### Pavement Marking Subcomponent

| Description | Value |
|---|---|
| Solid Stripe No. of Stripes | 2 |
| Solid Stripe No. of Applications | 2 |
| Skip Stripe No. of Stripes | 4 |
| Skip Stripe No. of Applications | 2 |
| Top Layer Thermoplastic | N |

### Pay Items

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 706-3 | RETRO-REFLECTIVE PAVEMENT MARKERS | 16.00 | EA | $3.72 | $59.52 |
| 710-11-111 | PAINTED PAVT MARK,STD, WHITE,SOLID,6" | 0.10 | NM | $865.32 | $86.53 |
| 710-11-131 | PAINTED PAVT MARK,STD, WHITE,SKIP, 6" | 0.19 | GM | $388.09 | $73.74 |
| | **Roadway Component Total** | | | | $306.68 |

## SHOULDER COMPONENT

### User Input Data

| Description | Value |
|---|---|
| Total Outside Shoulder Width L/R | 12.00 / 12.00 |
| Total Outside Shoulder Perf. Turf Width L/R | 0.00 / 0.00 |
| Paved Outside Shoulder Width L/R | 12.00 / 12.00 |
| Structural Spread Rate | 220 |
| Friction Course Spread Rate | 80 |
| Total Width (T) / 8" Overlap (O) | O |
| Rumble Strips No. of Sides | 2 |

### Erosion Control

### Pay Items

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 104-4 | MOWING | 0.08 | AC | $163.13 | $13.05 |
| 104-10-2 | SYNTHETIC BALES | 76.67 | LF | $6.49 | $497.59 |
| 104-11 | FLOATING TURBIDITY BARRIER | 6.05 | LF | $8.30 | $50.22 |
| 104-12 | STAKED TURBIDITY BARRIER-NYL REINF PVC | 6.05 | LF | $4.53 | $27.41 |
| 104-13-1 | STAKED SILT FENCE, TYPE III | 255.55 | LF | $0.96 | $245.33 |
| 104-15 | SOIL TRACKING PREVENTION DEVICE | 1.00 | EA | $2,214.05 | $2,214.05 |
| | **Shoulder Component Total** | | | | $3,047.65 |

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## SIGNING COMPONENT

### Pay Items

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 700-20-11 | SINGLE POST SIGN, F&I, LESS THAN 12 SF | 1.00 | AS | $242.87 | $242.87 |
| 700-20-12 | SINGLE POST SIGN, F&I, 12-20 SF | 1.00 | AS | $671.36 | $671.36 |
| 700-21-11 | MULTI- POST SIGN, F&I, 50 OR < | 1.00 | AS | $2,868.40 | $2,868.40 |
| 700-21-12 | MULTI- POST SIGN, F&I, 51-100 | 1.00 | AS | $3,908.03 | $3,908.03 |
| | **Signing Component Total** | | | | $7,690.66 |

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## BRIDGES COMPONENT

### Bridge LEFT

| Description | Value |
|---|---|
| Length | 128.00 |
| Width | 63.00 |
| Type | Overpass Bridge |
| Substructure Type | Pile Bents |
| Superstructure Type | Eau Gallie Bulb T |
| Cost Factor | 1.90 |
| Removal of existing structures area | 0.00 |
| Default Cost per SF | $120.00 |
| Factored Cost per SF | $228.00 |
| Final Cost per SF | $235.83 |
| Basic Bridge Cost | $1,838,592.00 |
| Description | |

**Pay Items**

| Pay item | Description | Quantity Unit | Unit Price | Extended Amount |
|---|---|---|---|---|
| 400-2-10 | CONC CLASS II, APPROACH SLABS | 140.00 CY | $325.19 | $45,526.60 |
| 415-1-9 | REINF STEEL- APPROACH SLABS | 24,500.00 LB | $0.72 | $17,640.00 |
| | **Bridge LEFT Total** | | | $1,901,758.60 |

### Bridge RIGHT

| Description | Value |
|---|---|
| Length | 128.00 |
| Width | 63.00 |
| Type | Overpass Bridge |
| Substructure Type | Pile Bents |
| Superstructure Type | Eau Gallie Bulb T |
| Cost Factor | 1.90 |
| Removal of existing structures area | 0.00 |
| Default Cost per SF | $120.00 |
| Factored Cost per SF | $228.00 |
| Final Cost per SF | $235.83 |
| Basic Bridge Cost | $1,838,592.00 |
| Description | |

**Pay Items**

| Pay item | Description | Quantity Unit | Unit Price | Extended Amount |
|---|---|---|---|---|

| | | | | |
|---|---|---|---|---|
| 400-2-10 | CONC CLASS II, APPROACH SLABS | 140.00 CY | $325.19 | $45,526.60 |
| 415-1-9 | REINF STEEL- APPROACH SLABS | 24,500.00 LB | $0.72 | $17,640.00 |
| | **Bridge RIGHT Total** | | | $1,901,758.60 |
| | **Bridges Component Total** | | | $3,803,517.20 |

**RETAINING WALLS COMPONENT**

**X-Items**

| Pay item | Description | Quantity Unit | Unit Price | Extended Amount |
|---|---|---|---|---|
| 548-12 | RETAINING WALL SYSTEM, PERM, EXC BAR. | 4,158.00 SF | $26.04 | $108,274.32 |
| | **Retaining Walls Component Total** | | | $108,274.32 |

**Sequence 5 Total** $3,922,836.51

**Sequence:** 6 NUR - New Construction, Undivided, Rural **Net Length:** 0.528 MI 2,786 LF

**Description:** Ramp One-way; One-lane; At grade; 6-ft Paved Inside & Outside Shoulders; Barrier Walls

## EARTHWORK COMPONENT

### User Input Data

| Description | Value |
|---|---|
| Standard Clearing and Grubbing Limits L/R | 0.00 / 0.00 |
| Incidental Clearing and Grubbing Area | 0.00 |
| | |
| Alignment Number | 1 |
| Distance | 0.528 |
| Top of Structural Course For Begin Section | 103.00 |
| Top of Structural Course For End Section | 103.00 |
| Horizontal Elevation For Begin Section | 100.00 |
| Horizontal Elevation For End Section | 100.00 |
| Front Slope L/R | 0 to 1 / 0 to 1 |
| Outside Shoulder Cross Slope L/R | 6.00 % / 6.00 % |
| Roadway Cross Slope L/R | 2.00 % / 2.00 % |

### Pay Items

| Pay item | Description | Quantity Unit | Unit Price | Extended Amount |
|---|---|---|---|---|
| 120-6 | EMBANKMENT | 5,418.73 CY | $13.65 | $73,965.66 |
| | **Earthwork Component Total** | | | $73,965.66 |

## ROADWAY COMPONENT

### User Input Data

| Description | Value |
|---|---|
| Number of Lanes | 1 |
| Roadway Pavement Width L/R | 7.50 / 7.50 |
| Structural Spread Rate | 330 |
| Friction Course Spread Rate | 80 |

### Pay Items

| Pay item | Description | Quantity Unit | Unit Price | Extended Amount |
|---|---|---|---|---|
| 160-4 | TYPE B STABILIZATION | 8,358.77 SY | $3.16 | $26,413.71 |
| 285-709 | OPTIONAL BASE,BASE GROUP 09 | 4,848.09 SY | $12.23 | $59,292.14 |

| | | | | |
|---|---|---|---|---|
| 334-1-23 | SUPERPAVE ASPH CONC, TRAF C, PG76-22 | 766.22 TN | $88.55 | $67,848.78 |
| 337-7-22 | ASPH CONC FC,INC BIT,FC-5, PG76-22 | 185.75 TN | $111.87 | $20,779.85 |

**X-Items**

| Pay item | Description | Quantity Unit | Unit Price | Extended Amount |
|---|---|---|---|---|
| 521-72-3 | SHLDR CONC BARRIER WALL, RIGID-SHLDR | 5,572.00 LF | $116.30 | $648,023.60 |
| 710-11-211 | PAINTED PAVT MARK,STD, YELLOW,SOLID,6" | 0.53 NM | $868.92 | $460.53 |

**Pavement Marking Subcomponent**

| Description | Value |
|---|---|
| Solid Stripe No. of Stripes | 1 |
| Solid Stripe No. of Applications | 1 |
| Skip Stripe No. of Stripes | 0 |
| Skip Stripe No. of Applications | 1 |
| Top Layer Thermoplastic | N |

**Pay Items**

| Pay item | Description | Quantity Unit | Unit Price | Extended Amount |
|---|---|---|---|---|
| 710-11-111 | PAINTED PAVT MARK,STD, WHITE,SOLID,6" | 0.53 NM | $865.32 | $458.62 |
| | **Roadway Component Total** | | | $823,277.23 |

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## SHOULDER COMPONENT

**User Input Data**

| Description | Value |
|---|---|
| Total Outside Shoulder Width L/R | 6.00 / 6.00 |
| Total Outside Shoulder Perf. Turf Width L/R | 0.00 / 0.00 |
| Paved Outside Shoulder Width L/R | 6.00 / 6.00 |
| Structural Spread Rate | 220 |
| Friction Course Spread Rate | 80 |
| Total Width (T) / 8" Overlap (O) | T |
| Rumble Strips No. of Sides | 0 |

**Pay Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 285-704 | OPTIONAL BASE,BASE GROUP 04 | 3,919.33 | SY | $9.97 | $39,075.72 |
| 334-1-23 | SUPERPAVE ASPH CONC, TRAF C, PG76-22 | 408.65 | TN | $88.55 | $36,185.96 |
| 337-7-22 | ASPH CONC FC,INC BIT,FC-5, PG76-22 | 148.60 | TN | $111.87 | $16,623.88 |

**Erosion Control**

**Pay Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 104-4 | MOWING | 0.63 | AC | $163.13 | $102.77 |
| 104-10-2 | SYNTHETIC BALES | 1,671.75 | LF | $6.49 | $10,849.66 |
| 104-11 | FLOATING TURBIDITY BARRIER | 131.92 | LF | $8.30 | $1,094.94 |
| 104-12 | STAKED TURBIDITY BARRIER-NYL REINF PVC | 131.92 | LF | $4.53 | $597.60 |
| 104-13-1 | STAKED SILT FENCE, TYPE III | 5,572.51 | LF | $0.96 | $5,349.61 |
| 104-15 | SOIL TRACKING PREVENTION DEVICE | 1.00 | EA | $2,214.05 | $2,214.05 |
| | **Shoulder Component Total** | | | | $112,094.19 |

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**DRAINAGE COMPONENT**

**Pay Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 400-2-2 | CONC CLASS II, ENDWALLS | 9.50 | CY | $696.69 | $6,618.56 |
| 430-172-102 | PIPE CULV OPT MATL, ROUND, 25-36", CD | 88.00 | LF | $92.39 | $8,130.32 |
| 430-174-101 | PIPE CULV, OPT MATL, ROUND,0-24"SD | 424.00 | LF | $43.45 | $18,422.80 |
| 430-984-129 | MITERED END SECT, OPTIONAL RD, 24" SD | 22.00 | EA | $1,238.73 | $27,252.06 |
| 570-1-1 | PERFORMANCE TURF | 371.50 | SY | $0.74 | $274.91 |
| | **Drainage Component Total** | | | | $60,698.65 |

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**SIGNING COMPONENT**

**Pay Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 700-20-11 | SINGLE POST SIGN, F&I, LESS THAN 12 SF | 2.00 | AS | $242.87 | $485.74 |
| 700-20-12 | SINGLE POST SIGN, F&I, 12-20 SF | 11.00 | AS | $671.36 | $7,384.96 |
| 700-21-11 | MULTI- POST SIGN, F&I, 50 OR < | 2.00 | AS | $2,868.40 | $5,736.80 |
| | **Signing Component Total** | | | | $13,607.50 |

**Sequence 6 Total** $1,083,643.23

**Sequence:** 7 NUR - New Construction, Undivided, Rural **Net Length:** 0.145 MI 766 LF

**Description:** Ramp One-way; One-lane; MSE; 6-ft Paved Inside & Outside Shoulders; Barrier Walls

## EARTHWORK COMPONENT

### User Input Data

| Description | Value |
|---|---|
| Standard Clearing and Grubbing Limits L/R | 0.00 / 0.00 |
| Incidental Clearing and Grubbing Area | 0.00 |
| | |
| Alignment Number | 1 |
| Distance | 0.145 |
| Top of Structural Course For Begin Section | 103.00 |
| Top of Structural Course For End Section | 103.00 |
| Horizontal Elevation For Begin Section | 100.00 |
| Horizontal Elevation For End Section | 100.00 |
| Front Slope L/R | 0 to 1 / 0 to 1 |
| Outside Shoulder Cross Slope L/R | 6.00 % / 6.00 % |
| Roadway Cross Slope L/R | 2.00 % / 2.00 % |

### Pay Items

| Pay item | Description | Quantity Unit | Unit Price | Extended Amount |
|---|---|---|---|---|
| 120-6 | EMBANKMENT | 1,488.10 CY | $13.65 | $20,312.56 |

### X-Items

| Pay item | Description | Quantity Unit | Unit Price | Extended Amount |
|---|---|---|---|---|
| 120-6 | EMBANKMENT | 6,226.68 CY | $13.65 | $84,994.18 |
| | **Earthwork Component Total** | | | $105,306.75 |

## ROADWAY COMPONENT

### User Input Data

| Description | Value |
|---|---|
| Number of Lanes | 1 |
| Roadway Pavement Width L/R | 7.50 / 7.50 |
| Structural Spread Rate | 330 |
| Friction Course Spread Rate | 80 |

### Pay Items

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 160-4 | TYPE B STABILIZATION | 2,298.38 | SY | $3.16 | $7,262.88 |
| 285-709 | OPTIONAL BASE,BASE GROUP 09 | 1,333.06 | SY | $12.23 | $16,303.32 |
| 334-1-23 | SUPERPAVE ASPH CONC, TRAF C, PG76-22 | 210.69 | TN | $88.55 | $18,656.60 |
| 337-7-22 | ASPH CONC FC,INC BIT,FC-5, PG76-22 | 51.08 | TN | $111.87 | $5,714.32 |

**X-Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 521-8-1 | CONC TRAF RAIL BAR,RET WALL SYS,32"F SHP | 1,532.00 | LF | $191.22 | $292,949.04 |
| 710-11-211 | PAINTED PAVT MARK,STD, YELLOW,SOLID,6" | 0.15 | NM | $868.92 | $130.34 |

**Pavement Marking Subcomponent**

| Description | Value |
|---|---|
| Solid Stripe No. of Stripes | 1 |
| Solid Stripe No. of Applications | 1 |
| Skip Stripe No. of Stripes | 0 |
| Skip Stripe No. of Applications | 1 |
| Top Layer Thermoplastic | N |

**Pay Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 710-11-111 | PAINTED PAVT MARK,STD, WHITE,SOLID,6" | 0.15 | NM | $865.32 | $129.80 |
| | **Roadway Component Total** | | | | $341,146.30 |

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## SHOULDER COMPONENT

**User Input Data**

| Description | Value |
|---|---|
| Total Outside Shoulder Width L/R | 6.00 / 6.00 |
| Total Outside Shoulder Perf. Turf Width L/R | 0.00 / 0.00 |
| Paved Outside Shoulder Width L/R | 6.00 / 6.00 |
| Structural Spread Rate | 220 |
| Friction Course Spread Rate | 80 |
| Total Width (T) / 8" Overlap (O) | T |
| Rumble Strips No. of Sides | 0 |

**Pay Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 285-704 | OPTIONAL BASE,BASE GROUP 04 | 1,077.69 | SY | $9.97 | $10,744.57 |
| 334-1-23 | SUPERPAVE ASPH CONC, TRAF C, PG76-22 | 112.37 | TN | $88.55 | $9,950.36 |
| 337-7-22 | ASPH CONC FC,INC BIT,FC-5, PG76-22 | 40.86 | TN | $111.87 | $4,571.01 |

**Erosion Control**

**Pay Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 104-4 | MOWING | 0.17 | AC | $163.13 | $27.73 |
| 104-10-2 | SYNTHETIC BALES | 459.68 | LF | $6.49 | $2,983.32 |
| 104-11 | FLOATING TURBIDITY BARRIER | 36.28 | LF | $8.30 | $301.12 |
| 104-12 | STAKED TURBIDITY BARRIER-NYL REINF PVC | 36.28 | LF | $4.53 | $164.35 |
| 104-13-1 | STAKED SILT FENCE, TYPE III | 1,532.26 | LF | $0.96 | $1,470.97 |
| 104-15 | SOIL TRACKING PREVENTION DEVICE | 1.00 | EA | $2,214.05 | $2,214.05 |
| | **Shoulder Component Total** | | | | $32,427.48 |

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**DRAINAGE COMPONENT**

**Pay Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 400-2-2 | CONC CLASS II, ENDWALLS | 2.61 | CY | $696.69 | $1,818.36 |
| 430-172-102 | PIPE CULV OPT MATL, ROUND, 25-36", CD | 32.00 | LF | $92.39 | $2,956.48 |

| | | | | |
|---|---|---|---|---|
| 430-174-101 | PIPE CULV, OPT MATL, ROUND,0-24"SD | 120.00 LF | $43.45 | $5,214.00 |
| 430-984-129 | MITERED END SECT, OPTIONAL RD, 24" SD | 6.00 EA | $1,238.73 | $7,432.38 |
| 570-1-1 | PERFORMANCE TURF | 102.15 SY | $0.74 | $75.59 |
| | **Drainage Component Total** | | | $17,496.81 |

## SIGNING COMPONENT

**Pay Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 700-20-11 | SINGLE POST SIGN, F&I, LESS THAN 12 SF | 1.00 | AS | $242.87 | $242.87 |
| 700-20-12 | SINGLE POST SIGN, F&I, 12-20 SF | 3.00 | AS | $671.36 | $2,014.08 |
| 700-21-11 | MULTI- POST SIGN, F&I, 50 OR < | 1.00 | AS | $2,868.40 | $2,868.40 |
| | **Signing Component Total** | | | | $5,125.35 |

## RETAINING WALLS COMPONENT

**X-Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 548-12 | RETAINING WALL SYSTEM, PERM, EXC BAR. | 12,453.36 | SF | $26.04 | $324,285.49 |
| | **Retaining Walls Component Total** | | | | $324,285.49 |

**Sequence 7 Total** $825,788.18

**Sequence:** 8 NDS - New, Divided, Suburban (Urban In/Rural Out) **Net Length:** 0.913 MI 4,821 LF

**Description:** C-D Road West of Grand Ave One-way; Two-lane; 8-ft Paved Inside Shldrs; Bike Lanes, Curb & Gutter, Sidewalks on Outside; Barrier Walls

## EARTHWORK COMPONENT

### User Input Data

| Description | Value |
|---|---|
| Standard Clearing and Grubbing Limits L/R | 0.00 / 0.00 |
| Incidental Clearing and Grubbing Area | 0.00 |
| | |
| Alignment Number | 1 |
| Distance | 0.913 |
| Top of Structural Course For Begin Section | 103.00 |
| Top of Structural Course For End Section | 103.00 |
| Horizontal Elevation For Begin Section | 100.00 |
| Horizontal Elevation For End Section | 100.00 |
| Front Slope L/R | 0 to 1 / 0 to 1 |
| Median Shoulder Cross Slope L/R | 4.00 % / 4.00 % |
| Outside Shoulder Cross Slope L/R | 2.00 % / 2.00 % |
| Roadway Cross Slope L/R | 2.00 % / 2.00 % |

### Pay Items

| Pay item | Description | Quantity Unit | Unit Price | Extended Amount |
|---|---|---|---|---|
| 120-6 | EMBANKMENT | 18,921.90 CY | $13.65 | $258,283.94 |
| | **Earthwork Component Total** | | | $258,283.94 |

## ROADWAY COMPONENT

### User Input Data

| Description | Value |
|---|---|
| Number of Lanes | 2 |
| Roadway Pavement Width L/R | 0.00 / 28.00 |
| Structural Spread Rate | 330 |
| Friction Course Spread Rate | 80 |

### Pay Items

| Pay item | Description | Quantity Unit | Unit Price | Extended Amount |
|---|---|---|---|---|
| 160-4 | TYPE B STABILIZATION | 27,405.66 SY | $3.16 | $86,601.89 |

| | | | | | |
|---|---|---|---|---|---|
| 285-709 | OPTIONAL BASE,BASE GROUP 09 | 15,352.74 | SY | $12.23 | $187,764.01 |
| 334-1-13 | SUPERPAVE ASPHALTIC CONC, TRAFFIC C | 2,474.87 | TN | $81.82 | $202,493.86 |
| 337-7-5 | ASPH CONC FC, INC BIT/ RUBBER, FC-5 | 599.97 | TN | $103.50 | $62,096.90 |

**X-Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 521-72-3 | SHLDR CONC BARRIER WALL, RIGID-SHLDR | 4,821.00 | LF | $116.30 | $560,682.30 |
| 710-11-131 | PAINTED PAVT MARK,STD, WHITE,SKIP, 6" | 1.83 | GM | $388.09 | $710.20 |
| 710-11-211 | PAINTED PAVT MARK,STD, YELLOW,SOLID,6" | 1.83 | NM | $868.92 | $1,590.12 |

**Turnouts/Crossovers Subcomponent**

| Description | Value |
|---|---|
| Asphalt Adjustment | 5.00 |
| Stabilization Code | Y |
| Base Code | Y |
| Friction Course Code | Y |

**Pay Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 160-4 | TYPE B STABILIZATION | 1,370.28 | SY | $3.16 | $4,330.08 |
| 285-709 | OPTIONAL BASE,BASE GROUP 09 | 767.64 | SY | $12.23 | $9,388.24 |
| 334-1-13 | SUPERPAVE ASPHALTIC CONC, TRAFFIC C | 123.74 | TN | $81.82 | $10,124.41 |
| 337-7-5 | ASPH CONC FC, INC BIT/ RUBBER, FC-5 | 30.00 | TN | $103.50 | $3,105.00 |

**Pavement Marking Subcomponent**

| Description | Value |
|---|---|
| Solid Stripe No. of Stripes | 2 |
| Solid Stripe No. of Applications | 2 |
| Skip Stripe No. of Stripes | 0 |
| Skip Stripe No. of Applications | 2 |
| Top Layer Thermoplastic | N |

**Pay Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 706-3 | RETRO-REFLECTIVE PAVEMENT MARKERS | 123.00 | EA | $3.72 | $457.56 |
| 710-11-111 | PAINTED PAVT MARK,STD, WHITE,SOLID,6" | 3.65 | NM | $865.32 | $3,158.42 |
| | **Roadway Component Total** | | | | $1,132,502.99 |

## SHOULDER COMPONENT

**User Input Data**

| Description | Value |
|---|---|
| Total Outside Shoulder Width L/R | 8.00 / 10.00 |
| Total Outside Shoulder Perf. Turf Width L/R | 0.00 / 5.00 |
| Paved Outside Shoulder Width L/R | 8.00 / 0.00 |
| Structural Spread Rate | 110 |
| Friction Course Spread Rate | 80 |
| Total Width (T) / 8" Overlap (O) | T |
| Rumble Strips No. of Sides | 0 |

**Pay Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 285-704 | OPTIONAL BASE,BASE GROUP 04 | 4,462.26 | SY | $9.97 | $44,488.73 |
| 334-1-13 | SUPERPAVE ASPHALTIC CONC, TRAFFIC C | 235.70 | TN | $81.82 | $19,284.97 |
| 337-7-5 | ASPH CONC FC, INC BIT/ RUBBER, FC-5 | 171.42 | TN | $103.50 | $17,741.97 |
| 570-1-1 | PERFORMANCE TURF | 2,678.43 | SY | $0.74 | $1,982.04 |

**X-Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 520-1-10 | CONCRETE CURB & GUTTER, TYPE F | 4,821.00 | LF | $14.93 | $71,977.53 |
| 522-1 | SIDEWALK CONC, 4" THICK | 2,678.33 | SY | $28.06 | $75,153.94 |

**Erosion Control**

**Pay Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 104-4 | MOWING | 1.73 | AC | $163.13 | $282.21 |
| 104-10-2 | SYNTHETIC BALES | 2,892.70 | LF | $6.49 | $18,773.62 |
| 104-11 | FLOATING TURBIDITY BARRIER | 228.28 | LF | $8.30 | $1,894.72 |
| 104-12 | STAKED TURBIDITY BARRIER-NYL REINF PVC | 228.28 | LF | $4.53 | $1,034.11 |
| 104-13-1 | STAKED SILT FENCE, TYPE III | 9,642.34 | LF | $0.96 | $9,256.65 |
| 104-15 | SOIL TRACKING PREVENTION DEVICE | 1.00 | EA | $2,214.05 | $2,214.05 |
| | **Shoulder Component Total** | | | | $264,084.54 |

## DRAINAGE COMPONENT

**Pay Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 400-2-2 | CONC CLASS II, ENDWALLS | 16.44 | CY | $696.69 | $11,453.58 |
| 425-1-551 | INLETS, DT BOT, TYPE E, <10' | 8.00 | EA | $2,248.48 | $17,987.84 |
| 430-171-101 | PIPE CULV OPT MATL, ROUND, 0-24", SS | 384.00 | LF | $57.72 | $22,164.48 |
| 430-172-102 | PIPE CULV OPT MATL, ROUND, 25-36", CD | 216.00 | LF | $92.39 | $19,956.24 |
| 430-984-129 | MITERED END SECT, OPTIONAL RD, 24" SD | 8.00 | EA | $1,238.73 | $9,909.84 |
| 570-1-1 | PERFORMANCE TURF | 350.63 | SY | $0.74 | $259.47 |
| | **Drainage Component Total** | | | | $81,731.45 |

## SIGNING COMPONENT

**Pay Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 700-20-11 | SINGLE POST SIGN, F&I, LESS THAN 12 SF | 22.00 | AS | $242.87 | $5,343.14 |
| 700-20-12 | SINGLE POST SIGN, F&I, 12-20 SF | 2.00 | AS | $671.36 | $1,342.72 |
| 700-21-11 | MULTI- POST SIGN, F&I, 50 OR < | 2.00 | AS | $2,868.40 | $5,736.80 |
| 700-21-12 | MULTI- POST SIGN, F&I, 51-100 | 2.00 | AS | $3,908.03 | $7,816.06 |

| | |
|---|---|
| **Signing Component Total** | $20,238.72 |

| | |
|---|---|
| **Sequence 8 Total** | $1,756,841.64 |

**Sequence:** 9 NDR - New Construction, Divided, Rural **Net Length:** 0.655 MI 3,456 LF

**Description:** C-D Road East of Grand Ave One-way; Two-lane; 10-ft Paved Inside & Outside Shldrs; Barrier Walls

## EARTHWORK COMPONENT

### User Input Data

| Description | Value |
|---|---|
| Standard Clearing and Grubbing Limits L/R | 0.00 / 0.00 |
| Incidental Clearing and Grubbing Area | 0.00 |
| | |
| Alignment Number | 1 |
| Distance | 0.655 |
| Top of Structural Course For Begin Section | 103.00 |
| Top of Structural Course For End Section | 103.00 |
| Horizontal Elevation For Begin Section | 100.00 |
| Horizontal Elevation For End Section | 100.00 |
| Front Slope L/R | 0 to 1 / 0 to 1 |
| Median Slope L/R | 0 to 1 / 0 to 1 |
| Median Shoulder Cross Slope L/R | 5.00 % / 5.00 % |
| Outside Shoulder Cross Slope L/R | 6.00 % / 6.00 % |
| Roadway Cross Slope L/R | 2.00 % / 2.00 % |

### Pay Items

| Pay item | Description | Quantity Unit | Unit Price | Extended Amount |
|---|---|---|---|---|
| 120-6 | EMBANKMENT | 7,258.80 CY | $13.65 | $99,082.62 |
| | **Earthwork Component Total** | | | $99,082.62 |

## ROADWAY COMPONENT

### User Input Data

| Description | Value |
|---|---|
| Number of Lanes | 2 |
| Roadway Pavement Width L/R | 0.00 / 24.00 |
| Structural Spread Rate | 330 |
| Friction Course Spread Rate | 80 |

### Pay Items

| Pay item | Description | Quantity Unit | Unit Price | Extended Amount |
|---|---|---|---|---|

| | | | | | |
|---|---|---|---|---|---|
| 160-4 | TYPE B STABILIZATION | 16,894.83 | SY | $3.16 | $53,387.66 |
| 285-709 | OPTIONAL BASE,BASE GROUP 09 | 9,468.78 | SY | $12.23 | $115,803.18 |
| 334-1-13 | SUPERPAVE ASPHALTIC CONC, TRAFFIC C | 1,520.53 | TN | $81.82 | $124,409.76 |
| 337-7-5 | ASPH CONC FC, INC BIT/ RUBBER, FC-5 | 368.61 | TN | $103.50 | $38,151.14 |

**X-Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 521-72-3 | SHLDR CONC BARRIER WALL, RIGID-SHLDR | 3,456.00 | LF | $116.30 | $401,932.80 |
| 710-11-131 | PAINTED PAVT MARK,STD, WHITE,SKIP, 6" | 1.31 | GM | $388.09 | $508.40 |
| 710-11-211 | PAINTED PAVT MARK,STD, YELLOW,SOLID,6" | 1.31 | NM | $868.92 | $1,138.29 |

**Turnouts/Crossovers Subcomponent**

| Description | Value |
|---|---|
| Asphalt Adjustment | 5.00 |
| Stabilization Code | Y |
| Base Code | Y |
| Friction Course Code | Y |

**Pay Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 160-4 | TYPE B STABILIZATION | 844.74 | SY | $3.16 | $2,669.38 |
| 285-709 | OPTIONAL BASE,BASE GROUP 09 | 473.44 | SY | $12.23 | $5,790.17 |
| 334-1-13 | SUPERPAVE ASPHALTIC CONC, TRAFFIC C | 76.03 | TN | $81.82 | $6,220.77 |
| 337-7-5 | ASPH CONC FC, INC BIT/ RUBBER, FC-5 | 18.43 | TN | $103.50 | $1,907.50 |

**Pavement Marking Subcomponent**

| Description | Value |
|---|---|
| Solid Stripe No. of Stripes | 1 |
| Solid Stripe No. of Applications | 2 |
| Skip Stripe No. of Stripes | 0 |
| Skip Stripe No. of Applications | 2 |
| Top Layer Thermoplastic | N |

**Pay Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 706-3 | RETRO-REFLECTIVE PAVEMENT MARKERS | 88.00 | EA | $3.72 | $327.36 |
| 710-11-111 | PAINTED PAVT MARK,STD, WHITE,SOLID,6" | 1.31 | NM | $865.32 | $1,133.57 |
| | **Roadway Component Total** | | | | $753,379.99 |

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## SHOULDER COMPONENT

**User Input Data**

| Description | Value |
|---|---|
| Total Outside Shoulder Width L/R | 10.00 / 10.00 |
| Total Outside Shoulder Perf. Turf Width L/R | 0.00 / 0.00 |
| Paved Outside Shoulder Width L/R | 10.00 / 10.00 |
| Structural Spread Rate | 110 |
| Friction Course Spread Rate | 80 |
| Total Width (T) / 8" Overlap (O) | T |
| Rumble Strips No. of Sides | 0 |

**Pay Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 285-704 | OPTIONAL BASE,BASE GROUP 04 | 7,932.89 | SY | $9.97 | $79,090.91 |
| 334-1-13 | SUPERPAVE ASPHALTIC CONC, TRAFFIC C | 422.37 | TN | $81.82 | $34,558.31 |
| 337-7-5 | ASPH CONC FC, INC BIT/ RUBBER, FC-5 | 307.18 | TN | $103.50 | $31,793.13 |

**Erosion Control**

**Pay Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 104-4 | MOWING | 2.09 | AC | $163.13 | $340.94 |
| 104-10-2 | SYNTHETIC BALES | 2,073.46 | LF | $6.49 | $13,456.76 |
| 104-11 | FLOATING TURBIDITY BARRIER | 163.62 | LF | $8.30 | $1,358.05 |
| 104-12 | STAKED TURBIDITY BARRIER-NYL REINF PVC | 163.62 | LF | $4.53 | $741.20 |

| | | | | |
|---|---|---|---|---|
| 104-13-1 | STAKED SILT FENCE, TYPE III | 6,911.52 LF | $0.96 | $6,635.06 |
| 104-15 | SOIL TRACKING PREVENTION DEVICE | 1.00 EA | $2,214.05 | $2,214.05 |
| | **Shoulder Component Total** | | | $170,188.41 |

## DRAINAGE COMPONENT

**Pay Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 400-2-2 | CONC CLASS II, ENDWALLS | 11.78 | CY | $696.69 | $8,207.01 |
| 425-1-551 | INLETS, DT BOT, TYPE E, <10' | 4.00 | EA | $2,248.48 | $8,993.92 |
| 430-172-101 | PIPE CULV OPT MATL, ROUND, 0-24", CD | 224.00 | LF | $119.93 | $26,864.32 |
| 430-172-102 | PIPE CULV OPT MATL, ROUND, 25-36", CD | 200.00 | LF | $92.39 | $18,478.00 |
| 430-174-101 | PIPE CULV, OPT MATL, ROUND,0-24"SD | 528.00 | LF | $43.45 | $22,941.60 |
| 430-984-129 | MITERED END SECT, OPTIONAL RD, 24" SD | 27.00 | EA | $1,238.73 | $33,445.71 |
| 524-1-1 | CONCRETE DITCH PAVT, NR, 3" | 1,309.00 | SY | $32.68 | $42,778.12 |
| 570-1-1 | PERFORMANCE TURF | 460.77 | SY | $0.74 | $340.97 |
| | **Drainage Component Total** | | | | $162,049.65 |

## SIGNING COMPONENT

**Pay Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 700-20-11 | SINGLE POST SIGN, F&I, LESS THAN 12 SF | 2.00 | AS | $242.87 | $485.74 |
| 700-20-12 | SINGLE POST SIGN, F&I, 12-20 SF | 16.00 | AS | $671.36 | $10,741.76 |
| 700-21-11 | MULTI- POST SIGN, F&I, 50 OR < | 2.00 | AS | $2,868.40 | $5,736.80 |
| 700-21-12 | MULTI- POST SIGN, F&I, 51-100 | 4.00 | AS | $3,908.03 | $15,632.12 |
| | **Signing Component Total** | | | | $32,596.42 |

**Sequence 9 Total** $1,217,297.09

**Sequence:** 10 NDS - New, Divided, Suburban (Urban In/Rural Out) **Net Length:** 0.020 MI 107 LF

**Description:** Grand Ave North of Gandy Two-way, Four-lane Divided Suburban with 5-ft Sidewalks on Outside; 20-ft Grass Median; Curb & Gutter on Inside; 8-ft Shldr Outside (5-ft paved)

## EARTHWORK COMPONENT

### User Input Data

| Description | Value |
|---|---|
| Standard Clearing and Grubbing Limits L/R | 0.00 / 0.00 |
| Incidental Clearing and Grubbing Area | 0.00 |
| | |
| Alignment Number | 1 |
| Distance | 0.020 |
| Top of Structural Course For Begin Section | 103.00 |
| Top of Structural Course For End Section | 103.00 |
| Horizontal Elevation For Begin Section | 100.00 |
| Horizontal Elevation For End Section | 100.00 |
| Front Slope L/R | 6 to 1 / 6 to 1 |
| Median Shoulder Cross Slope L/R | 4.00 % / 4.00 % |
| Outside Shoulder Cross Slope L/R | 6.00 % / 6.00 % |
| Roadway Cross Slope L/R | 2.00 % / 2.00 % |

### Pay Items

| Pay item | Description | Quantity Unit | Unit Price | Extended Amount |
|---|---|---|---|---|
| 120-6 | EMBANKMENT | 882.58 CY | $13.65 | $12,047.22 |
| | **Earthwork Component Total** | | | $12,047.22 |

## ROADWAY COMPONENT

### User Input Data

| Description | Value |
|---|---|
| Number of Lanes | 4 |
| Roadway Pavement Width L/R | 24.00 / 24.00 |
| Structural Spread Rate | 330 |
| Friction Course Spread Rate | 80 |

### Pay Items

| Pay item | Description | Quantity Unit | Unit Price | Extended Amount |
|---|---|---|---|---|
| 160-4 | TYPE B STABILIZATION | 1,061.84 SY | $3.16 | $3,355.41 |

| | | | | | |
|---|---|---|---|---|---|
| 285-709 | OPTIONAL BASE,BASE GROUP 09 | 587.37 | SY | $12.23 | $7,183.54 |
| 334-1-13 | SUPERPAVE ASPHALTIC CONC, TRAFFIC C | 94.32 | TN | $81.82 | $7,717.26 |
| 337-7-5 | ASPH CONC FC, INC BIT/ RUBBER, FC-5 | 22.87 | TN | $103.50 | $2,367.04 |

**X-Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 710-11-211 | PAINTED PAVT MARK,STD, YELLOW,SOLID,6" | 0.08 | NM | $868.92 | $69.51 |

**Turnouts/Crossovers Subcomponent**

| Description | Value |
|---|---|
| Asphalt Adjustment | 10.00 |
| Stabilization Code | Y |
| Base Code | Y |
| Friction Course Code | Y |

**Pay Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 160-4 | TYPE B STABILIZATION | 106.18 | SY | $3.16 | $335.53 |
| 285-709 | OPTIONAL BASE,BASE GROUP 09 | 58.74 | SY | $12.23 | $718.39 |
| 334-1-13 | SUPERPAVE ASPHALTIC CONC, TRAFFIC C | 9.43 | TN | $81.82 | $771.56 |
| 337-7-5 | ASPH CONC FC, INC BIT/ RUBBER, FC-5 | 2.29 | TN | $103.50 | $237.02 |

**Pavement Marking Subcomponent**

| Description | Value |
|---|---|
| Solid Stripe No. of Stripes | 2 |
| Solid Stripe No. of Applications | 2 |
| Skip Stripe No. of Stripes | 2 |
| Skip Stripe No. of Applications | 2 |
| Top Layer Thermoplastic | N |

**Pay Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|

| | | | | | |
|---|---|---|---|---|---|
| 706-3 | RETRO-REFLECTIVE PAVEMENT MARKERS | 8.00 | EA | $3.72 | $29.76 |
| 710-11-111 | PAINTED PAVT MARK,STD, WHITE,SOLID,6" | 0.08 | NM | $865.32 | $69.23 |
| 710-11-131 | PAINTED PAVT MARK,STD, WHITE,SKIP, 6" | 0.08 | GM | $388.09 | $31.05 |
| | **Roadway Component Total** | | | | $22,885.31 |

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## SHOULDER COMPONENT

**User Input Data**

| Description | Value |
|---|---|
| Total Outside Shoulder Width L/R | 18.00 / 18.00 |
| Total Outside Shoulder Perf. Turf Width L/R | 8.00 / 8.00 |
| Paved Outside Shoulder Width L/R | 5.00 / 5.00 |
| Structural Spread Rate | 110 |
| Friction Course Spread Rate | 80 |
| Total Width (T) / 8" Overlap (O) | T |
| Rumble Strips No. of Sides | 0 |

**Pay Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 285-704 | OPTIONAL BASE,BASE GROUP 04 | 126.95 | SY | $9.97 | $1,265.69 |
| 334-1-13 | SUPERPAVE ASPHALTIC CONC, TRAFFIC C | 6.55 | TN | $81.82 | $535.92 |
| 337-7-5 | ASPH CONC FC, INC BIT/ RUBBER, FC-5 | 4.76 | TN | $103.50 | $492.66 |
| 570-1-1 | PERFORMANCE TURF | 190.55 | SY | $0.74 | $141.01 |

**X-Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 522-1 | SIDEWALK CONC, 4" THICK | 118.89 | SY | $28.06 | $3,336.05 |

**Erosion Control**

**Pay Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 104-4 | MOWING | 0.04 | AC | $163.13 | $6.53 |

| | | | | |
|---|---|---|---|---|
| 104-10-2 | SYNTHETIC BALES | 64.31 LF | $6.49 | $417.37 |
| 104-11 | FLOATING TURBIDITY BARRIER | 5.07 LF | $8.30 | $42.08 |
| 104-12 | STAKED TURBIDITY BARRIER-NYL REINF PVC | 5.07 LF | $4.53 | $22.97 |
| 104-13-1 | STAKED SILT FENCE, TYPE III | 214.37 LF | $0.96 | $205.80 |
| 104-15 | SOIL TRACKING PREVENTION DEVICE | 1.00 EA | $2,214.05 | $2,214.05 |
| | **Shoulder Component Total** | | | $8,680.13 |

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## MEDIAN COMPONENT

**User Input Data**

| Description | Value |
|---|---|
| Total Median Width | 20.00 |
| Performance Turf Width | 15.50 |

**Pay Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 520-1-7 | CONCRETE CURB & GUTTER, TYPE E | 214.37 | LF | $11.37 | $2,437.39 |
| 570-1-1 | PERFORMANCE TURF | 184.59 | SY | $0.74 | $136.60 |
| | **Median Component Total** | | | | $2,573.99 |

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## DRAINAGE COMPONENT

**Pay Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 400-2-2 | CONC CLASS II, ENDWALLS | 0.37 | CY | $696.69 | $257.78 |
| 425-1-551 | INLETS, DT BOT, TYPE E, <10' | 1.00 | EA | $2,248.48 | $2,248.48 |
| 430-171-101 | PIPE CULV OPT MATL, ROUND, 0-24", SS | 16.00 | LF | $57.72 | $923.52 |
| 430-172-102 | PIPE CULV OPT MATL, ROUND, 25-36", CD | 8.00 | LF | $92.39 | $739.12 |
| 430-984-129 | MITERED END SECT, OPTIONAL RD, 24" SD | 1.00 | EA | $1,238.73 | $1,238.73 |
| 570-1-1 | PERFORMANCE TURF | 7.80 | SY | $0.74 | $5.77 |

| | | |
|---|---|---|
| | **Drainage Component Total** | $5,413.40 |

## SIGNING COMPONENT

**Pay Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 700-20-11 | SINGLE POST SIGN, F&I, LESS THAN 12 SF | 1.00 | AS | $242.87 | $242.87 |
| 700-20-12 | SINGLE POST SIGN, F&I, 12-20 SF | 1.00 | AS | $671.36 | $671.36 |
| 700-21-11 | MULTI- POST SIGN, F&I, 50 OR < | 1.00 | AS | $2,868.40 | $2,868.40 |
| 700-21-12 | MULTI- POST SIGN, F&I, 51-100 | 1.00 | AS | $3,908.03 | $3,908.03 |
| | **Signing Component Total** | | | | $7,690.66 |

| | |
|---|---|
| **Sequence 10 Total** | $59,290.71 |

**Sequence:** 11 NDU - New Construction, Divided, Urban **Net Length:** 0.038 MI 199 LF

**Description:** Grand Ave Under Gandy Two-way, Two-lane Divided Urban with 5-ft Sidewalks on Outside; 20-ft Grass Median; Curb & Gutter on Inside and Outside; Bike Lanes Outside

## EARTHWORK COMPONENT

### User Input Data

| Description | Value |
|---|---|
| Standard Clearing and Grubbing Limits L/R | 0.00 / 0.00 |
| Incidental Clearing and Grubbing Area | 0.00 |
| | |
| Alignment Number | 1 |
| Distance | 0.038 |
| Top of Structural Course For Begin Section | 103.00 |
| Top of Structural Course For End Section | 103.00 |
| Horizontal Elevation For Begin Section | 100.00 |
| Horizontal Elevation For End Section | 100.00 |
| Front Slope L/R | 6 to 1 / 6 to 1 |
| Median Shoulder Cross Slope L/R | 4.00 % / 4.00 % |
| Outside Shoulder Cross Slope L/R | 2.00 % / 2.00 % |
| Roadway Cross Slope L/R | 2.00 % / 2.00 % |

### Pay Items

| Pay item | Description | Quantity Unit | Unit Price | Extended Amount |
|---|---|---|---|---|
| 120-6 | EMBANKMENT | 2,535.87 CY | $13.65 | $34,614.63 |
| | **Earthwork Component Total** | | | $34,614.63 |

## ROADWAY COMPONENT

### User Input Data

| Description | Value |
|---|---|
| Number of Lanes | 2 |
| Roadway Pavement Width L/R | 19.00 / 19.00 |
| Structural Spread Rate | 330 |
| Friction Course Spread Rate | 165 |

### Pay Items

| Pay item | Description | Quantity Unit | Unit Price | Extended Amount |
|---|---|---|---|---|
| 160-4 | TYPE B STABILIZATION | 1,068.71 SY | $3.16 | $3,377.12 |

| | | | | | |
|---|---|---|---|---|---|
| 285-709 | OPTIONAL BASE,BASE GROUP 09 | 840.46 | SY | $12.23 | $10,278.83 |
| 334-1-13 | SUPERPAVE ASPHALTIC CONC, TRAFFIC C | 138.68 | TN | $81.82 | $11,346.80 |
| 337-7-33 | ASPH CONC FC,TRAFFIC C,FC-12.5,RUBBER | 69.34 | TN | $95.62 | $6,630.29 |

**X-Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 710-11-211 | PAINTED PAVT MARK,STD, YELLOW,SOLID,6" | 0.15 | NM | $868.92 | $130.34 |

**Turnouts/Crossovers Subcomponent**

| Description | Value |
|---|---|
| Asphalt Adjustment | 10.00 |
| Stabilization Code | Y |
| Base Code | Y |
| Friction Course Code | Y |

**Pay Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 160-4 | TYPE B STABILIZATION | 106.87 | SY | $3.16 | $337.71 |
| 285-709 | OPTIONAL BASE,BASE GROUP 09 | 84.05 | SY | $12.23 | $1,027.93 |
| 334-1-13 | SUPERPAVE ASPHALTIC CONC, TRAFFIC C | 13.87 | TN | $81.82 | $1,134.84 |
| 337-7-33 | ASPH CONC FC,TRAFFIC C,FC-12.5,RUBBER | 6.93 | TN | $95.62 | $662.65 |

**Pavement Marking Subcomponent**

| Description | Value |
|---|---|
| Solid Stripe No. of Stripes | 2 |
| Solid Stripe No. of Applications | 2 |
| Skip Stripe No. of Stripes | 0 |
| Skip Stripe No. of Applications | 2 |
| Top Layer Thermoplastic | N |

**Pay Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|

| | | | | |
|---|---|---|---|---|
| 706-3 | RETRO-REFLECTIVE PAVEMENT MARKERS | 5.00 EA | $3.72 | $18.60 |
| 710-11-111 | PAINTED PAVT MARK,STD, WHITE,SOLID,6" | 0.15 NM | $865.32 | $129.80 |
| | **Roadway Component Total** | | | $35,074.91 |

## SHOULDER COMPONENT

### User Input Data

| Description | Value |
|---|---|
| Total Outside Shoulder Width L/R | 27.81 / 14.49 |
| Total Outside Shoulder Perf. Turf Width L/R | 20.56 / 7.24 |
| Sidewalk Width L/R | 5.00 / 5.00 |

### Pay Items

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 520-1-10 | CONCRETE CURB & GUTTER, TYPE F | 199.06 | LF | $14.93 | $2,971.97 |
| 520-1-10 | CONCRETE CURB & GUTTER, TYPE F | 199.06 | LF | $14.93 | $2,971.97 |
| 522-1 | SIDEWALK CONC, 4" THICK | 221.17 | SY | $28.06 | $6,206.03 |
| 570-1-1 | PERFORMANCE TURF | 614.86 | SY | $0.74 | $455.00 |

### Erosion Control

### Pay Items

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 104-4 | MOWING | 0.07 | AC | $163.13 | $11.42 |
| 104-11 | FLOATING TURBIDITY BARRIER | 9.42 | LF | $8.30 | $78.19 |
| 104-12 | STAKED TURBIDITY BARRIER-NYL REINF PVC | 9.42 | LF | $4.53 | $42.67 |
| 104-13-1 | STAKED SILT FENCE, TYPE III | 398.11 | LF | $0.96 | $382.19 |
| 104-15 | SOIL TRACKING PREVENTION DEVICE | 1.00 | EA | $2,214.05 | $2,214.05 |
| 104-16 | ROCK BAG | 40.00 | EA | $4.70 | $188.00 |
| | **Shoulder Component Total** | | | | $15,521.49 |

## MEDIAN COMPONENT

### User Input Data

| Description | Value |
|---|---|
| Total Median Width | 20.00 |
| Performance Turf Width | 15.50 |

### Pay Items

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 520-1-7 | CONCRETE CURB & GUTTER, TYPE E | 398.11 | LF | $11.37 | $4,526.51 |
| 570-1-1 | PERFORMANCE TURF | 342.82 | SY | $0.74 | $253.69 |
| | **Median Component Total** | | | | $4,780.20 |

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## DRAINAGE COMPONENT

### Pay Items

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 400-2-2 | CONC CLASS II, ENDWALLS | 0.68 | CY | $696.69 | $473.75 |
| 425-1-351 | INLETS, CURB, TYPE P-5, <10' | 2.00 | EA | $3,429.13 | $6,858.26 |
| 425-1-451 | INLETS, CURB, TYPE J-5, <10' | 1.00 | EA | $5,144.00 | $5,144.00 |
| 425-1-521 | INLETS, DT BOT, TYPE C, <10' | 1.00 | EA | $1,857.93 | $1,857.93 |
| 425-2-41 | MANHOLES, P-7, <10' | 1.00 | EA | $2,349.09 | $2,349.09 |
| 430-171-101 | PIPE CULV OPT MATL, ROUND, 0-24", SS | 104.00 | LF | $57.72 | $6,002.88 |
| 430-171-103 | PIPE CULV OPT MATL, ROUND, 37-48", SS | 192.00 | LF | $137.23 | $26,348.16 |
| 430-172-102 | PIPE CULV OPT MATL, ROUND, 25-36", CD | 8.00 | LF | $92.39 | $739.12 |
| 570-1-1 | PERFORMANCE TURF | 11.46 | SY | $0.74 | $8.48 |
| | **Drainage Component Total** | | | | $49,781.67 |

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## SIGNING COMPONENT

### Pay Items

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|

| | | | | |
|---|---|---|---|---|
| 700-20-11 | SINGLE POST SIGN, F&I, LESS THAN 12 SF | 1.00 AS | $242.87 | $242.87 |
| 700-20-12 | SINGLE POST SIGN, F&I, 12-20 SF | 1.00 AS | $671.36 | $671.36 |
| 700-21-11 | MULTI- POST SIGN, F&I, 50 OR < | 1.00 AS | $2,868.40 | $2,868.40 |
| 700-21-12 | MULTI- POST SIGN, F&I, 51-100 | 1.00 AS | $3,908.03 | $3,908.03 |
| | **Signing Component Total** | | | $7,690.66 |

**Sequence 11 Total** $147,463.56

**Sequence:** 12 NUR - New Construction, Undivided, Rural **Net Length:** 0.084 MI 445 LF

**Description:** Grand Ave South of Gandy Two-way, Two-lane Undivided Rural with 5-ft Sidewalk on South Side; 8-ft Shldrs Outside (5-ft paved)

## EARTHWORK COMPONENT

### User Input Data

| Description | Value |
|---|---|
| Standard Clearing and Grubbing Limits L/R | 0.00 / 0.00 |
| Incidental Clearing and Grubbing Area | 0.00 |
| | |
| Alignment Number | 1 |
| Distance | 0.084 |
| Top of Structural Course For Begin Section | 103.00 |
| Top of Structural Course For End Section | 103.00 |
| Horizontal Elevation For Begin Section | 100.00 |
| Horizontal Elevation For End Section | 100.00 |
| Front Slope L/R | 6 to 1 / 6 to 1 |
| Outside Shoulder Cross Slope L/R | 6.00 % / 6.00 % |
| Roadway Cross Slope L/R | 2.00 % / 2.00 % |

### Pay Items

| Pay item | Description | Quantity Unit | Unit Price | Extended Amount |
|---|---|---|---|---|
| 120-6 | EMBANKMENT | 2,189.35 CY | $13.65 | $29,884.63 |
| | **Earthwork Component Total** | | | $29,884.63 |

## ROADWAY COMPONENT

### User Input Data

| Description | Value |
|---|---|
| Number of Lanes | 2 |
| Roadway Pavement Width L/R | 12.00 / 12.00 |
| Structural Spread Rate | 275 |
| Friction Course Spread Rate | 165 |

### Pay Items

| Pay item | Description | Quantity Unit | Unit Price | Extended Amount |
|---|---|---|---|---|
| 160-4 | TYPE B STABILIZATION | 2,868.45 SY | $3.16 | $9,064.30 |

| | | | | | |
|---|---|---|---|---|---|
| 285-709 | OPTIONAL BASE,BASE GROUP 09 | 1,219.58 | SY | $12.23 | $14,915.46 |
| 334-1-13 | SUPERPAVE ASPHALTIC CONC, TRAFFIC C | 163.20 | TN | $81.82 | $13,353.02 |
| 337-7-33 | ASPH CONC FC,TRAFFIC C,FC-12.5,RUBBER | 97.92 | TN | $95.62 | $9,363.11 |

**X-Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 710-11-211 | PAINTED PAVT MARK,STD, YELLOW,SOLID,6" | 0.34 | NM | $868.92 | $295.43 |

**Turnouts/Crossovers Subcomponent**

| Description | Value |
|---|---|
| Asphalt Adjustment | 10.00 |
| Stabilization Code | Y |
| Base Code | Y |
| Friction Course Code | Y |

**Pay Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 160-4 | TYPE B STABILIZATION | 286.85 | SY | $3.16 | $906.45 |
| 285-709 | OPTIONAL BASE,BASE GROUP 09 | 121.96 | SY | $12.23 | $1,491.57 |
| 334-1-13 | SUPERPAVE ASPHALTIC CONC, TRAFFIC C | 16.32 | TN | $81.82 | $1,335.30 |
| 337-7-33 | ASPH CONC FC,TRAFFIC C,FC-12.5,RUBBER | 9.79 | TN | $95.62 | $936.12 |

**Pavement Marking Subcomponent**

| Description | Value |
|---|---|
| Solid Stripe No. of Stripes | 2 |
| Solid Stripe No. of Applications | 2 |
| Skip Stripe No. of Stripes | 1 |
| Skip Stripe No. of Applications | 2 |
| Top Layer Thermoplastic | N |

**Pay Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|

| | | | | | |
|---|---|---|---|---|---|
| 706-3 | RETRO-REFLECTIVE PAVEMENT MARKERS | 11.00 | EA | $3.72 | $40.92 |
| 710-11-111 | PAINTED PAVT MARK,STD, WHITE,SOLID,6" | 0.34 | NM | $865.32 | $294.21 |
| | **Roadway Component Total** | | | | $51,995.89 |

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## SHOULDER COMPONENT

### User Input Data

| Description | Value |
|---|---|
| Total Outside Shoulder Width L/R | 17.00 / 17.00 |
| Total Outside Shoulder Perf. Turf Width L/R | 12.00 / 7.00 |
| Paved Outside Shoulder Width L/R | 5.00 / 5.00 |
| Structural Spread Rate | 110 |
| Friction Course Spread Rate | 165 |
| Total Width (T) / 8" Overlap (O) | T |
| Rumble Strips No. of Sides | 0 |

### Pay Items

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 285-704 | OPTIONAL BASE,BASE GROUP 04 | 527.20 | SY | $9.97 | $5,256.18 |
| 334-1-13 | SUPERPAVE ASPHALTIC CONC, TRAFFIC C | 27.20 | TN | $81.82 | $2,225.50 |
| 337-7-33 | ASPH CONC FC,TRAFFIC C,FC-12.5,RUBBER | 40.80 | TN | $95.62 | $3,901.30 |
| 570-1-1 | PERFORMANCE TURF | 939.66 | SY | $0.74 | $695.35 |

### X-Items

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 522-1 | SIDEWALK CONC, 4" THICK | 247.22 | SY | $28.06 | $6,936.99 |

### Erosion Control

### Pay Items

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 104-4 | MOWING | 0.10 | AC | $163.13 | $16.31 |
| 104-10-2 | SYNTHETIC BALES | 267.06 | LF | $6.49 | $1,733.22 |
| 104-11 | FLOATING TURBIDITY BARRIER | 21.08 | LF | $8.30 | $174.96 |

| | | | | |
|---|---|---|---|---|
| 104-12 | STAKED TURBIDITY BARRIER-NYL REINF PVC | 21.08 LF | $4.53 | $95.49 |
| 104-13-1 | STAKED SILT FENCE, TYPE III | 890.21 LF | $0.96 | $854.60 |
| 104-15 | SOIL TRACKING PREVENTION DEVICE | 1.00 EA | $2,214.05 | $2,214.05 |
| | **Shoulder Component Total** | | | $24,103.95 |

## DRAINAGE COMPONENT

**Pay Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 400-2-2 | CONC CLASS II, ENDWALLS | 1.52 | CY | $696.69 | $1,058.97 |
| 430-172-102 | PIPE CULV OPT MATL, ROUND, 25-36", CD | 16.00 | LF | $92.39 | $1,478.24 |
| 430-174-101 | PIPE CULV, OPT MATL, ROUND,0-24"SD | 72.00 | LF | $43.45 | $3,128.40 |
| 430-984-129 | MITERED END SECT, OPTIONAL RD, 24" SD | 4.00 | EA | $1,238.73 | $4,954.92 |
| 570-1-1 | PERFORMANCE TURF | 59.35 | SY | $0.74 | $43.92 |
| | **Drainage Component Total** | | | | $10,664.45 |

## SIGNING COMPONENT

**Pay Items**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 700-20-11 | SINGLE POST SIGN, F&I, LESS THAN 12 SF | 1.00 | AS | $242.87 | $242.87 |
| 700-20-12 | SINGLE POST SIGN, F&I, 12-20 SF | 2.00 | AS | $671.36 | $1,342.72 |
| 700-21-11 | MULTI- POST SIGN, F&I, 50 OR < | 1.00 | AS | $2,868.40 | $2,868.40 |
| | **Signing Component Total** | | | | $4,453.99 |

**Sequence 12 Total** $121,102.91

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# FDOT Long Range Estimating System - Production

## R3: Project Details by Sequence Report

**Project:** 256931-1-20-10 **Letting Date:** 01/2099

**Description:** WPI 256931-1 2010 Revision Gandy Boulevard (SR 694) at Grand Avenue

**District:** 07 **County:** 15 PINELLAS **Market Area:** 08 **Units:** English

**Contract Class:** **Lump Sum Project:** N **Design/Build:** N **Project Length:** 0.758 MI

**Project Manager:**

**Version 3 Project Grand Total** **$25,996,891.47**

**Description:** WPI 256931-1 2010 Revision Gandy Boulevard (SR 694) at Grand Avenue This version applies to the 2010 revised concept (skewed intersection at Grand Ave).

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| | | | |
|---|---|---|---|
| **Project Sequences Subtotal** | | | **$21,361,067.33** |
| 102-1 | Maintenance of Traffic | 10.00 % | $2,136,106.73 |
| 101-1 | Mobilization | 10.00 % | $2,349,717.41 |
| **Project Sequences Total** | | | **$25,846,891.47** |
| Project Unknowns | | 0.00 % | $0.00 |
| Design/Build | | 0.00 % | $0.00 |

**Non-Bid Components:**

| Pay item | Description | Quantity | Unit | Unit Price | Extended Amount |
|---|---|---|---|---|---|
| 999-25 | INITIAL CONTINGENCY AMOUNT (DO NOT BID) | | LS | $150,000.00 | $150,000.00 |
| **Project Non-Bid Subtotal** | | | | | **$150,000.00** |
| **Version 3 Project Grand Total** | | | | | **$25,996,891.47** |

**2010 Revised Concept**

**Summary of Sequences**

| Sequence | Description | Sequence Length (FT) | Sequence Length (MI) | Sequence Type | Number of Lanes | Lane Width (FT) | Bike Lane (FT) | Curb and Gutter | Sidewalk (SY) | Inside Paved Shoulder (FT) | Outside Paved Shoulder (FT) | Outside Unpaved Shoulder (FT) | Inside Shoulder Barrier (LF) | Outside Shoulder Barrier (LF) | Total Shoulder Barrier (LF) | Retaining Wall (SF) | Embankment (CY) | Retention Basin (AC) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Mainline<br>One-way; Two-lane; At grade;<br>12-ft Paved Inside & Outside Shoulders; Barrier Walls | 1,134 | 0.215 | NDR | 2 | 12 | | | | 12 | 12 | | 1,134 | 1,134 | 2,268 | | | 0.43 |
| 2 | Mainline<br>One-way; Two-lane; MSE;<br>12-ft Paved Inside & Outside Shoulders; Barrier Walls | 1,241 | 0.235 | NDR | 2 | 12 | | | | 12 | 12 | | 1,241 | 1,241 | 2,482 | 30,988.91 | 27,545.69 | 0.47 |
| 3 | Mainline<br>One-way; Three-lane; At grade;<br>12-ft Paved Inside & Outside Shoulders; Barrier Walls | 1,505 | 0.285 | NDR | 3 | 12 | | | | 12 | 12 | | 1,505 | 1,505 | 3,010 | | | 0.86 |
| 4 | Mainline<br>One-way; Three-lane; MSE;<br>12-ft Paved Inside & Outside Shoulders; Barrier Walls | 3,893 | 0.737 | NDR | 3 | 12 | | | | 12 | 12 | | 3,893 | 3,893 | 7,786 | 99,960.52 | 111,067.24 | 2.21 |
| 5 | Mainline<br>Two-way; Divided; Six-lane; Structure;<br>12-ft Paved Inside & Outside Shoulders | 128 | 0.024 | NDR | 6 | 12 | | | | 12 | 12 | | Barrier Walls are Included in Structure Cost | | | 4,158.00 | | 0.15 |
| 6 | Ramp<br>One-way; One-lane; At grade;<br>6-ft Paved Inside & Outside Shoulders; Barrier Walls | 2,786 | 0.528 | NUR | 1 | 15 | | | | 6 | 6 | | 2,786 | 2,786 | 5,572 | | | 0.53 |
| 7 | Ramp<br>One-way; One-lane; MSE;<br>6-ft Paved Inside & Outside Shoulders; Barrier Walls | 766 | 0.145 | NUR | 1 | 15 | | | | 6 | 6 | | 766 | 766 | 1,532 | 12,453.36 | 6,226.68 | 0.15 |
| 8 | C-D Road West of Grand Ave<br>One-way; Two-lane; 8-ft Paved Inside Shldrs;<br>Bike Lanes, Curb & Gutter, Sidewalk on One Side; Barrier Walls | 4,821 | 0.913 | NDS | 2 | 12 | 4 | Outside, Type F | 2,678.33 | 8 | | | 4,821 | | 4,821 | | | 1.83 |
| 9 | C-D Road East of Grand Ave<br>One-way; Two-lane;<br>10-ft Paved Inside & Outside Shldrs; Barrier Walls | 3,456 | 0.655 | NDR | 2 | 12 | | | | 10 | 10 | | 3,456 | | 3,456 | | | 1.31 |
| 10 | Grand Ave North of Gandy<br>Two-way, Four-lane Divided Suburban with 5-ft Sidewalks on Outside;<br>20-ft Grass Median; Curb & Gutter on Inside; 8-ft Shldr Outside (5-ft paved) | 107 | 0.020 | NDS | 4 | 12 | | Inside, Type E | 118.89 | | 5 | 3 | | | | | | 0.08 |
| 11 | Grand Ave Under Gandy<br>Two-way, Two-lane Divided Urban with 5-ft Sidewalks on Outside;<br>20-ft Grass Median; Curb & Gutter on Inside and Outside; 6-ft Paved Shldr Outside | 199 | 0.038 | NDU | 2 | 15 | 4 | Inside, Type E<br>Outside, Type F | 221.11 | | | | | | | | | 0.08 |
| 12 | Grand Ave South of Gandy<br>Two-way, Two-lane Undivided Rural with 5-ft Sidewalk on South Side;<br>8-ft Shldr Outside (5-ft paved) | 445 | 0.084 | NUR | 2 | 12 | | | 247.22 | | 5 | 3 | | | | | | 0.17 |

**Miscellaneous Items**

| Sequence | Item | Quantity |
|---|---|---|
| 1 | **Clearing and Grubbing for All Sequences** | 30.65 Acres |
| 1 | **Retention Basins for All Sequences** | 9 Acres |
| 1 | **Signalizations** | **3** |
| A | Eastbound C-D Road at Grand Ave<br>Minor-Minor Intersection with two 5-section heads, four 3-section heads, two single mast arms, four ped poles, and six ped heads | 1 |
| B | Eastbound Ramp at Grand Ave<br>Minor-Minor Intersection with one 5-section head, one 3-section head, one single mast arm, two ped poles, and two ped heads | 1 |
| C | Westbound C-D Road at Grand Ave<br>Minor-Minor Intersection with two 5-section heads, four 3-section heads, two single mast arms, four ped poles, and six ped heads | 1 |
| 1 | **Lighting for All Sequences** | 103 Poles |

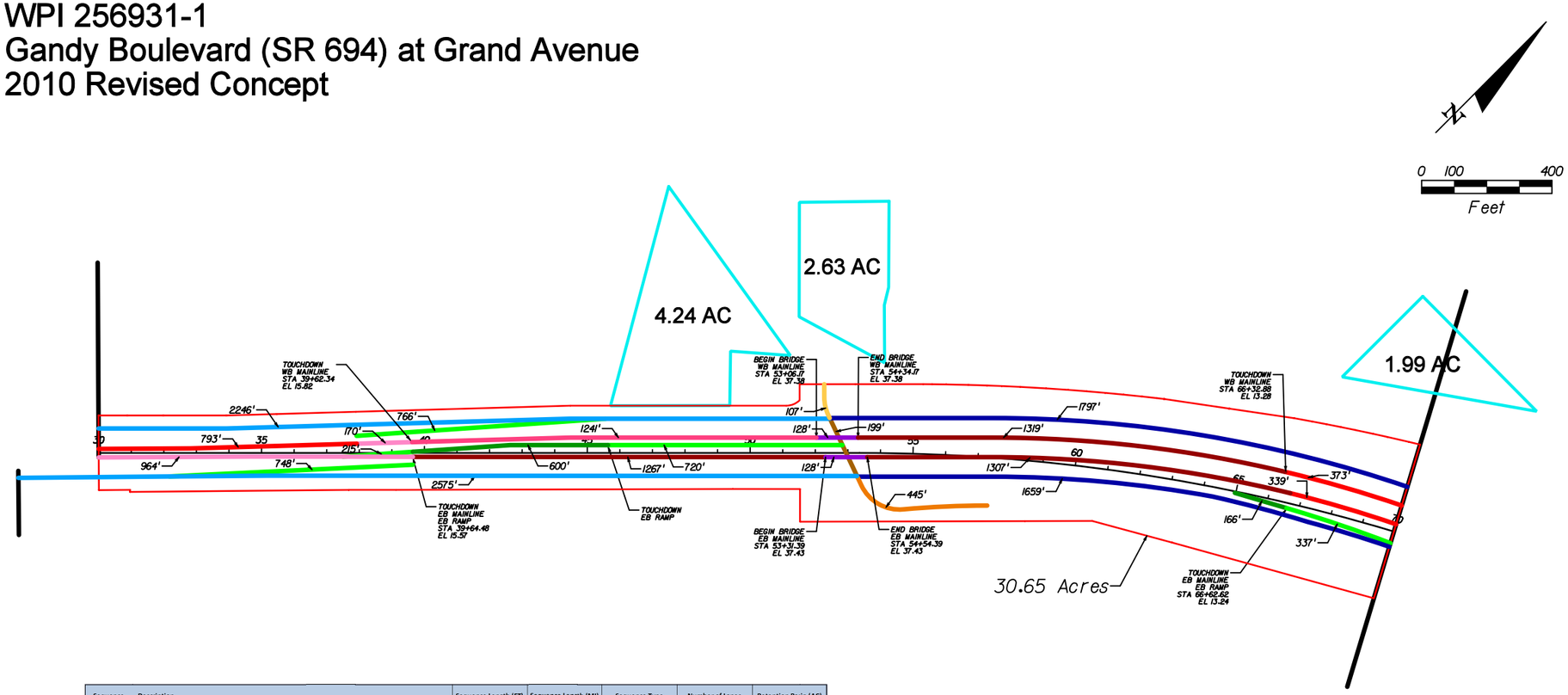
**2010 Revised Concept**
**Retaining Wall Quantities**

| Sequence | Description | Sequence Length (FT) | Beginning Elevation (FT) | Ending Elevation (FT) | Change in Elevation (FT) | Grade | Width of Section (FT) | Height of Wall (FT) | Retaining Wall (SF) |
|---|---|---|---|---|---|---|---|---|---|
| **2** | **Mainline<br>One-way; Two-lane; MSE;<br>12-ft Paved Inside & Outside Shoulders; Barrier Walls** | | | | | | | | **30,988.91** |
| A | Westbound, West of Grand Ave | 1241 | 15.82 | 37.38 | 21.56 | 3.0% | | | 30,988.91 |
| | | | | | | | | | |
| **4** | **Mainline<br>One-way; Three-lane; MSE;<br>12-ft Paved Inside & Outside Shoulders; Barrier Walls** | | | | | | | | **99,960.52** |
| A | Eastbound, West of Grand Ave | 1267 | 15.57 | 37.43 | 21.86 | 3.0% | | | 31,857.31 |
| B | Eastbound, East of Grand Ave | 1307 | 37.43 | 13.24 | 24.19 | 3.0% | | | 39,010.41 |
| C | Westbound, East of Grand Ave | 1319 | 34.17 | 13.28 | 20.89 | 3.0% | | | 29,092.81 |
| | | | | | | | | | |
| **5** | **Mainline<br>One-way; Three-lane; Structure;<br>12-ft Paved Inside & Outside Shoulders; Barrier Walls** | | | | | | | | **4,158.00** |
| A | Eastbound, Over Grand Ave, Wall at Abutment | 128 | | | | | 63.00 | 16.50 | 2,079.00 |
| B | Westbound, Over Grand Ave, Wall at Abutment | 128 | | | | | 63.00 | 16.50 | 2,079.00 |
| | | | | | | | | | |
| **7** | **Ramp<br>One-way; One-lane; MSE;<br>6-ft Paved Inside & Outside Shoulders; Barrier Walls** | | | | | | | | **12,453.36** |
| A1 | Eastbound Mainline to Grand Ave, West of Grand Ave, Grade Up | 300 | 15.57 | 24.57 | 9.00 | 3.0% | | | 5,400.00 |
| A2 | Eastbound Mainline to Grand Ave, West of Grand Ave, Grade Down | 300 | 24.57 | 15.57 | 9.00 | 3.0% | | | 5,400.00 |
| B | Eastbound Mainline to Eastbound C-D Road, East of Grand Ave | 166 | 18.22 | 13.24 | 4.98 | 3.0% | | | 1,653.36 |

## 2010 Revised Concept
## Embankment Quantities

| Sequence | Description | Retaining Wall Area (SF) | Width of Section (FT) | Embankment (CF) | Embankment (CY) |
|---|---|---|---|---|---|
| **2** | **Mainline<br>One-way; Two-lane; MSE;<br>12-ft Paved Inside & Outside Shoulders; Barrier Walls** | | | **743,733.76** | **27,545.69** |
| A | Westbound, West of Grand Ave | 15,494.45 | 48.00 | 743,733.76 | 27,545.69 |
| | | | | | |
| **4** | **Mainline<br>One-way; Three-lane; MSE;<br>12-ft Paved Inside & Outside Shoulders; Barrier Walls** | | | **2,998,815.60** | **111,067.24** |
| A | Eastbound, West of Grand Ave | 15,928.65 | 60.00 | 955,719.20 | 35,397.01 |
| B | Eastbound, East of Grand Ave | 19,505.20 | 60.00 | 1,170,312.20 | 43,344.90 |
| C | Westbound, East of Grand Ave | 14,546.40 | 60.00 | 872,784.20 | 32,325.34 |
| | | | | | |
| **7** | **Ramp<br>One-way; One-lane; MSE;<br>6-ft Paved Inside & Outside Shoulders; Barrier Walls** | | | **168,120.36** | **6,226.68** |
| A1 | Eastbound Mainline to Grand Ave, West of Grand Ave, Grade Up | 2,700.00 | 27.00 | 72,900.00 | 2,700.00 |
| A2 | Eastbound Mainline to Grand Ave, West of Grand Ave, Grade Down | 2,700.00 | 27.00 | 72,900.00 | 2,700.00 |
| B | Eastbound Mainline to Eastbound C-D Road, East of Grand Ave | 826.68 | 27.00 | 22,320.36 | 826.68 |

# WPI 256931-1
# Gandy Boulevard (SR 694) at Grand Avenue
# 2010 Revised Concept




| Sequence | Description | Sequence Length (FT) | Sequence Length (MI) | Sequence Type | Number of Lanes | Retention Basin (AC) |
|---|---|---|---|---|---|---|
| 1 | Mainline<br>One-way; Two-lane; At grade;<br>12-ft Paved Inside & Outside Shoulders; Barrier Walls | 1,134 | 0.215 | NDR | 2 | 0.43 |
| 2 | Mainline<br>One-way; Two-lane; MSE;<br>12-ft Paved Inside & Outside Shoulders; Barrier Walls | 1,241 | 0.235 | NDR | 2 | 0.47 |
| 3 | Mainline<br>One-way; Three-lane; At grade;<br>12-ft Paved Inside & Outside Shoulders; Barrier Walls | 1,505 | 0.285 | NDR | 3 | 0.86 |
| 4 | Mainline<br>One-way; Three-lane; MSE;<br>12-ft Paved Inside & Outside Shoulders; Barrier Walls | 3,893 | 0.737 | NDR | 3 | 2.21 |
| 5 | Mainline<br>Two-way; Six-lane; Structure;<br>12-ft Paved Inside & Outside Shoulders; Barrier Walls | 128 | 0.024 | NDR | 6 | 0.15 |
| 6 | Ramp<br>One-way; One-lane; At grade;<br>6-ft Paved Inside & Outside Shoulders; Barrier Walls | 2,786 | 0.528 | NUR | 1 | 0.53 |
| 7 | Ramp<br>One-way; One-lane; MSE;<br>6-ft Paved Inside & Outside Shoulders; Barrier Walls | 766 | 0.145 | NUR | 1 | 0.15 |
| 8 | C-D Road West of Grand Ave<br>One-way; Two-lane; 8-ft Paved Inside Shldrs;<br>Bike Lanes, Curb & Gutter, Sidewalks on Outside; Barrier Walls | 4,574 | 0.866 | NDS | 2 | 1.73 |
| 9 | C-D Road East of Grand Ave<br>One-way; Two-lane;<br>10-ft Paved Inside & Outside Shldrs; Barrier Walls | 3,456 | 0.655 | NDR | 2 | 1.31 |
| 10 | Grand Ave North of Gandy<br>Two-way, Four-lane Divided Suburban with 5-ft Sidewalks on Outside;<br>20-ft Grass Median; Curb & Gutter on Inside; 6-ft Shldr Outside (4-ft paved) | 107 | 0.020 | NDS | 4 | 0.08 |
| 11 | Grand Ave Under Gandy<br>Two-way, Two-lane Divided Suburban with 5-ft Sidewalks on Outside;<br>20-ft Paved Median; Curb & Gutter on Inside; 6-ft Paved Shldr Outside | 199 | 0.038 | NDS | 2 | 0.08 |
| 12 | Grand Ave South of Gandy<br>Two-way, Two-lane Undivided Rural with 5-ft Sidewalk on South Side;<br>6-ft Shldrs Outside (4-ft paved) | 445 | 0.084 | NUR | 2 | 0.17 |
| | | | | | Retention Basins for All Sequences | 9 Acres |

Clearing and Grubbing = 30.65 AC

Retention Area from Original Study* = 8.86 AC

*For 2010 LRE, 9 AC will be used. This area is based on the standard cost estimating assumption of one 6-ft-deep 1-acre pond per lane per mile of roadway, and rounded up to the nearest acre.

USER: 15309 4/12/2010 12:37:17 PM T:\2569312520I\roadway\Working\PDE\Grand Ave\Quantities.dgn

*Florida Department of Transportation*

CHARLIE CRIST
GOVERNOR

605 Suwannee Street
Tallahassee, FL 32399-0450

STEPHANIE C. KOPELOUSOS
SECRETARY

# TEMPORARY DESIGN BULLETIN C09-01

DATE: January 21, 2009

TO: District Directors of Production, District Design Engineers, District Structures Design Engineers, District Construction Engineers, District Materials Engineers

FROM: Robert Robertson, P.E., State Structures Design Engineer

COPIES: Lora Hollingsworth, Brian Blanchard, Ghulam Mujtaba, Tom Malerk, Jeffrey Ger (FHWA)

SUBJECT: Implementation Plan for the Adoption of Florida I-Beams as New Standard Prestressed Concrete Beams

## REQUIREMENTS

The new Florida I-Beams (FIB's) are standard prestressed concrete beams and will be used in all new bridge and bridge widening designs where applicable.

AASHTO and Florida Bulb-T Beams will not be used in new designs. This TDB does not affect Florida U and Florida Inverted-T Beams.

## COMMENTARY

The following attachments may be used to assist in preliminary design and cost estimating:

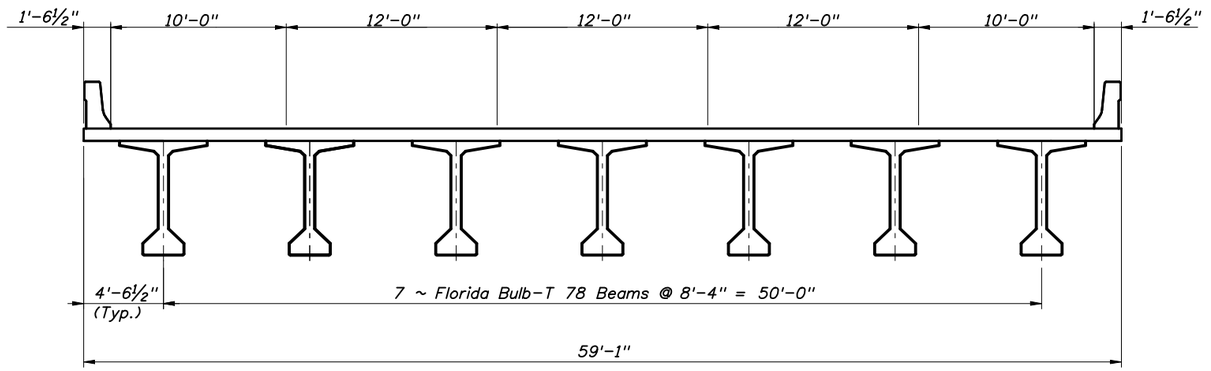
Attachment 'A'- FIB Section Dimensions
Attachment 'B'- FIB Section Properties
Attachment 'C'- FIB Estimated Maximum Span versus Spacing Charts.
Attachment 'D'- Preliminary Bridge Cost Comparisons
Attachment 'E'- FIB Table of Approximate Beam Cost per Linear Foot

# COST COMPARISON B; 3 ~ 155 FT. SPANS BRIDGE

## OPTION B-1, CURRENT FDOT STANDARD BEAMS

FBT-78:

(155 ft.) x (3 spans) x (7 beams) = 3255 LF
3255 LF @ $255/LF = $830,000

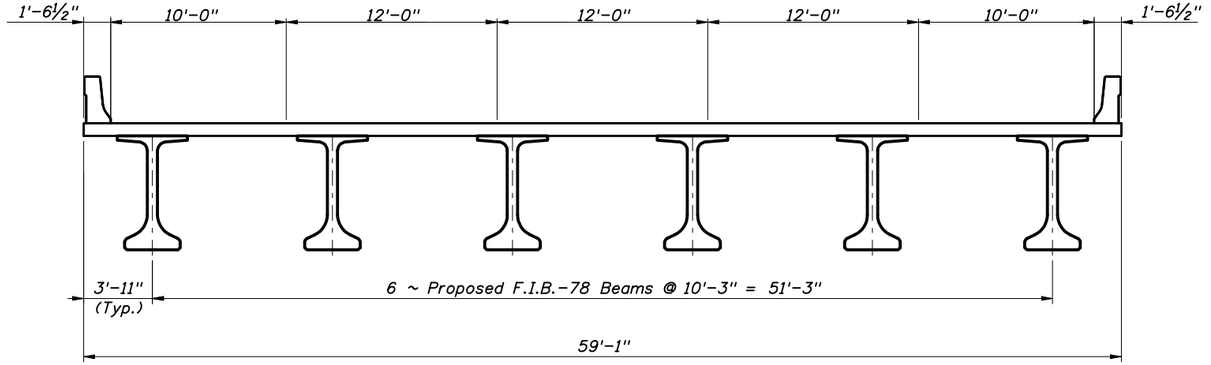



OPTION B-1, CURRENT FDOT STANDARD BEAMS
"Bulb-T 78" w/52 ~ 0.6 Low Lax Strands
2008 FDOT Standards Index No. 20178 Reinforcing Steel
8.5 ksi Concrete; 6 ksi @ Release

## OPTION B-2, FLORIDA I-BEAMS

FIB-78:

(155 ft.) x (3 spans) x (6 beams) = 2790 LF
2790 LF @ $275/LF = $767,300




OPTION B-2, PROPOSED BEAMS
"Florida I-Beam 78" w/60 ~ 0.6 Low Lax Strands
2008 FDOT Standards Index No. 20178 Reinforcing Steel
8.5 ksi Concrete; 6 ksi @ Release

## ESTIMATED SAVINGS:

$830,000 - $767,300 = $62,700
$62,700/$830,000 = 7.5 %

Note:
Costs per linear foot were determined using price estimates from manufactures and contractors. The values above include only bridge items affected by differing beam types. These items include beam fabrication, beam placement, placed bearing pads, placed diaphragms, placed stay-in-place forms, and placed deck rebar seats.

| REVISIONS | | | | | |
|---|---|---|---|---|---|
| DATE | BY | DESCRIPTION | DATE | BY | DESCRIPTION |
| | | | | | |


STRUCTURES DESIGN OFFICE
CENTRAL OFFICE
605 Suwannee Street, MS 33
Tallahassee, Florida 32399-0450


DRAWN BY: RMS 09-08
CHECKED BY: N/A
DESIGNED BY: N/A
CHECKED BY: N/A

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

| ROAD NO. | COUNTY | FINANCIAL PROJECT ID |
|---|---|---|
| N/A | | N/A |

SHEET TITLE: COST COMPARISON SPANS OLD STANDARD VS. FLORIDA I-BEAMS

REF. DWG. NO.:

PROJECT NAME: N/A

SHEET NO.: 2 OF 2

# APPENDIX E

## Right-of-Way Cost Estimates: Alternative 1 (2002 PD&E Study)

# FLORIDA DEPARTMENT OF TRANSPORTATION
## DISTRICT SEVEN RIGHT OF WAY COST ESTIMATE

PBS&J#: P100001099

| | | | | | |
|---|---|---|---|---|---|
| FM#: | N/A | Alternate: | One | District: | Seven |
| County: | Hillsborough | Segment: | Intersection Realignment | Date: | 6-Apr-10 |
| State Rd.: | N/A | FAP#: | N/A | C.E. Sequence | N/A |
| Project Des. | Gandy Av (SR 694) at Grand Av | | | | |

| Parcels | Gross | Net |
|---|---|---|
| Commercial | 1 | 1 |
| Residential | 1 | 1 |
| Unimproved | 2 | 2 |
| Total Parcels | 4 | 4 |

| Estimated Relocatees: | |
|---|---|
| Business | 1 |
| Residential | 0 |
| Signs | 0 |
| Personal Property | 1 |
| Total Relocatees | 2 |

**R/W SUPPORT COSTS (PHASE 41)**

| | | | | | | | Amount | |
|---|---|---|---|---|---|---|---|---|
| 1. Direct Labor Cost | (Parcels | 4 | x | 13,000 | = | Rate) | 52,000 | |
| 2. Indirect Overhead | (Parcels | 4 | x | 0 | = | Rate) | 0 | |
| 3. | | | | | | | TOTAL PHASE 41 | $52,000 |

**R/W OPS (PHASE 4B)**

| | | | | | | | | | Amount | |
|---|---|---|---|---|---|---|---|---|---|---|
| 4. Appraisal Fees Through Trial | | | | | 4 | Parcels | x | 75,000 = | 300,000 | |
| 5. Business Damage CPA Fees Through Trial | | | | | 1 | Claims | x | 21,000 = | 21,000 | |
| 6. Court Reporter & Process Servers | 75% | x | 4 | = | 3 | Parcels | x | 500 = | 1,500 | |
| 7. Expert Witness | 75% | x | 4 | = | 3 | Parcels | x | 50,000 = | 150,000 | |
| 8. Mediators | 50% | x | 4 | = | 2 | Parcels | x | 2,400 = | 4,800 | |
| 9. Demolition, Asb. Abate., Survey, etc. | | | | | 0 | Imprvmet | x | 15,000 = | 0 | |
| 10. Miscellaneous Contracts | | | | | 1 | Per Project | x | 75,000 = | 75,000 | |
| 11. Appraisal Fee Review | | | | | 4 | Parcels | x | 5,000 = | 20,000 | |
| 12. | | | | | | | | TOTAL PHASE 4B | | $572,300 |

**R/W LAND COSTS (PHASE 43)**

| | | | | | | | Amount | Subtotal | |
|---|---|---|---|---|---|---|---|---|---|
| 13. Land, Improvements & Severance Damages and Cost to Cure Amount | 4,363,012 | x | 130% | * Design plan stage | = | 5,671,900 | | |
| 14. Water Retention & Mit. | 0 | x | 130% | (0 Parcels w/o R/W Acq) | = | 0 | | |
| 15. SUBTOTAL | | | | (Lines 13 &14) | | | 5,671,900 | |
| 16. Admin. Settlements (Factor | 45% | x | 30% | of Line 15) | = | 765,700 | | |
| 17. Litigation Awards (Factor | 60% | x | 70% | of Line 15) | = | 2,382,200 | | |
| 18. Business Damages (Claims | 1 | x | $0 | ) | = | 50,000 | | |
| 19. Bus. Damages Incrs (Factor | 25% | x | $ 50,000 | ) | = | 12,500 | | |
| 20. Owner Appr. Fees (Parcels | 4 | x | $20,000 | ) | = | 80,000 | | |
| 21. Owner CPA Fees (Claims | 1 | x | $15,000 | ) | = | 15,000 | | |
| 22. Defend.Atty Fees (Sum of Lines 16, 17 & 19) | 3,160,400 | x | 40% | ) | = | 1,264,200 | | |
| 23. Owner Expert Witne (Comm.+Unimp.) | 1 | + | 2 | ) x 50,000 | = | 150,000 | | |
| 24. Other Condemn. Costs | 4 | x | $500 | | = | 2,000 | | |
| 25. SUBTOTAL | | | | (Lines 16 thru 24) | = | | 4,721,600 | |
| 26. | | | | | | TOTAL PHASE 43 | | $10,393,500 |

* *Design contingency for design plan stage:*
*(1) PD&E plans - 130% (2) 30% plans - 125% (3) 60% plans - 120% (4) 90% plans -115% (5) 268 Date -110%*

**R/W ACQUISITION CONSULTANT (PHASE 42)**

| | | | | | |
|---|---|---|---|---|---|
| 27. Acquisition Consultant- 100% of parcels | $20,000 | x | 100% | 4 Parcels | TOTAL PHASE 42 $80,000 |

**RELOCATION COSTS (PHASE 45)**

| | | | | | | |
|---|---|---|---|---|---|---|
| | Replacement Housing | | | Number | | Amount |
| 28. Owner | $30,000 | x | 0 | = | 0 | |
| 29. Tenant | $20,000 | x | 0 | = | 0 | |
| | Move Costs | | | | | |
| 30. Residential | $2,000 | x | 0 | = | 0 | |
| 31. Business/Farm | $20,000 | x | 1 | = | 20,000 | |
| 32. Personal Property | $2,000 | x | 1 | = | 2,000 | = min. 2,000 |
| 33. (Lines 28 thru 32) | | | | | | TOTAL PHASE 45 $22,000 |
| 34. Relocation Services Cost | | | $2,200 | (Not in Phase Total) | | |

| | | |
|---|---|---|
| 35. Advanced Acquisition Expenditures to Date - Land, Imps., & Damages only | | $0 |
| 36. | | |
| 37. | (All Phases) TOTAL ESTIMATE | $11,119,800 |

| | | | | | |
|---|---|---|---|---|---|
| Real Estate: | Wes Kulpa | Signed: | | Date: | 04/06/10 |
| Bus. Dam. : | Wes Kulpa | Signed: | | Date: | 04/06/10 |
| Relocation: | Wes Kulpa | Signed: | | Date: | 04/06/10 |
| Overall Review: | Wes Kulpa | Signed: | | Date: | 04/06/10 |

Cost Estimate Sequence #: Dated: In the Amount of $ Data Input Completion Date:

**REMARKS:**

Roberts Mobile Home Park will require a temporary construction easement (TCE) to tie in the proposed construction of the realigned intersection with the existing on site traffic flow that currently has access to Gandy Boulevard South Frontage Road. It is an assumption of this cost estimate that any distrubed water retention areas will not be accepted into the proposed road realignment improvements. It is an assumption of this cost estimate that the existing Grand Avenue road improvements will not have access to Gandy Boulevard and will not be functional in the remainder situation and is damaged out at a depreciated value with a cost to demolish to prepare the site for potential industrial development. The Harberson RV Sales has moved and the vehicle storage parcel impacted by the realigned frontage road is considered a stand alone commercial property with a highest and best use for vehicular sales.

The following indicates the estimator's confidence in the above estimate:

| | |
|---|---|
| | Type A - indicates the most confidence |
| | Type B - indicates above average confidence |
| X | Type C - indicates below average confidence |
| | Type D - indicates the least or no confidence |

| Future Value Factors @ | 10% |
|---|---|
| Year One | 1.1000 |
| Year Two | 1.2100 |
| Year Three | 1.3310 |
| Year Four | 1.4641 |
| Year Five | 1.6105 |

The following indicates the Department's purpose for this estimate:
Work Program Update: _____ Gaming 1: _____ Special Purpose: _____ Docs to RW: _____
Comments: Any on-site stormwater retention storage affected by the proposed acquisition will be accepted into the State stormwater sytem.

Page 2 of 3 FM#: N/A

Alternate: One Former WPI#: N/A

Segment: Intersection Realignme SEC/JOB: N/A

Date: April 6, 2010 FAP#: N/A

# DISTRICT SEVEN RIGHT OF WAY COST ESTIMATE
## COST ESTIMATE DETAIL SHEET

S.R.#: N/A

District: Seven

County: Hillsborough

PBS&J#: P100001099

Project Description: Gandy Av (SR 694) at Grand Av

| Map Page | Par. No. | Owners Name | USE C | USE R | USE V | Zoning Code | Parent Tract Size (Sq.Ft.) | Take Size Sq.Ft. | Price Sq.Ft. | Land Cost | Building | Paving | Landscpg | Fence | Signs/ Other | Damages | Improvement Costs | Total Land Improv & Dam. | Bus. Damages Amount | Bus. Damages No. | DEM | ASB ABT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1 | SW Florida Water Mgmt District | | | 1 | Conser | 16,893,439 | 15,769 | 0.25 | 3,942 | | 8,000 | | 3,900 | | | 11,900 | 15,842 | | | | |
| 1 | 2 | Harberson Real Estate Ven | 1 | | | Indus | 46,070 | 16,292 | 14.00 | 228,088 | | 32,600 | 1,000 | | | 159,000 | 192,600 | 579,688 | 50,000 | 1 | | |
| 1 | 3 | Hardy Huntley-Gateway LLC | | | 1 | Indus | 3,812,371 | 157,513 | 14.00 | 2,205,182 | | | | | 110,000 | 712,300 | 822,300 | 3,739,782 | | | | |
| 1 | 4 | Roberts RV Park, Inc. | | 1 | | MH | 1,346,004 | 4,800 | 2.75 | 13,200 | | 9,600 | 1,000 | 2,900 | 1,000 | | 14,500 | 27,700 | | | | |
| | | TCE 5 Yrs 10% Rental 5% Rate | | | | | | | | | | | | | | | | | | | | |
| Total Page 1 | | | 1 | 1 | 2 | | | 194,374 | | $2,450,412 | | $50,200 | $2,000 | $6,800 | $111,000 | $871,300 | $1,041,300 | $4,363,012 | $50,000 | 1 | | |

# DISTRICT SEVEN RELOCATION WORKSHEET

| | | | | | |
|---|---|---|---|---|---|
| Page | 3 of 3 | FM#: | N/A | S.R.#: | N/A |
| Alternate: | One | Segment: | Intersection Realign | District: | Seven |
| Job Desc. | Gandy Av (SR 694) at Grand Av | | | County: | Hillsborough |
| Date: | April 6, 2010 | FAP#: | N/A | PBS&J#: | P100001099 |

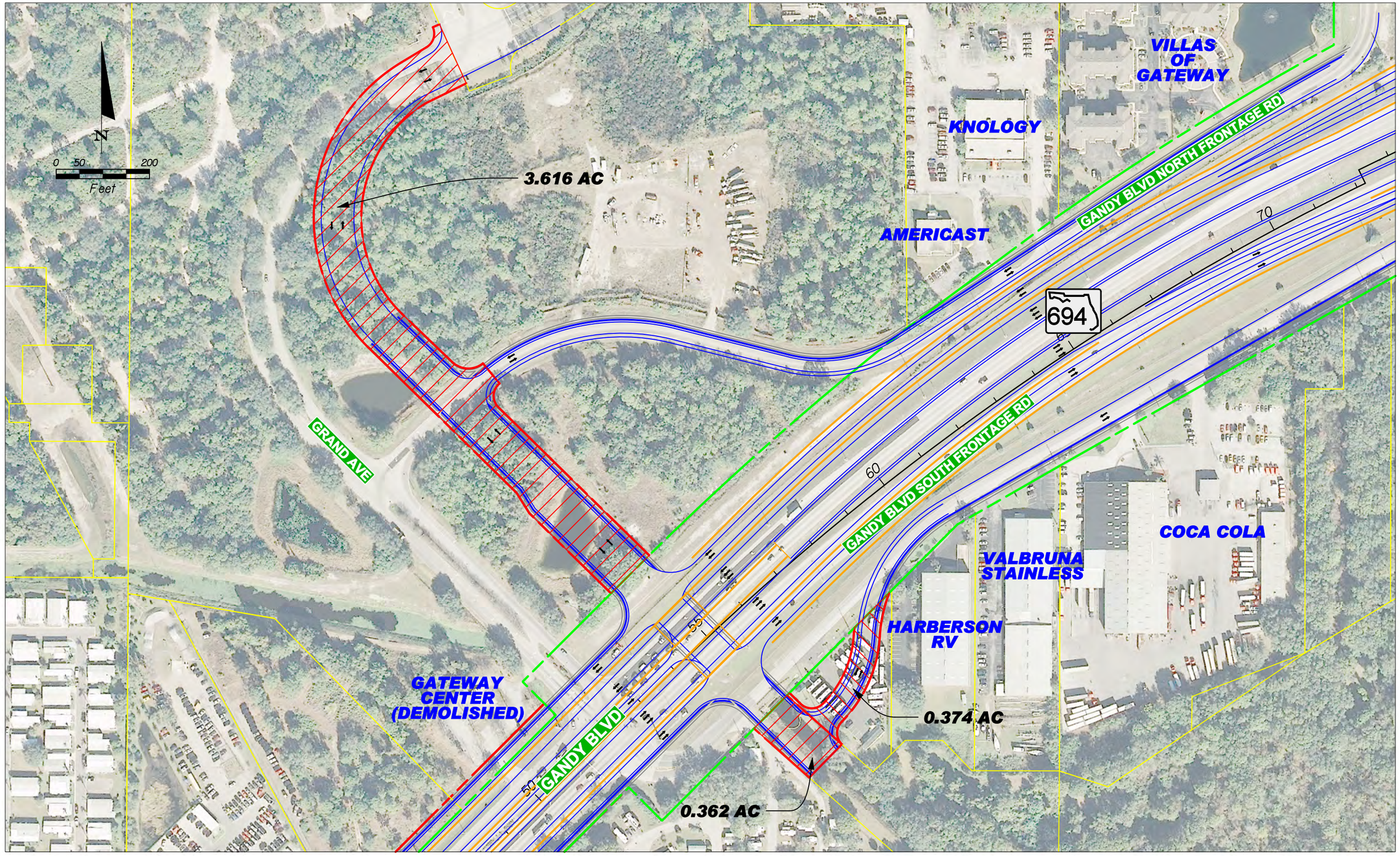
| Map Page | Par. No. | Owners Name | ON-PREMISE LIT SIGNS L | M | S | ON-PREMISE UNLIT SIGNS L | M | S | BUS. RELO. Bus. | PP | RES. RELO. O | T | MOVE COSTS O | T | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1 | SW Florida Water Mgmt Dis | | | | | | | | | | | | | |
| 1 | 2 | Harberson Real Estate Ven | | | | | | | 1 | 1 | | | | | |
| 1 | 3 | Hardy Huntley-Gateway LL( | | | | | | | | | | | | | |
| 1 | 4 | Roberts RV Park, Inc. | | | | | | | | | | | | | |
| | | TCE 5 Yrs 10% Rental 5% R | | | | | | | | | | | | | |
| TOTAL PAGE 1 | | | | | | | | | 1 | 1 | | | | | |

| Type | Value | NO. |
|---|---|---|
| Large Lit | | |
| Medium Lit | | |
| Small Lit | | |
| Large Unlit | | |
| Medium Unlit | | |
| Small Unlit | | |
| TOTAL | | |

| | |
|---|---|
| Business Relocations: | $20,000 |
| Personal Property: | 2,000 |
| Residential Owner: | |
| Residential Tenant: | |
| Move Cost Owner: | |
| Move Cost Tenant: | |

**PRELIMINARY**

*FLIGHT DATE: 2008*




50 BASELINE SURVEY

PARCEL BOUNDARY

EXISTING RIGHT-OF-WAY

PROPOSED RIGHT-OF-WAY

PROPOSED ROADWAY

PROPOSED BRIDGE

PBSJ
5300 West Cypress Street
Suite 200
Tampa, Florida 33607-1768
(813) 282-7275

*STATE OF FLORIDA*
*DEPARTMENT OF TRANSPORTATION*

| ROAD NO. | COUNTY | FINANCIAL PROJECT ID |
|---|---|---|
| S.R. 694 | PINELLAS | 25693I-I |

**S.R. 694 (GANDY BOULEVARD) AT GRAND AVENUE INTERSECTION REALIGNMENT**

SHEET NO. 1

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