

June 13, 2018

EXHIBIT A



SCOPE OF SERVICES

FOR

SW 62<sup>ND</sup> BOULEVARD RESURFACING FROM NORTH OF SW 20<sup>TH</sup> AVENUE TO  
SOUTH OF STATE ROAD 26

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SCOPE OF SERVICES FOR CONSULTING ENGINEERING SERVICES

SOUTHWEST 62<sup>ND</sup> BOULEVARD RESURFACING

This Exhibit forms an integral part of the agreement between the City of Gainesville (hereinafter referred to as the CITY) and HNTB Corporation (hereinafter referred to as the CONSULTANT) relative to the transportation facility described as follows:

Financial Project ID: N/A

Federal Aid Project No.: N/A

County Section No.: N/A

Description: *SW 62<sup>nd</sup> Boulevard from north of SW 20<sup>th</sup> Avenue to south of State Road 26/Newberry Road*

Bridge No(s): N/A

Rail Road Crossing No: N/A

Context Classification: N/A

**1 PURPOSE**

The purpose of this Exhibit is to describe the scope of work and the responsibilities of the CONSULTANT and the CITY in connection with the design and preparation of a complete set of construction contract documents and incidental engineering services, as necessary, for improvements to the transportation facility described herein.

Known alternative construction contracting methods include: N/A

The general objective is for the CONSULTANT to prepare a set of contract documents including plans, specifications, supporting engineering analysis, calculations and other technical documents in accordance with CITY policies, procedures and requirements. These Contract documents will be used by the contractor to build the project and test the project components. These Contract documents will be used by the CITY or its Construction Engineering Inspection (CEI) representatives for inspection and final acceptance of the project. The CONSULTANT shall follow a systems engineering process to ensure that all required project components are included in the development of the Contract documents and the project can be built as designed and to specifications.

The Scope of Services establishes which items of work in the City of Gainesville's Engineering Design and Construction Manual, Florida Greenbook, and other pertinent manuals are specifically prescribed to accomplish the work included in this contract, and also indicate which items of work will be the responsibility of the CONSULTANT and/or the CITY.

**1 PURPOSE**

The CONSULTANT shall be aware that as a project is developed, certain modifications and/or improvements to the original concepts may be required. The CONSULTANT shall incorporate these refinements into the design and consider such refinements to be an anticipated and integral part of the work. This shall not be a basis for any supplemental fee request(s).

The CONSULTANT shall demonstrate good project management practices while working on this project. These include communication with the CITY and others as necessary, management of time and resources, and documentation. The CONSULTANT shall set up and maintain throughout the design of the project a contract file in accordance with CITY procedures. CONSULTANTS are expected to know the laws and rules governing their professions and are expected to provide services in accordance with current regulations, codes and ordinances and recognized standards applicable to such professional services. The Consultant shall provide qualified technical and professional personnel to perform to CITY standards and procedures, the duties and responsibilities assigned under the terms of this agreement. The Consultant shall minimize to the maximum extent possible the CITY's need to apply its own resources to assignments authorized by the CITY.

The CITY will provide contract administration, management services, and technical reviews of all work associated with the development and preparation of contract documents, including Construction documents. The CITY's technical reviews are for high-level conformance and are not meant to be comprehensive reviews. The CONSULTANT shall be fully responsible for all work performed and work products developed under this Scope of Services. The CITY may provide job-specific information and/or functions as outlined in this contract, if favorable.

**1 PURPOSE**

## 2 PROJECT DESCRIPTION

*The CONSULTANT shall investigate the status of the project and become familiar with concepts and commitments (typical sections, alignments, etc.) developed from prior studies and/or activities. If a Preliminary Engineering Report is available from a prior or current Project Development and Environmental (PD&E) study, the CONSULTANT shall use the approved concepts as a basis for the design unless otherwise directed by the CITY.*

*This 3R project primarily consists of resurfacing SW 62<sup>nd</sup> Boulevard from the pavement change approximately 1,140 feet north of SW 20<sup>th</sup> Avenue to 100 feet south of SR 26/Newberry Road. Existing travel lanes, auxiliary lanes, and paved shoulders will be resurfaced. The right-of-way varies from 80' to 100' throughout the project limits. No additional right-of-way will be required.*

*One (1) signalized intersection exists within the project limits. The signal is at the intersection with NW 1<sup>st</sup> Place/Oaks Mall. The traffic detector loops that are impacted by the resurfacing operation will be replaced.*

*Numerous ADA improvements to existing pedestrian features will be evaluated as part of this project. These improvements may consist of repairing deficient sidewalk, replacing/retrofitting non-compliant curb ramps, meeting clear space requirements, and upgrading pedestrian signal features. Bus stop locations shall be assessed for access needs and make recommendations to the CITY. The need to install, upgrade, or remove pedestrian handrail shall be considered throughout. The CONSULTANT shall assess every signalized intersection and provide recommendations. An ADA Survey Report will be required. See Section 4.13.*

*There is a school zone for Myra Terwilliger Elementary School located within the project limits, just north of NW 1<sup>st</sup> Place. The CONSULTANT will evaluate the begin and end limits of the school zone, as well as signage and striping and present any proposed changes to the CITY's Design Project Manager for consideration.*

*The permanent posted speed limit is 35 mph throughout the project limits. In addition, there is a school zone located just north of NW 1<sup>st</sup> Place with a posted speed limit of 15 mph during school arrival and departure times. Any contradictions to the posted speeds described above (found posted in the field, or proposed by the CONSULTANT) will require close coordination with the CITY's Design Project Manager and approval from the City Engineer.*

*It is the CITY's desire to make every effort to avoid impacts to trees within the project limits. The CONSULTANT shall design the limits of construction and any work activities (including staging, storage of equipment, etc.) to eliminate a threat to existing trees or their root systems. Any tree impacts perceived to be unavoidable shall be closely reviewed with the CITY's Design Project Manager who will in turn review with other CITY staff as appropriate. When there is the*

## 2 PROJECT DESCRIPTION

*potential to impact trees, the CONSULTANT shall be prepared to provide and present alternate design scenarios with corresponding cost estimates and implications (drainage, utilities, etc.) when requested.*

*The CONSULTANT will evaluate the following during the planning phase of the project:*

- *Marking of dedicated bicycle lanes throughout the project limits from SW 20<sup>th</sup> Avenue to SR 26.*
- *Cost/benefit of including the southernmost ≈1,140 LF of pavement as a thin mill and overlay from SW 20<sup>th</sup> Avenue to the pavement change north of The Pavillion on 62<sup>nd</sup>.*
- *Minor widening at Terwilliger Elementary to improve traffic flow during drop-off and pickup.*
- *Construction of raised median at northern Oaks Mall entrance to convert driveway to right-in, right-out.*
- *Inclusion of uncontrolled pedestrian crossings proposed in the original PD&E.*
- *Street lighting at intersections and at uncontrolled pedestrian crossings.*
- *Small-scale solutions to localized stormwater issues.*

**COORDINATION REQUIREMENTS:** *This project shall be coordinated with any and all adjacent City, County, State, or private projects. There have been NO adjacent projects identified at this time.*

*Features installed on CITY R/W by non-CITY, private entities should be considered by the CONSULTANT as they relate to potential impacts. No specific features have been identified within these project limits at this time; however, the recommendations to the CITY must address the course of action for coordination should features be identified.*

**SPECIFIC EXCLUSIONS:** *The construction plans for this project are intended to address the existing pavement and construction of new paved shoulders only. All other improvements will be studied, with recommendations made to the CITY. This scope of work does not include the preparation of construction plans for any non-pavement improvements.*

*This project will be let to construction as a Conventional Bid Item project.*

*The CONSULTANT shall incorporate the following into the design of this facility:*

## **2.1 Project General and Roadway (Activities 3, 4, and 5)**

Public Involvement: *Public involvement will be performed by the CITY.*

Other Agency Presentations/Meetings: *N/A*

## **2 PROJECT DESCRIPTION**

Joint Project Agreements: *N/A*

Specification Package Preparation: *N/A*

Value Engineering: *N/A*

Risk Assessment Workshop: *N/A*

Plan Type: ***Phase IV (100%) Roadway plans***

Typical Section: ***There are four typical sections for the project. From SW 20<sup>th</sup> Avenue to north of The Pavilion on 62<sup>nd</sup> consists of a six-lane, undivided typical section with curb and gutter. From north of The Pavilion on 62<sup>nd</sup> to north of Lakewood Villas/Spyglass and from Palm Garden Rehabilitation Center to NW 1<sup>st</sup> Place/Oaks Mall, the typical section is three lanes with unpaved, flush shoulders. From north of Lakewood Villas/Spyglass to Palm Garden Rehabilitation Center, the typical section is two lanes with unpaved, flush shoulders. From NW 1<sup>st</sup> Place/Oaks Mall to 100 feet south of SR 26 is a four-lane, undivided typical section with curb and gutter. Bike lanes are not present throughout the corridor. Two-foot wide paved shoulders are present along the inside of curves in the flush shoulder sections.***

Pavement Design: ***The CONSULTANT will develop the pavement design for this project. Two (2) pavement designs are anticipated for this project. The first design will include full-depth reclamation (FDR) of the existing travel lane asphalt and base. The second design will be for new paved shoulder construction. One additional pavement design may be required pending the outcome of evaluations during the planning phase:***

- ***The six-lane section between SW 20<sup>th</sup> Avenue and the pavement change.***

Pavement Type Selection Report(s): *N/A*

Cross Slope: ***There have been no cross slope deficiencies identified in this project at this time. Cross slope correction is not anticipated as part of this project.***

Access Management Classification: *N/A*

Transit Route Features: ***RTS routes and bus stops exist within the project limits. The CONSULTANT shall coordinate with the CITY and RTS and recommend necessary upgrades.***

Major Intersections/Interchanges: ***One (1) signalized intersection exists within the project limits at NW 1<sup>st</sup> Place/Oaks Mall. A second signalized intersection at SW 20<sup>th</sup> Avenue may be included in the project limits pending a benefit/cost analysis of extending the southern project limit to SW 20<sup>th</sup> Avenue.***

Roadway Alternative Analysis: ***The CONSULTANT shall perform the following evaluations during the planning phase of the project:***

## **2 PROJECT DESCRIPTION**



- *Construction of paved shoulders in existing flush shoulder areas (approx. 5,600 LF).*
- *Marking of dedicated bicycle lanes throughout the project limits from SW 20<sup>th</sup> Avenue to SR 26.*
- *Cost/benefit of including the southernmost ≈1,140 LF of pavement as a thin mill and overlay from SW 20<sup>th</sup> Avenue to the pavement change north of The Pavillion on 62<sup>nd</sup>.*
- *Minor widening at Terwilliger Elementary to improve traffic flow during drop-off and pickup.*
- *Construction of raised median at northern Oaks Mall entrance to convert driveway to right-in, right-out.*
- *Inclusion of uncontrolled pedestrian crossings proposed in the original PD&E.*
- *Street lighting at intersections and at uncontrolled pedestrian crossings.*
- *Small scale solutions to localized stormwater issues*

Level of TCP Plans: *The CONSULTANT shall provide a TCP Level I.*

Temporary Lighting: *N/A*

Temporary Signals: *N/A*

Temporary Drainage: *N/A*

Design Variations/Exceptions: *The CONSULTANT shall review all existing design features within the project limits for a functional design that will meet CITY standards and make a determination whether a Design Variation or Design Exception is appropriate.*

Back of Sidewalk Profiles: *N/A*

Selective Clearing and Grubbing: *N/A*

## **2.2 Drainage (Activities 6a and 6b)**

System Type: *SW 62<sup>nd</sup> Boulevard has an open drainage system with roadside swales for about 5,500 LF from the begin project limit to the intersection of Oaks Mall/NW 1<sup>st</sup> Avenue. A closed drainage system is present for about 2,300 LF south of SR 26 at the end of the project.*

*No drainage improvements are anticipated as part of the construction plans.*

*The CONSULTANT will evaluate small-scale solutions to any stormwater issues that may be present within the project limits. The CONSULTANT shall review all locations for a functional design that will meet clear zone criteria. A Design Exception will be required if any drainage structure creates a hazard in the clear zone, and is to remain.*

*As part of the recommendations, the CONSULTANT shall inspect all drainage*

## **2 PROJECT DESCRIPTION**

*structures for function, scour, erosion, structural integrity, accumulation of sediments, and design as it pertains to pedestrian and vehicular safety. Drainage design treatments shall be evaluated and included as recommendations from the planning phase of the project.*

### **2.3 Utilities Coordination (Activity 7)**

*The CONSULTANT is responsible to certify that all necessary arrangements for utility work on this project have been made and will not conflict with the physical construction schedule. The CONSULTANT should coordinate with CITY personnel to coordinate transmittals to Utility Companies and meet production schedules.*

*The CONSULTANT shall ensure CITY standards, policies, procedures, practices, and design criteria are followed concerning utility coordination.*

*The CONSULTANT may employ more than one individual or utility engineering consultant to provide utility coordination and engineering design expertise. The CONSULTANT shall identify a dedicated person responsible for managing all utility coordination activities. This person shall be contractually referred to as the Utility Coordination Manager and shall be identified in the CONSULTANT proposal. The Utility Coordination Manager shall be required to satisfactorily demonstrate to the CITY's Design Project Manager that they have the following knowledge, skills, and expertise:*

*A minimum of 4 years of experience performing utility coordination in accordance with FDOT, Federal Highway Administration (FHWA), and American Association of State Highway and Transportation Officials (AASHTO) standards, policies, and procedures.*

*A thorough knowledge of the CITY plans production process and utility coordination process.*

*A thorough knowledge of CITY agreements, standards, policies, and procedures.*

*The Utility Coordination Manager shall be responsible for managing all utility coordination, including the following:*

*Assuring that Utility Coordination and accommodation is in accordance to the CITY, FHWA, and AASHTO standards, policies, procedures, and design criteria.*

*Assisting the engineer of record in identifying all existing utilities and coordinating any new installations. Assisting the Engineer of Record with resolving utility conflicts.*

*Scheduling and performing utility coordination meetings, keeping and distribution of minutes/action items of all utility meetings, and ensuring expedient follow-up on all unresolved issues.*

*Distributing all plans, conflict matrixes and changes to affected utility owners and making sure this information is properly coordinated and documented.*

*Identifying and coordinating the completion of any CITY or utility owner agreement that is required for reimbursement, or accommodation of the utility facilities associated with the project.*

*Review and certify to the District Utilities Administrator that all Utility Work Schedules*

## **2 PROJECT DESCRIPTION**

*are correct and in accordance with the CITY's standards, policies, and procedures.*

*Prepare, review and process all utility related reimbursable paperwork inclusive of betterment and salvage determination.*

*The CONSULTANT's utility coordination work shall be performed and directed by the Utility Coordination Manager that was identified and approved by CITY's Project Manager. Any proposed change of the approved Utility Coordination Manager shall be subject to review and approval by CITY's Project Manager prior to any change being made in this contract.*

*Utility Owners along the project include:*

Utility Owner	Contact Information
AT&T Distribution	Dino Farruggio 561-997-0240 <a href="mailto:sparray@pea-inc.net">sparray@pea-inc.net</a>
Cox Communications	Gary Harrell 352-337-2052 <a href="mailto:gary.Harrell@cox.com">gary.Harrell@cox.com</a>
Gainesville Regional Utilities (GRU) Communications	Mike Chappell 352-393-6923 <a href="mailto:chappellmr@gru.com">chappellmr@gru.com</a>
GRU Electric	Kelly McCoy 352-344-6063 <a href="mailto:mccoyka@gru.com">mccoyka@gru.com</a>
GRU Gas	Philip Lancaster 352-334-6078 <a href="mailto:lancasterod@gru.com">lancasterod@gru.com</a>
GRU Water/Wastewater	Peter Simms 352-393-1643 <a href="mailto:simmspa@gru.com">simmspa@gru.com</a>

#### 2.4 Environmental Permits, Compliances, and Clearances (Activity 8)

*The CONSULTANT shall coordinate with appropriate agencies for all necessary permits. Potential agencies requiring coordination include, but are not limited to: St. Johns River Water Management District, Department of Environmental Protection, and US Army Corps of Engineers.*

*The CONSULTANT shall be responsible for the identification, coordination and applications for all permits necessary to construct this project. All application and processing fees associated with said permit(s) and activities shall be paid for the CONSULTANT.*

*The CITY will provide compensatory wetland mitigation in accordance with Section 373.4137, Florida Statutes, if required.*

## **2 PROJECT DESCRIPTION**

**2.5 Structures (Activities 9 – 18)**

Bridge(s): *N/A*

Retaining Walls: *N/A*

Noise Barrier Walls: *N/A*

Miscellaneous: *N/A*

**2.6 Signing and Pavement Markings (Activities 19 & 20)**

*The CONSULTANT shall be responsible for the design, details, and quantities associated with signing and pavement markings for this project.*

*The CONSULTANT shall evaluate all signs within the project limits for retroreflectivity and conformance with MUTCD criteria. Any signs requiring replacement or upgrade shall be designed to meet current MUTCD criteria. Existing flashing beacons that are associated with signs will also be evaluated for upgrade or replacement. This includes yellow flashing beacons at the approaches to the school zone and Rectangular Rapid Flashing Beacons (RRFBs) at a midblock crossing near the southern end of the project.*

*The lane widths in the curb and gutter sections of the project will be reviewed by the CONSULTANT and discussed with the CITY's Project Manager to determine whether restriping to provide designated bicycle lanes or wider outside lanes should occur.*

**2.7 Signalization (Activities 21 & 22)**

Intersections: *One signalized intersection exists within the project limits at the following location:*

- 1) NW 1<sup>st</sup> Place/Oaks Mall – mast arms*

*An additional signalized intersection may be included if the CITY decides to extend the southern project limit to SW 20<sup>th</sup> Avenue:*

- 2) SW 20<sup>th</sup> Avenue – mast arms*

*The CONSULTANT shall evaluate existing pedestrian detectors and signal heads to verify compliance with Americans with Disabilities Act (ADA) access requirements. Recommendations shall be made to the CITY as part of the planning phase.*

Traffic Data Collection: *The CONSULTANT shall obtain detailed traffic counts at the intersection of NW 1<sup>st</sup> Place/Oaks Mall and also at Myra Terwilliger*

**2 PROJECT DESCRIPTION**

*Elementary to help analyze potential solutions for traffic in the area.*

Traffic Studies: *N/A*

Count Stations: *N/A*

Traffic Monitoring Sites: *N/A*

**2.8 Lighting (Activities 23 & 24)**

*Existing roadway lighting is present throughout the corridor. The CONSULTANT will analyze existing lighting conditions. The CONSULTANT will evaluate the need for additional lighting at signalized intersections and at uncontrolled pedestrian crossings. The CONSULTANT will provide recommendations to the CITY as part of the planning phase of the project.*

**2.9 Landscape Architecture (Activities 25 & 26) (Not applicable to this project)**

**2.10 Survey (Activity 27)**

*Design Survey: The CONSULTANT will perform all survey activities for this project. Design survey will extend from SW 20<sup>th</sup> Avenue to SR 26/Newberry Road. Survey requirements will be in accordance with Section 27.0 of this document.*

*Subsurface Utility Exploration: To be provided by the CONSULTANT if necessary. Subsurface Utility Exploration may be required as part of the paved shoulder construction.*

Right of Way Survey: *N/A*

Vegetation Survey: *N/A*

**2.11 Photogrammetry (Activity 28) (Not applicable to this project)**

**2.12 Mapping (Activity 29) (Not applicable to this project)**

**2.13 Terrestrial Mobile LiDAR (Activity 30) (Not applicable to this project)**

**2.14 Architecture (Activity 31) (Not applicable to this project)**

**2.15 Noise Barriers (Activity 32) (Not applicable to this project)**

**2.16 Intelligent Transportation Systems (Activities 33 & 34) (Not applicable to this project)**

**2.17 Geotechnical (Activity 35)**

*The CONSULTANT will conduct all pavement coring and evaluation for this project. The CONSULTANT will be responsible for the pavement design.*

**2 PROJECT DESCRIPTION**

*The CONSULTANT will be responsible for any geotechnical activities required as part of this project. Geotechnical borings will be required for any paved shoulder widening approved by the CITY.*

**2.18 3D Modeling (Activity 36) (Not applicable to this project)**

**2.19 Project Schedule**

Within ten (10) days after the Notice-To-Proceed, and prior to the CONSULTANT beginning work, the CONSULTANT shall provide a detailed project activity/event schedule for CITY and CONSULTANT scheduled activities required to meet the current CITY Production Date. The schedule shall be based upon the *attached schedule*. The CITY's anticipated letting date is *March 22, 2019*. The schedule shall be accompanied by an anticipated payout and fiscal progress curve. For the purpose of scheduling, the CONSULTANT shall allow for a *three* week review time for each phase submittal and any other submittals as appropriate.

The schedule shall indicate all required submittals.

Periodically, throughout the life of the contract, the project schedule and payout and fiscal progress curves shall be reviewed and, with the approval of the CITY, adjusted as necessary to incorporate changes in the Scope of Services and progress to date.

The approved schedule and schedule status report, along with progress and payout curves, shall be submitted with the monthly progress report.

The schedule shall be submitted in a CITY system-compatible format.

**2.20 Submittals**

The CONSULTANT shall furnish construction contract documents as required by the CITY to adequately control, coordinate, and approve the work concepts. The CONSULTANT shall distribute submittals as directed by the CITY. The CITY will determine the specific number of copies required prior to each submittal.

**2.21 Provisions for Work**

All work shall be prepared with English units in accordance with the latest editions of standards and requirements utilized by the CITY which include, but are not limited to, publications such as:

The governing standards for this project are:

City of Gainesville's Engineering Design and Construction Manual

Manual of Uniform Minimum Standards for Design, Construction and Maintenance for Streets and Highways (commonly referred to as the "Florida Greenbook")

National Association of City Transportation Officials, Urban Street Design Handbook

**2 PROJECT DESCRIPTION**

- General
  - Title 29, Part 1910, Standard 1910.1001, Code of Federal Regulations (29 C.F.R. 1910.1001) – Asbestos Standard for Industry, U.S. Occupational Safety and Health Administration (OSHA)
  - 29 C.F.R. 1926.1101 – Asbestos Standard for Construction, OSHA
  - 40 C.F.R. 61, Subpart M - National Emission Standard for Hazardous Air Pollutants (NESHAP), Environmental Protection Agency (EPA)
  - 40 C.F.R. 763, Subpart E – Asbestos-Containing Materials in Schools, EPA
  - 40 C.F.R. 763, Subpart G – Asbestos Worker Protection, EPA
  - Americans with Disabilities Act (ADA) Standards for Accessible Design
  - AASHTO – A Policy on Design Standards Interstate System
  - AASHTO – Roadside Design Guide
  - AASHTO – Roadway Lighting Design Guide
  - AASHTO – A Policy for Geometric Design of Highways and Streets
  - AASHTO – Highway Safety Manual
  - CITY Engineering Design and Construction Manual
  - Rule Chapter 5J-17, Florida Administrative Code (F.A.C.), Standards of Practice for Professional Surveyors and Mappers
  - Chapter 469, Florida Statutes (F.S.) – Asbestos Abatement
  - Rule Chapter 62-257, F.A.C., Asbestos Program
  - Rule Chapter 62-302, F.A.C., Surface Water Quality Standards
  - Code of Federal Regulations (C.F.R.)
  - Florida Administrative Codes (F.A.C.)
  - Chapters 20, 120, 215, 455, Florida Statutes (F.S.) – Florida DEPARTMENT of Business & Professional Regulations Rules
  - Florida DEPARTMENT of Environmental Protection Rules
  - FDOT Basis of Estimates Manual
  - FDOT Computer Aided Design and Drafting (CADD) Manual
  - FDOT Standard Plans
  - FDOT Flexible Pavement Design Manual
  - FDOT - Florida Roundabout Guide
  - FDOT Handbook for Preparation of Specifications Package
  - FDOT Standard Plans Instructions
  - FDOT Manual of Uniform Minimum Standards for Design, Construction and Maintenance for Streets and Highways (“Florida Greenbook”)
  - FDOT Materials Manual
  - FDOT Pavement Type Selection Manual
  - FDOT Design Manual
  - FDOT Procedures and Policies
  - FDOT Procurement Procedure 001-375-030, Compensation for Consultant Travel Time on Professional Services Agreements
  - FDOT Project Development and Environmental Manual
  - FDOT Project Traffic Forecasting Handbook
  - FDOT Public Involvement Handbook
  - FDOT Rigid Pavement Design Manual
  - FDOT Standard Specifications for Road and Bridge Construction

## **2 PROJECT DESCRIPTION**

- FDOT Utility Accommodation Manual
- Manual on Speed Zoning for Highways, Roads, and Streets in Florida
- Federal Highway Administration (FHWA) - Manual on Uniform Traffic Control Devices (MUTCD)
- FHWA – National Cooperative Highway Research Program (NCHRP) Report 672, Roundabouts: An Informational Guide
- FHWA Roadway Construction Noise Model (RCNM) and Guideline Handbook
- Florida Fish and Wildlife Conservation Commission - Standard Manatee Construction Conditions 2005
- Florida Statutes (F.S.)
- Florida’s Level of Service Standards and Guidelines Manual for Planning
- Model Guide Specifications – Asbestos Abatement and Management in Buildings, National Institute for Building Sciences (NIBS)
- Quality Assurance Guidelines
- Safety Standards
- Any special instructions from the CITY
- Roadway
  - FDOT - Project Traffic Forecasting Handbook
  - FDOT - Quality/Level of Service Handbook
  - Florida’s Level of Service Standards and Highway Capacity Analysis for the SHS
  - Transportation Research Board (TRB) - Highway Capacity Manual
- Permits
  - Chapter 373, F.S. – Water Resources
  - US Fish and Wildlife Service Endangered Species Programs
  - Florida Fish and Wildlife Conservation Commission Protected Wildlife Permits
  - Bridge Permit Application Guide, COMDTPUB P16591.3C
  - Building Permit
- Drainage
  - FDOT Bridge Hydraulics Handbook
  - FDOT Culvert Handbook
  - FDOT Drainage Manual
  - FDOT Erosion and Sediment Control Manual
  - FDOT Exfiltration Handbook
  - FDOT Hydrology Handbook
  - FDOT Open Channel Handbook
  - FDOT Optional Pipe Materials Handbook
  - FDOT Storm Drain Handbook
  - FDOT Stormwater Management Facility Handbook
  - FDOT Temporary Drainage Handbook
  - FDOT Drainage Connection Permit Handbook
  - FDOT Bridge Scour Manual

## **2 PROJECT DESCRIPTION**



- Survey and Mapping
  - All applicable Florida Statutes and Administrative Codes
  - Applicable Rules, Guidelines Codes and authorities of other Municipal, County, State and Federal Agencies.
  - FDOT Aerial Surveying Standards for Transportation Projects Topic 550-020-002
  - FDOT Right of Way Mapping Handbook
  - FDOT Surveying Procedure Topic 550-030-101
  - Florida FDOT of Transportation Right of Way Procedures Manual
  - Florida FDOT of Transportation Surveying Handbook
  - Right of Way Mapping Procedure 550-030-015
- Traffic Engineering and Operations and ITS
  - AASHTO - An Information Guide for Highway Lighting
  - AASHTO - Guide for Development of Bicycle Facilities
  - FHWA Standard Highway Signs Manual
  - FDOT Manual on Uniform Traffic Studies (MUTS)
  - FDOT Median Handbook
  - FDOT Traffic Engineering Manual
  - National Electric Safety Code
  - National Electrical Code
- Traffic Monitoring
  - American Institute of Steel Construction (AISC) Manual of Steel Construction, referred to as “AISC Specifications”
  - American National Standards Institute (ANSI) RP-8-00 Recommended Practice for Roadway Lighting
  - AASHTO AWS D1.1/ANSI Structural Welding Code – Steel
  - AASHTO D1.5/AWS D1.5 Bridge Welding Code
  - FHWA Traffic Detector Handbook
  - FDOT General Interest Roadway Data Procedure
  - FHWA Traffic Monitoring Guide
  - FDOT’s Traffic/Polling Equipment Procedures
- Structures
  - AASHTO Load and Resistance Factor Design (LRFD) Bridge Design Specifications and Interims
  - AASHTO LRFD Movable Highway Bridge Design Specifications and Interims
  - AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals, and Interims.
  - AASHTO/-AWS-D1. 5M/D1.5: An American National Standard Bridge Welding Code
  - AASHTO Guide Specifications for Structural Design of Sound Barriers
  - AASHTO Manual for Condition Evaluation and Load and Resistance Factor Rating (LRFR) of Highway Bridges

## **2 PROJECT DESCRIPTION**

- FDOT Bridge Load Rating Manual
- FDOT Structures Manual
- FDOT Structures Design Bulletins (available on FDOT Structures web site only)
- 
- Geotechnical
  - FHWA Checklist and Guidelines for Review of Geotechnical Reports and Preliminary Specifications
  - Manual of Florida Sampling and Testing Methods
  - Soils and Foundation Handbook
- Landscape Architecture
  - Florida DEPARTMENT of Agriculture and Consumer Services Grades and Standards for Nursery Plants
- Architectural – Other
  - Rule Chapter 64E-6, F.A.C., Standards for On Site Sewage Disposal Systems (Septic Tanks)
  - Rule Chapter 62-600, F.A.C., Domestic Wastewater Facilities
  - Rule Chapter 62-761, F.A.C., Underground Storage Tank Systems
  - American Concrete Institute
  - American Institute of Architects - Architect's Handbook of Professional Practice
  - American Society for Testing and Materials - ASTM Standards
  - Brick Institute of America
  - DMS - Standards for Design of State Facilities
  - Florida Concrete Products Association
  - FDOT – ADA/Accessibility Procedure
  - FDOT – Building Code Compliance Procedure
  - FDOT – Design Build Procurement and Administration
  - LEED (Leadership in Energy and Environmental Design) Green Building Rating System
  - National Concrete Masonry Association
  - National Electrical Code
  - Portland Cement Association - Concrete Masonry Handbook
  - United State Green Building Council (USGBC)

**2.22 Services to be Performed by the CITY When appropriate and /or available, the CITY will provide project data including:**

- Numbers for field books.
- Preliminary Horizontal Network Control.
- Access for the CONSULTANT to utilize the CITY's Information Technology Resources.
- All CITY agreements with Utility Agency Owner (UAO).
- All certifications necessary for project letting.
- Building Construction Permit Coordination (Turnpike)

**2 PROJECT DESCRIPTION**

- All information that may come to the CITY pertaining to future improvements.
- All future information that may come to the CITY during the term of the CONSULTANT's Agreement, which in the opinion of the CITY is necessary for the prosecution of the work.
- Available traffic and planning data.
- All approved utility relocations.
- Project utility certification to the CITY.
- Any necessary title searches.
- Engineering standards review services.
- All available information in the possession of the CITY pertaining to utility companies whose facilities may be affected by the proposed construction.
- All future information that may come to the CITY pertaining to subdivision plans so that the CONSULTANT may take advantage of additional areas that can be utilized as part of the existing right of way.
- Systems traffic for Projected Design Year, with K, D, and T factors.
- Previously constructed Highway Beautification or Landscape Construction Plans
- Landscape Opportunity Plan(s)
- Existing right of way maps.
- Existing cross slope data for all RRR projects.
- Existing pavement evaluation report for all RRR projects.
- PD&E Documents
- Design Reports
- Letters of authorization designating the CONSULTANT as an agent of the CITY in accordance with F.S. 337.274.
- Phase reviews of plans and engineering documents.
- Regarding Environmental Permitting Services:
  - Approved Permit Document when available.
  - Approval of all contacts with environmental agencies.
  - General philosophies and guidelines of the CITY to be used in the fulfillment of this contract. Objectives, constraints, budgetary limitations, and time constraints will be completely defined by the Project Manager.
  - Appropriate signatures on application forms.

## **2 PROJECT DESCRIPTION**

### 3 PROJECT COMMON AND PROJECT GENERAL TASKS

#### Project Common Tasks

Project Common Tasks, as listed below, are work efforts that are applicable to many project activities, 4 (Roadway Analysis) through 35 (Geotechnical). These tasks are to be included in the project scope in each applicable activity when the described work is to be performed by the CONSULTANT.

Cost Estimates: The CONSULTANT shall be responsible for producing a construction cost estimate and reviewing and updating the cost estimate when scope changes occur and/or at milestones of the project.

Technical Special Provisions: (N/A)

Modified Special Provisions: (N/A)

Field Reviews: The CONSULTANT shall make as many trips to the project site as required to obtain necessary data for all elements of the project.

Technical Meetings: The CONSULTANT shall attend all technical meetings necessary to execute the Scope of Services of this contract. This includes meetings with CITY and/or Agency staff, between disciplines and subconsultants, such as access management meetings, pavement design meetings, local governments, railroads, airports, progress review meetings (phase review), and miscellaneous meetings. The CONSULTANT shall prepare, and submit to the CITY's Project Manager for review, the meeting minutes for all meetings attended by them. The meeting minutes are due within five (5) working days of attending the meeting.

Quality Assurance/Quality Control: It is the intention of the CITY that design CONSULTANTS, including their subconsultant(s), are held responsible for their work, including plans review. The purpose of CONSULTANT plan reviews is to ensure that CONSULTANT plans follow the CITY's plan preparation procedures, that state and federal design criteria are followed with the CITY concept, and that the CONSULTANT submittals are complete. All subconsultant document submittals shall be submitted by the subconsultant directly to the CONSULTANT for their independent Quality Assurance/Quality Control review and subsequent submittal to the CITY.

It is the CONSULTANT'S responsibility to independently and continually QC their plans and other deliverables. The CONSULTANT should regularly communicate with the CITY's Design Project Manager to discuss and resolve issues or solicit opinions from those within designated areas of expertise.

The CONSULTANT shall be responsible for the professional quality, technical accuracy and coordination of all surveys, designs, drawings, specifications and other services furnished by the CONSULTANT and their subconsultant(s) under this contract.

The CONSULTANT shall provide a Quality Control Plan that describes the procedures to

### 3 PROJECT COMMON AND PROJECT GENERAL TASKS

be utilized to verify, independently check, and review all maps, design drawings, specifications, and other documentation prepared as a part of the contract. The CONSULTANT shall describe how the checking and review processes are to be documented to verify that the required procedures were followed. The Quality Control Plan shall be one specifically designed for this project. The CONSULTANT shall submit a Quality Control Plan for approval within twenty (20) business days of the written Notice to Proceed and it shall be signed by the CONSULTANT's Project Manager and the CONSULTANT QC Manager. The Quality Control Plan shall include the names of the CONSULTANT's staff that will perform the quality control reviews. The Quality Control reviewer shall be a Florida Licensed Professional Engineer fully prequalified under F.A.C. 14-75 in the work type being reviewed. A marked up set of prints from a Quality Control Review indicating the reviewers for each component (structures, roadway, drainage, signals, geotechnical, signing and marking, lighting, landscape, surveys, etc.) and a written resolution of comments on a point-by-point basis will be required, if requested by the CITY, with each phase submittal. The responsible Professional Engineer, Landscape Architect, or Professional Surveyor & Mapper that performed the Quality Control review will sign a statement certifying that the review was conducted and found to meet required specifications.

The CONSULTANT shall, without additional compensation, correct all errors or deficiencies in the designs, maps, drawings, specifications and/or other products and services.

Independent Peer Review: (N/A)

Supervision: The CONSULTANT shall supervise all technical design activities.

Coordination: The CONSULTANT shall coordinate with all disciplines of the project to produce a final set of construction documents.

### **Deliverables**

**The following deliverables will be provided:**

**Summary of Deliverables**

<i>Project Element</i>	<i>60% Plans</i>	<i>Final Plans</i>	<i>Planning Phase</i>
<i>Roadway Plans</i>	<i>P</i>	<i>F</i>	
<i>Signing and Marking Plans</i>	<i>P</i>	<i>F</i>	
<i>Design Report</i>	<i>P</i>	<i>F</i>	<i>F*</i>
<i>Drainage Report</i>			<i>F</i>
<i>Lighting Report</i>			<i>F</i>
<i>Geotechnical Report (if required)</i>	<i>P</i>	<i>F</i>	
<i>Design Survey</i>		<i>F</i>	
<i>Typical Section Package</i>	<i>F</i>		
<i>ADA Survey Report</i>			<i>F</i>
<i>Specifications</i>		<i>F</i>	
<i>Cost Estimates</i>	<i>P</i>	<i>F</i>	
<i>Utility Conflict Matrix</i>	<i>P</i>	<i>F</i>	
<i>Utility Work Schedules</i>		<i>F</i>	
<i>Construction Time Estimates</i>		<i>F</i>	

Legend: P = Preliminary, C = Complete, F = Final

\* A separate report will be produced for the Planning Phase which will analyze the improvements detailed in Section 2 of this report that are not included in the Construction Plans.

**Plan Components**

	<b>Base Scope</b>
<b>Key Sheet</b>	<b>X</b>
<b>Signature Sheet</b>	<b>X</b>
<b>Typical Section</b>	<b>X</b>
<b>Summary of Quantities</b>	<b>X</b>
<b>Project Layout</b>	<b>X</b>
<b>Roadway Plan</b>	<b>X</b>
<b>Roadway Soil Profile</b>	<b>X</b>
<b>Cross Sections</b>	<b>X</b>
<b>Stormwater Pollution Prevention</b>	<b>X</b>
<b>Temporary Traffic Control Plans - Level 1</b>	<b>X</b>
<b>Utility Adjustments (if necessary)</b>	<b>X</b>
<b>Signing and Pavement Marking</b>	<b>X</b>

**3 PROJECT COMMON AND PROJECT GENERAL TASKS**

## **Project General Tasks**

Project General Tasks, described in Sections 3.1 through 3.7 below, represent work efforts that are applicable to the project as a whole and not to any one or more specific project activity. The work described in these tasks shall be performed by the CONSULTANT when included in the project scope.

### **3.1 Public Involvement**

*By CITY*

#### **3.1.1 Community Awareness Plan**

*By the CITY. Specific areas of concern include coordination with Myra Terwilliger Elementary School, coordination with the Oaks Mall, and coordination with RTS.*

#### **3.1.2 Notifications**

*By the CITY.*

##### **PROJECT NOTIFICATIONS**

#### **3.1.3 Preparing Mailing Lists**

*By the CITY.*

#### **3.1.4 Median Modification Letters (Not applicable to this project)**

#### **3.1.5 Driveway Modification Letters (Not applicable to this project)**

#### **3.1.6 Newsletters (Not applicable to this project)**

#### **3.1.7 Renderings and Fly-Throughs**

*By the CITY.*

#### **3.1.8 PowerPoint Presentations (Not applicable to this project)**

#### **3.1.9 Public Meeting Preparations (Not applicable to this project)**

#### **3.1.10 Public Meeting Attendance and Follow-up (Not applicable to this project)**

#### **3.1.11 Other Agency Meetings (Not applicable to this project)**

#### **3.1.12 Web Site (Not applicable to this project)**

### **3.2 Joint Project Agreements (Not applicable to this project)**

### **3.3 Specifications Package Preparation**

The CONSULTANT shall prepare and provide a specifications package in accordance with CITY procedures. The specifications package shall address all items and areas of work and include any Mandatory Specifications, Modified Special Provisions, and Technical Special Provisions.

The specifications package must be submitted for review to the CITY's Project Manager concurrent with the delivery of final plans. This submittal does not require signing and sealing and shall be coordinated through the CITY's Project Manager. The CONSULTANT shall coordinate with the CITY on the submittal requirements, but at a minimum shall consist of (1) the complete specifications package, (2) a copy of the marked-up workbook used to prepare the package, and (3) a copy of the final project plans.

Final submittal of the specifications package must occur at least 10 working days prior to the *final* contract package due date. This submittal shall be digitally signed, dated, and sealed in accordance with applicable Florida Statutes.

### **3.4 Contract Maintenance and Electronic Document Management System (EDMS)**

Contract maintenance includes project management effort for complete setup and maintenance of files, electronic folders and documents, developing technical monthly progress reports and schedule updates.

*The CONSULTANT will be required to provide written monthly progress reports (preferably electronic via e-mail) documenting actions taken, actions to be taken, status of project schedule, and contacts with the CITY (the CITY employee contacted, the issue, and the resolution) and the status of the plans.*

### **3.5 Value Engineering (Multi-Discipline Team) Review (Not applicable to this project)**

### **3.6 Prime Consultant Project Manager Meetings**

Includes only the Prime Consultant Project Manager's time for travel and attendance at Activity Technical Meetings and other meetings listed in the meeting summary for Task 3.6 on tab 3 Project General Task of the staff hour forms. Staff hours for other personnel attending Activity Technical Meetings are included in the meeting task for that specific Activity.

### **3.7 Plans Update (Not applicable to this project)**

### **3.8 Post Design Services**

Post Design Services may include, but not limited to, meetings, construction assistance, plans revisions, shop drawing review, survey services, as-built drawings, and load ratings. Specific services will be negotiated at a later date as necessary as a contract amendment.

Post Design Services are not intended for instances of CONSULTANT errors and/or omissions.

*Staff hours and fees for Post Design Services will be submitted and negotiated separately.*

## **3 PROJECT COMMON AND PROJECT GENERAL TASKS**



**3.9 Digital Delivery**

The CONSULTANT shall deliver final contract plans and documents in digital format. The final contract plans and documents shall be digitally signed and sealed files delivered to the CITY on acceptable electronic media, as determined by the CITY.

**3.10 Risk Assessment Workshop (Not applicable to this project)**

**3.11 Railroad, Transit and/or Airport Coordination**

*There are RTS bus routes and several bus stops located along the corridor. The CONSULTANT will coordinate the proposed improvements and the sequencing of construction activities with RTS to avoid disruptions to service.*

**3.12 Landscape and Existing Vegetation Coordination (Not applicable to this project)**

**3.13 Other Project General Tasks (Not applicable to this project)**

#### 4 ROADWAY ANALYSIS

The CONSULTANT shall analyze and document Roadway Tasks in accordance with all applicable manuals, guidelines, standards, handbooks, procedures, and current design memorandums.

##### 4.1 Typical Section Package

The CONSULTANT shall provide *a signed and sealed* Typical Section Package *to the CITY for review and concurrence* prior to the first plans submittal. *This package shall include the following:*

- *Transmittal Letter, Location Map, Typical Sections, Project Control Sheet*

##### 4.2 Pavement Type Selection Report (Not applicable to this project)

##### 4.3 Pavement Design Package

The CONSULTANT shall provide an approved *signed and sealed* Pavement Design Package prior to the Phase II plans submittal date.

##### 4.4 Cross-Slope Correction

*Includes the effort necessary to review existing cross slopes. As early as possible, the collected survey data along this project shall be analyzed by the CONSULTANT to determine if minimum and maximum cross slope requirements are met throughout the project limits. After the existing cross slopes have been fully evaluated, the CONSULTANT shall prepare a recommendation for review by the CITY's Project Manager.*

*No cross slope deficiencies have been identified at this time, and cross slope correction is not anticipated as part of this project. If the decision is made that cross slope correction will be necessary, additional staff hours and fees for the development of cross slope correction details will be negotiated at that time.*

##### 4.5 Horizontal/Vertical Master Design Files

The CONSULTANT shall design the geometrics using the Standard Plans that are most appropriate with proper consideration given to the design traffic volumes, design speed, capacity and levels of service, functional classification, adjacent land use, design consistency and driver expectancy, aesthetics, existing vegetation to be preserved, pedestrian and bicycle concerns, ADA requirements, Safe Mobility For Life Program, access management, PD&E documents and scope of work. The CONSULTANT shall also develop utility conflict information to be provided to project Utility Coordinator in the format requested by the CITY, and shall review Utility Work Schedules.

##### 4.6 Access Management (Not applicable to this project)

##### 4.7 Roundabout Evaluation (Not applicable to this project)

#### 4 ROADWAY ANALYSIS

**4.8 Roundabout Final Design Analysis (Not applicable to this project)**

**4.9 Cross Section Design Files**

The CONSULTANT shall establish and develop cross section design files in accordance with the *FDOT* CADD manual.

*Cross sections will be required in areas of paved shoulder widening.*

**4.10 Traffic Control Analysis**

The CONSULTANT shall design a safe and effective Traffic Control Plan to move vehicular and pedestrian traffic during all phases of construction. The design shall include construction phasing of roadways, ingress and egress to existing property owners and businesses, routing, signing and pavement markings, and detour quantity tabulations, roadway pavement, drainage structures, ditches, front slopes, back slopes, drop offs within clear zone, and traffic monitoring sites. Special consideration shall be given to the construction of the drainage system when developing the construction phases. Positive drainage must be maintained at all times. The design shall include construction phasing of roadways to accommodate the construction or relocation of utilities when the contract includes Joint Project Agreements (JPAs).

The CONSULTANT shall investigate the need for temporary traffic signals, temporary lighting, alternate detour roads, and the use of materials such as sheet piling in the analysis. The Traffic Control Plan shall be prepared by a certified designer who has completed training as required by the CITY. Before proceeding with the Traffic Control Plan, the CONSULTANT shall meet with the appropriate CITY personnel. The purpose of this meeting is to provide information to the CONSULTANT that will better coordinate the Preliminary and Final Traffic Control Plan efforts.

*The CONSULTANT shall conduct a Lane Closure Analysis to determine work conditions when no lane closures will be allowed.*

The CONSULTANT shall consider the local impact of any lane closures or alternate routes. When the need to close a road is identified during this analysis, the CONSULTANT shall notify the CITY's Project Manager as soon as possible. Proposed road closings must be reviewed and approved by the CITY. Diligence shall be used to minimize negative impacts by appropriate specifications, recommendations or plans development. Local impacts to consider will be local events, holidays, peak seasons, detour route deterioration and other eventualities.

**4.11 Master TCP Design Files (Not applicable to this project)**

**4.12 Selective Clearing and Grubbing (Not applicable to this project)**

**4.13 Tree Disposition Plans (Not applicable to this project)**

**4.14 Design Variations and Exceptions**

The CONSULTANT shall prepare the documentation necessary to gain CITY approval of all appropriate Design Variations and/or Design Exceptions before the *Phase II* submittal.

**4 ROADWAY ANALYSIS**

#### 4.15 Design Report

*The CONSULTANT shall be responsible for preparing a Design Report for each phase submittal. The Design Report shall include (if applicable), but is not limited to, the following:*

- *Assessment of Existing Conditions*
- *Design notes, data, and calculations compiled in an executive summary format to document and describe the design conclusions reached during the development of the contract plans.*
- *Scope of Services*
- *Project Schedule*
- *Pavement Design*
- *Typical Section Package*
- *Design Variations/Exceptions*
- *Supporting Crash Data*
- *Comments and Responses*
- *Engineer's Cost Estimate*
- *Sunshine 811 Design Ticket*
- *Utility Conflict Matrix*
- *Lane Closure Analysis*
- *Contract Time Estimate*
- *Correspondence*

*The components of the Design Report will vary for each phase submittal based on the production schedule and project milestones. Draft/unsigned/unapproved components (i.e., Design Variations/Exceptions, Contract Time, etc.) shall be included for informational purposes and clearly designated as DRAFT.*

*ADA Survey Report: This task shall include the effort to prepare the ADA Survey Report. This report will provide photographic and tabular documentation of the existing pedestrian features (sidewalk, curb ramps, bus stops, pedestrian signal/detectors, etc.). In addition, the CONSULTANT shall review all legs of all side road intersections (signalized and unsignalized) to determine if pedestrian signals and/or crosswalks are needed. The report shall identify the deficiencies and make recommendations for improvement. The CONSULTANT will coordinate with the CITY's Project Manager to determine if any project specific pedestrian access or safety related complaints have been received. The ADA Survey Report will be required with Planning Phase Design Report.*

#### 4.16 Quantities

The CONSULTANT shall develop accurate quantities and the supporting documentation, including *proposed* construction days *and total contract time*.

#### 4.17 Cost Estimate

*The consultant shall be responsible for producing a construction cost estimate and reviewing and updating the cost estimate when scope changes occur and/or at milestones of the project.*

### 4 ROADWAY ANALYSIS

**4.18 Technical Special Provisions and Modified Special Provisions (Not applicable to this project)**

**4.19 Other Roadway Analyses**

*The CONSULTANT shall perform the following evaluations during the Planning Phase of the project:*

- *Cost/benefit of including the southernmost  $\approx 1,140$  LF of pavement as a thin mill and overlay from SW 20<sup>th</sup> Avenue to the pavement change north of The Pavillion on 62<sup>nd</sup>.*
- *Minor widening at Terwilliger Elementary to improve traffic flow during drop-off and pickup.*
- *Construction of raised median at northern Oaks Mall entrance to convert driveway to right-in, right-out.*

**4.20 Field Reviews**

**4.21 Monitor Existing Structures (Not applicable to this project)**

**4.22 Technical Meetings**

**4.23 Quality Assurance/Quality Control**

**4.24 Independent Peer Review (Not applicable to this project)**

**4.25 Supervision**

**4.26 Coordination**

## **5 ROADWAY PLANS**

The CONSULTANT shall prepare Roadway, Traffic Control, Utility Adjustment Sheets, plan sheets, notes, and details. The plans shall include the following sheets necessary to convey the intent and scope of the project for the purposes of construction.

- 5.1 Key Sheet**
- 5.2 Summary of Pay Items Including Quantity Input (Not applicable to this project)**
- 5.3 Typical Section Sheets**
  - 5.3.1 Typical Sections
  - 5.3.2 Typical Section Details
- 5.4 General Notes/Pay Item Notes**
- 5.5 Summary of Quantities Sheets**
- 5.6 Project Layout**
- 5.7 Plan/Profile Sheet (Not applicable to this project)**
- 5.8 Profile Sheet (Not applicable to this project)**
- 5.9 Plan Sheet**
- 5.10 Special Profile (Not applicable to this project)**
- 5.11 Back-of-Sidewalk Profile Sheet (Not applicable to this project)**
- 5.12 Interchange Layout Sheet (Not applicable to this project)**
- 5.13 Ramp Terminal Details (Plan View) (Not applicable to this project)**
- 5.14 Intersection Layout Details (Not applicable to this project)**
- 5.15 Special Details**
- 5.16 Cross-Section Pattern Sheet(s) (Not applicable to this project)**
- 5.17 Roadway Soil Survey Sheet(s)**
- 5.18 Cross Sections**
- 5.19 Temporary Traffic Control Plan Sheets (Not applicable to this project)**

## **5 ROADWAY PLANS**

- 5.20 Temporary Traffic Control Cross Section Sheets (Not applicable to this project)
- 5.21 Temporary Traffic Control Detail Sheets  

Three TTCP sheets are expected. One sheet for notes and phasing, one sheet to show advance signing details, and a third sheet to show typical sections.
- 5.22 Utility Adjustment Sheets (Not applicable to this project)
- 5.23 Selective Clearing and Grubbing Sheet(s) (Not applicable to this project)
- 5.24 Tree Disposition Plan Sheet(s) (Not applicable to this project)
- 5.25 Project Network Control Sheet(s) (Not applicable to this project)
- 5.26 Environmental Detail Sheets (Not applicable to this project)
- 5.26 Utility Verification Sheet(s) (SUE Data) (Not applicable to this project)
- 5.28 Quality Assurance/Quality Control
- 5.29 Supervision

## 6a DRAINAGE ANALYSIS

The CONSULTANT shall analyze and document Drainage Tasks in accordance with all applicable manuals, guidelines, standards, handbooks, procedures, and current design memorandums.

*As part of the Resurfacing Phase, the CONSULTANT shall include pertinent drainage information in the Design Report. The report shall include a narrative description of existing drainage structures and facilities affected by the resurfacing, and a listing of environmental regulatory permits required. All hydrologic and hydraulic drainage computations for the design presented in the plans shall be included along with supporting design information such as drainage maps, geotechnical data (such as soil borings and permeability tests), and correspondence that directly affected design decisions.*

*As part of the Planning Phase, the CONSULTANT shall field inspect the project for the structural condition of all side drains, cross drains, and drainage under the roadway area and make recommendations concerning repairs, extensions, replacement/upgrade, or removal of such facilities. Drainage structures shall be assessed and designed to meet clear zone requirements within existing right of way or a Design Variation or Exception must be obtained. Culverts that warrant replacement shall be itemized and detailed as appropriate in the Planning Phase Design Report. The CONSULTANT shall contact and document discussions with the CITY's Project Manager regarding historical drainage problems in the project area. The CONSULTANT will identify any stormwater issues that may be present along the corridor and evaluate potential small-scale solutions. Recommendations for drainage improvements will be made as part of the final Planning Phase Design Report.*

The CONSULTANT shall coordinate fully with the appropriate permitting agencies and the CITY's staff. All activities and submittals should be coordinated through the CITY's Project Manager. The work will include the engineering analyses for any or all of the following:

- 6a.1 Drainage Map Hydrology (Not applicable to this project)**
- 6a.2 Base Clearance Calculations (Not applicable to this project)**
- 6a.3 Pond Siting Analysis and Report (Not applicable to this project)**
- 6a.4 Design of Cross Drains (Not applicable to this project)**
- 6a.5 Design of Ditches**

Design roadway conveyance and outfall ditches. This task includes capacity calculations, longitudinal grade adjustments, flow changes, additional adjustments for ditch convergences, selection of suitable channel lining, design of side drain pipes, and documentation.

## 6 DRAINAGE ANALYSIS



*The CONSULTANT shall analyze existing roadside ditches through the paved shoulder widening area and verify that the paved shoulder construction will not adversely impact ditch conveyance.*

- 6a.6 Design of Stormwater Management Facility (Offsite or Infield Pond) (Not applicable to this project)**
- 6a.7 Design of Stormwater Management Facility (Roadside Treatment Swales and Linear Ponds) (Not applicable to this project)**
- 6a.8 Design of Floodplain Compensation (Not applicable to this project)**
- 6a.9 Design of Storm Drains (Not applicable to this project)**
- 6a.10 Optional Culvert Material (Not applicable to this project)**
- 6a.11 French Drain Systems (Not applicable to this project)**
- 6a.11a Existing French Drain Systems (Not applicable to this project)**
- 6a.12 Drainage Wells (Not applicable to this project)**
- 6a.13 Drainage Design Documentation Report**

Compile drainage design documentation into report format. Include documentation for all the drainage design tasks and associated meetings and decisions, except for stand-alone reports, such as the Pond Siting Analysis Report and Bridge Hydraulics Report.
- 6a.14 Bridge Hydraulic Report (Not applicable to this project)**
- 6a.15 Temporary Drainage Analysis (Not applicable to this project)**
- 6a.16 Cost Estimate**
- 6a.17 Technical Special Provisions / Modified Special Provisions (Not applicable to this project)**
- 6a.18 Hydroplaning Analysis (Not applicable to this project)**
- 6a.19 Existing Permit Analysis**

Data gathering including desktop analysis of local, state and federal Drainage permits.
- 6a.20 Other Drainage Analysis (Not applicable to this project)**
- 6a.21 Field Reviews**
- 6a.22 Technical Meetings**

Meetings with CITY staff, regulatory agencies, etc.

## **6 DRAINAGE ANALYSIS**

- 6a.23 Environmental Look-Around Meetings (Not applicable to this project)
- 6a.24 Quality Assurance/Quality Control
- 6a.25 Independent Peer Review (Not applicable to this project)
- 6a.26 Supervision
- 6a.27 Coordination

## **6b DRAINAGE PLANS**

The CONSULTANT shall prepare Drainage plan sheets, notes, and details. The plans shall include the following sheets necessary to convey the intent and scope of the project for the purposes of construction.

- 6b.1 Drainage Map (Including Interchanges) (Not applicable to this project)**
- 6b.2 Bridge Hydraulics Recommendation Sheets (Not applicable to this project)**
- 6b.3 Summary of Drainage Structures (Not applicable to this project)**
- 6b.4 Optional Pipe/Culvert Material (Not applicable to this project)**
- 6b.5 Drainage Structure Sheet(s) (Per Structure) (Not applicable to this project)**
- 6b.6 Miscellaneous Drainage Detail Sheets (Not applicable to this project)**
- 6b.7 Lateral Ditch Plan/Profile (Not applicable to this project)**
- 6b.8 Lateral Ditch Cross Sections (Not applicable to this project)**
- 6b.9 Retention/Detention Pond Detail Sheet(s) (Not applicable to this project)**
- 6b.10 Retention Pond Cross Sections (Not applicable to this project)**
- 6b.11 Erosion Control Plan Sheet(s)**

**The CONSULTANT will develop Erosion Control details for areas where existing soil is expected to be disturbed. This will include areas of paved shoulder widening. It is anticipated that the erosion control details will be shown as a special detail.**

- 6b.12 SWPPP Sheet(s)**
- 6b.13 Quality Assurance/Quality Control**
- 6b.14 Supervision**

## 7 UTILITIES

The CONSULTANT shall identify utility facilities and secure agreements, utility work schedules, and plans from the Utility Agency Owners (UAO) ensuring all conflicts that exist between utility facilities and the CITY's construction project are addressed. The CONSULTANT shall certify all utility negotiations have been completed and that arrangements have been made for utility work to be undertaken.

### 7.1 Utility Kickoff Meeting (Not applicable to this project)

### 7.2 Identify Existing Utility Agency Owner(s)

The Consultant shall identify all utilities within and adjacent to the project limits that may be impacted by the project.

### 7.3 Make Utility Contacts

First Contact: The CONSULTANT shall send letters and two sets of plans to each utility, one set for the utility office, and one set to the CITY Offices. Includes contact by phone for meeting coordination. Request type, size, location, easements, and cost for relocation if reimbursement is claimed. Request the voltage level for power lines in the project area. Send UAO requests for reimbursement to CITY for a legal opinion. Include the meeting schedule (if applicable) and the design schedule. Include typical meeting agenda. If scheduling a meeting, give 4 weeks advance notice.

Second Contact: At a minimum of 4 weeks prior to the meeting, the CONSULTANT shall transmit two complete sets of Phase II plans and the utility conflict information (when applicable and in the format requested by the CITY) to each UAO having facilities located within the project limits, and one set to the CITY Offices.

Third Contact: Identify agreements and assemble packages. The CONSULTANT shall send agreements, letters, the utility conflict information (when applicable and in the format requested by the CITY) and two sets of plans to the UAO(s) including all component sets, one set for the utility office, one set to construction and maintenance if required. Include the design schedule.

Not all projects will have all contacts as described above.

### 7.4 Exception Processing (Not applicable to this project)

### 7.5 Preliminary Utility Meeting (Not applicable to this project)

### 7.6 Individual/Field Meetings

The CONSULTANT shall meet with each UAO as necessary, separately or together, throughout the project design duration to provide guidance in the interpretation of plans, review changes to the plans and schedules, standard or selective clearing and grubbing work, and assist in the development of the UAO(s) plans and work schedules. The CONSULTANT is responsible for motivating the UAO to complete and return the necessary documents after each Utility Contact or Meeting.

## 7 UTILITIES

### **7.7 Collect and Review Plans and Data from UAO(s)**

The CONSULTANT shall review utility marked plans and data individually as they are received for content. Ensure information from the UAO (utility type, material and size) is sent to the designer for inclusion in the plans. Forward all requests for utility reimbursement and supporting documentation to the CITY.

*The CONSULTANT will be responsible for producing a Utility Conflict Matrix. The Matrix will include location (station, offset, depth) of existing facilities in relation to proposed construction features, and will be submitted with the Phase II submittal. Subsequent phase submittals will require that the Utility Conflict Matrix be updated and submitted reflecting any design changes or new information.*

### **7.8 Subordination of Easements Coordination (Not applicable to this project)**

### **7.9 Utility Design Meeting**

The CONSULTANT shall schedule (time and place), notify participants, and conduct a Utility meeting with all affected UAO(s). The CONSULTANT shall be prepared to discuss impacts to existing trees/vegetation and proposed landscape, drainage, traffic signalization, maintenance of traffic (construction phasing), review the current design schedule and letting date, evaluate the utility information collected, provide follow-up information on compensable property rights from CITY Legal Office, discuss with each UAO the utility work by highway contractor option, discuss any future design issues that may impact utilities, etc., to the extent that they may have an effect on existing or proposed utility facilities with particular emphasis on drainage and maintenance of traffic with each UAO. The intent of this meeting shall be to assist the UAOs in identifying and resolving conflicts between utilities and proposed construction before completion of the plans, including utility adjustment details. *The intent is* also to work with the UAOs to recommend potential resolution between known utility conflicts with proposed construction plans as may be deemed practical by the UAO. The CONSULTANT shall keep accurate minutes of all meetings and distribute a copy to all attendees within 3 days. See Task 4.5 (Horizontal/Vertical Master Design File) and Task 4.9 (Cross Section Design Files) for utility conflict location identification and adjustments.

### **7.10 Review Utility Markups & Work Schedules and Processing of Schedules & Agreements**

The CONSULTANT shall review utility marked up plans and work schedules as they are received for content and coordinate review with the designer. Send color markups and schedules to the CITY's Project Manager for review and comment, if required by the CITY. Coordinate with the CITY for execution. Distribute Executed Final Documents. Prepare Work Order for UAO(s). The CONSULTANT shall coordinate with the CITY the programming of necessary funds.

### **7.11 Utility Coordination/Follow-up**

The CONSULTANT shall provide utility coordination and follow up. This includes follow-up, interpreting plans, and assisting the UAOs with completion of their work schedules and agreements. Includes phone calls, face-to-face meetings, etc., to motivate and ensure the UAO(s) complete and return the required documents in accordance with the project schedule. Ensure the resolution of all known conflicts. The CONSULTANT shall keep

accurate minutes of all meetings and distribute a copy to all attendees. This task can be applied to all phases of the project.

**7.12 Utility Constructability Review (Not applicable to this project)**

**7.13 Additional Utility Services (Not applicable to this project)**

**7.14 Processing Utility Work by Highway Contractor (UWHC)**

**7.15 Contract Plans to UAO(s)**

**7.16 Certification/Close-Out**

This includes hours for transmitting utility files to the CITY and preparation of the Utility Certification Letter. The CONSULTANT shall certify to the appropriate CITY representative the following:

All utility negotiations (Full execution of each agreement, approved Utility Work Schedules, Technical Special Provisions or Modified Special Provisions written, etc.) have been completed with arrangements made for utility work to be undertaken and completed as required for proper coordination with the physical construction schedule.

OR

An on-site inspection was made and no utility work will be involved.

OR

Plans were sent to the Utility Companies/Agencies and no utility work is required.

**7.17 Other Utilities**

This includes hours for permit reviews of permits falling within the limits of this design project and clerical/admin hours for financial closeout and invoicing.

## **8 ENVIRONMENTAL PERMITS, COMPLIANCE AND CLEARANCES**

The CONSULTANT shall notify the CITY Project Manager, Environmental Permit Coordinator and other appropriate CITY personnel in advance of all scheduled meetings with the regulatory agencies to allow a CITY representative to attend. The CONSULTANT shall copy in the Project Manager and the Environmental Permit Coordinator on all permit related correspondence and meetings.

### **8.1 Preliminary Project Research**

The CONSULTANT shall perform preliminary project research and shall be responsible for regulatory agency coordination to assure that design efforts are properly directed toward permit requirements.

The CONSULTANT shall also review for any existing easements or other restrictions that may exist both within or proposed project boundary. The CONSULTANT shall determine if any Sovereign Submerged Lands easements need to be modified or acquired. Project research may include but should not be limited to review of available federal, state, and local permit files and databases, local government information including county and property appraiser data. This information will be shown on the plans as appropriate.

### **8.2 Field Work**

#### 8.2.1 Pond Site Alternatives: (Not applicable to this project)

#### 8.2.2 Establish Wetland Jurisdictional Lines and Assessments:

The CONSULTANT shall collect all data and information necessary to determine the boundaries of wetlands and other surface waters defined by the rules or regulations of each agency processing or reviewing a permit application necessary to construct the CITY project.

The CONSULTANT shall be responsible for, but not limited to, the following activities:

- Determine landward extent of wetlands and other surface waters as defined in Rule Chapter 62-340, F.A.C. as ratified in Section 373.4211, F.S.
- Determine the jurisdictional boundaries and obtain a jurisdictional determination of wetlands and other surface waters as defined by rules or regulations of any permitting authority that is processing a CITY permit application.
- Prepare aerial maps showing the jurisdictional boundaries of wetlands and surface waters. Aerial maps shall be reproducible, of a scale no greater than 1"=200' and be recent photography. The maps shall show the jurisdictional limits of each agency. Photo copies of aerials are not acceptable. All jurisdictional boundaries are to be tied to the project's baseline of survey. When necessary, a wetland specific survey will be prepared by a registered surveyor and mapper.
- Prepare a written assessment of the current condition and functional value of the wetlands and other surface waters. Prepare data in tabular form which includes the ID number for each wetland impacted, size of wetland to be impacted, type of impact and identify any wetland within the project limits that will not be impacted by the project.
- Prepare appropriate Agency Forms to obtain required permits. Forms may include but

## **8 ENVIRONMENTAL PERMITS, COMPLIANCE AND CLEARANCES**

are not limited to the United States Army Corps of Engineers (USACE) “Wetland Determination Data Form – Atlantic and Gulf Coastal Plain Region”; the USACE “Approved Jurisdictional Determination Form”; Uniform Mitigation Assessment Method forms and/or project specific data forms.

8.2.3 Species Surveys: **(Not applicable to this project)**

8.2.4 Archaeological Surveys: **(Not applicable to this project)**

### **8.3 Agency Verification of Wetland Data**

The CONSULTANT shall be responsible for verification of wetland data identified in Section 8.2 and coordinating regulatory agency field reviews, including finalization of wetland assessments and jurisdictional determinations with applicable agencies.

### **8.4 Complete and Submit All Required Permit Applications**

The CONSULTANT shall prepare permit application packages as identified in the Project Description section. The permit application package must be approved by the CITY prior to submittal to the regulatory agency.

The CONSULTANT shall collect all the data and information necessary to obtain the environmental permits required to construct the project. The CONSULTANT shall prepare each permit application for CITY approval in accordance with the rules and/or regulations of the environmental agency responsible for issuing a specific permit and/or authorization to perform work.

The CONSULTANT will submit all permit applications, as directed by the CITY, and be responsible for payment of all permit fees.

**8.5 Prepare Dredge and Fill Sketches (as needed) (Not applicable to this project)**

**8.6 Prepare USCG Permit (Not applicable to this project)**

**8.7 Prepare Water Management District Right of Way Occupancy Permit (Not applicable to this project)**

**8.8 Prepare Coastal Construction Control Line (CCCL) Permit Application (as needed) (Not applicable to this project)**

**8.9 Prepare Tree Permit Information (as needed) (Not applicable to this project)**

**8.10 Mitigation Design (Not applicable to this project)**

**8.11 Mitigation Coordination and Meetings (Not applicable to this project)**

**8.12 Other Environmental Permits (Not applicable to this project)**

**8.13 Technical Support to the CITY for Environmental Clearances and Re-**

## **8 ENVIRONMENTAL PERMITS, COMPLIANCE AND CLEARANCES**



evaluations (Not applicable to this project)

- 8.14 Preparation of Environmental Clearances and Reevaluations (Not applicable to this project)
- 8.15 Contamination Impact Analysis (Not applicable to this project)
- 8.16 Asbestos Survey (Not applicable to this project)
- 8.17 Technical Meetings
- 8.18 Quality Assurance/Quality Control
- 8.19 Supervision
- 8.20 Coordination

**9 STRUCTURES - SUMMARY AND MISCELLANEOUS TASKS AND DRAWINGS** and tasks 9.1 – 9.16 are not applicable to this project.

**10 STRUCTURES - BRIDGE DEVELOPMENT REPORT** and tasks 10.1 – 10.35 are not applicable to this project.

**11 STRUCTURES - TEMPORARY BRIDGE** and tasks 11.1 – 11.8 are not applicable to this project.

**12 STRUCTURES - SHORT SPAN CONCRETE BRIDGE** and tasks 12.1 – 12.28 are not applicable to this project.

**13 STRUCTURES - MEDIUM SPAN CONCRETE BRIDGE** and tasks 13.1 – 13.55 are not applicable to this project.

**14 STRUCTURES - STRUCTURAL STEEL BRIDGE** and tasks 14.1 – 14.62 are not applicable to this project.

**15 STRUCTURES - SEGMENTAL CONCRETE BRIDGE** and tasks 15.1 – 15.77 are not applicable to this project.

**16 STRUCTURES - MOVABLE SPAN** and tasks 16.1 – 16.102 are not applicable to this project.

**17 STRUCTURES - RETAINING WALLS** and tasks 17.1 – 17.21 are not applicable to this project.

**18 STRUCTURES - MISCELLANEOUS**

The CONSULTANT shall prepare plans for Miscellaneous Structure(s) as specified in Section 2.5.

Concrete Box Culverts

**18.1 Concrete Box Culverts (Not applicable to this project)**

**18.2 Concrete Box Culverts Extensions (Not applicable to this project)**

**18.3 Concrete Box Culvert Data Table Plan Sheets (Not applicable to this project)**

**18 STRUCTURES – MISCELLANEOUS**

**18.4 Concrete Box Culvert Special Details Plan Sheets (Not applicable to this project)**

Strain Poles

**18.5 Steel Strain Poles (Not applicable to this project)**

**18.6 Concrete Strain Poles**

*Includes hours to analyze options for the concrete strain pole supporting the overhead SCHOOL ZONE sign for turn lane widening at Myra Terwilliger Elementary. This work is part of the Planning Phase of the project.*

**18.7 Strain Pole Data Table Plan Sheets (Not applicable to this project)**

**18.8 Strain Pole Special Details Plan Sheets (Not applicable to this project)**

Mast Arms

**18.9 Mast Arms (Not applicable to this project)**

**18.10 Mast Arms Data Table Plan Sheets (Not applicable to this project)**

**18.11 Mast Arms Special Details Plan Sheets (Not applicable to this project)**

Overhead/Cantilever Sign Structure

**18.12 Cantilever Sign Structures (Not applicable to this project)**

**18.13 Overhead Span Sign Structures (Not applicable to this project)**

**18.14 Special (Long Span) Overhead Sign Structures (Not applicable to this project)**

**18.15 Monotube Overhead Sign Structure (Not applicable to this project)**

**18.16 Bridge Mounted Signs (Attached to Superstructure) (Not applicable to this project)**

**18.17 Overhead/Cantilever Sign Structures Data Table Plan Sheets (Not applicable to this project)**

**18.18 Overhead/Cantilever Sign Structures Special Details Plan Sheets (Not applicable to this project)**

High Mast Lighting

**18.19 Non-Standard High Mast Lighting Structures (Not applicable to this project)**

**18.20 High Mast Lighting Special Details Plan Sheets (Not applicable to this project)**

**18 STRUCTURES – MISCELLANEOUS**

Noise Barrier Walls (Ground Mount)

- 18.21 Horizontal Wall Geometry (Not applicable to this project)**
- 18.22 Vertical Wall Geometry (Not applicable to this project)**
- 18.23 Summary of Quantities – Aesthetic Requirements (Not applicable to this project)**
- 18.24 Control Drawings (Not applicable to this project)**
- 18.25 Design of Noise Barrier Walls Covered by Standards (Not applicable to this project)**
- 18.26 Design of Noise Barrier Walls not Covered by Standards (Not applicable to this project)**
- 18.27 Aesthetic Details (Not applicable to this project)**

Special Structures

- 18.28 Fender System (Not applicable to this project)**
- 18.29 Fender System Access (Not applicable to this project)**
- 18.30 Special Structures (Not applicable to this project)**
- 18.31 Other Structures (Not applicable to this project)**
- 18.32 Condition Evaluation of Signal and Sign Structures, and High Mast Light Poles (Not applicable to this project)**
- 18.33 Condition Evaluation of Signal and Sign Structures, and High Mast Light Poles (No As built or Design Plans Available) (Not applicable to this project)**
- 18.34 Analytical Evaluation of Signal and Sign Structures, and High Mast Light Poles (Not applicable to this project)**
- 18.35 Ancillary Structures Report (Not applicable to this project)**

## **19 SIGNING AND PAVEMENT MARKING ANALYSIS**

The CONSULTANT shall analyze and document Signing and Pavement Markings Tasks in accordance with all applicable manuals, guidelines, standards, handbooks, procedures, and current design memorandums.

### **19.1 Traffic Data Analysis**

*The CONSULTANT shall evaluate the existing signage to determine the need for additional signs, correcting redundant or conflicting signage, and the replacement of damaged signs. It is NOT the CITY's intent to replace signs based solely on age or installation date. Existing signage problems/issues that are discovered during the design phase should be communicated to the CITY's Project Manager to be addressed as appropriate.*

### **19.2 No Passing Zone Study (Not applicable to this project)**

### **19.3 Reference and Master Design File**

The CONSULTANT shall prepare the Signing & Marking Design file to include all necessary design elements and all associated reference files.

### **19.4 Multi-Post Sign Support Calculations (Not applicable to this project)**

### **19.5 Sign Panel Design Analysis (Not applicable to this project)**

### **19.6 Sign Lighting/Electrical Calculations (Not applicable to this project)**

### **19.7 Quantities**

### **19.8 Cost Estimate**

### **19.9 Technical Special Provisions and Modified Special Provisions (Not applicable to this project)**

### **19.10 Other Signing and Pavement Marking Analysis**

*The CONSULTANT will evaluate restriping options to provide dedicated bike lanes between SW 20<sup>th</sup> Avenue and SR 26/Newberry Road and midblock crosswalk needs along the corridor.*

### **19.11 Field Reviews**

### **19.12 Technical Meetings**

### **19.13 Quality Assurance/Quality Control**

### **19.14 Independent Peer Review (Not applicable to this project)**

## **19 SIGNING AND PAVEMENT MARKING ANALYSIS**

**19.15 Supervision**

**19.16 Coordination**

## **20 SIGNING AND PAVEMENT MARKING PLANS**

The CONSULTANT shall prepare a set of Signing and Pavement Marking Plans in accordance with all applicable manuals, guidelines, standards, handbooks, procedures, and current design memorandums that includes the following.

- 20.1 Key Sheet**
- 20.2 Summary of Pay Items Including Quantity Input (Not applicable to this project)**
- 20.3 Tabulation of Quantities**
- 20.4 General Notes/Pay Item Notes**
- 20.5 Project Layout (Not applicable to this project)**
- 20.6 Plan Sheet**
- 20.7 Typical Details (Not applicable to this project)**
- 20.8 Guide Sign Work Sheet(s) (Not applicable to this project)**
- 20.9 Traffic Monitoring Site (Not applicable to this project)**
- 20.10 Cross Sections (Not applicable to this project)**
- 20.11 Special Service Point Details (Not applicable to this project)**
- 20.12 Special Details (Not applicable to this project)**
- 20.13 Interim Standards (Not applicable to this project)**
- 20.14 Quality Assurance/Quality Control**

The CONSULTANT shall be responsible for the professional quality, technical accuracy and coordination of traffic design drawings, specifications and other services furnished by the CONSULTANT under this contract.

The CONSULTANT shall provide a Quality Control Plan that describes the procedures to be utilized to verify, independently check, and review all design drawings, specifications and other services prepared as a part of the contract. The CONSULTANT shall describe how the checking and review processes are to be documented to verify that the required procedures were followed. The Quality Control Plan may be one utilized by the CONSULTANT as part of their normal operation or it may be one specifically designed for this project.

- 20.15 Supervision**

## **20 SIGNING AND PAVEMENT MARKING PLANS**

## **21 SIGNALIZATION ANALYSIS**

The CONSULTANT shall analyze and document Signalization Analysis Tasks in accordance with all applicable manuals, guidelines, standards, handbooks, procedures, and current design memorandums.

### **21.1 Traffic Data Collection**

The CONSULTANT shall perform all effort required for traffic data collection, including crash reports, 24 hr. machine counts, 8 hr. turning movement counts, 7 day machine counts, and speed & delay studies.

*The CONSULTANT will collect traffic data at the entrances and exits of Myra Terwilliger Elementary as part of the Planning Phase of the project.*

### **21.2 Traffic Data Analysis (Not applicable to this project)**

### **21.3 Signal Warrant Study (Not applicable to this project)**

### **21.4 Systems Timings (Not applicable to this project)**

### **21.5 Reference and Master Signalization Design File (Not applicable to this project)**

### **21.6 Reference and Master Interconnect Communication Design File (Not applicable to this project)**

### **21.7 Overhead Street Name Sign Design (Not applicable to this project)**

### **21.8 Pole Elevation Analysis (Not applicable to this project)**

### **21.9 Traffic Signal Operation Report (Not applicable to this project)**

### **21.10 Quantities**

### **21.11 Cost Estimate**

### **21.12 Technical Special Provisions and Modified Special Provisions (Not applicable to this project)**

### **21.13 Other Signalization Analysis (Not applicable to this project)**

### **21.14 Field Reviews (Not applicable to this project)**

### **21.15 Technical Meetings (Not applicable to this project)**

### **21.16 Quality Assurance/Quality Control**

### **21.17 Independent Peer Review (Not applicable to this project)**

## **21 SIGNALIZATION ANALYSIS**



**21.18 Supervision**

**21.19 Coordination**

**22 SIGNALIZATION PLANS and tasks 22.1 – 22.18 are not applicable to this project.**

### **23 LIGHTING ANALYSIS**

The CONSULTANT shall analyze and document Lighting Tasks in accordance with all applicable manuals, guidelines, standards, handbooks, procedures, and current design memorandums.

**23.1 Lighting Justification Report (Not applicable to this project)**

**23.2 Lighting Design Analysis Report**

*Roadway lighting is present throughout the corridor. The CONSULTANT shall evaluate the need for additional lighting along the roadway, with special emphasis given to signalized intersections and uncontrolled pedestrian crossings. The CONSULTANT shall prepare a Lighting Design Analysis Report. The report shall be submitted under a separate cover with the Planning Phase report submittal. The report shall include analysis of existing lighting and provide recommendations for new lighting installations and upgrades of existing lighting.*

**23.3 Aeronautical Evaluation (Not applicable to this project)**

**23.4 Voltage Drop Calculations (Not applicable to this project)**

**23.5 FDEP Coordination and Report (Not applicable to this project)**

**23.6 Reference and Master Design Files (Not applicable to this project)**

**23.7 Temporary Lighting (Not applicable to this project)**

**23.8 Design Documentation (Not applicable to this project)**

**23.9 Quantities (Not applicable to this project)**

**23.10 Cost Estimate**

**23.11 Technical Special Provisions and Modified Special Provisions (Not applicable to this project)**

**23.12 Other Lighting Analysis (Not applicable to this project)**

**23.13 Field Reviews**

The CONSULTANT shall collect information from the maintaining agencies and conduct a field review. The review should include but is not limited to the following:

Existing Lighting Equipment

Load Center, Capabilities and Condition/Age

Condition of Lighting Structure(s)

Verification of horizontal clearances

Verification of breakaway requirements

**23.14 Technical Meetings**

**23.15 Quality Assurance/Quality Control**

**23.16 Independent Peer Review (Not applicable to this project)**

**23.17 Supervision**

**23.18 Coordination**

**24 LIGHTING PLANS and tasks 22.1 – 22.18 are not applicable to this project.**

**25 LANDSCAPE ARCHITECTURE ANALYSIS and tasks 25.1 – 25.17 are not applicable to this project.**

**26 LANDSCAPE ARCHITECTURE PLANS and tasks 26.1 – 26.16 are not applicable to this project.**

## **27 SURVEY**

The CONSULTANT shall perform survey tasks in accordance with all applicable statutes, manuals, guidelines, standards, handbooks, procedures, and current design memoranda.

The CONSULTANT shall submit all survey notes and computations to document the surveys. All field survey work shall be recorded in approved media and submitted to the CITY. Field books submitted to the CITY must be of an approved type. The field books shall be certified by the surveyor in responsible charge of work being performed before the final product is submitted.

The survey notes shall include documentation of decisions reached from meetings, telephone conversations or site visits. All like work (such as bench lines, reference points, etc.) shall be recorded contiguously. The CITY may not accept field survey radial locations of section corners, platted subdivision lot and block corners, alignment control points, alignment control reference points and certified section corner references. The CITY may instead require that these points be surveyed by true line, traverse or parallel offset.

### **27.1 Horizontal Project Control (HPC)**

Establish or recover HPC, for the purpose of establishing horizontal control on the Florida State Plane Coordinate System or datum approved by the CITY; may include primary or secondary control points. Includes analysis and processing of all field collected data, and preparation of forms.

### **27.2 Vertical Project Control (VPC)**

Establish or recover VPC, for the purpose of establishing vertical control on datum approved by the CITY; may include primary or secondary vertical control points. Includes analysis and processing of all field collected data, and preparation of forms.

### **27.3 Alignment and/or Existing Right of Way (R/W) Lines**

Establish, recover or re-establish project alignment. Also includes analysis and processing of all field collected data, existing maps, and/or reports for identifying the mainline alignment.

## **27 SURVEY**

Depict alignment and existing R/W lines (in required format) per CITY R/W Maps.

**27.4 Aerial Targets (Not applicable to this project)**

**27.5 Reference Points (Not applicable to this project)**

**27.6 Topography/Digital Terrain Model (DTM) (3D)**

Locate all above ground features and improvements by collecting the required data for the purpose of creating a DTM with sufficient density. Shoot all break lines, high and low points. Effort includes field edits, analysis and processing of all field collected data, existing maps, and/or reports. *Provide 3D Topo/DTM from the centerline of NW 62<sup>nd</sup> Street to the eastern R/W line between NW 1<sup>st</sup> Place and the middle entrance to Myra Terwilliger Elementary.*

**27.7 Planimetric (2D) (Not applicable to this project)**

**27.8 Roadway Cross Sections/Profiles**

Perform cross sections *from R/W line to R/W line at 500-foot intervals in the tangent sections. In the curves, cross sections will be taken 50 feet before the PC and PT, at the PC and PT, 50 feet after the PC and PT, and at 300-foot intervals through the curves.*

**27.9 Side Street Surveys**

*Collect 2D topographic and planimetric data for 100 feet each way along 62<sup>nd</sup> Blvd and for 100 feet down the side streets at signalized intersections. There is one signalized intersection at:*

- *NW 1<sup>st</sup> Place/Oaks Mall*

*Collect 2D topographic and planimetric data for 50 each way along 62<sup>nd</sup> Blvd and for 50 feet down the side streets at unsignalized intersections. These include:*

- *The Woodlands of Gainesville*
- *The Pavilion on 62<sup>nd</sup>*
- *SW 9<sup>th</sup> Place/Vintage View*
- *SW 9<sup>th</sup> Place/Rockwood Villas*
- *Spyglass*
- *Lakewood Villas*
- *SW 4<sup>th</sup> Place*
- *Palm Garden*
- *Savannah Apartment Homes (2 entrances)*
- *Hampton Oaks*
- *Myra Terwilliger Elementary (3 entrances)*
- *NW 4<sup>th</sup> Place*
- *Oaks Mall Northern Entrance*
- *Shopping Center Entrance at Hobby Lobby*

**27.10 Underground Utilities**

Designation includes 2-dimensional collection of existing utilities and selected 3-dimensional verification as needed for designation. Location includes non-destructive excavation to determine size, type and location of existing utility, as necessary for final 3-dimensional verification. Survey includes collection of data on points as needed for designates and locates. Includes analysis and processing of all field collected data, and delivery of all appropriate electronic files.

*Provide subsurface utility designating only for laying out Vvh test holes as needed and provide Vvh test holes at potential utility conflicts as identified by the EOR.*

**27.11 Outfall Survey (Not applicable to this project)**

**27.12 Drainage Survey (Not applicable to this project)**

**27.13 Bridge Survey (Minor/Major) (Not applicable to this project)**

**27.14 Channel Survey (Not applicable to this project)**

**27.15 Pond Site Survey (Not applicable to this project)**

**27.16 Mitigation Survey (Not applicable to this project)**

**27.17 Jurisdiction Line Survey**

Perform field location (2-dimensional) of jurisdiction limits as defined by respective authorities, also includes field edits, analysis and processing of all field collected data, preparation of reports.

*Survey all flagged wetland lines within the project limits.*

**27.18 Geotechnical Support (Not applicable to this project)**

**27.19 Sectional/Grant Survey (Not applicable to this project)**

**27.20 Subdivision Location (Not applicable to this project)**

**27.21 Maintained R/W (Not applicable to this project)**

**27.22 Boundary Survey (Not applicable to this project)**

**27.23 Water Boundary Survey (Not applicable to this project)**

**27.24 Right of Way Staking, Parcel / Right of Way Line (Not applicable to this project)**

**27.25 Right of Way Monumentation (Not applicable to this project)**

**27.26 Line Cutting (Not applicable to this project)**

**27.27 Work Zone Safety**

Provide work zone as required by CITY standards.

**27.28 Miscellaneous Surveys (Not applicable to this project)**

**27.29 Supplemental Surveys (Not applicable to this project)**

**27.30 Document Research (Not applicable to this project)**

**27.31 Field Review**

Perform verification of the field conditions as related to the collected survey data.

**27.32 Technical Meetings**

Attend meetings as required.

**27.33 Quality Assurance/Quality Control (QA/QC)**

Establish and implement a QA/QC plan. Also includes subconsultant review, response to comments and any resolution meetings if required, preparation of submittals for review, etc.

**27.34 Supervision**

Perform all activities required to supervise and coordinate project. These activities must be performed by the project supervisor, a Florida P.S.M. or their delegate as approved by the CITY.

**27.35 Coordination**

Coordinate survey activities with other disciplines. These activities must be performed by the project supervisor, a Florida P.S.M. or their delegate as approved by the CITY.

**28 PHOTOGRAMMETRY and tasks 28.1 – 28.25 are not applicable to this project.**

**29 MAPPING and tasks 29.1 – 29.36 are not applicable to this project.**

**30 TERRESTRIAL MOBILE LiDAR and tasks 30.1 – 30.19 are not applicable to this project.**

**31 ARCHITECTURE DEVELOPMENT and tasks 31.1 – 31.143 are not applicable to this project.**

**32 NOISE BARRIERS IMPACT DESIGN ASSESSMENT IN THE DESIGN PHASE and tasks 32.1 – 32.9 are not applicable to this project.**

**33 INTELLIGENT TRANSPORTATION SYSTEMS ANALYSIS and tasks 33.1 – 33.21 are not applicable to this project.**

**34 INTELLIGENT TRANSPORTATION SYSTEMS PLANS and tasks 34.1 – 34.21 are not applicable to this project.**

**35 GEOTECHNICAL**

The CONSULTANT shall, for each project, be responsible for a complete geotechnical investigation. All work performed by the CONSULTANT shall be in accordance with FDOT standards, or as otherwise directed by the CITY.

Before beginning each phase of investigation and after the Notice to Proceed is given, the CONSULTANT shall submit an investigation plan for approval and meet with the CITY's Project Manager or representative to review the project scope and CITY requirements. The investigation plan shall include, but not be limited to, the proposed boring locations and depths, and all existing geotechnical information from available sources to generally describe the surface and subsurface conditions of the project site. Additional meetings may be required to plan any additional field efforts, review plans, resolve plans/report comments, resolve responses to comments, and/or any other meetings necessary to facilitate the project.

**37 INVOICING LIMITS**



The CONSULTANT shall notify the CITY in adequate time to schedule a representative to attend all related meetings and field activities.

### **35.1 Document Collection and Review**

CONSULTANT will review printed literature including topographic maps, county agricultural maps, aerial photography (including historic photos), ground water resources, geology bulletins, potentiometric maps, pile driving records, historic construction records and other geotechnical related resources. Prior to field reconnaissance, CONSULTANT shall review U.S.G.S., S.C.S. and potentiometric maps, and identify areas with problematic soil and groundwater conditions.

#### Roadway

The CONSULTANT shall be responsible for coordination of all geotechnical related field work activities. The CONSULTANT shall retain all samples until acceptance of Phase IV plans.

Obtain pavement cores in accordance with the FDOT Materials Manual.

CONSULTANT shall perform specialized field-testing as required by project needs and as directed in writing by the CITY.

All laboratory testing and classification will be performed in accordance with applicable FDOT standards, ASTM Standards or AASHTO Standards, unless otherwise specified in the Contract Documents.

### **35.2 Develop Detailed Boring Location Plan**

Develop a detailed boring location plan. Meet with the CITY Project Manager for boring plan approval. If the drilling program expects to encounter artesian conditions, the CONSULTANT shall submit a methodology(s) for plugging the borehole to the CITY for approval prior to commencing with the boring program.

*Geotechnical borings will be required for areas of paved shoulder widening.*

### **35.3 Stake Borings/Utility Clearance**

Stake borings and obtain utility clearance.

### **35.4 Muck Probing (Not applicable to this project)**

### **35.5 Coordinate and Develop MOT Plans for Field Investigation**

## **37 INVOICING LIMITS**

Coordinate and develop Maintenance of Traffic (MOT) plan. All work zone traffic control will be performed in accordance with the MUTCD.

**35.6 Drilling Access Permits (Not applicable to this project)**

**35.7 Property Clearances (Not applicable to this project)**

**35.8 Groundwater Monitoring (Not applicable to this project)**

**35.9 LBR / Resilient Modulus Sampling**

Collect appropriate samples for Limerock Bearing Ratio (LBR) testing. *LBR sampling will be conducted for paved shoulder construction.*

**35.10 Coordination of Field Work**

Coordinate all field work required to provide geotechnical data for the project.

**35.11 Soil and Rock Classification - Roadway**

Refine soil profiles recorded in the field, based on results of laboratory testing.

**35.12 Design LBR**

Determine design LBR values from the 90% and mean methods when LBR testing is required by the CITY.

**35.13 Laboratory Data**

Tabulate laboratory test results for inclusion in the geotechnical report, the report of tests sheet (Roadway Soil Survey Sheet), and for any necessary calculations and analyses.

**35.14 Seasonal High Water Table**

Review the encountered ground water levels and estimate seasonal high ground water levels.

**35.15 Parameters for Water Retention Areas (Not applicable to this project)**

**35.16 Delineate Limits of Unsuitable Material**

Delineate limits of unsuitable material(s) in both horizontal and vertical directions. Assist the Engineer of Record with detailing these limits on the cross-sections. If requested, prepare a plan view of the limits of unsuitable material.

**37 INVOICING LIMITS**

**35.17 Electronic Files for Cross-Sections**

Create electronic files of boring data for cross-sections.

**35.18 Embankment Settlement and Stability (Not applicable to this project)**

**35.19 Monitor Existing Structures (Not applicable to this project)**

**35.20 Stormwater Volume Recovery and/or Background Seepage Analysis (Not applicable to this project)**

**35.21 Geotechnical Recommendations**

Provide geotechnical recommendations regarding the proposed roadway construction project including the following: description of the site/alignment, design recommendations and discussion of any special considerations (i.e. removal of unsuitable material, consolidation of weak soils, estimated settlement time/amount, groundwater control, high groundwater conditions relative to pavement base, etc.) Evaluate and recommend types of geosynthetics and properties for various applications, as required.

**35.22 Pavement Condition Survey and Pavement Evaluation Report**

If a pavement evaluation is performed, submit the report in accordance with Section 3.2 of the FDOT Materials Manual: Flexible Pavement Coring and Evaluation.

**35.23 Preliminary Roadway Report**

Submit a preliminary roadway report before the Phase II plans submittal. The purpose of the preliminary roadway report will be to assist in identifying areas of unsuitable material.

- Copies of U.S.G.S. and S.C.S. maps with project limits shown.
- A report of tests sheet that summarizes the laboratory test results, the soil stratification (i.e. soils grouped into layers of similar materials) and construction recommendations relative to Standard Plans Indices 120-001 and 120-002.
- The results of all tasks discussed in all previous sections regarding data interpretation and analysis.
- An appendix that contains stratified soil boring profiles, laboratory test data sheets, sample embankment settlement and stability calculations, design LBR calculation/graphs, and other pertinent calculations.
- The CONSULTANT will respond in writing to any changes and/or comments from the CITY and submit any responses and revised reports.

**37 INVOICING LIMITS**

### **35.24 Final Report**

The Final Roadway Report shall include the following:

- Copies of U.S.G.S. and S.C.S. maps with project limits shown.
- A report of tests sheet that summarizes the laboratory test results, the soil stratification (i.e. soils grouped into layers of similar materials) and construction recommendations relative to FDOT Standard Plans Indices 120-001 and 120-002.
- The results of all tasks discussed in all previous sections regarding data interpretation and analysis.
- An appendix that contains stratified soil boring profiles, laboratory test data sheets, sample embankment settlement and stability calculations, design LBR calculation/graphs, and other pertinent calculations.
- The CONSULTANT will respond in writing to any changes and/or comments from the CITY and submit any responses and revised reports.

### **35.25 Auger Boring Drafting**

Draft auger borings as directed by the CITY.

### **35.26 SPT Boring Drafting (Not applicable to this project)**

**GEOTECHNICAL STRUCTURES and tasks 35.27 – 35.49 are not applicable to this project.**

### **35.50 Technical Special Provisions and Modified Special Provisions (Not applicable to this project)**

### **35.51 Field Reviews**

Identify and note surface soil and rock conditions, surface water conditions and locations, and preliminary utility conflicts. Observe and note nearby structures and foundation types.

### **35.52 Technical Meetings**

### **35.53 Quality Assurance/Quality Control**

### **35.54 Supervision**

## **37 INVOICING LIMITS**

**35.55 Coordination**

**36 3D MODELING and tasks 36.1 – 36.9 are not applicable to this project.**

**37 PROJECT REQUIREMENTS**

**37.1 Liaison Office**

The CITY and the CONSULTANT will designate a Liaison Office and a Project Manager who shall be the representative of their respective organizations for the Project. While it is expected the CONSULTANT shall seek and receive advice from various state, regional, and local agencies, the final direction on all matters of this project remain with the CITY Project Manager.

**37.2 Key Personnel**

The CONSULTANT's work shall be performed and directed by the key personnel identified in the proposal presentations by the CONSULTANT. Any changes in the indicated personnel shall be subject to review and approval by CITY.

**37.3 Progress Reporting**

The CONSULTANT shall meet with the CITY as required and shall provide a written monthly progress report with approved schedule, schedule status, and payout curve or by using the earned value method that describe the work performed on each task. The report will include assessing project risk through monthly documentation of identifying and updating the risk category and approach for monitoring those tasks. Invoices shall be submitted after the CITY approves the monthly progress report and the payout curve or with earned value analysis. The Project Manager will make judgment on whether work of sufficient quality and quantity has been accomplished by comparing the reported percent complete against actual work accomplished.

**37.4 Correspondence**

Copies of all written correspondence between the CONSULTANT and any party pertaining specifically to this contract shall be provided to the CITY for their records within one (1) week of the receipt or mailing of said correspondence.

**37.5 Professional Endorsement**

The CONSULTANT shall have a Licensed Professional Engineer in the State of Florida sign

**37 INVOICING LIMITS**

and seal all reports, documents, Technical Special Provisions and Modified Special Provisions, and plans as required by CITY standards.

### **37.6 Computer Automation**

The project will be developed utilizing Computer Aided Drafting and Design (CADD) systems. The CITY makes available software to help assure quality and conformance with policy and procedures regarding CADD. It is the responsibility of the CONSULTANT to meet the requirements in the CITY's CADD Manual. The CONSULTANT shall submit final documents and files as described therein.

### **37.7 Coordination with Other Consultants**

The CONSULTANT is to coordinate his work with any and all adjacent and integral consultants so as to effect complete and homogenous plans and specifications for the project(s) described herein.

### **37.8 Optional Services**

At the CITY's option, the CONSULTANT may be requested to provide optional services. The fee for these services shall be negotiated in accordance with the terms detailed in Exhibit B, Method of Compensation, for a fair, competitive and reasonable cost, considering the scope and complexity of the project(s). Additional services may be authorized by Letter of Authorization or supplemental amendment in accordance with paragraph 2.00 of the Standard Consultant Agreement. The additional services may include Construction Assistance, Review of Shop Drawings, Final Bridge Load Rating, update (Category II) bridge plans electronically (CADD) for the Final "As-Built" conditions, based on documents provided by the CITY (CADD Services Only) or other Services as required.

## **38 INVOICING LIMITS**

Payment for the work accomplished shall be in accordance with Method of Compensation of this contract. Invoices shall be submitted to the CITY, in a format prescribed by the CITY. The CITY Project Manager and the CONSULTANT shall monitor the cumulative invoiced billings to ensure the reasonableness of the billings compared to the project schedule and the work accomplished and accepted by the CITY.

The CONSULTANT shall provide a list of key events and the associated total percentage of work considered to be complete at each event. This list shall be used to control invoicing. Payments will not be made that exceed the percentage of work for any event until those events have actually occurred and the results are acceptable to the CITY.

### **37 INVOICING LIMITS**

**ESTIMATE OF WORK EFFORT AND COST - PRIME CONSULTANT**

Name of Project: SW 62nd Blvd Resurfacing from SW 20th Ave to SR 26  
 County: Alachua  
 FPN: 999999-1-52-01  
 FAP No.: N/A

Consultant Name: HNTB  
 Consultant No.: 61477-DS-200  
 Date: 6/15/2018  
 Estimator: J. Fowler

Staff Classification	Total Staff Hours From "SH Summary -"	Project Manager	Senior Engineer	Project Engineer	Engineer Intern	Designer	Contract Administrator	Staff Classification 7	Staff Classification 8	Staff Classification 9	Staff Classification 10	Staff Classification 11	Staff Classification 12	SH By Activity	Salary Cost By Activity	Average Rate Per Task
		\$87.76	\$63.21	\$49.62	\$27.72	\$40.08	\$37.40	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		
3. Project General and Project Common Tasks	136	95	7	7	7	0	20	0	0	0	0	0	0	136	\$10,069	\$74.04
4. Roadway Analysis	877	44	132	263	263	175	0	0	0	0	0	0	0	877	\$39,560	\$45.11
5. Roadway Plans	147	7	22	44	44	30	0	0	0	0	0	0	0	147	\$6,610	\$44.97
6a. Drainage Analysis	91	5	14	27	27	18	0	0	0	0	0	0	0	91	\$4,133	\$45.42
6b. Drainage Plans	10	1	2	3	3	1	0	0	0	0	0	0	0	10	\$486	\$48.63
7. Utilities	44	2	7	13	13	9	0	0	0	0	0	0	0	44	\$1,984	\$45.09
8. Environmental Permits, Compliance & Clearances	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
9. Structures - Misc. Tasks, Dwgs, Non-Tech.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
10. Structures - Bridge Development Report	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
11. Structures - Temporary Bridge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
12. Structures - Short Span Concrete Bridge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
13. Structures - Medium Span Concrete Bridge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
14. Structures - Structural Steel Bridge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
15. Structures - Segmental Concrete Bridge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
16. Structures - Movable Span	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
17. Structures - Retaining Walls	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
18. Structures - Miscellaneous	8	0	1	2	2	3	0	0	0	0	0	0	0	8	\$338	\$42.27
19. Signing & Pavement Marking Analysis	192	10	29	58	58	37	0	0	0	0	0	0	0	192	\$8,679	\$45.21
20. Signing & Pavement Marking Plans	50	3	8	15	15	9	0	0	0	0	0	0	0	50	\$2,290	\$45.80
21. Signalization Analysis	5	0	1	2	2	0	0	0	0	0	0	0	0	5	\$218	\$43.58
22. Signalization Plans	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
23. Lighting Analysis	63	3	9	19	19	13	0	0	0	0	0	0	0	63	\$2,823	\$44.80
24. Lighting Plans	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
25. Landscape Architecture Analysis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
26. Landscape Architecture Plans	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
27. Survey (Field & Office Support)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
28. Photogrammetry	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
29. Mapping	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
30. Terrestrial Mobile LiDAR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
31. Architecture Development	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
32. Noise Barriers Impact Design Assessment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
33. Intelligent Transportation Systems Analysis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
34. Intelligent Transportation Systems Plans	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
35. Geotechnical	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
36. 3D Modeling	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
<b>Total Staff Hours</b>	1,623	170	232	453	453	295	20	0	0	0	0	0	0	1,623		
<b>Total Staff Cost</b>		\$14,919.20	\$14,664.72	\$22,477.86	\$12,557.16	\$11,823.60	\$748.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		\$77,190.54	\$47.56

Survey Field Days by Subconsultant  
 4 - Person Crew:

- Notes:  
 1. This sheet to be used by Prime Consultant to calculate the Grand Total fee.  
 2. Manually enter fee from each subconsultant. Unused subconsultant rows may be hidden.

SALARY RELATED COSTS:			Check =	\$77,190.54
OVERHEAD:		141.45%		\$109,186.02
OPERATING MARGIN:		36.00%		\$27,788.59
FCCM (Facilities Capital Cost Money):		0.071%		\$54.81
EXPENSES:		8.79%		\$6,785.05
Survey (Field - if by Prime)	0	4-person crew days @	\$ - / day	\$0.00
<b>SUBTOTAL ESTIMATED FEE:</b>				<b>\$221,005.01</b>
Subconsultant:	Cardno - Survey			\$72,454.23
Subconsultant:	Cardno - Utilities			\$20,331.81
Subconsultant:	ERS - Environmental			\$11,500.00
Subconsultant:	Terracon - Geotechnical			\$22,336.54
Subconsultant:	Peggy Malone - Traffic Data Collection			\$9,685.68
Subconsultant:	Sub 6			\$0.00
Subconsultant:	Sub 7			\$0.00
Subconsultant:	Sub 8			\$0.00
Subconsultant:	Sub 9			\$0.00
Subconsultant:	Sub 10			\$0.00
Subconsultant:	Sub 11			\$0.00
Subconsultant:	Sub 12			\$0.00
<b>SUBTOTAL ESTIMATED FEE:</b>				<b>\$357,313.27</b>
Geotechnical Field and Lab Testing				\$0.00
<b>SUBTOTAL ESTIMATED FEE:</b>				<b>\$357,313.27</b>
Optional Services				\$0.00
<b>GRAND TOTAL ESTIMATED FEE:</b>				<b>\$357,313.27</b>

**Project Activity 3: General Tasks**

Estimator:

SW 62nd Blvd Resurfacing from SW 20th Ave to SR 26

999999-1-52-01

Representing	Print Name	Signature / Date
FDOT District		
Consultant Name		

**NOTE: Signature Block is optional, per District preference**

Task No.	Task	Units	No of Units	Hours/ Unit	Total Hours	Comments
3.1	Public Involvement					
3.1.1	Community Awareness Plan	LS	0	0	0	By CITY
3.1.2	Notifications	LS	0	0	0	By CITY
3.1.3	Prepare Mailing Lists	LS	0	0	0	By CITY
3.1.4	Median Modification Letters	LS	0	0	0	N/A
3.1.5	Driveway Modification Letters	LS	0	0	0	N/A
3.1.6	Newsletters	LS	0	0	0	N/A
3.1.7	Renderings and Fly Throughs	LS	0	0	0	By CITY
3.1.8	PowerPoint Presentation	LS	0	0	0	N/A
3.1.9	Public Meeting Preparations	LS	0	0	0	N/A
3.1.10	Public Meeting Attendance/Followup	LS	0	0	0	N/A
3.1.11	Other Agency Meetings	LS	0	0	0	N/A
3.1.12	Web Site	LS	0	0	0	N/A
<b>3.1 Public Involvement Subtotal</b>					<b>0</b>	
3.2	Joint Project Agreements	EA	0	0	0	
3.3	Specifications Package Preparation	LS	1	24	24	Range is 24-48 hrs
3.4	Contract Maintenance and EDMS	LS	1	48	48	16 hrs for setup + 4 hrs/mo x 8 mos = 16 + 32 = 48 hrs
3.5	Value Engineering (Multi-Discipline Team) Review	LS	0	0	0	N/A
3.6	Prime Consultant Project Manager Meetings	LS	1	42	42	See listing below
3.7	Plans Update	LS	0	0	0	N/A



**Project Activity 3: General Tasks**

Task No.	Task	Units	No of Units	Hours/ Unit	Total Hours	Comments
3.8	Post Design Services	LS	0	0	0	N/A
3.9	Digital Delivery	LS	1	6	6	1st EOR: 6 hrs
3.10	Risk Assessment Workshop	LS	0	0	0	N/A
3.11	Railroad, Transit, and/or Airport Coordination	LS	1	16	16	Significant coordination with RTS is expected. There are 4 bus routes and numerous bus stops along the corridor. 16 hrs.
3.12	Landscape and Existing Vegetation Coordination	LS	0	0	0	N/A
3.13	Other Project General Tasks	LS	0	0	0	N/A
<b>3. Project Common and Project General Tasks Total</b>					<b>136</b>	

3.6 - List of Project Manager Meetings	Units	No of Units	Hours/ Unit	Total Hours	Comments
Roadway Analysis	EA	1	10	10	4 internal meetings to discuss roadway analysis @ 1 hr/ea + 1 meeting with the City to discuss the evaluation of optional improvements (6 hrs). Total = 4 + 6 = 10 hrs.
Drainage	EA	0	0	0	
Utilities	EA	2	6	12	
Environmental	EA	0	0	0	
Structures	EA	0	0	0	
Signing & Pavement Marking	EA	0	0	0	
Signalization	EA	0	0	0	
Lighting	EA	0	0	0	
Landscape Architecture	EA	0	0	0	
Survey	EA	0	0	0	
Photogrammetry	EA	0	0	0	
ROW & Mapping	EA	0	0	0	
Terrestrial Mobile LiDAR	EA	0	0	0	
Architecture	EA	0	0	0	
Noise Barriers	EA	0	0	0	
ITS Analysis	EA	0	0	0	
Geotechnical	EA	0	0	0	
Progress Meetings	EA	16	0.5	8	Biweekly progress meetings for the duration of the contract (1 year)
Phase Reviews	EA	2	2	4	
Field Reviews	EA	1	8	8	
<b>Total Project Manager Meetings</b>		<b>22</b>		<b>42</b>	Total PM Meeting Hours carries to Task 3.6 above

**Notes:**

1. If the hours per meeting vary in length (hours) enter the average in the hour/unit column.

**Project Activity 3: General Tasks**

<b>Task No.</b>	<b>Task</b>	<b>Units</b>	<b>No of Units</b>	<b>Hours/ Unit</b>	<b>Total Hours</b>	<b>Comments</b>
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- 2. Do not double count agency meetings between permitting agencies.
- 3. Project manager meetings are calculated in each discipline sheet and brought forward to Column D, except for Photogrammetry.

**Project Activity 4: Roadway Analysis**

Estimator:

SW 62nd Blvd Resurfacing from SW 20th Ave to SR 26

999999-1-52-01

Representing	Print Name	Signature / Date
FDOT District		
Consultant Name		

*NOTE: Signature Block is optional, per District preference*

Task No.	Task	Units	No of Units	Hours/ Unit	Total Hours	Comments
4.1	Typical Section Package	LS	1	40	40	4 typical sections. 16 hrs for first typical + (8 hrs for each add'l typical x 3 typicals) = 16 + 24 = 40 hrs
4.2	Pavement Type Selection Report	LS	0	0	0	N/A
4.3	Pavement Design Package	LS	1	68	68	2 pavement designs. Use high range (60 hrs) to develop pavement design for Full Depth Reclamation. 1 add'l design @ 8 hrs. Total = 60 + 8 = 68 hrs.
4.4	Cross-Slope Correction	LS	1	9	9	Analysis of existing slopes: 2 hrs/lane mile. (3 lanes x 0.332 miles) + (2 lanes x 0.409 miles) + (3 lanes x 0.297 miles) + (4 lanes x 0.406 miles) = 0.996 + 0.818 + 0.891 + 1.624 = 4.329 lane miles x 2 hrs/lane mile = 9 hrs
4.5	Horizontal /Vertical Master Design Files	LS	1	246	246	Below Lower Range. Project length = 8,750 LF = 1.657 miles. 180 hrs for 1st mile + 100 hrs/each add'l mile = 180 + (100 x 0.657) = 180 + 66 = 246 hrs
4.6	Access Management	LS	0	0	0	N/A
4.7	Roundabout Evaluation	LS	0	0	0	N/A
4.8	Roundabout Final Design Analysis	LS	0	0	0	N/A
4.9	Cross Section Design Files	LS	1	17	17	Cross sections through shoulder widening area (approx. 5,500 LF). Range 40-110 hrs/mi for 100' spacing. Use 500' spacing. 5,500 LF = 1.042 mi. 1.042 mi x 16 hrs/mi = 17 hrs
4.10	Traffic Control Analysis	LS	1	32	32	Level 1 TCP. 32 hrs
4.11	Master TCP Design Files	LS	0	0	0	N/A
4.12	Selective Clearing and Grubbing	LS	0	0	0	N/A
4.13	Tree Disposition Plan	LS	0	0	0	N/A
4.14	Design Variations and Exceptions	LS	1	80	80	Assume design exceptions for cross slope and superelevation. 40 hrs/exception x 2 exceptions = 80 hrs
4.15	Design Report	LS	1	72	72	40 hrs for Design Report + 32 hrs for ADA Survey Report = 72 hrs
4.16	Quantities	LS	1	80	80	Lower range project. Range is 80-350 hrs. Use 80 hrs.
4.17	Cost Estimate	LS	1	48	48	12 hrs/estimate x 2 estimates = 24 hrs
4.18	Technical Special Provisions and Modified Special Provisions	LS	0	0	0	N/A
4.19	Other Roadway Analyses	LS	1	44	44	Cost/benefit of resurfacing southernmost 1,130 LF: 12 hrs. Analysis of widening at Terwilliger Elementary: 24 hrs. Construction of raised median at Oaks Mall: 8 hrs. Total: 12 + 24 + 8 = 44 hrs.
<b>Roadway Analysis Technical Subtotal</b>					<b>736</b>	

**Project Activity 4: Roadway Analysis**

Task No.	Task	Units	No of Units	Hours/ Unit	Total Hours	Comments
4.20	Field Reviews	LS	1	16	16	2 people x 8 hrs = 16 hrs
4.21	Monitor Existing Structures	LS	0	0	0	N/A
4.22	Technical Meetings	LS	1	20	20	Meetings are listed below
4.23	Quality Assurance/Quality Control	LS	%	6%	44	
4.24	Independent Peer Review	LS	%	0%	0	N/A
4.25	Supervision	LS	%	6%	44	
<b>Roadway Analysis Nontechnical Subtotal</b>					<b>124</b>	
4.26	Coordination	LS	%	2%	17	
<b>4. Roadway Analysis Total</b>					<b>877</b>	

Technical Meetings	Units	No of Units	Hours/ Unit	Total Hours	Comments	PM Attendance at Meeting Required?	Number
Typical Section	EA	0	0	0			0
Pavement	EA	0	0	0			0
Access Management	EA	0	0	0			0
15% Line and Grade	EA	0	0	0			0
Driveways	EA	0	0	0			0
Local Governments (cities, counties, MPO)	EA	0	0	0			0
Work Zone Traffic Control	EA	0	0	0			0
30/60/90/100% Comment Review Meetings	EA	1	2	2		yes	1
Other Meetings	EA	1	6	6	Meet with City PM to discuss optional improvements	yes	1
<b>Subtotal Technical Meetings</b>				<b>8</b>			<b>2</b>
<b>Subtotal Project Manager Meetings</b>							<b>2</b>
Progress Meetings (if required by FDOT)	EA	16	0.5	8	<i>PM attendance at Progress Meetings is manually entered on General Task 3</i>		--
Phase Review Meetings	EA	2	2	4	<i>PM attendance at Phase Review Meetings is manually entered on General Task 3</i>		--
<b>Total Meetings</b>				<b>20</b>	<b>Total Project Manager Meetings (carries to Tab 3)</b>		<b>2</b>

Carries to 4.17

Carries to Tab 3

**Project Activity 5: Roadway Plans**

Estimator:

SW 62nd Blvd Resurfacing from SW 20th Ave to SR 26

999999-1-52-01

Representing		Print Name	Signature / Date
FDOT District			
Consultant Name			

**NOTE: Signature Block is optional, per District preference**

Task No.	Task	Scale	Units	No. of Units or Sheet	Hours/ Unit or Sheet	Total Hours	Comments
5.1	Key Sheet		Sheet	1	8	8	Range is 8-12 hrs
5.2	Summary of Pay Items Including Quantity Input		Sheet	0	0	0	N/A
5.3	Typical Section Sheets						
5.3.1	Typical Sections		EA	4	6	24	4 typicals. Range is 6-12 hrs/ea
5.3.2	Typical Section Details		EA	1	8	8	1 detail for paved shoulder widening. 8 hrs
5.4	General Notes/Pay Item Notes		Sheet	1	20	20	Range is 8-24 hrs. Increase use of General Notes and decrease use of plan sheets. Use 20 hrs/sheet.
5.5	Summary of Quantities Sheets		Sheet	2	5	10	5 hrs/sheet. Assume 2 sheets.
5.6	Project Layout		Sheet	1	8	8	1 sheet @ 8 hrs/sheet
5.7	Plan/Profile Sheet		Sheet	0	0	0	N/A
5.8	Profile Sheet		Sheet	0	0	0	N/A
5.9	Plan Sheet		Sheet	1	6	6	Assume 1 sheet at the intersection of NW 1st Place/Oaks Mall. 1 sheet @ 6 hrs/ea = 6 hrs.
5.10	Special Profile		Sheet	0	0	0	N/A
5.11	Back-of-Sidewalk Profile Sheet		Sheet	0	0	0	N/A
5.12	Interchange Layout Sheet		Sheet	0	0	0	N/A
5.13	Ramp Terminal Details (Plan View)		Sheet	0	0	0	N/A
5.14	Intersection Layout Details		Sheet	0	0	0	N/A
5.15	Special Details		EA	4	4	16	Assume 4 details @ 4 hrs/each
5.16	Cross-Section Pattern Sheet(s)		Sheet	0	0	0	N/A

**Project Activity 5: Roadway Plans**

Task No.	Task	Scale	Units	No. of Units or Sheet	Hours/ Unit or Sheet	Total Hours	Comments
5.17	Roadway Soil Survey Sheet(s)		Sheet	1	1	1	1 hr
5.18	Cross Sections		EA	12	0.5	6	Cross sections @ 500' intervals for 1.042 mi. 1.042 mi = 5,500 LF. 12 cross sections x 0.5 hrs/ea
5.19	Temporary Traffic Control Plan Sheets		Sheet	0	0	0	N/A
5.20	Temporary Traffic Control Cross Section Sheets		EA	0	0	0	N/A
5.21	Temporary Traffic Control Detail Sheets		Sheet	3	8	24	1 sheet for TCP notes and phasing. 1 sheet for advance signing details. 1 sheet to show cross sections during resurfacing/paved shoulder construction. 3 sheets @ 8 hrs/sheet = 24 hrs.
5.22	Utility Adjustment Sheets		Sheet	0	0	0	N/A
5.23	Selective Clearing and Grubbing Sheet(s)						
5.23.1	Selective Clearing and Grubbing		Sheet	0	0	0	N/A
5.23.2	Selective Clearing and Grubbing Details		Sheet	0	0	0	N/A
5.24	Tree Disposition Sheet(s)						
5.24.1	Tree Disposition Plan Sheet(s)		Sheet	0	0	0	N/A
5.24.2	Tree Disposition Plan Tables and Schedules		Sheet	0	0	0	N/A
5.25	Project Network Control Sheet(s)		Sheet	0	0	0	N/A
5.26	Environmental Detail Sheets		Sheet	0	0	0	N/A
5.27	Utility Verification Sheet(s) (SUE Data)		Sheet	0	0	0	N/A
<b>Roadway Plans Technical Subtotal</b>						<b>131</b>	
5.28	Quality Assurance/Quality Control		LS	%	6%	8	
5.29	Supervision		LS	%	6%	8	
<b>5. Roadway Plans Total</b>						<b>147</b>	

**Project Activity 6a: Drainage Analysis**

Estimator:

SW 62nd Blvd Resurfacing from SW 20th Ave to SR 26

999999-1-52-01

Representing	Print Name	Signature / Date
FDOT District		
Consultant Name		

**NOTE: Signature Block is optional, per District preference**

Task No.	Task	Units	No of Units	Hours/ Unit	Total Hours	Comments
6a.1	Drainage Map Hydrology	Per Map	0	0	0	N/A
6a.2	Base Clearance Calculations	Per Location	0	0	0	N/A
6a.3	Pond Siting Analysis and Report	Per Basin	0	0	0	N/A
6a.4	Design of Cross Drains	EA	0	0	0	N/A
6a.5	Design of Ditches	Per Ditch Mile	2.084	8	17	Verify capacity of ditches through paved shoulder widening area. 1.042 mi of paved shoulder widening x 2 ditches = 2.084 ditch miles. 8 hrs/ditch mile x 2.084 ditch miles = 17 hrs
6a.6	Design of Stormwater Management Facility (Offsite or Infield Pond)	EA	0	0	0	N/A
6a.7	Design of Stormwater Management Facility (Roadside Treatment Swales and Linear Ponds)	Per Cell	0	0	0	N/A
6a.8	Design of Floodplain Compensation	Per Floodplain Basin	0	0	0	N/A
6a.9	Design of Storm Drains	EA	0	0	0	N/A
6a.10	Optional Culvert Material	EA	0	0	0	N/A
6a.11	French Drain Systems	Per Cell	0	0	0	N/A
6a.11.a	Existing French Drain Systems	Per Cell	0	0	0	N/A
6a.12	Drainage Wells	EA	0	0	0	N/A
6a.13	Drainage Design Documentation Report	LS	1	32	32	8 hrs for including pertinent drainage info in Resurfacing Design Report. 24 hrs for preparing recommendations for the Planning Phase Design Report. Total = 8 hrs + 24 hrs = 32 hrs.
6a.14	Bridge Hydraulic Report	EA	0	0	0	N/A

**Project Activity 6a: Drainage Analysis**

Task No.	Task	Units	No of Units	Hours/ Unit	Total Hours	Comments
6a.15	Temporary Drainage Analysis	LS	0	0	0	N/A
6a.16	Cost Estimate	LS	1	8	8	Cost estimate for recommended improvements during Planning Phase.
6a.17	Technical Special Provisions and Modified Special Provisions	LS	0	0	0	N/A
6a.18	Hydroplaning Analysis	LS	0	0	0	N/A
6a.19	Existing Permit Analysis	LS	1	4	4	
6a.20	Other Drainage Analysis	LS	0	0	0	N/A
<b>Drainage Analysis Technical Subtotal</b>					<b>61</b>	
6a.21	Field Reviews	LS	2	8	16	2 people x 8 hrs/ea
6a.22	Technical Meetings	LS	1	4	4	Meetings are listed below
6a.23	Environmental Look-Around (ELA) Meeting	LS	0	0	0	N/A
6a.24	Quality Assurance/Quality Control	LS	%	6%	4	
6a.25	Independent Peer Review	LS	%	0%	0	N/A
6a.26	Supervision	LS	%	6%	4	
<b>Drainage Analysis Nontechnical Subtotal</b>					<b>28</b>	
6a.27	Coordination	LS	%	2%	2	
<b>6a. Drainage Analysis Total</b>					<b>91</b>	

Technical Meetings	Units	No of Units	Hours/ Unit	Total Hours	Comments	PM Attendance at Meeting Required?	Number
Base Clearance Water Elevation	EA	0	0	0			0
Pond Siting	EA	0	0	0			0
Agency	EA	0	0	0			0
Local Governments (cities, counties)	EA	0	0	0			0
FDOT Drainage	EA	0	0	0			0
Other Meetings	EA	0	0	0			0
<b>Subtotal Technical Meetings</b>				<b>0</b>			<b>0</b>
Progress Meetings (if required by FDOT)	EA	8	0.5	4	<i>PM attendance at Progress Meetings is manually entered on General Task 3</i>		--
Phase Review Meetings	EA	0	0	0	<i>PM attendance at Phase Review Meetings is manually entered on General Task 3</i>		--
<b>Total Meetings</b>				<b>4</b>	<b>Total Project Manager Meetings (carries to Tab 3)</b>		<b>0</b>

Carries to 6.19

Carries to Tab 3



**6b. Drainage Plans**

Estimator:

SW 62nd Blvd Resurfacing from SW 20th Ave to SR 26

999999-1-52-01

Representing	Print Name	Signature / Date
FDOT District		
Consultant Name		

*NOTE: Signature Block is optional, per District preference*

Task No.	Task	Scale	Units	No. of Units or Sheet	Hours/ Unit or Sheet	Total Hours	Comments
6b.1	Drainage Map (Including Interchanges)		Sheet	0	0	0	N/A
6b.2	Bridge Hydraulics Recommendation Sheets		Sheet	0	0	0	N/A
6b.3	Summary of Drainage Structures		Sheet	0	0	0	N/A
6b.4	Optional Pipe/Culvert Material		Sheet	0	0	0	N/A
6b.5	Drainage Structure Sheet(s) (Per Structure)		EA	0	0	0	N/A
6b.6	Miscellaneous Drainage Detail Sheets		Sheet	0	0	0	N/A
6b.7	Lateral Ditch Plan/Profile		Sheet	0	0	0	N/A
6b.8	Lateral Ditch Cross Sections		EA	0	0	0	N/A
6b.9	Retention/Detention Ponds Detail Sheet(s)		Sheet	0	0	0	N/A
6b.10	Retention Pond Cross Sections		EA	0	0	0	N/A
6b.11	Erosion Control Plan Sheet(s)		Sheet	1	4	4	4 hrs to prepare a detail for typical placement of sediment barrier
6b.12	SWPPP Sheet(s)		Sheet	1	4	4	1 sheet @ 4 hrs
<b>Drainage Plans Technical Subtotal</b>						<b>8</b>	
6b.13	Quality Assurance/Quality Control		LS	%	10%	1	Increased percentage to allow 1 hr for QC
6b.14	Supervision		LS	%	10%	1	Increased percentage to allow 1 hr for Supervision
<b>6. Drainage Plans Total</b>						<b>10</b>	

**Project Activity 7: Utilities**

Estimator:

SW 62nd Blvd Resurfacing from SW 20th Ave to SR 26  
999999-1-52-01

Representing	Print Name	Signature / Date
FDOT District		
Consultant Name		

**NOTE: Signature Block is optional, per District preference**

Task No.	Task	Units	No of Units	Hours/ Unit	Total Hours	Comments
7.1	Utility Kickoff Meeting	LS	0	0	0	N/A
7.2	Identify Existing Utility Agency Owners (UAO(s))	LS	1	0	0	Services provided by Cardno
7.3	Make Utility Contacts	LS	1	0	0	Services provided by Cardno
7.4	Exception Processing	LS	0	0	0	N/A
7.5	Preliminary Utility Meeting	LS	0	0	0	N/A
7.6	Individual/Field Meetings	LS	1	6	6	If necessary
7.7	Collect and Review Plans and Data from UAO(s)	LS	1	14	14	1 hr per utility x 6 utilites = 6 hrs + 8 hrs to produce a utility conflict matrix = 14 hrs. Additional services provided by Cardno.
7.8	Subordination of Easements Coordination	LS	0	0	0	N/A
7.9	Utility Design Meeting	LS	1	6	6	If necessary
7.10	Review Utility Markups & Work Schedules, and Processing of Schedules & Agreements	LS	12	1	12	Assume 1 markup and 1 work schedule from each UAO. 2 documents x 6 UAOs x 1 hr/ea = 12 hrs. Additional service provided by Cardno.
7.11	Utility Coordination/Followup	LS	6	1	6	1 hr per UAO x 6 UAOs. Additional services provided by Cardno.
7.12	Utility Constructability Review	LS	0	0	0	N/A
7.13	Additional Utility Services	LS	0	0	0	N/A
7.14	Processing Utility Work by Highway Contractor (UWHC)	LS	1	0	0	Services provided by Cardno
7.15	Contract Plans to UAO(s)	LS	1	0	0	Services provided by Cardno
7.16	Certification/Close-Out	LS	1	0	0	Services provided by Cardno
7.17	Other Utilities	LS	1	0	0	Services provided by Cardno

**Project Activity 7: Utilities**

<b>7. Utilities Total</b>	<b>44</b>
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<b>Technical Meetings</b>	<b>Units</b>	<b>No of Units</b>	<b>Hours/ Unit</b>	<b>Total Hours</b>	<b>Comments</b>	<b>PM Attendance at Meeting Required?</b>	<b>Number</b>
Kickoff (see 7.1)	EA	0	0	0		no	0
Preliminary Meeting (see 7.5)	EA	0	0	0			0
Individual UAO Meetings (see 7.6)	EA	0	0	0			0
Field Meetings (see 7.6)	EA	1	6	6		yes	1
Design Meeting (see 7.9)	EA	1	6	6		yes	1
Other Meetings <i>(this is automatically added into Utilities Total (cell F27))</i>	EA	0	0	0			0
<b>Total Meetings</b>				<b>12</b>	<b>Total Project Manager Meetings (carries to Tab 3)</b>		<b>2</b>

Carries to Tab 3

**Project Activity 18: Miscellaneous Structures**

Estimator:

SW 62nd Blvd Resurfacing from SW 20th Ave to SR 26

999999-1-52-01

Representing	Print Name	Signature / Date
FDOT District		
Consultant Name		

**NOTE: Signature Block is optional, per District preference**

Task No.	Task	Unit	No. of Units	Hours/ Unit	No. of Sheets	Total Hours	Comments
<b>Concrete Box Culvert</b>							
18.1	Concrete Box Culverts	EA	0	0		0	
18.2	Concrete Box Culverts Extensions	EA Extension	0	0		0	
18.3	Concrete Box Culvert Data Table Plan Sheets	Sheet	0	0	0	0	
18.4	Concrete Box Culvert Special Details Plan Sheets	Sheet	0	0	0	0	
<b>Strain Poles</b>							
18.5	Steel Strain Poles	Initial Config	0	0		0	
		EA Add'l Config	0	0		0	
18.6	Concrete Strain Poles	Initial Config	1	8		8	Hours for initial Planning Phase analysis. Not for final design.
		EA Add'l Config	0	0		0	
18.7	Strain Pole Data Table Plan Sheets	Sheet	0	0	0	0	
18.8	Strain Pole Special Details Plan Sheets	Sheet	0	0	0	0	
<b>Mast Arms</b>							
18.9	Mast Arms	EA Design	0	0		0	
18.10	Mast Arms Data Table Plan Sheets	Sheet	0	0	0	0	
18.11	Mast Arm Special Details Plan Sheets	Sheet	0	0	0	0	
<b>Overhead/Cantilever Sign Structures</b>							
18.12	Cantilever Sign Structures	EA Design	0	0		0	
18.13	Overhead Span Sign Structures	EA Design	0	0		0	
18.14	Special (Long Span) Overhead Span Sign Structures	EA Design	0	0		0	
18.15	Monotube Overhead Sign Structure	EA Design	0	0		0	
18.16	Bridge Mounted Signs (Attached to Superstr.)	EA Design	0	0		0	
18.17	Overhead and Cantilever Sign Structures Data Table Plan Sheets	Sheet	0	0	0	0	
18.18	Overhead and Cantilever Sign Structures Special Details Plan Sheets	Sheet	0	0	0	0	
<b>High Mast Lighting</b>							
18.19	Non-Standard High Mast Lighting Structures	EA Design	0	0		0	
18.20	High Mast Lighting Special Details Plan Sheets	Sheet	0	0	0	0	
<b>Noise Barrier Walls (Ground Mount)</b>							
18.21	Horizontal Wall Geometry	EA Wall	0	0		0	
18.22	Vertical Wall Geometry	EA Wall	0	0		0	
18.23	Summary of Quantities - Aesthetic Requirements	Sheet	0	0	0	0	
18.24	Control Drawings	Sheet	0	0	0	0	
18.25	Design of Noise Barrier Walls Covered by Standards	EA Design	0	0		0	
18.26	Design of Noise Barrier Walls Not Covered by Standards	EA Design	0	0		0	
18.27	Aesthetic Details	LS	0	0		0	
<b>Special Structures</b>							

**Project Activity 18: Miscellaneous Structures**

18.28	Fender System	LS	0	0		0	
18.29	Fender System Access	LS	0	0		0	
18.30	Special Structures	LS	0	0		0	
18.31	Other Structures	LS	0	0		0	
<b>Ancillary Structures Report</b>							
18.32	Condition Evaluation of Signal and Sign Structures, and High Mast Light Poles	EA structure	0	0	0	0	
18.33	Condition Evaluation of Signal and Sign Structures, and High Mast Light Poles (No As built or Design Plans Available)	EA structure	0	0	0	0	
18.34	Analytical Evaluation of Signal and Sign Structures, and High Mast Light Poles	EA structure	0	0	0	0	
18.35	Ancillary Structures Report	LS	0	0		0	
<b>18. Structures - Miscellaneous Total</b>					<b>0</b>	<b>8</b>	

**Project Activity 19: Signing and Pavement Marking Analysis**

Estimator:

SW 62nd Blvd Resurfacing from SW 20th Ave to SR 26  
999999-1-52-01

Representing	Print Name	Signature / Date
FDOT District		
Consultant Name		

**NOTE: Signature Block is optional, per District preference**

Task No.	Task	Units	No. of Units	Hours/ Units	Total Hours	Comments
19.1	Traffic Data Analysis	LS	1	6	6	2 hrs to review Preliminary Engineering Report and typical section package. 4 hrs for analysis of existing signs. Total = 6 hrs
19.2	No Passing Zone Study	LS	0	0	0	N/A
19.3	Reference and Master Design File	LS	1	104	104	Lower range: 30 hrs for set-up + 40 hrs/mi x 1.657 mi = 30 + 66 = 96 hrs. Add 8 hrs for signalized intersection at Oaks Mall/NW 1st Place. Total = 96 + 8 = 104 hrs.
19.4	Multi-Post Sign Support Calculations	EA	0	0	0	N/A
19.5	Sign Panel Design Analysis	EA	0	0	0	N/A
19.6	Sign Lighting/Electrical Calculations	EA	0	0	0	N/A
19.7	Quantities	LS	1	16	16	Plan sheets for 1,130 LF at southern end and for 2,540 LF at northern end. Draw sheets at 1"=50' scale, so 700 LF per sheet. 6 total plan sheets required. 6 sheets @ 2 hrs/sheet = 12 hrs + 4 add'l hrs to quantify non-sheeted items. Total = 16 hrs.
19.8	Cost Estimate	LS	1	12	12	Two estimates (Phase II and IV). 3 hrs/estimate x 2 estimates = 6 hrs
19.9	Technical Special Provisions and Modified Special Provisions	LS	0	0	0	N/A
19.10	Other Signing and Pavement Marking Analysis	LS	1	16	16	Evaluate restriping options to provide dedicated bike lanes throughout corridor: 8 hrs. Inclusion of uncontrolled pedestrian crossings: 8 hrs. Total = 8 + 8 = 16 hrs.
<b>Signing and Pavement Marking Analysis Technical Subtotal</b>					<b>154</b>	
19.11	Field Reviews	LS	1	8	8	1 person x 8 hrs
19.12	Technical Meetings	LS	1	8	8	Meetings are listed below
19.13	Quality Assurance/Quality Control	LS	%	6%	9	
19.14	Independent Peer Review	LS	%	0%	0	
19.15	Supervision	LS	%	6%	9	
<b>Signing and Pavement Marking Analysis Nontechnical Subtotal</b>					<b>34</b>	
19.16	Coordination	LS	%	2%	4	
<b>19. Signing and Pavement Marking Analysis Total</b>					<b>192</b>	

Technical Meetings	Units	No of Units	Hours/ Unit	Total Hours	Comments	PM Attendance at Meeting Required?	Number

**Project Activity 19: Signing and Pavement Marking Analysis**

Task No.	Task	Units	No. of Units	Hours/ Units	Total Hours	Comments		
	Sign Panel Design	EA	0	0	0			0
	Queue Length Analysis	EA	0	0	0			0
	Local Governments (cities, counties)	EA	0	0	0			0
	Other Meetings	EA	0	0	0			0
	<b>Subtotal Technical Meetings</b>				<b>0</b>	<b>Subtotal Project Manager Meetings</b>		
	Progress Meetings (if required by FDOT)	EA	8	0.5	4	PM attendance at Progress Meetings is manually entered on General Task 3		
	Phase Review Meetings	EA	2	2	4	PM attendance at Phase Review Meetings is manually entered on General Task 3		
	<b>Total Meetings</b>				<b>8</b>	<b>Total Project Manager Meetings (carries to Tab 3)</b>		

Carries to 19.12

Carries to Tab 3

**Project Activity 20: Signing and Pavement Marking Plans**

Estimator:

SW 62nd Blvd Resurfacing from SW 20th Ave to SR 26

999999-1-52-01

Representing	Print Name	Signature / Date
FDOT District		
Consultant Name		

**NOTE: Signature Block is optional, per District preference**

Task No.	Task	Scale	Units	No of Units	Hours/ Unit	No. of Sheets	Total Hours	Comments
20.1	Key Sheet		Sheet	1	4	1	4	
20.2	Summary of Pay Items Including TRNS•Port Input		LS	0	0		0	N/A
20.3	Tabulation of Quantities		Sheet	1	12	1	12	1 sheet @ 12 hrs
20.4	General Notes/Pay Item Notes		Sheet	1	4	1	4	
20.5	Project Layout		Sheet	0	0	0	0	N/A
20.6	Plan Sheet		Sheet	6	4	6	24	6 sheets @ 4 hrs/sheet = 24 hrs
20.7	Typical Details		EA	0	0		0	N/A
20.8	Guide Sign Worksheet(s)		EA	0	0		0	N/A
20.9	Traffic Monitoring Site		EA	0	0		0	N/A
20.10	Cross Sections		EA	0	0		0	N/A
20.11	Special Service Point Details		EA	0	0		0	N/A
20.12	Special Details		LS	1	0		0	N/A
20.13	Interim Standards		LS	1	0		0	N/A
<b>Signing and Pavement Marking Plans Technical Subtotal</b>						<b>9</b>	<b>44</b>	
20.14	Quality Assurance/Quality Control		LS	%	6%		3	
20.15	Supervision		LS	%	6%		3	
<b>20. Signing and Pavement Marking Plans Total</b>						<b>9</b>	<b>50</b>	



**Project Activity 21: Signalization Analysis**

Estimator:

SW 62nd Blvd Resurfacing from SW 20th Ave to SR 26  
999999-1-52-01

Representing	Print Name	Signature / Date
FDOT District		
Consultant Name		

**NOTE: Signature Block is optional, per District preference**

Task No.	Task	Units	No. of Units	Hours/ Units	Total Hours	Comments
21.1	Traffic Data Collection	LS	1	0	0	Services provided by Peggy Malone Associates
21.2	Traffic Data Analysis	PI	0	0	0	N/A
21.3	Signal Warrant Study	LS	0	0	0	N/A
21.4	System Timings	LS	0	0	0	N/A
21.5	Reference and Master Signalization Design File	PI	0	0	0	N/A
21.6	Reference and Master Interconnect Communication Design File	LS	0	0	0	N/A
21.7	Overhead Street Name Sign Design	EA	0	0	0	N/A
21.8	Pole Elevation Analysis	LS	0	0	0	N/A
21.9	Traffic Signal Operation Report	LS	0	0	0	N/A
21.10	Quantities	LS	1	2	2	For signal loops
21.11	Cost Estimate	LS	1	2	2	Two estimates x 2 hrs/estimate = 2 hrs
21.12	Technical Special Provisions and Modified Special Provisions	LS	0	0	0	
21.13	Other Signalization Analysis	LS	0	0	0	
<b>Signalization Analysis Technical Subtotal</b>					<b>4</b>	
21.14	Field Reviews	LS	0	0	0	1 person x 8 hrs
21.15	Technical Meetings	LS	0	0	0	Meetings are listed below
21.16	Quality Assurance/Quality Control	LS	%	15%	1	Increased percentage to include 1 hr of QC/Supervision
21.17	Independent Peer Review	LS	%	0%	0	
21.18	Supervision	LS	%	6%	0	
<b>Signalization Analysis Nontechnical Subtotal</b>					<b>1</b>	

**Project Activity 21: Signalization Analysis**

21.19	Coordination	LS	%	2%	0	
<b>21. Signalization Analysis Total</b>					<b>5</b>	

Technical Meetings	Units	No of Units	Hours/ Unit	Total Hours	Comments	PM Attendance at Meeting Required?	Number
FDOT Traffic Operations	EA	0	0	0			0
FDOT Traffic Design	EA	0	0	0			0
Power Company (service point coordination)	EA	0	0	0			0
Maintaining Agency (cities, counties)	EA	0	0	0			0
Railroads	EA	0	0	0			0
Other Meetings	EA	0	0	0			0
<b>Subtotal Technical Meetings</b>				<b>0</b>		<b>Subtotal Project Manager Meetings</b>	<b>0</b>
Progress Meetings (if required by FDOT)	EA	0	0	0	PM attendance at Progress Meetings is manually entered on General Task 3		--
Phase Review Meetings	EA	0	0	0	PM attendance at Phase Review Meetings is manually entered on General Task 3		--
<b>Total Meetings</b>				<b>0</b>		<b>Total Project Manager Meetings (carries to Tab 3)</b>	<b>0</b>

Carries to 21.15

Carries to Tab 3

**Project Activity 23: Lighting Analysis**

Estimator:

SW 62nd Blvd Resurfacing from SW 20th Ave to SR 26

999999-1-52-01

Representing	Print Name	Signature / Date
FDOT District		
Consultant Name		

**NOTE: Signature Block is optional, per District preference**

Task No.	Task	Units	No. of Units	Hours/ Units	Total Hours	Comments
23.1	Lighting Justification Report	LS	0	0	0	
23.2	Lighting Design Analysis Report	LS	1	40	40	Lighting Analysis Report: 40 hrs. Required for Planning Phase.
23.3	Aeronautical Evaluation	LS	0	0	0	
23.4	Voltage Drop Calculations	EA	0	0	0	
23.5	FDEP Coordination and Report	LS	0	0	0	
23.6	Reference and Master Design Files	LS	0	0	0	
23.7	Temporary Lighting	LS	0	0	0	
23.8	Design Documentation	LS	0	0	0	
23.9	Quantities	LS	0	0	0	
23.10	Cost Estimate	LS	1	4	4	4 hrs to prepare cost estimate for improvements included in the Lighting Design Analysis Report.
23.11	Technical Special Provisions and Modified Special Provisions	LS	0	0	0	
23.12	Other Lighting Analysis	LS	0	0	0	
<b>Lighting Analysis Technical Subtotal</b>					<b>44</b>	
23.13	Field Reviews	LS	1	8	8	1 person x 8 hrs
23.14	Technical Meetings	LS	1	4	4	
23.15	Quality Assurance/Quality Control	LS	%	6%	3	
23.16	Independent Peer Review	LS	%	0%	0	
23.17	Supervision	LS	%	6%	3	
<b>Lighting Analysis Nontechnical Subtotal</b>					<b>18</b>	
23.18	Coordination	LS	%	2%	1	
<b>23. Lighting Analysis Total</b>					<b>63</b>	

**Project Activity 23: Lighting Analysis**

Technical Meetings	Units	No of Units	Hours/ Unit	Total Hours	Comments	PM Attendance at Meeting Required?	Number
FDOT Lighting Design	EA	0	0	0			0
FDOT Traffic Design	EA	0	0	0			0
Power Company (service point coordination)	EA	0	0	0			0
Maintaining Agency (cities, counties)	EA	0	0	0			0
Airport authority	EA	0	0	0			0
FDEP Lighting (coast areas)	EA	0	0	0			0
Other Meetings	EA	0	0	0			0
<b>Subtotal Technical Meetings</b>				<b>0</b>	<b>Subtotal Project Manager Meetings</b>		<b>0</b>
Progress Meetings (if required by FDOT)	EA	8	0.5	4	PM attendance at Progress Meetings is manually entered on General Task 3		--
Phase Review Meetings	EA	0	0	0	PM attendance at Phase Review Meetings is manually entered on General Task 3		--
<b>Total Meetings</b>				<b>4</b>	<b>Total Project Manager Meetings (carries to Tab 3)</b>		<b>0</b>

Carries to 23.14

Carries to Tab 3