

**SOLICITATION, OFFER AND AWARD FORM
INVITATION FOR BID (IFB)**

1. SOLICITATION NUMBER: IFB 2025-ENG-02 2. ISSUE DATE: AUGUST 8, 2025 3. FOR INFORMATION CONTACT: NAME: Michelle C. Giuliani Engineering Director / Project Manager PHONE: 727-724-1555, FAX: 727-724-1566 Ext. 1706 E-MAIL: mgiuliani@cityofsafetyharbor.com	4. CAPITAL IMPROVEMENT PROJECTS: BID A: 9 th Avenue North Resurfacing and BID B: Fire Station #53 Paving Project	
5. CONFERENCE: There will be a MANDATORY PRE-BID Conference for this project on Monday, August 18, 2025 starting promptly at 10 AM , located at the City of Safety Harbor, Commission Chambers at 750 Main Street, Safety Harbor, FL 34695 . All Contractors wanting to submit a BID must attend. Contractors who do not attend will not be able to BID .		
6. SUBMIT OFFER TO THE FOLLOWING ADDRESS: IFB 2025-ENG-02 City of Safety Harbor Attn: City Clerk 750 Main Street Safety Harbor, Florida 34695	7. OFFER SUBMISSION DUE DATE AND TIME: <u>Sealed Bids will be received up to 2:30 PM, Eastern Standard Time, on Wednesday, September 3, 2025, and will be publicly opened, and read aloud in the Commission Chambers in City Hall at 750 Main Street, Safety Harbor, FL 34695</u>	
8. SUBMIT WITH OFFER: Original offer including the exhibits and attachments listed on Page 2 of this form.		
9. Offers will be publicly opened on Wednesday, September 3, 2025, at 2:30 PM, Eastern Standard Time.		
10. FIRM OFFER PERIOD: Offers shall remain firm for a period of 180 calendar days from the date specified in Block 7, above.		
11. This solicitation and any resulting contract, respectively, consists of this Form and the exhibits and documents designated with a symbol ● on Page 2 of this form.		
OFFER - (To be completed by Offeror)		
12. DISCOUNT FOR PROMPT PAYMENT: NOT APPLICABLE		
13. If this offer is accepted within the period specified in Block 10, above, the offeror agrees to fully provide the goods and/or services covered by this solicitation at the prices and timelines specified in the solicitation.		
14. ACKNOWLEDGEMENT OF AMENDMENTS: The offeror acknowledges receipt of the following solicitation amendments (write in all amendment numbers and amendment dates).		
Amendment Number and Date	Amendment Number and Date	Amendment Number and Date
15. OFFEROR'S NAME AND ADDRESS: (Type or Print)		16. NAME AND TITLE OF OFFEROR'S REPRESENTATIVE (PERSON AUTHORIZED TO EXECUTE CONTRACTS): (Type or Print)
TELEPHONE: CELL PHONE:	E-MAIL: FAX:	17. OFFEROR'S REPRESENTATIVE SIGNATURE & DATE:
AWARD - (To be completed by City)		
18. ACCEPTED AS TO: Schedule – Bid Forms	19. TOTAL AMOUNT OF AWARD:	20. CONTRACT NUMBER: IFB 2025-ENG-02
21. SIGNATURE & CONTRACT AWARD DATE:		
Signature: _____ Attest: _____ Date ____/____/____ Joe Ayoub, Mayor Rachel Telesca, City Clerk		
Approved As to Form: _____ City Attorney		

	NAME	FORM DESCRIPTION	FORM #	SUBMIT WITH OFFER
●	Cover Sheet	Solicitation, Offer and Award Form	IFB 2025-ENG-02	YES
●	Schedule	Schedule – Bid Forms: Bid Schedule 'A' : 9 th Avenue North Resurfacing Bid Schedule 'B': Fire Station #53 Paving	BID FORMS	YES
●	Attachments to Schedules	Attachment 'A' and Attachment 'B' to Schedule Bid Forms		YES
●	Exhibit A	Representations and Certifications	A	YES
	NPDES Attachment to Exhibit A – National Pollutant Discharge Elimination System (NPDES) Document			YES
●	Exhibit B	Special Solicitation Instructions and Conditions	B	NO
●	Exhibit C	Solicitation Instructions and Conditions	C	NO
	Attachment '1' to Exhibit 'C'			YES
●	Exhibit D	Special Provisions	D	NO
●	Exhibit E	General Provisions	E	NO
●	Exhibit F	Specifications	F	NO
●	Exhibit G	Bid Bond		YES
●	Exhibit H	Payment Bond		YES – To be submitted by awarded Contractor within 10 days of award
●	Exhibit I	Performance Bond		YES – To be submitted by awarded Contractor within 10 days of award
		Definitions		NO
		PERMITS AS FOLLOWS:		
		FDEP Notice of Intent : Contractor responsible to obtain Florida Department of Environmental Protection (FDEP) Notice of Intent for NPDES Generic Permit for Stormwater Discharge from Large and Small Construction Activities (Rule 62-621.300 (4), F.A.C.)		To be submitted by awarded Contractor.
		PLANS AS FOLLOWS:		
		9 th Avenue North Resurfacing		Attached
		Fire Station #53 Paving		Attached

CITY OF SAFETY HARBOR (THE CITY)

SCHEDULE – BID FORM SUMMARY for IFB 2025-ENG-02

CAUTION: A false statement in any offer submitted to the City may be a criminal OFFENSE.
 NOTE: For Invitations for Bids the terms "Offer" and "Offeror" shall mean "Bid" and "Bidder", respectively; and for Request for Proposals the terms "Bid" and "Bidder" shall mean "Offer" and "Offeror", respectively, in this solicitation and any associated exhibits.

THE OFFEROR MUST SIGN AND DATE THIS SCHEDULE WHERE PROVIDED AND SUBMIT ALL PAGES WITH THE OFFER.

The line item unit price(s) must include all costs that the offeror intends to recover, such as, but not limited to: supervision, labor, equipment, materials, vehicle licensing, vehicle title, warehousing, freight, pick-up, financing, carrying charges, and all other such charges to accommodate the supplies/services and delivery requirements. No price adjustments will be made, unless specifically provided for by an additional provision included in this contract.

BASE BID 'A' AND BASE BID 'B'

Item No.	Description		TOTALS
1	Complete & Submit Attached BID SCHEDULE 'A' 9 th Avenue North Resurfacing	Total Bid Schedule 'A'	\$
2	Complete & Submit Attached BID SCHEDULE 'B' Fire Station #53 Paving Project	Total Bid Schedule 'B'	\$
		TOTAL BID 'A' plus BID 'B':	\$

Submit with this Bid Form Summary:

Bid Schedules 'A' and 'B' (signed) and Attachment 'A' and Attachment 'B' (signed).

Contractor Notes:**NOTE:**

Contractor shall haul away all millings and debris out of the City (Refer to Construction Notes, Plan Sheet C-1.0).

FDEP NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES):

The Awarded Contractor shall obtain an NPDES stormwater permit and implement appropriate pollution prevention techniques to minimize erosion and sedimentation and properly manage stormwater. The Awarded Contractor shall complete the necessary steps as described by the Florida Department of Environmental Protection (FDEP) Notice of Intent (NOI) for NPDES Generic Permit for stormwater discharge from large and small construction activities (F.A.C. Rule 62-621.300 (4)).

This form must be signed :

NAME & TITLE OF OFFEROR'S REPRESENTATIVE:**SIGNATURE & DATE:**

(print or type)

(Name & Title)_____
(Signature of Offeror's Representative)

____/____/____

(Offeror's Name)

IFB 2025-ENG-02
BID FORM 'A': 9th AVENUE NORTH RESURFACING
REFERENCE ATTACHMENT 'A' FOR BID ITEM DESCRIPTIONS

ITEM #		QUANTITY	UNIT	UNIT PRICE	COST
General Pay Items: Lump Sum Items					
1	Mobilization / Demobilization / Maintenance of Traffic	1	LS		
2	Erosion Control/Soil Tracking Prevention / Inlet Protection (Refer to Details on Plans Sheet C-3.0)	1	LS		
3	Insurance	1	LS		
4	Performance and Payment Bond	1	LS		
5	Video-Audio Existing Conditions	1	LS		
6	Variable / Changeable Portable Message Boards (VMB): The City will require installation of VMB one (1) week prior to beginning work for advanced notice.	2	EA		
7	Utility Manhole Ring and Cover Adjustments to finished grade (Refer to Details on Plans Sheet C-3.0)	1	EA		
8	Utility Valves Adjustments to finished grade (Refer to Details on Plans Sheet C-3.0)	1	EA		
CONSTRUCTION ITEMS					
9	MILL 2-1/4" depth	11,222	SY		
10	Asphaltic Concrete 2-1/4", SP 12.5; To Include Density Testing (Reference Pinellas Co. Testing and Supplemental Specifications for Roadway and General Construction)	1,515	TON		
11	Thermoplastic Striping: Stop Bar, Solid 12-inch, White, including temporary paint striping	359	LF		
12	Thermoplastic Striping: Stop Bar, Solid 24-inch, White, including temporary paint striping	506	LF		
13	Thermoplastic Marking: Special Emphasis Pedestrian Crosswalk, Solid 12-inch, White (per FDOT Index #711-001), including temporary paint striping	174	LF		
14	Thermoplastic Marking: Special Emphasis Pedestrian Crosswalk, Solid 24-inch, White (per FDOT Index #711-001), including temporary paint striping	121	LF		
15	Thermoplastic Striping: Double Yellow, Solid 6-inch (per FDOT Index #706-001), including temporary paint striping	4,017	LF		
16	Thermoplastic Striping :Single White edge lines, Solid 6-inch (per FDOT Index #706-001), including temporary paint striping	8,066	LF		
17	Thermoplastic Striping: Replacement Pavement Marking Traffic Separator (GORE) (per FDOT Index #706-001), including temporary paint striping	1	LS		
18	Retroreflective Raised Pavement Markers (RPM) (per FDOT Index #706-001)	1	LS		
19	Demolition: sawcut and remove concrete curb	96	SF		
20	Demolition: sawcut and remove concrete sidewalk / ADA ramp	435	SF		
21	Install concrete ADA ramp, 6-inch thick, 3,000 PSI (Refer to Handicap Ramp Detail on Plan Sheet C-3.1)	13	SY		
22	Install concrete sidewalk, 6-inch thick, 3,000 PSI (Refer to City Details on Plan Sheet C-3.1)	38	SY		
23	Install concrete curb, in-kind (Refer to Curb Details on Plan Sheet C-3.1)	96	LF		
24	Install Yellow ADA Detactable Warning Mat per FDOT Index 304 (Refer to Handicap Ramp Detail on Plan Sheet C-3.1)	3	EA		
TOTAL BID 'A'					

ACKNOWLEDGMENT OF ACCEPTANCE OF THIS DOCUMENT:

COMPANY NAME:

NAME & TITLE OF OFFEROR'S REPRESENTATIVE:

SIGNATURE:

DATE:

ATTACHMENT 'A' TO SCHEDULE BID FORM 'A'
9TH AVENUE NORTH RESURFACING

**PAY
ITEMS:**

(a)
Pay Items identified below directly correspond Item Numbers identified on the Schedule – Bid Form 'A' for 9th Avenue North Resurfacing Project.

(b) The Contractor acknowledges that it has taken steps reasonably necessary to ascertain the nature and location of the Work and that it has investigated and satisfied itself as to the general and local conditions which can affect the Contract Work or its cost, including, but not limited to; (1) conditions bearing upon transportation, disposal, handling, and storage of materials; (2) the availability of labor, water, electric power, roads rights of way access to the work site and other lands made available by the City for this Project; (3) uncertainties of weather, flooding patterns and water drainage, or similar physical conditions at the site; (4) the conformation and conditions of the ground; and (5) the character of equipment and facilities needed prior to and during work performance. The Contractor acknowledges that its undertaking to complete the Contract within the Contract Schedule includes an allowance for the normal number of days in which contract work may be partially or totally delayed because of weather during the season and at the location the Contract will be performed and that the Contractor shall not be entitled to excusable delays or compensation for such delays. The Contractor also acknowledges that it has satisfied itself as to the character, quality, and quantity of surface and subsurface materials or obstacles to be encountered insofar as this information is reasonably ascertainable from an inspection of the site, access to the site, and territory surrounding the site, including all exploratory work done by the City as well as from the drawings and specifications made a part of this Contract. Any failure of the Contractor to take the actions described and acknowledged in this paragraph will not relieve the Contractor from responsibility for estimating properly the difficulty and cost of successfully performing the work or for proceeding to perform the work successfully without additional expense to the City.

(c) The City assumes no responsibility for any conclusions or interpretations made by the Contractor based on the information made available by the City. Nor does the City assume responsibility for any understanding reached or representation made concerning conditions which can affect the work by any of its officers, employees, engineers or agents before the execution of this Contract, unless that understanding or representation is expressly stated in this contract.

Notes to Contractor: Testing/Density Testing does not have a specific bid item and should be applied to the appropriate bid item. Refer to Specification Section 01410.

Reference Pinellas County Testing and Supplemental Specifications for Roadway and General Construction.

Also, if required, Geotechnical analysis should be applied to the appropriate bid item.

THE FOLLOWING ARE PAY ITEM DESCRIPTIONS FOR:

BID SCHEDULE 'A': 9TH AVENUE NORTH RESURFACING

1. MOBILIZATION / DEMOBILIZATION / MAINTENANCE OF TRAFFIC (Bid Item #1):

Work under this Contract item includes the furnishing of labor, material, tools, equipment, and services to perform those operations necessary for the movement of personnel, equipment, supplies and incidentals to and from the project site and for the establishment and removal of temporary offices, buildings, safety equipment, sanitary facilities and first aid supplies as required by the specifications, and state and local laws and regulations.

Night work is acceptable for 9th Avenue North Resurfacing.

The cost of notification to business owners and homeowners and authorities shall also be included under this Line Item. This includes, but is not limited to the following:

- Contractor shall notify owners of adjacent property and utilities when performance of the work may affect them. When it is necessary to temporarily modify access by owners or tenants to their property, or when any utility service connection must be interrupted, give notices a minimum of one (1) week in advance to enable the affected persons to provide for their needs.
- Conform notice to any applicable local ordinance, deliver in writing, and include appropriate information concerning the interruption and instruction on how to limit their inconvenience. Notices shall also include a link to the City website for project scope, schedule, and contact information for the City and contractor staff.
- Contractor shall place the notices in a conspicuous place.
- Contractor shall provide to the business owners and residents a second notice with a schedule when individual segments of the project are to be impacted.
- Contractor shall contact the business owners and residents prior to work when resurfacing, landscaping, irrigation, or any other above ground occupation is to be impacted.
- Contractor shall notify the City, utility providers, police, fire and other concerned agencies at least forty-eight (48) hours prior to disrupting traffic or closing streets or other traffic areas, or excavating near underground utilities or poles.

The cost of required permits unless otherwise stated in the Contract Documents, insurance, construction staking, erosion control, maintenance of traffic, coordination, and scheduling as necessary to the start and completion of the work shall also be included under this Line Item.

Maintenance of Traffic: This shall include preparation of Maintenance of Traffic and Pedestrian Control plans consistent with the Contractor's work schedule/plan, and coordination with City staff. It shall include the construction and maintenance of any necessary detour facilities, traffic control barriers; provision of necessary facilities for access to residences, businesses, etc. along the project; furnishing, installing and maintaining of traffic control and safety devices during construction, including placement and removal of temporary pavement markings, and signs; temporary wheelchair ramps; and temporary variable message boards, and any other special requirements for safe and expeditious movement of both vehicular and pedestrian traffic. Maintenance of Traffic shall also be per FDOT Standard Specifications for Road and Bridge Construction and FDOT Design Standards, latest edition. Contractor's Maintenance of Traffic and Pedestrian Control plans shall include quantities and durations or various equipment, materials, and activities to facilitate a reasonable accounting of the overall percentage of completeness for this Bid Item.

The cost of all other work as shown and specified that is not specifically included under other line items shall also be included under this line item.

Bid price for mobilization/demobilization and maintenance of traffic shall not exceed five percent (5) of the total base bid.

Payment for mobilization/demobilization and maintenance of traffic will be on an incremental basis in accordance to the following:

<u>Percent of Original Contract Amount Earned</u>	<u>Allowable Percent of the Lump Sum Price for the Item</u>
5	25
10	50
25	75
50	100

2. EROSION CONTROL / SOIL TRACKING PREVENTION / INLET PROTECTION (Bid Item #2):

The Contractor shall refer to FDOT Design Standards and FDOT Standard Specifications for Road and Bridge Construction, latest edition, for Prevention, Control, and Abatement of Erosion and Water Pollution, and Soil Tracking Prevention Device Detail as shown on Construction Documents. Storm Inlet protection must be in place throughout entire milling and resurfacing project. Payment shall be Lump Sum (LS).

3. INSURANCE (Bid Item #3):

Insurance as required by Exhibit 'D' Special Provisions, Contractor's Liability Insurance and Insurance Required, of the Contract Documents. Bid price for Insurance shall not exceed 3% of the total base bid. Payment shall be Lump Sum (LS).

4. PERFORMANCE AND PAYMENT BONDS (Bid Item #4):

A Performance and Payment Bond satisfactory to the City, executed by a surety company authorized to do business in the State of Florida or otherwise secured in a manner satisfactory to the City, in an amount equal to one hundred (100) percent of the Contract Price, as awarded, will be required from the Contractor insuring the faithful performance of the contract and protecting the City from suits for non-payment of debts which might be incurred by a contractor's performance for the City. Payment shall be Lump Sum (LS).

5. Video-Audio Existing Conditions (Bid Item #5):

The Contractor shall provide a Video-Audio Route Survey of existing conditions prior to start of construction. Complete coverage shall include all surface features located within the public right-of-way, easement areas and adjacent private properties within the zone of influence of construction and shall be supported by appropriate audio description made simultaneously with video coverage. Video shall be of high definition (HD) quality. Payment shall be Lump Sum (LS).

6. VARIABLE/CHANGEABLE MESSAGE BOARDS (VMB) (Bid Item #6):

This bid item shall be required for advance public notifications for work that affects traffic within streets to be milled, resurfaced, and with full depth reclamation. Variable/Changeable Message Boards (VMBs) shall be placed in advance of construction at least one (1) week prior to start and remain until work is complete. This bid item is for furnishing and installing portable Variable/Changeable Message Boards/Signs necessary for the duration of the project. Variable/Changeable Message Boards/Signs shall not be used to display information other than regulatory, warning, and guidance information related to traffic control.

Portable Variable/Changeable Message Boards/Signs shall be temporary traffic control devices with the flexibility to display a variety of messages. Each message shall consist of either one or two phases. Typically, a phase shall consist of up to three lines of eight characters per line.

When signs are used for route diversion, they should be placed far enough in advance of the diversion to allow road users ample opportunity to exit the affected roadway. The signs should be sited and aligned to ensure legibility. Multiple signs should be placed on the same side of the roadway, separated from each other at distances based on Table 6C-1 of the Manual on Uniform Traffic Control Devices (MUTCD). Variable/Changeable Message Boards/Signs should be placed on the shoulder of the roadway or, if practical, further from the traveled lane. They should be delineated with retroreflective temporary traffic control devices or when within the clear zone, shielded with a barrier or crash cushion. When Variable/Changeable Message Boards/Signs are not being used, they should be removed; if not removed, they should be shielded; or if the previous two options are not feasible, they should be delineated with retroreflective temporary traffic control devices. Payment shall be made for Each (EA) Variable/Changeable Message Boards needed for the project duration.

7. UTILITY MANHOLE RING AND COVER ADJUSTMENTS (Bid Item #7):

The Contractor shall provide all labor, equipment and ancillary material for the adjustment of utility manhole rings and covers. All manholes shall be adjusted, raised, or lowered to meet new surface. The manhole rings and covers shall be brought to finished grade. A new ring and cover shall be used if needed, reference City Detail 'SS7' on Plan Detail Sheet. All work shall be approved by the City. Payment shall be made for Each (EA) manhole ring and cover adjustment complete and acceptable to the City.

8. UTILITY VALVES ADJUSTMENTS TO FINISHED GRADE (Bid Item #8):

The Contractor shall provide all labor, equipment and ancillary material for the adjustment of utility valves. All valve boxes located within the work area shall be adjusted to meet new surface. Valve boxes that need to be replaced can be domestic or imported, labeled water or sewer, as appropriate. The valves shall be brought to finished grade. All work shall be approved by the City. Payment shall be made for Each (EA) valve complete and acceptable to the City.

9. MILL 1.0 INCH DEPTH (Bid Item #9):

The Contractor shall furnish all labor, equipment, and materials to mill roadways. The milling shall include but may not be limited to:

1. Milling for all lanes impacted by construction as shown on the plans.
2. Removal of excess road base, and replacing and re-compacting the road base:
Note that this is included to account for any roadway areas with different depths of asphalt or patches of missing asphalt or areas patched due to a pothole or other disturbances.
Contractor to stabilize and/or replace any disturbed base during milling process.
In smaller areas an optional base group can be installed per FDOT Specification 285, attached for reference, and upon approval by the City.
3. Materials, preparation, hauling, and preparation for placing approved asphalt pavement in layers over milled area as shown in the Plans.
4. Hauling away all millings and debris out of City (Note that the City does not want any roadway milling).
5. All other ancillary materials, equipment, labor, and power required for the complete asphalt restoration of all roads disturbed or damaged by construction.

Payment shall be made for square yards (SY) of roadway milled, and if needed, road base removed and replaced and re-compacted, in place and accepted by the Engineer, paid in accordance with the unit price provided on the bid form and/or agreed to in the Schedule of Values.

10. ASPHALTIC CONCRETE 2-1/4 INCH, SP-12.5 (Bid Item #10):

The Contractor shall furnish all labor, equipment, and materials to resurface the roadway with asphalt pavement. The asphaltic concrete shall include but may not be limited to:

1. Reference FDOT Standard Specifications Section 334, Latest Edition.
2. Density Testing required. Furnish City with results. Reference Pinellas County Testing and Supplemental Specifications for Roadway and General Construction.
3. Materials, preparation, hauling, and placing approved SP-12.5 asphalt pavement in layers over milled area as shown in the Plans;
4. All other ancillary materials, equipment, labor, and power required for the complete asphalt restoration of all roads disturbed or damaged by construction.

Payment shall be made for TONS of roadway resurfaced complete, in place and accepted by the Engineer, paid in accordance with the unit price provided on the bid form and/or agreed to in the Schedule of Values.

11. THERMOPLASTIC STRIPING: STOP BAR, SOLID 12-INCH WHITE, INCLUDING TEMPORARY PAINT STRIPING (Bid Item #11):

The Contractor shall furnish all labor, equipment, and materials for the application of white thermoplastic 12-inch Stop Bar stripes. Temporary paint striping prior to thermoplastic striping shall be included in this bid item. The application shall conform to FDOT Standard Specification Section 711 (latest edition). Payment shall be made for linear foot (LF) of striping complete, and in place and accepted by the Engineer, paid in accordance with the unit price provided on the bid form and/or agreed to in the Schedule of Values.

12. THERMOPLASTIC STRIPING: STOP BAR, SOLID 24-INCH WHITE, INCLUDING TEMPORARY PAINT STRIPING (Bid Item #12):

The Contractor shall furnish all labor, equipment, and materials for the application of white thermoplastic 24-inch Stop Bar stripes. Temporary paint striping prior to thermoplastic striping shall be included in this bid item. The application shall conform to FDOT Standard Specification Section 711 (latest edition). Payment shall be made for linear foot (LF) of striping complete, and in place and accepted by the Engineer, paid in accordance with the unit price provided on the bid form and/or agreed to in the Schedule of Values.

13. THERMOPLASTIC MARKING: SPECIAL EMPHASIS PEDESTRIAN CROSSWALK, SOLID 12-INCH WHITE; INCLUDING TEMPORARY PAINT STRIPING (Bid Item #13):

The Contractor shall furnish all labor, equipment, and materials for the application of white thermoplastic 12-inch solid special emphasis pedestrian crosswalks. Temporary paint striping prior to thermoplastic striping shall be included in this bid item. The application shall conform to FDOT Standard Specification Section 711 (latest edition). Payment shall be made for linear foot (LF) of striping complete, in place and accepted by the Engineer, paid in accordance with the unit price provided on the bid form and/or agreed to in the Schedule of Values.

14. THERMOPLASTIC MARKING: SPECIAL EMPHASIS PEDESTRIAN CROSSWALK, SOLID 24-INCH WHITE; INCLUDING TEMPORARY PAINT STRIPING (Bid Item #14):

The Contractor shall furnish all labor, equipment, and materials for the application of white thermoplastic 24-inch solid special emphasis pedestrian crosswalks. Temporary paint striping prior to thermoplastic striping shall be included in this bid item. The application shall conform to FDOT Standard Specification Section 711 (latest edition). Payment shall be made for linear foot (LF) of striping complete, in place and accepted by the Engineer, paid in accordance with the unit price provided on the bid form and/or agreed to in the Schedule of Values.

15. THERMOPLASTIC STRIPING: DOUBLE YELLOW, SOLID 6-INCH (Bid Item #15):

The Contractor shall furnish all labor, equipment, and materials for the application of double yellow, solid 6-inch thermoplastic striping. Temporary paint striping prior to thermoplastic striping shall be included in this bid item. The application shall conform to FDOT Standard Specification Section 706-001 (latest edition). Payment shall be made for linear foot (LF) of striping complete, in place and accepted by the Engineer, paid in accordance with the unit price provided on the bid form and/or agreed to in the Schedule of Values.

16. THERMOPLASTIC STRIPING: SINGLE WHITE EDGE LINES, SOLID 6-INCH (Bid Item #16):

The Contractor shall furnish all labor, equipment, and materials for the application of single white edge lines, solid 6-inch thermoplastic striping. Temporary paint striping prior to thermoplastic striping shall be included in this bid item. The application shall conform to FDOT Standard Specification Section 706-001 (latest edition). Payment shall be made for linear foot (LF) of striping complete, in place and accepted by the Engineer, paid in accordance with the unit price provided on the bid form and/or agreed to in the Schedule of Values

17. THERMOPLASTIC STRIPING: PAVEMENT MARKING TRAFFIC SEPARATOR (GORE) (Bid Item #17):

The Contractor shall furnish all labor, equipment, and materials for the application of pavement marking traffic separator (gore) thermoplastic striping. Temporary paint striping prior to thermoplastic striping shall be included in this bid item. The application shall conform to FDOT Standard Specification Section 706-001 (latest edition). Payment shall be made for linear foot (LF) of striping complete, in place and accepted by the Engineer, paid in accordance with the unit price provided on the bid form and/or agreed to in the Schedule of Values

18. RETROREFLECTIVE RAISED PAVEMENT MARKERS (RPM) (Bid Item #18):

The Contractor shall furnish all labor, equipment, and materials for the installation of retroreflective raised pavement markers (RMP). The application shall conform to FDOT Standard Specification Section 706-001 (latest edition). Payment shall be made for Each (EA) RPM installed, in place and accepted by the Engineer, paid in accordance with the unit price provided on the bid form and/or agreed to in the Schedule of Values

19. DEMOLITION: SAWCUT AND REMOVE CONCRETE CURB (Bid Item #19):

The Contractor shall provide all labor, equipment and materials necessary for proper removal and disposal of concrete curb as described in Plans and Details, and Specifications. Demolition shall include but may not be limited to materials and all other ancillary materials, equipment, labor, and power required for the demolition. Payment shall be based on Units shown on corresponding Bid Schedule.

20. DEMOLITION: SAWCUT AND REMOVE CONCRETE SIDEWALK / ADA RAMP (Bid Item 20):

The Contractor shall provide all labor, equipment and materials necessary for proper removal and disposal of concrete sidewalk/ADA ramp, paving, as described in Plans and Details, and Specifications. Demolition shall include but may not be limited to materials and all other ancillary materials, equipment, labor, and power required for the demolition. Payment shall be based on Units shown on corresponding Bid Schedule.

21. INSTALL CONCRETE ADA RAMP, 6-INCH THICK, 3,000 PSI (Bid Item #21):

The Contractor shall furnish all labor, equipment and materials to install ADA ramps. The ADA ramp installation shall include but may not be limited to:

1. Removing all sidewalk and curb impacted by construction;
2. Formwork, reinforcement, and installation per details in the Drawings of concrete ADA ramps.
3. All other ancillary materials, equipment, labor, and power required for the complete installation of all ADA Ramps.
4. All ADA Ramps must meet the ADA Standards for Accessible Design. Failure to do so would violate the American Disabilities Act and will not be accepted by the City.

Payment shall be made for the ADA ramps in place, approved and accepted by the City. Payment shall be based on Units shown on corresponding Bid Schedule.

22. INSTALL CONCRETE SIDEWALK, 6-INCH THICK, 3,000 PSI (Bid Item #22):

The Contractor shall provide all labor, equipment and materials necessary for proper installation of concrete sidewalk as described in Plans and Details, and Specifications. City shall inspect form boards prior to concrete pour. Installation of sidewalk shall include but may not be limited to materials, preparation/grading, formwork, reinforcement and installation of sidewalk as shown in the Plans and all other ancillary materials, equipment, labor, and power required for the sidewalk installation. Payment shall be Square Yards (SY).

23. INSTALL CONCRETE CURB, IN-KIND (Bid Item #23):

The Contractor shall provide all labor, equipment and materials necessary for proper installation of concrete curb as described in Plans and Details, and Specifications. Installation shall include but may not be limited to materials, preparation/grading, formwork, reinforcement and installation and all other ancillary materials, equipment, labor, and power required for the sidewalk installation. Payment shall be Linear Feet (LF).

24. INSTALL YELLOW ADA DETECTABLE WARNING MAT PER FDOT INDEX 304, REFER TO HANDICAP RAMP
DETAIL ON PLAN SHEETS (Bid Item #24):

The Contractor shall furnish all labor, equipment, and materials for the application of Federal Yellow Detectable Warning Mat per City Detail 'C13'. The application shall be inspected, approved and accepted by the City prior to payment. Payment shall be made for Each (EA).

ACKNOWLEDGMENT OF ACCEPTANCE OF THIS DOCUMENT:

COMPANY NAME:

NAME & TITLE OF OFFEROR'S REPRESENTATIVE:

SIGNATURE: _____

DATE: _____

IFB 2025-ENG-02
BID 'B': FIRE STATION #53 PAVING PROJECT
REFERENCE ATTACHMENT 'B' FOR BID ITEM DESCRIPTIONS

ITEM #		QUANTITY	UNIT	UNIT PRICE	COST
General Pay Items: Lump Sum Items					
1	Mobilization / Demobilization / Maintenance of Traffic	1.00	LS		
2	Silt Fence: 415 LF / Erosion Control / Soil Tracking Prevention / Inlet Protection (Refer to Details on Plans Sheet C-3.1)	1.00	LS		
3	Insurance	1.00	LS		
4	Performance and Payment Bond	1.00	LS		
5	Video-Audio Existing Conditions	1.00	LS		
CONSTRUCTION ITEMS					
6	MILL 3.0 inch depth	850	SY		
7	Asphaltic Concrete 3.0-inch, SP 12.5 (To Include Density Testing: Reference Pinellas Co. Testing and Supplemental Specifications for Roadway and General Construction)	153	TON		
8	Asphaltic Concrete 3.0-inch, SP 12.5, Full Depth Pavement (To Include Density Testing Reference Pinellas Co. Testing and Supplemental Specifications for Roadway and General Construction), Reference Section Detail on Plan Sheet C-3.0	132	TON		
9	MILL 1.75 inch depth	136	SY		
10	Asphaltic Concrete 1.75-inch, SP 12.5 (To Include Density Testing, Reference Pinellas Co. Testing and Supplemental Specifications for Roadway and General Construction)	14	TON		
11	Clearing/Grubbing and Grading	7,200	SF		
12	Install Concrete, 6-inch thick, 3,000 PSI	41	SY		
13	Install 6" Steel, Concrete Filled Bollards, 3 feet high, Per City Detail MISC1 located on Plan Sheet C-3.0	2	EA		
14	Install 6' high vinyl fence, Per City Detail MISC1 located on Plan Sheet C-3.0, City Building Permit will be required	1	LS		
15	Parking Spaces: Thermoplastic Striping - 24 Regular Parking Spaces, solid 6-inch, white, including temporary paint striping	1	LS		
16	ADA Parking Space: Thermoplastic Striping, Per City Detail C14 located on Plan Sheet C-3.0. Note: Do not include the ADA sign in cost	1	LS		
17	Sod, Argentine Bahia: Install where needed in disturbed areas	500	SF		
TOTAL BID 'B'					

ACKNOWLEDGMENT OF ACCEPTANCE OF THIS DOCUMENT:
COMPANY NAME:
NAME & TITLE OF OFFEROR'S REPRESENTATIVE:
SIGNATURE:
DATE:

ATTACHMENT 'B' TO SCHEDULE BID FORM 'B'
FIRE STATION #53 PAVING PROJECT

**PAY
ITEMS:**

(a)
Pay Items identified below directly correspond Item Numbers identified on the Schedule – Bid Form 'B' for Fire Station #53 Paving Project.

(b) The Contractor acknowledges that it has taken steps reasonably necessary to ascertain the nature and location of the Work and that it has investigated and satisfied itself as to the general and local conditions which can affect the Contract Work or its cost, including, but not limited to; (1) conditions bearing upon transportation, disposal, handling, and storage of materials; (2) the availability of labor, water, electric power, roads rights of way access to the work site and other lands made available by the City for this Project; (3) uncertainties of weather, flooding patterns and water drainage, or similar physical conditions at the site; (4) the conformation and conditions of the ground; and (5) the character of equipment and facilities needed prior to and during work performance. The Contractor acknowledges that its undertaking to complete the Contract within the Contract Schedule includes an allowance for the normal number of days in which contract work may be partially or totally delayed because of weather during the season and at the location the Contract will be performed and that the Contractor shall not be entitled to excusable delays or compensation for such delays. The Contractor also acknowledges that it has satisfied itself as to the character, quality, and quantity of surface and subsurface materials or obstacles to be encountered insofar as this information is reasonably ascertainable from an inspection of the site, access to the site, and territory surrounding the site, including all exploratory work done by the City as well as from the drawings and specifications made a part of this Contract. Any failure of the Contractor to take the actions described and acknowledged in this paragraph will not relieve the Contractor from responsibility for estimating properly the difficulty and cost of successfully performing the work or for proceeding to perform the work successfully without additional expense to the City.

(c) The City assumes no responsibility for any conclusions or interpretations made by the Contractor based on the information made available by the City. Nor does the City assume responsibility for any understanding reached or representation made concerning conditions which can affect the work by any of its officers, employees, engineers or agents before the execution of this Contract, unless that understanding or representation is expressly stated in this contract.

Notes to Contractor: Testing/Density Testing does not have a specific bid item and should be applied to the appropriate bid item. Refer to Specification Section 01410.

Reference Pinellas County Testing and Supplemental Specifications for Roadway and General Construction.

Also, if required, Geotechnical analysis should be applied to the appropriate bid item.

THE FOLLOWING ARE PAY ITEM DESCRIPTIONS FOR:

BID SCHEDULE 'B': FIRE STATION #53 PAVING PROJECT

1. MOBILIZATION / DEMOBILIZATION / MAINTENANCE OF TRAFFIC (Bid Item #1):

Work under this Contract item includes the furnishing of labor, material, tools, equipment, and services to perform those operations necessary for the movement of personnel, equipment, supplies and incidentals to and from the project site and for the establishment and removal of temporary offices, buildings, safety equipment, sanitary facilities and first aid supplies as required by the specifications, and state and local laws and regulations.

Fire Station Staff must be notified one week prior to work beginning.

The cost of notification to business owners and homeowners and authorities shall also be included under this Line Item. This includes, but is not limited to the following:

- Contractor shall notify owners of adjacent property and utilities when performance of the work may affect them. When it is necessary to temporarily modify access by owners or tenants to their property, or when any utility service connection must be interrupted, give notices a minimum of one (1) week in advance to enable the affected persons to provide for their needs.
- Conform notice to any applicable local ordinance, deliver in writing, and include appropriate information concerning the interruption and instruction on how to limit their inconvenience. Notices shall also include a link to the City website for project scope, schedule, and contact information for the City and contractor staff.
- Contractor shall place the notices in a conspicuous place.
- Contractor shall provide to the business owners and residents a second notice with a schedule when individual segments of the project are to be impacted.
- Contractor shall contact the business owners and residents prior to work when resurfacing, landscaping, irrigation, or any other above ground occupation is to be impacted.
- Contractor shall notify the City, utility providers, police, fire and other concerned agencies at least forty-eight (48) hours prior to disrupting traffic or closing streets or other traffic areas, or excavating near underground utilities or poles.

The cost of required permits unless otherwise stated in the Contract Documents, insurance, construction staking, erosion control, maintenance of traffic, coordination, and scheduling as necessary to the start and completion of the work shall also be included under this Line Item.

Maintenance of Traffic: This shall include preparation of Maintenance of Traffic and Pedestrian Control plans consistent with the Contractor's work schedule/plan, and coordination with City staff. It shall include the construction and maintenance of any necessary detour facilities, traffic control barriers; provision of necessary facilities for access to residences, businesses, etc. along the project; furnishing, installing and maintaining of traffic control and safety devices during construction, including placement and removal of temporary pavement markings, and signs; temporary wheelchair ramps; and temporary variable message boards, and any other special requirements for safe and expeditious movement of both vehicular and pedestrian traffic. Maintenance of Traffic shall also be per FDOT Standard Specifications for Road and Bridge Construction and FDOT Design Standards, latest edition. Contractor's Maintenance of Traffic and Pedestrian Control plans shall include quantities and durations or various equipment, materials, and activities to facilitate a reasonable accounting of the overall percentage of completeness for this Bid Item.

The cost of all other work as shown and specified that is not specifically included under other line items shall also be included under this line item.

Bid price for mobilization/demobilization and maintenance of traffic shall not exceed five percent (5) of the total base bid.

Payment for mobilization/demobilization and maintenance of traffic will be on an incremental basis in accordance to the following:

<u>Percent of Original Contract Amount Earned</u>	<u>Allowable Percent of the Lump Sum Price for the Item</u>
5	25
10	50
25	75
50	100

2. SILT FENCE: 415 LF / EROSION CONTROL / SOIL TRACKING PREVENTION / INLET PROTECTION (Bid Item #2):

The Contractor shall install 415 LF of Silt Fence, as shown on plan sheets C-2.0 and C-2.1. Reference Details on Plan Sheet C-3.1 and FDOT Design Standards and FDOT Standard Specifications for Road and Bridge Construction, latest edition, for Prevention, Control, and Abatement of Erosion and Water Pollution, and Soil Tracking Prevention Device Detail as shown on Construction Documents. Silt fence must be installed and storm Inlet protection must be in place prior to start of project and throughout the duration of the project. Payment shall be Lump Sum (LS).

3. INSURANCE (Bid Item #3):

Insurance as required by Exhibit 'D' Special Provisions, Contractor's Liability Insurance and Insurance Required, of the Contract Documents. Bid price for Insurance shall not exceed 3% of the total base bid. Payment shall be Lump Sum (LS).

4. PERFORMANCE AND PAYMENT BONDS (Bid Item #4):

A Performance and Payment Bond satisfactory to the City, executed by a surety company authorized to do business in the State of Florida or otherwise secured in a manner satisfactory to the City, in an amount equal to one hundred (100) percent of the Contract Price, as awarded, will be required from the Contractor insuring the faithful performance of the contract and protecting the City from suits for non-payment of debts which might be incurred by a contractor's performance for the City. Payment shall be Lump Sum (LS).

5. Video-Audio Existing Conditions (Bid Item #5):

The Contractor shall provide a Video-Audio Route Survey of existing conditions prior to start of construction. Complete coverage shall include all surface features located within the public right-of-way, easement areas and adjacent private properties within the zone of influence of construction and shall be supported by appropriate audio description made simultaneously with video coverage. Video shall be of high definition (HD) quality. Payment shall be Lump Sum (LS).

6. MILL 3.0 INCH DEPTH (Bid Item #6):

The Contractor shall furnish all labor, equipment, and materials to mill roadways. The milling shall include but may not be limited to:

1. Milling for all lanes impacted by construction as shown on the plans.
2. Removal of excess road base, and replacing and re-compacting the road base:
Note that this is included to account for any roadway areas with different depths of asphalt or patches of missing asphalt or areas patched due to a pothole or other disturbances.
Contractor to stabilize and/or replace any disturbed base during milling process.
In smaller areas an optional base group can be installed per FDOT Specification 285, attached for reference, and upon approval by the City.
3. Materials, preparation, hauling, and preparation for placing approved asphalt pavement in layers over milled area as shown in the Plans.
4. Hauling away all millings and debris out of City (Note that the City does not want any roadway milling).
5. All other ancillary materials, equipment, labor, and power required for the complete asphalt restoration of all roads disturbed or damaged by construction.

Payment shall be made for square yards (SY) of roadway milled, and if needed, road base removed and replaced and re-compacted, in place and accepted by the Engineer, paid in accordance with the unit price provided on the bid form and/or agreed to in the Schedule of Values.

7. ASPHALTIC CONCRETE 3.0-INCH, SP-12.5 (Bid Item #7):

The Contractor shall furnish all labor, equipment, and materials to resurface the roadway with asphalt pavement. The asphaltic concrete shall include but may not be limited to:

1. Reference FDOT Standard Specifications Section 334, Latest Edition.
2. Density Testing required. Furnish City with results. Reference Pinellas County Testing and Supplemental Specifications for Roadway and General Construction.
3. Materials, preparation, hauling, and placing approved SP-12.5 asphalt pavement in layers over milled area as shown in the Plans;
4. All other ancillary materials, equipment, labor, and power required for the complete asphalt restoration of all roads disturbed or damaged by construction.

Payment shall be made for TONS of roadway resurfaced complete, in place and accepted by the Engineer, paid in accordance with the unit price provided on the bid form and/or agreed to in the Schedule of Values.

8. ASPHALTIC CONCRETE 3.0-INCH, SP-12.5, FULL DEPTH PAVEMENT (Bid Item #8):

The Contractor shall furnish all labor, equipment, and materials to construct the new asphalt area as shown on the Plans. The installation of asphaltic concrete shall include but may not be limited to:

1. Installation of 3.0-inch asphaltic concrete type 12.5, installation of 6-inch crushed concrete base compacted to 98% Maximum Density, installation of 9-inch stabilized sub-base, LBR 40, Type 'B', 98% maximum density. Reference Full Depth Pavement Section on Plan Sheet C-3.0
2. Reference FDOT Standard Specifications Section 334, Latest Edition.
3. Density Testing required. Furnish City with results. Reference Pinellas County Testing and Supplemental Specifications for Roadway and General Construction.
4. Materials, preparation, hauling, and placing approved SP-12.5 asphalt pavement in layers over milled area as shown in the Plans;
5. All other ancillary materials, equipment, labor, and power required for the complete asphalt restoration of all roads disturbed or damaged by construction.

Payment shall be made for TONS of installation complete, in place and accepted by the Engineer, paid in accordance with the unit price provided on the bid form and/or agreed to in the Schedule of Values

9. MILL 1.75 INCH DEPTH (Bid Item #9):

The Contractor shall furnish all labor, equipment, and materials to mill roadways. The milling shall include but may not be limited to:

1. Milling for all lanes impacted by construction as shown on the plans.
2. Removal of excess road base, and replacing and re-compacting the road base:
Note that this is included to account for any roadway areas with different depths of asphalt or patches of missing asphalt or areas patched due to a pothole or other disturbances.
Contractor to stabilize and/or replace any disturbed base during milling process.
In smaller areas an optional base group can be installed per FDOT Specification 285, attached for reference, and upon approval by the City.
3. Materials, preparation, hauling, and preparation for placing approved asphalt pavement in layers over milled area as shown in the Plans.
4. Hauling away all millings and debris out of City (Note that the City does not want any roadway milling).
5. All other ancillary materials, equipment, labor, and power required for the complete asphalt restoration of all roads disturbed or damaged by construction.

Payment shall be made for square yards (SY) of roadway milled, and if needed, road base removed and replaced and re-compacted, in place and accepted by the Engineer, paid in accordance with the unit price provided on the bid form and/or agreed to in the Schedule of Values.

10. ASPHALTIC CONCRETE 1.75-INCH, SP-12.5 (Bid Item #10):

The Contractor shall furnish all labor, equipment, and materials to resurface the roadway with asphalt pavement. The asphaltic concrete shall include but may not be limited to:

1. Reference FDOT Standard Specifications Section 334, Latest Edition.
2. Density Testing required. Furnish City with results. Reference Pinellas County Testing and Supplemental Specifications for Roadway and General Construction.
3. Materials, preparation, hauling, and placing approved SP-12.5 asphalt pavement in layers over milled area as shown in the Plans;
4. All other ancillary materials, equipment, labor, and power required for the complete asphalt restoration of all roads disturbed or damaged by construction.

Payment shall be made for TONS of roadway resurfaced complete, in place and accepted by the Engineer, paid in accordance with the unit price provided on the bid form and/or agreed to in the Schedule of Values.

11. CLEARING/GRUBBING AND GRADING (Bid Item #11):

The Contractor shall furnish all labor, equipment, and materials for the excavation and removal of materials in preparation for asphaltic concrete, base and sub-base as shown on the Plans. The excavation shall include but may not be limited to:

1. Removal of roots, excess material, excess road base, and compaction;
2. Hauling away all debris out of City;
3. Materials, preparation, hauling, and preparation for placing proper depth of asphalt pavement in layers as shown in the Plans;
4. Grading to have a positive slope as shown on the plan;
5. All other ancillary materials, equipment, labor, and power required for the complete asphalt restoration of all roads disturbed or damaged by construction.

Payment shall be made for Square Feet (SF) of clearing, grubbing, and grading, and accepted by the Engineer, paid in accordance with the unit price provided on the bid form and/or agreed to in the Schedule of Values.

12. INSTALL CONCRETE SIDEWALK, 6-INCH THICK, 3,000 PSI (Bid Item #12):

The Contractor shall provide all labor, equipment and materials necessary for proper installation of concrete sidewalk as described in Plans and Details, and Specifications. City shall inspect form boards prior to concrete pour. Installation of sidewalk shall include but may not be limited to materials, preparation/grading, formwork, reinforcement and installation of sidewalk as shown in the Plans and all other ancillary materials, equipment, labor, and power required for the sidewalk installation. Payment shall be Square Yards (SY).

13. INSTALL 6-INCH STEEL, CONCRETE FILLED BOLLARDS, 3-FEET HIGH, PER CITY DETAIL MISC1 (Bid Item #13):

The Contractor shall provide all labor, equipment and materials necessary for proper installation of the 6-inch steel concrete filled bollards per City Detail MISC1 located on Plan Sheet C-3.0. Installation shall include but may not be limited to materials, preparation/grading, formwork, reinforcement and installation of as shown in Detail MISC1, and all other ancillary materials, equipment, labor, and power required for the bollard installation. Payment shall be Each (EA).

14. INSTALL 6-FT HIGH VINYL FENCE, PER CITY DETAIL MISC1 (Bid Item #14):

The Contractor shall provide all labor, equipment and materials necessary for proper installation of the 6-FT high vinyl fence, per City Detail MISC1 located on Plan Sheet C-3.0. City Building Permit will be required. Installation shall include but may not be limited to materials, preparation/grading, formwork, reinforcement and installation of as shown in Detail MISC1, and all other ancillary materials, equipment, labor, and power required for the fence installation. Payment shall be Lump Sum (LS).

15. PARKING SPACES: THERMOPLASTIC STRIPING (Bid Item #15):

The Contractor shall furnish all labor, equipment, and materials for the application of white thermoplastic solid 6-inch stripes. Where applicable, temporary paint striping prior to thermoplastic striping shall be included in this bid item. The application shall conform to FDOT Standard Specification Section 711 (latest edition). Payment shall be made for Lump Sum (LS) of striping complete, and in place and accepted by the Engineer, paid in accordance with the unit price provided on the bid form and/or agreed to in the Schedule of Values.

16. THERMOPLASTIC STRIPING: ADA PARKING SPACE, PER CITY DETAIL C14 (Bid Item #16):

The Contractor shall furnish all labor, equipment, and materials for the application of the ADA parking space per City Detail C14, located on Plan Sheet C-3.0. The application shall conform to FDOT Standard Specification Section 711 (latest edition). Payment shall be made for Lump Sum (LS) of striping complete, and in place and accepted by the Engineer, paid in accordance with the unit price provided on the bid form and/or agreed to in the Schedule of Values.

17. SOD, ARGENTINE BAHIA (Bid Item #17):

The Contractor shall provide all labor, equipment and materials necessary for installation of sod as shown on the plans and as needed to be determined by City staff. Payment shall be Square Feet (SF).

ACKNOWLEDGMENT OF ACCEPTANCE OF THIS DOCUMENT:

COMPANY NAME:

NAME & TITLE OF OFFEROR'S REPRESENTATIVE:

SIGNATURE:_____

DATE:_____

REPRESENTATIONS AND CERTIFICATIONS

** NOTE: THIS FORM MUST BE COMPLETED AND RETURNED WITH THE OFFER **

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REPRESENTATIONS

1. Prohibition Against Contingent Fee

Except for full-time bona fide employees working solely for the Offeror, the Offeror represents as part of its offer that it (Mark one with an "X"):

☐ has ☐ has not

been employed or retained any company or persons to solicit or obtain this contract, and (Mark one with an "X"):

☐ has ☐ has not

paid or agreed to pay any person or company employed or retained to solicit or obtain this contract any commission, percentage, brokerage, or other fee contingent upon or resulting from the award of this contract.

2. Interest of Public Officers/Covenant against Gratuities

The Offeror represents as part of its offer that no employee, official, or City Commissioner is or will be pecuniarily interested or benefited directly or indirectly in this contract. The Offeror further represents and warrants that it has not offered or given gratuities (in the form of entertainment, gifts, or otherwise) to any employee, official, or City Commissioner with a view toward securing favorable treatment in the awarding, amending, or evaluating the performance of any contract resulting from the solicitation. For breach of any representation or warranty in this clause, the City shall have the right to terminate this contract without liability and/or have recourse to any other remedy it may have at law.

3. Parent Company and Identifying Data

(a) The Offeror represents as part of its offer that it (Mark one with an "X"):

☐ is ☐ is not

owned or controlled by a parent company. A parent company, for the purpose of this provision, is one that owns or controls the activities and basic business policies of the Offeror. To own the Offeror means that the parent company must own more than 50 percent of the voting rights in the Offeror. A company may control an Offeror as a parent even though not meeting the requirements for such ownership if the company is able to formulate, determine, or veto basic policy decisions of the Offeror through the use of dominant minority voting rights, use of proxy voting, or otherwise.

--

NAME OF PARENT COMPANY AND MAIN OFFICE ADDRESS (INCLUDE ZIP AND PHONE):

--

--

☐ less than \$500K ☐ \$500K - \$2 mil. ☐ \$2 mil. - \$5 mil. ☐ more than \$5 mil.

(3) No attempt has been made or will be made by the Offeror to induce any other person or firm to submit or not to submit an offer for the purpose of restricting competition.

(b) Each person signing this offer certifies that:

- (1) He/she is the person in the Offeror's organization responsible within that organization for the decision as to the prices being offered herein and that he has not participated, and will not participate, in any action contrary to (a)(1) through (a)(3) above; or
- (2) He/she: (i) is not the person in the Offeror's organization responsible within that organization for the decision as to the prices being offered herein but that he has been authorized in writing to act as an agent for the persons responsible for such decision in certifying that such persons have not participated, and will not participate, in any action contrary to (a)(1) through (a)(3) above, and as their agent does hereby so certify; and (ii) has not participated, and will not participate, in any action contrary to (a)(1) through (a)(3) above.

6. Collusion & Interest of Offeror

By offering a submission to this request the Offeror certifies:

- (a) No attempt has been made or will be made by the Offeror to induce any other person or entity to submit or not to submit an offer for the purpose of restricting competition;
- (b) The only person interested in this contract as principal or principals is/are named therein and that no person other than therein mentioned has any interest in this contract to be entered into; and
- (c) The Offeror warrants that he or she has not employed or retained any company or person, other than a bona fide employee working solely for the Offeror, to solicit or secure this agreement and that it has not paid or agreed to pay any person, company, corporation, individual, or firm, other than a bona fide employee working solely for the Offeror, any fee, commission, percentage, gift or other consideration contingent upon or resulting from the award or making of this agreement.

7. Communication Policy and Certification

- (a) All oral and written communications with the City regarding this solicitation should be exclusively with the Contracting Officer identified in this solicitation, or with his or her designee. Discussions or communications with any other person could result in disclosure of proprietary or other competitive sensitive information or otherwise create the appearance of impropriety or unfair competition and, thereby, compromise the integrity of the City's procurement system.
- (b) By submission of this offer, the Offeror certifies that it has not, and will not prior to contract award, communicate orally or in writing with any City employee or other representative (including contractors, or consultants) other than the Contracting Officer listed in the solicitation or his or her designee, except as described below: (CHECK "NONE" IF NONE EXISTS.)

☐ **NONE**

Name of City Representative

Date and Subject of Communication

- (c) This certification concerns a material representation of fact upon which reliance will be placed in awarding a contract. If it is later determined that the Offeror knowingly rendered an erroneous certification, in addition to any other remedies the City may have, the City may terminate the contract resulting from this solicitation for default and/or recommend that the Offeror be debarred or suspended from doing business with the City and/or have recourse to any other remedy it may have at law.
- (d) The Offeror shall provide immediate written notice to the City if, at any time prior to contract award, he/she learns that its certification was, or a subsequent communication makes, the certification erroneous.

8. Conflict of Interest Certification

By submission of this offer, I certify that:

(a) I have read and understand the Solicitation Instructions and Conditions clause entitled "Code of Ethics." that will be incorporated into any contract resulting from this solicitation. I further understand that the pecuniary interest in that clause includes employment relationships.

(b) The requirements of this certification have been passed through to all first-tier subcontractors or subconsultants anticipated to be used at the time of the submission of my offer.

9. Non-Discrimination Assurance

The Offeror certifies that it will not discriminate on the basis of race, color, national origin or sex in the performance of this contract. The Offeror understands that it is required to insert such a certification in all subcontracts and purchase orders. Failure by the Offeror to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the City deems appropriate. The Offeror further agrees by submitting this offer that it will include this certificate, without modification, in all subcontracts and purchase orders.

10. Drug-Free Workplace

(a) Equal preference shall be given to vendors submitting a certification with their offer certifying that they have a drug-free workplace program in accordance with Section 287.087, Florida Statute.

(b) Whenever two or more offers are equal with respect to price, quality and services are received, an offer received from a business that certifies that it has implemented a Drug-Free Workplace Program shall:

(i) Publish a statement notifying employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the workplace and specifying the actions that will be taken against employees for violations of such prohibition;

(ii) Inform employees about the dangers of drug abuse in the workplace, the business' policy of maintaining a drug-free workplace, and any available drug counseling, rehabilitation, and employee assistance programs, and the penalties that may be imposed upon employees for drug abuse violations;

(iii) Give each employee engaged in providing the commodities or contractual services that are under solicitation, a copy of the statement specified in paragraph (a);

(iv) In the statement specified in paragraph (a), notifying the employees that, as a condition of working on the commodities or contractual services that are under solicitation, the employee will abide by the terms of the statement and will notify the employer of any conviction of, or plea of guilty or nolo contendere to, any violation of Chapter 893 or of any controlled substance law of the United States or any state, for a violation occurring in the workplace no later than five (5) days after such conviction;

(v) Impose a sanction on, or require the satisfactory participation in a drug abuse assistance or rehabilitation program if such is available in the employee's community, by an employee who is so convicted; and

(vi) Make a good faith effort to continue to maintain a drug-free workplace through implementation of this section.

(c) As the person authorized to sign this statement, I certify and state under oath that this firm complies fully with the above requirements.

11. The Offeror affirms and declares:

(a) That the Offeror is licensed to do business within the State of Florida and the City of Safety Harbor, Florida.

(b) That the Offeror is registered with the Pinellas County Construction Licensing Board in the areas required to construct the project.

(c) That the Offeror has the capability to assure completion of the required services within the time specified under this contract.

- (d) That the Offeror presently has necessary facilities, financial resources and licenses to complete the work in a satisfactory manner and within the required time.
- (e) The Offeror will perform a minimum of fifty percent (50%) of the contracted work with its own workforce.
- (f) That the Offeror is of lawful age and that no other person, firm or corporation has any interest in this solicitation or any impending contract thereof.
- (g) That the Offeror is not in arrears to the City upon debt or contract and is not defaulting as surety or otherwise upon any obligation to the City.
- (h) Upon award of this solicitation, the Offeror acknowledges and agrees that its signature on all required forms constitutes a binding contract on the terms stated herein effective upon award.

12. Compliance with Occupational Safety and Health Act (O.S.H.A.)

In instances where such is applicable due to the nature of the work with which this Contract is concerned, all material, equipment, etc., as proposed, offered, and utilized in performance of the contract by the Offeror must meet and conform to all O.S.H.A. requirements; the Offeror's signature upon the bid form submitted is hereby considered a certification of such fact.

13. National Pollutant Discharge Elimination System (NPDES)

The Offeror represents and warrants that it has received and agrees to be bound by the NPDES best management practices contractor education and training as set forth and distributed by the City, which may be amended by the City from time to time. Refer to NPDES Attachment to Exhibit 'A'. Must be signed by Contractor.

14. Florida Trench Safety Act

- The undersigned acknowledges the requirements of the Florida TRENCH Safety Act, Section 553.60 *et. seq.* and hereby commits the Offeror to the following in the performance of the work in the event that the subject contract involves dredging a trench of more than five (5) feet.
- (a) The Offeror further acknowledges that the Florida Trench Safety Act establishes the federal excavation safety standards set forth at 29 CFT Part 1926, Subpart P, as the state standard.
 - (b) The Offeror shall comply with all applicable excavation/trench safety standards.
 - (c) The Offeror shall consider the geotechnical data available from the City, if any, the Offeror's own sources, and all other relevant information in its design of the trench safety system to be employed on the subject project. The Offeror acknowledges sole responsibility for the selection of the data on which it relies in designing the safety system, as well as for the system itself.
 - (d) The amount that the Offeror has set forth for pipe installation includes the following excavation/trench safety measures and the linear feet of trench excavated under each safety measure. These units, costs, and unit prices shall be disclosed solely for the purpose of compliance with procedural requirements of the Act. No adjustment to the Contract time or price shall be made for any difference in the number of linear feet of trench excavation, except as may be otherwise provided in this Contract.

	Trench Safety Measure (Description)	Units of Measure (LF, SF)	Unit (Quantity)	Unit Cost	Extended Cost
(i)	_____	_____	_____	_____	_____
(ii)	_____	_____	_____	_____	_____
(iii)	_____	_____	_____	_____	_____
(iv)	_____	_____	_____	_____	_____

(e) For Information Only, Not for Payment Purposes \$_____. Failure to complete the above may result in the bid being declared non-responsive. This cost disclosure may be supplemented as necessary.

(f) The amount disclosed as the cost of compliance with the applicable trench safety requirements does not constitute the extent of the Offeror's obligation to comply with said standards. Offeror shall expend additional sums at no additional cost to the City, if necessary, to comply with the Florida TRENCH Safety Act (except as may otherwise be provided).

(g) Acceptance of the offer to which this certification and disclosure applies in no way represents that the City or its representatives have evaluated and thereby determined that the above costs are adequate to comply with the applicable trench safety requirements nor does it in any way relieve the Offeror of its sole responsibility to comply with the applicable trench safety requirements.

15. U.S. Department of Homeland Security Employment Eligibility

Effective January 1, 2021, the Contractor shall use the U.S. Department of Homeland Security's E-verify system to verify the employment eligibility of all new employees hired by offeror during the contract term who perform employment duties under any resulting contract to this solicitation and that any subcontracts will include an express requirement that subcontractors performing work or providing services pursuant to any resulting contract to this solicitation utilize the E-verify system to verify the employment eligibility of all new employees hired by the subcontractor during the contract term.

16. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion

(1) The offeror certifies to the best of its knowledge and belief that it and its principals:

- (i) are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any governmental department or agency;
- (ii) have not within a three-year period preceding this offer been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (federal, state, or local) transaction or contract under a public transaction; violation of federal or state antitrust statutes, or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
- (iii) are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (federal, state, or local) with commission of any of the offenses enumerated in paragraph (1)(ii) of this certification; and
- (iv) have not within a three-year period preceding this offer had one or more public transactions (federal, state, or local) terminated for cause or default.

(2) Where the offeror is unable to certify to any of the statements in this certification, the offeror shall attach an explanation.

17. Scrutinized Companies Certification

By executing this certification, the contract associated with this solicitation and each and every renewal thereof (if renewal is separately provided for herein), pursuant to section 287.135, Florida Statutes, the offeror certifies, represents, and warrants that: (a) it is not on the Scrutinized Companies with Activities in Sudan List, (b) it is not on the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List, (c) that it does not have business operations in Cuba or Syria, and (d) that it is not participating in a boycott of Israel, and that all such certifications are true as of the time offeror submitted its bid or proposal and as of the effective date of any renewal. Notwithstanding anything contained in this solicitation to the contrary, the City may terminate the contract resulting from this solicitation immediately if: (1) the offeror is found to have submitted a false certification regarding (a) – (d) above in accordance with section 287.135(5), Florida Statutes, or (2) the offeror is found to have been placed on the Scrutinized Companies that Boycott Israel List as that term is defined and such list is maintained pursuant to Section 287.135, Florida Statutes, or is otherwise engaged in a boycott of Israel. Such termination shall be in addition to any and all remedies available to the City at law. The provisions of this section shall only apply if the contract total is in excess of one million U.S. dollars (\$1,000,000.00).

18. No Affiliation with Foreign Countries of Concern

By executing this Certification, the contract associated with this solicitation and each and every renewal (if renewal is separately provided for herein), if this contract would grant Offeror access to an individual's personal identifying information, pursuant to section 287.138, Florida Statutes, Offeror certifies, represents, and warrants that it is not affiliated with a foreign country of concern, as such countries are identified in section 287.138(1), Florida Statutes.

Offeror certifies, represents, and warrants that: (a) Offeror is not owned by a foreign country of concern; (b) the government of a foreign country of concern does not have a controlling interest in Offeror; and (c) Offeror is not organized under the laws of or has its principal place of business in a foreign country of concern. Pursuant to section 286.101, Florida Statutes, the Offeror shall disclose any current or prior interest of, any contract with, or any grant or gift received from a Foreign Country of Concern, as defined below, if such interest, contract, or grant or gift has a value of \$50,000 or more and such interest existed at any time or such contract or grant or gift was received or in force at any time during the previous five (5) years. For purposes of this section, "Foreign Country of Concern" means the People's Republic of China, the Russian Federation, the Islamic Republic of Iran, the Democratic People's Republic of Korea, the Republic of Cuba, the Venezuelan regime of Nicolas Maduro, or the Syrian Arab Republic, including any agency of or any other entity under significant control of such foreign country of concern. Offeror's disclosure shall include the name and mailing address of the disclosing entity, the amount of the contract or grant or gift or the value of the interest disclosed, the applicable foreign country of concern and, if applicable, the date of termination of the contract or interest, the date of receipt of the grant or gift, and the name of the agent or controlled entity that is the source or interest holder. Offeror represents that within one (1) year before proposing any contract to the City, Offeror provided a copy of such disclosure to the Florida Department of Financial Services.

19. No Issuance of Identification Documents

Pursuant to section 166.246, Florida Statutes, Offeror represents that it does not issue identification documents to individuals who do not provide proof of lawful presence in the United States.

20. Anti-Human Trafficking

By executing this Certification, the contract associated with this solicitation and each and every renewal hereof (if renewal is separately provided for herein), pursuant to section 787.06, Florida Statutes, Offeror certifies, represents, and warrants that it does not use coercion for labor services, as those terms are defined in section 787.06. Offeror will provide to the City an affidavit signed by an officer or representative of Offeror under penalty of perjury attesting that Offeror does not use coercion for labor or services. Notwithstanding anything contained in this Agreement to the contrary, the City may terminate this Agreement immediately if Offeror is found to have submitted a false attestation. Such termination shall be in addition to any and all remedies available to the City at law or in equity.

**SIGNATURE BLOCK FOR ALL
REPRESENTATIONS & CERTIFICATIONS**

NAME OF OFFEROR & ADDRESS (INCLUDE ZIP & PHONE)

Signature:

TYPE NAME:

DATE:

OFFERORS MUST SET FORTH FULL, ACCURATE AND COMPLETE INFORMATION AS REQUIRED BY THIS SOLICITATION (INCLUDING THIS ATTACHMENT). FAILURE TO DO SO MAY RENDER THE OFFER NONRESPONSIVE OR UNACCEPTABLE.

(Acknowledgement of Offeror, if a Corporation)

STATE OF _____)
 SS:
 _____ COUNTY)

On this ____ day of _____, 20____, the undersigned personally appeared before me, by means of (check one) ☐ physical presence or ☐ online notarization, who is personally known to me or who has produced _____ as identification.

WITNESS my hand and official stamp the date aforesaid. _____
 Notary Public, State of _____ at _____
 Large: _____
 No. _____
 My Commission Expires: _____

(Acknowledgement of Offeror, if a Partnership)

STATE OF _____)
 SS:
 _____ COUNTY)

On this ____ day of _____, 20____, the undersigned personally appeared before me, by means of (check one) ☐ physical presence or ☐ online notarization, unknown to me but identified by _____. The individual who executed the foregoing instrument as one of the members of the firm of _____, and he acknowledged to me that he executed the same, as and for the act and deed of said firm, for the uses and purposes therein expressed.

WITNESS my hand and official stamp the date aforesaid. _____
 Notary Public, State of _____ at _____
 Large: _____
 No. _____
 My Commission Expires: _____

(Acknowledgement of Offeror, if an Individual)

STATE OF _____)
 SS:
 PINELLAS _____)

On this ____ day of _____, 20____, the undersigned personally appeared before me, by means of ☐ physical presence or ☐ online notarization, unknown to me but identified by _____. The person who executed the foregoing instrument and acknowledged that he executed the same for the uses and purposes therein expressed.

WITNESS my hand and official stamp the date aforesaid. _____
 Notary Public, State of _____ at _____
 Large: _____
 No. _____
 My Commission Expires: _____

National Pollutant Discharge Elimination System (NPDES)

Best Management Practices

CONTRACTOR EDUCATION & TRAINING

In concurrence with the National Pollutant Discharge Elimination System (NPDES), Municipal Separate Storm Systems (MS4) requirements, the City of Safety Harbor is providing the contractor, within this document, information and training materials on the topic of erosion and sediment control, illicit discharges, along with spill prevention and response.

All Contractor's working for the City of Safety Harbor shall be trained and become familiar with the Florida Department of Environmental Protection's Best Management Practices for Stormwater.

All site inspection and site operators must be certified through the Florida Stormwater, Erosion and Sedimentation Control Inspector Training and certification program or an equivalent program approved by the Florida Department of Environmental Protection (FDEP). All certification documents and copies of licenses must be provided to the City of Safety Harbor prior to issuance of Notice to Proceed.

Florida's stormwater regulatory program requires the use of Best Management Practices (BMPs) during and after construction to minimize erosion and sedimentation, and to properly manage runoff for both stormwater quantity and quality. BMPs are control practices that are used for a given set of conditions to achieve satisfactory water quality and quantity enhancement at a minimal cost. Each BMP has specific application, installation, and maintenance requirements that should be followed to control erosion and sedimentation effectively.

Illicit discharges include any discharge into a storm drain system that is not entirely composed of stormwater. The exceptions include water from firefighting activities and discharges from facilities already under an NPDES permit. Illicit discharges are a problem because, unlike wastewater, which flows to a treatment plant, stormwater generally flows to waterways without any additional treatment. Illicit discharges often contain pathogens, nutrients, surfactants, and various toxic pollutants.

An effective illicit discharge program needs to be both reactive and proactive. The program is reactive in addressing spills and other illicit discharges to the storm drain system that are found. The program must also be proactive in preventing and eliminating illicit discharges through education, training, and enforcement.

According to the Florida Department of Environmental Protection (FDEP) Phase II Rule, small municipal separate storm systems (MS4s) owners and operators must reduce pollutants in storm water to the maximum extent practicable (MEP) to protect water quality.

This primarily includes developing:

- a storm sewer system map,
- an ordinance prohibiting illicit discharges,
- a plan to detect and address these illicit discharges, and
- an education program on the hazards associated with illicit discharges.

All Contractors shall become familiar with the following websites and video links:

Illicit Discharges:

[Illicit Discharges Training Video - Part 1](https://www.youtube.com/watch?v=Z09Yz_qS1f4) : https://www.youtube.com/watch?v=Z09Yz_qS1f4

[Illicit Discharge Training Video - Part 2](https://www.youtube.com/watch?v=Qmyh_rL4Ks0) : https://www.youtube.com/watch?v=Qmyh_rL4Ks0

Construction Activities & BMPs:

[Construction Site Stormwater Runoff Control :](https://www.epa.gov/sites/production/files/2015-11/documents/fact2-6_0.pdf)

https://www.epa.gov/sites/production/files/2015-11/documents/fact2-6_0.pdf

[Construction BMP Inspection and Maintenance :](https://www.epa.gov/npdes/national-menu-best-management-practices-bmps-stormwater#ill)

<https://www.epa.gov/npdes/national-menu-best-management-practices-bmps-stormwater#ill>

Erosion and Sedimentation Control:

<http://www.dep.state.fl.us/water/nonpoint/docs/erosion/erosion-inspectors-manual.pdf>

Spill Prevention and Control:

http://www.dep.state.fl.us/water/stormwater/npdes/docs/Construction_Site_Storm_Water_Runoff_Control.pdf

Local resources:

[Pinellas County Watershed Management - Stormwater Runoff](http://www.pinellascounty.org/environment/watershed/stormwater.htm)

<http://www.pinellascounty.org/environment/watershed/stormwater.htm>

[Pinellas County Watershed Management](http://www.pinellascounty.org/environment/watershed/default.htm)

<http://www.pinellascounty.org/environment/watershed/default.htm>

For additional information and questions, contact:

City of Safety Harbor

Public Works Department

1200 Railroad Avenue

City of Safety Harbor, Florida 34695

Phone: 727-724-1550 * Fax 727-724-1510

<http://www.cityofsafetyharbor.com/50/Public-Works>

Acknowledgment and Acceptance of Document

Company Name: _____

Signature: _____

Name/Title: _____

Date: _____

ADDITIONAL INFORMATION:

What is Stormwater?

Stormwater runoff occurs when precipitation from rain flows over the ground. Impervious surfaces like driveways, sidewalks, and streets prevent stormwater from naturally soaking into the ground.

Why is there a concern about Stormwater quality?

Stormwater can pick up debris, chemicals, dirt and other pollutants and flow into a storm sewer system that discharges to local waterbodies. The City is mandated to annually report to the Florida Department of Environmental Protection on Stormwater protection, treatment, and water quality.

What does lawn care and pet waste have to do with Stormwater pollution?

Excess fertilizers and pesticides applied to lawns and gardens wash off, are carried through the storm sewer system, and pollute the waterbodies. Yard clippings (grass, brush, etc.) and leaves can wash into storm drains and can choke, suffocate, or disable aquatic life. Be sure to cover piles of dirt or mulch being used in landscaping projects. Do not over fertilize or use pesticides during a forecasted rain event. Leaving pet waste on the ground increase public health risks by allowing harmful bacteria and nutrients to wash into the storm drain and eventually into local waterbodies. Pinellas County does have a Fertilizer Ordinance that bans the sale and use of certain fertilizers from June 1st – September 30th.

I am a commercial property owner and only have concrete sidewalks and an asphalt parking lot; do any of the Stormwater issues really affect me?

Dirt, oil, and debris that collect in parking lots and paved areas can be washed into the storm sewer system and enter local waterbodies. Sweep up litter and debris from sidewalks, driveways and parking lots, especially around storm drains. Cover grease storage and dumpsters and keep them clean to avoid leaks. Do not wash off floors or decks, kitchen equipment, or dump mop buckets or other chemicals onto paved surfaces as this contaminates water is washed into the storm sewer system and enters local waterbodies.

How can washing my car affect Stormwater runoff?

Washing your car on an impervious surface (i.e. concrete and asphalt) can send detergents and other contaminants through the storm sewer system. Use a commercial car wash as their water is drained to a waste water treatment facility, or wash your car on your yard so the water infiltrates into the ground.

Why can't I drain my pool into the street?

The chemicals in chlorinated and saltwater pools can kill fish and pollute the water. Drain treated pool water onto a grassy or planted area where the water can be absorbed by the soil and dechlorinate the water. Any pool care company can test and neutralize the pool water.

What is an illicit discharge and what are the consequences?

An illicit discharge is the discharge of pollutants or non-storm water materials into a storm sewer system via overland flow, direct dumping, or illicit connections. This means that pollutants of any kind, including leaves, grass clippings, tree trimmings and other yard waste may not be blown or swept to the street, gutter or storm drain. There are exceptions, such as water used for firefighting. City of Safety Harbor Code of Ordinances, **Chapter 24, Article VII, Section 24.69, 24.70 & 24.72 and Chapter I, Section 1.12** provides for definitions of illicit discharge and states fines may be incurred up to \$500 per day. The City also falls under Pinellas County Stormwater Regulation. Pinellas County's Stormwater ordinance, **Article VI, Chapter 58**, is intended to protect water quality and natural habitats. Under the County's ordinance, violators may be fined up to \$10,000 per day, and payment for cleanup costs may be required.

Who can I call to report an illicit discharge?

Contact City of Safety Harbor Code Enforcement at 727.724.1555. You may also call Pinellas County's Watershed Management automated stormwater watch line at 727.464.5060.

Where can I find more information?

Information can be found at the following websites:

[City of Safety Harbor - Stormwater Information](#)

[Pinellas County - Watershed](#)

[Pinellas County - Fertilizer FAQs](#)

[FDEP - Stormwater](#)

[EPA - NPDES Information](#)

[Tampa Bay Estuary](#)

[SWFWMD](#)

[Florida Friendly Landscaping](#)

[Bay Soundings](#)

Always Remember.....**When it Rains, It Drains.**

EXHIBIT B

SPECIAL SOLICITATION INSTRUCTIONS and CONDITIONS

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1. Introduction

(a) The City of Safety Harbor is requesting offers for the Capital Improvement Project, 9th Avenue North Resurfacing, and Fire Station #53 Paving Project, which include, but not limited to, in general the following work as set forth more fully in the scope of work and specifications in this solicitation: Reference Contract Documents, Specifications, and Plans:

- Mobilization
- Maintenance of Traffic/Pedestrian
- Installation of silt fence, erosion control, and inlet protection
- Milling
- Installation of asphaltic concrete
- Installation of base and sub-base
- Clearing and Grubbing
- Grading
- Installation of thermoplastic striping
- Installation of retroreflective raised pavement markers (RPM)
- Sidewalk and concrete curb installation
- Demolition of concrete
- ADA ramp installation
- Installation of ADA detectable warning mats
- Restoration of property and City Right-of-Ways, included, but not limited to, landscaping, irrigation, curb, sidewalks and site restoration, and other miscellaneous restoration;
- Installation of sod

(b) The estimated cost for the Capital Improvement Project including all pay item descriptions is \$900,000.00

(c) The City was incorporated on June 17, 1917 and is located in the Tampa Bay area. The City currently occupies approximately five (5) square miles and serves a population of approximately 17,000. The City provides a full range of municipal services normally associated with a municipality including fire protection, street construction and maintenance, planning, zoning and redevelopment, recreation and parks, library services, storm water management and general administrative services.

2. Evaluation and Basis for Award

(a) **Number of Awards.**

In the event the City elects to award this contract, only one contract award may be made for this project. The intent to award one contract shall not be construed as a waiver of the City's discretion to accept or reject any or all offers.

(b) **All or None Pricing**

- i. The line item unit price(s) must include all costs that the Offeror intends to recover, such as, but not limited to supervision, labor, equipment, materials, vehicle pickup and return, financing, carrying charges, and all other such charges to accommodate the services and delivery requirements.
- ii. Failure of the Offeror to provide prices for all line items listed on the Schedule shall be cause for rejection of the entire offer. However, the Offeror may enter "No Cost" in the unit price and extended amount columns to indicate that the item is being offered at "No Cost."

- iii. Offers are required to state exactly what they intend to furnish, otherwise they shall be required to furnish the items as specified.
- iv. Evaluation of Offers Inclusive of Options. The City shall evaluate offers for award purposes by including the total price for the basic requirement together with any option pricing, i.e., option pricing will be included in the evaluation for award purposes. The City is under no obligation to purchase optional items, and reserves the right to refuse purchase of any options offered.

(c) Detailed Description of Supplies/Services Not in Schedule.

Item descriptions in the Schedule are not intended as complete descriptions of the required supplies and/or services to be purchased under this solicitation. Complete descriptions are provided in the Specifications and/or Statement of Work exhibits in this solicitation document.

(d) Description of Supplies.

- i. Any manufacturer's names, trade names, brand name, or catalog used in the specifications are for the purpose of describing and establishing general quality levels. Such references are not intended to be restrictive. Offers will be considered for any brand which meets the quality of the Specifications listed for any items. No substitutions will be permitted after opening of offers.
- ii. Offerors will submit, with their offers, data necessary to evaluate and determine the quality of the items(s) they are offering.
- iii. If required by the specifications, Offerors must submit with their offer cut sheets, sketches, descriptive literature and/or complete specifications relative to the items proposed and offered. Reference to previously submitted materials on prior offers are not be acceptable.

(e) Right to Reject Offers.

The City reserves the right to reject any and all offers in its sole and absolute discretion.

3. Brand Name, Equal Brand Name and Generic Specifications.

Some items called for in this solicitation are specified by brand name only; or by brand name(s) with a listing of salient characteristics (brand name or equal brand name); or by generic description without mention of a brand name.

- (1) Offers for items specified as "Brand Name Only" shall be accepted only for the brand names and part number specified by the City.
- (2) The brand name identifications associated with items described as "Brand Name or Equal Brand Name" are not intended to be restrictive. The salient characteristics provided for each item are the minimum criteria that shall be acceptable to the City. Items offered must be the same brand names specified or different brand names that meet or exceed the salient characteristics listed. Offers for items that do not satisfy the required salient characteristics shall not be considered for award. The City reserves the right, in its sole and absolute discretion, to determine if items meet or exceed the salient characteristics. Offers for "Equal Brand Name" items shall be considered for award if such items are clearly identified in the offer, and are determined by the City to satisfy the stipulated salient characteristics.
- (3) Other items called for in this solicitation are identified by generic description without mention of a brand name. Throughout the specifications, all described features and other requirements are the minimum criteria that shall be acceptable to the City for these generic items. Items offered must meet or exceed the minimum criteria. Offers for items that do not satisfy the minimum criteria shall not be considered for award. The City reserves the right to determine if items offered meet or exceed the minimum criteria.

4. Bid Bond

(a) A Bid Bond on the form accompanying this solicitation (or a certified check or cashier's check payable to the City from a bank acceptable to the City) in an amount equal to 5% of the total offer/bid price must be submitted by each Offeror prior to the deadline set by the City for bid submission. The Bid Bond must be executed strictly in accordance with the instructions printed thereon. Failure to comply with the requirements for a Bid Bond may render an Offeror ineligible for further consideration for award.

(b) The Bid Bond must be submitted to the City in duplicate. The duplicate copy must be a photographic reproduction of the completed form set forth in the Contract Documents and clearly marked "Copy". Certified checks or cashier's checks shall be drawn on a solvent bank or trust company to the order of the City of Safety Harbor and shall have all necessary documentary revenue stamps attached, if required by law.

(c) The surety on all Bid Bonds shall be a duly authorized surety company authorized to do business in the State of Florida; all such bonds being issued or countersigned by a local producing agent who is a resident of the State of Florida and satisfactory evidence of the authority of the person or persons executing such bond being submitted with the bond. Personal checks shall not be acceptable to the City.

5. Payment and Performance Bonds

When required, the Offeror shall include only the actual costs of payment and performance bonds in the line item on the Schedule. The City will not consider any amount in excess of the actual costs of these bonds. The City reserves the right to request documentation from the Offeror as to the amount actually paid for these bonds.

EXHIBIT 'C'

SOLICITATION INSTRUCTIONS AND CONDITIONS

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1. Heading and Section References

The headings and section references in the Contract Documents are inserted only for the purpose of convenience and shall not be construed to expand or limit the provisions contained in such sections.

2. Acknowledgment of Addenda

This solicitation shall only be amended by written addendum issued by the City.

(a) If this Solicitation is amended through the issuance of an addendum, then all terms and conditions which are not modified remain unchanged.

(b) No interpretation of the meaning of the plans, specifications, or other Contract Documents will be valid unless set forth in writing by the City. All requests for such interpretation must be in writing addressed to the Contracts Specialist. The Offeror submitting the request will be responsible for the prompt delivery of any such requests. To be given consideration, such request must be received at least five (5) working days prior to the date and time established for receipt of offers. Any and all such interpretations and any supplemental instructions will be in the form of an addendum. The City will endeavor to provide any such addendum to Offerors no later than three (3) days prior to the date and time established for receipt of offers.

(c) The City will not be responsible for any other explanation or interpretation of this Solicitation made or given prior to the award of the contract. Failure of any Offeror to receive any such addendum shall not relieve said Offeror from any obligation under his submitted offer.

(d) Offerors shall acknowledge receipt of any addendum to this Solicitation: (1) by signing and returning the addendum; or (2) by identifying the addendum number and date in the space provided for this purpose on the Solicitation, Offer and Award Form. The City must receive the acknowledgment by the time and at the place specified for receipt of offers.

(e) All addenda so issued shall become a part of the Contract Documents. Any objections to this Solicitation or any addenda thereto must be filed in writing with the City prior to the date and time set for receipt of offers.

3. City-Furnished Property

No material, labor, or facilities will be furnished by the City unless otherwise provided for in this Solicitation.

4. Exceptions/Deviations

Exceptions to, or variances from, any portion of the Solicitation, including but not limited to the Statement of Work/Specification, contract terms and conditions, contained in a submitted offer shall not be considered. Offerors are strongly encouraged to contact the person identified in Block 3 of the Solicitation, Offer and Award Form well in advance of the deadline for receipt of offers with any proposed changes to the City's terms and conditions.

5. Bid Opening and Public Review

Every bid properly delivered within the time fixed for receiving bids will be opened and the name of each bidder and bid amount shall be publicly read aloud. The public may attend the bid opening, but may not immediately review any bids submitted until the City provides a notice of intended decision or thirty (30) days after the opening of the bids, whichever occurs first. After such time, all bids submitted are public records subject to production unless specifically exempted by Florida Statutes. Bids which contain information that is "trade secret" as defined in Section 812.081, Florida Statutes, or that is otherwise confidential or exempt by Florida Statutes shall be designated as such by the Offeror and the trade secret, confidential, or exempt information shall be specifically identified by the Offeror. However, any information marked as "trade secret," "confidential," or "exempt" may be produced by the City in response to a public records request if the City determines that the information does not meet the definition of "trade secret" in Section 119.0715, Florida Statutes, or is not otherwise confidential or exempt under Florida Statutes.

6. Award of Contract

(a) The contract will be awarded to the Offeror whose offer, conforming to the Solicitation requirements is most advantageous to the City, price and other factors considered. Nothing contained herein shall be construed as creating any entitlement to award or property interest to the low-bidder. The City shall have the sole discretion to determine which Offeror, if any shall be awarded the contract.

(b) The contract will be awarded to the Offeror who submitted the most responsive and responsible offer for the City which conforms to the requirements imposed by this Solicitation, provided said request is considered (within the sole discretion of the City) reasonable and in the best interest of the City to accept. A responsible Offeror is one who affirmatively demonstrates to the City that the Offeror has adequate financial resources and the requisite capacity, capability, and facilities to perform the contract within the delivery period or period of performance, has a satisfactory record of performance on other comparable projects, has a satisfactory record of integrity and business ethics, and is otherwise qualified and eligible to receive award under the solicitation and laws or regulations applicable to the procurement. The City in its sole discretion, will determine whether or not an Offeror is a responsible Offeror.

(c) The contract will be awarded by the City to the Offeror submitting the best offer for the City, as determined solely by the City, and in compliance with the Specifications, and other requirements imposed by this Solicitation, provided said offer is considered (within the sole discretion of said City) reasonable and in the best interest of the City to accept.

(d) The City reserves the right to reject any or all offers in part or in total for any reason, with or without cause, to accept any offer if considered best for its interest, and to waive informalities and minor irregularities in offers received.

(e) The City may accept any item or group of items of any offer, unless the Offeror qualifies the offer by specific limitations. Unless otherwise provided in this Solicitation, offers may be submitted for any quantities less than those specified, and the City reserves the right to make an award on any item for a unit quantity less than the quantity offered at the unit prices offered unless the Offeror specifies otherwise in the offer.

(f) A written award (or acceptance of offer) which is mailed, e-mailed or otherwise furnished to the successful Offeror within the time for acceptance specified in the Solicitation shall be deemed to result in a binding contract without further action by either party.

(g) The City may, within the time specified therein, accept any offer or part thereof, as provided in (c) above, whether or not there are negotiations subsequent to its receipt, unless the offer is withdrawn by written notice received by the City prior to award. If subsequent negotiations are conducted, they shall not constitute a rejection or counter offer on the part of the City.

(h) The City may award a contract based on the initial price received from the highest evaluated Offeror without discussion.

(i) Any financial data submitted with any offer hereunder or any representation concerning facilities or financing will not form a part of any resulting contract; provided, however, that if the resulting contract contains a clause providing for price reduction for defective cost or pricing data, the contract price will be subject to reduction if cost or pricing data furnished hereunder is incomplete, inaccurate, or not current.

7. Rights of City in Invitation for Bid Process

The City may investigate the qualifications of any Offer under consideration. The City may require confirmation of information furnished by a Offeror, and require additional evidence of qualifications to perform the work described in this solicitation. In addition to any rights conveyed by Florida law, the City specifically reserves the right to:

- Disqualify any Offeror
- Reject any or all of the Offers, in its sole and absolute discretion
- Remedy errors in this solicitation
- Cancel the entire solicitation
- Issue subsequent solicitations
- Rank firms and negotiate with the highest ranking firms
- Select the offer(s) it believes will serve the best interest of the City
- Appoint evaluation committees to review offers
- Seek the assistance of outside technical experts to review offers
- Approve or disapprove the use of particular Subcontractors and Suppliers
- Establish a short list of Offerors eligible for discussions after review of written offers
- Solicit best and final offers (BAFO) from all or some of the Offerors
- Determine whether or not a Offeror is a responsible offeror
- Reject any part of a bid
- Negotiate with any, all, or none of the Offerors
- Award a contract to one or more Offerors
- Accept other than the lowest priced offer
- Request any necessary clarifications or offer data without changing the terms
- Disqualify the Offeror upon evidence of collusion with intent to defraud or other illegal practices on the part of the Offerors
- Waive any informalities or irregularities in any offer, to the extent permitted by law
- Make selection of the Offeror to perform the services required on the basis of the original bids without negotiation

This solicitation does not bind or commit the City to enter into a contract with any of the Offerors and does not create any property interest or expectation of any award.

8. Qualification of Subcontractors, Material Men, and Suppliers

(a) Each Offeror shall submit to the City an executed Summary of Subcontractor(s)/Subconsultant(s)/Supplier(s) (Attachment 1 to Exhibit C) form listing each proposed subcontractor when the initial offer to the City's solicitation is due. The submission of this information is considered an issue of responsibility, and the City will not award a contract to any Offeror who has not supplied this documentation. The City will notify the Offeror in writing if the City, after due investigation, has reasonable objection to any subcontractor, person or organization on such list. Acceptance of any

such subcontractor, person or organization shall not constitute a waiver of any right of the City to reject defective work, material or equipment, or work, material or equipment not in conformance with the requirements of the contract.

(b) The Summary of Subcontractor(s)/Subconsultant(s)/Supplier(s) (Attachment 1 to Exhibit C) form listing each proposed subcontractor shall constitute a representation by the Offeror to the City that it believes such firm is ready, willing, and able to perform the work indicated. It shall also represent a commitment by the Offeror that if it is awarded the contract, it will enter into a subcontract with such subcontractor for the work described at the approximate price set forth in the Summary of Subcontractor(s)/Subconsultant(s)/Supplier(s) (Attachment 1 to Exhibit C) form.

(c) Except as authorized by the City, the successful Offeror shall enter into formal agreements with the subcontracting firms shown in the submitted Summary of Subcontractor(s)/Subconsultant(s)/Supplier(s) form(s) within ten (10) business days after receipt of a contract executed by the City.

(d) The subcontractor listed on the Summary of Subcontractor(s)/Subconsultant(s)/Supplier(s) form is required to perform the work indicated with its own work force.

(e) The Offeror shall be required to perform or exercise responsibility for at least fifty (50) percent of the total cost of its contract with its own workforce. No qualification of subcontractors shall be construed to alter this requirement.

9. Cancellation of Solicitation

This Solicitation may be cancelled by the City at any time prior to award, whether before or after receipt of offers.

10. Discounts

Prompt payment discounts will not be considered in evaluating offers for award.

11. Late Submissions, Modifications, and Withdrawals of Offers

(a) Under no circumstances will offers or modification of offers delivered after the delivery time and date specified for receipt of offers be considered. Late offers will be returned to the Offeror unopened with the notation: "This offer was received after the delivery time and date designated for receipt of offers for this solicitation."

Any offer received at the office designated in the solicitation after the exact time specified for receipt will not be considered unless it is received before award is made, and it was timely delivered to the City in accordance with delivery instructions in this Solicitation and it is determined by the City that the late receipt was due solely to mishandling by the City after receipt at the City's offices.

(b) The only acceptable evidence to establish the time of receipt at the City is the time-date stamp of the City on the wrapper or other documentary evidence of receipt maintained by the City.

(c) Offers may be withdrawn by written or telegraphic notice received at any time before the exact time set for receipt of offers. An offer may be withdrawn in person by an Offeror or the Offeror's authorized representative before the exact time set for receipt of offers, provided the identity of the person requesting withdrawal is established and the person signs a receipt for the offer.

(d) Negligence on the part of the Offeror in preparing his offer confers no right of withdrawal or modification of his offer after such offer has been opened by the City at the appointed time and place. Offers must remain open for a period of sixty (60) days after the time and date set for receipt of offers. Offerors may not assign or otherwise transfer their offer prior to or after the time and date set for receipt of offers.

12. Multiple or Alternate Offers Not Accepted

(a) Definitions.

(1) "Multiple offers" means more than one offer submitted, each satisfying the specific stated requirements of the solicitation.

(2) "Alternate offers" means an offer submitted that may depart from the specific stated requirements of the solicitation.

(b) Unless otherwise specified in this solicitation, multiple or alternate offers shall not be accepted in response to this solicitation. All multiple or alternate offers shall be rejected; provided however, that if the Offeror clearly identifies a primary offer, it shall be evaluated and considered for award as though it were the only offer submitted.

13. Pre-Submission Conference and Questions Concerning the Solicitation

A pre-submission conference, if desired by the City, is scheduled for all interested parties to discuss the solicitation requirements at a date, time and location as identified on the Solicitation, Offer and Award Form.

14. Preparation of Offers

(a) Any potential Offeror that is presently engaged in litigation with the City or has made a claim that is unresolved where the claim or the litigation involves a prior project with the City will be ineligible to receive this solicitation. No offer will be received from any such Offeror.

(b) Prior to submission of offer, Offerors shall carefully examine the site of the proposed work and make all necessary examinations and investigations to inform themselves thoroughly as to all difficulties involved in the completing of all work required pursuant to the mandates of this solicitation with its requirements. No plea of ignorance or condition or difficulties that may be encountered in the execution of the work under this Contract as a result of failure to make the necessary examinations and investigations, will be accepted as an excuse for any failure or omission on the part of the Offeror to fulfill, in every detail, all of the requirements of the Contract Documents, nor will they be accepted as a basis for any claims whatsoever for extra compensation or for an extension of time

(c) Offerors are expected to examine the Schedule, Solicitation Instructions, Special Provisions, General Provisions, all drawings, specifications, the statement of work, and all other provisions of, and Exhibits to, the solicitation, whether incorporated by reference or otherwise, prior to the submission of offers. Failure to do so will be at the Offeror's risk.

(d) Each Offeror shall furnish the information required by the Solicitation. Offers shall be submitted on the bid form contained in the Solicitation. Offeror shall sign and print or type their name on the bid form and each continuation sheet on which they make an entry. Erasures or other changes must be initialed in ink by the person signing the offer. Offers signed by an agent of the Offeror (other than an officer or a partner of the Offeror) are to be accompanied by evidence of the agent's authority (unless such evidence has been previously furnished to the City).

(e) All blanks on the bid form shall be filled in by typewriter or printed in ink with a firm fixed unit price for items offered. Unit prices shall include packing unless otherwise specified. In case of any discrepancy between a unit price and any extended or total price required by the bid form, the unit price will be presumed to be correct, subject, however, to correction to the same extent and in the same manner as any other mistake.

(f) The City, as a Florida municipal corporation, is exempt from the payment of Florida sales tax to its vendors under Chapter 212, Florida Statutes. Corporations, individuals, and other entities may be impacted by Chapter 212, Florida Statutes, according to the type of service, sale of commodity or other contractual arrangement with the City. By submitting an offer, the Offeror is acknowledging that he is aware of his statutory responsibility for sales tax under Chapter 212, Florida Statutes.

(g) Offers for property or services other than those specified in the Schedule will not be considered unless specifically authorized in the solicitation. Any condition, qualification, or limitation of the offer will be a basis for rejection of the offer as nonresponsive.

(h) The Offeror must state a definite time for delivery of property or for performance of services unless otherwise specified in the solicitation. All measurements shall be in the system of weights and measures in common usage in the United States, and pricing shall be in U.S. dollars.

15. Computation of Time

In computing any period of time for the solicitation or any resulting contract, "days" means calendar days, and the day of the event from which the designated period of time begins to run shall not be included, but the last day shall be included unless it is a Saturday, Sunday, or federal or State of Florida holiday, in which event the period shall run to the end of the next business day.

16. Contact with Offeror

(a) Offerors are cautioned that until this solicitation is either awarded or cancelled, they may have contact only with the Contracts Specialist or his or her designee. Discussions or communications regarding this solicitation with any other personnel associated in any capacity with the City, its consultants, and contractors are strictly prohibited, unless otherwise approved in writing by the City.

(b) Any violation of this restriction may result in the disqualification of the Offeror from further participation in this procurement, and from award of any contract or subcontract under this solicitation.

17. Code of Ethics

With respect to this offer, if any Offeror violates or is a party to a violation of Chapter 112, Part III, Florida Statutes, such Offeror may be disqualified from performing the work described in this solicitation or from furnishing the goods or services for which the offer is submitted and shall be further disqualified from submitting any future offers for work or for goods or services.

18. Submission of Offers

(a) Offers and modifications thereof shall be enclosed in sealed envelopes or sealed cartons and submitted to the City Clerk's Office, City of Safety Harbor, 750 Main Street, Florida 34695, prior to the time and date established for receipt of offers. Delivery of said offers to the City prior to the time and date stated in this Solicitation is solely and strictly the responsibility of the Offeror. The Offerors shall show the hour and date specified in the solicitation for receipt of offers, the solicitation number, and the Offeror's name, address, and telephone number on the face of the envelope or carton. All offers must be manually and duly signed by an authorized corporate officer, principal, or partner (as applicable). Attorneys-in-fact who sign bonds or other surety instruments must attach with each bond or surety instruments, if required.

(b) The City is not responsible for mail sent through the United States Postal Service, private couriers or messengers in regard to offers being delivered by the specified date and time so that they can be considered.

(c) Telegraphic or electronic (including but not limited to email and facsimile) offers will not be considered unless authorized by the Solicitation; however, offers may be modified or withdrawn by written, telegraphic or electronic notice, provided such notice is received prior to the hour and date specified for receipt of offers.

(d) Samples of items, when required, must be submitted within the time specified and, unless otherwise specified in the solicitation, at no expense to the City. If not destroyed by testing, samples will be returned at the Offeror's request and expense, unless otherwise specified in the solicitation.

(e) Each copy of the offer shall include the legal name of the Offeror and a statement whether the Offeror is a sole proprietorship, a corporation, or any other legal entity. An offer for a corporation shall further give the state of incorporation.

19. Omission

Notwithstanding the provision of drawings, technical specifications or other data by the City, the Offeror shall have the responsibility of supplying all details required to make an accurate proposal of services offered even though such details may not be specifically mentioned in the specifications.

20. Public Entity Crimes

(a) In accordance with Section 287.133, Florida Statutes, a person or affiliate who has been placed on the convicted vendor list following a conviction for a public entity crime may not submit an offer on a contract to provide any goods or services to a public entity, may not submit an offer on a contract with a public entity for the construction or repair of a public building or public work, may not submit offers on leases or real property to a public entity, may not be awarded or perform work as a contractor, supplier, subcontractor, subproposer, or consultant under a contract with any public entity, and may not transact business with any public entity in excess of the threshold amount provided in Section 287.017 for Category Two for a period of 36 months from the date of being placed on the convicted vendor list.

(b) The City may make inquiries regarding alleged convictions of public entity crimes. The unreasonable failure of an Offeror to promptly supply information in connection with an inquiry may be grounds for rejection of the offer. Additionally, a conviction of a public entity crime may cause the rejection of the offer.

(c) Offers must be signed by the Offeror with his signature in full. When a firm submits an offer, the offer shall be signed by one or more of the firm's partners. When a corporation submits an offer, the officer signing shall set out the corporate name in full beneath which he shall sign his name and give title of his office. The offer shall also bear the seal of the corporation. Anyone signing the offer as agent must file with it legal evidence of his authority to do so. Offeror's who are nonresident corporations shall furnish to the City a duly certified copy of their permit to transact business in the State of Florida along with the Offer. Failure to promptly submit this evidence of qualification to do business in the State of Florida may be basis for rejection of the offer.

21. Legal Requirements

The Offeror's attention is directed to the fact that all applicable provisions of all federal, state, county, and local laws, ordinances, rules and regulations shall govern development, submittal, and evaluation of all offers received in response hereto and lack of knowledge by any Offeror shall not constitute a cognizable defense against compliance with all such laws, rules, and regulations in the submission of any offer or the legal effect thereof.

22. Contract Documents

Except for Titles, Subtitles, Headings, Running Headlines, Table of Contents, and Indexes (all of which are printed herein, merely for convenience), the following except for such portions thereof as may be specifically excluded, constitute the "Contract Documents":

- (a) Solicitation, Offer and Award Form
- (b) Schedule – Bid Form and any attachments thereto
- (c) Exhibit A – Representations and Certifications
- (d) Exhibit B – Special Solicitation Instructions and Conditions
- (e) Exhibit C – Solicitation Instructions and Conditions
- (f) Exhibit D – Special Provisions
- (g) Exhibit E – General Provisions
- (h) Exhibit F – Statement of Work/Specifications
- (i) Exhibit G – Bid Bond Form
- (j) Exhibit H – Payment Bond Form
- (k) Exhibit I – Performance Bond Form
- (l) Offeror's response
- (m) Addenda

23. Order of Precedence

In the event of any inconsistency between the provisions of the resulting contract, the inconsistency shall be resolved by giving precedence in the following order:

- (a) Schedule – Bid Form and any attachments thereto
- (b) Solicitation Offer and Award Form;
- (c) Addenda
- (d) Exhibit A – Representation and Certifications
- (e) Exhibit F - Statement of Work/Specifications
- (f) Exhibit B - Special Solicitation Instructions and Conditions;
- (g) Exhibit D - Special Provisions
- (h) Exhibit E - General Provisions
- (i) Exhibit C - Solicitation Instructions and Conditions
- (j) Exhibit G – Bid Bond Form
- (k) Exhibit H – Payment Bond Form
- (l) Exhibit I – Performance Bond Form
- (m) Offeror's response

CITY OF SAFETY HARBOR (CITY)
ATTACHMENT 1 TO EXHIBIT C
(SUMMARY OF SUBCONTRACTOR/SUBCONSULTANT/SUPPLIERS)

Offerors should provide information on **all** of their prospective subcontractor(s)/subconsultant(s)/suppliers who submit offers in support of this solicitation.
 Use additional sheets as necessary.

Capital Improvement Project Name: 9th AVENUE NORTH RESURFACING AND FIRE STATION #53 PAVING PROJECT

Name of Prime Contractor: _____

NAMES AND ADDRESSES OF SUBCONTRACTOR(S)/SUBCONSULTANT(S)	TYPE OF WORK TO BE PERFORMED	PREVIOUS YEAR'S ANNUAL GROSS RECEIPTS	\$ AMOUNT ON CONTRACT
NAME: ADDRESS: PHONE: FAX: E-MAIL: CONTACT PERSON:	TYPE OF WORK: AGE OF FIRM: IS THE FIRM A CERTIFIED MINORITY BUSINESS IN THE STATE OF FLORIDA? YES <input type="checkbox"/> NO <input type="checkbox"/>	<input type="checkbox"/> less than \$500K <input type="checkbox"/> \$500K - \$2 mil. <input type="checkbox"/> \$2 mil. - \$5 mil. <input type="checkbox"/> more than \$5 mil.	
NAME: ADDRESS: PHONE: FAX: E-MAIL: CONTACT PERSON:	TYPE OF WORK: AGE OF FIRM: IS THE FIRM A CERTIFIED MINORITY BUSINESS IN THE STATE OF FLORIDA? YES <input type="checkbox"/> NO <input type="checkbox"/>	<input type="checkbox"/> less than \$500K <input type="checkbox"/> \$500K - \$2 mil. <input type="checkbox"/> \$2 mil. - \$5 mil. <input type="checkbox"/> more than \$5 mil.	
NAME: ADDRESS: PHONE: FAX: E-MAIL: CONTACT PERSON:	TYPE OF WORK: AGE OF FIRM: IS THE FIRM A CERTIFIED MINORITY BUSINESS IN THE STATE OF FLORIDA? YES <input type="checkbox"/> NO <input type="checkbox"/>	<input type="checkbox"/> less than \$500K <input type="checkbox"/> \$500K - \$2 mil. <input type="checkbox"/> \$2 mil. - \$5 mil. <input type="checkbox"/> more than \$5 mil.	

Print Name/Title of Person completing this form: _____

Signature _____ Date _____

EXHIBIT D SPECIAL PROVISIONS

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1. Indefinite Quantity/Indefinite Delivery (Measurement and Payment) / Definite Quantity/Definite Delivery (Fixed-Firm-Price or Lump Sum)

Portions of this contract are Indefinite Quantity/Indefinite Delivery (Measurement and Payment).

Other portions of this contract are Definite Quantity/Definite Delivery (Firm-Fixed-Price or Lump Sum).

REFER TO SCHEDULE BID FORMS, ATTACHMENTS TO SCHEDULE BID FORMS AND SPECIFICATIONS.

a.) Indefinite Quantity/Indefinite Delivery (Measurement and Payment): All Line Items listed on the Schedule Bid Form with the exception of Lump Sum (LS) items shall be Indefinite Quantity/Indefinite Delivery (Measurement and Payment). The quantities of services specified in the Schedule are estimates only and are not purchased by this contract.

b.) Definite Quantity/Definite Delivery (Firm-Fixed-Price or Lump Sum): The quantities of supplies and services specified under all line items listed on the Schedule Bid Form with the exception of Measurement and Payment Items, shall be firm-fixed-price (lump sum) and shall be purchased under this contract. The City shall purchase the services specified under the Specifications and the Contractor shall deliver them in accordance with the terms and conditions stipulated in this contract. The City shall pay the exact fees specified in the Schedule upon the City's acceptance of the work. No additional amounts shall be paid to the Contractor, regardless of the effort/costs incurred by the Contractor.

2. Period of Performance

All work must be completed under the terms and conditions stated herein and the facilities ready for use within the "Contract Time" which shall be no later than 100 days from Notice to Proceed.

3. Notice to Proceed

The Contractor shall not proceed with any Contract Work without a written Notice to Proceed from the City. Any work performed or expenses incurred by the Contractor prior to the Contractor's receipt of Notice to Proceed shall be entirely at the Contractor's risk. The Contract shall start Work within ten (10) days following the date stated in the Notice to Proceed.

4. Installation

(a) The Contractor shall completely install, ready for use, all items covered by this contract.

(b) The Contractor shall deliver, assemble and install items in accordance with the manufacturer's recommendations and best commercial practices.

5. Hours of Construction Operation

(a) Section 15.03 (b) of the City Code provides the no construction shall be permitted between the hours of 6:00 p.m. and 7:00 a.m. Monday through Saturday and all day on Sunday.

(b) The normal work week shall be Monday through Friday, exclusive of City holidays. The normal work day shall be between the hours of 7:00 a.m. and 6:00 p.m. It is the Contractor's responsibility to schedule all work within these parameters. Any request for variation must be made to the City in writing 48 hours in advance. The Contractor must receive written approval from the City prior to varying the schedule. No response from the City shall be deemed a denial of the request. Only emergency work shall be performed between the hours of 6:00 p.m. and 7:00 a.m. Monday through Friday, on Saturdays, Sundays, and City Holidays.

(c) Delivery F.O.B. Destination. All deliveries shall be made F.O.B. destination to the City's premises. The term "F.O.B. destination, within the City's premises," as used in this clause, means free of expense or risk of loss to the City until delivered to and/or installed on the City's premises, including delivery to specific rooms within a building if so specified.

(d) All work performed during other than normal work hours and days, including emergency work, may be inspected by the City. The Contractor shall reimburse the City for the additional costs for the City's Project Representative to observe work during these periods. The costs shall be assessed against the contract, and shall include the normal over-time base salary rate plus sick leave, incentive and holiday pay applicable thereto, plus unemployment excise and payroll taxes, and contributions for social security, worker's compensation insurance, retirement benefits, and medical and other insurance benefits, company overhead, and profit as applicable.

6. New Material

Unless this contract specifies otherwise, the Contractor represents that the supplies and components (including any former property of the City identified in this contract) are new, including recycled (not used or reconditioned) and are not of such age or so deteriorated as to impair their usefulness or safety. If the Contractor believes that furnishing used or reconditioned supplies or components will be in the City's interest, the Contractor shall so notify the City in writing. The Contractor's notice shall include the reasons for the request along with a proposal for any consideration to the City for the use of used or reconditioned supplies or components.

7. Manufacturer's Warranty

Any and all standard manufacturer's warranties shall accrue to the benefit of the City. The manufacturer's warranties referenced herein shall be in addition to any contractual remedies set forth in this contract, and in addition to any and all other statutory remedies or warranties imposed on the Contractor for the benefit of the City.

8. Warranty of Supplies

(a) Definitions. "Acceptance," as used in this clause, means the act of an authorized representative of the City by which the City assumes for itself, or as an agent of another, ownership of existing supplies, or approves specific services as partial or complete performance of the contract.

"Correction," as used in this clause, means the elimination of a defect.

"Supplies," as used in this clause, means the end item furnished by the Contractor and related services required under the contract. The word does not include "data."

(b) Contractor's Obligations.

(1) Notwithstanding inspection and acceptance by the City of supplies furnished under this contract, or any condition of this contract concerning the conclusiveness thereof, the Contractor warrants that for two (2) years:

- (i) all supplies furnished under this Contract will be free from defects in material or workmanship and will conform with all requirements of this Contract; and
- (ii) the preservation, packaging, packing, and marking, and the preparation for and method of, shipment of such supplies will conform with the requirements of this Contract.

(2) When return, correction, or replacement is required, transportation charges and responsibility for the supplies while in transit shall be borne by the Contractor. However, the Contractor's liability for the transportation charges shall not exceed an amount equal to the cost of transportation by the usual commercial method of shipment between the place of delivery specified in this Contract and the Contractor's plant, and return.

(3) Any supplies or parts thereof, corrected or furnished in replacement under this clause, shall also be subject to the terms of this clause to the same extent as supplies initially delivered. The warranty, with respect to supplies or parts thereof, shall be equal in duration to that in paragraph (b) (1) of this clause and shall run from the date of delivery of the corrected or replaced supplies.

(c) Remedies Available to the City.

(1) The City shall give written notice to the Contractor of any breach of warranties in paragraph (b) of this clause.

(2) Within a reasonable time after the notice, the City may exercise one or more of the following options --

- (i) require, by written notice, the prompt correction or replacement of any supplies or parts thereof (including preservation, packaging, packing, and marking) that do not conform with the requirements of this Contract within the meaning of paragraph (b) of this clause; or
- (i) screen the supplies grouped for warranty action under this clause at the Contractor's expense and return all nonconforming supplies to the Contractor for correction or replacement;
 - (ii) require the Contractor to screen the supplies at locations designated by the City within the State of Florida and to correct or replace all nonconforming supplies;
 - (iii) return the supplies grouped for warranty action under this clause to the Contractor (irrespective of the f.o.b. point or the point of acceptance) for screening and correction or replacement; or

(i) retain such supplies and reduce the Contract Price by an amount equitable under the circumstances.

(3) If the Contract requires inspection of supplies by sampling procedures, conforming of supplies or components subject to warranty action shall be determined by the applicable sampling procedures in the Contract.

(4) The City may correct or replace the nonconforming supplies with similar supplies from another source and charge to the Contractor the cost occasioned to the City thereby if the Contractor --

- (i) fails to make redelivery of the corrected or replaced supplies within the time established for their return; or
- (ii) fails either to accept return of the nonconforming supplies or fails to make progress after their return to correct or replace them so as to endanger performance of the delivery schedule, and in either of these circumstances does not cure such failure within a period of 10 days (or such longer period as the Contracting Officer may authorize in writing) after receipt of notice from the Contracting Officer specifying such failure.

(5) Instead of correction or replacement by the City, the City may require an equitable adjustment of the Contract Price. In addition, if the Contractor fails to furnish timely disposition instructions, the Contracting Officer may dispose of the nonconforming supplies for the Contractor's account in a reasonable manner. The City is entitled to reimbursement from the Contractor, or from the proceeds of such disposal, for the reasonable expenses of the care and disposition of the nonconforming supplies, as well as for excess costs incurred or to be incurred.

(6) The rights and remedies of the City provided in this clause are in addition to and do not limit any rights afforded to the City by law, equity, or any other clause of this Contract.

(d) The provisions of this section shall survive the termination of the Contract, however terminated.

9. Non-Appropriation

In the event the City, in its sole discretion, determines that sufficient budgeted funds are not available to appropriate for the Contract Work, the City shall notify the Contractor of such occurrence and this Contract shall terminate as of the last day of the current fiscal year without any penalty to the City.

10. Contractor's Liability Insurance

(a) The Contractor shall purchase and maintain such insurance for claims under workmen's compensation laws, disability benefit laws or other similar worker's employee benefit laws; from claims for damages because of bodily injury, occupational sickness or disease, or death of his employee including claims insured by usual personal injury liability coverage from claims for injury to or destruction of tangible property including loss of use resulting there from any or all of which may arise out of or result from the Contractor's operations under the Contract Documents, whether such operations be by himself or by any subcontractor or anyone directly or indirectly employed by any of them or for whose acts any of them may be legally liable. This insurance shall be written for not less than any limits or liability specified below in the Contract Documents or required by law, whichever is greater, and shall include contractual liability insurance. Before starting the Work, the Contractor will fill with the City certificates of such insurance, acceptable to the City; these certificates shall contain a provision for cancellation as found in paragraph 5 of Section B immediately below.

(b) The Contractor shall provide the required certificates of insurance within (7) calendar days from Notice of Award.

11. Insurance Required

A. General

Before starting and until acceptance of the Work by the City, the Contractor shall procure and maintain insurance of the types and to the limits specified in paragraphs (1) through (4) inclusive below.

The Contractor shall require each of its subcontractors to procure and maintain, until the completion of that Subcontractor's work insurance of the types and to the limits specified in paragraphs (1) through (4) inclusive below. It shall be the responsibility of the Contractor to insure that all its subcontractors comply with all of the insurance requirements contained herein relating to such subcontractors.

B. Coverage

The amount and type of insurance shall conform to the following minimum requirements:

- 1) Worker's Compensation – Coverage to apply for all employees for statutory limits in compliance with the applicable state and federal laws. In addition, the policy must include the following:

-
- (a) Employer's Liability with a limit of \$100,000 each accident.
 - (b) Notice of Cancellation and/or Restriction – The policy must be endorsed to provide the City with thirty (30) days notice of cancellation and/or restriction.
- 2) Comprehensive General Liability – Coverage must be afforded on a form no more restrictive than the latest edition of the Comprehensive General Liability Policy filed by the Insurance Services Office and must include:
- (a) Minimum limits of \$500,000 occurrence and \$1,000,000 aggregate for Bodily Liability and Minimum limits of \$500,000 per occurrence and \$1,000,000 aggregate for Property Damage Liability.
 - (b) Premises and/or Operations.
 - (c) Independent Contractors.
 - (d) Products and/or Completed Operations.
 - (e) XCU Coverage.
 - (f) Broad Form Property Damage including Completed Operations.
 - (g) Contractual Coverage applicable to this specific contract including any hold harmless and/or indemnification agreement.
 - (h) Additional Insured – The City is to be specifically included as additional insureds.
 - (i) Notice of Cancellation and/or Restriction – The policy must be endorsed to provide the City with thirty (30) days' notice of cancellation and/or restriction.
- 3) Comprehensive Automobile Liability – Coverage must be afforded on a form no more restrictive than the latest edition of the Comprehensive Automobile Liability Policy filed by the Insurance Services Office and must include:
- (a) Minimum limit of \$1,000,000 per occurrence for Bodily Injury Liability and minimum limit of \$1,000,000 per occurrence for Property Damage Liability.
 - (b) Owned Vehicles.
 - (c) Hired and Non-Owned Vehicles.
 - (d) Employee Non-Ownership.
 - (e) Notice of Cancellation and/or Restriction – The policy must be endorsed to provide the City with the thirty (30) days' notice of cancellation and/or restriction.
- 4) Certificates of Insurance and Copies of Policies – Certificates of Insurance in triplicate evidencing the insurance coverage specified in the previous paragraphs (1) through (3) inclusive, and shall be filed with the City before operations begin. The required Certificates of Insurance shall name the types of policies provided, refer specifically to this Contract, shall state that such insurance is required by such paragraphs of this Contract, shall reflect that the City is an Additional Insured, that the Contractor's policies are primary to the City's insurance policies, if any, and that any reduction of the policy limits increase in deductibles or cancellation of any said policies shall not be effective without first providing the City with thirty (30) days written notice. The certificates shall provide that the City will be given prior written notice of at least thirty (30) day of the cancellation of the respective policy.

If the initial insurance expires prior to the completion of the Contract, renewal Certificates of Insurance and required copies of policies shall be furnished thirty (30) days prior to the date of their expiration.

12. Dewatering

Dewatering is the responsibility of the Contractor. All costs associated with ground dewatering and surface water pumping shall be included in the appropriate contract price for items to which dewatering is incidental, as applicable, and no separate payment shall be made therefor.

Before commencing any excavation at the site of the work, the Contractor shall submit to the Engineer and obtain his approval of the methods and equipment and arrangement of facilities proposed for the removal and disposal of water at the site and of all water entering any excavation or other part of the work from any source whatsoever. Adequate standby facilities shall be provided to ensure that the excavation will be kept dry and bypass waters flow in the event of power failure or mechanical breakdown. Facilities for removal and disposal of water shall be of sufficient capacity to keep the excavation dry under all circumstances with one-half of the facilities out of service. If well points are used, provision shall be made for removing and resetting individual well points without taking the system of which they are a part out of service.

Contractor shall prepare several hundred feet ahead of construction area of well point dewatering to incrementally move pipe installation and prepare for open cuts on a timely schedule to minimize the time frame of any closures to residents. Contractor may utilize FDOT type sediment removal box system to treat water prior to discharge to manage turbidity.

13. Measurement and Payment

- A. All work completed under the terms of this contract shall be measured according to United States Standard Measures.
- B. The measured length of gravity sanitary sewers, regardless of pipe material, will include all fittings, short tunnels and manholes with no deductions for wyes, tees and the width of manholes. Deductions in the measured length of gravity sanitary sewers will be made for the width of structures, such as junction boxes, measured from the outside face to the outside face of the structure walls, plus one foot.
- C. The measured length for sanitary or stormwater force mains will include all fittings and short tunnels with deductions for the laid length of valves.
- D. No payment will be made for construction over a greater area than authorized, nor for material moved from outside of stakes and data shown on the plans, except when such work is performed upon instructions of the Engineer.
- E. The Contractor shall accept compensation provided under the terms of this contract as full payment for furnishing all materials and for performing all work contemplated and embraced under this contract. Such compensation shall also be for any and all loss or damage arising out of the nature of the work or from the action of the elements, or from any unforeseen difficulties or obstructions encountered during the contract period until final acceptance by the City.
- F. Whenever any change, or combination of changes, on the plans results in an increase or decrease in the original contract quantities, and the work added or decreased/eliminated is of the same general character as that called for on the plans, the Contractor shall accept payment in full at the original contract unit prices for the actual quantity of work performed, with no allowance for any loss of anticipated profits.
- G. Any quantity item not indicated in the Bid Proposal List but shown on the Plans shall be included as part of the Lump Sum (LS) quantity for Mobilization.

- H. It is the Contractor's responsibility to perform a detailed quantity take-off from the plans to determine actual quantities for ordering and delivery purposes. The City will not be responsible for quantities ordered in excess of those installed and constructed. The Contractor should be aware that some of the pay items may have contingency quantities. Payment shall be made only for final in-place quantities.
- I. No payment shall be made for contingency quantities or additional work unless otherwise directed and approved in writing by the City.

14. Sheeting and Bracing

No separate payment shall be made for sheeting and bracing and the cost of such work shall be included in the applicable pay item unless otherwise provided under separate section of these Specifications.

15. Underground Utility Locations

The Contractor shall field verify by means of subsurface locating or other approved method all existing utilities to remain and conditions as may be required for the work area. This shall include all areas of potential conflicts with proposed storm, sanitary, force main and water main. The Contractor shall locate all existing utilities to remain at potential conflict locations prior to construction activities and before ordering any proposed structures.

The Contractor shall contact and coordinate with "Sunshine" as well the individual utilities prior to and during construction for utility locations, relocation and assistance while installing in potential conflict areas. All utility coordination and relocations shall be factored into the Contractor's construction schedule at no additional cost to the City.

It shall be the Contractor's responsibility to avoid conflicts with other utilities. The Owner will not be responsible for additional costs incurred by the Contractor for incorrect installations, relocations and breaks due to service conflicts.

The cost of all labor, materials and incidentals required for the performance of any survey and utility location work shall be included under the pay item for Mobilization. A Florida registered land surveyor shall perform all survey work.

16. Survey and Layout by Contractor

The Contractor shall provide all lines, grades, boundaries and required survey and/or layout necessary to construct and inspect the project including before and after construction surveys. All right-of-way and easement boundaries and center-line control points shall be established and maintained through the Contract period by the Contractor as required for the construction.

The Contractor shall employ or retain the services of a Florida registered Professional Land Surveyor for the survey and layout.

Payment for this item shall be included under the pay item for Mobilization or under other applicable pay items.

17. Restoration

Payment for restoration shall be covered under the applicable restoration Pay Items as specified in the proposal. If a specific restoration Pay Item is not listed in the proposal, the cost of such work shall be included in the applicable Pay Item unless otherwise provided under separate restoration section or pay quantity of these Specifications.

18. Site Investigation

The Contractor acknowledges that it has satisfied itself as to the nature and location of the work; the general and local conditions, including but not restricted to those bearing upon transportation, disposal, handling and storage of materials; availability of labor, water, electric power, roads; and uncertainties of weather, water stages, tides or similar physical conditions at the site; the conformation and conditions of the ground; the character of equipment and facilities needed preliminary to and during prosecution of the work.

The Contractor further acknowledges that it has satisfied himself as to the character, quality and quantity of surface and subsurface materials or obstacles to be encountered, insofar as this information presented by the drawings and Specifications made a part of this contract.

The Contractor shall carefully review and adhere to conditions and recommendations made in the project geotechnical report for the project.

Any failure by the Contractor to acquaint himself with the available information will not relieve him from responsibility for estimating properly the difficulty or cost of successfully performing the work.

The City assumes no responsibility for any conclusions or interpretations made by the Contractor on the basis of the information made available by the City. The City also assumes no responsibility for any understanding or representations made by its officers or agents during or prior to the execution of this Contract, unless (1) such understanding or interpretations are made in writing by the Engineer or are expressly stated in the Contract and (2) the Contract expressly provides that the responsibility therefore is assumed by the City.

19. Contractor/Subcontractor Work Experience and Qualifications

The Contractor or subcontractors shall have a minimum of five years' experience in their particular trade and shall provide a minimum of three references relating specifically to the type of work that shall be performed for this project.

The Contractor shall assure that all superintendents, foremen and workmen are competent, careful and reliable. All workmen must have sufficient skill and experience to properly perform the work assigned them. All workmen engaged on special concrete bases, pavements or structures, or in any trade, shall have had sufficient experience in such work to perform it properly and satisfactorily and to operate the equipment involved, and shall make due and proper effort to execute the work in the manner prescribed in the Specifications, or the Engineer may take action as prescribed below.

Whenever the Engineer has determined that any person is incompetent, unfaithful, intemperate, disorderly or insubordinate, such person shall upon notice, be discharged from the work and shall not again be employed on it except with the written consent of the Engineer. Should the Contractor fail to remove such person or persons the Engineer may withhold all estimates, which are or may become due, or may suspend the work until such orders are complied with.

Within ten days after the award of any subcontract, either by himself or a subcontractor, the Contractor shall deliver to the Engineer a statement setting forth the name and address of the subcontractor and a summary description of the work subcontracted.

The Contractor shall be as fully responsible to the City for acts and omissions of his subcontractor and of persons either directly or indirectly employed by them, as he is for the acts and omissions of persons directly employed by him.

20. Salvage

All existing pipe and appurtenances removed by the Contractor and which are not designated to be salvaged shall become the property of the Contractor and shall be removed from the site of the work to the Contractor's own place of disposal.

21. Protection of Trees and Shrubs

All trees and shrubs, except where otherwise shown or ordered, shall be adequately protected by boxes, fences, or otherwise carefully supported, as necessary, by the Contractor. Protective barricades shall be placed around all protected trees and shall remain in place until all potentially damaging construction activities are completed.

Beneath trees within the limits of the excavation, and where possible, pipelines shall be built in short tunnels, except as otherwise shown or specified. When the tree is outside the limits of the excavation but, where the distance from the centerline of the new pipeline to the trunk of any tree is such that, in the opinion of the Engineer, the excavation would result in serious damage to the tree, the pipeline shall be constructed in short tunnel or the root system shall be pruned, as ordered in writing by the Engineer. The Contractor shall be responsible for all damage to trees and shrubs as a result of his operations, whether the pipeline is placed on trench, tunnel, or other excavation.

The Contractor shall provide the services of an approved licensed tree professional when it is necessary to trim or cut a branch from a tree, or for required root pruning. The City's approved arborist shall be present for all activities associated with trees. The contractor shall trim necessary tree canopies and root prune within excavation areas the trees that are to remain to allow for construction activities with the City's approved arborist present during such activities.

The cost of protection of trees and shrubs, replacement or repair of trees or shrubs destroyed by the Contractor, short tunnels, cutting or trimming of tree branches, and root pruning shall be included in the various classified unit price Contract Items for pipelines, tree and root pruning, as applicable, and no separate payment will be made therefor.

22. Existing Sprinkler System

Existing sprinkler systems for lawns and/or shrubbery within the City right-of-way shall be protected or, if disturbed, replaced by the Contractor. All sprinkler systems shall be replaced with those of equal or better quality as approved by the Engineer. The replacement of sprinkler systems shall include all necessary parts, labor, equipment, etc., to complete the existing sprinkler system in operating condition.

All costs associated with any sprinkler system repaired or replaced within the described construction area shall be included under Mobilization or in various unit price items and no additional payment shall be made, thereof.

23. Indemnification Provision

To the fullest extent permitted by law, Contractor shall indemnify and hold harmless the City, its elected officials, officers and employees, from any and all liabilities, any and all claims, including claims for equitable or injunctive relief, damages, losses and costs, including but not limited to reasonable attorney's fees, to the extent caused by the negligence, recklessness, or intentionally wrongful conduct of Contractor, its employees, agents, officers, subcontractors and other persons employed or utilized by Contractor in the performance of this agreement. It is the specific intent of the parties hereto that the foregoing indemnification provision comply with section 725.08, Florida Statutes. It is further the specific intent and agreement of the parties that all the contract documents of any project for which Contractor provided services be hereby amended to include the foregoing indemnification. Contractor expressly agrees that it will not claim, and waives any claim, that this article violates section 725.08 Florida Statutes, or is unenforceable pursuant to section 725.08, Florida Statutes. This indemnification obligation shall not be construed to negate, abridge, or otherwise reduce any other right or obligation of indemnity which would otherwise exist as to any party or person described in this section, including but not limited to any immunity from or limitation of liability to which the City is entitled to pursuant to the doctrine of sovereign immunity or section 768.28, Florida Statutes. This indemnification provision shall include claims made by an employee of Contractor against the City and Contractor waives any entitlement to immunity under section 440.11, Florida Statutes. This indemnification provision shall survive the termination of this agreement however terminated.

Subject to the limitations set forth in this paragraph and any other provision of law, Contractor shall assume control of the defense of any claim asserted by a third party against the City and, in connection with such defense, shall appoint lead counsel, in each case at the Contractor's expense. The City shall have the right, at its option to participate in the defense of any suit, without relieving Contractor of any of its obligations hereunder. If the Contractor assumes control of the defense of any third party claim in accordance with this paragraph, the Contractor shall obtain prior written consent of the City before entering into any settlement of such claim. Notwithstanding anything to the contrary in this Section, the Contractor shall not assume or maintain control of the defense of any third party claim, but shall pay the fees of counsel retained by the City and all expenses, including experts' fees, if (i) an adverse determination with respect to the third party claim would, in the good faith judgment of the City, be detrimental in any material respect to the City's reputation; (ii) the third party claim seeks an injunction or equitable relief against the City; or (iii) the Contractor has failed or is failing to prosecute or defend vigorously the third party claim. Each party shall cooperate, and cause its agents to cooperate, in the defense or prosecution of any third party claim and shall furnish or cause to be furnished such records and information, and attend such conferences, discovery proceedings, hearings, trials, or appeals, as may be reasonably requested in connection therewith.

EXHIBIT E
GENERAL PROVISIONS
(CONSTRUCTION CONTRACT)

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1. Access to the Work

The City and its representatives shall at all times have access to the Work. The Contractor shall provide proper facilities for such access and observation of the Work and also for any inspection or testing thereof by others.

2. Accident Prevention

In performing the Work, the Contractor shall be responsible for protecting the lives and health of all persons; preventing damage to property, materials, supplies, and equipment; and avoiding Work interruptions. For these purposes, the Contractor shall (a) designate a project superintendent who shall ensure the prevention of the occurrences listed in this paragraph; (b) provide appropriate safety barricades, signs and signal lights; and (c) ensure compliance with all safety standards required by federal, state, or local law and all ordinances, rules, and regulation as well as any additional safety standards customarily employed in connection with the type of Work being performed under this Contract or requested by the City. The City and the City's Project Manager will communicate directly with the Contractor's project superintendent and shall have no authority to direct, oversee, or instruct the Contractor's employees, subcontractors, or materialmen, or any other individuals performing the Work.

3. Administrative Control of Documents

(a) All notices, correspondence, transmittal letters, requests, demands, deliveries and other communications which are required or permitted under this Contract shall be forwarded in writing to the City and associated with this Contract. All communications shall be sequentially numbered by the Contractor prior to submission to the City for ease of control and cross referencing. Correspondence shall also refer to the Contract number identified on the cover sheet of this Contract. All notices required or made pursuant to this Contract shall be made in writing and shall be either hand delivered to the parties as listed below or sent by certified U.S. mail, return receipt requested, addressed to the following:

To City:

City of Safety Harbor
Attn: Josh Stefancic, City Manager
750 Main Street
Safety Harbor, FL 34695

To Contractor:

With required copy to:

Sarah L. Johnston
Bryant Miller Olive P.A.
400 N Tampa Street, Suite 1600
Tampa, Florida 33602

(b) Either party may change its above noted address by giving written notice to the other party in accordance with the requirements of this paragraph.

4. Approval of Payments

The City shall appoint a "City Representative" to review and approve all payments requested in an application for payment. The approval shall constitute a representation by them to the City based on their on-site observations of the Work in progress as experienced and qualified professionals and on their review of the application for payment and supporting data, that the Work has progressed to the point indicated; that, to the best of their knowledge, information, and belief, the quality of the Work is in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning project upon substantial completion, and to the results of any subsequent tests called for in its approval); and that the Contractor is entitled to payment of the amount approved. However, by approving any such payment the City shall not thereby be deemed to have represented that it has made exhaustive or continuous on-site inspections to check the quality or the quantity of the Work, that it has reviewed the means, methods, techniques, sequences, and procedures of construction or that it has made any examination to ascertain how or for what purpose the Contractor has used the monies paid or to be paid under the Contract.

5. Availability of Lands

The City will provide the Contractor access to the lands owned by the City shown on the specifications and the Contract Documents. All other lands not depicted in the specifications or the Contract Documents necessary for completion of the Work shall be the sole responsibility of the Contractor to obtain access or any easements necessary for access.

6. Assignment

The terms and provisions of this Contract shall be binding upon the Parties and their respective partners, successors, heirs, executors, administrators, assigns and legal representatives. Notwithstanding the forgoing, Contractor's rights and obligations under this Contract, including entitlement to any monies due or to become due hereunder, may not be transferred, assigned, sublet, mortgaged, pledged or otherwise disposed of or encumbered in any way without the City's prior written consent. The City may assign its rights and obligations under this Contract to any successor to the rights and functions of the City or to any governmental agency to the extent required by applicable laws or governmental regulations or to the extent the City deems necessary or advisable under the circumstances.

7. Attorney's Fees

In the event of legal action or other proceeding arising under this Contract, the City shall be entitled to recover from the Contractor all its reasonable attorneys' fees and cost incurred by the City in the prosecution or defense of such action, or in any post-judgment or collection proceedings and whether incurred before suit, at the trial level or at the appellate level. This shall include any bankruptcy proceedings filed by or against the Contractor. The City shall also be entitled to recover any reasonable attorneys' fees and costs incurred in litigating the entitlement to attorneys' fees and costs, as well as in determining the amount of attorneys' fees and cost due to the City. The reasonable costs to which the City will be entitled include costs that are taxable under any applicable statute, rule, or guideline, as well as costs of investigation, copying costs, electronic discovery costs, mailing and delivery charges, costs of conducting legal research, consultant and expert witness fees, travel expenses, court reporter fees, and mediator fees, regardless of whether such costs are taxable under any applicable statute, rule or guideline.

8. Business Tax Receipt Requirement

All contractors working in the City must be registered with the City. Businesses inside the City must pay a business tax to work within the City, unless such business falls within a statutory defined exception.

9. City's Right to Carry Out the Work

If the Contractor fails or refuses to carry out all or any part of the Work in accordance with the Contract requirements or within the Contract schedule and fails or refuses to correct such deficiency within seven (7) days of receipt of written notice thereof from the City, the City, in its sole discretion and without waiving any other rights it may have, may elect to correct such deficiencies and charge the Contractor the cost of such corrections. A Contract Modification shall be issued incorporating the necessary revisions in the Contract Documents, including an appropriate reduction in the Contract Price. If the payments then or thereafter due the Contractor are not sufficient to cover such amount, the Contractor shall pay the difference to the City within seven (7) days of receipt of written notice thereof from the City. Nothing in this clause shall relieve the Contractor of its obligation to perform the remainder of the Work in accordance with the Contract.

10. Change Orders

(a) Notwithstanding anything contained in the Contract Documents, the City's Project Manager may at any time, by written order, make changes within the scope of the Work to be performed by Contractor under the Contract Documents. However, no such written order shall serve to increase the Contract Price, increase the Contract Time, or give the Contractor any claim for any compensation in addition to the Contract Price. If any such change would cause an increase in the Contract Price or increase the Contract Time, whether or not requested by the City or initiated by Contractor, such change shall only be authorized if approved by the City Commission at a duly noticed public meeting. In the event any change in the Work would result in any increase in the Contract Price or Contract Time, Contractor shall notify the City within seven (7) days in writing. The written notice shall state in all capital, bold letters that the change order would result in an increase in the Contract Price and/or Contract Time and shall include a statement outlining the reasons for the change, a complete description of the change, and detailed description of products to be

purchased and any back-up detail and documentation supporting the request. Such notice must be submitted and approved by the City Commission at a duly noticed public meeting prior to performing any Work contemplated by the change order. If Contractor proceeds with additional Work prior to such approval, Contractor shall not receive any additional compensation for such Work.

(b) No Stoppage of Work. Notwithstanding the foregoing, nothing in this clause shall excuse Contractor from proceeding with the Work as changed except for those changes which would increase the Contract Price or Contract Time.

(c) No Increase in Costs. No services for which an additional cost or fee will be charged by Contractor shall be furnished without the prior express written authorization of the City.

11. Clarification and Interpretations

The Contracting Officer will issue with reasonable promptness such written clarification or interpretation of the Contract Documents (in the form of Drawings or otherwise) as he or she may determine necessary, which shall be consistent with or reasonably inferable from the overall intent of the Contract Documents. It shall be deemed reasonable if the Contracting Officer responds to a request for written clarifications or interpretations of Contract Documents within fourteen (14) days of his or her receipt of the request from the Contractor. If the Contractor believes that a written clarification and interpretation entitles him to an increase in the Contract Price, he may make a claim therefore as provided in paragraph 10 above. However, the Contractor recognizes and acknowledges that the Contracting Officer has no authority to approve a change order or extra Work or to vary the Contract Documents. The Contractor must obtain a change order approved by the City Commission prior to performing any extra Work or Work for which the Contractor claims it is entitled to extra compensation.

12. Cleaning Up

(a) The Contractor shall at all times keep the Site, including storage areas, free from accumulations of waste materials. Before completing the Work, the Contractor shall remove from the Work and Site any rubbish, tools, scaffolding, equipment, and materials that are not the property of the City. The burning of rubbish on Site will not be permitted.

(b) The Contractor shall restore to their original condition those portions of the Site not designated for alteration by the Contract Documents. All clean dirt (as determined by the City) remaining after completion of the Work shall become the sole property of the City and the Contractor shall deliver it to a Site as directed by the City. Upon completing the Work, the Contractor shall leave the Site in a clean, neat, and orderly condition satisfactory to the City.

13. Compliance with all Law

The Contractor shall perform all Work hereunder in compliance with all applicable federal, state, and local laws, rules, regulations, and ordinances. The Contractor shall use only licensed personnel to perform Work required by law to be performed by such personnel. All such compliance shall be at the Contractor's sole expense.

14. Composition of Contractor

If the Contractor hereunder is comprised of more than one legal entity, each such entity shall be jointly and severally liable hereunder.

15. Construction Schedule and Schedule of Values

(a) Within seven (7) days from Contract award, the Contractor shall meet with the City's Project Manager to discuss project scheduling and, at that meeting, shall submit a practicable construction schedule showing the order in which the Contractor proposes to perform the Work and the dates on which the Contractor contemplates starting and completing the several salient features of the Work (including acquiring materials, plant, and equipment). The schedule shall be in the form of a network analysis of suitable scale to indicate appropriately the percentage of the Contractor's Work breakdown schedule which will be completed by any given date during the period. If the Contractor fails to submit a schedule within the time prescribed, the City may withhold approval of progress payments until the Contractor submits the required schedule or may terminate this Contract immediately upon written notice to the Contractor.

(b) The Contractor shall enter the actual progress on the schedule as directed by the City and, upon doing so, immediately shall deliver a copy of the annotated schedule to the City. If, in the opinion of the City, the Contractor falls

behind the approved schedule, the Contractor shall take steps necessary to improve its progress, including those that may be required by the City, without additional cost to the City. In this circumstance, the City may require the Contractor to increase the number of shifts, overtime operations, days of Work, and/or the amount of construction plans, and to submit for approval any supplementary schedule or schedules in chart form as the City deems necessary to demonstrate how the approved rate of progress will be regained.

(c) Within ten (10) days from Contract award, the Contractor shall submit a schedule of values of the Work including quantities and unit prices totaling the Contract Price. This schedule shall be satisfactory in form and substance to the City and shall subdivide the Work into component parts in sufficient detail to serve as the basis for progress payment during construction. Upon approval of the schedule of values by the City, it shall be incorporated into the form of application for payment prescribed by the City.

(d) Failure of the Contractor to comply with the requirements under this clause shall be grounds for a determination by the City that the Contractor is not prosecuting the Work with sufficient diligence to ensure completion within the time specified in the Contract. Upon making this determination, the City may terminate this Contract immediately upon written notice.

16. Differing Site Conditions

(a) The Contractor shall promptly, and before the conditions are disturbed, give written notice to the City of: (1) subsurface or latent physical conditions at the Site which differ materially from those indicated in this Contract; or (2) unknown physical conditions at the Site, of an unusual nature, which differ materially from those ordinarily encountered and generally recognized as interfering in Work of the character provided for in the Contract.

(b) The City will endeavor to investigate the Site conditions promptly after receiving the notice. If the conditions do materially so differ and cause an increase or decrease in the Contractor's cost of, or the time required for, performing any part of the Work under this Contract, whether or not changed as a result of the conditions, the Contractor and the City may agree to a written equitable adjustment.

(c) No request by the Contractor for an equitable adjustment to the Contract under this clause shall be allowed unless the Contractor has given the written notice required prior to performing any Work on the Site after discovering the Site conditions

(d) No request by the Contractor for an equitable adjustment to the Contract Price or Time for differing Site conditions shall be allowed if made after final payment under this Contract or if additional Work has been performed after the Contractor knew or should have known that the Site condition differed.

17. Disputes

(a) Resolution of Disputes - In the event the Contractor has any controversy, claim or dispute arising out of or related to this Contract, whether such claim or dispute involves a claim by the Contractor for additional time or compensation, for a Change Order, or otherwise, the Contractor shall present a written Notice of Claim to the City within ten (10) days of the Contractor's knowledge, whether actual knowledge or whether the Contractor should have known of the controversy, claim or dispute, or the facts out of which the controversy, claim, or dispute arises. This written Notice of Claim must specifically include, in bold type on the face of the notice that it is a "Notice of Claim" and whether the Contractor is seeking additional time, compensation or both. Additionally, the Contractor shall set forth in the Notice of Claim the nature of the controversy, claim or dispute, including all necessary facts. The Contractor shall waive any claim which the Contractor fails to present to the City within the time and in the manner provided herein. Disputes raised by Contractor, which are not resolved amicably by the Parties, shall be decided in writing by the City. If Contractor disagrees with the decision of the City, within ten (10) days from the date of the City's decision, Contractor shall furnish a written appeal to the City Manager. In connection with any such appeal, Contractor shall be afforded an opportunity to be heard and to offer evidence in support of its position. The decision of the City Manager shall be binding upon Contractor and Contractor shall abide by the decision.

(b) Performance during Dispute - Unless otherwise directed by the City in writing, Contractor shall continue performance under the Contract while matters in dispute are being resolved.

(c) Claims for Damages - Should either party suffer injury or damage to person or property because of any act or omission of the other party or of any of its employees, agents or others for whose acts it is legally liable, a claim for damages therefore shall be made in writing to such other party within ten (10) days of when the party knew or should have known of such injury or damage, otherwise the party suffering the injury or damage will have waived its right to seek damages against the other party.

(d) Rights and Remedies -The duties and obligations imposed by the Contract Documents and the rights and remedies available hereunder shall be in addition to and not a limitation of any duties, obligations, rights and remedies otherwise imposed or available by law. No action or failure to act by the City or Contractor shall constitute a waiver of any right or duty afforded any of them under the Contract, nor shall any such action or failure to act constitute an approval of or acquiescence of any breach hereunder except as may be specifically set forth in writing by the party to be charged.

18. Drug-Free Workplace Program

(a) As used in this clause:

(1) "Alcohol" means ethyl alcohol and any beverage containing ethyl alcohol.

(2) "Controlled substance(s)" means any substance defined as such under Florida Statutes, including but not limited to, marijuana, heroin, LSD, concentrated cannabis or cannabinoids, hashish or hash oil, morphine or its derivatives, mescaline, peyote, phencyclidine (PCP, Angel Dust), opium, opiates, methadone, cocaine, qualudes, amphetamines, "exotic/designer" drugs, benzodiazepines, Seconal, codeine, barbiturates, phenobarbital, or Valium.

(3) "Safety sensitive task" means each category of Work performed at a construction workplace which, if performed by a person impaired by the effects of alcohol or a controlled substance would pose a serious risk of death or personal injury to the employee or others in the vicinity.

(4) "Drug-free workplace" means a Site for the performance of Work done in connection with this Contract at which employees are prohibited from using alcohol or from engaging in the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance.

(5) "Employee" means an employee of a Contractor or subcontractor who may be directly engaged in the performance of Work under this Contract.

(6) "Reasonable suspicion" means the presence or absence of specific criteria identified in the Contractor's drug-free workplace program (indicating the possibility that a person is under the influence of alcohol or a controlled substance) as observed by the Contractor's supervisory personnel with reasonable training in the identification of such criteria.

(b) The program shall provide for mandatory drug testing of employees who are to perform safety sensitive tasks under the following circumstances:

(1) All employees will be tested prior to assignment to this Contract to ascertain the use of controlled substances if the employee will be performing safety sensitive tasks; and

(2) When there is a reasonable suspicion that an employee is under the influence of alcohol or a controlled substance at the workplace; and

(3) When an employee has been involved in an accident or unsafe practice (as defined in the Contractor's safety program) at the workplace.

(c) The program may, at the Contractor's discretion, include mandatory employee drug testing under the following circumstances:

(1) As part of or as a follow-up to counseling or rehabilitation for controlled substance use; or

(2) As part of a voluntary employee drug testing program.

(d) A random testing procedure to detect the use of alcohol or a controlled substance by employees performing safety sensitive tasks is required as part of the Contractor's program for the purpose of preventing or deterring hazardous performance. The procedure shall require that, at a minimum, five percent (5%) of the Contractor's employees will be randomly tested within the Contract Time or within each year of the Contract Time, whichever period is shorter.

(e) All testing by or on behalf of the Contractor because of a requirement in this Contract shall be conducted only for employees engaged (or to be engaged) in safety sensitive tasks and only for use of alcohol or a controlled substance

and shall be conducted in a manner and under written policies that minimize the intrusion on the employee's privacy and personal dignity. This provision shall not preclude the Contractor from adding its own additional testing requirements.

(f) The Contractor shall publish a statement notifying employees that the use of alcohol at the workplace or the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance by employees at any time is prohibited and specifying the actions that will be taken against employees for violations of such prohibition.

(g) The program must require each employee who will perform a safety sensitive task, prior to working under this Contract to:

(1) Acknowledge in writing the Contractor's drug-free workplace program; and

(2) Give advance written consent to any drug testing that may be conducted under the Contractor's program and the use of test results for decisions related to employment, disciplinary action, or continued employment. The Contractor will agree, in connection with the employee's consent, that the results of testing for alcohol and controlled substances will not be voluntarily referred to any law enforcement agency. If the Contractor is subject to a collective bargaining agreement:

(i) the procedure for obtaining the individual employee's acknowledgment and consent must be consistent with the Contractor's obligations under the collective bargaining agreement; and

(ii) employees shall have the right to be accompanied by a union representative when any specimen is obtained for testing.

(h) The Contractor will establish a drug-free awareness program to inform its employees about:

(1) The dangers of drug abuse in the workplace;

(2) The Contractor's policy of maintaining a drug-free workplace;

(3) Any available drug counseling, rehabilitation, and employee assistance programs; and

(4) The penalties that may be imposed upon employees who refuse to submit to required testing and for other violations of the drug-free workplace program including, but not limited to, being unable to remain employed at the Site until approval to return is obtained from the City.

(i) The Contractor's drug-free workplace program shall, at a minimum, include:

(1) Policies and procedures for specimen collection, chain of custody for specimens, laboratory qualification standards, laboratory analysis procedures, quality control requirements, and test result reporting procedures which substantially conform to the material requirements of the Mandatory Guidelines for Federal Workplace Drug Testing Programs promulgated by the U.S. Department of Health and Human Services in effect on the date of award of this Contract.

(2) Procedures for the Contractor's employees to report their use of prescription drugs used in the course of medical treatment or which have been prescribed and authorized for use by a licensed medical practitioner.

(3) The criteria the Contractor will use for "reasonable suspicion" testing.

(4) The levels of alcohol or controlled substances which will be used in conjunction with a determination that an employee is "under the influence" or is "impaired by the effects of" alcohol or controlled substance(s).

(j) The Contractor shall display a notice, prominently placed near each entrance to the workplace, stating that, by entering the premises, persons are consenting to an inspection of themselves and their property including, but not limited to, their clothing, vehicles, briefcases, lunch boxes, tool boxes, purses, and packages.

(k) The Contractor agrees to use its best efforts to establish and maintain a work environment free of use by employees of alcohol or controlled substances through implementation of paragraphs (b) through (j) of this clause. The Contractor shall prepare and maintain records in sufficient detail to demonstrate compliance with the requirements of this clause including, but not limited to, certifications from subcontractors and records of drug or alcohol tests conducted during performance of this Contract. Such records shall be subject to inspection and audit by the City, and the Contractor's noncompliance may authorize the City to withhold all or any portion of any payments due the

Contractor until the Contractor demonstrates compliance or to terminate this Contract upon written notice to the Contractor.

(I) A Drug-Free Workplace Program clause identical to this clause (except for changes appropriate for designation of the parties), including this subparagraph (I), will be included in every subcontract entered into in connection with this Contract.

19. Emergencies

In emergencies affecting the safety of persons, the Work, or other property at the Site or adjacent thereto, the Contractor may act in his discretion to prevent threatened damage, injury or loss to the Work, the City's property or property of others. However, nothing contained herein shall relieve the Contractor from complying with Paragraph 10, Change Orders and subparagraph 17 (c), Disputes.

20. Entire Agreement; Amendment and Waiver

The Contract Documents constitute the entire agreement of the parties relating to the subject matter hereof. The Contract Documents, together with all exhibits hereto, supersede any and all prior negotiations and oral or written agreements heretofore made, relating to the subject matter hereof and, except for written agreements, if any, executed and delivered simultaneously with or subsequent to the date of this Contract. This Contract may not be altered or amended except by a Contract Modification signed by the parties hereto. No waiver of any of the terms or conditions of this Contract shall be effective unless in writing and executed by the party to be charged therewith. No waiver of any condition or of the breach of any term, covenant, representation, warranty or other provision hereof shall be deemed to be construed as a further or continuing waiver of any such condition or breach or a waiver of any other condition or of any breach of any other term, covenant, representation, warranty or other provision contained in this Contract.

21. Examination and Retention of Records

(a) The City shall have the audit and inspection rights described in the applicable paragraphs (b) and (c), below.

(b) If this is a cost reimbursement, incentive, time and materials, labor hour, or price redeterminable contract, or any combination thereof, the Contractor shall maintain, and the City and its representatives shall have the right to examine, all books, records, documents, and other evidence and accounting procedures and practices sufficient to reflect properly all direct and indirect costs of whatever nature claimed to have been incurred and anticipated to be incurred for the performance of this Contract. Such right of examination shall include inspection at all reasonable times at the Contractor's plants, or such parts thereof, as may be engaged in or maintain records in connection with the performance of this Contract.

(c) If the Contractor submitted certified cost or pricing data in connection with the pricing of this Contract or if the Contractor's cost of performance is relevant to any change or modification to this Contract, the City shall have the right to examine all books, records, documents, and other data of the Contractor related to the negotiation, pricing, or performance of such Contract, change, or modification for the purpose of evaluating the costs incurred and the accuracy, completeness, and currency of the cost or pricing data submitted. The right of examination shall extend to all documents necessary to permit adequate evaluation of the costs incurred and the cost or pricing data submitted, along with the computations and projections used therein.

(d) The materials described in (b) and (c), above, shall be made available at the office of the Contractor at all reasonable times for inspection, audit, or reproduction until the expiration of five (5) years from the date of final payment under this Contract, except that: (1) if this Contract is completely or partially terminated, the records relating to the Work terminated shall be made available for a period of five (5) years from the date of any final settlement; and (2) records which relate to appeals under the Disputes Clause of this Contract or litigation, or the settlement of claims arising out of the performance of this Contract, shall be made available until such appeals, litigation, or claims have been resolved.

(e) The Contractor shall insert a clause containing all the provisions of this clause, including this paragraph (e), in all subcontracts exceeding \$10,000 hereunder, altered to reflect the proper identification of the contracting parties.

22. Facilities

The City reserves the right to inspect the Contractor's facilities at any reasonable time with prior notice.

23. Force Majeure

Neither party shall be liable for its non-performance or delayed performance if caused by Force Majeure. Force Majeure shall be defined as a fire, flood, act of God, war, terrorism, riot, national emergency, sabotage, civil disturbance, strike, labor dispute, governmental act, law, ordinance, rule or regulation, or events which are not the fault or are beyond the control of the party.

24. Governing Law; Consent to Jurisdiction

This Contract shall be governed by, construed and interpreted in accordance with the laws of the State of Florida. Contractor and the City consent to jurisdiction over them and agree that venue for any state action shall lie solely in the Sixth Judicial Circuit in and for Pinellas County, Florida, and for any federal actions shall lie solely in the U.S. District Court, Middle District of Florida, Tampa Division.

25. Independent Contractor

The Contractor at all times shall be an independent contractor. The Contractor shall be fully responsible for all acts and omissions of its employees, subcontractors, and their suppliers, and shall be specifically responsible for sufficient supervision and inspection to ensure compliance in every respect with the requirements of the Contract Documents. There shall be no contractual relationship between any subcontractor or supplier of the Contractor and the City by virtue of this Contract. No provision of this Contract shall be for the benefit of any party other than the City and the Contractor.

26. Inspection of Construction

(a) All materials and equipment shall be applied, installed, connected, erected, used, cleaned and conditioned in accordance with the instructions of the applicable manufacturer, fabricator or processors except as otherwise provided in this Contract.

(b) The Contractor shall maintain an adequate inspection system and perform such inspections as will ensure that the Work called for by this Contract conforms to all requirements of the Contract Documents. The Contractor shall maintain complete inspection records and make them available to the City or any public authority having jurisdiction. All Work shall be conducted under the general direction of the City and is subject to inspection and testing by the City or any public authority having jurisdiction at all places and at all reasonable times before acceptance to ensure strict compliance with the terms of this Contract.

(c) Inspections and tests by the City are for the sole benefit of the City and do not: (1) relieve the Contractor of responsibility for providing adequate quality control measures; (2) relieve the Contractor of responsibility for damage to or loss of the material before acceptance; (3) constitute or imply acceptance; or (4) affect the continuing rights of the City after acceptance of the completed Work under paragraph (i) below.

(d) The presence or absence of an inspector from the City or any public authority having jurisdiction does not relieve the Contractor from any Contract requirement, nor is the inspector authorized to change any term or condition of the Contract Documents without the City's written authorization.

(e) The Contractor shall promptly furnish, without additional charge, all facilities, labor, and material reasonably needed for performing such safe and convenient inspections and tests as may be required by the City or any public authority having jurisdiction. The City or any public authority having jurisdiction may charge the Contractor any additional cost of inspection or test when Work is not ready at the time specified by the Contractor for inspection or test, or when prior rejection makes reinspection or retest necessary. The City shall perform all inspections and tests in a manner that will not unnecessarily delay the Work. Special, full size and performance tests shall be performed as described in this Contract.

(f) The Contractor warrants and guarantees to the City that all Work will be of good quality, free from faults or defects and in accordance with the requirements of the Contract Documents and any inspections, tests or approvals shall be considered defective. Prompt notice of all defects shall be given to the Contractor. All defective Work whether or not in place, may be rejected, corrected or accepted as provided in this Exhibit.

(g) The Contracting Officer will have authority to disapprove or reject Work which is "defective" (which term is hereinafter used to describe Work that is unsatisfactory, faulty or defective; does not conform to the requirements of the Contract Documents; or does not conform to the requirements of any inspection, test or approval referred to under paragraph (f) herein.

(h) The City may reject any and all Contract Work that it deems in its sole discretion to be unsatisfactory, faulty or not in compliance with the Contract Documents.

(i) The Contractor shall, without charge, replace or correct Work found by the City not to conform to the requirements of the Contract Documents, unless in the public interest the City consents to accept the Work with an appropriate downward adjustment in Contract Price. The Contractor shall promptly segregate and remove rejected material from the premises.

(j) If the Contractor does not promptly replace or correct rejected Work, the City may (1) by contract or otherwise, replace or correct the Work and charge the cost to the Contractor or (2) terminate this Contract for default.

(k) If any Work is covered contrary to the request of the City, it must if requested by the City, be uncovered for observation and replaced at the Contractors expense. If any Work has been covered which the City has not specifically requested to observe prior to its being covered, or if the City considers it necessary or advisable that covered Work be inspected or tested by others, the Contractor, at the City's request will uncover, expose or otherwise make available for observation, inspection or testing as the City may require, that portion of the Work in question, furnishing all necessary labor, material and equipment. If it is found that such Work is defective, the Contractor will bear all expense of such uncovering, exposure, observation, inspection, and testing, and of satisfactory reconstruction.

(l) Unless otherwise specified in this Contract, the City will endeavor to accept, as promptly as practicable after completion and inspection, all Contract Work. Subject to the provisions of the "Warranty of Construction" clause hereof, acceptance shall be final and conclusive except for latent defects, fraud, gross mistakes amounting to fraud, or the City's rights under any warranty or guarantee.

(m) Neither observations by the City nor inspections, tests or approvals by persons other than the Contractor shall relieve the Contractor from his obligations to perform the Contract Work in accordance with the requirements of the Contract Documents.

(n) The Contractor's obligation to perform the Contract Work and complete the Project in accordance with the Contract Documents shall be absolute. Neither approval of any progress or final payment by the City, the issuance of a Certificate of Substantial Completion, any payment the City to the Contractor under the Contract Documents, any use or occupancy of the Project or any part thereof by the City, any act of acceptance by the City, any failure to do so nor any correction of defective Work by the City shall constitute any acceptance of Work not in accordance with the Contract Documents.

27. Layout of Work

The Contractor is solely responsible for the means and methods of completing the Work. The Contractor shall provide the City with its plans for the Project based on the City-established base lines and bench marks indicated on the drawings (if applicable) and shall be responsible for all measurements in connection with the layout. The Contractor shall furnish, at its own expense, all stakes, templates, platforms, equipment, tools, materials, and labor required to lay out any part of the Work. The Contractor shall be responsible for executing the Work to the lines and grades that may be established or indicated by the City. The Contractor shall also be responsible for maintaining and preserving all stakes and other marks established by the City until authorized to remove them. If such marks are destroyed by the Contractor or through its negligence before their removal is authorized, the City may replace them and deduct the expense of the replacement from any amounts due or to become due to the Contractor.

28. Material and Workmanship

(a) The Contractor shall obtain the City's approval of the machinery and mechanical and other equipment to be incorporated into the Project. When requesting approval, the Contractor shall furnish to the City the name of the manufacturer, the model number, and other information concerning the performance, capacity, nature, and rating of the machinery and mechanical and other equipment. When required by this Contract or by the City, the Contractor also shall obtain the City's approval of the material or articles which the Contractor contemplates incorporating into the Project. When requesting approval, the Contractor shall provide full information concerning the material or articles. When directed to do so, the Contractor shall submit samples for approval at the Contractor's expense, with all shipping charges prepaid. Machinery, equipment, material, and articles that do not have the required approval shall be installed or used at the risk of subsequent rejection.

(b) All Contract Work under this Contract shall be performed in a skillful and Workmanlike manner. The City may require, in writing that the Contractor remove from the Work the City deems incompetent, careless, or otherwise objectionable.

29. No Damages for Delay

Unless otherwise specifically provided for by the Contract, the Contractor shall not be entitled to any damages of any type resulting from any hindrances, delays, or any other cause under this Contract even if caused by the acts of the City except when the Work is stopped or suspended by a written order signed by the City. The Contractor's only remedy for any delay addressed in this subsection shall be an extension of the Contract Time.

30. No Third Party Beneficiaries

Nothing contained in the Contract Documents shall be construed as creating any personal liability on the part of any elected official, officer, employee or agent of the City, nor shall it be construed as giving any rights or benefits to any third party, including the general public or other entity other than the Parties hereto, nor shall it be construed as enforceable by any third parties.

31. Notice of Labor Disputes

(a) If the Contractor has knowledge that any actual or potential labor dispute is delaying or threatens to delay the timely performance of this Contract, the Contractor immediately shall give notice, including all relevant information, to the City.

(b) The Contractor agrees to insert the substance of this clause, including this paragraph (b), in any subcontract under which a labor dispute may delay the timely performance of this Contract; except that each subcontract shall provide that in the event its timely performance is delayed or threatened by delay by any actual or potential labor dispute, the Subcontractor shall immediately notify the next higher tier Subcontractor or the Contractor, as the case may be, of all relevant information concerning the dispute.

32. Operations and Storage Areas

(a) The Contractor shall confine his equipment, the storage of materials and equipment, and the operations of his Workmen to the areas permitted by law, ordinances, permit or the requirements of this Contract Documents and shall not unreasonably encumber the Site with materials or equipment.

(b) The Contractor shall confine all operations including but not limited to, storage of materials on City premises to areas authorized or approved by the City. The Contractor shall indemnify, defend, hold and save the City, and its officers and agents, free and harmless from liability of any nature occasioned by the Contractor's performance.

(c) Temporary buildings (e.g., storage sheds, shops, offices) and utilities may be erected by the Contractor only with the approval of the City and shall be built with labor and materials furnished by the Contractor without expense to the City. The temporary buildings and utilities shall remain the property of the Contractor and shall be removed by the Contractor at its expense upon completion of the Work.

(d) The Contractor shall, under regulations prescribed by the City, use only established roadways or use temporary roadways constructed by the Contractor when and as authorized by the City. When materials are transported in prosecuting the Work, vehicles shall not be loaded beyond the loading capacity recommended by the manufacturer of the vehicle or prescribed by any federal, state, county or local law and of all ordinances, rules and regulation. When it

is necessary to cross curbs or sidewalks, the Contractor shall protect them from damage. The Contractor shall repair or pay for the repair of any damaged curbs, sidewalks, or roads.

33. Other Contracts

(a) The City may undertake, or award other contracts for, additional Work at or near the Site of the Work under this Contract. The Contractor shall fully cooperate with the other contractors and with employees of the City and shall carefully adapt scheduling and performing the Work under this Contract to accommodate the additional Work, heeding any direction that may be provided by the City. The Contractor shall not commit or permit any act that will interfere with the performance of any Work by any other contractor or by employees of the City.

(b) The Contractor shall afford the other contractors who are parties to such direct contracts with the City, if it is performing the additional Work itself, reasonable opportunity for the introduction and storage of materials and equipment and execution of Work, and shall properly connect and coordinate the Contract Work with other Work.

(c) If any part of the Work depends upon the Work of any such other contractor or the City, the Contractor will inspect and promptly report to the City in writing any defects or deficiencies in such Work that render it unsuitable for such proper execution and results. The Contractor's failure to report shall constitute an acceptance of the other Work.

34. Ownership of Information

(a) All data, technical information, materials gathered, originated, developed, prepared, used or obtained in the performance of this Contract, including, but not limited to, all reports, surveys, plans, charts, literature, brochures, mailings, recordings (video and/or audio), pictures, drawings, analyses, graphic representations, software computer programs and accompanying documentation and print-outs, notes and memoranda, written procedures and documents, regardless of the state of completion, which are prepared for or are a result of the services required under this Contract shall be and remain the property of the City and shall be delivered to the City upon thirty (30) days written notice from the City or upon termination of this Contract, however terminated, whichever occurs sooner. With respect to software computer programs and/or source codes developed for the City, the Work shall be considered "Work for hire", i.e., the City, not the Contractor or Subcontractor, shall have full and complete ownership of all software computer programs and/or source codes developed. To the extent that any of such materials may not, by operation of law, be a Work made for hire in accordance with the terms of this Contract, contractor or subcontractor hereby assigns to the City all right, title and interest in and to any copyright, and the City shall have the right to obtain and hold in its own name any copyrights, registrations and any other proprietary rights that may be available.

(b) Should the Offeror anticipate bringing pre-existing intellectual property into the project, the intellectual property must be identified in the offer. Otherwise, the language in the first paragraph of this section prevails. If the proposer identifies such intellectual property ("Background IP") in its proposal, then the Background IP owned by the proposer on the date of the contract, as well as any modifications or adaptations thereto, remain the property of the proposer. Upon contract award, the proposer or contractor shall grant the City a non-exclusive, royalty free license to use any of the proposer's/contractor's Background IP delivered to the City for the purposes contemplated by the contract.

(c) The Contractor shall pay all royalties and license fees related to the completion of the Project. The Contractor shall defend all suits or claims for infringement of any patent rights, copy rights or other intellectual property rights and shall indemnify, defend, and save the City harmless from loss on account thereof, except when a particular invention, design, process, device or product of a particular manufacturer is specified by the City; provided, that, if the Contractor has reason to believe that the invention, design, process, device or product specified by the City infringes a patent, the Contractor shall be responsible for such loss unless it promptly gives such information to the City.

35. Payments

(a) The City shall pay the Contractor the Contract Price as provided in this Contract and in accordance with the Florida Prompt Payment Act, Section 218.70, Florida Statutes, et. Seq. In the event there is a conflict between this Contract and the Florida Prompt Payment Act, the Florida Prompt Payment Act shall control.

(b) Invoices shall be submitted once per month and shall conform to policies or regulations adopted from time to time by the City. Invoices shall be legible and shall contain, as a minimum, the following information: (1) the contract and order number (if any); (2) a complete itemization of all costs including quantities ordered and delivery order numbers (if any); (3) any discounts offered to the City under the terms of the Contract; (4) evidence of the acceptance of the supplies or services by the City; (5) unique traceable invoice number(s); and (6) any other information required by the Florida Prompt Payment Act, Section 218.70, Florida Statutes, et Seq., or other information necessary to demonstrate

entitlement to payment under the terms of the Contract. Failure to provide the above critical information may result in the rejection and return of the invoice for resubmission with complete data.

To ensure timely processing of payments, all invoices must be sent to the following address:

For City of Safety Harbor:
 Attention: Accounts Payable
 750 Main Street
 Safety Harbor, Florida 34695

(c) The City shall make progress payments monthly in accordance with paragraph (b) above as the Work proceeds, or at more frequent intervals as determined by the City, on estimates approved by the City upon the provision of receipt of a proper invoice. In the preparation of estimates, the City may authorize material delivered on the Site and preparatory Work done to be taken into consideration. Material delivered to the Contractor at locations other than the Site may also be taken into consideration if consideration is specifically authorized by this Contract and the Contractor furnishes satisfactory evidence that it has acquired title to such material and that the material will be used to perform this Contract.

(d) In making progress payments, the City may retain up to five (5) percent of each payment as retainage until final completion and acceptance of the Work by the City. Nothing contained in this paragraph shall be construed to require the City to pay or release any payment that is the subject of a good faith dispute, claim or demand by the City or the Contractor.

(e) All materials and Work covered by progress payment shall, at the time of the payment, become the sole property of the City, but this shall not be construed as relieving the Contractor from the sole responsibility for all material and Work upon which payments have been made or the restoration of any damaged Work, or waiving the right of the City to require the fulfillment of all of the terms of the Contract.

(f) The City shall, upon request, reimburse the Contractor for the entire amount of premiums paid for performance and payment bonds (including coinsurance and reinsurance agreements) when applicable after the Contractor furnishes evidence of full payment to the surety. Such reimbursement shall be part of, and not in addition to, the Contract Price.

(g) The City shall pay the amount due the Contractor under this Contract after: (1) completion and acceptance of all Work; (2) presentation of a properly executed voucher in the form prescribed by the City; and (3) presentation of a release of all claims against the City arising by virtue of this Contract.

(h) Concurrently with the submission of each invoice for a progress payment under this Contract, the Contractor shall certify that all due and payable bills with respect to the Contract Work either have been paid or will be paid with the proceeds of the current request for progress payment.

(i) The Contractor agrees to pay each subcontractor under this Contract for satisfactory performance of its contract no later than ten (10) calendar days from receipt of each payment the Contractor receives from the City. The Contractor agrees further to release retainage payments (if applicable) to each subcontractor within ten (10) calendar days after the subcontractor's work is satisfactorily completed and final payment has been made to the subcontractor. Any delay or postponement of payment from the above referenced time frames may occur only for good cause following written approval from the City.

(j) The City may withhold all or part of any progress payment otherwise due the Contractor if any one or more of the following conditions exist: (1) the Contractor fails to prosecute the Work to completion in a diligent, efficient, timely, and Workmanlike manner and in strict accordance with the provisions of the Contract; (2) the Contractor fails to use an adequate amount or quality of personnel or equipment to complete the Work without undue delay; (3) the Contractor fails to make prompt payments to its subcontractors, suppliers, materialmen, or laborers, as required in paragraph (i) above; (4) any part of such payment to the Contractor is attributable to Work which is defective or not performed in accordance with the Contract requirements; provided, however, such payment shall be made as to the part thereof attributable to Work which is performed in accordance with the requirements of the Contract Documents and is not defective; or (5) the Contractor is otherwise in default of any of its obligations under this Contract.

(k) Prior to final payment, the Contractor shall certify in writing that the entire Project is substantially complete and request that the City issue a Certificate of Substantial Completion. Within a reasonable time thereafter, the City and Contractor will make an inspection of the Project to determine the status of completion. If the City does not consider the Project substantially complete, it will notify the Contractor in writing giving the reasons therefore. If the City considers the Project substantially complete, a tentative Certificate of Substantial Completion will be issued. This

certificate shall fix the date of substantial completion and the responsibilities between the City and the Contractor for maintenance and utilities. There shall be attached to the certificate a tentative list of items to be completed or corrected within the Contract Period of Performance. The City shall have the right to exclude the Contractor from the Project after the date of substantial completion but the City will allow the Contractor reasonable access to complete or correct items on the list of items to be completed or corrected.

(l) After the Contractor has completed any such corrections to the satisfaction of the City and delivered all maintenance and operating instructions, schedules, guarantees, bonds, Certificates of Inspection and other documents as required by the Contract Documents, he may make application for final payment following the procedures for progress payments. The final application for payment shall be accompanied by legally effective final releases or waivers of claims from the Contractor and all Subcontractors, sub-subcontractors, suppliers or materialmen which performed services for the Contractor pursuant to the Contract Documents and the Consent of Surety, if applicable, to final payment. These releases and waivers of claims are conditions precedent to final payment. The City may withhold amounts it deems necessary to cover any claims of which it has been notified, including but not limited to claims of Subcontractors, sub-subcontractors, materialmen, suppliers and others from final payment.

(m) If on the basis of observations and review of the Work during construction, the City's final inspection, and review of the final application for payment (all as required by the Contract Documents), the City is satisfied that the Work has been completed and the Contractor has fulfilled all of his obligations under the Contract Documents, the City will, within ten (10) days after receipt of the final application for payment, indicate in writing its approval. Otherwise, it will return the application to the Contractor, indicating in writing its reason for refusing to approve final payment, in which case the Contractor will make the necessary corrections and resubmit the application of payment.

(n) The Contractor warrants and guarantees that title to all Work, materials and equipment covered by an application for payment, whether incorporated in the Project or not, will have passed to the City prior to the making of the application for payment, free and clear of all liens, claims, security interests and encumbrances; and that no Work, materials or equipment covered by an application for payment will have been acquired by the Contractor or by any other person performing the Work at the Site or furnishing materials and equipment for the Project subject to an agreement under which an interest therein or encumbrance thereon is retained by the seller or otherwise imposed by the Contractor or such other person.

36. Performance and Payment Bonds

(a) A Performance and Payment Bond satisfactory to the City, executed by a surety company authorized to do business in the State of Florida or otherwise secured in a manner satisfactory to the City, in an amount equal to one hundred (100) percent of the Contract Price, as awarded, will be required from the Contractor insuring the faithful performance of the Contract and protecting the City from suits for non-payment of debts which might be incurred by a contractor's performance for the City.

(b) All required bonds shall be provided on the forms accompanying the City's Solicitation. The surety company shall be approved for the amount of the bonds and, either hold a certificate of authority from the U.S. Department of Treasury or have obtained reinsurance from a Treasury listed insurer.

(c) The Contractor shall be required to submit all required bonds within ten (10) days from the date of Notice of Award.

37. Permits and Responsibilities

(a) The Contractor shall, without additional expense to the City, be responsible for obtaining any necessary licenses, permits, and approvals for complying with any federal, state, county, and municipal laws, codes, and regulations applicable to the performance of the Work, including, but not limited to, any laws or regulations requiring the use of licensed contractors to perform parts of the Work. The Contractor shall be responsible for all damages to persons or property that occur as a result of the Contractor's fault or negligence and shall take proper safety and health precautions to protect the Work, the Workers, the public, and the property of others. The Contractor shall be responsible for all materials delivered and Work performed until completion and acceptance of the entire Project, except for any completed unit of Work which may have been accepted under the Contract.

(b) If the Contractor observes that the specifications or drawings are at variance with applicable laws, rules, regulation or ordinances the Contractor shall give the City prompt written notice thereof, and any necessary changes may be adjusted by a written amendment to the Contract. If the Contractor performs any Work knowing it to be contrary to such laws, ordinances, rules and regulations and without such notice to the City, the Contractor shall bear all costs and liability arising there from.

(c) Pursuant to House Bill 279/Chapter 2020-154, the following other governmental entities may have additional permits or fees generated by the project:

- Southwest Florida Water Management District (SWFWMD)
- Florida Department of Environmental Protection
- U.S. Army Corp. of Engineers
- Pinellas County
- Pinellas County Health Dept.
- Florida Department of State Division of Historical Resources
- City of St. Petersburg – Potable Water Line Easement
- City of Safety Harbor Building Department
- U.S. Coast Guard
- Tampa Bay Mitigation
- Duke Energy
- CSX

38. Protection of City Property

The Contractor shall use reasonable care to avoid damaging existing buildings, equipment, and vegetation on or about Sites owned by, or under the control of the City. If the Contractor's failure to use reasonable care causes damage to any of this property, the Contractor shall replace or repair the damage at no expense to the City as the City directs. If the Contractor fails or refuses to make such repair or replacement, the City shall have the right to make the necessary repairs and the Contractor shall be liable for the cost, which may be deducted from the Contract Price.

39. Protection of Existing Site Conditions

(a) The Contractor shall preserve and protect all structures, equipment, and vegetation (such as trees, shrubs, and grass) on or adjacent to the Work Site which are not to be removed and which do not unreasonably interfere with the Work required under this Contract. The Contractor shall remove trees only when specifically authorized to do so and shall avoid damaging vegetation that will remain in place. If any limbs or branches of trees are broken during Contract performance, or by the careless operation of equipment, or by workmen, the Contractor shall trim those limbs or branches with a clean cut and paint the cut with a tree-pruning compound as directed by the City.

(b) The Contractor shall protect from damage all existing improvements and utilities (1) at or near the Work Site and (2) on adjacent property of a third party, the locations of which are made known to or should be known by the Contractor. The Contractor shall repair any damage to those facilities, including those that are the property of a third party, resulting from failure to comply with the requirements of this Contract or failure to exercise reasonable care in performing the Contract Work. If the Contractor fails or refuses to repair the damage promptly, the City may have the necessary Work performed and charge the cost to the Contractor.

40. Publicity Releases

All publicity releases or releases of reports, papers, articles, maps, or other documents in any way concerning this Contract or the Work hereunder which the Contractor or any of its Subcontractors desires to make for purposes of publication in whole or in part, shall be subject to approval by the City prior to release.

41. Public Records Requirement

Pursuant to section 119.0701, Florida Statutes, for any tasks performed by Contractor on behalf of the City, Contractor shall: (a) keep and maintain all public records, as that term is defined in chapter 119, Florida Statutes ("Public Records"), required by the City to perform the work contemplated by this Contract; (b) upon request from the City's custodian of public records, provide the City with a copy of the requested Public Records or allow the Public Records to be inspected or copied within a reasonable time at a cost that does not exceed the costs provided in chapter 119, Florida Statutes, or as otherwise provided by law; (c) ensure that Public Records that are exempt or confidential and exempt from Public Records disclosure requirements are not disclosed except as authorized by law for the duration of the term of this Contract and following completion of this Contract, if Contractor does not transfer the records to the City in accordance with (d) below; and (d) upon completion of this Contract, (i) if the City, in its sole and absolute discretion, requests that all Public Records in possession of Contractor be transferred to the City, Contractor shall transfer, at no cost, to the City, all Public Records in possession of Contractor within thirty (30) days of such request or (ii) if no such request is made by the City, Contractor shall keep and maintain Public Records required by the City to perform the work contemplated by this Contract. If Contractor transfers all Public Records to the City upon completion of this Contract pursuant to (d)(i) above, Contractor shall destroy any duplicate Public Records that

are exempt or confidential and exempt from Public Records disclosure requirements within thirty (30) days of the termination of this Contract and provide the City with a letter confirming that this has been done within thirty (30) days of completion of this Contract. If Contractor keeps and maintains Public Records upon completion of this Contract pursuant to (d)(ii) above, Contractor shall meet all applicable requirements for retaining Public Records. All Public Records stored electronically must be provided to the City, upon request from the City's custodian of public records, in a format that is compatible with the information technology of the City. If Contractor does not comply with a public records request, or does not comply with a public records request within a reasonable amount of time, the City may pursue any and all remedies available in law or equity including, but not limited to, specific performance. The provisions of this section only apply to those tasks in which Contractor is acting on behalf of the City.

IF THE CONTRACTOR HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO THE CONTRACTOR'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS CONTRACT, CONTACT THE CUSTODIAN OF PUBLIC RECORDS, RACHAEL TELESKA, CITY CLERK AT (727)-724-1555, rteleska@cityofsafetyharbor.com, 750 Main Street, Safety Harbor, Florida 34695.

42. Removal of Contract Personnel

(a) The Contractor and any subcontractor acknowledge that any person assigned to Work under this Contract must perform their duties so as to not unduly impair performance under this Contract and completion of the Project. By assigning a person to Work under this Contract, the Contractor agrees to be responsible for the behavior of that person during the term of this Contract.

(b) The Contractor acknowledges that the City has the right to require the removal of any Contractor or Subcontractor or employee thereof that the City determines, at its sole discretion, to be negatively affecting performance of Contract Work. Examples of such behavior includes but is not limited to: (1) conduct which poses a threat to the safety of anyone Working under the Contract; (2) conduct which is disruptive to Contract performance; (3) careless Work performance; and (4) other behavior determined by the City to be objectionable or unduly hindering Contract performance.

(c) Upon receipt of written notice from the City that a person's behavior is unduly impairing Contract performance, the Contractor agrees to remove that person from doing any further Work on the Project, and to cause that person to be removed from the Work Site. The Contractor agrees that it is not entitled to any additional costs it may incur as a result of the removal of the person named by the City.

43. Seasonal Weather Conditions

Seasonal weather conditions shall be considered and included in the planning and scheduling of all Work influenced by high and low ambient temperatures, precipitation and/or saturated soil to ensure completion of all Work within the Contract Time. Contract Time extensions for abnormal weather will be granted only to the extent that the actual time lost during a particular month exceeds the Contract Time. Time extensions granted for abnormal weather shall not result in an increase in the Contract Price.

44. Severability

(a) If any provision of the Contract Documents, or the application thereof to any person or circumstances is rendered or declared illegal for any reason or shall be invalid or unenforceable by a court of competent jurisdiction, the remainder of the Contract Documents and the application of such provision to other persons or circumstances shall not be affected thereby but shall be enforced to the greatest extent permitted.

(b) If any one or more of the provisions of the Contract Documents shall be held to be invalid, illegal, or unenforceable in any respect by a court of competent jurisdiction, the validity, legality, and enforceable in any respect by a court of competent jurisdiction, the validity, legality, and enforceability of the remaining provisions hereof shall not in any way be affected or impaired thereby and the Contract Documents shall be treated as through that portion had never been a part thereof.

45. Site Investigation and Conditions Affecting the Work

(a) The Contractor acknowledges that it has taken steps reasonably necessary to ascertain the nature and location of the Work and that it has investigated and satisfied itself as to the general and local conditions which can affect the Contract Work or its cost, including, but not limited to; (1) conditions bearing upon transportation, disposal, handling, and storage of materials; (2) the availability of labor, water, electric power, roads rights of way access to the Work Site and other lands made available by the City for this Project; (3) uncertainties of weather, flooding patterns and water drainage, or similar physical conditions at the Site; (4) the conformation and conditions of the ground; and (5) the character of equipment and facilities needed prior to and during Work performance. The Contractor acknowledges that its undertaking to complete the Contract within the Contract Schedule includes an allowance for the normal number of days in which Contract Work may be partially or totally delayed because of weather during the season and at the location the Contract will be performed and that the Contractor shall not be entitled to excusable delays or compensation for such delays. The Contractor also acknowledges that it has satisfied itself as to the character, quality, and quantity of surface and subsurface materials or obstacles to be encountered insofar as this information is reasonably ascertainable from an inspection of the Site, access to the Site, and territory surrounding the Site, including all exploratory Work done by the City as well as from the drawings and specifications made a part of this Contract. Any failure of the Contractor to take the actions described and acknowledged in this paragraph will not relieve the Contractor from responsibility for estimating properly the difficulty and cost of successfully performing the Work or for proceeding to perform the Work successfully without additional expense to the City.

(b) The City assumes no responsibility for any conclusions or interpretations made by the Contractor based on the information made available by the City. Nor does the City assume responsibility for any understanding reached or representation made concerning conditions which can affect the Work by any of its officers, employees, engineers or agents before the execution of this Contract, unless that understanding or representation is expressly stated in this Contract.

46. Specifications and Drawings

(a) After award of Contract, the Contractor will be furnished one (1) complete set of plans. Additional plans may be furnished at the Contractor's request and at the Contractor's sole expense.

(b) The Contractor shall keep on the Work Site a copy of the drawings and specifications and shall at all times give the City access thereto. Anything mentioned in the Specifications and not shown on the drawings, or shown on the drawings and not mentioned in the Specifications, shall be of like effect as if shown or mentioned in both. In case of differences between drawings and specifications, the Specifications shall govern. In case of a discrepancy in the figures, in the drawings, or in the Specifications, the matter shall be promptly submitted to the City, which shall make a determination in writing. Any action or adjustment by the Contractor without such a determination shall be at its own risk and expense.

(c) Wherever in the specifications or upon the drawings the words "directed", "required", "ordered", "designated", "prescribed", or words of like import are used, it shall be understood that the "direction", "requirement", "order", "designation", or "prescription", of the City is intended; and similarly the words "approved", "acceptable", "satisfactory", or words of like import shall mean "approved by", or "acceptable to", or "satisfactory to" the City, unless otherwise expressly stated.

(d) Where "as shown", "as indicated", "as detailed", or words of similar import are used, it shall be understood that the reference is made to the drawings accompanying this Contract unless stated otherwise. The word "provided" as used herein shall be understood to mean "provide complete in place" (that is, "furnished and installed").

(e) Shop drawings means drawings submitted to the City by the Contractor, Subcontractor, or any lower tier subcontractor pursuant to this Contract, showing in detail (1) the proposed fabrication and assembly of structural elements and (2) the installation (i.e., form, fit, and attachment details) of materials or equipment. It includes drawings, diagrams, layouts, schematics, descriptive literature, illustrations, schedules, performance and test data, and similar materials furnished by the Contractor to explain in detail specific portions of the Work required by the Contract. The City may duplicate, use, and disclose in any manner and for any purpose shop drawings delivered under this Contract.

(f) If this Contract requires plans and specifications, the Contractor shall coordinate all such drawings and review them for accuracy, completeness, and compliance with the Contract Documents and shall indicate its approval thereon as evidence of such coordination and review. Shop drawings submitted to the City without evidence of the Contractor's approval may be returned for resubmission. The City will indicate an approval or disapproval of the shop drawings and, if not approved as submitted, shall indicate the City's reasons therefore. Any Work done before such

approval shall be at the Contractor's risk. Approval by the City shall not relieve the Contractor from responsibility for any errors or omissions in such drawings or from responsibility for complying with the requirements of this Contract, except with respect to variations described and approved in accordance with (g) below.

(g) If shop drawings show variations from the Contract requirements, the Contractor shall describe such variations in writing, separate from the drawings, at the time of submission. If the City approves any such variation, the City shall do so by appropriate Contract Modification.

(h) The Contractor shall submit to the City for approval four copies (unless otherwise indicated) of all shop drawings as called for under the various headings of the Specifications. Three sets (unless otherwise indicated) of all shop drawings will be retained by the City, and one set will be returned to the Contractor.

(i) This clause shall be included in all subcontracts at any tier.

47. Superintendence by Contractor

At all times during performance of this Contract and until the Work is completed and accepted, the Contractor shall directly superintend the Work or assign and have on the Work Site a competent superintendent who is satisfactory to the City and has authority to act for the Contractor.

48. Subcontractors and Outside Consultants

(a) All subcontractors, outside associates, or consultants shall be subject to the City's written approval before such subcontractors, associates or consultants may perform any Work under this Contract. Such subcontractors shall be limited to such individuals or firms as were specifically identified in the Contractor's offer and agreed to by the City in connection with the award of this Contract. Any substitution in such subcontractors, associates or consultants shall be subject to the prior written approval by the City. Acceptance of any subcontractor shall not be deemed a waiver of any right of the City, including the right to reject defective Work.

(b) No subcontractor shall be permitted to perform Work associated with the subcontract until the subcontractor (or the Contractor on the subcontractor's behalf) is in compliance with the insurance requirements specified elsewhere in the Contract Documents, and has furnished satisfactory evidence of insurance to the City.

(c) The Contractor shall not employ any Subcontractor (including those who are to furnish the principal items of materials for the Work), except as approved by prior written approval by the City. The City may revoke its approval of a subcontractor at any time during the term of this Contract in its sole discretion.

(d) The Contractor shall be fully responsible for all acts and omissions of his subcontractors and of persons and organizations directly or indirectly employed by them and of persons and organizations for whose acts any of them may be liable to the same extent that Contractor is responsible for the acts and omissions of persons directly employed by Contractor. Nothing in the Contract Documents shall create any contractual relationship between the City and any Subcontractor or other person or organization having a direct contract with Contractor, nor shall it create any obligation on the part of the City to pay or to see to the payment of any monies. The City may furnish to any Subcontractor or other person or organization, to the extent practicable, evidence of amounts paid to Contractor on account of specific Work done.

(e) All Work performed by a Subcontractor will be pursuant to an appropriate agreement between the Contractor and the Subcontractor which specifically binds the subcontractor to the applicable terms and conditions of the Contract Documents for the benefit of the City.

49. Suspension of Work

The City may order the Contractor in writing to suspend all or any part of the Work for such period of time as the City may determine, in its sole discretion, to be appropriate for the convenience of the City.

50. Termination

(a) Termination for Convenience: Notwithstanding any provision herein, the City may terminate this Contract without cause by written notice, in whole or in part, when it is in the City's interest, in its sole discretion, upon seven (7) days written notice to the Contractor. Where the Contractor's services have been so terminated by the City, said termination shall not affect any rights of the City against the Contractor then existing or which may thereafter accrue. Any retention or payment of monies by the City due to the Contractor will not release the Contractor from liability. Upon such termination, the City shall be liable only for payment under the payment provisions of this Contract for services rendered before the date the notice was given.

(b) Termination for Default: If the Contractor does not deliver supplies in accordance with the Contract delivery schedule, the Contractor fails to perform in the manner called for in the Contract, or if the Contractor fails to comply with any other provisions of the Contract, the City may terminate this Contract for default immediately upon written notice. The Contractor will only be paid for supplies delivered and accepted, or services performed in accordance with the manner of performance set forth in the Contract. If the Contractor defaults in performance of this Contract, the City has the right to withhold the disputed amounts.

(c) Opportunity to Cure: The City, in its sole discretion may, in the case of a termination for default, allow the Contractor ten (10) days in which to cure the defect. In such case, the notice of termination will state the time period in which cure is permitted and any other appropriate conditions.

(d) If Contractor fails to remedy to City's satisfaction the default of any of the terms, covenants, or conditions of this Contract within ten (10) days after receipt by Contractor of written notice from the City, the City shall have the right to terminate the Contract without any further obligation to Contractor. Any such termination for default shall not in any way operate to preclude the City from also pursuing all available remedies against Contractor and its sureties for said breach.

(e) If it is later determined by the City that the Contractor had an excusable reason for not performing, such as a strike, fire, or flood, events which are not the fault of or are beyond the control of the Contractor, the City, in its sole discretion, after setting up a new delivery of performance schedule, may allow the Contractor to continue Work, or treat the termination as a termination for convenience.

(f) Excess Reprourement Liability: The Contractor shall be liable to the City for all expenses incurred by the City in reprocurring elsewhere the same or similar items or services offered by the contractor hereunder, should the Contractor fail to perform.

By executing this Contract and each and every renewal (if renewal is separately provided for herein), pursuant to section 287.135, Florida Statutes, the Contractor certifies, represents, and warrants that: (a) it is not on the Scrutinized Companies with Activities in Sudan List, (b) it is not on the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List, (c) that it does not have business operations in Cuba or Syria, and (d) that it is not participating in a boycott of Israel, and that all such certifications were true at the time it submitted its bid or proposal for this Agreement and as of the effective date of any renewal. Notwithstanding anything contained in this Agreement to the contrary, the City may terminate this Agreement immediately if: (1) the Contractor is found to have submitted a false certification regarding (a) – (d) above in accordance with section 287.135(5), Florida Statutes, or (2) the Contractor is found to have been placed on the Scrutinized Companies that Boycott Israel List as that term is defined and such list is maintained pursuant to Section 287.135, Florida Statutes, or is otherwise engaged in a boycott of Israel. Such termination shall be in addition to any and all remedies available to the City at law. The provisions of this section shall only apply if the Contract Price is in excess of one million U.S. dollars (\$1,000,000.00).

51. Time Extensions

Notwithstanding any other provisions of this Contract, the time extensions for changes in the Work will depend upon the extent, if any, by which the changes cause delay in the completion of the various elements of construction. A Contract Modification granting the time extension may provide that the Project completion date will be extended only for those specific elements so delayed and that the remaining Project completion dates for all other portions of the Project will not be altered and may further provide for an equitable readjustment under the new completion schedule.

52. Time of Completion and Liquidated Damages

(a) The Contractor agrees that the Project shall be completed within the Contract Time. Time is of the essence for the completion of the Work. Since time is of the essence for this Contract, the Contractor recognizes that the City will suffer financial loss if the Work is not substantially completed within the time specified herein, as said time may be

adjusted only as provided for herein. In such event, the total amount of the City's damages, will be difficult, if not impossible, to definitely ascertain and quantify, because this is a public construction project that will, when completed, benefit the public and enhance the delivery of valuable services to the public. It is hereby agreed that it is appropriate and fair that the City receive liquidated damages from the Contractor, if the Contractor fails to achieve completion of the Work within the required Contract Time. Should the Contractor fail to substantially complete the Work within the Contract Time, Owner shall be entitled to assess, as liquidated damages, but not as a penalty, \$500 for each calendar day thereafter until completion is achieved with no cap on this assessment. The Contractor hereby expressly waives and relinquishes any right which it may have to seek to characterize the above noted liquidated damages as a penalty, which the parties agree represents a fair and reasonable estimate of the City's actual damages at the time of contracting if Contractor fails to substantially complete the Work within the Contract Time.

(b) In the event of delay in the completion of this Work, beyond the agreed upon dates by the Contractor and the City, the City shall assess as liquidated damages \$500 per calendar day.

53. Use and Possession Prior to Completion

The City shall have the right to take possession of or use any completed or partially completed part of the Contract Work. Before taking possession of or using any Work, the City shall furnish the Contractor a list of items of Work remaining to be performed or corrected on those portions of the Work that the City intends to take possession of or use. However, failure of the City to list any item of Work shall not relieve the Contractor of responsibility for complying with the terms of the Contract. The City's possession or use shall not be deemed an acceptance of any Work under the Contract.

54. Variation in Estimated Quantity

If the quantity of a unit-priced item in this Contract is an estimated quantity and the actual quantity of the unit-priced item varies more than 15 percent above or below the estimated quantity, an equitable adjustment in the Contract Price may be resubmitted for the City's consideration. If the quantity variation is such as to cause an increase in the Contract Time necessary for completion, the Contractor may request in writing a Contract Modification. Either request must be received by the City within ten (10) days of when the Contractor know or should have known that the estimated quantity varied. Upon the receipt of a written request, the City shall ascertain the facts and make a determination of the request.

55. Warranty of Construction

(a) In addition to any other warranties provided in this Contract, the Contractor warrants, except as provided in paragraph (j) of this clause, that Work performed under this Contract conforms to the Contract Documents, Specifications, and is free of any defect in equipment, material, or design furnished, or workmanship performed, by the Contractor or any Subcontractor or supplier at any tier.

(b) This warranty shall continue for a period of two (2) years from the date of final acceptance as amended by Change Orders. If the City takes possession of any part of the Work before final acceptance, this warranty for such part of the Work shall continue for a period of one year from the date the City takes possession.

(c) The Contractor shall remedy at the Contractor's expense (i) any failure to conform to the Contract Documents or Specifications (ii) any defect. In addition, the Contractor shall remedy at the Contractor's expense any damage to real or personal property owned or controlled by the City, when the damage is the result of: (1) the Contractor's failure to conform to Contract requirements; or (2) any defect of equipment, material, workmanship, or design furnished.

(d) The Contractor shall restore any Work damaged in fulfilling the terms and conditions of this clause. The Contractor's warranty with respect to Work repaired or replaced will run for one year from the date of repair or replacement.

(e) The City shall notify the Contractor, in writing, within a reasonable time after the discovery of any failure, defect, or damage.

(f) If the Contractor fails to remedy any failure, defect, or damage within a reasonable time after receipt of notice, the City shall have the right to replace, remove, or otherwise remedy the failure, defect, or damage at the Contractor's expense.

(g) With respect to all warranties, express or implied, from subcontractors, manufacturers, or suppliers for Work performed and materials furnished under this Contract, the Contractor shall: (1) obtain all warranties that would be given in normal commercial practice; (2) require all warranties to be executed, in writing, for the benefit of the City, if directed by the City; and (3) enforce all warranties for the benefit of the City, if directed by the City.

(h) In the event the Contractor's warranty under paragraph (b) of this clause has expired, the City may bring suit at its expense to enforce a Subcontractor's, manufacturers, or supplier's warranty.

(i) Unless a defect is caused by the negligence of the Contractor or subcontractor or supplier at any tier, the Contractor shall not be liable for the repair of any defects of material or design furnished by the City or for the repair of any damage that result from any defect in material or designs furnished by the City.

(j) This warranty shall not limit the City's rights under the "Inspection of Construction" clause of this Contract with respect to latent defects, gross mistakes, or fraud.

56. Electronic Signature

This Contract may be executed by electronic signature technology and such electronic signature shall act as the Parties' legal signatures on this Contract and shall be treated in all respects as an original handwritten signature.

Exhibit 'F'

TECHNICAL SPECIFICATIONS

Division 1 – General Requirements Technical Specifications

01014	Summary of Work
01015	Control of Work
01152	Applications for Payment
01153	Change Order Procedures
01200	Meetings and Conferences
01300	Submittals
01310	Construction Schedules
01340	Shop Drawings, Product Data, Working Drawings and Samples
01380	Construction Photographs
01410	Testing and Testing Laboratory Services
01500	Temporary Facilities
01505	Mobilization
01510	Temporary Utilities
01530	Protection of Existing Facilities
01570	Traffic Regulation
01600	Material and Equipment
01700	Contract Closeout

Division 2 – Site Work Technical Specifications

02125	Silt Barriers
02276	Temporary Erosion and Sedimentation Control
02485	Surface Restoration
02521	Concrete Materials
02530	Concrete Sidewalks, Driveways, Curb and Gutter
02576	Asphalt Roadway Restoration
02580	Full Depth Reclamation with asphalt emulsion and cement blend
FDOT	Specification 285
FDOT	Specification 334

PINELLAS COUNTY:

Minimum Testing Frequency Specifications for Roads, Storm Drainage, Utilities and Sampling Procedures

PINELLAS COUNTY:

Supplemental Specifications for Roadway and General Construction

SECTION 01014

SUMMARY OF WORK

PART I – GENERAL

1.01 LOCATION OF WORK

- A. All Work of this Contract is located in rights-of-way, easements, or on property owned by the City of Safety Harbor, Florida.

1.02 SCOPE OF WORK

- A. The Contractor shall furnish all labor, materials, equipment, tools, services and incidentals to complete all work required by Contract Documents.
- B. The Contractor shall perform all work complete, in place and ready for continuous service, and shall include repairs, testing, permits, clean up, replacements and restoration required as a result of damages caused during construction.
- C. All materials, equipment, skills, tools and labor which is reasonably and properly inferable and necessary for the proper completion of the work in a substantial manner and in compliance with the requirements stated or implied by the Contract Documents shall be furnished and installed by the Contractor without additional compensation, whether specifically indicated in the Contract Documents or not.
- D. The Contractor shall comply with all local, State, Federal, and other codes that are applicable to the proposed construction work.

1.03 GENERAL DESCRIPTION OF WORK TO BE PERFORMED

- A. The scope of work is described as, but not limited to, milling, street resurfacing, full depth pavement installation, base and sub-base installation, installation of ADA ramps, concrete sidewalk, concrete curbing, thermoplastic striping, temporary paint striping, restoration, and all work as described in Construction Plans, Bid Documents, and supplementary documents. Permits as listed in the Contract shall be provided by the Contractor.

1.04 CONSTRUCTION ACTIVITIES

A. General

1. The Contractor shall coordinate with the Owner to have a construction water meter delivered to the site. The Owner's utilities crews shall install the construction water meter on a City of Safety Harbor fire hydrant assembly and relocate as necessary. The Contractor shall pay the owner for all water used during construction.
2. All work within local government or State rights-of-way shall comply with all applicable State and local requirements and regulations. These include, but are not limited to traffic control, drainage and runoff control, signage, flagging, restoration, etc.
3. No overtime costs shall be incurred by the Owner due to scheduled nighttime construction activities. The Contractor shall incorporate these activities into its normal operating schedule.

End of Section

SUMMARY OF WORK

01014-1

SECTION 01015

CONTROL OF WORK

PART I – GENERAL

1.01 WORK PROGRESS

The Contractor shall provide equipment that is efficient, appropriate and large enough to secure a satisfactory quality of work at a rate of progress that insures the completion of the Work within the Contract Times established in the Contract. If, at any time, such facilities appear to the Engineer to be inefficient, inappropriate, or insufficient for securing the quality of work required or for producing the rate of progress aforesaid, Engineer may order the Contractor to increase the facilities equipment, and the Contractor shall conform to such order. Failure of the Engineer to give such order shall in no way relieve the Contractor of his obligations to secure the quality of the work and rate of progress required. Such direction provided to the Contractor shall not be construed as accelerating the Work.

1.02 PRIVATE LAND

The Contractor shall not enter or occupy private land outside of designated easements, except by written permission of the land owner.

1.03 WORK LOCATIONS

Work shall be located as indicated on the Drawings, but the Engineer reserves the right to make such modifications in locations as may be found desirable to avoid interference with existing structures or for other reasons. Where fittings are noted on the Drawings, such notation is for the Contractor's convenience and does not relieve him from laying and jointing different or additional items where required.

1.04 MAINTENANCE OF TRAFFIC

- A. All work in rights-of way shall be performed in accordance with the approved Right-of-Way Use Permit from the governing Local Authority or, in the absence of such Permit(s), in accordance with FDOT Standard Section 102. Unless permission to close a street is received in writing from the proper authority, all excavated material shall be placed so that vehicular and pedestrian traffic may be maintained at all times. If the Contractor's operations cause traffic hazards, he shall repair the road surface, provide temporary ways, erect wheel guards or fences, or take other measures for safety satisfactory to the Engineer.
- B. Detours around construction will be subject to the approval of the Owner and the Engineer. Where detours are permitted, the Contractor shall provide all necessary barricades and signs as required to divert the flow of traffic. While

CONTROL OF WORK

traffic is detoured the Contractor shall expedite construction operations and those periods when traffic is being detoured will be strictly controlled by the Owner.

- C. The road shall be kept open to two-way traffic for the duration of the construction period, except that, DURING NON-PEAK TRAFFIC PERIODS, one lane of traffic will be permitted provided that flagmen are used and prior approval is obtained from the County. The Contractor will not be permitted to isolate residences or places of business. Access shall be provided to all residences and all places of business whenever construction interferes with the existing means of access.
- D. Temporary Curb (Asphaltic or Concrete) shall not be used, with the following exception: Portable Temporary Low Profile Barrier for Roadside Safety, in accordance with FDOT Index 412, can be used in lieu of barrier walls for design speeds of 45 mph or less, where a low profile is desired to maintain sight distance at intersections and driveways. Portable Temporary Low Profile Barrier for Roadside Safety shall be paid for under the contract unit value for Barrier Wall (Temporary) Low Profile Concrete (Linear Foot), and will be full compensation for furnishing, installing, maintaining, relocating and removing the barrier wall. The contractor shall not receive additional compensation for relocating the barrier wall (i.e., from one construction phase to another). The approved "Portable Temporary Low Profile Barrier for Roadside Safety" is a proprietary design by the University of Florida. Only those barrier units cast by producers licensed by the University of Florida will be allowed for installation.

1.07 CARE AND PROTECTION OF PROPERTY

- A. The Contractor shall be responsible for the preservation of all public and private property, and shall use every precaution necessary to prevent damage thereto. If any direct or indirect damage is done to public or private property by or on account of any act, omission, neglect, or misconduct in the execution of the work on the part of the Contractor, such property shall be restored by the Contractor, at his expense, to a condition similar or equal to that existing before the damage was done, or he shall make good the damage in other manner acceptable to the Engineer.
- B. All sidewalks that are disturbed by the Contractor's operations shall be restored to their original condition with the use of similar or comparable materials. All curbing shall be restored in a condition equal to the original construction and in accordance with the best modern practice.
- C. Along the location of the work all fences, walks, bushes, trees, shrubbery, and other physical features shall be protected and restored in a thoroughly workmanlike manner. Fences and other features removed by the Contractor shall be replaced in the location indicated by the Engineer as soon as

CONTROL OF WORK

conditions permit. All lawn areas beyond the limits of construction that have been damaged by the Contractor shall be restored to original conditions using sod.

- D. Trees close to the work shall be boxed or otherwise protected against injury in accordance with local regulations. The Contractor shall trim all branches that are susceptible to damage due of his operations, but in no case shall any tree be cut or removed without prior notification of the appropriate authority and the Engineer. All injuries to bark, trunk, limbs, and roots of trees shall be repaired by dressing, cutting, and painting in accordance with approved methods, using only approved tools and materials.
- E. The protection, removal, and replacement of existing facilities shall be considered part of the Work under the Contract and all costs in connection therewith shall be included in the unit and/or lump sum prices established.

1.08 PROTECTION AND RELOCATION OF EXISTING STRUCTURES AND UTILITIES

- A. The Contractor shall assume full responsibility for the protection of all buildings, structures, and utilities, public or private, including poles, signs, services to buildings, utilities in the street, gas pipes, water pipes, hydrants, sewers, drains, and electric and telephone cables, whether or not they are shown on the Drawings. The Contractor shall carefully support and protect all such structures and utilities from injury of any kind. Any damage resulting from the Contractor's operations shall be repaired by him at his expense.
- B. The Contractor shall bear full responsibility for obtaining all locations of underground structures and utilities (including existing water services, drain lines, and sewers). Services shall be maintained and all costs or charges resulting from damage thereto shall be paid by the Contractor.
- C. If, in the opinion of the Engineer, permanent relocation of a utility owned by the Owner is required, the Engineer may direct the Contractor in writing, to perform the work. Work so ordered will be paid for at the unit prices bid in the Proposal, if applicable, or as provided for in the General Conditions. If relocation of a privately owned utility is required, the Owner will notify the Utility to perform the work as expeditiously as possible. The Contractor shall fully cooperate with the Owner and Utility and shall have no claim for delay due to such relocation.

1.09 DISTRIBUTION SYSTEMS AND SERVICES

- A. The Contractor shall only interrupt water, telephone, Cable TV, sewer, gas, or other related utility services and disrupt the normal functioning of the system as little as possible, and shall notify the Engineer and public 48 hours in advance of any requirement for dewatering, isolating, or relocating a

section of a utility, so that necessary arrangements may be made with the appropriate agency.

- B. If it appears that utility service will be interrupted for an extended period, the Engineer may order the Contractor to provide temporary service lines. Inconvenience of the users shall be the minimum, consistent with the existing conditions. The safety and integrity of the system is of prime importance in scheduling work.

1.10 PROTECTION OF CONSTRUCTION AND EQUIPMENT

- A. All newly constructed work shall be carefully protected from injury or damage in any way. No wheeling or walking or placing of heavy loads shall be allowed and any portion injured or damaged shall be reconstructed by the Contractor at his own expense.
- B. All structures shall be protected in a manner approved by the Engineer. Should any of the floors or other parts of the structures become heaved, cracked, or otherwise damaged, all such damaged portions of the work shall be completely repaired by the Contractor at his own expense and to the satisfaction of the Engineer. If, in the final inspection of the work, any defects, faults, or omissions are found, the Contractor shall cause the same to be repaired or removed and replaced by proper materials and workmanship without extra compensation for the materials and labor required. Further, the Contractor shall be fully responsible for the satisfactory maintenance and repair of the construction and other work undertaken herein, for the guarantee period.
- C. The Contractor shall take all necessary precautions to prevent damage to any structure due to water pressure during and after construction and until such structure is accepted by the Owner.

1.11 WATER FOR CONSTRUCTION PURPOSES

- A. The Contractor shall be responsible for providing all water required for construction purposes at the Contractor's own expense. The Contractor shall make all connections and other provisions necessary to complete all work included as a part of this Contract and shall make ready for use a fully functional system.
- B. The Contractor shall obtain from the Owner all water required for flushing, testing and cleaning purposes.
- C. The Contractor shall coordinate with the Owner to have a construction water meter delivered to the site. The Owner's utilities crews shall install the construction water meter on a City of Safety Harbor fire hydrant assembly and relocate as necessary.

- D. Contractor shall coordinate with the Owner prior to making any connection to existing water mains. An Owner's representative must be present at the time of connection and the Owner will operate the valves.

1.12 MAINTENANCE OF FLOW

- A. The Contractor shall, at his own cost, provide for the flow of sewers, drains, drainage facilities and water courses interrupted during the progress of the work, and shall immediately remove all offensive matter. The entire procedure for maintaining existing flows shall be approved by the Engineer in advance of the interruption of any flow.

1.13 COOPERATION WITHIN THIS CONTRACT

- A. All firms or persons authorized to perform any work under this Contract shall cooperate with the General Contractor and his subcontractors or trades, and shall assist in incorporating the work of other trades where necessary or required.
- B. Cutting and patching, drilling and fitting shall be carried out where required by the trade or subcontractor having jurisdiction, unless otherwise indicated herein or directed by the Engineer.

1.14 CLEAN-UP

- A. During the course of the work, the Contractor shall keep the site of his operations in as clean and neat a condition as is possible. He shall dispose of all residues resulting from the construction work and, at the conclusion of the work, he shall remove and haul away any surplus excavation, broken pavement, lumber, equipment, temporary structures, and any other refuse remaining from the construction operation, and shall leave the entire site of the work in a neat and orderly condition.
- B. Contractor shall be responsible for the disposal of all materials removed from the site.

PART II – PRODUCTS (Not Used)

PART III – EXECUTION

- 3.01 Access to the site of the Work shall be via the various rights-of-way and easements owned or secured by the Owner. No valves or equipment shall be operated by Contractor personnel without the prior approval of the Owner or without the Owner's personnel present during the equipment operation.

END OF SECTION

CONTROL OF WORK
01015-5

SECTION 01152

APPLICATIONS FOR PAYMENT

PART I – GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Submit Applications for Payment to the Engineer in accordance with the schedule as approved by the Owner.
- B. Contractor shall submit to the Engineer for review, the proposed Application for Payment form, prior to the first Payment Request.

1.02 FORMAT AND DATA REQUIRED

- A. Submit applications typed on forms either provided in these Specifications furnished by the Owner, as approved by the Owner, with itemized data typed on 8-1/2 inch x 11 inch white paper continuation sheets.
- B. Provide itemized data on continuation sheet:
 - 1. Format, schedules, line items and values: those of the Schedule of Values accepted by the Engineer.

1.03 PREPARATION OF APPLICATION FOR EACH PROGRESS PAYMENT

- A. Application Form:
 - 1. Fill in required information, including that for Change Orders executed prior to date of submittal of application.
 - 2. Fill in summary of dollar values to agree with respective totals indicated on continuation sheets.
 - 3. Execute certification with signature of a responsible officer of the Contractor.
- B. Continuation Sheets:
 - 1. Fill in total list of all scheduled component items of work, with item number and scheduled dollar value for each item.
 - 2. Fill in dollar value in each column for each scheduled line item when work has been performed or products stored.

3. List each Change Order executed prior to date of submission, at the end of the continuation sheets.
 - a. List by Change Order Number, and description, as for an original component item of work.

1.04 SUBSTANTIATING DATA FOR PROGRESS PAYMENTS

- A. Submit one copy of data and cover letter for each copy of application.
- B. Contractor shall maintain an updated construction schedule in accordance with the Specifications. As a prerequisite for monthly progress payments, Contractor shall submit the updated construction schedule with the applications for progress payments. If the Contractor fails to submit the required updated schedule within the time prescribed, the Engineer may withhold approval of progress payment estimates until such a time as the Contractor submits the required updated schedule.

1.05 PREPARATION OF APPLICATION FOR FINAL PAYMENT

- A. Fill in application form as specified for progress payments.
- B. Use continuation sheet for presenting the final statement of accounting as specified in the Specification.
- C. All appropriate information must be entered on the application form.
 1. The line title, "Application Period", must indicate the dates between which all work was completed during the pay period. The period is defined from the first day of the month to the last day of the month, i.e. January 1, 2020 to January 31, 2020.
 2. All blank lines within the "Contract Data" and "Summary of Project Status" section of the application must be completed. Also, if any Change Orders have been approved, the "Change Orders" section must include that information.
 3. All calculations and arithmetic must be precise to the penny.
 4. The application must be signed and dated by an authorized representative of the Contractor and notarized.

1.06 SUBMITTAL PROCEDURE

- A. Prior to submitting a completed Payment Request, the Contractor must arrange a field meeting with the Resident Project Representative to review and verify all installed quantities and/or stored material. Only when the

Resident Project Representative and Contractor agree on installed quantities and percentages, should the Payment Request be submitted.

- B. Submit original signed copy of Application for Payment to the Engineer at the times stipulated in the General Provisions.
- C. When the Engineer finds Application properly completed and correct, he will transmit certificate for payment to Owner, with copy to Contractor.

END OF SECTION
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SECTION 01153

CHANGE ORDER PROCEDURES

PART I - GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Promptly implement Change Order procedures.
 - 1. Provide full written data required to evaluate changes.
 - 2. Maintain detailed records of work done on a time and material/force account basis.
 - 3. Provide full documentation to Engineer on request.
- B. Designate in writing the member of Contractor's organization:
 - 1. Who is authorized to accept changes in the work.
 - 2. Who is responsible for informing others in the Contractor's employ of the authorization of changes in the work.
- C. The Contractor shall comply with all other requirements as described in the General Provisions (Exhibit E) regarding Change Order procedures.

1.02 DEFINITIONS

- A. Change Orders: See General Provisions (Exhibit E).
- B. Work Change Directive: A written order to the Contractor, signed by Contractor, Owner and Engineer, which amends the Contract Documents as described, and authorizes Contractor to proceed with a change that affects the Contract Sum or the Contract Time, for inclusion in a subsequent Change Order.
- C. Engineer's Supplemental Instructions: A written order, instructions, or interpretations, signed by Engineer making minor changes in the Work not involving a change in Contract Sum or Contract Time.
- D. Field Order: A written order to the Contractor, signed by the Engineer and the Contractor, which is issued to interpret/clarify the Contract Documents, order minor changes in the work. The work described by a Field Order is to be accomplished without change to the Contract Sum, Contract Time, and/or claims for other costs.

CHANGE ORDER PROCEDURES

1.03 PRELIMINARY PROCEDURES

- A. Owner and Engineer may initiate changes by submitting a Work Directive Change to the Contractor. Request will include:
 - 1. Detailed description of the change, products, and location of the change in the Project.
 - 2. Supplementary or revised Drawings and/or Specifications.
 - 3. The projected time span for making the change, and a specific statement as to whether overtime work is or is not authorized.
 - 4. A specific period of time during which the requested price will be considered valid.
- B. Contractor may initiate changes by submitting a written notice to the Engineer, prior to the work being performed, containing:
 - 1. Description of the proposed changes.
 - 2. Statement of the reason for making the changes.
 - 3. Statement of the effect on the Contract Sum and the Contract Time.
 - 4. Statement of the effect on the work of separate contractors.
 - 5. Documentation supporting any change in Contract Sum or Contract Time, as appropriate.

1.04 CONSTRUCTION CHANGE AUTHORIZATION

- A. Work Change Directive will describe changes in the Work, both additions and deletions, with attachments of revised Contract Documents to define details of the change and will designate the method of determining any change in the Contract Sum and any change in Contract Time.
- B. Owner and Engineer will sign and date the Work Directive Change as authorization for the Contractor to proceed with the changes.

1.05 DOCUMENTATION OF PROPOSALS AND CLAIMS

- A. Support each quotation for a lump sum proposal, and for each unit price which has not previously been established, with sufficient substantiating data to allow the Engineer to evaluate the quotation.
- B. On request, provide additional data to support time and cost computations:
 - 1. Labor required.
 - 2. Equipment required.
 - 3. Products required.
 - a. Recommended source of purchase and unit cost.
 - b. Quantities required.
 - 4. Taxes, insurance, and bonds.
 - 5. Credit for work deleted from Contract, similarly documented.
 - 6. Overhead and profit.
 - 7. Justification for any change in Contract Time.
- C. Support each claim for additional costs, and for work done on a time-and-material/force account basis, with documentation as required for a Lump Sum proposal, plus additional information:
 - 1. Name of the Owner's authorized agent who ordered the work and date of the order.
 - 2. Dates and times work was performed and by whom.
 - 3. Time record, summary of hours worked, and hourly rates paid.
 - 4. Receipts and invoices for:
 - a. Equipment used, listing dates, and times of use.
 - b. Products used, listing of quantities.
 - c. Subcontracts.

1.06 PREPARATION OF CHANGE ORDERS AND FIELD ORDERS

- A. Engineer will prepare each Change Order and Field Order and Work Change Directives.
- B. Change Order will describe changes in the Work, both additions and deletions, with attachments of revised Contract Documents to define details of the change.
- C. Change Order will provide an accounting of the adjustment in the Contract Sum and in the Contract Time.
- D. Field Order will describe interpretations or clarifications of Contract Documents, order minor changes in the Work, and/ or memorialize trade-off agreements.
- E. Field Order work will be accomplished without change in the Contract Sum, Contract Time, and/or claims for other costs.

1.07 LUMP SUM/FIXED PRICE CHANGE ORDER

- A. Engineer initiates the form, including a description of the changes involved and attachments based upon documents and proposals submitted by Contractor, or requests from Owner, or both.
- B. Once Engineer has completed and signed the form, all copies should be sent to Contractor for approval. After approval by Contractor, all copies should be sent to Owner for approval. Engineer should make distribution of executed copies.

1.08 UNIT PRICE CHANGE ORDER

- A. Content of Change Orders will be based on either:
 - 1. Engineer's definition of the scope of the required changes.
 - 2. Contractor's Proposal for a change, as recommended by Engineer.
 - 3. Survey of complete work.
- B. The amounts of the unit prices to be:
 - 1. Those stated in the Agreement.
 - 2. Those mutually agreed upon between Owner and Contractor.

- C. When quantities of each of the items affected by the Change Order can be determined prior to start of the work:
 - 1. Owner and Engineer will sign and date a Work Directive Change as authorization for Contractor to proceed with the changes.
- D. When quantities of the items cannot be determined prior to start of the work:
 - 1. Engineer or Owner will issue a Work Directive change directing the Contractor to proceed with the change on the basis of unit prices, and the Engineer will cite the applicable unit prices.
 - 2. Upon completion of the change, the Engineer will determine the cost of such work based on the unit prices and quantities used. Contractor shall submit documentation to establish the number of units of each item and any claims for a change in Contract Time.
 - 3. Engineer will sign and date the Change Order to establish the change in Contract Sum and in Contract Time.
 - 4. Contractor will sign and date the Change Order to indicate their agreement with the terms therein.
 - 5. Owner will then sign the change order.

1.09 CORRELATION WITH CONTRACTOR'S SUBMITTALS

- A. Not greater than monthly revise Schedule of Values and Request for Payment forms to record each change as a separate item of work and to record the adjusted Contract Sum.
- B. Not greater than monthly revise the Construction Schedule to reflect each change in Contract Time. Revise subschedules to show changes for other items of work affected by the changes.
- C. Upon completion of work under a Change Order, enter pertinent changes in Record Documents.

END OF SECTION

SECTION 01200

MEETINGS AND CONFERENCES

PART I – GENERAL

1.01 PRE-CONSTRUCTION CONFERENCE

- A. In accordance with the Contract Documents, prior to the commencement of Work, a mandatory preconstruction conference shall be held at a mutually agreed time at the Owner's facility. The Contractor shall be required to attend the preconstruction conference/meeting.
- B. The purpose of the conference shall be to designate responsible personnel and establish a working relationship. Matters requiring coordination shall be discussed and procedures for handling such matters established. The agenda shall include as a minimum:
 - 1. Contractor's Initial Construction Schedule
 - 2. Procedures for Transmittal, Review and Distribution of Shop Drawings
 - 3. Procedures for Submittal and Review of Monthly Pay Applications
 - 4. Maintaining Record Drawings
 - 5. Critical Work Sequencing and Construction Restrictions
 - 6. Field Decisions and Change Orders
 - 7. Field Office, Storage Areas and Security
 - 8. Equipment and Material Deliveries
 - 9. Safety Meetings and Program
 - 10. Traffic Control Plan
 - 11. Pre-construction Video
- C. The Engineer will preside at the conference and will arrange for keeping the minutes and distributing them to all persons in attendance.

1.02 PROGRESS MEETINGS

- A. The Engineer will schedule and conduct regular project meetings at least monthly and at other times as deemed necessary by the progress of the Work. Monthly progress meetings and other meetings as deemed necessary by the Owner shall be considered mandatory meetings. Therefore, the Contractor shall be required to attend each meeting. The Contractor and/or Engineer may request attendance by representatives of material Supplier(s) and Subcontractor(s).

MEETINGS AND CONFERENCES

- B. The Owner/Engineer will preside at the conference and will arrange for keeping the minutes and distributing them to all persons in attendance. The purpose of the meetings will include but not be limited to reviewing the progress of the Work, maintaining coordination of efforts, discussing changes in scheduling and resolving problems which may develop; claims review; and future scheduling.

1.03 TRAFFIC CONTROL MEETINGS

- A. The Owner will schedule and conduct meetings as required with the Contractor to attend to matters of traffic control and associated public convenience and safety during the course of the Work. The Contractor shall be required to attend each meeting.
- B. The Engineer will preside at the meetings and provide for keeping the minutes and distribution of minutes to the Owner, the Contractor and others. The purpose of the meetings shall be for the Contractor presentation of traffic control plans and any revisions required during performance of the Work and to discuss related matters.

1.04 PUBLIC INFORMATION MEETINGS

- A. The Contractor shall designate a public information specialist for the Project who shall attend and actively participate in periodic public information meetings that may be scheduled by the Owner.

PART II – PRODUCT
(Not Used)

PART III – EXECUTION
(Not Used)

END OF SECTION

SECTION 01300

SUBMITTALS

PART I – GENERAL

1.01 CONSTRUCTION SCHEDULE

- A. Within 7 days after the award of the contract, the Contractor shall submit to Engineer for review a schedule of the proposed construction operations. The construction schedule shall indicate the sequence of the Work, the time of starting and completion of each part, and the installation date for each major item of equipment, and the time for making connections to existing piping, structures, or facilities.
- B. At least every 15 days the schedule shall be revised as necessary to reflect changes in the progress of the Work.
- C. Owner may require Contractor to add to his equipment, or construction forces, as well as increase the working hours, if operations fall behind schedule at any time during the construction period.

1.02 PRELIMINARY SUBMITTALS

- A. Within 10 days after the Notice of Award, but prior to the pre-construction conference, the Contractor shall submit the following items to the Owner's construction manager for review by the ENGINEER.
 - 1. A preliminary schedule of Shop Drawing submittals.
 - 2. A preliminary list of all permits and licenses the Contractor shall obtain showing the permitting agency, the type of permit, the expected date of application for the permit, required date for receipt of the permit, and permit fee.

1.03 PROGRESS REPORTS

- A. A progress report shall be furnished to Engineer with each application for progress payment. If the Work falls behind schedule, Contractor shall submit additional progress reports at such intervals as Engineer may request.
- B. Each progress report shall include sufficient narrative to describe current and anticipated delaying factors, their effect on the construction schedule, and proposed corrective actions. Any Work reported complete, but which is not readily apparent to Engineer, must be substantiated with satisfactory evidence.
- B. Each progress report shall also include three (3) prints of the accepted graphic schedule marked to indicate actual progress.

SUBMITTALS

01300-1

1.04 SCHEDULE OF VALUES

- A. The Contractor shall submit to the Engineer for review a Schedule of Values after review of the tentative schedule and before submission of the first application for payment. The Schedule of Values, showing the value of each kind of work, shall be acceptable to Engineer before any application for payment is prepared.
- B. Payment for purchased or stored material shall not be given. Partial payments for purchased or stored materials shall not be given.
- C. The sum of the items listed in the Schedule of Values shall equal the Contract Price. Such items as Bond premium, temporary construction facilities, may be listed separately in the Schedule of Values, provided the amounts can be substantiated. Overhead and profit shall not be listed as separate items.
- D. In addition to those items listed in Paragraph B, items that shall also be included on the Schedule of Values include O & M manuals (including electronic format), As-Builts, Start-Up and Training, and any other individualized component that the Contractor would like to separately itemize for payment.
- E. An unbalanced Schedule of Values providing for overpayment of Contractor on items of Work that would be performed first will not be accepted. The Schedule of Values shall be revised and resubmitted until acceptable to Engineer. Final acceptance by Engineer will indicate only consent to the Schedule of Values as a basis for preparation of applications for progress payments and shall not constitute an agreement as to the value of each indicated item.

1.05 SCHEDULE OF PAYMENTS

- A. Schedule of Payments will be discussed at the pre-construction meeting.
- B. Payment for purchased or stored material shall not be given. Partial payments for purchased or stored materials shall not be given.

1.06 SHOP DRAWINGS AND ENGINEERING DATA

- A. Shop Drawings and Engineering Data shall be submitted in accordance with specification 01340.

END OF SECTION

SECTION 01310

CONSTRUCTION SCHEDULES

PART I - GENERAL

1.01 GENERAL

- A. Construction under this contract must be coordinated to assure that construction is completed within the time allowed by the Contract Documents. The Contractor will also coordinate his activities with the other contractors to allow orderly and timely completion of all the work.
- B. Construction schedule shall be provided to the City prior to start.

1.02 CONSTRUCTION SCHEDULING GENERAL PROVISIONS

- A. Within 7 calendar days after the award of the contract, the Contractor shall prepare and submit to the Engineer a preliminary construction progress schedule.
- B. The schedule shall be updated weekly reflecting the approved baseline schedule and the Contractor's progress on each activity. No progress payment will be approved until the updated schedule is submitted and approved by the Engineer. Payment for purchased or stored material shall not be given. Partial payment for purchased or stored material shall not be given.
- C. Night work may be established by the Contractor as regular procedure only with the prior written permission of the Owner. Such permission, however, may be revoked at any time by the Owner if the Contractor fails to maintain adequate equipment and supervision for the proper execution and control of the work at night.
- D. The Contractor shall designate an authorized representative of his firm who shall be responsible for development and maintenance of the schedule and of progress and payment reports. This representative of the Contractor shall have direct project control and complete authority to act on behalf of the Contractor in fulfilling the commitments of the Contractor's schedule.

1.03 PROGRESS OF THE WORK

- A. The work shall be executed with such progress as may be required to prevent any delay to the general completion of the work. The work shall be executed at such times and in or on such parts of the project, and with such forces, materials and equipment to assure completion of the work in the time established by the Contract.
- B. If the Contractor for his convenience and at his own expense, should desire to carry on his work at night or outside regular hours, he shall submit written notice to the Engineer and he shall allow ample time for satisfactory arrangements to be made for inspecting the work in progress. The Contractor shall reimburse the Owner for extra inspection required for work outside regular hours. The Contractor shall light the different parts of the project as required to comply with all applicable Federal and State regulations and with all applicable requirements of the municipality in which the work is being done.

CONSTRUCTION SCHEDULES

PART II - PROGRESS SCHEDULE SUBMITTALS

2.01 GENERAL REQUIREMENTS

- A. As required within the General Conditions, the Contractor shall submit a critical path progress schedule as described herein. The schedule shall take into considerations all work phasing and restrictions as specified elsewhere in the Contract Documents.
- B. The critical path progress schedule requirement will consist of a detailed schedule, a start-up schedule, and revisions to the schedules and analyses as described. The planning, scheduling, management and execution of the work are the sole responsibilities of the Contractor. The progress schedule shall allow Engineer to review Contractor's planning, scheduling, management and execution of the work; to assist Engineer in evaluating work progress and make progress payments; to allow other contractors to cooperate and coordinate their activities with those of the Contractor; and to provide Owner with information about "construction schedule" and "cumulative outlay schedule."
- C. Engineer's review of the schedule submittals shall not relieve Contractor from responsibility for any deviations from the Contract Documents unless Contractor has in writing called Engineer's attention to such deviations at the time of submission and Engineer has given written concurrence to the specific deviations, nor shall any concurrence by Engineer relieve Contractor from responsibility for errors and omissions in the submittals.
- D. Float or slack time is not for the exclusive benefit of the Owner, the Engineer or the Contractor. Extensions of time for performance, as specified in the General Conditions, will be granted only to the extent that equitable time adjustments for the network activity, or activities affected, exceed the total float or slack time along the affected network paths, as shown in the precedence diagram and computer printout report in effect at the instant of either (a) a notice to proceed with a change, or (b) a notice of suspension of work or possession, or (c) detection of a subsequently acknowledged differing site condition, or (d) occurrence of cause for an excusable delay. Further, use of float time in the schedule, or the allocation of float time to activities by means of special logic restraints or imposed dates, shall be shared to the benefit of Owner, Engineer, Contractor, and his subcontractors and suppliers in proportion of their scope of responsibilities. Excessive use of float time to the detriment of succeeding activities may be cause for denying an extension of time if it can be demonstrated that the float along the network paths affected at the instant of the delaying condition would have been larger than the delay had it not been for the excessive and unreasonable float usage in violation of the sharing concept required by this Specification.
- E. Engineer's review of the schedule submittals shall be only for conformance with the information given in the Contract Documents and shall not extend to the means, methods, sequences and techniques or procedures of construction or to safety precautions or programs incident thereto. Engineer's review of the schedule submittals will be predicated on a Contractor's stamp of approval signed off by Contractor. Contractor's stamp of approval on any schedule submittals shall constitute a representation to Owner and Engineer that Contractor, has either determined or verified all data on the submittal, or assumes full responsibility for doing so, and that Contractor and his subcontractors and suppliers have reviewed and coordinated the sequences shown in the submittal with the requirements of the work under the Contract Documents.

PART III - EXECUTION

3.01 DETAILED SCHEDULE SUBMITTAL

- A. Submittal shall include a time-scaled graphic diagram showing all Contract activities, and a supporting narrative. The initial Detailed Schedule submittal shall be delivered within 7 calendar days after the Notice to Proceed, and shall use the Notice to Proceed as the "data date". Upon receipt of Engineer's comments, Contractor shall meet with Engineer and discuss an appraisal and evaluation of the proposed work plan. Necessary revisions resulting from this review shall be made by Contractor and the detailed schedule resubmitted within 7 calendar days after the meeting. The re-submittal, if agreed to by the Owner, and unless subsequently changed with the concurrence of or at the direction of Owner, shall be the work plan to be used by the Contractor for planning, scheduling, managing and executing the work. If Contractor fails to provide an acceptable Detailed Schedule submittal, he will be deemed not to have provided a basis upon which progress may be evaluated, which will further constitute reasons for refusing to recommend payment.

3.02 MONTHLY STATUS REPORTS

- A. Contractor shall submit to Engineer, with each request for payment, a Status Report (based on the Detailed Schedule) with data as of the last day of the pay period. The monthly Status Report shall include a revised copy of the currently accepted graphic diagram, computer printouts and a narrative. The Monthly Status Report will be reviewed by the Engineer. The Contractor will address the Engineer's comments in the subsequent Monthly Status Report. If Contractor fails to provide acceptable Monthly Status Reports, he will be deemed not to have provided a basis upon which progress may be evaluated, which will be reason for refusing to recommend progress payments.

The narrative shall include the information shown in the following outline in a narrative form:

1. Construction progress (refer to activity number in the Detailed Schedule) including:
 - a. Activities completed this reporting period;
 - b. Activities in progress this reporting period;
 - c. Activities scheduled to commence next reporting period.
2. Description of problem areas
3. Current and anticipated delays
 - a. Cause of the delay;
 - b. Corrective action and schedule adjustments to correct the delay;
 - c. Impact of the delay on other activities, on milestones, and on completion dates.
4. Changes in construction sequence
5. Pending items and status thereof
 - a. Permits
 - b. Change Orders
 - c. Time extensions
 - d. Other
6. Contract completion date status

- a. Ahead of schedule and number of days
- b. Behind schedule and number of days

3.03 REVISIONS

- A. All revised Detailed Schedule submittals shall be in the same form and detail as the initial submittal and shall be accompanied by an explanation of the reasons for such revisions, all of which shall be subject to review by Engineer. The revision shall incorporate all previously made changes to reflect current as-built conditions. Minor changes to the submittal may be reviewed at monthly meetings. Changes to activities having adequate float shall be considered a minor change.
- B. A revised detailed work plan submittal shall be submitted for review, when required by Engineer, for one of the following reasons:
 - 1. Owner or Engineer directs a change that affects the date(s) specified in the Agreement or alters the length of a critical path.
 - 2. Contractor elects to change any sequence of activities so as to affect a critical path of the currently accepted detailed schedule documents.
- C. If, prior to agreement on an equitable adjustment to the Contract Time, Engineer requires revisions to the Detailed Schedule in order to evaluate planned progress, Contractor shall provide an interim revised submittal for review with change effect(s) incorporated as directed. Approved interim revisions to the documents will be incorporated during the first subsequent Monthly Status Report.

3.04 START-UP SCHEDULE SUBMITTALS

- A. At least 7 calendar days prior to the date of Substantial Completion, Contractor shall submit a time-scaled (days after notice to proceed) graphic diagram detailing the work to take place in the period between 7 days prior to Substantial Completion, together with a supporting narrative. Engineer shall have 10 calendar days after receipt of the submittal to respond. Upon receipt of Engineer's comments, Contractor shall make the necessary revisions and submit the revised schedule within ten calendar days. If Contractor fails to provide acceptable Start-up Schedule Submittals, he will be deemed not to have provided a basis upon which progress may be evaluated, which will be reason for refusing to recommend payment.
- B. The Start-up Schedule may not be combined with the Detailed Schedule. The Start-up Schedule is intended to show much greater detail than the Detailed Schedule for start-up activities. Typical information required includes, but is not limited to, the timing of vendor representatives, pre-op testing, individual equipment start-ups, Owner's training, and performance certification testing.

3.05 CONSTRUCTION PERIOD

- A. Whenever it becomes apparent from updated schedule data that any milestone and/or Contract completion date will not be met, the Contractor shall take appropriate action to bring the work back on schedule. Actions could include:
 - 1. Increase construction manpower in such quantities and crafts as to substantially eliminate the backlog of work;
 - 2. Increase the number of working hours per shift, shifts per work day, work days per week, or the amount of construction equipment, or any combination of the foregoing sufficient to substantially eliminate the backlog of work; and
 - 3. Reschedule work items to achieve concurrency of accomplishment.
- B. The addition of equipment or construction forces, increasing the working hours or any other method, manner, or procedure to return to the current Detailed Schedule shall be at the Contractor's own cost and shall not be considered justification for a Change Order or treated as an acceleration order.

END SECTION

SECTION 01340

SHOP DRAWINGS, PRODUCT DATA, WORKING DRAWINGS AND SAMPLES

PART I - GENERAL

1.01 REQUIREMENTS INCLUDED

- A. The Contractor shall submit to the Engineer for review such working drawings, shop drawings, test reports and data on materials and equipment (hereinafter in this Section called data), and material samples (hereinafter in this Section called samples) as are required for the proper control of work, including but not limited to those working drawings, shop drawings, data and samples for materials and equipment specified elsewhere in the Specifications and in the Contract Drawings.
- B. The Contractor shall note that there are specific submittal requirements in other sections of these Specifications.

1.02 SHOP DRAWINGS

- A. When used in the Contract Documents, the term "shop drawings" shall be considered to mean Contractor's Drawings for material and equipment which become an integral part of the Project. These drawings shall be complete and detailed. Shop drawings shall consist of fabrication, erection and setting drawings and schedule drawings, manufacturer's scale drawings, bills of material, wiring and control diagrams, and inspection and test reports including performance curves and certifications as applicable to the Work.
- B. All details on shop drawings submitted for review shall show clearly the elevations of the various parts to the main members and lines of the structure and/or equipment, and where correct fabrication of the work depends upon field measurements, such measurements shall be made and noted on the shop drawings before being submitted for review.
- C. See Shop Drawing Schedule requirements in Subparagraph 1.07 CONTRACTOR'S RESPONSIBILITY.

1.03 PRODUCT DATA

- A. Product data as specified in individual sections, include, but are not necessarily limited to, standard prepared data for manufactured products (sometimes referred to as catalog data), such as the manufacturers product specification and installation instructions, availability of colors and patterns, manufacturer's printed statements of compliances and applicability, roughing-in diagrams and templates, catalog cuts, product photographs, standard wiring diagrams, printed performance curves and operational-range diagrams, production or quality control inspection and test reports and certifications, mill reports, product operating and maintenance instructions and recommended spare-parts listing storage instructions, and printed product warranties, as applicable to the work.

1.04 WORKING DRAWINGS

- A. When used in the Contract Documents, the term "working drawings" shall be considered to mean the Contractor's Drawings for temporary structures such as temporary bulkheads, support of open cut excavation, support of utilities, ground water control systems, forming and falsework; for underpinning; and for such other work as may be required for construction but does not become an integral part of the Project.
- B. Working drawings shall be signed and sealed by a registered Professional Engineer, currently licensed to practice in the State and shall convey, or be accompanied by,

SHOP DRAWINGS, PRODUCT DATA, WORKING DRAWINGS AND SAMPLES

calculations or other sufficient information to completely explain the structure, machine, or system described and its intended manner of use. Prior to commencing such work, working drawings must have been reviewed without specific exceptions by the Engineer. Such review will be for general conformance and will not relieve the Contractor in any way from his responsibility with regard to the fulfillment of the terms of the Contract. All risks of error are assumed by the Contractor; the Owner and Engineer will have no responsibility therefore.

1.05 SAMPLES

- A. The Contractor shall furnish, for review of the Engineer, samples required by the Contract Documents or requested by the Engineer. Samples shall be delivered to the Engineer as specified or directed and in quantities and sizes as specified. A minimum of two samples of each item shall be submitted unless otherwise specified. The Contractor shall prepay all shipping charges on samples. Materials or equipment for which samples are required shall not be used in work until reviewed by the Engineer.
- B. Samples specified in individual sections, include, but are not necessarily limited to, physical examples of the work such as sections of manufactured or fabricated work, small cuts or containers of materials, complete units of repetitively-used products, color/texture/pattern swatches and range sets, specimens for coordination of visual effect, graphic symbols, and units of work to be used by the Engineer or Owner for independent inspection and testing, as applicable to the Work.
- C. The Contractor shall prepare a transmittal letter for each shipment of samples. He shall enclose a copy of this letter with the shipment and send a copy of this letter to the Engineer. Review of a sample shall be only for the characteristics or use named in such review and shall not be construed to change or modify any Contract requirements.

1.06 SUBMITTAL REQUIREMENTS

- A. The Contractor shall review, approve, and submit, with reasonable promptness and in such sequence, so as to cause no delay in the Contract Work or in the Work of the Owner or any separate contractor, all shop drawings, product data, working drawings and samples required by the Contract Documents.
- B. The Contractor shall submit eight (8) copies of descriptive or product data submittals to complement shop drawings to the Engineer. The Engineer will review the submittal and return to the Contractor two (2) marked-up copies of the shop drawings with the appropriate review comments.
- C. Shop drawings, product data, working drawings and samples shall be furnished with the following information:
 - 1. Number and title of the drawing.
 - 2. Date of drawing or revision.
 - 3. Name of project building, facility or system.
 - 4. Name of contractor, subcontractor, and manufacturer submitting drawing.
 - 5. Clear identification of contents, location of the work, and the sheet numbers where the product is found in the contract drawings.
 - 6. Contractor Certification Statement.
 - 7. Submittal Identification Number.

8. Contract Drawing Number Reference.

- D. All items specified are not necessarily intended to be a manufacturer's standard product. Variations from specified items will be considered on an "or equal" basis. If submittals show variations from Contract requirements because of standard shop practice or for other reasons, the Contractor shall describe such variations in his letter of transmittal and on the shop drawings along with notification of his intent to seek contract adjustment. If acceptable, proper adjustment in the Contract shall be implemented where appropriate. If the Contractor fails to describe such variations he shall not be relieved of the responsibility for executing the work in accordance with the Contract, even though such drawings have been reviewed. Variations submitted but not described may be cause for rejection. Any variations initiated by the Contractor will not be considered as an addition to the scope of work unless specifically noted and then approved as such in writing by the Engineer.
- E. Data on materials and equipment shall include materials and equipment lists giving, for each item thereon, the name and location of the supplier or manufacturer, trade name, catalog reference, material, size, finish and all other pertinent data.
- F. For all mechanical and electrical equipment furnished, the Contractor shall provide a list including the equipment name, and address and telephone number of the manufacturer's representative and service company so that service and/or spare parts can be readily obtained. In addition, a maintenance and lubrication schedule for each piece of equipment shall be submitted as specified in Section 01730.
- G. The Contractor shall use the color "green" to make his remarks on the Submittals. Only the Engineer will utilize the color "red" in marking submittals.

1.07 CONTRACTOR'S RESPONSIBILITY

- A. It is the duty of the Contractor to check, and coordinate with the work of all trades, all drawings, data, schedules and samples prepared by or for him before submitting them to the Engineer for review. Each and every copy of any drawing or data sheet larger than 11"x17" shall bear Contractor's stamp showing that they have been so checked and approved. Drawings or data sheets 11"x17" and smaller shall be bound together in an orderly fashion and bear the Contractor's stamp on the cover sheet. The cover sheet shall fully describe the packaged data and include a list of all sheet numbers within the package. Shop drawings submitted to the Engineer without the Contractor's stamp will be returned to the Contractor, without review at the Engineer's option, for conformance with this requirement.
- B. The Contractor shall review shop drawings, product data, and samples prior to submission to determine and verify the following:
 - 1. Field measurements.
 - 2. Field construction criteria.
 - 3. Manufacturer's catalog numbers and similar data.
 - 4. Conformance with Specifications.
- C. Shop drawings shall indicate any deviations in the submittal from the requirements of the Contract Documents.
- D. At a time decided upon at the preconstruction meeting the Contractor shall furnish the Engineer a Shop Drawing schedule fixing the respective dates for the initial submission of shop and working drawings, the beginning of manufacture, testing and installation of

SHOP DRAWINGS, PRODUCT DATA, WORKING DRAWINGS AND SAMPLES

materials, supplies and equipment. This schedule shall be provided as a separate entity and indicate those submittals that are critical to the progress schedule. The Contractor shall prepare and transmit each submittal sufficiently in advance of performing the related work or other applicable activities, or within the time specified in the individual work sections of the Specifications, so that the installation will not be delayed by processing times including disapproval and resubmittal (if required), coordination with other submittals, testing, purchasing, fabrication, delivery, and similar sequenced activities. No extension of time will be authorized because of the Contractor's failure to transmit complete and acceptable submittals sufficiently in advance of the Work.

- E. The Contractor shall not begin any work affected by a submittal returned, "Rejected. Revise as indicated and resubmit". Before starting this work all revisions must be corrected by the Contractor. After resubmittal they will be reviewed and returned to him by the Engineer. If returned marked, "No exceptions noted" or "Exceptions as noted", then the Contractor may begin this work. Any corrections made to the shop drawings are to be followed without exception.
- F. The Contractor shall submit to the Engineer all shop drawings and data sufficiently in advance of construction requirements to provide no less than twenty-one (21) calendar days for review from the time the Engineer receives them.
- G. The Contractor shall be responsible for and bear all cost of damages which may result from the ordering of any material or from proceeding with any part of work prior to review by the Engineer of the necessary shop drawings.
- H. All shop drawings, product data, working drawings and samples submitted by subcontractors for review shall be sent directly to the Contractor for checking. The Contractor shall be responsible for their submission according to the approved shop drawing schedule so as to prevent delays in delivery of materials and project completion.
- I. The Contractor shall check all subcontractor's shop drawings, product data, working drawings and samples regarding measurements, size of members, materials, and details to satisfy himself that they are in conformance to the Contract Documents. Shop drawings found to be inaccurate or otherwise in error shall be returned to the subcontractors for correction before submission to the Engineer.

1.08 ENGINEER'S REVIEW OF SHOP DRAWINGS, PRODUCT DATA, WORKING DRAWINGS AND SAMPLES

- A. The Engineer's review is for general conformance with the design concept and contract drawings. Markings or comments shall not be construed as relieving the Contractor from compliance with the Contract Drawings and Specifications or from departures therefrom. The Contractor remains responsible for details and accuracy, for coordinating the work with all other associated work and trades, for selecting fabrication processes, for techniques of assembly, and for performing work in a safe manner.
- B. The review of shop drawings, data, and samples will be general. They shall not be construed:
 - 1. As permitting any departure from the Contract requirements;
 - 2. As relieving the Contractor of responsibility for any errors, including details, dimensions, and materials;
 - 3. As approving departures from details furnished by the Engineer, except as otherwise provided herein.

SHOP DRAWINGS, PRODUCT DATA, WORKING DRAWINGS AND SAMPLES

- C. If the shop drawings, data or samples as submitted describe variations per subparagraph (1.07H), and show a departure from the Contract requirements which Engineer finds to be in the interest of the Owner and to be so minor as not to involve a change in Contract Price or time for performance, the Engineer may return the reviewed drawings without noting an exception.

- D. Submittals will be returned to the Contractor under one of the following:

"NO EXCEPTIONS NOTED" is assigned when there are no notations or comments on the submittal. When returned under this code the Contractor may release the equipment and/or material for manufacture.

"EXCEPTIONS AS NOTED" is assigned when notations or comments have been made on the submittal pointing out minor discrepancies as compared with the Contract Documents. Resubmittal or confirmation is not necessary prior to release for manufacturing.

"EXCEPTIONS AS NOTED/CONFIRM." This combination of codes is assigned when a confirmation of the notations and comments is required by the Contractor. The Contractor may release the equipment or material for manufacture; however, all notations and comments must be incorporated into the final product. This confirmation is to address the omissions and/or nonconforming items that were noted. Only the items to be "confirmed" need to be resubmitted.

"EXCEPTIONS AS NOTED/RESUBMIT." This combination of codes is assigned when a resubmittal is required by the Contractor. The Contractor may release a portion of the equipment or material for manufacture; however, all notations and comments must be incorporated into the final submittal. This resubmittal is to address the omissions and/or nonconforming items that were noted.

"REJECTED. REVISE AS INDICATED AND RESUBMIT." This combination of codes is assigned when the submittal is in noncompliance with the Contract Documents and must be corrected and the entire package resubmitted. This code generally means that the equipment or material cannot be released for manufacture unless the Contractor takes full responsibility for providing the submitted items in accordance with Contract Documents.

"FOR YOUR INFORMATION" is assigned when the package provides information of a general nature that may or may not require a response.

- E. Resubmittals will be handled in the same manner as first submittals. On resubmittals the Contractor shall direct specific attention, in writing, on the letter of transmittal and on resubmitted shop drawings by use of revision triangles or other similar methods, to revisions other than the corrections requested by the Engineer on previous submissions. Any such revisions which are not clearly identified shall be made at the risk of the Contractor. The Contractor shall make corrections to any work done because of this type revision that is not in accordance to the Contract Documents as may be required by the Engineer.

- F. If the Contractor considers any correction indicated on the shop drawings to constitute a change to the Contract Documents, the Contractor shall give written notice thereof to the Engineer at least seven (7) working days prior to release for manufacture.

- G. The Engineer will review each original submittal and the first re-submittal of Shop Drawings, product data and samples. Further reviews of subsequent re-submittals shall be charged to the Contractor at a rate of \$150.00 per hour.

- H. When the shop drawings have been completed to the satisfaction of the Engineer, the Contractor shall carry out the construction in accordance therewith and shall make no further changes therein except upon written instructions from the Engineer.

- I. Partial submittals may not be reviewed. The Engineer will be the only judge as to the completeness of a submittal. Submittals not complete will be returned to the Contractor. The Engineer may at his option provide a list or mark the submittal directing the Contractor to the areas that are incomplete.

PART II – PRODUCTS
(NOT USED)

PART III – EXECUTION
(NOT USED)

END OF SECTION

SECTION 01380

CONSTRUCTION PHOTOGRAPHS

PART I – GENERAL

1.01 REQUIREMENTS

- A. The Contractor shall employ a competent photographer to take pre and post construction record photographs. All photos shall be taken in a manner with minimum distortion and high resolution and sharpness.

1.02 PHOTOGRAPHY REQUIRED

- A. Pre-construction photographs shall be taken in strict conformance with this Section and if requested, shall be furnished to the Owner and Engineer prior to any excavation work.
- B. Pre and post construction photographs shall be taken no sooner than 30 days prior to work being performed and no later than two (2) weeks prior to work being performed to include the following:
 - 1. All Right-of-ways areas;
 - 2. All asphalt paved areas;
 - 3. All concrete driveways and sidewalks;
 - 4. All areas near the installation of new cleanouts and connection to existing private property service laterals at the ROW line.
- C. Digital Photos:
 - 1. All photographs are to be color digital, compiled on Flash Drive, CD-ROM or DVD, and provided with a description index of the images with dates.
 - 2. Filenames of photos on private property photos shall be named with the street address of the private property.
 - 3. All digital photos shall include the date and time on the actual image.
 - 4. Resolution: Color, minimum 8.0 megapixels, 3264 x 2448
 - 5. File Format: JPG.
- D. The Owner and Engineer reserves the right to request additional photos be taken upon review of the photos submitted by the Contractor.

PART II – PRODUCTS - (NOT USED)

PART III – EXECUTION (NOT USED)

END OF SECTION

SECTION 01410

TESTING AND TESTING LABORATORY SERVICES

PART I - GENERAL

1.01 REQUIREMENTS INCLUDED

- A. The Contractor shall employ and pay for the services of an Owner approved independent testing laboratory to perform the geotechnical testing (soil and roadway materials density testing and concrete testing) specifically indicated on the Contract Documents or specified in the Specifications. The Owner may at any other time elect to have materials and equipment tested for conformity with the Contract Documents. The Contractor shall pay for all testing.
 - 1. Contractor shall cooperate with the laboratory to facilitate the execution of its required services.
 - 2. Employment of the laboratory shall in no way relieve Contractor's obligations to perform the Work of the Contract.
- B. Contractor shall perform and pay for all other testing required in the specifications.

1.02 LIMITATIONS OF AUTHORITY OF TESTING LABORATORY

- A. Laboratory is not authorized to:
 - 1. Release, revoke, alter or enlarge on requirements of Contract Documents.
 - 2. Approve or accept any portion of the Work.
 - 3. Perform any duties of the Contractor.

1.03 CONTRACTOR'S RESPONSIBILITIES

- A. Cooperate with laboratory personnel; provide access to Work and to Manufacturer's operations.
- B. Secure and deliver to the laboratory adequate quantities of representational samples of materials proposed to be used and which require testing.
- C. Provide to the laboratory the preliminary design mix proposed to be used for concrete, and other materials mixes that require control by the testing laboratory.
- D. Materials and equipment used in the performance of work under this Contract are subject to inspection and testing at the point of manufacture or fabrication. Standard specifications for quality and workmanship are indicated in the Contract Documents. The Engineer may require the Contractor to provide statements or certificates from the manufacturers and fabricators that the materials and equipment provided by them are manufactured or fabricated in full accordance with the standard specifications for quality and workmanship indicated in the Contract Documents. All costs of this testing and providing statements and certificates shall be a subsidiary obligation of the Contractor, and no extra charge to the Owner shall be allowed on account of such testing and certification.
- E. Furnish incidental labor and facilities:
 - 1. To provide access to work to be tested.

2. To obtain and handle samples at the Project site or at the source of the product to be tested.
 3. To facilitate inspections and tests.
 4. For storage and curing of test samples.
- F. Notify laboratory sufficiently in advance (minimum 48 hours) of operations to allow for laboratory assignment of personnel and scheduling of tests.
- G. The Owner and Engineer reserve the right to require additional tests.
- H. The Lab technician shall notify the Contractor, the Owner's representative and the Engineer upon failing results. Work shall not continue in a given area until passing results are obtained.
- I. The Owner and the Engineer shall be provided with copies of all test reports.

PART II – PRODUCTS
(NOT USED)

PART III – EXECUTION
(NOT USED)

END OF SECTION

SECTION 01500

TEMPORARY FACILITIES

PART I – GENERAL

1.01 SANITARY FACILITIES

- A. Contractor shall furnish temporary separate male and female sanitary facilities at the site, as provided herein, for the needs of all construction workers and others performing work or furnishing services on the Project.
- B. Sanitary facilities shall be of reasonable capacity, properly maintained throughout the construction period, and obscured from public view to the greatest practical extent. If toilets of the chemically treated type are used, at least one toilet will be furnished for each 20 persons. Contractor shall enforce the use of such sanitary facilities by all personnel at the site.

1.02 MAINTENANCE OF TRAFFIC

- A. Contractor shall conduct his work to interfere as little as possible with public travel, whether vehicular or pedestrian. Whenever it is necessary to cross, obstruct, or close roads, driveways and walks, whether public or private, Contractor shall provide and maintain suitable and safe bridges, detours, or other temporary expedients for the accommodation of public and private travel, and shall give reasonable notice to owners of private drives before interfering with them. Driveway access to commercial properties shall be maintained at all times. Such maintenance of traffic shall not be required when Contractor has obtained permission from the owner and tenant of private property, or from the authority having jurisdiction over public property involved, to obstruct traffic at the designated point. At all times, the Contractor shall perform the Work in accordance with the permits and easement agreements.
- B. Traffic control shall be in accordance with the Florida Department of Transportation Index 600 and as shown on the Drawings. The Contractor shall follow all traffic rules regulated by the local governments.
- C. In making open-cut street crossings, the Contractor shall not block more than one-half of the street at a time. Whenever possible, Contractor shall widen the shoulder on the opposite side to facilitate traffic flow. Temporary surfacing shall be provided as necessary on shoulders.

1.03 BARRICADES AND LIGHTS

- A. All streets, roads, highways, and other public thoroughfares which are closed to traffic shall be protected by effective barricades on which shall be placed acceptable warning signs. Barricades shall be located at the nearest intersecting public highway or street on each side of the blocked section.
- B. All open trenches and other excavations shall have suitable barricades, signs, and lights to provide adequate protection to the public. Obstructions such as material piles and equipment shall be provided with similar warning signs and lights. Contractor shall be responsible for public safety within the construction area.
- C. All barricades and obstructions shall be illuminated with warning lights from sunset to sunrise. Material storage and conduct of the Work on or alongside public streets and highways shall cause the minimum obstruction and inconvenience to the traveling public. All barricades, signs, lights and other protective devices shall be installed and maintained in

TEMPORARY FACILITIES

conformity with applicable statutory requirements and, where within railroad and highway rights-of-way, as required by the authority having jurisdiction thereof.

- D. Open trenches and other excavations shall not be left open overnight, over weekends and holidays, or greater than one calendar day, except during adverse weather conditions.

1.04 PROTECTION OF PUBLIC AND PRIVATE PROPERTY

- A. Contractor shall protect, shore, brace, support, and maintain all underground pipes, conduits, drains, and other underground construction uncovered or otherwise affected by his construction operations. All pavement, surfacing, driveways, curbs, walks, buildings, utility poles, guy wires, fences, and other surface structures affected by construction operations, together with all sod and shrubs in yards and parking areas, shall be restored to their original condition, whether within or outside the easement. All replacements shall be made with new materials.

1.05 PARKING

- A. Contractor shall provide and maintain suitable parking areas for the use of all construction workers and others performing work or furnishing services in connection with the Project, as required to avoid any need for parking personal vehicles where they may interfere with public traffic, Owner's operations, or construction activities.

1.06 DUST CONTROL

- A. Contractor shall take reasonable measures to prevent unnecessary dust. Earth surfaces subject to dusting shall be kept moist with water or by application of an approved chemical dust suppressant. Dusty materials in piles or in transit shall be covered when practicable to prevent blowing.
- B. Buildings or operating facilities that may be adversely affected by dust shall be adequately protected from dust. Existing or new machinery, motors, instrument panels or similar equipment, shall be protected by suitable dust screens. Proper ventilation shall be included with dust screens.

1.07 SWEEPING

- A. The Contractor shall sweep loose material from all pavements at the end of each workday.

1.08 POLLUTION CONTROL

- A. Contractor shall prevent the pollution of drains and watercourses by sanitary wastes, sediment, debris and other substances resulting from construction activities. No sanitary wastes will be permitted to enter any drain or watercourse other than sanitary sewers. No sediment, debris or other substance will be permitted to enter sanitary sewers and reasonable measures will be taken to prevent such materials from entering any drain or watercourse.

1.09 STORMWATER CONTROL

- A. The Contractor shall be responsible for maintaining stormwater flow and drainage of the construction area. In cases where existing stormwater structures and culverts are to be removed as part of construction, temporary flow paths or bypass pumping shall be provided until the new stormwater system is accepted and placed into service.

1.10 COMBUSTIBLES STORAGE

- A. The Contractor shall protect all combustible products and materials placed on site from vehicular damage and vandalism.
- B. Contractor shall submit a plan for all locations of fuel and vehicle storage through the duration of the project, updated as necessary to address specific phases or locations of the work.
- C. There shall be no fuel storage in wetland areas or stormwater ponds.
- D. Fuel storage containers shall be limited to 549 gallons or less. The Contractor is solely responsible for maintaining fuel containers and ensuring that all measures for protection and containment are provided as required by law.

PART II – PRODUCT
(Not Used)

PART III – EXECUTION
(Not Used)

END OF SECTION

SECTION 01505

MOBILIZATION

PART I - GENERAL

1.01 DEFINITION AND SCOPE

- A. Mobilization shall include the obtaining of all permits, insurance, and bonds; moving onto the site with construction equipment; furnishing and erecting temporary facilities, and other construction facilities; all as required for the proper performance and completion of the Work. Mobilization shall include, but not be limited to, the following principal items:
1. Move onto the site all equipment required for first month's operations.
 2. Establish fire protection plan and safety program and Hurricane Preparedness Plan.
 3. Secure construction water supply.
 4. Provide on-site sanitary facilities and potable water facilities.
 5. Arrange for and erect Contractor's work and storage yard and employees' parking facilities.
 6. Submit all required insurance certificates and bonds.
 7. Obtain all required permits.
 8. Post all OSHA, Environmental Protection Agency, Department of Labor, and all other required notices.
 9. Have superintendent at the job site full time.
 10. Submit a detailed construction schedule acceptable to the Engineer.
 11. Erect project construction sign(s).
 12. Submit a finalized schedule of values of the Work acceptable to the Owner.
 13. Submit a finalized schedule of submittals.
 14. Construct, maintain, and restore temporary access and haul roads.

PART II – PRODUCT
(Not Used)

PART III – EXECUTION (Not Used)

END OF SECTION

MOBILIZATION
01505-1

SECTION 01510

TEMPORARY UTILITIES

PART I - GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Furnish, install and maintain temporary utilities required for construction, remove on completion of Work.

1.02 REQUIREMENTS OF REGULATORY AGENCIES

- A. Comply with National Electric Code.
- B. Comply with Federal, State and local codes and regulations and with utility company requirements.
- C. Comply with regulations of Health Department of the municipalities.

PART II - PRODUCTS

2.01 MATERIALS, GENERAL

- A. Materials may be new or used, but must be adequate in capacity for the required usage, must not create unsafe conditions, and must not violate requirements of applicable codes and standards.

2.02 TEMPORARY ELECTRICITY AND LIGHTING

- A. Arrange with utility company and Owner to provide service required for power and lighting, and pay all costs for service and for power used in the construction, testing and trial operation prior to final acceptance of the work by the Owner as stipulated by the Engineer. All cost associated with obtaining temporary and permanent power will be at Contractor expense.
- B. Provide adequate artificial lighting for all areas of work when natural light is not adequate for work, and for areas accessible to the public.

2.03 TEMPORARY WATER

- A. If applicable, install at each and every connection to the Owner's water supply a backflow preventer and meter meeting local requirements. This does not include water for testing.
- B. The Contractor shall include in its bid any cost(s) anticipated for the use of temporary water facilities as a part of the construction of this project.

2.04 TEMPORARY SANITARY FACILITIES

- A. Provide sanitary facilities in compliance with laws and regulations.
- B. Service, clean and maintain facilities and enclosures.

PART III - EXECUTION

3.01 GENERAL

- A. Maintain and operate systems to assure continuous service.
- B. Modify and extend systems as work progress requires.
- C. Allow the Owner and Engineer reasonable use of all temporary utilities.

3.02 REMOVAL

- A. Completely remove temporary materials and equipment when their use is no longer required as determined by the Engineer, but not before achieving Substantial Completion.
- B. Clean and repair damage caused by temporary installations or use of temporary facilities.

END OF SECTION

SECTION 01530

PROTECTION OF EXISTING FACILITIES

PART I – GENERAL

1.01 SCOPE OF WORK

- A. The Contractor shall protect all existing utilities, service lines, facilities, and improvements not designated for removal and restore damaged or temporarily located utilities, service lines, facilities, and improvements to a condition equal to or better than they were prior to such damage or temporary relocation in accordance with the requirements of the Contract Documents.
- B. The number of exploratory excavations required shall be that number sufficient to determine the alignment and depth of the existing utility or facility.
- C. The Contractor shall determine the exact locations and depths of all existing utilities indicated on the Drawings that affect the Work. In addition to those indicated, the Contractor shall make exploratory excavations of all utilities including but not limited to water service lines, water meters, and gas service lines. All such exploratory excavations shall be performed as soon as practicable after Notice to Proceed and, in any event, a sufficient time in advance of construction to avoid possible delays to the Contractor's Work.
- D. The Contractor's specific attention is directed to the fact that the Work of this project includes work located on residential roads. The Contractor shall take all precautions necessary to assure that the existing utilities, cable, water, internet, telephone, electric, etc. remains in service during construction of the new water mains.

PART II – PRODUCTS (NOT USED)

PART III – EXECUTION

3.01 RIGHTS-OF-WAY

- A. The Contractor shall not do any Work that would affect any oil, gas, sewer, or water pipeline; any telephone, telegraph, or electric transmission line; fiber optic cable; any fence; or any other structure, nor shall the Contractor enter upon the rights-of-way or easements involved with any such utilities until the Contractor has secured authority therefore from the utility, rights-of-way or easement owner, and has provided the Engineer with written proof of same. After authority has been obtained, the Contractor shall give said facility owner a minimum of one week's notice of the Contractor's intention to begin Work, and shall give said facility owner convenient access for removing, shoring, supporting, or otherwise protecting its pipeline, transmission line, ditch, fence, or structure and for replacing same. Should two (2) or more contracts be executed at one time on the same or adjacent land in such manner that work on one contract may interfere with that on another, the Owner shall decide which Contractor shall have priority to perform and in what manner. When the territory of one contract is the necessary or convenient means of access for the execution of another contract, such privilege of access or any other reasonable privilege may be granted by the Owner to the Contractor so desiring, to the extent, amount, manner, and times permitted by the Owner. No such decision as to the method or time of conducting the Work or the use of territory shall be made the basis of any claim for delay or damage, except as provided for temporary suspension of the Work.

3.02 PROTECTION OF STREET OR ROADWAY MARKERS

- A. The Contractor shall not destroy, remove, or otherwise disturb any existing survey markers, or other existing street or roadway markers, without proper authorization. No pavement breaking or excavation shall be started until all survey or other permanent marker points that may be disturbed by the construction operations have been properly referenced for easy and accurate restoration. It shall be the Contractor's responsibility to notify the proper representatives of the Owner of the time and location that work will be done. Such notice shall be sufficiently in advance of construction that there shall be no delay due to waiting for survey points to be satisfactorily referenced for restoration. All survey markers or points disturbed without proper authorization by the Engineer will be accurately restored by the Contractor at no additional cost to the Owner after all street or roadway resurfacing has been completed.

3.03 RESTORATION OF PAVEMENT

- A. General: All paved areas, including asphaltic concrete cut or damaged during construction, shall be replaced with similar materials and of equal thickness to match the existing adjacent undisturbed areas, except where specific resurfacing requirements have been called for in the Contract Documents or in the requirements of the agency issuing the permit. All temporary and permanent pavements shall conform to the requirements of the affected pavement owner. All pavement subject to partial removal shall be neatly saw cut in straight lines. All restoration shall be performed in accordance with these Specifications.
- B. Temporary Resurfacing: Wherever required by the authorities having jurisdiction, the Contractor shall place temporary surfacing promptly after backfilling and maintain such surfacing for the period of time fixed by said authorities before proceeding with the final restoration of improvements. Temporary resurfacing shall be constructed in accordance with these Specifications.
- C. Permanent Resurfacing: All pavement restoration shall be in accordance with these Specifications.

3.04 EXISTING UTILITIES AND IMPROVEMENTS

- A. General: The Contractor shall protect all utilities and other improvements that may be impaired during construction operations. It shall be the Contractor's responsibility to ascertain the actual location of all existing utilities and other improvements indicated on the Drawings that may be encountered during construction, and to assure that such utilities or other improvements are adequately protected from damage due to such operations. The Contractor shall take all possible precautions for the protection of unforeseen utility lines, for uninterrupted utility service and such special protection as may be directed by the Owner.
- B. Utilities To Be Moved: If it becomes necessary to move the property of any public utility or franchise holder, such utility company or franchise holder will, upon proper application by the Contractor, be notified by the Owner to relocate such property within a specified reasonable time. The Contractor shall not interfere with said property until it has been relocated by the utility or franchise holder.
- C. Owner's Right of Access: The right is reserved by the Owner, and by the owners of public utilities and franchises, to enter at any time upon any public street, alley, right-of-way, or easement for the purpose of making changes in their property made necessary by the Work.

- D. Existing Utilities: Existing utility lines that are shown on the Drawings or the locations of which are made known to the Contractor prior to excavation that are to be retained and all utility lines that are constructed during excavation operations shall be protected from damage during excavation and backfilling and, if damaged, shall be immediately repaired by the Contractor at no additional cost to the Owner.
- E. Utilities To Be Removed: When utility lines that are to be removed are encountered within the area of operations, the Contractor shall notify the utility owner and the Owner a sufficient time in advance for the necessary measures to be taken to prevent interruptions of the service.
- F. Approval Of Repairs: All repairs to a damaged improvement facility shall be inspected and approved by an authorized representative of the improvement's Owner before being concealed by backfill or other Work.
- G. Relocation of Utilities: Where the proper completion of the Work requires the temporary or permanent removal and/or relocation of an existing utility, or other improvement that is shown on the Drawings, the Contractor shall, at Contractor's own expense, remove, and without unnecessary delay, temporarily replace or relocate such utility or improvement in a manner satisfactory to the Owner and the owner of the facility. In all cases of such temporary removal or relocation, restoration to the former location shall be accomplished by the Contractor in a manner that will restore or replace the utility or improvement as nearly as possible to its former location and to as good or better condition as prior to removal.
- H. Maintaining In Service: All oil and gasoline pipelines, power, telephone, or other communication cable ducts, gas and water mains, irrigation lines, sewer lines, storm drain lines, poles, and overhead power and communication wires and cables encountered along the line of the Work shall be maintained continuously in service during all the operations, unless other arrangements satisfactory to the Engineer are made with the Owner of said pipelines, duct, main, irrigation line, sewer, storm drain, pole, wire, or cable. The Contractor shall be responsible for and shall make good all damage due to Contractor's operations, and the provisions of this Section shall not be abated even in the event such damage occurs after backfilling or is not discovered until after completion of the backfilling.

3.05 TREES WITHIN RIGHTS-OF-WAY AND PROJECT LIMITS

- A. General: The Contractor shall exercise all necessary precautions to prevent damage or destruction of any trees or shrubs, including those lying within street rights-of-way and Project limits. The Contractor shall not trim or remove any trees unless such trees have been approved for trimming or removal by all jurisdictional agencies and the Owner. All existing trees and shrubs that are damaged during construction shall be trimmed or replaced by Contractor under permit from the jurisdictional agencies and the Owner and to the satisfaction of said agencies and the Owner. Tree trimming, tree planting and transplanting shall be accomplished in accordance with these specifications.

3.06 NOTIFICATION BY THE CONTRACTOR

- A. Prior to any excavation in the vicinity of any existing underground facilities, including all water, sewer, storm drain, gas, petroleum products, or other pipelines; all buried electric power, communications, or television cables; all traffic signal and street lighting facilities; and all roadway and state highway rights-of-way, the Contractor shall notify the respective authorities representing the owners or agencies responsible for such facilities not less than three (3) working days nor more than five (5) working days prior to

excavation so that representatives of said owners or agencies can be present during such work if they so desire.

3.07 SUBSURFACE OBSTRUCTIONS

- A. The Contractor shall field determine, before pipeline trenching or any other excavations are begun, the depth and location of existing utilities. Utility locations indicated on the Drawings are shown based on available data. The Contractor shall submit descriptions, depths, and locations of subsurface obstructions to the Engineer for review if they differ from those shown on the Drawings.
- B. In excavation, backfilling, and laying pipe, care shall be taken not to remove, disturb, or damage existing pipes, conduits, or structures. If necessary, the Contractor shall sling, shore-up, and maintain such structures in operation at no additional cost to the Owner.
- C. The Contractor shall obtain the permission of and give sufficient Notice to the proper authorities of the Contractor's intention to remove or disturb any pipe, conduit, structure or facility, and shall abide by their requirements and Laws and Regulations governing such work.
- D. In the event subsurface structures are broken or damaged in the execution of the Work, the Contractor shall immediately notify the proper authorities and, at the option of said authorities, either repair the damage at once or pay the proper charges for repairing said damage at no additional cost to the Owner. Repairs shall be made to the satisfaction of the Engineer. The Contractor shall be responsible for any damage to persons or property caused by such breaks or due to the neglect in reporting and/or repairing such damages.
- E. Neither the Owner nor the Engineer will be liable for any claims made by the Contractor based on underground obstructions that could have been reasonably identified as being different than that indicated on the Drawings. The Contractor shall uncover subsurface obstructions in advance of construction so that the method of avoiding same may be determined before the Work reaches the obstruction.

3.08 CONFLICTS WITH OTHER UTILITIES

- A. It shall be the Contractor's responsibility to provide the appropriate utility company sufficient advance Notice so their representatives may verify the utility location on the Project site when construction begins. The Contractor shall coordinate and cooperate with these utilities to ensure that no damages occur which may cause interruption of their services.
- B. All temporary support or minor adjustment that does not require replacement or direct bypass connections to these existing services (such as all direct-buried telephone cables or two-inch and smaller gas lines) shall be the responsibility of the Contractor.
- C. Where it may be necessary to relocate gas mains or telephone ducts (defined here as gas lines larger than 2-1/2 inches and telephone cables within ductwork) to allow construction of the Work or where major relocation of small services requires replacement or performing connections to the existing lines, all such relocation work is the responsibility of and must be performed by the respective utility companies. The Contractor shall immediately provide Notice to the proper utility company and the Engineer of the occurrence and location of such required relocations.
- D. The Owner will not be responsible for any delay or inconvenience to the Contractor resulting from the existence, removal, or adjustment of any public or private utility that could have been reasonably identified. Additional costs incurred as a result thereof shall

PROTECTION OF EXISTING FACILITIES

be borne by the Contractor and considered as included in the price bid for the various pay items.

- E. Relocation or realignment of storm drains or sewer lines that may interfere with the construction of the Work shall be the responsibility of the Contractor.
- F. Where storm drains or sewer lines are removed by the Contractor to facilitate construction and replaced in their original position, there shall be no direct payment made. All related costs shall be included in the price bid for the various pay items.

3.09 POLE RELOCATION AND PROTECTION

- A. The Contractor shall take notice of the number of power, telephone, and traffic signal support poles along the length of the Project. Several may be in proximity to or in direct conflict with the alignment of the proposed new pipelines. The Contractor shall immediately provide Notice to the proper utility company and the Engineer of the occurrence and location of such required relocations. It is intended that poles shall be supported with mud jacks or by other means of bracing as required to maintain them in a stable condition. The Contractor shall coordinate relocation and protection activities with the pole owner.

3.10 EXISTING FENCE LINES

- A. At various locations along the length of the Project, existing fences may conflict with or impair construction operations for the installation of the Work. The Contractor shall protect these fences in places where they do not conflict with construction operations. Where a fence may conflict with the backswing of machinery or otherwise impede construction, the Contractor shall contact the owner and arrange for the temporary removal or relocation of the fence. Any fence temporarily relocated shall be placed in a manner to maintain the intent and integrity of the original fenced area. Any fence removed or temporarily relocated shall be restored to its original condition and location unless otherwise arranged with the owner of the fence. Where it is impossible to salvage the existing materials to reconstruct the fence, the fence shall be replaced "in kind."
- B. All cost for such temporary removal, temporary replacement, or "in kind" replacement shall be included in the price bid for the various pay items. No direct payment shall be made for fence replacement.

3.11 UTILITY INVESTIGATION

- A. Prior to commencing with trench or other excavations required for the performance of the Work, the Contractor shall conduct a field investigation for the purpose of determining existing locations of all underground utilities and facilities which are shown on the Drawings. The Contractor shall coordinate all utility investigations with Sunshine. The investigation shall be made by hand or machine excavation. All such excavations shall include removal of surface material and obstructions required to perform the excavations. The Contractor shall notify, in writing, the owner of the facility to be excavated and request that a representative of the owner be present during the excavation. The Contractor shall provide the utility owner adequate Notice so that a representative can be there. The Contractor shall provide sheeting, shoring, and bracing as required to minimize the required size of the excavation and support adjacent ground, structures, roadways, and utilities. After the data is obtained at each excavation site, the Contractor shall immediately backfill each excavation site. Backfill shall be compacted sand for the full depth. The surface shall be returned to its original grade and condition except that paved areas may be temporarily surfaced and maintained where excavations required for the performance of the Work coincide with the location of the investigative location. The

Contractor shall be responsible for all costs associated with the repair of roadways, paving, structures, underground and above ground utilities and facilities damaged in conducting the investigations.

- B. Findings of the investigation shall be reported to the Engineer. The Engineer will furnish one (1) set of full-size Drawings for the Contractor's field use in recording the findings of the investigation. The Contractor shall describe the size, material, and location of existing underground utilities and facilities. Locations and elevations shall be referenced to Project stationing, distance from base line, and Project bench marks. The Contractor shall provide written detailed description of any underground utility or facility conflicting with the elevation or alignment of the Work.

3.12 SPECIAL RESTORATION REQUIREMENTS

- A. The Contractor shall schedule and conduct operations to minimize the impact of construction upon lawns, driveways, sidewalks, irrigation systems, and street paving. Restoration for these items shall be completed as soon as practical after installation of proposed pipelines. The following specific requirements apply.
 - 1. Driveways and Sidewalks: The Contractor shall saw cut existing driveway or sidewalk pavement and remove the required section not sooner than the same day the Work is to be installed beneath it. The Contractor shall maintain full access to each driveway at all times. The Contractor shall re-grade and compact disturbed areas immediately after the Work is installed. The Contractor shall provide suitable, safe, temporary walking surfaces where the sidewalk is removed. The Contractor shall construct temporary driveway or sidewalk section within 24 hours of removal of the existing section. The Contractor shall coordinate driveway construction and restoration with property owners. Property owners shall be provided with Notice of proposed method and schedule of construction and restoration a minimum of 72 hours prior to commencement of construction activities affecting the property owner's driveways or sidewalks.
 - 2. Irrigation Systems: The Contractor shall provide 10-day Notice to property owners prior to the Contractor removing irrigation system components.
 - 3. Lawn Areas: The Contractor shall remove existing grass along a straight line to a minimum distance of six inches beyond the areas disturbed by construction activities on each side of the affected area. Sod shall be installed in disturbed lawn areas in a strip of uniform width along each section of lawn area with sod of identical type as existing. The Contractor shall grade and compact the area before the end of the next calendar day after excavation is performed. All sodding shall be performed in accordance with these Specifications. The Contractor shall install new sod within fourteen days after excavation.
 - 4. Trees, Shrubs, and Landscaping: The Contractor shall use a bonded company, licensed to perform landscape work, to perform all landscaping work required in accordance with these Specifications.
 - 5. Fencings and all other existing facilities impacted by construction operations: The Contractor shall protect and restore all fences and existing facilities impacted by construction to their previously undisturbed state.

END OF SECTION

SECTION 01570

TRAFFIC REGULATION

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED

- A. The Contractor shall be responsible for providing safe and expeditious movement of traffic through construction zones. A construction zone is defined as the immediate areas of actual construction and all abutting areas which are used by the Contractor and which interfere with the driving or walking public.
- B. Remove temporary equipment and facilities when no longer required, restore grounds to original, or to specified conditions.

1.02 TRAFFIC CONTROL

- A. The necessary precautions shall include, but not be limited to, such items as proper construction warning signs, variable message boards, signals, lighting devices, markings, barricades, channelization and hand signaling devices. The Contractor shall be responsible for installation and maintenance of all devices and requirements for the duration of the construction period.
- B. The Contractor shall provide at least 72 hours notification to the applicable City, County or State Highway Department of the necessity to close any portion of a roadway carrying vehicles or pedestrians so that the final approval of such closings can be obtained at least 48 hours in advance.
- C. The Contractor shall also be responsible for completing and submitting Road Closure Requests at least 48 hours in advance.
- D. The Contractor shall be responsible for removal, relocation, or replacement of any traffic control device in the construction area which exists as part of the normal pre-construction traffic control scheme. Any such actions shall be performed by the Contractor under the supervision, and in accordance with the Specifications, of the Owner, unless otherwise specified.
- E. The Contractor shall immediately notify the Owner of any vehicular or pedestrian safety or efficiency problems incurred as a result of the construction of the project.

1.03 MAINTENANCE OF TRAFFIC

- A. The Contractor shall maintain traffic within the construction area throughout the duration of the construction in accordance with Section 102 of the Florida Department of Transportation (FDOT) Standard Specifications for Road and Bridge Construction, latest edition.
- B. Roadways shall be kept open to one-way traffic in each direction during all phases of the construction period except that daylight lane closures with flagger control will be allowed. The Contractor will not be permitted to isolate residences or places of business. Alternate access shall be provided to all residences and all places of business whenever construction

TRAFFIC REGULATION

interferes with the existing access.

- C. The Contractor shall maintain access at all times for postal delivery, emergency services and trash pickup. The postal service, police department, fire department and solid waste services shall be notified of the need to temporarily close any roadway and an alternate means of access to affected properties shall be provided.
- D. The Contractor shall conduct his operations in such a manner that will maintain access to private property/driveways and will result in minimum inconvenience to the public accessing the neighborhood roads and/or business establishments and shall provide temporary access during construction.
- E. In the event that vehicular access to residences and/or driveways will be temporarily blocked, the Contractor shall notify the Owner three (3) days in advance and shall assist the Owner with coordinating with affected residents. Blocking vehicular access to any residence shall not exceed one calendar day.
- F. The Contractor shall prepare Traffic Control Plans for review by the Engineer prior to implementation of the plan. Prior to initiating each phase of a detour system, the Contractor shall prepare a specific detour letter/map, to be approved by the Engineer, and deliver by hand to each home or business affected.
- G. The Contractor shall furnish, erect and maintain all necessary traffic control and safety devices in accordance with the Florida Department of Transportation (FDOT) Index 600 series of "Design Standards for Design, Construction, Maintenance and Utility Operations on the State Highway System," latest edition, and shall take all necessary precautions for the protection of the work and the safety of the public for the duration of the construction period.
- H. The work shall include the furnishing, erection, maintenance and removal upon completion of construction, all temporary traffic barricades of whatever type required, and for such duration as may be required by the Engineer. Also included as part of the work is material and construction necessary for temporary connections, sidewalk maintenance and driveway maintenance.

PART 2 – PRODUCTS (Not Used)

PART 3 – EXECUTION (Not Used)

END SECTION

SECTION 01600

MATERIAL AND EQUIPMENT

PART I - GENERAL

1.01 REQUIREMENTS INCLUDED

Material and equipment incorporated into the Work:

- A. Conform to applicable specifications and standards.
- B. Comply with size, make, type and quality specified, or as specifically approved in writing by the Engineer.
- C. Manufactured and fabricated products:
 - 1. Design, fabricate and assemble in accord with the best engineering and shop practices.
 - 2. Manufacture like parts of duplicate units to standard sizes and gauges, to be interchangeable.
 - 3. Two or more items of the same kind shall be identical, by the same manufacturer.
 - 4. Products shall be suitable for service conditions.
 - 5. Equipment capacities, sizes and dimensions shown or specified shall be adhered to unless variations are specifically approved in writing.
- D. Do not use material or equipment for any purpose other than that for which it is designed or is specified.

1.02 APPROVAL OF MATERIALS

- A. All materials and equipment furnished by the Contractor shall be subject to the inspection and approval of the Engineer. No material shall be delivered to the work without prior review of the Engineer.
- B. Facilities and labor for handling and inspection of all materials and equipment shall be furnished by the Contractor. If the Engineer requires, either prior to beginning or during the progress of the work, the Contractor shall submit samples of materials for such special tests as may be necessary to demonstrate that they conform to the specifications. Such samples shall be furnished, stored, packed, and shipped as directed at the Contractor's expense. Except as otherwise noted, the Engineer will make arrangements and the Owner will pay for the tests.
- C. The Contractor shall submit data and samples sufficiently early to permit consideration and review before materials are necessary for incorporation in the work. Any delay resulting from the Contractor's failure to submit samples or data promptly shall not be used as a basis of claims against the Owner or the Engineer.
- D. The materials and equipment used on the work shall correspond to the approved samples or other data previously submitted to the Engineer for review.

1.03 MANUFACTURER'S INSTRUCTIONS FOR INSTALLATION

- A. When Contract Documents require that installation of work shall comply with manufacturer's printed instructions, obtain and distribute copies of such instructions to parties involved in the installation, including two (2) copies to the Engineer.
 - 1. Maintain one set of complete instructions at the job site during installation and until completion.
- B. Handle, install, connect, clean, condition and adjust products in strict accord with such instructions and in conformity with specified requirements.
 - 1. Should job conditions or specified requirements conflict with manufacturer's instructions, consult with Engineer for further instructions.
 - 2. Do not proceed with work without clear instructions.
- C. Perform work in accord with manufacturer's instructions. Do not omit any preparatory step or installation procedure unless specifically modified or exempted by Contract Documents.
- D. Upon completion of installation, the Contractor shall obtain from the manufacturer a signed certification that the equipment has been properly installed in accordance with the manufacturer's recommendations.

1.04 TRANSPORTATION AND HANDLING

- A. Arrange deliveries of products in accord with construction schedules, coordinate to avoid conflict with work and conditions at the site.
 - 1. Deliver products in undamaged condition, in manufacturer's original containers or packaging, with identifying labels intact and legible.
 - 2. Immediately on delivery, inspect shipments to assure compliance with requirements of Contract Documents and approved submittals, and that products are properly protected and undamaged.
- B. Provide equipment and personnel to handle products by methods to prevent soiling or damage to products or packaging.

1.05 STORAGE AND PROTECTION

- A. The Contractor shall furnish a covered, weather-protected storage structure providing a clean, dry, noncorrosive environment for all mechanical equipment, valves, architectural items, electrical and instrumentation equipment, and special equipment to be incorporated into this project. Storage of equipment shall be in strict accordance with the "instructions for storage" of each equipment supplier and manufacturer including connection of heaters, placing of storage lubricants in equipment or climate-controlled facilities, etc. The Contractor shall furnish a copy of the manufacturer's instructions for storage to the Engineer prior to storage of all equipment and materials. Corroded, damaged or deteriorated equipment and parts shall be replaced before acceptance of the project. Equipment and materials not properly stored will not be included in a payment estimate.
- B. Store products in accord with manufacturer's instructions, with seals and labels intact and legible.
 - 1. Store products subject to damage by the elements in weather tight enclosures.
 - 2. Maintain temperature and humidity within the ranges required by manufacturer's instructions.

3. Store fabricated products above the ground on blocking or skids to prevent soiling or staining. Cover products which are subject to deterioration with impervious sheet coverings, provide adequate ventilation to avoid condensation.
 4. Store loose granular materials in a well-drained area on solid surfaces to prevent mixing with foreign matter.
- C. All materials and equipment to be incorporated in the work shall be handled and stored by the Contractor before, during, and after shipment in a manner to prevent warping, twisting, bending, breaking, chipping, rusting, and any injury, theft or damage of any kind whatsoever to the material or equipment.
- D. Cement, sand and lime shall be stored under a roof and off the ground and shall be kept completely dry at all times. All miscellaneous steel and reinforcing steel shall be stored off the ground and covered or otherwise to prevent accumulations of dirt or grease, and in a position to prevent accumulations of standing water and to minimize rusting. Precast concrete sections shall be handled and stored in a manner to prevent accumulations of dirt, standing water, staining, chipping or cracking. Brick, block and similar masonry products shall be handled and stored in a manner to reduce breakage, chipping, cracking, and spilling to a minimum.
- E. All materials that, in the opinion of the Engineer, have become so damaged as to be unfit for the use intended or specified shall be promptly removed from the site of the work, and the Contractor shall receive no compensation for the damaged material or its removal.
- F. Arrange storage in a manner to provide easy access for inspection. Make periodic inspections of stored products to assure that products are maintained under specified conditions, and free from damage or deterioration.
- G. Protection after Installation:
1. Provide substantial coverings as necessary to protect installed products from damage from traffic and subsequent construction operations. Remove covering when no longer needed.
- H. The Contractor shall be responsible for all material, equipment, and supplies sold and delivered to the Owner under this Contract until final inspection of the work and acceptance thereof by the Owner. In the event any such material, equipment, and supplies are lost, stolen, damaged, or destroyed prior to final inspection and acceptance, the Contractor shall replace same without additional cost to the Owner.
- I. Should the Contractor fail to take proper action on storage and handling of equipment supplied under this Contract within seven days after written notice to do so, the Owner retains the right to correct all deficiencies noted in previously transmitted written notice and deduct the cost associated with these corrections from the Contract Price. These costs may be comprised of expenditures for labor, equipment usage, administrative, clerical, and engineering and any other costs associated with making the necessary corrections.

1.06 SUBSTITUTIONS AND PRODUCT OPTIONS

- A. Contractor's Options:
1. For products specified only by reference standard, select any product meeting that standard.

2. For products specified by naming several products or manufacturers, submit the products or manufacturers named in the Proposal, which complies with the specifications.
3. For products specified by naming one or more products or more products or manufacturers and "or equal", Contractor shall submit a request as for substitutions for any product or manufacturer not specifically named.

B. Substitutions:

1. After the Effective Date of the Agreement, the Engineer will consider written requests from Contractor for substitution of products.
2. Submit a separate request for each product, supported with complete data, with drawings and samples as appropriate, including:
 - a. Comparison of the qualities of the proposed substitution with that specified.
 - b. Changes required in other elements of the work because of the substitution.
 - c. Effect on the construction schedule.
 - d. Cost data comparing the proposed substitution with the product specified.
 - e. Any required license fees or royalties.
 - f. Availability of maintenance service, and source of replacement materials.
3. The Engineer will solely determine the acceptability of the proposed substitution.

C. Contractor's Representation:

1. A request for a substitution constitutes a representation that Contractor:
 - a. Has investigated the proposed product and determined that it is equal to or superior in all respects to that specified.
 - b. Will provide the same warranties or bonds for the substitution as for the product specified.
 - c. Will coordinate the installation of an accepted substitution into the Work, and make such other changes as may be required to make the Work complete in all respects.
 - d. Waives all claims for additional costs, under his responsibility, which may subsequently become apparent.

1.07 SPECIAL TOOLS

- A. Manufacturers of equipment and machinery shall furnish any special tools (including grease guns or other lubricating devices) required for normal adjustment, operations and maintenance, together with instructions for their use. The Contractor shall preserve and deliver to the Owner these tools and instructions in good order no later than upon completion of the Contract.

1.08 WARRANTY

- A. For all major pieces of equipment, submit a warranty from the equipment manufacturer as specified in the General Provisions (Exhibit F). At a minimum, the manufacturer's warranty period shall be concurrent with the Contractor's for one (1) year after the time of Substantial Completion. Exceptions for extended warranties shall be noted within each piece of equipment's technical specification.

1.09 SPARE PARTS

- A. Spare parts for certain equipment have been specified in the pertinent sections of the Specifications. The Contractor shall collect and store all spare parts so required in an area to be designated by the Engineer. In addition, the Contractor shall furnish to the Engineer an inventory listing all spare parts, the equipment they are associated with, the name and address of the supplier, and the delivered cost of each item. Copies of actual invoices for each item shall be furnished with the inventory to substantiate the delivered cost.
- B. Where "Manufacturer's Recommended" spare parts are specified to be furnished, the Contractor shall furnish those spares that are recommended by the Manufacturer as noted in their standard product literature.

PART II – PRODUCTS (Not Used)

PART III – EXECUTION (Not Used)

END SECTION

SECTION 285 OPTIONAL BASE COURSE

285-1 Description.

Construct a base course composed of one of the optional materials shown on the typical cross-sections.

285-2 Materials.

Meet the material requirements as specified in the Section covering the particular type of base to be constructed.

Graded Aggregate	Section 204
Asphalt	Section 234
Reclaimed Asphalt Pavement (RAP)*	Section 283
Limerock	Section 911
Shell Base.....	Section 911
Shell-Rock.....	Section 911
Cemented Coquina.....	Section 911
Recycled Concrete Aggregate (RCA)**	Section 911

*Only for use on non-limited access paved shoulders, shared use paths, or other non-traffic bearing applications.

**Do not use on interstate roadways.

285-3 Selection of Base Option.

The Plans will include typical cross-sections indicating the various types of base construction (material and thickness) allowable.

When base options are specified in the Plans, use only those options. When base options are not specified, select one base option as allowed for each typical cross-section shown in the Plans. Only one base option is permitted for each typical cross-section. See Tables 285-1 and 285-2 for optional base materials, thickness and additional restrictions.

Notify the Engineer in writing of the base option selected for each typical cross-section at least 45 calendar days prior to beginning placement of base material.

Table 285-1: Optional Base Groups 1 through 7							
Base Materials	Base Group (Base Group Pay Item)						
	1 (701)	2 (702)	3 (703)	4 (704)	5 (705)	6 (706)	7 (707)
Limerock, LBR 100	4"	5"	5-1/2"	6"	7"	8"	8-1/2"
Cemented Coquina, LBR 100	4"	5"	5-1/2"	6"	7"	8"	8-1/2"
Shell Rock, LBR 100	4"	5"	5-1/2"	6"	7"	8"	8-1/2"
Bank Run Shell, LBR 100	4"	5"	5-1/2"	6"	7"	8"	8-1/2"
Recycled Concrete Aggregate, LBR 150 ⁽¹⁾	4"	5"	5-1/2"	6"	7"	8"	8-1/2"
Graded Aggregate Base, LBR 100	4-1/2"	5-1/2"	6-1/2"	7-1/2"	8-1/2"	9"	10"
Type B-12.5	4" (3)	4" (3)	4" (3)	4" (3)	4-1/2"	5"	5-1/2"

SECTION 334 SUPERPAVE ASPHALT CONCRETE

334-1 Description.

334-1.1 General: Construct a Superpave Asphalt Concrete pavement with the type of mixture specified in the Contract Documents, or when offered as alternates, as selected. Superpave mixes are identified as Type SP-9.5, Type SP-12.5 or Type SP-19.0.

Obtain Superpave Asphalt Concrete from a plant that is currently on the Department's Production Facility Listing. Producers seeking inclusion on the list shall meet the requirements of Section 105. Producers must meet the requirements of Section 320 for plant and equipment and the general construction requirements of Section 330.

334-1.2 Traffic Levels: The requirements for Type SP Asphalt Concrete mixtures are based on the design traffic level of the project, expressed in 18,000 pound Equivalent Single Axle Loads (ESAL's). The five traffic levels are as shown in Table 334-1.

Table 334-1 Superpave Traffic Levels	
Traffic Level	Traffic Level (1x10 ⁶ ESAL's)
A	<0.3
B	0.3 to <3
C	3 to <10
D	10 to <30
E	≥30

The traffic levels for the project are as specified in the Contract Documents. A Type SP mix one traffic level higher than the traffic level specified in the Contract Documents may be substituted, at no cost to the Department (i.e., Traffic Level D may be substituted for Traffic Level C, etc.). As an exception, the same traffic level and binder type that is used for the mainline traffic lanes may be placed in the shoulder at no additional cost to the Department.

334-1.3 Gradation Classification: The Superpave mixes are classified as fine and are defined in 334-3.2.2.

The equivalent AASHTO nominal maximum aggregate size Superpave mixes are as follows:

Type SP-9.5.....	9.5 mm
Type SP-12.5.....	12.5 mm
Type SP-19.0.....	19.0 mm

334-1.4 Thickness: The total thickness of the Type SP asphalt layers will be the plan thickness as shown in the Contract Documents. Before paving, propose a thickness for each individual layer meeting the requirements of this specification, which when combined with other layers (as applicable) will equal the plan thickness. For construction purposes, the plan thickness and individual layer thickness will be converted to spread rate based on the maximum specific gravity of the asphalt mix being used, as well as the minimum density level, as shown in the following equation:

$$\text{Spread rate (lbs/yd}^2\text{)} = t \times G_{mm} \times 43.3$$

thickness) Where: t = Thickness (in.) (plan thickness or individual layer

thickness)
 G_{mm} = Maximum specific gravity from the verified mix design

The weight of the mixture shall be determined as provided in 320-3.2. For target purposes only, spread rate calculations should be rounded to the nearest whole number.

Note: Plan quantities are based on a G_{mm} of 2.540, corresponding to a spread rate of 110 lbs/yd²-in. Pay quantities will be based on the actual maximum specific gravity of the mix being used.

334-1.4.1 Layer Thicknesses: The allowable layer thicknesses for Type SP Asphalt Concrete mixtures are as follows:

Type SP-9.5..... 1 to 1-1/2 inches

Type SP-12.5..... 1-1/2 to 2-1/2 inches

Type SP-19.0..... 2 to 4 inches

In addition to the minimum and maximum thickness requirements, the following restrictions are placed on mixes when used as a structural course:

Type SP-9.5 - Limited to the top two structural layers, two layers maximum.

Type SP-9.5 – May not be used on Traffic Level D and E applications.

Type SP-19.0 - May not be used in the final (top) structural layer below FC-5 mixtures. Type SP-19.0 mixtures are permissible in the layer directly below FC-9.5 and FC-12.5 mixtures.

334-1.4.2 Additional Requirements: The following requirements also apply to Type SP Asphalt Concrete mixtures:

1. A minimum 1-1/2 inch initial lift is required over an Asphalt Rubber Membrane Interlayer (ARMI).

2. When construction includes the paving of adjacent shoulders (less than or equal to 5 feet wide), the layer thickness for the upper pavement layer and shoulder must be the same and paved in a single pass, unless called for differently in the Contract Documents.

3. All overbuild layers must be Type SP Asphalt Concrete designed at the traffic level as stated in the Contract Documents. Use the minimum and maximum layer thicknesses as specified above unless called for differently in the Contract Documents. On variable thickness overbuild layers, the minimum and maximum allowable thicknesses will be as specified below, unless called for differently in the Contract Documents.

Type SP-9.5..... 3/8 to 2 inches

Type SP-12.5..... 1/2 to 3 inches

Type SP-19.0..... 1-1/2 to 4 inches

4. Variable thickness overbuild layers constructed using a Type SP-9.5 or SP-12.5 mixtures may be tapered to zero thickness provided the contract documents require a minimum of 1-1/2 inches of dense-graded mix placed over the variable thickness overbuild layer.

334-2 Materials.

334-2.1 General Requirements: Meet the material requirements specified in Division III. Specific references are as follows:

Superpave PG Asphalt BinderSection 916

Coarse Aggregate.....Section 901

Fine Aggregate.....Section 902

334-2.2 Superpave Asphalt Binder: Unless specified otherwise in the Contract Documents, use a PG 67-22 asphalt binder. In addition, meet the requirements of 334-2.3.

334-2.3 Reclaimed Asphalt Pavement (RAP) Material:

334-2.3.1 General requirements: RAP may be used as a component of the asphalt mixture subject to the following requirements:

1. When using a PG 76-22 (PMA), or PG 76-22 (ARB), or PG 82-22 (PMA) asphalt binder, limit the amount of RAP material used in the mix to a maximum of 20% by weight of total aggregate. As an exception, amounts greater than 20% RAP by weight of total aggregate can be used if no more than 20% by weight of the total asphalt binder comes from the RAP material.

2. Assume full responsibility for the design, production and construction of asphalt mixes which incorporate RAP as a component material.

3. Use RAP from a Department approved stockpile or millings from a Department project.

4. Provide stockpiled RAP material that is reasonably consistent in characteristics and contains no aggregate particles which are soft or conglomerates of fines.

5. Provide RAP material having a minimum average asphalt binder content of 4.0% by weight of RAP. As an exception, when using fractionated RAP, the minimum average asphalt binder content for the coarse portion of the RAP shall be 2.5% by weight of the coarse portion of the RAP. The coarse portion of the RAP shall be the portion of the RAP retained on the No. 4 sieve. The Engineer may sample the stockpiles to verify that this requirement is met.

334-2.3.2 Material Characterization for Mix Design: Assume responsibility for establishing the asphalt binder content, gradation, and bulk specific gravity (G_{sb}) of the RAP material based on a representative sampling of the material by roadway cores or stockpile samples. For roadway core samples, assume responsibility for the degradation that will occur during the milling operation.

334-2.3.3 RAP Stockpile Approval: Prior to the incorporation of RAP into the asphalt mixture, stockpile the RAP material and obtain approval for the stockpile by one of the following methods:

1. Continuous stockpile: When RAP is obtained from one or multiple sources and is either processed, blended, or fractionated, and stockpiled in a continuous manner, assure an adequate number of test results are obtained for stockpile approval. Test the RAP material for gradation and asphalt content at a minimum frequency of one sample per 1000 tons with a minimum of six test results. Test the RAP material for G_{mm} (for G_{sb} determination) at a minimum frequency of one sample per 5000 tons with a minimum of two test results. Based on visual inspection and a review of the test data, the Engineer will determine the suitability of the stockpiled material. In addition, address the details and specifics of the processing, sampling, testing and actions to be taken in the Producer Quality Control (QC) Plan.

2. Non-continuous single stockpile: When an individual stockpile is being constructed, obtain representative samples at random locations and test the RAP material for gradation and asphalt content at a minimum frequency of one sample per 1000 tons with a minimum of six test results. Test the RAP material for G_{mm} (for G_{sb} determination) at a minimum frequency of one sample per 5000 tons with a minimum of two test results. Based on visual

inspection and a review of the test data, the Engineer will determine the suitability of the stockpiled material. Once the RAP stockpile has been approved, do not add additional material without prior approval of the Engineer.

Determine the asphalt binder content and gradation of the RAP material in accordance with FM 5-563 and FM 1-T 030, respectively. Establish the G_{sb} of the RAP material by using one of the following methods:

a. Calculate the G_{sb} value based upon the effective specific gravity (G_{se}) of the RAP material, determined on the basis of the asphalt binder content and maximum specific gravity (G_{mm}) of the RAP material. The Engineer will approve the estimated asphalt binder absorption value used in the calculation.

b. Measure the G_{sb} of the RAP aggregate, in accordance with FM 1-T 084 and FM 1-T 085. Obtain the aggregate by using a solvent extraction method.

334-2.3.4 Pavement Coring Report: When the Contract includes milling of the existing asphalt pavement, the Pavement Coring Report may be available on the Department's website.

334-2.3.5 Asphalt Binder for Mixes with RAP: Select the appropriate asphalt binder grade based on Table 334-2. Obtain a sample of the mixture for the Engineer within the first 1,000 tons of production and at a continuing frequency of one sample per 4,000 tons of mix. The Engineer reserves the right to change the asphalt binder grade at design based on the characteristics of the RAP asphalt binder, and reserves the right to make changes during production.

Table 334-2 Asphalt Binder Grade for Mixes Containing RAP	
Percent RAP	Asphalt Binder Grade
0 - 15	PG 67-22
16 - 30	PG 58-22
>30	PG 52-28

334-2.4 Recycled Crushed Glass: Recycled crushed glass may be used as a component of the asphalt mixture subject to the following requirements:

1. Consider the recycled crushed glass a local material and meet all requirements specified in 902-6.

2. Limit the amount of recycled crushed glass to a maximum of 15% by weight of total aggregate.

3. Use an asphalt binder that contains a minimum of 0.5% anti-stripping agent by weight of binder. The anti-strip additive shall be one of the products listed on the Approved Product List (APL). The anti-strip additive shall be introduced into the asphalt binder by the supplier during loading.

4. Do not use recycled crushed glass in friction course mixtures or in structural course mixtures which are to be used as the final wearing surface.

334-3 General Composition of Mixture.

334-3.1 General: Compose the asphalt mixture using a combination of aggregate (coarse, fine or mixtures thereof), mineral filler, if required, and asphalt binder material. Size,

grade and combine the aggregate fractions to meet the grading and physical properties of the mix design. Aggregates from various sources may be combined.

334-3.2 Mix Design:

334-3.2.1 General: Design the asphalt mixture in accordance with AASHTO R 35-12, except as noted herein. Prior to the production of any asphalt mixture, submit the proposed mix design with supporting test data indicating compliance with all mix design criteria to the Engineer. For Traffic Level B through E mix designs, include representative samples of all component materials, including asphalt binder. Allow the State Materials Engineer a maximum of four weeks to either conditionally verify or reject the mix as designed. For a Traffic Level A mixture, meet the mix design criteria for a Traffic Level B mixture and for a Traffic Level D mixture meet the mix design criteria for a Traffic Level E mixture.

Do not use more than four mix designs per nominal maximum aggregate size per traffic level per binder grade per year, where the year starts at the Notice to Proceed. Exceeding this limitation will result in a maximum Composite Pay Factor (CPF) of 1.00 as defined in 334-8.2 for all designs used beyond this limit.

Warm mix technologies (additives, foaming techniques, etc.) listed on the Department's website may be used in the production of the mix. The URL for obtaining this information, if available, is:

<http://www.dot.state.fl.us/statematerialsoffice/quality/programs/warmmixasphalt/index.shtm>.

The Engineer will consider any marked variations from original test data for a mix design or any evidence of inadequate field performance of a mix design as sufficient evidence that the properties of the mix design have changed, and the Engineer will no longer allow the use of the mix design.

334-3.2.2 Mixture Gradation Requirements: Combine the coarse and fine aggregate in proportions that will produce an asphalt mixture meeting all of the requirements defined in this specification and conform to the gradation requirements at design as defined in AASHTO M 323-12, Table 3. Aggregates from various sources may be combined.

334-3.2.2.1 Mixture Gradation Classification: Plot the combined mixture gradation on an FHWA 0.45 Power Gradation Chart. Include the Control Points from AASHTO M 323-12, Table-3, as well as the Primary Control Sieve (PCS) Control Point from AASHTO M 323-12, Table 4. Fine mixes are defined as having a gradation that passes above the primary control sieve control point and above the maximum density line for all sieve sizes smaller than the primary control sieve and larger than the No. 100 sieve.

334-3.2.3 Aggregate Consensus Properties: For Traffic Level C through E mixtures, meet the following consensus properties at design for the aggregate blend. Aggregate consensus properties do not apply to Traffic Level A and B mixtures.

334-3.2.3.1 Coarse Aggregate Angularity: When tested in accordance with ASTM D 5821-01 (2006), meet the percentage of fractured faces requirements specified in AASHTO M 323-12, Table 5.

334-3.2.3.2 Fine Aggregate Angularity: When tested in accordance with AASHTO T 304-11, Method A, meet the uncompacted void content of fine aggregate specified in AASHTO M 323-12, Table 5.

334-3.2.3.3 Flat and Elongated Particles: When tested in accordance with ASTM D 4791-10, (with the exception that the material passing the 3/8 inch sieve and retained on the No. 4 sieve shall be included), meet the requirements specified in

AASHTO M 323-12, Table 5. Measure the aggregate using the ratio of 5:1, comparing the length (longest dimension) to the thickness (shortest dimension) of the aggregate particles.

334-3.2.3.4 Sand Equivalent: When tested in accordance with

AASHTO T 176-08, meet the sand equivalent requirements specified in AASHTO M 323-12, Table 5.

334-3.2.4 Gyratory Compaction: Compact the design mixture in accordance with AASHTO T 312-12, with the following exception: use the number of gyrations at N_{design} as defined in Table 334-3. Measure the inside diameter of gyratory molds in accordance with AASHTO T 312-12.

Table 334-3 Gyratory Compaction Requirements	
Traffic Level	N_{design} Number of Gyrations
A	50
B	65
C	75
D	100
E	100

334-3.2.5 Design Criteria: Meet the requirements for nominal maximum aggregate size as defined in AASHTO M 323-12, as well as for relative density, VMA, VFA, and dust-to-binder ratio as specified in AASHTO M 323-12, Table 6. N_{initial} and N_{maximum} requirements are not applicable.

334-3.2.6 Moisture Susceptibility:

1. For Traffic Level A and B mixtures, use a liquid anti-strip additive, at a rate of 0.5% by weight of the asphalt binder. The anti-strip additive must be listed on the APL. Other rates of anti-strip additive may be used upon approval of the Engineer.

2. For Traffic Level C through E mixtures, test 4 inch specimens in accordance with FM 1-T 283. Provide a mixture having a retained tensile strength ratio of at least 0.80 and a minimum tensile strength (unconditioned) of 100 psi. If necessary, add a liquid anti-stripping agent and/or hydrated lime (meeting the requirements of Section 337) in order to meet these criteria. The anti-strip additive must be listed on the APL.

334-3.2.7 Additional Information: In addition to the requirements listed above, provide the following information with each proposed mix design submitted for verification:

1. The design traffic level and the design number of gyrations (N_{design}).
2. The source and description of the materials to be used.
3. The Department source number and the Department product code of the aggregate components furnished from a Department approved source.
4. The gradation and proportions of the raw materials as intended to be combined in the paving mixture. The gradation of the component materials shall be representative of the material at the time of use. Compensate for any change in aggregate gradation caused by handling and processing as necessary.
5. A single percentage of the combined mineral aggregate passing each specified sieve. Degradation of the aggregate due to processing (particularly material passing the No. 200 sieve) should be accounted for and identified.

6. The bulk specific gravity (G_{sb}) value for each individual aggregate and RAP component, as identified in the Department's aggregate control program.

7. A single percentage of asphalt binder by weight of total mix intended to be incorporated in the completed mixture, shown to the nearest 0.1%.

8. A target temperature for the mixture at the plant (mixing temperature) and a target temperature for the mixture at the roadway (compaction temperature) in accordance with 320-6.3. Do not exceed a target temperature of 340°F for PG 82-22 (PMA) asphalt binders, 330°F for PG 76-22 (PMA) and PG 76-22 (ARB) asphalt binders, and 315°F for unmodified asphalt binders.

9. Provide the physical properties achieved at four different asphalt binder contents. One of which must be at the optimum asphalt content, and must conform to all specified physical requirements.

10. The name of the Construction Training Qualification Program (CTQP) Qualified Mix Designer.

11. The ignition oven calibration factor.

12. The warm mix technology, if used.

334-3.3 Mix Design Revisions: During production, the Contractor may request a target value revision to a mix design, subject to meeting the following requirements: the target change falls within the limits defined in Table 334-4, appropriate data exists demonstrating that the mix complies with production air voids specification criteria, and the mixture gradation meets the basic gradation requirements defined in 334-3.2.2.

Table 334-4 Limits for Potential Adjustments to Mix Design Target Values	
Characteristic	Limit from Original Mix Design
No. 8 sieve and Coarser	± 5.0%
No. 16 sieve	± 4.0%
No. 30 sieve	± 4.0%
No. 50 sieve	± 3.0%
No. 100 sieve	± 3.0%
No. 200 sieve	± 1.0%
Asphalt Binder Content ⁽¹⁾	± 0.3%
Each Component of Aggregate Blend ⁽²⁾	± 5.0 %
⁽¹⁾ Reductions to the asphalt binder content will not be permitted if the VMA during production is lower than 1.0% below the design criteria.	
⁽²⁾ Revisions to FC-5 mixtures to be determined by the Engineer.	

Submit all requests for revisions to mix designs, along with supporting documentation, to the Engineer. In order to expedite the revision process, the request for revision or discussions on the possibility of a revision may be made verbally, but must be followed up by a written request. The verified mix design will remain in effect until the Engineer authorizes a change. In no case will the effective date of the revision be established earlier than the date of the first communication between the Contractor and the Engineer regarding the revision.

A new design mix will be required if aggregate sources change, or for any substitution of an aggregate product with a different aggregate code, unless approved by the Engineer.

334-4 Producer Process Control (PC).

Assume full responsibility for controlling all operations and processes such that the requirements of these Specifications are met at all times. Perform any tests necessary at the plant and roadway for process control purposes. Enter all PC test data into the Department's database. The Engineer will not use these test results in the acceptance payment decision.

Address in the Producer QC Plan how PC failures will be handled. When a PC failure occurs, investigate, at a minimum, the production process, testing equipment and/or sampling methods to determine the cause of the failure, and make any necessary changes to assure compliance with these Specifications. Obtain a follow up sample immediately after corrective actions are taken to assess the adequacy of the corrections. In the event the follow-up PC sample also fails to meet Specification requirements, cease production of the asphalt mixture until the problem is adequately resolved to the satisfaction of the QC Manager.

334-5 Acceptance of the Mixture.

334-5.1 General: The mixture will be accepted at the plant with respect to gradation (P₈ and P₂₀₀), asphalt content (P_b), and volumetrics (volumetrics is defined as air voids at N_{design}). The mixture will be accepted on the roadway with respect to density of roadway cores. Acceptance will be on a LOT by LOT basis (for each mix design) based on tests of random samples obtained within each subplot taken at a frequency of one set of samples per subplot. A roadway LOT and a plant production LOT shall be the same. Acceptance of the mixture will be based on Contractor QC test results that have been verified by the Department.

334-5.1.1 Sampling and Testing Requirements: Obtain the samples in accordance with FM 1-T 168. Obtain samples at the plant of a sufficient quantity to be split into three smaller samples; one for QC, one for Verification testing and one for Resolution testing; each sample at approximately 35 pounds. The split samples for Verification testing and Resolution testing shall be reduced in size and stored in three boxes each. The approximate size of each box must be 12 inches x 8 inches x 4 inches. Provide, label and safely store sample boxes in a manner agreed upon by the Engineer for future testing.

The asphalt content of the mixture will be determined in accordance with FM 5-563. The gradation of the recovered aggregate will be determined in accordance with FM 1-T 030. Volumetric testing will be in accordance with AASHTO T 312-12 and FM 1-T 209. Prior to testing volumetric samples, condition the test-sized sample for one hour, plus or minus five minutes, at the target roadway compaction temperature in a shallow, flat pan, such that the mixture temperature at the end of the one hour conditioning period is within plus or minus 20°F of the roadway compaction temperature. Test for roadway density in accordance with FM 1-T 166.

334-5.1.2 Acceptance Testing Exceptions: When the total combined quantity of hot mix asphalt for the project, as indicated in the Plans for Type SP and Type FC mixtures only, is less than 2000 tons, the Engineer will accept the mix on the basis of visual inspection. The Engineer may require the Contractor to run process control tests for informational purposes, as defined in 334-4, or may run independent verification tests to determine the acceptability of the material.

Density testing for acceptance will not be performed on widening strips or shoulders with a width of 5 feet or less, open-graded friction courses, variable thickness overbuild courses, leveling courses, any asphalt layer placed on subgrade (regardless of type), miscellaneous asphalt pavement, shared use paths, crossovers, gore areas, or any course with a specified thickness less than 1 inch or a specified spread rate that converts to less than 1 inch as

described in 334-1.4. Density testing for acceptance will not be performed on asphalt courses placed on bridge decks or approach slabs; compact these courses in static mode only per the requirements of 330-7.7. In addition, density testing for acceptance will not be performed on the following areas when they are less than 1,000 feet (continuous) in length: turning lanes, acceleration lanes, deceleration lanes, shoulders, parallel parking lanes or ramps. Do not perform density testing for acceptance in situations where the areas requiring density testing is less than 50 tons within a subplot.

Density testing for acceptance will not be performed in intersections. The limits of the intersection will be from stop bar to stop bar for both the mainline and side streets. A random core location that occurs within the intersection shall be moved forward or backward from the intersection at the direction of the Engineer.

Where density testing for acceptance is not required, compact these courses (with the exception of open-graded friction courses) in accordance with the rolling procedure (equipment and pattern) as approved by the Engineer or with Standard Rolling Procedure as specified in 330-7.2. In the event that the rolling procedure deviates from the procedure approved by the Engineer, or the Standard Rolling Procedure, placement of the mix shall be stopped.

The density pay factor (as defined in 334-8.2) for areas not requiring density testing for acceptance will be paid at the same density pay factor as for the areas requiring density testing within the same LOT. If the entire LOT does not require density testing for acceptance, the LOT will be paid at a density pay factor of 1.00.

334-5.2 Full LOTs: Each LOT will be defined (as selected by the Contractor prior to the start of the LOT) as either (1) 2,000 tons, with each LOT subdivided into four equal sublots of 500 tons each, or (2) 4,000 tons, with each LOT subdivided into four equal sublots of 1,000 tons each. As an exception to this, the initial LOT of all new mix designs shall be defined as 2,000 tons, subdivided into four equal sublots of 500 tons each. Before the beginning of a LOT, the Engineer will develop a random sampling plan for each subplot and direct the Contractor on sample points, based on tonnage, for each subplot during construction.

334-5.3 Partial LOTs: A partial LOT is defined as a LOT size that is less than a full LOT. A partial LOT may occur due to the following:

1. The completion of a given mix type or mix design on a project.
2. Closure of the LOT due to time. LOTs will be closed 30 calendar days after the start of the LOT. Time periods other than 30 calendar days may be used if agreed to by both the Engineer and the Contractor, but under no circumstances shall the LOT be left open longer than 60 days.
3. A LOT is terminated per 334-5.4.4.

All partial LOTs will be evaluated based on the number of tests available, and will not be redefined. If a LOT is closed before the first plant random sample is obtained, then the LOT will be visually accepted by the Engineer and the LOT pay factor will be 1.00.

334-5.4 QC Sampling and Testing: Obtain all samples randomly as directed by the Engineer.

Should the Engineer determine that the QC requirements are not being met or that unsatisfactory results are being obtained, or should any instances of falsification of test data occur, acceptance of the Producer's QC Plan will be suspended and production will be stopped.

334-5.4.1 Lost or Missing Verification/Resolution Samples: In the event that any of the Verification and/or Resolution asphalt mixture samples that are in the custody of the

Contractor are lost, damaged, destroyed, or are otherwise unavailable for testing, the minimum possible pay factor for each quality characteristic as described in 334-8.2 will be applied to the entire LOT in question, unless called for otherwise by the Engineer. Specifically, if the LOT in question has more than two sublots, the pay factor for each quality characteristic will be 0.55. If the LOT has two or less sublots, the pay factor for each quality characteristic will be 0.80. If only the roadway cores are lost, damaged, destroyed, or are otherwise unavailable for testing, then the minimum possible pay factor for density will be applied to the entire LOT in question. In either event, the material in question will also be evaluated in accordance with 334-5.9.5.

If any of the Verification and/or Resolution samples that are in the custody of the Department are lost, damaged, destroyed or are otherwise unavailable for testing, the corresponding QC test result will be considered verified, and payment will be based upon the Contractor's data.

334-5.4.2 Plant Sampling and Testing Requirements: Obtain one random sample of mix per subplot in accordance with 334-5.1.1 as directed by the Engineer. Test the QC split sample for gradation, asphalt binder content and volumetrics in accordance with 334-5.1.1. Complete all QC testing within one working day from the time the samples were obtained.

334-5.4.3 Roadway Sampling and Testing Requirements: Obtain five 6 inch diameter roadway cores within 24 hours of placement at random locations as directed by the Engineer within each subplot. Test these QC samples for density (G_{mb}) in accordance with 334-5.1.1. Obtain a minimum of three cores per subplot at random locations as identified by the Engineer in situations where the subplot/LOT was closed or terminated before the random numbers were reached or where it is impractical to cut five cores per subplot. Do not obtain cores any closer than 12 inches from an unsupported edge. The Engineer may adjust randomly generated core locations for safety purposes or as the Engineer deems necessary. Maintain traffic during the coring operation; core the roadway, patch the core holes (within three days of coring); and trim the cores to the proper thickness prior to density testing.

Density for the subplot shall be based on the average value for the cores cut from the subplot with the target density being the maximum specific gravity (G_{mm}) of the subplot. Once the average density of a subplot has been determined, do not retest the samples unless approved by the Engineer. Ensure proper handling and storage of all cores until the LOT in question has been accepted.

334-5.4.4 Individual Test Tolerances for QC Testing: Terminate the LOT if any of the following QC failures occur:

1. An individual test result of a subplot for air voids does not meet the requirements of Table 334-5,
2. The average subplot density does not meet the requirements of Table 334-5,
3. Two consecutive test results within the same LOT for gradation or asphalt binder content do not meet the requirements of Table 334-5,

When a LOT is terminated due to a QC failure, stop production of the mixture until the problem is resolved to the satisfaction of the QC Manager and/or Asphalt Plant Level II technician responsible for the decision to resume production after a QC failure, as identified in Section 105. In the event that it can be demonstrated that the problem can immediately be or already has been resolved, it will not be necessary to stop production. When a LOT is terminated, make all necessary changes to correct the problem. Do not resume production until appropriate corrections have been made. Inform the Engineer of the problem and

corrections made to correct the problem. After resuming production, sample and test the material to verify that the changes have corrected the problem. Summarize this information and provide it to the Engineer prior to the end of the work shift when production resumes.

In the event that a QC failure is not addressed as defined above, the Engineer's approval will be required prior to resuming production after any future QC failures.

Address any material represented by a failing test result, as defined above in this subarticle, in accordance with 334-5.9.5. Any LOT terminated under this subarticle will be limited to a maximum Pay Factor of 1.00 (as defined in 334-8.2) for each quality characteristic.

In the event that a G_{mm} test result differs by more than 0.040 from the mix design G_{mm} , investigate the causes of the discrepancy and report the findings and proposed actions to the Engineer.

Table 334-5 Master Production Range	
Characteristic	Tolerance ⁽¹⁾
Asphalt Binder Content (%)	Target ± 0.55
Passing No. 200 Sieve (%)	Target ± 1.50
Air Voids (%)	2.30 – 6.00
Density (minimum % G_{mm}) ⁽²⁾	89.50
(1) Tolerances for sample size of n = 1 from the verified mix design	
(2) Based on an average of 5 randomly located cores	

334-5.5 Verification Testing: In order to determine the validity of the Contractor's QC test results prior to their use in the Acceptance decision, the Engineer will run verification tests.

334-5.5.1 Plant Testing: At the completion of each LOT, the Engineer will test a minimum of one Verification split sample randomly selected from the LOT. Results of the testing and analysis for the LOT will be made available to the Contractor within one working day from the time the LOT is completed. Verification samples shall be reheated at the target roadway compaction temperature for 1-1/2 hours, plus or minus 5 minutes, reduced to the appropriate testing size, and conditioned and tested as described in 334-5.1.1. In lieu of the 1-1/2 hours reheating procedure, the mixture may be reheated to within plus or minus 20°F of the roadway compaction temperature using a microwave oven. Stir the mixture as necessary during the reheating process to maintain temperature uniformity. Subsequently, condition and test the mixture as described in 334-5.1.1.

The Verification test results will be compared with the QC test results based on the between-laboratory precision values shown in Table 334-6.

Table 334-6 Between-Laboratory Precision Values	
Property	Maximum Difference
G_{mm}	0.016
G_{mb} (gyratory compacted samples)	0.022
G_{mb} (roadway cores)	0.014
P_b	0.44%
P_{-200}	FM 1-T 030 (Figure 2)

Table 334-6 Between-Laboratory Precision Values	
Property	Maximum Difference
P-8	FM 1-T 030 (Figure 2)

If all of the specified mix characteristics compare favorably, then the LOT will be accepted, with payment based on the Contractor's QC test data for the LOT.

If any of the results do not compare favorably, then the Resolution samples from the LOT will be sent to the Resolution laboratory for testing, as described in 334-5.6.

334-5.5.2 Roadway Testing: At the completion of each LOT, the Engineer will determine the density (G_{mb}) of each core (previously tested by QC) as described in 334-5.1.1 from the same subplot as the plant samples. For situations where roadway density is not required for the random subplot chosen, then another subplot shall be randomly chosen for roadway density cores only. Results of the testing and analysis for the LOT will be made available to the Contractor within one working day from the time the LOT is completed.

The individual Verification test results will be compared with individual QC test results by the Engineer based on the between-laboratory precision values given in Table 334-6.

If each of the core test results compare favorably, then the LOT will be accepted with respect to density, with payment based on the Contractor's QC test data for the LOT.

If any of the results do not compare favorably, then the core samples from the LOT will be sent to the Resolution laboratory for testing as specified in 334-5.6.

334-5.6 Resolution System:

334-5.6.1 Plant Samples: In the event of an unfavorable comparison between the Contractor's QC test results and the Engineer's Verification test results on any of the properties identified in Table 334-6, the Resolution laboratory will test all of the split samples from the LOT for only the property (or properties) in question. Resolution samples shall be reheated at the target roadway compaction temperature for 1-1/2 hours, plus or minus 5 minutes, reduced to the appropriate testing size, and conditioned and tested as described in 334-5.1.1. In lieu of the 1-1/2 hours reheating procedure, the mixture may be reheated to within plus or minus 20°F of the roadway compaction temperature using a microwave oven. Stir the mixture as necessary during the reheating process to maintain temperature uniformity. Subsequently, condition and test the mixture as described in 334-5.1.1.

334-5.6.2 Roadway Samples: In the event of an unfavorable comparison between the Contractor's QC test data and the Engineer's Verification test data on the density results, the Resolution laboratory will test all of the cores from the LOT. Testing will be as described in 334-5.1.1.

334-5.6.3 Resolution Determination: The Resolution test results (for the property or properties in question) will be compared with the QC test results based on the between-laboratory precision values shown in Table 334-6.

If the Resolution test results compare favorably with all of the QC results, then acceptance and payment for the LOT will be based on the QC results, and the Department will bear the costs associated with Resolution testing. No additional compensation, either monetary or time, will be made for the impacts of any such testing.

If the Resolution test results do not compare favorably with all of the QC results, then acceptance and payment for the LOT will be based on the Resolution test data for the LOT, and the costs of the Resolution testing will be deducted from monthly estimates. No additional time will be granted for the impacts of any such testing. In addition, in the event that the application of the Resolution test results in a failure to meet the requirements of Table 334-5, address any material represented by the failing test result in accordance with 334-5.9.5.

In the event of an unfavorable comparison between the Resolution test results and QC test results, make the necessary adjustments to assure that future comparisons are favorable.

334-5.7 Independent Verification (IV) Testing:

334-5.7.1 Plant: The Contractor shall provide sample boxes and take samples as directed by the Engineer for IV testing. Obtain enough material for three complete sets of tests (two samples for IV testing by the Engineer and one sample for testing by the Contractor). If agreed upon by both the Engineer and the Contractor, only one sample for IV testing by the Engineer may be obtained. IV samples will be reheated at the target roadway compaction temperature for 1-1/2 hours, plus or minus 5 minutes, reduced to the appropriate testing size, and conditioned and tested as described in 334-5.1.1. The Contractor's split sample, if tested immediately after sampling, shall be reduced to the appropriate testing size, and conditioned and tested as described in 334-5.1.1. If the Contractor's sample is not tested immediately after sampling, then the sample shall be reheated at the target roadway compaction temperature for 1-1/2 hours, plus or minus 5 minutes, reduced to the appropriate testing size, and conditioned and tested as described in 334-5.1.1. For the IV and Contractor's samples, in lieu of the 1-1/2 hours reheating procedure, the mixture may be reheated to within plus or minus 20°F of the roadway compaction temperature using a microwave oven. Stir the mixture as necessary during the reheating process to maintain temperature uniformity. Subsequently, condition and test the mixture as described in 334-5.1.1. The Contractor's test results shall be provided to the Engineer within one working day from the time the sample was obtained.

If any of the IV test results do not meet the requirements of Table 334-5, then a comparison of the IV test results and the Contractor's test results, if available, will be made. If a comparison of the IV test results and the Contractor's test results meets the precision values of Table 334-6 for the material properties in question, or if the Contractor's test results are not available, then the IV test results are considered verified and the Contractor shall cease production of the asphalt mixture until the problem is adequately resolved (to the satisfaction of the Engineer), unless it can be demonstrated to the satisfaction of the Engineer that the problem can immediately be (or already has been) resolved. Address any material represented by the failing test results in accordance with 334-5.9.5.

If a comparison of the IV test results and the Contractor's test results does not meet the precision values of Table 334-6 for the material properties in question, then the second IV sample shall be tested by the Engineer for the material properties in question. If a comparison between the first and second IV test results does not meet the precision values of Table 334-6 for the material properties in question, then the first IV test results are considered unverified for the material properties in question and no action shall be taken.

If a comparison between the first and second IV test results meets the precision values of Table 334-6 for the material properties in question, then the first IV sample is considered verified and the Contractor shall cease production of the asphalt mixture until the problem is adequately resolved (to the satisfaction of the Engineer), unless it can be

demonstrated to the satisfaction of the Engineer that the problem can immediately be (or already has been) resolved. Address any material represented by the failing test results in accordance with 334-5.9.5.

The Engineer has the option to use the IV sample for comparison testing as specified in 334-6.

334-5.7.2 Roadway: Obtain five 6 inch diameter roadway cores within 24 hours of placement, as directed by the Engineer, for IV testing. In situations where it is impractical to cut five cores per subplot, obtain a minimum of three cores per subplot at random locations, as identified by the Engineer. These independent cores will be obtained from the same LOTs and sublots as the Independent Verification Plant samples, or as directed by the Engineer. The density of these cores will be obtained as described in 334-5.1.1. If the average of the results for the subplot does not meet the requirements of Table 334-5 for density, then a comparison of the IV Gmm test results and the Contractor's Gmm test results, if available, will be made in accordance with the procedure provided in 334-5.7.1. Address any material represented by the failing test results in accordance with 334-5.9.5.

334-5.8 Surface Tolerance: The asphalt mixture will be accepted on the roadway with respect to surface tolerance in accordance with the applicable requirements of 330-9.

334-5.9 Minimum Acceptable Quality Levels:

334-5.9.1 PFs Below 0.90: In the event that an individual pay factor for any quality characteristic of a LOT falls below 0.90, take steps to correct the situation and report the actions to the Engineer. In the event that the pay factor for the same quality characteristic for two consecutive LOTs is below 0.90, cease production of the asphalt mixture until the problem is adequately resolved (to the satisfaction of the Engineer), unless it can be demonstrated to the satisfaction of the Engineer that the problem can immediately be (or already has been) resolved. Actions taken must be approved by the Engineer before production resumes.

334-5.9.2 CPFs Less Than 0.90 and Greater Than or Equal to 0.80: If the composite pay factor for the LOT is less than 0.90 and greater than or equal to 0.80, cease production of the asphalt mixture until the problem is adequately resolved (to the satisfaction of the Engineer), unless it can be demonstrated to the satisfaction of the Engineer that the problem can immediately be (or already has been) resolved. Actions taken must be approved by the Engineer before production resumes.

334-5.9.3 CPFs Less Than 0.80 and Greater Than or Equal to 0.75: If the CPF for the LOT is less than 0.80 and greater than or equal to 0.75, address the defective material in accordance with 334-5.9.5.

334-5.9.4 CPFs Less Than 0.75: If the CPF for the LOT is less than 0.75, remove and replace the defective LOT at no cost to the Department, or as approved by the Engineer.

334-5.9.5 Defective Material: Assume responsibility for removing and replacing all defective material placed on the project, at no cost to the Department.

As an exception to the above and upon approval of the Engineer, obtain an engineering analysis in accordance with Section 6 by an independent laboratory (as approved by the Engineer) to determine the disposition of the material. The engineering analysis must be signed and sealed by a Professional Engineer licensed in the State of Florida.

The Engineer may determine that an engineering analysis is not necessary or may perform an engineering analysis to determine the disposition of the material.

Any material that remains in place will be accepted with a CPF as determined by 334-8, or as determined by the Engineer.

If the defective material is due to a gradation, asphalt binder content or density failure, upon the approval of the Engineer the Contractor may perform delineation tests on roadway cores in lieu of an engineering analysis to determine the limits of the defective material that may require removal and replacement. Prior to any delineation testing, all sampling locations shall be approved by the Engineer. All delineation sampling and testing shall be monitored and verified by the Engineer. For materials that are defective due to air voids, an engineering analysis is required.

When evaluating defective material by engineering analysis or delineation testing, at a minimum, evaluate all material located between passing QC, PC or IV test results. Exceptions to this requirement shall be approved by the Engineer.

334-6 Comparison Testing.

At the start of the project (unless waived by the Engineer) and at other times as determined necessary by the Engineer, provide split samples for comparison testing with the Engineer. The purpose of these tests is to verify that the testing equipment is functioning properly and that the testing procedures are being performed correctly. In the event that the Engineer determines that there is a problem with the Contractor's testing equipment and/or testing procedures, immediately correct the problem to the Engineer's satisfaction. In the event that the problem is not immediately corrected, cease production of the asphalt mixture until the problem is adequately resolved to the satisfaction of the Engineer.

If so agreed to by both the Contractor and the Engineer, the split sample used for comparison testing may also be used for the QC sample. The split sample used for comparison testing must also meet the requirements for IV testing described in 334-5.7.

334-7 Method of Measurement.

For the work specified under this Section (including the pertinent provisions of Sections 320 and 330), the quantity to be paid for will be the weight of the mixture, in tons. For each pay item, excluding overbuild, the pay quantity will be based on the quantity placed on the project, limited to 105% of the adjusted plan quantity for the pay item. The adjusted plan quantity will be determined by dividing the pay item's original plan quantity (including any Engineer approved quantity revisions) by the design G_{mm} stated in 334-1.4, then multiplying it by the tonnage-weighted average G_{mm} of the mixes used for the pay item.

The bid price for the asphalt mix will include the cost of the liquid asphalt and the tack coat application as directed in 300-8. There will be no separate payment or unit price adjustment for the asphalt binder material in the asphalt mix. For the calculation of unit price adjustments of bituminous material, the average asphalt content will be based on the percentage specified in 9-2.1.2. The weight will be determined as provided in 320-3.2 (including the provisions for the automatic recordation system).

Prepare and submit a Certification of Quantities to the Engineer in accordance with 9-2.1.2.

334-8 Basis of Payment.

334-8.1 General: Price and payment will be full compensation for all the work specified under this Section (including the applicable requirements of Sections 320 and 330).

For materials accepted in accordance with 334-5, based upon the quality of the material, a pay adjustment will be applied to the bid price of the material as determined on a LOT by LOT basis. The pay adjustment will be assessed by calculating a Pay Factor for the following individual quality characteristics: pavement density, air voids, asphalt binder content, and the percentage passing the No. 200 and No. 8 sieves. The pay adjustment will be computed by multiplying a Composite Pay Factor (CPF) for the LOT by the bid price per ton.

334-8.2 Pay Factors:

334-8.2.1 Partial LOTs: For Partial LOTs where no random sample is obtained due to insufficient tonnage, a CPF of 1.00 shall be applied.

334-8.2.2 Two or Less Sublot Test Results: In the event that two or less sublot test results are available for a LOT, Pay Factors will be determined based on Table 334-7, using the average of the accumulated deviations from the target value. (Deviations are absolute values with no plus or minus signs.) Use the 1-Test column when there is only one sublot test result and use the 2-Tests column when there are two sublots.

Table 334-7 Small Quantity Pay Table		
Pay Factor	1 Sublot Test Deviation	2 Sublot Test Average Deviation
Asphalt Binder Content		
1.05	0.00-0.23	0.00-0.16
1.00	0.24-0.45	0.17-0.32
0.90	0.46-0.55	0.33-0.39
0.80	>0.55	>0.39
No. 8 Sieve		
1.05	0.00-2.25	0.00-1.59
1.00	2.26-4.50	1.60-3.18
0.90	4.51-5.50	3.19-3.89
0.80	>5.50	>3.89
No. 200 Sieve		
1.05	0.00-0.55	0.00-0.39
1.00	0.56-1.10	0.40-0.78
0.90	1.11-1.50	0.79-1.06
0.80	>1.50	>1.06
Air Voids		
1.05	0.00-0.50	0.00-0.35
1.00	0.51-1.00	0.36-0.71
0.90	1.01-1.70	0.72-1.20
0.80	1.71-2.00	1.21-1.41
0.70	2.01-2.50	1.42-1.77
0.55	>2.50	>1.77
Density ⁽¹⁾		
1.05	0.00-0.50	0.00-0.35
1.00	0.51-1.00	0.36-0.71
0.95	1.01-2.00	0.72-1.41
0.90	2.01-3.00	1.42-2.12

Table 334-7 Small Quantity Pay Table		
Pay Factor	1 Sublot Test Deviation	2 Sublot Test Average Deviation
0.80	>3.00	>2.12
(1). Each density test result is the average of five cores. The target density is 93.00 percent of G_{mm} (92.00 percent when compaction is limited to the static mode or for layers specified to be one inch thick). When compaction is limited to the static mode, no vibratory mode in the vertical direction will be allowed. Other vibratory modes will be allowed, if approved by the Engineer. In this case, the target density is 92.00 percent of G_{mm} .		

334-8.2.3 Three or More Sublot Test Results: When three or more sublot test results are available for a LOT, the variability-unknown, standard deviation method will be used to determine the estimated percentage of the LOT that is within the specification limits. The number of significant figures used in the calculations will be in accordance with requirements of AASHTO R11-06, Absolute Method.

334-8.2.3.1 Percent Within Limits: The percent within limits (PWL) and Pay Factors for the LOT will be calculated as described below. Variables used in the calculations are as follows:

x	= individual test value (sublot)
n	= number of tests (sublots)
s	= sample standard deviation
$\Sigma(x^2)$	= summation of squares of individual test values
$(\Sigma x)^2$	= summation of individual test values squared
Q_U	= upper quality index
USL	= upper specification limit (target value plus upper specification limit from Table 334-8)
Q_L	= lower quality index
LSL	= lower specification limit (target value minus lower specification limit from Table 334-8)
P_U	= estimated percentage below the USL
P_L	= estimated percentage above the LSL

1. Calculate the arithmetic mean (\bar{X}) of the test values:

$$\bar{X} = \frac{\sum x}{n}$$

2. Calculate the sample standard deviation (s):

$$s = \sqrt{\frac{n \sum (x^2) - (\sum x)^2}{n(n-1)}}$$

3. Calculate the upper quality index (Q_U):

$$Q_U = \frac{USL - \bar{X}}{s}$$

4. Calculate the lower quality index (Q_L):

$$Q_L = \frac{\bar{X} - LSL}{s}$$

5. From Table 334-9, determine the percentage of work below the USL (P_U).

6. From Table 334-9, determine percentage of work above the LSL (P_L) Note: If USL or LSL is not specified; percentages within (USL or LSL) will be 100.

7. If Q_U or Q_L is a negative number, then calculate the percent within limits for Q_U or Q_L as follows: enter Table 334-9 with the positive value of Q_U or Q_L and obtain the corresponding percent within limits for the proper sample size. Subtract this number from 100.00. The resulting number is the value to be used in the next step (Step 8) for the calculation of quality level.

8. Calculate the percent within limits (PWL) = ($P_U + P_L$) - 100

9. Calculate the Pay Factor (PF) for each quality characteristic using the equation given in 334-8.2.3.2.

Table 334-8 Specification Limits	
Quality Characteristic	Specification Limits
Passing No. 8 sieve (percent)	Target \pm 3.1
Passing No. 200 sieve (percent)	Target \pm 1.0
Asphalt Content (percent)	Target \pm 0.40
Air Voids (percent)	4.00 \pm 1.20
Density, vibratory mode (percent of G_{mm}):	93.00 + 2.00, - 1.20
Density, static mode (percent of G_{mm}):	92.00 + 3.00, - 1.50 ⁽¹⁾
(1): No vibratory mode in the vertical direction will be allowed. Other vibratory modes will be allowed, if approved by the Engineer.	

Table 334-9 Percent Within Limits				
Quality Index	Percent within Limits for Selected Sample Size			
	n = 3	n = 4	n = 5	n = 6
0.00	50.00	50.00	50.00	50.00
0.05	51.38	51.67	51.78	51.84
0.10	52.76	53.33	53.56	53.67
0.15	54.15	55.00	55.33	55.50
0.20	55.54	56.67	57.10	57.32
0.25	56.95	58.33	58.87	59.14
0.30	58.37	60.00	60.63	60.94

Table 334-9
Percent Within Limits

Quality Index	Percent within Limits for Selected Sample Size			
	n = 3	n = 4	n = 5	n = 6
0.35	59.80	61.67	62.38	62.73
0.40	61.26	63.33	64.12	64.51
0.45	62.74	65.00	65.84	66.27
0.50	64.25	66.67	67.56	68.00
0.55	65.80	68.33	69.26	69.72
0.60	67.39	70.00	70.95	71.41
0.65	69.03	71.67	72.61	73.08
0.70	70.73	73.33	74.26	74.71
0.75	72.50	75.00	75.89	76.32
0.80	74.36	76.67	77.49	77.89
0.85	76.33	78.33	79.07	79.43
0.90	78.45	80.00	80.62	80.93
0.95	80.75	81.67	82.14	82.39
1.00	83.33	83.33	83.64	83.80
1.05	86.34	85.00	85.09	85.18
1.10	90.16	86.67	86.52	86.50
1.15	97.13	88.33	87.90	87.78
1.20	100.00	90.00	89.24	89.01
1.25	100.00	91.67	90.54	90.19
1.30	100.00	93.33	91.79	91.31
1.35	100.00	95.00	92.98	92.37
1.40	100.00	96.67	94.12	93.37
1.45	100.00	98.33	95.19	94.32
1.50	100.00	100.00	96.20	95.19
1.55	100.00	100.00	97.13	96.00
1.60	100.00	100.00	97.97	96.75
1.65	100.00	100.00	98.72	97.42
1.70	100.00	100.00	99.34	98.02
1.75	100.00	100.00	99.81	98.55
1.80	100.00	100.00	100.00	98.99
1.85	100.00	100.00	100.00	99.36
1.90	100.00	100.00	100.00	99.65
1.95	100.00	100.00	100.00	99.85
2.00	100.00	100.00	100.00	99.97

Table 334-9 Percent Within Limits				
Quality Index	Percent within Limits for Selected Sample Size			
	n = 3	n = 4	n = 5	n = 6
2.05	100.00	100.00	100.00	100.00
2.10	100.00	100.00	100.00	100.00
2.15	100.00	100.00	100.00	100.00
2.20	100.00	100.00	100.00	100.00
2.25	100.00	100.00	100.00	100.00
2.30	100.00	100.00	100.00	100.00
2.35	100.00	100.00	100.00	100.00
2.40	100.00	100.00	100.00	100.00
2.45	100.00	100.00	100.00	100.00
2.50	100.00	100.00	100.00	100.00
2.55	100.00	100.00	100.00	100.00
2.60	100.00	100.00	100.00	100.00
2.65	100.00	100.00	100.00	100.00

334-8.2.3.2 Pay Factors (PF): Pay Factors will be calculated by using the following equation:

$$\text{Pay Factor} = (55 + 0.5 \times \text{PWL}) / 100$$

The PWL is determined from Step (8) of 334-8.2.3.1.

334-8.3 Composite Pay Factor (CPF): A CPF for the LOT will be calculated based on the individual PFs with the following weighting applied: 35% Density (D), 25% Air Voids (V_a), 25% asphalt binder content (P_b), 10% Passing No. 200 (P_{-200}) and 5% Passing No. 8 (P_{-8}). Calculate the CPF by using the following formula:

$$\text{CPF} = [(0.350 \times \text{PF } D) + (0.250 \times \text{PF } V_a) + (0.250 \times \text{PF } P_b) + (0.100 \times \text{PF } P_{-200}) + (0.050 \times \text{PF } P_{-8})]$$

Where the PF for each quality characteristic is determined in either 334-8.2.2 or 334-8.2.3, depending on the number of subplot tests. Note that the number after each multiplication will be rounded to the nearest 0.01.

The pay adjustment shall be computed by multiplying the CPF for the LOT by the bid price per ton.

334-8.4 Payment: Payment will be made under:

Item No. 334- 1- Superpave Asphaltic Concrete - per ton.

Table 285-1: Optional Base Groups 1 through 7							
Base Materials	Base Group (Base Group Pay Item)						
	1 (701)	2 (702)	3 (703)	4 (704)	5 (705)	6 (706)	7 (707)
B-12.5 and 4" Granular Subbase, LBR 100 ⁽²⁾	-	-	-	-	-	-	-
RAP Base ⁽⁴⁾	5" ⁽⁴⁾	-	-	-	-	-	-
(1) Do not use on interstate roadways. (2) The construction of both the subbase and Type B-12.5 will be bid and used as Optional Base. Granular subbases include limerock, cemented coquina, shell rock, bank run shell, recycled concrete aggregate and graded aggregate base. All subbase thicknesses are 4" minimum. (3) Based on minimum practical thickness. (4) Only for use on non-limited access paved shoulders, shared use paths, or other non-traffic bearing applications. (5) To be used for widening, three feet or less.							

Table 285-1(continued): Optional Base Groups 8 through 15								
Base Materials	Base Group (Base Group Pay Item)							
	8 (708)	9 (709)	10 (710)	11 (711)	12 (712)	13 (713)	14 (714)	15 (715)
Limerock, LBR 100	9-1/2"	10"	11"	12"	12-1/2"	13-1/2" ⁽⁵⁾	14" ⁽⁵⁾	-
Cemented Coquina, LBR 100	9-1/2"	10"	11"	12"	12-1/2"	13-1/2" ⁽⁵⁾	14" ⁽⁵⁾	-
Shell Rock, LBR 100	9-1/2"	10"	11"	12"	12-1/2"	13-1/2" ⁽⁵⁾	14" ⁽⁵⁾	-
Bank Run Shell, LBR 100	9-1/2"	10"	11"	12"	12-1/2"	13-1/2" ⁽⁵⁾	14" ⁽⁵⁾	-
Recycled Concrete Aggregate, LBR 150 ⁽¹⁾	9-1/2"	10"	11"	12"	12-1/2"	13-1/2" ⁽⁵⁾	14" ⁽⁵⁾	-
Graded Aggregate Base, LBR 100	11"	12"	13"	14"	-	-	-	-
Type B-12.5	5-1/2"	6"	6-1/2"	7"	7-1/2"	8"	8-1/2"	9"
B-12.5 and 4" Granular Subbase, LBR 100 ⁽²⁾	-	4"	4-1/2"	5"	5-1/2"	6"	6-1/2"	7"
RAP Base ⁽⁴⁾	-	-	-	-	-	-	-	-
(1) Do not use on interstate roadways. (2) The construction of both the subbase and Type B-12.5 will be bid and used as Optional Base. Granular subbases include limerock, cemented coquina, shell rock, bank run shell, recycled concrete aggregate and graded aggregate base. All subbase thicknesses are 4" minimum. (3) Based on minimum practical thickness. (4) Only for use on non-limited access paved shoulders, shared use paths, or other non-traffic bearing applications. (5) To be used for widening, three feet or less.								

Table 285-2: Limited Use Optional Base Groups ⁽¹⁾								
Base Materials	Base Group (Base Group Pay Item)							
	101 (701)	102 (702)	103 (703)	104 (704)	105 (705)	106 (706)	107 (707)	108 (708)
Limerock Stabilized, LBR 70	5"	6-1/2"	8"	9"	10"	11"	12-1/2"	-
Shell, LBR 70	5"	6-1/2"	8"	9"	10"	11"	12-1/2"	-
Shell Stabilized, LBR 70	7"	8-1/2"	9-1/2"	10-1/2"	12"	-	-	-

Minimum Testing Frequency Specifications for Roads, Storm Drainage, Utilities and Sampling Procedures

Pinellas County Public Works Construction Division

Revised May 24, 2022

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BACKFILL FOR PIPE TRENCHES AND STRUCTURES

PIPE TRENCHES / STRUCTURES

TYPE OF TESTING	METHOD	MINIMUM REQUIREMENT	LOCATION AND RECOMMENDED MINIMUM TESTING FREQUENCY
IN-PLACE DENSITY TESTING WITHIN THE ROADWAY AND OUTSIDE THE ROADWAY BUT WITHIN THE RIGHT OF WAY	AASHTO T-191 AASHTO T-310 FDOT FM 1-T 238	100% OF MAXIMUM DRY DENSITY	1 TEST PER 1' VERTICAL IN A STAGGERED PATTERN PER 500 LF OR PART THEREOF OF UNINTERRUPTED RUN OF PIPE BEGINNING AT 2' OVER TOP OF PIPE FOR PIPE LESS THAN 12" DIAMETER AND TRENCH WIDTH LESS THAN 2', TOP OF PIPE FOR PIPE LESS THAN 12" DIAMETER AND TRENCH WIDTH OVER 2' OR FOR PIPE 12" TO 24", AND AT THE SPRING LINE FOR PIPE DIAMETER GREATER THAN 24".

LABORATORY TESTING

SOURCE/TYPE OF UNIFORM	METHOD	MINIMUM REQUIREMENT	LOCATION AND RECOMMENDED MINIMUM TESTING FREQUENCY
SOIL CLASSIFICATION	AASHTO M-145	A-1 OR A-3	1 TEST PER 1' VERTICAL IN A STAGGERED PATTERN PER 500 LF OR PART THEREOF OF UNINTERRUPTED RUN OF PIPE BEGINNING AT 2' OVER TOP OF PIPE FOR PIPE LESS THAN 12" DIAMETER AND TRENCH WIDTH LESS THAN 2', TOP OF PIPE FOR PIPE LESS THAN 12" DIAMETER AND TRENCH WIDTH OVER 2' OR FOR PIPE 12" TO 24", AND AT THE SPRING LINE FOR PIPE DIAMETER GREATER THAN 24".
MOISTURE-DENSITY RELATIONS OF SOILS-STANDARD METHOD (PROCTOR)	AASHTO T-99	N/A	1 TEST PER 1' VERTICAL IN A STAGGERED PATTERN PER 500 LF OR PART THEREOF OF UNINTERRUPTED RUN OF PIPE BEGINNING AT 2' OVER TOP OF PIPE FOR PIPE LESS THAN 12" DIAMETER AND TRENCH WIDTH LESS THAN 2', TOP OF PIPE FOR PIPE LESS THAN 12" DIAMETER AND TRENCH WIDTH OVER 2' OR FOR PIPE 12" TO 24", AND AT THE SPRING LINE FOR PIPE DIAMETER GREATER THAN 24".

ROADWAY EMBANKMENT AND FILL

IN-PLACE DENSITY TESTING

TYPE OF TESTING	METHOD	MINIMUM REQUIREMENT	LOCATION AND RECOMMENDED MINIMUM TESTING FREQUENCY
IN-PLACE DENSITY TESTING	AASHTO T-191 AASHTO T-310 FDOT FM 1-T 238	100% OF MAXIMUM DRY DENSITY	1 TEST FOR EVERY 500 LF OR PART THEREOF WITH NO FEWER THAN 2 PER STREET. 1 TEST PER 1' VERTICAL IN A STAGGERED PATTERN.

LABORATORY TESTING

SOURCE/TYPE OF UNIFORM	METHOD	MINIMUM REQUIREMENT
SOIL CLASSIFICATION	AASHTO M-145	A-1 OR A-3
MOISTURE-DENSITY RELATIONS OF SOILS-STANDARD METHOD (PROCTOR)	AASHTO T-99	N/A

STABILIZED SUBGRADE

LABORATORY TESTING

SOURCE/TYPE OF UNIFORM	METHOD	MINIMUM REQUIREMENT	LOCATION AND RECOMMENDED MINIMUM TESTING FREQUENCY
PLASTICITY INDEX	AASHTO T-90	MAXIMUM 10	OBTAIN 1 SAMPLE PER 500 LF OR PART THEREOF, ALTERNATE SIDES OF CENTERLINE AND ALL MATERIAL CHANGES. NO LESS THAN 1 PER STREET. CURB LINE 1 PER 500 LF EACH SIDE OF ROAD.
LIQUID LIMIT	AASHTO T-89	MAXIMUM 40	OBTAIN 1 SAMPLE PER 500 LF OR PART THEREOF, ALTERNATE SIDES OF CENTERLINE AND ALL MATERIAL CHANGES. NO LESS THAN 1 PER STREET. CURB LINE 1 PER 500 LF EACH SIDE OF ROAD.
GRADATION	AASHTO T-27	97% PASSING 3.5"	OBTAIN 1 SAMPLE PER 500 LF OR PART THEREOF, ALTERNATE SIDES OF CENTERLINE AND ALL MATERIAL CHANGES. NO LESS THAN 1 PER STREET. CURB LINE 1 PER 500 LF EACH SIDE OF ROAD.
MOISTURE-DENSITY RELATIONS OF SOILS-MODIFIED METHOD (PROCTOR)	AASHTO T-180	N/A	OBTAIN 1 SAMPLE PER 500 LF OR PART THEREOF, ALTERNATE SIDES OF CENTERLINE AND ALL MATERIAL CHANGES. NO LESS THAN 1 PER STREET. CURB LINE 1 PER 500 LF EACH SIDE OF ROAD.
LIMEROCK BEARING RATIO (LBR)	FDOT FM 5-15	MINIMUM 40 OR PER PLAN	OBTAIN 1 SAMPLE PER 500 LF OR PART THEREOF, ALTERNATE SIDES OF CENTERLINE AND ALL MATERIAL CHANGES. NO LESS THAN 1 PER STREET. CURB LINE 1 PER 500 LF EACH SIDE OF ROAD.

FIELD TESTING

TYPE OF TESTING	METHOD	MINIMUM REQUIREMENT	LOCATION AND RECOMMENDED MINIMUM TESTING FREQUENCY
THICKNESS	N/A	PER PLANS $\frac{1}{2}$ " ALLOWABLE UNDERTOLERANCE	500' INTERVALS OR PART THEREOF ON ALTERNATE SIDES OF CENTERLINE. NO LESS THAN 1 PER STREET.
IN-PLACE DENSITY TESTING	AASHTO T-191 AASHTO T-310 FDOT FM 1-T 238	98% OF MAXIMUM DRY DENSITY	ROADWAY- 1 PER 500 LF OR PART THEROF IN A STAGGARED PATTERN MINIMUM 1 PER STREET. CURB LINE 1 TEST EVERY 500 LF ALONG EACH SIDE OF ROAD.

LIMEROCK / CRUSHED CONCRETE / SHELL / BASE MATERIAL

LABORATORY TESTING

SOURCE/TYPE OF UNIFORM	METHOD	MINIMUM REQUIREMENT	LOCATION AND RECOMMENDED MINIMUM TESTING FREQUENCY
LIMEROCK BEARING RATIO (LBR)	FDOT FM 5-515	MINIMUM 100 OR PER PLAN	OBTAIN 1 SAMPLE PER 500 LF FOR LIMEROCK OR 1000' LF FOR CRUSHED CONCRETE OR PART THEREOF ALTERNATE SIDES OF CENTERLINE AND ALL SOIL CHANGES. NO LESS THAN 1 PER STREET. CURB LINE 1 PER 500 LF ALONG EACH SIDE OF ROAD.
PLASTICITY INDEX	AASHTO T-90	NP	OBTAIN 1 SAMPLE PER 500 LF FOR LIMEROCK OR 1000' LF FOR CRUSHED CONCRETE OR PART THEREOF ALTERNATE SIDES OF CENTERLINE AND ALL SOIL CHANGES. NO LESS THAN 1 PER STREET. CURB LINE 1 PER 500 LF ALONG EACH SIDE OF ROAD.
LIQUID LIMIT	AASHTO T-89	MAXIMUM 35	OBTAIN 1 SAMPLE PER 500 LF FOR LIMEROCK OR 1000' LF FOR CRUSHED CONCRETE OR PART THEREOF ALTERNATE SIDES OF CENTERLINE AND ALL SOIL CHANGES. NO LESS THAN 1 PER STREET. CURB LINE 1 PER 500 LF ALONG EACH SIDE OF ROAD.
GRADATION – LIMEROCK	AASHTO T-27	97% PASSING 3.5"	OBTAIN 1 SAMPLE PER 500 LF FOR LIMEROCK OR 1000' LF FOR CRUSHED CONCRETE OR PART THEREOF ALTERNATE SIDES OF CENTERLINE AND ALL SOIL CHANGES. NO LESS THAN 1 PER STREET. CURB LINE 1 PER 500 LF ALONG EACH SIDE OF ROAD.
GRADATION – CRUSHED CONCRETE	AASHTO T-27	SEE PC SPEC 204	OBTAIN 1 SAMPLE PER 500 LF FOR LIMEROCK OR 1000' LF FOR CRUSHED CONCRETE OR PART THEREOF ALTERNATE SIDES OF CENTERLINE AND ALL SOIL CHANGES. NO LESS THAN 1 PER STREET. CURB LINE 1 PER 500 LF ALONG EACH SIDE OF ROAD.
MOISTURE-DENSITY RELATIONS OF SOILS- MODIFIED METHOD (PROCTOR)	AASHTO T-180	N/A	OBTAIN 1 SAMPLE PER 500 LF FOR LIMEROCK OR 1000' LF FOR CRUSHED CONCRETE OR PART THEREOF ALTERNATE SIDES OF CENTERLINE AND ALL SOIL CHANGES. NO LESS THAN 1 PER STREET. CURB LINE 1 PER 500 LF ALONG EACH SIDE OF ROAD.

FIELD TESTING

SOURCE/TYPE OF UNIFORM	METHOD	MINIMUM REQUIREMENT	LOCATION AND RECOMMENDED MINIMUM TESTING FREQUENCY
THICKNESS	N/A	PER PLANS ½" ALLOWABLE UNDERTOLERANCE	500' INTERVALS OR PART THEREOF ON ALTERNATE SIDES OF CENTERLINE. NO LESS THAN 3 PER STREET.
IN-PLACE DENSITY TESTING	AASHTO T-191 AASHTO T-310 FDOT FM 1-T 238	98% OF MAXIMUM DRY DENSITY	ROADWAY- 1 PER 500 LF OR PART THEROF IN A STAGGARED PATTERN MINIMUM 1 PER STREET. CURB LINE 1 TEST EVERY 500 LF ALONG EACH SIDE OF ROAD.

CONCRETE

NON-STRUCTURAL

TYPE OF TESTING	METHOD	MINIMUM REQUIREMENT	LOCATION AND RECOMMENDED MINIMUM TESTING FREQUENCY
CAST COMPRESSIVE STRENGTH CYLINDERS	ASTM C31	3000 PSI @ 28 DAYS DO NOT EXCEED WATER TO CEMENT RATIO	CAST 1 SET OF 3 CYLINDERS PERIODICALLY THROUGHOUT THE PROJECT. ALL 3 CYLINDERS TO BE TESTED AT 28 DAYS PER ACI CODE FOR VALID TEST. CAST ADDITIONAL CYLINDERS FOR EARLY TEST BREAKS IF NEEDED.
SLUMP TEST	ASTM C 143	3000 PSI @ 28 DAYS DO NOT EXCEED WATER TO CEMENT RATIO	CAST 1 SET OF 3 CYLINDERS PERIODICALLY THROUGHOUT THE PROJECT. ALL 3 CYLINDERS TO BE TESTED AT 28 DAYS PER ACI CODE FOR VALID TEST. CAST ADDITIONAL CYLINDERS FOR EARLY TEST BREAKS IF NEEDED.
TEST COMPRESSIVE STRENGTH	ASTM C 39	3000 PSI @ 28 DAYS DO NOT EXCEED WATER TO CEMENT RATIO	CAST 1 SET OF 3 CYLINDERS PERIODICALLY THROUGHOUT THE PROJECT. ALL 3 CYLINDERS TO BE TESTED AT 28 DAYS PER ACI CODE FOR VALID TEST. CAST ADDITIONAL CYLINDERS FOR EARLY TEST BREAKS IF NEEDED.
TEMPERATURE OF FRESH CONCRETE	ASTM C 1064	3000 PSI @ 28 DAYS DO NOT EXCEED WATER TO CEMENT RATIO	CAST 1 SET OF 3 CYLINDERS PERIODICALLY THROUGHOUT THE PROJECT. ALL 3 CYLINDERS TO BE TESTED AT 28 DAYS PER ACI CODE FOR VALID TEST. CAST ADDITIONAL CYLINDERS FOR EARLY TEST BREAKS IF NEEDED.

STRUCTURAL

TYPE OF TESTING	METHOD	MINIMUM REQUIREMENT	LOCATION AND RECOMMENDED MINIMUM TESTING FREQUENCY
CAST COMPRESSIVE STRENGTH CYLINDERS	ASTM C31	DESIGN STRENGTH @ 28 DAYS DO NOT EXCEED WATER TO CEMENT RATIO	CAST 1 SET OF 3 CYLINDERS PER 50 CUBIC YARDS FOR EACH DAY'S PLACEMENT. ALL 3 CYLINDERS TO BE TESTED AT 28 DAYS PER ACI CODE FOR VALID TEST. CAST ADDITIONAL CYLINDERS FOR EARLY TEST BREAKS IF NEEDED.
SLUMP TEST	ASTM C 143	DESIGN STRENGTH @ 28 DAYS DO NOT EXCEED WATER TO CEMENT RATIO	CAST 1 SET OF 3 CYLINDERS PER 50 CUBIC YARDS FOR EACH DAY'S PLACEMENT. ALL 3 CYLINDERS TO BE TESTED AT 28 DAYS PER ACI CODE FOR VALID TEST. CAST ADDITIONAL CYLINDERS FOR EARLY TEST BREAKS IF NEEDED.
AIR CONTENT TEST	ASTM C 231	DESIGN STRENGTH @ 28 DAYS DO NOT EXCEED WATER TO CEMENT RATIO	CAST 1 SET OF 3 CYLINDERS PER 50 CUBIC YARDS FOR EACH DAY'S PLACEMENT. ALL 3 CYLINDERS TO BE TESTED AT 28 DAYS PER ACI CODE FOR VALID TEST. CAST ADDITIONAL CYLINDERS FOR EARLY TEST BREAKS IF NEEDED.
TEST COMPRESSIVE STRENGTH CYLINDERS	ASTM C 39	DESIGN STRENGTH @ 28 DAYS DO NOT EXCEED WATER TO CEMENT RATIO	CAST 1 SET OF 3 CYLINDERS PER 50 CUBIC YARDS FOR EACH DAY'S PLACEMENT. ALL 3 CYLINDERS TO BE TESTED AT 28 DAYS PER ACI CODE FOR VALID TEST. CAST ADDITIONAL CYLINDERS FOR EARLY TEST BREAKS IF NEEDED.
TEMPERATURE OF FRESH CONCRETE	ASTM C 1064	DESIGN STRENGTH @ 28 DAYS DO NOT EXCEED WATER TO CEMENT RATIO	CAST 1 SET OF 3 CYLINDERS PER 50 CUBIC YARDS FOR EACH DAY'S PLACEMENT. ALL 3 CYLINDERS TO BE TESTED AT 28 DAYS PER ACI CODE FOR VALID TEST. CAST ADDITIONAL CYLINDERS FOR EARLY TEST BREAKS IF NEEDED.

ASPHALT

HOT MIX ASPHALT (HMA) SAMPLING

The Contractor shall be responsible for sampling the loose Hot Mix Asphalt (HMA). The sample shall be obtained by the Contractor's FDOT CTQP Qualified Asphalt Paving Level II Technician or his duly authorized and qualified representative. The HMA sample shall be taken at the plant and delivered to the Pinellas County representative on the project site with the load and truck number identified on the sample box or container and load ticket for transfer to the county's approved laboratory for testing. The sample may be picked up at the plant by either an authorized Pinellas County representative or the county's authorized testing laboratory technician. The loose HMA sample shall be immediately placed in an appropriate container that will prevent loss of material or segregation during transport and handling. The County may request the sample or samples from each days production be split into 2 samples sufficient in volume to perform extraction, gradation and determination of GMM (RICE) with one sample to be tested by the county's authorized testing lab and one sample retained by the county's authorized testing laboratory or authorized county representative for referee/verification testing. The Contractor should retain a sample sufficient in volume to perform extraction, gradation and determination of GMM (RICE) by their laboratory. In the event of out of tolerance results, the County may request the verification sample be tested and may also request the contractor's test results. Test results will then be compared. If any one sample test result are determined to be inconsistent with previous production samples, referee and Contractor test results, the test results may be disregarded as potential sampling error in which case, the remaining test results shall be averaged for adjustment purposes.

FOR ALL OTHER ASPHALT RELATED SAMPLING AND TESTING, REFER TO:

[PINELLAS COUNTY SUPPLEMENTAL SPECIFICATIONS FOR ROADWAY AND GENERAL CONSTRUCTION \(CURRENT EDITION\)](#)



Supplemental Specifications For Roadway and General Construction

(January 2025)

To be used in conjunction with FDOT Standard Specifications for Road and Bridge
Construction FY2024-25

This document has been digitally signed and sealed. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Mona R. Gabriel P.E. 90359
PW – Capital Improvements Division Director

Thomas E. Washburn P.E. 50113
PW - Transportation Division Director

The above named professional engineer shall be responsible for the following sheets in accordance with rule 61g15-23.004, F.A.C. The above named professional engineer shall be responsible for the following sheets in accordance with rule 61g15-23.004, F.A.C.

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MINIMUM TESTING FREQUENCY AND SAMPLING

001

The testing frequency and sampling procedures identified in the latest revision of the “Minimum Testing Frequency Specifications for Roads, Storm Drainage, Utilities and Sampling Procedures” as prepared by Pinellas County Public Works Construction Division supersede the testing requirements of the appropriate FDOT specification.

Certain tests (e.g., Limerock Bearing Ratio Tests) performed may require a number of days (four to six) for the test results to be obtained by the Engineer.

Link to document:

<http://www.pinellascounty.org/technical/pdf/testing-frequency.pdf>

The work specified under this Section consists of all materials and labor necessary to complete the survey effort by the Contractor to completely construct, quantify, and document the project to the satisfaction of the Engineer.

The Contractor must employ or retain the services of a Florida registered Professional Surveyor and Mapper, pursuant to Chapter 472 Florida Statutes and Chapter 5J-17 Florida Administrative Code, to satisfy all the requirements specified in this section of contract specifications. Additionally, the Contractor must be responsible to perform all efforts in acceptable standard methods.

The Contractor must thoroughly familiarize themselves with the plans, specifications, and on-site field conditions to submit a lump sum bid that will include all means and methods necessary to satisfy the survey and layout requirements of this project, any required survey for validation of earthwork quantities, and survey required to produce as-built/record drawings. All field books and calculations, related to survey efforts must be available to the Engineer upon request, for a period of one (1) year after construction completion.

005-0701 Survey and Layout

This work must include providing all lines, grades, boundaries and required survey and/or layout necessary to construct and inspect the project in accordance with approved plans and specifications. The right of way and/or easement shall be staked out with a stake or marker every 100 feet, or as approved by the Engineer, on both sides of the project boundaries. For site projects, the project boundaries and property corners shall be established. All property corners and section corners shall be protected through the contract period by the contractor, if a property corner is damaged, they will be restored by a Florida registered Professional Land Surveyor at no additional cost to the County.

005-0703 Earthwork Quantity Measurements

The Contractor must provide summaries to the Engineer, signed and sealed by a Florida registered Professional Surveyor and Mapper, validating earthwork volumes, within five (5) days after receiving written request from the Engineer.

For validation of earthwork volumes, the Contractor must provide the following:

1. Collect a sufficient number of data points to accurately represent the following surfaces:
 - i. Pre-excavation Surface prior to clearing and grubbing.
 - ii. Final Surface.
2. Compute earthwork volumes using the average end area method.
3. Provide Earthwork volume in a report format signed and sealed by a Florida registered Professional Land Surveyor.
4. Deliverables will include:
 - i. Digital data files of all surface data point in a standard ASCII format.
 - ii. Digital Terrain Model (DTM) files.

In the case of dispute in quantity measurements, the Engineer reserves the right to have Pinellas County Survey staff verify all measurements and calculations. Contractor's Surveyor must make all field books and calculations available for review by the Engineer or his designee.

005-0705 As-Built Survey

The Contractor must provide the as-built survey to the Engineer, signed and sealed by a Florida registered Professional Surveyor and Mapper, within twenty-five (25) days after receiving a written request from the Engineer. Contractor's Surveyor must make all field books and calculations available for review by the Engineer or his designee.

The as-built survey must include all items highlighted on marked-up plans, or defined by other means, provided by the Engineer of Record as part of the construction documents. In the event a set of highlighted marked up plans were not provided as part of the bid process, the items that require as-built surveying must include:

Control structures - weir and grate elevations and dimensions

Ponds - top of bank, toe of slope, and contour elevations to reflect side slopes

Other items (when specified in Technical Special Provisions or Supplemental Specifications)

Deliverables

All Survey activities and deliverables are to be in accordance with the PINELLAS COUNTY CADD STANDARDS MANUAL FOR SURVEY AND CIVIL ENGINEERING and Rule 5J-17.050 through 5J-17.053 Florida Administrative Code, and Chapter 472 Florida Statutes and must include Signed and Sealed As-built Surveys. Deliverables will also include all Autodesk Civil 3D project files using latest edition Pinellas County CADD Kit; field book files; digital data files of all surveyed points in the standard ASCII format; and an electronic copy of the signed and sealed survey in Portable Document Format (.pdf).

The PINELLAS COUNTY CADD STANDARDS MANUAL FOR SURVEY AND CIVIL ENGINEERING can be found on the Pinellas County Website (<http://www.pinellascounty.org/technical/>).

Basis of Payment:

The pay quantity must consist of all materials and labor necessary to satisfy the survey and layout requirements of this project (005-0701), any required survey for validation of earthwork quantities (005-0703), and survey required to produce as-built drawings (005-0705), performed to the satisfaction of the Engineer. The pay quantity for the work specified under this Section must be in Lump Sum (LS) quantity.

Payments will be made under:

Item No. 005-0701	Survey, Construction Layout	-Lump Sum
Item No. 005-0703	Survey, Earthwork Quantity Measurements	-Lump Sum
Item No. 005-0705	Survey, Permitting As-built Requirements	-Lump Sum

MOBILIZATION

101-0100

The work specified under this Section consists of the preparatory work and operations in mobilizing to begin work on the project, including but not limited to those operations necessary for the movement of personnel, equipment, supplies and incidentals to the project site(s), and for the establishment of temporary offices, buildings, safety equipment and first aid supplies, sanitary and other facilities as required by these specifications, special provisions, and state and local laws and regulations.

The Contractor must furnish, install, and maintain station boards (every 100 ft) on one (1) side of the project for the duration of the project. The station boards must be 48-inches-long, 1" x 4" lumber, painted white with 3-inch black stenciled numbers. If damaged, they will be restored at no additional cost to the County. Station boards must be removed by the Contractor upon written notice from the Engineer.

Unless there is a separate pay item for Survey by Contractor, the Mobilization pay item must include the cost of maintaining a plans contract set with redlines that depict any construction deviations to dimensions, measurements, stations, offsets, etc., shown on the plans. The Contractor must provide one (1) original Record Drawing set (in color) and eight (8) additional color copies to the Engineer after construction is completed on 11" x 17" or 24" x 36" paper drawings.

The cost of bonds and any required insurance, consideration for indemnification to the County and the Engineer, and any other preconstruction expenses necessary for the start of the work, excluding the cost of construction materials, must also be included in this Section.

Pay item for Mobilization must include photographic documentation and a high-definition video (minimum 1280 x 720 resolution) of the project by the Contractor, prior to construction beginning, for the purpose of documenting existing conditions. The pictures and video must be provided to the Engineer prior to beginning construction.

Unless otherwise approved by the Engineer, the pay item for Mobilization must also include the furnishing and placement of door hanger notifications on the doors of all affected residents adjacent to the project, prior to the start of construction. Notifications shall inform residents of the construction time frame and any anticipated impact to properties at least two (2) weeks prior to construction commencing. Notification content must be pre-approved by the Engineer.

Basis of Payment

The work and incidental costs specified as being covered under this Section must be paid for at the contract lump sum price (LS), for Mobilization, in accordance with Section 101-2 of the FDOT Specifications.

MAINTENANCE OF TRAFFIC

102-1000

The work specified under this Section consists of maintaining vehicular, bicycle and pedestrian traffic within the limits of the project for the duration of the construction period, in accordance with the requirements of Section 102 of the **FDOT Specifications**, as amended herein. The road must be kept open to two-way traffic, unless otherwise specified on the plans or the specifications, for the duration of the construction period, except that, during non-peak traffic periods, one (1) lane of traffic will be permitted provided that flagmen are used, and prior approval is obtained from the County. The Contractor will not be permitted to isolate residences or places of business. Access must be provided to all residences and all places of business whenever construction interferes with the existing means of access. Any proposed closure of side streets to local traffic, requires County pre-approval on each occasion, and notification by Contractor to affected property owners and emergency services fourteen (14) days in advance, unless otherwise approved by the County Traffic Engineer or the County Engineer.

The Contractor must furnish, erect and maintain all necessary traffic control and safety devices, in accordance with the plans and **FDOT Standard Plans**, latest edition, and the **Manual of Uniform Minimum Standards for Design, Construction and Maintenance (Florida Greenbook)**, latest edition, and must take all necessary precautions for the protection of the work and the safety of the public for the duration of the construction period.

The work specified under this Section must include all Maintenance of Traffic (MOT) pay items with prefix 102, and all work shown in the plans including, but not limited to, removal of existing pavement markings, installation and removal of pavement striping, markings and reflective markers, and all materials and construction necessary to create temporary connections for street, driveways, and pedestrian traffic. The pay item for "Maintenance of Traffic – Lump Sum" must include all work necessary for maintenance of vehicular traffic and pedestrian traffic, unless otherwise specified to be paid for under other items of work. Payment for **pavement markings** to be used during maintenance of traffic must be paid for and included in the Maintenance of Traffic Lump Sum pay item.

Temporary Curb (Asphaltic or Concrete) must not be used without prior approval by the Engineer. Portable Temporary Low-Profile Barrier for Roadside Safety, in accordance with FDOT Indexes, may be used in lieu of barrier walls for design speeds of forty-five (45) mph or less, where a low profile is desired to maintain sight distance at intersections and driveways. Portable Temporary Low-Profile Barrier for Roadside Safety must be paid for under the contract unit value for Barrier Wall (Temporary) Low-Profile Concrete (Linear Foot), and will be full compensation for the furnishing, installing, maintaining, relocation and removal of the barrier wall. The contractor must not receive additional compensation for relocating the barrier wall (i.e., from one construction phase to another). The approved "Portable Temporary Low-Profile Barrier for Roadside Safety" is a proprietary design by the University of Florida. Only those barrier units cast by producers licensed by the University of Florida will be allowed for installation. Availability of this device may be limited due to high demand; and should be considered in establishing project schedules calling for this device. The applicable edition of the documents referenced herein must be that edition of the respective documents specified in the plans.

The Contractor may propose an alternate traffic control plan (TCP) to the one presented in the plans. If so, the Contractor must have their Engineer be the Engineer of Record for the alternate plan and must have said Engineer sign and seal the alternate plan. Additionally, the Contractor must provide documentation showing that their Engineer has professional liability insurance and that their Engineer must indemnify and hold harmless the County and its officers and employees, same as required of the Contractor in this contract. Their Engineer must also possess Advance Temporary Traffic Control Certification.

The work specified under this Section must include all work shown in the plans including, but not limited to, installing and removing temporary inlets, temporary manholes, temporary pipes, temporary outlet structures, temporary inlet grates, and all materials and construction necessary to maintain temporary drainage during construction operations and temporary signalization. There must be no modifications to existing signalization mast arms or strain poles unless approved by the County. The pay item for "Maintenance of Traffic - Lump Sum" must include all work necessary for maintenance of drainage during construction operations. Any drainage structure or pipe that is part of the permanent drainage plan will be paid for under other items of work.

Basis of Payment

The work and incidental costs specified as being covered under this Section must be paid for at the contract unit price per Lump Sum (LS), on a pro-rated monthly amount based on the contract time. If the bid sheets include a specific pay item from the list provided in FDOT Section 102-13.26 Payment Items, then the work must be paid for at the contract unit price.

Note: If a pay item is not provided in the bid sheets from FDOT Section 102-13.26 Payment Items, then the cost for said item/work must be included in the "Maintenance of Traffic" (Lump Sum) pay item.

PREVENTION, CONTROL AND ABATEMENT OF EROSION AND WATER POLLUTION

104

The work specified under this Section consists of the furnishing and application of Best Management Practices (BMPs) required to control erosion to the maximum extent practicable for the duration of the construction period, in accordance with the requirements of Section 104 of the **FDOT Specifications**, as amended herein.

At the pre-construction conference or prior to any construction activity, the Contractor must submit a completed and signed Pinellas County Habitat Permit application, and supporting documents, the Contractor-generated project specific Prevention, Control and Abatement of Erosion and Water Pollution plan (which includes the proposed construction phasing and erosion control lay out for phasing), the Stormwater Pollution Prevention Plan (SWPPP), and the dewatering plan for inclusion in the Pinellas County Habitat Permit (Land Development Code Ch. 166 Environmental and Natural Resource Protection Article II Habitat Management & Landscaping Division 2: Permits). The Contractor must not commence earth-moving or land clearing prior to a habitat permit being issued. Commencement of any construction activity prior to issuance of a habitat permit is a violation of the Pinellas County Land Development Code and is subject to enforcement action.

The Engineer will meet with the Contractor in the field during erosion control abatement system installation to review the field conditions and employed Best Management Practices (BMPs) that address the field conditions. A preconstruction field meeting must be conducted jointly with the pre-barricade meeting to discuss habitat permitting requirements, dewatering, and other outstanding issues.

104-10 Basis of Payment

The work and incidental costs specified as being covered under this Section must be paid for the unit price per Lump Sum (LS), for Prevention, Control and Abatement of Erosion and Water Pollution. If the bid sheets include a specific pay item from the list provided in FDOT Section 104-10 Basis of Payment, then the work must be paid for at the contract unit price.

Prices and payments will be full compensation for all work specified in this Section, including construction, routine maintenance, replacement, and removal of temporary erosion control devices, and not included in the contract unit price for a related item.

If a pay item is not provided in the bid sheets from FDOT Section 104-10 Basis of Payment, then the cost for said item/work must be included in the “Prevention, Control and Abatement of Erosion and Water Pollution” (Lump Sum) pay item.

Payment will be made under:

Item No. 104-99 Prevention, control and Abatement of Erosion and Water Pollution
 -Lump Sum

NOTE: The Contractor will be fully responsible for maintaining compliance with all National Pollutant Discharge Elimination System (NPDES) standards. Failure to maintain erosion and/or sedimentation control measures or an illicit discharge may result in fines. Section 58-239 of the Pinellas County Code authorizes penalties of up to \$10,000.00 for each offense.

WATER FOR DUST CONTROL

104-5000

The work specified under this Section consists of the furnishing and application of Water on the construction area including but not limited to sub-grade, un-surfaced base, or other un-surfaced traveled ways, or areas of cleared vegetation, in order to control dust resulting from construction operations. The locations and frequency of application must be as directed by the Engineer.

Water used for controlling moisture content of surfaces to meet compaction requirements, mixture and/or working of material, etc. is at the expense of the contractor, included in the work being performed and not paid as "Water For Dust Control".

The water used may be obtained from any approved source that meets Federal, State and local requirements.

Basis of Payment

The work specified under this Section must be paid for at the contract unit price per thousand gallons of Water for Dust Control.

Payments will be made under:

Item No. 104-5000 WATER, for Dust Control -Thousand Gallons

CLEARING AND GRUBBING

110

The work specified under this Section consists of the clearing and preparation of sites for proposed construction, in accordance with the requirements of Section 110 of the **FDOT Specifications**, as amended herein. The work specified under this Section must include the removal and off-site disposal of all trees indicated on the plans to be removed, the removal and off-site disposal of all brush, stumps, roots, rubbish and debris, and all obstructions resting on or protruding through the surface of the existing ground and the surface of excavated areas, the removal and off-site disposal of all existing facilities, drainage structures, culverts, pipes, and pavement indicated on the plans to be removed, and the removal and off-site disposal of all buildings, structures, appurtenances, and other facilities necessary to prepare the area for the proposed construction.

No stock piling of material on the roadway, within tree protection zones (TPZ), or on the sidewalk is allowed. All extra dirt and/or debris must be removed daily as part of the daily clean-up process. The roadway and the sidewalks must be swept daily. All costs associated with daily clean-up process and sweeping must be included in the Lump Sum bid for Clearing and Grubbing. All buildings, structures, utilities, and other obstructions indicated on the plans to remain, must be carefully protected against displacement or damage. Materials and labor for this protection must be included in the Lump Sum cost of Clearing and Grubbing.

Except as otherwise provided for in these specifications, the work to be performed under this Section must also include the clearing and grubbing necessary for the excavation of detention ponds, borrow pits, and the like, and the clearing and grubbing necessary for the construction of designated haul routes, and including the removal and off-site disposal of all product and debris except that which is to be salvaged or which is required to complete the construction of the project.

Where possible, all trenching or excavation within tree protection zones (TPZ) shall be done by hand or an air spade. After excavation, all tree roots greater than one inch (1") in diameter must be cleanly pruned or saw cut, not crushed or torn. Where it is not possible to hand trench, mechanical excavation may be approved by the Engineer. Trunk/root flare and soil/root protection measures in accordance with Pinellas County Standard Detail Index 1111 must be employed to prevent tree damage from mechanical excavation equipment. The Contractor must not cut tree roots greater than three inches (3") in diameter within the critical root zone (CRZ) without prior approval of the Engineer, after the inspection of an International Society of Arborists (ISA) Certified Arborist, preferably ISA Tree Risk Assessment Qualified (TRAQ). All root pruning must conform to ANSI A300 (Part 8) Standard Practices (Root Management). After root pruning, cut roots should be covered and kept moist until final grade is established. Cutting tree roots greater than 3" in diameter in the critical root zone (CRZ) or tree roots greater than six inches (6") in diameter within the TPZ shall be reviewed by a County Arborist to determine if a tree designated to remain may need to be removed to prevent future liability.

The Contractor must make his own inspection to determine the character, density and extent of trees, vegetation, and other items subject to removal and disposal under these provisions. The attention of the Contractor is directed to the fact that the burning of debris resulting from clearing and grubbing operations will not be permitted within County-owned lands or rights-of-way. Nothing in these provisions must be construed to authorize the removal or disturbance of any tree or other form of vegetation, or any marine, land or air creatures' natural habitat, which may be subject to the jurisdiction of regulatory agencies. This Section must also include the cost for trimming of trees and

disposal of the trimmings, as shown on the plans and/or required for construction of project. All tree trimming must be performed by or under the supervision of an ISA Certified Arborist and conform to ANSI A300 (Part 1) Standard Practices (Pruning), cost of which is included in the Clearing and Grubbing pay item.

This Section must also include the temporary relocation of mailboxes during construction and permanent relocation after construction has been completed. The work must also include the relocation of the mailbox foundation. The Contractor must coordinate with the Post Office to confirm the mailbox locations. Mailboxes must be restored to equal or better condition that existed prior to the commencement of construction activities, location of which must meet roadway clear zone requirements found in the FDOT Florida Green Book. Work related to mailboxes must be included in the Lump Sum pay item for Clearing and Grubbing

A. Ownership of Removals:

- i. All removed materials not claimed by the County must become the property of the Contractor and must be disposed of by the Contractor in areas provided by the Contractor. This work must be included in the pay item Clearing and Grubbing.
- ii. Transporting and placement of removed material must be paid for under and included in the pay item of Clearing and Grubbing.

B. Items in County Right-of-Way:

The Contractor must notify in writing all property owners to remove any items (landscaping, signs, irrigation systems, lighting, etc.) from the County Right-of-Way that owners wish to salvage a minimum of fourteen (14) calendar days in advance of construction activities. After the notification period, it is the Contractor's responsibility to remove said items that conflict with construction activities prior to construction. For irrigation systems that the owners wish to salvage, the contractor must place a temporary cap on the pipe that feeds into the irrigation system conflicting with construction activities within County Right of Way. The price and payment for capping and removal of irrigation systems shall be paid for under Pay Item No. 110-9-1 IRRIGATION SYSTEM, CUT AND CAP of the irrigation feed in the Right-of-Way for a non-single family irrigation system. The price and payment for removal of other items must be included in the payment item of Clearing and Grubbing.

C. Irrigation/Sprinkler Systems for single family residential units: The Contractor shall repair or replace irrigation components in the public Right-of-Way, including fittings, sprinkler heads, and minor related appurtenances adjacent to single family residential properties. The Contractor must verify the proper working order of sprinkler systems affected by Construction, both prior to and after construction. The limit of the repair shall be as directed by the Engineer. Repair or replacement and verification efforts shall be paid for under Pay Item No. 110-9-2 IRRIGATION SYSTEM, INSTALLATION.

D. Tree Protection: Trees not within the Clearing and Grubbing area and those specified to remain within County property/right of way, must be protected during construction with Tree Protection Barricades, in accordance with Pinellas County Standard Detail Index 1111. The payment for Tree Protection must be included in the Lump Sum pay item, "Clearing and Grubbing".

E. Tree and Stump Removal: Unless otherwise indicated by the Engineer in the construction documents, all trees deemed in conflict with the construction activities must be marked by the Contractor for removal, and field validated by the Engineer and a County Arborist in advance of construction. The Contractor must not remove any trees without authorization from the Engineer, after inspection by an ISA Certified Arborist.

F. Subterranean Item Removal: Included in clearing and grubbing. Tree stumps, roots, debris, and other abandoned items must be removed from proposed sidewalk, drainage, roadway, and driveway areas to a minimum depth of four (4) feet. Where proposed items, such as underground drainage, that are deeper than three feet six inches, an additional six (6) inches below those proposed elements shall be clear of debris. All backfill must be A-1 or A-3 soil material. The excavation and backfilling must be included in the Lump Sum cost of Clearing and Grubbing.

Basis of Payment

The work and incidental costs specified as being covered under this Section must be paid for at the contract unit price per Lump Sum (LS), for Clearing and Grubbing, except Irrigation. If the Schedule of Values includes a specific pay item from the list provided in FDOT Section 110-12.8, then the work must be paid for at the contract unit price.

IRRIGATION SYSTEM, TEMPORARY CAP work shall include all labor and material required as specified under the above Section B and must be paid for at the contract unit price per Each (EA) temporary cap installed and satisfactorily completed and accepted.

IRRIGATION SYSTEM, INSTALLATION work shall include all labor and material required as specified under the above Section C and must be paid for at the contract unit price per Linear Foot (LF) measured along the center line of the road installed and satisfactorily completed and accepted.

If a pay item is not provided in the bid sheets from Section 110, then the cost for said item/work must be included in the “Clearing and Grubbing” (Lump Sum) pay item.

Payments will be made under:

Item No. 110-0100	Clearing and Grubbing	- Lump Sum
Item No. 110-9-1	IRRIGATION SYSTEM, Temporary Cap	- Each
Item No. 110-9-2	IRRIGATION SYSTEM, Installation	- Linear Foot

GRADING

120-1100

All work specified under this Section must conform to the requirements of Sections 110 and 120 of the FDOT Specifications, except as amended herein.

Except for that work excluded under other provisions of this Section, and except as provided for under other Sections of these Specifications, the work to be performed under this Section must consist of all excavation, the furnishing, placement and compaction of all embankment and fill material, all grading of roadway shoulders and ditches, the construction or re-channelization of all ditches and swales, all graded road connections, the shaping or reshaping of slopes, all final dressing, and all other earthwork operations required for the completion of the project. The Contractor must not over-excavate a construction site below the elevations shown in the Plans and permits, unless specifically pre-approved by the County in writing.

Unless otherwise provided for, all borrow material required for the completion of work performed under this Section must be furnished by the Contractor from areas provided by the Contractor. When the project includes the construction of Road Base, the work performed under this Section must also include the furnishing, placement and compaction of all embankment material required between existing ground and the bottom of the Road Base.

The work to be performed under this Section must not include the excavation of unsuitable material, or the furnishing or placement of borrow material as replacement for unsuitable material below the limits of typical excavation, or other items of work for which separate payment is to be made, but must include the placement and compaction of suitable fill material as replacement for unsuitable material where suitable fill material is available as surplus material from the project site.

Ownership of all suitable material must remain with the County until all earthwork requirements for the project have been fulfilled. Except as otherwise provided for in the Plans and Specifications, all surplus material and other items not claimed by the County must become the property of the Contractor and must be disposed of by the Contractor in off-site areas provided by the Contractor.

Basis of Payment

Work specified under this Section must be one lump sum quantity which must include all work described and specified herein.

OPTIONAL BASE COURSE

285

The work specified under this Section shall amend FDOT Section 285 Optional Base Course to exclude the use of any optional base materials. The acceptable base (Limerock, Recycled Concrete Aggregate, or Asphalt) shall be specified in the plans.

Basis of Payment

Payment will be made under:

Item No. 285-1-	BASE, Limerock - per square yard.
Item No. 285-2-	BASE, Asphalt - per square yard.
Item No. 285-3-	BASE, Recycled Concrete Aggregate, LBR150 - per square yard.

The work specified under this Section consists of the basic equipment and construction requirements for hot mix asphalt (including warm mix asphalt) pavements and bases as called for in the plans and in accordance with the requirements of Sections 330 of the ***FDOT Specifications***, as amended herein.

330-7.1 General Requirements:

When density testing for acceptance is required, select equipment, sequence, and coverage (number of times the roller passes over a given area of pavement) of rolling to meet the specified density requirement. Regardless of the rolling procedure used, complete the final rolling before the surface temperature of the pavement drops to the extent effective compaction may not be achieved or the rollers begin to damage the pavement.

No vibratory compaction in the vertical direction will be allowed for layers one inch or less in thickness or if the Engineer or Contract Documents limit compaction to the static mode only. Compact these layers in the static mode only. Other non-vertical vibratory modes of compaction will be allowed, if approved by the Engineer; however, no additional compensation, cost, or time, will be made.

Compaction limitations may include, but are not limited to, the presence of unlined vitrified clay pipe, galvanized pipe, unlined corrugated metal pipe, or any other underground infrastructure or historic sites or adjacent buildings that would be at risk with use of vibratory equipment. Cores will still be taken for thickness and density, however, no adjustment for density, incentive or disincentive shall be applied to the LOTs affected. The contractor is still responsible for establishing the best possible rolling pattern to achieve maximum density using static roll only.

The work specified under this Section consists of the basic equipment and construction requirements for the construction of Superpave asphalt concrete pavements with the type of mixture specified in the Contract Documents, or when offered as alternates, as selected. Superpave mixes are identified as Type SP-9.5, Type SP-12.5 or Type SP-19.0 as called for in the plans and in accordance with the requirements of Section 334 of the **FDOT Specifications**, as amended herein.

334-2.3.1 General requirements:

RAP may be used as a component of the asphalt mixture subject to the following requirements:

1. When using a PG 76-22 asphalt binder in friction course mixtures, limit the amount of RAP material used in the mix to a maximum of 20% by weight of total aggregate. As an exception, amounts greater than 20% RAP by weight of total aggregate can be used if no more than 20% by weight of the total asphalt binder comes from the RAP material. When using a PG 76-22 asphalt binder in structural course mixtures, refer to 334-2.3.6. RAP is not allowed in mixtures containing High Polymer asphalt binder. High Polymer asphalt is defined in Section 916.
2. Assume full responsibility for the design, production and construction of asphalt mixes which incorporate RAP as a component material.
3. Use RAP from a Department approved stockpile or millings from a Department project.
4. Provide stockpiled RAP material that is reasonably consistent in characteristics and contains no aggregate particles which are soft or conglomerates of fines.
5. Provide RAP material having a minimum average asphalt binder content of 4.0% by weight of RAP. As an exception, when using fractionated RAP, the minimum average asphalt binder content for the coarse portion of the RAP shall be 2.5% by weight of the coarse portion of the RAP. The coarse portion of the RAP shall be the portion of the RAP retained on the No. 4 sieve. The Engineer may sample the stockpiles to verify that this requirement is met.
6. Amounts greater than 25% RAP by weight of total aggregate are prohibited unless specifically authorized by the Engineer. If the Engineer allows RAP to exceed 25%, the limitations in the section and specifically tables 334-2 and 334-3 will still apply.

334-5.1.2 Acceptance Testing Exceptions:

The mixture quantity in the first paragraph is amended as follows:

When the total combined quantity of hot mix asphalt for the project or work order, as indicated in the Plans for Type B-12.5, Type SP and Type FC mixtures only, is less than two hundred (200) tons, the Engineer will accept the mix on the basis of visual inspection.

334-5.2 Full LOTs:

A LOT is that amount of material which is evaluated for pay purposes. Each LOT is evaluated as a separate project based on results from a specified number of random samples, and each day's production will be divided into LOTs. The standard size of a LOT will consist of five thousand (5000) feet of any pass on each separate lift made by the paving train regardless of the width of the pass or the thickness of the course.

The size of any given LOT may vary according to that day's production based on the following:

1. If the day's production is less than or equal to seven thousand (7000) feet, the entire day's production will be considered one LOT.
2. If the day's production is greater than seven thousand (7000) feet, the first five thousand (5000) feet shall be considered one LOT, and the remaining production (up to an additional 7000 feet) will be considered a second LOT.
3. If the day's production is greater than twelve thousand (12,000) feet, the first five thousand (5000) feet shall be considered one LOT, the second five thousand (5000) feet shall be considered a second LOT, and the remaining production (up to an additional 7000') will be considered a third LOT.

Whether due to miscommunication, plant breakdown, extreme weather, or other events beyond control, there may be instances when only one sample of the plant produced mix may be obtained on a day's production that exceeds more than one LOT. When this occurs, the test data from that sample will be used for all LOTs on that day. If the mix design or type is changed during the day's production, a new LOT will be established.

In most cases, all LOTs are to be closed out at the end of each day. However, in some instances, at the direction of the Engineer, it may be necessary or practical to take two small LOTs produced on consecutive days and combine them into one LOT. If LOTs are combined over two production days, a hot mix sample must be taken from each day and cores must be identified by day's production to ensure use of proper GMM when determining density of cores.

334-5.4.3 Roadway Sampling and Testing Requirements:

The average density of each LOT shall be determined by randomly located core samples obtained by the Contractor under the supervision of the COUNTY'S Inspector or duly authorized representative at locations designated by the COUNTY. The COUNTY Inspector should be present to witness the Contractor's coring operation. In no case shall the Contractor core the asphaltic concrete pavement unless specifically authorized by the Engineer or the County's Inspector. If the pavement is cored by the Contractor without authorization from the Engineer, the Engineer shall either require that the LOT section be removed and replaced at the cost of the Contractor, or accepted at no cost to the COUNTY, or accepted at a reduced rate as determined by the Engineer. The COUNTY may elect to obtain the core samples using their authorized testing laboratory. The LOT size shall be the same as that indicated in 334-5.2.

Core samples shall be neatly cut with a core drill. The cutting edge of the core drill bit shall be of hardened steel or other suitable material with diamond chips embedded in the metal cutting edge. The standard diameter of the sample shall be six (6) inches. The standard core size for thickness ONLY determination will be two (2) inches. Care should be exercised while retrieving, transporting, or storing the core that the sample is not distorted, bent, cracked or in any way changed from its physical condition as it was before removal from the pavement. Two (2) core samples taken approximately within one foot of each other shall be obtained at each designated location specifically marked in the field by the Engineer with the exception of recreational trails, parks, and public parking areas where one (1) 4" core sample shall be taken at each location. Additional cores adjacent to the initial core may be taken as referee cores if results are disputed but only with authorization of the Engineer. Under no circumstances will the Contractor be allowed to adjust the designated core

locations based on non-destructive density readings taken prior to the cutting of the cores. No additional cores shall be cut by the Contractor, unless specifically authorized by the Engineer.

The Engineer may elect to obtain only one core per location at the initial sampling and obtain the verification core only if needed at a later date. Samples that are clearly defective, as a result of sampling, shall be discarded and another sample immediately taken within approximately one (1) foot of the original location at the direction of the County. The Contractor shall furnish all tools, labor, materials, and traffic control for cutting samples and filling the cored pavement. The Contractor is required to cut as many cores as the Engineer deems necessary to evaluate the pavement LOT for acceptance purposes. In certain instances, the Engineer may require the Contractor to cut a third core from each location in a LOT for permeability testing. The Contractor shall furnish sample containers of sufficient strength to prevent cores from being damaged during transport and the core specimens shall be secured with masking tape. Once all the cores for a particular LOT have been obtained, they shall be immediately transferred to the COUNTY Inspector.

Cores should be cut on day of paving. However, in the event of equipment malfunction or inclement weather, the cores shall be taken as soon as practicable on the next regular workday.

The Contractor shall cut a minimum of three (3) core locations per LOT with smaller LOTs prorated by length. All cores will be taken at random locations selected by Pinellas County using Core Random Sampling chart – see Table 334-5.4.3 below.

Acceptance of the compacted pavement with respect to density will be based on the average of each LOT's core samples tested in accordance with Florida Test Method FM 1-T 166. Cores taken in turn outs, cul-de-sacs or streets less than 100 feet in length will be for information only with no incentive or disincentive adjustment and will not be considered part of the three (3) core minimum.

334-5.4.3.1 Authorization To Core:

No cores shall be cut in the asphalt pavement unless previously authorized by the COUNTY. If the Contractor cuts cores from a LOT without authorization from the COUNTY, the Engineer shall either require that the LOT section be removed and replaced at the cost of the Contractor, or accepted at no cost to the COUNTY, or accepted at a reduced rate as determined by the Engineer.

334-5.4.3.2 Final Density Determination:

Once the average density of a LOT has been determined the Contractor will not be permitted to provide additional compaction to raise the average.

334-5.4.3.3 Authorization To Pave Final Lift:

For new construction with multiple lifts or full depth asphalt base with structural and final lift or friction course, the Contractor shall not construct the final surface course of pavement until receipt of written authorization from the Engineer to proceed with paving. If the final surface course of pavement is installed without written authorization from the Engineer, the Engineer shall either require that the LOT section be removed and replaced at the cost of the Contractor, or accepted at no cost to the COUNTY, or accepted at a reduced rate as determined by the Engineer.

Table 334-5.4.3 – Core Random Sampling Chart

	Column 1			Column 2			Column 3			Column 4			Column 5			Column 6			Column 7		
	No.	Loc.	O/S	No.	Loc.	O/S	No.	Loc.	O/S	No.	Loc.	O/S	No.	Loc.	O/S	No.	Loc.	O/S	No.	Loc.	O/S
G R O U P A	1	408	.2	1	807	.3	1	175	.6	1	327	.3	1	525	.2	1	275	.6	1	867	.5
	2	1575	.6	2	1208	.1	2	1698	.1	2	1462	.9	2	1763	.4	2	1297	.9	2	1337	.3
	3	2945	.8	3	2213	.8	3	2493	.4	3	2748	.5	3	2218	.9	3	2992	.2	3	2122	.9
	4	3662	.7	4	3188	.5	4	3838	.7	4	3843	.7	4	3903	.5	4	3410	.1	4	3818	.7
	5	4778	.4	5	4048	.6	5	4977	.3	5	4422	.2	5	4488	.7	5	4352	.4	5	4853	.1
	6	5464	.5	6	5767	.7	6	5361	.9	6	5972	.4	6	5434	.1	6	5777	.7	6	5748	.4
	7	6256	.3	7	6554	.6	7	6323	.8	7	6742	.6	7	6240	.6	7	6730	.8	7	6756	.8
G R O U P B	1	310	.5	1	105	.9	1	310	.1	1	487	.1	1	410	.8	1	277	.1	1	602	.7
	2	1260	.3	2	1245	.4	2	1128	.7	2	1708	.8	2	1167	.4	2	1803	.8	2	1780	.9
	3	2208	.1	3	2467	.6	3	2408	.4	3	2497	.5	3	2652	.1	3	2807	.5	3	2915	.3
	4	3787	.9	4	3473	.1	4	3973	.5	4	3708	.3	4	3912	.9	4	3388	.9	4	3562	.2
	5	4818	.7	5	4492	.7	5	4052	.2	5	4102	.9	5	4843	.3	5	4100	.4	5	4612	.5
	6	5985	.4	6	5663	.2	6	5117	.9	6	5514	.6	6	5433	.5	6	5279	.6	6	5325	.6
	7	6028	.6	7	6129	.5	7	6092	.8	7	6887	.7	7	6310	.2	7	6624	.7	7	6385	.1
G R O U P C	1	202	.2	1	377	.5	1	317	.2	1	713	.8	1	282	.9	1	618	.6	1	287	.4
	2	1632	.8	2	1728	.1	2	1352	.9	2	1883	.9	2	1562	.2	2	1918	.2	2	1028	.1
	3	2507	.4	3	2498	.9	3	2323	.7	3	2452	.4	3	2395	.5	3	2487	.4	3	2178	.3
	4	3895	.1	4	3430	.4	4	3255	.3	4	3112	.1	4	3370	.4	4	3258	.9	4	3532	.6
	5	4033	.5	5	4248	.8	5	4903	.1	5	4593	.2	5	4438	.3	5	4515	.7	5	4393	.9
	6	5333	.9	6	5972	.6	6	5593	.6	6	5782	.6	6	5475	.8	6	5270	.3	6	5847	.2
	7	6215	.6	7	6206	.3	7	6553	.8	7	6436	.7	7	6403	.6	7	6598	.8	7	6434	.7
G R O U P D	1	203	.2	1	753	.7	1	445	.8	1	952	.1	1	858	.3	1	712	.1	1	222	.2
	2	1262	.8	2	1073	.2	2	1625	.9	2	1692	.7	2	1023	.6	2	1370	.8	2	1837	.5
	3	2592	.3	3	2102	.5	3	2087	.2	3	2088	.3	3	2668	.7	3	2842	.3	3	2112	.9
	4	3212	.5	4	3512	.6	4	3702	.5	4	3285	.8	4	3975	.9	4	3778	.5	4	3437	.7
	5	4610	.1	5	4603	.9	5	4370	.1	5	4782	.5	5	4970	.1	5	4168	.4	5	4143	.3
	6	5923	.7	6	5066	.3	6	5086	.7	6	5301	.6	6	5010	.5	6	5969	.9	6	5090	.6
	7	6179	.9	7	6928	.1	7	6845	.6	7	6285	.2	7	6874	.4	7	6163	.7	7	6935	.8
G R O U P E	1	102	.2	1	318	.2	1	13	.1	1	628	.3	1	472	.9	1	97	.5	1	753	.1
	2	1692	.4	2	1878	.8	2	1817	.7	2	1404	.9	2	1453	.2	2	1232	.3	2	1208	.5
	3	2128	.8	3	2592	.5	3	2198	.3	3	2720	.6	3	2803	.8	3	2567	.9	3	2738	.8
	4	3177	.3	4	3653	.3	4	3105	.5	4	3132	.1	4	3060	.5	4	3138	.7	4	3467	.4
	5	4272	.7	5	4938	.4	5	4062	.9	5	4503	.4	5	4828	.4	5	4472	.2	5	4978	.6
	6	5605	.1	6	5018	.1	6	5352	.4	6	5316	.7	6	5524	.1	6	5662	.4	6	5754	.7
	7	6774	.6	7	6153	.7	7	6368	.8	7	6849	.8	7	6592	.6	7	6899	.8	7	6399	.2
G R O U P F	1	912	.1	1	187	.8	1	240	.2	1	830	.9	1	73	.6	1	312	.2	1	673	.5
	2	1652	.5	2	1438	.4	2	1543	.5	2	1620	.2	2	1935	.5	2	1615	.9	2	1765	.9
	3	2920	.8	3	2178	.6	3	2968	.8	3	2127	.3	3	2195	.1	3	2637	.5	3	2263	.1
	4	3233	.3	4	3262	.2	4	3062	.9	4	3927	.8	4	3263	.2	4	3133	.4	4	3235	.3
	5	4158	.4	5	4302	.1	5	4037	.4	5	4333	.5	5	4739	.9	5	4030	.8	5	4758	.7
	6	5467	.9	6	5572	.7	6	5650	.3	6	5890	.1	6	5292	.3	6	5542	.6	6	5038	.8
	7	6330	.6	7	6046	.6	7	6645	.6	7	6450	.6	7	6766	.8	7	6074	.7	7	6990	.4

334-8 Basis of Payment:**334-8.1 General:**

Price and payment will be full compensation for all the work specified under this Section (including the applicable requirements of Sections 320 and 330).

334-8.2 Pay Factors

For materials accepted in accordance with 334-5, based upon the quality of the material, a pay adjustment will be applied to the bid price of the material as determined on a LOT by LOT basis. The pay adjustment will be assessed using Table 334-8.2 below.

Table 334-8.2 - Acceptance Schedule of Payment

(Asphalt Plant Mix Characteristics)

Deviations of the Acceptance Tests from the Job Mix Formula

PROPERTY	DEVIATION (JMF)	PAY FACTOR % (PF _{AC})
Asphalt Cement Content	0.00 – 0.55	100
	0.56 – 0.65	95
	0.66 – 0.75	90
	Over 0.75	80*

PROPERTY (SIEVE ANALYSIS)	DEVIATION (JMF)	PAY FACTOR % (PF _{AC})
No. 8 Sieve**	0.00 – 5.50	100
	5.51 – 6.50	98
	6.51 – 7.50	95
	7.51 – 8.50	90
	Over 8.50	80*
No. 200 Sieve**	0.00 – 2.00	100
	2.01 – 2.40	95
	2.41 – 2.80	90
	Over 2.80	80*

* If approved by the Engineer based on an engineering determination that the material is acceptable to remain in place, the Contractor may accept the indicated partial pay. Otherwise, the COUNTY will require removal and replacement at no cost. The Contractor has the option to remove and replace at no cost to the COUNTY at any time.

** When there are two or more reduced payments for these items in one LOT of material, only the greatest reduction in payment will be applied. **N.B.:** This rule applies only to the two Sieve Analysis test results. Deviations are absolute values with no plus and minus signs

334-8.3 Density Requirements and Adjustment:

334-8.3.1 General Construction:

After final compaction, the pavement shall have an average density equivalent to at least ninety-two (92%) percent of the Maximum Specific Gravity (Gmm) of the paving mixture for that LOT 's production as determined by Section 334-5.1.1. Once the average density of a LOT has been determined, the Contractor will not be permitted to provide additional compaction to raise the average. If the average density is less than 92% of the Maximum Specific Gravity (Gmm), then the mix will be accepted at a reduced price as determined by the Engineer in accordance with the requirements of this Section and Table 334-8.3.1.

334-8.3.2 Overlay Construction:

The following specification is applicable only for overlay construction of existing pavement to include milled surfaces and milled surfaces with exposed base. After final compaction, the pavement shall have an average density equivalent to at least ninety point five (90.5%) percent of the Maximum Specific Gravity (Gmm) of the paving mixture for that LOTs production as determined by Section 334-5.1.1. Once the average density of a LOT has been determined, the Contractor will not be permitted to provide additional compaction to raise the average. If the average density is less than 90.5% of the Maximum Specific Gravity (Gmm), then the mix will be accepted at a reduced price as determined by the Engineer in accordance with the requirements of this Section and Table 334-8.3.1.

Table 334-8.3.1

% AVE G _{MM}	NEW CONSTRUCTION		OVERLAY CONSTRUCTION	
	% Adjustment	PF _D	% Adjustment	PF _D
≥ 94.0	103.5	105.83	103.5	105.83
93.1 to 93.9	102.5	104.17	102.5	104.17
92.0 to 93.0	100	100.00	100	100.00
91.9	95	91.67	100	100.00
91.8	95	91.67	100	100.00
91.7	95	91.67	100	100.00
91.6	93	88.34	100	100.00
91.5	92	86.68	100	100.00
91.4	90	83.33	100	100.00
91.3	90	83.33	100	100.00
91.2	90	83.33	100	100.00
91.1	90	83.33	100	100.00
91.0	90	83.33	100	100.00
90.9	88	80.00	100	100.00
90.8	88	80.00	100	100.00
90.7	86	76.70	100	100.00
90.6	86	76.70	100	100.00
90.5	85	75.00	100	100.00
90.4	82	70.00	98	96.66
90.3	79	65.00	97	95.00
90.2	76	60.00	96	93.33
90.1	73	55.00	95	91.67
90.0	70	50.00	93	88.33
89.9	68	46.66	91	85.00
89.8	66	43.33	89	80.00
89.7	64	40.00	87	78.33
89.6	62	36.66	85	75.00
89.5	60	33.33	83	71.66
89.4	50	16.67	81	70.00
89.3	50	16.67	79	65.00
89.2	50	16.67	77	63.33
89.1	50	16.67	75	60.00
89.0	50	16.67	73	55.00
88.9	47 or R 'n R *	11.67	71	50.00
88.8	43 or R 'n R *	5.00	69	46.66
88.7	40 or R 'n R *	0	66	40.00
88.6	40 or R 'n R *	0	63	36.66
88.5	40 or R 'n R *	0	60	33.33
88.4	38 or R 'n R *	-3.33	50	16.67
88.3	36 or R 'n R *	-6.67	50	16.67
88.2	34 or R 'n R *	-10.00	50	16.67
88.1	32 or R 'n R *	-13.33	50	16.67
88.0	30 or R 'n R *	-16.67	50	16.67
87.9	30 or R 'n R *	-16.67	48 or R 'n R *	13.33
87.8	30 or R 'n R *	-16.67	46 or R 'n R *	10.00

87.7	30 or R 'n R *	-16.67	44 or R 'n R *	6.67
87.6	30 or R 'n R *	-16.67	42 or R 'n R *	3.33
87.5	R 'n R * or NP **	-16.67	40 or R 'n R *	0
87.4	R 'n R * or NP **	-	40 or R 'n R *	0
87.3	R 'n R * or NP **	-	40 or R 'n R *	0
87.2	R 'n R * or NP **	-	40 or R 'n R *	0
87.1	R 'n R * or NP **	-	38 or R 'n R *	-3.33
87.0	R 'n R * or NP **	-	36 or R 'n R *	-6.67
86.9	R 'n R * or NP **	-	34 or R 'n R *	-10.00
86.8	R 'n R * or NP **	-	32 or R 'n R *	-13.3
86.7	R 'n R * or NP **	-	30 or R 'n R *	-16.67
86.6	R 'n R * or NP **	-	30 or R 'n R *	-16.67
86.5	R 'n R * or NP **	-	30 or R 'n R *	-16.67
≤ 86.4	R 'n R * or NP **	-	R 'n R * or NP **	-

Table 334-8.3.1 (cont.)

* The Engineer may require complete removal and replacement of the LOT with specified material at the Contractor's expense. Where the finished work is determined to have a reduced value due to the installed deficiencies, but is capable to some degree of performing the intended purpose, as determined by the Engineer, the Contractor will be permitted to leave the work in place at a reduced rate as outlined in the above table.

** The Engineer may require complete removal and replacement of the LOT with specified material at the Contractor's expense. At the Contractor's written request, the Engineer may allow the material to remain in place at no payment. Under the conditions described above, the decision whether to accept the completed pavement or to require removal and replacement shall be vested entirely in the Engineer.

334-8.3.3 First Lift Requirements:

Construction of the first or bottom lift of the structural asphalt base course shall have a maximum compacted thickness per 334-1.4.1 and shall have a minimum in-place density equal to or greater than ninety (90%) percent of the Maximum Specific Gravity (Gmm) for that LOT's production. If the average density is less than 90.0% of the Maximum Specific Gravity (Gmm), then the mix will be accepted at a reduced price as determined by the Engineer in accordance with the requirements of this Section and Table 334-8.3.2. This requirement does not apply to Asphalt Base Courses constructed on non-stabilized sub-grade such as MSTU roadways or deep mill areas with insufficient existing base thickness and unknown or sandy existing sub-grade

334-8.3.4 Second Lift Requirements:

Construction of the second lift of the structural asphalt base course shall have a maximum compacted thickness per 334-1.4.1 and shall have a minimum in-place density equal to or greater than ninety-one (91%) percent of the Maximum Specific Gravity (Gmm) for that LOT's production. If the average density is less than 91.0% of the Maximum Specific Gravity (Gmm), then the mix will be accepted at a reduced price as determined by the Engineer in accordance with the requirements of this Section and Table 334-8.3.2.

334-8.3.5 Third and Subsequent Lift Requirements:

Construction of the remaining lifts of the structural asphalt base course shall have a maximum compacted thickness per 334-1.4.1 and shall have a minimum in-place density equal to or greater than ninety-two (92%) percent of the Maximum Specific Gravity (Gmm) for that LOT's production. If the average density is less than 92.0% of the Maximum Specific Gravity (Gmm), then the mix will be accepted at a reduced price as determined by the Engineer in accordance with the requirements of this Section.

Table 334-8.3.2
In-Place Density Lot Adjustment Table (Structural Asphalt Base)

First or Bottom Lift of the Structural Asphalt Base Course

% AVE G_{MM}	% Adjustment	PF_D
≥ 93.5	102.5	104.17
90.0 to 93.4	100	100.00
89.0 to 89.9	95	91.67
88.0 to 88.9	90	83.33
87.0 to 87.9	85	75.00
Less than 87.0	80	66.67

Second Lift of the Structural Asphalt Base Course

% AVE G_{MM}	% Adjustment	PF_D
≥ 93.5	102.5	104.17
91.0 to 93.4	100	100.00
90.5 to 90.9	95	91.67
90.0 to 90.4	90	83.33
89.5 to 89.9	86	76.70
89.0 to 89.4	82	70.00
88.0 to 88.9	80	66.67
87.0 to 87.9	70	50.00
Less than 87.0	50 or R 'n R *	16.67

* The Engineer may require complete removal and replacement of the LOT with specified material at the Contractor's expense. Where the finished work is determined to have a reduced value due to the installed deficiencies, but is capable to some degree of performing the intended purpose, as determined by the Engineer, the contractor will be permitted to leave the work in place at a reduced rate as outlined in the above table.

334-8.4 LOT Payment:

With respect to the Bitumen Content (PFAC), the Sieve Analysis (PFSA), and the In-Place Density (PFD), the adjusted percentage of contract price to be paid per LOT will be computed as follows:

$$L_P = C_P (.60 PF_D + .15 PF_{SA} + .25 PF_{AC})$$

Where,

LP = LOT Payment

CP = Contract LOT Price (Unit Price times LOT Quantity)

PF_D = Payment Factor Percentage for Density

PF_{SA} = Payment Factor for Sieve Analysis

PF_{AC} = Payment Factor Percentage for Bitumen Content

Payment to the County of such sums as may become payable under the provisions of this article, shall be made by identifying the said sums as a credit item on the Contractor's pay estimate.

334-8.5 Correcting Deficient Thickness

334-8.5.1

The thickness tolerances established below do not apply to leveling courses or overlay construction.

334-8.5.2

As proposed for the purpose of thickness verification, the whole project shall be divided into Thickness LOTs of one thousand (1000 ft.) feet in length and the entire width of the undivided roadway section. A divided roadway shall be evaluated as separate sections and Thickness LOTs. A roadway with one lane on each side of a Continuous Left Turn Lane shall also be defined as a divided roadway similar to divided roadways with medians both raised and grassed and evaluated as separate sections and Thickness LOTs. The width definition of each side of this facility shall be defined by the Engineer, usually as constructed in the field. For projects less than one thousand (1000 ft.) feet in length, the entire project shall represent one (1) Thickness LOT. For non-roadway paving and in other situations where the Engineer determines the above section is inappropriate, the Engineer may establish a different Thickness LOT unit of work on which to calculate average thickness and price adjustments. In addition, cores will be taken at all locations where thickness measurements, taken during the course of construction indicate a thickness deficiency sufficient to justify a deduction from the contract unit bid price, or at any other locations as may be determined by the Engineer. By definition, a Thickness LOT is for evaluation of pavement thickness only and is to be considered separate and distinct from a standard LOT as defined in Section 1-6-2. The Engineer may waive the thickness variation cores if the cores taken for thickness and density as defined in Section 1-6-2 show consistent thickness meeting the design requirement.

334-8.5.3

The thickness of pavement shall be determined from the thickness of cores, two (2) inches in diameter, taken at points on the cross section and along the roadway as determined by the Engineer. A minimum of three (3) cores shall be taken in each Thickness LOT. In an effort to reduce the number of core holes in the finished pavement, the same core samples taken for density may be used for thickness verification. The thickness core locations shall be selected to best provide a representative coverage of the Thickness LOT. If cores taken for density and thickness indicate potential thickness deficiencies, locations of lots for thickness verification cores will be as directed by the Engineer. The Contractor will provide the traffic control, coring equipment, approved backfill material, and a qualified operator to obtain all thickness cores.

334-8.5.4

The pavement LOT will be evaluated for thickness based on the average thickness of the cores in the LOT. The average thickness of each *Thickness LOT* shall be greater than or equal to ninety-two (92%) percent of the specified thickness.

334-8.5.5

When the pavement in any *Thickness LOT* is found to be deficient in thickness by less than the tolerance specified in Paragraph Three above, and the Engineer allows the pavement to remain in place, payment for that pavement will be made at an adjusted price determined from the following table.

Table 334-8.5.5

Percent Deficiency in Thickness	Percent Reduction in Payment (Per Sq. Yd.)
0.0 to 8.0	No Reduction
8.1 to 13.0	1.0 times % Deficiency
13.1 to 20.0	1.5 times % Deficiency
20.1 to 35.0	2.0 times % Deficiency

334-8.5.6

When the average thickness of a Thickness LOT is greater than or equal to ninety-two (92%) percent of the specified thickness, but one or more individual cores is less than eighty (80%) percent of the specified thickness, payment for that pavement represented by the deficient core will be made at an adjusted price of two (2.0) times percent (%) Deficiency. The deficient area represented by the core shall be the product of one-half ($\frac{1}{2}$) of the longitudinal distance between acceptable cores multiplied by the entire roadway width. The Contractor may elect to reduce the definition of the deficient area by additional cores in the following manner. Additional cores may be taken on either or both sides of the deficient core location equidistant from the deficient core and the acceptable core. This process may be repeated a second time by taking additional cores on either or both sides of the acceptable core. At this point, further reduction of the deficient area by additional coring will not be permitted, unless directed by the Engineer. The final deficient area shall be the product of the

one-half ($\frac{1}{2}$) of the longitudinal distance between acceptable cores multiplied by the entire roadway width.

334-8.5.7

In instances where the pavement section contains more than one (1) pay item, each pay item shall be evaluated for thickness separately.

334-8.5.8

For any area of pavement found deficient in thickness by more than thirty-five (35%) percent, at the Contractor's written request, the Engineer may allow the material to remain in place at no payment.

334-8.6 Adjustment to Bid Unit Price for Asphaltic Material:

The bid unit price for asphaltic concrete materials will be adjusted in accordance with the provisions and requirements of the Florida Department of Transportation (FDOT), Standard Specifications for Road and Bridge Construction, (latest edition), Division I, Section 9-2.1.2 and FDOT Road and Bridge Supplemental Specifications.

For the purposes of unit price adjustment determination, the following conditions shall be applicable:

1. The Bituminous Material, Asphalt Price Index (herein referenced as API) published monthly by the FDOT shall be used for the adjustment of unit prices in accordance with FDOT Specification 9-2.1.2. The FDOT API in effect at the bid opening date will be used for initial determination of asphaltic material price.
2. The formula referenced in FDOT Section 9-2.1.2 shall be modified as follows:
$$Pa = ACq (Id - 1.05 Ib) \text{ during a period of increasing prices}$$
$$Pa = ACq (Id - 0.95 Ib) \text{ during a period of decreasing prices}$$

Pa = Price adjustment for bituminous material, in dollars
 ACq = Quantity of Asphalt Cement, in gallons
 Ib = API during the month in which bids were opened for this contract
 Id = API during the month material is incorporated into the project
3. Asphaltic Concrete, for which the unit price is per square yard, shall be assumed to weigh one hundred (110 lbs) pounds per inch of thickness per square yard and asphaltic cement to weigh eight point five eight (8.58 lbs) pounds per gallon.
4. Calculation of ACq = Quantity of Asphalt Cement shall be based on the Contractor's approved mix design Asphalt Content, percentage by weight of total mix. Percentage shall be that percentage of ADDED binder for RAP mixes and Percentage TOTAL Binder for virgin or non RAP mixes.
5. No adjustment in bid prices will be made for either tack coats or prime coats.
6. Price adjustments shall be calculated and recorded as the bituminous material is incorporated into the project.

334-8.7 Payment:

Payment will be made under: Item No. 334- 2- Superpave Asphaltic Concrete - per ton.

PORTLAND CEMENT CONCRETE - CLASS NS

347

The work specified under this Section shall modify FDOT Specifications Section 347-4.1 Description.

347-4.1 General

Furnish a delivery ticket with each batch of concrete before discharging concrete at the placement site. Ensure the delivery ticket includes material quantities incorporated into the batch, sources of materials, batch adjustments, batch size, time loaded, time discharged, and the allowable jobsite water addition.

Ensure the batcher responsible for producing the concrete signs the delivery ticket, certifying that the batch was produced in accordance with the Contract Documents.

Record water added at the jobsite. Sign the delivery ticket certifying that the concrete was placed in accordance with the Contract Documents.

Acceptance by the Department will be by certification on the delivery ticket signed by the batcher and the Contractor. Certify that the concrete meets a minimum compressive strength of 3,000 psi at 28 days. The Engineer may verify the strength of the concrete.

INLETS, MANHOLES, AND JUNCTION BOXES - FDOT AND PCED TYPE STRUCTURES

425

The work specified under this Section consists of the construction of Inlets, Manholes, and Junction Boxes and in accordance with the requirements of Section 425 of the **FDOT Specifications**, as amended herein. The work under this Section must also include the **adjustment of existing structures** shown in the plans to be adjusted or which are required to be adjusted to have rim elevation match adjacent elevations (i.e., pavement, sidewalk) for the satisfactory completion of the work. New structures must be constructed in accordance with these specifications, Pinellas County Standard Details, and Florida Department of Transportation (FDOT) standard construction details.

Filter Fabric

The work specified under this Section must also consist of the furnishing and placement of filter fabric wrap around all pipe-to-structure joints and grouting in accordance with Pinellas County Standard Detail Index No. 1265. Cost for fabric wrap and grout must be included in the cost of the drainage structure. Materials and construction must conform to the requirements of Section 425 of the **FDOT Specifications** as amended herein, and such additional requirements as may be shown on the plans, applicable standard drawings of the Pinellas County Engineering Department, and applicable drawings of the **FDOT Design Standards**.

Pay items for adjustment of inlets and/or manholes must comply with and be constructed in accordance with Section 425 of the **FDOT Specifications**.

425-3.2 Grates & Covers for Drainage Structures

All grates for drainage structures must be hot dipped galvanized steel grates having a diamond, hexagonal or similar reticuline pattern. Additionally, all grates utilized on drainage structures within right-of-way or other areas subject to vehicular traffic, must be secured to the structure and must be capable of withstanding an AASHTO H-20 wheel loading. Grates adjacent to bicycle lanes or pedestrian traffic must have a maximum gap spacing of one-quarter (1/4") inch between the grate and structure on all sides. All Cover lids outside or within sidewalk or roadway areas must be U.S.F. Type X or approved equal. All cover lids will be stamped in accordance with Pinellas County Standard Details.

425-5 Precast Inlets, Manholes, and Junction Boxes

The work specified under this Section shall amend FDOT Section 425 to exclude the item **Manholes, P-7 Round Structure Bottoms with a 3.5' Diameter and Square & Rectangular Structures with a wall length of 3.5'**. These are not acceptable structures to the County. New Structures must be constructed with Manhole or grate access.

425-9.3 Payment Items: payment will be made under:
Item No. 425- 0- PCED Inlets - each.

PIPE CULVERT

430

The work specified under this Section consists of furnishing and installing drainage pipe and end sections at the locations called for in the plans and in accordance with the requirements of Section 430 of the **FDOT Specifications**, as amended herein.

Only Polyvinyl Chloride (PVC) and Concrete pipes are permitted. FDOT Section 430-2.1 is modified to read:

430-2.1 Pipe:

Meet the following requirements:

Concrete Pipe	Section 449
Round Rubber Gaskets	Section 942
Resilient Connectors*	Section 942
Corrugated Polyvinyl Chloride (PVC) Pipe	Section 948
Liner Repair Systems	Section 948
Metal Grates	Section 962

*Use resilient connector products listed on the Department's Approved Product List (APL).

430-12.12 Payment Items:

Payment will be made under:

- Item No. 430- 21- Pipe Culvert, Concrete, Round, under 8' depth – per foot.
- Item No. 430- 22- Pipe Culvert, Concrete, Round, over 8' depth – per foot.
- Item No. 430- 25- Pipe Culvert, PVC, over 8' depth - per foot.
- Item No. 430- 26- Pipe Culvert, PVC, over 8' depth - per foot.
- Item No. 430- 70- Concrete Jacket for Pipe Culvert Connections - each.
- Item No. 430- 94- Desilting Pipe - per foot.
- Item No. 430- 97- Mitered End Section, Cross Drain - each.
- Item No. 430- 99- Mitered End Section, Side Drain - each.
- Item No. 430-200- Flared End Sections - each.
- Item No. 430-400- Winged Concrete Endwalls - each.
- Item No. 430- 5- Straight Concrete Endwalls - each.
- Item No. 430- 6- U-Type Concrete Endwalls - each.
- Item No. 430-830- Filling and Plugging Pipe - cubic yard.
- Item No. 430-950- Desilting Concrete Box Culvert - per cubic yard.

UNDERDRAINS

440

The work specified under this Section consists of furnishing and installing drainage pipe and end sections at the locations called for in the plans, and in accordance with the requirements of Section 440 of the **FDOT Specifications**, as amended herein.

Only Polyvinyl-Chloride Pipe is permitted.

The furnishing and installation of underdrains must conform to the requirements the County's standard ROADWAY UNDERDRAIN INSTALLATION DETAIL, PCED Index 1290, and applicable pavement restoration details contained in the plans.

Underdrain in the Vicinity of Trees

When underdrain is to be installed in the vicinity of trees designated to be preserved on the plans or by the Engineer, trenching, and the installation of underdrain in such areas, must be accomplished by hand operations in order to prevent damage by machinery to the trees and their root systems. Filter aggregate and the top membrane must be deleted in areas where intertwined root systems may prevent excavation of the trench to standard width, and the underdrain installed in such areas must consist of solid-walled underdrain (non-perforated) of the specified material laid on grade, with all backfill material placed, compacted, and dressed by hand to the required final grades.

Restoration requirement

Unless specified to be paid for under other items, the work under this Section must include the restoration of all driveways, curb, sidewalk, sod and any other existing features and facilities disturbed or damaged in the performance of the work.

For irrigation systems that the owners wish to salvage, the contractor must place a cap on the pipe that feeds into the irrigation system conflicting with the underdrain installation within County Right of Way. The price and payment for capping and removal of irrigation systems, and removal of other items must be included in the payment item of Clearing and Grubbing.

Unsuitable Material

Unless otherwise provided for under separate pay items in this contract, the work to be performed under this Section must include the excavation of unsuitable material, and the furnishing, placement and compaction of fill material as replacement for unsuitable material.

Identification

Each section of underdrain pipe delivered to the construction site must be clearly stamped with the ASTM designation, in a size and pattern such as to be immediately visible to the Engineer.

Basis of Payment

The work specified under this Section must be paid for under the pay items for Underdrain as defined in FDOT Section 440-8. No separate payment will be made for non-perforated underdrain.

CONCRETE GUTTER, CURB ELEMENTS, AND TRAFFIC SEPARATOR

520

The work specified under this Section shall amend FDOT Section 520 to include Pinellas County Type A curb, Header curb, and Valley Gutter.

Basis of Payment

Basis of Payment must conform to the requirements of Section 520 of the ***FDOT Specifications*** as amended herein:

Item No. 520- 1305- PCED Curb and Gutter – per foot.

Item No. 520- 1315- PCED Valley Gutter – Per foot.

DETECTABLE WARNINGS

527

The work specified under this Section consists of furnishing and installing detectable warnings at the locations called for in the plans and in accordance with the requirements of Section 527 of the **FDOT Specifications**, as amended herein.

Detectable warnings installed on concrete surfaces shall be installed using mechanical fasteners. Detectable warnings installed on asphalt surfaces shall be installed using an approved adhesive over the entire surface.

527-2

(FDOT Section 527-2 shall be replaced with the following)

Use detectable warnings as approved for use on uncured concrete, existing concrete, and asphalt surfaces. Use only products and materials appropriate for the surface on which they will be applied.

Use safety yellow detectable warnings on both concrete and asphalt walking surfaces. Acceptable detectable warnings shall meet the following criteria for a duration of three years.

Color	Light Reflectance Values (LRV) cap Y*
Safety Yellow	25 - 45

*When measured with a spectrophotometer

Use detectable warnings listed on the Department's Approved Product List (APL) meeting the requirements of Section 974. Methods used to form detectable warnings in wet concrete will not be permitted.

PERFORMANCE TURF

570

The work specified under this Section shall replace FDOT Specifications Section 570-3.1 & 570-9:

570-3.1 General

Remove all construction debris in performance turf areas. Install performance turf at the earliest practical time for erosion control and establishment.

Shape the areas to be planted according to the Plans.

Unless a particular type of sod is called for in the Contract Documents, sod shall be either Bahia or St. Augustine as shown on the plans or directed by the Engineer.

The County will only pay for replanting as necessary due to factors determined by the Engineer to be beyond control of the Contractor.

Install all performance turf on shoulder areas prior to the placement of the final and/or friction course on adjacent pavement.

570-9 Basis of Payment.

Prices and payments will be full compensation for all work and materials specified in this Section. The cost of sod installation shall include all necessary mowing for the duration of the construction period, to the satisfaction of the Engineer.

Payment will be made under:

Item No. 570- 1- Performance Turf - per square yard.

Item No. 570- 2- Sod - per square yard.

GENERAL REQUIREMENTS FOR TRAFFIC CONTROL SIGNALS AND DEVICES

603

603-7 Department-Furnished Equipment Installed by Contractor:

(The following shall be added to Section 603-7)

Any damages to County-furnished equipment after delivery to the Contractor shall be the sole responsibility of the Contractor. Any repairs to equipment shall be made in accordance with manufacturers' requirements, standards, and recommendations. Repair methods shall be submitted to the Engineer for review and approval.

630-2 Materials**630-2.5 Route Markers:**

(The Following shall be added to FDOT Section 630-2.5)

Route markers are to be the electronic route marker (ERM) type. Install the bottom of the marker post to a depth of four (4) feet, unless rock or other subsurface obstacles occur, in which case the steel post may be installed to a minimum depth of two (2) feet with a concrete slurry backfill of six (6) inches around the post. In either case, ensure that the top of the marker post is no more than six (6) feet above the finish grade. Ensure that each ERM is labeled with identifying information as detailed in the plans or in the County Standards.

630-3 Installation Requirements**630-3.1 General:**

(The following shall be added to FDOT Section 630-3.1)

Inner ducts installed inside outer ducts shall extended beyond the outer duct to allow for shrinkage. The inner ducts shall not be cut to final length earlier than two (2) weeks after installation. The final condition of the inner ducts shall have a minimum of 1-foot extension beyond the end of the outer duct. Remove and replace any inner ducts that do not meet this requirement.

630-3.9.2 Fiber Optic Cable Locate Wire:

(FDOT Section 630-3.9.2 shall be replaced with the following)

Test the locate wire system after installation with electronic equipment that is designed specifically for locating buried pipes and cables. Ensure that the locate wire system functions and can be used to accurately detect the location and depth of the locate wire buried with conduit. Ensure that the locate equipment can locate faults in the sheath of a buried locate wire. Perform continuity tests and insulation resistance test on all locate wires and provide the Engineer with all test results. Ensure that the locate wire system electronic equipment includes a transmitter, receiver, and electronic markers as shown in the plans and approved by the Engineer. Replace, or repair defective locate wire at no additional cost.

630-3.10 Route Markers:

(The following shall be added to FDOT Section 630-3.10)

Install route markers as shown in the plans and as directed by the Engineer.

Set the route markers concurrently with the conduit system installations and prior to the fiber cable installation. Route markers shall not impede pull box lid operations.

630-4 Method of Measurement

(The first paragraph of FDOT Section 630-4 shall be replaced with the following)

The Contract unit price per Foot of conduit, furnished and installed, will include furnishing all hardware, and materials and all testing as specified in this Section and the Contract Documents, and all labor, casings, removal of excavated materials and spoils, removal and disposal of drilling fluids, buried cable warning tape, locate wire, electronic route markers grounded and protected, trenching, boring, backfilling, flowable fill and restoration materials necessary for a complete and accepted installation.

630-5 Basis of Payment

(The following shall be added to FDOT Section 630-5)

The price of the conduit shall include the cost to verify and clean out all new four (4) inch outer duct conduit, as well as all inner ducts. Existing conduit proposed for use shall be investigated prior to populating with fiber optic cable. Existing conduit found to be inadequate or unacceptable shall be replaced at the contract unit price for conduit installation. The conduit and locate system shall be warranted, made fully operational, and tested according to this specification.

633-2 Materials**633-2.1.1.9 Performance Requirements:****633-2.1.1.9.1 Operating Temperature:**

(Section 633-2.1.1.9.1 shall be replaced with the following)

Ensure that the shipping and the operating temperature range of fiber optic cable meets or exceeds -30° to 165° F.

633-2.1.2.2 Splice Trays:

(Replace the first sentence with the following)

Ensure that the splice trays are securely attached and accessible and provide enough storage for two (2) 144 count fiber cables.

633-2.1.3 Cable Terminations:

(The following shall be added to Section 633-2.1.3)

Ensure that all connectors have an operating and storage temperature range of -30° F to 165° F.

633-2.1.3.1.1 Fiber Optic Drop Cable:

The drop cable assembly is comprised of a factory terminated drop cable integrated into a protective housing and a custom length of drop cable. The Patch Panel is black in color and built of an Acrylonitrile Butadiene Styrene (ABS) Plastic, and has six (6) duplex ST SM couplers (total of twelve [12] terminated fibers) with ceramic inserts arrayed at a forty-five (45°) degree stair-stepped arrangement to facilitate easy access to each coupler pair. Each coupler port has labels affixed to designate the port number and the fiber numbers terminated to that port respectively. The fiber optic connectors on the inside of the housing are constructed with all ceramic ferrules. The fiber is secured into the ferrule using a heat-cured epoxy and shall be factory terminated and polished. A full one hundred (100%) percent of the fiber terminations shall be optically and visually tested for attenuation and reflectance and shall exhibit an optical performance with a maximum insertion loss of 0.5 dB on average and a maximum loss of 0.7 dB. The terminations shall have a minimum return loss of 40 dB.

The inside of the housing shall be filled with an environmentally and temperature stable epoxy to permanently secure the connectors and the cable on the inside of the housing and to protect the fiber optic components from vibration and shock. The epoxy shall be thermally stable from -30° F to 165° F. The housing shall incorporate a 2.5-inch minimum strain relief boot around the exiting drop cable to provide bend radius protection and short-term cable retention of at least 200 lb./ft. The housing has integrated mounting notches for field mounting.

The assembly shall be shipped coiled or on a spool, in either case the free end of the cable shall be on the top end of the coil or spool.

633-2.1.4.1 Pre-terminated Patch Panels:

(The following shall replace Section 633-2.1.4.1)

Ensure that the pre-terminated patch panel includes a factory installed all-dielectric single-mode fiber (SMF) cable stub. Ensure that the panel for drop-cable includes a minimum of twelve (12) installed and terminated ST-type panel connectors and two hundred eighty-eight (288) factory-installed and terminated ST-type panel connectors trunk cable at master HUB location unless otherwise shown in the plans. Ensure that the cable stub is of sufficient length to splice the stub and provide a fiber connection between the panel and the backbone fiber cable or as directed by the Engineer.

633-2.1.6 Handling:

633-2.1.6.3 Packaging, Shipping and Receiving:

(The following shall be added to FDOT Section 633- 2.1.5.3)

Ensure that all delivered cable has been manufactured within six (6) months of the delivery date.

633-6 Method of Measurement.

Furnish and Install: *(The following shall be added to FDOT Section 633-6)*

Fiber optic connection hardware, including fan out kits and pre-terminated patch panels shall be measured per each furnished and installed.

635-2 Materials**635-2.3 Junction Boxes:****635-2.3.1.2 Mounted Junction Boxes:**

(The following shall be added to FDOT Section 635-2.3.1.2)

Flush mounted junction boxes for fiber optic cable applications shall be sized to ensure a coil of cable with a minimum radius of fourteen (14) times the cable diameter can be accommodated, but no less than a minimum of twenty-four (24) inches wide by 24 inches long by eight (8) inches deep. All attachment hardware shall be stainless steel type 304 or 316.

635-3.2 Pull and Splice Boxes:

(The following shall be added to FDOT Section 635-3.2)

Pea rock as identified in Standard Plans Index 635-001 is not acceptable, use #57 stone/lime rock only. A six (6)-inch deep concrete apron shall be installed around pull and splice boxes with a minimum perimeter width of one (1) foot. A 4-inch by 4-inch square, wire mesh or fiber mesh, shall be installed at midlevel during the apron construction.

The following contains revisions, additions, or deletions to Division III Materials Section 996 Intelligent Transportation System Device Materials of the FDOT Specifications.

996-5 Pull and Splice Boxes:**996-5.2 Marking:**

(Section 996-5.2 shall be replaced with the following)

Ensure the following information is permanently cast into the top surface of all pull and splice box covers:

1. Unless otherwise shown in the plans, mark covers as follows:
 - SIGNAL for signalized intersections
 - ATMS for fiber optic cable
 - ELECTRICAL for other electrical applications
2. All pull and splice box covers shall be orange
3. Manufacturer's name or logo
4. FDOT Approved Product List (APL) approval number
5. TIER rating

Ensure the date of manufacture (month/day/year, or date code) is permanently located on the top or bottom of the cover. Ensure the interior of the box body has a permanent marking that includes the manufacturer part/model number and date of manufacture near the top of the box in a location that is visible after installation when the cover is removed.

996-5.3 Dimensions:

(Section 996-5.3 shall be replaced with the following)

Unless otherwise shown in the plans, provide pull and splice boxes with the following dimensions.

For signalized intersection and lighting applications, provide pull boxes with nominal dimensions of seventeen (17) inches wide by thirty (30) inches long (cover) and no less than eighteen (18) inches deep. Ensure the inside opening area is a minimum of two hundred forty (240) square inches and no inside dimension is less than 12 inches.

For fiber optic cable applications, provide pull boxes with nominal dimensions of 24 inches wide by thirty-six (36) inches long (cover) and no less than 36 inches deep.

Provide rectangular splice boxes with nominal dimensions of thirty (30) inches wide by sixty (60) inches long (cover) and no less than 36 inches deep.

996-5.4 Fabrication:

(The following shall replace Section 996-5.4)

Ensure pull and splice boxes are constructed of polymer concrete consisting of an aggregate matrix bound together with a polymer resin. Ensure that box construction includes internal reinforcement by means of steel or fiberglass, or a combination of the two. Ensure that the box is equipped with an orange, non-skid cover. Ensure splice boxes are equipped with cable racks, hooks, and pulling eyes along with any other miscellaneous hardware required for installation unless otherwise shown in the plans.

Provide box covers with lifting slots and a flush-seating lockdown mechanism. Use hex-head lockdown lag bolts. Ensure lockdown bolts and lifting slots are Type 316, 304, or 302 passivated stainless steel or brass. Ensure lockdown bolt assembly is designed to prevent seizing and can be removed without damaging the cover or box body. Ensure the lockdown bolt threaded insert/nut assembly is field replaceable.

641-1 Description:

(The following shall be added to FDOT Section 641-1)

Contractor must ensure the pole and lowering device operate as one complete functioning unit. Shop drawings for the pole and lowering device must be submitted for review together as one (1) complete submittal.

641-2 Materials.

(The following shall be added to Section 641-2)

641-2.1.1 Pole Hand Hole:

Ensure the pole has a hand hole installed one hundred eighty (180°) degrees from the cabinet conduit penetrations of the pole.

For poles with lowering devices, ensure the pole has a hand hole of sufficient size to provide access to the pole interior and for temporarily securing and operating the lowering tool.

660-3 Installation Requirements**660-3.3 Video Detector Installation:**

(The following paragraphs and sections shall be added to Section 660- 3.3)

The County shall provide the Video Vehicle Detection System (VVDS) panels to the Contractor. The Contractor shall install the VVDS panels and modules in existing traffic controller cabinets in accordance with the manufacturer's recommendations. Before mounting the panels within the cabinet, check with the County signal shop for mounting location of the VVDS panel. The Contractor shall provide all materials to mount the VVDS panel within the cabinet.

Contractor shall provide any incidental equipment needed to mount the VVDS to the concrete strain poles and mast arms. Equipment provided by the Contractor shall include the VVDS mini-hub, interface panel, VVDS camera, camera cabling, and mounting bracket. Provide all other hardware necessary for a complete video detection installation.

660-3.3.1 Camera Placement and Aiming:

Install the Video Vehicle Detection System (VVDS) camera at the minimum mounting heights in accordance with manufacturer's requirements. Ensure the VVDS cameras are properly fastened on a mounting arm at a prescribed height so that the camera is tilted below the horizon and with the camera facing at an angle that will enable the cone of view to include the downstream traffic flow in accordance with manufacturer's requirements. Verify that detection quality is not degraded due to excess movement and vibration of the assembly.

During installation, zoom to the detection area to eliminate environmentally generated glare and improve the camera's image. For mounts over the travel lane, place the camera as recommended by the manufacturer.

660-3.3.2 Testing:

The Contractor shall give a minimum of seven (7) working days' notice in requesting that testing be performed on the detection devices. The Contractor shall have all project-wide detection devices installed prior to requesting testing. The Engineer and manufacturer's representative shall perform the required testing on the VVDS. The Contractor shall be present for the VVDS testing to provide any adjustments to the VVDS cameras as deemed necessary. The Contractor shall have any necessary equipment available during the testing to complete an acceptable installation. This could include a bucket truck for VVDS detector realignment.

660-3.3.3 System Acceptance Criteria:

Within 10 (ten) calendar days of completion of the tests, the Engineer shall either accept or reject the work. If rejected, the Engineer shall specify the defect or failure in the work. Notification of acceptance or rejection of the work shall be by delivery of written notice to the Contractor.

660-3.3.4 Testing and Troubleshooting Assistance:

During the life of the contract, the Contractor shall assist the Engineer in replacing any above-ground detection system part or device found to be defective, at no cost to the County within ten (10) calendar days of notification by the Engineer. Assistance shall include any equipment, labor, and traffic control to recover the faulty detection equipment and the installation of a new device, provided by the Contractor, in any particular location within the project area (one visit for removal and replacement).

The following contains revisions, additions, or deletions to Division III Materials Section 995 Traffic Control Signal and Device Materials of the FDOT Specifications.

995-1 Description:

(The following shall be added to FDOT Section 995-1)

The stop bar intersection detection shall be capable of vehicle presence detection and traffic data collection and shall be capable of installation and configuration into an existing NEMA TS2, Type 1 traffic signal controller cabinet with 2070E, or Cobalt ATC controller.

995-2.3.1 Configuration and Management:

(The following shall be added to Section 995-2.3.1)

Ensure that the Video Vehicle Detection System (VVDS) is configured to perform vehicle detection and data collection functions by analyzing video signals to detect moving and stopped vehicles within the video image.

Ensure that the ancillary equipment needed for each VVDS installation is fully compatible with the existing video detection equipment on the corridor. Ensure that the VVDSs are configured to resolve closely spaced vehicles and to reject adjacent lane vehicles.

The Contractor shall program basic configurations according to the manufacturer's recommendations. Configuration information consists of all user-definable parameters, including, but not limited to, detection zone placement, data acquisition and logging parameter, baud rate settings, data collection intervals, input and output configuration, and calibration settings.

995-2.3.3 Machine Vision Processor:

(The following shall be added to FDOT Section 995-2.3.3)

Ensure that the Machine Vision Processor (MVP) emulates standard in-pavement loops by producing vehicle volume, occupancy, and speed data for every detection zone.

670-1 Description:

(Replace Section 670-1 with the following)

Furnish and install a traffic controller assembly.

670-2 Materials.

(Section 670-2 shall be replaced with the following paragraph and sections)

The traffic controller assembly shall consist of a fully loaded TS2 Type 1 traffic signal controller cabinet. This assembly includes the Cobalt ATC signal controller. These cabinets shall follow the TS2 Type 1 standard as published by the National Electrical Manufacturers Association (NEMA), and shall conform to the applicable requirements of the latest issues and addenda in effect on the date of advertisement, relative to manufacture conforming to current industry codes and standards. All components must be compatible with each other and communicate without error to other components in the cabinet. The cabinet shall be configured to contain a Cobalt ATC controller, which shall be compatible with the existing traffic adaptive system in use by Pinellas County via the use of an external unit provided by the adaptive system provider. The controller shall include the latest version of Econolite Cobalt Touch Firmware and/or shall be one hundred (100%) percent compatible with existing firmware that interfaces with the existing adaptive signal control software currently used at adaptive locations. For non-County designed projects, the Contractor must provide a letter from the Manufacturer certifying that the firmware provided meets all specifications for interfacing with the traffic adaptive system. The manufacturer must be ISO 9001-2008 Registered and have been certified in the IPC "Class II" Electronics standard and training for all manufacturing staff to ensure manufacturing quality, documentation, and proper ongoing/continuing employee training for manufacturing processes by IPC Certified Trainers. Shop drawings must be submitted detailing configuration and layout of the cabinet, controller, and the components inside the traffic signal cabinets for approval.

670-2.1 Cabinet Features and Composition:

Cabinet shall be a NEMA, Florida Department of Transportation (FDOT) Type 6 cabinet (with minimum dimensions 44" W x 72"H x 24" D), to be installed according to FDOT Standard Specifications for Road and Bridge Construction Sections 670 and 676, and the latest NEMA TS2 Standard. The equipment shall be on the Approved Products List (APL) for traffic control devices. Cabinet shall be equipped with removable lifting tabs, capable of supporting the weight of the entire cabinet assembly in an upright position. All enclosures must be constructed, approved, and marked in accordance with the requirements for Type 1 Industrial Control Panel Enclosures contained in UL 508A, the Standard for Industrial Control Panels. The enclosure must meet NEMA 3R rating requirements and be marked with a UL approval sticker.

670-2.2 Cabinet Configuration:

In no case shall a cabinet be provided which does not have hardware interchangeability with a standard TS2 Type 1 cabinet from other manufacturers. The cabinet must be modular in design and must utilize Military Spec connectors on cabling for main panel (no hardwire), detector racks, malfunction management unit (MMU), and controller. The cabinet must be fully loaded including all load switches, flashers, relays, and all components necessary to operate a signalized intersection. The cabinet must be designed and configured to serve thirty-two (32) separate input channels of vehicle and pedestrian movements. The interior walls of the cabinet must be painted white. The cabinet must utilize Electronic Industries Alliance (EIA) 485 communications to devices within the cabinet. The cabinet must include as a minimum the following:

- Main panels are to be provided with a mounting mechanism which allows easy access to all wiring on the rear of the panel without the removal of any cabinet shelves. Lowering or complete removal of the main panel will be accomplished without the use of hand tools.
- All load switch and flash transfer relay socket reference designators must be silk-screen labeled on the front and rear of the main panel to match drawing designations. Socket pins must be marked for reference on the rear of the panel.
- The main panel must incorporate a relay to remove +24 VDC from the common side of the load switches when the intersection is placed into mechanical flash. The relay must have a momentary push-button to apply power to the load switch inputs for ease of troubleshooting.
- All connections from the main panel to the Power Buss assembly and the police/auxiliary switch panel assembly shall be made with a 36-pin MS circular connector with a twist-lock connection.
- All seams shall be continuously welded on the interior of the cabinet.
- The power bus assembly must be manufactured from 0.090", 5052-H32 aluminum. It must provide filtered power for the controller, MMU, cabinet power supply, and all auxiliary equipment via military type connectors. It must include the SDLC Bus connecting cables wired into a surface mounted compression terminal block.
- A power auxiliary panel assembly (CP) shall be provided to house the main cabinet surge arrester, cabinet circuit breakers, a 50-amp line filter and a signal bus relay.
- The main cabinet circuit breaker shall be thirty (30) amps and be the main disconnect for all power in the cabinet except the GFCI outlet, fan/lighting circuits and the ISNSP circuits.
- The equipment breaker shall be twenty (20) amps.
- The auxiliary breaker for the GFCI, fans and lights shall be fifteen (15) amps.
- A twenty (20) amp circuit breaker shall be installed for the Illuminated Street Name Panel (ISNSP).
- A removable Plexiglas protective panel shall be installed over the main power connection terminals.

- Each detector rack must be powered by the cabinet power supply and be connected to the power bus assembly by means of a 16-pin MS circular connector with a twist-lock connection.
- Separate photocell panel to operate illuminated street name panels at the intersection, including on/off toggle switch and two 6-position terminal blocks.
- The cabinet power supply must provide (on the front panel) jack plugs for access to the +24 VDC for test purposes and must be wired directly to the Power Bus Assembly via a 16-pin MS circular connector with a twist-lock connection.
- Standard TS2 detector racks of 32-channel capacity (two 16-channel), with the provision made to accommodate interface cards from video image detection system (VIDS) units, Contact Closure Modules (CCM), and six pre-emption inputs.
- Must include thirty-two (32) SRA-16C-1 surge suppressors on loop panels.
- Eight (8) TS2 2-channel detector amplifier cards.
- A smart 16-channel MMU2-16LEip or approved equal that complies with NEMA TS2 Amendment 4-2012 Flashing Yellow Arrow must be installed in the cabinet. The smart MMU must be IP addressable and have an Ethernet port. MMU program card must come pre-configured for a standard 8-phase quad intersection with pedestrian phases on 13-16 and overlaps on 9-12.
- A three-way door lock keyed with a Corbin #2 lock, Corbin tumblers lock number 1548-1, or exact equivalent. Minimum of two (2) keys must be supplied.
- Two (2) 12-inch LED light fixture in the top of the cabinet and one (1) 12-inch LED light fixture under the bottom shelf, with a switch to automatically turn on the light when the door is opened.
- Two (2) exhaust fans with a single thermostat control. The fan/thermostat assembly must be connected to the power panel by means of a 4-position plug-in cable. The cabinet air filter shall be made of pleated media.
- A standard police panel for access by authorized personnel with an Auto-Flash switch and Auto- Manual switch with a manual jack one quarter ($\frac{1}{4}$) inch diameter phone plug.
- A detector test panel on the inside of the front door, with 3-position toggle test switches. All test switch panel wiring must be connected to the main panel via a 16-pin MS circular connector with a twist-lock connection.
- All wiring from the main panel to the test switch panel must be connected to the switch panel via a 16-pin MS circular connector with a twist-lock connection.
- Load resistors for all vehicle and pedestrian phases must be mounted on four (4) separate panels located on the side of the cabinet assembly.
- Three (3) total metal shelves (detectors racks, controller and MMU, ATMS equipment) manufactured from 5052-H32 aluminum with one (1) shelf containing a pull-out laptop shelf. All screws located in the shelf top must be countersunk and

flush with the surface.

- All pedestrian push button inputs from the field to the controller must be opto-isolated through the BIU and operate at 12 VAC. In addition, a pedestrian pushbutton isolation panel must be provided for additional suppression.
- Load switches shall be solid state and shall conform to the requirements of Section 62 of the NEMA TS2 Standard also with dual indication LED's for incoming and outgoing power. A total of sixteen (16) load switches shall be supplied with each cabinet.
- Twenty (20) "Red" jumpers shall be supplied with each cabinet for non-used phases.
- Ground and Neutral bus bar, each cabinet shall come equipped with a minimum of four (4) ground and neutral bus bars not including the Power Panel bus bar. Each bus bar shall have a minimum of fourteen (14) terminals.
- An Auto/Manual control switch and police hand cord shall be installed in the police panel.
- Toggle switch guards shall be installed for prevention of accidental activation of any of the technician switches.
- One (1) Flasher shall be supplied with each cabinet assembly.
- Six (6) Struthers-Dunn or approved equivalent Flash Transfer Relays shall be supplied with each cabinet assembly.
- A 12" x 18" plastic envelope shall be attached on the cabinet door for additional storage of cabinet documents.
- The cabinet shall be equipped with NEMA Spec. "A" Type 2 controller power cable (CCA2).
- The cabinet shall be equipped with TS2 Spec. Type 1 controller power cable (CCA1).
- The cabinet shall come equipped with one (1) Quad Outlet assembly mounted on the right side of the cabinet and one (1) 8 position power strip (all metal housing) mounted on the back of the cabinet located between the top and middle shelves. All equipment outlets shall be filtered power.

670-2.3 Cobalt Controller Configuration:

Traffic controllers must be listed on the Florida Department of Transportation (FDOT) Approved Product List (APL). The controller must meet the specifications of the California Transportation Electrical Equipment Specifications (TEES) 2009 as revised. Certification numbers of the FDOT Traffic Engineering Research Laboratory (TERL) accepted Cobalt ATC traffic signal controller must be provided.

The controller must be a Cobalt ATC configured to operate in a TS2 Type 1 cabinet. The controller must be one hundred (100%) percent compatible with Pinellas County's Advanced Traffic Management System (ATMS). The software must also fully support current National Transportation Communications for ITS Protocol (NTCIP) defined objects as of the time of

bidding.

Any communications and loader software that may be needed to read from and write to flash memory for the purpose of upgrading application software must be provided by the Manufacturer as soon as updates are available. All controller firmware must be compliant with Pinellas County's existing adaptive signal control software.

670-2.4 Surge Suppression:

An AC power distribution panel with noise filtering surge protection must be included. The filtering surge suppressor must be plug-in type configuration SHA-1250 or equal and purpose- designed for traffic signal cabinets. It must be capable of withstanding a peak current of fifty thousand (50,000) amps and have a response time of less than five (5) nanoseconds. It must attenuate Radio Frequency (RF) noise between 2 and 20 MHz by at least twenty (20) decibels (dB). The surge suppressor must indicate failure status with a light emitting diode (LED).

670-2.5 Shelving:

Controller assembly must include three (3) metal shelves having a minimum depth of eleven (11") inches manufactured from 5052-H32 aluminum that are suitable for the mounting of ATMS equipment or other auxiliary devices. In addition, a metal combination pull-out drawer and shelf suitable for containing cabinet documentation and supporting a lap-top computer must be provided for each cabinet. All screws located in the top surface of the shelf must be countersunk and flush with the surface.

670-2.6 Type 16 MMU:

Controller assembly must include one (1) smart 16-channel MMU2-16LEip that complies with NEMA TS2 Amendment 4-2012 Flashing Yellow Arrow or approved equal. The smart MMU must be IP addressable and have an Ethernet port. The smart MMU must be capable of monitoring a flashing signal movement for the purpose of running Pinellas County's Flashing Yellow Arrow. MMU program card must come pre-configured for a standard 8-phase quad intersection with pedestrian phases on 13-16 and overlaps on 9-12.

670-2.7 NEMA Power Cable:

Controller assembly must include one (1) Type 2 power cable for powering up a NEMA Spec. Controller in the above-defined controller cabinet and a NEMA Spec. Controller 2070 power cable. Cable must be able to plug directly into the power bus assembly via a 16-pin MS circular connector with a twist- lock connection.

670-2.8 SDLC Communication Cable:

Controller assembly must include one (1) additional SDLC type communication cable for integrating equipment into the above-defined controller cabinet. Cable must be of sufficient length to reach equipment mounted on any of the three (3) shelves in the cabinet.

670-2.9 Detector Rack:

Controller assembly must include one TS2-T1 8-position detector rack. Detector rack must have eight (8) positions and be capable of handling sixteen (16) channels. Detector rack must include one compatible BIU, interface panel, and all cables needed to completely install this device in the above-defined cabinet.

670-2.10 Fiber Connection Panel:

Controller assembly must include one (1) 12-terminal fiber connection panel. Panel must be of compact modular design with a maximum dimension of ten (10) square inches. Panel must come complete with all hardware and trays needed to complete the full installation of the panel. Panel must come complete with two (2) connector panels, each with six (6) ST Type terminated ends.

670-2.11 Manuals/Documentation:

Each supplied cabinet, must include one manual that contains information on all the connection, wiring and configuration information. Drawings may be on 24" x 36" sheets but must be neatly folded into an 8½" x 11" size. The manual must be inserted in protective plastic sleeves in the drawer provided.

Schematics and logic diagrams must accurately depict physical locations of each component. The cabinet wiring and component location diagram for the cabinets must show all wiring and cabinet components in their entirety on the drawing. This documentation must be submitted to Pinellas County for approval prior to having cabinets fabricated as well as updated as necessary.

The work specified under this Section consists of the basic equipment and construction requirements for Highway Signing as called for in the plans and in accordance with the requirements of Section 700 of the **FDOT Specifications**, as amended herein. With the exception of references to specific Florida Department of Transportation lists, manuals, procedures, policies, offices, website URLs, and operating systems, such as SunGuide, when the "Department" or "FDOT" is mentioned in the 700 series of the FDOT Standard Specifications, it shall be read as the "County".

700-1 Description.

(The following shall be added to Section 700-1)

Install and test field located Dynamic Message Sign (DMS) assemblies furnished by the County. The DMS assembly shall include the DMS, sign controller, control cabinet, communications interface equipment, and sign manufacturing data sheets and contact information for coordinating the sign attachment structural details, including the structural shop drawings. Furnish and install the structure, the structure foundation, attachment hardware, power cabling, conduit, data wiring, and all other ancillary equipment and cabling necessary to provide a complete DMS system.

The costs for transporting all equipment, including signs, from the designated County facility to the project site are the sole responsibility of the Contractor.

Unless otherwise noted in the plans, all existing signs that will not be used in the project must be removed by the Contractor and carefully transported to the Pinellas County Sign Shop located at 22211 US 19 North, Clearwater, FL 33765; Phone: (727) 464-8926.

Cost for removal and transportation of these signs must be included in the Lump Sum payment for "Clearing and Grubbing". If a sign is lost or damaged prior to, or during transportation to the Pinellas County Sign Shop, the Contractor must provide the Pinellas County Sign Shop with a replacement sign, in-kind, at no additional cost to the County.

Existing signs must not be removed prior to receiving confirmation from the Pinellas County Engineer, or his designee, that the sign removal will not adversely affect traffic flow during the construction phase. All signs must be new, without damage, and original to the bid project. All signs must have affixed to the rear face of the sign a sticker that contains the Sign Manufacturer, Date of Manufacture, Date of Installation, and Sign Sheeting Material type.

All existing signs, shown to remain or be relocated on site, must be maintained by the Contractor. If damaged or lost during construction operations, the Contractor must replace the sign with a new sign, at no additional cost to the County.

700-3.1.4 Installation:

(The following shall be added to Section 700-3.1.4)

For traffic sign installation into concrete median, sidewalk, etc., work must be completed in accordance with FDOT Standard Plans, post in concrete detail, and PCED Index No. 1380.

700-6.11 Installation Requirements.

(The following shall be added to Section 700-6.11)

The Contractor must ensure all other materials required for the installation of the Dynamic Message Sign (DMS) assembly are provided including, but not limited to, the sign structure and foundations, power supply, communications and power cabling between the DMS and control cabinet and the designated connection point.

The DMS assembly shall consist of the DMS, DMS case, and DMS contents including, but not limited to, sign controller, presentation medium, photo-sensing equipment, LEXAN cover, and ventilation system.

The Contractor shall coordinate with the sign manufacturer regarding attachment details, necessary hardware, and design of the structure. Signed and sealed shop drawings shall be developed and delivered to the Engineer and will detail the proposed installation of the sign structure and the attachment of the sign to the structure. The shop drawings shall be approved by the Engineer prior to structure fabrication.

Install new electrical services and establish electrical service. Comply with the National Electrical Code and local Permitting Authorities.

No installation of a DMS shall be allowed prior to the availability of the service power. Each DMS shall be required to have its ventilation system operational within seventy-two (72) hours of sign mounting.

700-9.8 Front Access Dynamic Message Sign:

(Section 700-9.8 shall be replaced with the following)

Measurement for Front Access DMS will be made for each completed and accepted sign, including completed sign structure with foundation, cables, wiring, harnesses, connectors, above and below ground conduit, site grounding assemblies, and all incidentals necessary to complete the work.

700-10.8 Front Access Dynamic Message Sign:

(Section 700-10.8 shall be replaced with the following)

The contract unit price for Front Access DMS will include the sign, all hardware and software, testing, warranty, sign structure, foundation, above and below ground conduit, site grounding assemblies, cables, wiring, harnesses, connectors, and all incidentals necessary for a completed installation as detailed in the plans and Pinellas County Standard Detail 1730.

The following contains revisions, additions, or deletions to Division III Materials Section 995 Traffic Control Signal and Device Materials of the FDOT Specifications.

995-16.8.4 Control Cabinet:

(The last paragraph of FDOT Section 995-16.8.4 shall be replaced with the following)

The Contractor shall be responsible for all conduit, attachment hardware, data, control, and confirmation connections between the Dynamic Message Sign (DMS) and ground control cabinet and for any required wiring harnesses and connectors. All Category 5e shielded twisted pair (STP) network cables shall be outdoor rated and compliant with the EIA/TIA-586-A.

The work specified under this Section shall consist of all labor, material, and equipment required to install wheel stops per plans and specifications. Recycled plastic wheel stops will not be allowed. ADA wheel stops shall be painted blue for ADA Parking.

Basis of Payment

The work specified in this Section will be paid for at the contract unit price per Each (EA).

Payments will be made under:

Pay Item No. 810-1 - WHEEL STOP, Concrete, 6-Ft Length

Pay Item No. 810-3 - WHEEL STOP, Concrete, 6-Ft Length, Blue, ADA

The work specified under this Section shall only be used if during the ground disturbing activities and construction work within the project site, there are archaeological/cultural materials and/or human remains encountered (which shall include, but not be limited to: pottery, modified shell, flora, fauna, human remains, ceramics, stone tools or metal implements, dugout canoes, evidence of structures or any other physical remains that could be associated with Native American cultures or early colonial or American settlement), the Contractor shall immediately stop all work and ground disturbing activities within a 100-meter diameter of the discovery and notify the Engineer. After notification of the Engineer, the Contractor will relocate construction activities to a different location outside of the cultural resources/historic properties area.

Basis of Payment

820-0020 UNANTICIPATED ARCHAEOLOGICAL AND HUMAN REMAINS DISCOVERIES

Description: This item will only be used if archaeological/cultural materials are discovered.

Measurement and Payment: The work specified under this section shall be paid for at the contract unit price per Each (EA) occurrence. Payment must include all labor, materials, and equipment to stop work and relocate to a location outside of the cultural resources/historic property area.

820-0021 PVC VINYL SNOW FENCE 4ft. Height, (Orange) F&I with Posts for protection of the unanticipated archaeological and human remains discoveries

Description: This item will include all labor and material necessary to construct a PVC Vinyl Snow Fence (orange) which will be placed as directed by the Engineer after the discovery of archaeological/cultural materials at the site with 2"x2" stakes with a 12" embedment spaced 6'-10' apart. The fence shall be <https://www.homedepot.com/p/YARDGARD-4-ft-x-50-ft-Orange-Plastic-Snow-Fence-889220A/202024119> or equal with 48" long 2"x2" stakes. This item will only be used if archaeological/cultural materials are discovered.

Measurement and Payment: The work specified under this section shall be paid for at the contract unit price per Linear Foot (LT) as constructed and accepted.

Payments will be made under:

Item No. 820-0020 Unanticipated Archaeological and Human Remains - Each (EA)

Item No. 820-0030 PVC VINYL Fence, 4ft, Orange, F&I with Post - LF

The work specified under this Section consists of the furnishing of all labor and equipment required for the erection and maintenance of 4-foot x 8-foot x 1/8-inch aluminum Project Identification Sign(s) and/or 24-inch x 30-inch Penny for Pinellas sign(s), at locations to be designated by the Engineer, prior to construction.

The signs shall be provided and transported to the project site by the County, but shall be erected by the Contractor, and shall be maintained by the Contractor, to the satisfaction of the Engineer, for the duration of the construction period. At substantial completion of the construction period, the Contractor shall remove and dispose of the Project Identification Sign(s). The 24-inch x 30-inch Penny for Pinellas sign(s) shall remain in a permanent location designated by the Engineer.

Basis of Payment

The work specified under this Section shall be paid for per Each (EA) as constructed and accepted.

PAY ITEM 900-0101 - 4-foot x 8-foot x 1/8-inch aluminum Project Identification sign – each.

PAY ITEM 900-0102 - 24-inch x 30-inch Penny for Pinellas sign - each.

OFFICE FOR THE ENGINEER

900-200

The Contractor must provide, furnish, and maintain an Engineer's Field Office for exclusive use by the County and its representatives.

General Requirements: The field office must be a building or mobile trailer erected within the limits of construction or adjacent thereto as approved by the Engineer. It must be separate from any building used by the Contractor. Alternative locations are subject to the Engineer's approval but must not exceed one half ($\frac{1}{2}$) mile from the construction site. The office ceiling height must be at least seven (7) feet with a minimum floor space of four hundred (400) square feet. The total floor area must be partitioned according to the following table:

Minimum Total Area Required	# of Small Rooms	# of Large Rooms	# of Restrooms
400 square feet	1	1	1

Each room must have at least one (1) weatherproof window, two (2) electrical outlets, and one (1) 6.5 gallon wastebasket. Each window must have a minimum area of eight (8) square feet and have bars for security. Each window must be screened and able to open / close to provide adequate ventilation. Each outside door shall be equipped with a lock. The Engineer may approve an equivalent facility provided it meets the minimum specified requirements.

Equipment and Furniture - Include the following equipment and furniture:

Item	Requirements
Lighting	Electric light, non-glare type luminaries to provide a minimum illumination level of 100 ft-cd at desk height level.
Heating and Cooling	Adequate equipment to maintain an ambient air temperature of seventy (70) (+/-) five (5) degrees F.
Desks (w/ drawers & locks)	One (1) each.
Office Chairs	One (1) each.
Stackable Chairs	Eleven (11) each.
Office Tables (3' x 8')	Three (3) each.
File Cabinet	One to five (1 – 5) drawer vertical cabinet capable of holding 11" x 17" plans.
Dry eraser board (3' x 4') with four (4) colored dry markers)	One (1) each.

Fire-Proof File Cabinet	Two to five (2 – 5) (minimum) drawer vertical cabinet capable of holding 11" x 17" plans each drawer equipped with hanging folder systems and one hundred (100) hanging folders.
Portable Water Cooler or automatic defrost refrigerator	If cooler is used, maintain adequate water supply. Refrigerator minimum four feet cubed (4 ft ³).
High Speed Internet Service	One (1) wireless router and a hardwired network with min one (1) connection port in each room. Includes all computer drivers, software, wiring, etc. and technical support provided by the Contractor to connect to the Engineer's computer(s) and ensure the network remains operational during the contract period. Internet service should provide a minimum of 50 Mbps download speed and 10 Mbps upload speed.
Printer/Copier/Scanner	One (1) each - capable of making 11" x 17" copies/scans without reductions, all supplies, expendables, and maintenance. Includes all computer drivers, software, and technical support to connect to the Engineer's computer(s). Printer/scanner must be connected to the office computer network.
Restrooms	An enclosed room with toilet and sink with running water, and with proper sewer connection or septic tank.
Storage Room	A room large enough to store surveying instruments and testing equipment. The room shall include a locking mechanism and contain electrical outlets.
Maintenance	Maintain (daily) all facilities and furnished equipment in good working condition.
Fire Extinguisher	Two (2) each, five (5) pound, non-toxic, dry chemical, fire extinguishers meeting Underwriters' Laboratories, Inc. (UL) standards for multiple purpose use.
Security	Provide adequate security of all facilities and furnished equipment.

Occupancy and Maintenance: Provide a field office for the County and its representative's use, no later than the Notice-to-Proceed date and remaining for ten (10) days after final acceptance, unless the County requests removal earlier. Work will commence when the field office is available for the County's use.

The office must be identified with a suitable sign, approved by the Engineer.

Maintain the field office in good condition and appearance, inside and out. The Contractor will provide daily janitorial services and supplies, including paper supplies for the restrooms. After the designated period, remove all portable building or trailers, fencing, surfacing and utilities and leave the areas with a finish soil layer cleaned, and seeded, if required, and in an acceptable condition, equal or better than the condition prior to construction.

The Contractor must pay for all utilities. The Contractor, at their expense, must obtain all required permits for electrical, water and sewer work and installations, must have all required electrical, water and sewer inspections made, and will be responsible for all repairs and maintenance required in connection with permits and inspections. All permit fees must be paid by the Contractor and will be included in this pay item Office for the Engineer.

The Contractor must also provide, at a minimum, a 20 ft. x 20 ft. fenced area exclusively for the County's use to secure the County vehicles, during the construction duration of the project.

Basis of Payment:

Payment for the furnishing of the facility and secured area specified under this Section, and all labor, materials, equipment, and services incidental thereto, must be made under the pay item for Office For The Engineer and must be made at the contract price Per Day.

The County reserves the right to assess liquidated damages against the Contractor for non-compliance with this Section.

Payment Per Day by the County to the Contractor will commence on the day that the Contractor provides a facility that satisfies the requirements of this specification.

UNSPECIFIED WORK

999-000

The work under this Section includes any unspecified work that may be associated with the work in this contract for which a contract pay item does not exist or as otherwise identified by the Engineer. Any amount of extra work and/or alterations to this contract charged to this pay item shall be fully documented and approved in writing, in advance, by the Engineer through an Additional Work Authorization (AWA). All work performed under this pay item shall be completed in accordance with all conditions and requirements of this contract and shall include the work to be done by all necessary subcontractors and/or suppliers.

“Unspecified Work” shall mean the stated fixed sum of money to be used only at the Engineer’s specified direction. The requirements and items for the work will be provided to the Contractor at the appropriate time and amounts shall apply only to additional items over and above those specified/indicated in the plans for this contract.

For equipment under the control of the Contractor through direct ownership, leasing, renting or other method of acquisition not included in the bid, the Contractor must furnish cost data, which may assist the Engineer in the establishment of an equitable rate.

The AWA basis of negotiated costs and subcontractor’s invoices will be included in the Contractor’s pay application. Copies of invoices, equipment costs, and other supporting documentation shall be included. If not defined in the contract documents, contractor’s mark up is limited to 10% for work performed by Contractor and 5% for work performed by sub-contractors

Time Frame

When the Contractor is requested, in writing by the County, to provide a cost for unspecified work, the Contractor will provide a submittal of the cost to the County within twenty-one (21) calendar days of receiving a written request. After receipt of the Contractor’s cost submittal, the County will have 21 calendar days to negotiate, approve or reject the Contractor’s cost for proposed work in accordance with the contract specifications. If the County provides to the Contractor an approved AWA, then the Contractor may proceed with commencing the unspecified work.

Basis of Payment:

The work in this Section must be paid for under “Unspecified Work” in the Schedule of Values of this contract. Use of any portion of this pay item must be accompanied by an approved AWA and negotiations must consider reasonable market values (at the time of construction) for proposed items and shall be paid at the contract unit price per Each (EA).

CITY OF SAFETY HARBOR (THE CITY)			
EXHIBIT G			
BID BOND			
PRINCIPAL (Legal name, business address and telephone number)		Date Bond Executed: (must not be later than bid opening date)	
		Type Of Organization ("X" one) <input type="checkbox"/> Individual <input type="checkbox"/> Partnership <input type="checkbox"/> Joint Venture	
		State of Incorporation:	
SURETY(IES) (Name(s), business address(es) and telephone number)			
PROJECT (Address and description)			
PENAL SUM OF BOND		BID IDENTIFICATION	
PERCENT OF BID PRICE		BID DUE DATE:	
%		SOLICITATION #	
		FOR ("X" one) <input type="checkbox"/> Construction <input type="checkbox"/> Supplies <input type="checkbox"/> Services	
<p><u>KNOW ALL MEN BY THESE PRESENTS.</u> that we, the Principal and Surety(ies) hereto, are firmly bound to the City of Safety Harbor (hereinafter called the City) in the above penal sum for the payment of which we bind ourselves, our heirs, executors, administrators, and successors, jointly and severally; provided, that, where the Sureties are corporations acting as co-sureties, we, the Sureties, bind ourselves in such sum "jointly and severally" as well as "severally" only for the purpose of allowing a joint action or action against any or all of us, and for all other purposes each Surety binds itself, jointly and severally with the Principal, for the payment of such sums only as it is set forth opposite the name of such Surety, but if no limit of liability is indicated, the limit of liability shall be the full amount of the penal sum.</p> <p><u>THE CONDITION OF THIS OBLIGATION IS SUCH.</u> that whereas the Principal has submitted the offer identified above, if the Principal, upon acceptance by the City of his offer identified above, within the period specified therein for acceptance, shall execute such further contractual documents, if any, and give such bond(s) as may be required by the terms of the offer as accepted within the time specified (ten 10) days if no period is specified) after receipt of the forms by him, or in the event of failure so to execute such further contractual documents and give such bonds, if the Principal shall pay the City for any cost of procuring the work (including administrative costs) which exceeds the amount of his offer, then the above obligation shall be void and of no effect.</p> <p>Each surety executing this instrument hereby agrees that its obligation shall not be impaired by any extension(s) of the time for acceptance of the offer that the Principal may grant to the City, notice of which extension(s) to the Surety(ies) being hereby waived; provided, that such waiver of notice shall apply only with respect to extensions aggregating not more than sixty (60) calendar days in addition to the period originally allowed for acceptance of the offer; provided further, that if any legal action be filed upon this bond, venue shall lie exclusively in Pinellas County, Florida.</p> <p>The entity identified as the RESIDENT AGENT of the Surety is hereby designated by the Surety as the Resident Agent in the State of Florida to whom any requisite notices may be delivered and on whom service of process may be had in matters arising out of such suretyship as required pursuant to Florida State Statute 624.422.</p> <p><u>IN WITNESS WHEREOF.</u></p> <p>the Principal and Surety(ies) have executed this bid bond and have affixed their seals on the date set forth above.</p>			
PRINCIPAL			
Signature(s)		Typed Names and Titles	
1. (seal)		1.	
2. (seal)		2.	
		Corporate Seal	

INDIVIDUAL SURETIES			
Signature(s)		Typed Names and Titles	
1. (seal)		1.	
2. (seal)		2.	
CORPORATE SURETY(IES)			
(Surety A) Name & Address		State of Incorporation	Corporate Seal
		Liability Limit \$	
Signature(s)	1. (seal)	2. (seal)	
Name(s) & Title(s) (Typed)	1.	2.	
The RESIDENT AGENT of the surety in the State of Florida, for the delivery of notice and service of process is: Name: _____ Address: _____ _____			
(Surety B) Name & Address		State of Incorporation	Corporate Seal
		Liability Limit \$	
Signature(s)	1. (seal)	2. (seal)	
Name(s) & Title(s) (Typed)	1.	2.	
The RESIDENT AGENT of the surety in the State of Florida, for the delivery of notice and service of process is: Name: _____ Address: _____ _____			
(Surety C) Name & Address		State of Incorporation	Corporate Seal
Signature(s)	1. (seal)	2. (seal)	
Name(s) & Title(s) (Typed)	1.	2.	
The RESIDENT AGENT of the surety in the State of Florida, for the delivery of notice and service of process is: Name: _____ Address: _____ _____			

INSTRUCTIONS

1. This form is authorized for use whenever a bid guaranty is required in connection with construction work or the furnishing of supplies or services. There shall be no deviation from this form without approval by the City.
2. The full legal name and business address of the Principal shall be inserted in the space designated "Principal" on the face of this form. The bond shall be signed by an authorized person. When such person is signing in a representative capacity (e.g., an attorney-in-fact), but is not a member of the firm, partnership, or joint venture, or an officer of the corporation involved, evidence of his authority must be furnished.
3. (a) Corporations executing the bond as sureties must be authorized to act as sureties on bonds for principals in the State of Florida. Where more than a single corporate surety is involved, their names and addresses (city and state) shall be inserted in the spaces (Surety A, Surety B, etc.) Headed "CORPORATE SURETY(IES)." In the space designated "SURETY(IES)" on the face of this form, only the letter identification of the Sureties shall be inserted.

(b) Where individual sureties execute the bond, they shall be two or more fiscally responsible persons. A completed Affidavit of Individual Surety, for each individual surety, shall accompany the bond. Such sureties may be required to furnish additional substantiating information concerning their assets and financial capability as the City may require.
4. Corporations executing the bond shall affix their corporate seals. Individuals shall execute the bond opposite the word "Seal".
5. The name and title of each person signing this bid bond should be typed in the space provided.

CITY OF SAFETY HARBOR (THE CITY)

EXHIBIT H

PAYMENT BOND

PRINCIPAL (Legal name, business address and telephone number)

Date Bond Executed:
(must be same as or later than contract date)

Bond No.

Type Of Organization ("X" one)

☐ Individual ☐ Partnership
☐ Joint Venture ☐ Corporation

State of Incorporation

OWNER (Legal name, business address and telephone number)

PENAL SUM OF BOND

City of Safety Harbor
 750 Main St, Safety Harbor, FL 34695
 (727) 724-1555

\$

CONTRACT DATE

CONTRACT NO.

SURETY(IES) (Name(s), business address(es) and telephone number)

PROJECT (Address and description)

KNOW ALL MEN BY THESE PRESENTS,

that we, the Principal and Surety(ies) hereto, are firmly bound to the City of Safety Harbor (hereinafter called the City) and to all persons, firms, and corporations who may furnish materials for, and perform labor under the contract referred to above, in the above penal sum for the payment of which we bind ourselves, heirs, executors, administrators, and successors, jointly and severally; provided, that, where the Sureties are corporations acting as co-sureties, we, the Sureties, bind ourselves in such sum "jointly and severally" as well as "severally" only for the purpose of allowing a joint action or action against any or all of us, and for all other purposes each Surety binds itself, jointly and severally with the Principal, for the payment of such sums only as it is set forth opposite the name of such Surety, but if no limit of liability is indicated, the limit of liability shall be the full amount of the penal sum.

THE CONDITION OF THIS OBLIGATION IS SUCH THAT,

whereas the Principal has entered into the contract identified above,

NOW, THEREFORE,

if the Principal shall promptly make payment to all persons supplying labor and/or material in the prosecution of the work provided for in said contract, and any and all duly authorized modifications of said contract that may hereafter be made, notice of which modification(s) to the Surety(ies) being hereby waived, then this obligation shall be void and of no effect; otherwise, it shall remain in full force and effect. This bond is given to pursuant to the provisions of Florida State law. If any legal action be filed upon this bond, venue shall lie exclusively in Pinellas County, Florida.

The entity identified as the RESIDENT AGENT of the Surety is hereby designated by the Surety as the Resident Agent in the State of Florida to whom any requisite notices may be delivered and on whom service of process may be had in matters arising out of such suretyship as required pursuant to Florida Statute 624.422..

IN WITNESS WHEREOF,

the Principal and Surety(ies) have executed this payment bond and have affixed their seals on the date set forth above.

IMPORTANT: Surety companies executing bonds must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in the state of Florida.

PRINCIPAL

Signature(s)	Typed Names and Titles	Corporate Seal
1. (seal)	1.	
2. (seal)	2.	

CORPORATE SURETY(IES)

(Surety A) Name & Address		State of Incorporation	Corporate Seal
		Liability Limit \$	
Signature(s)	1. (seal)	2. (seal)	
Name(s) & Title(s) (Typed)	1.	2.	

The RESIDENT AGENT of the surety in the State of Florida, for the delivery of notice and service of process is:

Name: _____ Address: _____

CORPORATE SURETY(IES)

(Surety B) Name & Address		State of Incorporation	Corporate Seal
		Liability Limit \$	
Signature(s)	1. (seal)	2. (seal)	
Name(s) & Title(s) (Typed)	1.	2.	

The RESIDENT AGENT of the surety in the State of Florida, for the delivery of notice and service of process is:

Name: _____ Address: _____

(Surety C) Name & Address		State of Incorporation	Corporate Seal
		Liability Limit \$	
Signature(s)	1. (seal)	2. (seal)	

Name(s) & Title(s) (Typed)	1. _____	2. _____	
The RESIDENT AGENT of the surety in the State of Florida, for the delivery of notice and service of process is:			
Name: _____ Address: _____			

(Surety D) Name & Address		State of Incorporation	Corporate Seal
		Liability Limit \$	
Signature(s)	1. (seal)	2. (seal)	
Name(s) & Title(s) (Typed)	1. _____	2. _____	
The RESIDENT AGENT of the surety in the State of Florida, for the delivery of notice and service of process is:			
Name: _____ Address: _____			

INSTRUCTIONS			
<p>1. This form is authorized for use in connection with construction work or the furnishing of supplies or services. There shall be no deviation from this form without approval by the City.</p> <p>2. The full legal name and business address of the Principal shall be inserted in the space designated "Principal" on the face of this form. The bond shall be signed by an authorized person. When such person is signing in a representative capacity (e.g., an attorney-in-fact), but is not a member of the firm, partnership, or joint venture, or an officer of the corporation involved, a certified copy of the Power of Attorney must be attached. If the amount of the bond exceeds \$100,000, the surety(ies) shall be approved for the amount of the bonds, and must hold a certificate of authority from the U.S. Secretary of the Treasury or have obtained reinsurance from a Treasury listed insurer, in accordance with the requirements of Florida.</p> <p>3. The bond shall be executed by a corporate surety or corporate sureties duly authorized to do business in the State of Florida and licensed by the State of Florida to issue surety bonds. All payment bonds shall comply with Florida Statute 255.05 and comply with the notice and time limitations contained in Florida Statute 255.05(2).</p> <p>4. Where more than a single corporate surety is involved, their names and addresses (City and State) shall be inserted in the spaces (Surety A, Surety B, etc.) headed "CORPORATE SURETY(IES)." In the space designated "SURETY(IES)" on the face of this form, only the letter identification of the Sureties shall be inserted.</p> <p>5. Corporations executing the bond shall affix their corporate seals. Individuals shall execute the bond opposite the word "Seal".</p> <p>6. The name and title of each person signing this payment bond should be typed in the space provided.</p>			

CITY OF SAFETY HARBOR (THE CITY)

EXHIBIT I

PERFORMANCE BOND

PRINCIPAL (Legal name, business address and telephone number) 		Date Bond Executed: (must be same as or later than contract date) Bond No. Type Of Organization ("X" one) <input type="checkbox"/> Individual <input type="checkbox"/> Partnership <input type="checkbox"/> Joint Venture <input type="checkbox"/> Corporation State of Incorporation					
OWNER (Legal name, business address and telephone number) City of Safety Harbor 750 Main St, Safety Harbor, FL 34695 (727) 724-1555		PENAL SUM OF BOND \$ <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">CONTRACT DATE</td> <td style="width: 50%;">CONTRACT NO.</td> </tr> <tr> <td style="height: 40px;"></td> <td></td> </tr> </table>		CONTRACT DATE	CONTRACT NO.		
CONTRACT DATE	CONTRACT NO.						
SURETY(IES) (Name(s), business address(es) and telephone number(s))							
PROJECT (Address and description)							
<p><u>KNOW ALL MEN BY THESE PRESENTS,</u> that we, the Principal and Surety(ies) hereto, are firmly bound to the City of Safety Harbor (hereinafter called the City) in the above penal sum for the payment of which we bind ourselves, our heirs, executors, administrators, and successors, jointly and severally; provided, that, where the Sureties are corporations acting as co-sureties, we, the Sureties, bind ourselves in such sum "jointly and severally" as well as "severally" only for the purpose of allowing a joint action or action against any or all of us, and for all other purposes each Surety binds itself, jointly and severally with the Principal, for the payment of such sums only as it is set forth opposite the name of such Surety, but if no limit of liability is indicated, the limit of liability shall be the full amount of the penal sum.</p> <p><u>THE CONDITION OF THIS OBLIGATION IS SUCH,</u> whereas the Principal has entered into the contract identified above,</p> <p>if the Principal shall faithfully perform and fulfill all the undertakings, covenants, terms, conditions, and agreement of said contract, in accordance with the plans, specifications and contract documents, during the original term of said contract and any extensions thereof that may be granted by the City, with or without notice to the Surety(ies), and during the life of any guaranty required under the contract, and shall also faithfully perform and fulfill all the undertakings, covenants, terms, conditions, and agreements of any and all duly authorized modifications of said contract that may hereafter be made, notice of which modifications to the Surety(ies) being hereby waived, then this Obligation shall be void; otherwise, it shall remain in full force and effect. This bond is given pursuant to the provisions of Florida State law. If any legal action be filed upon this bond, venue shall lie exclusively in Pinellas, Florida.</p> <p>The entity identified as the RESIDENT AGENT of the Surety is hereby designated by the Surety as the Resident Agent in the State of Florida to whom any requisite notices may be delivered and on whom service of process may be had in matters arising out of such suretyship as required pursuant to Florida Statute 624.422</p> <p><u>IN WITNESS WHEREOF,</u> the Principal and Surety(ies) have executed this performance bond and have affixed their seals on the date set forth above.</p> <p>IMPORTANT: Surety companies executing bonds must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in the state of Florida.</p>							
PRINCIPAL							
Signature(s)		Typed Names and Titles					
1. (seal)		1.					
2. (seal)		2.					
CORPORATE SURETY(IES)							
(Surety A) Name & Address		State of Incorporation	Corporate Seal				
		Liability Limit \$					
Signature(s)	1. (seal)	2. (seal)					

Name(s) & Title(s) (Typed)	1.	2.	
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The RESIDENT AGENT of the surety in the State of Florida, for the delivery of notice and service of process is:

Name: _____ Address: _____

CORPORATE SURETY(IES)

(Surety B) Name & Address		State of Incorporation	Corporate Seal
		Liability Limit \$	
Signature(s)	1. (seal)	2. (seal)	
Name(s) & Title(s) (Typed)	1.	2.	

The RESIDENT AGENT of the surety in the State of Florida, for the delivery of notice and service of process is:

Name: _____ Address: _____

(Surety C) Name & Address		State of Incorporation	Corporate Seal
Signature(s)	1. (seal)	2. (seal)	
Name(s) & Title(s) (Typed)	1.	2.	

The RESIDENT AGENT of the surety in the State of Florida, for the delivery of notice and service of process is:

Name: _____ Address: _____

INSTRUCTIONS

1. This form is authorized for use in contracts with construction work or the furnishing of supplies or services. There shall be no deviation from this form without approval by the City.
2. The full legal name and business address of the Principal shall be inserted in the space designated "Principal" on the face of this form. The bond shall be signed by an authorized person. When such person is signing in a representative capacity (e.g., an attorney-in-fact), but is not a member of the firm, partnership, or joint venture, or an officer of the corporation involved, a certified copy of the Power of Attorney must be attached.
3. The bond shall be executed by a corporate surety or corporate sureties duly authorized to do business in the State of Florida and licensed by the State of Florida to insure surety bonds. All payment bonds shall comply with the Florida Statute 255.05 and comply with the notice and time limitations contained in Florida Statute 255.05(2). If the amount of the bond exceeds \$100,000, the surety(ies) shall be approved for the amount of the bonds, and must hold either a certificate of authority from the U.S. Secretary of the Treasury or have obtained reinsurance from a Treasury listed insurer.
4. Where more than a single corporate surety is involved, their names and addresses (City and State) shall be inserted in the spaces (Surety A, Surety B, etc.) headed "CORPORATE SURETY(IES) " on the face of this form, only the letter identification of the Sureties shall be inserted.
5. Corporations executing the bond shall affix their corporate seals. Individuals shall execute the bond opposite the word "Seal".
6. The name and title of each person signing this performance bond should be typed in the space provided.

DEFINITIONS

The following words and expressions (or pronouns used in their stead) shall, wherever they appear in the Contract Documents, be construed as follows unless a different meaning is clear from the context.

"Addendum" shall mean the additional contract provisions issued in writing by the City, prior to the receipt of Offers.

"City Commissioners" shall mean the City Commissioners of the City of Safety Harbor.

"Bonds" shall mean Bid, Performance and Payment bonds and other instruments of security furnished by the Contractor and his surety in accordance with the Contract documents.

"Change Order" shall mean a written order to the Contractor signed by the City authorizing an addition, deletion or revision in the Work, or an adjustment in the Contract Price or the Contract Time issued after execution of the Agreement.

"City" shall mean the City of Safety Harbor, Florida, a Florida municipal corporation.

"Contract" or "Contract Documents" shall mean and refer to the collection of the agreement between the parties in its entirety, including this Agreement, the Solicitation Offer and Award Form, Schedule, Representations and Certifications, Special Solicitation Instructions and Conditions, Solicitation Instructions and Conditions, Special Provisions, General Provisions, Statement of Work and this Definitions section, together with any addenda thereto.

"Contract Modification" shall mean a changes or alterations made to the contract.

"Contracting Officer" shall have authority to enter into, administer, or terminate contracts, and make related determinations and findings. Contracting Officers may bind the City only to the extent of the authority delegated to them (See Certificate of Appointment). Contracting Officers shall receive from the appointing authority (City Manager) clear instructions in writing regarding the limits of their authority. Information on the limits of the contracting officers' authority shall be readily available to the public and agency personnel.

"Contractor" shall mean the Offeror who is awarded the contract by the City.

"Contract Price" shall mean the total monies payable to the Contractor under the Contract Documents.

"Contract Time" shall mean the number of calendar days stated in the Contract for the completion of the work.

"Contract Work" or the "Work" shall mean any and all obligations, duties and responsibilities necessary to the successful completion of the project assigned to or undertaken by the Contractor under the Contract Documents, including the furnishing of all labor, materials, equipment, and other incidentals.

"Day" shall mean one calendar day.

"City Engineer" shall mean the City Engineer of the City of Safety Harbor or Consultant if the Consulting Engineer has been retained to administer the contract.

"Final Acceptance" shall mean acceptance of the Work by the City as evidenced by its signature upon the final Certificate of Completion and approval thereof by the City Commission. Such acceptance shall be deemed to have taken place only if and when such signature is affixed to such certificate as evidenced by final payment. The final Certificate of Completion shall be signed only after the City has assured itself by tests, inspection or otherwise that all of the provisions of the Contract have been carried out to its satisfaction.

"Notice" shall mean written notice. Notice shall be served upon the Contractor either personally or by leaving the said notice at his residence or with his Agent in charge of the Work, or addressed to the Contractor at the residence or place of business given in the Bid and deposited in a postpaid wrapper in any post box regularly maintained by the United States Post Office.

"Notice of Award" shall mean the written notice given by the City to the successful Offeror.

"Offer" shall mean the offer or proposal of the Bidder submitted on the prescribed form setting forth the prices for the work to be performed.

"Offeror" shall mean any person, firm or corporation submitting a bid proposal for the Work.

"Plans" shall mean only those drawings specifically referred to as such in the Contract Documents or in any Addendum. Drawings issued after the execution of the Contract to explain further, to illustrate, or to show changes in the Work will be known as "Supplementary Drawings" and shall be binding upon the Contractor with the same force as the Plans.

"Professional" shall mean the professional independent Architectural/Engineering firm designated to be in charge of the work by a prior agreement entered into by the City and said firm.

"Project" shall mean the entire improvement of which this Contract forms a part.

"Project Manager" shall mean the individual designated by the City to be the main point of contact for the Contractor for the duration of the Contract.

"Shop Drawings" shall mean all drawings, diagrams, illustrations, brochures, schedules and other data which are prepared by the Contractor, a Subcontractor, a manufacturer, supplier or distributor and which illustrate the equipment, material and/or some portion of the work.

"Site" shall mean the area upon or in which the Contractor's operations are carried on and such other areas adjacent thereto as may be designated as such by the City.

"Specifications" shall mean these General Conditions, the Special Conditions and the Technical Specifications.

"Substantial Completion" shall mean placing the entire Work in satisfactory continuous service for the purpose for which it is intended. The Work shall be tested and demonstrated before it can be considered substantially complete.

"Subcontractor" shall mean any person, firm or corporation other than employees of the Contractor who or which contracts with the Contractor to furnish, or actually furnishes labor, materials and/or equipment for the project.

"Surety" shall mean any corporation that executes, as Surety, the Contractor's performance and payment bond securing the performance of this Contract.

"Technical Specifications" shall mean the portion of the Specifications dealing with the technical requirements of the work to be performed under the Contract including materials, equipment and workmanship.