

May 14, 2019

BOARD OF COUNTY COMMISSIONERS
ORANGE COUNTY, FLORIDA
IFB #Y19-720-CH; ADDENDUM NO. 5

HOLDEN AVENUE – FROM JOHN YOUNG PARKWAY
TO ORANGE BLOSSOM TRAIL (US 441)

REVISED BID OPENING DATE: May 30, 2019

This addendum is hereby incorporated into the bid documents of the project referenced above. The following items are clarifications, corrections, additions, deletions and/or revisions to and shall take precedence over the original documents. Underlining indicates additions, deletions are indicated by ~~strikethrough~~.

The above Invitation for Bids has been amended as follows:

- A. Note the **REVISION** in the Bid Opening Date as follows:

~~Delete May 16, 2019 at 2:00 P.M.~~

Replace with May 30, 2019 at 2:00 P.M.

- B. Note the **REVISION** to the Construction Plan Sheets as follows:

~~Delete Construction Plan Sheets 4, 17, 19, 24, 121, 123, 252, MOT sheets M-29 and M-53 issued with the Invitation for Bids.~~

Replace with Construction **Plan Sheets 4, 17, 19, 24, 121, 123, 252, MOT sheets M-29 and M-53 that have been updated and are attached in this Addendum.**

- C. Note the **REVISION** to the Index of Plan Sheets for Roadway as follows:

The Roadway Index of Plans has been updated and is attached in this Addendum showing MOT sheets M1-M94.

Note the **REVISION** to the Schedule of Prices as follows:

Delete: The Schedule of Prices issued in the Invitation for Bids, Pages ~~D-2~~ through ~~D-16~~ in its entirety.

Replace with: The **Revised Schedule of Prices, REVISED Page D-2 through REVISED Page D-16 in this Addendum.**

FAILURE TO SUBMIT THE REVISED SCHEDULE OF PRICES ATTACHED IN THIS ADDENDUM WITH YOUR SEALED BID SHALL RESULT IN YOUR BID BEING DETERMINED NON-RESPONSIVE.

- D. Note the **ADDITION** to Part G, Supplemental Conditions and Special Conditions as follows:

Item 21 has been added to Part G - Special Provisions which states:

S-330/Pond 3 Outfall: Construction of Structure S-330 (Sta. 3000+81.74 B/L Pond 3, 16' Rt.) will require removal of portions of an existing sea wall with concrete pile cap bordering Lake Tyler. The section of wall to be removed or replaced shall be reconstructed to match the existing wall. The CONTRACTOR shall furnish a signed & sealed shop drawing/design for S-330 to the COUNTY for review and approval prior to construction of this structure.

- E. **The following are responses to requests for information received:**

1. **Question:** The cross section sheets for pond 3 are incomplete and we cannot read the contour elevations on the plan view sheet. Can we get cad files or a higher resolution file for pond 3?

Answer: Pond 3 CAD files have been added to the FTP link provided in Part G Supplemental Conditions and Special Provisions. Disclaimer - these files, while they reflect the current design, were created using an earlier version of Microstation/GEOPAK and are provided 'as-is' for their use.

2. **Question:** Just wanted to clarify the asphalt specifications to be used on this project. Section 02573 of the utility specification is referencing FDOT 2000 and 2004 editions. Wanted to ask if the most current FDOT asphalt specifications can be applied to this project in lieu of section 02573?

Answer: Orange County Utilities Section 02573 has been deleted. Please refer to the roadway technical provisions Part H.

3. **Question:** As we notice that 0120-9 Excavation, embankment item of this job is considered one LS, we request to have access to the CADD Files in order to allow us to calculate the real volume with one of our software's. Quantify Earthwork from PDF files is a risk, especially in Lump Sum Prices.

Answer: CAD files have been added to the FTP link provided in Part G Supplemental Conditions and Special Provisions. Disclaimer - these files, while they reflect the current design, were created using an earlier version of Microstation/GEOPAK and are provided 'as-is' for their use.

4. **Question:** Due to the complexity of this project and fact that the MOT Plan is part of the contractor's responsibility, please consider allowing additional time to prepare our bids, also extending the questions period.

Answer: The Bid Opening date has been extended.

5. **Question:** What is the allowable RAP percentage for the 'Superpave Asphaltic Concrete Traffic C'?

Answer: TP 334-4.3.3.1 limits the amount of RAP to a maximum of 30% by weight of the aggregate.

6. **Question:** Will Fuel and Bituminous adjustments be a part for this project?

Answer: SP 14 states 'No adjustments shall be made on this contract to the bid price of any product or material, including gasoline, diesel, or other fuels, and bituminous materials, including asphalt, due to fluctuations in market prices, changes in suppliers, or any other reasons'.

7. **Question:** Drainage manhole structure S146 is shown on the Summary of Drainage Structures Sheet 19 as a Manhole Type J-8 <10, from sheet 85 of the Project Drawings, the Top Elevation is 96.14 and the Invert Elevation is 85.93, making it a cut of 10.21 therefore, it should be tabulated as Manhole Type J-8 >10.

Answer: Plans and Schedule of Prices have been updated to reflect one additional Manhole Type J-8 >10 and one less Manhole J-8 <10. Updated plan sheet and Schedule of Prices are included with this addendum.

8. **Question:** Can you please clarify where the pay item for Superpave Asphalt Concrete Traffic C 1-1/2" applies? (1-1/2" structural layer is not shown in any of the typical sections,(plans sheets 12-1), this appears to be under the traffic separator BUT detail on plan sheet 3 states the cost of the asphalt pavement and base under the option II separator included in the cost of the separator).

Answer: Please refer to the Millennia Boulevard milling & resurfacing detail shown on Sheet 47 of the plans. The City of Orlando requested that Millennia Boulevard be repaved with structural course as the top layer rather than friction course.

9. **Question:** Please confirm if the FC 12.5 C pay item quantity. The 59,555 SY Quantity does not seem to check with the sum of the structural 3.0", 2.5" and 1.5" milling quantities.

Answer: The friction course quantity is correct. Because Millennia Boulevard is to be resurfaced with SP-C, rather than friction course, these quantities will not be additive.

10. **Question:** Engineer Field Office (Utility Engineer): Utility specification section 01590 states that a Utility Engineers field office is to be provided. Please confirm if a separate field office/trailer is to be provided for the Utility Engineer for this project, in addition to the Roadway Engineering field office specified.

Answer: Yes, a separate office for Orange County Utilities is required.

11. **Question:** Engineer Field Office (Roadway & Utility): Specifications are requiring two field offices, one each for the Roadway and Utility Inspectors. No adequate ROW or public lands appear available within the project limits or reasonable distance from the project for the placement and maintenance of these offices/trailers. Can the County provide a possible, acceptable location for this? What is the maximum reasonable distance from the project that will be acceptable for these Inspectors offices?

Answer: Normally the contractor uses a portion of a pond site, or right of way that is for the new road construction if possible. We have also been allowing for rental of office space, apartments, or such within a reasonable distance from the project, no more than a mile normally.

12. **Question:** Under drain Aggregate: Can recycled crushed/recycled concrete aggregate be allowed to be utilized in the proposed under drain construction, or will natural/virgin aggregate only be allowed to be utilized? Please clarify.

Answer: Recycled concrete is not acceptable.

13. **Question:** Item 400-1-11: The bid form lists pay item 400-1-11 Concrete Class I, Retaining Walls (Sidewalk Curb) with a qty of 57.5 CY. The plan qty shown on plan sheet 17A is 26.2 CY. Please clarify this discrepancy in this pay item. It is assumed the 6' sidewalk is paid separately under pay item 522-1 Concrete Sidewalk 4", please confirm.

Answer: The correct quantity for Item 400-1-11 should be 26.2 CY as shown on Sheet 17A. Sidewalks are to be paid for under Item 522-1.

14. **Question:** Item 400-2-11: The bid form lists pay item 400-2-11 Concrete Class II Retaining Walls with a qty of 228.9 CY. It is assumed this qty is in reference to the sheet pile bulkhead detailed on plan sheet W-13 which has tabled qty' s of 224.6 CY. Please confirm the intent of this pay item is indeed for the detailed bulkhead shown on sheet W-13 and if so clarify the qty discrepancy. Additionally, it is unclear if the sidewalk, which is called out to be poured monolithically, is included with this pay item, please clarify.

Answer: The quantities shown on Sheet W-13 are correct for the wall bulkhead. However, since the sidewalk is to be poured monolithically with the bulkhead, sidewalk in the areas of sheet pile is to be constructed of Item 400-2-11 as well. The updated quantity for Item 400-2-11 (bulkhead & sidewalk) is 308.1 CY. The quantity for Item 522-1 (sidewalk) has been reduced to 9,914 SY.

15. **Question:** Traffic Separators: Plan notes state that the soil cement base and structural asphalt constructed under the proposed traffic separators is NOT paid for and is to be included in the cost of the traffic separators. Please confirm if this is correct or are these items (soil cement base, structural asphalt) included in the bid quantities and paid for under the bid item unit prices.

Answer: The bid quantities shown for structural asphalt and base do not include the area underneath the traffic separators. The cost of structural asphalt and base under the separators is to be included in the separator cost as stated in the plans.

16. **Question:** Item 104-14: Plan notes on plan page 5 states the Contractor is to prepare and submit a special plan for the Prevention, Control, and Abatement of Erosion and Water Pollution plan, will this plan be required to be prepared by a PE (Professional Engineer) and signed and sealed by a PE also? Please clarify this issue.

Answer: The Erosion Control plan shall be prepared and signed/sealed by a PE.

17. **Question:** Item 102-1: Plan notes on plan page 5 states the MOT plans provided are for reference only and that the Contractor shall design and submit a Maintenance of Traffic plan for review and approval is this plan required to be prepared by a PE (Professional Engineer) and signed and sealed by a PE also? Please clarify this issue.

Answer: The MOT plan shall be prepared and signed/sealed by a PE with FDOT Advanced Maintenance of Traffic certification.

18. **Question:** Item 440-1-20: Plan notes on plan sheet 5 for this item states that this item is to include all clean outs AND Inspection Boxes. Inspection Boxes are typically paid separate under FDOT item # 440-70-. As there is a significant quantity, of these items will a separate bid/pay item be provided for this work or will the cost of these Inspection boxes remain incidental to the cost of the underdrain (#440-1-20)? Please review and clarify this issue or provide a bid/pay item accordingly.

Answer: The cost of these items shall be included in the cost of the underdrain as stated in the pay item note. Quantities for cleanouts and inspection boxes are included in the plans for reference.

19. **Question:** S-330: Plan notes on drainage structures page 105 states Contractor is to submit shop drawing or detail for reconstruction of the existing concrete sea wall. Will this drawing/detail be required to be designed, signed and sealed by a PE or will the Contractor submittal be accepted? Is there access to this connection location presently so the existing sea wall can be inspected?

Answer: The detail shall be prepared and signed by a PE. The best access to the wall is via the boat ramp for the adjacent condominiums (Lake Tyler Condo Association, 1400 Holden Avenue, Orlando FL). Please see the attached .kmz file which shows the location of the boat ramp.

20. **Question:** S-330: Installation of structure S-330, the riprap installation, and reconstruction of the existing sea wall will require installation of sheet piling or other shoring and extensive dewatering. These installations will require stable crane access and working area for the sheeting/shoring installation and removal. Plans do not indicate if the outfall pipe is located in a permanent easement, temporary easement, or County owned ROW. Additionally the sheeting will be required to be installed at least 20' into Lake Tyler. Has this been considered in the design of this outfall work? Does the County have full access for this work? Will any special or temporary work easements be required? Please clarify these issues or provide additional information or details so this work can be priced accordingly.

Answer: The outfall pipe is located in a 30' wide R/W owned by Orange County. The R/W limits are now shown on Sheet 121 of the plans.

21. **Question:** Item 900-3 Groundwater Treatment & Disposal: Specification TP 900-3 states that impoundment is not considered a treatment method for this work item. This would indicate that any groundwater containing contamination would be required to be removed from the project and disposed. Please clarify if this is correct.

Answer: This is correct.

22. **Question:** Existing Force Main: Existing force mains in the plans shown to be removed are labeled as "CI" pipe (cast iron). Is this correct? Please confirm if some or all of the existing force main piping to be removed are cast iron as labeled or other material.

Answer: To the best of our knowledge, the majority of existing pipes to be removed are cast iron and are labeled as such (CI). Any known areas of PVC are labeled in the plans.

23. **Question:** Existing Pipe Restraint (FM): Many plan locations where connections to the existing force mains are required state the existing pipe is to be restrained per the plan table. Many of these existing pipes (force main) are labeled as "CI" (cast iron). What type of joint restraint or restrainer device is approved for use for restraint of cast iron pipe?

Answer: Any type of joint restraint approved for use on DI pipe would be acceptable on CI pipe, see Appendix D of the Specifications for more information.

24. **Question:** Sanitary Sewer Bypass Pumping: The plans indicate 8" gravity sewer connection at manhole EX-1, installation of new 8" gravity sewer across Rio Grande Ave. to new manhole SAN-2 at a depth of app. 10', and connection of SAN-2 to an existing active 6" force main and 2 gravity sewer mains. This work cannot be performed in "sections or phases" and will require bypass pumping of all of these active sewage sources. To determine the equipment required for this work the daily flow rates for all of these mains at these locations must be provided. Please provide this information.

Answer: From EX-1
ADF = 5,000gpd
PHF = 100gpm

From EX-2

ADF = 100,000gpd
PHF = 450gpm

25. **Question:** Sanitary Sewer Connections/Clearance: In regards to the existing 6" force main to be connected to new sanitary manhole SAN-2 and the new 8" gravity from EX-1 to EX-2, will FDEP clearance be required before these new gravity mains can be utilized/put into service? If clearance will be required how will the flows from the existing 6" force main to be connected to SAN-2 be maintained? Will this force main be required to be temporarily re-routed and connected to another connection location such as EX-2? Please provide details how this 6" force main service is to be maintained if connection to SAN-2 is not permitted until after FDEP clearance.

Answer: This can be accomplished via a combination of bypass pumping and partial clearances through FDEP. It is up to the contractor to determine their means and methods.

26. **Question:** Removal of Existing Gravity Sewer: Existing gravity sewer is shown to be required to be removed between sanitary manholes EX-3 and EX-1, all of which is in the active roadway at depths of 10'+. This will require dewatering and traffic detours. Can this sewer main be grout filled and left in place in lieu of removal?

Answer: Orange County Utilities (OCU) direction is to remove the abandoned pipe per the plan.

27. **Question:** S-330: Drainage structure sheet, plan page 105 does not include the profile of the existing sea wall and detail for installation of the proposed 36" head wall in relation to it. Is the proposed 36" head wall to be constructed on the existing sea wall or integrated into it? Is it to be installed in front of or behind the existing sea wall? Or is the head wall required at all? If the head wall is to be installed in front of the sea wall what is the distance from the front of the wall? More details needs to be provided for this installation so that accurate shoring, dewatering, and installation costs can be included. Please clarify this issue and/or provide additional details.

Answer: S-330 shall be constructed integral to the existing wall. The existing wall shall be removed/reconstructed to the extent necessary to build S-330. A shop drawing of the means to accomplish the work shall be submitted for approval prior to the work taking place.

28. **Question:** Special Provision Item No. 7 (ROW / Parcel Considerations) references a number of parcels by a parcel numbering convention. I have been unable to correlate these parcel numbers to properties along the alignments of

each of the roads impacted (the numbers do not appear to correlate with the County GIS parcel numbers). Is there a reference that we can provided or directed to that will clarify this?

Answer: Please reference the R/W maps included with the bid package, which reference the parcel numbers.

29. **Question:** Connection to LS #3183: Utility plan sheet U-15 indicates an existing lift station #3183 is to be connected to the new 10"x 4" force main stub out. What is the size of this pipe at LS #3183? Please provide the size of this connection so it can be priced accordingly.

Answer: This pipe is 4" in size.

30. **Question:** Restraint of Existing Pipe: In locations at force main connections where existing pipe is shown to be restrained and existing pipe is under roadways and paved driveways can a thrust collar be utilized in lieu of restraining the existing pipe joints per the table?

Answer: Yes, a thrust collar is allowed but it must be discussed with OCU inspector on a case-by-case basis.

31. **Question:** Manhole Linings: Plan sheets and bid items describe sanitary manholes to be lined as "fiberglass" lined structures. Plan details on page U-21 also includes details for HDPE or Reinforced Plastic liners. Are all of these lining options acceptable or will ONLY fiberglass liners be accepted? Please clarify this issue.

Answer: New manholes can be either HDPE/Reinforced plastic but the existing MH to be lined shall be fiberglass only.

32. **Question:** Force Main Connection @ US-441/OBT: In regards to the proposed 12" force main connection at US-441, the connection is shown to be in the active roadway travel lane of US-441/OBT. The plans or plan notes do not address this specific connection. This is a FDOT road and the connection outside of the project reconstruction limits. What are the lane closure restrictions for closing the active travel lane to make this connection and removal of the existing pipe? Again, the connection is outside of the project reconstruction limits, what will be required for the reconstruction of this US-441 open cut? Will the affected lane or intersection be required to be milled and resurfaced and if so to what limits? Traffic signal loops will also be affected. This work will be at a signalized intersection, the use of Off Duty Officers will

be required, and this is not address in the utility MOT plans. The Contractor will have to open cut access this work area a minimum of 3 times, possibly 4, once to locate and confirm the pipe size and type to order the correct connection materials, again to install and make the connection, and again to install the line stop and cut and remove the existing 8" force main pipe. Each of these events will require closure of at least 1 active lane on US-441 and repair of the roadway, ending with a final permanent roadway repair. Please provide additional details for this work in this specific area including lane closure restrictions and any FDOT repair requirements so costs for it can be included accordingly.

Answer: The MOT plan shown in the utility plans is for reference and bid purposes only, the Contractor shall prepare and submit for approval their own MOT plan for utility installation. Preliminary lane closure times for US 441 are shown in Note 34 on Sheet M-1. Final lane closure restrictions shall be determined by FDOT during review of the contractor's MOT plan. The cost of any item(s) needed to maintain traffic at this intersection shall be included in Item U-5.

Since this work occurs within FDOT R/W, all work (including pavement restoration) shall be done in accordance with the applicable editions of the FDOT UAM and FDOT Standard Indexes.

33. **Question:** Force Main Connection @ US-441/OBT: In regards to the proposed 12" force main connection at US-441, after the connection is made and the existing 8" pipe is removed the plans also indicate the existing 12" force main S of the connection is required to be restrained per the plan restraint table. Per the table this will require the restraint of at least 90' LF of the existing 12" force main. This force main is located under an active travel lane on US-441 and would require open cutting and repair of up to 100' LF of US-441 to locate and restrain the existing pipe bells as required. Can a concrete thrust collar be utilized at this connection location in lieu of restraining the existing pipe? Please review and address this issue.

Answer: Yes, a thrust collar is allowed but it must be discussed with OCU inspector on a case by case basis.

34. **Question:** Can we utilize a different attenuator than what is dictated on the plans? Typically, designers do not dictate the type of attenuator and we would like to use a different product that is on the FDOT APL list. It will meet the crash rating of the posted speed limit for this project.

Answer: This is acceptable as long as the attenuator used is on the FDOT APL.

35. **Question:** Earthwork Quantities: In the plan sheet Summary of Quantities, page 17, the Summary of earthwork quantities states that Pond 3 excavation is 64,365 CY. We have digitized the project areas including Pond 3 2 independent times and our results indicate Pond 3 excavation is app. 48,500 +/- . This significant difference would create significant additional import needed for the project via a change order with a value ranging from \$180,000 to over \$210,000 if the table quantity is utilized. Can this issue be reviewed and either the quantity for Pond 3 be confirmed or adjusted accordingly?

Answer: Earthwork quantities for Pond 3 have been reviewed and adjusted. Please see the revised plans.

36. **Question:** Existing Dumpster Pads in ROW: From app. Sta.51+20 to 63+00 there are at least 2 existing dumpster pads and enclosures that are in the ROW area. Are these to be removed? Will they be removed or relocated by others? Please clarify what is to be done with these dumpster pads and enclosures and whose responsibility it will be.

Answer: Per Section 7 of the Special Provisions, The Contractor shall demolish and remove any improvements from these parcels at no additional cost to the COUNTY (Parcels 1011, 7011A, 7011B, 7011C, 8011, 8011A, 8011B, 8011C)'. The dumpster pads in question fall within these limits (R/W and easements).

37. **Question:** Decorative/Iron Fence at ROW: From app. Sta.51+20 to 63+00 there is an existing iron/decorative fence on the ROW that will be in close proximity to the proposed sheet pile wall (1'-2' or less). Is this fence to remain after installation of the sheet pile wall? Will it be removed? Will it be permitted to be removed if in conflict with the sheet pile wall construction? If this decorative fence is to remain who will be responsible for incidental damages to it (if incurred) due to driving of the sheet pile wall?

Answer: Per Section 7 of the Special Provisions, The Contractor shall demolish and remove any improvements from these parcels at no additional cost to the COUNTY (Parcels 1011, 7011A, 7011B, 7011C, 8011, 8011A, 8011B, 8011C)'. The fence in question falls within these limits (R/W and easements).

38. **Question:** Bus Stops: Plan notes state that Lynx buses will remain in operation and that Contractor is to maintain access to the bus stops for pedestrians. The plans do not address any bus stop relocations (temporary or permanent). Who

will be responsible for any bus stop relocation if required during construction of the project, and the final location of the bus stops on the completed roadway? Will Lynx maintain and relocate all bus stops during and after construction as needed? Please clarify this issue.

Answer: This issue must be coordinated with LYNX, contact information is given in the plans. The Contractor shall maintain access to the bus stops, LYNX will be responsible for any relocation of bus stops.

39. **Question:** MOT Plan Note: MOT plan sheet M-2, note 41 states “Drums with lights shall be used for channelizing devices”. Per latest FDOT standards lights are no longer required or permitted on barricades or drums. Will note 41 be followed and the drums are to have lights or will the latest current FDOT standards (no lights) be acceptable and followed?

Answer: Lighted drums will not be necessary for this project.

40. **Question:** Bid Due Date: Can the County consider a due date postponement? After receipt of any addendum, a minimum of 3-4 days will be required to review all addendum responses and revise as needed, and to distribute/transmit the information to all subs (both DBE and non-DBE) and insure they receive the information completely and have time to review and adjust as well.

Answer: The Bid Opening Date has been extended.

41. **Question:** Nothing provided on the Bid tabulation for the Interconnect T-14 – T-20. How do we bid it?

Answer: Per TP 603, ‘The cost of the signal communication system between signals shall be included in the contract price for each intersection signalization.

42. **Question:** Are the utility adjustments/relocations shown on the “Utility Adjustments” drawings sheet UA-1 through UA-19 part of this bid, if so, please indicate under which bid items the cost for this work should be included in.

Answer: The utility adjustments shown in sheets UA-1 through UA-19 are by others and are not to be included in the bid for the roadway work. The only utility work included in this contract is that for Orange County Utilities shown in the Holden Avenue Phase I Utility Improvements plans.

43. **Question:** Please verify the type of drainage pipe proposed for this project.

Answer: Orange County only allows the use of steel-reinforced concrete pipe (SRCP). Please refer to General Note 23 on Sheet 2 of the plans, along with TP 430.

44. **Question:** Following the criteria set forth in FDOT's "Standard Specifications for Road and Bridge Construction", may the awarded contractor submit a Value Engineering proposal to install FDOT approved polypropylene pipe as an alternate storm drainage material for diameters 12"-60"?

Answer: Orange County only allows SRCP.

45. **Question:** Box Culvert/Holden Road Closure: The MOT plans provided are stated to be "for information only" and do not accurately address or detail the construction of the proposed concrete box culvert at Sta. 46+65 to 47+11. The proposed box culvert is to be constructed at a skew which will conflict with maintain the existing cross drain in any phase. Additionally the waters from Lake Buchanan and the S end of the existing cross drain will be required to be blocked off via sheet piling wall or other berm measures and water flows will have to be mechanically maintained to construct the new culvert and proposed end walls and for demolition and removal of the existing double cross drain and end walls. The installation and removal of sheet piling, and installation of the new box culvert will require set up and staging of a significantly large crane to perform this work that will consume most of the existing roadway width due to proximity of the existing electrical power lines and other overhead utilities. If constructed in phases this will be required to be performed 2 separate times. None of the existing storm cross drain can be removed until the proposed culvert is completed and again the new culvert is in conflict with the existing cross drain so it will be required to be removed to construct the new box culvert. Additionally existing utilities are to be relocated in this area for the box culvert construction. Due to these constructability issues it is beneficial and likely required that the box culvert be constructed in its entirety in one single phase. To stage the required crane, install sheet piling, maintain water flows across the roadway via mechanical pumping, remove the existing cross drain, and to construct the proposed box culvert in its entirety will require the existing roadway to be closed and detoured.

Will the County accept a Contractors engineered MOT plan that includes a full road closure of Holden Ave. between Stations 40+00 to 52+50 and detour of traffic for a duration of 30 days +/- to permit construction of the proposed box culvert and end walls as required? There are no driveways or owner accesses to be maintained between these stations (40+00 to 52+50) and traffic can be detoured via Rio Grande N to Texas and S to Honour Road, and via Texas N to Rio Grande and S to Honour Road. This is the only feasible and safe method

to construct the proposed box culvert and maintain water flows as shown. Please respond to this critical issue.

Answer: With proper detour signage and advance notification (VMB's) 30 days in advance we will allow road closure not to exceed 30 days.

46. **Question:** We have found that several existing utilities shown to remain on the Cross Section Plans, the Utility Adjustments Plans and the Utility Improvement Plans, are in conflict with the removal and replacement of Unsuitable Materials under the Subsoil Excavation Item; please advise if the County has a plan and/or a course of action for the temporary support and/or temporary relocation of these utilities.

Answer: The Contractors responsibilities for utility coordination and conflict resolution are outlined in Part F General Conditions, Article 10 under Utility Coordination, in Part G Supplemental Conditions, Article 10 Work by Others and Utility Coordination, and in Part G Special Provisions, Section 3 Utility Coordination.

F. All other terms and conditions of the IFB remain the same.

G. **The Bidder shall acknowledge receipt of this addendum by completing the applicable section in the solicitation or by completion of the acknowledgement information on the addendum. Either form of acknowledgement must be completed and returned not later than the date and time for receipt of the bid.**

Receipt acknowledged by:

Authorized Signature

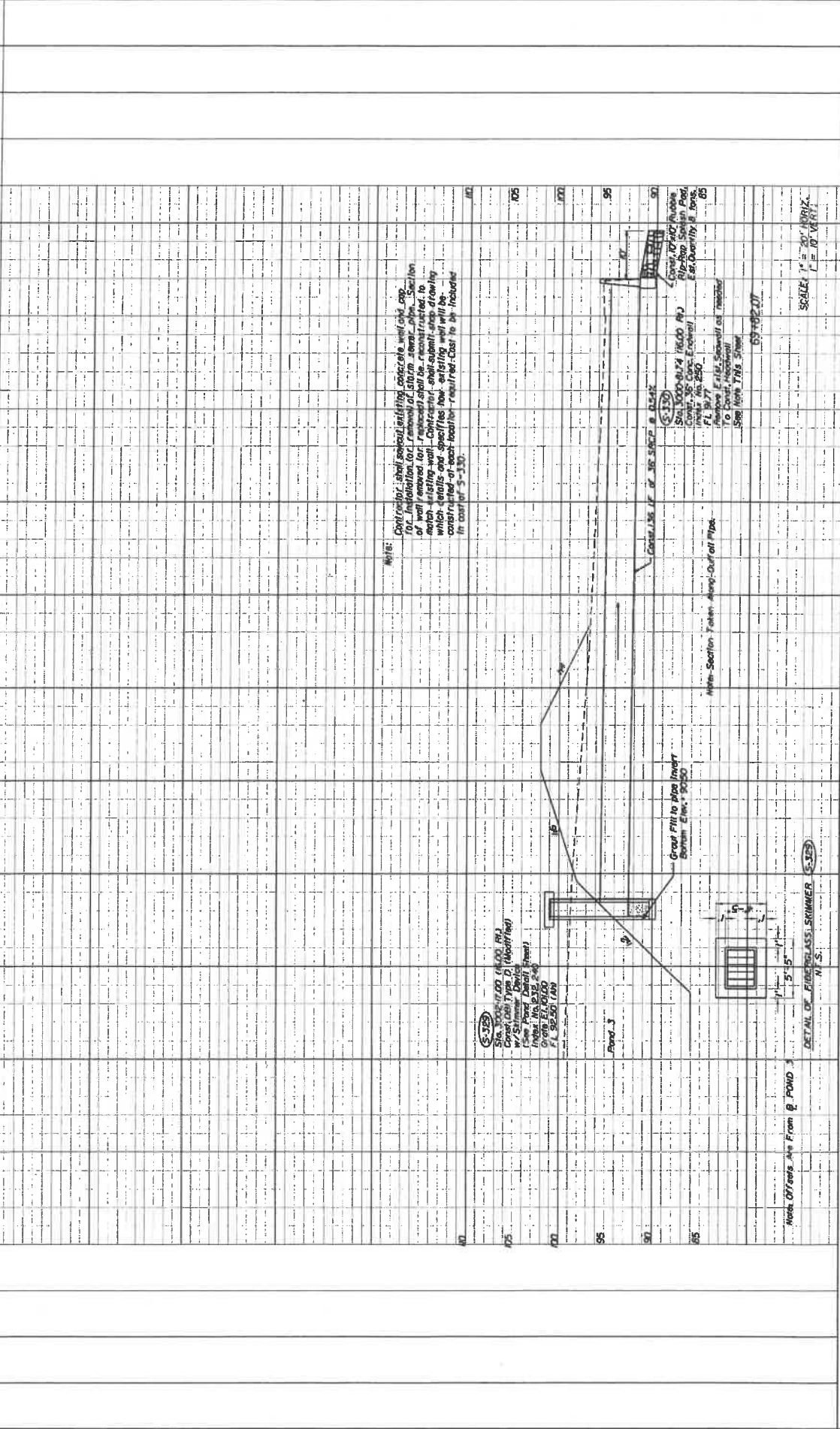
Date Signed

Title

STR. NO.	STATION	SIDE	DESCRIPTION	BARRELS	SRCP STORM DRAIN		CURB INLETS	MANHOLES	DITCH BOTTOM INLETS	MITERED END SECTIONS	CLASS CONC.	REIN. STEEL	NUMBER WALL INLETS	REMARKS																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
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P S-126	392+58.82, CLTEX	RT	Manhole, Pipe	1	15' 18"	24"	30"	36"	42"	48"	56"	72"	14' 2"	19' 4"	24' 2"	30' 2"	36' 2"	42' 2"	48' 2"	54' 2"	60' 2"	66' 2"	72' 2"	78' 2"	84' 2"	90' 2"	96' 2"	102' 2"	108' 2"	114' 2"	120' 2"	126' 2"	132' 2"	138' 2"	144' 2"	150' 2"	156' 2"	162' 2"	168' 2"	174' 2"	180' 2"	186' 2"	192' 2"	198' 2"	204' 2"	210' 2"	216' 2"	222' 2"	228' 2"	234' 2"	240' 2"	246' 2"	252' 2"	258' 2"	264' 2"	270' 2"	276' 2"	282' 2"	288' 2"	294' 2"	300' 2"	306' 2"	312' 2"	318' 2"	324' 2"	330' 2"	336' 2"	342' 2"	348' 2"	354' 2"	360' 2"	366' 2"	372' 2"	378' 2"	384' 2"	390' 2"	396' 2"	402' 2"	408' 2"	414' 2"	420' 2"	426' 2"	432' 2"	438' 2"	444' 2"	450' 2"	456' 2"	462' 2"	468' 2"	474' 2"	480' 2"	486' 2"	492' 2"	498' 2"	504' 2"	510' 2"	516' 2"	522' 2"	528' 2"	534' 2"	540' 2"	546' 2"	552' 2"	558' 2"	564' 2"	570' 2"	576' 2"	582' 2"	588' 2"	594' 2"	600' 2"	606' 2"	612' 2"	618' 2"	624' 2"	630' 2"	636' 2"	642' 2"	648' 2"	654' 2"	660' 2"	666' 2"	672' 2"	678' 2"	684' 2"	690' 2"	696' 2"	702' 2"	708' 2"	714' 2"	720' 2"	726' 2"	732' 2"	738' 2"	744' 2"	750' 2"	756' 2"	762' 2"	768' 2"	774' 2"	780' 2"	786' 2"	792' 2"	798' 2"	804' 2"	810' 2"	816' 2"	822' 2"	828' 2"	834' 2"	840' 2"	846' 2"	852' 2"	858' 2"	864' 2"	870' 2"	876' 2"	882' 2"	888' 2"	894' 2"	900' 2"	906' 2"	912' 2"	918' 2"	924' 2"	930' 2"	936' 2"	942' 2"	948' 2"	954' 2"	960' 2"	966' 2"	972' 2"	978' 2"	984' 2"	990' 2"	996' 2"	1002' 2"	1008' 2"	1014' 2"	1020' 2"	1026' 2"	1032' 2"	1038' 2"	1044' 2"	1050' 2"	1056' 2"	1062' 2"	1068' 2"	1074' 2"	1080' 2"	1086' 2"	1092' 2"	1098' 2"	1104' 2"	1110' 2"	1116' 2"	1122' 2"	1128' 2"	1134' 2"	1140' 2"	1146' 2"	1152' 2"	1158' 2"	1164' 2"	1170' 2"	1176' 2"	1182' 2"	1188' 2"	1194' 2"	1200' 2"	1206' 2"	1212' 2"	1218' 2"	1224' 2"	1230' 2"	1236' 2"	1242' 2"	1248' 2"	1254' 2"	1260' 2"	1266' 2"	1272' 2"	1278' 2"	1284' 2"	1290' 2"	1296' 2"	1302' 2"	1308' 2"	1314' 2"	1320' 2"	1326' 2"	1332' 2"	1338' 2"	1344' 2"	1350' 2"	1356' 2"	1362' 2"	1368' 2"	1374' 2"	1380' 2"	1386' 2"	1392' 2"	1398' 2"	1404' 2"	1410' 2"	1416' 2"	1422' 2"	1428' 2"	1434' 2"	1440' 2"	1446' 2"	1452' 2"	1458' 2"	1464' 2"	1470' 2"	1476' 2"	1482' 2"	1488' 2"	1494' 2"	1500' 2"	1506' 2"	1512' 2"	1518' 2"	1524' 2"	1530' 2"	1536' 2"	1542' 2"	1548' 2"	1554' 2"	1560' 2"	1566' 2"	1572' 2"	1578' 2"	1584' 2"	1590' 2"	1596' 2"	1602' 2"	1608' 2"	1614' 2"	1620' 2"	1626' 2"	1632' 2"	1638' 2"	1644' 2"	1650' 2"	1656' 2"	1662' 2"	1668' 2"	1674' 2"	1680' 2"	1686' 2"	1692' 2"	1698' 2"	1704' 2"	1710' 2"	1716' 2"	1722' 2"	1728' 2"	1734' 2"	1740' 2"	1746' 2"	1752' 2"	1758' 2"	1764' 2"	1770' 2"	1776' 2"	1782' 2"	1788' 2"	1794' 2"	1800' 2"	1806' 2"	1812' 2"	1818' 2"	1824' 2"	1830' 2"	1836' 2"	1842' 2"	1848' 2"	1854' 2"	1860' 2"	1866' 2"	1872' 2"	1878' 2"	1884' 2"	1890' 2"	1896' 2"	1902' 2"	1908' 2"	1914' 2"	1920' 2"	1926' 2"	1932' 2"	1938' 2"	1944' 2"	1950' 2"	1956' 2"	1962' 2"	1968' 2"	1974' 2"	1980' 2"	1986' 2"	1992' 2"	1998' 2"	2004' 2"	2010' 2"	2016' 2"	2022' 2"	2028' 2"	2034' 2"	2040' 2"	2046' 2"	2052' 2"	2058' 2"	2064' 2"	2070' 2"	2076' 2"	2082' 2"	2088' 2"	2094' 2"	2100' 2"	2106' 2"	2112' 2"	2118' 2"	2124' 2"	2130' 2"	2136' 2"	2142' 2"	2148' 2"	2154' 2"	2160' 2"	2166' 2"	2172' 2"	2178' 2"	2184' 2"	2190' 2"	2196' 2"	2202' 2"	2208' 2"	2214' 2"	2220' 2"	2226' 2"	2232' 2"	2238' 2"	2244' 2"	2250' 2"	2256' 2"	2262' 2"	2268' 2"	2274' 2"	2280' 2"	2286' 2"	2292' 2"	2298' 2"	2304' 2"	2310' 2"	2316' 2"	2322' 2"	2328' 2"	2334' 2"	2340' 2"	2346' 2"	2352' 2"	2358' 2"	2364' 2"	2370' 2"	2376' 2"	2382' 2"	2388' 2"	2394' 2"	2400' 2"	2406' 2"	2412' 2"	2418' 2"	2424' 2"	2430' 2"	2436' 2"	2442' 2"	2448' 2"	2454' 2"	2460' 2"	2466' 2"	2472' 2"	2478' 2"	2484' 2"	2490' 2"	2496' 2"	2502' 2"	2508' 2"	2514' 2"	2520' 2"	2526' 2"	2532' 2"	2538' 2"	2544' 2"	2550' 2"	2556' 2"	2562' 2"	2568' 2"	2574' 2"	2580' 2"	2586' 2"	2592' 2"	2598' 2"	2604' 2"	2610' 2"	2616' 2"	2622' 2"	2628' 2"	2634' 2"	2640' 2"	2646' 2"	2652' 2"	2658' 2"	2664' 2"	2670' 2"	2676' 2"	2682' 2"	2688' 2"	2694' 2"	2700' 2"	2706' 2"	2712' 2"	2718' 2"	2724' 2"	2730' 2"	2736' 2"	2742' 2"	2748' 2"	2754' 2"	2760' 2"	2766' 2"	2772' 2"	2778' 2"	2784' 2"	2790' 2"	2796' 2"	2802' 2"	2808' 2"	2814' 2"	2820' 2"	2826' 2"	2832' 2"	2838' 2"	2844' 2"	2850' 2"	2856' 2"	2862' 2"	2868' 2"	2874' 2"	2880' 2"	2886' 2"	2892' 2"	2898' 2"	2904' 2"	2910' 2"	2916' 2"	2922' 2"	2928' 2"	2934' 2"	2940' 2"	2946' 2"	2952' 2"	2958' 2"	2964' 2"	2970' 2"	2976' 2"	2982' 2"	2988' 2"	2994' 2"	3000' 2"	3006' 2"	3012' 2"	3018' 2"	3024' 2"	3030' 2"	3036' 2"	3042' 2"	3048' 2"	3054' 2"	3060' 2"	3066' 2"	3072' 2"	3078' 2"	3084' 2"	3090' 2"	3096' 2"	3102' 2"	3108' 2"	3114' 2"	3120' 2"	3126' 2"	3132' 2"	3138' 2"	3144' 2"	3150' 2"	3156' 2"	3162' 2"	3168' 2"	3174' 2"	3180' 2"	3186' 2"	3192' 2"	3198' 2"	3204' 2"	3210' 2"	3216' 2"	3222' 2"	3228' 2"	3234' 2"	3240' 2"	3246' 2"	3252' 2"	3258' 2"	3264' 2"	3270' 2"	3276' 2"	3282' 2"	3288' 2"	3294' 2"	3300' 2"	3306' 2"	3312' 2"	3318' 2"	3324' 2"	3330' 2"	3336' 2"	3342' 2"	3348' 2"	3354' 2"	3360' 2"	3366' 2"	3372' 2"	3378' 2"	3384' 2"	3390' 2"	3396' 2"	3402' 2"	3408' 2"	3414' 2"	3420' 2"	3426' 2"	3432' 2"	3438' 2"	3444' 2"	3450' 2"	3456' 2"	3462' 2"	3468' 2"	3474' 2"	3480' 2"	3486' 2"	3492' 2"	3498' 2"	3504' 2"	3510' 2"	3516' 2"	3522' 2"	3528' 2"	3534' 2"	3540' 2"	3546' 2"	3552' 2"	3558' 2"	3564' 2"	3570' 2"	3576' 2"	3582' 2"	3588' 2"	3594' 2"	3600' 2"	3606' 2"	3612' 2"	3618' 2"	3624' 2"	3630' 2"	3636' 2"	3642' 2"	3648' 2"	3654' 2"	3660' 2"	3666' 2"	3672' 2"	3678' 2"	3684' 2"	3690' 2"	3696' 2"	3702' 2"	3708' 2"	3714' 2"	3720' 2"	3726' 2"	3732' 2"	3738' 2"	3744' 2"	3750' 2"	3756' 2"	3762' 2"	3768' 2"	3774' 2"	3780' 2"	3786' 2"	3792' 2"	3798' 2"	3804' 2"	3810' 2"	3816' 2"	3822' 2"	3828' 2"	3834' 2"	3840' 2"	3846' 2"	3852' 2"	3858' 2"	3864' 2"	3870' 2"	3876' 2"	3882' 2"	3888' 2"	3894' 2"	3900' 2"	3906' 2"	3912' 2"	3918' 2"	3924' 2"	3930' 2"	3936' 2"	3942' 2"	3948' 2"	3954' 2"	3960' 2"	3966' 2"	3972' 2"	3978' 2"	3984' 2"	3990' 2"	3996' 2"	4002' 2"	4008' 2"	4014' 2"	4020' 2"	4026' 2"	4032' 2"	4038' 2"	4044' 2"	4050' 2"	4056' 2"	4062' 2"	4068' 2"	4074' 2"	4080' 2"	4086' 2"	4092' 2"	4098' 2"	4104' 2"	4110' 2"	4116' 2"	4122' 2"	4128' 2"	4134' 2"	4140' 2"	4146' 2"	4152' 2"	4158' 2"	4164' 2"	4170' 2"	4176' 2"	4182' 2"	4188' 2"	4194' 2"	4200' 2"	4206' 2"	4212' 2"	4218' 2"	4224' 2"	4230' 2"	4236' 2"	4242' 2"	4248' 2"	4254' 2"	4260' 2"	4266' 2"	4272' 2"	4278' 2"	4284' 2"	4290' 2"	4296' 2"	4302' 2"	4308' 2"	4314' 2"	4320' 2"	4326' 2"	4332' 2"	4338' 2"	4344' 2"	4350' 2"	4356' 2"	4362' 2"	4368' 2"	4374' 2"	4380' 2"	4386' 2"	4392' 2"	4398' 2"	4404' 2"	4410' 2"	4416' 2"	4422' 2"	4428' 2"	4434' 2"	4440' 2"	4446' 2"	4452' 2"	4458' 2"	4464' 2"	4470' 2"	4476' 2"	4482' 2"	4488' 2"	4494' 2"	4500' 2"	4506' 2"	4512' 2"	4518' 2"	4524' 2"	4530' 2"	4536' 2"	4542' 2"	4548' 2"	4554' 2"	4560' 2"	4566' 2"	4572' 2"	4578' 2"	4584' 2"	4590' 2"	4596' 2"	4602' 2"	4608' 2"	4614' 2"	4620' 2"	4626' 2"	4632' 2"	4638' 2"	4644' 2"	4650' 2"	4656' 2"	4662' 2"	4668' 2"	4674' 2"	4680' 2"	4686' 2"	4692' 2"	4698' 2"	4704' 2"	4710' 2"	4716' 2"	4722' 2"	4728' 2"	4734' 2"	4740' 2"	4746' 2"	4752' 2"	4758' 2"	4764' 2"	4770' 2"	4776' 2"	4782' 2"	4788' 2"	4794' 2"	4800' 2"	4806' 2"	4812' 2"	4818' 2"	4824' 2"	4830' 2"	4836' 2"	4842' 2"	4848' 2"	4854' 2"	4860' 2"	4866' 2"	4872' 2"	4878' 2"	4884' 2"	4890' 2"	4896' 2"	4902' 2"	4908' 2"	4914' 2"	4920' 2"	4926' 2"	4932' 2"	4938' 2"	4944' 2"	4950' 2"	4956' 2"	4962' 2"	4968' 2"	4974' 2"	4980' 2"	4986' 2"	4992' 2"	4998' 2"	5004' 2"	5010' 2"	5016' 2"	5022' 2"	5028' 2"	5034' 2"	5040' 2"	5046' 2"	5052' 2"	5058' 2"	5064' 2"	5070' 2"	5076' 2"	5082' 2"	5088' 2"	5094' 2"	5100' 2"	5106' 2"	5112' 2"	5118' 2"	5124' 2"	5130' 2"	5136' 2"	5142' 2"	5148' 2"	5154' 2"	5160' 2"	5166' 2"	5172' 2"	5178' 2"	5184' 2"	5190' 2"	5196' 2"	5202' 2"	5208' 2"	5214' 2"	5220' 2"	5226' 2"	5232' 2"	5238' 2"	5244' 2"	5250' 2"	5256' 2"	5262' 2"	5268' 2"	5274' 2"	5280' 2"	5286' 2"	5292' 2"	5298' 2"	5304' 2"	5310' 2"	5316' 2"	5322' 2"	5328' 2"	5334' 2"	5340' 2"	5346' 2"	5352' 2"	5358' 2"	5364' 2"	5370' 2"	5376' 2"	5382' 2"	5388' 2"	5394' 2"	5400' 2"	5406' 2"	5412' 2"	5418' 2"	5424' 2"	5430' 2"	5436' 2"	5442' 2"	5448' 2"	5454' 2"	5460' 2"	5466' 2"	

A-8 Material
Excavation
A V A V

A-2, A-3 Material
Regular Exc.
A V A V



NOTE: Contractor shall specify casting schedule and curing for installation and removal of form of wall (removed for removal of form match existing wall. Contractor shall submit shop drawing which details and specifies how existing wall will be constructed at each location required. Cost to be included in cost of S-330.

S-330
SIA 3000-0174 (1600 RJ)
W/ Shimmed Detail
(See Pond Detail Sheet)
Index No. S-330 (1600)
F. 92-501 (1600)

Grout Fill to pipe Invert
Surchin - Elev. 90.50



DETAIL OF FIBERGLASS SKIMMER S-329

New Section Taken Along-Of of Pipe

S-330

SIA 3000-0174 (1600 RJ)
Cover 10' x 10' Rubber
Rip-Rap Socklin Pad,
(Quantity 8.00)
E. at Quantity 8.00
FL 91.77
Above E. 112.50 wall of main
To Court, Mainwall
SIB 10/4 1785 SIB

63-182-07

SCALE: 1" = 20' HORIZ.
1" = 10' VERT.

DATE	BY	DESCRIPTION	REVISIONS	DATE	BY	DESCRIPTION

LOCHRANE
ENGINEERS • SURVEYORS
105 SOUTH BAY AVENUE, SUITE 200
FORT LAUDERDALE, FL 33304
CERTIFICATE OF AUTHORITY #00000000
FOREST WOODS, P.E. #10089 8000

ORANGE COUNTY
GOVERNMENT
FLORIDA

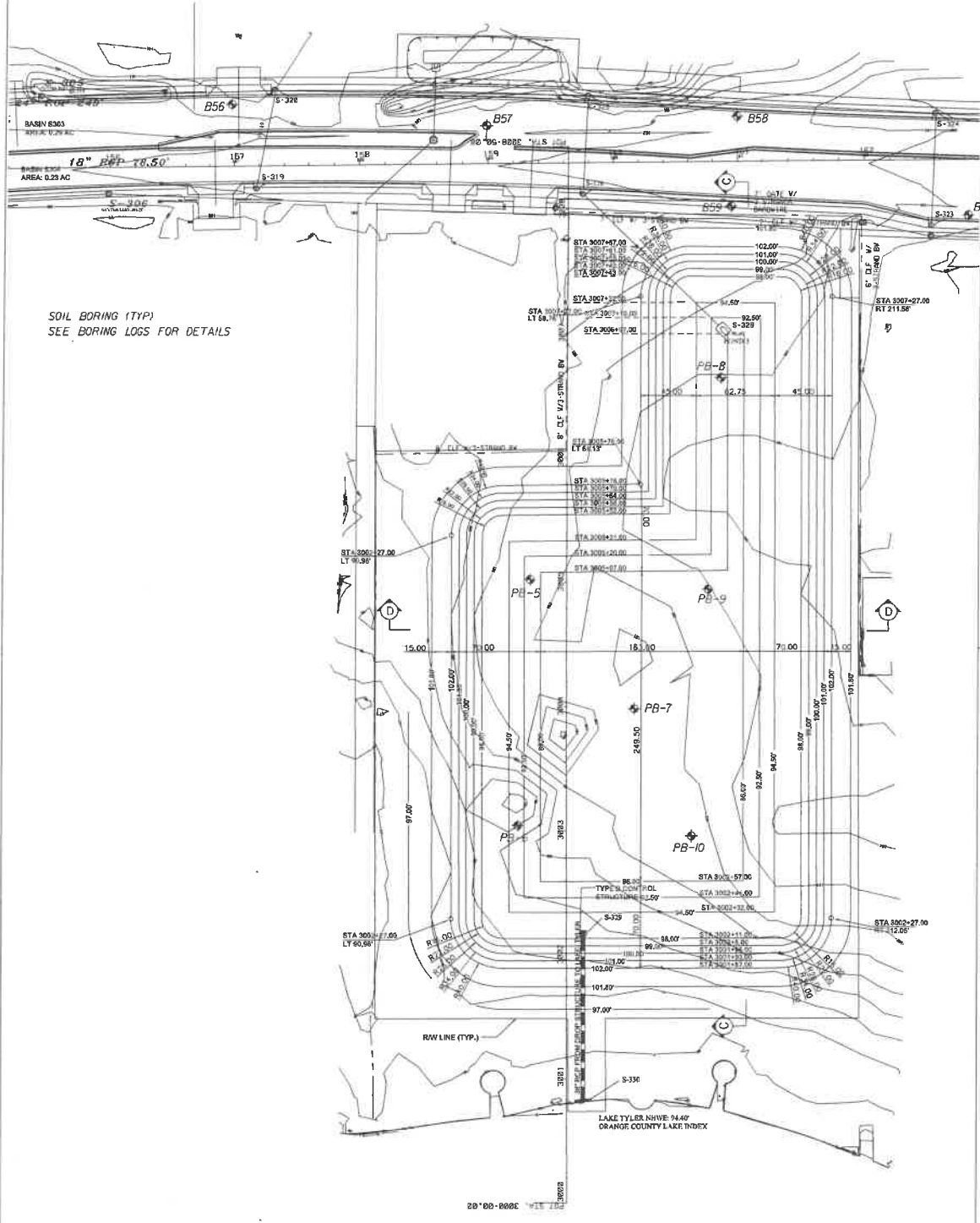
HOLDEN AVENUE
DRAINAGE STRUCTURES

SHEET NO. 105



GRAPHIC SCALE
(IN FEET)
1 inch = 60 ft.

POND 3 DETAIL



DATE	BY	DESCRIPTION	REVISIONS	DATE	BY	DESCRIPTION

SUMMARY OF EARTHWORK

DESCRIPTION	P C.Y.	F C.Y.
ROADWAY EXCAVATION, A-2, A-3 MATERIAL	11,702	
ROADWAY	11,853	
POND 1 EXCAVATION	52,068	
TOTAL ROADWAY EXCAVATION	75,623	
SUBSOIL EXCAVATION, A-8 MATERIAL	70,475	
+30% CONTINGENCY	30,204	
TOTAL SUBSOIL EXCAVATION, A-8 MATERIAL	100,679	
FILL		
ROADWAY	56,287	
POND 1 FILL	4,320	
POND 3 FILL	4,104	
FILL TO REPLACE SUBSOIL	100,679	
TOTAL PROJECT FILL	165,390	

Regular Exc. Embankment
 A V A V

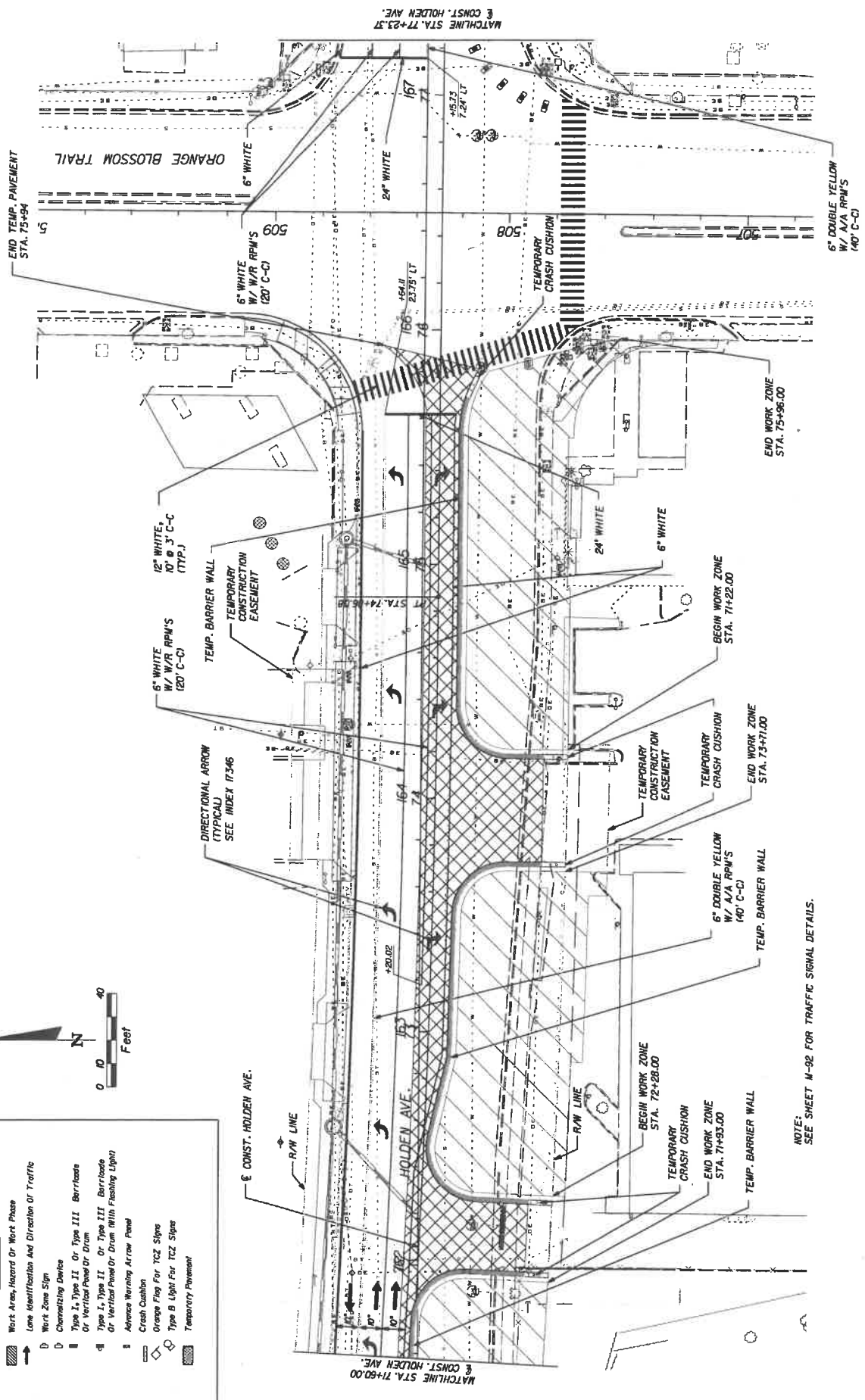
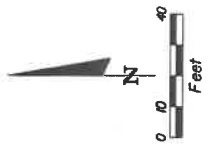
DATE	BY	DESCRIPTION	REVISIONS	DATE	BY	DESCRIPTION
4/3/13	TAA	PARCEL FOR REVISIONS, REVISED ROADWAY EXCAVATION QUANTITY AND TOTAL				

LOCHRANE
 ENGINEERS • SURVEYORS
200 SOUTH BRADY AVENUE, SUITE 200, ORLANDO, FLORIDA 32801
 PHONE: (407) 241-1111 FAX: (407) 241-1112
 WWW.LOCHRANE.COM P.E. NUMBER 18003

ORANGE COUNTY
GOVERNMENT
 F L O R I D A

LEGEND

- Work Area, Hazard Or Work Phase
- Lane Identification And Direction Of Traffic
- Work Zone Sign
- Channelizing Device
- Type I, Type II, Or Type III Barricade
- Or Vertical Panel Or Drum
- Type I, Type II, Or Type III Barricade
- Or Vertical Panel Or Drum With Flashing Light
- Advance Warning Arrow Panel
- Crash Cushion
- Orange Flag For TCZ Signs
- Type B Light For TCZ Signs
- Temporary Pavement



NOTE: SEE SHEET M-92 FOR TRAFFIC SIGNAL DETAILS.

VHB
 225 E. Robinson Street, Suite 300
 Orangeburg, South Carolina 29117
 Phone: (803) 681-8300
 Certificate of Authorization #3932
 Dante A. Gabriel, PE
 PE # 37271



TRAFFIC CONTROL PLAN
HOLDEN AVENUE
PHASE IIB

SHEET NO. M-53



Google Earth

© 2018 Google

Lake Tyler Condos Boat Ramp

State Road 17

Walden Ave

Pine Bluffs Ave

Pine Bluffs Blvd

Pine Bluffs Pk

Pine Bluffs Pk

Holden Avenue
From John Young Parkway to Orange Blossom Trail (US 441)
(Station 10+82.14 to Station 76+06.59)

Index of Plans Sheets

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3	PROJECT DETAILS
4-5	SUMMARY OF PAY ITEMS
6-10	DRAINAGE MAPS
11	EXISTING DRAINAGE STRUCTURES
12-16	TYPICAL SECTIONS
17,17A	SUMMARY OF QUANTITIES
18-24	SUMMARY OF DRAINAGE STRUCTURES
25-27	PROJECT LAYOUT
28-30	BASELINE SURVEY CONTROL
30A	CURVE & COORDINATE DATA
31-55	PLAN AND PROFILE SHEETS
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62	DELETED
63-68	INTERSECTION DETAILS
69-70	TURNOUT DETAILS
71-118	DRAINAGE STRUCTURES
119-123	POND DETAILS
124-131	DRAINAGE DETAILS
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152-252	ROADWAY CROSS SECTIONS
253-260	POND CROSS SECTIONS
261-262	STORMWATER POLLUTION PREVENTION PLAN
263-266	EROSION CONTROL PLAN
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W1-W14	WALL PLANS
M1-M94	MAINTENANCE OF TRAFFIC PLANS
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T1-T21	SIGNALIZATION PLANS
UA1-UA19	UTILITY ADJUSTMENT PLANS
1-13	RIGHT-OF-WAY MAPS

**To the Board of County Commissioners
Orange County, Florida**

The Undersigned, hereinafter called "Bidder", having visited the site of the proposed project and familiarized himself with the local conditions, nature and extent of the work, and having examined carefully the Contract Form, General Conditions, Supplementary Conditions, Plans and Specifications and other Contract Documents, with the Bond requirements herein, proposes to furnish all labor, materials, equipment and other items, facilities and services for the proper execution and completion of: **HOLDEN AVENUE IMPROVEMENTS (FROM JOHN YOUNG PARKWAY TO ORANGE BLOSSOM TRAIL {S.R. 441})** in full accordance with the drawings and specifications prepared in accordance with the Contract Documents and, if awarded the Contract, to complete the said work within the time limits specified for the following **ESTIMATED TOTAL BASE BID**.

It is understood that this is a unit price Contract and the resultant Contract will contain estimated quantities, unit prices, extended totals and that the Estimated Total Base Bid is the sum of all pay item totals from the schedule of prices, **Page D-3 through D-14 AND Page D-3 through D-12, AND Page D-15 through D-16**.

The Contract resulting from this solicitation is based on estimated quantities. The contractor shall only be paid for materials installed in the work in accordance with the applicable unit prices for the specific work element (line item). No payment shall be made for excess materials delivered to the jobsite and not incorporated into the work. Therefore, it shall be the contractor's responsibility to determine the quantities of materials necessary to perform the project to its completion.

ESTIMATED TOTAL BASE BID:

_____ DOLLARS
(In Words)

\$ _____
**Reference Numbers 1 through 152
Page D-3 through D-14**

ESTIMATED TOTAL BASE BID FOR **ALTERNATE BID 12" FM ALONG TEXAS AVENUE:**

_____ DOLLARS
(In Words)

\$ _____
**Reference Numbers 1 through 150
Page D-3 through D-12, AND Page D-15 through D-16**

In the event the Contract is awarded to this Bidder, he/she will enter into a formal written agreement with the County in accordance with the accepted bid within ten (10) calendar days after said Contract is submitted to him/her and will furnish to the County a Contract Payment and Performance Bond with good and sufficient sureties, satisfactory to the County, in the amount of 100% of the accepted bid. The Bidder further agrees that in the event of the Bidder's default or breach of any of the agreements of this proposal, the said bid deposit shall be forfeited as liquidated damages.

Failure of the Bidder to provide pricing for all unit priced items and/or the Base Bid and ALL requested additive/deductive bid items, or alternate bids shall be cause for rejection of the bid as non-responsive.

REVISED D-2

**HOLDEN AVENUE – PHASE I
FROM JOHN YOUNG PARKWAY TO ORANGE BLOSSOM TRAIL (US 441)
Y19-720-CH; SCHEDULE OF PRICES**

CIP #3045

Addendum #5

A. ROADWAY PAY ITEMS					LENGTH:	1.24 MILES
REF. NO	PAY ITEM NO.	PAY ITEM DESCRIPTION	EST. QTY.	UNIT	UNIT PRICE	TOTAL AMOUNT
1	101-1	MOBILIZATION	1	LS		
2	102-1	MAINTENANCE OF TRAFFIC	1	LS		
3	104-14	PREVENTION, CONTROL & ABATEMENT OF EROSION AND WATER POLLUTION	1	LS		
4	110-1-1	CLEARING & GRUBBING	1	LS		
5	120-4	SUBSOIL EXCAVATION (REMOVAL OF UNSUITABLE MATERIAL)	100,679	CY		
6	120-9	EXCAVATION, EMBANKMENT AND GRADING	1	LS		
7	160-4	STABILIZATION TYPE 'B' (12") (MIN LBR 40)	70,110	SY		
8	270-1-1	SOIL CEMENT BASE, 6" (300 PSI) (PRIMED)	251	SY		
9	270-1-4	SOIL CEMENT BASE, 10" (300 PSI) (PRIMED)	60,516	SY		
10	270-1-5	SOIL CEMENT BASE, 12" (300 PSI) (PRIMED)	289	SY		
11	327-70-6	MILLING EXIST. ASPHALT PAVEMENT (1 1/2" AVG. DEPTH)	2,023	SY		
12	334-1-13A	SUPERPAVE ASPHALT CONCRETE (TRAFFIC C) (3")	48,324	SY		

**HOLDEN AVENUE – PHASE I
FROM JOHN YOUNG PARKWAY TO ORANGE BLOSSOM TRAIL (US 441)
Y19-720-CH; SCHEDULE OF PRICES**

CIP #3045

Addendum #5

<i>REF. NO</i>	<i>PAY ITEM NO.</i>	<i>PAY ITEM DESCRIPTION</i>	<i>EST. QTY.</i>	<i>UNIT</i>	<i>UNIT PRICE</i>	<i>TOTAL AMOUNT</i>
13	334-1-13B	SUPERPAVE ASPHALT CONCRETE (TRAFFIC C) (2 1/2")	11,230	SY		
14	334-1-13C	SUPERPAVE ASPHALT CONCRETE (TRAFFIC C) (1 1/2")	2,023	SY		
15	334-1-14A	SUPERPAVE ASPHALT CONCRETE (TRAFFIC D) (4 1/2")	288.5	SY		
16	334-1-14B	SUPERPAVE ASPHALT CONCRETE (TRAFFIC D) (2")	251.4	SY		
17	337-7-83	ASPHALTIC CONCRETE FRICTION COURSE (TRAFFIC C) (FC-12.5) (PG 76-22) (1 1/2")	59,555	SY		
18	337-7-85	ASPHALTIC CONCRETE FRICTION COURSE (TRAFFIC D) (FC-12.5) (PG 76-22) (1 1/2")	540.0	SY		
19	400-0-11	CONCRETE CLASS NS, GRAVITY WALL	31.3	CY		
20	400-1-2	CONCRETE CLASS I, ENDWALLS	9.3	CY		
21	400-1-11	CONCRETE CLASS I, RETAINING WALLS (SIDEWALK CURB)	26.2	CY		
22	400-2-11	CONCRETE CLASS II, RETAINING WALLS	308.1	CY		
23	400-4-1	CONCRETE CLASS IV, CULVERTS (BOX CULVERT STA. 46+68)	125	CY		
24	400-4-11	CONCRETE CLASS IV, RETAINING WALLS	130.8	CY		
25	400-8-106	CONCRETE CLASS V, MICROSILICA SUBSTRUCTURE	3.3	CY		

**HOLDEN AVENUE – PHASE I
FROM JOHN YOUNG PARKWAY TO ORANGE BLOSSOM TRAIL (US 441)
Y19-720-CH; SCHEDULE OF PRICES**

CIP #3045

Addendum #5

<i>REF. NO</i>	<i>PAY ITEM NO.</i>	<i>PAY ITEM DESCRIPTION</i>	<i>EST. QTY.</i>	<i>UNIT</i>	<i>UNIT PRICE</i>	<i>TOTAL AMOUNT</i>
26	425-1-311	INLET (CURB TYPE P-1, <10')	37	EA		
27	425-1-321	INLET (CURB TYPE P-2, <10')	15	EA		
28	425-1-351	INLET (CURB TYPE P-5, <10')	3	EA		
29	425-1-411	INLET (CURB TYPE J-1, <10')	9	EA		
30	425-1-412	INLET (CURB TYPE J-1, >10')	10	EA		
31	425-1-421	INLET (CURB TYPE J-2, <10')	6	EA		
32	425-1-422	INLET (CURB TYPE J-2, >10')	1	EA		
33	425-1-451	INLET (CURB TYPE J-5, <10')	1	EA		
34	425-1-461	INLET (CURB TYPE J-6, <10')	1	EA		
35	425-1-521	INLET (DITCH BOTTOM TYPE C, <10')	3	EA		
36	425-1-531	INLET (DITCH BOTTOM TYPE C, BACK OF SIDEWALK, MODIFIED, <10')	2	EA		
37	425-1-541	INLET (DITCH BOTTOM TYPE D, <10')	2	EA		
38	425-1-581	INLET (DITCH BOTTOM TYPE H, <10')	1	EA		

**HOLDEN AVENUE – PHASE I
FROM JOHN YOUNG PARKWAY TO ORANGE BLOSSOM TRAIL (US 441)
Y19-720-CH; SCHEDULE OF PRICES**

CIP #3045

Addendum #5

<i>REF. NO</i>	<i>PAY ITEM NO.</i>	<i>PAY ITEM DESCRIPTION</i>	<i>EST. QTY.</i>	<i>UNIT</i>	<i>UNIT PRICE</i>	<i>TOTAL AMOUNT</i>
39	425-1-881	INLET (BARRIER WALL, RIGID C&G)(<10')	3	EA		
40	425-2-41	MANHOLE (TYPE P-7, <10')	1	EA		
41	425-2-61	MANHOLE (TYPE P-8, <10')	12	EA		
42	425-2-63	MANHOLE (TYPE P-8, PARTIAL)	1	EA		
43	425-2-71	MANHOLE (TYPE J-7, <10')	1	EA		
44	425-2-91	MANHOLE (TYPE J-8, <10')	6	EA		
45	425-2-92	MANHOLE (TYPE J-8, >10')	3	EA		
46	425-2-93	MANHOLE (TYPE J-8, PARTIAL)	5	EA		
47	425-10	YARD DRAINS	4	EA		
48	430-175-115	PIPE CULVERT SRCP, ROUND, 15"	27	LF		
49	430-175-118	PIPE CULVERT SRCP, ROUND, 18"	6,123	LF		
50	430-175-124	PIPE CULVERT SRCP, ROUND, 24"	2,983	LF		
51	430-175-130	PIPE CULVERT SRCP, ROUND, 30"	812	LF		

**HOLDEN AVENUE – PHASE I
FROM JOHN YOUNG PARKWAY TO ORANGE BLOSSOM TRAIL (US 441)
Y19-720-CH; SCHEDULE OF PRICES**

CIP #3045

Addendum #5

<i>REF. NO</i>	<i>PAY ITEM NO.</i>	<i>PAY ITEM DESCRIPTION</i>	<i>EST. QTY.</i>	<i>UNIT</i>	<i>UNIT PRICE</i>	<i>TOTAL AMOUNT</i>
52	430-175-136	PIPE CULVERT SRCP, ROUND, 36"	1,317	LF		
53	430-175-142	PIPE CULVERT SRCP, ROUND, 42"	100	LF		
54	430-175-148	PIPE CULVERT SRCP, ROUND, 48"	1,039	LF		
55	430-175-166	PIPE CULVERT SRCP, ROUND, 66"	2,032	LF		
56	430-175-172	PIPE CULVERT SRCP, ROUND, 72"	135	LF		
57	430-175-218	PIPE CULVERT SRCP, ELLIPTICAL, 14"x23"	423	LF		
58	430-175-224	PIPE CULVERT SRCP, ELLIPTICAL, 19"x30"	112	LF		
59	430-175-230	PIPE CULVERT SRCP, ELLIPTICAL, 24"x38"	121	LF		
60	430-175-236	PIPE CULVERT SRCP, ELLIPTICAL, 29"x45"	692	LF		
61	430-175-242	PIPE CULVERT SRCP, ELLIPTICAL, 34"x53"	127	LF		
62	430-982-125	MITERED END SECTION, ROUND, 18"	3	EA		
63	430-982-141	MITERED END SECTION, ROUND, 48"	1	EA		
64	430-982-145	MITERED END SECTION, ROUND, 72"	1	EA		

**HOLDEN AVENUE – PHASE I
FROM JOHN YOUNG PARKWAY TO ORANGE BLOSSOM TRAIL (US 441)
Y19-720-CH; SCHEDULE OF PRICES**

CIP #3045

Addendum #5

<i>REF. NO</i>	<i>PAY ITEM NO.</i>	<i>PAY ITEM DESCRIPTION</i>	<i>EST. QTY.</i>	<i>UNIT</i>	<i>UNIT PRICE</i>	<i>TOTAL AMOUNT</i>
65	430-982-640	MITERED END SECTION, ELLIPTICAL, 34"x53"	1	EA		
66	430-982-641	MITERED END SECTION, ELLIPTICAL, 38"x60"	1	EA		
67	440-1-20	UNDERDRAIN TYPE II (6")	10,356	LF		
68	455-14-3	CONCRETE SHEET PILING (10"x30")	4,142	LF		
69	455-14-3A	CONCRETE SHEET PILING (SPECIAL) (CORNER PILES)	48	LF		
70	515-1-1	STEEL PIPE HANDRAIL (THREE-RAIL)	1,511	LF		
71	515-2-221	PEDESTRIAN/BICYCLE RAILING, STEEL, 54", TYPE 1	964	LF		
72	520-1-7	CONCRETE CURB AND GUTTER, TYPE 'E'	8,438	LF		
73	520-1-10	CONCRETE CURB AND GUTTER, TYPE 'F'	17,248	LF		
74	520-2-1	CONCRETE CURB, TYPE 'A'	48	LF		
75	520-2-4	CONCRETE CURB, TYPE 'D'	573	LF		
76	520-3	CONCRETE VALLEY GUTTER	70	LF		

**HOLDEN AVENUE – PHASE I
FROM JOHN YOUNG PARKWAY TO ORANGE BLOSSOM TRAIL (US 441)
Y19-720-CH; SCHEDULE OF PRICES**

CIP #3045

Addendum #5

<i>REF. NO</i>	<i>PAY ITEM NO.</i>	<i>PAY ITEM DESCRIPTION</i>	<i>EST. QTY.</i>	<i>UNIT</i>	<i>UNIT PRICE</i>	<i>TOTAL AMOUNT</i>
77	520-5-11	CONCRETE TRAFFIC SEPARATOR (TYPE I, 4' WIDE)	333	LF		
78	520-70	CONCRETE TRAFFIC SEPARATOR (SPECIAL – VARIABLE WIDTH)	813	SY		
79	521-72-5	SHOULDER CONCRETE BARRIER WALL (RIGID CURB & GUTTER)	638	LF		
80	522-1	CONCRETE SIDEWALK, 4" THICK	9,914	SY		
81	522-2	CONCRETE SIDEWALK, 6" THICK	1,427	SY		
82	524-1-2	CONCRETE DITCH PAVEMENT (4") (NON-REINFORCED)	110	SY		
83	527-2	DETECTABLE WARNINGS ON WALKING SURFACES	477	SF		
84	530-3-4	RIPRAP RUBBLE, F&I, DITCH LINING	30	TN		
85	550-10-220	FENCING, TYPE 'B', 6', STANDARD	1,008	LF		
86	550-60-234	FENCE GATE, TYPE 'B', SLIDING/CANTILEVER, 20' OPENING	1	EA		
87	570-1-2	PERFORMANCE TURF, SOD (MATCH EXISTING)	38,349	SY		
88	603-1	SIGNALIZATION (JOHN YOUNG PARKWAY)	1	LS		
89	603-2	SIGNALIZATION (TEXAS AVE.)	1	LS		
90	603-3	SIGNALIZATION (RIO GRANDE AVE.)	1	LS		

**HOLDEN AVENUE – PHASE I
FROM JOHN YOUNG PARKWAY TO ORANGE BLOSSOM TRAIL (US 441)
Y19-720-CH; SCHEDULE OF PRICES**

CIP #3045

Addendum #5

<i>REF. NO</i>	<i>PAY ITEM NO.</i>	<i>PAY ITEM DESCRIPTION</i>	<i>EST. QTY.</i>	<i>UNIT</i>	<i>UNIT PRICE</i>	<i>TOTAL AMOUNT</i>
91	603-4	SIGNALIZATION (ORANGE BLOSSOM TRAIL)	1	LS		
92	700-1-11	SINGLE POST SIGN, F&I, LESS THAN 12 SF	40	AS		
93	700-1-12	SINGLE POST SIGN, F&I, 12-20 SF	5	AS		
94	700-1-50	SINGLE POST SIGN, RELOCATE	14	AS		
95	700-1-60	SINGLE POST SIGN, REMOVE	35	AS		
96	700-2-14	MULTI POST SIGN, F&I, GROUND MOUNT, 31-50 SF	2	AS		
97	700-2-60	MULTI POST SIGN, REMOVE	1	AS		
98	705-11-1	DELINEATOR, FLEXIBLE TUBULAR	10	EA		
99	706-3A	RETRO-REFLECTIVE PAVEMENT MARKER (WHITE/RED)	912	EA		
100	706-3B	RETRO-REFLECTIVE PAVEMENT MARKER (YELLOW/YELLOW)	196	EA		
101	710-90	PAINTED PAVEMENT MARKINGS (FINAL SURFACE)	1	LS		
102	711-11-102	THERMOPLASTIC, STANDARD, WHITE, SOLID, 8"	0.404	GM		
103	711-11-124	THERMOPLASTIC, STANDARD, WHITE, SOLID, 18"	858	LF		

**HOLDEN AVENUE – PHASE I
FROM JOHN YOUNG PARKWAY TO ORANGE BLOSSOM TRAIL (US 441)
Y19-720-CH; SCHEDULE OF PRICES**

CIP #3045

Addendum #5

<i>REF. NO</i>	<i>PAY ITEM NO.</i>	<i>PAY ITEM DESCRIPTION</i>	<i>EST. QTY.</i>	<i>UNIT</i>	<i>UNIT PRICE</i>	<i>TOTAL AMOUNT</i>
104	711-11-125	THERMOPLASTIC, STANDARD, WHITE, SOLID, 24"	596	LF		
105	711-11-141	THERMOPLASTIC, STANDARD, WHITE, GUIDELINE, 6"	0.251	GM		
106	711-11-160	THERMOPLASTIC, STANDARD, WHITE, MESSAGE	64	EA		
107	711-11-170	THERMOPLASTIC, STANDARD, WHITE, ARROWS	88	EA		
108	711-11-224	THERMOPLASTIC, STANDARD, YELLOW, SOLID, 18"	430	LF		
109	711-14-123	THERMO., PREFORMED, WHITE, SOLID, 12" FOR CROSSWALK	2,241	LF		
110	711-14-125	THERMO., PREFORMED, WHITE, SOLID, 24", FOR CROSSWALK	2,224	LF		
111	711-16-101	THERMO., STANDARD-OTHER SURFACES, WHITE, SOLID, 6"	4.718	GM		
112	711-16-131	THERMO., STANDARD-OTHER SURFACES, WHITE, SKIP, 6"	2.728	GM		
113	711-16-201	THERMO., STANDARD-OTHER SURFACES, YELLOW, SOLID, 6"	3.575	GM		
114	711-16-231	THERMO., STANDARD-OTHER SURFACES, YELLOW, SKIP, 6"	0.104	GM		
115	711-17	THERMOPLASTIC, REMOVE	1,809	SF		
116	900-1	AS-BUILT PLANS	1	LS		

**HOLDEN AVENUE – PHASE I
FROM JOHN YOUNG PARKWAY TO ORANGE BLOSSOM TRAIL (US 441)
Y19-720-CH; SCHEDULE OF PRICES**

CIP #3045

Addendum #5

REF. NO	PAY ITEM NO.	PAY ITEM DESCRIPTION	EST. QTY.	UNIT	UNIT PRICE	TOTAL AMOUNT
117	900-2	INDEMNIFICATION	1	LS	\$100.00	\$100.00
118	900-3	GROUNDWATER-TREATMENT & DISPOSAL	670	DA		
A. TOTAL ESTIMATED BASE BID FOR ROADWAY: \$ _____ (Reference Numbers 1 through 118)						
	Note:1	ANY AMOUNT OF MOBILIZATION IN EXCESS OF 10% OF ROADWAY REFERENCE NUMBERS 2 THROUGH 118 WILL BE PAID UPON COMPLETION OF ALL WORK IN ACCORDANCE WITH TP-101.				

**HOLDEN AVENUE UTILITY IMPROVEMENTS
FROM JOHN YOUNG PARKWAY TO ORANGE BLOSSOM TRAIL (US 441)
Y19-720-CH; SCHEDULE OF PRICES**

CIP #3045

Addendum #5

REF. No.	PAY ITEM No.	Reference #	DESCRIPTION	QTY.	UNIT	UNIT COST	AMOUNT
119	U-1	10.110.110	MOBILIZATION	1	LS		
120	U-2	10.120.110	PRECONSTRUCTION AUDIO-VIDEO DOCUMENTATION	1	LS		
121	U-4	10.140.110	RECORD DRAWINGS	1	LS		
122	U-5	10.150.110	MAINTENANCE OF TRAFFIC	1	LS		
123	U-6	11.120.110	UNSUITABLE MATERIAL	100	CY		
124	U-7	11.530.110	REMOVE EXISTING GRAVITY PIPE (8")	259	LF		
125	U-8	11.530.110	REMOVE EXISTING FORCEMAIN (6")	1,183	LF		
126	U-9	11.530.110	REMOVE EXISTING FORCEMAIN (8")	1,722	LF		
127	U-10	11.530.110	REMOVE EXISTING FORCEMAIN (10")	1,451	LF		
128	U-11	11.540.110	REMOVE EXISTING MANHOLE FORCEMAIN W/FITTINGS AND RESTRAINED JOINTS (4" DIAMETER) (PVC)	1	EA		
129	U-12	12.130.110	FORCEMAIN W/FITTINGS AND RESTRAINED JOINTS (6" DIAMETER)	32	LF		
130	U-13	12.130.111	FORCEMAIN W/FITTINGS AND RESTRAINED JOINTS (10" DIAMETER)	347	LF		
131	U-14	12.130.112	FORCEMAIN W/FITTINGS AND RESTRAINED JOINTS (12" DIAMETER)	1,506	LF		
132	U-15	12.130.113	PLUG VALVE WITH BOX (4" DIAMETER)	1,678	LF		
133	U-16	12.220.110	PLUG VALVE WITH BOX (6" DIAMETER)	2	EA		
134	U-17	12.220.111	PLUG VALVE WITH BOX (10" DIAMETER)	5	EA		
135	U-18	12.220.113	PLUG VALVE WITH BOX (10" DIAMETER)	4	EA		

136	U-19	12.220.114	PLUG VALVE WITH BOX (12" DIAMETER)	5	EA		
137	U-20	12.310.111	TAPPING SLEEVE AND VALVE ASSEMBLY (6" DIAMETER)	5	EA		
138	U-21	12.310.113	TAPPING SLEEVE AND VALVE ASSEMBLY (10" DIAMETER)	2	EA		
139	U-22	12.310.114	TAPPING SLEEVE AND VALVE ASSEMBLY (12" DIAMETER)	1	EA		
140	U-23	12.510.111	LINE STOP ASSEMBLY (6" DIAMETER)	5	EA		
141	U-24	12.510.113	LINE STOP ASSEMBLY (10" DIAMETER)	2	EA		
142	U-25	12.510.114	LINE STOP ASSEMBLY (12" DIAMETER)	1	EA		
143	U-26	12.530.110	OFFSET AIR RELEASE VALVE ASSEMBLY (2" DIAMETER)	6	EA		
144	U-27	13.310.112	SANITARY SEWER MAIN 8" DIAMETER (PVC)	259	LF		
145	U-28	13.350.100	CORE BORE CONNECTION TO EXISTING MANHOLE	2	LS		
146	U-29	13.410.112	SANITARY MANHOLES 4 FEET DIAMETER	4	EA		
147	U-30	13.510.110	ADJUST EXISTING SANITARY MANHOLE (TEXAS AVENUE STA. 396+00 RT.)	1	EA		
148	U-31	13.511.111	MANHOLE CONE REPLACEMENT	1	EA		
149	U-32	13.520.110	SEWERCOAT MANHOLE	11	VF		
150	U-33	13.540.110	FIBERGLASS MANHOLE LINER (48" DIAMETER)	6	EA		
151	U-34	13.710.110	CIPP LINE EXISTING GRAVITY (8")	547	LF		

Total Estimated Base Bid for Utilities: \$ _____
Reference Numbers 119 through 151

SUMMARY

Total Estimated Base Bid for Roadway: \$ _____
Reference Numbers 1 through 118

Total Estimated Base Bid for Roadway AND Utilities: \$ _____
Reference Numbers 1 through 151

Note: Mobilization item is limited to 5% of the total base bid for items U-7 through U-34.
Note: Record Drawing item no less than 1% of the total base bid for items U-7 through U-34.

**HOLDEN AVENUE PHASE I UTILITY IMPROVEMENTS
FROM JOHN YOUNG PARKWAY TO ORANGE BLOSSOM TRAIL (US 441)
Y19-720-CH;
SCHEDULE OF PRICES - BID ALTERNATE 12" FM ALONG TEXAS AVENUE**

CIP #3045

Addendum #4

REF. No.	PAY ITEM No.	Reference ID #	DESCRIPTION	QTY.	UNIT	UNIT COST	AMOUNT
152	U-1	10.110.110	MOBILIZATION	1	LS		
153	U-2	10.120.110	PRECONSTRUCTION AUDIO-VIDEO DOCUMENTATION	1	LS		
154	U-4	10.140.110	RECORD DRAWINGS	1	LS		
155	U-5	10.150.110	MAINTENANCE OF TRAFFIC	1	LS		
156	U-6	11.120.110	UNSUITABLE MATERIAL	100	CY		
157	U-7	11.530.110	REMOVE EXISTING GRAVITY PIPE (8")	259	LF		
158	U-8	11.530.110	REMOVE EXISTING FORCEMAIN (6")	1,183	LF		
159	U-9	11.530.110	REMOVE EXISTING FORCEMAIN (8")	1,722	LF		
160	U-10	11.530.110	REMOVE EXISTING FORCEMAIN (10")	1,451	LF		
161	U-11	11.540.110	REMOVE EXISTING MANHOLE FORCEMAIN W/FITTINGS AND RESTRAINED JOINTS (4" DIAMETER) (PVC)	1	EA		
162	U-12	12.130.110	FORCEMAIN W/FITTINGS AND RESTRAINED JOINTS (6" DIAMETER)	32	LF		
163	U-13	12.130.111	FORCEMAIN W/FITTINGS AND RESTRAINED JOINTS (12" DIAMETER)	347	LF		
164	U-14 U-15	12.130.113	PLUG VALVE WITH BOX (4" DIAMETER)	3,184	LF		
165	U-15 U-16	12.220.110	PLUG VALVE WITH BOX (6" DIAMETER)	2	EA		
166	U-16 U-17	12.220.111	PLUG VALVE WITH BOX (12" DIAMETER)	5	EA		
167	U-17 U-19	12.220.114	PLUG VALVE WITH BOX (12" DIAMETER)	9	EA		

168	<u>U-20</u> U-18	12.310.111	TAPPING SLEEVE AND VALVE ASSEMBLY (6" DIAMETER)	5	EA		
169	<u>U-21</u> U-19	12.310.113	TAPPING SLEEVE AND VALVE ASSEMBLY (10" DIAMETER)	2	EA		
170	<u>U-22</u> U-20	12.310.114	TAPPING SLEEVE AND VALVE ASSEMBLY (12" DIAMETER)	1	EA		
171	<u>U-23</u> U-21	12.510.111	LINE STOP ASSEMBLY (6" DIAMETER)	5	EA		
172	<u>U-24</u> U-22	12.510.113	LINE STOP ASSEMBLY (10" DIAMETER)	2	EA		
173	<u>U-25</u> U-23	12.510.114	LINE STOP ASSEMBLY (12" DIAMETER)	1	EA		
174	<u>U-26</u> U-24	12.530.110	OFFSET AIR RELEASE VALVE ASSEMBLY (2" DIAMETER)	6	EA		
175	<u>U-27</u> U-25	13.310.112	SANITARY SEWER MAIN 8" DIAMETER (PVC)	259	LF		
176	<u>U-28</u> U-26	13.350.100	CORE BORE CONNECTION TO EXISTING MANHOLE	2	LS		
177	<u>U-29</u> U-27	13.410.112	SANITARY MANHOLES 4 FEET DIAMETER	4	EA		
178	<u>U-30</u> U-28	13.510.110	ADJUST EXISTING SANITARY MANHOLE (TEXAS AVENUE STA. 396+00 RT.)	1	EA		
179	<u>U-31</u> U-29	13.511.111	MANHOLE CONE REPLACEMENT	1	EA		
180	<u>U-32</u> U-30	13.520.110	SEWERCOAT MANHOLE	11	VF		
181	<u>U-33</u> U-31	13.540.110	FIBERGLASS MANHOLE LINER (48" DIAMETER)	6	EA		
182	<u>U-34</u> U-32	13.710.110	CIPP LINE EXISTING GRAVITY (8")	547	LF		

Total Estimated Base Bid for Bid Alternate 12" FM Along Texas Avenue: \$ _____
(Reference Numbers 152 through 182)

Schedule of Prices Summary

Total Estimated Base Bid for Roadway: \$ _____
Reference Numbers 1 through 118

Total Estimated Base Bid for Utilities: \$ _____
Reference Numbers 119 through 151

Total Estimated Base Bid for Roadway & Utilities: \$ _____
Reference Numbers 1 through 151

Total Estimated Base Bid for Bid Alternate 12" FM Along Texas Avenue: \$ _____
Reference Numbers 152 through 182

Total Estimated Base Bid for Roadway PLUS Bid Alternate 12" FM Along Texas Avenue:
\$ _____
Reference Numbers 1 through 118 PLUS
Reference Numbers 152 through 182)

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ARTICLE 1 – CONTRACT

GENERAL CONDITION, PART F, ARTICLE 1, CONTRACT, is appended as follows:

All specifications, drawings and copies thereof furnished by the COUNTY shall remain the property of the COUNTY. They shall not be used on another project and, with the exception of those sets, which have been signed in connection with execution of the Agreement, shall be returned to the COUNTY upon completion of the project.

Duties and obligations imposed by these General Conditions and the rights and remedies available hereunder, and, in particular but without limitation, the warrants, guarantees and obligations imposed upon the CONTRACTOR and the rights and remedies available to the COUNTY thereunder shall be in addition to and not a limitation of any otherwise imposed or available by law, by special guarantee or other provisions of Contract Documents.

This is a Unit Price Contract, and the base bid is the sum of all pay item totals. The COUNTY reserves the right to correct errors in the pay item totals arising from incorrect extensions. See Part C, Paragraph 5, "Bid Errors".

ARTICLE 2 - DEFINITIONS

GENERAL CONDITION, PART F, ARTICLE 2, DEFINITIONS, "**Specifications**", is appended as follows:

"**Specifications**" or "**Standard Specifications**" shall mean the January 2017 edition of the Florida Department of Transportation (FDOT) Standard Specifications for Road and Bridge Construction, and supplements thereto (unless otherwise noted), and the Orange County Road Construction Specifications latest edition as specified in the contract and/or contract documents and modified herein. In the event of a conflict between the FDOT Standard Specifications and the General Conditions or Supplemental Conditions provided in the Contract Documents, the Contract Documents shall prevail.

When reference is made to a Division, Section, or Article, it shall mean a Division, Section, or Article of said "Specifications" or "Orange County Road Construction Specifications", but shall not be construed to include the Division, Section or Article in its entirety unless so directed by the ENGINEER.

Each reference to Basis of Payment in said "Specifications" is superseded by the conditions contained in the Technical Provisions and all other conditions related to Basis of Payment contained in these specifications, unless otherwise directed by the Engineer.

GENERAL CONDITION, PART F, ARTICLE 2, DEFINITIONS, "**Project Manager**", is appended as follows:

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When references are made to PROJECT MANAGER, other terms that may be substituted / used are PROJECT ENGINEER, ENGINEER, PROJECT ADMINISTRATOR, and RESIDENT PROJECT REPRESENTATIVE.

ARTICLE 3 – ASSIGNMENT OF CONTRACT

No changes. See PART F GENERAL CONDITIONS.

ARTICLE 4 – QUALIFICATIONS OF SUBCONTRACTORS AND SUPPLIERS

No changes. See PART F GENERAL CONDITIONS.

ARTICLE 5 – STARTING THE WORK

No changes. See PART F GENERAL CONDITIONS.

ARTICLE 6 – INTERPRETATION AND INTENT OF THE CONTRACT DOCUMENTS

GENERAL CONDITION, PART F, ARTICLE 6, INTERPRETATION AND INTENT OF THE CONSTRUCTION DOCUMENTS, is appended as follows:

The project shall be constructed in accordance with these Supplemental Conditions, Special Provisions and the Florida Department of Transportation (FDOT) "Standard Specifications for Road and Bridge Construction," January 2017 edition, the "Supplemental Specifications for Road and Bridge Construction," January 2017 edition, and the "Orange County Road Construction Specifications," latest edition, hereafter referred to as the "Specifications".

Wherever the terms "APPROVE", "APPROVED", "APPROVAL", "ACCEPT", "ACCEPTED", "ACCEPTANCE" or other derivations of these terms are used within these specification or references therein in the context of actions to be taken by the COUNTY or its representatives with respect to submittals made by, or work performed by the CONTRACTOR, they shall mean that the COUNTY or its representative finds no exception with the submittal or the work provided/performed by the CONTRACTOR. Acceptance or approval by the COUNTY or its representative shall NOT relieve the CONTRACTOR of any responsibility for conformance to the intent of the plans and specifications, for the accuracy of dimensions and details, for conformity of dimensions and details, or for adherence to generally accepted engineering and construction practices.

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ARTICLE 7 – REFERENCE POINTS

GENERAL CONDITION, PART F, ARTICLE 7, REFERENCE POINTS, “**Reference Points**” is appended as follows:

General: The CONTRACTOR shall employ a Professional Surveyor and Mapper (PSM), registered in the State of Florida and satisfactory to the COUNTY, to lay out the work for bench marks, points and lines noted on the Contract Documents, established at the site, or supplied by the COUNTY. The CONTRACTOR shall provide to the COUNTY at the pre-construction conference, the name of the Professional Surveyor and Mapper to perform Project survey work. All work of every description shall be laid out and checked by the CONTRACTOR who will be held solely responsible for its correctness.

Work may be checked by the PROJECT MANAGER and, in the event of a discrepancy, the PROJECT MANAGER'S decision shall be final.

No special compensation will be made to the CONTRACTOR to defray costs of surveys and measurements, but such costs shall be considered as having been included in the price stipulated for all items of work to be done under this contract.

Prior to the beginning of any construction the CONTRACTOR shall submit to the COUNTY a set of field notes verifying that the existing benchmark elevations are relative to at least two reference benchmarks shown on the construction plans. The CONTRACTOR shall also verify ties from project control points to reference points as shown on the construction plans. A set of field notes for all additional benchmark and reference point ties shall be submitted to the PROJECT MANAGER. All submittals shall be signed and sealed by a Professional Surveyor and Mapper registered in the State of Florida.

Within twenty-one (21) calendar days after receiving the Notice to Proceed, the CONTRACTOR shall have a licensed Professional Surveyor and Mapper establish in the field the proposed roadway centerline, right-of-way and construction easements using wooden 1" X 4" X 4'0" stakes at a maximum spacing of 100 feet. Stations shall be marked on each stake and shall be of sufficient size and clarity that they can be easily read by the unaided eye at a distance of 150 feet. Right-of-way and construction easement staking shall be maintained by the CONTRACTOR throughout construction. No invoice for payment will be processed until the right-of-way has been staked to the satisfaction of the ENGINEER. Payment is included in the price for bid item number 101-1 “Mobilization”. The CONTRACTOR shall pay all expenses in connection with this work.

All survey work shall comply with Chapter 5J-17 Standards of Practice, Florida Administrative Code (F.A.C.), regarding minimum technical standards for land surveying in the State of Florida.

The CONTRACTOR shall perform all calculations required, and set all stakes needed such as grade stakes, offset stakes, reference point stakes, slope stakes, and other reference marks or points necessary to provide lines and grades for construction of all roadway, bridge, and miscellaneous items.

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When performing utility construction as part of the project, the CONTRACTOR will establish all horizontal and vertical controls necessary to carry out such work.

Specific Staking Requirements: When performing new base construction as part of the project, the CONTRACTOR shall set stakes to establish lines and grades for subgrade, base, curb, and related items at intervals along the line of the work no greater than 50 feet on tangents and 25 feet on curves. The CONTRACTOR shall set grade stakes at locations that the Engineer directs to facilitate checking of subgrade, base, and pavement elevations in crossovers, intersections, and irregular shaped areas.

For bridge construction stakes and other control, the CONTRACTOR shall set references at sufficiently frequent intervals to ensure construction of all components of a structure in accordance with the lines and grades shown in the plans.

For projects where the plans do not show a centerline or other survey control line for construction of the work (resurfacing, safety modifications, etc.), the CONTRACTOR shall provide only such stakes as necessary for horizontal and vertical control of work items.

For resurfacing and resurfacing-widening type projects, the CONTRACTOR shall establish horizontal controls adequate to ensure that the asphalt mix added matches with the existing pavement. In tangent sections, set horizontal control points at 100 foot intervals by an instrument survey. In curve sections, set horizontal control points at 25 foot intervals by locating and referencing the centerline of the existing pavement.

The CONTRACTOR shall establish by an instrument survey, and mark on the surface of the finished pavement at 25 foot intervals, the points necessary for striping of the finished roadway. As an exception, for resurfacing and resurfacing/widening projects, the CONTRACTOR shall establish these points in the same manner as used for horizontal control of paving operations. The CONTRACTOR shall mark the pavement with white paint. If performing striping, the PROJECT MANAGER may approve an alternate method for layout of striping provided that the CONTRACTOR achieves an alignment equal to or better than the alignment that would be achieved using an instrument survey.

For projects that include temporary or permanent striping of "no passing zones", the CONTRACTOR shall provide the location and length of these zones as shown in the plans, except projects where the vertical or horizontal alignment is new or altered from the preconstruction alignment. For projects that consist of new or altered vertical or horizontal alignment, the COUNTY will provide the location and length of the "no passing zones" during construction. For these projects, the CONTRACTOR shall notify the PROJECT MANAGER not less than 21 calendar days prior to beginning striping.

Benchmarks: During construction the CONTRACTOR shall provide a Control Point Metal Disk set in concrete (e.g. in headwalls, back of sidewalks, back of inlets, etc.) at the beginning and end of the project and at a maximum of 1100 feet between existing or established benchmarks along the project alignment – (see attached disc requirements). The CONTRACTOR'S Y19-720-CH; Addendum #5

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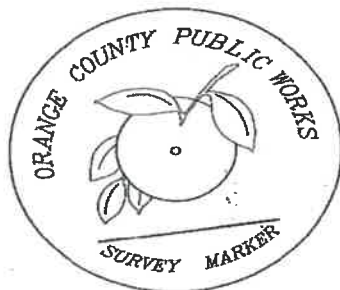
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Professional Surveyor and Mapper (PSM) shall conduct a three wire leveling run (closed loop) through the benchmarks based on Orange County Datum NAVD88 (or other datum as specified on the Engineering plans). The level work will be performed to Second Order, Class II standards (or better) and the maximum allowable error will be no more than 8 mm times the square root of "K", where "K" is the total distance in kilometers. This is also approximately equivalent to 0.035 feet times the square root of "K", where "K" is the total distance in miles. The level run will be performed with a geodetic automatic level or better whose three wires will be read to 0.001 meters or 0.001 feet. Invar rods are preferred but not required. Digital automatic levels with associated bar code rods are also acceptable. Prior to the issuance of final completion, the CONTRACTOR shall submit a copy of the field notes certified by the PSM to the PROJECT MANAGER. Benchmark elevations shall be expressed in English units.

Orange County survey monuments shall be aluminum or brass stamped as shown on the attached sketch. The contractor shall procure the monuments from any commercial supplier of survey monuments. The contractor is advised that the County obtains its monuments from Berntsen International, Inc.; www.berntsen.com Berntsen disc no. C35D-(3-1/2" domed) Logo no. B9119 (800-356-7388).



Control Points: At the end of construction, all permanent control points as shown on the construction plans survey control sheet shall be set along the centerline of construction. Permanent control points that fall on a hard surface such as pavement or concrete shall be set as p.k. nails and discs or other form of monumentation that is both durable and identifiable and must be approved by the County Surveyor or authorized agent. All others shall be 4" x 4" concrete monuments having a minimum of 24" in length. All points shall be marked with a cap or disk bearing the surveyor's registration number or licensed business number.

Property Corners: Property corners shall be set at intersections of right-of-way lines and property lines (at all corners that have been destroyed during construction for all Orange County construction projects). Monumentation meeting the requirements described above under "Control Points" shall be set at all breaks in right-of-way lines, P.C.'s, P.T.'s, curve intersections and at least every 1,000 feet along the right-of-way line and shall bear the registration number of the

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surveyor or licensed business number.

Public Land Corners: All public land corners within the limits of construction shall be protected. If a corner monument is in danger of being destroyed or disturbed, the CONTRACTOR shall notify the PROJECT MANAGER, and the COUNTY SURVEYOR, without delay, by telephone. The CONTRACTOR shall provide written follow-up confirmation within forty-eight (48) hours of telephone notification. In the event that a land corner is disturbed or damaged it will be reset with a 4" x 4" concrete monument, which shall be protected in a cast iron valve box, if in pavement.

Prior to the issuance of final completion, the CONTRACTOR shall submit certified corner records, prepared by a Professional Surveyor and Mapper, for all altered, reset and/or relocated public land corners to the Florida Department of Environmental Protection, Bureau of Survey and Mapping, in accordance with the requirements of Chapter 177.507 of the Florida Statutes. A certified copy shall also be provided to the PROJECT MANAGER. Furthermore, the Professional Surveyor and Mapper will note on the AS-BUILT PLANS the location of all corners set or found and submit copies of all field notes to the County Surveyor or his/her agent.

National Geodetic Survey (N.G.S.) / United States Coast & Geodetic Survey (U.S.C. & G.S.) Monuments: The CONTRACTOR shall immediately notify the PROJECT MANAGER of any N.G.S. / U.S.C. & G.S. monuments which may be in danger of being disturbed. For instructions on how to relocate any N.G.S. monuments the CONTRACTOR shall notify in writing:

State Geodetic Advisor
Bureau of Surveying and Mapping
3900 Commonwealth Blvd., Suite 105
Tallahassee, FL 32399-3000
Phone: (850) 245-2606
Fax: (850) 245-2645

Orange County Surveyor
Engineering Division, Public Works Dept
4200 S. John Young Parkway
Orlando, FL 32839-9205
Phone: (407) 836-7941
Fax: (407) 836-8024

The CONTRACTOR shall bear all costs of establishing, relocating or re-establishing all disturbed N.G.S. monuments, public land corners, property corners, or right-of-way monuments. Survey field book(s) shall be used throughout the course of the project by the contractors PSM. The complete survey field book(s) shall be submitted to the County Surveyor concurrently with the submission of the CONTRACTOR'S requisition for final payment. When a data collector is used, the CONTRACTOR shall also submit a paper copy of the raw data files bound in a book, together with the electronic copy on a disk.

ARTICLE 8 – BONDS, INSURANCE AND INDEMNIFICATION

No changes. See PART F GENERAL CONDITIONS.

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ARTICLE 9 – CONTRACTOR’S RESPONSIBILITIES

GENERAL CONDITION, PART F, ARTICLE 9, CONTRACTOR’S RESPONSIBILITIES, “**Supervision and Superintendence**”, second paragraph, is appended as follows:

The CONTRACTOR shall provide a competent superintendent at the site at all times while work is in progress to act as the CONTRACTOR’S agent. The superintendent shall be capable of properly interpreting the Contract Documents, have sufficient experience in highway/street construction, and be able to speak and understand English. The superintendent shall have full authority to receive instructions from the PROJECT MANAGER and to execute the orders or directions of the PROJECT MANAGER, including promptly supplying any materials, tools, equipment, labor, and incidentals that may be required. The CONTRACTOR shall furnish the qualifications of the proposed superintendent to the PROJECT MANAGER at the preconstruction conference. The COUNTY shall be the sole determiner of whether or not the experience of the superintendent is sufficient for the purposes of this paragraph. At least one other responsible person who speaks and understands English shall be on the project during all working hours.

GENERAL CONDITION, PART F, ARTICLE 9, CONTRACTOR’S RESPONSIBILITIES, “**Supervision and Superintendence**”, is appended as follows:

Supervision for Emergencies: A responsible person, who speaks and understands English, shall be available at or reasonably near the worksite on a 24 hour basis, seven days a week. This person shall be designated as the point of contact for emergencies and in cases that require immediate action to maintain traffic or to resolve any other problem that might arise. A list of the phone numbers and names of personnel designated to be contacted in cases of emergency, along with a description of the project location, shall be submitted, by certified mail, to the Florida Highway Patrol and all other local law enforcement agencies.

GENERAL CONDITION, PART F, ARTICLE 9, CONTRACTOR’S RESPONSIBILITIES, “**Permits**”, is appended as follows:

Certifications/Permit Compliance: The CONTRACTOR shall prepare and submit all certifications required by regulatory agencies having jurisdiction over the project, including engineer's certifications and as-built drawings required by the Water Management District(s) and Army Corps of Engineers. The final 5 percent retainage shall not be released, and/or the final pay request shall not be accepted until all required certifications have been submitted and accepted by the regulatory agencies.

GENERAL CONDITION, PART F, ARTICLE 9, CONTRACTOR’S RESPONSIBILITIES, “**Record Drawings**”, is appended as follows:

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As-Built Plans: AS-BUILT PLANS shall be used for no other purpose than recording changes, shall be updated at least once weekly, and stored separate and apart from plans used on a routine basis. They shall show locations and elevations of paving, swales, ditches, pipes and structures constructed and all relocated or reset property corners, section corners and ¼ section corners. The AS-BUILT PLANS shall be available to the PROJECT MANAGER upon request. Upon the completion of the project the CONTRACTOR shall submit to the PROJECT MANAGER one set of signed and sealed AS-BUILT PLANS and PDF file on CD. These AS-BUILT PLANS shall delineate all revised information in bold notation and include the As-Built Survey Requirements as stated below.

Qualifications of Surveyor and Mapper or Engineer

The Florida Licensed Professional Engineer(s) or Florida Registered Professional Surveyor and Mapper(s) who are proposed by the CONTRACTOR to provide services for the Project, are subject to the approval of the PROJECT MANAGER and/or the County Surveyor. Prior to any services being performed, the CONTRACTOR shall submit the name and address of any proposed registered professional and a written acknowledgement from the Professional Surveyor and Mapper stating that he has the hardware, software and adequate scope of services to complete the As-Built Survey requirements as stated below. These submittals shall be provided to the PROJECT MANAGER at the Pre-Construction conference. It is recommended that the Professional Surveyor and Mapper attend the Preconstruction conference. It is mandatory that any Surveyor and Mapper who has not previously performed work for the County in the past attend the Preconstruction conference.

As-Built Survey Requirements

- a. The Contractor shall require the Professional Surveyor and Mapper to locate all improvements for the As-Built Survey using State Plane Coordinates and the vertical datum referenced on the Construction drawings. The CONTRACTOR shall obtain an electronic copy of the Construction Drawings from the COUNTY for use as only a base for the As-Built Survey. The As-Built Survey shall clearly show the designed and constructed locations and elevations for ease of comparison. This shall be accomplished by adding the As-Built information on a separate CAD layer, while keeping all the design call-outs and construction requirements visible. The As-Built information shall be labeled as such and be shown with a bolder text weight in order to be easily identifiable. All planned improvements referenced by station and offset on the Plans, shall also be referenced on the As-Built Survey in the same manner. All constructed improvements that have location and/or elevation information called-out on the Plans, shall have the same information identified on the As-Built Survey. If a structure information table was provided on the Plans, then the As-Built information shall be shown in the table in bold print. Design

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call-outs shall have a strike through line through the design call-out and all As-Built information must be labeled (or abbreviated "AB") and be shown in a bolder text that is completely legible. As-Built Survey shots shall be taken at the same locations as shown on the Plans for ease of comparison. Any variations from required material sizes shall also be noted.

- b. If survey points are disturbed, it is the responsibility of the Contractor's Surveyor and Mapper to reset the points at the Contractor's expense and show on the As-Built Survey. Copies of the Contractor's Surveyor and Mappers field notes and/or electronic files for point replacement shall be provided to the County Surveyor through the Project Manager, and shall include hard-copies, that are signed and sealed by the Professional Surveyor and Mapper.
- c. The Contractor's Professional Surveyor and Mapper shall locate all improvements for the Project As-Built using State Plane Coordinates as the horizontal datum and the benchmark(s) referenced on the Plans as the vertical datum. The Project Manager, or County Surveyor will provide electronic files of the Plans to be used by the Surveyor and Mapper in complying with these specifications. Construction layout shall be established from the reference points (CONTROL) shown or listed on the Plans and will either be recovered or re-set by the Contractor's Professional Surveyor and Mapper and identified on the As-Built Survey. The Contractor's Professional Surveyor and Mapper shall identify on the As-Built Survey and replace any Project control points, boundary corners, benchmarks, section corners that may be lost or destroyed, at no additional cost to Orange County. A certified copy of each Certified Corner Record that the Contractor's Professional Surveyor and Mapper has been required to complete will also be submitted to the County Surveyor through the Project Manager.

DELIVERABLES AS FOLLOWS:

- A paper copy of the plans available at all times at the job site during the entire duration of the project marked up in red by the CONTRACTOR, and showing all deviations from the design locations and elevations.
- The CONTRACTOR shall submit an updated copy (paper or pdf file on CD) of the red line As-Built Plan concurrent with each application for progress payment. The update red line As-Built Plan shall focus on the period from the last red line As-Built Plan to the current red line As-Built Plan submitted with the application for progress payment. The updated red line As-Built Plan shall be reviewed and approved by the Orange County Inspector prior to the CONTRACTOR'S submittal. The CONTRACTOR'S failure to submit an updated copy (paper or pdf file on CD) of the red line As-Built Plan as described herein with an application for progress payment shall be sufficient reason for rejection of the progress payment request. Should the Project Manager reject the updated red line As-Built Plan submitted, the entire progress payment request shall be rejected and must be resubmitted.

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- A PDF file of the final “As-Built Plans” **as described in the previous As-Built Survey Requirements (G-8 of the Supplemental Conditions)**, be prepared by an appropriately licensed PSM on a CD of the construction drawings showing the design horizontal location and elevation of all facilities constructed or incorporated into the project with changed values struck through with a single line to maintain legibility and the new value added. Facilities constructed in a modified fashion from that shown on the construction plans shall be shown and identified in their originally designed and final as-constructed configurations. Facilities added shall be shown and identified.
- One (1) paper copies of the final “As-Built Plans”, as described below, signed and sealed by the appropriately licensed PSM that prepared them.
- Signed and Sealed Field Book(s), Copies of Adjusted Benchrun, Raw Data files-(horiz.).
- Signed and Sealed Certification Letter per Highway Construction’s Project Completion List – **Substantial Completion**.

Upon the completion of the project the CONTRACTOR shall submit the AS-BUILT PLANS as an electronic file in PDF format and (1) One, (see above) - 24”x36” paper Full Size Drawings which shall have Statements of Certification certifying that the project was constructed according to the Construction Plans and Specifications, and that the AS-BUILT PLANS are a correct representation of what was constructed. The CONTRACTOR shall include the Statement of Certification on either the cover sheet of the AS-BUILT PLANS certifying all of the sheets or certifying each individual sheet. The Statements of Certification shall be signed and sealed by a Professional Engineer and/or a Professional Surveyor and Mapper, both registered in the State of Florida.

The CONTRACTOR'S failure to maintain current and accurate AS-BUILT PLANS may result in withholding payments to cover costs of obtaining and recording information sufficient to fully document construction varying from the bid documents. The COUNTY'S cost, including consultant fees, of obtaining as-built information will be deducted from the contract amount. The CONTRACTOR'S request for final payment shall be accompanied by one complete, legible set of final signed and sealed AS-BUILT PLANS and PDF file on disc from a licensed Professional Surveyor and Mapper. The cost of the AS-BUILT PLANS and pdf file shall be included in the pay item 900-1, This cost covers roadway bid items only and does not cover the Orange County Utilities or other third party AS-BUILT PLANS.

GENERAL CONDITION, PART F, ARTICLE 9, CONTRACTOR’S RESPONSIBILITIES, “**Safety And Protection**”, is appended as follows:

Protection of Property: The CONTRACTOR shall be responsible for any damage whatsoever whether occurring within or outside of the boundaries of the PROJECT including any property adjacent to the PROJECT when such damage is caused in whole or in part by any act of the

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CONTRACTOR or any employee, agent or subcontractor working under, with or in privity to the CONTRACTOR. The CONTRACTOR and all the aforementioned parties shall stay off private property adjacent to the PROJECT unless the CONTRACTOR receives from the affected property owner a written release, which specifically releases the COUNTY from any liability for any damage to such property caused by any acts other than those of the COUNTY. This written release must be acceptable in form to the PROJECT MANAGER and delivered to and accepted by the PROJECT MANAGER before the CONTRACTOR makes any entry upon such private property. The CONTRACTOR shall also obtain all necessary permits and approvals from all regulatory agencies for all activities to be conducted by the CONTRACTOR on the private property. Necessary approvals may include, but are not limited to the United States Army Corps of Engineers, the United States Environmental Protection Agency, the Florida Department of Environmental Protection, the Florida Department of Transportation, the applicable Water Management District, the Orange County Environment Protection Division (EPD), and applicable municipal agencies for properties located within incorporated areas. The CONTRACTOR shall provide written documentation to the PROJECT MANAGER of the necessary approvals and permits having been obtained.

At the preconstruction conference, CONTRACTOR shall submit to the PROJECT MANAGER a current aerial map (11" x 17" minimum size) depicting at a minimum the temporary staging area including property lines, easement lines, and right-of-way lines. The PROJECT MANAGER will submit the aerial map to the Manager of the Orange County Environmental Protection Division (EPD) with a request to perform a cursory review of the CONTRACTOR'S proposed temporary staging area. Within 30 calendar days of receipt of the request, EPD will provide a summary to the PROJECT MANAGER of any natural resource issues or concerns that occur on the site for the CONTRACTOR'S consideration. CONTRACTOR is hereby notified that the proposed temporary staging area shall not be utilized until such time as EPD completes their cursory review and all other items within the contract documents pertaining to the temporary staging area are satisfied. No additional time or special compensation will be made to the CONTRACTOR to defray costs of any of the work or delays for complying with the requirements of the above.

GENERAL CONDITION, PART F, ARTICLE 9, CONTRACTOR'S RESPONSIBILITIES, is appended as follows:

Site Investigation: The CONTRACTOR shall be responsible for satisfactorily determining, prior to the submission of a bid, the nature and location of the work, the conformation of the ground, the character and quality of the substrata, the types and quantity of materials to be encountered, the nature of the groundwater conditions and all other matters which can in any way affect the work under this contract. The prices established for the work to be done will reflect all costs pertaining to the work. Any claims for extras based on substrata or groundwater table conditions will not be allowed.

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Information available to the COUNTY on subsoil conditions is available to bidders as information only and solely for the convenience of bidders. The COUNTY does not warrant or guarantee the accuracy or correctness of this information with respect to actual subsurface conditions. The CONTRACTOR agrees that he will make no claims against the COUNTY if, in carrying out the work, he finds that actual conditions encountered do not conform to those indicated.

Information shown on the plans as to the location of existing utilities has been prepared from the most reliable data available to the Engineer. This information is not guaranteed, however, and it shall be the CONTRACTOR'S responsibility to determine the location, character and depth of any existing utilities and to assist the utility companies, by every means possible, to determine said locations. Extreme caution shall be exercised to eliminate any possibility of any damage to utilities resulting from the CONTRACTOR'S activities.

Unless otherwise noted, the CONTRACTOR will take ownership of all materials encountered which are designated to be removed or not incorporated into the Work, such as paving materials, paving brick, asphalt block, RAP/Milled material, concrete slab, sidewalk, curb and gutter, pipe materials, etc., excavated in the removal of existing pavements, and dispose of them outside of the right-of-way. Payment for this item shall be included in Pay Item No. 110-1 Clearing and Grubbing.

GENERAL CONDITION, PART F, ARTICLE 9, CONTRACTOR'S RESPONSIBILITIES, "**Use of Public Roads and Streets**", is added as follows:

Use of Public Roads and Streets: Use of public streets shall be such as to provide a minimum of inconvenience to the public and to traffic. Any earth or excavated material spilled from trucks shall be removed by the CONTRACTOR and streets cleaned to the satisfaction of the PROJECT MANAGER. Cleaning may include street sweeping and/or washing, if so directed by the PROJECT MANAGER.

The CONTRACTOR shall provide vehicular access to each residence, subdivision and other public roads at all times.

GENERAL CONDITION, PART F, ARTICLE 9, CONTRACTOR'S RESPONSIBILITIES, "**Care of trees, Shrubs and Grass**", is added as follows:

Care of trees, Shrubs and Grass: The CONTRACTOR shall be fully responsible for maintaining in good condition all cultivated grass plots, trees and shrubs beyond the grading limits of this Contract. After completion of the work, the CONTRACTOR shall replace or restore to the original condition all destroyed or damaged shrubbery or grass areas. Tree limbs, which interfere with equipment operation and are approved for pruning, shall be neatly trimmed and the tree cut coated with tree paint.

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GENERAL CONDITION, PART F, ARTICLE 9, CONTRACTOR'S RESPONSIBILITIES, "Use of Explosives", is added as follows:

Use of Explosives: No blasting shall be done except upon approval by the COUNTY and the governmental agency or political subdivision having jurisdiction. When the use of explosives is approved by the COUNTY as necessary for the execution of the work, the CONTRACTOR shall use the utmost care so as not to endanger life or property, and assume responsibility for any such damage resulting from his blasting operations, and whenever directed, the number and size of the charges shall be reduced.

All explosives shall be stored in a secure manner and all such storage places shall be clearly marked, "DANGER EXPLOSIVES" and shall be in care of competent watchmen. All permits required for the use of explosives shall be obtained by the CONTRACTOR at his expense. All requirements of the governmental agency issuing permit shall be observed.

GENERAL CONDITION, PART F, ARTICLE 9, CONTRACTOR'S RESPONSIBILITIES, "Damage to Existing Structures and Utilities", is added as follows:

Damage to Existing Structures and Utilities: The CONTRACTOR shall be responsible for and make good all damage resulting from his activities, both within and beyond the limits of this contract, to buildings, telephone, power or other cables, water pipes, storm sewer facilities, sanitary pipes, gas lines, traffic signalization, or other utilities or structures, which may be encountered, whether or not shown on the plans.

GENERAL CONDITION, PART F, ARTICLE 9, CONTRACTOR'S RESPONSIBILITIES, "Cleaning Up", is appended as follows:

Final Clean Up: The entire street shall be cleaned by sweeping or washing, as determined by the PROJECT MANAGER, prior to final acceptance.

ARTICLE 10 – WORK BY OTHERS AND UTILITY COORDINATION

GENERAL CONDITION, PART F, ARTICLE 10, WORK BY OTHERS, is appended as follows:

The CONTRACTOR shall cooperate with owners of any underground or overhead utilities in their removal and relocation operations, in order that these operations may progress in a timely, reasonable and orderly manner and that service rendered by these parties will not be interrupted.

Excavators shall comply with Florida Statutes, Chapter 556, regarding notification of existing gas and oil pipeline company owners prior to excavating. **Evidence of such notice shall be furnished to the PROJECT MANAGER prior to excavating.** During the period of this contract the CONTRACTOR shall coordinate all utility relocations and adjustments necessary for the Y19-720-CH; Addendum #5

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project. The CONTRACTOR shall conduct meetings weekly or at a frequency approved by the Engineer with all affected Utility Owners, and the minutes of those meetings shall be distributed to each Utility owner, the PROJECT MANAGER, and any other affected entity. The CONTRACTOR shall incorporate the durations listed in the Utility Relocation Schedules into his Contract Schedule, and transmit copies of that schedule to each Utility owner. The CONTRACTOR shall constantly communicate the status of the progress of the project to the Utility Owners, and advise them of any potential impacts to the progress due to the presence of the utilities. The CONTRACTOR shall keep the COUNTY and the County's PROJECT MANAGER apprised of all developments related to Utility Relocation and job progress. The CONTRACTOR shall coordinate during the period of this contract with the applicable lighting facility owners for the installation of roadway lighting facilities for the project. CONTRACTOR shall not be entitled to additional compensation from COUNTY as a result of failure of any utility to remove, relocate, or install their facilities within any particular time frame.

ARTICLE 11 – PROJECT OWNER STATUS DURING CONSTRUCTION

No changes. See PART F GENERAL CONDITIONS.

ARTICLE 12 – CHANGES IN THE WORK

No changes. See PART F GENERAL CONDITIONS.

ARTICLE 13 – CHANGE OF CONTRACT AMOUNT AND CONTRACT TIME

GENERAL CONDITION, PART F, ARTICLE 13, CHANGE OF CONTRACT AMOUNT AND CONTRACT TIME, is appended as follows:

The number of days of any change to the contract time incorporated by Change Order shall be applied to both the Substantial Completion time and the Final Completion time, unless otherwise established by the COUNTY in these specifications.

ARTICLE 14 – CONDITION OF MATERIALS AND PACKAGING

No changes. See PART F GENERAL CONDITIONS.

ARTICLE 15 – ASBESTOS FREE MATERIALS

No changes. See PART F GENERAL CONDITIONS.

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ARTICLE 16 – WARRANTY AND GUARANTEE, ACCEPTANCE OF DEFECTIVE WORK

GENERAL CONDITION, PART F, ARTICLE 16, WARRANTY AND GUARANTEE, ACCEPTANCE OF DEFECTIVE WORK, “**Tests and Inspections**”, is appended as follows:

The cost of laboratory testing routinely performed on the job site or subsequent to samples typically retrieved from the job site, shall be borne by the COUNTY, except for testing called for in the Technical Provisions to be provided by the CONTRACTOR. Concrete and Soil-Cement mix design, and groundwater testing costs shall be borne by the CONTRACTOR.

All testing, except Soil-Cement testing, shall be in accordance with the applicable portions of Division I, Section 6 of the STANDARD SPECIFICATIONS. Soil-Cement testing shall be in accordance with Part H, Technical Provision 270 (TP-270).

The Record Laboratory is the testing laboratory contracted by the COUNTY. Only results of testing by the Record Laboratory shall be considered in evaluating the CONTRACTOR'S compliance with contract requirements.

The CONTRACTOR may be required to reimburse the COUNTY for the cost of all failed tests, including consultant fees, when the percentage of failed tests exceeds 15% of all tests taken. At the COUNTY'S discretion these costs may be deducted from the contract amount.

ARTICLE 17 – DELAYS AND EXTENSION OF TIME

No changes. See PART F GENERAL CONDITIONS.

ARTICLE 18 – PAYMENT AND COMPLETION

No changes. See PART F GENERAL CONDITIONS.

ARTICLE 19 – SUSPENSION OF WORK AND TERMINATION

No changes. See PART F GENERAL CONDITIONS.

ARTICLE 20 – MAINTENANCE AND EXAMINATION OF RECORDS

No changes. See PART F GENERAL CONDITIONS.

ARTICLE 21 – MINORITY/WOMEN OWNED BUSINESS ENTERPRISE REQUIREMENTS AND SMALL BUSINESS PROVISIONS

No changes. See PART F GENERAL CONDITIONS.

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ARTICLE 22 – FEDERAL REQUIREMENTS

No changes. See PART F GENERAL CONDITIONS.

ARTICLE 23 – VERBAL ORDERS

No changes. See PART F GENERAL CONDITIONS.

ARTICLE 24 – MISCELLANEOUS

GENERAL CONDITION, PART F, ARTICLE 24, MISCELLANEOUS, is appended as follows:

Whenever any provision of the Contract Documents requires giving of notice by the COUNTY, it shall be deemed to have been validly given if delivered in person to the individual, to a member of the firm or to an officer of the corporation for whom it is intended, or if sent by registered or certified mail (postage prepaid) and delivered to the last business address known to the COUNTY.

ARTICLE 25 – CONTRACT CLAIMS

No changes. See PART F GENERAL CONDITIONS.

ARTICLE 26 – VALUE ENGINEERING

No changes. See PART F GENERAL CONDITIONS.

ARTICLE 27 – PATENTS AND ROYALTIES

No changes. See PART F GENERAL CONDITIONS.

ARTICLE 28 – OWNER DIRECT PURCHASE

No changes. See PART F GENERAL CONDITIONS.

ARTICLE 29 – PUBLIC RECORDS COMPLIANCE (APPLICABLE FOR SERVICE CONTRACTS)

No changes. See PART F GENERAL CONDITIONS.

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ARTICLE 30 - PROSECUTION AND PROGRESS OF WORK

ARTICLE 30, PROSECUTION AND PROGRESS OF WORK, is added as follows:

Submission of Working Schedule: The CONTRACTOR shall provide a schedule that shows the various activities of work in sufficient detail to demonstrate a reasonable and workable plan to complete the project within the established Contract Time. The order and interdependence of activities and the sequence for accomplishing the work shall be shown. All activities shall be described in sufficient detail so that the COUNTY can readily identify the planned work and measure the progress of each activity. Each activity will be shown with a beginning work date, duration, and monetary value.

Activities for the procurement, fabrication, and/or delivery of materials, batch plants, and equipment shall be included.

Activities for the review of shop drawings and submittals shall be included.

Activities indicating coordination with utility owners that have facilities within the limits of construction requiring adjustment or relocation shall be included.

Milestone activities, when required by the Contract Documents, shall be included.

In a project with more than one phase, each phase and its completion date shall be adequately identified. Activities will not be allowed to span more than one phase.

The CONTRACTOR shall submit a narrative with the schedule, consisting of a concise written description of the construction plan.

An updated Work Progress Schedule shall be submitted monthly to the COUNTY. All changes in the planned order start or finish dates, or duration of an activity will be applied.

A revised Work Progress Schedule shall be submitted to the COUNTY for acceptance when significant changes are made to the logic or durations of the activities. The COUNTY will review the corrected schedule and respond within 7 calendar days of receipt.

The COUNTY will return inadequate schedules to the CONTRACTOR for corrections. A corrected schedule will be resubmitted within 15 calendar days from the date of the COUNTY's return transmittal. By acceptance of the schedule, the COUNTY does not endorse or otherwise certify the validity or accuracy of the activity durations or sequencing of activities.

The COUNTY will use the initially accepted schedule as the baseline against which to measure progress and identify critical activities that are controlling items of work.

If the CONTRACTOR fails to finalize either the initial or a revised schedule in the time specified, the COUNTY will withhold all Contract payments until the schedule is accepted.

Work Hours: Project work hours shall be between 7:00 AM and 6:00 PM Monday through Friday, exclusive of normal Orange County holidays, unless approved otherwise by the PROJECT MANAGER. The CONTRACTOR shall request approval from the PROJECT MANAGER at least 72 hours in advance for work outside those hours. Variable message board (VMB) signs Y19-720-CH; Addendum #5

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shall be installed ten (10) days prior to all day and night time lane closures and major traffic impacts to major roads (as directed by the engineer). The contractor shall submit a Start Work Notice at least seven (7) days prior to installing VMB's. Work before 7:00AM or after 3:30PM, or on days other than the above described normal work days, and requiring the presence of the COUNTY'S RESIDENT PROJECT REPRESENTATIVE shall require that the CONTRACTOR reimburse the COUNTY for the salary and overtime cost of the RESIDENT PROJECT REPRESENTATIVE. Reimbursement shall be made by the CONTRACTOR at the rate of \$45.00 per hour by check payable to the Board of County Commissioners accompanying each monthly pay request. Each pay request shall include a tabulation of the overtime dates, times, hours and costs for the preceding month. The amount of the check must agree with the tabulated total. In the event the CONTRACTOR chooses to not submit a pay request when normally due for work he has completed, the CONTRACTOR shall submit a pay request showing that no payment is due to him, and shall include the tabulation of the overtime worked during the preceding month. Payment must be made for overtime work performed to address emergencies outside the above described normal working hours, unless the RESIDENT PROJECT REPRESENTATIVE determines, at his or her sole discretion that the emergency is the result of actions by third parties.

Compliance with Time Requirements: The CONTRACTOR shall commence work in accordance with the accepted Work Progress Schedule and provide sufficient labor, materials and equipment to complete the work within the time limit(s) set forth. Should the CONTRACTOR fail to furnish sufficient and suitable equipment, forces, and materials, as necessary to prosecute the work in accordance with the accepted schedule, the COUNTY may withhold all estimates that are, or may become due, and/or suspend the work until the CONTRACTOR corrects such deficiencies.

Video Survey: The CONTRACTOR shall submit a quality video documenting before and after construction field conditions for the entire project. The PROJECT MANAGER will approve all views.

Payment for this item will be included in other items of work.

Project Progress Aerial Photographs: The CONTRACTOR shall submit aerial photographic prints monthly with progress payment requests. The first set of aerial photographic prints must be taken prior to any clearing and grubbing. The aerial photographs shall be in color and at least 11" x 14" (280 mm x 356 mm) in size. Exposures shall be made at 10 per mile (10 per 1.6 km) minimum plus one exposure for each offsite construction area. The PROJECT MANAGER will approve all views.

Payment for this item will be included in other items of work.

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ARTICLE 31 - METHOD OF MEASUREMENT

ARTICLE 31, METHOD OF MEASUREMENT, is added as follows:

All measurements for payment shall be based on the completed work performed in strict accordance with Contract Documents. All work completed under this contract shall be measured by the CONTRACTOR or his representatives in the presence of the PROJECT MANAGER.

THIS ENDS THE SUPPLEMENTAL CONDITIONS

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Holden Avenue Phase I – from John Young Parkway to Orange Blossom Trail (US441)

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ROADWAY IMPROVEMENTS: The project consists of constructing a new 4-lane divided urban roadway from John Young Parkway to Texas Avenue. And widening from a two lane rural to a four lane urban roadway from Texas Avenue to Orange Blossom Trail (US 441). The net length of the project is approximately 1.24 miles.

1. **CONSTRUCTION SCHEDULE / LIQUIDATED DAMAGES:** This work requires Substantial Completion in 670 days from the date of Notice of Proceed with Final Completion in 730 days. If substantial and final completion is not met by the required time, liquidated damages will be applied at the rate of \$4,698.00 per day as per the provisions in the Contract governing liquidated damages.
2. **UTILITY IMPROVEMENTS:** This project includes the construction of approximately 3,560 linear feet of 12", 10", 6", and 4" forcemain along Holden Avenue, Texas Avenue, and Rio Grande Avenue from begin construction to end construction. Refer to the Utilities Technical Provisions for additional information. Orange County Utilities will provide the CONTRACTOR with the Florida Department of Environmental Protection utilities permit at the Pre-Construction conference.
3. **UTILITY COORDINATION:** The CONTRACTOR is to coordinate any utility improvements and / or relocations for this project. The CONTRACTOR shall not use utility delays as a basis for additional compensation. Contractor shall be responsible for all coordination with utilities and shall cooperate fully with utility companies in the relocation of their facilities.
4. **RAILROAD CROSSING:** N/A
5. **CLEARING AND GRUBBING:** 110-1-1 Clearing and Grubbing is lump sum. The County shall not be responsible for additional payment if the quantity is different from the 28.9 AC shown on the plans.
6. **SIGNALIZATIONS:** The cost of all interconnect throughout the project limits (from John Young Parkway to Orange Blossom Trail) including, but not limited to cable boxes and conduit, is included in the lump sum costs of signalization.
7. **RIGHT-OF-WAY / PARCEL CONSIDERATIONS:** The CONTRACTOR is notified that at the time of this bid, the COUNTY has not acquired all of the right-of-way and temporary easements required to complete the project. The CONTRACTOR shall exercise utmost care to ensure that neither construction activities nor any type of encroachments occur outside the COUNTY'S existing right-of-way, easements, or rights-of-entry under any circumstances. The CONTRACTOR shall be completely responsible to pay for all the

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damages resulting from encroachment onto private properties. Certain restrictions apply to the use of the following parcels:

- **Parcel 8004:** The CONTRACTOR shall protect the structural integrity of the existing wall, fence and their foundation from Station number 20+74 right to Station Number 35+67 right at all times during construction. CONTRACTOR shall be responsible for any damage that occurs during the construction activities to these structures at no additional cost to COUNTY.
- **Parcel 1006A:** The CONTRACTOR is allowed to enter a distance of 5 feet beyond the new right-of-way and/or easement line established by these parcels for the purpose of grading this area in order to harmonize the remaining property with the new construction. Grading is to be done on a best effort basis as the equipment will allow, avoiding all improvements except grass turf. The CONTRACTOR is to replace disturbed grass turf with equal or better sod at no additional cost to the COUNTY. CONTRACTOR shall be responsible for any damage that occurs during the grading activities.
- **Parcel 7006:** The CONTRACTOR will not disturb the intercom/keypad located on this property. CONTRACTOR shall be responsible for any damage that occurs during the construction activities to these structures at no additional cost to COUNTY.
- **Parcel 8006:** The CONTRACTOR shall remove and reconstruct the existing fence. The CONTRACTOR at all times during construction shall maintain a temporary fence around this parcel connecting to the existing fence on the remaining property. The CONTRACTOR will not disturb the fire line master meter within the easement. CONTRACTOR shall be responsible for any damage that occurs during the construction activities to these structures at no additional cost to COUNTY.
- **Parcel 1008:** CONTRACTOR shall remove the existing septic tank and drain-field located on this parcel at no additional cost to the COUNTY.
- **Parcel 7008:** The CONTRACTOR will not disturb the building or associated improvements within the parcel. CONTRACTOR shall be responsible for any damage that occurs during the construction activities to these structures at no additional cost to COUNTY. As part of the restoration of the driveway, the CONTRACTOR shall adjust the gate within the parcel and will reconnect the gate to the fence on the remaining lands. At all times during the construction, the

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CONTRACTOR will maintain a temporary fence around the easement connecting to the existing fence.

- **Parcel 8008:** The CONTRACTOR will remove and reconstruct the existing fence. At all times during the construction, the CONTRACTOR will maintain a temporary fence around the easement connecting to the existing fence on the remaining property.
- **Parcel 1011, 7011A, 7011B, 7011C, 8011, 8011A, 8011B and Parcel 8011C:** CONTRACTOR shall demolish and remove any improvements and/or personal property from these parcels at no additional cost to the COUNTY.
- **Parcel 7012A and 7012B:** The CONTRACTOR is not allowed to work on these parcels until the COUNTY provides a document giving the CONTRACTOR the right to enter the property. If the CONTRACTOR is not permitted to enter the property then the CONTRACTOR will match grade at the right-of-way line.
- **Parcel 8013 Driveway at STA. 158+60RT and STA. 159+30RT:** The CONTRACTOR is not allowed to work on these driveways outside of this parcel until the COUNTY provides a document giving the CONTRACTOR the right to enter the property. If the CONTRACTOR is not permitted to enter the property then the CONTRACTOR will match grade at the parcel line.
- **Parcel 7015:** The CONTRACTOR at all times during construction shall ensure the integrity of the parking space within the proposed easement area. CONTRACTOR shall be responsible for any damage that occurs during the construction activities to the parking space at no additional cost to COUNTY.
- **Parcel 1044, 7044, 7044A and 8044:** The CONTRACTOR at all times during construction shall maintain a temporary fence around these parcels.
- **Parcel 1046 and 8046:** The CONTRACTOR is allowed to enter a distance of 5 feet beyond the new right-of-way and/or easement line established by these parcels for the purpose of grading this area in order to harmonize the remaining property with the new construction. Grading is to be done on a best effort basis as the equipment will allow, avoiding all improvements except grass turf. CONTRACTOR is to replace disturbed grass turf with equal or better sod at no additional cost to the COUNTY. CONTRACTOR shall be responsible for any damage that occurs during the grading activities.

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- **Parcel 8047 and 8047A:** The CONTRACTOR is allowed to enter a distance of 5 feet beyond the new right-of-way and/or easement line established by these parcels for the purpose of grading this area in order to harmonize the remaining property with the new construction. Grading is to be done on a best effort basis as the equipment will allow, avoiding all improvements except grass turf. CONTRACTOR is to replace disturbed grass turf with equal or better sod at no additional cost to the COUNTY. CONTRACTOR shall be responsible for any damage that occurs during the grading activities.
 - **Parcel 1048:** CONTRACTOR shall demolish and remove any improvements and/or personal property from this parcel at no additional cost to the COUNTY.
 - **Parcel 8049:** As a part of the construction within this parcel, the CONTRACTOR will remove and reconstruct the existing fence. At all times during the construction, the CONTRACTOR will maintain a temporary fence around this parcel connecting to the existing fence on the remaining property.
 - **Parcel 1054, 7054A and 7054B:** CONTRACTOR shall demolish and remove any improvements and/or personal property from these parcels at no additional cost to the COUNTY.
 - **Parcel 7054C:** The CONTRACTOR at all times during construction will ensure the integrity of the existing chain link fence within this parcel. CONTRACTOR shall be responsible for any damage that occurs during the construction activities to the fence at no additional cost to COUNTY. Also, CONTRACTOR shall demolish and remove any improvements and/or personal property from this parcel at no additional cost to the COUNTY.
 - No special compensation will be made to CONTRACTOR to defray the costs of complying with the above mentioned right-of-way/parcel considerations as such costs shall be considered to have been included in the price stipulated for the several items of work to be done under this contract.
8. **MAINTENANCE OF TRAFFIC:** At the pre-construction conference the CONTRACTOR shall submit a detailed Maintenance of Traffic plan approved by Orange County, Traffic Engineering to the Orange County Highway Construction Division. The detailed Maintenance of Traffic Plan shall also be approved by the City of Orlando, for work within the City of Orlando right of way on Millenia Boulevard and by FDOT, for work at the intersection of Holden Avenue and Orange Blossom Trail (SR 500/US 441). The Maintenance of Traffic plan shall address the maintenance of vehicular and pedestrian

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traffic between the limits of construction, as well providing business signage for all business along the corridor, and must be signed and sealed by a Professional Engineer registered in the State of Florida. The cost of preparing this plan including Orange County permit fee in the amount of \$128 shall be included in Pay Item 102-1, Maintenance of Traffic. The attached Maintenance of Traffic plans provided by the COUNTY is for reference and guidance only. CONTRACTOR shall not be entitled to any additional compensation as a result of the Maintenance of Traffic plan he/she chooses to use, whether or not he/she prepared such plan.

The CONTRACTOR shall provide uniformed off-duty law enforcement officer(s) for all night time lane closures. Variable message board (VMB) signs shall be installed ten (10) days prior to all day and night time lane closures and major traffic impacts to major roads (as directed by the Engineer). The contractor shall submit a Start Work Notice at least seven (7) days prior to installing VMB's. The Cost shall be included in pay item number 102-1, Maintenance of Traffic.

9. **PEDESTRIAN WALKWAY:** The CONTRACTOR shall provide and maintain a safe walkway for pedestrians, in compliance with the Americans with Disability Act, along the limits of the project and for the entire project duration. The cost will be included under Pay Item 102-1 Maintenance of Traffic.

10. **LANDSCAPE ESTABLISHMENT AND MAINTENANCE:** N/A

11. **LANDSCAPE AND MITIGATION RETAINAGE:** N/A

12. **SITE CONTAMINATION:** The CONTRACTOR is advised, based on a Florida Department of Environmental Protection contamination locator map database that contamination exists within the corridor. If the CONTRACTOR discovers monitoring wells within the right of way the CONTRACTOR shall notify the property owner to remove the wells. In the event the property owner does not move the wells the CONTRACTOR shall hire a licensed well driller to properly abandon the wells in accordance to the Orange County Department of Health permit. The cost to properly abandon the wells shall be included in pay item 900-3 Groundwater Treat and Disposal. Monitoring wells on private property that may be encountered and damaged/destroyed by the CONTRACTOR shall be replaced at the cost of the CONTRACTOR. The CONTRACTOR shall notify in writing the ENGINEER, Orange County Risk Management staff, and Orange County Environmental Protection Division staff seven (7) calendar days prior to commencing any construction activities within project limits. When performing dewatering activities, the CONTRACTOR, shall provide applicable measures to prevent groundwater flow from contaminated properties to the project limits. The cost shall be included in pay item 900-3 Groundwater

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Treat and Disposal. Prior to dewatering within this area, the CONTRACTOR, shall submit the recommended alternative to prevent impacted groundwater flow to the project area. After dewatering activities are completed, the CONTRACTOR, shall test the groundwater adjacent to the area and within the project area to ensure that the groundwater is not impacted. If the groundwater is impacted, the CONTRACTOR shall be responsible for remediation of portions of the project area at no expense to the COUNTY. No additional compensation will be provided in the event the CONTRACTOR is required to modify his means and methods or construction schedule in order to comply with requirements of any regulatory agency with regard to any contamination, which may be encountered within or in the proximity to the project limits during construction. The CONTRACTOR may be granted non-compensable days to the extent, the critical path of the project is impacted by temporary work stoppages that may be required to address the presence of contamination.

13. **SEPTIC TANKS & WELLS:** The CONTRACTOR is responsible for the inspection, removal and disposal of septic tanks, drain fields and potable wells within the right-of-way. The cost will be included under Pay Item 110-1, Clearing & Grubbing.
14. **PAY ITEMS:** The cost of all equipment, materials and labor for temporary or permanent facilities necessary to construct the improvements identified in the plans, specifications, or other Contact Documents shall be deemed to be included in the various items making up the Contract Price. No separate payment shall be made to the CONTRACTOR for any such equipment, materials and labor for which a separate Pay Item has not been provided. No adjustments shall be made on this contract to the bid price of any product or material, including gasoline, diesel or other fuels, and bituminous materials, including asphalt, due to fluctuations in market prices, changes in suppliers, or any other reasons.
15. **COORDINATION:** The CONTRACTOR is hereby notified that construction of Texas Avenue from Duskin Avenue to South of Holden Avenue is anticipated to commence during the lifetime of this contract. The CONTRACTOR is to coordinate with the adjacent contractor to ensure that the work proceeds smoothly and without delay on both projects, and with minimal impacts to traffic where applicable. The CONTRACTOR shall find a copy of the Texas Avenue plans on the COUNTY'S FTP site at

ftp://ftp.ocfl.net/divisions/Public_Works/pub/Engineering%20Design/TEXAS%20AVE%20NORTH%20WDY%20PLANS-%20DO%20NOT%20ERASE/
16. **DRIVEWAY CONSTRUCTION:** At STA. 39+46.50 Rt CONTRACTOR shall complete the construction of the driveway, and all associated work, and coordinate this construction with OUC. This work shall be included under associated pay items.

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At STA. 68+61.08 and 69+32.46 Rt. CONTRACTOR shall coordinate with property owner to obtain Right-of-Entry to allow construction of driveways if Temporary Construction Easements have not been acquired by COUNTY.

17. MILLING & RESURFACING: N/A

18. ENVIRONMENTAL CONCERNS:

a. **FEDERALLY OR STATE DESIGNATED LISTED SPECIES:** The Florida Fish and Wildlife Conservation Commission maintains the state list of animals designated as Federally-designated Endangered or Threatened, State-designated Threatened, or State designated Species of Special Concern, in accordance with Rules 68A-27.003 and 68A-27.005. The CONTRACTOR must comply with the above-mentioned rules at no cost to the County. There also shall be no additional compensation in the event the CONTRACTOR is required to modify his means and methods or construction schedule in order to comply with the requirements of any regulatory agency with regard to any Federally or State listed species which may be encountered within or in proximity to the project limits during construction. The CONTRACTOR may be granted non-compensable days to the extent the critical path of the project is impacted by temporary work stoppages that may be required to address the presence of listed species as mentioned above.

i. The CONTRACTOR is informed that a number of regionally common, but state and/or federally listed birds including but not limited to, the tricolored heron (*Egretta tricolor*), snowy egret (*Egretta thula*), white ibis (*Eudocimus albus*), little blue heron (*Egretta caerulea*), and wood stork (*Mycteria americana*) are expected to utilize the areas within the project limits. All of the species expected to occur are listed as a Species of Special Concern by the State of Florida with the exception of wood stork, which is state and federally listed as endangered.

19. REQUEST FOR ADDITIONAL INFORMATION (RAI): The COUNTY will require a reasonable amount of time, at least 10 business days, to respond to any RAI submitted by the CONTRACTOR. Any delay in responding to the RAI cannot be used as a reason to reimburse for any additional compensation, including delay claims.

20. EARTHWORK: The CONTRACTOR is notified that the soil survey shown in the plans is based on limited geotechnical investigation. The CONTRACTOR is to field verify and test all excavated earthwork material to determine if the soil is classified as a Select soil and suitable for embankment utilization. In the event that any excavated earthwork material is

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not suitable for embankment utilization, the CONTRACTOR shall replace the unsuitable material with Select soil to furnish and install the required embankment at no additional cost to the COUNTY. The CONTRACTOR shall be responsible for the disposal of the unsuitable material at a COUNTY approved site at no additional cost to the COUNTY.

The COUNTY grants access to all the bidders to the entire project limits. The bidders are responsible for obtaining approval from all the regulatory agencies that have jurisdiction for investigative work. A Right-of-Way Utilization Permit shall be issued by the Highway Construction Division for performing borings within the project limits. Contact the Highway Construction Division to obtain information regarding a Right-of-Way utilization permit. The bidders shall be entirely responsible to ensure that all the disturbed areas are restored to as good as or better than the existing conditions. The bidders shall be responsible to comply with all permit conditions, rules and regulations including but not limited to NPDES and threatened and endangered species.

The CONTRACTOR shall notify Orange County in writing if the limits of the unsuitable materials are different from what is shown on the construction plans. Prior approval shall be obtained from COUNTY before removing any unsuitable material in excess of what is shown on the construction plan.

The CONTRACTOR shall provide Orange County Highway Construction with a signed and sealed survey, prepared by a registered Florida surveyor, including elevations and cross sections of the area where unsuitable soils are found to be in excess of what is shown on the construction plans. The elevations shall be provided every 25 feet and shall be representative of the conditions. The purpose of the survey, with cross sections, is to verify the quantity of the unsuitable soils removed. The cost shall be included under Pay Item 120-4, Subsoil Excavation (Unsuitable Material).

21. **S-330/POND 3 OUTFALL:** Construction of Structure S-330 (Sta. 3000+81.74 B/L Pond 3, 16' Rt.) will require removal of portions of an existing sea wall with concrete pile cap bordering Lake Tyler. The section of wall to be removed or replaced shall be reconstructed to match the existing wall. CONTRACTOR shall furnish a signed & sealed shop drawing/design for S-330 to the COUNTY for review and approval prior to construction of this structure. Costs for the design, and for the removed/replaced wall, shall be included in the cost of S-330.
22. **ORANGE COUNTY INSPECTOR'S OFFICE:** The CONTRACTOR shall furnish equipment and maintain an office trailer for the sole use of the Owner/Inspector, with secure entrance doors and one key per occupant. All equipment furnished by the CONTRACTOR for this field office will remain the CONTRACTOR'S property and shall be removed from

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SPECIAL PROVISIONS

the site upon completion of the project. The cost of this office shall be included in TP-101, Item No. 101-1, Mobilization. Installation shall be completed before the first partial payment for Mobilization will be made. A minimum of four (4) parking spaces adjacent to the field office shall be provided for use by the COUNTY staff. The following criteria shall be used:

1. Area:

- a. 400 square feet (37 M²) minimum with minimum width dimension of 12 feet (3.6 M).
- b. Trailer to have an office on each end (10' x 12' minimum dimension) with a conference room located in the middle and provide a partitioned washroom (5' x 6' (1.5 M x 1.8 M) minimum dimension) and a coat & storage closet.
- c. Obtain prior approval of Owner/Inspector of floor plan. Each room shall have doors with integral locks, keyed alike.
- d. Doors should have bars for safety.

2. Windows:

- a. Minimum of 3, with a minimum total area of 10 percent of the floor area.
- b. Operable sash and insect screens.
- c. Provide operable Venetian blinds for all windows.
- d. Windows should have bars for safety.

3. Furniture:

- a. Two (2) standard size desks 3' x 5' (0.9 M x 1.5 M), with desk chair and three drawers (per office).
- b. One drafting table: 39" x 72" x 36" (1 M x 1.8 M x 0.9 M) high with one equipment drawer.
- c. Two (2) folding tables 3' x 6' (0.9 m x 1.8 m) with eight (8) folding chairs.
- d. One plan rack to hold a minimum of six (6) sets of project plans.
- e. Two (2) standard four (4) drawer legal size filing cabinets with locks & keys (one key per occupant).
- f. Two (2) swivel armchairs (per office).
- g. One (1) drafting table stool (adjustable, with back rest).
- h. One (1) wastebasket per desk and washroom.

4. Equipment:

- a. Photocopy and fax machine (may be combined).
- b. One (1) separate phone line with answering machine.
- c. DSL internet access (if available at the location) or one (1) separate phone line (and I.S.P. service) for internet access if DSL service is not available.

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SPECIAL PROVISIONS

- d. Computer Hardware: (This computer shall be maintained by Orange County ISS and shall become the property of Orange County upon completion of the project.)

1: HARDWARE

Dell Desktop Computer

Dell OptiPlex 7040 Small Form Factor (SFF) (does not include monitor or ext. speakers)

- ◆ Intel Core Processor Options:
 - a) i5 or i7 processor – Small Form Factor (SFF) with DVD+/-RW
 - b) i5 or i7 processor – Micro Form Factor without DVD+/-RW(for conference rooms)
- ◆ Windows 10 Professional 64-bit
- ◆ 128GB SSD Hard Drive
- ◆ 8GB RAM
- ◆ USB Keyboard and Mouse
- ◆ Display Port to DVI Adapter 6' Cable
- ◆ 3 Year basic parts warranty

Dell Precision CAD Workstation

Dell Precision T3420 Small Form Factor (SFF) (does not include monitor or ext. speakers)

- ◆ Intel Core i7-6700
- ◆ Windows 7 Professional 64-bit
- ◆ 512GB SSD Hard Drive
- ◆ 16GB RAM
- ◆ NVIDIA Quadro K1200 4GB, (4 mDP) Low Profile Video
- ◆ USB Keyboard and Mouse
- ◆ Display Port to DVI Adapter 6' Cable
- ◆ 3 Year basic parts warranty

Dell Latitude Laptop

Dell Latitude E7470 series Laptop (Does not include Docking Station or Carrying Case)

- ◆ Intel® Core™ i5-6300U
- ◆ 14-inch HD (1366 x 768) Non touch Anti-Glare LCD with Mic /without camera
- ◆ 128GB SSD Hard Drive
- ◆ 8GB RAM
- ◆ **Without** DVD-ROM Drive

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SPECIAL PROVISIONS

- ◆ Computrace Protection
- ◆ 3 Year Basic Parts Warranty

2: SOFTWARE

Desktop/Laptop

- ◆ Windows® 10 Professional, with IE 11
- ◆ Microsoft Office 2013 Pro or Office 2016 Pro
- ◆ All MS Office apps on the same PC must match version. (i.e. Project, Visio, Word)
- ◆ Active X controls - any application requiring the use of Active X controls must be pre-approved by ISS desktop support. At a minimum they must meet the following criteria:
 - ◆ Packaged as an .MSI file for installation/distribution from the command line.
 - ◆ Must be installed and operated without end user administrator permissions.
- ◆ Java 1.7_55 – Only supported version of Java
- ◆ Silverlight – latest version
- ◆ Preference is given to any hosted solution not requiring installation of local software or configuration files.
- ◆ Bomgar or WebEx for remote access

Network Connectivity

- ◆ AT&T Wireless AirCard
- ◆ Cisco VPN
- ◆ Hosted applications must be accessible from devices with automatically assigned network settings (all settings automatically supplied by DHCP, no fixed addresses)

3: CLIENT BASED DATABASES

- ◆ Oracle (network based database)
- ◆ SQL Server (network based database)

4: PERIPHERALS and ACCESSORIES

Black and White LaserJet Printers

- ◆ HP LaserJet Pro 400 Printer M402n (500 to 2000 pages/month) < 4 users
- ◆ HP LaserJet M506dn (5-10 people, 1500 to 5000 pages/month + secure printing)

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SPECIAL PROVISIONS

- ◆ HP LaserJet M605dn (10-25 people, 5000 to 16000 pages/month + secure printing)

Color LaserJet Printers

- ◆ HP Color LaserJet Pro M452 (500-1500 pages/month, small paper tray)
- ◆ HP Color Laserjet Enterprise M651 (2500 to 17000 pages/month + secure printing)

HP Multi-Function Devices (MFD) (Print/Scan/Copy)

- ◆ HP MFP M425 (750 to 3000 pages/month, B/W)
- ◆ HP color MFP M277dw (1 or 2 people, occasional scanning)
- ◆ HP color MFP M476dn (1000 to 2500 pages/month)
- ◆ HP color MFP M575dn (2000 to 6000 pages/month)

Scanners (all come with Adobe Acrobat, document feeders)

- ◆ Fujitsu ScanSnap iX500 (25ppm, 50 sheet ADF, Connected via USB)
- ◆ Fujitsu N7100 (25ppm, 50 sheet ADF, Networked)
- ◆ Fujitsu 5530C2 (50ppm, 100 sheet ADF, Connected via USB)

****Printers must use OEM toner cartridges only**

*****Desktop Copier and combo unit purchases directly connected to the PC must be reviewed and approved by ISS. Contact ServiceCenter@ocfl.net for more information and assistance.**

UNSUPPORTED PRODUCTS

1: HARDWARE

- ◆ Pentium dual-core and older desktop systems, Optiplex 620, 745, 755, 960
- ◆ Latitude D-series Laptops, Latitude E6500, E6510
- ◆ Non-Dell PCs
- ◆ Wireless keyboards and mice (except conf. rooms)

2: SOFTWARE

- ◆ MS Office platforms prior to Office 2007 (including Visio & Project)
- ◆ Non MS Windows-based operating systems
- ◆ Shareware / Freeware
- ◆ Windows 8, Windows 10
- ◆ Windows XP and older
- ◆ Google Chrome
- ◆ Freelance
- ◆ SHL Vision & Vision Express, WIN9x/WINNT/UNIX
- ◆ Reflection version 11 or lower

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Holden Avenue Phase I – from John Young Parkway to Orange Blossom Trail (US441)

SPECIAL PROVISIONS

3: CLIENT DATABASES

- ◆ MS Access
- ◆ Dbase
- ◆ RBASE
- ◆ Paradox
- ◆ FOXPRO
- ◆ MySQL

4: PERIPHERALS AND ACCESSORIES

- ◆ Inkjet printers
- ◆ Printers over 7 years old
- ◆ Scanning to multiple folders per device

PROHIBITED PRODUCTS

1: HARDWARE

- ◆ Non MS Windows-based PCs, laptops, and tablets
- ◆ Recycled, Remanufactured, and non-OEM toner Cartridges
- ◆ Refurbished PCs
- ◆ Personal (non-County) computing equipment
- ◆ Any network (voice or data) device not operated, administered or expressly approved by Orange County ISS.
- ◆ Any internet access device not operated, administered or expressly approved by Orange County ISS.
- ◆ Donated and vendor-provided PCs that do not meet County standards.
- ◆ Mobile Wi-Fi Hotspots

2: SOFTWARE

- ◆ Microsoft Internet Explorer version 7 and below
- ◆ Server software is not permitted on workstations (SQL server, print servers, web server, file sharing)
- ◆ Cloud-based collaborative software (data must be stored within our datacenter).
- ◆ Personal Software (purchased for non-commercial use)
- ◆ WordPerfect
- ◆ Non-Internet Explorer browsers (Firefox, Safari, Opera)
- ◆ Any Alpha/Beta Software not operated, administered or expressly approved by Orange County ISS

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Holden Avenue Phase I – from John Young Parkway to Orange Blossom Trail (US441)

SPECIAL PROVISIONS

- ◆ Anti-virus products not operated or administered by Orange County ISS
- ◆ Personal firewall products
- ◆ Network scanning tools
- ◆ Remote access software other than ISS authorized VPN, Bomgar
- ◆ Desktop sharing, remote control, or remote communications software such as Remote Desktop
- ◆ Web page editing tools (without prior approval)
- ◆ Software coding tools (without prior approval)
- ◆ User installed screen savers
- ◆ Games
- ◆ 3rd Party Desktops
- ◆ Disk Compression
- ◆ Non-Static BITMAP Backgrounds or screen savers
- ◆ iTunes or other content sharing applications
- ◆ P2P software
- ◆ MS Access Run-time Libraries

3: NETWORK PROTOCOLS

- ◆ NETBUI
- ◆ AppleTalk
- ◆ Token Ring
- ◆ Any network (voice or data) software or service not operated, administered or expressly approved by Orange County ISS.
- ◆ Any internet access service not operated, administered or expressly approved by Orange County ISS.

4: PERIPHERALS AND ACCESSORIES

- ◆ Portable music devices
- ◆ Personal (non-County) mass storage devices (hard drives, thumb drives, etc)
- ◆ Webcams
- ◆ Printer sharing through a PC
- ◆ Wireless printing

23. **PIPE QUALITY CONTROL AND INSPECTION:** CONTRACTOR is hereby notified that at the COUNTY'S discretion the County will direct the COUNTY'S lab of record to the drainage pipe manufacturer and/or drainage structure manufacturer. The purpose shall be to inspect the drainage pipes and / or drainage structures as they are being produced. If

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SPECIAL PROVISIONS

the COUNTY notifies the CONTRACTOR that the COUNTY'S lab will be inspecting the pipe, then only drainage pipes and drainage structures that have been inspected during the manufacturing process and stamped by the COUNTY'S lab of record shall be delivered to the project site. This inspection by the COUNTY'S lab of record in no way precludes the COUNTY'S right and ability to reject damaged pipe as a result of manufacturing, transporting, handling, installing/laying, videoing, etc. It shall be the CONTRACTOR'S responsibility to coordinate this inspection with the COUNTY and to determine the manufacturer's schedule and to ensure that the procurement of these materials does not impact the CONTRACTOR'S overall project schedule.

No additional time or compensation will be made to the CONTRACTOR to defray time or costs of any of the work or delays for complying with the requirements set forth above, but such costs shall be considered as having been included in the price stipulated for the several items of work to be done under this contract.

24. PERMITS

1. South Florida Water Management District Permit (SFWMD)

- A. The CONTRACTOR shall be responsible for all applicable conditions (as determined by the COUNTY) of the South Florida Water Management District Permit No. 48-01723-P, issued on January 13, 2009, extended on January 22, 2014. The COUNTY is in the process of renewing the permit and it will be submitted to the CONTRACTOR prior to the start of construction. Specifically, the CONTRACTOR is responsible for such aforementioned obligations of the permits. No special compensation will be made to the CONTRACTOR to defray costs of any of the work or delays for complying with the requirements of South Florida Water Management District Permit No. 48-01723-P, but such costs shall be considered as having been included in the price stipulated for the several items of work to be done under this contract.
- B. SOUTH FLORIDA WATER MANAGEMENT DISTRICT (SFWMD) The CONTRACTOR shall be responsible for compliance with all applicable requirements of Rule 40E-2.061(2), Florida Administrative Code (F.A.C.), for a General Permit for Short-Term Dewatering. If the CONTRACTOR's proposed work is expected to exceed 60 days in duration, or does not meet any of the other requirements listed with the requirements of Rule 40E-2.061(2), the CONTRACTOR must apply for and obtain such other Water Use Permit that may be required by the Water Management District, at no cost to the COUNTY. The

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Dewatering Permit may require modification due to site conditions, storm and/or rain events, and/or the CONTRACTOR'S means and methods of dewatering. The CONTRACTOR is responsible to modify the permit as necessary to meet the construction needs of the project. The CONTRACTOR is responsible for all surface water flowing through the site and shall be responsible for all costs associated with such activities at no additional cost to the COUNTY. During construction, the CONTRACTOR is responsible to take corrective action and to make necessary schedule adjustments without additional compensation, to adequately address dewatering activities, regardless of storm or rain event so that the project is not delayed and dewatering water is disposed of in accordance with the No-Notice Short-Term Dewatering Permit.

2. Army Corps of Engineers Permit

The CONTRACTOR shall also be responsible for all applicable conditions (as determined by the COUNTY) of the Department of the Army Corps of Engineers (ACOE) Permit No. SAJ-2006-3857, issued on February 19, 2009 and extended on May 9, 2017. Specifically, the CONTRACTOR is responsible for such aforementioned obligations of the permits.

No special compensation will be made to the CONTRACTOR to defray costs of any of the work or delays for complying with the requirements of the above-referenced Department of the Army Corps of Engineers (ACOE) Permit, but such costs shall be considered as having been included in the price stipulated for the several items of work to be done under this contract.

3. National Pollutant Discharge Elimination System (NPDES) Permit

General: The CONTRACTOR is responsible to obtain or modify, as necessary, all dewatering and land clearing permits required by STATE and COUNTY agencies pursuant to 62-621.300 F.A.C. and Orange County Code.

- A. **Land Clearing:** The Contractor shall be responsible to prepare and submit the Notices of Intent (NOI) and the Notice of Termination (NOT) to the Florida Department of Environmental Protection (FDEP). The Contractor shall be responsible to adhere to the construction plan sheet documents addressing the Stormwater Pollution Prevention Plan (SWPPP) and shall identify and incorporate any and all additional needs to prevent, control and reduce erosion and water pollution, meeting the requirements or special conditions of all permits authorizing project construction. In the event no SWPPP is provided the

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Holden Avenue Phase I – from John Young Parkway to Orange Blossom Trail (US441)

SPECIAL PROVISIONS

CONTRACTOR shall be responsible to prepare the SWPPP. The SWPPP and NOI forms, attached to this document, must be completed and submitted by the CONTRACTOR to the COUNTY prior to the preconstruction meeting.

- The NOI should be submitted at least two days prior to commencement of construction (permit fees are the responsibility of the CONTRACTOR).
- The NOT should be submitted within 14 days of final completion of the project (permit fees, if any, are the responsibility of the CONTRACTOR).

The CONTRACTOR shall be responsible for compliance with the EPA's NPDES Stormwater Construction permit, the Stormwater Pollution Prevention Plan and the FDEP Generic Permit for Stormwater Discharge from Construction Activities that Disturb One or More Acres of Land. Furthermore, the Contractor shall also comply with the FDEP Generic Permit for Stormwater Discharge from Large and Small Construction Activities. The Contractor shall comply with the requirements indicated by the Florida Department of Environmental Protection.

The cost of this work will be included under pay item No 104-14 - Prevention, Control and Abatement of Erosion and Water Pollution.

B. Dewatering: The CONTRACTOR shall be responsible for compliance with the FDEP Notice of Intent to Use the Generic Permit for Discharge of Groundwater from Dewatering Operations (FDEP Document 62-621.300(2)(b), which can be found at <https://floridadep.gov/forms>).

If it is determined that the disposal or discharge of the dewatering effluent is not authorized by this generic permit, the CONTRACTOR shall diligently pursue further required permit(s) from FDEP or other agencies.

Prior to submitting their bid, each prospective CONTRACTOR has the opportunity to perform a search to determine the extent, if any, of contaminated sites within 500 feet of the PROJECT boundaries. It is the intent of this paragraph to provide each prospective CONTRACTOR with an opportunity to investigate the water quality in the vicinity of the PROJECT in order to base his/her bid on means and methods of dewatering.

If, prior to or during the dewatering, it is determined that the disposal or discharge of the dewatering effluent is not authorized by the FDEP's Generic Permit for Stormwater Discharge from Large and Small Construction Activities, the CONTRACTOR shall diligently pursue further required permit(s) from FDEP or other agencies without resort to

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delay claims or recompense from the COUNTY for either permit application activities or the time required to obtain such permits.

The CONTRACTOR shall be responsible for all costs for water quality monitoring, treatment, storage, and disposal of the groundwater in a manner acceptable to the COUNTY and to all applicable regulatory agencies to reduce the concentration of parameters with exceedances to acceptable levels. The CONTRACTOR will be responsible for obtaining any additional permits required by regulatory agencies to implement the CONTRACTOR's chosen method of disposal and discharge of the groundwater. No additional compensation will be made to CONTRACTOR for permitting. The CONTRACTOR shall comply with Water Quality Requirements of the Special Provisions, related to the National Pollutant Discharge Elimination System (NPDES).

Because the CONTRACTOR'S means and methods of dewatering could lead to potential liability to third parties for damages resulting from the means and methods of dewatering, at the COUNTY'S discretion the means and methods for the dewatering plans are subject to a prior cursory review by the COUNTY, where issues and concerns may be submitted for the CONTRACTOR'S consideration.

The CONTRACTOR shall be deemed fully responsible for the means and method of the dewatering. Should the CONTRACTOR decide to modify or revise the means and method for the dewatering plan, another cursory review will have to be conducted by the COUNTY. Please note that containment on site of dewatering effluent is not considered treatment and disposal for purposes of payment under the pay item number 900-3.

CONTRACTOR shall be responsible to include in his/her bid all cost for treatment and disposal of dewatering effluent. Should it become necessary for the CONTRACTOR to treat and dispose dewatering effluent off site, Orange County will only compensate the CONTRACTOR for those activities at the unit price bid. No additional compensation will be paid to the CONTRACTOR for treatment and disposal of dewatering effluent, regardless of the actual cost incurred by the CONTRACTOR.

4. Florida Department of Transportation (FDOT) Permits.

The CONTRACTOR shall also be responsible for all applicable conditions (as determined by the COUNTY) of the FDOT Driveway Connection and Utility Permits, Permit 2018-A-594-031 (Driveway) and Permit 2018-H-594-390 (Utility). Specifically, the CONTRACTOR is responsible for such aforementioned obligations of the permits.

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CONTRACTOR shall submit a copy of their Maintenance of Traffic plan to FDOT for review and approval prior to either commencing work within FDOT right-of-way or commencing work that would impact FDOT facilities. Contact for submittal:

Jose Ortiz, P.E., Permits Manager
FDOT Orlando Operations Center
420 W Landstreet Road
Orlando, FL 32824
(321) 319-8100
jose.ortiz@dot.state.fl.us

All work within the FDOT right of way (approximate stations 75+96 to 76+06.59) shall conform to the FY 2018-19 Standard Plans for Road and Bridge Construction as per the permit requirements.

No special compensation will be made to the CONTRACTOR to defray costs of any of the work or delays for complying with the requirements of the above-referenced FDOT Permits, but such costs shall be considered as having been included in the price stipulated for the several items of work to be done under this contract.

5. City of Orlando Permits.

The CONTRACTOR shall also be responsible for all applicable conditions (as determined by the COUNTY) of the City of Orlando Engineering Permit, Case Number ENG2018-11331. This permit has been approved but requires CONTRACTOR'S license to obtain. Specifically, the CONTRACTOR is responsible for such aforementioned obligations of the permit.

The CONTRACTOR shall abide by the City of Orlando's Guidelines for Erosion and Sedimentation Control for Construction Sites sheet for work on Millenia Boulevard. A copy of this sheet shall be reviewed/followed by said CONTRACTOR and can be obtained at the following website:

<http://www.cityoforlando.net/permits/wp-content/uploads/sites/29/2016/01/Erosion-Sedimentation-Control-Blue-Sheet.pdf>

The CONTRACTOR shall submit a copy of their Maintenance of Traffic Plan for the work on Millenia Boulevard to the City for review and approval prior to commencing work within City of Orlando right-of-way. Contacts for submittal:

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Holden Avenue Phase I – from John Young Parkway to Orange Blossom Trail (US441)

SPECIAL PROVISIONS

Laverne Maxwell	(407) 246-4134	laverne.maxwell@cityoforlando.net
W. Scott Walker, P.E.	(407) 246-2372	scott.walker@cityoforlando.net

No special compensation will be made to the CONTRACTOR to defray costs of any of the work or delays for acquiring or complying with the requirements of the above-referenced City Permits, but such costs shall be considered as having been included in the price stipulated for the several items of work to be done under this contract.

25. REPORTS

The following Documents are being provided for informational purposes only and can be accessed at the following website:

ftp://ftp.ocfl.net/divisions/Public_Works/pub/Engineering%20Design/HOLDEN%20AVE%20FINAL%20PLANS%20-%20DO%20NOT%20ERASE/

1. Construction Plans for Holden Avenue (Phase I)
2. Right of Way Maps for Holden Avenue Segment 1
3. South Florida Water Management District Permit
4. Department of the Army Permit
5. Report of the Preliminary Contamination Assessment Holden Avenue – Pond 3. Provided for informational purposes only. Updated contamination information included in the special provisions.
6. Geotechnical Report

THIS ENDS THE SPECIAL PROVISIONS

ORANGE COUNTY UTILITIES DEPARTMENT

HOLDEN AVENUE PHASE I UTILITY IMPROVEMENTS
(FROM JOHN YOUNG PARKWAY TO ORANGE BLOSSOM TRAIL – US 441)

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ORANGE COUNTY UTILITIES DEPARTMENT

HOLDEN AVENUE PHASE I UTILITY IMPROVEMENTS
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DIVISION 6 – 8 (NOT USED)

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09901	Coatings and Linings
09910	Prefabricated Fiberglass Liners
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ORANGE COUNTY UTILITIES DEPARTMENT

HOLDEN AVENUE PHASE I UTILITY IMPROVEMENTS
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DIVISION 16 - (NOT USED)

APPENDIX

Appendix C – Permits obtained by County

Appendix D - Orange County Utilities Department - List of Approved Products

- 1 B. ~~Do not spread the mixture when the wind is blowing to such an extent that proper and~~
2 ~~adequate compaction cannot be maintained or when sand, dust, etc., are being deposited~~
3 ~~on the surface being paved to the extent that the bond between layers will be diminished.~~
- 4 C. ~~Field compaction density and thickness testing frequencies of the asphalt shall be tested~~
5 ~~once every 300 linear feet of paving per 24 foot wide strip, staggered left, center, and~~
6 ~~right of centerline. Where less than 300 linear feet of asphalt is placed in 1 day, provide~~
7 ~~minimum of 1 test for each per day's construction at a location designated by the County.~~
- 8 D. ~~Asphalt extraction gradation shall be tested from grab samples collected once every~~
9 ~~1,800 square yards of asphalt delivered to the site, or a minimum of once per day. Obtain~~
10 ~~the results in a timely manner (no later than the end of the day) so that adjustments can be~~
11 ~~made if necessary.~~
- 12 E. ~~On initial use of a Type S mix design at a particular plant, as a minimum, run an~~
13 ~~additional extraction gradation analysis if more than 500 tons [450 metric tons] of~~
14 ~~mixture are produced on the first day of production.~~
- 15 F. ~~Tolerances for Quality Control Tests (Extraction Gradation Analysis) shall be in~~
16 ~~accordance with FDOT Specification Section 331.~~

17 1.04 ~~SHOP DRAWINGS AND SUBMITTALS~~

- 18 A. ~~Submittals shall be submitted to the County for review and acceptance prior to~~
19 ~~construction in accordance with the General Conditions and specifications Section 01300~~
20 ~~"Submittals."~~
- 21 1. ~~Submit for each proposed design mix the Gradation analysis; Grade of asphalt cement~~
22 ~~used; and Marshall Stability in pounds flow.~~
 - 23 2. ~~Provide a single percentage of asphalt by weight of total mix intended to be~~
24 ~~incorporated in the completed mixture, shown to the nearest 0.1%. For structural~~
25 ~~mixes (S-1, S-3) establish the optimum asphalt content at a level corresponding to a~~
26 ~~minimum of 4.5% air voids. Provide the laboratory density of the asphalt mixture for~~
27 ~~all mixes except Open Graded Friction Courses.~~
 - 28 3. ~~Identify source and description of the materials to be used.~~
 - 29 4. ~~Provide certification that the mix design conforms to specification requirements.~~
 - 30 5. ~~Field compaction density and thickness testing.~~
 - 31 6. ~~Field asphalt extraction gradation.~~

32 **PART 2 - PRODUCTS**

33 2.01 **GENERAL**

- 34 A. ~~All material supplied shall be one of the products specified in Appendix D "List of~~
35 ~~Approved Products" appended to these technical specifications.~~

- 1 B. ~~Type S Asphalt Concrete (Type S-1 or S-3) is required. The equivalent fine Type SP~~
 2 ~~(Superpave) Asphalt Concrete mixture (Traffic Level C) meeting the requirements of~~
 3 ~~FDOT Specification Section 334 may be selected as an alternate at no additional cost to~~
 4 ~~the County. The equivalent mixes are as follows:~~
 5 1. ~~Type S-1: Type SP-12.5~~
 6 2. ~~Type S-3: Type SP-9.5~~
- 7 C. ~~Asphalt plant and equipment shall meet the requirements in FDOT Specification Section~~
 8 ~~320.~~

9 2.02 AGGREGATE

- 10 A. ~~Coarse Aggregate, Stone, Slag, or Crushed Gravel shall meet the requirements in FDOT~~
 11 ~~Specification Section 901.~~
- 12 B. ~~Fine Aggregate shall meet the requirements in FDOT Specification Section 902.~~
- 13 C. ~~Aggregate gradation shall meet the following:~~
 14
 15

Table 02573-1
Bituminous Concrete Mixtures
(Gradation Design Range)

Type	Total Aggregate Passing Sieves ¹							
	3/4 inch [19.0 mm]	1/2 inch [12.5 mm]	3/8 inch [9.5 mm]	No. 4 [4.75 mm]	No. 10 [2.0 mm]	No. 40 [425 µm]	No. 80 [180 µm]	No. 200 [75 µm]
S-1 ⁴	100	88-98	75-93	47-75	31-53	19-35	7-21	2-6
S-3 ⁴		100	88-98	60-90	40-70	20-45	10-30	2-6
ABC-1		100						0-12
ABC-2		100			55-90			0-12
ABC-3 ²	70-100			30-70	20-60	10-40		2-10
FC-2 ³		100	85-100	10-40	4-12			
FC-3 ⁴		100	88-98	60-90	40-70	20-45	10-30	2-6

1. In inches [mm] or sieves [µm].
 2. 100% passing 1 1/2 inch [37.5 mm] sieve.
 3. The County may increase the design range for the No. 10 [200 mm] sieve for lightweight aggregates.
 4. The County may retain up to 1% on the maximum sieve size.

- 16
- 17 D. ~~Use clean aggregate containing no deleterious substances. Do not use coarse or fine~~
 18 ~~aggregate which contains more than 0.5% of phosphate.~~
- 19 E. ~~In laboratory tests, and for the purpose of proportioning the paving mixture, consider all~~
 20 ~~material passing the No. 10 [2.00 mm] sieve and retained on the No. 200 [75 µm] sieve~~
 21 ~~as fine aggregate, and the material passing the No. 200 [75 µm] sieve as mineral filler.~~

1 F. Do not use any screenings in the combination of aggregates containing more than 15% of
 2 material passing the No. 200 [75 µm] sieve. When two screenings are blended to produce
 3 the screening component of the aggregate, one of such screenings may contain up to 18%
 4 of material passing the No. 200 [75 µm] sieve, as long as the combination of the two does
 5 not contain over 15% material passing the No. 200 [75 µm] sieve. Screenings may be
 6 washed to meet these requirements.

7 2.03 ASPHALT CEMENT

8 A. Superpave PG Asphalt Binder or Recycling Agent shall meet the requirements in FDOT
 9 Specification Section 916.

10 B. Mineral Filler shall meet the requirements in FDOT Specification Section 917.

11 C. Marshall design mix shall be in accordance with the following:

12
 13

Table 02573-2
Marshall Design Properties For Bituminous Concrete Mixes

Mix Type	Minimum Marshall Stability (lbs.)	Flow* (0.01 in)	Minimum VMA (%)	Air Voids (%)	Minimum Effective Asphalt Content (%)	VFA Voids Filled with Asphalt (%)
S-1	1,500	8-13	14.5	4-5	**	65-75
S-3	1,500	8-13	15.5	4-6	**	65-75
ABC-1	500	7-15	15	5-16	6.0	-
ABC-2	750	7-15	15	5-14	5.5	-
ABC-3	1,000	8-13	14	4-7	**	65-78
FC-2	-	-	-	-	-	-
FC-3	1,500	8-13	15.5	4-6	**	65-75

* The maximum Flow value during production shall not exceed one point more than shown in the Table.
 ** The ratio of the percentage by weight of total aggregate passing the No. 200 sieve to the effective asphalt content expressed as a percentage by weight of total mix shall be in the range of 0.6 to 1.2.

14

15 2.04 BITUMINOUS MIXTURE

16 A. Use a bituminous mixture composed of a combination of aggregate (coarse, fine or
 17 mixtures thereof), mineral filler, if required, and bituminous material. Ensure that no
 18 more than 20% by weight of the total aggregate used is silica sand or local materials as
 19 defined in FDOT Specification Section 902. Size, grade, and combine the several
 20 aggregate fractions in such proportions that the resulting mixture meets the grading and
 21 physical properties of the verified mix design.

1 **PART 3 - EXECUTION**

2 3.01 **GENERAL**

3 A. ~~Set up, install and maintain temporary traffic control devices and detours as necessary in~~
4 ~~accordance with Specification Section 1570 "Maintenance of Traffic."~~

5 B. ~~Asphalt pavements, including all surface courses and base courses, where shown to be~~
6 ~~open cut and removed on the Drawings or specified in the Project Manual, shall be~~
7 ~~removed to a line back from each edge of the trench, other excavation, or to the limits~~
8 ~~indicated on the Drawings. Pavements shall be cut straight, clean and square with a~~
9 ~~power saw or other tools and equipment suitable for the Work.~~

10 C. ~~Asphalt pavements, where shown to be milled on the Drawings or specified in the Project~~
11 ~~Manual, shall be milled according to FDOT Specification Section 327.~~

12 D. ~~Asphalt mixtures shall meet the general construction requirements specified in FDOT~~
13 ~~Specification Section 330.~~

14 E. ~~Spread the mixture only when the surface upon which it is to be laid has been previously~~
15 ~~prepared, is intact, firm, and properly cured, and is dry. Do not spread mixture that~~
16 ~~cannot be finished and compacted during daylight hours.~~

17 F. ~~Deliver the asphalt cement from the asphalt plant at a temperature not to exceed 350°F~~
18 ~~and equip the transport tanks with sampling and temperature sensing devices meeting the~~
19 ~~requirements of FDOT. Maintain the asphalt cement in storage within a range of 230°F~~
20 ~~to 350°F in advance of mixing operations. Maintain constant heating within these limits,~~
21 ~~and do not allow wide fluctuations of temperature during a day's production.~~

22 G. ~~Produce a homogeneous mixture, free from moisture and with no segregated materials,~~
23 ~~that meets all specification requirements for the mixture, including compliance with the~~
24 ~~Marshall Properties. Also apply these requirements to all mixes produced by the drum~~
25 ~~mixer process and all mixes processed through a hot storage or surge bin, both before and~~
26 ~~after storage.~~

27 3.02 **PREPARATION OF APPLICATION SURFACES**

28 A. ~~Prior to the laying of the mixture, clean the surface of the base or pavement to be covered~~
29 ~~of all loose and deleterious material by the use of power brooms or blowers,~~
30 ~~supplemented by hand brooming where necessary.~~

31 B. ~~Where an asphalt mix is to be placed on an existing pavement or old base that is irregular,~~
32 ~~and wherever the plans indicate, bring the existing surface to proper grade and cross-~~
33 ~~section by the application of patching or leveling courses.~~

34 C. ~~Where an asphalt mix is to be placed over a newly constructed surface treatment, sweep~~
35 ~~and dispose of all loose material from the paving area.~~

- 1 ~~D. Paint all structures which will be in actual contact with the asphalt mixture, with the~~
2 ~~exception of the vertical faces of existing pavements and curbs or curb and gutter, with a~~
3 ~~uniform coating of asphalt cement to provide a closely bonded, watertight joint.~~
- 4 ~~E. Apply a prime and tack coat on newly constructed bases and apply a tack coat, as~~
5 ~~specified in FDOT Specification Section 300, on existing pavement structures that are to~~
6 ~~be overlaid with an asphalt mix and between successive layers of all asphalt mixes.~~

7 3.03 PLACING MIXTURE

- 8 ~~A. Lay all asphaltic concrete mixtures, including leveling courses, other than adjacent to~~
9 ~~curb and gutter or other true edges, by the string line method to obtain an accurate,~~
10 ~~uniform alignment of the pavement edge.~~
- 11 ~~B. For each paving machine operated, use a separate crew, each crew operating as a full~~
12 ~~unit. The Contractor's Certified Paving Technician in charge of the paving operations~~
13 ~~may be responsible for more than one crew but must be physically accessible to the~~
14 ~~County at all times when placing mix.~~
- 15 ~~C. Check the depth of each layer at frequent intervals, and make adjustments when the~~
16 ~~thickness exceeds the allowable tolerance. When making an adjustment, allow the~~
17 ~~paving machine to travel a minimum distance of 32 feet to stabilize before the second~~
18 ~~check is made to determine the effects of the adjustment.~~
- 19 ~~D. In limited areas where the use of the spreader is impossible or impracticable, the~~
20 ~~Contractor may spread and finish the mixture by hand.~~
- 21 ~~E. Straightedge and back patch after obtaining initial compaction and while the material is~~
22 ~~still hot.~~
- 23 ~~F. Upon arrival, dump the mixture in the approved mechanical spreader, and immediately~~
24 ~~spread and strike off the mixture to the full width required, and to such loose depth for~~
25 ~~each course that, when the Work is completed, the required weight of mixture per square~~
26 ~~yard [square meter], or the specified thickness, is secured. Carry an excess amount of~~
27 ~~mixture ahead of the screed at all times. Hand rake behind the machine as required.~~
- 28 ~~G. Construct each course in layers of the thickness as shown on FDOT Design Standards~~
29 ~~Index No. 513.~~
- 30 ~~H. Before starting any rolling, check the surface; correct any irregularities; remove all~~
31 ~~drippings, fat sandy accumulations from the screed, and fat spots from any source; and~~
32 ~~replace them with satisfactory material. Do not skin patch. When correcting a~~
33 ~~depression while the mixture is hot, scarify the surface and add fresh mixture.~~

1 3.04 APPLICATION OF LEVELING COURSES

2 A. ~~Before spreading any leveling course, fill all depressions in the existing surface more~~
3 ~~than 1-inch deep by spot patching with leveling course mixture, and then compact them~~
4 ~~thoroughly.~~

5 B. ~~Place all courses of leveling by the use of two (2) motor graders; equip one with a~~
6 ~~spreader box. Use other types of leveling devices after they have been approved by the~~
7 ~~County.~~

8 C. ~~When the total asphalt mix provided for leveling exceeds 50 lb/yds² [27 kg/m²], place the~~
9 ~~mix in two or more layers, with the average spread of any layer not to exceed 50 lb/yd²~~
10 ~~[27 kg/m²]. When using Type S-3 Asphaltic Concrete for leveling, do not allow the~~
11 ~~average spread of a layer to be less than 50 lb/yd² [27 kg/m²] or more than 75 lb/yd² [40-~~
12 ~~kg/m²]. The Contractor may vary the rate of application throughout the Project as~~
13 ~~directed by the County. When leveling in connection with base widening, the County~~
14 ~~may require placing all the leveling mix prior to the widening operation.~~

15 3.05 COMPACTING MIXTURE

16 A. ~~The coverage is the number of times the roller passes over a given area of pavement.~~
17 ~~Regardless of the rolling procedure used, complete the final rolling before the surface~~
18 ~~temperature of the pavement drops below 160°F.~~

19 B. ~~Seal Rolling: Provide two (2) coverages with a tandem steel wheeled roller (either~~
20 ~~vibratory or static), weighing 5 to 12 tons, following as close behind the spreader as~~
21 ~~possible without pick-up, undue displacement, or blistering of the material. Use~~
22 ~~vibratory rollers in the static mode for layers of 1-inch or less in thickness.~~

23 C. ~~Intermediate Rolling: Provide five (5) coverages with a self-propelled pneumatic tired~~
24 ~~roller, following as close behind the seal rolling operation as the mix will permit.~~

25 D. ~~Final Rolling: Provide one (1) coverage with a tandem steel wheeled roller (static mode~~
26 ~~only), weighing 5 to 12 tons, after completing the seal rolling and intermediate rolling,~~
27 ~~but before the surface pavement temperature drops below 160°F.~~

28 E. ~~Operate the self-propelled, pneumatic tired roller at a speed of 6 to 10 mph. For each~~
29 ~~roller, do not exceed an area of coverage of 4,000 yd²/hour; if rolling Type S Asphaltic~~
30 ~~Concrete, do not exceed an area of coverage of 3,000 yd²/hour.~~

31 F. ~~Use a sufficient number of self-propelled pneumatic tired rollers to ensure that the rolling~~
32 ~~of the surface for the required number of passes does not delay any other phase of the~~
33 ~~laying operation and does not result in excessive cooling of the mixture before~~
34 ~~completing the rolling. In the event that the rolling falls behind, discontinue the laying~~
35 ~~operation until the rolling operations are sufficiently caught up.~~

- 1 G. Use hand tamps or other satisfactory means to compact areas which are inaccessible to a
2 roller, such as areas adjacent to curbs, headers, gutters, manholes, etc.
- 3 H. Use self-propelled pneumatic tired rollers to roll all patching and leveling courses.
4 Where placing the initial leveling course over broken concrete pavement, use a
5 pneumatic tired roller that weighs at least 15 tons. For Type S-3 Asphaltic Concrete
6 leveling courses, use a steel-wheeled roller to supplement the traffic rollers. On other
7 leveling courses, use a steel-wheeled roller to supplement the traffic rollers on all passes
8 after the first pass.
- 9 I. Do not allow the rollers to deposit gasoline, oil, or grease onto the pavement. Remove
10 and replace any areas damaged by such deposits as directed by the County. While rolling
11 is in progress, test the surface continuously, and correct all discrepancies to comply with
12 the surface requirements. Remove and replace all drippings, fat or lean areas, and
13 defective construction of any description. Remedy depressions that develop before
14 completing the rolling by loosening the mixture and adding new mixture to bring the
15 depressions to a true surface. Should any depression remain after obtaining the final
16 compaction, remove the full depth of the mixture, and replace it with sufficient new
17 mixture to form a true and even surface. Correct all high spots, high joints, and
18 honeycombing as directed by the County. Remove and replace any mixture remaining
19 unbonded after rolling. Correct all defects prior to laying the subsequent course.
- 20 J. Use a self-propelled pneumatic tired roller on the first structural layer placed on a milled
21 surface. Compact with a minimum of three passes.

22 3.06 JOINTS

- 23 A. Place the mixture as continuously as possible. Do not pass the roller over the unprotected
24 end of the freshly laid mixture except when discontinuing the laying operation long
25 enough to permit the mixture to become chilled. When thus interrupting the laying
26 operation, construct a transverse joint by cutting back on the previous run to expose the
27 full depth of the mat.
- 28 B. For all layers of pavement except the leveling course, place each layer so that
29 longitudinal construction joints are offset 6 inches to 12 inches laterally between
30 successive layers.
- 31 C. When laying fresh mixture against the exposed edges of joints (trimmed or formed as
32 provided above), place it in close contact with the exposed edge to produce an even, well-
33 compacted joint after rolling.

34 3.07 SURFACE REQUIREMENTS

- 35 A. Obtain a smooth surface on all pavement courses placed, and then straightedge all
36 intermediate and final courses with a 15-foot rolling straightedge. Furnish a 15-foot
37 [4.572-m] manual straightedge, and make it available at the job site at all times during the
38 paving operation for checking joints and surface irregularities.

- 1 B. Produce a finished surface of uniform texture and compaction with no pulled, torn, or
2 loosened portions and free of segregation, sand streaks, sand spots, or ripples.

3 3.08 ACCEPTANCE REQUIREMENTS

- 4 A. Upon completion of the final surface or friction course, the County will test the finished
5 surface with a 15 foot rolling straightedge. Correct all deficiencies in excess of 3/16-
6 inch.

- 7 B. If correction is made by removing and replacing the pavement, remove the full depth of
8 the course and extend at least 50 feet on either side of the defective area for the full width
9 of the paving lane.

- 10 C. If correction is made by overlaying, cover the length of the defective area and taper
11 uniformly to a featheredge thickness at a minimum distance of 50 feet on either side of
12 the defective area. Extend the overlay the full width of the roadway. Maintain the
13 specified cross slope. The County may adjust, as necessary, the mix used for the overlay
14 for this purpose.

- 15 D. The maximum deficiency from the specified thickness as follows:
16 1. For pavement of a specified thickness of 2 1/2 inches or more: 1/2 inch
17 2. For pavement of a specified thickness less than 2 1/2 inches: 1/4 inch

- 18 E. Where the deficiency in thickness is: (1) in excess of 3/8 inch for pavement of less than
19 2 1/2 inches in specified thickness, or (2) in excess of 3/4 inch for pavement of specified
20 thickness of 2 1/2 inches or more, correct the deficiency either by replacing the full
21 thickness for a length extending at least 50 feet from each end of the deficient area.

- 22 F. For any case of excess deficiency of the pavement, if approved by the County for each
23 particular location, correct the deficient thickness by adding new surface material, and
24 compact it to the same density as the adjacent surface. The County will determine the
25 area to be corrected and the thickness of new material added.

26 3.09 REPAIR AND RESTORATION

- 27 A. Replace asphalt pavement or roadway surfaces cut or damaged to equal or better
28 condition than the original, including stabilization, base course, surface course, curb and
29 gutter, and other appurtenances.

30 3.10 SIGNALIZATION, PAVEMENT STRIPING AND MARKING

- 31 A. The Contractor shall be responsible for coordinating, repairing or replacing all traffic
32 signalization devices and traffic loops damaged during the pavement milling, removal
33 and replacement process.

1 B. ~~The Contractor shall be responsible for coordinating, inventorying, and replacing all~~
2 ~~temporary and permanent pavement striping and markings damaged during the asphalt~~
3 ~~pavement milling, removal, and replacement process.~~

4 C. ~~Temporary pavement striping and markings shall be paint or reinforced retro-reflective~~
5 ~~removal tape. Foil back tape is not acceptable. Permanent pavement striping and~~
6 ~~markings shall be alkylid thermoplastic tape and raised reflective pavement markers.~~
7

8 END OF SECTION