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Solicitation Addendum

Addendum No.: 4
Solicitation No.: 25-R086612SAM
Project No.: 6006508
Solicitation Title: Lake Manatee Watershed Improvements Phase 2B
Addendum Date: March 28, 2025
Procurement Contact: Sherri Meier

IFBC No. 25-R086612SAM is amended as set forth herein. Responses to questions posed by prospective bidders are provided below. This Addendum is hereby incorporated in and made a part of IFBC No. 25-R086612SAM.

The deadline to submit all inquiries concerning interpretation, clarification or additional information pertaining to this IFBC was March 12, 2025.

REPLACE:

SECTION B, APPENDIX L, BID SIGNATURE FORM

Replace Section B, Appendix L, Bid Signature Form with Appendix L, Bid Signature Form Revised in its entirety hereby incorporated into this IFBC and attached to this Addendum.

REPLACE:

SECTION B, APPENDIX M, BID PRICING FORM

Replace Section B, Appendix M, Bid Pricing Form with Appendix M, Bid Pricing Form Revised in its entirety hereby incorporated into this IFBC and attached to this Addendum.

REPLACE:

SECTION C, BID ATTACHMENTS, BID ATTACHMENT 2 - TECHNICAL SPECIFICATIONS

Replace Section C, Bid Attachments, Bid Attachment 2 – Technical Specifications in its entirety hereby incorporated into this IFBC and attached to this Addendum.

REPLACE:

SECTION C, BID ATTACHMENTS, BID ATTACHMENT 3 – PLANS/DRAWINGS

Replace Section C, Bid Attachments, Bid Attachment 3 – Plans/Drawings in its entirety hereby incorporated into this IFBC and available for download as a separate attachment.

ADD TO:

SECTION C, BID ATTACHMENTS, BID ATTACHMENT 8

Add to Section C, Bid Attachment, Bid Attachment 8, Project Map hereby incorporated into this IFBC and available for download as a separate attachment.

ADD TO:

SECTION C, BID ATTACHMENTS, BID ATTACHMENT 9

Add to Section C, Bid Attachment, Bid Attachment 9, Clearing & Grubbing Area Map hereby incorporated into this IFBC and available for download as a separate attachment.

ADD TO:

SECTION C, BID ATTACHMENTS, BID ATTACHMENT 10

Add to Section C, Bid Attachment, Bid Attachment 10, Soil Debris Area Location Map hereby incorporated into this IFBC and available for download as a separate attachment.

ADD TO:

SECTION C, BID ATTACHMENTS, BID ATTACHMENT 11

Add to Section C, Bid Attachment, Bid Attachment 11, Trees to Preserve Map hereby incorporated into this IFBC and available for download as a separate attachment.

ADD TO:

SECTION C, BID ATTACHMENTS, BID ATTACHMENT 12

Add to Section C, Bid Attachment, Bid Attachment 12, CAD File herby incorporated into this IFBC and available for download as a separate attachment.

QUESTIONS AND RESPONSES:

Q1. Will we have access to the site using Keentown Rd? If not, please provide an access map for delivering equipment and materials?

R1. Yes, access to the site will be provided through Keentown Rd. The County will provide a gate access code prior to the beginning of construction.

Q2. Will the clearing and grubbing material be burned on-site? Will it need to be hauled to another location for burning or offsite for disposal?

R2. Woody clearing and grubbing material can be placed at the location identified on the attached map for County staff to later burn. The contractor will not be required to burn or chip woody vegetation. See added Bid Attachment 9.

Q3. Can the CAD files be made available?

R3. See added Bid Attachment 12

Q4. Please provide the location to where the excess material from the excavations is to be placed or hauled?

R4. Excess fill material is required to be disposed of offsite. It may be disposed of at the Public Works yard or retained by the construction contractor. The excess soil material with exotic vegetation is to be disposed of at the Public Works yard located off of State Road 62 beside the Duette Store (map included). See added Bid Attachment 10.

Q5. Bid Tabulation: The bid tabulation for the south system appears to have two pay items for the same work. Pay items 6 and 13 state "Silt Fence (Remains in Phase 2) respectively. Is this an error? Is there another item perhaps left off of the bid

tabulation? If this is an error, will the bid tabulation be revised and redistributed? If this is not an error, could you please clarify between the two pay item descriptions?

R5. Please see Appendix M, Bid Pricing Form Revised.

Q6. C42, Plan & Bid Tabulation: The "20' wide trail crossing" shown on the plans appears to have two different hatch types. One of the hatch types is shown in the legend listed as "proposed dirt road" while the other hatch type is nowhere to be found within the plan set. Is this "proposed dirt road" hatch pattern, and the other unspecified hatch pattern, representative of the "20' Wide Trail" pay item from the bid tabulation? Please clarify and advise.

R6. Please see revised sheet C-42 depicting the correct hatch and legend.

Q7. C42, Plan Bid Tabulation: On plan sheet C42, the "E-E" cross section exhibits an "existing spoil pile to be removed." However, the existing grades and contours do not reflect a mounded spoil pile as exhibited in the cross section. Without the existing data to compare to proposed grades, how are we to quantify the soil required to be exported from the site? Moreover, and in general, are field quantities going to be compensated when differing from bid quantities as "measured in place or in the field?" Please clarify and advise.

R7. An allowance of 300-CY is provided for the spoil pile. This can be field verified and adjusted if necessary. For all other earthworks, the contractor is responsible for verifying the quantities from the drawings and provided CAD files. Additional compensation will only be provided for elements that are not evident from the plans and CAD files or over excavation for unsuitable material.

Q8. C20, Plans & 64, Specifications: Note 5 on plan sheet C20 indicates that the contractor is responsible for obtaining all permits for construction. According to the specifications, the county has already secured the SWFWMD, ERP, and USACOE required permits. Can you confirm this is the case? If so, what other permits,

specifically, still needs to be obtained by the contractor for construction? Please clarify and advise.

- R8. There are no additional required permits that have not been obtained. The Contractor is responsible for keeping a copy of all permits onsite during construction.
- Q9. C41 & C42, Plans & Bid Tabulation: Plan sheet C41 has a detail exhibiting rip rap to be placed within the spreader swale. This detail states..."see plan view for size and depth of application." The spreader swale is shown on both plan sheets C41 & C42. However, on both plan sheets, no further information regarding rip rap size and depth is given. The notes reference the detail. The spreader swale also appears to be solely associated with the North System. However, the bid tabulation sheets have rip rap pay items and quantities on both the North and South Systems. As the plans do not clarify, what size of rip rap is proposed? What depth of rip rap is proposed. Is there proposed rip rap within the South System? if so, where is this rip rap proposed? Size? Depth? Etc. If there is an error in the bid tabulation, will the county be revising and redistributing a corrected bid tabulation? Please clarify and advise.**
- R9. Refer to the updated detail provide on sheet no. C41 for information on the spreader swale rip-rap (size and depth). The rip-rap is to be used in the temporary phase 1 spreader swale as well as final conditions in both the North and South Systems. Sheet no. C42 has been updated to show the proposed Phase 2 conditions rip-rap locations. A detail has been added to sheet No. C42 to show the size and depth of rip-rap. It is anticipated that the Phase 1 rip-rap and fabric can be reused in Phase 2.
- Q10. C41, Plans: On plan sheet C41, there is a note with a double leader indicating "existing pipes to be temporarily relocated here this phase..." By the way the diversion ditch is drawn, is "Here" indicating from where the proposed culverts are to be installed to the temporary diversion ditch vicinity? Please clarify and advise.**
- R10. Existing pipes at the North System will need to be temporarily relocated from the existing ditch to the proposed temporary ditch location shown on sheet C-41.

- Q11. C41 & C42, Plans & Bid Tabulation: The plans show on sheet C41 "4 x 30' 18" Temporary Pipes" to be installed. The bid tabulation sheet for the south area has two pay items listed as "Install Temporary Pipes" and "Remove Temporary Pipes" both quantifying 118 LF. Are these pay items to be utilized for the installation and removal of the "4 x 30' 18" Temporary Pipes" indicated? If so, will the county be revising and redistributing the quantities on the bid tabulation to match $4 \times 30 = 120$ LF or are we to bid the smaller 118 LF? Again, will quantities be determined as field measured? Please clarify and advise.**
- R11. Please see Appendix M, Bid Pricing Form Revised, on which item No. 7 has been updated with the correct LF to be installed and then removed at the temporary ditch for the South System.
- Q12. General: The plans show a number of areas for pipe/culvert installation. However, there does not appear to be any call-out or detail on the plans nor any pay items for any proposed pipe/culvert end treatments? Are there no end treatments proposed for the proposed pipe/culverts shown on the plans? Please advise.**
- R12. End treatments are not proposed on the project, however, the sheet No. C42 has been updated to show the proposed rip-rap placement at the pipe inlets and outlets.
- Q13. C42, Plans and Bid Tabulation: Plan sheet C42 indicated "Install 45 LF of 4x18" HDPE Dual Wall Pipes." The bid tabulation for the north area also indicated 180 LF of Dual Wall Pipes as a pay item. However, the pipes indicated on the plans measure 204 LF vs. the 180 LF listed in the leader. Will the county be revising and redistributing the bid tabulation sheet? Or are we to bid the 180 LF measurement listed within the leader and current bid tabulation? Will quantities be determined as field measured? Please clarify and advise.**
- R13. The proposed linear footage for the 4 x 18" Dual HDPE pipe is 180 LF (45 LF per pipe). Please see Appendix M, Bid Pricing Form Revised and Bid Attachment 3 Plans/Drawings provided in this submittal.

- Q14. C42, Plans and Bid Tabulation: Plan sheet C42 indicated "Install 45 LF of 2x18" HDPE Dual Wall Pipes." The bid tabulation for the north area also indicated 90 LF of Dual Wall Pipes as a pay item. However, the pipes indicated on the plans measure 96 LF vs. the 90 LF listed in the leader. Will the county be revising and redistributing the bid tabulation sheet? Or are we to bid the 90 LF measurement listed within the leader and current bid tabulation? Will quantities be determined as field measured? Please clarify and advise.**
- R14. The proposed linear footage for the 2 x 18" HDPE Dual Wall pipes is 90 LF and is located on the South System (not the North). Please see the construction plans provided in this submittal.
- Q15. C42, Plans and Bid Tabulation: Plan sheet C42 shows an area accompanied by notation of where the "20' Wide Trail" is located. The bid tabulation for the north area 20' Wide Trail is listed as 715 SY. However, the area indicated on the plans measures something quite different and diminished from the bid tabulation. Will the county be revising and redistributing the bid tabulation sheet? Or are we to bid the 715 SY quantity listed within the current bid tabulation? If we are to utilize the 715 SY from the bid tabulation, could you please clarify the limits of this pay item as the current limits do not measure 715 SY? Will quantities be determined as field measured? Please clarify and advise.**
- R15. Please see item No. 9 on the North System Appendix M, Bid Pricing Form Revised.
- Q16. C41, Plans and Bid Tabulation: The quantity listed in the bid tabulation form for "Install Phase 1 Spreader Swale" and "Fill Phase 1 Spreader Swale & Remove Rip Rap" cannot be recreated per the detail found on plan Sheet C41. The thickness of the rip rap has yet to be determined. The detail shows a 2' depth on top of the proposed rip rap layer. Moreover, only with a 2' depth and no rip rap installed can the 87 CY provided in the bid tabulation be recreated and confirmed. Is the 2' depth shown in the detail incorrect? When the thickness of the rip rap is determined and applied as the detail is currently shown, 2' depth shown on top of the rip rap will not equate to 87 CY. Will the detail be modified to qualify the 87 CY bid quantity, Or, will the county be revising and redistributing the bid tabulation sheet? If we are to**

utilize the 87 CY from the bid tabulation, could you please clarify the limits of this pay item as the current limits do not measure 87 CY? Will quantities be determined as field measured? Please clarify and advise.

R16. Per the updated detail, the rip-rap is 12” thick therefore a total excavation of 3-ft in depth will be required. The quantity in Appendix M, Bid Pricing Form Revised has been updated to reflect a total quantity of 101 CY.

Q17. C41 & C42, Plans and Bid Tabulation: The quantity listed in the bid tabulation form for the north area is listed as 866 LF while the south area silt fence is listed as 1,605 LF "Remains in Phase 2." The totals for all the silt fence depicted on both the phase 1 and phase 2 plans sheets, added together, and measured, equal 2,471 LF. What is the meaning or significance of the south area silt fence pay item stating in the bid tabulation "Remains in Phase 2?" Is there something more associated with the separate quantity listed in the bid tabulation for the south area? Please clarify and advise.

R17. Refer to Appendix M, Bid Pricing Form Revised. Silt fence installation and maintenance as well as the turbidity barriers added in this update are to be provided as a lump sum item titled Erosion and Sediment Control for each system.

Q18. Specifications & Bid Tabulation: Both the north and south areas have pay items listed as "earthwork" as 4,342, CY and 12,467 CY respectively. Could you please clarify in detail the scope of this pay item? Does this pay item to include all stripping, cut, and fill calculations? How are quantities for this pay item to be quantified and approved in the field? Is there a geotechnical report or information on the existing soil types, depths, etc.? Will the contractor be disposing of any export soil or will the county be asking the contractor to stockpile any excess soil? If the soil is the property of the contractor, soil type is important for disposal/stockpile costs. If the soil ownership is to be maintained by the county, where would this soil be stockpiled? Please clarify on all and advise.

R18. Striping is included in the clearing and grubbing pay item. Cutting, filling, removal of unused soil to the designated area, compaction, and testing is included in this pay item.

See response to Q4. Also, excess fill material is required to be disposed of offsite. It may be disposed of at Public Works yard or retained by the construction contractor. Quantities are provided as an estimate, and this line item will be approved based on the as-built survey and geotechnical test results. There is no geotechnical report available. See added Bid Attachment 10.

Q19. General: Is there a geotechnical report or information on the existing soil types, depths, etc.?

R19. There is no Geotechnical report for this site.

Q20. 93-98, Specifications and Bid Tabulation: Under Section 01150 Measurement & Payment, some of the bid item(s) scope can be interpreted. However, the bid item numbers in this part of the specifications do not match nor accurately line up with the bid items listed in the bid tabulation. Could you please clarify in detail which Bid Items listed in the specifications correspond to which bid items listed in the tabulation? Will you be revising the specifications or the bid tabulation to correspond one for one? Please advise.

R20. Refer to Appendix M, Bid Pricing Form Revised.

Q21. 93-98, Specifications and Bid Tabulation: Continuing on from RFI #16 and as one of many examples of mislabeling or omissions from area to area, Under Section 01150 Measurement & Payment, the description for work under the pay item "Additional Erosion & Sediment Controls" appears under both areas. However, the tabulation only has this pay item as part of the north area even though there are descriptions of this work in both areas. Will you be revising the specifications or the bid tabulation to correspond one for one? Also, will you be revising the bid tabulation pay items and quantities to match the specification descriptions accordingly? Please advise.

R21. Refer to Appendix M, Bid Pricing Form Revised.

Q22. Grant: With the grant associated with the project, what additional administrative requirements will the county expect the contractor to perform as assistance with funding reimbursement and/or grant compliance? Please clarify and advise.

- R22. The contractor will only be responsible for the invoicing that they provide to the county (clearly identify the personnel involved, salary rate per hour, and hours spent on the Project) for payment since we are procuring them with a competitive bid. The County will then be required to provide a copy of the tabulation form for the competitive procurement process (e.g., Invitation to Bid, Request for Proposals, or other similar competitive procurement document) when requesting grant (s) reimbursement.
- Q23. Funding: Does this project have any federal funding associated with it? If so, what administrative requirements will the county expect the contractor to perform for compliance? Davis Bacon? Certified payroll?, WMBE? etc. Please clarify and advise.**
- R23. Refer to Section B, Bid forms to be completed and returned with Bid, Appendix N, Special Provisions – Federal Grants.
- Q24. Specifications: Section 01150 Measurement and Payment state that compaction testing for pipe installation and the proposed trail will be required. Could you please confirm that compaction will need to achieve 98% of maximum density as determined by AASHTO T-180? Please advise.**
- R24. Compaction and testing shall conform to the Florida Department of Transportation Specifications (Sections 120 and 125).
- Q25. Specifications: Section 02260 Finish Grading, Part 3, 3.01, state that "The contractor shall rough grade sub-soil systematically to allow for a maximum amount of natural settlement and compaction." However, the specification does not state to what compactive effort or specification that the sub-soil needs to achieve to be accepted. Could you please provide, if any, what acceptable density needs to be achieved and/or by what specification for the sub-soil under Finish Grading? Please advise.**
- R25. Refer to FDOT Specifications Section 120.

- Q26. Specifications, Form 4 MWBE: Form 4 listed in the specifications and marked as a bid document deals with Minority/Women-Owned/Labor Surplus Firm Participation. A great majority of this work could be self-performed. The part of the work that may not be self-performed could be very specialized. Is WMBE participation required or is it a goal? Do you have a list of Manatee County approved WMBE subcontractors. The list provided in the specifications does not appear to yield approved WMBE subcontractors for landscaping or invasive species removal. Please advise.**
- R26. See Section A, Information For Bidders, A.33 Minority And/Or Disadvantaged Business Enterprises.
- Q27. C42 & L-O, Plans: Sheet C42, Keen 2, Enhancement Area – “Clearing and Grubbing will include removal of exotic, nuisance species and agricultural sedimentation to natural grade...” Yet on Sheet L-O, column 3 (Site Prep for Planting) of the planting plan of the Existing Forested Wetland Enhancement states, “No Grading Needed...” How does the contractor perform clearing and grubbing operations, and exotic species removal, in the areas designated "Existing Forested Wetland Enhancement" as there is conflicting instructions? Could you please clarify in detail the intent of what is required to be removed, and what is required to be protected in any proposed protected area? Please advise.**
- R27. Selective cleaning and grubbing will occur in the area shown as Keen 2, Enhancement Area. All nuisance and exotic species must be removed from this area. Native tree, shrub, and groundcover species currently exist in this area and will need to be protected to the extent possible in the Enhancement Area. Cut and fill areas shown Cross Sections D and G of the plans (Sheet C42) will likely need to have native vegetation removed to remove the ditch and establish natural grades. There is no mass grading to be performed in the existing forested wetland enhancement area, however, the Contractor is expected to conduct minor grading as necessary to fill holes left by removal of vegetation, smooth the surface and provide positive drainage.

Q28. Planting: Some of the plant species are not available commercially containerized i.e. Pinebarron Goldenrod (Solidago fistulosa). Will the County permit the species provided as a 4” bare root equivalent? Please advise.

R28. The plans call for a 4-inch liner. The County will accept a 4-inch bare root equivalent on a 2:1 substitution. For every 4-inch liner required, two 4-inch bare root specimens will be allowed as a replacement. Survival guarantees will be based on total number of plants installed for the substituted numbers.

Q29. Planting: The site was observed to have a wild-hog problem with much rooting observed. Will the County require a warranty of installed plants destroyed by the hogs? How is the contractor be compensated should plants be destroyed and needing to be replaced in general? Please advise.

R29. The County shall deploy that hog capture program in the project area during the construction and plant warranty timeframe. Hog damage will be assessed on a case by case basis.

Q30. Will you please provide a drawing showing existing utilities in and around the project site?

R30. There are no known existing utilities.

Q31. Division 2 Site Work; Section 02100 Site Preparation Part 3.04 – Large Woody Debris Removal has following specification:

Scope:

A. Summary of Work: The Work of this Section consists of providing and installing large woody debris (LWD) habitat, including root wads and random LWD. Work includes excavation of channel material, furnishing and placing logs, geotextile fabric and sediment, and finishing banks, structure slopes, and stream channel at the locations specified on the plans. Structures will be placed at locations designated on the plans to provide habitat, direct the stream flow, provide grade control and protect banks.

Execution

A. Installation:

1. Place the logs prior to achieving final grades of the channel bed and stream bank. Excavate a small trench to bury the logs flush to the soil as required in the plans. Backfill around and over the log to achieve good earth-to-wood contact.

B. Randon LWD

1. Random LWD is to be placed throughout the stream at locations selected by the County in the field subsequent to channel and bank construction. Logs can be placed directly onto the streambed, and typically oriented diagonally. Generally, groups of 3 to 5 logs are arrayed across each other in groups at varied angles. Logs can be keyed in to the bank, but it is not necessary.

2. Drill holes in both ends of each log and install rebar into the log and into the ground to hold the random LWD in place. Bend the top of the rebar so it stays in place. Alternately, anchor each log using non-corrodible cabled duck bill or screw anchors at each end. Where logs cross, a single anchor can be attached to serve both. No more than tow logs shall be joined in that fashion at a single location. The anchor shall be driven at depth to provide a pullout resistance of 230 lb per anchor where tow logs shall share an anchor, and 115 lb per anchor where the anchors are assigned to a single log.

Will you please provide detailed drawings showing how many and where do you want contractor to place Stump and logs (LWD)? Also which bid item includes payment for this work?

R31. Section 3.04 of the Specifications has been updated to provide additional clarification. See added Bid Attachment 2 Technical Specifications Revised.

Q32. What will be the thickness of #57 crushed stone underneath pipe as bedding material?

R32. There is no proposed #57 stone for pipe bedding unless the material is required to promote compaction in wet conditions. In this case, follow FDOT specifications.

Q33. Is it acceptable to use the on-site available excess material to backfill trench constructed for pipe installation?

- R33. It is acceptable to use the on-site available excess material as long as it is free from organics and not taken from area with exotic vegetation.
- Q34. Bid Form – North System – Bid Item #1 – Earthwork = 4,342 Cubic Yard. Does this line item represent construction of Proposed Deep Treatment Pool #1 and 2 and necessary cut/fill work in Ditch #1?**
- R34. Yes, however, the Contractor is to verify quantities from Bid Attachment 3 Plan/Drawings and Bid Attachment 12 CAD files.
- Q35. Bid Form – North System - Bid Item #2 Rip Rap – What is the thickness of Type 1 Rip Rap in Spreader Swale?**
- R35. Refer to Appendix M, Bid Pricing Form Revised.
- Q36. Bid Form – North System - Bid Item #4 Clearing and Grubbing – Can you please show/identify area covered under this line item on one of the drawings?**
- R36. All areas where grading activities are proposed.
- Q37. Bid Form – North System - Bid Item #7 – 20’ Wide Trail and Bid Form – South System Bid Item #11 – 20’ Wide Trail. Can you please provide construction details showing the thickness of sand and road base layers? Do you need bidder to place non-woven filter fabric prior to placement of road base/sand?**
- R37. Place embankment in accordance with FDOT specifications followed by a 6” top layer of clean sand. Sand can be trucked in under observation to confirm it’s unyielding.
- Q38. Will you please review and confirm bid quantity listed for item #7 – 20’ wide trail in Bid Form North System?**
- R38. Refer to Appendix M, Bid Pricing Form Revised.
- Q39. Bid Form – North System - Bid Item #10 Phase 1 Diversion Ditch – what is the depth of temporary diversion ditch?**

R39. The Contractor is to match the invert of the upstream ditch and downstream spreader swale and daylight the side slopes of the diversion ditch, refer to updated sheet No. C41.

Q40. Bid form – South System – Bid Item #2 Rip Rap and Bid Item #3 Riprap Filter Fabric. Can you please provide detailed drawing showing area where riprap and filter fabric be installed?

R40. See Bid Attachment 3 Plans/Drawings Revised.

Q41. Bid form – South System – Bid Item #5 Install Temporary Pipes (Optional Material) and Bid Item #8 Remove Temporary Pipes (Optional Material). What is the size and construction of material of these temporary pipes? What does it mean – “Optional Material”?

R41. The size is 18”. Optional material indicates that this can be RCP, HDPE, or Helical CMP.

Q42. Can you please provide a separate line item for topsoil so that all bidders can bid the same quantity and not have unbalanced bid?

R42. Section 02260 of the project specifications has been updated to indicate that all top-soil is anticipated to be available onsite.

Q43. Where can bidder stockpile excess material generated from cut?

R43. See response to Q4. Also, excess fill material is required to be disposed of offsite. It may be disposed of at the Public Works yard and retained by the construction contractor.

Q44. Where can bidder stockpile material generated from clearing and grubbing?

R44. See response to Q2 See added Bid Attachment 9.

Q45. How do you want bidders to handle excess cut material as well as material generated from clearing and grubbing? Is excess cut material generated during the project contaminated?

R45. See response to Q4. Also excess fill material is required to be disposed of offsite. It may be disposed of at the Public Works yard and retained by the construction contractor. Based on information provided to the county through a performed study, there is no contamination within the work areas. Excess material generated from cut or clearing and grubbing must be hauled off to County designated area. Please see added Bid Attachment 10.

Q46. At what depth will groundwater be encountered?

R46. The seasonal high-water level in the project area is within 12” of grade, however this work is anticipated to be conducted during the dry season, therefore, the groundwater level is anticipated to be lower. A study has not been conducted to determine the dry season groundwater level.

Q47. Do you anticipate encountering groundwater during this project? If yes, please let us know the groundwater flow rate. Is groundwater contaminated?

R47. It is anticipated that groundwater will be encountered. The groundwater flow rate is not known. Based on information provided to the County through a performed study, there is no contamination within the work areas.

Q48. Can you please provide drawings showing existing elevation labels for existing contour for the project site?

R48. Sheet C-41 has been revised to show existing contour elevations.

Q49. If the bid due date is extended for at least 2 weeks, we think bidders will have time to review answers to questions and provide competitive pricing. Hence, we would like to request extending bid due date by at least 2 weeks.

R49. The updated due date is April 9, 2025.

Q50. It seems like there are typo's with respect to description provided for measurement and payment for various bid items under Section 01150 – Measurement and

payment. Can you please review this section and provide an updated description for each bid item for North System as well as South System?

e.g. North System – Bid Item Nos. 1, 2, and 5 – “Payment for all work included in this Bid Item will be made at the applicable Contract unit price bid per the schedule of prices for excavating and grading the features as shown on the Contract Drawings and listed on the Bid Form. Measurement and Payment shall be made for the cubic yards of material excavated and will represent full compensation for all labor, materials, clearing, excavating, hauling, grading, seeding, and equipment required to complete this Bid Item”.

Bid item #2 is Rip Rap and unit of measure is ton. The same way Bid Item #5 is Relocate Existing 12” Temp. CMP’s in Linear Foot.

e.g. BID ITEM NOS. 3 AND 8 – “Payment for all work included in this Bid Item will be made at the applicable Contract unit price bid per the schedule of prices for the drainage pipes as shown on the Contract Drawings and listed on the Bid Form. Measurement and Payment shall be made for the actual length of the listed diameter pipe installed and will represent full compensation for all labor, materials, excavation (including rock), water management during installation, bedding, backfill, compaction, testing and equipment required to complete this Bid Item. No additional compensation shall be made for excavation below the bottom of the pipe for rock removal or bedding and backfill material, or for repair of any trench settlement”. Bid Item #3 is Riprap Filter Fabric and unit of measure in SY. The same way Bid Item #8 is Silt fence and unit of measure in Linear Foot.

R50. Appendix M, Bid Pricing Form Revised

Q51. According to Section A, Information for Bidders, A.44 Scope of Work states that the Gopher Tortoise Permit shall be obtained by Sheda Ecological Services. Is there a cost for this permit that the bidder should include in bid price?

R51. Any gopher tortoise permits will be obtained and aid for by the County, at no cost to the contractor.

Q52. According to Section A, Information for Bidders, A.45 Completion of Work, substantial completion shall be based on 120 calendar days. Appendix L, Bid

Signature Form references the bid be based on a completion time of 60 calendar days. Please confirm the correct completion time.

R52. See Appendix L, Bid Signature Form Revised attached to this Addendum.

Q53. Will you provide an inventory of trees by caliper, height and count that require removal?

R53. Trees to remain in the project area will be flagged, marked in the field, and measured. The preliminary locations are identified on the construction plans. Tree information will be provided to the successful contractor. See added Bid Attachment 11.

Q54. According to Division 2 Site Work, Section 02100 Site Preparation, Part 3 Paragraph 3.08, Contractor will take over application of nuisance/exotic vegetative control once the site is turned over to him. This section reads that such treatment shall be continued on and adjacent to the project site. Will you provide detail on both the level of effort (hence cost) to provide this service and also delineate the “adjacent” area(s)?

R54. No adjacent area treatment is required. The contractor will be responsible for nuisance/exotic vegetative control once plants are installed until warranty period is complete.

NOTE:

Deleted items will be ~~struck through~~, added or modified items will be underlined. All other terms and conditions remain as stated in the IFBC.

INSTRUCTIONS:

Receipt of this Addendum must be acknowledged as instructed in the solicitation document. Failure to acknowledge receipt of this Addendum may result in the response being deemed non-responsive.

END OF ADDENDUM

AUTHORIZED FOR RELEASE

APPENDIX L, BID SIGNATURE FORM REVISED

IFBC No.25-R086612SAM, Lake Manatee Watershed Improvements Phase 2B

Total Bid Price/Offer for Bid : \$ _____ Complete. Base on a completion time of 120 calendar days.

As Bidder, we understand that any Bid Pricing Form containing imbedded mathematical formulas provided with this IFBC are provided solely for the convenience of the Bidder. As such, we understand that to be considered responsive, it is our sole responsibility to provide unit prices for each line item on the subsequent pages of Appendix L, Bid Pricing Form and regardless of whether the Bid Pricing Form contains imbedded mathematical formulas the Bidder shall assume the responsibility and accuracy of the information input in the Bid Pricing Form. Additionally, Bidder understands that all Bids will be reviewed for Mathematical Errors in accordance with Article A.35 of the IFBC documents.

We, the undersigned, hereby declare that we have carefully reviewed the IFBC Documents and subsequent addendums in their entirety and with full knowledge and understanding of the Bid information and all its requirements, submit this Bid, which is complete in meeting each specification, term, and condition contained therein.

As Bidder, we understand that the IFBC documents, including but not limited to, all specifications, terms, and conditions shall be made a part of any resulting Agreement between County and the successful Bidder. Failure by successful Bidder to comply with such specifications, terms and conditions shall result in Agreement default, whereupon, the defaulting successful Bidder shall be required to pay for all re-procurement costs, damages, and attorney fees as incurred by County, and agrees to forfeit its bid bond.

Authorized Signature(s): _____

**Name and Title of Above
Signer(s):** _____

Date: _____

APPENDIX M, BID PRICING FORM REVISED

**MANATEE COUNTY
IBFC NO. 25-R086612SAM
LAKE MANATEE WATERSHED IMPROVEMENTS PROJECT PHASE 2B
NORTH SYSTEM**

EA = Each, LF = Linear Foot, SF = Square foot, TN = Tons,
SY = Square Yard, CY = Cubic Yard, LS = Lump Sum

ITEM	DESCRIPTION	ESTIMATED QUANTITY	UNIT PRICE	AMOUNT
To be considered responsive, it is the sole responsibility of the bidder to correctly calculate and manually enter all sub-total, contingency and total bid prices.				
1	Phase 1 Diversion Ditch	865	CY	
2	Phase 1 Spreader Swale	101	CY	
3	Relocate Existing 12" Temp CMP's	120	LF	
4	Clearing and Grubbing	3.9	AC	
5	Earthwork	4658	CY	
6	Riprap	187	TN	
7	Riprap Filter Fabric (Tencate-Mirafi 1120N)	340	SY	
8	18" Dual Wall Pipes	180	LF	
9	20' Wide Trail	306	SY	
10	Erosion and Sediment Control	1	LS	
	Planting			
11.a	Giant Leatherfern (Acrostichum danaeifolium) - 1 Gallon	81	EA	
11.b	Blue Maidencane (Amphicarpum muhlenbergianum) - 4 Inch Liner	1739	EA	
11.c	Wiregrass (Aristida stricta) -2 Inch Liner	1739	EA	
11.d	Lemon Bacopa (Bacopa Caroliniana) - Bare Root	81	EA	
11.e	ButtonBush (Cephalanthus accidentalis) - 1 Gallon	67	EA	
11.f	Sawgrass (Cladium jamaicense) - 1 Gallon	121	EA	
11.g	Leavenworth's Tickseed (Coreopsis leavenworthii) - 2 Inch Liner	183	EA	
11.h	Coastal Spikerush (Eleocharis cellulosa) Bare Foot	121	EA	
11.i	Jointed Spikerush (Eleocharis interstincta) Bare Root	83	EA	
11.j	Red Ludwigia (Ludwigia repens) - Bare Root	121	EA	
11.k	Spatterdock (Nuphar luteum) - Bare Root	62	EA	
11.l	Fragrant Waterlily (Nymphaea odorata) - Bare Root	62	EA	
11.m	Maidencane (Panicum hemitomom) - 4 Inch Liner	1739	EA	
11.n	Maidencane (Panicum hemitomom) - Bare Root	201	EA	

APPENDIX M, BID PRICING FORM REVISED

<p align="center">MANATEE COUNTY IBFC NO. 25-R086612SAM LAKE MANATEE WATERSHED IMPROVEMENTS PROJECT PHASE 2B NORTH SYSTEM</p>					
				EA = Each, LF = Linear Foot, SF = Square foot, TN = Tons, SY = Square Yard, CY = Cubic Yard, LS = Lump Sum	
ITEM	DESCRIPTION	ESTIMATED QUANTITY	UNIT PRICE	AMOUNT	
To be considered responsive, it is the sole responsibility of the bidder to correctly calculate and manually enter all sub-total, contingency and total bid prices.					
11.o	Smartweed (<i>Persicaria punctata</i>) Bare Root	121	EA		
11.p	Slash Pine (<i>Pinus elliottii</i>) - 3 Gallon	128	EA		
11.q	Pickerelweed (<i>Pontederia cordata</i>) Bare Root	201	EA		
11.r	Lanceleaf Arrowhead (<i>Sagittaria lancifolia</i>) - Bare Root	62	EA		
11.s	Three Square Bullrush (<i>Scirpus americanus</i>) - Bare Root	223	EA		
11.t	Giant Bullrush (<i>Scirpus californicus</i>) - Bare Root	62	EA		
11.u	Pinebarron Goldenrod (<i>Solidago fistulosa</i>) - 4 Inch Liner	269	EA		
11.v	Sand Cordgrass (<i>Spartina bakeri</i>) - 1 Gallon	282	EA		
11.w	Alligator Flag (<i>Thalia geniculata</i>) - Bare Root	66	EA		
12	Nuisance/Exotic Species Maintenance	1	LS		
13	Miscellaneous Work and Cleanup	1	LS		
14	Mobilization (10%)	1	LS		
				SUB TOTAL (NORTH SYSTEM)	
15	Contract Contingency - County Authorized use only		10%		
				TOTAL(NORTH SYSTEM)	

Bidder: _____

Signature: _____

APPENDIX M, BID PRICING FORM REVISED
IBFC NO. 25-R086612SAM
LAKE MANATEE WATERSHED IMPROVEMENTS PROJECT PHASE 2B
SOUTH SYSTEM

EA = Each, LF = Linear Foot, SF = Square foot, TN = Tons,
SY = Square Yard, CY = Cubic Yard, LS = Lump Sum

ITEM	DESCRIPTION	ESTIMATED QUANTITY	UNIT PRICE	AMOUNT
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To be considered responsive, it is the sole responsibility of the bidder to correctly calculate and manually enter all sub-total, contingency and total bid prices.

1	Phase 1 Diversion Ditch	772	CY		
2	Install Temporary 18" Pipes (Optional Material)	120	LF		
3	Clearing and Grubbing	6.5	AC		
4	Earthwork	11,139	CY		
5	Riprap	248	TN		
6	Riprap Filter Fabric (Tencate-Mirafi 1120N)	450	SY		
7	Remove Temporary Pipes (Optional Material)	120	LF		
8	18" HDPE Dual Wall Pipes	90	LF		
9	36" HDPE Dual Wall Pipes	212	LF		
10	20' Wide Trail	1,055	SY		
11	Erosion and Sediment Control	1	LS		
Planting					
12.a	Red Maple (<i>Acer rubrum</i>) - 3 Gallon	2	EA		
12.b	Giant Leatherfern (<i>Acrostichum danaeifolium</i>) - 1 Gallon	119	EA		
12.c	Blue Maidencane (<i>Amphicarpum muhlenbergianum</i>) - 4 Inch Liner	2,761	EA		
12.d	Wiregrass (<i>Aristida stricta</i>) - 2 Inch Liner	2,761	EA		
12.e	Lemon Bacopa (<i>Bacopa caroliniana</i>) - Bare Root	119	EA		
12.f	Buttonbush (<i>Cephalanthus occidentalis</i>) - 1 Gallon	99	EA		
12.g	Sawgrass (<i>Cladium jamaicense</i>) - 1 Gallon	579	EA		
12.h	Leavenworth's Tickseed (<i>Coreopsis leavenworthii</i>) - 2 Inch Liner	427	EA		
12.i	Swamp Lily (<i>Crinum americanum</i>) - 1 Gallon	44	EA		
12.j	Coastal Spikerush (<i>Eleocharis cellulosa</i>) - Bare Root	179	EA		
12.k	Jointed Spikerush(<i>Eleocharis interstincta</i>) - Bare Root	517	EA		
12.l	Loblolly Bay (<i>Gordonia lasianthus</i>) - 3 Gallon	2	EA		
12.m	Sweetspire (<i>Itea virginica</i>) - 1 Gallon	44	EA		
12.n	Soft Rush (<i>Juncus effusus</i>) - 1 Gallon	400	EA		

APPENDIX M, BID PRICING FORM REVISED
IBFC NO. 25-R086612SAM
LAKE MANATEE WATERSHED IMPROVEMENTS PROJECT PHASE 2B
SOUTH SYSTEM

EA = Each, LF = Linear Foot, SF = Square foot, TN = Tons,
SY = Square Yard, CY = Cubic Yard, LS = Lump Sum

ITEM	DESCRIPTION	ESTIMATED QUANTITY	UNIT PRICE	AMOUNT
To be considered responsive, it is the sole responsibility of the bidder to correctly calculate and manually enter all sub-total, contingency and total bid prices.				
12.o	Red Ludwigia (Ludwigia repens) - Bare Root	179	EA	
12.p	Sweetbay Magnolia (Magnolia virginiana) - 3 Gallon	2	EA	
12.q	Spatterdock (Nuphar luteum) - Bare Root	238	EA	
12.r	Fragrant Waterlily (Nymphaea odorata) - Bare Root	303	EA	
12.s	Maidencane (Panicum hemitomon) - 4 Inch Liner	2,761	EA	
12.t	Maidencane (Panicum hemitomon) - Bare Root	299	EA	
12.u	Swamp Bay (Persea palustris) - 3 Gallon	2	EA	
12.v	Smartweed (Persicaria punctata) - Bare Root	179	EA	
12.w	Slash Pine (Pinus elliotii) - 3 Gallon	208	EA	
12.x	Pickerelweed (Pontederia cordata) - Bare Root	299	EA	
12.y	Lanceleaf Arrowhead (Sagittaria lancifolia) - Bare Root	538	EA	
12.z	Lizard's Tail (Saururus cernuus) - Bare Root	44	EA	
12	Three Square Bullrush (Scirpus americanus) - Bare Root	877	EA	
12.aa	Giant Bullrush (Scirpus californicus) - Bare Root	238	EA	
12.ab	Pinebarron Goldenrod (Solidago fistulosa) - 4 Inch Liner	521	EA	
12.ac	Sand Cordgrass (Spartina bakeri) - 1 Gallon	418	EA	
12.ad	Alligator Flag (Thalia geniculata) - Bare Root	271	EA	
13	Nuisance/Exotic Species Maintenance	1	LS	
14	LWD Habitat	1	LS	
15	Miscellaneous Work and Cleanup	1	LS	
16	Mobilization (10%)	1	LS	
SUB TOTAL (SOUTH SYSTEM)				
17	Contract Contingency - County authorized use only		10%	
TOTAL (SOUTH SYSTEM)				

Bidder: _____

Signature: _____

CONTRACT DOCUMENTS
TECHNICAL SPECIFICATIONS
FOR



Lake Manatee Watershed Improvements Project Phase 2B (Part1)

PROJECT # 6006508

March 26, 2025

PROJECT OWNER:

County of Manatee, Florida
c/o Manatee County Purchasing Division
1112 Manatee Avenue West
Bradenton, Florida 34205
(941) 748-4501

PREPARED BY:

Robert B. Conerly, P.E., CFM
bo.conerly@kimley-horn.com
Kimley-Horn and Associates, Inc.
109 South Kentucky Avenue
Lakeland, FL 33801
(863) 701-8702
Registry No.

This item has been digitally signed and sealed by
Robert B. Conerly, P.E. using a Digital Signature on the
date adjacent to the seal.
Printed copies of this document are not considered
signed and sealed and the signature must be verified
on any electronic copies.

Robert Conerly, P.E. #59291
Kimley-Horn and Associates, Inc.
109 South Kentucky Avenue
Lakeland, FL 33801
Registry No. 35106

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DIVISION 1 GENERAL REQUIREMENTS

SECTION 01005 GENERAL REQUIREMENTS

PART 1 GENERAL

1.01 SCOPE AND INTENT

A. Description

The work to be done consists of the furnishing of all labor, materials and equipment, and the performance of all work included in this Contract.

B. Work Included

The Contractor shall furnish all labor, superintendence, materials, plant, power, light, heat, fuel, water, tools, appliances, equipment, supplies, shop drawings, working drawings and other means of construction necessary or proper for performing and completing the work. The Contractor shall obtain and pay for all required permits necessary for the work, other than those permits such as the Southwest Florida Water Management District (SWFWMD) Environmental Resource Permit (ERP) and the United States Army Corps of Engineers (USACOE) permit which have already been obtained. The Contractor shall perform and complete the work in the manner best calculated to promote rapid construction consistent with safety of life and property and to the satisfaction of the County, and in strict accordance with the Contract Documents. The Contractor shall clean up the work and maintain it during and after construction, until accepted, and shall do all work and pay all incidental costs. The Contractor shall repair or restore all structures and property that may be damaged or disturbed during performance of the work.

The cost of incidental work described in these General Requirements, for which there are no specific Contract Items, shall be considered as part of the general cost of doing the work and shall be included in the prices for the various Contract Items. No additional payment will be made.

The Contractor shall be solely responsible for the adequacy of his workmanship, materials and equipment.

C. Public Utility Installations and Structures

Public utility installations and structures shall be understood to include all poles, tracks, pipes, wires, conduits, house service connections, vaults, manholes and all other appurtenances and facilities pertaining thereto.

The Contractor shall protect all installations and structures from damage during the work. Access across any buried public utility installation or structure shall be made only in such locations and by means approved by the County. All required protective devices and construction shall be provided by the Contractor at his expense. All existing public utilities damaged by the Contractor which are shown on the Drawings or have been located in the field by the utility shall be repaired by the Contractor, at his expense, as approved by the County. No separate payment shall be made for such protection or repairs to public utility installations or structures.

Public utility installations or structures owned or controlled by the County or other governmental body, which are required by this contract to be removed, relocated, replaced or rebuilt by the Contractor not identified in any separate bid item shall be considered as a part of the general cost of doing the work and shall be included in the prices bid for the various contract items. No separate payment shall be made.

Where public utility installations or structures owned or controlled by the County or other governmental body are encountered during the course of the work, and are not indicated on the Drawings or in the Specifications, and when, in the opinion of the County, removal, relocation, replacement or rebuilding is necessary to complete the work under this Contract, such work shall be accomplished by the utility having jurisdiction, or such work may be ordered, in writing by the County, for the contractor to accomplish. If such work is accomplished by the utility having jurisdiction, it will be carried out expeditiously and the Contractor shall give full cooperation to permit the utility to complete the removal, relocation, replacement or rebuilding as required. If such work is accomplished by the Contractor, it will be in accordance with the General and Supplemental General Conditions.

The Contractor shall give written notice to County and other governmental utility departments and other owners of public utilities of the location of his proposed construction operations, at least forty-eight hours in advance of breaking ground in any area or on any unit of the work. This can be accomplished by making the appropriate contact with the "Sunshine State One-Call of Florida, Inc. Call Center ("Call Sunshine") and per all requirements provided for in the Florida Underground Facilities Damage Prevention and Safety Act (Florida Statutes, Title XXXIII, Chapter 556).

The maintenance, repair, removal, relocation or rebuilding of public utility installations and structures, when accomplished by the Contractor as herein provided, shall be done by methods approved by the County.

D. Gopher Tortoise Burrows

The County has coordinated the relocation of gopher tortoises within the limits of construction. The Contractor shall immediately notify Manatee County Natural Resources staff of any existing gopher tortoise burrows discovered within or adjacent to (within 25-ft) the work area and shall protect any identified gopher tortoise burrows from damage during the work. Refer to Section 1.12(E).

All required protective devices and construction shall be provided by the Contractor.

E. Eastern Indigo Snakes

The Contractor shall protect all Eastern Indigo Snakes as directed in the USACOE Permit and directed by County staff.

All required construction best management practices shall be implemented by the Contractor.

1.02 DRAWINGS AND SPECIFICATIONS

A. Drawings

When obtaining data and information from the Drawings, figures shall be used in preference to scaled dimensions, and large scale drawings in preference to small scale drawings.

B. Copies Furnished to Contractor

The Contractor shall furnish each of the subcontractors, manufacturers, and material men such copies of the Contract Documents as may be required for their work. Additional copies of the Drawings and Specifications, when requested, may be furnished to the Contractor at cost of reproduction.

C. Supplementary Drawings

When, in the opinion of the County, it becomes necessary to explain more fully the work to be done or to illustrate the work further or to show any changes which may be required, drawings known as Supplementary Drawings, with specifications pertaining thereto, will be prepared by the County and five paper prints thereof will be given to the Contractor.

D. Contractor to Check Drawings and Data

The Contractor shall verify all dimensions, quantities and details shown on the Drawings, Supplementary Drawings, Schedules, Specifications or other data received from the County, and shall notify him of all errors, omissions, conflicts, and discrepancies found therein. Failure to discover or correct errors, conflicts or discrepancies shall not relieve the Contractor of full responsibility for unsatisfactory work, faulty construction or improper operation resulting therefrom nor from rectifying such conditions at his own expense. The Contractor will not be allowed to take advantage of any errors or omissions, as full instructions will be furnished by the County, should such errors or omissions be discovered. All schedules are given for the convenience of the County and the Contractor and are not guaranteed to be complete. The Contractor shall assume all responsibility for the making of estimates of the size, kind, and quality of materials and equipment included in work to be done under the Contract.

E. Specifications

The Technical Specifications consist of three parts: General, Products and Execution. The General Section contains General Requirements which govern the work. Products and Execution modify and supplement these by detailed requirements for the work and shall always govern whenever there appears to be a conflict.

F. Intent

All work called for in the Specifications applicable to this Contract, but not shown on the Drawings in their present form, or vice versa, shall be of like effect as if shown or mentioned in both. Work not specified in either the Drawings or in the Specifications, but involved in carrying out their intent or in the complete and proper execution of the work, is required and shall be performed by the Contractor as though it were specifically delineated or described.

The apparent silence of the Specifications as to any detail, or the apparent omission from them of a detailed description concerning any work to be done and materials to be furnished, shall be regarded as meaning that only the best general practice is to prevail and that only material and workmanship of the best quality is to be used, and interpretation of these Specifications shall be made upon that basis.

The inclusion of the Related Requirements (or work specified elsewhere) in the General part of the specifications is only for the convenience of the Contractor, and shall not be interpreted as a complete list of related Specification Sections.

1.03 MATERIALS AND EQUIPMENT

A. Manufacturer

All transactions with the manufacturers or subcontractors shall be through the Contractor, unless the Contractor shall request, in writing to the County, that the manufacturer or subcontractor deal directly with the County. Any such transactions shall not in any way release the Contractor from his full responsibility under this Contract.

Any two or more pieces or material or equipment of the same kind, type or classification, and being used for identical types of services, shall be made by the same manufacturer.

B. Delivery

The Contractor shall deliver materials in ample quantities to insure the most speedy and uninterrupted progress of the work so as to complete the work within the allotted time. The Contractor shall also coordinate deliveries in order to avoid delay in, or impediment of, the progress of the work of any related Contractor.

C. Tools and Accessories

The Contractor shall, unless otherwise stated in the Contract Documents, furnish with each type, kind or size of equipment, one complete set of suitably marked high grade special tools and appliances which may be needed to adjust, operate, maintain or repair the equipment. Such tools and appliances shall be furnished in approved painted steel cases, properly labeled and equipped with good grade cylinder locks and duplicate keys.

Spare parts shall be furnished as specified.

Each piece of equipment shall be provided with a substantial nameplate, securely fastened in place and clearly inscribed with the manufacturer's name, year of manufacture, serial number, weight and principal rating data.

D. Installation of Equipment.

The Contractor shall have on hand sufficient proper equipment and machinery of ample capacity to facilitate the work and to handle all emergencies normally encountered in work of this character.

Equipment shall be erected in a neat and workmanlike manner on the foundations at the locations and elevations shown on the Drawings, unless directed otherwise by the County during installation. All equipment shall be correctly aligned, leveled and adjusted for satisfactory operation and shall be installed so that proper and necessary connections can be made readily between the various units.

1.04 INSPECTION AND TESTING

A. General

Inspection and testing of materials will be performed by the County unless otherwise specified.

For tests specified to be made by the Contractor, the testing personnel shall make the necessary inspections and tests and the reports thereof shall be in such form as will facilitate checking to determine compliance with the Contract Documents. Three (3) copies of the reports shall be submitted and authoritative certification thereof must be furnished to the County as a prerequisite for the acceptance of any material or equipment.

If, in the making of any test of any material or equipment, it is ascertained by the County that the material or equipment does not comply with the Contract, the Contractor will be notified thereof and he will be directed to refrain from delivering said material or equipment, or to remove it promptly from the site or from the work and replace it with acceptable material, without cost to the County.

Tests of electrical and mechanical equipment and appliances shall be conducted in accordance with recognized test codes of the ANSI, ASME, or the IEEE, except as may otherwise be stated herein.

B. Costs

All inspection and testing of materials furnished under this Contract will be performed by the County or duly authorized inspection engineers or inspections bureaus without cost to the Contractor, unless otherwise expressly specified.

The cost of shop and field tests of equipment and of certain other tests specifically called for in the Contract Documents shall be borne by the Contractor and such costs shall be deemed to be included in the Contract price.

Materials and equipment submitted by the Contractor as the equivalent to those specifically named in the Contract may be tested by the County for compliance. The Contractor shall reimburse the County for the expenditures incurred in making such tests on materials and equipment which are rejected for non-compliance.

C. Inspections of Materials

The Contractor shall give notice in writing to the County, at least two weeks in advance of his intention to commence the manufacture or preparation of materials especially manufactured or prepared for use in or as part of the permanent construction. Such notice shall contain a request for inspection, the date of commencement and the expected date of completion of the manufacture or preparation of materials. Upon receipt of such notice, the County will arrange to have a representative present at such times during the manufacture as may be necessary to inspect the materials or he will notify the Contractor that the inspection will be made at a point other than the point of manufacture, or he will notify the Contractor that inspection will be waived. The Contractor must comply with these provisions before shipping any material. Such inspection shall not release the Contractor from the responsibility for furnishing materials meeting the requirements of the Contract Documents.

D. Certificate of Manufacture

When inspection is waived or when the County so requires, the Contractor shall furnish to him authoritative evidence in the form of Certificates of Manufacture that the materials to be used in the work have been manufactured and tested in conformity with the Contract Documents. These certificates shall be notarized and shall include copies of the results of physical tests and chemical analyses, where necessary, that have been made directly on the product or on similar products of the manufacturer.

E. Shop Tests of Operating Equipment

Each piece of equipment for which pressure, duty, capacity, rating, efficiency, performance, function or special requirements are specified shall be tested in the shop of the maker in a manner which shall conclusively prove that its characteristics comply fully with the requirements of the Contract Documents. No such equipment shall be shipped to the work until the County notifies the Contractor, in writing, that the results of such tests are acceptable.

The cost of shop tests and of furnishing manufacturer's preliminary and shop test data of operating equipment shall be borne by the Contractor.

F. Preliminary Field Tests

As soon as conditions permit, the Contractor shall furnish all labor, materials, and instruments and shall make preliminary field tests of equipment. If the preliminary field tests disclose any equipment furnished under this Contract which does not comply with the requirements of the Contract Documents, the Contractor shall, prior to the acceptance tests, make all changes, adjustments and replacements required. The furnishing Contractor shall assist in the preliminary field tests as applicable.

G. Final Field Tests

Upon completion of the work and prior to final payment, all equipment and piping installed under this Contract shall be subjected to acceptance tests as specified or required to prove compliance with the Contract Documents.

The Contractor shall furnish labor, fuel, energy, water and all other materials, equipment and instruments necessary for all acceptance tests, at no additional cost to the County. The Supplier shall assist in the final field tests as applicable.

H. Failure of Tests

Any defects in the materials and equipment or their failure to meet the tests, guarantees or requirements of the Contract Documents shall be promptly corrected by the Contractor. The decision of the County as to whether or not the Contractor has fulfilled his obligations under the Contract shall be final and conclusive. If the Contractor fails to make these corrections or if the improved materials and equipment, when tested, shall again fail to meet the guarantees of specified requirements, the County, notwithstanding its partial payment for work, and materials and equipment, may reject the materials and equipment and may order the Contractor to remove them from the site at his own expense.

In case the County rejects any materials and equipment, then the Contractor shall replace the rejected materials and equipment within a reasonable time. If he fails to do so, the

County may, after the expiration of a period of thirty (30) calendar days after giving him notice in writing, proceed to replace such rejected materials and equipment, and the cost thereof shall be deducted from any compensation due or which may become due the Contractor under his Contract.

I. Final Inspection

During such final inspections, the work shall be clean and free from water. In no case will the final pay application be prepared until the Contractor has complied with all requirements set forth and the County has made his final inspection of the entire work and is satisfied that the entire work is properly and satisfactorily constructed in accordance with the requirements of the Contract Document.

1.05 TEMPORARY STRUCTURES

A. Temporary Fences

If, during the course of the work, it is necessary to remove or disturb any fence or part thereof, the Contractor shall, at his own expense, if so ordered by the County, provide a suitable temporary fence which shall be maintained until the permanent fence is replaced. The County shall be solely responsible for the determination of the necessity for providing a temporary fence and the type of temporary fence to be used.

1.06 TEMPORARY SERVICES

A. First Aid

The Contractor shall keep upon the site, at each location where work is in progress, a completely equipped first aid kit and shall provide ready access thereto at all times when people are employed on the work.

1.07 LINES AND GRADES

A. Grade

All work under this Contract shall be constructed in accordance with the lines and grades shown on the Drawings, or as given by the County. The full responsibility for keeping alignment and grade shall rest upon the Contractor.

B. Safeguarding Marks

The Contractor shall safeguard all points, stakes, grade marks, monuments and bench marks made or established on the work, bear the cost of reestablishing them if disturbed, and bear the entire expense of rectifying work improperly installed due to not maintaining or protecting or removing without authorization such established points, stakes and marks.

The Contractor shall safeguard all existing and known property corners, monuments and marks adjacent to but not related to the work and, if required, shall bear the cost of reestablishing them if disturbed or destroyed.

C. Datum Plane

All elevations indicated or specified refer to the Mean Sea Level Datum of the NAVD 1988.

1.08 ADJACENT STRUCTURES AND LANDSCAPING

A. Responsibility

The Contractor shall also be entirely responsible and liable for all damage or injury as a result of his operations to all other adjacent public and private property, structures of any kind and appurtenances thereto met with during the progress of the work. The cost of protection, replacement in their original locations and conditions or payment of damages for injuries to such adjacent public and private property and structures affected by the work, whether or not shown on the Drawings, and the removal, relocation and reconstruction of such items called for on the Drawings or specified shall be included in the various Contract Items and no separate payments will be made therefore. Where such public and private property, structures of any kind and appurtenances thereto are not shown on the Drawings and when, in the opinion of the County, additional work is deemed necessary to avoid interference with the work, payment therefore will be made as provided for in the General Conditions.

Contractor is expressly advised that the protection of buildings, structures, tunnels, tanks, pipelines, etc. and related work adjacent and in the vicinity of his operations, wherever they may be, is solely his responsibility. Conditional inspection of buildings or structures in the immediate vicinity of the project which may reasonably be expected to be affected by the Work shall be performed by and be the responsibility of the Contractor.

Contractor shall, before starting operations, make an examination of the interior and exterior of the adjacent structures, buildings, facilities, etc., and record by notes, measurements, photographs, etc., conditions which might be aggravated by open excavation and construction. Repairs or replacement of all conditions disturbed by the construction shall be made to the satisfaction of the County. This does not preclude conforming to the requirements of the insurance underwriters. Copies of surveys, photographs, reports, etc., shall be given to the County.

Prior to the beginning of any excavations, the Contractor shall advise the County of all buildings or structures on which he intends to perform work or which performance of the project work will affect.

B. Protection of Trees and Other Natural Resources

1. All trees, shrubs, groundcover, topsoil or land forms outside of the limits of ditch filling activities as delineated in the contract documents shall be preserved or avoided. All trees and shrubs shall be adequately protected by the Contractor with boxes and otherwise and in accordance with ordinances governing the protection of trees. No excavated materials shall be placed so as to injure such trees or shrubs. Trees or shrubs destroyed by negligence of the Contractor or his employees shall be replaced by him with new stock of similar size and age, at the proper season and at the sole expense of the Contractor. All damaged areas shall be restored to original or better condition.
2. Beneath trees or other surface structures, where possible, pipelines may be built in short tunnels, backfilled with excavated materials, except as otherwise specified, or the trees or structures carefully supported and protected from damage.

3. The County may order the Contractor, for the convenience of the County, to remove trees along the line or trench excavation. If so ordered, the County will obtain any permits required for removal of trees. Such tree removal ordered shall be paid for under the appropriate Contract Items.

C. Lawn Areas

Lawn areas shall be left in as good condition as before the starting of the work. Where sod is to be removed, it shall be carefully removed, and later replaced, or the area where sod has been removed shall be restored with new sod.

D. Restoration of Fences

Any fence, or part thereof, that is damaged or removed during the course of the work shall be replaced or repaired by the Contractor and shall be left in as good a condition as before the starting of the work. The manner in which the fence is repaired or replaced and the materials used in such work shall be subject to the approval of the County. The cost of all labor, materials, equipment, and work for the replacement or repair of any fence shall be deemed included in the appropriate Contract Item or items, or if no specific Item is provided therefore, as part of the overhead cost of the work, and no additional payment will be made therefore.

1.09 PROTECTION OF WORK AND PUBLIC

A. Barriers and Lights

During the prosecution of the work, the Contractor shall put up and maintain at all times such barriers and lights as will effectually prevent accidents. The Contractor shall provide suitable barricades, red lights, "danger" or "caution" or "street closed" signs and watchmen at all places where the work causes obstructions to the normal traffic or constitutes in any way a hazard to the public, in accordance with state and local requirements.

B. Smoke Prevention

A strict compliance with ordinances regulating the production and emission of smoke will be required. No open fires will be permitted other than those in designated burn areas as coordinated with the Duette Preserve Park personnel.

C. Noise

The Contractor shall eliminate noise to as great an extent as practicable at all times. Air compressing plants shall be equipped with silencers and the exhaust of all engines or other power equipment shall be provided with mufflers. In the vicinity of hospitals and schools, special care shall be used to avoid noise or other nuisances. The Contractor shall strictly observe all local regulations and ordinances covering noise control.

D. Access to Public Services

Neither the materials excavated nor the materials or plant used in the construction of the work shall be so placed as to prevent free access to all fire hydrants, valves or manholes.

E. Dust prevention

The Contractor shall prevent dust nuisance from his operations or from traffic by keeping the roads and/or construction areas sprinkled with water at all times.

1.10 CUTTING AND PATCHING

The Contractor shall do all cutting, fitting or patching of his portion of the work that may be required to make the several parts thereof join and coordinate in a manner satisfactory to the County and in accordance with the Drawings and Specifications. The work must be done by competent workmen skilled in the trade required by the restoration.

1.11 CLEANING

A. During Construction

During construction of the work, the Contractor shall, at all times, keep the site of the work and adjacent premises as free from material, debris and rubbish, and exotic plant seeds and vegetative material as is practicable and shall remove the same from any portion of the site if, in the opinion of the County, such material, debris, rubbish or exotic plant material constitutes a nuisance or is objectionable. The Contractor shall remove from the site all of his surplus materials and temporary structures when no further need therefore develops.

B. Final Cleaning

At the conclusion of the work, all equipment, tools, temporary structures and materials belonging to the Contractor shall be promptly taken away, and he shall remove and promptly dispose of all water, dirt, rubbish or any other foreign substances.

The Contractor shall thoroughly clean all equipment and materials installed by him and shall deliver such materials and equipment undamaged in a bright, clean, polished and new operating condition.

1.12 MISCELLANEOUS

A. Protection Against Siltation and Bank Erosion

1. The Contractor shall arrange his operations to minimize siltation and bank erosion on construction sites and on existing or proposed water courses and drainage ditches.
2. The Contractor, at his own expense, shall remove any siltation deposits and correct any erosion problems as directed by the County which results from his construction operations.

B. Protection of Wetland Areas

The Contractor shall properly dispose of all surplus material, including soil, in accordance with Local, State and Federal regulations. Under no circumstances shall surplus material be disposed of in wetland areas outside of the limits of project activities as delineated in the contract documents as defined by permits issued by the Florida Department of Environmental Protection and Southwest Florida Water Management District. The

Contractor's construction methods shall protect wetland and surface water areas from damage due to mechanical grading, erosion, sedimentation and turbid discharges.

C. Existing Facilities

The work shall be so conducted to maintain existing facilities in operation insofar as is possible. Requirements and schedules of operations for maintaining existing facilities in service during construction shall be as described in the Special Provisions.

D. Use of Chemicals

All chemicals used during project construction or furnished for project operation, whether herbicide, pesticide, disinfectant, polymer, reactant, or of other classification, must show approval of either EPA or USDA. Use of all such chemicals and disposal of residues shall be in strict conformance with instructions.

E. Protection of Gopher Tortoise Burrows

A 100% gopher tortoise survey will be conducted of the project area and the results of which shall be provided to the Contractor. If burrows are located within the project limits, then Manatee County will conduct the required permitting through the Florida Fish and Wildlife Conservation Commission and will be responsible for any burrow excavation and tortoise relocations. If burrows are found within 25 ft of the project limits after construction commences, the Manatee County Project Manager will be notified of the location before clearing and grubbing activities and shall await direction from the Manatee County Project Manager. Gopher Tortoise Burrows shall be protected by avoiding development activity within 25-ft of the mouth of all burrows. Development activity must not harm gopher tortoises nor violate rules protecting them. Development activity in the vicinity of gopher tortoise burrows shall be coordinated with the Manatee County Natural Resources Department. Under no circumstances should the contractor move or relocate a gopher tortoise that may wander into the construction area. Work must STOP within 25-ft of the gopher tortoise and may not resume until the gopher tortoise has moved under its own volition 25-ft from the work area.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

SECTION 01010 SUMMARY OF WORK

PART 1 GENERAL

1.01 WORK COVERED BY CONTRACT DOCUMENTS/REQUIREMENTS INCLUDED

- A. The work included in this contract consists of the construction of specific improvements within the North Fork Manatee River basin on the Manatee County owned Duette Preserve Park property for the purpose of nutrient and sediment capture from offsite farming activities prior to storm water runoff entering the North Fork Manatee River and adjacent wetland system. The project area contains approximately 15 acres and is located within Section 31 of Township 33S, Range 22E in Manatee County. The specific improvements consists of approximately 15,750-CY of earthwork, fabric and rip-rap (435-TN), storm pipe installation (18" and 36"), and planting.
- B. The Contractor shall furnish all shop drawings, working drawings, labor, materials, equipment, tools, services and incidentals necessary to complete all work required by these Specifications and as shown on the Drawings.
- C. The Contractor shall perform the work complete, in place and ready for continuous service and shall include any repairs, replacements, and/or restoration required as a result of damages caused prior to acceptance by the County.
- D. The Contractor shall furnish and install all materials, equipment and labor which is reasonably and properly inferable and necessary for the proper completion of the work, whether specifically indicated in the Drawings.

1.02 CONTRACTS

Construct all the Work under a single contract.

1.03 WORK SEQUENCE

- A. All work done under this Contract shall be done with a minimum of inconvenience to the users of the system or facility. The Contractor shall coordinate his work with private property owners such that existing utility services are maintained to all users to the maximum extent possible.
- B. The Contractor shall, if necessary and feasible, construct the work in stages to accommodate the County's use of the premises during the construction period; coordinate the construction schedule and operations with the County's Representative.
- C. The Contractor shall, where feasible, construct the Work in stages to provide for public convenience and not close off public use of any facility until completion of construction to provide alternative usage.

1.04 CONSTRUCTION AREAS

- A. The Contractor shall: Limit his use of the construction areas for work and for storage, to allow for:
 - 1. Work by other Contractors.
 - 2. County's Use.

3. Public Use.

- B. Coordinate use of work site under direction of County's Representative.
- C. Assume full responsibility for the protection and safekeeping of products under this Contract, stored on the site.
- D. Move any stored products under the Contractor's control, which interfere with operations of the County or separate contractor.
- E. Obtain and pay for the use of additional storage of work areas needed for Contractor operations.

1.05 COUNTY OCCUPANCY

- A. It is assumed that portions of the Work will be completed prior to completion of the entire Work. Upon completion of construction of each individual facility, including testing, if the County, at its sole discretion, desires to accept the individual facility, the Contractor will be issued a dated certificate of completion and acceptance for each individual facility. The County will assume ownership and begin operation of the individual facility on that date and the three-year guaranty period shall commence on that date. The County has the option of not accepting the entire work as a whole until it is completed, tested and approved by the County.

1.06 PARTIAL COUNTY OCCUPANCY

The Contractor shall schedule his operations for completion of portions of the Work, as designated, for the County's occupancy prior to substantial completion of the entire work.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

SECTION 01015 CONTROL OF WORK

PART 1 GENERAL

1.01 WORK PROGRESS

The Contractor shall furnish personnel and equipment which will be efficient, appropriate and adequately sized to secure a satisfactory quality of work and a rate of progress which will insure the completion of the work within the time stipulated in the Contract. If at any time such personnel appears to the County to be inefficient, inappropriate, or insufficient for securing the quality of work required for producing the rate of progress aforesaid, he may order the Contractor to increase the efficiency, change the character, or increase the personnel and equipment and the Contractor shall conform to such order. Failure of the County to give such order shall in no way relieve the Contractor of his obligations to secure the quality of the work and rate of progress required.

1.02 PRIVATE LAND

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

1.03 WORK LOCATIONS

Work shall be located substantially as indicated on the drawings, but the County reserves the right to make such modifications in locations as may be found desirable to avoid interference with existing structures or for other reasons.

1.04 OPEN EXCAVATIONS

- A. All open excavations shall be adequately safeguarded by providing temporary barricades, caution signs, lights and other means to prevent accidents to persons and damage to property. The Contractor shall, at his own expense, provide suitable and safe bridges and other crossings for accommodating travel by pedestrians and workmen. Bridges provided for access to private property during construction shall be removed when no longer required. If the excavation becomes a hazard, or if it excessively restricts traffic at any point, the County may require special construction procedures such as limiting the length of open trench, prohibiting stacking excavated material in the street and requiring that the trench shall not remain open overnight.
- B. The Contractor shall take precautions to prevent injury to the public due to open trenches. All trenches, excavated material, equipment, or other obstacles which could be dangerous to the public shall be barricaded and well lighted at all times when construction is not in progress.

1.05 DISTRIBUTION SYSTEMS AND SERVICES

- A. The Contractor shall avoid interruptions to water, telephone, cable TV, sewer, gas, or other related utility services. He shall notify the County and the appropriate agency well in advance of any requirement for dewatering, isolating, or relocating a section of a utility, so that necessary arrangements may be made.
- B. If it appears that utility service will be interrupted for an extended period, the County may order the Contractor to provide temporary service lines at the Contractor's expense.

Inconvenience of the users shall be kept to the minimum, consistent with existing conditions. The safety and integrity of the systems are of prime importance in scheduling work.

1.06 PROTECTION AND RELOCATION OF EXISTING STRUCTURES AND UTILITIES

- A. The Contractor shall assume full responsibility for the protection of all buildings, structures and utilities, public or private, including poles, signs, services to building utilities, gas pipes, water pipes, hydrants, sewers, drains and electric and telephone cables and other similar facilities, whether or not they are shown on the Drawings. The Contractor shall carefully support and protect all such structures and utilities from injury of any kind. Any damage resulting from the Contractor's operation shall be repaired by the Contractor at his expense.
- B. The Contractor shall bear full responsibility for obtaining locations of all underground structures and utilities (including existing water services, drain lines and sewers). Services to buildings shall be maintained and all costs or charges resulting from damage thereto shall be paid by the Contractor.
- C. Protection and temporary removal and replacement of existing utilities and structures as described in this Section shall be a part of the work under the Contract and all costs in connection therewith shall be included in the unit prices established in the Bid.
- D. If, in the opinion of the County, permanent relocation of a utility owned by the County is required, he may direct the Contractor, in writing, to perform the work. Work so ordered will be paid for at the Contract unit prices, if applicable, or as extra work as classified in the General Conditions. If relocation of a privately owned utility is required, the County will notify the utility to perform the work as expeditiously as possible. The Contractor shall fully cooperate with the County and utility and shall have no claim for delay due to such relocation. The Contractor shall notify public utility companies in writing at least 48 hours (excluding Saturdays, Sundays and legal holidays) before excavating near their utilities.

1.07 TEST PITS

Test pits for the purpose of locating underground pipeline or structures in advance of the construction are not anticipated for this Contract.

1.08 CARE AND PROTECTION OF PROPERTY

- A. During the entire period of the Contract, the Contractor shall protect environmental resources within the project boundaries and those affected outside the limits of construction. The Contractor shall confine its activities to the areas defined by the drawings and specifications. Any additional review by the County to ensure compliance with environmental rules and regulations prior to implementation/or commencement of those deviations. Prior to the beginning of any construction the Contractor shall identify all land resources that are to be preserved or avoided within the Work area. The Contractor shall not remove, cut, deface, injure, or destroy any land resources (trees, shrubs, groundcover, topsoil, or land forms) unless indicated in the plans or specifically authorized by the County. All damaged areas shall be restored to original or better condition.

The Contractor shall be responsible for the preservation of all public and private property and shall use every precaution necessary to prevent damage thereto. If any direct or indirect damage is done to public or private property by or on account of any act, omission, neglect, or misconduct in the execution of the work on the part of the Contractor, such property shall be restored by the Contractor, at his expense, to a condition equal or better

to that existing before the damage was done, or he shall make good the damage in another manner acceptable to the County.

- B. All sidewalks or trails which are disturbed by the Contractor's operations shall be restored to their original or better condition by the use of similar or comparable materials. All appurtenances shall be restored in a condition equal to the original construction and in accordance with the best modern practice.
- C. Along the location of this work, all fences, walks, bushes, trees, shrubbery and other physical features shall be protected and restored in a thoroughly workmanlike manner unless otherwise shown on the drawings. Fences and other features removed by the Contractor shall be replaced in the location indicated by the County as soon as conditions permit. All grass areas beyond the limits of construction which have been damaged by the Contractor shall be regraded and sodded or seeded to equal or exceed original conditions.
- D. Trees outside of the project activity areas as delineated in the contract documents, shall be boxed or otherwise protected against injury. The Contractor shall trim all branches that are liable to damage because of his operations, but in no case shall any tree be cut or removed without prior notification to the County. All injuries to bark, trunk, limbs and roots of trees shall be repaired by dressing, cutting and painting according to approved methods, using only approved tools and materials.
- E. The protection, removal and replacement of existing physical features along the line of work shall be a part of the work under the Contract and all costs in connection therewith shall be included in the unit and/or lump sum prices established under the items in the Bid.

1.09 MAINTENANCE OF TRAFFIC

- A. Open pits, trenches, unpaved streets, debris, or other obstructions due to construction that will prevent the normal flow of traffic during an extended construction stoppage, for any reason, shall be minimized. In the event an extended construction stoppage is found to be necessary, Contractor shall, at his own expense, provide normal traffic flow during extended construction stoppage. Extended stoppage will be defined by the County.
- B. All excavated material shall be placed so that vehicular and pedestrian traffic may be maintained at all times. If the Contractor's operations cause traffic hazards, he shall repair the road surface, provide temporary roadways, erect wheel guards or fences, or take other safety measures which are satisfactory to the County.
- C. Any changes to the traffic pattern require a Traffic Control Plan that is coordinated with the Duette Preserve Park personnel.

1.10 WATER FOR CONSTRUCTION PURPOSES

- A. In locations where water supply is available, the Contractor may purchase water for all construction purposes.
- B. The Contractor shall be responsible for paying for all water tap fees incurred for the purpose of obtaining a potable water service or temporary use meter.

1.11 MAINTENANCE OF FLOW

The Contractor shall at his own cost, provide for the flow of sewers, drains and water

courses interrupted during the progress of the work and shall immediately cart away and remove all offensive matter. The entire procedure of maintaining existing flow shall be fully discussed with the County well in advance of the interruption of any flow.

The Contractor shall conduct all activities in a manner to avoid pollution of surface and ground water and wetlands. Water directly derived from construction activities shall not be allowed to directly discharge to water areas, but shall be collect in retention areas to allow settling of suspended materials, The Contractor shall monitor water quality of dewatering discharge into water bodies or leaving the site in accordance with applicable environmental permits. All monitoring of any water areas that are affected by construction activities shall be the responsibility of the Contractor.

1.12 CLEANUP

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

1.13 COOPERATION WITHIN THIS CONTRACT

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

1.14 PROTECTION OF CONSTRUCTION AND EQUIPMENT

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

1.15 CONSTRUCTION WITHIN RIGHT-OF-WAY (NOT USED)

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

SECTION 01030 SPECIAL PROJECT PROCEDURES

PART 1 GENERAL

1.01 PERMITS

Upon notice of award, the Contractor shall immediately apply for all applicable permits not previously obtained by the County to do the work from the appropriate governmental agency or agencies. No work shall commence until all applicable permits have been obtained and copies delivered to the County. The costs for obtaining all permits shall be borne by the Contractor.

1.02 CONNECTIONS TO EXISTING SYSTEM

The Contractor shall perform all work necessary to locate, excavate and prepare for connections to the existing systems all as shown on the Drawings or where directed by the County. The cost for this work and for the actual connection shall be included in the price bid for the project and shall not result in any additional cost to the County. The termination point for each contract shall be as shown on the Contract Drawings.

1.03 RELOCATIONS

The Contractor shall be responsible for the coordination of the relocation of structures, including but not limited to light poles, power poles, signs, sign poles, fences, piping, conduits and drains that interfere with the positioning of the work as set out on the Drawings. No relocation of the items under this Contract shall be done without approval from the County.

1.04 EXISTING UNDERGROUND PIPING, STRUCTURES AND UTILITIES

- A. The attention of the Contractor is drawn to the fact that during excavation, the possibility exists of the Contractor encountering various utility lines not shown on the Drawings. The Contractor shall exercise extreme care before and during excavation to locate and flag these lines as to avoid damage to the existing lines.
- B. It is the responsibility of the Contractor to ensure that all utility or other poles, the stability of which may be endangered by the close proximity of excavation, are temporarily stayed in position while work proceeds in the vicinity of the pole and that the utility or other companies concerned be given reasonable advance notice.
- C. The existing utility locations are shown without express or implied representation, assurance, or guarantee that they are complete or correct or that they represent a true picture of underground piping to be encountered. The Contractor shall be responsible for notifying the various utility companies to locate their respective utilities in advance of construction in conformance with all requirements provided for in the Florida Underground Facilities Damage Prevention and Safety Act (Florida Statutes, Title XXXIII, Chapter 556).
- D. The existing piping and utilities that interfere with new construction shall be rerouted as shown, specified, or required. Before any piping and utilities not shown on the Drawings are disturbed, the Contractor shall notify the County and shall provide suggestions on how best to resolve the issue.

- E. The Contractor shall exercise care in any excavation to locate all existing piping and utilities. All utilities which do not interfere with complete work shall be carefully protected against damage. Any existing utilities damaged in any way by the Contractor shall be restored or replaced by the Contractor at his expense as directed by the County.
- F. It is intended that wherever existing utilities such as water, sewer, gas, telephone, electrical, or other service lines must be crossed, deflection of the pipe within recommended limits and cover shall be used to satisfactorily clear the obstruction unless otherwise indicated in the Drawings. However, when in the opinion of the County this procedure is not feasible, the County may direct the use of fittings for utility crossings as detailed on the Drawings. No deflections will be allowed in gravity sanitary sewer lines or in existing storm sewer lines.

1.05 SUSPENSION OF WORK DUE TO WEATHER

Refer to FDOT Standards and Specifications Book, Section 8.

1.06 HURRICANE PREPAREDNESS PLAN

- A. Within 30 days of the date of Notice to Proceed, the Contractor shall submit to the County a Hurricane Preparedness Plan. The plan should outline the necessary measures which the Contractor proposes to perform at no additional cost to the County in case of a hurricane warning.
- B. In the event of inclement weather, or whenever County shall direct, Contractor shall insure that he and his Subcontractors shall carefully protect work and materials against damage or injury from the weather. If, in the opinion of the County, any portion of work or materials is damaged due to the failure on the part of the Contractor or Subcontractors to protect the work, such work and materials shall be removed and replaced at the expense of the Contractor.

1.07 POWER SUPPLY

Electricity as may be required for construction and permanent power supply shall be secured and purchased by the Contractor.

1.08 SALVAGE

Any existing equipment or material, including, but not limited to, valves, pipes, fittings, couplings, etc., which is removed or replaced as a result of construction under this project may be designated as salvage by the County and if so shall be protected for a reasonable time until picked up by the County. Any equipment or material not worthy of salvaging, as directed by the County, shall be disposed of by the Contractor at no additional cost.

1.09 DEWATERING

- A. The Contractor shall do all groundwater pumping necessary to prevent flotation of any part of the work during construction operations with his own equipment.
- B. The Contractor shall pump out water and wastewater which may seep or leak into the excavations for the duration of the Contract and with his own equipment. He shall dispose of this water in an appropriate manner.

1.10 ADDITIONAL PROVISIONS

- A. Before commencing work on any of the existing pipelines, structures or equipment, the Contractor shall notify the County, in writing, at least 10 calendar days in advance of the date he proposes to commence such work.
- B. The Contractor shall provide, at his own expense, all necessary temporary facilities for access to and for protection of, all existing facilities. The County's personnel must have ready access at all times to the existing facilities. The Contractor is responsible for all damage to existing structures, equipment and facilities caused by his construction operations and must repair all such damage when and as ordered by the County.

1.11 CONSTRUCTION CONDITIONS

The Contractor shall strictly adhere to the specific requirements of the governmental unit(s) and/or agency(ies) having jurisdiction over the work. Wherever there is a difference in the requirements of a jurisdictional body and these Specifications, the more stringent shall apply.

1.12 PUBLIC NUISANCE

- A. The Contractor shall not create a public nuisance including but not limited to encroachment on adjacent lands, flooding of adjacent lands, excessive noise or dust.
- B. Sound levels must meet Manatee County Ordinance #13-05, (which amends Ordinance 08-12, The Manatee County Noise Ordinance). Sound levels in excess of such ordinance are sufficient cause to have the work halted until equipment can be quieted to these levels. Work stoppage by the County for excessive noise shall not relieve the Contractor of the other portions of this specification.
- C. No extra charge may be made for time lost due to work stoppage resulting from the creation of a public nuisance.

1.13 WARRANTIES

- A. All material supplied under these Specifications shall be warranted by the Contractor and the manufacturers for a period of three (3) years with the exception of seeding and sodding which shall be ninety (90) days. Warranty period shall commence on the date of County acceptance.
- B. The material shall be warranted to be free from defects in workmanship, design and materials. If any part of the system should fail during the warranty period, it shall be replaced at no expense to the County. All material and installation costs shall be 100% borne by the Contractor.
- C. The manufacturer's warranty period shall run concurrently with the Contractor's warranty or guarantee period. No exception to this provision shall be allowed. The Contractor shall be responsible for obtaining warranties from each of the respective suppliers or manufacturers for all the material specified under these contract specifications,
- D. In the event that the manufacturer is unwilling to provide a three-year warranty commencing at the time of County acceptance, the Contractor shall obtain from the manufacturer a four (4) year warranty starting at the time of equipment delivery to the job site. This four-year

warranty shall not relieve the Contractor of the three-year warranty starting at the time of County acceptance of the equipment.

1.14 FUEL STORAGE & FILLING

- A. If the contractor is storing fuel on site, or doing his own fuel filling of portable equipment (other than hand-held equipment), he is responsible for any required response, clean-up or reporting required, at no additional cost to the county.
- B. The Contractor shall prepare and submit a fuel storage / spill abatement plan prior to start of construction if required.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

SECTION 01045 CUTTING AND PATCHING

PART 1 GENERAL

1.01 REQUIREMENTS INCLUDED

- A. The Contractor shall be responsible for all cutting, fitting and patching, including excavation and backfill, required to complete the work or to:
1. Make its several parts fit together properly.
 2. Uncover portions of the work to provide for installation of ill-timed work.
 3. Remove and replace defective work.
 4. Remove and replace work not conforming to requirements of Contract Documents.
 5. Provide penetrations of non-structural surfaces for installation of piping and electrical conduit.

PART 2 PRODUCTS

2.01 MATERIALS

Comply with specifications and standards for each specific product involved.

PART 3 EXECUTION

3.01 INSPECTION

- A. Inspect existing conditions of project, including elements subject to damage or to movement during cutting and patching.
- B. After uncovering work, inspect conditions affecting installation of products, or performance of work.
- C. Report unsatisfactory or questionable conditions to County. Do not proceed with work until County has provided further instructions.

3.02 PREPARATION

- A. Provide adequate temporary support as necessary to assure structural value to integrity of affected portion of work.
- B. Provide devices and methods to protect other portions of project from damage.
- C. Provide protection from elements for that portion of the project which may be exposed by cutting and patching work and maintain excavations free from water.

3.03 PERFORMANCE

- A. Execute cutting and demolition by methods which will prevent damage to other work and will provide proper surfaces to receive installation of repairs.
- B. Execute excavating and backfilling by methods which will prevent settlement or damage to other work.

- C. Fit and adjust products to provide a finished installation to comply with specified products, functions, tolerances and finishes.
- D. Restore work which has been cut or removed; install new products to provide completed work in accordance with the requirements of the Contract Documents.
- E. Replace surfaces airtight to pipes, sleeves, ducts, conduit and other penetrations through surfaces.
- F. Refinish entire surfaces as necessary to provide an even finish to match adjacent finishes.

END OF SECTION

SECTION 01050 FIELD ENGINEERING AND SURVEYING

PART 1 GENERAL

1.01 REQUIREMENTS INCLUDED

- A. The Contractor shall provide and pay for field surveying service required for the project.
- B. The Contractor shall furnish and set all necessary stakes to establish the lines and grades as shown on the Contract Drawings and layout each portion of the Work of the Contract.

1.02 QUALIFICATION OF SURVEYOR AND ENGINEER

All construction staking shall be conducted by or under the supervision of a Florida Registered Professional Surveyor and Mapper. The Contractor shall be responsible for the layout of all such lines and grades, which will be subject to verification by the County.

1.03 SURVEY REFERENCE POINTS

- A. Existing basic horizontal and vertical control points for the Project are designated on the Contract Drawings.
- B. Locate and protect all survey monumentation, property corners and project control points prior to starting work and preserve all permanent reference points during construction. All costs associated with the replacement of all survey monumentation, property corners and project control points shall be borne by the Contractor.

Make no changes or relocations without prior written notice to County.

Report to County when any reference point is lost or destroyed, or requires relocation because of necessary changes in grades or locations.

Require surveyor to replace project control points which may be lost or destroyed.

Establish replacements based on original survey control.

1.04 PROJECT SURVEY REQUIREMENTS

The Contractor shall establish temporary bench marks as needed, referenced to data established by survey control points.

1.05 RECORDS

The Contractor shall employ a Professional Engineer or Surveyor registered in the State of Florida to verify survey data and properly prepare record drawings per Section 01720.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

SECTION 01090 REFERENCE STANDARDS

PART 1 GENERAL

1.01 REQUIREMENTS

Abbreviations and acronyms used in Contract Documents to identify reference standards.

- A. Application: When a standard is specified by reference, comply with requirements and recommendations stated in that standard, except when requirements are modified by the Contract Documents, or applicable codes established stricter standards.
- B. Publication Date: The most recent publication in effect on the date of issue of Contract Documents, except when a specific publication date is specified.

1.03 ABBREVIATIONS, NAMES AND ADDRESSES OR ORGANIZATIONS

Obtain copies of reference standards direct from publication source, when needed for proper performance of work, or when required for submittal by Contract Documents.

AA	Aluminum Association 818 Connecticut Avenue, N.W. Washington, DC 20006
AASHTO	American Association of State Highway and Transportation Officials 444 North Capital Street, N.W. Washington, DC 20001
ACI	American Concrete Institute Box 19150 Reford Station Detroit, MI 48219
AI	Asphalt Institute Asphalt Institute Building College Park, MD 20740
AISC	American Institute of Steel Construction 1221 Avenue of the Americas New York, NY 10020
AISI	American Iron and Steel Institute 1000 16th Street NW Washington, DC 20036
ANSI	American National Standards Institute 1430 Broadway New York, NY 10018
ASHRAE	American Society of Heating, Refrigerating and Air Conditioning Engineers 1791 Tullie Circle, N.E. Atlanta, GA 30329

ASME	American Society of Mechanical Engineers 345 East 47th Street New York, NY 10017
ASTM	American Society for Testing and Materials 1916 Race Street Philadelphia, PA 19103
AWWA	American Water Works Association 6666 West Quincy Avenue Denver, CO 80235
AWS	American Welding Society 2501 N.W. 7th Street Miami, FL 33125
CRSI	Concrete Reinforcing Steel Institute 180 North LaSalle Street, Suite 2110 Chicago, IL 60601
FDEP	Florida Department of Environmental Protection 3900 Commonwealth Blvd. Tallahassee, Florida 32399
FDOT	Florida Department of Transportation Standards Specifications for Road and Bridge Construction 605 Suwannee St. Tallahassee, FL 32399-0450
FWC	Florida Fish and Wildlife Conservation Commission Southwest Region Office 3900 Drane Field Road Lakeland, FL 33811
FS	Federal Specification General Services Administration Specifications and Consumer Information Distribution Section (WFSIS) Washington Navy Yard, Bldg. 197 Washington, DC 20407
MCPW UTIL STD	Manatee County Utility Engineering 4410-B 66th St. W. Bradenton, FL 34210
MLSFA	Metal Lath/Steel Framing Association 221 North LaSalle Street Chicago, IL 60601
MMA	Monorail Manufacturer's Association 1326 Freeport Road Pittsburgh, PA 15238

NAAMM	National Association of Architectural Metal Manufacturers 221 North LaSalle Street Chicago, IL 60601
NEMA	National Electrical Manufacturer's Assoc. 2101 L Street N.W. Washington, DC 20037
NRCS	United States Department of Agriculture Natural Resources Conservation Service Sarasota Services Center 6942 Professional Pkwy E Sarasota, FL 34240
OHSA	Occupational Safety and Health Assoc. 5807 Breckenridge Pkwy., Suite A Tampa, FL 33610-4249
PCA	Portland Cement Association 5420 Old Orchard Road Skokie, IL 20076
PCI	Prestressed Concrete Institute 20 North Wacker Drive Chicago, IL 60606
SDI	Steel Door Institute 712 Lakewood Center North Cleveland, OH 44107
SMACNA	Sheet Metal and Air Conditioning Contractor's National Association 8224 Old Court House Road Vienna, VA 22180
SSPC	Steel Structures Painting Council 402 24 th Street, Suite 600 Pittsburgh, PA 15213
SWFWMD	Southwest Florida Water Management District 2379 Broad Street Brooksville, FL 34604-6899
UL	Underwriter's Laboratories, Inc. 333 Pfingston Road Northbrook, IL 60062

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

SECTION 01150 MEASUREMENT AND PAYMENT

PART 1 GENERAL

1.01 SCOPE

- A. The scope of this section of the Contract Documents is to further define the items included in each Bid Item in the Bid Form section of the Contract Documents. Payment will be made based on the specified items included in the description in this section for each bid item.
- B. All contract prices included in the Bid Form section will be full compensation for all shop drawings, working drawings, labor, materials, tools, equipment and incidentals necessary to complete the construction as shown on the Drawings and/or as specified in the Contract Documents to be performed under this Contract. Actual quantities of each item bid on a unit price basis will be determined upon completion of the construction in the manner set up for each item in this section of the Specifications. Payment for all items listed in the Bid Form will constitute full compensation for all work shown and/or specified to be performed under this Contract.

1.02 ESTIMATED QUANTITIES

The quantities shown are approximate and are given only as a basis of calculation upon which the award of the Contract is to be made. The County does not assume any responsibility for the final quantities, nor shall the Contractor claim misunderstanding because of such estimate of quantities. Final payment will be made only for satisfactorily completed quantity of each item.

1.03 WORK OUTSIDE AUTHORIZED LIMITS

No payment will be made for work constructed outside the authorized limits of work.

1.04 MEASUREMENT STANDARDS

Unless otherwise specified for the particular items involved, all measurements of distance shall be taken horizontally or vertically.

1.05 AREA MEASUREMENTS

In the measurement of items to be paid for on the basis of area of finished work, the lengths and/or widths to be used in the calculations shall be the final dimensions measured along the surface of the completed work within the neat lines shown or designated.

1.06 LUMP SUM ITEMS

Where payment for items is shown to be paid for on a lump sum basis, no separate payment will be made for any item of work required to complete the lump sum items. Lump sum contracts shall be complete, tested and fully operable prior to request for final payment. Contractor may be required to provide a break-down of the lump sum totals.

1.07 UNIT PRICE ITEM

Separate payment will be made for the items of work described herein and listed on the Bid Form. Any related work not specifically listed, but required for satisfactory completion of the

work shall be considered to be included in the scope of the appropriate listed work items.

No separate payment will be made for the following items and the cost of such work shall be included in the applicable pay items of work. Final payments shall not be requested by the Contractor or made by the County until as-built (record) drawings have been submitted and approved by the County.

1. Shop Drawings, Working Drawings.
2. Clearing, grubbing and grading except as hereinafter specified.
3. Trench excavation, including necessary pavement removal and rock removal, except as otherwise specified.
4. Dewatering and disposal of surplus water.
5. Structural fill, backfill, and grading.
6. Replacement of unpaved roadways, and shrubbery plots.
7. Cleanup and miscellaneous work.
8. Foundation and borrow materials, except as hereinafter specified.
9. Testing and placing system in operation.
10. Any material and equipment required to be installed and utilized for the tests.
11. Pipe, structures, pavement replacement, asphalt and shell driveways and/or appurtenances included within the limits of lump sum work, unless otherwise shown.
12. Maintaining the existing quality of service during construction.
13. Maintaining or detouring of traffic.
14. Appurtenant work as required for a complete and operable system.
15. Seeding and hydromulching.
16. As-built Record Drawings.

NORTH SYSTEM

BID ITEM NOS. 1, 2, AND 5

Payment for all work included in this Bid Item will be made at the applicable Contract unit price bid per the schedule of prices for excavating and grading the features as shown on the Contract Drawings and listed on the Bid Form. Measurement and Payment shall be made for the cubic yards of material excavated and will represent full compensation for all labor, materials, clearing, excavating, hauling, grading, seeding, and equipment required to complete this Bid Item.

BID ITEM NOS. 3 AND 8

Payment for all work included in this Bid Item will be made at the applicable Contract unit price bid per the schedule of prices for the drainage pipes as shown on the Contract Drawings and listed on the Bid Form. Measurement and Payment shall be made for the actual length of the listed diameter pipe installed and will represent full compensation for all labor, materials, excavation (including rock), water management during installation, bedding, backfill, compaction, testing and equipment required to complete this Bid Item. No additional compensation shall be made for excavation below the bottom of the pipe for rock removal or bedding and backfill material, or for repair of any trench settlement.

BID ITEM NO. 4

Payment for all work included in this Bid Item will be made at the applicable Contract unit price bid per the schedule of prices for excavating and grading the features as shown on the Contract Drawings and listed on the Bid Form. Measurement and Payment shall be made for the area

of land cleared and grubbed and will represent full compensation for all labor, materials, clearing, excavating, hauling, disposal and equipment required to complete this Bid Item.

BID ITEM NO. 6

Payment for all work included in this Bid Item will be made at the applicable Contract unit price bid per the schedule of prices for placing riprap as shown on the Contract Drawings and listed on the Bid Form. Measurement and Payment shall be made for the tons of material placed and will represent full compensation for all labor, materials, hauling, dressing and shaping existing fills (or subgrade) required to complete this Bid Item.

BID ITEM NO. 7

Payment for all work included in this Bid Item will be made at the applicable Contract unit price bid per the schedule of prices for placing filter fabric as shown on the Contract Drawings and listed on the Bid Form. Measurement and Payment shall be made for the square yards of material placed and will represent full compensation for all labor, materials, placement, and sewing or overlapping the fabric as required to complete this Bid Item.

BID ITEM NO. 9

Payment for all work included in this Bid Item will be made at the applicable Contract unit price bid per the schedule of prices for placement, grading and compacting material for the trail as shown on the Contract Drawings and listed on the Bid Form. Measurement and Payment shall be made for the square yards of the constructed trail and will represent full compensation for all labor, materials, clearing, hauling, placing, grading, compaction, and equipment required to complete this Bid Item.

BID ITEM NO. 10

Payment for all work included, but is not limited to, under this Bid Item shall represent full compensation in accordance with the lump sum price bid for erosion and sediment control. Measurement for periodic payments of this lump sum bid item will be in accordance with the approved Schedule of Values, to be supplied by the Contractor in accordance with the Contract Documents.

BID ITEM NO. 11

Payment for all planting work included in this Bid Item will be made at the applicable Contract unit prices per the schedule of prices included in the Planting Bid Form. Plant species substitutions will not be permitted. Container size substitutions will need to be approved by Manatee County or their designee. Plant installation costs will include costs of materials, fertilizers, watering, and plant survival warranty guarantees (95% survival after 90-days).

BID ITEM NO. 12

Payment for Nuisance/Exotic Species Maintenance for the period after Clearing and Grubbing through the plant warranty period shall be made at the Contract lump sum price bid listed in the Bid Form.

BID ITEM NO. 13

Payment for all work included under this Bid Item shall be made at the Contract lump sum price bid listed in the Bid Form for any other miscellaneous work not specifically included for payment under other Bid Items obviously necessary to complete the Contract. Partial payments will be based on the breakdown of the Bid Item in accordance with the Schedule of Values submitted by the Contractor and approved by the County. Payment shall also include, but not limited to, full compensation for project photographs, as-built record drawings, project signs, traffic control, rubbish and spoil removal, repair, replacement or relocation of all signs, walls, private irrigation systems and related items and any and all other items required to complete the project in accordance with Contract Documents.

BID ITEM NO. 14

Measurement and payment for this Bid Item shall include full compensation for the required 100 percent (100%) Performance Bond, 100 Percent (100%) Payment Bond, all required insurance for the project and the Contractor's mobilization and demobilization costs as shown in the Bid Form. Mobilization includes, but it not limited to: preparation and movement of personnel, equipment, supplies and incidentals such as safety and sanitary supplies/ facilities

Payment for mobilization shall not exceed 10 percent (10%) of the total Contract cost unless the Contractor can prove to the County that his actual mobilization cost exceeds 10 percent (10%).

Partial payments for this Bid Item will be made in accordance with the following schedule:

Percent of Original Contract Amount:	Percent Allowable Payment of Mobilization/Demobilization Bid Item Price:
5	25
10	35
25	45
50	50
75	75
100	100

These payments will be subject to the standard retainage provided in the Contract. Payment of the retainage will be made after completion of the work and demobilization.

BID ITEM NO. 15 - CONTRACT CONTINGENCY

Payment for all work under this Bid Item shall be made only at the County's discretion. This Bid Item shall not exceed 10% of the Bidders Total Base Bid. The Bidder shall calculate and enter a dollar amount for this Bid Item.

SOUTH SYSTEM

BID ITEM NOS. 1 AND 4

Payment for all work included in this Bid Item will be made at the applicable Contract unit price bid per the schedule of prices for excavating and grading the features as shown on the Contract

Drawings and listed on the Bid Form. Measurement and Payment shall be made for the cubic yards of material excavated and will represent full compensation for all labor, materials, clearing, excavating, hauling, grading, seeding, and equipment required to complete this Bid Item.

BID ITEM NOS. 2, 8 AND 9

Payment for all work included in this Bid Item will be made at the applicable Contract unit price bid per the schedule of prices for the drainage pipes as shown on the Contract Drawings and listed on the Bid Form. Measurement and Payment shall be made for the actual length of the listed diameter pipe installed and will represent full compensation for all labor, materials, excavation (including rock), water management during installation, bedding, backfill, compaction, testing and equipment required to complete this Bid Item. No additional compensation shall be made for excavation below the bottom of the pipe for rock removal or bedding and backfill material, or for repair of any trench settlement.

BID ITEM NO. 3

Payment for all work included in this Bid Item will be made at the applicable Contract unit price bid per the schedule of prices for excavating and grading the features as shown on the Contract Drawings and listed on the Bid Form. Measurement and Payment shall be made for the area of land cleared and grubbed and will represent full compensation for all labor, materials, clearing, excavating, hauling, disposal and equipment required to complete this Bid Item.

BID ITEM NO. 5

Payment for all work included in this Bid Item will be made at the applicable Contract unit price bid per the schedule of prices for placing riprap as shown on the Contract Drawings and listed on the Bid Form. Measurement and Payment shall be made for the tons of material placed and will represent full compensation for all labor, materials, hauling, dressing and shaping existing fills (or subgrade) required to complete this Bid Item.

BID ITEM NO. 6

Payment for all work included in this Bid Item will be made at the applicable Contract unit price bid per the schedule of prices for placing filter fabric as shown on the Contract Drawings and listed on the Bid Form. Measurement and Payment shall be made for the square yards of material placed and will represent full compensation for all labor, materials, placement, and sewing or overlapping the fabric as required to complete this Bid Item.

BID ITEM NO. 10

Payment for all work included in this Bid Item will be made at the applicable Contract unit price bid per the schedule of prices for placement, grading and compacting material for the trail as shown on the Contract Drawings and listed on the Bid Form. Measurement and Payment shall be made for the square yards of the constructed trail and will represent full compensation for all labor, materials, clearing, hauling, placing, grading, compaction, and equipment required to complete this Bid Item.

BID ITEM NO. 11

Payment for all work included, but is not limited to, under this Bid Item shall represent full compensation in accordance with the lump sum price bid for erosion and sediment control.

Measurement for periodic payments of this lump sum bid item will be in accordance with the approved Schedule of Values, to be supplied by the Contractor in accordance with the Contract Documents.

BID ITEM NO. 12

Payment for all planting work included in this Bid Item will be made at the applicable Contract unit prices per the schedule of prices included in the Planting Bid Form. Plant species substitutions will not be permitted. Container size substitutions will need to be approved by Manatee County or their designee. Plant installation costs will include costs of materials, fertilizers, watering, and plant survival warranty guarantees (95% survival after 90-days).

BID ITEM NO. 13

Payment for Nuisance/Exotic Species Maintenance for the period after Clearing and Grubbing through the plant warranty period shall be made at the Contract lump sum price bid listed in the Bid Form.

BID ITEM NO. 14

The Work of the Section consists of providing and installing large woody debris (LWD) habitat, including root wads and random LWD. Work includes excavation of channel material, finishing and placing logs, geotextile fabric and sediment, and finishing banks, structure slopes, and stream channel at the locations specified on the plans. Structures will be placed at locations designated on the plans to provide habitat, direct the stream flow, provide grade control and protect banks.

BID ITEM NO. 15

Payment for all work included under this Bid Item shall be made at the Contract lump sum price bid listed in the Bid Form for any other miscellaneous work not specifically included for payment under other Bid Items obviously necessary to complete the Contract. Partial payments will be based on the breakdown of the Bid Item in accordance with the Schedule of Values submitted by the Contractor and approved by the County. Payment shall also include, but not limited to, full compensation for project photographs, as-built record drawings, project signs, traffic control, rubbish and spoil removal, repair, replacement or relocation of all signs, walls, private irrigation systems and related items and any and all other items required to complete the project in accordance with Contract Documents.

BID ITEM NO. 16

Measurement and payment for this Bid Item shall include full compensation for the required 100 percent (100%) Performance Bond, 100 Percent (100%) Payment Bond, all required insurance for the project and the Contractor's mobilization and demobilization costs as shown in the Bid Form. Mobilization includes, but it not limited to: preparation and movement of personnel, equipment, supplies and incidentals such as safety and sanitary supplies/ facilities

Payment for mobilization shall not exceed 10 percent (10%) of the total Contract cost unless the Contractor can prove to the County that his actual mobilization cost exceeds 10 percent (10%).

Partial payments for this Bid Item will be made in accordance with the following schedule:

Percent of Original Contract Amount:	Percent Allowable Payment of Mobilization/Demobilization Bid Item Price:
5	25
10	35
25	45
50	50
75	75
100	100

These payments will be subject to the standard retainage provided in the Contract. Payment of the retainage will be made after completion of the work and demobilization.

BID ITEM NO. 17 - CONTRACT CONTINGENCY

Payment for all work under this Bid Item shall be made only at the County's discretion. This Bid Item shall not exceed 10% of the Bidders Total Base Bid. The Bidder shall calculate and enter a dollar amount for this Bid Item.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

SECTION 01152 REQUESTS FOR PAYMENT

PART 1 GENERAL

1.01 REQUIREMENTS INCLUDED

Submit Applications for Payment to the Project Manager or as directed at the preconstruction meeting, in accordance with the schedule established by Conditions of the Contract and Agreement between County and Contractor.

1.02 FORMAT AND DATA REQUIRED

- A. Submit payment requests in the form provided by the County with itemized data typed in accordance with the Bid Form.
- B. Provide construction photographs in accordance with Contract Documents.

1.03 SUBSTANTIATING DATA FOR PROGRESS PAYMENTS

- A. When the County requires substantiating data, Contractor shall submit suitable information with a cover letter.
- B. Submit one copy of data and cover letter for each copy of application.

1.04 PREPARATION OF APPLICATION FOR FINAL PAYMENT

Fill in application form as specified for progress payments.

1.05 SUBMITTAL PROCEDURE

- A. Submit applications for payment at the times stipulated in the Agreement.
- B. Number: Three (3) copies of each application; all signed and certified by the Contractor.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

SECTION 01153 CHANGE ORDER PROCEDURES

PART 1 GENERAL

1.01 DEFINITION

- A. Change Order: Change in contract scope, price or time that must be approved and executed by the Project Representative before it becomes effective.
- B. Administrative Change Adjustment: Minor change order under 10% of project cost or 20% time, does not have to be Board approved.
- C. Field Order: Change to contract quantity that does not require a change of price.

1.02 REQUIREMENTS INCLUDED

- A. The Contractor shall promptly implement change order procedures:
 - 1. Provide full written data required to evaluate changes.
 - 2. Maintain detailed records of work done on a time-and-material/force account basis.
 - 3. Provide full documentation to County on request.
- B. The Contractor shall designate a member of the Contractor's organization who:
 - 1. Is authorized to accept changes to the Work.
 - 2. Is responsible for informing others in the Contractor's employ of the authorized changes into the Work.

1.03 PRELIMINARY PROCEDURES

- A. Project Manager may initiate changes by submitting a Request to Contractor. Request will include:
 - 1. Detailed description of the change, products, costs and location of the change in the Project.
 - 2. Supplementary or revised Drawings and Specifications.
 - 3. The projected time extension for making the change.
 - 4. A specified period of time during which the requested price will be considered valid.
 - 5. Such request is for information only and is not an instruction to execute the changes, nor to stop work in progress.
- B. Contractor may initiate changes by submitting a written notice to the Project Manager, containing:
 - 1. Description of the proposed changes.
 - 2. Statement of the reason for making the changes.
 - 3. Statement of the effect on the Contract Sum and the Contract Time.
 - 4. Statement of the effect on the work of separate contractors.
 - 5. Documentation supporting any change in Contract Sum or Contract Time, as appropriate.

1.04 FIELD ORDER CHANGE

- A. In lieu of a Change Order, the Project Manager may issue a Field Order for the Contractor to proceed with additional work within the original intent of the Project.
- B. Field Order will describe changes in the work, with attachments of backup information to define details of the change.
- C. Contractor must sign and date the Field Order to indicate agreement with the terms therein.

1.05 DOCUMENTATION OF PROPOSALS AND CLAIMS

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

1.06 PREPARATION OF CHANGE ORDERS

- A. Project Manager will prepare each Change Order.
- B. Change Order will describe changes in the Work, both additions and deletions, with attachments as necessary to define details of the change.
- C. Change Order will provide an accounting of the adjustment in the Contract Sum and in the Contract Time.

1.07 LUMP SUM/FIXED PRICE CHANGE ORDER

- A. Project Manager initiates the form, including a description of the changes involved and attachments based upon documents and proposals submitted by the Contractor, or requests from the County, or both.
- B. Once the form has been completed, all copies should be sent to the Contractor for approval. After approval by Contractor, all copies should be sent to County for approval. The County will distribute executed copies after approval by the Board of County Commissioners.

1.08 UNIT PRICE CHANGE ORDER

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

1.09 TIME AND MATERIAL/FORCE ACCOUNT CHANGE ORDER/CONSTRUCTION CHANGE AUTHORIZATION

- A. At completion of the change, Contractor shall submit itemized accounting and supporting data as provided in the Article "Documentation of Proposals and Claims" of this Section.
- B. County will determine the allowable cost of such work, as provided in General Conditions and Supplementary Conditions.
- C. County will sign and date the Change Order to establish the change in Contract Sum and in Contract Time.
- D. County and Contractor will sign and date the Change Order to indicate their agreement therewith.

1.10 CORRELATION WITH CONTRACTOR'S SUBMITTALS

- A. Periodically revise Schedule of Values and Application for Payment forms to record each change as a separate item of work, and to record the adjusted Contract Sum.
- B. Periodically revise the Construction Schedule to reflect each change in Contract Time. Revise sub schedules to show changes for other items of work affected by the changes.
- C. Upon completion of work under a Change Order, enter pertinent changes in Record Documents.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

SECTION 01200 PROJECT MEETINGS

PART 1 GENERAL

1.01 REQUIREMENTS INCLUDED

- A. The County shall schedule the pre-construction meeting, periodic progress meetings and special meetings, if required, throughout progress of work.
- B. Representatives of contractors, subcontractors and suppliers attending meetings shall be qualified and authorized to act on behalf of the entity each represents.
- C. The Contractor shall attend meetings to ascertain that work is expedited consistent with Contract Documents and construction schedules.

1.02 PRE-CONSTRUCTION MEETING

- A. Attendance:
 - 1. County's Engineer.
 - 2. County's Project Manager
 - 3. Contractor.
 - 4. Resident Project Representative.
 - 5. Related Labor Contractor's Superintendent.
 - 6. Major Subcontractors.
 - 7. Major Suppliers.
 - 8. Others as appropriate.
- B. Suggested Agenda:
 - 1. Distribution and discussion of:
 - a. List of major subcontractors.
 - b. Projected Construction Schedules.
 - c. Coordination of Utilities
 - 2. Critical work sequencing.
 - 3. Project Coordination.
 - a. Designation of responsible personnel.
 - b. Emergency contact persons with phone numbers.
 - 4. Procedures and processing of:
 - a. Field decisions.
 - b. Submittals.
 - c. Change Orders.
 - d. Applications for Payment.
 - 5. Procedures for maintaining Record Documents.
 - 6. Use of premises:
 - a. Office, work and storage areas.
 - b. County's REQUIREMENTS.
 - 7. Temporary utilities.
 - 8. Housekeeping procedures.
 - 9. Liquidated damages.
 - 10. Equal Opportunity Requirements.
 - 11. Laboratory testing.
 - 12. Project / Job meetings: Progress meeting, other special topics as needed.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

SECTION 01310 CONSTRUCTION SCHEDULE & PROJECT RESTRAINTS

PART 1 GENERAL

1.01 GENERAL

- A. Construction under this contract must be coordinated with the County and accomplished in a logical order to maintain utilization and flow through existing facilities and public properties and rights-of-way and to allow construction to be completed within the time allowed by Contract Documents and in the manner set forth in the Contract.

1.02 CONSTRUCTION SCHEDULING GENERAL PROVISIONS

- A. No work shall be done between 7:00 p.m. and 7:00 a.m. nor on weekends or legal holidays without written permission of the County. However, emergency work may be done if coordinated and approved by Duette Preserve Park personnel.
- B. Night work may be established by the Contractor as regular procedure with the written permission of the County. Such permission, however, may be revoked at any time by the County if the Contractor fails to maintain adequate equipment and supervision for the proper execution and control of the work at night.
- C. Due to potential health hazards and requirements of the State of Florida and the U.S. Environmental Protection Agency, existing facilities must be maintained in operation.
- D. The Contractor shall be fully responsible for providing all temporary piping, plumbing, electrical hook-ups, lighting, temporary structure, or other materials, equipment and systems required to maintain the existing facility's operations. All details of temporary piping and temporary construction are not necessarily shown on the Drawings or covered in the Specifications. However, this does not relieve the Contractor of the responsibility to ensure that construction will not interrupt proper facility operations.
- E. The Contractor shall designate an authorized representative of his firm who shall be responsible for development and maintenance of the schedule and of progress and payment reports. This representative of the Contractor shall have direct project control and complete authority to act on behalf of the Contractor in fulfilling the commitments of the Contractor's schedule.

PART 2 PRODUCTS

2.01 GENERAL REQUIREMENTS

- A. The Contractor shall submit a critical path schedule as described herein.
- B. The planning, scheduling, management and execution of the work is the sole responsibility of the Contractor. The progress schedule requirement is established to allow County to review Contractor's planning, scheduling, management and execution of the work; to assist County in evaluating work progress and make progress payments and to allow other contractors to cooperate and coordinate their activities with those of the Contractor.

2.02 FORM OF SCHEDULES

- A. Prepare schedules shall be time-scaled and sequenced by work areas. Horizontal time scale shall identify the first work day of each week.
- B. Activities shall be at least as detailed as the Schedule of Values. Activity durations shall be in whole working days. In addition, man-days shall be shown for each activity or tabulated in an accompanying report.
- C. Diagrams shall be neat and legible and submitted on sheets at least 8-1/2 inches by 11 inches suitable for reproduction. Scale and spacing shall allow space for notations and future revisions.

2.03 CONTENT OF SCHEDULES

- A. Each monthly schedule shall be based on data as of the last day of the current pay period.
- B. Description for each activity shall be brief, but convey the scope of work described.
- C. Activities shall identify all items of work that must be accomplished to achieve substantial completion, such as items pertaining to Contractor's installation and testing activities; items pertaining to the approval of regulatory agencies; contractor's time required for submittals, fabrication and deliveries; the time required by County to review all submittals as set forth in the Contract Documents; items of work required of County to support pre-operational, startup and final testing; time required for the relocation of utilities. Activities shall also identify interface milestones with the work of other contractors performing work under separate contracts with County.
- D. Schedules shall show the complete sequence of construction by activities. Dates for beginning and completion of each activity shall be indicated as well as projected percentage of completion for each activity as of the first day of each month.
- E. Submittal schedule for shop drawing review, product data, and samples shall show the date of Contractor submittal and the date approved submittals will be required by the County, consistent with the time frames established in the Specifications.
- F. For Contract change orders granting time extensions, the impact on the Contract date(s) shall equal the calendar-day total time extension specified for the applicable work in the Contract change orders.
- G. For actual delays, add activities prior to each delayed activity on the appropriate critical path(s). Data on the added activities of this type shall portray all steps leading to the delay and shall further include the following: separate activity identification, activity description indicating cause of the delay, activity duration consistent with whichever set of dates below applies, the actual start and finish dates of the delay or, if the delay is not finished, the actual start date and estimated completion date.
- H. For potential delays, add an activity prior to each potentially delayed activity on the appropriate critical path(s). Data for added activities of this type shall include alternatives available to mitigate the delay including acceleration alternatives and further show the following: separate activity identification, activity description indicating cause of the potential delay and activity duration equal to zero work days.

2.04 SUPPORTING NARRATIVE

- A. Status and scheduling reports identified below shall contain a narrative to document the project status, to explain the basis of Contractor's determination of durations, describe the Contract conditions and restraints incorporated into the schedule and provide an analysis pertaining to potential problems and practical steps to mitigate them.
- B. The narrative shall specifically include:
 - 1. Actual completion dates for activities completed during the monthly report period and actual start dates for activities commenced during the monthly report period.
 - 2. Anticipated start dates for activities scheduled to commence during the following monthly report period.
 - 3. Changes in the duration of any activity and minor logic changes.
 - 4. The progress along the critical path in terms of days ahead or behind the Contract date.
 - 5. If the Monthly Status Report indicates an avoidable delay to the Contract completion date or interim completion dates as specified in the Agreement, Contractor shall identify the problem, cause and the activities affected and provide an explanation of the proposed corrective action to meet the milestone dates involved or to mitigate further delays.
 - 6. If the delay is thought to be unavoidable, the Contractor shall identify the problem, cause, duration, specific activities affected and restraints of each activity.
 - 7. The narrative shall also discuss all change order activities whether included or not in the revised/current schedule of legal status. Newly introduced change order work activities and the CPM path(s) that they affect, must be specifically identified. All change order work activities added to the schedule shall conform to the sequencing and Contract Time requirements of the applicable Change Order.
 - 8. Original Contract date(s) shall not be changed except by Contract change order. A revision need not be submitted when the foregoing situations arise unless required by County. Review of a report containing added activities will not be construed to be concurrence with the duration or restraints for such added activities; instead the corresponding data as ultimately incorporated into the applicable Contract change order shall govern.
 - 9. Should County require additional data, this information shall be supplied by Contractor within 10 calendar days.

2.05 SUBMITTALS

- A. Contractor shall submit estimated and preliminary progress schedules (as identified in the Terms and Conditions of the Contract and the General Conditions), monthly status reports, a start-up schedule and an as-built schedule report all as specified herein.
- B. All schedules, including estimated and preliminary schedules, shall be in conformance with the Contract Documents.
- C. The finalized progress schedule discussed in the Contract Documents shall be the first monthly status report and as such shall be in conformance with all applicable specifications contained herein.
- D. Monthly Status Report submittals shall include a time-scaled (days after notice to proceed) diagram showing all contract activities and supporting narrative. The initial detailed schedule shall use the notice to proceed as the start date. The finalized schedule, if

concurrent with by County, shall be the work plan to be used by the contractor for planning, scheduling, managing and executing the work.

- E. The schedule diagram shall be formatted as above. The diagram shall include (1) all detailed activities included in the preliminary and estimated schedule submittals, (2) calendar days prior to substantial completion, (3) summary activities for the remaining days. The critical path activities shall be identified, including critical paths for interim dates, if possible.
- F. The Contractor shall submit progress schedules with each application for payment.

2.06 MONTHLY STATUS REPORTS

- A. Contractor shall submit detailed schedule status reports on a monthly basis with the Application for Payment. The first such status report shall be submitted with the first Application for Payment and include data as of the last day of the pay period. The Monthly Report shall include a "marked-up" copy of the latest detailed schedule of legal status and a supporting narrative including updated information as described above. The Monthly Report will be reviewed by County and Contractor at a monthly schedule meeting and Contractor will address County's comments on the subsequent monthly report. Monthly status reports shall be the basis for evaluating Contractor's progress.
- B. The "marked-up" diagram shall show, for the latest detailed schedule of legal status, percentages of completion for all activities, actual start and finish dates and remaining durations, as appropriate. Activities not previously included in the latest detailed schedule of legal status shall be added, except that contractual dates will not be changed except by change order. Review of a marked-up diagram by County will not be construed to constitute concurrence with the time frames, duration, or sequencing for such added activities; instead the corresponding data as ultimately incorporated into an appropriate change order shall govern.

2.07 STARTUP SCHEDULE

- A. Contractor shall submit a time-scaled (days after notice to proceed) diagram detailing the work to take place prior to substantial completion, together with a supporting narrative. County shall have 10 calendar days after receipt of the submittal to respond. Upon receipt of County's comments, Contractor shall make the necessary revisions and submit the revised schedule within 10 calendar days. The resubmittal, if concurrent with by County, shall be the Work Plan to be used by Contractor for planning, managing, scheduling and executing the remaining work leading to substantial completion.
- B. Any proposed deviations from the approved schedule shall be submitted in writing by the Contractor to the County for review and approval.

2.08 REVISIONS

- A. All revised Schedule Submittals shall be made in the same form and detail as the initial submittal and shall be accompanied by an explanation of the reasons for such revisions, all of which shall be subject to review and concurrence by County. The revision shall incorporate all previously made changes to reflect current as-built conditions. Minor changes to the approved submittal may be approved at monthly meetings; a minor change is not considered a revision in the context of this paragraph.

B. A revised schedule submittal shall be submitted for review when required by County.

PART 3 EXECUTION (NOT USED)

END OF SECTION

SECTION 01340 SHOP DRAWINGS, PROJECT DATA AND SAMPLES

PART 1 GENERAL

1.01 REQUIREMENTS INCLUDED

- A. The Contractor shall submit to the County for review and approval: working drawings, shop drawings, test reports and data on materials and equipment (hereinafter in this section called data), and material samples (hereinafter in this section called samples) as are required for the proper control of work, including, but not limited to those working drawings, shop drawings, data and samples for materials and equipment specified elsewhere in the Specifications and in the Contract Drawings.
- B. The Contractor is to maintain an accurate updated submittal log and will bring this log to each scheduled progress meeting with the County. This log should include the following items:
1. Submittal description and number assigned.
 2. Date to County.
 3. Date returned to Contractor (from County).
 4. Status of Submittal (No exceptions taken, returned for confirmation or resubmittal, rejected).
 5. Date of Resubmittal and Return (as applicable).
 6. Date material released (for fabrication).
 7. Projected date of fabrication.
 8. Projected date of delivery to site.
 9. Projected date and required lead time so that product installation does not delay contact.
 10. Status of O&M manuals submitted.

1.03 CONTRACTOR'S RESPONSIBILITY

- A. It is the duty of the Contractor to check all drawings, data and samples prepared by or for him before submitting them to the County for review. Each and every copy of the Drawings and data shall bear Contractor's stamp showing that they have been so checked. Shop drawings submitted to the County without the Contractor's stamp will be returned to the Contractor for conformance with this requirement. Shop drawings shall indicate any deviations in the submittal from requirements of the contract Documents.
- B. Determine and verify:
1. Field measurements.
 2. Field construction criteria.
 3. Catalog numbers and similar data.
 4. Conformance with Specifications and indicate all variances from the Specifications.
- C. The Contractor shall furnish the County a schedule of Shop Drawing submittals fixing the respective dates for the submission of shop and working drawings, the beginning of manufacture, testing and installation of materials, supplies and equipment. This schedule shall indicate those that are critical to the progress schedule.

- D. The Contractor shall not begin any of the work covered by a drawing, data, or a sample returned for correction until a revision or correction thereof has been reviewed and returned to him, by the County, with No Exceptions Taken or Approved As Noted.
- E. The Contractor shall submit to the County all drawings and schedules sufficiently in advance of construction requirements to provide no less than twenty-one (21) calendar days for checking and appropriate action from the time the County receives them.
- F. All material & product submittals, other than samples, may be transmitted electronically as a pdf file. All returns to the contractor will be as a pdf file only unless specifically requested otherwise.
- G. The Contractor shall be responsible for and bear all cost of damages which may result from the ordering of any material or from proceeding with any part of work prior to the completion of the review by County of the necessary Shop Drawings.

1.04 COUNTY'S REVIEW OF SHOP DRAWINGS AND WORKING DRAWINGS

- A. The County's review of drawings, data and samples submitted by the Contractor shall cover only general conformity to the Specifications, external connections and dimensions which affect the installation.
- B. The review of drawings and schedules shall be general and shall not be construed:
 - 1. As permitting any departure from the Contract requirements.
 - 2. As relieving the Contractor of responsibility for any errors, including details, dimensions and materials.
 - 3. As approving departures from details furnished by the County, except as otherwise provided herein.
- C. If the drawings or schedules as submitted describe variations and show a departure from the Contract requirements which the County finds to be in the interest of the County and to be so minor as not to involve a change in Contract Price or time for performance, the County may return the reviewed drawings without noting any exception.
- D. When reviewed by the County, each of the Shop and Working Drawings shall be identified as having received such review being so stamped and dated. Shop Drawings stamped "REJECTED" and with required corrections shown shall be returned to the Contractor for correction and resubmittal.
- E. Resubmittals will be handled in the same manner as first submittals. On resubmittals, the Contractor shall direct specific attention, in writing or on resubmitted Shop Drawings, to revisions other than the corrections requested by the County on previous submissions. The Contractor shall make any corrections required by the County.
- F. If the Contractor considers any correction indicated on the drawings to constitute a change to the Contract Drawings or Specifications, the Contractor shall give written notice thereof to the County.
- G. The County shall review a submittal/resubmittal a maximum of three (3) times after which cost of review shall be borne by the Contractor. The cost of engineering shall be equal to the County's actual payroll cost.

- H. When the Shop and Working Drawings have been completed to the satisfaction of the County, the Contractor shall carry out the construction in accordance therewith and shall make no further changes therein except upon written instructions from the County.
- I. No partial submittals shall be reviewed. Incomplete submittals shall be returned to the Contractor and shall be considered not approved until resubmitted.

1.05 SHOP DRAWINGS

- A. When used in the Contract Documents, the term "Shop Drawings" shall be considered to mean Contractor's plans for material and equipment which become an integral part of the Project. These drawings shall be complete and detailed. Shop Drawings shall consist of fabrication, drawings, setting drawings, schedule drawings, manufacturer's scale drawings and wiring and control diagrams. Cuts, catalogs, pamphlets, descriptive literature and performance and test data, shall be considered only as supportive to required Shop Drawings as defined above.
- B. Drawings and schedules shall be checked and coordinated with the work of all trades involved, before they are submitted for review by the County and shall bear the Contractor's stamp of approval and original signature as evidence of such checking and coordination. Drawings or schedules submitted without this stamp of approval and original signature shall be returned to the Contractor for resubmission.
- C. Each Shop Drawing shall have a blank area 3-1/2 inches by 3-1/2 inches, located adjacent to the title block. The title block shall display the following:
 - 1. Number and title of the drawing.
 - 2. Date of Drawing or revision.
 - 3. Name of project building or facility.
 - 4. Name of contractor and subcontractor submitting drawing.
 - 5. Clear identification of contents and location of the work.
 - 6. Specification title and number.
- D. If drawings show variations from Contract requirements because of standard shop practice or for other reasons, the Contractor shall describe such variations in his letter of transmittal. If acceptable, proper adjustment in the contract shall be implemented where appropriate. If the Contractor fails to describe such variations, he shall not be relieved of the responsibility of executing the work in accordance with the Contract, even though such drawings have been reviewed.
- E. Data on materials and equipment shall include, without limitation, materials and equipment lists, catalog sheets, cuts, performance curves, diagrams, materials of construction and similar descriptive material. Materials and equipment lists shall give, for each item thereon, the name and location of the supplier or manufacturer, trade name, catalog reference, size, finish and all other pertinent data.
- F. For all mechanical and electrical equipment furnished, the Contractor shall provide a list including the equipment name and address and telephone number of the manufacturer's representative and service company so that service and/or spare parts can be readily obtained.
- G. All manufacturers or equipment suppliers who proposed to furnish equipment or products shall submit an installation list to the County along with the required shop drawings. The

installation list shall include at least five installations where identical equipment has been installed and have been in operation for a period of at least one (1) year.

- H. Only the County will utilize the color "red" in marking shop drawing submittals.

1.06 WORKING DRAWINGS

- A. When used in the Contract Documents, the term "working drawings" shall be considered to mean the Contractor's fabrication and erection drawings for structures such as roof trusses, steelwork, precast concrete elements, bulkheads, support of open cut excavation, support of utilities, groundwater control systems, forming and false work; underpinning; and for such other work as may be required for construction of the project.
- B. Copies of working drawings as noted above, shall be submitted to the County where required by the Contract Documents or requested by the County and shall be submitted at least thirty (30) days (unless otherwise specified by the County) in advance of their being required for work.
- C. Working drawings shall be signed by a registered Professional Engineer, currently licensed to practice in the State of Florida and shall convey, or be accompanied by, calculation or other sufficient information to completely explain the structure, machine, or system described and its intended manner of use. Prior to commencing such work, working drawings must have been reviewed without specific exceptions by the County, which review will be for general conformance and will not relieve the Contractor in any way from his responsibility with regard to the fulfillment of the terms of the Contract. All risks of error are assumed by the Contractor; the County and Engineer shall not have responsibility therefor.

1.07 SAMPLES

- A. The Contractor shall furnish, for the review of the County, samples required by the Contract Documents or requested by the County. Samples shall be delivered to the County as specified or directed. The Contractor shall prepay all shipping charges on samples. Materials or equipment for which samples are required shall not be used in work until reviewed by the County.
- B. Samples shall be of sufficient size and quantity to clearly illustrate:
 - 1. Functional characteristics of the product, with integrally related parts and attachment devices.
 - 2. Full range of color, texture and pattern.
 - 3. A minimum of two samples of each item shall be submitted.
- C. Each sample shall have a label indicating:
 - 1. Name of product.
 - 2. Name of Contractor and Subcontractor.
 - 3. Material or equipment represented.
 - 4. Place of origin.
 - 5. Name of Producer and Brand (if any).
 - 6. Location in project.
(Samples of finished materials shall have additional markings that will identify them under the finished schedules.)
 - 7. Reference specification paragraph.

- D. The Contractor shall prepare a transmittal letter in triplicate for each shipment of samples containing the information required above. He shall enclose a copy of this letter with the shipment and send a copy of this letter to the County. Review of a sample shall be only for the characteristics or use named in such and shall not be construed to change or modify any Contract requirements.
- E. Reviewed samples not destroyed in testing shall be sent to the County or stored at the site of the work. Reviewed samples of the hardware in good condition will be marked for identification and may be used in the work. Materials and equipment incorporated in work shall match the reviewed samples. If requested at the time of submission, samples which failed testing or were rejected shall be returned to the Contractor at his expense.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

SECTION 01370 SCHEDULE OF VALUES

PART 1 GENERAL

1.01 REQUIREMENTS INCLUDED

- A. The Contractor shall submit to the County a Schedule of Values allocated to the various portions of the work, within 10 days after date of Notice to Proceed.
- B. Upon request of the County, the Contractor shall support the values with data which will substantiate their correctness.
- C. The Schedule of Values shall be used only as the basis for the Contractor's Applications for Payment.

1.02 FORM AND CONTENT OF SCHEDULE OF VALUES

- A. Schedule of Values will be considered for approval by County upon Contractor's request. Identify schedule with:
 - 1. Title of Project and location.
 - 2. Project number.
 - 3. Name and address of Contractor.
 - 4. Contract designation.
 - 5. Date of submission.
- B. Schedule of Values shall list the installed value of the component parts of the work in sufficient detail to serve as a basis for computing values for progress payments during construction.
- C. Follow the table of contents for the Contract Document as the format for listing component items for structures:
 - 1. Identify each line item with the number and title of the respective major section of the specification.
 - 2. For each line item, list sub values of major products or operations under item.
- D. Follow the bid sheets included in this Contract Documents as the format for listing component items for pipe lines.
- E. The sum of all values listed in the schedule shall equal the total Contract sum.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

SECTION 01380 CONSTRUCTION PHOTOGRAPHS

PART 1 GENERAL

1.01 REQUIREMENTS INCLUDED

- A. The Contractor shall employ a competent photographer to take construction record photographs or perform video, recording including furnishing all labor, materials, equipment and incidentals necessary to obtain photographs and/or video recordings of all construction areas.
- B. Preconstruction record information shall consist of video recordings in a format approved by the County.
- C. Construction progress information shall consist of photographs and digital format.

1.02 QUALIFICATIONS

- A. All photography shall be done by a competent camera operator who is fully experienced and qualified with the specified equipment.
- B. For the video recording, the audio portion should be done by a person qualified and knowledgeable in the specifics of the Contract, who shall speak with clarity and diction so as to be easily understood.

1.03 PROJECT PHOTOGRAPHS

- A. Provide digital photographs with each pay application.
- B. The Contractor shall pay all costs associated with the required photographs. Any parties requiring additional photography or prints shall pay the photographer directly.
- C. All project photographs shall be taken from locations to adequately illustrate conditions prior to construction, or conditions of construction and state of progress. The Contractor shall consult with the County at each period of photography for instructions concerning views required.

1.04 VIDEO RECORDINGS

- A. Video recordings shall include all construction activities and shall also include pre and post construction drone footage.
- B. A complete view, in sufficient detail with audio description of the exact location shall be provided.
- C. The engineering Drawings shall be used as a reference for stationing in the audio portion of the recordings for easy location identification.
- E. All video recordings shall contain the name of the project, the date and time of the video, recording, the name and address of the photographer and any other identifying information required.
- F. Construction shall not start until preconstruction video recordings are completed, submitted

and accepted by the County. In addition, no progress payments shall be made until the preconstruction video recordings are accepted by the County.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

SECTION 01410 TESTING AND TESTING LABORATORY SERVICES

PART 1 GENERAL

1.01 REQUIREMENTS INCLUDED

- A. County shall employ and pay for the services of an independent testing laboratory to perform testing specifically indicated on the Contract Documents or called out in the Specifications. County may elect to have materials and equipment tested for conformity with the Contract Documents at any time.
1. Contractor shall cooperate fully with the laboratory to facilitate the execution of its required services.
 2. Employment of the laboratory shall in no way relieve the Contractor's obligations to perform the work of the Contract.

1.02 LIMITATIONS OF AUTHORITY OF TESTING LABORATORY

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

1.03 CONTRACTOR'S RESPONSIBILITIES

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

- F. Notify laboratory sufficiently in advance of operations to allow for laboratory assignment of personnel and scheduling of tests.
 - 1. When tests or inspections cannot be performed due to insufficient notice, Contractor shall reimburse County for laboratory personnel and travel expenses incurred due to Contractor's negligence.
- G. Employ and pay for the services of the same or a separate, equally qualified independent testing laboratory to perform additional inspections, sampling and testing required for the Contractor's convenience and as approved by the County.
- H. If the test results indicate the material or equipment complies with the Contract Documents, the County shall pay for the cost of the testing laboratory. If the tests and any subsequent retests indicate the materials and equipment fail to meet the requirements of the Contract Documents, the contractor shall pay for the laboratory costs directly to the testing firm or the total of such costs shall be deducted from any payments due the Contractor.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

SECTION 01510 TEMPORARY AND PERMANENT UTILITIES

PART 1 GENERAL

1.01 REQUIREMENTS INCLUDED

The Contractor shall be responsible for furnishing all requisite temporary utilities, i.e., power, water, sanitation, etc. The Contractor shall obtain and pay for all permits required as well as pay for all temporary usages. The Contractor shall remove all temporary facilities upon completion of work.

1.02 REQUIREMENTS OF REGULATORY AGENCIES

- A. Comply with National Electric Code.
- B. Comply with Federal, State and Local codes and regulations and with utility company requirements.
- C. Comply with County Health Department regulations.

PART 2 PRODUCTS

2.01 MATERIALS, GENERAL

Materials for temporary utilities may be "used". Materials for electrical utilities shall be adequate in capacity for the required usage, shall not create unsafe conditions and shall not violate requirements of applicable codes and standards.

2.02 TEMPORARY ELECTRICITY AND LIGHTING

Arrange with the applicable utility company for temporary power supply. Provide service required for temporary power and lighting and pay all costs for permits, service and for power used.

2.03 TEMPORARY WATER

- A. The Contractor shall arrange with Manatee County Utilities Customer Service office to provide water for construction purposes, i.e., meter, pay all costs for installation, maintenance and removal, and service charges for water used.
- B. The Contractor shall protect piping and fitting against freezing.

2.04 TEMPORARY SANITARY FACILITIES

- A. The Contractor shall provide sanitary facilities in compliance with all laws and regulations.
- B. The Contractor shall service, clean and maintain facilities and enclosures.

PART 3 EXECUTION

3.01 GENERAL

- A. The Contractor shall maintain and operate systems to assure continuous service.

- B. The Contractor shall modify and extend systems as work progress requires.

3.02 REMOVAL

- A. The Contractor shall completely remove temporary materials and equipment when their use is no longer required.
- B. The Contractor shall clean and repair damage caused by temporary installations or use of temporary facilities.

END OF SECTION

SECTION 01570 TRAFFIC REGULATION

PART 1 GENERAL (NOT USED)

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

SECTION 01580 PROJECT IDENTIFICATION AND SIGNS

PART 1 GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Furnish, install and maintain County project identification signs.
- B. Remove signs on completion of construction.
- C. Allow no other signs to be displayed except for traffic control and safety.

1.02 PROJECT IDENTIFICATION SIGN (COUNTY)

- A. One painted sign, of not less than 32 square feet (3 square meters) area, with painted graphic content to include:
 - 1. Title of Project.
 - 2. Name of County.
 - 3. Names and titles of authorities as directed by County.
 - 4. Prime Contractor.
- B. Graphic design, style of lettering and colors: As approved by the County.
- C. Erect on the site at a lighted location of high public visibility, adjacent to main entrance to site, as approved by the County

1.03 INFORMATIONAL SIGNS

- A. Painted signs with painted lettering, or standard products.
 - 1. Size of signs and lettering: as required by regulatory agencies, or as appropriate to usage.
 - 2. Colors: as required by regulatory agencies, otherwise of uniform colors throughout project.
- B. Erect at appropriate locations to provide required information.

1.04 QUALITY ASSURANCE

- A. Sign Painter: Professional experience in type of work required.
- B. Finishes, Painting: Adequate to resist weathering and fading for scheduled construction period.

1.05 PUBLIC NOTIFICATION

- A. Door Hangers: The Contractor shall generate and distribute door hangers to all residents who will be impacted by project construction.
 - 1. Residents impacted include anyone who resides inside, or within 500 feet of project limits of construction.

PART 3 EXECUTION

3.01 PROJECT IDENTIFICATION SIGN

- A. Paint exposed surface or supports, framing and surface material; one coat of primer and one coat of exterior paint.
- B. Paint graphics in styles, size and colors selected.

3.02 MAINTENANCE

The Contractor shall maintain signs and supports in a neat, clean condition; repair damages to structures, framing or sign.

3.03 REMOVAL

The Contractor shall remove signs, framing, supports and foundations at completion of project.

END OF SECTION

SECTION 01600 MATERIAL AND EQUIPMENT

PART 1 GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Material and equipment incorporated into the work:
1. Conform to applicable specifications and standards.
 2. Comply with size, make, type and quality specified, or as specifically approved in writing by the County.
 3. Manufactured and Fabricated Products:
 - a. Design, fabricate and assemble in accordance with the best engineering and shop practices.
 - b. Manufacture like parts of duplicate units to standard sizes and gages, to be interchangeable.
 - c. Two or more items of the same kind shall be identical and manufactured by the same manufacturer.
 - d. Products shall be suitable for service conditions.
 - e. Equipment capacities, sizes and dimensions shown or specified shall be adhered to unless variations are specifically approved in writing.
 4. Do not use material or equipment for any purpose other than that for which it is specified.
 5. All material and equipment incorporated into the project shall be new.

1.02 MANUFACTURER'S INSTRUCTIONS

- A. When Contract Documents require that installation of work shall comply with manufacturer's printed instructions, obtain and distribute copies of such instructions to parties involved in the installation, including two copies to County. Maintain one set of complete instructions at the job site during installation and until completion.
- B. Handle, install, connect, clean, condition and adjust products in strict accordance with such instructions and in conformity with specified requirements. Should job conditions or specified requirements conflict with manufacturer's instructions, consult with County prior to proceeding. Do not proceed with work without clear instructions.

1.03 TRANSPORTATION AND HANDLING

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

1.04 SUBSTITUTIONS AND PRODUCT OPTIONS

Contractor's Options:

1. For products specified only by reference standard, select any product meeting that standard.
2. For products specified by naming one or more products or manufacturers and "or equal", Contractor must submit a request for substitutions of any product or manufacturer not specifically named in a timely manner so as not to adversely affect the construction schedule.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

SECTION 01620 STORAGE AND PROTECTION

PART 1 GENERAL

1.01 REQUIREMENTS INCLUDED

Provide secure storage and protection for products to be incorporated into the work and maintenance and protection for products after installation and until completion of Work.

1.02 STORAGE

- A. Store products immediately on delivery and protect until installed in the Work, in accord with manufacturer's instructions, with seals and labels intact and legible.
- B. Exterior Storage
 - 1. Provide substantial platform, blocking or skids to support fabricated products above ground to prevent soiling or staining.
 - a. Cover products, subject to discoloration or deterioration from exposure to the elements, with impervious sheet coverings. Provide adequate ventilation to avoid condensation.
 - b. Prevent mixing of refuse or chemically injurious materials or liquids.
- D. Arrange storage in manner to provide easy access for inspection.

1.03 MAINTENANCE OF STORAGE

- A. Maintain periodic system of inspection of stored products on scheduled basis to assure that:
 - 1. State of storage facilities is adequate to provide required conditions.
 - 2. Required environmental conditions are maintained on continuing basis.
 - 3. Surfaces of products exposed to elements are not adversely affected. Any weathering of products, coatings and finishes is not acceptable under requirements of these Contract Documents.
- B. Mechanical and electrical equipment which requires servicing during long term storage shall have complete manufacturer's instructions for servicing accompanying each item, with notice of enclosed instructions shown on exterior of package.
 - 1. Equipment shall not be shipped until approved by the County. The intent of this requirement is to reduce on-site storage time prior to installation and/or operation. Under no circumstances shall equipment be delivered to the site more than one month prior to installation without written authorization from the County.
 - 2. All equipment having moving parts such as gears, electric motors, etc. and/or instruments shall be stored in a temperature and humidity controlled building approved by the County until such time as the equipment is to be installed.
 - 3. All equipment shall be stored fully lubricated with oil, grease, etc. unless otherwise instructed by the manufacturer.
 - 4. Moving parts shall be rotated a minimum of once weekly to insure proper lubrication and to avoid metal-to-metal "welding". Upon installation of the equipment, the Contractor shall start the equipment, at least half load, once weekly for an adequate period of time to insure that the equipment does not deteriorate from lack of use.
 - 5. Lubricants shall be changed upon completion of installation and as frequently as

- required, thereafter during the period between installation and acceptance.
6. Prior to acceptance of the equipment, the Contractor shall have the manufacturer inspect the equipment and certify that its condition has not been detrimentally affected by the long storage period. Such certifications by the manufacturer shall be deemed to mean that the equipment is judged by the manufacturer to be in a condition equal to that of equipment that has been shipped, installed, tested and accepted in a minimum time period. As such, the manufacturer will guaranty the equipment equally in both instances. If such a certification is not given, the equipment shall be judged to be defective. It shall be removed and replaced at the Contractor's expense.

1.04 PROTECTION AFTER INSTALLATION

- A. Provide protection of installed products to prevent damage from subsequent operations. Remove when no longer needed, prior to completion of work.
- B. Control traffic to prevent damage to equipment and surfaces.
- C. Provide coverings to protect finished surfaces from damage.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

SECTION 01700 CONTRACT CLOSEOUT

PART 1 GENERAL

1.01 REQUIREMENTS INCLUDED

Comply with requirements stated in Conditions of the Contract and in Specifications for administrative procedures in closing out the work.

1.02 SUBSTANTIAL COMPLETION

- A. The Contractor shall submit the following items when the Contractor considers the work to be substantially complete:
 - 1. A written notice that the work, or designated portion thereof, is substantially complete.
 - 2. A list of items to be completed or corrected.
- B. Within a reasonable time after receipt of such notice, the County shall make an inspection to determine the status of completion.
- C. Project record documents and operations and maintenance manuals must be submitted before the project shall be considered substantially complete.
- D. If the County determines that the work is not substantially complete:
 - 1. The County shall notify the Contractor in writing, stating the reasons.
 - 2. The Contractor shall remedy the deficiencies in the work and send a second written notice of substantial completion to the County.
 - 3. The County shall reinspect the work.
- E. When the County finds that the work is substantially complete:
 - 1. The Engineer shall prepare and deliver to the County a tentative Certificate of Substantial Completion (Manatee County Project Management Form PMD-8) with a tentative list of the items to be completed or corrected before final payment.
 - 2. The Engineer shall consider any objections made by the County as provided in Conditions of the Contract. When the Engineer considers the work substantially complete, he will execute and deliver to the County a definite Certificate of Substantial Completion (Manatee County Project Management Form PMD-8) with a revised tentative list of items to be completed or corrected.

1.03 FINAL INSPECTION

- A. When the Contractor considered the work to be complete, he shall submit written certification stating that:
 - 1. The Contract Documents have been reviewed.
 - 2. The work has been inspected for compliance with Contract Documents.
 - 3. The work has been completed in accordance with Contract Documents.
 - 4. The equipment and systems have been tested in the presence of the County's representative and are operational.
 - 5. The work is completed and ready for final inspection.

- B. The County shall make an inspection to verify the status of completion after receipt of such certification.
- C. If the County determines that the work is incomplete or defective:
 - 1. The County shall promptly notify the Contractor in writing, listing the incomplete or defective work.
 - 2. The Contractor shall take immediate steps to remedy the stated deficiencies and send a second written certification to County that the work is complete.
 - 3. The County shall reinspect the work.
- D. Upon finding the work to be acceptable under the Contract Documents, the County shall request the Contractor to make closeout submittals.
- E. For each additional inspection beyond a total one (1) inspection for substantial and final completion due to the incompleteness of the work, the Contractor shall reimburse the County's fees.

1.04 CONTRACTOR'S CLOSEOUT SUBMITTALS TO COUNTY

- A. Project Record Documents (prior to substantial completion).
- B. Warranties and Bonds.
- C. Evidence of Payment and Release of Liens: In accordance with requirements of General and Supplementary Conditions.
- D. Certification letter from regulatory agencies (as applicable).
- E. Certificate of Insurance for Products and Completed Operations.
- F. Final Reconciliation, Warranty Period Declaration, and Contractor's Affidavit (Manatee County Project Management Form PMD-9).

1.05 FINAL ADJUSTMENT OF ACCOUNTS

- A. Submit a final statement of accounting to the County.
- B. Statement shall reflect all adjustments to the Contract Sum:
 - 1. The original Contract Sum.
 - 2. Additions and deductions resulting from:
 - a. Previous Change Orders
 - b. Unit Prices
 - c. Penalties and Bonuses
 - d. Deductions for Liquidated Damages
 - e. Other Adjustments
 - 3. Total Contract Sum, as adjusted.
 - 4. Previous payments.
 - 5. Sum remaining due.
- C. Project Management shall prepare a final Change Order, reflecting approved adjustments

to the Contract Sum which were not previously made by Change Orders.

1.06 FINAL APPLICATION FOR PAYMENT

Contractor shall submit the final Application for Payment in accordance with procedures and requirements stated in the Conditions of the Contract.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

SECTION 01710 CLEANING

PART 1 GENERAL

1.01 REQUIREMENTS INCLUDED

Execute cleaning during progress of the work and at completion of the work, as required by the General Conditions.

1.02 DISPOSAL REQUIREMENTS

Conduct cleaning and disposal operations to comply with all Federal, State and Local codes, ordinances, regulations and anti-pollution laws.

PART 2 PRODUCTS

2.01 MATERIALS

- A. Use only those cleaning materials which will not create hazards to health or property and which will not damage surfaces.
- B. Use only those cleaning materials and methods recommended by manufacturer of the surface material to be cleaned.
- C. Use cleaning materials only on surfaces recommended by cleaning material manufacturer.

PART 3 EXECUTION

3.01 DURING CONSTRUCTION

- A. Execute periodic cleaning to keep the work, the site and adjacent properties free from accumulation of waste materials, rubbish and wind-blown debris, resulting from construction operations.
- B. Provide on-site containers for the collection of waste materials, debris and rubbish.
- C. Remove waste materials, debris and rubbish from the site periodically and dispose of at legal disposal areas away from the site.

3.02 DUST CONTROL

- A. Clean interior spaces prior to the start of finish painting and continue cleaning on an as-needed basis until painting is finished.
- B. Schedule operations so that dust and other contaminants resulting from cleaning process will not fall on wet or newly-coated surfaces.

3.03 FINAL CLEANING

- A. Employ skilled workmen for final cleaning.
- B. Broom clean exterior paved surfaces; rake clean other surfaces of the grounds.

- C. Prior to final completion or County occupancy, Contractor shall conduct an inspection of sight-exposed interior and exterior surfaces and all work areas to verify that the entire work is clean.

END OF SECTION

SECTION 01720 PROJECT RECORD DOCUMENTS

PART 1 GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Contractor shall maintain at the site for the County one record copy of:
1. Drawings.
 2. Specifications.
 3. Addenda.
 4. Change Orders and other modifications to the Contract.
 5. County's field orders or written instructions.
 6. Approved shop drawings, working drawings and samples.
 7. Field test records.
 8. Construction photographs (before, during and after including drone footage).
 9. Stormwater Pollution Prevention Plan with completed forms.

1.02 MAINTENANCE OF DOCUMENTS AND SAMPLES

- A. Store documents and samples in Contractor's field office (or other approved location) apart from documents used for construction.
1. Provide files and racks for storage of documents.
 2. Provide locked cabinet or secure storage space for storage of samples.
- B. File documents and samples in accordance with CSI format.
- C. Maintain documents in a clean, dry, legible, condition and in good order. Do not use record documents for construction purposes.
- D. Make documents and samples available at all times for inspection by the County.

1.03 MARKING DEVICES

- A. Provide felt tip marking pens for recording information in the color code designated by the County.

1.04 RECORDING

- A. Label each document "PROJECT RECORD" in neat large printed letters.
- B. Record information concurrently with construction progress.
- C. Do not conceal any work until required information is recorded.
- D. Drawings; Legibly mark to record actual construction:
1. All underground piping with elevations and dimensions. Changes to piping location. Horizontal and vertical locations of underground utilities and appurtenances, referenced to permanent surface improvements. Actual installed pipe material, class, etc. Locations of drainage ditches, swales, and pipes shall be shown every 50 feet (measured along the centerline) or alternate lines, whichever is closer.

2. Field changes of dimension and detail.
3. Changes made by Field Order or by Change Order.
4. Details not on original contract drawings.
5. Equipment and piping relocations.
6. Elevations shall be provided for all inverts of pipes, ditches, and weirs. Bench marks and elevation datum shall be indicated.
8. Slopes for pipes and ditches shall be recalculated, based on actual field measured distances, elevations, pipe sizes, and type shown. Cross section of drainage ditches and swales shall be verified.
9. Record drawings shall show bearings and distances for all property limits and easement lines, and property corners.
11. Allowable tolerance shall be ± 6.0 inches for horizontal dimensions. Vertical dimensions such as the difference in elevations between manhole inverts shall have an allowable tolerance of $\pm 1/8$ inch per 50 feet (or part thereof) of horizontal distance up to a maximum tolerance of ± 2 inch.
15. Properly prepared record drawings on mylar, together with two copies, shall be certified by a design professional (Engineer and/or Surveyor registered in the State of Florida), employed by the Contractor, and submitted to the County.

E. Specifications and Addenda; Legibly mark each Section to record:

1. Manufacturer, trade name, catalog number and supplier of each product and item of equipment actually installed.
2. Changes made by field order or by change order.

F. Shop Drawings (after final review and approval):

1. Five sets of record drawings for each process equipment, piping, electrical system and instrumentation system.

1.05 SUBMITTAL

- A. The Contractor shall employ a Professional Engineer or Surveyor registered in the State of Florida to verify survey data and properly prepare record drawings. Record drawings shall be certified by the professional(s) (Engineer or Surveyor licensed in Florida), as stipulated by the Land Development Ordinance.

PART 2 STANDARDS

2.01 MINIMUM RECORD DRAWING STANDARDS FOR ALL RECORD DRAWINGS SUBMITTED TO MANATEE COUNTY

- A. Record drawings shall be submitted to at least the level of detail in the contract documents. It is anticipated that the original contract documents shall serve as at least a background for all record information. Original drawings in CAD format may be requested of the County.
- B. Drawings shall meet the criteria of paragraph 1.04 D above.

PART 3 EXECUTION (NOT USED)

END OF SECTION

SECTION 01740 WARRANTIES AND BONDS

PART 1 GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Compile specified warranties and bonds.
- B. Compile specified service and maintenance contracts.
- C. Co-execute submittals when so specified.
- D. Review submittals to verify compliance with Contract Documents.
- E. Submit to County for review and transmittal.

1.02 SUBMITTAL REQUIREMENTS

- A. Assemble warranties, bonds and service and maintenance contracts, executed by each of the respective manufacturers, suppliers and subcontractors.
- B. Number of original signed copies required: Two each.
- C. Table of Contents: Neatly typed, in orderly sequence. Provide complete information for each item.
 - 1. Product or work item.
 - 2. Firm, with name of principal, address and telephone number.
 - 3. Scope.
 - 4. Date of beginning of warranty, bond or service and maintenance contract.
 - 5. Duration of warranty, bond or service maintenance contract.
 - 6. Provide information for County's personnel:
 - a. Proper procedure in case of failure.
 - b. Instances which might affect the validity of warranty or bond.
 - 7. Contractor, name of responsible principal, address and telephone number.

1.03 FORM OF SUBMITTALS

- A. Prepare in duplicate packets.
- B. Format:
 - 1. Size 8-1/2 inch x 11 inch punched sheets for standard 3-ring binder. Fold larger sheets to fit into binders.
 - 2. Cover: Identify each packet with typed or printed title "WARRANTIES AND BONDS". List:
 - a. Title of Project.
 - b. Name of Contractor.
- C. Binders: Commercial quality, three-ring, with durable and cleanable plastic covers.

1.04 TIME OF SUBMITTALS

- A. Make submittals within ten days after date of substantial completion and prior to final request for payment.
- B. For items of work, where acceptance is delayed materially beyond date of substantial completion, provide updated submittal within ten days after acceptance, listing date of acceptance as start of warranty period.

1.05 SUBMITTALS REQUIRED

- A. Submit warranties, bonds, service and maintenance contracts as specified in respective sections of Specifications.
- B. Approval by the County of all documents required under this section is a pre-requisite to requesting a final inspection and final payment

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

DIVISION 2 SITE WORK

SECTION 02100 SITE PREPARATION

PART 1 GENERAL

1.01 SCOPE OF WORK

- A. This Section covers clearing, grubbing and stripping of the project.
- B. The Contractor shall clear and grub all of the area within the limits of construction or as required, which includes, but is not limited to utility easements. The width of the area to be cleared shall be reviewed by the County prior to the beginning of any clearing.
- C. The Contractor's attention is directed to any Soil Erosion and Sediment Control Ordinances in force in Manatee County. The Contractor shall comply with all applicable sections of these ordinances.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION

3.01 CLEARING

The surface of the ground, for the area to be cleared and grubbed shall be completely cleared of all timber, brush, stumps, roots, grass, weeds, exotic plants rubbish and all other objectionable obstructions resting on or protruding through the surface of the ground. However, trees shall be preserved as hereinafter specified unless otherwise designated by the County. Clearing operations shall be conducted so as to prevent damage to existing structures and installations and to those under construction, so as to provide for the safety of employees and others. Soil erosion control devices such as hay bales and silt fences shall be installed to satisfy all Federal, State and County requirements.

3.02 GRUBBING

Grubbing shall consist of the complete removal of all stumps, roots larger than 1-1/2 inches in diameter, matted roots, brush, timber, logs and any other organic or metallic debris not suitable for foundation purposes, resting on, under or protruding through the surface of the ground to a depth of 18 inches below the subgrade. All depressions excavated below the original ground surface for or by the removal of such objects, shall be refilled with suitable materials and compacted to a density conforming to the existing grade and surrounding ground surface.

3.03 STRIPPING

In areas so designated, clean topsoil with minimal nuisance/exotic species coverage shall be stockpiled. Topsoil so stockpiled shall be protected until it is placed as specified. The County shall have the option to receive all excess topsoil materials. The Contractor shall pay all equipment and labor cost to deliver excess top soil material to a remote site chosen by the County within a five mile radius of the construction site. Should County not choose to receive any or all excess topsoil materials, the Contractor shall dispose of said material at no additional cost to County.

3.04

DISPOSAL OF CLEARED AND GRUBBED MATERIAL

All native woody debris that measures over three-quarters inch in diameter and longer than 18-inches shall be removed and chipped, except logs and brush salvaged as required in the Large Woody Debris Removal section below. Chipped native plant material shall be spread over interior access and haul roads or at other onsite locations approved by the County, but shall not be spread on any areas designated to be planted or contoured as stream channel, or on fire breaks.

The Contractor shall dispose of all exotic and nuisance material and debris from the clearing and grubbing operation by hauling such material and debris off site. The cost of disposal (including hauling) of cleared and grubbed material and debris shall be considered a subsidiary obligation of the Contractor; the cost of which shall be included in the prices bid for the various classes of work.

The Contractor may burn cleared materials within the limits of the project subject to the County's approval of the location, in accordance with all applicable state laws, and appropriate FDACS permit requirements.

LARGE WOODY DEBRIS HABITAT

General:

- A. Scope of Work: The WORK consists of preparing areas at which large woody debris (LWD) habitat are to be placed, excavation of channel material, furnishing and placing logs, and finishing banks, structure slopes, and stream channel at the locations specified by the engineer.
- B. Applicable Publications: Kiefer et al. 2015. Chapter 10 - Two Stream Creation Construction Techniques (p. 406-422): In Peninsular Florida Stream Systems. Guidance for their Classifications and Restoration. FIPR Institute Pub. No. 05-03-154R. Bartow FL.
- C. WARRANTY: The CONTRACTOR shall warrant the WORK against defects as described in the contract documents.

Product Requirements:

- A. General Requirements: Hardwood stumps and logs to be salvaged from live trees during clearing operations. Acceptable species include oaks, maples, holly, bays, gums, hickory, and other non-coniferous native Florida trees defined as hardwoods by standard usage. Coniferous softwoods such as pines, cedar, and cypress are excluded. COUNTY may reject LWD based on species, dimension, rot, wood boring insects, or other factors rendering its use counter to project objections.
- B. Logs for Random Placement: Hardwood tree species with a trunk diameter of 4 to 8". The length of each log shall be 4 to 8 foot. Logs shall be from trees free of rot and/or disease.
- C. Materials for Construction
 - 1. Anchor: Rebar will be used to anchor logs into the ground Four-foot long, ½ inch thick rebar shall be used.
 - 2. Nails: Nails will be used to attach the geotextile fabric to logs. Two-inch galvanized roofing nails shall be used.

Execution

- A. Installation: Prior to the completion of South System EARTHWORK, when it has progressed beyond the halfway point, the ENGINEER shall select and stake one LWD root wad placement location in the field on the downstream of the large bend. CONTRACTOR will inspect the deployment with the ENGINEER prior to implementation.
- B. Root Wad:
 1. Tree selected for use in root wad structure shall be carefully excavated and downed. The CONTRACTOR shall first excavate around the base of the tree taking care to maintain a root ball about 2 to 3 feet in radius around the trunk. The CONTRACTOR shall then push the tree over with a track excavator or dozer. The top of the tree and limbs may then be cut so the log and root ball may be transported. The CONTRACTOR, upon removal of the trunk and root, shall remove soil to the extent acceptable by the ENGINEER. Care shall be taken to preserve the root structure on the harvested trees to be used as root wads.
 2. Construct root wad structures by first shaping the bankfull channel. Next, excavate enough bank material to place the straight/trunk end into the bank. The trunk must be keyed into the bank at least 3 ft. The exposed root wad will protrude into the stream channel with the goal of providing habitat and providing shear stress to the bank.
 3. Drill holes in both ends of the trunk and install rebar into the trunk and into the ground to hold the root wad structure in place. Bend the top of the rebar so it stays in place.
 4. Install geotextile fabric along the upstream side of the root wad. Secure geotextile fabric to log using two-inch galvanized roofing anils on 1-foot spacing.
 5. Backfill around the root wad with local backfill. The nails used to secure the geotextile fabric shall be covered with backfill. The geotextile fabric shall be completely covered and not visible.
 6. Seeding and planting of shrubs and trees shall be conducted per the planting plan.
- C. Random LWD
 1. Random LWD logs are to be placed throughout the South System stream at an approximate density of three pieces per 100 linear feet of stream. Logs can be placed directly onto the streambed and typically oriented diagonally. Logs can be keyed into the bank, but it is not necessary.
 2. Drill holes in both ends of the log and install rebar into the log and into the ground to hold the random LWD in place. Bend the top of the rebar so it stays in place.

3.05 PRESERVATION OF TREES AND SHRUBS

Those trees and shrubs which are not designated for removal by the County shall be carefully protected from damage. The Contractor shall erect such barricades, guards and enclosures as may be considered necessary by him for the protection of the trees and shrubs during all construction operation.

3.06 PRESERVATION OF DEVELOPED PRIVATE PROPERTY

- A. The Contractor shall exercise extreme care to avoid unnecessary disturbance of developed private property adjacent to proposed project site. Agricultural crops and associated infrastructure, trees, shrubbery, gardens, lawns and other landscaping, which are not designated by the County to be removed, shall be replaced and replanted to restore the construction easement to the condition existing prior to construction.
- B. All soil preservation procedures and replanting operations shall be under the supervision of a planting contractor representative experienced in such operations.
- C. Improvements to the land such as fences, walls, outbuildings and other structures which of necessity must be removed, shall be replaced with equal quality materials and workmanship.
- D. The Contractor shall clean up the construction site across developed private property directly after construction is completed upon approval of the County.

3.07 PRESERVATION OF PUBLIC PROPERTY

The appropriate paragraphs of these Specifications shall apply to the preservation and restoration of public lands, parks, rights-of-way, easements and all other damaged areas. This includes, but is not limited to the trimming of trees damaged by contractor's equipment.

3.08 NUISANCE/EXOTIC SPECIES MAINTENANCE

Manatee County has been applying herbicides to nuisance/exotic vegetation on and adjacent to the project site. The Contractor will take over exotic/exotic vegetation control efforts once the site is turned over to him. All invasive/exotic species according to the most recent Exotic Pest Plant Council List will be maintained by the Contractor at 0% after final grade establishment and through the plant warranty period. Herbicide applications must not cause stress or death to installed plants or native vegetation to remain on the project site or in adjacent areas after restoration work has been completed. Maintenance records will need to be maintained by the contractor and provided to the County on a weekly basis. The Contractor will arrange a pre-planting site inspection of the project area with Manatee County or their designee to verify that the site is free of nuisance/exotic vegetation and is ready for plant installation. Spot treatments or mechanical removal of nuisance/exotic seedlings or vegetation must be conducted during the plant warranty period. Any stressed or dead plants resulting from herbicide application (or other contracted work) will be replaced within 30 days at no extra cost to Manatee County.

END OF SECTION

SECTION 02221 TRENCHING, BEDDING AND BACKFILL FOR PIPE

PART 1 GENERAL

1.01 SCOPE OF WORK

- A. The Contractor shall furnish all labor, materials, equipment and incidentals necessary to perform all excavation, backfill, fill, grading, trench protection or other related work required to complete the piping work shown on the Drawings and specified herein. The work shall include, but not be limited to: vaults; duct conduit; pipe; roadways and paving; backfilling; required fill or borrow operations; grading; disposal of surplus and unsuitable materials; and all related work such as sheeting, bracing and dewatering.
- B. Prior to commencing work, the Contractor shall examine the site and review test borings if available, or undertake his own subsurface investigations and take into consideration all conditions that may affect his work.
- C. The Contractor is responsible for the protection of every tree which is scheduled to remain in the project area. This includes trees which may or may not be shown on the Drawings. Every tree shall be adequately protected in place at no additional cost to the County. This includes, but is not limited to protecting the root systems and adjusting grades as necessary for tree/root protection.

1.02 PROTECTION

- A. Dewatering, Drainage and Flotation
 - 1. The Contractor shall construct and place all pipelines, concrete work, structural fill, bedding rock and limerock base course, in-the-dry. In addition, the Contractor shall make the final 24" of excavation for this work in-the-dry and not until the water level is a minimum of 6" below proposed bottom of excavation.
 - 2. The Contractor shall, at all times during construction, provide and maintain proper equipment and facilities to remove promptly and dispose of properly all water entering excavation and keep such excavations dry so as to obtain a satisfactory undisturbed subgrade foundation condition until the fill, structure, or pipes to be built thereon have been completed to such extent that they will not be floated or otherwise damaged by allowing water levels to return to natural elevations.
 - 3. Dewatering shall at all times be conducted in such a manner as to preserve the natural undisturbed bearing capacity of the subgrade soils at proposed bottom of excavation.
 - 4. Wellpoints may be required for dewatering the soil prior to final excavation for deeper in-ground structures or piping and for maintaining the lowered groundwater level until construction has been completed to avoid the structure, pipeline, or fill from becoming floated or otherwise damaged. Wellpoints shall be surrounded by suitable filter sand and no fines shall be removed by pumping. Pumping from wellpoints shall be continuous and standby pumps shall be provided.
 - 5. The Contractor shall furnish all materials and equipment to perform all work required to install and maintain the proposed drainage systems for handling groundwater and surface water encountered during construction of structures, pipelines and compacted fills.
 - 6. Prior to excavation, the Contractor shall submit his proposed method of dewatering and maintaining dry conditions to the County for approval. Such approval shall not relieve the Contractor of the responsibility for the satisfactory performance of the

system. The Contractor shall be responsible for correcting any disturbance of natural bearing soils for damage to pipeline or structures caused by an inadequate dewatering system or by interruption of the continuous operation of the system as specified.

7. As part of his request for approval of a dewatering system, the Contractor shall demonstrate the adequacy of the proposed system. Discharge water shall be clear, with no visible soil particles in a one quart sample. Discharge water shall not flow directly into wetlands or Waters of the State as defined by FDEP and SWFWMD.

PART 2 PRODUCTS

2.01 MATERIALS

A. General

1. Materials for use as fill and backfill shall be described below. For each material, the Contractor shall notify the County of the source of the material and shall furnish the County, for approval, a representative sample weighing approximately 50 pounds, at least ten calendar days prior to the date of anticipated use of such material.
2. Additional materials shall be furnished as required from off-site sources and hauled to the site.

B. Structural Fill

1. Structural fill in trenches shall be used below spread footing foundations, slab-on-grade floors and other structures as backfill within three feet of the below grade portions of structures.
2. Structural fill material shall be a minimum of 60 percent clean sand, free of organic, deleterious and/or compressible material. Minimum acceptable density shall be 98 percent of the maximum density as determined by AASHTO T-180. Rock in excess of 2-1/2" in diameter shall not be used in the fill material. If the moisture content is improper for attaining the specified density, either water shall be added or material shall be permitted to dry until the proper moisture content for compaction is reached.

C. Common Fill

1. Common fill material shall be free from organic matter, muck or marl and rock exceeding 2-1/2" in diameter. Common fill shall not contain broken concrete, masonry, rubble or other similar materials. Existing soil may be used to adjust grades over the site with the exception of the construction area.
2. Material falling within the above specification, encountered during the excavation, may be stored in segregated stockpiles for reuse. All material which, in the opinion of the County, is not suitable for reuse shall be spoiled as specified herein for disposal of unsuitable materials by the Contractor.

D. Crushed Stone

1. Crushed stone may be used for pipe bedding, manhole bases, as a drainage layer below structures with underdrains and at other locations indicated on the Drawings.
2. Crushed stone shall be size No. 57 with gradation as noted in Table 1 of Section 901 of Florida Department of Transportation, Construction of Roads and Bridges.

PART 3 EXECUTION

3.01 TRENCH EXCAVATION AND BACKFILLING

- A. Excavation for all trenches required for the installation of pipes and electrical ducts shall be made to the depths indicated on the Drawings and in such manner and to such widths as will give suitable room for laying the pipe or installing the ducts within the trenches.
- B. Rock shall be removed to a minimum 6" clearance around the bottom and sides of all the pipe or ducts being laid.
- C. Where pipes or ducts are to be laid in limerock bedding or encased in concrete, the trench may be excavated by machinery to or just below the designated subgrade provided that the material remaining in the bottom of the trench is no more than slightly disturbed.
- D. Where the pipes or ducts are to be laid directly on the trench bottom, the lower part of the trenches shall not be excavated to grade by machinery. The last of the material being excavated manually, shall be done in such a manner that will give a flat bottom true to grade so that pipe or duct can be evenly supported on undisturbed material. Bell holes shall be made as required.
- E. Backfilling over pipes shall begin as soon as practicable after the pipe has been laid, jointed and inspected and the trench filled with suitable compacted material to the mid-diameter of the pipe.
- F. Backfilling over ducts shall begin not less than three days after placing concrete encasement.
- G. All backfilling shall be prosecuted expeditiously and as detailed on the Drawings.
- H. Any space remaining between the pipe and sides of the trench shall be packed full by hand shovel with selected earth, free from stones having a diameter greater than 2" and thoroughly compacted with a tamper as fast as placed, up to a level of one foot above the top of the pipe.
- I. The filling shall be carried up evenly on both sides with at least one man tamping for each man shoveling material into the trench.
- J. The remainder of the trench above the compacted backfill, as just described above, shall be filled and thoroughly compacted by rolling, ramming, or puddling, as the County may direct, sufficiently to prevent subsequent settling.

END OF SECTION

**SECTION 02223 EXCAVATION BELOW GRADE AND CRUSHED STONE OR SHELL
REFILL**

PART 1 GENERAL

1.01 SCOPE OF WORK

- A. If in the opinion of the County, the material at or below the normal grade of the bottom of the trench is unsuitable for pipe or structure foundation, it shall be removed to the depth directed by the County and replaced by crushed stone or washed shell.

PART 2 PRODUCTS (NOT USED)

PART 3 MATERIALS

3.01 EXCAVATION AND DRAINAGE

- A. Whatever the nature of unstable material encountered or the groundwater conditions, trench stabilization shall be complete and effective.
- B. Should the Contractor excavate below the grade shown on the Contract drawings because of negligence or for his own convenience; due to failure in properly dewatering the trench; disturbs the subgrade before dewatering is sufficiently complete; he shall be directed by the County to excavate below grade. The work of excavating below grade and furnishing and placing the approved refill material shall be performed at the Contractor's expense.

3.02 REFILL

- A. Should the material at the level of trench bottom consist of fine sand, sand and silt or soft earth, the subgrade material shall be removed as directed by the County and the excavation shall be refilled with crushed stone or washed shell.

END OF SECTION

SECTION 02260 FINISH GRADING

PART 1 GENERAL

1.01 WORK INCLUDED

- A. The Contractor shall finish grade sub-soil.
- B. The Contractor shall cut out areas to receive stabilizing base course materials for paving and sidewalks.
- C. The Contractor shall place, finish grade and compact top soil.

1.02 PROTECTION

The Contractor shall prevent damage to existing fencing, trees, landscaping, natural features, bench marks, pavement and utility lines. Damage shall be corrected at no cost to the County.

PART 2 PRODUCTS

- A. Topsoil: Shall be friable loam free from subsoil, roots, grass, excessive amount of weeds or other organics, stones, and foreign matter and will be obtained onsite. Soil amendments may be necessary to provide an acidity range (pH) of 5.5 to 7.5.

PART 3 EXECUTION

3.01 SUB-SOIL PREPARATION

- A. The Contractor shall rough grade sub-soil systematically to allow for a maximum amount of natural settlement and compaction. Uneven areas and low spots shall be eliminated. Debris, roots, branches or other organics, stones, and sub-soil shall be removed by the Contractor and disposed of in a manner consistent with the latest Manatee County Standards as well as any affected regulatory agency. Should contaminated soil be found, the Contractor shall notify the County.
- B. The Contractor shall cut out areas to sub-grade elevation to stabilize base material for paving and sidewalks.
- C. The Contractor shall bring sub-soil to required profiles and contour grades gradually; and blend slopes into level areas.
- D. The Contractor shall slope the structure grade a minimum of two (2) inches in ten (10) feet unless indicated otherwise on the Drawings.
- E. The Contractor shall cultivate sub-grade to a depth of 3 inches where the topsoil is to be placed. He shall repeat cultivation in areas where equipment use has compacted sub-soil.
- F. The Contractor shall not make grade changes which causes water to flow onto adjacent lands.

3.02 PLACING TOPSOIL

- A. The Contractor shall place topsoil in areas where seeding, sodding and planting is to be performed. He shall place from the following minimum depths, up to finished grade elevations:
 - 1. 6 inches for seeded areas
 - 2. 4-1/2 inches for sodded areas
 - 3. 24 inches for planted areas
 - 4.
- B. The Contractor shall use topsoil in a dry state as determined by the County. He shall place the material during dry weather.
- C. The Contractor shall use fine grade topsoil eliminating rough and low areas to ensure positive drainage. He shall maintain levels, profiles and contours of the sub-grades.
- D. The Contractor shall remove stone, roots, grass, weeds, debris, and other organics or foreign material while spreading the material.
- E. The Contractor shall manually spread topsoil around trees, plants and structures to prevent damage which may be caused by grading equipment.
- F. The Contractor shall lightly compact and place the topsoil.

3.03 SURPLUS MATERIAL

- A. The Contractor shall remove surplus sub-soil and topsoil from site at his expense.
- B. The Contractor shall leave stockpile areas and entire job site clean and raked, ready for landscaping operations.

END OF SECTION

SECTION 02276 TEMPORARY EROSION AND SEDIMENTATION CONTROL

PART 1 GENERAL

1.01 DESCRIPTION

- A. The work specified in this Section consists of the design, provision, maintenance and removal of temporary erosion and sedimentation controls as necessary.
- B. Temporary erosion controls include, but are not limited to: grassing, mulching, netting, watering, and the reseeding of on-site surfaces and spoil and borrow area surfaces, interceptor ditches at ends of berms and other such work at those locations which will ensure that erosion during construction will be either eliminated or maintained within acceptable limits as established by the County.
- C. Temporary sedimentation controls include, but are not limited to: silt dams, traps, barriers, and appurtenances at the foot of sloped surfaces which shall ensure that sedimentation pollution will be either eliminated or maintained within acceptable limits as established by the County.
- D. The Contractor is responsible for providing effective temporary erosion and sediment control measures during construction or until final controls become effective.

1.02 REFERENCE DOCUMENTS

- A. Florida Building Code.
- B. FDEP/COE Dredge and Fill Regulations and/or Permit as applicable.
- C. SWFWMD Permit Regulations and/or Permit as applicable.
- D. Florida Stormwater, Erosion and Sedimentation Control Inspector's Manual.

PART 2 PRODUCTS

2.01 EROSION CONTROL

- A. Netting - fabricated of material acceptable to the County.
- B. Seed and sod.

2.02 SEDIMENTATION CONTROL

- A. Bales - clean, seed free cereal hay type.
- B. Netting - fabricated of material acceptable to the County.
- C. Filter stone - crushed stone conforming to Florida Dept. of Transportation specifications.
- D. Concrete block - hollow, non-load-bearing type.
- E. Concrete - exterior grade not less than one inch thick.

PART 3 EXECUTION

3.01 EROSION CONTROL

A. Minimum procedures for grassing shall be:

1. Scarify slopes to a depth of not less than six inches and remove large clods, rock, stumps, roots larger than 1/2 inch in diameter and debris.
2. Sow seed within twenty-four (24) hours after the ground is scarified with either mechanical seed drills or rotary hand seeders.
3. Apply mulch loosely and to a thickness of between 3/4-inch and 1-1/2 inches.
4. Apply netting over mulched areas on sloped surfaces.
5. Roll and water seeded areas in a manner which will encourage sprouting of seeds and growing of grass. Reseed areas which exhibit unsatisfactory growth. Backfill and seed eroded areas.

3.02 SEDIMENTATION CONTROL

A. The Contractor shall install and maintain silt dams, traps, barriers, and appurtenances as shown on the approved descriptions and working drawings. Deteriorated hay bales and dislodged filter stone shall be replaced by the Contractor at his expense.

3.03 PERFORMANCE

A. The Contractor, at his own expense, shall immediately take whatever steps are necessary to correct any deficiencies of the temporary erosion and sediment control measures employed if they fail to produce results or do not comply with the requirements of the State of Florida or any other federal, governmental or regulatory agency.

END OF SECTION

SECTION 02355 LUMBER LEFT IN PLACE

PART 1 GENERAL

1.01 SCOPE OF WORK

The Contractor shall furnish and install shoring and sheeting as necessary to provide adequate safety.

PART 2 PRODUCTS

2.01 MATERIALS

Wood for shoring and sheeting shall be green, rough cut hardwood planking.

PART 3 EXECUTION

3.01 INSTALLATION

- A. The Contractor shall furnish, install and maintain sheeting and bracing required to support the sides of excavations, to prevent any movement which could in any way diminish the width of the excavation below which is necessary for proper construction and to protect adjacent structures from undermining or other damage. If the County determines that insufficient or improper supports have been provided, he may order additional supports to be installed at the expense of the Contractor. Compliance with such orders shall not relieve or release the Contractor from his responsibility for the sufficiency of such supports. Care shall be taken to prevent voids outside of the sheeting. Should voids form, they shall be immediately filled and rammed.
- B. The Contractor shall embed and leave in place all sheeting, bracing and other related items as shown on the Contract Drawings. The County may direct that sheeting and bracing timber be cut off at a specified elevation. No additional payment or compensation shall be made for this work.
- C. Sheeting and bracing not left in place shall be removed carefully in such manner as not to endanger other structures, utilities, property, or proposed construction.
- D. The County may order sheeting and bracing to be left in place; however, this shall not relieve the Contractor from liability for damages to persons or property due to negligence or the failure on the part of the Contractor to leave in place sufficient sheeting and bracing to prevent any caving or moving of the ground.
- E. The Contractor shall receive no payment other than that included in the pipe bid item price for any timber used for sheeting bracing, or other related items.

END OF SECTION

SECTION 02485 SEEDING AND SODDING

PART 1 GENERAL

1.01 SCOPE OF WORK

- A. The Contractor shall furnish all labor, materials and equipment necessary to satisfactorily return all construction areas to their original conditions or better.
- B. Work shall include furnishing and placing seed or sod, fertilizing, planting, watering and maintenance until acceptance by County and as needed throughout the post acceptance ninety (90) day warranty period for seeding and sodding.

1.02 RELATED WORK NOT INCLUDED

Excavation, filling and grading required to establish elevation shown on the Drawings are included under other sections of these Specifications.

1.03 QUALITY ASSURANCE

- A. It is the intent of this Specification that the Contractor is obliged to deliver a satisfactory stand of grass as specified. If necessary, the Contractor shall repeat any or all of the work, including grading, fertilizing, watering and seeding or sodding at no additional cost to the County until a satisfactory stand is obtained. For purposes of grassing, a satisfactory stand of grass is herein defined as a full lawn cover over areas to be sodded or seeded, with grass free of weeds, alive and growing, leaving no bare spots larger than 3/4 square yard within a radius of 8 feet.
- B. All previously grassed areas where pipelines are laid shall be sodded. All sodding and grassing shall be installed in accordance with these Specifications or as directed by the County.

PART 2 PRODUCTS

2.01 MATERIALS

- A. Fertilizer: The fertilizer shall be of the slow-release type meeting the following minimum requirements: 12 percent nitrogen, 8 percent phosphorus, 8 percent potassium; 40 percent other available materials derived from organic sources. At least 50 percent of the phosphoric acid shall be from normal super phosphate or an equivalent source which will provide a minimum of two units of sulfur. The amount of sulfur shall be indicated on the quantitative analysis card attached to each bag or other container. Fertilizer shall be uniform in composition, dry and free flowing delivered to sites in original unopened containers bearing manufacturer's statement or guarantee.
- B. Seeding/Grassing: The Contractor shall grass all unpaved areas disturbed during construction which do not require sod. All grassing shall be completed in conformance with FDOT Specifications, Sections 570 and 981. The grassed areas shall be mulched and fertilized in accordance with FDOT Specifications, except that no additional payment will be made for mulching, fertilizing and/or watering.
- C. Sodding: Sod shall be provided as required on sheet no. C401 of the Contract Drawings or

at locations as directed by the County in accordance with Florida Department of Transportation, Specifications Section 570 and 981. The Contractor shall furnish sod as designated on the Drawings. Placement and watering requirements shall be in accordance with FDOT Specifications Section 570, except that no additional payment will be made for placement and/or watering. This cost shall be included in the Contract price bid for sodding.

- D. Topsoil: Topsoil stockpiled during excavation may be used as necessary. If additional topsoil is required to replace topsoil removed during construction, it shall be obtained off site at no additional cost to the County. Topsoil shall be fertile, natural surface soil, capable of producing all trees, plants and grassing specified herein.
- E. Water: It is the Contractor's responsibility to supply all water to the site, as required during seeding and sodding operations and through the maintenance period and until the work is accepted. The Contractor shall make whatever arrangements that may be necessary to ensure an adequate supply of water to meet the needs for his work. He shall also furnish all necessary hose, equipment, attachments and accessories for the adequate irrigation of lawns and planted areas as may be required. Water shall be suitable for irrigation and free from ingredients harmful to plant life.

PART 3 EXECUTION

3.01 INSTALLATION

- A. When the trench backfill has stabilized sufficiently, the Contractor shall commence work on lawns and grassed areas (as applicable), including fine grading as necessary and as directed by the County.
- B. Finish Grading: Areas to be seeded or sodded shall be finish graded, raked, and debris removed. Soft spots and uneven grades shall be eliminated. The County shall approve the finish grade of all areas to be seeded or sodded prior to seed or sod application.
- C. Protection: Seeded and sodded areas shall be protected against traffic or other use by placing warning signs or erecting barricades as necessary. Any areas damaged prior to acceptance by the County shall be repaired by the Contractor as directed by the County.

3.02 CLEANUP

Soil or similar materials spilled onto paved areas shall be removed promptly, keeping those areas as clean as possible at all times. Upon completion of seeding and sodding operations, all excess soil, stones and debris remaining shall be removed from the construction areas.

3.03 LANDSCAPE MAINTENANCE

- A. Any existing landscape items damaged or altered during construction by the Contractor shall be restored or replaced as directed by the County.
- B. Maintain landscape work for a period of ninety (90) days immediately following the date of County acceptance. Watering, weeding, cultivating, restoration of grade, mowing and trimming, protection from insects and diseases, fertilizing and similar operations as needed to ensure normal growth and good health for live plant material shall be included at no additional cost to the County.

3.04

REPAIRS TO LAWN AREAS DISTURBED BY CONTRACTOR'S OPERATORS

Lawn areas planted under this Contract and all lawn areas damaged by the Contractor's operation shall be repaired at once by proper soil preparation, fertilizing and sodding, in accordance with these Specifications.

END OF SECTION