

**CONTRACT FOR NASSAU AMELIA UTILITIES (NAU)
LIFT STATIONS NO.10 AND NO.29 REHABILITATIONS**

THIS CONTRACT is dated as of the 23rd day of March in the year 2020 by and between **Nassau County Board of County Commissioners** (County) and **Petticoat-Schmitt Civil Contractors, Inc.** (Contractor).

County and Contractor, in consideration of the mutual covenants hereinafter set forth, agree as follows:

ARTICLE 1 - WORK

1.01 Contractor shall complete all Work as specified or indicated in the Contract Documents. The Work is generally described as follows but not limited to:

Part A: This project consists of replacement of Lift Station (LS) No. 10 for Nassau Amelia Utilities. The work to be performed is generally described as Replacement of LS No.10 with a duplex submersible pump station and includes but not limited to:

Site furnishing of all equipment, labor, materials and supervision necessary for replacement of wastewater Lift Station No. 10, including but not limited to all demolition, proper disposal, pump, pipe and valve replacement, electrical and mechanical demolition and replacement, associated site grading and restoration, pump and haul operations, all associated materials, labor and equipment, and all incidental work as called for in the Contract Documents complete and in place. The Contractor shall furnish, install, test and place in operation the submersible pumping station shown on the drawings and specified hereinafter. All applicable sections of Nassau County Standard Specifications and JEA 2018 Water and Wastewater Standards shall be considered part of this work. All references to Industry Standards (ASTM, ANSI, etc.) shall be to the latest revision unless otherwise stated. Only those materials included in the JEA Water and Wastewater Standards Manual, unless called out different within the Contract Documents, shall be installed. All materials shall be new unless specifically called for otherwise. All structures, pumps and panels shall require a complete shop drawing submittal, as detailed in this specification for review and approval prior to the start of construction.

Part B: This project consists of replacement of Lift Station (LS) No. 29 for Nassau Amelia Utilities. The work to be performed is generally described as Replacement of LS No.29 with a duplex submersible pump station and includes but not limited to:

Site furnishing of all equipment, labor, materials and supervision necessary for replacement of wastewater Lift Station No. 29, including but not limited to all demolition, proper disposal, pump, pipe and valve replacement, electrical and mechanical demolition and replacement, associated site grading and restoration, pump and haul operations, all associated materials, labor and equipment, and all

incidental work as called for in the Contract Documents complete and in place. The Contractor shall furnish, install, test and place in operation the submersible pumping station shown on the drawings and specified hereinafter. All applicable sections of Nassau County Standard Specifications and JEA 2018 Water and Wastewater Standards shall be considered part of this work. All references to Industry Standards (ASTM, ANSI, etc.) shall be to the latest revision unless otherwise stated. Only those materials included in the JEA Water and Wastewater Standards Manual, unless called out different within the Contract Documents, shall be installed. All materials shall be new unless specifically called for otherwise. All structures, pumps and panels shall require a complete shop drawing submittal, as detailed in this specification for review and approval prior to the start of construction.

All work shall be in accordance with the construction drawings, specifications, and contract documents.

ARTICLE 2 - THE PROJECT

- 2.01** The Project for which the Work under the Contract Documents may be the whole or only a part is generally described as follows:

**Nassau Amelia Utilities (NAU)
Lift Stations No. 10 and No. 29 Rehabilitation
Bid Number NC19-010
Nassau County, Florida**

ARTICLE 3 - ENGINEER OF RECORD

- 3.01** The Project has been designed by GAI Consultants, Inc., who is to act as the County's representative, assume all duties and responsibilities, and have the rights and authority assigned to Engineer of Record in the Contract Documents in connection with completion of the Work in accordance with the Contract Documents.

ARTICLE 4 - CONTRACT TIMES

4.01 Time of the Essence

- A. All time limits for Milestones, if any, Substantial Completion, and completion and readiness for final payment as stated in the Contract Documents are of the essence of the Contract.
- B. The Contractor hereby agrees to commence work under this contract on a date to be specified in written "Notice to Proceed" of the County and to fully complete the project as specified in Section 4.02 of this Agreement.

4.02 Days to Achieve Substantial Completion and Final Payment

The Work will be substantially completed within 180 days after the date when the Contract Times commence to run as provided in Paragraph 2.03 of the General Conditions, and completed and ready for final payment in accordance with Paragraph 14.07 of the General Conditions within 30 calendar days from the date of substantial completion. Total contract time shall be 210 calendar days; for everyday the work goes beyond substantial completion, a day will be removed from final completion so the total days equal 210 calendar days.

4.03 Liquidated Damages

A. Contractor and the County recognize that time is of the essence of this Agreement and that the County will suffer financial loss if the Work is not completed within the times specified in Paragraph 4.02 above, plus any extensions thereof allowed in accordance with Article 12 of the General Conditions. The parties also recognize the delays, expense, and difficulties involved in proving in legal or arbitration proceeding the actual loss suffered by the County if the Work is not completed on time. Accordingly, instead of requiring any such proof, the County and Contractor agree that as liquidated damages for delay (but not as a penalty) Contractor shall pay the County \$1,000.00 for each day that expires after the time specified in Paragraph 4.02 for Substantial Completion and until the Work is substantially complete. After Substantial Completion, if Contractor shall neglect, refuse, or fail to complete the remaining Work within the Contract Time or any proper extension thereof granted by the County, Contractor shall pay the County \$500.00 for each day that expires after the time specified in Paragraph 4.02 for completion and readiness for final payment until the Work is completed and ready for final payment.

ARTICLE 5 - CONTRACT PRICE

5.01 The County shall pay Contractor for completion of the Work in accordance with the Contract Documents in current funds as follows: See Section 00 41 15, Bid Form equal to the sum of the amounts determined pursuant to Paragraph 14 "Payments to Contractor and Completion" of the General Conditions.

A. For all Work, at the prices stated in the Contractor's Bid, attached hereto as an Exhibit 2.

Total Lump Sum Price: \$315,900.00

ARTICLE 6 - PAYMENT PROCEDURES

6.01 Submittal and Processing of Payments

- A. Contractor shall submit Applications for Payment in accordance with Article 14 of the General Conditions. Applications for Payment will be processed by the County as provided in the General Conditions.

6.02 Progress Payments; Retainage

- A. The County shall make progress payments on account of the Contract Price on the basis of Contractor's Applications for Payment once each month during performance of the Work as provided in Paragraphs 6.02.A.1 and 6.02.A.2 below. All such payments will be measured by the schedule of values established as provided in Paragraph 2.07.A of the General Conditions (and in the case of Unit Price Work based on the number of units completed) or, in the event there is no schedule of values, as provided in the General Requirements:
 - 1. Prior to Substantial Completion, progress payments will be made in an amount equal to the percentage indicated below, but, in each case, less the aggregate of payments previously made and less such amounts as Engineer of Record may determine or the County may withhold, including but not limited to liquidated damages, in accordance with Paragraph 14.02 of the General Conditions:
 - a. 90% percent of the Work completed (with the balance being retainage)
 - b. 90% percent of cost of materials and equipment not incorporated in the Work (with the balance being retainage).
 - 2. Upon Substantial Completion, the County shall pay an amount sufficient to increase total payments to Contractor to 95% percent of the Contract Price (with the balance being retainage), less such amounts as Engineer of Record shall determine or the County may withhold, for incomplete work and for other items in accordance with Paragraph 14.02 of the General Conditions.

6.03 Final Payment

- A. Upon final completion and acceptance of the Work in accordance with Paragraph 14.07 of the General Conditions, the County shall pay the remainder of the Contract Price as recommended by Engineer of Record as provided in said Paragraph 14.07.

- B. Final Release of Retainage and acceptance of the project must be approved by the Board of County Commissioners.

ARTICLE 7 - INTEREST

- 7.01 All moneys not paid when due as provided in Article 14 of the General Conditions shall bear interest at the rate of 0 percent per annum.

ARTICLE 8 - CONTRACTOR'S REPRESENTATIONS

- 8.01 In order to induce the County to enter into this Agreement Contractor makes the following representations:
 - A. Contractor has examined and carefully studied the Contract Documents and the other related data identified in the Bidding Documents.
 - B. Contractor has visited the Site and become familiar with and is satisfied as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.
 - C. Contractor is familiar with and is satisfied as to all federal, state, and local Laws and Regulations that may affect cost, progress, and performance of the Work.
 - D. Contractor has carefully studied all: (1) reports of explorations and tests of subsurface conditions at or contiguous to the Site and all drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the Site (except Underground Facilities) which have been identified in the Supplementary Conditions as provided in Paragraph 4.02 of the General Conditions and (2) reports and drawings of a Hazardous Environmental Condition, if any, at the Site which has been identified in the Supplementary Conditions as provided in Paragraph 4.06 of the General Conditions.
 - E. Contractor has obtained and carefully studied (or assumes responsibility for having done so) all additional or supplementary examinations, investigations, explorations, tests, studies, and data concerning conditions (surface, subsurface, and Underground Facilities) at or contiguous to the Site which may affect cost, progress, or performance of the Work or which relate to any aspect of the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor, including applying the specific means, methods, techniques, sequences, and procedures of construction, if any, expressly required by the Bidding Documents, and safety precautions and programs incident thereto.

- F. Contractor does not consider that any additional examinations, investigations, explorations, tests, studies, or data are necessary for the performance of the Work at the Contract Price, within the Contract Times, and in accordance with the other terms and conditions of the Contract Documents.
- G. Contractor is aware of the general nature of work to be performed by the County and others at the Site that relates to the Work as indicated in the Contract Documents.
- H. Contractor has correlated the information known to Contractor, information and observations obtained from visits to the Site, reports, drawings and exhibits identified in the Contract Documents, and all additional examinations, investigations, explorations, tests, studies, and data with the Contract Documents.
- I. Contractor has given Engineer of Record written notice of all conflicts, errors, ambiguities, or discrepancies that Contractor has discovered in the Contract Documents, and the written resolution thereof by Engineer of Record is acceptable to Contractor.
- J. The Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance of the Work.

ARTICLE 9 - CONTRACT DOCUMENTS

9.01 Contents

- A. The Contract Documents consist of the following:
 - 1. This Contract
 - 2. Project Manual table of contents
 - 3. General Conditions
 - 4. Supplementary Conditions
 - 5. Technical Specifications
 - 6. Addenda, if any
 - 7. Appendices
 - 8. Exhibits to this Contract incorporated by reference as if set forth herein (enumerated as follows):
 - 1. General Information and Minimum Insurance Requirements
 - 2. Contractor's Bid
 - 9. The following which may be delivered or issued on or after the Effective Date of the Contract and are not attached hereto:
 - a. Performance Bond

- b. Payment Bond
- c. Notice to Proceed
- d. Work Change Directives
- e. Change Orders
- f. Certificate of Substantial Completion
- g. Certificate of Final Inspection
- h. Certificate of Engineer
- i. Certificate of Final Completion
- j. Contractor's release
- k. Drawings and plans
- l. Supplemental Contracts
- m. Contractor's Waiver of Lien (Partial)
- n. Contractor's Waiver of Lien (Final and Complete)
- o. Subcontractor/Vendor's Waiver of Lien (Final and Complete)
- p. Consent of Surety to Final Payment
- q. Instructions to Bidders

- B. The documents listed in Paragraph 9.01.A are attached to this Agreement (except as expressly noted otherwise above).
- C. There are no Contract Documents other than those listed above in this Article 9
- D. The Contract Documents may only be amended, modified, or supplemented as provided in paragraph 3.04 of the General Conditions.

ARTICLE 10 - MISCELLANEOUS

10.01 Terms

- A. Terms used in this Agreement will have the meanings indicated in the General Conditions and the Supplementary Conditions.

10.02 Assignment of Contract

- A. No assignment by a party hereto of any rights under or interests in the Contract will be binding on another party hereto without the written consent of the party sought to be bound; and, specifically but without limitation, moneys that may become due and moneys that are due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under the Contract Documents.

10.03 Successors and Assigns

- A. The County and Contractor each binds itself, its partners, successors, assigns, and legal representatives to the other party hereto, its partners, successors, assigns, and legal representatives in respect to all covenants, agreements, and obligations contained in the Contract Documents.

10.04 Severability

- A. Any provision or part of the Contract Documents held to be void or unenforceable under any Law or Regulation shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon the County and Contractor, who agree that the Contract Documents shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.

10.05 Other Provisions

A. Public Records Requirement:

The County is a public agency subject to Chapter 119, Florida Statutes. IF THE CONTRACTOR HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO THE CONTRACTOR'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS CONTRACT, CONTACT THE CUSTODIAN OF PUBLIC RECORDS AT (904) 530-6250, DMOODY@NASSAUCOUNTYFL.COM, 96161 NASSAU PLACE, YULEE, FLORIDA 32097. Under this agreement, to the extent that the contractor is providing services to the County, and pursuant to Section 119.0701, Florida Statutes, the contractor shall;

- a. Keep and maintain public records required by the public agency to perform the service.
- b. Upon request from the public agency's custodian of public records, provide the public agency with a copy of the requested records or allow the records to be inspected or copied within a reasonable time at a cost that does not exceed the cost provided in this chapter or as otherwise provided by law.
- c. Ensure that public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law for the duration of the contract term and following completion of the contract if the contractor does not transfer the records to the public agency.
- d. Upon completion of the contract, transfer, at no cost, to the public agency all public records in possession of the contractor or keep and maintain public records required by the public agency to perform the service. If the contractor

transfers all public records to the public agency upon completion of the contract, the contractor shall destroy any duplicate public records that are exempt or confidential and exempt from public records disclosure requirements. If the contractor keeps and maintains public records upon completion of the contract, the contractor shall meet all applicable requirements for retaining public records. All records stored electronically must be provided to the public agency, upon request from the public agency's custodian of public records, in a format that is compatible with the information technology systems of the public agency.

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IN WITNESS WHEREOF, the County and Contractor have signed this Contract with copies each being delivered to the County, Contractor, and Engineer of Record. All portions of the Contract Documents have been signed or identified by the County and Contractor or identified by Engineer of Record on their behalf.

This Contract will be effective on the date on which the Contract is signed and delivered by the last of the two parties to sign and deliver (which is the Effective Date of the Agreement).

COUNTY

Nassau County Board of County Commissioners

Signed: [Signature]

Title: Chairman

Date: 3/23/20

[CORPORATE SEAL]

Attest: [Signature]

Title: Ex-Officio Clerk

Address for giving notices:

96135 Nassau Place, Suite 1

Yulee, FL 32097

Phone: 904-530-6040 FAX: _____

MES
03-26-20

CONTRACTOR

Petticoat-Schmitt Civil Contractors, Inc.

Signed: [Signature]

Title: LAREN C. Atwell, COO

Date: 3/16/2020

[CORPORATE SEAL]

Attest: tonya baker

Title: Project Coordinator

Address for giving notices:

6380 Philips Highway

Jacksonville, FL 32216

Phone: 904-751-0888 FAX: 904-751-0988

License CGC057651

(Where applicable)

Approved as to form by County Attorney
Agent for service of process:

[Signature]
Signature

(If County is a corporation, attach evidence of authority to sign. If County is a public body, attach evidence of authority to sign and resolution or other documents authorizing execution of County-Contractor Agreement.)

(If Contractor is a corporation or a partnership, attach evidence of authority to sign.)

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**NASSAU AMELIA UTILITIES (NAU)
LIFT STATIONS NO. 10 AND NO. 29 REHABILITATION
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Standard General Conditions

This document has important legal consequences; consultation with an attorney is encouraged with respect to its use or modification. This document should be adapted to the particular circumstances of the contemplated Project and the controlling Laws and Regulations.

STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

Prepared by

ENGINEERS JOINT CONTRACT DOCUMENTS COMMITTEE

and

Issued and Published Jointly by



AMERICAN COUNCIL OF ENGINEERING COMPANIES

ASSOCIATED GENERAL CONTRACTOR/BIDDERS OF AMERICA

AMERICAN SOCIETY OF CIVIL ENGINEERS

PROFESSIONAL ENGINEERS IN PRIVATE PRACTICE

A Practice Division of the

NATIONAL SOCIETY OF PROFESSIONAL ENGINEERS

Endorsed by



CONSTRUCTION SPECIFICATIONS INSTITUTE

These General Conditions have been prepared for use with the Suggested Forms of Agreement Between County and Contractor/Bidder (EJCDC C-520 or C-525, 2007 Editions). Their provisions are interrelated and a change in one may necessitate a change in the other. Comments concerning their usage are contained in the Narrative Guide to the EJCDC Construction Documents (EJCDC C-001, 2007 Edition). For guidance in the preparation of Supplementary Conditions, see Guide to the Preparation of Supplementary Conditions (EJCDC C-800, 2007 Edition).

American Council of Engineering Companies
1015 15th Street N.W., Washington, DC 20005
(202) 347-7474
www.acec.org

American Society of Civil Engineers
1801 Alexander Bell Drive, Reston, VA 20191-4400
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Associated General Contractor/Bidders of America
2300 Wilson Boulevard, Suite 400, Arlington, VA 22201-3308
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www.agc.org

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DEFINITIONS AND TERMINOLOGY

Defined Terms

Wherever used in the Bidding Requirements or Contract Documents and printed with initial capital letters, the terms listed below will have the meanings indicated which are applicable to both the singular and plural thereof. In addition to terms specifically defined, terms with initial capital letters in the Contract Documents include references to identified articles and paragraphs, and the titles of other documents or forms.

Addenda—Written or graphic instruments issued prior to the opening of Bids which clarify, correct, or change the Bidding Requirements or the proposed Contract Documents.

Agreement—The written instrument which is evidence of the agreement between County and Contractor/Bidder covering the Work.

Application for Payment—The form acceptable to Engineer which is to be used by Contractor/Bidder during the course of the Work in requesting progress or final payments and which is to be accompanied by such supporting documentation as is required by the Contract Documents.

Asbestos—Any material that contains more than one percent asbestos and is friable or is releasing asbestos fibers into the air above current action levels established by the United States Occupational Safety and Health Administration.

Bid—The offer or proposal of a Bidder submitted on the prescribed form setting forth the prices for the Work to be performed.

Bidder—The individual or entity who submits a Bid directly to County.

Bidding Documents—The Bidding Requirements and the proposed Contract Documents (including all Addenda).

Bidding Requirements—The advertisement or invitation to bid, Instructions to Bidders, Bid security of acceptable form, if any, and the Bid Form with any supplements.

Change Order—A document recommended by Engineer which is signed by Contractor/Bidder and County and authorizes an addition, deletion, or revision in the Work or an adjustment in the Contract Price or the Contract Times, issued on or after the Effective Date of the Agreement.

Claim—A demand or assertion by County or Contractor/Bidder seeking an adjustment of Contract Price or Contract Times, or both, or other relief with respect to the terms of the Contract. A demand for money or services by a third party is not a Claim.

Contract—The entire and integrated written agreement between the County and Contractor/Bidder concerning the Work. The Contract supersedes prior negotiations, representations, or agreements, whether written or oral.

Contract Documents—Those items so designated in the Agreement. Only printed or hard copies of the items listed in the Agreement are Contract Documents. Approved Shop Drawings, other Contractor/Bidder submittals, and the reports and drawings of subsurface and physical conditions are not Contract Documents.

Contract Price—The moneys payable by County to Contractor/Bidder for completion of the Work in accordance with the Contract Documents as stated in the Agreement (subject to the provisions of Paragraph 11.03 in the case of Unit Price Work).

Contract Times—The number of days or the dates stated in the Agreement to: (i) achieve Milestones, if any; (ii) achieve Substantial Completion; and (iii) complete the Work so that it is ready for final payment as evidenced by Engineer's written recommendation of final payment.

Contractor/Bidder/Bidder—The individual or entity with whom County has entered into the Agreement.

Cost of the Work—See Paragraph 11.01 for definition.

County- The individual or entity with whom Contractor/Bidder has entered into the Agreement and for whom the Work is to be performed.

Drawings—That part of the Contract Documents prepared or approved by Engineer which graphically shows the scope, extent, and character of the Work to be performed by Contractor/Bidder. Shop Drawings and other Contractor/Bidder submittals are not Drawings as so defined.

Effective Date of the Agreement—The date indicated in the Agreement on which it becomes effective, but if no such date is indicated, it means the date on which the Agreement is signed and delivered by the last of the two parties to sign and deliver.

Engineer—The individual or entity named as such in the Agreement.

Field Order—A written order issued by Engineer which requires minor changes in the Work but which does not involve a change in the Contract Price or the Contract Times.

General Requirements—~~Sections of Division 1 of the Specifications~~ The General Requirements pertain to all Sections of the specifications. (see SC-1.01.21)

Hazardous Environmental Condition—The presence at the Site of Asbestos, PCBs, Petroleum, Hazardous Waste, or Radioactive Material in such quantities or circumstances that may present a substantial danger to persons or property exposed thereto.

Hazardous Waste—The term Hazardous Waste shall have the meaning provided in Section 1004 of the Solid Waste Disposal Act (42 USC Section 6903) as amended from time to time.

Laws and Regulations; Laws or Regulations—Any and all applicable laws, rules, regulations, ordinances, codes, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.

Liens—Charges, security interests, or encumbrances upon Project funds, real property, or personal property.

Milestone—A principal event specified in the Contract Documents relating to an intermediate completion date or time prior to Substantial Completion of all the Work.

Notice of Award—The written notice by County to the Successful Bidder stating that upon timely compliance by the Successful Bidder with the conditions precedent listed therein, County will sign and deliver the Agreement.

Notice to Proceed—A written notice given by County to Contractor/Bidder/Bidder fixing the date on which the Contract Times will commence to run and on which Contractor/Bidder/Bidder shall start to perform the Work under the Contract Documents.

PCBs—Polychlorinated biphenyls.

Petroleum—Petroleum, including crude oil or any fraction thereof which is liquid at standard conditions of temperature and pressure (60 degrees Fahrenheit and 14.7 pounds per square inch absolute), such as oil, petroleum, fuel oil, oil sludge, oil refuse, gasoline, kerosene, and oil mixed with other non-Hazardous Waste and crude oils.

Progress Schedule—A schedule, prepared and maintained by Contractor/Bidder, describing the sequence and duration of the activities comprising the Contractor/Bidder's plan to accomplish the Work within the Contract Times.

Project—The total construction of which the Work to be performed under the Contract Documents may be the whole, or a part.

Project Manual—The bound documentary information prepared for bidding and constructing the Work. A listing of the contents of the Project Manual, which may be bound in one or more volumes, is contained in the table(s) of contents.

Radioactive Material—Source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954 (42 USC Section 2011 et seq.) as amended from time to time.

Resident Project Representative—The authorized representative of Engineer who may be assigned to the Site or any part thereof.

Samples—Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and which establish the standards by which such portion of the Work will be judged.

Schedule of Submittals—A schedule, prepared and maintained by Contractor/Bidder, of required submittals and the time requirements to support scheduled performance of related construction activities.

Schedule of Values—A schedule, prepared and maintained by Contractor/Bidder, allocating portions of the Contract Price to various portions of the Work and used as the basis for reviewing Contractor/Bidder's Applications for Payment.

Shop Drawings—All drawings, diagrams, illustrations, schedules, and other data or information which are specifically prepared or assembled by or for Contractor/Bidder and submitted by Contractor/Bidder to illustrate some portion of the Work.

Site—Lands or areas indicated in the Contract Documents as being furnished by County upon which the Work is to be performed, including rights-of-way and easements for access thereto, and such other lands furnished by County which are designated for the use of Contractor/Bidder.

Specifications—That part of the Contract Documents consisting of written requirements for materials, equipment, systems, standards and workmanship as applied to the Work, and certain administrative requirements and procedural matters applicable thereto.

SubContractor—An individual or entity having a direct contract with Contractor/Bidder or with any other SubContractor for the performance of a part of the Work at the Site.

Substantial Completion—The time at which the Work (or a specified part thereof) has progressed to the point where, in the opinion of Engineer, the Work (or a specified part thereof) is sufficiently complete, in accordance with the Contract Documents, so that the Work (or a specified part thereof) can be utilized for the purposes for which it is intended. The terms "substantially complete" and "substantially completed" as applied to all or part of the Work refer to Substantial Completion thereof.

Successful Bidder—The Bidder submitting a responsive Bid to whom County makes an award.

Supplementary Conditions—That part of the Contract Documents which amends or supplements these General Conditions.

Supplier—A manufacturer, fabricator, supplier, distributor, materialman, or vendor having a direct contract with Contractor/Bidder or with any SubContractor to furnish materials or equipment to be incorporated in the Work by Contractor/Bidder or SubContractor.

Underground Facilities—All underground pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels, or other such facilities or attachments, and any encasements containing such facilities, including those that convey electricity, gases, steam, liquid petroleum products, telephone or other communications, cable television, water, wastewater, storm water, other liquids or chemicals, or traffic or other control systems.

Unit Price Work—Work to be paid for on the basis of unit prices.

Work—The entire construction or the various separately identifiable parts thereof required to be provided under the Contract Documents. Work includes and is the result of performing or providing all labor, services, and documentation necessary to produce such construction, and furnishing, installing, and incorporating all materials and equipment into such construction, all as required by the Contract Documents.

Work Change Directive—A written statement to Contractor/Bidder issued on or after the Effective Date of the Agreement and signed by County and recommended by Engineer ordering an addition, deletion, or revision in the Work, or responding to differing or unforeseen subsurface or physical conditions under which the Work is to be performed or to emergencies. A Work Change Directive will not change the Contract Price or the Contract Times but is evidence that the parties expect that the change ordered or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order following negotiations by the parties as to its effect, if any, on the Contract Price or Contract Times.

Surety- The person, firm, or corporation which is bound by the contract bonds with and for Contractor/Bidder (Principal); and which is held and firmly bound unto County for the conditions of obligations set forth in said bonds (see SC-1.01.52).

Terminology

The words and terms discussed in Paragraph 1.02.B through F are not defined but, when used in the Bidding Requirements or Contract Documents, have the indicated meaning.

Intent of Certain Terms or Adjectives:

The Contract Documents include the terms “as allowed,” “as approved,” “as ordered,” “as directed” or terms of like effect or import to authorize an exercise of professional judgment by Engineer. In addition, the adjectives “reasonable,” “suitable,” “acceptable,” “proper,” “satisfactory,” or adjectives of like effect or import are used to describe an action or determination of Engineer as to the Work. It is intended that such exercise of professional judgment, action, or determination

will be solely to evaluate, in general, the Work for compliance with the information in the Contract Documents and with the design concept of the Project as a functioning whole as shown or indicated in the Contract Documents (unless there is a specific statement indicating otherwise). The use of any such term or adjective is not intended to and shall not be effective to assign to Engineer any duty or authority to supervise or direct the performance of the Work, or any duty or authority to undertake responsibility contrary to the provisions of Paragraph 9.09 or any other provision of the Contract Documents.

Day:

The word “day” means a calendar day of 24 hours measured from midnight to the next midnight.

Defective:

The word “defective,” when modifying the word “Work,” refers to Work that is unsatisfactory, faulty, or deficient in that it:

does not conform to the Contract Documents; or

does not meet the requirements of any applicable inspection, reference standard, test, or approval referred to in the Contract Documents; or

has been damaged prior to Engineer’s recommendation of final payment (unless responsibility for the protection thereof has been assumed by County at Substantial Completion in accordance with Paragraph 14.04 or 14.05).

Furnish, Install, Perform, Provide:

The word “furnish,” when used in connection with services, materials, or equipment, shall mean to supply and deliver said services, materials, or equipment to the Site (or some other specified location) ready for use or installation and in usable or operable condition.

The word “install,” when used in connection with services, materials, or equipment, shall mean to put into use or place in final position said services, materials, or equipment complete and ready for intended use.

The words “perform” or “provide,” when used in connection with services, materials, or equipment, shall mean to furnish and install said services, materials, or equipment complete and ready for intended use.

When “furnish,” “install,” “perform,” or “provide” is not used in connection with services, materials, or equipment in a context clearly requiring an obligation of Contractor/Bidder, “provide” is implied.

Unless stated otherwise in the Contract Documents, words or phrases that have a well-known technical or construction industry or trade meaning are used in the Contract Documents in accordance with such recognized meaning.

PRELIMINARY MATTERS

Delivery of Bonds and Evidence of Insurance

When Contractor/Bidder delivers the executed counterparts of the Agreement to County, Contractor/Bidder shall also deliver to County such bonds as Contractor/Bidder may be required to furnish.

Evidence of Insurance: Before any Work at the Site is started, Contractor/Bidder and County shall each deliver to the other, with copies to each additional insured identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance which either of them or any additional insured may reasonably request) which Contractor/Bidder and County respectively are required to purchase and maintain in accordance with Article 5.

Copies of Documents

County shall furnish to Contractor/Bidder up to ~~ten~~ five printed or hard copies of the Drawings and Project Manual. Additional copies will be furnished upon request at the cost of reproduction. (see SC-2.02.A)

Commencement of Contract Times; Notice to Proceed

The Contract Times will commence to run on the thirtieth day after the Effective Date of the Agreement or, if a Notice to Proceed is given, on the day indicated in the Notice to Proceed. A Notice to Proceed may be given at any time within 30 days after the Effective Date of the Agreement. In no event will the Contract Times commence to run later than the sixtieth day after the day of Bid opening or the thirtieth day after the Effective Date of the Agreement, whichever date is earlier.

Starting the Work

Contractor/Bidder shall start to perform the Work on the date when the Contract Times commence to run. No Work shall be done at the Site prior to the date on which the Contract Times commence to run.

Before Starting Construction

Preliminary Schedules: ~~Within 10 days after the Effective Date of the Agreement~~ At the Preconstruction Conference (unless otherwise specified in the General Requirements), Contractor/Bidder shall submit to Engineer for timely review (see SC-2.05.A):

a preliminary Progress Schedule indicating the times (numbers of days or dates) for starting and completing the various stages of the Work, including any Milestones specified in the Contract Documents;

a preliminary Schedule of Submittals; and

a preliminary Schedule of Values for all of the Work which includes quantities and prices of items which when added together equal the Contract Price and subdivides the Work into component parts in sufficient detail to serve as the basis for progress payments during performance of the Work. Such prices will include an appropriate amount of overhead and profit applicable to each item of Work.

B. Before any Work at the Site is started, Contractor/Bidder shall deliver to the County, certificates of insurance that Contractor/Bidder is required to purchase and maintain in accordance with Article 5. (see SC-2.05.B)

Preconstruction Conference; Designation of Authorized Representatives

Before any Work at the Site is started, a conference attended by County, Contractor/Bidder, Engineer, and others as appropriate will be held to establish a working understanding among the parties as to the Work and to discuss the schedules referred to in Paragraph 2.05.A, procedures for handling Shop Drawings and other submittals, processing Applications for Payment, and maintaining required records.

At this conference County and Contractor/Bidder each shall designate, in writing, a specific individual to act as its authorized representative with respect to the services and responsibilities under the Contract. Such individuals shall have the authority to transmit instructions, receive information, render decisions relative to the Contract, and otherwise act on behalf of each respective party.

County may issue Notice to Proceed at the Preconstruction Conference. Contractor/Bidder shall begin the Work within twenty-four (24) hours of the date given in the Notice to Proceed. If the Contractor/Bidder does not start the Work within fourteen (14) calendar days after this date, County may, at his discretion, terminate Contractor/Bidder in accordance with paragraph 15.02. (see SC-2.06.C)

Initial Acceptance of Schedules

~~At least 10 days before submission of the first Application for Payment a conference attended by Contractor/Bidder, Engineer, and others as appropriate will be held to review for acceptability to Engineer as provided below the schedules submitted in accordance with Paragraph 2.05.A. Contractor/Bidder shall have an additional 10 days to make corrections and adjustments and to complete and resubmit the schedules. No progress payment shall be made to Contractor/Bidder until acceptable schedules are submitted to Engineer. A schedule in accordance with Article 5 shall be submitted and accepted by the County and engineer within 30 days of NTP. Should a schedule not be accepted within 30 days of the NTP, it will be considered a breach of contract and~~

reason for termination of the contract for cause in accordance with the General Conditions, Section 15.02. (see SC-2.07.A)

The Progress Schedule will be acceptable to Engineer if it provides an orderly progression of the Work to completion within the Contract Times. Such acceptance will not impose on Engineer responsibility for the Progress Schedule, for sequencing, scheduling, or progress of the Work, nor interfere with or relieve Contractor/Bidder from Contractor/Bidder's full responsibility therefor.

Contractor/Bidder's Schedule of Submittals will be acceptable to Engineer if it provides a workable arrangement for reviewing and processing the required submittals.

Contractor/Bidder's Schedule of Values will be acceptable to Engineer as to form and substance if it provides a reasonable allocation of the Contract Price to component parts of the Work.

CONTRACT DOCUMENTS: INTENT, AMENDING, REUSE

Intent

The Contract Documents are complementary; what is required by one is as binding as if required by all.

It is the intent of the Contract Documents to describe a functionally complete project (or part thereof) to be constructed in accordance with the Contract Documents. Any labor, documentation, services, materials, or equipment that reasonably may be inferred from the Contract Documents or from prevailing custom or trade usage as being required to produce the indicated result will be provided whether or not specifically called for, at no additional cost to County.

Clarifications and interpretations of the Contract Documents shall be issued by Engineer as provided in Article 9.

Reference Standards

Standards, Specifications, Codes, Laws, and Regulations

Reference to standards, specifications, manuals, or codes of any technical society, organization, or association, or to Laws or Regulations, whether such reference be specific or by implication, shall mean the standard, specification, manual, code, or Laws or Regulations in effect at the time of opening of Bids (or on the Effective Date of the Agreement if there were no Bids), except as may be otherwise specifically stated in the Contract Documents.

No provision of any such standard, specification, manual, or code, or any instruction of a Supplier, shall be effective to change the duties or responsibilities of County, Contractor/Bidder, or Engineer, or any of their SubContractors, consultants, agents,

or employees, from those set forth in the Contract Documents. No such provision or instruction shall be effective to assign to County, Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or SubContractors, any duty or authority to supervise or direct the performance of the Work or any duty or authority to undertake responsibility inconsistent with the provisions of the Contract Documents.

Reporting and Resolving Discrepancies

Reporting Discrepancies:

Contractor/Bidder's Review of Contract Documents Before Starting Work: Before undertaking each part of the Work, Contractor/Bidder shall carefully study and compare the Contract Documents and check and verify pertinent figures therein and all applicable field measurements. Contractor/Bidder shall promptly report in writing to Engineer any conflict, error, ambiguity, or discrepancy which Contractor/Bidder discovers, or has actual knowledge of, and shall obtain a written interpretation or clarification from Engineer before proceeding with any Work affected thereby.

Contractor/Bidder's Review of Contract Documents During Performance of Work: If, during the performance of the Work, Contractor/Bidder discovers any conflict, error, ambiguity, or discrepancy within the Contract Documents, or between the Contract Documents and (a) any applicable Law or Regulation, (b) any standard, specification, manual, or code, or (c) any instruction of any Supplier, then Contractor/Bidder shall promptly report it to Engineer in writing. Contractor/Bidder shall not proceed with the Work affected thereby (except in an emergency as required by Paragraph 6.16.A) until an amendment or supplement to the Contract Documents has been issued by one of the methods indicated in Paragraph 3.04.

Contractor/Bidder shall not be liable to County or Engineer for failure to report any conflict, error, ambiguity, or discrepancy in the Contract Documents unless Contractor/Bidder had actual knowledge thereof.

Resolving Discrepancies:

Except as may be otherwise specifically stated in the Contract Documents, the provisions of the Contract Documents shall take precedence in resolving any conflict, error, ambiguity, or discrepancy between the provisions of the Contract Documents and:

the provisions of any standard, specification, manual, or code, or the instruction of any Supplier (whether or not specifically incorporated by reference in the Contract Documents); or

the provisions of any Laws or Regulations applicable to the performance of the Work (unless such an interpretation of the provisions of the Contract Documents would result in violation of such Law or Regulation).

Amending and Supplementing Contract Documents

The Contract Documents may be amended to provide for additions, deletions, and revisions in the Work or to modify the terms and conditions thereof by either a Change Order or a Work Change Directive.

The requirements of the Contract Documents may be supplemented, and minor variations and deviations in the Work may be authorized, by one or more of the following ways:

1. A Field Order;

Engineer's approval of a Shop Drawing or Sample (subject to the provisions of Paragraph 6.17.D.3); or

Engineer's written interpretation or clarification.

Reuse of Documents

Contractor/Bidder and any SubContractor or Supplier shall not:

have or acquire any title to or ownership rights in any of the Drawings, Specifications, or other documents (or copies of any thereof) prepared by or bearing the seal of Engineer or its consultants, including electronic media editions; or

reuse any such Drawings, Specifications, other documents, or copies thereof on extensions of the Project or any other project without written consent of County and Engineer and specific written verification or adaptation by Engineer.

The prohibitions of this Paragraph 3.05 will survive final payment, or termination of the Contract. Nothing herein shall preclude Contractor/Bidder from retaining copies of the Contract Documents for record purposes.

Electronic Data

Unless otherwise stated in the Supplementary Conditions, the data furnished by County or Engineer to Contractor/Bidder, or by Contractor/Bidder to County or Engineer, that may be relied upon are limited to the printed copies (also known as hard copies). Files in electronic media format of text, data, graphics, or other types are furnished only for the convenience of the receiving party. Any conclusion or information obtained or derived from such electronic files will be at the user's sole risk. If there is a discrepancy between the electronic files and the hard copies, the hard copies govern.

Because data stored in electronic media format can deteriorate or be modified inadvertently or otherwise without authorization of the data's creator, the party receiving electronic files agrees that it will perform acceptance tests or procedures within 60 days, after which the receiving party shall be deemed to have accepted the data thus transferred. Any errors detected within the 60-day acceptance period will be corrected by the transferring party.

When transferring documents in electronic media format, the transferring party makes no representations as to long term compatibility, usability, or readability of documents resulting from the use of software application packages, operating systems, or computer hardware differing from those used by the data's creator.

**AVAILABILITY OF LANDS; SUBSURFACE AND PHYSICAL CONDITIONS;
HAZARDOUS ENVIRONMENTAL CONDITIONS; REFERENCE POINTS**

Availability of Lands

County shall furnish the Site. County shall notify Contractor/Bidder of any encumbrances or restrictions not of general application but specifically related to use of the Site with which Contractor/Bidder must comply in performing the Work. County will obtain in a timely manner and pay for easements for permanent structures or permanent changes in existing facilities. If Contractor/Bidder and County are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times, or both, as a result of any delay in County's furnishing the Site or a part thereof, Contractor/Bidder may make a Claim therefor as provided in Paragraph 10.05.

Upon reasonable written request, County shall furnish Contractor/Bidder with a current statement of record legal title and legal description of the lands upon which the Work is to be performed and County's interest therein as necessary for giving notice of or filing a mechanic's or construction lien against such lands in accordance with applicable Laws and Regulations.

Contractor/Bidder shall provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment. Contractor/Bidder shall obtain said land rights at his own expense and without liability to the County. Contractor/Bidder shall not enter upon private property without first obtaining written permission from the rightful property County (see SC-4.01.C)

Subsurface and Physical Conditions

Reports and Drawings: The Supplementary Conditions identify:

those reports known to County of explorations and tests of subsurface conditions at or contiguous to the Site; and

those drawings known to County of physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities).

Limited Reliance by Contractor/Bidder on Technical Data Authorized: Contractor/Bidder may rely upon the accuracy of the "technical data" contained in such reports and drawings, but such reports and drawings are not Contract Documents. Such "technical data" is identified in the Supplementary Conditions. Except for such reliance on such "technical data," Contractor/Bidder may not rely upon or make any claim against

County or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or SubContractors with respect to:

the completeness of such reports and drawings for Contractor/Bidder's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor/Bidder, and safety precautions and programs incident thereto; or

other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings; or

any Contractor/Bidder interpretation of or conclusion drawn from any "technical data" or any such other data, interpretations, opinions, or information.

- C. In the preparation of Drawings and Specifications, Engineer or Engineer's Consultant relied upon the following report(s) of explorations and tests of subsurface conditions at the site: Appendix A. (see SC-4.02.C)

Differing Subsurface or Physical Conditions

Notice: If Contractor/Bidder believes that any subsurface or physical condition that is uncovered or revealed either:

is of such a nature as to establish that any "technical data" on which Contractor/Bidder is entitled to rely as provided in Paragraph 4.02 is materially inaccurate; or

is of such a nature as to require a change in the Contract Documents; or

differs materially from that shown or indicated in the Contract Documents; or

is of an unusual nature, and differs materially from conditions ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract Documents;

then Contractor/Bidder shall, promptly after becoming aware thereof and before further disturbing the subsurface or physical conditions or performing any Work in connection therewith (except in an emergency as required by Paragraph 6.16.A), notify County and Engineer in writing about such condition. Contractor/Bidder shall not further disturb such condition or perform any Work in connection therewith (except as aforesaid) until receipt of written order to do so.

Engineer's Review: After receipt of written notice as required by Paragraph 4.03.A, Engineer will promptly review the pertinent condition, determine the necessity of County's obtaining additional exploration or tests with respect thereto, and advise County in writing (with a copy to Contractor/Bidder) of Engineer's findings and conclusions.

Possible Price and Times Adjustments:

The Contract Price or the Contract Times, or both, will be equitably adjusted to the extent that the existence of such differing subsurface or physical condition causes an increase or decrease in Contractor/Bidder's cost of, or time required for, performance of the Work; subject, however, to the following:

such condition must meet any one or more of the categories described in Paragraph 4.03.A; and

with respect to Work that is paid for on a unit price basis, any adjustment in Contract Price will be subject to the provisions of Paragraphs 9.07 and 11.03.

Contractor/Bidder shall not be entitled to any adjustment in the Contract Price or Contract Times if:

Contractor/Bidder knew of the existence of such conditions at the time Contractor/Bidder made a final commitment to County with respect to Contract Price and Contract Times by the submission of a Bid or becoming bound under a negotiated contract; or

the existence of such condition could reasonably have been discovered or revealed as a result of any examination, investigation, exploration, test, or study of the Site and contiguous areas required by the Bidding Requirements or Contract Documents to be conducted by or for Contractor/Bidder prior to Contractor/Bidder's making such final commitment; or

Contractor/Bidder failed to give the written notice as required by Paragraph 4.03.A.

If County and Contractor/Bidder are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times, or both, a Claim may be made therefor as provided in Paragraph 10.05. However, ~~neither County, or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or SubContractors and Engineer's Consultants~~ shall not be liable to Contractor/Bidder for any claims, costs, losses, or damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court ~~or arbitration~~ or other dispute resolution costs) sustained by Contractor/Bidder on or in connection with any other project or anticipated project. (see SC-4.03.C.3)

Underground Facilities

Shown or Indicated: The information and data shown or indicated in the Contract Documents with respect to existing Underground Facilities at or contiguous to the Site is based on information and data furnished to County or Engineer by the County's of such Underground Facilities, including County, or by others. Unless it is otherwise expressly provided in the Supplementary Conditions:

County and Engineer shall not be responsible for the accuracy or completeness of any such information or data provided by others; and

the cost of all of the following will be included in the Contract Price, and Contractor/Bidder shall have full responsibility for:

reviewing and checking all such information and data;

locating all Underground Facilities shown or indicated in the Contract Documents;

coordination of the Work with the County's of such Underground Facilities, including County, during construction; and

the safety and protection of all such Underground Facilities and repairing any damage thereto resulting from the Work.

Not Shown or Indicated:

If an Underground Facility is uncovered or revealed at or contiguous to the Site which was not shown or indicated, or not shown or indicated with reasonable accuracy in the Contract Documents, Contractor/Bidder shall, promptly after becoming aware thereof and before further disturbing conditions affected thereby or performing any Work in connection therewith (except in an emergency as required by Paragraph 6.16.A), identify the County of such Underground Facility and give written notice to that County and to County and Engineer. Engineer will promptly review the Underground Facility and determine the extent, if any, to which a change is required in the Contract Documents to reflect and document the consequences of the existence or location of the Underground Facility. During such time, Contractor/Bidder shall be responsible for the safety and protection of such Underground Facility.

If Engineer concludes that a change in the Contract Documents is required, a Work Change Directive or a Change Order will be issued to reflect and document such consequences. An equitable adjustment shall be made in the Contract Price or Contract Times, or both, to the extent that they are attributable to the existence or location of any Underground Facility that was not shown or indicated or not shown or indicated with reasonable accuracy in the Contract Documents and that Contractor/Bidder did not know of and could not reasonably have been expected to be aware of or to have anticipated. If County and Contractor/Bidder are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment in Contract Price or Contract Times, County or Contractor/Bidder may make a Claim therefor as provided in Paragraph 10.05.

Reference Points

County shall provide engineering surveys to establish reference points for construction which in Engineer's judgment are necessary to enable Contractor/Bidder to proceed with the Work. Contractor/Bidder shall be responsible for laying out the Work, shall protect and preserve the established reference points and property monuments, and shall make no changes or relocations without the prior written approval of County. Contractor/Bidder shall report to Engineer whenever any reference point or property

monument is lost or destroyed or requires relocation because of necessary changes in grades or locations, and shall be responsible for the accurate replacement or relocation of such reference points or property monuments by professionally qualified personnel.

Hazardous Environmental Condition at Site

Reports and Drawings: The Supplementary Conditions identify those reports and drawings known to County relating to Hazardous Environmental Conditions that have been identified at the Site.

Limited Reliance by Contractor/Bidder on Technical Data Authorized: Contractor/Bidder may rely upon the accuracy of the “technical data” contained in such reports and drawings, but such reports and drawings are not Contract Documents. Such “technical data” is identified in the Supplementary Conditions. Except for such reliance on such “technical data,” Contractor/Bidder may not rely upon or make any claim against County or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or SubContractors with respect to:

the completeness of such reports and drawings for Contractor/Bidder’s purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences and procedures of construction to be employed by Contractor/Bidder and safety precautions and programs incident thereto; or

other data, interpretations, opinions and information contained in such reports or shown or indicated in such drawings; or

any Contractor/Bidder interpretation of or conclusion drawn from any “technical data” or any such other data, interpretations, opinions or information.

Contractor/Bidder shall not be responsible for any Hazardous Environmental Condition uncovered or revealed at the Site which was not shown or indicated in Drawings or Specifications or identified in the Contract Documents to be within the scope of the Work. Contractor/Bidder shall be responsible for a Hazardous Environmental Condition created with any materials brought to the Site by Contractor/Bidder, SubContractors, Suppliers, or anyone else for whom Contractor/Bidder is responsible.

If Contractor/Bidder encounters a Hazardous Environmental Condition or if Contractor/Bidder or anyone for whom Contractor/Bidder is responsible creates a Hazardous Environmental Condition, Contractor/Bidder shall immediately: (i) secure or otherwise isolate such condition; (ii) stop all Work in connection with such condition and in any area affected thereby (except in an emergency as required by Paragraph 6.16.A); and (iii) notify County and Engineer (and promptly thereafter confirm such notice in writing). County shall promptly consult with Engineer concerning the necessity for County to retain a qualified expert to evaluate such condition or take corrective action, if any. Promptly after consulting with Engineer, County shall take such actions as are necessary to permit County to timely obtain required permits and provide Contractor/Bidder the written notice required by Paragraph 4.06.E.

Contractor/Bidder shall not be required to resume Work in connection with such condition or in any affected area until after County has obtained any required permits related thereto and delivered written notice to Contractor/Bidder: (i) specifying that such condition and any affected area is or has been rendered safe for the resumption of Work; or (ii) specifying any special conditions under which such Work may be resumed safely. If County and Contractor/Bidder cannot agree as to entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times, or both, as a result of such Work stoppage or such special conditions under which Work is agreed to be resumed by Contractor/Bidder, either party may make a Claim therefor as provided in Paragraph 10.05.

If after receipt of such written notice Contractor/Bidder does not agree to resume such Work based on a reasonable belief it is unsafe, or does not agree to resume such Work under such special conditions, then County may order the portion of the Work that is in the area affected by such condition to be deleted from the Work. If County and Contractor/Bidder cannot agree as to entitlement to or on the amount or extent, if any, of an adjustment in Contract Price or Contract Times as a result of deleting such portion of the Work, then either party may make a Claim therefor as provided in Paragraph 10.05. County may have such deleted portion of the Work performed by County's own forces or others in accordance with Article 7.

To the fullest extent permitted by Laws and Regulations, County shall indemnify and hold harmless Contractor/Bidder, SubContractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and SubContractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition, provided that such Hazardous Environmental Condition: (i) was not shown or indicated in the Drawings or Specifications or identified in the Contract Documents to be included within the scope of the Work, and (ii) was not created by Contractor/Bidder or by anyone for whom Contractor/Bidder is responsible. Nothing in this Paragraph 4.06.G shall obligate County to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.

To the fullest extent permitted by Laws and Regulations, Contractor/Bidder shall indemnify and hold harmless County and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and SubContractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition created by Contractor/Bidder or by anyone for whom Contractor/Bidder is responsible. Nothing in this Paragraph 4.06.H shall obligate Contractor/Bidder to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.

The provisions of Paragraphs 4.02, 4.03, and 4.04 do not apply to a Hazardous Environmental Condition uncovered or revealed at the Site.

BONDS AND INSURANCE

Performance, Payment, and Other Bonds

Contractor/Bidder shall furnish performance and payment bonds, each in an amount at least equal to the Contract Price as security for the faithful performance and payment of all of Contractor/Bidder's obligations under the Contract Documents. These bonds shall remain in effect until one year after the date when final payment becomes due or until completion of the correction period specified in Paragraph 13.07, whichever is later, except as provided otherwise by Laws or Regulations or by the Contract Documents. Contractor/Bidder shall also furnish such other bonds as are required by the Contract Documents.

~~All bonds shall be in the form prescribed by the Contract Documents except as provided otherwise by Laws or Regulations, and shall be executed by such sureties as are named in the list of "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Circular 570 (amended) by the Financial Management Service, Surety Bond Branch, U.S. Department of the Treasury. All bonds signed by an agent or attorney in fact must be accompanied by a certified copy of that individual's authority to bind the surety. The evidence of authority shall show that it is effective on the date the agent or attorney in fact signed each bond. All Bonds shall be in the form prescribed by the contract Documents or other form approved by County. All else notwithstanding, the terms of all Bonds shall be substantially in the form prescribed by Chapter 255, Florida Statutes. All Bonds shall be executed by Contractor/Bidder and a corporate bonding company licensed to transact such business in the State of Florida and named on the current list of "Surety Companies Acceptable on Federal Bonds" as published in the Treasury Department Circular Number 570. Contractor/Bidder will cause the Bonds to be recorded with the Clerk of the Circuit Court in the county in which the Work is to be performed. Failure to execute bonds in the form prescribed may constitute non-responsiveness on the part of the Contractor/Bidder. The expense for all Bonds shall be the Contractor/Bidder's responsibility. (see SC-5.01.B)~~

If the surety on any bond furnished by Contractor/Bidder is declared bankrupt or becomes insolvent or its right to do business is terminated in any state where any part of the Project is located or it ceases to meet the requirements of Paragraph 5.01.B, Contractor/Bidder shall promptly notify County and Engineer and shall, within 20 days after the event giving rise to such notification, provide another bond and surety, both of which shall comply with the requirements of Paragraphs 5.01.B and 5.02.

Licensed Sureties and Insurers

All bonds and insurance required by the Contract Documents to be purchased and maintained by County or Contractor/Bidder shall be obtained from surety or insurance

companies that are duly licensed or authorized in the jurisdiction in which the Project is located to issue bonds or insurance policies for the limits and coverages so required. Such surety and insurance companies shall also meet such additional requirements and qualifications as may be provided in the Supplementary Conditions. Certificates of insurance shall be issued by a company with a Best's rating of at least B+ authorized to do business in the State of Florida. County must approve non-rated insurers. If used, County shall be shown as Certificate Holder, Engineer as Additional Insured and provide a 30-day cancellation notice.

Certificates of Insurance

Contractor/Bidder shall deliver to County, with copies to each additional insured and loss payee identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance requested by County or any other additional insured) which Contractor/Bidder is required to purchase and maintain per requirements attached hereto as Appendix D.

~~County shall deliver to Contractor/Bidder, with copies to each additional insured and loss payee identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance requested by Contractor/Bidder or any other additional insured) which County is required to purchase and maintain. Insurance policies written on a "Claims Made" form is not acceptable without County's approval. (see SC-5.03.B)~~

Failure of County to demand such certificates or other evidence of Contractor/Bidder's full compliance with these insurance requirements or failure of County to identify a deficiency in compliance from the evidence provided shall not be construed as a waiver of Contractor/Bidder's obligation to maintain such insurance.

County does not represent that insurance coverage and limits established in this Contract necessarily will be adequate to protect Contractor/Bidder.

The insurance and insurance limits required herein shall not be deemed as a limitation on Contractor/Bidder's liability under the indemnities granted to County in the Contract Documents.

Umbrella Liability insurance is preferred, but an Excess Liability equivalent is acceptable. Whichever type of coverage is provided, it shall not be more restrictive than the underlying insurance policy coverages, including, but not limited to the coverage Trigger, defense, notice of occurrence/accident/circumstances, notice of claim and extended reporting period. (see SC-5.03.F)

No work shall commence under this contract until the required Certificate(s) have been provided. Work shall not continue after expiration (or cancellation) until new Certificate(s) have been provided. Non-continuance of work after expiration (or cancellation) of Certificate(s) will not constitute a delay beyond Contractor/Bidder's control as defined in paragraph 12.03. (see SC-5.03.G)

Contractor/Bidder shall arrange for its insurers' policies to include, or be endorsed to include, a severability or interest/cross liability provision, so that County will be treated as if a separate policy were in existence, but without increasing the policy limits. (see SC-5.03.H)

Contractor/Bidder's deductibles/self-insured retentions shall be disclosed to County and may be disapproved by the latter. They shall be reduced or eliminated at the option of County. Contractor/Bidder is responsible for the amount of any deductible or self-insured retention. (see SC-6.03.I)

These insurance requirements shall not relieve or limit the liability of Contractor/Bidder. County does not in any way represent that these types or amounts of insurance are sufficient or adequate to protect Contractor/Bidder's interests or liabilities, but are merely minimums. (see SC-5.03.J)

Insurance required of Contractor/Bidder or any other insurance of Contractor/Bidder shall be considered primary, and insurance or self-insurance of County shall be considered excess, as may be applicable to claims that arise out of this contract. (see SC-5.03.K)

Receipt of Certificates or other documentation of insurance or policies or copies of policies by County, or by any of its representatives, which indicate less coverage than required does not constitute a waiver of the Contractor/Bidder's obligation to fulfill the insurance requirements herein. (see SC-5.03.L)

The Contractor/Bidder shall either (a) require each SubContractor to produce and maintain the same coverage as required of the Contractor/Bidder, or (b) insure the activities of SubContractors in his own policy. (see SC-5.03.M)

These insurance requirements are minimums and may not be adequate to cover Contractor/Bidder exposures. (see SC-5.03.N)

Contractor/Bidder's Insurance

Contractor/Bidder shall purchase and maintain such insurance as is appropriate for the Work being performed and as will provide protection from claims set forth below which may arise out of or result from Contractor/Bidder's performance of the Work and Contractor/Bidder's other obligations under the Contract Documents, whether it is to be performed by Contractor/Bidder, any SubContractor or Supplier, or by anyone directly or indirectly employed by any of them to perform any of the Work, or by anyone for whose acts any of them may be liable:

claims under workers' compensation, disability benefits, and other similar employee benefit acts;

claims for damages because of bodily injury, occupational sickness or disease, or death of Contractor/Bidder's employees;

claims for damages because of bodily injury, sickness or disease, or death of any person other than Contractor/Bidder's employees;

claims for damages insured by reasonably available personal injury liability coverage which are sustained:

by any person as a result of an offense directly or indirectly related to the employment of such person by Contractor/Bidder, or

by any other person for any other reason;

claims for damages, other than to the Work itself, because of injury to or destruction of tangible property wherever located, including loss of use resulting therefrom; and

claims for damages because of bodily injury or death of any person or property damage arising out of the Countyship, maintenance or use of any motor vehicle.

The policies of insurance required by this Paragraph 5.04 shall:

with respect to insurance required by Paragraphs 5.04.A.3 through 5.04.A.6 inclusive, be written on an occurrence basis, include as additional insureds (subject to any customary exclusion regarding professional liability) County and Engineer, and any other individuals or entities identified in the Supplementary Conditions, all of whom shall be listed as additional insureds, and include coverage for the respective officers, directors, members, partners, employees, agents, consultants, and SubContractors of each and any of all such additional insureds, and the insurance afforded to these additional insureds shall provide primary coverage for all claims covered thereby;

include at least the specific coverages and be written for not less than the limits of liability provided in the Supplementary Conditions or required by Laws or Regulations, whichever is greater;

include contractual liability insurance covering Contractor/Bidder's indemnity obligations under Paragraphs 6.11 and 6.20;

contain a provision or endorsement that the coverage afforded will not be canceled, materially changed or renewal refused until at least 30 days prior written notice has been given to County and Contractor/Bidder and to each other additional insured identified in the Supplementary Conditions to whom a certificate of insurance has been issued (and the certificates of insurance furnished by the Contractor/Bidder pursuant to Paragraph 5.03 will so provide);

remain in effect at least until final payment and at all times thereafter when Contractor/Bidder may be correcting, removing, or replacing defective Work in accordance with Paragraph 13.07; and

include completed operations coverage:

Such insurance shall remain in effect for two years after final payment.

Contractor/Bidder shall furnish County and each other additional insured identified in the Supplementary Conditions, to whom a certificate of insurance has been issued, evidence satisfactory to County and any such additional insured of continuation of such insurance at final payment and one year thereafter.

Contractor/Bidder shall purchase and maintain coverages listed on Appendix D of Contract Documents.

County's Liability Insurance

In addition to the insurance required to be provided by Contractor/Bidder under Paragraph 5.04, County, at County's option, may purchase and maintain at County's expense County's own liability insurance as will protect County against claims which may arise from operations under the Contract Documents.

Property Insurance

~~Unless otherwise provided in the Supplementary Conditions, County shall purchase and maintain property insurance upon the Work at the Site in the amount of the full replacement cost thereof (subject to such deductible amounts as may be provided in the Supplementary Conditions or required by Laws and Regulations). This insurance shall:~~

~~include the interests of County, Contractor/Bidder, SubContractors, and Engineer, and any other individuals or entities identified in the Supplementary Conditions, and the officers, directors, members, partners, employees, agents, consultants, and SubContractors of each and any of them, each of whom is deemed to have an insurable interest and shall be listed as a loss payee;~~

~~be written on a Builder's Risk "all risk" policy form that shall at least include insurance for physical loss or damage to the Work, temporary buildings, falsework, and materials and equipment in transit, and shall insure against at least the following perils or causes of loss: fire, lightning, extended coverage, theft, vandalism and malicious mischief, earthquake, collapse, debris removal, demolition occasioned by enforcement of Laws and Regulations, water damage (other than that caused by flood), and such other perils or causes of loss as may be specifically required by the Supplementary Conditions.~~

~~include expenses incurred in the repair or replacement of any insured property (including but not limited to fees and charges of engineers and architects);~~

~~cover materials and equipment stored at the Site or at another location that was agreed to in writing by County prior to being incorporated in the Work, provided that such materials and equipment have been included in an Application for Payment recommended by Engineer;~~

~~allow for partial utilization of the Work by County;~~

~~include testing and startup; and~~

~~be maintained in effect until final payment is made unless otherwise agreed to in writing by County, Contractor/Bidder, and Engineer with 30 days written notice to each other loss payee to whom a certificate of insurance has been issued.~~

~~County shall purchase and maintain such equipment breakdown insurance or additional property insurance as may be required by the Supplementary Conditions or Laws and Regulations which will include the interests of County, Contractor/Bidder, SubContractors, and Engineer, and any other individuals or entities identified in the Supplementary Conditions, and the officers, directors, members, partners, employees, agents, consultants and SubContractors of each and any of them, each of whom is deemed to have an insurable interest and shall be listed as a loss payee.~~

~~All the policies of insurance (and the certificates or other evidence thereof) required to be purchased and maintained in accordance with this Paragraph 5.06 will contain a provision or endorsement that the coverage afforded will not be canceled or materially changed or renewal refused until at least 30 days prior written notice has been given to County and Contractor/Bidder and to each other loss payee to whom a certificate of insurance has been issued and will contain waiver provisions in accordance with Paragraph 5.07.~~

County shall not be responsible for purchasing and maintaining any property insurance specified in this Paragraph 5.06 to protect the interests of Contractor/Bidder, SubContractors, or others in the Work to the extent of any deductible amounts that are identified in the Supplementary Conditions. The risk of loss within such identified deductible amount will be borne by Contractor/Bidder, SubContractors, or others suffering any such loss, and if any of them wishes property insurance coverage within the limits of such amounts, each may purchase and maintain it at the purchaser's own expense.

~~If Contractor/Bidder requests in writing that other special insurance be included in the property insurance policies provided under this Paragraph 5.06, County shall, if possible, include such insurance, and the cost thereof will be charged to Contractor/Bidder by appropriate Change Order. Prior to commencement of the Work at the Site, County shall in writing advise Contractor/Bidder whether or not such other insurance has been procured by County.~~

Waiver of Rights

~~County and Contractor/Bidder intend that all policies purchased in accordance with Paragraph 5.06 will protect County, Contractor/Bidder, SubContractors, and Engineer, and all other individuals or entities identified in the Supplementary Conditions as loss payees (and the officers, directors, members, partners, employees, agents, consultants, and SubContractors of each and any of them) in such policies and will provide primary coverage for all losses and damages caused by the perils or causes of loss covered~~

~~thereby. All such policies shall contain provisions to the effect that in the event of payment of any loss or damage the insurers will have no rights of recovery against any of the insureds or loss payees thereunder. County and Contractor/Bidder waive all rights against each other and their respective officers, directors, members, partners, employees, agents, consultants and SubContractors of each and any of them for all losses and damages caused by, arising out of or resulting from any of the perils or causes of loss covered by such policies and any other property insurance applicable to the Work; and, in addition, waive all such rights against SubContractors and Engineer, and all other individuals or entities identified in the Supplementary Conditions as loss payees (and the officers, directors, members, partners, employees, agents, consultants, and SubContractors of each and any of them) under such policies for losses and damages so caused. None of the above waivers shall extend to the rights that any party making such waiver may have to the proceeds of insurance held by County as trustee or otherwise payable under any policy so issued.~~

~~County waives all rights against Contractor/Bidder, SubContractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants and SubContractors of each and any of them for:~~

~~loss due to business interruption, loss of use, or other consequential loss extending beyond direct physical loss or damage to County's property or the Work caused by, arising out of, or resulting from fire or other perils whether or not insured by County; and~~

~~loss or damage to the completed Project or part thereof caused by, arising out of, or resulting from fire or other insured peril or cause of loss covered by any property insurance maintained on the completed Project or part thereof by County during partial utilization pursuant to Paragraph 14.05, after Substantial Completion pursuant to Paragraph 14.04, or after final payment pursuant to Paragraph 14.07.~~

~~Any insurance policy maintained by County covering any loss, damage or consequential loss referred to in Paragraph 5.07.B shall contain provisions to the effect that in the event of payment of any such loss, damage, or consequential loss, the insurers will have no rights of recovery against Contractor/Bidder, SubContractors, or Engineer, and the officers, directors, members, partners, employees, agents, consultants and SubContractors of each and any of them.~~

Receipt and Application of Insurance Proceeds

~~Any insured loss under the policies of insurance required by Paragraph 5.06 will be adjusted with County and made payable to County as fiduciary for the loss payees, as their interests may appear, subject to the requirements of any applicable mortgage clause and of Paragraph 5.08.B. County shall deposit in a separate account any money so received and shall distribute it in accordance with such agreement as the parties in interest may reach. If no other special agreement is reached, the damaged Work shall be repaired or replaced, the moneys so received applied on account thereof, and the Work and the cost thereof covered by an appropriate Change Order.~~

~~County as fiduciary shall have power to adjust and settle any loss with the insurers unless one of the parties in interest shall object in writing within 15 days after the occurrence of loss to County's exercise of this power. If such objection be made, County as fiduciary shall make settlement with the insurers in accordance with such agreement as the parties in interest may reach. If no such agreement among the parties in interest is reached, County as fiduciary shall adjust and settle the loss with the insurers and, if required in writing by any party in interest, County as fiduciary shall give bond for the proper performance of such duties.~~

Acceptance of Bonds and Insurance; Option to Replace

~~If either County or Contractor/Bidder has any objection to the coverage afforded by or other provisions of the bonds or insurance required to be purchased and maintained by the other party in accordance with Article 5 on the basis of non-conformance with the Contract Documents, the objecting party shall so notify the other party in writing within 10 days after receipt of the certificates (or other evidence requested) required by Paragraph 2.01.B. County and Contractor/Bidder shall each provide to the other such additional information in respect of insurance provided as the other may reasonably request. If either party does not purchase or maintain all of the bonds and insurance required of such party by the Contract Documents, such party shall notify the other party in writing of such failure to purchase prior to the start of the Work, or of such failure to maintain prior to any change in the required coverage. Without prejudice to any other right or remedy, the other party may elect to obtain equivalent bonds or insurance to protect such other party's interests at the expense of the party who was required to provide such coverage, and a Change Order shall be issued to adjust the Contract Price accordingly. If County has any objection to the coverage afforded by or other provisions of Bonds or insurance required to be purchased and maintained by Contractor/Bidder in accordance with Article 5 on the basis of non-conformance with the Contract Documents, County shall so notify Contractor/Bidder in writing within ten days after receipt of the certificates (or other evidence requested) required by paragraph 2.05.C. Contractor/Bidder shall provide to County such additional information in respect of insurance provided as County may reasonably request. (see SC-5.09.A)~~

Partial Utilization, Acknowledgment of Property Insurer

~~If County finds it necessary to occupy or use a portion or portions of the Work prior to Substantial Completion of all the Work as provided in Paragraph 14.05, no such use or occupancy shall commence before the insurers providing the property insurance pursuant to Paragraph 5.06 have acknowledged notice thereof and in writing effected any changes in coverage necessitated thereby. The insurers providing the property insurance shall consent by endorsement on the policy or policies, but the property insurance shall not be canceled or permitted to lapse on account of any such partial use or occupancy.~~

CONTRACTOR/BIDDER'S RESPONSIBILITIES

Supervision and Superintendence

Contractor/Bidder shall supervise, inspect, and direct the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents. Contractor/Bidder shall be solely responsible for the means, methods, techniques, sequences, and procedures of construction. Contractor/Bidder shall not be responsible for the negligence of County or Engineer in the design or specification of a specific means, method, technique, sequence, or procedure of construction which is shown or indicated in and expressly required by the Contract Documents. County reserves the right to reject any means, methods, techniques, sequences or procedures proposed by Contractor/Bidder which:

will constitute or create a hazard to the Work or to the persons or damage to property or existing utilities; or

will not produce finished work in accordance with the terms of the contract Documents.

County's failure to exercise his right to reject such means, methods, techniques, sequences or procedures shall not relieve the Contractor/Bidder of his obligation to accomplish the result intended in the Contract Documents nor shall the exercise of such right create a cause of action for damages. (see SC-6.01.A)

At all times during the progress of the Work, Contractor/Bidder shall assign a competent resident superintendent who shall not be replaced without written notice to County and Engineer except under extraordinary circumstances.

Labor; Working Hours

Contractor/Bidder shall provide competent, suitably qualified personnel to survey and lay out the Work and perform construction as required by the Contract Documents. Contractor/Bidder shall at all times maintain good discipline and order at the Site.

Except as otherwise required for the safety or protection of persons or the Work or property at the Site or adjacent thereto, and except as otherwise stated in the Contract Documents, all Work at the Site shall be performed during regular working hours. Contractor/Bidder will not permit the performance of Work on a Saturday, Sunday, or any legal holiday without County's written consent (~~which will not be unreasonably withheld~~) given after prior written notice to Engineer.

Engineer shall record time and costs required by Engineer and Engineer's Consultants to provide inspection services due to Contractor/Bidder's working beyond regular working hours as defined in the General Requirements. County's reimbursement for the charges shall be a deduction from Contractor/Bidder's Partial Payment(s) in accordance with Section 01 11 00 Part 2.02. (see SC-6.02.C)

Services, Materials, and Equipment

Unless otherwise specified in the Contract Documents, Contractor/Bidder shall provide and assume full responsibility for all services, materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities, and all other facilities and incidentals necessary for the performance, testing, start-up, and completion of the Work.

All materials and equipment incorporated into the Work shall be as specified or, if not specified, shall be of good quality and new, except as otherwise provided in the Contract Documents. All special warranties and guarantees required by the Specifications shall expressly run to the benefit of County. If required by Engineer, Contractor/Bidder shall furnish satisfactory evidence (including reports of required tests) as to the source, kind, and quality of materials and equipment.

All materials and equipment shall be stored, applied, installed, connected, erected, protected, used, cleaned, and conditioned in accordance with instructions of the applicable Supplier, except as otherwise may be provided in the Contract Documents.

Progress Schedule

Contractor/Bidder shall adhere to the Progress Schedule established in accordance with Paragraph 2.07 as it may be adjusted from time to time as provided below.

Contractor/Bidder shall submit to Engineer for acceptance (to the extent indicated in Paragraph 2.07) proposed adjustments in the Progress Schedule that will not result in changing the Contract Times. Such adjustments will comply with any provisions of the General Requirements applicable thereto.

Proposed adjustments in the Progress Schedule that will change the Contract Times shall be submitted in accordance with the requirements of Article 12. Adjustments in Contract Times may only be made by a Change Order.

Substitutes and "Or-Equals"

Whenever an item of material or equipment is specified or described in the Contract Documents by using the name of a proprietary item or the name of a particular Supplier, the specification or description is intended to establish the type, function, appearance, and quality required. Unless the specification or description contains or is followed by words reading that no like, equivalent, or "or-equal" item or no substitution is permitted, other items of material or equipment or material or equipment of other Suppliers may be submitted to Engineer for review under the circumstances described below.

"Or-Equal" Items: If in Engineer's sole discretion an item of material or equipment proposed by Contractor/Bidder is functionally equal to that named and sufficiently similar so that no change in related Work will be required, it may be considered by

Engineer as an “or-equal” item, in which case review and approval of the proposed item may, in Engineer’s sole discretion, be accomplished without compliance with some or all of the requirements for approval of proposed substitute items. For the purposes of this Paragraph 6.05.A.1, a proposed item of material or equipment will be considered functionally equal to an item so named if:

in the exercise of reasonable judgment Engineer determines that:

it is at least equal in materials of construction, quality, durability, appearance, strength, and design characteristics;

it will reliably perform at least equally well the function and achieve the results imposed by the design concept of the completed Project as a functioning whole; and

it has a proven record of performance and availability of responsive service.

Contractor/Bidder certifies that, if approved and incorporated into the Work:

there will be no increase in cost to the County or increase in Contract Times; and

it will conform substantially to the detailed requirements of the item named in the Contract Documents.

Substitute Items:

If in Engineer’s sole discretion an item of material or equipment proposed by Contractor/Bidder does not qualify as an “or-equal” item under Paragraph 6.05.A.1, it will be considered a proposed substitute item.

Contractor/Bidder shall submit sufficient information as provided below to allow Engineer to determine if the item of material or equipment proposed is essentially equivalent to that named and an acceptable substitute therefor. Requests for review of proposed substitute items of material or equipment will not be accepted by Engineer from anyone other than Contractor/Bidder.

The requirements for review by Engineer will be as set forth in Paragraph 6.05.A.2.d, as supplemented by the General Requirements, and as Engineer may decide is appropriate under the circumstances.

Contractor/Bidder shall make written application to Engineer for review of a proposed substitute item of material or equipment that Contractor/Bidder seeks to furnish or use. The application:

shall certify that the proposed substitute item will:

perform adequately the functions and achieve the results called for by the general design,

be similar in substance to that specified, and

be suited to the same use as that specified;

will state:

the extent, if any, to which the use of the proposed substitute item will prejudice Contractor/Bidder's achievement of Substantial Completion on time,

whether use of the proposed substitute item in the Work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with County for other work on the Project) to adapt the design to the proposed substitute item, and

whether incorporation or use of the proposed substitute item in connection with the Work is subject to payment of any license fee or royalty;

will identify:

all variations of the proposed substitute item from that specified, and

available engineering, sales, maintenance, repair, and replacement services; and

shall contain an itemized estimate of all costs or credits that will result directly or indirectly from use of such substitute item, including costs of redesign and claims of other Contractor/Bidders affected by any resulting change.

Each action mentioned above required for review of proposed substitute items of material or equipment shall be followed in the order given. Failure to do so shall be cause for rejection of the proposed substitution. (see SC-6.05.A.2.e)

Contractor/Bidder shall reimburse County for the charges of Engineer or Engineer's Consultants for evaluation of substitutions. County's reimbursement for the charges shall be a deduction from the Contractor/Bidder's Partial Payment(s). (see SC-6.05.A.2.f)

Substitute Construction Methods or Procedures: If a specific means, method, technique, sequence, or procedure of construction is expressly required by the Contract Documents, Contractor/Bidder may furnish or utilize a substitute means, method, technique, sequence, or procedure of construction approved by Engineer. Contractor/Bidder shall submit sufficient information to allow Engineer, in Engineer's sole discretion, to determine that the substitute proposed is equivalent to that expressly called for by the Contract Documents. The requirements for review by Engineer will be similar to those provided in Paragraph 6.05.A.2.

Engineer's Evaluation: Engineer will be allowed a reasonable time within which to evaluate each proposal or submittal made pursuant to Paragraphs 6.05.A and 6.05.B. Engineer may require Contractor/Bidder to furnish additional data about the proposed substitute item. Engineer will be the sole judge of acceptability. No "or equal" or substitute will be ordered, installed or utilized until Engineer's review is complete, which will be evidenced by a Change Order in the case of a substitute and an approved Shop Drawing for an "or equal." Engineer will advise Contractor/Bidder in writing of any negative determination.

Special Guarantee: County may require Contractor/Bidder to furnish at Contractor/Bidder's expense a special performance guarantee or other surety with respect to any substitute.

Engineer's Cost Reimbursement: Engineer will record Engineer's costs in evaluating a substitute proposed or submitted by Contractor/Bidder pursuant to Paragraphs 6.05.A.2 and 6.05.B. Whether or not Engineer approves a substitute so proposed or submitted by Contractor/Bidder, Contractor/Bidder shall reimburse County for the reasonable charges of Engineer for evaluating each such proposed substitute. Contractor/Bidder shall also reimburse County for the reasonable charges of Engineer for making changes in the Contract Documents (or in the provisions of any other direct contract with County) resulting from the acceptance of each proposed substitute.

Contractor/Bidder's Expense: Contractor/Bidder shall provide all data in support of any proposed substitute or "or-equal" at Contractor/Bidder's expense.

Concerning SubContractors, Suppliers, and Others

Contractor/Bidder shall not employ any SubContractor, Supplier, or other individual or entity (including those acceptable to County as indicated in Paragraph 6.06.B), whether initially or as a replacement, against whom County may have reasonable objection. Contractor/Bidder shall not be required to employ any SubContractor, Supplier, or other individual or entity to furnish or perform any of the Work against whom Contractor/Bidder has reasonable objection. Contractor/Bidder shall not subcontract part(s) or the work, the aggregate cost of which is greater than 50 percent of the contract price, without prior written approval by County. Contractor/Bidder shall cause appropriate provisions to be inserted in all subcontracts relative to the Work that bind SubContractors to Contractor/Bidder by the terms of the Contract Documents insofar as applicable to the work of SubContractors and to give Contractor/Bidder the same

power as regards terminating any subcontract that County may exercise over Contractor/Bidder under any provision of the Contract Documents. Nothing contained in the subcontract shall create any contractual relationship between SubContractor and County. Each SubContractor shall discharge all duties and responsibilities of Contractor/Bidder to County covered by his subcontract. (see SC-6.06.A)

If the Supplementary Conditions require the identity of certain SubContractors, Suppliers, or other individuals or entities to be submitted to County in advance for acceptance by County by a specified date prior to the Effective Date of the Agreement, and if Contractor/Bidder has submitted a list thereof in accordance with the Supplementary Conditions, County's acceptance (either in writing or by failing to make written objection thereto by the date indicated for acceptance or objection in the Bidding Documents or the Contract Documents) of any such SubContractor, Supplier, or other individual or entity so identified may be revoked on the basis of reasonable objection after due investigation. Contractor/Bidder shall submit an acceptable replacement for the rejected SubContractor, Supplier, or other individual or entity, and the Contract Price will be adjusted by the difference in the cost occasioned by such replacement, and an appropriate Change Order will be issued. No acceptance by County of any such SubContractor, Supplier, or other individual or entity, whether initially or as a replacement, shall constitute a waiver of any right of County or Engineer to reject defective Work. SubContractors and Suppliers shall be identified on the form provided in the Bidding Requirements. (see SC-6.06.B)

Contractor/Bidder shall be fully responsible to County and Engineer for all acts and omissions of the SubContractors, Suppliers, and other individuals or entities performing or furnishing any of the Work just as Contractor/Bidder is responsible for Contractor/Bidder's own acts and omissions. Nothing in the Contract Documents:

shall create for the benefit of any such SubContractor, Supplier, or other individual or entity any contractual relationship between County or Engineer and any such SubContractor, Supplier or other individual or entity; nor

shall create any obligation on the part of County or Engineer to pay or to see to the payment of any moneys due any such SubContractor, Supplier, or other individual or entity except as may otherwise be required by Laws and Regulations.

Contractor/Bidder shall be solely responsible for scheduling and coordinating the Work of SubContractors, Suppliers, and other individuals or entities performing or furnishing any of the Work under a direct or indirect contract with Contractor/Bidder.

Contractor/Bidder shall require all SubContractors, Suppliers, and such other individuals or entities performing or furnishing any of the Work to communicate with Engineer through Contractor/Bidder.

The divisions and sections of the Specifications and the identifications of any Drawings shall not control Contractor/Bidder in dividing the Work among SubContractors or Suppliers or delineating the Work to be performed by any specific trade.

All Work performed for Contractor/Bidder by a SubContractor or Supplier will be pursuant to an appropriate agreement between Contractor/Bidder and the SubContractor or Supplier which specifically binds the SubContractor or Supplier to the applicable terms and conditions of the Contract Documents for the benefit of County and Engineer. Whenever any such agreement is with a SubContractor or Supplier who is listed as a loss payee on the property insurance provided in Paragraph 5.06, the agreement between the Contractor/Bidder and the SubContractor or Supplier will contain provisions whereby the SubContractor or Supplier waives all rights against County, Contractor/Bidder, Engineer, and all other individuals or entities identified in the Supplementary Conditions to be listed as insureds or loss payees (and the officers, directors, members, partners, employees, agents, consultants, and SubContractors of each and any of them) for all losses and damages caused by, arising out of, relating to, or resulting from any of the perils or causes of loss covered by such policies and any other property insurance applicable to the Work. If the insurers on any such policies require separate waiver forms to be signed by any SubContractor or Supplier, Contractor/Bidder will obtain the same.

Patent Fees and Royalties

Contractor/Bidder shall pay all license fees and royalties and assume all costs incident to the use in the performance of the Work or the incorporation in the Work of any invention, design, process, product, or device which is the subject of patent rights or copyrights held by others. If a particular invention, design, process, product, or device is specified in the Contract Documents for use in the performance of the Work and if, to the actual knowledge of County or Engineer, its use is subject to patent rights or copyrights calling for the payment of any license fee or royalty to others, the existence of such rights shall be disclosed by County in the Contract Documents.

To the fullest extent permitted by Laws and Regulations, County shall indemnify and hold harmless Contractor/Bidder, and its officers, directors, members, partners, employees, agents, consultants, and SubContractors from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device specified in the Contract Documents, but not identified as being subject to payment of any license fee or royalty to others required by patent rights or copyrights.

To the fullest extent permitted by Laws and Regulations, Contractor/Bidder shall indemnify and hold harmless County and Engineer, and the officers, directors, members, partners, employees, agents, consultants and SubContractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the

performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device not specified in the Contract Documents.

Permits

Unless otherwise provided in the Supplementary Conditions, Contractor/Bidder shall obtain and pay for all construction permits and licenses. County shall assist Contractor/Bidder, when necessary, in obtaining such permits and licenses. Contractor/Bidder shall pay all governmental charges and inspection fees necessary for the prosecution of the Work which are applicable at the time of opening of Bids, or, if there are no Bids, on the Effective Date of the Agreement. County shall pay all charges of utility Countys for connections for providing permanent service to the Work. Permits, licenses, and easements for permanent structures or permanent changes in existing facilities shall be secured and paid for by County, unless otherwise specified. (see SC-6.08.A)

Laws and Regulations

Contractor/Bidder shall give all notices required by and shall comply with all Laws and Regulations applicable to the performance of the Work. Except where otherwise expressly required by applicable Laws and Regulations, neither County nor Engineer shall be responsible for monitoring Contractor/Bidder's compliance with any Laws or Regulations. Contractor/Bidder shall also cause all SubContractors to comply with all federal, state, county, and municipal laws, ordinances, rules, and regulations bearing on the conduct of the Work. (see SC-6.09.A)

If Contractor/Bidder performs any Work knowing or having reason to know that it is contrary to Laws or Regulations, Contractor/Bidder shall bear all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such Work. However, it shall not be Contractor/Bidder's responsibility to make certain that the Specifications and Drawings are in accordance with Laws and Regulations, but this shall not relieve Contractor/Bidder of Contractor/Bidder's obligations under Paragraph 3.03. If Contractor/Bidder observes that the Contract Documents are at variance with said laws, ordinances, rates, or regulations, Contractor/Bidder shall promptly notify Engineer of Record and the County in writing, and any necessary changes shall be adjusted as provided in the Contract Documents. Contractor/Bidder shall not proceed with the Work until so instructed by County. (see SC-6.09.B)

Changes in Laws or Regulations not known at the time of opening of Bids (or, on the Effective Date of the Agreement if there were no Bids) having an effect on the cost or time of performance of the Work shall be the subject of an adjustment in Contract Price or Contract Times. If County and Contractor/Bidder are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment, a Claim may be made therefor as provided in Paragraph 10.05.

Taxes

Contractor/Bidder shall pay all sales, consumer, use, and other similar taxes required to be paid by Contractor/Bidder in accordance with the Laws and Regulations of the place of the Project which are applicable during the performance of the Work.

Use of Site and Other Areas

Limitation on Use of Site and Other Areas:

Contractor/Bidder shall confine construction equipment, the storage of materials and equipment, and the operations of workers to the Site and other areas permitted by Laws and Regulations, and shall not unreasonably encumber the Site and other areas with construction equipment or other materials or equipment. Contractor/Bidder shall assume full responsibility for any damage to any such land or area, or to the County or occupant thereof, or of any adjacent land or areas resulting from the performance of the Work.

Should any claim be made by any such County or occupant because of the performance of the Work, Contractor/Bidder shall promptly settle with such other party by negotiation or otherwise resolve the claim by arbitration or other dispute resolution proceeding or at law.

To the fullest extent permitted by Laws and Regulations, Contractor/Bidder shall indemnify and hold harmless County and Engineer, and the officers, directors, members, partners, employees, agents, consultants and SubContractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any claim or action, legal or equitable, brought by any such County or occupant against County, Engineer, or any other party indemnified hereunder to the extent caused by or based upon Contractor/Bidder's performance of the Work.

Removal of Debris During Performance of the Work: During the progress of the Work Contractor/Bidder shall keep the Site and other areas free from accumulations of waste materials, rubbish, and other debris. Removal and disposal of such waste materials, rubbish, and other debris shall conform to applicable Laws and Regulations.

Cleaning: Prior to Substantial Completion of the Work Contractor/Bidder shall clean the Site and the Work and make it ready for utilization by County. At the completion of the Work Contractor/Bidder shall remove from the Site all tools, appliances, construction equipment and machinery, and surplus materials and shall restore to original condition all property not designated for alteration by the Contract Documents.

Loading Structures: Contractor/Bidder shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall Contractor/Bidder

subject any part of the Work or adjacent property to stresses or pressures that will endanger it.

Record Documents

Contractor/Bidder shall maintain in a safe place at the Site one record copy of all Drawings, Specifications, Addenda, Change Orders, Work Change Directives, Field Orders, and written interpretations and clarifications in good order and annotated to show changes made during construction. These record documents together with all approved Samples and a counterpart of all approved Shop Drawings will be available to Engineer for reference. Upon completion of the Work, these record documents, Samples, and Shop Drawings will be delivered to Engineer for County. Annotations of record documents shall be legible, precise, and complete as determined by Engineer of Record and the County. (see SC-6.12.A)

Safety and Protection

Contractor/Bidder shall be solely responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work. Such responsibility does not relieve SubContractors of their responsibility for the safety of persons or property in the performance of their work, nor for compliance with applicable safety Laws and Regulations. Contractor/Bidder shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury or loss to:

all persons on the Site or who may be affected by the Work;

all the Work and materials and equipment to be incorporated therein, whether in storage on or off the Site; and

other property at the Site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, utilities, and Underground Facilities not designated for removal, relocation, or replacement in the course of construction.

Contractor/Bidder shall comply with all applicable Laws and Regulations relating to the safety of persons or property, or to the protection of persons or property from damage, injury, or loss; and shall erect and maintain all necessary safeguards for such safety and protection. Contractor/Bidder shall notify County of adjacent property and of Underground Facilities and other utility County when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation, and replacement of their property.

Contractor/Bidder shall comply with the applicable requirements of County's safety programs, if any. The Supplementary Conditions identify any County's safety programs that are applicable to the Work.

Contractor/Bidder shall inform County and Engineer of the specific requirements of Contractor/Bidder's safety program with which County's and Engineer's employees and representatives must comply while at the Site.

All damage, injury, or loss to any property referred to in Paragraph 6.13.A.2 or 6.13.A.3 caused, directly or indirectly, in whole or in part, by Contractor/Bidder, any SubContractor, Supplier, or any other individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, shall be remedied by Contractor/Bidder (except damage or loss attributable to the fault of Drawings or Specifications or to the acts or omissions of County or Engineer or anyone employed by any of them, or anyone for whose acts any of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of Contractor/Bidder or any SubContractor, Supplier, or other individual or entity directly or indirectly employed by any of them).

Contractor/Bidder's duties and responsibilities for safety and for protection of the Work shall continue until such time as all the Work is completed and Engineer has issued a notice to County and Contractor/Bidder in accordance with Paragraph 14.07.B that the Work is acceptable (except as otherwise expressly provided in connection with Substantial Completion).

Contractor/Bidder shall be responsible at all times for precautions to achieve the protection of all persons, including employees and property. Contractor/Bidder shall make special effort to detect hazardous conditions and shall take prompt action where necessary to avoid accident, injury, or property damage. OSHA and all other applicable safety laws and ordinances shall be followed as well as American National Standards Institute Safety Standards. All accidents, injuries, claims, or potential claims shall be reported promptly to County. (see SC-6.13.G)

Safety Representative

Contractor/Bidder shall designate a qualified and experienced safety representative at the Site whose duties and responsibilities shall be the prevention of accidents and the maintaining and supervising of safety precautions and programs.

Hazard Communication Programs

Contractor/Bidder shall be responsible for coordinating any exchange of material safety data sheets or other hazard communication information required to be made available to or exchanged between or among employers at the Site in accordance with Laws or Regulations.

Emergencies

In emergencies affecting the safety or protection of persons or the Work or property at the Site or adjacent thereto, Contractor/Bidder is obligated to act to prevent threatened damage, injury, or loss. Contractor/Bidder shall give Engineer prompt written notice if Contractor/Bidder believes that any significant changes in the Work or variations from the Contract Documents have been caused thereby or are required as a result thereof. If Engineer determines that a change in the Contract Documents is required because of the action taken by Contractor/Bidder in response to such an emergency, a Work Change Directive or Change Order will be issued.

Shop Drawings and Samples

Contractor/Bidder shall submit Shop Drawings and Samples to Engineer for review and approval in accordance with the accepted Schedule of Submittals (as required by Paragraph 2.07). Each submittal will be identified as Engineer may require.

Shop Drawings:

Submit number of copies specified in the General Requirements.

Data shown on the Shop Drawings will be complete with respect to quantities, dimensions, specified performance and design criteria, materials, and similar data to show Engineer the services, materials, and equipment Contractor/Bidder proposes to provide and to enable Engineer to review the information for the limited purposes required by Paragraph 6.17.D.

Samples:

Submit number of Samples specified in the Specifications.

Clearly identify each Sample as to material, Supplier, pertinent data such as catalog numbers, the use for which intended and other data as Engineer may require to enable Engineer to review the submittal for the limited purposes required by Paragraph 6.17.D.

Where a Shop Drawing or Sample is required by the Contract Documents or the Schedule of Submittals, any related Work performed prior to Engineer's review and approval of the pertinent submittal will be at the sole expense and responsibility of Contractor/Bidder.

Submittal Procedures:

Before submitting each Shop Drawing or Sample, Contractor/Bidder shall have:

reviewed and coordinated each Shop Drawing or Sample with other Shop Drawings and Samples and with the requirements of the Work and the Contract Documents;

determined and verified all field measurements, quantities, dimensions, specified performance and design criteria, installation requirements, materials, catalog numbers, and similar information with respect thereto;

determined and verified the suitability of all materials offered with respect to the indicated application, fabrication, shipping, handling, storage, assembly, and installation pertaining to the performance of the Work; and

determined and verified all information relative to Contractor/Bidder's responsibilities for means, methods, techniques, sequences, and procedures of construction, and safety precautions and programs incident thereto.

Each submittal shall bear a stamp or specific written certification that Contractor/Bidder has satisfied Contractor/Bidder's obligations under the Contract Documents with respect to Contractor/Bidder's review and approval of that submittal.

With each submittal, Contractor/Bidder shall give Engineer specific written notice of any variations that the Shop Drawing or Sample may have from the requirements of the Contract Documents. This notice shall be both a written communication separate from the Shop Drawings or Sample submittal; and, in addition, by a specific notation made on each Shop Drawing or Sample submitted to Engineer for review and approval of each such variation.

Engineer's Review:

Engineer will provide timely review of Shop Drawings and Samples in accordance with the Schedule of Submittals acceptable to Engineer. Engineer's review and approval will be only to determine if the items covered by the submittals will, after installation or incorporation in the Work, conform to the information given in the Contract Documents and be compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents.

Engineer's review and approval will not extend to means, methods, techniques, sequences, or procedures of construction (except where a particular means, method, technique, sequence, or procedure of construction is specifically and expressly called for by the Contract Documents) or to safety precautions or programs incident thereto. The review and approval of a separate item as such will not indicate approval of the assembly in which the item functions.

Engineer's review and approval shall not relieve Contractor/Bidder from responsibility for any variation from the requirements of the Contract Documents unless Contractor/Bidder has complied with the requirements of Paragraph 6.17.C.3 and Engineer has given written approval of each such variation by specific written notation thereof incorporated in or accompanying the Shop Drawing or Sample. Engineer's review and approval shall not relieve Contractor/Bidder from responsibility for complying with the requirements of Paragraph 6.17.C.1.

Resubmittal Procedures:

Contractor/Bidder shall make corrections required by Engineer and shall return the required number of corrected copies of Shop Drawings and submit, as required, new Samples for review and approval. Contractor/Bidder shall direct specific attention in writing to revisions other than the corrections called for by Engineer on previous submittals.

Contractor/Bidder shall reimburse County for the charges of the County and the County's Consultants for costs generated as a result of more than two submittals of any one Shop Drawing or Sample being required for evaluation due to rejection for noncompliance of the original submittal or lack of information required by the Contract Documents. County's reimbursement for the charges shall be a deduction from Contractor/Bidder's Partial Payment(s). (see SC-6.17.E.2)

Continuing the Work

Contractor/Bidder shall carry on the Work and adhere to the Progress Schedule during all disputes or disagreements with County. No Work shall be delayed or postponed pending resolution of any disputes or disagreements, except as permitted by Paragraph 15.04 or as County and Contractor/Bidder may otherwise agree in writing.

Contractor/Bidder's General Warranty and Guarantee

Contractor/Bidder warrants and guarantees to County that all Work will be in accordance with the Contract Documents and will not be defective. Engineer and its officers, directors, members, partners, employees, agents, consultants, and SubContractors shall be entitled to rely on representation of Contractor/Bidder's warranty and guarantee.

Contractor/Bidder's warranty and guarantee hereunder excludes defects or damage caused by:

abuse, modification, or improper maintenance or operation by persons other than Contractor/Bidder, SubContractors, Suppliers, or any other individual or entity for whom Contractor/Bidder is responsible; or

normal wear and tear under normal usage.

Contractor/Bidder's obligation to perform and complete the Work in accordance with the Contract Documents shall be absolute. None of the following will constitute an acceptance of Work that is not in accordance with the Contract Documents or a release of Contractor/Bidder's obligation to perform the Work in accordance with the Contract Documents:

observations by Engineer;

recommendation by Engineer or payment by County of any progress or final payment;

the issuance of a certificate of Substantial Completion by Engineer or any payment related thereto by County;

use or occupancy of the Work or any part thereof by County;

any review and approval of a Shop Drawing or Sample submittal or the issuance of a notice of acceptability by Engineer;

any inspection, test, or approval by others; or

any correction of defective Work by County.

Indemnification

To the fullest extent permitted by Laws and Regulations, Contractor/Bidder shall indemnify and hold harmless County and Engineer, and the officers, directors, members, partners, employees, agents, consultants and SubContractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or ~~arbitration~~ or other dispute resolution costs) arising out of or relating to the performance of the Work, provided that any such claim, cost, loss, or damage is attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom but only to the extent caused by any negligent act or omission of Contractor/Bidder, any SubContractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work or anyone for whose acts any of them may be liable . (see SC-6.20.A)

Five percent of the Contract Price is given as consideration for this indemnification.
(see SC-6.20.A.1)

In any and all claims against County or Engineer or any of their officers, directors, members, partners, employees, agents, consultants, or SubContractors by any employee (or the survivor or personal representative of such employee) of Contractor/Bidder, any SubContractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, the indemnification obligation under Paragraph 6.20.A shall not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for Contractor/Bidder or any such SubContractor, Supplier, or other individual or entity under workers' compensation acts, disability benefit acts, or other employee benefit acts.

The indemnification obligations of Contractor/Bidder under Paragraph 6.20.A shall not extend to the liability of Engineer and Engineer's officers, directors, members, partners, employees, agents, consultants and SubContractors arising out of:

the preparation or approval of, or the failure to prepare or approve maps, Drawings, opinions, reports, surveys, Change Orders, designs, or Specifications; or

giving directions or instructions, or failing to give them, if that is the primary cause of the injury or damage.

Neither Contractor/Bidder nor County shall sell, transfer, assign, or otherwise dispose of the contract or any portion thereof, or any right, title, or interest therein, or any obligations thereunder, without written consent of the other party. (see SC-6.20.D)

Delegation of Professional Design Services

Contractor/Bidder will not be required to provide professional design services unless such services are specifically required by the Contract Documents for a portion of the Work or unless such services are required to carry out Contractor/Bidder's responsibilities for construction means, methods, techniques, sequences and procedures. Contractor/Bidder shall not be required to provide professional services in violation of applicable law.

If professional design services or certifications by a design professional related to systems, materials or equipment are specifically required of Contractor/Bidder by the Contract Documents, County and Engineer will specify all performance and design criteria that such services must satisfy. Contractor/Bidder shall cause such services or certifications to be provided by a properly licensed professional, whose signature and seal shall appear on all drawings, calculations, specifications, certifications, Shop Drawings and other submittals prepared by such professional. Shop Drawings and other submittals related to the Work designed or certified by such professional, if prepared by others, shall bear such professional's written approval when submitted to Engineer.

County and Engineer shall be entitled to rely upon the adequacy, accuracy and completeness of the services, certifications or approvals performed by such design professionals, provided County and Engineer have specified to Contractor/Bidder all performance and design criteria that such services must satisfy.

Pursuant to this Paragraph 6.21, Engineer's review and approval of design calculations and design drawings will be only for the limited purpose of checking for conformance with performance and design criteria given and the design concept expressed in the Contract Documents. Engineer's review and approval of Shop Drawings and other submittals (except design calculations and design drawings) will be only for the purpose stated in Paragraph 6.17.D.1.

Contractor/Bidder shall not be responsible for the adequacy of the performance or design criteria required by the Contract Documents.

OTHER WORK AT THE SITE

Related Work at Site

County may perform other work related to the Project at the Site with County's employees, or through other direct contracts therefor, or have other work performed by utility Countys. If such other work is not noted in the Contract Documents, then:

written notice thereof will be given to Contractor/Bidder prior to starting any such other work; and

if County and Contractor/Bidder are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times that should be allowed as a result of such other work, a Claim may be made therefor as provided in Paragraph 10.05.

Contractor/Bidder shall afford each other Contractor/Bidder who is a party to such a direct contract, each utility County, and County, if County is performing other work with County's employees, proper and safe access to the Site, provide a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work, and properly coordinate the Work with theirs. Contractor/Bidder shall do all cutting, fitting, and patching of the Work that may be required to properly connect or otherwise make its several parts come together and properly integrate with such other work. Contractor/Bidder shall not endanger any work of others by cutting, excavating, or otherwise altering such work; provided, however, that Contractor/Bidder may cut or alter others' work with the written consent of Engineer and the others whose work will be affected. The duties and responsibilities of Contractor/Bidder under this Paragraph are for the benefit of such utility Countys and other Contractor/Bidders to the extent that there are comparable provisions for the benefit of Contractor/Bidder in said direct contracts between County and such utility Countys and other Contractor/Bidders.

If the proper execution or results of any part of Contractor/Bidder's Work depends upon work performed by others under this Article 7, Contractor/Bidder shall inspect such other work and promptly report to Engineer in writing any delays, defects, or deficiencies in such other work that render it unavailable or unsuitable for the proper execution and results of Contractor/Bidder's Work. Contractor/Bidder's failure to so report will constitute an acceptance of such other work as fit and proper for integration with Contractor/Bidder's Work except for latent defects and deficiencies in such other work.

Coordination

If County intends to contract with others for the performance of other work on the Project at the Site, the following will be set forth in Supplementary Conditions:

the individual or entity who will have authority and responsibility for coordination of the activities among the various Contractor/Bidders will be identified;

the specific matters to be covered by such authority and responsibility will be itemized;
and

the extent of such authority and responsibilities will be provided.

Unless otherwise provided in the Supplementary Conditions, County shall have sole authority and responsibility for such coordination.

Legal Relationships

Paragraphs 7.01.A and 7.02 are not applicable for utilities not under the control of County.

Each other direct contract of County under Paragraph 7.01.A shall provide that the other Contractor/Bidder is liable to County and Contractor/Bidder for the reasonable direct

delay and disruption costs incurred by Contractor/Bidder as a result of the other Contractor/Bidder's wrongful actions or inactions.

Contractor/Bidder shall be liable to County and any other Contractor/Bidder under direct contract to County for the reasonable direct delay and disruption costs incurred by such other Contractor/Bidder as a result of Contractor/Bidder's wrongful action or inactions.

COUNTY'S RESPONSIBILITIES

Communications to Contractor/Bidder

Except as otherwise provided in these General Conditions, County shall issue all communications to Contractor/Bidder through Engineer.

Replacement of Engineer

In case of termination of the employment of Engineer, County shall appoint an engineer to whom Contractor/Bidder makes no reasonable objection, whose status under the Contract Documents shall be that of the former Engineer. (see SC-8.02)

Furnish Data

County shall promptly furnish the data required of County under the Contract Documents.

Pay When Due

County shall make payments to Contractor/Bidder when they are due as provided in Paragraphs 14.02.C and 14.07.C.

Lands and Easements; Reports and Tests

County's duties with respect to providing lands and easements and providing engineering surveys to establish reference points are set forth in Paragraphs 4.01 and 4.05. Paragraph 4.02 refers to County's identifying and making available to Contractor/Bidder copies of reports of explorations and tests of subsurface conditions and drawings of physical conditions relating to existing surface or subsurface structures at the Site.

Insurance

County's responsibilities, if any, with respect to purchasing and maintaining liability and property insurance are set forth in Article 5.

Change Orders

County is obligated to execute Change Orders as indicated in Paragraph 10.03.

Inspections, Tests, and Approvals

County's responsibility with respect to certain inspections, tests, and approvals is set forth in Paragraph 13.03.B.

Limitations on County's Responsibilities

The County shall not supervise, direct, or have control or authority over, nor be responsible for, Contractor/Bidder's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor/Bidder to comply with Laws and Regulations applicable to the performance of the Work. County will not be responsible for Contractor/Bidder's failure to perform the Work in accordance with the Contract Documents.

Undisclosed Hazardous Environmental Condition

County's responsibility in respect to an undisclosed Hazardous Environmental Condition is set forth in Paragraph 4.06.

Evidence of Financial Arrangements

Upon request of Contractor/Bidder, County shall furnish Contractor/Bidder reasonable evidence that financial arrangements have been made to satisfy County's obligations under the Contract Documents.

Compliance with Safety Program

While at the Site, County's employees and representatives shall comply with the specific applicable requirements of Contractor/Bidder's safety programs of which County has been informed pursuant to Paragraph 6.13.D.

ENGINEER'S STATUS DURING CONSTRUCTION

County's Representative

Engineer will be County's representative during the construction period. The duties and responsibilities and the limitations of authority of Engineer as County's representative during construction are set forth in the Contract Documents.

Visits to Site

Engineer will make visits to the Site at intervals appropriate to the various stages of construction as Engineer deems necessary in order to observe as an experienced and qualified design professional the progress that has been made and the quality of the various aspects of Contractor/Bidder's executed Work. Based on information obtained during such visits and observations, Engineer, for the benefit of County, will determine, in general, if the Work is proceeding in accordance with the Contract Documents. Engineer will not be required to make exhaustive or continuous inspections on the Site

to check the quality or quantity of the Work. Engineer's efforts will be directed toward providing for County a greater degree of confidence that the completed Work will conform generally to the Contract Documents. On the basis of such visits and observations, Engineer will keep County informed of the progress of the Work and will endeavor to guard County against defective Work.

Engineer's visits and observations are subject to all the limitations on Engineer's authority and responsibility set forth in Paragraph 9.09. Particularly, but without limitation, during or as a result of Engineer's visits or observations of Contractor/Bidder's Work, Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor/Bidder's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor/Bidder to comply with Laws and Regulations applicable to the performance of the Work.

Project Representative

If County and Engineer agree, Engineer will furnish a Resident Project Representative to assist Engineer in providing more extensive observation of the Work. The authority and responsibilities of any such Resident Project Representative and assistants will be as provided in the Supplementary Conditions, and limitations on the responsibilities thereof will be as provided in Paragraph 9.09. If County designates another representative or agent to represent County at the Site who is not Engineer's consultant, agent or employee, the responsibilities and authority and limitations thereon of such other individual or entity will be as provided in the Supplementary Conditions.

Authorized Variations in Work

Engineer may authorize minor variations in the Work from the requirements of the Contract Documents which do not involve an adjustment in the Contract Price or the Contract Times and are compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. These may be accomplished by a Field Order and will be binding on County and also on Contractor/Bidder, who shall perform the Work involved promptly. If County or Contractor/Bidder believes that a Field Order justifies an adjustment in the Contract Price or Contract Times, or both, and the parties are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment, a Claim may be made therefor as provided in Paragraph 10.05.

Rejecting Defective Work

Engineer will have authority to reject Work which Engineer believes to be defective, or that Engineer believes will not produce a completed Project that conforms to the Contract Documents or that will prejudice the integrity of the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. Engineer will also have authority to require special inspection or testing of the Work as provided in Paragraph 13.04, whether or not the Work is fabricated, installed, or completed.

Contractor/Bidder shall reimburse the County for the charges of Engineer and Engineer's Consultants for any additional field observations, engineering analysis, correspondence, meetings, or other work due to non-complying or defective construction, materials, or equipment performed or furnished by the Contractor/Bidder, SubContractors, or Suppliers. County's reimbursement for the charges shall be a deduction from the Contractor/Bidder's Partial Payment(s). (see SC-9.05.B)

Shop Drawings, Change Orders and Payments

In connection with Engineer's authority, and limitations thereof, as to Shop Drawings and Samples, see Paragraph 6.17.

In connection with Engineer's authority, and limitations thereof, as to design calculations and design drawings submitted in response to a delegation of professional design services, if any, see Paragraph 6.21.

In connection with Engineer's authority as to Change Orders, see Articles 10, 11, and 12.

In connection with Engineer's authority as to Applications for Payment, see Article 14.

Determinations for Unit Price Work

Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor/Bidder. Engineer will review with Contractor/Bidder the Engineer's preliminary determinations on such matters before rendering a written decision thereon (by recommendation of an Application for Payment or otherwise). Engineer's written decision thereon will be final and binding (except as modified by Engineer to reflect changed factual conditions or more accurate data) upon County and Contractor/Bidder, subject to the provisions of Paragraph 10.05.

Decisions on Requirements of Contract Documents and Acceptability of Work

Engineer will be the initial interpreter of the requirements of the Contract Documents and judge of the acceptability of the Work thereunder. All matters in question and other matters between County and Contractor/Bidder arising prior to the date final payment is due relating to the acceptability of the Work, and the interpretation of the requirements of the Contract Documents pertaining to the performance of the Work, will be referred initially to Engineer in writing within 30 days of the event giving rise to the question.

Engineer will, with reasonable promptness, render a written decision on the issue referred. If County or Contractor/Bidder believes that any such decision entitles them to an adjustment in the Contract Price or Contract Times or both, a Claim may be made under Paragraph 10.05. The date of Engineer's decision shall be the date of the event giving rise to the issues referenced for the purposes of Paragraph 10.05.B.

Engineer's written decision on the issue referred will be final and binding on County and Contractor/Bidder, subject to the provisions of Paragraph 10.05.

When functioning as interpreter and judge under this Paragraph 9.08, Engineer will not show partiality to County or Contractor/Bidder and will not be liable in connection with any interpretation or decision rendered in good faith in such capacity.

Limitations on Engineer's Authority and Responsibilities

Neither Engineer's authority or responsibility under this Article 9 or under any other provision of the Contract Documents nor any decision made by Engineer in good faith either to exercise or not exercise such authority or responsibility or the undertaking, exercise, or performance of any authority or responsibility by Engineer shall create, impose, or give rise to any duty in contract, tort, or otherwise owed by Engineer to Contractor/Bidder, any SubContractor, any Supplier, any other individual or entity, or to any surety for or employee or agent of any of them.

Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor/Bidder's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor/Bidder to comply with Laws and Regulations applicable to the performance of the Work. Engineer will not be responsible for Contractor/Bidder's failure to perform the Work in accordance with the Contract Documents.

Engineer will not be responsible for the acts or omissions of Contractor/Bidder or of any SubContractor, any Supplier, or of any other individual or entity performing any of the Work.

Engineer's review of the final Application for Payment and accompanying documentation and all maintenance and operating instructions, schedules, guarantees, bonds, certificates of inspection, tests and approvals, and other documentation required to be delivered by Paragraph 14.07.A will only be to determine generally that their content complies with the requirements of, and in the case of certificates of inspections, tests, and approvals that the results certified indicate compliance with, the Contract Documents.

The limitations upon authority and responsibility set forth in this Paragraph 9.09 shall also apply to the Resident Project Representative, if any, and assistants, if any.

Compliance with Safety Program

While at the Site, Engineer's employees and representatives shall comply with the specific applicable requirements of Contractor/Bidder's safety programs of which Engineer has been informed pursuant to Paragraph 6.13.D.

CHANGES IN THE WORK; CLAIMS

Authorized Changes in the Work

Without invalidating the Contract and without notice to any surety, County may, at any time or from time to time, order additions, deletions, or revisions in the Work by a

Change Order, or a Work Change Directive. Upon receipt of any such document, Contractor/Bidder shall promptly proceed with the Work involved which will be performed under the applicable conditions of the Contract Documents (except as otherwise specifically provided).

If County and Contractor/Bidder are unable to agree on entitlement to, or on the amount or extent, if any, of an adjustment in the Contract Price or Contract Times, or both, that should be allowed as a result of a Work Change Directive, a Claim may be made therefor as provided in Paragraph 10.05.

Unauthorized Changes in the Work

Contractor/Bidder shall not be entitled to an increase in the Contract Price or an extension of the Contract Times with respect to any work performed that is not required by the Contract Documents as amended, modified, or supplemented as provided in Paragraph 3.04, except in the case of an emergency as provided in Paragraph 6.16 or in the case of uncovering Work as provided in Paragraph 13.04.D.

Execution of Change Orders

County and Contractor/Bidder shall execute appropriate Change Orders recommended by Engineer covering:

changes in the Work which are: (i) ordered by County pursuant to Paragraph 10.01.A, (ii) required because of acceptance of defective Work under Paragraph 13.08.A or County's correction of defective Work under Paragraph 13.09, or (iii) agreed to by the parties;

changes in the Contract Price or Contract Times which are agreed to by the parties, including any undisputed sum or amount of time for Work actually performed in accordance with a Work Change Directive; and

changes in the Contract Price or Contract Times which embody the substance of any written decision rendered by Engineer pursuant to Paragraph 10.05; provided that, in lieu of executing any such Change Order, an appeal may be taken from any such decision in accordance with the provisions of the Contract Documents and applicable Laws and Regulations, but during any such appeal, Contractor/Bidder shall carry on the Work and adhere to the Progress Schedule as provided in Paragraph 6.18.A.

Notification to Surety

If the provisions of any bond require notice to be given to a surety of any change affecting the general scope of the Work or the provisions of the Contract Documents (including, but not limited to, Contract Price or Contract Times), the giving of any such notice will be Contractor/Bidder's responsibility. The amount of each applicable bond will be adjusted to reflect the effect of any such change.

Claims

Engineer's Decision Required: All Claims, except those waived pursuant to Paragraph 14.09, shall be referred to the Engineer for decision. A decision by Engineer shall be required as a condition precedent to any exercise by County or Contractor/Bidder of any rights or remedies either may otherwise have under the Contract Documents or by Laws and Regulations in respect of such Claims.

Notice: Written notice stating the general nature of each Claim shall be delivered by the claimant to Engineer and the other party to the Contract promptly (but in no event later than ~~30~~ 15 days) after the start of the event giving rise thereto. The responsibility to substantiate a Claim shall rest with the party making the Claim. Notice of the amount or extent of the Claim, with supporting data shall be delivered to the Engineer and the other party to the Contract within 60 days after the start of such event (unless Engineer allows additional time for claimant to submit additional or more accurate data in support of such Claim). A Claim for an adjustment in Contract Price shall be prepared in accordance with the provisions of Paragraph 12.01.B. A Claim for an adjustment in Contract Times shall be prepared in accordance with the provisions of Paragraph 12.02.B. Each Claim shall be accompanied by claimant's written statement that the adjustment claimed is the entire adjustment to which the claimant believes it is entitled as a result of said event. The opposing party shall submit any response to Engineer and the claimant within 30 days after receipt of the claimant's last submittal (unless Engineer allows additional time). (see SC-10.05.B)

Engineer's Action: Engineer will review each Claim and, within 30 days after receipt of the last submittal of the claimant or the last submittal of the opposing party, if any, take one of the following actions in writing:

deny the Claim in whole or in part;

approve the Claim; or

notify the parties that the Engineer is unable to resolve the Claim if, in the Engineer's sole discretion, it would be inappropriate for the Engineer to do so. For purposes of further resolution of the Claim, such notice shall be deemed a denial.

In the event that Engineer does not take action on a Claim within said 30 days, the Claim shall be deemed denied.

Engineer's written action under Paragraph 10.05.C or denial pursuant to Paragraphs 10.05.C.3 or 10.05.D will be final and binding upon County and Contractor/Bidder, unless County or Contractor/Bidder invoke the dispute resolution procedure set forth in Article 16 within 30 days of such action or denial.

No Claim for an adjustment in Contract Price or Contract Times will be valid if not submitted in accordance with this Paragraph 10.05.

COST OF THE WORK; ALLOWANCES; UNIT PRICE WORK

Cost of the Work

Costs Included: The term Cost of the Work means the sum of all costs, except those excluded in Paragraph 11.01.B, necessarily incurred and paid by Contractor/Bidder in the proper performance of the Work. When the value of any Work covered by a Change Order or when a Claim for an adjustment in Contract Price is determined on the basis of Cost of the Work, the costs to be reimbursed to Contractor/Bidder will be only those additional or incremental costs required because of the change in the Work or because of the event giving rise to the Claim. Except as otherwise may be agreed to in writing by County, such costs shall be in amounts no higher than those prevailing in the locality of the Project, shall not include any of the costs itemized in Paragraph 11.01.B, and shall include only the following items:

Payroll costs for employees in the direct employ of Contractor/Bidder in the performance of the Work under schedules of job classifications agreed upon by County and Contractor/Bidder. Such employees shall include, without limitation, superintendents, foremen, and other personnel employed full time on the Work. Payroll costs for employees not employed full time on the Work shall be apportioned on the basis of their time spent on the Work. Payroll costs shall include, but not be limited to, salaries and wages plus the cost of fringe benefits, which shall include social security contributions, unemployment, excise, and payroll taxes, workers' compensation, health and retirement benefits, bonuses, sick leave, vacation and holiday pay applicable thereto. The expenses of performing Work outside of regular working hours, on Saturday, Sunday, or legal holidays, shall be included in the above to the extent authorized by County.

Cost of all materials and equipment furnished and incorporated in the Work, including costs of transportation and storage thereof, and Suppliers' field services required in connection therewith. All cash discounts shall accrue to Contractor/Bidder unless County deposits funds with Contractor/Bidder with which to make payments, in which case the cash discounts shall accrue to County. All trade discounts, rebates and refunds and returns from sale of surplus materials and equipment shall accrue to County, and Contractor/Bidder shall make provisions so that they may be obtained.

Payments made by Contractor/Bidder to SubContractors for Work performed by SubContractors. If required by County, Contractor/Bidder shall obtain competitive bids from SubContractors acceptable to County and Contractor/Bidder and shall deliver such bids to County, who will then determine, with the advice of Engineer, which bids, if any, will be acceptable. If any subcontract provides that the SubContractor is to be paid on the basis of Cost of the Work plus a fee, the SubContractor's Cost of the Work and fee shall be determined in the same manner as Contractor/Bidder's Cost of the Work and fee as provided in this Paragraph 11.01.

Costs of special consultants (including but not limited to engineers, architects, testing laboratories, surveyors, attorneys, and accountants) employed for services specifically related to the Work.

Supplemental costs including the following:

The proportion of necessary transportation, travel, and subsistence expenses of Contractor/Bidder's employees incurred in discharge of duties connected with the Work.

Cost, including transportation and maintenance, of all materials, supplies, equipment, machinery, appliances, office, and temporary facilities at the Site, and hand tools not owned by the workers, which are consumed in the performance of the Work, and cost, less market value, of such items used but not consumed which remain the property of Contractor/Bidder.

Rentals of all construction equipment and machinery, and the parts thereof whether rented from Contractor/Bidder or others in accordance with rental agreements approved by County with the advice of Engineer, and the costs of transportation, loading, unloading, assembly, dismantling, and removal thereof. All such costs shall be in accordance with the terms of said rental agreements. The rental of any such equipment, machinery, or parts shall cease when the use thereof is no longer necessary for the Work. In no case shall rates exceed those published by the current edition of Data Quest Incorporated titled, Rental Rate Blue Book for Construction Equipment, and other procedures established by Florida Department of Transportation. (see SC-11.01.A.5.c)

Sales, consumer, use, and other similar taxes related to the Work, and for which Contractor/Bidder is liable, as imposed by Laws and Regulations.

Deposits lost for causes other than negligence of Contractor/Bidder, any SubContractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, and royalty payments and fees for permits and licenses.

Losses and damages (and related expenses) caused by damage to the Work, not compensated by insurance or otherwise, sustained by Contractor/Bidder in connection with the performance of the Work (~~except losses and damages within the deductible amounts of property insurance established in accordance with Paragraph 5.06.D~~), provided such losses and damages have resulted from causes other than the negligence of Contractor/Bidder, any SubContractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable. Such losses shall include settlements made with the written consent and approval of County. No such losses, damages, and expenses shall be included in the Cost of the Work for the purpose of determining Contractor/Bidder's fee. (see SC-11.01.A.5.f)

The cost of utilities, fuel, and sanitary facilities at the Site.

Minor expenses such as telegrams, long distance telephone calls, telephone service at the Site, express and courier services, and similar petty cash items in connection with the Work.

The costs of premiums for all bonds and insurance Contractor/Bidder is required by the Contract Documents to purchase and maintain.

The cost of specific consideration for the indemnifications set forth in paragraph 6.20. (see SC-11.01.A.5.j)

The cost of compliance with current local, state and federal safety regulations. (see SC-11.01.A.5.k)

Costs Excluded: The term Cost of the Work shall not include any of the following items:

Payroll costs and other compensation of Contractor/Bidder's officers, executives, principals (of partnerships and sole proprietorships), general managers, safety managers, engineers, architects, estimators, attorneys, auditors, accountants, purchasing and contracting agents, expeditors, timekeepers, clerks, and other personnel employed by Contractor/Bidder, whether at the Site or in Contractor/Bidder's principal or branch office for general administration of the Work and not specifically included in the agreed upon schedule of job classifications referred to in Paragraph 11.01.A.1 or specifically covered by Paragraph 11.01.A.4, all of which are to be considered administrative costs covered by the Contractor/Bidder's fee.

Expenses of Contractor/Bidder's principal and branch offices other than Contractor/Bidder's office at the Site.

Any part of Contractor/Bidder's capital expenses, including interest on Contractor/Bidder's capital employed for the Work and charges against Contractor/Bidder for delinquent payments.

Costs due to the negligence of Contractor/Bidder, any SubContractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not limited to, the correction of defective Work, disposal of materials or equipment wrongly supplied, and making good any damage to property.

Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in Paragraphs 11.01.A.

Contractor/Bidder's Fee: When all the Work is performed on the basis of cost-plus, Contractor/Bidder's fee shall be determined as set forth in the Agreement. When the value of any Work covered by a Change Order or when a Claim for an adjustment in Contract Price is determined on the basis of Cost of the Work, Contractor/Bidder's fee shall be determined as set forth in Paragraph 12.01.C.

Documentation: Whenever the Cost of the Work for any purpose is to be determined pursuant to Paragraphs 11.01.A and 11.01.B, Contractor/Bidder will establish and maintain records thereof in accordance with generally accepted accounting practices and submit in a form acceptable to Engineer an itemized cost breakdown together with supporting data.

Allowances

It is understood that Contractor/Bidder has included in the Contract Price all allowances so named in the Contract Documents and shall cause the Work so covered to be performed for such sums and by such persons or entities as may be acceptable to County and Engineer.

Cash Allowances:

Contractor/Bidder agrees that:

the cash allowances include the cost to Contractor/Bidder (less any applicable trade discounts) of materials and equipment required by the allowances to be delivered at the Site, and all applicable taxes; and

Contractor/Bidder's costs for unloading and handling on the Site, labor, installation, overhead, profit, and other expenses contemplated for the cash allowances have been included in the Contract Price and not in the allowances, and no demand for additional payment on account of any of the foregoing will be valid.

Contingency Allowance:

Contractor/Bidder agrees that a contingency allowance, if any, is for the sole use of County to cover unanticipated costs.

Prior to final payment, an appropriate Change Order will be issued as recommended by Engineer to reflect actual amounts due Contractor/Bidder on account of Work covered by allowances, and the Contract Price shall be correspondingly adjusted.

Unit Price Work

Where the Contract Documents provide that all or part of the Work is to be Unit Price Work, initially the Contract Price will be deemed to include for all Unit Price Work an amount equal to the sum of the unit price for each separately identified item of Unit Price Work times the estimated quantity of each item as indicated in the Agreement.

The estimated quantities of items of Unit Price Work are not guaranteed and are solely for the purpose of comparison of Bids and determining an initial Contract Price. Determinations of the actual quantities and classifications of Unit Price Work performed by Contractor/Bidder will be made by Engineer subject to the provisions of Paragraph 9.07.

Each unit price will be deemed to include an amount considered by Contractor/Bidder to be adequate to cover Contractor/Bidder's overhead and profit for each separately identified item.

~~County or Contractor/Bidder may make a Claim for an adjustment in the Contract Price in accordance with Paragraph 10.05 if:~~

~~the quantity of any item of Unit Price Work performed by Contractor/Bidder differs materially and significantly from the estimated quantity of such item indicated in the Agreement; and~~

~~there is no corresponding adjustment with respect to any other item of Work; and~~

~~Contractor/Bidder believes that Contractor/Bidder is entitled to an increase in Contract Price as a result of having incurred additional expense or County believes that County is entitled to a decrease in Contract Price and the parties are unable to agree as to the amount of any such increase or decrease.~~

If County objects to Contractor/Bidder's quoted adjustment in Unit Price Work set forth in paragraph 11.03.D, County may assign such work to its own forces or another Contractor/Bidder.

County reserves the right to delete any Unit Price Work without financial penalty incurred from Contractor/Bidder.

CHANGE OF CONTRACT PRICE; CHANGE OF CONTRACT TIMES

Change of Contract Price

The Contract Price may only be changed by a Change Order. Any Claim for an adjustment in the Contract Price shall be based on written notice submitted by the party making the Claim to the Engineer and the other party to the Contract in accordance with the provisions of Paragraph 10.05.

The value of any Work covered by a Change Order or of any Claim for an adjustment in the Contract Price will be determined as follows:

where the Work involved is covered by unit prices contained in the Contract Documents, by application of such unit prices to the quantities of the items involved (subject to the provisions of Paragraph 11.03); or

where the Work involved is not covered by unit prices contained in the Contract Documents, by a mutually agreed lump sum (which may include an allowance for overhead and profit not necessarily in accordance with Paragraph 12.01.C.2); or

where the Work involved is not covered by unit prices contained in the Contract Documents and agreement to a lump sum is not reached under Paragraph 12.01.B.2, on the basis of the Cost of the Work (determined as provided in Paragraph 11.01)

plus a Contractor/Bidder's fee for overhead and profit (determined as provided in Paragraph 12.01.C).

Contractor/Bidder's Fee: The Contractor/Bidder's fee for overhead and profit shall be determined as follows:

a mutually acceptable fixed fee; or

if a fixed fee is not agreed upon, then a fee based on the following percentages of the various portions of the Cost of the Work:

for costs incurred under Paragraphs 11.01.A.1 and 11.01.A.2, the Contractor/Bidder's fee shall be 15 percent;

for costs incurred under Paragraph 11.01.A.3, the Contractor/Bidder's fee shall be five percent;

where one or more tiers of subcontracts are on the basis of Cost of the Work plus a fee and no fixed fee is agreed upon, the intent of Paragraphs 12.01.C.2.a and 12.01.C.2.b is that the SubContractor who actually performs the Work, at whatever tier, will be paid a fee of 15 percent of the costs incurred by such SubContractor under Paragraphs 11.01.A.1 and 11.01.A.2 and that any higher tier SubContractor and Contractor/Bidder will each be paid a fee of five percent of the amount paid to the next lower tier SubContractor;

no fee shall be payable on the basis of costs itemized under Paragraphs 11.01.A.4, 11.01.A.5, and 11.01.B;

the amount of credit to be allowed by Contractor/Bidder to County for any change which results in a net decrease in cost will be the amount of the actual net decrease in cost plus a deduction in Contractor/Bidder's fee by an amount equal to five percent of such net decrease; and

when both additions and credits are involved in any one change, the adjustment in Contractor/Bidder's fee shall be computed on the basis of the net change in accordance with Paragraphs 12.01.C.2.a through 12.01.C.2.e, inclusive.

Change of Contract Times

The Contract Times may only be changed by a Change Order. Any Claim for an adjustment in the Contract Times shall be based on written notice submitted by the party making the Claim to the Engineer and the other party to the Contract in accordance with the provisions of Paragraph 10.05.

Any adjustment of the Contract Times covered by a Change Order or any Claim for an adjustment in the Contract Times will be determined in accordance with the provisions of this Article 12.

On the 21st of each month, or the next following business day, the Contractor/Bidder shall submit to the County and Engineer a request for weather days. Failure to submit the request forfeits the right to claim weather days for that period and any previous period. The County will grant time extensions, on a day for day basis, for delays caused by the effects of rains or other inclement weather conditions or related adverse soil conditions that prevent the Contractor/Bidder from productively performing controlling items of work resulting in:

- (1) The Contractor/Bidder being unable to work at least 50% of the normal work day on pre-determined controlling work items due to adverse weather conditions.

No additional compensation will be made for delays caused by the effects of inclement weather. (see SC-12.02.C)

Delays

Where Contractor/Bidder is prevented from completing any part of the Work within the Contract Times due to delay beyond the control of Contractor/Bidder, the Contract Times will be extended in an amount equal to the time lost due to such delay if a Claim is made therefor as provided in Paragraph 12.02.A. Delays beyond the control of Contractor/Bidder shall include, but not be limited to, acts or neglect by County, acts or neglect of utility Countys or other Contractor/Bidders performing other work as contemplated by Article 7, fires, floods, epidemics, abnormal weather conditions, or acts of God.

If County, Engineer, or other Contractor/Bidders or utility Countys performing other work for County as contemplated by Article 7, or anyone for whom County is responsible, delays, disrupts, or interferes with the performance or progress of the Work, then Contractor/Bidder shall be entitled to an equitable adjustment in the Contract Price or the Contract Times, or both. Contractor/Bidder's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor/Bidder's ability to complete the Work within the Contract Times.

If Contractor/Bidder is delayed in the performance or progress of the Work by fire, flood, epidemic, abnormal weather conditions, acts of God, acts or failures to act of utility Countys not under the control of County, or other causes not the fault of and beyond control of County and Contractor/Bidder, then Contractor/Bidder shall be entitled to an equitable adjustment in Contract Times, if such adjustment is essential to Contractor/Bidder's ability to complete the Work within the Contract Times. Such an adjustment shall be Contractor/Bidder's sole and exclusive remedy for the delays described in this Paragraph 12.03.C.

County, Engineer, and their officers, directors, members, partners, employees, agents, consultants, or SubContractors shall not be liable to Contractor/Bidder for any claims, costs, losses, or damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute

resolution costs) sustained by Contractor/Bidder on or in connection with any other project or anticipated project.

Contractor/Bidder shall not be entitled to an adjustment in Contract Price or Contract Times for delays within the control of Contractor/Bidder. Delays attributable to and within the control of a SubContractor or Supplier shall be deemed to be delays within the control of Contractor/Bidder.

TESTS AND INSPECTIONS; CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK

Notice of Defects

Prompt notice of all defective Work of which County or Engineer has actual knowledge will be given to Contractor/Bidder. Defective Work may be rejected, corrected, or accepted as provided in this Article 13.

Access to Work

County, Engineer, their consultants and other representatives and personnel of County, independent testing laboratories, and governmental agencies with jurisdictional interests will have access to the Site and the Work at reasonable times for their observation, inspection, and testing. Contractor/Bidder shall provide them proper and safe conditions for such access and advise them of Contractor/Bidder's safety procedures and programs so that they may comply therewith as applicable.

Tests and Inspections

Contractor/Bidder shall give Engineer timely notice of readiness of the Work for all required inspections, tests, or approvals and shall cooperate with inspection and testing personnel to facilitate required inspections or tests. Contractor/Bidder shall reimburse County for the charges of Engineer and Engineer's Consultants for all costs due to work not being ready for tests and/or inspections when the Contractor/Bidder has notified Engineer that work is ready for tests and/or inspections. Contractor/Bidder shall reimburse County for all failed tests and subsequent retests. Reimbursement for the charges shall be a deduction from the Contractor/Bidder's Partial Payment(s). (see SC-13.03.A)

~~County shall employ and pay for the services of an independent testing laboratory to perform all inspections, tests, or approvals required by the Contract Documents except:~~
~~for inspections, tests, or approvals covered by Paragraphs 13.03.C and 13.03.D below;~~
~~that costs incurred in connection with tests or inspections conducted pursuant to Paragraph 13.04.B shall be paid as provided in Paragraph 13.04.C; and~~
~~as otherwise specifically provided in the Contract Documents.~~

- B. The Contractor/Bidder shall obtain and employ an independent testing laboratory to provide the services specified herein and shall include all costs for these services in the contract price. The Contractor/Bidder shall submit for approval by the County and Engineer, the independent testing laboratory, including qualifications.

Copies of all testing agency invoices submitted to the Contractor/Bidder for payment shall be forwarded with the Contractor/Bidder's request for partial payment. Invoices shall be submitted routinely throughout the project and shall be pertinent to the partial payment period under consideration. Testing agency invoices in excess of sixty (60) days old shall not be considered for payment. Invoices shall clearly indicate type and amount of test performed, unit and total cost, and shall indicate if the invoiced testing cost is a result of retests required due to the Contractor/Bidder's failure to achieve specified requirements. The cost of retesting due to test failure will be borne by the Contractor/Bidder. Payment to Contractor/Bidder for testing shall not be made without the required itemized invoicing. (see SC-13.03.B)

If Laws or Regulations of any public body having jurisdiction require any Work (or part thereof) specifically to be inspected, tested, or approved by an employee or other representative of such public body, Contractor/Bidder shall assume full responsibility for arranging and obtaining such inspections, tests, or approvals, pay all costs in connection therewith, and furnish Engineer the required certificates of inspection or approval.

Contractor/Bidder shall be responsible for arranging and obtaining and shall pay all costs in connection with any inspections, tests, or approvals required for County's and Engineer's acceptance of materials or equipment to be incorporated in the Work; or acceptance of materials, mix designs, or equipment submitted for approval prior to Contractor/Bidder's purchase thereof for incorporation in the Work. Such inspections, tests, or approvals shall be performed by organizations acceptable to County and Engineer.

If any Work (or the work of others) that is to be inspected, tested, or approved is covered by Contractor/Bidder without written concurrence of Engineer, Contractor/Bidder shall, if requested by Engineer, uncover such Work for observation.

Uncovering Work as provided in Paragraph 13.03.E shall be at Contractor/Bidder's expense unless Contractor/Bidder has given Engineer timely notice of Contractor/Bidder's intention to cover the same and Engineer has not acted with reasonable promptness in response to such notice.

Uncovering Work

If any Work is covered contrary to the written request of Engineer, it must, if requested by Engineer, be uncovered for Engineer's observation and replaced at Contractor/Bidder's expense.

If Engineer considers it necessary or advisable that covered Work be observed by Engineer or inspected or tested by others, Contractor/Bidder, at Engineer's request, shall uncover, expose, or otherwise make available for observation, inspection, or testing as Engineer may require, that portion of the Work in question, furnishing all necessary labor, material, and equipment.

If it is found that the uncovered Work is defective, Contractor/Bidder shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such uncovering, exposure, observation, inspection, and testing, and of satisfactory replacement or reconstruction (including but not limited to all costs of repair or replacement of work of others); and County shall be entitled to an appropriate decrease in the Contract Price. If the parties are unable to agree as to the amount thereof, County may make a Claim therefor as provided in Paragraph 10.05.

If the uncovered Work is not found to be defective, Contractor/Bidder shall be allowed an increase in the Contract Price or an extension of the Contract Times, or both, directly attributable to such uncovering, exposure, observation, inspection, testing, replacement, and reconstruction. If the parties are unable to agree as to the amount or extent thereof, Contractor/Bidder may make a Claim therefor as provided in Paragraph 10.05.

County May Stop the Work

If the Work is defective, or Contractor/Bidder fails to supply sufficient skilled workers or suitable materials or equipment, or fails to perform the Work in such a way that the completed Work will conform to the Contract Documents, County may order Contractor/Bidder to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, this right of County to stop the Work shall not give rise to any duty on the part of County to exercise this right for the benefit of Contractor/Bidder, any SubContractor, any Supplier, any other individual or entity, or any surety for, or employee or agent of any of them.

Correction or Removal of Defective Work

Promptly after receipt of written notice, Contractor/Bidder shall correct all defective Work, whether or not fabricated, installed, or completed, or, if the Work has been rejected by Engineer, remove it from the Project and replace it with Work that is not defective. Contractor/Bidder shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or removal (including but not limited to all costs of repair or replacement of work of others).

When correcting defective Work under the terms of this Paragraph 13.06 or Paragraph 13.07, Contractor/Bidder shall take no action that would void or otherwise impair County's special warranty and guarantee, if any, on said Work.

Correction Period

If within one year after the date of Substantial Completion (or such longer period of time as may be prescribed by the terms of any applicable special guarantee required by the Contract Documents) or by any specific provision of the Contract Documents, any Work is found to be defective, or if the repair of any damages to the land or areas made available for Contractor/Bidder's use by County or permitted by Laws and Regulations as contemplated in Paragraph 6.11.A is found to be defective, Contractor/Bidder shall promptly, without cost to County and in accordance with County's written instructions:

repair such defective land or areas; or

correct such defective Work; or

if the defective Work has been rejected by County, remove it from the Project and replace it with Work that is not defective, and

satisfactorily correct or repair or remove and replace any damage to other Work, to the work of others or other land or areas resulting therefrom.

If Contractor/Bidder does not promptly comply with the terms of County's written instructions, or in an emergency where delay would cause serious risk of loss or damage, County may have the defective Work corrected or repaired or may have the rejected Work removed and replaced. All claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or repair or such removal and replacement (including but not limited to all costs of repair or replacement of work of others) will be paid by Contractor/Bidder.

In special circumstances where a particular item of equipment is placed in continuous service before Substantial Completion of all the Work, the correction period for that item may start to run from an earlier date if so provided in the Specifications.

Where defective Work (and damage to other Work resulting therefrom) has been corrected or removed and replaced under this Paragraph 13.07, the correction period hereunder with respect to such Work will be extended for an additional period of one year after such correction or removal and replacement has been satisfactorily completed.

Contractor/Bidder's obligations under this Paragraph 13.07 are in addition to any other obligation or warranty. The provisions of this Paragraph 13.07 shall not be construed as a substitute for, or a waiver of, the provisions of any applicable statute of limitation or repose.

Acceptance of Defective Work

If, instead of requiring correction or removal and replacement of defective Work, County (and, prior to Engineer's recommendation of final payment, Engineer) prefers to accept

it, County may do so. Contractor/Bidder shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court ~~or arbitration~~ or other dispute resolution costs) attributable to County's evaluation of and determination to accept such defective Work (such costs to be approved by Engineer as to reasonableness) and for the diminished value of the Work to the extent not otherwise paid by Contractor/Bidder pursuant to this sentence. If any such acceptance occurs prior to Engineer's recommendation of final payment, a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work, and County shall be entitled to an appropriate decrease in the Contract Price, reflecting the diminished value of Work so accepted. If the parties are unable to agree as to the amount thereof, County may make a Claim therefor as provided in Paragraph 10.05. If the acceptance occurs after such recommendation, an appropriate amount will be paid by Contractor/Bidder to County. (see SC-13.08.A)

County May Correct Defective Work

If Contractor/Bidder fails within a reasonable time after written notice from Engineer to correct defective Work, or to remove and replace rejected Work as required by Engineer in accordance with Paragraph 13.06.A, or if Contractor/Bidder fails to perform the Work in accordance with the Contract Documents, or if Contractor/Bidder fails to comply with any other provision of the Contract Documents, County may, after seven days written notice to Contractor/Bidder, correct, or remedy any such deficiency.

In exercising the rights and remedies under this Paragraph 13.09, County shall proceed expeditiously. In connection with such corrective or remedial action, County may exclude Contractor/Bidder from all or part of the Site, take possession of all or part of the Work and suspend Contractor/Bidder's services related thereto, take possession of Contractor/Bidder's tools, appliances, construction equipment and machinery at the Site, and incorporate in the Work all materials and equipment stored at the Site or for which County has paid Contractor/Bidder but which are stored elsewhere. Contractor/Bidder shall allow County, County's representatives, agents and employees, County's other Contractor/Bidders, and Engineer and Engineer's consultants access to the Site to enable County to exercise the rights and remedies under this Paragraph.

All claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court ~~or arbitration~~ or other dispute resolution costs) incurred or sustained by County in exercising the rights and remedies under this Paragraph 13.09 will be charged against Contractor/Bidder, and a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work; and County shall be entitled to an appropriate decrease in the Contract Price. If the parties are unable to agree as to the amount of the adjustment, County may make a Claim therefor as provided in Paragraph 10.05. Such claims, costs, losses and damages will include but not be limited to all costs of repair, or replacement of work of others destroyed or damaged by correction, removal, or replacement of Contractor/Bidder's defective Work. (see SC-13.09.C)

Contractor/Bidder shall not be allowed an extension of the Contract Times because of any delay in the performance of the Work attributable to the exercise by County of County's rights and remedies under this Paragraph 13.09.

ARTICLE 14 – PAYMENTS TO CONTRACTOR/BIDDER AND COMPLETION

Schedule of Values

The Schedule of Values established as provided in Paragraph 2.07.A will serve as the basis for progress payments and will be incorporated into a form of Application for Payment acceptable to Engineer. Progress payments on account of Unit Price Work will be based on the number of units completed.

Progress Payments

Applications for Payments:

At least 20 days before the date established in the Agreement for each progress payment (but not more often than once a month), Contractor/Bidder shall submit to Engineer for review an Application for Payment filled out and signed by Contractor/Bidder covering the Work completed as of the date of the Application and accompanied by such supporting documentation as is required by the Contract Documents. If payment is requested on the basis of materials and equipment not incorporated in the Work but delivered and suitably stored at the Site or at another location agreed to in writing, the Application for Payment shall also be accompanied by a bill of sale, invoice, or other documentation warranting that County has received the materials and equipment free and clear of all Liens and evidence that the materials and equipment are covered by appropriate property insurance or other arrangements to protect County's interest therein, all of which must be satisfactory to County.

~~Beginning with the second Application for Payment, each Application shall include an affidavit of Contractor/Bidder stating that all previous progress payments received on account of the Work have been applied on account to discharge Contractor/Bidder's legitimate obligations associated with prior Applications for Payment.~~ Beginning with the second Application for Payment, each Application shall include an affidavit of Contractor/Bidder certifying that Contractor/Bidder has disbursed to all SubContractors and suppliers having an interest in the contract their pro rata share of the payment out of previous progress payments received by Contractor/Bidder for all work completed and materials furnished in the previous work period, less a retainage withheld by Contractor/Bidder pursuant to an agreement with a SubContractor. Within 30 days of receipt for the final progress payment or any other payments received thereafter except the final payment, Contractor/Bidder shall pay all SubContractors and suppliers having an interest in the contract their pro rata shares of the payment for all work completed and materials furnished. (see SC-14.02.A.2)

The amount of retainage with respect to progress payments will be as stipulated in the Agreement.

Review of Applications:

Engineer will, within 10 days after receipt of each Application for Payment, either indicate in writing a recommendation of payment and present the Application to County or return the Application to Contractor/Bidder indicating in writing Engineer's reasons for refusing to recommend payment. In the latter case, Contractor/Bidder may make the necessary corrections and resubmit the Application or direct Engineer to present the Application to County with Engineer's recommendation of partial payment. (see SC-14.02.B.1)

Engineer's recommendation of any payment requested in an Application for Payment will constitute a representation by Engineer to County, based on Engineer's observations of the executed Work as an experienced and qualified design professional, and on Engineer's review of the Application for Payment and the accompanying data and schedules and the Contract Documents (see SC-14.02.B.2), that to the best of Engineer's knowledge, information and belief:

the Work has progressed to the point indicated;

the quality of the Work is generally in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning whole prior to or upon Substantial Completion, the results of any subsequent tests called for in the Contract Documents, a final determination of quantities and classifications for Unit Price Work under Paragraph 9.07, and any other qualifications stated in the recommendation); and

the conditions precedent to Contractor/Bidder's being entitled to such payment appear to have been fulfilled in so far as it is Engineer's responsibility to observe the Work.

Contractor/Bidder's other obligations under the Contract Documents have been fulfilled. (see SC-14.02.B.2.d)

By recommending any such payment Engineer will not thereby be deemed to have represented that:

inspections made to check the quality or the quantity of the Work as it has been performed have been exhaustive, extended to every aspect of the Work in progress, or involved detailed inspections of the Work beyond the responsibilities specifically assigned to Engineer in the Contract Documents; or

there may not be other matters or issues between the parties that might entitle Contractor/Bidder to be paid additionally by County or entitle County to withhold payment to Contractor/Bidder.

Neither Engineer's review of Contractor/Bidder's Work for the purposes of recommending payments nor Engineer's recommendation of any payment, including final payment, will impose responsibility on Engineer:

to supervise, direct, or control the Work, or

for the means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or

for Contractor/Bidder's failure to comply with Laws and Regulations applicable to Contractor/Bidder's performance of the Work, or

to make any examination to ascertain how or for what purposes Contractor/Bidder has used the moneys paid on account of the Contract Price, or

to determine that title to any of the Work, materials, or equipment has passed to County free and clear of any Liens.

Engineer may refuse to recommend the whole or any part of any payment if, in Engineer's opinion, it would be incorrect to make the representations to County stated in Paragraph 14.02.B.2. Engineer may also refuse to recommend any such payment or, because of subsequently discovered evidence or the results of subsequent inspections or tests, revise or revoke any such payment recommendation previously made, to such extent as may be necessary in Engineer's opinion to protect County from loss because:

the Work is defective, or completed Work has been damaged, requiring correction or replacement;

the Contract Price has been reduced by Change Orders;

County has been required to correct defective Work or complete Work in accordance with Paragraph 13.09; or

Engineer has actual knowledge of the occurrence of any of the events enumerated in Paragraph 15.02.A.

Payment Becomes Due:

The Application for Payment once received by the County with Engineers recommendation and approval, will (subject to the provisions of Paragraph 14.02.D) become due as stipulated in Florida Statutes 218.735.

Reduction in Payment:

County may refuse to make payment of the full amount recommended by Engineer because:

claims have been made against County on account of Contractor/Bidder's performance or furnishing of the Work;

Liens have been filed in connection with the Work, except where Contractor/Bidder has delivered a specific bond satisfactory to County to secure the satisfaction and discharge of such Liens;

there are other items entitling County to a set-off against the amount recommended;
or

County has actual knowledge of the occurrence of any of the events enumerated in Paragraphs 14.02.B.5.a through 14.02.B.5.c or Paragraph 15.02.A.

If County refuses to make payment of the full amount recommended by Engineer, County will give Contractor/Bidder immediate written notice (with a copy to Engineer) stating the reasons for such action and promptly pay Contractor/Bidder any amount remaining after deduction of the amount so withheld. County shall promptly pay Contractor/Bidder the amount so withheld, or any adjustment thereto agreed to by County and Contractor/Bidder, when Contractor/Bidder remedies the reasons for such action.

Upon a subsequent determination that County's refusal of payment was not justified, the amount wrongfully withheld shall be treated as an amount due as determined by Paragraph 14.02.C.1 and subject to interest as provided in the Agreement.

Contractor/Bidder's Warranty of Title

Contractor/Bidder warrants and guarantees that title to all Work, materials, and equipment covered by any Application for Payment, whether incorporated in the Project or not, will pass to County no later than the time of payment free and clear of all Liens.

Substantial Completion

When Contractor/Bidder considers the entire Work ready for its intended use Contractor/Bidder shall notify County and Engineer in writing that the entire Work is substantially complete (except for items specifically listed by Contractor/Bidder as incomplete) and request that Engineer issue a certificate of Substantial Completion.

Promptly after Contractor/Bidder's notification, County, Contractor/Bidder, and Engineer shall make an inspection of the Work to determine the status of completion. If Engineer does not consider the Work substantially complete, Engineer will notify Contractor/Bidder in writing giving the reasons therefor.

If Engineer considers the Work substantially complete, Engineer will deliver to County a tentative certificate of Substantial Completion which shall fix the date of Substantial Completion. There shall be attached to the certificate a tentative list of items to be completed or corrected before final payment. County shall have seven days after receipt of the tentative certificate during which to make written objection to Engineer as to any

provisions of the certificate or attached list. If, after considering such objections, Engineer concludes that the Work is not substantially complete, Engineer will, within 14 days after submission of the tentative certificate to County, notify Contractor/Bidder in writing, stating the reasons therefor. If, after consideration of County's objections, Engineer considers the Work substantially complete, Engineer will, within said 14 days, execute and deliver to County and Contractor/Bidder a definitive certificate of Substantial Completion (with a revised tentative list of items to be completed or corrected) reflecting such changes from the tentative certificate as Engineer believes justified after consideration of any objections from County.

At the time of delivery of the tentative certificate of Substantial Completion, Engineer will deliver to County and Contractor/Bidder a written recommendation as to division of responsibilities pending final payment between County and Contractor/Bidder with respect to security, operation, safety, and protection of the Work, maintenance, heat, utilities, insurance, and warranties and guarantees. Unless County and Contractor/Bidder agree otherwise in writing and so inform Engineer in writing prior to Engineer's issuing the definitive certificate of Substantial Completion, Engineer's aforesaid recommendation will be binding on County and Contractor/Bidder until final payment.

County shall have the right to exclude Contractor/Bidder from the Site after the date of Substantial Completion subject to allowing Contractor/Bidder reasonable access to remove its property and complete or correct items on the tentative list.

Partial Utilization

Prior to Substantial Completion of all the Work, County may use or occupy any substantially completed part of the Work which has specifically been identified in the Contract Documents, or which County, Engineer, and Contractor/Bidder agree constitutes a separately functioning and usable part of the Work that can be used by County for its intended purpose without significant interference with Contractor/Bidder's performance of the remainder of the Work, subject to the following conditions:

County at any time may request Contractor/Bidder in writing to permit County to use or occupy any such part of the Work which County believes to be ready for its intended use and substantially complete. If and when Contractor/Bidder agrees that such part of the Work is substantially complete, Contractor/Bidder, County, and Engineer will follow the procedures of Paragraph 14.04.A through D for that part of the Work.

Contractor/Bidder at any time may notify County and Engineer in writing that Contractor/Bidder considers any such part of the Work ready for its intended use and substantially complete and request Engineer to issue a certificate of Substantial Completion for that part of the Work.

Within a reasonable time after either such request, County, Contractor/Bidder, and Engineer shall make an inspection of that part of the Work to determine its status of completion. If Engineer does not consider that part of the Work to be substantially complete, Engineer will notify County and Contractor/Bidder in writing giving the reasons therefor. If Engineer considers that part of the Work to be substantially complete, the provisions of Paragraph 14.04 will apply with respect to certification of Substantial Completion of that part of the Work and the division of responsibility in respect thereof and access thereto.

No use or occupancy or separate operation of part of the Work may occur prior to compliance with the requirements of Paragraph 5.10 regarding property insurance.

Final Inspection

Upon written notice from Contractor/Bidder that the entire Work or an agreed portion thereof is complete, Engineer will promptly make a final inspection with County and Contractor/Bidder and will notify Contractor/Bidder in writing of all particulars in which this inspection reveals that the Work is incomplete or defective. Contractor/Bidder shall immediately take such measures as are necessary to complete such Work or remedy such deficiencies.

Final Payment

Application for Payment:

After Contractor/Bidder has, in the opinion of Engineer, satisfactorily completed all corrections identified during the final inspection and has delivered, in accordance with the Contract Documents, all maintenance and operating instructions, schedules, guarantees, bonds, certificates or other evidence of insurance, certificates of inspection, marked-up record documents (as provided in Paragraph 6.12), and other documents, Contractor/Bidder may make application for final payment following the procedure for progress payments.

The final Application for Payment shall be accompanied (except as previously delivered) by:

all documentation called for in the Contract Documents, including but not limited to the evidence of insurance required by Paragraph 5.04.B.6;

consent of the surety, if any, to final payment;

a list of all Claims against County that Contractor/Bidder believes are unsettled; and

complete and legally effective releases or waivers (satisfactory to County) of all Lien rights arising out of or Liens filed in connection with the Work.

In lieu of the releases or waivers of Liens specified in Paragraph 14.07.A.2 and as approved by County, Contractor/Bidder may furnish receipts or releases in full and

an affidavit of Contractor/Bidder that: (i) the releases and receipts include all labor, services, material, and equipment for which a Lien could be filed; and (ii) all payrolls, material and equipment bills, and other indebtedness connected with the Work for which County might in any way be responsible, or which might in any way result in liens or other burdens on County's property, have been paid or otherwise satisfied. If any SubContractor or Supplier fails to furnish such a release or receipt in full, Contractor/Bidder may furnish a bond or other collateral satisfactory to County to indemnify County against any Lien.

Engineer's Review of Application and Acceptance:

If, on the basis of Engineer's observation of the Work during construction and final inspection, and Engineer's review of the final Application for Payment and accompanying documentation as required by the Contract Documents, Engineer is satisfied that the Work has been completed and Contractor/Bidder's other obligations under the Contract Documents have been fulfilled, Engineer will, within ten days after receipt of the final Application for Payment, indicate in writing Engineer's recommendation of payment and present the Application for Payment to County for payment. At the same time Engineer will also give written notice to County and Contractor/Bidder that the Work is acceptable subject to the provisions of Paragraph 14.09. Otherwise, Engineer will return the Application for Payment to Contractor/Bidder, indicating in writing the reasons for refusing to recommend final payment, in which case Contractor/Bidder shall make the necessary corrections and resubmit the Application for Payment.

Payment Becomes Due:

After the presentation to County of the Application for Payment and accompanying documentation, the amount recommended by Engineer, less any sum County is entitled to set off against Engineer's recommendation, including but not limited to liquidated damages, will become due as stipulated in Florida Statutes 218.735 and will be paid by County to Contractor/Bidder. This payment must also be placed on an agenda for approval by the County before release of final payment

Final Completion Delayed

If, through no fault of Contractor/Bidder, final completion of the Work is significantly delayed, and if Engineer so confirms, County shall, upon receipt of Contractor/Bidder's final Application for Payment (for Work fully completed and accepted) and recommendation of Engineer, and without terminating the Contract, make payment of the balance due for that portion of the Work fully completed and accepted. If the remaining balance to be held by County for Work not fully completed or corrected is less than the retainage stipulated in the Agreement, and if bonds have been furnished as required in Paragraph 5.01, the written consent of the surety to the payment of the balance due for that portion of the Work fully completed and accepted shall be submitted by Contractor/Bidder to Engineer with the Application for such payment.

Such payment shall be made under the terms and conditions governing final payment, except that it shall not constitute a waiver of Claims.

Waiver of Claims

The making and acceptance of final payment will constitute:

a waiver of all Claims by County against Contractor/Bidder, except Claims arising from unsettled Liens, from defective Work appearing after final inspection pursuant to Paragraph 14.06, from failure to comply with the Contract Documents or the terms of any special guarantees specified therein, ~~or~~ whenever said failure occurs from Contractor/Bidder's continuing obligations under the Contract Documents; and (see SC-14.09.A.1)

a waiver of all Claims by Contractor/Bidder against County other than those previously made in accordance with the requirements herein and expressly acknowledged by County in writing as still unsettled.

The acceptance of final payment by Contractor/Bidder designated and identified by Engineer as final payment shall be and shall operate as a release to County of all claims and all liability to Contractor/Bidder other than claims in stated amounts as may be specifically excepted by Contractor/Bidder for all things done or finished in connection with the Work and for every act of County and others relating to or arising out of the Work. Any payment, however, final or otherwise, shall not release Contractor/Bidder or Contractor/Bidder's Surety(ies) from any obligations under the Contract Documents or Bonds. (see SC-14.09.A.3)

SUSPENSION OF WORK AND TERMINATION

County May Suspend Work

At any time and without cause, County may suspend the Work or any portion thereof for a period of not more than 90 consecutive days by notice in writing to Contractor/Bidder and Engineer which will fix the date on which Work will be resumed. Contractor/Bidder shall resume the Work on the date so fixed. Contractor/Bidder shall be granted an adjustment in the Contract Price or an extension of the Contract Times, or both, directly attributable to any such suspension if Contractor/Bidder makes a Claim therefor as provided in Paragraph 10.05.

County May Terminate for Cause

The occurrence of any one or more of the following events will justify termination for cause:

Contractor/Bidder's start the work in accordance with the Notice to Proceed or Contractor/Bidder's persistent failure to perform the Work in accordance with the Contract Documents (including, but not limited to, failure to supply sufficient skilled workers or suitable materials or equipment or failure to adhere to the

Progress Schedule established under Paragraph 2.07 as adjusted from time to time pursuant to Paragraph 6.04) (see SC-15.02.A.1);

Contractor/Bidder's disregard of Laws or Regulations of any public body having jurisdiction;

Contractor/Bidder's repeated disregard of the authority of Engineer; or

Contractor/Bidder's violation in any substantial way of any provisions of the Contract Documents.

If one or more of the events identified in Paragraph 15.02.A occur, County may, after giving Contractor/Bidder (and surety) seven days written notice of its intent to terminate the services of Contractor/Bidder:

exclude Contractor/Bidder from the Site, and take possession of the Work and of all Contractor/Bidder's tools, appliances, construction equipment, and machinery at the Site, and use the same to the full extent they could be used by Contractor/Bidder (without liability to Contractor/Bidder for trespass or conversion);

incorporate in the Work all materials and equipment stored at the Site or for which County has paid Contractor/Bidder but which are stored elsewhere; and

complete the Work as County may deem expedient.

If County proceeds as provided in Paragraph 15.02.B, Contractor/Bidder shall not be entitled to receive any further payment until the Work is completed. If the unpaid balance of the Contract Price exceeds all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by County arising out of or relating to completing the Work, such excess will be paid to Contractor/Bidder. If such claims, costs, losses, and damages exceed such unpaid balance, Contractor/Bidder shall pay the difference to County. Such claims, costs, losses, and damages incurred by County will be reviewed by Engineer as to their reasonableness and, when so approved by Engineer, incorporated in a Change Order. When exercising any rights or remedies under this Paragraph, County shall not be required to obtain the lowest price for the Work performed.

Notwithstanding Paragraphs 15.02.B and 15.02.C, Contractor/Bidder's services will not be terminated if Contractor/Bidder begins within seven days of receipt of notice of intent to terminate to correct its failure to perform and proceeds diligently to cure such failure within no more than 30 days of receipt of said notice.

Where Contractor/Bidder's services have been so terminated by County, the termination will not affect any rights or remedies of County against Contractor/Bidder then existing or which may thereafter accrue. Any retention or payment of moneys due Contractor/Bidder by County will not release Contractor/Bidder from liability.

If and to the extent that Contractor/Bidder has provided a performance bond under the provisions of Paragraph 5.01.A, the termination procedures of that bond shall supersede the provisions of Paragraphs 15.02.B and 15.02.C.

County May Terminate For Convenience

Upon seven days written notice to Contractor/Bidder and Engineer, County may, without cause and without prejudice to any other right or remedy of County, terminate the Contract. In such case, Contractor/Bidder shall be paid for (without duplication of any items):

completed and acceptable Work executed in accordance with the Contract Documents prior to the effective date of termination, including fair and reasonable sums for overhead and profit on such Work;

expenses sustained prior to the effective date of termination in performing services and furnishing labor, materials, or equipment as required by the Contract Documents in connection with uncompleted Work, plus fair and reasonable sums for overhead and profit on such expenses;

all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) incurred in settlement of terminated contracts with SubContractors, Suppliers, and others; and

reasonable expenses directly attributable to termination.

Contractor/Bidder shall not be paid on account of loss of anticipated profits or revenue or other economic loss arising out of or resulting from such termination.

Contractor/Bidder May Stop Work or Terminate

If, through no act or fault of Contractor/Bidder, (i) the Work is suspended for more than 90 consecutive days by County or under an order of court or other public authority, or (ii) Engineer fails to act on any Application for Payment within 30 days after it is submitted, or (iii) County fails for 30 days to pay Contractor/Bidder any sum finally determined to be due, then Contractor/Bidder may, upon seven days written notice to County and Engineer, and provided County or Engineer do not remedy such suspension or failure within that time, terminate the Contract and recover from County payment on the same terms as provided in Paragraph 15.03.

In lieu of terminating the Contract and without prejudice to any other right or remedy, if Engineer has failed to act on an Application for Payment within 30 days after it is submitted, or County has failed for 30 days to pay Contractor/Bidder any sum finally determined to be due, Contractor/Bidder may, seven days after written notice to County and Engineer, stop the Work until payment is made of all such amounts due Contractor/Bidder, including interest thereon. The provisions of this Paragraph 15.04 are not intended to preclude Contractor/Bidder from making a Claim under Paragraph

10.05 for an adjustment in Contract Price or Contract Times or otherwise for expenses or damage directly attributable to Contractor/Bidder's stopping the Work as permitted by this Paragraph.

DISPUTE RESOLUTION

Methods and Procedures

Either County or Contractor/Bidder may request mediation of any Claim submitted to Engineer for a decision under Paragraph 10.05 before such decision becomes final and binding. The mediation will be governed by the Construction Industry Mediation Rules of the American Arbitration Association in effect as of the Effective Date of the Agreement. The request for mediation shall be submitted in writing to the American Arbitration Association and the other party to the Contract. Timely submission of the request shall stay the effect of Paragraph 10.05.E.

County and Contractor/Bidder shall participate in the mediation process in good faith. The process shall be concluded within 60 days of filing of the request. The date of termination of the mediation shall be determined by application of the mediation rules referenced above.

If the Claim is not resolved by mediation, Engineer's action under Paragraph 10.05.C or a denial pursuant to Paragraphs 10.05.C.3 or 10.05.D shall become final and binding 30 days after termination of the mediation unless, within that time period, County or Contractor/Bidder:

elects in writing to invoke any dispute resolution process provided for in the Supplementary Conditions; or

agrees with the other party to submit the Claim to another dispute resolution process; or

gives written notice to the other party of the intent to submit the Claim to a court of competent jurisdiction.

MISCELLANEOUS

Giving Notice

Whenever any provision of the Contract Documents requires the giving of written notice, it will be deemed to have been validly given if:

delivered in person to the individual or to a member of the firm or to an officer of the corporation for whom it is intended; or

delivered at or sent by registered or certified mail, postage prepaid, to the last business address known to the giver of the notice.

Computation of Times

When any period of time is referred to in the Contract Documents by days, it will be computed to exclude the first and include the last day of such period. If the last day of any such period falls on a Saturday or Sunday or on a day made a legal holiday by the law of the applicable jurisdiction, such day will be omitted from the computation.

Cumulative Remedies

The duties and obligations imposed by these General Conditions and the rights and remedies available hereunder to the parties hereto are in addition to, and are not to be construed in any way as a limitation of, any rights and remedies available to any or all of them which are otherwise imposed or available by Laws or Regulations, by special warranty or guarantee, or by other provisions of the Contract Documents. The provisions of this Paragraph will be as effective as if repeated specifically in the Contract Documents in connection with each particular duty, obligation, right, and remedy to which they apply.

Survival of Obligations

All representations, indemnifications, warranties, and guarantees made in, required by, or given in accordance with the Contract Documents, as well as all continuing obligations indicated in the Contract Documents, will survive final payment, completion, and acceptance of the Work or termination or completion of the Contract or termination of the services of Contractor/Bidder.

Controlling Law

This Contract is to be governed by the law of the state in which the Project is located.

Headings

Article and paragraph headings are inserted for convenience only and do not constitute parts of these General Conditions.

SUPPLEMENTARY CONDITIONS

These Supplementary Conditions amend or supplement the Standard General Conditions of the Construction Contract (EJCDC C-700, 2007 Edition). All provisions which are not so amended or supplemented remain in full force and effect.

The terms used in these Supplementary Conditions which are defined in the Standard General Conditions of the Construction Contract have the meanings assigned to them in the General Conditions.

ARTICLE 1 DEFINITIONS AND TERMINOLOGY

- SC-1.01.A Amend the Defined Terms for “21, *General Requirements*” to “The General Requirements pertain to all Sections of the specifications”.
- SC-1.01.A Add the following sentence to “27. Notice of Award”: “When requested by COUNTY, the Notice of Award may be issued by the ENGINEER.”
- SC-1.01.A Add the following sentence to “28. Notice to Proceed”: “When requested by COUNTY, the Notice to Proceed may be issued by ENGINEER.”
- SC 1.01.A Add the following new Defined Terms:
52. SURETY – The person, firm, or corporation which is bound by the contract bonds with and for Contractor (Principal); and which is held and firmly bound unto County for the conditions of obligations set forth in said bonds.
53. ARCHITECT/ENGINEER – The person, firm or corporation named as the ENGINEER in the Contract.
54. PROVIDE – As used in the Project Manual, means to furnish and install, complete and ready for intended use.
55. PRODUCT – As used in the Project Manual, includes materials, fabrications, systems and equipment.

ARTICLE 2 PRELIMINARY MATTERS

- SC-2.02.A Amend the first sentence of paragraph 2.02.A of the General Conditions by changing “up to ten” to “five”.

Add the following new subparagraphs to paragraph 2.05A:

- SC-2.05.A Amend the first sentence of paragraph 2.05.A of the General Conditions by changing “Within 10 days after the Effective Date of the Contract” to “At the Preconstruction Conference”.
- SC-2.05A.4 Contractor shall perform no portion of the Work at any time without Contract Documents or, where specified, approved Shop Drawings for such portion of the Work.
- SC-2.05A.5 By executing the Contract, Contractor represents that he has visited the site, familiarized himself with the local conditions under which the Work is to be performed, and correlated his observations with the requirements of the Contract Documents.

Add the following new paragraph immediately after paragraph 2.05.A.5:

SC-2.05.B Before any Work at the Site is started, Contractor shall deliver to the County, certificates of insurance that Contractor is required to purchase and maintain in accordance with Article 5.

Add the following new paragraph immediately after paragraph 2.06.B:

SC-2.06.C County may issue Notice to Proceed at the Preconstruction Conference. Contractor shall begin the Work within twenty-four (24) hours of the date given in the Notice to Proceed. If the Contractor does not start the Work within fourteen (14) calendar days after this date, County may, at his discretion, terminate Contractor in accordance with paragraph 15.02.

Delete paragraph 2.07.A in its entirety and insert the following in its place:

SC-2.07.A All schedules as set forth in Article 2 shall be submitted and accepted by the County and Engineer within 30 days of NTP. Should any schedule not be accepted within 30 days of the NTP, it will be considered a breach of contract and reason for termination of the contract for cause in accordance with the General Conditions, Section 15.02.

ARTICLE 3 CONTRACT DOCUMENTS: INTENT, AMENDING, REUSE

Add the following sentence to Paragraph 3.01B:

SC-3.01.B Contractor shall be responsible for the construction and coordination of the parts of the Project, and all systems provided shall be completely compatible and fully functional without additional cost to County.

Add the following new subparagraph to paragraph 3.02.A:

SC-3.02.A.3. Sections of Division 01 - General Requirements govern the execution of all sections of the Specifications.

ARTICLE 4 AVAILABILITY OF LANDS; SUBSURFACE AND PHYSICAL CONDITIONS; HAZARDOUS ENVIRONMENTAL CONDITIONS; REFERENCE POINTS

Add the following to the end of paragraph 4.01.C:

SC-4.01.C Contractor shall obtain said land rights at his own expense and without liability to the County. Contractor shall not enter upon private property without first obtaining written permission from the rightful property County.

Amend the last sentence in paragraph 4.03.C.3 to read:

SC-4.03.C.3 However, County, Engineer and Engineer's Consultants shall not be liable to Contractor for any claims, costs, losses, or damages (including but not limited to

all fees and charges of engineers, architects, attorneys, and other professionals and all court or other dispute resolution costs) sustained by Contractor on or in connection with any other project or anticipated project.

ARTICLE 5 BONDS AND INSURANCE

Delete paragraph 5.01.B in its entirety and insert the following in its place:

SC-5.01.B All Bonds shall be in the form prescribed by the Contract Documents or other form approved by County. All else notwithstanding, the terms of all Bonds shall be substantially in the form prescribed by Chapter 255, Florida Statutes. All Bonds shall be executed by Contractor and a corporate bonding company licensed to transact such business in the State of Florida and named on the current list of "Surety Companies Acceptable on Federal Bonds" as published in the Treasury Department Circular Number 570. Contractor will cause the Bonds to be recorded with the Clerk of the Circuit Court in the county in which the Work is to be performed. Failure to execute bonds in the form prescribed may constitute non-responsiveness on the part of the Contractor. The expense for all Bonds shall be the Contractor's responsibility.

Add the following to the end of paragraph 5.02.A:

SC-5.02.A Certificates of insurance shall be issued by a company with a Best's rating of at least B+ authorized to do business in the State of Florida. County must approve non-rated insurers. If used, County shall be shown as Certificate Holder, Engineer as Additional Insured and provide a 30-day cancellation notice.

Delete paragraph 5.03.B in its entirety and insert the following in its place:

SC-5.03.B Insurance policies written on a "Claims Made" form is not acceptable without County's approval.

Add the following new paragraphs immediately after paragraph 5.03.E:

SC-5.03.F Umbrella Liability insurance is preferred, but an Excess Liability equivalent is acceptable. Whichever type of coverage is provided, it shall not be more restrictive than the underlying insurance policy coverages, including, but not limited to the coverage Trigger, defense, notice of occurrence/accident/circumstances, notice of claim and extended reporting period.

SC-5.03.G No work shall commence under this contract until the required Certificate(s) have been provided. Work shall not continue after expiration (or cancellation) until new Certificate(s) have been provided. Non-continuance of work after expiration (or cancellation) of Certificate(s) will not constitute a delay beyond Contractor's control as defined in paragraph 12.03.

- SC-5.03.H Contractor shall arrange for its insurers' policies to include, or be endorsed to include, a severability or interest/cross liability provision, so that County will be treated as if a separate policy were in existence, but without increasing the policy limits.
- SC-5.03.I Contractor's deductibles/self-insured retentions shall be disclosed to County and may be disapproved by the latter. They shall be reduced or eliminated at the option of County. Contractor is responsible for the amount of any deductible or self-insured retention.
- SC-5.03.J These insurance requirements shall not relieve or limit the liability of Contractor. County does not in any way represent that these types or amounts of insurance are sufficient or adequate to protect Contractor's interests or liabilities, but are merely minimums.
- SC-5.03.K Insurance required of Contractor or any other insurance of Contractor shall be considered primary, and insurance or self-insurance of County shall be considered excess, as may be applicable to claims that arise out of this contract.
- SC-5.03.L Receipt of Certificates or other documentation of insurance or policies or copies of policies by County, or by any of its representatives, which indicate less coverage than required does not constitute a waiver of the Contractor's obligation to fulfill the insurance requirements herein.
- SC-5.03.M The Contractor shall either (a) require each subcontractor to produce and maintain the same coverage as required of the Contractor, or (b) insure the activities of subcontractors in his own policy.
- SC-5.03.N These insurance requirements are minimums and may not be adequate to cover Contractor exposures.

Add the following new paragraphs immediately after paragraph 5.04.B:

- SC-5.04.C The limits of liability for the insurance required by paragraph 5.04 of the General Conditions shall provide coverage for not less than the following amounts shown in Exhibit 1 of the contract documents, or greater where required by Laws and Regulations:

Delete paragraphs 5.06 through 5.10 in their entirety except for paragraph 5.06.D and insert the following in place of 5.09.A:

- SC-5.09.A If County has any objection to the coverage afforded by or other provisions of Bonds or insurance required to be purchased and maintained by Contractor in accordance with Article 5 on the basis of non-conformance with the Contract Documents, County shall so notify Contractor in writing within ten days after receipt of the certificates (or other evidence requested) required by paragraph

2.05.C. Contractor shall provide to County such additional information in respect of insurance provided as County may reasonably request.

ARTICLE 6 CONTRACTOR'S RESPONSIBILITIES

Add the following to the end of paragraph 6.01.A:

SC-6.01.A County reserves the right to reject any means, methods, techniques, sequences or procedures proposed by Contractor which:

1. will constitute or create a hazard to the Work or to the persons or damage to property or existing utilities; or
2. will not produce finished work in accordance with the terms of the contract Documents.

County's failure to exercise his right to reject such means, methods, techniques, sequences or procedures shall not relieve the Contractor of his obligation to accomplish the result intended in the Contract Documents nor shall the exercise of such right create a cause of action for damages.

Add the following new paragraph immediately after paragraph 6.02.B:

SC-6.02.C Engineer shall record time and costs required by Engineer and Engineer's Consultants to provide inspection services due to Contractor's working beyond regular working hours as defined in the General Requirements. County's reimbursement for the charges shall be a deduction from Contractor's Partial Payment(s).

Add the following new paragraphs immediately after paragraph 6.05.A.2.d:

SC-6.05.A.2.e Each action mentioned above required for review of proposed substitute items of material or equipment shall be followed in the order given. Failure to do so shall be cause for rejection of the proposed substitution.

SC-6.05.A.2.f Contractor shall reimburse County for the charges of Engineer or Engineer's Consultants for evaluation of substitutions. County's reimbursement for the charges shall be a deduction from the Contractor's Partial Payment(s).

Add the following to the end of paragraph 6.06.A:

SC -6.06.A Contractor shall not subcontract part(s) or the work, the aggregate cost of which is greater than 50 percent of the contract price, without prior written approval by County. Contractor shall cause appropriate provisions to be inserted in all subcontracts relative to the Work that bind Subcontractors to Contractor by the terms of the Contract Documents insofar as applicable to the work of

Subcontractors and to give Contractor the same power as regards terminating any subcontract that County may exercise over Contractor under any provision of the Contract Documents. Nothing contained in the subcontract shall create any contractual relationship between Subcontractor and County. Each Subcontractor shall discharge all duties and responsibilities of Contractor to County covered by his subcontract.

Add the following to the end of paragraph 6.06.B:

SC-6.06.B Subcontractors and Suppliers shall be identified on the form provided in the Bidding Requirements.

Add the following to the end of paragraph 6.08.A:

SC-6.08.A Permits, licenses, and easements for permanent structures or permanent changes in existing facilities shall be secured and paid for by County, unless otherwise specified.

Add the following to the end of paragraph 6.09.A:

SC-6.09.A Contractor shall also cause all Subcontractors to comply with all federal, state, county, and municipal laws, ordinances, rules, and regulations bearing on the conduct of the Work.

Add the following to the end of paragraph 6.09.B:

SC-6.09.B If Contractor observes that the Contract Documents are at variance with said laws, ordinances, rates, or regulations, Contractor shall promptly notify Engineer of Record and the County in writing, and any necessary changes shall be adjusted as provided in the Contract Documents. Contractor shall not proceed with the Work until so instructed by County.

Add the following to the end of paragraph 6.12.A:

SC-6.12.A Annotations of record documents shall be legible, precise, and complete as determined by Engineer of Record and the County.

Add the following new paragraph after paragraph 6.13.F:

SC-6.13.G Contractor shall be responsible at all times for precautions to achieve the protection of all persons, including employees and property. Contractor shall make special effort to detect hazardous conditions and shall take prompt action where necessary to avoid accident, injury, or property damage. OSHA and all other applicable safety laws and ordinances shall be followed as well as American National Standards Institute Safety Standards. All accidents, injuries, claims, or potential claims shall be reported promptly to County.

Add the following new paragraph immediately after paragraph 6.17.E.1:

SC-6.17.E.2 Contractor shall reimburse County for the charges of the County and the County's Consultants for costs generated as a result of more than two submittals of any one Shop Drawing or Sample being required for evaluation due to rejection for noncompliance of the original submittal or lack of information required by the Contract Documents. County's reimbursement for the charges shall be a deduction from Contractor's Partial Payment(s).

SC-6.20.A Amend the first paragraph of 6.20.A of the General Conditions by changing "(including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court: or arbitration or other dispute resolution costs)" to "(including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or other dispute resolution costs)".

Add the following new paragraph immediately after paragraph 6.20.C:

SC-6.20.D Neither Contractor nor County shall sell, transfer, assign, or otherwise dispose of the contract or any portion thereof, or any right, title, or interest therein, or any obligations thereunder, without written consent of the other party.

ARTICLE 8 COUNTY'S RESPONSIBILITIES

SC-8.02 Amend paragraph 8.02 of the General Conditions by striking out the following words: "to whom Contractor makes no reasonable objection."

ARTICLE 9 ENGINEER'S STATUS DURING CONSTRUCTION

Add the following new paragraph immediately after paragraph 9.05.A:

SC-9.05.B Contractor shall reimburse the County for the charges of Engineer and Engineer's Consultants for any additional field observations, engineering analysis, correspondence, meetings, or other work due to non-complying or defective construction, materials, or equipment performed or furnished by the Contractor, Subcontractors, or Suppliers. County's reimbursement for the charges shall be a deduction from the Contractor's Partial Payment(s).

ARTICLE 10 CHANGES IN THE WORK; CLAIMS

SC-10.05.B Amend the first sentence of paragraph 10.05.B of the General Conditions by changing "(but in no event later than 30 days)" to "(but in no event later than 15 days)".

ARTICLE 11 COST OF THE WORK; CASH ALLOWANCES; UNIT PRICE WORK

Add the following new paragraphs immediately after paragraph 11.01.A.5.i:

- SC-11.01.A.5.j The cost of specific consideration for the indemnifications set forth in paragraph 6.20.
- SC-11.01.A.5.k The cost of compliance with current local, state and federal safety regulations.

Add the following new paragraphs immediately after paragraph 11.03.D:

- SC-11.03.E If County objects to Contractor's quoted adjustment in Unit Price Work set forth in paragraph 11.03.D, County may assign such work to its own forces or another contractor.
- SC-11.03.F County reserves the right to delete any Unit Price Work without financial penalty incurred from Contractor.

ARTICLE 12 CHANGE OF CONTRACT PRICE; CHANGE OF CONTRACT TIMES

Add the following new paragraph immediately after paragraph 12.02.B:

- SC-12.02.C On the 21st of each month, or the next following business day, the Contractor shall submit to the County and Engineer a request for weather days. Failure to submit the request forfeits the right to claim weather days for that period and any previous period. The County will grant time extensions, on a day for day basis, for delays caused by the effects of rains or other inclement weather conditions or related adverse soil conditions that prevent the Contractor from productively performing controlling items of work resulting in:

(1) The Contractor being unable to work at least 50% of the normal work day on pre-determined controlling work items due to adverse weather conditions.

No additional compensation will be made for delays caused by the effects of inclement weather.

ARTICLE 13 TESTS AND INSPECTIONS; CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK

Add the following to the end of paragraph 13.03.A:

- SC-13.03.A Contractor shall reimburse County for the charges of Engineer and Engineer's Consultants for all costs due to work not being ready for tests and/or inspections when the Contractor has notified Engineer that work is ready for tests and/or inspections. Contractor shall reimburse County for all failed tests and subsequent retests. Reimbursement for the charges shall be a deduction from the Contractor's

Partial Payment(s).

Delete paragraph 13.03.B of the General Conditions and add the following in its place:

SC-13.03.B The Contractor shall obtain and employ an independent testing laboratory to provide the services specified herein and shall include all costs for these services in the contract price. The Contractor shall submit for approval by the County and Engineer, the independent testing laboratory, including qualifications.

Copies of all testing agency invoices submitted to the Contractor for payment shall be forwarded with the Contractor's request for partial payment. Invoices shall be submitted routinely throughout the project and shall be pertinent to the partial payment period under consideration. Testing agency invoices in excess of sixty (60) days old shall not be considered for payment, Invoices shall clearly indicate type and amount of test performed, unit and total cost, and shall indicate if the invoiced testing cost is a result of retests required due to the Contractor's failure to achieve specified requirements. The cost of retesting due to test failure will be borne by the Contractor. Payment to the Contractor for testing shall not be made without the required itemized invoicing.

SC-13.08.A Amend the first sentence of 13.08.A by changing “(including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs)” to “(including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or other dispute resolution costs)”.

SC-13.09.C Amend the first sentence of 13.09.C by changing “(including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs)” to “(including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or other dispute resolution costs)”.

ARTICLE 14 PAYMENTS TO CONTRACTOR AND COMPLETION

Delete paragraph 14.02.A.2 in its entirety and insert the following in its place:

SC-14.02.A.2 Beginning with the second Application for Payment, each Application shall include an affidavit of Contractor certifying that Contractor has disbursed to all subcontractors and suppliers having an interest in the contract their pro rata shares of the payment out of previous progress payments received by Contractor for all work completed and materials furnished in the previous work period, less a retainage withheld by Contractor pursuant to an Contract with a subcontractor. Within 30 days of receipt for the final progress payment or any other payments received thereafter except the final payment, Contractor shall pay all subcontractors and suppliers having an interest in the contract their pro rata shares of the payment for all work completed and materials furnished.

Add the following words to the end of paragraph 14.02.B.1:

“or direct Engineer to present the Application to County with Engineer's recommendation of partial payment.”

SC-14.02.B.2 After the word “schedules”, add the words “and the Contract Documents”.

Add the following new paragraph immediately after paragraph 14.02.B.2.c:

SC-14.02.B.2.d Contractor's other obligations under the Contract Documents have been fulfilled.

Delete paragraph 14.05.A.4 in its entirety.

Amend paragraph 14.09.A.1 to read:

SC-14.09.A.1 A waiver of all Claims by County against Contractor, except Claims arising from unsettled Liens, from defective Work appearing after final inspection pursuant to paragraph 14.06, from failure to comply with the Contract Documents or the terms of any special guarantees specified therein whenever said failure occurs or from Contractor's continuing obligations under the Contractor Documents; and

Add the following new paragraph immediately after paragraph 14.09.A.2:

SC-14.09.A.3 The acceptance of final payment by Contractor designated and identified by Engineer as final payment shall be and shall operate as a release to County of all claims and all liability to Contractor other than claims in stated amounts as may be specifically excepted by Contractor for all things done or finished in connection with the Work and for every act of County and others relating to or arising out of the Work. Any payment, however, final or otherwise, shall not release Contractor or Contractor's Surety(ies) from any obligations under the Contract Documents or Bonds.

ARTICLE 15 SUSPENSION OF WORK AND TERMINATION

SC-15.02.A. 1 After the word “Contractor's”, add the words “start the work in accordance with the Notice to Proceed or Contractor's”.

ARTICLE 16 DISPUTE RESOLUTION

Add the following new paragraph immediately after paragraph 16.01.C.3

SC-16.01.D Venue for any mediation shall be in Nassau County, Florida. Venue for any litigation shall be in state court in Nassau County, Florida.

TECHNICAL SPECIFICATIONS/GENERAL REQUIREMENTS

DIVISION 01

GENERAL REQUIREMENTS

SECTION 01 00 00

GENERAL REQUIREMENTS

PART 1 - GENERAL

1.01 QUALIFICATION

- A. The Bidder shall be able to demonstrate that it possesses the necessary proficiency and experience, the Bidder's Firm shall have been regularly engaged in the construction of projects involving the installation of process equipment at municipal water/wastewater treatment facilities in Florida for at least the last five consecutive years and shall have completed at least five projects of similar size, value, and complexity within the last five years. The Bidder shall be a Florida state certified General Contractor. The Bidder shall perform at least 50% of the contract work with his/her own forces.

1.02 EXISTING UTILITIES AND STRUCTURES

- A. The existing utilities and facilities shall be located from the County's and other records. Guaranty is not made that all existing facilities are shown/located or that those shown/located are entirely accurate. The Contractor shall assure themselves of any utilities, structures or facilities prior to performing any Work. Prior to the start of Work, the Contractor shall request the County to advise him of the location of their facilities in the vicinity. The County and the Engineer will assume no liability for damages sustained or costs incurred because of the Contractor's operations in the vicinity of existing utilities or structures. The Contractor shall notify the Engineer of any deviation between existing conditions and the information provided by the Engineer or County.

1.03 PRESERVING WATER QUALITY

- A. The Contractor shall exercise extreme care to minimize degradation of water quality at the site. All necessary provisions shall be taken to insure compliance with the water quality standards of the State of Florida.
- B. The Contractor shall take steps to collect and dispose of all sewage that leaks and/or spills during the performance of this contract. Any leakage or spillage shall be cleaned up to the satisfaction of the Nassau County Health Department.

1.04 PROTECTION OF EXISTING AND ADJACENT PROPERTIES

- A. Unless indicated otherwise, all shrubbery, paved streets and walks, fences and walls, adjacent structures and equipment shall be fully protected against damage

during each stage of the project. Any damage by the Contractor shall be fully restored to its condition at the start of construction.

1.05 RESTORATION OF DAMAGED SURFACES, STRUCTURES, AND PROPERTY

- A. Where pavement, trees, shrubbery, fences or other property or surface structures not designated as pay items, have been damaged, removed or disturbed by the Contractor, whether deliberately or through failure to carry out the requirements of the Contract Documents, state laws, municipal ordinances or the specific direction of the Engineer, or through failure to employ usual and reasonable safeguards, such property and surface structures will be replaced or repaired at the expense of the Contractor to a condition equal to that before Work began within a time frame approved by the Engineer.

1.06 SUBSTITUTIONS (NOT USED)

1.07 WATER

- A. The Contractor shall provide water for their use for construction purposes. The Contractor shall be responsible for the installation of an County water meter at a location approved by the Engineer. The Contractor shall install and maintain necessary supply connections and piping for same.

1.08 SANITARY FACILITIES

- A. The Contractor shall provide temporary restroom facilities for field crews as permitted by the Nassau County Health Department. Existing County facilities are not available for use by the Contractor.

1.09 WORKING HOURS

- A. Work under this contract shall not be performed on County, State and/or national holidays or during such events as the Fernandina Beach Shrimp Festival, Nassau County School System FCAT (as identified at the pre-bid conference), except in time of emergency, and then only under written permission from the County who shall be the sole judge as to the urgency of that situation. Available workdays to perform work will not include night time work, weekend work, or work before 8:00 am or after 5:00 pm (40 hours per work week).

Should the Contractor deem it necessary to work on Sundays, holidays, or beyond daylight hours in order to comply with his construction schedule or because of an emergency, the Contractor shall request permission of the County. If, in the opinion of the County, the need is bona fide, the County will authorize the Contractor to work such hours as may be necessary.

- B. Should the County approve work time beyond regular hours, the following hourly rates shall be applied as the County's reimbursement of Engineer of Record's fee

to be paid by Contractor for expenses defined in Supplemental Conditions SC-6.02.C, SC-6.05.A.2.f, SC-6.17.E., SC-9.05.B and SC-13.03.A.

1. Engineer	\$202.69
2. Project Engineer	\$115.49
3. Construction Administrator	\$134.92
4. Inspector	\$96.07
5. Administrative Assistant	\$53.21
6. Consultant Construction Engineering Inspection (CEI)	\$69.35

1.10 ASSEMBLIES OR UNITS

- A. Where the Contractor is required to furnish and install an assembly or unit, the Contractor shall furnish all component parts as required by the manufacturer of the unit.

1.11 ACCESS TO THE WORK SITE

- A. The Contractor may use only the roads and/or easements designated by the County for access to the work locations. The Contractor shall be responsible for maintaining, protecting and restoring the routes to the satisfaction of the County and Engineer.

1.12 BARRICADES AND LIGHTS

- A. The Contractor shall furnish and erect such barricades, fences, lights, and danger signals and shall provide such other precautionary measures for the protection of persons or property and of the work as necessary. Barricades shall be painted in a color that will be visible at night. From sunset to sunrise, the Contractor shall furnish and maintain at least one light at each barricade and sufficient numbers of barricades shall be erected to keep vehicles from being driven on or into any work under construction.
- B. The Contractor will be held responsible for all damage to the work due to failure of barricades, signs, and lights to protect it and whenever evidence is found of such damage, the Contractor shall immediately remove the damaged portion and replace it at his cost and expense. The Contractor's responsibility for the maintenance of barricades, signs, and lights shall not cease until the project has been accepted by the County.

1.13 SECURITY

- A. The Contractor shall be fully responsible for the safety and security of the work area. Any temporary measures required to maintain the security of the area shall be the Contractor's responsibility.

1.14 TRENCH SAFETY ACT

- A. All work shall conform to the Trench Safety Act. Contractor shall include in his price the cost of conforming to the Trench Safety Act.

1.15 PROJECT SCHEDULE

- A. The Contractor shall develop and submit to the Engineer and County for approval an initial progress schedule and a construction phasing plan demonstrating complete fulfillment of all contract requirements including all activities of subcontractors, equipment vendors and suppliers. An updated schedule shall be submitted with each pay request.

1.16 TEST OR OPERATION

- A. Upon completion of work, it shall be the Contractor's responsibility to turn the installation over to the County in good operating condition. This shall be demonstrated by a test run of the system by the Contractor in the presence of the County and/or Engineer.

1.17 REMOVAL OF ALL TEMPORARY FACILITIES & RESTORATION OF SITE

- A. Upon completion of the work, it shall be the responsibility of the Contractor to remove all temporary facilities including but not limited to pumps, fences, signs, temporary power, materials or other debris. The site, adjacent properties and County facilities, shall be restored to condition equal to that before Work began.

1.18 RECORD DOCUMENTS

- A. The Contractor shall maintain on site one set of the following record documents for use to record actual revision to the Work:
 1. Exhibits
 2. Specifications
 3. Addenda
 4. Change Orders and other modifications to the Contract
 5. Approved Shop Drawings, product data, and samples

- B. The Contractor shall provide As Built Redline Drawings for partial releases and final release submittals. With each submittal provide survey data, signed and sealed by the Contractor's Florida Licensed Surveyor, to support elevation information depicted on the record drawings.

The final record drawings shall correctly and accurately show all the new installation reflecting surveyed information performed, signed and sealed by a professional land surveyor and mapper registered in the State of Florida. The drawings shall be neat and legible. All elevations shall be based on State Plane Coordinates NAVD-88 Datum. Record drawings shall comply with Nassau County Engineering Services As-Builts Requirement Checklist.

- C. Upon completion of the project, final record drawings will be provided to the County on CD-Rom, Autocad DWG format, along with one set of PDF (24"x36") along with a complete set of all survey data, signed and sealed by a professional Land Surveyor and Mapper in the State of Florida.
- D. Engineer-of-Record\County reserves the right to review Contractor's As-Built drawings during course of construction.
- E. Final pay and connections to any existing utility main will not be approved until Record Drawings are approved and accepted by Engineer-of-Record\County.

1.19 PROVISION FOR THE CONTROL OF DUST

- A. The Contractor shall take the necessary steps to prevent objectionable blowing or drifting of dust, sand, and other debris where the construction occurs in residential, commercial, or other developed areas.
- B. Extreme precautions shall be taken during construction to minimize the amount of dust created. Wetting the site or other means as directed by the County, may be required for control of dirt.

1.20 OBSTRUCTION

- A. The attention of the Contractor is drawn to the fact that during construction at the project site, the Contractor will encounter electrical lines. The Contractor shall exercise extreme care before and during construction to locate and flag these lines so as to avoid damage to the existing lines. Should damage occur to an existing line, the Contractor shall repair the line at no cost to the County.
- 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 construction, are temporarily stayed in position while the work proceeds in the vicinity of the pole and that the utility or other companies concerned be given reasonable advance notice of any such construction activities by the Contractor.

1.21 CLEAN-UP

- A. The Contractor shall maintain the site of the work in a neat condition. The Contractor shall remove all excess materials, excess excavated materials and all debris resulting from his operations within a time frame approved by the Engineer.

1.22 DESIGN PROFESSIONALS REPRESENTING COUNTY

- A. Various Design Professionals (i.e. Civil, Mechanical, Electrical, etc.) as consultants to the County prepared the specifications for the project. The County may have the various Design Professionals provide services to the County during construction phase of the project. The Design Professionals will be representatives of the County and visits to the site by the Design Professionals will be on the basis of paragraph 1.22 of this section. Also paragraph 1.23 of this section includes the various Design Professionals for this project.

1.23 VISITS TO SITE BY COUNTY'S REPRESENTATIVE

- A. The County's representative will make visits to the site at intervals appropriate to the various stages of construction to observe the progress and quality of the executed work and to determine, in general, if the work is proceeding in accordance with the Contract Documents.
- B. The County's representative's efforts will be directed toward providing for the County a greater degree of confidence that the completed work will conform to these specifications. On the basis of such visits and on-site observations, the County's representative will keep the County informed of the progress of the work and will endeavor to guard the County against defects and deficiencies in the work.

1.24 LIMITATIONS ON COUNTY'S REPRESENTATIVE RESPONSIBILITIES

- A. Neither the County's representative's authority to act under these specifications or elsewhere in other documents nor any decision made by the County's representative in good faith either to exercise or not exercise such authority shall give rise to any duty or responsibility of the County's representative to the Contractor, any sub-Contractor, any manufacturer, fabricator, supplier or distributor, or any of their agents or employees or any other person performing any of the work.
- B. The County's representative shall not be responsible to the Contractor's means, methods, techniques, sequences or procedures of construction, or safety precautions and programs incident thereto, and the County's representative shall not be responsible for the Contractor's failure to perform the work in accordance with these specifications.

- C. The County's representative shall not be responsible for the acts or omissions of the Contractor or of any sub-Contractors, or of any other persons at the site or otherwise performing any of the work.

1.25 WARRANTY

- A. The Contractor shall be responsible for defects in materials (including latent defects) or workmanship for a period of two years after the date of final acceptance of the project by the County. Such defects include, but not limited to, any settlement noted in backfill, fill, or in structures built over the backfill or fill during the warranty period in accordance with the General Conditions will be considered to be caused by improper compaction methods and shall be corrected by the Contractor at no cost to the County. Structures damaged by settlement shall be restored to their original condition by the Contractor at no cost to the County.
- B. The Contractor shall furnish factory warranty on all equipment furnished for the performance and completion of the project against defects in materials and/or workmanship. The factory warranty shall become effective for a period of two years after the date of final acceptance of the project by the County. Should any defects in materials or workmanship be brought to the attention of the Contractor within the factory warranty period, the Contractor shall replace at no cost to the County.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION

SECTION 01 11 00

SUMMARY OF WORK

PART 1 – GENERAL

1.01 LOCATION OF WORK: The project site is at the following locations in Nassau County, Florida:

- A. Lift Station (LS) No. 10: 1389 Plantation Point Dr. by A1A Highway
- B. LS No. 29: Osprey Drive, next to the Long Pointe Golf Course storage pond

1.02 DESCRIPTION OF WORK:

Part A: This project consists of replacement of Lift Station (LS) No. 10 for Nassau Amelia Utilities. The work to be performed is generally described as Replacement of LS No.10 with a duplex submersible pump station and includes but not limited to:

Site furnishing of all equipment, labor, materials and supervision necessary for replacement of wastewater Lift Station No. 10, including but not limited to all demolition, proper disposal, pump, pipe and valve replacement, electrical and mechanical demolition and replacement, associated site grading and restoration, pump and haul operations, all associated materials, labor and equipment, and all incidental work as called for in the Contract Documents complete and in place. The Contractor shall furnish, install, test and place in operation the submersible pumping station shown on the drawings and specified hereinafter. All applicable sections of Nassau County Standard Specifications and JEA 2018 Water and Wastewater Standards shall be considered part of this work. All references to Industry Standards (ASTM, ANSI, etc.) shall be to the latest revision unless otherwise stated. Only those materials included in the JEA Water and Wastewater Standards Manual, unless called out different within the Contract Documents, shall be installed. All materials shall be new unless specifically called for otherwise. All structures, pumps and panels shall require a complete shop drawing submittal, as detailed in this specification for review and approval prior to the start of construction.

Part B: This project consists of replacement of Lift Station (LS) No. 29 for Nassau Amelia Utilities. The work to be performed is generally described as Replacement of LS No.29 with a duplex submersible pump station and includes but not limited to:

Site furnishing of all equipment, labor, materials and supervision necessary for replacement of wastewater Lift Station No. 29, including but not limited to all

demolition, proper disposal, pump, pipe and valve replacement, electrical and mechanical demolition and replacement, associated site grading and restoration, pump and haul operations, all associated materials, labor and equipment, and all incidental work as called for in the Contract Documents complete and in place. The Contractor shall furnish, install, test and place in operation the submersible pumping station shown on the drawings and specified hereinafter. All applicable sections of Nassau County Standard Specifications and JEA 2018 Water and Wastewater Standards shall be considered part of this work. All references to Industry Standards (ASTM, ANSI, etc.) shall be to the latest revision unless otherwise stated. Only those materials included in the JEA Water and Wastewater Standards Manual, unless called out different within the Contract Documents, shall be installed. All materials shall be new unless specifically called for otherwise. All structures, pumps and panels shall require a complete shop drawing submittal, as detailed in this specification for review and approval prior to the start of construction.

All work shall be in accordance with the construction specifications, and contract documents.

1.03 CONTRACTOR'S DUTIES: Except as specifically noted, the Contractor shall provide and pay for the following:

- A. All labor, materials and equipment.
- B. Tools, construction equipment and machinery.
- C. Utilities required for construction.
- D. Other services and facilities necessary for the proper execution of work completion including incidental items not detailed or called for, but which are required for the proper completion of the project.
- E. All legally required sales, consumer and use taxes.
- F. All applicable permits, government fees and licenses.
- G. Survey services for construction layout including equipment, piping, fitting, valve laying schedule and record drawings shall comply with Nassau County Engineering Services As-Builts Requirement Checklist.
- H. All required testing and clearances for placing in service.
- I. Restore all sites and structures that are damaged by the Contractor during the execution of this contract at no additional cost to the County.

1.04 CONTRACTOR SHALL ALSO BE REQUIRED TO PERFORM THE FOLLOWING:

- A. Comply with all codes, ordinances, rules, regulations, orders and other legal requirements of public authorities which bear on the performance of work.
- B. Promptly submit written notice to the Engineer of observed variances of Contract Documents from legal requirements; it is not the Contractor's responsibility to make certain drawings and specifications comply with codes and regulations.
- C. Enforce strict discipline and good order among employees. Do not employ unfit persons or those not skilled in assigned tasks.

1.05 WORK SEQUENCE:

- A. Coordinate with County.
- B. Contractors construction schedule will be subject to approval by the Engineer and updated on a monthly basis.
- C. Notify Engineer and County 96 hours (minimum) in advance of removing any facility from service, permanently or temporarily. Removal from service of any facility shall be preapproved by County.

1.06 CONTRACTORS USE OF PREMISES:

- A. Do not unreasonably encumber sites with materials or equipment.
- B. Assume full responsibility for protection and safekeeping of products stored on premises.
- C. Move any stored products interfering with operation of County.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION

SECTION 01 12 16

SEQUENCE OF CONSTRUCTION

PART 1 - GENERAL

1.01 DESCRIPTION

- A. In performing the work shown and specified, the Contractor shall plan and schedule his work in accordance with Section 01 31 13 - Construction Schedule. The work is being performed on active utility facilities which must be maintained in operation throughout construction.

1.02 CONSTRUCTION SCHEDULE

- A. The Construction Schedule shall be submitted by the Contractor in accordance with Section 01 31 13 - Construction Schedule and Section 02 41 13 - Demolition.

1.03 CONSTRUCTION PLAN

- A. A plan of construction and operation shall be submitted by the Contractor ten (10) days prior to conducting the Work, showing the proposed sequence, equipment, etc. for review.

1.04 USE OF FACILITIES BEFORE COMPLETION

- A. The County reserves the right to enter and use any portion of the constructed facilities before substantial completion of the whole work to be done under this Contract.

1.05 CONNECTION OF EXISTING SYSTEMS

- A. All connections to existing systems shall be performed in such a manner that no damage and minimal interruption is caused to the existing installation. On completion of his installation, the Contractor shall remove the plug or blind flange. All areas of work shall be completed and brought on line without disturbing ongoing operations of the facility. Any damage caused to existing installations shall be repaired or replaced by the Contractor at no additional cost to the County.

1.06 COORDINATION WITH PERSONNEL

- A. Before commencing work involving removing or placing in operation existing or new facilities, the Contractor shall notify the County at least twenty (20) days in advance in writing. The Contractor is hereby notified that the Water and

Wastewater Plants are active plants and that their operation shall not be interrupted at any time, for any reason, during the contract period.

- B. Only the County's appointed representative can authorize the shutdown of portions of the facilities. The Contractor shall, under no circumstances, interfere with any facility component without the County's authorization, in writing, and without supervision by the County.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.01 COORDINATION WITH EXISTING UTILITIES AND OTHER AGENCIES

- A. In the event that the Work involves existing utilities owed by the County or other agencies, the Contractor shall notify all utilities in writing with a copy to the County and the Engineer before construction is started and shall coordinate his activities with them. The Contractor shall cooperate with the Countys of utility lines that may require temporary interruption of service in order to minimize the interruption. The Contractor shall call SUNSHINE a minimum of 72 hours prior to any excavation for location of existing underground facilities.

3.02 COOPERATION

- A. The Contractor shall allow the County or his agents, and other project contractors or their agents, to enter facilities being constructed under this Contract for the purpose of constructing, installing, operating, maintaining, removing, repairing, altering or replacing such equipment, pipes, sewers, conduits, manholes, wires, or other structures and appliances which may be required to be installed at or in the Work. The Contractor shall cooperate with all the aforesaid parties and shall allow reasonable provisions for the prosecution of any other work by the County, or others, to be done in connection with his work, or in connection with normal use of the facilities.

END OF SECTION

SECTION 01 29 73

SCHEDULE OF VALUES

PART 1 - GENERAL

1.01 DESCRIPTION

A. Scope of Work:

1. Submit to the Engineer a Schedule of Values allocated to the various lump sum portions of the Work, at the Pre-Construction Conference, and as otherwise specified or requested to be submitted earlier as evidence of the Apparent Low Bidder's qualifications.
2. Upon request of the Engineer support the values with data which will substantiate their correctness. The data shall include, but not be limited to quantity of materials, all sub-elements of the activity, and their units of measure.
3. The Schedule of Values shall establish the actual value for each activity of the Work to be completed taken from the Construction Schedule, and shall be used as the basis for the Contractor's Applications for Payment.

B. Related Requirements Described Elsewhere:

1. Section 01 29 76 Application for Payment

1.02 FORM AND CONTENT OF SCHEDULE OF VALUES

- ###### A. Type schedule on 8-1/2 inch x 11 inch white paper. Contractor's standard forms and computer printouts may be considered for approval by the Engineer upon Contractor's request. Identify schedule with:
1. Title of project and location.
 2. County and purchase order number.
 3. Engineer and project number.
 4. Name and address of Contractor.
 5. Contract designation.
 6. Date of submission.

- B. Schedule shall list the installed value of the component parts of the Work in sufficient detail to serve as a basis for computing item prices for progress payments during construction.
- C. Identify each line item with the number and the title of the respective section of the Specifications.
- D. For each major item of the Work, list sub-values of major products or operations under the major item.
- E. For the various portions of the Work:
 - 1. The amount for each item shall reflect a total installed cost including a directly proportional amount of the Contractor's overhead and profit.
 - 2. For items on which progress payments will be requested for stored materials, break down the value into:
 - a. The cost of the materials, delivered and unloaded, with taxes paid. Paid invoices are required for materials. Payment for materials shall be limited to the invoiced amount only.
 - b. The total installed value.
- F. Round off figures to nearest dollar amount.
- G. The sum of the costs of all items listed in the schedule shall equal the total Contract Price.
- H. For each item which has an installed value of more than \$15,000, provide a breakdown of costs to list major products or operations under each item.

1.03 SUBSCHEDULE OF UNIT MATERIAL VALUES

- A. Submit a separate schedule of unit prices for materials to be stored on site and for those materials incorporated into the Work for which progress payments will be requested.
- B. The unit values for the materials shall be broken down into:
 - 1. Cost of the material, delivered and unloaded at the site, with taxes paid.
 - 2. Copies of paid invoices for component material shall be included with the payment request in which the material first appears.

- C. Only materials unique to the project may be billed when stored on site. Materials of standard use such as conduit, wire, small-diameter pipe, steel, etc., shall not be accepted for payment.
- D. The installed unit value multiplied by the quantity listed shall equal the percentage of the cost of that item in the Schedule of Values.

1.04 REVIEW AND RESUBMITTAL

- A. After review by Engineer, revise and resubmit Schedule of Values and Schedule of Unit Material Values as required.
- B. Resubmit revised schedules in same manner.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION

SECTION 01 29 76

APPLICATIONS FOR PAYMENT

PART 1 - GENERAL

1.01 SECTION INCLUDES:

- A. Administrative and procedural requirements governing the Contractor's Applications for Payment.

1.02 SCHEDULE OF VALUES:

- A. Coordination: Coordinate preparation of the Schedule of Values with preparation of the Contractor's Construction Schedule.
 - 1. Correlate line items in the Schedule of Values with other required administrative schedules and forms, including:
 - a. Contractor's Construction Schedule.
 - b. Application for Payment forms, including Continuation Sheets.
 - c. List of subcontractors.
 - d. Schedule of allowances.
 - e. Schedule of alternates.
 - f. List of products.
 - g. List of principal suppliers and fabricators.
 - h. Schedule of submittals.
 - 2. Submit the Schedule of Values to the Engineer at the earliest possible date but no later than 7 days before the date scheduled for submittal of the initial Applications for Payment.
 - 3. Subschedules: Where Work is separated into phases requiring separately phased payments, provide subschedules showing values correlated with each phase of payment.

- B. Format and Content: Use the Project Manual table of contents as a guide to establish the format for the Schedule of Values. Provide at least one line item for each Specification Section.
1. Identification: Include the following Project identification on the Schedule of Values:
 - a. Project name and location.
 - b. Name of the Engineer.
 - c. Project number.
 - d. Contractor's name and address.
 - e. Date of submittal.
 2. Arrange the Schedule of Values in tabular form with separate columns to indicate the following for each item listed:
 - a. Related Specification Section or Division.
 - b. Description of Work.
 - c. Name of subcontractor.
 - d. Name of manufacturer or fabricator.
 - e. Name of supplier.
 - f. Change Orders (numbers) that affect value.
 - g. Dollar value of both labor and materials.
 3. Provide a breakdown of the Contract Sum in sufficient detail to facilitate continued evaluation of Applications for Payment and progress reports. Coordinate with the Project Manual table of contents. Break principal subcontract amounts down into several line items.
 4. Round amounts to nearest whole dollar; the total shall equal the Contract Sum.
 5. Provide a separate line item in the Schedule of Values for each part of the Work where Applications for Payment may include materials or equipment, purchased or fabricated and stored, but not yet installed.

Differentiate between items stored on-site and items stored off-site. Include requirements for insurance and bonded warehousing, if required.

6. Provide separate line items on the Schedule of Values for initial cost of the materials, for each subsequent stage of completion, and for total installed value of that part of the Work.
7. Unit-Cost Allowances: Show the line-item value of unit-cost allowances, as a product of the unit cost, multiplied by the measured quantity. Estimate quantities from the best indication in the Contract Documents.
8. Schedule Updating: Update and resubmit the Schedule of Values prior to the next Applications for Payment when Change Orders or Construction Change Directives result in a change in the Contract Sum.

B.

C. 1.03 APPLICATIONS FOR PAYMENT:

- A. Each Application for Payment shall be consistent with previous applications and payments as certified by the Engineer and paid for by the County. The initial Application for Payment, the Application for Payment at time of Substantial Completion, and the final Application for Payment involve additional requirements.
- B. Payment-Application Times: The date for each progress payment is the 15th day of each month. The period covered by each Application for Payment starts on the day following the end of the preceding period and ends 15 days prior to the date for each progress payment.
- C. Payment-Application Forms: Use forms provided by the County for Applications for Payment. Same copies are included in Section 00 62 76 - Application and Certificate for Progress Payment.
- D. Application Preparation: Complete every entry on the form. Include notarization and execution by a person authorized to sign legal documents on behalf of the Contractor. The Engineer will return incomplete applications without action.
 1. Entries shall match data on the Schedule of Values and the Contractor's Construction Schedule. Use updated schedules if revisions were made.
 2. Include amounts of Change Orders and Construction Change Directives issued prior to the last day of the construction period covered by the application.
- E. Transmittal: Submit 3 signed and notarized original copies of each Application for Payment to NAU by a method ensuring receipt within 24 hours. One copy

shall be complete, including waivers of lien and similar attachments, when required.

- F. Waivers of Mechanics Lien: With each Application for Payment, submit waivers of mechanics liens from subcontractors, sub-subcontractors and suppliers for the construction period covered by the previous application.
1. Submit partial waivers on each item for the amount requested, prior to deduction for retainage, on each item.
 2. When an application shows completion of an item, submit final or full waivers for such items.
 3. Waiver Forms: Submit waivers of lien on forms provided herein, and executed as indicated.
 4. Waiver Forms: Submit waivers of lien on forms which comply with State statutes, and executed in a manner, acceptable to the County.
- G. Initial Application for Payment: Administrative actions and submittals, that must precede or coincide with submittal of the first Application for Payment, include the following:
1. List of subcontractors.
 2. List of principal suppliers and fabricators.
 3. Schedule of Values.
 4. Contractor's Construction Schedule (preliminary if not final).
 5. Schedule of principal products.
 6. Schedule of unit prices.
 7. Submittal Schedule (preliminary if not final).
 8. List of Contractor's staff assignments.
 9. List of Contractor's principal consultants.
 10. Copies of building permits.
 11. Copies of authorizations and licenses from governing authorities for performance of the Work.
 12. Initial progress report.

13. Report of preconstruction meeting.
 14. Certificates of insurance and insurance policies.
 15. Performance and payment bonds.
 16. Data needed to acquire the County's insurance.
 17. Initial settlement survey and damage report, if required.
- H. Application for Payment at Substantial Completion: Following issuance of the Certificate of Substantial Completion, submit an Application for Payment.
1. This application shall reflect Certificates of Partial Substantial Completion issued previously for County occupancy of designated portions of the Work.
 2. Administrative actions and submittals that shall precede or coincide with this application include:
 - a. Occupancy permits and similar approvals.
 - b. Warranties (guarantees) and maintenance agreements.
 - c. Test/adjust/balance records.
 - d. Maintenance instructions.
 - e. Meter readings.
 - f. Startup performance reports.
 - g. Changeover information related to County's occupancy, use, operation, and maintenance.
 - h. Final cleaning.
 - i. Application for reduction of retainage and consent of surety.
 - j. Advice on shifting insurance coverages.
 - k. Final progress photographs.
 - l. List of incomplete Work, recognized as exceptions to Architect's Certificate of Substantial Completion.

I. Final Payment Application: Administrative actions and submittals that must precede or coincide with submittal of the final Application for Payment include the following:

1. Completion of Project closeout requirements.
2. Completion of items specified for completion after Substantial Completion.
3. Ensure that unsettled claims will be settled.
4. Ensure that incomplete Work is not accepted and will be completed without undue delay.
5. Transmittal of required Project construction records to the County.
6. Certified property survey.
7. Proof that taxes, fees, and similar obligations were paid.
8. Removal of temporary facilities and services.
9. Removal of surplus materials, rubbish, and similar elements.
10. Change of door locks to County's access.

D.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION

SECTION 01 31 13

CONSTRUCTION SCHEDULE

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Within ten (10) days after the Notice to Proceed, prepare and submit to the Engineer an estimated initial construction progress schedule for the work.
- B. Submit revised progress schedules on a monthly basis or as necessary.
- C. No partial payments shall be approved by the Engineer until there is an approved construction progress schedule on hand.
- D. The Contractor shall designate an authorized representative of his firm who shall be responsible for development and maintenance of the schedule and of progress and payment reports. This representative of the Contractor shall have direct project control and complete authority to act on behalf of the Contractor's schedule.

1.02 RELATED REQUIREMENTS

- A. Section 01 11 00: Summary of Work
- B. Section 01 31 19: Project Meetings

1.03 FORM OF SCHEDULES

- A. Prepare schedules in the form of a horizontal bar chart.
 - 1. Provide separate horizontal bar for each trade or operation within each structure or item.
 - 2. Horizontal time scale: in weeks from start of construction and identify the first work day of each month.
 - 3. Scale and spacing: allow space for notations and future revisions.
- B. Format of listings: the chronological order of the start of each item of work.
- C. Identification of listings: by major specification section numbers as applicable and structure.

1.04 CONTENT OF SCHEDULES

- A. Construction Progress Schedule:
1. Show the complete sequence of construction by activity.
 2. Show the dates for the beginning of, and completion of, each major element of construction. Specifically list, but not limited to (shown in no particular order):
 - a. Permits and Shop Drawing Submittals
 - b. Ordering and Receiving of Materials and Equipment
 - c. Inspection of Existing Systems
 - d. Major Work Items including Installation of Equipment and Appurtenances
 - e. Testing
 - f. Restoration
 - g. Startup
 - h. As-built Drawings
 3. Show projected dollar cash flow requirements for each month of construction.
 4. Show projected manhour requirements for each month of construction.
- B. Submittals Schedule for Shop Drawings. Show:
1. The dates for Contractor's submittals.
 2. The dates submittals will be required for County furnished products, if applicable.
 3. The dates approved submittals will be required from the Engineer. Allow no less than twenty-one (21) calendar days for review and approval of shop drawings and samples by the Engineer. No less than thirty (30) calendar days will be required for major equipment that requires review by more than one engineering discipline.
- C. A list of all long lead items (equipment, materials, etc.).

1.05 PROGRESS REVISIONS

- A. Indicate progress of each activity to date of submission by shading a portion of the bar and showing percentage of completion. Show actual percentage of completion for each item as of the 20th day of each month during construction.
- B. Show changes occurring since previous submission of schedule:
 - 1. Major approved changes in scope.
 - 2. Activities modified since previous submission.
 - 3. Revised projections of progress and completion.
 - 4. Other identifiable changes.
- C. Provide a narrative report as needed to define:
 - 1. Problem areas, anticipated delays, and the impact on the schedule.
 - 2. Corrective action recommended, and its effect.
 - 3. The effect of changes on schedules of subcontractors if applicable.

1.06 SUBMISSIONS

- A. Submit an initial schedule to the Engineer within ten (10) days after the Notice to Proceed.
 - 1. The Engineer will review schedules and return review copy within 15 days after receipt.
 - 2. If required, resubmit within five (5) days after return of review copy.
- B. Submit four (4) copies of revised monthly progress schedules with that month's application for payment.

1.07 DISTRIBUTION

- A. Distribute copies of the reviewed schedules to:
 - 1. Engineer.
 - 2. Job site file.
 - 3. Subcontractors.

4. Other concerned parties.
 5. County (two copies).
- B. Instruct recipients to report promptly to the Contractor, in writing, any problems anticipated by the projections shown in the schedules.

1.08 CHANGE ORDERS

- A. Upon approval of a change order, the approved changes shall be reflected in the next scheduled revision or update submittal by Contractor.

1.09 SCHEDULE MONITORING

- A. At not less than monthly intervals or when specifically requested by Engineer, Contractor shall submit to the Engineer of an updated schedule for those activities that remain to be completed.
- B. The updated schedule shall be submitted in the form, sequence, and number of copies requested for the initial schedule.

1.10 PROGRESS MEETINGS

- A. For the monthly progress meeting, Contractor shall submit a three (3) week look-ahead schedule showing all activities in progress, uncompleted or scheduled to be worked during the three weeks. The three (3) weeks include the current week plus the next two (2) weeks. All activities shall be from the approved schedule and must be as shown on the schedule unless behind or ahead of schedule.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION

SECTION 01 31 19

PROJECT MEETINGS

PART 1- GENERAL

1.01 DESCRIPTION

A. Scope of Work

1. The Contractor shall cooperate and coordinate with NAU to schedule and administer the preconstruction meeting, periodic progress meetings, and specifically called meetings throughout the progress of the Work. The Contractor shall:
 - a. Prepare agenda for meetings.
2. Representatives of Contractor, subcontractors, and suppliers attending meetings shall be qualified and authorized to act on behalf of the entity each represents.
3. The County will attend meetings to ascertain that the Work is expedited consistent with Contract Documents and construction schedules.
4. The Engineer shall provide meeting minutes of the preconstruction meeting and each progress meeting in its entirety.

B. Related Requirements Described Elsewhere:

1. Construction Schedules: Section 01 31 13.

1.02 PRE-CONSTRUCTION

- A. A preconstruction conference will be scheduled after award of contract and prior to beginning work. This meeting shall be attended by Engineer of Record, the County, and an authorized representative of Contractor.
- B. Meeting will consider matters of contract administration and initial construction operations.
- C. Contractor shall submit proposed construction schedule prior to or at preconstruction conference; see Section 01 33 23.

1.03 PROGRESS MEETINGS

- A. Periodic progress meetings will be held at a time and place mutually agreed upon at preconstruction conference. A responsible representative of Contractor who can bind Contractor/subcontractor to decisions shall attend. A responsible representative of other subcontractors working on site shall also attend.

- B. Meetings will be held to coordinate and expedite progress of work and shall be conducted by Contractor. Contractor and each subcontractor on site shall submit a written report at each meeting indicating:
 - 1. Work progress since last meeting.
 - 2. Upcoming work sequences and schedules.
 - 3. Requests for information.
- C. Contractor shall record meeting minutes and shall distribute a written summary of items discussed to all parties involved in the project within 48 hours of each meeting. The written summary shall document all issues discussed and decisions reached at progress meeting.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION

SECTION 01 32 33

CONSTRUCTION PHOTOGRAPHS

PART 1- GENERAL

1.0.1 SUMMARY

- A. This Section specifies administrative and procedural requirements for construction photographs.

1.0.2 SUBMITTALS

- A. Submit CD's as specified in Section 01 33 23, Submittals and in PART 3 - this Section.

- B. Photographer shall submit a digital sample set of the type and quality required during construction, for review and acceptance by Engineer.

1.0.3 QUALITY ASSURANCE

- A. All photographs shall be taken and processed by a qualified photographer with experience in construction photography.

PART 2- PRODUCTS

2.01 PHOTOGRAPHIC REQUIREMENTS

Specified in PART 3, this Section.

PART 3- EXECUTION

3.01. PHOTOGRAPHS

- A. Contractor shall be responsible for photographs along the entire construction site to show the existing and general condition of the site prior to construction. Each photo will be required to have a date stamp in the lower right corner.
- B. Photographs shall be taken of the following areas and at the following times.
 - 1. Existing Site conditions before Site work is started. Number of views shall be adequate to cover the Site.
 - 2. Finished Project after completion of Work. Number of views shall be adequate to show the finished Work. It is particularly important to provide a view of the restoration of the site upon completion of construction.
 - 3. If Project is not completed during the Contract Time or authorized extensions, photographs shall continue to be taken at no increase in Contract Price.
- C. Digital Images
 - 1. Submit two (2) complete sets of digital image electronic files on a CD prior to starting work.
 - a. Provide images in JPEG format, with minimum 150 dpi resolutions.
 - b. Submit images that have same aspect ratio as the sensor,

uncropped.

- c. The photos shall be labeled electronically on each photograph. The label shall contain the Project Name and Number, date of exposure, and description of view.
 - d. Each disk submitted shall be labeled with Project name
 - e. Identify electronic media with date digital photographs were taken
- D. Deliver prints to Engineer.

END OF SECTION

SECTION 01 33 23 SUBMITTALS

PART 1 - GENERAL

1.01 SECTION INCLUDES:

- A. Administrative and procedural requirements for submittals required for performance of the Work, including the following:
 - 1. Contractor's construction schedule.
 - 2. Shop Drawings.
 - 3. Product Data.
 - 4. Samples.
 - 5. Quality assurance submittals.

1.02 DEFINITIONS:

- A. Coordination Drawings show the relationship and integration of different construction elements that require careful coordination during fabrication or installation to fit in the space provided or to function as intended.
- B. Field samples are full-size physical examples erected on-site to illustrate finishes, coatings, or finish materials. Field samples are used to establish the standard by which the Work will be judged.
- C. Mockups are full-size assemblies for review of construction, coordination, testing, or operation; they are not Samples.

1.03 SUBMITTAL PROCEDURES:

- A. Coordination: Coordinate preparation and processing of submittals with performance of construction activities. Transmit each submittal sufficiently in advance of performance of related construction activities to avoid delay.
 - 1. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals, and related activities that require sequential activity.
 - 2. Coordinate transmittal of different types of submittals for related elements of the Work so processing will not be delayed by the need to review submittals concurrently for coordination. The Engineer reserves the right to withhold action on a submittal requiring coordination with other submittals until all related submittals are received.
 - 3. Processing: To avoid the need to delay installation as a result of the time required to process submittals, allow sufficient time for submittal review, including time for resubmittals.
 - a. Allow 15 working days for initial review. Allow additional time if the Engineer must delay processing to permit coordination with subsequent submittals.
 - b. If an intermediate submittal is necessary, process the same as the initial submittal.
 - c. Allow 15 working days for reprocessing each submittal.
 - d. No extension of Contract Time will be authorized because of failure to transmit submittals to the Engineer sufficiently in advance of the Work to permit processing.
- B. Submittal Preparation: Place a permanent label or title block on each submittal for identification. Indicate the name of the entity that prepared each submittal on the label or title block.

1. Provide a space approximately 4 by 5 inches (100 by 125 mm) on the label or beside the title block on Shop Drawings to record the Contractor's review and approval markings and the action taken.
 2. Include the following information on the label for processing and recording action taken.
 - a. Project name.
 - b. Date.
 - c. Name and address of the Engineer.
 - d. Name and address of the Contractor.
 - e. Name and address of the subcontractor.
 - f. Name and address of the supplier.
 - g. Name of the manufacturer.
 - h. Number and title of appropriate Specification Section.
 - i. Drawing number and detail references, as appropriate.
- C. Submittal Transmittal: Package each submittal appropriately for transmittal and handling. Transmit each submittal from the Contractor to the Engineer using a transmittal form. The Engineer will not accept submittals received from sources other than the Contractor without Contractor's review and approval markings and the action taken.
- D. Provide required Product Code Certification with Shop Drawings. Submittals that do not have Product Code Certification included will be returned for resubmission.

1.04 SHOP DRAWINGS:

- A. Submit newly prepared information drawn accurately to scale. Highlight, encircle, or otherwise indicate deviations from the Contract Documents.
1. Do not reproduce Contract Documents or copy standard information as the basis of Shop Drawings.
 2. Standard information prepared without specific reference to the Project is not a Shop Drawing.

- B. Shop Drawings include fabrication and installation Drawings, setting diagrams, schedules, patterns, templates and similar Drawings. Include the following information:
1. Dimensions.
 2. Identification of products and materials included by sheet and detail number.
 3. Compliance with specified standards.
 4. Notation of coordination requirements.
 5. Notation of dimensions established by field measurement.
 6. Do not use Shop Drawings without an appropriate final stamp indicating action taken.
- C. Submittals: Submit one reproducible and one blue- or black line print; the reproducible will be returned.

1.05 PRODUCT DATA:

- A. Collect Product Data into a single submittal for each element of construction or system. Product Data includes printed information, such as manufacturer's installation instructions, catalog cuts, standard color charts, roughing-in diagrams and templates, standard wiring diagrams, and performance curves.
1. Mark each copy to show applicable choices and options. Where printed Product Data includes information on several products that are not required, mark copies to indicate the applicable information. Product Data not so marked will be returned without review. Include the following information:
 - a. Manufacturer's printed recommendations.
 - b. Compliance with trade association standards.
 - c. Compliance with recognized testing agency standards.
 - d. Application of testing agency labels and seals.
 - e. Notation of dimensions verified by field measurement.
 - f. Notation of coordination requirements.

2. Do not submit Product Data until compliance with requirements of the Contract Documents has been confirmed.
- B. Submittals: Submit 2 copies of each required submittal; submit 4 copies where required for maintenance manuals. Submit additional copies as required by the Contractor for distribution. The Engineer will retain one and will return the others marked with action taken and corrections or modifications required.
- C. Distribution: Furnish copies of final submittal to installers, subcontractors, suppliers, manufacturers, fabricators, and others required for performance of construction activities.

1.06 SAMPLES:

- A. Submit full-size, fully fabricated Samples cured and finished as specified and physically identical with the material or product proposed. Samples include partial sections of manufactured or fabricated components, cuts or containers of materials, color range sets, and swatches showing color, texture, and pattern.
1. Mount or display Samples in the manner to facilitate review of qualities indicated. Prepare Samples to match the Engineer's sample. Include the following:
 - a. Specification Section number and reference.
 - b. Generic description of the Sample.
 - c. Sample source.
 - d. Product name or name of the manufacturer.
 - e. Compliance with recognized standards.
 - f. Availability and delivery time.
 2. Submit Samples for review of size, kind, color, pattern, and texture. Submit Samples for a final check of these characteristics with other elements and a comparison of these characteristics between the submittal and the actual component as delivered and installed.
 - a. Where variation in color, pattern, texture, or other characteristic is inherent in the material or product represented, submit at least 3 multiple units that show approximate limits of the variations.
 - b. Refer to other Specification Sections for requirements for Samples that illustrate workmanship, fabrication techniques, details of

assembly, connections, operation, and similar construction characteristics.

3. Submit a full set of choices where Samples are submitted for selection of color, pattern, texture, or similar characteristics from a range of standard choices. The Architect will review and return preliminary submittals with the Architect's notation, indicating selection and other action.
 4. Maintain sets of Samples, as returned, at the Project Site, for quality comparisons throughout the course of construction.
- B. Distribution of Samples: Prepare and distribute additional sets to subcontractors, manufacturers, fabricators, suppliers, installers, and others as required for performance of the Work. Show distribution on transmittal forms.

1.07 QUALITY ASSURANCE SUBMITTALS:

- A. Submit quality-control submittals, including design data, certifications, manufacturer's instructions, manufacturer's field reports, and other quality-control submittals as required under other Sections of the Specifications.
- B. Certifications: Where other Sections of the Specifications require certification that a product, material, or installation complies with specified requirements, submit a notarized certification from the manufacturer certifying compliance with specified requirements. Signature: Certification shall be signed by an officer of the manufacturer or other individual authorized to sign documents on behalf of the company.
- C. Inspection and Test Reports: Requirements for submittal of inspection and test reports from independent testing agencies are specified in Division 01 Section "Quality Control."
- E.

1.08 ENGINEER'S ACTION:

- A. Except for submittals for the record or information, where action and return is required, the Engineer will review each submittal, mark to indicate action taken, and return promptly. Compliance with specified characteristics is the Contractor's responsibility regardless of action indicated.
- B. Action Stamp: The Engineer will stamp each submittal with a uniform, action stamp. The Engineer will mark the stamp appropriately to indicate the action taken. Do not use, or allow others to use, submittals marked "Not Approved, Revise and Resubmit" at the Project Site or elsewhere where Work is in progress.

- C. Other Action: Where a submittal is for information or record purposes or special processing or other activity, the Engineer will return the submittal marked "Action Not Required."
- D. Unsolicited Submittals: The Engineer will return unsolicited submittals to the sender without action.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION

SECTION 01 35 29

SAFETY IN WASTEWATER WORKS

PART 1 - GENERAL

1.01 GENERAL REQUIREMENTS

The Contractor shall be responsible for conducting all work in a safe manner and shall take reasonable precautions to ensure the safety and protection of workers, property, and the general public. The Contractor's responsibility for protecting the public is described in Article 6 of the "General Conditions".

All construction work shall be conducted in accordance with the latest applicable requirements of Part 1926 of the Occupational Safety and Health Act, Safety and Health Regulations for Construction, Section 107 of the Contract Work Hours and Safety Standards Act, as well as any other local or state safety codes and regulations.

The Contractor shall designate a trained and qualified employee who is to be responsible for ensuring that the work is performed safely and in conformance with all applicable regulations. The name and resume of the designated safety supervisor shall be submitted to the Engineer prior to commencing any construction work.

The Contractor shall determine for himself the safety hazards involved in executing the work and the precautions necessary to conduct the work safely. If the Contractor is unsure as to any special hazards which may be unique to the various processes and facilities at the treatment plant, it shall be his responsibility to contact the Engineer and request such information in writing prior to beginning the work.

The Contractor shall bear all risks associated with performing the work and shall fully indemnify the County and Engineer.

Contractor shall be solely responsible for and shall assume 100% responsibility for all safety related requirements. Neither the County nor the Engineer shall be responsible for any safety violations or injuries/damages that may be sustained/incurred as a result of the violation of any safety related requirements.”

1.02 SPECIAL REQUIREMENTS

- A. The Contractor's attention is directed to the fact that construction activities at wastewater facilities will occasionally involve work in potentially hazardous environments in which oxygen deficient, toxic, or explosive conditions may exist. Additional hazards arise from the presence of pathogens in the wastewaters and sludge found in the treatment plant and from the slimes and scum layers that coat walking and working surfaces. In dealing with these hazards, the Contractor shall take special precautions to ensure worker safety. Such precautions shall include, but shall not be limited to, the following, as applicable:

Installing temporary forced air ventilation equipment and ducts for fresh air in enclosed areas.

Using pneumatic tools and equipment instead of electric-driven equipment in hazardous areas.

Avoiding the use of cutting torches, field welding, and grinders in hazardous areas.

Cleaning and disinfecting working surfaces with hot water high pressure washers prior to commencing work.

Installing sealed wooden baffles or bulkheads to isolate working areas from hazardous atmospheres.

Providing portable oxygen meters, combustible gas detectors, and hydrogen sulfide detectors to continuously monitor the atmosphere in enclosed working areas.

Providing safety harnesses, safety lines, and recovery crews for workers in hazardous areas.

Providing self-contained breathing apparatus with spare air cylinders for workers in hazardous areas.

Providing dry chemical fire extinguishers and connected fire hoses in areas where a danger of fire or explosion exists.

Providing adequate, oxygen-equipped, first aid facilities.

Providing suitable wash-up areas and facilities for workers.

Installing temporary lighting using explosion-proof fixtures in hazardous environments.

Installing approved warning and hazard signs and posting safety procedures.

Instructing all workers as to the hazards present, the procedures to be followed, and the proper function and use of all safety and emergency equipment furnished.

Prior to commencing work on existing facilities and equipment, the Contractor shall notify the Plant Superintendent and shall ensure that the source of electrical energy to all affected equipment is shut off and locked out at the appropriate motor control center. Local switches and push-button stations, where provided, shall be locked in the off position.

Prior to entering or commencing work in a hazardous area, the Contractor shall ensure that all safety and emergency equipment is in place and in satisfactory operating condition.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION

SECTION 01 41 23

PERMITS AND FEES

PART 1 - GENERAL

1.01 DESCRIPTION:

- A. County Responsibilities: The County already obtained the FDEP construction permit.
- B. Contractor responsibilities: Obtain and pay for all other permits and licenses required by authorities having jurisdiction, including but not limited to: land clearing permit, NPDES Notice of Intent and dewatering permit.
- C. Contractor shall be responsible to adhere to all provisions, requirements, and cost contained in all permits applicable to this project.

PART 2 - PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

END OF SECTION

SECTION 01 45 16

QUALITY CONTROL

PART 1 - GENERAL

1.01 SECTION INCLUDES:

- A. Administrative and procedural requirements for quality control services and testing and inspection laboratory services.

1.02 GENERAL:

- A. Specific quality control requirements for individual construction activities are specified in the Sections that specify those activities. Those requirements, including inspections and tests, cover production of standard products as well as customized fabrication and installation procedures.
- B. Inspections, test and related actions specified are not intended to limit the Contractor's quality control procedures that facilitate compliance with Contract Document requirements.
- C. Requirements for the Contractor to provide quality control services required by the Engineer, County, or authorities having jurisdiction are not limited by provisions of this Section.

1.03 CONTRACTOR RESPONSIBILITIES:

- A. Provide inspections, tests and similar quality control services specified in individual Specification Sections as the Contractor's responsibility and as required by governing authorities; these services include those specified to be performed by an independent agency and not by the Contractor. Include costs for these services in the Contract Sum.
- B. Provide and pay for costs of retesting and other related costs when:
 - 1. Results of required inspections, tests or similar services prove unsatisfactory and do not indicate compliance with Contract Document requirements, regardless of whether the original test was the Contractor's responsibility.
 - 2. Construction is revised or replaced by the Contractor, where tests were required on original construction.
 - 3. Additional testing is needed or required by the Contractor.

4. Additional trips to the project are necessary by an agency when scheduled times for tests and inspections are cancelled and the agency is not notified sufficiently in advance of cancellation to avoid the trip.
- C. Cooperate with agencies performing required inspections, tests and similar services and provide reasonable auxiliary services as requested.
1. Notify the agency sufficiently in advance of operations to permit assignment of personnel.
 2. Provide access to the Work and furnish incidental labor and facilities necessary to facilitate inspections and tests.
 3. Take adequate quantities of representative samples of materials that require testing and assist the agency in taking samples.
 4. Provide facilities for storage and curing of test samples.
 5. Provide the agency with a preliminary design mix proposed for use for materials mixes that require control by the testing agency.
 6. Secure and protect samples and test equipment at the Project site.
- D. Coordinate the sequence of activities to accommodate required services with a minimum of delay and coordinate activities to avoid the necessity of removing and replacing construction to accommodate inspections and tests.
- E. Schedule times for inspections, tests, taking samples and similar activities.

1.04 COUNTY RESPONSIBILITIES:

- A. Provide inspections, tests and similar quality control services specified, except where they are specifically indicated as the Contractor's responsibility or are provided by another identified entity.
1. Costs for these services are not included in the Contract Sum.
 2. The County will employ and pay for the services of an independent agency, testing laboratory or other qualified firm to perform the services required.
 3. The County reserves the right to contract an independent agency to conduct testing on any portion of the work.

1.05 TESTING AGENCIES RESPONSIBILITIES:

- A. Cooperate with the Engineer and Contractor in performance of their duties; provide qualified personnel to perform required inspections and tests.
- B. Notify the Engineer and Contractor promptly of irregularities or deficiencies observed in the Work during performance of their services.
- C. Agencies are not authorized to release, revoke, alter or enlarge requirements of the Contract Documents, or approve or accept any portion of the Work.
- D. Agencies shall not perform any duties of the Contractor.

1.06 SUBMITTALS:

- A. Independent testing agencies shall submit 2 copies of certified written reports of each inspection, test or similar service to the Engineer and to the Contractor.
- B. Report Data: Written reports of each inspection, test or similar service shall include:
 - 1. Date of issue.
 - 2. Project title and number.
 - 3. Name, address and telephone number of testing agency.
 - 4. Dates and locations of samples and tests or inspections.
 - 5. Names of individuals making the inspection or test.
 - 6. Designation of the Work and test method.
 - 7. Identification of product and Specification Section.
 - 8. Complete inspection or test data.
 - 9. Test results and interpretations of test results.
 - 10. Ambient conditions at the time of sample-taking and testing.
 - 11. Comments or professional opinion as to whether inspected or tested Work complies with Contract Document requirements.
 - 12. Name and signature of laboratory inspector.

13. Recommendations on retesting.

1.07 QUALIFICATION OF SERVICE AGENCIES:

- A. Engage inspection and testing service agencies, including independent testing laboratories, which are prequalified as complying with "Recommended Requirements for Independent Laboratory Qualification" by the American Council of Independent Laboratories, and which specialize in the types of inspections and tests to be performed.
- B. Each independent inspection and testing agency engaged on the Project shall be authorized by authorities having jurisdiction to operate in the State in which the Project is located.
- C. Inspection and testing agencies engaged by the Contractor shall be acceptable to Engineer and County.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.01 REPAIR AND PROTECTION:

- A. Upon completion of inspection, testing, sample-taking and similar services, repair damaged construction and restore substrates and finishes to eliminate deficiencies, including deficiencies in visual qualities of exposed finishes
- B. Protect construction exposed by or for quality control service activities, and protect repaired construction.
- C. Repair and protection is the Contractor's responsibility, regardless of the assignment of responsibility for inspection, testing or similar services.

END OF SECTION

SECTION 01 52 00

CONSTRUCTION FACILITIES

PART 1 - GENERAL

1.01 DESCRIPTION: The following criteria shall govern the furnishing of and paying for temporary construction and service items. Such items shall be instituted at the beginning and maintained for the life of the work or until removal or termination is approved by the Engineer.

1.02 TEMPORARY FACILITIES:

- A. Drinking Water: The Contractor shall provide cool water with dispensing utilities.
- B. Construction Water: The Contractor shall provide temporary water for construction at the project site. The Contractor shall provide proper back flow devices in order to comply with regulations concerning back flow & cross connection.
- C. It shall be the Contractor's responsibility to provide temporary electrical power for construction purposes.
- D. Toilet Facilities: The Contractor shall furnish a portable, job-site toilet enclosure facility through a local company specializing and licensed in this business. The toilet enclosure shall be located on the project site at a point approved by the County. It shall be maintained daily by the supplying company and removed from the project site upon completion of the project.

1.03 SECURITY:

- A. General: The Contractor shall provide security, as necessary or required, to protect work and property at all times.
- B. Rodents and Other Pests: The Contractor, through debris removal, etc., shall control the creation of rodent or pest problems. Should such develop, the Contractor shall secure services of exterminator to control.
- C. Debris Control: Keep premises clean and free from accumulation of debris and rubbish. Provide trash and debris receptacles and require use. Remove from site at least weekly.
- D. Cleaning: As work is completed by trades, areas of work shall be cleaned in preparation for next trade, inspections or general safety of property and person.
- E. Project Safety: The Contractor shall comply with all applicable governmental and insuring company requirements relative to construction and project safety. Either the superintendent or another company representative on the site during all working hours, shall be trained in project safety and designated as Contractor's Safety Director.

1.04 QUALITY ASSURANCE:

- A. Comply with industry standards and applicable laws and regulations of authorities having jurisdiction, including but not limited to:
 - 1. Building Code Requirements
 - 2. Health and Safety Regulations
 - 3. Utility Company Regulations
 - 4. Police, Fire Department and Rescue Squad Rules
 - 5. Environmental Protection Regulations

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION

SECTION 01 55 26

TRAFFIC REGULATION

PART 1 - GENERAL

1.01 DESCRIPTION

- A. This section covers procedures for developing and implementing traffic control and regulation measures and maintenance of traffic in and around the construction area to provide for safe and efficient protection and movement of vehicular and pedestrian traffic/through and adjacent to the construction area.

1.02 RELATED REQUIREMENTS

- A. All applicable Sections of the Specifications.
- B. Conditions of the Contract.
- C. Nassau County Road Closure Policy.

1.03 SUBMITTALS

- A. Before closing or restricting traffic flow through any thoroughfare, the Contractor will give written notice to and, if necessary, obtain a permit or permits from the duly constituted public authority having jurisdiction over the thoroughfare. Contractor will also notify the applicable law enforcement, fire, and emergency services having jurisdiction in the area. Notice will be given no less than 72 hours in advance of the time when it may be necessary in the process of construction to close or restrict traffic to such thoroughfare, or as may be otherwise required by the governing authority.

1.04 SITE CONDITIONS

- A. The Contractor will plan construction operations such that existing local traffic access and traffic within the Facility can be maintained and will maintain during the construction such barricades, lights, flagmen, and other protective devices as appropriate, whether specified for the project or required by the local governing authority. Traffic control devices used for maintenance of traffic will comply with the FDOT Manual.
- B. The Contractor will conduct his work in such manner as not to unduly or unnecessarily restrict or impede normal traffic through the streets of the community and within the Facility. Insofar as it is practicable, excavated material and spoil banks will not be located in such manner as to obstruct traffic. The traveled way of all streets, roads, alleys, reclamation facility's roads and driveways will be kept clear and unobstructed insofar as is possible and will not be used for the storage of construction materials, equipment, supplies, or excavated earth, except when and where necessary if approved by the governing authority. If required by duly constituted public authority, the Contractor will, at his own expense, construct bridges or other temporary crossing structures over trenches so as not to unduly restrict traffic. Such structures will be of adequate strength and proper construction and will be maintained by the Contractor in such manner as not to constitute an undue traffic hazard. Private driveways will not be closed except when and where necessary, and then only upon due advance notice to the County and for the shortest practicable period of time consistent with efficient and expeditious construction. The Contractor will be liable for any damages to persons or property resulting from his work.
- C. The Contractor will make provisions at cross streets for the free passage of vehicles and foot passengers, either by bridging or otherwise, and will not obstruct the sidewalks, gutters, or streets, nor prevent in any manner the flow of water in the latter, but will use all proper and necessary means to permit the free passage of surface water along the gutters. The Contractor will immediately cart away all offensive matter, exercising such precaution as may be directed by the County.

- D. Unless otherwise required by the governing authority, maintenance of traffic in and around the construction zone will conform to Section 102 of the FDOT Specification, and Index Nos. 600, 620, 621, 622, 623, and 624 of the FDOT Standards.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION

SECTION 01 57 26

DUST CONTROL

PART 1 - GENERAL

1.01 DESCRIPTION

Limit blowing dust caused by construction operations by applying water or employing other appropriate means or methods to maintain dust control.

1.02 PROTECTION OF ADJACENT PROPERTY

The bidders shall visit the site and note the buildings, landscaping, roads, parking areas and other facilities near the work site that may be damaged by their operations. The Contractor shall make adequate provision to fully protect the surrounding area and will be held fully responsible for all damages resulting from his operations.

Dust, Fumes, Spray, or Spills:

Protect all existing facilities (indoors or out) from damage by the above hazards (indoors or out);

Protect motors, bearings, electrical gear, instrumentation, and building or other surfaces from dirt, dust, welding fumes, paint spray, spills or droppings causing wear, corrosion, malfunction, failure or defacement by enclosure, sprinkling or other dust palliatives, masking and covering, exhausting or containment.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION

SECTION 01 58 00

BYPASS PUMPING

PART 1 -GENERAL

1.01 GENERAL

- A. The Contractor is referred to conditions and requirements given in various Divisions of the Specifications and Section 01 11 00, Summary of Work, insofar as such documents affect the work of this Section.
- B. The Contractor's attention is referred to the conditions and requirements for temporary and permanent utilities as specified in Section 01 52 00 - Construction Facilities.

1.02 SCOPE OF WORK

- A. The Contractor is required to furnish all materials, labor, equipment, power, maintenance, etc. to implement a temporary pumping system for the purpose of diverting the lift station influent flow around Lift Station No.3, so that the station can be rehabilitated and replaced.
- B. The design, installation, and operation of the temporary pumping systems shall be the Contractor's responsibility. The Contractor shall employ the services of a vendor who can demonstrate to the Engineer that he specializes in the design and operation of temporary bypass pumping systems.
- C. The Contractor shall provide temporary pumping systems. The system shall be capable of pumping raw wastewater from the manhole at the influent side of the pump station to the new bypass connection at the effluent side, as shown on the Drawings, completely bypassing the existing station. The temporary pumping system shall be capable of pumping the variable wastewater flows received by the lift station. The Bypass Pumping System shall be capable of pumping up to 150% of the peak flow conditions with one pump and provide a backup pump for 100% redundancy.
- D. It is required under this section that the Contractor provide all necessary means to safely convey the normal flows past the work areas. It will not be permitted to stop or impede the sanitary sewer flows under any circumstances.
- E. The Contractor's bid price shall include the following for each bypass pumping system: one pump and a backup with sound attenuation housing (maximum noise level of 70dBA @ 7 meters) as well as all necessary controls, a high water alarm signal (light) to indicate pump operational problems and to activate the backup pump, an autodialer and 24-hour on-call maintenance personnel. Note that the wet

well will fill to capacity within 30 to 45 minutes in the event of pump failure. The contractor shall be capable of having maintenance personnel onsite within 30 minutes of receiving notice that there are problems associated with a bypass pumping system.

1.03 SPECIAL PRECAUTION

- A. The Contractor is notified that the bypass pumping at the lift stations is critical and must be maintained at all times. If any spills of raw wastewater occur due to the failure of the Contractor to maintain the temporary pumping when needed, the Contractor shall be responsible for any fines levied on Hillsborough County by the FDEP or any other applicable agency.

1.04 SHOP DRAWINGS

- A. Contractor shall submit shop drawings detailing sewage bypass system. Information that must be contained in the shop drawings shall include, but not be limited to:

1. Pump curves and installation details;
2. Control system logic and details;
3. Piping system;
4. Emergency phone number;
5. Noise attenuation system; and
6. Bypass Pumping System Vendor information and qualifications.

PART 2 -PRODUCTS

2.01 PUMPS

- A. The pumps and drives shall be rated for continuous duty and shall be capable of pumping the specified flow range without surging, cavitation, or vibration. The pump shall not overload the driver at any point on the pump operating curve. Rotative components shall be statically and dynamically balanced. The pump shall be suitable for use with raw unscreened sewage and trash. The pump shall be a self-contained unit, designed for temporary use.

- B. All pumps used shall be fully automatic self priming units that do not require the use of foot-valves or vacuum pumps in the priming system. All pumps used must be constructed to allow dry running for long periods of time to accommodate the cyclical nature of flows.
- C. Pumps shall be electric powered.
- D. Pump shall have a ductile iron casing, suction cover, separation tank, and non-return valve, a high nickel steel open impeller, front and rear wear plate, shaft sleeve and shaft.

2.02 PUMP CONTROLS

- A. The bypass pumps shall have manual start/stop. One pump shall run at all times during bypass pumping operations. A high water alarm signal (light) for the manhole will indicate pump operational problems and activate the backup pump.

2.03 PIPING

- A. In order to prevent the accidental spillage of flows, all discharge system must be constructed of semi-rigid pipe with positive, leak-proof connections. All pipe must be 100 psi rated working pressure and full vacuum. Adequate vents will be provided suitably arranged to prevent spillage of raw sewage.
- B. Pipe shall be high density polyethylene pipe with fused joints or ductile iron pipe with flanged joints or victaulic couplings for a leak-proof piping system.
- C. "Irrigation" type pipe or aluminum construction pipe will not be acceptable.

2.04 TEMPORARY PLUGS

- A. Plugs shall be inflatable plugs constructed of cross-biased cording reinforced natural rubber. Plugs shall be equipped with steel pull rings, cast aluminum ends, and a rupture disk to prevent overinflation. Inflatable plugs shall model Test-Ball as manufactured by Cherne Industries of Minneapolis, MN, or equal.
- B. All plugs shall be firmly attached to a stationary object at ground level by a steel cable in order to prevent loss of plug in the pipeline.

PART 3 – EXECUTIONS

3.01 BYPASS PUMP TEST

- A. A functional/operational test of the bypass pump setup must be successfully run

for 24 hours before taking the lift station offline.

3.02 INSTALLATION

- A. Equipment specified in this section shall be installed in strict accordance with the manufacturer's instructions and recommendations. The Contractor shall be solely responsible for maintaining the temporary pumps and appurtenances. At the end of the construction period, the contractor shall remove the pumps and appurtenances.
- B. The pumps are to be installed for temporary use only and shall be removed by the Contractor prior to completion of the contract. The contractor shall be responsible for proper operation of the complete pumping system, which includes pump, driver, controls, and appropriate pipe connections, during the construction period.
- C. Adequate hoisting equipment for each pump and accessories shall be maintained on the site.
- D. The Contractor shall insure that the temporary pumping system is properly maintained and a responsible operator shall be on hand at all times when pumps are operating.
- E. The temporary pumping system shall be placed in service a minimum of 24 hours before any work may begin.
- F. Once written permission is issued, the Contractor shall remove all components of the temporary pumping system. The Contractor shall perform all restoration work to the satisfaction of the County or Engineer.

END OF SECTION

SECTION 01 65 00

DELIVERY, STORAGE AND HANDLING

PART 1 - GENERAL

1.01 DESCRIPTION

- A. This Section specifies the general requirements for the delivery handling, storage and protection for all items required in the construction of the Work. Specific requirements, if any, are specified with the related item.

1.02 TRANSPORTATION AND DELIVERY

- A. Transport and handle items in accordance with manufacturer's instructions.
- B. Schedule delivery to reduce long term onsite storage 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 Engineer.
- C. Coordinate delivery with installation to ensure minimum holding time for items that are hazardous, flammable, easily damaged or sensitive to deterioration.
- D. Deliver products to the site in manufacturer's original sealed containers or other packing systems, complete with instructions for handling, storing, unpacking, protecting and installing.
- E. All items delivered to the site shall be unloaded and placed in a manner which will not hamper the Contractor's normal construction operation or those of subcontractors and other contractors and will not interfere with the flow of necessary traffic.
- F. Provide necessary equipment and personnel to unload all items delivered to the site. Delivery shall not be accepted by County's personnel.
- G. Promptly inspect shipment to assure that products comply with requirements, quantities are correct, and items are undamaged. For items furnished by others (i.e. County, other contractors), notify Engineer verbally, and in writing, of any problems.

1.03 STORAGE AND PROTECTION

- A. Store and protect products in accordance with the manufacturer's instructions, with seals and labels intact and legible. Storage instruction shall be studied by the Contractor. Instructions shall be carefully followed and a written record of this kept by the Contractor. Arrange storage to permit access for inspection.
- B. Store loose granular materials on solid flat surface in a well-drained area. Prevent mixing with foreign matter.
- C. Cement and lime shall be stored under a roof and off the ground and shall be kept completely dry at all times. All structural, miscellaneous and reinforcing steel shall be stored off the ground or otherwise to prevent accumulation of dirt or grease, and in a position to prevent accumulations of standing water and to minimize rusting. Beams shall be stored with the webs vertical. Precast concrete shall be handled and stored in a manner to prevent accumulations of dirt, standing water, staining, chipping or cracking. Brick, block and similar masonry products shall be handled and stored in manner to reduce breakage, cracking and spalling to a minimum.
- D. Mechanical, electrical equipment and instruments are subject to corrosive damage by the atmosphere if stored outdoors, even when covered by canvas. Such materials shall be stored in a weather-tight building to prevent corrosive or other heat and moisture related damage. The building may be a temporary structure on the site or elsewhere, but it must be satisfactory to the Engineer. Building shall be provided with adequate ventilation to prevent condensation. Maintain temperature and humidity within range required by manufacturers of the equipment to be stored.
 - 1. 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 STORAGE AND HANDLING OF EQUIPMENT ON SITE

- A. Because of the long period allowed for construction, special attention shall be given to the storage and handling of equipment on site. As a minimum, the procedure outlined below shall be followed:

1. Materials shall not be shipped until approved by the Engineer. The intent of this requirement is to avoid unnecessary delivery of unapproved materials and to reduce on-site storage time prior to installation and/or operation. Under no circumstances shall major equipment or finish products be delivered to the site more than one month prior to installation without written authorization from the Engineer. Materials shipped to the site, or temporarily stored off-site in approved locations, shall be stored in accordance with Paragraph 1.04, herein.
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 Engineer, 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. Manufacturer's storage instructions shall be carefully studied by the Contractor and reviewed with the Engineer by him. These instructions shall be carefully followed and a written record of this kept by the Contractor.
5. 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 the load, once weekly for an adequate period of time to insure that the equipment does not deteriorate from lack of use.
6. Lubricants shall be changed upon completion of installation and as frequently as required thereafter during the period between installation and acceptance. Mechanical equipment to be used in the work, if stored for longer than ninety (90) days, shall have the bearings cleaned, flushed and lubricated prior to testing and startup, at no extra cost to the County.
7. 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 equivalent to that of equipment that has been shipped, installed, tested and accepted in a minimum time period. As such, the manufacturer will guarantee 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.

1.05 SPARE PARTS

- A. Spare parts for certain equipment provided under Divisions 33: Utilities has been specified in the pertinent sections of the Specifications. The Contractor shall collect and store all spare parts so required in an area to be designated by the Engineer. In addition, the Contractor shall furnish to the Engineer an inventory listing all spare parts, the equipment they are associated with, the name and address of the supplier, and the delivered cost of each item. Copies of actual invoices for each item shall be furnished with the inventory to substantiate the delivered cost.

1.06 GREASE, OIL AND FUEL

- A. All grease, oil and fuel required for testing of equipment shall be furnished with the respective equipment. The County shall be furnished with a year's supply of require lubricants including grease and oil of the type recommended by the manufacturer with each item of equipment supplied.
- B. The Contractor shall be responsible for changing the oil in all drives and intermediate drives of each mechanical equipment after initial break-in of the equipment, which in no event shall be any longer than three (3) weeks of operation. This shall be completed prior to release of retainage.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION

SECTION 01 77 19

PROJECT CLOSEOUT

PART 1 - GENERAL

1.01 SECTION INCLUDES:

- A. Administrative and procedural requirements for project closeout.
 - 1. Inspection procedures.
 - 2. Project record document submittal.
 - 3. Final cleaning.

1.02 SUBSTANTIAL COMPLETION:

- A. Before requesting inspection for certification of Substantial Completion, complete the following. List exceptions in the request.
 - 1. If 100 percent completion cannot be shown, include a list of incomplete items, the value of incomplete construction, and reasons the Work is not complete.
 - 2. Advise County of pending insurance change-over requirements.
 - 3. Submit specific warranties, workmanship bonds, maintenance agreements, final certifications and similar documents - refer to Section 01 78 36 Warranties and Bonds.
 - 4. Obtain and submit releases enabling the County unrestricted use of the Work and access to services and utilities; include occupancy permits, operating certificates and similar releases.
 - 5. Submit record drawings, maintenance manuals, and similar final record information.
 - 6. Complete start-up testing of systems, and instruction of the County's operating and maintenance personnel. Discontinue or change over and remove temporary facilities from the site, along with construction tools, mock-ups, and similar elements.
 - 7. Complete final clean up requirements, including touch-up painting. Touch-up and otherwise repair and restore marred exposed finishes.

- B. When the Contractor considers the Work to be substantially complete, he shall submit a written notice to the Engineer that the Work, or designated portion of the Work, is complete and ready for inspection.
- C. Within 5 days of receipt of a request for inspection, the Engineer will either proceed with inspection or advise the Contractor of unfulfilled requirements. When the Engineer and County concur that the Work, or designated portion of the Work, is substantially complete, the Engineer will prepare the Certificate of Substantial Completion following inspection.
- D. Should the Engineer determine that the Work is not substantially complete, he will advise the Contractor of construction or other requirements that must be completed or corrected before the certificate will be issued.
 - 1. The Engineer will repeat inspection when requested and assured that the Work has been substantially completed.
 - 2. Results of the completed inspection will form the basis of requirements for final acceptance.

1.03 FINAL COMPLETION:

- A. When Contractor considers the Work to be complete, he shall submit written certification to the Engineer that the Work is completed and ready for final inspection. Include the following:
 - 1. Submit the final payment request with releases and supporting documentation not previously submitted and accepted. Include certificates of insurance for products and completed operations.
 - 2. Submit an updated final statement, accounting for final additional changes to the Contract Sum.
 - 3. Submit a certified copy of the Engineer's final inspection list of items to be completed or corrected, stating that each item has been completed or otherwise resolved for acceptance, and the list has been endorsed and dated by the Engineer.
 - 4. Submit final meter readings for utilities, a measured record of stored fuel, and similar data as of the date of Substantial Completion, or when the County took possession of and responsibility for corresponding elements of the Work.
 - 5. Submit consent of surety to final payment.

6. Submit evidence of final, continuing insurance coverage complying with insurance requirements.
- B. The Engineer will inspect the Work upon receipt of notice that the Work, including inspection list items from earlier inspections, has been completed, except items whose completion has been delayed because of circumstances acceptable to the Engineer.
1. Upon completion of inspection, the Engineer will prepare a certificate of final acceptance, or advise the Contractor of Work that is incomplete, or of obligations that have not been fulfilled but are required for final acceptance.
 2. If necessary, reinspection process will be repeated.

1.04 RECORD DOCUMENT SUBMITTALS:

- A. Maintain at the site one complete set of record documents; protect from deterioration and loss in a secure, fire-resistive location.
1. Provide access to record documents for the Engineer's reference during normal working hours.
 2. Label each document "PROJECT RECORD" in 2 inch high printed letters.
 3. Do not use for construction purposes.
- B. Record Drawings: Maintain a clean, undamaged set of blue or black line white-prints of Contract Drawings and Shop Drawings. Mark the set to show the actual installation. Mark whichever drawing is most capable of showing conditions fully and accurately; where Shop Drawings are used, record a cross-reference at the corresponding location on the Contract Drawings. Give particular attention to concealed elements that would be difficult to measure and record at a later date.
1. Mark record sets with red erasable pencil; use other colors to distinguish between variations in separate categories of the Work.
 2. Mark new information that was not shown on Contract Drawings or Shop Drawings.
 3. Show horizontal control dimensions in two directions at right angles for each underground fitting, valve, and appurtenance. Horizontal control dimensions shall be tied to a permanent above ground marker such as a building or tank slab. Show elevations of storm sewers, gravity sewers including laterals, electric cables, television cables, telephone cables, force

mains, water mains crossed, and any other underground utilities and structures. Information shall be obtained by surveying by a professional engineer or land surveyor registered in the State of Florida.

4. Note related Change Order numbers where applicable.
 5. Organize record drawing sheets into manageable sets, bind with durable paper cover sheets, and print suitable titles, dates and other identification on the cover of each set.
- C. Record Specifications: Maintain one complete copy of the Project Manual, including addenda, and one copy of other written construction documents such as Change Orders and modifications issued in printed form during construction.
1. Mark these documents to show substantial variations in actual Work performed in comparison with the text of the Specifications and modifications.
 2. Give particular attention to substitutions, selection of options and similar information on elements that are concealed or cannot otherwise be readily discerned later by direct observation.
 3. Note related record drawing information and Product Data.
- D. Record Product Data: Maintain one copy of each Product Data submittal.
1. Mark these documents to show significant variations in actual Work performed in comparison with information submitted. Include variations in products delivered to the site, and from the manufacturer's installation instructions and recommendations.
 2. Give particular attention to concealed products and portions of the Work which cannot otherwise be readily discerned later by direct observation.
 3. Note related Change Orders and mark-up of record drawings and Specifications.
- E. Record Sample Submitted: Immediately prior to the date or dates of Substantial Completion, the Contractor will meet at the site with the Engineer and the County to determine which of the submitted Samples that have been maintained during progress of the Work are to be transmitted to the County for record purposes. Comply with delivery to the County's Sample storage area.
- F. Record Survey: Provide as-built survey prepared in accordance with the minimum technical standards for surveying as set forth by the Florida Board of

Professional Surveyors and Mappers in Chapter 61G17-6 Florida Administrative Code, pursuant to Section 472.027 Florida Statutes.

- G. Miscellaneous Record Submittals: Refer to other Specification Sections for requirements of miscellaneous record-keeping and submittals in connection with actual performance of the Work.
- H. At Contract close-out, deliver one copy of Record Documents to Engineer for County. Accompany submittal with transmittal letter in duplicate containing the following information:
 - 1. Date.
 - 2. Project title and number.
 - 3. Contractor's name and address.
 - 4. Title and number of each Record Document.
 - 5. Signature of Contractor or his authorized representative.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.01 FINAL CLEANING:

- A. Employ experienced workers or professional cleaners for final cleaning. Clean each surface or unit to the condition expected in a normal, commercial building cleaning and maintenance program.
- B. Complete the following cleaning operations before requesting inspection for Certification of Substantial Completion and maintain until final completion, except in areas occupied or designated by County.
 - 1. Remove labels that are not permanent labels.
 - 2. Clean transparent materials, including mirrors and glass in doors and windows. Remove glazing compound and other substances that are noticeable vision-obscuring materials. Replace chipped or broken glass and other damaged transparent materials.
 - 3. Clean exposed exterior and interior hard-surfaced finishes to a dust-free condition, free of stains, films and similar foreign substances. Restore reflective surfaces to their original reflective condition.

4. Leave concrete floors broom clean.
 5. Vacuum carpeted surfaces.
 6. Wipe surfaces of mechanical and electrical equipment. Remove excess lubrication and other substances.
 7. Clean plumbing fixtures to a sanitary condition.
 8. Clean light fixtures and lamps.
 9. Clean the site, including landscape development areas, of rubbish, litter and other foreign substances.
 10. Sweep paved areas broom clean; remove stains, spills and other foreign deposits.
 11. Rake grounds that are neither paved nor planted, to a smooth even-textured surface.
- C. Remove temporary protection and facilities installed for protection of the Work during construction.
- D. Comply with regulations of authorities having jurisdiction and safety standards for cleaning. Do not burn waste materials. Do not bury debris or excess materials on the County's property. Do not discharge volatile, harmful or dangerous materials into drainage systems. Remove waste materials from the site and dispose of in a lawful manner.
- E. Where extra materials of value remaining after completion of associated Work have become the County's property, arrange for disposition of these materials as directed.

END OF SECTION

SECTION 01 78 23

OPERATING AND MAINTENANCE DATA

PART 1 - GENERAL

1.01 DESCRIPTION

A. Scope of Work:

1. Compile product data and related information appropriate for County's maintenance and operation of products furnished under Contract.
 - a. Prepare operating and maintenance data as specified in this Section and as referenced in other pertinent sections of Specifications.
2. Instruct County's personnel in maintenance of products and in operation of equipment and systems.

1.02 QUALITY ASSURANCE

A. Preparation of data shall be done by personnel:

1. Trained and experienced in maintenance and operation of described products.
2. Familiar with requirements of this Section.
3. Skilled as technical writer to the extent required to communicate essential data.
4. Skilled as draftsman competent to prepare required drawings.

1.03 FORM OF SUBMITTALS

A. Prepare data in form of an instructional manual for use by County's personnel.

B. Format:

1. Size: 8-1/2 inches x 11 inches.
2. Paper: 20 pound minimum, white, for typed pages.
3. Text: Manufacturer's printed data.

4. Drawings:
 - a. Provide reinforced punched binder tab, bind in with text.
 - b. Reduce larger drawings and fold to size of text pages but not larger than 14 inches x 17 inches.
5. Provide fly-leaf for each separate product, or each piece of operating equipment.
 - a. Provide typed description of projects and major component parts of equipment.
 - b. Provide identification tabs.
6. Cover: Identify each volume with typed or printed title "OPERATING AND MAINTENANCE INSTRUCTIONS". List:
 - a. Title of Project.
 - b. Identity of separate structure as applicable.
 - c. Identity of general subject matter covered in the manual.

C. Binders:

1. Commercial quality , three D-ring type binders with durable and cleanable white plastic covers. Binders shall be presentation type with clear vinyl covers on front, back and spine. Binders shall include two sheet lifters and two, horizontal inside pockets.
2. Maximum D-ring width: 2 inches.
3. When multiple binders are used, correlate the data into related consistent groupings.

- D. In addition to standard operation and maintenance manuals, all manufacturers supplying equipment specified in Division 33 shall submit their operation and maintenance manuals on magnetic media/floppy disks in Microsoft Word, WordPerfect or text, ".txt" formats. All graphic files shall be in BMP, PCS, CDR, JPEG, DWG, DXF or PDF formats.

1.04 CONTENT OF MANUAL

- A. Neatly typewritten table of contents for each volume, arranged in systematic order.
 - 1. Contractor, name of responsible principal, address and telephone number.
 - 2. A list of each product required to be included, indexed to content of the volume.
 - 3. List, with each product, name, address and telephone number of:
 - a. Subcontractor, manufacturer and installer name, addresses and telephone numbers.
 - b. A list of each product required to be included, indexed to content of the volume.
 - c. Identify area of responsibility of each.
 - d. Local source of supply for parts and replacement equipment including name, address and telephone number.
 - 4. Identify each product by product name and other identifying symbols as set forth in Contract Documents.
- B. Product Data:
 - 1. Include only those sheets which are pertinent to the specific product.
 - 2. Annotate each sheet to:
 - a. Clearly identify specific product or part installed.
 - b. Clearly identify data applicable to installation.
 - c. Delete references to inapplicable information.
 - 3. Operation and maintenance information as herein specified.
 - 4. Record shop drawings as submitted and approved with all corrections made for each product.

- C. Drawings:
 - 1. Supplement product data with drawings as necessary to clearly illustrate:
 - a. Relations of component parts of equipment and systems.
 - b. Control and flow diagrams.
 - 2. Coordinate drawings with information in Project Record Documents to assure correct illustration of completed installation.
 - 3. Do not use Project Record Documents as maintenance drawings.
- D. Written test, as required to supplement product data for the particular installation:
 - 1. Organize in consistent format under separate headings for different procedures.
 - 2. Provide logical sequence of instruction of each procedure.
- E. Copy of each warranty, bond and service contract issued.
 - 1. Provide information sheet for County's personnel, give:
 - a. Proper procedures in event of failure.
 - b. Instances which might affect validity of warranties or bonds.

1.05 MANUAL FOR MATERIALS AND FINISHES

- A. Submit six (6) copies of complete manual in final form.
- B. Content: for architectural products, applied materials and finishes:
 - 1. Manufacturer's data, giving full information on products.
 - a. Catalog number, size, composition.
 - b. Color and texture designations.
 - c. Information required for reordering special manufacturing products.

2. Instructions for care and maintenance.
 - a. Manufacturer's recommendation for types of cleaning agents and methods.
 - b. Cautions against cleaning agents and methods which are detrimental to product.
 - c. Recommended schedule for cleaning and maintenance.
- C. Content, for moisture protection and weather-exposed products:
 1. Manufacturer's data, giving full information on products.
 - a. Applicable standards.
 - b. Chemical composition.
 - c. Details of installation.
 2. Instructions for inspection, maintenance and repair.
- D. Additional requirements for maintenance data: Respective sections of Specifications.

1.06 MANUAL FOR EQUIPMENT AND SYSTEMS

- A. Submit six (6) copies of complete manual in final form.
- B. Content, for each unit of equipment and system, as appropriate:
 1. Description of unit and component parts.
 - a. Function, normal operating characteristics, and limiting conditions.
 - b. Performance curves, engineering data and tests.
 - c. Complete nomenclature and commercial number of replaceable parts.
 - d. Summary of information listed on equipment and motor data plates.
 2. Operating procedures:
 - a. Start-up, break-in, routine and normal operating instructions.

- b. Regulation, control, stopping, shut-down and emergency instructions.
 - c. Summer and winter operating instructions.
 - d. Special operating instructions.
3. Maintenance procedures:
 - a. Routine operations.
 - b. Guide to "trouble-shooting".
 - c. Disassembly, repair and reassembly.
 - d. Alignment, adjusting and checking.
4. Servicing and lubrication required.
5. Manufacturer's printed operating and maintenance instructions.
6. Description of sequence of operation by control manufacturer.
7. Original manufacturer's parts list, illustrations, assembly drawings and diagrams required for maintenance.
 - a. Predicted life of parts subject to wear.
 - b. Items recommended to be stocked as spare parts.
8. As-installed control diagrams by controls manufacturer.
9. Each Contractor's coordination drawings.
 - a. As-installed color coded piping diagrams.
10. Charts of valve tag numbers, with location and function of each valve.
11. List of original manufacturer's spare parts, manufacturer's current prices and recommended quantities to be maintained in storage.
12. Other data as required under pertinent sections of specifications.
13. Approved record shop drawings with all corrections made, and a copy of the warranty statement, checkout memo, demonstration test procedures and demonstration test certification.

- C. Content, for each electric and electronic systems, as appropriate:
1. Description of system and component parts.
 - a. Function, normal operating characteristics, and limiting conditions.
 - b. Performance curves, engineering data and tests.
 - c. Complete nomenclature and commercial number of replaceable parts.
 2. Circuit directories and panel boards.
 - a. Electrical service.
 - b. Controls.
 - c. Communications.
 3. As installed color coded wiring diagrams.
 4. Operating procedures:
 - a. Routine and normal operating instructions.
 - b. Sequences required.
 - c. Special operating instructions.
 5. Maintenance procedures:
 - a. Routine operations.
 - b. Guide to "trouble-shooting".
 - c. Disassembly, repair and reassembly.
 - d. Adjustment and checking.
 6. Manufacturer's printed operating and maintenance instructions.
 7. List of original manufacturer's spare parts, manufacturer's current prices, and recommended quantities to be maintained in storage.
 8. Other data as required under pertinent sections of specifications.

- D. Prepare and include additional data when the need for such data becomes apparent during instruction of County's personnel.
- E. Additional requirements for operating and maintenance data: Respective sections of Specifications.

1.07 SUBMITTAL SCHEDULE

- A. Submit two (2) copies of preliminary draft of proposed formats and outlines of contents of Operation and Maintenance Manuals within 90 days after Notice to Proceed.
- B. Submit two (2) copies of completed data in preliminary form no later than 20 days following Engineer's review of the last shop drawing of a product and/or other submittal specified under Section 01 33 23, but no later than delivery of equipment. One (1) copy will be returned with comments to be incorporated into the final copies and the other copy will be retained on-site for use in any early training.
- C. Submit six (6) copies of approved manual in final form directly to the offices of the Engineer, GAI Consultants, Inc., within 10 days after the reviewed copy or last item of the reviewed copy is returned.
- D. Provide six (6) copies of addenda to the operation and maintenance manuals as applicable and certificates as specified within 30 days after final inspection.

1.08 INSTRUCTION OF COUNTY'S PERSONNEL

- A. Prior to demonstration test, fully instruct County's designated operating and maintenance personnel in operation, adjustment and maintenance of products, equipment and systems.
- B. Operating and maintenance manual shall constitute the basis of instruction. Review contents of manual with County's operating and maintenance personnel in full detail to explain all aspects of operations and maintenance.
- C. Instructors shall be fully qualified personnel as outlined within the individual equipment specifications. If no specific training specifications are listed with the equipment, the Contractor shall provide the instruction with qualified Contractor personnel.
- D. The Contractor shall provide a list to the County indicating the date, time and instructors that will be present for all training sessions.
- E. The instructors shall provide for and prepare lesson scopes and handouts for up to five individuals designated by the County that outline the items to be covered. Separate sessions for operation and maintenance instruction shall be provided

consecutively. Handouts shall be submitted to the County with at least one week's notice prior to the training sessions.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION

SECTION 01 78 36

WARRANTIES AND BONDS

PART 1 - GENERAL

1.01 RELATED REQUIREMENTS:

- A. General provisions of Contract, including General and Supplementary Conditions.
- B. Warranties and certificates for specific products - Respective Specification Sections.
- C. Project Closeout - Section 01 77 19.

1.02 SECTION INCLUDES:

- A. Administrative and procedural requirements for warranties, bonds, and certifications required by the Contract Documents, including County's Standard Maintenance Warranty Bond, manufacturers' standard warranties on products and special warranties.

1.03 WARRANTY REQUIREMENTS:

- A. Contractor shall warrant all work covered under this Agreement to be free from defects for a period of 2-years after the date of Substantial Completion.
- B. When correcting warranted Work that has failed, remove and replace other Work that has been damaged as a result of such failure or that must be removed and replaced to provide access for correction of warranted Work or abandon in-place if acceptable to County in a manner that is acceptable to County.
- C. When Work covered by a warranty has failed and been corrected by replacement or rebuilding, reinstate the warranty by written endorsement. The reinstated warranty shall be equal to the original warranty with an equitable adjustment for depreciation.
- D. Upon determination that Work covered by a warranty has failed, replace or rebuild the Work to an acceptable condition complying with requirements of Contract Documents. The Contractor is responsible for the cost of replacing or rebuilding defective Work regardless of whether the County has benefited from use of the Work through a portion of its anticipated useful service life.
- E. Written warranties made to the County are in addition to implied warranties, and shall not limit the duties, obligations, rights and remedies otherwise available

under the law, nor shall warranty periods be interpreted as limitations on time in which the County can enforce such other duties, obligations, rights, or remedies.

- F. The County reserves the right to reject warranties and to limit selections to products with warranties not in conflict with requirements of the Contract Documents.
- G. The County reserves the right to refuse to accept Work for the Project where a special warranty, certification, or similar commitment is required on such Work or part of the Work, until evidence is presented that entities required to countersign such commitments are willing to do so.

1.04 SUBMITTALS:

- A. Submit written warranties to the County before requesting inspection for Substantial Completion. If the County's Certificate of Substantial Completion designates a commencement date for warranties other than the date of Substantial Completion for the Work, or a designated portion of the Work, submit written warranties upon request of the County.
- B. When a designated portion of the Work is completed and occupied or used by the County, by separate agreement with the Contractor during the construction period, submit properly executed warranties to the County within fifteen days of completion of that designated portion of the Work.
- C. When a special warranty is required to be executed by the Contractor, or the Contractor and a subcontractor, supplier or manufacturer, prepare a written document that contains appropriate terms and identification, ready for execution by the required parties. Submit a draft to the County for approval prior to final execution.
- D. Provide written certifications of compliance and other commitments and agreements for continuing services in a form which includes all pertinent information including:
 - 1. Quantities and dates of shipments.
 - 2. Attestment that materials incorporated into the Work comply with specified requirements. Certification shall not be construed as relieving the Contractor from furnishing satisfactory materials, if the material is later found to not meet specified requirements.
 - 3. Signature of officer of company.
 - 4. Laboratory test reports submitted with certificates of compliance shall show dates of testing, specification requirements under which testing was performed, and results of tests.

- E. Refer to individual Sections of Divisions 02 through 33 for specific content requirements, and particular requirements for submittal of special warranties.
- F. Form of Submittal:
1. Compile 3 copies of each required warranty and bond properly executed by the Contractor, or by the Contractor, subcontractor, supplier, or manufacturer.
 2. Organize the warranty documents into an orderly sequence based on the table of contents of the Project Manual.
 3. Bind warranties and bonds in heavy-duty, commercial quality, durable 3-ring vinyl covered loose-leaf binders, thickness as necessary to accommodate contents, and sized to receive 8-1/2 in. by 11 in. paper.
 4. Provide heavy paper dividers with celluloid covered tabs for each separate warranty. Mark the tab to identify the product or installation. Provide a typed description of the product or installation, including the name of the product, and the name, address and telephone number of the installer.
 5. Identify each binder on the front and the spine with the typed or printed title "WARRANTIES AND BONDS", the Project title or name, and the name of the Contractor.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION

SECTION 01 91 14

START-UP AND DEMONSTRATION

PART 1 - GENERAL

1.01 DESCRIPTION

- A. Scope of Work: Demonstrate to County and Engineer that the Work functions as a complete and operable system under normal and emergency operating conditions.
- B. Contractor shall provide all materials, personnel, equipment and expendables as needed and as specified to perform the required start-up and demonstration tests.

PART 2 - PRODUCTS

2.01 START-UP PLAN

- A. Submit for approval by the Engineer a detailed start-up plan outlining the schedule and sequence of all tests and start-up activities, including submittal of checkout forms, submittal of demonstration test procedures, start-up, demonstration and testing, submittal of certification of completed demonstration and training. Start-up and commissioning may not begin until the plan is approved by the Engineer.

PART 3 - EXECUTION

3.01 COMPONENT TEST AND CHECK-OUT

- A. Start-up Certification: Prior to system start-up, successfully complete all the testing required of the individual components of the Work. Submit six (6) copies of CHECK-OUT MEMO'S for each individual component or piece of equipment, signed by the Contractor or the subcontractor and the manufacturer's representative. All copies of the Operation and Maintenance Manuals must be provided before start-up may begin. These forms shall be completed and submitted before Instruction in Operation to County or a request for initiating any final inspections. Insert one (1) copy of this form into the applicable section of each Operation and Maintenance Manual.
- B. Demonstrate to the Engineer and the County's representative, that all temporary jumpers and/or bypasses have been removed and that all of the components are operating under their own controls as designated.

- C. Coordinate start-up activities with the County's operating personnel at the treatment plant site and with the Engineer prior to commencing system start-up.

3.02 START-UP

- A. Confirm that all equipment is properly energized, that the valves are set to their normal operating condition and that the flow path through the new Work is unobstructed.
- B. Slowly fill each hydrostatic structure in the process flow stream with water.
- C. Initiate start-up and training in accordance with and with the use of the plant operation and maintenance manuals.
- D. Observe the component operation and make adjustments as necessary to optimize the performance of the Work.
- E. Coordinate with County for any adjustments desired or operational problems requiring debugging.
- F. Make adjustments as necessary.

3.03 START-UP DEMONSTRATION AND TESTING

- A. After all Work components have been constructed, field tested, and started up in accordance with the individual Specifications and manufacturer requirements, and after all Check-Out Forms have been completed and submitted, perform the Start-Up Demonstration and Testing. The demonstration period shall be held upon completion of all systems at a starting date to be agreed upon in writing by the County or his representative. Prior to beginning the start-up demonstration testing, the Contractor shall submit a detailed schedule of operational circumstances for approval by the Engineer. The schedule of operational circumstances shall describe, in detail, the proposed test procedures for each piece of equipment. Provide similar test procedure forms for each piece of equipment or section of the Work to include all particular aspects and features of that equipment or section of the Work and as specified in the Technical Sections of the Specifications.
- B. The Start-Up Demonstration Testing will be conducted for five (5) consecutive days. The Work must operate successfully during the five (5) day testing period in the manner intended. If the Work does not operate successfully, or if the start-up is interrupted due to other contracts, the problems will be corrected and the test will start over from day one. The party causing the interruption will be subject to the assessment of actual damages due to delay.

- C. During the start-up demonstration period, operate the Work, instruct designated plant operating personnel in the function and operation of the Work, and cause various operational circumstances to occur. As a minimum, these circumstances will include average and peak daily flows, random equipment or process failures, tank overflows, surcharges, interlocks and bypasses. Demonstrate the essential features of the equipment and its relationship to other equipment. The approved schedule of operational circumstances and Demonstration Test Procedures Forms will be used as the agenda during the Start-Up Demonstration Testing period for all equipment and sections of the Work. Coordination of the demonstration test schedule will be accomplished through the Engineer.

- D. Acceptability of the Work's performance will be based on the Work performing as specified under these actual and simulated operating conditions, to provide water treatment facilities functioning as intended and as defined in the Contract Documents. The intent of the start-up demonstration and testing is for the Contractor to demonstrate to the County and the Engineer that the Work will function as a complete and operable system under normal, as well as emergency operating conditions, and is ready for final acceptance.

- E. Demonstrate the essential features of all the mechanical systems including, but not limited to, the following as they apply to the Work. Each system shall be demonstrated once only, after completion of satisfactory testing.

- F. Demonstrate the essential features of all electrical and instrumentation systems including, but not limited to, the following as they apply to the work:
 - 1. Electrical systems controls and equipment.
 - 2. Supervisory control and data acquisition system.
 - 3. Communications systems.
 - 4. Lighting fixtures (including relamping and replacing lenses).
 - a. Exit and safety fixtures.
 - b. Fixtures, indoor and outdoor.
 - c. Floodlighting.
 - 5. Panelboards.
 - a. Distribution panels.
 - b. Lighting panels.
 - c. Main panels, power panels.

- d. Switchboard.
 - 6. Generator Transfer Switch (automatic).
 - 7. Wiring devices.
 - a. Face plates.
 - b. Low-voltage controls.
 - c. Outlets: convenience, special purpose.
 - d. Switches: regular, time.
- G. Upon successful completion of the Start-up, Demonstration and Testing, the County's personnel will receive the specified training for each system. Training of the County's personnel will not be considered valid unless it takes place using a system that has successfully passed the Start-up, Demonstration and Testing.
- H. Upon completion of all specified operator training, the Contractor shall submit to the Engineer six (6) copies of the Certificate of Completed Demonstration Form, for each item of equipment or system in the Work, signed by the Contractor, Subcontractor, Engineer, and the County. Insert one (1) copy of this form in the applicable section of each Operation and Maintenance Manual. A sample Certificate of Completed Demonstration Form is attached.

CERTIFICATE OF COMPLETED DEMONSTRATION FORM

<input type="checkbox"/> COUNTY	_____	No. Copies	_____	CERTIFICATE OF COMPLETED DEMONSTRATION MEMO NO. _____
<input type="checkbox"/> ENGINEER:	_____	No. Copies	_____	
<input type="checkbox"/> ARCHITECT:	_____	No. Copies	_____	
<input type="checkbox"/> CONTRACTOR:	_____	No. Copies	_____	
<input type="checkbox"/> FIELD:	_____	No. Copies	_____	
<input type="checkbox"/> OTHER:	_____	No. Copies	_____	

PROJECT DATA

NAME: NAU WWTF
LOCATION: _____
COUNTY: _____
OTHER: _____

CONTRACT DATA

NUMBER: _____
DATE: _____
DRAWING NO: _____
SPECIFICATION
SECTION: _____

NOTE TO CONTRACTOR:

Submit five (5) copies of all information listed below for checking at least one (1) week before scheduled demonstration of the Work. After all information has been approved by the Engineer, give the County a Demonstration of Completed Systems as specified and have the County sign five (5) copies of this form. After this has been done, a written request for a final inspection of the system shall be made.

MEMORANDUM:

This memo is for the information of all concerned that the County has been given a Demonstration of Completed Systems on the work covered under this Specification Section. This conference consisted of the system operation, a tour on which all major items of equipment were explained and demonstrated, and the following items were given to the County:

- (a) County's copy of Operation and Maintenance Manual for equipment or systems specified under this Section containing approved submittal sheets on all items, including the following:
 - (1) Maintenance information published by manufacturer on equipment items.
 - (2) Printed warranties by manufacturers of equipment items.
 - (3) Performance verification information as recorded by the Contractor.
 - (4) Check-Out Memo on equipment by manufacturer's representative.
 - (5) Written operating instructions on any specialized items.
 - (6) Explanation of guarantees and warranties on the system.
- (b) Prints showing actual "As-Built" conditions.

- (c) A demonstration of the system in operation and of the maintenance procedures which will be required.

(Name of General Contractor)

By: _____
(Authorized Signature, Title and Date)

(Name of Subcontractor)

By: _____
(Authorized Signature, Title and Date)

Operation and Maintenance Manuals, Instruction Prints, Demonstration and Instruction in Operation Received:

(Name of County)

By: _____
(Authorized Signature/Title/Date)

END OF SECTION

DIVISION 02

EXISTING CONDITIONS

SECTION 02 41 13

DEMOLITION

PART 1 - GENERAL

1.01 DESCRIPTION

A. Scope of Work

1. This Section includes furnishing all labor, materials, equipment and incidentals required for demolition of various existing features as shown on the Drawings and specified herein.
2. This Section provides for the complete or partial removal and disposal of specified existing structures, foundations, slabs, piping, mechanical equipment, electrical systems, and miscellaneous appurtenances encountered during demolition operations.
3. The Contractor shall be responsible for:
 - a. Removal and disposal of list items required, e.g., structures, piping, and equipment as designated on the Drawings.
 - b. Termination of electric facilities in accordance with local codes and the NEC.
 - c. Termination and plugging of potable water piping.
 - d. Final grading and site restoration.
4. The Contractor shall examine the various drawings regarding the proposed site, visit the proposed site and determine the extent of the work, the extent of work affected therein and all conditions under which he is required to perform the various operations.

1.02 PERMITS AND NOTICES

- A. Permits and Licenses: Contractor shall obtain all necessary permits and licenses for performing the demolition work and shall furnish a copy of same to the Engineer prior to commencing the work. The Contractor shall comply with the requirements of the permits.

- B. Notices: Contractor shall issue written notices of planned demolition to companies or local authorities owning utility conduit, wires or pipes running to or through the project site. Copies of said notices shall be furnished to the Engineer.
- C. Utility Services: Contractor shall notify in writing utility companies or local authorities furnishing gas, water, electrical, telephone or sewer service to remove any equipment owned by them in structures to be demolished and to remove, disconnect, cap or plug their services to facilitate demolition. Copies of notices shall be furnished to the Engineer.

1.03 CONDITIONS OF STRUCTURES

- A. Conditions existing at the time of inspection for bidding purposes will be maintained by the County insofar as practicable. However, variation among the structures may occur prior to the start of demolition work.

1.04 RULES AND REGULATIONS

- A. The Standard Building Code shall control the demolition, modification or alteration of the existing buildings or structures.
- B. No blasting shall be done on site. The Contractor shall not bring or store any explosives on site.
- C. Disposal of wastewater contents, disinfection and disposal of demolished plant components shall be in accordance with FDEP rules and regulations.
- D. Comply with the current provisions of the following Codes and Standards:
 - 1. ASTM - American Society for Testing and Materials.
 - 2. Standard Specifications B Agency Specified
 - 3. Uniform Building Code

1.05 DISPOSAL OF MATERIAL

- A. Salvageable material shall become the property of the County, if the County so requests. The Contractor shall dismantle all materials to such a size that it can be readily handled, and deliver any of this salvageable material requested by the County to a storage area designated by the County.
- B. Delivery and Storage: Do not deliver to the job site nor store thereon demolition equipment and materials prior to receiving written notice to proceed. Confine storage to areas approved by the County.

- C. Disposal: Legally dispose of off site products of demolition during or at end of each day's work. Contractor shall pay all disposal costs associated with the project
- D. The following materials are examples of the type that the County desires to keep:
 - 1. Pipes and valves greater than 6 inches in diameter (exclusive of buried items).
 - 2. All machinery and equipment.
 - 3. All electric panels.
 - 4. Scrap aluminum or other valuable recyclable metals.
- E. All components are formally in contact with sewage is to be washed by the Contractor with a solution consisting hypochlorite and 50% water. The washwater is to be disposed of into the onsite sanitary system by the Contractor.
- F. Any materials that the County rejects shall become the Contractor's property and must be removed from the site.
- G. Waste Concrete and masonry shall be hauled to a legal disposal site by the Contractor.
- H. All other waste metal, wood and other material shall be hauled to a waste disposal site by the Contractor.
- I. The storage of or sale of removed items on the site shall not be allowed.
- J. The Contractor shall dispose of sludge, and grit at the NAU approved location.

1.06 SUBMITTALS

- A. The Contractor shall submit to the Engineers for approval, the proposed demolition and removal plan for the structures and modifications as specified herein prior to the start of work. The Contractor shall include in the schedule the coordination of shutoff, capping and continuation of utility service as required. The demolition and removal plan shall include as a minimum, the following:
 - 1. A detailed sequence of demolition and removal work to ensure the uninterrupted progress of the WWTF operations and the expeditious completion of the work.
 - 2. Written evidence of approval by the County's lead operator of the work plan.

3. Sequencing and coordination of the work with inspections and subsequent repairs.
- B. Before commencing work, all modifications necessary to bypass the structure to be demolished shall be completed. Contractor shall coordinate with the County's personnel to determine the locations of the relevant valves and fittings.

1.07 TRAFFIC AND ACCESS

- A. The Contractor shall conduct demolition and modification operations, and the removal of equipment and debris to ensure minimum interference with roads, streets and walks, both on-site and off-site, and to ensure minimum interference with occupied or used facilities.
- B. The Contractor shall at all time maintain safe and convenient access to the existing site.
- C. Do not close or obstruct streets or walks without permission from the County and Engineer. Provide alternate traffic routes around closed or obstructed access ways.
- D. Special attention is directed towards maintaining safe and convenient access to the existing facilities remaining in service by plant personnel and plant associated vehicles. Relocation of the Contractor's materials or equipment due to uncoordinated interruption will be at the Contractor's expense.

1.08 EXISTING UTILITIES

- A. The Contractor shall cooperate with the County and utility companies to shut off utilities serving structures of the existing facilities as required by demolition operations.
- B. The Contractor shall be solely responsible for making all necessary arrangements and for performing any necessary work involved in connection with the discontinuance or interruption of all public and private utilities or services under the jurisdiction of the County or utility companies.

1.09 POLLUTION CONTROL

- A. The Contractor shall use water sprinkling, temporary enclosures, and/or other suitable methods as necessary to limit the amount of dust rising and scattering in the air to the lowest level practical. The Contractor shall comply with the governing regulations governing such nuisances.

- B. The Contractor shall clean up all dust, dirt and debris caused by demolition operations. The Contractor shall return all plant and adjacent areas to conditions existing prior to the start of work.

1.07 PROTECTION:

A. Protection of Existing Site Improvements

1. References: Verify and maintain benchmarks, monuments and other reference points.
2. Replace if disturbed or destroyed.
3. Protection: Protect existing improvements noted to remain within designated limit(s) of work. Supply shoring, bracing, reinforcing and barricades as required.
4. Utilities: Keep in operation existing utility circuits and piping to remain except at the direction of the County.
5. Repair: If damage to site improvements to remain occurs during the course of the work, restore to the satisfaction of the County at no additional cost.

PART 2 - PRODUCTS (NOT USED)

PART 3 – EXECUTION

3.01 SEQUENCE OF WORK

- A. The sequence of demolition and renovation of existing facilities shall proceed in accordance with the approved demolition and removal plan specified in Section 01 12 16 Sequence of Construction.

3.02 REMOVAL OF EXISTING PROCESS EQUIPMENT, PIPING AND APPURTENANCES

- A. Existing equipment, non-buried valving and piping, and appurtenances shall be removed or abandoned in-place as shown or indicated on the Drawings, and as specified herein.
- B. All equipment, piping and appurtenances shall be cleaned, flushed and drained. Equipment to be retained by the County as specified in Paragraph 1.05, above, shall be dismantled sufficiently to permit thorough cleaning and draining. All valves shall be left open. All abandoned piping shall be capped and sleeves and openings remaining after removal of the existing equipment, piping, and appurtenances shall be plugged and sealed.

3.03 ELECTRICAL REMOVALS

- A. Electrical removals shall consist of the removal of existing transformers, distribution switchboards, control panels, motors, conduits and wires, poles and overhead wiring, panelboards, lighting fixtures, and miscellaneous electrical equipment all as shown, specified, or required to perform the Work.
- B. All existing electrical equipment and fixtures to be removed shall be removed with such care as may be required to prevent unnecessary damage, to keep existing systems in operation and to keep the integrity of the grounding systems.

3.04 ALTERNATIONS AND CLOSURES

- A. Alterations shall conform to the Contract Documents.
- B. Where alterations require cutting or drilling into existing floors, walls, and roofs, the holes shall be repaired in a manner acceptable to the Engineer. Contractor shall repair such openings with the same or matching materials as the existing floor, wall, or roof or as otherwise approved by the Engineer. All repairs shall be smoothly finished, unless otherwise approved by the Engineer.
- C. Openings in existing concrete slabs, ceilings, masonry walls, floors and partitions shall be closed and sealed as shown or otherwise directed by the Engineer. The Work shall be keyed into the existing work in a manner acceptable to the engineer. Reinforcing steel shall be welded to the existing reinforcing. Welding shall conform to AWS D12.1, Reinforcing Steel Welding Code. In general, use the same or matching materials as the existing adjacent surface. The finished closure shall be a smooth, tight, sealed, permanent closure acceptable to the Engineer.

3.05 QUALITY CONTROL

- A. The Contractor shall protect all existing materials and equipment to be salvaged or reused from damage.
- B. The Contractor shall cap or plug all lines to be abandoned. The Contractor shall place covers and label all junction boxes, conduits and wire as abandoned.
- C. The Contractor shall promptly repair any and all damage caused to remaining facilities at no cost to the County.
- D. Regulatory Requirements: Demolish existing site improvements as specified herein, in an orderly and careful manner. Comply with all local codes and ordinances.

- E. Equipment: Use equipment specifically designed for the demolition of each type of material.
- F. Labor: Employ workmen skilled in the use of the equipment being utilized for demolition.

3.06 REHABILITATION

- A. Certain areas of existing structures, piping, conduits, and the like will be affected by Work necessary to complete modifications under this Contract. The Contractor shall be responsible to rehabilitate those areas affected by its construction activities.
- B. Pipes, castings, or conduits shall be grouted in place by pouring in grout under a head of at least 4 inches. The grout shall be poured or rammed or vibrated into place to fill completely the space between the pipes, castings, or conduits, and the sides of the openings so as to obtain the same water tightness as through the wall itself. The grouted casings shall then be water cured.
- C. In locations where the surface of the grout will be exposed to view, the non-shrink grout shall be recessed approximately 1/2-inch and the recessed area filled with cement mortar grout.
- D. When new piping is to be connected to existing piping, the existing piping shall be cut square and ends properly prepared for the connection. Any damage to the lining and coating of the existing piping shall be repaired. Dielectric insulating joints shall be installed at interconnections between new and existing piping.
- E. Where existing piping, supports, and associated appurtenances are removed, the Contractor shall rehabilitate the affected area such that little or no evidence of the previous installation remains.
- F. The area of concrete to be rehabilitated shall be scored by saw cutting clean, straight lines to a minimum depth of 1-1/2 inches, and concrete within the scored lines removed to a depth of 1-1/2 inches (or the depth of cover over reinforcing steel, whichever is less). The area within the scored lines shall be patched with non-shrink grout to match the adjacent grade and finish.

3.07 DISPOSAL

- A. Demolition and removal of debris shall minimize interference with roads, streets, walks, and other adjacent occupied or used facilities that shall not be closed or obstructed without permission from the County. Alternate routes shall be provided around closed or obstructed traffic ways.

- B. Site debris, rubbish, and other materials resulting from reconstruction operations shall be legally removed and disposed of. Structures and equipment to be demolished shall be cleaned prior to demolition and the wash water properly disposed of. No trace of these structures shall remain prior to placing of backfill in the areas from which structures were removed.
- C. Refuse, debris, and waste materials resulting from demolition and clearing operations shall not be burned.

3.08 CLEANING

- A. During and upon completion of work, the Contractor shall promptly remove tools and equipment, surplus materials, rubbish, debris, and dust and shall leave areas affected by Work in a clean, approved condition.
- B. Adjacent structures shall be cleaned of dust, dirt, and debris caused by reconstruction, as requested by the Engineer or directed by governing authorities, and adjacent areas shall be returned to condition existing prior to start of Work.

END OF SECTION

DIVISION 03

CONCRETE

SECTION 03 01 40

LINING SYSTEM FOR LIFT STATION

PART 1 -GENERAL

1.01. RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.
- B. References:
 - 1. ASTM D7234 - Adhesion
 - 2. ASTM D412 - Tensile Strength (PSI)
 - 3. ASTM D412 - Elongation (%)
 - 4. ASTM D624 - Tear Strength (PLI)
 - 5. ASTM D2240 – Hardness
 - 6. ASTM D522 - Flexibility (1/8" mandrel)
 - 7. ASTM D4060 - Taber Abrasion (mg loss)

Prepare and submit for the Engineer approval a field report listing the identified repair areas, type of repair and the estimated quantity (square footage or item) for each repair listed.

1.02. SUMMARY

The work described within details a complete program for wastewater structure lining and rehabilitation. This specification details the methods, procedures, materials and equipment required to produce "A Total Lining System for Lift Station". The completed system will provide a corrosion resistant liner that restores the surface profile and eliminates water infiltration and exfiltration.

1.03. SUBMITTALS

All materials and procedures required to establish compliance with the specifications shall be submitted upon request to the County/engineer for review/approval. Submittals shall include at least the following:

- A. Technical Data Sheet on each product used.
- B. Safety Data Sheet (SDS) for each product used.
- C. Manufacturer's Certification of Applicator.
- D. Certified Applicator Minimum Qualifications (Section 1.04. D.).
- E. Descriptive literature, bulletins and or catalogs of materials.
- F. Work procedures including flow diversion plan, method of repair, etc.
- G. Material and method for repair of leaks or cracks in the structure.
- H. Applicator and Manufacturer warranty forms (Section 3.0.4).

1.04. QUALITY ASSURANCE

- A. The manufacturer of the total lining system for wastewater structures shall be a company that specializes in the design and manufacture of corrosion protection materials / systems for wastewater structures.
- B. The applicator (company performing the installation) shall be completely trained in leak repair, surface preparation and application of the lining system.
- C. The materials/products shall be suitable for installation in a wastewater environment without any deterioration of the liner.
- D. The applicator shall be trained and provide a letter of certification from the manufacturer for the handling, mixing, application, and inspection of the liner system as described herein.
- E. To ensure total unit responsibility, all materials and installation thereof shall be furnished and coordinated by manufacturer/certified applicator.

1.05. DELIVERY, STORAGE AND HANDLING

- A. Comply with manufacturer's written instructions for minimum and maximum temperature requirements and other conditions for storage.
- B. Store cementitious materials off the ground, under cover, in a dry location.
- C. Store aggregates covered and in a dry location; maintain grading and other required characteristics and prevent contamination.

PART 2 –PRODUCTS

2.0.1 MATERIALS AND EQUIPMENT

- A. The materials to be utilized in the lining of wastewater structures shall be designed and manufactured to withstand the severe effects a wastewater environment. The manufacturer of the corrosion protection products shall have at least 10 years of experience in the production of the lining products utilized, and the products shall have satisfactory installation record.
- B. Equipment for installation of lining materials shall be of high quality and as recommended by the manufacturer.
- C. The lining system to be utilized for wastewater structures shall be a multi-layer ‘stress skin panel’ liner system as described below:

1. Liner.

<u>Installation</u>	<u>Liner</u>
Moisture barrier	Modified Polymer (Silicone modified polyurea)
Surfacer	Polyurethane/Polymeric blend foam
Final corrosion barrier	Modified polymer (Silicone modified Polyurea)

- 2. The Modified polymer (silicone modified polyurea) shall be sprayable, solvent free, two-component polymeric, moisture/chemical barrier specifically developed for the corrosive wastewater environment.
 - 3. The Polyurethane Rigid Structure Foam, shall be low viscosity two-component, containing flame retardants.
 - 4. Total thickness of multi-layer liner system shall be a minimum of 500 mils.
- D. The product shall be SPECTRASHIELD, manufactured by CCI Spectrum, Inc.

PART 3 -EXECUTION

3.0.1 INITIAL INSPECTION

- A. Applicator shall take appropriate action to comply with all local, state, and federal regulations including those set forth by OSHA, EPA, the County and any other applicable authorities.
- B. Prior to conducting any work, an initial inspection of the structure shall be performed to determine need for protection against hazardous gases or oxygen

depleted atmosphere and the need for flow control or flow diversion.

- C. If required, submit a plan for flow control or bypass to the County/engineer for approval prior to conducting the work.

3.0.2 SURFACE PREPARATION

- A. The surface preparation program will include checking the atmosphere for hydrogen sulfide, methane, low oxygen, or other gases, approved flow control equipment, and surface preparation equipment.
- B. Surface preparation for standard manhole structures shall be in accordance with the manufacturer's recommendations and may include high pressure water cleaning and shall provide a surface compatible for installation of the liner system.
- C. Surface preparation and methods for other structures shall be in accordance with the manufacturer's recommendations, and may include high pressure water cleaning, hydro blasting, abrasive blasting, grinding, or detergent water cleaning, and shall be suited to provide a surface compatible for installation of the liner system.
- D. The surface preparation method shall produce a cleaned, abraded and sound surface with no evidence of laitance, loose concrete, loose brick, loose mortar, contaminants or debris, and shall display a surface profile suitable for application of the liner system in accordance with the manufacturer's recommendations.
- E. After completion of surface preparation, perform the seven-point check list, inspecting for:
 - 1. Leaks
 - 2. Cracks
 - 3. Holes
 - 4. Exposed Rebar
 - 5. Ring and Cover condition
 - 6. Invert Condition
 - 7. Inlet and Outlet Pipe Condition
- F. After the defects in the structure are identified, repair all leaks and severe cracks with Spectra-Grout, or other methods approved by the manufacturer.
- G. Upon completion of leak and crack repair, the surface shall be primed in accordance with the manufacturer's recommendations.

3.0.3 MATERIAL INSTALLATION

- A. Application procedures shall conform to recommendations of the manufacturer, including materials handling, mixing, environmental controls during application, safety and spray equipment.
- B. Spray equipment shall be specifically designed to accurately ratio and apply the

liner system.

- C. Application of multi-component liner system shall be in strict accordance with manufacturer's recommendation. Final installation minimum total thickness shall be 500 mils. A permanent identification and date of work performed shall be affixed to the structure in a readily visible location.
- D. If requested a final written report may be provided to the County/engineer detailing the location, date of work and description of the work.

3.0.4 WARRANTY

Applicator and Manufacturer must warrant the liner system installation against failure for a period of 10 years from the installation date. Applicator shall correct failures any time prior to 10 years after the installation date. Failure will be deemed to have occurred if the protective liner fails to: (a) prevent the internal corrosion of the structure or (b) prevent groundwater infiltration. Failure does not include damage resulting from mechanical force or the presence of chemical substances not customarily present or used in Wastewater Structures, defects in the workmanship or devices of others upon which the Wastewater Structure functions or act of God. The liner must be installed in accordance with Manufacturer's instructions by Applicators certified by Manufacturer. Executed 10-year Applicator and Manufacturer warranties are to be provided upon completion of work.

END OF SECTION

SECTION 03 60 00

GROUT

PART 1 - GENERAL

1.01 DESCRIPTION

- A. Scope of Work: The work included in this Section consists of grouting the various items listed hereinafter and indicated on the Drawings.

1.02 SUBMITTALS

- A. Submit to the Engineer, in accordance with Section 01 33 23, Submittals, showing materials of construction and details of installation for:
 - 1. Commercially manufactured nonshrink cementitious grout. The submittal shall include catalog cuts, technical data, storage requirements, product life, working time after mixing, temperature considerations, conformity to required ASTM standards and Material Safety Data Sheet.
 - 2. Commercially manufactured nonshrink epoxy grout. The submittal shall include catalog cuts, technical data, storage requirements, product life, working time after mixing, temperature considerations, conformity to required ASTM standards and Material Safety Data Sheet.
 - 3. Cement grout. The submittal shall include the type and brand of the cement, the gradation of the fine aggregate, product data on any proposed admixtures and the proposed mix of the grout.
 - 4. Concrete grout. The submittal shall include the mix design, constituent quantities per cubic yard and the water/cement ratio.
- B. Laboratory Test Reports
 - 1. Submit laboratory test data as required for concrete to be used as concrete grout.
- C. Certifications
 - 1. Certify that commercially manufactured grout products and concrete grout admixtures are suitable for use in contact with wastewater after 3 days curing.
- D. Qualifications

1. Grout manufacturers shall submit documentation that they have at least 10 years experience in the production and use of the proposed grouts which they will supply.

1.03 REFERENCE STANDARDS

A. American Society for Testing and Materials (ASTM)

1. ASTM C33 - Specification for Concrete Aggregates
2. ASTM C150 - Specification for Portland Cement
3. ASTM C531 - Standard Test Method for Linear Shrinkage and Coefficient of Thermal Expansion of Chemical Resistant Mortars, Grouts and Monolithic Surfacing and Polymer Concretes
4. ASTM C579 - Standard Test Method for Compressive Strength of Chemical Resistant Mortars, Grouts and Monolithic Surfacing and Polymer Concretes
5. ASTM C827 - Standard Test Method for Change in Height at Early Ages of Cylindrical Specimens from Cementitious Mixtures
6. ASTM C1107 - Standard Specification for Packaged Dry, Hydraulic-Cement Grout (Nonshrink)
7. ASTM D696 - Standard Test Method for Coefficient of Linear Thermal Expansion of Plastics.

B. U.S. Army Corps of Engineers Standard (CRD)

1. CRD C-621 - Corps of Engineers Specification for Nonshrink Grout

C. Where reference is made to one of the above standards, the revision in effect at the time of bid opening shall apply.

1.04 QUALITY ASSURANCE

A. Qualifications

1. The Contractor shall submit certification documents showing that application Contractor have at least 3 years experience in the use of the proposed grouts which they will use.

B. Pre-installation Conference

1. Well in advance of grouting, hold a pre-installation meeting to review the requirements for surface preparation, mixing, placing and curing procedures for each product proposed for use. Parties concerned with grouting shall be notified of the meeting at least 10 days prior to its scheduled date.

C. Services of Manufacturer's Representative

1. A qualified field technician of the nonshrink grout manufacturer, specifically trained in the installation of the products, shall attend the pre-installation conference and shall be present for the initial installation of each type of nonshrink grout. Additional services shall also be provided, as required, to correct installation problems.

D. Field Testing

1. All field testing and inspection services required shall be provided by the Contractor using an independent third-party test lab. The Contractor shall sample the materials and shall provide any ladders, platforms, etc, for access to the work. The methods of testing shall comply in detail with the applicable ASTM Standards.

1.05 PRODUCT DELIVERY, STORAGE AND HANDLING

- A. Deliver materials to the jobsite in original, unopened packages, clearly labeled with the manufacturer's name, product identification, batch numbers and printed instructions.
- B. Store materials in full compliance with the manufacturer's recommendations. Total storage time from date of manufacture to date of installation shall be limited to 6 months or the manufacturer's recommended storage time, whichever is less.
- C. Material which becomes damp or otherwise unacceptable shall be immediately removed from the site and replaced with acceptable material at no additional expense to the County.
- D. Nonshrink cement-based grouts shall be delivered as preblended, prepackaged mixes requiring only the addition of water.
- E. Nonshrink epoxy grouts shall be delivered as premeasured, prepackaged, three component systems requiring only blending as directed by the manufacturer.

PART 2 - PRODUCTS

2.01 MATERIALS

A. Nonshrink Cementitious Grout

1. Nonshrink cementitious grouts shall meet or exceed the requirements of ASTM C1107, Grades B or C and CRD C-621. Grouts shall be portland cement based, contain a pre-proportioned blend of selected aggregates and shrinkage compensating agents and shall require only the addition of water. Nonshrink cementitious grouts shall not contain expansive cement or metallic particles. The grouts shall exhibit no shrinkage when tested in conformity with ASTM C827.
 - a. General purpose nonshrink cementitious grout shall conform to the standards stated above and shall be SikaGrout 212 by Sika Corp.; Set Grout by Master Builders, Inc.; Gilco Construction Grout by Gifford Hill & Co.; Euco NS by The Euclid Chemical Co.; NBEC Grout by U. S. Grout Corp. or equivalent.
 - b. Flowable (Precision) nonshrink cementitious grout shall conform to the standards stated above and shall be Masterflow 928 by Master Builders, Inc.; Hi-Flow Grout by the Euclid Chemical Co.; SikaGrout 212 by Sika Corp.; Supreme Grout by Gifford Hill & Co.; Five Star Grout by U. S. Grout Corp. or equivalent.

B. Nonshrink Epoxy Grout

1. Nonshrink epoxy-based grout shall be a pre-proportioned, three component, 100 percent solids system consisting of epoxy resin, hardener, and blended aggregate. It shall have a compressive strength of 14,000 psi in 7 days when tested in conformity with ASTM D695 and have a maximum thermal expansion of 30×10^{-6} when tested in conformity with ASTM C531. The grout shall be Ceilcote 648 CP by Master Builders Inc.; Five Star Epoxy Grout by U.S. Grout Corp.; Sikadur 42 Grout-Pak by Sika Corp.; High Strength Epoxy Grout by the Euclid Chemical Co. or equivalent.

C. Cement Grout

1. Cement grouts shall be a mixture of one part portland cement conforming to ASTM C150, Types I, II, or III and 1 to 2 parts sand conforming to ASTM C33 with sufficient water to place the grout. The water content shall be sufficient to impart workability to the grout but not to the degree that it will allow the grout to flow.

D. Concrete Grout

1. Concrete grout shall be proportioned with cement, pozzolan (below the water line), coarse and fine aggregates, water, water reducer and air entraining agent to produce a mix having an average strength of 2500 psi at 28 days, or 2500 psi nominal early strength. Coarse aggregate size shall be

3/8-in for small repair or 1/2-in maximum large repair. Slump should not exceed 5-in and should be as low as practical yet still retain sufficient workability.

2. Synthetic reinforcing fibers shall be added to the concrete grout mix at the rate of 1.5 lbs of fibers per cubic yard of grout. Fibers shall be added from the manufacturer's premeasured bags and according to the manufacturer's recommendations in a manner which will ensure complete dispersion of the fiber bundles as single monofilaments within the concrete grout.

E. Water

1. Potable water, free from injurious amounts of oil, acid, alkali, organic matter, or other deleterious substances.

PART 3 - EXECUTION

3.01 PREPARATION

- A. Grout shall be placed over cured concrete which has attained its full design strength unless otherwise approved by the Engineer.
- B. Concrete surfaces to receive grout shall be clean and sound; free of ice, frost, dirt, grease, oil, curing compounds, laitance and paints and free of all loose material or foreign matter which may effect the bond or performance of the grout.
- C. Roughen concrete surfaces by chipping, sandblasting, or other mechanical means to ensure bond of the grout to the concrete. Remove loose or broken concrete. Irregular voids or projecting coarse aggregate need not be removed if they are sound, free of laitance and firmly embedded into the parent concrete.
 1. Air compressors used to clean surfaces in contact with grout shall be the oilless type or equipped with an oil trap in the air line to prevent oil from being blown onto the surface.
- D. Remove all loose rust, oil or other deleterious substances from metal embedments or bottom of baseplates prior to the installation of the grout.
- E. Concrete surfaces shall be washed clean and then kept moist for at least 24 hours prior to the placement of cementitious or cement grout. Saturation may be achieved by covering the concrete with saturated burlap bags, use of a soaker hose, flooding the surface, or other method acceptable to the Engineer. Upon completion of the 24 hour period, visible water shall be removed from the surface prior to grouting. The use of an adhesive bonding agent in lieu of surface saturation shall only be used when approved by the Engineer for each specific location of grout installation.

- F. Epoxy-based grouts do not require the saturation of the concrete substrate. Surfaces in contact with epoxy grout shall be completely dry before grouting.
- G. Construct grout forms or other leakproof containment as required. Forms shall be lined or coated with release agents recommended by the grout manufacturer. Forms shall be of adequate strength, securely anchored in place and shored to resist the forces imposed by the grout and its placement.
 - 1. Forms for epoxy grout shall be designed to allow the formation of a hydraulic head and shall have chamfer strips built into forms.
- H. Level and align the structural or equipment bearing plates in accordance with the structural requirements and the recommendations of the equipment manufacturer.
- I. Equipment shall be supported during alignment and installation of grout by shims, wedges, blocks or other approved means. The shims, wedges and blocking devices shall be prevented from bonding to the grout by appropriate bond breaking coatings and removed after grouting unless otherwise approved by the Engineer.

3.02 INSTALLATION - GENERAL

- A. Mix, apply and cure products in strict compliance with the manufacturer's recommendations and this Section.
- B. Have sufficient manpower and equipment available for rapid and continuous mixing and placing. Keep all necessary tools and materials ready and close at hand.
- C. Maintain temperatures of the foundation plate, supporting concrete, and grout between 60 and 90 degrees F during grouting and for at least 24 hours thereafter or as recommended by the grout manufacturer, whichever is longer. Take precautions to minimize differential heating or cooling of baseplates and grout during the curing period.
- D. Take special precautions for hot weather or cold weather grouting as recommended by the manufacturer when ambient temperatures and/or the temperature of the materials in contact with the grout are outside of the 60 and 90 degrees F range.
- E. Install grout in a manner which will preserve the isolation between the elements on either side of the joint where grout is placed in the vicinity of an expansion or control joint.
- F. Reflect all existing underlying expansion, control and construction joints through the grout.

3.03 INSTALLATION - CEMENT GROUTS AND NONSHRINK CEMENTITIOUS GROUTS

- A. Mix in accordance with manufacturer's recommendations. Do not add cement, sand, pea gravel or admixtures without prior approval by the Engineer.
- B. Avoid mixing by hand. Mixing in a mortar mixer (with moving blades) is recommended. Pre-wet the mixer and empty excess water. Add premeasured amount of water for mixing, followed by the grout. Begin with the minimum amount of water recommended by the manufacturer and then add the minimum additional water required to obtain workability. Do not exceed the manufacturer's maximum recommended water content.
- C. Placements greater than 3-in in depth shall include the addition of clean, washed pea gravel to the grout mix when approved by the manufacturer. Comply with the manufacturer's recommendations for the size and amount of aggregate to be added.
- D. Place grout into the designated areas in a manner which will avoid segregation or entrapment of air. Do not vibrate grout to release air or to consolidate the material. Placement should proceed in a manner which will ensure the filling of all spaces and provide full contact between the grout and adjoining surfaces. Provide grout holes as necessary.
- E. Place grout rapidly and continuously to avoid cold joints. Do not place cement grouts in layers. Do not add additional water to the mix (retemper) after initial stiffening.
- F. Just before the grout reaches its final set, cut back the grout to the substrate at a 45 degree angle from the lower edge of bearing plate unless otherwise approved by the Engineer. Finish this surface with a wood float (brush) finish.
- G. Begin curing immediately after form removal, cutback, and finishing. Keep grout moist and within its recommended placement temperature range for at least 24 hours after placement or longer if recommended by the manufacturer. Saturate the grout surface by use of wet burlap, soaker hoses, ponding or other approved means. Provide sunshades as necessary. If drying winds inhibit the ability of a given curing method to keep grout moist, erect wind breaks until wind is no longer a problem or curing is finished.

3.04 INSTALLATION - NONSHRINK EPOXY GROUTS

- A. Mix in accordance with the procedures recommended by the manufacturer. Do not vary the ratio of components or add solvent to change the consistency of the grout mix. Do not overmix. Mix full batches only to maintain proper proportions of resin, hardener and aggregate.

- B. Monitor ambient weather conditions and contact the grout manufacturer for special placement procedures to be used for temperatures below 60 or above 90 degrees F.
- C. Place grout into the designated areas in a manner which will avoid trapping air. Placement methods shall ensure the filling of all spaces and provide full contact between the grout and adjoining surfaces. Provide grout holes as necessary.
- D. Minimize "shoulder" length (extension of grout horizontally beyond base plate). In no case shall the shoulder length of the grout be greater than the grout thickness.
- E. Finish grout by puddling to cover all aggregate and provide a smooth finish. Break bubbles and smooth the top surface of the grout in conformity with the manufacturer's recommendations.
- F. Epoxy grouts are self curing and do not require the application of water. Maintain the formed grout within its recommended placement temperature range for at least 24 hours after placing, or longer if recommended by the manufacturer.

3.05 INSTALLATION - CONCRETE GROUT

- A. Screed underlying concrete to the grade shown on the Drawings. Provide the surface with a broomed finish, aligned to drain. Protect and keep the surface clean until placement of concrete grout.
- B. Remove the debris and clean the surface by sweeping and vacuuming of all dirt and other foreign materials. Wash the tank slab using a strong jet of water. Flushing of debris into tank drain lines will not be permitted.
- C. Saturate the concrete surface for at least 24 hours prior to placement of the concrete grout. Saturation may be maintained by ponding, by the use of soaker hoses, or by other methods acceptable to the Engineer. Remove excess water just prior to placement of the concrete grout. Place a cement slurry immediately ahead of the concrete grout so that the slurry is moist when the grout is placed. Work the slurry over the surface with a broom until it is coated with approximately 1/16 to 1/8-in thick cement paste. [(A bonding grout composed of 1 part portland cement, 1.5 parts fine sand, an approved bonding admixture and water, mixed to achieve the consistency of thick paint, may be substituted for the cement slurry.)]
- D. Place concrete grout to final grade using the scraper mechanism as a guide for surface elevation and to ensure high and low spots are eliminated. Unless specifically approved by the equipment manufacturer, mechanical scraper mechanisms shall not be used as a finishing machine or screed.
- E. Provide grout control joints as indicated on the Drawings.
- F. Finish and cure the concrete grout as specified for cast-in-place concrete.

3.06 SCHEDULE

- A. The following list indicates where the particular types of grout are to be used:
1. General purpose nonshrink cementitious grout: Use at all locations where non shrink grout is called for on the plans except for base plates greater in area than 3-ft wide by 3-ft long and except for the setting of anchor rods, anchor bolts or reinforcing steel in concrete.
 2. Flowable nonshrink cementitious grout: Use under all base plates greater in area than 3-ft by 3-ft. Use at all locations indicated to receive flowable nonshrink grout by the Drawings. The Contractor, at his/her option and convenience, may also substitute flowable nonshrink grout for general purpose nonshrink cementitious grout.
 3. Nonshrink epoxy grout: Use for the setting of anchor rods, anchor bolts and reinforcing steel in concrete and for all locations specifically indicated to receive epoxy grout.
 4. Cement grout: Cement grout may be used for grouting of incidental base plates for structural and miscellaneous steel such as post base plates for platforms, base plates for beams, etc. It shall not be used when nonshrink grout is specifically called for on the Drawings or for grouting of primary structural steel members such as columns and girders.
 5. Concrete grout: Use for overlaying the base concrete to allow more control in placing the surface grade.

END OF SECTION

SECTION 03 93 00

CONCRETE REHABILITATION

PART 1 -GENERAL

1.06. RELATED DOCUMENTS

- E. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.
- F. Except as shown or specified, the Work of this Section shall conform to the requirements of International Concrete Repair Institute (ICRI), 3166 S. River Rd., Suite 132, Des Plaines, IL 60018, (847) 827-0830, www.icri.org.
 - 1. ICRI Guideline No. 310.1R-2008 Guide for Surface Preparation for the Repair of Deteriorated Concrete Resulting from Reinforcing Steel Corrosion (formerly Guideline No. 03730).
- G. ACI Repair Application Procedures RAP-1, RAP-6 and RAP-7

1.07. SUMMARY

- A. Section Includes:
 - 1. Type I – Concrete Crack Repairs
 - 2. Type I A – Crack or Joint Surface Filling
 - 3. Type I B – Crack Injection Repair
 - 4. Type II – Concrete Surface Repairs
 - 5. Type III – Concrete Repair with Exposed Reinforcing
 - 6. Type IV – Concrete Repairs with Replacement of Corroded Reinforcing
 - 7. Type V – Patching Holes Less than 1.5 in (Anchor Bolt Holes)
 - 8. Type VI – Filling Voids and Penetrations Without Reinforcing

1.08. PRE-INSTALLATION MEETING

- A. Conduct a pre-installation meeting with design engineer after the Contractor completes the following:

1. Empty concrete vessels
 2. Pressure wash concrete vessels
 3. Identify repair areas and type of repair
 4. Prepare and submit for the Engineer approval a field report listing the identified repair areas, type of repair and the estimated quantity (square footage or item) for each repair listed.
- B. Schedule pre-installation meeting after the date the Contractor receives the field report Engineer's approval.
- C. Pre-installation meeting: Contractor and Engineer will review jointly on site the Engineer's approved field report to agree in the type of repairs and the estimated quantities. Once Contractor and Engineer agree in type of repairs, the Contractor can proceed with the repairs.

1.09. ACTION SUBMITTALS

- A. Product Data: For each type of product. Include construction details, material descriptions, chemical composition, physical properties, test data, and mixing, preparation, and application instructions.
1. Repair Procedures: for each type of repair, the Contractor shall submit a proposed application procedure including materials, surface preparation and cleaning, proportioning, equipment, application method, finishing, and curing information.

1.10. INFORMATIONAL SUBMITTALS

- A. Qualification Data: For product installers and manufacturers.
- B. Material Certificates: For each type of product supplied for mixing or adding to products at Project site.
- B. Product Test Reports: For each proposed product, provide tests performed by manufacturer and witnessed by a qualified testing agency.
- D. Field quality-control reports.

1.011. QUALITY ASSURANCE

- A. Manufacturer Qualifications: Each product manufacturer shall employ factory-trained technical representatives who are available for consultation and Project site

inspection and assistance at no additional cost.

- B. **Installer Qualifications:** An entity that employs installers and supervisors who are trained and approved by the manufacturer to apply the products proposed for this project.
- C. **Maintenance Program:** Prepare a written plan for maintenance of work, including each phase or process, protection of surrounding materials during operations, and control of debris and runoff during the Work. Describe in detail materials, methods, equipment, and sequence of operations to be used for each phase of work.

1.012. DELIVERY, STORAGE AND HANDLING

- A. Comply with manufacturer's written instructions for minimum and maximum temperature requirements and other conditions for storage.
- B. Store cementitious materials off the ground, under cover, in a dry location.
- C. Store aggregates covered and in a dry location; maintain grading and other required characteristics and prevent contamination.

1.013. FIELD CONDITIONS

- A. **Environmental Limitations for Epoxies:** Do not apply when air and substrate temperatures are outside limits permitted by manufacturer. During hot weather, cool epoxy components before mixing, store mixed products in shade, and cool unused mixed products to retard setting. Do not apply to wet substrates unless approved by manufacturer.
 - 1 Use only Class A epoxies when substrate temperatures are below or are expected to go below 40 deg F (5 deg C) within 8 hours.
 - 2 Use only Class A or B epoxies when substrate temperatures are below or are expected to go below 60 deg F (16 deg C) within 8 hours.
 - 3 Use only Class C epoxies when substrate temperatures are above and are expected to stay above 60 deg F (16 deg C) for 8 hours.
- B. **Cold-Weather Requirements for Cementitious Materials:** Do not apply unless concrete-surface and air temperatures are above 40 deg F (5 deg C) and will remain so for at least 48 hours after completion of Work.
- C. **Cold-Weather Requirements for Cementitious Materials:** Comply with the following procedures:
 - 1. When air temperature is below 40 deg F (5 deg C), heat patching material ingredients and existing concrete to produce temperatures between 40 and

90 deg F (5 and 32 deg C).

2. When mean daily air temperature is between 25 and 40 deg F (minus 4 and plus 5 deg C), cover completed Work with weather-resistant insulating blankets for 48 hours after repair or provide enclosure and heat to maintain temperatures above 32 deg F (0 deg C) within the enclosure for 48 hours after repair.
 3. When mean daily air temperature is below 25 deg F (minus 4 deg C), provide enclosure and heat to maintain temperatures above 32 deg F (0 deg C) within the enclosure for 48 hours after repair.
- D. Hot -Weather Requirements for Cementitious Materials: Protect repair work when temperature and humidity conditions produce excessive evaporation of water from patching materials. Provide artificial shade and wind breaks, and use cooled materials as required. Do not apply to substrates with temperatures of 90 deg F (32 deg C) and above.

PART 2 –PRODUCTS

2.0.2 MATERIALS, GENERAL

- A. Source Limitations: Obtain each color, grade, finish, type, and variety of product from single source with resources to provide products of consistent quality in appearance and physical properties.
- B. VOC Content: Provide materials that comply with VOC limits of authorities having jurisdiction.

2.0.3 TYPE I A – CRACK OR JOINT SURFACE FILLING

- A. Concrete Surface Preparation:
 1. Route crack to a width of ¼” and ¼” depth.
 2. Clean out debris and loose concrete; vacuum or blow clear with compressed air.
 3. Crack surface must be clean, dry and free of oil. Grease and other contaminants. Take precaution to prohibit surface from becoming contaminated prior to product application.
- B. Primer (immersion service only):
 1. Sikaflex 429

2. Approved Equal
- C. Polyurethane, elastomeric sealant/adhesive:
1. Sikaflex-1 A
 2. Approved Equal

2.0.4 TYPE I B – CRACK INJECTION REPAIR (WATERPROOF)

- A. Concrete Surface Preparation:
1. Clean the crack surface thoroughly.
 2. Seal the crack surface with Sikaset Plug or other approved surface sealing material.
- B. Injection Port Installation and Application:
1. Contractor shall submit a proposed application procedure including size of injectors, holesize, spacing, flushing procedure, injection pressure, proportioning, equipment, reinjection timing, curing and patching information.
- C. Materials – Hydrophilic Polyurethane
1. Sikafix HH with Sikafix Accelerator
 2. DeNeef HydroActive Flex LV

2.0.5 TYPE II – CONCRETE SURFACE REPAIRS

- A. Concrete Surface Preparation:
1. Remove all loose materials, deteriorated concrete, laitance, existing coatings and other bond-inhibiting materials from the surface in accordance with SSPC-SP13/NACE 6 minimum surface profile of ICRICSP6.
 2. The edges of the repair should be saw cut perpendicular to the surface to a depth of at least 1/4". Break out the complete repair area to a minimum depth of 1/4" up to the sawed edge to prevent feather edging. Avoid cutting the reinforcing steel.
 3. Surface must be clean, dry and free of oil, grease and other contaminants. Take precaution to prohibit surface from becoming contaminated prior to product application.

B. Bonding Agent:

- 1 Tnemec Series 217 (scrub coat)
- 2 Sherwin Williams Sher-Crete one coat @ 20 mils DFT.
- 3 Sika Armatec 110 EpoCem one coat @ 20 mils DFT.

C. Repair Mortar:

- 1 Tnemec Series 217
- 2 Sherwin Williams Steel-Seam **FT910**
- 3 SikaRepair 224

2.0.6 TYPE III – CONCRETE REPAIR WITH EXPOSED REINFORCING

A. Surface Preparation:

1. Concrete

- a. Remove all loose materials, deteriorated concrete, laitance, existing coatings and other bond-inhibiting materials from the surface in accordance with SSPC-SP13/NACE 6 minimum surface profile of ICRI-CSP6.
- b. The edges of the repair should be saw cut perpendicular to the surface to a depth of at least 1/4". Break out the complete repair area to a minimum depth of 1/4" up to the sawed edge to prevent feather edging. Avoid cutting the reinforcing steel.
- c. Surface must be clean, dry and free of oil, grease and other contaminants. Take precaution to prohibit surface from becoming contaminated prior to product application.

2. Steel Reinforcement

- a. Remove rust and active corrosion by sandblasting or mechanical wire brushing to produce white metal finish.
- b. Surface must be clean, dry and free of oil, grease and other contaminants. Take precaution to prohibit surface from becoming contaminated prior to product application.

B. Bonding Agent:

1. Concrete
 - a. Tnemec Series 217 (scrub coat)
 - b. Sherwin Williams Sher-Crete one coat @ 20 mils OFT.
 - c. Sika Armatec 110 EpoCemor one coat @ 20 mils OFT.
2. Steel Reinforcing
 - a. Tnemec Omnithane Series 1 @ 2.5-3.5 mils OFT.
 - b. Sherwin Williams Sher-Crete two coats @ 10 mils OFT each.
 - c. Sika Armatec 110 EpoCem two coats @ 20 mils OFT each.

C. Repair Mortar:

- 1 Tnemec Series 217
- 2 Sherwin Williams Steel-Seam FT91 0
- 3 SikaRepair 224

2.0.7 TYPE IV – CONCRETE REPAIRS WITH REPLACEMENT OF CORRODED REINFORCING

A. Surface Preparation:

1. Concrete
 - a. Remove all loose materials, deteriorated concrete, laitance, existing coatings and other bond-inhibiting materials from the surface in accordance with SSPC-SP13/NACE 6 minimum surface profile of ICRI-CSP6.
 - b. The edges of the repair should be saw cut perpendicular to the surface to a depth of at least ¼". Break out the complete repair area to a minimum depth of ¼" up to the sawed edge to prevent feather edging. Avoid cutting the reinforcing steel.
 - c. Surface must be clean, dry and free of oil, grease and other contaminants. Take precaution to prohibit surface from becoming contaminated prior to product application.
2. Steel Reinforcement

- a. Where section loss of reinforcing bar is more than 25 percent, or 20 percent in two or more adjacent bars, cut bars and remove and replace per structural drawing details. Remove additional concrete as necessary to provide at least 3/4-inch clearance at existing and replacement bars. Splice replacement bars to existing bars according to ACI 318 (ACI 318M) by lapping, welding, or using mechanical couplings.
- b. Remove remaining rust and active corrosion by sandblasting or mechanical wire brushing to produce white metal finish.
- c. Surface must be clean, dry and free of oil, grease and other contaminants. Take precaution to prohibit surface from becoming contaminated prior to product application.

B. Bonding Agent:

1. Concrete
 - a. Tnemec Series 217 (scrub coat)
 - b. Sherwin Williams Sher-Crete one coat @ 20 mils OFT.
 - c. Sika Arimatec 110 EpoCemor one coat @ 20 mils OFT.
2. Steel Reinforcing
 - a. Tnemec Omnithane Series 1 @ 2.5-3.5 mils OFT.
 - b. Sherwin Williams Sher-Crete two coats @ 10 mils OFT each.
 - c. Sika Arimatec 110 EpoCem two coats @ 20 mils OFT each.

C. Repair Mortar:

1. Tnemec Series 217
2. Sherwin Williams Steel-Seam FT910
3. SikaRepair 224
4. SikaTop 123 Plus

2.0.8 TYPE V – PATCHING HOLES LESS THAN 1.5 IN (ANCHOR BOLT HOLES)

- A. Surface Preparation:
 - 1. Clean out hole after removing anchor, pipe, bolt, or other installed item.
 - 2. Brush out hole with a bottle-brush or similar tool, and compressed air.
 - 3. Follow patching mortar manufacturer's detailed installation instructions.
- B. Bonding Agent:
 - 1. Tnemec Series 217 (scrub coat)
 - 2. Sherwin Williams Sher-Crete one coat @ 20 mils OFT.
 - 3. Sika Armatec 110 EpoCemor one coat @ 20 mils OFT.
- C. Repair Mortar:
 - 1 SikaDur 31 Hi-Mod Gel
 - 2 Euclid Duralcrete Gel
 - 3 SurePoxy H M Gel by Kaufman Products

2.0.9 TYPE VI – FILLING VOIDS AND PENETRATIONS WITHOUT REINFORCING

- A. Surface Preparation:
 - 1. Concrete
 - a. Remove all loose materials, deteriorated concrete, laitance, existing coatings and other bond-inhibiting materials from the surface in accordance with SSPC-SP13/NACE 6 minimum surface profile of ICRI-CSP6.
 - b. The edges of the repair should be saw cut perpendicular to the surface to a depth of at least ¼". Break out the complete repair area to a minimum depth of ¼" up to the sawed edge to prevent feather edging. Avoid cutting the reinforcing steel.
 - c. Surface must be clean, dry and free of oil, grease and other contaminants. Take precaution to prohibit surface from becoming contaminated prior to product application.
- B. Bonding Agent:

1. Concrete
 - a. Tnemec Series 217 (scrub coat)
 - b. Sherwin Williams Sher-Crete one coat @ 20 mils OFT.
 - c. Sika Armatec 110 EpoCemor one coat @ 20 mils OFT.

- C. Repair Mortar:
 5. Tnemec Series 217
 6. Sherwin Williams Steel-Seam FT910
 7. SikaRepair 224
 8. SikaTop 123 Plus

PART 3 -EXECUTION

3.0.5 EXAMINATION

- A. Notify County seven days in advance of dates when areas of deteriorated or delaminated concrete and deteriorated reinforcing bars will be located.
- B. Locate areas of deteriorated or delaminated concrete using hammer or chaindrag sounding and mark boundaries. Mark areas for removal by simplifying and squaring off boundaries. At columns and walls make boundaries level and plumb unless otherwise indicated.
- C. Pachometer Testing: Locate at least three reinforcing bars using a pachometer, and drill test holes to determine depth of cover. Calibrate pachometer using depth of cover measurements, and verify depth of cover in removal areas using pachometer.
- D. Perform surveys as the Work progresses to detect hazards resulting from concrete-maintenance work.

3.0.6 PREPARATION

- A. Ensure that supervisory personnel are on-site and on duty when concrete maintenance work begins and during its progress.
- B. Preparation for Removal of Deteriorated Concrete: Examine construction to be repaired to determine best methods to safely and effectively perform concrete maintenance work. Examine adjacent work to determine what protective measures will be necessary. Make explorations, probes, and inquiries as necessary to

determine condition of construction to be removed in the course of repair.

1. Verify that affected utilities have been disconnected and capped.
 2. Inventory and record the condition of items to be removed for reinstallation or salvage.
 3. Provide and maintain shoring, bracing, and temporary structural supports as required to preserve stability and prevent unexpected or uncontrolled movement, settlement, or collapse of construction being demolished and construction and finishes to remain.
- C. Protect persons, motor vehicles, surrounding surfaces of building being restored, building site, plants, and surrounding buildings from harm resulting from concrete maintenance work.
1. Comply with each product manufacturer's written instructions for protections and precautions. Protect against adverse effects of products and procedures on people and adjacent materials, components, and vegetation.
 2. Use only proven protection methods appropriate to each area and surface being protected.
 3. Provide barricades, barriers, and temporary directional signage to exclude public from areas where concrete maintenance work is being performed.
 4. Erect temporary protective covers over walkways and at points of pedestrian and vehicular entrance and exit that must remain in service during course of concrete maintenance work.
 5. Contain dust and debris generated by concrete maintenance work and prevent it from reaching the public or adjacent surfaces.
 6. Use water-mist sprinkling and other wet methods to control dust only with adequate, approved procedures and equipment that ensure that such water will not create a hazard or adversely affect other building areas or materials.
 7. Protect floors and other surfaces along haul routes from damage, wear, and staining.
 8. Provide supplemental sound-control treatment to isolate removal and dismantling work from other areas of the building.
 9. Protect adjacent surface and equipment by covering them with heavy polyethylene film and waterproof masking tape. If practical, remove items, store, and reinstall after potentially damaging operations are complete.

10. Neutralize and collect alkaline and acid wastes for disposal off County's property.
 11. Dispose of debris and runoff from operations by legal means and in a manner that prevents soil erosion, undermining of paving and foundations, damage to landscaping, and water penetration into building interiors.
- D. Existing Drains: Prior to the start of work in an area, test drainage system to ensure that it is functioning properly. Notify Engineer immediately of inadequate drainage or blockage. Do not begin work in an area until the drainage system is in working order.
- 1 Prevent solids such as aggregate or mortar residue from entering the drainage system. Clean out drains and drain lines that become sluggish or blocked by sand or other materials resulting from concrete maintenance work.
 - 2 Protect drains from pollutants. Block drains or filter out sediments, allowing only clean water to pass.
- E. Concrete Removal:
- 1 Provide shoring, bracing, and supports as necessary. Strengthen or add new supports when required during progress of removal work. Do not overload structural elements with debris.
 - 2 Saw-cut perimeter of areas indicated for removal to a depth of at least 1/4" deep. Make cuts perpendicular to concrete surfaces and no deeper than cover on reinforcement.
 - 3 Remove deteriorated and delaminated concrete by breaking up and dislodging from reinforcement.
 - 4 Remove additional concrete if necessary to provide a depth of removal of at least 1/4" deep over entire removal area.
 - 5 Where half or more of the perimeter of reinforcing bar is exposed, bond between reinforcing bar and surrounding concrete is broken, or reinforcing bar is corroded, remove concrete from entire perimeter of bar and to provide at least a 3/4" clearance around bar.
 - 6 Test areas where concrete has been removed by tapping with hammer, and remove additional concrete until unsound and disbonded concrete is completely removed.
 - 7 Provide surfaces with a fractured profile of at least 1/4" in depth that are

approximately perpendicular or parallel to original concrete surfaces. At columns and walls, make top and bottom surfaces level unless otherwise directed.

- 8 Thoroughly clean removal areas of loose concrete, dust, and debris.

3.0.7 APPLICATION

- A. General: Comply with manufacturer's written instructions and recommendations for application of products, including surface preparation.

3.0.8 FIELD QUALITY CONTROL

- A. Contractor will coordinate with the County and Engineer to allow for them to observe that the repairs are being conducted in accordance with the Contract Documents.

3.0.9 MANUFACTURER REPRESENTATION

- A. The product manufacturer(s)' representative will be required to attend the following to observe and provide guidance on the installation of the repair system:
 - 1 One (1) Pre-installation Meeting for each repair system to be installed
 - 2 Four (4) field progress meetings
 - 3 One (1) Substantial Walkthrough

END OF SECTION

DIVISION 09

FINISHES

SECTION 09 96 00
PROTECTIVE COATINGS

PART 1 - GENERAL

1.0.1 SCOPE

- A. Requirements of Conditions of Contract and Division 01 apply to this Section. Provide all labor, materials, apparatus, scaffolding, and all appurtenant work in connection with painting and protective coatings, complete as indicated, specified and required.

Work Included in This Section. Principal items include:

1. All exposed piping, conduits, ducts and other metal surfaces, interior and exterior, except as hereinafter specifically excluded.
2. All submerged and intermittently submerged metal surfaces, except stainless steel.
3. All structural and miscellaneous steel, including tanks.
4. The interior of wet wells, headworks, manholes, junction structures, transition stations and similar structures.
5. Exterior above-ground concrete and concrete block as specified and shown on the Drawings.
6. The interior and exterior of structures as specified in the Painting Schedule and shown on the Drawings.
7. Equipment furnished with and without factory finished surfaces.
8. Equipment on which factory applied finishes have been marred, abraded, scratched, nicked, or otherwise damaged.
9. Exterior and interior concrete, concrete unit masonry, cement plaster, doors, frames, sheet metal surfaces and other architectural work as specified and shown on the Drawings.
10. The Contractor shall furnish to the County, at no charge for use during this project, the necessary dry film thickness gages and electrical flaw or holiday detection equipment.
11. Protective coating of submerged and intermittently submerged concrete and masonry surfaces, except portion of such surfaces designated to receive

waterproofing.

12. Recoating of existing interior and exterior painted surfaces from architectural break where damaged or altered in performance of Work of this General Contract.

Related Work Not Included in This Section. The following surfaces, in general, shall not be painted:

1. Concrete surfaces subject to pedestrian or vehicular traffic except as herein specified.
 2. Plastic surfaces and fiberglass reinforced plastic (FRP) surfaces, except as specified for identification purposes.
 3. Nonferrous metals and stainless steel unless otherwise noted or indicated. Galvanized metal shall not be coated unless specified otherwise.
 4. Mechanical equipment with factory finish as specified herein.
 5. Electrical and instrumentation equipment with approved factory finish as indicated herein.
 6. Waterproofing, damp proofing and roof covering Work.
 7. Pavement stripping and marking as specified elsewhere in these Specifications.
 8. Existing painted surfaces which are not within areas of alterations performed under this General Contract unless such surfaces are damaged in performance of Work of this General Contract.
- B. In no case shall any concrete, wood, metal, or any other surface requiring protection be left unpainted or uncoated even though not specifically defined herein.

1.0.2 GUARANTEE

- A. A two (2) year guarantee which commences on the date of acceptance against failure of all coatings shall be provided. Failure of any coating during the guarantee period shall be repaired by the Contractor who shall absorb all costs related to the repair of the coating.
- B. As part of this two (2) year guarantee, the Contractor shall perform an inspection of all painted surfaces at 11 months from date of acceptance with an County's representative. All coating failures shall be repaired. The costs of this inspection

and any repair services shall be the Contractor's responsibility.

1.0.3 REFERENCE SPECIFICATIONS AND STANDARDS

- A. Without limiting the generality of other requirements of these Specifications, all cleaning, surface preparation, and coating shall conform to the applicable requirements of the referenced portions of the standards specified herein to the extent that the requirements therein specified are not in conflict with the provisions of this Section.
- B. Unless otherwise specified, all work and materials for the preparation and coating of all metal surfaces shall conform to the applicable requirements specified in the Steel Structures Painting Manual, Volume 2, Systems and Specifications, latest edition, published by the Steel Structures Painting Council.
- C. The following referenced surface preparation specifications of the Steel Structures Painting Council shall form a part of this Section.
 - 1. White Metal Blast Cleaning (SSPC-SP5-631. Removal of all visible rust, mill scale, paint, and foreign matter by blast cleaning by wheel or nozzle (dry) using sand, grit, or shot. (For very corrosive atmosphere.)
 - 2. Near-White Blast Cleaning (SSPC-SPI0-63T). Blast cleaning nearly to White Metal Cleanliness, until at least 95 percent of each element of surface area is free of all visible residues. (For high humidity, chemical atmosphere, marine or other corrosive environment).
 - 3. Commercial Blast (SSPC-SP6-631. Blast cleaning until at least 67 percent of each element of surface area is free of all visible residues.
 - 4. Brush-Off Blast Cleaning (SSPC-SP7-63). Blast cleaning of all except tightly adhering residues of mill scale, rust and coatings, exposing numerous evenly distributed flecks of underlying metal.
 - 5. Solvent Cleaning (SSPC-SP1-63). Removal of oil, grease, dirt, soil, salts, and contaminants by cleaning with solvent, vapor, alkali, emulsion or steam.
- D. Quality Assurance. Evaluation of surface preparation for ferrous metals will be based upon SSPC-Vis I ASTM Designation D220 and "Standard Methods of Evaluating Degree of Rusting on Painted Steel Surfaces", SSPC-Vis 2 ASTM Designation D 610.
 - 1. To facilitate inspection, the Contractor shall, on the first day of sandblasting operations, sandblast metal panels to the degree called for in the Specification and as noted above. After mutually agreeing that a

specific panel meets the requirements of the Specification, the panel shall be initialed by the Contractor and Inspector and then be coated with a clear, non-yellowing finish. Panels shall be prepared for each type sandblasting specified and shall be maintained and utilized by the Inspector throughout the duration of sandblasting operations.

1.0.4 COMPLIANCE WITH ENVIRONMENTAL REGULATORY REQUIREMENTS

- A. Contractor shall comply with all current federal, state, and local environmental laws and regulations.

1.0.5 SUBMITTALS

- A. Samples

1. For compliance with these Specifications, the Contractor shall prepare and submit three (3) paint and protective coating samples of each finish, including all coats thereof, to the County for review, as specified in Section 01 33 23, "Submittals". The samples shall be clearly marked with the manufacturer's name and product identification, and shall be submitted in sufficient time to allow for review, and, if necessary, resubmittal without causing any delay of the Project.
2. The Contractor, at the beginning of the Project, shall furnish one sq. ft. steel panels to be sandblasted in accordance with the sandblasting specifications and to be coated with a non-yellowing shellac, to be used as the standard for preparation of steel surfaces for the duration of this Project.

- B. Coating Materials List

1. The Contractor shall provide eight (8) copies of a paint and coating materials list which indicates the manufacturer and paint number, keyed to the coating schedule herein, for approval of the County prior to, or at the time of, submittal of samples required herein.
2. The Contractor shall include with his submittal his protective coating schedule for shop and field coatings of items to receive protection. The schedule shall conform to the specified requirements for surface preparation, priming, and coating for items covered, and shall follow the same requirements for similar work where such work has not been specifically called-out. No bare ferrous non-working surfaces shall be omitted from the schedule. Particular care shall be taken to cover in sufficient detail the coating of mechanical joints and other mechanical devices, which shall conform to the recommended practice of the manufacturer of the joint or other mechanical devices.

3. Submittals shall be sufficiently early to permit County's review and then Contractor's coordination with affected material and equipment suppliers to assure their use of reviewed shop coats of same manufacture as field coats and compatibility with field applied coats for respective coating system.
 4. Coatings to be used on plastic and fiberglass materials shall be certified as acceptable by all plastic and fiberglass manufacturers whose products are to be coated. Certification copies shall be submitted to the County. The Contractor shall be certified in writing by the painting and coating material manufacturers as qualified applicators of their products, and copies of the certification submitted to the County.
- C. Product Data Sheets and Material Safety Data Sheets. Contractor shall submit paint and coatings material manufacturers' printed technical data sheets for products intended for use in each of various paint and coating systems. Data sheets shall fully describe material as to its intended use, make-up, recommended surface preparation and application conditions, primers, material mixing and application (including recommended dry mil thickness), precautions, safety and maintenance cleaning directions.

1.0.6 PROTECTION OF WORK

- A. The Contractor shall be responsible for any and all damage to his Work or the work of others during the time his Work is in progress.

1.0.7 RIGHT OF REJECTION

- A. The County shall have the right to reject all material or Work that is unsatisfactory, and require the replacement of either or both at the expense of the Contractor.

PART 2 -PRODUCTS

2.0.1 GENERAL

- A. Surfaces to receive paint protective coating materials as herein specified in this Section shall be coated in conformance with the applicable coating systems specified herein. All materials specified by name and/or manufacturer or selected for use under these Specifications, shall be delivered unopened at the job site in their original containers and shall not be opened until inspected by the County. Whenever a manufacturer's brand name is specified, it is intended to define the general type and quality of paint or coating desired. Other coatings or paints of equal quality may be used.
- B. Coating materials shall be as specified herein or approved equal. Architectural paint finishes are specified hereinafter. All paint and coatings shall be produced

and applied as herein called for, or, if not specifically called for, it shall be applied in accordance with the manufacturer's printed recommendations as reviewed by County. So far as possible, all paint and coating materials shall be provided by a single source supplier.

2.0.2 PAINT AND COATING MATERIALS

- A. Definitions. The term "coating materials", as used herein, shall include enamels, paints, sealers, epoxy resins, stains, and all other paints and protective coatings, excepting galvanizing, whether used as a pretreatment, primer, intermediate coat, or finish coat.
- B. General
 - 1. Paint and protective coating materials shall be sealed in containers that plainly show the designated name, formula or specification number, batch number, color, date of manufacture, manufacturer's directions, and name of manufacturer, all of which shall be plainly legible at the time of use. Pigmented paints shall be furnished in containers not larger than five (5) gallons. Materials shall conform to the specifications shown herein and to the requirements hereinafter specified.
 - 2. Products shall be standard for recognized manufacturer engaged in production of such materials for essentially identical or similar applications in the water and wastewater treatment industry and industrial plants.
- C. Compatibility. Only compatible materials shall be used in the Work. Particular attention shall be directed to compatibility of primers and finish coats. If necessary, subject to review of the County, a compatible barrier coat shall be applied between all existing prime coats and subsequent field coats to ensure compatibility.
- D. Colors. All colors and shades of colors of all coats of paints and protective coating material shall be as selected by the County. Each coat shall be of a slightly different shade, as directed by the County, to facilitate inspection of surface coverage of each coat.

2.0.3 SERVICE CONDITION A

- A. Ferrous and galvanized metals, other than stainless steel, within wet wells or similar corrosive atmospheres, submerged or intermittently submerged in sludge, sewage, chemical mixtures or similar corrosive liquids shall be prepared and coated in accordance with the following requirements.
 - 1. All metal surfaces shall be field sandblasted in accordance with Steel Structures Painting Council Specification SSPC-SP10 (Near White Blast

Cleaning). Weld surface, edges, and sharp corners shall be ground smoothly and all weld splatter removed per SSPC-SP3 "Power Tool" or SP2 "Hand Tool" Cleaning. Galvanized metals shall be cleaned per SSPC SP-7 (brush off blast cleaning).

2. Application shall be in strict conformance with the manufacturer's printed recommendations. All sharp edges, nuts, bolts, or other items difficult to coat shall receive a brush-applied coat of the specified coating prior to application of each coat.
- B. Except as otherwise noted, the prime coat shall have a minimum DFT of 3 mils and the two finish coats shall have a minimum total (DFT) of 13 mils. If the finish coat is not applied within manufacturer's recommended time period, an intermediate special surface conditioner shall be applied in advance of finish coats or a light brush blast. The total system shall have a minimum DFT of 16 mils:

TNEMEC System: Shop Primer - Series 66-1211
Field Primer - Series 104
Finish Coats - Series 104

2.0.4 SERVICE CONDITION B

Ferrous and galvanized metals, other than stainless steel, subject to seacoast salt air exposures or equivalent chemical attack, shall be prepared and coated in accordance with the following requirements.

- A. All surfaces shall be free of dirt, dust, grease, or other foreign matter before coating. Ferrous surfaces shall be cleaned in accordance with the Steel Structures Painting Council Specification SSPC-SP7 (Brush-Off Blast Cleaning), and galvanized surfaces shall be cleaned in accordance with SSPC-SP1 (Solvent Cleaning). Weld surface, edges and sharp corners shall be ground smooth and all weld splatter shall be removed per SSPC-SP3 or SP2. Galvanized metal shall be cleaned per SSPC SP-7 (brush off blast cleaning).
- B. Application shall be in strict conformance with the manufacturer's printed recommendations. All sharp edges, nuts, bolts, or other items difficult to coat shall receive a brush-applied coat of the specified coating prior to application of each coat.
- C. Except as specified below, the prime coat shall have a minimum DFT of 3 mils, the intermediate coat shall have a minimum DFT of 4 mils and including one or more finish coats the entire system shall be a minimum total DFT of 10.0 mils:

TNEMEC System: Primer - Series 66
Intermediate Coat: Series 66

Finish Coats: Series 73

2.0.5 SERVICE CONDITION C

Ferrous and galvanized metals, other than stainless steel, subject to mild to moderately severe air exposures or equivalent chemical attack, shall be prepared and coated in accordance with the following requirements.

- A. All surfaces shall be free of dirt, dust, grease, or other foreign matter before coating. Ferrous surfaces shall be cleaned in accordance with the Steel Structures Painting Council Specification SSPC-SP7 (Brush-Off Blast Cleaning), and galvanized surfaces shall be cleaned in accordance with SSPC-SP1 (Solvent Cleaning). Weld surface, edges and sharp corners shall be ground smooth and all weld splatter shall be removed per SSPC-SP3 or SP2. Galvanized metal shall be cleaned per SSPC SP-7 (brush off blast cleaning).
- B. Application shall be in strict conformance with the manufacturer's printed recommendations. All sharp edges, nuts, bolts, or other items difficult to coat shall receive a brush-applied coat of the specified coating prior to application of each coat.
- C. Except as specified below, the prime coat shall have a minimum DFT of 3 mils, intermediate coat shall have a minimum DFT of 4 mils and including one or more finish coats the entire system shall be a minimum total DFT of 10.0 mils:

TNEMEC System: Primer - Series 66

Intermediate Coat: Series 66

Finish Coats: Series H2

or

PORTER System: Primer – PP286 or PP296

Intermediate Coat: 2200

Finish Coat: 2200

2.0.6 SERVICE CONDITION D

Coating aluminum and non-ferrous metal surfaces, including undersides of aluminum access hatches, frames, and checkered plate, subject to corrosive atmosphere and condensation shall be prepared and coated in accordance with the following requirements.

- A. Clean non-ferrous surfaces in accordance with SSPC-SP7 (brush-off blast cleaning).
- B. Application shall be in strict conformance with manufacturer's printed recommendations, as approved by the ENGINEER.
- C. The prime coat shall have a minimum 3.0 mil DFT and finish coats shall

have a minimum 4 mil DFT for an entire system minimum total DFT of 7 mils:

TNEMEC System: Primer - Series 66
Finish Coats - Series 66

2.0.7 SERVICE CONDITION E

Plastic and fiberglass reinforced plastic (FRP) products subject to seacoast salt air exposures shall be prepared and coated in accordance with the following requirements. Coatings to be used for piping and appurtenances shall be certified by the manufacturer to be completely acceptable and non-injurious.

- A. Clean surfaces with SSPC-SP1 solvent cleaner. Lightly sand all surfaces.
- B. Application shall be in strict conformance with manufacturer's printed recommendations.
- C. The prime coat shall have a minimum 3.0 mil DFT and finish coat shall have a minimum 3.0 mil DFT for an entire system minimum total DFT of 6 mils:

TNEMEC System: Primer - Series 66
Finish Coat - Series 73

2.0.8 SERVICE CONDITION F

Concrete which is subject to submergence and intermittent submergence in water and Groundwater and concrete potable water storage tank poured wall and dome exteriors shall be prepared and coated in accordance with the following requirements.

- A. All surfaces whether previously coated or uncoated shall be cleaned of all dirt, dust, mildew/algae, oil, curing compounds and other deleterious compounds and aggressive staining. In general, the concrete shall be reasonably smooth and free of pockets, cavities and loose materials. All wall and dome surfaces shall be cleaned by brush-off blast cleaning NACE #4 / SSPC-SP7 with reference to NACE#6 / SSPC-SP13 unless otherwise specified. Where a waterproofing/sealant is applied the surface shall be cleaned by commercial blast cleaning NACE#3/SSPC-SP6. For painting/coating of existing structures, in addition to above, patch concrete with non-shrink grout, replace damaged stucco, and repair cracks in exterior concrete wall surfaces by epoxy injection. Stripe coat all repaired areas and visible hairline cracks by roller or spray with Series 6 TNEME CRYL at 2.5 mils minimum DFT prior to application of final paint/coating system. All surfaces shall be completely dry before application of each paint/coating.
- B. Application shall be in strict conformance with the manufacturer's printed recommendations. All coats shall be applied within 24 hours of the previous coat.

- C. The waterproofing/sealant shall have a minimum DFT of 1/16 inch, the prime coat shall have a minimum DFT of 3 mils and the intermediate and the finish coats shall have a minimum total DFT of 2.5 mils. The entire system total minimum DFT will vary dependent upon the need for the waterproofing/sealer and primer:

THOROSEAL : Waterproofing/Sealant (as exterior base coat on water tank dome only)

TNEMEC System: Primer - Series 66 - (Not required on repainted or sealed concrete)

Intermediate Coat - Series 6 TNEME CRYL

Finish Coat - Series 6 TNEME CRYL

2.0.9 SERVICE CONDITION G

Concrete sanitary sewer manholes or similar corrosive atmospheres which are subject to submergence and intermittent submergence in domestic sewage, water and groundwater shall be prepared and coated in accordance with the following requirements.

- A. All surfaces whether previously coated or uncoated shall be cleaned of all dirt, dust, oil, curing compounds, and other deleterious compounds. In general, the concrete shall be reasonably smooth and free of pockets, cavities and loose materials. Allow new concrete to cure for 28 days. All surfaces shall be cleaned by commercial blast cleaning SSPC-SP6 with reference to NACE#6/SSPC-SP13). For painting/coating of existing structures, in addition to above, patch concrete with non-shrink grout, repair cracks in concrete wall surfaces by epoxy injection. All surfaces shall be completely dry before application of the coating.
- B. Application shall be in strict conformance with the manufacturer's printed recommendations. All coats shall be applied within 24 hours of the previous coat.
- C. A prime coat is not required on concrete. Coating can be applied in one or two coats. When applied in two coats each coat shall have a minimum DFT of 40-80 mils. The entire system shall have a total minimum DFT of 125 mils.

TNEMEC System: Primer – Series 66

Intermediate Coat - Series 46H-413

Finish Coat – Series 46H-413

2.10 MISCELLANEOUS COATINGS

- A. Hydrants, indicator post, traffic posts, guard rails and ladders shall be safety yellow, matching OSHA Safety Yellow Color and using specified Coating System "B".

- B. Handwheels and operating handles of all valves and equipment shall be safety red, matching OSHA Safety Red Color, using, contingent upon exposure, Coating System "B" in non-corrosive atmosphere and Coating System "c" in corrosive atmosphere and high humidity exposures.
- C. Interior pipe insulation shall be finished with solvent paint system equal to Rust-Oleum's primer No. 2764 and "New Color Horizon" finish coat in color selected by County. Metal-protected exterior pipe insulation shall be coated with System "B".

2.14 PATCH COAT FOR GALVANIZED SURFACES

- A. All galvanized surfaces which are scratched, marred, or otherwise damaged shall be patched with Carboline's Carbo Zinc II, "Drygalv" by American Solder and Flux Co., Engard 515 Zinc Rich Primer, or approved equal.

2.15 PRIMER OVER BITUMINOUS COATING

Two (2) coats, Rust-Oleum 5781 Rust-O-Crylic.

PART 3 -EXECUTION

3.0.1 MANUFACTURER'S RECOMMENDATIONS

- A. Unless otherwise specified herein, the paint and coating manufacturer's printed recommendations and instructions for thinning, mixing, handling, applying, and protection of his coating materials; for preparation of surfaces for coating; and for all other procedures relative to coating shall be strictly observed. No substitutions or other deviations shall be permitted without written permission of the County.

3.0.2 DELIVERY AND STORAGE

- A. Materials shall be delivered in manufacturer's original, sealed containers, with labels and tags intact. Coating materials and equipment shall be stored in designated areas. Coating containers shall be opened only when required for use. Coatings shall be mixed only in designated rooms or spaces in the presence of the
- B. County's Representative. Coating shall be thoroughly stirred or agitated to uniformly smooth consistency and prepared and handled in a manner to prevent deterioration and inclusion of foreign matter. Unless otherwise specified or reviewed, no materials shall be reduced, changed, or used except in accordance with the manufacturer's label or tag on container.

3.0.3 SAFETY REQUIREMENTS

In accordance with the requirements of the latest revision of applicable OSHA Regulations

for Construction, the Contractor shall provide and require the use of personal protective lifesaving equipment for all persons working in or about the Project site.

- A. Protective Equipment. Respirators shall be worn by all persons engaged in, and assisting in, spray painting. In addition, workers engaged in or near the Work during sandblasting shall wear eye and face protection devices meeting the requirements of ANSI ZB7.1 latest revision, and approved OSHA Regulations for sandblasting operations and approved air-purifying, half-mask or mouthpiece respirator with appropriate filter.
- B. Ventilation. Where ventilation is used to control potential exposure to workers as set forth in Section 1910.94 of the OSHA Regulations for Construction, ventilation shall be adequate to reduce the concentration of the air contaminant to the degree that a hazard to the worker does not exist. Methods of ventilation shall meet the requirements set forth in ANSI Z9.2, latest revision.
- C. Sound Levels. Whenever the occupational noise exposure exceeds the maximum allowable sound levels as set forth in Table 0-2, Permissible Noise Exposures, in Section 1926.52, of the OSHA Regulations for Construction, ear protective devices shall be furnished and used. Ear protective devices inserted in the ear shall be fitted or determined individually, by competent persons. Plain cotton is not an acceptable protective device.
- D. Storage and mixing of coating materials shall be performed only in those areas designated by the County.
- E. Cloths and cotton waste that might constitute a fire hazard shall be placed in closed metal containers or destroyed at the end of each work day.

3.0.4 STORAGE, MIXING, AND THINNING

Paint and coating materials shall be protected from exposure to cold weather, and shall be thoroughly stirred, strained, and kept at a uniform consistency during application. Materials of different manufacturers shall not be mixed together. Packaged materials may be thinned immediately prior to application in accordance with the manufacturer's directions.

3.0.5 WORKMANSHIP

- A. Skilled craftsmen and experienced supervision shall be used on all Work.
- B. All paint and coatings shall be applied in a workmanlike manner so as to produce an even film of specified uniform thickness. Edges, corners, crevices, and joints shall receive special attention to ensure that they have been thoroughly cleaned and that they receive an adequate thickness of paint. The finished surfaces shall be free from runs, drops, ridges, waves, laps, brush marks, and variations in color,

texture, and finish. The hiding shall be so complete that the addition of another coat of paint would not increase the hiding. All coats shall be applied so as to produce a film of uniform thickness. Special attention shall be given to ensure that edges, corners, crevices, welds, and similar areas receive a film thickness equivalent to adjacent areas, and installations shall be protected by the use of drop cloths or other approved precautionary measures. Rough exterior cement plaster shall be spray painted.

3.0.6 PREPARATION FOR PAINTING AND PROTECTIVE COATING

- A. All surfaces to receive paint and protective coatings shall be cleaned as specified herein prior to application of coating materials. The Contractor shall examine all surfaces to be coated, and shall correct all surface defects before application of any coating material. Beginning the Work of this Section without reporting unsuitable conditions to the County constitutes acceptance of conditions by the Contractor. Any required removal, repair, or replacement of the Work caused by unsuitable conditions shall be done at no additional cost to the County. All marred or abraded spots on shop-primed and factory-finished surfaces shall receive touch-up restoration prior to any other coating application.

3.0.7 ITEMS NOT TO BE COATED

- A. Hardware, hardware accessories, nameplate data tags, machined surfaces and similar items in contact with coated surfaces not to be coated shall be removed or masked prior to surface preparation and painting operations. Following completion of coating of each piece, removed items shall be reinstalled. Such removal and installation shall be done by workmen skilled in the trades involved.

3.0.8 SANDBLASTING

- A. All sandblasting shall be done in strict accordance with the referenced specifications of the Steel Structures Painting Council.
- B. When items are to be shop primed or shop primed and finish coated in the shop, surface preparation shall be as specified in this Section. The County shall have the right to witness, inspect, and reject any sandblasting done in the shop.
- C. When sandblasting is done in the field, care shall be taken to prevent damage to structures and equipment. Pumps, motors, and other equipment shall be shielded, covered, or otherwise protected to prevent the entrance of sand. No sandblasting may begin before the County inspects and reviews the protective measures.
- D. After sandblasting, dust and spent sand shall be removed from the surfaces by brushing or vacuum cleaning.

3.0.9 APPLICATION OF PROTECTIVE COATINGS

- A. Shop Coating. Fabricated metalwork and equipment which requires coating may be shop primed before fabrication with specified primer. Any such work delivered to the job site with any other shop coat shall have this coating removed and the specified coating applied in the field. Manufactured equipment with approved corrosion resistant factory finishes and galvanized finishes shall be exempt from this requirement.
- B. Application of Field Coatings
1. Except where in conflict with the manufacturer's printed instructions, or where otherwise specified herein, the Contractor may use brush, roller, air spray, or so-called airless spray application; however, any spray painting must first have the approval of the County. Rollers for applying enamel shall have a short nap. Areas inaccessible to spray coating or rolling shall be coated by brushing or other suitable means.
 2. The Contractor shall give special attention to the Work to ensure that edges, corners, crevices, welds, bolts, and other areas, as determined by the County, receive a film thickness at least equivalent to that of adjacent coated surfaces.
 3. All protective coating materials shall be applied in strict accordance with the manufacturer's printed instructions.
 4. Prime coat shall be applied to all clean surfaces within a four hour period of the cleaning, and prior to deterioration or oxidation of the surface, and in accordance with the manufacturer's recommendations. Drift from sandblasting procedures shall not be allowed to settle on freshly painted surfaces.
 5. All coatings shall be applied in dry and dust-free environment, and unless otherwise directed by the County, shall not be applied when the air temperature or the temperature of the surface to be painted is outside the range of 50 degrees F to 90 degrees F.
 6. Each coat shall be applied evenly, at the proper consistency, and free of brush marks, sags, runs, and other evidence of poor workmanship. Care shall be exercised to avoid lapping paint on glass or hardware. Coatings shall be sharply cut to lines. Finished coated surfaces shall be free from defects or blemishes. Protective coverings shall be used to protect floors, fixtures, and equipment. Care shall be exercised to prevent paint from being spattered onto surfaces from which such paint cannot be removed satisfactorily. Surfaces from which paint cannot be removed satisfactorily shall be painted or repainted as required to produce a finish satisfactory to the County. Whenever two (2) coats of a dark colored paint are specified,

the first coat shall contain sufficient powdered aluminum to act as an indicator of proper coverage, or the two (2) coatings shall be of a Contrasting color.

7. Interior surfaces of roof plates, roof rafters, and supports, and all contact surfaces inaccessible after assembly, shall be coated before erection; however, no structural friction connections or high tensile bolts and nuts shall be painted before erection. Areas damaged during erection shall be hand or power-tool cleaned and recoated with prime coat.
8. Touch-up of all surfaces shall be performed after installation.
9. All surfaces to be coated shall be clean and dry at the time of application.

C. Time of Coating

1. Sufficient time shall be allowed to elapse between successive coats to permit satisfactory recoating, but, once commenced; the entire coating operation shall be completed without delay. No additional coating of any structure, equipment, or other item designated to be painted shall be undertaken without specific permission of the County until the previous coating has been completed for the entire structure, piece of equipment, or other item.
2. Piping shall not be finish coated until it has been pressure-tested and approved.

- D. Thickness of Coating. The dry film mil-thickness specified shall be achieved and verified for each coat.

3.10 TESTING AND INSPECTION

- A. Inspection Devices. The Contractor shall furnish, until final acceptance of coating and painting, inspection devices in good working condition for detection of holidays and measurement of dry-film thickness of coatings and paints. The Contractor shall also furnish U.S. Department of Commerce; National Bureau of Standards certified thickness calibration plates to test the accuracy of dry-film thickness gauge and certified instrumentation to test accuracy. Dry-film thickness gauges shall be made available for the Inspector's use at all times until final acceptance of application. Holiday detection devices shall be operated in the presence of the Inspector. Inspection devices shall be operated in accordance with the manufacturer's instructions at the direction of the County or the County's Representative.
- B. The Contractor shall conduct film thickness measurements and electrical inspection of the coated surfaces with equipment furnished by him and shall recoat

and repair as necessary for compliance with the Specifications.

- C. After repaired and recoated ferrous metals areas have cured, final inspection tests will be conducted by the County or the County's Representative. Coating thicknesses specified in mils on ferrous substrates will be measured with a nondestructive magnetic type dry-film thickness gauge such as the Elcometer, manufactured by Gardner Laboratories, Inc. Discontinuities, voids and pinholes in the coatings will be determined with a nondestructive type electrical holiday detector. Epoxy coatings and other thin film coatings will be checked for discontinuities and voids with a low voltage detector of the wet-sponge type, such as Model MI as manufactured by Tinker and Rasor. Use a non-sudsing type wetting agent, such as Kodak Photo-Flo, which shall be added to the water prior to wetting the sponge. A high voltage, low current, spark type detector such as Model EP, manufactured by Tinker and Rasor, will be used for electrical inspection of only coat tar enamel.

Tape type coatings will be inspected for holidays using a device designed for use in detecting such flaws. All pinholes shall be marked, repaired in accordance with the manufacturer's printed recommendations and retested. No pinholes or other irregularities will be permitted. Wide film thickness discrepancies shall be measured and verified with a micrometer or other approved measuring instrument. Coatings not in compliance with the Specifications will not be acceptable and shall be replaced and re-inspected at Contractor's expense until the Specifications are met.

- D. On non-ferrous surfaces, dry film thickness readings shall be taken at random locations with a Tooke Gauge at the rate of approximately five readings per 100 square feet of surface. Groove cut into coating shall be repaired by application of all coats of paint or coating film being tested. The average of all readings for a given area or surface shall be within required dry film thickness range and no individual reading shall be more than 20 percent below the recommended dry film thickness. Any areas that are found to be below standard shall be marked and recoated to obtain proper film thickness.
- E. Warranty Inspection. Warranty inspection shall be conducted during the eleventh month following completion of all coating and painting Work. All personnel present at the Pre-Job Conference shall attend this inspection. All defective Work shall be repaired in accordance with this Specification and to the satisfaction of the County or his appointed representative.

3.11 CLEANUP

- A. Upon completion of the Work, staging, scaffolding, and containers shall be removed from the site or destroyed in an approved manner. Paint spots, oil, or stains upon adjacent surfaces shall be removed.

- B. The Contractor shall clean the site in accordance with the requirements for "Cleaning Up" in the General Conditions.

3.13 PAINT AND COATING SCHEDULE

- A. General. The following schedule shall indicate the coating system to be used. The list shall not be construed as a complete list of all surfaces to be coated but rather as a guide as to the application of the various coating systems. All surfaces shall be painted except those specifically deleted herein. The County shall select the colors. Where reference is made to ferrous metal in this schedule, it shall not include stainless steel.
- B. Coating System Applications. **Table 1** indicates the paint/coating system application to be used by Service Condition and general Item type including examples of typical material types, typical structures their appurtenances and the types of environments (corrosive, non-corrosive, etc.) that influence protection levels. For the painting/coating systems, "Piping" shall be defined as all pipes, valves, fittings, supports, and guides. Mechanical equipment shall include all motors, pumps and accessory equipment requiring a protective paint/coating.

**TABLE 1
COATING SYSTEM SCHEDULE**

<u>Item</u>	<u>Service Condition</u>
Exposed ferrous metals in clarifiers and other corrosive environments	A
Exposed ferrous and galvanized metal Piping, equipment (interior and exterior), etc.	B
Exterior exposed ferrous metal, Fire hydrants, valve box lids, meter box lids, bollard/guard posts, above ground meter, backflow assemblies, etc. not exposed to a corrosive atmosphere	C
Exposed plastic and FRP pipe, conduit, tank appurtenances, etc.	E
Exterior of concrete manholes, storm inlets, interior/exterior of reject pond intake structures, etc.	F
Exterior wall and dome surfaces of concrete tank, walls of similar use poured concrete structures, etc.	F
Interior of concrete sanitary manholes and similar system structures	G
Guard posts (bollards) and hydrants	B

Interior concrete and concrete block wall surfaces

F,D,B

Exterior new and existing stucco surfaces

F,D,B

END OF SECTION

DIVISION 26

ELECTRICAL

SECTION 26 05 00

ELECTRICAL - GENERAL PROVISIONS

PART 1 - GENERAL

1.01 SCOPE OF WORK

- A. Furnish all labor, materials, equipment and incidentals required for a complete electrical system at the Lift Station No. 10 and No. 29 Replacement project in the Nassau Amelia Utilities as hereinafter specified and shown on the Drawings.
- B. The work, apparatus and materials which shall be furnished under these Specifications and accompanying Drawings shall include all items listed hereinafter and/or shown on the Drawings. Certain equipment will be furnished as specified in other sections of these Specifications which will require wiring thereto and/or complete installation as indicated. All materials necessary for the complete installation shall be furnished and installed by the Contractor to provide complete power, lighting, instrumentation, wiring, and control systems as indicated on the Drawings and/or as specified herein.
- C. The Contractor shall furnish and install the necessary cables, motor control, protective devices, conductors, exterior electrical system, etc., to serve motor loads and miscellaneous electrical loads as indicated on the Drawings and/or as specified. The Contractor shall install any control panel provided under other sections on the specifications.
- D. The work shall include complete testing of all equipment and wiring at the completion of the work and making any minor connection changes or adjustments necessary for the proper functioning of the system and equipment. All workmanship shall be of the highest quality; sub-standard work will be rejected.
- E. For process instrumentation furnish and install all conduit, wire and interconnections between primary elements, transmitters, local indicators and receivers.
- F. It is the intent of these Specifications that the electrical system shall be suitable in every way for the service required. All material and all work which may be reasonably implied as being incidental to the work of this Section shall be furnished at no extra cost.

1.02 SERVICE AND METERING

- A. Permanent electrical power will be provided by Florida Power Light (FPL) at the voltages indicated on the drawings.

- B. Contractor shall furnish and install the secondary conduit and wire from the pole mounted service transformers to the service entrance equipment as shown on the electrical drawings. Contractor shall verify the distance from the service transformers to the service entrance equipment. Contractor is responsible for the service installation and coordination.
- C. Contractor shall include costs of \$10,000 in their bid for FPL service installation charges associated with providing the 120/240V, 3Ø, 4W electrical service.

1.03 CODES, INSPECTION AND FEES

- A. All material and installation shall be in accordance with the latest edition of the National Electrical Code and all applicable national, local and state codes.
- B. Pay all fees required for permits and inspections.

1.04 TESTS

- A. Test all systems and repair or replace all defective work. Make all necessary adjustments to the systems and instruct the County's personnel in the proper operation of the systems.
- B. The following minimum tests and checks shall be made prior to the energizing of electrical equipment. Test shall be by the Contractor and a certified test report shall be submitted providing all test results and stating that the equipment meets and operates in accordance with the Manufacturer's and job specifications, and that equipment and installation conforms to all applicable Standards and Specifications:
 - 1. Testing and setting of protective relays for calibration and proper operation.
 - 2. Test all 600 volt wire insulation with a megohm meter after installation. Make tests at not less than 1000 volts. Submit a written certified test report of the results to the Engineer.
 - 3. The Engineer shall be notified forty-eight (48) hours before tests are made to enable the County to have designated personnel present.

1.05 RELATED WORK

- A. Excavation and backfilling for underground electrical work is included in other divisions.
- B. Concrete work is shown on the Drawings.

1.06 INTERPRETATION OF DRAWINGS

- A. The Drawings are not intended to show exact locations of conduit runs.

- B. All three-phase circuits shall be run in separate conduits unless otherwise shown on the Drawings.
- C. Unless otherwise approved by the Engineer conduit shown exposed shall be installed exposed; conduit shown concealed shall be installed concealed.
- D. Where circuits are shown as "home-runs" all necessary fittings and boxes shall be provided for a complete raceway installation.
- E. The Contractor shall coordinate the work of the different trades so that interferences between conduits, piping, equipment, architectural and structural work will be avoided. All necessary offsets shall be furnished so as to take up a minimum space and all such offsets, fittings, etc., required to accomplish this shall be furnished and installed by the Contractor without additional expense to the County. In case interference develops, the County's authorized representative is to decide which equipment, piping, etc., must be relocated, regardless which was installed first.
- F. The locations of equipment, outlets, and similar devices shown on the Drawings are approximate only. Exact locations shall be as approved by the Engineer during construction. Obtain in the field; all information relevant to the placing of electrical work and in case of any interference with other work. Proceed as directed by the Engineer and furnish all labor and materials necessary to complete the work in an approved manner.
- G. Circuit layouts shown are not intended to show the number of fittings, or other installation details. Furnish all labor and materials necessary for a complete installation. Additional circuits shall be installed wherever needed to conform to the specific requirements of the equipment.
- H. The ratings of motors and other electrically operated devices together with the size shown for their branch circuit conductors and conduits are approximate only and are indicative of the probable power requirements insofar as they can determine in advance of the purchase of equipment.
- I. All connections to equipment shall be made as shown, specified, and directed and in accordance with the approved shop drawings, regardless of the number of conductors shown on the Electrical Drawings.

1.07 RECORD DRAWINGS

- A. As the work progresses, legibly record all field changes on a set of project Contract Drawings. Drawings shall be made available to all parties during site visits. When the project is completed, furnish a complete set of reproducible "As-Built" drawings and electronic AUTOCAD copy for the Project Record Documents.

1.08 COMPONENT INTERCONNECTIONS

- A. Component equipment furnished under this Specification will not be furnished as integrated systems.
- B. Analyze all systems components and their shop drawings; identify all terminals and prepare drawings or wiring tables necessary for component interconnection.

1.09 SHOP DRAWINGS

- A. As specified under other sections shop drawings shall be submitted for approval of all materials, equipment, apparatus, and other items as required by the Engineer.
- B. Shop drawings shall be submitted for the following equipment:
 - 1. Pump Control Panel (PCP)
 - 2. RTU
 - 3. Surge Protection Devices
 - 4. Equipment Rack
 - 5. Conduit and Wire
 - 6. Receptacles
 - 7. Boxes and fittings
 - 8. Grounding System
 - 9. Lighting Fixtures
- C. Prior to submittal by the Contractor, all shop drawings shall be checked for accuracy and contract requirements. Shop drawings shall bear the date checked and shall be accompanied by a statement that the shop drawings have been examined for conformity to Specifications and Drawings. This statement shall also list all discrepancies with the Specifications and Drawings. Shop drawings not so checked and noted shall be returned.
- D. The Engineer's review shall be only for conformance with the design concept of the project and compliance with the Specifications and Drawings. The responsibility of, or the necessity of, furnishing materials and workmanship required by the Specifications and Drawings which may not be indicated on the shop drawings is included under the work of this Section.

- E. The responsibility for all dimensions to be confirmed and correlated at the job site and for coordination of this work with the work of all other trades is also included under the work of this Section.
- F. No material shall be ordered or shop work started until the Engineer's approval of shop drawings has been given.

1.10 WARRANTY

- A. Provide a warranty to the County for all the electrical equipment in accordance with the requirements of other sections. Under no circumstances shall the warranty be for less than one year starting from substantial completion.

PART 2 - PRODUCTS

2.01 GENERAL

- A. The materials used in all systems shall be new, unused and as hereinafter specified. Where no specified manufacturer or quality of material is given, a first class standard article as approved by the Engineer shall be furnished.
- B. Materials and equipment used shall be Underwriters Laboratories, Inc. listed and conform to applicable standards of NEMA and ANSI. All electrical components to be 304 or 316 SS. All NEMA enclosures to be painted white.
- C. Electrical equipment shall at all times during construction be adequately protected against mechanical injury or damage by water. Electrical equipment shall not be stored out-of-doors. Electrical equipment shall be stored in dry permanent shelters. If any apparatus has been damaged, such damage shall be repaired by the Contractor at his own cost and expense. If any apparatus has been subject to possible injury by water, it shall be thoroughly dried out and put through such special tests as directed by the Engineer, at the cost and expense of the Contractor, or shall be replaced by the Contractor at his own expense.
- D. All electrical panels, enclosures, wireways, boxes, cabinets, etc., shall be fabricated of metal. Nonmetallic substitutes are not acceptable. This does not apply to buried work.

2.02 RACEWAYS AND FITTINGS

- A. All conduits shall be schedule 80 PVC, unless otherwise noted below.
- B. Cables between the wet well and the PCP shall be in aluminum conduit above grade and PVC coated aluminum conduit below grade.
- C. Conduit fitting material and coating shall match corresponding conduit

specification.

2.03 CONDUCTORS

- A. Conductors shall be copper. Power circuits shall have 600 volt insulation (Underwriters' listed Type THHN-2). Conductors shall be color coded in accordance with the NEC.
- B. All motor controls, remote indicating lights, alarm circuits and metering loops shall be wired with #14 stranded copper conductors. Insulation shall be PVC.
- C. All shielded instrumentation cable shall be 2/c#16 shielded twisted pair with 600 volt insulation and PVC outer jacket.

2.04 MISCELLANEOUS EQUIPMENT

A. Surge Protection Devices

- 1. General - Additional lightning/surge protection shall be provided to protect all telemetering systems from included propagating along the signal and power supply lines. The protection systems shall be such that the protective level shall not interfere with normal operation, but shall be lower than the instrument surge withstand level, and be maintenance-free and self-restoring. Instrument transmitters shall be housed in a suitable metallic case, and properly grounded. Ground wires for all surge protectors shall be connected to a good earth ground and, where practical, each ground wire shall be run individually and insulated from each other. These protectors and specified instrumentation/transmitters shall be mounted in a single separate NEMA 3R stainless steel vented enclosure with three (3) point latch. The Surge arrestor shall be Square D or approved equal.

2.05 PUMP CONTROL PANEL (PCP)

A. Construction:

- 1. The panel shall include circuit breaker sized as required for main power. Breaker shall be mounted on the subpanel with handles through inner door. Circuit breaker ampacity voltage and interrupting capacity shall be listed on the Drawings. Main breaker shall be 18,000 amps AIC, Schneider Electric, Square D, Cutler Hammer, GE energy or approved equal.
- 2. Control panel shall be U.L. listed. Label to be on panel at time of inspection Pump control panel shall be NEMA 4X, Type 316 stainless steel enclosure painted white, with aluminum dead front panel. Cabinets shall be provided with a padlock staple and drip guard. Minimum metal thickness shall be 14-gauge. Cabinet doors shall be rubber gasketed with continuous hinge. Cabinet shall be suitable for rack mounting. Cabinet shall have print pocket

on interior side of door. A 3/4-inch stainless steel channel shall be welded on the rear of the pump control panels. Cabinet enclosure shall be as manufactured by Hoffman, or approved equal. See the electrical drawings for additional information.

- B. PCP shall provide complete automatic pump station control. Monitoring of the pump station control panel shall be from an external remote telemetry unit (RTU). An individual pump motor circuit protector, full voltage starter with three phase class 20 overload protection and manual resets, hand-off-remote selector switches, elapsed time meters, and surge protection devices shall be provided. Primary level control for pump operation shall be through the bubbler system using pressure switches. A high level alarm float shall be provided. This float shall operate the station in the event of a bubbler failure.
 - 1. Control circuits for the pressure and float switches shall be 120 volts ac.
 - 2. Cabinet shall also be complete with circuitry as required for RTU interface.
- C. PCP shall be monitored by the existing County's radio telemetry system central unit (CTU). Separate terminal blocks shall be provided in the pump control panel for interface to the RTU.
- D. Contractor shall be responsible for antenna and antenna tower and for providing all wire and conduit as required from the RTU to the pump control panel terminal block. The station RTU and antenna tower structure shall be located as shown on the drawings.
- E. A representative of Blackburn Controls shall certify the installation and provide startup of the RTU system.
- F. Operating Controls and Instruments; Pump Control Panel
 - 1. All operating controls and instruments shall be securely mounted on the control compartment door. All controls and instruments shall be clearly labeled to indicate function.
 - 2. Pump mode selector switch shall be Hand-Off-Auto type to permit override of automatic level control and manual actuation of shutdown of pump motor. Operation of pump in manual mode shall bypass all safety shutdown circuits except pump motor overload shutdown. Switches shall be oil-tight, as manufactured by Allen-Bradley, or approved equal, providing three (3) switch positions, each of which shall be clearly labeled according to function. Separate indicator lamps, which shall operate at 120 volts input, shall be provided mounted above H.O.A. selector switches. Lamps shall be

easily replaceable from the front of control compartment door without removing switch modules from their mounted positions.

3. Indicator lamps shall be mounted in oil-tight modules, as manufactured by Allen-Bradley, or approved equal. Lamp modules shall be equipped to operate at 120 volt input. Lamps shall be easily replaceable from the front of the control compartment door without removing lamp module from its mounted position.
 4. A six (6) digit, non-reset elapsed time meter shall be connected to the motor starter to indicate the total running time of the pump in "hours" and "tenth of hours". The elapsed time meter shall be Bulletin 705, HK Series as manufactured by Eagle Signal or approved equal.
 5. NEMA rated full voltage starters and motor circuit protectors shall be provided as noted on the drawings.
 6. Main and motor breakers shall be 18,000 amps AIC, Square D, Cutler Hammer or GE.
 7. See the electrical drawings for additional control component requirements and installation schematics.
- I. Level control shall be as shown on drawings.
- K. Wiring:
1. All interconnecting wiring, except for control circuits, shall be 600 volt insulation and rated for not less than 90 degrees C.
 2. Power distribution wiring on the line side of fuses shall be 14 AWG minimum. Control wiring on the secondary side of fuses shall be 16 AWG minimum. Electronic analog circuits shall utilize 16 AWG shielded, twisted pair cables, insulated for not less than 300 volts.
 3. Power and low voltage dc wiring systems shall be routed in separate wireways. Crossing of different system wires shall be at right angles. Different system wires routed parallel to each other shall be separated by at least 2 inches. Different wiring systems shall terminate on separate terminal blocks. Wiring troughs shall not be filled to more than 60 percent visible fill.
 4. All wiring shall terminate in a master terminal board, rigid type and numbered. The master terminal board shall have a minimum of 25 percent spares. Terminal blocks shall be arranged in vertical rows and separated into the following groups: Power, AC control, DC signal, and alarm.

Terminal blocks shall be barrier type with the appropriate voltage rating (600 volts minimum). They shall be raised channel mounted type. Wire connectors shall be the hook fork type with non-insulated barrel for crimp type compression connection to the wire. Wire and type markers shall be the sleeve type, with heat impressed letters and numbers. Direct interlock wiring between equipment will not be allowed. Only one side of a terminal block row shall be used for internal wiring. The field wiring side of the terminal shall not be within 6-inches of the side panel or adjacent terminal.

5. All wiring to hand switches, etc., which are live circuits independent of the panel's normal circuit breaker protection shall be clearly identified as such.
6. All wiring shall be clearly tagged and color coded. All tagged numbers and color coding shall correspond to the manufacturer's panel wiring diagrams. All power wiring, control wiring, grounding, and dc wiring shall utilize different color insulation for each wiring system used. Provide a terminal block schedule, typewritten describing all terminal point functions.
7. Each control circuit shall be individually protected by fuses or breakers. All protecting devices shall be clearly labeled and located for ease of maintenance.

L. Equipment Mounting/Arrangement:

1. All components shall be mounted in a manner that shall permit servicing, adjustment, testing and removal without disconnecting, moving or removing any other component. Components mounted on the inside of panels shall be mounted on removable plates and not directly to the enclosure. Mounting shall be rigid and stable unless shock mounting is required otherwise by the manufacturer to protect equipment from vibration. Components mounting shall be oriented in accordance with the internal components shall be identified with suitable plastic or metal engraved tags attached with drive pins adjacent to (not on) each component identifying the component in accordance with the drawing, specifications, and supplier's data.
2. All exterior panel mounted equipment shall be installed with suitable nameplates which identify the panel and individual devices as required.

PART 3 - EXECUTION

3.01 CONDUIT INSTALLATION

- A. Where conduits enter or leave all outlet boxes, cabinets safety switches, tap boxes, motor controllers, etc., other than those having threaded hubs, a standard lock nut

shall be used on the outside of the box. Bussing 1-inch and larger shall be of an approved insulated type. Conduits shall be supported as required by the N.E.C.

- B. During construction, all installed raceways shall be temporarily plugged or otherwise protected from the entrance of moisture, dirt, trash, plaster, moisture, etc., through neglect of the Contractor to so protect them, shall be replaced by the Contractor without additional expense to the County. No kinked, clogged or deformed raceways will be permitted on the job. Raceways shall be cut to proper length so that ends will fit accurately in the outlets. Where raceways cross building expansion joints, a suitable raceway expansion fitting shall be used.
- C. Size of raceway shall not be less than NEC requirements, but in no case shall be less than indicated on the Drawings. Combining of circuits, other than detailed, will not be permitted. The Contractor shall install larger size raceways than detailed where there is excessive length of unbroken run or excessive number of bends.
- D. Bends in metallic raceways shall be made while "cold" and in no case shall the raceways be heated. Raceways shall not be bent through more than 90°. The radius of bends shall not be less than six (6) times the internal diameter of the raceway. Not more than four (4) (equivalent 90°) bends will be permitted between outlets, the bends at the outlets being counted.
- E. Raceways shall be properly aligned, grouped and supported. Exposed raceways shall be installed at the right angles to or parallel to the principal structural members. Concealed raceways, unless otherwise indicated, may take the most direct route between outlets. Raceways shall be firmly held in place. Raceways shall run to avoid trapping wherever possible. Where areas are indicated for future openings, foundations, etc., all raceways shall be run around such areas. The Contractor shall provide necessary inserts in poured concrete areas.
- F. Contractor shall provide 4" high concrete housekeeping pads around all conduits above grade.

3.02 BOXES

- A. Install all outlet boxes, tap, junction or pull boxes, device boxes, etc., necessary for the complete installation as indicated on the Drawing and/or specified herein. All boxes shall be rigidly mounted and shall be equipped with suitable screw fastened covers. All raceways entering boxes shall be mechanically and electrically secure. Open knockouts or holes in boxes shall be plugged with suitable blanking devices. Boxes shall be cleared of all plaster, dirt, trash, etc., before the installation of any wiring devices and/or before the installation of cover plates.

3.03 CONDUCTORS

- A. Splices, taps and attachments of fittings and lugs shall be electrically and mechanically secure. Approved solder less lugs and connectors shall be used for all conductors with 2-bolt type being used for sized No. 4/0 and larger. There shall be plenty of slack cable in boxes, outlets and cabinets to insure that there is no binding at the bushings. All lugs shall be of the correct sizes for the conductor in order to fit the conductor into a lug. Taping of joints shall be either with Scotch electrical tape or varnished cambric tape and friction tape to secure insulation strength equal to that of the conductors joined.
- B. Splices shall be compression type with heat shrink weatherproof boot.

3.04 GROUNDING

- A. The entire electrical system shall be completely and effectively grounded as required by the NEC and as specified hereinafter.
- B. All metallic raceways shall be mechanically and electrically secure at all joints and at all boxes, cabinets, fittings and equipment. Metallic raceways entering the motor control center control panels or other electrical boxes shall be grounded to the appropriate ground bus. All metallic raceways shall be electrically continuous throughout the entire conduit system. Bond wires shall be used in exterior concrete pull boxes.
- C. The ground plane shall consist of a minimum of three (3) - 5/8" x 20' copper ground rods spaced at least 10' apart. Rods and system ground shall be connected to the service entrance ground as required by the drawings. The ground resistance shall be tested and additional rods or plates added to achieve a dry season resistance not exceeding 5 ohms. Ground test method shall be 3 point method fall of potential method.

3.05 CONDUCTOR COLOR CODING

- A. All conductors shall be color coded as specified hereinafter. Color coding shall be by means of colored insulation material, colored braid or jacket over the insulation, or by means of suitable colored permanent, non-aging insulation tape equal to Scotch #471 or "Texcel 98" applied to conductors at each outlet, cabinet or junction point.
- B. The following system of color coding shall be strictly adhered to:
 - 1. Ground leads, green.
 - 2. Grounded neutral leads, white.

3. Ungrounded phase wires of a delta connected 120/240-volt, 3-phase, and 4- wire system shall be black, orange and blue.
4. All control leads, other than line connected "hot" leads, shall be yellow, orange and brown and/or I.P.C.E.A. standard control cable coding provided method of identification is different from method used on power conductors.
5. The color coding assigned to each phase wire shall be consistently followed throughout the Work.

3.06 SUPPORTS

- A. The Contractor shall furnish and install all necessary supports for properly mounting all electrical equipment and raceways. All supports shall be stainless steel. Such supports shall be fabricated and installed in a neat and workmanlike manner, and care shall be taken that at no time shall any portion of the building structure be overloaded. Should the building structure sustain damage through carelessness or through failure of the Contractor to properly support and install the electrical equipment, the Contractor shall bear all costs involved in repairing or replacing such installation.

END OF SECTION

DIVISION 33

UTILITIES

SECTION 33 05 00

PIPE AND FITTINGS-GENERAL

PART 1 - GENERAL

1.0.1 REQUIREMENTS

- A. **Work Included:** The work in this section shall include the furnishing, installation, and testing of all pipe, fittings and structures, and furnishing the equipment, labor, and appurtenances for the installation of piped utilities. All work shall be completed as shown on the plans and as specified in related sections and hereunder.
- B. Where pipe supports are not indicated, it is the Contractor's responsibility to develop the details necessary to design and construct mechanical piping systems to accommodate the specific equipment provided, and to provide spacers, adapters, and connectors for a complete and functional system.

1.0.2 SUBMITTALS

- A. Submit a piping laying schedule showing every pipe length, fitting, valve and pipe supports. The pipe-laying schedule shall include pipe pressure class, type of valve and type of pipe support.
- B. Submit manufacturer's data for pipes, fittings and appurtenances.
- C. Submit certified affidavit of compliance with material specifications for all pipe, fittings, and appurtenances.
- D. Submit hydrostatic proof, sustained pressure and burst strength reports for tests performed by the manufacturer prior to shipping.
- E. Welding certificates.

1.0.3 RECORD DRAWINGS

- A. Submit record drawings prepared by a professional land surveyor that accurately record actual installed horizontal and vertical location of pipe, fittings, valves and other appurtenances in accordance with these specifications.
- B. Accurately record all deviations from engineering specifications on the record drawing submittal.
- C. Refer to Section 01 77 19 Project Closeout for additional requirements.

1.0.4 DELIVERY, STORAGE, AND HANDLING

- A. Piping materials, fittings, valves, and accessories shall be delivered in a clean and undamaged condition and stored off the ground for protection against oxidation caused by ground contact.
- B. Deliver pipes and tubes with factory-applied end caps. Maintain end caps through shipping, storage, and handling to prevent pipe end damage and to prevent entrance of dirt, debris, and moisture.
- C. Defective or damaged materials shall be replaced with new materials.

PART 2 - PRODUCTS

2.0.1 DUCTILE-IRON PIPE AND FITTINGS

- A. Standards: AWWA/ANSI C150/A21.50 and AWWA/ANSI C151/A21.51
- B. Pipe shall be designed for thickness in accordance with ANSI/AWWA C 151/A21.51, the latest version thereof subject to the following design criteria for both fittings and pipe: Pressure Class 350 for pipes less than 30" in diameter.
- C. Joints:
 - 1. Push-on or Mechanical Joints (below ground piping):
 - a. Standards: AWWA/ANSI C111/A21.11
 - b. Class: The working pressure of the joint shall be equivalent to or exceed the rated working pressure of the pipe.
 - c. Gaskets: SBR (Styrene Butadine Rubber)
 - 2. Flanged (above ground or inside below ground vaults):
 - a. Standards: AWWA/ANSI C115/A21.15, ANSI/ASME B16.1
 - b. Class: 125-lb factory applied screwed long hub flanges, plain faced without projection.
 - c. Gaskets:
 - i Spans less than 10-feet: full face 1/8-inch thick neoprene rubber
 - ii Spans greater than 10-feet: Toroseal gaskets as manufactured by American Cast Iron Pipe or an approved equal by Engineer.

3. Restrained Joints:

- a. Manufactured: "Flex-Ring" or "Lok-Ring" restrained joint system as manufactured by American Ductile Iron Pipe, or an approved equal by the Engineer.
- b. Gasket: "Fast-Grip" as manufactured by American Ductile Iron Pipe or "Field Lok" as manufactured by U.S. Pipe or an approved equal by the Engineer.
 - i May be used only for pipe sizes 4-inch through 24-inch on straight runs of pipe.
 - ii Shall not be used for:
 - 1) Fittings
 - 2) Within bore and jack casings
- c. Mechanical Restraining Devices: Meg-a-Lug system as manufactured by EBBA Iron or an approved equal by the Engineer.
- d. Class: 250-psi (minimum) design pressure rating
- e. Standard mechanical joint retainer glands will not be acceptable.

4. Joint Accessories

- a. Mechanical joint bolts, washers and nuts: Ductile iron or Corten steel.
- b. Flanged joint bolts, washers and nuts:
 - i Above Ground: Hot dipped galvanized, Grade B, ASTM A307
 - ii Below Ground: AISI Type 304 stainless steel

5. Pipe Length (below ground installation): 20-feet maximum nominal length.
D. Fittings:

- 1. Materials: Ductile iron, AWWA C110
- 2. Pressure Class

- a. Mechanical Joint, Restrained Joint: Minimum 250-psi pressure rating.
 - b. Flanged Joint: Class 125, plain
3. Compact Fittings: AWWA/ANSI C153/A21.53 (4-inch through 24-inch diameter only)
- E. The interior of ductile iron pipe and fittings shall have seal coat in accordance with ANSI/AWWA C104/A21.4, the latest version thereof. For ductile iron pipe used for sanitary sewer mains a Fusion-Bonded Epoxy lining or approved equal shall be provided.

2.0.2 POLYVINYL CHLORIDE (PVC) PIPE:

- A. PVC gravity sanitary pipe shall be green SDR 26 ASTM, D-3034 where a minimum of 4 feet of cover is provided and the burial depth is less than 10 feet. For burial depths of 10 feet or greater C900/C905 DR-25 minimum Pressure Class 100 shall be used.
- B. The joints for gravity sewer pipe and fittings shall be a rubber gasketed compression type designed to prevent infiltration. Joint lubrication shall be as furnished by the manufacturer.
- C. PVC sewer fittings shall conform to the requirements of ASTM D-3034 specifications. Wall thickness must meet established standard.
- D. All fittings shall be capped with a plug of the same material as the pipe, and gasketed with the same gasket material as the pipe joint, or be of material approved by the Engineer. The plug shall be able to withstand all test pressures involved without leakage.
- E. Installed conduits shall have a smooth internal wall surface and be clean and free of sand and other debris that will interfere with their intended use.

PART 3 - EXECUTION

3.0.1 PIPING SYSTEMS--COMMON REQUIREMENTS

- A. General: Install piping as described below, except where system sections specify otherwise. Individual piping system specification sections in Division 43 specify piping installation requirements unique to the piping system.
- B. General Locations and Arrangements: Exhibits (plans, schematics, and diagrams) indicate general location and arrangement of piping systems. Install piping as indicated in the submitted piping-laying schedule.

- C. Install components having pressure rating equal to or greater than system operating pressure.
- D. Install piping free of sags and bends.
- E. Install exposed interior and exterior piping at right angles or parallel to building walls. Diagonal runs are prohibited.
- F. Install piping tight to slabs, beams, joists, columns, walls, and other building elements.
- G. Locate groups of pipes parallel to each other, spaced to permit valve servicing.
- H. Install fittings for changes in direction and branch connections.
- I. Piping Joint Construction: Join pipe and fittings as follows and as specifically required in individual piping system sections.
 - 1. Ream ends of pipes and tubes and remove burrs.
 - 2. Remove scale, slag, dirt, and debris from inside and outside of pipe and fittings before assembly.

3.0.2 PIPE JOINT CONSTRUCTION

- A. Join gravity-flow, non-pressure, drainage piping according to the following:
 - 1. Join ductile iron, gravity sewer piping according to AWWA C600 for push-on joints.
 - 2. Join PVC piping according to ASTM D2321.
 - 3. Join dissimilar pipe materials with nonpressure-type, flexible couplings.
- B. Join force-main, pressure piping according to the following:
 - 1. Join ductile iron pressure piping according to AWWA C600 for push-on joints.
 - 2. Join PVC pressure piping according to manufacturer's recommendations.
 - 3. Join dissimilar pipe materials with pressure-type couplings.
- C. Pipe couplings, expansion joints, and deflection fittings with pressure ratings at least equal to piping rating may be used in applications below unless otherwise indicated.

1. Use non-pressure flexible couplings where required to join gravity-flow, non-pressure sewer piping unless otherwise indicated.
2. Use pressure pipe couplings for force-main joints.

3.0.3 GROUTING

- A. Install nonmetallic nonshrink grout for equipment base plates and anchors. Mix grout according to manufacturer's printed instructions. Section 03 60 00 Grouting.
- B. Clean surfaces that will come into contact with grout.
- C. Provide forms for placement of grout, as required.
- D. Avoid air entrapment when placing grout.
- E. Place grout around anchors.
- F. Cure placed grout according to manufacturer's printed instructions.

3.0.4 INSPECTION AND TESTING

- A. Hydrostatic Testing of Aboveground or Exposed Piping: Open vents at high points of the piping system to purge air while the pipe is being filled. Subject the piping system to the test pressure of 150-psi unless otherwise noted. Maintain the test pressure for a minimum of 2 hours. Examine joints, fittings, valves, and connections for leaks. The piping system shall show no leakage or weeping. Correct leaks and retest until no leakage is obtained.
- B. Hydrostatic Testing of Buried Piping:
 1. Where any section of the piping contains concrete thrust blocks or encasement, do not make the pressure test until at least 10 days after the concrete has been poured. When testing mortar-lined piping, fill the pipe to be tested with water and allow it to soak for at least 48 hours to absorb water before conducting the pressure test.
 2. Test Pressure: 50 percent (50%) above the normal working pressure, but not less than 150-psi, unless otherwise noted on the Contract Drawings.
 3. Apply and maintain the test pressure by means of a hydraulic force pump. Maintain the test pressure for a minimum duration of 2 hours. After the test pressure is reached, use a meter to measure the additional water added to maintain the pressure during the 2 hours. This amount of water is the loss due to leakage in the piping system. The allowable leakage rate is defined by the formula.

$$L = \frac{SD(P)^{1/2}T}{133,200}$$

in which:

L = Allowable Leakage During the Test Period (gallons)

S = Length of Pipe Tested (feet)

D = Diameter of the Pipe (inches)

P = Specified Test Pressure (psig)

T = Specified Time (hours)

4. Visible Leakage: All leaks evident at the surface shall be repaired and leakage eliminated regardless of the measured total leakage.
5. Leakage Measurement: The amount of water required to maintain the test pressure is the leakage.
6. Repair and retest any pipes showing leakage rates greater than that allowed.

Leakage Repair: Repairs to leaks shall be completed in strict accordance with the pipe manufacturer's written recommendations.

C. Pneumatic Testing:

1. Test Pressure: Minimum 1½ times working pressure.
2. Perform pneumatic testing using nitrogen. Perform tests only after the piping has been completely installed including supports, hangers, and anchors. Protect test personnel and NAU's operating personnel. Secure piping to be tested to prevent the pipe from moving and to prevent damage to adjacent piping and equipment. Remove or isolate from the pipe any appurtenant instruments or devices that could be damaged by the test, prior to applying the test.

Apply an initial pneumatic leakage test of 25-psig to the piping system prior to final leak testing. Examine for leakage, detected by soap bubbles, at joints and connections. After correcting visible leaks, gradually increase the pressure in the system to not more than one-half of the test pressure. Then increase the pressure in steps of approximately one-tenth of the test pressure until the required test pressure has been reached. Continuously maintain the pneumatic test pressure for a minimum time of 2 hours and for such additional time as may be necessary to conduct a soap bubble examination for leakage. The piping system shall show no leakage. Correct any visible leakage and retest.

D. Vacuum Testing:

1. Test Pressure: Minimum 1½ times working vacuum pressure.

Perform vacuum test after performing a pneumatic test (as previously specified) on all lines scheduled for vacuum testing. Develop a vacuum in the entire line being tested by use of temporary mechanical means and as measured by attached gauges. Develop vacuum slowly until test vacuum pressure has been achieved. Vacuum must hold for 4 hours without significant loss in vacuum pressure to demonstrate a leakproof system.

3.0.5 CLEANING

- A. Clean dirt and superfluous material from interior of piping.

END OF SECTION

SECTION 33 32 16

SUBMERSIBLE WASTEWATER PUMPS

PART 1 - GENERAL

1.01 DESCRIPTION

- A. Scope of Work: The work included under this Section consists of furnishing and installing submersible pumps, motors, level controls, control panels, certain, and related equipment fully tested, complete, and in operating condition as specified herein and/or as shown on the Drawings for LS No. 10 and LS No. 29.
- B. General Design:
 - 1. General:
 - a. Pumps shall be capable of handling raw and sludge with 3% solids in consistency. The design shall be such that the submersible pumping units will be automatically connected to the discharge piping when lowered into place on the discharge connection. The pumps shall be easily removable for inspection or service, requiring no bolts, nuts or other fastenings to be removed for this purpose and no need for personnel to enter pump well. Each pump shall be fitted with a suitable grip-eye cable or chain to permit raising the pump for inspection, removal, and installation.
 - b. The pumps shall be capable of meeting the requirements of Table 33 32 16-A.

1.02 QUALITY ASSURANCE

- A. Qualifications:
 - 1. The pumps, motors, control panels, hatch frame and cover, and guide bars shall be supplied by the pump supplier to assure unit responsibility.
 - 2. All equipment manufacturers shall have a minimum of five (5) years experience in the manufacturer of the type of equipment supplied for the intended service. Certification of experience shall be provided if required by the Engineer.
- B. Standards: All materials and methods of construction/fabrication shall be in accordance with the latest version of all applicable standards. When more than one standard applies, the standard which provides the higher degree of quality shall take precedence.

C. Warranty:

1. The pump manufacturer shall warrant the pumps being supplied to the County against defects in workmanship and materials for a period of five years under normal use, operation and service. Warranty shall be in accordance with Division 1 except that one year warranty shall be pro-rated to five years as specified below.
2. The manufacturer shall replace certain parts which shall become defective through normal use and wear on a progressive schedule of cost for a period of five years; parts included are the mechanical seal, impeller, pump housing, wear ring, and bearings. The warranty shall be in published form and apply to all similar units. The progressive schedule shall be:

Months:	0-18	19-39	40-60
Operating Hours:	0-3,000	3,000-6,500	6,500-10,000
Warranty:	100%	50%	25%

D. Equipment Manufacturers:

1. The naming or reference to a specific manufacturer in this specification does not indicate that the manufacturer's standard equipment is acceptable in lieu of the specified component features. This reference is only an indication that the named manufacturers may have the capability of supplying the equipment as specified.
2. Submersible pumps shall be as manufactured by Flygt Corporation or equal.

1.03 SUBMITTALS

- A. Materials and Shop Drawings: For all equipment to be furnished under this section, the Contractor shall submit shop drawings of the following, as a minimum, to the Engineer for approval in accordance with the provisions of Division 1:
1. Manufacturer's literature and illustrations.
 2. Manufacturer's certified curves showing pump characteristics of head, discharge, brake horsepower, efficiency and required net positive suction head.
 3. Shop Drawings - including details of pump assembly and installation layouts and procedures, motor control wiring diagrams, types of materials used in pump construction, details of all pump accessories, drive guards and dimensions of major components.
 4. Manufacturer's equipment handling and storage requirements.

B. Operating Instructions:

1. Operating and Maintenance data shall be furnished to the Engineer as provided in the General Conditions and Division 1. The instructions shall be prepared specifically for this installation and shall include all required cuts, drawings, equipment lists, descriptions and related items that are required to instruct operating and maintenance personnel unfamiliar with such equipment.

C. Manufacturer's Certification:

1. After acceptance of pump shop drawings, factory performance test data will be submitted for approval on each pumping unit. Certified tests on similar units are acceptable. Duplicate units will require only one test.
2. Tests shall be in accordance with the standards of the Hydraulic Institute including head, capacity, brake horsepower and pump efficiency.
3. A written certified test report giving the information as specified in 1.03 shall be supplied with each pump at the time of shipment.
4. The Contractor shall furnish the Engineer with a written certification signed by the Manufacturer's representative that the equipment has been properly installed and lubricated, is in accurate alignment, is free from undue stress imposed by piping or mounting bolts, and has been operated under full load conditions and that satisfactory operation has been obtained.

1.04 PUMP STATION STARTUP:

- A. A factory representative who has a complete knowledge of the proper operation and maintenance shall be provided for a minimum of one (1) 8-hour working day to instruct designated representatives of the County and the Engineer on proper operation and maintenance of equipment. This work may be conducted in conjunction to the inspection of installation and tests run as provided under Part 3 if approved by the County. The operation and maintenance instructions shall be provided at a time that is approved by the County and the Engineer.

1.05 PRODUCT DELIVERY, STORAGE AND HANDLING

- A. All equipment shall be delivered in suitable packages, cases or crates, and stored or placed as directed by the manufacturer. Each package shall have an identifying mark and a complete list showing contents. Equipment shall not be stored directly upon the ground.

- B. All equipment shall be lifted and handled in a manner so as not to damage or deform the equipment in any and in any special way as instructed by the manufacturer. Comply with Divisions 0 and 1.

1.06 SPECIAL TOOLS AND SPARE PARTS

- A. Special Tools: Provide special tools for normal operation and maintenance in accordance with the General Conditions and Division 1.
- B. Spare Parts: The pump supplier shall have published a guaranteed parts stock program in the State of Florida. These parts shall include at least one set of spare parts as detailed below for each different model of pump supplied on this Contract. Any pump supplier without a published guaranteed parts program shall supply the following spare parts for each pump as part of the bid:

- | | |
|-------------------------------|-----------------------------|
| 1. Upper Mechanical Seal | 7. Impeller Bolt |
| 2. Lower Mechanical Seal | 8. Impeller Key |
| 3. Wear Rings | 9. Upper Bearing |
| 4. Motor Cable | 10. Lower Bearing |
| 5. Cable Entry Washer/Grommet | 11. Complete Set of O-Rings |
| 6. Inspection Plug Washers | |

PART 2 – PRODUCTS

2.01 GENERAL

- A. All metal components in the wet well, with the exception of the pumps, guide rails, motors and station piping, shall be aluminum or 304 stainless steel.
- B. Piping: Pipe and fittings shall be ductile iron or carbon steel with flanges and conform to the requirements of Section 33 13 00. Flanges shall be drilled to a 125 pound ANSI Standard B 16.1 template.
- C. Pumps shall be submersible sewage pumps capable of pumping raw, unscreened sewage.

2.02 MATERIALS

- A. Pump:

1. Pump Housing: ASTM A-48, Cast Iron, Class 35
2. Impeller: ASTM A-48, Cast Iron, Class 35
3. Shaft: 20 hp and smaller – Type 431 Stainless Steel
Larger than 20 hp – C1035 Carbon Steel
4. O-Rings: Nitrile Rubber
5. Mechanical Seal: Tungsten Carbide
6. Hardware: AISI 304 Stainless Steel
7. Guide Rails: AISI 316 Stainless Steel
8. Wire Rope: AISI 304 Stainless Steel
9. Surface Finish: Acrylic Dispersion Zinc Phosphate with Polyester Resin Paint

B. Pump Construction:

1. The impeller shall be of a multiple vane, non-clog design capable of passing solids, fibrous material, and heavy sludge and constructed with long throughway and no acute turns. A wear ring system designed for abrasion resistance shall be installed at the inlet of the pump to provide protection against wear to the impeller.
2. Each pump shall be provided with a tandem double mechanical seal running in an oil reservoir, composed of two separate lapped face seals. Both the lower and upper mechanical seal assemblies consist of one stationary and one rotating tungsten carbide ring, with each pair held in contact with a separate stainless steel spring. The seals shall require neither maintenance nor adjustment and shall be easily replaceable. Conventional double mechanical seals with a single or double spring between the rotating faces, requiring constant differential pressure to effect sealing and subject to opening and penetration by pumping forces shall not be considered equivalent to the tandem seal specified and required.
3. A sliding guide bracket shall be an integral part of the pumping unit and the pump casing shall have a machined connecting flange to connect with the cast iron discharge connection, which shall be bolted to the floor of the pump chamber with stainless steel anchor bolts and so designed as to receive the pump connecting flange without the need of any bolts or nuts.

4. Sealing of the pumping unit to the discharge connection shall be accomplished by a simple linear downward motion of the pump with the entire weight of the pumping unit guided by no less than two guide bars to and pressing tightly against the discharge connection; no portion of the pump shall bear directly on the floor of the wet well and no rotary motion of the pump shall be required for sealing. Sealing at the discharge connection by means of a diaphragm, or similar method of sealing shall not be accepted as an equivalent to a metal contact of the pump discharge and mating discharge connection specified and required.
- C. Pump Motor: All motors shall be built in accordance with the latest NEMA, IEEE, ANSI, and AFBMA Standards where applicable. Motors for VFD applications shall be suitable for the intended use. The pump motor shall be induction type with a squirrel cage rotor, shell type design, housed in an air filled, watertight chamber, NEMA B type. The stator windings and stator leads shall be insulated with moisture resistant class H insulation rated for 180°C. The stator shall be insulated by the trickle impregnation method using class H monomer-free polyester resin resulting in a winding fill factor of at least 95%. The stator shall be heat-shrink fitted into the stator housing. The use of bolts, pins or other fastening devices requiring penetration of the stator housing is not acceptable. The motor shall be designed for continuous duty handling pumped media of 40°C and be capable of up to 15 evenly spaced starts per hour. If over-temperature condition is noted, then an indication light shall light, the pump motor shall trip off, and an alarm signal shall be transmitted to the control panel. Pump motors shall have cooling characteristics suitable to permit continuous operation, in a totally, partially or nonsubmerged condition. The cable entrance seal shall be provided by a compression fitting; epoxy fill shall be unacceptable which can crack when alternately heated and cooled or can make cable replacement difficult. Cable junction box and motor shall be separated by a stator lead sealing gland or terminal board which shall isolate motor from any water or solids gaining access through pump top. The pump shall not load the motor beyond its nominal (nameplate) rating at any point on the pump curve, not including a combined service factor of 1.15.
 - D. Cable: Pump motor cable shall be suitable for submersible pump applications and the rating shall be permanently embossed on the cable. Cable sizing shall conform to NEC requirement for the full load currents of the pump motors.
 - E. A minimum of three (3) thermal sensors shall be provided to sense excessive motor temperatures or seal leakage. These sensors shall be wired to the control panel for use in conjunction with the external motor overload protection. Moisture sensors shall be provided to sense excessive seal leakage if recommended by the pump manufacturer for complying with the pump warranty.

2.03 ACCESSORIES

- A. Pump Access Frame, Hatches and Guides (Lift Stations Only)

1. Material: Structural aluminum or stainless steel.
2. Design:
 - a. Liveload: 300 pounds per square foot.
 - b. Standard angle frame (1-1/2 inch drainage coupling) with continuous concrete anchor.
 - c. Hatch cover (diamond pattern) opens 90° and locks automatically with stainless steel positive locking arm and release handle.
3. Frame attachments (all 304 stainless steel):
 - a. Upper guide rail holders.
 - b. Level sensor holder.
 - c. Lift cable holder.
4. Hatch hinges: heavy duty 304 stainless steel hinges with tamper proof fasteners.
5. Accessories:
 - a. Lifting handle: 304 stainless steel.
 - b. Lock: 304 stainless steel
6. Finish: Mill finish with bituminous coating applied to exterior of frame.
7. Manufacturer: Halliday Products or approved equivalent.

B. Guide Rails:

1. General: There shall be no exception to using guide rails. Guide wires shall not be accepted.
2. Material: Schedule 40 welded Type 316 stainless steel.
3. Size: as recommended by the pump manufacturer.

C. Intermediate Guide Rail Bracket:

1. Material: Type 304 stainless steel (min 1/4" thick).

2. Size: as recommended by the pump manufacturer.
- D. Pump Station Level Controls:
1. See Division 26 for specification of level controls.

2.04 FACTORY TESTS

- A. Factory Tests: The pump manufacturer shall perform the following tests on each pump before shipment from the factory:
1. Megger the pump for insulation breaks or moisture.
 2. Prior to submergence, the pump shall be run dry and checked for correct rotation.
 3. Pump shall be run for 30 minutes in a submerged condition.
 4. Pump shall be removed from test tank, meggered immediately for moisture; oil plugs removed for checking lower seal; inspection plug removed for checking of upper seal and possible water intrusion of stator housing.

2.05 PUMP CONTROLS

- A. Refer to Division 26 for pump control requirements.

PART 3 – EXECUTION

3.01 INSTALLATION

- A. Installation shall be in strict accordance with the manufacturers instructions and recommendations in the location shown on the Drawings. Installation shall include furnishing the required oil and grease for initial operation. The grades of oil and grease shall be in accordance with the manufacturer's recommendations. Anchor bolts shall be set in accordance with the manufacturer's recommendations.
- B. During installation of the pump do not drop or submerge the cable ends into the tank liquid. If the cable end is submerged after the service end seal is broken, the entire cable shall be replaced with new cable.

3.02 INSPECTION AND TESTING

- A. The Contractor shall furnish the services of a factory representative who has a complete knowledge of the proper operation and maintenance of all equipment furnished. Manufacturer's field services shall be provided in two parts as follows:

1. Equipment "Check-Out": The Contractor shall furnish the services of the manufacturer's experienced, factory-trained, authorized service representative for a minimum of one (1) 8-hour day. The manufacturer's representative shall inspect and perform "check-out" tests to assure and certify proper installation and operation of the equipment as specified in Division 1.
2. Equipment Start-Up and Demonstration Tests: The Contractor shall furnish the services of the manufacturer's experienced, factory-trained, authorized service representative for a minimum of one (1) 8-hour day. The manufacturer's representative shall inspect and perform "start-up" or "demonstration" tests to assure and certify proper operation of the equipment as specified in Division I and shall instruct representatives of the County and the Engineer on the proper operation and maintenance of the equipment at a time approved by the County. With the permission of the County, these services may be combined with those provided under Paragraph 1.03. Field tests shall not be conducted until such time that the entire installation is complete and ready for testing. If there are difficulties in operation of the equipment due to the manufacturer's design or fabrication, additional services shall be provided at no cost to the County.

B. Field Testing of Equipment:

1. General
 - a. After all equipment has been completely installed, and working under the direction of the manufacturer, conduct in the presence of the Engineer, such tests as are necessary to indicate that equipment conforms to the Specifications. Field tests shall include all equipment included under this Section. Supply all electric power, water or wastewater, labor, equipment and incidentals required to complete the field tests.
 - b. If the equipment performance does not meet the Specifications, corrective measures shall be taken or the equipment shall be removed and replaced with equipment which satisfies the conditions specified. A demonstration operating period of the equipment shall be required before acceptance. During this demonstration operating period, the Contractor shall supply all power necessary.
2. Demonstration Tests:
 - a. Upon completion of all the mechanical work, the Contractor shall conduct testing as specified herein to demonstrate that the equipment performs in accordance with all specifications.

- b. The Contractor shall perform initial testing of the equipment insuring to himself that the test listed in the Demonstration Test paragraph below can be satisfactorily complete.
- c. The Demonstration Test shall demonstrate that all items of these Specifications have been met by the equipment as installed and shall include, but not be limited to, the following tests:
 - 1) That the quick lift out feature functions properly and allows the pumps to be raised and lowered with the hoist without draining the tank.
 - 2) That all units have been properly installed and are in correct alignment and rotation.
 - 3) That the units operate without overheating or overloading any parts and without objectional vibration.
 - 4) That there are no mechanical defects in any of the parts.
 - 5) That the pumps can deliver the specified pressure and quantity.
 - 6) That the pumps shall be capable of pumping the specified service liquid.
 - 7) That the pump sensors and controls perform satisfactorily and proper alarm functions.
 - 8) That the pump, including motor and gearbox, is capable of continuous operation in air, completely unsubmerged, for two (2) hours.
- d. In the event that the equipment does not meet the Demonstration Test, the Contractor shall, at his own expense, make such changes and adjustments in the equipment which he deems necessary and shall conduct further tests until full satisfaction is indicated by the Engineer and written certification is received thereof.
- e. The County shall pay the salaries of the personnel selected by the County for operation of the equipment. Payment of all other salaries, public utility services, and operating expenses shall be borne by the Contractor for the test period and any additional test period required.

**TABLE 33 32 16 -A
PUMP PERFORMANCE SCHEDULE**

Parameter	LS#10	LS#29
Number of Pumps	2	2
Pump Type	Standard Submersible	Standard Submersible
Type of Drive	Constant Speed	Constant Speed
Max. Design Capacity per Pump, GPM/Ft TDH	100 / 63	360/99
Min. Design Capacity per Pump GPM/Ft. TDH	N/A	N/A
Minimum Discharge Size, In.	2	4
Maximum Horsepower Per Pump, HP	10	20

END OF SECTION

SECTION 33 33 13

VALVES AND ACCESSORIES

PART 1 - GENERAL

1.01 DESCRIPTION

A. Scope of Work: Furnish, install, support, and test valves, gates, hydrants, strainers, stops, and faucets, (hereinafter referred to as "valves") in the location(s) and of the size(s) and quantities as shown on the Contract Drawings and specified herein. The requirements of this specification apply to all valves specified.

B. General Design:

1. All of the equipment and materials specified herein are intended to be standard for use in controlling the flow of wastewater, potable water, sludge, chemicals, air, etc., depending on the applications.
2. All valves and appurtenances shall have the name of the manufacturer and the working pressure for which they are designed cast in raised letters upon some appropriate part of the body.
3. For all buried valves in which the operating nut is deeper than 4-feet from the finish ground surface, an extension rod with 2-inch operating nut and upper guide shall be installed permanently in the riser section.
4. Extension stems shall be provided on all valves where the operating nut is more than 3-feet below finish grade with sufficient extension to place the operating nut between 24 and 36-inches below finish grade. Provided approved stem guides and valve boxes.
5. All exposed valves shall have "open/closed" position indicators. The position indicators shall be conveniently located for easy visibility. Valves shall open counter clockwise.
6. All valves installed such that actuators more than 6-feet above the floor shall have chain wheel operated geared actuators with stainless steel chains. Gear actuators shall be bevel or spur gear as recommended by the manufacturer.
7. All exposed valves 6-inches and larger shall be handwheel operated.
8. Valve packing shall be replaceable without removing the valve from service.

C. Related Work:

1. Division 01: General Requirements

1.02 QUALITY ASSURANCE

A. Qualifications:

1. All equipment furnished under this Specification shall be new and unused and shall be a standard product which has a successful record of reliable service in similar installations for a minimum of five (5) years.

2. All valves of same type and duty shall be furnished by a single manufacturer.

B. Standards:

- | | |
|---------|---------|
| 1. ANSI | 3. SSPC |
| 2. AISI | 4. AWWA |

C. Warranty: Provide manufacturer's warranty in accordance with the Division 01 - General Requirements.

D. Equipment Manufacturers

1. Equipment manufacturers are named in each individual valve specification.
2. The naming or reference to a specific manufacturer does not indicate that the manufacturer's standard equipment is acceptable in lieu of the specified component features. This reference is only an indication that the named manufacturers may have the capability of supplying the equipment as specified.

1.03 SUBMITTALS

A. Materials and Shop Drawings: Copies of all materials required to establish compliance with the Specification shall be submitted in accordance with Section 01 33 23 - Submittals. Submittals shall include at least the following:

1. Certified shop drawings showing all important details of construction, dimensions (including laying length), and weight.
2. Descriptive literature, bulletins, and/or catalogs showing all valve parts, and describing material of construction by material and specification, e.g., AISI.

3. Schedule of valves, referencing each valve type, end connections and actuators to the proposed location/application on the Contract Drawings.

4. Valve coatings and linings, if any.

5. See individual sections for additional requirements.

B. Operation and Maintenance Manuals: For all valves furnished under this Section, the Contractor shall submit operation and maintenance manuals in accordance with Division 01 – General Requirements, to include the following:

1. Equipment function.

2. Description.

3. Normal and limiting operating characteristics.

4. Installation instructions (assembly, alignment and adjustment procedures).

5. Operation instructions (normal start-up and shut-down procedures, normal operating conditions and emergency situations).

6. Lubrication and maintenance instructions.

7. Troubleshooting guide.

8. Parts list and predicted life of parts subject to wear.

9. Drawings - cross-sectional view, assembly diagrams.

1.04 PRODUCT DELIVERY, STORAGE AND HANDLING

A. Delivery of Materials and Equipment

1. All parts shall be properly protected so that no damage or deterioration will occur during a prolonged delay from the time of shipment until installation is completed.

2. Factory assembled parts and components shall not be dismantled for shipment unless permission is received in writing from the Engineer.

3. Finished surfaces of all exposed openings shall be protected by wooden blanks, strongly built and securely bolted thereto.

4. Finished iron or steel surfaces not painted shall be properly protected to prevent rust and corrosion.

5. After hydrostatic or other tests, all entrapped water shall be drained prior to shipment, and proper care shall be taken to protect parts from the entrance of water during shipment, storage and handling.

6. Each box or package shall be properly marked to show its net weight in addition to its contents.

B. Storage of Materials and Equipment

1. Store valves and accessories in an area on the construction site protected from weather, moisture, or possible damage.

2. Do not store valves or accessories directly on the ground or in the open.

C. Handling of Materials and Equipment

1. Handle valves and accessories to prevent damage of any nature.

2. Carefully inspect all materials for:

a. Defects in workmanship and materials.

b. Removal of debris and foreign material in valve openings and seats.

c. Proper functioning of all operating mechanisms.

d. Tightness of all nuts and bolts.

1.05 SPECIAL TOOLS AND SPARE PARTS

A. Special Tools

1. All special tools required for normal operation and maintenance shall be provided in accordance with Division 01.

2. One (1) each tee handle operator shall be provided for every three (3) buried valves.

PART 2 - PRODUCTS

2.01 GENERAL

A. Materials shall be as indicated herein, or on the Contract Drawings, and compatible with intended use.

B. Valves shall have the name of the manufacturer and the size of the valve cast or molded onto the valve body or bonnet or shown on a permanently stainless steel attached plate.

C. Bolts, washers, nuts, and gaskets for flanged valves shall be as described in the specific piping sections.

D. Coat metal valves located above ground or in vaults and structures are the same as the adjacent piping. Apply the specified prime coat at the place of manufacture. Apply finish coat in field. Finish coat shall match the color of the adjacent piping. All prime and finish coats shall be in compliance with Section 09 96 00 – Protective Coating.

2.02 VALVE IDENTIFICATION

A. On all valves except shut-off valves located at a fixture or piece of equipment, the Contractor shall provide a coded and numbered tag attached with brass chain and/or brass "S" hooks.

1. Tag types

- a. Tags for valves on pipe and tube lines conducting hot medium (steam, condensate, hot water, air, etc.) shall be brass or anodized aluminum.
- b. Tags for all other valves shall be color plastic.
- c. Colors for aluminum and plastic tags shall, where possible, match the color code of the pipe line on which installed.
- d. Square tags shall be used to indicate normally closed valves and round tags shall indicate normally open valves.

2. Coding: In addition to the color coding, each tag shall be stamped or engraved with wording or abbreviations to indicate the line service. All color and letter coding shall be approved by the Engineer.

3. Manufacture: Tags shall be as manufactured by Seton Name Plate Corporation, Floy Tag & Manufacturing Co. or approved equivalent.

4. Valve Schedule: the Contractor shall provide a typewritten list of all tagged valves giving tag color, shape, letter code and number, the valve size, type, use and general location within building.

2.03 PLUG VALVES

- A. **GENERAL:** All plug valves, unless specifically shown otherwise on the drawings, shall be of nonlubricated, eccentric plug type with Buna "N" neoprene, epoxy or fusion bonded, nylon faced plugs. Valve bodies shall be ASTM A126, Class B cast iron with all exterior mounted bolts and nuts to be stainless steel. Port areas of 4 inch through 20 inch valves shall be at least 80% full pipe area and 24 inch and larger valves shall be at least 70% full pipe area. The valve seat material shall consist of either a welded in 1/8 inch overlay of 90% pure nickel, or 316 stainless steel screwed into the cast iron body. Upper and lower plug stem bearings shall be sleeve-type of a stainless steel or other non-corrosive bearing material. The packing shall be adjustable and the bonnet shall be bolted. All bolts, nuts and washers shall be 316 stainless steel for buried, non-buried, and pit installed service. All buried valves on push-on joint pipe shall have mechanical joint ends and meet the requirements of ANSI A21.11. All exposed (non-buried) valves shall have flanged ends in accordance with American Standard B16.1, Class 125. The valves shall be rated for a minimum of 150 psi, non-shock cold W.O.G. and shall provide drip-tight shut off with this pressure in either direction. The operating nut or hand wheel shall have an arrow cast in the metal indicating direction of opening. The valve manufacturer shall furnish certified copies of performance, leakage and hydrostatic testing as outlined in AWWA C504. The interior of all plug valves shall be epoxy coated.
- B. **OPERATORS/ACTUATORS:** All plug valves 8 inches and larger shall be equipped with totally enclosed worm gear actuators complying with AWWA C504. All gearing shall run in oil. The actuator housing shall be semi-steel with seals to prevent dirt or water from entering the housing. Shaft bearings shall be permanently lubricated bronze bushings. Appropriately sized hand wheel operators shall be provided for each non-buried, gear-actuated valve.
- C. **BURIED VALVES:** Buried valves shall have seals on all shafts and gaskets on the valve covers. Buried valves shall be provided with 2 inch square operating nuts.
- D. **VALVE JOINTS:** All plug valves shall have mechanical joint ends if buried on push-on joint pipe or flanged ends if above ground on flanged pipe.

2.04 CHECK VALVES

Check valves shall conform to the requirements of AWWA C508. Check valves larger than 2 inch nominal size shall be iron body with stainless steel bolts and nuts, flanged ends, 316 stainless steel shaft connected to a steel outside lever and weight, swing-type with straight-away passageway of full pipe area. The valve shall have renewable bronze seat ring and rubber-faced disc. Check valves larger than 2 inches shall be 150 psi working pressure. Check valves 2 inches and smaller nominal size shall be all brass swing check valves, 200 psi working pressure.

PART 3 - EXECUTION

3.01 INSTALLATION

- A. Install valves and accessories in strict accordance with manufacturer's instructions and recommendations, as shown on the Contract Drawings and/or as directed by the Engineer.
- B. Carefully erect all valves and support them in their respective positions free from distortion and strain.
- C. Bolt holes of flanged valves shall straddle the horizontal and vertical centerlines of the pipe run to which the valves are attached. Clean flanges by wire brushing before installing flanged valves. Clean flange bolts and nuts by wire brushing, lubricate threads with oil and graphite, and tighten nuts uniformly and progressively. Clean threaded joints by wire brushing or swabbing. Apply Teflon joint compound or Teflon tape to pipe threads before installing threaded valves. Joints shall be watertight.
- D. Support all valves connected to pumps and equipment, and in piping systems that cannot support valves.
- E. Repair any scratches, marks and other types of surface damages, etc., with original prime coating as supply by the factory.
- F. Apply finish coating in accordance with Division 09.

3.02 INSPECTION AND TESTING

- A. Check and adjust all valves and accessories for smooth operation.
- B. Test valves for leakage at the same time that the connecting pipelines are tested. Protect or isolate any parts of valves, operators, or control and instrumentation systems whose pressure rating is less than the pressure tests.
- C. If flanges leak under pressure testing, loosen or remove the nuts and bolts, reseal or replace the gasket, reinstall or retighten the bolts and nuts, and retest the joints.

END OF SECTION

ADDENDA



NASSAU COUNTY
BOARD OF COUNTY COMMISSIONERS
Contract Management Department
96135 Nassau Place, Suite 2
Yulee, Florida 32097
904-530-6040

Grayson Hagins
ghagins@nassaucountyfl.com

TO: All Proposers
FROM: Grayson Hagins, Contract/Purchasing Manager
SUBJECT: Addendum #1
Invitation to Bid, Bid Number NC19-010
NAU Lift Stations #10 & #29 Rehabilitation
December 05, 2019

REMINDER: This addendum must be acknowledged, on the Bid Form Section 3.01. A. Failure to comply may result in disqualification of your submittal.

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

Part 1 – Questions & Answers

Will you please provide us with the engineers estimate for the above-mentioned bid?

Ans: \$344,000

Part 2 – Clarifications

N/A

ATTACHMENTS:

**Sign-In Sheets for Non-Mandatory Pre-Bid
Agenda for Non-Mandatory Pre-Bid**

NOTE: You are required to acknowledge receipt of this addendum on the Bid Form, Section 00-41-15, Article 3.01.A.

End of Addendum #1

NAU LIFT STATION #10 & #29 REHABILITATION
 NASSAU COUNTY, FLORIDA
 BID NO. NC19-010

NON-MANDATORY PRE-BID MEETING

Tuesday, December 3, 2019 @ 2:00 P.M.
 96135 Nassau Place, Office of Management and Budget Conference Room, Yulee, Florida 32097

CONTRACTOR SIGN IN SHEET [PLEASE PRINT]

SIGN IN	COMPANY NAME	COMPANY ADDRESS	PHONE/FAX	EMAIL ADDRESS
RANDY BOOZE	INTER-COUNTY ENGINEERING	APOPKA FL,	Ph.: 954-972-9800 Fax:	BIDS@rfcenvironmental.com
Mike Leonard	Mersino	Edgewater FL	Ph.: (904) 352-9336 Fax:	mike.leonard@mersino.com
JOE FISHER	PETICOAT-SCHMITT	JACKSONVILLE, FL.	Ph.: (904) 576-0898 Fax:	jfisherpetticoatschmitt.com
Will Fontaine	FOUA	Longwood, FL	Ph.: 352-409-6530 Fax:	wfontaine@goumser.com
Ron Ketteman	USWSC	JACKSONVILLE, FL	Ph.: 904 612 9177 Fax:	rketteman@uswatercorp.net
TODD PATRICK	GRIMES UTILITIES, INC.	385 CORPORATE WAY ORANGE PARK, FL 32073	Ph.: 904-264-0046 Fax: 904-264-0103	todd@grimesutilities.com
Lee Hilbert	Xylem Inc	6975 W. 12TH ST JAX FL	Ph.: 904 695.2131 Fax: 904 695.2103	Lee.Hilbert@xyleminc.com
			Ph.: Fax:	
			Ph.: Fax:	

**NAU LIFT STATION #10 & #29 REHABILITATION
NASSAU COUNTY, FLORIDA
BID NO. NC19-010**

NON-MANDATORY PRE-BID MEETING

**Tuesday, December 3, 2019 @ 2:00 P.M.
96135 Nassau Place, Office of Management and Budget Conference Room, Yulee, Florida 32097**

STAFF SIGN IN SHEET (initial or sign-in)

SIGN IN	COMPANY NAME	COMPANY ADDRESS	PHONE/FAX	EMAIL ADDRESS
Grayson Hagins	Contract Management	96135 Nassau Place Yulee, FL 32097	Ph.: Fax:	
Jay Ameno	GAI Consultants	called in via phone (Not in Attendance)	Ph.: Fax:	
Will Fontaine	FGUA	280 W. King Springs Rd Suite 2070 Longwood, FL 32779	Ph.: 352-409-6580 Fax:	wfontaine@govmserve.com
Josh Stillwagon	NAU	5390 1st Coast Highway Fernandina Beach, FL 32034	Ph.: 904-830-6450 Fax:	jstillwagon@nassaucountyfl.com
			Ph.: Fax:	
			Ph.: Fax:	
			Ph.: Fax:	
			Ph.: Fax:	
			Ph.: Fax:	

			Ph.:	
			Fax:	

AGENDA

NAU Lift Stations 10 & 29 Rehabilitation
BID NUMBER NC19-010

NON-MANDATORY PRE-BID CONFERENCE

Tuesday, December 3, 2019 @ 2:00 P.M.
James S. Page Governmental Complex
Office of Management and Budget Conference Room
96135 Nassau Place, Yulee, FL 32097

1. INTRODUCTIONS

- a. County -Nassau County Board of County Commissioners
- b. Contract Management:
Grayson Hagins, Contract/Purchasing Manager
- c. Nassau Amelia Utilities (NAU):
Josh Stillwagon
- d. Engineer of Record:
GAI Consultants
- e. FGUA
Will Fontaine

Sign-In Sheets: Be sure that at least one representative from each firm that is present signs in and provide the requested contact information. Please print legibly; business cards will be accepted for additional backup for point of contact. **Copies of the sign-in sheets will be provided as part of the next addendum issued.**

2. BIDDING REQUIREMENTS & BID PROPOSAL

- a. General
 - (1) Bid Due Date/Time: Wednesday, December 18, 2019 @ 4:00 p.m.
 - (2) Bid Opening Date: Thursday, December 19, 2019 @ 10:00 a.m., or soon thereafter

(3) Must be received at the office of John Crawford, Ex-Officio Clerk, 76347 Veterans Way, Suite 456, Yulee, Florida 32097, by the date and time referenced above. The Judicial Annex is a secured facility; if delivering your bid on the bid due date, please allow sufficient time for security check point. Office is located on the 2nd floor of the building.

(4) Bid must be sealed and marked "Nassau Amelia Utilities (NAU) Lift Stations No. 10 and No. 29 Rehabilitation, Bid Number NC19-010".

(5) Bid Bond- 5% of the total amount of the bid

3. PROJECT OVERVIEW (Provided by NAU and Engineer of Record)

WORK DESCRIPTION

Part A: This project consists of replacement of Lift Station (LS) No. 10 for Nassau Amelia Utilities. The work to be performed is generally described as Replacement of LS No.10 with a duplex submersible pump station and includes but not limited to:

Site furnishing of all equipment, labor, materials and supervision necessary for replacement of wastewater Lift Station No. 10, including but not limited to all demolition, proper disposal, pump, pipe and valve replacement, electrical and mechanical demolition and replacement, associated site grading and restoration, pump and haul operations, all associated materials, labor and equipment, and all incidental work as called for in the Contract Documents complete and in place. The Contractor shall furnish, install, test and place in operation the submersible pumping station shown on the drawings and specified hereinafter. All applicable sections of Nassau County Standard Specifications and JEA 2018 Water and Wastewater Standards shall be considered part of this work. All references to Industry Standards (ASTM, ANSI, etc.) shall be to the latest revision unless otherwise stated. Only those materials included in the JEA Water and Wastewater Standards Manual, unless called out different within the Contract Documents, shall be installed. All materials shall be new unless specifically called for otherwise. All structures, pumps and panels shall require a complete shop drawing submittal, as detailed in this specification for review and approval prior to the start of construction.

Part B: This project consists of replacement of Lift Station (LS) No. 29 for Nassau Amelia Utilities. The work to be performed is generally described as Replacement of LS No.29 with a duplex submersible pump station and includes but not limited to:

Site furnishing of all equipment, labor, materials and supervision necessary for replacement of wastewater Lift Station No. 29, including but not limited to all demolition, proper disposal, pump, pipe and valve replacement, electrical and mechanical demolition and replacement, associated site grading and restoration, pump and haul operations, all associated materials, labor and equipment, and all incidental work as called for in the Contract Documents complete and in place. The Contractor shall furnish, install, test and place in operation the submersible pumping station shown on the drawings and specified hereinafter. All applicable sections of Nassau County Standard Specifications and JEA 2018 Water and Wastewater Standards shall be considered part of this work. All

references to Industry Standards (ASTM, ANSI, etc.) shall be to the latest revision unless otherwise stated. Only those materials included in the JEA Water and Wastewater Standards Manual, unless called out different within the Contract Documents, shall be installed. All materials shall be new unless specifically called for otherwise. All structures, pumps and panels shall require a complete shop drawing submittal, as detailed in this specification for review and approval prior to the start of construction.

All work shall be in accordance with the construction drawings, specifications, and contract documents.

4. PROJECT SCHEDULE

- a. Bidder agrees that the work will be substantially completed within one hundred eighty (180) days from the Notice to Proceed.
- b. Bidder agrees that the work will be completed and ready for final payment within thirty (30) days from substantial completion.
- c. Total contract time shall be two hundred ten (210) calendar days; for everyday the work goes beyond substantial completion, a day will be removed from final completion so that total days equal two hundred (210) calendar days.

5. QUESTIONS/REQUEST FOR CLARIFICATIONS

****ALL QUESTIONS MUST BE ADDRESSED IN WRITING AND SENT TO CONTRACT MANGEMENT TO ISSUE AN ADDENDUM. NO INTERPRETATION OF THE MEANING OF THE PLANS, SPECIFICATION OR OTHER PRE-BID DOCUMENTS WILL BE MADE TO ANY BIDDER ORALLY****



NASSAU COUNTY
BOARD OF COUNTY COMMISSIONERS
Contract Management Department
96135 Nassau Place, Suite 2
Yulee, Florida 32097
904-530-6040

Grayson Hagins
ghagins@nassaucountyfl.com

TO: All Proposers
FROM: Grayson Hagins, Contract/Purchasing Manager
SUBJECT: Addendum #2
Invitation to Bid, Bid Number NC19-010
NAU Lift Stations #10 & #29 Rehabilitation
December 16, 2019

REMINDER: This addendum must be acknowledged, on the Bid Form Section 3.01. A. Failure to comply may result in disqualification of your submittal.

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

Part 1 – Questions & Answers

What are the peak flows for No. 10 and No. 29 lift stations?

Ans: Please see attached chart

Part 2 – Clarifications

N/A

ATTACHMENTS:

Section 33 32 16 Submersible Water pumps

NOTE: You are required to acknowledge receipt of this addendum on the Bid Form, Section 00-41-15, Article 3.01.A.

End of Addendum #2

- d. In the event that the equipment does not meet the Demonstration Test, the Contractor shall, at his own expense, make such changes and adjustments in the equipment which he deems necessary and shall conduct further tests until full satisfaction is indicated by the Engineer and written certification is received thereof.
- e. The Owner shall pay the salaries of the personnel selected by the Owner for operation of the equipment. Payment of all other salaries, public utility services, and operating expenses shall be borne by the Contractor for the test period and any additional test period required.

**TABLE 33 32 16 -A
PUMP PERFORMANCE SCHEDULE**

Parameter	LS#10	LS#29
Number of Pumps	2	2
Pump Type	Standard Submersible	Standard Submersible
Type of Drive	Constant Speed	Constant Speed
Max. Design Capacity per Pump, GPM/Ft TDH	100 / 63	360/99
Min. Design Capacity per Pump GPM/Ft. TDH	N/A	N/A
Minimum Discharge Size, In.	2	4
Maximum Horsepower Per Pump, HP	10	20

END OF SECTION

APPENDICES

APPENDIX A

AS-BUILTS REQUIREMENTS



Nassau County Engineering Services Department
96161 Nassau Place
Yulee, Florida 32097

AS-BUILT REQUIREMENT CHECKLIST:

The following list is intended to highlight the majority of the as-built requirements for Construction projects in Nassau County. This list should not be considered to be all-inclusive as each project is unique in nature and may require additional information that can only be determined during the course of the project's completion. Generally, however, the AS-BUILT information shall contain the following:

1. AS-BUILTS should be based on the design plans as approved through the DRC process. The submitted as-builts should be at the same scale and have the same orientation as the design files.
2. AS-BUILTS should have the same page numbering as the design plans, and the cover of the AS-BUILT plans should have all sheets from the design plans listed with sheets not "AS-BUILT" stricken through.
3. AS-BUILTS should display the original design information as displayed on the plan sheets with the design information stricken through and the as-built information displayed in bold adjacent to the design information.
4. AS-BUILTS shall be accompanied by an "Engineer's Certification" form from the Engineer of Record. (Exhibits 3 & 4)
5. Three (3) sets of fully signed and sealed AS-BUILTS should be submitted along with CD containing the PDF file(s) and CADD file(s) of the AS-BUILT information. CADD files should be in State Plane coordinates (NAD 83) with a vertical datum of NAVD88 or NGVD 1929 (with the datum shift noted). Furthermore, CADD files should only be submitted in ACAD version 2013 or later.
6. Northing and Easting of all drainage structures should be included.
7. The plans should be clearly legible, and all structure notes, distances, angles and elevations should be clearly readable.
8. If the plan represents a phase of a development, then that phase should be clearly identified for clarity and avoid confusion with future phases.
9. There should be a north arrow and scale on each sheet.
10. A legend should be included explaining the symbols used in the plans.
11. ALL sheets must be signed and sealed by a surveyor licensed in the State of Florida.

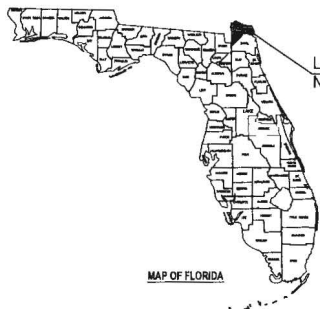


12. There should be sufficient "plan" and "as-built" elevations shown to verify that the streets were constructed substantially in accordance with the approved construction plans. Generally, the County will review all low points and high points in the street and verify that the minimum grade exists for each street. On straight sections between high and low points elevations should be taken every 200 feet.
13. All street curve radii should be shown on the plans or in a table.
14. Street widths and curb type should be identified for each street on each sheet.
15. Whenever there are islands within the streets the as-builts should include dimensions for these islands.
16. The paved radii of all Cui-de-Sacs should be listed and Cul-De-Sac center and edge of pavement or gutter elevations at quarter points shall be shown.
17. All underdrains should be shown with size, lengths, inverts and cleanouts all shown.
18. Where swales are utilized there should be sufficient flow line elevations and ditch cross sections to verify capacity of the channel.
19. There should be a comparison table of design and as-built pipe sizes, lengths, invert elevations, and pipe slopes.
20. The as-built surface area of the pond(s) at Normal Water Level (design) and Top of Bank (as-built) should be included.
21. The bottom elevation and area should be shown (2 locations min. per pond).
22. The surveyor shall certify by note (for each pond) that no slope is greater than 1:4 above the design NWL, unless the pond is fenced.
23. All structures in the pond (overflow weirs, etc.) should be included.
24. All water main and sewer main locations, size, lengths, inverts, etc.
25. All easements required (or on a plat) should be shown on the "As- BUILTS" and improvement located so as to verify improvements are within the easement. Easement not recorded as part of the recorded plat including drainage and right-of-way easements shall also be identified as "as-built". For these easements the book and page of their record, property to whom easement is dedicated and date of filing should be shown on as the "as-built". All improvements intended to be within these easements shall be shown as the "as-builts" to verify the improvements are within the easement. Wetlands are not reviewed by Nassau County and need not be shown.
26. Depict all storm drain and utility repair locations and methods.

APPENDIX B

PLANS/DRAWINGS

NASSAU COUNTY - AMELIA ISLAND LIFT STATION #10 AND #29 REHABILITATION PROJECT



LOCATION OF PROJECT
NASSAU COUNTY, FLORIDA

MAP OF FLORIDA

Prepared For:



96135 NASSAU PLACE
SUITE 1
YULEE, FL 32097

Prepared By:



gai consultants

1301 RIVERPLACE BOULEVARD
SUITE 900
JACKSONVILLE, FLORIDA 32207

December, 2018

NASSAU PROJECT NO.
CM2452 WA 01

DRAWING INDEX

COVER	COVER
G-1	GENERAL NOTES
G-2	STANDARD ABBREVIATIONS AND SYMBOLS
C-1	SITE PLAN LIFT STATION 10
C-2	SITE PLAN LIFT STATION 29
M-1	LIFT STATION 10 DETAILS
M-2	LIFT STATION 29 DETAILS
E-1	LIFT STATION 10
E-2	LIFT STATION 10 ELECTRICAL DETAILS
E-3	LIFT STATION 29
E-4	LIFT STATION 29 ELECTRICAL DETAILS
D-1	DETAILS

CONTACT LIST

OWNER'S REPRESENTATIVE
NASSAU COUNTY ENGINEERING
SERVICES
96161 NASSAU PLACE
YULEE, FLORIDA 32097
(904) 530-6225
ATTN: MICHAEL WILTSHIRE

CIVIL ENGINEERS
GAI CONSULTANTS, INC.
1301 RIVERPLACE BOULEVARD
SUITE 900
JACKSONVILLE, FLORIDA 32201
(561) 465-8001
ATTN: JULES JAY AMENO, P.E.

NASSAU COUNTY OFFICIALS

COMMISSION CHAIRMEN	PAT EDWARDS
VICE CHAIRMEN	JUSTIN M. TAYLOR
COMMISSIONER:	DANIEL B. LEEPER
COMMISSIONER:	THOMAS R. FORD
COMMISSIONER:	AARON C. BELL
INTERIM MANAGER:	MICHAEL MULLIN

BID SET

GENERAL NOTES

GENERAL

1. EXISTING UTILITY LOCATIONS AS SHOWN ARE APPROXIMATE AND WERE BASED ON RECORD DRAWINGS AND HAVE NOT BEEN FIELD-VERIFIED. THE EXISTING UTILITIES SHOWN SHALL NOT BE CONSIDERED AS BEING ALL-INCLUSIVE OF UTILITIES IN THE AREA. ANY INTERRUPTION OF SERVICE SHALL BE COORDINATED WITH THE OWNER OF THE UTILITY.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TEMPORARY SUPPORT OF UTILITIES POLES AND COORDINATION OF SUCH WITH UTILITIES OWNERS. IF IT IS DETERMINED THAT UTILITY POLES REQUIRE HOLDING OR RELOCATION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL EXPENSES ASSOCIATED WITH THEIR HOLDING AND/OR RELOCATION.
3. PIPE LENGTHS ARE MEASURED CENTER LINE TO CENTER LINE FOR MANHOLES AND INLETS AND FROM THE END OF THE PIPE FOR WATERS END SECTIONS.
4. ALL PIPE AND FITTINGS SHALL BE PRESSURE TESTED AS SPECIFIED.
5. THE CONTRACTOR SHALL PROVIDE TEMPORARY THRU-PIECE BRACING, TEST PLUGS AND/OR OTHER DEVICES AS NECESSARY TO SUCCESSFULLY COMPLETE PRESSURE TESTING OF ALL PRESSURE PIPING SYSTEMS.
6. PIPE LENGTHS SHOWN REPRESENT SCALED DISTANCES. THE LENGTHS ARE FOR INFORMATIONAL PURPOSES AND THE CONTRACTOR SHALL DETERMINE THE ACTUAL CONSTRUCTION QUANTITIES.
7. UNDERGROUND WATER MAINS CROSSING ANY EXISTING OR PROPOSED GRAVITY OR VACUUM-TYPE SANITARY SEWER OR STORM SEWER SHALL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST SIX INCHES, AND PREFERABLY 12 INCHES, ABOVE OR AT LEAST 12 INCHES BELOW THE OUTSIDE OF THE OTHER PIPELINE. THE WATER MAIN SHALL BE CONSTRUCTED ABOVE OTHER PIPELINE WHEN POSSIBLE.
8. UNDERGROUND WATER MAINS CROSSING ANY EXISTING OR PROPOSED PRESSURE-TYPE SANITARY SEWER, WASTEWATER OR STORMWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER SHALL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST 12 INCHES ABOVE OR BELOW THE OUTSIDE OF THE OTHER PIPELINE. THE WATER MAIN SHALL BE CONSTRUCTED ABOVE OTHER PIPELINE WHEN POSSIBLE.
9. WHERE SANITARY SEWERS, FORCE MAINS AND SEWER LATERALS MUST CROSS A WATER MAIN WITH LESS THAN THE REQUIRED VERTICAL SEPARATION, BOTH THE SEWER AND THE WATER MAINS SHALL BE CONSTRUCTED OF DUCTILE IRON PIPE (DIP) AT THE CROSSING. SUFFICIENT LENGTHS OF DIP MUST BE USED TO PROVIDE A MINIMUM SEPARATION OF 10 FEET BETWEEN ANY TWO JOINTS. ALL JOINTS ON THE WATER MAIN WITHIN 20 FEET OF THE CROSSING MUST BE MECHANICALLY RESTRAINED. A MINIMUM VERTICAL CLEARANCE OF 6 INCHES MUST BE MAINTAINED AT ALL CROSSINGS.
10. ALL CROSSINGS SHOULD BE ARRANGED SO THAT THE SEWER MAIN PIPE JOINTS AND THE WATER MAIN PIPE JOINTS ARE EQUAL DISTANCE FROM THE POINT OF CROSSING (PIPES CENTERED ON THE CROSSING).
11. WHERE A NEW PIPE CONFLICTS WITH AN EXISTING PIPE WITH LESS THAN THE REQUIRED VERTICAL CLEARANCE, THE NEW PIPE SHALL BE CONSTRUCTED OF DIP AND THE NEW PIPE SHALL BE ARRANGED TO MEET THE CROSSING REQUIREMENTS ABOVE.
12. A MINIMUM 3 FOOT HORIZONTAL SEPARATION SHALL BE MAINTAINED BETWEEN ANY TYPE OF SEWER AND WATER MAIN IN PARALLEL INSTALLATIONS WHENEVER POSSIBLE.
13. WHERE IT IS NOT POSSIBLE TO MAINTAIN A 3 FOOT HORIZONTAL SEPARATION, THE WATER MAIN MUST BE LAID IN A SEPARATE TRENCH OR ON AN UNDISTURBED EARTH SHELTER LOCATED ON ONE SIDE OF THE SEWER OR THE FORCE MAIN AT SUCH AN ELEVATION THAT THE BOTTOM OF THE WATER MAIN IS AT LEAST 18 INCHES ABOVE THE TOP OF THE SEWER.
14. WHERE IT IS NOT POSSIBLE TO MAINTAIN A VERTICAL DISTANCE OF 18 INCHES IN PARALLEL INSTALLATIONS, THE WATER MAIN SHALL BE CONSTRUCTED OF DIP AND THE SEWER OR THE FORCE MAIN SHALL BE CONSTRUCTED OF DIP WITH A MINIMUM VERTICAL DISTANCE OF 8 INCHES. THE WATER MAIN SHOULD ALWAYS BE ABOVE THE SEWER. JOINTS ON THE WATER MAIN SHALL BE LOCATED AS FAR APART AS POSSIBLE FROM JOINTS ON THE SEWER OR FORCE MAIN (STAGGERED JOINTS).
15. VERTICAL TRANSITION FITTINGS MAY NOT BE SHOWN ON YARD PIPING PLANS. ALL SUCH FITTINGS SHALL BE PROVIDED BY THE CONTRACTOR TO AVOID PIPING CONFLICTS AND TO PROVIDE ADEQUATE COVER AT NO ADDITIONAL COST TO OWNER.
16. ALL DIP USED IN UTILITY SEPARATION SITUATIONS SHALL BE CLASS 350 OR HIGHER AND DUCTILE IRON FITTINGS SHALL BE CLASS 350. ADEQUATE PROTECTIVE MEASURES AGAINST CORROSION SHALL BE USED.
17. ALL PIPING SHALL HAVE 3 FEET MINIMUM COVER UNLESS OTHERWISE NOTED. CONTRACTOR SHALL TAKE CARE TO PROVIDE PROPER GRADE ELEVATIONS AND ALIGNMENTS.
18. ALL AREAS WHERE LANDSCAPE OR SOIL HAS BEEN REMOVED BY CONTRACTOR'S OPERATIONS SHALL BE REPLACED TO MEET NASSAU COUNTY STANDARDS.
19. FITTINGS MAY BE USED FOR PIPE ALIGNMENT CHANGES RATHER THAN DEFLECTING JOINTS AT THE CONTRACTOR'S EXPENSE.
20. DEWATERING MAY BE REQUIRED IN SOME PIPING AREAS TO ACHIEVE THE NECESSARY EXCAVATION AND SUBSEQUENT CONSTRUCTION, BACKFILLING, AND COMPACTING. NO EXTRA COMPENSATION FOR DEWATERING WILL BE AUTHORIZED.
21. ALL DEWATERING COSTS ASSOCIATED WITH THE INSTALLATION AND CONSTRUCTION OF THE UNDERGROUND UTILITIES, STORMWATER PIPES, MANHOLES, AND STORMWATER MANAGEMENT SYSTEMS AS WELL AS ALL OTHER STRUCTURES AT THE W/P SHALL BE INCLUDED AS PART OF THE CONSTRUCTION COSTS.
22. PRIOR TO CONSTRUCTION, THE CONTRACTOR MUST BE FAMILIAR WITH THE OVERALL SITE CONDITIONS AND PERFORM ADDITIONAL INVESTIGATIONS AS HE DETERMINES NECESSARY TO UNDERSTAND THE LIMIT AND DEPTH OF EXPECTED ORGANIC SILT PEAT AREAS, ADEQUACY OF EXISTING MATERIALS AS FILL, DEWATERING REQUIREMENTS, CLEAN FILL REQUIRED FROM OFF SITE, AND MATERIALS TO BE DISPOSED OF OFF SITE. ALL OF WHICH WILL AFFECT PROGRAM. ANY DELAY, INCONVENIENCE, OR EXPENSE CAUSED TO THE CONTRACTOR DUE TO INADEQUATE INVESTIGATION OF EXISTING CONDITIONS SHALL BE INCIDENTAL TO THE CONTRACT AND NO EXTRA COMPENSATION WILL BE AUTHORIZED.
23. ALL PIPING, STABILIZED EARTH, DIVERTWAYS, CURBS, CULVERTS, SIDEWALKS, FENCE, SOIL, LANDSCAPING, ETC. DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE REPLACED WITH MATERIAL TO MATCH EXISTING. ALL CULVERTS THAT ARE REPLACED AND ARE RELOCATED WITHIN THE RIGHT-OF-WAY SHALL HAVE THE INVERT ELEVATIONS DETERMINED BY THE ENGINEER OF RECORD.
24. ALL DRAINAGE AREAS THAT ARE CROSSED BY PIPELINES SHALL BE LEFT OPEN AT ALL TIMES EXCEPT FOR SHORT PERIODS AS MAY BE NECESSARY DURING ACTUAL CONSTRUCTION HOURS.

GENERAL CONT.

25. THE CONTRACTOR SHALL OBTAIN THE SERVICES OF A REGISTERED PROFESSIONAL LAND SURVEYOR FOR RESTORING ALL MONUMENTS AND PROPERTY CORNERS DISTURBED DURING CONSTRUCTION. PROOF OF RECONSTRUCTION SHALL BE SUBMITTED TO THE ENGINEER.
26. THE CONTRACTOR SHALL LOCATE ALL WATER, WASTEWATER, AND GRAVITY MAINS AT PROPOSED TIE-IN LOCATIONS TO VERIFY ACTUAL LOCATION, SIZE, ELEVATION, AND MATERIAL PRIOR TO ORDERING NEW MATERIALS.
27. ALL POTABLE WATER MAINS EITHER INSTALLED OR DISTURBED DURING CONSTRUCTION SHALL BE DISINFECTED IN ACCORDANCE WITH ANWA-C-651 LATEST EDITION, SUBSECTION 4.8, AND SECTION 9. SUCH WATER MAINS SHALL THEN BE BACTERIOLOGICALLY TESTED IN ACCORDANCE WITH STATE AND LOCAL REQUIREMENTS. A REPRESENTATIVE FROM THE UTILITY MUST BE PRESENT DURING THE TAPPING OF ALL WATER SAMPLES, PRESSURE TESTS, FLUSHING, ETC.
28. LABOR, MATERIALS, AND METHODS OF CONSTRUCTION SHALL BE IN STRICT ACCORDANCE WITH THE MINIMUM ENGINEERING AND CONSTRUCTION STANDARDS ADOPTED BY NASSAU COUNTY. THE CONSTRUCTION DRAWINGS, AND CONSTRUCTION SPECIFICATIONS, WHERE CONFLICTS OR OMISSIONS EXIST, NASSAU COUNTY'S STANDARDS SHALL DICTATE. SUBSTITUTIONS AND DEVIATION FROM PLANS AND SPECIFICATIONS SHALL BE PERMITTED ONLY WHEN WRITTEN APPROVAL HAS BEEN ISSUED BY THE ENGINEER.
29. DURING CONSTRUCTION IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PERFORM THE WORK IN ACCORDANCE WITH O.S.H.A. REQUIREMENTS. THE CONTRACTOR'S SIGNATURE AFFIXED TO THE CONTRACT AGREEMENT WITH THE OWNER IS CONSIDERED CERTIFICATION OF CONFORMANCE TO SUCH REQUIREMENTS.
30. SHOP DRAWINGS OF MATERIALS USED SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL AND APPROVAL SHALL BE GIVEN PRIOR TO INSTALLATION.
31. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE THAT REQUIRED PERMITS ARE OBTAINED AND IN HAND BEFORE BEGINNING ANY CONSTRUCTION. NO CONSTRUCTION OR FABRICATION OF ANY ITEM SHALL BEGIN UNTIL THE CONTRACTOR HAS RECEIVED ALL PLANS AND ANY OTHER DOCUMENTATION FROM ALL OF THE PERMITTING AND ANY OTHER REGULATORY AUTHORITIES. ANY PENALTIES, STOP WORK ORDERS OR ADDITIONAL WORK RESULTING FROM THE CONTRACTOR BEING IN VIOLATION OF THE REQUIREMENTS ABOVE SHALL BE FULLY BORNE BY THE CONTRACTOR.
32. A PRECONSTRUCTION MEETING IS TO BE HELD BETWEEN THE JURISDICTIONAL ENTITY OF NASSAU COUNTY UTILITIES, ENGINEER OF RECORD, AND CONTRACTOR PRIOR TO COMMENCEMENT OF CONSTRUCTION.
33. THE SEQUENCE OF CONSTRUCTION SHALL BE SUCH THAT UNDERGROUND INSTALLATIONS, INCLUDING SPRINKLERS, SHALL BE PLACED BENEATH THE PAVEMENT AND ITS EXPOSED PRIOR TO THE CONSTRUCTION OF THE PAVEMENT. THE PAVEMENT SHALL NOT BE CUT WITHOUT PRIOR APPROVAL OF THE ENGINEER.
34. CONSTRUCTION INSPECTION WILL BE PROVIDED BY THE CONTRACTOR AND HE SHALL NOTIFY THE ENGINEER AT LEAST 48 HOURS PRIOR TO BEGINNING CONSTRUCTION AND AT LEAST 48 HOURS BEFORE REQUIREING INSPECTION ON EACH AND EVERY PHASE OF WORK. THE CONTRACTOR SHALL NOTIFY THE ENGINEER A MINIMUM OF 48 HOURS NOTICE PRIOR TO SCHEDULED TESTING. NO BACTERIOLOGICAL TESTING, PRESSURE TESTING, OR FINAL TESTING WILL BE ACCEPTED UNLESS WITNESSED BY THE ENGINEER'S REPRESENTATIVE.
35. CONTRACTORS, NASSAU COUNTY REPRESENTATIVES, AND UTILITY COMPANIES ARE RESPONSIBLE FOR THEIR RESPECTIVE SURVEYING AND LAYOUT FROM BENCHMARK PROVIDED ON CONSTRUCTION PLANS. SURVEY MONUMENTATION DISTURBED DURING CONSTRUCTION SHALL BE REPLACED UPON COMPLETION OF THE WORK BY A REGISTERED LAND SURVEYOR.
36. THE CONTRACTOR SHALL MAINTAIN A CURRENT SET OF CONSTRUCTION PLANS AND PERMITS ON THE JOB SITE DURING CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE TWO (2) SETS OF RECORD DRAWINGS TO THE ENGINEER OF RECORD WITHIN ONE MONTH AFTER CONSTRUCTION HAS BEEN COMPLETED.
37. PLANS AND SPECIFICATIONS REQUIRE THAT COMPACTED BACKFILL BE PLACED ALONG SIDE OF AND OVER ALL UTILITIES. THE ENGINEER MAY REQUIRE THAT COMPACTION TESTS BE TAKEN TO VERIFY BACKFILL COMPACTATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING THE NECESSARY TESTING TO ASSURE THAT THE PROPER COMPACTATION HAS BEEN ACHIEVED ON THE SUBGRADE, BASE, AND ALL OTHER PERTINENT AREAS THAT HAVE BEEN COMPLETED. THE CONTRACTOR SHALL BEAR ALL COSTS ASSOCIATED WITH TESTING AND RETESTING OF THE AREAS AND SHALL PROVIDE THE OWNER AND THE ENGINEER WITH COPIES OF THE CERTIFICATION OF COMPACTATION FROM THE TESTING COMPANIES.
38. ALL EXCESS FILL FROM SITE SHALL BE STOCKPILED BY THE CONTRACTOR, IN A LOCATION DETERMINED BY THE OWNER OR THE OWNER'S REPRESENTATIVE AND THE ENGINEER.
39. CONCRETE SIDEWALKS SHALL CONFORM TO FOOT INDEX 310.
40. BENCHMARK FOR CONSTRUCTION HAS BEEN PROVIDED ON JOB PLAN.
41. ALL SITE DATUMS ARE IN NAVD 86, EXCEPT WHERE OTHERWISE NOTED.

SITE WORK

1. THE CONTRACTOR SHALL CLEAR AND GRUB THE SITE, AS REQUIRED, TO REMOVE ROOTS, BRANCHES, ROCKS, ETC. AT NO TIME SHALL CONSTRUCTION, CLEARING, OR WORK TAKE PLACE OUTSIDE THOSE AREAS SHOWN ON THE PLANS FOR CONSTRUCTION. ALL UNUSABLE MATERIAL SHALL BE DISPOSED OF IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS.
2. THE CONTRACTOR SHALL GRADE THE SITE TO PROVIDE POSITIVE SURFACE DRAINAGE AS INDICATED ON THE PLANS. ANY AREAS BEING FILLED TO ACHIEVE PROPER DRAINAGE FLOW SHALL BE COMPACTED TO A MINIMUM NINETY-FIVE (95%) MODIFIED PROCTOR MAXIMUM DENSITY (ASTM D 1585).
3. ALL GRASSED AREAS WITHIN THE RIGHT OF WAY DISTURBED BY CONSTRUCTION SHALL BE RESTORED BY SEEDING, SOILING AND MULCHING. 5 NOT ACCEPTABLE.

EROSION AND SEDIMENTATION CONTROL

1. THE CONTRACTOR SHALL TAKE ALL MEASURES NECESSARY TO INSTALL, OPERATE, AND MAINTAIN EROSION, SEDIMENT, AND TURBIDITY CONTROL DEVICES AND STRUCTURES AT ALL LOCATIONS WHERE THE POSSIBILITY OF TRANSFERRING SUSPENDED SOLIDS INTO THE RECEIVING WATERBODY EXISTS DUE TO THE PROPOSED WORK. THE EROSION, SEDIMENT, AND TURBIDITY CONTROL DEVICES SHALL BE IN ACCORDANCE WITH FOOT ROADWAY AND TRAFFIC DESIGN STANDARDS INDEX #122, LATEST VERSION. AT NO TIME SHALL THERE BE AN OFFSITE DISCHARGE WHICH VIOLATES THE WATER QUALITY STANDARDS IN CHAPTERS 62-302 AND 62-4, FLORIDA ADMINISTRATIVE CODE.
2. THE CONTRACTOR, AT HIS OWN EXPENSE, SHALL OPERATE AND MAINTAIN EROSION AND SEDIMENT CONTROL DEVICES IN ACCORDANCE WITH THE REGULATIONS SET FORTH IN THE NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NPDES), AS SHOWN ON THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP).
3. THE CONTRACTOR SHALL INSTALL SILT FENCES AROUND THE PERIMETER OF THE WORK TO PREVENT TRANSPORTATION OF SEDIMENT TO OFFSITE PROPERTIES.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER COMPLYING WITH APPLICABLE STATE WATER QUALITY STANDARDS DURING CONSTRUCTION AS SPECIFIED IN THE PERMITS. ALL WATER AND WIND EROSION SHALL BE MINIMIZED AS DEFINED IN THE SPECIFICATIONS AND PERMITS. THE SPECIFICATIONS PROVIDE ONLY A MINIMUM REQUIREMENT FOR EROSION AND SEDIMENTATION CONTROL. IT IS THE CONTRACTOR'S RESPONSIBILITY TO IMPLEMENT CONTROL MEASURES NOT SHOWN IN SPECIFICATIONS. ALL COSTS ASSOCIATED WITH TURBIDITY CONTROL AND SEDIMENT STABILIZATION SHALL BE BORNE BY THE CONTRACTOR.
5. THE REMOVAL OF DEBRIS AND ANY OTHER MATERIAL, INCLUDING PIPES, CONCRETE STRUCTURES AND PAVEMENT LAYERS FROM CLEARING AND GRADING OPERATIONS SHALL BE HAULED AWAY BY THE CONTRACTOR IN A LEGAL FASHION TO AN AUTHORIZED CHUMPING FACILITY.
6. THE CONTRACTOR MUST INSTALL AND MAINTAIN SOIL ON EXPOSED SLOPES WITHIN 48 HOURS OF COMPLETED FINAL GRADES, AND AT ANY OTHER TIME AS NECESSARY TO PREVENT EROSION, SEDIMENTATION OR TURBID DISCHARGES TO ANY DOWNSTREAM WATER BODY, WETLAND, OR OFFSITE PROPERTY. SOODING ON SLOPES 3:1 AND STEEPER SHALL BE STAKED.
7. THE CONTRACTOR MUST MAINTAIN CONTINUOUS RESTORATION BEHIND THE UTILITY WORK ON A DAILY BASIS.

DEMOLITION

1. THE CONTRACTOR SHALL OBTAIN NECESSARY PERMITS AND LICENSES FOR PERFORMING ANY DEMOLITION WORK AND SHALL FURNISH A COPY OF SAME TO THE ENGINEER PRIOR TO COMMENCING THE WORK. THE CONTRACTOR SHALL COMPLY WITH THE REQUIREMENTS OF THE PERMITS.
2. THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES OR LOCAL AUTHORITIES FURNISHING GAS, WATER, ELECTRICAL, TELEPHONE, OR SEWER SERVICE SO THEY CAN REMOVE, RELOCATE, DISCONNECT, CAP OR PLUG THEIR EQUIPMENT IN ORDER TO FACILITATE DEMOLITION.
3. THE CONTRACTOR SHALL PROTECT ALL UTILITIES AND OTHER IMPROVEMENTS SHOWN ON THESE PLANS AND UTILITIES AND OTHER IMPROVEMENTS NOT SHOWN. THE CONTRACTOR SHALL ASSUME RESPONSIBILITY FOR REPAIRS OF UTILITIES AND OTHER IMPROVEMENTS DAMAGED DURING CONSTRUCTION AND SHALL MAINTAIN SUFFICIENT PROTECTION FOR ALL UTILITIES REQUIRED TO PROTECT THEM FROM DAMAGE AND TO PROTECT THE PUBLIC DURING CONSTRUCTION.
4. THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF ALL TREES, STRUCTURES, AND UTILITIES NOT MARKED FOR REMOVAL OR DEMOLITION AND SHALL PROMPTLY REPAIR ANY DAMAGE AS DIRECTED BY THE ENGINEER AT NO COST TO THE OWNER.
5. THE CONTRACTOR SHALL REMOVE BUILDING STRUCTURES MARKED FOR DEMOLITION WHICH INCLUDES FOOTERS ASSOCIATED WITH THE STRUCTURE, WATER LINES TO THE METER LOCATION, LATERALS TO THE RIGHT-OF-WAY LINE (CAP PRIOR TO BACKFILLING THE TRENCH), AND UNDERGROUND ELECTRICAL WIRING NOT ASSOCIATED WITH THE APPROPRIATE POWER COMPANY.
6. THE CONTRACTOR SHALL REMOVE PAVING MARKED FOR DEMOLITION WHICH INCLUDES ALL ASPHALT, CONCRETE, BASE, AND RETAINING WALLS (INCLUDING THE FOOTERS).
7. THE CONTRACTOR SHALL REMOVE TREES MARKED FOR REMOVAL WHICH INCLUDES THE ROOTS ASSOCIATED WITH THE TREE. TREES NOT MARKED FOR REMOVAL SHALL BE PROTECTED IN ACCORDANCE WITH NASSAU COUNTY REGULATIONS.
8. THE CONTRACTOR SHALL REMOVE UNSALVAGEABLE MATERIALS AND YARD WASTE FROM THE SITE IMMEDIATELY AND DISPOSE OF IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE, AND LOCAL REGULATIONS.
9. THE CONTRACTOR SHALL SAW-CUT A SMOOTH STRAIGHT EDGE ON ANY PAVEMENT PROPOSED FOR DEMOLITION PRIOR TO ITS REMOVAL. PRIOR TO CONNECTING PROPOSED PAVEMENT TO EXISTING PAVEMENT, THE CONTRACTOR SHALL ENSURE THAT THE EDGE OF THE EXISTING PAVEMENT IS STRAIGHT AND UNIFORM.

DATE	12/18
DRAWN BY	SAH
CHECKED BY	MC
APPROVED BY	JJA

SCALE	N.T.S.
DATE	12/18
DRAWN BY	SAH
CHECKED BY	MC
APPROVED BY	JJA

GENERAL NOTES
 LIFT STATION #10 & #29 REHABILITATION
 NASSAU COUNTY


gai consultants
 (8 891)
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 JACKSONVILLE, FLORIDA 32207
 PHONE: (904) 455-8001

PROJECT NO./DASH NO.
 A170003.01

SHEET
 G-1

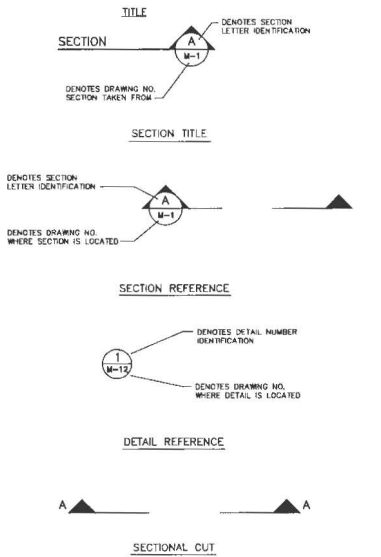
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PIPING LEGEND

REFERENCE SYMBOLS

LIST OF STANDARD ABBREVIATIONS

FITTING/ APPURTENANCE	UNIVERSAL		FLANGED		MECHANICAL-JOINT	
	SINGLE-LINE		DOUBLE-LINE		DOUBLE-LINE	
	EXISTING	PROPOSED	EXISTING	PROPOSED	EXISTING	PROPOSED
BEND						
TEE						
WYE						
CONCENTRIC REDUCER						
CAP/BLIND FLANGE						
PLUG (PLUGGED VALVE)						
BUTTERFLY VALVE						
BALL VALVE						
CHECK VALVE						
GATE VALVE						
PLUG VALVE						
MOTORIZED CONTROL VALVE						
PLASTIC BALL VALVE						



ABBREVIATION	UNIVERSAL TERM	ABBREVIATION	UNIVERSAL TERM	ABBREVIATION	UNIVERSAL TERM	ABBREVIATION	UNIVERSAL TERM
A	ALUMINUM	E	FAST	L	LETT	S	SOIL
AB	ALUMINUM BRACKET	F	FABRICATION	LAM	LAMP	SM	SMOKE
ABV	ALUMINUM VALVE	FAC	FACTORY	LAV	LAVATORY	SN	SNOW
AC	AUTOMATIC	FAD	FACILITY	LAVI	LAVATORY	SO	SOIL
ACB	AUTOMATIC CONTROL BOX	FAG	FACILITY GROUP	LAVP	LAVATORY	SP	SPRINKLER
ACD	AUTOMATIC CONTROL DEVICE	FAL	FACILITY LIST	LAVS	LAVATORY	ST	STAIR
ACE	AUTOMATIC CONTROL EQUIPMENT	FAM	FACILITY MATERIAL	LAVT	LAVATORY	STB	STAIR BENCH
ACF	AUTOMATIC CONTROL FEATURE	FAN	FAN	LAVU	LAVATORY	STC	STAIR CASE
ACG	AUTOMATIC CONTROL GROUP	FAP	FACILITY PLAN	LAVV	LAVATORY	STD	STAIR DETAIL
ACH	AUTOMATIC CONTROL HUB	FAR	FACILITY AREA	LAVW	LAVATORY	STE	STAIR ELEVATION
ACI	AUTOMATIC CONTROL IDENTIFICATION	FAS	FACILITY SYSTEM	LAVX	LAVATORY	STR	STAIR RAMP
ACJ	AUTOMATIC CONTROL JUNCTION	FAT	FACILITY TYPE	LAVY	LAVATORY	STRS	STAIR RAMP SYSTEM
ACK	AUTOMATIC CONTROL KEY	FATL	FACILITY TYPE LIST	LAVZ	LAVATORY	STRS	STAIR RAMP SYSTEM
ACL	AUTOMATIC CONTROL LABEL	FATL	FACILITY TYPE LIST	LAVZ	LAVATORY	STRS	STAIR RAMP SYSTEM
ACM	AUTOMATIC CONTROL MATERIAL	FATL	FACILITY TYPE LIST	LAVZ	LAVATORY	STRS	STAIR RAMP SYSTEM
ACN	AUTOMATIC CONTROL NETWORK	FATL	FACILITY TYPE LIST	LAVZ	LAVATORY	STRS	STAIR RAMP SYSTEM
ACO	AUTOMATIC CONTROL OFF	FATL	FACILITY TYPE LIST	LAVZ	LAVATORY	STRS	STAIR RAMP SYSTEM
ACP	AUTOMATIC CONTROL POINT	FATL	FACILITY TYPE LIST	LAVZ	LAVATORY	STRS	STAIR RAMP SYSTEM
ACQ	AUTOMATIC CONTROL QUANTITY	FATL	FACILITY TYPE LIST	LAVZ	LAVATORY	STRS	STAIR RAMP SYSTEM
ACR	AUTOMATIC CONTROL RATE	FATL	FACILITY TYPE LIST	LAVZ	LAVATORY	STRS	STAIR RAMP SYSTEM
ACS	AUTOMATIC CONTROL SIGNAL	FATL	FACILITY TYPE LIST	LAVZ	LAVATORY	STRS	STAIR RAMP SYSTEM
ACT	AUTOMATIC CONTROL TIME	FATL	FACILITY TYPE LIST	LAVZ	LAVATORY	STRS	STAIR RAMP SYSTEM
ACU	AUTOMATIC CONTROL UNIT	FATL	FACILITY TYPE LIST	LAVZ	LAVATORY	STRS	STAIR RAMP SYSTEM
ACV	AUTOMATIC CONTROL VALVE	FATL	FACILITY TYPE LIST	LAVZ	LAVATORY	STRS	STAIR RAMP SYSTEM
ACW	AUTOMATIC CONTROL WEIGHT	FATL	FACILITY TYPE LIST	LAVZ	LAVATORY	STRS	STAIR RAMP SYSTEM
ACX	AUTOMATIC CONTROL X	FATL	FACILITY TYPE LIST	LAVZ	LAVATORY	STRS	STAIR RAMP SYSTEM
ACY	AUTOMATIC CONTROL Y	FATL	FACILITY TYPE LIST	LAVZ	LAVATORY	STRS	STAIR RAMP SYSTEM
ACZ	AUTOMATIC CONTROL Z	FATL	FACILITY TYPE LIST	LAVZ	LAVATORY	STRS	STAIR RAMP SYSTEM

CIVIL LEGEND

	EXISTING	PROPOSED	EXISTING	PROPOSED
BASILINE				
PROPERTY LINE				
RIGHT OF WAY				
EASEMENT LINE				
SPOT ELEVATION				
CONTOUR				
JURISDICTIONAL WETLAND BOUNDARY LINE				
EMBANKMENT				
SURFACE DRAINAGE				
FENCE				
TEMPORARY CONSTRUCTION EASEMENT				
TOP OF BANK				
EDGE OF PAVEMENT				
EDGE OF WATER				
SILT FENCING				
MISCELLANEOUS UTILITY				
PIPE LINE				
TREES				
DECIDUOUS				
EVERGREEN				
PALM				
CITRUS				
OAK				

REVISIONS

NO.	DATE	BY	DESCRIPTION
1	12/18	JJA	ISSUE FOR BIDDING

SCALE: N.T.S.

DRAWN: SAH

CHECKED: MC

APPROVED: JJA

STANDARD ABBREVIATIONS AND SYMBOLS

LIFT STATION #10 & #29 REHABILITATION
NASSAU COUNTY

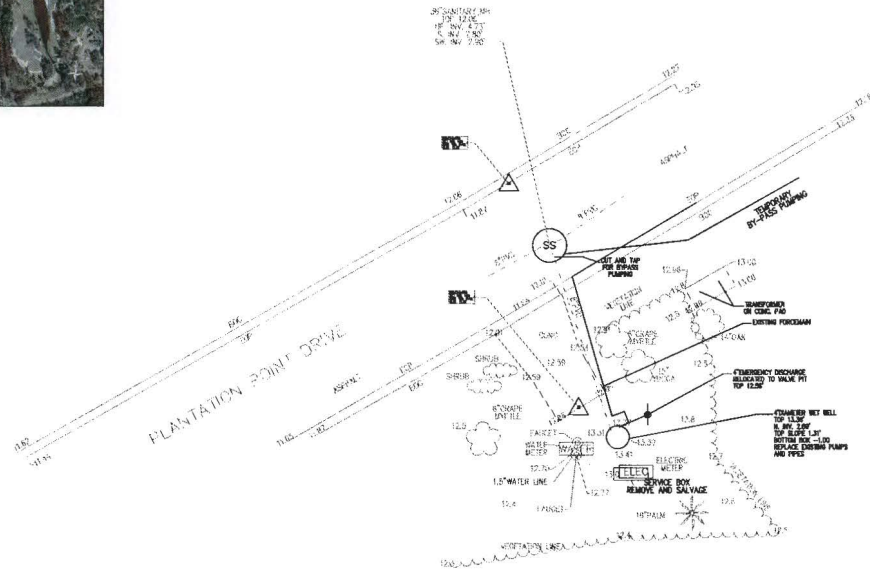
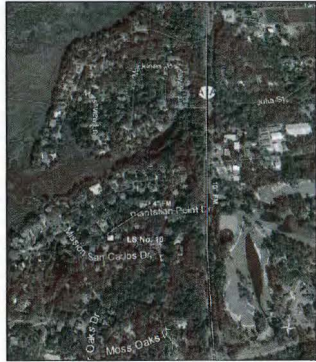
gal consultants
1201 RIVERCHASE BLVD, SUITE 900
JACKSONVILLE, FLORIDA 32207
PHONE: (904) 440-0001

PROJECT NO./DASH NO.
A170003.01

SHEET
G-2

BID SET

* SEE LIST OF STANDARD ABBREVIATIONS



- NOTES:
1. W-1 IDENTIFY THE MAJOR EQUIPMENT AND STRUCTURES TO BE DEMOLISHED ONLY. AUXILIARY UTILITIES SUCH AS WATER, AIR, CHEMICALS, DRAINAGE, LUBRICATED OIL, HYDRAULIC POWER FLUID, ELECTRICAL, WIRING, CONTROLS, AND INSTRUMENTATION ARE NOT NECESSARILY SHOWN BUT SHALL ALSO BE REMOVED AT NO ADDITIONAL COST TO THE OWNER.
 2. CONTRACTOR SHALL COORDINATE WITH NAI STAFF THE TRANSFERRING AND DELIVERY OF THE SALVAGED ELECTRICAL CONTROL PANEL.
 3. CONTRACTOR TO LOCATE AND PROTECT THE 2" WATER SERVICE LINE. CONTRACTOR TO REMOVE PORTIONS OF THIS 2" WATER SERVICE LINE AS NEEDED TO ACCOMMODATE THE CONSTRUCTION OF THE NEW PUMP STATION.
- SURVEY NOTES:
1. ELEVATIONS SHOWN HEREON BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988 PER TRIMBLE VRS NETWORK WITH AN ORIGINATING BENCHMARK BEING A SET NAIL A DISK STAMPED "GAI TRAY" WITH AN ELEVATION OF 11.75 FEET (SHOWN HEREON).

LEGEND:

BOC	BACK OF CURB
CONC.	CONCRETE
ELEV.	ELEVATION
EDP	EDGE OF PAVEMENT
INV.	INVERT ELEVATION
MH	MANHOLE
PVC	PLASTIC PIPE
TRAV.	TRAVERSE



DATE	N.T.S
DATE	7/18
DRAWN	SAH
CHECKED	MC
APPROVED	JJA

SCALE	N.T.S
DATE	7/18
DRAWN	SAH
CHECKED	MC
APPROVED	JJA

SITE PLAN LIFT STATION #10
LIFT STATION #10 & #29 REHABILITATION
NASSAU COUNTY

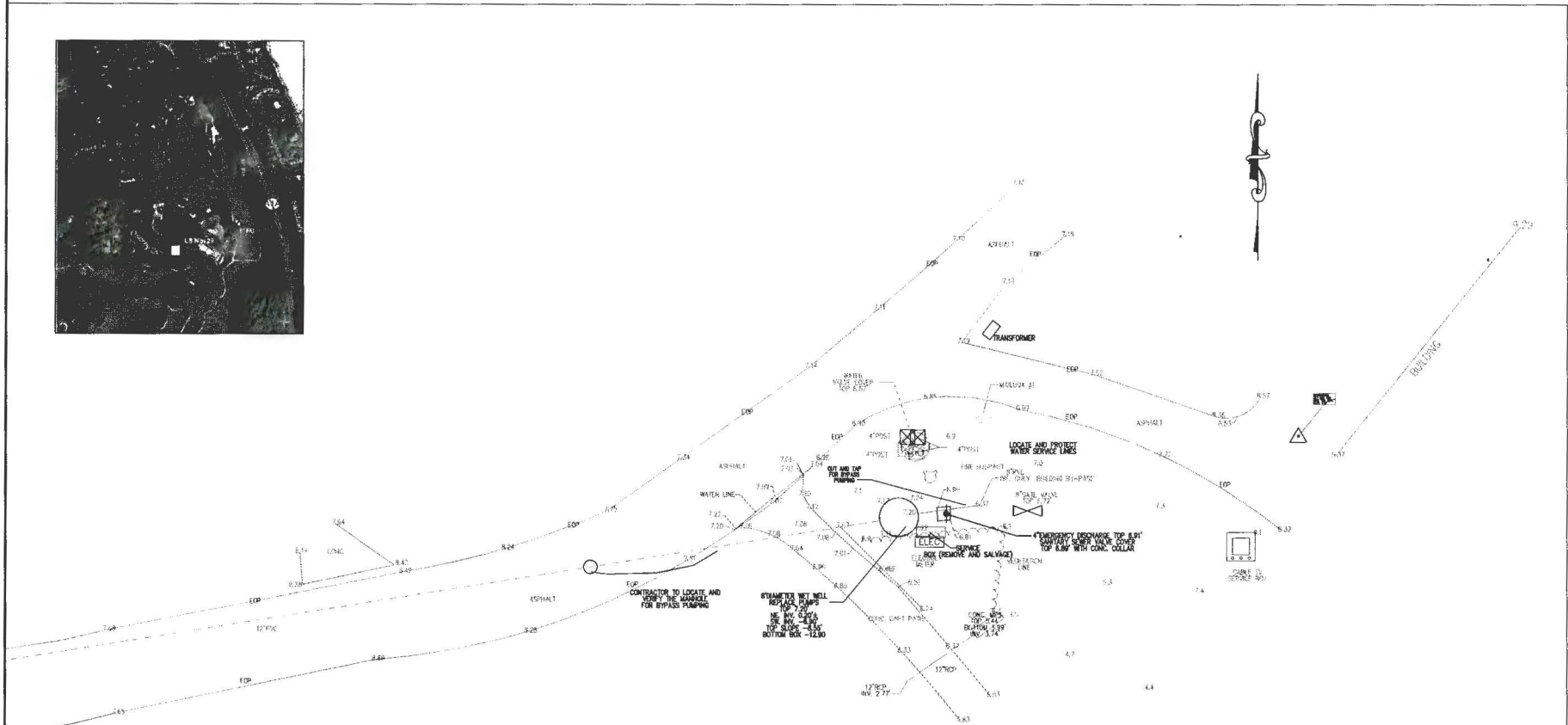


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PROJECT NO./DISH NO.
A170003.01

SHEET
C-1

REVISIONS	DATE	BY	DESCRIPTION

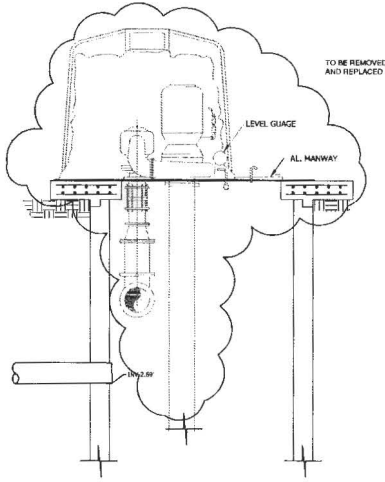


- LEGEND:
- BOC BACK OF CURB
 - CONC. CONCRETE
 - ELEV. ELEVATION
 - EDP EDGE OF PAVEMENT
 - INV. INVERT ELEVATION
 - MH MANHOLE
 - PVC PLASTIC PIPE
 - TRAV. TRAVERSE

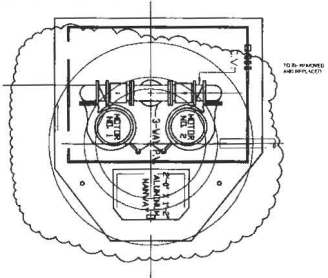
- NOTES:
1. THE DEMOLITION DRAWINGS IDENTIFY THE MAJOR EQUIPMENT AND STRUCTURES TO BE DEMOLISHED ONLY. AUXILIARY UTILITIES SUCH AS WATER, AIR, CHEMICALS, DRAINAGE, LUBRICATED OIL, HYDRAULIC POWER FLUID, ELECTRICAL WIRING, CONTROLS, AND INSTRUMENTATION ARE NOT NECESSARILY SHOWN BUT SHALL ALSO BE REMOVED AT NO ADDITIONAL COST TO THE OWNER.
 2. CONTRACTOR SHALL COORDINATE WITH NAU STAFF THE TRANSFERRING AND DELIVERY OF THE SALVAGED ELECTRICAL CONTROL PANEL.
 3. CONTRACTOR TO LOCATE AND PROTECT THE 2" WATER SERVICE LINE. CONTRACTOR TO REMOVE PORTIONS OF THIS 2" WATER SERVICE LINE AS NEEDED TO ACCOMMODATE THE CONSTRUCTION OF THE NEW PUMP STATION.

- SURVEY NOTES:
1. ELEVATIONS SHOWN HEREON BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988 PER TRIMBLE VDS NETWORK WITH AN ORIGINATING BENCHMARK BEING A SET NAIL, A DISK STAMPED "GAI TRAY" WITH AN ELEVATION OF 0.18 FEET (SHOWN HEREON).

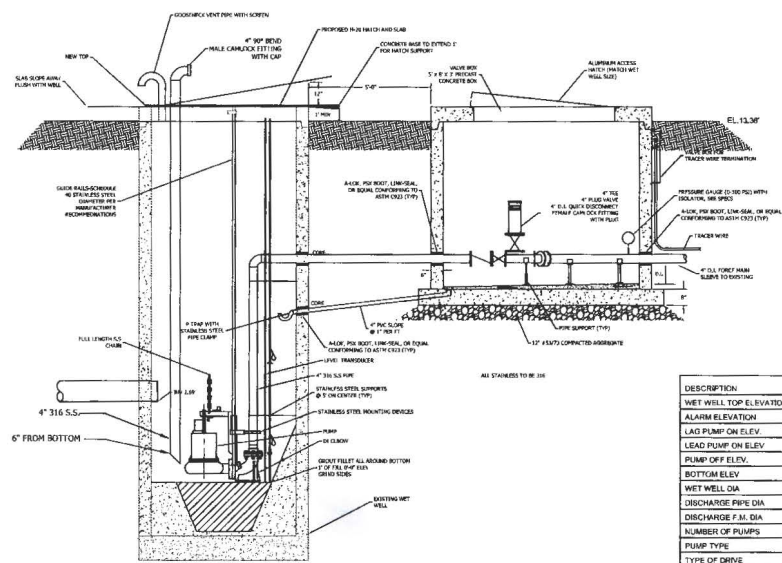
	REVISIONS
	DATE: 7/18
	DRAWN: SAH
	CHECKED: MC
	APPROVED: JJA
<p>SCALE: N.T.S.</p> <p>DATE: 7/18</p> <p>DRAWN: SAH</p> <p>CHECKED: MC</p> <p>APPROVED: JJA</p>	
<p>SITE PLAN LIFT STATION #29</p> <p>LIFT STATION #10 & #29 REHABILITATION</p> <p>NASSAU COUNTY</p>	
<p>ON CONSULTANTS</p> <p>18 9811</p> <p>1301 PROCTOR BLVD. SUITE 900</p> <p>JACKSONVILLE, FLORIDA 32257</p> <p>PHONE: (904) 440-9001</p>	
<p>PROJECT NO./DASH NO.</p> <p>A170003.01</p>	
<p>SHEET</p> <p>C-2</p>	



EXISTING LIFT STATION #10 (SECTION)
NTS

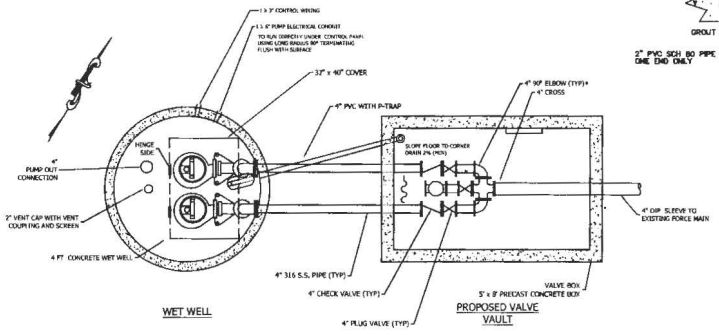


EXISTING LIFT STATION #10 (PLAN)
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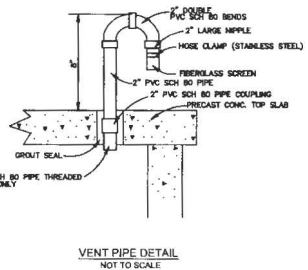


LIFT STATION #10 PROPOSED IMPROVEMENTS (SECTION)
NTS

DESCRIPTION	
WET WELL TOP ELEVATION (FT)	13.36
ALARM ELEVATION	2.75
LAG PUMP ON ELEV.	2.85
LEAD PUMP ON ELEV.	2.50
PUMP OFF ELEV.	1.25
BOTTOM ELEV.	0.07
WET WELL DIA	4'
DISCHARGE PIPE DIA	2.86"
DISCHARGE S.S. DIA	4"
NUMBER OF PUMPS	2
PUMP TYPE	SUBMERSIBLE
TYPE OF DRIVE	CONSTANT SPEED
PUMP CAPACITY - GPM	100
TOTAL DYNAMIC HEAD	63'
MAXIMUM EFFICIENCY %	56.7
MOTOR HORSEPOWER	5 HP
MAXIMUM SPEED	3370 RPM

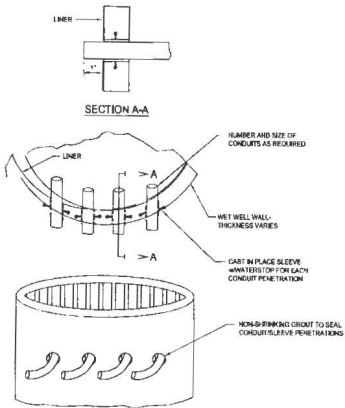


LIFT STATION #10 PROPOSED IMPROVEMENTS (PLAN)
NTS



VENT PIPE DETAIL
NOT TO SCALE

	SCALE	N.T.S.	DATE	12/18	DRAWN	SAH	CHECKED	MC	APPROVED	JJA
LIFT STATION #10 DETAILS										
LIFT STATION #10 & #29 REHABILITATION NASSAU COUNTY										
GN CONTRACTORS 1301 RIVERPLACE BLVD, SUITE 100 WOODBRIDGE, FLORIDA 33522 PHONE: (607) 423-8398										
PROJECT NO. 04ASHNO. A170003.01										
SHEET										
M-1										

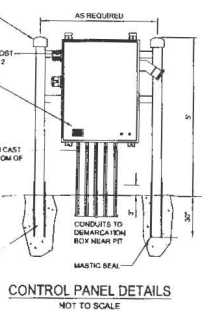


- NOTES:
- CORRE BORING FOR CONDUITS SHALL BE ALLOWED FOR EXISTING WET WELLS ONLY.
 - EXTEND CONDUITS 1" INSIDE WET WELL.
 - USE NON-SHRINKING GROUT TO SEAL AROUND CONDUIT PENETRATIONS. MANUFACTURER: CONCRETE MODEL: 1999
 - IF INTERIOR OF THE WET WELL IS DAMAGED, REPAIR USING A SPECIAL LINING PRODUCT. SEE SPEC. SECTION 05.05.
 - SEAL CONDUIT AT THE WET WELL USING DUCT SEAL. MANUFACTURER: BLACKBURN MODEL: DGS-5-6 DUCT SEAL.
 - LOCATE CONDUIT SLEEVES SO AS NOT TO INTERFERE WITH WET WELL MAINTENANCE AND OPERATION.
 - MINIMUM FOUR 1-INCH AND FOUR 1-1/2-INCH CONDUITS.

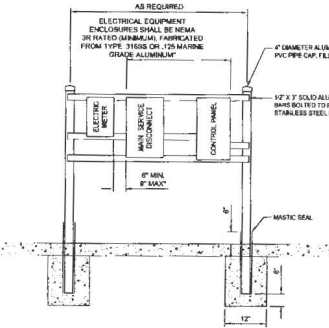
WET WELL PENETRATION DETAIL
NOT TO SCALE

- NOTES:
- MINIMUM SCHEDULE 80 PVC CONDUIT SIZE AS SHOWN. CONDUIT SIZE MUST MEET NEC REQUIREMENTS FOR CONDUIT FILL.
 - ALL CONDUITS THAT RUN STRAIGHT FROM THE CONTROL PANEL TO THE DEMARCATION BOX SHALL BE ALLOWED TWO 90° BENDS. EACH CONDUIT SHALL ENTER THE BOTTOM OF THE CONTROL PANEL SEPARATELY.
 - INSTALL SPARE WIRE FROM DEMARCATION BOX TO CONTROL PANEL.
 - AND LABEL AS PER SPEC.
 5. SPARE CONDUIT BETWEEN WET WELL AND DEMARCATION BOX TO BE THREADED, CAPPED AND TERMINATED INSIDE WET WELL.
 6. SPARE CONDUIT BETWEEN DEMARCATION BOX AND CONTROL PANEL CAP OFF BELOW DEMARCATION BOX AND TERMINATE INSIDE THE CONTROL PANEL.
 7. CONDUIT BETWEEN DEMARCATION BOX AND WET WELL SHALL HAVE ONLY ONE 90° BEND.
 - INSTALL WALL MOUNTED SEAL OFFS AT DEMARCATION BOX END FOR CONDUITS BETWEEN DEMARCATION BOX AND CONTROL PANEL.
 8. INSTALL END BELLS AND LARGE CABLE HOOPS ON PUMP LEAD CONDUITS.

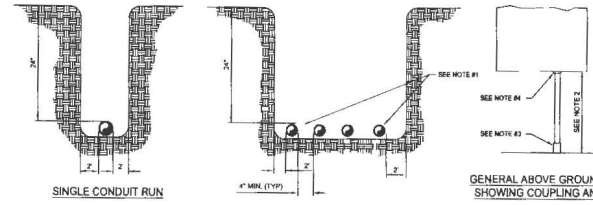
CONDUIT LAYOUT DETAIL
NOT TO SCALE



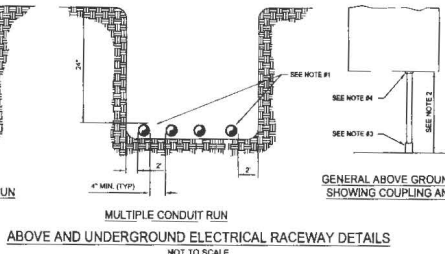
CONTROL PANEL DETAILS
NOT TO SCALE



CONTROL PANEL WITH GENERATOR RECEPTACLE ELECTRICAL EQUIPMENT RACK DETAIL
NOT TO SCALE



GENERAL ABOVE GROUND CONDUIT RUN SHOWING COUPLING AND CONNECTOR
NOT TO SCALE

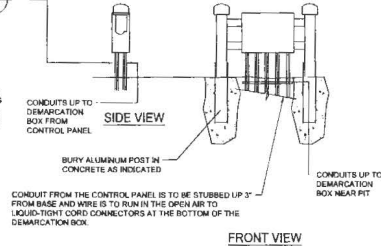
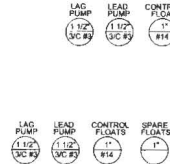


SINGLE CONDUIT RUN and MULTIPLE CONDUIT RUN ABOVE AND UNDERGROUND ELECTRICAL RACEWAY DETAILS
NOT TO SCALE

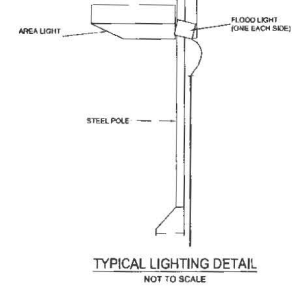
TERMINAL BLOCKS SHALL BE WEIDMULLER "W" SERIES. CONDUCTOR AMPACITY, VOLTAGE, AND WIRE SIZE SHALL DETERMINE PANEL SELECTION.



SEAL-OFF DETAIL



DEMARCATION BOX DETAILS
NOT TO SCALE



TYPICAL LIGHTING DETAIL
NOT TO SCALE

- NOTES:
- UNDERGROUND CONDUIT SCHEDULE 80 PVC. MANUFACTURER: CARLON
 - CONDUIT ABOVE GROUND TO CABLES IS SCHEDULE 80 PVC. MANUFACTURER: SUNBRIGHT. MANUFACTURER: CARLON
 - UNDERGROUND PVC COUPLED TO ABOVE GROUND PVC WITH A PVC COUPLER. MANUFACTURER: CARLON
 - ABOVE GROUND PVC CONNECTED TO CONTROL PANEL AND DEMARCATION BOX USING A PVC CONNECTOR. MANUFACTURER: CARLON

DRAWING TITLE		CLIENT		REVISION RECORD	
LIFT STATION #29 ELECTRICAL DETAILS		MASSACHUSETTS COUNTY		NO.	DATE
PROJECT		3L CLIENT INFO_02		CHK	APR
MASSACHUSETTS COUNTY-AMELIA ISLAND		3L CLIENT INFO_03		DNW	
LIFT STATION #10 AND #29		REHABILITATION PROJECT			
ISSUING OFFICE: Pittsburgh 385 East Wisconsin Drive, Homestead, PA 15120		ISSUING DATE: 11/11/18			
DRAWN BY: CPW		CHECKED BY: JWB		APPROVED BY: X	
SHEET NO.: X OF X		SCALE: N.T.S.		DATE: 11/11/18	
GAI FILE NUMBER:		LIFT STATION #29 DETAILS			
ALT. CLIENT DRAWING NUMBER:		A170003.01			
GAI DRAWING NUMBER:		E-4			
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BID SET

REVISIONS
NO.
DATE
BY
APP.
CHK.
DATE
BY
APP.
CHK.
DATE
BY
APP.

SCALE: N.T.S.
 DATE: 7/18
 DRAWN: SMH
 CHECKED: MC
 APPROVED: JAA

ELECTRICAL DETAIL
 LIFT STATION #10 & #29 REHABILITATION
 MASSAU COUNTY

OW CONSTRUCTORS
 135 W. UNIVERSITY BLVD., SUITE 200
 PALM BEACH, FLORIDA 33480
 PHONE: (561) 842-3001

PROJECT NO./TASK NO.
 A170003.01

SHEET
 E-5

Legrand PASS & SEYMOUR® Cam-Type Devices 45° Angled Receptacles

RECEPTACLES

Receptacle	Part No.	Color	Material	UL Type
15 AMP 125V	1500	Black	PA-66	15
15 AMP 250V	1501	Black	PA-66	15
20 AMP 125V	2000	Black	PA-66	20
20 AMP 250V	2001	Black	PA-66	20
25 AMP 125V	2500	Black	PA-66	25
25 AMP 250V	2501	Black	PA-66	25
30 AMP 125V	3000	Black	PA-66	30
30 AMP 250V	3001	Black	PA-66	30
35 AMP 125V	3500	Black	PA-66	35
35 AMP 250V	3501	Black	PA-66	35
40 AMP 125V	4000	Black	PA-66	40
40 AMP 250V	4001	Black	PA-66	40
45 AMP 125V	4500	Black	PA-66	45
45 AMP 250V	4501	Black	PA-66	45
50 AMP 125V	5000	Black	PA-66	50
50 AMP 250V	5001	Black	PA-66	50
60 AMP 125V	6000	Black	PA-66	60
60 AMP 250V	6001	Black	PA-66	60
75 AMP 125V	7500	Black	PA-66	75
75 AMP 250V	7501	Black	PA-66	75
90 AMP 125V	9000	Black	PA-66	90
90 AMP 250V	9001	Black	PA-66	90
100 AMP 125V	1000	Black	PA-66	100
100 AMP 250V	1001	Black	PA-66	100
125 AMP 125V	1250	Black	PA-66	125
125 AMP 250V	1251	Black	PA-66	125
150 AMP 125V	1500	Black	PA-66	150
150 AMP 250V	1501	Black	PA-66	150
200 AMP 125V	2000	Black	PA-66	200
200 AMP 250V	2001	Black	PA-66	200
250 AMP 125V	2500	Black	PA-66	250
250 AMP 250V	2501	Black	PA-66	250
300 AMP 125V	3000	Black	PA-66	300
300 AMP 250V	3001	Black	PA-66	300
350 AMP 125V	3500	Black	PA-66	350
350 AMP 250V	3501	Black	PA-66	350
400 AMP 125V	4000	Black	PA-66	400
400 AMP 250V	4001	Black	PA-66	400
500 AMP 125V	5000	Black	PA-66	500
500 AMP 250V	5001	Black	PA-66	500
600 AMP 125V	6000	Black	PA-66	600
600 AMP 250V	6001	Black	PA-66	600
750 AMP 125V	7500	Black	PA-66	750
750 AMP 250V	7501	Black	PA-66	750
900 AMP 125V	9000	Black	PA-66	900
900 AMP 250V	9001	Black	PA-66	900
1000 AMP 125V	1000	Black	PA-66	1000
1000 AMP 250V	1001	Black	PA-66	1000

For more information on these and other P&S products refer to our Catalog or visit our web site: www.pandseymour.com

Legrand PASS & SEYMOUR® Cam-Type Devices 45° Angled Receptacles

RECEPTACLES

These receptacles are designed for use in applications where a 45 degree angle is required. They are available in 15, 20, 25, 30, 35, 40, 45, 50, 60, 75, 90, 100, 125, 150, 200, 250, 300, 350, 400, 500, 600, 750, 900, and 1000 amp ratings. They are available in black and white finishes. They are designed for use in applications where a 45 degree angle is required. They are available in 15, 20, 25, 30, 35, 40, 45, 50, 60, 75, 90, 100, 125, 150, 200, 250, 300, 350, 400, 500, 600, 750, 900, and 1000 amp ratings. They are available in black and white finishes. They are designed for use in applications where a 45 degree angle is required.

Features:

- 45 degree angle for easy connection
- Available in 15, 20, 25, 30, 35, 40, 45, 50, 60, 75, 90, 100, 125, 150, 200, 250, 300, 350, 400, 500, 600, 750, 900, and 1000 amp ratings
- Available in black and white finishes
- Designed for use in applications where a 45 degree angle is required

Applications:

- Industrial applications
- Commercial applications
- Residential applications

For more information on these and other P&S products refer to our Catalog or visit our web site: www.pandseymour.com

Legrand PASS & SEYMOUR® Cam-Type Devices 45° Angled Receptacles

RECEPTACLES

These receptacles are designed for use in applications where a 45 degree angle is required. They are available in 15, 20, 25, 30, 35, 40, 45, 50, 60, 75, 90, 100, 125, 150, 200, 250, 300, 350, 400, 500, 600, 750, 900, and 1000 amp ratings. They are available in black and white finishes. They are designed for use in applications where a 45 degree angle is required. They are available in 15, 20, 25, 30, 35, 40, 45, 50, 60, 75, 90, 100, 125, 150, 200, 250, 300, 350, 400, 500, 600, 750, 900, and 1000 amp ratings. They are available in black and white finishes. They are designed for use in applications where a 45 degree angle is required.

Features:

- 45 degree angle for easy connection
- Available in 15, 20, 25, 30, 35, 40, 45, 50, 60, 75, 90, 100, 125, 150, 200, 250, 300, 350, 400, 500, 600, 750, 900, and 1000 amp ratings
- Available in black and white finishes
- Designed for use in applications where a 45 degree angle is required

Applications:

- Industrial applications
- Commercial applications
- Residential applications

For more information on these and other P&S products refer to our Catalog or visit our web site: www.pandseymour.com

APPENDIX C

ROAD CLOSURE POLICY



Nassau County Engineering Services Department
96161 Nassau Place
Yulee, Florida 32097

Road Closure Policy

1. Submit a written request to the Public Works Director for the road closure. In the request you must explain the following:
 - a) Why the road needs to be closed and the duration of the closure?
 - b) What are the benefits to public for closing the road?
 - c) Include a draft detour plan.

After the road closure request and draft detour plan have been approved, the following information shall be submitted to the Nassau County Engineering Services Department for review and approval.

2. Submit to Nassau County Engineering Services Department: A Maintenance of Traffic (MOT) Plan that was prepared by or approved by Florida Advanced Maintenance of Traffic (AMOT) certified personnel referencing the latest editions of the Florida Department of Transportation (FDOT) Design Standards Section 600 and the Manual on Uniform Traffic Control Devices (MUTCD). These plans shall include the Worksite Traffic Supervisor as per the latest edition of the FDOT Standard Specifications for Road & Bridge Construction Section 105-8.3. Valuable Message Boards (VMB) will be required and shall be installed 7 days prior to the detour taking place and remain throughout. Any signed detour that will be within FDOT Right-of-Way (or on portions thereof) shall have prior FDOT approval.

A Maintenance of Traffic Plan proposing a change to any approved documents, including contract documents and approved construction plans must be signed and sealed.

3. Provide a public notification advertisement to an approved local newspaper. To appear no less than fourteen (14) days prior to the scheduled closure. Submit the draft notification to Nassau County Engineering Services for review and approval prior to advertising. This notification will clearly describe the name of the project and contractor, scope of the detour, scope of construction, the name of all roads that will be affected, official detour routes, duration of closure and the Worksite Traffic Supervisor's telephone number. Attach a diagram showing the surrounding area and detour routes. Diagram must be clear and depict road names and route direction. The size of advertisement in newspaper shall be a minimum of 2 columns wide by 12 inches long (tall) or one fifth (1/5) of a page with a minimum of 24 point font for the heading and 10 point font for the body and detour plan. Flyers with the same information may be required. With the Engineering Services Department's written approval, local roads may not require publishing of the advertisement in the paper; however, all other criteria must be adhered to.



4. Submit notification to the following departments and agencies prior to the road closure. A confirmation of notification to the Engineering Services Department must be provided prior to road closure.
- Nassau County Sheriff's Office:
 - o Ricky A Rowell, TAC
Phone - (904) 548-4000
Fax - (904) 225-5737
Email - ricky@nassauso.com
 - o L. Rene Graham, Lt.
Phone - (904) 548-4000
Fax - (904) 548-4128
Email - lrgraham@nassauso.com
 - Nassau County Emergency Management:
 - o Martha Oberdorfer
Phone - (904) 548-4094
Fax - (904) 548-4194
Email - mlwagaman@nassauso.com
 - Nassau County Fire Department:
 - o Scott Hemmingway
Phone - (904) 530-6600
Fax - (904) 321-5748
Email - shemmingway@nassaucountyfl.com
 - Nassau County School Bus Transportation:
 - o AmyBell
Phone - (904) 225-0127
Fax - (904) 255-9404
Email - amy.bell@nassau.k12.fl.us
 - Nassau County Road & Bridge Department:
 - o Jennifer Kirkland
Phone - (904) 530-6175
Fax - (904) 530-6901
Email - jbeayer@nassaucountyfl.com
 - Nassau County Manager's Office
 - o Sabrina Robertson
Phone - (904) 530-6010
Fax - (904) 321-5784
Email - SRobertson@nassaucountyfl.com
 - United Postal Service (Yulee)
 - o Beverly Dye
Phone - (904) 225-5331
Fax - (904) 225-9733
Email - beverly.a.dye@usps.gov
 - United Postal Service (Fernandina)
 - o EdwinLang
Phone - (904) 491-8102
Fax - (904) 277-7947
Email - edwin.p.lang@usps.gov
 - United Postal Service (Callahan)
 - o Kim Vojtech
Phone - (904) 879-2131
Fax - (904) 879-6737
Email - kim.k.vojtech@usps.gov
 - United Postal Service (Hilliard)
 - o Heather Ackerman
Phone - (904) 845-2151
Fax - (904) 845-7738
Email - heather.r.ackeeonan@usps.gov

Depending on the location of the project/detour, notification to other agencies may be required.



5. Signage will be in place prior to road closure. They will be bagged/covered until needed. VMBs, will be installed and operating a minimum of seven (7) calendar days prior to any closure/detour.

6. Visual inspection of the VMB by the Engineering Services Department is required at installation or relocation. Visual inspection of all road/detour signage shall be accomplished prior to road closure. Contact Engineering Services 48 hours prior to installation for inspection.

EXHIBIT 1

GENERAL INFORMATION AND MINIMUM INSURANCE REQUIREMENTS

GENERAL INFORMATION AND MINIMUM INSURANCE REQUIREMENTS

COMMERCIAL GENERAL LIABILITY INSURANCE

The Contractor shall purchase and maintain at the Contractor's expense Commercial General Liability insurance coverage (ISO or comparable Occurrence Form) for the life of this Contract. Modified Occurrence or Claims Made forms are not acceptable.

The Limits of this insurance shall not be less than the following limits:

Each Occurrence Limit	\$1,000,000
Personal & Advertising Injury Limit	\$1,000,000
Fire Damage Limit (any one fire)	\$ 300,000
Medical Expense Limit (any one person)	\$ 10,000
Products & Completed Operations Aggregate Limit	\$2,000,000
General Aggregate Limit (other than Products & Completed Operations) Applies Per Project	\$2,000,000

General liability coverage shall continue to apply to "bodily injury" and to "property damage" occurring after all work on the Site of the covered operations to be performed by or on behalf of the additional insureds has been completed and shall continue after that portion of "your work" out of which the injury or damage arises has been put to its intended use.

WORKERS' COMPENSATION AND EMPLOYER'S LIABILITY INSURANCE

The Contractor shall purchase and maintain at the Contractor's expense Workers' Compensation and Employer's Liability insurance coverage for the life of this Contract.

The Limits of this insurance shall not be less than the following limits:

<u>Part One</u> – Workers' Compensation Insurance – Unlimited	
Statutory Benefits as provided in the Florida Statutes and	
<u>Part Two</u> – Employer's Liability Insurance	
Bodily Injury By Accident	\$500,000 Each Accident
Bodily Injury By Disease	\$500,000 Policy Limit
Bodily Injury By Disease	\$500,000 Each Employee

*If leased employees are used, policy must include an Alternate Employer's Endorsement

AUTOMOBILE LIABILITY INSURANCE

The Contractor shall purchase and maintain at the Contractor's expense Automobile Liability insurance coverage for the life of this Contract.

The Limits of this insurance shall not be less than the following limits:

Combined Single Limit – Each Accident	\$1,000,000
---------------------------------------	-------------

Covered Automobiles shall include any auto owned or operated by the insured Contractor, insured Sub-subcontractor including autos which are leased, hired, rented or borrowed, including autos owned by their employees which are used in connection with the business of the respective Contractor or Sub-subcontractor.

UMBRELLA INSURANCE

The Contractor shall purchase and maintain at the Contractor's expense Umbrella Liability (Umbrella Form) insurance coverage for the life of this Contract.

The Limits of this insurance shall not be less than the following limits:

Each Occurrence Limit	\$1,000,000
-----------------------	-------------

Aggregate Limit

\$1,000,000

ENVIRONMENTAL LIABILITY INSURANCE

This additional coverage will be required by any Contractor performing environmental and/or other investigations involving excavation, drilling, or other site disturbance activities.

The Contractor shall purchase and maintain at the Contractor's expense Environmental Liability insurance (Contractors Pollution Liability) coverage for the life of this Contract.

The Limits of insurance shall not be less than the following limits: \$1,000,000 Each Loss/Aggregate

Such Coverage will include bodily injury, sickness, and disease, mental anguish or shock sustained by any person, including death; property damage including physical injury to destruction of tangible property including resulting loss of use thereof, cleanup costs, and the loss of use of tangible property that has not been physically injured or destroyed; defense including costs charges and expenses incurred in the investigation, adjustment or defense of claims for such compensatory damages; coverage for losses caused by pollution conditions that arises from the operations of the contractor including transportation.

Contractor shall require each of his Subcontractors to likewise purchase and maintain at their expense Commercial General Liability insurance, Workers' Compensation and Employer's Liability coverage, Automobile Liability insurance, Umbrella Liability, Environmental Liability insurance coverage meeting the same limit and requirements as the Contractors insurance.

Certificates of Insurance acceptable to Nassau County Board of County Commissioners for the Contractor/Vendor's insurance must be received within ten (10) days of Notification of Selection and at time of signing Agreement.

Certificates of Insurance and the insurance policies required for this Agreement shall contain an endorsement that coverage afforded under the policies will not be cancelled or allowed to expire until at least thirty (30) days prior written notice has been given to Nassau County Board of County Commissioners.

Certificates of Insurance and the insurance policies required for this Agreement will include a provision that policies, except Workers' Compensation are primary and noncontributory to any insurance maintained by the Contractor.

Nassau County Board of County Commissioners must be named as an Additional Insured and endorsed onto the Commercial General Liability (CGL), Auto Liability and Umbrella Liability policy (ies). A copy of the endorsement(s) must be supplied to Nassau County Board of County Commissioners ten (10) days following the execution of the agreement or prior to the first date of services, whichever comes first.

CGL policy Additional Insured Endorsement must include Ongoing and Completed Operations (Form CG2010 11 84 **OR** Form CG2010 04 13 and GC2037 04 13 edition or equivalent). Other Additional Insured forms might be acceptable but only if modified to delete the word "ongoing" and insert the sentence "Operations include ongoing and completed operations".

CGL policy shall not be endorsed with Exclusion - Damage to Work performed by Subcontractors on Your Behalf (CG2294 or CG2295)

CGL policy shall not be endorsed with Contractual Liability Limitation Endorsement (CG2139) or Amendment of Insured Contract Definition (CG 2426)

CGL policy shall not be endorsed with Exclusion - Damage to Premises Rented to you (CG 2145)

CGL policy shall include broad form contractual liability coverage for the Contractors covenants to and indemnification of the Authority under this Contract

Certificates of Insurance and the insurance policies required for this Agreement shall contain a provision under General Liability, Auto Liability and Workers' Compensation to include a Waiver of Subrogation clause in favor of Nassau County Board of County Commissioners.

All Certificates of Insurance shall be dated and shall show the name of the insured Contractor, the specific job by name and job number, the name of the insurer, the policy number assigned its effective date and its termination date and a list of any exclusionary endorsements.

All Insurers must be authorized to transact insurance business in the State of Florida as provided by Florida Statute 624.09(1) and the most recent Rating Classification/Financial Category of the insurer as published in the latest edition of "Best's Key Rating Guide" (Property-Casualty) must be at least A- or above.

All of the above referenced Insurance coverage is required to remain in force for the duration of this Agreement and for the duration of the warranty period. Accordingly, at the time of submission of final application for payment, Contractor shall submit an additional Certificate of Insurance evidencing continuation of such coverage.

If the Contractor fails to procure, maintain or pay for the required insurance, Nassau County Board of County Commissioners shall have the right (but not the obligation) to secure same in the name of and for the account of Contractor, in which event, Contractor shall pay the cost thereof and shall furnish upon demand, all information that may be required to procure such insurance. Nassau County Board of County Commissioners shall have the right to back-charge contractor for the cost of procuring such insurance. The failure of Nassau County Board of County Commissioners to demand certificates of insurance and endorsements evidencing the required insurance or to identify any deficiency in contractors coverage based on the evidence of insurance provided by the contractor shall not be construed as a waiver by Nassau County Board of County Commissioners of contractor's obligation to procure, maintain and pay for required insurance.

The insurance requirements set forth herein shall in no way limit Contractors liability arising out of the work performed under the Agreement or related activities. The inclusions, coverage and limits set forth herein are minimum inclusion, coverage and limits. The required minimum policy limits set forth shall not be construed as a limitation of Contractor's right under any policy with higher limits, and no policy maintained by the Contractor shall be construed as limiting the type, quality or quantity of insurance coverage that Contractor should maintain. Contractor shall be responsible for determining appropriate inclusions, coverage and limits, which may be in excess of the minimum requirements set forth herein.

If the insurance of any Contractor or any subcontractor contains deductible(s), penalty(ies) or self-insured retention(s), the Contractor or Subcontractor whose insurance contains such provision(s) shall be solely responsible for payment of such deductible(s), penalty(ies) or self-insured retention(s).

The failure of Contractor to fully and strictly comply at all times with the insurance requirements set forth herein shall be deemed a material breach of the Agreement.

EXHIBIT 2

CONTRACTOR'S BID

COPY

SECTION 00 41 15

BID FORM

PROJECT IDENTIFICATION: Nassau Amelia Utilities (NAU) Lift Stations No. 10 and No. 29 Rehabilitation
Bid Number NC 19-010
Nassau County, Florida

BID DEADLINE: DECEMBER 18, 2019 AT 4:00 P.M.

THIS BID IS SUBMITTED TO: Board of County Commissioners, Nassau County
Robert M. Foster Judicial Complex
Office of the Ex-Officio Clerk
76347 Veterans Way, Suite 456
Yulee, Florida 32097

1.01 The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an Contract with the County in the form included in the Bidding Documents to perform all Work as specified or indicated in the Bidding Documents for the prices and within the times indicated in this Bid and in accordance with the other terms and conditions of the Bidding Documents.

Company Name (typed or printed): Petticoat-Schmitt Civil Contractors, Inc.
Business address: 6380 Philips Highway, Jacksonville, FL 32216
Phone No.: (904) 751-0888 Fax No.: (904) 751-0988
Contact Name: Ryan M. Schmitt
Contact Title: President
Contact email address: rschmitt@petticoatschmitt.com

2.01 Bidder accepts all of the terms and conditions of the Advertisement or Invitation to Bid and Instructions to Bidders, including without limitation those dealing with the disposition of Bid security. The Bid will remain subject to acceptance for 90 days after the Bid opening, or for such longer period of time that Bidder may agree to in writing upon request of the County.

3.01 In submitting this Bid, Bidder represents, as set forth in the Contract, that:

A. Bidder has examined and carefully studied the Bidding Documents, the other related data identified in the Bidding Documents, and the following Addenda, receipt of all which is hereby acknowledged:

Addendum No.	Addendum Date
<u>1</u>	<u>12/5/2019</u>
<u>2</u>	<u>12/16/2019</u>

SECTION 00 43 15

BID BOND

Any singular reference to Bidder, Surety, County, or other party shall be considered plural where applicable.

BIDDER (Name and Address): Petticoat-Schmitt Civil Contractors Inc.
6380 Phillips Highway
Jacksonville, FL 32216

SURETY (Name and Address of Principal Place of Business):
Machinery Insurance Inc., An Assessable Mutual Insurer
219 N Newnan Street
Jacksonville, FL 32202

COUNTY (Name and Address):
Nassau County Board of County Commissioners
96135 Nassau Place Suite 1
Yulee FL 32097-5451

BID

Bid Due Date: December 18, 2019

Project (Brief Description Including Location): Nassau Amelia Utilities (NAU) Lift
Stations #10 and #29 Bid #NC19-010

BOND

Bond Number:

Date (Not later than Bid due date):

Penal Sum: (Words) Five Percent of bid Amount (Figures) 5%

Surety and Bidder, intending to be legally bound hereby, subject to the terms printed on the reverse side hereof, do each cause this Bid Bond to be duly executed on its behalf by its authorized officer, agent, or representative.

BIDDER

SURETY

Petticoat Schmitt Civil Contractors Inc. (Seal)
Bidder's Name and Corporate Seal

Machinery Insurance Inc., An Assessable Mutual Insurer (Seal)
Surety's Name and Corporate Seal

By: [Signature]
Signature and Title

By: [Signature]
Signature and Title Benjamin Powell, Attorney in Fact
(Attach Power of Attorney)

Attest: [Signature]
Signature and Title
VP

Attest: [Signature]
Signature and Title Annette Evans, Witness

Note: Above addresses are to be used for giving required notice.

DAMAGES FORM

1. Bidder and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to pay to the County upon default of Bidder any difference between the total amount of Bidder's Bid and the total amount of the Bid of the next lowest, responsible Bidder who submitted a responsive Bid as determined by the County for the work required by the Contract Documents, provided that:
 - 1.1. If there is no such next Bidder, and the County does not abandon the Project, then Bidder and Surety shall pay to the County the penal sum set forth on the face of this Bond, and
 - 1.2. In no event shall Bidder's and Surety's obligation hereunder exceed the penal sum set forth on the face of this Bond.
2. Default of Bidder shall occur upon the failure of Bidder to deliver within the time required by the Bidding Documents (or any extension thereof agreed to in writing by the County) the executed Contract required by the Bidding Documents and any performance and payment bonds required by the Bidding Documents.
3. This obligation shall be null and void if:
 - 3.1. The County accepts Bidder's Bid and Bidder delivers within the time required by the Bidding Documents (or any extension thereof agreed to in writing by the County) the executed Contract required by the Bidding Documents and any performance and payment bonds required by the Bidding Documents, or
 - 3.2. All Bids are rejected by the County, or
 - 3.3. The County fails to issue a Notice of Award to Bidder within the time specified in the Bidding Documents (or any extension thereof agreed to in writing by Bidder and, if applicable, consented to by Surety when required by Paragraph 5 hereof).
4. Payment under this Bond will be due and payable upon default by Bidder and within 30 calendar days after receipt by Bidder and Surety of written notice of default from the County, which notice will be given with reasonable promptness, identifying this Bond and the Project and including a statement of the amount due.
5. Surety waives notice of any and all defenses based on or arising out of any time extension to issue Notice of Award agreed to in writing by the County and Bidder, provided that the total time for issuing Notice of Award including extensions shall not in the aggregate exceed 120 days from Bid due date without Surety's written consent.
6. No suit or action shall be commenced under this Bond prior to 30 calendar days after the notice of default required in Paragraph 4 above is received by Bidder and Surety and in no case later than one year after Bid due date.
7. Any suit or action under this Bond shall be commenced only in a court of competent jurisdiction located in the state in which the Project is located.

8. Notices required hereunder shall be in writing and sent to Bidder and Surety at their respective addresses shown on the face of this Bond. Such notices may be sent by personal delivery, commercial courier, or by United States Registered or Certified Mail, return receipt requested, postage pre-paid, and shall be deemed to be effective upon receipt by the party concerned.

9. Surety shall cause to be attached to this Bond a current and effective Power of Attorney evidencing the authority of the officer, agent, or representative who executed this Bond on behalf of Surety to execute, seal, and deliver such Bond and bind the Surety thereby.

10. This Bond is intended to conform to all applicable statutory requirements. Any applicable requirement of any applicable statute that has been omitted from this Bond shall be deemed to be included herein as if set forth at length. If any provision of this Bond conflicts with any applicable statute, then the provision of said statute shall govern and the remainder of this Bond that is not in conflict therewith shall continue in full force and effect.

11. The term "Bid" as used herein includes a Bid, offer, or proposal as applicable.

END OF SECTION

**MACHINERY INSURANCE, INC.
AN ASSESSABLE MUTUAL INSURER**

GENERAL POWER OF ATTORNEY

Know by these Presents, that Machinery Insurance, Inc., An Assessable Mutual Insurer, organized pursuant to Chapter 627.6011 et.seq., Florida Statutes (1991) and filed with the Florida Department of Insurance, does hereby appoint .

Benjamin K. Powell

its true and lawful attorney-in-fact, with full authority to execute on its behalf, surety bonds or undertakings and other documents of a similar character issued in the course of its business, and to bind the company thereby. This authority extends to any and all consents required by the State of Florida incident to the release of retained percentages and/or final estimates on engineering and/or construction contracts, and shall apply to surety bonds or undertakings and other documents of similar character not to exceed:

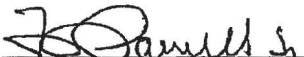
Five hundred thousand dollars (\$500,000.00)

This Power of Attorney is signed and sealed by facsimile under and by the authority of the following extract of the Minutes of a special meeting of the Board of Directors of the Company at a meeting duly called and held on October 13, 1992.

"Upon a motion duly made and carried, the following action was taken: Resolved, the Chairman, President or Secretary shall each have the authority to appoint individuals as attorneys-in-fact or under other appropriate titles with authority to execute, on behalf of the company, fidelity and surety bonds and other documents of similar character issued by the company in the course of its business. On any instrument making or evidencing such appointment, the signatures may be affixed by facsimile. On any instrument conferring such authority or on any bond or undertaking of the company, the seal, or a facsimile thereof, may be impressed or affixed or in any other manner reproduced; provided however, the seal shall not be necessary to the validity of any such instrument or undertaking."

IN WITNESS WHEREOF, Machinery Insurance, Inc., An Assessable Mutual Insurer, has executed and attested these presents this 24th day of July, 2017.


Stephen T. Cumella, Chairman and Secretary

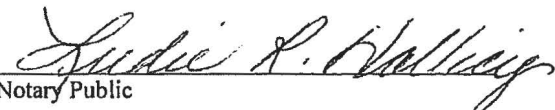

Fitzhugh K. Powell, Sr., President and Treasurer

**STATE OF FLORIDA
CITY OF JACKSONVILLE**

On this 28th day of January, 2016, before the subscriber, a Notary Public of the State of Florida, duly commissioned and qualified, came the above named Officers of Machinery Insurance, Inc., An Assessable Mutual Insurer to me personally known to be the individuals and officers described in and who executed the preceding instrument, and they each acknowledged the execution of the same, and being by me duly sworn, severally and each for himself depose and saith that they are the said officers of the Company aforesaid, and that the seal affixed to the preceding instrument is the Corporate Seal of said Company, and that the Corporate Seal and their signatures as such officers were duly affixed and subscribed to the said instrument by the authority and direction of the said Corporation.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my Official Seal, at the City of Jacksonville, the day and year first above written.

LUDIE R. HALLICY
Notary Public, State of Florida
My Comm. Expires June 28, 2018
Commission No. FF 110840


Notary Public

CERTIFICATE

I, the undersigned, Chairman of Machinery Insurance, Inc., An Assessable Mutual Insurer, A Florida Corporation, do hereby certify that the foregoing and attached Power of Attorney remains in full force and has not been revoked; and, furthermore, that the Resolution of the board of Directors, set forth in the said Power of Attorney is now in force.

Signed and sealed at the town of Jacksonville in the State of Florida. Dated this 18th day of December, 2019.


Stephen T. Cumella, Chairman

-
- B. Bidder has visited the Site and become familiar with and is satisfied as to the general, local and Site conditions that may affect cost, progress, and performance of the Work.
- C. Bidder is familiar with and is satisfied as to all federal, state and local Laws and Regulations that may affect cost, progress and performance of the Work.
- D. Bidder has carefully studied all: (1) reports of explorations and tests of subsurface conditions at or contiguous to the Site and all drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the Site (except Underground Facilities) which have been identified in the Supplementary Conditions as provided in paragraph 4.02 of the General Conditions, and (2) reports and drawings of a Hazardous Environmental Condition, if any, which has been identified in the Supplementary Conditions as provided in paragraph 4.06 of the General Conditions.
- E. Bidder has obtained and carefully studied (or assumes responsibility for having done so) all additional or supplementary examinations, investigations, explorations, tests, studies, and data concerning conditions (surface, subsurface and Underground Facilities) at or contiguous to the Site which may affect costs, progress, or performance of the Work or which relate to any aspect of the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder, including applying the specific means, methods, techniques, sequences, and procedures of construction expressly required by the Bidding Documents to be employed by Bidder, and safety precautions and programs incident thereto.
- F. Bidder does not consider that any further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of this Bid for performance of the Work at the price(s) bid and within the times and in accordance with the other terms and conditions of the Bidding Documents.
- G. Bidder is aware of the general nature of the work to be performed by the County and others at the Site that relates to the Work as indicated in the Bidding Documents.
- H. Bidder has correlated the information known to Bidder, information and observations obtained from visits to the Site, reports and drawings identified in the Bidding Documents, and all additional examinations, investigations, explorations, tests, studies, and data with the Bidding Documents.
- I. Bidder has given Engineer of Record written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder has discovered in the Bidding

Documents, and the written resolution thereof by Engineer of Record is acceptable to Bidder.

- J. The Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance of the Work for which this Bid is submitted.

4.01 Bidder further represents that this Bid is genuine and not made in the interest of or on behalf of any undisclosed individual or entity and is not submitted in conformity with any Contract or rules of any group, association, organization or corporation; Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid; Bidder has not solicited or induced any individual or entity to refrain from bidding; and Bidder has not sought by collusion to obtain for itself any advantage over any other Bidder or over the County.

5.01 Bidder will complete the Work in accordance with the Contract Documents for the following price(s):

BID					
Item No	Pay Item Description	Units	Quantity	Cost Per Unit	Total Cost
Item 1.0 General					
1.1	Mobilization/Demobilization/General Requirements (Each Not to Exceed 5% of the Total Bid Price)	LS	1		\$ 10,000
1.2	Indemnification	LS	1		\$ 1,000
1.3	Bonds and Insurance	LS	1		\$ 14,000
1.4	Maintenance of Traffic (MOT)	LS	1		\$ 600
<i>Subtotal</i>					\$ 25,600
Item 2.0 LS No. 10 Replacement					
2.1	LS No. 10 Replacement	LS	1		\$ 128,600
<i>Subtotal</i>					\$ 128,600
Item 3.0 LS No. 29 Replacement					
3.1	LS No. 29 Replacement	LS	1		\$ 161,700
<i>Subtotal</i>					\$ 161,700
TOTAL BID LUMP SUM (ITEMS 1.0 to 3.0)					\$ 315,900

(Total - Use Words)

Three-Hundred Fifteen Thousand, Ninehundred and 900

Lump sum price has been computed in accordance with Paragraph 11.01 of the General Conditions.

All specific cash allowances are included in the price(s) set forth above and have been computed in accordance with paragraph 11.02 of the General Conditions.

Unit prices have been computed in accordance with Paragraph 11.03B of the General Conditions.

Bidder acknowledges that estimated quantities are not guaranteed, and are solely for the purpose of comparison of Bids. Final payment of all Unit Price Bid Items will be based on actual quantities as determined in the Contract Documents.

6.01 Bidder agrees that the Work will be substantially complete within 180 calendar days after the date when the Contract Times commence to run as provided in paragraph 2.03 of the General Conditions, and completed and ready for final payment in accordance with paragraph 14.07.B of the General Conditions within 30 calendar days from the date of substantial completion. Total contract time shall be 210 calendar days; for everyday the work goes beyond substantial completion, a day will be removed from final completion so the total days equal 210 calendar days.

6.02 Bidder accepts the provisions of the Contract as to liquidated damages in the event of failure to complete the Work within the times specified above, which shall be stated in the Contract.

7.01 The following documents are attached to and made a condition of this Bid:

- A. Bid Security in the form of a certified check of Bid Bond (Section 00 43 15)
- B. Tabulation of Subcontractors & Suppliers (Section 00 43 35)
- C. Florida Trench Safety Act Certification (Section 00 44 55)
- D. Bidder's Qualification Statement (Section 00 45 13)
- E. Non-collusion Affidavit (Section 00 45 19)
- F. Drug-Free Workplace Certificate (Section 00 45 20)
- G. Public Entity Crimes Statement
- H. Statement of Disputes, Litigation & Surety Completion

8.01 The terms used in this Bid with initial capital letters have the meanings indicated in the Instructions to Bidders, the General Conditions, and the Supplementary Conditions.

SUBMITTED on December 18, 2019.

State Contractor License No. CGC #057651; CUC #057440.

If Bidder is:

An Individual

Name (typed or printed): _____

By: _____

(Individual's Signature)

Doing business as: _____

Business address: _____

Phone No.: _____ Fax No.: _____

A Partnership

Partnership Name: _____

By: _____

(Signature of general partner - attach evidence of authority to sign)

Name (typed or printed): _____

Business address: _____

Phone No.: _____ Fax No.: _____

A Corporation

Corporation Name: Petticoat-Schmitt Civil Contractors, Inc. (SEAL)

State of Incorporation: Florida

Type (General Business, Professional, Service, Limited Liability): Sole Proprietor

By: [Signature]

(Signature - attach evidence of authority to sign)

Name (typed or printed): Ryan M. Schmitt

Title: President (CORPORATE SEAL)

Attest [Signature]

(Signature of Corporate Secretary) VP

Business address: 6380 Philips Highway, Jacksonville, FL 32216

Phone No.: 904-751-0888 Fax No.: 904-751-0988

Date of Qualification to do business is October 23, 2007

A Joint Venture

Joint Venturer Name: _____

By: _____

(Signature of joint venture partner - attach evidence of authority to sign)

Name (typed or printed): _____

Title: _____

Business address: _____

Phone No.: _____ Fax No.: _____

Joint Venturer Name: _____

By: _____

(Signature - attach evidence of authority to sign)

Name (typed or printed): _____

Title: _____

Business address: _____

Phone No.: _____ Fax No.: _____

Phone and FAX Number, and Address for receipt of official communications:

(Each joint venturer must sign. The manner of signing for each individual, partnership, and corporation that is a party to the joint venture should be in a manner indicated above.)

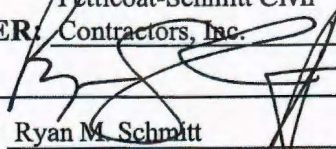
END OF SECTION

SECTION 00 43 35

TABULATION OF SUBCONTRACTORS & SUPPLIERS

The undersigned states that the following is a full and complete list of the proposed subcontractors and suppliers on this Project and the class of work to be performed by each, and that such list will not be added to nor altered without written consent to the County through the Engineer.

<u>SUBCONTRACTOR OR SUPPLIER AND ADDRESS</u>	<u>CLASS OF WORK OR MATERIAL</u>
1. <u>Capburn Bros Electric</u> <u>3360 Faye Rd</u> <u>Jacksonville, FL 32226</u>	<u>Electrical</u>
2. <u>Concrete Conservation</u> <u>4527 Sunbeam Rd</u> <u>Jacksonville, FL 32241</u>	<u>SpectraShield Special Coating</u>
3. <u>PSI Technologies</u> <u>3520 Investment Ln, Unit 3</u> <u>Biviera Beach, FL 33404</u>	<u>Pumping Equipment</u>
4. _____ _____	
5. _____ _____	
6. _____ _____	
7. _____ _____	

Petticoat-Schmitt Civil
BIDDER: Contractors, Inc.
By: 
Name: Ryan M. Schmitt

Title: President

Date: 12/18/19

END OF SECTION

SECTION 00 44 55

FLORIDA TRENCH SAFETY ACT CERTIFICATION

Bidder acknowledges that included in the various items of the proposal and in the Total Bid Price are costs for complying with the Florida Trench Safety Act (90-96, Laws of Florida) as modified October 1, 2008. The Bidder further identifies the costs to be summarized below:

	<u>Cost</u>
1. Trench Safety Act Compliance	\$ <u>1,000</u>
2. Special Shoring	\$ <u>Ø</u>

Identify method of compliance for Item #1: slope excavation side 1 1/2:1

Identify or attach a copy of Special Shoring requirements for Item #2: N/A

The undersigned certifies that he/she is the Contractor who will perform the trench excavation for this project, and hereby gives written assurance that Contractor will comply with the applicable trench safety standards specifically set forth in Florida's Trench Safety Act, Laws of Florida, 90-96.

BIDDER: Petticoat-Schmitt Civil Contractors, Inc.

By: [Signature]

Name: Ryan M. Schmitt

Title: President

Sworn to and subscribed before me this 18th day of December, 2019.

[Signature: Kimberly S. Bryan]
Notary Public

My Commission Expires: 1-29-20

END OF SECTION



SECTION 00 45 13

STATEMENT OF BIDDER'S QUALIFICATIONS

To: Nassau County Board of Commissioners Project: Nassau Amelia Utilities (NAU) Lift Stations
Date: December 18, 2019 #10 and #29

The following experience record, as of date shown, shall be submitted to the County with the Bid Form. All questions shall be answered fully. Bidders who have qualified to bid on other projects for this County within the last 12 months need not resubmit this form unless specifically requested by the County. The contents of this form will be considered confidential to the extent allowed by applicable laws and regulations.

Name of Bidder: Petticoat-Schmitt Civil Contractors, Inc.

Business Address: 6380 Philips Highway

	Street	
<u>Jacksonville</u>	<u>FL</u>	<u>32216</u>
City	State	Zip Code

1. Number of years in business as a Contractor under the present:
Business Name 12
As Principal Contractor 12 As a Sub-Contractor 12
2. Class of work you are equipped to perform: clearing,grading, storm drain, water systems, sanitary sewer, roadway, water & wastewater treatment plant construction
3. Class of work you usually sublet: Asphalt
4. Have any members of your concern ever operated under any other business name? No.
If so, give details: _____
5. Have you ever failed to qualify as a responsible bidder? No. If so, give details.

6. Have you ever refused to enter into a contract after the award is made to you? No.
If so, give details. _____
7. Have you ever failed to complete any work? No. If so, give details:

8. Has any surety or financial institution ever experienced loss on your concern? No.

If so, give details: _____

9. Give name and address of the County, type of work, and the contract amount of at least three projects completed in the last three years:

	(1)	(2)	(3)
Project County:	<u>PLEASE SEE ATTACHED</u>	<u>PLEASE SEE ATTACHED</u>	<u>PLEASE SEE ATTACHED</u>
County Project Manager:	_____	_____	_____
Email:	_____	_____	_____
Phone No:	_____	_____	_____
Address:	_____	_____	_____
City, State, Zip:	_____	_____	_____
Type of Work:	_____	_____	_____
Contract Amt: \$	_____	\$ _____	\$ _____

10. Give name and address of the County, type of work, and contract amount of projects now in process of construction:

	Name	Address	Type of Work	Contract Amount
A.	<u>PLEASE SEE ATTACHED</u>	_____	_____	\$ _____
B.	<u>PLEASE SEE ATTACHED</u>	_____	_____	\$ _____
C.	<u>PLEASE SEE ATTACHED</u>	_____	_____	\$ _____
D.	<u>PLEASE SEE ATTACHED</u>	_____	_____	\$ _____
E.	<u>PLEASE SEE ATTACHED</u>	_____	_____	\$ _____

11. Indicate your experience in the construction of work similar to this project (if not demonstrated by Questions 9 and 10, above):

N/A

12. Give construction experience of principal individuals of your organization:

	Name	Position	Years of Experience	Size and Type of Work
A.	<u>PLEASE SEE ATTACHED</u>	_____	_____	_____
B.	<u>PLEASE SEE ATTACHED</u>	_____	_____	_____
C.	<u>PLEASE SEE ATTACHED</u>	_____	_____	_____
D.	<u>PLEASE SEE ATTACHED</u>	_____	_____	_____
E.	<u>PLEASE SEE ATTACHED</u>	_____	_____	_____

13. Are there any judgments, suits, or claims pending against you? _____. If so, give details:
As with any GC there can be claims, but will not affect this project.

14. Does your organization operate as a corporation, partnership, or individual? _____
Corporation

A. If a corporation, when incorporated: October 23, 2007

In which state incorporated: Florida

List name, title, and address of all officers:

	Name	Title	Address
(1)	<u>Ryan M. Schmitt</u>	<u>President</u>	<u>Neptune Beach, FL</u>
(2)	<u>Lauren C. Atwell</u>	<u>COO</u>	<u>Jacksonville, FL</u>
(3)	<u>Kimberly S. Bryan</u>	<u>VP of Pre-Construction</u>	<u>Jacksonville, FL</u>
(4)	<u>David Dougherty</u>	<u>CFO</u>	<u>Jacksonville, FL</u>
(5)	_____	_____	_____

B. If a partnership, date of organization: _____

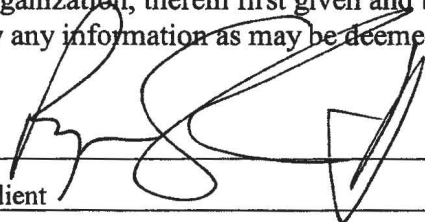
General, Limited, or Associated? _____

List name, address, and proportional interest of parties:

	Name	Address	Proportional Interest
(1)	<u>N/A</u>	_____	_____
(2)	_____	_____	_____
(3)	_____	_____	_____
(4)	_____	_____	_____
(5)	_____	_____	_____

15. If requested prior to award of contract, provide to the County an accurate, up-to-date, condensed financial statement on a separate sheet attached to these qualifications of the individual, co-partnership, or corporation.

The undersigned hereby declares and certifies that the foregoing is a true statement of the experience and condition of the organization, therein first given and that any agency or individual herein named authorized to supply any information as may be deemed necessary to verify this statement.

Signed 
Title President

Subscribed and sworn to before me this 18th
day of December, 2019
Kimberly S Bryan Notary Public
Duval County, FL
My Commission expires 1-29-22

END OF SECTION



SECTION 00 45 19

NONCOLLUSION AFFIDAVIT

TO: The Nassau County Board of Commissioners, herein called the "County."

Pursuant to bidding requirements for the work titled "Nassau Amelia Utilities (NAU) Lift Stations #10 and #29,"

the enclosed contract documents shall be provided to the County.

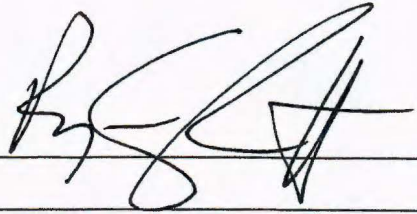
State of Florida

County of Duval

Ryan M. Schmitt, being first duly sworn, deposes, and says that:

- A. He is President (officer's title) of Petticoat-Schmitt Civil Contractors, Inc. (company name), the Bidder that has submitted the attached bid;
- B. He is fully informed respecting the preparation and contents of the attached bid and of all pertinent circumstances respecting such bid;
- C. Such bid is genuine and is not a collusive or sham bid;
- D. Neither the said Bidder nor any of its officers, partners, Countys, agents, representatives, employees, or parties in interest, including this affiant, has in any way colluded, conspired, connived, or agreed, directly or indirectly with any other Bidder, firm, or person to submit a collusive or sham bid in connection with the contract for which the attached bid has been submitted or to refrain from bidding in connection with such contract, or has in any manner, directly or indirectly, sought by Contract or collusion or communication or conference with any other Bidder, firm, or person to fix the price or prices in the attached bid or of any other Bidder, or to fix any overhead, profit, or cost element of the bid price or the bid price of any other Bidder, or to secure through any collusion, conspiracy, connivance, or unlawful Contract any advantage against the _____ or any person interested in the proposed contract; and
- E. The price or prices quoted in the attached bid are fair and proper and are not tainted by any collusion, conspiracy, connivance, or unlawful Contract on the part of the Bidder or any of its agents, representatives, Countys: employees, or parties in interest, including this affiant.

(Signed)



Subscribed and sworn to before me
this 18th day of December, 20 19.

Kimberly S Bryan
Notary Public

1-29-20

My commission expires



END OF SECTION

SECTION 00 45 20

DRUG FREE WORKPLACE CERTIFICATE

I, the undersigned, in accordance with Florida Statute 287.087, hereby certify that Petticoat-Schmitt Civil Contractors, Inc. (print or type name of firm)

- Publishes a written statement notifying that the unlawful manufacture, distribution, dispensing, possession or use of a controlled substance in the workplace named above, and specifying actions that will be taken against violations of such prohibition.
- Informs employees about the dangers of drug abuse in the workplace, the firm's policy of maintaining a drug free working environment, and available drug counseling, rehabilitation, and employee assistance programs, and the penalties that may be imposed upon employees for drug use violations.
- Gives each employee engaged in providing commodities or contractual services that are under bid or proposal, a copy of the statement specified above.
- Notifies the employees that as a condition of working on the commodities or contractual services that are under bid or proposal, the employee will abide by the terms of the statement and will notify the employer of any conviction of, plea of guilty or nolo contendere to, any violation of Chapter 1893, or any controlled substance law of the State of Florida or the United States, for a violation occurring in the work place, no later than five (5) days after such conviction, and requires employees to sign copies of such written statement to acknowledge their receipt.
- Imposes a sanction on, or requires the satisfactory participation in, a drug abuse assistance or rehabilitation program, if such is available in the employee's community, by any employee who is so convicted.
- Makes a good faith effort to continue to maintain a drug free work place through the implementation of a drug free work place program.

"As a person authorized to sign a statement, I certify that the above named business, firm, or corporation complies fully with the requirements set forth herein."

[Signature]
Authorized Signature
12/18/2019
Date Signed

State of: Florida

County of: Duval

Sworn to and subscribed before me this 18th day of December, 2019.

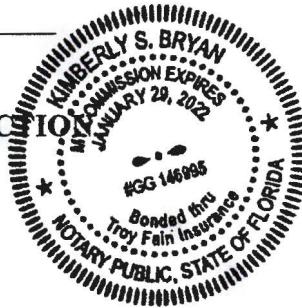
Personally known or Produced Identification _____

(Specify type of Identification)

[Signature: Kimberly S. Bryan]
Notary Public

1-29-22
My commission expires

END OF SECTION



SECTION 00 45 30

SWORN STATEMENT UNDER SECTION 287.133(3)(a),
FLORIDA STATUTES, ON PUBLIC ENTITY CRIMES

(To be signed in the presence of a notary public or other
officer authorized to administer oaths.)

STATE OF Florida
COUNTY OF Duval

Before me, the undersigned authority, personally appeared _____, who
being by me first duly sworn, made the following statement:

1. The business address of Petticoat-Schmitt Civil Contractors, Inc.
(firm name of Bidder/Contractor)
is 6380 Philips Highway, Jacksonville, FL 32216

2. My relationship to Petticoat-Schmitt Civil Contractors, Inc.
(firm name of Bidder/Contractor)
is President
(relationship such as sole proprietor, partner, president, vice president)

3. I understand that a public entity crime as defined in Section 287.133 of the Florida Statutes includes a violation of any state or federal law by a person with respect to and directly related to the transaction of business with any public entity in Florida or with an agency or political subdivision of any other state or with the United States, including, but not limited to, any bid or contract for goods or services to be provided to any public entity or such an agency or political subdivision and involving antitrust, fraud, theft, bribery, collusion, racketeering, conspiracy, or material misrepresentation.

4. I understand that "convicted" or "conviction" is defined by the statute to mean a finding of guilt or a conviction of a public entity crime, with or without adjudication or guilt, in any federal or state trial of record relating to charges brought by indictment or information after July 1, 1989, as a result of a jury verdict, nonjury trial, or entry of a plea of guilty or nolo contendere.

5. I understand that "affiliate" is defined by the statute to mean (1) a predecessor or successor of a person or a corporation convicted of a public entity crime; or (2) an entity under

control of any natural person with is active in management of the entity and who has been convicted of a public entity crime; (3) those officers, directors, executives, partners, shareholders, employees, members, and agents who are active in the management of an affiliate; or (4) a person or corporation who knowingly entered into a joint venture with a person who has been convicted of a public entity crime in Florida during the preceding 36 months.

6. Neither the Bidder/Contractor nor any officer, director, executive, partner, shareholder, employee, member or agent who is active in the management of the Bidder/Contractor, nor any affiliate of the Bidder/Contractor, has been convicted of a public entity crime subsequent to July 1, 1989.

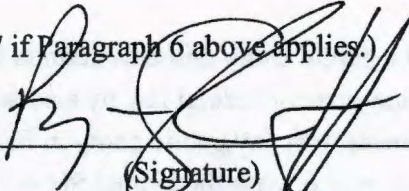
(Draw a line through Paragraph 6 if Paragraph 7 below applies.)

~~7. There has been a conviction of a public entity crime by Bidder/Contractor, or an officer, director, executive, partner, shareholder, employee, member or agent of the Bidder/Contractor who is active in the management of the Bidder/Contractor or an affiliate of the Bidder/Contractor. A determination has been made pursuant to 287.133(3) by order of the Division of Administrative Hearings that it is not in the public interest of the name of the convicted person or affiliate to appear on the convicted vendor list.~~

~~The name of the convicted person or affiliate is _____.~~

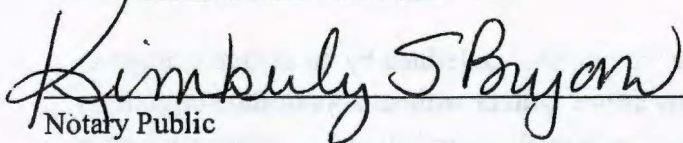
A copy of the order of the Division of Administrative Hearings is attached to this statement.

(Draw a line through Paragraph 7 if Paragraph 6 above applies.)



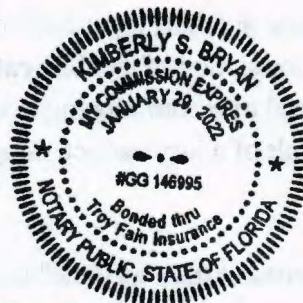
(Signature)

Sworn to and subscribed before me in the State and County first mentioned above on the 18th day of December, 2019.


Notary Public

1-29-22

My commission expires



(affix seal)


END OF SECTION

As with any GC there can be claims, but will not affect this project

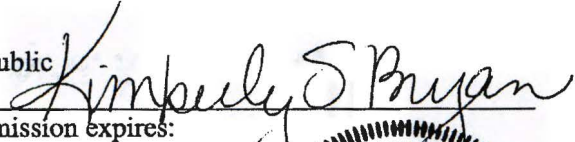
SECTION 00 45 35

**BIDDER'S STATEMENT OF DISPUTES, LITIGATION, ARBITRATION,
AND SURETY COMPLETION, LAST THREE (3) YEARS**

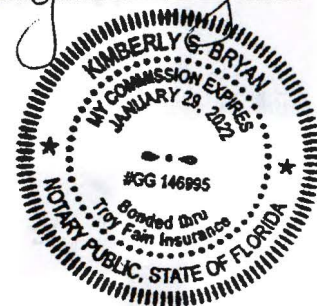
<u>Project</u>	<u>Name and Address of Owner or Engineer</u>	<u>Name and Phone of Owner or Engineer Representative</u>	<u>Date of Contract</u>	<u>Amount</u>	<u>Status</u>
----------------	--	---	-----------------------------	---------------	---------------

(Signed) 
Print Name Lauren C. Atwell

Subscribed and sworn to before me
this 18th day of December, 2019

Notary Public 
My commission expires:

END OF SECTION





RICK SCOTT, GOVERNOR

JONATHAN ZACHEM, SECRETARY



STATE OF FLORIDA
DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION
CONSTRUCTION INDUSTRY LICENSING BOARD

THE UNDERGROUND UTILITIES & EXCAVATION CONTRACTORS CERTIFIED UNDER THE
 PROVISIONS OF CHAPTER 489, FLORIDA STATUTES



LICENSE NUMBER: **2UG007440**

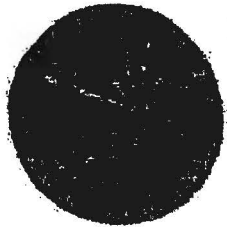
EXPIRATION DATE: **AUGUST 31, 2020**

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RICK SCOTT, GOVERNOR

JONATHAN ZACHEM, SECRETARY



**STATE OF FLORIDA
DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION**

CONSTRUCTION INDUSTRY LICENSING BOARD

THE GENERAL CONTRACTOR HEREIN IS CERTIFIED UNDER THE
PROVISIONS OF CHAPTER 489, FLORIDA STATUTES

SCHMITT, RYAN MATTHEW

PETITIONER: SCHMITT CIVIL CONTRACTORS INC

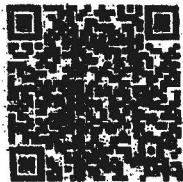
6180 PHILLIPS HWY

JACKSONVILLE FL 32216

LICENSE NUMBER: CG0057661

EXPIRATION DATE: AUGUST 31, 2020

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BISHOP AND DRAPER
CERTIFIED PUBLIC ACCOUNTANTS

MEMBER OF
AMERICAN AND FLORIDA
INSTITUTES OF
CERTIFIED PUBLIC ACCOUNTANTS

BUILDING 300
5150 BELFORT ROAD
JACKSONVILLE, FLORIDA 32256
904-725-9226

Independent Auditor's Report

Board of Directors
Petticoat-Schmitt Civil Contractors, Inc.
Jacksonville, Florida

We have audited the accompanying financial statements of Petticoat-Schmitt Civil Contractors, Inc., (a Florida Corporation), which comprise the balance sheets as of December 31, 2018 and 2017, and the related statements of operations, accumulated deficit, and cash flows for the years then ended, and the related notes to the financial statements.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatements, whether due to fraud or error.

Auditor's Responsibility

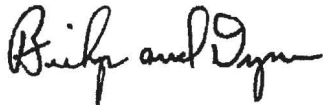
Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessments of risk of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of Petticoat-Schmitt Civil Contractors, Inc. as of December 31, 2018 and 2017, and the results of its operations and its cash flows for the years then ended in accordance with accounting principles generally accepted in the United States of America.



Bishop and Draper
Certified Public Accountants
Jacksonville, Florida

April 23, 2019

PETTICOAT-SCHMITT CIVIL CONTRACTORS, INC.

BALANCE SHEETS

ASSETS

	December 31	
	<u>2018</u>	<u>2017</u>
CURRENT ASSETS:		
Cash	\$ 2,195,997	\$ 2,816,963
Contract receivables	7,184,615	12,358,784
Stockholder and employees	240,369	298,420
Costs and estimated earnings in excess of billings on uncompleted contracts	1,252,094	190,735
Prepaid officer's life insurance	-	299,940
Prepaid insurance	16,338	84,725
Deposits and other prepaids	83,664	87,513
Current portion of prepaid vehicle leases	43,339	59,652
Total Current Assets	<u>11,016,416</u>	<u>16,196,732</u>
 PROPERTY AND EQUIPMENT:		
Office furniture and fixtures	65,556	65,556
Computer equipment and software	231,594	231,594
Machinery and equipment	11,360,995	10,097,155
Vehicles and transportation equipment	1,481,626	1,490,559
	<u>13,139,771</u>	<u>11,884,864</u>
Less: accumulated depreciation	(6,040,662)	(4,076,689)
Property and Equipment	<u>7,099,109</u>	<u>7,808,175</u>
 OTHER ASSETS:		
Prepaid vehicle leases less current portion	40,597	92,381
Cash Surrender Value of Stockholder's Life Insurance	392,651	131,154
 TOTAL ASSETS	 <u><u>\$ 18,548,773</u></u>	 <u><u>\$24,228,442</u></u>

See Notes to Financial Statements.

PETTICOAT-SCHMITT CIVIL CONTRACTORS, INC.

BALANCE SHEETS

LIABILITIES AND STOCKHOLDER'S EQUITY

	<u>December 31</u>	
	<u>2018</u>	<u>2017</u>
CURRENT LIABILITIES:		
Notes payable:		
Line of credit - Synovus Bank	\$ 1,500,000	\$ -
Current portion of installment obligations	1,451,357	2,560,909
Accounts payable and accrued expenses:		
Trade accounts	5,256,992	8,125,050
Salaries, payroll taxes and benefits	288,522	344,010
Accrued costs on loss contracts	1,202,401	197,317
Other accrued liabilities	236,885	44,678
	<u>6,984,800</u>	<u>8,711,055</u>
Billings in excess of costs and estimated earnings on uncompleted contracts	<u>2,905,465</u>	<u>5,094,377</u>
Total Current Liabilities	12,841,622	16,366,341
LONG-TERM DEBT:		
Installment obligations, less payments due within one year included in current liabilities	4,869,423	2,532,712
STOCKHOLDER'S EQUITY:		
Common stock, par value \$1 per share; authorized 10,000 shares, issued and outstanding 100 shares	100	100
Paid in capital	1,299,900	899,900
Retained deficit	<u>(462,272)</u>	<u>4,429,389</u>
	<u>837,728</u>	<u>5,329,389</u>
TOTAL LIABILITIES AND STOCKHOLDER'S EQUITY	<u><u>\$ 18,548,773</u></u>	<u><u>\$24,228,442</u></u>

See Notes to Financial Statements.

Project Experience List

Ongoing and Completed

P=Prime	S=Subcontractor	RD=Roadway	PL=Plant Project						
Project #	Project Name, Location & Description	Scope	Owner	Date Started	Date Completed	Contract Price	Design Engineer Information	Reference/Contact	Information
12001	Lift Stations Group #4								
P-RD	Various Locations, St. Johns County, FL								
	Rehab of (8) existing lift stations: demo, new pumps and valves, electrical work.	Rehab of existing lift stations.	St. Johns County St. Augustine, FL	April 2012	January 2013	\$683,000.00	CH2M Hill Engineers 9428 Baymeadows Rd #300 Jacksonville, FL 32256 (904) 733-9119 Office	Jim Overton Johns County BOCC 1205 State Road 16 Augustine, FL 32084 209-2614 Office	St. St. (904)
12002	Springer Controls Bldg Expansion								
S-RD	Yulee, FL								
	Site Clearing & Excavation, Septic Tank and Drainfield demolition/abandonment, New Lift Station, Force Main, Parking Lot Construction, Concrete Work.	New Lift Station 160 LF - 4" Force Main 306 LF - 15" to 24" HDPE 1715 SY Asphalt	RIL/JWL Properties Amelia Island, FL	February 2012	December 2012	\$177,666.00	Gillette & Associates 20 South 4th Street Fernandina Beach, FL 32034 (904) 261-8819 Office (904) 261-9905 Fax		
13008	Grove Park Lift Station Improvements								
P-RD	Orange Park, FL								
	Upgrading and rehabilitation of (3) existing lift stations.	Lift Station Rehabilitation.	Town of Orange Park Orange Park, FL	November 2013	May 2014	\$451,525.00	Mike Kelter, PE Legacy Civil Engineers 630 Myrtle Ave Green Cove Springs, FL (904) 284- 8103 Office	Russell Grimes of Orange Park Street FL 32073 Office	Town 700 Ash Orange Park, (904) 264-7411
13011	CR210 & I-95 PH2 Improvements								
P-RD	St. Johns County, FL								
	Addition of (1) through lane of travel in each direction, replacement of Sampson Creek Box Culvert and installation of Steel Sheet Pile Wall into existing pond. Work Includes curb & gutter, Traffic Signal Mastarms, Overhead Signs, Roadway Construction, Traffic Medians, and Pond Expansion, Renovation of (2) Pump Stations Pavement Markings, Roadway Signage.	23,885 SY Mill & Resurface 27,875 SY Road Reconstruction 4500 LF Storm Pipe w/ Inlets JEA Water & Utility Construction 16,025 LF Curb & Gutter.	St. Johns County & JEA	February 2014	December 2015	\$9,980,775.00	Scott Carter, PE Prosser Hallock 13901 Sutton Pk Dr. S. #200 Jacksonville, FL 32224 (904) 739-6355 Office	Elle Assi, PE Eisman & Russo Consult Engrs. 6455 Powers Ave Jacksonville, FL 32217 (904) 733-1478 Office	



Project Experience List

Ongoing and Completed

6380 Phillips Highway * Jacksonville, FL 32216
 (904) 751-0888 * Fax (904) 751-0988
 www.petticoatschmitt.com

Project # Prime/Sub	Project Name, Location & Description	Scope	Owner	Date Started	Date Completed	Contract Price	Design Engineer Information	Reference/Contact Information
15063	Alachua Ave Pump Station							
P-PL	7039 Alachua Avenue Jacksonville, FL 32210							
	Replace and completely rehabilitate the Alachua Pump station.	Upgrade, rehabilitate & bypass the current station. Demolish selected interior components of the existing pump station structure. Phase 1 will be completed without shutting down the station. Phase 2 will require complete shutdown and bypassing of station to install three new 150HP sewage pumps and associated mechanical piping size 18"-30"	JEA	October 2015	April 2018	\$2,960,569.00	Applied Technology & Management 411 Pablo Circle Jacksonville Bch, FL 32250 (904) 249-8009 Office (904) 249-8007 Fax	Elizabeth Dimeo - JEA 21 West Church Street Jacksonville, FL 32202 665-4498 Office dimeea@jea.com (904)
15064	Longleaf Subdivision Phase 3 & 4							
S-RD	Old Middleburg Rd. S. Jacksonville, FL							
	Complete site development for a single family subdivision including wetland creation areas. Project completed in two separate phases	Clear/grub 74 AC, 21400 SY of asphalt roadway, 15100 LF of curb and gutter, 550 SY of concrete sidewalk, ditch paving, 8 AC rough grade wetland creations, 141,000 CY pond excavation, lot grading with building pads, 7800 LF of 15"-36" RCP and HDPE storm drain, 8900 LF 8" PVC sewer installation, 6500 LF of 6" to 12" PVC water main, Lift Station, Striping and Signage, erosion control.	Lennar Homes LLC	October 2015	March 2017	\$4,644,523.00	Mike Bowles Dominion Engineering Group 4348 Southpoint Blvd. Ste. 204 Jacksonville, FL 32216 (904) 854-4500 Office (904) 854-4505 Fax	Scott Keilling, Bob Deahl Lennar Homes 9440 Phillips Highway Suite 7 Jacksonville, FL 32216 745-8052 Office 0898 Fax (904) 380-

Project Experience List

Ongoing and Completed

Project # Prime/Sub	Project Name, Location & Description	Scope	Owner	Date Started	Date Completed	Contract Price	Design Engineer Information	Reference/Contact Information
17091 P-RD	Liberty Square Jacksonville, FL							
	The project is located off of New World Ave. in Duval County. The works consists of full site development consisting of 113 residential lots.	Work includes 4275 LF of offsite 24" water main, clearing and grading 35 AC, 3241 LF of storm drain 15"-42", 7051 LF of 8" PVC sewer (high line and low line), Lift station, 5800 LF of water main (12"-2"), 16733 SY of asphalt roadway	Matovina and Company	June 13, 2017	August 2018	\$3,282,852.00	Jim Lucas, P.E. Lucas & Associates 1305 Cedar Street Jacksonville, FL 32207 396-3060 Office (904)	Kath Williford and Company Road, Ste 108 32257 (904)292-0778 Office Matovina 2955 Hartzey Jacksonville, FL Office
17098 P-RD	Price Park Jacksonville, FL							
	The project is located in Jacksonville, FL and consists of the development of a 31.1-acre subdivision located off of Hood Rd S. near Sunbeam Rd.	Major scopes of work includes clearing, grubbing, grinding and haul off, demo of existing structures including houses, a barn, septic systems and wells, erosion controls, earthwork, pond excavations, drainage, water main, force main, lift station, sanitary sewer, LBR 40 stabilization, lime rock base, asphalt paving, sidewalk, curb & gutter, grassing, striping and signage.	KB Homes	Dec. 4, 2017	Nov 2018	\$3,008,155.61	Almond Engineering Dupont Station Ct. East Suite 1 Jacksonville, FL 32217 0162 (904)305-	Tommy Jinks Homes Fortune Pkwy, Suite 100 Jacksonville, FL 32256 6633 tjinks@kbhomes.com (904)596-
17099 P-RD	Mill Creek North Phase 1 & 2 Jacksonville, FL							
	The project is located in Jacksonville, FL and consists of the development of a 44.5-acre site for a new single-family subdivision.	Work includes minor clearing, demo of existing curb and water main, erosion controls, earthwork, pond excavation, existing pond expansion, drainage, water main, force main, lift station, sanitary sewer, reuse, LBR 40 stabilization, lime rock base, asphalt paving, sidewalk, curb & gutter, grassing, striping and signage.	Lennar Homes, LLC	Jan. 1, 2018	May 2019	\$3,450,000.00	Mike Bowles, P.E. Dominion Eng. Group Southpoint Blvd. Suite 204 Jacksonville, FL 32216 4500 mbowles@dom- eng.com (904)854-	Joe Panchula Homes, LLC Phillips Hwy., Suite 7 Jacksonville, FL 32256 0777 Joe.Panchula@lennar.com (904)380-9440
18107 P-PL	Bannon Lakes Booster Pump Station Duran Drive, St. Augustine - St. Johns County							

Project Experience List

Ongoing and Completed

6380 Phillips Highway * Jacksonville, FL 32216
 (904) 751-0888 * Fax (904) 751-0988
 www.petticoatschmitt.com

Project # Prime/Sub	Project Name, Location & Description	Scope	Owner	Date Started	Date Completed	Contract Price	Design Engineer Information	Reference/Contact Information
19125 RD=P	PFS Child Build Jacksonville Doolittle Road, Jacksonville, FL Site work Construction for a new refrigerated warehouse.	Clearing, Grubbing, earthwork, water and fire mains, drainage, gravity sewer, lift station and stabilized subgrade for a new refrigeration warehouse. Over 100,000 CY of import fill and export of unsuitable materials.	Preferred Freezer, Inc./Victory Unlimited Construction, LLC. 6831 E. 32nd Street, Indianapolis, IN 46226	April 1, 2019	October 4, 2019	\$3,732,722.25	Kimley-Horn 12740 Gran Bay Parkway West, Suite 2350 Jacksonville, FL 32258	RJ Burton Victory Unlimited 491-5434 317-
19128 PL=P	Buffalo Avenue Pump Station Rehab 5301 Buffalo Ave Jacksonville, FL Construction services for the complete rehabilitation of the Longbranch Master Wastewater Pump Station (LMPS)		JEA 21 W. Church St. Jacksonville, FL 32202			\$4,277,444.00	Constatine Engineering 100 Center Creek Rd. Ste 108 St. Augustine, FL 32084	JEA 21 W. Church St. Jacksonville, FL 32202 David King kinggd@jea.com (904) 665-6960
19129 RD=P	Terrabella Apartments Atlantic Blvd. @ San Pablo Rd. Jacksonville, FL Sitework	253 Multifamily units development within one residential bulding, including, , parking lots, water, sewer, storm, lift station, directional drill, FDOT Improvements.	LIV Development, LLC 2204 Lakeshore Dr. Suite 450 Birmingham, AL 35209	Aug. 19, 2019	April 2021	\$2,503,148.35	Taylor & White 9556 Historic Kings Road South, Suite 102 Jacksonville, FL 32257 (904) 346-0671	Landsouth Construction 4233 Pablo Professional Court, St. 101 Jacksonville, FL 32224 Mike Graham (904) 273- 6004

Project #	Project Name/Owner	PM	Super	Engineer	Coordinator
17086	E2W31 Pecan Park Road (FDOT) <i>SR 243 Pecan Park Road/I-95 Interchange (Duval County, FL)</i>	Tony Booth	Lonnie	Nathan	Jodi
17093	E2U39 US 1 & A1A (FDOT) <i>West San Carlos St., San Marco Avenue & May Street, St. Augustine, FL</i>	Frank	Lonnie	Matt	Jodi
17096-003	Talleyrand WW Pump Station (JEA) <i>1636 Talleyrand Avenue, Jacksonville, FL</i>	Ed	Jay E.	Aaron G.	Tonya
17096-013	Oldfield Crossing Pump Station (JEA)	Jason P.	Jose	Tim	Tonya
17101	Dunes CDD WWTP Expansion <i>101 Jungle Hut Road, Palm Coast, FL</i>	Paul	Jeff R.	Aaron G.	Tonya
18107	Bannon Lakes Booster Pump Station <i>St. Johns County, FL</i>	Ed	Jay E.	Aaron G.	Tonya
18108	COJB Phase III C Project 2 Improvements <i>12th Avenue South @ Corner of 4th St., Jacksonville Beach, FL 32250</i>	Jason P.	Chris M.	Jason F.	Tonya
18111	Ocala - Wetland Groundwater Recharge Park <i>2201 NW 21st Street, Ocala, FL 34475 (Marion County)</i>	Jason P.	Thomas C.	Jordan	Jodi
18115	WestRock Stormwater Piping <i>600 N. 8th Street, Fernandina Beach, FL 32034</i>	Judson	Randy	N/A	Jodi
18117	Dinsmore 230/26 kV Substation (JEA/Reliable Services) <i>12160 New Kings Road, Jacksonville, FL</i>	Judson	Randy	N/A	Jodi
19118	Ponce De Leon WTP Well No. 3 Wellhead/Raw Water Main (JEA) <i>S. Ponte Vedra Blvd. A1A, Ponte Vedra Beach, FL 32082</i>	Jason P.	Henry	Joe	Tonya
19120	Highland Chase (Lennar Homes, LLC) <i>Garden Street & Jones Road, Jacksonville, FL</i>	Judson	Randy/Coconut	N/A	Jodi
19121	Sysco Jax IFG 2019 Expansion (Sysco IFG, Inc.) <i>3100 Hilton Street, Jacksonville, FL 32209</i>	Judson	Randy	N/A	Jodi
19122	District II WWTP Clarifier 2 & 3 (JEA) <i>1840 Cedar Bay Road, Jacksonville, FL 32218</i>	Aaron B.	Henry	Tim	Tonya
19123	Peter's Creek Ground Storage Tank & Pump Station (CCUA) <i>3630 Rosemary Hill Road, Green Cove Springs, FL 32043</i>	Paul	Jeff R.	Aaron G.	Tonya
19125	PFS/Chill Build Warehouse (Victory Unlimited Construction) <i>5459 Doolittle Road, Jacksonville, FL 32254</i>	Judson	Randy	N/A	Jodi
19126-004	GRIS CR210 Valve Replacement (JEA) <i>CR 210, Jacksonville, FL</i>	Ed	Randy	N/A	Tonya
19126-005	GRIS Roanoke GS & LS Replacement (JEA) <i>Roanoke Boulevard, Jacksonville, FL</i>	Ed	Jay E.	N/A	Tonya
19127	Reserve at Eagle Harbor Phase 2 (Dream Finders Homes) <i>US 17/Radar Road, Fleming Island, FL 32203</i>	Judson	Billy	N/A	Jodi
19128	Buffalo Avenue Pump Station Rehabilitation (JEA) <i>5301 Buffalo Avenue, Jacksonville, FL</i>	Paul	Jeff R.	Tim	Tonya
19129	Terrabella Apartments (LandSouth Construction) <i>Atlantic Blvd. @ San Pablo Road, Jacksonville, FL</i>	Judson	Bryan	N/A	Jodi
19130	Alta Lakes Phases 3 & 5 (D.R. Horton) <i>Alta Lakes Boulevard, Jacksonville, FL</i>	Judson	Bryan	Lauren B.	Jodi
19131	Rogero Road Roundabout (COJ) <i>Rogero Road, Arlington Road & King Arthur Road, Jacksonville, FL</i>	Frank	Lonnie	Nathan	Jodi
19132	City of Perry WTF Upgrade (City of Perry) <i>713 N. Fualkner Street, Perry, FL (Taylor County)</i>	Ed Dendor	Jose	Aaron	Tonya
19133	Missile Magazine Replacement (Desbuild, Inc.) <i>Mayport, Jacksonville, FL</i>	Ed Dendor		Jordan	Tonya
19134	NAVFAC P674 Aircraft Component Facility <i>Naval Air Station Jacksonville</i>	Ed Dendor		Jordan	Tonya

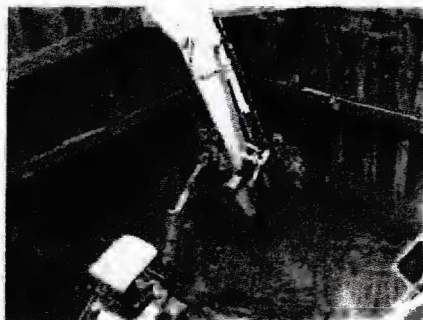
Project Summary Sheet

Heritage Hills Pump Station Modification



Project Name & Location Heritage Hill Pump Station
Orange Park, FL

Project Description Construct Master Lift Station with cast-in-place 30' by 18' dia wetwell with 20" and 12" forcemain, generator, odor control system, and gravity sewer.



Owner Clay County Utility Authority

Date Started March 2008

Date Completed May 2009

Final Contract Price \$1,884,550.00

Design Engineer Information Applied Technology & Management
411 Pablo Circle, Jacksonville Beach, FL 32250
(904) 249-8009 Office

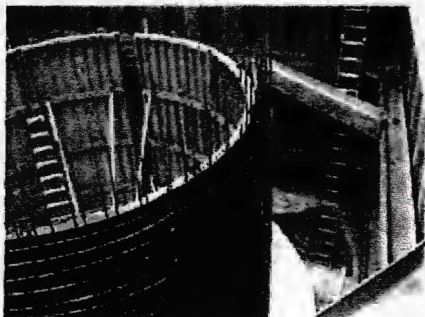
Client Contact Information Darrell Damrow
3176 Old Jennings Road Middleburg, FL 32068
(904) 213-2408 Office

PSCC Executive In Charge Ryan M Schmitt

PSCC Project Manager Ryan M. Schmitt

PSCC SuperIntendent Brad Rogge

PSCC Safety Personnel Jeff Blomgren



PS **PETTICOAT-SCHMITT**
CIVIL CONTRACTORS, INC.

Project Summary Sheet

Jacksonville Beach Improvements-Phase II



Project Name & Location

Jacksonville Beach Improvements-Phase II
Jacksonville Beach, FL

Project Description

Mill & Overlay, Base & Shoulder Work, Drainage Improvements, Curb & Gutter, Streetscaping, Lighting, Water and Sewer Improvements, Striping and Signing, Restroom Facility, Roadway Brick Pavers (1) Roundabout, and Specialty Furnishings. Construction of retaining walls & utilities directly on ocean front.

Owner

City of Jacksonville Beach

Date Started

November 2011

Est. Date Completed

October 2013

Contract Price

\$6,264,302.00

Design Engineer Information

GAI Consultants
1301 Riverplace Blvd #900, Jacksonville, FL
32207
(904) 363-1110 Office

Client Contact Information

Junior Lilly - COJB
1460A Shetter Ave., Jacksonville Beach, FL
32250
(904) 247-6219 Office

PSCC Executive In Charge

Clyde Cross

PSCC Project Manager

Clyde Cross

PSCC Superintendent

Randy Millner

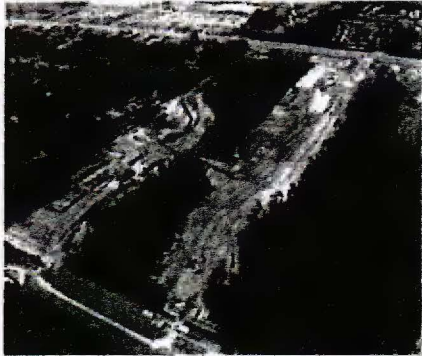
PSCC Safety Personnel

Jeff Blomgren



Project Summary Sheet

Bella Serra Subdivision-Phase 1

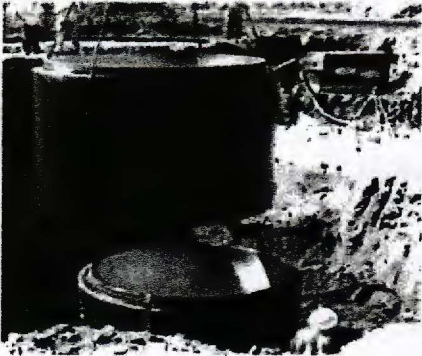


Project Name & Location

Bella Serra Phase 1 Subdivision
Jacksonville, FL

Project Description

268 Lot Subdivision - single and multi-family. Clearing, Grading, Water, Reuse, Gravity Sewer, Pump Station, Forcemain, Storm, Roadway, Retaining Walls, Brick Pavers, UGE, Roadway Construction, FDOT Improvements, Pond Cut-off Walls, Sidewalk, Handrails. 390,000 CY of rough grading, 1500' cut-off walls, 1100' 6" FM, 9600' storm drain 15"-48"x76", 13000' of 8" and 10" Gravity Sewer 6800' of water 2"-12" 3800' of reuse 2" -12", clear 72 AC 1500 SY of sidewalk 23000 SY of road way construction 5800' of roof drains 8"-18".



Owner

Standard Pacific

Date Started

March 2014

Date Completed

February 2015

Final Contract Price

\$8,790,058.00

Design Engineer Information

Scott Lockwood, England, Thims & Miller
14775 Old St. Augustine Road, Jacksonville, FL 32258
(904) 642-8990 Office



Client Contact Information

Mo Rudolph, Standard Pacific GP of Florida
6950 Phillips Hwy, Suite 19, Jacksonville, FL 32216
(904) 538-5740 Office

PSCC Executive In Charge

Clyde Cross

PSCC Project Manager

Kim Bryan

PSCC Superintendent

Randy Millner

PSCC Safety Personnel

Jeff Blomgren

Project Summary Sheet

Celestina Phase I & II Construction



Project Name & Location

Celestina PH 1 & PH II
Jacksonville, FL

Project Description

Full site development for +/- 400 Single Family Lots including: Clearing/grading, Pond Excavation, Water, Gravity Sewer, Forcemain, Reuse, 3 Pump Stations and 1 Master Pump Station, Roadway, segmental walls and Underground Electric Conduit System, Sidewalks, Brick Pavers, Pond Cut off Walls.

Owner

Standard Pacific

Date Started

September 2014

Date Completed

December 2015

Final Contract Price

\$15,862,553.00



Design Engineer Information

Joe Tarver, England-Thims & Miller
14775 Old St. Augustine Road, Jacksonville, FL 32258
(904) 642-8990 Office

Client Contact Information

Mo Rudolph, Standard Pacific GP of Florida
(Now CalAtlantic Homes)
90 Fort Wade Rd #100, Ponte Vedra Beach, FL 32081
Phone:(904) 825-3000



PSCC Executive In Charge

Clyde Cross

PSCC Project Manager

Kim Bryan

PSCC Superintendent

William "Sonny" Daniels

PSCC Safety Personnel

Jeff Blomgren

Project Summary Sheet

Fleming Island Water Treatment Facility



Project Name & Location Fleming Island Water Treatment Facility
1170 Radar Road, Fleming Island, FL

Project Description Modifications including 1500' of 12" force main, complete bypass (8MGD) and Rehabilitation of Influent Structure, four new Vertical Turbine Pumps, one new Self Priming Pump, associated Flanged Piping sized 12" to 20", BTU #1 OVIVO Aerator Replacement and a new Control Panel.

Owner Clay County Utility Authority

Date Started May 2015

Date Completed April 2016

Final Contract Price \$2,026,000.00



Design Engineer Information J. Collins Engineering
11516-3 San Jose Blvd, Jacksonville, FL 32223
(904) 262-4121 Office

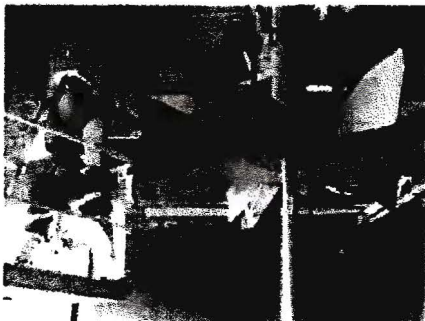
Client Contact Information Ken Fraser, Clay County Utility Authority
3176 Old Jennings Road, Middleburg, FL
32068
(904) 272-5999 Office
kfraser@clauutility.org

PSCC Executive In Charge Lauren C. Atwell

PSCC Project Manager Brad Davis

PSCC Superintendent Chris McCarthy

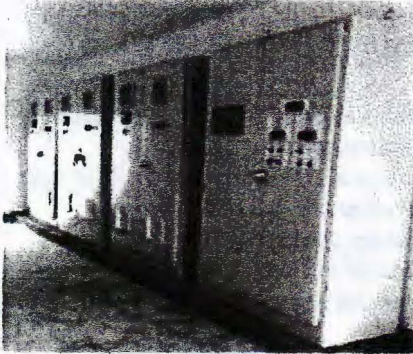
PSCC Safety Personnel Doel Antommarchi



PS PETTICOAT-SCHMITT
CIVIL CONTRACTORS, INC.

Project Summary Sheet

Alachua Avenue Pump Station



Project Name & Location

Alachua Avenue Pump Station
7039 Alachua Avenue, Jacksonville, FL

Project Description

Replace and completely rehabilitate the Alachua Pump Station. Upgrade and rehabilitate & bypass the current station. Demolish selected interior components of the existing pump station structure. Phase 1 was completed without shutting down the station. Phase 2 required complete shutdown and bypassing of station.

Owner

JEA

Date Started

October 2015

Date Completed

June 2016

Final Contract Price

\$2,960,569.00

Design Engineer Information

Applied Technology & Management
411 Pablo Circle, Jacksonville Beach, FL 32250
(904) 249-8009 Office

Client Contact Information

Elizabeth Dimeo - JEA
21 West Church Street, Jacksonville, FL 32202
(904) 665-4498 Office
dimeea@jea.com

PSCC Executive In Charge

Lauren C. Atwell

PSCC Project Manager

Brad Davis

PSCC Superintendent

Chris McCarthy

PSCC Safety Personnel

Doel Antommarchi



PS **PETTICOAT-SCHMITT**
CIVIL CONTRACTORS, INC.

Project Summary Sheet

City of Cocoa Clearwell & Reject Pond



Project Name & Location

City of Cocoa Clearwell & Reject Pond
City of Cocoa, FL

Project Description

Surface Water Plant Clearwell Addition and Reject Pond Rehabilitation. 700,000 Gallon In-Ground Concrete Clearwell; 30 MG/Per Day Transfer Pump Station; Building with Electrical Equipment Room; Yard Piping, Instrument & Control Improvements, Demolition & Replacement of existing 1.3 million gallon reject storage pond concrete liner and underdrain system.

Owner

City of Cocoa, FL

Date Started

March 2016

Est. Date Completed

December 2017

Contract Price

\$8,569,000.00



Design Engineer Information

Dean Garcia, PE
CH2M Hill
3011 SW Williston Road, Gainesville, FL 32608
(352)335-7991 Office



Client Contact Information

David Fisher
City of Cocoa
65 Stone Street, Cocoa, FL 32922
(321) 433-8833 Office
Email: dfisher@cocoafl.com

PSCC Executive In Charge

Lauren C. Atwell

PSCC Project Manager

Paul Gilsdorf

PSCC Superintendent

Jeff Rocek

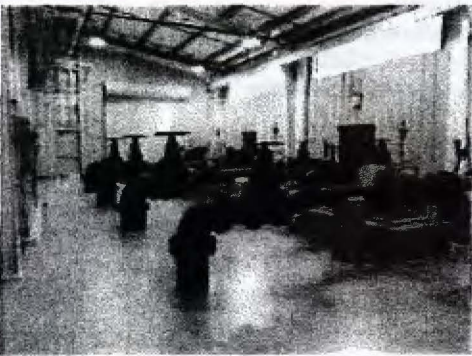
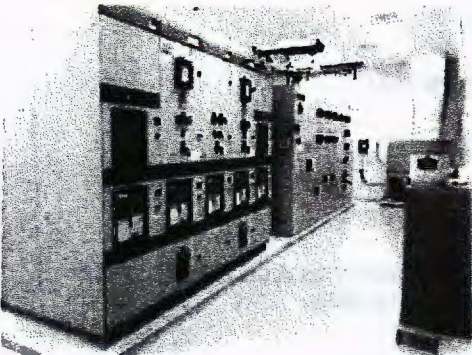
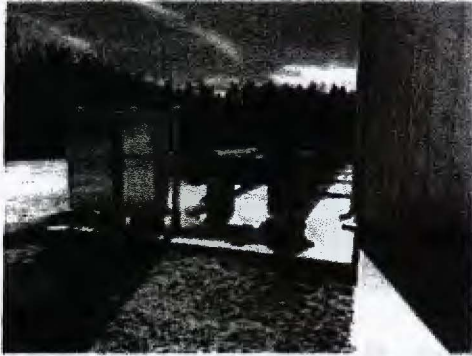
PSCC Safety Personnel

Doel Antommarchi

Project Summary Sheet

West Nassau Regional WTP

Phase 1B



Project Name & Location

West Nassau Regional WTP - Phase 1B
Yulee, FL

Project Description

Construction of a 750,000 gallon Water Storage Tank, with a Vertical term well pump with a control building, high service pump station building and chemical feed facility; 16" force main, 24" yard process pipe.

Owner

JEA

Date Started

April 2017

Date Completed

July 2018

Original Contract Price

\$5,864,900.00

Final Contract Price

\$6,120,239.00

Design Engineer Information

William R. Maple, PE
CDM Smith
8381 Dix Ellis Trail, Ste. 400
Jacksonville, FL 32256
(904)731-7109 Office

Client Contact Information

Allan Boree
JEA
21 W. Church Street
Jacksonville, FL 32202
(904) 665-4468 Office
boread@jea.com

PSCC Executive In Charge

Lauren Atwell

PSCC Project Manager

Jason Plauche

PSCC Superintendent

Sid Bodie

PSCC Safety Personnel

Doel Antommarchi & Jeff Blomgren

State of Florida

Department of State

I certify from the records of this office that PETTICOAT-SCHMITT CIVIL CONTRACTORS, INC. is a corporation organized under the laws of the State of Florida, filed on October 23, 2007.

The document number of this corporation is P07000116462.

I further certify that said corporation has paid all fees due this office through December 31, 2019, that its most recent annual report/uniform business report was filed on January 17, 2019, and that its status is active.

I further certify that said corporation has not filed Articles of Dissolution.

*Given under my hand and the
Great Seal of the State of Florida
at Tallahassee, the Capital, this
the Nineteenth day of April, 2019*



Randy R. ...
Secretary of State

Tracking Number: 4293938719CU

To authenticate this certificate, visit the following site, enter this number, and then follow the instructions displayed.

<https://services.sunbiz.org/Filings/CertificateOfStatus/CertificateAuthentication>

2019 FLORIDA PROFIT CORPORATION ANNUAL REPORT

DOCUMENT# P07000116462

Entity Name: PETTICOAT-SCHMITT CIVIL CONTRACTORS, INC.

Current Principal Place of Business:

6380 PHILIPS HIGHWAY
JACKSONVILLE, FL 32216

Current Mailing Address:

6380 PHILIPS HIGHWAY
JACKSONVILLE, FL 32216 US

FEI Number: 26-1293750

Certificate of Status Desired: No

Name and Address of Current Registered Agent:

BRANT, REITER, MCCORMICK & JOHNSON, P.A.
135 WEST BAY STREET
SUITE 400
JACKSONVILLE, FL 32202 US

The above named entity submits this statement for the purpose of changing its registered office or registered agent, or both, in the State of Florida.

SIGNATURE: JAN D. MCCORMICK, V.P.

01/17/2019

Electronic Signature of Registered Agent

Date

Officer/Director Detail :

Title PRES
Name SCHMITT, RYAN
Address 6380 PHILIPS HIGHWAY
City-State-Zip: JACKSONVILLE FL 32216

Title VP
Name ATWELL, LAUREN
Address 6380 PHILIPS HWY
City-State-Zip: JACKSONVILLE FL 32216

Title CFO
Name DOUGHERTY, DAVID
Address 6380 PHILIPS HWY
City-State-Zip: JACKSONVILLE FL 32216

Title V
Name BRYAN, KIMBERLY
Address 6380 PHILIPS WAY
City-State-Zip: JACKSONVILLE FL 32216

I hereby certify that the information indicated on this report or supplemental report is true and accurate and that my electronic signature shall have the same legal effect as if made under oath; that I am an officer or director of the corporation or the receiver or trustee empowered to execute this report as required by Chapter 607, Florida Statutes; and that my name appears above, or on an attachment with all other like empowered.

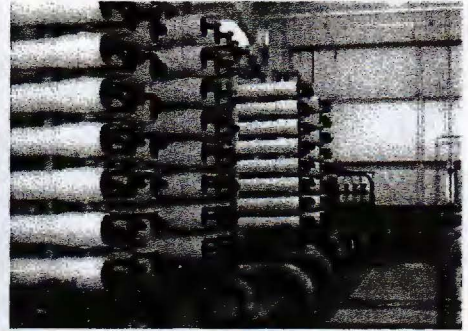
SIGNATURE: DAVID DOUGHERTY

CFO

01/17/2019

Electronic Signature of Signing Officer/Director Detail

Date



LAUREN ATWELL, CHIEF OPERATING OFFICER

BACKGROUND

As Vice President of the Plant Division, Lauren has an established career that spans over 30 years in heavy construction with a strong emphasis on water and wastewater treatment facilities. In his current position as Chief Operating Officer, he is responsible for Construction Operations, our contract management process, client satisfaction, safety and quality along with resource allocations.

EDUCATION

B.S. Civil & Environmental Engineering
Clarkson University

PROFESSIONAL AFFILIATIONS

NUCA
NUCA of Florida, President
NUCA of North Florida, Former President
GUCA, Former Board of Directors
AWWA
WEF
Society of American Military Engineers (SAME)
University of North Florida Construction
Management Advisory Board of Directors.
J. Mitchell Ellington Award
Contractor of the Year - 2010

SELECTED EXPERIENCE

Fourth Creek WWTP Composite Correction Plan
Senior Vice President
Knoxville, TN - \$17.5 Million

KCUD Membrane WTP
Senior Vice President
Knoxville, TN - \$14.3 Million

Sunset WTP Expansion
Senior Vice President
Guntersville, AL - \$8.2 Million

Central Consolidated Pump Stations
Senior Vice President
Baton Rouge, LA - \$20.9 Million

Hood Road WTP Membrane Conversion
Senior Vice President
Palm Beach Gardens, FL - \$50.0 Million

Arlington East WRF BRN Upgrades
District Manager
Jacksonville, FL - \$25.0 Million

Ormond Beach Reverse Osmosis WTP
District Manager
Ormond Beach, FL - \$11.0 Million

Lake Worth Reverse Osmosis WTP
District Manager
Lake Worth, FL - \$17.0 Million

No Business Creek Pump Station
Project Manager
Snellville, GA - \$6.9 Million

Clayton County WRF Upgrade
Project Manager
Clayton County, GA - \$56.0 Million



PAUL GILSDORF, PROJECT MANAGER

BACKGROUND

As a Project Manager within the Plant Division, Paul has an established career that spans over 20 years in construction with the majority of that time spent working on water and wastewater treatment facilities. In his current position for Petticoat-Schmitt, he is responsible for managing projects from the award phase through construction to final completion.

EDUCATION

Bachelors of Science, Building Science Construction
Auburn University

PROFESSIONAL AFFILIATIONS

NUCA
AWWA
GA Certified Utility Manager
LEED Accredited Professional
OSHA 30 Hour Certified

SELECTED EXPERIENCE

WWTP No. 2 Renovation and Upgrade, City of Vienna
Project Manager
Vienna, GA - \$2.2 Million

NAS JAX FRCSE IWWTP Interim Repair
Project Manager
Jacksonville, FL - \$977 Thousand

Brownsville Robindale WWTP Addition and
Expansion
Project Manager
Brownsville, TX - \$34 Million

NAVFAC Treatment Plant Upgrade
Project Manager
Indian Head, MD - \$13.5 Million

Live Oak WWTP and Reuse Transmission Line
Project Manager
Live Oak, FL - \$11.5 Million

James E Quarles WTP Expansion
Assistant Project Manager
Marietta, GA - \$18 Million

Scott Candler WRF
Assistant Project Manager
Decatur, GA - \$150 Million



JASON PLAUCHE, PROJECT MANAGER

BACKGROUND

Jason Plauché joined Petticoat-Schmitt as a Project Manager with a decade of experience in heavy construction. In his current position, Jason is responsible for assuring compliance with project drawing & specifications, scheduling crews effectively, and adhering to project contracts. He has hands on experience in all phases of construction and is exceptionally skilled at planning and coordination. His entire career in the construction field has been exclusively within water and wastewater plant construction.

EDUCATION

Bachelors of Science, Construction Management
Minor – Business, Georgia Southern University

CERTIFICATIONS

OSHA 30 HR
Confined Space & Excavation
Fall Protection Awareness
US ACOE Construction Quality Management - #784
GSWCC Level 1A

SELECTED EXPERIENCE

Prince William County Air Pollution Control Upgrades
Project Manager
Prince William County, VA - \$9.9 Million

Robindale WWTP
Project Manager
Brownsville, TX - \$34 Million

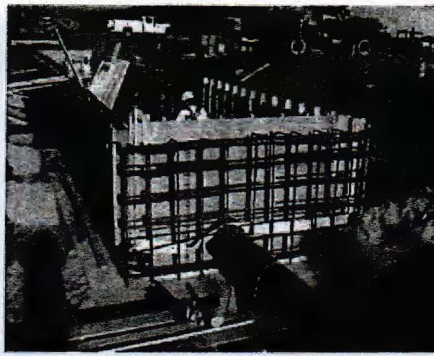
JEA TWMP Segment 2 River Crossing
Assistant Project Manager
Jacksonville, FL - \$20.1 Million

JEA Orange Street Phase II
Assistant Project Manager
Jacksonville, FL - \$ 10.0 Million

Alachua AWRF
Assistant Project Manager
Alachua, FL - \$ 21.2 Million

Point Peter 4.0 MGD Expansion
Assistant Project Manager
St. Marys, GA - \$23.0 Million

Point Peter Emergency Modifications
Assistant Project Manager
St. Marys, GA - \$ 14.9 Million



JEFF ROCEK, SUPERINTENDENT

BACKGROUND

Jeff Rocek began his career in Water & Wastewater treatment plant construction in 2006 as a welder and was quickly promoted to Mechanical Foreman. From there he was promoted to Superintendent. He has over 20 years experience in heavy construction, which includes bridge and road construction. In addition, Jeff's ability to manage multiple crews simultaneously is due to his strong skills in organization and coordination. Jeff's main focus over the last eight years has been in Water and Wastewater treatment plants.

CERTIFICATIONS:

JEA - 2 HR Safety Orientation
JEA Leadership Development
NCCER Construction Site Safety
OSHA 10hr
First Aid/CPR

REFERENCES:

Earl Setzer
Knoxville Utilities
865.659.9305

Ken Pearson
Jacobs Engineering
865.696.1948

SELECTED EXPERIENCE:

Sky View Water System Improvements
Superintendent
Lakeland, FL - \$9.0 Million

Knox Chapman WTP Upgrades
Superintendent
Knoxville, TN - 14.4 Million

Hood Road WTP Membrane Conversion
Mechanical Foreman
Palm Beach Gardens, FL - \$50.0 Million

Arlington East WRF BRN Upgrades
Mechanical Foreman
Jacksonville, FL - \$25.0 Million

Iron Bridge Bardenpho Improvements
Foreman
Oviedo, FL - \$22.0 Million

Confederation Bridge
Prince Edward Island, Canada

Sunshine Skyway Reconstruction
St. Petersburg, FL

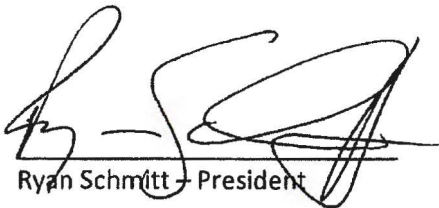
Sidney Lanier Bridge
Brunswick, GA

Unanimous Action of the Board of Directors of
Petticoat-Schmitt Civil Contractors, Inc.
Taken without a meeting by written consent

The following action is taken by the sole Director of PETTICOAT-SCHMITT CIVIL CONTRACTORS, INC.
a Florida Corporation, by written consent without a meeting, as of September 16, 2014, pursuant
to Section of the 607.134 of the General Corporation Act of the State of Florida permitting such
action to be taken.

RESOLVED, that Lauren C. Atwell be and hereby is named Vice President of the Corporation,
to serve until his successor shall be duly qualified and elected, and can sign legal
documents on behalf of Petticoat-Schmitt Civil Contractors, Inc.

The undersigned, being the sole Director of PETTICOAT-SCHMITT CIVIL CONTRACTORS, INC.
does hereby consent to the foregoing action as of the date first above written.


Ryan Schmitt - President

Notarized by:





NOTICE OF AWARD

TO: Petticoat-Schmitt Civil Contractors, Inc.
CONTRACTOR

6380 Philips Highway, Jacksonville, Fl 32216
ADDRESS

<u>Jacksonville</u>	<u>FL</u>	<u>32216</u>
CITY	STATE	ZIP

PROJECT: Nassau Amelia Utilities (NAU) Lift Stations No 10 and No. 29
Rehabilitation

The Nassau County Board of County Commissioners has considered the recommendation to accept the Bid submitted by Petticoat-Schmitt Civil Contractors, Inc. for the above described work in response to its Invitation to Bid (ITB), Bid No. NC19-010 Nassau Amelia Utilities (NAU) Lift Stations No.10 and No.29 Rehabilitation, opened on December 19, 2019.

You are hereby notified that the Bid has been accepted and the Nassau County Board of County Commissioners has executed the enclosed agreement subject to: Receipt of the applicable bonds and Certificate(s) of Insurance, within ten (10) calendar days from the date of this Notice of Award and receipt of the fully executed agreement. The bonds are required to be recorded at cost to the contractor. The bonds must be recorded within the same ten (10) day period referenced herein. The Clerk of Courts does not accept company or personal checks unless the signee is present and can provide identification.

If you fail to furnish the bonds and the Certificate of Insurance within ten (10) calendar days from the date of this Notice, the County will be entitled to consider any rights arising out of the County's acceptance of your Bid as abandoned and void.

You are required to return an acknowledged copy of this Notice of Award, Bonds, and Insurance Certificates to the Nassau County Board of County Commissioners, c/o John A. Crawford, Ex-Officio Clerk, 76347 Veterans Way, Yulee, Florida 32097. A copy must be sent to Nassau County, Procurement Manager, at 96135 Nassau Place, Suite 6, Yulee, Florida 32097.

Dated this 23rd day March, 2020.

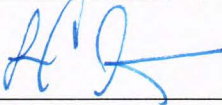
Nassau County Board of County Commissioners

BY: 

TITLE: Chairman

ACCEPTANCE OF NOTICE

Receipt of the above Notice of Award is hereby acknowledged by Lauren C. Atwell, COO
this 1 day of April, 2020.

BY:  TITLE: 4/1/2020

END OF SECTION

AIA Document A312™ – 2010

Performance Bond

Bond #MI3103

CONTRACTOR:

(Name, legal status and address)

Petticoat-Schmitt Civil Contractors Inc
6380 Phillips Highway
Jacksonville, L 32216

SURETY:

(Name, legal status and principal place of business)

Machinery Insurance, Inc. An Assessable Mutual Insurer
PO Box 41490
Jacksonville, FL 32203

OWNER:

(Name, legal status and address)

Nassau County Board of County Commissions
96135 Nassau Place Suite 1
Yulee FL 32097

CONSTRUCTION CONTRACT:

Date: 03/23/2020

Amount: \$ 315,900.00

Description:

(Name and location) Lift Station No 10 and No 29
Rehabilitation Bid No NC19-010

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

Any singular reference to Contractor, Surety, Owner or other party shall be considered plural where applicable.

BOND

Date: 04/15/2020

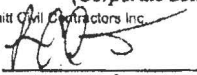
(Not earlier than Construction Contract Date)

Amount: \$ 315,900.00

Modifications to this Bond: None See Section 16

CONTRACTOR AS PRINCIPAL

Company: *(Corporate Seal)*
Petticoat-Schmitt Civil Contractors Inc

Signature: 
Name and **LAUREN ATWELL**

Title: **COO**
(Any additional signatures appear on the last page of this Performance Bond.)

SURETY

Company: *(Corporate Seal)*
Machinery Insurance, Inc. An Assessable Mutual Insurer

Signature: 
Name and **Fitzhugh K Powell Jr.**

Title: **Attorney-in-Fact**

(FOR INFORMATION ONLY — Name, address and telephone)

AGENT or BROKER:
Cecil W. Powell & Company
219 N. Nowlan Street
Jacksonville, FL 32202
(904) 353-3181

OWNER'S REPRESENTATIVE:
(Architect, Engineer or other party:)
GAI Consultants

§ 1 The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to the Owner for the performance of the Construction Contract, which is incorporated herein by reference.

§ 2 If the Contractor performs the Construction Contract, the Surety and the Contractor shall have no obligation under this Bond, except when applicable to participate in a conference as provided in Section 3.

§ 3 If there is no Owner Default under the Construction Contract, the Surety's obligation under this Bond shall arise after

- .1 the Owner first provides notice to the Contractor and the Surety that the Owner is considering declaring a Contractor Default. Such notice shall indicate whether the Owner is requesting a conference among the Owner, Contractor and Surety to discuss the Contractor's performance. If the Owner does not request a conference, the Surety may, within five (5) business days after receipt of the Owner's notice, request such a conference. If the Surety timely requests a conference, the Owner shall attend. Unless the Owner agrees otherwise, any conference requested under this Section 3.1 shall be held within ten (10) business days of the Surety's receipt of the Owner's notice. If the Owner, the Contractor and the Surety agree, the Contractor shall be allowed a reasonable time to perform the Construction Contract, but such an agreement shall not waive the Owner's right, if any, subsequently to declare a Contractor Default;
- .2 the Owner declares a Contractor Default, terminates the Construction Contract and notifies the Surety; and
- .3 the Owner has agreed to pay the Balance of the Contract Price in accordance with the terms of the Construction Contract to the Surety or to a contractor selected to perform the Construction Contract.

§ 4 Failure on the part of the Owner to comply with the notice requirement in Section 3.1 shall not constitute a failure to comply with a condition precedent to the Surety's obligations, or release the Surety from its obligations, except to the extent the Surety demonstrates actual prejudice.

§ 5 When the Owner has satisfied the conditions of Section 3, the Surety shall promptly and at the Surety's expense take one of the following actions:

§ 5.1 Arrange for the Contractor, with the consent of the Owner, to perform and complete the Construction Contract;

§ 5.2 Undertake to perform and complete the Construction Contract itself, through its agents or independent contractors;

§ 5.3 Obtain bids or negotiated proposals from qualified contractors acceptable to the Owner for a contract for performance and completion of the Construction Contract, arrange for a contract to be prepared for execution by the Owner and a contractor selected with the Owner's concurrence, to be secured with performance and payment bonds executed by a qualified surety equivalent to the bonds issued on the Construction Contract, and pay to the Owner the amount of damages as described in Section 7 in excess of the Balance of the Contract Price incurred by the Owner as a result of the Contractor Default; or

§ 5.4 Waive its right to perform and complete, arrange for completion, or obtain a new contractor and with reasonable promptness under the circumstances:

- .1 After investigation, determine the amount for which it may be liable to the Owner and, as soon as practicable after the amount is determined, make payment to the Owner; or
- .2 Deny liability in whole or in part and notify the Owner, citing the reasons for denial.

§ 6 If the Surety does not proceed as provided in Section 5 with reasonable promptness, the Surety shall be deemed to be in default on this Bond seven days after receipt of an additional written notice from the Owner to the Surety demanding that the Surety perform its obligations under this Bond, and the Owner shall be entitled to enforce any remedy available to the Owner. If the Surety proceeds as provided in Section 5.4, and the Owner refuses the payment or the Surety has denied liability, in whole or in part, without further notice the Owner shall be entitled to enforce any remedy available to the Owner.

§ 7 If the Surety elects to act under Section 5.1, 5.2 or 5.3, then the responsibilities of the Surety to the Owner shall not be greater than those of the Contractor under the Construction Contract, and the responsibilities of the Owner to the Surety shall not be greater than those of the Owner under the Construction Contract. Subject to the commitment by the Owner to pay the Balance of the Contract Price, the Surety is obligated, without duplication, for

- .1 the responsibilities of the Contractor for correction of defective work and completion of the Construction Contract;
- .2 additional legal, design professional and delay costs resulting from the Contractor's Default, and resulting from the actions or failure to act of the Surety under Section 5; and
- .3 liquidated damages, or if no liquidated damages are specified in the Construction Contract, actual damages caused by delayed performance or non-performance of the Contractor.

§ 8 If the Surety elects to act under Section 5.1, 5.3 or 5.4, the Surety's liability is limited to the amount of this Bond.

§ 9 The Surety shall not be liable to the Owner or others for obligations of the Contractor that are unrelated to the Construction Contract, and the Balance of the Contract Price shall not be reduced or set off on account of any such unrelated obligations. No right of action shall accrue on this Bond to any person or entity other than the Owner or its heirs, executors, administrators, successors and assigns.

§ 10 The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders and other obligations.

§ 11 Any proceeding, legal or equitable, under this Bond may be instituted in any court of competent jurisdiction in the location in which the work or part of the work is located and shall be instituted within two years after a declaration of Contractor Default or within two years after the Contractor ceased working or within two years after the Surety refuses or fails to perform its obligations under this Bond, whichever occurs first. If the provisions of this Paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.

§ 12 Notice to the Surety, the Owner or the Contractor shall be mailed or delivered to the address shown on the page on which their signature appears.

§ 13 When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

§ 14 Definitions

§ 14.1 **Balance of the Contract Price.** The total amount payable by the Owner to the Contractor under the Construction Contract after all proper adjustments have been made, including allowance to the Contractor of any amounts received or to be received by the Owner in settlement of insurance or other claims for damages to which the Contractor is entitled, reduced by all valid and proper payments made to or on behalf of the Contractor under the Construction Contract.

§ 14.2 **Construction Contract.** The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and changes made to the agreement and the Contract Documents.

§ 14.3 **Contractor Default.** Failure of the Contractor, which has not been remedied or waived, to perform or otherwise to comply with a material term of the Construction Contract.

§ 14.4 **Owner Default.** Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.

§ 14.5 **Contract Documents.** All the documents that comprise the agreement between the Owner and Contractor.

§ 15 If this Bond is issued for an agreement between a Contractor and subcontractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

§ 16 Modifications to this bond are as follows:

The Surety shall not be liable under this bond to the Obligor unless the said Obligor shall make payments to the Principal strictly in accordance with the terms of the original contract as to payments, and shall perform all the other obligations to be performed under said contract at the time in the manner therein set forth. This bond in all respects shall be deemed a statutory bond and shall be governed by Section 255.05 or 713.23 Florida Statutes whichever is applicable including but not limited to the notice and time limitation provisions as set forth in Section 255.05(2) or 713.23, Florida Statutes.

(Space is provided below for additional signatures of added parties, other than those appearing on the cover page.)

CONTRACTOR AS PRINCIPAL

SURETY

Company:

(Corporate Seal)

Company:

(Corporate Seal)

Signature: _____

Signature: _____

Name and Title: _____

Name and Title: _____

Address: _____

Address: _____

**MACHINERY INSURANCE, INC.
AN ASSESSABLE MUTUAL INSURER**

GENERAL POWER OF ATTORNEY

Know by these Presents, that Machinery Insurance, Inc., An Assessable Mutual Insurer, organized pursuant to Chapter 627.6011 et.seq., Florida Statutes (1991) and filed with the Florida Department of Insurance, does hereby appoint

Fitzhugh K. Powell, Sr. – Fitzhugh K. Powell, Jr.

its true and lawful attorney-in-fact, with full authority to execute on its behalf, surety bonds or undertakings and other documents of a similar character issued in the course of its business, and to bind the company thereby. This authority extends to any and all consents required by the State of Florida incident to the release of retained percentages and/or final estimates on engineering and/or construction contracts, and shall apply to surety bonds or undertakings and other documents of similar character without limitation.

This Power of Attorney is signed and sealed by facsimile under and by the authority of the following extract of the Minutes of a special meeting of the Board of Directors of the Company at a meeting duly called and held on October 13, 1992.

"Upon a motion duly made and carried, the following action was taken: Resolved, the Chairman, President or Secretary shall each have the authority to appoint individuals as attorneys-in-fact or under other appropriate titles with authority to execute, on behalf of the company, fidelity and surety bonds and other documents of similar character issued by the company in the course of its business. On any instrument making or evidencing such appointment, the signatures may be affixed by facsimile. On any instrument conferring such authority or on any bond or undertaking of the company, the seal, or a facsimile thereof, may be impressed or affixed or in any other manner reproduced; provided however, the seal shall not be necessary to the validity of any such instrument or undertaking."

IN WITNESS WHEREOF, Machinery Insurance, Inc., An Assessable Mutual Insurer, has executed and attested these presents this 28th day of January, 2016.


Stephen T. Cumella, Chairman and Secretary


Fitzhugh K. Powell, Sr., President and Treasurer

**STATE OF FLORIDA
CITY OF JACKSONVILLE**

On this 28th day of January, 2016, before the subscriber, a Notary Public of the State of Florida, duly commissioned and qualified, came the above named Officers of Machinery Insurance, Inc., An Assessable Mutual Insurer to me personally known to be the individuals and officers described in and who executed the preceding instrument, and they each acknowledged the execution of the same, and being by me duly sworn, severally and each for himself depose and saith that they are the said officers of the Company aforesaid, and that the seal affixed to the preceding instrument is the Corporate Seal of said Company, and that the Corporate Seal and their signatures as such officers were duly affixed and subscribed to the said instrument by the authority and direction of the said Corporation.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my Official Seal, at the City of Jacksonville, the day and year first above written.

LUDIE R. HALLICY
Notary Public, State of Florida
My Comm. Expires June 28, 2018
Commission No. FF 110640


Notary Public

CERTIFICATE

I, the undersigned, Chairman of Machinery Insurance, Inc., An Assessable Mutual Insurer, A Florida Corporation, do hereby certify that the foregoing and attached Power of Attorney remains in full force and has not been revoked; and, furthermore, that the Resolution of the board of Directors, set forth in the said Power of Attorney is now in force.

Signed and sealed at the town of Jacksonville in the State of Florida. Dated this 15 day of April, 2020.


Stephen T. Cumella, Chairman

AIA Document A312™ – 2010

Payment Bond

Bond #MI3103

CONTRACTOR:

(Name, legal status and address)

Pelticoat-Schmitt Civil Contractors Inc
6380 Philips Highway
Jacksonville, L 32216

SURETY:

(Name, legal status and principal place of business)

Machinery Insurance, Inc. An Assessable Mutual Insurer
PO Box 41490
Jacksonville, FL 32203

OWNER:

(Name, legal status and address)

Nassau County Board of County Commissions
96135 Nassau Place Suite 1
Yulee FL 32097

CONSTRUCTION CONTRACT

Date: 03/23/2020

Amount: \$ 315,900.00

Description:

(Name and location) Lift Station No 10 and No 29
Rehabilitation Bid No NC19-010

This document has important legal consequences.

Consultation with an attorney is encouraged with respect to its completion or modification.

Any singular reference to Contractor, Surety, Owner or other party shall be considered plural where applicable.

BOND

Date: 04/15/2020

(Not earlier than Construction Contract Date)

Amount: \$ 315,900.00

Modifications to this Bond: None See Section 18

CONTRACTOR-AS PRINCIPAL

Company: *(Corporate Seal)*
Pelticoat-Schmitt Civil Contractors Inc.

Signature: 

Name and LAUREN ATWELL

Title: COO

(Any additional signatures appear on the last page of this Payment Bond.)

SURETY

Company: *(Corporate Seal)*
Machinery Insurance, Inc. An Assessable Mutual Insurer

Signature: 

Name and Fitzhugh K Powell Jr.

Title: Attorney-In-Fact

(FOR INFORMATION ONLY — Name, address and telephone)

AGENT or BROKER:

Cecil W. Powell & Company
219 N. Newnan Street
Jacksonville, FL 32202
(904) 353-3181

OWNER'S REPRESENTATIVE:

(Architect, Engineer or other party.)

GAI Consultants

§ 1 The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to the Owner to pay for labor, materials and equipment furnished for use in the performance of the Construction Contract, which is incorporated herein by reference, subject to the following terms.

§ 2 If the Contractor promptly makes payment of all sums due to Claimants, and defends, indemnifies and holds harmless the Owner from claims, demands, liens or suits by any person or entity seeking payment for labor, materials or equipment furnished for use in the performance of the Construction Contract, then the Surety and the Contractor shall have no obligation under this Bond.

§ 3 If there is no Owner Default under the Construction Contract, the Surety's obligation to the Owner under this Bond shall arise after the Owner has promptly notified the Contractor and the Surety (at the address described in Section 13) of claims, demands, liens or suits against the Owner or the Owner's property by any person or entity seeking payment for labor, materials or equipment furnished for use in the performance of the Construction Contract and tendered defense of such claims, demands, liens or suits to the Contractor and the Surety.

§ 4 When the Owner has satisfied the conditions in Section 3, the Surety shall promptly and at the Surety's expense defend, indemnify and hold harmless the Owner against a duly tendered claim, demand, lien or suit.

§ 5 The Surety's obligations to a Claimant under this Bond shall arise after the following:

§ 5.1 Claimants, who do not have a direct contract with the Contractor,

- .1 have furnished a written notice of non-payment to the Contractor, stating with substantial accuracy the amount claimed and the name of the party to whom the materials were, or equipment was, furnished or supplied or for whom the labor was done or performed, within ninety (90) days after having last performed labor or last furnished materials or equipment included in the Claim; and
- .2 have sent a Claim to the Surety (at the address described in Section 13).

§ 5.2 Claimants, who are employed by or have a direct contract with the Contractor, have sent a Claim to the Surety (at the address described in Section 13).

§ 6 If a notice of non-payment required by Section 5.1.1 is given by the Owner to the Contractor, that is sufficient to satisfy a Claimant's obligation to furnish a written notice of non-payment under Section 5.1.1.

§ 7 When a Claimant has satisfied the conditions of Sections 5.1 or 5.2, whichever is applicable, the Surety shall promptly and at the Surety's expense take the following actions:

§ 7.1 Send an answer to the Claimant, with a copy to the Owner, within sixty (60) days after receipt of the Claim, stating the amounts that are undisputed and the basis for challenging any amounts that are disputed; and

§ 7.2 Pay or arrange for payment of any undisputed amounts.

§ 7.3 The Surety's failure to discharge its obligations under Section 7.1 or Section 7.2 shall not be deemed to constitute a waiver of defenses the Surety or Contractor may have or acquire as to a Claim, except as to undisputed amounts for which the Surety and Claimant have reached agreement. If, however, the Surety fails to discharge its obligations under Section 7.1 or Section 7.2, the Surety shall indemnify the Claimant for the reasonable attorney's fees the Claimant incurs thereafter to recover any sums found to be due and owing to the Claimant.

§ 8 The Surety's total obligation shall not exceed the amount of this Bond, plus the amount of reasonable attorney's fees provided under Section 7.3, and the amount of this Bond shall be credited for any payments made in good faith by the Surety.

§ 9 Amounts owed by the Owner to the Contractor under the Construction Contract shall be used for the performance of the Construction Contract and to satisfy claims, if any, under any construction performance bond. By the Contractor furnishing and the Owner accepting this Bond, they agree that all funds earned by the Contractor in the performance of the Construction Contract are dedicated to satisfy obligations of the Contractor and Surety under this Bond, subject to the Owner's priority to use the funds for the completion of the work.

§ 10 The Surety shall not be liable to the Owner, Claimants or others for obligations of the Contractor that are unrelated to the Construction Contract. The Owner shall not be liable for the payment of any costs or expenses of any Claimant under this Bond, and shall have under this Bond no obligation to make payments to, or give notice on behalf of, Claimants or otherwise have any obligations to Claimants under this Bond.

§ 11 The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders and other obligations.

§ 12 No suit or action shall be commenced by a Claimant under this Bond other than in a court of competent jurisdiction in the state in which the project that is the subject of the Construction Contract is located or after the expiration of one year from the date (1) on which the Claimant sent a Claim to the Surety pursuant to Section 5.1.2 or 5.2, or (2) on which the last labor or service was performed by anyone or the last materials or equipment were furnished by anyone under the Construction Contract, whichever of (1) or (2) first occurs. If the provisions of this Paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.

§ 13 Notice and Claims to the Surety, the Owner or the Contractor shall be mailed or delivered to the address shown on the page on which their signature appears. Actual receipt of notice or Claims, however accomplished, shall be sufficient compliance as of the date received.

§ 14 When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

§ 15 Upon request by any person or entity appearing to be a potential beneficiary of this Bond, the Contractor and Owner shall promptly furnish a copy of this Bond or shall permit a copy to be made.

§ 16 Definitions

§ 16.1 Claim. A written statement by the Claimant including at a minimum:

- .1 the name of the Claimant;
- .2 the name of the person for whom the labor was done, or materials or equipment furnished;
- .3 a copy of the agreement or purchase order pursuant to which labor, materials or equipment was furnished for use in the performance of the Construction Contract;
- .4 a brief description of the labor, materials or equipment furnished;
- .5 the date on which the Claimant last performed labor or last furnished materials or equipment for use in the performance of the Construction Contract;
- .6 the total amount earned by the Claimant for labor, materials or equipment furnished as of the date of the Claim;
- .7 the total amount of previous payments received by the Claimant; and
- .8 the total amount due and unpaid to the Claimant for labor, materials or equipment furnished as of the date of the Claim.

§ 16.2 Claimant. An individual or entity having a direct contract with the Contractor or with a subcontractor of the Contractor to furnish labor, materials or equipment for use in the performance of the Construction Contract. The term Claimant also includes any individual or entity that has rightfully asserted a claim under an applicable mechanic's lien or similar statute against the real property upon which the Project is located. The intent of this Bond shall be to include without limitation in the terms "labor, materials or equipment" that part of water, gas, power, light, heat, oil, gasoline, telephone service or rental equipment used in the Construction Contract, architectural and engineering services required for performance of the work of the Contractor and the Contractor's subcontractors, and all other items for which a mechanic's lien may be asserted in the jurisdiction where the labor, materials or equipment were furnished.

§ 16.3 Construction Contract. The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and all changes made to the agreement and the Contract Documents.

§ 16.4 Owner Default. Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.

§ 16.5 Contract Documents. All the documents that comprise the agreement between the Owner and Contractor.

§ 17 If this Bond is issued for an agreement between a Contractor and subcontractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

§ 18 Modifications to this bond are as follows:

The Surety shall not be liable under this bond to the Obligor unless the said Obligor shall make payments to the Principal strictly in accordance with the terms of the original contract as to payments, and shall perform all the other obligations to be performed under said contract at the time in the manner therein set forth. This bond in all respects shall be deemed a statutory bond and shall be governed by Section 255.05 or 713.23 Florida Statutes whichever is applicable including but not limited to the notice and time limitation provisions as set forth in Section 255.05(2) or 713.23, Florida Statutes.

(Space is provided below for additional signatures of added parties, other than those appearing on the cover page.)

CONTRACTOR AS PRINCIPAL

SURETY

Company: _____ (Corporate Seal)

Company: _____ (Corporate Seal)

Signature: _____
Name and Title: _____
Address: _____

Signature: _____
Name and Title: _____
Address: _____

**MACHINERY INSURANCE, INC.
AN ASSESSABLE MUTUAL INSURER**

GENERAL POWER OF ATTORNEY

Know by these Presents, that Machinery Insurance, Inc., An Assessable Mutual Insurer, organized pursuant to Chapter 627.6011 et. seq., Florida Statutes (1991) and filed with the Florida Department of Insurance, does hereby appoint

Fitzhugh K. Powell, Sr. – Fitzhugh K. Powell, Jr.

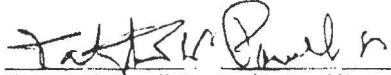
its true and lawful attorney-in-fact, with full authority to execute on its behalf, surety bonds or undertakings and other documents of a similar character issued in the course of its business, and to bind the company thereby. This authority extends to any and all consents required by the State of Florida incident to the release of retained percentages and/or final estimates on engineering and/or construction contracts, and shall apply to surety bonds or undertakings and other documents of similar character without limitation.

This Power of Attorney is signed and sealed by facsimile under and by the authority of the following extract of the Minutes of a special meeting of the Board of Directors of the Company at a meeting duly called and held on October 13, 1992.

"Upon a motion duly made and carried, the following action was taken: Resolved, the Chairman, President or Secretary shall each have the authority to appoint individuals as attorneys-in-fact or under other appropriate titles with authority to execute, on behalf of the company, fidelity and surety bonds and other documents of similar character issued by the company in the course of its business. On any instrument making or evidencing such appointment, the signatures may be affixed by facsimile. On any instrument conferring such authority or on any bond or undertaking of the company, the seal, or a facsimile thereof, may be impressed or affixed or in any other manner reproduced; provided however, the seal shall not be necessary to the validity of any such instrument or undertaking."

IN WITNESS WHEREOF, Machinery Insurance, Inc., An Assessable Mutual Insurer, has executed and attested these presents this 28th day of January, 2016.


Stephen T. Cumella, Chairman and Secretary

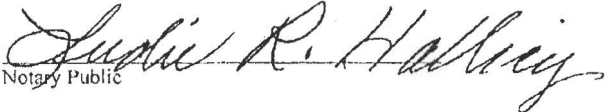

Fitzhugh K. Powell, Sr., President and Treasurer

**STATE OF FLORIDA
CITY OF JACKSONVILLE**

On this 28th day of January, 2016, before the subscriber, a Notary Public of the State of Florida, duly commissioned and qualified, came the above named Officers of Machinery Insurance, Inc., An Assessable Mutual Insurer to me personally known to be the individuals and officers described in and who executed the preceding instrument, and they each acknowledged the execution of the same, and being by me duly sworn, severally and each for himself deposed and saith that they are the said officers of the Company aforesaid, and that the seal affixed to the preceding instrument is the Corporate Seal of said Company, and that the Corporate Seal and their signatures as such officers were duly affixed and subscribed to the said instrument by the authority and direction of the said Corporation.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my Official Seal, at the City of Jacksonville, the day and year first above written.

LUDIE R. HALLUCY
Notary Public, State of Florida
My Comm. Expires June 28, 2018
Commission No. FF 110640


Notary Public

CERTIFICATE

I, the undersigned, Chairman of Machinery Insurance, Inc., An Assessable Mutual Insurer, A Florida Corporation, do hereby certify that the foregoing and attached Power of Attorney remains in full force and has not been revoked; and, furthermore, that the Resolution of the board of Directors, set forth in the said Power of Attorney is now in force.

Signed and sealed at the town of Jacksonville in the State of Florida. Dated this 15 day of April, 2020.


Stephen T. Cumella, Chairman

SECTION 00 55 00

NOTICE TO PROCEED

TO: Petticoat-Schmitt Civil Contractors, Inc.
CONTRACTOR

6380 Philips Highway
ADDRESS

Jacksonville Fl 32216
CITY STATE ZIP

PROJECT: **NASSAU AMELIA UTILITIES (NAU)**
LIFT STATIONS NO. 10 AND NO. 29 REHABILITATION
Bid Number NC19-010
Nassau County, Florida

You are hereby notified to commence work in accordance with the Agreement dated April 2, 2020.

The Contract time for Substantial Completion is 180 consecutive calendar days from the date of commencement.

The Contract time for Final Completion is 210 consecutive calendar days from the date of Substantial Completion.

The Contract time commences to run April 2, 2020 .

The date of Substantial Completion is September 29, 2020.

The date of Final Completion is October 29, 2020

Nassau Amelia Utilities

BY:  _____

TITLE: O & M Superintendent _____

DATE: 4/2/20 _____

You are required to return an acknowledged copy of the Notice to Proceed to The Nassau County Board of County Commissioners, c/o John A. Crawford, Ex-Officio Clerk, 76347 Veterans Way, Suite 456, Yulee, Florida 32097.

ACCEPTANCE OF NOTICE

Receipt of the above Notice to Proceed is hereby acknowledged

this 4th day of April, 2020.

BY: *Jan B. [Signature]*

TITLE: Assistant Project Manager

END OF SECTION

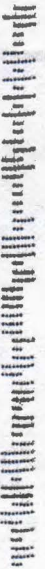
Rothcraft-Schmitt Civil Contractors
6380 Phillips Hwy
Jacksonville FL 32216

The Nassau County Board of County Commissioners
c/o John A. Crawford
76347 Veterans Way
Suite 456
Yule, FL 32097

JACKSONVILLE FL 322
15 APR 2020 PM 4 L



32097-540405



Performance and Payment Bond

Public Work

Surety Bond No.: MI3103

As to the Contractor/Principal:

Name: Petticoat-Schmitt Civil Contractors Inc.

Principal Business Address: 6380 Philips Highway Jacksonville, FL 32216

Telephone: (904) 751-0888

As to the Surety:

Name: Machinery Insurance, Inc. an Assessable Mutual Insurer

Principal Business Address: 219 N Newnan Street Jacksonville, FL 32202

Telephone: (904) 353-3181

As to the Owner of the Property/Contracting Public Entity:

Name: Nassau County Board of County Commissioners

Principal Business Address: 96135 Nassau Place, Ste. 1, Yulee, FL 32097

Telephone: (904) 530-601 0

Project Description: Nassau Amelia Utilities, Lift Stations 10 and 29 Rehabilitation
Bid No. NC19-010

Legal Description of Project: Nassau Amelia Utilities, Lift Stations 10 and 29 Rehabilitation
Bid No. NC19-010

This bond has been furnished to comply with the requirements of F.S.A. 255.05. This bond is hereby amended such that All provisions and limitations, including conditions, notice and time limitations of F.S.A. 255.05 are incorporated herein by reference. Any provisions of this bond which conflicts with or purports to grant broader or more expanded coverage in excess of the minimum requirements of the applicable statute shall be deemed herefrom. This bond is a statutory bond, not a common law bond.

This is the front page of the performance/ payment bond(s) regardless of preprinted numbers on the other pages issued in compliance with Florida Statute 255.05

Performance and Payment Bond

Public Work

Surety Bond No.: MI3103

As to the Contractor/Principal:

Name: Petticoat-Schmitt Civil Contractors Inc.

Principal Business Address: 6380 Philips Highway Jacksonville, FL 32216

Telephone: (904) 751-0888

As to the Surety:

Name: Machinery Insurance, Inc. an Assessable Mutual Insurer

Principal Business Address: 219 N Newnan Street Jacksonville, FL 32202

Telephone: (904) 353-3181

As to the Owner of the Property/Contracting Public Entity:

Name: Nassau County Board of County Commissioners

Principal Business Address: 96135 Nassau Place, Ste. 1, Yulee, FL 32097

Telephone: (904) 530-601 0

Project Description: Nassau Amelia Utilities, Lift Stations 10 and 29 Rehabilitation

Bid No. NC19-010

Legal Description of Project: Nassau Amelia Utilities, Lift Stations 10 and 29 Rehabilitation

Bid No. NC19-010

This bond has been furnished to comply with the requirements of F.S.A. 255.05. This bond is hereby amended such that All provisions and limitations, including conditions, notice and time limitations of F.S.A. 255.05 are incorporated herein by reference. Any provisions of this bond which conflicts with or purports to grant broader or more expanded coverage in excess of the minimum requirements of the applicable statute shall be deemed herefrom. This bond is a statutory bond, not a common law bond.

This is the front page of the performance/ payment bond(s) regardless of preprinted numbers on the other pages issued in compliance with Florida Statute 255.05



6380 Phillips Highway * Jacksonville, FL 32216 * (904) 751-0888 * Fax: (904) 751-0988

LETTER OF TRANSMITTAL

TO: Nassau County Clerk of Courts
 Recording Department
 76347 Veterans Way
 Yulee, FL 32097

Date:	4/1/2020	Bid No.	NC19-010
ATTN:	Recording Department		
RE:	NAU Lift Stations No 10 and No 29		

WE ARE SENDING YOU:

- | | | |
|---------------|-----------|----------------|
| Shop Drawings | Plans | Specifications |
| Change Order | Permits | Copy of letter |
| Final Package | As-builts | Subcontracts |
| Contracts | | Other |

COPIES	DATE	DESCRIPTION
1	4/1/2020	Payment and Performance Bond
1	4/1/2020	\$27.00 Money Order 19-091191948

THESE ARE TRANSMITTED as indicated below:

- | | | | |
|----------------------------|------------------------------|--------------|--------------------------|
| For approval | Approved as submitted | For your use | Returned for corrections |
| Approved as noted | Returned prints loaned to us | As requested | For review / comment |
| Return___ corrected prints | Other | | |

REMARKS Please record these and have receipt made to Petticoat-Schmitt and return to 6380 Philips Highway, Jacksonville, FL 32216 or by email to tbaker@petticoatschmitt.com
 Please email a copy of recorded document to tbaker@petticoatschmitt.com
 I can be reached at 904-654-0744 should you have any questions.

COPY TO: _____
 Project File

Signature: tonya
 Name & Title: Tonya Baker, Project Coordinator



6380 Phillips Highway * Jacksonville, FL 32216 * (904) 751-0888 * Fax: (904) 751-0988

LETTER OF TRANSMITTAL

TO: Nassau County Clerk of the Court
 Recording Department
 76347 Veterans Way Suite 456
 Yulee, FL 32097

Date:	4/15/2020	JOB NO:	20137
ATTN:	Recording Department		
RE:	Record P&P Bonds		
NAU Lift Stations No. 10 and No. 29 Rehabilitation			
Bid No. NC 19-010			

WE ARE SENDING YOU:

- | | | |
|---------------|-----------|----------------|
| Shop Drawings | Plans | Specifications |
| Change Order | Permits | Copy of letter |
| Final Package | As-builts | Subcontracts |
| Contracts | | Other |

COPIES	DATE	DESCRIPTION
1	4/15/2020	12 pages Bond
		\$78.00 Money Order # 208872524828

THESE ARE TRANSMITTED as indicated below:

- | | | | |
|-----------------------------|------------------------------|---------------------|--------------------------|
| For approval | Approved as submitted | For your use | Returned for corrections |
| Approved as noted | Returned prints loaned to us | As requested | For review / comment |
| Return ___ corrected prints | Other | | |

REMARKS I previously sent Money Order # 19091191948 for \$27.00 for bonds that were rejected.
 Please combine this \$78.00 money order to cover the costs of recording these pages.

Please record these and have receipt made to Petticoat-Schmitt and return to 6380 Philips Highway, Jacksonville, FL 32216

I can be reached at 904-654-0744 should you have any questions.

COPY TO: _____
 Project File

Signature: *Tonya Baker*
 Name & Title: Tonya Baker, Project Coordinator