



# ***Utilities Commission New Smyrna Beach***

SPECIFICATIONS FOR  
CONSTRUCTION  
OF

***3<sup>RD</sup> AVENUE STORAGE TANK  
AND PUMP STATION***

***NEW SMYRNA BEACH, FLORIDA***

Prepared by:  
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-Consulting Engineers-  
January 2008

**UTILITIES COMMISSION  
City of New Smyrna Beach, Florida**

**INVITATION TO BID  
CONSTRUCTION/SERVICE  
ITB 09-08**

YOU ARE HEREBY INVITED TO SUBMIT A SEALED BID TO PROVIDE ALL LABOR AND MATERIALS NECESSARY FOR THE CONSTRUCTION OF THE THIRD AVE. WATER STORAGE TANK AND PUMP STATION FOR THE ENGINEERING DEPARTMENT OF THE UTILITIES COMMISSION, CITY OF NEW SMYRNA BEACH, FLORIDA CONFORMING TO THE ATTACHED SPECIFICATIONS.

Copies of the plans and specifications and other Contract Documents are available for review on line at [UCNSB.org](http://UCNSB.org) and the office of the Engineer, Quentin L. Hampton Associates, Inc. P.O. Drawer 290247, 3881 S. Nova Road, Port Orange, FL 32129-0247, telephone (386) 761-6810, facsimile (386) 761-3977 and email address: [qlha@qlha.com](mailto:qlha@qlha.com)

Bids must comply and be submitted in accordance with the project technical specifications. Copies of the plans and specifications must be purchased by bidders from the Engineers, for a price of \$50.00. Plans and Specifications issued will become property of the bidder and no refund will be issued. Direct all questions to [jobrien@ucnsb.org](mailto:jobrien@ucnsb.org).

**SUBMIT BIDS IN DUPLICATE TO:** John O'Brien  
Materials Manager  
Utilities Commission  
City of New Smyrna Beach  
(386) 424.3045 Voice  
(386) 424.2732 Fax  
[jobrien@ucnsb.org](mailto:jobrien@ucnsb.org)

<b>MAILING ADDRESS:</b>	<b>WALK-IN DELIVERY ADDRESS:</b>
Post Office Box 100	200 Canal Street
New Smyrna Beach, Florida 32170-0100	New Smyrna Beach, Florida 32168

BIDS DUE BY: **February 28, 2008, 2:30 PM** after which time they will be publicly opened and read aloud.

**Bidders must indicate on the sealed envelope the following:**

- A. Invitation to Bid Number**
- B. Hour and Date of Opening**
- C. Name of Bidder**

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**NEW SMYRNA BEACH**  
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**AND PUMP STATION**

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**ITB 09-08**

<b>DISTRIBUTION OF THE INVITATION TO BID</b>	<b>JANUARY 31, 2008</b>
<b>MANDATORY PRE-BID CONFERENCE TO BE HELD AT 200 CANAL STREET NEW SMYRNA BEACH, FL AT 10:00 AM</b>	<b>FEBRUARY 14, 2008</b>
<b>DEADLINE FOR FINAL QUESTIONS BY 2:00 PM E-MAIL TO <a href="mailto:JOBRIEN@UCNSB.ORG">JOBRIEN@UCNSB.ORG</a></b>	<b>FEBRUARY 21, 2008</b>
<b>ADDENDUM PUBLISHED BY 5:00PM</b>	<b>FEBRUARY 22, 2008</b>
<b>BID RETURN DEADLINE BY 2:30PM LOCATION: UCNSB – FINANCE OFFICE 200 CANAL ST. NEW SMYRNA BEACH, FL</b>	<b>FEBRUARY 28, 2008</b>

**SECTION 00200  
UTILITIES COMMISSION**

**City of New Smyrna Beach, Florida**  
**GENERAL INSTRUCTIONS AND CONDITIONS**

**SECTION 2 – GENERAL TERMS AND CONDITIONS**

1. The term **COMMISSION** used herein refers to the Utilities Commission, City of New Smyrna Beach, Florida, or its duly authorized representative.
2. The term **BIDDER** used herein refers to the dealer/manufacturer or business organization submitting a bid to the **COMMISSION** in response to this solicitation.
3. **BIDDERS** are expected to examine, when applicable, the drawings, specifications, delivery requirements, performance sites and all instructions to satisfy themselves of conditions affecting cost of performing this contract.
4. No material, labor or facilities will be furnished by the **COMMISSION** unless specifically stated.
5. The **BIDDER** hereby attests that the prices in this offer have been arrived at independently without consultation, communication or agreement with any competitor for the purpose of restricting competition.
6. The **BIDDER** warrants that the prices of the items set forth herein do not exceed the prices charged by the **BIDDER** under a contract with the State of Florida.
7. The **BIDDER** agrees that the supplies and services furnished under this award shall be covered by the most favorable commercial warranties the **BIDDER** gives any customers for comparable quantities of such supplies or services and that the rights and remedies provided herein are in addition to and do not limit any rights afforded to the **COMMISSION** by any other provision of this award.
8. A duly authorized representative of the **COMMISSION** will accomplish inspection and acceptance of the supplies/services purchased herein at the designated delivery point.
9. All invoices resulting from the award of this bid will be paid within 30 days of receipt of invoice or receipt of goods or acceptance of work performed.
10. A Bid Form is provided and a completed original and one duplicate copy shall be returned in a **sealed envelope properly marked with Bid number and acknowledgment of receipt of addenda where applicable.** It is incumbent upon each bidder to ensure that they have received all addenda before submitting their bid.
11. Bids will be publicly opened, read aloud and recorded, on the date and time indicated, at the location specified in the request for bid. It is the Bidders sole responsibility to assure his/her bid is delivered at the proper time and place of the bid. The Commission will not be responsible for late deliveries or delayed mail. Bids delivered after the time specified shall not be considered, such bids shall remain **unopened.**
12. Carelessness in quoting prices or in preparation of bid otherwise, will not relieve the bidder. Bidders are expected to examine specifications, delivery schedule, extensions, and all terms and conditions in the bid documents. Bids having erasures or corrections must be initialed in ink by the Bidder. In the event of an extension error(s), the unit price will prevail. Written amounts shall take precedence over numerical amounts.
13. Bids may be amended or withdrawn only by written notice prior to the bid opening. Amendments must be sealed. Amendments or withdrawals received after the bid opening will not be effective, and the original bid submitted will be considered.
14. **Public Entity Crimes:** UNDER SECTION 287.133(2)(a), FLORIDA STATUTES, A person or affiliate who has been placed on the convicted vendor list following a conviction for a public entity crime may not submit a bid on a contract to provide any goods or services to a public entity, may not submit a bid on a contract with a public entity for the construction or repair of a public building or public work, may not submit bids on leases of real property to a public entity, may not be awarded or perform work as a contractor, supplier, subcontractor, or consultant under a contract with any public entity, and may not transact business with any

public entity in excess of the the threshold amount provided in Section 287.017, for Category two for a period of 36 months from the date of being placed on the convicted vendor list. See attachment "A".

15. In the event of a tie bid, a preference is given to vendors submitting certification with the bid of a drug free work place in accordance with Section 287.087 Florida Statutes. This requirement affects all public entities in the State of Florida, and became effective January 1, 1991.
16. Bids shall be **addressed and mailed or delivered as specified on page 1 to 200 Canal St. New Smyrna Beach, Florida 32168.**
17. In the event an Invitation to Bid is returned as a no bid, "**NO BID**" shall be properly marked on the outside of the envelope with the bid number.
18. The **Commission** reserves the right to reject bids containing any additional terms or conditions not specifically requested in the original conditions and specifications.
19. Failure of the contractor to deliver within the time specified, or within a reasonable time as interpreted by the Purchasing Authority or failure to make replacements of rejected articles as directed, shall permit the Purchasing Authority to purchase on the open market articles of comparable grade to take the place of those rejected or not delivered. On all such purchases, the contractor shall reimburse the **Utilities Commission**, within a reasonable time specified by the Purchasing Authority, for any expenses incurred in excess of the defaulted price. Payments due the contractor by the **Utilities Commission** may be withheld until reimbursement is received.
20. When brand or trade names are used in the bid invitation, it is for the purpose of item identification and to establish standards for quality; style and features. Bids on equivalent items will be considered unless items are noted as no substitutes. Equivalent bids must be accompanied by descriptive literature and/or specifications to receive consideration. Demonstrations and/or samples may be required and shall be at not charge to the Utilities Commission. The **UTILITIES COMMISSION** reserves the right to determine if bid goods are equivalent to specified goods.
21. Awards shall be made as required for the best interest of the **Commission**. The right is reserved to make award(s) by individual items, group of items, all or none, or any combination thereof, with one or more suppliers.
22. **INDEPENDENT CONTRACTORS:** Contractor is an independent contractor, and all persons employed by Contractor in connection herewith shall be its employees and not employees of Commission in any respect.
23. **INSURANCE:** The Contractor shall, at its sole expense, maintain in effect at all times during the performance of the services insurance coverage with limits not less than those set forth below and with insurers and under forms of policies satisfactory to Commission.

<u>Coverage</u>	<u>Minimum Amounts and Limits</u>
(a) Worker's Compensation	Statutory requirements at location of work
Employer's Liability	\$ 100,000 Each occurrence \$ 300,000 Disease, aggregate \$ 100,000 Disease, each employee
(b) General Liability	\$1,000,000 General Aggregate \$1,000,000 Products – Comp Ops Agg \$ 500,000 Each Occurrence \$ 50,000 Fire Damage \$ 5,000 Medical Expense
(c) Automobile Liability (owned, hired and non-owned)	\$1,000,000 Combined Single Limit
Option of Split Limits:	
(1.) Bodily Injury	\$ 500,000 Per Person \$1,000,000 Per Accident
(2.) Property Damage	\$ 500,000

Coverage shall apply to the indemnity agreement and shall include the UTILITIES COMMISSION their officers and employees, each as additional insureds but only as regards to their liability arising out of Contractor's performance of the work or out of operations performed by others on behalf of Contractor under this Contract. The insurance as afforded to such additional insureds shall state that it is primary insurance and shall provide for a severability of interest or cross-liability clause. Prior to commencing performance of any work or site mobilization, Contractor shall furnish Commission with Certificates of Insurance (identifying on the face thereof the Project name and Contract number) as evidence of the above required insurance and such Certificates shall provide for thirty (30) days written notice to Commission prior to cancellation thereof.

Commission is not maintaining any insurance on behalf of Contractor covering loss or damage to the work or to any other property of Contractor unless otherwise specifically set forth herein.

None of the requirements contained herein as to types, limits and approval of insurance coverage to be maintained by Contractor are intended to and shall not in any manner limit or qualify the liabilities and obligations assumed by Contractor under this contract.

Contractor shall deliver the original Certificate of Insurance and one copy to the agent of the Commission.

Notices, in original and one copy, of cancellation, termination and alternation of such policies shall also be provided to the agent of the Commission.

24. **WARRANTY AND ACCEPTANCE:** All material shall be new and workmanship shall be first class in every respect. The work shall be subject to inspection and acceptance by Commission. Contractor guarantees its work hereunder for a period of 12 months after completion and acceptance of the work unless otherwise set forth herein. In the event Commission discovers defects in material or workmanship at any time before the expiration of the specified warranty period, Contractor shall, upon written notice from Commission, repair or replace at its sole expense any such defects. Commission may perform such repairs or replacements by other reasonable means and Contractor agrees to pay for such corrective measures. Neither acceptance of the work by Commission nor payment shall relieve Contractor from liability under the indemnity clause or any of the guarantees or warranties contained or implied herein.

25. **LAWS, REGULATIONS, PERMITS AND TAXES:** Contractor shall comply with Commission's jobsite procedures and regulations and with all applicable local, state and federal laws, rules and regulations and shall obtain all permits required for any of the work performed hereunder. Contractor shall procure and pay for all permits and inspections required for any of the work performed hereunder and shall furnish any bonds, security or deposits required to permit performance of the work. Contractor shall, to the extent permissible under applicable law, comply with the jobsite provisions which validly and lawfully apply to work on the specific jobsite being performed under this Contract.

26. **WORK RULES, SECURITY:** For work performed on Commission premises, Contractor shall strictly observe Commission work rules and security requirements. All work shall be carried out during normal Commission working hours unless specifically agreed to in writing by Commission. Contractor shall, at Commission's request remove from site any employee whom Commission deems to be incompetent, dishonest or uncooperative.

27. **CHANGES:** Commission may, at any time, direct in writing additions, deletions or changes to all or any part of the work. If any such changes causes an increase or decrease in the cost of or in the time required to perform such work, Contractor shall submit detail information substantiating such claims and an equitable adjustment shall be made to the price or time of performance.

28. **RELEASE AGAINST LIENS OR CLAIMS:** Contractor shall promptly pay all claims of persons or firms furnishing labor, equipment or materials used in performing the work hereunder. Commission may require Contractor to submit satisfactory evidence of payment and releases of all such claims. If there is any evidence of any such unpaid claim, Commission may withhold any payment until Contractor has furnished such evidence of payment and release.

29. **ASSIGNMENT:** Any assignment by Contractor of this Contract or of any rights hereunder or hypothecation thereof in any manner, in whole or in part, by operation of law or otherwise, without the prior written consent of Commission shall be voided.

30. **SAFETY AND FIRE PREVENTION:** Contractor shall at all times conduct all operations under the Contract in a manner to avoid risks of bodily harm to persons, damage to any property and fire. Contractor shall be responsible to take all precautions necessary and continuously inspect all work, materials and equipment to discover, determine and correct any such conditions which may result in any of the aforementioned risks.

### 31. **SUSPENSION OF WORK AND TERMINATION**

**Utilities Commission May Suspend Work** - The Utilities Commission may at any time and without cause suspend the Work or any portion thereof by notice in writing to the Contractor. The Project Manager shall fix the date on which Work shall be resumed and the Contractor will resume the Work on the date so fixed. The Contractor will be allowed an extension of the Contract Time or both, if directly attributable to any suspension. However, no change to the contract price will be allowed on claims for suspended work or delays, whatever the course or reason. Also, during any period of suspension, the Contractor shall take all available measures to mitigate costs such as taking on new work, reassigning resources to other contracts, etc.

**Utilities Commission May Terminate for Cause** - If the Contractor is adjudged bankrupt or insolvent; if he makes a general assignment for the benefit of his creditors without Utilities Commission approval; if a trustee or receiver is appointed for the Contractor or for any of his property; if he files a petition to take advantage of any debtor's act or to reorganize under the bankruptcy or similar laws; if he fails to prosecute and complete the Work in accordance with the established Project Schedule or within the Contract Time allowed; if he repeatedly fails to supply sufficient skilled workers or suitable materials or equipment; if he repeatedly fails to make prompt payment to subcontractors for labor, materials or equipment; if he disregards laws, ordinances, rules, regulations or orders of any public body having jurisdiction; if he disregards the authority of the Project Manager; or if he otherwise substantially violates any provisions of the Contract Documents, then the Utilities Commission may, without prejudice to any other right or remedy and after giving the Contractor and his Surety seven (7) days written notice, terminate the services of the Contractor and take possession of the Work and of all materials, equipment, tools, construction equipment and machinery thereon owned by the Contractor and assign the completion of the Work to the Surety, or finish the Work by whatever method it may deem expedient. In such case, the Contractor shall not be entitled to receive any further payment until the Work is finished. If the unpaid balance of the Contract Amount exceeds the direct and indirect cost of completing the Work, including compensation for additional professional services, such excess shall be paid to the Contractor. If such cost exceeds such unpaid balance, the Contractor will pay the difference to the Utilities Commission. Such cost incurred by the Utilities Commission will be determined by the Utilities Commission and incorporated in a Change Order.

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

**Upon Termination for Cause, the Contractor shall not be entitled to payment for any anticipated supplemental costs, administrative expenses and/or profit for uncompleted Work.**

If after notice of termination of the services of the Contractor for cause, it is determined that the Contractor was not in default, the termination shall be deemed to have been for the convenience of the Utilities Commission. In such event the Contractor may recover from the Utilities Commission payment for Work completed and reasonable termination costs as provided in the following paragraph.

**Termination for Convenience:** Upon seven (7) days written notice to the Contractor and the Surety, or sooner if reasonable under the circumstances, the Utilities Commission may, without cause and without prejudice to any other right or remedy, elect to terminate any part of the Work, or the Contract in whole or in part, as the Utilities Commission may deem appropriate. In any termination for convenience, the Contractor shall be paid for Work completed by the Contractor and subcontractors at the time of termination provided, however, that the payment to the Contractor will exclude any and all anticipated supplemental costs, administrative expenses and profit for uncompleted Work. Upon termination for convenience, the Utilities Commission shall have full power and authority to take possession of the Work, assume any subagreements with Subcontractors and suppliers which the Utilities Commission selects, and prosecute the Work to completion by contract or as the Utilities Commission may deem expedient.

### 32. **MAINTENANCE OF RECORDS**

The Contractor will keep adequate records and supporting documents applicable to this contract. Said records and documentation will be retained by the Contractor for a minimum of five (5) years from the date of final payment on this Contract. The Utilities Commission and its authorized agents shall have the right to audit, inspect and copy records and documentation as often as the Utilities Commission deems necessary during the period of this contract and a period of five (5) years after completion of contract performance; provided however, such activity shall be conducted only during normal business hours. The Utilities Commission during the period of time defined by the preceding sentence shall also have the right to obtain a copy of and otherwise inspect any audit made at the direction of the Contractor as concerns the aforesaid records and documentation.

### 33. **Conflict of Interest of Officers or Employees of the Contracting Entity/Local Jurisdiction, Members of the Local Governing Body, or Other Elected Officials**

No member or employee of the contracting entity/local jurisdiction or its designees or agents; no member of the governing body; and no other public official of the Utilities Commission who exercises any function or responsibility with respect to this contract, during his/her tenure or for one year thereafter, shall have any interest, direct or indirect, in any contract or subcontract, or the proceeds thereof, for work to be performed. Further, the Contractor shall cause to be incorporated in all subcontracts, the language set forth in this paragraph prohibiting conflict of interest.

34. **Employee Conflict of Interest-** It shall be unethical for any Utilities Commission employee to participate directly or indirectly in a procurement contract when the Utilities Commission employee knows that:

(1) The Utilities Commission employee or any member of the Utilities Commission employee's immediate family has a financial interest in the procurement contract; or

(2) any other person, business, or organization with whom the Utilities Commission employee or any member of a Utilities Commission employee's immediate family is negotiating or has an arrangement concerning prospective employment is involved in the procurement contract.

A Utilities Commission employee or any member of a Utilities Commission employee's immediate family who holds a financial interest in a disclosed blind trust shall not be deemed to have a conflict of interest with regard to matters pertaining to that financial interest.

### 35. **Gratuities and Kickbacks.**

(1) Gratuities. It shall be unethical for any person to offer, give, or agree to give any Utilities Commission employee or former Utilities Commission employee, or for any Utilities Commission employee or former Utilities Commission employee to solicit, demand, accept, or agree to accept from another person, a gratuity or an offer of employment in connection with any decision, approval, disapproval, recommendation, or preparation of any part of a program requirement or a purchase request, influencing the content of any specification or procurement standard, rendering of advice, investigation, auditing, or in any other advisory capacity Utilities Commission in any proceeding or application, request for ruling, determination, claim or controversy, or other particular matter, pertaining to any program requirement or a contract or subcontract, or to any solicitation or proposal therefore.

(2) Kickbacks. It shall be unethical for any payment, gratuity, or offer of employment to be made by or on behalf of a subcontractor under a contract to the prime contractor or higher tier sub-contractor or any person associated therewith, as an inducement for the award of a subcontract or order.

(3) Contract Clause. The prohibition against gratuities and kickbacks prescribed in this Section shall be conspicuously set forth in every contract and solicitation therefore.

**THE UTILITIES COMMISSION RESERVES THE RIGHT TO WAIVE INFORMALITIES IN ANY BID, TO REJECT ANY AND ALL BIDS IN WHOLE OR IN PART, WITH OR WITHOUT CAUSE, AND/OR ACCEPT THE BIDS OR PORTIONS THEREOF THAT IN ITS JUDGMENT WILL BE FOR THE BEST INTEREST OF THE UTILITIES COMMISSION.**

**SECTION 00300**  
**SPECIAL TERMS AND CONDITIONS**

**1. STARTING THE WORK**

The Contractor will start the Work within **fourteen (14)** calendar days of the official "Notice to Proceed" date. The Contract Time shall commence to run from the date of the "Notice to Proceed." The contractor shall complete the work within **two hundred seventy (270)** consecutive calendar days thereafter.

**Preconstruction Conference:** Within 20 days after the effective date of the Contract, but before Contractor starts the Work at the site, a conference attended by Contractor, Project Manager, Professional and others as appropriate will be held to discuss such topics as may include, but not limited to; schedules, procedures for handling Shop Drawings and other submittals and for processing Applications for Payment, maintenance of traffic, initiation of coordination with affected utilities, agreement upon the Notice to Proceed date, and to establish a working understanding among the parties as to the Work.

**2. INTERPRETATION AND INTENT OF THE CONTRACT DOCUMENTS**

It is the intent of the Specifications and Drawings to describe the complete Work to be constructed in accordance with the Contract Documents. However, the Utilities Commission makes no representation or warranty of any nature whatsoever to the Contractor concerning such documents. The Contract Documents are complementary; what is called for by one is as binding as if called for by all. If the Contractor finds a conflict, error or discrepancy in the Contract Documents, he will call it to the Engineers and or Project Manager's attention in writing before proceeding with the Work affected thereby. Any work that may reasonably be inferred from the Specifications or Drawings as being required to produce the intended result shall be supplied whether or not it is specifically called for. Work, materials or equipment described in words which so applied have a well-known technical or trade meaning shall be deemed to refer to such recognized standards. In case of conflict, the more stringent requirements shall take precedence and govern.

Written clarifications or interpretations (which shall be consistent with or reasonably inferable from the Contract Documents) will be issued in response to a Contractor Request for Interpretation (RFI) or as the Engineer and or Project Manager may otherwise determine necessary. If the Contractor believes a written clarification or interpretation justifies an increase in Contract Amount or Contract Time, the Contractor shall make a claim for such increase in accordance with Articles 13 and 14 of the General Conditions. If the Contractor is authorized by the Utilities Commission to proceed with the Work involved before full agreement is reached on (a) whether any increases are due at all, or (b) the extent of any such increases (if any are determined to be due), the Contractor shall furnish daily to the Engineer and or Project Manager actual cost records.

**3. CONTRACTOR'S RESPONSIBILITIES**

**Supervision and Superintendence** - The Contractor will supervise and direct the work efficiently and with his best skill and attention. He will be solely responsible for the means, methods, techniques, sequences and procedure of construction, unless otherwise specified. The Contractor will be responsible to see that the finished Work complies accurately with the Contract Documents.

The Contractor will keep on the site at all times during its progress a competent, resident superintendent who shall not be replaced without written notice to the Engineer and or Project Manager. The superintendent will be the Contractor's representative at the site and shall have authority to act on behalf of the Contractor. All communications given to the superintendent shall be as binding as if given to the Contractor.

The Engineer and or Project Manager may require in writing that the Contractor remove from the Work any of Contractor's personnel that the Engineer and or Project Manager determine to be incompetent, careless or otherwise objectionable. No claims for an increase in Contract Amount or Contract Time based on the Engineers and or Project Manager's use of this provision will be valid. Contractor shall indemnify and hold the Utilities Commission harmless from and against any claim by Contractor's personnel on account of the use of this provision.

**Labor, Materials and Equipment** - The Contractor will provide competent, suitable, qualified personnel to lay out the Work and perform construction as required by the Contract Documents. He will at all times maintain good discipline and order at the site.

The Contractor will furnish all materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water and sanitary facilities and incidentals necessary for the execution, testing, initial operation and completion of the Work.

All materials and equipment will be new except as otherwise provided in the Contract Documents. If required by the Engineer and or Project Manager, the Contractor will furnish satisfactory evidence as to the kind and quality of materials and equipment furnished.

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

**Substitute Material or Equipment** - If it is indicated in the Specifications that the Contractor may furnish or use a substitute that is equal to any material or equipment specified, and if the Contractor wishes to furnish or use a proposed substitute, he will within thirty (30) days after the award of the contract make written application to the Engineer and or Project Manager for acceptance of such a substitute, certifying in writing that the proposed substitute will perform adequately the duties imposed by the general design, be similar and of equal substance to that specified and be suited to the same use and capable of performing in an efficient and economic manner as that specified. The application will include sufficient information to allow the Engineer and or Project Manager to evaluate the substitutions. The application will state the extent, if any, to which the review, acceptance, furnishing and installation of the proposed substitute will prejudice Contractor's completion of the Work within the Contract Time(s). If the cost of the review of the substitution is greater than that of the originally specified item, the Contractor will reimburse the Utilities Commission for all costs. Utilities Commission may require Contractor to furnish at Contractor's expense a special performance guarantee or other surety with respect to any substitute. The benefit of lower cost items shall be shared between the Utilities Commission and Contractor as specified in the Instructions to Bidders. No substitute shall be ordered or installed without the written acceptance of the Engineer and or Project Manager who shall be the sole judge of acceptability.

**Concerning Subcontractors** - The Contractor will not employ any Subcontractor, other person or organization of the types referred to in Article 4 (whether initially or as a substitute) against whom the Utilities Commission or the Engineer and or Project Manager may have reasonable objections, nor will the Contractor be required to employ any Subcontractor against whom he has reasonable objection. The Contractor will not make any substitution for any Subcontractor who has been accepted by the Project Manager, unless the Utilities Commission and the Project Manager determine that there is good cause for doing so.

The Contractor will be fully responsible for all acts and omissions of his Subcontractors and of persons directly or indirectly employed by them and of persons for whose acts any of them may be liable to the same extent that they are employed by him. Nothing contained in the Contract Documents shall create, nor be interpreted to create, privity or any other contractual relationship whatsoever between the Utilities Commission and any Subcontractor or any person except the Contractor, or any obligation on the part of the Utilities Commission to pay or to see to the payment of any moneys due any Subcontractor, except as may otherwise be required by law. The Utilities Commission may furnish to any Subcontractor, to the extent practicable, evidence of amounts paid to the Contractor on account of specific Work done.

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

The Contractor agrees to bind specifically every Subcontractor to the applicable terms and conditions of the Contract Documents for the benefit of the Utilities Commission.

All Work performed for the Contractor by Subcontractors shall be pursuant to an appropriate agreement between the Contractor and the Subcontractor which shall contain provisions that waive all rights the contracting parties may have against one another for damages caused by fire or other perils covered by insurance held by the Utilities Commission as trustee. The Contractor will pay each Subcontractor a share of any insurance moneys received by the Contractor under this insurance.

**Patent Fees And Royalties** - The Contractor will pay all license fees and royalties and assume all costs incident to the use of any invention, design, process or device which is the subject of patent rights or copyrights held by others.

**Permits** - The Contractor will secure and pay for all construction permits and licenses and will pay all governmental charges and inspection fees necessary for the prosecution of the Work which are applicable at the time of his Bid except those as may be identified in Division 1 of the Specifications. The Contractor will also pay all public utility charges except as provided for in the Contract Documents.

**Laws and Regulations** - The Contractor will give all notices and comply with all laws, ordinances, rules and regulations applicable to the work. If the Contractor observes that the Specifications or Drawings are at variance therewith, he will give the Engineer and or Project Manager prompt written notice thereof, and any necessary changes shall be adjusted by an appropriate Change Order. If the Contractor performs any Work knowing it to be contrary to such laws, ordinances, rules and regulations and without such notice to the Engineer and or Project Manager, he will bear all costs arising therefrom; however, it shall not be his primary responsibility to make certain that the Drawings and Specifications are in accordance with such laws, ordinances, rules and regulations.

**Use Of Premises** - The Contractor will confine his equipment, the storage of materials and equipment, and the operations of his workers to the areas permitted by law, ordinances, permits or the requirements of the Contract Documents and shall not unreasonably encumber the premises with materials or equipment.

The Contractor shall confine the operation of workmen and equipment, and the storage of materials and equipment to the Utilities Commission's property or to other non-Utilities Commission property or in public right-of-way areas indicated on the Contract Drawings as including work to be done pursuant to the Contract documents. In the event the Contractor desires to have access to the project site, or perform work or operations pertaining to the contract on, over or from non-Utilities Commission property adjacent to the project site, the Contractor shall obtain written authorization to do so from the respective adjacent property owner(s) prior to using such property. Such written authorization shall include a provision whereby the property owner agrees to hold the Utilities Commission harmless, and to defend the Utilities Commission, in the event of any liability, loss, injury, or claim incurred as a result of the Contractors work or operations involving the use of the adjacent non-Utilities Commission property. The Utilities Commission shall be provided with a notarized, certified copy of such written authorization(s) before the Contractor commences work or operations or use of such property in connection with work or operations pursuant to this contract.

**Record Drawings** - The Contractor will keep one record copy of all Specifications, Drawings, Addenda, Change Orders and Shop Drawings at the site in good order, and annotated and/or marked on a current basis to indicate the progress of the work done and to show all changes made during the construction process or conditions varying from the Bid Documents. These shall be available to the Engineer and or Project Manager for inspection throughout construction and shall be delivered to the Engineer and or Project Manager upon completion of the Work, but prior to final payment.

**Safety And Protection** - The Contractor will be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work. He will take all necessary precautions for the safety of and will provide the necessary protection to prevent damage, injury or loss to:

- A. All employees on the Project and other persons who may be affected thereby:
- B. All the Work and all materials or equipment to be incorporated therein, whether in storage on or off the site; and
- C. Other property at the site or adjacent thereto including trees, shrubs, lawns, walks, pavements, roadways, structures and utilities not designated for removal, relocation or replacement in the course of construction.

The Contractor will comply with all applicable laws, ordinances, rules, regulations and orders of any public body or public or private utility service organization having jurisdiction for the safety of persons or property or to protect them from damage, injury or loss. He will erect and maintain, as required by the conditions and the progress of the Work, all necessary safeguards for safety and protection and, in addition, he will comply with all applicable recommendations of the Manual of Accident Prevention in Construction of the Associated General Contractors of America, Inc., and the Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD) and subsequent revisions and addenda as published by the U.S. Department of Transportation, Federal Highway Administration and adopted by the Florida Department of Transportation. He will notify owners of adjacent utilities when prosecution of the Work may affect

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them. All damage, injury or loss to any property or all damage, disruption, discontinuance or other loss to any utility system or roadways referred to in Paragraph B. and C. caused directly or indirectly, in whole or in part by the Contractor, any Subcontractor, anyone directly or indirectly employed by any of them, or anyone for whose acts any of them may be liable, will be remedied by the Contractor, except damage or loss attributable to the fault of the Drawings or the Specifications or to the acts or omissions of the Utilities Commission, and not attributable, directly or indirectly, in whole or in part, to the fault of negligence of the Contractor.

The Contractor will designate a responsible member of his organization whose duty shall be the prevention of accidents at the site. **This person shall be the Contractor's superintendent unless otherwise designated in writing by the Contractor to the Project Manager.**

**Emergencies** - In emergencies affecting the safety of persons, the Work or property at the site or adjacent thereto, the Contractor, without special instruction or authorization from the Project Manager, is obligated to act at his discretion to prevent threatened damage, injury or loss. He will give the Engineer and or Project Manager prompt written notice of any significant changes in the Work or deviations from the Contract Documents caused thereby, and a Change Order shall thereupon be issued covering the changes and deviations involved. If the Contractor believes that additional Work done by him in an emergency which arose from causes beyond his control entitles him to an increase in the Contract Amount or an extension of the Contract Time, he may make a claim.

**Shop Drawing and Samples** - After checking and verifying all field measurements, the Contractor will submit to the Engineer and or Project Manager for review, in accordance with the accepted schedule of shop drawing submission, five copies (or at the Project Manager's option, one reproducible copy) of all shop drawing, which shall have been checked by and stamped with the approval of the Contractor and identified as the Engineer and or Project Manager may require. The data shown on the shop drawings will be complete with respect to dimensions, design criteria, materials of construction and the like to enable the engineer and or project manager to review the information as required.

The Contractor will also submit to the Engineer and or Project Manager for review with such promptness as to cause no delay in the Work, all samples required by the Contract Documents. All samples shall be checked by and stamped with the approval of the Contractor, identified clearly as to material, manufacturer, any pertinent numbers and the use for which intended.

At the time of each submission, the Contractor will in writing call to the Engineer and or Project Manager's attention to any deviations that the Shop Drawing or sample may have from the requirements of the Contract Documents.

The Engineer and or Project Manager will review with reasonable promptness and take appropriate action with regard to Shop Drawings and samples, but its review shall be only for general conformance with the design concept of the Project and for compliance with the information given in the Contract Documents. The acceptance of a separate item as such will not indicate approval of the assembly in which the item functions. The Contractor will make any corrections required by the Engineer and or Project Manager and will return the required number of corrected copies of Shop Drawings and re-submit new samples until approved. The Contractor's stamp of approval on any Shop Drawing or sample shall constitute a representation to the Engineer and or Project Manager that the Contractor has either determined and verified all quantities, dimensions, field construction criteria, materials, catalog numbers and similar data or he assumes full responsibility for doing so, and that he has reviewed or coordinated each Shop Drawing or sample with the requirements of the Work and Contract Documents.

**No Work requiring a Shop Drawing or sample submission shall be commenced until the submission has been accepted by the Project Manager.** A copy of each accepted Shop Drawing and each accepted sample shall be kept in good order by the Contractor at the site and shall be available to the Engineer and or Project Manager.

The Engineer's and or Project Manager's acceptance of Shop Drawings or samples shall not relieve the Contractor from his responsibility for any deviations from the requirements of the Contract Documents, unless the Contractor has in writing called the Engineer's and or Project Manager's attention to such deviation at the time of submission and the Utilities Commission and the Engineer and or Project Manager have given written acceptance to the specific deviation; nor shall any acceptance by the Engineer and or Project Manager relieve the Contractor from responsibility for errors or omissions in the Shop Drawing.

Each Shop Drawing or Sample submittal or substitution request by the Contractor shall contain a reference identifying the applicable, specific Section of the Specifications to which it pertains. Submittals failing to comply with this provision shall be rejected and returned to the Contractor without review.

Each Shop Drawing or Sample submittal or substitution request shall include the following stamped certification by the contractor:

"The General Contractor has reviewed the Shop Drawing, Sample or substitution submitted herewith and has determined and hereby certifies that in all respects this submittal is in full compliance and conformance with the contract specifications, drawings and all other contract requirements pertaining thereto".

Failure of the Contractor to include the above stated specification reference number or certification of compliance shall result in the rejection of the submittal.

The Contractor will also submit within five (5) days of Contract Award to the Engineer and or Project Manager for acceptance all samples required by the Contract Documents. All samples will have been checked by and stamped with the approval of the Contractor, identified clearly as to material, manufacturer, any pertinent numbers and the use for which intended.

In the event that the contractor, or anyone working for or on behalf of the Contractor on this project, should commence or do any work requiring submission of a shop drawing or sample, or involving a substitution or an "or-equal" request without having such submittal accepted by the Utilities Commission in writing, then the Contractor is advised that any and all such work will be done at its risk and is subject to rejection and/or removal at the Contractor's expense and at no additional cost to the Utilities Commission if applicable shop drawing, sample, substitution, "or-equal" or other submittal is not accepted. Further, the Contractor will not receive "progress" or "final" payment for any and all work commenced or done which requires, but has not received acceptance of shop drawings, samples, substitution requests, or "or-equal" requests or any other required submittal, nor will the Contractor receive "progress" or "final" payment for any and all work that has been determined by the Professional or the Utilities Commission's Project Manager not to be in compliance or conformance with the established contract requirements, contract change orders, written directives, written clarifications provided to the Contractor, or accepted shop drawings, accepted samples, accepted substitutions, or accepted "or-equals".

Cleaning Up - The Contractor will keep the premises free from accumulations of waste materials, rubbish and other debris resulting from the Work; at the completion of the Work he will remove all waste materials, rubbish and debris from and about the premises as well as all tools, construction equipment and machinery, and surplus materials, and will leave the site clean and ready for occupancy by the Utilities Commission. The Contractor will restore to their original condition those portions of the Site not designated for alteration by the Contract Documents. If at any time during construction of this project, the Contractor fails to clean up on a daily basis, the Utilities Commission may do so. All costs associated with the Utilities Commission's cleanup activities on behalf of the Contractor shall be deducted from amounts due to the Contractor.

#### **4. CHANGES IN THE WORK**

Without invalidating the Agreement, the Utilities Commission may, at any time or from time to time, order additions, deletions or revisions in the Work authorized by written Change Orders or directive. Upon receipt of a Change Order, the Contractor will proceed with the work involved. All such work shall be executed under the applicable conditions of the Contract Documents. If any Change Order causes an increase or decrease in the Contract Amount or any extension or shortening of the Contract Time, an equitable adjustment will be made.

Additional Work performed by the Contractor without authorization of a Change Order will not entitle him to an increase in the Contract Amount or any extension of the Contract Time, except in the case of an emergency.

It is the Contractor's responsibility to notify his Surety of any changes affecting the general scope of the Work or change of the Contract Amount and the amount of the applicable bonds shall be adjusted accordingly, and an amended bond document furnished to the Utilities Commission.

In the event the Utilities Commission directs the Contractor to make a change in the Work, and if the Utilities Commission and the Contractor do not arrive at a mutually acceptable increase or decrease in the Contract Amount, the Contractor shall not use any such lack of mutual acceptance as a basis or cause to stop or otherwise delay the progress or the execution and completion of any of the work ordered, directed or required pursuant to the Contract Documents.

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## **5. LIQUIDATED DAMAGES**

If the work is not completed within the time specified in Section 2 Paragraph One of the Special Terms and Conditions of this contract, the Contractor shall pay the owner, as liquidated damages, the sum of **SEVEN HUNDRED FIFTY (\$750) DOLLARS** for each consecutive calendar day thereafter until the work is completed.

## **6. HURRICANE SUSPENSION**

During official hurricane season (June 1 to Nov 30) this provision will be effective. If a hurricane watch or warning is issued for any part of the UCNSB service area contractors will be required to take the following actions at no added cost to UCNSB.

1. Cease all work except to secure the completed work and protect any stored materials from storm damage, or from being caught into motion by storm forces that may damage other property.
2. Fill any excavations and secure from erosion and traffic.
3. Collect and remove or secure any loose material or packing from work or storage areas.
4. Remove all materials or equipment from any street or roadway.
5. Remove equipment from the barrier islands.
6. Evacuate all personnel from work areas upon issue of order by emergency services agency.

Contractors may return to work upon lifting of watches and warnings and restoration of access. Allowance will be made to contract time for storm warning/watch & preparation plus reasonable time (not more than 5 days unless special circumstances warrant) after access is restored if it has been interrupted by official order. No adjustments will be made to the contract price.

## **7. PERFORMANCE AND PAYMENT BONDS**

In the event the Contract is awarded to the Bidder, he will thereafter enter into a written contract with the Owner and furnish a Payment and Performance Bond in an amount equal to the contract price, in strict accordance with Section 255.05 of Florida Statutes. Payment and Performance Bonds shall be secured from or countersigned by an agency or surety company recognized in good standing and authorized to do business in the State of Florida.

## **8. BID ENCLOSURES/REQUIREMENTS**

### **8.01 SECURITY DEPOSIT**

(a) Bids shall be accompanied by a security deposit as follows:

- (i) Bid Bond in the amount of a sum no less than 10 percent of the Bid Price/Sum.

(b) Endorse the Bid Bond in the name of the Utilities Commission as the obligee, signed and sealed by the principal (Contractor) and surety.

### **8.02 PERFORMANCE ASSURANCE**

(a) Accepted Bidder: Provide a 100% Performance and Payment bond.

### **8.03 BID FORM SIGNATURE**

(a) The Bid Form shall be signed by the bidder, as follows:

- (i) Sole Proprietorship: Signature of sole proprietor in the presence of a witness who will also sign. Insert the words "Sole Proprietor" under the signature. Affix seal.

Partnership: Signature of all partners in the presence of a witness who will also sign. Insert the word "Partner" under each signature. Affix seal to each signature.

Corporation: Signature of a duly authorized signing officer(s) in their normal signatures. Insert the officer's capacity in which the signing officer acts, under each signature. Affix the corporate seal. If the bid is signed by officials other than the president and secretary of the company, or the president/secretary/treasurer of the company, a copy of the by-law resolution of their board of directors authorizing them to do so, must also be submitted with the Bid Form in the bid envelope.

Joint Venture: Each party of the joint venture shall execute the Bid Form under their respective seals in a manner appropriate to such party as described above, similar to the requirements of a Partnership.

## **9. PAYMENT AND COMPLETION**

**Progress Schedule** - For lump sum Contracts, or when required by the Engineer and or Project Manager, the Contractor shall submit a progress schedule and a schedule of values of the Work including quantities and unit prices totaling the Contract Amount no later than twenty (20) days after receipt of Notice to Proceed, and prior to commencing work on the Project. These schedules shall be satisfactory in form and substance to the Utilities Commission and shall subdivide the Work into a progress schedule of sufficient detail to serve as the basis for progress payments during construction. Upon acceptance of the schedule of values by the Engineer and or Project Manager, it shall be incorporated into the form of Application for Payment prescribed by the Utilities Commission.

The Contractor shall not imbalance its Schedule of Values nor artificially inflate any element thereof. The violation of this provision by the Contractor shall constitute a material breach of this Contract.

**Application For Progress Payment** - Not more often than once a month, on a date established at a Project Pre-Construction Conference, the Contractor may submit to the Utilities Commission's Project Manager and or Engineer for review and approval a standard Application for Payment form filled out and signed by the Contractor covering the Work completed as of the date of the Application and supported by such data as the Engineer and or Project Manager may reasonably require. Also, 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 such supporting data, satisfactory to the Engineer and or Project Manager, as will establish the Utilities Commission's title to the material and equipment and protect its interest therein, including applicable insurance, partial Consent of Surety, and detailed inventory listing of stored material. Each such request shall include the submittal by the Contractor of (1) a detailed, itemized inventory listing the material stored at the site for which payment is requested, (2) documentation to indicate and substantiate the cost or value attributed to the items included in the stored material inventory list, and (3) the Utilities Commission's "Responsibility And Liability For Materials And Equipment Not Included In The Work" form executed by the Contractor. Failure to provide proper supporting documentation may subject the Progress Payment application to rejection. All progress payments will be subject to the retainage percentage specified in the Contract Documents which will be issued in the final payment after acceptance by the Utilities Commission of the Work.

The Contractor may, at the discretion of the Utilities Commission's Project Manager and or Engineer, be required to have Applications for Progress Payments accompanied by legally effective partial releases or waivers of liens executed by all subcontractors which performed services and suppliers of material or equipment for the Contractor for services or supplies which were included in the previous Application for Progress Payment, or, in the alternative, Consent of Surety to Partial Payment. The Contractor shall include the following certification on each Application for Progress Payments and the Application for Final Payment:

"The undersigned Contractor certifies that the work covered by this application for payment has been done, or completed in accordance with the contract documents, that all amounts have been paid by him for work, supplies, material or equipment for which previous Certificates for Payment were issued and that the current payment shown herein is now due".

**Contractor's Warranty Of Title** - The Contractor warrants and guarantees that title to all work, materials and equipment covered by an Application for Payment, whether incorporated in the Project or not, will have passed to the Utilities Commission prior to the making of the Application for Payment, free and clear of all liens, claims, security

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interests and encumbrances; and that no work, materials or equipment covered by an Application for Payment will have been acquired by the Contractor or by any other person performing the work at the site or furnishing materials and equipment for the Project subject to an agreement under which an interest therein or encumbrance thereon is retained by the seller or otherwise imposed by the Contractor or such other person.

**Approval of Payments-Retainage- Prior to substantial completion, progress payments will be made with 10 percent of each progress payment for the Work retained by the Owner.** The Engineer and or Project Manager will, within fifteen (15) days after receipt of each Application for Payment, either indicate his approval of payment or return the Application to the Contractor indicating in writing the reason for refusing to approve payment. In the latter case, the Contractor may make the necessary corrections and re-submit the Application. The Utilities Commission will pay the Contractor the amount approved within the time frame set forth in the Florida Prompt Payment Act.

In the event the Contractor and the Engineer and or Project Manager do not achieve mutual agreement on the basis or amount of the payment, and should the Contractor be unwilling to make the necessary corrections or modifications, and re-submit the Application, then the Utilities Commission, to avoid delay in paying the Contractor the amount the Utilities Commission has determined the Contractor is entitled to receive, shall approve and process the Application by making such adjustments thereto as the Utilities Commission deems appropriate so that the Contractor receives, without delay, payment of the amount the Utilities Commission has determined to have been earned and owing to the Contractor.

The Engineer and or Project Manager's approval of any payment requested in an Application for Payment shall constitute a representation by him to the Utilities Commission, based on the Project Manager's on-site observations of the Work in progress and on his review of the Application for Payment and the supporting data, that the Work has progressed to the point indicated; that, to the best of his knowledge, information and belief, the quality of the Work is in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning Project upon Substantial Completion, to the results of any subsequent tests called for in his approval); and that the Contractor is entitled to payment of the amount approved. However, by approving any such payment, the Engineer and or Project Manager shall not thereby be deemed to have represented that he made exhaustive or continuous on-site inspections to check the quality or quantity of the Work, that he has reviewed the means, methods, techniques, sequences and procedures of construction nor that he has made any examination to ascertain how or for what purpose the Contractor has used the moneys paid or to be paid to him on account of the Contract Amount.

The Engineer and or Project Manager's approval of final payment shall constitute an additional representation by him to the Utilities Commission that the conditions precedent to the Contractor's belief being entitled to final payment as set forth in this Article have been fulfilled.

The Engineer and or Project Manager may refuse to approve the whole or any part of any payment if in his opinion he is unable to make such representations to the Utilities Commission. He may then refuse to approve any such payment because of subsequently discovered evidence or the results of subsequent inspections or tests, nullify any such payment previously approved, to such extent as may be necessary in his opinion to protect the Utilities Commission from loss because:

- A. The Work is defective;
- B. Claims have been filed or there is reasonable evidence indicating the probable filing thereof;
- C. The Contract Amount has been reduced because of Change Order(s);
- D. The Utilities Commission has been required to correct defective Work or complete the Work.; or
- E. Of unsatisfactory prosecution of the Work, including failure to clean up.

**Substantial Completion** - Prior to final payment, the Contractor shall certify in writing to the Engineer and or Project Manager that the entire Work is Substantially Complete and request that the Engineer and or Project Manager issue a Certificate of Substantial Completion. Within a reasonable time thereafter, the Engineer and or Project Manager and Contractor will make an inspection of the Work to determine the status of completion. If the Engineer and or Project Manager does not consider the Work Substantially Complete, the Contractor will be notified in writing giving the reasons therefore. If the Engineer and or Project Manager considers the Work Substantially Complete, a tentative Certificate of Substantial Completion will be issued. This Certificate shall fix the date of Substantial Completion and the

responsibilities between the Utilities Commission and the Contractor for maintenance, heat and utilities. There shall be attached to the Certificate a punch list of items to be completed or corrected, said time to be within the Contract Time.

The Utilities Commission shall have the right to exclude the Contractor from the Work after achievement of Substantial Completion, but the Utilities Commission will allow the Contractor reasonable access to complete items on the punch list.

**Partial Utilization** - Prior to Substantial Completion, the Engineer and or Project Manager may request the Contractor to permit the use of a specified part of the Work which it believes it may use without significant interference with construction of other parts of the Work. If the Contractor agrees, he will certify to the Engineer and or Project Manager that said part of the Work is Substantially Complete and request the Engineer and or Project Manager issue a Certificate of Substantial Completion for that part of the Work. Within a reasonable time thereafter, the Engineer and or Project Manager and Contractor will make an inspection of that part of the Work to determine its status of completion. If the Utilities Commission and the Engineer and or Project Manager consider that part of the Work to be Substantially Complete, the Engineer and or Project Manager will deliver to the Contractor a certificate to that effect, fixing the date of Substantial Completion as to that part of the Work, attaching thereto a punch list of items to be completed or corrected before final payment and fixing the responsibility between the Utilities Commission and Contractor for maintenance, heat and utilities as to that part of the Work. The Utilities Commission shall have the right to exclude the Contractor from any part of the Work which is so certified to be Substantially Complete but the Utilities Commission will allow the Contractor reasonable access to complete or correct items on the punch list.

**Final Inspection** - Upon written notice from the Contractor that the Work is complete, including the "punch" listed deficiencies, the Engineer and or Project Manager will make a final inspection with the Contractor and will notify the Contractor in writing of any particulars in which this inspection reveals that the Work is defective. The Contractor shall immediately make such corrections as are necessary to remedy such defects and to complete all the required work.

**Final Inspection For Payment** - After the Contractor has completed any such corrections to the satisfaction of the Engineer and or Project Manager and delivered all maintenance and operating instructions, schedules, guarantees, bonds, Certificates of Inspection and other documents as required by the Contract Documents, he may make application for final payment following the procedure for progress payments. The final Application for Payment shall be accompanied by legally effective final releases or waivers of liens from the Contractor and all Subcontractors which performed services for the Contractor and all suppliers of material and/or equipment to the Contractor, pursuant to the Contract Documents, an affidavit that all of the Contractor's obligations to subcontractors, laborers, equipment or material suppliers, or other third parties in connection with the Work, have been paid or otherwise satisfied, and the consent of surety to final payment.

**Approval Of Final Payment** - If, on the basis of its observations and review of the Work during construction, its final inspection and its review of the final Application for Payment (all as required by the Contract Documents), the Engineer and or Project Manager is satisfied that the Work has been completed and the Contractor has fulfilled all of his obligations under the Contract Documents, it will, within fifteen (15) days after receipt of the final Application for Payment, indicate in writing its approval of payment. Otherwise, it will return the Application to the Contractor, indicating in writing its reason for refusing to approve final payment, in which case the Contractor will make the necessary corrections and re-submit the Application. The Utilities Commission will, in accordance with the Florida Prompt Payment Act, pay the Contractor the amount approved by the Utilities Commission plus the ten percent retained from each progress payment and issue a Certificate of Final Completion.

If after Substantial Completion of the Work, Final Completion is materially delayed through no fault of the Contractor, and the Engineer and or Project Manager so confirms, the Utilities Commission shall, and without terminating the Agreement, make payment of the balance due for that portion of the Work fully completed and accepted. If the remaining balance for Work not fully completed or corrected is less than the retainage stipulated in the Agreement, 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 the Contractor to the Engineer and or Project Manager prior to certification of 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.

**Contractor's Continuing Obligation** - The Contractor's obligation to perform the Work and complete the Work in accordance with the Contract Documents shall be absolute. Neither approval of any progress or final payment by the Utilities Commission, the issuance of Certificate of Completion, any payment by the Utilities Commission to the Contractor under the Contract Documents, any use or occupancy of the Work or any part thereof by the Utilities Commission, any act of acceptance by the Utilities Commission, any failure to do so, nor any correction of defective Work by the Utilities Commission shall constitute an acceptance of Work not in accordance with the Contract Documents.

**Waiver Of Claims** - The making and acceptance of final payment shall constitute:

- A. A waiver of all claims by the Utilities Commission against the Contractor other than those arising from unsettled liens, from defective Work appearing after final payment or from failure to comply with the requirements of the Contract Documents , or from the terms of any special guarantees specified therein, and,
- B. A waiver of all claims by the Contractor against the Utilities Commission other than those previously made in writing and still unsettled.

**SECTION 00410**  
**CERTIFICATION OF DRUG-FREE WORKPLACE**

**IDENTICAL TIE BIDS** - Preference shall be given to businesses with drug-free workplace programs. Whenever two or more bids which are equal with respect to price, quality, and service are received by the State or by any political subdivision for the procurement of commodities or contractual services, a bid received from a business that certifies that it has implemented a drug-free workplace program shall be given preference in the award process. Established procedures for processing tie bids will be followed if none of the tied vendors have a drug-free workplace program. In order to have a drug-free workplace program, a business shall:

1. Publish a statement notifying employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the workplace and specifying the actions that will be taken against employees for violations of such prohibition.
2. Inform employees about the dangers of drug abuse in the workplace, the business's policy of maintaining a drug-free workplace, any available drug counseling, rehabilitation, and employee assistance programs, and the penalties that may be imposed upon employees for drug abuse violations.
3. Give each employee engaged in providing the commodities or contractual services that are under bid a copy of the statement specified in subsection (1).
4. In the statement specified in subsection (1), notify the employees that, as a condition of working on the commodities or contractual services that are under bid, the employee will abide by the terms of the statement and will notify the employer of any conviction of, or plea of guilty or nolo contendere to, any violation of chapter 893 or of any controlled substance law of the United States or any state, for a violation occurring in the workplace no later than five (5) days after such conviction.
5. Impose a sanction on, or require the satisfactory participation in a drug abuse assistance or rehabilitation program if such is available in the employee's community, by any employee who is so convicted.
6. Make a good faith effort to continue to maintain a drug-free workplace through implementation of this section.

As the person authorized to sign the statement, I certify that this firm complies fully with the above requirements.

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VENDOR SIGNATURE

**SECTION 00420**  
**Attachment "A"**

**SWORN STATEMENT UNDER SECTION 287.133(3) (1)**  
**FLORIDA STATUTES, ON PUBLIC ENTITY CRIMES**

THIS FORM MUST BE SIGNED IN THE PRESENCE OF A NOTARY PUBLIC OR OTHER OFFICER AUTHORIZED TO ADMINISTER OATHS.

1. This sworn statement is submitted Bid, Bid or Contract for\_\_\_\_\_.
  
2. This sworn statement is submitted by\_\_\_\_\_
- [name of entity submitting sworn statement] whose business address is: \_\_\_\_\_
- \_\_\_\_\_and (if applicable) its Federal Employer Identification Number (FEIN) is \_\_\_\_\_.
  
- (If entity has no FEIN, include the Social Security Number of the individual signing this sworn statement: \_\_\_\_\_.
  
3. My name is \_\_\_\_\_and my relationship to the entity named above is \_\_\_\_\_.
  
4. I understand that a "public entity crime" as defined in Paragraph 287.133 (1) (g), Florida Statutes, means 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 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 an agency or political subdivision of any other state, or of the United States and involving antitrust, fraud, theft, bribery, collusion, racketeering, conspiracy, or material misrepresentation.
  
5. I understand that "convicted" or "conviction" as defined in Paragraph 287.133 (91) (b), Florida Statutes means a finding of guilt or a conviction of a public entity crime, with or without adjudication of guilt, in any federal or state trial court or recording, relating to charges brought by federal or state trial court or recording, relating to charges brought by federal or state trial court or recording, relating to charges brought by indictment or information after July 1, 1989, as a result of just verdict, non-jury trial, or entry of a plea of guilty or nolo contendere.
  
6. I understand the "affiliate" as defined in Paragraph 287.133(1)(a), Florida Statutes, means: (1) A Predecessor or Successor of a person convicted of public crime; or (2) An entity under the control of any natural person who is active in the management of the entity and who has been convicted of a public entity crime. The term "affiliate" includes those officers, directors, executives, partners, shareholder, employees, members, and agents who are active in the management of an affiliate. The ownership by one person of shares constituting a controlling interest in another person, or a pooling of equipment or income among persons when not for fair market value under an arm's length agreement, shall be a prima facie case that one person controls another person. A person who knowingly enters into a joint venture with a person who has been convicted of public crime in Florida during the preceding 36 months shall be considered an affiliate.
  
7. I understand that a "person" as defined in Paragraph 287.133(1) (e), Florida Statutes, means any natural person or entity organized under the laws of any state or of the United States with the legal power to enter into a binding contract and which bids or applies to bid on contracts for the provisions of goods or services let by a public entity, or which otherwise transacts or applies to transact business with a public entity. The term "person" includes those officers, directors, executives, partners, shareholders, employees, members and agents who are active in management of an entity.

8. Based on information and belief, that statement which I have marked below is true in relation to the entity submitting this sworn statement. [Please indicate which statement applies]

### Public Entity Crimes Statement

Page 2 of 2

- \_\_\_\_\_ Neither the entity submitting this sworn statement, or one more of the officers, directors, executives, partners, shareholders, employees, members or agents who are active in the management of the entity, nor any affiliate or the entity, has been charged with and convicted of public entity subsequent to July 1, 1989, AND [Please indicate which additional statement applies.]
- \_\_\_\_\_ There has been a proceeding concerning the conviction before a hearing officer of the State of Florida, Division of Administrative Hearings. The final order entered by the hearing officer did not place the person or affiliate on the convicted vendor list. [Please attach a copy of the final order.]
- \_\_\_\_\_ The person or affiliate was placed on the convicted vendor list. There has been a subsequent proceeding before a hearing officer of the State of Florida, Division of Administrative Hearings. The final order entered by the hearing officer determined that it was in the public interest to remove the person or affiliate from the convicted vendor list. [Please attach a copy of the final order.]
- \_\_\_\_\_ The person or affiliate has not been placed on the convicted vendor list. [Please describe any action taken by or pending with the Department of General Services.]

\_\_\_\_\_

Date

\_\_\_\_\_

Signature

STATE OF: \_\_\_\_\_

COUNTY OF: \_\_\_\_\_

PERSONALLY APPEARED BEFORE ME, the undersigned authority,

\_\_\_\_\_  
[name of individual signing] who after first sworn by me affixed his/her signature in the space provided above on this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_.

My commission expires: \_\_\_\_\_  
Notary Public

\_\_\_\_\_  
Print, Type, or Stamp of Notary Public

Personally known to me, or  
Produced Identification:

\_\_\_\_\_  
Type of I.D.

**SECTION 00430  
Attachment B**

**NON-COLLUSION AFFIDAVIT OF PRIME BIDDER**

State of \_\_\_\_\_

County of \_\_\_\_\_

\_\_\_\_\_, being first duly sworn, deposes and says that:

He/she is \_\_\_\_\_ of \_\_\_\_\_, Bidder that has submitted the attached Bid;

He/she is fully informed respecting the preparation and contents of the attached Bid and of all pertinent circumstances respecting such Bid;

Neither the said Bidder nor any of its officers, partners, owners, agent representatives, employees, or parties in interest, including this affiant, has in any way colluded, conspired, connived or agreed, directly or indirectly, sought by agreement 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 agreement any advantage against the UCNSB.

The price or prices quoted in the attached Bid are fair and proper and are not tainted by any collusion, conspiracy, connivance or unlawful agreement on the part of the Bidder or any of its agents, representatives, owners, employees, or parties in interest, including this affiant.

\_\_\_\_\_  
Signed

\_\_\_\_\_  
Title

Subscribed and sworn to before me this \_\_\_\_ day of \_\_\_\_\_, 20\_\_.

\_\_\_\_\_  
\_\_\_\_\_  
Title

My Commission Expires: \_\_\_\_\_

**SECTION 00440  
AUTHORIZED SIGNATURES/NEGOTIATORS**

The bidder or proposer represents that the following persons are authorized to sign and/or negotiate contracts and related documents to which the bidder or proposer will be duly bound:

Name	Title	Phone #
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Title)

\_\_\_\_\_  
(Name of Business)

The bidder/offeror shall complete and submit the following information with the bid or proposal:

**Type of Organization**

\_\_\_\_\_ Sole Proprietorship                      \_\_\_\_\_ Partnership

\_\_\_\_\_ Joint Venture                              \_\_\_\_\_ Corporation

**State of Incorporation:** \_\_\_\_\_

**Federal I.D. or Social Security number is:** \_\_\_\_\_

**SECTION 00450**

**VENDOR INFORMATION**

In addition to General conditions, your BID may be disqualified if the following vendor information is not returned with your BID.

Vendor is:

- (        ) Corporation
- (        ) Partnership
- (        ) Sole Proprietorship
- (        ) Other \_\_\_\_\_(Explain)

Federal Employer Identification  
Number or Social Security Number: \_\_\_\_\_

Do you collect Florida State Sales Tax? (        ) Yes (        ) No

Firm Name: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

\_\_\_\_\_

Telephone No. \_\_\_\_\_ Fax No. \_\_\_\_\_

Email Address: \_\_\_\_\_ Web Address: \_\_\_\_\_

Commodity or Service Supply: \_\_\_\_\_

\_\_\_\_\_

If vendor is quoting, as a manufacturer's representative and the purchase order should be addressed to the manufacturer in care of the vendor, so indicate.

If remittance address is different from the mailing address so indicate below.

Firm Name: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Submitted by: \_\_\_\_\_

Name & Title Printed: \_\_\_\_\_

**SECTION 00460**

**QUESTIONNAIRE ITB # 09-08**

Additional space may be required. Please answer questions in the order presented. All questions must be answered or contractor may be disqualified.

1. Has your company ever been denied insurance or had insurance canceled?
2. Is your company bondable? Has your company ever been denied bond? If yes, explain.
3. Can your insurance company produce a certificate of insurance stating your limits and naming UCNSB as an Additional Insured?
4. Since January 1, 2001, has your company been a defendant in any lawsuits?
5. Is your company a subsidiary or otherwise legally affiliated with any other company?
6. Is your company rated by Dunn & Bradstreet or any other rating agency? If yes, what is the name of the agency and rating?
7. Is your company in any stage of bankruptcy, including initial filing?
8. Can you supply us with three (3) business references similar to UCNSB? If yes, attach a list including contact and phone number.
9. Has your company been disbarred by the Federal Government or any State Government?
10. How many employees does your company have?

Staff Employees: Full Time\_\_\_\_\_ Part Time\_\_\_\_\_

Contract Employees: Full Time\_\_\_\_\_ PartTime\_\_\_\_\_

## **SECTION 00470**

### **REQUIRED DISCLOSURE**

At its sole discretion, the Owner may reject any bidder the Owner finds to lack, or whose present or former executive employees, officers, directors, stockholders, partners or owners are found by the Owner to lack honesty, integrity, or moral responsibility. The discretion of the Owner may be exercised based on the Owner's own investigation, public records, or any other reliable sources of information. By submitting a bid, bidder recognizes and accepts that the Owner may reject the bid based upon the exercise of its sole discretion and bidder waives any claim it might have for damages or other relief resulting from the rejection of its bid based on these grounds.

**THE UTILITIES COMMISSION RESERVES THE RIGHT TO WAIVE INFORMALITIES IN ANY BID, TO REJECT ANY AND ALL BIDS IN WHOLE OR IN PART, WITH OR WITHOUT CAUSE, AND/OR ACCEPT THE BIDS OR PORTIONS THEREOF THAT IN IT'S JUDGMENT WILL BE FOR THE BEST INTEREST OF THE UTILITIES COMMISSION.**

## Section 00480

### BID SUBMITTAL REQUIREMENTS

Bids shall include all of the information solicited in this ITB, and any additional information that the Bidder deems pertinent to the understanding and evaluating of the bid. **Bids shall be organized and sections tabbed in the following order.** The Bidder should not withhold any information from the written response in anticipation of presenting the information orally or in a demonstration, since oral presentations or demonstrations may not be solicited. All bids shall include, at a minimum, the following information. Failure to supply all of the information requested may result in the bid being excluded from consideration.

Factor #1     **Experience:**

Provide a profile showing company history, business structure, list of principals. A minimum of five (5) years in business is required.

Factor #2     **References:**

Submit a detailed list of clients receiving similar services within the last two years. Please include a brief description of the scope of work performed and the name, phone number and email address of the contact person.

Factor #3     **Pricing:**

Submit Bid Reply Sheet here

Factor #4     **License and Insurance:**

Include a copy of your current Occupational License from an authorizing government agency. Submit a copy of your Certificate of Insurance here. UCNSB does not need to be named as an Additional Insured at this time but that is a requirement when work commences.

Factor #5     **Public Entity Crimes and Non-collusion Affidavit**

All Bidders shall properly complete, notarize and submit Public Entity Crimes Non Collusion Form included in this document.

Factor #6     **Addenda Acknowledgement**

Please submit all addenda (if any) related to this bid here.

Factor #7 **Questionnaire**

The Questionnaire responses requested in the next section should be submitted here

Factor #8 **Vendor Application**

Submit completed vendor application here

Factor#9 **Alternate Manufacturers/Suppliers**

Submit completed alternate manufacturers/suppliers form here

Factor #10 **Other Information**

Provide any information that will provide insight to the evaluators about the qualifications, fitness and abilities of the Bidder. This information should be succinct.

**SECTION 00510**

**UTILITIES COMMISSION NEW SMYRNA BEACH  
3RD AVENUE STORAGE TANK AND PUMP STATION**

**SCHEDULE OF UNIT PRICES**

<b>ITEM#</b>	<b>DESCRIPTION</b>	<b>QTY.</b>	<b>UNIT</b>	<b>UNIT PRICE</b>	<b>TOTAL PRICE</b>
1	GROUND STORAGE TANK	1	LS	\$	\$
2	PUMP STATION UPGRADES, ARCHITECTURAL	1	LS	\$	\$
3	YARD PIPING	1	LS	\$	\$
4	MECHANICAL EQUIPMENT	1	LS	\$	\$
5	GENERATOR AND ENCLOSURE	1	LS	\$	\$
6	ELECTRICAL/INSTRUMENTATION	1	LS	\$	\$
7	SITWORK	1	LS	\$	\$
8	LANDSCAPING	1	LS	\$	\$
9	BUILDING PERMIT FEE ALLOWANCE	1	LS	\$	\$25,000.00
<b>TOTAL BID ITEMS 1-9</b>					_____

Submitted by: \_\_\_\_\_  
 Contractor: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 Telephone: \_\_\_\_\_

Fax: \_\_\_\_\_

State of Florida Certified General Contractor (Required Information)  
 Licensee: \_\_\_\_\_

License No. \_\_\_\_\_

## SECTION 00520

BIDDER: \_\_\_\_\_

### SCHEDULE OF MAJOR MANUFACTURERS AND SUPPLIERS

The equipment manufacturers/suppliers on this project shall be as delineated in the following schedule. Bidders should note that the Owner and Engineer have made rigorous investigations of equipment performance and features, and as a result, Bidders are to note that the contract price for this project shall be based on Base Bid equipment. The Base Bid equipment for this project falls under one of two categories. The first category is equipment that the Owner and Engineer have determined will be supplied by a sole source of supply, for which no substitutions or alternates will be entertained or allowed. Bidder is advised that offering of any alternatives to the sole source supplied equipment will be grounds for rejection of his bid as not responsive. The second category of equipment includes those items where the Owner and Engineer deem there to be more than one acceptable supplier of the particular item listed. The equipment which falls under these two categories is shown on the subsequent pages of this Schedule of Major Manufacturers and Suppliers. Bidder is advised that the award of this Contract will be based solely on the use of Base Bid equipment.

The following comments relate only to the second category of equipment, where the Contract Documents are based upon the equipment or products available from the suppliers denoted as A, B, C, etc. below. These equipment manufacturers, along with the sole source suppliers constitute the Base Bid.

Provision is made in the Contract Documents for alternate manufacturers and suppliers whose equipment or product may be deemed equivalent in quality (see General Conditions). However, the Bidder must indicate in his Bid which Base Bid supplier he intends to use for each item of equipment listed by circling one of the listed manufacturers/suppliers. If the Bidder fails to indicate which listed manufacturer/supplier he intends to use if an alternate is rejected, he must use the supplier listed as "A". Also, if the Bidder circles more than one listed supplier, he must use the first supplier circled (unless an alternate is approved).

If the Bidder desires to propose one or more alternate manufacturers/suppliers, he may write in the name of such alternates in the spaces provided on the Alternate Manufactures/Suppliers page following the schedule. He must, nevertheless, also circle one of the listed manufacturers/suppliers because Bidders' Bid price must be based upon this Base Bid list. Wherever an alternate supplier is proposed, the Bidder must insert the amount to be deducted from the Contract Price (either lump sum or unit price) if the alternate supplier is eventually approved. If the proposed alternate supplier is determined "not equivalent" by the Engineer, the Bidder must use the circled supplier.

For any alternate supplier accepted by the Owner, the Contract Price will be reduced by the deductive amount stated in the Bid. However, the Contract Price will not be adjusted for any alternate supplier rejected.

Each proposed alternate will be evaluated in accordance with the General Conditions.

The deductive amount specified for alternate manufacturers/suppliers will not be used in determining the successful Bidder. Alternates will be considered only after award of the contract.

The Contractor shall reimburse the Owner for any costs directly attributable to the change in suppliers, such as additional field trips for the Engineer, additional redesign costs, additional review and inspection costs, etc..

BIDDER: \_\_\_\_\_

SCHEDULE OF MAJOR MANUFACTURERS  
AND SUPPLIERS

The Owner may request and the Bidder shall supply, complete information on proposed alternates prior to the Notice of Award.

Category I - Sole Source Equipment Items: NONE

Category II - Major Equipment Items:

Item No.	Spec. No.	Equipment/Material	Manufacturer or Supplier
1	11211	Horizontal Split Case Pumps	A) Crane Deming B) Aurora C) Fairsanks Morse
2	13310	Telemetry/Security	A) Data Flow Systems
3	16185	Motor Control	A) Allen Bradley B) Magna Tek
4	16210	Standby Generator	A) Kohler B) Caterpillar
5	16250	Switchgear	A) General Electric B) Square 'D' C) Allen Bradley

**REQUIRED DISCLOSURE**

At its sole discretion, the City of DeLand, Florida may reject any bidder the City finds to lack, or whose present or former executive employees, officers, directors, stockholders, partners or owners are found by the City to lack honesty, integrity, or moral responsibility. The discretion of the City may be exercised based on the City's own investigation, public records, or any other reliable sources of information. By submitting a bid, bidder recognizes and accepts that the City may reject the bid based upon the exercise of its sole discretion and bidder waives any claim it might have for damages or other relief resulting from the rejection of its bid based on these grounds.

**ALTERNATE MANUFACTURERS/SUPPLIERS**

<b>EQUIPMENT ITEM <u>MATERIAL</u></b>	<b><u>SPEC. SECTION</u></b>	<b>ALTERNATIVE MANUFACTURER / SUPPLIER <u>(LIST ONE ONLY)</u></b>	<b>DEDUCTIBLE AMOUNT (indicate whether lump sum or unit price) <u>ALTERNATE</u></b>
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____

\_\_\_\_\_  
Name (signature) Date

\_\_\_\_\_  
Name (typed and printed)

\_\_\_\_\_  
Title

SECTION 01010  
SUMMARY OF PROJECT

PART 1 - GENERAL

1.01 WORK COVERED BY CONTRACT DOCUMENTS

- A. This Contract is for the construction of the Utilities Commission of New Smyrna Beach's "**3<sup>RD</sup> AVENUE STORAGE TANK AND PUMP STATION**" The work consists of furnishing all labor, equipment, and materials for the construction of the facilities consisting of, but not limited to, the following:

New pre-stressed concrete ground storage tank, emergency power generator and pump station outfitting at an existing pump station site.

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

1.02 CONTRACTOR'S USE OF PREMISES

- A. The Contractor shall assume full responsibility for the protection and safekeeping of products and materials at the job site. If additional storage or work areas are required, they shall be obtained by the Contractor at no additional cost to the Owner.

1.03 PROJECT SEQUENCE

- A. The Contractor shall establish his work sequence based on the use of crews to facilitate completion of construction and testing within the specified Contract Time.
- B. Contractor shall sequence his work in a manner which provides for complete construction of improvements and restoration in limited areas prior to work in other areas.
- C. The Owner shall have use of all completed portions of work prior to completion of all portions.

END OF SECTION

## SECTION 01025

### MEASUREMENT AND PAYMENT

#### PART 1 - GENERAL

- A. Separate payment will be made only for the items of work described herein and listed on the Bid Form. Any related work not specifically listed, but required for satisfactory completion of the work, shall be considered to be included in the scope of the appropriate listed work items.
- B. The Contractor's attention is called to the fact that cleanup is considered a part of the work of construction. No payment will be made until cleanup is essentially complete.
- C. No separate payment will be made for the following items and the cost of such work shall be included in the applicable pay items of work if not shown as a separate pay item.
  - 1. Clearing and grubbing.
  - 2. Excavation, including necessary pavement base removal.
  - 3. Shoring and sheeting.
  - 4. Dewatering and disposal of surplus water.
  - 5. Structural Fill.
  - 6. Backfill.
  - 7. Grading.
  - 8. Replacement of unpaved roadways, grass and shrubbery plots.
  - 9. Cleanup.
  - 10. Testing and placing system in operation.
  - 11. Any material and equipment required to be installed and utilized for the test.
  - 12. Pipe, structures, pavement replacement and/or appurtenances included within the limits of lump sum work.
  - 13. Maintaining the existing quality of service during construction.
  - 14. Appurtenant work as required for a complete and operable system.
  - 15) Maintaining or detouring of traffic.
  - 16) Driveway/Sidewalk Removal/Replacement.
- D. No payment shall be made for work constructed outside the authorized limits of work.

## PART 2 - MATERIALS AND EQUIPMENT

### **2.01 Ground Storage Tank**

#### **Bid Item 1**

Lump sum payment will be made for construction of the ground storage tank as detailed on the drawings and described in the specifications. The price shall include all materials, labor and equipment necessary for a complete and operable installation. The lump sum price includes all structural, mechanical, instrumentation and electrical elements of the ground storage tank and aerator. This item also includes tank piping, restoration and ancillary items shown and/or described therein.

### **2.02 Pump Station Upgrades**

#### **Bid Item 2**

Lump sum payment will be made for improvements to the existing structure to house high service pumps and equipment as detailed on the drawings and described in the specifications. The price shall include all materials, labor and equipment necessary for a complete and operable installation. The lump sum price includes all structural, architectural, roofing, painting, and miscellaneous items. This item also includes permitting, demolition, and all ancillary items shown and/or described herein.

### **2.03 Yard Piping**

#### **Bid Item 3**

Lump sum payment will be made for construction of the yard piping as detailed on the drawings and described in the specifications. The price shall include all materials, labor and equipment necessary for a complete and operable installation. The lump sum price includes all pipe, fittings, restraint, backfill, compaction, testing, and miscellaneous items required for a complete installation.

### **2.04 Mechanical Equipment**

#### **Bid Item 4**

Lump sum payment will be made for construction of all piping and mechanical work within the pump station as detailed on the drawings and described in the specifications. The price shall include all materials, labor and equipment necessary for a complete and operable installation. The lump sum price includes all pumps, piping, fittings, fans, and mechanical elements of the high service pump station. This item also includes painting, disinfection, testing, restoration and ancillary items shown and/or described herein.

### **2.05 Generator and Enclosure**

#### **Bid Item 5**

Lump sum payment will be made for construction of the generator and enclosure as detailed on the drawings and described in the specifications. The price shall include all materials, labor and equipment necessary for a complete and operable installation. The lump sum price includes all mechanical, instrumentation and electrical elements of the generator and enclosure.

**2.06 Electrical/Instrumentation****Bid Item 6**

Lump sum payment will be made for construction of the electrical systems as detailed on the drawings and described in the specifications. The price shall include all materials, labor and equipment necessary for a complete and operable installation. The lump sum price includes the provision and installation of electrical power systems to all equipment installed at the work site, including connection charges. Equipment should operate from both permanent and temporary power instrumentation systems and all work performed by the PICS is also included in this pay item. This item includes wiring, conduit, terminations, restoration and ancillary items shown and/or described herein.

**2.07 Sitework****Bid Item 7**

Lump sum payment will be made for all sitework as detailed on the plans and described in the specifications. The price shall include all materials, labor and equipment necessary for a complete and operable installation. The lump sum price includes site preparation, grading, paving, drainage, fencing, landscaping, erosion control, site layout, survey, as-builts, and all other aspects of site construction.

**2.08 Landscaping Allowance****Bid Item 8**

Lump sum payment will be made for all landscaping as detailed on the plans and described in the specifications. The price shall include all materials, labor and equipment necessary for a complete and operable installation. The lump sum price shall be for Florida #1 plant material and all temporary watering and irrigation necessary to establish and maintain the plantings.

**2.09 Building Permit Fee Allowance****Bid Item 9**

An allowance is established for the building permit application fee. The allowance may also be used for other miscellaneous work items. Payment will be made to the Contractor at actual cost, plus 10% to cover overhead, bonds, insurance, etc... Profit is not included within the reimbursement and should be accounted for under other pay items. Any charges paid under the allowance shall be approved, in advance and in writing by the owner and engineer.

**END OF SECTION**

SECTION 01027  
APPLICATION FOR PAYMENT

PART I - GENERAL

1.01 DESCRIPTION

- A. Scope of Work: Submit Application for payment to the Engineer on accordance with schedule established by Conditions of the Contract and Agreement between Owner and Contractor. Contractor shall use the Application and Certificate for Payment Form included herein as the official pay request form.
- B. Related Requirements Described Elsewhere:
  - 1. Schedule of Values: Section 00310.
  - 2. Project Record Documents: Section 01720.

1.02 FORMAT REQUIRED

- A. Submit applications typed on the form provided herein. Application and Certificate for Payment Form, with itemized data typed on 8-1/2 inch x 11 inch or white paper continuation sheets.
- B. Provide itemized data on continuation sheets of format, schedules, line items, and values specified on the Application and Certificate for Payment Form. The Contractor shall use the item descriptions and contract values included in schedule of values, approved and accepted by the Engineer as a basis for preparation of the Application for Payment Form.

1.03 PREPARATION OF APPLICATION FOR EACH PROGRESS PAYMENT

- A. Application Form:
  - 1. Fill in required information, including that for Change Orders executed prior to date of submittal of application.
  - 2. Fill in percent complete for each activity and dollar values to agree with respective percents.
  - 3. Execute certification with signature of a responsible officer of Contractor.
- B. Continuous Sheets:
  - 1. Fill in total of all scheduled component items of the Work, with item number and schedule dollar value for each item.

2. Fill in dollar value in each column for each scheduled line item when Work has been performed or products stored. Round off values to nearest dollar, or as specified for Schedule of Values.
3. List each Change Order executed prior to date of submission, at the end of the continuation sheets. List by Change Order Number, and description, as for an original component item Work.
4. To receive approval for payment on component material stored on site, submit copies of the original invoices with Application and Certificate for Payment.
5. As provided for in the Application and Certificate for Payment Form, the Contractor shall certify, for each current pay request, that all previous progress payments received from the Owner, under this Contract, have been applied by the Contractor to discharge in full, all obligations of the Contractor in connection with Work covered by prior Applications for Payment, and all materials and equipment incorporated into the Work are free and clear of all liens, claims, security interest, and encumbrances. Contractor shall attach to each Application and Certificate for Payment like affidavits by all Subcontractors.

#### 1.04 SUBSTANTIATING DATA FOR PROGRESS PAYMENTS

- A. Contractor shall submit suitable information, with a cover letter identifying:
  1. Project.
  2. Application number and date.
  3. Detailed list of enclosures.
  4. For stored products:
  5. Item number and identification as shown on application.
  6. Description of specific material.
- B. Submit one (1) copy of data and cover letter for each copy of application.
- C. The Contractor is to maintain an updated set of drawings to be used as record drawings in accordance with Section 01720: Project Record Documents. As a prerequisite for monthly progress payments, the Contractor is to exhibit the updated record drawings for review by the Owner and the Engineer.

- D. Each monthly application for payment shall incorporate the corresponding “monthly progress status report” and updated construction schedule, prepared in accordance with the requirements of Section 01310: Construction Progress Schedules.
- E. As a prerequisite for payment, Contractor shall submit a duly executed letter from surety consenting to payment due and progress to date.
- F. Provide construction photographs in accordance with Section 01380: Construction Photographs.

1.05 PREPARATION OF APPLICATION FOR FINAL PAYMENT

- A. Fill in application form as specified for progress payments. Provide information as required by the General Conditions and Section 01700: Contract Closeout.
- B. Furnish evidence of completed operations and insurance in accordance with the General Conditions.
- C. Provide Contractor’s Final Release of Lien (Section 00849) and other close-out submittals as required by the General Conditions.

1.06 SUBMITTAL PROCEDURE

- A. Submit Application for Payment to the Engineer at the time stipulated in the Agreement, or as agreed to at the pre-construction meeting. Review the percents complete with the Engineer and resolve any conflict or discrepancies.
- B. Number of copies for each Application for Payment: Five (5) copies plus additional copies for Contractor’s needs.
- C. When the Engineer finds the Application and Certificate for Payment Form is properly completed and correct, he will execute the Certificate for Payment and transmit the forms to the Owner, with a copy to the Contractor.

PART II - PRODUCTS (NOT USED)

PART III - EXECUTION (NOT USED)

APPLICATION AND CERTIFICATE FOR PAYMENT FORM

Application No. \_\_\_\_\_ Progress \_\_\_\_\_ Final \_\_\_\_\_

Engineer's Project No.: \_\_\_\_\_

Project: **Utility Commission New Smyrna Beach**  
**3<sup>RD</sup> AVENUE STORAGE TANK AND PUMP STATION**

Contractor: \_\_\_\_\_ Contract Date: \_\_\_\_\_

Contract for: \_\_\_\_\_

Application Date: \_\_\_\_\_ For Period Ending \_\_\_\_\_

Change Order Summary			
Change Orders approved in previous months by OWNER TOTAL		ADDITIONS	DEDUCTIONS
Approved this month			
Number	Date Approved		
TOTALS			
Net Change by Change Orders			

1. ORIGINAL CONTRACT SUM \$ \_\_\_\_\_
2. Net Change by Change Order \$ \_\_\_\_\_
3. CONTRACT SUM TO DATE (Line 1 and 2) \$ \_\_\_\_\_
4. TOTAL COMPLETED AND STORED TO DATE \$ \_\_\_\_\_
5. RETAINAGE: (Column I & N, Forms 00845 and 00846)
  - a. \_\_\_\_\_% of Completed Work \$ \_\_\_\_\_
  - b. \_\_\_\_\_% of Stored Material \$ \_\_\_\_\_
  - Total Retainage (Line 5a and 5b) \$ \_\_\_\_\_
6. TOTAL EARNED LESS RETAINAGE  
(Line 4 less Line 5 Total) \$ \_\_\_\_\_
7. LESS PREVIOUS CERTIFICATES FOR PAYMENT  
(Line 6 from prior Certificate) \$ \_\_\_\_\_
8. AMOUNT DUE THIS APPLICATION \$ \_\_\_\_\_
9. BALANCE TO FINISH, PLUS RETAINAGE \$ \_\_\_\_\_  
(Line 3 less Line 6)

Contractor's Certification

The undersigned Contractor hereby swears under penalty of perjury that (1) all previous progress payments received from the Owner on account of Work performed under the contract referred to

above have been applied by the undersigned to discharge in full all obligations of the undersigned incurred in connection with Work covered by prior Applications for Payment numbered 1 through \_\_\_\_\_ inclusive; and (2) all materials and equipment incorporated in said Project or otherwise listed in or covered by this Application for Payment are free and clear of all liens, claims, security interest and encumbrances; (3) all Work covered by this Application for Payment is in accordance with the Contract Documents and not defective as that term is defined in the Contract Documents.

Dated \_\_\_\_\_, 20\_\_

\_\_\_\_\_  
(Contractor)

By: \_\_\_\_\_  
(Name)

\_\_\_\_\_  
(Title)

COUNTY OF \_\_\_\_\_

STATE OF \_\_\_\_\_

Before me on this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_, personally appeared \_\_\_\_\_, known to me, who being duly sworn, deposes and says that (s)he is the \_\_\_\_\_ of the Contractor above mentioned; that(s) he executed the above Application for Payment and statement on behalf of said Contractor; and that all of the statements contained therein are true, correct and complete.

\_\_\_\_\_  
Notary Public  
My Commission Expires \_\_\_\_\_

Engineer's Recommendation

Payment of the above AMOUNT DUE THIS APPLICATION is recommended.

Quentin L. Hampton Associates, Inc.

By: \_\_\_\_\_  
(Authorized Signature)

Date: \_\_\_\_\_

Owner's Approval

By: \_\_\_\_\_

\_\_\_\_\_  
(Title)

Acct. No. \_\_\_\_\_

Date: \_\_\_\_\_

END OF SECTION

## SECTION 01091

### REFERENCE SPECIFICATIONS

#### PART 1 - GENERAL

##### 1.01 GENERAL

- A. **Applicable Publications.** Whenever in these Specifications references are made to published specifications, codes, standards, or other requirements, it shall be understood that wherever no date is specified, only the latest specifications, standards, or requirements of the respective issuing agencies which have been published as of the date that the Work is advertised for bids, shall apply; except to the extent that said standards or requirements may be in conflict with applicable laws, ordinances, or governing codes. No requirements set forth herein or shown on the Drawings shall be waived because of any provision of or omission from said standards or requirements.
- B. **Assignment of Specialists.** In certain instances, specification test requires (or implies) that specific work is to be assigned to specialist or expert entities who must be engaged for the performance of the Work. Such assignments shall be recognized as special requirements over which the Contractor has no choice or option. These requirements shall not be interpreted so as to conflict with the enforcement of building codes and similar regulations governing the Work. They are not intended to interfere with local union jurisdiction settlements and similar conventions. Such assignments are intended to establish which party or entity involved in a specific unit of Work is recognized as "expert" for the indicated construction processes or operations. Nevertheless, the final responsibility for fulfillment of the entire set of Contract requirements remains with the Contractor.

##### 1.02 REFERENCE SPECIFICATIONS, CODES, AND STANDARDS

- A. Without limiting the generality of other requirements of the Specifications, all Work specified herein shall conform to or exceed the requirements of such referenced documents which are not in conflict with the requirements of these Specifications or applicable codes.
- B. References herein to "Building Code" shall mean the Florida Building Code (FBC). The latest edition of the code as approved and used by the local agency as of the date of award as adopted by the agency having jurisdiction shall apply to the Work herein, including all addenda, modifications, amendments, or other lawful changes thereto.
- C. In case of conflict between codes, reference standards, Drawings, and the other Contract Documents, the most stringent requirements shall govern. All conflicts shall be brought to the attention of the Engineer for clarification and directions prior to ordering or providing any materials or labor. The Contractor shall bid the most stringent requirements.
- D. **Applicable Standard Specifications.** The Contractor shall construct the Work specified herein in accordance with the requirements of the Contract Documents and

the referenced portions of those referenced codes, standards, and specifications listed.

PART II - PRODUCTS (Not Used)

PART III - EXECUTION (Not Used)

END OF SECTION

## SECTION 01100

### SPECIAL PROJECT PROCEDURES

#### PART 1 - GENERAL

##### 1.01 PUBLIC NUISANCE

- A. The Contractor shall not create a public nuisance including, but not limited to, encroachment on adjacent lands, flooding of adjacent lands, or excessive noise.
- B. Sound levels measured by the Engineer shall not exceed 50 dBA from 7 P.M. to 7 A.M. or 60 dBA 7 A.M. to 7 P.M. This sound level shall be measured at the exterior of the nearest exterior wall of the nearest residence. Levels at the equipment shall not exceed 85 dBA at any time. Sound levels in excess of these values are sufficient cause to have the Work halted until equipment can be quieted to these levels. Work stoppage by the Engineer or Owner for excessive noise shall not relieve the Contractor of the other portions of this Specification including, but not limited to, completion dates and bid amounts.
- C. No extra charge may be made for time lost due to work stoppage resulting from the creation of a public nuisance.

##### 1.02 JURISDICTIONAL DISPUTES

- A. It shall be the responsibility of the Contractor to pay all costs that may be required to perform any of the Work shown on the Drawings or specified herein in order to avoid any work stoppages due to jurisdictional disputes. The basis for subletting Work in question, if any, shall conform with precedent agreements and decisions on record with the Building and Construction Trades Department, AFL-CIO, dated June, 1973, including any amendments thereto.

##### 1.03 EXCAVATION AROUND AND CONNECTION TO EXISTING UTILITIES

- A. It is essential that the Contractor understand that the existing Owner's facilities must be kept in operation with minimal impact and shut-downs. To this end, the Contractor shall coordinate and consult with the Owner's operating personnel before excavating around or cutting into existing utilities on the site. Existing utilities of major concern are water, sanitary sewer, electrical power conduits, phone and television cables, instrumentation conduits, and cables.
- B. Some areas within the construction site may require hand excavation due to the congestion of underground piping systems and/or due to the criticality of piping systems that may be damaged unavoidably during machine excavation. It is anticipated that more problems will occur and hand excavation will be absolutely necessary for piping installations required for the proposed backwash pumps.
- C. Cover for underground piping shall not be less than that indicated on the Drawings, up to a minimum of 30 inches of cover where obtainable. In areas where other

piping conflicts preclude the minimum cover desired, the piping shall be laid to provide the maximum cover obtainable.

- D. All connections to existing piping systems shall be made as shown or indicated on the Drawings after consultation, cooperation, and coordination with the Owner's management personnel. Some such connections may have to be made during off-peak hours (late night or early morning hours). The Contractor shall give a minimum of three (3) working days notice to the Owner when tie-ins with the existing plant utilities are required.
- E. For major utility pipeline tie-ins and relocations, the Contractor shall submit a detailed Plan of Action for review and approval by the Owner and the Engineer. No major utility relocation or tie-ins shall proceed until the Plan of Action for that Work is approved.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION

## SECTION 01200

### PROJECT MEETINGS

#### PART 1 - GENERAL

##### 1.01 DESCRIPTION

###### A. Scope of Work:

1. The Contractor shall cooperate and coordinate with the Engineer 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.
  - b. Make physical arrangements for meetings.
  - c. Preside at meetings.
  - d. Take and distribute meeting minutes.
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 Owner shall attend meetings to ascertain that the Work is expedited consistent with Contract Documents and construction schedules.
4. The Contractor shall record the preconstruction meeting and each progress meeting in its entirety, and shall provide the Engineer with a regular cassette copy of such recording, having good quality and clarity, and a typed transcript of the minutes of each meeting. A copy of the minutes of each progress meeting shall be available five business days after the meeting.

###### B. Related Requirements Described Elsewhere:

1. Progress Schedules: Section 01310.
2. Shop Drawings: Section 01340.
3. Project Record Documents: Section 01720.

##### 1.02 PRECONSTRUCTION MEETING

- A. Engineer will schedule a preconstruction meeting no later than twenty (20) days after date of Notice to Proceed. The meeting shall be scheduled at the convenience of all parties.
- B. Location: A local site, convenient for all parties, designated by the Engineer.
- C. Attendance:
  - 1. Owner's representative.
  - 2. Engineer and his professional consultants.
  - 3. Resident project representative.
  - 4. Contractor and his superintendent.
  - 5. Major subcontractors.
  - 6. Representatives of major suppliers and manufacturers as appropriate.
  - 7. Governmental and Utilities representatives as appropriate.
  - 8. Others as requested by the Contractor, Owner, and Engineer.
- D. The Engineer shall preside at the preconstruction meeting. The Contractor shall provide for keeping minutes and distribution of minutes to the Owner, Engineer and others. The purpose of the preconstruction meeting is to designate responsible personnel and establish a working relationship. Matters requiring coordination will be discussed and procedures for handling such matters established.
- E. The suggested agenda for the preconstruction meeting would include the following:
  - 1. Distribution and discussion of:
    - a. List of major subcontractors and suppliers.
    - b. Projected schedules.
    - c. Schedule of Values.
  - 2. Critical work sequencing: Relationships and coordination with other contracts and/or work and continuing water treatment plant operation.
  - 3. Major equipment deliveries and priorities.
  - 4. Project coordination: Designation and responsible personnel.

5. Procedures and processing of:
  - a. Field decisions.
  - b. Proposal requests.
  - c. Request for Information.
  - d. Submittals.
  - d. Change Orders.
  - f. Applications for Payment.
6. Submittal of Shop Drawings, project data and samples.
7. Adequacy of distribution of Contract Documents.
8. Procedures for maintaining Record Documents
9. Use of premises:
  - a. Office, work, and storage areas.
  - b. Owner's requirements.
  - c. Access and traffic control.
10. Construction facilities, controls, and construction aids.
11. Temporary utilities.
12. Safety and first aid procedures.
13. Check of required Bond and Insurance certifications.
14. Completion time for contract and liquidated damages.
15. Request for extension of Contract Time.
16. Procedures for periodic monthly (or whatever interval is deemed appropriate or necessary, however, a minimum of monthly meetings will be required) progress meetings, for all involved.
17. Security procedures.
18. Procedures for making partial payments.

19. Guarantees on completed work.
20. Equipment to be used.
21. Project layout and staking of work.
22. Project inspection.
23. Labor requirements.
24. Laboratory testing of material requirements.
25. Provisions for material stored on site and monthly inventory of materials stored.
26. Requirements of other organizations such as utilities, railroads, highway departments, building departments.
27. Rights-of-way and easements.
28. Housekeeping procedures.
29. Liquidated damages.
30. Posting of signs and installation of Project Sign.
31. Pay request submittal dates.
32. Equal opportunity requirements.

### 1.03 PROGRESS MEETINGS

- A. The Engineer shall schedule regular periodic meetings. The progress meetings will be held a minimum of once every thirty (30) days and at other times as required by the progress of the Work. The first meeting shall be held within thirty (30) days after the preconstruction meeting or thirty (30) days or less after the date of Notice to Proceed.
- B. Hold called meetings as required by progress of the Work.
- C. Location of the meetings: Owner/Engineer's Field Office (See Section 01500, Paragraph 2.05).
- D. Attendance:
  1. Engineer and his professional Subconsultants as needed.

2. Resident Project Representative.
  3. Contractor and his Superintendent.
  4. Owner's representatives.
  5. Subcontractors (active on the site, as appropriate to the agenda).
  6. Others as appropriate to the agenda (suppliers, manufacturers, other subcontractors, etc.).
- E. The Contractor shall preside at the meetings and provide for keeping minutes and distribution of the minutes to the Owner, Engineer, and others. The purpose of the meetings will be to review the progress of the Work.
- F. The suggested agenda for the progress meetings will include but not be limited to the following:
1. Review approval of minutes of previous meeting.
  2. Review of Work progress since previous meeting and Work scheduled (3-week look ahead schedule).
  3. Field observations, problems, conflicts.
  4. Problems which impede construction schedule.
  5. Review of off-site fabrication, delivery schedules.
  6. Corrective measures and procedures to regain projected schedule.
  7. Status of approved Construction Schedule and revisions to the Construction Schedule as appropriate.
  8. Progress schedule during succeeding work period.
  9. Coordination of schedules.
  10. Review status of submittals and submittal schedule, expedite as required.
  11. Maintenance of quality standards.
  12. Pending changes and substitutions.
  13. Shop drawing problems.
  14. Review proposed changes for:
    - a. Effect on Construction Schedule and on completion date.

- b. Effect on other contracts of the Project.
- 15. Critical/long lead items.
- 16. Other business.
- G. The Contractor is to attend progress meetings and is to study previous meeting minutes and current agenda items, and be prepared to discuss pertinent topics and provide specific information including but not limited to:
  - 1. Status of all submittals and what specifically is being done to expedite them.
  - 2. Status of all activities behind schedule and what specifically will be done to regain the schedule.
  - 3. Status of all material deliveries, latest contact with equipment manufacturer, and specific actions taken to expedite materials.
  - 4. Status of open deficiencies and what is being done to correct the same.
- H. The Contractor is to provide a current submittal log at each progress meeting in accordance with Section 01340: Shop Drawings, Working Drawings, and Samples.

#### 1.03 OTHER MEETINGS

- A. The Contractor shall hold other meetings such as “tailgate meetings” and weekly utility coordination meetings per the project requirements.

#### PART 2- PRODUCTS (NOT USED)

#### PART 3 - EXECUTION (NOT USED)

## SECTION 01300

### LOCATION, SCOPE AND SPECIAL REQUIREMENTS

#### PART 1 - GENERAL

- 1.01 The Contractor shall not have any right in property in any materials taken from any excavation and he shall not remove any earth, sand or other material from the lines of the work before the excavation is refilled except upon direction of the Engineer. The provisions of this paragraph shall not be construed as relieving the Contractor of any kind of his obligations to remove and dispose of any of the material excavated, with or without rehandling, at his cost and expense as provided in these specifications.
- 1.02 From investigations, including surveys made at the site, it is assumed that physical conditions are approximately as indicated on the drawings, but the nature of the materials below the surface, the depth to satisfactory foundations, or the stability of beds or banks or quantity of groundwater are not guaranteed.
- 1.03 Where reference is made within these documents to government specifications, or those of well known organizations such as ASTM, ASA, ASME, etc., the latest editions shall be used, any or all references in these documents to earlier stated editions notwithstanding.
- 1.04 The Contractor shall take all necessary precautions to prevent damage to existing Utility Commission utilities which are to remain in service during any of his construction operations. Should such utilities be damaged by the Contractor, he shall be required to replace, or repair same, to the satisfaction of the Engineer, at no additional cost to the Owner.
- 1.05 Certain information regarding the reputed presence, size, character, and location of existing underground structure, pipes and conduits has been shown on the contract drawings. The location of underground structures shown may be inaccurate, and other obstructions than those shown may be encountered. The Contractor distinctly agrees that the Engineer and the Owner are not responsible for the correctness or sufficiency of the information given; that in no event is this information to be considered as a part of the Contract; that he shall have no claim for delay or extra compensation on account of incorrectness of information given; or on account of insufficiency or absence of information regarding obstructions either revealed or not revealed by the drawings; and that he shall have no claim for relief from any obligation or responsibility under this Contract, in case the location, size or character of any pipe or other underground structure is encountered that is not shown on the drawings.
- 1.06 The Utility Commission shall provide reference points as shown on the plans. Contractor shall be responsible for having a land surveyor registered in the State of Florida and approved by the Engineer lay out the work, shall protect and preserve the established reference points and shall make no changes or relocations without the prior written approval of the Engineer. Contractor shall report to Engineer whenever such reference point is lost or destroyed or required location because of necessary changes in grades or locations, and the Contractor shall be responsible for replacement or relocation of such reference points by professionally qualified personnel, registered in the State of Florida and approved by the Engineer.
- 1.07 All dewatering and pumping necessary to accomplish the work of this Contract shall be performed by the Contractor at no extra or additional cost to the Owner. Any permits required shall be the responsibility of the Contractor.

- 1.08 Examination of Contract Documents and Site. Before submitting a Bid each Contractor must (a) examine the Contract Documents thoroughly, (b) visit the site to familiarize himself with local conditions that may in any manner affect cost, progress or performance of the work, (c) familiarize himself with federal, state and local laws, ordinance, rules and regulations that may in any manner affect cost, progress or performance of the work, and (d) study and carefully correlate Bidder's observations with the Contract Documents.
- 1.09 Attention is directed to the requirements of the following agencies with regard to permits and construction of utilities within their rights of way or jurisdiction. All application fees shall be paid by the contractor.
- A. City of New Smyrna Beach
  - B. Florida Department of Environmental Protection (FDEP) Water Facility Construction Permit
- 1.10 Construction shall be limited to weekday "day light" working hours. No "weekend", night time", or "holiday" work shall be performed without obtaining permission in advance from the Project Engineer. Certain non-essential items such as clean up, seeding and mulching, sodding, some well pointing operations, saw cutting of pavement, etc. may be performed by the Contractor during the above times by giving the Project Engineer "Advance Notice" of such operations.
- 1.11 The Contractor will be required to maintain the flow of water at all times during the construction of the work of this Contract at no extra or additional cost to the Owner.
- 1.12 The Contractor acknowledges that he is responsible for complying with all aspects of the Florida Trench Safety Act (90-96, Laws of Fla.) effective October 1, 1990. He assumes all responsibility and costs entailed.
- 1.13 Land disturbed shall have hay bales or "turbidity curtains" installed around the perimeter to control erosion and sediment runoff where it is likely to occur during construction at no extra cost to the Owner.
- 1.14 All unit pricing shall remain valid for the duration of the contract.
- 1.15 Florida Sales Tax on materials, as well as all other customary taxes on construction activities, shall be paid for by the Contractor at no additional expense to the Owner.
- 1.16 No thrust blocking shall be used unless specifically authorized by the Engineer. Restrained joint pipe fittings and joint shall be utilized.
- 1.17 Limitations on the Engineer's Responsibilities
- A. Neither the Engineer's authority to act under this Paragraph nor any decision made by him in good faith either to exercise or not exercise such authority shall give rise to any duty or responsibility of the Engineer to the Contractor, any Subcontractor, any of their agents or employees or any other person performing any of the work.
  - B. The Engineer will not be responsible for the construction means, methods, techniques, sequences or procedures, or the safety precautions and programs incident thereto, and he will not be responsible for the Contractor's failure to perform the work in accordance with the Contract Documents.

C. The Engineer will not be responsible for the acts or omissions of the Contractor, any subcontractors, or any of his or their agents or employees, or any other persons performing any of the work.

1.18 A field office is not required for this project.

#### 1.19 INDEMNIFICATION

The following Indemnification Agreement shall be a provision of this contract and also shall be endorsed onto or attached to the insurance policy and Certificate of Insurance.

“The Contractor agrees to protect, defend and pay on behalf of, and hold Utility Commission New Smyrna Beach and its appointed officials, officers, employees, volunteers, representatives, agents, and affiliates free and harmless from and against all claims for personal or bodily injury or death, or property damage or destruction of tangible property including loss of use thereof, losses, penalties, damages, settlements, costs, charges, professional fees or other expenses of every kind and character in connection with and arising directly or indirectly out of this agreement and/or performance thereof, unless such claims are a result of UTILITY COMMISSION NEW SMYRNA BEACH sole negligence. This indemnification clause includes claims made by the employees and subcontractors of the Contractor against the Owner and the Contractor hereby waives its entitlement, if any, to immunity under Section 440.11, Florida Statutes. Nothing contained herein shall be construed as a waiver of any immunity from or a limitation of liability the Utility Commission New Smyrna Beach may have under the doctrine of sovereign immunity or Chapter 768.28, Fla. Stat. This indemnification provision shall survive the completion of the project and shall be in full force and effect beyond the completion of the project or the termination of this contract.

“The Contractor agrees to protect, defend and pay on behalf of, and hold the ENGINEER and its officers, employees, and affiliates free and harmless from and against all claims for personal or bodily injury or death, or property damage or destruction of tangible property including loss of use thereof, losses, penalties, damages, settlements, costs, charges, professional fees or other expenses of every kind and character in connection with and arising directly or indirectly out of this agreement and/or performance thereof, unless such claims are a result of the ENGINEER’S sole negligence. This indemnification clause includes claims made by the employees and subcontractors of the Contractor against the ENGINEER. This indemnification provision shall survive the completion of the project and shall be in full force and effect beyond the completion of the project or termination of this contract.

The Contractor shall be responsible for such requirements through the date of final acceptance of the project by the Utility Commission New Smyrna Beach. With regard to the Contractor’s indemnification obligation for products and completed operations, the Contractor shall be responsible for a minimum period of at least one year subsequent to the Utility Commission New Smyrna Beach’s acceptance of the product or completed operation.”

1.20 The contractor shall all outages with Utility Commission staff. No outages exceeding one (1) hour are permissible.

1.21 All dust control, temporary fencing, paint protection curtains and all steps necessary to avoid impacting neighboring properties shall be the responsibility of the contractor.

END OF SECTION

## SECTION 01340

### SHOP DRAWINGS

#### PART 1 - GENERAL

##### 1.01 REQUIREMENTS INCLUDED

- A. The Contractor shall submit to the Engineer for review and approval, such working drawings, shop drawings, test reports and data on materials and equipment, and material samples materials list, certificates and affidavits as are required for the proper control of work, including but not limited to those working drawings, shop drawings, data and samples for materials and equipment specified elsewhere in the Specifications and in the Contract Drawings.
- B. Within twenty (20) calendar days after the Effective Date of the Agreement, the Contractor shall submit to the Engineer a complete materials list of preliminary data on items for which Shop Drawings are to be submitted. Included in this materials list shall be the names of all proposed manufacturers furnishing specified items. Review of this list by the Engineer shall in no way be expressed or implied relief to the Contractor from submitting complete Shop Drawings and providing material, equipment, etc., fully in accordance with the Specifications. This procedure is required in order to expedite final review of Shop Drawings.
- C. The Contractor shall maintain an accurate updated submittal log and will bring this log to each scheduled progress meeting with the Owner and the Engineer. This log shall include the following items:
  - 1. Submittal-Description and Number assigned.
  - 2. Date to Engineer
  - 3. Date returned to Contractor (from Engineer).
  - 4. Status of Submittal (Approved, Approved as Noted, Not Approved/Resubmit).
  - 5. Date of Re submittal and Return (as applicable).
  - 6. Date material release (for fabrication).
  - 7. Projected date of fabrication.
  - 8. Projected date of delivery to site.
  - 9. Status of O&M manuals submitted.

10. Specification Section.

11. Drawings Sheet Number.

1.02 CONTRACTOR'S RESPONSIBILITY

- A. It is the duty of the Contractor to check all drawings, data and samples prepared by or for him before submitting them to the Engineer for review. Each and every copy of the drawings and data shall bear Contractor's stamp and signature showing that they have been so checked. Shop drawings submitted to the Engineer without the Contractor's stamp and signature will be returned to the Contractor for conformance with this requirement. Shop drawings shall indicate any deviations in the submittal from requirements of the Contract Documents. If the Contractor takes exception to the specifications, the Contractor shall note the exception in the letter of transmittal to the Engineer. Shop drawings submittals shall not be used as a vehicle for requesting approval of substitute or alternative equipment and materials. Substitution requests will be considered only when submitted in accordance with the applicable provisions of Section 01600.
- B. Determine and Verify:
1. Field measurements
  2. Field construction criteria
  3. Catalog numbers and similar data
  4. Conformance with Specifications
- C. The Contractor shall furnish the Engineer a schedule of Shop Drawings submittals fixing the respective dates for the submission of shop and working drawings, the beginning of manufacture, testing and installation of materials, supplies and equipment. This schedule shall indicate those that are critical to the progress schedule.
- D. The Contractor shall not begin any of the work covered by a drawing, data, or a sample returned for correction until a revision or correction thereof has been reviewed and returned to him, by the Engineer, with approval.
- E. The Contractor shall submit to the Engineer all drawings and schedules sufficiently in advance of construction requirements to provide no less than thirty (30) calendar days for checking and appropriate action from the time the Engineer receives them.
- F. All submittals shall be accompanied by a transmittal letter prepared in duplicate containing the following information:

1. Date
2. Project Title and Number
3. Contractor's name and address
4. The number of each Shop Drawing, Product Data, and Sample submitted
5. Notification of deviations from Contract Documents
6. Submittal Log Number conforming to Specification Section Numbers.

G. The Contractor shall submit four (4) copies of descriptive or product data submittals to complete shop drawings for the Engineer plus the number of copies which the Contractor requires returned. The Engineer will retain four (4) sets. All blueprint shop drawings shall be submitted with one (1) set of mylar reproducible and four (4) sets of prints. The Engineer will review the blueprints and return to the Contractor the set of marked-up mylar reproducibles with appropriate review comments. All shop drawings, when practical, shall be 24 inch by 36 inch in size.

The number of copies of each shop drawing submittal to be distributed as follows after each Engineer's review:

1. Owner: Two (2) copies
2. Engineer: Two (2) copies
3. Contractor: Any additional supplied as required by the contractor for his needs.

H. The Contractor shall be responsible for and bear all costs of damages which may result from the ordering of any material or from proceeding with any part of work prior to the completion of the review by Engineer of the necessary shop drawings.

I. The Contractor shall be fully responsible for observing the need for and making any changes in the arrangement of piping, connections, wiring, manner of installation, etc., which may be required by the materials/equipment he proposed to supply both as pertaining to his own work and any work affected under other parts, headings, or divisions of Drawings and Specifications.

#### 1.03. ENGINEER'S REVIEW OF SHOP DRAWINGS

A. The Engineer's review of drawings, data and samples submitted by the Contractor will cover only general conformity to the Specifications, external connections, and dimensions which affect the installation. The Engineer's review and exceptions, if any, will not constitute an approval of dimensions, quantities, and

details of the material, equipment, device, or item shown.

- B. The review of drawings and schedules will be general, and shall not be construed:
  - 1. as permitting any departure from the Contract requirements;
  - 2. as relieving the Contractor of responsibility of any errors, including details, dimensions, and materials;
  - 3. as approving departures from details furnished by the Engineer, except as otherwise provided herein.
- C. If the drawings or schedules as submitted describe variations and show a departure from the Contract requirements which Engineer finds to be in the interest of the Owner and to be so minor as not to involve a change in Contract Price or time for performance, the Engineer may return the reviewed drawings without noting an exception.
- D. When reviewed by the Engineer, each of the Shop Drawings will be identified as having received such review, being so stamped and dated. Shop Drawings stamped "NOT APPROVED/RESUBMIT" and with required corrections shown will be returned to the Contractor for correction and Re submittal.
- E. Re submittals will be handled in the same manner as first submittals. On Re submittals the Contractor shall direct specific attention, in writing or on resubmitted Shop Drawings, to revisions other than the corrections requested by the Engineer on previous submissions. The Contractor shall make any corrections required by the Engineer.
- F. If the Contractor considers any correction indicated on the drawings to constitute a change to the Contract Drawings or Specifications, the Contractor shall give written notice thereof to the Engineer.
- G. Shop drawings and submittal data shall be reviewed by the Engineer for each original submittal and first Re submittal; thereafter review time for subsequent Re submittals shall be charged to the Contractor in accordance with the terms of the Engineer's Agreement with the Owner.
- H. When the Shop Drawings have been completed to the satisfaction of the Engineer, the Contractor shall carry out the construction in accordance therewith and shall make no further changes therein except upon written instructions from the Engineer.
- I. No partial submittals will be reviewed. Submittals not complete will be returned to the Contractor for Re submittal. Unless otherwise specifically permitted by the Engineer, make all submittals in groups containing all associated items for:

1. Systems
2. Processes
3. As indicated in Specifications Sections. All drawings, schematics, manufacturer's product data, certifications and other shop drawing submittals required by a system specification shall be submitted at one time as a package to facilitate interface checking.

#### 1.04 SHOP DRAWINGS

- A. When used in the Contract Documents, the term "shop drawings" shall be considered to mean Contractor's plans for materials and equipment which become an integral part of the Project. These drawings shall be completed and detailed. Shop drawings shall consist of fabrication, erection and setting drawings and schedule drawings, manufacturer's scale drawing, and wiring and control diagrams. Cuts, catalogs, pamphlets, descriptive literature, and performance and test data, shall be considered only as supportive to required shop drawings as defined above. As used herein, the term "manufactured" applied to standard units usually mass-produced; and "fabricate" means items specifically assembled or made out of selected materials to meet individual design requirements.
- B. Manufacturer's catalog sheets, brochures, diagrams, illustrations and other standard descriptive data shall be clearly marked to identify pertinent materials, product or models. Delete information which is not applicable to the Work by striking or cross-batching.
- C. Drawings and schedules shall be checked and coordinated with the work of all trades involved, before they are submitted for review by the Engineer and shall bear the Contractor's stamp of approval as evidence of such checking and coordination. Drawings or schedules submitted without this stamp of approval shall be returned to the Contractor for resubmission.
- D. Each shop drawing shall have a blank area 32 inches by 32 inches, located adjacent to the title block. The title block shall display the following:
  1. Project title and number
  2. Name of project building or structure
  3. Number and title of the shop drawing
  4. Date of shop drawing or revision
  5. Name of Contractor and subcontractor submitting drawing
  6. Supplier/manufacturer

7. Separate detailer when pertinent
  8. Specification title and number
  9. Specification section
  10. Drawing number
- E. If drawings show variations from Contract requirements because of standard shop practice or for other reasons, the Contractor shall describe such variations in his letter of transmittal. If acceptable, proper adjustment in the Contract shall be implemented where appropriate. If the Contractor fails to describe such variations, he shall not be relieved of the responsibility for executing the work in accordance with the Contract, even though such drawings have been reviewed.
- F. Data on materials and equipment include, without limitation, materials and equipment lists, catalog data sheets, cuts, performance curves, diagrams, materials of construction and similar descriptive material. Materials and equipment lists shall give, for each item thereon, the name and location of the supplier or manufacturer, trade name, catalog reference, size, finish and all other pertinent data.
- G. For all mechanical and electrical equipment furnished, the Contractor shall provide a list including the equipment name, and address and telephone number of the manufacturer's representative and service company so that service and/or spare parts can be readily obtained.
- H. All manufacturers or equipment suppliers who are proposed to furnish equipment or products shall submit an installation list to the Engineer along with the required shop drawings. The installation list shall include at least five (5) installations where identical equipment has been installed and has been in operation for a period of at least one (1) year.
- I. Only the Engineer will utilize the color "red" in marking shop drawing submittals.

#### 1.05 WORKING DRAWINGS

- A. When used in the Contract Documents, the term "working drawings" shall be considered to mean the Contractor's plan for temporary structures such as temporary bulkheads, support of open cut excavation, support of utilities, ground water control systems, forming and false work; for underpinning; and for such other work as may be required for construction but does not become an integral part of the project.
- B. Copies of working drawings as noted in paragraph 1.05 A. above, shall be submitted to the Engineer where required by the Contract Documents or requested by the Engineer, and shall be submitted at least thirty (30) calendar days (unless

otherwise specified by the Engineer) in advance of their being required for work.

- C. Working drawings shall be signed by a registered Professional Engineer, currently licensed to practice in the State of Florida and shall convey, or be accompanied by, calculation or other sufficient information to completely explain the structure, machine, or system described and its intended manner of use. Review of working drawings by the Engineer will not relieve the Contractor in any way from his responsibility with regard to the fulfillment of the terms of the Contract. All risks of error are assumed by the Contractor; the Owner and Engineer shall have no responsibility therefor.

#### 1.06 SAMPLES

- A. The Contractor shall furnish, for the approval of the Engineer, samples required by the Contract Documents or requested by the Engineer. Samples shall be delivered to the Engineer as specified or directed. The Contractor shall prepay all shipping charges on samples. Materials or equipment for which samples are required shall not be used in work until approved by the Engineer.
- B. Samples shall be of sufficient size and quantity to clearly illustrate:
  - 1. Functional characteristics of the product, with integrally related parts and attachment devices.
  - 2. Full range of color, texture and pattern
  - 3. A minimum of two samples of each item shall be submitted
- C. Each samples shall have a label indicating:
  - 1. Name of project
  - 2. Name of Contractor and subcontractor
  - 3. Material or equipment represented
  - 4. Place of origin
  - 5. Name of producer and brand (if any)
  - 6. Location in project
  - 7. Submittal Number

(Samples of finished materials shall have additional marking that will identify them under the finish schedules).

- D. The Contractor shall prepare a transmittal letter in triplicate for each shipment of samples containing the information required in paragraph 1.06 B. above. He shall enclose a copy of this letter with the shipment and send a copy of this letter to the Engineer. Approval of a sample shall be only for the characteristics or use names in such approval and shall not be construed to change or modify any Contract requirements.
  
- E. Approved samples not destroyed in testing shall be sent to the Engineer or stored at the site of work. Approved samples of the hardware in good condition will be marked for identification and may be used in the work. Materials and equipment incorporated in work shall match the approved samples. Samples which failed testing or were not approved will be returned to the Contractor at his expense, if so requested at time of submission.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION

SECTION 01410

TESTING AND TESTING LABORATORY SERVICES

PART 1 - GENERAL

1.01 DESCRIPTION

- A. Scope of Work:
- B. Contractor will employ, and pay for services of an Independent testing Laboratory to perform testing specifically indicated on the Contract Documents or specified in the Specifications herein and may at any other time elect to have materials and equipment tested for conformity with the Contract Documents.
- C. Contractor shall cooperate with the laboratory to facilitate the execution of its required services.
- D. Contractor shall provide engineer with all test results as indicated herein within five (5) days of receipt.
- E. Related Requirements Described Elsewhere:
  - A. Testing laboratory inspection, sampling and testing is required for, but not limited to the following:

Cast-in-Place and Poured Concrete: Section 03300

- C. The following schedule defines the responsibility for various tests.

<u>Test</u>	<u>Notes</u>	<u>Paid for By</u>
Soil Compaction	Pipe Work: every 300 ft. at each lift of compaction minimum. Beneath Structures: each 500 sq.ft. lift of compaction minimum and each lift around structures.	Contractor
Pressure	As specified in Section 15050	Contractor
Bacteriological	As required by local and state agencies.	Contractor
LBR	Each 1500 SF of pavement (minimum).	Contractor
Concrete	Slump test each delivery and compression	

test five cylinders every 50 C.Y. or portion thereof. Contractor

D. Additional Tests: The Contractor shall pay for first tests as specified herein. In the event that first test samples do not meet the applicable material specification, the Contractor shall take measures to conform the material and equipment to the Specifications. All subsequent tests shall be paid for by the Contractor.

1.02 Laboratory Tests. The materials listed below shall require advance and periodic laboratory tests as indicated, and shall be sampled in accordance with the methods of the A.S.T.M. and as directed by the Engineer. With the exception of concrete test cylinders and mixing water, duplicate advance samples of all materials requiring laboratory tests shall be submitted to the Engineer, one of which will be certified by the Engineer for submission to the testing laboratory and the other retained on the job site in suitable storage provided by the Contractor. Except as noted below, preliminary samples of materials for advance laboratory tests shall be submitted at least two weeks prior to starting delivery of such materials to the site of the project. The testing laboratory shall furnish both the Engineer and the Contractor with two copies of the reports showing the results of such tests, and the reports shall be considered as sufficient evidence of the acceptance or rejection of the quality of the materials tested. The specifications for, and the method of testing, will be found under the detailed specifications for the particular material involved. All samples shall be properly packed and clearly marked as to source and intended use.

<b>MATERIALS</b>	<b>TEST FREQUENCY</b>	<b>SAMPLE SIZE</b>	<b>SHIPPING CONTAINER</b>
Fine Aggregate	Advance, first shipment then each 100 tons	100 lbs.	Canvas Sack
Coarse Aggregate	Advance, first shipment then each 200 tons	Stone or Gravel 200 lbs.	Strong Sack
Concrete	Advance test using approved materials, 1 per each days pour	4 cylinders per mix, 2 broken at 7 days, 2 at 28 days	
Concrete (b) Air Entrainment	Advance test on trial mix air entraining agent is used. Test as specified under Article 405 (e)		

- 1.03 Tests. The materials listed below shall be tested at the shop or plant of, and by, the producer. Each manufacturer of such materials shall be fully equipped to carry out the tests herein designated. Upon demand of the Engineer, the manufacturer shall perform such additional number of tests as the Engineer may deem necessary to establish the quality of the material offered for use. The Engineer shall be furnished with the certified records of reports of the results of all tests, such reports of records to contain a sworn statement that the tests have been made as specified.

<b>MATERIAL</b>	<b>TEST METHOD</b>
Cement	ASTM C114
Ductile Iron Pipe (Centrifugally Cast)	As required under ANSI A21.51-1176
Brick	ASTM C-32
Reinforcement	ASTM A-15 & A-305

- 1.04 Field Tests. All sewers, water lines, piping and equipment shall be tested in the field in the presence of the Engineer or his authorized assistant, in the manner prescribed in the sections of these specifications pertaining to such installations. The Engineer may also perform or have performed any other field tests necessary to determine compliance with the Contract requirements. The Contractor shall furnish all necessary labor, equipment, and materials for such tests and, with the exception of the Engineer's expenses, shall bear all the cost thereof.

- 1.05 Paving Tests. The following tests will be made, unless otherwise stipulated by the Engineer, by a testing laboratory approved by the Engineer.

<b>Material</b>	<b>Test or Test Method</b>	<b>Frequency</b>
Subbase	1) AASHO T-180 (Modified Proctor Minimum 98% Density)	Every 300 LF
	2) Limerock Bearing Ratio 40	Every 300 LF
Base	(Soil Cement) (1) Mix Design 350 psi @ 28 days. Mix design required 7 days in advance.	Prior to Mixing Base
	(2) Optimum Moisture content and Maximum Density (AASHTO T-134)	Every 300 LF
	(3) LBR 100	Every 1500 sf

	(4) Depth (6 inch minimum)	Every 300 feet
Paving	(1) Job Mix Formula. Required 7 days in advance and submit to Engineer	Each Job
	(2) Bitumen Content of Mix	Every 2500 SY or fraction thereof
	(3) In Place Density	Every 300' (left, right & center)
	(4) Marshall Field Stability Index	Every 1500 SY or fraction thereof
	(5) Thickness Cores	Every 300' (left, right, & center)

#### 1.06 Basis of Payment

(a) All shop tests and mill inspection shall be included in the price of the manufactured article, and no separate or extra payment will be made for such tests and inspection.

(b) All laboratory and field tests will be paid for by the Contractor; he shall furnish all necessary labor, equipment and materials for such tests and, with the exception of the Engineer's expenses, shall bear all the costs thereof.

#### 1.07 LABORATORY DUTIES: LIMITATIONS OF AUTHORITY

- A. Cooperate with Engineer and Contractor; provide qualified personnel promptly on notice.
- B. Perform specified inspections, sampling and testing of materials and methods of construction:
  - 1. Comply with specific standards; ASTM, other recognized authorities, and as specified.
  - 2. Determine and report on compliance with requirements of Contract Documents.
- C. Promptly notify the Engineer and Contractor of material or operations which do not meet the specifications.
- D. Promptly submit five (5) copies of reports of inspections and tests to the Engineer including:
  - 1. Date issued.
  - 2. Project title and Engineer=s job number.

3. Testing Laboratory name and address.
  4. Name and signature of inspector.
  5. Date of inspection of inspector.
  6. Date of inspection or sampling.
  7. Date of test.
  8. Identification of product and Specification section.
  9. Location in project.
  10. Type of inspection or test.
  11. Compliance with Contract Documents or not.
- E. Laboratory is not authorized to:
- Release, revoke, alter, or enlarge on requirements of Contract Documents.
  - Approve or reject any portion of work.
  - Perform any duties of the Contractor.

#### 1.08 CONTRACTOR'S RESPONSIBILITIES

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

Furnish incidental labor and facilities:

- A. To provide access to Work to be tested.
- B. To obtain and handle samples at the Project site or at the source of the product to be tested.
- C. To facilitate inspections and tests.
- D. For storage and curing of test samples.
- E. Notify laboratory sufficiently in advance of operations to allow for laboratory assignment of personnel and scheduling of tests.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION

SECTION 01500

TEMPORARY FACILITIES

PART 1 - GENERAL

1.01 DESCRIPTION

A. Scope of Work: Provide temporary facilities required which shall include but are not necessarily limited to the following:

1. By Contractor:
  - a. Telephone.
  - b. Storage sheds.
  - c. Temporary water service.
  - d. Temporary sanitary facilities.
  - e. Temporary electrical service.
  - f. Contractor's Field office.
2. By Owner:
  - a. None.

1.02 TEMPORARY WATER

A. Furnish and install temporary water service for use throughout construction period.

1. Water for construction purposes.
2. Water for other purposes.
  - a. Testing.
  - b. Temporary sanitary facilities.
  - c. Cleaning.
  - d. Potable water source (separate).

- B. Maintain adequate volume of water for all purposes.
- C. Water Source:
  - 1. Supplier: Utility Commission New Smyrna Beach
  - 2. Potable water used shall be separately metered and protected with approved back flow prevention devices.
- D. Maintain strict supervision of use of temporary services.
  - 1. Enforce conformance with applicable codes and standards.
  - 2. Enforce sanitary practices.
  - 3. Prevent waste of water.
  - 4. Prevent abuse of services.
- E. Costs of Installation and Operation: Pay costs for water used by all trades, including costs of installation, maintenance, and removal of pipe, meters, and equipment.
- F. Requirements of Regulatory Agencies:
  - 1. Obtain, pay for permits, fees, deposits required by governing authorities.
  - 2. Comply with federal, state and local codes.

### 1.03 TEMPORARY ELECTRICITY

- A. Furnish and install temporary electric power service for construction needs throughout construction period.
  - 1. Power centers for miscellaneous tools and equipment used in construction work.
    - a. Locate so that power is available at any desired point with no more than 100 feet extension.
    - b. Provide weatherproof distribution box with minimum of four (4), 20 amp, 120 volt grounded outlets with GFCI protection.
    - c. Provide circuit breaker protection for each outlet.
    - d. Provide equipment grounding continuity for entire system.

- e. Users shall provide grounded, Underwriters Laboratories, Inc. (UL) approved extension cords from power center to point of operations.
  2. Power for construction equipment.
  3. Power for testing and checking equipment.
  4. Power for welding units and for other equipment having special power requirements.
  5. Power for Contractors, Subcontractors and Owner/Engineer's field offices.
- B. Capacity:
  1. Adequate electrical service for construction use by all trades during construction period.
  2. Notify Power Company if unusually heavy loads such as welding, and other special power requirements, will be connected.
    - a. Provide special circuits for heavy load requirements.
    - b. Do not overload any circuit.
- C. Power Source:
  1. Supplier: Utility Commission New Smyrna Beach.
  2. Provide minimum 240 volt, single phase, 60 hertz power service to project site.
- D. Maintain strict supervision of use of temporary services:
  1. Enforce conformance with applicable standards.
  2. Enforce safe practices.
  3. Prevent abuse of services.
- E. Costs of Installation and Operation: Pay costs of temporary electrical power used, including costs of installation, meter, maintenance, and removal of temporary services from point of connection.
- F. Requirements of Regulatory Agencies:

1. Obtain and pay for permits as required by governing authorities.
2. Comply with applicable codes.
  - a. National Electrical Code.
  - b. National Electrical Safety Code.
  - c. National Fire Protection Association.
  - d. Federal, state and local codes and utility company regulations.

#### 1.04 TEMPORARY SANITARY FACILITIES

- A. Furnish and install temporary sanitary facilities for use throughout construction period.
  1. Potable water for construction personnel:
    - a. Portable containers to dispense drinking water.
    - b. Maintain temperature between 45 degrees Fahrenheit (EF) (7.5 degrees C) and 55 EF (13 degrees C).
  2. Enclosed toilet facilities for construction personnel.
  3. General employee washing facilities.
  4. Existing wash down facilities at the plant shall not be used.
- B. Minimum number of fixtures:
  1. Toilets and Urinals
    - a. For less than 20 employees: One (1) toilet.
    - b. For 20 or more employees: One (1) toilet and 1 urinal per 40 workers.
  2. Washing Facilities: Adequate for number of employees, for type of work requiring washing facilities.

- C. Maintain strict supervision of use of facilities:
  - 1. Enforce conformance with applicable standards.
  - 2. Maintain, service and clean facilities.
  - 3. Enforce proper use of sanitary facilities.
  
- D. Cost of Installation and Operation:
  - 1. Pay costs of temporary sanitary facilities, including costs of installation, maintenance and removal.
  - 2. Costs of Water: As specified in Paragraph 1.02C.2., herein.
  - 3. Pay service charges for use of portable sanitary units.
  
- E. Facility Locations:
  - 1. Within the project site.
  - 2. Drinking Water: Convenient to work stations.
  - 3. Toilet and washing facilities.
    - a. Secluded from public observation.
    - b. Convenient for use of personnel in relation to work stations.
  - 4. Obtain acceptance of Engineer and Owner.
  
- F. Enclosure for Toilet Facilities:
  - 1. Weatherproof, sight proof, sturdy temporary enclosures.
  - 2. Insect-proof screening, adequate natural ventilation.
  
- G. Requirements of Regulatory Agencies:
  - 1. Obtain and pay for permits as required by governing authorities.
  - 2. Comply with federal, state, and local codes.

## PART 2 - PRODUCTS

### 2.01 MATERIALS

#### A. General:

1. Materials may be new or used, but must be adequate for purpose required, sanitary and must not violate requirements of applicable codes.
2. At Contractor's option, patented specialty products may be used, in compliance with applicable codes.

### 2.02 ELECTRICITY (See Section 1.03)

#### A. Comply with Division 16: Electrical.

#### B. Provide required facilities, including transformers, conductors, poles, conduits, raceways, breakers, fuses and switches.

#### C. Provide appropriate enclosures for environment in which used, in compliance with NEMA standards.

### 2.03 TEMPORARY SANITARY FACILITIES (See Section 1.04)

#### A. Drinking Water Facilities (Portable Containers):

1. Tightly closed, and equipped with dispensing tap.
2. Clearly label contents.
3. Do not use for other purposes.
4. Provide single-service disposable cups, with sanitary container for unused cups, and waste receptacles for used cups.

#### B. Toilet Facilities

1. Portable Toilets; either:
  - a. Chemical toilets.
  - b. Recirculating toilets.
  - c. Combustion toilets.

2. Toilet Tissue: Provide at each toilet, on suitable dispenser.

#### 2.04 TEMPORARY PARKING

- A. Provide a location, approved by the Engineer, for a gravel or other suitable surface for Contractor's employee, Owner/Engineer representatives and visitor parking. Personal vehicles will be restricted from the work area.
- B. Provide gravel parking space at the Contractor's trailer for a minimum of eight (8) vehicles.

#### 2.05 SECURITY LIGHTING

- A. Provide for adequate pole mounted flood lights for parking area at the Contractor and Owner/Engineer's trailer areas. Maintain lighting on a photocell or timer.

### PART 3 - EXECUTION

#### 3.01 GENERAL

- A. Install work in a neat and orderly manner.
- B. Make structurally sound throughout.
- C. Maintain to provide continuous service.
- D. Modify and extend service as work progress requires.

#### 3.02 TEMPORARY WATER

- A. Locate piping and outlets.
  1. Provide service convenient to work stations.
  2. Avoid interference with:
    - a. Traffic and work areas.
    - b. Materials handling equipment.
    - c. Storage areas.
- B. Do not run piping on floor or on ground.
- C. When necessary to maintain pressure, provide temporary pumps, tanks, and compressors.

### 3.03 TEMPORARY ELECTRICITY

- A. Service and distribution may be overhead or underground.
- B. Locate to avoid interference with:
  - 1. Traffic and work areas.
  - 2. Cranes.
  - 3. Material handling equipment.
  - 4. Storage areas.
- C. Do not run branch circuits on floor or on ground.
- D. Wire all safety devices specified for final operation of equipment.
- E. Check operation of safety devices.

### 3.04 TEMPORARY SANITARY FACILITIES

- A. Portable Toilets:
  - 1. Erect securely, and anchor to prevent dislocation or tipping over.
  - 2. Service as often as necessary to prevent accumulation of wastes, and creation of unsanitary conditions.
  - 3. Use only unless sewer and water service can be provided to site.
- B. Washing Facilities: Provide faucets, drains and other washing facilities suitable for the type of work requiring washing.

### 3.05 REMOVAL

- A. Completely remove temporary materials and equipment upon completion of construction.
- B. Clean, and repair damage caused by installation and restore to specified, or original condition.

END OF SECTION

## SECTION 01505

### MOBILIZATION

#### PART I - GENERAL

##### 1.01 DEFINITION AND SCOPE

- A. Mobilization shall include the obtaining of all permits, insurance, and bonds; moving onto the site of all plant and equipment; furnishing and erecting plants, temporary buildings, and other construction facilities; all as required for the proper performance and completion of the Work. Mobilization shall include, but not be limited to, the following principal items.
1. Move onto the site all Contractor's plant and equipment required for first month operations.
  2. Install temporary construction power, wiring, and lighting facilities.
  3. Establish fire protection plan and safety program.
  4. Secure construction water supply.
  5. Provide field office trailers for Contractor and as may be specified for Owner and Engineer.
  6. Provide on-site sanitary facilities and potable water facilities as specified.
  7. Arrange for and erect Contractor's work and storage yard and employee's parking facilities.
  8. Submit all required insurance certificates and bonds.
  9. Obtain all required permits.
  10. Post all OSHA, EPA, Department of Labor, and all other required notices.
  11. Have Contractor's superintendent at the job site full time.
  12. Submit a detailed construction CPM schedule acceptable to the Engineer as specified.
  13. Submit a schedule of values of the Work.
  14. Submit a schedule of submittals.

1.02 DEMOBILIZATION

- A. Demobilization is the timely and proper removal of all contractor owned material, equipment or plant, from the job site and the proper restoration or completion of work necessary to bring the site into full compliance with the contract documents.

1.03 PAYMENT FOR MOBILIZATION/DEMOBILIZATION

- A. The Contractor's attention is directed to the condition that no payment for mobilization, or any part thereof, will be approved for payment under the Contract. Mobilization/Demobilization is a subsidiary obligation of the Contractor.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION

## SECTION 01525

### CONSTRUCTION AIDS

#### PART 1 - GENERAL

##### 1.01 DESCRIPTION

- A. Scope of Work: Furnish, install and maintain required construction aids, remove on completion of Work.
- B. Related Requirements Described Elsewhere:
  - C. Summary of Project: Section 01010.
- D. Comply with applicable requirements specified in Sections of Division 2 through 16.

#### PART 2 - PRODUCTS

##### 2.01 MATERIALS

- E. Materials may be new or used, suitable for the intended purpose, but must not violate requirements of applicable codes and standards.

##### 2.02 CONSTRUCTION AIDS

- A. Provide construction aids and equipment required by personnel and to facilitate execution of the Work: scaffolds, staging, ladders, stairs, ramps, runways, platforms, railings, hoists, cranes, chutes and other such facilities and equipment such as temporary valves and fittings. Refer to respective Sections for particular requirements for each trade.
- B. When permanent stair framing is in place, provide temporary treads, platforms and railings, for use by construction personnel.
- C. Maintain facilities and equipment in first-class condition.

## PART 3 - EXECUTION

### 3.01 PREPARATION

- A. Consult with the Engineer, review site conditions and factors which affect construction procedures and construction aids, which may be affected by execution of the Work.

### 3.02 GENERAL

- A. Comply with applicable requirements specified in sections of Division 2 through 16.
- B. Relocate construction aids as required by progress of construction, by storage of work requirements of Owner and other contractors employed at the site.

### 3.03 REMOVAL

- A. Completely remove temporary materials, equipment and services:
  - 1. When construction needs can be met by use of permanent construction.
  - 2. At completion of work.
- B. Clean and restore areas damaged by installation by use of temporary facilities.

Remove foundations and underground installations for construction aids.

Grade and grass areas of site affected by temporary installations to required elevations, slopes, ground cover and clean the area.

Restore permanent facilities used for temporary purposes to specified condition or in kind if not specified.

END OF SECTION

SECTION 01568  
TEMPORARY EROSION AND SEDIMENTATION CONTROL

PART 1 - GENERAL

1.01 DESCRIPTION

A. Scope of Work:

1. The Work specified in this Section consists of designing, providing, maintaining and removing temporary erosion and sedimentation controls as required by Rules and Regulations and permit conditions.
2. Temporary erosion controls include, but are not limited to, grassing, mulching, setting, watering and re-seeding on-site surfaces and soil and borrow area surfaces and providing interceptor ditches at ends of berms and at those locations which will ensure that erosion during construction will be either eliminated or maintained within acceptable limits as established by the Owner.
3. Temporary sedimentation controls include, but are not limited to, silt dams, traps, barriers, and appurtenances at the foot of sloped surfaces which will ensure that sedimentation pollution will be either eliminated or maintained within acceptable limits as established by the Owner.
4. Contractor is responsible for providing effective temporary erosion and sediment control measures during construction or until final controls become effective.

B. Related Work Described Elsewhere:

1. Excavation, Backfill, and Embankment: Section 02100
2. Grassing , Mulching and Sodding: Section 02900.

PART 2 - PRODUCTS

2.01 EROSION CONTROL

- A. Sodding is specified in Section 02485.
- B. Netting shall be fabricated of material acceptable to the Owner.

## 2.02 SEDIMENTATION CONTROL

- A. Bales shall be clean, seed-free cereal hay type.
- B. Netting shall be fabricated of material acceptable to the Owner.
- C. Filter stone shall be crushed stone which conforms to Florida Department of Transportation (FDOT) specifications.
- D. Concrete block shall be hollow, non-load bearing type.
- E. Concrete shall be exterior grade not less than 1-inch thick.

## PART 3 - EXECUTION

### 3.01 EROSION CONTROL

- A. Minimum procedures for grassing are:
  - 1. Scarify slopes to a depth of not less than 6 inches and remove large clods, rock, stumps, roots larger than 2 inch in diameter and debris.
  - 2. Sow seed within 24 hours after the ground is scarified with either mechanical seed drills or rotary hand seeders.
  - 3. Apply mulch loosely and to a thickness of between 3/4 inch and 1-1/2 inches.
  - 4. Apply netting over mulched areas on sloped surfaces.
  - 5. Roll and water seeded areas in a manner which will encourage sprouting of seeds and growing of grass. Reseed areas which exhibit unsatisfactory growth. Backfill and seed eroded areas.

### 3.02 SEDIMENTATION CONTROL

- A. Install and maintain silt dams, traps, barriers, and appurtenances as shown on the approved descriptions and working drawings. Hay bales which deteriorate and filter stone which is dislodged shall be replaced.

### 3.03 PERFORMANCE

- A. Should any of the temporary erosion and sediment control measures employed by the Contractor fail to produce results which comply with the requirements of the State of Florida, the Owner or Engineer, the Contractor shall immediately take whatever steps are necessary to correct the deficiency at his own expense.

END OF SECTION

## SECTION 01580

### PROJECT IDENTIFICATION AND SIGNS

#### PART 1 - GENERAL

##### 1.01 DESCRIPTION

###### A. Scope of Work:

1. Furnish, install and maintain project signs.
2. Remove signs on completion of construction.
3. Allow no other signs other than signs approved by the Engineer to be displayed.

###### B. Related Requirements Described Elsewhere:

1. Summary of Project: Section 01010.
2. Location, Scope and Special Requirements: Section 01300

##### 1.02 PROJECT SIGNS

A. One (1) painted sign with lettering, size, color and construction in accordance with the local requirements.

B. Erect on the plant site at a location of high public visibility, as approved by the Engineer and the Owner.

###### C. Information:

1. Project Sign:
  - a. Owner title and logo.
  - b. Project name.
  - c. Contractor.
  - d. Engineer.

### 1.03 INFORMATIONAL SIGNS

- A. Painted signs with painted lettering, or standard products.
  - 1. Size of signs and lettering: As required by the Owner, or as appropriate to usage.
  - 2. Color: As required by the Owner, otherwise of uniform colors throughout Project.
- B. Erect at appropriate locations to provide required information.
- C. Information:
  - 1. Contractor's name and home office address.
  - 2. List of subcontractors and type of subcontract work.

### 1.04 QUALITY ASSURANCE

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

### 1.05 SUBMITTALS

- A. An 11 inch by 17 inch sketch of the project sign shall be submitted to the Engineer for approval prior to final preparation of the project sign.

## PART 2 - PRODUCTS

### 2.01 SIGN MATERIALS

- A. Structure and Framing: Sign shall be 3/4" Marine grade plywood, in sound condition, structurally adequate and suitable for specified finish.
- B. Sign Surfaces: Exterior softwood plywood with medium density overlay, standard large sizes to minimize joints.
  - 1. Thickness: As required by standards to span framing members, to provide even, smooth surface without waves or buckles.
- C. Rough Hardware: Galvanized.

- D. Project Sign details are illustrated in Figure 01580-A.

## PART 3 - EXECUTION

### 3.01 PROJECT IDENTIFICATION SIGNS

- A. Paint exposed surface of supports, framing and surface material; one coat of primer and one coat of exterior paint.
- B. Paint graphics in styles, sizes, and colors as selected and approved by the Owner.

### 3.02 MAINTENANCE

- A. Maintain signs and supports in a neat, clean condition; repair damages to structures, framing or signs.

### 3.03 REMOVAL

- A. The Contractor shall remove signs, framing, supports and foundations and properly dispose of at completion of project.

END OF SECTION

## SECTION 01600

### MATERIAL AND EQUIPMENT

#### PART 1 - GENERAL

##### 1.01 DESCRIPTION

###### A. Scope of Work:

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

##### 1.02 APPROVAL OF MATERIALS

- A. Only new materials and equipment shall be incorporated in the work. All materials and equipment furnished by Contractor shall be subject to the inspection and approval of Engineer. No material shall be delivered to the work without prior approval of Engineer.
- B. Within twenty (20) days after the Effective Date of the Agreement, Contractor shall submit to Engineer, data relating to materials and equipment he proposes to furnish for the work. Such data shall be in sufficient detail to enable Engineer to identify the particular product to form an opinion as to its conformity to the specifications.

- C. Facilities and labor for handling and inspection of all materials and equipment shall be furnished by Contractor. If Engineer requires, either prior to beginning or during progress of the work, Contractor shall submit samples of materials for such special tests as may be necessary to demonstrate that they conform to the specifications. Such samples shall be furnished, stored, packed and shipped as directed at Contractor's expense. Except as otherwise noted, Contractor shall make arrangements for and pay for the tests.
- D. Contractor shall submit data and samples sufficiently early to permit consideration and approval before materials are necessary for incorporation in the work. Any delay of approval resulting from Contractor's failure to submit samples or data promptly shall not be used as a basis of claim against Owner or Engineer.
- E. In order to demonstrate the proficiency of workers or to facilitate the choice among several textures, types, finishes and surfaces, Contractor shall provide such samples of workmanship or finish as may be required.
- F. The materials and equipment used on the work shall correspond to the approved samples or other data.

1.03           SUBSTITUTIONS AND PRODUCT OPTIONS

- A. The substitution requirements of this Section are in addition to the requirements of the General Conditions and Supplementary Conditions.
- B. The intent of these Specifications is to provide Owner with a quality facility without discouraging competitive bidding. Substitutions may be submitted and will be evaluated as specified herein.
- C. A Request for Substitution of Product may be submitted after the Contractor:
  - 1. Has investigated the proposed product and determined that it is equal to or superior to specified product, furnishes a certification to that effect and waives all rights to additional payment or time that may subsequently become necessary due to the failure of the substituted product to perform adequately.
  - 2. Agrees to provide same warranties or bonds for product substitution as for product specified.
  - 3. Agrees to be responsible for coordinating and paying for any necessary changes to other work required by approved substitutions or product options which he selects and shall pay all such costs including the costs of the services of the design professional to revise the Contract Documents, if such revisions are required.

4. Waives all claims for additional costs due to substitution which may subsequently become apparent.
5. Is offering either a substantial credit to the Owner for acceptance of the substitution or a convincing justification that the product to be provided as the substitution is substantially superior in quality, performance, compatibility with adjacent products, durability, vandal-resistance or in other important ways.

D. Engineer's Action:

1. Engineer will consider written requests for product substitution for a period of 45 calendar days after the effective date of the Agreement. Engineer will review requests for substitutions with reasonable promptness and notify Contractor in writing of Owner's decision to accept or reject requested substitutions. Only the Owner may accept a substitution.
2. Substitution requests made by means of shop drawings or product data submittal will not be considered.
3. After the period of 45 days has elapsed, the only substitution requests which will be considered are those which are made necessary by the removal of the specified products from the market or by other similar, unavoidable circumstances beyond the control of the Contractor.

1.04 MANUFACTURER'S INSTRUCTIONS FOR INSTALLATION

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

1.05 TRANSPORTATION AND HANDLING

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

1.06 STORAGE AND PROTECTION

- A. The Contractor shall furnish a covered, weather-protected storage structure providing a clean, dry, noncorrosive environment for all mechanical equipment, valves, architectural items, electrical and instrumentation equipment, and special equipment to be incorporated into this project. Storage of equipment shall be in strict accordance with the "instructions for storage" of each equipment supplier and manufacturer including connection of heaters, placing of storage lubricants in equipment, etc. Corroded, damaged or deteriorated equipment and parts shall be replaced before acceptance of the project. Equipment and materials not properly stored will not be included in a payment estimate.
- B. Store products in accordance with manufacturer's instructions, with seals and labels intact and legible.
  - 1. Store products subject to damage by the elements in weathertight enclosures such as buildings or trailers which have a concrete or wooden floor, a roof and fully closed walls on all sides.
  - 2. Maintain temperature and humidity within the ranges required by manufacturer's instructions (i.e. electrical and instrumentation equipment).
  - 3. Protect mechanical and electrical equipment from being contaminated by dust, dirt and moisture.
  - 4. Store fabricated products above the ground, on blocking or skids, prevent soiling and staining. Cover products which are subject to deterioration with impervious sheet coverings, provided adequate ventilation to avoid condensation.
  - 5. Provide heated storage space for material which would be damaged by freezing.

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

1.07 SPECIAL TOOLS

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

1.08 STORAGE AND HANDLING OF EQUIPMENT ON SITE.

- A. Attention shall be given to the storage and handling of equipment on site. As a minimum, the procedure outlined below shall be followed:
1. Equipment shall not be shipped until approved by Engineer. The intent of this requirement is to reduce on-site storage time prior to installation and/or operation. Under no circumstances shall equipment be delivered to the site more than one month prior to installation without written authorization from Engineer. Equipment shipped to the site shall be stored in accordance with Paragraph 1.06, herein. Operation and maintenance data shall be submitted to Engineer for review prior to shipment of equipment.
  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 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 Contractor and reviewed with 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, Contractor shall start the equipment, at least half load, once weekly for an adequate period of time to insure that the equipment does not deteriorate from lack of use.
  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 Owner.

7. Prior to acceptance to the equipment, 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 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 Contractor's expense.

1.09           WARRANTY

- A. For all major pieces of equipment, submit a warranty from the equipment manufacturer as specified. The manufacturer's warranty period shall be concurrent with the Contractor's for one (1) year after the time of acceptance.

1.10           SPARE PARTS

- A. Spare parts for certain equipment have been specified in the pertinent sections of the Specifications. Contractor shall collect and store all spare parts so required in an area to be designated by Engineer. In addition, Contractor shall furnish 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 items. Spare parts shall be turned over in conjunction with the "Spare Parts List" as shown. Copies of actual invoices for each item shall be furnished with the inventory to substantiate the delivered cost.

1.11           GREASE, OIL AND FUEL

- A. All grease, oil and fuel required for testing of equipment shall be furnished with the respective equipment. Owner shall be furnished with a year's supply of required lubricants including grease and oil of the type recommended by manufacturer with each item of equipment supplied.
- B. 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 weeks of operation.

END OF SECTION

## SECTION 01650

### START-UP

#### PART 1 - GENERAL

##### 1.01 DESCRIPTION

- A. The Work may be segmented into several phases of construction in a logical order to meet the project schedule. Portions of the Work may be utilized prior to Substantial Completion of all the Work. Also, certain items of equipment are to be temporarily utilized in a phased segment of the Work and then relocated in a subsequent phase in a permanent installation.

#### PART 2 - PRODUCTS (NOT USED)

#### PART 3 - EXECUTION

##### 3.01 PRELIMINARY MATTERS

- A. Start-up Certification: Prior to start-up, successfully complete all testing required of the individual components of work in the presence of the Engineer or it's representative.
- B. Demonstrate to the Engineer that all temporary jumpers and/or bypass have been removed and that all components are operating under their own controls as designated.
- C. Coordinate start-up activities with equipment suppliers, subcontractors, and the Owner's operating personnel at the site and with the Engineer prior to commencing system start-up. All coordination is the responsibility of the Contractor.

##### 3.02 START-UP

- A. Confirm that all equipment is properly installed and that the flow path through the new work is unobstructed.
- B. 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, **a separate schedule will be prepared to perform the Start-Up Demonstration and Testing in the presence of the Engineer and the Owner. The demonstration shall be held upon completion of all systems at a date to be agreed upon in writing with the Owner.**

- B. Acceptability of the Work's performance will be based on the Work performing as specified, under these actual and simulated operating conditions as defined in the Contract Documents. The intent of the start-up demonstration and testing is for the Contractor to demonstrate to the Owner and the Engineer the Work will function as a complete and operable system under normal operating conditions and is ready for acceptance.
- C. Certificate of Completed Demonstration: Submit five (5) copies of Demonstration Certification memo signed by the Contractor, Subcontractor and Owner and insert one copy in each Operation and Maintenance Manual.
- D. Training shall be scheduled and upon successful startup and demonstration testing to the resulting in approval of the demonstration certification, the Contractor shall provide training to the Owner and Engineer. The training shall be held upon completion of all systems at a date to be agreed upon in writing with the Owner. Videotaping of training shall be conducted.

EQUIPMENT STARTUP AND DEMONSTRATION CHECKLIST

PROJECT: \_\_\_\_\_  
OWNER: \_\_\_\_\_  
ENGINEER: \_\_\_\_\_  
CONTRACTOR: \_\_\_\_\_  
DATE: \_\_\_\_\_  
STRUCTURE: \_\_\_\_\_  
EQUIPMENT DESCRIPTION: \_\_\_\_\_  
VENDOR: \_\_\_\_\_

REPRESENTATIVE: \_\_\_\_\_ INIT.: \_\_\_\_\_

STARTUP DEMONSTRATION DESCRIPTION: \_\_\_\_\_

COMMENTS: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

ACCEPTABLE: \_\_ PARTIALLY ACCEPTABLE: \_\_ NON-ACCEPTABLE: \_\_\_\_

ATTENDEES:

<u>NAME</u>	<u>AFFILIATION</u>	<u>DATE</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

EQUIPMENT TRAINING CHECKLIST

PROJECT: \_\_\_\_\_  
OWNER: \_\_\_\_\_  
ENGINEER: \_\_\_\_\_  
CONTRACTOR: \_\_\_\_\_  
DATE: \_\_\_\_\_  
STRUCTURE: \_\_\_\_\_  
EQUIPMENT DESCRIPTION: \_\_\_\_\_  
VENDOR: \_\_\_\_\_

REPRESENTATIVE: \_\_\_\_\_ INIT.: \_\_\_\_\_

# of training days required: \_\_\_\_\_ # received: \_\_\_\_\_

TRAINING DEMONSTRATION DESCRIPTION: \_\_\_\_\_  
COMMENTS: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

ATTENDEES:

<u>NAME</u>	<u>AFFILIATION</u>	<u>DATE</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

**EQUIPMENT DOCUMENTATION  
AND SPARE PARTS CHECKLIST**

(To be turned over upon final acceptance of equipment)

<b>Item/Equipment</b>							
<b>Spec Section #</b>							
<b>Submittal #</b>							
<b>Acceptance Date</b>							
<b>Training Date</b>							
<b>O &amp; M (Date Submitted)</b>							
<b>Spare Parts (Desc./Date)</b>							

END OF SECTION

## SECTION 01700

### CONTRACT CLOSEOUT

#### PART 1 - GENERAL

##### 1.01 DESCRIPTION

- A. Scope of Work: Comply with requirement stated in Conditions of the Contract and in Specifications for administrative procedures in closing out the Work.
- B. Related Requirements Described Elsewhere:
  - 1. Start-Up: Section 01650
  - 2. Cleaning: Section 01710.
  - 3. Project Record Documents: Section 01720.
  - 4. Operating and Maintenance Data: Section 01730.
  - 5. Warranties and Bonds: Section 01740.

##### 1.02 SUBSTANTIAL COMPLETION

- A. The Work will not be substantially complete, and Contractor may not request substantial completion inspection unless the following submittals and work is completed:
  - 1. All Operation and Maintenance manuals have been submitted and approved to the requirements of Section 01730.
  - 2. All equipment has been checked-out by the equipment manufacturer and Certificates of Manufacturer's Check-Out have been submitted as required by Section 01650.
  - 3. All start-up and demonstration testing completed and Certificates of Completed Demonstration submitted to the requirements of Section 01650.
  - 4. Project Record Documents are complete and have been submitted and reviewed to the requirements of Section 01720.
  - 5. All training of Owner's personnel completed.
  - 6. All areas to be used and occupied are safe, operable in automatic and complete.

7. All building occupancy certificates have been issued by the appropriate building permitting agency.
  8. All painting, finishes, fencing, cleanup, final grading, grassing, planting, sidewalk construction, and paving shall have been completed and ready for inspection.
  9. All deficiencies noted on inspection reports or nonconformances are corrected or the correction plan approved.
- B. When the conditions of paragraph 1.02 A. are met the Contractor shall submit to the Engineer:
1. A written notice that he considers the Work, or portion thereof, is substantially complete, and request an inspection.
  2. A punchlist of items to be corrected. (Uncompleted work which is not related to the safe, effective, efficient use of the Project may be allowed on the punchlist with the Engineer's approval.)
- C. Within a reasonable time after receipt of such notice, the Engineer will make an inspection to determine the status of completion.
- D. Should the Engineer determine that the Work is not substantially complete:
1. The Engineer will promptly notify the Contractor in writing, giving the reasons therefor.
  2. Contractor shall remedy the deficiencies in the Work and send another written notice of substantial completion to the Engineer.
  3. The Engineer will within reasonable time, reinspect the Work. The Contractor will be liable for reinspection fees as described in paragraph 1.04, herein.
- E. When the Engineer finds that the Work is substantially complete, he will:
1. Schedule a walk-through of the facility to include the Owner. Engineer shall determine the completeness of the punchlist and readiness of the facility for occupancy by the Owner.
  2. Prepare and deliver to Owner a tentative Certificate of Substantial Completion with the tentative punchlist of items to be completed or corrected before final inspection.

3. After consideration of any objections made by the Owner as provided in Conditions of the Contract, and when the Engineer considers the Work substantially complete, he will execute and deliver to the Owner and the Contractor a definite Certificate of Substantial Completion with a revised tentative list of items to be completed or corrected. Any incomplete work allowed on a punchlist must be reinspected upon completion and any deficiencies found will be added to the punchlist.

### 1.03 FINAL INSPECTION

- A. Prior to Contractor's request for a final inspection the following submittals and work must be complete:
  1. Project Record Documents must be approved.
  2. All spare parts and maintenance materials must be suitably delivered to the Owner per the requirements of the Technical Sections of the Specifications.
  3. Contractor to submit evidence of compliance with requirements of governing authorities.
- B. After satisfying the requirements of paragraph 1.03 A. and when Contractor considers the Work complete, he shall submit written certification that:
  1. Contract Document requirements have been met.
  2. Work has been inspected for compliance with Contract Documents.
  3. Work has been completed in accordance with Contract Documents.
  4. Equipment and systems have been tested in the presence of the Owner's representative and are operational.
  5. All punchlist items have been corrected or completed and the Work is ready for final inspection.
- C. The Engineer will, within reasonable time, make an inspection to verify the status of completion with reasonable promptness after receipt of such certification.
- D. Should the Engineer consider that the Work is incomplete or defective:
  1. The Engineer will promptly notify the Contractor in writing, listing the incomplete or defective work.
  2. Contractor shall take immediate steps to remedy the stated deficiencies, and send another written certification to the Engineer that the Work is complete.

3. The Engineer will, within a reasonable amount of time, reinspect the Work and the Contractor shall be liable for reinspection fees as described in paragraph 1.04, herein.
- D. When the Engineer finds that the Work is acceptable under the Contract Documents, the Contractor may make closeout submittals.

#### 1.04 REINSPECTION FEES

- A. Should the Engineer perform reinspections due to failure of the Work to comply with the claims of status of completion made by the Contractor:
1. Contractor will compensate the Owner for such additional services.
  2. Owner will deduct the amount of such compensation from the final payment to the Contractor.

#### 1.05 CONTRACTOR'S CLOSEOUT SUBMITTALS

- A. Warranties and Bonds: To requirements of Section 01740.
- B. Evidence of Payment and Release of Liens: To requirements of General and Supplementary Conditions.
- C. Certificate of Insurance for Products and Completed Operations.

#### 1.06 FINAL ADJUSTMENT OF ACCOUNTS

- A. Submit a final statement of accounting to the Engineer.
- B. Statement shall reflect all adjustments to the Contract Sum:
1. The original Contract Sum.
  2. Additions and deductions resulting from:
    - a. Previous change orders or written amendment.
    - b. Allowances.

- c. Unit prices.
  - d. Deductions for uncorrected work.
  - e. Penalties and bonuses.
  - f. Deductions for liquidated damages.
  - g. Deductions for reinspection payments.
  - h. Other adjustments.
- 3. Total Contract Sum, as adjusted.
  - 4. Previous payments.
  - 5. Sum remaining due.
- C. Engineer will prepare a final Change Order, reflecting approved adjustments to the Contract Sum which were not previously made by Change Orders.

#### 1.07 FINAL APPLICATION FOR PAYMENT

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

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION

## SECTION 01710

### CLEANING

#### PART I - GENERAL

##### 1.01 DESCRIPTION

- A. Scope of Work: Execute cleaning, during the progress of Work and at completion of the Work.

##### 1.02 DISPOSAL REQUIREMENTS

- A. Conduct cleaning and disposal operations to comply with codes, ordinances, regulations and anti-pollution laws.

#### PART II - PRODUCTS

##### 2.01 MATERIALS

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

#### PART III - EXECUTION

##### 3.01 DURING CONSTRUCTION

- C. Execute daily cleaning to keep the Work, the site and adjacent properties free from accumulations of waste materials, rubbish and windblown debris, resulting from construction operations or personal activities.
- D. Provide on-site containers for the collection of waste materials, debris and rubbish.
- E. Remove waste materials, debris and rubbish from the site periodically, or as directed by the Owner, and dispose of at legal disposal areas away from the site.

### 3.02 DUST CONTROL

- F. The Contractor shall employ construction techniques that minimize the production and distribution of dust.
- G. Clean interior spaces prior to the start of finish painting and continue cleaning on an as-needed basis until painting is finished.
- H. Schedule operations so that dust and other contaminants resulting from cleaning process will not fall on wet or newly-coated surfaces.

### 3.03 FINAL CLEANING

Employee skilled workman for final cleaning.

Remove grease, mastic, adhesives, dust, dirt, stains, fingerprints, labels, and other foreign materials from sight-exposed interior and exterior surfaces.

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

END OF SECTION

## SECTION 01720

### PROJECT RECORD DOCUMENTS

#### PART 1 - GENERAL

##### 1.01 REQUIREMENTS INCLUDED

A. Maintain at the site for the Owner one record copy of:

1. Drawings
2. Specifications
3. Addenda
4. Change Orders and other modifications of the contract
5. Engineer's Field Orders or written instructions
6. Approved Shop Drawings
7. Field Test records
8. Construction photographs, preconstruction videos, and pipeline videos.

Preliminary as-built drawings

##### 1.02 MAINTENANCE OF DOCUMENTS AND SAMPLES

- A. Store documents and samples in Contractor's field office apart from documents used for construction.
1. Provide files and racks for storage of documents.
  2. Provide locked cabinet or secure storage space for storage of samples.
- B. File documents and samples in accordance with CSI format with section numbers as provided herein.
- C. Maintain documents in a clean, dry, legible, condition and in good order. Do not use record documents for construction purposes.
- D. Make documents and samples available at all times for inspection by the Engineer.
- E. As a prerequisite for monthly progress payments, the Contractor shall provide the currently updated "Record Documents" for review by the Engineer and Owner.

1.03 MARKING DEVICES

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

1.04 RECORDING

- A. Label each document. "PROJECT RECORD" in neat large printed letters.
- B. Record information concurrently with construction progress. Do not conceal any work until required information is recorded.

C. Drawings: Legibly mark to record actual construction:

1. Depths of various elements of foundation in relation to finish first floor datum.
2. All underground piping with elevations and dimensions. Change to piping location. Horizontal and vertical locations of underground utilities and appurtenances, referenced to permanent surface improvements. Actual installed pipe materials, class, etc..
3. Location of internal utilities and appurtenances concealed in the construction, referenced to visible and accessible features of the structure.
4. Field changes of dimensional and detail.
5. Changes made by Field Order or by Change Order.
6. Details not on original contract drawings.
7. Equipment and piping relocations.
8. Major architectural and structural changes including relocation of doors, windows, etc.
9. Architectural schedule changes according to Contractor's records or shop drawings.

Contractor shall provide copies of all such recordings to the Contractor=s surveyor for incorporation into the preliminary and final as-built drawings.

- D. Specifications and Addenda: Legibly mark each section to record:
  1. Manufacturer, trade name, catalog number and supplier of each product and item of equipment actually installed.

2. Changes made by Field Order or by Change Order.
- E. Shop Drawings (after final review and approval): Provide four (4) sets of record drawings for each process equipment, piping, electrical system and instrumentation system.

1.05 SUBMITTAL

- A. Accompany each submittal with transmittal letter in duplicate, containing:
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 of his authorized representative
- B. Preliminary As-built Drawings: The Contractor shall submit to the Engineer two (2) paper copies of preliminary as-built drawings prepared and signed/sealed by the Contractor=s surveyor with each monthly progress payment request. Preliminary as-built drawings shall conform to the requirements of final as-built drawings and shall represent the completed work to date. Preliminary as-built drawings shall include all work which the Contractor is requesting to be paid for.
- C. Final As-built Drawings: Upon project closeout and as a prerequisite to the final pay request, the Contractor shall submit to the Engineer final as-built drawings Administrative Code, pursuant to Section 472.027 of the Florida Statutes. The Engineer shall supply the Contractor copies of AutoCad files and/or mylar sepias of the original construction plans for the Contractor=s use in the as-built drawing preparation. Final as-built drawings shall include all work which the Contractor is requesting to be paid for. The final as-built drawing submittal shall include:
1. Six (6) sets of paper plans and one (1) set of mylar drawings signed and sealed by a professional land surveyor licensed in the State of Florida and computer floppy disk(s) or CD(s) containing AutoCad, version 14, drawing files.
  2. AutoCad drawing files shall include as-built information on layers separate from the original drawing layers and shall be named descriptively to represent the as-built features. (i.e.-Layer Awat ab@ and Awat ab txt@ for water as-built linework and text, respectively.) Drawing entities are to be shown on the correct layer. All as-built entities shall have color and line type set Abylayer@. Text sizes shall be relative to the plotted scale. Additional

details or exploded views shall be include to accurately and fully represent the as-built conditions.

3. Certification by surveyor that the as-built information shown is accurate and that all improvements shown were constructed within or on public rights-of-way, easements or property specifically owned by the Owner. Certification shall be to the Owner, Engineer and St. Johns River Water Management (if applicable.)
4. No linework and text shall be erased from the original design (construction) drawings during the as-built drawing preparation. Original linework or text shall be circled if accurate or stricken (not erased) if not with the accurate information noted/shown. New linework and text shall be provided to accurately show the as-built information for the constructed improvements. Revisions to design dimensions alone will not be permitted.
5. Pressure Pipeline and Utility Conduit Improvements: For utility improvement projects, horizontal locations of the constructed pipelines with respect to the right-of-way lines or other readily visible, permanent features at 100 foot minimum intervals and at critical locations such as road intersections shall be shown. For treatment plant and pump station improvements, horizontal locations shall be provided at 20 foot intervals. Vertical locations of the constructed pipelines by elevation of centerline of pipe for above ground/exposed pipe or with respect to finished grade over buried pipe shall be shown at 100 feet minimum intervals. (i.e. final cover) For underground piping, all valves, blow-offs, stub-outs, pigging stations, fire hydrants, backflow preventers and services shall be located horizontally in relation to readily visible, permanent features with three way horizontal dimensions less than 100 feet, each. Three way dimensions to all buried fittings on treatment plant and pump station improvement projects shall be provided. If adequate features are not available, a station and offset dimensioning system can be used if prior approval is obtained from the Engineer. For above ground/exposed pipe, as-built dimensions between fittings or flanges shall be provided. Separations between Asanitary hazards@ to potable water and reclaimed water mains per FDEP shall be shown.
6. Gravity Pipeline Improvements: Show elevations for all inverts, manhole tops, inlet throats/weirs, grate tops, etc. Show size and type of each structure. As-built length, size and type of pipes between the structures shall be shown. All service laterals and cleanouts shall be located horizontally to readily visible, permanent features with three way horizontal dimensions less than 100 feet, each. If adequate features are not available, a station and offset dimensioning system can be used if prior approval is obtained from the Engineer. A labeling and dimension table scheme is recommended for the three way or station/offset dimensioning. (i.e.-Constructed feature labeled as AA@, permanent feature labeled as AB@, AA@-AB@ dimension shown in table for distance measured between the two. Use continuous labeling and

complete single table per plan sheet.) Separations between gravity Asanitary hazards@ to potable water and reclaimed water mains per FDEP shall be shown.

7. Roadway Improvements: Elevation, size and location of swales, ditches, gutter flow-lines, edge of pavement, and road crown on both sides of the road if applicable shall be provided at 100 foot minimum intervals and at critical areas such as intersections and inlets/flumes. As-built points of curvature, tangent and vertical intersection, along with radii of road alignment, intersecting streets and driveways and othe alignment information shall be provided.
  8. Stormwater Improvements: The limits, slopes and bottom depths of stormwater ponds, swales and other retention areas shall be provided. All stormwater piping information shall conform to the Gravity Pipeline Improvement requirements. Size, type, material, and elevations of all stormwater structures, including appurtenances such as weirs, orifices, skimmer plates, etc. shall be shown. As-built information shall conform to St. Johns River Water Management District requirements.
  9. Treatment Facility Improvements: Location, size, number, and type of treatment equipment and structures shall be shown. Applicable requirements of as-built information listed herein for similar improvements shall be required.
  10. Building Improvements: Finished floor elevations, ceiling heights, building locations, wall opening dimensions, equipment (electrical, mechanical, plumbing) locations, etc. shall be provided. Change of material shall be specifically noted as such.
  11. Landscaping Improvements: Number, type, size, and general location of installed plant material shall be provided. Change of material shall be specifically noted as such. Location of irrigation meters, services, manual valves, automatic valves, controllers, rain shut off switches, etc. shall be shown. Changes to the designed irrigation system shall be shown.
  12. Other Improvements: Changes from the original design of other improvements such as electrical, mechanical and structural improvements shall be noted as such on the as-built drawings with the size, number, type and location of the constructed/installed improvements noted.
- D. Contractor may be required to reimburse the Owner for services rendered by the Engineer for review of multiple resubmittals.

## PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION

## SECTION 01730

### OPERATING AND MAINTENANCE DATA

#### PART 1 - GENERAL

##### 1.01 DESCRIPTION

###### A. Scope of Work:

1. Compile product data and related information appropriate for Owner's maintenance and operation of products furnished under Contract.
2. Prepare operating and maintenance data as specified in this Section and as referenced in other pertinent sections of the Specifications.
3. Instruct Owner's personnel in maintenance of products and in operation of equipment and systems.

###### B. Related Requirements Described Elsewhere:

1. Section 01340: Shop Drawings
2. Section 01720: Project Record Documents
3. Section 01740: Warranties and Bonds

##### 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 a 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 Owner'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, or neatly typewritten
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 products and major component parts of equipment.
  - b. Provide indexed 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-post binders with durable and cleanable plastic covers.
2. Maximum post width: 2 inches.
3. When multiple binders are used, correlate the data into related consistent groupings.

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 or installer
    - 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
  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 specified 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.
- C. Drawings:
1. Supplement product data with drawings as necessary to clearly illustrate:
    - a. Relations of component parts of equipment and systems
  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 text, 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 instructions of each procedure.
- E. Copy of each warranty, bond and service contract issued.

1. Provide information sheet for Owner'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 four copies of the 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 manufactured 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. Recommend 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 the Specifications.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION

## SECTION 01740

### WARRANTIES AND BONDS

#### PART 1 - GENERAL

##### 1.01 DESCRIPTION

###### A. Scope of Work:

1. Compile specified warranties and bonds as specified in these Specifications.
2. Co-execute submittals when so specified.
3. Review submittals to verify compliance with Contract Documents.
4. Submit to Engineer for review and transmittal to Owner.

###### B. Related Work Described Elsewhere:

1. Instructions to Bidders: Bid Bonds
2. Performance Bond and Payment Bond

Labor and Material Payment Bond: Section 00645

##### 1.02 SUBMITTAL REQUIREMENTS

- A. Assembly warranties, bonds and service and maintenance contracts, executed by each of the respective manufacturers, suppliers, and subcontractors.
- B. Number of original signed copies required: Two each.
- C. Table of Contents: Neatly typed, in orderly sequence. Provide complete information for each item.
  1. Product of work item
  2. Firm, with name of principal, address and telephone number
  3. Scope
  4. Date of beginning of warranty, bond or service and maintenance contract
  5. Duration of warranty, bond or service maintenance contract.
  6. Provide information for Owner's personnel:

- a. Proper procedure in case of failure.
- b. Instances which might affect the validity of warranty or bond.

7. Contractor, name of responsible principal, address and telephone numbers.

### 1.03 FORM OF SUBMITTALS

A. Prepare in duplicate packets

B. Format:

1. Size 8 1/2 inches x 11 inches, punch sheets for standard three-post binder.

a. Fold larger sheets to fit into binders.

2. Cover: Identify each packet with typed or printed title "WARRANTIES AND BONDS". List:

a. Title of Project

b. Name of Contractor

C. Binders: Commercial quality, three-post binder, with durable and cleanable plastic covers and maximum post width of two inches.

### 1.04 WARRANTY SUBMITTALS REQUIREMENTS

A. For all major pieces of equipment, submit a warranty from the equipment manufacturer. Manufacturer's warranty period shall be concurrent with Contractor's for one (1) year, unless otherwise specified, commencing at the time of final acceptance by Owner.

B. Contractor shall be responsible for obtaining certificates for equipment warranty for all major equipment which has at least a 1 hp motor or which lists for more than \$1,000. Engineer reserves the right to request warranties for equipment not classified as major. Contractor shall still warrant equipment not considered to be "major" in the Contractor's one-year warranty period even though certificates of warranty may not be required.

C. In the event that the equipment manufacturer or supplier is unwilling to provide a one-year warranty commencing at the time of Owner acceptance, the Contractor shall obtain from the manufacturer a two (2) year warranty commencing at the time of equipment delivery to the job site. This two-year warranty from the manufacturer shall not relieve the Contractor of the one-year warranty starting at the time of Owner acceptance of the equipment.

- D. Owner shall incur no labor or equipment cost during the guarantee period.
- E. Guarantee shall cover all necessary labor, equipment and replacement parts resulting from faulty or inadequate design, improper assembly or erection, defective workmanship and materials, leakage, breakage or other failure of all equipment and components furnished by manufacturer.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION

## SECTION 01800

### MISCELLANEOUS WORK AND CLEANUP

#### PART 1 - GENERAL

##### 1.01 DESCRIPTION

###### A. Scope of Work:

1. This Section includes operations which cannot be specified in detail as separate items but can be sufficiently described as to the kind and extent to work involved. The Contractor shall furnish all labor, materials, equipment and incidentals to complete the work under this Section.
2. The work of this Section includes, but is not limited to, the following:
  - a. Restoring of driveways and fences.
  - b. Cleaning up.
  - c. Incidental work.

#### PART 2 - PRODUCTS

##### 2.01 MATERIALS

- ###### A.
- Materials required for this Section shall be of the same quality as materials that are to be restored. Where possible, the Contractor shall reuse existing materials that are removed and then replaced.

#### PART 3 - EXECUTION

##### 3.01 RESTORING OF DRIVEWAYS, FENCES, AND SIDEWALKS

- ###### A.
- Existing public and private driveways and sidewalks disturbed by the Contractor shall be replaced. Paved drives shall be repaved to the limits and thickness existing prior to construction. Gravel drives shall be replaced and regraded. Concrete driveways and sidewalks shall be replaced.
- ###### B.
- The Contractor shall remove, store and replace existing fences during construction. Only the sections directed by the Engineer shall be removed. If any section of fence is damaged due to the Contractor's negligence, it shall be replaced with fencing equal to or better than that damaged, and the work shall be satisfactory to the Engineer.

3.02 CLEAN UP

- A. The Contractor shall remove all construction material, buildings, equipment and other debris remaining on the job as the result of construction operations and shall render the site of the work in a neat and orderly condition. All suitable excess excavated material shall remain on site.

3.03 INCIDENTAL WORK

- A. Do all incidental work not otherwise specified, but obviously necessary for the proper completion of the contract as specified and as shown on the Drawings.

END OF SECTION