SUMMARY OF WORK

PART 1 – GENERAL

1.1 WORK COVERED BY CONTRACT DOCUMENTS

- A. Furnish all labor and materials required for the rehab/replacement and construction of BJWSA's Raw Water Canal Improvements.
- B. Relocate, raise or lower existing valve boxes, meters, fire hydrants, manholes and location markers as shown.
- C. Maintain existing utilities during construction including bypass canal flow based on time of year minimum required flow shown on the Plans.
- D. Coordinate existing utility relocation work with BJWSA.
- E. Location: The work shall be located along the Raw Water Canal as shown on the plans.

1.2 EXISTING WORK

- A. In addition to the requirements of the contract documents:
 - 1. Relocate or alter existing work in such a manner as to prevent injury or damage to any portions of the existing work to remain.
 - 2. Relocate, repair or replace portions of existing work which have been altered during construction operations to match existing and/or adjoining work as approved by the Owner. At the completion of construction operations, existing work shall be in a condition equal to or better than that which existed before the new work started.

1.3 LOCATION OF UNDERGROUND FACILITIES

- A. Such information as is included in the drawings and specifications relative to the identity and location of existing underground water and sewer utilities represents the best information presently available. The Contractor shall verify the locations of the existing utilities in the work area as is required pursuant to South Carolina law and cannot and should not rely on representations made by the utility with regard to the location of existing underground water and sewer utilities and must verify the location of said utilities independent of any representation made by the Owner. Existing utilities and associated obstructions encountered during construction shall be located and their elevations determined in advance of construction.
- B. The Contractor shall notify the Owner at least 48 hours prior to starting excavation work.

PART 2 - PRODUCTS

Not Applicable.

PART 3 – EXECUTION

Not Applicable.

REGULATORY REQUIREMENTS

- A. The following requirements of Regulatory Agencies having an interest in this project are hereby made a part of this Contract.
- B. The construction of the project, including the letting of contracts in connection therewith, shall conform to the applicable requirements of State, territorial, and local laws and ordinances to the extent that such requirements do not conflict with Federal laws and this subchapter.
- C. South Carolina Sales Tax: All applicable South Carolina sales tax shall be to the account of the Contractor.
- D. Use of chemicals: All chemicals used during the project construction or furnished for project operation, whether herbicide, pesticide, disinfectant, polymer, reactant or of other classification, must show approval of EPA or USDA. Use of all such chemicals and disposal of residues shall be in strict conformance with instructions.
- E. Safety and Health Regulations: The Contractor shall comply with the Department of Labor Safety and Health Regulations for construction promulgated under the Occupational Safety and Health Act of 1970 (PL 91-596) and under Section 107 of the Contract Work Hours and Safety Standards Act (PL 91-54).
- F. Hazardous gas safety:
 - 1. In accordance with 29 CFR 1910.119(h)(2)(I) (Process Safety Management Standard), Contractor to provide the following information when working on or around the gas chlorination or sulfur dioxide process:
 - a. Copy of Contractor Safety Program; and the following for the year to date and the previous year.
 - b. Total OSHA Recordable Case Rate.
 - c. Total OSHA Lost Workday Case Rate.
 - d. Total Lost Workday Cases Away From Work.
 - e. Fatalities.
 - f. Worker's Compensation Insurance Experience Modification Rate.
 - g. OSHA Inspections.
 - h. OSHA Citations.
 - 2. Assure that each employee is trained in the work practices necessary to safely perform his or her job.
 - 3. Assure that each employee is instructed in the known potential fire, explosion, or toxic release hazards related to his or her job and the process, and the applicable provisions of the emergency action plan.

- 4. Document that each employee has received and understood the training required by 29 CFR 1910.119 and prepare a record containing the employee identity, training date and means used to verify that the employee understood the training.
- 5. Assure that each employee follows the safety rules and procedures of the facility including the safe practices per 29 CFR 1910.119(f)(4).
- 6. Advise the Owner of any unique hazards presented by the work, or of any hazards are found.
- G. The Contractor shall comply with Part V of the South Carolina Manual on Uniform Traffic Control Devices for Streets and Highways.
- H. Inspection by Agencies: The representatives of the South Carolina Department of Health and Environmental Control, Farmers Home Administration, Environmental Protection Agency, and the Corps of Engineers shall have access to the work wherever it is, in preparation or in progress, and the Contractor shall provide proper facilities for such access and inspection.
- I. Withholding for non-residents shall comply with the following:
 - 1. Attention of non-resident Contractors is invited to Code Sections 12-8-540 and 12-8-550 as amended effective July 1, 1994, Section 49, Appropriations Bill, Part II.
 - 2. If a non-resident Contractor is the successful bidder on this project, he shall be required to provide the Owner with an Affidavit (Form I-312, Nonresident Taxpayer Registration Affidavit Income Tax Withholding) affirming registration with the South Carolina Department of Revenue or the South Carolina Secretary of State's office. (See attached form).
 - 3. Forms to register for all taxes administered by the South Carolina Department of Revenue may be obtained by calling the License and Registration Section at (803) 737-4872 or writing to South Carolina Department of Revenue, Registration Unit, Columbia, South Carolina 29214-0140.
 - 4. In the absence of an Affidavit being provided, withholding in the amount of two (2) percent of the contract price will be made by the Owner.
- J. Bypassing of wastewater: No wastewater bypassing will be permitted during construction unless a schedule has been approved by the South Carolina Department of Health and Environmental Control, if required pursuant to the terms of the NPDES permit.
 - 1. Schedule work to minimize bypassing.
 - 2. Coordinate all work which will affect operation of the existing treatment facility with the Owner and the Engineer to assure the least interruption possible in operation of the existing facilities.
 - 3. Make no connections to the existing treatment facility diverting flow to the new facility until directed by the Engineer.

PERMITS AND RIGHTS-OF-WAY

PART 1 – GENERAL

1.1 DESCRIPTION

- A. Work included: This section establishes requirements pertaining to the securement and payment for licenses, building permits, rights-of-way, etc., necessary for the construction of the project.
- B. Work not included: The Owner will obtain and provide to the Contractor, as required, copies of:
 - 1. Office of Ocean and Coastal Resource Management Certification.
 - 2. SCDOT Encroachment Permits: Snake Road & Purrysburg Road.
- C. Related work: Documents affecting work of this section include, but are not necessarily limited to, General Conditions, Supplementary Conditions, and Sections in Division 1 of these specifications.

1.2 SUBMITTALS

A. Submit to the Engineer satisfactory evidence that all necessary licenses, building permits, etc., have been secured prior to commencing the work.

PART 2 - PRODUCTS

No products are required for this work.

PART 3 - EXECUTION

- 3.1 BUSINESS LICENSE
 - A. Determine licenses necessary to perform the work at project location.
 - B. Obtain all necessary licenses at no additional cost to the Owner.

3.2 BUILDING PERMITS

- A. Secure and pay for all building permits required, whether of temporary or permanent nature.
- 3.3 LAND
 - A. The necessary land for construction of treatment facilities, etc., will be provided by the Owner.

REFERENCE STANDARDS

PART 1 - GENERAL

1.1 DESCRIPTION

- A. Throughout the Project Documents, reference is made to specifications and standards issued by nationally recognized professional and/or trade organizations.
 - 1. These referenced standards are generally identified by abbreviating the name of the organization following with the specification/standard number.
 - 2. Unless specifically indicated otherwise, all references to standards refer to the latest edition available at the time of the bidding.

1.2 ABBREVIATIONS

A. Wherever the following abbreviations are used in these Project Documents, they are to be construed the same as the respective expressions represented:

AASHTO	American Association of State Highway and Transportation Officials
ACI	American Concrete Institute
AISC	American Institute of Steel Construction
ALS	American Lumber Standards
ANSI	American National Standards Institute, Inc.
ASTM	American Society for Testing and Materials
AWWAAmerican Water Works Association	
AWPA	American Wood Preservers Association
AWS	American Welding Society
FSS	Federal Specifications and Standards, General Services Administration
IBC	International Building Code
NACE	National Association of Corrosion Engineers
NFPA	National Fire Protection Association
OSHA	Occupational Safety and Health Administration
SPIB	Southern Pine Inspection Bureau
SSPC	Steel Structures Painting Council

PART 2 – PRODUCTS (NOT APPLICABLE)

PART 3 – EXECUTION (NOT APPLICABLE)

CONTRACT CLOSEOUT

PART 1 - GENERAL

1.1 DESCRIPTION

- A. Work included shall be providing compliance with the requirements of the General Conditions of these Specifications for administrative procedures in closing out the project work.
- B. Related work:
 - 1. Documents affecting work of this Section include, but are not necessarily limited to, General Conditions, Supplementary Conditions, and Sections in Division 1 of these Specifications.
 - 2. Other requirements for technical services are stated in other sections of these Specifications.
 - 3. Section 01720 Project Record Documents.

1.2 SUBSTANTIAL COMPLETION

- A. The Contractor shall notify the Engineer that, in his opinion, the project is substantially complete. A written statement listing items complete shall be submitted.
- B. Upon receipt of the Contractor's notice, the Engineer or where necessary, the applicable codes enforcement personnel, shall make an observation to determine if substantial completion is provided.
- C. If, in the Engineer's opinion, the project is not substantially complete, a written notice to the Contractor shall follow outlining reasons and deficiencies in work that comprised the Engineer's decision. The Engineer's decision shall be final.

1.3 FINAL OBSERVATION

A. The Engineer will make a final observation for the Contractor after all items noted in the substantial completion observation have been corrected. The Contractor shall notify the Engineer in writing when a final observation is needed. Incomplete and/or defective work shall be given to the Contractor by written notice.

1.4 RE-OBSERVATION

- A. Re-observation required due to failure by the Contractor to make previously noted corrections will be performed by the Engineer.
- B. Cost for such observations will be due to and payable by the Contractor at a rate equal to charges to the Owner for similar work.
- C. Re-observations will continue until the work is acceptable to the Engineer.

1.5 COMPLETION BY CONTRACTOR

- A. When the Engineer finds the Contractor's work acceptable, the Contractor shall be given such notice and should proceed with closeout submittals.
- B. Closeout submittals shall contain at least the following:
 - 1. Project record documents.
 - 2. Warranties and bonds.
 - 3. Evidence of payment and release to liens per General Conditions.

1.6 FINAL PAYMENT

- A. Final payment to the Contractor will be made upon completion of the previous items and others required by these specifications. A final statement shall be forwarded to the Engineer. The statement shall address:
 - 1. Previous change orders.
 - 2. Unit prices.
 - 3. Deductions for uncorrected work.
 - 4. Deductions for liquidated damages.
 - 5. Deductions for re-testing work.
 - 6. Deductions for re-observation.
 - 7. Deductions for shop drawing review.
 - 8. Adjusted contract sum.
 - 9. Previous payments.
 - 10. Amount due.
- B. When required, the Engineer will prepare a contract change order for adjustments not previously made.

PART 2 – PRODUCTS (NOT APPLICABLE)

PART 3 – EXECUTION (NOT APPLICABLE)

PROJECT RECORD DOCUMENTS

PART 1 - GENERAL

1.1 DESCRIPTION

- A. Work included:
 - 1. Throughout progress of the Work, maintain an accurate record of changes in the Contract Documents, as described in Article 3.1 below.
 - 2. Upon completion of the Work, deliver the recorded changes to the Engineer.
- B. Related work:
 - 1. Documents affecting work of this Section include, but are not necessarily limited to, General Conditions, Supplementary Conditions, and Sections in Division 1 of these specifications.
 - 2. Other requirements affecting Project Record Documents may appear in pertinent other Sections of these specifications.

1.2 QUALITY ASSURANCE

- A. Delegate the responsibility for maintenance of Record Documents to one person on the Contractor's staff as approved by the Engineer.
- B. Accuracy of records shall be such that future search for items shown on the Project Record Documents may rely reasonably on the information provided under this Section of the Work.

1.3 SUBMITTALS

- A. The Engineer's approval of the current status of Project Record Documents may be a prerequisite to the Engineer's approval of requests for progress payment and request for final payment under the Contract.
- B. Prior to submitting each request for progress payment, secure the Engineer's approval of the current status of the Project Record Documents.
- C. Prior to submitting request for final payment, submit the final Project Record Documents to the Engineer and secure his approval.

1.4 PRODUCT HANDLING

- A. Maintain the job set of Record Documents completely protected from deterioration and from loss and damage until completion of the Work and transfer to the Engineer.
- B. In the event of loss of recorded data, use means necessary to again secure the data to the Engineer's approval.
 - 1. Such means shall include, if necessary in the opinion of the Engineer, removal and PROJECT RECORD DOCUMENTS 01720-1

replacement of concealing materials.

- 2. In such case, provide replacements to the standards originally required by the Contract Documents.
- PART 2 PRODUCTS
- 2.1 JOB SET DOCUMENTS
 - A. Promptly following receipt of the Owner's Notice to Proceed, secure from the Engineer, at no charge to the Contractor, one complete set of all Documents comprising the Contract.

PART 3 - EXECUTION

- 3.1 MAINTENANCE OF JOB SET
 - A. Immediately upon receipt of the job set described in above paragraph titled "JOB SET DOCUMENTS", identify each of the Documents with the title, "RECORD DOCUMENTS JOB SET".
 - B. Preservation:
 - 1. Considering the Contract completion time, the probable number of occasions upon which the job set must be taken out for new entries and for examination, and the conditions under which these activities will be performed, devise a suitable method for protecting the job set to the approval of the Engineer.
 - 2. Do not use the job set for any purpose except entry of new data and for review by the Engineer.
 - 3. Maintain the job set at the site of Work as that site is designated by the Engineer.
 - C. Field work and making entries on Job Set Drawings:
 - 1. Use erasable colored pencil, preferably red (not ink or indelible pencil) to delineate changes.
 - 2. Show by station number location of all fittings, manholes, valves, wye locations, etc.
 - 3. Reference all fittings and valves at least to two aboveground items reasonably safe from being relocated and indicate such references on the drawings.
 - 4. Reference all pipelines from the center of the parallel roadway at least every 100 feet or where changes occur in the direction of the pipeline.
 - 5. Reference all bores from the center of the roadway to the beginning and end of the casing and ductile iron pipe. Depths of bury must also be provided.
 - 6. Reference all stream crossings and their distance from the center of the parallel roadway and the bridge or other obstruction. A profile of the stream crossing shall also be provided to show the depth of the pipeline under the stream.
 - 7. Field measure and reference all fittings and valves to two aboveground items reasonably safe from being relocated and indicate such references on the drawings.
 - 8. Show location of electrical conduit, pull boxes, etc.
 - D. Submittal
 - 1. Submit "marked-up" set of drawings to the Engineer.
 - 2. Make any necessary additions as required by the Engineer.