

PROJECT MANUAL

FOR

**AMI WATER METER INSTALLATION SERVICES
MGA PROJECT W#300**

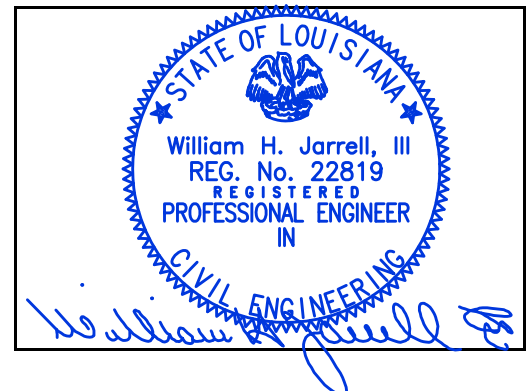
FOR THE

**CITY OF OPELOUSAS
P.O. BOX 1879
OPELOUSAS, LA 70571-1879**

PREPARED BY:

**MORGAN GOUDEAU & ASSOCIATES, INC.
CONSULTING ENGINEERS & LAND SURVEYORS
1703 WEST LANDRY STREET
OPELOUSAS, LA 70570**

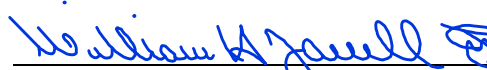
FEBRUARY, 2022



AMI WATER METER INSTALLATION
SERVICES
MGA PROJECT W#300

CITY OF OPELOUSAS
P.O. BOX 1879
OPELOUSAS, LA 70571-1879

I hereby certify that this Project Manual was prepared by me or under my direct supervision, and that I am a duly registered Engineer under the laws of the State of Louisiana.



WILLIAM H. JARRELL, III, P.E.
LICENSE NO. 22819
FEBRUARY 15, 2022

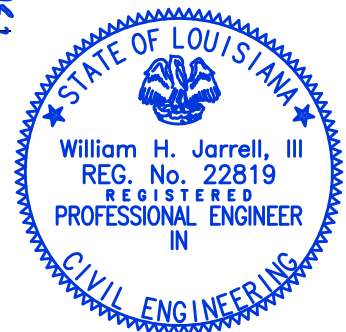


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CONTRACT DOCUMENTS

ADVERTISEMENT FOR BIDS

Sealed bids will be received by the City of Opelousas, up to the hour of 2:00 p.m. CDST 105 North Main Street, Opelousas, Louisiana, 70570 on

THURSDAY, JUNE 9, 2022

and then publicly opened and read aloud, for AMI Water Meter Installation Services consisting of the replacement of approximately 6,000 water meters and endpoints including all necessary labor, materials, equipment, tools, etc., required as set forth in the Bid Documents of Morgan Goudeau & Associates, Inc. for AMI Water Meter Installation Services for the City of Opelousas. Bid Documents are available and may be seen and examined at the Clerk's Office, Opelousas, Louisiana, or at the office of Morgan Goudeau & Associates, Inc., Consulting Engineers, Opelousas, Louisiana. Bid related materials can also be examined or obtained at <https://lamats.eauctionservices.com/>. Copies of Bid Documents may be obtained from the office of Morgan Goudeau & Associates, Inc., 1703 West Landry Street, Opelousas, Louisiana, upon deposit of \$25.00 dollars for each set of documents. Deposits on the first set of documents furnished to bona fide PRIME BIDDERS, fully licensed by the Louisiana State Licensing Board of Contractors, will be fully refunded upon the return of the documents in good condition, no later than ten (10) days after receipt of bids. On other sets of documents furnished to said prime bidders, the payment of \$25.00 dollars shall constitute the cost of reproduction and handling and WILL NOT BE REFUNDED. Bids may also be submitted electronically through LaMATS e-Auction Services (EASiBUY) <https://lamats.eauctionservices.com/>. All potential bidders may register at the website address at no charge to access the full specifications and to receive email notification of changes to the solicitation. A \$300.00 Electronic Platform Fee will be payable upon award by the awarded vendor whether having submitted a bid by sealed envelope or electronically.

A Mandatory Pre-Bid Meeting will be held at 10:00 a.m. CST on Wednesday, May 25, 2022 at the Opelousas City Hall Meeting Room, 105 North Main Street, Opelousas, Louisiana 70570. All prime bidders submitting a bid are required to attend the Pre-Bid Meeting. Remote attendance by prime bidder will be acceptable. If the prime bidder will be attending remotely, then the prime bidder must send an email to cfrancois@bellsouth.net to request a link to join the pre-bid meeting. The prime bidder will then receive a link along with any other information needed to attend the pre-bid meeting.

Bids shall be enclosed in a sealed envelope addressed to Julius Alsandor, Mayor, City of Opelousas, Louisiana and plainly marked on the outside, "Bid for AMI Water Meter Installation Services, MGA Project W#300". Bids must be accompanied by a certified check or bid bond in the amount equal to 5% of the bid, made payable to the City of Opelousas, Louisiana, as a guarantee that the bidder will furnish all necessary bonds and enter into a contract if his bid is accepted. Sureties used for obtaining bonds must appear as acceptable on the U.S. Department of Treasury Circular 570.

No bidder may withdraw his/her bid within forty-five (45) days after the actual date of the opening thereof.

Minority owned firms and small businesses are encouraged to participate.

The City of Opelousas reserves the right to reject any and all bids for just cause in accordance with public bid law.

Thus done and signed at Opelousas, Louisiana, this 25th day of April, 2022.

JULIUS ALSANDOR
MAYOR

Attest: LEISA ANDERSON
CITY CLERK

ADVERTISE: MAY 11, 18, 25, 2022 (3 TIMES)

INSTRUCTIONS TO BIDDERS

ARTICLE 1 - DEFINED TERMS

- 1.01 Terms used in these Instructions to Bidders will have the meanings indicated in the General Conditions and Supplementary Conditions. Additional terms used in these Instructions to Bidders have the meanings indicated below which are applicable to both the singular and plural thereof:
- A. Bidder - The individual or entity who submits a Bid directly to Owner.
 - B. Issuing Office - The office from which the Bidding Documents are to be issued and where the bidding procedures are to be administered.
 - C. Successful Bidder - The lowest responsible Bidder submitting a responsive Bid to whom Owner (on the basis of Owner's evaluation as hereinafter provided) makes an award.

ARTICLE 2 - COPIES OF BIDDING DOCUMENTS

- 2.01 Complete sets of the Bidding Documents may be obtained from the Issuing Office upon deposit of \$25.00 dollars for each set of documents. Deposits on the first set of documents furnished to bona fide PRIME BIDDERS, fully licensed by the Louisiana State Licensing Board of Contractors, will be fully refunded upon the return of the documents in good condition, no later than ten (10) days after opening of Bids.

The issuing office for this project, as defined in Paragraph 1.01.B., is:
Morgan Goudeau & Associates, Inc.
Consulting Engineers and Land Surveyors
1703 West Landry Street
Opelousas, Louisiana 70570
Phone: 337-948-4222
Fax: 337-942-2108

- 2.02 Complete sets of Bidding Documents must be used in preparing Bids; neither Owner nor Engineer assumes any responsibility for errors or misinterpretations resulting from the use of incomplete sets of Bidding Documents.
- 2.03 Owner and Engineer in making copies of Bidding Documents available on the above terms do so only for the purpose of obtaining Bids for the Work and do not confer a license or grant for any other use.

ARTICLE 3 - PROJECT BACKGROUND

- 3.01 The City of Opelousas is in the process of modernizing its current AMI water metering infrastructure and systems by replacing it with a new Advanced Metering Infrastructure ("AMI") system. The City is now desiring to install meters that support the Badger Meter AMI system throughout their entire service area. This installation effort will include full replacement of older water meters, installation of Badger Orion Cellular water endpoints on all water meters not currently part of the Badger AMI system, and provisioning of these meters onto the Badger AMI Network.
- 3.02 As part of this installation engagement, the City anticipates additional work at individual metering locations may be necessary to properly and effectively install the Badger water meters and endpoints.

ARTICLE 4 - OBJECTIVES

- 4.01 The City is requesting bids from qualified firms ("Bidders") to provide installation services for the City's comprehensive AMI Replacement Program ("Project"). The required services and performance conditions are set forth in this Project Manual. The Project consists of installation services for water meters and endpoints provided by the City or its AMI Consultant ("E Source") as well as ancillary

INSTRUCTIONS TO BIDDERS

installation services (lid replacements, lid drilling, box repositioning, valve replacement, etc.) related to the AMI Project.

- 4.02 Requirements for Installation Services are provided in Section 02514A of the Technical Specifications. Bidders are requested to submit a bid that complies with the requirements in Section 02514A.

ARTICLE 5 - QUALIFICATIONS OF BIDDERS

- 5.01 To demonstrate Bidder's qualifications to perform the Work, within ten (10) days of Owner's request Bidder shall submit written evidence such as financial data, previous experience, present commitments, methodology and approach, and such other data as may be called for below. A detailed description of specific information required is provided in the section designated as "Documents to be Completed by Successful Bidder Prior to Award of Contract", located immediately after the Bid Form.
- A. Attestation Form (Past Criminal Convictions of Bidder)
 - B. Affidavit Form (Verification of Employees)
 - C. Non-Collusion Affidavit
 - D. Bidder's Service Methodology and Approach
 - E. Bidder's Previous Experiences and Qualifications
 - F. Bidder Viability and References

ARTICLE 6 - EXAMINATION OF BIDDING DOCUMENTS, OTHER RELATED DATA, AND SITE

- 6.01 On request, Owner will provide Bidder access to the site to conduct such examinations, investigations, explorations, tests, and studies as Bidder deems necessary for submission of a Bid. Bidder shall fill all holes and clean up and restore the site to its former condition upon completion of such explorations, investigations, tests, and studies.
- 6.02 It is the responsibility of each Bidder before submitting a Bid to:
- A. Examine and carefully study the Bidding Documents, including any Addenda and the other related data identified in the Bidding Documents.
 - B. Visit the site and become familiar with and satisfy Bidder as to the general, local, and site conditions that may affect cost, progress, and performance of the work.
 - C. Become familiar with and satisfy Bidder as to all federal, state, and local Laws and Regulations that may affect cost, progress, or performance of the work.
 - D. Agree at the time of submitting its Bid that no further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of its Bid for performance of the work at the price bid and within the times and in accordance with the other terms and conditions of the Bidding Documents.
 - E. Become aware of the general nature of the work to be performed by Owner and others at the site that relates to the work as indicated in the Bidding Documents.
 - F. Correlate the information known to Bidder, information and observations obtained from visits to the site, reports and drawings identified in the Bidding Documents, and all additional examinations, investigations, explorations, tests, studies, and data with the Bidding Documents.
 - G. Promptly give Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder discovers in the Bidding Documents and confirm that the written resolution thereof by Engineer is acceptable to Bidder.

INSTRUCTIONS TO BIDDERS

- H. Determine that the Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance of the work.
- 6.03 The submission of a Bid will constitute an incontrovertible representation by Bidder that Bidder has complied with every requirement of this Article 6, that without exception the Bid is premised upon performing and furnishing the work required by the Bidding Documents and applying any specific means, methods, techniques, sequences, and procedures of construction that may be shown or indicated or expressly required by the Bidding Documents, that Bidder has given Engineer written notice of all conflicts, errors, ambiguities, and discrepancies that Bidder has discovered in the Bidding Documents and the written resolutions thereof by Engineer are acceptable to Bidder, and that the Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performing and furnishing the work.

ARTICLE 7 - PRE-BID CONFERENCE

- 7.01 A Mandatory pre-Bid conference will be held at 10:00 a.m. on Wednesday, May 25, 2022 at the Opelousas City Hall Meeting Room, 105 N. Main Street, Opelousas, LA 70570. Representatives of Owner and Engineer will be present to discuss the Project. Bidders are REQUIRED to attend and participate in the conference. Remote attendance by Bidders will be acceptable. If the prospective bidder will be attending remotely, then the prospective bidder must send an email to cfrancois@bellsouth.net to request a link to join the pre-bid meeting. The prospective bidder will then receive a link along with any other information needed to attend the pre-bid meeting. Engineer will transmit to all prospective Bidders of record such Addenda as Engineer considers necessary in response to questions arising at the conference. Oral statements may not be relied upon and will not be binding or legally effective.

ARTICLE 8 - SITE AND OTHER AREAS

- 8.01 The project site is the entire service area of the Opelousas Water System, as indicated in Figure 1 below. The City and E Source (City's AMI Consultant) will provide approximately 3,500 square feet of warehousing space at 1638 Creswell Lane, Opelousas to support deployment. It has a six (6) foot ground level roll up door but no loading dock. The successful bidder will be responsible for its own wireless internet access. Unsecured overnight parking space for field service vehicles is available at this location. The meter and endpoint inventory along with curb stops, meter boxes and lids will be stored at this warehouse. Keys to this warehouse will be exceptionally limited to the contractor and a restricted number of City personnel. The City will not provide any material handling equipment to be used either inside or outside of the warehouse.
- 8.02 All additional lands and access thereto required for temporary construction facilities, construction equipment, or storage of materials and equipment to be incorporated in the work are to be obtained and paid for by Contractor. Easements for permanent structures or permanent changes in existing facilities are to be obtained and paid for by Owner unless otherwise provided in the Bidding Documents.

ARTICLE 9 - INTERPRETATIONS AND ADDENDA

- 9.01 All questions about the meaning or intent of the Bidding Documents are to be submitted to Engineer in writing. Interpretations or clarifications considered necessary by Engineer in response to such questions will be issued by Addenda mailed or delivered to all parties recorded by Engineer as having received the Bidding Documents. Questions received less than seven (7) working days prior to the

INSTRUCTIONS TO BIDDERS

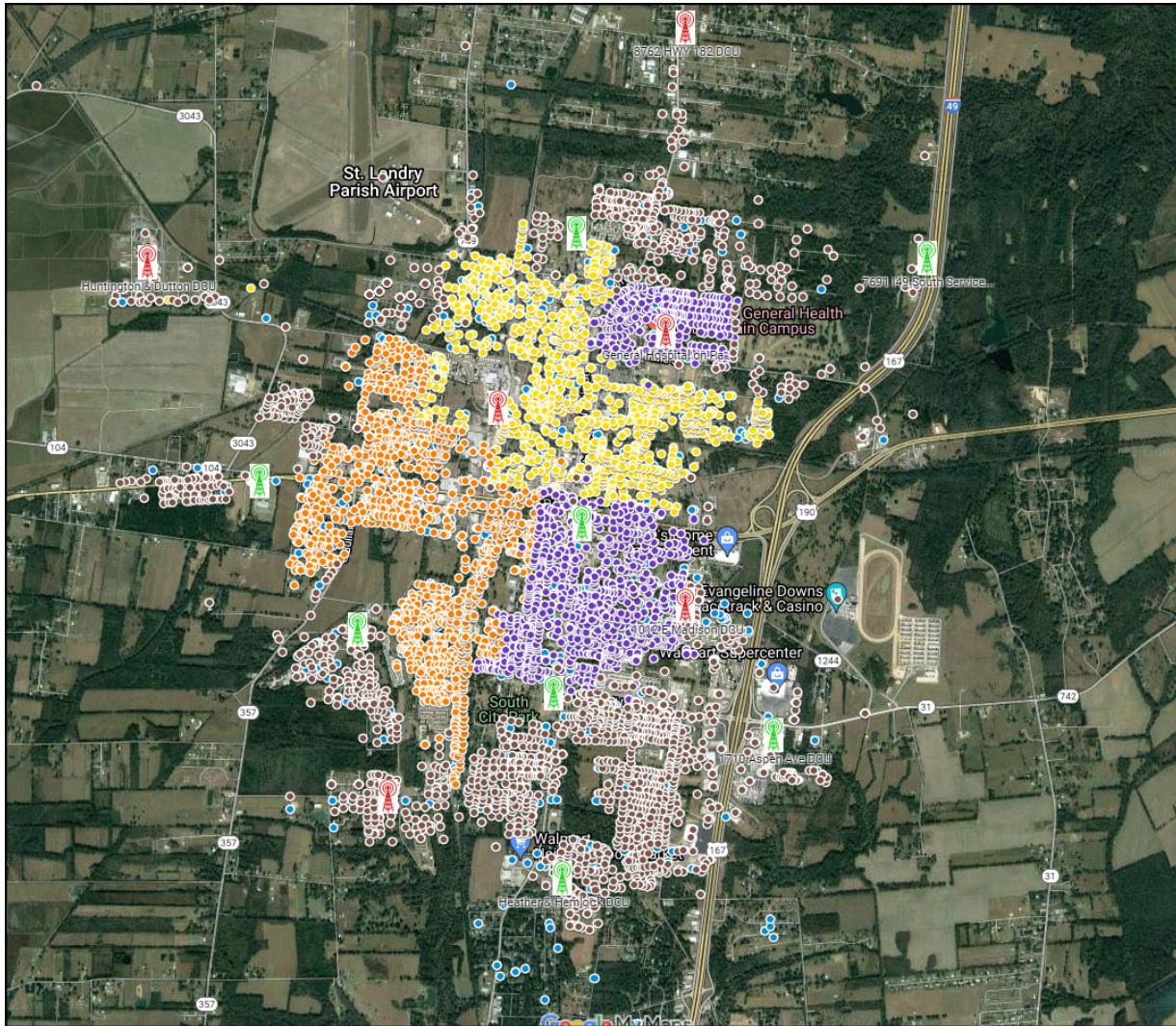


FIGURE 1
OPELOUSAS WATER SYSTEM SERVICE AREA

INSTRUCTIONS TO BIDDERS

date for opening of Bids may not be answered. Only questions answered by Addenda will be binding. Oral and other interpretations or clarifications will be without legal effect.

- 9.02 Addenda may be issued to clarify, correct, or change the Bidding Documents as deemed advisable by Owner or Engineer.

ARTICLE 10 - BID SECURITY

- 10.01 A Bid must be accompanied by Bid security made payable to Owner in an amount of FIVE (5%) PERCENT of Bidder's maximum Bid price and in the form of a certified or bank check or a Bid Bond (on the form attached) issued by a surety meeting the requirements of Paragraphs 5.01 and 5.02 of the General Conditions.
- 10.02 The Bid security of the Successful Bidder will be retained until such Bidder has executed the Contract Documents, furnished the required contract security and met the other conditions of the Notice of Award, whereupon the Bid security will be returned. If the Successful Bidder fails to execute and deliver the Contract Documents and furnish the required contract security within fifteen (15) days after the Notice of Award, Owner may annul the Notice of Award and the Bid security of the Bidder will be forfeited. The Bid security of other Bidders whom Owner believes to have a reasonable chance of receiving the award may be retained by Owner until the earlier of seven (7) days after the Effective Date of the Agreement or forty-five (45) days after the Bid opening, whereupon Bid security furnished by such Bidders will be returned.
- 10.03 Bid security of other Bidders whom Owner believes do not have a reasonable chance of receiving the award will be returned within seven (7) days after the Bid opening.

ARTICLE 11 - CONTRACT TIMES

- 11.01 The times for Substantial Completion is one hundred eighty (180) calendar days and readiness for final payment is two hundred twenty-five (225) calendar days and will be entered into the Agreement. It will be necessary for the apparent Successful Bidder to satisfy Owner that it will be able to achieve Substantial Completion and be ready for final payment within the times designated.
- 11.02 There is no target start date for the project. The plan is to commence installation activities once the City has an executed contract with the successful bidder.

ARTICLE 12 - LIQUIDATED DAMAGES

- 12.01 Provisions for liquidated damages, if any, are set forth in the Agreement.

ARTICLE 13 - SUBSTITUTE AND "OR-EQUAL" ITEMS

- 13.01 The Contract, if awarded, will be on the basis of materials and equipment specified or described in the Bidding Documents, or those substitute or "or-equal" materials and equipment approved by Engineer and identified by Addendum. The materials and equipment described in the Bidding Documents establish a standard of required type, function and quality to be met by any proposed substitute or "or-equal" item. No item of material or equipment will be considered by Engineer as a substitute or "or-equal" unless written request for approval has been submitted by Bidder and has been received by Engineer at least seven (7) days prior to the date for receipt of Bids. Each such request shall conform to requirements of Paragraph 6.05 of the General Conditions. The burden of proof of the merit of the proposed item is upon Bidder. Engineer's decision of approval or disapproval of a proposed item will be final. If Engineer approves any proposed item, such approval will be set forth in an Addendum issued to all prospective Bidders. Bidders shall not rely upon approvals made in any other manner.

INSTRUCTIONS TO BIDDERS

ARTICLE 14 - SUBCONTRACTORS, SUPPLIERS, AND OTHERS

- 14.01 If the Supplementary Conditions require the identity of certain Subcontractors, Suppliers, individuals, or entities to be submitted to Owner in advance of a specified date prior to the Effective Date of the Agreement, the apparent Successful Bidder, and any other Bidder so requested, shall within five (5) days after Bid opening, submit to Owner a list of all such Subcontractors, Suppliers, individuals, or entities proposed for those portions of the work for which such identification is required. Such list shall be accompanied by an experience statement with pertinent information regarding similar projects and other evidence of qualification for each such Subcontractor, Supplier, individual, or entity if requested by Owner. If Owner or Engineer, after due investigation, has reasonable objection to any proposed Subcontractor, Supplier, individual, or entity, Owner may, before the Notice of Award is given, request apparent Successful Bidder to submit a substitute.
- 14.02 If apparent Successful Bidder declines to make any such substitution, Owner may award the Contract to the next lowest Bidder that proposes to use acceptable Subcontractors, Suppliers, individuals, or entities. Declining to make requested substitutions will not constitute grounds for forfeiture of the Bid security of any Bidder. Any Subcontractor, Supplier, individual, or entity so listed and against which Owner or Engineer makes no written objection prior to the giving of the Notice of Award will be deemed acceptable to Owner and Engineer subject to revocation of such acceptance after the Effective Date of the Agreement as provided in Paragraph 6.06 of the General Conditions.
- 14.03 Contractor shall not be required to employ any Subcontractor, Supplier, individual, or entity against whom Contractor has reasonable objection.

ARTICLE 15 - PREPARATION OF BID

- 15.01 The Bid form is included with the Bidding Documents. Additional copies may be obtained from ENGINEER.
- 15.02 All blanks on the Bid form shall be completed by printing in ink or by typewriter and the Bid signed. A Bid price shall be indicated for each ALTERNATIVE listed therein.
- 15.03 A Bid by a corporation shall be executed in the corporate name by the president or a vice-president or other corporate officer accompanied by evidence of authority to sign. The corporate seal shall be affixed and attested by the secretary or an assistant secretary. The corporate address and state of incorporation shall be shown below the signature.
- 15.04 A Bid by a partnership shall be executed in the partnership name and signed by a partner (whose title must appear under the signature), accompanied by evidence of authority to sign. The official address of the partnership shall be shown below the signature.
- 15.05 A Bid by a limited liability company shall be executed in the name of the firm by a member and accompanied by evidence of authority to sign. The state of formation of the firm and the official address of the firm must be shown below the signature.
- 15.06 A Bid by an individual shall show the Bidder's name and official address.
- 15.07 A Bid by a joint venture shall be executed by each joint venturer in the manner indicated on the Bid form. The official address of the joint venture must be shown below the signature.
- 15.08 All names shall be typed or printed in ink below the signatures.
- 15.09 The Bid shall contain an acknowledgment of receipt of all Addenda, the numbers of which shall be filled in on the Bid form.
- 15.10 The address and telephone number for communications regarding the Bid shall be shown.

INSTRUCTIONS TO BIDDERS

- 15.11 The Bid shall contain evidence of Bidder's authority and qualification to do business in the state where the Project is located or covenant to obtain such qualification prior to award of the Contract. Bidder's state contractor license number for the state of the Project, if any, shall also be shown on the Bid form.

ARTICLE 16 - BASIS OF BID; EVALUATION OF BIDS

- 16.01 Unit Price
- A. Bidders shall submit a Bid on a unit price basis for each item of work listed in the Bid schedule.
 - B. The total of all estimated prices will be determined as the sum of the products of the estimated quantity of each item and the unit price Bid for the item. The final quantities and Contract Price will be determined in accordance with Paragraph 11.03 of the General Conditions.
 - C. Discrepancies between the multiplication of units of work and unit prices will be resolved in favor of the unit prices. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum. Discrepancies between words and figures will be resolved in favor of the words.
- 16.02 The Bid price shall include such amounts as the Bidder deems proper for overhead and profit on account of cash allowances, if any, named in the Contract Documents as provided in Paragraph 11.02 of the General Conditions.
- 16.03 Bid prices will be compared after adjusting for differences in the time designated by Bidders for Substantial Completion. The adjusting amount will be determined at the rate set forth in the Contract Documents for liquidated damages for failing to achieve Substantial Completion for each day before or after the desired date appearing in Article 9.

ARTICLE 17 - SUBMITTAL OF BID

- 17.01 Each prospective Bidder is furnished one (1) copy of the Bidding Documents with one (1) separate unbound copy each of the Bid form and the Bid Bond Form. The unbound copy of the Bid form is to be completed and submitted with the Bid security and a corporate resolution or other signature authorization. Failure to include a copy of the corporate resolution or appropriate signature authorization, may result in the rejection of the bid unless the bidder has complied with LA. R.S. 38:2212.B.5.
- 17.02 A Bid shall be submitted no later than the date and time prescribed and at the place indicated in the advertisement for Bid and shall be enclosed in an opaque sealed envelope plainly marked with the Project title (and, if applicable, the designated portion of the Project for which the Bid is submitted), the name and address of Bidder, Bidder's State Contractors License Number, and shall be accompanied by the Bid security and other required documents. If a Bid is sent by mail or other delivery system, the sealed envelope containing the Bid shall be enclosed in a separate envelope plainly marked on the outside with the notation "BID ENCLOSED." A mailed Bid shall be addressed to Julius Alsandor, Mayor, P.O. Box 1879, Opelousas, LA 70571-1879.

ARTICLE 18 - MODIFICATION AND WITHDRAWAL OF BID

- 18.01 A Bid may be modified or withdrawn by an appropriate document duly executed in the manner that a Bid must be executed and delivered to the place where Bids are to be submitted prior to the date and time for the opening of Bids.
- 18.02 If within forty-eight (48) hours after Bids are opened (excluding Saturdays, Sundays and legal holidays) any Bidder files a duly signed written notice with Owner and promptly thereafter

INSTRUCTIONS TO BIDDERS

demonstrates to the reasonable satisfaction of Owner that there was a material and substantial mistake in the preparation of its Bid, that Bidder may withdraw its Bid, and the Bid security will be returned. Thereafter, if the work is rebid, that Bidder will be disqualified from further bidding on the work.

ARTICLE 19 - OPENING OF BIDS

- 19.01 Bids will be opened at the time and place indicated in the advertisement or invitation to Bid and, unless obviously non-responsive, read aloud publicly. An abstract of the amounts of the base Bids and major alternates, if any, will be made available to Bidders after the opening of Bids.

ARTICLE 20 - BIDS TO REMAIN SUBJECT TO ACCEPTANCE

- 20.01 All Bids will remain subject to acceptance for the period of time stated in the Bid form, but Owner may, in its sole discretion, release any Bid and return the Bid security prior to the end of this period.

ARTICLE 21 - AWARD OF CONTRACT

- 21.01 Owner reserves the right to reject any or all Bids for just cause in accordance with Public Bid Law.
- 21.02 More than one (1) Bid for the same work from an individual or entity under the same or different names will not be considered. Reasonable grounds for believing that any Bidder has an interest in more than one (1) Bid for the work may be cause for disqualification of that Bidder and the rejection of all Bids in which that Bidder has an interest.
- 21.03 In evaluating Bids, Owner will consider whether or not the Bids comply with the prescribed requirements, and such alternates, unit prices and other data, as may be requested in the Bid Form or prior to the Notice of Award.
- 21.04 In evaluating Bidders, Owner will consider the qualifications of Bidders and may consider the qualifications and experience of Subcontractors, Suppliers, and other individuals or entities proposed for those portions of the work for which the identity of Subcontractors, Suppliers, and other individuals or entities must be submitted. Owner will also consider the Bidders Service Methodology and Approach in executing the project, including information such as:
- * How well the Bidder's organizational structure is and whether it can successfully execute this project.
 - * How well the Bidder proposed to set up and manage its field deployment process and work flows to repetitively execute the mass meter exchange work.
 - * How well the Bidder imparts a keen understanding and emphasis on safety in all field activities.
 - * Does the Bidder Exhibit a fundamental understanding of the Customer Care and Call Center processes and communications required to successfully handle and respond to customer concerns that are a routine part of the installation process.
- 21.05 Owner may conduct such investigations as Owner deems necessary to establish the responsibility, qualifications, and financial ability of Bidders, proposed Subcontractors, Suppliers, individuals or entities to perform the work in accordance with the Contract Documents.
- 21.06 If the Contract is to be awarded, Owner will award the Contract to the lowest responsible Bidder in accordance with State law whose Bid is in the best interests of the Project.

INSTRUCTIONS TO BIDDERS

ARTICLE 22 - CONTRACT SECURITY AND INSURANCE

- 22.01 Article 5 of the General Conditions, as may be modified by the Supplementary Conditions, sets forth Owner's requirements as to performance and payment Bonds and insurance. When the Successful Bidder delivers the executed Agreement to Owner, it must be accompanied by such Bonds.

ARTICLE 23 - SIGNING OF AGREEMENT

- 23.01 When Owner gives a Notice of Award to the Successful Bidder, it shall be accompanied by the required number of unsigned counterparts of the Agreement with the other Contract Documents which are identified in the Agreement as attached thereto. Within fifteen (15) days thereafter, Successful Bidder shall sign and deliver the required number of counterparts of the Agreement and attached documents to Owner. Within ten (10) days thereafter, Owner shall deliver one (1) fully signed counterpart to Successful Bidder with a complete set of the Drawings with appropriate identification.

ARTICLE 24 - SALES AND USE TAX EXEMPTION

- 24.01 In accordance with applicable rules adopted and promulgated by the Louisiana Department of Revenue, the Owner intends to designate the contractor and all subcontractors as its agents for the purchase and lease of materials, supplies or equipment for this Project. The contractor and all subcontractors shall accept the agency designation. The designation and acceptance thereof shall be made on the form prescribed by the Louisiana State Department of Revenue which form shall be part of the contract between the Owner, and the Contractor. A copy of this form is included in the Contract Documents in the section titled "Documents to be Completed by Successful Bidder Prior to Award of Contract".
- 24.02 The agency relationship between the Owner and the Contractor and all subcontractors shall relieve the Contractor and subcontractors (1) from paying any state or local sales or state or local use taxes on materials, supplies or equipment which is affixed to and/or made a part of the real estate of the project or work or which is permanently incorporated into the project or work and, (2) from paying any state or local use taxes on any materials, supplies or equipment which is leased and used exclusively for the project or work. Accordingly, in preparing their bids and computing costs, the Contractor and subcontractors shall not consider sales and/or use taxes which would otherwise be due.
- 24.03 The Contractor and subcontractor shall furnish a copy of such certificate to all vendors or suppliers of any of the materials, supplies or equipment described above.
- 24.04 The Contractor and subcontractors shall make all purchases and leases on behalf of and as the agent of the Owner.
- 24.05 Rules and regulations of the Louisiana Department of Revenue shall prevail over any conflicting provisions or specifications of the Contract.
- 24.06 The Contractor shall enter into a separate Contract with the Owner prior to issuance of the Notice to Proceed as it relates to the agent arrangement for sales tax exemptions. A copy of the contract is included in the Contract Documents in the section titled "Documents to be Completed by Owner".

**DOCUMENTS
TO BE COMPLETED BY
ALL BIDDERS**

LOUISIANA UNIFORM PUBLIC WORK BID FORM

To: City of Opelousas
P.O. Box 1879
Opelousas, LA 70571-1879
(Owner to provide name and address of owner)

Bid For: AMI Water Meter Installation Services
MGA Project W#300
(Owner to provide name of project and other identifying)

The undersigned bidder hereby declares and represents that she/he; a) has carefully examined and understands the Bidding Documents, b) has not received, relied on, or based his bid on any verbal instructions contrary to the Bidding Documents or any addenda, c) has personally inspected and is familiar with the project site, and hereby proposes to provide all labor, materials, tools, appliances and facilities as required to perform, in a workmanlike manner, all work and services for the construction and completion of the referenced project, all in strict accordance with the Bidding Documents prepared by: Morgan Goudeau & Associates, Inc., Opelousas, Louisiana and dated: February 2022
(Owner to provide name of entity preparing bidding documents.)

Bidders must acknowledge all addenda. The Bidder acknowledges receipt of the following **ADDENDA**:
(Enter the number the Designer has assigned to each of the addenda that the Bidder is acknowledging).

TOTAL BASE BID: For all work required by the Bidding Documents (including any and all unit prices designated "Base Bid" *but not alternates) the sum of:

_____ Dollars (\$ _____)

ALTERNATES: For any and all work required by the Bidding Documents for Alternates including any and all unit prices designated as alternates in the unit price description.

Alternate No. 1 *(Owner to provide description of alternate and state whether add or deduct)* for the lump sum of:

_____ N/A _____ Dollars (\$ N/A)

Alternate No. 2 *(Owner to provide description of alternate and state whether add or deduct)* for the lump sum of:

_____ N/A _____ Dollars (\$ N/A)

Alternate No. 3 *(Owner to provide description of alternate and state whether add or deduct)* for the lump sum of:

_____ N/A _____ Dollars (\$ N/A)

NAME OF BIDDER: _____

ADDRESS OF BIDDER: _____

LOUISIANA CONTRACTOR'S LICENSE NUMBER: _____

NAME OF AUTHORIZED SIGNATORY OF BIDDER: _____

TITLE OF AUTHORIZED SIGNATORY OF BIDDER: _____

SIGNATURE OF AUTHORIZED SIGNATORY OF BIDDER:** _____

DATE: _____

THE FOLLOWING ITEMS ARE TO BE INCLUDED WITH THE SUBMISSION OF THIS LOUISIANA UNIFORM PUBLIC WORK BID FORM:

* The Unit Price Form shall be used if the contract includes unit prices. Otherwise it is not required and need not be included with the form. The number of unit prices that may be included is not limited and additional sheets may be included if needed.

** **A CORPORATE RESOLUTION OR WRITTEN EVIDENCE** of the authority of the person signing the bid for the public work as prescribed by LA R.S. 38:2212(B)(5).

BID SECURITY in the form of a bid bond, certified check or cashier's check as prescribed by LA R.S. 38:2218(A) attached to and made a part of this bid.

LOUISIANA UNIFORM PUBLIC WORK BID FORM

To: City of Opelousas
P.O. Box 1879
Opelousas, LA 70571-1879
(Owner to provide name and address of owner)

Bid For: AMI Water Meter Installation Services

MGA Project W#300
(Owner to provide name of project and other identifying)

UNIT PRICES: This form shall be used for any and all work required by the Bidding Documents and described as unit prices. Amounts shall be stated in figures and only in figures.

DESCRIPTION	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt # _____		Remove existing 5/8" x 3/4" meter and endpoint and replace with new 5/8" x 3/4" meter and endpoint	
REF NO.	QUANTITY	UNIT OF MEASURE	UNIT PRICE	UNIT PRICE EXTENSION <i>(Quantity times Unit Price)</i>
1	5,432	Each		

DESCRIPTION	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt # _____		Remove existing 1" meter and endpoint and replace with new 1" meter and endpoint	
REF NO.	QUANTITY	UNIT OF MEASURE	UNIT PRICE	UNIT PRICE EXTENSION <i>(Quantity times Unit Price)</i>
2	305	Each		

DESCRIPTION	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt # _____		Remove existing 1 1/2" meter and endpoint and replace with new 1 1/2" meter and endpoint	
REF NO.	QUANTITY	UNIT OF MEASURE	UNIT PRICE	UNIT PRICE EXTENSION <i>(Quantity times Unit Price)</i>
3	97	Each		

DESCRIPTION	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt # _____		Remove existing 2" meter and endpoint and replace with new 2" meter and endpoint	
REF NO.	QUANTITY	UNIT OF MEASURE	UNIT PRICE	UNIT PRICE EXTENSION <i>(Quantity times Unit Price)</i>
4	178	Each		

DESCRIPTION	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt # _____		Furnish meter box and lid for 3/4" and 1" meter (NDS Model No. D12-BAMR)(12" depth)	
REF NO.	QUANTITY	UNIT OF MEASURE	UNIT PRICE	UNIT PRICE EXTENSION <i>(Quantity times Unit Price)</i>
5	1,500	Each		

Wording for "DESCRIPTION" is to be provided by the Owner.

All quantities are estimated. The contractor will be paid based upon actual quantities as verified by the Owner.

LOUISIANA UNIFORM PUBLIC WORK BID FORM

To: City of Opelousas
P.O. Box 1879
Opelousas, LA 70571-1879
(Owner to provide name and address of owner)

Bid For: AMI Water Meter Installation Services
MGA Project W#300
(Owner to provide name of project and other identifying)

UNIT PRICES: This form shall be used for any and all work required by the Bidding Documents and described as unit prices. Amounts shall be stated in figures and only in figures.

DESCRIPTION	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt #__		Furnish meter box and lid for 3/4" and 1" meter (NDS Model No. D18-BAMR)(18" depth)	
REF NO.	QUANTITY	UNIT OF MEASURE	UNIT PRICE	UNIT PRICE EXTENSION <i>(Quantity times Unit Price)</i>
6	500	Each		

DESCRIPTION	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt #__		Furnish meter box and lid for 1 1/2" and 2" meter (NDS Model No. D15U-BAMR)(12" jumbo box)	
REF NO.	QUANTITY	UNIT OF MEASURE	UNIT PRICE	UNIT PRICE EXTENSION <i>(Quantity times Unit Price)</i>
7	200	Each		

DESCRIPTION	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt #__		Install meter box and lid for 3/4" and 1" meter (NDS Model No. D12-BAMR)(12" depth)	
REF NO.	QUANTITY	UNIT OF MEASURE	UNIT PRICE	UNIT PRICE EXTENSION <i>(Quantity times Unit Price)</i>
8	1,500	Each		

DESCRIPTION	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt #__		Install meter box and lid for 3/4" and 1" meter (NDS Model No. D18-BAMR)(18" depth)	
REF NO.	QUANTITY	UNIT OF MEASURE	UNIT PRICE	UNIT PRICE EXTENSION <i>(Quantity times Unit Price)</i>
9	500	Each		

DESCRIPTION	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt #__		Install meter box and lid for 1 1/2" and 2" meter (NDS Model no. D15U-BAMR)(12" jumbo box)	
REF NO.	QUANTITY	UNIT OF MEASURE	UNIT PRICE	UNIT PRICE EXTENSION <i>(Quantity times Unit Price)</i>
10	200	Each		

Wording for "DESCRIPTION" is to be provided by the Owner.

All quantities are estimated. The contractor will be paid based upon actual quantities as verified by the Owner.

LOUISIANA UNIFORM PUBLIC WORK BID FORM

To: City of Opelousas
P.O. Box 1879
Opelousas, LA 70571-1879
(Owner to provide name and address of owner)

Bid For: AMI Water Meter Installation Services
MGA Project W#300
(Owner to provide name of project and other identifying)

UNIT PRICES: This form shall be used for any and all work required by the Bidding Documents and described as unit prices. Amounts shall be stated in figures and only in figures.

DESCRIPTION	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt #__	Furnish 3/4" curb stop (CTS)(Mueller Part No. P-24350)		
REF NO.	QUANTITY	UNIT OF MEASURE	UNIT PRICE	UNIT PRICE EXTENSION <i>(Quantity times Unit Price)</i>
11	1,400	Each		

DESCRIPTION	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt #__	Furnish 3/4" curb stop (IPS)(Mueller Part No. B-24351)		
REF NO.	QUANTITY	UNIT OF MEASURE	UNIT PRICE	UNIT PRICE EXTENSION <i>(Quantity times Unit Price)</i>
12	2,100	Each		

DESCRIPTION	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt #__	Furnish 1" curb stop (CTS)(Mueller Part No. P-24350)		
REF NO.	QUANTITY	UNIT OF MEASURE	UNIT PRICE	UNIT PRICE EXTENSION <i>(Quantity times Unit Price)</i>
13	100	Each		

DESCRIPTION	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt #__	Furnish 1" curb stop (IPS)(Mueller Part No. B-24351)		
REF NO.	QUANTITY	UNIT OF MEASURE	UNIT PRICE	UNIT PRICE EXTENSION <i>(Quantity times Unit Price)</i>
14	100	Each		

DESCRIPTION	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt #__	Furnish 1 ½" curb stop (IPS)(Mueller Part No. B-24351)		
REF NO.	QUANTITY	UNIT OF MEASURE	UNIT PRICE	UNIT PRICE EXTENSION <i>(Quantity times Unit Price)</i>
15	20	Each		

Wording for "DESCRIPTION" is to be provided by the Owner.

All quantities are estimated. The contractor will be paid based upon actual quantities as verified by the Owner.

LOUISIANA UNIFORM PUBLIC WORK BID FORM

To: City of Opelousas
P.O. Box 1879
Opelousas, LA 70571-1879
(Owner to provide name and address of owner)

Bid For: AMI Water Meter Installation Services
MGA Project W#300
(Owner to provide name of project and other identifying)

UNIT PRICES: This form shall be used for any and all work required by the Bidding Documents and described as unit prices. Amounts shall be stated in figures and only in figures.

DESCRIPTION	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt #__		Furnish 2" curb stop (IPS)(Mueller Part No. B-24351)	
REF NO.	QUANTITY	UNIT OF MEASURE	UNIT PRICE	UNIT PRICE EXTENSION <i>(Quantity times Unit Price)</i>
16	20	Each		

DESCRIPTION	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt #__		Install 3/4" curb stop (CTS)(Mueller Part No. P-24350)	
REF NO.	QUANTITY	UNIT OF MEASURE	UNIT PRICE	UNIT PRICE EXTENSION <i>(Quantity times Unit Price)</i>
17	1,400	Each		

DESCRIPTION	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt #__		Install 3/4" curb stop (IPS)(Mueller Part No. B-24351)	
REF NO.	QUANTITY	UNIT OF MEASURE	UNIT PRICE	UNIT PRICE EXTENSION <i>(Quantity times Unit Price)</i>
18	2,100	Each		

DESCRIPTION	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt #__		Install 1" curb stop (CTS)(Mueller Part No. P-24350)	
REF NO.	QUANTITY	UNIT OF MEASURE	UNIT PRICE	UNIT PRICE EXTENSION <i>(Quantity times Unit Price)</i>
19	100	Each		

DESCRIPTION	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt #__		Install 1" curb stop (IPS)(Mueller Part No. B-24351)	
REF NO.	QUANTITY	UNIT OF MEASURE	UNIT PRICE	UNIT PRICE EXTENSION <i>(Quantity times Unit Price)</i>
20	100	Each		

Wording for "DESCRIPTION" is to be provided by the Owner.

All quantities are estimated. The contractor will be paid based upon actual quantities as verified by the Owner.

LOUISIANA UNIFORM PUBLIC WORK BID FORM

To: City of Opelousas
P.O. Box 1879
Opelousas, LA 70571-1879
(Owner to provide name and address of owner)

Bid For: AMI Water Meter Installation Services
MGA Project W#300
(Owner to provide name of project and other identifying)

UNIT PRICES: This form shall be used for any and all work required by the Bidding Documents and described as unit prices. Amounts shall be stated in figures and only in figures.

DESCRIPTION	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt #__		Install 1 ½" curb stop (IPS)(Mueller Part No. P-24351)	
REF NO.	QUANTITY	UNIT OF MEASURE	UNIT PRICE	UNIT PRICE EXTENSION <i>(Quantity times Unit Price)</i>
21	20	Each		

DESCRIPTION	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt #__		Install 2" curb stop (IPS)(Mueller Part No. B-24351)	
REF NO.	QUANTITY	UNIT OF MEASURE	UNIT PRICE	UNIT PRICE EXTENSION <i>(Quantity times Unit Price)</i>
22	20	Each		

DESCRIPTION	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt #__		Remove dirt and debris from existing meter box	
REF NO.	QUANTITY	UNIT OF MEASURE	UNIT PRICE	UNIT PRICE EXTENSION <i>(Quantity times Unit Price)</i>
23	2,500	Each		

DESCRIPTION	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt #__		Remove and re-set existing meter box (non-paved area)	
REF NO.	QUANTITY	UNIT OF MEASURE	UNIT PRICE	UNIT PRICE EXTENSION <i>(Quantity times Unit Price)</i>
24	1,000	Each		

DESCRIPTION	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt #__		Drill meter box lid to accommodate endpoint installation (Plastic Lid)	
REF NO.	QUANTITY	UNIT OF MEASURE	UNIT PRICE	UNIT PRICE EXTENSION <i>(Quantity times Unit Price)</i>
25	500	Each		

Wording for "DESCRIPTION" is to be provided by the Owner.

All quantities are estimated. The contractor will be paid based upon actual quantities as verified by the Owner.

LOUISIANA UNIFORM PUBLIC WORK BID FORM

To: City of Opelousas
P.O. Box 1879
Opelousas, LA 70571-1879
(Owner to provide name and address of owner)

Bid For: AMI Water Meter Installation Services
MGA Project W#300
(Owner to provide name of project and other identifying)

UNIT PRICES: This form shall be used for any and all work required by the Bidding Documents and described as unit prices. Amounts shall be stated in figures and only in figures.

DESCRIPTION	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt #__	Unable to complete meter installation		
REF NO.	QUANTITY	UNIT OF MEASURE	UNIT PRICE	UNIT PRICE EXTENSION <i>(Quantity times Unit Price)</i>
26	500	Each		

DESCRIPTION	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt #__	Project Management		
REF NO.	QUANTITY	UNIT OF MEASURE	UNIT PRICE	UNIT PRICE EXTENSION <i>(Quantity times Unit Price)</i>
27	1	Lump Sum		

DESCRIPTION	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt #__	Work Order Management Set-up and File Transfers		
REF NO.	QUANTITY	UNIT OF MEASURE	UNIT PRICE	UNIT PRICE EXTENSION <i>(Quantity times Unit Price)</i>
28	1	Lump Sum		

DESCRIPTION	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt #__	Communications/Printed Materials		
REF NO.	QUANTITY	UNIT OF MEASURE	UNIT PRICE	UNIT PRICE EXTENSION <i>(Quantity times Unit Price)</i>
29	1	Lump Sum		

DESCRIPTION	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt #__	Customer Telephone Support		
REF NO.	QUANTITY	UNIT OF MEASURE	UNIT PRICE	UNIT PRICE EXTENSION <i>(Quantity times Unit Price)</i>
30	1	Lump Sum		

Wording for "DESCRIPTION" is to be provided by the Owner.

All quantities are estimated. The contractor will be paid based upon actual quantities as verified by the Owner.

LOUISIANA UNIFORM PUBLIC WORK BID FORM

To: City of Opelousas
P.O. Box 1879
Opelousas, LA 70571-1879
(Owner to provide name and address of owner)

Bid For: AMI Water Meter Installation Services
MGA Project W#300
(Owner to provide name of project and other identifying)

UNIT PRICES: This form shall be used for any and all work required by the Bidding Documents and described as unit prices. Amounts shall be stated in figures and only in figures.

DESCRIPTION	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt #__		Inventory handling and management	
REF NO.	QUANTITY	UNIT OF MEASURE	UNIT PRICE	UNIT PRICE EXTENSION <small>(Quantity times Unit Price)</small>
31	1	Lump Sum		

DESCRIPTION	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt #__		Mobilization	
REF NO.	QUANTITY	UNIT OF MEASURE	UNIT PRICE	UNIT PRICE EXTENSION <small>(Quantity times Unit Price)</small>
32	1	Lump Sum		

DESCRIPTION	<input type="checkbox"/> Base Bid or <input type="checkbox"/> Alt #__		N/A	
REF NO.	QUANTITY	UNIT OF MEASURE	UNIT PRICE	UNIT PRICE EXTENSION <small>(Quantity times Unit Price)</small>
N/A	N/A	N/A	N/A	N/A

DESCRIPTION	<input type="checkbox"/> Base Bid or <input type="checkbox"/> Alt #__		N/A	
REF NO.	QUANTITY	UNIT OF MEASURE	UNIT PRICE	UNIT PRICE EXTENSION <small>(Quantity times Unit Price)</small>
N/A	N/A	N/A	N/A	N/A

DESCRIPTION	<input type="checkbox"/> Base Bid or <input type="checkbox"/> Alt #__		N/A	
REF NO.	QUANTITY	UNIT OF MEASURE	UNIT PRICE	UNIT PRICE EXTENSION <small>(Quantity times Unit Price)</small>
N/A	N/A	N/A	N/A	N/A

Wording for "DESCRIPTION" is to be provided by the Owner.

All quantities are estimated. The contractor will be paid based upon actual quantities as verified by the Owner.

CORPORATE RESOLUTION

BE IT RESOLVED by the Board of Directors of _____
in a meeting duly assembled that _____
(Name and title) of the Corporation is hereby authorized, empowered and directed for and on behalf of the
Corporation to negotiate for and sign any and all bid proposals, contracts and other documents which this
Corporation might enter into for the project entitled

“ _____
_____”

* * * * *

I, _____,
Secretary of _____,
do hereby certify that the above and foregoing is a true and correct copy of a Resolution unanimously adopted
at a meeting of the Board of Directors of said Corporation held on this ____ day of _____, 20____
, at which meeting all members of the Board of Directors were present and voted thereon and that said
Resolution has been spread upon the minute books of the Corporation and same is now in full force and
effect.

WITNESS MY SIGNATURE this ____ day of _____, 20____ at _____.

SECRETARY

SEAL

BID BOND FORM

KNOW ALL MEN BY THESE PRESENTS, that we, the undersigned, _____,
as Principal, and _____, as Surety, are hereby held and firmly bound onto
_____, as Owner in the penal sum of _____
of total sum bid for which, well and truly to be made, hereby jointly and severally bind ourselves, our heirs,
executives, administrators, successors and assigns.

Signed, this _____ day of _____, 20 _____.

The condition of the above obligation is such that whereas the Principal has submitted to _____
_____ a certain Bid, attached hereto and hereby made a part hereof to enter into
a Contract in writing, for the _____.

NOW, THEREFORE,

- (a) If said Bid shall be rejected, or in the alternate,
- (b) If said Bid shall be accepted and the Principal shall execute and deliver a Contract in the Form
of Contract attached hereto (properly completed in accordance with said Bid) and shall furnish
a bond for his faithful performance of said Contract, and for the payment of all persons
performing labor or furnishing materials in connection therewith, and shall in all other respects
perform the agreement created by the acceptance of said Bid,

Then this obligation shall be void, otherwise the same shall remain in force and effect; it being
expressly understood and agreed that the liability of the Surety for any and all claims hereunder shall, in no
event, exceed the penal amount of this obligation as herein stated.

The Surety, for value received, hereby stipulates and agrees that the obligations of said Surety and
its bond shall be in no way impaired or affected by any extension of the time within which the Owner may
accept such Bid; and said Surety does hereby waive notice of any such extension.

IN WITNESS WHEREOF, the Principal and the Surety have hereunto set their hands and seals, and
such of them as are corporations have caused their corporate seals to be hereto affixed these presents to be
signed by their proper officers, the day and year first set forth above.

Principal: _____ (L.S.)

Surety: _____

By: _____

SEAL

CERTIFICATE AS TO CORPORATE PRINCIPAL

I, _____ certify that I am the Secretary of the Corporation named as Principal in the within Bond; that _____ who signed the said Bond on behalf of the Principal was then _____ of said corporation; that I know his/her signature, and his/her signature thereto is genuine; and that said Bond was duly signed, sealed, and attested to on behalf of said corporation by authority of this governing body.

Signature: _____

Title: _____
(CORPORATE SEAL)

CERTIFICATE AS TO SURETY

I, _____, certify that I am _____ of the Surety who signed the Bond. I certify that we are licensed to do business in the State of Louisiana and are currently recognized by the U.S. Department of the Treasury as acceptable sureties:

Signature: _____

Title: _____

Power of Attorney for person signing for surety company must be attached to Bond.

**DOCUMENTS
TO BE COMPLETED BY
SUCCESSFUL BIDDER
PRIOR TO AWARD OF
CONTRACT**

NON-COLLUSION AFFIDAVIT

_____, being first duly sworn, deposes and says

that he is _____
(sole owner, a partner, president, secretary, etc.)

of _____
the party making the foregoing Bid; that such Bid is not made in the interest of or on behalf of any undisclosed person, partnership, company association, organization, or corporation; that such Bid is genuine and not collusive or sham; that said Bidder has not directly or indirectly induced or solicited any other Bidder to put in a false or sham Bid, and has not directly or indirectly colluded, conspired, connived, or agreed with any Bidder or anyone else to put in a sham bid, nor that anyone shall refrain from bidding; that said Bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the Bid Price of said Bidder or of any other Bidder, not to fix any overhead, profit, or cost element of such Bid Price, nor of that of any other Bidder, nor to secure any advantage against the public body awarding the Contract or anyone interested in the Proposed Contract; that all statement contained in such Bid are true; and, further, that said Bidder has not directly or indirectly, submitted his Bid Price or any breakdown thereof, nor the contents thereof, nor divulged information or data relative thereto, nor paid and will not pay fee in connection therewith to any corporation, partnership, company, association, organization, bid depository, nor to any member or agent thereof, nor to any other individual except to such person or persons as have a partnership or other financial interest with said Bidder in his general business.

Signed:

By: _____

Title: _____

Subscribed and sworn to before me this

_____ day of _____, 20_____.

SEAL OF NOTARY

NOTARY PUBLIC

(NOT REQUIRED TO BE SUBMITTED WITH BID)
SUBMIT BY THE APPARENT LOW BIDDER WITHIN 10 DAYS AFTER BID OPENING

AMI Water Meter Installation Services
NAME OF PROJECT

MGA Project W#300
PROJECT NUMBER

ATTESTATIONS

Appearer, as a Bidder on the above-entitled Public Works Project, does hereby attest that:

LA. R.S. 38:2227 PAST CRIMINAL CONVICTIONS OF BIDDERS

A. No sole proprietor or individual partner, incorporator, director, manager, officer, organizer or member who has a minimum of a ten percent (10%) ownership in the bidding entity named below has been convicted of, or has entered a plea of guilty or nolo contendere to any of the following state crimes or equivalent federal crimes:

- | | |
|---------------------------------------|-----------------------------------|
| (a) Public bribery (R.S. 14:118) | (c) Extortion (R.S. 14:66) |
| (b) Corrupt influencing (R.S. 14:120) | (d) Money laundering (R.S. 14:23) |

B. Within the past five years from the project bid date, no sole proprietor or individual partner, incorporator, director, manager, officer, organizer, or member who has a minimum of a ten percent (10%) ownership in the bidding entity named below has been convicted of, or has entered a plea of guilty or nolo contendere to any of the following state crimes or equivalent federal crimes, during the solicitation or execution of a contract or bid awarded pursuant to the provisions of Chapter 10 of Title 38 of the Louisiana Revised Statutes:

- | | |
|---------------------------------------------------|--------------------------------------------------------------|
| (a) Theft (R.S. 14:67) | (f) Bank fraud (R.S. 14:71.1) |
| (b) Identity Theft (R.S. 14:67.16) | (g) Forgery (R.S. 14:72) |
| (c) Theft of a business record
(R.S. 14:67.20) | (h) Contractors; misapplication of
payments (R.S. 14:202) |
| (d) False accounting (R.S. 14:70) | (i) Malfeasance in office (R.S. 14:134) |
| (e) Issuing worthless checks
(R.S. 14:71) | |

LA. R.S. 38:2212.10 Verification of Employees

A. Appearer is registered and participates in a status verification system to verify that all employees in the state of Louisiana are legal citizens of the United States or are legal aliens.

B. If awarded the contract, Appearer shall continue, during the term of the contract, to utilize a status verification system to verify the legal status of all new employees in the state of Louisiana.

C. If awarded the contract, Appearer shall require all subcontractors to submit to it a sworn affidavit verifying compliance with Paragraphs (A) and (B) of this Subsection.

NAME OF BIDDER

NAME OF AUTHORIZED SIGNATORY OF BIDDER

DATE

TITLE OF AUTHORIZED SIGNATORY OF BIDDER

**SIGNATURE OF AUTHORIZED
SIGNATORY OF BIDDER**

**(Not required to be submitted with Bid.
Submit by the Apparent Low Bidder within 10 Days after Bid Opening)**

BIDDER'S SERVICE METHODOLOGY AND APPROACH

The Successful Bidder is required to provide a summary of their methodology and approach in executing this project. In the methodology and approach, Successful Bidder may address any proposed deviations, alternatives and options to the project requirements for consideration by the city which may result in lower cost, greater efficiency and/or improved performance.

The Successful Bidder is not required to address each point below; however, the content is intended to provide guidelines for subject matter that the City, City's AMI Consultant (E Source) and Engineer considers important:

- Describe the process by which Contractor will determine the optimum strategy to exchange water meters and endpoints.
- Describe all site preparation activities and timing (include site prep lead time) related to deployment.
- Provide detail on all equipment (i.e., vehicles, uniforms, tools, forklifts, recycle bins, etc.) and facilities (office, warehouse, etc.) required during deployment.
- Describe inventory control processes and procedures.
- What system is used to schedule and manage work?
- How are crews scheduled to perform work?
- What are the typical working hours for crews (including weekends and holidays if appropriate)?
- Provide sample pictures of vendor credentials, uniforms, and vehicles.
- Provide detailed, step-by-step procedures for an installer, including the duties/activities performed at the staging site upon arrival, duties/activities performed at the customer site, and duties/activities performed upon return to the staging site.
- Outline and describe, in detail, any incidences that could warrant a Unable to Complete (UTC), including, but not limited to due diligence, customer refusal/opt-out, meter obstruction that prevents access to meter, unsafe situation, etc.
- Discuss your approach/process for confirming the validity of an UTC that has been identified by an installer.
- After equipment has been installed, how does the installer verify that equipment has been installed correctly, that equipment is working correctly, and that the customer's property is as it was before installation?
- What is your process for resolving installation-related issues during deployment discovered after the installer has left the site, including troubleshooting root cause (device, network, or installation error)?
- What data quality assurance checks are performed on completed installations, and on what percentage of completed installations are these checks are performed?
- How much time does it typically take to perform these QA checks and deliver the completed work order export file to the utility?
- What is your process for resolving data quality related issues during deployment discovered after the work order has been delivered to the utility?

- Specify the Work Order Management System (WOMS) software vendor and version to be used.
- Specify the number of licensed users at the utility that can access the system and audit completed work orders.
- Specify all applicable WOMS reports or outputs that will be used during deployment as part of the project management and progress tracking.
- Describe prior methodology in importing utility customer data to generate work orders and what data formats completed work order information can be exported into.
- Can the WOMS track equipment inventory?
- Will "Unable to Complete" work orders be available for review and inspection on the WOMS?
- Can "Unable to Complete" work orders be exported into an Excel, .csv, or similar file?

BIDDER'S PREVIOUS EXPERIENCES AND QUALIFICATIONS

- Provide a brief experience summarization for all proposed key personnel, describing their related experience and proposed roles in the Project.
 - Include an organizational chart showing the team, number of personnel assigned to each function, and where they are located.
- Provide total number of AMI deployments in the last 36 months. [by service type; electric, water, gas]
- Provide total number of AMI endpoints installed in the last 36 months.
- Provide total number of AMI endpoints installed over the life of the company.

BIDDER'S VIABILITY AND REFERENCES

- Give a summary of the contractor's history, experience, and qualifications, including years in business, annual sales, number of employees, growth, locations, and scope of service lines.
- Supply a list of at least three (3) organizations or municipalities that are current customers, at least one (1) of which being in the State of Louisiana. The list should contain the following information:
 - Organization name
 - Primary address
 - Contact person with knowledge of the services to be provided
 - Phone number
 - Email address
 - Services previously provided
 - Contract start date and end date
- Include a list of a minimum of three (3) references, from similar projects/contracts, who could attest to the firm's knowledge, quality of work, timeliness, diligence, flexibility, and ability to meet budget constraints.
- Include names and addresses, contact persons, phone numbers and e-mail addresses of all references.
- The City and E Source reserve the right to contact references other than, and/or in addition to those furnished by the Proposer.
- References may or may not be reviewed or contacted at the discretion of the City and E Source.

**DOCUMENTS
TO BE COMPLETED BY
OWNER**

**AGREEMENT BETWEEN OWNER AND CONTRACTOR
(UNIT PRICE WORK)**

THIS AGREEMENT is by and between the City of Opelousas
(Hereinafter called OWNER) and _____
(Hereinafter called CONTRACTOR).

OWNER and CONTRACTOR, in consideration of the mutual covenants hereinafter set forth, agree as follows:

ARTICLE 1 - WORK

- 1.01 CONTRACTOR shall complete all work as specified or indicated in the Contract Documents. The work is generally described as follows:

Replacement of existing water meters and endpoints with new water meters and endpoints, including ancillary installation services (i.e. meter box/lid replacement, lid drilling, box repositioning, valve replacement, etc.) related to the AMI Project.

ARTICLE 2 - THE PROJECT

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

AMI Water Meter Installation Services
City of Opelousas
MGA Project W#300

ARTICLE 3 - ENGINEER

- 3.01 The Project requirements have been developed by

Morgan Goudeau & Associates, Inc.
Consulting Engineers and Land Surveyors
1703 West Landry Street
Opelousas, Louisiana 70570

who is hereinafter called ENGINEER and who is to act as OWNER's representative, assume all duties and responsibilities, and have the rights and authority assigned to ENGINEER in the Contract Documents in connection with the completion of the work in accordance with the Contract Documents.

ARTICLE 4 - CONTRACT TIMES

**AGREEMENT BETWEEN OWNER AND CONTRACTOR
(UNIT PRICE WORK)**

4.01 Time of the Essence

- A. All time limits for Milestones, if any, Substantial Completion, and completion and readiness for final payment as stated in the Contract Documents are of the essence of the Contract.

4.02 Days to Achieve Substantial Completion and Final Payment

- A. The work will be substantially completed within one hundred eighty (180) days after the date when the Contract Times commence to run as provided in paragraph 2.03 of the General Conditions, and completed and ready for final payment in accordance with Paragraph 14.07 of the General Conditions within two hundred twenty-five (225) days after the date when the Contract Times commence to run.

4.03 Liquidated Damages

- A. CONTRACTOR and OWNER recognize that time is of the essence of this Agreement and that OWNER will suffer financial loss if the work is not completed within the times specified in Paragraph 4.02 above, plus any extensions thereof allowed in accordance with Article 12 of the General Conditions. The parties also recognize the delays, expense, and difficulties involved in proving in a legal or mediation proceeding the actual loss suffered by OWNER if the work is not completed on time. Accordingly, instead of requiring any such proof, OWNER and CONTRACTOR agree that as liquidated damages for delay (but not as a penalty), CONTRACTOR shall pay OWNER \$400.00 for each day that expires after the time specified in Paragraph 4.02 for Substantial Completion until the work is substantially complete. After Substantial Completion, if CONTRACTOR shall neglect, refuse, or fail to complete the remaining work within the Contract Time or any proper extension thereof granted by OWNER, CONTRACTOR shall pay OWNER \$400.00 for each day that expires after the time specified in Paragraph 4.02 for completion and readiness for final payment until the work is completed and ready for final payment.

ARTICLE 5 - CONTRACT PRICE

5.01 OWNER shall pay CONTRACTOR for completion of the work in accordance with the Contract Documents an amount in current funds equal to the sum of the amounts determined pursuant to Paragraph 5.01.A, below:

- A. For all work, at the prices stated in CONTRACTOR'S Bid, attached hereto as an exhibit.

ARTICLE 6 - PAYMENT PROCEDURES

6.01 Submittal and Processing of Payments

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

6.02 Progress Payments; Retainage

**AGREEMENT BETWEEN OWNER AND CONTRACTOR
(UNIT PRICE WORK)**

- A. OWNER shall make progress payments on account of the Contract Price on the basis of CONTRACTOR's Applications for Payment on or about the 25th day of each month during performance of the work as provided in Paragraphs 6.02.A.1 and 6.02.A.2 below. All such payments will be measured by the schedule of values established in Paragraph 2.07.A of the General Conditions or, in the event there is no schedule of values, as provided in the General Requirements:
1. Prior to Substantial Completion, progress payments will be made in an amount equal to the percentage indicated below but, in each case, less the aggregate of payments previously made and less such amounts as ENGINEER may determine or OWNER may withhold, in accordance with Paragraph 14.02 of the General Conditions:
 - a. 95% of work completed (with the balance being retainage); and
 - b. 100% of cost of materials and equipment not incorporated in the work.
 2. Upon Substantial Completion, OWNER shall pay an amount sufficient to increase total payments to CONTRACTOR to 95% of the work completed, less such amounts as ENGINEER shall determine in accordance with Paragraph 14.02.B.5 of the General Conditions and less 100% of ENGINEER's estimate of the value of work to be completed or corrected as shown on the tentative list of items to be completed or corrected attached to the Certificate of Substantial Completion.

6.03 Final Payment

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

ARTICLE 7 - INTEREST

7.01 N/A

ARTICLE 8 - CONTRACTOR'S REPRESENTATIONS

- 8.01 In order to induce OWNER to enter into this Agreement CONTRACTOR makes the following representations:
- A. CONTRACTOR has examined and carefully studied the Contract Documents and the other related data identified in the Bidding Documents.
 - B. CONTRACTOR has visited the Site and become familiar with and is satisfied as to the general, local, and Site conditions that may affect cost, progress, and performance of the work.
 - C. CONTRACTOR is familiar with and is satisfied as to all federal, state, and local Laws and Regulations that may affect cost, progress, and performance of the work.

**AGREEMENT BETWEEN OWNER AND CONTRACTOR
(UNIT PRICE WORK)**

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

ARTICLE 9 - CONTRACT DOCUMENTS

9.01 Contents

- A. The Contract Documents consist of the following:
 - 1. This Agreement (pages 00500-1 to 00500-7, inclusive)
 - 2. Performance Bond (pages 00600-1 to 00600-3, inclusive)
 - 3. Payment Bond (pages 00600-1 to 00600-3, inclusive)
 - 4. General Conditions (pages 00700-3 to 00700-44, inclusive)
 - 5. Supplementary Conditions (pages 00800-1 to 00800-3, inclusive)
 - 6. Specifications as listed in the table of contents of the Project Manual
 - 7. Addenda (numbers _____ to _____, inclusive)
 - 8. Exhibits to this Agreement (enumerated as follows):
 - a. Notice to Proceed (pages 00620-1, inclusive)
 - b. CONTRACTOR's Bid (8 pages, inclusive)
 - c. Documentation submitted by CONTRACTOR prior to Notice of Award
 - d. _____ Certificate of Insurance

**AGREEMENT BETWEEN OWNER AND CONTRACTOR
(UNIT PRICE WORK)**

- e. Attestation Form (Past Criminal Convictions of Bidder)
 - f. Affidavit Form (Verification of Employees)
 - g. Non-Collusion Affidavit
9. The following which may be delivered or issued on or after the Effective Date of the Agreement and are not attached hereto:
- a. Written Amendments
 - b. Work Change Directives
 - c. Change Order(s)
- B. The documents listed in Paragraph 9.01.A are attached to this Agreement (except as expressly noted otherwise above).
- C. There are no Contract Documents other than those listed above in this Article 9.
- D. The Contract Documents may only be amended, modified, or supplemented as provided in Paragraph 3.05 of the General Conditions.

ARTICLE 10 - MISCELLANEOUS

10.01 Terms

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

10.02 Assignment of Contract

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

10.03 Successors and Assigns

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

**AGREEMENT BETWEEN OWNER AND CONTRACTOR
(UNIT PRICE WORK)**

10.04 Severability

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

10.05 Other Provisions

NONE

**AGREEMENT BETWEEN OWNER AND CONTRACTOR
(UNIT PRICE WORK)**

IN WITNESS WHEREOF, OWNER and CONTRACTOR have signed this Agreement in duplicate. One counterpart each has been delivered to OWNER and CONTRACTOR. All portions of the Contract Documents have been signed or identified by OWNER and CONTRACTOR or on their behalf.

This Agreement will be effective on _____, ____ (which is the Effective Date of the Agreement).

OWNER:
CITY OF OPELOUSAS

CONTRACTOR:
<NAME>

BY: _____

BY: _____

[CORPORATE SEAL]

[CORPORATE SEAL]

ATTEST: _____

ATTEST: _____

Address for giving notices:

Address for giving notices:

CITY OF OPELOUSAS

P.O. BOX 1879

OPELOUSAS, LA 70571-1879

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

License No.: _____

Agent for service of process: _____

(If CONTRACTOR is a corporation or a partnership, attached evidence of authority to sign)

Designated Representative

Designated Representative

Name: JULIUS ALSANDOR

Name: _____

Title: MAYOR

Title: _____

Address: P.O. BOX 1879

Address: _____

OPELOUSAS, LA 70571-1879

Phone: 337-948-2520

Phone: _____

Facsimile: 337-948-2593

Facsimile: _____

**DOCUMENTS
TO BE COMPLETED BY
SUCCESSFUL BIDDER**

PERFORMANCE-PAYMENT BOND

KNOW ALL MEN BY THESE PRESENTS: That we _____,
a _____ doing business as _____,
hereinafter called "Principal" and _____ of _____,
State of _____, hereinafter called the "Surety," are held and firmly bound unto
_____, Louisiana, hereinafter called "Owner" in the penal sum of _____
_____ Dollars and _____ Cents
(\$ _____) in lawful money of the United States, for the payment of which sum will and
truly be made, we bind ourselves, our heirs, executors, administrators, and successors, jointly and severally,
firmly by these presents.

THE CONDITION OF THIS OBLIGATION is such that Whereas, the Principal entered into a certain Contract
with the Owner, dated the _____ day of _____ 20_____, a copy of which is hereto attached and
made apart hereof for the construction of: _____

NOW THEREFORE, if the Principal shall well, truly and faithfully perform its duties, all the undertaking,
covenants, terms, conditions, and agreements of said Contract during the original term thereof, and any
extensions thereof which may be granted by the Owner, with or without notice to the Surety, and if he/she shall
satisfy all claims and demands incurred under such Contract, and shall fully indemnify and save harmless the
Owner from all costs and damages which it may suffer by reason of failure to do so, and shall reimburse and
repay the Owner all outlay and expense which the Owner may incur in making good any default, and shall
promptly make payment to all persons, firms, Subcontractors, and corporations furnishing materials for or
performing labor in the prosecution of the work provided for in such Contract, and any authorized extension
or modification thereof, including all amounts due for materials, lubricants, oil, gasoline, coal and coke, repairs
on machinery, equipment and tools, consumed or used in connection with the construction of such work, and
all insurance premiums on said work, and for all labor performed in such work whether by Subcontractor or
otherwise, then this obligation shall be void; otherwise to remain in full force and effect.

PROVIDED, FURTHER, that the said Surety, for value received hereby stipulates and agrees that no change,
extension of time, alteration or addition to the terms of the Contract or to the work to be performed thereunder
or the Specifications accompanying the same shall in any way affect its obligation on this bond, and it does
hereby waive notice of any such change, extension of time, alteration or addition to the terms of the contract
or to the Specifications.

PROVIDED FURTHER, that no final settlement between the Owner and the Contractor shall abridge the right
of any beneficiary hereunder, whose claim may be unsatisfied.

PERFORMANCE-PAYMENT BOND

IN WITNESS WHEREOF, this instrument is executed in six (6) counterparts each, one (1) of which shall be deemed an original, this the ____ day of _____ 20____.

ATTEST:
SEAL

PRINCIPAL

PRINCIPAL SECRETARY

BY: _____

WITNESS AS TO PRINCIPAL

ADDRESS-ZIP CODE

ADDRESS-ZIP CODE

ATTEST:
SEAL

SURETY

SURETY

WITNESS AS TO SURETY

ATTORNEY-IN-FACT

ADDRESS-ZIP CODE

ADDRESS-ZIP CODE

COUNTERSIGNED

ATTORNEY-IN-FACT
STATE OF LOUISIANA

BY: _____

CERTIFICATE AS TO CORPORATE PRINCIPAL

I, _____, certify that I am the Secretary of the Corporation named as Principal in the within Bond; that _____ who signed the said Bond on behalf of the Principal was then _____ of said corporation; that I know his/her signature, and his/her signature thereto is genuine; and that said Bond was duly signed, sealed, and attested to on behalf of said corporation by authority of this governing body.

Signature: _____

Title: _____
(CORPORATE SEAL)

CERTIFICATE AS TO SURETY

I, _____, certify that I am _____ of the Surety who signed the Bond. I certify that we are licensed to do business in the State of Louisiana and are currently recognized by the U.S. Department of the Treasury as acceptable sureties:

Signature: _____

Title: _____

Power of Attorney for person signing for surety company must be attached to Bond.

NOTICE OF AWARD

TO: _____

PROJECT DESCRIPTION: Replacement of existing water meters and endpoints with new water meters and endpoints, including ancillary installation services (i.e. meter box/lid replacement, lid drilling, box repositioning, valve replacement, etc.) related to the AMI Project. (i.e., AMI Water Meter Installation Services)

The OWNER has considered the BID submitted by you for the above described WORK in response to its Advertisement for Bids dated _____, and Information for Bidders.

You are hereby notified that your BID has been accepted for items in the amount of \$_____.

You are required by the Information for Bidders to execute the Agreement and furnish the required CONTRACTOR'S PERFORMANCE BOND, PAYMENT BOND and certificates of insurance within fifteen (15) calendar days from the date of this Notice to you.

If you fail to execute said Agreement and to furnish said BONDS within fifteen (15) days from the date of this Notice, said OWNER will be entitled to consider all your rights arising out of the OWNER'S acceptance of your BID as abandoned and as a forfeiture of your BID BOND. The OWNER will be entitled to such other rights as may be granted by law.

You are required to return an acknowledged copy of this NOTICE OF AWARD to the OWNER.

Dated this ____ day of _____, 2022.

CITY OF OPELOUSAS
OWNER

BY: _____

TITLE: MAYOR

ACCEPTANCE OF NOTICE

Receipt of the above NOTICE OF AWARD
is hereby acknowledged by:

this the ____ day of _____, 2022

By: _____

Title: _____

**DOCUMENTS
TO BE UTILIZED DURING
CONSTRUCTION**

NOTICE TO PROCEED

TO: _____ DATE: _____

PROJECT: AMI Water Meter Installation Services

MGA Project W#300

You are hereby notified to commence WORK in accordance with the Agreement dated _____, 20____, on or before _____, 20____, and you are to complete the WORK within one hundred eighty (180) consecutive calendar days thereafter. The date of completion of all WORK is therefore _____, 20____. Liquidated damages are \$400.00 per day in accordance with Article 4.03 of the Agreement.

CITY OF OPELOUSAS
OWNER

BY: _____

TITLE: MAYOR

ACCEPTANCE OF NOTICE

Receipt of the above NOTICE TO PROCEED
is hereby acknowledged by:

this the _____ day of _____, 2022

By: _____

Title: _____

PARTIAL PAYMENT REQUEST				CONTRACT NO. W#300	
				PARTIAL PAYMENT REQUEST NO. <XX>	
				PAGE <XX> OF <XX>	
OWNER: CITY OF OPELOUSAS		CONTRACTOR: <XXX>		PERIOD OF ESTIMATE <XX/XX/XX> TO <XX/XX/XX>	
CONTRACT CHANGE ORDER SUMMARY				ESTIMATE	
NO.	DATE	AMOUNT			
		ADDITIONS	DEDUCTIONS		
				1. Original Contract \$ 0.00 2. Change Orders \$ 0.00 3. Revised Contract (1+2) . . . \$ 0.00 4. Work Completed* \$ 0.00 5. Stored Materials* \$ 0.00 6. Subtotal (4+5) \$ 0.00 7. Retainage* \$ 0.00 8. Previous Payments \$ 0.00 9. AMOUNT DUE (6-7-8) . . . \$ 0.00	
TOTALS		\$ 0.00	\$ 0.00		
NET CHANGE		\$ 0.00	\$ 0.00	* Detailed breakdown attached	
CONTRACT TIME					
Original (days) _____		On Schedule		Starting Date _____	
Revised _____		Yes _____		Project Completion _____	
Remaining _____		No _____			
CONTRACTOR'S CERTIFICATION:			ENGINEER'S CERTIFICATION:		
<p>The undersigned Contractor certifies that to the best of their knowledge, information and belief the work covered by this payment estimate has been completed in accordance with the contract documents, that all amounts have been paid by the contractor for work of which previous payment request was issued and payments received from the Owner, and that current payment shown herein is now due.</p> <p>Submitted for Payment by: <CONTRACTOR></p> <p>By: _____</p> <p>Date: _____</p> <p>Reviewed for Payment by: E SOURCE COMPANIES, LLC</p> <p>By: _____</p> <p>Date: _____</p>			<p>The undersigned certifies that the work has been carefully inspected and to the best of their knowledge and belief, the quantities shown in this estimate are correct and the work has been performed in accordance with the contract documents</p> <p>Recommended for Payment by: MORGAN GOUDEAU & ASSOCIATES, INC.</p> <p>By: _____</p> <p>Date: _____</p> <p>Approved for Payment by: CITY OF OPELOUSAS</p> <p>By: _____</p> <p>Date: _____</p>		

CONTRACT CHANGE ORDER	ORDER NO. W#300.____	
	DATE <xx/xx/xx>	
CONTRACT FOR: AMI WATER METER INSTALLATION SERVICES	CONTRACT DATE <xx>	
OWNER: CITY OF OPELOUSAS	NOTICE TO PROCEED DATE <xx>	
TO _____ (Contractor) You are hereby requested to comply with the following changes from the contract plans and specifications:		
DESCRIPTION OF CHANGES (Supplemental Plans and Specifications Attached)	DECREASE in Contract Price	INCREASE in Contract Price
TOTALS	\$ 0.00	\$ 0.00
NET CHANGE IN CONTRACT PRICE	\$ 0.00	\$ 0.00
JUSTIFICATION:		

The amount of the Contract will be (Decreased)(Increased) by the sum of: _____
 _____ Dollars (\$ _____)

The contract total including this and previous Change Orders will be: _____
 _____ Dollars (\$ _____)

The contract period provided for completion will be (Increased)(Decreased)(Unchanged): _____ Days

This document will become a supplement to the contract and all provisions will apply hereto.

Requested: _____
 CITY OF OPELOUSAS DATE

Recommended: _____
 MORGAN GOUDEAU & ASSOCIATES, INC. DATE

Accepted: _____
 <CONTRACTOR> DATE

CERTIFICATE OF SUBSTANTIAL COMPLETION

AMI WATER METER INSTALLATION SERVICES
OPELOUSAS, LOUISIANA

MORGAN GOUDEAU & ASSOCIATES, INC.
1703 WEST LANDRY STREET
OPELOUSAS, LOUISIANA 70570
MGA PROJECT W#300

TO: CITY OF OPELOUSAS
P.O. BOX 1879
OPELOUSAS, LA 70571-1879

CONTRACTOR:
CONTRACT FOR:
CONTRACT DATE:

DATE OF ISSUANCE:

PROJECT OR DESIGNATED PORTION SHALL INCLUDE:

The Work performed under this Contract has been reviewed and found to be substantially complete. The Date of Substantial Completion of the Project or portion thereof designated above is hereby established as _____ which is also the date of commencement of applicable warranties required by the Contract Documents, except as stated below. (See Attached)

DEFINITION OF DATE AS SUBSTANTIAL COMPLETION

The Date of Substantial Completion of the Work or designated portion thereof is the Date certified by the Engineer when construction is sufficiently complete, in accordance with the Contract Documents, so the Owner can occupy or utilize the Work or designated portion thereof for the use for which it is intended, as expressed in the Contract Documents.

A list of items to be completed or corrected, prepared by the Contractor and verified and amended by the Engineer, is attached hereto. The failure to include any items on such list does not alter the responsibility of the Contractor to complete all Work in accordance with the Contract Documents. The date of commencement of warranties for items on the attached list will be the date of final payment unless otherwise agreed to in writing.

Morgan Goudeau & Associates, Inc.
ENGINEER BY _____ DATE _____

The Contractor will complete or correct the Work on the list of items attached hereto within 45 days from the above Date of Substantial Completion.

CONTRACTOR BY _____ DATE _____

The Owner accepts the Work or designated portion thereof as substantially complete and will assume full possession thereof at _____ (TIME) on _____ (DATE) .

City of Opelousas
OWNER BY _____ DATE _____

GENERAL CONDITIONS

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GENERAL CONDITIONS

ARTICLE 1 - DEFINITIONS AND TERMINOLOGY

1.01 *Defined Terms*

A. Wherever used in the Contract Documents and printed with initial or all capital letters, the terms listed below will have the meanings indicated which are applicable to both the singular and plural thereof.

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

2. *AGENCY*--The Federal or state agency named as such in the Agreement.

3. *Agreement*--The written instrument which is evidence of the agreement between OWNER and CONTRACTOR covering the Work.

4. *Application for Payment*--The form acceptable to ENGINEER which is to be used by CONTRACTOR during the course of the Work in requesting progress or final payments and which is to be accompanied by such supporting documentation as is required by the Contract Documents.

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

6. *Bid*--The offer or proposal of a bidder submitted on the prescribed form setting forth the prices for the Work to be performed.

7. *Bidding Documents*--The Bidding Requirements and the proposed Contract Documents (including all Addenda issued prior to receipt of Bids).

8. *Bidding Requirements*--The Advertisement or Invitation to Bid, Instructions to Bidders, Bid security form, if any, and the Bid form with any supplements.

9. *Bonds*--Performance and payment bonds and other instruments of security.

10. *Change Order*--A document recommended by ENGINEER which is signed by CONTRACTOR and OWNER and AGENCY and authorizes an addition, deletion, or revision in the Work or an adjustment in the

Contract Price or the Contract Times, issued on or after the Effective Date of the Agreement.

11. *Claim*--A demand or assertion by OWNER or CONTRACTOR seeking an adjustment of Contract Price or Contract Times, or both, or other relief with respect to the terms of the Contract. A demand for money or services by a third party is not a Claim.

12. *Contract*--The entire and integrated written agreement between the OWNER and CONTRACTOR concerning the Work. The Contract supersedes prior negotiations, representations, or agreements, whether written or oral.

13. *Contract Documents*--The Contract Documents establish the rights and obligations of the parties and include the Agreement, Addenda (which pertain to the Contract Documents), CONTRACTOR's Bid (including documentation accompanying the Bid and any post Bid documentation submitted prior to the Notice of Award), the Notice to Proceed, the Bonds, these General Conditions, the Supplementary Conditions, the Specifications and the Drawings as the same are more specifically identified in the Agreement, together with all Written Amendments, Change Orders, and ENGINEER's written interpretations and clarifications issued on or after the Effective Date of the Agreement. Approved Shop Drawings and the reports and drawings of subsurface and physical conditions are not Contract Documents. Only printed or hard copies of the items listed in this paragraph are Contract Documents. Files in electronic media format of text, data, graphics, and the like that may be furnished by OWNER to CONTRACTOR are not Contract Documents.

14. *Contract Price*--The moneys payable by OWNER to CONTRACTOR for completion of the Work in accordance with the Contract Documents as stated in the Agreement (subject to the provisions of paragraph 11.03 in the case of Unit Price Work).

15. *Contract Times*--The number of days or the dates stated in the Agreement to: (i) achieve Substantial Completion; and (ii) complete the Work so that it is ready for final payment as evidenced by ENGINEER's written recommendation of final payment.

16. *CONTRACTOR*--The individual or entity with whom OWNER has entered into the Agreement.

17. *Cost of the Work*--See paragraph 11.01.A for definition.

18. *Drawings*--That part of the Contract Documents prepared or approved by ENGINEER which graphically shows the scope, extent, and character of the Work to be performed by CONTRACTOR. Shop Drawings and other CONTRACTOR submittals are not Drawings as so defined.

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

20. *ENGINEER*--The individual or entity named as such in the Agreement.

21. *ENGINEER's Consultant*--An individual or entity having a contract with ENGINEER to furnish services as ENGINEER's independent professional associate or consultant with respect to the Project and who is identified as such in the Supplementary Conditions.

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

23. *General Requirements*--Sections of Division 1 of the Specifications. The General Requirements pertain to all sections of the Specifications.

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

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

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

27. *Liens*--Charges, security interests, or encumbrances upon Project funds, real property, or personal property.

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

29. *Notice of Award*--The written notice by OWNER to the apparent successful bidder stating that upon timely compliance by the apparent successful bidder with the conditions precedent listed therein, OWNER will sign and deliver the Agreement.

30. *Notice to Proceed*--A written notice given by OWNER to CONTRACTOR fixing the date on which the Contract Times will commence to run and on which CONTRACTOR shall start to perform the Work under the Contract Documents.

31. *OWNER*--The individual, entity, public body, or authority with whom CONTRACTOR has entered into the Agreement and for whom the Work is to be performed.

32. *Partial Utilization*--Use by OWNER of a substantially completed part of the Work for the purpose for which it is intended (or a related purpose) prior to Substantial Completion of all the Work.

33. *PCBs*--Polychlorinated biphenyls.

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

35. *Project*--The total construction of which the Work to be performed under the Contract Documents may be the whole, or a part as may be indicated elsewhere in the Contract Documents.

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

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

38. *Resident Project Representative*--The authorized representative of ENGINEER who may be assigned to the Site or any part thereof.

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

40. *Shop Drawings*--All drawings, diagrams, illustrations, schedules, and other data or information which are specifically prepared or assembled by or for CONTRACTOR and submitted by CONTRACTOR to illustrate some portion of the Work.

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

42. *Specifications*--That part of the Contract Documents consisting of written technical descriptions of materials, equipment, systems, standards, and workmanship as applied to the Work and certain administrative details applicable thereto.

43. *Subcontractor*--An individual or entity having a direct contract with CONTRACTOR or with any other Subcontractor for the performance of a part of the Work at the Site.

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

45. *Supplementary Conditions*--That part of the Contract Documents which amends or supplements these General Conditions.

46. *Supplier*--A manufacturer, fabricator, supplier, distributor, materialman, or vendor having a direct contract with CONTRACTOR or with any Subcontractor to furnish materials or equipment to be incorporated in the Work by CONTRACTOR or any Subcontractor.

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

48. *Unit Price Work*--Work to be paid for on the basis of unit prices.

49. *Work*--The entire construction or the various separately identifiable parts thereof required to be

provided under the Contract Documents. Work includes and is the result of performing or providing all labor, services, and documentation necessary to produce such construction, and furnishing, installing, and incorporating all materials and equipment into such construction, all as required by the Contract Documents.

50. *Work Change Directive*--A written statement to CONTRACTOR issued on or after the Effective Date of the Agreement and signed by OWNER and AGENCY upon recommendation of the ENGINEER ordering an addition, deletion, or revision in the Work, or responding to differing or unforeseen subsurface or physical conditions under which the Work is to be performed or to emergencies. A Work Change Directive will not change the Contract Price or the Contract Times but is evidence that the parties expect that the change ordered or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order following negotiations by the parties as to its effect, if any, on the Contract Price or Contract Times.

51. *Written Amendment*--A written statement modifying the Contract Documents, signed by OWNER, CONTRACTOR, and AGENCY upon recommendation of ENGINEER on or after the Effective Date of the Agreement and normally dealing with the nonengineering or nontechnical rather than strictly construction-related aspects of the Contract Documents.

1.02 Terminology

A. Intent of Certain Terms or Adjectives

1. Whenever in the Contract Documents the terms "as allowed," "as approved," or terms of like effect or import are used, or the adjectives "reasonable," "suitable," "acceptable," "proper," "satisfactory," or adjectives of like effect or import are used to describe an action or determination of ENGINEER as to the Work, it is intended that such action or determination will be solely to evaluate, in general, the completed Work for compliance with the requirements of and information in the Contract Documents and conformance with the design concept of the completed Project as a functioning whole as shown or indicated in the Contract Documents (unless there is a specific statement indicating otherwise). The use of any such term or adjective shall not be effective to assign to ENGINEER any duty or authority to supervise or direct the performance of the Work or any duty or authority to undertake responsibility contrary to the provisions of paragraph 9.10 or any other provision of the Contract Documents.

B. Day

1. The word "day" shall constitute a calendar day of 24 hours measured from midnight to the next midnight.

C. Defective

1. The word "defective," when modifying the word "Work," refers to Work that is unsatisfactory, faulty, or deficient in that it does not conform to the Contract Documents or does not meet the requirements of any inspection, reference standard, test, or approval referred to in the Contract Documents, or has been damaged prior to ENGINEER's recommendation of final payment (unless responsibility for the protection thereof has been assumed by OWNER at Substantial Completion in accordance with paragraph 14.04 or 14.05).

D. Furnish, Install, Perform, Provide

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

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

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

4. When "furnish," "install," "perform," or "provide" is not used in connection with services, materials, or equipment in a context clearly requiring an obligation of CONTRACTOR, "provide" is implied.

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

ARTICLE 2 - PRELIMINARY MATTERS

2.01 Delivery of Bonds

A. When CONTRACTOR delivers the executed Agreements to OWNER, CONTRACTOR shall also deliver to OWNER such Bonds as CONTRACTOR may be required to furnish.

2.02 Copies of Documents

A. OWNER shall furnish to CONTRACTOR up to ten copies of the Contract Documents. Additional copies will be furnished upon request at the cost of reproduction.

2.03 Commencement of Contract Times; Notice to Proceed

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

2.04 Starting the Work

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

2.05 Before Starting Construction

A. *CONTRACTOR's Review of Contract Documents:* Before undertaking each part of the Work, CONTRACTOR shall carefully study and compare the Contract Documents and check and verify pertinent figures therein and all applicable field measurements. CONTRACTOR shall promptly report in writing to ENGINEER any conflict, error, ambiguity, or discrepancy which CONTRACTOR may discover and shall obtain a written interpretation or clarification from ENGINEER before proceeding with any Work affected thereby; however, CONTRACTOR shall not be liable to OWNER or ENGINEER for failure to report any conflict, error, ambiguity, or discrepancy in the Contract Documents unless CONTRACTOR knew or reasonably should have known thereof.

B. *Preliminary Schedules:* Within ten days after the Effective Date of the Agreement (unless otherwise specified in the General Requirements), CONTRACTOR shall submit to ENGINEER for its timely review:

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

2. a preliminary schedule of Shop Drawing and Sample submittals which will list each required submittal and the times for submitting, reviewing, and processing such submittal; and

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

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

2.06 *Preconstruction Conference*

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

2.07 *Initial Acceptance of Schedules*

A. Unless otherwise provided in the Contract Documents, at least ten days before submission of the first Application for Payment a conference attended by CONTRACTOR, ENGINEER, and others as appropriate will be held to review for acceptability to ENGINEER as provided below the schedules submitted in accordance with paragraph 2.05.B. CONTRACTOR shall have an additional ten days to make corrections and adjustments and to complete and resubmit the schedules. No progress payment shall be made to CONTRACTOR until acceptable schedules are submitted to ENGINEER.

1. The progress schedule will be acceptable to ENGINEER if it provides an orderly progression of the Work to completion within any specified Milestones and the Contract Times. Such acceptance will not impose on ENGINEER responsibility for the progress schedule, for sequencing, scheduling, or progress of the Work nor interfere with or relieve CONTRACTOR from CONTRACTOR's full responsibility therefor.

2. CONTRACTOR's schedule of Shop Drawing and Sample submittals will be acceptable to ENGINEER if it provides a workable arrangement for reviewing and processing the required submittals.

3. CONTRACTOR's schedule of values will be acceptable to ENGINEER as to form and substance if it provides a reasonable allocation of the Contract Price to component parts of the Work.

ARTICLE 3 - CONTRACT DOCUMENTS: INTENT, AMENDING, REUSE

3.01 *Intent*

A. The Contract Documents are complementary; what is called for by one is as binding as if called for by all.

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

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

3.02 *Reference Standards*

A. *Standards, Specifications, Codes, Laws, and Regulations*

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

2. No provision of any such standard, specification, manual or code, or any instruction of a Supplier shall be effective to change the duties or responsibilities of OWNER, CONTRACTOR, or ENGINEER, or any of their subcontractors, consultants, agents, or employees from those set forth in the Contract Documents, nor shall any such provision or instruction be effective to assign to OWNER, ENGINEER, or any of ENGINEER's Consultants, agents, or employees any duty or authority to supervise or direct the performance of the Work or any duty or authority to undertake responsibility inconsistent with the provisions of the Contract Documents.

3.03 *Reporting and Resolving Discrepancies*

A. *Reporting Discrepancies*

1. If, during the performance of the Work, CONTRACTOR discovers any conflict, error, ambiguity, or discrepancy within the Contract Documents or between the Contract Documents and any provision of any Law or Regulation applicable to the performance of the Work or of any standard, specification, manual or code, or of any instruction of any Supplier, CONTRACTOR shall report it to ENGINEER in writing at once. CONTRACTOR shall not proceed with the Work affected thereby (except in an emergency as required by paragraph 6.16.A) until an amendment or supplement to the Contract Documents has been issued by one of the methods indicated in paragraph 3.04; provided, however, that CONTRACTOR shall not be liable to OWNER or ENGINEER for failure to report any such conflict, error, ambiguity, or discrepancy unless CONTRACTOR knew or reasonably should have known thereof.

B. *Resolving Discrepancies*

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

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

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

3.04 *Amending and Supplementing Contract Documents*

A. The Contract Documents may be amended to provide for additions, deletions, and revisions in the Work or to modify the terms and conditions thereof in one or more of the following ways: (i) a Written Amendment; (ii) a Change Order; or (iii) a Work Change Directive.

B. The requirements of the Contract Documents may be supplemented, and minor variations and deviations in the Work may be authorized, by one or more of the following ways: (i) a Field Order; (ii) ENGINEER's approval of a Shop Drawing or Sample; or (iii) ENGINEER's written interpretation or clarification.

3.05 *Reuse of Documents*

A. CONTRACTOR and any Subcontractor or Supplier or other individual or entity performing or furnishing any of the Work under a direct or indirect contract with OWNER: (i) shall not have or acquire any title to or ownership rights in any of the Drawings, Specifications, or other documents (or copies of any thereof) prepared by or bearing the seal of ENGINEER or ENGINEER's Consultant, including electronic media editions; and (ii) shall not reuse any of such Drawings, Specifications, other documents, or copies on extensions of the Project or any other project without written consent of OWNER and ENGINEER and specific written verification or adaption by ENGINEER. This prohibition will survive final payment, completion, and acceptance of the Work, or termination or completion of the Contract. Nothing herein shall preclude CONTRACTOR from retaining copies of the Contract Documents for record purposes.

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

4.01 *Availability of Lands*

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

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

C. CONTRACTOR shall provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment.

4.02 *Subsurface and Physical Conditions*

A. *Reports and Drawings:* The Supplementary Conditions identify:

1. those reports of explorations and tests of subsurface conditions at or contiguous to the Site that ENGINEER has used in preparing the Contract Documents; and

2. those drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the Site (except Underground Facilities) that ENGINEER has used in preparing the Contract Documents.

B. *Limited Reliance by CONTRACTOR on Technical Data Authorized:* CONTRACTOR may rely upon the general accuracy of the "technical data" contained in such reports and drawings, but such reports and drawings are not Contract Documents. Such "technical data" is identified in the Supplementary Conditions. Except for such reliance on such "technical data," CONTRACTOR may not rely upon or make any Claim against OWNER, ENGINEER, or any of ENGINEER's Consultants with respect to:

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

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

3. any CONTRACTOR interpretation of or conclusion drawn from any "technical data" or any such other data, interpretations, opinions, or information.

4.03 *Differing Subsurface or Physical Conditions*

A. *Notice:* If CONTRACTOR believes that any subsurface or physical condition at or contiguous to the Site that is uncovered or revealed either:

1. is of such a nature as to establish that any "technical data" on which CONTRACTOR is entitled to rely as provided in paragraph 4.02 is materially inaccurate; or

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

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

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

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

B. *ENGINEER's Review:* After receipt of written notice as required by paragraph 4.03.A, ENGINEER will promptly review the pertinent condition, determine the necessity of OWNER's obtaining additional exploration or tests with respect thereto, and advise OWNER in writing (with a copy to CONTRACTOR) of ENGINEER's findings and conclusions.

C. *Possible Price and Times Adjustments*

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

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

- b. with respect to Work that is paid for on a Unit Price Basis, any adjustment in Contract Price will be subject to the provisions of paragraphs 9.08 and 11.03.

2. CONTRACTOR shall not be entitled to any adjustment in the Contract Price or Contract Times if:

- a. CONTRACTOR knew of the existence of such conditions at the time CONTRACTOR made a final commitment to OWNER in respect of Contract Price and Contract Times by the submission of a Bid or becoming bound under a negotiated contract; or

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

- c. CONTRACTOR failed to give the written notice within the time and as required by paragraph 4.03.A.

3. If OWNER and CONTRACTOR are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times, or both, a Claim may be made therefor as provided in paragraph 10.05. However, OWNER, ENGINEER, and ENGINEER's Consultants shall not be liable to CONTRACTOR for any claims, costs, losses, or damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by CONTRACTOR on or in connection with any other project or anticipated project.

4.04 *Underground Facilities*

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

1. OWNER and ENGINEER shall not be responsible for the accuracy or completeness of any such information or data; and

2. the cost of all of the following will be included in the Contract Price, and CONTRACTOR shall have full responsibility for:

a. reviewing and checking all such information and data,

b. locating all Underground Facilities shown or indicated in the Contract Documents,

c. coordination of the Work with the owners of such Underground Facilities, including OWNER, during construction, and

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

B. *Not Shown or Indicated:*

1. If an Underground Facility is uncovered or revealed at or contiguous to the Site which was not shown or indicated, or not shown or indicated with reasonable accuracy in the Contract Documents, CONTRACTOR shall, promptly after becoming aware thereof and before further disturbing conditions affected thereby or performing any Work in connection therewith (except in an emergency as required by paragraph 6.16.A), identify the owner of such Underground Facility and give written notice to that owner and to OWNER and ENGINEER. ENGINEER will promptly review the Underground Facility and determine the

extent, if any, to which a change is required in the Contract Documents to reflect and document the consequences of the existence or location of the Underground Facility. During such time, CONTRACTOR shall be responsible for the safety and protection of such Underground Facility.

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

4.05 *Reference Points*

A. OWNER shall provide engineering surveys to establish reference points for construction which in ENGINEER's judgment are necessary to enable CONTRACTOR to proceed with the Work. CONTRACTOR shall be responsible for laying out the Work, shall protect and preserve the established reference points and property monuments, and shall make no changes or relocations without the prior written approval of OWNER. CONTRACTOR shall report to ENGINEER whenever any reference point or property monument is lost or destroyed or requires relocation because of necessary changes in grades or locations, and shall be responsible for the accurate replacement or relocation of such reference points or property monuments by professionally qualified personnel.

4.06 *Hazardous Environmental Condition at Site*

A. *Reports and Drawings:* Reference is made to the Supplementary Conditions for the identification of those reports and drawings relating to a Hazardous Environmental Condition identified at the Site, if any, that have been utilized by the ENGINEER in the preparation of the Contract Documents.

B. *Limited Reliance by CONTRACTOR on Technical Data Authorized:* CONTRACTOR may rely upon the general accuracy of the "technical data" contained in such reports and drawings, but such reports and drawings are not Contract Documents. Such "technical data" is identified in the Supplementary Conditions. Except for such reliance on such "technical data," CONTRACTOR

may not rely upon or make any Claim against OWNER, ENGINEER or any of ENGINEER's Consultants with respect to:

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

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

3. any CONTRACTOR interpretation of or conclusion drawn from any "technical data" or any such other data, interpretations, opinions or information.

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

D. If CONTRACTOR encounters a Hazardous Environmental Condition or if CONTRACTOR or anyone for whom CONTRACTOR is responsible creates a Hazardous Environmental Condition, CONTRACTOR shall immediately: (i) secure or otherwise isolate such condition; (ii) stop all Work in connection with such condition and in any area affected thereby (except in an emergency as required by paragraph 6.16); and (iii) notify OWNER and ENGINEER (and promptly thereafter confirm such notice in writing). OWNER shall promptly consult with ENGINEER concerning the necessity for OWNER to retain a qualified expert to evaluate such condition or take corrective action, if any.

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

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

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

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

I. The provisions of paragraphs 4.02, 4.03, and 4.04 are not intended to apply to a Hazardous Environmental Condition uncovered or revealed at the Site.

5.01 *Performance, Payment, and Other Bonds*

A. CONTRACTOR shall furnish performance and payment Bonds, each in an amount at least equal to the Contract Price as security for the faithful performance and payment of all CONTRACTOR's obligations under the Contract Documents. These Bonds shall remain in effect at least until one year after the date when final payment becomes due, except as provided otherwise by Laws or Regulations or by the Contract Documents. CONTRACTOR shall also furnish such other Bonds as are required by the Contract Documents.

B. All Bonds shall be in the form prescribed by the Contract Documents except as provided otherwise by Laws or Regulations, and shall be executed by such sureties as are named in the current list of "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Circular 570 (amended) by the Financial Management Service, Surety Bond Branch, U.S. Department of the Treasury. All Bonds signed by an agent must be accompanied by a certified copy of such agent's authority to act.

C. If the surety on any Bond furnished by CONTRACTOR is declared bankrupt or becomes insolvent or its right to do business is terminated in any state where any part of the Project is located or it ceases to meet the requirements of paragraph 5.01.B, CONTRACTOR shall within 20 days thereafter substitute another Bond and surety, both of which shall comply with the requirements of paragraphs 5.01.B and 5.02.

5.02. *Licensed Sureties and Insurers*

A. All Bonds and insurance required by the Contract Documents to be purchased and maintained by OWNER or CONTRACTOR shall be obtained from surety or insurance companies that are duly licensed or authorized in the jurisdiction in which the Project is located to issue Bonds or insurance policies for the limits and coverages so required. Such surety and insurance companies shall also meet such additional requirements and qualifications as may be provided in the Supplementary Conditions.

5.03 *Certificates of Insurance*

A. CONTRACTOR shall deliver to OWNER, with copies to each additional insured identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance requested by OWNER or any other additional insured) which CONTRACTOR is required to purchase and maintain. OWNER shall deliver to CONTRACTOR, with copies to each additional insured identified in the Supplementary Conditions, certificates of

insurance (and other evidence of insurance requested by CONTRACTOR or any other additional insured) which OWNER is required to purchase and maintain.

5.04 *CONTRACTOR's Liability Insurance*

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

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

2. claims for damages because of bodily injury, occupational sickness or disease, or death of CONTRACTOR's employees;

3. claims for damages because of bodily injury, sickness or disease, or death of any person other than CONTRACTOR's employees;

4. claims for damages insured by reasonably available personal injury liability coverage which are sustained: (i) by any person as a result of an offense directly or indirectly related to the employment of such person by CONTRACTOR, or (ii) by any other person for any other reason;

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

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

B. The policies of insurance so required by this paragraph 5.04 to be purchased and maintained shall:

1. with respect to insurance required by paragraphs 5.04.A.3 through 5.04.A.6 inclusive, include as additional insureds (subject to any customary exclusion in respect of professional liability) OWNER, ENGINEER, ENGINEER's Consultants, and any other individuals or entities identified in the Supplementary Conditions, all of whom shall be listed as additional insureds, and include coverage for the respective officers, directors, partners, employees, agents, and other consultants and subcontractors of each and any of all such additional insureds, and the insurance afforded

to these additional insureds shall provide primary coverage for all claims covered thereby;

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

3. include completed operations insurance;

4. include contractual liability insurance covering CONTRACTOR's indemnity obligations under paragraphs 6.07, 6.11, and 6.20;

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

6. remain in effect at least until final payment and at all times thereafter when CONTRACTOR may be correcting, removing, or replacing defective Work in accordance with paragraph 13.07; and

7. with respect to completed operations insurance, and any insurance coverage written on a claims-made basis, remain in effect for at least two years after final payment (and CONTRACTOR shall furnish OWNER and each other additional insured identified in the Supplementary Conditions, to whom a certificate of insurance has been issued, evidence satisfactory to OWNER and any such additional insured of continuation of such insurance at final payment and one year thereafter).

5.05 OWNER's Liability Insurance

A. In addition to the insurance required to be provided by CONTRACTOR under paragraph 5.04, OWNER, at OWNER's option, may purchase and maintain at OWNER's expense OWNER's own liability insurance as will protect OWNER against claims which may arise from operations under the Contract Documents.

5.06 Property Insurance

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

1. include the interests of OWNER, CONTRACTOR, Subcontractors, ENGINEER, ENGINEER's Consultants, and any other individuals or entities identified in the Supplementary Conditions, and the officers, directors, partners, employees, agents, and other consultants and subcontractors of each and any of them, each of whom is deemed to have an insurable interest and shall be listed as an additional insured;

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

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

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

5. allow for partial utilization of the Work by OWNER;

6. include testing and startup; and

7. be maintained in effect until final payment is made unless otherwise agreed to in writing by OWNER, CONTRACTOR, and ENGINEER with 30 days written notice to each other additional insured to whom a certificate of insurance has been issued.

8. contain a provision or endorsement that the coverage afforded will not be canceled or materially changed or renewal refused until at least 30 days prior written notice has been given to OWNER and CONTRACTOR and to each other additional insured to whom a certificate of insurance has been issued and will contain waiver provisions in accordance with paragraph 5.07.

B. CONTRACTOR shall purchase and maintain such boiler and machinery insurance or additional property insurance as may be required by the Supplementary Conditions or Laws and Regulations which will include the interests of OWNER, CONTRACTOR, Subcontractors, ENGINEER, ENGINEER's Consultants, and any other

individuals or entities identified in the Supplementary Conditions, each of whom is deemed to have an insurable interest and shall be listed as an insured or additional insured.

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

5.07 *Waiver of Rights*

A. OWNER and CONTRACTOR intend that all policies purchased in accordance with paragraph 5.06 will protect OWNER, CONTRACTOR, Subcontractors, ENGINEER, ENGINEER's Consultants, and all other individuals or entities identified in the Supplementary Conditions to be listed as insureds or additional insureds (and the officers, directors, partners, employees, agents, and other consultants and subcontractors of each and any of them) in such policies and will provide primary coverage for all losses and damages caused by the perils or causes of loss covered thereby. All such policies shall contain provisions to the effect that in the event of payment of any loss or damage the insurers will have no rights of recovery against any of the insureds or additional insureds thereunder. OWNER and CONTRACTOR waive all rights against each other and their respective officers, directors, partners, employees, agents, and other consultants and subcontractors of each and any of them for all losses and damages caused by, arising out of or resulting from any of the perils or causes of loss covered by such policies and any other property insurance applicable to the Work; and, in addition, waive all such rights against Subcontractors, ENGINEER, ENGINEER's Consultants, and all other individuals or entities identified in the Supplementary Conditions to be listed as insureds or additional insureds (and the officers, directors, partners, employees, agents, and other consultants and subcontractors of each and any of them) under such policies for losses and damages so caused. None of the above waivers shall extend to the rights that any party making such waiver may have to the proceeds of insurance held by OWNER as trustee or otherwise payable under any policy so issued.

B. OWNER waives all rights against CONTRACTOR, Subcontractors, ENGINEER, ENGINEER's Consultants, and the officers, directors, partners, employees, agents, and other consultants and subcontractors of each and any of them for:

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

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

C. Any insurance policy maintained by OWNER covering any loss, damage or consequential loss referred to in paragraph 5.07.B shall contain provisions to the effect that in the event of payment of any such loss, damage, or consequential loss, the insurers will have no rights of recovery against CONTRACTOR, Subcontractors, ENGINEER, or ENGINEER's Consultants and the officers, directors, partners, employees, agents, and other consultants and subcontractors of each and any of them.

5.08 *Receipt and Application of Insurance Proceeds*

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

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

5.09 Acceptance of Bonds and Insurance; Option to Replace

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

5.10 Partial Utilization, Acknowledgment of Property Insurer

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

ARTICLE 6 - CONTRACTOR'S RESPONSIBILITIES

6.01 Supervision and Superintendence

A. CONTRACTOR shall supervise, inspect, and direct the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents. CONTRACTOR shall be solely responsible for the means, methods, techniques, sequences, and procedures of construction, but CONTRACTOR shall not be responsible for the negligence of OWNER or ENGINEER in the design or specification of a specific means, method, technique, sequence, or procedure of construction which is shown or indicated in and expressly required by the Contract Documents. CONTRACTOR

shall be responsible to see that the completed Work complies accurately with the Contract Documents.

B. At all times during the progress of the Work, CONTRACTOR shall assign a competent resident superintendent thereto who shall not be replaced without written notice to OWNER and ENGINEER except under extraordinary circumstances. The superintendent will be CONTRACTOR's representative at the Site and shall have authority to act on behalf of CONTRACTOR. All communications given to or received from the superintendent shall be binding on CONTRACTOR.

6.02 Labor; Working Hours

A. CONTRACTOR shall provide competent, suitably qualified personnel to survey, lay out, and construct the Work as required by the Contract Documents. CONTRACTOR shall at all times maintain good discipline and order at the Site.

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

6.03 Services, Materials, and Equipment

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

B. All materials and equipment incorporated into the Work shall be as specified or, if not specified, shall be of good quality and new, except as otherwise provided in the Contract Documents. All warranties and guarantees specifically called for by the Specifications shall expressly run to the benefit of OWNER. If required by ENGINEER, CONTRACTOR shall furnish satisfactory evidence (including reports of required tests) as to the source, kind, and quality of materials and equipment. All materials and equipment shall be stored, applied, installed, connected, erected, protected, used, cleaned, and conditioned in accordance with instructions of the applicable Supplier, except as otherwise may be provided in the Contract Documents.

6.04 Progress Schedule

A. CONTRACTOR shall adhere to the progress schedule established in accordance with paragraph 2.07 as it may be adjusted from time to time as provided below.

1. CONTRACTOR shall submit to ENGINEER for acceptance (to the extent indicated in paragraph 2.07) proposed adjustments in the progress schedule that will not result in changing the Contract Times (or Milestones). Such adjustments will conform generally to the progress schedule then in effect and additionally will comply with any provisions of the General Requirements applicable thereto.

2. Proposed adjustments in the progress schedule that will change the Contract Times (or Milestones) shall be submitted in accordance with the requirements of Article 12. Such adjustments may only be made by a Change Order or Written Amendment in accordance with Article 12.

6.05 Substitutes and "Or-Equals"

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

1. "Or-Equal" Items: If in ENGINEER's sole discretion an item of material or equipment proposed by CONTRACTOR is functionally equal to that named and sufficiently similar so that no change in related Work will be required, it may be considered by ENGINEER as an "or-equal" item, in which case review and approval of the proposed item may, in ENGINEER's sole discretion, be accomplished without compliance with some or all of the requirements for approval of proposed substitute items. For the purposes of this paragraph 6.05.A.1, a proposed item of material or equipment will be considered functionally equal to an item so named if:

a. in the exercise of reasonable judgment ENGINEER determines that: (i) it is at least equal in quality, durability, appearance, strength, and design characteristics; (ii) it will reliably perform at least equally well the function imposed by the design concept of the completed Project as a functioning whole, and;

b. CONTRACTOR certifies that: (i) there is no increase in cost to the OWNER; and (ii) it will

conform substantially, even with deviations, to the detailed requirements of the item named in the Contract Documents.

2. Substitute Items

a. If in ENGINEER's sole discretion an item of material or equipment proposed by CONTRACTOR does not qualify as an "or-equal" item under paragraph 6.05.A.1, it will be considered a proposed substitute item.

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

c. The procedure for review by ENGINEER will be as set forth in paragraph 6.05.A.2.d, as supplemented in the General Requirements and as ENGINEER may decide is appropriate under the circumstances.

d. CONTRACTOR shall first make written application to ENGINEER for review of a proposed substitute item of material or equipment that CONTRACTOR seeks to furnish or use. The application shall certify that the proposed substitute item will perform adequately the functions and achieve the results called for by the general design, be similar in substance to that specified, and be suited to the same use as that specified. The application will state the extent, if any, to which the use of the proposed substitute item will prejudice CONTRACTOR's achievement of Substantial Completion on time, whether or not use of the proposed substitute item in the Work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with OWNER for work on the Project) to adapt the design to the proposed substitute item and whether or not incorporation or use of the proposed substitute item in connection with the Work is subject to payment of any license fee or royalty. All variations of the proposed substitute item from that specified will be identified in the application, and available engineering, sales, maintenance, repair, and replacement services will be indicated. The application will also contain an itemized estimate of all costs or credits that will result directly or indirectly from use of such substitute item, including costs of redesign and claims of other contractors affected by any resulting change, all of which will be considered by ENGINEER in evaluating the

proposed substitute item. ENGINEER may require CONTRACTOR to furnish additional data about the proposed substitute item.

B. *Substitute Construction Methods or Procedures:* If a specific means, method, technique, sequence, or procedure of construction is shown or indicated in and expressly required by the Contract Documents, CONTRACTOR may furnish or utilize a substitute means, method, technique, sequence, or procedure of construction approved by ENGINEER. CONTRACTOR shall submit sufficient information to allow ENGINEER, in ENGINEER's sole discretion, to determine that the substitute proposed is equivalent to that expressly called for by the Contract Documents. The procedure for review by ENGINEER will be similar to that provided in subparagraph 6.05.A.2.

C. *Engineer's Evaluation:* ENGINEER will be allowed a reasonable time within which to evaluate each proposal or submittal made pursuant to paragraphs 6.05.A and 6.05.B. ENGINEER will be the sole judge of acceptability. No "or-equal" or substitute will be ordered, installed or utilized until ENGINEER's review is complete, which will be evidenced by either a Change Order for a substitute or an approved Shop Drawing for an "or equal." ENGINEER will advise CONTRACTOR in writing of any negative determination.

D. *Special Guarantee:* OWNER may require CONTRACTOR to furnish at CONTRACTOR's expense a special performance guarantee or other surety with respect to any substitute.

E. *ENGINEER's Cost Reimbursement:* ENGINEER will record time required by ENGINEER and ENGINEER's Consultants in evaluating substitute proposed or submitted by CONTRACTOR pursuant to paragraphs 6.05.A.2 and 6.05.B and in making changes in the Contract Documents (or in the provisions of any other direct contract with OWNER for work on the Project) occasioned thereby. Whether or not ENGINEER approves a substitute item so proposed or submitted by CONTRACTOR, CONTRACTOR shall reimburse OWNER for the charges of ENGINEER and ENGINEER's Consultants for evaluating each such proposed substitute.

F. *CONTRACTOR's Expense:* CONTRACTOR shall provide all data in support of any proposed substitute or "or-equal" at CONTRACTOR's expense.

6.06 *Concerning Subcontractors, Suppliers, and Others*

A. CONTRACTOR shall not employ any Subcontractor, Supplier, or other individual or entity (including those acceptable to OWNER as indicated in paragraph 6.06.B), whether initially or as a replacement, against whom OWNER may have reasonable objection. CONTRACTOR shall not be required to employ any Sub-

contractor, Supplier, or other individual or entity to furnish or perform any of the Work against whom CONTRACTOR has reasonable objection.

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

C. CONTRACTOR shall be fully responsible to OWNER and ENGINEER for all acts and omissions of the Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work just as CONTRACTOR is responsible for CONTRACTOR's own acts and omissions. Nothing in the Contract Documents shall create for the benefit of any such Subcontractor, Supplier, or other individual or entity any contractual relationship between OWNER or ENGINEER and any such Subcontractor, Supplier or other individual or entity, nor shall it create any obligation on the part of OWNER or ENGINEER to pay or to see to the payment of any moneys due any such Subcontractor, Supplier, or other individual or entity except as may otherwise be required by Laws and Regulations.

D. CONTRACTOR shall be solely responsible for scheduling and coordinating the Work of Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work under a direct or indirect contract with CONTRACTOR.

E. CONTRACTOR shall require all Subcontractors, Suppliers, and such other individuals or entities performing or furnishing any of the Work to communicate with ENGINEER through CONTRACTOR.

F. The divisions and sections of the Specifications and the identifications of any Drawings shall not control CONTRACTOR in dividing the Work among Subcon-

tractors or Suppliers or delineating the Work to be performed by any specific trade.

G. All Work performed for CONTRACTOR by a Subcontractor or Supplier will be pursuant to an appropriate agreement between CONTRACTOR and the Subcontractor or Supplier which specifically binds the Subcontractor or Supplier to the applicable terms and conditions of the Contract Documents for the benefit of OWNER and ENGINEER. Whenever any such agreement is with a Subcontractor or Supplier who is listed as an additional insured on the property insurance provided in paragraph 5.06, the agreement between the CONTRACTOR and the Subcontractor or Supplier will contain provisions whereby the Subcontractor or Supplier waives all rights against OWNER, CONTRACTOR, ENGINEER, ENGINEER's Consultants, and all other individuals or entities identified in the Supplementary Conditions to be listed as insureds or additional insureds (and the officers, directors, partners, employees, agents, and other consultants and subcontractors of each and any of them) for all losses and damages caused by, arising out of, relating to, or resulting from any of the perils or causes of loss covered by such policies and any other property insurance applicable to the Work. If the insurers on any such policies require separate waiver forms to be signed by any Subcontractor or Supplier, CONTRACTOR will obtain the same.

6.07 Patent Fees and Royalties

A. CONTRACTOR shall pay all license fees and royalties and assume all costs incident to the use in the performance of the Work or the incorporation in the Work of any invention, design, process, product, or device which is the subject of patent rights or copyrights held by others. If a particular invention, design, process, product, or device is specified in the Contract Documents for use in the performance of the Work and if to the actual knowledge of OWNER or ENGINEER its use is subject to patent rights or copyrights calling for the payment of any license fee or royalty to others, the existence of such rights shall be disclosed by OWNER in the Contract Documents. To the fullest extent permitted by Laws and Regulations, CONTRACTOR shall indemnify and hold harmless OWNER, ENGINEER, ENGINEER's Consultants, and the officers, directors, partners, employees or agents, and other consultants of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device not specified in the Contract Documents.

6.08 Permits

A. Unless otherwise provided in the Supplementary Conditions, CONTRACTOR shall obtain and pay for all construction permits and licenses. OWNER shall assist CONTRACTOR, when necessary, in obtaining such permits and licenses. CONTRACTOR shall pay all governmental charges and inspection fees necessary for the prosecution of the Work which are applicable at the time of opening of Bids, or, if there are no Bids, on the Effective Date of the Agreement. CONTRACTOR shall pay all charges of utility owners for connections to the Work, and OWNER shall pay all charges of such utility owners for capital costs related thereto, such as plant investment fees.

6.09 Laws and Regulations

A. CONTRACTOR shall give all notices and comply with all Laws and Regulations applicable to the performance of the Work. Except where otherwise expressly required by applicable Laws and Regulations, neither OWNER nor ENGINEER shall be responsible for monitoring CONTRACTOR's compliance with any Laws or Regulations.

B. If CONTRACTOR performs any Work knowing or having reason to know that it is contrary to Laws or Regulations, CONTRACTOR shall bear all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such Work; however, it shall not be CONTRACTOR's primary responsibility to make certain that the Specifications and Drawings are in accordance with Laws and Regulations, but this shall not relieve CONTRACTOR of CONTRACTOR's obligations under paragraph 3.03.

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

6.10 Taxes

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

6.11 Use of Site and Other Areas

A. Limitation on Use of Site and Other Areas

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

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

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

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

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

D. *Loading Structures:* CONTRACTOR shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall CONTRACTOR subject any part of the Work or adjacent property to stresses or pressures that will endanger it.

6.12 Record Documents

A. CONTRACTOR shall maintain in a safe place at the Site one record copy of all Drawings, Specifications, Addenda, Written Amendments, Change Orders, Work Change Directives, Field Orders, and written interpretations and clarifications in good order and annotated to show changes made during construction. These record documents together with all approved Samples and a counterpart of all approved Shop Drawings will be available to ENGINEER for reference. Upon completion of the Work, these record documents, Samples, and Shop Drawings will be delivered to ENGINEER for OWNER.

6.13 Safety and Protection

A. CONTRACTOR shall be solely responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work. CONTRACTOR shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury or loss to:

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

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

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

B. CONTRACTOR shall comply with all applicable Laws and Regulations relating to the safety of persons or property, or to the protection of persons or property from damage, injury, or loss; and shall erect and maintain all necessary safeguards for such safety and protection. CONTRACTOR shall notify owners of adjacent property and of Underground Facilities and other utility owners when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation, and replacement of their property. All damage, injury, or loss to any property referred to in paragraph 6.13.A.2 or 6.13.A.3 caused, directly or indirectly, in whole or in part, by CONTRACTOR, any Subcontractor, Supplier, or any other individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, shall be remedied by CONTRACTOR (except damage or loss attributable to the fault of Drawings or Specifications or to the acts or omissions of OWNER or ENGINEER or ENGINEER's Consultant, or anyone employed by any of them, or anyone for whose acts any of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of CONTRACTOR or any

Subcontractor, Supplier, or other individual or entity directly or indirectly employed by any of them). CONTRACTOR's duties and responsibilities for safety and for protection of the Work shall continue until such time as all the Work is completed and ENGINEER has issued a notice to OWNER and CONTRACTOR in accordance with paragraph 14.07.B that the Work is acceptable (except as otherwise expressly provided in connection with Substantial Completion).

6.14 *Safety Representative*

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

6.15 *Hazard Communication Programs*

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

6.16 *Emergencies*

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

6.17 *Shop Drawings and Samples*

A. CONTRACTOR shall submit Shop Drawings to ENGINEER for review and approval in accordance with the acceptable schedule of Shop Drawings and Sample submittals. All submittals will be identified as ENGINEER may require and in the number of copies specified in the General Requirements. The data shown on the Shop Drawings will be complete with respect to quantities, dimensions, specified performance and design criteria, materials, and similar data to show ENGINEER the services, materials, and equipment CONTRACTOR proposes to provide and to enable ENGINEER to review the information for the limited purposes required by paragraph 6.17.E.

B. CONTRACTOR shall also submit Samples to ENGINEER for review and approval in accordance with

the acceptable schedule of Shop Drawings and Sample submittals. Each Sample will be identified clearly as to material, Supplier, pertinent data such as catalog numbers, and the use for which intended and otherwise as ENGINEER may require to enable ENGINEER to review the submittal for the limited purposes required by paragraph 6.17.E. The numbers of each Sample to be submitted will be as specified in the Specifications.

C. Where a Shop Drawing or Sample is required by the Contract Documents or the schedule of Shop Drawings and Sample submittals acceptable to ENGINEER as required by paragraph 2.07, any related Work performed prior to ENGINEER's review and approval of the pertinent submittal will be at the sole expense and responsibility of CONTRACTOR.

D. *Submittal Procedures*

1. Before submitting each Shop Drawing or Sample, CONTRACTOR shall have determined and verified:

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

b. all materials with respect to intended use, fabrication, shipping, handling, storage, assembly, and installation pertaining to the performance of the Work;

c. all information relative to means, methods, techniques, sequences, and procedures of construction and safety precautions and programs incident thereto; and

d. CONTRACTOR shall also have reviewed and coordinated each Shop Drawing or Sample with other Shop Drawings and Samples and with the requirements of the Work and the Contract Documents.

2. Each submittal shall bear a stamp or specific written indication that CONTRACTOR has satisfied CONTRACTOR's obligations under the Contract Documents with respect to CONTRACTOR's review and approval of that submittal.

3. At the time of each submittal, CONTRACTOR shall give ENGINEER specific written notice of such variations, if any, that the Shop Drawing or Sample submitted may have from the requirements of the Contract Documents, such notice to be in a written communication separate from the submittal; and, in addition, shall cause a specific notation to be made on each Shop Drawing and Sample submitted to ENGINEER for review and approval of each such variation.

E. ENGINEER's Review

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

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

3. ENGINEER's review and approval of Shop Drawings or Samples shall not relieve CONTRACTOR from responsibility for any variation from the requirements of the Contract Documents unless CONTRACTOR has in writing called ENGINEER's attention to each such variation at the time of each submittal as required by paragraph 6.17.D.3 and ENGINEER has given written approval of each such variation by specific written notation thereof incorporated in or accompanying the Shop Drawing or Sample approval; nor will any approval by ENGINEER relieve CONTRACTOR from responsibility for complying with the requirements of paragraph 6.17.D.1.

F. Resubmittal Procedures:

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

6.18 Continuing the Work

A. CONTRACTOR shall carry on the Work and adhere to the progress schedule during all disputes or disagreements with OWNER. No Work shall be delayed or postponed pending resolution of any disputes or disagreements, except as permitted by paragraph 15.04 or as OWNER and CONTRACTOR may otherwise agree in writing.

6.19 CONTRACTOR's General Warranty and Guarantee

A. CONTRACTOR warrants and guarantees to OWNER, ENGINEER, and ENGINEER's Consultants that all Work will be in accordance with the Contract Documents and will not be defective. CONTRACTOR's warranty and guarantee hereunder excludes defects or damage caused by:

1. abuse, modification, or improper maintenance or operation by persons other than CONTRACTOR, Subcontractors, Suppliers, or any other individual or entity for whom CONTRACTOR is responsible; or

2. normal wear and tear under normal usage.

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

1. observations by ENGINEER;

2. recommendation by ENGINEER or payment by OWNER of any progress or final payment;

3. the issuance of a certificate of Substantial Completion by ENGINEER or any payment related thereto by OWNER;

4. use or occupancy of the Work or any part thereof by OWNER;

5. any acceptance by OWNER or any failure to do so;

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

7. any inspection, test, or approval by others; or

8. any correction of defective Work by OWNER.

6.20 Indemnification

A. To the fullest extent permitted by Laws and Regulations, CONTRACTOR shall indemnify and hold harmless OWNER, ENGINEER, ENGINEER's Consultants, and the officers, directors, partners, employees, agents, and other consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution

costs) arising out of or relating to the performance of the Work, provided that any such claim, cost, loss, or damage:

1. is attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom; and

2. is caused in whole or in part by any negligent act or omission of CONTRACTOR, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work or anyone for whose acts any of them may be liable, regardless of whether or not caused in part by any negligence or omission of an individual or entity indemnified hereunder or whether liability is imposed upon such indemnified party by Laws and Regulations regardless of the negligence of any such individual or entity.

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

C. The indemnification obligations of CONTRACTOR under paragraph 6.20.A shall not extend to the liability of ENGINEER and ENGINEER's Consultants or to the officers, directors, partners, employees, agents, and other consultants and subcontractors of each and any of them arising out of:

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

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

ARTICLE 7 - OTHER WORK

7.01 *Related Work at Site*

A. OWNER may perform other work related to the Project at the Site by OWNER's employees, or let other direct contracts therefor, or have other work performed by

utility owners. If such other work is not noted in the Contract Documents, then:

1. written notice thereof will be given to CONTRACTOR prior to starting any such other work; and

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

B. CONTRACTOR shall afford each other contractor who is a party to such a direct contract and each utility owner (and OWNER, if OWNER is performing the other work with OWNER's employees) proper and safe access to the Site and a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work and shall properly coordinate the Work with theirs. Unless otherwise provided in the Contract Documents, CONTRACTOR shall do all cutting, fitting, and patching of the Work that may be required to properly connect or otherwise make its several parts come together and properly integrate with such other work. CONTRACTOR shall not endanger any work of others by cutting, excavating, or otherwise altering their work and will only cut or alter their work with the written consent of ENGINEER and the others whose work will be affected. The duties and responsibilities of CONTRACTOR under this paragraph are for the benefit of such utility owners and other contractors to the extent that there are comparable provisions for the benefit of CONTRACTOR in said direct contracts between OWNER and such utility owners and other contractors.

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

7.02 *Coordination*

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

1. the individual or entity who will have authority and responsibility for coordination of the activities among the various contractors will be identified;

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

3. the extent of such authority and responsibilities will be provided.

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

ARTICLE 8 - OWNER'S RESPONSIBILITIES

8.01 *Communications to Contractor*

A. Except as otherwise provided in these General Conditions, OWNER shall issue all communications to CONTRACTOR through ENGINEER.

8.02 *Replacement of ENGINEER*

A. In case of termination of the employment of ENGINEER, OWNER shall appoint an engineer to whom CONTRACTOR makes no reasonable objection, whose status under the Contract Documents shall be that of the former ENGINEER.

8.03 *Furnish Data*

A. OWNER shall promptly furnish the data required of OWNER under the Contract Documents.

8.04 *Pay Promptly When Due*

A. OWNER shall make payments to CONTRACTOR promptly when they are due as provided in paragraphs 14.02.C and 14.07.C.

8.05 *Lands and Easements; Reports and Tests*

A. OWNER's duties in respect of providing lands and easements and providing engineering surveys to establish reference points are set forth in paragraphs 4.01 and 4.05. Paragraph 4.02 refers to OWNER's identifying and making available to CONTRACTOR copies of reports of explorations and tests of subsurface conditions and drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the Site that have been utilized by ENGINEER in preparing the Contract Documents.

8.06 *Insurance*

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

8.07 *Change Orders*

A. OWNER is obligated to execute Change Orders as indicated in paragraph 10.03.

8.08. *Inspections, Tests, and Approvals*

A. OWNER's responsibility in respect to certain inspections, tests, and approvals is set forth in paragraph 13.03.B.

8.09 *Limitations on OWNER's Responsibilities*

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

8.10 *Undisclosed Hazardous Environmental Condition*

A. OWNER's responsibility in respect to an undisclosed Hazardous Environmental Condition is set forth in paragraph 4.06.

8.11 *Evidence of Financial Arrangements*

A. If and to the extent OWNER has agreed to furnish CONTRACTOR reasonable evidence that financial arrangements have been made to satisfy OWNER's obligations under the Contract Documents, OWNER's responsibility in respect thereof will be as set forth in the Supplementary Conditions.

ARTICLE 9 - ENGINEER'S STATUS DURING CONSTRUCTION

9.01 *OWNER'S Representative*

A. ENGINEER will be OWNER's representative during the construction period. The duties and responsibilities and the limitations of authority of ENGINEER as OWNER's representative during construction are set forth in the Contract Documents and will not be changed without written consent of OWNER and ENGINEER.

9.02 *Visits to Site*

A. ENGINEER will make visits to the Site at intervals appropriate to the various stages of construction as ENGINEER deems necessary in order to observe as an experienced and qualified design professional the progress that has been made and the quality of the various aspects of

CONTRACTOR's executed Work. Based on information obtained during such visits and observations, ENGINEER, for the benefit of OWNER, will determine, in general, if the Work is proceeding in accordance with the Contract Documents. ENGINEER will not be required to make exhaustive or continuous inspections on the Site to check the quality or quantity of the Work. ENGINEER's efforts will be directed toward providing for OWNER a greater degree of confidence that the completed Work will conform generally to the Contract Documents. On the basis of such visits and observations, ENGINEER will keep OWNER informed of the progress of the Work and will endeavor to guard OWNER against defective Work.

B. ENGINEER's visits and observations are subject to all the limitations on ENGINEER's authority and responsibility set forth in paragraph 9.10, and particularly, but without limitation, during or as a result of ENGINEER's visits or observations of CONTRACTOR's Work ENGINEER will not supervise, direct, control, or have authority over or be responsible for CONTRACTOR's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of CONTRACTOR to comply with Laws and Regulations applicable to the performance of the Work.

9.03 *Project Representative*

A. If OWNER and ENGINEER agree, ENGINEER will furnish a Resident Project Representative to assist ENGINEER in providing more extensive observation of the Work. The responsibilities and authority and limitations thereon of any such Resident Project Representative and assistants will be as provided in paragraph 9.10 and in the Supplementary Conditions. If OWNER designates another representative or agent to represent OWNER at the Site who is not ENGINEER's Consultant, agent or employee, the responsibilities and authority and limitations thereon of such other individual or entity will be as provided in the Supplementary Conditions.

9.04 *Clarifications and Interpretations*

A. ENGINEER will issue with reasonable promptness such written clarifications or interpretations of the requirements of the Contract Documents as ENGINEER may determine necessary, which shall be consistent with the intent of and reasonably inferable from the Contract Documents. Such written clarifications and interpretations will be binding on OWNER and CONTRACTOR. If OWNER and CONTRACTOR are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times, or both, that should be allowed as a result of a written clarification or interpretation, a Claim may be made therefor as provided in paragraph 10.05.

9.05 *Authorized Variations in Work*

A. ENGINEER may authorize minor variations in the Work from the requirements of the Contract Documents which do not involve an adjustment in the Contract Price or the Contract Times and are compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. These may be accomplished by a Field Order and will be binding on OWNER and also on CONTRACTOR, who shall perform the Work involved promptly. If OWNER and CONTRACTOR are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times, or both, as a result of a Field Order, a Claim may be made therefor as provided in paragraph 10.05.

9.06 *Rejecting Defective Work*

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

9.07 *Shop Drawings, Change Orders and Payments*

A. In connection with ENGINEER's authority as to Shop Drawings and Samples, see paragraph 6.17.

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

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

9.08 *Determinations for Unit Price Work*

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

9.09 *Decisions on Requirements of Contract Documents and Acceptability of Work*

A. ENGINEER will be the initial interpreter of the requirements of the Contract Documents and judge of the acceptability of the Work thereunder. Claims, disputes and other matters relating to the acceptability of the Work, the quantities and classifications of Unit Price Work, the interpretation of the requirements of the Contract Documents pertaining to the performance of the Work, and Claims seeking changes in the Contract Price or Contract Times will be referred initially to ENGINEER in writing, in accordance with the provisions of paragraph 10.05, with a request for a formal decision.

B. When functioning as interpreter and judge under this paragraph 9.09, ENGINEER will not show partiality to OWNER or CONTRACTOR and will not be liable in connection with any interpretation or decision rendered in good faith in such capacity. The rendering of a decision by ENGINEER pursuant to this paragraph 9.09 with respect to any such Claim, dispute, or other matter (except any which have been waived by the making or acceptance of final payment as provided in paragraph 14.07) will be a condition precedent to any exercise by OWNER or CONTRACTOR of such rights or remedies as either may otherwise have under the Contract Documents or by Laws or Regulations in respect of any such Claim, dispute, or other matter.

9.10 *Limitations on ENGINEER's Authority and Responsibilities*

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

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

C. ENGINEER will not be responsible for the acts or omissions of CONTRACTOR or of any Subcontractor, any

Supplier, or of any other individual or entity performing any of the Work.

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

E. The limitations upon authority and responsibility set forth in this paragraph 9.10 shall also apply to ENGINEER's Consultants, Resident Project Representative, and assistants.

ARTICLE 10 - CHANGES IN THE WORK; CLAIMS

10.01 *Authorized Changes in the Work*

A. Without invalidating the Agreement and without notice to any surety, OWNER may, subject to written approval by AGENCY at any time or from time to time, order additions, deletions, or revisions in the Work by a Written Amendment, a Change Order, or a Work Change Directive. Upon receipt of any such document, CONTRACTOR shall promptly proceed with the Work involved which will be performed under the applicable conditions of the Contract Documents (except as otherwise specifically provided).

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

10.02 *Unauthorized Changes in the Work*

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

10.03 *Execution of Change Orders*

A. OWNER and CONTRACTOR shall execute appropriate Change Orders recommended by ENGINEER (or Written Amendments) covering:

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

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

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

10.04 *Notification to Surety*

A. If notice of any change affecting the general scope of the Work or the provisions of the Contract Documents (including, but not limited to, Contract Price or Contract Times) is required by the provisions of any Bond to be given to a surety, the giving of any such notice will be CONTRACTOR's responsibility. The amount of each applicable Bond will be adjusted to reflect the effect of any such change.

10.05 *Claims and Disputes*

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

B. *ENGINEER's Decision:* ENGINEER will render a formal decision in writing within 30 days after receipt of the last submittal of the claimant or the last submittal of the opposing party, if any. ENGINEER's written decision on such Claim, dispute, or other matter will be final and binding upon OWNER and CONTRACTOR unless:

1. an appeal from ENGINEER's decision is taken within the time limits and in accordance with the dispute resolution procedures set forth in Article 16; or

2. if no such dispute resolution procedures have been set forth in Article 16, a written notice of intention to appeal from ENGINEER's written decision is delivered by OWNER or CONTRACTOR to the other and to ENGINEER within 30 days after the date of such decision, and a formal proceeding is instituted by the appealing party in a forum of competent jurisdiction, within 60 days after the date of such decision or within 60 days after Substantial Completion, whichever is later (unless otherwise agreed in writing by OWNER and CONTRACTOR), to exercise such rights or remedies as the appealing party may have with respect to such Claim, dispute, or other matter in accordance with applicable Laws and Regulations.

C. If ENGINEER does not render a formal decision in writing within the time stated in paragraph 10.05.B, a decision denying the Claim in its entirety shall be deemed to have been issued 31 days after receipt of the last submittal of the claimant or the last submittal of the opposing party, if any.

D. No Claim for an adjustment in Contract Price or Contract Times (or Milestones) will be valid if not submitted in accordance with this paragraph 10.05.

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

11.01 *Cost of the Work*

A. *Costs Included:* The term Cost of the Work means the sum of all costs necessarily incurred and paid by CONTRACTOR in the proper performance of the Work. When the value of any Work covered by a Change Order or when a Claim for an adjustment in Contract Price is determined on the basis of Cost of the Work, the costs to be reimbursed to CONTRACTOR will be only those additional or incremental costs required because of the change in the Work or because of the event giving rise to the Claim. Except as otherwise may be agreed to in writing by OWNER, such costs shall be in amounts no higher than those prevailing in the locality of the Project,

shall include only the following items, and shall not include any of the costs itemized in paragraph 11.01.B.

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

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

3. Payments made by CONTRACTOR to Subcontractors for Work performed by Subcontractors. If required by OWNER, CONTRACTOR shall obtain competitive bids from subcontractors acceptable to OWNER and CONTRACTOR and shall deliver such bids to OWNER, who will then determine, with the advice of ENGINEER, which bids, if any, will be acceptable. If any subcontract provides that the Subcontractor is to be paid on the basis of Cost of the Work plus a fee, the Subcontractor's Cost of the Work and fee shall be determined in the same manner as CONTRACTOR's Cost of the Work and fee as provided in this paragraph 11.01.

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

5. Supplemental costs including the following:

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

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

c. Rentals of all construction equipment and machinery, and the parts thereof whether rented from CONTRACTOR or others in accordance with rental agreements approved by OWNER with the advice of ENGINEER, and the costs of transportation, loading, unloading, assembly, dismantling, and removal thereof. All such costs shall be in accordance with the terms of said rental agreements. The rental of any such equipment, machinery, or parts shall cease when the use thereof is no longer necessary for the Work.

d. Sales, consumer, use, and other similar taxes related to the Work, and for which CONTRACTOR is liable, imposed by Laws and Regulations.

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

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

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

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

i. When the Cost of the Work is used to determine the value of a Change Order or of a Claim, the cost of premiums for additional Bonds and insurance required because of the changes in the Work or caused by the event giving rise to the Claim.

j. When all the Work is performed on the basis of cost-plus, the costs of premiums for all Bonds and insurance CONTRACTOR is required by the Contract Documents to purchase and maintain.

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

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

2. Expenses of CONTRACTOR's principal and branch offices other than CONTRACTOR's office at the Site.

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

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

5. Other overhead or general expense costs of any kind and the costs of any item not specifically and

expressly included in paragraphs 11.01.A and 11.01.B.

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

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

11.02 Cash Allowances

A. It is understood that CONTRACTOR has included in the Contract Price all allowances so named in the Contract Documents and shall cause the Work so covered to be performed for such sums as may be acceptable to OWNER and ENGINEER. CONTRACTOR agrees that:

1. the allowances include the cost to CONTRACTOR (less any applicable trade discounts) of materials and equipment required by the allowances to be delivered at the Site, and all applicable taxes; and

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

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

11.03 Unit Price Work

A. Where the Contract Documents provide that all or part of the Work is to be Unit Price Work, initially the Contract Price will be deemed to include for all Unit Price Work an amount equal to the sum of the unit price for each separately identified item of Unit Price Work times the estimated quantity of each item as indicated in the Agreement. The estimated quantities of items of Unit Price Work are not guaranteed and are solely for the purpose of comparison of Bids and determining an initial Contract Price. Determinations of the actual quantities and classifications of Unit Price Work performed by

CONTRACTOR will be made by ENGINEER subject to the provisions of paragraph 9.08.

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

C. OWNER or CONTRACTOR may make a Claim for an adjustment in the Contract Price in accordance with paragraph 10.05 if:

1. the quantity of any item of Unit Price Work performed by CONTRACTOR differs by more than 25 percent from the estimated quantity of such item indicated in the Agreement; and

2. CONTRACTOR believes that CONTRACTOR is entitled to an increase in Contract Price as a result of having incurred additional expense or OWNER believes that OWNER is entitled to a decrease in Contract Price and the parties are unable to agree as to the amount of any such increase or decrease.

ARTICLE 12 - CHANGE OF CONTRACT PRICE; CHANGE OF CONTRACT TIMES

12.01 *Change of Contract Price*

A. The Contract Price may only be changed by a Change Order or by a Written Amendment. Any Claim for an adjustment in the Contract Price shall be based on written notice submitted by the party making the claim to the ENGINEER and the other party to the Contract in accordance with the provisions of paragraph 10.05.

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

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

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

3. where the Work involved is not covered by unit prices contained in the Contract Documents and agreement to a lump sum is not reached under paragraph 12.01.B.2, on the basis of the Cost of the Work

(determined as provided in paragraph 11.01) plus a CONTRACTOR's fee for overhead and profit (determined as provided in paragraph 12.01.C).

C. *CONTRACTOR's Fee:* The CONTRACTOR's fee for overhead and profit shall be determined as follows:

1. a mutually acceptable fixed fee; or

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

a. for costs incurred under paragraphs 11.01.A.1 and 11.01.A.2, the CONTRACTOR's fee shall be 15 percent;

b. for costs incurred under paragraph 11.01.A.3, the CONTRACTOR's fee shall be five percent;

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

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

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

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

12.02 *Change of Contract Times*

A. The Contract Times (or Milestones) may only be changed by a Change Order or by a Written Amendment. Any Claim for an adjustment in the Contract Times (or Milestones) shall be based on written notice submitted by the party making the claim to the ENGINEER and the

other party to the Contract in accordance with the provisions of paragraph 10.05.

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

12.03 *Delays Beyond CONTRACTOR's Control*

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

12.04 *Delays Within CONTRACTOR's Control*

A. The Contract Times (or Milestones) will not be extended due to delays within the control of CONTRACTOR. Delays attributable to and within the control of a Subcontractor or Supplier shall be deemed to be delays within the control of CONTRACTOR.

12.05 *Delays Beyond OWNER's and CONTRACTOR's Control*

A. Where CONTRACTOR is prevented from completing any part of the Work within the Contract Times (or Milestones) due to delay beyond the control of both OWNER and CONTRACTOR, an extension of the Contract Times (or Milestones) in an amount equal to the time lost due to such delay shall be CONTRACTOR's sole and exclusive remedy for such delay.

12.06 *Delay Damages*

A. In no event shall OWNER or ENGINEER be liable to CONTRACTOR, any Subcontractor, any Supplier, or any other person or organization, or to any surety for or employee or agent of any of them, for damages arising out of or resulting from:

1. delays caused by or within the control of CONTRACTOR; or
2. delays beyond the control of both OWNER and CONTRACTOR including but not limited to fires, floods, epidemics, abnormal weather conditions, acts of God, or acts or neglect by utility owners or other

contractors performing other work as contemplated by Article 7.

B. Nothing in this paragraph 12.06 bars a change in Contract Price pursuant to this Article 12 to compensate CONTRACTOR due to delay, interference, or disruption directly attributable to actions or inactions of OWNER or anyone for whom OWNER is responsible.

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

13.01 *Notice of Defects*

A. Prompt notice of all defective Work of which OWNER or ENGINEER has actual knowledge will be given to CONTRACTOR. All defective Work may be rejected, corrected, or accepted as provided in this Article 13.

13.02 *Access to Work*

A. OWNER, ENGINEER, ENGINEER's Consultants, other representatives and personnel of OWNER, independent testing laboratories, and governmental agencies with jurisdictional interests will have access to the Site and the Work at reasonable times for their observation, inspecting, and testing. CONTRACTOR shall provide them proper and safe conditions for such access and advise them of CONTRACTOR's Site safety procedures and programs so that they may comply therewith as applicable.

13.03 *Tests and Inspections*

A. CONTRACTOR shall give ENGINEER timely notice of readiness of the Work for all required inspections, tests, or approvals and shall cooperate with inspection and testing personnel to facilitate required inspections or tests.

B. OWNER shall employ and pay for the services of an independent testing laboratory to perform all inspections, tests, or approvals required by the Contract Documents except:

1. for inspections, tests, or approvals covered by paragraphs 13.03.C and 13.03.D below;
2. that costs incurred in connection with tests or inspections conducted pursuant to paragraph 13.04.B shall be paid as provided in said paragraph 13.04.B; and
3. as otherwise specifically provided in the Contract Documents.

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

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

E. If any Work (or the work of others) that is to be inspected, tested, or approved is covered by CONTRACTOR without written concurrence of ENGINEER, it must, if requested by ENGINEER, be uncovered for observation.

F. Uncovering Work as provided in paragraph 13.03.E shall be at CONTRACTOR's expense unless CONTRACTOR has given ENGINEER timely notice of CONTRACTOR's intention to cover the same and ENGINEER has not acted with reasonable promptness in response to such notice.

13.04 *Uncovering Work*

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

B. If ENGINEER considers it necessary or advisable that covered Work be observed by ENGINEER or inspected or tested by others, CONTRACTOR, at ENGINEER's request, shall uncover, expose, or otherwise make available for observation, inspection, or testing as ENGINEER may require, that portion of the Work in question, furnishing all necessary labor, material, and equipment. If it is found that such Work is defective, CONTRACTOR shall pay all Claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such uncovering, exposure, observation, inspection, and testing, and of satisfactory replacement or reconstruction (including but not limited to all costs of repair or replacement of work of others); and OWNER shall be entitled to an appropriate decrease in the Contract Price. If the parties are unable to agree as to the amount thereof, OWNER may make a Claim therefor as provided in paragraph 10.05. If,

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

13.05 *OWNER May Stop the Work*

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

13.06 *Correction or Removal of Defective Work*

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

13.07 *Correction Period*

A. If within one year after the date of Substantial Completion or such longer period of time as may be prescribed by Laws or Regulations or by the terms of any applicable special guarantee required by the Contract Documents or by any specific provision of the Contract Documents, any Work is found to be defective, or if the repair of any damages to the land or areas made available for CONTRACTOR's use by OWNER or permitted by Laws and Regulations as contemplated in paragraph 6.11.A is found to be defective, CONTRACTOR shall promptly, without cost to OWNER and in accordance with OWNER's written instructions: (i) repair such defective land or areas, or (ii) correct such defective Work or, if the defective Work has been rejected by OWNER, remove it from the Project and replace it with Work that is not defective, and (iii) satisfactorily correct or repair or remove and replace any damage to other Work, to the work of others or other land or areas resulting therefrom.

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

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

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

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

13.08 *Acceptance of Defective Work*

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

recommendation, an appropriate amount will be paid by CONTRACTOR to OWNER.

13.09 *OWNER May Correct Defective Work*

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

B. In exercising the rights and remedies under this paragraph, OWNER shall proceed expeditiously. In connection with such corrective and remedial action, OWNER may exclude CONTRACTOR from all or part of the Site, take possession of all or part of the Work and suspend CONTRACTOR's services related thereto, take possession of CONTRACTOR's tools, appliances, construction equipment and machinery at the Site, and incorporate in the Work all materials and equipment stored at the Site or for which OWNER has paid CONTRACTOR but which are stored elsewhere. CONTRACTOR shall allow OWNER, OWNER's representatives, agents and employees, OWNER's other contractors, and ENGINEER and ENGINEER's Consultants access to the Site to enable OWNER to exercise the rights and remedies under this paragraph.

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

D. CONTRACTOR shall not be allowed an extension of the Contract Times (or Milestones) because of any delay in the performance of the Work attributable to the exercise by OWNER of OWNER's rights and remedies under this paragraph 13.09.

ARTICLE 14 - PAYMENTS TO CONTRACTOR AND COMPLETION

14.01 *Schedule of Values*

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

14.02 *Progress Payments*

A. *Applications for Payments*

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

2. Beginning with the second Application for Payment, each Application shall include an affidavit of CONTRACTOR stating that all previous progress payments received on account of the Work have been applied on account to discharge CONTRACTOR's legitimate obligations associated with prior Applications for Payment.

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

B. *Review of Applications*

1. ENGINEER will, within 10 days after receipt of each Application for Payment, either indicate in writing a recommendation of payment and present the Application to OWNER or return the Application to CONTRACTOR indicating in writing ENGINEER's reasons for refusing to recommend payment. In the latter case, CONTRACTOR may make the necessary corrections and resubmit the Application.

2. ENGINEER's recommendation of any payment requested in an Application for Payment will constitute a representation by ENGINEER to OWNER, based on ENGINEER's observations on the Site of the executed Work as an experienced and qualified design professional and on ENGINEER's review of the Application for Payment and the accompanying data and schedules, that to the best of ENGINEER's knowledge, information and belief:

a. the Work has progressed to the point indicated;

b. the quality of the Work is generally in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning whole prior to or upon Substantial Completion, to the results of any subsequent tests called for in the Contract Documents, to a final determination of quantities and classifications for Unit Price Work under paragraph 9.08, and to any other qualifications stated in the recommendation); and

c. the conditions precedent to CONTRACTOR's being entitled to such payment appear to have been fulfilled in so far as it is ENGINEER's responsibility to observe the Work.

3. By recommending any such payment ENGINEER will not thereby be deemed to have represented that: (i) inspections made to check the quality or the quantity of the Work as it has been performed have been exhaustive, extended to every aspect of the Work in progress, or involved detailed inspections of the Work beyond the responsibilities specifically assigned to ENGINEER in the Contract Documents; or (ii) that there may not be other matters or issues between the parties that might entitle CONTRACTOR to be paid additionally by OWNER or entitle OWNER to withhold payment to CONTRACTOR.

4. Neither ENGINEER's review of CONTRACTOR's Work for the purposes of recommending payments nor ENGINEER's recommendation of any payment, including final payment, will impose responsibility on ENGINEER to supervise, direct, or control the Work or for the means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for CONTRACTOR's failure to comply with Laws and Regulations applicable to CONTRACTOR's performance of the Work. Additionally, said review or recommendation will not impose responsibility on ENGINEER to make any examination to ascertain how or for what purposes CONTRACTOR has used the moneys paid on account of the Contract Price, or to determine that title to any of the Work, materials, or equipment has passed to OWNER free and clear of any Liens.

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

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

b. the Contract Price has been reduced by Written Amendment or Change Orders;

c. OWNER has been required to correct defective Work or complete Work in accordance with paragraph 13.09; or

d. ENGINEER has actual knowledge of the occurrence of any of the events enumerated in paragraph 15.02.A.

C. *Payment Becomes Due*

1. Ten days after presentation of the Application for Payment to OWNER with ENGINEER's recommendation, the amount recommended will (subject to the provisions of paragraph 14.02.D) become due, and when due will be paid by OWNER to CONTRACTOR.

D. *Reduction in Payment*

1. OWNER may refuse to make payment of the full amount recommended by ENGINEER because:

a. claims have been made against OWNER on account of CONTRACTOR's performance or furnishing of the Work;

b. liens have been filed in connection with the Work, except where CONTRACTOR has delivered a specific Bond satisfactory to OWNER to secure the satisfaction and discharge of such Liens;

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

d. OWNER has actual knowledge of the occurrence of any of the events enumerated in paragraphs 14.02.B.5.a through 14.02.B.5.c or paragraph 15.02.A.

2. If OWNER refuses to make payment of the full amount recommended by ENGINEER, OWNER must give CONTRACTOR immediate written notice (with a copy to ENGINEER) stating the reasons for such action and promptly pay CONTRACTOR any amount remaining after deduction of the amount so withheld. OWNER shall promptly pay CONTRACTOR the amount so withheld, or any adjustment thereto agreed to by OWNER and CONTRACTOR, when CONTRACTOR corrects to OWNER's satisfaction the reasons for such action.

3. If it is subsequently determined that OWNER's refusal of payment was not justified, the amount wrongfully withheld shall be treated as an amount due as determined by paragraph 14.02.C.1.

14.03 *CONTRACTOR's Warranty of Title*

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

14.04 *Substantial Completion*

A. When CONTRACTOR considers the entire Work ready for its intended use CONTRACTOR shall notify OWNER and ENGINEER in writing that the entire Work is substantially complete (except for items specifically listed by CONTRACTOR as incomplete) and request that ENGINEER issue a certificate of Substantial Completion. Promptly thereafter, OWNER, AGENCY, CONTRACTOR, and ENGINEER shall make a prefinal inspection of the Work to determine the status of completion. If ENGINEER does not consider the Work substantially complete, ENGINEER will notify CONTRACTOR in writing giving the reasons therefor. If ENGINEER considers the Work substantially complete, ENGINEER will prepare and deliver to OWNER a tentative certificate of Substantial Completion which shall fix the date of Substantial Completion. There shall be attached to the certificate a tentative list of items to be completed or corrected before final payment. OWNER shall have seven days after receipt of the tentative certificate during which to make written objection to ENGINEER as to any provisions of the certificate or attached list. If, after considering such objections, ENGINEER concludes that the Work is not substantially complete, ENGINEER will within 14 days after submission of the tentative certificate to OWNER notify CONTRACTOR in writing, stating the reasons therefor. If, after consideration of OWNER's objections, ENGINEER considers the Work substantially complete, ENGINEER will within said 14 days execute and deliver to OWNER and CONTRACTOR a definitive certificate of Substantial Completion (with a revised tentative list of items to be completed or corrected) reflecting such changes from the tentative certificate as

ENGINEER believes justified after consideration of any objections from OWNER. At the time of delivery of the tentative certificate of Substantial Completion ENGINEER will deliver to OWNER and CONTRACTOR a written recommendation as to division of responsibilities pending final payment between OWNER and CONTRACTOR with respect to security, operation, safety, and protection of the Work, maintenance, heat, utilities, insurance, and warranties and guarantees. Unless OWNER and CONTRACTOR agree otherwise in writing and so inform ENGINEER in writing prior to ENGINEER's issuing the definitive certificate of Substantial Completion, ENGINEER's aforesaid recommendation will be binding on OWNER and CONTRACTOR until final payment.

B. OWNER shall have the right to exclude CONTRACTOR from the Site after the date of Substantial Completion, but OWNER shall allow CONTRACTOR reasonable access to complete or correct items on the tentative list.

14.05 *Partial Utilization*

A. Use by OWNER at OWNER's option of any substantially completed part of the Work which has specifically been identified in the Contract Documents, or which OWNER, ENGINEER, and CONTRACTOR agree constitutes a separately functioning and usable part of the Work that can be used by OWNER for its intended purpose without significant interference with CONTRACTOR's performance of the remainder of the Work, may be accomplished prior to Substantial Completion of all the Work subject to the following conditions.

1. OWNER at any time may request CONTRACTOR in writing to permit OWNER to use any such part of the Work which OWNER believes to be ready for its intended use and substantially complete. If CONTRACTOR agrees that such part of the Work is substantially complete, CONTRACTOR will certify to OWNER and ENGINEER that such part of the Work is substantially complete and request ENGINEER to issue a certificate of Substantial Completion for that part of the Work. CONTRACTOR at any time may notify OWNER and ENGINEER in writing that CONTRACTOR considers any such part of the Work ready for its intended use and substantially complete and request ENGINEER to issue a certificate of Substantial Completion for that part of the Work. Within a reasonable time after either such request, OWNER, CONTRACTOR, and ENGINEER shall make an inspection of that part of the Work to determine its status of completion. If ENGINEER does not consider that part of the Work to be substantially complete, ENGINEER will notify OWNER and CONTRACTOR in writing giving the reasons therefor. If ENGINEER considers that part of the Work to be substantially complete, the provisions of paragraph 14.04 will apply with respect to certification of

Substantial Completion of that part of the Work and the division of responsibility in respect thereof and access thereto.

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

14.06 *Final Inspection*

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

14.07 *Final Payment*

A. Application for Payment

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

2. The final Application for Payment shall be accompanied (except as previously delivered) by: (i) all documentation called for in the Contract Documents, including but not limited to the evidence of insurance required by subparagraph 5.04.B.7; (ii) consent of the surety, if any, to final payment; and (iii) complete and legally effective releases or waivers (satisfactory to OWNER) of all Lien rights arising out of or Liens filed in connection with the Work.

3. In lieu of the releases or waivers of Liens specified in paragraph 14.07.A.2 and as approved by OWNER, CONTRACTOR may furnish receipts or releases in full and an affidavit of CONTRACTOR that: (i) the releases and receipts include all labor, services, material, and equipment for which a Lien could be filed; and (ii) all payrolls, material and equipment bills, and other indebtedness connected with the Work for which OWNER or OWNER's property might in any way be responsible have been paid or otherwise satisfied. If any Subcontractor or Supplier fails to furnish such a release or receipt in

full, CONTRACTOR may furnish a Bond or other collateral satisfactory to OWNER to indemnify OWNER against any Lien.

B. Review of Application and Acceptance

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

C. Payment Becomes Due

1. Thirty days after the presentation to OWNER of the Application for Payment and accompanying documentation, the amount recommended by ENGINEER will become due and, when due, will be paid by OWNER to CONTRACTOR.

14.08 Final Completion Delayed

A. If, through no fault of CONTRACTOR, final completion of the Work is significantly delayed, and if ENGINEER so confirms, OWNER shall, upon receipt of CONTRACTOR's final Application for Payment and recommendation of ENGINEER, 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 to be held by OWNER for Work not fully completed or corrected is less than the retainage stipulated in the Agreement, and if Bonds have been furnished as required in paragraph 5.01, the written consent of the surety to the payment of the balance due for that portion of the Work fully completed and accepted shall be submitted by CONTRACTOR to ENGINEER with the Application for such payment. Such payment shall be made under the terms and conditions governing final payment, except that it shall not constitute a waiver of Claims. The remaining balance of any sum included in the final Application for payment but held by OWNER for Work not fully completed and accepted will become due when the Work is fully completed and accepted.

14.09 Waiver of Claims

A. The making and acceptance of final payment will constitute:

1. a waiver of all Claims by OWNER against CONTRACTOR, except Claims arising from unsettled Liens, from defective Work appearing after final inspection pursuant to paragraph 14.06, from failure to comply with the Contract Documents or the terms of any special guarantees specified therein, or from CONTRACTOR's continuing obligations under the Contract Documents; and

2. a waiver of all Claims by CONTRACTOR against OWNER other than those previously made in writing which are still unsettled.

ARTICLE 15 - SUSPENSION OF WORK AND TERMINATION

15.01 OWNER May Suspend Work

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

15.02 OWNER May Terminate for Cause

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

1. CONTRACTOR's persistent failure to perform the Work in accordance with the Contract Documents (including, but not limited to, failure to supply sufficient skilled workers or suitable materials or equipment or failure to adhere to the progress schedule established under paragraph 2.07 as adjusted from time to time pursuant to paragraph 6.04);

2. CONTRACTOR's disregard of Laws or Regulations of any public body having jurisdiction;

3. CONTRACTOR's disregard of the authority of ENGINEER; or

4. CONTRACTOR's violation in any substantial way of any provisions of the Contract Documents.

B. If one or more of the events identified in paragraph 15.02.A occur, OWNER may, after giving CONTRACTOR (and the surety, if any) seven days written notice, terminate the services of CONTRACTOR, exclude CONTRACTOR from the Site, and take possession of the Work and of all CONTRACTOR's tools, appliances, construction equipment, and machinery at the Site, and use the same to the full extent they could be used by CONTRACTOR (without liability to CONTRACTOR for trespass or conversion), incorporate in the Work all materials and equipment stored at the Site or for which OWNER has paid CONTRACTOR but which are stored elsewhere, and finish the Work as OWNER may deem expedient. In such case, CONTRACTOR shall not be entitled to receive any further payment until the Work is finished. If the unpaid balance of the Contract Price exceeds all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by OWNER arising out of or relating to completing the Work, such excess will be paid to CONTRACTOR. If such claims, costs, losses, and damages exceed such unpaid balance, CONTRACTOR shall pay the difference to OWNER. Such claims, costs, losses, and damages incurred by OWNER will be reviewed by ENGINEER as to their reasonableness and, when so approved by ENGINEER, incorporated in a Change Order. When exercising any rights or remedies under this paragraph OWNER shall not be required to obtain the lowest price for the Work performed.

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

15.03 *OWNER May Terminate For Convenience*

A. Upon seven days written notice to CONTRACTOR and ENGINEER, OWNER may, without cause and without prejudice to any other right or remedy of OWNER, elect to terminate the Contract. In such case, CONTRACTOR shall be paid (without duplication of any items):

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

2. for expenses sustained prior to the effective date of termination in performing services and furnishing labor, materials, or equipment as required by the Contract Documents in connection with uncom-

pleted Work, plus fair and reasonable sums for overhead and profit on such expenses;

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

4. for reasonable expenses directly attributable to termination.

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

15.04 *CONTRACTOR May Stop Work or Terminate*

A. If, through no act or fault of CONTRACTOR, the Work is suspended for more than 90 consecutive days by OWNER or under an order of court or other public authority, or ENGINEER fails to act on any Application for Payment within 30 days after it is submitted, or OWNER fails for 30 days to pay CONTRACTOR any sum finally determined to be due, then CONTRACTOR may, upon seven days written notice to OWNER and ENGINEER, and provided OWNER or ENGINEER do not remedy such suspension or failure within that time, terminate the Contract and recover from OWNER payment on the same terms as provided in paragraph 15.03. In lieu of terminating the Contract and without prejudice to any other right or remedy, if ENGINEER has failed to act on an Application for Payment within 30 days after it is submitted, or OWNER has failed for 30 days to pay CONTRACTOR any sum finally determined to be due, CONTRACTOR may, seven days after written notice to OWNER and ENGINEER, stop the Work until payment is made of all such amounts due CONTRACTOR, including interest thereon. The provisions of this paragraph 15.04 are not intended to preclude CONTRACTOR from making a Claim under paragraph 10.05 for an adjustment in Contract Price or Contract Times or otherwise for expenses or damage directly attributable to CONTRACTOR's stopping the Work as permitted by this paragraph.

ARTICLE 16 - DISPUTE RESOLUTION

16.01 *Methods and Procedures*

A. Dispute resolution methods and procedures, if any, shall be as set forth in the Supplementary Conditions. If no method and procedure has been set forth, and subject to the provisions of paragraphs 9.09 and 10.05, OWNER and CONTRACTOR may exercise such rights or remedies

ARTICLE 17 - MISCELLANEOUS

17.01 *Giving Notice*

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

17.02 *Computation of Times*

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

17.03 *Cumulative Remedies*

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

17.04 *Survival of Obligations*

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

17.05 *Controlling Law*

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

ARTICLE 18-FEDERAL REQUIREMENTS

18.01. *AGENCY Not a Party*

A. This Contract is expected to be funded in part with funds provided by AGENCY. Neither AGENCY, nor any of its departments, entities, or employees is a party to this Contract.

18.02. *Contract Approval*

A. OWNER and CONTRACTOR will furnish OWNER'S attorney such evidence as required so that OWNER'S attorney can complete and execute the following "Certificate of Owner's Attorney" (Exhibit GC-A) before OWNER submits the executed Contract Documents to AGENCY for approval.

B. Concurrence by AGENCY in the award of the Contract is required before the Contract is effective.

18.03. *Conflict of Interest*

A. CONTRACTOR may not knowingly contract with a supplier or manufacturer if the individual or entity who prepared the plans and specifications has a corporate or financial affiliation with the supplier or manufacturer.

B. OWNER's officers, employees, or agents shall not engage in the award or administration of this Contract if a conflict of interest, real or apparent, would be involved. Such a conflict would arise when: (i) the employee, officer or agent; (ii) any member of their immediate family; (iii) their partner or (iv) an organization that employs, or is about to employ, any of the above, has a financial interest in CONTRACTOR. OWNER's officers, employees, or agents shall neither solicit nor accept gratuities, favors or anything of monetary value from CONTRACTOR or subcontractors.

18.04. *Gratuities*

A. If OWNER finds after a notice and hearing that CONTRACTOR, or any of CONTRACTOR's agents or representatives, offered or gave gratuities (in the form of entertainment, gifts, or otherwise) to any official, employee, or agent of OWNER or AGENCY in an attempt to secure this Contract or favorable treatment in awarding, amending, or making any determinations related to the performance of this Contract, OWNER may, by written notice to CONTRACTOR, terminate this Contract. OWNER may also pursue other rights and remedies that the law or this Contract provides. However, the existence of the facts on which OWNER bases such findings shall be an issue and may be reviewed in proceedings under the dispute resolution provisions of this Contract.

B. In the event this Contract is terminated as provided in paragraph 18.04.A, OWNER may pursue the same remedies against CONTRACTOR as it could pursue in the event of a breach of this Contract by CONTRACTOR. As a penalty, in addition to any other damages to which it may be entitled by law, OWNER may pursue exemplary damages in an amount (as determined by OWNER) which shall not be less than three nor more than ten times the costs CONTRACTOR incurs in providing any such gratuities to any such officer or employee.

18.05. *Audit and Access to Records*

A. For all negotiated contracts and negotiated modifications (except those of \$10,000 or less), OWNER, AGENCY, the Comptroller General, or any of their duly authorized representatives, shall have access to any books, documents, papers, and records of the CONTRACTOR, which are pertinent to the Contract, for the purpose of making audits, examinations, excerpts and transcriptions. CONTRACTOR shall maintain all required records for three years after final payment is made and all other pending matters are closed.

18.06. *Small, Minority and Women's Businesses*

A. If CONTRACTOR intends to let any subcontracts for a portion of the work, CONTRACTOR shall take affirmative steps to assure that small, minority and women's businesses are used when possible as sources of supplies, equipment, construction, and services. Affirmative steps shall consist of: (1) including qualified small, minority and women's businesses on solicitation lists; (2) assuring that small, minority and women's businesses are solicited whenever they are potential sources; (3) dividing total requirements when economically feasible, into small tasks or quantities to permit maximum participation of small, minority, and women's businesses; (4) establishing delivery schedules, where the requirements of the work permit, which will encourage participation by small, minority and women's businesses; (5) using the services and assistance of the Small Business Administration and the Minority Business Development Agency of the U.S. Department of Commerce; (6) requiring each party to a subcontract to take the affirmative steps of this section; and (7) CONTRACTOR is encouraged to procure goods and services from labor surplus area firms.

18.07. *Anti-Kickback*

A. CONTRACTOR shall comply with the Copeland Anti-Kickback Act (18 USC 874) as supplemented in Department of Labor regulations (29 CFR Part 3). This act provides that CONTRACTOR shall be prohibited from inducing, by any means, any person employed in the construction, completion, or repair of public facilities, to give up any part of the compensation to which they are

otherwise entitled. OWNER shall report all suspected or reported violations to AGENCY.

18.08. *Violating Facilities*

A. Where this Contract exceeds \$100,000 CONTRACTOR shall comply with all applicable standards, orders or requirements issued under section 306 of the Clean Air Act (42 USC 1857(h)), section 508 of the Clean Water Act (33 USC 1368), Executive Order 11738, and Environmental Protection Agency regulations (40 CFR Part 15) which prohibit the awarding of non-exempt federal contracts, grants, or loans to facilities included on EPA's list of violating facilities. CONTRACTOR will report violations to the EPA.

18.09. *State Energy Policy*

A. CONTRACTOR shall comply with the Energy Policy and Conservation Act (P.L. 94-163). Mandatory standards and policies relating to energy efficiency, contained in any applicable State Energy Conservation Plan, shall be utilized.

18.10. *Equal Opportunity Requirements*

A. If this Contract exceeds \$10,000, CONTRACTOR shall comply with Executive Order 11246, entitled "Equal Employment Opportunity," as amended by Executive Order 11375, and as supplemented in Department of Labor regulations (41 CFR Part 60).

B. CONTRACTOR's compliance with Executive Order 11246 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative active obligations required by the Standard Federal Equal Employment Opportunity Construction Contract Specifications, as set forth in 41 CFR Part 60-4 and its efforts to meet the goals established for the geographical area where the Contract is to be performed. The hours of minority and female employment and training must be substantially uniform throughout the length of the Contract, and in each trade, and CONTRACTOR shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from CONTRACTOR to CONTRACTOR or from project to project for the sole purpose of meeting CONTRACTOR's goals shall be a violation of the Contract, the Executive Order, and the regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

C. CONTRACTOR shall provide written notification to the Director of the Office of Federal Contract Compliance Programs within 10 working days of award of any construction subcontract in excess of \$10,000 at any tier for construction work under the Contract resulting from this solicitation. The notification shall list the name,

address, and telephone number of the subcontractor; employer identification number; estimated dollar amount of subcontract; estimated starting and completion dates of the subcontract; and the geographical area in which the Contract is to be performed.

18.11. *Restrictions on Lobbying*

A. CONTRACTOR and each subcontractor shall comply with Restrictions on Lobbying (Public Law 101-121, Section 319) as supplemented by applicable AGENCY regulations. This Law applies to the recipients of contracts and subcontracts that exceed \$100,000 at any tier under a Federal loan that exceeds \$150,000 or a Federal grant that exceeds \$100,000. If applicable, CONTRACTOR must complete a certification form on lobbying activities related to a specific Federal loan or grant that is a funding source for this Contract. Necessary certification and disclosure forms shall be provided by OWNER.

18.12. *Environmental Requirements*

A. When constructing a project involving trenching and/or other related earth excavations, CONTRACTOR shall comply with the following environmental constraints:

1. Wetlands -- When disposing of excess, spoil, or other construction materials on public or private property, CONTRACTOR shall not fill in or otherwise convert wetlands.

2. Floodplains -- When disposing of excess, spoil, or other construction materials on public or private property, CONTRACTOR shall not fill in or otherwise convert 100 year floodplain areas delineated on the latest Federal Emergency Management Agency Floodplain Maps.

3. Historic Preservation -- Any excavation by CONTRACTOR that uncovers an historical or archaeological artifact shall be immediately reported to OWNER and a representative of AGENCY. Construction shall be temporarily halted pending the notification process and further directions issued by AGENCY after consultation with the State Historic Preservation Officer (SHPO).

4. Endangered Species -- CONTRACTOR shall comply with the Endangered Species Act, which provides for the protection of endangered and/or threatened species and critical habitat. Should any evidence of the presence of endangered and/or threatened species or their critical habitat be brought to the attention of CONTRACTOR, CONTRACTOR will immediately report this evidence to OWNER and a representative of AGENCY. Construction shall be temporarily halted pending the notification process and further directions issued by AGENCY after consultation with the U.S. Fish and Wildlife Service.

EXHIBIT GC-A

Certificate of Owner's Attorney

I, the undersigned, _____, the duly authorized and acting legal representative of _____, do hereby certify as follows:

I have examined the attached Contract(s) and performance and payment bond(s) and the manner of execution thereof, and I am of the opinion that each of the aforesaid agreements is adequate and has been duly executed by the proper parties thereto acting through their duly authorized representatives; that said representatives have full power and authority to execute said agreements on behalf of the respective parties named thereon; and that the foregoing agreements constitute valid and legally binding obligations upon the parties executing the same in accordance with the terms, conditions, and provisions thereof.

Date: _____

NOTE: Delete phrase "performance and payment bonds" when not applicable.

SUPPLEMENTARY CONDITIONS

SUPPLEMENTARY CONDITIONS

These Supplementary Conditions amend or supplement the General Conditions of the Construction Contract and other provisions of the Contract Documents as indicated below. All provisions which are not so amended or supplemented remain in full force and effect.

The terms used in these Supplementary Conditions will have the meanings indicated in the General Conditions. Additional terms used in these Supplementary Conditions have the meanings indicated below, which are applicable to both the singular and plural thereof.

SC-1.01.A.10 Add the following language after the word "AGENCY" in the first sentence of Paragraph 1.01.A.10: (IF APPLICABLE)

SC-1.01.A.21 Add the following new paragraph immediately after Paragraph 1.01.A.21:

The Engineers Consultants with respect to the Project are as follows:

Electrical: N/A

Structural: N/A

Resident Project Representative: Morgan Goudeau & Associates, Inc.

SC-4.02 Delete Paragraph 4.02 in its entirety. (There are no reports available outlining subsurface or Physical Conditions at the site.)

SC-4.06 Delete Paragraphs 4.06.A and 4.06.B in their entirety. (There are no reports available outlining Hazardous Environmental Conditions at the site.)

SC-5.04 Add the following new paragraph immediately after Paragraph 5.04.B:

C. The limits of liability for the insurance required by Paragraph 5.04 of the General Conditions shall provide coverage for not less than the following amounts or greater where required by Laws and Regulations:

1. Workers' Compensation, and related coverages under paragraphs 5.04.A.1 and A.2 of the General Conditions:

- | | |
|--------------------------------------------------|----------------|
| a. State: | Statutory |
| b. Applicable Federal
(E.g., Longshoreman's): | Statutory |
| c. Employer's Liability: | \$1,000,000.00 |

2. Contractor's General Liability under Paragraphs 5.04.A.3 through A.6 of the General Conditions which shall include completed operations and product liability coverages and eliminate the exclusion with respect to property under the care, custody and control of Contractor:

SUPPLEMENTARY CONDITIONS

- a. General Aggregate \$2,000,000.00
- b. Products - Completed Operations Aggregate \$2,000,000.00
- c. Personal and Advertising Injury \$1,000,000.00
- d. Each Occurrence (Bodily Injury and Property Damage) \$1,000,000.00
- e. Property Damage Liability Insurance will provide Explosion, Collapse, and Underground coverages where applicable
- f. Excess or Umbrella Liability
 - 1. General Aggregate \$1,000,000.00
 - 2. Each Occurrence \$1,000,000.00

3. Automobile Liability under Paragraph 5.04.A.6 of the General Conditions:

- a. Bodily Injury:
 - Each Person \$1,000,000.00
 - Each Accident \$1,000,000.00
- b. Property Damage:
 - Each Accident \$ 500,000.00
- c. Combined Single Limit of: \$1,000,000.00

4. The Contractual Liability coverage required by Paragraph 5.04.B.4 of the General Conditions shall provide coverage for not less than the following amounts:

- a. Bodily Injury:
 - Each Accident \$1,000,000.00
 - Annual Aggregate \$1,000,000.00
- b. Property Damage:
 - Each Accident \$1,000,000.00
 - Annual Aggregate \$1,000,000.00

SC-5.06 Delete this paragraph in its entirety. ("Builder's Risk" insurance is not required for this project.)

SC-6.06.B Delete this paragraph in its entirety.

SC-6.10.A Delete paragraph 6.10.A in its entirety and replace with the following:

- A. Contractor shall include all city, state, and federal taxes and sales taxes in his bid except when exempted as an Agent of Governmental Entity by Louisiana Department of Revenue Form LDR R-1020. Tax exempt status will be granted to the Contractor, providing the Contractor processes the necessary LDR form(s).
- B. In accordance with applicable rules adopted and promulgated by the Louisiana Department of Revenue, the Owner intends to designate the contractor and all subcontractors as its agents for the purchase and lease of materials, supplies or equipment for this Project. The contractor and all subcontractors shall accept the agency designation. The designation and acceptance thereof shall be made on the form prescribed by the Louisiana State Department of Revenue which form shall be part of the contract between the Owner, and the Contractor. A copy of this form is included in the Contract Documents in the section titled "Documents to be Completed by Successful Bidder and Prior to Award of Contract".

SC-11.03.C Delete this paragraph in its entirety.

SUPPLEMENTARY CONDITIONS

SC-14.02.C.1 Amend the first sentence of Paragraph 14.02.C.1 as follows:

Delete the word "Ten" and replace with the word "Thirty".

SC-16 Add the following new paragraph immediately after Paragraph 16.01:

SC-16.02 - Mediation

- A. Owner and Contractor agree that they shall submit any and all unsettled claims or counter-claims, disputes, or other matters in question between them arising out of or relating to the Contract Documents or the breach thereof to mediation by an experienced mediator acceptable to all parties involved in the dispute. Should the dispute not be settled through mediation, the Owner or Contractor may exercise such rights or remedies as either may otherwise have by Laws or Regulations in respect to any dispute.

DIVISION 1 - GENERAL REQUIREMENTS

TECHNICAL SPECIFICATIONS
DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01010 - SUMMARY OF WORK

PART 1 - GENERAL

1.01 LOCATION OF WORK

All of the work of this Contract is located in rights-of-way servitudes, or on property owned by the Owner.

1.02 WORK TO BE DONE

- A. The Contractor shall furnish all labor, materials, equipment, tools, services and incidentals to complete all work required by these Specifications and as shown on the Drawings, all as prepared by Morgan Goudeau and Associates, Inc.
- B. The Contractor shall perform the work complete, in place, and ready for continuous service, and shall include repairs, testing, permits, cleanup, replacements and restoration, including restoration of vegetative cover required as a result of damages caused during this construction.
- C. All materials, equipment, skills, tools and labor which are 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 Specifications or Drawings shall be furnished and installed by the Contractor without additional compensation, whether specifically indicated in the Contract Documents or not.
- D. The Contractor shall comply with all Federal, State, and local codes which are applicable to the proposed construction work.

1.03 GENERAL DESCRIPTION OF WORK TO BE PERFORMED

- A. The work included in the Contract shall be described in the Construction Contract.
- B. All work shall be done as described in the Specifications and as shown on the Drawings, complete, tested and ready for operation.

1.04 WORK SEQUENCE

- A. A sequence of construction must be developed so as to minimize the temporary loss of electrical power, water and gas to all buildings on all streets within and around the limits of the project. Driveways and pedestrian entrances to all buildings or residences must be provided and maintained at all times. No direct pay will be made for minimizing temporary loss of utilities and providing and maintaining driveways and entrances.
- B. If the Owner is desirous of performing certain portions of the project prior to other portions, the sequence of work shall be performed in accordance with the Contract Documents and shall be stated in the Drawings. The Contractor shall advise the Owner of any adverse effects the desired sequence of work may have on the successful completion or operation of the project.

1.05 SCHEDULING OF WORK

- A. Prior to commencement of work, a pre-construction conference shall be conducted and a proposed schedule of work and sequence of construction shall be submitted to the Engineer by the Contractor for approval. If the presence of a Project Engineer is required, the Contractor will

TECHNICAL SPECIFICATIONS
DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01010 - SUMMARY OF WORK

be required to schedule work so that such personnel will not be required to be on duty on Sundays.

- B. The Contractor shall cooperate fully with all utility forces of the Owner or forces of other public or private agencies engaged in the relocation, altering, or otherwise rearranging of any facilities which interfere with the progress of the work, and shall schedule the work so as to minimize interference with said relocation, altering, or other rearranging of facilities.
- C. The Contractor shall schedule and perform the work in such a manner as to result in the least possible disruption to the public's use of roadways, driveways, and utilities. Utilities shall include but not be limited to water, sewage, drainage structures, ditches, and canals, gas, and telephone.
- D. After work has begun on any portion or designated part of the project, it shall be carried forward to its final completion. All work shall conform to the provisions of the approved Contractor's schedule.
- E. Prior to commencement of any phase of work, the Contractor is required to notify the Engineer twenty-four (24) hours in advance.

1.06 SPECIFICATIONS AND DRAWINGS

A. Specifications

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

B. Intent

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

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

C. Conflict Between Drawings and Specifications

Where an obvious conflict exists between the Drawings and Specifications, the Engineer shall decide which governs and the Contractor shall comply with the decision. Such decision shall not be grounds for additional payment to the Contractor, i.e., the Contractor shall include the price of the most expensive alternative in his bid.

TECHNICAL SPECIFICATIONS
DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01010 - SUMMARY OF WORK

1.07 CONTRACTOR'S RESPONSIBILITY CONCERNING DRAWINGS AND SPECIFICATIONS

- A. All Drawings, project Specifications and Addenda are mechanically reproduced. The Contractor is responsible for checking his sets of Drawings and Specifications to assure they are complete in number and all sheets are legible. The Engineer will replace any copies of sheets as necessary without additional charge to the Contractor when notified.
- B. Contractor is responsible for compliance with all Drawings, drawing revisions, Specifications and Addenda to Specifications, whether or not the set(s) issued to the Contractor are complete and totally legible.
- C. It shall be understood that the failure of the Contractor to review and verify his set(s) of Drawings, drawing revisions, project Specifications, and Addenda for completeness and legibility which results in additional costs to the Contractor shall in no way increase the cost of the project to the Owner or the Owner's Engineer after bids are received.
- D. Contractor shall have present on the jobsite at all times a minimum of two (2) complete sets of construction Drawings and Specifications. One (1) set shall be used for record keeping for preparation of record drawings upon completion of project.

1.08 RIGHTS OF LAND USAGE

- A. Refer to Article 4 and 8.4 of the General Conditions. All permanent lands, rights-of-way, and easements for utility lines or access to the work, as indicated on the Drawings, shall be furnished by the Owner. The location and limits of both permanent and temporary lands for the work, if not shown on the Drawings, will be indicated in detailed survey plats, descriptions and titles. Copies of available documents will be furnished by the Owner upon request. Copies of permits issued to the Owner will be made available upon request. The Contractor shall keep his work within the limits of the lands for the work. Storage of the Contractor's material and equipment on privately owned lands which are outside the limits of land for the work or are inside the limits of lawful use of publicly owned lands shall only be done with written agreement between the property owner and the Contractor, subject to notification of the Engineer and the Owner by the Contractor.
- B. The land available for the Contractor's use during the performance of the work is limited to the area defined by that area which is shown on the Plans.
- C. Nothing in this Contract shall imply that the Contractor has exclusive use of roadways or public and/or private land employed to perform the work.
- D. In addition, areas of privately owned land may be made available through a right-of-way document executed by the property owner and the Owner for the Contractor's use subject to provisions of the right-of-way document. These areas and their use limitations are as follows:
 - 1. The Contractor's use of this area shall be limited to the direct performance of the work and shall not be used for storage of materials and/or equipment. Existing pavements, sidewalks, landscape and all miscellaneous items within the boundaries shall be removed as required to perform the work and be immediately restored to an equal or better condition upon successful completion of the work, all in accordance with the Contract Documents.
 - 2. The Contractor is hereby made aware that the area is an active site and special measures will be required to maintain traffic and access to the property at all times. All work in this area

TECHNICAL SPECIFICATIONS
DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01010 - SUMMARY OF WORK

must be coordinated with the Owner and the Contractor shall minimize any disruption to the normal activities of the Owner.

- E. All other land deemed necessary by the Contractor for the storage of materials and equipment and other facilities or required for the performance of the work shall be arranged for by the Contractor at no additional cost to the Owner.

1.09 RAIN DAYS

- A. If requested the Contractor shall be granted time extensions for excessive rain days, beyond the reasonably anticipated days of adverse weather. This time extension must be requested monthly. The following are considered reasonably anticipated days of adverse weather on a monthly basis.

January	<u>11</u>	days	July	<u>6</u>	days
February	<u>10</u>	days	August	<u>5</u>	days
March	<u>8</u>	days	September	<u>4</u>	days
April	<u>7</u>	days	October	<u>3</u>	days
May	<u>5</u>	days	November	<u>5</u>	days
June	<u>6</u>	days	December	<u>8</u>	days

1.10 OWNER OCCUPANCY

- A. Owner will have full access to and use of all existing Owner-owned facilities during the entire period of construction for the conduct of his normal operations. Cooperate with Engineer in all construction operations to minimize conflict and to facilitate Owner usage. A listing of the Owner's existing facilities in conjunction with this project may be shown in the Drawings.

1.11 PARTIAL OWNER OCCUPANCY

- A. The Contractor shall schedule his operations for completion of portions of the work, as designated, for the Owner's occupancy prior to Substantial Completion of the entire work. Refer to Paragraph 1.04 Work Sequence for completion schedule.

1.12 OWNER FURNISHED ITEMS

- A. Items to be furnished by the Owner on this project shall be listed in the Supplementary Conditions. If no items are listed in the Supplementary Conditions, it is understood by all parties that materials and/or equipment furnished on this project shall be by the Contractor.

PART 2 - PRODUCTS - NOT USED

PART 3 - EXECUTION NOT USED

END OF SECTION

TECHNICAL SPECIFICATIONS
DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01025 (WD) - MEASUREMENT AND PAYMENT

PART 1 - GENERAL

1.01 SCOPE

- A. The scope of this Section defines the items included in each Bid Item. Payment will be made based on the specified items included in the description in this Section for each Bid Item.
- B. All Contract Prices included in the Schedule of Bid Items will be full compensation for all labor, materials, tools, equipment, procedures and incidentals necessary to complete the work as shown on the Drawings and/or as described in the Specifications for the work to be performed under this Contract. Payment for all items listed in the Schedule of Bid Items will constitute full compensation for all work specified to be performed under this project.

1.02 UNIT PRICE WORK

- A. Work completed under a unit price contract shall be Measured and Payment made based on actual quantities installed, tested, and accepted at the unit price stated in the Contract.
- B. Any items of work appearing in this measurement and payment section and which are not listed in the Bid Proposal, but are necessary for completion of the work in accordance with the Drawings and Specifications, shall be included in the cost of the items listed and bid in the Proposal.
- C. Further, any items of work not appearing in this measurement and payment section and not listed in the Bid Proposal, but are necessary for completion of the work in accordance with the Drawings and Specifications, shall also be included in the cost of the items listed and bid in the Proposal.
- D. Final payment shall only be made for items which are installed and are complete, tested, workable, and accepted. The measurement of unit price items for payment shall be only within the pay limits shown on the Drawings and defined in the Specifications. Quantities measured for payment shall be in accordance with the foregoing qualification for only those amounts which conform to the original Contract Orders or Field Changes, but in no case will measurement be made for more work than was authorized in writing nor for more work than was actually installed and accepted.

1.03 MEASUREMENTS

- A. Measurement of unit price items will generally be by the standard inch-pound system of units commonly used in the United States which are defined by the U.S. National Bureau of Standards.

1.04 REMOVE EXISTING METER AND ENDPOINT AND REPLACE WITH NEW METER AND ENDPOINT (ITEMS 1 - 4)

- A. Measurement

The work will be measured by the actual number of meters and endpoints replaced with new meters and endpoints of size installed as directed by the Engineer.

TECHNICAL SPECIFICATIONS
DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01025 (WD) - MEASUREMENT AND PAYMENT

B. Payment

All work performed and measured as provided under Paragraph 1.04.A will be paid for as "Remove Existing Meter and Endpoint and Replace with New Meter and Endpoint" of size installed at the unit price bid, which said price shall be full compensation for installation of meter and endpoint as specified in Section 02514A.

1.05 FURNISH METER BOX AND LID (ITEMS 5 - 7)

A. Measurement

The work will be measured by the actual number of meter boxes and lids of size and type furnished as directed by the Engineer.

B. Payment

All work performed and measured as provided under Paragraph 1.05.A will be paid for as "Furnish Meter Box and Lid", at the unit price bid, which said price shall be full compensation for furnishing of meter box and lid as specified in Section 02514A.

1.06 INSTALL METER BOX AND LID (ITEMS 8 - 10)

A. Measurement

The work will be measured by the actual number of meter boxes and lids of size and type installed as directed by the Engineer.

B. Payment

All work performed and measured as provided under Paragraph 1.06.A will be paid for as "Install Meter Box and Lid", at the unit price bid, which said price shall be full compensation for installation of meter box and lid as specified in Section 02514A.

1.07 FURNISH CURB STOP (ITEMS 11 - 16)

A. Measurement

The work will be measured by the actual number of curb stops of size and type furnished as directed by the Engineer.

B. Payment

All work performed and measured as provided under Paragraph 1.07.A will be paid for as "Furnish Curb Stop", at the unit price bid, which said price shall be full compensation for furnishing of curb stops as specified in Section 02514A.

1.08 INSTALL CURB STOP (ITEMS 17 - 22)

A. Measurement

The work will be measured by the actual number of curb stops of size and type installed as directed by the Engineer.

TECHNICAL SPECIFICATIONS
DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01025 (WD) - MEASUREMENT AND PAYMENT

B. Payment

All work performed and measured as provided under Paragraph 1.08.A will be paid for as "Install Curb Stop", at the unit price bid, which said price shall be full compensation for installation of curb stops as specified in Section 02514A.

1.09 REMOVE DIRT AND DEBRIS FROM EXISTING METER BOX (ITEM 23)

A. Measurement

The work will be measured by the actual number of meter boxes which dirt and debris are removed as directed by the Engineer.

B. Payment

All work performed and measured as provided under Paragraph 1.09.A will be paid for as "Remove dirt and debris from existing Meter Box", at the unit price bid, which said price shall be full compensation for actual number of meter boxes which dirt and debris are removed as specified in Section 02514A.

1.10 REMOVE AND RESET EXISTING METER BOX (NON-PAVED AREA) (ITEM 24)

A. Measurement

The work will be measured by the actual number of meter boxes removed and reset in non-paved areas as directed by the Engineer.

B. Payment

All work performed and measured as provided under Paragraph 1.10.A will be paid for as "Remove and Reset Existing Meter Box (Non-Paved Area)", at the unit price bid, which said price shall be full compensation for actual number of meter boxes removed and reset in non-paved areas as specified in Section 02514A.

1.11 DRILL METER BOX LID (ITEM 25)

A. Measurement

The work will be measured by the actual number of meter box lids drilled to accommodate endpoint installation (Plastic Lid) as directed by the Engineer.

B. Payment

All work performed and measured as provided under Paragraph 1.11.A will be paid for as "Drill Meter Box Lid", at the unit price bid, which said price shall be full compensation for actual number of meter box lids drilled to accommodate endpoint installation (Plastic Lid) as specified in Section 02514A.

TECHNICAL SPECIFICATIONS
DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01025 (WD) - MEASUREMENT AND PAYMENT

1.12 UNABLE TO COMPLETE METER INSTALLATION (ITEM 26)

A. Measurement

The work will be measured by the actual number of meters and endpoints classified as “unable to complete” installation as approved by the Engineer.

B. Payment

All work performed and measured as provided under Paragraph 1.12.A will be paid for as “Unable to Complete Meter Installation”, at the unit price bid, which said price shall be full compensation for actual number of meters unable to complete installation as specified in Section 02514A.

1.13 PROJECT MANAGEMENT (ITEM 27)

A. Measurement

Project Management will be measured by the lump sum.

B. Payment

All work performed and measured as provided under Paragraph 1.13.A will be paid for as “Project Management”, which said price shall be full compensation for project management.

1.14 WORK ORDER MANAGEMENT SET-UP AND FILE TRANSFERS (ITEM 28)

A. Measurement

Work Order Management Set-Up and File Transfers will be measured by the lump sum.

B. Payment

All work performed and measured as provided under Paragraph 1.14.A will be paid for as “Work Order Management Set-Up and File Transfers”, which said price shall be full compensation for work order management set-up and file transfers.

1.15 COMMUNICATIONS/PRINTED MATERIALS (ITEM 29)

A. Measurement

Communications/Printed Materials will be measured by the lump sum.

B. Payment

All work performed and measured as provided under Paragraph 1.15.A will be paid for as “Communications/Printed Materials”, which said price shall be full compensation for communications/printed materials.

1.16 CUSTOMER TELEPHONE SUPPORT (ITEM 30)

A. Measurement

Customer Telephone Support will be measured by the lump sum.

TECHNICAL SPECIFICATIONS
DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01025 (WD) - MEASUREMENT AND PAYMENT

B. Payment

All work performed and measured as provided under Paragraph 1.16.A will be paid for as "Customer Telephone Support ", which said price shall be full compensation for customer telephone support.

1.17 **INVENTORY HANDLING AND MANAGEMENT (ITEM 31)**

A. Measurement

Inventory Handling and Management will be measured by the lump sum.

B. Payment

All work performed and measured as provided under Paragraph 1.17.A will be paid for as "Inventory Handling and Management", which said price shall be full compensation for inventory handling and management.

1.18 **MOBILIZATION (ITEM 32)**

A. Measurement

Mobilization will be measured by the lump sum after the Contractor has completed all preparatory work and operations necessary for the movement of personnel, equipment, supplies and incidentals to the project site.

B. Payment

All work performed and measured as provided under Paragraph 1.18.A will be paid for as "Mobilization", which said price shall be full compensation for mobilization.

PART 2 - PRODUCTS - NOT USED

PART 3 - EXECUTION - NOT USED

END OF SECTION

TECHNICAL SPECIFICATIONS
DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01030 - ALTERNATES/ALTERNATIVES

PART 1 - GENERAL

1.01 **SCOPE**

- A. This Section identifies each alternate/alternative allowance on major equipment and/or material by the Engineer.

1.02 **BIDDING REQUIREMENTS**

- A. In the bid form, the bidder shall identify the type of material or manufacturer of equipment proposed for this project in the blanks provided.
- B. When required by these Specifications, pre-qualifications of certain material and/or equipment will be required during the bidding phase of the project. A list of pre-qualified material and/or equipment shall be stated in Paragraph III of the Bid Qualifications.
- C. The pre-qualification process requires all data and information of material and/or equipment not listed in the Technical Specification but desiring consideration for this project be submitted to the Engineer, fifteen (15) days prior to the receipt of bids. No submittals will be considered within fifteen (15) days prior to the receipt of bids.

1.03 **PRE-QUALIFIED MATERIAL OR EQUIPMENT**

- A. If pre-qualified material or equipment is specified, only those items listed in the Specification or Addenda will be permitted to be incorporated into the project.
- B. Those items which are not listed as pre-qualified materials and/or equipment in the Supplementary Conditions shall be submitted for consideration as product substitutions and options as required by Section 01600.

1.04 **APPROVAL OF PRE-QUALIFIED MATERIAL OR EQUIPMENT ALTERNATES/ALTERNATIVES**

- A. If an alternate material and/or equipment is approved by Addendum, the Contractor shall be responsible for providing design calculations and drawing revisions for alternate products which affect the existing design, Specifications and Drawings, including, but not limited to, hydraulics, structural, piping, and electrical. The cost of these revisions shall be paid for by the Contractor. All design changes shall be approved by the Engineer prior to incorporation into the project.

PART 2 - PRODUCTS - NOT USED

PART 3 - EXECUTION - NOT USED

END OF SECTION

TECHNICAL SPECIFICATIONS
DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01035 - MODIFICATION PROCEDURES

PART 1 - GENERAL

1.01 REQUIREMENTS

- A. Refer to Articles 10, 11 and 12 of the General Conditions with regards to changes in Contract Price and Contract Time.
- B. Promptly implement Change Order procedures.
 - 1. Provide full written data required to evaluate changes.
 - 2. Maintain detailed records of work done on a time and material/force account basis.
 - 3. Provide full documentation to Engineer on request.
- C. Designate in writing the member of Contractor's organization:
 - 1. Who is authorized to accept changes in the work.
 - 2. Who is responsible for informing others in the Contractor's employ of the authorization of changes in the work.
- D. Owner will designate in writing the person who is authorized to execute Change Orders.

1.02 DOCUMENTATION

- A. Contractor may initiate a change by submitting a written notice to the Engineer containing:
 - 1. Description of the proposed change.
 - 2. Statement of the reason for making the change.
 - 3. Statement of the effect on the Contract Price and the Contract Time.
 - 4. Statement of the effect on the work of other Contractors.
 - 5. Documentation supporting any change in Contract Price or Contract Time as appropriate and adequate for proper review by the Engineer.
- B. If not required by any U.S. Government Agencies, Change Order form shall be E.J.C.D.C. Form No. C-941 (2002 Edition) or the latest revision thereof. Change Order request shall be within thirty (30) days of the occurrence with the exception of inclement weather as outlined by other Sections of this Specification.

1.03 CONSTRUCTION CHANGE AUTHORIZATION

- A. Change Orders will describe changes in the work, both additions and deletions, with attachments of revised Contract Documents to define details of the change and will designate the method of determining any change in the Contract Sum and any change in Contract Time.

TECHNICAL SPECIFICATIONS
DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01035 - MODIFICATION PROCEDURES

- B. Change Orders must have the Owner's and Contractor's approvals. Change Orders on projects funded in whole or in part by loans or grants from agencies of the U.S. Government must be approved by the respective agency prior to their incorporation into the project.

1.04 DOCUMENTATION OF PROPOSALS AND CLAIMS

- A. Contractor shall support proposed lump sum proposal pricing and each unit price which has not previously been established with sufficient substantiating data to allow the Engineer to evaluate the pricing.
- B. Contractor shall provide the following data to support proposed time and pricing of both lump sum proposals, unit pricing, and time and material proposals:
 - 1. Labor required.
 - 2. Equipment required.
 - 3. Products required.
 - a. Recommended source of purchase and unit cost.
 - b. Quantities required.
 - 4. Taxes, insurance and bonds.
 - 5. Credit for work deleted from Contract, similarly documented.
 - 6. Overhead and profit.
 - 7. Justification for any change in Contract Time.
- C. In addition, Contractor shall support each claim for work done on a time and material/force account basis with the following additional information:
 - 1. Dates and times work was performed and by whom.
 - 2. Time record, summary of hours worked, and hourly rates paid.
 - 3. Receipts and invoices for:
 - a. Equipment used, listing dates and times of use.
 - b. Products used, listing quantities purchased.
 - c. Subcontractors used, showing the same data as above.

1.05 PREPARATION OF CHANGE ORDERS

- A. Engineer will prepare each Change Order.
- B. Form: E.J.C.D.C. No. C-941 (2002 Edition)

TECHNICAL SPECIFICATIONS
DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01035 - MODIFICATION PROCEDURES

- C. Change Order will describe changes in the work, both additions and deletions, with attachments of revised Contract Documents to define details of the change.
- D. Change Order will provide an accounting of the adjustment in the Contract Price and in the Contract Time.

1.06 LUMP SUM/FIXED PRICE CHANGE ORDER

- A. Engineer initiates the form, including a description of the changes involved and attachments based upon documents and proposals submitted by Contractor or requests from Owner or both.
- B. Once Engineer has completed and signed the form, all copies will be sent to Contractor for execution. The Contractor shall execute the change order documents and return it to the Engineer within seven (7) days. After execution by Contractor, all copies will be sent to the Owner for execution. Engineer will make distribution of executed copies.

1.07 UNIT PRICE CHANGE ORDERS

- A. Content of Change Orders will be based on either:
 - 1. Engineer's definition of the scope of the required changes.
 - 2. Contractor's proposal for a change, as recommended by Engineer.
 - 3. Survey of complete work.
- B. The amounts of the unit prices to be:
 - 1. Those stated in the Contract Bid Form.
 - 2. Those mutually agreed upon between Owner and Contractor.

1.08 CORRELATION WITH CONTRACTOR'S SUBMITTALS

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

1.09 PROCEEDINGS WHEN CONTRACTOR DOES NOT EXECUTE THE CHANGE ORDERS

It is anticipated that at the time of submittal to the Contractor, negotiations will have been completed with all parties agreeing to the change(s) in the work, change in Contract Price, and change in Contract Time. In the event that no agreement can be reached and the Contractor fails to execute the Change Order within the specified time limit, the Owner may issue a Change Order without signature of the Contractor establishing a change to Contract Price or Contract Time in accordance with the provisions of Article 10 of the General Conditions. The Contractor will then be paid or assessed time on the basis of the Change Order for the change in work with the Contractor not

TECHNICAL SPECIFICATIONS
DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01035 - MODIFICATION PROCEDURES

relinquishing his rights to submit a claim in accordance with Articles 11 and 12 of the General Conditions.

PART 2 - PRODUCTS - NOT USED

PART 3 - EXECUTION - NOT USED

END OF SECTION

TECHNICAL SPECIFICATIONS
DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01048 - UTILITIES COORDINATION

PART 1 - GENERAL

1.01 UTILITIES

Utilities for the purpose of these Specifications shall be considered as including, but not limited to: pipelines, conduits, cables, transmission lines and appurtenances of Public Utilities and those of Special Utility Districts, Cities or Towns, businesses or individuals solely for their own use or for use of their tenants; and storm drains, sanitary sewers, street lighting, traffic signal and fire alarm systems, except those owned or under the direct control of the Owner.

1.02 UNDERGROUND INSTALLATIONS

Existing underground pipelines and utilities are indicated on the Drawings only to the extent such information was made available to or discovered by Engineer in preparing Drawings. There is no guarantee as to the accuracy or completeness of such information, and all responsibility for the accuracy and completeness thereof is expressly disclaimed by the Owner and the Engineer.

1.03 UTILITIES LOCATED IN OWNER'S RIGHT-OF-WAY

Unless otherwise provided or excepted herein, the removal, adjusting, relocation, or replacement of utility structures or facilities within the Owner's right-of-way which may be necessary for construction of the work being done, in accordance with these Contract Documents, shall be at the expense of the owners of the utilities.

While it is the utility owner's responsibility to perform any work and bear any expense involved in relocations and adjustments within Owner's right-of-way, it shall be the Contractor's responsibility to protect and maintain those utilities which, in the opinion of the Engineer, do not need to be disturbed in order to accomplish the work required by the Contract.

1.04 RELOCATIONS OF EXISTING GAS LINES, TELEPHONE LINES, ELECTRIC LINES, CABLE TV LINES, AND WATER LINES

The Contractor shall notify the proper authority of the utility involved when relocation of these lines is required. The Contractor shall coordinate all work by the utility so that the progress of construction will not be hampered.

PART 2 - PRODUCTS - NOT USED

PART 3 - EXECUTION

3.01 GENERAL

The Contractor, when the Notice to Proceed is received, shall notify the owners of utilities affected by the work, the approximate date upon which he will begin work, and shall submit a progress schedule of the proposed work. This shall be deemed sufficient notice if the project progresses according to the progress schedule submitted with the notification. If changes in the schedule of the work occur, the Contractor shall appraise both the owner of the utility affected, and the Engineer so that adjustments in the work schedule of the utility can be made. The Contractor shall be responsible for damages to the utility facility and construction delays resulting from failure to notify the utility and the Engineer of changes in procedure or location.

TECHNICAL SPECIFICATIONS
DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01048 - UTILITIES COORDINATION

3.02 UTILITY CROSSINGS

It is intended that wherever existing utilities such as water, gas, telephone, electrical, drains, or other service lines must be crossed by a force main or waterline, deflection of the pipe within recommended limits and cover shall be used to satisfactorily clear the obstruction unless otherwise indicated on the Drawings. However, when in the opinion of the Owner or Engineer this procedure is not feasible, he may direct the use of fittings for a utility crossing as detailed on the Drawings.

3.03 TEST PITS

- A. Test pits for the purpose of locating underground pipelines or structures shall be excavated prior to development of laying schedules for all pipe sizes of sixteen inches (16") and larger. The test pits shall be for the purpose of accurately locating underground utilities and structures both horizontally and vertically. Underground utilities' and structures' locations shall be referenced to the project baseline by station and offset distance, left or right and measured perpendicular to the baseline, along with the elevation of the top of the utility or structure. The data shall also include the size and depth or diameter of the utility or structure.
- B. This procedure shall be completed for the entire project and all underground utilities and structures shall be located as described above in conformance with the requirements of the field engineering provision of Section 01050. The data collected shall be used to develop a pipe laying schedule with accurately depicts the location of underground utilities and structures and details both horizontal and vertical deflections and adjustments of the proposed force main pipe required to eliminate conflicts. This laying schedule shall be submitted to the Engineer for approval prior to fabrication of the pipe.
- C. Test pits shall be excavated and backfilled prior to both the preparation of the pipe laying schedule and the commencement of construction. The test pits shall be backfilled immediately after their purpose has been satisfied and the surface restored and maintained in a manner satisfactory to the Engineer. The costs of the test pit excavations shall be included in the various bid items for which the test pits benefit, except as otherwise allowed by Section 01025, Measurement and Payment.

3.04 PROTECTION OF EXISTING UTILITIES

- A. The attention of the Contractor is drawn to the fact that during excavation, the possibility exists of the Contractor encountering various water, gas, telephone, electrical, or other utility lines not shown on the Drawings. The Contractor shall exercise extreme care before and during excavation to locate and flag these lines so as to avoid damage to the existing lines. Should damage occur to an existing line, the Contractor shall repair the line at no cost to the Owner.
- B. The Contractor shall assume full responsibility for the protection of all utilities, public and private, including poles, services to buildings, gas pipes, water pipes, hydrants, sewers, drains, and electric and telephone cables, whether or not they are shown on the Drawings. The Contractor shall carefully support and protect all such utilities from injury of any kind. Any damage resulting from the Contractor's operation shall be repaired by him at his expense.

The protection and preservation of utility facilities which are located within the right-of-way, but outside the normal limits of construction, as determined by the Engineer, shall be the responsibility of the Contractor. The Contractor shall be responsible for all damage to utilities which are due to his negligence.

TECHNICAL SPECIFICATIONS
DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01048 - UTILITIES COORDINATION

- C. The Contractor shall bear full responsibility for obtaining locations of all underground structures and utilities (including existing water services, drain lines, and sewers). Services to buildings shall be maintained, and all costs or charges resulting from damage thereto shall be paid by the Contractor.
- D. If, in the opinion of the Engineer, permanent relocation of a utility owned by the Owner is required, he may direct the Contractor, in writing, to perform the work. Work so ordered will be paid for at the unit prices bids, if applicable, or as extra work under Article 10 of the General Conditions. If relocation of a privately owned utility is required, the Contractor will notify the utility to perform the work as expeditiously as possible. The Contractor shall fully cooperate with the Owner and utility and shall have no claim for delay due to such relocation.
- E. The Contractor shall notify public and private utility companies in writing at least two (2), but not more than five (5) full days (excluding Saturdays, Sundays, and legal holidays) before excavating near their utilities.
- F. The Owner will not be responsible for any delay or inconvenience to the Contractor in carrying out the work resulting from the existence, removal or adjustment of any public utility. Additional costs incurred as a result thereof shall be the expense of the Contractor.

3.05 UTILITIES TO BE ADJUSTED

- A. The owners of utility facilities which required relocation, removal, adjustment or replacement shall, if possible and feasible, perform this work prior to the commencement of the Contractor's work. Where utility work must be done in conjunction with the Contractor's work on the project or in conjunction with the work of other utilities, arrangements for when, how and where the operation is to proceed shall be worked out among the parties concerned. If disputes arise, the Engineer shall decide the course of action to be taken.

3.06 UTILITIES CONFLICTING WITH OPERATIONS

- A. Those utility facilities which do not conflict with the improvement, but which are obstructions to the operations required for installation or which present unusual difficulty due to their close proximity to the area of the operations shall be located with certainty by the owners of the utility prior to the arrival of the Contractor's operation which would be hindered by the utility facility. The Contractor is required to preserve the utility facility in place without damage and shall be responsible for damages sustained, if the utility owner has located the facility by exposing it to the view of the Contractor or has otherwise shown the Contractor, with certainty, the location of the facility. Any other arrangements that the Contractor may make with a utility owner as a substitute for the requirements of this Section shall require the approval of the Engineer, in writing.

3.07 MISLOCATED UTILITIES

- A. The owner of a utility shall be wholly responsible for the proper location of his facilities which are affected by construction work performed according to these Specifications. Improperly located or mislocated facilities which are damaged during construction shall be the responsibility of the utility, providing proper notification has been given.

END OF SECTION

TECHNICAL SPECIFICATIONS
DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01100 - SPECIAL PROJECT PROCEDURES

PART 1 - GENERAL

1.01 DESCRIPTION

- A. This Section describes special procedures for alterations, preservation, security, hazardous material, and other types of projects demanding unique procedures.

1.02 SEPARATION BETWEEN SEWER LINES AND WATER LINES

- A. See Specifications and applicable piping systems specifications. Where the separation between sanitary sewer and water lines is not clearly defined by dimensions on the Drawings, a sewer shall not be closer horizontally than ten feet (10') to a water supply main or service line, except that where the bottom of the water pipe will be at least eighteen inches (18") above the top of the sewer pipe, the horizontal spacing may be a minimum of six feet (6'). Where gravity flow sewers cross above the water lines, the sewer pipe for a distance of ten feet (10') each side of the crossing shall be ductile iron or PVC pipe, without any joint closer horizontally than ten feet (10') to the crossing, or shall be fully encased in concrete. The thickness of the concrete including at the pipe joints shall be no less than four inches (4"). These provisions are regulations of the State Sanitary Code and Ten States Standards. Unless otherwise approved by the Engineer, the locations, lines and grades shown on the Drawings shall not be changed.

1.03 OPEN WASTEWATER BYPASSING

- A. Temporary open wastewater bypass discharges shall generally be prohibited. The applicable State Pollution Control Agency and U.S.E.P.A. must approve open wastewater bypassing if the terms of the N.P.D.E.S. permit allow bypassing. Bypassing will be allowed only when absolutely necessary and the approval of the Engineer, the State and U.S.E.P.A. is mandatory.

1.04 INSTALLATION OF EQUIPMENT

- A. Special care shall be taken to ensure proper alignment of all equipment with particular reference to mechanical equipment such as pumps and electric drives. The units shall be carefully aligned on their foundations by qualified millwrights and their base plates shimmed to correct elevation and alignment at the anchor bolts. The anchor bolts shall be set in place and the nuts tightened against the shims. The alignment of equipment shall be further checked after securing to the foundations, and, after confirmation of all alignments, the base plates shall be finally grouted in place. The Contractor shall be responsible for the exact alignment of equipment with associated piping, and under no circumstances will "pipe springing" be allowed.
- B. All wedges, shims, filling pieces, keys, packing, grout, and other materials necessary to properly align, level, and secure equipment in place shall be furnished by the Contractor at no additional cost to the Owner. All parts intended to be plumb or level must be proven so.

1.05 SLEEVES, OPENINGS, AND ANCHORS

- A. The Contractor shall provide all openings, channels, chases, etc., and install anchor bolts and other items to be embedded in concrete as required to complete the work under this Contract, together with those required by subcontractors, and shall do all cutting and patching, except cutting and patching of materials of a specified trade and as stated otherwise in the following paragraph.

TECHNICAL SPECIFICATIONS
DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01100 - SPECIAL PROJECT PROCEDURES

- B. The Contractor shall coordinate with equipment suppliers and subcontractors to provide all sleeves, inserts, hangers, anchor bolts, etc. of the proper size and material for the execution of the work. the Contractor shall be responsible for any corrective cutting and refinishing required to make necessary openings, chases, etc. In no case shall beams, lintels or other structural members be cut without the written approval of the Engineer.

1.06 PROVISIONS FOR CONTROL OF EROSION AND POLLUTANTS

Sufficient precautions shall be taken during construction to minimize the runoff of polluting substances such as silt, clay, fuels, oils, bitumens, calcium chloride, or other materials harmful to humans, fish, or other life, into the ground and surface waters of the state. Control measures must be adequate to assure that turbidity in the receiving waters will not be increased more than 10 nephelometric turbidity units (NTU), or as otherwise required by the state or other controlling agency, in water used for public water supply or fishing unless limits have been established for the particular water. In surface water used for other purposes, the turbidity must not exceed 25 NTU unless otherwise required by the state or other controlling agency. Special precautions shall be taken in the use of construction equipment to prevent operations which promote erosion.

1.07 ROADSIDE CULVERTS AND STRUCTURES

- A. Should the scope or location of the Work require the removal of roadside culverts and/or structures (i.e., bridges, pipes), their removal and relaying or replacement shall be included in the cost of the various other pay items at no extra payment. Relaying roadside pipe culverts, replacing broken pipe, setting driveway bridges, or replacing bridges shall be equal to or better than that which existed before the work. Replacements of broken pipe or bridges may be with used materials.

1.08 RELOCATION OF MAILBOXES, STREET AND TRAFFIC SIGNS

- A. When mailboxes are located within the limits of construction, the Contractor shall give the mailbox owner sufficient written notice to remove his mailbox from the construction site. If the mailbox is not removed the Contractor shall remove the mailbox and replace the mailbox to the same condition that existed prior to construction.

Street name markers and traffic signs which are within the construction limits shall be removed, stored, protected and reinstated in approximately the original location by the Contractor. Any markers or signs which become lost or damaged shall be replaced by the Contractor equal to or better than the original.

1.09 PROTECTION OF WORK

- A. Until the acceptance of the work by the Engineer as evidenced in writing, said work shall be under the charge and care of the Contractor. The Contractor shall take every necessary precaution against damages to any part thereof by the elements or from any other cause. The Contractor shall rebuild, restore, repair, and make good, at his own expense, all injuries or damages to any portion of the work occasioned by any of the above causes before its completion and acceptance.

1.10 INCLEMENT WEATHER

- A. Within thirty (30) days of the date of Notice to Proceed, the Contractor shall submit to the Engineer an Inclement Weather Preparedness Plan. The plan shall outline the necessary measures which the Contractor will perform in case of the occurrence of storm conditions and/or hurricanes.

TECHNICAL SPECIFICATIONS
DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01100 - SPECIAL PROJECT PROCEDURES

- B. In the event of inclement weather, or whenever Engineer shall direct, Contractor and Subcontractors will protect carefully the Work and materials against damage or injury from the weather, including sudden rises in sewer flows due to storms outside the immediate construction zones. Damaged Work and materials shall be removed and replaced. If, in the opinion of the Engineer, any portion of Work or materials shall have been damaged or injured by reason of failure on the part of the Contractor or Subcontractors to so protect the Work, no additional time for removal and replacement will be given by the Owner.

1.11 WATERTIGHTNESS

- A. Special precautions shall be taken in the curing of concrete to reduce concrete cracking as called for in Section 03300. Each water-retaining structure (those which are intended to hold a liquid) shall be filled and tested for leaks by the Contractor with clean water prior to surface coating or painting. Leaks shall be repaired by the Contractor. The procedure and manner in which leaks are repaired shall meet the approval of the Engineer. All costs associated with the testing and repair of leaks shall be at the expense of the Contractor. Prior to the beginning of the leakage test, the structure shall be filled to the highest working water level (to grade level in pump stations) and allowed to stand for a period of 24 hours to allow for absorption.

Leakage limitations shall be as follows:

1. All water visibly flowing through a concrete wall shall constitute a leak and shall be repaired by pumping and sealing the crack with a two-part water intensive epoxy.
2. Damp areas not exceeding one percent (1%) of the total wall wetted area and not having visible seepage shall be conditionally acceptable subject to all said dampness being eliminated by application of the water side surface treatment as may be specified. In the absence of a specified water side surface treatment or where said treatment does not eliminate wall dampness, the water side of the wall shall be prepared in accordance with the manufacturer's instructions and an approved epoxy concrete surface coating applied.
3. All leakage testing shall be performed prior to tank backfill.
4. To check for leakage through the tank bottoms, the fall in surface water level during tank testing shall be measured and shall not exceed 0.5 inch in a 24 hour period, providing allowance for evaporation at a rate approved by the Engineer. Visual leaks, either flowing or damp areas, observed during the filling, absorption, or test periods shall be marked and locations recorded and repaired.

1.12 SALVAGE

- A. The Owner may desire to salvage certain items of existing equipment which are to be dismantled and removed during the course of construction. Prior to removal of any existing equipment from the site of the work, the Contractor shall ascertain from the Engineer whether or not the particular item or items are to be salvaged. Items to be salvaged shall be stockpiled on site in a location as directed by the Engineer. All other items of equipment shall be disposed of off-site by the Contractor at his own expense.

1.13 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.

TECHNICAL SPECIFICATIONS
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SECTION 01100 - SPECIAL PROJECT PROCEDURES

- B. Sound levels from Contractor operations shall not exceed 45 dBA 7 P.M. to 7 A.M. or 55 dBA 7 A.M. to 7 P.M. This sound level to be measured at the exterior of the nearest exterior wall of the nearest residence. Levels at operating equipment shall not exceed 85 dBA at the equipment 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. If requirements of the local noise ordinance are more restrictive than the above limits, then the Ordinance shall have precedence over the above requirements. Work stoppage by the Engineer for excessive noise shall not relieve the Contractor of any obligations under the Contract, including, but not limited to, performance of the work at the contract time and contract price.
- C. No extra payment will be made for time lost due to work stoppage resulting from the creation of a public nuisance.

1.14 UNFAVORABLE CONSTRUCTION CONDITIONS

- A. The Contractor shall confine his operations to Work which will not be affected adversely by unfavorable weather, wet ground, or other unsuitable construction conditions. No portion of the work shall proceed under conditions which would affect adversely the quality or efficiency of the work, unless suitable special precautions or countermeasures are taken by the Contractor.
- B. During suspension of the work from any cause, the work shall be suitably covered and protected so as to preserve it from injury by the weather.
- C. If the Contractors work may be damaged or rendered inferior by unfavorable weather conditions, the Engineer may issue an order to suspend work. Compensation for additional Contract Time under other sections of this Specification will be awarded for suspended work as a result of unfavorable weather conditions. The authority of the Engineer to issue such an order shall not be interpreted as a requirement to do so.
- D. Any work constructed during unfavorable weather conditions and found to be damaged or of inferior quality shall be removed and replaced at no additional costs to the Owner or Engineer.

1.15 RELOCATIONS

The Contractor shall be responsible for the relocation of structures, including but not limited to, light poles, signs, sign poles, fences, piping, conduits and drains that interfere with the positioning of the work as set out on the Drawings. The cost of all such relocations shall be included in the costs of work.

1.16 SUBSURFACE AND SURFACE OBSTRUCTIONS

In the event unforeseen subsurface or surface obstructions occur in the progression of work, the Contractor shall confer with the Engineer and obtain his written consent before undertaking any deviations from the plans. At the direction of the Engineer, the Contractor may be permitted to delete construction in the obstruction area temporarily; however, the Contractor shall make no claim for damage by this delay.

1.17 EXAMINATION OF SITE

Before submitting a bid for this project, the Contractor shall visit the site and become familiar with existing conditions under which the project is to be executed. No additional allowances will be made to the Contractor for any error or negligence on his part.

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1.18 TOLERANCES

Contractor shall verify in the field before any material or equipment is fabricated the dimension when those dimensions of existing structures or equipment is dependent as correctness of such information. Should dimensions as shown on the drawing vary from the field, then the Contractor shall notify the Engineer and jointly resolve the figure in favor of the correct dimensions.

All work and materials shall be within reasonably accepted manufacturing and construction tolerances as defined by the drawings, specifications, and the manufacturer of material and equipment. If those tolerances exceed limits, the Engineer may accept the work provided the work will not be materially affected by the change and the interests of the Owner is protected.

1.19 PUMPING

- A. The Contractor with his own equipment shall do all pumping necessary to prevent flotation of any part of the structures during construction operations.
- B. The Contractor shall, for the duration of the contract and with his own equipment, pump out water and wastewater which may seep or leak into the excavations or structures at the work sites which shall be kept dry at all times.

1.20 HAZARDOUS LOCATIONS

- A. The existing wet wells, manholes, sewers, force mains, pipes, and other related areas are hazardous locations in that explosive concentrations of sewage gas may be present. The Contractor is cautioned that the above areas, especially the wet well, may be deficient in oxygen. Checks shall be made by the Contractor whenever personnel are working in these areas to insure that adequate ventilation has been provided.
- B. In his operations in hazardous locations, the Contractor shall use spark-proof tools and explosion-proof temporary lighting and shall not use electric power tools, open flame devices, electric welding or any device or methods which might conceivably cause ignition or explosion.
- C. If a working area atmosphere is unsafe, the Contractor shall furnish, install, operate, and later remove such temporary auxiliary ventilating facilities as are necessary to provide a safe atmosphere.
- D. The Contractor shall also instruct and caution his employees and the employees of his subcontractors to avoid smoking while in the hazardous areas. Suitable prominent "No Smoking" signs shall be placed at locations where sewage gas could be present.

1.21 OPERATING REQUIREMENTS FOR EXISTING PUMPING AND COLLECTION SYSTEMS

- A. During construction of the new facilities and rehabilitation of existing facilities the Owner's operators will be responsible for operating and maintaining the existing pumping and collection system located outside of the limits of the Contract site, and the Contractor shall be responsible for operating and maintaining the entire pumping and collection system within the Contract site. The Contractor shall provide adequate trained staff to perform proper system operation and maintenance. The Owner's operating staff will be responsible for the operation and maintenance of all existing facilities until they are formally taken over by the Contractor.
- B. When the Contractor is ready to begin work at a site, including the delivery of material, he shall notify the Engineer, and a date of site take-over by the Contractor will be agreed. On the site

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SECTION 01100 - SPECIAL PROJECT PROCEDURES

take-over date, a walk-through joint inspection will be made by the Contractor, Owner, and Engineer at which notes will be made and photographs taken documenting the conditions of the facilities and a Contractor take-over document prepared and executed by the Owner and Contractor.

Thereafter, the Contractor shall operate and maintain the facilities to the satisfaction of the Engineer and Owner until the Contract work at the site and facilities is finished and the Certificate of Substantial Completion is issued by the Engineer. The cost of operating and maintaining the site and facilities during this construction period shall be included in the bid price except for the following which will be furnished by the Owner:

1. Electricity for operating the facilities.
2. Water for operating the facilities (not for construction).
3. Spare parts for replacements necessary but not caused by the Contractor's deficient operation and maintenance.

1.22 **NOTIFICATION OF WORK ON EXISTING FACILITIES**

Before commencing work on any of the existing structures or equipment, the Contractor shall notify the Engineer in writing at least ten (10) calendar days in advance of the date he proposes to commence such work.

PART 2 - PRODUCTS - NOT USED

PART 3 - EXECUTION - NOT USED

END OF SECTION

TECHNICAL SPECIFICATIONS
DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01300 - SUBMITTALS

PART 1 - GENERAL

1.01 DESCRIPTION

- A. This section refers to the general procedures and requirements for submittals. Specific requirements for submittals are included in other sections of these specifications.

1.02 DEFINITION

The term "submittal" as used herein shall be understood to include detail design calculations, shop drawings, fabrication and installation drawings, erection drawings, lists, graphs, operation instructions, catalog sheets, data sheets, product data, samples, and similar items.

1.03 LIST OF SUBMITTALS

- A. The following is a list of submittals and the times required for submitting all in accordance with the Contract Documents.

<u>ITEM</u>	<u>TIME</u>
1. Schedule of Progress	Pre-Construction Conference*
2. Schedule of Payments	Pre-Construction Conference*
3. Schedule of Values	Pre-Construction Conference*
4. List of Manufacturers and Associated Products	Prior to Start of Work
5. Substitute Material or Equipment	Prior to Start of Work
6. Manufacturers Certificate of Compliances	Prior to Start of Work
7. Change Orders	Within 15 days of occurrence
8. Layout and Shop Drawings of Fabricated Items	Prior to Installation
9. Shop Drawings	Preferred Prior to Start of Work or Prior to Installation
10. Operation & Maintenance Manuals and Spare Parts	Completion of Project
11. Tabulation of Equipment w/Data	Completion of Project
12. Certificate of Gradation of Aggregate	Prior to Installation
13. Concrete Mix Design	Prior to Installation
* If no Pre-Construction Conference is held, Prior to First Payment.	

- B. The Engineer may require submittals not listed above to expedite the work. Contractor shall comply to all submittal requests made by Engineer.

PART 2 - PRODUCTS - NOT USED

PART 3 - EXECUTION - NOT USED

END OF SECTION

TECHNICAL SPECIFICATIONS
DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01310 - PROGRESS SCHEDULES

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Contractor shall comply with the General Conditions.
- B. Submit revised progress schedules periodically.

1.02 FORM OF SCHEDULES

- A. Prepare schedules in the form of a horizontal bar chart.
 - 1. Provide separate horizontal bar for each trade or operation.
 - 2. Horizontal time scale: Identify the first work day of each week.
 - 3. Scale and Spacing: To allow for notations and future revisions.
 - 4. Minimum sheet size: 8 1/2" x 11"
- B. Formal of Listings: The table of contents of the Contract Documents.
- C. Identification of Listings: By bid items.

1.03 CONTENT OF SCHEDULES

- A. Construction Progress Schedule:
 - 1. Show the complete sequence of construction by activity.
 - 2. Show the dates for the beginning, and completion of, each major element of construction.
 - 3. Show projected percentage of completion for each item, as of the first day of each month.
 - 4. Show an anticipated monthly payment schedule.
- B. Submittals Schedule for Shop Drawings, Product Data and Samples. Show:
 - 1. The dates for Contractor's submittals.
 - 2. The dates approved submittals will be required from the Engineer.

1.04 PROGRESS REVISIONS

- A. Indicate progress of each activity to date of submission.
- B. Show changes occurring since previous submission of schedule:
 - 1. Major changes in scope.
 - 2. Activities modified since previous submission.
 - 3. Revised projections of progress and completion.
 - 4. Other identifiable changes.

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SECTION 01310 - PROGRESS SCHEDULES

- C. Provide a narrative report as needed to define:
 - 1. Problem areas, anticipated delays, and the impact on the schedule.
 - 2. Corrective action recommended, and its effects.

1.05 SUBMISSIONS

- A. Submit initial schedules in accordance with the General Conditions.
 - 1. Engineer will review schedules and return review copy within ten (10) days after receipt.
 - 2. If required, Contractor shall resubmit within seven (7) days after return of review copy.
- B. Submit revised progress schedules with each Application for Payment.
- C. Submit the number of opaque reproductions which the Contractor requires, plus five copies which will be retained by the Engineer.

PART 2 - PRODUCTS - NOT USED

PART 3 - EXECUTION - NOT USED

END OF SECTION

TECHNICAL SPECIFICATIONS
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SECTION 01340 - SHOP DRAWINGS, PROJECT DATA, AND SAMPLES

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED

- A. The Contractor shall submit to the Engineer for review and exception, if any, such working drawings, shop drawings, test reports and data on materials and equipment (hereinafter in this article called data), and material samples (hereinafter in this article called samples) as are required for the proper control of work, including but not limited to those working drawings, shop drawings, data and samples for materials and equipment specified elsewhere in the Specifications and in the Contract Drawings.
- B. Within fifteen (15) calendar days after the Effective Date of the Agreement, the Contractor shall submit to the Engineer a complete list of preliminary data on items for which shop drawings are to be submitted. Included in this list shall be the names of all proposed manufacturers furnishing specified items. Review of this list by the Engineer shall in no way relieve the Contractor from submitting complete shop drawings, data, and samples in accordance with the Specifications. This procedure is required in order to expedite final review of shop drawings.
- C. The Contractor is to maintain an accurate updated submittal log and will bring this log to each scheduled progress meeting. This log should 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, Revise and Resubmit, Not Approved).
 - 5. Date of Resubmittal and Return (as applicable).
 - 6. Date material released (for fabrication).
 - 7. Projected date of fabrication.
 - 8. Projected date of delivery to site.
 - 9. Status of O&M Manuals submitted.

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 showing that they have been so checked. Shop drawings submitted to the Engineer without the Contractor's stamp or evidence that the Contractor has not performed the required review will be returned to the Contractor for conformance with this requirement. Shop drawings shall indicate any deviations in the submittal from requirements of the Contract Documents.
- B. Determine and verify:
 - 1. Field measurements.
 - 2. Field construction criteria.
 - 3. Catalog numbers and similar data.
 - 4. Conformance with Specifications and indicate all variances from the Specifications.
- C. All shop drawings or other submittals shall be accompanied by the Engineer's standard transmittal form. This form may be obtained in quantity from the Engineer at reproduction cost. Any submittal not accompanied by such a form, or where all applicable items on the form are not

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completed, will be returned for resubmittal. A separate transmittal form shall accompany each shop drawing, product data, or sample.

- D. The Contractor shall be solely responsible for the accuracy and completeness of the shop drawing. In no case shall a subcontractor or supplier submit shop drawings directly to the Engineer. All communications concerning shop drawings or the project in general shall be directed through the Contractor. Contractor shall coordinate between subcontractor, suppliers, and manufacturers all shop drawings to ensure that the total work including all interconnections, timers, control, etc., or the system conforms to the design criteria specified.
- E. No products, equipment, or material shall be delivered or fabricated until the shop drawings, product data, or sample have been submitted and checked by the Engineer for its conformance to the drawings and specifications and given final approval for fabrication or erection by the Engineer. Until final approval of shop drawing or sample is given in writing, Contractor shall not proceed with any work directly or indirectly associated with that item.
- F. The Contractor shall furnish the Engineer a schedule of shop drawing submittals fixing the respective dates for the submission of shop and working drawings, the beginning of manufacture, testing and installation of materials, supplies and equipment. This schedule shall indicate those that are critical to the progress schedule.
- G. The Contractor shall submit to the Engineer all Drawings and schedules sufficiently in advance of construction requirements to provide no less than twenty-one (21) calendar days for checking and appropriate action from the time the Engineer receives them.
- H. All shop drawings shall be clearly marked and labeled as to their intended use. Any submittal which causes the Engineer to ponder or guess at the intended use shall be rejected.
- I. The Contractor shall submit seven (7) copies of shop drawings and descriptive or product data submittals to complement shop drawings to the Engineer which will be retained for his use. The Contractor shall submit extra sets as required for his subcontractors, his suppliers, and his own use. The Contractor shall submit one set of three (3) mil thick polyester film reproducibles for blueprinting purposes for all submittal data or Drawings on sheets larger than 11-inches by 17-inches. The Engineer will review the blueprints and return to the Contractor the set of marked-up blueprints with appropriate review comments along with the reproducible sheets.
- J. The Contractor shall be responsible for and bear all cost of damages which may result from the ordering of any material or from proceeding with any part of work prior to the completion of the review by Engineer of the necessary shop drawings.
- K. The Contractor shall utilize a Sequential Numbering System for submittals (1-999). Resubmittals or confirming material shall be assigned a letter next to the submittal number, i.e., A=second submittal, B=third submittal, etc.
- L. Submittals shall include a certified statement of compliance to the requirements detailed in the specifications in addition to other submittal requirements. This certification shall be prepared by the manufacturer and not the local supplier. Validity of the authority and position of the person signing the certification shall be verified by a Notary Public. The statement of compliance shall address each point of conformance contained in the governing specifications with definitive comments of either compliance or non-compliance. Statements of non-compliance with points of conformance shall be accompanied by a statement of justification as to the reason for non-compliance and why the non-complying feature is considered to be either equal to or better than the specified feature. The Engineer will use the certified statement of compliance in his

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evaluation of the submittal rendering a judgement as to equality to the specified product and issuing a statement as to whether the product is acceptable for or rejected from incorporation into the work.

- M. When a manufacturer named in the controlling specification is chosen to supply a product, and the details of manufacture, size, and installation are shown on his standard catalog cut sheets, the manufacturer may submit the certified statement of compliance as detailed above along with installation details specific to the Work such as laying schedules, etc. as required, deleting the standardized catalog data.
- N. Should the Contractor provide a submittal that would require modification to a structure, hydraulic piping, electrical components, layout, controls, or other previously designed aspects of the project, he shall submit with his transmittal, additional design calculations and details of the modification. Any cost incurred by the Engineer for review of these modifications and the direct affect on other designed portions of the project and the implementation of alternate designs shall be borne by the Contractor. No additional costs will be incurred by the Owner or Engineer for modifications or deviations from the original drawings and specifications as submitted by shop drawings, product data, or samples.
- O. Shop drawings shall be prepared by a qualified detailer indicating all dimensions, weights, tolerances, clearances, space required, and structures. The manufacturer or supplier of equipment or materials shall certify as to the correctness of the dimensions. Contractor shall verify all drawings submitted as to their completeness with respect to field measurements, field construction criteria, catalog numbers, and similar data. Any drawing submitted through the Contractor not bearing the Contractors approval, data, and checker's name will be returned to the Contractor.

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.
- 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 for any errors, including details, dimensions, and materials;
 - 3. as approving departures from details furnished by the Engineer, except as otherwise provided herein.
- C. When reviewed by the Engineer, each of the shop drawings will be identified as having received such review being so stamped and dated.
 - 1. If the copies received are marked "Approved", those documents are used as guidelines for installation.
 - 2. If the copies received are marked "Approved As Noted", the Contractor shall make the appropriate corrections to the material and/or product and incorporate the revised material and/or product into the project.
 - 3. If the copies received are marked "Revise and Resubmit", the material or product may be acceptable; however, substantial corrections require the Engineer to review the material or

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product after the revisions have been made. A formal resubmittal of the revised material and/or product is required using a separate transmittal form. Seven (7) copies of the revised resubmittal are required.

4. If the copies received are marked "Not Approved", the material and/or product cannot be incorporated into the project. Another product approved by the Contract Documents shall be submitted with a new transmittal form accompanied by seven (7) copies of shop drawings, product data, or samples.
- D. Upon review of the shop drawing, product data, or sample by the Engineer, the Engineer will distribute the submittals as follows:

<u>No. Required</u>	<u>To Whom</u>	<u>For Use</u>
1	Engineer	Office
2	Owner	O&M Manuals
1	Resident Project Representative	Field
3	Contractor	Field, Office, Vendor

- E. If the drawings or schedules as submitted describe variations per subparagraph 1.04.D, 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, the Engineer may return the reviewed Drawings without noting any exception.
- F. Resubmittals will be handled in the same manner as first submittals. The Contractor shall direct specific attention to revisions other than the corrections requested by the Engineer on previous submissions by written details or markings on the resubmitted Shop Drawings. The Contractor shall make any corrections required by the Engineer.
- G. 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.
- H. The Engineer will review a submittal/resubmittal a maximum of three (3) times after which cost of review will be borne by the Contractor. The cost of engineering shall be equal to the Engineer's charges to the Owner under the terms of the Engineer's agreement with the Owner.
- I. 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 or approval from the Engineer.

1.04 SHOP DRAWINGS

- A. Shop Drawings shall be complete and detailed.
- B. 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.
- C. Each shop drawing shall have a blank area three and one-half inches by three and one-half inches (3½" x 3½"), located adjacent to the title block. The title block shall display the following:

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1. Number and title of the drawing.
 2. Date of drawing or revision.
 3. Name of project building or facility.
 4. Name of Contractor and Subcontractor submitting drawings.
 5. Clear identification of contents and location of the work.
 6. Specification number and title.
- D. If Drawings show variations from Contract requirements because of standard shop practice or for other reasons, the Contractor shall describe such variations in his letter of transmittal. If acceptable, proper adjustments 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.
- E. 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 as required. Materials and equipment lists shall give for each item thereon the name and location of the supplier or manufacturer, trade name, catalog reference, size, finish and all other pertinent data.
- F. The Contractor shall provide a list including the equipment name, address and telephone number of the manufacturer's representative and service company so that service and/or spare parts can be readily obtained for all mechanical and electrical equipment furnished.
- G. All manufacturers or equipment suppliers who 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 installations where identical equipment has been installed and has been in operation for a period of at least one (1) year.
- H. Only the Engineer will utilize the color "red" in marking Shop Drawing submittals.

1.05 WORKING DRAWINGS

- A. Working drawings shall be considered to mean the Contractor's plans for temporary structures.
- B. Copies of working drawings as noted in subparagraph 1.02, 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. The Engineer will not review working drawings but shall use them as information to monitor the work performed by the Contractor.

1.06 SAMPLES

- A. The Contractor shall furnish for the review 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 and the Contractor shall prepay all shipping charges. Materials or equipment for which samples are required shall not be used in work until reviewed by the Engineer.
- B. Samples shall be of sufficient size and quantity to clearly illustrate:

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1. Functional characteristics of the product, with integrally related parts and attachment devices.
2. Full range of color, texture, and pattern.
- C. Each sample 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.

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

- D. The Contractor shall prepare a transmittal letter in triplicate for each shipment of samples containing the information required in subparagraph 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 and the remaining copy shall be for the Contractor's records. Review of a sample shall be only for the characteristics or use named and shall not be construed to change or modify any Contract requirements.
- E. Reviewed samples not destroyed in testing shall be sent to the Engineer or stored at the site of the work. Reviewed samples of the hardware in good condition will be marked for identification and may be used in the work. Materials and equipment incorporated in work shall match the reviewed samples. Samples which failed testing or were rejected 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

TECHNICAL SPECIFICATIONS
DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01400 - QUALITY CONTROL

PART 1 - GENERAL

1.01 DESCRIPTION

- A. This section includes general quality control procedures and requirements that are applicable to other sections.

1.02 TESTING LABORATORY

- A. If desired by the Owner, a qualified testing laboratory will make field visits to sample such items as portland cement concrete, hot or cold-mix asphalt, earthwork fill and compaction, aggregate, welding, etc. The frequency of testing will be at the discretion of the Owner and the recommendations of the Engineer to the Owner.
- B. Refer to Section 01410 for detailed description of testing laboratory services.

1.03 INSPECTION SERVICES

- A. The Owner may employ the services of a Resident Project Representative (RPR) to review field operations, provide daily reports, and act as a liaison between the Engineer and Contractor.
- B. Refer to Section 01420 for detailed description of the Resident Project Representative.

1.04 CONFORMANCE STANDARDS

- A. The manufacturer of equipment shall issue a manufacturer's conformance certificate indicating the product was assembled or constructed in accordance with specific standards and that the product performs under specific parameters.
- B. Submit conformance certificates in accordance with Section 01300 - Submittals.

1.05 CERTIFIED TEST REPORTS

- A. Test reports performed in the field or in the shop shall be certified by the manufacturer of the product.
- B. Submit certified test reports in accordance with Section 01300 - Submittals.

PART 2 - PRODUCTS - NOT USED

PART 3 - EXECUTION - NOT USED

END OF SECTION

TECHNICAL SPECIFICATIONS
DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01505 - MOBILIZATION

PART 1 - GENERAL

1.01 DEFINITION

- A. Mobilization shall include the obtaining of all insurance, and bonds; moving onto the site of all plant and equipment; furnishing and erecting plants, temporary building, 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. Moving on to the site of all Contractor's plant and equipment required for first month operation.
 2. Installing temporary construction power and wiring.
 3. Establishing fire protection system.
 4. Developing construction water supply.
 5. Providing field office trailers for the Contractor and the Engineer, complete with all specified furnishings and utility services including telephones.
 6. Providing on-site sanitary facilities and potable water facilities as specified.
 7. Arranging for and erection of Contractor's work and storage yard.
 8. Submittal of all required subcontractor insurance certificates and bonds.
 9. Obtaining all required permits.
 10. Posting all OSHA required notices and establishment of safety programs.
 11. Have the Contractor's superintendent at the jobsite full time.
 12. Have provided a detailed schedule acceptable to the Owner for project use as specified.
 13. Audio-Video Survey.

1.02 PAYMENT FOR MOBILIZATION

- 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 until all mobilization items listed above have been completed as specified.
- B. If the project is a unit price contract and a line item is designated "mobilization", all costs incurred for the above work shall be placed under that item. If no item is listed for "mobilization", the costs for the above described work shall be placed in other items.
- C. For lump sum projects, the costs for this work shall be included in the overall costs of the project and shown as a separate item in the Schedule of Values.

TECHNICAL SPECIFICATIONS
DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01505 - MOBILIZATION

PART 2 - PRODUCTS - NOT USED

PART 3 - EXECUTION - NOT USED

END OF SECTION

TECHNICAL SPECIFICATIONS
DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01510 - TEMPORARY UTILITIES

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED

Furnish, install and maintain temporary utilities required for field offices and construction and remove on completion of the Work.

1.02 REQUIREMENTS OF REGULATORY AGENCIES

A. Comply with National Electric Code.

B. Comply with Federal, State and local codes and regulations and with utility company requirements.

PART 2 - PRODUCTS

2.01 MATERIALS, GENERAL

Materials may be new or used, but must be adequate in capacity for the required usage, must not create unsafe conditions, and must not violate requirements of applicable codes and standards.

2.02 TEMPORARY ELECTRICITY AND LIGHTING

A. Arrange with utility company and Owner to provide service required for power and lighting, and pay all costs for service and for power used in the construction, testing and trial operation prior to final acceptance of the work by the Owner as stipulated by the Engineer.

B. Provide adequate artificial lighting for all areas of work when natural light is not adequate for work, and for areas accessible to the public.

2.03 TEMPORARY HEAT AND VENTILATION

A. Provide temporary heat and ventilation as required to maintain adequate environmental conditions to facilitate progress of the Work.

B. Provide adequate forced ventilation of enclosed areas for curing of installed materials, to disperse humidity, and to prevent hazardous accumulations of dust, fumes, vapors or gases.

C. Portable heaters shall be standard approved units complete with controls.

D. Pay all costs of installation, maintenance, operation and removal, and fuel consumed.

E. Provide connections to existing facilities or extend and supplement the existing facilities with temporary units as required to comply with requirements. Pay all costs of installation, maintenance, operation and removal.

2.04 TEMPORARY TELEPHONE SERVICE

A. Arrange with local telephone service company, provide direct line telephone service, as stipulated in Section 01590, including an external bell at the construction site for the use of personnel and employees.

TECHNICAL SPECIFICATIONS
DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01510 - TEMPORARY UTILITIES

B. Service required:

1. One direct line instrument in Field Office of Engineer for the Owner.
2. Other instruments at the option of the Contractor, or as required by regulations.

2.05 TEMPORARY WATER

- A. Provide and pay for all water required for construction and consumptive purposes.
- B. Install at each and every connection to the potable water supply a backflow preventer meeting the requirements of ASA A40.6, latest revision. Contractor shall be required to meter all water used.
- C. If potable water system is owned by the Owner, any water used for construction purposes will be provided by the Owner. Limited, reasonable, and unwhasteful amounts of water will be provided for clearing, flushing, disinfecting, testing, and other minor construction purposes. Unreasonable or wasteful use amounts as determined by the Owner will be charged at prevailing rates. The hours and duration of water usage shall be determined by the Owner.

2.06 TEMPORARY SANITARY FACILITIES

- A. Provide sanitary facilities in compliance with laws and regulations.
- B. Service, clean and maintain facilities and enclosures.

PART 3 - EXECUTION

3.01 GENERAL

- A. Comply with applicable requirements specified in Division 2 - Site Work, Division 15 - Mechanical, and Division 16 - Electrical.
- B. Maintain and operate systems to assure continuous service.
- C. Modify and extend systems as work progress requires.

3.02 REMOVAL

- A. Completely remove temporary materials and equipment when their use is no longer required as determined by the Engineer.
- B. Clean and repair damage caused by temporary installations or use of temporary facilities.

END OF SECTION

TECHNICAL SPECIFICATIONS
DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01570 - TRAFFIC REGULATION

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED

- A. The Contractor shall be responsible for providing safe and expeditious movement of traffic through or around construction zones. A construction zone is defined as the immediate areas of actual construction and all abutting areas which are used by the Contractor and which interfere with the driving or walking public.
- B. Remove temporary equipment and facilities when no longer required and restore grounds to original and/or, or to specified conditions.

1.02 TRAFFIC CONTROL

- A. The necessary precautions shall include, but not be limited to, such items as proper construction warning signs, signals, lighting devices, markings, barricades, channelization, and hand signaling devices. The Contractor shall be responsible for installation and maintenance of all devices and requirements for the duration of the construction period. Contractor to check traffic control devices on a daily basis as a minimum when beginning and ending the work day, and on weekends at a minimum of once per day.
- B. Any additional traffic control devices which may be required at time of construction by the Engineer and/or Owner shall be provided by the Contractor at no additional contract cost.
- C. The Contractor shall provide at least five (5) working days notification to the Engineer of the necessity to close any portion of a roadway carrying vehicles or pedestrians so that the final approval of such closing can be obtained from the roadway owner at least 48 hours in advance. With any such closing adequate provision shall be made for the safe expeditious movement of traffic and pedestrians.
- D. The Contractor shall also be responsible for notifying Police, Fire and Ambulance Departments whenever roads are impassable.
- E. The Contractor shall be responsible for removal, relocation, or replacement of any traffic control device in the construction area which exists as part of the normal traffic control scheme prior to construction. Any such actions shall be performed by the Contractor under the supervision, and in accordance with the Specifications, of the Owner, unless otherwise specified. Construction signing and activities shall not block existing traffic control signing, unless such signing is superseded by construction signing.

All traffic control devices not applying to an appropriate situation shall be covered or removed. No traffic conduit or traffic loops shall be disturbed without prior notification. Contractor shall take all precautions to avoid damage to traffic boxes, conduits, loops and supply lines. Should any of the above need to be relocated, the Contractor shall coordinate with roadway owner.

- F. The Contractor shall immediately notify the Engineer of any vehicular or pedestrian safety or efficiency problems incurred as a result of the construction of the project.
- G. Vehicular access to commercial and residential driveways shall be maintained except when necessary construction precludes such access. When such conditions arise that ingress or egress to the property is to be temporarily terminated, the Contractor shall notify the affected property owner at least 24 hours in advance of such construction.

TECHNICAL SPECIFICATIONS
DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01570 - TRAFFIC REGULATION

- H. The Contractor shall also cooperate with the various parties involved in the delivery of mail and the collection and removal of trash and garbage to maintain existing schedules of these services.
- I. Traffic directors shall be trained flaggers of at least average intelligence, good physical condition, including sight and hearing, having mental alertness, a courteous but firm manner, neat appearance, and a sense of responsibility for the safety of the public. Traffic directors shall wear an orange or fluorescent orange garment such as a shirt, jacket, or vest. This garment shall be reflectorized for nighttime operations. When controlling traffic, traffic directors shall be equipped with a sign and a 24" x 24" red flag. At night, flagmen shall use a red light. They shall follow the procedures stipulated for flaggers in the Louisiana Manual on Uniform Traffic Control Devices.

Flagging operations are most likely required, but not limited to, the following traffic control situations:

1. When one lane is alternately used for both directions of travel;
 2. When the roadway is closed for a short period of time to allow equipment movements, blasting operations, etc.;
 3. When workers are close to a travel lane without a positive barrier;
 4. When traffic speeds must be reduced and traffic control devices alone will not get the job done;
 5. When public relations and publicity functions need to be handled at the worksite, such as explaining the situation, alerting motorists to changing conditions, and passing out handouts;
 6. When installing and removing traffic control devices;
 7. Other situations where variable conditions require responsive traffic control.
- J. Construction signing, detours, and traffic control devices shall be in accordance with roadway owner's regulations and with the Louisiana Manual of Uniform Traffic Control Devices.

PART 2 - PRODUCTS - NOT USED

PART 3 - EXECUTION - NOT USED

END OF SECTION

TECHNICAL SPECIFICATIONS
DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01590 - FIELD OFFICES AND SHEDS

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Furnish, install, and maintain temporary field offices for the Engineer and the Contractor during entire construction period.
- B. Furnish, install and maintain storage and work sheds needed for construction.
- C. At completion of work, remove field offices, sheds and contents.

1.02 OTHER REQUIREMENTS

Prior to installation of offices, consult with the Engineer and Owner on location, access and related facilities.

1.03 REQUIREMENTS FOR FACILITIES

A. Construction:

- 1. Structurally sound, weathertight, with floors raised above ground.
- 2. Temperature transmission resistance: Compatible with occupancy and storage requirements.
- 3. At Contractor's option, portable or mobile buildings may be used.
 - a. Mobile trailers, when used, shall be modified for office use.
 - b. Do not use mobile office trailers for living quarters.
 - c. Office spaces for both the Engineer and the Contractor may be enclosed in the same structure, however, provisions shall be made to secure the Engineer's office so access will be limited at the option of the Engineer.

B. Office for the Engineer:

- 1. A separate space for the sole use of designated occupants, with secure entrance doors and one key per occupant.
- 2. Area: 150 sq. ft. minimum, with minimum dimension 10 feet.
- 3. Windows:
 - a. Minimum: 2
 - b. Operable sash and insect screens.
- 4. Furnishings:
 - a. One standard size desk.
 - b. One plan rack to hold a minimum of six racks of project drawings.
 - c. One standard four-drawer, legal size metal filing cabinet with locks and keys.
 - d. Two swivel arm chairs.
 - e. One wastebasket.
 - f. Outside thermometer and rain gauge.
- 5. Services:
 - a. Lighting: Fifty foot candles at desk top height.
 - b. Exterior lighting at entrance door.
 - c. Automatic heating and mechanical cooling equipment (16,000 BTU) to maintain comfort conditions.
 - d. 110 volt duplex electric convenience outlet.
 - e. Convenient access to drinking water (water cooler).
 - f. Telephone: As required in Section 01510 - Temporary Utilities.

TECHNICAL SPECIFICATIONS
DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01590 - FIELD OFFICES AND SHEDS

C. Contractor's Office and Facilities: (Optional)

1. Size: As required for general use.
2. Telephone: As required in Section 01510 - Temporary Utilities.
3. Racks and files for Project Record Documents.
4. Other furnishings: Contractor's option.

D. The Contractor shall make all provisions and pay all installation and other costs for the Engineer's and Contractor's construction offices in order to provide water, sewer, telephone service, power service and exterior lights. The Contractor shall pay all monthly charges for the various services provided to the Engineer's office throughout the construction period.

1.04 **USE OF PERMANENT FACILITIES**

Permanent facilities shall not be used for field offices or for storage unless approved in writing by the Engineer.

PART 2 - PRODUCTS

2.01 **MATERIALS, EQUIPMENT, FURNISHINGS**

May be new or used, but must be serviceable, adequate for required purpose, and must not violate applicable codes or regulations.

PART 3 - EXECUTION

3.01 **PREPARATION**

Fill and grade sites for temporary structures to provide surface drainage.

3.02 **INSTALLATION**

A. Construct temporary field offices on proper foundations, provide connections for utility services.

1. Secure portable or mobile buildings when used, including tie-down anchors as required by building codes or ordinances.
2. Provide steps and landings at entrance doors.
3. Provide hurricane tie-downs.

B. Mount thermometer at convenient outside location, not in direct sunlight and readable from inside the office. Locate rain gauge as directed by the Engineer.

C. Locate construction office facilities at a location approved by the Engineer and Owner.

3.03 **MAINTENANCE AND CLEANING**

Provide weekly maintenance and cleaning for field offices, furnishings, and equipment.

TECHNICAL SPECIFICATIONS
DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01590 - FIELD OFFICES AND SHEDS

3.04 **REMOVAL**

- A. Remove temporary field offices, contents and services at a time when no longer needed and only when approved by the Engineer.
- B. Remove foundations and debris; grade site to required elevations and clean the areas.

END OF SECTION

TECHNICAL SPECIFICATIONS
DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01600 - MATERIAL AND EQUIPMENT

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Material and equipment incorporated into the Work shall:
1. Conform to applicable specifications and standards.
 2. Comply with size, make, type, and quality specified to the greatest extent possible, detailing all aspects and providing explicit reasons for parameters not in compliance and specifically approved in writing by the Engineer.
 3. Manufactured and Fabricated Products:
 - a. Design, fabricate, and assemble in accord with the best engineering and standard shop practice.
 - 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 produced, 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.
- B. The term "Product" shall refer to material and/or equipment when used in these specifications or visa versa.
- C. When material or equipment requires pre-qualification as described by Section 01030 - Alternates/Alternatives, only those materials and equipment approved prior to the bid or by addendum will be incorporated into the project.

1.02 SUBSTITUTE MATERIAL AND EQUIPMENT

- A. When a particular product is specified or called for, it is intended and shall be understood that the Contractor include those products in his bid. Should the Contractor desire to substitute products which he purports to be equal to those specified and not listed as an alternate/alternative prequalified product, the Contractor shall furnish the information as described in the General Conditions and described in this Section.

The substitute product(s) submitted by the Contractor shall meet the requirements of the specifications and shall, in all respects, be equal to the product's specified by name herein.

- B. Manufacturers of substitute equipment must submit through the Contractors evidence of manufacturer, installation and successful operation of their equipment. For ten (10) installations, the manufacturer shall submit the names, addresses, and telephone numbers of owners, engineers, and contractors. These installations shall be over a period of the past three (3) years. Installation shall be equal in application and operating conditions. If a manufacturer cannot meet these requirements as a result of new technology, experimental data can be submitted to meet the experience requirement.

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DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01600 - MATERIAL AND EQUIPMENT

- C. Substitute equipment by manufacturers which cannot provide acceptable references of comparable installations in successful operation will not be allowed to provide equipment on this project.
- D. The Owner and Engineer will solely make the determination as to whether or not a proposed substitute is "equal". This determination will be made in accordance with these Contract Documents and based upon submittal data supplied by the manufacturer. Submittal data which causes the Engineer and Owner to ponder, or does not address key items of the proposed equipment will be rejected. Submittal data shall be precise concerning the equipment parts and its operation.
- E. To determine if a substitute product is equal, the following parameters shall be used:
 - 1. Function of equipment
 - 2. Capacity, size, rating
 - 3. Reliability and past performance on similar projects
 - 4. Quality control and workmanship
 - 5. Design data
 - 6. Installation and cost
 - 7. Operational costs (i.e., fuel, electrical, manpower)
 - 8. Maintenance schedules
 - 9. Guarantees
 - 10. Availability of parts and service from area reps
 - 11. Replacement costs
 - 12. Any required license fees or royalties
 - 13. Other available data
- F. Proposals for substitute material or equipment shall be made in writing to the Engineer with associated brochures and descriptive data. No substitute product may be submitted as a shop drawing, product data, or sample unless it has been previously approved by the Engineer in writing. In the case where a substitute product is approved, any modifications to the project such as design changes, construction changes, etc., shall be made at the Contractors expense. Any design modification shall be submitted to and approved by the Engineer prior to ordering or installing the substitute product.
- G. All apparatus, mechanism, equipment, machinery, and manufactured articles for incorporation into the Work shall be new and unused and the standard products of recognized reputable manufacturers.
- H. Contractor's Representation:
 - 1. A request for a substitution constitutes a representation that Contractor:
 - a. Has investigated the proposed Product and determined that it is equal to or superior in all respects to that specified.
 - b. Will provide the same warranties or bonds for the substitution as for the product specified.
 - c. Will coordinate the installation of an accepted substitution into the Work, and make such other changes as may be required to make the work complete in all respects.
 - d. Waives all claims for additional costs, under his responsibility, which may subsequently become apparent.

TECHNICAL SPECIFICATIONS
DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01600 - MATERIAL AND EQUIPMENT

1.03 APPROVAL OF MATERIALS

- A. Only new materials and equipment shall be incorporated in the Work. All materials and equipment furnished by the Contractor shall be subject to the inspection and approval of the Engineer. No material shall be delivered to the Work without prior approval of the Engineer.
- B. The Contractor shall submit to the Engineer, data relating to materials and equipment he proposes to furnish for the work. Such data shall be in sufficient detail to enable the Engineer to identify the particular product along with reference to the applicable section (s) of the Specifications to form an opinion as to its conformity to the Specifications. The data shall comply with Section 01340 - Shop Drawings, Product Data, and Samples and other paragraphs of this section.
- C. Facilities and labor for handling and inspection of all materials and equipment shall be furnished by the Contractor. If the Engineer requires, the 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 the Contractor's expense. Except as otherwise noted, the Contractor will make arrangements for and pay for the tests. Where such tests confirm compliance with the specifications, the Owner will reimburse the actual charges of the testing firm paid by the Contractor.
- D. Contractor shall submit data and samples sufficiently early to permit consideration, approval, manufacture, and delivery of materials before they are necessary for incorporation in the work. Any delay of approval resulting from the Contractor's failure to submit samples or data promptly shall not be used as a basis of claim against the Owner or the Engineer.
- E. The materials and equipment used in the Work shall correspond to the approved samples or other data.

1.04 MANUFACTURER'S INSTRUCTIONS FOR INSTALLATION

- A. When Contract Documents require that installation of the Work shall comply with manufacturer's printed instructions, obtain and distribute copies of such instructions to parties involved in the installation, including copies to the Engineer. One complete set of the installation instructions shall be available for use on the job site during and through completion of the Work.

Installation instructions shall be submitted in accordance with Section 01340 - Shop Drawings, Product Data and Samples.

- B. Handle, install, connect, clean, condition and adjust products as required by the manufacturer's instructions and in conformity with specified requirements.
 - 1. Should the specified requirements conflict with the manufacturer's instructions, the manufacturer's instructions shall have priority unless changes are authorized in writing by the manufacturer.
 - 2. Should job conditions conflict with the manufacturer's instructions, consult with the manufacturer for clarification.
 - 3. Clarifications of installation instructions shall be issued only by the manufacturer, shall be in writing, and shall be distributed to all parties involved in the installation as stated above and prior to alteration of the installation procedures.
 - 4. Do not proceed with the Work without clear instructions concerning the specific installation procedures.

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- C. Do not omit any preparatory step or installation procedure unless specifically modified or exempted by the manufacturer.

1.05 SERVICES OF MANUFACTURER'S REPRESENTATIVE

- A. From each company manufacturing or supplying equipment, the Contractor shall provide as outlined below the services of a qualified factory service representative. Equipment furnished under Divisions 11, 13, 15 and 16 shall include the costs of these services. A service representative shall be a full-time factory-trained service employee with a minimum of two (2) years field service experience. Manufacturer's sales representatives or sales agents, subcontractors to manufacturers, or similar personnel will not qualify. The service rendered by these representatives shall be at the work site for an eight (8) hour work day for each piece of equipment. The number of trips and days required for each piece of equipment stated below is as follows:

▶ Phase I - Installation

The factory service representative shall direct the contractor in the proper unloading, setting, installation, erection, storage and connection to adjacent units for their respective equipment. These services shall be for a period of not less than one (1) day. Some equipment may require additional time for the installation of major units of equipment. In this case a longer period may be mutually agreed to by the Contractor and Manufacturer. These services during the installation phase may be omitted if the installation of the equipment is not complicated. Permission for deletion of these services shall be made in writing to the Engineer prior to the delivery of the equipment with the appropriate reasons why these services are not needed for this equipment. Only after written approval has been granted by the Engineer will these services be voided. In any case, the manufacturer is responsible for the correct installation of the equipment in accordance with the manufacturer's recommended practices.

▶ Phase II - Testing

After the equipment has been properly installed by the Contractor and readied for operation, each unit of equipment together with piping, power, and controls shall be tested by a factory service representative for its intended use as outlined in the technical specifications and drawings. These services shall be a separate one (1) day minimum visit to inspect and test the unit to verify that the installation is in accordance with the recommended practice of the manufacturer.

Any calibrations, adjustments, or coordination of controls with other equipment shall be made at this time. The services of a factory service representative will be required on a consecutive day basis until the equipment has been properly tested to perform in accordance with the Contract Documents. If the equipment is not tested as required, the cost for additional visits will be paid for by the Contractor or the manufacturer.

In the presence of the Owner's representative, the Resident Project Representative and/or Engineer, the operation, testing, and adjustments shall be performed to demonstrate the equipment operates as intended.

After the site visit during this phase, the manufacturer or the supplier shall certify in writing a report (in triplicate) to the Engineer of the results of the inspection, operation and condition of the equipment. This report shall include a detailed description of tests performed and the actual performance of the equipment. Any results which would require precautions to be taken to ensure proper maintenance of the equipment should be included in the report.

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Finally, the report should include a certification that the equipment conforms to the requirements of the Contract Documents and is ready for permanent operation. Furthermore, the certification shall include a statement stating nothing in the installation or testing operations will void the manufacturer's warranty. All manufacturer's are required to provide the services outlined in this phase without exception.

► Phase III - Start-Up, Operation and Training

Once all equipment has been satisfactorily tested and the facility is substantially complete, the Contractor shall coordinate the concurrent start-up of all units of equipment. This coordination shall include the simultaneous attendance of the Owner's representative, the Engineer, and the factory service representative of each unit of equipment.

The factory service representative will provide for a minimum of one (1) day instruction and training for the Owner's representative in the proper operation, adjustment and maintenance of the equipment. At this time the service representative shall provide operation and maintenance manuals to the Engineer unless provided for otherwise.

- B. For equipment or products furnished under other divisions, the Contractor, unless otherwise specified, shall furnish the services of authorized representatives of the manufacturers only when some evident installation or operation problem makes such services necessary in the opinion of the Engineer.
- C. Manufacturer's Operating and Maintenance Manuals shall be delivered to the Engineer in accordance with the requirements of Section 01730.

1.06 TRANSPORTATION AND HANDLING

- A. Arrange deliveries of Products as required by the currently approved construction schedule coordinating each delivery to avoid conflict with other work and conditions at the site.
 - 1. Deliver products in an undamaged condition, in the manufacturer's original containers or packaging and with identifying labels intact and legible.
 - 2. Prior to accepting delivery, inspect shipments to assure compliance with approved submittals, and that the products have been properly protected and are undamaged.
- B. Provide equipment and personnel to handle products preventing soiling or damage to the products or their protective packaging.

1.07 STORAGE AND PROTECTION

- A. 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.
 - 2. Maintain temperature and humidity within the ranges required by manufacturer's instructions.
 - 3. Store fabricated products above the ground, on blocking or skids, prevent soiling, staining or corrosion. Cover products which are subject to deterioration with impervious sheet coverings and provide adequate ventilation to avoid condensation.
 - 4. Store loose granular materials in a well-drained area on solid surfaces to prevent mixing with foreign matter.

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SECTION 01600 - MATERIAL AND EQUIPMENT

- B. All materials and equipment to be incorporated in the Work shall be handled and stored in a manner to prevent warping, twisting, bending, breaking, chipping, rusting, and other injury, theft or damage.
- C. Cement and lime shall be stored under a roof and off the ground and shall be kept completely dry at all times. All miscellaneous steel, structural steel and reinforcing steel shall be stored off the ground, kept free of accumulations of dirt and grease, and in areas free of standing water and minimize rusting. Precast concrete sections shall be handled and stored in a manner to prevent staining, chipping or cracking. Brick, block and similar masonry products shall be handled and stored in a manner to reduce staining, breaking, chipping, cracking, and spilling.
- D. All materials which, in the opinion of the Engineer, have become so damaged as to be unfit for the use intended, including aesthetics, shall be promptly removed from the site of the work.
- E. Arrange storage in a manner to provide easy access for inspection. Make periodic inspections and exercise or rotate moving parts of stored products as required by the manufacturer to assure that products are maintained under specified conditions and free from damage or deterioration.
- F. Provide substantial coverings as necessary to protect installed products from damage caused by traffic and subsequent construction operations. Remove the protective covering when no longer needed.
- G. The Contractor shall be responsible for all material, equipment, and supplies sold and delivered to the Owner under this Contract until final inspection of the Work and acceptance thereof by the Owner. In the event any such material, equipment, and supplies are lost, stolen, damaged, or destroyed prior to final inspection and acceptance they shall be replaced by the Contractor.
- H. Should the Contractor fail to take proper action to properly store and handle equipment supplied under this Contract, the Owner retains the right to notify the Contractor in writing of the deficiencies, to correct all deficiencies and deduct the cost associated with these corrections from the Contractor's Contract. These cost may be comprised of expenditures for labor, equipment usage, administration, clerical, engineering and any other costs associated with making the necessary corrections.

1.08 OFF-SITE STORAGE AND PROTECTION

- A. Off-site storage arrangements shall be acceptable to the Owner and approved in writing by the Engineer for all material and equipment not incorporated into the Work but included in the application for payment. Off-site storage shall be permitted and payment made therefore if the following conditions are met:
 - 1. Protection - The material and equipment is stored in a security protected environment to avoid damage or theft by vandals.
 - 2. Insurance - Adequate insurance in accordance with Article 5 of the General Conditions shall be maintained by the Contractor and property owner of the site in which the material and equipment is stored. A minimum level of insurance shall be maintained to replace the item should it become damaged or stolen.
 - 3. Title - A title indicating the Owner has purchased the material and equipment is provided by the Contractor to the Owner after payment is made; and
 - 4. Access for Inspection - The Owner, the Engineer or their representatives have access to the site for inspection purposes. Site inspection will be conducted with the site owners.

TECHNICAL SPECIFICATIONS
DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01600 - MATERIAL AND EQUIPMENT

1.09 **PRODUCT TESTING**

A. All work installed in accordance with the plans and specifications, shall have post installation tests performed to check the system conformance to the specified operation. The Contractor shall file with the Engineer a standard form written report detailing the field operation of the product. The standard form reports will be furnished by the Engineer and completed by the Contractor and the Resident Project Representative.

B. Report forms shall be listed and shown in the Appendix.

1.10 **SPECIAL TOOLS**

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. The Contractor shall preserve and deliver to the Owner these tools and instructions in good order no later than upon completion of the Contract.

1.11 **WARRANTY**

For all major pieces of equipment, submit a warranty from the equipment manufacturer as specified in Section 01740. The manufacturer's warranty period shall be concurrent with the Contractor's as stipulated in the specifications for each piece of equipment.

1.12 **SPARE PARTS**

Spare parts for certain equipment provided under Divisions 11, 13, 15 and 16 have been specified in the pertinent sections of the Specifications. The Contractor shall collect and store all spare parts so required in an area to be designated by the Engineer. In addition, the Contractor shall furnish to the Engineer an inventory listing all spare parts, the equipment they are associated with, the name and address of the supplier, and the delivered cost of each item. Copies of actual invoices for each item shall be furnished with the inventory to substantiate the delivered cost.

1.13 **GREASE, OIL AND FUEL**

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

The Contractor shall be responsible for changing the oil in all drives and intermediate drives of each mechanical equipment after initial break-in of the equipment, which in no event shall be any longer than three weeks of operation.

PART 2 - PRODUCTS - NOT USED

PART 3 - EXECUTION - NOT USED

END OF SECTION

TECHNICAL SPECIFICATIONS
DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01700 - CONTRACT CLOSEOUT

PART 1 - GENERAL

1.01 **REQUIREMENTS INCLUDED**

- A. The Contractor shall comply with the requirements stated in the General Conditions and in the Specifications for administrative procedures in closing out the work.
- B. The following is a list of items required to complete the project.
 - 1. Owner may request use of substantially completed portions of the work without such use constituting acceptance. Provision should be made for consent or notification of the survey and the insurers for the project;
 - 2. Contractor to request Substantial Completion inspection of the project or a portion thereof when construction is sufficiently complete to be utilized for the purposes intended;
 - 3. Engineer, Contractor, and Resident Project Representative to make substantial completion inspection. A list of incomplete items will be prepared by the Engineer.
 - 4. Engineer will issue a Substantial Completion Certificate with a date of substantial completion with the attached list of uncompleted items. Certificate will be filed by the Owner for a prescribed period of time. Besides listing the uncompleted items, the substantial completion shall designate the responsibilities for utilities, maintenance and insurance; and any exceptions to guarantees or warranties.
 - 5. Contractor shall complete list of uncompleted items. Upon the completion of work, he shall request a final inspection.
 - 6. Final Inspection shall be made by Owner, Contractor, Engineer, Resident Project Representative, Regulatory Agencies, Funding Agency and any other agency involved in this project.
 - 7. Contractor shall make final request for payment with the appropriate data; i.e., clear-lien certificate, release from surety, etc., all as required by State Law.
 - 8. Engineer to process final payment request and present request to Owner.

1.02 **SUBSTANTIAL COMPLETION**

- A. When the Contractor considers the Work is substantially complete, he shall submit to the Engineer:
 - 1. A written notice that the Work or designated portion thereof is substantially complete.
 - 2. A list of items to be completed or corrected.
- B. Within five (5) working days after receipt of such notice, the Engineer will make an inspection to determine the status of completion. The Engineer's opinion as to the status of completion shall be based on completion of the following as applicable:
 - 1. Installation of all piping, valves, force mains, and/or gravity sewers including pressure, leakage or other required tests.

TECHNICAL SPECIFICATIONS
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SECTION 01700 - CONTRACT CLOSEOUT

2. Installation of all equipment including, but not limited to, fans, blowers, aerators, dehumidifiers, and surge suppressors.
 3. Installation or construction of structures including all required protective or aesthetic coatings or devices including required tests.
 4. Installation of electrical conduits, wiring, load centers, controls, and all other electrical elements as required including tests, inspections, and approval by local agencies for compliance with ordinances and codes.
 5. Backfill and compaction of backfill as indicated by required tests for all structures, pipelines, conduits, and other subterranean installations.
 6. Installation or restoration of pavements including required tests for subbase, base and pavement materials, and approval by the local municipality. Pavements shall not be individually considered and shall be considered only with other portions of the Work requiring the installation or restoration of pavement.
 7. All painting required by the Contract Documents except for touch-up.
 8. Topsoiling, final grading, fertilizing, seeding, sodding, or landscaping except for growth of vegetation and watering to establish the required ground cover of vegetative growth.
 9. Release of all permits whether or not the permit was acquired by the Contractor.
 10. Installation of all doors, windows, louvers, and other building appurtenances including painting, finish hardware, glazing, locks, and other required devices to secure the Work.
 11. All required instructions for the Owner's operation and maintenance personnel including a minimum of one approved copy of the required operation and maintenance manual for use by the Owner's personnel.
- C. Should the Engineer determine that the Work is not substantially complete:
1. The Engineer will promptly notify the Contractor in writing, giving the reasons therefore in accordance with the General and Supplemental Conditions.
 2. Contractor shall remedy the deficiencies in the Work, and send a second written notice of substantial completion to the Engineer.
 3. The Engineer will reinspect the Work.
- D. When the Engineer finds that the Work is substantially complete, he will:
1. Prepare and deliver to Owner a tentative Certificate of Substantial Completion with a tentative list of items to be completed or corrected before final payment in accordance with the General and Supplementary Conditions.
 2. After consideration of any objections made by the Owner as provided in the General and Supplemental 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.

TECHNICAL SPECIFICATIONS
DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01700 - CONTRACT CLOSEOUT

1.03 FINAL INSPECTION

- A. When Contractor considers the Work is complete, he shall submit written certification that:
 - 1. Contract Documents have been reviewed.
 - 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 Engineer and Owner's representative and are operational.
 - 5. Work is completed and ready for final inspection.
- B. The Engineer will make an inspection to verify the status of completion with five working days after receipt of such certification.
- C. 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 a second written certification to the Engineer that the Work is complete.
 - 3. The Engineer will reinspect the Work.
- D. When the Engineer finds that the Work is acceptable under the Contract Documents, he shall request the Contractor to make closeout submittals.

1.04 REINSPECTION FEES

Should the Engineer perform reinspections due to failure of the Work to comply with the claims of status of completion made by the Contractor:

- A. Owner will compensate the Engineer for such additional services.
- B. Owner will deduct the amount of such compensation from the final payment to the Contractor.

1.05 CONTRACTOR'S CLOSEOUT SUBMITTALS TO ENGINEER

- A. Evidence of compliance with requirements of governing authorities.
- B. Project Record Documents: Requirements of Section 01720.
- C. Manufacturer's Certificates of Installation: Requirements of Section 01600.
- D. Warranties and Bonds: Requirements of Section 01740.
- E. Keys and Keying Schedule.
- F. Spare Parts and Maintenance Materials: Requirements of Section 01730.

TECHNICAL SPECIFICATIONS
DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01700 - CONTRACT CLOSEOUT

G. 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
 - b. Unit Prices
 - c. Deductions for uncorrected Work
 - d. Penalties and Bonuses
 - e. Deductions for liquidated damages
 - f. Deductions for reinspection payments
 - g. 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.

D. In accordance with the requirements of Section 01035 - Modification Procedures, the Engineer will submit the final Change Order and a recommendation for acceptance of the Work to the Owner for approval.

1.07 APPLICATION FOR PAYMENT

Upon receipt of approval of the final Change Order, the Contractor shall submit an Application for Payment in accordance with procedures and requirements stated in the General Conditions.

1.08 CONTRACT CLEAR LIEN CERTIFICATE AND PAYMENT OF RETAINAGE

A. Upon receipt of the Owner's acceptance of the work, the Contractor shall make filings with the Recorder of Mortgages as required by Louisiana State Public Contract Statute.

B. In accordance with the Louisiana State Public Contract Statute, the Recorder of Mortgages shall issue a Clean Lien and Privilege Certificate upon expiration of a period of not less than forty-five (45) days, provided no liens are recorded against the Project.

C. Upon receipt of the Clear Lien and Privilege Certificate, the Contractor shall submit an Application for Payment to the Engineer requesting the release of the Project retainage with the certificate attached as evidence of authority for the Owner to pay the retainage.

D. The Engineer shall review the Application for Payment for the Project retainage and if in order shall transmit the application to the Owner for Payment.

TECHNICAL SPECIFICATIONS
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SECTION 01700 - CONTRACT CLOSEOUT

- E. In accordance with the General Conditions, the Owner shall release the Project retainage and make payment to the Contractor the legal sum of the retainage for which the Contractor is entitled.

PART 2 - PRODUCTS - NOT USED

PART 3 - EXECUTION - NOT USED

END OF SECTION

TECHNICAL SPECIFICATIONS
DIVISION 01 - GENERAL REQUIREMENTS

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. Conformed Drawings.
 - 2. Conformed Specifications.
 - 3. Change Orders and other Modifications to the Contract.
 - 4. Engineer's Field Orders or written instructions.
 - 5. Approved Shop Drawings, Working Drawings and Samples.
 - 6. Field Test records.
 - 7. Construction photographs.
 - 8. Latest, Approved Progress Schedule.

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 section numbers.
- 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 items for inspection by the Engineer.
- E. As a pre-requisite for monthly progress payments, the Contractor is to exhibit the currently updated "record documents" for review by the Engineer and Owner.

1.03 **MARKING DEVICES**

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" with rubber stamp.
- B. Record information concurrently with construction progress and do not conceal any work until required information is recorded.
- C. Legibly mark drawings to record actual construction:

TECHNICAL SPECIFICATIONS
DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01720 - PROJECT RECORD DOCUMENTS

1. The Contractor shall use the following color code in marking Contract Drawings.
 - a. Yellow for no change.
 - b. Red to indicate additions, deletions and changes.
 2. Elevations of various structure elements in relation to elevation datum.
 - a. Elevations referenced to control points established by the Owner's agent.
 - b. Specifically, elevations of drainage culvert inverts, building slabs, top of roadway and driveway curbs, bridges, etc.
 3. All underground piping with elevations and dimensions, changes to piping location, horizontal and vertical locations of underground utilities and appurtenances, referenced to permanent surface improvements, actual installed pipe material, class, etc.
 - a. Elevations of constructed underground piping at 100 ft. increments and points where changes occur in either the slope or horizontal direction.
 - b. Three swing ties from referenced permanent surface improvements to the pipe centerline at 500 ft. increments and the center of each manhole cover, valve, wye branch, vent, end of service connection at the property line, other fittings and appurtenances.
 - c. Identify existing utilities which parallel the proposed construction, including size and offset distance horizontally and vertically, when exposed by the construction activity.
 - d. Identify existing utilities including size, material type, vertical clearance over or under, intersecting station, and angle of intersection crossing proposed construction.
 4. Location of internal utilities and appurtenances concealed in the construction by referencing to visible and accessible features of the structure.
 5. Field changes of dimension and detail.
 6. Changes made by Field Order or by Change Order.
 7. Details not on original contract drawings.
 8. Equipment and piping relocations.
 9. Identify the actual motor installed by manufacturer's name, nameplate horsepower and serial number.
 10. Identify the actual pump installed by manufacturer's name, model number, impeller size, rated capacity and serial number.
 11. Major architectural and structural changes including relocation of doors, windows, etc.
- 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.

TECHNICAL SPECIFICATIONS
DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01720 - PROJECT RECORD DOCUMENTS

E. Shop Drawings (after final review):

Five (5) sets of record drawings for each process equipment, piping, electrical system and instrumentation system.

F. Certified site survey and line elevations and stationing at 100 ft. increments and all points of change of direction of pipelines per Section 01050 by a registered land surveyor.

1.05 **SUBMITTAL**

A. At Contract close-out, deliver Record Documents to the Engineer for the Owner.

B. Accompany 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 or his authorized representative.

PART 2 - PRODUCTS - NOT USED

PART 3 - EXECUTION - NOT USED

END OF SECTION

TECHNICAL SPECIFICATIONS
DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01730 - OPERATING AND MAINTENANCE DATA

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Compile product data and related information appropriate for Owner's maintenance and operation of equipment furnished under Contract.
 - 1. Prepare operating and maintenance data as specified herein and as referenced in other pertinent sections of Specifications.
 - 2. Submit operating and maintenance manuals as specified herein.
- B. Instruct Owner's personnel in maintenance of products and in operation of equipment and systems.

1.02 QUALITY ASSURANCE

- A. Preparation of data shall be done by personnel:
 - 1. Trained and experienced in maintenance and operation of described products.
 - 2. Familiar with requirements of this Section.
 - 3. Skilled in technical writing 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 operating and maintenance manual for use by Owner's personnel.
- B. Format:
 - 1. Size: 8 1/2 inches x 11 inches, punches and reinforced for insertion into the binders.
 - 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 tabs, bind in with text.
 - b. Reduce larger drawings and fold to size of text pages but not larger than 11 inches x 17 inches.
 - 5. Provide fly-leaf for each separate product, or each piece of operating equipment.
 - a. Provide typed description of product, and major component parts of equipment.
 - b. Provide indexed tabs.

TECHNICAL SPECIFICATIONS
DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01730 - OPERATING AND MAINTENANCE DATA

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, D-ring.
3. When multiple binders are used, correlate the data into related consistent groupings.

1.04 **CONTENT OF OPERATING AND MAINTENANCE MANUAL**

- A. A complete neatly typewritten table of contents listing documents in all volumes shall be included and 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. Maintenance contractor, as appropriate.
 - 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 specific product.
 2. Annotate each sheet to:
 - a. Clearly identify specific product or part installed.
 - b. Clearly identify data applicable to installation.
 - c. Delete references to inapplicable information.
- C. Drawings:
 1. Supplement product data with drawings as necessary to clearly illustrate:
 - a. Relations of component parts of equipment and systems.
 - b. Control and flow diagrams.
 2. Coordinate drawings with information in Project Record Documents to assure correct illustration of completed installation.
 3. Do not use Project Record Documents as maintenance drawings.

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DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01730 - OPERATING AND MAINTENANCE DATA

- 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 and provide information sheet for Owner's personnel, giving proper procedures in the event of failure and instances which might affect the validity of warranties or bonds.
- F. Provide for each unit of equipment and system, as appropriate:
 - 1. Description of unit and component parts.
 - a. Function, normal operating characteristics, and limiting conditions.
 - b. Performance curves, engineering data and tests.
 - c. Complete nomenclature number of replaceable parts including standard or manufacturer's part.
 - 2. Operating procedures:
 - a. Start-up, break-in, routine and normal operating instructions.
 - b. Regulation, control, stopping, shutdown and emergency instructions.
 - c. Summer and winter operating instructions.
 - d. Special operating instructions.
 - 3. Maintenance Procedures:
 - a. Routine operations.
 - b. Guide to "troubleshooting".
 - c. Disassembly, repair, and reassembly.
 - d. Alignment, adjusting and checking.
 - 4. Servicing and lubrication schedule including a list of lubricants required.
 - 5. Manufacturer's printed operating and maintenance instructions.
 - 6. Description of sequence of operation by control manufacturer.
 - 7. Original manufacturer's parts list, illustrations, assembly drawings and diagrams required for maintenance including the following:
 - a. Predicted life of parts subject to wear.
 - b. Items recommended to be stocked as spare parts.
 - 8. As-installed control diagrams by controls manufacturer.
 - 9. Each contractor's coordination drawings including as-installed color coded piping diagrams.
 - 10. Charts of valve tag numbers, with location and function of each valve.
 - 11. Cataloged list of manufacturer's spare parts supplied with the equipment or system, manufacturer's current prices, and recommended quantities to be maintained in storage.

TECHNICAL SPECIFICATIONS
DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01730 - OPERATING AND MAINTENANCE DATA

12. Other data as required under pertinent sections of Specifications.
- G. Content, for each electric and electronic system, as appropriate:
 1. Description of system and component parts.
 - a. Function, normal operating characteristics, and limiting conditions.
 - b. Performance curves, engineering data and tests.
 - c. Complete nomenclature including standard or manufacturer's part number of replaceable parts.
 2. Circuit directories of panelboards.
 - a. Electrical service.
 - b. Controls.
 - c. Communications.
 3. As-installed color coded wiring diagrams.
 4. Operating procedures:
 - a. Routine and normal operating instructions.
 - b. Sequences required.
 - c. Special operating instructions.
 5. Maintenance procedures:
 - a. Routine operations including recalibration procedures.
 - b. Guide to "troubleshooting".
 - c. Disassembly, repair and reassembly.
 - d. Adjustment and checking.
 6. Manufacturer's printed operating and maintenance instructions.
 7. List of original manufacturer's spare parts, manufacturer's current prices, and recommended quantities to be maintained in storage.
 8. Other data as required under pertinent sections of specifications.
- H. Prepare and include additional data when the need for such data becomes apparent during instruction of Owner's personnel.
- I. Additional requirements for operating and maintenance data as required by the respective sections of the Specifications.

1.05 SUBMITTAL SCHEDULE AND REQUIREMENTS

- A. Submit two (2) copies of preliminary draft of proposed formats and outlines of contents of Operating and Maintenance Manual within thirty (30) days of first Engineer review of shop drawings for each equipment item. The Engineer will review the preliminary draft and return one copy with comments.

TECHNICAL SPECIFICATIONS
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SECTION 01730 - OPERATING AND MAINTENANCE DATA

- B. Submit five (5) copies of the final manual to the Engineer within thirty (30) calendar days of product shipment to the project site and preferably within thirty (30) days after the reviewed copy is received.
- C. Submit five (5) copies of any addenda to the Operating and Maintenance Manual as applicable with certificates as specified in Article 1.05 of Section 01600 within thirty (30) days after final inspection and start-up.

1.06 INSTRUCTION OF OWNER'S PERSONNEL

- A. Prior to initial start-up inspection or request for substantial completion, fully instruct Owner's designated operating and maintenance personnel in operation, adjustment and maintenance of products, equipment and systems. Refer to Article 1.05 of Section 01600.
- B. Operating and maintenance manual shall constitute the basis of instruction and shall review comments of manual with personnel in full detail to explain all aspects of operation and maintenance.

PART 2 - PRODUCTS - NOT USED

PART 3 - EXECUTION - NOT USED

END OF SECTION

TECHNICAL SPECIFICATIONS
DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01740 - WARRANTIES AND BONDS

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Compile specified warranties and bonds, as in Articles 5 and 13 of the General Conditions.
- B. Co-execute submittals when so specified.
- C. Review submittals to verify compliance with Contract Documents.
- D. Submit to the Engineer for review and transmittal to Owner.

1.02 SUBMITTAL REQUIREMENTS

- A. Assemble and include warranties, bonds and service and maintenance contracts, executed by each of the respective manufacturers, suppliers, and subcontractors including effective dates as required by Section 01730, Operation and Maintenance Data, in the required operation and maintenance manuals.
- B. Number of original signed copies required: Two (2) each.
- C. Table of Contents: Neatly typed in orderly sequence. Provide complete information for each item.
 - 1. Product or work item.
 - 2. Firm, with name of principal, address and telephone number.
 - 3. Scope.
 - 4. Date of beginning 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 number.

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 3-post binder.
 - a. Fold larger sheets to fit into binder.

TECHNICAL SPECIFICATIONS
DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01740 - WARRANTIES AND BONDS

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 binders with durable and cleanable plastic covers and maximum post width: 2-inches, D-ring.

1.04 WARRANTY SUBMITTAL REQUIREMENTS

- A. For all major pieces of equipment, unless stated otherwise in the specifications for each individual item of equipment, submit a written warranty from the equipment manufacturer to replace promptly any equipment or component thereof which, in the sole opinion of the Engineer, has defects in design, workmanship, materials, or performance within a one (1) year period following the date of acceptance for operation (Substantial Completion) by the Owner. The manufacturer's warranty period shall be concurrent with the Contractor's for one (1) year, unless otherwise specified, commencing at the time of acceptance for operation (beneficial use) by the Owner and shall be read in conjunction with the Contractor's warranty which shall operate together to provide for replacement of defective equipment and restoration of proper operation. The Contractor shall be solely responsible for both warranties.
- B. The Contractor shall obtain manufacturer's warranties for all equipment which has 1 HP motor or larger and/or which lists for more than \$1,000.00. The Engineer reserves the right to request warranties for equipment not so classified. The Contractor shall warrant all equipment in the Contract one-year warranty period even though manufacturer's warranties may not be required.
- C. In the event that the Contractor is unable to obtain from an equipment manufacturer or supplier the above one-year warranty, the Contractor shall provide, prior to acceptance for operation of the equipment by the Owner, a bank letter of credit in favor of the Owner in the amount of two-hundred percent (200%) of the purchase price of the equipment for a period of 18 months from the beginning of the warranty period on which the Owner may draw for replacement of defective equipment (materials and labor).

PART 2 - PRODUCTS - NOT USED

PART 3 - EXECUTION - NOT USED

END OF SECTION

DIVISION 2 - SITE CONSTRUCTION

TECHNICAL SPECIFICATIONS
DIVISION 2 - SITE CONSTRUCTION

SECTION 02514A - INSTALLATION OF METERS

PART 1 - GENERAL

1.01 **SCOPE**

A. General

The work shall consist of the replacement of existing AMI water meters with new Badger water meters and the installation of Badger Orion Cellular water endpoints on all water meters not currently part of the Badger AMI system, and provisioning of these meters onto the Badger AMI network. As part of this project, it is anticipated that additional work at individual metering locations may be necessary to properly and effectively install the Badger water meters and endpoints.

The contractor shall be required to work closely with the City and its representatives during all mass meter exchange activities. The City representatives will include the Engineer and the City's AMI Consultant, E Source Companies, LLC. Additionally, the contractor shall work closely with the AMI system provider (Badger) and the Customer Information System (CIS) vendor (Tyler Incode) to integrate the Contractor's Work Order Management System (WOMS) to the Badger Beacon AMI software system and the Tyler Incode CIS. Costs for services required to be performed by Tyler Incode to support the integration of the MIV WOMS (Work Order Management System) will be the responsibility of the City.

B. Items Not in Scope

The following items are not in the scope for this bid. These items have been procured under a separate procurement process. They will be supplied to the contractor for installation and commissioning. They include the following:

1. AMI Water Meters
2. AMI Electronic Registers
3. AMI Water Communication Modules

C. Notable Factors Related to this Project

1. The Contractor is required to purchase its own Badger UTL-AS-03461-EN handheld devices to be used during the mass meter exchange project. If contractor proposes to utilize another handheld device, written verification from Badger Meter to the City, E Source and Engineer stating that the proposed handheld device is acceptable for the installation and activation of the Badger Meters.
2. There are no indoor or basement meters, nor any meters in OSHA confined space.
3. The majority of 1 ½" meters are flanged. All existing 1 ½" meters that are not flanged will be replaced with flanged meters. If additional costs are incurred, the additional plumbing required for these cases must be documented by the contractor and verified by the City or City's project representative. Additional cost for these cases will be included in a change order. All of the 2" and larger meters are flanged.

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DIVISION 2 - SITE CONSTRUCTION

SECTION 02514A - INSTALLATION OF METERS

4. Existing meter brands are ABB and Badger. Manufacturer data sheets for the existing and proposed meters show the lay lengths are the same for meters of like size and type. It is anticipated this will be a like exchange.
5. There are no commercial bypasses for meters 2" and below. Some of the commercial meters (1 ½" and larger) may require appointments to be scheduled to minimize the interruption of normal business for commercial service locations. These will need to be addressed on an "as-needed" basis in close coordination with the City; however, it will be the responsibility of the contractor to schedule the appointment with the customer.
6. Installed meters should be relatively accessible by field personnel, but there may be some difficult to access locations. Should the Contractor encounter a difficult to access location, they are required to follow an UTC (unable to complete) process that is mutually agreeable with the City and document the condition before proceeding with the installation to allow for the additional cost to be incurred by the Contractor.
7. Many meter boxes are located in the right-of-way. All meters should have inlet valves - either straight or 90-degree curb stops 50% of which are located inside the meter box and the remaining 50% located outside and adjacent to the meter box. Keys should not be necessary for accessing valves or lids. Very few boxes contain more than one meter, and it should be assumed that each meter is in an individual box.
8. The City cannot provide a breakdown of service line material across the service territory, but City personnel have stated that the majority of service line material from the main to the meter is galvanized steel. Customer service line material varies and is not standardized.
9. Field conditions are likely to vary across the City's service territory. The potential conditions of meters are outlined in the following table. This table includes the potential conditions anticipated to be encountered for current meter installations. Contractor should assume that many lids and boxes may need to be replaced or readjusted, and that some boxes may need to be dug out.

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DIVISION 2 - SITE CONSTRUCTION

SECTION 02514A - INSTALLATION OF METERS

TYPE	POSSIBLE CONDITIONS	CONDITIONAL DESCRIPTION
Lid Condition	Acceptable	No visible cracks and not a hazard, minor wear, and tear
	Unacceptable	Cracks, breaks, or a trip hazard
Box Condition	Acceptable	No visible cracks and not a hazard, minor wear, and tear
	Unacceptable	Cracks, breaks, or a trip hazard
Box Dirt Level	Unacceptable	Nearly Fully Filled In
	Unacceptable	Covers Register
	Unacceptable	Covers Meter Body
	Unacceptable	Fully Covers Service Line
	Unacceptable	Partially Cover Service Line
	Acceptable	Below Main Service Line
Depth of Service	Acceptable - Can Accommodate Endpoint	Adequate space between top of register and bottom of box lid
	Unacceptable - Cannot Accommodate Endpoint	Not enough clearance for radio and/or antenna between top of register and bottom of box lid; some may accommodate an offset mounting, but this configuration is not recommended
Box Grading	Acceptable - at Grade Acceptable	Level with ground
	Unacceptable - Above or Below Grade	Protrudes - qualifies as trip hazard dips - qualifies as trip hazard

D. Unit Prices

All the work to be performed will be paid for on a unit price for the specific item installed or furnished and installed, as applicable, as outlined in the bid form. Measurement and payment of each of the items will be in accordance with Division 1, Section 01025 - Measurement and Payment.

TECHNICAL SPECIFICATIONS
DIVISION 2 - SITE CONSTRUCTION

SECTION 02514A - INSTALLATION OF METERS

1.02 **SUBMITTALS**

A. Product Data, Shop Drawings, Samples

1. All products and/or materials to be furnished and installed under this project shall be submitted to the Engineer in accordance with Division 1, Section 01340 - Shop Drawings, Project Data and Samples.
2. Manufacturers shall submit with shop drawings any recommended installation procedures which, when approved by the Engineer, shall become the basis for inspecting, accepting and/or rejecting actual installation procedures used on this project.
3. The manufacturers shall submit in writing a certification that the product meets these specifications.

B. Activity Reports

1. The Contractor will provide a summary replacement report weekly. Final content and layout of the report will be determined at the pre-construction meeting. The report shall contain the following information:

Meter reading and serial number of the removed meter and endpoint
Meter reading and serial number of the newly installed meter and endpoint
GPS Location
Service Line Type
Time and date of replacement
Account number
Name of customer
Address
Phone number of customer
Installation notes (meter location, special circumstances, etc.)

1.03 **QUALITY ASSURANCE**

A. Project Parameters

1. It is the intent of this project to complete the meter replacement program in accordance with an approved production schedule for maximum revenue benefit while maintaining a high level of control and quality of workmanship. As such, the Contractor shall assign a Project Manager to oversee the meter replacement program.
2. The City will provide the Contractor with access to a 3,500 square foot warehouse space located at 1638 Creswell Lane in Opelousas for contractor's use as described in Article 8.01 of the Instructions to Bidders. Use of this warehouse space shall be for the duration of the project. The Contractor shall be responsible for its own wireless internet access. Keys to this warehouse will be exceptionally limited to the Contractor and a restricted number of city personnel. The City will not provide any material handling equipment to be used either inside or outside of the warehouse. Should the Contractor require additional space, the Contractor shall be responsible for obtaining and paying for said additional

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SECTION 02514A - INSTALLATION OF METERS

space for its use. Contractor shall provide all tools and hardware necessary for Contractor's installation personnel/employees to properly perform the required work.

3. The City has engaged the services of E Source (City's AMI Consultant) to serve as the City's AMR Project Manager. E Source will provide the contractor with all the required work orders and any other data necessary to complete the meter replacement program.

B. Work Order Management System

1. The contractor shall provide a Work Order Management System (WOMS) that can be web accessed by at least four (4) E Source/City staff concurrently. The work order management system shall be capable of the following:
 - a. Providing a summary view of planned, incomplete and completed work orders that are updated daily.
 - b. Providing logs of errors and/or damages resulting from installation by the contractor, or of any customer complaints, including caller's name, address, account number if available, date and time of call, nature of problem, the action taken, the resolution, and the time taken to resolve.
 - c. Provide lookup capabilities for individual work order details, with ability to look up by meter number, account number, or other identifiable information.
 - d. Provide reports or filtering tools to view route progress and completion.
 - e. Support storage for data capture requirements identified in paragraph 1.03.C and up to ten (10) photos per installation. E Source/City access to the storage will be provided for a minimum of one (1) year after project completion. Contractor to provide training on web interface to contractor's Work Order Management System.
2. Contractor shall provide all work order information to E Source/City at the end of deployment in CSV, Excel or other standard file format, in addition to labeled photos.

C. Data Capture Requirements

1. The Contractor shall capture and be responsible for the quality and integrity of the data as identified below and integrate the data captured into the contractor's work order management system. Data to be captured and verified shall include the following:
 - a. Capture clear and legible digital images a minimum of: (1) pre-installation meter site; (2) legacy meter face for out read and old meter ID; (3) new meter face immediately following install for in read and new meter ID; (4) new endpoint serial number; (5) site as left by installer. Images to include an accurate date and time stamp.
 - b. Capture images searchable by meter number assigned by utility or alternatively another unique identifier as determined by E Source/City.
 - c. Capture multiple images for meters with multiple registers.

TECHNICAL SPECIFICATIONS
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SECTION 02514A - INSTALLATION OF METERS

- d. Review and validate 100% of meter reads that have been entered in the Work Order Management System for the meter face photo taken during installation.
- e. Provide daily installation data uploads from the Contractor's Work Order Management System.
- f. Provide completed work orders that pass data validation to E Source/City within two (2) business days of installation.
- g. Collect GPS coordinates within commercial device accuracy and provide the meter location in reference to the premise.
- h. Perform a visual inspection, document, photograph, and notify E Source/City within one (1) business day of existing meter tamper, or theft conditions found during installation.
- i. Perform a visual inspection, document, photograph, and notify E Source/City in the near-real-time of potential damage, malfunction, or other critical issues (e.g., leak conditions/indicators, safety hazards, infrastructure concerns, etc.) found during installation that would signal an immediate work stoppage for the meter.
- j. Verify meter/endpoint inventory is in stock and ready to be installed, and that serial numbers are not duplicated.
- k. Barcode scan transactions involving hardware to ensure data integrity of meters, registers and endpoints.
- l. When possible, (without additional digging or labor), capture inlet and outlet service line material (e.g., galvanized steel, copper, PVC, polyethylene, etc.)
- m. Integrate and/or export meter exchange data (meter ID, last meter read, new meter read, installation date, meter model, location, GPS, service order number, etc.) to a format acceptable to the City Customer Information System (CIS).

D. Qualifications

1. Personnel

- A. Provide proof of background checks, which cover at a minimum: Criminal history, sex offender registry check, and driver's license verification for all active field personnel.
- B. Provide pre-employment 8-panel drug and alcohol screening, random testing during employment, and a policy on identification of intoxication and testing based on reasonable suspicion for all active field personnel.
- C. Provide safety training and documentation for employees.
- D. Personnel shall be trained on basic customer service, how to address customer inquiries and when to transfer a customer to the utility.

TECHNICAL SPECIFICATIONS
DIVISION 2 - SITE CONSTRUCTION

SECTION 02514A - INSTALLATION OF METERS

E. Contractor shall provide a supervisor-to-installer ratio of not less than one-to-ten.

2. Uniforms and Identification

A. All of the Contractor's field personnel shall wear uniforms (shirts only are acceptable) with the Contractor's company logo clearly visible and also have a pictured identification badge. All vehicles used by the Contractor's field personnel on the project shall be clearly marked with Contractor's company identification.

3. Courtesy and Conduct

A. Contractor's personnel must always be cognizant of being representatives of the City and behave accordingly. Any reports of lack of courtesy or workmanship must be investigated by the Contractor's Project Manager within twenty-four (24) hours of being reported, and the results of said investigation reported to the City and E Source for review and possible further action. Contractor shall remove employees from E Source/City Project upon request from E Source/City as deemed necessary by E Source/City (rudeness, unprofessionalism, theft, etc.).

B. The Contractor's personnel shall not enter a residence without the permission or presence of an adult, eighteen (18) years or older that resides at said residence.

C. The Contractors' personnel shall not perform any work at the residence other than necessary to complete the meter replacement, nor shall the Contractor's personnel accept payment for work performed during the meter replacement.

D. Under no circumstances shall the Contractor, its employees or representatives, solicit additional business, plumbing or otherwise, from the water utility's customers.

E. Any inappropriate conduct will be grounds for dismissal of the employee.

1.04 **SEQUENCING AND SCHEDULING**

A. Project Management

1. Project Manager

The Contractor will assign a Project Manager who will manage the project for the Contractor. The Project Manager shall be thoroughly familiar and experienced with this type of project and will have the authority to speak on behalf of the Contractor on project related issues. The Project Manager shall provide written reports on actual verses projected deployment numbers; unable-to-complete metrics; issue log (if needed), including UTC Reports, quality assurance results; and inventory audit results. Additionally, the Project Manager is expected to participate and engage in the following standard project management activities and events:

TECHNICAL SPECIFICATIONS
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SECTION 02514A - INSTALLATION OF METERS

- Project Planning
- Project Kickoff meeting
- Training Workshops
- Weekly project status meetings
- Action item management
- Risk Management
- Issue management
- Ad hoc meetings as/when required

The City and its designated representatives and consultants reserve the right to interview the Project Manager assigned to the project by the Contractor and retain the right to object to said Project Manager if it is felt that the Project Manager is not properly qualified to properly manage the project.

2. Job Meetings

Regular job meetings will be held at the beginning of the project and weekly thereafter. The purpose of the meetings will be to review the progress of the work and any other issues that are integral to the success of the overall project.

3. Work Hours

The work will take place during normal business hours Monday through Saturday, but not on Sundays or holidays, except for specific scheduled replacements as agreed to by the Contractor and customer. If the project schedule becomes delayed or interrupted and installations or UTC work falls behind schedule, weekend work can be considered an acceptable option as a recovery plan.

B. Communications System

1. The Contractor shall have a communications system suitable so that the Contractor, Project Manager, Supervisors and office can be reached by radio or telephone at any time, and all meter replacement crews can be reached using pagers or cell phones.
2. The Contractor shall have a system established for 24-hour notification of emergencies.

C. Work Areas and Routing

1. The City will not be instituting or supporting an opt-out program. Meters shall be installed by route, in coordination and accommodation to the utility's blackout billing schedule. There are 4 billing cycles. The blackout schedule runs two days prior and two days after the read date, for a total of five days. Routes and billing cycles are structured in such a way that installations may continue on other routes while some may be in the blackout period.
2. Contractor shall assist/coordinate meter installation scheduling according to the outlined and agreed upon deployment strategy, with the City retaining the right to prioritize routes, neighborhoods, and customers, as needed. Complete only routes pre-authorized for work

TECHNICAL SPECIFICATIONS
DIVISION 2 - SITE CONSTRUCTION

SECTION 02514A - INSTALLATION OF METERS

by E Source Project Manager and City.

PART 2 - PRODUCTS

2.01 MATERIALS

A. Water Meters

Meters (5/8" - 6")

The City has secured and is in possession of the meters and endpoints required to support the mass meter installation efforts and will release them to the Contractor as part of the installation planning process. The meters are currently stored in a warehouse located at 1638 Creswell Lane, Opelousas, Louisiana. The total number of meters and endpoints currently on-hand in storage are as follows:

5/8" x 3/4" meter and endpoint:	5,432 units
1" meter and endpoint:	305 units
1 1/2" meter and endpoint:	97 units
2" meter and endpoint:	178 units

The Contractor will be required to purchase its own Badger UTL-AS-03461-EN handheld devices to be used during the mass meter exchange project. If contractor proposes to utilize another handheld device, written verification from Badger Meter to the City, E Source and Engineer stating that the proposed handheld device is acceptable for the installation and activation of the Badger Meters.

B. Meter Boxes and Lids

It is estimated that approximately 25% of all meter boxes and lids will need to be replaced. In order to avoid delays in obtaining the meter boxes and lids, the City has purchased the meter boxes and lids anticipated to be needed for this project. The meter boxes and lids are currently stored in a warehouse located at 1638 Creswell Lane, Opelousas, Louisiana. The contractor will be required to purchase the meter boxes and lids from the City at the exact price paid by the City. The total number of meter boxes and lids and model numbers currently in inventory is as follows:

1,500 each: Meter box and lid, NDS Model No. D12-BAMR (14" x 19" x 12" depth)
500 each: Meter box and lid, NDS Model No. D18-BAMR (14" x 19" x 18" depth)
200 each: Meter box and lid, NDS Model No. D15U-BAMR (13" x 20" x 12" Jumbo box)

The unit price to be paid to the City for each meter box and lid is as follows:

NDS Model No. D12-BAMR	\$26.80/each
NDS Model No. D18-BAMR	\$28.65/each
NDS Model No. D15U-BAMR	\$30.00/each

TECHNICAL SPECIFICATIONS
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C. Curb Stops

It is estimated that approximately 50% of all 3/4" and 1" curb stops will need to be replaced. In order to avoid delays in obtaining the curb stops, the City has purchased the curb stops anticipated to be needed for this project. The curb stops are currently stored in a warehouse located at 1638 Creswell Lane, Opelousas, Louisiana. The contractor will be required to purchase the curb stops from the City at the exact price paid by the City. The total number of curb stops and model numbers currently in inventory is as follows:

1,400 each	3/4" curb stop (CTS) (Mueller Part No. P-24350)
100 each	1" curb stop (CTS) (Mueller Part No. P-24350)
2,100 each	3/4" curb stop (IPS) (Mueller Part No. B-24351)
100 each	1" curb stop (IPS) (Mueller Part No. B-24351)
20 each	1 1/2" curb stop (IPS) (Mueller Part No. B-24351)
20 each	2" curb stop (IPS) (Mueller Part No. B-24351)

The unit price to be paid to the City for each curb stop is as follows:

3/4" curb stop (CTS) (Mueller Part No. P-24350)	\$ 82.53/each
1" curb stop (CTS) (Mueller Part No. P-24350)	\$118.98/each
3/4" curb stop (IPS) (Mueller Part No. B-24351)	\$ 90.79/each
1" curb stop (IPS) (Mueller Part No. B-24351)	\$129.72/each
1 1/2" curb stop (IPS) (Mueller Part No. B-24351)	\$237.92/each
2" curb stop (IPS) (Mueller Part No. B-24351)	\$369.36/each

D. Water Service Pipe and Fittings

Piping shall be PE 3406, 160 psi, 3/4", 1", 1 1/2" or 2" polyethylene pipe (as dictated by field conditions)

Fittings on service lines shall be brass compression fittings. Inserts shall be provided in all fittings unless special fittings not requiring inserts are approved.

The Contractor will be responsible for providing all consumable and repair materials required for meter installation (gaskets, washers, fittings, etc.) and these items shall be factored into the unit prices for items listed in the bid form.

PART 3 - EXECUTION

3.01 **PREPARATION**

A. Public Relations Program

1. The City of Opelousas, in order to expedite the meter replacement project and generate "goodwill", will send a letter or notification to all of its customers which introduces the project and the Contractor.

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B. Customer Notification

1. As part of the installation process, the Contractor will be responsible for printing and publishing communications materials to City customers to notify and inform them about the project. Communications materials and mailing information will be provided by the Contractor and must be approved by the City and E Source prior to publication. These communications materials will include but not be limited to bill stuffers, and FAQ sheet, and door hangers to be used for successful meter exchanges when the customer was not home and for unsuccessful attempts for meter exchanges when the customer was not home. Communications materials shall provide a phone number for customers to call to coordinate appointments, obtain answers to questions related to the Project, installation process, and convey after hour complaints.
2. The Contractor shall provide a Call Center consisting of a phone number and line voice on business days and during business hours. The number can be land line or mobile based. A voice message function must be available for after hours and non-business days and be responded to in a reasonable amount of time to be agreed upon with the City in the event of a significant emergency. Other channels for customers to contact the Contractor will be considered by the City.

C. Door to Door Contact

1. Prior to attempting a meter replacement, the Contractor field personnel shall follow the following procedures:
 - a. Attempt to contact resident by ringing doorbell or by knocking on the door only. Refrain from knocking on windows or entering backyards.
 - b. If resident is present, inform them of the meter replacement program and attempt to complete meter installation. If installation cannot be accomplished due to customer inconvenience, assist customer in calling Contractor's office to schedule appointment or attempt on a different day.
 - c. If resident is not present, check to find if water is being consumed. If not, proceed with the installation and leave a door hanger to inform the customer the installation was performed. If water is being consumed, do not proceed with meter replacement. Attempt to contact resident later to schedule a time and date for the meter replacement.
 - d. Keep a record of all attempts to replace the meter and the reason for non-replacements.

D. Information Availability

1. All information maintained by the Contractor on attempts to install or replace meters shall be made available to the City and E Source upon request.

E. Installation Attempts (for inaccessible meter locations)

1. In cases where the meter(s) to be replaced are inaccessible without the assistance of the resident, the contractor shall make at least three (3) different attempts (calls, door hangers,

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mailings, etc.) to contact the utility customer to gain access to the meter(s) and perform the required work. The final attempt shall be a final notice mailer. If unsuccessful, the Contractor shall no longer be liable for scheduling the meter replacement. The City will take necessary steps to schedule the meter replacement and upon scheduling, the contractor will then perform the meter replacement.

2. Contractor shall coordinate with the City for access issues such as locked gates, gated communities, and vaults.

3.02 INSTALLATION

A. Project Management System

1. Information will be provided to the Contractor by the City for all customers in the meter replacement program. This information will be contained on magnetic media or provided electronically. The Contractor will use these lists to establish a computer database for the management and tracking of the meter replacement. The following information will be provided:

Customer Name and Address
Customer Telephone Number
Account Number
Size of meter in place
Existing Meter Number

Installed meters should be relatively accessible by field personnel, but there may be some difficult to access locations. Should the Contractor encounter a difficult to access location or if they are unable to physically locate a meter, they are required to follow an unable-to-complete (UTC) process that is mutually agreeable with the City and document the condition before proceeding with the installation to allow for the additional cost be incurred by the Contractor.

Many meter boxes are located in the right-of-way, and there are a limited number of meters located in the rear of homes in designated easements. All meters should have inlet valves - either straight or 90-degree curb stops - located within the meter box, directly in front of the meter. Keys should not be necessary for accessing valves or lids. Very few boxes contain more than one meter, and it should be assumed that each meter is in an individual box.

2. The Contractor shall have (and demonstrate) proven ability to monitor and report the progress and status of each metering site in the replacement program. Information for each meter replacement as outlined in 1.02.B and 1.03.C and D of this section shall be kept up to date by the Contractor.

B. Existing Conditions

1. Percentage of meter boxes in concrete or asphalt is estimated to be 3% - 5%

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2. Utility system personnel advise that there are shut off valves before the meter approximately 50% of these valves are located inside the meter box and the remaining 50% are located outside the meter box (and adjacent to some of the valves/curb stops will require replacement. In some cases, there may be an existing defective hand operated gate valve that will need replacement. Replacement will be with a curb stop.
3. Existing meters are connected with straight meter couplings.
4. Defective or inoperable curb stops will be replaced. There will be no new cut-ins of curb stops with the exception of the gate valve replacement described in paragraph 3.02.B.2.
5. Material of existing meter box lids is estimated as follows:

Approximately 1% - 2% are cast iron
Approximately 98% - 99% are plastic
No Known Concrete or Other
6. The meter box lids procured by the City have holes in the lid. Existing meter lids do not have holes.

C. Meter Removal and Replacement Procedures - Water Meters

1. The Contractor shall confirm the service address and existing meter serial number, then record the following information prior to turning off the water service:
 - a. Before pictures
 - b. Old meter reading
 - c. Old meter serial number
 - d. New meter reading
 - e. New serial number
 - f. New meter register number
 - g. GPS location
 - h. Service line type
 - i. Initials of contractor's personnel performing the work
 - j. Any special installation notes or comments necessary
 - k. After pictures

The Contractor shall review and compare the data provided by the City and/or E Source with actual field data and resolve any discrepancies with the City and E Source personnel.

2. The Contractor shall make sure that the new meter, endpoint, meter box, cut-off valve and necessary pipe and fittings are at the meter replacement site prior to any water shut-off or commencement of meter replacement. The manufacturers data sheets for the existing and proposed meters show that the lay lengths are the same for the existing and proposed meters of like size and type. Thus, it is anticipated this will be a like exchange.
3. Attempt to notify customer prior to shutting water off and have a process for handling a moving meter when a customer is not home.

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4. The Contractor shall determine if the meter box, pipes, couplings and valves around the existing meter are in acceptable condition for the meter change-out. Clean out meter box of dirt, water and other debris necessary to facilitate the meter/endpoint installation and remove dirt and debris from site. Replace meter box and lid is necessary due to condition of existing meter box and lid. If the cut-off valve is not capable of being shut-off or no valve exists, the City and E Source shall be notified of the situation. All efforts will be made by a City representative to be available to inspect the cut-off valve to verify it is inoperable or does not exist. The City representative will respond within a reasonable amount of time from notification and upon inspection of the cut-off valve, direct the Contractor on how to proceed. In most cases for water services, the contractor will be instructed to install a cut-off valve on the City side of the meter. This will be considered as additional work and will be paid for at the unit price for the item included in the bid form or on a negotiated time and material basis if not included in the unit price for any of the bid items.
5. Should hazardous, leaking, or unacceptable plumbing conditions be discovered that prevent the meter replacement, or if the meter cannot be removed without unreasonable risk of damage to the customer's premises, Contractor must report the condition to the City and E Source. The Contractor must photograph the conditions and provide a list of these conditions to the City and E Source. All efforts will be made by a City representative to be available to inspect and approve the site while the Contractor is still in the vicinity. If the Contractor must leave the vicinity before the City representative can inspect and approve the work, the Contractor may charge for a second visit. Any additional work (not included in the bid) required will be paid for on a negotiated time and materials basis.
6. The contractor shall be paid for the initial visit to a site that results in an Unable to Complete (UTC) due to unacceptable site conditions but must thoroughly document such conditions. The Contractor shall only be paid thereafter for actions taken to resolve the issue and for completed AMI meter conversions that occur after resolution of the unacceptable site conditions.
7. The Contractor shall document and notify the water customer and the City and E Source of any pre-existing leaks that may be found prior to beginning meter replacement.
8. After the flow of water has been shut-off, the Contractor shall remove the old meter and install the new meter and endpoint and reconnect the customer's service. Meter and endpoint shall be installed in accordance with manufacturer's specifications and recommendations. Additional work may be required such as meter box replacement or adjustment, install new cut-off valve, etc. to complete the installation. The register of the new meter must be visible and easily accessible for reading purposes.
9. The Contractor shall then turn on the water service and thoroughly check for any leaks at the water meter connections and certify that the flow is properly registering on the meter. Contractor shall correct all leaks related to the installation of the new meter. The service line shall be flushed to free line of air and debris in the service line as a result of the meter replacement.
10. Water service line(s) that break or leak (at the time of the work or shortly thereafter) shall be repaired or replaced by the Contractor.

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D. AMI Meter/Register Set-up, Programming and Testing

1. The Contractor shall set-up and program the AMI meters/registers in accordance with the manufacturer's recommendations before leaving the installation site. Each installation shall be completely tested, ensuring water is flowing through the meter properly. Contractor shall verify that the new meter and endpoint is fully functional, properly installed, and that the customer is left with same status (on/off) before leaving site.
2. Resolve non-binding or non-communication endpoint issues. E Source/City will not pay for installation services until it is verified that the meter is communicating with the proper information to the AMI head end software system. If a non-bidding or non-communication endpoint issue is due to a defective meter, the contractor will not be responsible for the additional cost to install a replacement meter and will be paid as if it were a new meter installation.
3. Provide a door hanger after installation is complete or incomplete (with phone number available for scheduling change-out appointments for incompletes).
4. Leave the customer site in as good or better condition before and after servicing and document with photo.

E. Old Meters and Endpoints

1. All meters and endpoints removed shall remain the property of the City of Opelousas and will be returned to the City. The Contractor shall be responsible for the return of all old meters and endpoints to the City. The old meters and endpoints shall be delivered to the City's water treatment plant site located at 530 West Guidry Street. The City will provide space for the Contractor to store the old meters, however, the City shall be responsible for providing ample crates or boxes to house the old meters and endpoints. Contractor shall utilize environmental-safe procedures when delivering old meters and endpoints to the City and provide a manifest of meters and endpoints delivered.

Disposal of spoil material from cleaning out the meter box shall be the responsibility of the contractor. The City will provide a location for the contractor to dispose of spoil material at a remote location within the City.

F. Faulty Plumbing

1. If, in the Contractor's opinion, the condition of the customers' existing service piping is such that significant damage would result from attempting to remove and replace the existing meter, the Contractor shall so inform the City and E Source. The Contractor must photograph the conditions and provide a list of these conditions to the City and E Source. All efforts will be made by a City representative to be available to inspect and approve the site while the Contractor is still in the vicinity. If the Contractor must leave the vicinity before the City representative can inspect and approve the work, the Contractor may charge for a second visit. Any additional work (not included in the bid) required will be paid for on a negotiated time and materials basis.

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If the City representative does not concur with the Contractor's judgement and directs the Contractor to perform the meter replacement, and the customer's service piping is damaged as a result, the City will bear all cost of repairing such damage.

2. If the meter (or cut-off) valve is not operable and the water is not able to be shut-off, the Contractor must report said condition to the City and E Source. All efforts will be made by a City representative to be available to inspect the cut-off valve to verify it is inoperable. The City representative will respond within a reasonable length of time from notification and upon inspection of the cut-off valve, direct the Contractor on how to proceed. In most cases for water services, the Contractor will be instructed to install a meter (or cut-off) valve on the City side of the meter.
3. The freezing of pipes (for water services only) in order to facilitate meter replacement will be permitted.

G. Installation Defects

1. It will be presumed that any leaks or defects within 2 feet of meter box reported by the customer to either the Contractor or the City within five (5) calendar days after completion of the meter replacement are the result of the replacement efforts and the contractor will repair the damage at no additional cost to the City. This presumption will not apply to leaks or other pre-existing conditions noted and documented by the Contractor during the replacement, nor shall this presumption be construed as the sole basis upon which liability can be attributed to the Contractor.

Many of the existing service lines are galvanized steel and may be in poor condition. If the meter service line is defective (i.e., corroded/rusted) and replacement of a section of service line is required to be replaced beyond 2' from the meter box, the contractor will be entitled to additional compensation verification of field conditions by the City or City's representative will be required before additional compensation will be approved. Additional compensation to the contractor will be determined on a case-by-case basis.

2. Contractor shall resolve errors and/or damage resulting from installation by the contractor within 24 hours.

H. Faulty Installation

1. All installation conditions discovered and considered to be faulty within the one (1) year warranty period shall be repaired by the Contractor at no extra or additional cost to the City.

I. Customer Complaints

1. Contractor shall respond within one (1) hour of receiving a complaint call and arrive at customer's premises ready to correct any problems resulting from errors or damage caused by the contractor within three (3) hours of receiving the call, unless otherwise directed by E Source/City.

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3.03 MAINTENANCE OBLIGATION

- A. If at any time during the performance of the contract, defects in the work shall develop or be discovered, the Contractor shall promptly repair or replace the defective workmanship or materials even though such workmanship or materials has already passed inspection.

When the work covered by the Contractor has been completed, it will be given the careful inspection and re-measurement. The Contractor shall remove all obstructions and deposits found in the pipes, connections, etc., and shall repair or remove and replace as directed by the Engineer, any crushed, broken or otherwise defective structures or appurtenances.

For a period of 45 days after substantial completion of the work, the Contractor shall keep all pipes, connections, structures, paved and unpaved surfaces, etc., constructed under this Contract in good condition, making repairs to such maintenance and repair in an obligation of the Contractor and the cost thereof must be included in the price bid for the various items of work. In the event of the Contractor's failure to do this maintaining and repairing to the satisfaction of the Engineer and according to terms of the Contract, the Owner will have the right to have the necessary work done and to deduct the cost thereof from retained money. If the retained money is not sufficient, the surety company will reimburse the Owner for expenses involved.

END OF SECTION

