

REQUEST FOR PROPOSALS

No. 17-39

ROCKDALE COUNTY, GEORGIA

August 9, 2017

FUELING STATION FOR ROCKDALE WATER RESOURCES



**ROCKDALE COUNTY FINANCE DEPARTMENT
PROCUREMENT OFFICE
958 Milstead Avenue
CONYERS, GA 30012
770-278-7552**

INTRODUCTION:

Rockdale County is requesting Competitive Sealed Proposals for the **Rockdale Water Resources Fueling Station**. Instructions for preparation and submission of a proposal are contained in this packet. Proposals must be typed or printed in ink.

Rockdale County provides equal opportunity for all businesses and does not discriminate against any person or business because of race, color, religion, sex, national origin, handicap or veterans status. This policy ensures all segments of the business community have access to supplying the goods and services needed by Rockdale County.

PURCHASING CONTACT FOR THIS REQUEST:

All questions concerning this invitation and all questions arising subsequent to award are to be addressed to the Procurement Officer at the following address:

Rockdale County Finance Department
Procurement Division
Attn: Meagan Porch, Buyer
958 Milstead Avenue
Conyers, GA 30012
Phone: (770) 278-7557, Fax: (770) 278-8910
E-mail: meagan.porch@rockdalecountyga.gov

To maintain a "level playing field", and to assure that all proposers receive the same information, proposers are requested **NOT** to contact anyone other than the contact above until after the award of the contract. Doing so could result in disqualification of the proposer.

PROPOSAL COPIES FOR EVALUATION:

Four (4) hard copies and one (1) original hard copy and one (1) CD's in Adobe PDF format will be required for review purposes. *(With the original clearly marked "Original" and the Copies clearly marked "Copies.")* . CD's that are blank or have incorrect information on them will not be acceptable and may be justification for disqualification. Check your disk(s) to ensure that they have the appropriate material on it before submitting.

DUE DATE:

Sealed proposals will be received at the Rockdale County Finance Department, Procurement Division, 958 Milstead Avenue, Conyers, GA 30012 no later than **2:00 P.M., local time, Thursday, September 14, 2017.** Proposals received after this time will not be accepted.

PRE-PROPOSAL CONFERENCE:

There will be a **MANDATORY** Pre-Proposal Conference held at 2420 Tatum Road, Conyers, GA 30013 **at 10:00 A.M., local time, Wednesday, August 23, 2017.** Please turn into the first driveway on the left after turning on to Tatum Road. Any questions and/or misunderstandings that may arise from this RFP must be submitted in writing and forwarded to the Procurement Officer at the above address or by email. It shall be the Proposers responsibility to seek clarification as early as possible prior to the due date and time. *Any contractor who intends to submit a Proposal is required to attend this meeting.*

QUESTIONS AND CLARIFICATIONS:

You should submit your questions and/or requests for clarifications about this RFP no later than **2:00 p.m., local time, Thursday, September 7, 2017**. Written responses from the County to the questions it receives will be in an addendum and posted to the County's website at www.rockdalecountyga.gov, Bids, RFPs and Announcements/Current Bids.

ADDENDA:

Answers to questions submitted that materially change the conditions and specifications of this RFP will be issued in an addendum and posted to the County's website at www.rockdalecountyga.gov, Bids, RFPs and Announcements/Current Bids. Any discussions or documents will be considered non-binding unless incorporated and issued in an addendum.

Proposers should check the website at www.rockdalecountyga.gov, Bids, RFPs and Announcements/ Current Bids frequently during the process to verify that they have received all issued addenda. Proposers have the responsibility of making sure that they have received all issued addenda.

QUANTITIES

The quantities listed in the Proposers Response Schedule are provided as an estimate for proposal purposes. The County will not be obligated to quantities beyond actual needs.

CONTRACT TERM:

The Contract Term will be 240 calendar days from the date of Notice-to-Proceed (NTP).

LOCAL VENDOR PREFERENCE POLICY

The Rockdale County Board of Commissioners adopted a Local Vendor Preference Policy on March 26, 2013. The policy will apply to all qualified Invitations to Bids and Request for Proposals after May 1, 2013. The Local Vendor Preference Policy allows Rockdale County vendors to get an extra 5 points on the evaluation criteria scoring for Request for Proposal. The Policy will give the local bidder the opportunity to match the price of a non-local vendor's bid price if they are low and within 5% of the low bidder's price on Invitation to Bids. A copy of the Policy may be downloaded from the County website at www.rockdalecountyga.gov, under Finance/Purchasing.

The Local Vendor Preference Policy will not apply to this RFP.

ENERGY EFFICIENT, RECYCLING AND WASTE REDUCTION PURCHASING POLICY

Policy #R-2015-08 includes the following language:

The Rockdale County Board of Commissioners only purchases energy star rated equipment and appliances that are economically responsible and reduce resource consumption and waste within federal, state, and local laws. The County will only purchase recycled copy, computer, and fax paper with at least 30 percent recycled content.

A copy of the policy may be viewed and downloaded by visiting the website at www.rockdalecountyga.gov, Bid Announcements, and scrolling down to the bottom of the page.

QUALIFICATIONS OF OFFERORS:

Proposers must have a current business license from their home based jurisdiction and provide a copy of that license with the submittal of their proposal response.

Proposals from any offeror that is in default on the payment of any taxes, license fees, or other monies due to Rockdale County will not be accepted.

Proposers are to submit at least (3) three references from projects with similar experience using the materials and process in this Invitation to Bid.

Any contractor submitting a Proposal must complete the Contractor's Qualification Statement and Questionnaire provided in this package

PROPRIETARY INFORMATION

Careful consideration should be given before submitting confidential information to Rockdale County. The Georgia Open Records Act permits public scrutiny of most materials collected as part of this process. Please clearly mark any information that is considered a trade secret, as defined by the Georgia Trade Secrets Act of 1990, O.C.G.A. §10-1-760 et seq., as trade secrets are exempt from disclosure under the Open Records Act. Rockdale County does not guarantee the confidentiality of any information not clearly marked as a trade secret.

FINANCIAL STABILITY

The Offeror will provide financial information that would allow proposal evaluators to ascertain the financial stability of the firm.

- If a public company, the Offeror will provide their most recent audited financial report.
- If a private company, the Offeror will provide a copy of their most recent internal financial statement, and/or a letter from their financial institution, on the financial institution's letterhead, stating the Offeror is in good standing with that financial institution.

SELECTION PROCESS:

The Rockdale County Procurement Office and Evaluation Committee makes a recommendation for award. The Board of Commissioners will make the actual award of the contract and has the authority to award the contract to a company different than the company recommended by the Procurement Office and/or Evaluation Committee.

This is a past performance/quality/price trade-off source selection in which competing offeror's past and present performance history and product quality will be evaluated on a basis approximately equal to price. Award will be made to the responsible offeror whose proposal represents the best value after evaluation in accordance with the factors listed below. Rockdale County Board of Commissioners may reject any or all proposals and to waive any technicalities or informalities if such action is in the county's interest.

Rockdale County may evaluate proposals and award a contract without discussions with offerors. Therefore, the offeror's initial proposal should contain the offeror's best terms from a price and technical standpoint. The County reserves the right to conduct discussions if the

County later determines them to be necessary.

INSURANCE:

The Company shall maintain in full force and effect the following insurance during the term of the Agreement.

| Coverage | Limits of Liability |
|-------------------------------------|--------------------------------|
| Workers' Compensation | Statutory |
| Employers' Liability | \$1,000,000.00 |
| Bodily Injury Liability | \$1,000,000.00 each occurrence |
| except Automobile | \$1,000,000.00 aggregate |
| Property Damage Liability | \$1,000,000.00 each occurrence |
| except Automobile | \$1,000,000.00 aggregate |
| Personal & Advertising Injury Limit | \$1,000,000.00 |
| Products / Completed Ops. | \$2,000,000.00 aggregate |
| Automobile Bodily Injury | \$1,000,000.00 each person |
| Liability | \$1,000,000.00 each occurrence |
| Automobile Property Damage | \$1,000,000.00 each occurrence |
| Liability | |

(If hazardous substances are involved)

Contractor's Pollution Liability (with 1 year extended reporting period)

 Each Occurrence \$1,000,000.00

 Aggregate \$2,000,000.00

Environmental Impairment Liability (with 1 year extended reporting period)

 Each Occurrence \$1,000,000.00

 Aggregate \$2,000,000.00

Excess Umbrella Liability \$3,000,000.00

All insurance shall be provided by an insurer(s) acceptable to the County, and shall provide for thirty (30) days prior notice of cancellation to the County. Upon contract award, Contractor shall deliver to the County a certificate or policy of insurance evidencing Contractor's compliance with this paragraph. Contractor shall abide by all terms and conditions of the insurance and shall do nothing to impair or invalidate the coverage.

Rockdale, GA shall be named as Additional Insured under any General Liability, Business Auto and Umbrella Policies using ISO Additional Insured Endorsement forms CG 2010 or its equivalent. Coverage shall apply as Primary and non-contributory with Waiver of Subrogation in favor of Rockdale County, Georgia.

The insurance carrier must have a minimum rating of A or higher as determined by the rating firm A.M. Best.

Certificates to contain policy number, policy limits and policy expiration date of all policies issued in accordance with this contract.

BONDS:

BID BOND

Each bid shall include a bid bond in the amount of five percent (5%) of the total bid amount as guarantee that the bidder shall not withdraw the bid for 90 days after the scheduled bid opening. If awarded the contract, Bidders shall enter a written agreement with Rockdale County in accordance with the bid.

PERFORMANCE BOND

Upon execution and delivery of the contract, the bidder shall furnish Rockdale County a performance bond for the full amount of the contract. Maintenance provisions of the bond shall remain in effect for a period of twelve (12) months after acceptance of the work by the County. The surety shall be a reputable bonding company authorized to transact business in the State of Georgia.

PAYMENT BOND

Upon execution and delivery of the contract, the bidder shall furnish Rockdale County a payment bond for the full amount of the contract. Maintenance provisions of the bond shall remain in effect for a period of twelve (12) months after acceptance of the work by the County. The surety shall be a reputable bonding company authorized to transact business in the State of Georgia.

PERMITS:

The awarded contractor will be responsible for acquiring any permits that are required for this project/purchase. Rockdale County will waive fees on all permits issued by Rockdale County.

AWARD OF CONTRACT

The Rockdale County Procurement Office and Evaluation Committee makes a recommendation for award. The Board of Commissioners will make the actual award of the contract and has the authority to award the contract to a company different than the company recommended by the Procurement Office and/or Evaluation Committee.

ILLEGAL IMMIGRATION REFORM AND ENFORCEMENT ACT OF 2011

Vendors submitting a Qualification package in response to this RFP must complete the Contractor Affidavit under O.C.G.A. §13-10-91(b)(1) which is provided with the RFP package to verify compliance with the Illegal Immigration Reform and Enforcement Act of 2011.

A. The form must be signed by an authorized officer of the contractor or their authorized agent.

B. The form must be notarized.

C. The contractor will be required to have all subcontractors and sub-subcontractors who are engaged to complete physical performance of services under the final contract executed between the County and the contractor complete the appropriate subcontractor and sub-subcontractor affidavits and return them to the County a minimum of five (5) days prior to any work being accomplished by said subcontractor or sub-subcontractor. Format for this affidavit can be provided to the contractor if necessary.

GENERAL INFORMATION

No proposals received after said time or at any place other than the time and place as stated in the notice shall be considered. No responsibility shall attach to Rockdale County for the premature opening of a proposal not properly addressed and identified.

WITHDRAWAL OF PROPOSAL:

A proposer may withdraw his proposal before the proposal due date, without prejudice to the proposer, by submitting a written request of withdrawal to the Rockdale County Procurement Office.

REJECTION OF PROPOSAL:

Rockdale County may reject any and all proposals and must reject a proposal of any party who has been delinquent or unfaithful in any formal contract with Rockdale County. Also, the right is reserved to waive any irregularities or informalities in any proposal in the proposing procedure. Rockdale County shall be the sole judge as to which proposal is best, and in ascertaining this, will take into consideration the business integrity, financial resources, facilities for performing the work, and experience in similar operations of the various proposers.

STATEMENT OF EXPERIENCE AND QUALIFICATIONS:

The proposer may be required, upon request, to prove to the satisfaction of Rockdale County that he/she has the skill, experience, necessary facilities and ample financial resources to perform the contract(s) in a satisfactory manner and within the required time. If the available evidence of competency of any proposer is not satisfactory, the proposal of such proposer may be rejected. The successful proposer is required to comply with and abide by all applicable federal and state laws in effect at the time the contract is awarded.

NON-COLLUSION AFFIDAVIT:

By submitting a proposal, the proposer represents and warrants that such proposal is genuine and not sham or collusive or made in the interest or in behalf of any person not therein named, that the proposer has not directly or indirectly induced or solicited any other proposer to put in a sham proposal, or any other person, firm or corporation to refrain from proposing and that the proposer has not in any manner sought by collusion to secure to that proposer any advantage over any other proposer.

INTEREST OF:

By submitting a proposal, the proposer represents and warrants that a Commissioner, Administrator, employee, nor any other person employed by Rockdale County has, in any manner, an interest, directly or indirectly, in the proposal or in the contract which may be made under it, or in any expected profits to arise there from.

DOCUMENTS DEEMED PART OF THE CONTRACT:

The notice, invitation to proposers, general conditions, and instructions for proposers, special conditions, specifications, drawings, proposal, and addenda, if any, will be deemed part of the contract.

STANDARD INSTRUCTIONS

1. The instructions contained herein shall be construed as a part of any proposal invitation and/or specifications issued by Rockdale County and must be followed by each proposer.
2. The written specifications contained in this proposal shall not be changed or superseded except by written addendum from Rockdale County. Failure to comply with the written specifications for this proposal may result in disqualification by Rockdale County.
3. All goods and materials shall be F.O.B. Destination Conyers, Georgia and no freight or postage charges will be paid by Rockdale County unless such charges are included in the proposal price.
4. The following number, **17-39** must be written clearly on the outside of each proposal envelope in order to avoid prior opening in error.
5. All proposals must be received and in-hand at proposal due date and time. Each proposer assumes the responsibility for having his/her proposal received at the designated time and place of proposal due date. Proposals received after the stated time and date may be subject to rejection without consideration, regardless of postmark. Rockdale County accepts no responsibility for mail delivery.
6. Unless otherwise stated, all proposals submitted shall be valid and may not be withdrawn for a period of 120 days from the due date.
7. Each proposal form submitted must include the name of the business, mailing address, the name, title and signature of the person submitting the proposal. When submitting a proposal to Rockdale County the first page of your proposal package should be the proposal form listing the price, delivery date, etc., unless the proposal form is requested to be in a separate envelope.
8. Rockdale County reserves the right to accept a proposal that is not the lowest price if, in the County's judgment, such proposal is in the best interest of the County and the public. The County reserves the right to reject any and all proposals.
9. Telephone, Telegraphic or Facsimile proposals will not be accepted.
10. No sales tax will be charged on any orders except for contracts that include construction materials being purchased through a third party.
 - i. Federal I.D. #58-6000882
 - ii. Sales Tax Exempt #58-800068K
11. If applicable, completed questionnaires must be signed manually. Rockdale County reserves the right to accept or reject any proposal on the basis of incomplete or inaccurate answers to the questionnaire.
12. If applicable, warranty information shall be provided.
13. Proposers shall state delivery time after receiving order.
14. Proposers shall identify any subcontractors, and include an explanation of the service or product that they may provide.

PROPOSAL FORM

Instructions: Complete all THREE parts of this bid form.

PART I: Proposal Summary

Complete the information below. If you wish to submit more than one brand, make a photocopy of this Proposal Form.

| | | |
|----|---------------------------|----|
| 1. | TOTAL LUMP SUM BID | \$ |
| 2. | 10% CONTINGENCY | \$ |
| 3. | TOTAL | \$ |

PART II: Addenda Acknowledgements (if applicable)

Each vendor is responsible for determining that all addenda issued by the Rockdale County Finance Department – Purchasing Division have been received before submitting a bid.

| Addenda | Date Vendor Received | Initials |
|---------|----------------------|----------|
| "1" | | |
| "2" | | |
| "3" | | |
| "4" | | |
| "5" | | |
| "6" | | |

PART III: Vendor Information:

| | |
|-----------------------------|--|
| Company Name | |
| Address | |
| Telephone | |
| E-Mail | |
| Representative (print name) | |
| Signature of Representative | |
| Date Submitted | |

ROCKDALE COUNTY BOARD OF COMMISSIONERS
NON-COLLUSION AFFIDAVIT OF PRIME BIDDER

State of _____)

County of _____)

_____, being first duly sworn, deposes and says that:

(1) He is _____ (owner, partner officer, representative, or

agent) of _____, the Bidder that has submitted the attached RFP;

(2) He is fully informed respecting the preparation and contents of the attached Bid and of all pertinent circumstances respecting such Bid;

(3) Such RFP is genuine and is not a collusive or sham Bid;

(4) Neither the said Bidder nor any of its officers, partners, owners, agents, representatives, employees or parties in interest, including this affidavit, has in any way colluded, conspired, connived or agreed, directly or indirectly with any other Vendor, firm or person to submit a collusive or sham Bid in connection with the Contract for which the attached Bid has been submitted or refrain from proposing in connection with such Contract, or has in any manner, directly or indirectly, sought by agreement or collusion or communication or conference with any other Vendor, firm or person to fix the price or prices in the attached Bid or of any other Vendor, or to fix any overhead, profit or cost element of the proposing price or the proposing price of any other Vendor, or to secure through any collusion, conspiracy, connivance or unlawful agreement any advantage against Rockdale County or any person interested in the proposed Contract; and

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

(Signed)

(Title)

Subscribed and Sworn to before me this _____ day of _____, 20

Name _____

Title _____

My commission expires (Date)

ROCKDALE COUNTY BOARD OF COMMISSIONERS
NON-COLLUSION AFFIDAVIT OF SUB-CONTRACTOR

State of _____)

County of _____)

_____, being first duly sworn, deposes and says that:

(1) He/She is _____ (owner, partner officer, representative, or agent) of _____, the sub-contractor that has submitted the attached Bid;

(2) He is fully informed respecting the preparation and contents of the attached Bid and of all pertinent circumstances respecting such Bid;

(3) Such Bid is genuine and is not a collusive or sham Bid;

(4) Neither the said sub-contractor nor any of its officers, partners, owners, agents, representatives, employees or parties in interest, including this affidavit, has in any way colluded, conspired, connived or agreed, directly or indirectly with any other Vendor, firm or person to submit a collusive or sham Bid in connection with the Contract for which the attached Bid has been submitted or refrain from proposing in connection with such Contract, or has in any manner, directly or indirectly, sought by agreement or collusion or communication or conference with any other Vendor, firm or person to fix the price or prices in the attached Bid or of any other Vendor, or to fix any overhead, profit or cost element of the proposing price or the proposing price of any other Vendor, or to secure through any collusion, conspiracy, connivance or unlawful agreement any advantage against Rockdale County or any person interested in the proposed Contract; and

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

(Signed)

(Title)

Subscribed and Sworn to before me this _____ day of _____, 20 ____.

Name _____

Title _____

My commission expires (Date)

Contractor Affidavit under O.C.G.A. §13-10-91(b)(1)

By executing this affidavit, the undersigned contractor verifies its compliance with O.C.G.A. §13-10-91, stating affirmatively that the individual, firm or corporation which is engaged in the physical performance of services on behalf of (name of public employer) has registered with, is authorized to use and uses the federal work authorization program commonly known as E-Verify, or any subsequent replacement program, in accordance with the applicable provisions and deadlines established in O.C.G.A. §13-10-91. Furthermore, the undersigned contractor will continue to use the federal work authorization program throughout the contract period and the undersigned contractor will contract for the physical performance of services in satisfaction of such contract only with subcontractors who present an affidavit to the contractor with the information required by O.C.G.A. §13-10-91(b). Contractor hereby attests that its federal work authorization user identification number and date of authorization are as follows:

Federal Work Authorization User Identification Number

Date of Authorization

Name of Contractor

Name of Project

Name of Public Employer

I hereby declare under penalty of perjury that the foregoing is true and correct.

Executed on _____, ____, 201__ in _____(city), _____(state).

Signature of Authorized Officer or Agent

Printed Name and Title of Authorized Officer or Agent

SUBSCRIBED AND SWORN BEFORE ME
ON THIS THE _____ DAY OF _____, 2017.

NOTARY PUBLIC
My Commission Expires:

Subcontractor Affidavit under O.C.G.A. § 13-10-91(b)(3)

By executing this affidavit, the undersigned subcontractor verifies its compliance with O.C.G.A. § 13-10-91, stating affirmatively that the individual, firm or corporation which is engaged in the physical performance of services under a contract with (name of contractor) on behalf of (name of public employer) has registered with, is authorized to use and uses the federal work authorization program commonly known as E-Verify, or any subsequent replacement program, in accordance with the applicable provisions and deadlines established in O.C.G.A. § 13-10-91. Furthermore, the undersigned subcontractor will continue to use the federal work authorization program throughout the contract period and the undersigned subcontractor will contract for the physical performance of services in satisfaction of such contract only with sub-subcontractors who present an affidavit to the subcontractor with the information required by O.C.G.A. § 13-10-91(b). Additionally, the undersigned subcontractor will forward notice of the receipt of an affidavit from a sub-subcontractor to the contractor within five business days of receipt. If the undersigned subcontractor receives notice that a sub-subcontractor has received an affidavit from any other contracted sub-subcontractor, the undersigned subcontractor must forward, within five business days of receipt, a copy of the notice to the contractor. Subcontractor hereby attests that its federal work authorization user identification number and date of authorization are as follows:

Federal Work Authorization User Identification Number

Date of Authorization

Name of Subcontractor

Name of Project

Name of Public Employer

I hereby declare under penalty of perjury that the foregoing is true and correct.

Executed on _____, ____, 201__ in _____(city), _____(state).

Signature of Authorized Officer or Agent

Printed Name and Title of Authorized Officer or Agent

SUBSCRIBED AND SWORN BEFORE ME
ON THIS THE _____ DAY OF _____, 2017.

NOTARY PUBLIC
My Commission Expires:

Sub-subcontractor Affidavit under O.C.G.A. §13-10-91(b)(4)

By executing this affidavit, the undersigned sub-subcontractor verifies it compliance with O.C.G.A. §13-10-91, stating affirmatively that the individual, firm or corporation which is engaged in the physical performance of services under a contract for (name of subcontractor or sub-subcontractor with whom such sub-subcontractor has privity of contract) and (name of contractor) on behalf of (name of public employer) has registered with, is authorized to use and uses the federal work authorization program commonly known as E-Verify, or any subsequent replacement program, in accordance with the applicable provisions and deadlines established in O.C.G.A. §13-10-91. Furthermore, the undersigned sub-subcontractor will continue to use the federal work authorization program throughout the contract period and the undersigned sub-subcontractor will contract for the physical performance of services in satisfaction of such contract only with sub-subcontractors who present an affidavit to the sub-subcontractor with the information required by O.C.G.A. §13-10-91(b). The undersigned sub-subcontractor shall submit, at the time of such contract, this affidavit to (name of subcontractor or sub-subcontractor with whom such sub-subcontractor has privity of contract). Additionally, the undersigned sub-subcontractor will forward notice of the receipt of any affidavit from a sub-subcontractor to (name of subcontractor or sub-subcontractor with whom such sub-subcontractor has privity of contract). Sub-subcontractors hereby attests that its federal work authorization user identification number and date of authorization are as follows:

Federal Work Authorization User Identification Number

Date of Authorization

Name of Sub-Subcontractor

Name of Project

Name of Public Employer

I hereby declare under penalty of perjury that the foregoing is true and correct.

Executed on _____, ____, 201__ in _____(city), _____(state).

Signature of Authorized Officer or Agent

Printed Name and Title of Authorized Officer or Agent

SUBSCRIBED AND SWORN BEFORE ME
ON THIS THE _____ DAY OF _____, 2017.

NOTARY PUBLIC
My Commission Expires: _____

**Affidavit Verifying Status
for County Public Benefit Application**

By executing this affidavit under oath, as an applicant for the award of a contract with Rockdale, County Georgia, I _____. [Name of natural person applying on behalf of individual, business, corporation, partnership, or other private entity] am stating the following as required by O.C.G.A. Section 50-36-1:

1) _____ I am a United States citizen

OR

2) _____ I am a legal permanent resident 18 years of age or older or I am an otherwise qualified alien or non-immigrant under the Federal Immigration and Nationality Act 18 years of age or older and lawfully present in the United States.*

In making the above representation under oath, I understand that any person who knowingly and willfully makes a false, fictitious, or fraudulent statement or representation in an affidavit shall be guilty of a violation of Code Section 16-10-20 of the Official Code of Georgia.

Date

Signature of Applicant:

Printed Name:

*

Alien Registration number for non-citizens

SUBSCRIBED AND SWORN
BEFORE ME ON THIS THE
_____ DAY OF _____, 2017.

Notary Public
My commission Expires:

***Note:** O.C.G.A. § 50-36-1(e)(2) requires that aliens under the federal Immigration and Nationality Act, Title 8 U.S.C., as amended, provide their registration number. Because legal permanent residents are included in the federal definition of "alien", legal permanent residents must also provide their alien registration number. Qualified aliens that do not have an alien registration number may supply another identifying number below.

**CONTRACTOR'S QUALIFICATION STATEMENT AND
QUESTIONNAIRE**

NAME OF PROPOSED CONTRACTOR:

I. INSTRUCTIONS

- A. All questions are to be answered in full. If copies of other documents will answer the question completely, they may be attached and clearly labeled. If additional space is needed, additional pages may be attached and clearly labeled.
- B. The owner, Rockdale County, Georgia, its agents and representatives, shall be entitled to contact each and every reference listed in response to this questionnaire, and each entity referenced in any response to any question in this questionnaire. By completing this questionnaire, the contractor expressly agrees that any information concerning the contractor in possession of said entities and references may be made available to the owner.
- C. Only complete and accurate information shall be provided by the contractor. The contractor hereby warrants that, to the best of its knowledge and belief, the responses contained herein are true, accurate, and complete. The contractor also acknowledges that the owner is relying on the truth and accuracy of the responses contained herein. If it is later discovered that any material information given in response to a question was provided by the contractor, knowing it was false, it shall constitute grounds for immediate termination or rescission by the owner of any subsequent agreement between the owner and the contractor. The owner shall also have and retain any other remedies provided by law.
- D. The completed form shall be submitted with contractor's proposals.
- E. This form, its completion by the contractor, and its use by the contractor, and its use by the owner, shall not give rise to any liability on the part of the owner to the contractor or any third party or person.

II. GENERAL BACKGROUND

- A. Current address of contractor: _____

- B. Previous Name or address of contractor: _____

- C. Current president or CEO and years in position: _____
- D. Number of permanent employees: _____
- E. Name and address of affiliated companies: _____

III. FINANCIAL STATUS

A. Please attach financial statements for the past three years for which they are complete. If such statements are not available, please furnish the following information:

1. LAST COMPLETE FISCAL YEAR:

- A. Revenues (Gross) _____
- B. Expenditures (Gross) _____
- C. Overhead & Admin (Gross) _____
- D. Profit (Gross) _____

2. YEAR PRIOR TO "1" ABOVE:

- A. Revenues (Gross) _____
- B. Expenditures (Gross) _____
- C. Overhead & Admin (Gross) _____
- D. Profit (Gross) _____

3. YEAR PRIOR TO "2" ABOVE:

- A. Revenues (Gross) _____
- B. Expenditures (Gross) _____
- C. Overhead & Admin (Gross) _____
- D. Profit (Gross) _____

B. BANKRUPTCIES

1. Has the Contractor, or any of its parents or subsidiaries, ever had a Bankruptcy Petition filed in its name, voluntarily or involuntarily? (If yes, specify date, circumstances, and resolution).

2. Has any Majority Shareholder ever had a Bankruptcy Petition filed in his/her name, voluntarily or involuntarily? (If yes, specify date, circumstances, and resolution).

C. BONDING

1. What is the Contractor's current bonding capacity?

2. What is the value of the Contractor's work currently under contract? _____

IV. COMPANY EXPERIENCE – SIMILAR PROJECTS

- A. List three projects of reasonably similar nature, scope, and duration performed by your company in the last five years, specifying, where possible, the name and last known address of each owner of those projects:

Project #1:

Name and Address:

Date of Project:

Type of Project:

Contract Price:

Owner contact info:

Architect/Engineer contact info:
(if applicable)

Project #2:

Name and Address:

Date of Project:

Type of Project:

Contract Price:

Owner contact info:

Architect/Engineer contact info:
(if applicable)

Project #3:

Name and Address:

Date of Project:

Type of Project:

Contract Price:

Owner contact info:

Architect/Engineer contact info:
(if applicable)

V ARBITRATIONS, LITIGATIONS, AND OTHER PROCEEDINGS

Has your company been involved in any construction arbitration demands filed by, or against, you in the last five years?

Has your company been involved in any construction-related lawsuits (other than labor or personal injury litigation) filed by, or against, you in the last five years?

Has your company been involved in any lawsuits, proceedings, or hearings initiated by the National Labor Relations Board or similar state agency in the past seven years?

Has your company been involved in any lawsuits, proceedings, or hearings initiated by the Occupational Safety and Health Administration concerning the project safety practices of the Contractor in the last seven years?

Has your company be involved in any lawsuits, proceedings, or hearings initiated by the Internal Revenue Service, or any state revenue department, concerning the tax liability of the Contractor (other than audits) in the last seven years?

Have any criminal proceedings or investigations been brought against the Contractor in the last ten years?

If you answered yes to any of the questions above, please identify the nature of the claim, the amount in dispute, the parties, and the ultimate resolution of the proceeding (attach documentation if needed):

VI COMMENTS

Please list any additional information that you believe would assist the Owner in evaluating the possibility of using the Contractor on this Project. You may attach such additional information as an Exhibit to this Statement and Questionnaire.

I certify to the Owner that the information and responses provided on this Questionnaire are true, accurate and complete. The Owner, or its designated representative, may contact any entity or reference listed in this Questionnaire. Each entity or reference may make any information concerning the Contractor available to the Owner, or its designated representative.

Contractor:

Signature

Date

Title

Sworn to and subscribed before me
This _____ day of _____

Signature

Notary Public

My Commission Expires:

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**ATTACHMENT:
FUELING STATION FOR ROCKDALE COUNTY DRAWINGS
SHEETS C-1 THROUGH C-19 AND E-1 THROUGH E-11**

SECTION 00100
Instructions to Bidders

1.01 CONTRACT DOCUMENTS

- A. The Contract Documents include the Contract Agreement, Invitation to Bid, Instructions to Bidders, Contractor's Bid (including all documentation accompanying the Bid and any post-Bid documentation required by the Owner prior to the Notice of Award), Bonds, all Special Conditions, General Conditions, Supplementary Conditions, Specifications, Drawings, and addenda, together with written amendments, change orders, field orders and the PM/CM's written interpretations and clarifications issued in accordance with the General Conditions on or after the date of the Contract Agreement.
- B. Shop drawing submittals reviewed in accordance with the General Conditions, geotechnical investigations and soils reports, and drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the site, are not Contract Documents.
- C. The Contract Documents shall define and describe the complete work to which they relate.

1.02 DEFINITIONS

- A. Where the following words or the pronouns used in their stead occur herein, they shall have the following meaning:
 - 1. "Owner" shall mean Rockdale County, Georgia, party of the first part to the Contract Agreement, or its authorized and legal representatives.
 - 2. "Program Manager/Construction Manager" shall mean Rockdale Water Resources-Engineering Dept., hereinafter also designated as "PM/CM".
 - 3. "Designer" shall mean RINDT-MCDUFF ASSOCIATES and/or EDEC .
 - 4. "Contractor" shall mean the party of the second part to the Contract Agreement or the authorized and legal representative of such party.
 - 5. "Work" and "Project" shall mean the entire completed construction required to be furnished under the Contract Documents.
 - 6. "Contract Time" shall mean consecutive calendar days as provided in the Contract Document for completion of the Project, to be computed from the date of the Notice to Proceed.

7. "Liquidated Damages" shall mean the sum of \$250.00 which the Bidder agrees to pay for each consecutive calendar day beyond the Contract Time required to complete the Project. Liquidated Damages will end upon written notification from the Owner of final acceptance of the Project.
8. "Products" shall mean materials or equipment permanently incorporated into the Project.
9. "Provide" shall mean to furnish and install.
10. "Balanced Bid" shall mean the total amount bid reasonably reflects the value of that item with regard to the entire job considering the prevailing cost of labor, material and equipment in the relevant market. A Bid is unbalanced when, in the opinion of the Owner, total amounts bid on any of the listed items do not reasonably reflect such values.
11. "Substantial completion of the work", solely for the purposes of Official Code of Georgia Annotated (O.C.G.A.) §13-10-20(c), shall be defined as occurring on the date of the written notification from the PM/CM that the Project is ready for final inspection, as specified in Section 00800, Article 30, paragraph (g).
12. "Satisfactorily completed", solely for the purposes of O.C.G.A. §13-10-20(b), shall mean the completion of all work, certifications and affidavits as specified in Section 00800, Article 30, paragraph (g).

1.03 PREPARATION AND EXECUTION OF BID

- A. Each Bid must be prepared to represent that it is based solely upon the materials and equipment specified in the Contract Documents.
- B. Each Bid must be submitted on the Bid forms which are attached to the Contract Documents. All blank spaces for Bid prices, both words and figures, must be filled in, in ink. In case of discrepancy, the amount shown in words will govern. All required enclosed certifications must be fully completed and executed when submitted.
- C. Each Bid must be submitted in a sealed envelope, addressed to the Owner. Each sealed envelope containing a Bid must be plainly marked on the outside as, "Bid for Rockdale County, Georgia-Fueling Station for Rockdale Water Resources".

- D. The Bidder shall provide on the outside of the sealed envelope the following information; otherwise the Bid will not be opened and will be returned to the Bidder:
1. Bidder's Name
 2. Georgia Utility Contractor License Number
 3. BID# 17-39 Fueling Station for Rockdale Water Resources
- E. If forwarded by mail, the sealed envelope containing the Bid must be enclosed in another envelope addressed to the Rockdale County Procurement Division, 958 Milstead Avenue, P.O. Box 289, Conyers, GA 30012, Attn: Meagan Porch.
- F. Any and all Bids not meeting the aforementioned criteria for Bid submittal, may be declared non-responsive, and subsequently returned to the Bidder.
- G. The Contractor, in signing a Bid on the whole or any portion of the Project, shall conform to the following requirements:
1. Bids which are not signed by individuals making them shall have attached thereto a power of attorney evidencing authority to sign the Bid in the name of the person for whom it is signed.
 2. Bids which are signed for a partnership shall be signed by all of the partners or by an attorney-in-fact. If a Bid is signed by an attorney-in-fact, there should be attached to the Bid a power of attorney executed by the partners evidencing authority to sign the Bid.
 3. Bids which are signed for a corporation shall have the correct corporate name thereof and the signature of the president or other authorized officer of the corporation manually written below the corporate name following the wording "By _____". Corporation seal shall also be affixed to the Bid.
 4. The Bidder shall complete, execute and submit the following documents, which are attached to these Contract Documents:
 - a. The Bid
 - b. The Bid Bond
 - c. Corporate Certificate, if the Bidder is a corporation
 - d. Non-Collusion Affidavit of Prime Bidder
 - e. Non-Collusion Affidavit of Sub-Contractor
 - f. Contractor's Affidavit
 - g. Sub-Contractor's Affidavit
 - h. Affidavit Verifying Status for County Public Benefit Application
 - i. Contractor's License Certification

1.04 METHOD OF BIDDING

Lump sum price for each of the several items in the Bid of each Bidder shall include its pro rata share of overhead and profit so that the sum of the products, obtained by multiplying the quantity shown for each item by the unit price, represents the total Bid. Any Bid not conforming to this requirement may be rejected. Additionally, Unbalanced Bids will be subject to rejection. Conditional Bids will not be accepted. The special attention of all Bidders is called to this provision, for should conditions make it necessary to revise the quantities, no limit will be fixed for such increased or decreased quantities nor extra compensation allowed.

1.05 ADDENDA AND INTERPRETATIONS

- A. No interpretation of the meaning of the Drawings, Specifications or other pre-bid documents will be made to any Bidder orally.
- B. Every request for such interpretation should be made in writing and addressed to Rockdale County Department of Finance, 958 Milstead Avenue, 3rd Floor, Room #300, P.O. Box 289, Conyers, GA 30012, Attn: Meagan Porch, Fax 770-278-8910 and to be given consideration must be received at least fifteen (15) business days prior to the date fixed for opening Bids or as specified in the Invitation to Bid.
- C. Any and all such interpretations and any supplemental instructions will be in the form of written Addenda to the Contract Documents which, if issued, will be posted on Rockdale County's website www.rockdalecountyga.gov, Bids, RFPs and Announcements/Current Bids. Any discussions or documents will be considered non-binding unless incorporated and issued in an addendum.
- D. Failure of Bidders to receive or acknowledge any Addendum shall not relieve them of any obligation under the Bid. All Addenda shall become part of the Contract Documents.

1.06 BID MODIFICATIONS

Bidders may modify their Bid by Facsimile Transmittal at any time prior to the scheduled closing time for receipt of Bids, provided such Facsimile Transmittal is received by the Owner prior to the closing time, and provided further, the Owner is satisfied that a written confirmation of the Facsimile Transmittal modification over the signature of the Bidder was mailed prior to the closing time. The Facsimile Transmittal should not reveal the Bid price but should provide the addition or subtraction or other modification so that the final prices or terms will not be known by the Owner until the sealed Bid is opened. If written confirmation is not received within two business days from the closing time, no consideration will be given to the Facsimile Transmittal.

1.07 BID SECURITY

- A. Each Bid must be accompanied by a Bid Bond, prepared on the form of Bid Bond included herein or a Surety Company's Standard Bid Bond, duly executed by the Bidder as principal and having as surety thereon a surety company authorized to do business in the State of Georgia and listed in the latest issue of U.S. Treasury Circular 570, in the amount of 5 percent of the Bid. Attorneys-in-fact who sign Bonds must file with each Bond a currently dated copy of their power of attorney.
- B. If for any reason whatsoever the successful Bidder withdraws from the competition after opening of the Bids, or if Bidder refuses to execute and deliver the Contract and Bonds required within 10 days after receipt of notice of the acceptance of Bid, the Owner may proceed to enforce the provisions of the Bid Bond.

1.08 RECEIPT AND OPENING OF BIDS

The Owner may consider a minor irregularity any Bid not prepared and submitted in accordance with the provisions hereof and may waive any minor irregularities or reject any and all Bids. Any Bid may be withdrawn prior to the above scheduled time for the opening of Bids or authorized postponement thereof. Any Bid received after the time and date specified shall not be opened.

1.09 SUBCONTRACTS

The Bidder is specifically advised that any person, firm or other party to whom it is proposed to award a subcontract under this Contract must be acceptable to the Owner.

1.10 CONDITIONS OF THE PROJECT

- A. Each Bidder must be informed fully of the conditions relating to the construction of the Project and the employment of labor thereon. Failure to do so will not relieve a successful Bidder of the obligation to furnish all material and labor necessary to carry out the provisions of the Contract. Insofar as possible, the Contractor, in carrying out the work, must employ such methods or means as will not cause any interruption of or interference with the work of any other Contractor.
- B. The Bidder is advised to examine the location of the Project and to be informed fully as to its conditions; the conformation of the ground; the character, quality and quantity of the products needed preliminary to and during the prosecution of the work; the general and local conditions and all other matters which can in any way affect the work to be done under the Contract. Failure to examine the site will not relieve the successful Bidder of an obligation to furnish all products and labor necessary to carry out the provisions of the Contract.

- C. The Bidder shall notify the Owner of the date and time Bidder proposes to examine the location of the Project. The Bidder shall confine examination to the specific areas designated for the proposed construction, including easements and public right-of-ways. If, due to some unforeseen reason, the Owner's proceedings for obtaining the proposed construction site (including easements), have not been completed, the Bidder may enter the site only with the express consent of the property owner. The Bidder is solely responsible for any damages caused by examination of the site.

1.11 NOTICE OF SPECIAL CONDITIONS

If any special federal, state, county or city laws, municipal ordinances, and the rules and regulations of any authorities having jurisdiction over construction of the Project, enclosed, herein referred to, or applicable by law to the Project, conflict with requirements of the Contract Documents, then the most stringent requirement prevails.

1.12 OBLIGATION OF BIDDER

By submission of a Bid, each Bidder warrants that Bidder has inspected the site and has read and is thoroughly familiar with the Contract Documents (including all addenda). The failure or omission of any Bidder to examine any form, instrument or document shall in no way relieve any Bidder from any obligation in respect to the Bid.

1.13 METHOD OF AWARD

- A. The contract will be awarded to the responsive, responsible Bidder submitting the Bid which is in the best interest of the Owner as determined by the Owner.
- B. The Bidder to whom the award is made will be notified. The Owner reserves the right to reject any and all Bids and to waive any minor irregularities in Bids received whenever such rejection or waiver is in the Owner's interest.
- C. A responsive Bidder who submits a Bid in the proper form without qualification or intent other than as called for in the Contract Documents, and who binds himself or herself on behalf of the Bid to the Owner with the proper Bid Bond completed and attached, and who properly completes all forms required to be completed and submitted at the time of the Bidding. The Bidder shall furnish all data required by these Contract Documents. Failure to do so may result in the Bid being declared non-responsive.
- D. Acceptance of the Bidder's documentation and substantiation or Contract Award by the Owner does not relieve the Bidder of liability for non-performance as covered in the Contract Documents, nor will the Bidder be exempted from any other legal recourse the Owner may elect to pursue. **END OF SECTION**

SECTION 00300
Bid

TO: ROCKDALE COUNTY, GEORGIA

FROM: _____
(Bidder's Name)

FOR: ROCKDALE COUNTY, GEORGIA
FUELING STATION FOR ROCKDALE WATER RESOURCES

Submitted: _____, 2017

1. **DOCUMENTS DEEMED PART OF THE CONTRACT:** The Notice of Invitation to Bid, the Invitation to Bidders, general and supplemental terms and conditions, specifications and instructions to bidders, Contract Documents, Technical Specifications, Drawings, special conditions, proposals, attachments, and addenda, if any, will be part of the final contract.

2. In submitting this Bid, Bidder represents that:

A. Bidder has examined the Bidding Documents and the following Addenda, receipt of which is hereby acknowledged:

Addendum No. 1, dated: _____

Addendum No. 2, dated: _____

Addendum No. 3, dated: _____

Addendum No. 4, dated: _____

Addendum No. 5, dated: _____

B. Bidder has familiarized itself with the nature and extent of the Contract Documents, work, site, locality, and all local conditions and Laws and Regulations that in any manner may affect cost, progress, performance or furnishing of the Work.

C. Bidder has reviewed and checked all information and data shown or indicated on the Contract Documents. Bidder has correlated the results of all required, examinations, investigations, explorations, test, reports and studies with the terms and conditions of the Contract Documents

D. The Bid is genuine and not made in the interest of or on behalf of any

undisclosed person, firm or corporation; Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid; and Bidder has not sought by collusion to obtain for itself any advantage over any other Bidder or over Owner.

3. The Bidder proposes and agrees, if this Bid is accepted, to contract with Rockdale County, Georgia in the form of Contract Agreement specified, to complete all Work in full and complete accordance with the reasonably intended requirements of the Contract Documents to the full and entire satisfaction of Rockdale County, Georgia with a definite understanding that no money will be allowed for extra work except as set forth in the Contract Documents, for the following price:

Bidder will complete the Work in accordance with the Contract Documents for the Lump Sum bid of \$ _____

10% CONTINGENCY \$ _____

TOTAL AMOUNT \$ _____

(Amount written out) _____

4. The Bidder agrees hereby to commence Work under this Contract, with adequate personnel and equipment, on a date to be specified in a written order of the Engineer, and to fully complete all Work under this Contract within 240 consecutive calendar days from and including said date. Bidder further agrees to pay as liquidated damages, the sum of \$250.00 for each consecutive calendar day thereafter required to comp.
5. The Bidder furthermore agrees that, in the case of a failure to execute the Contract Agreement and Bonds within ten days after receipt of conformed Contract Documents for execution, the attached Bid Bond accompanying this Bid and the monies payable thereon shall be paid into the funds of the Owner as liquidated damages for such failure.

Attached hereto is a Bid Bond for the sum of _____ Dollars (\$ _____) according to the conditions of "Instructions to Bidders" and provisions thereof.

BIDDER: _____

By: _____

Name: _____

(Print or Type)

Title: _____

Address: _____

Phone: _____

Attest: _____

Name: _____

(Print or Type)

Title: _____

(SEAL)

Note: Attest for a corporation must be by the corporate secretary; for a partnership by another partner; for an individual by a notary. If signed by others, authority for signature shall be attached.

The full names and addresses of persons or parties interested in the foregoing Bid, as principals are as follows:

| <u>Name</u> | <u>Address</u> |
|-------------|----------------|
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |

END OF SECTION 00300

SECTION 00410
Bid Bond

STATE OF GEORGIA

COUNTY OF ROCKDALE

KNOW ALL MEN BY THESE PRESENTS, that we, _____, as Principal, and _____, as Surety, are held and firmly bound unto Rockdale County, Georgia in the sum of _____ Dollars (\$_____) lawful money of the United States of America, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, personal representatives, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal has submitted to the Owner a Bid for construction of "Fueling Station for Rockdale Water Resources" in Rockdale County, Georgia.

NOW THEREFORE, the conditions of this obligation are such that if the Bid be accepted, the Principal shall, within ten days after receipt of conformed Contract Documents, execute a Contract in accordance with the Bid upon the terms, conditions and prices set forth therein, and in the form and manner required by the Contract Documents and execute sufficient and satisfactory separate Performance and Payment Bonds payable to the Owner, each in an amount of 100 percent of the total Contract Price, in form satisfactory to the Owner, then this obligation shall be void; otherwise, it shall be and remain in full force and effect in law; and the Surety shall, upon failure of the Principal to comply with any or all of the foregoing requirements within the time specified above, immediately pay to the aforesaid Owner, upon demand, the amount hereof in good and lawful money of the United States of America, not as a penalty, but as liquidated damages.

This bond is given pursuant to and in accordance with the provisions of O.C.G.A. Section 36-10-1 et. seq. and all the provisions of the law referring to this character of bond as set forth in said Sections or as may be hereinafter enacted and these are hereby made a part hereof to the same extent as if set out herein in full.

IN WITNESS WHEREOF, the said Principal has hereunder affixed its signature and seal, and said Surety has hereunto caused to be affixed its corporate signature and seal, by its duly authorized officers, on this _____ day of _____, 2017.

CONTRACTOR - PRINCIPAL: _

By:

Name:

(Print or Type)

Address:

Phone:

Attest:

Name:

(Print or Type)

Title:

(SEAL)

Note: Attest for a corporation must be by the corporate secretary; for a partnership by another partner; for an individual by a notary.

SURETY: _

By:

Name:

(Print or Type)

Title:

Phone:

Attest:

Name:

(Print or Type)

Title:

(SEAL)

Note: Surety companies executing bonds must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in the state where the Project is located.

Resident agent in state in which Work is to be performed:

Name: _____

Address: _____

Phone: _____

END OF SECTION

**SECTION 00422
Corporate Certificate**

I, _____, certify that I am the Secretary of the Corporation named as Contractor in the foregoing Bid; that _____, who signed said Bid on behalf of the Contractor was then _____ of said Corporation; that said Bid was duly signed for and on behalf of said Corporation by authority of its Board of Directors, and is within the scope of its corporate powers; that said Corporation is organized under the laws of the State of _____.

This _____ day of _____, 2017.

(Corporate Secretary) _

(SEAL)

END OF SECTION

SECTION 00425
Contractor's License Certification

Contractor's Name: _____

Georgia Utility Contractor's License Number: _____

Expiration Date of License: _____

I certify that the above information is true and correct and that the classification noted is applicable to the Bid for this Project.

Signed:

Printed:

Date:

END OF SECTION

**SECTION 00500
CONTRACT AGREEMENT**

This Contract Agreement made and entered into on the _____ day of _____, 2017 by and between Rockdale County, Georgia, party of the first part (hereinafter called the "Owner"), and _____, party of the second part, (hereinafter called the "Contractor"),

WITNESSETH:

That the Contractor, for the consideration hereinafter fully set out, hereby agrees with the Owner as follows:

That the Contractor will furnish all products, tools, construction equipment, skill and labor of every description necessary to carry out and to complete the construction of Fueling Station for Rockdale Water Resources and will complete Work in strict conformity with the Drawings and the Specifications, together with the foregoing Bid made by the Contractor, the Invitation to Bid, Instructions to Bidders, General and Supplementary Conditions, Special Conditions, Performance and Payment Bonds and all Addenda hereto incorporated (if applicable) which form essential parts of this Contract Agreement, as if fully contained herein.

That the Contractor shall commence the Work to be performed under this Contract Agreement on a date to be specified in a written Notice to Proceed and shall fully complete all work hereunder within 240 days, in accordance with Contractor's attached schedule.

Time is of the essence and is an essential element of this Contract, and the Contractor shall pay to the Owner, not as a penalty, but as liquidated damages, the sum of \$250.00 for each calendar day that there is default of completing the Work within the time limit named herein. If the Contractor abandons the Contract before commencement of the Work or defaults in completion of all the Work after commencement thereof, the Contractor shall be liable for such liquidated damages. These fixed liquidated damages are not established as a penalty but are calculated and agreed upon in advance by the Owner and the Contractor due to the uncertainty and impossibility of making a determination as to the actual and consequential damages incurred by the Owner and the general public of Rockdale County, Georgia as a result of the failure on the part of the Contractor to complete the Work on time. Such liquidated damages referred to herein are intended to be and are cumulative and shall be in addition to every other remedy now or hereafter enforceable at law, in equity, by statute, or under the Contract.

The Owner hereby agrees to pay to the Contractor for the faithful performance of this Contract Agreement, subject to additions and deductions as provided in the Specifications and Bid, in lawful money of the United States a sum of \$ _____ which sum shall also pay for loss or damage arising out of the nature of the Work aforesaid, or from the action of the elements, or

from unforeseen obstructions or difficulties encountered in the prosecution of the Work, and for all expenses incurred by, or in consequence of the Work, its suspension or discontinuance and for well and faithfully completing the Work and the whole thereof, as herein provided, and for replacing defective work or products for a period of one year after completion.

The Owner shall make monthly partial payments to the Contractor in accordance with the provisions of the Contract Documents.

Final payment on account of this Contract Agreement shall be made within 30 days after the completion by the Contractor of all work covered by this Contract Agreement and Final Acceptance of such Work by the Owner, in accordance with the provisions of the Contract Documents.

It is further mutually agreed between the parties hereto that if, at any time after the execution of this Contract Agreement and the surety bonds hereto attached for its faithful performance, the Owner shall deem the surety or sureties upon such bond to be unsatisfactory, or if, for any reason, such bond ceases to be adequate to cover the performance of the Work, the Contractor shall, at no additional expense to Owner, within five days after the receipt of notice from the Owner to do so, furnish an additional bond or bonds in such form and amount, and with such surety or sureties as shall be satisfactory to the Owner. In such event, no further payment to the Contractor shall be deemed to be due under this Contract Agreement until such new or additional security for the faithful performance of the Work shall be furnished in manner and form satisfactory to the Owner.

IN WITNESS WHEREOF, the parties hereto have executed this Contract Agreement under their respective seals on the day and date first above written in two counterparts each of which shall, without proof or accounting for the other counterparts, be deemed an original Contract.

APPROVED AS TO FORM BEFORE EXECUTION

By: _____

Attorney for the Owner

OWNER: ROCKDALE COUNTY, GEORGIA

By: _____

Name: _____

(Please Print)

Title: _____

WITNESS:

Name: _____
(Please Print)

(SEAL)

Title: _____

SUPPLIER:

By:

Name: _____
(Please Print)

Title: _____

ATTEST:

Name: _____
(Please Print)

(SEAL)

Title: _____

Note: If the Supplier is a corporation, the Contract Agreement shall be signed by the president or vice president, attested by the secretary and the corporate seal affixed. If the Supplier is a partnership, the Contract Agreement shall be signed in the partnership name by one of the partners, with indication that he or she is a general partner.

END OF SECTION

SECTION 00610
Performance Bond

STATE OF GEORGIA BOND NO. _____

COUNTY OF ROCKDALE

KNOW ALL MEN BY THESE PRESENTS, that we, _____,
as Principal, (hereinafter known as Contractor), and we, _____, as Surety,
do hereby acknowledge ourselves indebted and firmly bound and held unto Rockdale County,
Georgia for use and benefit of those entitled thereto, in the sum of
Dollars (\$ _____) for the payment of which will and truly to be made, in lawful
money of the United States of America, we do hereby bind ourselves, successors, assigns, heirs
and personal representatives.

BUT THE CONDITION OF THE FOREGOING OBLIGATION OR BOND IS THIS:

WHEREAS, the Owner has engaged the said Contractor for the sum of
Dollars (\$ _____) for construction of Rockdale County, Georgia-Fueling Station
for Rockdale Water Resources as more fully appears in a written Contract Agreement bearing
the date of _____, 2017, a copy of which Contract Agreement is by reference
hereby made a part hereof.

NOW, THEREFORE, if said Contractor shall fully and faithfully perform all the undertakings
and obligations under the said Contract Agreement hereinbefore referred to and shall fully
indemnify and save harmless the said Owner from all costs and damage whatsoever which it
may suffer by reason of any failure on the part of said Contractor to do so, and shall fully
reimburse and repay the said Owner any and all outlay and expense which it may incur in
making good any such default, and shall correct all defects in products and workmanship
appearing within one year of the completion of all Work, then this obligation shall be null and
void, otherwise, it shall remain in full force and effect.

And for value received it is hereby stipulated and agreed that no change, extension of time,
alteration or addition to the terms of the said Contract Agreement, or in the Work to be
performed there under, or the Specifications accompanying the same shall in any wise affect the
obligations under this Contract Agreement or Bond, and notice is hereby waived of any such
damage, extension of time, alteration or addition to the terms of the Contract Agreement or to
the Work or to the Contract Documents.

This bond is given pursuant to and in accordance with the provisions of O.C.G.A. Section
36-10-1 et. seq. and 36-82-100 et. seq. and all the provisions of the law referring to this
character of Bond as set forth in said Sections or as may be hereinafter enacted, and these are
hereby made a part hereof to the same extent as if set out herein in full.

IN WITNESS WHEREOF, the said Contractor has hereunder affixed its signature and seal, and said Surety has hereunto caused to be affixed its corporate signature and seal, by its duly authorized officers, on this ____ day of _____, 2017, executed in six counterparts.

CONTRACTOR - PRINCIPAL: ___

By: _____

Name:

(Please Print)

Title:

ATTEST:

Name:

(Please Print)

(SEAL)

Title:

Note: Attestation for a corporation must be by the corporate secretary; for a partnership by another partner; for an individual by a notary.

SURETY: _

By:

Name:

(Please Print)

Title:

ATTEST:

Name:

(Please Print)

(SEAL)

Title:

Note: Surety companies executing Bonds must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in the state where the Project is located.

END OF SECTION

**SECTION 00620
Payment Bond**

STATE OF GEORGIA

BOND NO.

COUNTY OF ROCKDALE

KNOW ALL MEN BY THESE PRESENTS, that we, _____, as Principal, (hereinafter known as Contractor), and we, _____, as Surety, are held and firmly bound unto Rockdale County, Georgia (hereinafter called the Owner), in the penal sum of _____ Dollars (\$) lawful money of the United States of America, for the payment of which sum will and truly to be made, we bind ourselves, our heirs, personal representatives, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, said Contractor has entered into a certain Contract Agreement with said Owner, dated _____, 2017, for construction of Fueling Station for Rockdale Water Resources (hereinafter called the Contract), which Contract Agreement and the Contract Documents for said Work shall be deemed a part hereof as fully as if set out herein.

NOW, THEREFORE, the condition of this obligation is such, that if said Contractor and all subcontractors to whom any portion of the Work provided for in said Contract Agreement is sublet and all assignees of said Contractor and of such subcontractors shall promptly make payments to all persons supplying them with labor, products, services, or supplies for or in the prosecution of the Work provided for in such Contract Agreement, or in any amendment or extension of or addition to said Contract Agreement, and for the payment of reasonable attorney's fees, incurred by the claimant in suits on this Bond, then the above obligation shall be void; otherwise, it shall remain in full force and effect.

HOWEVER, this Bond is subject to the following conditions and limitations:

- (a) Any person, firm or corporation that has furnished labor, products, or supplies for or in the prosecution of the Work provided for in said Contract Agreement shall have a direct right of action against the Contractor and Surety on this Bond, which right of action shall be asserted in a proceeding, instituted in the county in which the Work provided for in said Contract Agreement is to be performed or in any county in which Contractor or Surety does business. Such right of action shall be asserted in proceedings instituted in the name of the claimant or claimants for its use and benefit against said Contractor and Surety or either party (but not later than one year after the final settlement of said Contract Agreement) in which action such claim or claims shall be adjudicated and judgment rendered thereon.

- (b) The Principal and Surety hereby designate and appoint the _____, as the agent of each party to receive and accept service of process or other pleading issued or filed in any proceeding instituted on this Bond and hereby consent that such service shall be the same as personal service on the Contractor and/or Surety.
- (c) In no event shall the Surety be liable for a greater sum than the penalty of this Bond, or subject to any suit, action or proceeding thereon that is instituted later than one year after the final settlement of said Contract Agreement.
- (d) This Bond is given pursuant to and in accordance with provisions of O.C.G.A. Section 13-10-1 et. seq. and 36-82-100 et. seq. hereinafter, and all the provisions of law referring to this character of Bond as set forth in said Sections or as may be hereinafter enacted, and these are hereby made a part hereof to the same extent as if set out herein in full.

IN WITNESS WHEREOF, the said Contractor has hereunder affixed its signature and seal, and said Surety has hereunto caused to be affixed its corporate signature and seal, by its duly authorized officers, on this _____ day of _____, 2017, executed in six counterparts.

CONTRACTOR - PRINCIPAL: _

By:

Name:

(Please Print)

Title:

ATTEST:

Name:

(Please Print)

(SEAL)

Title:

Note: Attestation for a corporation must be by the corporate secretary; for a partnership by another partner; for an individual by a notary.

SURETY: _

By:

Name:

(Please Print)

Title:

WITNESS:

Name:

(Please Print)

(SEAL)

Title:

Note: Surety companies executing Bonds must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in the state where the Project is located.

END OF SECTION

SECTION 00700
General Conditions

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GENERAL: The provisions of these General Conditions are intended, but are not limited to, providing general conditions of agreement and provisions toward the awarding of the Contract, the obligations of the successful Bidder and requirements for execution and administration of the Contract. IN ANY EVENT, PROVISIONS IN THIS SECTION ARE SUBJECT TO AND GOVERNED BY PROVISIONS IN THE SUPPLEMENTARY CONDITIONS, AS APPLICABLE.

ARTICLE 1 - NOTICE OF AWARD OF CONTRACT

After receipt of Bids, the Owner shall notify the successful Bidder of the award of the Contract as stipulated in the Supplementary Conditions.

ARTICLE 2 - EXECUTION OF CONTRACT DOCUMENTS

Within 10 days of notification of Award of Contract, the Owner will furnish the Contractor with conformed copies of Contract Documents for execution by the Contractor and the surety.

Within 10 days after receipt, the Contractor shall return all the Documents properly executed by the Contractor and the surety. Attached to each Document shall be an original power-of-attorney for the person executing the Bonds for the surety and certificates of insurance for the required insurance coverage.

Within 30 days after receipt of the conformed Documents executed by the Contractor and the surety with the power-of-attorney and certificates of insurance, the Owner will complete the execution of the Documents. Distribution of the completed Documents will be made upon execution by the Owner.

Should the Contractor and/or the surety fail to properly execute the Documents within the specified time, the Owner will have the right to proceed on the Bid Bond accompanying the Bid.

If the Owner fails to execute the Documents within the time limit specified, the Contractor will have the right to withdraw the Bid without penalty. In such event the Owner will have no liability to the Contractor under these Documents or otherwise.

Should either party require an extension of any of the time limits stated above, this shall be done only by mutual agreement between both parties.

ARTICLE 3 - CONTRACT SECURITY

The Contractor shall furnish separate Performance and Payment Bonds each in a sum equal to the amount of the Contract Price, the Performance Bond conditioned upon the performance by the Contractor of all undertakings, covenants, terms, conditions and agreements of the Contract Documents, and the Payment Bond conditioned upon the prompt payment by the Contractor to all persons supplying labor and products in the prosecution of the Work provided by the Contract Documents. Such Bonds shall be

executed by the Contractor and a corporate bonding company licensed to transact such business in the State where the Project is located and named on the current list of "Surety Companies Acceptable on Federal Bonds" as published in the Treasury Department Circular Number 570. The expense of these Bonds shall be borne by the Contractor. If at any time a surety on any such Bond is declared bankrupt or loses its right to do business in the State where the Project is located or is removed from the list of Surety Companies accepted on Federal Bonds, the Contractor shall, within 10 days after notice from the Owner to do so, substitute an acceptable Bond (or Bonds) in such form and sum and signed by such other surety as may be satisfactory to the Owner. The premium on such Bond (or Bonds) shall be paid by the Contractor. No further progress payments shall be deemed due, nor shall be made, until the new surety furnishes an acceptable Bond to the Owner.

The person executing the Bond on behalf of the surety shall file with the Bond a general power of attorney, unlimited as to amount and type of Bond covered by such power of attorney and certified to by an official of said surety.

ARTICLE 4 - INSURANCE

The Contractor shall not commence any work under this Contract until all insurance, as stipulated in the Supplementary Conditions, has been obtained and such insurance has been approved by the Owner, nor shall the Contractor allow any subcontractor to commence any work on subcontractor's contract until all similar insurance required of the subcontractor has been so obtained and approved by the Contractor.

ARTICLE 5 - INDEMNIFICATION

The Contractor shall indemnify and hold harmless the Owner, the PM/CM, the Designer and their agents and employees from and against all claims, damages, losses and expenses including claims consultants' and attorneys' fees arising out of or resulting from the performance of the Work, provided that any such claims, damage, loss or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property, including the loss of use resulting thereof; and is caused in whole or in part by willful act or omission of the Contractor, any subcontractor, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable.

In any and all claims against the Owner, the PM/CM, the Designer, or any of their agents or employees, by any employee of the Contractor, any subcontractor, anyone directly or indirectly employed by any of them, or anyone for whose acts any of them may be liable, the indemnification obligation shall not be limited in any way by any limitation on the amount or type of damages, compensation or benefits payable by or for the Contractor or any subcontractor under worker's compensation acts, disability benefit acts or other employee benefits acts.

This indemnification and hold harmless obligation shall extend to cover any and all claims not covered by the Owner's Protective Liability Insurance, the requirements of

which are specified in Article 4 of the Supplementary Conditions.

ARTICLE 6 - NOTICE TO PROCEED

The Notice to Proceed will be issued, following the pre-construction conference, within 10 days of the execution of the Contract Agreement by the Owner. The time may be extended by mutual agreement between the Owner and the Contractor. If the Notice to Proceed has not been issued within the 10 day period or within the period mutually agreed upon, the Contractor may terminate the Contract Agreement without further liability on the part of either party.

ARTICLE 7 - TERMINATION OF WORK FOR DEFAULT

- (a) The Work may be terminated if:
 - (1) The Contractor is adjudged bankrupt or insolvent.
 - (2) The Contractor makes a general assignment for the benefit of creditors.
 - (3) A trustee or receiver is appointed for the Contractor or for any of Contractor's property.
 - (4) The Contractor files a petition to take advantage of any debtor's act, or to reorganize under the bankruptcy or applicable laws.
 - (5) The Contractor repeatedly fails to supply sufficient skilled workmen, materials or equipment.
 - (6) The Contractor fails to make satisfactory progress toward timely completion of the Work.
 - (7) The Contractor repeatedly fails to make prompt payments to subcontractors or material suppliers for labor, materials or equipment.
 - (8) The Contractor disregards laws, ordinances, rules, regulations or orders of any public body having jurisdiction of the Work.
 - (9) The Contractor fails to comply with directives of the PM/CM.
 - (10) The Contractor otherwise violates any provision of the Contract Documents.
- (b) The Owner may, without prejudice to any other right or remedy and after giving the Contractor and surety a minimum of 10 days from delivery of a written notice, terminate the services of the Contractor and take possession of the Project and of all products thereon owned by the Contractor, and

finish the Work by whatever method the Owner may deem expedient. In such case the Contractor shall not be entitled to receive any further payment until the Work is finished. If the unpaid balance of the Contract Price exceeds the direct and indirect costs of completing the Project, including compensation for additional professional services, such excess shall be paid to the Contractor. If such costs exceed such unpaid balance, the Contractor and/or surety shall pay the difference to the Owner. Such costs incurred by the Owner will be determined by the PM/CM and incorporated in a Change Order.

- (c) Where the Contractor's services have been so terminated by the Owner, said termination will not affect any right of the Owner against the Contractor then existing or which may thereafter accrue. Any retention or payment of monies by the Owner due the Contractor will not release the Contractor from compliance with the Contract Documents.

ARTICLE 8 - TERMINATION FOR CONVENIENCE OF THE OWNER

If, for any reason other than those provided for under Article 7, the Owner elects to discontinue, in whole or part, the Work under this Contract, the Owner may, after 10 days from delivery of a written notice to the Contractor and the PM/CM, terminate, in whole or in part, the Contractor's performance of the Work under this Contract. The notice of termination shall specify the extent to which performance of the Work under the Contract is terminated.

In the event of such termination by the Owner, the Contractor shall be entitled to payment for the Work at the jobsite acceptably performed up to the time of the termination and reimbursement for such costs as are reasonably incurred by the Contractor due to the termination and not otherwise compensated. The Contractor shall also be entitled to profit on the amounts payable to the Contractor, but such profit shall be limited to 6 percent of such amounts. The Contractor will not be entitled to any payment, including any anticipated profit, on Work not performed and will not be entitled to any compensation for other economic loss arising out of or resulting from such compensation or damages of any nature.

ARTICLE 9 - ASSIGNMENTS

The Contractor shall not assign the whole or any part of this Contract or any monies due or to become due hereunder without written consent of the Owner. In case the Contractor assigns all or any part of any monies due or to become due under this Contract, the instrument of assignment shall contain a clause substantially to the effect that it is agreed that the right of the assignee in and to any monies due or to become due to the Contractor shall be subject to prior liens of all persons, firms, and corporations for services rendered or materials supplied for the performance of the Work called for under this Contract.

ARTICLE 10 - SUBCONTRACTING

- (a) The Contractor shall not subcontract the complete Work, or any part thereof, and shall not award any work to any subcontractor without prior written approval of the Owner. Owner approval will not be given except upon the basis of written statements containing such information as the Owner may require. At the pre-construction conference, the Contractor shall submit all subcontractors that the Contractor plans to use on the Project. Any changes or additional subcontractors should be submitted at least 14 days prior to the needed approval.
- (b) The Contractor shall utilize the services of specialty subcontractors on those parts of the Work which, under normal contracting practices, are best performed by specialty subcontractors, as required by the Owner in the Owner's sole discretion, at no additional cost to the Owner.

If the Contractor desires to perform specialty work, the Contractor shall submit a request to the Owner, accompanied by evidence that the Contractor's own organization has successfully performed the type of work in question, is presently competent to perform the type of work, and the performance of the work by specialty subcontractors will result in materially increased costs or inordinate delays.

- (c) The Contractor shall be fully responsible to the Owner for the acts and omissions of the Contractor's subcontractors and of persons either directly or indirectly employed by the Contractor. The Contractor shall be fully responsible to the Owner for the acts and omissions of independent contractors or independent subcontractors of the Contractor and of persons indirectly employed by the Contractor as the Contractor is for the acts and omissions of persons directly employed by the Contractor.
- (d) The Contractor shall cause appropriate provisions to be inserted in all subcontracts relative to the Work to bind subcontractors to the Contractor by the terms of the General Conditions and other Contract Documents insofar as applicable to the work of subcontractors and to give the Contractor the same power as regards terminating any subcontract that the Owner may exercise over the Contractor under any provision of the Contract Documents.
- (e) Nothing contained in this Contract shall create any contractual relation between any subcontractor and the Owner.

ARTICLE 11 - AUTHORITY OF THE PM/CM

The PM/CM will act as the Owner's representative during the construction period. The Owner will decide questions which may arise as to quality and acceptability of products furnished and Work performed. The Owner will interpret the intent of the Contract Documents in a fair and unbiased manner. The PM/CM will make visits to the site and

determine if the Work is proceeding in accordance with the Contract Documents. The PM/CM will judge as to the accuracy of quantities submitted by the Contractor in partial payment estimates which these quantities represent. The decisions of the PM/CM will be final and conclusive.

ARTICLE 12 - SEPARATE CONTRACTS

- (a) The Owner reserves the right to let other contracts in connection with this Project. The Contractor shall afford other contractors reasonable opportunity for the introduction and storage of their products and the execution of their work, and the Contractor and other contractors shall properly connect and coordinate their work with each other. If the proper execution or results of any part of the Contractor's work depends upon the work of any other contractor, the Contractor shall inspect and promptly report to the PM/CM any defects in such work that render it unsuitable for such proper execution and results.
- (b) The Owner may perform additional work related to the Project with Owner's own forces. The Contractor shall afford the Owner reasonable opportunity for the introduction and storage of products and the execution of work, and shall properly connect and coordinate Contractor's work with work performed by Owner's own forces.
- (c) If the performance of additional work by other contractors or the Owner is not noted in the Contract Documents prior to the execution of the Contract, written notice thereof will be given to the Contractor prior to starting any such additional work. If the Contractor believes that the performance of such additional work by the Owner or others involves the Contractor in additional expense or entitles the Contractor to an extension of the Contract Time, the Contractor may make a claim therefor as provided in Article 29.

ARTICLE 13 - LAWS AND REGULATIONS

The Contractor's attention is directed to the fact that all applicable federal, state, county and city laws, municipal ordinances, and the rules and regulations of all authorities having jurisdiction over construction of the Project shall apply to the Contract throughout, and they will be deemed to be included in the Contract as though written out in full herein. The Contractor shall keep fully informed of all laws, ordinances and regulations of the federal, state, county, city and municipal governments or authorities in any manner affecting those engaged or employed in the Work or the materials used in the Work or in any way affecting the conduct of the Work and of all orders and decrees of bodies or tribunals having any jurisdiction or authority over same. If any discrepancy or inconsistency should be discovered in these Contract Documents herein referred to, in relation to any such law, ordinance, regulation, order or decree, the Contractor shall herewith report the same, in writing, to the Owner. The Contractor shall at all times observe and comply with all such existing and future laws, ordinances and regulations, and shall protect and indemnify the Owner, the PM/CM, the Designer and their agents

against the violation of any such law, ordinance, regulation, order or decree, whether by the Contractor or by the Contractor's employees.

ARTICLE 14 - TAXES

The Contractor shall pay all sales, consumer, use and other similar taxes required by the law of the place where the Work is performed. The Owner will be responsible for any sales or use tax due on products furnished by the Owner to the Contractor to be incorporated into the Work.

ARTICLE 15 - NOTICE AND SERVICE THEREOF

- (a) All notices, demands, requests, instructions, approvals, and claims shall be in writing.
- (b) Any notice to or demand upon the Contractor will be sufficiently given if delivered at the office of the Contractor specified in the Bid (or at such other office as the Contractor may from time to time designate to the Owner in writing), or if delivered by the United States Mail in a sealed, postage-prepaid envelope, or delivered by facsimile transmission, followed by written confirmation, in each case addressed to such office.
- (c) All papers required to be delivered to the Owner shall be delivered as stipulated in the Supplementary Conditions.
- (d) Any such notice or demand shall be deemed to have been given to the Owner or made as of the time of actual delivery to Owner.

ARTICLE 16 - PATENTS

- (a) The Contractor shall hold and save the Owner, the PM/CM, the Designer and their agents harmless from liability of any kind, including cost and expenses, reasonable attorney's fees, for, or on account of, any patented or unpatented invention, process, article, or appliance manufactured or used in the performance of the Work, including its use by the Owner.
- (b) If the Contractor uses any design, process, device or materials covered by letters, trademarks, patent or copyright, the Contractor shall provide for such use by suitable agreement between the Owner and the holder of such patented or copyrighted design, device or material. The Contract prices shall include royalties or costs arising from the use of such design, device or materials, in any way involved in the Work. The Contractor and the Contractor's sureties shall indemnify and save harmless the Owner, the PM/CM, the Designer and their agents from claims for infringement by reason of the use of such patented or copyrighted design, process, device or materials or any trademark or copyright in connection with Work agreed to be performed under this Contract, and shall indemnify the Owner, the

PM/CM, the Designer and their agents for any cost, expense, damage and reasonable attorney's fees which it may be obliged to pay by reason of such infringement, at any time during the prosecution of the Work or after completion of the Work.

ARTICLE 17 - LAND AND RIGHTS-OF-WAY

The Owner will provide, as indicated in the Contract Documents and prior to the Notice to Proceed, the lands upon which the Work is to be done, rights-of-way for access thereto, and such other lands which are designated for the use of the Contractor. The Contractor shall confine work and all associated activities to the easements and other areas designated for the Contractor's use. The Contractor shall comply with any limits on construction methods and practices which may be required by easement agreements.

If, due to some unforeseen reason, the necessary easements are not obtained, the Contractor shall receive an equitable extension of Contract Time and/or an equitable increase in the Contract Price to cover the Contractor's additional costs as a result thereof, provided the Owner is notified immediately of the claim. The Contractor's claim therefor shall be handled as provided for under Article 29.

Should additional temporary easements for ingress or egress be required by the Contractor for more suitable access to the Work, these easements shall be obtained by the Contractor, at no additional cost to the Owner.

Additional requirements shall be as stipulated in the Supplementary Conditions.

ARTICLE 18 - PRODUCTS

- (a) Products shall be so stored in accordance with the manufacturer's recommendations to insure the preservation of their quality and fitness for the Work. Stored products to be incorporated in the Work shall be located so as to facilitate prompt inspection.
- (b) Manufactured products shall be applied, installed, connected, erected, used, cleaned and conditioned as directed by the manufacturer.
- (c) Products shall be furnished in accordance with shop drawings and/or samples submitted by the Contractor and approved by the Designer.
- (d) Products to be incorporated into the Work shall not be purchased by the Contractor or the subcontractor subject to a chattel mortgage or under a conditional sale contract or other agreement by which an interest is retained by the seller.

ARTICLE 19 - SUPERVISION OF WORK

The Contractor shall supervise and direct the Work. The Contractor shall be solely

responsible for the means, methods, techniques, sequences and procedures of construction. The Contractor shall employ and maintain on the Work a qualified supervisor or superintendent who shall have been designated in writing by the Contractor as the Contractor's representative at the site. The supervisor shall be present on the site at all times as required to perform adequate supervision and coordination of the Work.

The supervisor shall have full authority to act on behalf of the Contractor and to execute the orders or directions of the PM/CM without delay. The supervisor shall have full authority to promptly supply products, tools, plant equipment and labor as may be required. The supervisor's authority shall be such that all communication given to the supervisor shall be as binding as if given to the Contractor.

The Contractor shall employ only competent and skilled personnel. The Contractor shall, upon demand from the PM/CM, immediately remove any superintendent, foreman or workman whom the PM/CM or Owner may consider incompetent or undesirable.

ARTICLE 20 - INTERRUPTION OF FACILITY OPERATIONS

The Contractor shall provide the Owner with written notice at least five days prior to any interruption in facility operations required by construction activity. The notice shall include the date and time of the scheduled interruption; the length of time the interruption will be in effect; the procedures to be followed in effecting the interruption; a complete identification of all those processes, equipment and operations to be affected; and all other information the Owner may require. The Contractor shall provide any equipment, piping, auxiliary power or other means necessary to sustain facility operations or function for interruptions which have not been identified by the Specifications, or when interruptions must exceed the time allowed by the Specifications.

Additional requirements, if any, shall be as stipulated in the Supplementary Conditions.

ARTICLE 21 - PROTECTION OF WORK, PROPERTY AND PERSONS

- (a) The Contractor shall be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work. The Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury or loss to all employees on the Work and other persons who may be affected thereby, all the Work and all products to be incorporated therein, whether in storage on or off the site, and other property at the site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures and utilities not designated for removal, relocation or replacement in the course of construction.
- (b) The Contractor shall comply with the Department of Labor Safety and Health Regulations for construction, promulgated under the Occupational

Safety and Health Act of 1970 (PL 91-596) and under Section 107 of the Contract Work Hours and Safety Standards Act (PL 91-54). The Contractor shall erect and maintain, as required by the conditions and progress of the Work, all necessary safeguards for safety and protection.

- (c) The Contractor shall remedy all damage, injury or loss to any property, improvements or facilities caused, directly or indirectly, in whole or in part, by the Contractor or any of the Contractor's subcontractors or anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable. The property, improvements or facilities shall be replaced or restored to a condition as good as when the Contractor entered upon the Work. In case of failure on the part of the Contractor to restore such property, or make good such damages or injury, the Owner may, after 48 hours written notice, proceed to repair, rebuild, or otherwise restore such property, improvements or facilities as may be deemed necessary. The cost thereof will be deducted from any monies due or which may become due the Contractor under this Contract.
- (d) In emergencies affecting the safety of persons or the Work or property at the site or adjacent thereto, the Contractor, without special instruction or authorization from the PM/CM or Owner, shall act to prevent threatened damage, injury or loss.
- (e) Completed Work and stored products shall be suitably protected during unseasonable weather, to allow Work to proceed in a timely fashion. Work planned, or in progress, should be performed to minimize impact of adverse weather.

ARTICLE 22 - PROTECTION OF THE ENVIRONMENT

- (a) The Contractor shall be responsible for taking all measures required to minimize all types of pollution associated with the undertaking of the proposed Work, and shall abide by the requirements of all governmental agencies having jurisdiction over the Work or Contractor's Project operations.
- (b) Any area used or involved in the Project that is disturbed by the Contractor, shall be restored to original or better condition, even though such area is outside the limits of that specified for grading, grassing or landscaping.

ARTICLE 23 - PROTECTION, LOCATION AND RELOCATION OF UTILITIES

The Contractor shall notify owners of adjacent utilities when prosecution of the Work may affect them. The Contractor shall protect from damage all existing improvements or utilities at, or in proximity to, the site of the Work, and shall repair or restore any damage to such facilities resulting from failure to exercise reasonable care in the performance of Work. If the Contractor fails or refuses to repair any such damage promptly, the Owner may have the Work performed and charge the cost thereof to the Contractor.

Prior to the construction or installation of any proposed facility or pipeline, the Contractor shall expose all existing utilities true to their vertical and horizontal location, within the vicinity of the Work. In order to avoid conflicts between existing and proposed facilities or utilities, the Contractor shall either relocate the existing or proposed utility on a temporary or permanent basis, or shall take whatever means necessary to protect the existing facilities or utilities during the installation of proposed utilities, as approved by the Owner. No separate payment will be made for the relocation of existing utilities or for any work associated with the protection of existing facilities or utilities.

ARTICLE 24 - SCHEDULES, REPORTS AND RECORDS

The Contractor shall submit to the Owner progress schedules, payrolls, reports, estimates, records and other data as the Owner may request concerning work performed or to be performed as stipulated in the Supplementary Conditions.

ARTICLE 25 - DRAWINGS AND SPECIFICATIONS

The Drawings, Specifications, Contract Documents, and all supplemental documents, are considered essential parts of the Contract, and requirements occurring in one are as binding as though occurring in all. They are intended to define, describe and provide for all Work necessary to complete the Project in an acceptable manner, ready for use, occupancy, or operation by the Owner.

The PM/CM will furnish the Contractor five copies of the Contract Documents, one copy of which the Contractor shall have available at all times on the Project site. Any additional copies will be furnished at additional cost.

In case of conflict between the Drawings and Specifications, the Specifications will govern. Figure dimensions on Drawings will govern over scale dimensions, and detailed Drawings will govern over general Drawings.

In cases where products or quantities are omitted from the Specifications, the description and quantities shown on the Drawings will govern.

Any materially differing site condition as between what is shown on the Drawings and Specifications and actually found on site shall be immediately reported to the PM/CM, in writing, prior to the commencement of Work at the site. Failure of the Contractor to notify the PM/CM, in writing, of the differing site condition prior to performance of Work at the site shall constitute a waiver of any claim for additional monies. Any Change Order necessitated by the differing site condition shall be processed as provided under Article 29.

Any ambiguities or need for clarification of the Drawings or Specifications shall be immediately reported in writing to the PM/CM. Any such ambiguity or need for clarification will be handled by the PM/CM, in writing, as authorized by Article 11. No clarification of the Drawings and Specifications hereunder by the PM/CM will entitle the Contractor to any additional monies unless a Change Order has been processed as provided by Article 29 hereof.

Any work done by the Contractor following a discovery of such differing site condition or ambiguity or need for clarification in the Contract Drawings and Specifications, prior to a written report to the PM/CM, shall not entitle the Contractor to additional monies and shall be done at the Contractor's risk.

ARTICLE 26 - SURVEYS

The Owner will furnish AutoCad files of the Construction Drawings to assist with construction layout of the Work. The County's benchmark information will be provided. From this information, unless otherwise specified in the Contract Documents, the Contractor shall develop and make all detailed surveys needed for construction, such as alignment, slope stakes, batter boards, stakes for pile locations and other working points, lines, elevations and cut sheets.

ARTICLE 27 - TESTING, INSPECTION AND REJECTION OF WORK

- (a) Testing of Materials: Unless otherwise specifically provided for in the Specifications, the inspection and testing of products to be incorporated in the Work at the site shall be made by bureaus, laboratories, or agencies approved by the Owner; the cost of such inspection and testing shall be paid by the Contractor. The Contractor shall furnish evidence, satisfactory to the Owner, that the products have passed the required tests prior to their incorporation into the Work. The Contractor shall promptly segregate and remove rejected products from the site of the Work.

- (b) Inspection: The Contractor shall furnish the Owner with every reasonable facility for ascertaining whether or not the Work performed and products used are in accordance with the requirements and intent of the Specifications and Contract Documents. No Work shall be done or products used without suitable inspection by the Owner or the Owner's representative. Failure to reject any defective Work or product shall not in any way prevent later rejection when such defect is discovered, or obligate

the Owner to final acceptance.

- (c) Authority and Duties of the Resident Inspector: The Resident Inspector will be authorized to inspect all Work done and all products furnished, including preparation, fabrication and manufacture of the products to be used, but the Resident Inspector will not be authorized to alter or waive any requirements of the Contract Documents. The Resident Inspector may reject products or suspend the Work until any question at issue can be referred to and decided by the Owner. The responsibility of the Contractor is not lessened by the presence of the Resident Inspector.

- (c) Rejection of Work and Materials: All products furnished and all Work done that is not in accordance with the Drawings or Specifications or that is defective will be rejected. All rejected products or Work shall be removed immediately. If rejected products or Work is not removed within 48 hours, the PM/CM will have the right and authority to stop the Work immediately and will have the right to arrange for the removal of said rejected products or Work at the cost and expense of the Contractor. All rejected products or Work shall be replaced with other products or Work which conforms with the Drawings and Specifications.

- (e) Contractor's Responsibilities: Inspection of the Work will not relieve the Contractor of any obligations to fulfill the Contract and defective Work shall be made good regardless of whether such Work has been previously inspected by the Owner and accepted or estimated for payment. The failure of the Owner to reject improper Work shall not be considered a waiver of any defect which may be discovered later, or for Work actually defective.

ARTICLE 28 - CONTRACT TIME AND LIQUIDATED DAMAGES

The Contract Time and Liquidated Damages shall be defined in the Instructions to Bidders.

The Contractor shall proceed with the Work at a rate of progress which will insure completion within the Contract Time. It is expressly understood and agreed by and between the Contractor and the Owner, that the Contract Time for the Work described herein is a reasonable time, taking into consideration the average climatic and economic conditions, and other factors prevailing in the locality of the Work.

If the Contractor shall fail to perform the Work required within the Contract Time, or extended Contract Time if authorized by Change Order, then the Contractor shall pay to the Owner the full amount of liquidated damages specified in the Contract Documents for each calendar day that the Contractor shall be in default after the time stipulated in the Contract Documents.

The Contractor shall not be charged with liquidated damages or any excess cost when the delay in performance of the Work is due to the following and the Contractor has promptly given written notice of such delay to the Owner and PM/CM:

- (a) To any preference, priority or allocation order duly issued by the Owner.
- (b) To unforeseeable causes beyond the control and without the fault or negligence of the Contractor, including but not restricted to, acts of God or of the public enemy, acts of the Owner, acts of another contractor in the performance of a contract with the Owner, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes, and abnormal and unforeseeable weather; and,
- (c) To any delays of subcontractors occasioned by any of the causes specified in paragraphs (a) and (b).

ARTICLE 29 - CHANGES IN THE CONTRACT

- (a) Changes in the Work: The Owner may at any time, as the need arises, order changes within the scope of the Work without invalidating the Contract Agreement. If such changes increase or decrease the amount due under the Contract Documents, or in the time required for performance of the Work, an equitable adjustment will be authorized by Change Order.

The Owner, also, may at any time, by issuing a field order, make changes in the details of the Work. These changes by field order will not affect Contract Time or Contract Price. The Contractor shall proceed with the performance of any changes in the Work so ordered by the Owner, unless the Contractor believes that such field order entitles Contractor to a change in Contract Price or Contract Time or both, in which event Contractor shall give the PM/CM immediate, written notice thereof and if required by the Owner, an immediate estimate of the direct cost of Work as outlined in (b) below, after the receipt of the ordered change, and the Contractor shall not execute such changes pending the receipt of an executed Change Order or further written instruction from the Owner.

Should the Contractor encounter, or the Owner discover, during the progress of the Work, subsurface or latent conditions at the site materially differing from those shown on the Drawings or indicated in the Specifications, or unknown conditions of an unusual nature differing materially from those ordinarily encountered and generally recognized as inherent in Work of the character provided for in the Drawings and Specifications, the Owner shall immediately be notified in writing of such conditions before they are disturbed. The Owner will thereupon promptly investigate the conditions.

If the Owner finds that conditions do so materially differ, or are of an unusual nature, and upon written request of the Contractor, an equitable

adjustment will be authorized by Change Order.

If the Contractor does not immediately notify the Owner in writing of the belief that a field order, additional work by other contractors or the Owner, or subsurface, latent or unusual unknown conditions entitles the Contractor to a Change Order, no consideration for time or money will be given the Contractor.

The Owner may, with the Contractor's concurrence, elect to postpone the issuance of a Change Order until such time that a single Change Order of substantial importance can be issued incorporating several changes. In such cases, the Owner will indicate this intent for each change in the Contract in a written response to the Contractor's request for a change, following agreement by the Owner and Contractor on the change's scope, price and time.

- (b) Changes in Contract Price: The Contract Price may be changed only by a Change Order. The value of any Work covered by a Change Order for increase or decrease in the Contract Price will be determined by one or more of the following methods, in the order of precedence listed below:
- (1) By estimating the number of unit quantities of each part of the Work which is changed (either increased or decreased) and then multiplying the estimated number of such unit quantities by the price Bid (which price shall include the Contractor's overhead and profit) for a unit quantity thereof.
 - (2) The Owner will fix the total lump sum value of the change in the Work of the Contractor following the Contractor's submittal, within a reasonable time, of an estimate of the direct cost of the Work. The direct cost estimate will be added to, or deducted from, the Contract Price (which price will include the Contractor's overhead and profit as outlined below). If the Contractor does not submit a cost estimate of the Work in a reasonable time or if the Owner and Contractor do not reach agreement on the cost, the Owner may fix the total lump sum value at a reasonable amount. On any lump sum change which involves a net credit to the Owner, no allowance for overhead and profit will be figured.
 - (3) By ordering the Contractor to proceed with the Work and to keep and present, in such form as the Owner may direct, a correct account of the cost of the change together with all vouchers therefor. The cost hereunder will only include an allowance for overhead and profit as outlined below.

For the Work performed in item (2) or (3) above, payment will be made for the documented actual direct cost of the following:

- (aa) Labor, including foremen, for those hours they are assigned and participating in the Work covered by the change order (actual direct payroll cost of wages). The Contractor shall furnish, if required by the Owner, certified payrolls to verify wages. All labor related costs will be included in a 30 percent markup of the cost of direct payroll wages. This refers to the Contractor's specific labor wages.
- (bb) Material delivered and used on the designated Work, including sales tax, if paid for by the Contractor and as verified by original invoices or otherwise verifiable to the Owner's acceptance.
- (cc) Rental, or ownership cost of equipment, including necessary transportation of equipment, having a purchase value in excess of \$300.00. Rental or ownership cost will be allowed for only those hours during which the equipment is required on the project site. Cost allowances will not exceed the rates defined as follows: the hourly rate, for equipment not used exclusively in the change to the scope of work, will be the monthly rate, as printed in the current Rental Blue Book for Construction Equipment published by Dataquest, divided by 176; the rate, for equipment used exclusively for those tasks identified in the change to the scope of work, will be the daily, weekly or monthly rate, used singularly or in combination, which will provide the lowest total cost. The rates will be modified by the Rate Adjustment Table factors to reflect a depreciation allowance indexed to the year a machine was originally manufactured and sold. The rates will be adjusted to account for regional differences in annual use hours, cost of labor, freight, taxes, etc. The amount by which basic rates will be increased or decreased is shown on the adjustment maps included in the "Blue Book".

The equipment use period will begin only at the time equipment is unloaded at the site of the changed work, will include each day that the equipment is required at the site of the changed work and will terminate at the end of the day on which the use of such equipment becomes unnecessary, plus reasonable transportation time. The maximum time to be paid per day will not exceed eight hours unless the equipment is in operation for a longer time. The time which will be paid for per day, for equipment not used exclusively in the change to the scope of work, will be the hours which the equipment was actually in operation on the changed work.

In addition to the actual costs in items (aa) through (cc) above, there

will be, for the Contractor actually performing the work, a fixed fee of 16 percent for bond, insurance, overhead and profit added to the cost of Items (aa), (bb) and (cc), above.

If all or a portion of the Change Order is performed by a subcontractor, payment will be made for the documented actual direct cost as outlined in (aa), (bb) and (cc), above. A fixed fee of 16 percent for bond, insurance, overhead and profit will be added to the cost of (aa), (bb) and (cc) of the subcontractor's work only.

A fixed fee of 10 percent will be added to the subcontractor's Work for the Contractor's administrative handling of portions of the Work that are performed by an approved subcontractor. No additional fixed fee will be allowed for the Contractor's or a subcontractor's administrative handling of Work performed by a subcontractor's subcontractor, unless by written permission from the Owner. All other costs not specifically listed above are considered to be included in the fixed fee.

(4) The Contractor shall, when required by the Owner, furnish the Owner with an itemized breakdown of the quantities and prices used in computing the value of any change that might be ordered, in a printed format, and with sufficient detail as required by the Owner.

(c) Changes in Contract Time: The Contract Time may be changed only by a Change Order. Changes in the Work described in (a) and any other claim made by the Contractor for a change in the Contract Time will be evaluated by the Owner with the assistance and input of the PM/CM and if the conditions warrant, an appropriate adjustment of the Contract Time will be made.

The Owner, when making these evaluations will take into consideration the amount and scope of Work which has been changed and will evaluate if the change in Work has affected the critical path as currently accepted on the progress schedule such that it would delay the completion of the Project. If after these evaluations have been made and in the sole opinion of the Owner, the Contractor is due an extension of time, then it will be granted by a Change Order and the Owner will pay the associated cost due the Contractor for direct field costs, only as outlined under Changes in Contract Price (aa) and (cc), exclusive of Item (bb), based on any delays to the overall Project. Extensions of time granted as a result of weather will not result in a change in Contract Price.

ARTICLE 30 - PAYMENTS AND COMPLETION

(a) Contract Price: The Contract Price is a lump sum stated in the Contract Agreement, and is the total amount payable by the Owner to the Contractor

for the performance of the Work set forth in the Contract Documents.

It is understood that the Contractor shall provide and pay for all products, labor (including labor performed after regular working hours, on Sundays, or on legal holidays), equipment, tools, water, light, power, sewer, transportation, supervision, temporary construction of any nature, and all other services and facilities of any nature whatsoever necessary to execute, complete, place into operation, and deliver the Work.

It is further understood that the Contractor's proposed construction schedule is based on a normal 40 hour, 5 day work week, less recognized holidays. If the Contractor desires to work in excess of this limit, the Contractor shall submit a written request to the Owner a minimum of five days prior to the desired work date. The Contractor shall be responsible for any additional expenses incurred by the Owner as a result of the extended work hours, including resident inspection overtime. The cost associated with resident inspector overtime will be deducted from the Contractor's monthly payment request.

- (b) Breakdown of Cost: Before the first application for payment the Contractor shall submit to the PM/CM a breakdown of cost for the various portions of the Work, including quantities if required by the PM/CM, aggregating the total Contract Price prepared in such form as specified or as the PM/CM and the Contractor may agree upon and supported by such data to substantiate its correctness as the PM/CM may reasonably require.

This schedule of values, when approved by the PM/CM, will be used only as a basis for the Contractor's application for payment; however, the payment schedule will correlate directly with the Overall Project Schedule (OPS) cost information, when applicable.

- (c) Progress Payments: At the end of each calendar month, the Contractor shall submit to the PM/CM an itemized application for payment supported by such other substantiating data as the PM/CM may reasonably require covering Work completed through the 20th day of the month. Progress payments shall be submitted to the PM/CM no later than the 25th of the month. Any progress payment submitted by the Contractor after the 5th of the month will be included in the following month's payment.

Application for payment may include, at the Contractor's option, the cost of products not yet incorporated into the Work which have been delivered to the site or to other storage locations authorized and approved by the PM/CM. The Owner reserves the right to accept or reject pay requests for stored materials, and to limit payments to those stored materials which, in the PM/CM's judgment, are necessary for continuing satisfactory Project progress.

Payment for stored products will be subject to the following conditions being met or satisfied:

- (1) The products shall be received in a condition satisfactory for incorporation in the Work, including manufacturer's storage and installation instructions.
- (2) The products shall be stored in accordance with the manufacturer's recommendations and in such manner that any and all manufacturer's warranties will be maintained and that they will not be damaged due to weather, construction operations or any other cause.
- (3) An invoice from the manufacturer shall be furnished for each item on which payment is requested. The request may include reimbursement for cost of delivery, limited to common carrier rates, to the site, but will not include the Contractor handling, on or off site, or for storage expense.
- (4) The Contractor shall, on request of the PM/CM, furnish written proof from the supplier of payment (less retention equal in percentage to that being retained by the Owner) for the products no later than 30 days after receipt of payment for same from the Owner.
- (5) Shop drawings, product data and samples, showing "No Exceptions Taken", has been received from the Contractor for that specific equipment or material.

The Contractor warrants that title to all Work and products covered by an Application for Payment, whether incorporated into the Project or not, will pass to the Owner upon the receipt of such payment by the Contractor, free and clear of all liens, claims, security interests or encumbrances (except retention equal in percentage to that being retained by the Owner which may be withheld from suppliers and subcontractors to guarantee completion and performance).

- (d) Certificate for Payment: If the Contractor has made application for payment as provided above, the PM/CM will issue a Certificate for Payment to the Owner, with a copy to the Contractor, for such amount as the PM/CM determines to be properly due, or the PM/CM will state, in writing, itemized and specific reasons for withholding a Certificate as provided herein.

After the PM/CM has issued a Certificate for Payment, the Owner will pay to the Contractor the amount covering Work completed plus stored products, less retention and less previous payments made.

No certificate for a progress payment, nor any progress payment, nor any partial or entire use of occupancy of the Project by the Owner, shall constitute an acceptance of any Work not in accordance with the Contract Documents.

- (e) Retention: The Owner will retain the following amounts from each properly certified estimate:
 - (1) Until the value of the Work completed, including stored materials, is at least 50 percent of the Contract amount, 10 percent of the value of all Work satisfactorily completed, including stored materials.
 - (2) When the value of the completed Work totals at least 50 percent of the Contract amount, the Owner will discontinue retaining additional amounts provided the Work is progressing satisfactorily and there is no specific cause for retaining a larger sum. The total amount retained will be at least 5 percent of the Contract amount, adjusted for Change Orders, until the date of final payment.
 - (3) The Owner may elect to reinstate retention of 10 percent of the value of the Work completed if at any time the Contractor fails to make satisfactory progress or if there is other specific cause. Satisfactory progress is identified as conforming to the construction progress schedule as required in Article 24, as modified by the Supplementary Conditions. No form of collateral in lieu of cash will be acceptable as retainage. Amounts retained by the Contractor from payments due to suppliers and subcontractors (expressed as a percentage) shall not exceed that being retained by the Owner.

- (f) Payments Withheld: The PM/CM may decline to approve an Application for Payment and may withhold certificate, in whole or in part, as may be necessary to protect the Owner from loss because of:
 - (1) Failure of the Contractor to make payments properly to subcontractors or for labor or products.
 - (2) Unsatisfactory prosecution of the Work by the Contractor either due to quality of the Work or if the Contractor is behind the currently approved construction schedule. When the above reasons for nonpayment are corrected, then payment will be made for amounts withheld because of such reasons, not later than the next payment. Completion and Final Acceptance shall be as stipulated in the Supplementary Conditions.

END OF SECTION

SECTION 00800
Supplementary Conditions

GENERAL

The provisions in this Section of the Specifications shall govern in the event of any conflict between this Section and the General Conditions.

ARTICLE 1 - NOTICE OF AWARD OF CONTRACT

Article 1 - Notice of Award of Contract, of the General Conditions, is hereby modified to include the following:

Within 90 days after receipt of Bids, the Owner will notify the successful Bidder of the award of the Contract.

Should the Owner require additional time to award a Contract, the time may be extended by the mutual agreement between the Owner and the successful Bidder. If an award of Contract has not been made within 90 days from the Bid date or within the extension mutually agreed upon, the Bidder may withdraw the Bid without further liability on the part of either party.

ARTICLE 13 - LAWS AND REGULATIONS

Article 13 - Laws and Regulations, of the General Conditions is hereby modified to include the following:

Article 13, following first paragraph,

Where professional engineering work is required in connection with any of the components required by the Contract, all Bidders and component suppliers must insure that there is full compliance with all applicable laws of the state of Georgia and any other state governing professional engineering. The Owner and PM/CM do not warrant that the name of an entity listed as an acceptable manufacturer is or will be in compliance with said laws.

ARTICLE 15 - NOTICE AND SERVICE THEREOF

Article 15 - Notice and Service Thereof, of the General Conditions is hereby modified to include the following:

- (c) All papers required to be delivered to the Owner shall, unless otherwise specified in writing to the Contractor, be delivered to the Rockdale County Board of Commissioners, 943 Court Street, Conyers, Georgia 30012, Attn: Richard A. Oden, Chairman, Board of Commissioners.

Any notice to or demand upon the Owner shall be sufficiently given if delivered to the Office of said Chairman if delivered by the United States Mail in a sealed, postage-prepaid envelope, or delivered by facsimile transmission, followed by written confirmation, in each case addressed to said Chairman or to such other representative of the Owner or to such other address as the Owner may subsequently specify in writing to the Contractor for such purposes.

- (e) The Contractor shall file all "Notices of Commencement" required for this Project in accordance with O.C.G.A. §44-14-361.5 et.seq. and §36-82-104 et.seq., as applicable. The Contractor shall respond to all requests for copies of a Notice of Commencement. Should the Owner or PM/CM receive such a request, this request will be forwarded to the Contractor for further handling. The name and address of the Owner shall be as stated in paragraph (c) of this Article. The name and general description of the Project shall be as stated in the Invitation to Bid.

ARTICLE 17 - LAND AND RIGHTS-OF-WAY

Article 17 - Lands and Rights-of-Way, of the General Conditions, is hereby modified to include the following:

No additional requirements.

ARTICLE 20 - INTERRUPTION OF FACILITY OPERATIONS

Article 20 - Interruption of Facility Operations, of the General Conditions, is hereby modified to include the following:

Bypasses/interruption of untreated or partially treated wastes will not be permitted unless the Contractor has obtained prior approval from the Owner. The Owner/PM/CM shall be notified at least two weeks in advance and in writing, of the date, time and duration of such bypasses/interruption. The Contractor shall pay all fines that may be imposed on the Owner for the bypassing without prior approval.

ARTICLE 24 - SCHEDULES, REPORTS AND RECORDS

Article 24 - Schedules, Reports and Records, of the General Conditions, is hereby modified to include the following:

- (a) The Contractor shall submit to the Owner progress schedules, payrolls, reports, estimates, records and other data as the Owner may request concerning work performed or to be performed as stipulated in the various sections of these Specifications.

- (b) Immediately after execution of the Contract by the Owner, and before the first partial payment is made, the Contractor shall deliver to the Owner a construction progress schedule in form satisfactory to the Owner, showing the proposed dates of commencement and completion of each of the various subdivisions of work required under the Contract Documents and the anticipated amount of each monthly payment that will become due the Contractor in accordance with the Progress Schedule.
- (c) An updated schedule and an updated Schedule of Submittals shall be presented with each partial payment request. Lack of an updated schedule and/or an updated Schedule of Submittals will delay processing of the pay request until receipt of the updated schedule and/or an updated Schedule of Submittals.
- (d) If the schedule reflects a completion date prior to the completion date established by the Contract Agreement, this shall afford no basis to claim for delay should the Contractor not complete the Work prior to the projected completion date. Instead all "float" between the completion date in the Contractor's schedule and the completion date established in the Contract Agreement shall belong to and be exclusively available to the Owner. Should a change order be executed with a revised completion date, the progress schedule shall be revised to reflect the new completion date.
- (e) The Contractor shall maintain on the Project site, a complete set of up-to-date Record Documents.
- (f) Project Coordination Meetings: The General Contractor shall participate in Project Coordination Meetings to be held on the site monthly, or more often if conditions warrant, to establish the current state of completion and revise the schedule as necessary. The Project Coordination Meeting will be conducted by the PM/CM.
- (g) Contractor's Responsibilities
 - (1) Implement the detailed Near Term Schedule of activities to the fullest extent possible between Project Coordination Meetings.
 - (2) The Contractor shall prepare and provide one copy of the Contractor's Daily Report to the PM/CM by 10:00 a.m. of the day following the Report date. This Daily Report will contain, as a minimum, the weather conditions; number of workers by craft, including supervision and management personnel on site; active and inactive equipment on site; work accomplished by CPM activity item; problems; and visitors to the jobsite.
 - (3) If a current activity or series of activities on the OPS is behind

schedule and if the late status is not due to an excusable delay for which a time extension would be forthcoming, the Contractor shall attempt to reschedule the activity to be consistent with the Overall Project Schedule so as not to delay any of the Contract milestones. The Contractor agrees that:

- a. The Contractor shall attempt to expedite the activity completion so as to have it agree with the OPS. Such measures as the Contractor may choose shall be made explicit during the Project Coordination Meeting.
- b. If, within two weeks of identification of such behind-schedule activity, the Contractor is not successful in restoring the activity to an on schedule status, the Contractor shall:
 1. Carry out the activity with the scheduled crew on an overtime basis until the activity is complete or back on schedule.
 2. Increase the crew size or add shifts so the activity can be completed as scheduled.
 3. Commit to overtime or increased crew sizes for subsequent activities, or some combination of the above as deemed suitable by the PM/CM.

These actions shall be taken at no increase in the Contract amount.

- (4) Maintain a current copy of all construction schedules on prominent display in the Contractor's field office at the Project site.
- (5) Cooperate with the Owner or Owner's representative in all aspects of the Project Scheduling System. Failure to implement the Project Scheduling System or to provide specified schedules, diagrams and reports, or to implement actions to re-establish progress consistent with the OPS may be causes for withholding of payment.

ARTICLE 30 - PAYMENTS AND COMPLETION

Article 30 - Payments and Completion, of the General Conditions, is hereby modified to include the following:

- (g) Completion: ALL WORK REQUIRED BY THE CONTRACT DOCUMENTS, CONTRACT DRAWINGS AND SPECIFICATIONS MUST BE COMPLETED BEFORE THE FINAL INSPECTION IS PERFORMED. This includes, but is not limited to, the following:
 - (1) Performing tests as described in the detailed Specifications.
 - (2) Removing temporary plugs, bulkheads, bypasses, etc., and diverting

flow into the facility when approved by the PM/CM.

(3) Grassing and restoration of the work area.

Upon completion of all work required, the Contractor shall submit completed Record Drawings to the PM/CM and request, in writing, that the final inspection be performed. The PM/CM will arrange for final inspection of the work by the Owner and Designer. If the PM/CM finds the work of the Contractor complete and acceptable in accordance with the provisions of the Contract Documents and that the Record Drawings accurately depict the complete work, PM/CM will recommend to the Owner that the job be accepted and that final payment be made.

In the event that the final inspection reveals deficiencies in meeting the Contract requirements, the Contractor shall complete all remaining items of work, and make adjustments found to be necessary. Upon receipt of written notice from the Contractor that the work is complete and ready for re-inspection, the PM/CM will arrange a final inspection.

The Contractor will be notified, in writing, by the Owner of the final acceptance of the work. The date of final acceptance shall be the termination date for the Contractor's liability for the physical properties of the facilities and the beginning of the warranty period.

Before final payment can be made, the Contractor must certify, in writing, to the Owner that all payrolls, materials bills, and other indebtedness connected with the work have been paid. If requested by the PM/CM, the Contractor shall provide release of lien documentation from subcontractors or suppliers.

Final payment will not be made if there is disputed indebtedness or if there are liens upon the property.

If upon completion of all work there is disputed indebtedness or there are liens upon the property, semi-final payment may, be made, at the Owner's option, in accordance with the following provisions:

- (1) The Owner will retain an amount equal to the disputed indebtedness and/or liens upon the property including all related cost and interest in connections with said disputed indebtedness and liens which the Owner may be compelled to pay upon and subsequent adjudication.
- (2) The Contractor shall certify to those items of work not disputed that all payables, materials bills and other indebtedness connected with the work have been paid or otherwise satisfied.

The making of the final payment shall constitute a waiver of all claims by

the Owner, other than those for faulty work covered by and appearing within the warranty period.

The acceptance of final payment shall constitute a waiver of all claims by the Contractor, except those previously made, in writing, and still unsettled.

(h) Prompt Payment Clause

(1) Owner and Contractor agree that all partial payments and final payments shall be subject to the Georgia Prompt Pay Act, as originally enacted and amended, and as set forth in O.C.G.A. §§ 13-11-1 through 13-11-11, except as provided below to the extent authorized by law:

a. Interest Rate: For purposes of computing interest on late payments, the rate of interest shall be one-half percent per month or a pro-rata fraction thereof on the unpaid balance as may be due.

b. Payment Periods:

1. When the Contractor has performed in accordance with the provisions of these Contract Documents, the Owner shall pay the Contractor within 45 days of receipt by the Owner or the Owner's representative of any properly completed Application for Payment, based upon work completed or service provided pursuant to the terms of these Contract Documents.

2. When a subcontractor has performed in accordance with the provisions of its subcontract and the subcontract conditions precedent to payment have been satisfied, the Contractor shall pay to that subcontractor and each subcontractor shall pay to its subcontractor, within ten days of receipt by the Contractor or subcontractor of each periodic or final payment, the full amount received for such subcontractors work and materials based on work completed or service provided under the subcontract, less retainage expressed as a percentage, but such retainage shall not exceed that retainage being held by the Owner, provided that the subcontractor has provided or provides such satisfactory reasonable assurances of continued performance and financial responsibility to complete its work as the Contractor in its reasonable discretion may require, including but not limited to a payment and performance bond.

c. Interest on Late Payment: Except as otherwise provided in these Contract Documents and/or in O.C.G.A. § 13-11-5, if a periodic or final payment to the Contractor is delayed by more than the time allotted in Paragraph b. of this Prompt Payment

Clause or if a periodic or final payment to a subcontractor is delayed more than ten days after receipt of periodic or final payment by the Contractor or subcontractor, the Owner, Contractor, or subcontractor, as the case may be, shall pay interest to its Contractor, or subcontractor beginning on the day following the due dates as provided in Paragraph b. of this Prompt Payment Clause at the rate of interest as provided herein. Interest shall be computed per month or a pro-rata fraction thereof on the unpaid balance. There shall be no compounded interest. No interest is due unless the person or entity being charged interest receives "Notice" as provided in Paragraph d. of this Prompt Payment Clause. Acceptance of progress payments or final payment shall release all claims for interest on said payments.

- d. Notice of Late Payment and Request for Interest: Any person or entity asserting entitlement to interest on any periodic or final payment pursuant to the provisions of this Prompt Payment Clause shall provide "notice" to the person or entity being charged interest of the charging party's claim to interest on late payment. "Notice" shall be in writing, served by U.S. Certified Mail - Return Receipt Requested at the time the properly completed Application for Payment is received by the Owner or Owner's representative, and shall set forth the following:
1. A short and concise statement that interest is due pursuant to the provisions of the Georgia Prompt Pay Act and this Prompt Payment Clause;
 2. The principal amount of the periodic or final payment which is allegedly due to the charging party; and
 3. The first day and date upon which the charging party alleges that said interest will begin to accrue, pursuant to the provisions of the Georgia Prompt Pay Act and this Prompt Payment Clause.

These "Notice" provisions are of the essence; therefore, failure to comply with any requirement as set forth in this Prompt Payment Clause precludes the right to interest on any alleged late payment to which said "Notice" would otherwise apply.

- (2) Integration with the Georgia Prompt Pay Act: Unless otherwise provided in these Contract Documents, the parties hereto agree that these provisions of this Prompt Payment Clause supersede and control all provisions of the Georgia Prompt Pay Act (O.C.G.A. §§ 13-11-1 through 13-11-11 (1994)), as originally enacted and as amended, and that any dispute arising between the parties hereto as to whether or not the provisions of this contract or the Georgia Prompt Pay Act control will be resolved in favor of these Contract Documents and its terms.

END OF SECTION

SECTION 01010 SUMMARY OF WORK

PART 1 GENERAL

1.01 SECTION AND INTENT

- A. This contract includes the construction of a Fueling Station for Rockdale Water Resources as described and depicted in the attached drawing set.

1.02 DESCRIPTION OF WORK

- A. General: The project consists of a Fueling Station. The Fueling Station will be located in close proximity to 2440 Tatum Road, Conyers, GA 30013, Land lots: 349, 350, and 364 in District 16. Existing conditions were gathered from Rockdale County GIS Information and Aerial Imagery. Refer to attached set of drawings for Scope of Work.
- B. The Work includes:
 - 1. Furnishing of all labor, material, superintendence, plant, power, light, heat, fuel, water, tools, appliances, equipment, supplies, services and other means of construction necessary or proper for the performance and completion of the Work.
 - 2. Obtaining and paying for all required permits.
 - 3. Sole responsibility for adequacy of plant and equipment.
 - 4. Providing the means, methods, techniques, and sequences, procedures of construction and safety procedures as the CONTRACTOR may choose, unless herein expressly provided otherwise. Use only adequate and safe procedures, methods, structures, and equipment.
 - 5. Prosecuting the Work in an orderly manner and keeping work areas neat. Provide positive surface drainage and prevent ponding of precipitation. When the work is halted by precipitation, clean up and grade the working areas before leaving the site.
 - 6. Performing and completing the Work in the manner best calculated to promote rapid construction consistent with safety of life and property, to the satisfaction of the County and in strict accordance with the Contract Documents.
 - 7. Maintaining the Work area and site in a clean and acceptable manner.

8. Maintaining existing facilities in service at all times except where specifically provided for otherwise herein.
 9. Protection of finished and unfinished Work.
 10. Repair and restoration of Work damaged during construction.
 11. Furnishing as necessary proper equipment and machinery, of a sufficient capacity, to facilitate the Work and to handle all emergencies normally encountered in Work of this character.
 12. Constructing, maintaining, operating and removing upon completion of the Work all necessary access and egress facilities required to complete the Work.
- C. Communication equipment for link to Rockdale County Management Information System (MIS) Department shall be provided by the Contractor and installed by the Contractor as per MIS Department requirements. The contractor shall contact Melissa Bagwell (Rockdale County MIS) at 770-278-7074 for the required communication equipment scope of work. Contractor shall refer to contract drawings for additional information.
- D. Contractor shall coordinate and pay all costs associated with AT&T internet fiber service to the electrical building. The contractor shall contact Jermaine Colbert (AT&T Engineer) at 404-765-5784 or Dale Doster (AT&T) at 404-765-6785 for additional information. Contractor shall refer to contract drawings for additional information.
- E. Implied and Normally Required Work: It is the intent of these Specifications to provide the OWNER with complete operable systems, subsystems and other items of Work. Any part or item of Work which is reasonably implied or normally required to make each installation satisfactorily and completely operable is deemed to be included in the Work and the Contract Amount. All miscellaneous appurtenances and other items of Work incidental to meeting the intent of these Specifications are included in the Work and the Contract Amount even though these appurtenances may not be specifically called for in these Specifications.
- F. Quality of Work: Regard the apparent silence of the Contract Documents 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 as meaning that only the best general practice is to prevail and that only materials and workmanship of the best quality are to be used. Interpretation of these specifications will be made upon this basis.

G. Compliance with Laws: Comply with all local, State and Federal laws, rules, ordinances and regulations applicable to this Contract and to the work done here under. Obtain all permits, licenses or other authorization necessary for the prosecution of the Work. The costs for all such permits shall be included in the contract price and no separate payment will be made therefor.

END OF SECTION

SECTION 01025
Measurement and Payment

PART 1 GENERAL

1.01 SCOPE

- A. Refer to set of plans attached. Work includes furnishing all plant, labor, equipment, tools and materials, which are not furnished by the Owner and performing all operations required to complete the work satisfactorily, in place, as specified herein.

1.02 DESCRIPTIONS

- A. Measurement of an item of work will be by the unit indicated in the Bid.
- B. Final payment quantities shall be determined from the record drawings. The record drawing lengths, dimensions, quantities, etc. shall be determined by a survey/record drawing after the completion of all required work. Said survey/record drawing shall conform to Section 01720 of these Specifications. The precision of final payment quantities shall match the precision shown for that item in the Bid.
- A. Payment will include all necessary and incidental related work not specified to be included in any other item of work listed in the Bid.
- B. Unless otherwise stated in individual sections of the Specifications or in the Bid, no separate payment will be made for any item of work, materials, parts, equipment, supplies or related items required to perform and complete the work. The costs for all such items required shall be included in the price bid for item of which it is a part.
- C. Contractor shall refer to individual technical sections for specific measurement and payment requirements for contract items.
- D. "Products" shall mean materials or equipment permanently incorporated into the work.

1.04 UNIT PRICE PAY ITEMS

- A. N/A.

1.05 NONCONFORMANCE ASSESSMENT

- A. Remove and replace the Work, or portions of the Work, not conforming to the Contract Documents.

1.06 NONPAYMENT FOR REJECTED PRODUCTS

A. Payment will not be made for any of the following:

1. Products wasted or disposed of in a manner that is not acceptable to the Owner.
2. Products determined as nonconforming before or after the work are completed.
3. Products not completely unloaded from transporting vehicle.
4. Products placed beyond the lines and levels of the required Work.
5. Products remaining on hand after completion of the Work, unless specified otherwise.

END OF SECTION

SECTION 01091
Codes and Standards

PART 1 GENERAL

1.01 DESCRIPTION

- A. Whenever reference is made to conforming to the standards of any technical society, organization, body, code or standard, it shall be construed to mean the latest standard, code, specification or tentative specification adopted and published at the time of advertisement for Bids. This shall include the furnishing of materials, testing of materials, fabrication and installation practices. In those cases where the Contractor's quality standards establish more stringent quality requirements, the more stringent requirement shall prevail. Such standards are made a part hereof to the extent which is indicated or intended.
- B. The inclusion of an organization under one category does not preclude that organizations' standards from applying to another category.
- C. In addition, all work shall comply with the applicable requirements of local codes, utilities and other authorities having jurisdiction.
- D. All material and equipment, for which a UL Standard, an AGA or NSF approval or an ASME requirement is established, shall be so approved and labeled or stamped. The label or stamp shall be conspicuous and not covered, painted, or otherwise obscured from visual inspection.
- E. The standards which apply to this Project are not necessarily restricted to those organizations which are listed in Article 1.02.

1.02 STANDARD ORGANIZATIONS

A. Piping and Valves

| | |
|-------|--|
| ACPA | American Concrete Pipe Association |
| ANSI | American National Standards Institute |
| API | American Petroleum Institute |
| ASME | American Society of Mechanical Engineers |
| AWWA | American Water Works Association |
| CISPI | Cast Iron Soil Pipe Institute |
| DIPRA | Ductile Iron Pipe Research Association |
| FCI | Fluid Controls Institute |
| MSS | Manufacturers Standardization Society |
| NCPI | National Clay Pipe Institute |

NSF National Sanitation Foundation
PPI Plastic Pipe Institute
UPPA Uni-Bell PVC Pipe Association

B. Materials

AASHTO American Association of State Highway and Transportation Officials
ANSI American National Standards Institute
ASTM American Society for Testing and Materials

C. Painting and Surface Preparation

NACE National Association of Corrosion Engineers
SSPC Steel Structures Painting Council

D. Electrical and Instrumentation

AEIC Association of Edison Illuminating Companies
AIEE American Institute of Electrical Engineers
EIA Electronic Industries Association
ICEA Insulated Cable Engineers Association
IEEE Institute of Electrical and Electronic Engineers
IES Illuminating Engineering Society
IPC Institute of Printed Circuits
IPCEA Insulated Power Cable Engineers Association
ISA Instrument Society of America
NEC National Electric Code
NEMA National Electrical Manufacturers Association
NFPA National Fire Protection Association
TIA Telecommunications Industries Association
UL Underwriter's Laboratories
VRCI Variable Resistive Components Institute

E. Aluminum

AA Aluminum Association
AAMA American Architectural Manufacturers Association

F. Steel and Concrete

ACI American Concrete Institute
AISC American Institute of Steel Construction, Inc.
AISI American Iron and Steel Institute
CRSI Concrete Reinforcing Steel Institute

NRMA National Ready-Mix Association
PCA Portland Cement Association
PCI Prestressed Concrete Institute

G. Welding

ASME American Society of Mechanical Engineers
AWS American Welding Society

H. Government and Technical Organizations

AIA American Institute of Architects
APHA American Public Health Association
APWA American Public Works Association
ASA American Standards Association
ASAE American Society of Agricultural Engineers
ASCE American Society of Civil Engineers
ASQC American Society of Quality Control
ASSE American Society of Sanitary Engineers
CFR Code of Federal Regulations
CSI Construction Specifications Institute
EDA Economic Development Administration
EPA Environmental Protection Agency
FCC Federal Communications Commission
FmHA Farmers Home Administration
FS Federal Specifications
IAI International Association of Identification
ISEA Industrial Safety Equipment Association
ISO International Organization for Standardization
ITE Institute of Traffic Engineers
NBFU National Board of Fire Underwriters
(NFPA) National Fluid Power Association
NBS National Bureau of Standards
NISO National Information Standards Organization
OSHA Occupational Safety and Health Administration

H. Government and Technical Organizations Contd.

SI Salt Institute
SPI The Society of the Plastics Industry, Inc.
USDC United States Department of Commerce
WEF Water Environment Federation

I. General Building Construction

| | |
|--------|--|
| AHA | American Hardboard Association |
| AHAM | Association of Home Appliance Manufacturers |
| AITC | American Institute of Timber Construction |
| APA | American Parquet Association, Inc. |
| APA | American Plywood Association |
| BHMA | Builders Hardware Manufacturers Association |
| BIFMA | Business and Institutional Furniture Manufacturers Association |
| DHI | Door and Hardware Institute |
| FM | Factory Mutual Fire Insurance Company |
| HPMA | Hardwood Plywood Manufacturers Association |
| HTI | Hand Tools Institute |
| IME | Institute of Makers of Explosives |
| ISANTA | International Staple, Nail and Tool Association |
| ISDSI | Insulated Steel Door Systems Institute |
| IWS | Insect Screening Weavers Association |
| MBMA | Metal Building Manufacturers Association |
| NAAMM | National Association of Architectural Metal Manufacturers |
| NAGDM | National Association of Garage Door Manufacturers |
| NCCLS | National Committee for Clinical Laboratory Standards |
| NFPA | National Fire Protection Association |
| NFSA | National Fertilizer Solutions Association |
| NKCA | National Kitchen Cabinet Association |
| NWMA | National Woodwork Manufacturers Association |
| NWWDA | National Wood Window and Door Association |
| RMA | Rubber Manufacturers Association |
| SBC | SBCC Standard Building Code |
| SDI | Steel Door Institute |
| SIA | Scaffold Industry Association |
| SMA | Screen Manufacturers Association |
| SPRI | Single-Ply Roofing Institute |
| TCA | Tile Council of America |
| UBC | Uniform Building Code |

J. Roadways

| | |
|-------|---|
| AREA | American Railway Engineering Association |
| DOT | Department of Transportation |
| SSRBC | Standard Specifications for Construction of Transportation Systems, Georgia Department of Transportation |

K. Plumbing

AGA American Gas Association
NSF National Sanitation Foundation
PDI Plumbing Drainage Institute
SPC SBCC Standard Plumbing Code

L. Refrigeration, Heating, and Air Conditioning

AMCA Air Movement and Control Association
ARI American Refrigeration Institute
ASHRAE American Society of Heating, Refrigeration, and Air Conditioning Engineers
ASME American Society of Mechanical Engineers
CGA Compressed Gas Association
CTI Cooling Tower Institute
HEI Heat Exchange Institute
IIAR International Institute of Ammonia Refrigeration
NB National Board of Boilers and Pressure Vessel Inspectors
PFMA Power Fan Manufacturers Association
SAE Society of Automotive Engineers
SMACNA Sheet Metal and Air Conditioning Contractors National Association
SMC Standard Mechanical Code
TEMA Tubular Exchangers Manufacturers Association

M. Equipment

AFBMA Anti-Friction Bearing Manufacturers Association, Inc.
AGMA American Gear Manufacturers Association
ALI Automotive Lift Institute
CEMA Conveyor Equipment Manufacturers Association
CMAA Crane Manufacturers Association of America
DEMA Diesel Engine Manufacturers Association
MMA Monorail Manufacturers Association
OPEI Outdoor Power Equipment Institute, Inc.
PTI Power Tool Institute, Inc.
RIA Robotic Industries Association
SAMA Scientific Apparatus Makers Association

END OF SECTION

**SECTION 01200
PROJECT MEETINGS**

PART 1 GENERAL

1.1 GENERAL

- A. Owner's Project Representative will schedule physical arrangements for meetings throughout progress of Work, prepare meeting agenda with regular participant input and distribute with written notice of each meeting, preside at meetings, record minutes to include significant proceedings and decisions, and reproduce and distribute copies of minutes within 5 days after each meeting to participants and parties affected by meeting decisions.

1.2 SUBMITTALS

- A. Administrative Submittals:
 - 1. Provide suggested agenda for pre-installation meeting and facility start-up meeting to Owner's Project Representative to include reviewing conditions of installation, preparation and installation or application procedures, and coordination with related Work and work of others.

1.3 PRECONSTRUCTION CONFERENCE

- A. Be prepared to discuss the following subjects, as a minimum:
 - 1. Required schedules.
 - 2. Status of Bonds and insurance.
 - 3. Sequencing of critical path work items.
 - 4. Progress payment procedures.
 - 5. Project changes and clarification procedures.
 - 6. Use of site, access, office and storage areas, security and temporary facilities.
 - 7. Major product delivery and priorities.
 - 8. CONTRACTOR's safety plan and representative.
- B. Attendees will include:
 - 1. Owner's representatives.
 - 2. CONTRACTOR's office representative.
 - 3. CONTRACTOR's resident superintendent.
 - 4. CONTRACTOR's quality control representative.

5. Subcontractors' representatives whom CONTRACTOR may desire or ENGINEER may request to attend.
6. ENGINEER's representatives.
7. Others as appropriate.

1.4 PRELIMINARY SCHEDULES REVIEW MEETING

- A. As set forth in General Conditions and Section 01310, CONSTRUCTION SCHEDULES.

1.5 PROGRESS MEETINGS

- A. Owner's Project Representative will schedule regular progress meetings at site, conducted weekly to review Work progress, progress schedule, Shop Drawing and Sample submissions schedule, Application for Payment, contract modifications, and other matters that require discussion and resolution.
- B. Attendees will include:
 1. Owner's Project Representative and others, as appropriate.
 2. CONTRACTOR, Subcontractors, and Suppliers, as appropriate.
 3. ENGINEER's representative(s).
 4. Others as appropriate.
- C. ENGINEER shall prepare agenda and distribute 48 hours prior to meeting, preside at meetings, and prepare and distribute minutes of proceedings to all parties.
- D. CONTRACTOR shall provide data required and be prepared to discuss all items on agenda.
- E. Agenda:
 1. Agenda will include but not necessarily be limited to the following:
 - a. Revisions and/or Corrections to Previous Minutes.
 - b. Unresolved Items.
 - c. Administrative Items.
 - d. New Agenda items to be discussed.
 - e. Change Orders and review of Change Order Log.
 - f. Shop Drawings and review of Shop Drawing Log.
 - g. Request for Information (RFI) and review of RFI Log.
 - h. Request for Proposal (RFP) and review of RFP Log.
 - i. Problems, Conflicts, Observations.

- j. Coordination with OWNER and other CONTRACTOR's.
- k. Progress since last meeting.
- l. Planned Progress for Next Meeting and milestone work.
- m. Schedule Assessment / Delay.
- n. Project security and Project Safety.
- o. Testing.
- p. Subcontractors.
- q. Work Hours.
- r. Other Business and planned visitors

1.6 QUALITY CONTROL AND COORDINATION MEETINGS

- A. Scheduled by Owner's Project Representative on regular basis and as necessary to review test and inspection reports, and other matters relating to quality control of Work and work of other contractors.

- C. Attendees will include:
 - 1. CONTRACTOR.
 - 2. CONTRACTOR's designated quality control representative.
 - 3. Subcontractors and Suppliers, as necessary.
 - 4. Owner's Project Representative.
 - 5. ENGINEER's representative(s), as necessary.

1.7 PREINSTALLATION MEETINGS

- A. When required in individual Specification sections, convene at site prior to commencing Work of that section.
- B. Require attendance of entities directly affecting, or affected by, Work of that section.
- C. Notify Owner's Project Representative 5 business days in advance of meeting date.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTIONS (NOT USED)

END OF SECTION

SECTION 01310
Construction Schedules

PART 1 GENERAL

1.01 SCOPE

- A. The work under this Section includes preparing, furnishing, distributing, and periodic updating of the construction program/schedules as specified herein.
- B. The purpose of the schedule is to demonstrate that the Contractor can complete the overall Project within the Contract Time, and meet all required interim milestones.

1.02 QUALITY ASSURANCE

The Project Schedule shall be developed using Microsoft Project 2010 by Microsoft Corporation for scheduling or other approved method/program. Coordinate with the PM/CM to insure compatibility of software and computer systems.

1.03 SUBMITTALS

- A. Project Schedule
 - 1. Submit the Project Schedule within 5 days after date of the Notice to Proceed.
 - 2. The PM/CM will review schedule and will return the reviewed copy within 5 days after receipt.
 - 3. If required, resubmit within five days after receipt of a returned review copy.
- B. Updating: Submit an update of the schedule with each request for payment.
- C. Submit the number of copies required by the Contractor, plus four copies to be retained by the PM/CM.

1.04 APPROVAL

Approval of the Contractor's construction program and revisions thereto, shall in no way relieve the Contractor of any duties and obligations under the Contract. Such approval is limited to the format of the schedule and does not in any way indicate approval of, or concurrence with, the Contractor's means, methods and ability to carry out the Work.

1.05 PRELIMINARY PROJECT SCHEDULE (PPS)

- A. The Project Schedule shall be a bar chart or time scaled network diagram showing the Contractor's proposed operations.

1.06 UPDATING

- A. Written Narrative Report: Provide a written narrative report with each update including:
1. A status review of the Project.
 2. A discussion of problem areas including current and anticipated delay factors and their impact.
 3. Direct action taken, or proposed, and its effect.
 4. A description of revisions including:
 - a. Their effect on the schedule due to the change of scope.
 - b. Revisions in duration of activities.
 - c. Other changes that may affect the schedule.
 5. A listing of behind-schedule materials and equipment procurement activities.
 6. A listing of any significant changes in the activities and restraints occurring since the last update and why the changes were made.
- B. Critical Work List: Provide a listing of critical work to be performed prior to the next Project Coordination Meeting, specifically listing what must be done during the next 30 days to stay on the critical path schedule.
- C. At each Project Coordination Meeting, the Contractor shall present for discussion the most current update of the schedule.

END OF SECTION

SECTION 01320
Construction Photographs

PART 1 GENERAL

1.01 SCOPE

- A. The Contractor shall furnish all equipment and labor materials required to provide the Owner with construction photographs of the Project.

1.02 PRE AND POST CONSTRUCTION PHOTOGRAPHS

- A. Prior to the beginning of any work, the Contractor shall take project photographs of the work area to record existing conditions.
- B. Following completion of the work, another recording shall be made showing the same areas and features as in the pre-construction photographs.
- C. All conditions which might later be subject to disagreement shall be shown in sufficient detail to provide a basis for decisions.
- D. The Contractor shall coordinate the taking of pre and post-construction photographs with the PM/CM. The PM/CM shall observe the taking of the photographs.
- E. The pre-construction photographs shall be submitted to the PM/CM within 30 calendar days after the date of receipt by the Contractor of Notice to Proceed. Post-construction photographs shall be provided prior to final acceptance of the project.

1.03 PROGRESS PHOTOGRAPHS

- A. Photographs shall be taken to record the general progress of the Project during each pay period. Photographs shall be representative of the primary work being performed at that time.
- B. The photographs shall include the date and time marking of the recording. All photographs shall be labeled on a tab connected to the bottom of the photo to indicate date and description of work shown.
- C. A minimum of 10 photographs shall be submitted with each request for payment. The view selection will be as agreed to with the PM/CM. Two prints of each photograph shall be submitted to the PM/CM.

1.04 SUBMITTALS

- A. A CD disc is an acceptable method for submitting the photographs.
- B. Construction photographs shall be submitted with each payment request. Failure to include photographs may be cause for rejection of the payment request.

END OF SECTION

SECTION 01460
Testing Services

PART 1 - GENERAL

1.1 SCOPE

A. General:

1. Testing and special inspection services (Services) are required for portions of this Project to verify Building Code and Contract Document compliance of materials, installation, fabrication, erection or placement of components and mechanical connections.
 - a. The following paragraphs define the division of responsibilities between the OWNER and CONTRACTOR as related to these Services.
 - b. Because the nature of these Services is broad, these Services may be provided by more than one (1) Service Provider for either the OWNER and/or CONTRACTOR.

B. Product Production Testing:

1. This testing category addresses all factory and fabrication plant testing required to certify that materials meet Contract Document requirements.
2. Examples of this category of testing include steel mill tests, concrete block certification, precast plant production, establishment of mix designs, etc.
3. Documentation requirements may include definition of factory test procedures, testing reports, certificates or other forms as applicable.
4. Costs associated with all phases of securing satisfactory product production testing information required by the Contract Documents are the full responsibility of the CONTRACTOR.

C. Field Testing:

1. Strength/condition of materials testing:
 - a. This testing category addresses all testing required to verify strength of materials or conditions of subgrade or fireproofing during construction.
 - b. Examples of this subcategory of testing include soil density testing, concrete testing, grout and mortar testing, structural steel inspection, weld testing and sprayed fire resistant materials testing.
 - c. CONTRACTOR will hire independent testing lab(s) for this testing.

- d. Costs associated with first time tests will be paid for by the CONTRACTOR. Costs of corrective action and costs of retesting are the sole responsibility of the CONTRACTOR.
- 2. Non-strength related testing:
 - a. This subcategory addresses non-strength related testing such as piping pressure testing, etc.
 - b. Documentation requirements may include definition of test procedures, testing reports, certificates or other forms as applicable.
 - c. Contractor shall have the option of hiring an independent testing lab(s) for these tests, or may perform the testing using CONTRACTOR's forces.
 - d. Costs associated with all phases of securing required satisfactory test information required by the Contract Documents are the full responsibility of the CONTRACTOR.
- D. The General Contractor shall employ and pay for an independent testing laboratory to perform the following services at no additional cost to the OWNER:
 - 1. Shop or laboratory testing of equipment provided by General Contractor where specified in the technical specifications.
 - 2. In-place soil density testing as specified in the technical specifications, except for testing required for building or structure foundations.
- E. All laboratories shall be subject to the approval of the OWNER.

1.2 QUALITY ASSURANCE

- A. Laboratory shall be licensed and authorized to work in the State of Connecticut.
- B. Laboratory shall meet the applicable requirements of the following:
 - 1. "Recommended Requirements for the Independent Laboratory Qualification", latest edition, as published by the American Council of Independent Laboratories.
 - 2. ASTM International (ASTM):
 - a. E329, Standard Specification for Agencies Engaged in the Testing and/or Inspection of Materials Used in Construction.
- C. Submit a copy of the current inspection report of facility made by Materials Reference Laboratory of National Bureau of Standards. Additionally, provide a letter summarizing remedies to deficiencies noted during inspection.
- D. Test Equipment Calibration:

1. Testing equipment shall be calibrated at a maximum 12-month interval. Calibration shall be performed using devices of accuracy traceable to either the National Bureau of Standards or accepted natural physical constants.
2. Submit a copy of certificate of calibration, made by an accredited calibration agency, for all testing equipment to be utilized on this project.

1.3 LABORATORY RESPONSIBILITIES

- A. Perform inspection, sampling and testing in accordance with Contract Documents and applicable standards.
- B. Cooperate with ENGINEER and CONTRACTOR.
- C. Provide qualified personnel after due notice.
- D. If deficiencies or non-conformances are observed, notify ENGINEER and CONTRACTOR promptly.
- E. Submit a minimum of five copies of inspection or test reports to ENGINEER. Reports shall at a minimum include the following:
 1. Testing laboratory name, location and phone number.
 2. Project name and location.
 3. Date of report.
 4. Date of inspection or sampling.
 5. Date of test.
 6. Location of sample or test in the Project.
 7. Temperature and weather conditions at the time of inspection, sampling or testing.
 8. Reference to applicable Specification Section.
 9. Type of inspection or test.
 10. Results of test or inspection, including statement of compliance with Contract Documents.
 11. Name and signature of inspector or person authorized to approve testing.
 12. Interpretation of test results, when requested by ENGINEER.
- F. Laboratory is not authorized to:
 1. Release, revoke, alter or enlarge upon requirements of Contract Documents.
 2. Approve or accept any portion of the Work.

1.4 CONTRACTOR RESPONSIBILITIES

- A. CONTRACTOR shall pay for all testing to meet the requirements of the Contract Documents.
- B. CONTRACTOR shall pay for any tests performed for the CONTRACTOR'S convenience.
- C. Notify laboratory and ENGINEER in sufficient time prior to testing in order to schedule personnel for inspection or testing.
- D. Provide to the laboratory the preliminary design mix proposed to be used for concrete and other materials mixes that require control by the testing laboratory.
- E. CONTRACTOR shall furnish labor and equipment as required to:
 - 1. Provide access to work to be tested.
 - 2. For testing laboratory to obtain, store and cure samples.
 - 3. Facilitate inspections, sampling and testing.
 - 4. Where allowed, provide laboratory with required samples to be tested.
- F. Additionally, CONTRACTOR shall perform duties as required and specified in other portions of this Specification Section.

1.5 SHOP TESTING

- A. CONTRACTOR shall pay all costs associated with specified shop tests of materials and equipment, including retesting of items that fail original tests.
- B. Related requirements specified elsewhere:
 - 1. Inspections and testing required by laws, ordinances, rules, regulations, orders, or approvals of public authorities: Conditions of the Contract.
 - 2. Certification of products: The respective sections of Specifications.
 - 3. Test, adjust, and balance of equipment: The respective sections of Specifications.
 - 4. Shop tests required and standards for testing: Each Specification section listed.
- C. Observation of shop tests:
 - 1. Where the Specifications call for a shop test to be witnessed by a representative of the

ENGINEER, notify ENGINEER not less than 14 days prior to the scheduled test date.

2. OWNER is to pay for all costs of ENGINEER's first visit.
3. If subsequent visits by ENGINEER are required because of incomplete tests, retesting, or subsequent tests, CONTRACTOR shall reimburse OWNER for or OWNER shall secure through deductive change order all costs of the subsequent visits.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION

**SECTION 01510
TEMPORARY FACILITIES**

PART 1 GENERAL

1.01 DESCRIPTION

A. The work of this Section shall consist of providing the following temporary facilities:

1. Water,
2. Sanitary Facilities,
3. Electrical Service,
4. Engineer's Field Office,
5. Drainage.

PART 2 PRODUCTS

2.01 TEMPORARY WATER

- A. Drinking water shall be provided by the Contractor for his personnel and the personnel of his sub-contractors.
1. Drinking water shall be tested and approved by the State Agency as "safe drinking water suitable for human consumption".
 2. Contractor shall furnish water for construction.

2.02 TEMPORARY SANITARY FACILITIES

- A. Sanitary conveniences, properly screened from public observation, for the use of all persons employed on the work and beginning with the first man engaged in preliminary operations, shall be provided and maintained by the Contractor in sufficient numbers through the completion of the work.
- B. Contractor shall be diligent in maintaining sanitary facilities; pumping weekly, or more often as required to protect soil and water quality.

2.03 ELECTRICAL SERVICES

- A. Provide the necessary temporary electrical service connections as required by the local electrical power provider.
1. Temporary distribution wiring and boxes as needed by the construction trades working on the site(s).

2.04 TEMPORARY DRAINAGE

- A. Temporary drainage, as necessary shall be provided by the Contractor to keep the working area dry.

PART 3 EXECUTION (Not Applicable)

END OF SECTION

**SECTION 01570
TRAFFIC REGULATION**

PART 1 GENERAL

1.01 DESCRIPTION

- A. The work under this Section shall consist of maintaining and protecting traffic in the project area to the satisfaction of the applicable Local Regulatory Agencies, and the Owner.
 - 1. Unless otherwise specified within the Contract Documents, the Contractor must maintain pedestrian and vehicular traffic and permit access to businesses, factories, residences, and intersecting streets
 - 2. The construction site is on Tatum Road which is utilized by Quigg Branch WWTP and Rockdale Water Resources Central Maintenance Department. The Contractor shall coordinate activities with designated personnel at each of these facilities. The “designated personnel” will be disclosed at the pre-construction meeting.

PART 2 PRODUCTS

2.01 TRAFFIC SIGNS

- A. The Contractor shall furnish light(s) and maintain traffic signs as may be directed, or may be necessary for the safe regulation, or convenience of traffic.
 - 1. Said signs shall be as shown or noted on the Contract Drawings or elsewhere herein, or if not specified, they shall be adequate for the regulation, safety and convenience of traffic and in conformance with the applicable requirements of the State/Federal Manual on Uniform Traffic Control Devices.

2.02 BARRICADES

- A. Suitably lighted barriers or barricades shall be furnished by the Contractor and put up and maintained at all times during the night or daytime, around all open ditches, trenches, excavation, or other work potentially dangerous to traffic.
 - 1. Such barricades shall be as shown on the Contract Drawings, or if not shown, shall be constructed of 2 inch by 8 inch rough lumber, securely supported, braced and at least 3 feet high above the ground.

2. Barricades shall be placed on all sides and throughout the entire length and breadth of all open ditches, trenches, excavations, or other work which must be barred to the general public.
3. Barricades shall be properly painted to the satisfaction of the Local Regulatory Agency in order to retain a high degree of visibility to vehicular and pedestrian traffic.

2.03 FLASHERS

- A. The Contractor shall furnish and securely fasten flashing units to signs, barricades, and other objects in such numbers and for such lengths of time as are required for the maintenance and protection of traffic.
 1. The flashers shall be in operation during all hours between sunset and sunrise, and during periods of low visibility.
 2. Suitably lighted barricades shall be defined as barricades lit by flashers in accordance with this Section or other lighting methods approved by the Local Regulatory Agency in lieu thereof.
 3. Flashers shall be placed along the entire length of the barricades at an interval no greater than 8 feet, center to center. Flashers shall be power operated, lens directed, enclosed light units which shall provide intermittent light from 70 to 120 flashers per minute, with the period of light emittance occurring not less than 25 percent of each on-off cycle, regardless of temperature.
 4. The emitted light shall be yellow in color and the area of light on at least one face of the unit shall be not less than 12 square inches. The discernible light shall be bright enough to be conspicuously visible during the hours of darkness at a minimum distance of 800 feet from the unit under normal atmospheric conditions.
 5. For units which beam light in one or more directions, the foregoing specifications shall apply 10 degrees or more to the side and 5 degrees or more above and below the photometric axis.

2.04 DETOURS

- A. Temporary detours shall be constructed on the site as proposed by the Contractor and approved by the Applicable State and/or Local Authorities required by the Contract Drawings or specified elsewhere herein.
 1. Detours shall not have grades in excess of 10% anywhere along their lanes unless otherwise shown on the Contract Drawings. Detours shall be smooth riding.
 2. Suitable barricades shall be installed continuously along both sides of a detour where:

- a. The adjacent side slope is steeper than 1 on 6 inches.
- b. The Contractor's operations or equipment may operate within 20 feet of the detour.
- c. Other unsafe conditions requiring them for the protection of traffic along the line of detour.

END OF SECTION

SECTION 01610
Transportation and Handling

PART 1 GENERAL

1.01 DESCRIPTION

- A. Work included: Protect products scheduled for use in the Work by means including, but not necessarily limited to, those described in this Section.

1.02 QUALITY ASSURANCE

- A. Include within the Contractor's quality assurance program such procedures as are required to assure full protection of work and materials.

1.03 MANUFACTURER'S RECOMMENDATIONS

- A. Comply with manufacturers' recommendations on product handling, storage and protection.

1.04 PACKAGING

- A. Deliver products to the job site in their manufacturer's original container(s), with labels intact and legible.
 - 1. Maintain packaged materials with seals unbroken and labels intact until time of use.
 - 2. Promptly remove damaged material and unsuitable items from the job site, and promptly replace with material meeting the specified requirements, at no additional cost to the Owner.
- B. The Engineer may reject as non-complying such material and products that do not bear identification satisfactory to the Engineer as to manufacturer, grade, quality and other pertinent information.

1.05 PROTECTION

- A. Mechanical equipment subject to damage by the atmosphere if stored outdoors, shall be stored in a building with a controlled environment. The building may be a temporary structure on the site or a building off the site.
- B. PVC pipe shall be covered to protect it from UV degradation.

1.06 REPAIRS AND REPLACEMENTS

- A. In event of damage, promptly make replacements and repairs to the approval of the Engineer at no additional cost to the Owner.
- B. Additional time required to secure replacements and to make repairs will not be considered by the Engineer to justify an extension in the Contract Time of Completion.

END OF SECTION

SECTION 01700
Contract Closeout

PART 1 GENERAL

1.01 DESCRIPTION

- A. The work of this Section consists of procedures and requirements for contract closeout, such as cleaning, restoration of project site to original condition, inspections and guarantees.

PART 2 MATERIALS (Not Applicable)

PART 3 EXECUTIONS

3.01 CLEANING UP

- A. During its progress, the work and the adjacent areas affected thereby shall be kept cleaned up and all rubbish, surplus materials, and unneeded construction equipment shall be removed and all damage repaired so that the public and property owners will be inconvenienced as little as possible.
- B. All local water courses, catch basins and drains discharge into the drinking water reservoir. No material or debris shall be washed or flowed into or be placed in watercourses, ditches, gutters, drains, catch basins, or elsewhere as a result of the Contractor's operations, such material or debris shall be entirely removed and legally disposed of during progress of the work, and the ditches, channels, drains, etc., shall be protected from spillage and kept in a neat, clean and functioning condition.
- C. On or before the completion of the work, the Contractor shall, unless otherwise especially directed or permitted in writing, remove all rubbish from any grounds which he has occupied; and shall leave the roads and all parts of the premises and adjacent property affected by his operation in a neat and satisfactory condition.
- D. Unless otherwise specifically directed or permitted in writing, the Contractor shall perform the following tasks:
 - 1. Tear down and remove all temporary buildings and structures built by him.

2. Remove all temporary works, tools, and machinery or other construction equipment furnished by him.
3. Remove, acceptably disinfect, and cover all organic matter and material containing organic matter in, under, and around privies, houses, and other buildings used by him.
 - a. Subsequent to disinfection, remove or suitably neutralize disinfectant residuals from treated area(s).
4. Remove all rubbish from any grounds which he has occupied.
5. Leave roads and all parts of premises and adjacent property affected by his operations in a neat and satisfactory condition.

3.02 RESTORATION

- A. The Contractor shall restore or replace, when and as directed by the Engineer, any public or private property damaged by his work, equipment, or employees, to a condition at least equal to that existing immediately prior to the beginning of operations.
 1. To this end, the Contractor shall do as required all necessary highway or driveway, walk, and landscaping work.
 2. Suitable materials, equipment and methods shall be used for such restoration, or as required in other divisions of this Specification.
- B. In restoring the disturbed areas the Contractor shall:
 1. Replace to an equivalent depth any loam that has been removed during the excavation.
 2. Remove from the property and legally dispose of in an approved fashion all trees, brush and other items that the Contractor has cut in order to prosecute his work.
 3. Remove from the property upon completion of the work thereon, all excess materials of construction such as stone, pipe, concrete block, gravel, etc., that the Contractor may have stockpiled for use during the course of the work.
 4. Leave the land in a smooth, even condition. All ruts, holes or other undesirable grading conditions which resulted from work under this Contract shall be filled and the area so graded to eliminate ponding.
 5. All drainage course(s) shall be restored to their pre-existing condition or better.
 6. Reset all public or private monuments, iron pipes or other types of property line and geodetic markers damaged or disturbed by operations under this Contract.

This work shall be done by a licensed land surveyor at no additional cost.

7. Repair, reset or replace as directed all pipes, walls, utilities, fences, railings, stone walls, etc., and ornamental or utilitarian domestic accessories, such as, but not limited to, arbors, fireplaces, sheds and incinerators, or other surfaces structures, or property which may have been damaged, either directly or indirectly by his operations under this Contract.
8. Restore to a condition at least equal to that in which they were found immediately prior to the beginning of construction all sidewalks, gutters, driveways and curbs which have been damaged by the Contractor's operations.

3.03 FINAL INSPECTION

- A. At completion of all work, the Owner and Engineer, along with the General Contractor and each of the subcontractors shall conduct a final inspection jointly for "punch list" purposes and to determine the exact status of the project before final acceptance.

3.04 GUARANTEES

- A. The Contractor shall take notice of special guarantees required in the technical Sections of these Specifications.
 1. If, in the opinion of the Owner, any item requires excessive maintenance during guarantee periods, the item shall be considered defective and the Contractor shall correct the defects.
 2. All defects so corrected shall be at the expense of the Contractor.

END OF SECTION

SECTION 01710
Cleaning

PART 1 GENERAL

1.01 SCOPE

This Section covers the general cleaning which the Contractor shall be required to perform both during construction and before final acceptance of the Project unless otherwise shown on the Drawings or specified elsewhere in these Specifications.

1.02 QUALITY ASSURANCE

- A. Daily, and more often if necessary to conduct inspections verifying that requirements of cleanliness are being met.
- B. In addition to the standards described in this Section, comply with all pertinent requirements of governmental agencies having jurisdiction.

1.03 HAZARDOUS MATERIAL AND WASTE

- A. The Contractor shall handle hazardous waste and materials in accordance with applicable local, state, and federal regulations. Waste shall also be disposed of in approved landfills as applicable.
- B. The Contractor shall prevent accumulation of wastes which create hazardous conditions.
- C. Burning or burying rubbish and waste materials on the site shall not be allowed.
- D. Disposal of hazardous wastes or materials into sanitary or storm sewers shall not be allowed.

1.04 DISPOSAL OF SURPLUS MATERIALS

Unless otherwise shown on the Drawings, specified or directed, the Contractor shall legally dispose off the site all surplus materials and equipment from demolition and shall provide suitable off-site disposal site, or utilize a site designated by the Owner.

PART 2 PRODUCTS

2.01 CLEANING MATERIALS AND EQUIPMENT

Provide all required personnel, equipment and materials needed to maintain the specified standard of cleanliness.

2.02 COMPATIBILITY

Use only the cleaning materials, methods and equipment which are compatible with the surface being cleaned, as recommended by the manufacturer of the material or as approved by the PM/CM.

PART 3 EXECUTION

3.01 PROGRESS CLEANING

A. General

1. Do not allow the accumulation of scrap, debris, waste material and other items not required for construction of this Work.
2. Daily, completely remove all scrap, debris and waste material from the job site.
3. Provide adequate storage for all items awaiting removal from the job site, observing all requirements for fire protection and protection of the environment.

B. Site

1. Daily, and more often if necessary, inspect the site and pick up all scrap, debris and waste material. Remove all such items to the place designated for their storage.
2. Restack materials stored on site weekly.
3. At all times maintain the site in a neat and orderly condition which meets the approval of the PM/CM.

C. Structures

1. Weekly, and more often if necessary, inspect the structures and pick up all scrap, debris and waste material. Remove all such items to the place designated for their storage.

2. Weekly, and more often if necessary, sweep all interior spaces clean. "Clean", for the purpose of this subparagraph, shall be interpreted as meaning free from dust and other material capable of being removed by using a hand-held broom.
3. As required preparatory to installation of successive materials, clean the structures or pertinent portions as recommended by the manufacturer of the successive material.
4. Following the installation of finish floor materials, clean the finish floor daily. "Clean", for the purpose of this paragraph, shall be interpreted as meaning free from all foreign material which, in the opinion of the PM/CM, may be injurious to the finish floor material.
5. Schedule cleaning operation so that dust and other contaminants resulting from cleaning operations will not fall on wet, recently painted surfaces.

3.02 FINAL CLEANING

- A. Definitions: Unless otherwise specifically specified, "clean" for the purpose of this Article shall be interpreted as the level of cleanliness generally provided by commercial building maintenance subcontractors using commercial quality building maintenance equipment and materials.
- B. General: Prior to completion of the Work, remove from the job site all tools, surplus materials, equipment, scrap, debris and waste. Conduct final progress cleaning as described in 3.01 above.
- C. Site: Unless otherwise specifically directed by the PM/CM, hose down all paved areas on the site and all public sidewalks directly adjacent to the site; rake clean other surfaces of the grounds. Completely remove all resultant debris.
- D. Structures
 1. Remove all traces of soil, waste material, splashed material, and other foreign matter to provide a uniform degree of exterior cleanliness. Visually inspect all exterior surfaces and remove all traces of soil, waste material, and other foreign matter. Remove all traces of splashed materials from adjacent surfaces. If necessary to achieve a uniform degree of exterior cleanliness, hose down the exterior of the structure. In the event of stubborn stains not removable with water, the PM/CM may require light sandblasting or other cleaning at no additional cost to the Owner.
 2. Visually inspect all interior surfaces and remove all traces of soil, waste material,

- smudges and other foreign matter. Remove all paint droppings, spots, stains and dirt from finished surfaces.
3. Clean all glass inside and outside.
 4. Polish all surfaces requiring the routine application of buffed polish. Provide and apply polish as recommended by the manufacturer of the material being polished.
- E. Post-Construction Cleanup: All evidence of temporary construction facilities, haul roads, work areas, structures, foundations of temporary structures, stockpiles of excess or waste materials, or any other evidence of construction, shall be removed as directed by the PM/CM.
- F. Restoration of Landscape Damage: Any landscape feature damaged by the Contractor shall be restored as nearly as possible to its original condition at the Contractor's expense. The PM/CM will decide what method of restoration shall be used.
- G. Timing: Schedule final cleaning as approved by the PM/CM to enable the Owner to accept the Project.

3.03 CLEANING DURING OWNER'S OCCUPANCY

Should the Owner occupy the Work or any portion thereof prior to its completion by the Contractor and acceptance by the Owner, responsibilities for interim and final cleaning of the occupied spaces shall be as determined by the PM/CM in accordance with the Supplementary Conditions of the Contract Documents.

END OF SECTION

SECTION 16231 Generator and ATS

PART 1 - GENERAL

1.01 REFERENCES

- A. The equipment covered by these specifications shall be designed, tested, rated, assembled and installed in strict accordance with all applicable standards of ANSI, NEC, ISO, U.L., IEEE and NEMA.

1.02 RELATED SECTIONS

- A. Division 3 - Concrete
- B. Division 15 - Mechanical

1.03 WORK INCLUDED

- A. The work includes supplying a complete integrated emergency generator system. The system consists of a diesel generator set with related component accessories and Automatic Transfer Switch as specified herein.
- B. The Contractor shall provide a full tank of diesel fuel for the completion of all testing.
- C. A complete system load test shall be performed after all equipment is installed.
- D. The equipment supplied and installed shall meet the requirements of the NEC and all applicable local codes and regulations. All equipment shall be of new and current production by a Manufacturer who has 25 years of experience building this type of equipment. Manufacturer shall be ISO9001 certified.

1.04 MANUFACTURERS

- A. There shall be one source responsibility for warranty, parts and service through a local representative with factory trained service personnel.
- B. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - 1. Generator Set
 - a. Cummins-Onan
 - b. Caterpillar
 - c. Generac
 - d. Kohler.

2. Automatic Transfer Switch
 - a. ASCO
 - b. Hubbell
 - c. Cummins-Onan.

1.05 SUBMITTALS

- A. Engine-generator submittals shall include the following information
 1. Factory published specification sheet indicating standard and optional accessories, ratings, etc.
 2. Manufacturer's catalog cut sheets of all auxiliary components such as Automatic Transfer Switches, battery charger, control panel, enclosure, main circuit breaker, etc.
 3. Dimensional elevation and layout drawings of the generator set, enclosure and transfer switchgear and related accessories.
 4. Weights of all equipment.
 5. Concrete pad recommendation, layout and stub-up locations of electrical and fuel systems.
 6. Interconnect wiring diagram of complete emergency system, including generator, switchgear, day tank, remote pumps, battery charger, jacket water heater, remote alarm indications.
 7. Engine mechanical data including heat rejection, exhaust gas flows, combustion air and ventilation air flows, noise data, fuel consumption, etc.
 8. Generator electrical data including temperature and insulation data, cooling requirements, excitation ratings, voltage regulation, voltage regulator, efficiencies, waveform distortion and telephone influence factor.
 9. Generator resistances, reactances, and time constants.
 10. Generator motor starting capability.
 11. Control panel schematics.
 12. Oil sampling analysis, laboratory location, and information.
 13. Manufacturer's and dealer's written warranty.

14. Letter of guarantee that the proposed generator will be capable of starting and running the loads specified on the drawings.

1.02 WARRANTY

- A. The manufacturer's standard warranty shall in no event be for a period of less than two (2) years from date of substantial completion and shall include repair parts, labor, reasonable travel expense necessary for repairs at the job site, and expendables (lubricating oil, filters, antifreeze, and other service items made unusable by the defect) used during the course of repair. Submittals received without written warranties as specified will be rejected in their entirety.

1.03 PARTS AND SERVICE QUALIFICATIONS

- A. The engine-generator supplier shall have service facilities within 75 miles of the project site and maintain 24-hour parts and service capability. The distributor shall stock parts as needed to support the generator set package for this specific project.
- B. The dealer shall maintain qualified, factory trained service personnel that can respond to an emergency call within 4 hours of notification, 24 hours per day.

PART 2 - PRODUCTS

2.01 GENERAL REQUIREMENTS

- A. The generator set shall be Standby and have a kW rating as shown on the one line diagram. The additional ratings shall be 1800 RPM, 0.8 power factor, 208Y/120 VAC, 3 phase, 4 wire, 60 hertz, including radiator fan and all parasitic loads. See Electrical Drawings for additional Generator and ATS requirements.
- B. All materials and parts comprising the unit shall be new and unused.
- C. The selected generator shall have a voltage dip not exceeding 25% and frequency dip not exceeding 10%.

2.02 DIESEL ENGINE

- A. The engine shall be water-cooled inline or vee-type, four cycle compression ignition diesel. It shall meet specifications when operating on number 2 domestic burner oil. Two cycle engines will not be considered. The engine shall be equipped with fuel, lube oil, and intake air filters, lube oil cooler, fuel transfer pump, fuel priming pump, service meter, gear-driven water pump.
- B. The complete engine block shall be machined from one casting. Designs incorporating multiple blocks bolted together are not acceptable.
- C. The engine shall utilize a gear-type, positive displacement, full pressure lubricating oil pump and water-cooled lube oil cooler. Pistons shall be spray-cooled. Provide oil filters, oil pressure gauge, dipstick and oil drain.

- D. Fuel filter and serviceable fuel system components shall be located to prevent fuel from spilling onto generator set batteries.
- E. The engine shall be equipped with an isochronous electronic governor to maintain 0% droop from no load to full load and +/- 0.25% steady state frequency variation. The governor shall be equipped with speed adjustment.

2.03 GENERATOR

- A. The synchronous generator shall be a single bearing, self-ventilated, drip-proof design in accordance with NEMA MG 1 and directly connected to the engine flywheel housing with a flex coupling.
- B. The insulation material shall meet NEMA standards for Class H insulation and be vacuum impregnated with epoxy varnish to be fungus resistant. Temperature rise of the rotor and stator shall not exceed NEMA class F (130° C rise by resistance over 40° C ambient). The excitation system shall be of brushless construction.
- C. The brushless exciter shall be independent of main stator windings (either permanent magnet or auxiliary windings) and shall consist of a three-phase armature and a three-phase full wave bridge rectifier mounted on the rotor shaft. Surge suppressors shall be included to protect the diodes from voltage spikes. Generator shall have the ability to sustain short circuit current of 300% of rated current to allow protective devices to operate.
- D. The automatic voltage regulator (AVR) shall maintain generator output voltage within +/- 0.5% for any constant load between no load and full load. The regulator shall be a totally solid state design which includes electronic voltage buildup, volts per Hertz regulation, three phase sensing, over-excitation protection, loss of sensing protection, temperature compensation, shall limit voltage overshoot on startup, and shall be environmentally sealed.

2.04 CIRCUIT BREAKER

- A. Provide a generator mounted circuit breaker, molded case or insulated case construction. Breaker shall be sized as shown on the drawings. Breaker shall be thermal magnetic trip unit. The breaker shall be UL listed with shunt trip device connected to engine/generator safety shutdowns. Breaker shall be housed in an extension terminal box mounted on the side of the generator. Mechanical type lugs, sized for the circuit breaker feeders shown on drawing, shall be supplied on the load side of breaker. Breaker shall include long term, short term instantaneous, and ground fault protection.

2.05 CONTROLS

- A. Generator Mounted Control Panel:
 - 1. Provide a generator mounted control panel for complete control and monitoring of the engine and generator set functions. Panel shall include automatic start/stop operation, adjustable cycle cranking, digital LCD AC metering (0.5% true rms accuracy) with phase selector switch, digital engine monitoring, shutdown sensors and alarms with horn and reset, adjustable cooldown timer and

emergency stop push-button. Panel shall incorporate self-diagnostics capabilities and fault logging. Critical components shall be environmentally sealed to protect against failure from moisture and dirt. Components shall be housed in a NEMA 1/IP22 enclosure with hinged lid.

2. Provide the following digital readouts on the Generator Mounted Control Panel:
 - a. Engine oil pressure
 - b. Coolant temperature
 - c. Engine RPM
 - d. System DC Volts
 - e. Engine running hours
 - f. Generator AC volts
 - g. Generator AC amps
 - h. Generator frequency
3. Control Panel Annunciation - Provide the following indications for protection and diagnostics according to NFPA 110 level 1:
 - a. Low oil pressure
 - b. High water temperature
 - c. Low coolant level
 - d. Overspeed
 - e. Overcrank
 - f. Emergency stop depressed
 - g. Approaching high coolant temperature
 - h. Approaching low oil pressure
 - i. Low coolant temperature
 - j. Low voltage in battery
 - k. Control switch not in auto. position
 - l. Low fuel main tank

- m. Battery charger ac failure
 - n. High battery voltage
 - o. Generator supplying load
 - p. Spare.
4. Generator "Running" relay and Generator "Common Fault" relay with dry, 120VAC, 5 Amp rated contacts.

B. COOLING SYSTEM

1. The generator set shall be equipped with a rail-mounted, engine-driven radiator with blower fan and all accessories. The cooling system shall be sized to operate at full load conditions and 110° F ambient air entering the room or enclosure (If an enclosure is specified) without derating the unit and 50/50 anti-freeze mixture. The generator set supplier is responsible for providing a properly sized cooling system based on the enclosure static pressure restriction.

C. FUEL SYSTEM

- 1. Filter/Separator - In addition to the standard fuel filters provided by the engine manufacturer, there shall also be installed a primary fuel filter/water separator in the fuel inlet line to the engine.
- 2. All fuel piping shall be black iron or flexible fuel hose rated for this service. No galvanized piping will be permitted.
- 3. Flexible fuel lines shall be rated for 300 degrees F and 100 PSI.
- 4. Fuel Tank shall be double wall with Leak Detection.

D. EXHAUST SYSTEM

- 1. A critical type silencer, companion flanges, and flexible stainless steel exhaust fitting properly sized shall be furnished and installed according to the manufacturer's recommendation.
- 2. Mounting shall be provided by the contractor as shown on the drawings. The silencer shall be mounted so that its weight is not supported by the engine.
- 3. Exhaust pipe size shall be sufficient to ensure that exhaust back pressure does not exceed the maximum limitations specified by the engine manufacturer.

E. STARTING SYSTEM

- 1. A DC electric starting system with positive engagement shall be furnished. The motor voltage shall be as recommended by the engine manufacturer.

2. Jacket Water Heater: A unit mounted thermal circulation type water heater. The heater watt rating shall be sized by the manufacturer to maintain jacket water temperature at 90 degrees F, and shall be a 120 volt, single phase, 60 hertz.
3. Batteries: A lead-acid storage battery set of the heavy duty diesel starting type shall be provided. Battery voltage shall be compatible with the starting system. The battery set shall be rated no less than 140 ampere hours and 1000 CCA. Necessary cables and clamps shall be provided.
4. A battery tray shall be provided for the batteries and shall conform to NEC 480-7(b). It shall be treated to be resistant to deterioration by battery electrolyte. Further, construction shall be such that any spillage or boil-over battery electrolyte shall be contained within the tray to prevent a direct path to ground.
5. Battery Charger: A current limiting battery charger shall be furnished to automatically recharge batteries. Charger shall float at 2.17 volts per cell and equalize at 2.33 volts per cell. It shall include overload protection, silicon diode full wave rectifiers, voltage surge suppressor, DC ammeter, DC voltmeter, and fused AC input. AC input voltage shall be 120 volts, single phase. Charger shall have LED annunciation for low DC volts, rectifier failure, loss of AC power, high DC volts. Amperage output shall be as required. Charger shall be wall mounting type in NEMA 1 enclosure, installed in the generator set enclosure.

F. GENERATOR SET ENCLOSURE – SOUND ATTENUATED AND WEATHER PROTECTIVE

1. The complete diesel engine generator set, including generator control panel, engine starting batteries and fuel oil tank, shall be enclosed in a factory assembled, weather protective enclosure mounted on the fuel tank base.
2. The enclosure shall be constructed of corrosion resistant steel with electrostatically applied powder coated baked polyester paint. It shall consist of a roof, side walls, and end walls. Fasteners shall be either zinc plated or stainless steel.
3. A dual wall fuel tank base of 48 hour capacity at 100% load shall be provided as an integral part of the enclosure. It shall be contained in a rupture basin with 110% capacity. The tank shall be pressure tested for leaks prior to shipment and have all necessary venting per UL142 standards. A locking fill cap, a mechanical reading fuel level gauge, low fuel level alarm contact, and fuel tank rupture alarm contact shall be provided.
4. The enclosure shall reduce the ambient noise level at full load to a maximum of 75 dB at 23 feet.
5. Number of doors on enclosure shall be as required so that all normal maintenance operations, such as lube oil change, filter change, belt adjustment and replacements, hose replacements, access to the control panels, etc., may be accomplished without

disassembly of any enclosure components. Access doors shall be fabricated of the same material as the enclosure walls and shall be reinforced for rigidity.

6. Handles shall be key lockable, all doors keyed alike, and hinges shall be zinc die cast or stainless steel. Fasteners shall be zinc plated or stainless steel. Doors shall be of a lift off design allowing one person to remove door if necessary.
7. Air handling will be sized and designed by the manufacturer for 0.5" static pressure drop through enclosure. Intake openings shall be screened to prevent the entrance of rodents.
8. Lube oil and coolant drains shall be extended to the exterior of the enclosure and terminated with drain valves. Radiator access shall be through a hinged, lockable cover on enclosure. Cooling fan and charging alternator shall be fully guarded to prevent injury.
9. Lifting points shall be provided on base frame suitable for lifting combined weight of base tank, generator set and enclosure.

G. AUTOMATIC TRANSFER SWITCH

1. GENERAL

- a. The transfer switch shall have an enclosure type, voltage and ampacity rating as shown on the Drawings and shall have 600 volt insulation on all parts in accordance with NEMA standards.
- b. The current rating shall be a continuous rating when the switch is installed in an unventilated enclosure, and shall conform to NEMA temperature rise standards. Designs which require cabinet ventilation are unacceptable and do not meet this specification.
- c. The unit shall be rated based on all classes of loads, i.e., resistive, tungsten, ballast and inductive loads. Switches rated 400 amperes or less shall be UL listed for 100% tungsten lamp load.
- d. As a precondition for approval, all transfer switches complete with accessories shall be listed by Underwriters Laboratories, under Standard UL 1008 (automatic transfer switches) and approved for use on emergency systems.
- e. The withstand current capacity of the main contacts shall not be less than 20 times the continuous duty rating when coordinated with any molded case circuit breaker established by certified test data.
- f. Temperature rise tests in accordance with UL 1008 shall have been conducted after the overload and endurance tests to confirm the ability of the units to carry their rated currents within the allowable temperature limits.

- g. Transfer switches shall comply with the applicable standards of UL, CSA, ANSI, NFPA, IEEE, NEMA and IEC.
- h. The transfer switches shall be supplied with a solid state control panel as detailed further in these specifications.

2. SEQUENCE OF OPERATION

- a. The ATS shall incorporate adjustable three phase under-voltage sensing of the normal source.
- b. When the voltage of any phase of the normal source is reduced to 80% of nominal voltage, for a period of 0-10 seconds (programmable) a pilot contact shall close to initiate starting of the engine generator.
- c. The ATS shall incorporate adjustable single phase under-voltage sensing of the emergency source.
- d. When the emergency source has reached a voltage value within 10% of nominal voltage and achieved frequency within 5% of the rated value, the load shall be transferred to the emergency source after a programmable time delay.
- e. When the normal source has been restored to not less than 90% of rated voltage on all phases, the load shall be re-transferred to the normal source after a time delay of 0 to 30 minutes (programmable). The generator shall run unloaded for 5 minutes (programmable) and then automatically shut down. The generator shall be ready for automatic operation upon the next failure of the normal source.
- f. If the engine generator should fail while carrying the load, retransfer to the normal source shall be made instantaneously upon restoration of proper voltage (90%) on the normal source.
- g. The transfer switch shall be equipped with a solid state control panel. The control panel shall perform the operational and display functions of the transfer switch. The display functions of the control panel shall include ATS position and source availability.
- h. The control panel shall include indicators for timing functions, and ATS test switch.
- i. The control panel shall be provided with calibrated pots (accessible only by first opening the lockable cabinet door) to set time delays, voltage and frequency sensors. The ATS shall be capable of being adjusted while the controls are energized and the unit in automatic mode. Designs which force

- a “programming mode” or require the controls be de-energized during adjustment are unacceptable.
- j. The control panel shall be opto-isolated from its inputs to reduce susceptibility to electrical noise and provided with the following inherent control functions and capabilities:
 - i. An LED display for continuous monitoring of the ATS functions.
 - ii. Test switch to simulate a normal source failure.
 - iii. Time delay to override momentary normal source failure prior to engine start. Field programmable 0-10 seconds (continuously adjustable via a calibrated potentiometer factory set at 3 seconds.
 - iv. Time delay on retransfer to normal source, continuously adjustable 0-30 minutes, factory set at 30 minutes. If the emergency source fails during the retransfer time delay, the transfer switch controls shall automatically bypass the time delay and immediately retransfer to the normal position.
 - v. Time delay on transfer to emergency, continuously adjustable 0-15 seconds, factory set at 1 second.
 - vi. An in-phase monitor or time delayed neutral shall be provided to prevent excessive transient currents from switching motor loads.
 - vii. An interval-type automatic clock exerciser with load/no load selectability shall be incorporated in the ATS.

3. CONSTRUCTION AND PERFORMANCE

- a. The automatic transfer switch shall be of double throw construction operated by a reliable electrical mechanism momentarily energized. There shall be a direct mechanical coupling to facilitate transfer in 6 cycles or less.
- b. The normal and emergency contacts shall be mechanically interlocked such that failure of any coil or disarrangement of any part shall not permit a neutral position.
- c. For switches installed in systems having ground fault protective devices, and/or wired so as to be designated a separately derived system by the NEC, a 4th pole shall be provided. This additional pole shall isolate the normal and emergency neutrals. The neutral pole shall have the same withstand and operational ratings as the other poles and shall be arranged to break last and make first to minimize neutral switching transients. Add-on or accessory poles that are not of identical construction and withstand capability are not acceptable.

- d. The contact structure shall consist of a main current carrying contact, which is a silver alloy with a minimum of 50% silver content. The current carrying contacts shall be protected by silver tungsten arcing contacts on all sizes above 400 Amps.
- e. The transfer switch manufacturer shall submit test data for each size switch required for this project, showing that it can withstand fault currents of the magnitude and the duration necessary to maintain the system integrity. Minimum UL listed withstand and close into fault ratings shall be as follows:

- i. Any Molded Case Breaker*:

| Size (Amps) | (RMS Symmetrical) |
|-------------|-------------------|
| Up to 200 | 10,000 |
| 201 - 260 | 35,000 |
| 261 - 400 | 35,000 |
| 401 - 1200 | 50,000 |
| 1201 - 4000 | 100,000 |

- ii. Specific Coordinated Breaker*:

| Size (Amps) | (RMS Symmetrical) |
|-------------|-------------------|
| Up to 150 | 30,000 |
| 151 - 260 | 42,000 |
| 261 - 400 | 50,000 |
| 401 - 800 | 65,000 |
| 801 - 1200 | 85,000 |
| 1201 - 4000 | 100,000 |

- iii. Current Limiting Fuse*:

| Size (Amps) | (RMS Symmetrical) |
|-------------|-------------------|
| Up to 4000 | 200,000 |

*All values 480 volt, RMS symmetrical, less than 20% power factor.

Note: Actual necessary current withstand ratings for this project may be higher than the minimums listed above. Refer to electrical plans for exact requirements.

- f. The automatic transfer switch manufacturer shall certify sufficient arc interrupting capabilities for 50 cycles of operation between a normal and emergency source that are 120 degrees out of phase at 208 volts, 600% of rated current at .50 power factor. This certification is to ensure that there will be no current flow between the two isolated sources during switching.

- g. All relays shall be continuous duty industrial type with wiping contacts. Customer interface contacts shall be rated 10 amperes minimum. Coils, relays, timers and accessories shall be readily front accessible. The control panel and power section shall be interconnected with a harness and keyed disconnect plugs for maintenance.
- h. Main and arcing contacts shall be visible without major disassembly to facilitate inspection and maintenance.
- i. A manual handle shall be provided for maintenance purposes with the switch de-energized. An operator disconnect switch shall be provided to defeat automatic operation during maintenance, inspection or manual operation.
- j. The switch shall be mounted in a NEMA 4X stainless steel enclosure unless otherwise indicated on the plans.
- k. Switches composed of molded case breakers, contactors or components thereof not specifically designed as an automatic transfer switch will not be acceptable.
- l. To afford the advantage of a single source of supply to the owner, the automatic transfer switch shall be supplied by the manufacturer of the engine generator set and covered under the same warranty program.

2.06 INSTALLATION

- B. Install equipment in accordance with manufacturer's recommendations, the project drawings and specifications, and all applicable codes. Installation of the system includes but is not limited to pouring a concrete pad for the generator set and automatic transfer switch, receiving and offloading the equipment, providing all labor, permits and material to install the total system.
- C. Start-Up and Testing
 - 1. Coordinate all start-up and testing activities with the Engineer and Owner.
 - 2. After installation is complete and normal power is available, the manufacturer's local dealer shall perform the following:
 - 3. Verify that the equipment is installed properly.
 - 4. Check all auxiliary devices for proper operation, including battery charger, jacket water heater(s), generator space heater, remote annunciator, etc.
 - 5. Test all alarms and safety shutdown devices for proper operation and annunciation.
 - 6. Check all fluid levels.

7. Start engine and check for exhaust, oil, fuel leaks, vibrations, etc.
8. Verify proper voltage and phase rotation at the transfer switch before connecting to the load.
9. Connect the generator to building load and verify that the generator will start and run all designated loads in the plant.
10. Perform a 4 hour load bank test at full nameplate load using a load bank and cables supplied by the local generator dealer. Observe and record the following data at 15 minute intervals:
 - a. Service meter hours
 - b. Volts AC - All phases
 - c. Amps AC - All phases
 - d. Frequency
 - e. Power factor or Vars
 - f. Jacket water temperature
 - g. Oil Pressure
 - h. Fuel pressure
 - i. Ambient temperature

11. Operation and Maintenance Manuals

- a. Provide three (3) sets of operation and maintenance manuals covering the generator, switchgear, and auxiliary components. Include parts manuals, final as-built wiring interconnect diagrams and recommended preventative maintenance schedules.

2.07 DEMONSTRATION

- A. Engage a factory-authorized service representative to train Owner's maintenance personnel to adjust, operate, and maintain packaged engine generators. Refer to Division 1 Section "Demonstration and Training."
 1. Train Owner's maintenance personnel on procedures and schedules for starting and stopping, troubleshooting, servicing, and maintaining equipment.
 2. Review data in maintenance manuals. Refer to Division 1 Section "Operation and Maintenance Data".
 3. Schedule training with Owner, with at least seven days' advance notice.
4. Minimum Instruction Period: Four hours.

END OF SECTION