

INVITATION TO BID
Solid Waste Disposal Authority of the City and County of Cullman
Cullman County Landfill
Cullman, Alabama

SWDA of the City and County of Cullman will be accepting Bids for scale and scalehouse construction and related infrastructure at the Cullman County Landfill. The work includes, but is not limited to, the following:

- Erosion and Sediment Control Measures;
- General Earthwork;
- Demolition;
- Paving;
- Scales placement coordination;
- Scalehouse construction;
- Wheel wash construction;
- Pavement striping and signage; and,
- Utilities

Bidding Documents, consisting of Bid Instructions, Bid Forms, Contract Documents, Technical Specifications, and Drawings, will be available beginning **October 15, 2024** at the following locations:

SWDA of the City and County of Cullman
2805 AL-Highway 69 S
Cullman, AL 35057
Attention: Mr. Sam Dillender
General Manager
Phone: (256) 737-7560

LaBella Associates, D.P.C.
528 Mineral Trace
Hoover, AL 35244
Attention: Mr. Darrell Thornock
Senior Technical Engineer
Phone: (602) 427-8305

Copies of the Project Documents can be obtained beginning **October 15, 2024**. Electronic pdf files will also be provided to any interested party. Requests can be made to Darrell Thornock at dthornock@labellapc.com.

A **mandatory** Pre-Bid conference will be held on **Tuesday, October 29, 2024**, at **1:00 p.m.**, at the SWDA of the City and County of Cullman landfill office located at 2805 AL-69, Cullman, AL 35057. Bids will be due by **2:00 p.m. CST** on **Thursday, November 14, 2024**, at the SWDA of the City and County of Cullman at the address provided above located in Cullman, Alabama. Award will be made in the best interest of SWDA of the City and County of Cullman, and the right to reject any or all bids and proposals, and to waive informalities in bids is reserved.

The successful bidder shall be a Contractor, with a Qualified Credentialed Professional (QCP) issued by the Alabama Department of Environmental Management (ADEM), who has experience constructing public utility and paving works and who qualify based on the requirements in the technical specifications included with this invitation to bid.

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**SECTION 00100
INSTRUCTIONS TO BIDDERS**

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INSTRUCTIONS TO BIDDERS

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ARTICLE 1 - DEFINED TERMS

1.01 Terms used in these Instructions to Bidders will have the meanings indicated in the General Conditions and Supplementary Conditions. Additional terms used in these Instructions to Bidders have the meanings indicated below which are applicable to both the singular and plural thereof:

- A. *Bidder*—The individual or entity who submits a Bid directly to OWNER.
- B. *Issuing Office*—The office from which the Bidding Documents are to be issued and where the bidding procedures are to be administered.
- C. *Successful Bidder*—The lowest responsible Bidder submitting a responsive Bid to whom OWNER (on the basis of OWNER's evaluation as hereinafter provided) makes an award.

ARTICLE 2 - COPIES OF BIDDING DOCUMENTS

2.01 Complete sets of the Bidding Documents in the number and for the deposit sum, if any, stated in the Advertisement or Invitation to Bid may be obtained from the Issuing Office.

2.02 Complete sets of Bidding Documents must be used in preparing Bids; neither OWNER nor ENGINEER assumes any responsibility for errors or misinterpretations resulting from the use of incomplete sets of Bidding Documents.

2.03 OWNER and ENGINEER in making copies of Bidding Documents available on the above terms do so only for the purpose of obtaining Bids for the Work and do not confer a license or grant for any other use.

ARTICLE 3 - QUALIFICATIONS OF BIDDERS

3.01 To demonstrate Bidder's qualifications to perform the Work, within five days of OWNER's request, Bidder shall submit written evidence such as financial data, previous experience, present commitments, and such other data as may be called for below.

- A. Evidence of Bidder's qualifications to do business in the state where the Work is located.
- B. Financial statement of Bidder.
- C. Equipment, manpower, and projected workload.
- D. Insurance as required in the Supplementary Conditions.

ARTICLE 4 - EXAMINATION OF BIDDING DOCUMENTS, OTHER RELATED DATA, AND SITE

4.01 *Subsurface and Physical Conditions*

A. The Supplementary Conditions identify:

1. Those reports of explorations and tests of subsurface conditions at or contiguous to the Site that Engineer has used in preparing the Bidding Documents.

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

B. Copies of reports and drawings referenced in paragraph 4.01.A will be made available for review at the following locations:

SWDA of the City and County of Cullman
2805 AL-Highway 69 S
Cullman, AL 35057
Attention: Mr. Sam Dillender
General Manager
Phone: (256) 737-7560

LaBella Associates, D.P.C.
528 Mineral Trace
Hoover, AL 35244
Attention: Mr. Darrell Thornock
Senior Technical Engineer
Phone: (602) 427-8305

Those reports and drawings are not part of the Contract Documents, but the “technical data” contained therein upon which Bidder is entitled to rely as provided in paragraph 4.02 of the General Conditions has been identified and established in paragraph 4.02 of the Supplementary Conditions. Bidder is responsible for any interpretation or conclusion Bidder draws from any “technical data” or any other data, interpretations, opinions or information contained in such reports or shown or indicated in such drawings.

4.02 *Underground Facilities*

A. Information and data shown or indicated in the Bidding Documents with respect to existing Underground Facilities at or contiguous to the Site is based upon information and data furnished to OWNER and ENGINEER by owners of such Underground Facilities, including OWNER, or others.

4.03 *Hazardous Environmental Condition*

A. The Supplementary Conditions identify those reports and drawings relating to a Hazardous Environmental Condition identified at the Site, if any, that ENGINEER has used in preparing the Bidding Documents.

B. Copies of reports and drawings referenced in paragraph 4.03.A will be made available for review at the following locations:

SWDA of the City and County of Cullman
2805 AL-Highway 69 S
Cullman, AL 35057
Attention: Mr. Sam Dillender
General Manager
Phone: (256) 737-7560

LaBella Associates, D.P.C.
528 Mineral Trace
Hoover, AL 35244
Attention: Mr. Darrell Thornock
Senior Technical Engineer
Phone: (602) 427-8305

Those reports and drawings are not part of the Contract Documents, but the “technical data” contained therein upon which Bidder is entitled to rely as provided in paragraph 4.06 of the General Conditions has been identified and established in paragraph 4.06 of the Supplementary Conditions. Bidder is responsible for any interpretation or conclusion Bidder draws from any “technical data” or any other data, interpretations, opinions, or information contained in such reports or shown or indicated in such drawings.

4.04 Provisions concerning responsibilities for the adequacy of data furnished to prospective Bidders with respect to subsurface conditions, other physical conditions and Underground Facilities, and possible changes in the Bidding Documents due to differing or unanticipated conditions appear in paragraphs 4.02, 4.03, and 4.04 of the General Conditions. Provisions concerning responsibilities for the adequacy of data furnished to prospective Bidders with respect to a Hazardous Environmental Condition at the Site, if any, and possible changes in the Contract Documents due to any Hazardous Environmental Condition uncovered or revealed at the Site which was not shown or indicated in the Drawings or Specifications or identified in the Contract Documents to be within the scope of the Work appear in paragraph 4.06 of the General Conditions.

4.05 On request, OWNER will provide Bidder access to the Site to conduct such examinations, investigations, explorations, tests, and studies, as Bidder deems necessary for submission of a Bid. Bidder shall fill all holes and clean up and restore the Site to its former condition upon completion of such explorations, investigations, tests, and studies.

4.06 The identification of the general nature of other work that is to be performed at the Site by OWNER or others (such as utilities and other prime contractors) that relates to the Work for which a Bid is to be submitted. On request, OWNER will provide to each Bidder for examination access to or copies of Contract Documents (other than portions thereof related to price) for such other work.

4.07 It is the responsibility of each Bidder before submitting a Bid to:

A. examine and carefully study the Bidding Documents, including any Addenda and the other related data identified in the Bidding Documents;

B. visit the Site, during normal operating hours, and become familiar with and satisfy Bidder as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work;

C. become familiar with and satisfy Bidder as to all federal, state, and local Laws and Regulations that may affect cost, progress, or performance of the Work;

D. carefully study all reports of explorations and tests of subsurface conditions at or contiguous to the Site and all drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the Site (except Underground Facilities) which have been identified in the Supplementary Conditions as provided in paragraph 4.02 of the General Conditions, and carefully study all reports and drawings of a Hazardous Environmental Condition, if any, at the Site which have been identified in the Supplementary Conditions as provided in paragraph 4.06 of the General Conditions;

E. obtain and carefully study (or assume responsibility for doing so) all additional or supplementary examinations, investigations, explorations, tests, studies, and data concerning conditions (surface, subsurface, and Underground Facilities) at or contiguous to the Site which may affect cost, progress, or performance of the Work or which relate to any aspect of the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder, including any specific means, methods, techniques, sequences, and procedures of construction expressly required by the Bidding Documents, and safety precautions and programs incident thereto;

F. agree at the time of submitting its Bid that no further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of its Bid for performance of the Work at the Bid Price and within the times and in accordance with the other terms and conditions of the Bidding Documents;

G. become aware of the general nature of the work to be performed by OWNER and others at the Site that relates to the Work as indicated in the Bidding Documents;

H. correlate the information known to Bidder, information and observations obtained from visits to the Site, reports and drawings identified in the Bidding Documents, and all additional examinations, investigations, explorations, tests, studies, and data with the Bidding Documents;

I. promptly give ENGINEER written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder discovers in the Bidding Documents and confirm that the written resolution thereof by ENGINEER is acceptable to Bidder; and

J. determine that the Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance of the Work.

4.08 The submission of a Bid will constitute an incontrovertible representation by Bidder that Bidder has complied with every requirement of this Article 4, that without exception the Bid is premised upon performing and furnishing the Work required by the Bidding Documents and applying any specific means, methods, techniques, sequences, and procedures of construction that may be shown or indicated or expressly required by the Bidding Documents, that Bidder has given ENGINEER written notice of all conflicts, errors, ambiguities, and discrepancies that Bidder has discovered in the Bidding Documents and the written resolutions thereof by ENGINEER are acceptable to Bidder, and that the Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performing and furnishing the Work.

ARTICLE 5 - PRE-BID CONFERENCE

5.01 A **mandatory** Pre-Bid conference will be held at the time and location indicated in the Invitation to Bid. Representatives of OWNER and ENGINEER will be present to discuss the Project.

Bidders are **required** to attend and participate in the conference. ENGINEER will transmit to all prospective Bidders of record such Addenda, as ENGINEER considers necessary in response to questions arising at the conference. Oral statements may not be relied upon and will not be binding or legally effective.

ARTICLE 6 - SITE AND OTHER AREAS

6.01 The Site is identified in the Bidding Documents. All additional lands and access thereto required for temporary construction facilities, construction equipment, or storage of materials and equipment to be incorporated in the Work are to be obtained and paid for by CONTRACTOR. Easements for permanent structures or permanent changes in existing facilities are to be obtained and paid for by OWNER unless otherwise provided in the Bidding Documents.

ARTICLE 7 - INTERPRETATIONS AND ADDENDA

7.01 All questions about the meaning or intent of the Bidding Documents are to be submitted to Mr. Darrell Thornock in writing via email at dthornock@labellapc.com. Interpretations or clarifications considered necessary by the OWNER and ENGINEER in response to such questions will be issued by Addenda mailed or delivered to all parties recorded by ENGINEER as having received the Bidding Documents. Questions received less than five working days prior to the date for opening of Bids may not be answered. Only questions answered by Addenda will be binding. Oral and other interpretations or clarifications will be without legal effect.

7.02 Addenda may be issued to clarify, correct, or change the Bidding Documents as deemed advisable by OWNER or ENGINEER. All addenda received by Bidders must be entered on the Bid Form.

ARTICLE 8 - BID SECURITY

8.01 A Bid must be accompanied by Bid security made payable to OWNER in an amount of 5% of Bidder's maximum Bid price and in the form of a certified or bank check or a Bid Bond on the form attached issued by a surety meeting the requirements of paragraphs 5.01 and 5.02 of the General Conditions. The Bid security shall be enclosed in the sealed envelope containing the Bid.

8.02 The Bid security of the Successful Bidder will be retained until such Bidder has executed the Contract Documents, furnished the required contract security and met the other conditions of the Notice of Award, whereupon the Bid security will be returned. If the Successful Bidder fails to execute and deliver the Contract Documents and furnish the required contract security within 15 days after the Notice of Award, OWNER may annul the Notice of Award and the Bid security of that Bidder will be forfeited. The Bid security of other Bidders whom OWNER believes to have a reasonable chance of receiving the award may be retained by OWNER until the earlier of seven days after the Effective Date of the Agreement or 61 days after the Bid opening, whereupon Bid security furnished by such Bidders will be returned.

8.03 Bid security of other Bidders whom OWNER believes do not have a reasonable chance of receiving the award will be returned within seven days after the Bid opening.

ARTICLE 9 - CONTRACT TIMES

9.01 The number of days within which, or the dates by which, the Work is to be (a) Substantially Completed and (b) also completed and ready for final payment are set forth in the Agreement.

ARTICLE 10 - LIQUIDATED DAMAGES

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

ARTICLE 11 - SUBSTITUTE AND "OR EQUAL" ITEMS

11.01 The Contract, if awarded, will be on the basis of materials and equipment specified or described in the Bidding Documents without consideration of possible substitute or "or equal" items. Whenever it is specified or described in the Bidding Documents that a substitute or "or equal" item of material or equipment may be furnished or used by CONTRACTOR if acceptable to ENGINEER, application for such acceptance will not be considered by ENGINEER until after the Effective Date of the Agreement. The procedure for submission of any such application by CONTRACTOR and consideration by ENGINEER is set forth in the General Conditions and may be supplemented in the General Requirements.

ARTICLE 12 - SUBCONTRACTORS, SUPPLIERS, AND OTHERS

12.01 If the Supplementary Conditions require the identity of certain Subcontractors, Suppliers, individuals, or entities to be submitted to OWNER in advance of a specified date prior to the Effective Date of the Agreement, the apparent Successful Bidder, and any other Bidder so requested, shall within five days after Bid opening, submit to OWNER a list of all such Subcontractors, Suppliers, individuals, or entities proposed for those portions of the Work for which such identification is required. Such list shall be accompanied by an experience statement with pertinent information regarding similar projects and other evidence of qualification for each such Subcontractor, Supplier, individual, or entity if requested by OWNER. If OWNER or ENGINEER, after due investigation, has reasonable objection to any proposed Subcontractor, Supplier, individual, or entity, OWNER may, before the Notice of Award is given, request apparent Successful Bidder to submit a substitute, without an increase in the Bid.

12.02 If apparent Successful Bidder declines to make any such substitution, OWNER may award the Contract to the next qualified Bidder that proposes to use acceptable Subcontractors, Suppliers, individuals, or entities. Declining to make requested substitutions will not constitute grounds for forfeiture of the Bid security of any Bidder. Any Subcontractor, Supplier, individual, or entity so listed and against which OWNER or ENGINEER makes no written objection prior to the giving of the Notice of Award will be deemed acceptable to OWNER and ENGINEER subject to revocation of such acceptance after the Effective Date of the Agreement as provided in paragraph 6.06 of the General Conditions.

12.03 CONTRACTOR shall not be required to employ any Subcontractor, Supplier, individual, or entity against whom CONTRACTOR has reasonable objection. The value of the work performed by Subcontractors shall not exceed 30% of the total value of the Contract, exclusive of materials.

ARTICLE 13 - PREPARATION OF BID

13.01 The Bid form is included with the Bidding Documents. Additional copies may be obtained from ENGINEER.

13.02 All blanks on the Bid form shall be completed by printing in ink or by typewriter and the Bid signed. A Bid price shall be indicated for each Bid item, alternative, and unit price item listed therein, or the words "No Bid," "No Change," or "Not Applicable" entered.

13.03 A Bid by a corporation shall be executed in the corporate name by the president or a vice-president or other corporate officer accompanied by evidence of authority to sign. The corporate seal shall be affixed and attested by the secretary or an assistant secretary. The corporate address and state of incorporation shall be shown below the signature.

13.04 A Bid by a partnership shall be executed in the partnership name and signed by a partner (whose title must appear under the signature), accompanied by evidence of authority to sign. The official address of the partnership shall be shown below the signature.

13.05 A Bid by a limited liability company shall be executed in the name of the firm by a member and accompanied by evidence of authority to sign. The state of formation of the firm and the official address of the firm must be shown below the signature.

13.06 A Bid by an individual shall show the Bidder's name and official address.

13.07 A Bid by a joint venture shall be executed by each joint venturer in the manner indicated on the Bid form. The official address of the joint venture must be shown below the signature.

13.08 All names shall be typed or printed in ink below the signatures.

13.09 The Bid shall contain an acknowledgment of receipt of all Addenda, the numbers of which shall be filled in on the Bid form.

13.10 The address and telephone number for communications regarding the Bid shall be shown.

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

13.12 Erasures or other changes in a Bid must be explained or noted over the signature of the Bidder as given in sections 13.03 through 13.06.

13.13 Bids containing any conditions, omissions, failure to bid all items, unexplained erasures or alterations or items not called for in the Bid, or irregularities of any kind, may be rejected by the OWNER as being non-responsive.

ARTICLE 14 - BASIS OF BID; EVALUATION OF BIDS

14.01 Basis of Bid

- A. Bidders shall submit a Bid on a per unit basis as set forth in the Bid form.

14.02 The Bid price shall include such amounts as the Bidder deems proper for overhead and profit on account of cash allowances, if any, named in the Contract Documents as provided in paragraph 11.02 of the General Conditions.

14.03 Bid prices will be compared after adjusting for differences in the time designated by Bidders for Substantial Completion. The adjusting amount will be determined at the rate set forth in the Contract Documents for liquidated damages for failing to achieve Substantial Completion for each day before or after the desired date appearing in Article 9.

ARTICLE 15 - SUBMITTAL OF BID

15.01 Each prospective Bidder is furnished one copy of the Bidding Documents and, if required, the Bid Bond. The Bid form is to be completed and submitted with the Bid security and the following data:

- A. The list of Subcontractors (on the form provided) together with a certification of the requirements of Section 12.03.
- B. Affidavit (on the form provided).
- C. AGC Qualifications Statement (on the form provided).

15.02 A Bid shall be submitted no later than the date and time prescribed and at the place indicated in the advertisement or invitation to Bid and shall be enclosed in an opaque sealed envelope plainly marked with the Project title (and, if applicable, the designated portion of the Project for which the Bid is submitted), the name and address of Bidder, and shall be accompanied by the Bid security and other required documents. If a Bid is sent by mail or other delivery system, the sealed envelope containing the Bid shall be enclosed in a separate envelope plainly marked on the outside with the notation "BID ENCLOSED." A mailed Bid shall be addressed to SWDA of the City and County of Cullman, Attn: Mr. Sam Dillender.

ARTICLE 16 - MODIFICATION AND WITHDRAWAL OF BID

16.01 A Bid may be modified or withdrawn by an appropriate document duly executed in the manner that a Bid must be executed and delivered to the place where Bids are to be submitted prior to the date and time for the opening of Bids.

16.02 If within 24 hours after Bids are opened any Bidder files a duly signed written notice with OWNER and promptly thereafter demonstrates to the reasonable satisfaction of OWNER that there was a material and substantial mistake in the preparation of its Bid, that Bidder may withdraw its Bid, and

the Bid security will be returned. Thereafter, if the Work is rebid, that Bidder will be disqualified from further bidding on the Work.

ARTICLE 17 - OPENING OF BIDS

17.01 Bids will be opened at the time and place indicated in the advertisement or invitation to Bid.

ARTICLE 18 - BIDS TO REMAIN SUBJECT TO ACCEPTANCE

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

ARTICLE 19 - AWARD OF CONTRACT

19.01 OWNER reserves the right to reject any or all Bids, including without limitation, nonconforming, nonresponsive, unbalanced, or conditional Bids. OWNER further reserves the right to reject the Bid of any Bidder whom it finds, after reasonable inquiry and evaluation, to be non-responsible. OWNER may also reject the Bid of any Bidder if OWNER believes that it would not be in the best interest of the Project to make an award to that Bidder. OWNER also reserves the right to waive all informalities not involving price, time, or changes in the Work and to negotiate contract terms with the Successful Bidder. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum. Discrepancies between words and figures will be resolved in favor of the words.

19.02 More than one Bid for the same Work from an individual or entity under the same or different names will not be considered. Reasonable grounds for believing that any Bidder has an interest in more than one Bid for the Work may be cause for disqualification of that Bidder and the rejection of all Bids in which that Bidder has an interest.

19.03 In evaluating Bids, OWNER will consider whether or not the Bids comply with the prescribed requirements, and such alternates, unit prices and other data, as may be requested in the Bid Form or prior to the Notice of Award.

19.04 In evaluating Bidders, OWNER will consider the qualifications of Bidders and may consider the qualifications and experience of Subcontractors, Suppliers, and other individuals or entities proposed for those portions of the Work for which the identity of Subcontractors, Suppliers, and other individuals or entities must be submitted as provided in the Supplementary Conditions.

19.05 OWNER may conduct such investigations as OWNER deems necessary to establish the responsibility, qualifications, and financial ability of Bidders, proposed Subcontractors, Suppliers, individuals, or entities to perform the Work in accordance with the Contract Documents.

19.06 If the Contract is to be awarded, OWNER will award the Contract to the Bidder whose Bid is in the best interests of the Project.

ARTICLE 20 - CONTRACT SECURITY AND INSURANCE

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

20.02 Bonds shall comply with the Code of Alabama and each shall be in an amount equal to one hundred percent (100%) of the accepted Bid as guaranty for the faithful performance of the Contract and the payment of all persons who have and fulfill Contracts which are directly with the Successful Bidder. The Sureties of all Bonds shall be a surety company or companies authorized to transact business in the State of Alabama with an Alabama address. Documents evidencing current authority or attorney-in-fact of surety must be attached to the Bonds. The Bonds must be in a form approved by the OWNER.

20.03 Any suit under the Bonds furnished for this Project must be instituted before the expiration date or one year from the date of which final payment under the Contract is due.

ARTICLE 21 - SIGNING OF AGREEMENT

21.01 A date for a pre-construction meeting will be made within thirty (30) business days of the Notice of Award at which the CONTRACTOR and his agents, the OWNER and his agents, and the ENGINEER and his agents will attend. The purpose of this meeting is to resolve questions concerning the Agreement and other Contract Documents and to have all required parties sign the Agreement and all supporting Contract Documents. Any other questions concerning the start of the project can be resolved at this meeting. The date for the meeting will be mutually agreed upon between the OWNER, the ENGINEER, and the CONTRACTOR. The CONTRACTOR also is advised to use this meeting as an opportunity to present Shop Drawings and other submittals to the ENGINEER.

ARTICLE 22 - PAYMENT OF SUBCONTRACTORS

22.01 In accordance with Alabama Code Title 8-29-3 the CONTRACTOR agrees that:

Should any Subcontractor be employed by the CONTRACTOR for the provisions of any goods and services under this Contract, the CONTRACTOR agrees to the following:

- A. The CONTRACTOR shall, within seven (7) days after receipt of any payments from the OWNER pursuant to this Contract either:
 1. Pay the Subcontractor for the proportionate share of the total payment received from the OWNER attributable to the goods or services provided by the Subcontractor;
 2. Notify the OWNER and the Subcontractor, in writing, of the intention to withhold all or part of the Subcontractor's payment with the reason for non-payment.

- B. Subcontractors must agree to a Contract clause, which requires that they provide their social security numbers and for proprietorships, partnerships and corporations that they provide their federal employer identification numbers.
- C. The CONTRACTORS shall pay interest to the Subcontractors on all amounts owed by the CONTRACTOR that remain unpaid after seven (7) days following receipt by the CONTRACTOR of payment from the OWNER for work performed by the Subcontractor under contract except amounts withheld pursuant to subparagraph a.2. above.
- D. CONTRACTOR agrees to provide the following in all Contracts with Subcontractors: "Unless otherwise provided under the terms of this Contract, interest shall accrue at the rate of one percent per month."
- E. CONTRACTOR shall include in all of its subcontractors a provision that each Subcontractor is to include or otherwise be subject to the same payment of interest requirements with respect to each lower-tiered Subcontractor as is CONTRACTOR bound to its Subcontractors.

ARTICLE 23 - NON-DISCRIMINATION

23.01 Non-Discrimination

CONTRACTOR agrees as follows:

- A. The CONTRACTOR will not discriminate against any employee or applicant for employment because of race, religion, color, sex, or national origin, except where religion, sex or national origin is a bona fide occupational qualification reasonably necessary to the normal operation of the CONTRACTOR. The CONTRACTOR agrees to post, in conspicuous places, available to employees and applicants for employment, notices setting forth the provisions of this non-discrimination clause.
- B. The CONTRACTOR, in all solicitations or advertisements for employees placed by or on behalf of the CONTRACTOR, will state that such CONTRACTOR is an equal opportunity employer.
- C. Notices, advertisements and solicitation placed in accordance with federal law, rule or regulation shall be deemed sufficient for the purpose of meeting the requirements of this Section.
- D. The CONTRACTOR will include the provisions of the foregoing paragraphs a, b and c in every Subcontract or purchase order so that the provisions will be binding upon each Subcontractor or vendor.

ARTICLE 24 - RETAINAGE

24.01 Provisions concerning CONTRACTOR's rights to deposit securities in lieu of retainage are set forth in the Agreement.

**SECTION 00200
INFORMATION AVAILABLE TO BIDDERS**

The following information will be made available for review at the following locations:

SWDA of the City and County of Cullman
2805 AL-Highway 69 S
Cullman, AL 35057
Attention: Mr. Sam Dillender
General Manager
Phone: (256) 737-7560

LaBella Associates, D.P.C.
528 Mineral Trace
Hoover, AL 35244
Attention: Mr. Darrell Thornock
Senior Technical Engineer
Phone: (804) 980-7458

1. Cullman Environmental Waste Management Center, Scale and Scalehouse Construction Drawings, dated August 2024.

**SECTION 00300
BID FORM**

PROJECT IDENTIFICATION:

SWDA of the City and County of Cullman
528 Mineral Trace
Hoover, AL 35244

CONTRACT IDENTIFICATION AND NUMBER:

LaBella Project Number 2233636

THIS BID IS SUBMITTED TO:

SWDA of the City and County of Cullman
2805 AL-Highway 69 S
Cullman, AL 35057
Attention: Mr. Sam Dillender
General Manager
Phone: (256) 737-7560

THIS BID IS SUBMITTED BY:

Date: _____

1.01 The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an Agreement with OWNER in the form included in the Bidding Documents to perform all Work as specified or indicated in the Bidding Documents for the prices and within the times indicated in this Bid and in accordance with the other terms and conditions of the Bidding Documents.

2.01 Bidder accepts all of the terms and conditions of the Advertisement or Invitation to Bid and Instructions to Bidders, including without limitation those dealing with the disposition of Bid security. The Bid will remain subject to acceptance for 60 days after the Bid opening, or for such longer period of time that Bidder may agree to in writing upon request of OWNER. Bidder will sign and deliver the required number of counterparts of the Agreement with the Bonds and other documents required by the Bidding Requirements at the pre-construction meeting to be scheduled within thirty (30) business days after the date of OWNER's Notice of Award.

3.01 In submitting this Bid, Bidder represents, as set forth in the Agreement, that:

A. Bidder has examined and carefully studied the Bidding Documents, the other related data identified in the Bidding Documents, and the following Addenda, receipt of all which is hereby acknowledged.

<u>Addendum No.</u>	<u>Addendum Date</u>
_____	_____
_____	_____
_____	_____
_____	_____

B. Bidder has visited the Site and become familiar with and is satisfied as to the general, local and Site conditions that may affect cost, progress, and performance of the Work.

C. Bidder is familiar with and is satisfied as to all federal, state and local Laws and Regulations that may affect cost, progress and performance of the Work.

D. Bidder has carefully studied all: (1) All drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the Site (except Underground Facilities) which have been identified in the Supplementary Conditions as provided in paragraph 4.02 of the General Conditions, and (2) reports and drawings of a Hazardous Environmental Condition, if any, which has been identified in the Supplementary Conditions as provided in paragraph 4.06 of the General Conditions.

E. Bidder has obtained and carefully studied (or assumes responsibility for having done so) all additional or supplementary examinations, investigations, explorations, tests, studies and data concerning conditions (surface, subsurface and Underground Facilities) at or contiguous to the Site which may affect cost, progress, or performance of the Work or which relate to any aspect of the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder, including applying the specific means, methods, techniques, sequences, and procedures of construction expressly required by the Bidding Documents to be employed by Bidder, and safety precautions and programs incident thereto.

F. Bidder does not consider that any further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of this Bid for performance of the Work at the price(s) bid and within the times and in accordance with the other terms and conditions of the Bidding Documents.

G. Bidder is aware of the general nature of work to be performed by OWNER and others at the Site that relates to the Work as indicated in the Bidding Documents.

H. Bidder has correlated the information known to Bidder, information and observations obtained from visits to the Site, reports and drawings identified in the Bidding Documents, and all additional examinations, investigations, explorations, tests, studies, and data with the Bidding Documents.

I. Bidder has given ENGINEER written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder has discovered in the Bidding Documents, and the written resolution thereof by ENGINEER is acceptable to Bidder.

J. The Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance of the Work for which this Bid is submitted.

4.01 Bidder further represents that this Bid is genuine and not made in the interest of or on behalf of any undisclosed individual or entity and is not submitted in conformity with any agreement or rules of any group, association, organization or corporation; Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid; Bidder has not solicited or induced any individual or entity to refrain from bidding; and Bidder has not sought by collusion to obtain for itself any advantage over any other Bidder or over OWNER.

5.01 The quantities listed in the Table of Prices are estimated quantities based upon the Engineer's evaluation of the Work and are provided for informational purposes only. The CONTRACTOR shall determine actual quantities and costs and shall be satisfied that they are in accordance with the Contract Documents for the CONTRACTOR's Bid. CONTRACTOR must realize that only major items and not all construction items are included in the list below.

6.01 Bidder will complete the Work in accordance with the Contract Documents for the following price as totaled from the attached Table of Prices:

SCALE AND SCALEHOUSE CONSTRUCTION BID PRICE (Items 10 through 140)

_____ (words)
(\$ _____)
(figures)

Payment for unit price items shall be made based upon installed and measured quantities, multiplied by the unit price provided in the Table of Prices.

The Owner may order changes in the Work as provided in the Contract Documents. Changes in the contract amount made necessary by increases or decreases in the quantities of Work performed or ordered shall be based on the unit prices established in the bid. Any such change shall be instituted through the procedures contained in the Contract Documents.

All specific cash allowances are included in the price(s) set forth above and have been computed in accordance with paragraph 11.02 of the General Conditions.

7.01 Bidder agrees the Work will be substantially completed within 130 days and completed and ready for final payment in accordance with paragraph 14.07.B of the General Conditions within 150 days. For this project, substantial completion is defined as the completion of the liner system, the leachate collection and removal system, the access road, and submittal of all quality control documentation as required by these project documents, so the Construction Documentation Report can be submitted to the Alabama Department of Environmental Management.

8.01 Bidder accepts the provisions of the Agreement as to liquidated damages in the event of failure to complete the Work within the times specified above, which shall be stated in the Agreement.

9.01 The following documents are attached to and made a condition of this Bid:

- A. Required Bid security (00410 - Bid Bond) in the form of 5% of the maximum bid price;

- B. A tabulation of Subcontractors, Suppliers [and other] individuals and entities required to be identified in this Bid (on the form attached to this Bid document); and
- C. Affidavit (form attached to this Bid document).
- D. AGC Document No. 220 (Section 00440)

10.01 Communications concerning this Bid shall be addressed to:

The address of Bidder indicated below:

11.01 The terms used in this Bid with initial capital letters have the meanings indicated in the Instructions to Bidders, the General Conditions, and the Supplementary Conditions.

12.01 The BIDDER certifies that he has not combined, conspired or agreed to intentionally rig, alter or otherwise manipulate, or to cause to be rigged, altered, or otherwise manipulated this bid for the purpose of allocating purchases or sales to or among persons, raising or otherwise fixing the prices of the goods or services, or excluding other persons from dealing with the OWNER.

Registered as a Contractor under Title 34 Chapter 8 of the code of Alabama:

Licensed Class U Alabama Contractor No. _____

Valid until _____ (Date).

Classifications _____

I certify that I am a Registered Contractor in compliance with Title 34 Chapter 8 to the Alabama Contractor's Registration Law, Code of Alabama.

I certify that the firm signing this Bid and registered under that name is legally qualified as determined by the Alabama Licensing Board for General Contractors, in granting the registration, to perform all Work included in the scope of the Contract.

SUBMITTED on _____, _____.

If Bidder is:

An Individual

Name (typed or printed): _____

By: _____ (SEAL)

(Individual's signature)

Doing business as: _____

Business address: _____

Phone No.: _____ FAX No.: _____

A Partnership

Partnership Name: _____ (SEAL)

By: _____

(Signature of general partner -- attach evidence of authority to sign)

Name (typed or printed): _____

Business address: _____

Phone No.: _____ FAX No.: _____

A Corporation

Corporation Name: _____ (SEAL)

State of Incorporation: _____

Type (General Business, Professional, Service, Limited Liability): _____

By: _____

(Signature -- attach evidence of authority to sign)

Name (typed or printed): _____

Title: _____

(CORPORATE SEAL)

Attest _____

(Signature of Corporate Secretary)

Business address: _____

Phone No.: _____ FAX No.: _____

Date of Qualification to do business is _____.

A Joint Venture

Joint Venturer Name: _____ (SEAL)

By: _____
(Signature of joint venture partner -- attach evidence of authority to sign)

Name (typed or printed): _____

Title: _____

Business address: _____

Phone No.: _____ FAX No.: _____

Joint Venturer Name: _____ (SEAL)

By: _____
(Signature -- attach evidence of authority to sign)

Name (typed or printed): _____

Title: _____

Business address: _____

Phone No.: _____ FAX No.: _____

Phone and FAX Number, and Address for receipt of official communications:

(Each joint venturer must sign. The manner of signing for each individual, partnership, and corporation that is a party to the joint venture should be in the manner indicated above.)

**Cullman Environmental Waste Management Center
Scale and Scalehouse Construction
Table of Prices**

Bid Item	Description	Unit	Unit Price (\$)	Subtotal Cost (\$)
10	Mobilization/Demobilization	LS		
20	Clearing and Grubbing	LS		
30	Pavement Demolition	LS		
40	Structure Demolition	LS		
50	Earthwork	LS		
60	Paving	LS		
70	Culverts	LS		
80	Wheel Wash	LS		
90	Scales Placement Coordination	LS		
100	Scalehouse and Scalehouse Foundations	LS		
110	Pavement Striping and Signage	LS		
120	Utilities	LS		
130	Erosion and Sediment Controls	LS		
140	Temporary Road Construction	LS		
TOTAL				

END OF SECTION 00300

SECTION 00410
BID BOND

BIDDER (Name and Address):

SURETY (Name and Address of Principal Place of Business):

OWNER (Name and Address):

BID

BID DUE DATE: _____

PROJECT (Brief Description Including Location):

BOND

BOND NUMBER: _____

DATE (Not later than Bid due date): _____

PENAL SUM: _____ (Words) _____ (Figures)

IN WITNESS WHEREOF, Surety and Bidder, intending to be legally bound hereby, subject to the terms printed on the reverse side hereof, do each cause this Bid Bond to be duly executed on its behalf by its authorized officer, agent, or representative.

BIDDER

SURETY

_____(Seal)
Bidder's Name and Corporate Seal

_____(Seal)
Surety's Name and Corporate Seal

By: _____
Signature and Title

By: _____
Signature and Title
(Attach Power of Attorney)

Attest: _____
Signature and Title

Attest: _____
Signature and Title

- Note: (1) Above addresses are to be used for giving required notice.
(2) Any singular reference to Bidder, Surety, OWNER or other party shall be considered plural where applicable.

1. Bidder and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to pay to OWNER upon default of Bidder the penal sum set forth on the face of this Bond.

2. Default of Bidder shall occur upon the failure of Bidder to deliver within the time required by the Bidding Documents (or any extension thereof agreed to in writing by OWNER) the executed Agreement required by the Bidding Documents and any performance and payment Bonds required by the Bidding Documents.

3. This obligation shall be null and void if:

3.1. OWNER accepts Bidder's Bid and Bidder delivers within the time required by the Bidding Documents (or any extension thereof agreed to in writing by OWNER) the executed Agreement required by the Bidding Documents and any performance and payment Bonds required by the Bidding Documents, or

3.2. All Bids are rejected by OWNER, or

3.3. OWNER fails to issue a Notice of Award to Bidder within the time specified in the Bidding Documents (or any extension thereof agreed to in writing by Bidder and, if applicable, consented to by Surety when required by paragraph 5 hereof).

4. Payment under this Bond will be due and payable upon default by Bidder and within 30 calendar days after receipt by Bidder and Surety of written notice of default from OWNER, which notice will be given with reasonable promptness, identifying this Bond and the Project and including a statement of the amount due.

5. Surety waives notice of and any and all defenses based on or arising out of any time extension to issue Notice of Award agreed to in writing by OWNER and Bidder, provided that the total time for issuing Notice of Award including extensions shall not in the aggregate exceed 120 days from Bid due date without Surety's written consent.

6. No suit or action shall be commenced under this Bond prior to 30 calendar days after the notice of default required in paragraph 4 above

is received by Bidder and Surety and in no case later than one year after Bid due date.

7. Any suit or action under this Bond shall be commenced only in a court of competent jurisdiction located in the state in which the Project is located.

8. Notices required hereunder shall be in writing and sent to Bidder and Surety at their respective addresses shown on the face of this Bond. Such notices may be sent by personal delivery, commercial courier or by United States Registered or Certified Mail, return receipt requested, postage pre-paid, and shall be deemed to be effective upon receipt by the party concerned.

9. Surety shall cause to be attached to this Bond a current and effective Power or Attorney evidencing the authority of the officer, agent or representative who executed this Bond on behalf of Surety to execute, seal and deliver such Bond and bind the Surety thereby.

10. This Bond is intended to conform to all applicable statutory requirements. Any applicable requirement of any applicable statute that has been omitted from this Bond shall be deemed to be included herein as if set forth at length. If any provision of this Bond conflicts with any applicable statute, then the provision of said statute shall govern and the remainder of this Bond that is not in conflict therewith shall continue in full force and effect.

11. The term "Bid" as used herein includes a Bid, offer or proposal as applicable.

**SECTION 00420
SUBCONTRACTOR LIST**

PROJECT: _____

CONTRACTOR: _____

SUBCONTRACTORS:

(1)

Name: _____

Address: _____

Telephone: _____

Contact Person: _____

Type of Work: _____

Percentage of Total Contract: _____

(2)

Name: _____

Address: _____

Telephone: _____

Contact Person: _____

Type of Work: _____

Percentage of Total Contract: _____

(3)

Name: _____

Address: _____

Telephone: _____

Contact Person: _____

Type of Work: _____

Percentage of Total Contract: _____

(4)

Name: _____

Address: _____

Telephone: _____

Contact Person: _____

Type of Work: _____

Percentage of Total Contract: _____

(5)

Name: _____

Address: _____

Telephone: _____

Contact Person: _____

Type of Work: _____

Percentage of Total Contract: _____

(6)

Name: _____

Address: _____

Telephone: _____

Contact Person: _____

Type of Work: _____

Percentage of Total Contract: _____

Notes:

1. This List of Subcontractors must be submitted with the Bid. Failure to submit may be considered justification for rejection of the Bid.

2. Percentage of Total Contract should reflect the percentage of work to be completed, exclusive of materials, for each subcontractor.

**SECTION 00430
AFFIDAVIT**

This form must be completed, signed, notarized and returned with Bid. Failure to do so will be considered justification for the rejection of your Bid. A separate form must be submitted by each principal of a joint venture Bid.

Project: SWDA of the City and County of Cullman
2805 AL-69
Cullman, AL 35057

Date: _____

STATE OF: _____ COUNTY (CITY) OF: _____

This day personally appeared before the undersigned, a Notary Public in and for the City/County and State aforesaid, _____, who have been first duly sworn according to law, did depose and aver as follows:

1. That he is _____
(owner, partner, president, etc.)
of _____
(insert name of Bidder)
2. That he is personally familiar with the Bid of
_____ submitted in connection with
(Name of Bidder)
the above-captioned project.
3. That the Bid of said _____
(insert name of Bidder)
was formulated and submitted in good faith as the true
Bid of said _____
(insert name of Bidder)

4. That in the preparation and submission of this Bid, said BIDDER did not, either directly or indirectly, enter into any combination or arrangement with any person, firm or corporation or enter into any agreement, participate in any collusion, or otherwise take any action in the restraint of free, competitive bidding in violation of the Sherman Act (15 USC Section 1).

And further this deponent saith not.

Affiant

Subscribed and sworn to before me this _____ day of

_____.

My commission expires _____

Notary Public

Note: This Affidavit must be submitted with the Bid. Failure to submit will be considered justification for rejection of the Bid.

SECTION 00440

THE ASSOCIATED GENERAL CONTRACTORS OF AMERICA



CONSTRUCTION CONTRACTOR'S QUALIFICATION STATEMENT FOR ENGINEERED CONSTRUCTION

This qualification statement was developed by AGC of America in cooperation with the Engineers Joint Contract Documents Committee (EJCDC) which recommend its use as a suggested generic prequalification statement or a contract-specific qualification statement. In the latter case, the owner or engineer may wish to make appropriate supplemental inquires.

The Engineers Joint Contract Documents Committee consists of representatives of the following organizations:

National Society of Professional Engineers
American Consulting Engineers Council
American Society of Civil Engineers
Construction Specifications Institute

The contents of this statement are CONFIDENTIAL.

Submitted by:

Name or Organization _____

Name of Individual _____

Title _____

Address _____

Telephone _____

00440-1

Submitted to:

Name _____

Address _____

Telephone _____

Project Name and Description (if applicable)

Contractor's General Business Information

Check If:

Corporation

Partnership

Joint Venture

Sole Proprietorship

If Corporation:

a. Date and State of Incorporation

b. List of Executive Officers

Name

Title

00440-2

If Partnership:

a. Date and State of Organization

b. Names of Current General Partners

c. Type of Partnership

- General Publicly Traded
 Limited Other (describe): _____

If Joint Venture:

a. Date and State of Organization

b. Name, Address and Form of Organization of Joint Venture Partners: (Indicate managing partner by an asterisk *)

If Sole Proprietorship:

a. Date and State of Organization

b. Name and Address of Owner or Owners

1. On Schedule A, attached, list major engineered construction projects completed by this organization in the past five (5) years. (If joint venture list each participant's projects separately).
2. On Schedule B, attached, list current projects under construction by this organization. (If joint venture, list each participant's projects separately).
3. Name of surety company and name, address, and phone number of agent.

4. Is your organization a member of a controlled group of corporations as defined in I.R.C. Sec. 1563?
 Yes No

If yes, show names and addresses of affiliated companies.

5. Furnish on Schedule C, attached, details of the construction experience of the principal individuals of your organization directly involved in construction operations.

6. Has your organization ever failed to complete any construction contract awarded to it? Yes No

If yes, describe circumstances on attachment.

7. Has any Corporate officer, partner, joint venture participant or proprietor ever failed to complete a construction contract awarded to him or her in their own name or when acting as a principal of another organization?
 Yes No

8. In the last five years, has your organization ever failed to substantially complete a project in a timely manner?
 Yes No

If yes, describe circumstances on attachment.

9. Indicate general types of work performed with your own work force.

10. If required, can your organization provide a bid bond for this project? Yes No

11. What is your approximate total bonding capacity?

- \$500,000 to \$2,000,000
- \$2,000,000 to \$5,000,000
- \$5,000,000 to \$10,000,000
- \$10,000,000 or more

00440-4

12. Describe the permanent safety program you maintain within your organization. Use attachment if necessary.

13. Furnish the following information with respect to an accredited banking institution familiar with your organization.

Name of Bank _____

Address _____

Account Manager _____

Telephone _____

I hereby certify that the information submitted herewith, including any attachment is true to the best of my Knowledge and belief.

By: _____

Title: _____

Dated: _____

SCHEDULE A

Name, Location and Description of Project	Owner	Design Engineer	Date Completed	Contract Price	Reference/Contact Include Address and Phone
--	-------	-----------------	----------------	----------------	--

SCHEDULE B

<u>Name, Location and Description of Project</u>	<u>Owner</u>	<u>Design Engineer</u>	<u>Contract Price</u>	<u>Amount Completed</u>	<u>Date of Scheduled Completion</u>	<u>Reference/Contact Include Address and Phone</u>
--	--------------	------------------------	-----------------------	-----------------------------	---	--

SCHEDULE C - PERSONNEL

Name	Position	Date started with this Organization	Date started in construction	Prior positions and experience in construction
------	----------	--	---------------------------------	---

**SECTION 00500
EJCDC
STANDARD FORM OF AGREEMENT
BETWEEN OWNER AND CONTRACTOR
ON THE BASIS OF A STIPULATED PRICE**

THIS AGREEMENT is by and between SWDA of the City and County of Cullman (hereinafter called OWNER) and _____ (herein after called CONTRACTOR).

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

ARTICLE 1 - WORK

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

The Work includes, but is not limited to, the following:

- Erosion and Sediment Control Measures;
- General Earthwork;
- Demolition;
- Paving;
- Scales placement coordination;
- Scalehouse construction;
- Wheel wash construction;
- Pavement Striping and Signage; and,
- Utilities.

ARTICLE 2 - THE PROJECT

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

Cullman Environmental Waste
Management Center Scale and
Scalehouse Construction

ARTICLE 3 - ENGINEER

3.01 The Project has been designed by:

LaBella Associates, D.P.C.
528 Mineral Trace
Hoover, AL 35244

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

ARTICLE 4 - CONTRACT TIMES

4.01 *Time of the Essence*

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

4.02 *Days to Achieve Substantial Completion and Final Payment*

A. The Work will be substantially completed within 120 days, and completed and ready for final payment in accordance with paragraph 14.07.B of the General Conditions within 150 days. For this project, substantial completion is defined as the completion of the paving, scales, scalehouse, and wheel wash, and submittal of all quality control documentation as required by these project documents, so the Construction Documentation Report can be submitted to the Alabama Department of Environmental Management.

4.03 *Liquidated Damages*

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

ARTICLE 5 - CONTRACT PRICE

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

B. For all Unit Price Work, an amount equal to the sum of the established unit price for each separately identified item of Unit Price Work times the actual quantity of the item:

Total of all Bid Prices (Unit Price Work) as totaled from the Table of Prices:

(use words) (\$ _____) (figure)

The Bid prices for Unit Price Work set forth as of the Effective Date of Agreement are based on estimated quantities. As provided in Paragraph 11.03 of the General Conditions, estimated quantities are not guaranteed, and determinations of actual quantities and classifications are to be made by Engineer as provided in Paragraph 9.08 of the General Conditions.

All specific cash allowances are included in the above price and have been computed in accordance with paragraph 11.02 of the General Conditions.

ARTICLE 6 - PAYMENT PROCEDURES

6.01 Submittal and Processing of Payments

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

6.02 Progress Payments; Retainage

A. OWNER shall make progress payments on account of the Contract Price on the basis of CONTRACTOR's Applications for Payment during performance of the Work as provided in paragraphs 6.02.A.1 and 6.02.A.2 below. Such Applications for Payment must be received each month to insure consideration. All such payments will be measured by the schedule of values established in paragraph 2.07.A of the General Conditions (and in the case of Unit Price Work based on the number of units completed) or, in the event there is no schedule of values, as provided in the General Conditions:

1. Prior to Substantial Completion, progress payments will be made in an amount equal to the percentage indicated below but, in each case, less the aggregate of payments previously made and less such amounts as ENGINEER may determine or OWNER may withhold, in accordance with paragraph 14.02 of the General Conditions:

a. 95% of Work completed; and,

2. Upon Substantial Completion, OWNER shall pay an amount sufficient to increase total payments to CONTRACTOR to 95% of the Work completed, less such amounts as ENGINEER shall determine in accordance with paragraph 14.02.B.5 of the General Conditions and less 75% of ENGINEER's estimate of the value of Work to be completed or corrected as shown on the tentative list of items to be completed or corrected attached to the certificate of Substantial Completion.

6.03 Final Payment

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

ARTICLE 7 - INTEREST

Not Applicable.

ARTICLE 8 - CONTRACTOR'S REPRESENTATIONS

8.01 In order to induce OWNER to enter into this Agreement CONTRACTOR makes the following representations:

A. CONTRACTOR has examined and carefully studied the Contract Documents and the other related data identified in the Bidding Documents.

B. CONTRACTOR has visited the Site and become familiar with and is satisfied as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.

C. CONTRACTOR is familiar with and is satisfied as to all federal, state, and local Laws and Regulations that may affect cost, progress, and performance of the Work.

D. CONTRACTOR has carefully studied all: (1) reports and all drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the Site (except Underground Facilities) which have been identified in the Supplementary Conditions as provided in paragraph 4.02 of the General Conditions and (2) reports and drawings of a Hazardous Environmental Condition, if any, at the Site which has been identified in the Supplementary Conditions as provided in paragraph 4.06 of the General Conditions.

E. CONTRACTOR has obtained and carefully studied (or assumes responsibility for having done so) all additional or supplementary examinations, investigations, explorations, tests, studies, and data concerning conditions (surface, subsurface, and Underground Facilities) at or contiguous to the Site which may affect cost, progress, or performance of the Work or which relate to any aspect of the means, methods, techniques, sequences, and procedures of construction to be employed by CONTRACTOR, including applying the specific means, methods, techniques, sequences, and procedures of construction, if any, expressly required by the Contract Documents to be employed by CONTRACTOR, and safety precautions and programs incident thereto

F. CONTRACTOR does not consider that any further examinations, investigations, explorations, tests, studies, or data are necessary for the performance of the Work at the Contract Price, within the Contract Times, and in accordance with the other terms and conditions of the Contract Documents.

G. CONTRACTOR is aware of the general nature of work to be performed by OWNER and others at the Site that relates to the Work as indicated in the Contract Documents.

H. CONTRACTOR has correlated the information known to CONTRACTOR, information and observations obtained from visits to the Site, reports and drawings identified in the Contract Documents, and all additional examinations, investigations, explorations, tests, studies, and data with the Contract Documents.

I. CONTRACTOR has given ENGINEER written notice of all conflicts, errors, ambiguities, or discrepancies that CONTRACTOR has discovered in the Contract Documents, and the written resolution thereof by ENGINEER is acceptable to CONTRACTOR.

J. The Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.

ARTICLE 9 - CONTRACT DOCUMENTS

9.01 Contents

A. The Contract Documents consist of the following:

1. This Agreement (pages 00500-1 to 00500-6, inclusive);
2. Performance Bond (pages 00610-1 to 00610-4, inclusive);
3. Payment Bond (pages 00620-1 to 00620-3, inclusive);
4. General Conditions (pages 00700-1 to 00700-43, inclusive);
5. Supplementary Conditions (pages 00800-1 to 00800-5, inclusive);
6. Specifications as listed in the table of contents of the Project Manual;
7. Drawings consisting of sheets numbered 01 through 12, inclusive, bearing the following general title: SWDA of the City and County of Cullman, Cullman County Landfill.
8. Addenda (numbers ___ to ___, inclusive);

9. Exhibits to this Agreement (enumerated as follows):
 - a. Notice of Award (page 00901-1 to 00901-2, inclusive);
 - b. Notice to Proceed (page 00902-1);
 - c. CONTRACTOR'S Bid (pages 00300-1 to 00300-8, inclusive);
 - d. CONTRACTOR'S List of Subcontractors (pages 00420-1 to 00420-2, inclusive);
 - e. CONTRACTOR'S Affidavit (pages 00430-1 to 00430-2, inclusive); and
 - f. AGC Qualifications Statement (pages 00440-1 to 00440-8 inclusive).

10. The following which may be delivered or issued on or after the Effective Date of the Agreement and are not attached hereto:
 - a. Written Amendments;
 - b. Work Change Directives;
 - c. Change Orders.

B. The documents listed in paragraph 9.01.A are made part of this Agreement (except as expressly noted otherwise above), either by attachment or by reference.

C. The Contract Documents may only be amended, modified, or supplemented as provided in paragraph 3.05 of the General Conditions.

ARTICLE 10 - MISCELLANEOUS

10.01 Terms

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

10.02 Assignment of Contract

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

10.03 Successors and Assigns

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

10.04 Severability

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

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

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

OWNER:

CONTRACTOR:

By: _____

By: _____

[CORPORATE SEAL]

[CORPORATE SEAL]

Attest _____

Attest _____

Address for giving notices:

Address for giving notices:

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

License No. _____

(Where applicable)

Agent for service of process: _____

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

Designated Representative:

Designated Representative:

Name: _____

Name: _____

Title: _____

Title: _____

Address: _____

Address: _____

Phone: _____

Phone: _____

Facsimile: _____

Facsimile: _____

**SECTION 00610
Performance Bond**

Any singular reference to Contractor, Surety, Owner or other party shall be considered plural where applicable.

CONTRACTOR (Name and Address):
Principal Place

SURETY (Name and Address of
of Business):

OWNER (Name and Address):

CONTRACT
Date:
Amount:
Description (Name and Location):

BOND
Date (Not earlier than Contract Date):
Amount:
Modifications to this Bond Form:

Surety and Contractor, intending to be legally bound hereby, subject to the terms printed on the reverse side hereof, do each cause this Performance Bond to be duly executed on its behalf by its authorized officer, agent or representative.

CONTRACTOR AS PRINCIPAL

SURETY

Company: (Corp. Seal)

Company: (Corp. Seal)

Signature: _____
Name and Title:

Signature: _____
Name and Title:
(Attach Power of Attorney)

(Space is provided below for signatures of additional parties, if required.)

CONTRACTOR AS PRINCIPAL

SURETY

Company: (Corp. Seal)

Company: (Corp. Seal)

Signature: _____
Name and Title:

Signature: _____
Name and Title:

EJCDC No. 1910-28-A (1996 Edition)
Originally prepared through the joint efforts of the Surety Association of America, Engineers Joint Contract Documents Committee, the Associated General Contractors of America, and the American Institute of Architects.

1. The CONTRACTOR and the Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to the Owner for the performance of the Contract, which is incorporated herein by reference.

2. If the CONTRACTOR performs the Contract, the Surety and the CONTRACTOR have no obligation under this Bond, except to participate in conferences as provided in paragraph 3.1.

3. If there is no OWNER Default, the Surety's obligation under this Bond shall arise after:

3.1. The OWNER has notified the CONTRACTOR and the Surety at the addresses described in paragraph 10 below, that the OWNER is considering declaring a CONTRACTOR Default and has requested and attempted to arrange a conference with the CONTRACTOR and the Surety to be held not later than fifteen days after receipt of such notice to discuss methods of performing the Contract. If the OWNER, the CONTRACTOR and the Surety agree, the CONTRACTOR shall be allowed a reasonable time to perform the Contract, but such an agreement shall not waive the OWNER's right, if any, subsequently to declare a CONTRACTOR Default; and

3.2. The OWNER has declared a CONTRACTOR Default and formally terminated the CONTRACTOR's right to complete the Contract. Such CONTRACTOR Default shall not be declared earlier than twenty days after the CONTRACTOR and the Surety have received notice as provided in paragraph 3.1; and

3.3. The OWNER has agreed to pay the Balance of the Contract Price to:

3.3.1. The Surety in accordance with the terms of the Contract;

3.3.2 Another contractor selected pursuant to paragraph 4.3 to perform the Contract.

4. When the OWNER has satisfied the conditions of paragraph 3, the Surety shall promptly and at the Surety's expense take one of the following actions:

4.1. Arrange for the CONTRACTOR, with consent of the OWNER, to perform and complete the Contract; or

4.2. Undertake to perform and complete the Contract itself, through its agents or through independent contractors; or

4.3. Obtain bids or negotiated proposals from qualified contractors acceptable to the OWNER for a contract for performance and completion of the Contract, arrange for a contract to be prepared for execution by the OWNER and the contractor selected with the OWNER's concurrence, to be secured with performance and payment bonds executed by a qualified surety equivalent to the Bonds issued on the Contract, and pay to the OWNER the amount of damages as described in paragraph 6 in excess of the Balance of the Contract Price incurred by the OWNER resulting from the CONTRACTOR Default; or

4.4. Waive its right to perform and complete, arrange for completion, or obtain a new contractor and with reasonable promptness under the circumstances;

4.4.1 After investigation, determine the amount for which it may be liable to the OWNER and, as soon as practicable after the amount is determined, tender payment therefor to the OWNER; or

4.4.2 Deny liability in whole or in part and notify the OWNER citing reasons therefor.

5. If the Surety does not proceed as provided in paragraph 4 with reasonable promptness, the Surety shall be deemed to be in default on this Bond fifteen days after receipt of an additional written notice from the OWNER to the Surety demanding that the Surety perform its obligations under this Bond, and the OWNER shall be entitled to enforce any remedy available to the OWNER. If the Surety proceeds as provided in paragraph 4.4, and the OWNER refuses the payment tendered or the Surety has denied liability, in whole or in part, without further notice the OWNER shall be entitled to enforce any remedy available to the OWNER.

6. After the OWNER has terminated the CONTRACTOR's right to complete the Contract, and if the Surety elects to act under paragraph 4.1, 4.2, or 4.3 above, then the responsibilities of the Surety to the OWNER shall not be greater than those of the CONTRACTOR under the Contract, and the responsibilities of the OWNER to the Surety shall not be greater than those of the OWNER under the Contract. To a limit of the amount of this Bond, but subject to commitment by the OWNER of the Balance of the Contract Price to mitigation of costs and damages on the Contract, the Surety is obligated without duplication for:

6.1. The responsibilities of the CONTRACTOR for correction of defective Work and completion of the Contract;

6.2. Additional legal, design professional and delay costs resulting from the CONTRACTOR's Default, and resulting from the actions or failure to act of the Surety under paragraph 4; and

6.3. Liquidated damages, or if no liquidated damages are specified in the Contract, actual damages caused by delayed performance or non-performance of the CONTRACTOR.

7. The Surety shall not be liable to the OWNER or others for obligations of the CONTRACTOR that are unrelated to the Contract, and the Balance of the Contract Price shall not be reduced or set off on account of any such unrelated obligations. No right of action shall accrue on this Bond to any person or entity other than the OWNER or its heirs, executors, administrators, or successors.

8. The Surety hereby waives notice of any change, including changes of time, to the Contract or to related subcontracts, purchase orders and other obligations.

9. Any proceeding, legal or equitable, under this Bond may be instituted in any court of competent jurisdiction in the location in which the Work or part of the Work is located and shall be instituted within two years after CONTRACTOR Default or within two years after the CONTRACTOR ceased working or within two years after the Surety refuses or fails to perform its obligations under this Bond, whichever occurs first. If the provisions of this paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.

10. Notice to the Surety, the OWNER or the CONTRACTOR shall be mailed or delivered to the address shown on the signature page.

11. When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the Contract was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted here from and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. The intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

12. Definitions.

12.1 Balance of the Contract Price: The total amount payable by the OWNER to the CONTRACTOR

under the Contract after all proper adjustments have been made, including allowance to the CONTRACTOR of any amounts received or to be received by the OWNER in settlement of insurance or other Claims for damages to which the CONTRACTOR is entitled, reduced by all valid and proper payments made to or on behalf of the CONTRACTOR under the Contract.

12.2. Contract: The agreement between the OWNER and the CONTRACTOR identified on the signature page, including all Contract Documents and changes thereto.

12.3. CONTRACTOR Default: Failure of the CONTRACTOR, which has neither been remedied nor waived, to perform or otherwise to comply with the terms of the Contract.

12.4. OWNER Default: Failure of the OWNER, which has neither been remedied nor waived, to pay the CONTRACTOR as required by the Contract or to perform and complete or comply with the other terms thereof.

(FOR INFORMATION ONLY–Name, Address and Telephone)
AGENT or BROKER: OWNER'S REPRESENTATIVE (Engineer or other party):

**SECTION 00620
Payment Bond**

Any singular reference to Contractor, Surety, Owner or other party shall be considered plural where applicable.

CONTRACTOR (Name and Address):

SURETY (Name and Address of Principal Place of Business):

OWNER (Name and Address):

CONTRACT

Date:

Amount:

Description (Name and Location):

BOND

Date (Not earlier than Contract Date):

Amount:

Modifications to this Bond Form:

Surety and Contractor, intending to be legally bound hereby, subject to the terms printed on the reverse side hereof, do each cause this Payment Bond to be duly executed on its behalf by its authorized officer, agent, or representative.

CONTRACTOR AS PRINCIPAL

SURETY

Company: _____ (Corp. Seal)

Company: _____ (Corp. Seal)

Signature: _____
Name and Title:

Signature: _____
Name and Title:
(Attach Power of Attorney)

(Space is provided below for signatures of additional parties, if required.)

CONTRACTOR AS PRINCIPAL

SURETY

Company: _____ (Corp. Seal)

Company: _____ (Corp. Seal)

Signature: _____
Name and Title:

Signature: _____
Name and Title:

EJCDC No. 1910-28-B (1996 Edition)

Originally prepared through the joint efforts of the Surety Association of America, Engineers Joint Contract Documents Committee, the Associated General Contractors of America, the American Institute of Architects, the American Subcontractors Association, and the Associated Specialty Contractors.

1. The CONTRACTOR and the Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to the OWNER to pay for labor, materials and equipment furnished for use in the performance of the Contract, which is incorporated herein by reference.

2. With respect to the OWNER, this obligation shall be null and void if the CONTRACTOR:

2.1. Promptly makes payment, directly or indirectly, for all sums due Claimants, and

2.2. Defends, indemnifies and holds harmless the OWNER from all claims, demands, liens or suits by any person or entity who furnished labor, materials or equipment for use in the performance of the Contract, provided the OWNER has promptly notified the CONTRACTOR and the Surety (at the addresses described in paragraph 12) of any claims, demands, liens or suits and tendered defense of such claims, demands, liens or suits to the CONTRACTOR and the Surety, and provided there is no OWNER Default.

3. With respect to Claimants, this obligation shall be null and void if the CONTRACTOR promptly makes payment, directly or indirectly, for all sums due.

4. The Surety shall have no obligation to Claimants under this Bond until:

4.1. Claimants who are employed by or have a direct contract with the CONTRACTOR have given notice to the Surety (at the addresses described in paragraph 12) and sent a copy, or notice thereof, to the OWNER, stating that a claim is being made under this Bond and, with substantial accuracy, the amount of the claim.

4.2. Claimants who do not have a direct contract with the CONTRACTOR:

1. Have furnished written notice to the CONTRACTOR and sent a copy, or notice thereof, to the OWNER, within 90 days after having last performed labor or last furnished materials or equipment included in the claim stating, with substantial accuracy, the amount of the claim and the name of the party to whom the materials were furnished or supplied or for whom the labor was done or performed; and

2. Have either received a rejection in whole or in part from the CONTRACTOR, or not received within 30 days of furnishing the above notice any communication from the CONTRACTOR by which the CONTRACTOR had indicated the claim will be paid directly or indirectly; and

3. Not having been paid within the above 30 days, have sent a written notice to the Surety and sent a copy, or notice thereof, to the OWNER, stating that a claim is being made under this Bond and enclosing a copy of the previous written notice furnished to the CONTRACTOR.

5. If a notice required by paragraph 4 is given by the OWNER to the CONTRACTOR or to the Surety, that is sufficient compliance.

6. When the Claimant has satisfied the conditions of paragraph 4, the Surety shall promptly and at the Surety's expense take the following actions:

6.1. Send an answer to the Claimant, with a copy to the OWNER, within 45 days after receipt of the claim, stating the amounts that are undisputed and the basis for challenging any amounts that are disputed.

6.2. Pay or arrange for payment of any undisputed amounts.

7. The Surety's total obligation shall not exceed the amount of this Bond, and the amount of this Bond shall be credited for any payments made in good faith by the Surety.

8. Amounts owed by the OWNER to the CONTRACTOR under the Contract shall be used for the performance of the Contract and to satisfy claims, if any, under any Performance Bond. By the CONTRACTOR furnishing and the OWNER accepting this Bond, they agree that all funds earned by the CONTRACTOR in the performance of the Contract are dedicated to satisfy obligations of the CONTRACTOR and the Surety under this Bond, subject to the OWNER's priority to use the funds for the completion of the Work.

9. The Surety shall not be liable to the OWNER, Claimants or others for obligations of the CONTRACTOR that are unrelated to the Contract. The OWNER shall not be liable for payment of any costs or expenses of any Claimant under this Bond, and shall have under this Bond no obligations to make payments to, give notices on behalf of, or otherwise have obligations to Claimants under this Bond.

10. The Surety hereby waives notice of any change, including changes of time, to the Contract or to related Subcontracts, purchase orders and other obligations.

11. No suit or action shall be commenced by a Claimant under this Bond other than in a court of competent jurisdiction in the location in which the Work or part of the Work is located or after the expiration of one year from the date (1) on which the Claimant gave the notice required by paragraph 4.1 or paragraph 4.2.3, or (2) on which the last labor or service was performed by anyone or the last materials or equipment were furnished by anyone under the Construction Contract, whichever of (1) or (2) first occurs. If the provisions of this paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.

12. Notice to the Surety, the OWNER or the CONTRACTOR shall be mailed or delivered to the addresses shown on the signature page. Actual receipt of notice by Surety, the OWNER or the CONTRACTOR, however accomplished, shall be sufficient compliance as of the date received at the address shown on the signature page.

13. When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the Contract was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. The intent is, that this Bond shall be construed as a statutory Bond and not as a common law bond.

14. Upon request of any person or entity appearing to be a potential beneficiary of this Bond, the CONTRACTOR shall promptly furnish a copy of this Bond or shall permit a copy to be made.

15. DEFINITIONS

15.1. Claimant: An individual or entity having a direct contract with the CONTRACTOR or with a Subcontractor of the CONTRACTOR to furnish labor, materials or equipment for use in the performance of the Contract. The intent of this Bond shall be to include without limitation in the terms "labor, materials or equipment" that part of water, gas, power, light, heat, oil, gasoline, telephone service or rental equipment used in the Contract, architectural and engineering services required for performance of the Work of the CONTRACTOR and the CONTRACTOR's Subcontractors, and all other items for which a mechanic's lien may be asserted in the jurisdiction where the labor, materials or equipment were furnished.

15.2. Contract: The agreement between the OWNER and the CONTRACTOR identified on the signature page, including all Contract Documents and changes thereto.

15.3. OWNER Default: Failure of the OWNER, which has neither been remedied nor waived, to pay the CONTRACTOR as required by the Contract or to perform and complete or comply with the other terms thereof.

(FOR INFORMATION ONLY--Name, Address and Telephone)

AGENCY or BROKER: OWNER'S REPRESENTATIVE (Engineer or other party):

**SECTION 00700
General Conditions**

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

**STANDARD
GENERAL CONDITIONS
OF THE
CONSTRUCTION CONTRACT**

Prepared by

ENGINEERS JOINT CONTRACT DOCUMENTS COMMITTEE

and

Issued and Published Jointly By

PROFESSIONAL ENGINEERS IN PRIVATE PRACTICE
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This document has been approved and endorsed by

The Associated General Contractors of America

Construction Specifications Institute

These General Conditions have been prepared for use with the Owner-Contractor Agreements (No. 1910-8-A-1 or 1910-8-A-2) (1996 Editions). Their provisions are interrelated and a change in one may necessitate a change in the other. Comments concerning their usage are contained in the EJCDC User's Guide (No. 1910-50). For guidance in the preparation of Supplementary Conditions, see Guide to the Preparation of Supplementary Conditions (No. 1910-17) (1996 Edition).

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National Society of Professional Engineers
1420 King Street, Alexandria, VA 22314

American Consulting Engineers Council
1015 15th Street N.W., Washington, DC 20005

American Society of Civil Engineers
345 East 47th Street, New York, NY 10017

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GENERAL CONDITIONS

ARTICLE 1 - DEFINITIONS AND TERMINOLOGY

1.01 *Defined Terms*

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

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

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

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

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

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

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

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

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

9. *Change Order*--A document recommended by ENGINEER which is signed by CONTRACTOR and OWNER and authorizes an addition, deletion, or revision in the Work or an adjustment in the Contract Price or the Contract Times, issued on or after the Effective Date of the Agreement.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

32. *PCBs*--Polychlorinated biphenyls.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

50. *Written Amendment*--A written statement modifying the Contract Documents, signed by OWNER and CONTRACTOR on or after the Effective Date of the Agreement and normally dealing with the non-engineering or nontechnical rather than strictly construction-related aspects of the Contract Documents.

1.02 Terminology

A. *Intent of Certain Terms or Adjectives*

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

B. *Day*

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

C. *Defective*

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

D. *Furnish, Install, Perform, Provide*

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

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

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

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

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

ARTICLE 2 - PRELIMINARY MATTERS

2.01 Delivery of Bonds

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

2.02 Copies of Documents

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

2.03 Commencement of Contract Times; Notice to Proceed

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

2.04 Starting the Work

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

2.05 Before Starting Construction

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

B. *Preliminary Schedules:* Within ten days after the Effective Date of the Agreement (unless otherwise speci-

fied in the General Requirements), CONTRACTOR shall submit to ENGINEER for its timely review:

1. a preliminary progress schedule indicating the times (numbers of days or dates) for starting and completing the various stages of the Work, including any Milestones specified in the Contract Documents;
2. a preliminary schedule of Shop Drawing and Sample submittals which will list each required submittal and the times for submitting, reviewing, and processing such submittal; and
3. a preliminary schedule of values for all of the Work which includes quantities and prices of items which when added together equal the Contract Price and subdivides the Work into component parts in sufficient detail to serve as the basis for progress payments during performance of the Work. Such prices will include an appropriate amount of overhead and profit applicable to each item of Work.

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

2.06 Preconstruction Conference

A. Within 20 days after the Contract Times start to run, but before any Work at the Site is started, a conference attended by CONTRACTOR, ENGINEER, and others as appropriate will be held to establish a working understanding among the parties as to the Work and to discuss the schedules referred to in paragraph 2.05.B, procedures for handling Shop Drawings and other submittals, processing Applications for Payment, and maintaining required records.

2.07 Initial Acceptance of Schedules

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

payment shall be made to CONTRACTOR until acceptable schedules are submitted to ENGINEER.

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

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

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

ARTICLE 3 - CONTRACT DOCUMENTS: INTENT, AMENDING, REUSE

3.01 Intent

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

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

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

3.02 Reference Standards

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

1. Reference to standards, specifications, manuals, or codes of any technical society, organization, or association, or to Laws or

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

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

3.03 Reporting and Resolving *Discrepancies*

A. *Reporting Discrepancies*

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

B. *Resolving Discrepancies*

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

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

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

3.04 Amending and Supplementing Contract Documents

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

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

3.05 Reuse of Documents

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

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

4.01 Availability of Lands

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

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

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

4.02 Subsurface and Physical *Conditions*

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

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

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

or make any Claim against OWNER, ENGINEER, or any of ENGINEER's Consultants with respect to:

1. the completeness of such reports and drawings for CONTRACTOR's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences, and procedures of construction to be employed by CONTRACTOR, and safety precautions and programs incident thereto; or
2. other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings; or
3. any CONTRACTOR interpretation of or conclusion drawn from any "technical data" or any such other data, interpretations, opinions, or information.

4.03 Differing Subsurface or Physical Conditions

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

1. is of such a nature as to establish that any "technical data" on which CONTRACTOR is entitled to rely as provided in paragraph 4.02 is materially inaccurate; or
2. is of such a nature as to require a change in the Contract Documents; or
3. differs materially from that shown or indicated in the Contract Documents; or

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

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

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

(with a copy to CONTRACTOR) of ENGINEER's findings and conclusions.

C. *Possible Price and Times Adjustments*

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

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

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

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

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

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

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

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

professionals and all court or arbitration or other dispute resolution costs) sustained by CONTRACTOR on or in connection with any other project or anticipated project.

4.04 *Underground Facilities*

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

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

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

a. reviewing and checking all such information and data,

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

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

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

B. *Not Shown or Indicated*

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

time, CONTRACTOR shall be responsible for the safety and protection of such Underground Facility.

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

4.05 Reference Points

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

4.06 Hazardous Environmental Condition at Site

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

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

or make any Claim against OWNER, ENGINEER or any of ENGINEER's Consultants with respect to:

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

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

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

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

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

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

agreed to be resumed by CONTRACTOR, either party may make a Claim therefor as provided in paragraph 10.05.

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

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

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

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

ARTICLE 5 - BONDS AND INSURANCE

5.01 Performance, Payment, and Other Bonds

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

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

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

5.02 Licensed Sureties and Insurers

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

5.03 Certificates of Insurance

A. CONTRACTOR shall deliver to OWNER, with copies to each additional insured identified in the Supple-

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

5.04 CONTRACTOR's Liability Insurance

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

1. claims under workers' compensation, disability benefits, and other similar employee benefit acts;
2. claims for damages because of bodily injury, occupational sickness or disease, or death of CONTRACTOR's employees;
3. claims for damages because of bodily injury, sickness or disease, or death of any person other than CONTRACTOR's employees;
4. claims for damages insured by reasonably available personal injury liability coverage which are sustained: (i) by any person as a result of an offense directly or indirectly related to the employment of such person by CONTRACTOR, or (ii) by any other person for any other reason;
5. claims for damages, other than to the Work itself, because of injury to or destruction of tangible property wherever located, including loss of use resulting therefrom; and
6. claims for damages because of bodily injury or death of any person or property damage arising out of the ownership, maintenance or use of any motor vehicle.

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

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

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

3. include completed operations insurance;

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

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

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

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

5.05 OWNER's Liability Insurance

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

5.06 Property Insurance

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

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

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

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

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

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

6. include testing and startup; and

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

B. OWNER shall purchase and maintain such boiler and machinery insurance or additional property insurance as may be required by the Supplementary Conditions or Laws and Regulations which will include the interests of OWNER, CONTRACTOR, Subcontractors, ENGINEER, ENGINEER's Consultants, and any other individuals or entities identified in the Supplementary Conditions, each of whom is deemed to have an insurable interest and shall be listed as an insured or additional insured.

C. All the policies of insurance (and the certificates or other evidence thereof) required to be purchased and maintained in accordance with paragraph 5.06 will contain a provision or endorsement that the coverage afforded will not be canceled or materially changed or renewal refused until at least 30 days prior written notice has been given to OWNER and CONTRACTOR and to each other additional insured to whom a certificate of insurance has been issued and will contain waiver provisions in accordance with paragraph 5.07.

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

E. If CONTRACTOR requests in writing that other special insurance be included in the property insurance policies provided under paragraph 5.06, OWNER shall, if possible, include such insurance, and the cost thereof will be charged to CONTRACTOR by appropriate Change Order or Written Amendment. Prior to commencement of the Work at the Site, OWNER shall in writing advise CONTRACTOR whether or not such other insurance has been procured by OWNER.

5.07 Waiver of Rights

A. OWNER and CONTRACTOR intend that all policies purchased in accordance with paragraph 5.06 will

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

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

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

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

C. Any insurance policy maintained by OWNER covering any loss, damage or consequential loss referred to in paragraph 5.07.B shall contain provisions to the effect

that in the event of payment of any such loss, damage, or consequential loss, the insurers will have no rights of recovery against CONTRACTOR, Subcontractors, ENGINEER, or ENGINEER's Consultants and the officers, directors, partners, employees, agents, and other consultants and subcontractors of each and any of them.

5.08 Receipt and Application of Insurance Proceeds

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

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

5.09 Acceptance of Bonds and Insurance; Option to Replace

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

the expense of the party who was required to provide such coverage, and a Change Order shall be issued to adjust the Contract Price accordingly.

5.10 Partial Utilization, Acknowledgment of Property Insurer

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

ARTICLE 6 - CONTRACTOR'S RESPONSIBILITIES

6.01 Supervision and Superintendence

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

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

6.02 Labor; Working Hours

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

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

6.03 Services, Materials, and Equipment

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

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

6.04 Progress Schedule

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

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

2. Proposed adjustments in the progress schedule that will change the Contract Times (or Milestones) shall be submitted in accordance with

the requirements of Article 12. Such adjustments may only be made by a Change Order or Written Amendment in accordance with Article 12.

6.05 Substitutes and “Or-Equals”

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

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

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

b. CONTRACTOR certifies that: (i) there is no increase in cost to the OWNER; and (ii) it will conform substantially, even with deviations, to the detailed requirements of the item named in the Contract Documents.

2. Substitute Items

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

b. CONTRACTOR shall submit sufficient information as provided below to allow ENGI-

NEER to determine that the item of material or equipment proposed is essentially equivalent to that named and an acceptable substitute therefor. Requests for review of proposed substitute items of material or equipment will not be accepted by ENGINEER from anyone other than CONTRACTOR.

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

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

B. *Substitute Construction Methods or Procedures:* If a specific means, method, technique, sequence, or procedure of construction is shown or indicated in and expressly required by the Contract Documents, CONTRACTOR may furnish or utilize a substitute means,

method, technique, sequence, or procedure of construction approved by ENGINEER. CONTRACTOR shall submit sufficient information to allow ENGINEER, in ENGINEER's sole discretion, to determine that the substitute proposed is equivalent to that expressly called for by the Contract Documents. The procedure for review by ENGINEER will be similar to that provided in subparagraph 6.05.A.2.

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

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

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

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

6.06 Concerning Subcontractors, Suppliers, and Others

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

B. If the Supplementary Conditions require the identity of certain Subcontractors, Suppliers, or other

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

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

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

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

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

G. All Work performed for CONTRACTOR by a Subcontractor or Supplier will be pursuant to an appro-

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

6.07 Patent Fees and Royalties

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

6.08 Permits

A. Unless otherwise provided in the Supplementary Conditions, CONTRACTOR shall obtain and pay for all

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

6.09 Laws and Regulations

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

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

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

6.10 Taxes

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

6.11 Use of Site and Other Areas

A. *Limitation on Use of Site and Other Areas*

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

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

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

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

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

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

6.12 Record Documents

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

6.13 Safety and Protection

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

1. all persons on the Site or who may be affected by the Work;
2. all the Work and materials and equipment to be incorporated therein, whether in storage on or off the Site; and
3. other property at the Site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, utilities, and Underground Facilities not designated for removal, relocation, or replacement in the course of construction.

B. CONTRACTOR shall comply with all applicable Laws and Regulations relating to the safety of persons or property, or to the protection of persons or property from damage, injury, or loss; and shall erect and maintain all necessary safeguards for such safety and protection. CONTRACTOR shall notify owners of adjacent property and of Underground Facilities and other utility owners when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation, and replacement of their property. All damage, injury, or loss to any property referred to in paragraph 6.13.A.2 or 6.13.A.3 caused, directly or indirectly, in whole or in part, by CONTRACTOR, any Subcontractor, Supplier, or any other individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for

whose acts any of them may be liable, shall be remedied by CONTRACTOR (except damage or loss attributable to the fault of Drawings or Specifications or to the acts or omissions of OWNER or ENGINEER or ENGINEER's Consultant, or anyone employed by any of them, or anyone for whose acts any of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of CONTRACTOR or any Subcontractor, Supplier, or other individual or entity directly or indirectly employed by any of them). CONTRACTOR's duties and responsibilities for safety and for protection of the Work shall continue until such time as all the Work is completed and ENGINEER has issued a notice to OWNER and CONTRACTOR in accordance with paragraph 14.07.B that the Work is acceptable (except as otherwise expressly provided in connection with Substantial Completion).

6.14 Safety Representative

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

6.15 Hazard Communication Programs

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

6.16 Emergencies

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

6.17 Shop Drawings and Samples

A. CONTRACTOR shall submit Shop Drawings to ENGINEER for review and approval in accordance with the acceptable schedule of Shop Drawings and Sample submittals. All submittals will be identified as ENGINEER may require and in the number of copies specified in the General Requirements. The data shown on the Shop

Drawings will be complete with respect to quantities, dimensions, specified performance and design criteria, materials, and similar data to show ENGINEER the services, materials, and equipment CONTRACTOR proposes to provide and to enable ENGINEER to review the information for the limited purposes required by paragraph 6.17.E.

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

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

D. Submittal Procedures

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

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

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

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

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

2. Each submittal shall bear a stamp or specific written indication that CONTRACTOR has

satisfied CONTRACTOR's obligations under the Contract Documents with respect to CONTRACTOR's review and approval of that submittal.

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

E. ENGINEER's Review

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

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

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

F. Resubmittal Procedures

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

6.18 Continuing the Work

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

6.19 CONTRACTOR's General Warranty and Guarantee

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

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

2. normal wear and tear under normal usage.

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

1. observations by ENGINEER;

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

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

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

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

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

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

8. any correction of defective Work by OWNER.

6.20 Indemnification

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

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

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

B. In any and all claims against OWNER or ENGINEER or any of their respective consultants, agents, officers, directors, partners, or employees by any employee (or the survivor or personal representative of such employee) of CONTRACTOR, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, the

indemnification obligation under paragraph 6.20.A shall not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for CONTRACTOR or any such Subcontractor, Supplier, or other individual or entity under workers' compensation acts, disability benefit acts, or other employee benefit acts.

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

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

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

ARTICLE 7 - OTHER WORK

7.01 Related Work at Site

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

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

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

B. CONTRACTOR shall afford each other contractor who is a party to such a direct contract and each utility owner (and OWNER, if OWNER is performing the other work with OWNER's employees) proper and safe access to the Site and a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work and shall properly coordinate the Work with theirs. Unless otherwise provided in the Contract Documents, CONTRACTOR shall do all cutting, fitting, and patching of the Work that

may be required to properly connect or otherwise make its several parts come together and properly integrate with such other work. CONTRACTOR shall not endanger any work of others by cutting, excavating, or otherwise altering their work and will only cut or alter their work with the written consent of ENGINEER and the others whose work will be affected. The duties and responsibilities of CONTRACTOR under this paragraph are for the benefit of such utility owners and other contractors to the extent that there are comparable provisions for the benefit of CONTRACTOR in said direct contracts between OWNER and such utility owners and other contractors.

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

7.02 Coordination

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

1. the individual or entity who will have authority and responsibility for coordination of the activities among the various contractors will be identified;
2. the specific matters to be covered by such authority and responsibility will be itemized; and
3. the extent of such authority and responsibilities will be provided.

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

ARTICLE 8 - OWNER'S RESPONSIBILITIES

8.01 Communications to CONTRACTOR

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

8.02 Replacement of ENGINEER

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

8.03 Furnish Data

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

8.04 Pay Promptly When Due

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

8.05 Lands and Easements; Reports and Tests

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

8.06 Insurance

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

8.07 Change Orders

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

8.08 Inspections, Tests, and Approvals

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

8.09 Limitations on OWNER's Responsibilities

A. The OWNER shall not supervise, direct, or have control or authority over, nor be responsible for, CONTRACTOR's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of CON-

TRACTOR to comply with Laws and Regulations applicable to the performance of the Work. OWNER will not be responsible for CONTRACTOR's failure to perform the Work in accordance with the Contract Documents.

8.10 Undisclosed Hazardous Environmental Condition

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

8.11 Evidence of Financial Arrangements

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

ARTICLE 9 - ENGINEER'S STATUS DURING CONSTRUCTION

9.01 OWNER'S Representative

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

9.02 Visits to Site

A. ENGINEER will make visits to the Site at intervals appropriate to the various stages of construction as ENGINEER deems necessary in order to observe as an experienced and qualified design professional the progress that has been made and the quality of the various aspects of CONTRACTOR's executed Work. Based on information obtained during such visits and observations, ENGINEER, for the benefit of OWNER, will determine, in general, if the Work is proceeding in accordance with the Contract Documents. ENGINEER will not be required to make exhaustive or continuous inspections on the Site to check the quality or quantity of the Work. ENGINEER's efforts will be directed toward providing for OWNER a greater degree of confidence that the completed Work will conform generally to the Contract Documents. On the basis of such visits and observations, ENGINEER will keep OWNER informed of the progress of the Work and will endeavor to guard OWNER against defective Work.

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

9.03 Project Representative

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

9.04 Clarifications and Interpretations

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

9.05 Authorized Variations in Work

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

Contract Times, or both, as a result of a Field Order, a Claim may be made therefor as provided in paragraph 10.05.

9.06 Rejecting Defective Work

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

9.07 Shop Drawings, Change Orders and Payments

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

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

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

9.08 Determinations for Unit Price Work

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

9.09 Decisions on Requirements of Contract Documents and Acceptability of Work

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

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

9.10 Limitations on ENGINEER's Authority and Responsibilities

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

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

C. ENGINEER will not be responsible for the acts or omissions of CONTRACTOR or of any Subcontractor, any Supplier, or of any other individual or entity performing any of the Work.

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

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

ARTICLE 10 - CHANGES IN THE WORK; CLAIMS

10.01 Authorized Changes in the Work

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

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

10.02 Unauthorized Changes in the Work

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

10.03 Execution of Change Orders

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

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

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

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

10.04 Notification to Surety

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

10.05 Claims and Disputes

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

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

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

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

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

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

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

11.01 Cost of the Work

A. *Costs Included:* The term Cost of the Work means the sum of all costs necessarily incurred and paid by CONTRACTOR in the proper performance of the Work. When the value of any Work covered by a Change Order or when a Claim for an adjustment in Contract Price is determined on the basis of Cost of the Work, the costs to be reimbursed to CONTRACTOR will be only those additional or incremental costs required because of the change in the Work or because of the event giving rise to the Claim. Except as otherwise may be agreed to in writing

by OWNER, such costs shall be in amounts no higher than those prevailing in the locality of the Project, shall include only the following items, and shall not include any of the costs itemized in paragraph 11.01.B.

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

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

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

4. Costs of special consultants (including but not limited to engineers, architects, testing

laboratories, surveyors, attorneys, and accountants) employed for services specifically related to the Work.

5. Supplemental costs including the following:

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

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

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

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

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

f. Losses and damages (and related expenses) caused by damage to the Work, not compensated by insurance or otherwise, sustained by CONTRACTOR in connection with the performance of the Work (except losses and damages within the deductible amounts of property insurance established in accordance with paragraph 5.06.D), provided such losses and damages have resulted from causes other than the negligence of CONTRACTOR, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable. Such

losses shall include settlements made with the written consent and approval of OWNER. No such losses, damages, and expenses shall be included in the Cost of the Work for the purpose of determining CONTRACTOR's fee.

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

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

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

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

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

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

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

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

4. Costs due to the negligence of CONTRACTOR, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose

acts any of them may be liable, including but not limited to, the correction of defective Work, disposal of materials or equipment wrongly supplied, and making good any damage to property.

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

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

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

11.02 Cash Allowances

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

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

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

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

11.03 Unit Price Work

A. Where the Contract Documents provide that all or part of the Work is to be Unit Price Work, initially the Contract Price will be deemed to include for all Unit Price Work an amount equal to the sum of the unit price for each separately identified item of Unit Price Work times the estimated quantity of each item as indicated in the Agreement. The estimated quantities of items of Unit Price Work are not guaranteed and are solely for the purpose of comparison of Bids and determining an initial Contract Price. Determinations of the actual quantities and classifications of Unit Price Work performed by CONTRACTOR will be made by ENGINEER subject to the provisions of paragraph 9.08.

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

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

1. the quantity of any item of Unit Price Work performed by CONTRACTOR differs materially and significantly from the estimated quantity of such item indicated in the Agreement; and

2. there is no corresponding adjustment with respect any other item of Work; and

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

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

12.01 Change of Contract Price

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

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

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

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

3. where the Work involved is not covered by unit prices contained in the Contract Documents and agreement to a lump sum is not reached under paragraph 12.01.B.2, on the basis of the Cost of the Work (determined as provided in paragraph 11.01) plus a CONTRACTOR's fee for overhead and profit (determined as provided in paragraph 12.01.C).

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

1. a mutually acceptable fixed fee; or

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

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

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

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

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

e. the amount of credit to be allowed by CONTRACTOR to OWNER for any change

which results in a net decrease in cost will be the amount of the actual net decrease in cost plus a deduction in CONTRACTOR's fee by an amount equal to five percent of such net decrease; and

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

12.02 Change of Contract Times

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

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

12.03 Delays Beyond CONTRACTOR's Control

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

12.04 Delays Within CONTRACTOR's Control

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

12.05 Delays Beyond OWNER's and CONTRACTOR's Control

A. Where CONTRACTOR is prevented from completing any part of the Work within the Contract Times

(or Milestones) due to delay beyond the control of both OWNER and CONTRACTOR, an extension of the Contract Times (or Milestones) in an amount equal to the time lost due to such delay shall be CONTRACTOR's sole and exclusive remedy for such delay.

12.06 Delay Damages

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

1. delays caused by or within the control of CONTRACTOR; or
2. delays beyond the control of both OWNER and CONTRACTOR including but not limited to fires, floods, epidemics, abnormal weather conditions, acts of God, or acts or neglect by utility owners or other contractors performing other work as contemplated by Article 7.

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

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

13.01 Notice of Defects

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

13.02 Access to Work

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

13.03 Tests and Inspections

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

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

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

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

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

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

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

13.04 Uncovering Work

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

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

13.05 OWNER May Stop the Work

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

13.06 Correction or Removal of Defective Work

A. CONTRACTOR shall correct all defective Work, whether or not fabricated, installed, or completed, or, if the Work has been rejected by ENGINEER, remove it from the Project and replace it with Work that is not defective. CONTRACTOR shall pay all Claims, costs, losses, and

damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or removal (including but not limited to all costs of repair or replacement of work of others).

13.07 Correction Period

A. If within one year after the date of Substantial Completion or such longer period of time as may be prescribed by Laws or Regulations or by the terms of any applicable special guarantee required by the Contract Documents or by any specific provision of the Contract Documents, any Work is found to be defective, or if the repair of any damages to the land or areas made available for CONTRACTOR's use by OWNER or permitted by Laws and Regulations as contemplated in paragraph 6.11.A is found to be defective, CONTRACTOR shall promptly, without cost to OWNER and in accordance with OWNER's written instructions: (i) repair such defective land or areas, or (ii) correct such defective Work or, if the defective Work has been rejected by OWNER, remove it from the Project and replace it with Work that is not defective, and (iii) satisfactorily correct or repair or remove and replace any damage to other Work, to the work of others or other land or areas resulting therefrom. If CONTRACTOR does not promptly comply with the terms of such instructions, or in an emergency where delay would cause serious risk of loss or damage, OWNER may have the defective Work corrected or repaired or may have the rejected Work removed and replaced, and all Claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or repair or such removal and replacement (including but not limited to all costs of repair or replacement of work of others) will be paid by CONTRACTOR.

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

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

D. CONTRACTOR's obligations under this paragraph 13.07 are in addition to any other obligation or

warranty. The provisions of this paragraph 13.07 shall not be construed as a substitute for or a waiver of the provisions of any applicable statute of limitation or repose.

13.08 Acceptance of Defective Work

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

13.09 OWNER May Correct Defective Work

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

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

ENGINEER's Consultants access to the Site to enable OWNER to exercise the rights and remedies under this paragraph.

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

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

ARTICLE 14 - PAYMENTS TO CONTRACTOR AND COMPLETION

14.01 Schedule of Values

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

14.02 Progress Payments

A. *Applications for Payments*

1. At least 20 days before the date established for each progress payment (but not more often than once a month), CONTRACTOR shall submit to ENGINEER for review an Application for Payment filled out and signed by CONTRACTOR covering the Work completed as of the date of the Application and accompanied by such supporting documentation as is required by the Contract Documents. If payment is requested on the basis of materials and equipment not incorporated in the Work but delivered and suitably stored at the Site or

at another location agreed to in writing, the Application for Payment shall also be accompanied by a bill of sale, invoice, or other documentation warranting that OWNER has received the materials and equipment free and clear of all Liens and evidence that the materials and equipment are covered by appropriate property insurance or other arrangements to protect OWNER's interest therein, all of which must be satisfactory to OWNER.

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

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

B. *Review of Applications*

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

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

a. the Work has progressed to the point indicated;

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

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

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

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

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

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

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

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

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

C. *Payment Becomes Due*

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

D. *Reduction in Payment*

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

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

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

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

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

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

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

14.03 CONTRACTOR's Warranty of Title

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

14.04 Substantial Completion

A. When CONTRACTOR considers the entire Work ready for its intended use CONTRACTOR shall notify OWNER and ENGINEER in writing that the entire Work is substantially complete (except for items specifically listed by CONTRACTOR as incomplete) and request that ENGINEER issue a certificate of Substantial Completion. Promptly thereafter, OWNER, CONTRACTOR, and ENGINEER shall make an inspection of the Work to determine the status of completion. If ENGINEER does not consider the Work substantially complete, ENGINEER will notify CONTRACTOR in writing giving the reasons therefor. If ENGINEER considers the Work substantially complete, ENGINEER will prepare and deliver to OWNER a tentative certificate of Substantial Completion which shall fix the date of Substantial Completion. There shall be attached to the certificate a tentative list of items to be completed or corrected before final payment. OWNER shall have seven days after receipt of the tentative certificate during which to make written objection to ENGINEER as to any provisions of the certificate or attached list. If, after considering such objections, ENGINEER concludes that the Work is not substantially complete, ENGINEER will within 14 days after submission of the tentative certificate to OWNER notify CONTRACTOR in writing, stating the reasons therefor. If, after consideration of OWNER's objections, ENGINEER considers the Work substantially complete, ENGINEER will within said 14 days execute and deliver to OWNER and CONTRACTOR a definitive certificate of Substantial Completion (with a revised tentative list of items to be completed or corrected) reflecting such changes from the tentative certificate as ENGINEER believes justified after consideration of any objections from OWNER. At the time of delivery of the tentative certificate of Substantial Completion ENGINEER will deliver to OWNER and CONTRACTOR a written recommendation as to division of responsibilities pending final payment between OWNER and CONTRACTOR with respect to security, operation, safety, and protection of the Work, maintenance, heat, utilities, insurance, and warranties and guarantees. Unless OWNER and CONTRACTOR agree otherwise in writing and so inform ENGINEER in writing prior to ENGINEER's issuing the

definitive certificate of Substantial Completion, ENGINEER's aforesaid recommendation will be binding on OWNER and CONTRACTOR until final payment.

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

14.05 Partial Utilization

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

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

2. No occupancy or separate operation of part of the Work may occur prior to compliance

with the requirements of paragraph 5.10 regarding property insurance.

14.06 Final Inspection

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

14.07 Final Payment

A. *Application for Payment*

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

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

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

to OWNER to indemnify OWNER against any Lien.

B. *Review of Application and Acceptance*

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

C. *Payment Becomes Due*

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

14.08 *Final Completion Delayed*

A. If, through no fault of CONTRACTOR, final completion of the Work is significantly delayed, and if ENGINEER so confirms, OWNER shall, upon receipt of CONTRACTOR's final Application for Payment and recommendation of ENGINEER, and without terminating the Agreement, make payment of the balance due for that portion of the Work fully completed and accepted. If the remaining balance to be held by OWNER for Work not fully completed or corrected is less than the retainage stipulated in the Agreement, and if Bonds have been furnished as required in paragraph 5.01, the written consent of the surety to the payment of the balance due for that portion of the Work fully completed and accepted shall be submitted by CONTRACTOR to ENGINEER with the Application for such payment. Such payment shall be made under the terms and conditions governing final payment, except that it shall not constitute a waiver of Claims.

14.09 Waiver of Claims

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

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

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

ARTICLE 15 - SUSPENSION OF WORK AND TERMINATION

15.01 OWNER May Suspend Work

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

15.02 OWNER May Terminate for Cause

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

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

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

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

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

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

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

15.03 OWNER May Terminate For Convenience

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

1. for completed and acceptable Work executed in accordance with the Contract Documents prior to the effective date of termination,

including fair and reasonable sums for overhead and profit on such Work;

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

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

4. for reasonable expenses directly attributable to termination.

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

15.04 CONTRACTOR May Stop Work or Terminate

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

ARTICLE 16 - DISPUTE RESOLUTION

16.01 Methods and Procedures

A. Dispute resolution methods and procedures, if any, shall be as set forth in the Supplementary Conditions. If no method and procedure has been set forth, and subject to the provisions of paragraphs 9.09 and 10.05, OWNER and CONTRACTOR may exercise such rights or remedies as either may otherwise have under the Contract Documents or by Laws or Regulations in respect of any dispute.

ARTICLE 17 - MISCELLANEOUS

17.01 Giving Notice

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

17.02 Computation of Times

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

17.03 Cumulative Remedies

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

17.04 Survival of Obligations

A. All representations, indemnifications, warranties, and guarantees made in, required by, or given in accordance with the Contract Documents, as well as all continuing obligations indicated in the Contract Documents, will

survive final payment, completion, and acceptance of the Work or termination or completion of the Agreement.

17.05 Controlling Law

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

**SECTION 00710
LIST OF DRAWINGS**

**Cullman Environmental Waste
Management Center Scale and
Scalehouse Construction**

<u>Drawing No.</u>	<u>Drawing Title</u>
01	Cover Sheet
02	Legend and General Notes
03	Existing Conditions
04	Demolition Plan
05	Grading Plan
06	Phase 1 Construction Plan
07	Phase 2 Construction Plan
08	Phase 3 Construction Plan
09	Pavement Plan
10	Road Plan and Profile
11	Details
12	Details

**SECTION 00800
SUPPLEMENTARY CONDITIONS**

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Supplementary Conditions

These Supplementary Conditions amend or supplement the Standard General Conditions of the Construction Contract (No. 1910-8, 1996 Edition) and other provisions of the Contract Documents as indicated below. All provisions which are not so amended or supplemented remain in full force and effect.

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

SC-4.02 Subsurface and Physical Conditions

Add the following new paragraph(s) immediately after paragraph 4.02.B:

C. In the preparation of Drawings and Specifications, ENGINEER or ENGINEER's Consultants relied upon the following reports of explorations and tests of subsurface conditions at the Site:

- 1. Hydrogeologic Report, dated August 2024.**

D. In the preparation of Drawings and Specifications, ENGINEER or ENGINEER's Consultants relied upon the following drawings of physical conditions in or relating to existing surface and subsurface structures (except Underground Facilities) which are at or contiguous to the Site:

Drawings included in or that are a part of the reports identified in SC-4.02.C.

E. Copies of reports and drawings itemized in SC-4.02.C and SC-4.02.D that are not included with Bidding Documents may be examined at LaBella Associates, D.P.C. office at 528 Mineral Trace, Hoover, AL 35244 during regular business hours. These reports and drawings are not part of the Contract Documents, but the "technical data" contained therein upon which CONTRACTOR may rely as identified and established above are incorporated therein by reference. CONTRACTOR is not entitled to rely upon other information and data

utilized by ENGINEER and ENGINEER's Consultants in the preparation of Drawings and Specifications.

SC-5.01 Performance, Payment and Other Bonds

Delete paragraph 5.01 in its entirety.

SC-5.02 Licensed Sureties and Insurers

Add the following new paragraph immediately after paragraph 5.02.A:

B. All Insurance shall be written by insurance companies licensed to do business in the State of Alabama. The insurance company must have an A.M. Best rating of A- or better.

SC-5.03 Certificates of Insurance

Add the following new paragraph immediately after paragraph 5.03.A:

B. CONTRACTOR shall provide OWNER a certificate of insurance indicating the insurance outlined in SC-5.04. The insurance company needs to be identified for each coverage. The certificates are to be signed by a person authorized by the insurance company to bind coverage on its behalf.

SC-5.04 CONTRACTOR's Liability Insurance

Add the following new paragraph(s) immediately after paragraph 5.04.B:

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

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

- a. State: Statutory**
- b. Applicable Federal (e.g., Longshoreman's): Statutory**
- c. Employer's Liability: \$100,000.00 accident**

\$100,000.00 disease
\$500,000.00 policy limit disease

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

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

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

- a. Bodily Injury:
 - Each person \$500,000.00
 - Each Accident \$1,000,000.00
- b. Property Damage:
 - Each Accident \$250,000.00
- c. Combined Single Limit of \$2,000,000.00

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

- a. Bodily Injury:
 - Each Accident \$2,000,000.00
 - Annual Aggregate \$2,000,000.00
- b. Property Damage:
 - Each Accident \$2,000,000.00
 - Annual Aggregate \$2,000,000.00

5. CONTRACTOR shall name

SWDA of the City and County of Cullman
925 Convent Road
Cullman, AL 35055

and

LaBella Associate, D.P.C.
528 Mineral Trace
Hoover, AL 35244

as additional insureds in all policies provided by the CONTRACTOR for his own protection and that of his Subcontractors. All certificates must state Bid Number and Project Title.

In the event that the CONTRACTOR or his Surety is prevented by law or by charter from naming the OWNER and his agents, and the ENGINEERS, as insureds in the policies providing the coverages listed, the CONTRACTOR shall purchase and maintain during the life of this agreement OWNER's and CONTRACTOR's Protective Liability Insurance in the amount of not less than \$1,000,000.00; and the named insureds shall be the OWNER and his agents and the ENGINEERS. The insurance shall protect the OWNER and his agents, and the ENGINEERS from any claim or loss arising from any act of the CONTRACTOR or his Subcontractors, or any failure to act on the part of the CONTRACTOR or his Subcontractors, during the performance of work under this agreement.

A 30-day cancellation, non-renewal, material change or coverage reduction notice is required. Failure to provide such notice will obligate the insurer to provide coverage as if cancellation or non-renewal did not take place. The words "endeavor to" are to be eliminated from the Notice of Cancellation provision on standard ACORD certifications.

D. CONTRACTOR shall maintain builders risk insurance for the total replacement cost value of the project.

SC-5.05 OWNER's Liability Insurance

Delete paragraph 5.05 in its entirety.

SC-5.06 Property Insurance

Delete paragraph 5.06 in its entirety.

SC-5.07 Waiver of Rights

Delete paragraph 5.07 in its entirety.

SC-6.04 Progress Schedule

- 2. Construction schedules will be adjusted during times of inclement weather which delays all construction, as approved by the ENGINEER and OWNER.

SC-6.06 Concerning Subcontractors, Suppliers, and Others

Add the following new paragraph immediately after paragraph 6.06.B:

The value of work performed by Subcontractors shall not exceed 30% of the total value of the contract, exclusive of materials.

Add the following sentence at the end of paragraph 6.06.C:

OWNER or ENGINEER may furnish to any such Subcontractor, Supplier, or other individual or entity, to the extent practicable, information about amounts paid to CONTRACTOR on account of Work performed for CONTRACTOR by a particular Subcontractor, Supplier, or other individual or entity.

SC-8.06 Insurance

Delete paragraph 8.06 in its entirety

SC-10.04 Notification to Surety

Add the following new paragraph immediately after paragraph 10.04.A:

- B. Any additions, deletions, or revisions in this work shall be made only in strict compliance with the Alabama Public Procurement Act.

SC-12.03 Delays beyond Contractor's Control

B. Time Extensions for Abnormal Weather

This provision specifies the procedure for the determination of time extensions for abnormal weather.

This following list defines the number of anticipated days of adverse weather for each month.

<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>	<u>May</u>	<u>Jun</u>	<u>Jul</u>	<u>Aug</u>	<u>Sep</u>	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>
11	8	6	4	4	5	6	4	4	3	4	8

The anticipated days provided above will constitute the base line for monthly weather time evaluations. Throughout the contract, actual weather days are to be recorded and compared to monthly anticipated days.

Once the number of actual adverse weather days exceeds the anticipated adverse weather days, any subsequent adverse weather days may be used as a basis to determine whether the CONTRACTOR is entitled to a time extension. The adverse weather must have prevented work for at least 50 percent of the workday and delayed work critical to the timely completion of the project. CONTRACTOR's request for adverse weather days must be approved by the Engineer's or Owner's Representative within 24 hours of the occurrence.

The CONTRACTOR's schedule must indicate the critical work (path) and must reflect the above anticipated adverse weather days on all weather dependent activities.

Anticipated adverse weather days scheduled may be used to balance a time extension evaluation within each quarter of the calendar year.

SC-16.01 Methods and Procedures

Delete paragraph 16.01 in its entirety and insert the following in its place:

Jurisdiction and venue of any dispute, demand or claim arising in relation to this agreement shall be in the Courts of Cullman County, Alabama.

END OF SECTION 00800

**SECTION 00901
NOTICE OF AWARD**

Dated _____

[Certified Mail -- Return Receipt Requested]

TO: _____
(BIDDER)

ADDRESS: _____

Contract: Cullman Environmental Waste Management Center Scale and Scalehouse Construction

Project: Cullman Environmental Waste Management Center Scale and Scalehouse Construction

OWNER's Contract No. _____ n/a _____

You are notified that your Bid dated _____ for the above Contract has been considered. You are the apparent Successful Bidder and have been awarded a Contract for

Cullman Environmental Waste Management Center Scale and Scalehouse Construction

The Contract Price of your Contract is _____ Dollars (\$ _____)

An electronic copy of the proposed Contract Documents (except Drawings) accompany this Notice of Award. _____ sets of the Contract Documents will be mailed separately. _____ sets of the Drawings will be delivered separately or otherwise made available to you immediately.

You must comply with the following conditions precedent within 15 days of the date you receive this Notice of Award.

1. Deliver to the OWNER _____ fully executed counterparts of the Contract Documents. [Each of the Contract Documents must bear your signature.
2. Deliver with the executed Contract Documents the certificate of insurance indicating the insurance coverage as specified in the Instructions to Bidders (Article 20), [and] General Conditions (paragraph 5.04) [and Supplementary Conditions (paragraph SC-5.04).]

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Prepared by the Engineers Joint Contract Documents Committee and endorsed by The Associated General Contractors of America and the Construction Specifications Institute.

3. (List other conditions precedent).

Failure to comply with these conditions within the time specified will entitle OWNER to consider your Bid in default, to annul this Notice of Award and to declare your Bid security forfeited.

Within ten days after you comply with the above conditions, OWNER will return to you one fully executed counterpart of the Contract Documents.

(OWNER)

By: _____
(AUTHORIZED SIGNATURE)

(TITLE)

Copy to ENGINEER
(Use Certified Mail,
Return Receipt Requested)

**SECTION 00902
NOTICE TO PROCEED**

Dated _____

TO: _____
(CONTRACTOR)

ADDRESS¹: _____

Contract: Cullman Environmental Waste Management Center Scale and Scalehouse Construction

Project: Cullman Environmental Waste Management Center Scale and Scalehouse Construction

OWNER'S CONTRACT NO. N/A

You are notified that the Contract Times under the above contract will commence to run on _____ . By that date, you are to start performing your obligations under the Contract Documents. In accordance with Article 4 of the Agreement the date of Substantial Completion is _____ and the date of readiness for final payment is _____.

Before you may start any Work at the Site, paragraph 2.05.C of the General Conditions provides that you must deliver to the Owner (with copies to Engineer and other identified additional insureds) certificates of insurance which is required to be purchased and maintained in accordance with the Contract Documents.

Also, before you may start any Work at the Site, you must

(OWNER)

By: _____
(AUTHORIZED SIGNATURE)

(TITLE)

Copy to ENGINEER

¹(Use Certified Mail, Return Receipt Requested)

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Prepared by the Engineers Joint Contract Documents Committee and endorsed by The Associated General Contractors of America and the Construction Specifications Institute.

SECTION 00903
APPLICATION FOR PAYMENT NO. _____

To: SWDA of the City and County of Cullman (OWNER)
From: _____ (CONTRACTOR)
Contract: Cullman Environmental Waste Management Center Scale and Scalehouse Construction
Project: Cullman Environmental Waste Management Center Scale and Scalehouse Construction
OWNER's Contract No. N/A ENGINEER's Project No. 2233636
For Work accomplished through the date of: _____

- | | | | |
|-----------|--|----------|-----------------|
| 1. | Original Contract Price: | \$ _____ | |
| 2. | Net change by Change Orders and Written Amendments (+ or -): | | \$ _____ |
| 3. | Current Contract Price (1 plus 2): | | \$ _____ |
| 4. | Total completed and stored to date: | | \$ _____ |
| 5. | Retainage (per Agreement): | | |
| | <u>5</u> % of completed Work (minus geosynthetic work): | \$ _____ | |
| | <u>20</u> % of Geosynthetic Work: | \$ _____ | |
| | Total Retainage: | | \$ _____ |
| 6. | Total completed less retainage (4 minus 5): | | \$ _____ |
| 7. | Less previous Application for Payments: | | \$ _____ |
| 8. | DUE THIS APPLICATION (6 MINUS 7): | | \$ _____ |

Accompanying Documentation:

CONTRACTOR'S Certification:

The undersigned CONTRACTOR certifies that (1) all previous progress payments received from OWNER on account of Work done under the Contract referred to above have been applied on account to discharge CONTRACTOR's legitimate obligations incurred in connection with Work covered by prior Applications for Payment numbered 1 through _____ inclusive; (2) title of all Work, materials and equipment incorporated in said Work or otherwise listed in or covered by this Application for Payment will pass to OWNER at time of payment free and clear of all Liens, security interests and encumbrances (except such as are covered by a Bond acceptable to OWNER indemnifying OWNER against any such Lien, security interest or encumbrance); and (3) all Work covered by this Application for Payment is in accordance with the Contract Documents and not defective.

Dated _____ CONTRACTOR

By: _____

State of _____
County of _____
Subscribed and sworn to before me this _____
day of _____, _____

Notary Public
My Commission expires: _____

Payment of the above AMOUNT DUE THIS APPLICATION is recommended.

Dated _____ ENGINEER

By: _____

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Prepared by the Engineers Joint Contract Documents Committee and endorsed by The Associated General Contractors of America and the Construction Specification Institute.

APPLICATION FOR PAYMENT

INSTRUCTIONS

A. GENERAL INFORMATION

The sample form of Schedule of Values is intended as a guide only. Many projects require a more extensive form with space for numerous items, descriptions of Change Orders, identification of variable quantity adjustments, summary of materials and equipment stored at the site and other information. It is expected that a separate form will be developed by Engineer and Contractor at the time Contractor's Schedule of Values is finalized. Note also that the format for retainage must be changed if the Contract permits (or the law provides), and Contractor elects to deposit securities in lieu of retainage. Refer to Article 14 of the General Conditions for provisions concerning payments to Contractor.

B. COMPLETING THE FORM

The Schedule of Values, submitted and approved as provided in paragraphs 2.05.B.3 and 2.07 of the General Conditions, should be reproduced as appropriate in the space indicated on the Application for Payment form. Note that the cost of materials and equipment is often listed separately from the cost of installation. Also, note that each Unit Price is deemed to include Contractor's overhead and profit.

All Change Orders affecting the Contract Price should be identified and included in the Schedule of Values as required for progress payments.

The form is suitable for use in the Final Application for Payment as well as for Progress Payments; however, the required accompanying documentation is usually more extensive for final payment. All accompanying documentation should be identified in the space provided on the form.

C. LEGAL REVIEW

All accompanying documentation of a legal nature, such as Lien waivers, should be reviewed by an attorney, and Engineer should so advise Owner.

ITEM	UNIT PRICE	ESTIMATED QUANTITY	SCHEDULE OF VALUES AMOUNT	QUANTITY COMPLETED	AMOUNT COMPLETED	% COMPLETED
1.	\$		\$		\$	
2.						
3.						
4.						
5.						
6.						
7.						
8.						
9.						
10.						
11.						
12.						
13.						
14.						
15.						
16.						
17.						
18.						
19.						
20.						
21.						
22.						
23.						
24.						
25.						
26.						
27.						
28.						
29.						
30.						
TOTAL			\$		\$	

Note: Total Schedule of Values Amount should equal the current Contract Price.

**SECTION 00904
WORK CHANGE DIRECTIVE**

No. _____

DATE OF ISSUANCE _____

EFFECTIVE DATE _____

OWNER _____

CONTRACTOR _____

Contract: _____

Project: _____

OWNER's Contract No. _____ ENGINEER's Project No. _____

You are directed to proceed promptly with the following change(s):

Description:

Purpose of Work Change Directive:

Attachments: (List documents supporting change)

If OWNER or CONTRACTOR believe that the above change has affected Contract Price any Claim for a Change Order based thereon will involve one or more of the following methods as defined in the Contract Documents.

Method of determining change in
Contract Price:

- Unit Prices
- Lump Sum
- Cost of the Work _____

Estimated increase (decrease) in Contract
Price:
\$ _____.

If the change involves an increase, the
estimated amount is not to be exceeded
without further authorization.

Estimated increase (decrease) in Contract
Times:

Substantial Completion: _____ days;
Ready for final payment: _____ days.

RECOMMENDED:

AUTHORIZED:

ENGINEER

OWNER

By: _____

By: _____

EJCDC No. 1910-8-F (1996 Edition)

Prepared by the Engineers Joint Contract Documents Committee and endorsed by The Associated General Contractors of America and the Construction Specifications Institute.

WORK CHANGE DIRECTIVE

INSTRUCTIONS

A. GENERAL INFORMATION

This document was developed for use in situations involving changes in the Work which, if not processed expeditiously, might delay the Project. These changes are often initiated in the field and may affect the Contract Price or the Contract Times. This is not a Change Order, but only a directive to proceed with Work that may be included in a subsequent Change Order.

For supplemental instructions and minor changes not involving a change in the Contract Price or the Contract Times a Field Order should be used.

B. COMPLETING THE WORK CHANGE DIRECTIVE FORM

Engineer initiates the form, including a description of the items involved and attachments.

Based on conversations between Engineer and Contractor, Engineer completes the following:

METHOD OF DETERMINING CHANGE, IF ANY, IN CONTRACT PRICE: Mark the method to be used in determining the final cost of Work involved and the estimated net effect on the Contract Price. If the change involves an increase in the Contract Price and the estimated amount is approached before the additional or changed Work is completed, another Work Change Directive must be issued to change the estimated price or Contractor may stop the changed Work when the estimated time is reached. If the Work Change Directive is not likely to change the Contract Price, the space for estimated increase (decrease) should be marked "Not Applicable".

Once Engineer has completed and signed the form, all copies should be sent to Owner for authorization because Engineer alone does not have authority to authorize changes in Price or Times. Once authorized by Owner, a copy should be sent by Engineer to Contractor. Price and Times may only be changed by Change Order signed by Owner and Contractor with Engineer's recommendation.

Paragraph 10.03.A.2 of the General Conditions requires that a Change Order be initiated and processed to cover any undisputed sum or amount of time for Work actually performed pursuant to this Work Change Directive.

Once the Work covered by this directive is completed or final cost and times are determined, Contractor should submit documentation for inclusion in a Change Order.

THIS IS A DIRECTIVE TO PROCEED WITH A CHANGE THAT MAY AFFECT THE CONTRACT PRICE OR CONTRACT TIMES. A CHANGE ORDER, IF ANY, SHOULD BE CONSIDERED PROMPTLY.

**SECTION 00905
CHANGE ORDER**

No. _____

DATE OF ISSUANCE _____

EFFECTIVE DATE _____

OWNER _____
 CONTRACTOR _____
 Contract: _____
 Project: _____
 OWNER's Contract No. _____ ENGINEER's Contract No. _____
 ENGINEER _____

You are directed to make the following changes in the Contract Documents:
 Description:

Reason for Change Order:

Attachments: (List documents supporting change)

CHANGE IN CONTRACT PRICE:
Original Contract Price \$ _____
Net Increase (Decrease) from previous Change Orders No. ___ to ___: \$ _____
Contract Price prior to this Change Order: \$ _____
Net increase (decrease) of this Change Order: \$ _____
Contract Price with all approved Change Orders: \$ _____

CHANGE IN CONTRACT TIMES:
Original Contract Times: Substantial Completion: _____ Ready for final payment: _____ (days or dates)
Net change from previous Change Orders No. ___ to No. ___: Substantial Completion: _____ Ready for final payment: _____ (days)
Contract Times prior to this Change Order: Substantial Completion: _____ Ready for final payment: _____ (days or dates)
Net increase (decrease) this Change Order: Substantial Completion: _____ Ready for final payment: _____ (days)
Contract Times with all approved Change Orders: Substantial Completion: _____ Ready for final payment: _____ (days or dates)

RECOMMENDED:

APPROVED:

ACCEPTED:

By: _____
ENGINEER (Authorized Signature)

By: _____
OWNER (Authorized Signature)

By: _____
CONTRACTOR (Authorized Signature)

Date: _____ Date: _____ Date: _____

EJCDC 1910-8-B (1996 Edition)

Prepared by the Engineers Joint Contract Documents Committee and endorsed by The Associated General Contractors of America and the Construction Specifications Institute.

CHANGE ORDER

INSTRUCTIONS

A. GENERAL INFORMATION

This document was developed to provide a uniform format for handling contract changes that affect Contract Price or Contract Times. Changes that have been initiated by a Work Change Directive must be incorporated into a subsequent Change Order if they affect Price or Times.

Changes that affect Contract Price or Contract Times should be promptly covered by a Change Order. The practice of accumulating Change Orders to reduce the administrative burden may lead to unnecessary disputes.

If Milestones have been listed in the Agreement, any effect of a Change Order thereon should be addressed.

For supplemental instructions and minor changes not involving a change in the Contract Price or Contract Times, a Field Order should be used.

B. COMPLETING THE CHANGE ORDER FORM

Engineer normally initiates the form, including a description of the changes involved and attachments based upon documents and proposals submitted by Contractor, or requests from Owner, or both.

Once Engineer has completed and signed the form, all copies should be sent to Owner or Contractor for approval, depending on whether the Change Order is a true order to the Contractor or the formalization of a negotiated agreement for a previously performed change. After approval by one contracting party, all copies should be sent to the other party for approval. Engineer should make distribution of executed copies after approval by both parties.

If a change only applies to price or to times, cross out the part of the tabulation that does not apply.

**SECTION 00906
CERTIFICATE OF SUBSTANTIAL COMPLETION**

DATE OF ISSUANCE _____

OWNER _____
CONTRACTOR _____
Contract: _____
Project: _____

OWNER's Contract No. _____ ENGINEER's Project No. _____

This Certificate of Substantial Completion applies to all Work under the Contract Documents or to the following specified parts thereof:

To _____
OWNER

And To _____
CONTRACTOR

The Work to which this Certificate applies has been inspected by authorized representatives of OWNER, CONTRACTOR and ENGINEER, and that Work is hereby declared to be substantially complete in accordance with the Contract Documents on

DATE OF SUBSTANTIAL COMPLETION

A tentative list of items to be completed or corrected is attached hereto. This list may not be all-inclusive, and the failure to include an item in it does not alter the responsibility of CONTRACTOR to complete all the Work in accordance with the Contract Documents. The items in the tentative list shall be completed or corrected by CONTRACTOR within _____ days of the above date of Substantial Completion.

EJCDC No. 1910-8-D (1996 Edition)
Prepared by the Engineers' Joint Contract Documents Committee and endorsed by The Associated General Contractors of America and the Construction Specifications Institute.

The responsibilities between OWNER and CONTRACTOR for security, operation, safety, maintenance, heat, utilities, insurance and warranties and guarantees shall be as follows:

OWNER: _____

CONTRACTOR: _____

The following documents are attached to and made a part of this Certificate:

[For items to be attached see definition of Substantial Completion as supplemented and other specifically noted conditions precedent to achieving Substantial Completion as required by Contract Documents.]

This certificate does not constitute an acceptance of Work not in accordance with the Contract Documents nor is it a release of CONTRACTOR's obligation to complete the Work in accordance with the Contract Documents.

Executed by ENGINEER on _____
Date

ENGINEER

By: _____
(Authorized Signature)

CONTRACTOR accepts this Certificate of Substantial Completion on _____
Date

CONTRACTOR

By: _____
(Authorized Signature)

OWNER accepts this Certificate of Substantial Completion on _____
Date

OWNER

By: _____
(Authorized Signature)

**SECTION 00907
SUBMITTAL FORM**

General Information

Project Name: Cullman Environmental Waste Submittal Number: _____
 Management Center Scale and
 Scalehouse Construction

LaBella Project Number: 2233636 Date: _____

Owner Contract Number: N/A

Submittal Description: _____

Contractor's Certification

Contract Drawing No.: _____

Technical Specification No.: _____

This Submittal has been reviewed for accuracy of content. It is my opinion that the material and/or equipment are in compliance with the Contract Drawings and Technical Specifications. The information contained herein has been fully coordinated with all involved subcontractors.

Contractor: _____

Signed: _____

Date: _____

Engineer's Review

No Exceptions Taken

Make Corrections Noted

Amend and Resubmit

Rejected - See Remarks

Engineer: _____

Signed: _____

Date: _____

Approval is only for conformance with the design concept of the project and compliance with the information given in the Contract Documents. Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to the fabrication process or to techniques of construction, and for coordination of the work of all trades.

Prepared For:

SWDA of the City and County of Cullman
2805 AL-HWY 69 S
Cullman, AL 35057

Submitted by:

LaBella Associates, D.P.C.
528 Mineral Trace
Hoover, AL 35244



SPECIFICATIONS
CULLMAN ENVIRONMENTAL WMC
SCALE AND SCALEHOUSE CONSTRUCTION
AUGUST 2024
PROJECT NO. 2233636

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- Section 01720 - Project Record Documents

SECTION 01010

SUMMARY OF WORK

PART 1 GENERAL

1.01 SUMMARY

- A. Project Identification: Cullman Environmental Waste Management Center
Scale and Scalehouse Construction
2805 AL-69, Cullman, AL 35057
- B. Project Summary: The work includes, but is not limited to:
- Erosion and Sediment Control Measures;
 - General Earthwork;
 - Demolition;
 - Paving;
 - Scales and Scalehouse construction;
 - Wheel wash construction;
 - Pavement Striping and Signage; and,
 - Utilities.
- C. Particular Project Requirements
1. Existing Site Conditions and Restrictions: Any damage to existing site structures, including monitoring wells and gas probes, by the CONTRACTOR shall be repaired to original condition at no additional cost to the OWNER.
 2. Requirements for Scheduling: The construction activities are not limited to any specific hours.
 3. There are on-going landfill operations adjacent to the project site. CONTRACTOR shall perform construction activities without interfering with landfill operations.
 4. Placement of Stockpiles: The OWNER will direct stockpile locations.
 5. Initial Work by CONTRACTOR: The CONTRACTOR is responsible for being acquainted with all existing conditions. Prior to submitting Bids, CONTRACTORS may make their own subsurface investigation to satisfy themselves as to the site and subsurface conditions, but such subsurface investigations and site visits shall be performed only under the schedules and arrangements approved in advance by the ENGINEER and OWNER.
- D. Permits: CONTRACTOR must apply for, obtain, and pay for all permits and bonds required to perform the Work. All permits shall be displayed at the project site and a copy shall be submitted to the OWNER.
- E. Codes: CONTRACTOR must obtain all necessary City, County, and State licenses and permits and comply with all applicable codes and regulations of authorities having jurisdiction. Submit copies of inspection reports, notices, and similar communications to ENGINEER.

- F. Dimensions: Verify dimensions indicated on Drawings with field dimensions before fabrication or ordering of materials. Do not scale Drawings.
- G. Existing Conditions: Notify OWNER and ENGINEER immediately of existing conditions differing from those indicated on the Drawings.
- H. Intent: Drawings and Specifications are intended to provide the basis for proper completion of the Work suitable for the intended use of the OWNER. Anything not expressly set forth but which is reasonably implied or necessary for proper performance of the project shall be included.

1.02 DEFINITIONS OF PARTIES

- A. OWNER: SWDA of the City and County of Cullman owns the site and shall be responsible for all project management related decision making.
- B. CONTRACTOR: Individual, firm or corporation who has entered into contract with OWNER.
- C. SUBCONTRACTOR: Individual, firm or corporation to supply Work or material at site pursuant to separate agreement with CONTRACTOR.
- D. ENGINEER: LaBella Associates, D.P.C. (LaBella), which prepared the Specifications and Drawings for this project.
- E. CONSTRUCTION QUALITY ASSURANCE CONSULTANT (CQA Consultant): Firm(s) independent from CONTRACTOR responsible for observing and documenting activities related to quality assurance of production and installation of the project. CQA Consultant will appoint a CQA Engineer who will act as authorized representative of CQA Consultant.
- F. CQA Laboratory: Laboratory independent from CONTRACTOR responsible for material conformance testing.

1.03 FORMAT OF SPECIFICATIONS

- A. These Specifications are written in the Construction Specifications Institute (CSI) three part format in an imperative and abbreviated form. This imperative language is directed at the CONTRACTOR, unless specifically noted otherwise. Incomplete sentences in the Specifications shall be completed by inserting “shall”, “CONTRACTOR shall”, and similar mandatory phrases by inference in the same manner as they are applied to notes on Construction Drawings. Except as worded contrary, CONTRACTOR shall fulfill (perform) indicated requirements whether stated imperatively or otherwise.

1.04 COORDINATION

- A. Coordinating Work:
 - 1. CONTRACTOR shall coordinate Work with CQA Consultant, subcontractors, and other contractors. Ensure that subcontractors carefully familiarize themselves

with Construction Drawings and that they consult with other trades so that Work may be properly coordinated.

2. CONTRACTOR, and contracted sub-consultants, shall coordinate and communicate the Work with the SWDA of the City and County of Cullman to avoid interruptions to the SWDA of the City and County of Cullman's landfill operations.

1.05 CODES AND REGULATIONS

- A. Prior to the CONTRACTOR undertaking additional Work due to the enactment of new, or the amendment of existing, statues, ordinances, and regulations dealing with the performance of the successful bid, OWNER will issue a Work directive Change requesting CONTRACTOR to prepare a Change Order and setting forth the additional Work to be undertaken. The Change Order shall be prepared and executed as set forth in the General Conditions.

1.06 INSPECTION AND TESTING

Tests called for in the Specifications or deemed necessary by CQA Consultant will be performed by OWNER or its authorized representative except when indicated otherwise in Specifications.

1.07 REFERENCES

- A. Conform to reference standard current as of date of bid, unless otherwise noted in Contract Documents.
- B. Should specified reference standards conflict with Contract Documents, request clarification from ENGINEER before proceeding.
- C. The contractual relationship of the parties to the Contract shall not be altered from the Contract Documents by mention or inference otherwise in any reference document.

1.08 SITE CONDITIONS

- A. CONTRACTOR's Staging Area:
 1. Area will be set-aside on property for CONTRACTOR's use as staging area for personnel, equipment, and materials.
 2. Staging area will be chosen by the OWNER.
 3. CONTRACTOR may install his own security fence.
- B. Disposal of Waste Material:
 1. The CONTRACTOR may not burn on-site.
 2. CONTRACTOR shall be responsible for removing all waste material encountered and placement of that waste in an area directed by the OWNER.

- C. Site Investigation and Representation:
 - 1. CONTRACTOR acknowledges that he has satisfied himself as to character, quality, and quantity of surface and subsurface materials to be encountered from inspecting site.
 - 2. CONTRACTOR warrants that, as a result of his examination and investigation of data, he can perform Work according to Specifications and Drawings. OWNER assumes no responsibility for any representations made by any of its officers or agents during or prior to the execution of Contract, unless: 1) such representations are expressly stated in Contract, and 2) Contract expressly provides that responsibility therefore is assumed by OWNER. Representations for which liability is not expressly assumed by OWNER in Contract shall be deemed only for information of CONTRACTOR.
- D. Information on Site Conditions: Information regarding site conditions, subsurface information, groundwater elevations, existing construction of site facilities as applicable, and similar data will be available for inspection at ENGINEER's office upon request. Such information is offered as supplemental information only.
- E. Fire Prevention and Protection: Perform all Work in a fire-safe manner. Comply with applicable local, State, and Federal fire prevention regulations.
- F. Temporary Electric Power: Make arrangements for electric power for use during construction period until final acceptance of the work by OWNER, and pay all costs for same.
- G. Sanitary Facilities: Provide and maintain sanitary facilities for employees and subcontractor's employees.
- H. Temporary Telephone Service: Make arrangements for telephone services for use during contract time until final acceptance of the work by OWNER, and pay costs for same.
- I. Temporary Offices: Make arrangements for offices for use during contract time until final acceptance of the work by OWNER, and pay costs for same.

1.09 GENERAL CONSTRUCTION RESPONSIBILITIES AND PROCEDURES

- A. CONTRACTOR shall be held responsible for correctness of Work, and shall report errors or inconsistencies in the established lines and grades to the OWNER before start of Work.
- B. Responsibility for Damage to Existing Structures: Repair or replace structures or facilities damaged by CONTRACTOR at no additional cost to OWNER.
- C. Haul and Access Roads and Maintenance:
 - 1. Abide by prevailing legal load limit regulations when hauling over pavements or structures.

2. Construct temporary haul and access roads only at locations specifically approved by OWNER.
3. Perform necessary maintenance of haul and access routes during construction to restore routes used by CONTRACTOR's equipment to their original condition at conclusion of construction.
4. At conclusion of construction, regrade haul and access roads designated by OWNER. Regrade areas to original conditions.
5. Patch or overlay existing roadways as necessary to restore them to original condition at no cost to OWNER.

1.10 OTHER REQUIREMENTS

A. Dimensions and Measurements:

1. Locations and elements of Work are approximate only and are not to be scaled from the Drawings, unless not specifically dimensioned. Locations of Work will be defined by the CONTRACTOR's construction staking.
2. Figures on Drawings are subject, in every case, to measurements of adjacent or incorporated Work. Make such measurements before undertaking Work dependent upon such data.
3. Verify dimensions shown and notify ENGINEER of discrepancies prior to proceeding with Work.

B. Number of Specified Items Required: Whenever a piece of equipment, an article, or a device is referred to in a singular number, such reference applies to as many such items as are shown on Drawings or required to complete the Work.

1.11 INCIDENTAL ITEMS

Items that are considered incidental to work and shall be included in the lump sum or unit prices as appropriate, include, but are not limited to:

- Provision of all required insurance, performance and payment bonds, permits with associated fee's and documentation, and warranties
- Compliance with all applicable Health and Safety regulations
- Qualified field supervision and layout
- Qualified and experienced job site administration
- Construction surveying
- Protection of existing utilities and structures, including repair, extension and relocation, if applicable
- Collection and disposal of any and all water, including dewatering fluids, unless otherwise noted
- Restoration of disrupted areas not designed or described in this Specification
- Cooperation with local code enforcement officers, fire marshal, other Contractors and others
- Maintenance of project record documents
- Environmental protection in accordance with all state, federal, and local regulations

- Maintenance of perimeter fencing
- Performance of work in compliance with the facility's construction permit, operating license, surface water discharge permit, sewer discharge permit, spill plans, emergency response plan, air quality permit, soil erosion permit and wetland permit(s)

PART 2 PRODUCTS

2.01 MATERIALS

- A. All products used in the Work shall be new, unused and of first quality.

PART 3 EXECUTION

3.01 INSTALLATION

- A. All Work is to be performed by properly trained and qualified personnel under the supervision of the Contractor.

END OF SECTION 01010

SECTION 01025

MEASUREMENT AND PAYMENT

PART 1 GENERAL

1.01 DESCRIPTION OF WORK

- A. Measurement and payment criteria applicable to portions of the Work performed under a Unit Price payment method.
- B. All Work completed under the Contract will be measured using United States Units of Measurement.
- C. Defect assessment and non-payment for rejected Work.
- D. All items not specifically listed in the Table of Prices on the Bid Form for which there is no instructions as to where the price shall be included shall be covered by distributing the price within the listed items. No additional payment will be allowed.

1.02 AUTHORITY

- A. Measurement methods delineated in the individual specification sections are intended to complement the criteria of this section.
- B. Take all measurements and compute quantities. ENGINEER will verify measurements and quantities.

1.03 UNIT QUANTITIES SPECIFIED

- A. Quantities and measurements indicated in the Table of Prices are for proposing and contract purposes only. Quantities and measurements supplied or placed in the Work and verified by ENGINEER shall determine payment.
- B. If the actual Work requires more or fewer quantities than those quantities indicated, provide the required quantities at the Unit Sum/Prices Contracted.

1.04 MEASUREMENT OF QUANTITIES

- A. Measurement of quantities expressed as area shall be based upon survey of the Work limits.
- B. Measurement of linear items such as piping and liner termination trench will be for quantities actually installed to the specified Work limits, based upon surveyed stations recorded along the straight or curved centerline of each respective item.
- C. "Lump Sum," when used as an item of payment, shall mean complete functioning item for the Work described by the Contract Documents. When a complete structure or structural unit is specified as the unit of measurement the unit shall be construed to include all necessary fittings, accessories, and appurtenances.

- D. Tonnage measurements shall be based upon the actual weight of material brought to the site and placed. Tonnage material must be placed according to the dimensions indicated by the Contract Documents.
- E. Item measurements “each” shall be complete functional items as described in the Specifications and as shown on the Drawings and shall be construed to include all necessary fittings, accessories, and appurtenances.

1.05 PAYMENT

- A. Payment for each Lump Sum and Unit Price stated in the itemized bid shall constitute full compensation for all required labor, products, tools, equipment, plant, transportation, services and incidentals; erection, application or installation of an item of the Work required to complete all Work specified under that particular item including cleanup, and all costs for doing related Work as set forth in these Specifications and/or on the Drawings or implied in carrying out their intent. The price bid for each Lump Sum and Unit Price stated in the itemized bid shall be deemed to include an allowance for overhead and profit.
- B. Final payment for Work governed by Unit Prices will be made on the basis of the actual measurements and quantities accepted by ENGINEER multiplied by the Unit Sum/Price for Work which is incorporated in or made necessary by the Work.
- C. Requests for payment shall be in accordance with the requirements provided within this Project Manual.
- D. Payment will be made to the limits as specified in the Contract Documents. If the constructed limits are less than the specified limit, payment will be made to the actual limits of construction as shown on the Record Drawings. Payment for quantities that exceed the specified contract limits will only be made with the approval of the ENGINEER. The payment for quantities that exceed the contract quantities can only be obtained through an approved change order before contract quantities are exceeded.
- E. No partial payments shall be made for the installation of items which have not been tested and approved.
- F. Upon installation, the unit cost for the item will be paid. Upon installation, an adjustment will be made in payment to account for the quantity of materials actually installed in the Work. The OWNER will not pay for material in excess of what is actually installed in the Work.
- G. Payment for Unit Price items (all items except Lump Sum items) will be made monthly until completion of each unit price item based on quantities determined by survey or field measurements performed by CONTRACTOR, and verified by the ENGINEER. Final payment will be based on quantity calculated from Record Drawings.

1.06 VARIATIONS IN ESTIMATED QUANTITIES

- A. The quantities given in the Table of Prices in the Bid Form are approximate only, and are given as a basis for the uniform comparison of bids, and OWNER does not expressly or by implication agree that the actual amount of Work will correspond therewith.

- B. The CONTRACTOR must provide, for Unit Price Work, a proposed Contract Price determined on the basis of estimated quantities required for each item. The estimated quantities of items are not guaranteed and are solely for the purpose of comparing bids. Each such Unit Price will be deemed to include an amount for overhead, profit and indirect costs for each separately defined item.
- C. An increase or decrease in the quantity for any Unit Price item shall not be regarded as sufficient grounds for an increase or decrease in the price of the items except as provided herein.
- D. If the quantity of a Unit-Priced item in this contract is an estimated quantity and the actual quantity of the Unit-Priced item varies more than 50 percent below the estimated quantity or above 50 percent of the sum of quantities for Unit Price Work, an equitable adjustment in the Contract Price shall be made upon demand of either party. The equitable adjustment shall be based upon any increase or decrease in costs due solely to the variations below 50 percent of the estimated quantity or above 150 percent of the estimated quantity or sum of quantities for Unit Price Work where two sub-items are listed. If the quantity variation is such as to cause an increase in the time necessary for completion, the CONTRACTOR may request, in writing, an extension of time, to be received by the ENGINEER and OWNER within ten days from the beginning of the delay, or within such further period as may be granted by the ENGINEER and OWNER within ten days from the beginning of the delay, or within such further period as may be granted by the ENGINEER and OWNER before the date of final settlement of the Contract. Upon the receipt of a written request for an extension, the ENGINEER and OWNER shall ascertain the facts and make an adjustment for extending the completion date as, in the judgment of the ENGINEER and OWNER is justified.

1.07 DEFECT ASSESSMENT

- A. Replace the Work, or portions of the Work, not conforming to specified requirements.
- B. If, in the opinion of ENGINEER, it is not practical to remove and replace the Work, the ENGINEER will direct one of the following remedies:
 - 1. The defective Work may remain, but the Unit Sum/Price will be adjusted to a new Sum/Price at the discretion of the OWNER.
 - 2. The defective Work will be partially repaired to the instructions of the ENGINEER, and the unit Sum/Price will be adjusted to a new Sum/Price at the discretion of the OWNER.
- C. The individual specification sections may modify these options or may identify a specific formula or percentage Sum/Price reduction.
- D. The authority of the ENGINEER to assess the defect and identify payment adjustment is final.

1.08 NON-PAYMENT 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.
2. Products determined as unacceptable before or after placement.
3. Products not completely unloaded from the transporting vehicle.
4. Products placed beyond the lines and levels of the required Work.
5. Products remaining on hand after completion of the Work.
6. Loading, hauling and disposing of rejected Products.

PART 2 PROCEDURE

2.01 CONTRACT ITEMS

- A. The following are more detailed descriptions of payment items as listed on the Table of Prices. The work includes, but is not necessarily limited to, what is described.

Bid Item 10 – Mobilization and Demobilization:

The Lump Sum price bid for this item shall be full compensation for mobilization and demobilization of all labor, equipment and material to the site, as well as CONTRACTOR-provided utilities and ongoing related expenses, considered normal for administration of the Work. Surface preparation outside the Limits of Work (as shown on the Drawings), required by the CONTRACTOR for staging areas and parking areas will be paid as part of this item. Twenty-five (25) percent of the Lump Sum price bid will be paid with the first payment request following satisfactory evidence of mobilization of sufficient labor, equipment and material to adequately progress the Work of this contract. Twenty-five (25) percent of the Lump Sum Price bid will be paid with the payment request subsequent to the payment request in which the initial payment for this item is made. Fifty (50) percent of the Lump Sum Price bid will be paid with the Final Payment request. The total price paid for this item shall not exceed five (5) percent of the Total Base Bid.

Bid Item 20 – Clearing and Grubbing:

The Lump Sum Price bid for this item shall be payment in full for all materials, labor, and equipment required for clearing and grubbing, removal of debris, and stockpiling of topsoil in a location approved by the OWNER if required as described within the Specifications within the required construction limits as shown on the Drawings. Included in this bid item are incidentals such as loading, hauling, stockpiling, and erosion and sedimentation control materials and practices as required to comply with the Drawings and Specifications. No allowances shall be permitted for clearing beyond the limits set forth by the Drawings and Specifications.

Bid Item 30 – Pavement Demolition:

The Lump Sum Price bid for this item shall be payment in full for all materials, labor, and equipment required for demolition of pavement as described within the Specifications within the required construction limits as shown on the Drawings.

Included in this bid item are incidentals such as loading, hauling, and disposal as required to comply with the Drawings and Specifications. No allowances shall be permitted for demolition beyond the limits set forth by the Drawings and Specifications.

Bid Item 40 – Structure Demolition:

The Lump Sum Price bid for this item shall be payment in full for all materials, labor, and equipment required for demolition of structures as described within the Specifications within the required construction limits as shown on the Drawings. Included in this bid item are incidentals such as loading, hauling, and disposal as required to comply with the Drawings and Specifications. No allowances shall be permitted for demolition beyond the limits set forth by the Drawings and Specifications.

Bid Item 50 – Earthwork:

The Lump Sum Price bid for this item shall be payment in full for all materials, labor, and equipment necessary for unclassified excavation and placement of fill as described in the Specifications to the lines and grades specified on the Drawings. Included in this bid item are incidentals such as hauling, stockpiling, placing, spreading, compacting, watering, maintenance of the excavation and any stockpile areas, and erosion and sedimentation control materials and practices as required to comply with the Drawings and Specifications. Adequate drainage shall be provided in the excavation area by CONTRACTOR. Included in this bid item are incidentals such as subgrade proof rolling and compaction.

Bid Item 60 – Paving:

The Lump Sum Price bid for this item shall be payment in full for all materials, labor, and equipment necessary to pave the entrance and roadway as described in the Specifications to the lines and grades specified on the Drawings. Included in this bid item are incidentals such as hauling, stockpiling, placing, spreading, compacting as required to comply with the Drawings and Specifications. Included in this bid item are incidentals such as rolling and compaction.

Bid Item 70 – Culverts:

The Lump Sum price bid for this item shall be payment in full for all materials, labor, and equipment required to install stormwater culverts as detailed in the Drawings and described within the Specifications. Included in this bid item are incidentals such as excavation, grading, aggregate, backfill, and compaction.

Bid Item 80 – Wheel Wash:

The Lump Sum Price bid shall be full compensation for the acquisition and placement of the wheel wash in accordance with the Drawings and the Specifications including all labor, material, equipment, start-up and commissioning, and other incidentals.

Bid Item 90 – Scale Placement Coordination:

The Lump Sum Price bid for this item shall be payment in full for all materials, labor, and equipment required to coordinate with the scale installer as they construct the scale foundations and place the new scales as specified on the Drawings.

Bid Item 100 – Scalehouse and Scalehouse Foundations:

The Lump Sum Price bid for this item shall be payment in full for all materials, labor, and equipment required to construct the scalehouse foundations and to acquire and install the scalehouse as specified on the Drawings.

Bid Item 110 – Pavement Striping and Signage:

The Lump Sum Price bid for this item shall be payment in full for all materials, labor, and equipment necessary to stripe the entrance and roadway as described in the Specifications to the lines specified on the Drawings.

Bid Item 120 – Utilities:

The Lump Sum bid for this item shall be payment for all materials, labor, and equipment required to construct, install, and connect water, wastewater, and electrical service as specified on the Drawings and Specifications. This bid item includes arranging for and coordinating with the County and/or utility companies for service, and incidentals such as poles, electric cable, and associated appurtenances required to comply with the Drawings and Specifications.

Bid Item 130 – Erosion and Sediment Controls:

The Lump Sum price bid for this item shall be payment in full for all materials, labor, and equipment required to complete construction of the erosion and sediment control measures to the lines and grades specified on the Drawings. Included in this bid item are incidentals such as installation and removal of construction entrance, silt fence, culvert inlet and outlet protection, rock check dams, brush barriers, temporary sediment traps, temporary seeding, permanent seeding, and erosion control blankets as required to comply with the Drawings and Specifications. This work includes placement and removal of all temporary measures as required by the governing agencies.

Bid Item 140 – Temporary Road Construction:

The Lump Sum Price bid for this item shall be payment in full for all materials, labor, and equipment necessary to install the temporary access road as specified on Drawing O6 of the Drawings and as described in the Specifications to the lines and grades specified on the Drawings. Included in this bid item are incidentals such as hauling, stockpiling, placing, spreading, compacting as required to comply with the Drawings and Specifications. Included in this bid item are incidentals such as rolling and compaction.

PART 3 EXECUTION

3.01 The CONTRACTOR shall be responsible to make all measurement and calculations to determine volumes and quantities for all payment submittals and final drawings (Record Drawings).

END OF SECTION 01025

SECTION 01050

FIELD ENGINEERING

PART 1 - GENERAL

1.01 DESCRIPTION OF WORK

- A. The CONTRACTOR shall provide field layout (lines and grades) of the work and maintain and preserve all stakes and other markers as required to complete the Work and as requested by the CQA Consultant.
- B. The CONTRACTOR shall provide Certification Surveying as described in this Specification. Payment to the CONTRACTOR will be based on the surveyor's calculated quantities, verified by the CQA Consultant, for these components.

If surveyor identifies areas that do not meet specification based on a certification survey, the CONTRACTOR shall correct the Work at no additional expense to OWNER.

1.02 SUBMITTALS

The CONTRACTOR shall:

- A. Submit name and address of their SURVEYOR.
- B. On request of CQA Consultant, submit documentation to verify accuracy of field engineering work.

PART 2 - PRODUCTS

Not Applicable

PART 3 - EXECUTION

3.01 SURVEY REFERENCE POINTS

- A. Existing horizontal and vertical control points for the Project shall be identified by the OWNER.
- B. The CONTRACTOR shall locate and protect control points prior to starting site work, and preserve all permanent reference points during construction.
- C. The CONTRACTOR shall make no changes or relocations to control points without prior written approval from the OWNER.
- D. The CONTRACTOR shall report to the CQA Consultant when any reference point is lost or destroyed, or requires relocation because of necessary changes in grades or locations.
- E. The CONTRACTOR shall replace Project control points that may be lost or destroyed at no additional cost to the OWNER. Replacements shall be re-established based on original survey control.

- F. The CONTRACTOR shall establish and maintain a minimum of two permanent benchmarks. Horizontal and vertical locations of the benchmarks shall be recorded on the Record Drawings.

3.02 PROJECT SURVEY REQUIREMENTS

- A. The CONTRACTOR shall provide all necessary construction surveying services to maintain horizontal and vertical control during the execution of the Work. The CONTRACTOR shall be required to do all construction layout, staking, and final grade control necessary to complete the Work. Control points shall be shown on the Construction Drawings and provided to the CQA Consultant for approval.
- B. The CONTRACTOR shall verify that all required surveys of existing surface have been completed prior to construction of any component of the Project.
- C. Locations of existing sewers, culverts and other utilities shown on the Drawings are approximate and shall be field-verified by the CONTRACTOR prior to construction as required to complete the Work.
- D. The SURVEYOR must be a licensed professional land surveyor registered in the State of Alabama.

3.03 RECORDS

- A. The CONTRACTOR shall maintain a complete, accurate log of all control and survey work as it progresses.
- B. On request of the OWNER or their Technical Representative, the Surveyor shall submit documentation to verify accuracy of field engineering work.

3.04 RESPONSIBILITIES

The following lists the responsibilities of the OWNER, CONTRACTOR and CQA Consultant personnel as it pertains to pre-construction, pay quantities and certification surveying. Any changes in responsibility must be approved by the OWNER.

- A. Surveyor's Responsibilities
 1. Identifying and checking all tie-ins to existing features prior to initiation of construction. Any potential construction problems or inconsistencies associated with permitting (i.e. tie-ins to existing structures, etc.) shall be reported to the Owner immediately.
 2. Certify, if applicable, within a maximum 24 working hours after survey. Notification must be made to the following: CONTRACTOR, OWNER and CQA Consultant. This may be done verbally, but must be followed up in writing as soon as reasonably possible. Surveyor shall be responsible for CONTRACTOR stand by time if grades are not approved within maximum of 24 working hours. Surveyor shall make their best effort to approve grades upon completion of survey.

3. Provide CQA Consultant with stamped as-builts within two weeks of last as-built survey required for certification.
 4. Provide CQA Consultant with electronic ASCII file of survey data with 24 working hours of completion of survey.
 5. Provide CONTRACTOR with electronic ASCII survey data within 24 working hours of Contractor request.
 6. Initial construction staking date to be scheduled at the pre-construction meeting and contingent on construction schedule. If any proposed area for construction cannot be surveyed for pre-construction purposes the OWNER is to be notified within 48 hours and an alternate date and/or survey method shall be determined by OWNER.
 7. SURVEYOR responsible for surveying surfaces for payment and/or certification purposes.
 8. Provide OWNER, CQA Consultant and CONTRACTOR with contact name, number and e-mail address.
- B. CQA Consultant Responsibilities
1. CQA Consultant shall review survey data in the field during and/or upon completion of the survey for concurrence.
 2. Provide meeting minutes to SURVEYOR, CONTRACTOR and OWNER within 72 working hours of construction meeting completion.
- C. CONTRACTOR's Responsibilities
1. All project required surveying.
- D. General information
1. Pay quantities shall be based on survey data, unless D.2 applies.
 2. OWNER has the right to reject survey data and/or survey-based pay quantities ONLY if it is shown that the data does not concur with known site conditions. If this occurs, pay quantities may be based on, but not limited to, truck counts, historical site data, CQA Consultant, CONTRACTOR and/or OWNER construction documentation and/or observations.
 3. Pay quantities shall be based on pre-construction surveys only. Aerials and/or other survey information shall not be used unless approved in writing by OWNER.
 4. OWNER shall determine alternate pay quantity methods if D.2 applies.

END OF SECTION 01050

**SECTION 01060
REGULATORY REQUIREMENTS**

PART 1 GENERAL

1.01 REGULATORY COMPLIANCE

It shall be the responsibility of the CONTRACTOR to familiarize himself fully regarding the detailed needs all other regulatory agencies having jurisdiction over this work. These detailed needs and requirements should be accommodated, as part of the work, in every manner just as if they were prescribed in these Specifications.

1.02 REQUIREMENTS INCLUDED

Provide personnel, equipment, and materials to construct the project according to applicable codes.

1.03 APPLICABLE CODES

As a minimum standard of quality and workmanship, construction is to comply with the latest edition of the following codes and standards, in so far as they are applicable:

1. Alabama Department of Environmental Management Solid Waste Management Regulations.
2. Alabama Erosion and Sediment Control Handbook.
3. Department of Health, State of Alabama, Waterworks Regulations, and Sewerage Regulations.
4. Alabama Department of Transportation Regulations.
5. American Society for Testing and Materials Standards (ASTM).
6. Occupational Safety and Health Act.
7. American Water Works Association Standards.
8. American Concrete Institute Standards (ACI).
9. American Welding Society (AWS).
10. National Electric Code (NEC).
11. Underwriter's Laboratories (UL).

The above codes and standards are hereinafter referred to as "Reference Specifications".

PART 2 PRODUCTS

NOT USED

PART 3 EXECUTION

NOT USED

END OF SECTION 01060

SECTION 01070

LINES AND GRADES

PART 1 GENERAL

- A. All elevations indicated or specified refer to site datum. Control benchmarks are at the elevation and in the location as shown on the Drawings.
- B. From these established benchmarks run all lines and levels, furnish, set and drive grade stakes, and do all other work necessary to lay out work in accordance with the dimensions and elevations shown on the Drawings.
- C. Employ properly qualified personnel to perform the Work described. Provide all template and batter boards necessary. Preserve all stakes and marks established by the ENGINEER. If any of the stakes or marks are disturbed, the cost of replacing them shall be charged against the CONTRACTOR.
- D. Verify property boundary information and insure that all work is performed on the OWNER's property.

PART 2 PRODUCTS

NOT USED

PART 3 EXECUTION

NOT USED

END OF SECTION 01070

SECTION 01152

APPLICATION FOR PAYMENT

PART 1 GENERAL

1.01 REQUIREMENTS INCLUDED

- A. CONTRACTOR may submit one Application for Payment to OWNER no more than once per month. Make applications on standard forms provided in the Contract Documents and modified based on the schedule of values provided by the CONTRACTOR and approved by the ENGINEER.
- B. All Applications shall show complete Schedule of Values and percentage of Work completed to date. Retainage will be [5%] of gross amount due until Final Completion, unless noted otherwise.
- C. Payments to the CONTRACTOR shall be made on the basis of monthly estimates in amounts equal to ninety-five percent of the value of work completed, unless noted otherwise, and approved by the ENGINEER. Payments shall be made within 30 days of receipt of an approved pay request.
- D. Where partial payments are made, disbursement of funds in the retainage shall occur within 30 days of final acceptance of the project by the OWNER.
- E. If the CONTRACTOR shall fail to adhere to the approved progress schedule or to the schedule as revised, he must promptly adopt such other or additional means and methods of construction as shall make up for the time lost and shall assure completion in accordance with the latest approved schedule. If the CONTRACTOR'S progress is more than 10% behind the latest approved schedule, partial payments may be withheld until such time as the Work is at least within 90% of the latest approved schedule.

PART 2 PRODUCTS

NOT USED

PART 3 EXECUTION

NOT USED

END OF SECTION 01152

SECTION 01153

CHANGE ORDER PROCEDURES

PART 1 GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Promptly implement change order procedures.
 - 1. Provide full written data required for OWNER to evaluate changes.

1.02 DEFINITIONS

- A. Change Order: See Section 00700 - Standard General Conditions of the Construction Contract
- B. Work Change Directive: See Section 00700 - Standard General Conditions of the Construction Contract.

1.03 PRELIMINARY PROCEDURES

- A. OWNER may initiate changes by submitting a Proposal Request to CONTRACTOR. Request will include:
 - 1. Detailed description of the Change, Products, and location of the Change in the Project.
 - 2. Supplementary or revised Drawings and Specifications.
 - 3. The projected time span for making the change.
 - 4. A specified period of time during which the requested price will be considered valid.
 - 5. Such request is for information only, and is not an instruction to execute the changes, nor to stop Work in progress.
- B. CONTRACTOR may initiate changes by submitting a written notice to OWNER, containing:
 - 1. Description of the proposed changes.
 - 2. Statement of the reason for making the changes.
 - 3. Statement of the effect on the Contract Sum and the Contract Time.
 - 4. Statement of the effect of the Work of separate Contractors.
 - 5. Documentation supporting any change in Contract Sum or Contract Time, as appropriate.

1.04 WORK CHANGE DIRECTIVE

- A. In lieu of Proposal Request, OWNER may issue a Work Change Directive for CONTRACTOR to proceed with a change for subsequent inclusion in a Change Order.

- B. Authorization will describe changes in the Work, both additions and deletions, with attachments of revised Contract Documents to define details of the change, and will designate the method of determining any change in the Contract Sum and any change in Contract Time.
- C. OWNER will sign and date the Work Change Directive (EJCDC Form No. 1910-8-F, 1996 ed.) as authorization for the CONTRACTOR to proceed with the changes.
- D. CONTRACTOR shall sign and date the Work Change Directive to indicate agreement with the terms therein.

1.05 DOCUMENTATION OF PROPOSALS AND CLAIMS

- A. Support each quotation for a lump-sum proposal, and for each unit price which has not previously been established, with sufficient substantiating data to allow evaluation of the quotation.
- B. On request provide additional data to support time and cost computations:
 - 1. Labor required.
 - 2. Equipment required.
 - 3. Products required.
 - a. Recommended source of purchase and unit cost.
 - b. Quantities required.
 - 4. Taxes, insurance and bonds.
 - 5. Credit for Work deleted from Contract, similarly documented.
 - 6. Overhead and profit.
 - 7. Justification for any change in Contract Time.

1.06 PREPARATION OF CHANGE ORDERS

- A. OWNER will prepare each Change Order.
- B. Form: Section 00905 - Change Order
- C. Change Order will describe changes in the Work, both additions and deletions, with attachments of revised Contract Documents to define details of the change.
- D. Change Order will provide an accounting of the adjustment in the Contract Sum and in the Contract Time.

1.07 LUMP-SUM/FIXED PRICE CHANGE ORDER

- A. Content of Change Orders shall be based on, either:
 - 1. OWNER's Proposal Request and CONTRACTOR'S responsive Proposal as mutually agreed between OWNER and CONTRACTOR.

2. CONTRACTOR's Proposal for a Change.

- B. OWNER will sign and date Change Order as authorization for the CONTRACTOR to proceed with the changes.
- C. CONTRACTOR shall sign and date the Change Order to indicate agreement with the terms therein.

1.08 CORRELATION WITH CONTRACTORS SUBMITTALS

- A. Revise Schedule of Values and Request for Payment forms to record each change as a separate item of Work, and to record the adjusted Contract Sum.
- B. Revise the Construction Schedule to reflect each change in Contract Time.
 - 1. Revise sub-schedules to show changes for other items of work affected by the changes.
- C. Upon completion of work under a Change Order, enter pertinent changes in Record Documents.

PART 2 PRODUCTS

NOT USED

PART 3 EXECUTION

NOT USED

END OF SECTION 01153

SECTION 01200
PROJECT MEETINGS

PART 1 GENERAL

1.01 REQUIREMENTS INCLUDED

A. Preconstruction Meeting to sign Agreement (Prior to Notice to Proceed)

1. The following may attend:

- a) OWNER
- b) OWNER's Attorney or Agent
- c) ENGINEER
- d) CONTRACTOR
- e) CONTRACTOR's Attorney or Agent

2. The CONTRACTOR shall submit the Insurance Certificate and may submit any Shop Drawings, Project Schedule, or Schedule of Values if completed at the time of the Meeting.

3. The Meeting shall be held within 15 business days of the issue of the Notice of Award.

B. Preconstruction Conference

1. CONTRACTOR's representative shall attend the Preconstruction Conference and present the following information for acceptance by the OWNER and ENGINEER.

- a. Construction Schedules
- b. Schedule of Values
- c. Shop Drawings, samples and manufacturer's data

2. The Preconstruction Conference shall take place as indicated in paragraph 2.06.A of the Standard Conditions of the Construction Contract.

C. Progress Meetings

1. Progress Meetings shall be held at least once each week, unless otherwise approved by the ENGINEER. The ENGINEER, the OWNER's representative, and the CONTRACTOR shall attend. If, however, progress is not made as scheduled or if ENGINEER desires to discuss revised progress schedules or quality of workmanship or other aspects of concern, additional Progress Meetings may be called.

1.01 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary

Conditions and other specification sections, apply to this section.

PART 2 PRODUCTS

NOT USED

PART 3 EXECUTION

0.01 PRECONSTRUCTION CONFERENCES

- A. Attend a preconstruction conference and organizational meeting at the project site or other convenient location no later than 7 days after execution of the agreement and prior to commencement of construction activities. Attend the meeting to review responsibilities and personnel assignments.
- B. Attendees. The OWNER and his consultants, the CONTRACTOR and its superintendent, and significant subcontractors shall each be represented at the conference by persons with decision-making authority.
- C. Agenda. Discuss items of significance that could affect progress including such topics as:
 - 1. Tentative construction schedule.
 - 2. Critical work sequencing.
 - 3. Designation of responsible personnel.
 - 4. Procedures for processing field decisions and Change Orders.
 - 5. Procedures for processing Applications for Payment.
 - 6. Distribution of Contract Documents.
 - 7. Submittal of shop drawings, product data and samples.
 - 8. Preparation of record documents.
 - 9. Use of the premises.
 - 10. Office, work and storage areas.
 - 11. Equipment deliveries and priorities.
 - 12. Safety procedures.
 - 13. First aid.
 - 14. Security.
 - 15. Housekeeping.
 - 16. Working hours.

0.02 WEEKLY PROGRESS MEETINGS

- A. Progress Meetings. Attend Weekly progress meetings at the project site that will be selected in the preconstruction conference.
- B. Attendees. OWNER, CQA Consultant, SUBCONTRACTOR, ENGINEER and CONTRACTOR. Personnel attending these meetings shall have decision-making authority.
- C. Agenda. Review and correct or approve issues raised during the previous progress meeting. Review other items of significance that could affect progress. Include topics for discussion as appropriate to the status of the project.

1. CONTRACTOR's Construction Schedule. Review progress since the last meeting. Determine status of each activity in relation to the CONTRACTOR's Construction Schedule, whether on time, ahead of schedule, or behind schedule. Determine how construction behind schedule will be expedited; secure commitments from parties involved to do so. Discuss whether schedule revisions are required to ensure that current and subsequent activities will be completed within the contract time.
 2. Review the present and future needs of each entity present, including such items as:
 - a. Interface requirements.
 - b. Time.
 - c. Sequences.
 - d. Deliveries.
 - e. Off-site fabrication problems.
 - f. Access.
 - g. Site utilization.
 - h. Temporary facilities and services.
 - i. Hours of work.
 - j. Hazards and risks.
 - k. Housekeeping.
 - l. Quality and work standards.
 - m. Change Orders.
 - n. Documentation of information for payment requests.
- D. Schedule Updating. Revise the construction schedule after each progress meeting where revisions to the schedule have been made or recognized. Issue the revised schedule prior to the subsequent weekly meeting.

END OF SECTION 01200

SECTION 01310

SCHEDULES

PART 1 GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Within 10 days after the Effective date of the Agreement and prior to the issuance of the Notice to Proceed, CONTRACTOR shall submit to ENGINEER the preliminary schedules as identified in Paragraph 2.05.B of the General Conditions of the Construction Project (Section 00700).

1.02 CONSTRUCTION PROGRESS SCHEDULES

- A. Construction progress schedule may be in any form that will clearly show the proposed degree of completeness of each aspect of the construction throughout the life of the contract. Bar graphs, critical path and/or PERT diagrams are acceptable forms.
- B. ENGINEER will review proposed construction progress schedule. Final construction progress schedule may be revised and accepted by all parties during the Preconstruction Conference.

1.03 SCHEDULE OF VALUES

- A. Schedule of Values shall be broken down into as many items as necessary to properly determine value of Work complete at any time. *The Schedule of Values must contain the items listed in the Bid Form but may contain additional sub items to provide more detail within the format of the Bid Form.*
- B. Any item that CONTRACTOR wishes to be shown on any application for payment must be shown on Schedule of Values.
- C. CONTRACTOR's overhead margin and profit shall be distributed through all items on Schedule of Values and shall not be shown as a separate item.
- D. Final Schedule of Values for use in applications for payment shall be mutually acceptable to ENGINEER, OWNER, and CONTRACTOR.

PART 2 PRODUCTS

NOT USED

PART 3 EXECUTION

NOT USED

END OF SECTION 01310

SECTION 01340

SHOP DRAWINGS AND PRODUCT DATA

PART 1 GENERAL

1.01 REQUIREMENTS INCLUDED

- A. CONTRACTOR shall submit for the approval of the OWNER in accordance with the submittals listed in the individual sections, detailed Shop Drawings, manufacturer's specifications, and laboratory reports of all materials and equipment he contemplates furnishing under this Contract, including but not limited to:
1. Culverts;
 2. Paving mix;
 3. Scalehouse; and,
 4. Wheel wash.
- B. Shop Drawings and samples shall be prepared specifically for this project. Shop Drawings shall include dimensions and details. Note any deviations from requirements of the Contract Documents.
- C. Equipment shall not be fabricated nor materials ordered until Shop Drawings and product data have been approved.
- D. All Shop Drawings shall be checked, stamped and signed by CONTRACTOR before submission to ENGINEER. A completed "Submittal Form", Section 00907, shall accompany all submittals. Submittals that have not been checked, stamped, and signed are not acceptable and will be **RETURNED WITHOUT REVIEW COMMENTS**.
- E. CONTRACTOR shall submit two (2) copies of all Shop Drawing submittals to the ENGINEER. Shop drawings may be submitted electronically.
- F. Provide warranties as specified; warranties shall not limit length of time for remedy of damages OWNER may have by legal statute. Warranties shall be signed by Contractor, Supplier or installer responsible for performance of warranty.
- G. OWNER's approval of CONTRACTOR's Shop Drawings and product data will be general and shall not relieve the Contractor from the responsibility for adherence to the Contract, nor shall it relieve him of the responsibility for any error which may exist. Where such errors or omissions are discovered later, they shall be made good by the CONTRACTOR irrespective of any approval review by the ENGINEER.

PART 2 PRODUCTS

NOT USED

PART 3 EXECUTION

- A. Repeated failure to present acceptable submittals or excessive services required of ENGINEER due to repeated presentation of unacceptable submittals will result in charges against CONTRACTOR for the costs of the additional engineering expenses. It will be considered excessive if more than one correction of any submittal is required. More than one submittal of a correction will result in a charge against the CONTRACTOR.

END OF SECTION 01340

SECTION 01500

TEMPORARY FACILITIES AND CONTROLS

PART 1 GENERAL

1.01 REQUIREMENTS

- A. The CONTRACTOR shall furnish, install and maintain required construction aids and barriers as required to prevent public entry, and to protect the Work, existing facilities, trees and plants from construction operations and other temporary facilities required to complete the Work.
- B. The CONTRACTOR shall provide and maintain methods, equipment and temporary construction, as necessary to provide controls over environmental conditions at the construction site and related areas under CONTRACTOR'S control.
- C. The CONTRACTOR shall remove all temporary facilities at completion of Work or when no longer necessary.

1.02 DUST CONTROL

- A. The CONTRACTOR shall provide positive methods and apply dust control water to minimize raising dust from construction operation, and provide positive means to prevent airborne dust from dispersing into the atmosphere. Dust from construction activities shall not leave the site. Chemical dust suppressant shall not be used. Dust suppressants shall be approved by the ENGINEER prior to use.

1.03 WATER CONTROL

- A. The CONTRACTOR shall provide methods to control surface water to prevent damage to the Project, the site, or adjoining properties.
- B. The CONTRACTOR shall provide, operate, and maintain hydraulic equipment of adequate capacity to control surface erosion.
- C. The CONTRACTOR shall dispose of drainage water in a manner to prevent flooding, erosion, or other damage to any portion of the site or to adjoining areas.

1.04 DEBRIS CONTROL

- A. All areas under CONTRACTOR's control shall be maintained free of extraneous debris.
- B. The CONTRACTOR shall initiate and maintain a specific program to prevent accumulation of debris at construction site, storage and parking areas, or along access roads and haul routes.
 - 1. Containers shall be provided for deposit of debris.

2. The CONTRACTOR shall prohibit overloading of trucks to prevent spillages on access and haul routes. Traffic areas shall be periodically inspected to enforce requirements.
- C. The CONTRACTOR shall schedule periodic collection and disposal of debris. Additional collections and disposal of debris shall be provided whenever the periodic schedule is inadequate to prevent accumulation.

1.05 POLLUTION CONTROL

- A. The CONTRACTOR shall provide methods, means and facilities required to prevent contamination of soil, water or atmosphere by the discharge of noxious substances from construction operations.
- B. The CONTRACTOR shall provide equipment and personnel to perform emergency measures required to contain any spillages and to remove contaminated soils or liquids;
- C. The CONTRACTOR shall take special measures to prevent harmful substances from entering public waters; and, shall prevent disposal of wastes, effluents, chemicals, sediments, or other such substances adjacent to streams, or in sanitary or storm sewers.
- D. The CONTRACTOR shall provide systems for control of atmospheric pollutants and shall:
 1. prevent toxic concentrations of chemicals and
 2. prevent harmful dispersal of pollutants into the atmosphere.

PART 2 PRODUCTS

2.01 MATERIALS, GENERAL

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

2.02 CONSTRUCTION AIDS

- A. The CONTRACTOR shall provide any and all construction aids, equipment and materials required to facilitate execution of the Work, including but not limited to: scaffolds, staging, ladders, stairs, ramps runways, platforms, railings, hoists, cranes, chutes and other such facilities and equipment.

PART 3 EXECUTION

3.01 PREPARATION

The CONTRACTOR shall consult with ENGINEER and review site conditions and factors which affect construction procedures and construction aids, including adjacent properties and public facilities which may be affected by execution of the Work.

3.02 GENERAL

- A. Installation of facilities shall be of a neat and reasonable uniform appearance, structurally adequate for required purposes.
- B. The CONTRACTOR shall maintain barriers during entire construction period.
- C. The CONTRACTOR shall relocate barriers as required by progress of construction.

3.03 TREE AND PLANT PROTECTION

- A. The CONTRACTOR shall preserve and protect existing trees and plants at the site which are designated to remain, and those adjacent to the site.
- B. The CONTRACTOR shall carefully supervise excavating and filling, and subsequent construction operations, to prevent damage.
- C. The CONTRACTOR shall replace, or suitably repair, trees and plants which have been designated to remain and which are damaged or destroyed due to construction operations.

3.04 REMOVAL

- A. The CONTRACTOR shall completely remove temporary barriers, materials, equipment, and services when construction needs can be met by use of permanent construction or at the completion of Project.
- B. The CONTRACTOR shall clean and repair damage caused by installation or by use of temporary facilities including: removal of foundations and underground installations for construction aids; grading areas of site affected by temporary installations to required elevations and slopes; and Cleaning of the area.
- C. The CONTRACTOR shall restore existing facilities used for temporary purposes to specified or original condition.
- D. The CONTRACTOR shall restore permanent facilities, if any, used for temporary purposes to specified condition.

END OF SECTION 01500

SECTION 01568

EROSION AND SEDIMENT CONTROL

PART 1 GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Provide personnel, equipment, materials, and supplies to prevent erosion and control sediment during the construction period.
- B. Comply with all local and state erosion control regulations.

1.02 REFERENCES

- A. "Alabama Handbook for Erosion Control, Sediment Control, and Stormwater Management on Construction Sites and Urban Areas", latest edition; Alabama Soil and Water Conservation Committee.

PART 2 PRODUCTS

2.01 MATERIALS

- A. Materials used shall meet all applicable specifications and be in accordance with the Alabama Handbook for Erosion Control, Sediment Control, and Stormwater Management on Construction Sites and Urban Areas.

PART 3 EXECUTION

3.01 GENERAL

- A. Apply temporary measures throughout the construction of the Project to control erosion and to minimize siltation of drainage ditches, storm drains, and adjacent waterways.
- B. Limit grading to areas of workable size so as to limit the duration of exposure of disturbed and unprotected areas. Apply all appropriate conservation practices in sequence with the work.
- C. Protect stockpiling material with mulch, temporary vegetation, or a sediment barrier at its base.
- D. Stabilize all roads within 15 days of final grading, with base course-crushed stone.
- E. Install all erosion and sediment control practices in accordance with the latest Alabama Handbook for Erosion Control, Sediment Control, and Stormwater Management on Construction Sites and Urban Areas.

3.02 TEMPORARY VEGETATION

- A. When earth moving activities are completed more than 15 days prior to installation of permanent control measures, or final grading is completed during a season not favorable for

immediate establishment of permanent vegetation, stabilize with rapid growing annual grasses of a seasonally appropriate species. Provide species that allow quick protective cover and are compatible with future permanent measures.

3.03 MULCHING

- A. When final grading has not been completed, use jute matting or similar materials for temporary protection. Areas brought to final grade during an off-season may be mulched immediately and overseeded at the proper season with permanent grass land legume species. Properly anchor mulch to prevent dislodging.

3.04 TEMPORARY SEDIMENT BARRIER(S)

- A. Construction Exit Pad (CEP): Place in areas where traffic will be leaving the site and moving directly onto a public road or paved area to discourage sediment from leaving the site.
- B. Sediment Barrier (SB): Place sediment barrier (silt fence) at the toe of a slope or minor drainage way, to intercept and detain sediment and decrease flow velocities.
- C. Brush/Fabric Barrier (BFB): Place at the perimeter of a disturbed area to intercept and detain sediment and decrease flow velocities; the barriers will be created from the residual materials available from clearing and grubbing.
- D. Rock Check Dams (CD): Place across channels or minor drainage way to intercept and detain sediment and decrease flow velocities.
- E. Inlet Protection (IP): Place at the inlet of culverts to intercept and detain sediment and decrease flow velocities.
- F. Outlet Protection (OP): Place at the outlet of culverts to intercept and detain sediment and decrease flow velocities.

3.05 SEDIMENT BASIN

- A. Sediment Basin (SBN): Using compacted soil, construct a temporary embankment across a drainage way to detain sediment laden runoff from disturbed areas. The runoff is detained long enough for the majority of the sediment to settle out before being discharged.

3.06 OTHER APPROVED MEASURES

- A. Provide all other materials as required by governing agencies and regulations.

3.07 MANAGEMENT STRATEGIES

- A. Construction shall be sequenced such that the erosion control operations can begin and end as quickly as possible. Temporary seeding or other stabilization shall follow immediately after grading. The CONTRACTOR shall be responsible for the installation and maintenance of all erosion and sediment control practices. All areas disturbed by construction shall be stabilized with permanent seeding immediately following finish grading. Permanently seeded areas shall be protected during establishment with straw mulch or other acceptable material approved by the ENGINEER.

3.08 MAINTENANCE

- A. Check all erosion and sediment control measures weekly and after each significant rainfall. This includes but is not limited to the following:
 - 1. All storm drain pipes and silt fences for signs of clogging.
 - 2. Sediment basin to ensure its adequacy and to make sure the outfall and connecting drainage swale are operating correctly.
 - 3. Rock check dams for signs of clogging and failure.

3.09 REMOVAL

- A. Remove all temporary control measures at the completion of the Work and restore site as required by this Division. Remove erosion and sediment control devices only after written approval of the ENGINEER.
- B. Remove all silt from pipes and culverts.
- C. Remove all sediment from the sediment basin at the completion of the project and restore the sediment basin to the grading shown on the Drawings.

END OF SECTION 01568

SECTION 01700

PROJECT CLOSEOUT

PART 1 – GENERAL

1.01 DESCRIPTION OF WORK

- A. **General.** The CONTRACTOR shall provide the labor, tools, equipment, and materials necessary to close out the project in accordance with the plans and as specified herein.
- B. **This section** specifies administrative and procedural requirements for project closeout, including but not limited to:
 - 1. Inspection procedures.
 - 2. Project record document submittal.
 - 3. Operating and maintenance manual submittal.
 - 4. Submittal of warranties.
 - 5. Final clearing.
- C. **Closeout requirements** for specific construction activities are included in the specification sections in Divisions 2 through 16.

1.02 RELATED DOCUMENTS

- A. **General.** Drawings and general provisions of Contract, including General and Supplementary Conditions and other Division 1 specification sections, apply to this section.

1.03 QUALITY ASSURANCE

- A. **Codes and Standards.** Perform all work to closeout the project in compliance with applicable requirements of governing agencies having jurisdiction and in accordance with these plans and as specified herein.

1.04 SUBMITTALS

- A. **Transmittals.** Furnish product data, test reports, and material certifications as required.

1.05 JOB CONDITIONS

- A. As presented in the Contract Documents.

1.06 DELIVERY, STORAGE AND HANDLING

Not used.

1.07 SPECIAL WARRANTY

Not used.

1.08 SUBSTANTIAL COMPLETION

- A. **Preliminary Procedures.** Before requesting inspection for certification of Substantial Completion, complete the following. List exceptions in the request.
1. In the Application for Payment that coincides with, or first follows, the date Substantial Completion is claimed, show 100 percent completion for the portion of the work claimed as substantially complete. Include supporting documentation for completion as indicated in these Contract Documents and a statement showing an accounting of changes to the Contract Sum.
 - a. If 100 percent completion cannot be shown, include a list of incomplete items, the value of incomplete construction, and reasons the work is not complete.
 - b. Advise OWNER of Pending insurance changeover requirements.
 - c. Submit specific warranties, workmanship bonds, maintenance agreements, final certifications and similar documents.
 - d. Obtain and submit releases enabling OWNER unrestricted use of the work and access to services and utilities; include occupancy permits, operating certificates and similar releases.
 - e. Deliver tools, spare parts, extra stock, and similar items.
 - f. Complete start-up testing of systems, and instruction of the OWNER's operating and maintenance personnel. Discontinue or change over and remove temporary facilities from the site, along with construction tools, mock-ups, and similar elements.
- B. **Inspection Procedures.** On receipt of a request for inspection, the OWNER will either proceed with inspection or advise the CONTRACTOR of incomplete requirements. The OWNER will prepare the Certificate of Substantial Completion following inspection, or advise the CONTRACTOR of construction that must be completed or corrected before the certificate will be issued.

PART 2 - PRODUCTS

Not applicable.

PART 3 - EXECUTION

3.01 FINAL CLEANING

- A. **General.** General cleaning during construction is required by the General Conditions and included in section "Temporary Facilities."
- B. **Cleaning and Waste Disposal.** All trash and liquid waste generated during the course of the project shall be removed from the work area and comply with all federal and local

ordinances and regulations. Cleanup shall include removal of rubbish, litter and other foreign substances, and spills and other foreign deposits.

- C. **Removal of Protection.** Remove temporary protection and facilities installed for protection of the work during construction.

- D. **Compliance.** Comply with regulations of authorities having jurisdiction and safety standards for cleaning. Do not burn waste materials. Do not bury debris or excess materials on the OWNER's property. Do not discharge volatile, harmful or dangerous materials into drainage systems. Remove waste materials from the site and dispose of in a lawful manner.
 - 1. Where extra materials of value remaining after completion of associated work have become the OWNER's property, arrange for disposition of these materials as directed.

END OF SECTION 01700

SECTION 01720

PROJECT RECORD DOCUMENTS

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. The purpose of the record documents is to provide factual information regarding all aspects of the Work, both concealed and visible, to enable future modifications to proceed without lengthy and expensive site investigation.
- B. Throughout progress of Work, maintain an accurate record of all revisions to the Work. Upon completion of Work, transfer the recorded changes to a set of record documents. This includes, but is not limited to, all modifications to piping, roads, utilities, grading, structures, limits of liner, and monitoring devices.
- C. Submit three (3) complete sets of record drawings, and one set of AutoCAD compatible files acceptable to the ENGINEER upon completion of the project.

1.02 SUBMITTALS

- A. Record documents shall be submitted to and deemed complete by the ENGINEER, for the OWNER, prior to the OWNER'S release of retainage and payment of final pay request.
- B. Accompany submittal with transmittal letter in duplicate, containing:
 - 1. Date;
 - 2. Project title and number;
 - 3. CONTRACTOR'S name and address;
 - 4. Title and number of each Record Document; and
 - 5. Signature of CONTRACTOR or his authorized representative.

PART 2 - PRODUCTS

Not Used

PART 3 - EXECUTION

3.01 SURVEYOR

- A. Employ the services of a surveyor licensed in the State in which the project work is conducted to determine actual locations and elevations of installed items and to prepare the Record Drawings.

3.02 DOCUMENTS REQUIRED

- A. Maintain at the site for the OWNER one record copy of:
 - 1. Drawings;

2. Specifications;
3. Addenda;
4. Change Orders and other Modifications to the Contract;
5. ENGINEER'S Field Orders or written instructions;
6. Approved Shop Drawings, Product Data, and Samples;
7. Field Test Records; and
8. Construction photographs.

3.03 ACCURACY OF RECORDS

- A. Thoroughly coordinate all changes within the record documents, making adequate and proper entries on each page of the Specifications and each sheet of the Drawings and other documents where such entry is required to properly show the change. Record accuracy shall be such that future searches for the constructed features may reasonably rely on information obtained from record documents.

3.04 TIMING OF ENTRIES

- A. Make all entries within 24 hours after receipt of information.

3.05 SUBMITTAL

- A. The ENGINEER'S approval of the current record documents shall be a prerequisite to the ENGINEER'S approval of requests for progress payment and request for final payment under the Contract.

3.06 PROTECTION OF DOCUMENTS

- A. Maintain the job set of record documents completely protected from deterioration and from loss and damage until completion of Work and transfer of recorded data to the final record documents.

3.07 MAKING ENTRIES ON DOCUMENTS

- A. Use an erasable colored pencil (not ink or indelible pencil), or a digital layer clearly identified as surveyor notes, to clearly describe the change by note and by graphic line as required. Date all entries. Highlight the entry by drawing a "cloud" around the affected area or areas.

3.08 FORMAT OF FINAL RECORD DRAWINGS

- A. Prepare Record Drawings in an AutoCAD file format acceptable to the ENGINEER. Provide digital record drawing to ENGINEER only when no exceptions are taken by ENGINEER should paper copies be submitted.
- B. At a minimum, provide the following surveys completed and stamped by a registered surveyor licensed in the State in which the project work is conducted. Prior to the placement of each layer of the work, the survey drawing shall be submitted to the ENGINEER for approval.

1. Top of subgrade
 2. Top of compacted stone layer
 3. Top of pavement
 4. Utility as-builts
 5. Locations of structures
- C. Provide a final topographic survey that includes vertical and horizontal locations of all improvements, including but not limited to, location and invert elevations for all piping. These drawings should highlight any changes from design drawings as described in section 3.07 of this specification. Record Drawings should also be maintained for construction details. The drawings should be kept up to date during construction and be provided digitally for the ENGINEER to review updates at progress meetings.

END OF SECTION 01720

INDEX

DIVISION 2 - SITE WORK

Section 02100 -	Site Preparation and Restoration
Section 02200 -	Earthwork
Section 02480 -	Revegetation and Restoration
Section 02500-	Paving and Surfacing
Section 02610 -	Pipes, Fittings, and Appurtenances

SECTION 02100

SITE PREPARATION AND RESTORATION

PART 1 - GENERAL

1.01 SCOPE

- A. Provide personnel, equipment, materials, and supplies to clear and grub necessary areas of the project site.
- B. Provide protection as necessary to prevent damage to existing improvements not indicated to be removed, and improvements on adjoining properties.
- C. Restore all improvements damaged by this Work to their original condition, and acceptable to the OWNER or other parties or authorities having jurisdiction.

PART 2 - PRODUCTS

Not Used

PART 3 - EXECUTION

3.01 UTILITIES

- A. Locate existing utilities, culverts, and structures above or below ground before any excavation starts. Coordinate Work with owners of utilities. Protect, maintain service, and prevent damage to utilities not designated to be removed. When utilities are encountered and are not shown on the Drawings, or when locations differ from those shown on the Drawings, notify ENGINEER for instruction before proceeding.

3.02 SITE PROTECTION

- A. Protect benchmarks from damage or displacement.
- B. Protect OWNER'S property and adjoining properties from damage due to construction activities. Use barricades, coverings, and warning signs as appropriate.
- C. CONTRACTOR is responsible for correcting any damage caused by construction activities. Make repairs to the satisfaction of the OWNER or other parties having jurisdiction. All costs for repairs will be borne by the CONTRACTOR.
- D. The CONTRACTOR shall protect living trees designated to remain within the construction area and those outside the construction area. Cut or scarred surfaces of trees or shrubs shall be treated with a paint prepared especially for tree surgery.
- E. Conduct Work in accordance with the requirements of the Specifications.

3.03 CLEARING

- A. Clear and grade areas required for access to site and execution of Work.
- B. Remove from the site trees, brush, shrubs, downed timber, undergrowth, deadwood, rubbish, and other vegetation and incidental structures to allow for new construction.
- C. Remove all trees, stumps, and roots within 10 feet of any proposed structure or pipeline.
- D. Remove all stumps when such stumps will be less than five (5) feet below finished grade. Stumps of trees to be left in place shall be left no more than six (6) inches above original grade.
- E. Clearing shall be limited to areas within the limits of construction that need to be cleared in order to execute the Work. Clearing may be required to obtain suitable materials in the borrow area. CONTRACTOR shall keep clearing to the minimum required to complete the Work. Any clearing performed in the borrow area shall be at no additional cost to the OWNER.
- F. With the exception of areas that are disturbed in accordance with an erosion and sediment control permit obtained under the provisions of the Specifications; do not disturb other areas outside the limits of construction shown on the Drawings.

3.04 GRUBBING

- A. Grub areas within a 10-foot zone bordering all proposed structures and pipelines.
- B. In areas to be cleared, remove all stumps, roots ½-inch or larger, organic material, and debris to a depth of approximately one foot below existing grade, or one foot below the proposed subgrade elevation, whichever is lower.
- C. Remove grassy vegetation in a manner that maximizes the separation of vegetative cover and topsoil or subsoil. Unless otherwise noted, grassy vegetation shall be removed from the site or disposed on-site as approved by landfill personnel.
- D. Use hand methods for grubbing inside the drip lines of trees which are to remain.
- E. Clean up debris resulting from site clearing operations continuously with the progress of the Work.
- F. Stockpile topsoil material on site in areas designated by the ENGINEER or the OWNER.
- G. Keep pavement and areas adjacent to site clean and free from mud, dirt, and debris.

3.05 REMOVAL AND DISPOSAL OF DEBRIS

- A. Unless otherwise noted, trees within the construction limits shall become the property of the CONTRACTOR and shall be removed from the site or disposed on-site as approved by landfill personnel.
- B. Remove other debris, rock, and extracted plant life from the site or dispose on-site as approved by the OWNER.

- C. Removal and disposal of debris, rock and extracted plant life shall be accomplished at no additional cost to the OWNER.
- D. No burning will be allowed.
- E. CONTRACTOR shall obtain and comply with all required permits.

3.06 SITE RESTORATION

- A. At the end of the construction period, the CONTRACTOR shall restore to existing grade those areas disturbed by construction activities that lie beyond the limits of construction shown on the Drawings. CONTRACTOR is also responsible for restoration of the sections of the borrow area utilized for the construction at no addition cost to the OWNER. Areas to be filled shall be nominally compacted as may be achieved with construction equipment, graded to prevent ponding, and permanently seeded in accordance with the requirements of the Specifications.

END OF SECTION 02100

SECTION 02200

EARTHWORK

PART 1 -GENERAL

1.01 SCOPE

- A. The Work covered by this specification consists of furnishing all labor, equipment and materials to perform general grading; excavation; and placement and compaction of structural fill for foundations, perimeter berms, embankments and structures, as shown on the Drawings.
- B. All excavation shall be unclassified regardless of material encountered, except for Rock as defined in this specification.
- C. A layer is defined as a compacted stratum composed of several lifts constructed without joints. A lift is defined as a segment of a layer composed of the maximum thickness of soil permitted to be placed / compacted at one time.
- D. All fill materials shall be subject to the approval of the CQA Consultant.
- E. The CONTRACTOR is solely responsible for the placement of all fill material and shall not rely on the CQA Consultant for recommendations and directions. It is recommended the CONTRACTOR employs his own geotechnical consultant to provide construction control and recommendations.
- F. The CQA Consultant will perform field and laboratory testing as required and in accordance with the CQA Plan.
- G. The use of explosives is prohibited.

1.02 CONSTRUCTION QUALITY CONTROL (CQC)

- A. The CONTRACTOR will provide a testing program to perform the following minimum laboratory tests on soil materials being used for construction. All testing will be performed by an independent qualified geotechnical consultant and testing laboratory and under the direction of a Registered Professional Engineer licensed in the State in which the project work is conducted.
- B. Laboratory Testing - Soils:
 - 1. Soil Classification
Soil classification by Unified Soil Classification System (ASTM D2487) shall be conducted at a frequency of one test for each soil type.
 - 2. Particle Size Analysis
Sieve analysis without hydrometer (ASTM D422) shall be conducted at a frequency of one test for each soil type.
 - 3. Atterberg Limits and Moisture Content
Atterberg limits (ASTM D4318) and moisture content (ASTM 2216) tests shall be conducted at a frequency of one test for each soil type.

4. Modified Proctor Compaction
Modified Proctor compaction characteristics (ASTM D1557) shall be conducted at a frequency of one test for each soil type.

PART 2 - PRODUCTS

2.01 FILL MATERIAL

All fill material used to establish necessary grades as shown on the Drawings shall be free of debris, roots, stumps, brush, vegetation, frozen material, organic matter, rock, or gravel larger than two inches in any dimension, or other harmful matter, unless allowed by the CQA Consultant.

All fill materials shall be subject to the approval of the CQA Consultant. CONTRACTOR shall notify the CQA Consultant at least 10 working days in advance of intention to begin filling operations. Notification shall include designation of the proposed borrow source and all necessary laboratory testing data to demonstrate the adequacy of the material to perform its intended use. CONTRACTOR shall provide the CQA Consultant with 120 pounds of the proposed material in three, five-gallon, PVC, sample buckets with lids and handles at the time of notification. CONTRACTOR shall not initiate filling activities without the approval of the CQA Consultant to use the intended material for filling activities.

2.02 ROCK

Rock shall be construed as solid mineral material with a volume in excess of two (2) cubic yards or solid material that cannot be fractured and/or removed with conventional earth moving equipment. Conventional earth moving equipment shall be defined as a CAT D8L or equivalent tractor with a single-shank ripper, or CAT 330 sized or equivalent hydraulic excavator.

2.03 UNSUITABLE MATERIAL

Material such as clay mass, frozen materials, cinders, ashes, refuse, vegetation, organic material and muck shall be construed as unsuitable material for backfill. All unsuitable material under access roads, structural fills and berms shall be removed from the area to be filled.

PART 3 - EXECUTION

3.01 GENERAL

- A. Strip topsoil to full depth, and stockpile separate from other excavated materials and pile free of roots, stones, and other undesirable materials. Follow local erosion and sediment control guidelines to prevent erosion. Any depressions caused by removal of stumps of the clearing shall be excavated to firm subgrade.
- B. The CONTRACTOR shall perform all excavation described in whatever material encountered to dimensions and elevations shown on the Drawings.
- C. Existing utilities, structures, and fencing shall be protected during the construction period, and if damaged or removed by the CONTRACTOR in his operations, shall be repaired or replaced at the CONTRACTOR'S expense.

- D. Where unauthorized excavations have been carried below or beyond points required, restore these areas to the elevations and dimensions shown on the Drawings with material approved by CQA Consultant and compact as specified, at no additional cost to the OWNER.
- E. Material rendered not suitable for construction due to fault or negligence of the CONTRACTOR, shall be removed and replaced at no additional cost to the OWNER.

3.02 UTILITIES TO BE ABANDONED OR REMOVED

- A. When underground utilities are to be abandoned in place, plug, cap, or seal with concrete at the "Construction Limits" or at points designated by the CQA Consultant.
- B. Remove underground utilities indicated on the Drawings to be removed and backfill resulting excavation with suitable material, compacted as specified. Plug, cap, or seal utilities with concrete at the construction limits or at points designated by the CQA Consultant.

3.03 PROOFROLLING

- A. Prior to the placement of any fill material, the subgrade, or bridge lift, shall be proofrolled.
- B. Proofrolling shall be performed using a rubber-tired device having a static weight of at least 10 tons (such as a loaded tandem axle dump truck). This shall be performed during dry weather conditions and under the direction of the CQA Consultant. Areas that "pump" or otherwise exhibit instability shall be repaired as directed by the CQA Consultant.

3.04 WETLANDS PROTECTION

Prior to the placement of any fill material, the Best Management Practices (BMPs), such as stormwater conveyance channels, sediment basins, outlet protection, and silt fence must be installed. In addition, the CONTRACTOR is responsible for flagging the maximum limits of disturbance prior to the start of on-site construction activities. At no time shall the CONTRACTOR impact any areas beyond the maximum limits of disturbance, without prior approval from the ENGINEER and CQA Consultant.

3.05 EXCAVATION

- A. Areas that receive permanent seeding shall be graded below finished grades shown, leaving space for the vegetative support layer.
- B. Stockpile excavated soil material satisfactory for backfill or fill until required. Place, grade and shape stockpiles for proper drainage. Proper erosion and sediment control measures shall be installed in conjunction with stockpile development.
- C. Remove existing pavement as required.
- D. Dispose of materials unsatisfactory for backfill or fill continuously with the progress of work.

- E. Dispose of trash and debris, and all excess material continuously with the progress of the work.
- F. All excavation shall be dewatered as necessary to provide proper protection. The CQA Consultant may require excavation to be continuously dewatered 24 hours per day by adequate pumping or well-points satisfactory to the CQA Consultant until backfilling has been completed.
- G. Where underground streams or springs are found, provide temporary drainage and notify ENGINEER and CQA Consultant.
- H. Extreme caution shall be taken when excavating in the vicinity of existing facilities. Any damage to the facilities will be repaired to original condition at no additional cost to the OWNER.
- I. Excavate unsuitable soil materials encountered that extend below required elevations. The limits of the unsuitable material and depth of removal shall be determined by the CONTRACTOR, and agreed to by the ENGINEER and/or the CQA Consultant.
- J. Remove shoring and all form materials.
- K. Grade site to prevent surface water run-on into excavations.

3.06 EXCAVATION FOR STRUCTURES

- A. Conform to elevations and dimensions shown on the Drawings. Extend excavation sufficient distance from footings and foundations to permit placing and removal of concrete form work, installation of services, and for other required construction. Foundation concrete shall not be poured until the bearing stratum has been examined and found satisfactory for the design bearing capacity.
- B. Where rock is encountered, notify ENGINEER. When the entire structure will bear on rock, it shall be used to support the foundation. Where only a part of the foundation would bear on rock, excavate 12 inches below the entire structure and backfill with aggregate fill and thoroughly compact.
- C. Provide a 12-inch minimum clearance between rock excavation and walls of structure when forming is not used. Provide a two (2) feet clearance when forming is used.

3.07 ROCK REMOVAL

- A. Rock removal will be by mechanical method only unless prior approval is received from the OWNER, ENGINEER, and CQA Consultant.
- B. If Rock is encountered as defined in this specification, The CONTRACTOR will before proceeding:
 - 1. Demonstrate findings to the CQA Consultant;
 - 2. Determine limits of the rock above the base grade; and
 - 3. Quantify the rock and provide information, including limits, to the CQA Consultant for assessment.
- C. Remove rock at bottom of excavations to form level bearings.

- D. In utility trenches, excavate to 4 inches below invert elevation of pipe and to width indicated by the Contract Documents.
- E. Remove rock loosened by mechanical method. Over-excavation of six inches to one foot will be allowed.
- F. Correct unauthorized rock removal in accordance with backfilling and compaction requirements of the Specifications.
- G. Excavated rock will be removed from the site or segregated and stockpiled on-site as directed by the OWNER.

3.08 COMPACTION OF FILL

- A. Compaction of each layer shall be continuous over the entire area and the compaction equipment shall make sufficient trips to assure that the density has been obtained. Fill shall be placed and compacted in uniform lifts and shall not exceed 6 inches in compacted thickness. All fill shall be compacted to within 95 percent of maximum dry density as determined by ASTM D1557 (modified proctor). This compaction method shall apply to all fills, berms, embankments, paved areas and for a distance of at least 25 feet beyond structures and at least five feet beyond fills, berms, embankments and paved areas. All other unpaved areas shall be compacted to within 90 percent of maximum dry density as determined by ASTM D1557.
- B. Compaction equipment shall be of such design that it will be able to compact the fill to the specified density. Use power-driven hand tampers for compacting materials adjacent to structures.

3.09 FIELD DENSITY AND MOISTURE CONTENT TESTS

Field tests of the in-place density and moisture content of fill will be made by the CQA Consultant. If a test fails to meet the required compaction level or moisture content, then the area represented by that test shall be reworked and retested, at no additional cost to the OWNER, until a passing test results. The CONTRACTOR may elect at his own expense to remove the failing material.

3.10 SURFACE WATER

All excavations and fill areas shall be kept free of standing water. Grade surfaces and ditches to drain. Pumping of water shall be required to remove water from areas that cannot drain naturally.

3.11 FILL AND BACKFILL

- A. Remove vegetation, debris, unsatisfactory materials prior to placement of fill. Plow, strip or break up sloped surfaces steeper than 4 to 1 so that fill material shall bond with existing surface.
- B. Obtain clean earth fill from excavation or other approved sources. The material shall be compacted in accordance with these Specifications.

- C. Provide borrow material when on-site excavation is not sufficient to grade site to contours and finished grade elevations shown on the Drawings. All necessary costs shall be included in Bid Price.
- D. Remove and replace, or scarify and air dry, soil material that is too wet to permit compaction to specified percentage of maximum density.
- E. Do not backfill with or compact over frozen soil material.
- F. Soil material that has been removed as too wet to permit compaction may be stockpiled or spread to dry. When moisture content is reduced to a satisfactory value, soil material may be used as fill or backfill.
- G. Place clean earth fill to obtain elevations shown on the Drawings.
- H. Excavate depression caused by removed stumps or other clearing operations to firm subgrade, fill with clean earth and compact as specified.
- I. When the existing ground surface has been disturbed and has a density of less than that specified for the particular area, scarify the ground surface, adjust moisture content and compact to required depth and percentage of maximum density.
- J. Place backfill and fill materials in layers which, when compacted, shall not exceed six inches in lift thickness at depths less than four feet below finished grade and 12 inches in lift thickness at depths greater than four feet below finished grade. Each layer shall be spread evenly and shall be thoroughly bladed and mixed during the spreading to ensure uniformity of material in each layer. If required, the fill material shall be dried by aerating with a scarifier, disk harrow, blade or other equipment or by such other means as may be necessary. If required, the fill material shall be wetted by the use of water trucks. Dried or wetted fill material shall be thoroughly mixed to provide optimum moisture content. Compact each layer to the required density.
- K. Place backfill and fill materials evenly adjacent to structures. Prevent wedging of the backfill against structures by carrying the material uniformly around the structure to approximately the same elevation in each lift.
- L. Place aggregate fill material under all structures as shown on the Drawings. Compact to density required for fill under buildings and structures.

3.12 GRADING

- A. Uniformly grade all areas within the limits designated on the Drawings, including adjacent transition areas. Finish surfaces within specified tolerances with uniform levels or slopes between points where elevations are shown and existing grades.
- B. Finish all surfaces free from irregular changes and grade to drain as shown on the Drawings.
- C. Finish areas to receive geosynthetic liner to within 0.10 feet of required elevations, unless approved in writing by ENGINEER.
- D. Shape subgrade under unpaved areas to line, grade and cross-section to within 0.25 feet of required subgrade elevation.

- E. Shape subgrade under pavement to line, grade, and cross-section to within 0.05 feet of required subgrade elevations.
- F. Grade for structures to required elevation within tolerance of 0.05 feet.
- G. Protect newly graded areas from traffic, erosion, desiccation or other damage. Repair and re-establish grade in settled, eroded, or rutted areas to the specified tolerances.
- H. Where compacted areas are disturbed by subsequent construction or adverse weather, scarify the surface, reshape and compact to the required density. Use hand tamper for recompaction over underground utilities. Portions of the fill damaged due to exposure shall be reworked to meet the project specifications or, at the discretion of the CQA Consultant, removed and replaced with conforming material at no additional cost to the OWNER.

3.13 GEOSYNTHETIC AREA PREPARATION

Surfaces to receive a geosynthetic material shall be kept smooth and free of debris, roots, sticks, bones and angular or sharp rocks larger than 3/8 inch in any dimension. The surface should provide a firm, unyielding foundation with no sudden, sharp, or abrupt changes or break in grade. No standing water or excessive moisture shall be allowed. Final compaction of any area to receive a geosynthetic shall be with smooth steel wheel roller. The CONTRACTOR shall certify in writing that the surface on which the material is to be installed is acceptable before commencing placement of geosynthetic materials.

3.14 SEASONAL LIMITS

No fill material shall be placed, spread, or rolled while the ground is frozen or thawing, or during unfavorable weather conditions. When the work is interrupted by inclement weather, fill operations shall not be resumed until approved by the CQA Consultant. Repairs from inclement weather must be corrected by the CONTRACTOR to the satisfaction of the CQA Consultant at no additional cost to OWNER.

END OF SECTION 02200

SECTION 02480

REVEGETATION AND RESTORATION

PART 1 GENERAL

1.01 REQUIREMENTS INCLUDED

Provide personnel, equipment and materials to furnish and install all items of seeding and topsoiling as specified herein and as shown on the Drawings.

1.02 Reference Specifications are referred to by abbreviation as follows:

- A. American Society for Testing and MaterialsASTM
- B. Federal Specifications..... FS

1.03 Submit three copies of following:

- A. Topsoil Analysis
- B. Seed Test Report
- C. Fertilizer Analysis

1.04 Materials shall be delivered in unbroken containers, clearly marked by the manufacturer as to contents. Seed, limestone, and fertilizer shall be labeled as to proportions, analysis and quality. Store all materials in a manner affording protection from damage by weather or vandalism.

1.05 GUARANTEE

Contractor shall be responsible for final ground cover. Any area that fails to develop a successful stand of grass up to one year after final inspection shall be reseeded until a successful stand develops. Any significantly large (½ acre) areas that require reseeding shall be guaranteed for one year after the reseeding date.

PART 2 PRODUCTS

2.01 VEGETATIVE SUPPORT LAYER

Existing topsoil in graded areas shall be stripped and stockpiled for use in the six-inch-thick vegetative support layer. Topsoil shall be free of subsoil, clay lumps, brush, weeds, roots larger than 2-inch diameter and other material toxic or harmful to growth. pH range shall be from 6.0 - 7.5 and soluble salts shall not exceed 500 ppm.

2.02 FERTILIZER

Fertilizer shall meet requirements of Federal Specification O-F-241. Provide fertilizer that is complete, inorganic, uniform in composition and suitable for application with approved equipment.

- A. Proportions of fertilizer nutrients for permanent seeding shall be as follows (unless a soil analysis by a qualified lab proves a lesser amount would be required):

- Mixed grasses and legumes: 800 to 1,200 lbs/acre of 5-10-10 or equivalent
- Legume stands only: 400 to 600 lbs/acre if 0-20-20 or equivalent
- Grass stands only: 400 lbs/acre 8-24-24 or equivalent nutrients. Apply 30 lbs of additional nitrogen when grass has emerged and begun growth (approximately 0.8lbs/1,000 ft²).
- B. Other fertilizer formulations, including slow-release sources of nitrogen (preferred from a water quality standpoint), may be used provided they can supply the same amounts and proportions of plant nutrients.

2.03 TEMPORARY SEEDING MIXTURE

Select plants appropriate to the planting season using the South Area of Table TS-1.

2.04 PERMANENT SEEDING MIXTURE

Certified seed shall be used for all permanent seeding. The seed must meet published state standards and bear an official "Certified Seed" label. Grass seed, tested with 6 months of sowing, shall have the characteristics shown for the South Area in Table PS-1 of the Alabama Handbook for Erosion Control, Sediment Control and Stormwater Management on Construction Sites and Urban Areas.

- 2.05** Lime shall be ground agricultural grade limestone containing not less than 90% calcium carbonates. Fineness shall be such that 90% will pass a No. 10 sieve, not less than 50% will pass a No. 60 sieve. Burnt lime or hydrated lime may be substituted in equivalent carbonates, if requested.
- 2.06** Type I mulch shall be "Curlex Excelsior Blanket" manufactured by American Excelsior Company or equal. The fabric shall be manufactured of materials which degrade in 6 to 8 months under outdoor exposure. Type I mulch shall be used on 3:1 slopes or greater.
- 2.07** Type II mulch composed of straw or hay, fiber mulch or corn stalks shall be free of objectionable weed seeds or other harmful materials. Type II mulch may be used on slopes less than 3 to 1.
- 2.08** Type II mulch shall be anchored by means of a mulch anchoring tool, fiber mulch application or a synthetic mulch binder which is organically formulated.
- 2.09** Fiber mulch shall not be used during the dry summer months or used for a late fall mulch cover. Straw, hay, or corn stalk mulch shall be used.
- 2.10** Asphalt, petroleum based, or chemical binders shall not be used.
- 2.11** Erosion control blanket shall be used in areas specified on the Drawings.

PART 3 EXECUTION

- 3.01** Contractor may elect to mix compost or humus with the existing stockpiled topsoil in order to achieve a reduction in the amounts of lime and fertilizer required for the appropriate seed mixture.

- 3.02** Contractor shall mix compost or humus with the existing stockpiled topsoil if the topsoil is unable to meet the required specification of this section. Compost or humus shall be amended to the topsoil until the required specification is satisfied.
- 3.03** Amended topsoil shall be analyzed by a qualified laboratory in order to determine the optimal quantities of lime and fertilizer required for the appropriate seed mixture.
- 3.04** Seed all areas within "Limits of Construction" and all areas disturbed during construction as indicated on the Drawings.
- 3.05** Apply seeding products only when wind velocity is less than 15 miles per hours.
- 3.06** Temporary Seeding
- A. Use to reduce erosion and sedimentation in disturbed areas that will not be brought to final grade for a period of more than 30 days. Use to reduce damage from sediment and runoff to downstream or off-site areas, and to provide protection to bare soils exposed during construction until permanent vegetation or other erosion control measures are established.
 - B. Apply fertilizer at a rate of 600 lbs./acre of 10-20-10 (14 lbs./1,000 sq.ft.) or equivalent nutrients.
 - C. For loose soil, work lime and fertilizer into soil and then seed. For packed or hard soil, loosen top layer while working lime and fertilizer into soil and then seed at the rate required for the temporary seeding species.
 - D. Seed shall be evenly applied with a broadcast seeder, drill, culti-packer seeder or hydroseeder. Small grains shall be planted no more than one inch deep. Grasses and legumes shall be planted with no less than 1/4" soil cover.
 - E. Seeding made in the fall for winter cover and during hot and dry summer months shall be mulched with straw. Fiber mulch will not be considered adequate during these periods.
 - F. Areas which fail to establish vegetation cover, adequate to prevent rill erosion, shall be reseeded as soon as such areas are identified.
- 3.07** Permanent Seeding Preparation
- A. Prepare soil for permanent seeding by tillage of topsoil in place to loosen thoroughly and break up all clods to a depth of 6". Remove all stumps and roots, coarse vegetation, stones larger than 1/2" in diameter and all construction debris. Soil shall be worked by suitable agricultural equipment to a depth of not less than 4". Rake to a uniform, smooth, and drainable surface.
 - B. Apply lime and fertilizer uniformly and mix well into top 4" of seed bed. Apply lime at the rate of 90 lbs. per 1,000 sq. ft. Apply fertilizer at the rate of 1,000 lbs. of 10-20-10 per acre or 23 lbs. of 10-0-10 per 1,000 sq. ft. Rates should be adjusted for other grades of fertilizer and to accommodate soil test results.

3.08 Use seasonal nurse crop in accordance with dates as specified in this Section, Table TS-1 and PS-1.

3.09 Sow permanent seed by mechanical seeder as follows:

A. Apply seed uniformly with a broadcast seeder, drill, culti-packer seeder, or hydroseeder on a firm, friable seedbed. Seeding depth should be $\frac{1}{4}$ to $\frac{1}{2}$ inch. Apply in cross directions to ensure uniform distribution.

B. Mulch shall be applied as follows:

(1) Straw or hay mulch shall be applied at the rate of 1.5-2 tons per acre or 70-90 lbs. per 1,000 sq. ft. with a mulch blower or by hand. It shall be anchored after application.

(2) Fiber mulch shall be applied at the rate of a minimum of 1,500 lbs. per acre or 35 lbs. per 1,000 sq. ft. It shall be applied as a slurry.

(3) When fiber mulch is the only available mulch during periods when straw should be used, apply at a minimum rate of 2,000 lbs. per acre or 45 lbs. per 1,000 sq. ft.

(4) Corn stalk mulch shall be applied at the rate of 4-6 tons per acre or 185-275 lbs. per 1,000 sq. ft. It shall be applied with a mulch blower or by hand. Stalks shall be cut or shredded in 4-6 inch lengths and air dried. It shall not be used in fine turf areas.

C. Anchor mulch to the following standards:

(1) Straw mulch shall be anchored immediately after spreading to prevent displacement.

(2) Use of a mulch anchoring tool (i.e. Krimper Tool) shall be limited to grades less than 3 to 1. Machinery shall be operated on the contour.

(3) Fiber mulch, when approved to be used, shall be applied by means of a hydroseeder at a rate of 5,000-7,500 lbs. per acre over top of straw mulch or hay.

(4) If a synthetic mulch binder is used, apply at the rate recommended by manufacturer.

(5) On slopes greater than or equal to 3 to 1, fasten Type I mulch as recommended by the manufacturer.

3.10 Remove all soiling or staining of finished walks, drives, and parking areas resulting from seeding work. Maintain paved areas in clean condition.

Table TS-1 Commonly Used Plants for Temporary Cover

Species	Seeding Rate/AC PLS	North	Seeding Dates	
			Central	South
Millet, Browntop or German	40 lbs	Apr1-Aug 1	Apr1- Aug 15	Apr 1-Aug 15
Rye	3 bu	Sep 1-Nov 15	Sep 15-Nov 15	Sep 15-Nov 15
Ryegrass	30 lbs	Aug 1-Sep 15	Sep 1-Oct 15	Sep 1-Oct 15
Sorghum-Sudan Hybrids	40 lbs	May 1-Aug 1	Apr 15-Aug 1	Apr 1-Aug 15
Sudangrass	40 lbs	May 1-Aug 1	Apr 15-Aug	Apr 1-Aug 15
Wheat	3 bu	Sep 1-Nov 1	Sep 15-Nov 15	Sep 15-Nov 15
Common Bermudagrass	10 lbs	Apr 1-July 1	Mar 15-July 15	Mar 1-July 15
Crimson Clover	10lbs	Sept 1-Nov 1	Sept 1-Nov 1	Sept 1-Nov 1

PLS means pure live seed and is used to adjust seeding rates. For example, to plant 10 lbs PLS of a species with germination of 80% and purity of 90%, PLS= 0.8X 0.9 = 72%. 10 lbs PLS = 10/0.72 = 13.9 lbs of the species to be planted.

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Table PS-1 Commonly Used Plants for Permanent Cover with Seeding Rates and Dates

Species	Seeding Rates/Ac PLS	North	Central		South
			Seeding Dates		
Bahiagrass, Pensacola	40 lbs	--	Mar 1-July 1	Feb 1-Nov 1	
Bermudagrass, Common	10 lbs	Apr 1-July 1	Mar 15-July 15	Mar 1-July 15	
Bahiagrass, Pensacola Bermudagrass, Common	30 lbs 5 lbs	--	Mar 1-July 1	Mar 1-July 15	
Bermudagrass, Hybrid (Lawn Types)	Solid Sod	Anytime	Anytime	Anytime	
Bermudagrass, Hybrid (Lawn Types)	Sprigs 1/sq ft	Mar 1-Aug 1	Mar 1-Aug 1	Feb 15-Sep 1	
Fescue, Tall	40-50 lbs	Sep 1-Nov 1	Sep 1-Nov 1	--	
Sericea	40-60 lbs	Mar 15-July 15	Mar 1-July 15	Feb 15-July 15	
Sericea & Common Bermudagrass	40lbs 10 lbs	Mar 15-July 15	Mar 1-July 15	Feb 15-July 15	
Switchgrass, Alamo	4 Lbs	Apr 1-Jun 15	Mar 15-Jun 15	Mar 15-Jun 15	

PLS means pure live seed and is used to adjust seeding rates. For example, to plant 10 lbs PLS of a species with germination of 80% and purity of 90%, PLS= 0.8X 0.9 = 72%. 10 lbs PLS = 10/0.72 = 13.9 lbs of the species to be planted.

END OF SECTION 02480

SECTION 02500

PAVING AND SURFACING

PART 1 GENERAL

1.01 REQUIREMENTS INCLUDED

Provide personnel, equipment, and materials to construct and surface access roads as shown on the Drawings and in accordance with these specifications.

1.02 RELATED REQUIREMENTS

A. Section 02200; Earthwork

1.03 Reference Specifications are referred to by abbreviation as follows:

A. Alabama Department of Transportation
Standard Specifications for Highway ConstructionALDOT

PART 2 PRODUCTS

2.01 The wearing course shall consist of asphalt paving and durable gravel, crushed gravel, crushed stone, or crushed slag, meeting Alabama Department of Transportation Standard Specifications, latest revision. The aggregate furnished shall be ALDOT aggregate wearing course or crushed concrete.

2.02 The prepared subgrade shall have a filter fabric installed prior to placement of the base course.

PART 3 EXECUTION

3.01 GRAVEL HAUL ROADS

A. After the subgrade has been properly prepared in accordance with these specifications, the aggregate shall be placed, shaped, and compacted. The grade and alignment shall be controlled during placement. Necessary shaping shall be performed prior to final compaction to ensure a rut-and bump-free surface and adequate drainage slopes. Depths of the aggregate shall be as shown on the Drawings.

B. The base and wearing course shall be compacted to 95% of the maximum dry density at a moisture content sufficient to facilitate compaction.

C. Total thickness will be determined following final compaction. Any deficiency of the total thickness in excess of one-half (1/2) inch shall be corrected. If consistent

deficiencies occur, regardless of thickness, the entire deficient section of roadway shall be corrected.

- D. Aggregate shall be rolled with one pass immediately with a self-propelled steel wheel roller. The roller weight shall be between 6 and 8 tons for tandem type and between 8 and 10 tons for the three wheel type.

3.02 Upon completion of construction work and after spoils and debris have been removed; regrade any areas disturbed by the operations. If ruts are created in the granular fill due to construction traffic, they shall be filled with additional granular material, rather than blading adjacent material into the rut.

3.03 PAVEMENT REPAIRS

- A. When pavement, curb and gutter or sidewalks must be cut, make the cut in a straight line, 6 inches wider than the disturbed base, to provide an undisturbed shoulder under the new work.

3.04 PAVEMENT PLACEMENT

- A. Prepare subgrade by grading and compacting in accordance with Section 02200-Earthwork immediately prior to placing the aggregate base course. The surface shall be true to line and grade and shall be checked with suitable templates or other approved method.
- B. Place the aggregate base course in layers over the areas and to the depth shown.
- C. Place asphalt base course over the areas and to the depth shown.
- D. Place asphalt wearing course over the areas and to the depth shown.
- E. Total thickness will be determined following final compaction. Any deficiency of the total thickness in excess of one-half ($\frac{1}{2}$) inch shall be corrected. If consistent deficiencies occur, regardless of thickness, the entire deficient section of roadway shall be corrected.

3.05 PAVEMENT MARKINGS

- A. Apply pavement marking in a neat and workmanlike manner on a clean and dry pavement. Markings shall be 3" wide and shall conform to markings shown on the Drawings.

3.06 CLEAN UP

- A. Upon completion of construction work and after spoils and debris have been removed; regrade any areas disturbed by the operations. If ruts are created in the granular fill due to construction traffic, they shall be filled with additional granular material, rather than blading adjacent material into the rut.

END OF SECTION 02500

SECTION 02610

PIPES, FITTINGS, AND APPURTENANCES

PART 1 GENERAL

1.01 REQUIREMENTS INCLUDED

Provide personnel, materials, and equipment to install pipe, fittings, and appurtenances to the lines and grades shown on Drawings.

1.02 REFERENCE SPECIFICATIONS ARE REFERRED TO BY ABBREVIATION AS FOLLOWS:

- A. American National Standards Institute ANSI
- B. American Society for Testing and Materials.....ASTM
- C. American Water Works Association AWWA
- D. Ductile Iron Pipe Research Association.....DIPRA
- E. Federal Standards FS
- F. Alabama Department of Transportation.....ALDOT

1.03 SUBMITTALS

Submit shop drawings of the following:

- A. Piping and Pipe fittings
- B. Valves and Appurtenances

1.04 CERTIFICATE OF COMPLIANCE

Submit Certificate of Compliance for all Products specified by reference specifications and standards.

PART 2 PRODUCTS

2.01 HDPE PIPE AND FITTINGS

- A. The basic material for all HDPE pipe should be Type III resin and shall conform to the requirements of ASTM D-D3035. The pipe and fittings shall conform to ASTM D-3350 with a minimum cell classification value of 445474C (PE 4710). The pipe and fittings shall be made from the same polyethylene resin base which meets this specification.
- B. Corrugated polyethylene drain pipe and fittings in sizes 3 inches to 6 inches shall conform to the requirements of ASTM Standard F2986, with flexible elastomeric seals conforming to ASTM Standard F477.

2.02 PVC PIPE AND FITTINGS

- A. Poly Vinyl Chloride (PVC) pressure pipe and fittings for other than waterworks service shall meet the requirements of ASTM D2241. Pipe joints shall conform to ASTM D3139.

- B. Poly Vinyl Chloride (PVC) Type PSM, SDR 35 sewer pipe and fittings in sizes 4 inch through 15 inch shall meet the requirements of ASTM D3034 with flexible elastomeric seals conforming to ASTM Standard F477.

PART 3 EXECUTION

3.01 PIPE LAYING, GENERAL

- A. Take all precautions necessary to ensure that pipe, valves, fittings, and other accessories are not damaged in unloading, handling, and placing in trench. Examine each piece of material just prior to installation to determine that no damage has occurred. Remove any damaged material from the site and replace with undamaged material.
- B. Exercise care to keep foreign material and dirt from entering pipe during storage, handling, and placing in trench. Close ends of in-place pipe at the end of any work period to preclude the entry of animals and foreign material.
- C. Do not lay pipe when trench bottom is muddy or frozen or has standing water.
- D. Use only those tools specifically intended for cutting the size and material and type pipe involved. Make cut to prevent damage to pipe or lining and to leave a smooth end at right angles to the axis of the pipe.

3.02 HDPE PIPE JOINING

- A. Sections of HDPE pipe shall be joined into continuous lengths on the job site following the guidelines of ASTM F2620, using the simultaneous butt fusion method of joining the pipe.
- B. The pipe system supplier shall provide and approve all fusion equipment used for the pipe system. The butt fusion equipment used to join the pipe and fittings shall be capable of quality assurance documentation for pipe fusion parameters such as the time, temperature, and pressure for each fusion made.
- C. Fused segments of pipe shall be handled with the pipe system supplier's recommendations. Bending of the pipe during installation shall be limited and shall not exceed the pipe system supplier's recommendations.
- D. All buried gravity flow pipe shall be installed in accordance with ASTM D2321, Standard Practice for Underground Installation of Thermoplastic Pipe for Sewers and Other Gravity Flow Applications.
- E. All buried pressure pipe shall be installed in accordance with ASTM D2774, Standard Practice for Underground Installation of Thermoplastic Pressure Piping.

END OF SECTION 02610

INDEX

DIVISION 3 - CONCRETE

Section 03300 -

Cast-in-Place Concrete

SECTION 03300

CAST-IN-PLACE CONCRETE

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Formwork, complete with shoring, bracing and anchorage.
- B. Reinforcing steel, welded wire fabric, supports, spacers and accessories.
- C. Preformed construction joints, preformed joint filler, bonding agent and accessories.
- D. Slabs on fill.
- E. Surface Finishes.
- F. Concrete Curing.
- G. Concrete Steps.

1.02 REFERENCES

- A. ACI 301 - Specifications for Structural Concrete for Buildings.
- B. ACI 305R - Hot Weather Concreting.
- C. ACI 306R - Cold Weather Concreting.
- D. ACI 308 - Standard Practice for Curing Concrete.
- E. ACI 318 - Building Code Requirements for Reinforced Concrete.
- F. ANSI/ASTM A185 - Welded Steel Wire Fabric for Concrete Reinforcement.
- G. ASTM A615 - Deformed and Plain Billet-Steel for Concrete Reinforcement.
- H. ASTM C33 - Concrete Aggregates.
- I. ASTM C94 - Ready-Mixed Concrete.
- J. ASTM C150 - Portland Cement.
- K. ASTM C260 - Air-Entraining Admixtures for Concrete.
- L. ASTM C309 - Liquid Membrane - Forming Compounds for Curing Concrete.
- M. ASTM C494 - Chemical Admixtures for Concrete.

- N. ASTM D 1752 - Preformed Sponge Rubber and Cork Expansion Joint Fillers for Concrete Paving and Structural Construction.
- O. ASTM D2103 - Polyethylene Film and Sheeting.

1.03 QUALITY ASSURANCE

- A. Perform work in accordance with ACI 301.
- B. Maintain copy of ACI 301 on site.
- C. Obtain materials from same source throughout the Work.

1.04 REGULATORY REQUIREMENTS

- A. Conform to applicable building code for area where project is located.

1.05 TESTS

- A. Submit proposed mix design of each class of concrete for review prior to commencement of work. Substantiate proposed mix designs with documentation in accordance with ACI 318, Section 5.3, "Proportioning on the basis of field experience and/or trial mixtures".
- B. CONTRACTOR will take cylinders and perform slump and air entrainment tests in accordance with ACI 301.
- C. Four concrete test cylinders will be taken for every 50 or less cu yds of each class of concrete placed each day.
- D. Four additional test cylinders will be taken during cold weather and cured on site under same conditions as concrete they represent.
- E. A minimum of one slump test will be taken for each set of test cylinders taken.

1.06 SUBMITTALS

- A. Submit shop drawings of reinforcing steel under provisions of Section 01340.
- B. Indicate reinforcement sizes, spacings and locations of reinforcing steel, and wire fabric, bending and cutting schedules, splicing, and supporting and spacing devices. Bar lists and computer printouts will not be reviewed. Only fully drawn and detailed placement drawings are acceptable.
- C. Proposed concrete mix design for each class of concrete along with sufficient data to document the proportioning of the proposed concrete mix in accordance with ACI 301.
- D. Proposed curing methods for hot and cold weather.
- E. Submit product data under provisions of Section 01340.

- F. Provide product data for specified products.
- G. Submit manufacturers' instructions under provisions of Section 01340.
- H. Submit delivery tickets for any ready-mix concrete delivered per job site per ASTM C94.

PART 2 PRODUCTS

2.01 CONCRETE MATERIALS (ACI 301 2.1)

- A. Cement: ASTM C150, normal - Type I.
- B. Fine and Coarse Aggregates: ASTM C33, subject to limitations of ACI 301 3.6.
- C. Water: Clean and not detrimental to concrete. If mix water is not potable, then provide certification that water does not compromise the strength as presented in the mix design.

2.02 ADMIXTURES (ACI 301 2.2)

- A. Add an air entraining agent conforming to ASTM C260 to obtain a total air content as required by Table 3.4.1 of ACI 301, except that a minimum total air content, of 4 percent by volume in all mix designs, unless noted otherwise.
- B. A water reducing admixture conforming to ASTM C494 - Type A shall be used in all mix designs. The quantity to be added, the controlling temperature and the method of mixing shall conform to the manufacturers written recommendations.
- C. Pozzolans conforming to ASTM C618 Type F may be substituted for up to 25 percent of the cementitious material if mix designs with proven results can be provided to the ENGINEER.
- D. Use of additional admixtures must be approved in writing by the ENGINEER.
- E. No calcium chloride or other chloride containing admixture will be permitted.

2.03 STRENGTH (ACI 301 3.2)

- A. Provide concrete mix in accordance with ASTM C94 and the following characteristics:
 - Footings: f'c = 4000 psi at 28 days
Maximum aggregate size 1 ½"
Air entrainment % per ACI 301, Table 3.4.1 based on max aggregate size
 - Concrete Tipping Pad: f'c = 4000 psi at 28 days.
Maximum aggregate size 1 ½"
Air entrainment % per ACI 301, Table 3.4.1 based on max aggregate size
 - Leachate Cleanout Pads: f'c = 4000 psi at 28 days.
Maximum aggregate size 1 ½"
Air entrainment % per ACI 301, Table 3.4.1 based on max aggregate

size

Admixtures should be added as indicated in Item 2.02 above.

2.04 REINFORCING STEEL (ACI 301 5.2)

- A. Reinforcing Steel: ASTM A615, including Supplementary Requirements S1, 60 ksi yield grade billet steel deformed bars.
- B. Welded Steel Wire Fabric: Plain type, ANSI/ASTM A185.
- C. Finish: All reinforcing shall be uncoated.

2.05 EXPANSION JOINTS (ACI 301 6.2)

- A. All premolded expansion joint filler shall be standard cork type non extruding with a ninety-five percent (95%) thickness recovery conforming to ASTM D1752, Type II and as manufactured by W. R. Grace & Co., or an approved equal. Thickness and sizes shall be as shown on the Drawings. The CONTRACTOR shall submit manufacturer's data on type of joint filler to be used.

2.06 ACCESSORIES

- A. Form Release Agent: Colorless material which will not stain concrete, absorb moisture or impair natural bonding or color characteristics of coating intended for use on concrete shall be non-toxic and suitable for contact with potable water.

PART 3 EXECUTION

3.01 GENERAL

- A. Install concrete work in accordance with ACI 301 except as amended by this Section.

3.02 FORMWORK (ACI 301 4.2)

- A. Verify lines, levels and measurements before proceeding with formwork.
- B. Unless specifically shown on the Drawings, obtain ENGINEER'S approval for use of earth forms. When using earth forms, hand-trim sides and bottoms, and remove loose dirt prior to placing concrete.
- C. Chamfer external corners of beams, joints, columns and walls, except where masonry overhangs concrete.
- D. Construct formwork to maintain the tolerances as listed in Table 4.3.1 of ACI 301.

3.03 INSERTS, EMBEDDED ITEMS AND OPENINGS

- A. Locate and cast in place all slots, sleeves, weep holes, openings, recesses, chases, bolts, anchors or other inserts required by other trades. Sizes and locations of all inserts shall be coordinated with other trades and certified equipment drawings.

- B. Provide temporary ports or openings in formwork where required to facilitate cleaning and inspection and placing of concrete. Locate openings at bottom of forms to allow flushing water to drain. Close temporary ports or openings with tight fitting panels, flush with inside face of forms, neatly fitted so that joints will not be apparent in exposed concrete surfaces.

3.04 FORM SURFACES PREPARATION (ACI 301 4.4)

- A. Apply form release agent on formwork in accordance with manufacturer's recommendations. Apply prior to placing reinforcing steel, anchoring devices and embedded parts. Do not apply form release agent where concrete surfaces will receive special finishes or applied coverings which are affected by agent.

3.05 REINFORCING STEEL (ACI 301 5.1 to 5.5)

- A. No welding of reinforcing steel will be permitted unless approved in writing by the ENGINEER.
- B. No reinforcing steel embedded in hardened concrete shall be bent unless approved in writing by the ENGINEER. When approved, all bending shall be performed "cold".
- C. The CONTRACTOR shall notify the ENGINEER after all reinforcing steel and accessories have been set and at least 24 hours prior to pouring concrete so that all reinforcing can be inspected and approved.

3.06 CONSTRUCTION JOINTS (ACI 301 6.1 to 6.5)

- A. Construction joints shall be located as shown on the Drawings; any additional joints or relocation of joints must be approved in writing by the ENGINEER prior to construction. All construction joints shall be doweled, keyed, and water stopped as shown on the Drawings.
- B. Prior to placing the new concrete against the existing concrete in a construction joint, the existing concrete shall be thoroughly cleaned of all dirt, debris, laitance and loose mortar, and then thoroughly wetted.

3.07 CONTROL OF MIXING WATER (ACI 301 7.5.2)

- A. No additional water shall be added to the concrete after it arrives at the job site unless authorized by the ENGINEER or his authorized representative. If additional water is added, additional cement must be added to maintain the original water-cement ratio specified herein.

3.08 PLACING CONCRETE

- A. Notify ENGINEER minimum 24 hours prior to commencement of concreting operations.
- B. Place concrete continuously between predetermined construction and control joints. Do not break or interrupt successive pours such that cold joints occur.

3.09 TOLERANCES

- A. Provide Class A tolerance to floor slabs according to ACI 301.

3.10 REMOVAL OF FORMS (ACI 301 4.5)

- A. Do not remove forms, shores and bracing until concrete has gained sufficient strength to carry its own weight, construction loads, and design loads which are liable to be imposed upon it. Verify strength of concrete by compressive test results.
- B. No reshoring of concrete will be permitted unless authorized in writing by the ENGINEER.

3.11 REPAIR OF SURFACE DEFECTS (ACI 301 9.1)

- A. Allow ENGINEER to inspect concrete surfaces immediately upon removal of forms.
- B. Modify or replace concrete not conforming to required lines, detail, elevations and tolerances.
- C. Repair or replace concrete not properly placed resulting in excessive honeycombing and other defects. Do not patch, repair or replace exposed architectural concrete except upon express direction of ENGINEER.
- D. If strength tests fail to meet the requirements of ACI 301, Section 17.2, the OWNER/ENGINEER may require in place and/or core tests in accordance with ACI 301, Section 17.3. Cost of all additional testing shall be paid by the CONTRACTOR.

3.12 SCHEDULE OF FORMED SURFACES

- A. Rough form finish at non-exposed surfaces.
- B. Smooth form finish at all exposed surfaces.

3.13 SCHEDULE OF FLOOR SLAB FINISHES

- A. Trowel finish all interior slabs.
- B. Broom finish all exterior slabs.

3.14 FIELD QUALITY CONTROL

- A. Field testing will be performed under provisions of Section 01400.
- B. Maintain records of placed concrete items. Record date, location of pour, quantity, air temperature, and test samples taken.

3.15 PROTECTION (ACI 301, Chapter 12)

- A. Protect all finished work.

- B. Immediately after placement, protect concrete from premature drying, excessively hot or cold temperatures, and mechanical injury.
- C. Maintain concrete with minimal moisture loss at relatively constant temperature for period necessary for hydration of cement and hardening of concrete, at least 7 days, except for high early strength which requires 3 days.
- D. Hot weather curing and cold weather curing procedures must be submitted by the CONTRACTOR for approval.

END OF SECTION 03300

INDEX

DIVISION 13 - SPECIAL CONSTRUCTION

Section 13310 - Geotextile

SECTION 13310

GEOSYNTHETIC FILTER FABRIC

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED

This specification covers the technical requirements for the furnishing and installation of the geosynthetic filter fabric described herein. All materials used and work performed shall meet the requirements of this specification and the Drawings, or the manufacturer's manufacturing and installation procedures, whichever are more stringent.

1.02 REFERENCES

- A. Geosynthetic Research Institute (GRI) standard specifications and guides, latest versions.
- B. The most recent versions of the following American Society for Testing and Materials (ASTM) standards.
 - 1. D3786 Mullen Burst
 - 2. D4354 Standard Practice for Sampling of Geosynthetics for Testing
 - 3. D4355 Standard Test Method for Deterioration of Geotextiles from Exposure to Ultraviolet Light and Water (Xenon-Arc Type Apparatus)
 - 4. D4491 Standard Test Methods for Water Permeability of Geotextiles by Permittivity
 - 5. D4533 Standard Test Method for Trapezoid Tearing Strength of Geotextiles
 - 6. D4632 Standard Test Method for Grab Breaking Load and Elongation of Geotextiles
 - 7. D4751 Standard Test Method for Determining Apparent Opening Size of a Geotextile
 - 8. D4759 Standard Practice for Determining the Specification Conformance of Geosynthetics
 - 9. D4833 Standard Test Method for Index Puncture Resistance of Geotextiles, Geomembranes, and Related Products
 - 10. D4873 Standard Guide for Identification, Storage, and Handling of Geosynthetic Rolls
 - 11. D4884 Standard Test Method for Strength of Sewn or Thermally Bonded Seams of Geotextiles
 - 12. D5199 Standard Test Method for Measuring Nominal Thickness of Geotextiles and Geomembranes
 - 13. D5261 Standard Test Method for Measuring Mass per Unit Area of Geotextiles

1.03 SUBMITTALS

- A. The following submittals shall be furnished by the CONTRACTOR for the work of this Section within 30 days prior to material delivery to the site, and as specified herein:
 - 1. A representative sample of all materials to be used on this Project.
 - 2. A list of similar completed projects in which the proposed materials have been successfully used.
 - 3. Manufacturer's instructions for installation and handling, and material data sheets giving full details of the material physical properties and test methods.
 - 4. Draft warranties and guarantees as described hereinafter.
- B. The following submittals shall be furnished by the CONTRACTOR for the work of this Section within 7 days prior to material delivery to the site, and as specified herein:
 - 1. The manufacturer's data and samples of the geotextile to be used, giving full details of the minimum physical properties and test methods, as specified herein, certified test reports indicating the physical properties of the materials to be used, and roll numbers and identification.
 - 2. The manufacturer's certificate shall state that the finished geotextile meets MARV requirements of this specification as evaluated under the manufacturer's quality control program. A person having legal authority to bind the manufacturer shall attest the certificate.
- C. The following submittals shall be furnished by the CONTRACTOR for the work of this Section prior to the issuance of a certificate of substantial completion for the Project:
 - 1. Signed subgrade Acceptance forms, if applicable.
 - 2. Final warranties and guarantees as described hereinafter.

1.04 WARRANTY AND GUARANTEE

The CONTRACTOR shall provide a written warranty for a minimum 10 years pro-rated relative to materials and 1 year on installation certifying the geotextile materials provided and work performed under this project shall be free from any defects. Said warranty shall apply to normal use and service by the OWNER. Such written warranty shall provide for the repair or replacement of the defect or defective area of lining materials upon written notification and demonstration by the OWNER of the specific non-conformance of the lining material with the project specifications. Such defects or non-conformance shall be repaired or replaced within a reasonable period of time at no cost to the OWNER.

1.05 CONSTRUCTION QUALITY CONTROL

The CONTRACTOR shall have an individual experienced in the installation of geotextile on-site at all times during the installation. The designated individual shall be responsible for ensuring that the geotextile is installed according to this specification and the Drawings. The designated individual shall be subject to approval by the OWNER or CQA Consultant.

1.06 CONSTRUCTION QUALITY ASSURANCE

- A. The installation of the geotextile shall be monitored by the CQA Consultant as outlined in

the CQA Plan.

- B. CONTRACTOR shall be aware of the activities outlined in the CQA Plan and shall account for these CQA activities in the installation schedule.

PART 2 - PRODUCTS

2.01 MATERIALS

- A. All road geotextile filter fabric shall be manufactured of 100 percent polyester or polypropylene. The fabric shall be UV stabilized and is mildew, rot, insect, and rodent resistant, Mirafi 1100N or equivalent. The fabric shall be guaranteed free of any treatment, coating, or deleterious elements, which might significantly alter its physical properties, or its proper functioning.
- B. The geotextile filter fabric properties shall meet the minimum average roll requirements stated in the most recent versions of GRI Test Method GT13(a) (moderate survivability) for geotextile separators.
- C. Manufacturer's Quality Control (MQC) testing (test methods and frequencies) shall be conducted in accordance with the most recent versions of GRI Test Method GT13(a) (moderate survivability) for geotextile separators, or the manufacturer quality control guide, whichever is more stringent.
- D. Other types of geotextile may be considered that differ from the requirements of Section 2.01.A. These must be approved by the ENGINEER in writing prior to any proposing or construction. Any geotextile used must meet the requirements of Section 2.01.C.

2.02 HANDLING OF MATERIALS

- A. Protective Wrapping - All rolls of geotextile, irrespective of their type, must be enclosed in a protective wrapping that is opaque and waterproof. The objective is to prevent any degradation from atmospheric exposure (ultraviolet light, ozone, etc.), moisture uptake (rain, snow), and, to a limited extent, accidental damage. The following important issues shall be considered:
 - 1. The protective wrapping shall be wrapped around (or placed around) the geotextile in the manufacturing facility and shall be included as the final step in the manufacturing process.
 - 2. The packaging shall not interfere with the handling of the rolls either by slings or by the utilization of the central core upon which the geotextile is wound.
 - 3. The protective wrapping shall prevent exposure of the geotextile to ultraviolet light, prevent it from moisture uptake and limit minor damage to the roll.
 - 4. Every roll must be labeled with the manufacturers name, geotextile style and type, lot and roll numbers, and roll dimensions (length, width and gross weight).

B. Shipment

1. Each shipping document shall include a notation certifying that the material is in accordance with the manufacturer's quality control certificates.
2. The method of loading the geotextile rolls, transporting them, and off-loading them at the job site should not cause any damage to the geotextile, its core, nor its protective wrapping.
3. The protective wrapping shall be maintained during periods of shipping and storage.
4. All rolls, where the protective wrapping is damaged or stripped from the rolls, shall be moved to an enclosed facility until its repair can be made to the approval of the CQA Consultant.

C. Storage at the Site

1. Handling of geotextile rolls shall be done in a competent manner such that damage does not occur to the geotextile or to its protective wrapping.
2. The CONTRACTOR shall be responsible for the storage of the geotextile on site in an area that is well drained and remains dry during material storage, and is protected from theft, vandalism, passage of vehicles, etc.
3. The rolls shall be stacked in such a way that cores are not crushed nor is the geotextile damaged.
4. Outdoor storage of rolls should not exceed manufacturer's recommendations, or longer than six months, whichever is less. For storage periods longer than six months a temporary enclosure should be placed over the rolls, or they should be moved within an enclosed facility.
5. Additionally, if any special handling of the geotextile is required, it shall be so marked on the top surface of the geotextile.

PART 3 - EXECUTION

3.01 INSTALLATION

- A. Install geotextile as shown on the Drawings.

3.02 PLACEMENT

- A. The CONTRACTOR shall remove the protective wrappings from the geotextile rolls to be deployed only after the substrate layer, soil, or other geosynthetic have been documented and approved by the CQA Consultant. Items to be considered are the following:
 1. The installer shall take the necessary precautions to protect the underlying layers upon which the geotextile shall be placed. If the substrate is soil, construction equipment can be used, provided that rutting is not created. If the substrate is a geosynthetic material, deployment must be by hand, or by use of low ground contact pressure all-terrain vehicles (ATVs).

2. During placement, care must be taken not to entrap sandbags, stones, moisture, or other materials that could damage a geogrid.
3. On side slopes, the geotextile shall be anchored at the top and then unrolled to keep the geotextile free of wrinkles and folds.
4. The geotextile shall be positioned by hand after being unrolled, to be free of wrinkles.
5. When the geotextile is placed on another geosynthetic, trimming should be performed using only an upward-cutting hook blade.
6. The geotextile shall be weighted with sandbags, to provide resistance against wind uplift.
7. A visual examination of the deployed geotextile shall be carried out to ensure that no potentially harmful objects are present, e.g., stones, sharp objects, small tools, sandbags, etc.

3.03 SEAMING/JOINING REQUIREMENTS

Seaming of geotextile may be performed by either sewing or heat bonding. The overlap shall be a minimum of six (6) inches for each method.

Polymeric thread, with chemical resistance properties equal to or exceeding those of the geotextile, shall be used for all sewing.

3.04 REPAIR PROCEDURES

Holes, or tears, in geotextile made during placement or anytime before backfilling shall be repaired by patching. The following shall be observed:

1. The patch material used for repair of a hole or tear shall be the same type of polymeric material as the damaged geotextile, or as approved by the CQA Consultant.
2. The patch shall extend at least 12 inches beyond any portion of the damaged geotextile.
3. The patch shall be sewn in place by hand or machine, or possibly heat bonded, so as not to accidentally shift out of position or be moved during backfilling or covering operations.

3.05 PROTECTION AND BACKFILLING OR COVERING

- A. If soil is to cover the geotextile, it shall be done such that the geotextile is not shifted from its intended position and underlying materials are not exposed or damaged.
- B. If a geosynthetic is to cover the geotextile, both the underlying geotextile and the newly deployed material shall not be damaged during the process.
- C. The overlying material shall not be deployed such that tensile stress is exerted in the geotextile. On side slopes, this requires soil backfill to proceed from the bottom of the slope upward.

- D. Equipment shall not be driven directly atop the geotextile layer. Placement of the cover material shall occur as soon as practical and shall proceed from the base of the slope upwards. Unless otherwise specified by ENGINEER, all equipment operating on soil material overlying the geotextile layer (minimum 6 inches) shall be a D-5 class low Ground Pressure Dozer or smaller. No traffic by rubber-tired vehicles shall occur on the geotextile without a combined thickness of two (2) feet above the geotextile layer. Turning of all vehicles will be kept to a minimum and the speed of all vehicles will be limited to less than 10 miles per hour.
- E. Soil backfilling or covering by another geosynthetic shall be done within the period stipulated for the particular type of geotextile. Typical time frames for geotextile are within 14 days for polypropylene and 28 days for polyester geotextile.
- F. Anchor trenches must be allowed to drain to prevent ponding and softening of the soils while the trench is open. Anchor trenches shall be backfilled and compacted by the CONTRACTOR. Care shall be taken when backfilling the trenches to prevent damage to the geotextile.

3.06 ACCEPTANCE

- A. The CONTRACTOR shall retain all responsibility for the geotextile in the landfill cell until acceptance by the OWNER.
- B. The geotextile shall be accepted by the OWNER when:
 - 1. The installation is finished;
 - 2. The OWNER and CONTRACTOR have signed a certificate of Substantial Completion, and all conditions identified on the certificate have been met for the OWNER to assume responsibility for the geotextile.

END OF SECTION 13310