



**Capital Projects & Purchasing Department
113 Mable T. Willis Blvd.
Walterboro, SC 29488
843.539.1968**

**BID: CPST-07
COTTAGEVILLE RECREATION AREA PROJECT**

BID DUE: WEDNESDAY, JUNE 7, 2017 @ 2:00pm

MAIL RESPONSE TO:

Capital Projects & Purchasing Department
Attn: Kaye B Syfrett
113 Mable T. Willis Blvd.
Walterboro, SC 29488

DELIVER RESPONSE TO:

Capital Projects & Purchasing Department
Attn: Kaye B Syfrett
113 Mable T. Willis Blvd.
Walterboro, SC 29488

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END OF SECTION

SECTION 2016-1701 Advertisement for Bid

Owner: Colleton County, 109 Benson Street, Walterboro, South Carolina

Sealed Bid: **CPST-07** Construction of the Colleton County Capital Penny Sales Project, Cottageville Recreation Area in Colleton County, South Carolina will be received at the Colleton County Capital Projects and Purchasing Department located at 113 Mable T. Willis Boulevard until **2:00pm, Wednesday, June 7, 2017** and publicly opened and read aloud. The work to be completed as a part of this project consists of providing all required materials, equipment and labor necessary to complete the Construction Services for the Colleton County Capital Penny Sales Project, Cottageville Recreation Area in Colleton County, South Carolina, with the following approximate quantities:

Construction of the new addition of approximately ± 1,653 sf open air pavilion, approximately 1365 linear foot of rubberized walking track and upgrades to the parking area to include paving, landscaping, benches, swings and other items.

The Instructions to Bidders, Bid Form, Contract, Plans, Specifications, Bid Bond, Performance Bond, Payment Bond, and other contract documents may be examined at the following locations:

Colleton County website: colletoncounty.org/bids-and-proposal-requests

Drawings, specifications, and contract documents may be obtained from Colleton County. To view and down load the file information visit <http://www.colletoncounty.org/bids-and-proposal-requests>.

Bidders must deposit security with all bids. Security shall be in the form of a certified check or bid bond made payable to Colleton County, and shall be for an amount equal to not less than five percent (5%) of the amount of the bid. Provisions of the security shall be as described in the Information for Bidders. No bid will be considered unless the bidder is legally qualified under the provisions of the South Carolina Sections 40-11-10 through 40-11-428).

NOTICE TO BIDDERS:

Each bidder shall fully acquaint himself with conditions of this Bid. The failure or omission of a bidder to acquaint him/herself with existing conditions shall in no way relieve him/herself of any obligation with respect to this Bid or to the Contract.

BIDS WILL NOT BE CONSIDERED FROM ANY VENDOR THAT OWES DELINQUENT PROPERTY TAXES TO THE COUNTY OF COLLETON.

NOTICE TO BIDDERS: Each bidder shall fully acquaint him/herself with the conditions relating to the scope and restrictions attending the execution of the work under the conditions of this Bid. All amendments to and interpretations of this solicitation shall be in writing and issued by the Colleton County Capital Projects & Purchasing Department. Colleton County shall not be legally bound by any amendment or interpretation that is not in writing. Award of the project is contingent on funding approval by Colleton County Council.

The Owner reserves the right to waive any informality or to reject any or all bids.

Architect
Brownstone Group, LLC
1310 Lady Street, Suite 204
Columbia, SC 29201

OWNER
Colleton County
109 Benson Street
Walterboro, SC 29488

SECTION 2016-1702 Information for Bidders

ARTICLE 1 - DEFINED TERMS

1.01 Terms used in these Instructions to Bidders have the meanings indicated in the 001, General Conditions. Additional terms used in these Instructions to Bidders have the meanings indicated below:

- A. **Issuing Office** - The office from which the Bidding Documents are to be issued and where the bidding procedures are to be administered.
- B. **Architect** - The person or firm in charge of the project. This person or firm will be selected by the owner and in some instances, the owner will self-perform, acting as the Architect.

ARTICLE 2 - COPIES OF BIDDING DOCUMENTS

- 2.01 Complete sets of the Bidding Documents can be found at <http://www.colletoncounty.org/bids-and-proposal-requests>.
- 2.02 Complete sets of Bidding Documents shall be used in preparing Bids; neither Owner nor Engineer or Architect assumes any responsibility for errors or misinterpretations resulting from the use of incomplete sets of Bidding Documents.
- 2.03 Owner and Engineer or Architect, 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 Bidders must be licensed as a General Contractor in the State of South Carolina and will hold all Trade Contracts and the Building Permit on the project.
- 3.02 To demonstrate Bidder's qualifications to perform the Work, within five (5) days of Owner's request, Bidder shall submit written evidence such as financial data; previous experience, present commitments.

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

- 4.00 **Pre-bid Conference and Site Inspection** a mandatory Pre-bid Conference **will not be required**. The site is open at all times. It is the responsibility of the offerer to inspect the site.
- 4.01 Subsurface and Physical Conditions
 - A. The General Conditions identify:

No Reports of explorations and / or tests of conditions at or contiguous to the Site have been obtained. It is the responsibility of the Offerer to obtain soil compaction reports for any structures to be placed on the site.
- 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 or Architect by owners of such Underground Facilities, including Owner, or others.

4.03 Hazardous Environmental Condition

- A. The General Conditions identify those reports and drawings relating to a Hazardous Environmental Condition identified at the Site, if any, that Engineer or Architect has used in preparing the Bidding Documents.
- B. Copies of reports and drawings referenced in Paragraph 4.03.A are included herein. 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. 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. Bidder shall comply with all applicable Laws and Regulations relative to excavation and utility locates. Construction Coordinator and Owner shall be notified prior to any site visits.

4.06 Reference is made to Article 7 of the General Conditions for 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 contemplated by these Bidding Documents. 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, the other related data identified in the Bidding Documents, and any Addenda.
- b. Visit the Site and become familiar with and satisfy Bidder as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.
- c. Become familiar with and satisfy Bidder as to all federal, state, and local Laws and Regulations that may affect cost, progress, and performance of the Work.
- d. Carefully study all: (1) 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 Paragraph 4.02 of the General Conditions, and (2) reports and drawings of Hazardous Environmental Conditions at the Site which have been identified in Paragraph 4.06 of the General Conditions.
- e. Obtain and carefully study (or accept consequences of not 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 applying 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 price(s) bid 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 Owner written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder discovers in the Bidding Documents and confirm that the written resolution thereof by Owner is acceptable to Bidder.
 - 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.
 - k. No plea of ignorance of conditions that exist or may hereafter exist on the site of the work, or difficulties that may be encountered in the execution of the work, as a result of failure to make necessary investigations and examinations, will be accepted as an excuse for any failure or omission on the part of the Contractor to fulfill in every detail all the requirements of the contract documents and to complete the work for the consideration set forth therein, or as basis for any claim whatsoever.
 - l. Apparent omission of a detailed description concerning any point, shall be regarded as meaning the best commercial practice is to prevail and that only material and workmanship of the finest quality is to be used.
 - m. Bidders may refer to Sections 2-67, 2-73, and 2-74 of Ordinance #2008-09, also known as the Colleton County, South Carolina Purchasing Policy to determine their remedies concerning this competitive process. The failure to be awarded a bid shall not be valid grounds for protest.
 - n. The Bidder further agrees that the performance time specified is a reasonable time, having carefully considered the nature and scope of the project as aforesaid.
- 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 Owner written notice of all conflicts, errors, ambiguities, and discrepancies that Bidder has discovered in the Bidding Documents and the written resolutions thereof by Owner 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 - SITE AND OTHER AREAS

- 5.01 The Site is identified in the Bidding Documents. 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. All additional land 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.

ARTICLE 6 - INTERPRETATIONS AND ADDENDA

- 6.01 All questions about the meaning or intent of the Bidding Documents are to be submitted to Owner in writing and submitted by email to; jstieglitz@colletoncounty.org. Interpretations or clarifications considered necessary by Owner in response to such questions will be issued by Addenda. Questions received less than seven (7) days prior to the date for opening of Bids will not be answered. Only questions answered by Addenda will be binding. Oral and other interpretations or clarifications will be without legal effect.
- 6.02 Addenda may be issued to clarify, correct, or change the Bidding Documents as deemed advisable by the Owner. Addenda will be posted on the Colleton County website. It is the responsibility of the bidder to monitor this web site for addendums. Notice of issued addendum will not be forwarded to bidders.
- 6.03 Division 000 and Division 001 shall have authority over all over documents contained within the project manual. Where duplication of titles, articles, standards, requirements and such are found, division 000 and Division 001 govern.

ARTICLE 7 - BID SECURITY

- 7.01 A Bid must be accompanied by Bid security made payable to Colleton County in an amount of five percent (5%) of Bidder's maximum Bid price and in the form of a certified check, bank money order, 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.
- 7.02 The Bid security of the Successful Bidder will be retained until such Bidder has executed the Contract Documents, furnished the required contract security and met the other conditions of the Notice of Award, whereupon the Bid security will be returned. If the Successful Bidder fails to execute and deliver the Contract Documents and furnish the required contract security within fifteen (15) days after the Notice of Award, Owner may annul the Notice of Award and the Bid security of 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 (7) days after the Effective Date of the Agreement or sixty (60) days after the Bid opening, whereupon Bid security furnished by such Bidders will be returned.
- 7.03 Bid security of other Bidders Whom Owner believes do not have a reasonable chance of receiving the award will be returned within fourteen (14) days after the Bid opening.

ARTICLE 8 - CONTRACT TIMES

8.01 Construction of the approximately ± 1,653 sf open air pavilion, approximately 1365 linear foot of rubberized walking track and upgrades to the parking area to include paving, landscaping, benches, swings and other items is to be completed within one hundred twenty (120) calendar days after the Notice to Proceed has been issued.

ARTICLE 9 - LIQUIDATED DAMAGES

- 9.01 Document Execution

- A. The successful Bidder, upon failure or refusal to execute and deliver the contract and bonds within ten (10) days after they have received the notice of the acceptance of their bid, shall forfeit to the Owner, as liquidated damages, the security deposited with the bid.

9.02 Project Execution

- A. Bidder must agree to commence work on or before a date to be specified in a written "Notice to Proceed" of the Owner and to fully complete the project within the dates specified in the Bid Form, Article 6; Paragraph 6.01. Bidder must agree also to pay as liquidated damages the sum as indicated in the Bid Form, Article 6; Paragraph 6.02 for each consecutive calendar day thereafter as hereinafter provided in the General Conditions.

ARTICLE 10 - SUBSTITUTE AND "OR-EQUAL" ITEMS

- 10.01 The Contract, if awarded, will be on the basis of materials and equipment specified or described in the Bidding Documents. 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 the Construction Coordinator, application for such acceptance will not be considered by the Owner until after the Effective Date of the Agreement.
- a) The use of a "**Brand Name Only**" specification is for the purpose of describing the sole item that will satisfy the county's requirements. Bids offering alternate products will be declared non-responsive.
 - (b) The use of a "**Brand Name or Equal**" specification is for the purpose of describing the standard of quality, performance and characteristics desired and is not intended to limit or restrict competition. An item shall be considered to be substantially equivalent, or "equal" to the specified brand in the opinion of the Purchasing Director, the County can reasonably anticipate sufficiently similar quality, capacity, durability, performance, utility and productivity as provided by the specified brand.

ARTICLE 11 - SUBCONTRACTORS, SUPPLIERS, AND OTHERS

- 11.01 The General Conditions require the identity of certain Subcontractors, Suppliers, individuals, or entities to be submitted to Owner with the bid packet. The bidder shall 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 Construction Coordinator, 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, in which case apparent Successful Bidder shall submit an acceptable substitute, Bidder's Bid price will be increased (or decreased) by the difference in cost occasioned by such substitution, and Owner may consider such price adjustment in evaluating Bids and making the Contract award.
- 11.02 If apparent Successful Bidder declines to make any such substitution, Owner may award the Contract to the next lowest Bidder that proposes to use acceptable Subcontractors, Suppliers, individuals, or entities. Declining to make requested substitutions will not constitute grounds for forfeiture of the Bid security of any Bidder. Any Subcontractor, Supplier, individual, or entity so listed and against which Owner or Construction Coordinator makes no written objection prior to the giving of the Notice of Award will be deemed acceptable to Owner and Construction Coordinator subject to revocation of such acceptance after the Effective Date of the Agreement as provided in Paragraph 6.06 of the General Conditions.
- 11.03 Contractor shall not be required to employ any Subcontractor, Supplier, individual, or entity against whom Contractor has reasonable objection.

- 11.04 Each bidder shall fully acquaint himself with conditions of this Bid. The failure or omission of a bidder to acquaint himself with existing conditions shall in no way relieve him of any obligation with respect to this Bid or to the Contract.

ARTICLE 12 - PREPARATION OF BID

- 12.01 Should a bidder need any reasonable accommodations for any type of disability in order to participate in this procurement, you are asked to contact the Colleton County Capital Projects & Purchasing Department.
- 12.02 The Bid Form is included with the Bidding Documents. Additional copies may be obtained from Owners Web Site.
- 12.03 All blanks on the Bid Form shall be completed by printing in ink or by typewriter and the Bid signed in ink. Erasures or alterations shall be initialed in ink by the person signing the Bid Form. A Bid price shall be indicated for each unit price item listed therein, or the words "No Bid," "No Change," or "Not Applicable" entered.
- 12.04 A Bid by a corporation shall be executed in the corporate name by the president, 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.
- 12.05 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.
- 12.06 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 shall be shown below the signature.
- 12.07 A Bid by an individual shall show the Bidder's name and official address.
- 12.08 A Bid by a joint venture shall be executed by each joint venture in the manner indicated on the Bid Form. The official address of the joint venture shall be shown below the signature.
- 12.09 All names shall be typed or printed in ink below the signatures.
- 12.10 The Bid shall contain an acknowledgment of receipt of all Addenda, the numbers of which shall be filled in on the Bid Form.
- 12.11 The address and telephone number for communications regarding the Bid shall be shown.
- 12.12 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, if any, shall also be shown on the Bid Form.
- 12.13 Any reports, studies, photographs, negatives or other documents prepared by vendor in the performance of its obligations shall be the exclusive property of the procurer and all such material shall be remitted to the procurer by the vendor upon completion, termination or cancellation of this order. Vendor shall not use, willingly allow or cause to have such material used for any purpose other than performance of its obligations under this order without the prior written consent of the procurer.
- 12.14 The contractor will take affirmative action in complying with all Federal and State requirements concerning fair employment and employment of the handicapped, and concerning the treatment of all employees, without regard or discrimination by reason of age, race, color, religion, sex,

national origin or physical handicap. The following are incorporated herein by reference: 41 C.F.R. 60-1.4, 60-250.4 and 60-741.4.

- 12.15 All construction contracts over \$2,000.00 must include a provision for compliance with the Copeland "Anti-Kickback" Act (18 U.S.C. 874) as supplemented in Department of Labor regulations (29 CFR Part 3). This act provides that each Contractor shall be prohibited from inducing, by any means, persons employed in the construction, completion, or repaid of public work to give up any part of their compensation.
- 12.16 The contractor certifies that the vendor(s) will provide a "drug-free workplace" as that term is defined in Section 44-107-30 of the Code of Laws of South Carolina, 1976, as amended, by the complying with the requirements set forth in title 44, Chapter 107
- 12.17 The federally-assisted construction contractor certifies that he will not maintain or provide, for his employees, segregated facilities at any of his establishments and that he will not permit his employees to perform their services at any location under his control where segregated facilities are maintained. The federally assisted construction contractor agrees that a breach of this certification is a violation of the Equal Opportunity Clause in this Contract. As used in this certification, the term "segregated facilities" means any waiting rooms, work areas, restrooms, and washrooms, restaurants and other eating areas, time clocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees which are segregated on the basis of race, color, religion, or national origin because of habit, local custom, or any other reason. The federally assisted construction contractor agrees that (except where he has obtained identical certifications from proposed subcontractors for specific time periods) he will obtain identical certifications from proposed subcontractors prior to the award of subcontracts exceeding \$10,000 which are not exempt from the provisions of the Equal Opportunity Clause and that he will retain such certifications in his files.
- 12.18 By signing this bid or proposal, Contractor certifies that it will (a) comply with the applicable requirements of Title 8, Chapter 14, and (b) include in their contracts with the sub-subcontractor's language requiring the sub-subcontractors to comply with the applicable requirements of Title 8, Chapter 14. (An overview is available at www.procurement.sc.gov)
- 12.19 Bidders must clearly mark as "confidential" each part of their bid which they consider to be proprietary information that could be exempt from disclosure under section 30-4-40, Code of Laws of South Carolina 1976, as amended (Freedom of Information Act). If any part is designated as confidential, there must be attached to that part an explanation of how this information fits within one or more categories listed in section 30-4-40. The County reserves the right to determine whether this information should be exempt from disclosure and no legal action may be brought against the County or its agents for its determination in this regard.
- 12.20 Nothing herein is intended to exclude any responsible vendor, his product or service or in any way restrain or restrict competition. On the contrary, all responsible vendors are encouraged to bid and their bids are solicited.
- 12.21 The successful Bidder must be responsible for obtaining all necessary city, county, and state permits/licenses and must comply with all State and local codes and ordinances. Copies of such permits/licenses shall be made available to Colleton County upon request. Work within the Walterboro City Limits may require a City Business License.
- 12.22 This Agreement shall be governed by and construed in accordance with the laws of the State of South Carolina, U.S.A.
- 12.23 All claims, disputes and other matters in question between parties arising out of, or relating to, this Agreement, or the breach thereof, shall be decided in the Circuit Court of the Fourteenth Judicial Circuit in Colleton County, South Carolina. By executing this Agreement, all parties specifically consent to venue and jurisdiction in Colleton County, South Carolina and waive any right to contest jurisdiction and venue in said Court.

- 12.24 The County reserves the right to reject all or any part of any bid, waive informalities and award the contract to the lowest responsive and responsible bidder to best serve the interest of the County.
- 12.25 By submitting a bid, the Bidder certifies to the best of its knowledge and belief, that it and its principals, sub-contractors and assigns are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal, State or local department or agency. A copy of the County's debarment procedure in accordance with Section 2-68 of Ordinance #2008-09, also known as the Colleton County, South Carolina Purchasing Policy is available upon request.
- 12.26 Federal guidelines require grant recipients to obtain sufficient assurance that bidders are not suspended or debarred from participating in federal programs when contracts exceed \$25,000. By signing the bid submittal form you verify that no party to this agreement is excluded from receiving Federal contracts, certain subcontracts, and certain Federal financial and nonfinancial assistance and benefits, pursuant to the provisions of 31 U.S.C. 6101, note, E.O. 12549, E.O. 12689, 48 CFR 9.404, and each agency's codification of the Common Rule for Non-procurement suspension and debarment. **[See <https://www.epls.gov/> for additional information.]**

ARTICLE 13 - BASIS OF BID; COMPARISON OF BIDS

- 13.01 Unit Price
- A. Bidders shall submit a Bid on a unit price basis for each item of Work listed in the Bid schedule.
 - B. The total of all estimated prices will be the sum of the products of the estimated quantity of each item and the corresponding unit price. The final quantities and Contract Price will be determined in accordance with Paragraph 11.03 of the General Conditions.
 - C. Discrepancies between the multiplication of units of Work and unit prices will be resolved in favor of the unit prices. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum. Discrepancies between words and figures will be resolved in favor of the words.
- 13.02 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.
- 13.03 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.
- 13.04 The contents of the successful IFB/RFP are included as if fully reproduced herein. Therefore, the selected contractor must be prepared to be bound by his/her proposal as submitted.

ARTICLE 14 - SUBMITTAL OF BID

- 14.01 With each copy of the Bidding Documents, a Bidder shall furnish **one (1) original separate unbound copy of the Bid Documents, to include all forms listed in 2016-1714**. Three (3) additional bound copies are to be submitted with the original. The unbound copy of the Bid Form is to be completed and submitted with the Bid security.
- 14.02 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, Contractor's License Number, and shall be accompanied by the Bid security and other required documents. If a Bid is sent by mail or other

delivery system, the sealed envelope containing the Bid shall be enclosed in a separate envelope plainly marked on the outside with the notation "CPST-07". A mailed Bid shall be addressed to:

Colleton County
Kaye B. Syfrett, Procurement Manager
113 Mable T. Willis Boulevard
Walterboro, SC 29488

- 14.03 In the case of Inclement Weather/Closure of Colleton County offices; If the Colleton County office is closed for business at the time scheduled for bid opening, for whatever reason, sealed bids will be accepted and opened on the next scheduled business day, at the originally scheduled time.
- 14.04 The Bid shall be submitted on the Bid Form provided; no other form is acceptable.
- 14.05 The successful Bidder will be required to provide verified breakdown of costs of all services and work in a manner acceptable to the Owner.
- 14.06 All blanks on the Bid Form shall be filled in, either typed or printed in ink. The person signing the bid shall initial all corrections or erasures.
- 14.07 Where so indicated on the Bid Form, the Bid Sum shall be expressed in both words and figures; in case of a discrepancy between the two, the Sums expressed in words shall govern.
- 14.08 Bid unit price on quantity specified - extend and show total. In case of errors in extension, unit prices shall govern. Unit pricing shall include all applicable overhead, administrative, profit and other associated cost.
- 14.09 Bidder shall quote all Alternates in the Bidding Documents. If Bidder fails to bid on all Alternates, then his/her Bid may be considered irregular, non-responsive and may be disqualified.
- 14.10 Bids containing qualifications will be considered irregular, non-responsive and may be disqualified.
- 14.11 A Bid Form submitted by a partnership shall list the names of all partners and shall be signed in the partnership name by one of the members of the partnership who is authorized to sign for the partnership.
- 14.12 A Bid Form submitted by a corporation shall be executed in the legal name of the corporation, followed by the state of incorporation and signed by the President or Vice President or another authorized officer. The name of each person signing the Bid Form shall be typed or printed below the signature.
- 14.13 When the person signing for a corporation is other than the President or Vice President and when requested by the Owner, a resolution or other satisfactory evidence of the authority of the officer signing in behalf of the corporation shall be furnished for the Owner's records. The name of each person signing the Bid Form shall be typed or printed below the signature.

ARTICLE 15 - MODIFICATION OF BID

- 15.01 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.

ARTICLE 16 - OPENING OF BIDS

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

a Bid Tabulation and Bid Comparison. The Bid Opening Minutes will also be provided to all bidders in an email.

ARTICLE 17 - BIDS TO REMAIN SUBJECT TO ACCEPTANCE

17.01 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 18 - EVALUATION OF BIDS AND AWARD OF CONTRACT

18.01 Owner reserves the right to reject any or all Bids, including without limitation, nonconforming, non-responsive, 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 not be 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.

18.02 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.

18.03 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.

18.04 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 General Conditions.

18.05 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.

18.06 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.

18.07 The Owner reserves the right not to Award the Project.

18.08 The Owner shall have the right to accept Alternates in any order or combination, and to determine the low bidder on the basis of the sum of the Base Bid and alternates accepted.

ARTICLE 19 - CONTRACT SECURITY AND INSURANCE

19.01 Article 5 of the General 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 shall be accompanied by such bonds.

ARTICLE 20 - SIGNING OF AGREEMENT

20.01 When Owner gives a Notice of Award to the Successful Bidder, it shall be accompanied by the required number of unsigned counterparts of the Agreement with the other Contract Documents which are identified in the Agreement as attached thereto. Within seven (7) days thereafter, Successful Bidder shall sign and deliver the required number of counterparts of the Agreement and attached documents to Owner. Within seven (7) days thereafter, Owner shall deliver one (1) fully

signed counterpart to Successful Bidder with a complete set of the Drawings with appropriate identification.

ARTICLE 21 - RETAINAGE

21.01 Retainage from progress payments to the Contractor shall be **ten percent (10%)** of each payment for work completed and stored materials on site.

ARTICLE 22 – INSURANCE

22.01 The successful bidder shall procure, maintain, and provide proof of, insurance coverage for injuries to persons and/or property damage as may arise from or in conjunction with, the work performed on behalf of the County by the bidder, his agents, representatives, employees or subcontractors. Proof of coverage as contained herein shall be submitted fifteen (15) days prior to the commencement of work and such coverage shall be maintained by the bidder for the duration of the contract period; for occurrence policies.

a. General Liability

Coverage shall be as broad as: Comprehensive General Liability endorsed to include Broad Form, Commercial General Liability form including Products/Completed Operations.

Minimum Limits

General Liability:

\$2,000,000 General Aggregate

\$2,000,000 Products & Completed Operations Aggregate

\$1,000,000 Personal and Advertising Injury

\$1,000,000 Each Occurrence (Bodily Injury and Property Damage)

\$50,000 Fire Damage Limit

\$5,000 Medical Expense Limit

b. Automobile Liability

Coverage sufficient to cover all vehicles owned, used, or hired by the bidder, his agents, representatives, employees or subcontractors.

Minimum Limits

Automobile Liability:

\$1,000,000 Combined Single Limit

\$1,000,000 Each Occurrence

Limit \$5,000 Medical Expense

c. Workers' Compensation

Limits as required by the Workers' Compensation Act of SC. Employers

Liability, \$1,000,000.

d. Owners' & Contractors' Protective Liability

Policy will be in name of Colleton County.

Minimum limits required are \$1,000,000.

e. Excess or Umbrella Liability

General Aggregate \$2,000,000

Each Occurrence \$2,000,000

f. Contractual Liability

Bodily Injury:

Each Accident

\$2,000,000

Annual Aggregate

\$2,000,000

Property Damage:	
Each Accident	\$2,000,000
Annual Aggregate	\$2,000,000

g. Coverage Provisions

1. All deductibles or self-insured retention shall appear on the certificate(s).
2. The County of Colleton, its officers/ officials, employees, agents and volunteers shall be added as "additional insured" as their interest's may appear. This provision does not apply to Professional Liability or Workers' Compensation/ Employers' Liability.
3. The bidder's insurance shall be primary over any applicable insurance or self-insurance maintained by Colleton County.
4. Shall provide 30 days' written notice to Colleton County before any cancellation, suspension, or void of coverage in whole or part, where such provision is reasonable.
5. All coverage for subcontractors of the bidder shall be subject to all of the requirements stated herein.
6. All deductibles or self-insured retention shall appear on the certificate(s) and shall be subject to approval by the County. At the option of Colleton County, either; the insurer shall reduce or eliminate such deductible or self-insured retention; or the bidder shall be required to procure a bond guaranteeing payment of losses and related claims expenses.
7. Failure to comply with any reporting provisions of the policy(s) shall not affect coverage provided Colleton County, its officers/officials, agents, employees and volunteers.
8. The insurer shall agree to waive all rights of subrogation against Colleton County, its' officers/officials, agents, employees or volunteers for any act, omission or condition of premises which the parties may be held liable by reason of negligence.
9. The bidder shall furnish Colleton County certificates of insurance including endorsement affecting coverage. The certificates are to be signed by a person authorized by the insurance company(s) to bind coverage on its' behalf, if executed by a broker, notarized copy of authorization to bind, or certify coverage must be attached.
10. All insurance shall be placed with insurers maintaining an A.M. Best rating of no less than an A: VII. If A.M. Best rating is less than A: VII, approval must be received from Colleton County's Risk Officer.

22.02 Colleton County, SC will require each contractor and service provider to maintain on file with the Procurement Manager, a current Certificate of Insurance showing limits as required by the Workers' Compensation Act of SC:

Employers Liability, \$1,000,000.

The law also recognizes "statutory employees." These are employees who work for a subcontractor who may be working for a business or another contractor. Employers should inquire whether or not a subcontractor working for them has workers' compensation insurance, regardless of the number of employees employed by the subcontractor. If the subcontractor does not, the subcontractor's injured employees would be covered under

the employer's workers' compensation insurance. If the subcontractor does not carry workers' compensation insurance, then the owner or the principal contractor would be liable just as if the subcontractor's employee was one of their employees. For answers to additional questions, visit the SC Worker's Compensation Commission website at: <http://www.wcc.state.sc.us/Frequently%20Asked%20Questions/FAQ.htm>

- 22.03 Contractor shall provide and maintain, during the progress of the work and until execution of the Certificate of Contract Completion, a *Builder's Risk Insurance policy* to cover all work in the course of construction including false work, temporary buildings, scaffolding, and materials used in the construction process (including materials designated for the project but stored off site or in transit). The coverage shall equal the total completed value of the work and shall provide recovery at replacement cost.
- a) Such insurance shall be on a special cause of loss form, providing coverage on an open perils basis insuring against the direct physical loss of or damage to covered property, including but not limited to theft, vandalism, malicious mischief, earthquake, tornado, lightning, explosion, breakage of glass, collapse, water damage, and testing/startup.
 - b) Coverage shall include coverage for "soft costs" (costs other than replacement of building materials) including, but not limited to, the reasonable extra costs of the architect/engineer and reasonable Contractor extension or acceleration costs. This coverage shall also include the reasonable extra costs of expediting temporary and permanent repairs to, or permanent replacement of, damaged property. This shall include overtime wages and the extra cost of express or other means for rapidly transporting materials and supplies necessary to the repair or replacement.
 - c) The policy shall specifically permit and allow for partial occupancy by the owner prior to execution of the final Certification of Contract Completion, and coverage shall remain in effect until all punch list items are completed.
 - d) The Builder's Risk deductible may not exceed \$5,000. The Contractor or subcontractor experiencing any loss claimed under the Builder's Risk policy shall be responsible for that loss up to the amount of the deductible.
 - e) If Contractor is involved solely in the installation of material and equipment and not in New building construction, the Contractor shall provide an Installation Floater policy in lieu of a Builder's Risk policy. The policy must comply with the provisions of this paragraph.

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SECTION 2016-1703 BOND FORMS

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

BIDDER (Name and Address): _____

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

OWNER (Name and Address): Colleton County
109 Benson Street
Walterboro, SC 29488

Bid Number: **CPST-07**

Bid Due Date: **Wednesday, June 7, 2017 at 2:00PM**

Project (Brief Description Including Location): **Construction of the Colleton County Capital Penny Sales Project, Cottageville Recreation Area in Colleton County, South Carolina**

Bond Number: _____

Date (Not later than Bid due date): _____

Penal sum _____ (Words) _____ (Figures)

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

BIDDER

SURETY

(Seal)

(Seal)

Bidder's Name and Corporate 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: Above addresses are to be used for giving required notice.

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. Payment of the penal sum is the extent of Surety's liability.
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 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 of 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.

PERFORMANCE BOND

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

CONTRACTOR: _____ SURETY: _____

OWNER: Colleton County
109 Benson Street
Walterboro, SC 29488

CONTRACT
Date: _____

Amount: _____

Description (Name and Location): **Construction of the Colleton County Capital Penny Sales Project,
Cottageville Recreation Area in Colleton County, South Carolina**

BOND
Bond Number: _____
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
Company: _____

Signature: _____ (Seal)
Name and Title:

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

CONTRACTOR AS PRINCIPAL
Company: _____

Signature: _____ (Seal)
Name and Title:

SURETY

(Seal)
Surety's Name and Corporate Seal

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

Attest: _____
Signature and Title

SURETY

(Seal)
Surety's Name and Corporate Seal

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

Attest: _____
Signature and Title:

1. Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to Owner for the performance of the Contract, which is incorporated herein by reference.
2. If Contractor performs the Contract, Surety and 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, Surety's obligation under this Bond shall arise after:
 - 3.1. Owner has notified Contractor and Surety, at the addresses described in Paragraph 10 below, that Owner is considering declaring a Contractor Default and has requested and attempted to arrange a conference with Contractor and Surety to be held not later than 15 days after receipt of such notice to discuss methods of performing the Contract. If Owner, Contractor and Surety agree, Contractor shall be allowed a reasonable time to perform the Contract, but such an agreement shall not waive Owner's right, if any, subsequently to declare a Contractor Default; and
 - 3.2. Owner has declared a Contractor Default and formally terminated Contractor's right to complete the Contract. Such Contractor Default shall not be declared earlier than 20 days after Contractor and Surety have received notice as provided in Paragraph 3.1; and
 - 3.3. Owner has agreed to pay the Balance of the Contract Price to:
 1. Surety in accordance with the terms of the Contract;
 2. Another contractor selected pursuant to Paragraph 4.3 to perform the Contract.
4. When Owner has satisfied the conditions of Paragraph 3, Surety shall promptly and at Surety's expense take one of the following actions:
 - 4.1. Arrange for Contractor, with consent of 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 Owner for a contract for performance and completion of the Contract, arrange for a contract to be prepared for execution by Owner and Contractor selected with 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 Owner the amount of damages as described in Paragraph 6 in excess of the Balance of the Contract Price incurred by Owner resulting from 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:
 1. After investigation, determine the amount for which it may be liable to Owner and, as soon as practicable after the amount is determined, tender payment therefor to Owner; or
 2. Deny liability in whole or in part and notify Owner citing reasons therefor.
5. If Surety does not proceed as provided in Paragraph 4 with reasonable promptness, Surety shall be deemed to be in default on this Bond 15 days after receipt of an additional written notice from Owner to Surety demanding that Surety perform its obligations under this Bond, and Owner shall be entitled to enforce any remedy available to Owner. If Surety proceeds as provided in Paragraph 4.4, and Owner refuses the payment tendered or Surety has denied liability, in whole or in part, without further notice Owner shall be entitled to enforce any remedy available to Owner.
6. After Owner, has terminated Contractor's right to complete the Contract, and if Surety elects to act under Paragraph 4.1, 4.2, or 4.3 above, then the responsibilities of Surety to Owner shall not be greater than those of Contractor under the Contract, and the responsibilities of Owner to Surety shall not be greater than those of Owner under the Contract. To a limit of the amount of this Bond, but subject to commitment by Owner of the Balance of the Contract Price to mitigation of costs and damages on the Contract, Surety is obligated without duplication for:
 - 6.1. The responsibilities of Contractor for correction of defective Work and completion of the Contract;
 - 6.2. Additional legal, design professional, and delay costs resulting from Contractor's Default, and resulting from the actions or failure to act of 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 Contractor.
7. Surety shall not be liable to Owner or others for obligations of 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 Owner or its heirs, executors, administrators, or successors.
8. Surety hereby waives notice of any change, including changes of time, to 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 Contractor ceased working or within two years after 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 Surety, Owner, or 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 requirement in the location where the Contract was to be performed, any provision in this Bond conflicting with said statutory requirement shall be deemed deleted here from and provisions conforming to such statutory 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 Owner to Contractor under the Contract after all proper adjustments have been made, including allowance to Contractor of any amounts received or to be received by Owner in settlement of insurance or other Claims for damages to which Contractor is entitled, reduced by all valid and proper payments made to or on behalf of Contractor under the Contract.
 - 12.2 Contract: The agreement between Owner and Contractor identified on the signature page, including all Contract Documents and changes thereto.
 - 12.3 Contractor Default: Failure of 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 Owner, which has neither been remedied nor waived, to pay Contractor as required by the Contract or to perform and complete or comply with the other terms thereof.

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: Colleton County
109 Benson Street
Walterboro, SC 29488

CONTRACT

Date: _____

Amount: _____

Description (Name and Location): **Construction of the Colleton County Capital Penny Sales Project,
Cottageville Recreation Area in Colleton County, South Carolina**

BOND

Bond Number: _____

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:

Signature: _____ (Seal)
Name and Title:

Surety's Name and Corporate Seal (Seal)

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

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

Attest: _____
Signature and Title

CONTRACTOR AS PRINCIPAL

SURETY

Company:

Signature: _____ (Seal)
Name and Title:

Surety's Name and Corporate Seal (Seal)

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

Attest: _____

1. Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to Owner to pay for labor, materials, and equipment furnished by Claimants for use in the performance of the Contract, which is incorporated herein by reference.
2. With respect to Owner, this obligation shall be null and void if Contractor:
 - 2.1. Promptly makes payment, directly or indirectly, for all sums due Claimants, and
 - 2.2. Defends, indemnifies, and holds harmless Owner from all claims, demands, liens, or suits alleging non-payment by Contractor by any person or entity who furnished labor, materials, or equipment for use in the performance of the Contract, provided Owner has promptly notified Contractor and 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 Contractor and Surety, and provided there is no Owner Default.
3. With respect to Claimants, this obligation shall be null and void if Contractor promptly makes payment, directly or indirectly, for all sums due.
4. Surety shall have no obligation to Claimants under this Bond until:
 - 4.1. Claimants who are employed by or have a direct contract with Contractor have given notice to Surety (at the addresses described in Paragraph 12) and sent a copy, or notice thereof, to 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 Contractor:
 1. Have furnished written notice to Contractor and sent a copy, or notice thereof, to 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 or equipment 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 Contractor, or not received within 30 days of furnishing the above notice any communication from Contractor by which 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 Surety and sent a copy, or notice thereof, to Owner, stating that a claim is being made under this Bond and enclosing a copy of the previous written notice furnished to Contractor.
 5. If a notice by a Claimant required by Paragraph 4 is provided by Owner to Contractor or to Surety, that is sufficient compliance.
 6. When a Claimant has satisfied the conditions of Paragraph 4, the Surety shall promptly and at Surety's expense take the following actions:
 - 6.1. Send an answer to that Claimant, with a copy to 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. 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 Surety.
8. Amounts owed by Owner to Contractor under the Contract shall be used for the performance of the Contract and to satisfy claims, if any, under any performance bond. By Contractor furnishing and Owner accepting this Bond, they agree that all funds earned by Contractor in the performance of the Contract are dedicated to satisfy obligations of Contractor and Surety under this Bond, subject to Owner's priority to use the funds for the completion of the Work.
9. Surety shall not be liable to Owner, Claimants, or others for obligations of Contractor that are unrelated to the Contract. 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. 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 Surety, Owner, or Contractor shall be mailed or delivered to the addresses shown on the signature page. Actual receipt of notice by Surety, Owner, or 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 requirement in the location where the Contract was to be performed, any provision in this Bond conflicting with said statutory requirement shall be deemed deleted here from and provisions conforming to such statutory 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, 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 Contractor, or with a first-tier subcontractor of 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 Contractor and 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 Owner and Contractor identified on the signature page, including all Contract Documents and changes thereto.
 - 15.3. Owner Default: Failure of Owner, which has neither been remedied nor waived, to pay Contractor as required by the Contract or to perform and complete or comply with the other terms thereof.

SECTION 2016-1704 Contract
SECTION 2016-1705 – CONTRA

THIS AGREEMENT is by and between Colleton County, 109 Benson Street,
Walterboro, South Carolina

(hereinafter called "Owner") and _____

doing business as an **individual/a partnership/a corporation/a joint venture** (strike out inapplicable terms), with its primary office in the City of _____, County of _____, State of _____.

Owner and Contractor, in consideration of the mutual covenants set forth herein, 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:

Construction of the new addition approximately ± 1,653 sf open air pavilion, approximately 1365 linear foot of rubberized walking track and upgrades to the parking area to include paving, landscaping, benches, swings and other items.

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:

Construction of the new addition approximately ± 1,653 sf open air pavilion, approximately 1365 linear foot of rubberized walking track and upgrades to the parking area to include paving, landscaping, benches, swings and other items.

ARTICLE 3 - DESIGN

3.01 The Project has been designed by: Brownstone Group, LLC who is to act as the Architect of record.

ARTICLE 4 - CONTRACT TIMES

4.01 Time of the Essence

A. All time limits for Milestones for final payment as stated in the Contract Documents are of the essence of the Contract.

4.02 Dates for Substantial Completion and Final Payment

Construction of the new addition approximately ± 1,653 sf open air pavilion, approximately 1365 linear foot of rubberized walking track and upgrades to the parking area to include paving, landscaping, benches, swings and other items. One hundred twenty (120) days is allotted for construction of the project from the official notice to proceed.

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 proceeding the actual loss suffered by Owner if the Work is not completed on time. Accordingly, instead of requiring any such proof, Owner and Contractor agree that as liquidated damages for delay (but not as a penalty), Contractor shall pay Owner \$500 for each day that expires after the time specified in Paragraph 4.02 for completion and readiness for final payment until the Work is completed and ready for final payment.

ARTICLE 5 - CONTRACT PRICE

5.01 Owner shall pay Contractor for completion of the Work in accordance with the Contract Documents an amount in current funds equal to the sum of the amounts determined pursuant to Paragraphs 5.01.A below:

- A. 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 estimated quantity of that item as indicated in the Bid Form attached hereto as part of these Contract Documents.

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 the Construction Coordinator 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 on or about the 15th day of each month during performance of the Work as provided in Paragraphs 6.02.A.1 and 6.02.A.2 below. All such payments will be measured by the schedule of values established as provided 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 Requirements:
 - 1. Prior to Substantial Completion, progress payments will be made in an amount equal to the percentage indicated below but, in each case, less the aggregate of payments previously made and less such amounts as the Construction Coordinator may determine or Owner may withhold, including but not limited to liquidated damages, in accordance with Paragraph 14.02 of the General Conditions:
 - a. **90%** of Work completed (with the balance being Retainage).
 - b. **90%** of cost of materials and equipment not incorporated in the Work (with the balance being Retainage).
 - 2. Upon Substantial Completion, Owner shall pay an amount sufficient to increase total payments to Contractor to **90%** of the Work completed, less such amounts as the Construction Coordinator shall determine in accordance with Paragraph 14.02.B.5 of the General Conditions and less **10%** of the Construction Coordinator 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 the Construction Coordinator as provided in said Paragraph 14.07.

ARTICLE 7 – CONTRACTOR’S REPRESENTATIONS

- 7.01 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 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 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 Paragraph 4.06 of the General Conditions.
 - E. Contractor has obtained and carefully studied (or assumes responsibility for doing so) all 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 any specific means, methods, techniques, sequences, and procedures of construction expressly required by the Bidding Documents, 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 the Owner written notice of all conflicts, errors, ambiguities, or discrepancies that Contractor has discovered in the Contract Documents, and the written resolution thereof by the Owner 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 8 - CONTRACT DOCUMENTS

8.01 A. The Contract Documents shall consist of all sections in the following divisions;

DIVISION 000 --BIDDING AND CONTRACT REQUIREMENTS
DIVISION 001 --GENERAL CONDITIONS
DIVISION 01 ---GENERAL REQUIREMENTS
DIVISION 02 -- SITE CONSTRUCTION
DIVISION 03 -- -CONCRETE
DIVISION 04 -- -MASONRY
DIVISION 05 -- -METALS
DIVISION 06 -- -WOOD & PLASTICS
DIVISION 07 --THERMAL & MOISTURE PROTECTION
DIVISION 08 -- DOORS & WINDOWS
DIVISION 09 -- FINISHES
DIVISION 10 -- SPECIALTIES
DIVISION 11 -- SPECIAL EQUIPMENT
DIVISION 15 -- MECHANICAL
DIVISION 16 -- ELECTRICAL

All information contained within these Divisions and the requirements thereof are of the sole responsibility of the bidder.

- B. The documents listed in Paragraph 9.01.A are attached to this Agreement (except as expressly noted otherwise above).
- C. There are no Contract Documents other than those listed above in this Article 8.
- D. The Contract Documents may only be amended, modified, or supplemented as provided in Paragraph 3.04 of the General Conditions.

ARTICLE 9 - MISCELLANEOUS

9.01 Terms

- A. Terms used in this Agreement will have the meanings stated in the 001, General Conditions.

9.02 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.

9.03 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.

9.04 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.

9.05 Waiver or Forbearance

Any delay or failure of Colleton County to insist upon strict performance of any obligation under this Agreement or to exercise any right or remedy provided under this Agreement shall not be a waiver of Colleton County's right to demand strict compliance, irrespective of the number or duration of any delay(s) or failure(s). No term or condition imposed on Contractor under this Agreement shall be waived and no breach by Contractor shall be excused unless that waiver or excuse of a breach has been put in writing and signed by both parties. No waiver in any instance of any right or remedy shall constitute waiver of any other right or remedy under this Agreement. No consent to or forbearance of any breach or substandard performance of any obligation under this Agreement shall constitute consent to modification or reduction of the other obligations or forbearance of any other breach.

9.06 Subject to the provisions below, the contract may be terminated by the County upon fifteen (15) days advance written notice to the other party; but if any work or service hereunder is in progress, but not completed as of the date of termination, then this contract may be extended upon written approval of the County until said work or services are completed and accepted.

a. Termination for Convenience

In the event that this contract is terminated or canceled upon request and for the convenience of the County, without the required fifteen (15) days advance written notice, then the County shall negotiate reasonable termination costs, if applicable.

b. Termination for Cause

Termination by the County for cause, default or negligence on the part of the contractor shall be excluded from the foregoing provision; termination costs, if any, shall not apply. The fifteen (15) days advance notice requirement is waived in the event of Termination for Cause.

c. Non-Appropriation:

It is understood and agreed by the parties that in the event funds are not appropriated in the current fiscal year or any subsequent fiscal years, this contract will become null and void and the County will only be required to pay for services completed to the satisfaction of the County.

Remainder of this page intentionally left blank

IN WITNESS, WHEREOF, Owner and Contractor have signed this Agreement. One counterpart each has been delivered to Owner, Contractor, Construction Coordinator and provided to the Contractor for his Bonding Agency. 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 this _____ day of _____, 2017 (which is the Effective Date of the Agreement).

OWNER:

CONTRACTOR:

Colleton County

By: _____

J. Kevin Griffin

Title: **County Administrator**

[CORPORATE SEAL]

Attest: _____

Title: _____

Address for giving notices:

Capital Project and Purchasing Department

Attn: John Stieglitz

113 Mable T. Willis Boulevard

Walterboro, South Carolina, 29488

By: _____

Title: _____

[CORPORATE SEAL]

Attest: _____

Title: _____

Address for giving notices:

License No.: _____

(Where applicable)

Agent for service or
process:

Remainder of this page intentionally left blank

SECTION 2016-1705 – NOTICE OF AWARD

BID NUMBER – CPST-07

Dated _____

Project: <u>Construction of the new addition approximately ± 1,653 sf open air pavilion, approximately 1365 linear foot of rubberized walking track and upgrades to the parking area to include paving, landscaping, benches, swings and other items.</u>	Owner: Colleton County, 113 Mable T. Willis Blvd., Walterboro, South Carolina	Owner's Contract No.:
--	--	------------------------------

Contract: Construction of the Cottageville Recreation Area

Bidder: _____

Bidder's Address: (send Certified Mail, Return Receipt Requested): _____

You are notified that your Bid dated _____ for the above Contract has been considered. You are the Successful Bidder and are awarded a Contract for the Construction of the Cottageville Recreation Area.

The Contract Price of your Contract is _____ (\$_____).

____ copies of each of the proposed Contract Documents (except Drawings) accompany this Notice of Award.

____ sets of the Drawings will be delivered separately or otherwise made available to you immediately.

You must comply with the following conditions precedent within seven (7) days of the date you receive this Notice of Award.

1. Deliver to the Owner four (4) fully executed counterparts of the Contract Documents.
2. Deliver with the executed Contract Documents the Contract security [Bonds] as specified in the Instructions to Bidders (Article 20), [and] General Conditions (Paragraph 5.01).
3. Other conditions precedent:
None

Failure to comply with these conditions within the time specified will entitle Owner to consider you in default, annul this Notice of Award and declare your Bid security forfeited.

Within seven (7) days after you comply with the above conditions, Owner will return to you one (1) fully executed counterpart of the Contract Documents.

Colleton County
Owner
By: _____
Authorized Signature

Title

Acceptance of Notice

Receipt of the above Notice of Award is hereby acknowledged by _____

On this _____ day of _____, 2017.

Contractor
By: _____
Authorized Signature

Title

SECTION 2016-1706 – NOTICE TO PROCEED

BID NUMBER – CPST-07

Dated _____

<p>Project: <u>Construction of the new addition approximately ± 1,653 sf open air pavilion, approximately 1365 linear foot of rubberized walking track and upgrades to the parking area to include paving, landscaping, benches, swings and other items.</u></p>	<p>Owner: Colleton County, 113 Mable T. Willis Blvd., Walterboro, South Carolina</p>	<p>Owner's Contract No.:</p>
---	---	------------------------------

Contract: Construction of the Cottageville Recreation Area

Contractor:

Contractor's Address: [send Certified Mail, Return Receipt Requested]

You are notified that the Contract Times under the above contract will commence to run on _____ or before 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 2.01.B of the General Conditions provides that you and Owner must each deliver to the other (with copies to the Construction Coordinator and other identified additional insureds) certificates of insurance which each is required to purchase and maintain in accordance with the Contract Documents.

 Contractor

Colleton County

 Owner

by:

 Authorized Signature

Given by:

 John T. Stieglitz

 Title

Capital Projects & Purchasing Director

 Title

 Date

 Date

Copy to Construction Coordinator

Colleton County

SECTION 2016-1707 - APPLICATION FOR PAYMENT

Contractor's Application for Payment No. _____

To (Owner): Colleton County, 113 Mable T. Willis Blvd., Walterboro, South Carolina	Application Period:	Application Date:
BID #: CPST-07	From (Contractor):	Via (Construction Coordinator) Colleton County, John T. Stieglitz III
Project: Construction of the new addition approximately ± 1,653 sf open air pavilion, approximately 1365 linear foot of rubberized walking track and upgrades to the parking area to include paving, landscaping, benches, swings and other items.	Contract: On Schedule: Yes ____ No ____ Original days: 120 Revised: ____ Remaining: ____	
Owner's Contract No.:	Contractor's Project No.:	

APPLICATION FOR PAYMENT

Change Order Summary

Approved Change Orders				
Number	Additions	Deductions		
TOTALS				
NET CHANGE BY				
CHANGE ORDERS				

1. ORIGINAL CONTRACT PRICE.....	\$	
2. Net change by Change Orders.....	\$	
3. CURRENT CONTRACT PRICE (Line 1 ± 2).....	\$	
4. TOTAL COMPLETED AND STORED TO DATE (Column F on Progress Estimate)	\$	
5. RETAINAGE:		
a. ____ % x \$ _____ Work Completed	\$	
b. ____ % x \$ _____ Stored Material.....	\$	
c. Total Retainage (Line 5a + Line 5b)	\$	
6. AMOUNT ELIGIBLE TO DATE (Line 4 - Line 5c)	\$	
7. LESS PREVIOUS PAYMENTS (Line 6 from prior Application)	\$	
8. AMOUNT DUE THIS APPLICATION	\$	
9. BALANCE TO FINISH, PLUS RETAINAGE (Column G on Progress Estimate + Line 5 above)	\$	

CONTRACTOR'S CERTIFICATION

The undersigned Contractor certifies that: (1) all previous progress payments received from Owner on account of Work done under the Contract have been applied on account to discharge Contractor's legitimate obligations incurred in connection with Work covered by prior Applications for Payment; (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 Liens, security interest or encumbrances); and (3) all Work covered by this Application for Payment is in accordance with the Contract Documents and is not defective.

Payment of: \$ _____
(Line 8 or other - attach explanation of another amount)

is recommended by: _____
John T. Stieglitz III, Construction Coordinator (Date)

Payment of: \$ _____
(Line 8 or other - attach explanation of another amount)

is approved by: _____
John T. Stieglitz III, Capital Projects & Purchasing Director (Date)

By:	Date:
-----	-------

Stored Material Summary

Contractor's Application

For (contract): Construction of the Cottageville Recreation Area						Application Number:			
Application Period:						Application Date:			
A	B	C	D		E		F		G
Invoice No.	Shop Drawing Transmittal No.	Materials Description	Stored Previously		Stored this Month		Incorporated in Work		Materials Remaining in Storage (\$) (D + E - F)
			Date (Month/Year)	Amount (\$)	Amount (\$)	Subtotal	Date (Month/Year)	Amount (\$)	
		Totals							

SECTION 2016-1708 – CERTIFICATE OF SUBSTANTIAL COMPLETION

Project: <u>Construction of the new addition approximately ± 1,653 sf open air pavilion, approximately 1365 linear foot of rubberized walking track and upgrades to the parking area to include paving, landscaping, benches, swings and other items.</u>	Owner: Colleton County, 113 Mable T. Willis Blvd., Walterboro, South Carolina	Owner's Contract No.:
Contract: Construction of the Cottageville Recreation Area		Date of Contract:
Contractor:		

This [tentative] [definitive] Certificate of Substantial Completion applies to:

- All Work under the Contract Documents:
 The following specified portions:

Date of Substantial Completion

The Work to which this Certificate applies has been inspected by authorized representatives of Owner, Contractor and Engineer and or Architect, and found to be substantially complete. The Date of Substantial Completion of the Project or portion thereof designated above is hereby declared and is also the date of commencement of applicable warranties required by the Contract Documents, except as stated below.

A [tentative] [revised tentative] [definitive] list of items to be completed or corrected, is attached hereto. This list may not be all-inclusive, and the failure to include any items on such list does not alter the responsibility of the Contractor to complete all Work in accordance with the Contract Documents.

The responsibilities between OWNER and CONTRACTOR for security, operation, safety, maintenance, heat, utilities, insurance and warranties shall be as provided in the Contract Documents except as amended as follows:

- Amended Responsibilities
 Not Amended

Owner's Amended Responsibilities:

Contractor's Amended Responsibilities:

The following documents are attached to and made part of this Certificate:

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 Construction Coordinator: Colleton County, John T. Stieglitz III	Date
Accepted by Contractor:	Date
Accepted by Owner: John T. Stieglitz III, Capital Project & Purchasing Director	Date

SECTION 2016-1709 – CONTRACTOR'S AFFIDAVIT

The State of _____ Date: _____

The County of _____

The City/Town of _____

_____ of _____
(Officer's Name) (Officer's Title) (Contractor's Name)

being duly sworn, deposes and says that _____
(Contractor's Name)

has furnished all labor and material entering into the: **Construction of the Cottageville Recreation Area, Colleton County, South Carolina** called for in the Contract Documents dated _____ with _____

Colleton County states further that this officer has full knowledge of all obligations for such labor and materials, which have entered into and become part of that certain project known and designated above, and that this officer further deposes and says that all debts and other obligations for such labor and materials have been fully and completely paid for in good and lawful money of the United States of America and that there are no suits for damages against them proceeding, prospective and/or that there are no suits for damages against them proceeding, prospective, or otherwise, in consequence of their operations on the above said project.

The said _____ will hold the Owners,
(Contractor's Name)

Colleton County, South Carolina blameless of any and all mechanic's liens that may be hereafter entered or filed for record, so as to constitute charge against said premises for work or labor done or materials furnished by them.

IN WITNESS HEREOF, this officer has heretofore put his hand and seal: _____ (Seal)
(Officer's Name)

I, _____, Notary Public in and for the above-named County and State do

hereby certify that _____ personally known to me to be the affiant in the
(Officer's Name)

foregoing Affidavit, personally appeared before me this day and, having been duly sworn, deposes and says that the facts set forth in the above Affidavit are true and correct.

WITNESS my hand and seal this ____ day of _____, 2017

_____ (Seal)

Notary Public for the State of _____ My Commission Expires: _____

SECTION 2016-1710 – FIELD ORDER

No. _____

Date of Issuance: _____ Effective Date: _____

<p>Project: <u>Construction of the new addition approximately ± 1,653 sf open air pavilion, approximately 1365 linear foot of rubberized walking track and upgrades to the parking area to include paving, landscaping, benches, swings and other items.</u></p>	<p>Owner: Colleton County, 113 Mable T. Willis Blvd., Walterboro, South Carolina</p>	<p>Owner's Contract No.:</p>
<p>Contract: Construction of the Cottageville Recreation Area</p>		<p>Date of Contract:</p>
<p>Contractor:</p>		

Attention:

You are hereby directed to promptly execute this Field Order issued in accordance with General Conditions Paragraph 9.05A., for minor changes in the Work without changes in Contract Price or Contract Times. If you consider that a change in Contract Price or Contract Times is required, please notify the Construction Coordinator immediately and before proceeding with this Work.

Reference: _____ (Specification Section(s)) _____ (Drawing(s) / Detail(s))

Description:

Attachments:

Construction Coordinator: Colleton County, John T. Stieglitz III

<p>Receipt Acknowledged by (Contractor):</p>	<p>Date:</p>
--	--------------

SECTION 2016-1711 – WORK CHANGE DIRECTIVE

No. _____

Date of Issuance: _____ Effective Date: _____

Project: <u>Construction of the new addition approximately ± 1,653 sf open air pavilion, approximately 1365 linear foot of rubberized walking track and upgrades to the parking area to include paving, landscaping, benches, swings and other items.</u>	Owner: Colleton County, 109 Benson Street, Walterboro, South Carolina	Owner's Contract No.:
Contract: Construction of the Cottageville Recreation Area		Date of Contract:
Contractor:		

You are directed to proceed promptly with the following change(s):

Item No.	Description

Attachments (list documents supporting change):

Purpose for Work Change Directive:

- Authorization for Work described herein to proceed on the basis of Cost of the Work due to:
 - Non-agreement on pricing of proposed change.
 - Necessity to expedite Work described herein prior to agreeing to changes on Contract Price and Contract Time.

Estimated change in Contract Price and Contract Times:

Contract Price \$ _____ (increase/decrease) Contract Time _____ (increase/decrease) days

If the change involves an increase, the estimated amounts are not to be exceeded without further authorization.

Recommended for Approval by Construction Coordinator: Colleton County, John T. Stieglitz III	Date
Authorized for Owner by:	Date
Accepted for Contractor by:	Date
Approved by Funding Agency (if applicable):	Date:

SECTION 2016-1712 – CHANGE ORDER No. _____

Date of Issuance: _____ Effective Date: _____

<p>Project: <u>Construction of the new addition approximately ± 1,653 sf open air pavilion, approximately 1365 linear foot of rubberized walking track and upgrades to the parking area to include paving, landscaping, benches, swings and other items.</u></p>	<p>Owner: Colleton County, 113 Mable T. Willis Blvd., Walterboro, South Carolina</p>	<p>Owner's Contract No.:</p>
<p>Contract: Construction of the Cottageville Recreation Area</p>		<p>Date of Contract:</p>
<p>Contractor:</p>		

The Contract Documents are modified as follows upon execution of this Change Order:

Description: _____

Attachments: (List documents supporting change): _____

CHANGE IN CONTRACT PRICE:	CHANGE IN CONTRACT TIMES:
<p>Original Contract Price:</p> <p>\$ _____</p> <p>[Increase] [Decrease] from previously approved Change Orders No. _____ to No. _____:</p> <p>\$ _____</p> <p>Contract Price prior to this Change Order:</p> <p>\$ _____</p> <p>[Increase] [Decrease] of this Change Order:</p> <p>\$ _____</p> <p>Contract Price incorporating this Change Order:</p> <p>\$ _____</p>	<p>Original Contract Times: <input type="checkbox"/> Working days <input type="checkbox"/> Calendar days</p> <p>Substantial completion (days or date): _____</p> <p>Ready for final payment (days or date): _____</p> <p>[Increase] [Decrease] from previously approved Change Orders No. _____ to No. _____:</p> <p>Substantial completion (days): _____</p> <p>Ready for final payment (days): _____</p> <p>Contract Times prior to this Change Order:</p> <p>Substantial completion (days or date): _____</p> <p>Ready for final payment (days or date): _____</p> <p>[Increase] [Decrease] of this Change Order:</p> <p>Substantial completion (days or date): _____</p> <p>Ready for final payment (days or date): _____</p> <p>Contract Times with all approved Change Orders:</p> <p>Substantial completion (days or date): _____</p> <p>Ready for final payment (days or date): _____</p>

RECOMMENDED:	APPROVED:	APPROVED:
By: _____	By: _____	By: _____
Contractor (Authorized Signature)		Construction Coordinator: Colleton County, John T. Stieglitz III
Date: _____	Date: _____	Date: _____
Approved by Funding Agency (if applicable): _____		Date: _____



ACKNOWLEDGMENT OF PRINCIPAL

BID NUMBER: CPST-07

ACKNOWLEDGMENT OF PRINCIPAL, IF A CORPORATION:

State of: (_____)

County of: (_____)

On this _____ day of _____, 20 _____, before me personally came and appeared _____ to me Known, who, being by me duly sworn, did depose and say to me that he resides at _____, that he/she is the _____ of _____ the corporation described in and which executed the foregoing instrument is an impression of such seal; that it was so affixed by the order of the directors of said corporation, and that he signed his name thereto by like order.

(Seal) _____
Notary Public

THIS PAGE MUST BE COMPLETED AND SUBMITTED AS A PART OF YOUR BID



ACKNOWLEDGMENT OF PRINCIPAL, IF A PARTNERSHIP:

BID NUMBER: CPST-07

State of: (_____)

County of: (_____)

On this _____ day of _____ 20____, before me personally, came and appeared _____ to me known and known to me to described in and who executed the foregoing instrument and he acknowledged to me that he executed the same as and for the act and deed of said firm.

(Seal) _____
Notary Public

ACKNOWLEDGMENT OF PRINCIPAL, IF AN INDIVIDUAL:

State of: (_____)

County of: (_____)

On this _____ day of _____ 20____, before me personally, came and appeared _____ to me known and known to me to be the person described in and who executed the forgoing instrument and acknowledged that he executed the same.

(Seal) _____
Notary Public

THIS PAGE MUST BE COMPLETED AND SUBMITTED AS A PART OF YOUR BID



ADDENDA ACKNOWLEDGMENT

BID NUMBER: CPST-07

The vendor has examined and carefully studied the Request for Bids and the following Addenda, receipt of all of which is hereby acknowledged:

Addendum No. _____

Addendum No. _____

Addendum No. _____

Addendum No. _____

Authorized Representative (Signature)

Date

Authorized Representative/Title (Print)

Vendors must acknowledge any issued addenda. Proposals which fail to acknowledge the vendor's receipt of any addendum will result in the rejection of the offer if the addendum contained information which substantively changes the Owner's requirements or pricing.

THIS PAGE MUST BE COMPLETED AND SUBMITTED AS A PART OF YOUR BID



BID NUMBER: CPST-07

The vendor must list a minimum of three (3) references along with pictures of the completed work.

1. Organization: _____

Address: _____

Contact: _____

Phone Number: _____ Email address: _____

Services provided: _____

Years of Service: _____

2. Organization: _____

Address: _____

Contact: _____

Phone Number: _____ Email address: _____

Services provided: _____

Years of Service: _____

3. Organization: _____

Address: _____

Contact: _____

Phone Number: _____ Email address: _____

Services provided: _____

Years of Service: _____

THIS PAGE MUST BE COMPLETED AND SUBMITTED AS A PART OF YOUR BID



BID NUMBER: CPST-07

Company Name

Authorized Signature (As registered with the IRS)

Address

E-Mail Address(print)

City, State, Zip

Fax Number

Telephone Number

Toll Free Number

Federal Tax ID Number

Sales Tax Number

THIS PAGE MUST BE COMPLETED AND SUBMITTED AS A PART OF YOUR BID



BID NUMBER: CPST-07

The Bidder / Proposer will indemnify and hold harmless the Owner, Colleton County and their agents and employees from and against all claims, damages, losses and expenses, including attorney’s fees, arising out of or resulting from the performance of the Work provided that any such claims, damages, loss, or expense is attributable to bodily injury, sickness, disease or death, injury to or destruction of tangible property, including the loss of use resulting there from, and is caused by any negligent or willful act or omission of the Bidder / Proposer, and anyone directly or indirectly employed by him/her or anyone for whose acts any of them may be liable.

In any and all claims against the Owner, Colleton County or any of their agents and / or employees by an employee of the Bidder / Proposer, and anyone directly or indirectly employed by any of them, or anyone for whose acts any of them may be liable, the indemnification obligation shall not be limited in any way to the amount or type of damages, compensation or benefits payable by or for the Bidder / Proposer under the Worker’s Compensation Acts, Disability Benefit Acts, or other employee benefit acts.

The obligation of the Bidder / Proposer under this paragraph shall not extend to the liability of Colleton County or its agents and / or employees arising out of the reports, surveys, Change Orders, designs or Technical Specifications.

BIDDER/PROPOSER: _____

BY: _____

DATE: _____

TELEPHONE NO.: _____

THIS PAGE MUST BE COMPLETED AND SUBMITTED AS A PART OF YOUR BID



MATERIAL/PRODUCT SUBSTITUTION REQUEST

BID NUMBER: CPST-05

Date: _____

We hereby submit for your review, the following PRODUCT SUBSTITUTION of the specified material for the above listed project.

Section: _____

Paragraph: _____

Specified Material: _____

Attached is complete technical data of the PRODUCT SUBSTITUTION. Included is complete information on changes to the Project Manual Documents required by the proposed PRODUCT SUBSTITUTION for its proper installation.

A request constitutes a representation that Trade Contractor:

1. Has investigated proposed product and determined that it meets or exceeds quality level of specified product.
2. Will provide same warranty for Substitution as for specified product.
3. Will coordinate installation and make changes to other Work which may be required for the Work to be complete with no additional cost to Owner.
4. Waives claims for additional costs or time extension which may subsequently become apparent.
5. Will reimburse Owner and Architect/Engineer for review or redesign services associated with re-approval by authorities having jurisdiction or additional time expended by Architect/Engineer to review information.

It is understood that if the Architect or Engineer approves an approved substitution prior to receipt of bids in accordance with the project timeline, such approval will be set forth in an addendum. Bidders shall not rely upon approvals made in any other manner. If substitution requests are not addressed in the addendum, the substitution request shall be considered not approved. Architect's or Engineers decision of approval or disapproval of proposed substitution shall be final without dispute.

THE UNDERSIGNED Trade Contractor states that the function, appearance, and quality of the PRODUCT SUBSTITUTION are equivalent or superior to the specified item. In addition, I, as the Trade Contractor will assume all responsibility for any impact or delay the review and evaluation of the alternate product may cause. Your approval of the Substitute Product in no way will relieve me as the Trade Contractor of my responsibilities to conform with all requirements of the Contract Documents.

Submitted by: _____

THIS PAGE MUST BE COMPLETED AND SUBMITTED AS A PART OF YOUR BID



LIST OF PRIME AND SUBCONTRACTORS

BID NUMBER: CPST-07

The undersigned states that the following is a full and complete list of proposed prime contractor and subcontractors on this Project and the class of work to be performed by each, and that such list will not be added to nor altered without the written consent of the Owner.

	Class of Work to be Performed	Subcontractor
1)	Site Work	_____
2)	Electrical	_____
3)	Mechanical	_____
4)	Plumbing	_____
5)	Architectural	_____
6)	Well	_____
7)	Septic	_____

Listed subcontractors must meet all qualifications including documented experience set forth in specifications, including those sections specifying single source contractor requirements.

Firm Name: _____ **Date:** _____

Signed: _____ **Title:** _____

THIS PAGE MUST BE COMPLETED AND SUBMITTED AS A PART OF YOUR BID



CERTIFICATE OF FAMILIARITY

BID NUMBER: CPST-07

The undersigned, having fully familiarized him/her with the information contained within this entire solicitation and applicable amendments, submits the attached response, and other applicable information to the County, which I verify to be true and correct to the best of my knowledge. I further certify that this response is made without prior understanding, agreement, or connection with any corporation, Offeror or person submitting a response for the same materials, supplies or equipment, and is in all respects, fair and without collusion or fraud. I agree to abide by all conditions set forth in this solicitation and certify that I have signature authority to bind the company listed herein.

MAILING ADDRESS

_____ Mailing Address

_____ Printed Name

_____ City, State, Zip

_____ Title

_____ Date

_____ Phone Number/Fax Number

REMITTANCE ADDRESS

_____ Company Name

_____ Authorized Signature

_____ Address

_____ E-Mail Address

_____ City, State, Zip

_____ Phone Number

_____ Federal Tax ID Number

_____ SC Sales Tax Number

THIS PAGE MUST BE COMPLETED AND SUBMITTED AS A PART OF YOUR BID



COLLETON COUNTY
SOUTH CAROLINA
MINORITY BUSINESS CERTIFICATE

BID NUMBER: CPST-07

Are you a minority business?

- ▶ **Yes** ____ (Women-owner ____ / ____ Disadvantaged) If yes, please submit a copy of your certificate with your response.
- ▶ **No** ____

MAILING ADDRESS

Mailing Address

Printed Name

City, State, Zip

Title

Date

Phone Number/Fax Number

REMITTANCE ADDRESS

Company Name

Authorized Signature

Address

E-Mail Address

City, State, Zip

Phone Number

Federal Tax ID Number

SC Sales Tax Number

PLEASE COMPLETE AND SUBMIT AS A PART OF YOUR BID IF YOU ARE A MINORITY BUSINESS



BID NUMBER: CPST-07

The vendor is certifying that they are not currently debarred from responding to any request for qualifications by any agency or subdivision of the State of South Carolina or the United States Federal Government, nor are they an agent of any person or entity that is currently debarred from submitting qualifications on contracts by any agency or subdivision of the State of South Carolina or the United States Federal Government.

SAM's No. _____

Cage Code. _____

DUN's No. _____

Authorized Representative(Signature)

Date

Authorized Representative/Title (Print)

THIS PAGE MUST BE COMPLETED AND SUBMITTED AS A PART OF YOUR BID



CONTRACTOR/SUBCONTRACTOR QUALIFICATIONS

BID NUMBER: CPST-07

PART 1 - GENERAL

1.01 The following information and completed forms may be requested by the Owner of the three (3) lowest bidders. The request will be made the day of the Bid Opening or within five (5) days following the Bid Opening. If requested, this data must be submitted to the Construction Coordinator or Owner within five (5) days of the request. Failure to provide the data in this section, upon request, will subject bidder to disqualification.

1.02 DESCRIPTION

- A. Information provided will be used by the Construction Coordinator or Owner to determine the competency and ability of the Contractor and/or Subcontractor to perform the scheduled work in a manner that is satisfactory to the Construction Coordinator or Owner. The Construction Coordinator or Owner's decision shall be final.
- B. Any Subcontractor being used by the General Contractor, whose portion of the project exceeds 5% of the total bid price amount, will be required to provide the same information as the General Contractor.
- C. The Contractor and Subcontractor shall include with this section a detailed financial statement indicating the Contractor's or Subcontractor's financial resources. The information on that statement shall be certified by a Certified Public Accountant and shall be submitted on the Associated General Contractors of America form "Standard Questionnaires and Financial Statement for Bidders".
- D. The Contractor and Subcontractor shall certify by attaching his signature to this Section as provided that all information contained herein is complete and all statements and answers are accurate and true. Providing misinformation, incomplete information, inaccurate information, or failure to certify the information, will subject bidder to disqualification.

1.03 QUALIFICATIONS

A. Complete the following for General Contractor and any Subcontractors (attach additional sheets as required):

- 1. Name: _____
- 2. Address: _____
- 3. City, State, Zip: _____
- 4. Principle: _____

B. Number of years the company has been in business: _____

C. List and describe at least five (5) projects that have been completed, that are similar in size and type, and that has been completed within the last ten (10) years:

- 1. _____

- 2. _____

3. _____

4. _____

5. _____

D. For the projects listed above provide the following:

1. Project Owner: _____
Contact Name and Title: _____
Telephone Number: _____
2. Project Owner: _____
Contact Name and Title: _____
Telephone Number: _____
3. Project Owner: _____
Contact Name and Title: _____
Telephone Number: _____
4. Project Owner: _____
Contact Name and Title: _____
Telephone Number: _____
5. Project Owner: _____
Contact Name and Title: _____
Telephone Number: _____

E. For each of the projects listed in Items C & D provide the following:

1. Original Bid Amount: _____
Final Construction Cost: _____
Contract Period: _____
Actual Contract Period: _____
Explanation: _____
2. Original Bid Amount: _____
Final Construction Cost: _____
Contract Period: _____
Actual Contract Period: _____
Explanation: _____

3. Original Bid Amount: _____
 Final Construction Cost: _____
 Contract Period: _____
 Actual Contract Period: _____
 Explanation: _____

4. Original Bid Amount: _____
 Final Construction Cost: _____
 Contract Period: _____
 Actual Contract Period: _____
 Explanation: _____

5. Original Bid Amount: _____
 Final Construction Cost: _____
 Contract Period: _____
 Actual Contract Period: _____
 Explanation: _____

F. Provide the following for any portion of the work that is being subcontracted (5% or more of the Bid Amount):

1. Name of Subcontractor: _____
 Address: _____
 Telephone Number: _____
 Work being Completed: _____

2. Name of Subcontractor: _____
 Address City/State/Zip: _____
 Telephone Number: _____
 Work being Completed: _____

3. Name of Subcontractor: _____
 Address City/State/Zip: _____
 Telephone Number: _____
 Work being Completed: _____

4. Name of Subcontractor: _____
 Address City/State/Zip: _____
 Telephone Number: _____
 Work being Completed: _____

5. Name of Subcontractor: _____
 Address City/State/Zip: _____
 Telephone Number: _____
 Work being Completed: _____

G. Provide a list of equipment that is owned by the Contractor and is available for this project.

H. Provide a list of equipment that will be purchased, leased or rented for this project.

I. Provide a list of the superintendent(s) or others that will be in charge of this project (Provide resumes and qualifications):

J. Provide the following for current projects being completed:

1. Project Name: _____
Owner: _____
Current Status: _____
Estimated Schedule of Completion: _____

2. Project Name: _____
Owner: _____
Current Status: _____
Estimated Schedule of Completion: _____

3. Project Name: _____
Owner: _____
Current Status: _____
Estimated Schedule of Completion: _____

4. Project Name: _____
Owner: _____
Current Status: _____
Estimated Schedule of Completion: _____

5. Project Name: _____
Owner: _____
Current Status: _____
Estimated Schedule of Completion: _____

K. Provide a list of projects that has been completed with the Owner over the past fifteen (15) years:

1. Project Name: _____
Contact Name and Title: _____
Telephone Number: _____
2. Project Name: _____
Contact Name and Title: _____
Telephone Number: _____
3. Project Name: _____
Contact Name and Title: _____
Telephone Number: _____
4. Project Name: _____
Contact Name and Title: _____
Telephone Number: _____
5. Project Name: _____
Contact Name and Title: _____
Telephone Number: _____

L. Provide a list of projects that Bid with the Owner over the past fifteen (15) years:

1. Project Name: _____
Contact Name and Title: _____
Telephone Number: _____
2. Project Name: _____
Contact Name and Title: _____
Telephone Number: _____
3. Project Name: _____
Contact Name and Title: _____
Telephone Number: _____
4. Project Name: _____
Contact Name and Title: _____
Telephone Number: _____
5. Project Name: _____
Contact Name and Title: _____
Telephone Number: _____

M. Provide a list of projects completed with the Construction Coordinator over the past fifteen (15) years:

1. Project Name: _____
Project Engineer: _____
Original Bid Amount: _____
Final Construction Cost: _____
Contract Period: _____
Actual Contract Period: _____
Explanation: _____

2. Project Name: _____
Project Engineer: _____
Original Bid Amount: _____
Final Construction Cost: _____
Contract Period: _____
Actual Contract Period: _____
Explanation: _____

3. Project Name: _____
Project Engineer: _____
Original Bid Amount: _____
Final Construction Cost: _____
Contract Period: _____
Actual Contract Period: _____
Explanation: _____

4. Project Name: _____
Project Engineer: _____
Original Bid Amount: _____
Final Construction Cost: _____
Contract Period: _____
Actual Contract Period: _____
Explanation: _____

5. Project Name: _____
Project Engineer: _____
Original Bid Amount: _____
Final Construction Cost: _____
Contract Period: _____
Actual Contract Period: _____
Explanation: _____

N. Provide a list of projects involved with litigation, arbitration and/or mediation over the past twenty (20) years:

1. Project Name: _____
Project Owner: _____
Project Engineer: _____
Date: _____
Explanation: _____

2. Project Name: _____
Project Owner: _____
Project Engineer: _____
Date: _____
Explanation: _____

3. Project Name: _____
Project Owner: _____
Project Engineer: _____
Date: _____
Explanation: _____

4. Project Name: _____
Project Owner: _____
Project Engineer: _____
Date: _____
Explanation: _____

5. Project Name: _____
Project Owner: _____
Project Engineer: _____
Date: _____
Explanation: _____

O. Attach a rate schedule associated with equipment that includes labor, overhead and profit.

_____ Rate Schedule Attached.

P. Additional information if Necessary.

1. _____

1.04 I HEREBY CERTIFY that as a duly authorized representative of _____

_____ (bidder), the information provided is to the best of
my knowledge accurate and that failure to provide accurate information will result in disqualification of
my bid.

Signature

Name (Please Print)

Title

Date

Notary Public for South Carolina
My Commission Expires: _____

THIS PAGE MUST BE COMPLETED AND SUBMITTED AS A PART OF YOUR BID

SECTION 2016-1714 – BID FORMS

ARTICLE 1 – BID RECIPIENT

- 1.01 This Bid is submitted to: Colleton County
Kaye B. Syfrett, Procurement Manager
113 Mable T. Willis Boulevard
Walterboro, SC 29488
- 1.02 Bids are to be delivered to: Colleton County
Kaye B. Syfrett, Procurement Manager
113 Mable T. Willis Boulevard
Walterboro, SC 29488
- 1.03 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.

ARTICLE 2 - BIDDER'S ACKNOWLEDGEMENTS

- 2.01 Bidder accepts all of the terms and conditions of the Instructions to Bidders, including without limitation those dealing with the disposition of Bid security. This Bid will remain subject to acceptance for ninety (90) days after the Bid opening, or for such longer period of time that Bidder may agree to in writing upon request of Owner.
- 2.02 For additional work authorized after signing the Contract, the amount of overhead and the amount of profit to be added to base costs of labor and materials shall be (10%) total for overhead and profit on work performed by the Contractor's own forces and (15%) total on work by Subcontractors. Request of additional charges for site supervision, utilities, rentals, or administrative services will not be approved.

ARTICLE 3 - BIDDER'S REPRESENTATIONS

- 3.01 In submitting this Bid, Bidder represents 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 which is hereby acknowledged with the attached Addendum form, dated and signed.
 - 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) 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 Paragraph 4.02 of General Conditions, and (2) reports and drawings of Hazardous Environmental Conditions that have been identified in Paragraph 4.06 of General Conditions.
 - E. Bidder has obtained and carefully studied (or accepts the consequences for not 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 applying the specific

- F. 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.
- G. 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.
- H. 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.
- I. 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.
- J. Bidder has given the Owner written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder has discovered in the Bidding Documents, and the written resolution thereof by the Owner is acceptable to Bidder.
- K. 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.
- L. Bidder will submit written evidence of its authority to do business in the state where the Project is located not later than the date of its execution of the Agreement.

ARTICLE 4 - FURTHER REPRESENTATIONS

4.01 Bidder further represents that:

- A. 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.
- B. Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid.
- C. Bidder has not solicited or induced any individual or entity to refrain from bidding.
- D. The bidder affirms that in making such Bid, neither he/she nor any company that they may represent, nor anyone in behalf of him/her or their company, directly or indirectly, has entered into any combination, collusion, undertaking or agreement with any other Bidder or Bidders to maintain the prices of said work, or any compact to prevent any other Bidder or Bidders from Bidding on said Contract or work and further affirms that such bid is made without regard or reference to any other Bidder or Proposer and without any agreement or understanding or combination either directly or indirectly with any other person or persons with reference to such Bidding in any way or manner whatsoever.
- E. Any attempt by the vendor to influence the opinion of Colleton County Staff or Colleton County Council by discussion, promotion, advertising, or misrepresentation of the submittal or purchasing process or any procedure to promote their offer will constitute a violation of the vendor submittal conditions and will cause the vendor's submittal to be declared null and void.

ARTICLE 5 - TIME OF COMPLETION

- 5.01 **Bidder agrees that the Work: Construction Services to Serve the approximately ± 1,653 sf open air pavilion, approximately 1365 linear foot of rubberized walking track and upgrades to the parking area to include paving, landscaping, benches, swings and other items is to be completed within one hundred twenty (120) calendar days after the Notice to Proceed has been issued.**
- 5.02 Bidder accepts the provisions of the Agreement as to liquidated damages in the event of failure to complete the Work within the Contract dates in the amount of \$500 per day for each calendar day required to complete the work in the manner and within the dates as stated in Paragraph 5.01 above.

ARTICLE 6 - ATTACHMENTS TO THIS BID

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

- A. Required Bid security in the form of five percent (5%) of the total bid amount.
- B. Power of Attorney.
- C. All forms listed in section 2016-1714

ARTICLE 7 - DEFINED TERMS

7.01 The terms used in this Bid with initial capital letters have the meanings stated in the Instructions to Bidders and General Conditions.

ARTICLE 8 - BID SUBMITTAL

8.01 This Bid submitted by:

An Individual

Name (typed or printed): _____

By: _____ (SEAL)

(Individual's signature)

Title: _____

Doing business as: _____

A Partnership

Partnership Name: _____

By: _____ (SEAL)

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

Title: _____

Name (typed or printed): _____

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 _____

Date of Authorization to do business in [South Carolina] is ____ / ____ / ____.

A Joint Venture

Name of Joint Venture: _____

First Joint Ventures Name: _____ (SEAL)

By: _____

(Signature of first joint venture partner -- attach evidence of authority to sign)

Name (typed or printed): _____

Title: _____

Second Joint Ventures Name: _____ (SEAL)

By: _____

(Signature of second joint venture partner -- attach evidence of authority to sign)

Name (typed or printed): _____

Title: _____

(Each joint venture 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.)

Bidder's Business Address _____

Telephone No.: _____ Fax No.: _____

SUBMITTED on _____, 2016.

State Contractor License No. _____

***NOTE: If NOT BIDDING, Complete the attached "No Bid" Response Form and return to Colleton County.

Remainder of this page intentionally left blank

ARTICLE 9 – BASIS OF BID

BASE BID, UNIT PRICE & ALTERNATE BID SCHEDULE

When changes in the work are ordered by the Owner, and such changes involve the following items, the following unit prices will be used to calculate adjustments to the Contract Sum. These unit prices shall be for the Work as specified, including all labor, materials, equipment, accessories, shipping, preparation, insurance, testing, overhead, profit, applicable taxes, permits, fees, warranties and all other associated costs for the finished and completed Work. All unit prices for utility conduits shall include sweeps, bends, couplings, caps, fittings, etc. which shall be included in the unit price per linear foot. Unit prices for undercut soils shall include material in place, surveyed and compacted pursuant to the Contract Documents.

Submit unit price and proposal amount for the following items. This list may not include all components necessary to provide a completed product, therefore any applicable items necessary to provide a completed product should be considered in your unit price response.

In case of errors in the extension of prices, unit price governs. In case of error in summations, corrected bid amounts will be totaled and will govern.

Contractor shall be responsible for all necessary electric and water hookups.

Contractor shall make quantity take-offs using drawings to determine quantities to his satisfaction, reporting promptly any discrepancies which may affect bidding.

The Owner shall have the right to accept Alternates in any order or combination, and to determine the low bidder on the basis of the sum of the Base Bid and alternates accepted.

This is not a comprehensive list of items included in the contract documents, and represents only a portion of the project total.

5.01 Bidder will complete the Work in accordance with the Contract Documents and the following unit prices are established for this project

Unit Prices – Cottageville Recreation Area Project					
<u>Item No.</u>	<u>Description</u>	<u>Unit</u>	<u>Estimated Quantity</u>	<u>Unit Price</u>	<u>Bid Price</u>
1	Mobilization	Each	1	\$	\$
2	General Conditions	Each	1	\$	\$
3	Site Demo	Each	1	\$	\$
4	Site Prep	Each	1	\$	\$
5	Open air Pavilion (Architecture)	Each	1	\$	\$
6	Pavilion Cement Pad	Each	1	\$	\$
7	Septic System	Each	1	\$	\$
8	Well	Each	1	\$	\$
9	Rubberized Walking Track	LF	1	\$	\$
10	Track Grading	LF	1	\$	\$
11	Track Base Coarse	LF	1	\$	\$
12	Pine Tree and Stump Removal	Each	1	\$	\$
13	Silt Fencing	LF	1	\$	\$
14	Cement Side Walk	SF	1	\$	\$
15	Camellia Trees	Each	1	\$	\$
16	Hydro Seeding Walking Tail Area	SF	1	\$	\$
17	Cement Parking Blocks	Each	1	\$	\$
18	Electrical	Each	1	\$	\$
19	Mechanical	Each	1	\$	\$
20	Plumbing	Each	1	\$	\$
21	Finishes	Each	1	\$	\$
22	Thermal Moisture Protection	SF	1	\$	\$

23	Specialties	Each	1	\$	\$
24	Metals/PEMB	Each	1	\$	\$
25	Unstable Soil Removal	CY	1	\$	\$
26	Fillable Soil	CY	1	\$	\$
27	Asphalt Resurfacing	SF	!	\$	\$
28	Signage	Each	1	\$	\$

Bidder acknowledges that estimated quantities are not guaranteed, and are solely for the purpose of comparison of Bids.

The above Base Bid and following Base Bid Alternate prices will be used to calculate adjustments to the Contract Sum. These unit prices shall be for the Work as specified, including all labor, materials, equipment, accessories, shipping, preparation, insurance, testing, overhead, profit, applicable taxes, permits, fees, warranties and all other associated costs for the finished and completed Work. All Base Bid and Base Bid Alternates prices for utility conduits shall include sweeps, bends, couplings, caps, fittings, etc. which shall be included in the unit price per linear foot. Base Bids and Base Bid Alternate prices for undercut soils shall include material in place, surveyed and compacted pursuant to the Contract Documents.

Base Bid Alternate 1

5.02 Bidder will complete the Work in accordance with the Contract Documents for the following unit price(s):

Delete Alternate 1: Front Entrance Landscaping Package (excluding Columns)

<u>Item No.</u>	<u>Cost</u>
1	\$ _____

Delete Alternate 2: Front Entrance Columns

<u>Item No.</u>	<u>Cost</u>
2	\$ _____

Delete Alternate 3: 32 Gallon Trash Receptacles

<u>Item No.</u>	<u>Cost</u>
3	\$ _____

Delete Alternate 4: Exterior Cooking Grills

<u>Item No.</u>	<u>Cost</u>
4	\$ _____

Delete Alternate 5: Park Benches

<u>Item No.</u>	<u>Cost</u>
5	\$ _____

Bidder acknowledges that estimated quantities are not guaranteed, and are solely for the purpose of comparison of Bids.

Base Bid

BASE BID PROPOSAL: Bidder / Proposer agrees to perform all of the work described in the specifications, including allowances, and shown on the drawings, for the sum of:

_____ \$ _____

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END OF SECTION

DIVISION 001 – GENERAL CONDITIONS

STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

PART 1 - DEFINITIONS AND TERMINOLOGY

1.01 Defined Terms

- A. Wherever used in the Bidding Requirements or Contract Documents and printed with initial capital letters, the terms listed below will have the meanings indicated which are applicable to both the singular and plural thereof. In addition to terms specifically defined, terms with initial capital letters in the Contract Documents include references to identified Parts and paragraphs, and the titles of other documents or forms.
1. Addenda – Written or graphic instruments issued prior to the opening of Bids which clarify, correct, or change the Bidding Requirements or the proposed 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 the Construction Coordinator 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. Bidder – The individual or entity who submits a Bid directly to Owner.
 7. Bidding Documents – The Bidding Requirements, Contract Documents and the General Conditions (including all Addenda).
 8. Bidding Requirements – The Advertisement or Invitation to Bid, Instructions to Bidders, bid security of acceptable form, if any, and the Bid Form with any supplements.
 9. Change Order – A document recommended by the Construction Coordinator 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. Construction Coordinator - The person or firm in charge of the project. The person or firm will be selected by the owner and in some instances, the owner will self-perform, acting as the Construction Coordinator. The firm could be an Architectural Firm, Engineering Firm, or third party as so designated by the owner.

12. Contract – The entire and integrated written agreement between the Owner and Contractor including the General Conditions concerning the Work. The Contract supersedes prior negotiations, representations, or agreements, whether written or oral.
13. Contract Documents – Those items so designated in the Agreement. Only printed or hard copies of the items listed in the Agreement Are Contract Documents. Approved Shop Drawings, other Contractor's submittals, and the reports and drawings of subsurface and physical conditions are not Contract Documents.
14. Contract Price – The moneys payable by Owner to Contractor for completion of the Work in accordance with the Contract Documents as stated in the Agreement (subject to the provisions of Paragraph 11.03 in the case of Unit Price Work).
15. Contract Times – The number of days or the dates stated in the Agreement to: (i) achieve Milestones, if any, (ii) achieve Substantial Completion; and (iii) complete the Work so that it is ready for final payment as evidenced by Engineer's written recommendation of final payment.
16. Contractor – The individual or entity with whom Owner has entered into the Agreement.
17. Cost of the Work – See Paragraph 11.01.A for definition.
18. Drawings – That part of the Contract Documents prepared or approved by the Construction Coordinator which graphically shows the scope, extent, and character of the Work to be performed by Contractor. Shop Drawings and other Contractor submittals are not Drawings as so defined.
19. Effective Date of the Agreement – The date indicated in the Agreement on which it becomes effective, but if no such date is indicated, it means the date on which the Agreement is signed and delivered by the last of the two parties to sign and deliver.
20. Field Order – A written order issued by the Construction Coordinator which requires minor changes in the Work but which does not involve a change in the Contract Price or the Contract Times.
21. General Requirements – Sections of Division 1 of the Specifications. The General Requirements pertain to all sections of the Specifications.
22. 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.
23. 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.
24. 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.
25. Liens – Charges, security interests, or encumbrances upon Project funds, real property, or personal property.
26. 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.

27. Notice of Award – The written notice by Owner to the Successful Bidder stating that upon timely compliance by the Successful Bidder with the conditions precedent listed therein, Owner will sign and deliver the Agreement.
28. Notice to Proceed – A written notice given by Owner or Construction Coordinator 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.
29. Owner – The individual or entity with whom Contractor has entered into the Agreement and for whom the Work is to be performed.
30. PCBs – Polychlorinated biphenyls.
31. 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.
32. Progress Schedule – A schedule, prepared and maintained by Contractor, describing the sequence and duration of the activities comprising the Contractor's plan to accomplish the Work within the Contract Times.
33. Project – The total construction of which the Work to be performed under the Contract Documents may be the whole, or a part.
34. 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.
35. 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.
36. Related Entity – An officer, director, partner, employee, agent, consultant, or subcontractor.
37. Resident Project Representative – The authorized representative of the Construction Coordinator 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. Schedule of Submittals – A schedule, prepared and maintained by Contractor, of required submittals and the time requirements to support scheduled performance of related construction activities.
40. Schedule of Values – A schedule, prepared and maintained by Contractor, allocating portions of the Contract Price to various portions of the Work and used as the basis for reviewing Contractor's Applications for Payment.
41. 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.
42. 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.

43. Specifications – That part of the Contract Documents consisting of written requirements for materials, equipment, systems, standards and workmanship as applied to the Work, and certain administrative requirements and procedural matters applicable thereto.
44. 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.
45. Substantial Completion – The time at which the Work (or a specified part thereof) has progressed to the point where, in the opinion of the Construction Coordinator, 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.
46. Successful Bidder – The Bidder submitting a responsive Bid to whom Owner makes an award.
47. Supplementary Conditions – That part of the Contract Documents which amends or supplements these General Conditions.
48. Supplier – A manufacturer, fabricator, supplier, distributor, material man, 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.
49. 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.
50. Unit Price Work – Work to be paid for on the basis of unit prices.
51. Work – The entire construction or the various separately identifiable parts thereof required to be provided under the Contract Documents. Work includes and is the result of performing or providing all labor, services, and documentation necessary to produce such construction, and furnishing, installing, and incorporating all materials and equipment into such construction, all as required by the Contract Documents.
52. 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 the Construction Coordinator 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.

1.02 Terminology

- A. The following words or terms are not defined but, when used in the Bidding Requirements or Contract Documents, have the following meaning.

B. Intent of Certain Terms or Adjectives

1. The Contract Documents include the terms “as allowed,” “as approved,” “as ordered,” “as directed” or terms of like effect or import to authorize an exercise of professional judgment by the Construction Coordinator. In addition, the adjectives “reasonable,” “suitable,” “acceptable,” “proper,” “satisfactory,” or adjectives of like effect or import are used to describe an action or determination of the Construction Coordinator as to the Work. It is intended that such exercise of professional judgment, action or determination will be solely to evaluate, in general, the 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 is not intended to and shall not be effective to assign to the Construction Coordinator 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 9.09 or any other provision of the Contract Documents.

C. Day

1. The word “day” means a calendar day of 24 hours measured from midnight to the next midnight.
2. The wording “business day” means any day Monday thru Friday.

D. Defective

1. The word “defective,” when modifying the word “Work,” refers to Work that is unsatisfactory, faulty, or deficient in that it:
 - a. does not conform to the Contract Documents, or
 - b. does not meet the requirements of any applicable inspection, reference standard, test, or approval referred to in the Contract Documents, or
 - c. has been damaged prior to the Construction Coordinator 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).

E. 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.

- F. 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.

PART 2 - PRELIMINARY MATTERS

2.01 Delivery of Bonds and Evidence of Insurance

- A. When Contractor delivers the executed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner such bonds as Contractor may be required to furnish.
- B. 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 General 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 Part 5.

2.02 Copies of Documents

- A. Owner shall furnish to Contractor up to three (3) printed or hard copies of the Drawings and Project Manual. 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 thirtieth day after the Effective Date of the Agreement.

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. *Preliminary Schedules:* Within ten (10) days after the Effective Date of the Agreement (unless otherwise specified in the General Requirements), Contractor shall submit to the Construction Coordinator for 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 Submittals; 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.

2.06 Preconstruction Conference

- A. Before any Work at the Site is started, a conference attended by Owner, Contractor, the Construction Coordinator, 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.A, procedures for handling Shop Drawings and other submittals, processing Applications for Payment, and maintaining required records.

2.07 Initial Acceptance of Schedules

- A. At least ten (10) days before submission of the first Application for Payment a conference attended by Contractor, the Construction Coordinator, and others as appropriate will be held to review for acceptability to the Construction Coordinator as provided below the schedules submitted in accordance with Paragraph 2.05.A. Contractor shall have an additional ten (10) 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 the Construction Coordinator.
 - 1. The Progress Schedule will be acceptable to the Construction Coordinator if it provides an orderly progression of the Work to completion within the Contract Times. Such acceptance will not impose on the Construction Coordinator 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 Submittals will be acceptable to the Construction Coordinator if it provides a workable arrangement for reviewing and processing the required submittals.
 - 3. Contractor's Schedule of Values will be acceptable to the Construction Coordinator as to form and substance if it provides a reasonable allocation of the Contract Price to component parts of the Work.

PART 3 – CONTRACT DOCUMENTS: INTENT, AMENDING, REUSE

3.01 Intent

- A. The Contract Documents are complementary; what is required by one is as binding as if required 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 the Construction Coordinator as provided in Part 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 the Construction Coordinator, or any of their subcontractors, consultants, agents, employees from those set forth in the Contract Documents. No such provision or instruction shall be effective to assign to Owner, or the Construction Coordinator, or any of, their Related Entities, 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. *Contractor's Review of Contract Documents Before Starting Work:* 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 the Construction Coordinator any conflict, error, ambiguity, or discrepancy which Contractor may discover and shall obtain a written interpretation or clarification from the Construction Coordinator before proceeding with any Work affected thereby.
2. *Contractor's Review of Contract Documents During Performance of Work:* 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 promptly report it to the Construction Coordinator in writing. 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.
3. Contractor shall not be liable to Owner or the Construction Coordinator for failure to report any conflict, error, ambiguity, or discrepancy in the Contract Documents 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 by either a Change Order or 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:
 1. A Field Order;
 2. Construction Coordinator approval of a Shop Drawing or Sample; (Subject to the provisions of Paragraph 6.17.D.3); or

3. Construction Coordinator written interpretation or clarification.

3.05 Reuse of Documents

- A. Contractor and any Subcontractor or Supplier or other individual or entity performing or furnishing all of the Work under a direct or indirect contract with Contractor, shall not:
 1. 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 Architects, Engineer or Architects and or Engineer's consultants, including electronic media editions; or
 2. 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 Architect or Engineer and specific written verification or adaption by Architect or Engineer.
- B. The prohibition of this Paragraph 3.05 will survive final payment, or termination of the Contract. Nothing herein shall preclude Contractor from retaining copies of the Contract Documents for record purposes.

3.06 Electronic Data

- A. Copies of data furnished by Owner or the Construction Coordinator to Contractor or Contractor to Owner or the Construction Coordinator that may be relied upon are limited to the printed copies (also known as hard copies). Files in electronic media format of text, data, graphics, or other types are furnished only for the convenience of the receiving party. Any conclusion or information obtained or derived from such electronic files will be at the user's sole risk. If there is a discrepancy between the electronic files and the hard copies, the hard copies govern.
- B. Because data stored in electronic media format can deteriorate or be modified inadvertently or otherwise without authorization of the data's creator, the party receiving electronic files agrees that it will perform acceptance tests or procedures within 60 days, after which the receiving party shall be deemed to have accepted the data thus transferred. Any errors detected within the 60-day acceptance period will be corrected by the transferring party.
- C. When transferring documents in electronic media format, the transferring party makes no representations as to long term compatibility, usability, or readability of documents resulting from the use of software application packages, operating systems, or computer hardware differing from those used by the data's creator.

PART 4 - AVAILABILITY OF LANDS; SUBSURFACE AND PHYSICAL CONDITIONS; HAZARDOUS ENVIRONMENTAL 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 or a part thereof, 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: Reports of explorations and tests of subsurface conditions at or contiguous to the Site have not been conducted. The contractor should insure that capable soils are found for any and all compacted surfaces.

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 the Construction Coordinator 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. Construction Coordinator Review: After receipt of written notice as required by Paragraph 4.03.A, Construction Coordinator 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 the Construction Coordinator 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 9.07 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 with respect to 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 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 and the Construction Coordinator, and any of their Related Entities 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 the Construction Coordinator by the owners of such Underground Facilities, including Owner, or by others:
1. Owner and Construction Coordinator 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 the Construction Coordinator. Construction Coordinator 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 the Construction Coordinator concludes that a change in the Contract Documents is required, a Work Change Directive or a Change Order will be issued to reflect and document such consequences. An equitable adjustment shall be made in the Contract Price or Contract Times, or both, to the extent that they are attributable to the existence or location of any Underground Facility that was not shown or indicated or not shown or indicated with reasonable accuracy in the Contract Documents and that Contractor did not know of and could not reasonably have been expected to be aware of or to have anticipated. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment in Contract Price or Contract Times, Owner or Contractor may make a Claim therefor as provided in Paragraph 10.05.

4.05 Reference Points

- A. Owner shall provide engineering surveys to establish reference points for construction which in the Construction Coordinator 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 the Construction Coordinator 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: No reports on drawings related to Hazardous Environmental Conditions are known to the Owner or the Construction Coordinator.
- B. Limited Reliance by Contractor on Technical Data Authorized: Not used.

PART 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 of Contractor's obligations under the Contract Documents. These bonds shall remain in effect until one year after the date when final payment becomes due or until completion of the correction period specified in Paragraph 13.07, whichever is later, 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 the 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 promptly notify Owner and the Construction Coordinator and shall, within 20 days after the event giving rise to such notification, provide 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.

5.03 Certificates of Insurance

- A. Contractor shall deliver to Owner, with copies to each additional insured, certificates of insurance (and other evidence of insurance requested by Owner or any other additional insured) which Contractor is required to purchase and maintain.
- B. Owner shall deliver to Contractor, with copies to each additional insured, certificates of insurance (and other evidence of insurance requested by Contractor or any other additional insured) which Owner is required to purchase and maintain.
- C. Failure of Owner to demand such certificates or other evidence of full compliance with these insurance requirements or failure of Owner to identify a deficiency from evidence provided shall not be construed as a waiver of Contractor's obligation to maintain such insurance.
- D. By requiring such insurance and insurance limits herein, Owner does not represent that coverage and limits will necessarily be adequate to protect contractor and such coverage and limits shall not be deemed as a limitation on Contractor's liability under the indemnities granted to Owner in the Contract Documents.

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:
 - a. by any person as a result of an offense directly or indirectly related to the employment of such person by Contractor, or
 - b. 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 required by this Paragraph 5.04 shall:
1. with respect to insurance required by Paragraphs 5.04.A.3 through 5.04.A.6 inclusive, include as additional insured (subject to any customary exclusion regarding professional liability) Owner and Construction Coordinator, and any other individuals or entities, all of whom shall be listed as additional insureds, and include coverage for the respective officers, directors, partners, employees, agents, 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 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 6.11 and 6.20;
 5. contain a provision or endorsement that the coverage afforded will not be canceled, materially changed or renewal refused until at least 30 days' prior written notice has been given to Owner and Contractor and to each other additional insured 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.
 - a. Contractor shall furnish Owner and each other additional insured 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.
- 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: South Carolina
Statutory Benefits
 - b. Applicable Federal (e.g., Longshoreman's): Statutory
 - c. Employer's Liability:

Each Accident	\$1,000,000
Disease-Policy Limit	\$500,000
Disease-Each Employee	\$500,000
 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 and for this project only:

- a. General Aggregate \$2,000,000
 - b. Products - Completed Operations Aggregate \$2,000,000
 - c. Personal and Advertising Injury \$1,000,000
 - d. Each Occurrence (Bodily Injury and Property Damage) \$1,000,000
 - e. Fire Damage (any one (1) fire) \$50,000
 - f. Medical Expense (any one (1) person) \$5,000
 - g. Property Damage liability insurance will provide Explosion, Collapse, and Under-ground coverages where applicable.
 - h. Excess or Umbrella Liability
 - 1) General Aggregate \$2,000,000
 - 2) Each Occurrence \$2,000,000
3. Automobile Liability under Paragraph 5.04.A.6 of the General Conditions:
- a. Include coverage for all owned, hired and non-owned automobiles.
 - b. Combined Single Limit of \$1,000,000
 - c. Each Occurrence \$1,000,000
 - d. Limits Medical Expense \$5,000
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
 - Annual Aggregate \$2,000,000
 - b. Property Damage:
 - Each Accident \$2,000,000
 - Annual Aggregate \$2,000,000
5. Flood Insurance: The Contractor is required to carry flood insurance for projects located in designated flood hazard areas in which Federal Flood Insurance is available.

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. Contractor shall purchase and maintain property insurance upon the Work at the Site in the amount of the full replacement cost thereof.
1. This insurance shall:
 - a. includes the interests of Owner, Contractor, Subcontractors, Construction Coordinator and any other individuals or entities identified herein, and the officers, directors, partners, employees, agents and other consultants and subcontractors of any of them each of whom is deemed to have an insurable interest and shall be listed as an insured or additional insured;
 - b. in addition to the individuals and entities specified, include as additional insureds, the following:
 - c. 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 and damage to the Work, temporary buildings, falsework, 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 (other than that caused by flood), and such other perils or causes of loss as may be specifically required;
 - d. includes expenses incurred in the repair or replacement of any insured property (including but not limited to fees and charges of engineers and architects);
 - e. 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 the Construction Coordinator;
 - f. allows for partial utilization of the Work by Owner;
 - g. includes testing and startup; and
 - h. be maintained in effect until final payment is made unless otherwise agreed to in writing by Owner, Contractor and the Construction Coordinator with 30 days' written notice to each other additional insured to whom a certificate of insurance has been issued.
 2. Contractor shall be responsible for any deductible or self-insured retention.
 3. The policies of insurance required to be purchased and maintained by Contractor in accordance with this Paragraph SC-5.06.A shall comply with the requirements of paragraph 5.06.C of the General Conditions.
- B. Owner shall purchase and maintain such boiler and machinery insurance or additional property insurance as may be required Laws and Regulations which will include the interests of Owner, Contractor, Subcontractors, and Construction Coordinator, and any other individuals or entities identified, and the officers, directors, partners, employees, agents, 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 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 thirty (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. The risk of loss within such identified deductible amount will be borne by Contractor, Subcontractors, or others suffering any such loss, and if any of them wishes property insurance coverage within the limits of such amounts, each may purchase and maintain it at the purchaser's own expense.

5.07 Waiver of Rights

- A. Owner and Contractor intend that all policies purchased in accordance with Paragraph 5.06 will protect Owner, Contractor, Subcontractors, and Construction Coordinator, and all other individuals or entities identified to be listed as insureds or additional insureds (and the officers, directors, partners, employees, agents, 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, 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, and the Construction Coordinator, and all other individuals or entities identified to be listed as insured or additional insured (and the officers, directors, partners, employees, agents, 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. 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, or the Construction Coordinator, and the officers, directors, partners, employees, agents, 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.
- 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 Part 5 on the basis of nonconformance with the Contract Documents, the objecting party shall so notify the other party in writing within ten (10) days after receipt of the certificates (or other evidence requested) required by Paragraph 2.01.B. 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.

PART 6 - CONTRACTOR'S RESPONSIBILITIES

6.01 Supervision and Superintendence

- A. **When working is being performed on site the superintendent must be present, without exception.**
- B. 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. Contractor shall not be responsible for the negligence of Owner or the Construction Coordinator 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.
- C. At all times during the progress of the Work, Contractor shall assign a competent resident superintendent who shall not be replaced without written notice to Owner and the Construction Coordinator 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 and lay out the Work and perform construction 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 on business days during regular working hours. Contractor will not permit the performance of Work on a Saturday, Sunday, or any legal holiday without Owner's written consent (which will not be unreasonably withheld) given after prior written notice to the Construction Coordinator.

6.03 Services, Materials, and Equipment

- A. Unless otherwise specified in the Contract Documents, 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, startup, 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 special warranties and guarantees required by the Specifications shall expressly run to the benefit of Owner. If required by the Construction Coordinator, Contractor shall furnish satisfactory evidence (including reports of required tests) as to the source, kind, and quality of materials and equipment.
- C. 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 the Construction Coordinator 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. Such adjustments will comply with any provisions of the General Requirements applicable thereto.
 - 2. Proposed adjustments in the Progress Schedule that will change the Contract Times shall be submitted in accordance with the requirements of Part 12. Adjustments in Contract Times may only be made by a Change Order.

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 the Construction Coordinator for review under the circumstances described below.

1. "Or-Equal" Items: If in the Construction Coordinators 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:
 - 1) it is at least equal in materials of construction, quality, durability, appearance, strength, and design characteristics;
 - 2) it will reliably perform at least equally well the function and achieve the results imposed by the design concept of the completed Project as a functioning whole,
 - 3) it has a proven record of performance and availability of responsive service; and
 - b. Contractor certifies that, if approved and incorporated into the Work:
 - 1) there will be no increase in cost to the Owner or increase in Contract Times, and
 - 2) it will conform substantially to the detailed requirements of the item named in the Contract Documents.
2. Substitute Items
 - a. If in the Construction Coordinators 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 the Construction Coordinator 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 the Construction Coordinator from anyone other than Contractor.
 - c. The requirements for review by the Construction Coordinator will be as set forth in Paragraph 6.05.A.2.d, as supplemented in the General Requirements and as the Construction Coordinator may decide is appropriate under the circumstances.
 - d. Contractor shall make written application to the Construction Coordinator for review of a proposed substitute item of material or equipment that Contractor seeks to furnish or use. The application:
 - 1) shall certify that the proposed substitute item will:
 - a) perform adequately the functions and achieve the results called for by the general design,
 - b) be similar in substance to that specified, and
 - c) be suited to the same use as that specified;
 - 2) will state:

- a) the extent, if any, to which the use of the proposed substitute item will prejudice Contractor's achievement of Substantial Completion on time;
 - b) 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 other work on the Project) to adapt the design to the proposed substitute item; and
 - c) 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;
 - 3) will identify:
 - a) all variations of the proposed substitute item from that specified, and
 - b) available engineering, sales, maintenance, repair, and replacement services;
 - 4) and shall 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,
- B. Substitute Construction Methods or Procedures: If a specific means, method, technique, sequence, or procedure of construction is expressly required by the Contract Documents, Contractor may furnish or utilize a substitute means, method, technique, sequence, or procedure of construction approved by the Construction Coordinator. Contractor shall submit sufficient information to allow the Construction Coordinator, in the Construction Coordinator's sole discretion, to determine that the substitute proposed is equivalent to that expressly called for by the Contract Documents. The requirements for review by the Construction Coordinator will be similar to those provided in Paragraph 6.05.A.2.
- C. Construction Coordinator Evaluation: The Construction Coordinator 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. The Construction Coordinator may require Contractor to furnish additional data about the proposed substitute item. The Construction Coordinator will be the sole judge of acceptability. No "or equal" or substitute will be ordered, installed or utilized until the Construction Coordinator'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." The Construction Coordinator 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. Cost Reimbursement: The Construction Coordinator will record the Architect or Engineer's costs in evaluating a substitute proposed or submitted by Contractor pursuant to Paragraphs 6.05.A.2 and 6.05.B. Whether or not the Construction Coordinator approves a substitute item so proposed or submitted by Contractor, Contractor shall reimburse Owner for the charges of the Architect or Engineer for evaluating each such proposed substitute. Contractor shall also reimburse Owner for the charges of the Architect or Engineer for making changes in the Contract Documents (or in the provisions of any other direct contract with Owner) resulting from the acceptance of each 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. 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, 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. 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 the Construction Coordinator to reject defective Work.
- C. Contractor shall be fully responsible to Owner and the Construction Coordinator 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:
 - 1. shall create for the benefit of any such Subcontractor, Supplier, or other individual or entity any contractual relationship between Owner or the Construction Coordinator and any such Subcontractor, Supplier or other individual or entity, nor
 - 2. shall anything in the Contract Documents create any obligation on the part of Owner or the Construction Coordinator 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 the Construction Coordinator 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 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 Construction Coordinator. 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, and Construction Coordinator,, and all other individuals or entities to be listed as insureds or additional insureds (and the officers,

directors, partners, employees, agents, 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.

- H. Owner or Construction Coordinator may furnish to any Subcontractor or Supplier, to the extent practicable, information about amounts paid to Contractor on account of Work performed for Contractor by a particular Subcontractor or Supplier.

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 Construction Coordinator 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.
- B. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Construction Coordinator, and the officers, directors, partners, employees, agents, 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 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. Contractor shall obtain and pay for all construction permits and licenses. Contractor shall pay all governmental charges and inspection fees necessary for 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.

6.09 Laws and Regulations

- A. Contractor shall give all notices required by and shall 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 Construction Coordinator 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 shall 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 and Construction Coordinator, and the officers, directors, partners, employees, agents, 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 any claim or action, legal or equitable, brought by party against Owner, Construction Coordinator, 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 the Work 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, 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 Construction Coordinator for reference.

Upon completion of the Work, these record documents, Samples, and Shop Drawings will be delivered to Construction Coordinator for Owner in digital format as an as-built file.

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.
- C. 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 Construction Coordinator or , 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).
- D. 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 Construction Coordinator 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. All MSDS Sheets shall be kept on site in good order as outlined in OSHA, laws, rules and 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 Construction Coordinator 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 and Samples to Construction Coordinator for review and approval in accordance with the acceptable Schedule of Submittals (as required by Paragraph 2.07). Each submittal will be identified as Construction Coordinator may require.
 - 1. Shop Drawings
 - a. Submit number of copies specified in the General Requirements.
 - b. 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 Construction Coordinator 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.D.
 - 2. Samples: Contractor shall also submit Samples to Construction Coordinator for review and approval in accordance with the acceptable schedule of Shop Drawings and Sample submittals.
 - a. Submit number of Samples specified in the Specifications.
 - b. Clearly identify each Sample as to material, Supplier, pertinent data such as catalog numbers, the use for which intended and other data as Construction Coordinator may require to enable Construction Coordinator to review the submittal for the limited purposes required by Paragraph 6.17.D.
- B. Where a Shop Drawing or Sample is required by the Contract Documents or the Schedule of Submittals, any related Work performed prior to Construction Coordinator's review and approval of the pertinent submittal will be at the sole expense and responsibility of Contractor.
- C. Submittal Procedures
 - 1. Before submitting each Shop Drawing or Sample, Contractor shall have determined and verified:
 - a. all field measurements, quantities, dimensions, specified performance and design criteria, installation requirements, materials, catalog numbers, and similar information with respect thereto;
 - b. the suitability of 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 Contractor's responsibilities for means, methods, techniques, sequences, and procedures of construction, and safety precautions and programs incident thereto; and
 - d. 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 certification that Contractor has satisfied Contractor's obligations under the Contract Documents with respect to Contractor's review and approval of that submittal.
 3. With each submittal, Contractor shall give Construction Coordinator specific written notice of any variations, that the Shop Drawing or Sample may have from the requirements of the Contract Documents. This notice shall be both a written communication separated from the Shop Drawing's or Sample Submittal; and, in addition, by a specific notation made on each Shop Drawing or Sample submitted to Construction Coordinator for review and approval of each such variation.

D. Construction Coordinator's Review

1. Construction Coordinator will provide timely review of Shop Drawings and Samples in accordance with the Schedule of Submittals acceptable to Construction Coordinator. Construction Coordinator'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. Construction Coordinator'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. Construction Coordinator's review and approval shall not relieve Contractor from responsibility for any variation from the requirements of the Contract Documents unless Contractor has complied with the requirements of Paragraph 6.17.C.3 and Construction Coordinator has given written approval of each such variation by specific written notation thereof incorporated in or accompanying the Shop Drawing or Sample. Construction Coordinator's review and approval shall not relieve Contractor from responsibility for complying with the requirements of Paragraph 6.17.C.1.

E. Resubmittal Procedures

1. Contractor shall make corrections required by Construction Coordinator 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 the Construction Coordinator on previous submittals.
- F. Contractor shall furnish required submittals with sufficient information and accuracy in order to obtain required approval of an item with no more than three (3) submittals. Construction Coordinator will record the Architect or Engineer's time for reviewing subsequent submittals of Shop Drawings, samples or other items requiring approval and Contractor shall reimburse Owner for the Architect or Engineer's charges for such time.

- G. In the event that Contractor requests a substitution for a previously approved item, Contractor shall reimburse Owner for the Architect or Engineer's charges for such time unless the need for such substitution is beyond the control of Contractor.

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 that all Work will be in accordance with the Contract Documents and will not be defective. Construction Coordinator and its Related Entities shall be entitled to rely on representation of Contractor's warranty and guarantee.
- B. 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.
- C. 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 Construction Coordinator;
 - 2. recommendation by Construction Coordinator or payment by Owner of any progress or final payment;
 - 3. the issuance of a certificate of Substantial Completion by Construction Coordinator or any payment related thereto by Owner;
 - 4. use or occupancy of the Work or any part thereof by Owner;
 - 5. any review and approval of a Shop Drawing or Sample submittal or the issuance of a notice of acceptability by Construction Coordinator;
 - 6. any inspection, test, or approval by others; or
 - 7. any correction of defective Work by Owner.
- D. The Contractor's General Warranty and Guarantee shall be for a period of one (1) year after work has been accepted and final payment made to the Contractor. In the case of Water and Wastewater lines, the warranty period will start after acceptance of these lines into the utility provider's system for ownership, operation, and maintenance. The Contractor accepts the transference of all warranties and guarantees to the utility provider owning and operating the new lines.

6.20 Indemnification

- A. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Construction Coordinator, and the officers, directors, partners, employees, agents, 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 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 but only to the extent caused 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 .
- B. In any and all claims against Owner or Construction Coordinator 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 Construction Coordinator and Construction Coordinator's officers, directors, partners, employees, agents, consultants and subcontractors 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.

6.21 Delegation of Professional Design Services

- A. Contractor will not be required to provide professional design services unless such services are specifically required by the Contract Documents for a portion of the Work or unless such services are required to carry out Contractor's responsibilities for construction means, methods, techniques, sequences and procedures. Contractor shall not be required to provide professional services in violation of applicable law.
- B. If professional design services or certifications by a design professional related to systems, materials or equipment are specifically required of Contractor by the Contract Documents, Owner and Construction Coordinator will specify all performance and design criteria that such services must satisfy. Contractor shall cause such services or certifications to be provided by a properly licensed professional, whose signature and seal shall appear on all drawings, calculations, specifications, certifications, Shop Drawings and other submittals prepared by such professional. Shop Drawings and other submittals related to the Work designed or certified by such professional, if prepared by others, shall bear such professional's written approval when submitted to Construction Coordinator.
- C. Owner and Construction Coordinator shall be entitled to rely upon the adequacy, accuracy and completeness of the services, certifications or approvals performed by such design professionals, provided Owner and Construction Coordinator have specified to Contractor all performance and design criteria that such services must satisfy.

- D. Pursuant to this Paragraph 6.21, Construction Coordinator's review and approval of design calculations and design drawings will be only for the limited purpose of checking for conformance with performance and design criteria given and the design concept expressed in the Contract Documents. Construction Coordinator's review and approval of Shop Drawings and other submittals (except design calculations and design drawings) will be only for the purpose stated in Paragraph 6.17.D.1.
- E. Contractor shall not be responsible for the adequacy of the performance or design criteria required by the Contract Documents.

PART 7 - OTHER WORK AT THE SITE

7.01 Related Work at Site

- A. Owner may perform other work related to the Project at the Site with Owner's employees or via other direct contracts therefor, or have other work performed by utility owners. If such other work is not noted in the Contract Documents.
- B. Contractor shall afford each other contractor who is a party to such a direct contract, each utility owner and Owner, if Owner is performing other work with Owner's employees, proper and safe access to the Site, 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. 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 Construction Coordinator 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 Part 7, Contractor shall inspect such other work and promptly report to Construction Coordinator 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:
 - 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. Owner shall have sole authority and responsibility for such coordination.

7.03 Legal Relationships

- A. Paragraphs 7.01.A and 7.02 are not applicable for utilities not under the control of Owner.
- B. Each other direct contract of Owner under Paragraph 7.01.A shall provide that the other contractor is liable to Owner and Contractor for the reasonable direct delay and disruption costs incurred by Contractor as a result of the other contractor's actions or inactions.
- C. Contractor shall be liable to Owner and any other contractor for the reasonable direct delay and disruption costs incurred by such other contractor as a result of Contractor's action or inactions.

7.04 Claims Between Contractors

- A. Should Contractor cause damage to the work or property of any other contractor at the Site, or should any claim arising out of Contractor's performance of the Work at the Site be made by any other contractor against Contractor, Owner, Construction Coordinator, or Contractor shall promptly attempt to settle with such other contractor by agreement, or to otherwise resolve the dispute by arbitration or at law.
- B. Contractor shall, to the fullest extent permitted by Laws and Regulations, indemnify and hold harmless Owner, the Construction Coordinator 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, fees and charges of engineers, architects, attorneys, and other professionals and court and arbitration costs) arising directly, indirectly or consequentially out of any action, legal or equitable, brought by any other contractor against Owner, Construction Coordinator, Construction Coordinator's Consultants to the extent said claim is based on or arises out of Contractor's performance of the Work. Should another contractor cause damage to the Work or property of Contractor or should the performance of work by any other contractor at the Site give rise to any other Claim, Contractor shall not institute any action, legal or equitable, against Owner, or the Construction Coordinator or permit any action against any of them to be maintained and continued in its name or for its benefit in any court or before any arbiter which seeks to impose liability on or to recover damages from Owner, or the Construction Coordinator on account of any such damage or Claim.
- C. If Contractor is delayed at any time in performing or furnishing Work by any act or neglect of another contractor, and Owner and Contractor are unable to agree as to the extent of any adjustment in Contract Times attributable thereto, Contractor may make a Claim for an extension of times in accordance with Part 12. An extension of the Contract Times shall be Contractor's exclusive remedy with respect to Owner, and construction coordinator for any delay, disruption, interference, or hindrance caused by any other contractor. This paragraph does not prevent recovery from Owner, or construction coordinator for activities that are their respective responsibilities.

PART 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 the Construction Coordinator.

8.02 Replacement of Construction Coordinator

- A. In case of termination of the employment of the Construction Coordinator, Owner shall appoint a Construction Coordinator to whose status under the Contract Documents shall be that of the former Construction Coordinator.

8.03 Furnish Data

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

8.04 Pay When Due

A. Owner shall make payments to Contractor 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 the Architect or 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 Part 5.

8.07 Change Orders

A. Owner is obligated to execute Change Orders as indicated in Paragraph 10.03.

8.08 Inspections, Tests, and Approvals

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

8.09 Limitations on Owner's Responsibilities

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

8.10 Undisclosed Hazardous Environmental Condition

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

8.11 Evidence of Financial Arrangements

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

PART 9 - Construction Coordinator's STATUS DURING CONSTRUCTION

9.01 Owner's Representative

A. Construction Coordinator will be Owner's representative during the construction period. The duties and responsibilities and the limitations of authority of Construction Coordinator as

Owner's representative during construction are set forth in the Contract Documents and will not be changed without written consent of Owner and Construction Coordinator.

9.02 Visits to Site

- A. Construction Coordinator 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, Construction Coordinator, for the benefit of Owner, will determine, in general, if the Work is proceeding in accordance with the Contract Documents. Construction Coordinator will not be required to make exhaustive or continuous inspections on the Site to check the quality or quantity of the Work. Construction Coordinator'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, Construction Coordinator will keep Owner informed of the progress of the Work and will endeavor to guard Owner against defective Work.
- B. Construction Coordinator's visits and observations are subject to all the limitations on Construction Coordinator's authority and responsibility set forth in Paragraph 9.09. Particularly, but without limitation, during or as a result of Construction Coordinator's visits or observations of Contractor's Work Construction Coordinator 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 Construction Coordinator agree; Construction Coordinator will furnish a Resident Project Representative to assist Construction Coordinator in providing more extensive observation of the Work. The authority and responsibilities of any such Resident Project Representative and assistants will be as provided, and limitations on the responsibilities thereof will be as provided in Paragraph 9.09. If Owner designates another representative or agent to represent Owner at the Site who is not Construction Coordinator's consultant, agent or employee, the responsibilities and authority and limitations thereon of such other individual or entity will be as provided in Paragraph 9.09.

9.04 Authorized Variations in Work

- A. Construction Coordinator 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 or Contractor believes that a Field Order justifies an adjustment in the Contract Price or Contract Times, or both, and the parties 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.

9.05 Rejecting Defective Work

- A. Construction Coordinator will have authority to reject Work which Construction Coordinator believes to be defective, or that Construction Coordinator 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. Construction Coordinator 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.

9.06 Shop Drawings, Change Orders and Payments

- A. In connection with Construction Coordinator's authority, and limitations thereof, as to Shop Drawings and Samples, see Paragraph 6.17.
- B. In connection with Construction Coordinator's authority, and limitations thereof, as to design calculations and design drawings submitted in response to a delegation of professional design services, if any, see Paragraph 6.21.
- C. In connection with Construction Coordinator's authority as to Change Orders, see Parts 10, 11, and 12.
- D. In connection with Construction Coordinator's authority as to Applications for Payment, see Part 14.

9.07 Determinations for Unit Price Work

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

9.08 Decisions on Requirements of Contract Documents and Acceptability of Work

- A. Construction Coordinator will be the initial interpreter of the requirements of the Contract Documents and judge of the acceptability of the Work thereunder. All matters in question and other matters between Owner and Contractor arising prior to the date final payment is due relating to the acceptability of the Work, and the interpretation of the requirements of the Contract Documents pertaining to the performance of the Work, will be referred initially to the Construction Coordinator in writing within 30 days of the event giving rise to the question
- B. Construction Coordinator will, with reasonable promptness, render a written decision on the issue referred. If Owner or Contractor believe that any such decision entitles them to an adjustment in the Contract Price or Contract Times or both, a Claim may be made under Paragraph 10.05. The date of Construction Coordinator's decision shall be the date of the event giving rise to the issues referenced for the purposes of Paragraph 10.05.B.
- C. Construction Coordinator's written decision on the issue referred will be final and binding on Owner and Contractor, subject to the provisions of Paragraph 10.05.
- D. When functioning as interpreter and judge under this Paragraph 9.08, Construction Coordinator 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.

9.09 Limitations on Construction Coordinator's Authority and Responsibilities

- A. Neither Construction Coordinator's authority or responsibility under this Part 9 or under any other provision of the Contract Documents nor any decision made by Construction Coordinator 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 Construction Coordinator shall create, impose, or give rise to any duty in contract, tort, or otherwise owed

by Construction Coordinator 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. Construction Coordinator 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. Construction Coordinator will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.
- C. Construction Coordinator 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. Construction Coordinator'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 9.09 shall also apply to, the Resident Project Representative, if any, and assistants, if any.

PART 10 - CHANGES IN THE WORK; CLAIMS

10.01 Authorized Changes in the Work

- A. Without invalidating the Contract 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 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 Construction Coordinator covering:
 - 1. changes in the Work which are: (i) ordered by Owner pursuant to Paragraph 10.01.A, 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 Construction Coordinator 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

- A. Construction Coordinator's Decision Required: All Claims, except those waived pursuant to Paragraph 14.09, shall be referred to the Construction Coordinator for decision. A decision by Construction Coordinator shall be required as a condition precedent to any exercise by Owner or Contractor of any rights or remedies either may otherwise have under the Contract Documents or by Laws and Regulations in respect of such Claims.
- B. Notice: Written notice stating the general nature of each Claim shall be delivered by the claimant to Construction Coordinator 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. The responsibility to substantiate a Claim shall rest with the party making the Claim. Notice of the amount or extent of the Claim, with supporting data shall be delivered to the Construction Coordinator and the other party to the Contract within 60 days after the start of such event (unless Construction Coordinator allows additional time for claimant to submit additional or more accurate data in support of such Claim). 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 Construction Coordinator and the claimant within 30 days after receipt of the claimant's last submittal (unless Construction Coordinator allows additional time).
- C. Construction Coordinator's Action: Construction Coordinator will review each Claim and, within 30 days after receipt of the last submittal of the claimant or the last submittal of the opposing party, if any, take one of the following actions in writing:
 1. deny the Claim in whole or in part,
 2. approve the Claim, or
 3. notify the parties that the Construction Coordinator is unable to resolve the Claim if, in the Construction Coordinator's sole discretion, it would be inappropriate for the Construction Coordinator to do so. For purposes of further resolution of the Claim, such notice shall be deemed a denial.

- D. In the event that Construction Coordinator does not take action on a Claim within said 30 days, the Claim shall be deemed denied.
- E. Nonwithstanding anything herein final approval rests with the Owner.
- F. No Claim for an adjustment in Contract Price or Contract Times will be valid if not submitted in accordance with this Paragraph 10.05.

PART 11 - COST OF THE WORK; 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, except those excluded in Paragraph 11.01.B, 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 Construction Coordinator, 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 Construction Coordinator, 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, expresses, and similar petty cash items in connection with the Work.
 - i. 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, safety 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 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 and by such persons or entities as may be acceptable to Owner and Construction Coordinator.
- B. Cash Allowances
1. Contractor agrees that:
 - a. the cash 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
 - b. Contractor's costs for unloading and handling on the Site, labor, installation, overhead, profit, and other expenses contemplated for the cash 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.
- C. Contingency Allowance
1. Contractor agrees that a contingency allowance, if any, is for the sole use of Owner to cover unanticipated costs.
- D. Prior to final payment, an appropriate Change Order will be issued as recommended by Construction Coordinator 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. 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.
- B. 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 the Owner subject to the provisions of Paragraph 9.07.
- C. 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.
- D. 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. 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.

PART 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. Any Claim for an adjustment in the Contract Price shall be based on written notice submitted by the party making the Claim to the Construction Coordinator and the other party to the Contract in accordance with the provisions of Paragraph 10.05. Final approval of all change orders rests with the owner.
- 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 may only be changed by a Change Order. Any Claim for an adjustment in the Contract Times shall be based on written notice submitted by the party making the Claim to the Construction Coordinator and the other party to the Contract in accordance with the provisions of Paragraph 10.05. Final approval of all change orders rests with the owner.
- B. Any adjustment of the Contract Times covered by a Change Order or any Claim for an adjustment in the Contract Times will be determined in accordance with the provisions of this Part 12.

12.03 Delays

- A. Where Contractor is prevented from completing any part of the Work within the Contract Times due to delay beyond the control of Contractor, the Contract Times 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 Part 7, fires, floods, epidemics, abnormal weather conditions, or acts of God.
- B. If Owner, Construction Coordinator, or other contractors or utility owners performing other work for Owner as contemplated by Part 7, or anyone for whom Owner is responsible, delays, disrupts, or interferes with the performance or progress of the Work, then Contractor shall be entitled to an equitable adjustment in the Contract Price or the Contract Times, or both. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times.

- C. If Contractor is delayed in the performance or progress of the Work by fire, flood, epidemic, abnormal weather conditions, acts of God, acts or failures to act of utility owners not under the control of Owner, or other causes not the fault of and beyond control of Owner and Contractor, then Contractor shall be entitled to an equitable adjustment in Contract Times, if such adjustment is essential to Contractor's ability to complete the Work within the Contract Times. Such an adjustment shall be Contractor's sole and exclusive remedy for the delays described in this Paragraph 12.03.C.
- D. Owner, Construction Coordinator and the Related Entities of each of them 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.
- E. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for 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.
- F. All claims for delays shall be submitted at the submission of any application for payment or within fifteen (15) days of the event causing the delay. Any claims made after the allowable time shall be denied.

PART 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 Construction Coordinator has actual knowledge will be given to Contractor. All defective Work may be rejected, corrected, or accepted as provided in this Part 13.

13.02 Access to Work

- A. Owner, Construction Coordinator, their consultants and 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 Construction Coordinator 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. Contractor shall employ and pay for the services of an independent testing laboratory to perform all inspections, tests, or approvals required by 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 Construction Coordinator 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 Construction Coordinator'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 third party organizations acceptable to Owner and Construction Coordinator.
- 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 Construction Coordinator, it must, if requested by Construction Coordinator, be uncovered for observation.
- F. Uncovering Work as provided in Paragraph 13.03.E shall be at Contractor's expense unless Contractor has given Construction Coordinator timely notice of Contractor's intention to cover the same and Construction Coordinator 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 Construction Coordinator, it must, if requested by Construction Coordinator, be uncovered for Construction Coordinator's observation and replaced at Contractor's expense.
- B. If Construction Coordinator considers it necessary or advisable that covered Work be observed by Construction Coordinator or inspected or tested by others, Contractor, at Construction Coordinator's request, shall uncover, expose, or otherwise make available for observation, inspection, or testing as Construction Coordinator may require, that portion of the Work in question, furnishing all necessary labor, material, and equipment.
- C. If it is found that the uncovered Work is defective, Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of Construction Coordinator, 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.
- D. If, the uncovered 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 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. Promptly after receipt of notice, Contractor shall correct all defective Work, whether or not fabricated, installed, or completed, or, if the Work has been rejected by Construction Coordinator, 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 construction coordinator, 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).
- B. When correcting defective Work under the terms of this Paragraph 13.06 or Paragraph 13.07, Contractor shall take no action that would void or otherwise impair Owner's special warranty and guarantee, if any, on said Work.

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 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:
 - 1. repair such defective land or areas; or
 - 2. correct such defective Work; or
 - 3. if the defective Work has been rejected by Owner, remove it from the Project and replace it with Work that is not defective, and
 - 4. 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.
- B. If Contractor does not promptly comply with the terms of Owner's written 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. All claims, costs, losses, and damages (including but not limited to all fees and charges of construction coordinator, 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.
- C. 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.
- D. 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.
- E. 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 Construction Coordinator's recommendation of final payment, Construction Coordinator) 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 construction coordinator, 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 Construction Coordinator 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 Construction Coordinator'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 Construction Coordinator to correct defective Work or to remove and replace rejected Work as required by Construction Coordinator 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 (7) days written notice to Contractor, correct or remedy any such deficiency.
- B. In exercising the rights and remedies under this Paragraph 13.09, Owner shall proceed expeditiously. In connection with such corrective or 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 Construction Coordinator and Construction Coordinator'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 construction coordinator, 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 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.

PART 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 the Construction Coordinator. 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 in the Agreement for each progress payment (but not more often than once a month), Contractor shall submit to the Construction Coordinator 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. The date of the pay application must be the last day of the month. 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. Construction Coordinator will, within fifteen (15) 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 Construction Coordinator's reasons for refusing to recommend payment. In the latter case, Contractor may make the necessary corrections and resubmit the Application.
2. Construction Coordinator's recommendation of any payment requested in an Application for Payment will constitute a representation by Construction Coordinator to Owner, based on Construction Coordinator's observations on the Site of the executed Work as an experienced and qualified design professional and on Construction Coordinator's review of the Application for Payment and the accompanying data and schedules, that to the best of Construction Coordinator'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 9.07, 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 Construction Coordinator's responsibility to observe the Work.
3. By recommending any such payment Construction Coordinator will not thereby be deemed to have represented that:
 - a. 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 Construction Coordinator in the Contract Documents; or
 - b. 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 Construction Coordinator's review of Contractor's Work for the purposes of recommending payments nor Construction Coordinator's recommendation of any payment, including final payment, will impose responsibility on Construction Coordinator:
 - a. to supervise, direct, or control the Work, or
 - b. for the means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or
 - c. for Contractor's failure to comply with Laws and Regulations applicable to Contractor's performance of the Work, or
 - d. to make any examination to ascertain how or for what purposes Contractor has used the moneys paid on account of the Contract Price, or
 - e. to determine that title to any of the Work, materials, or equipment has passed to Owner free and clear of any Liens.
 5. Construction Coordinator may refuse to recommend the whole or any part of any payment if, in Construction Coordinator's opinion, it would be incorrect to make the representations to Owner stated in Paragraph 14.02.B.2. Construction Coordinator 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 Construction Coordinator'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 Change Orders;
 - c. Owner has been required to correct defective Work or complete Work in accordance with Paragraph 13.09; or
 - d. Construction Coordinator has actual knowledge of the occurrence of any of the events enumerated in Paragraph 15.02.A.

C. Payment Becomes Due

1. Fifteen (15) days after presentation of the Application for Payment to Owner with Construction Coordinator'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 Construction Coordinator 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 Construction Coordinator, Owner will give Contractor immediate written notice (with a copy to Construction Coordinator) 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 Construction Coordinator in writing that the entire Work is substantially complete (except for items specifically listed by Contractor as incomplete) and request that Construction Coordinator issue a certificate of Substantial Completion.
- B. Promptly after Contractor's notification, Owner, Contractor, and Construction Coordinator shall make an inspection of the Work to determine the status of completion. If Construction Coordinator does not consider the Work substantially complete, Construction Coordinator will notify Contractor in writing giving the reasons therefor.
- C. If Construction Coordinator considers the Work substantially complete, the Construction Coordinator will 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 (7) days after receipt of the tentative certificate during which to make written objection to Construction Coordinator as to any provisions of the certificate or attached list. If, after considering such objections, Construction Coordinator concludes that the Work is not substantially complete, Construction Coordinator 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, the Construction Coordinator considers the Work substantially complete, the Construction Coordinator will within be 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 Construction Coordinator believes justified after consideration of any objections from Owner.

- D. At the time of delivery of the tentative certificate of Substantial Completion, Construction Coordinator 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 informs the Construction Coordinator in writing prior to Construction Coordinator's issuing the definitive certificate of Substantial Completion, Construction Coordinator's aforesaid recommendation will be binding on Owner and Contractor until final payment.
- E. Owner shall have the right to exclude Contractor from the Site after the date of Substantial Completion subject to allowing Contractor reasonable access to complete or correct items on the tentative list.

14.05 Partial Utilization

- A. Prior to Substantial Completion of all the Work, Owner may use or occupy any substantially completed part of the Work which has specifically been identified in the Contract Documents, or which Owner, Construction Coordinator, 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, subject to the following conditions.
 - 1. Owner at any time may request Contractor in writing to permit Owner to use or occupy any such part of the Work Which Owner believes to be ready for its intended use and substantially complete. If and when Contractor agrees that such part of the Work is substantially complete, Contractor will certify to Owner and Construction Coordinator that such part of the Work is substantially complete and request Construction Coordinator to issue a certificate of Substantial Completion for that part of the Work.
 - 2. Contractor at any time may notify Owner and Construction Coordinator in writing that Contractor considers any such part of the Work ready for its intended use and substantially complete and request Construction Coordinator to issue a certificate of Substantial Completion for that part of the Work. Said work should have, at a minimum, a temporary Certificate of Occupancy from the authority having jurisdiction.
 - 3. Within a reasonable time after either such request, Owner, Contractor, and Construction Coordinator shall make an inspection of that part of the Work to determine its status of completion. If Construction Coordinator does not consider that part of the Work to be substantially complete, Construction Coordinator will notify Owner and Contractor in writing giving the reasons therefor. If Construction Coordinator 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.

4. No use or 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, Construction Coordinator 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 Construction Coordinator, satisfactorily completed all corrections identified during the final inspection and has delivered, in accordance with the Contract Documents, all maintenance, training and operating instructions, schedules, guarantees, bonds, certificates or other evidence of insurance certificates of inspection, marked-up record documents to include digital as-builds of the project (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:
 - a. all documentation called for in the Contract Documents, including but not limited to the evidence of insurance required by Paragraph 5.04.B.7;
 - b. consent of the surety, if any, to final payment;
 - c. a list of all Claims against Owner that Contractor believes are unsettled; and
 - d. 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. Construction Coordinator's Review of Application and Acceptance

1. If, on the basis of Construction Coordinator's observation of the Work during construction and final inspection, and Construction Coordinator's review of the final Application for Payment and accompanying documentation as required by the Contract Documents, Construction Coordinator is satisfied that the Work has been completed and Contractor's other obligations under the Contract Documents have been fulfilled, Construction Coordinator will, within ten (10) days after receipt of the final Application for Payment, indicate in writing Construction Coordinator's recommendation of payment and present the Application for Payment to Owner for payment. At the same time, Construction Coordinator will also give written notice to Owner and Contractor that the Work is

acceptable subject to the provisions of Paragraph 14.09. Otherwise, Construction Coordinator 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 (30) days after the presentation to Owner of the Application for Payment and accompanying documentation, the amount recommended by Construction Coordinator, less any sum Owner is entitled to set off against Construction Coordinator's recommendation, including but not limited to liquidated damages, will become due and, 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 Construction Coordinator so confirms, Owner shall, upon receipt of Contractor's final Application for Payment (for Work fully completed and accepted) and recommendation of Construction Coordinator, and without terminating the Contract, 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 the Construction Coordinator 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 accordance with the requirements herein and expressly acknowledged by Owner in writing as still unsettled.

PART 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 Construction Coordinator which will fix the date on which Work will be resumed. Contractor shall resume the Work on the date so fixed. Contractor shall be granted 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 the Construction Coordinator; 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 surety) seven (7) days written notice of its intent to terminate the services of Contractor:
1. 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),
 2. 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
 3. complete the Work as Owner may deem expedient.
- C. If Owner proceeds as provided in Paragraph 15.02.B, Contractor shall not be entitled to receive any further payment until the Work is completed. 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 construction coordinator, 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 the Construction Coordinator as to their reasonableness and, when so approved by the Construction Coordinator, 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.
- D. Notwithstanding Paragraphs 15.02.B and 15.02.C, Contractor's services will not be terminated if Contractor begins within seven (7) days of receipt of notice of intent to terminate to correct its failure to perform and proceeds diligently to cure such failure within no more than 30 days of receipt of said notice.
- E. 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.
- F. If and to the extent that Contractor has provided a performance bond under the provisions of Paragraph 5.01.A, the termination procedures of that bond shall supersede the provisions of Paragraphs 15.02.B, and 15.02.C.

15.03 Owner May Terminate for Convenience

- A. Upon fifteen (15) days written notice to Contractor and Construction Coordinator, Owner may, without cause and without prejudice to any other right or remedy of Owner, terminate the Contract. In such case, Contractor shall be paid for (without duplication of any items):
 - 1. 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. 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. 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. 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, (i) the Work is suspended for more than 90 consecutive days by Owner or under an order of court or other public authority, or (ii) Construction Coordinator fails to act on any Application for Payment within 30 days after it is submitted, or (iii) Owner fails for 30 days to pay Contractor any sum finally determined to be due, then Contractor may, upon seven (7) days written notice to Owner and Construction Coordinator, and provided Owner or Construction Coordinator 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.
- B. In lieu of terminating the Contract and without prejudice to any other right or remedy, if Construction Coordinator 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 (7) days after written notice to Owner and Construction Coordinator, 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.

PART 16 - DISPUTE RESOLUTION

16.01 Methods and Procedures

- A. Either Owner or Contractor may request mediation of any Claim submitted to Construction Coordinator for a decision under Paragraph 10.05 before such decision becomes final and binding. The mediation will be governed by the Mediation Rules of the South Carolina Supreme Court in effect as of the Effective Date of the Agreement. The request for mediation shall stay the effect of paragraph 10.05.E.
- B. Owner and Contractor shall participate in the mediation process in good faith. The process shall be concluded within 60 days of the request.

- C. If the Claim is not resolved by mediation, Engineer's action under Paragraph 10.05.C or a denial pursuant to Paragraphs 10.05.C.3 or 10.05.D shall become final and binding 30 days after termination of the mediation unless, within that time period, Owner or Contractor:
1. agrees with the other party to submit the Claim to another dispute resolution process, or
 2. gives written notice to the other party of their intent to submit the Claim to a court of competent jurisdiction.

PART 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:
1. 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
 2. 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. 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 Contract or termination of the services of Contractor.

17.05 Controlling Law

- A. This Contract is to be governed by the law of the State of South Carolina.

17.06 Headings

- A. Part and paragraph headings are inserted for convenience only and do not constitute parts of these General Conditions.

GENERAL CONSTRUCTION NOTES

- 1. ELEVATION DATUM: NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).
2. HORIZONTAL DATUM: SOUTH CAROLINA STATE PLANE COORDINATE SYSTEM OF 1983 BASED ON INTERNATIONAL FEET (SC83IF).
3. THE CONTRACT DOCUMENTS FOR THIS PROJECT INCLUDE THE PLANS AND ASSOCIATED TECHNICAL SPECIFICATIONS...

EXISTING UTILITIES AND FACILITIES

- 1. THE LOCATION AND DESCRIPTIONS OF EXISTING UTILITIES SHOWN ON THE DRAWINGS ARE COMPILED FROM AVAILABLE RECORDS AND/OR FIELD SURVEYS...
2. CONTRACTOR SHALL CALL PALMETTO UTILITY PROTECTION SERVICE (PUPS) AND ANY LOCAL UTILITY COMPANY NOT REPRESENTED BY PUPS...
3. THE CONTRACTOR SHALL CONTACT ALL UTILITY PROVIDERS BEFORE EXCAVATION...

GRADING, PAVING AND DRAINAGE

- 1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MANAGING CONSTRUCTION ACTIVITIES AROUND THE CLOCK TO ENSURE THAT PUBLIC STREETS AND RIGHT-OF-WAYS ARE KEPT CLEAN OF MUD, DUST, OR DEBRIS...
2. GRADING WORK, MATERIALS AND EQUIPMENT, UNLESS SPECIFICALLY STATED OTHERWISE HEREIN, SHALL BE IN ACCORDANCE WITH REQUIREMENTS OF THE SCDOT STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION...

- 4. ALL STRUCTURAL FILLS SHALL BE ENGINEERED AND CONSTRUCTED IN 8' LIFTS MAXIMUM WITH HEAVY COMPACTION EQUIPMENT. EACH LIFT SHALL BE COMPACTED TO 95% OF THE MAXIMUM DRY DENSITY PER AASHTO T-180 TEST METHOD...
5. UNLESS OTHERWISE SHOWN ON THE DRAWINGS, NO FILL SLOPES SHALL BE CONSTRUCTED STEEPER THAN 2H:1V.
6. RESTORE ALL AREAS DISTURBED BY CONSTRUCTION TO GRADES THAT RESULT IN POSITIVE DRAINAGE TO THE EXISTING INLETS...

SCDHEC/OCRM STANDARD NOTES

- 1. IF NECESSARY, SLOPES WHICH EXCEED EIGHT (8) VERTICAL FEET SHOULD BE STABILIZED WITH SYNTHETIC OR VEGETATIVE MATS IN ADDITION TO HYDROSEEDING...
2. STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED...
3. ALL SEDIMENT AND EROSION CONTROL DEVICES SHALL BE INSPECTED ONCE EVERY CALENDAR WEEK...

SEQUENCE OF CONSTRUCTION (EROSION CONTROL)

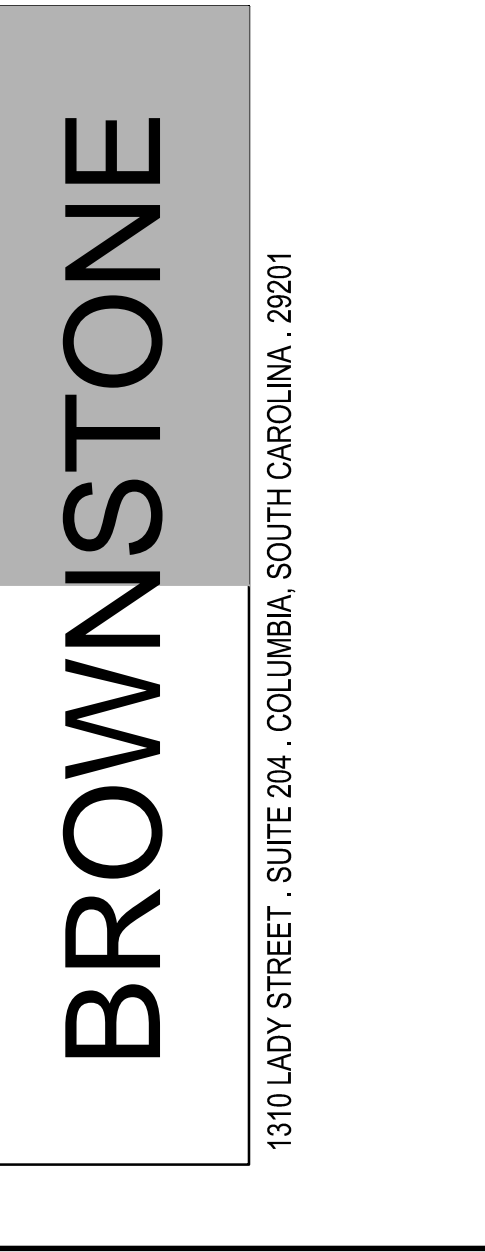
PRE-CONSTRUCTION SEQUENCE:

- 1. RECEIVE CZC AND NPDES COVERAGE FROM SCDHEC AND OTHER APPLICABLE DHEC AND SCDOT PERMITS.
2. PRE-CONSTRUCTION MEETING SHALL BE HELD ON-SITE. INVITED SHALL BE THE GENERAL CONTRACTOR, OWNER, TOWN OF COTTAGEVILLE REPRESENTATIVES, ARCHITECT, ENGINEER, SCDHEC, AND ANY SUB-CONTRACTORS.
3. NOTIFY SCDHEC EDC REGIONAL OFFICE OR OCRM AND THE TOWN OF COTTAGEVILLE 48 HOURS PRIOR TO BEGINNING LAND-DISTURBING ACTIVITIES...

- 5. CLEAR AND GRUB ONLY AS REQUIRED TO INSTALL PERIMETER B MPS (SILT FENCE) AS SHOWN ON THE SWPPP PLANS.
6. INSTALL PERIMETER CONTROLS (i.e. SILT FENCE, INLET PROTECTION, ETC.)
7. SCHEDULE REQUIRED INSPECTIONS OF THE SEDIMENT CONTROLS.
CONSTRUCTION SEQUENCE:
1. MAINTAIN CONSTRUCTION ENTRANCES AND PERMETER CONTROLS AS NECESSARY TO ASSURE THEY ARE IN FUNCTIONAL CONDITION.
2. CLEAR AND GRUB ONLY AS MAY BE REQUIRED FOR THE WALKING PATH AND PERFORM SITE DEMOLITION ITEMS AS REQUIRED.

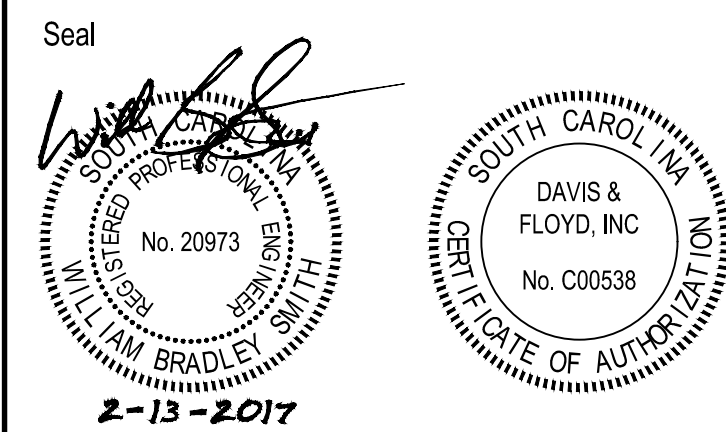
POST-CONSTRUCTION SEQUENCE:

- 1. MAINTAIN PERIMETER SILT FENCE AND APPLICABLE EROSION CONTROLS.
2. ESTABLISH FINAL STABILIZATION FOR ALL DISTURBED AREAS. PERMANENTLY SEED ALL UNPAVED DISTURBED AREAS.
3. MAINTAIN SEDIMENT AND EROSION CONTROL MEASURES UNTIL THE SITE IS PERMANENTLY STABILIZED AND THE CONTROLS ARE APPROVED FOR REMOVAL.
4. CONTACT THE ENGINEER AND DHEC/OCRM FOR FINAL INSPECTION AND CLOSE-OUT APPLICATION TO BE SUBMITTED FOR REVIEW AND APPROVAL.
5. REMOVE TEMPORARY SEDIMENT & EROSION CONTROL MEASURES AFTER ENTIRE AREA DRAINING TO THE STRUCTURE HAS REACHED FINAL PERMANENT STABILIZATION...
6. SUBMIT NOTICE OF TERMINATION (NOT) TO DHEC FOR APPROVAL.



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BID SET



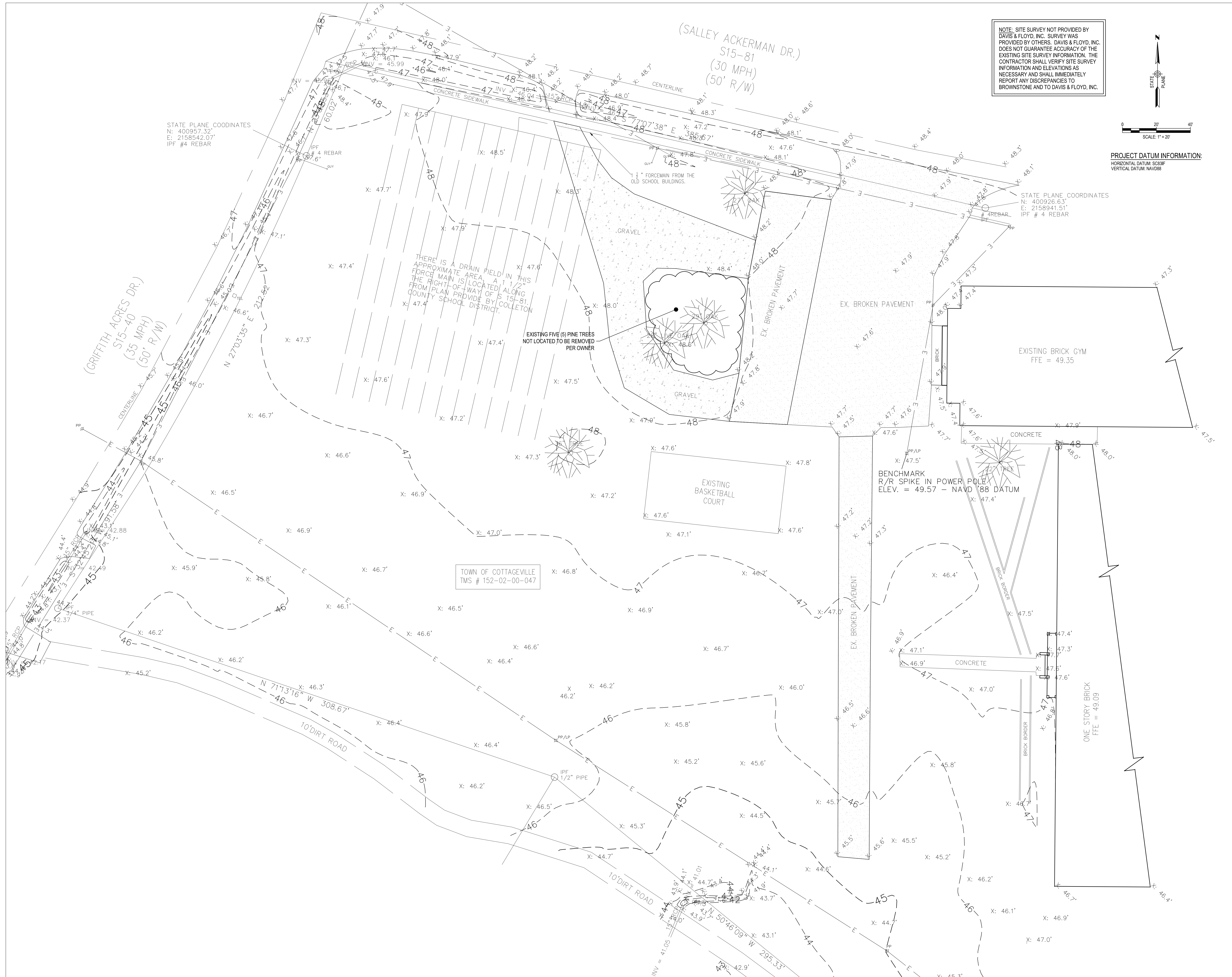
Client
TOWN OF COTTAGEVILLE
Project
COTTAGEVILLE RECREATIONAL AREA
Issued For

Table with 3 columns: No., Item, Date. Contains multiple empty rows for tracking.

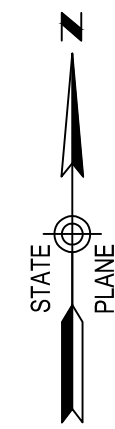
Key Plan
Sheet Title
GENERAL NOTES

C2.0

Drawn By JFS
Checked By WBS



NOTE: SITE SURVEY NOT PROVIDED BY DAVIS & FLOYD, INC. SURVEY WAS PROVIDED BY OTHERS. DAVIS & FLOYD, INC. DOES NOT GUARANTEE ACCURACY OF THE EXISTING SITE SURVEY INFORMATION. THE CONTRACTOR SHALL VERIFY SITE SURVEY INFORMATION AND ELEVATIONS AS NECESSARY AND SHALL IMMEDIATELY REPORT ANY DISCREPANCIES TO BROWNSTONE AND TO DAVIS & FLOYD, INC.



SCALE: 1" = 20'

PROJECT DATUM INFORMATION:
HORIZONTAL DATUM: SCRS83
VERTICAL DATUM: NAVD83

STATE PLANE COORDINATES
N: 400957.32
E: 2158542.07
IPF #4 REBAR

STATE PLANE COORDINATES
N: 400926.63
E: 2158941.51
IPF #4 REBAR

THERE IS A DRAIN FIELD IN THIS APPROXIMATE AREA. A 1 1/2" FORCE MAIN IS LOCATED ALONG THE RIGHT-OF-WAY OF S 15-81. COUNTY PLANS PROVIDED BY COLLETON COUNTY SCHOOL DISTRICT.

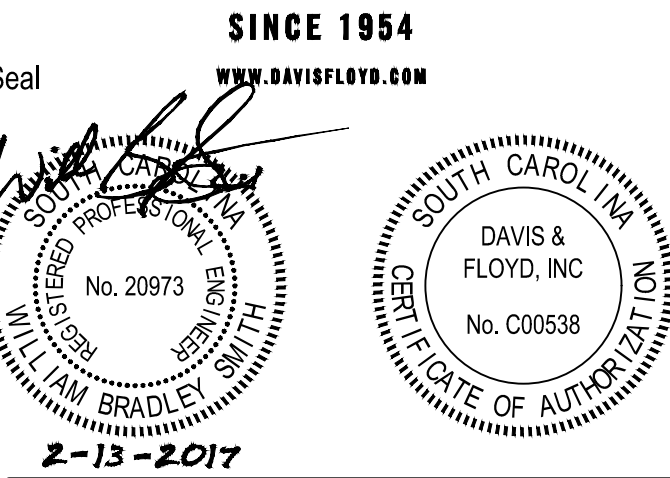
EXISTING FIVE (5) PINE TREES NOT LOCATED TO BE REMOVED PER OWNER

TOWN OF COTTAGEVILLE
TMS # 152-02-00-047

BENCHMARK
R/R SPIKE IN POWER POLE
ELEV. = 49.57 - NAVD 88 DATUM

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BID SET
DAVIS & FLOYD



Client
TOWN OF COTTAGEVILLE

Project
COTTAGEVILLE RECREATIONAL AREA

Issued For

No.	Item	Date

Key Plan

Sheet Title
EXISTING CONDITIONS

C3.0

Drawn By JFS
Checked By WBS

ELECTRICAL SPECIFICATIONS:

A. DESCRIPTION OF WORK
1. THE ELECTRICAL CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIAL, EQUIPMENT, AND TOOLS NECESSARY FOR DEMOLITION AND REMOVAL OF ANY EXISTING AND THE COMPLETE INSTALLATION OF THE NEW ELECTRICAL WORK, READY TO USE, SS SHOWN ON THE DRAWINGS
OR SPECIFIED HEREIN. WORK SHALL INCLUDE BUT, NOT BE LIMITED TO THE FOLLOWING:

- i. FURNISH AND INSTALL NEW CONDUIT AND WIRE.
- ii. FURNISH AND INSTALL ALL FUSES, CIRCUIT BREAKERS, PANELBOARDS ETC.
- iii. INSTALL NEW LIGHTING FIXTURES AS INDICATED.
- iv. FURNISH AND INSTALL NEW LIGHT FIXTURES AS INDICATED.
- v. FURNISH AND INSTALL COMMUNICATIONS DEVICES.

2. THE EXACT LOCATION OF ALL ITEMS SHOWN ON THE ELECTRICAL DRAWINGS IS DEPENDENT UPON FIELD CONDITIONS. REVIEW THE PLANS AND SPECIFICATIONS FOR ALL PARTS AND CONSULT WITH OTHER TRADES OF THIS PROJECT FOR PERTINENT DATA ON SIZES, LOCATIONS, WIRING, ETC, AS REQUIRED FOR A COMPLETE ELECTRICAL INSTALLATION.

3. THE ELECTRICAL CONTRACTOR SHALL NOT ATTACH TO, COVER UP, OR FINISH AGAINST ANY DEFECTIVE WORK, OR INSTALL IN A MANNER WHICH WILL PREVENT PROPER INSTALLATION OF THE WORK OF OTHER TRADES.

4. THE ELECTRICAL CONTRACTOR SHALL WARRANT ALL WORK & MATERIAL INDICATED ON THESE ELECTRICAL DRAWINGS FOR A PERIOD OF ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE. WARRANTY SHALL INCLUDE ANY ADDITIONAL LABOR OR MATERIAL REQUIRED TO REPAIR OR REPLACE DEFECTIVE ITEM.

B. CODES, PERMITS AND FEES

1. ALL WORK INCLUDED BY THE DRAWINGS AND SPECIFICATIONS, TOGETHER WITH ALL MATERIAL (OR EQUIPMENT) FURNISHED, SHALL COMPLY WITH THE LATEST PUBLISHED CODES AND STANDARDS LISTED INSOFAR AS SUCH SHALL APPLY. ALL ELECTRICAL ITEMS SHALL BE UL LABELED & LISTED.

2. THE CONTRACTOR SHALL SECURE ALL PERMITS AND PAY ALL FEES THAT ARE REQUIRED BY THE APPLICABLE LOCAL AND STATE CODES.

3. PERFORM ALL WORK IN ACCORDANCE WITH THE LATEST EDITION OF APPLICABLE CODES INCLUDING, BUT NOT NECESSARILY LIMITED TO THOSE LISTED BELOW:

- i. THE NATIONAL ELECTRICAL CODE, NFPA 70
- ii. NATIONAL ELECTRICAL SAFETY CODE (ANSI-C2)
- iii. ALL APPLICABLE STATE AND LOCAL CODES
- iv. APPLICABLE PROVISIONS OF THE OCCUPATIONAL SAFETY AND HEALTH ACT.

C. GENERAL REQUIREMENTS

1. THE DRAWINGS REPRESENT THE DESIGN FOR THE LISTED MANUFACTURERS' REQUIREMENTS. IF ANY SUBSTITUTIONS ARE ACCEPTED BY THE ENGINEER, THIS CONTRACTOR SHALL BE RESPONSIBLE FOR ALL NECESSARY MODIFICATIONS, INCLUDING COST, TO THE ELECTRICAL SYSTEM REQUIRED BECAUSE OF THE SUBSTITUTED EQUIPMENT OR MATERIAL.

2. THE ELECTRICAL, MECHANICAL, ARCHITECTURAL, STRUCTURAL, AND ALL OTHER DRAWINGS AS WELL AS THE SPECIFICATIONS AND ADDENDUMS ARE PART OF THE CONTRACT DOCUMENTS. ANY REQUIREMENTS CALLED FOR ON OTHER TRADES CONTRACT DOCUMENTS SHALL BE INCLUDED IN THE ELECTRICAL BID.

3. THE CONTRACTOR SHALL VISIT THE JOB SITE AND BECOME FAMILIAR WITH ALL EXISTING CONDITIONS. SUBMISSION OF A BID ASSUMES THE CONTRACTOR HAS REVIEWED OR ACCEPTS ALL FIELD CONDITIONS AND EXISTING CONDITIONS. NO ADDITIONAL COMPENSATIONS SHALL BE ALLOWED FOR LABOR OR MATERIAL BECAUSE OF IGNORANCE OF THESE CONDITIONS BEFORE OR AFTER BID SUBMISSION.

4. DISCREPANCIES BETWEEN THE DRAWINGS OR BETWEEN THE DRAWINGS AND THE ACTUAL FIELD CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT AND THE ENGINEER PRIOR TO SUBMITTING THE BID. THE MORE COMPREHENSIVE AND MOST EXPENSIVE SCOPE OF WORK SHALL BE CONSIDERED FOR THE ELECTRICAL BID UNLESS WRITTEN CLARIFICATION IS PROVIDED BY THE ARCHITECT AND THE ENGINEER PRIOR TO SUBMITTING THE BID.

D. RACEWAYS

1. EMT CONDUIT SHALL BE USED IN ALL LOCATIONS WHICH CALL FOR CONDUIT UNLESS NOTED OTHERWISE. CONDUITS ROUTED THROUGH RACEWAY SYSTEMS SHALL BE PROVIDED WITH SEAL-OFF FITTINGS TO MINIMIZE CONDENSATION. CONDUITS PENETRATING FIRE WALLS SHALL BE FIRESTOPPED PER NEC & DETAILS SHOWN ON THE DRAWINGS.

2. RIGID PVC SCHEDULE 40 SHALL BE USED FOR ALL UNDERGROUND OR BELOW SLAB CONDUIT RUNS.

3. HEAVY WALL RIGID STEEL CONDUIT SHALL BE USED IN ALL EXPOSED INTERIOR APPLICATIONS BELOW STRUCTURAL CEILING AND EXTERIOR EXPOSED APPLICATIONS. PROVIDE 2 COATS OF RUST INHIBITING PAINT FOR EXTERIOR RUNS. PAINT SHALL MATCH SURFACE CONDUIT IT IS ATTACHED TO.

4. MC CABLE MAY BE USED FOR ALL BRANCH CIRCUITS AS ALLOWED BY THE NATIONAL ELECTRICAL CODE & THE AUTHORITY HAVING JURISDICTION. CABLE SHALL BE INSTALLED IN A NEAT AND PROFESSIONAL MANNER ADHERING TO INDUSTRY STANDARDS.

5. WHEN POWER OR CONTROL CONDUCTORS ARE INSTALLED IN A RACEWAY, A GREEN EQUIPMENT GROUNDING CONDUCTOR SHALL BE INCLUDED AS SHOWN ON THE DRAWINGS OR IF NOT NOTED ON THE DRAWINGS, THEN IN ACCORDANCE WITH TABLE 250-95 OF THE NEC, OR AS INDICATED ON THE DRAWINGS. IF GREEN INSULATION IS NOT AVAILABLE, THE GROUNDING CONDUCTOR SHALL BE BARE AND CLEARLY AND PERMANENTLY MARKED AT ALL LAP AND TERMINATING POINTS BY GREEN SCOTCH MARKING TAPE, CODE MARKERS OR OTHER APPROVED MEANS.

6. ALL CONDUIT SHALL BE SECURELY FASTENED IN FULL ACCORDANCE AND AS DIRECTED BY THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE. IN ADDITION TO THE NEC REQUIREMENTS, CONDUIT HANGARS, SUPPORTS, OR FASTENINGS SHALL BE PROVIDED AT EACH ELBOW AND AT THE END (WITHIN 6 INCHES) ON EACH RUN TERMINATING AT A BOX OR CABINET.

7. CONDUITS OR BOXES MAY BE SUPPORTED BY CEILING SUPPORT WIRES OR OTHER CEILING SUPPORTING HARDWARE.

8. HORIZONTAL AND VERTICAL CONDUIT RUNS MAY BE SUPPORTED BY ONE-HOLE MALLEABLE STRAPS, CLAMP BOLTS, OR OTHER APPROVED DEVICES WITH SUITABLE BOLTS, EXPANSION SHIELDS (WHERE NEEDED) OR BEAM TYPE CLAMPS FOR MOUNTING TO BUILDING STRUCTURE OR SPECIAL BRACKETS.

9. THE USE OF PERFORATED IRON FOR SUPPORTING CONDUITS WILL NOT BE PERMITTED.

10. CONDUIT RUNS BETWEEN OUTLET BOXES SHALL CONTAIN NOT MORE THAN THE EQUIVALENT OF THREE (3) QUARTER BENDS. PROVIDE JUNCTION AND/OR PULL BOXES WHERE SHOWN ON THE DRAWINGS OR AS REQUIRED, WHETHER SHOWN ON THE DRAWINGS OR NOT. PULL BOXES SHALL BE APPROVED FOR USE IN THE AREA WHERE THEY ARE TO BE INSTALLED. PULL BOXES OR JUNCTION BOXES SHALL BE PROVIDED IN ACCORDANCE WITH THE FOLLOWING SCHEDULE:

- STRAIGHT RUNS--NOT OVER ONE HUNDRED FEET APART
- ONE (1) 90 DEGREE BEND--NOT OVER SEVENTY FIVE (75) FEET APART.
- TWO (2) OR MORE 90 DEGREE BENDS -- NOT OVER FIFTY (50) FEET APART.

11. IN CLASS I AND CLASS II HAZARD AREAS, AS DESIGNATED ON THE DRAWINGS, EXPLOSION PROOF FLEXIBLE METAL CONDUIT SHALL BE USED FOR ALL FINAL CONDUIT TERMINATIONS AT MOTORS AND TO ALL OTHER DEVICES SUBJECT TO VIBRATION OR MOVEMENT. THIS SHALL INCLUDE ALL PENDANT MOUNTED LIGHT FIXTURES AND CONDUIT RUNS AT BUILDING EXPANSION JOINTS IN CLASS I AND CLASS II HAZARD AREAS. ELECTRICAL GROUND CONTINUITY SHALL BE PROVIDED AS NOTED ABOVE.

12. TELEPHONE AND DATA (INCLUDING OTHER SPECIAL COMMUNICATION SYSTEMS SUCH AS CABLE TV) CONDUITS SHALL BE A MINIMUM OF 2" IN SIZE UNLESS NOTED OTHERWISE, AND SHALL RUN CONTINUOUS FROM OUTLET TO OUTLET WITH A PLASTIC BUSHING. BOND CONDUIT STUD WITH A #10 BARE COPPER CONDUCTOR TO THE NEAREST ELECTRICAL OUTLET BOX OR CONTINUOUS METAL CONDUIT BODY. REFER TO PLANS FOR SPECIFIC DETAILS ABOUT THE ROUTING OF THE CONDUITS. ALL EMPTY CONDUITS SHALL BE PROVIDED WITH A #10 PULL WIRE.

13. CABLES INSTALLED IN PLENUMS WITHOUT CONDUIT SHALL BE UL CLASSIFIED FOR LOW FLAME RESISTANCE AND LOW SMOKE PROPERTIES WITH "FEP" TEFLON OR HALAR INSULATION SUITABLE FOR PLENUM APPLICATIONS PER ARTICLE 760 OF THE NEC.

14. CONDUITS BELOW GRADE SHALL BE INSTALLED IN CONFORMANCE WITH:

- a. PROVIDE ALL NECESSARY TRENCHING, BACKFILL, AND REMOVAL OF TRENCHED MATERIAL FROM SITE.

b. THE BOTTOM OF THE TRENCH SHALL BE UNDISTURBED EARTH OR THOROUGHLY COMPACTED FILL. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SUCH COMPACTOR. THE BOTTOM SHALL BE FREE OF PROJECTING ROCKS OR OTHER FOREIGN MATTER. WHERE MUCK OR UNSTABLE GROUND IS ENCOUNTERED IN THE BOTTOM OF THE TRENCH, IT SHALL BE EXCAVATED TO A DEPTH OF AT LEAST 12 INCHES BELOW THE BOTTOM LINE OF THE DUCTS AND REPLACED WITH FEA GRAVEL IN THE PROPER GRADE. DUCT SHALL NOT BE INSTALLED ON OR IN FROZEN GROUND. SHEETING OR BRACING SHALL BE PROVIDED WHERE NECESSARY TO PROTECT THE WORK OR ADJACENT PROPERTY. SHEETING, BRACING, AND FEA GRAVEL SHALL BE INSTALLED BY THE ELECTRICAL CONTRACTOR AT NO ADDITIONAL EXPENSE TO THE OWNER. BACKFILL SHALL CONSIST OF 3 INCHES OF COMPACTED SAND BELOW CONDUITS AND 12" ABOVE CONDUITS. CLEAN SCREEN FILL SHALL BE INSTALLED AND COMPACTED TO 6 INCHES BELOW FINAL GRADE OR AS DETAILED IN ARCHITECTURAL SPECIFICATIONS. FINAL GRADE PATCH SHALL BE BY E.C..

c. DUCT JOINTS SHALL BE SEALED WITH WATERPROOF JOINT COMPOUND. DUCTS SHALL BE SUPPORTED AT LEAST 3 INCHES ABOVE THE TRENCH BOTTOM ON PLASTIC SUPPORTS WITH SPACING NOT TO EXCEED 5 INCHES. BEFORE DUCT IS PLACED, SUPPORTS SHALL BE ALIGNED, SET TO GRADE, AND PLACED IN CONCRETE TO PREVENT MOVEMENT WHEN ENCASEMENT IS PLACED. DUCTS SHALL BE SECURED TO SUPPORTS AND SPACERS PLACED FOR DIRECT DUCTS.

d. ALL SECONDARY POWER SERVICE UNDERGROUND DUCTS SHALL BE ENCASED WITHIN 3000 PSI CONCRETE. ALL UNDERGROUND DUCTS SHALL BE 4" DIAMETER SCHEDULE 40 RIGID NON-METALLIC PVC DUCTS WITH GROUND WIRES, UNLESS SPECIFICALLY INDICATED OTHERWISE ON THE DRAWINGS. CONCRETE ENCASEMENT SHALL BE IN ACCORDANCE WITH THE APPLICABLE PROVISIONS OF THE GENERAL TRADES PORTION OF THE SPECIFICATIONS.

e. ENCASEMENT SHALL BE CONTINUOUS MONOLITHIC POUR PROVIDING A MINIMUM OF 3 INCHES COMPLETELY AROUND THE DUCTS. CONCRETE SHALL NOT BE POURED DIRECTLY ON TOP OF THE DUCTS, BUT SHALL BE POURED FROM THE SIDES AND ALLOWED TO FLOW OVER THE DUCTS.

E. FITTINGS FOR CONDUIT

1. COUPLINGS AND CONNECTORS FOR EMT, DIE CAST ZINC, STEEL, OR ALUMINUM COMPRESSION TYPE. SET SCREW TYPE WILL ALSO BE PERMITTED. APPROVED MANUFACTURERS, THOMAS & BETTS, STEEL CITY, 0-2 GENEY.

2. FITTINGS FOR RIGID PLASTIC CONDUIT: POLYVINYL CHLORIDE, JOINTS, SOLVENT WELDED IN FIELD, PROVIDING CONTINUITY OF MECHANICAL STRENGTH AND WATER TIGHTNESS. FITTINGS AND CEMENT SHALL BE PRODUCED BY THE SAME MANUFACTURER AS THE CONDUIT.

3. FITTINGS FOR RIGID CONDUIT: CAST OR MALLEABLE IRON BODIES, ZINC OR CADMIUM PLATED, WITH FULL THREADED HUBS, SCREWS COVERS AND GASKETS WHEN LOCATED IN AREAS REQUIRING GASKETS. APPROVED MANUFACTURERS, CROUSE-HINDS, PYLE NATIONAL, APPLETON.

4. COUPLINGS AND CONNECTORS FOR FLEXIBLE STEEL CONDUIT: MALLEABLE IRON OR STEEL, ZINC OR CADMIUM PLATED AND SHALL FASTEN TO THE CONDUIT BY A CLAMPING ACTION AROUND THE PERIPHERY. CONNECTORS OR "LIQUID-TIGHT" FLEXIBLE CONDUIT SHALL BE APPROVED FOR THE PURPOSED AND MAINTAIN THE LIQUID-TIGHT FEATURE OF THE INSTALLATION. APPROVED MANUFACTURERS: THOMAS BETTS, STEEL CITY, 0-2 GENEY.

5. BUSHINGS: GROUNDING TYPE, WITH INSULATING PLASTIC INSERT; MALLEABLE IRON, ZINC OR CADMIUM PLATED, FOR STEEL CONDUIT AND ALUMINUM ALLOY FOR ALUMINUM CONDUIT. INSTALL GROUNDING TYPE BUSHINGS AS REQUIRED IN THE GROUNDING SECTION OF THE SPECIFICATION.

6. FITTINGS FOR CONDUITS: ALL CONDUIT RUNS AT BUILDING EXPANSION JOINTS SHALL BE PROVIDED WITH 0-2 TYPE EXPANSION FITTINGS. SIZES SHALL BE AS DICTATED BY THE CONDUIT SIZE. A BONDING JUMPER SHALL BE SECURELY CONNECTED TO EACH CONDUIT. EXTERIOR EXPOSED RUNS OF PVC CONDUIT SHALL BE PROVIDED WITH EXPANSION FITTINGS AT INTERVALS NOT EXCEEDING MANUFACTURERS RECOMMENDATIONS.

7. OUTLET, PULL TERMINAL AND JUNCTION BOXES IN CLASSIFIED (HAZARDOUS) AREAS: CAST BOXES SHALL BE COPPER-FREE ALUMINUM WITH INTEGRAL HUBS OR BOX WALL THICKNESS SUFFICIENT FOR A MINIMUM OF FIVE FULL TAPPED THREADS. COVERS SHALL BE SCREW-ON HINGED REMOVABLE BOLT-ON COVERS FOR LARGER BOXES. BOXES OTHER THAN OUTLET BOXES SHALL BE EQUIPPED WITH A BREATHER DRAIN AND EQUIPMENT GROUNDING LUG AND ALL BOXES SHALL BE, AS APPLICABLE, FOR INSTALLATION IN THE PARTICULAR CLASSIFIED (HAZARDOUS) AREAS WHICH ARE DESIGNATED ON THE DRAWINGS. APPROVED MANUFACTURERS: CROUSE-HINDS, PYLE-NATIONAL, APPLETON, ADALE, 0-2 GENEY, OR KILLARK.

8. CONDUIT FITTINGS IN CLASSIFIED (HAZARDOUS) AREAS: CONDUITS SEALS AND/OR DRAIN SEALS SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE NEC IN CLASSIFIED (HAZARDOUS) AREAS DESIGNATED ON THE DRAWINGS, WITH SPECIAL ATTENTION TO THE FOLLOWING:

- A. ENTERING OR CROSS-CONNECTING ENCLOSURES CONTAINING ARCING OR HIGH TEMPERATURE DEVICES.
- B. ENTERING CONDUIT AND LARGER ENTERING ANY ENCLOSURE.
- C. PASSING FROM DIVISION 1 TO DIVISION 2, FROM DIVISION 2 TO NON-CLASSIFIED AREAS, WITH OR WITHOUT A BARRIER.
- D. MULTI-CONDUCTOR AND SHIELDED CABLES.

F. ELECTRICAL SUPPORTING DEVICES

1. ELECTRICAL SUPPORTS SHALL BE SUITABLE FOR THE DEVICE OR EQUIPMENT TO BE MOUNTED. ALL SUPPORTS SHALL PRESENT A NEAT APPEARANCE, AND SHALL BE INSTALLED IN SUCH A WAY THAT THEY DO NOT DETRACT FROM THE APPEARANCE OF THE SPACE. SUPPORTS SHALL HAVE ADEQUATE STRENGTH AND SHALL BE INSTALLED SO AS TO PROPERLY SUPPORT THE DEVICE OR EQUIPMENT MOUNTED ON THEM.

2. ELECTRICAL SUPPORTS SHALL BE ATTACHED TO THE STRUCTURE BY ONE OF THE FOLLOWING METHODS: A) WOOD -- WOOD SCREWS, B) CONCRETE-EXPANSION BOLTS OR CAST IN PLACE ANCHORS, C) STRUCTURAL STEEL -- APPROVED BRACKETS OR MACHINE BOLTS.

G. CONDUCTORS

1. CONDUCTORS SHALL BE NEW, 600 VOLT, 90 DEGREE C, TYPE XHHW, THHN, OR THWN INSULATION, STRANDED COPPER FOR FEEDERS RATED ABOVE 60 AMPS. COMPACT ALUMINUM MAY BE USED FOR FEEDERS OF 150 AMPS OR HIGHER. MINIMUM SIZE SHALL BE #12 AWG FOR RUNS OF LESS THAN 100 FEET TOTAL CIRCUIT LENGTH (OUT AND BACK FOR A SINGLE PHASE CIRCUIT AND OUT ONLY FOR THREE PHASE CIRCUITS WITH NO NEUTRAL). USE #10 AWG FOR CIRCUITS LONGER THAN 100 FEET. OTHER SIZES SHALL BE AS NOTED. CONTROL WIRING MAY BE #14 AWG. ALL 120 VOLT CIRCUITS SHALL HAVE A DEDICATED NEUTRAL CONDUCTOR. THE NEUTRAL CONDUCTOR SHALL BE THE SAME SIZE AS THE PHASE CONDUCTOR. ALL CONDUCTORS SHALL BE COPPER.

2. COMPRESSION TYPE LUGS AND CONNECTORS SHALL BE USED FOR ALL TERMINATION AND SPICES. ALL TERMINATIONS SHALL BE PERMANENTLY IDENTIFIED AND NUMBERED, USING "BRANDY" LABELS OR OTHER APPROVED EQUAL. WIRE NUMBERING SHALL BE PANELBOARD AND CIRCUIT NUMBERS. ALSO ALL WIRING WHICH PASSED THROUGH JUNCTION OR PULL BOXES SHALL BE IDENTIFIED WITH APPROPRIATE NUMBERS. WHEN PANELBOARD CIRCUIT NUMBERS ARE NOT APPROPRIATE FOR IDENTIFICATION, THE CONTRACTOR SHALL ASSIGN A UNIQUE NUMBER AND RECORD HIS NUMBER ON THE AS-BUILD CONSTRUCTION DOCUMENTS SET.

H. WIRING DEVICES

1. PROVIDE WIRING DEVICES WHICH ARE UL LISTED AND WHICH COMPLY WITH NEMA WD 1 AND OTHER APPLICABLE UL AND NEMA STANDARDS. DEVICE COLOR SHALL BE WHITE UNLESS OTHERWISE NOTED. COVERPLATE COLOR SHALL MATCH DEVICE COLOR. CONFIRM COLOR SELECTION WITH ARCHITECT BEFORE PURCHASING AND INSTALLING.

2. RECEPTACLES: DEVICES SHALL BE SPECIFICATION GRADE, NEMA 5-20R CONFIGURATION. DUPLEX TYPE, HUBBELL CAT. NO. CR5362, SINGLE OUTLET TYPE, HUBBELL CAT. NO. CR5331, GFCI DUPLEX, HUBBELL CAT. NO. CR GFS362. CATALOG NUMBERS FOR HUBBELL ARE SHOWN FOR REFERENCE PURPOSES. OTHER APPROVED RECEPTACLES BY OTHER MANUFACTURERS AS NOTED ABOVE ARE ALSO APPROVED. RECEPTACLES SHALL COMPLY WITH UL 498 AND NEMA WD 1. SPECIAL RECEPTACLES NOT SHOWN BELOW SHALL BE SPECIFICATION GRADE WITH NEMA CONFIGURATION AS NOTED ON THE DRAWINGS.

3. GROUND FAULT INTERRUPTER (GFI OR GFCI) RECEPTACLES AS INDICATED ABOVE SHALL BE DESIGNED FOR AND INSTALLED IN A 2-3/4" DEEP OUTLET BOX WITHOUT ADAPTOR, GROUNDING TYPE, CLASS A, GROUP 1, PER UL STANDARD 94.3.

4. SNAP SWITCHES: DEVICES SHALL BE SPECIFICATION GRADE, QUIET TYPE, 20 AMP, 120/277V, SINGLE POLE HUBBELL CAT. NO. CS1221, TWO POLE HUBBELL CAT. NO. CS1222, THREE POLE, HUBBELL CAT. NO. CS1223, AND FOUR POLE, HUBBELL CAT. NO. CS1224. CATALOG NUMBERS FOR HUBBELL ARE SHOWN FOR REFERENCE PURPOSES AND EQUIVALENT RECEPTACLES BY OTHER MANUFACTURERS AS NOTED ABOVE ARE ALSO APPROVED. DEVICES SHALL BE SPECIFICATION GRADE, QUIET TYPE ALTERNATING CURRENT SWITCHES, AND SHALL COMPLY WITH UL20 AND NEMA WDI.

5. APPROVED MANUFACTURERS FOR WIRING DEVICES ARE HUBBELL AND PASS & SEYMOUR.

6. DIMMER SWITCHES: SOLID STATE DIMMER SWITCHES CONFORMING TO NEMA WD 1, MOUNTED IN OUTLET BOXES. FOR INCANDESCENT FIXTURES; SWITCH POLES AND WATAGE AS INDICATED, 120V, 60 HZ, CONTINUOUSLY ADJUSTABLE TOGGLE, SINGLE-POLE, WITH ON-OFF SWITCH. EQUIP WITH ELECTROMAGNETIC FILTER TO ELIMINATE NOISE, RF AND TV INTERFERENCE. DIMMERS TO BE LITRON "NOVA 1-50w" SERIES FOR DIMMERS RATED UP TO 1500 WATTS AND "NOVA" SERIES FOR 2000 WATT DIMMERS. LIGHTING SWITCHES SHOWN ON THE DRAWINGS SHALL BE IDENTIFIED AS "NOVA 7-STAR" OR STANDARD "NOVA" STYLE TO MATCH DIMMERS AND SHALL BE PROVIDED WITH A SINGLE ONE-PIECE COVERPLATE. COLOR SHALL BE SPECIFIED BY ARCHITECT.

7. WIRING DEVICES ACCESSORIES: WALL PLATES: SINGLE AND COMBINATION, OF TYPES, SIZES AND WITH GANGING AND CUTOUPS AS INDICATED. PROVIDE PLATES AND ATTACHMENT SCREWS WHICH MATE AND MATCH WITH WIRING DEVICES TO WHICH ATTACHED. PROVIDE WALL PLATES WITH ENGRAVED LEGEND WHERE INDICATED. PROVIDE A SMOOTH NYLON COVERPLATES FOR FINISHED AREAS, AND GALVANIZED STEEL PLATE FOR UNFINISHED AREAS.

8. FLOOR SERVICE OUTLETS: MODULAR, ABOVE-FLOOR SERVICE OUTLETS AND FITTINGS OF TYPES AND RATINGS INDICATED. CONSTRUCT OF DIE-CAST ALUMINUM, SATIN FINISH. USE DESIGN COMPATIBLE WITH FLOOR OUTLET WIRING METHODS INDICATED. PROVIDE 1" NPT, 100V 125 VOLTS, GREY DUPLEX RECEPTACLES. NEMA CONFIGURATION 5-20R WHERE INDICATED. PROVIDE WITH 2" OR 1" NPT, 1" LONG, LOCKING NIPPLE FOR INSTALLATION WHERE COMPATIBLE WITH WIRING METHOD.

9. WIRING DEVICE INSTALLATION: INSTALL SWITCHES AND RECEPTACLES IN OUTLET BOXES AS SPECIFIED ELSEWHERE IN THIS SPECIFICATION. INSTALL SINGLE POLE TOGGLE SWITCHES SO THAT THE SWITCH IS ON IN THE "UP" POSITION. INSTALL RECEPTACLES WITH THE U-SHAPED GROUND SLOT AT THE TOP OR TO THE LEFT.

DUPLEX RECEPTACLES SHALL BE WIRED WITH THE NEUTRAL WIRE TO THE SILVER BINDING SCREW. THREE PHASE RECEPTABLES SHALL BE WIRED SUCH THAT ALL HAVE THE SAME PHASE SEQUENCE.

THE RECEPTACLE CIRCUIT AND PANEL NUMBER SHALL BE INDICATED ON THE INSIDE OF ALL OUTLET BOXES, OR DIRECTLY ON THE CONDUCTORS BY MEANS OF A WIRE LABELING SYSTEM.

COMBINATION SWITCH/RECEPTACLE SHALL BE INSTALLED IN A TWO GANG BOX WITH A COMBINATION SWITCH/RECEPTACLE COVERPLATE.

CONNECT THE RECEPTACLE TO THE LIGHTING CIRCUIT AHEAD OF THE SWITCH AND LOCATE THE SWITCH ON THE SIDE OF THE BOX CLOSEST TO THE DOOR. NOTES: METHOD TO BE USED ONLY FOR 120 VOLT LIGHTING SYSTEM. 277 VOLT LIGHT SWITCHES AND 120 VOLT RECEPTABLES SHALL BE LOCATED IN SEPARATE BOXES.

CONFIRM FINAL LOCATION OF ALL WIRING DEVICES AND OUTLET BOXES WITH OWNER/ARCHITECT PRIOR TO ROUGH-IN.

9. WIRING DEVICES LISTED OR NOTED ON THE DRAWINGS AS WEATHERPROOF SHALL BE PROVIDED WITH A COVER WHICH MAINTAINS THE WEATHERPROOF INTEGRITY WHEN THE COVER IS CLOSED. RECEPTACLES NOTED AS SUITABLE FOR OPERATION IN A WET LOCATIONS SHALL BE PROVIDED WITH A COVER WHICH WILL ALLOW THE RECEPTABLES TO REMAIN OPERATIONAL DURING WET CONDITIONS WITH A PLUG INSERTED INTO THE RECEPTACLE.

1. LIGHTING

1. LIGHTING FIXTURES: SEE DRAWINGS FOR MANUFACTURERS CATALOG NUMBERS.

2. INDOOR INSTALLATION:

THE CONTRACTOR SHALL REFER TO THE ARCHITECTURAL DRAWINGS FOR CEILING TYPE, CONSTRUCTION AND DETAILS OF MOUNTING. ADJUST FIXTURE TRIM RING AS REQUIRED FOR CORRECT MOUNTING IN CEILING FIXTURE IS TO BE INSTALLED. ALL FIXTURES SHALL BE SUPPORTED PER NEC ARTICLE 410.

SUSPENDED CEILING SYSTEM SHALL BE SUPPORTED FOR FIXTURE INSTALLATION AS NOTED ABOVE, AND AS A MINIMUM CONDITION AS NOTED IN ANS/ASTM C636-76, PAR. 2.7, BUILDING FIXTURES.

INSTALL FIXTURES IN ACCORDANCE WITH THE ARCHITECTURAL REFLECTED CEILING PLANS. WHERE SUBSTANTIAL DIFFERENCES MAY OCCUR BETWEEN THE REFLECTED CEILING PLANS AND THE ELECTRICAL PLANS, INFORM THE ARCHITECT/ENGINEER FOR RESOLUTION OF THE DISCREPANCY.

THE CONTRACTOR SHALL COORDINATE FIXTURE CONSTRUCTION DETAILS WITH THE CEILING SYSTEM IN WHICH THEY ARE INSTALLED. FOR EXAMPLE SUPPORT SYSTEM DIMENSIONS, FLANGES WHERE REQUIRED, ACOUSTICAL TILE OR PAN PATTERN, ETC.

ROWS OF FIXTURES SHALL BE INSTALLED ACCURATELY AS TO LINE AND LEVEL. FIXTURES SHALL BE SECURELY MOUNTED SO THAT THEY WILL NOT BE DISTORTED BY HANDLING INCIDENTAL TO NORMAL MAINTENANCE.

SURFACE TYPE LED LIGHTING FIXTURES MOUNTED ON ACOUSTICAL CEILINGS MUST BE COORDINATED WITH THE ARCHITECTURAL DRAWINGS IN ORDER THAT A MAIN "T" RUNNER WILL BE PLACED IN THE CENTER OF EACH FIXTURE AND/OR EACH ROW OF FIXTURES. MAIN "T" RUNNER SHALL BE OF AT LEAST THE SAME LENGTH AS THE LIGHTING FIXTURE AND SHALL BE SUPPORTED TO CARRY AT LEAST TWICE THE WEIGHT OF THE LIGHTING FIXTURE.

ALL FIXTURES SHALL BE SECURELY SUPPORTED WITH APPROVED HANGARS. WHERE FIXTURES WILL BE INSTALLED IN SUSPENDED CEILINGS, ANY CODE-REQUIRED ADDITIONAL CEILING SUPPORTS AS APPROVED BY THE ARCHITECT, SHALL BE PROVIDED BY THIS CONTRACTOR.

PROVIDE SUPPORTS FOR ALL LIGHTING FIXTURES AS DETAILED ON THE DRAWINGS, AS SPECIFIED, OR AS REQUIRED BY THE FIXTURE. SPECIFIED. FIXTURES INSTALLED IN UNFINISHED AREAS (AREAS INCLUDING BUT NOT NECESSARILY LIMITED TO WAREHOUSES, FACTORY AREAS, MANUFACTURING AREAS, OFFICE SPACES WITHOUT LAY-IN CEILINGS, AND SPACES ABOVE LAY-IN CEILINGS) SHALL NOT BE FASTENED DIRECTLY TO THE STRUCTURE. IN THESE CASES, UNI-STRUT TYPE CHANNEL ALONG WITH THE APPROPRIATE FASTENERS AND CLIPS SHALL BE USED TO SUPPORT THE FIXTURES. REFER TO THE DRAWINGS FOR SPECIFIC SUPPORT REQUIREMENTS IN ADDITION TO THOSE NOTED HERE.

FIXTURES SHALL NOT HANG DIRECTLY FROM CONDUIT BOXES UNLESS THE BOXES HAVE BEEN SPECIFICALLY DESIGNED FOR SUCH PURPOSES. THE BOXES SHALL BE SUPPORTED INDEPENDENT OF CONDUIT SYSTEM AND SHALL NOT RELY UPON THE CONDUIT FOR SUPPORT.

LAY-IN DIFFUSERS IN SUSPENDED CEILINGS AND SURFACE TYPE FIXTURES MOUNTED TO SUSPENDED CEILINGS SHALL BE SECURED MECHANICALLY BY SCREWS, RIVETS, CLIPS, ETC. AS PER SECTION 410-16(C), NEC. ADDITIONALLY, LAY-IN FIXTURES SHALL ALSO BE SUPPORTED BY TWO INDEPENDENT SUPPORT WIRES RUNNING FROM DIAGONALLY OPPOSITE CORNERS OF THE FIXTURE TO THE OVERHEAD STRUCTURE. SURFACE MOUNT FIXTURES SHALL BE ADDITIONALLY SUPPORTED BY MEANS OF AT LEAST TWO CLIPS FOR EACH FIXTURE WHICH SURROUND THE T-BAR AND ARE TIED TO THE OVERHEAD STRUCTURE WITH A SEPARATE WIRE. THE SURFACE FIXTURES SHALL BE SECURED TO THESE CLIPS.

PLASTER FRAMES SHALL BE FURNISHED FOR EACH RECESSED FIXTURE INSTALLED IN PLASTER CEILINGS AND WALLS.

PENDANT MOUNTED FIXTURES SHALL UTILIZE PIPE STEMS TO MOUNT FIXTURES AT ELEVATIONS AS NOTED ON THE DRAWINGS. CHAINS OR CORDS WILL NOT BE ACCEPTED. WHEREVER THE MOUNTING SURFACE SLOPES FIXTURES SHALL BE PROVIDED WITH UNIVERSAL TYPE FIXTURE HANGARS TO ALLOW THE FIXTURE TO HANG PLUMB.

FIXTURES SHALL BE INSTALLED WITH DUE REGARD FOR BEAMS, PIPING, DUCTWORK, AND OTHER MECHANICAL OR PLUMBING EQUIPMENT.

INCANDESCENT FIXTURES SHALL BE THERMALLY RATED, PROTECTED AND MARKED FOR THEIR APPLICATION ESPECIALLY IN RECESSED MOUNTING, TO PROTECT AGAINST OVER-TEMPERATURE AND COMBUSTION. THE INSTALLATION SHALL COMPLY WITH SECTION 410-85 THROUGH 410-172 IN THE NEC.

BRANCH CIRCUIT CONDUCTORS SHALL BE RUN LED FIXTURE WIRING CHANNELS ONLY AS PERMITTED BY THE NEC. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE WIRING SYSTEM FURNISHED AND INSTALLED BY THE CONTRACTOR. EACH FIXTURE SHALL BE EQUIPPED TO PERMIT EITHER SINGLE OR MULTIPLE FIXTURE CIRCUIT WIRING AS IS APPROPRIATE FOR THE FIXTURE TYPE.

WHEN A MODULAR WIRING SYSTEM IS INSTALLED, ALL CEILING RECESSED LED LIGHTING FIXTURES SHALL BE FURNISHED WITH SUITABLE RECEPTABLES TO PERMIT THE WIRING SYSTEM FURNISHED AND INSTALLED BY THE CONTRACTOR. EACH FIXTURE SHALL BE EQUIPPED TO PERMIT EITHER SINGLE OR MULTIPLE FIXTURE CIRCUIT WIRING AS IS APPROPRIATE FOR THE FIXTURE TYPE.

WHEN FIXTURES ARE INSTALLED IN A FIRE PROOF CEILING, THE FIXTURE SHALL BE UL LISTED TO MAINTAIN THE FIRE PROOF RATING OR THE FIXTURE SHALL BE FIRE PROTECTED BY THE ELECTRICAL CONTRACTOR USING A U.L. ACCEPTED STANDARD. SEE ARCHITECTURAL DRAWINGS FOR CEILING RATINGS.

AT THE TIME OF FINAL INSPECTION ALL FIXTURES AND EQUIPMENT SHALL BE COMPLETE WITH ALL REQUIRED GLASSWARE AND/OR REFLECTION, CLEAN AND FREE OF DEFECTS. ANY GLASS-WIRE, OR REFLECTORS, ETC, WHICH HAVE DEFECTS SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE BEFORE FINAL ACCEPTANCE.

ALL LAMPS SHALL BE IN WORKING ORDER AT THE TIME OF FINAL ACCEPTANCE OF THE WORK BY THE OWNER AND ARCHITECT/ENGINEER. THIS CONTRACTOR SHALL REPLACE ALL DEFECTIVE LAMPS WITH NEW LAMPS UNTIL THE WORK IS FINALLY ACCEPTED.

LOW VOLTAGE LIGHTING TRANSFORMERS SHOULD BE PROTECTED BY FUSES. FUSES SIZES SHALL BE AS RECOMMENDED BY THE TRANSFORMER MANUFACTURER. BUSMAN TYPE HRS OR LITTLEFUSE 150020, FUSE HOLDERS ARE RECOMMENDED.

SOLID STATE TRANSFORMERS FOR LOW VOLTAGE LIGHTING SHALL NOT BE USED FOR DIMMING APPLICATIONS UNLESS THE TRANSFORMER AND DIMMER ARE A U.L. LISTED ASSEMBLY SPECIFICALLY INTENDED FOR THE APPLICATION.

3. OUTDOOR AND SITE LIGHTING INSTALLATION. SITE LIGHTING LUMINAIRES SHALL BE AS CALLED FOR ON THE DRAWINGS.

BASES FOR SITE AND ROADWAY LUMINAIRES WHERE REQUIRED, SHALL BE AUGURED INTO THE EARTH AND CONCRETE SHALL BE POURED INTO THE AUGURED HOLE WITHOUT A SONA TUBE BELOW GRADE TO ALLOW THE CONCRETE TO FILL THE NATURAL CREVICES IN THE EARTH. PORTION OF BASE ABOVE GRADE SHALL BE FORMED USING A SONA TUBE. EXPOSED PORTION OF FINISHED BASES SHALL BE SMOOTHED, AND VOIDS FILLED WITH GROUT.

BASES SHALL NOT HAVE REINFORCING STEEL AS INDICATED ON THE CONTRACT DRAWINGS AND SHALL BE CLASS "A" CONCRETE.

ANCHOR BOLTS FOR POLES SHALL BE PERFORMED FOR THE POLE BOLT CIRCLE AT THE FACTORY.

J. LIGHTING AND RECEPTACLE PANELBOARDS

1. PANELBOARDS FOR 208Y/120 OR 240/120 VOLT LIGHTING AND RECEPTACLE SERVICES SHALL BE DEAD FRONT TYPE, CONFORMING TO NEMA STANDARD PB-1-1-71 AND UL BY, AND CONSISTING OF SINGLE PHASE, THREE WIRE SOLID NEUTRAL MAIN LUGS OR MAIN OVERCURRENT DEVICE AS INDICATED, BRANCH OVERCURRENT DEVICES AS NOTES AND EQUIPMENT GROUND BAR, ALL IN A SURFACE OR FLUSH MOUNTED CODE GRADE GALVANIZED SHEET STEEL CABINET AS INDICATED. ENCLOSURE TO BE NEMA 1 UNLESS NOTED OTHERWISE WITH PRIMER AND FINISH PAINT OF THE MANUFACTURERS STANDARD. ALL BUSHING SHALL BE COPPER.

STANDARD ENCLOSURE SHALL BE NEMA 1, UNLESS NOTED OTHERWISE, WITH PRIMER AND PAINT FINISH OF THE MANUFACTURERS STANDARD. CABINETS SHALL BE OVERSIZED WHERE NECESSARY TO ACCOMMODATE THE ENTRANCE OF SEVERAL LARGE CONDUITS AND/OR WHEN NECESSARY TO AVOID OVERCROWDING EXCEPT CABINETS FOR PANELS MOUNTED FLUSH SHALL NOT BE MORE THAN 22 INCHES WIDE AND 5-3/4" DEEP UNLESS OTHERWISE APPROVED BY THE ARCHITECT/ENGINEER. TRIMS SHALL CONTAIN HINGED DOORS AND SHALL BE EQUIPPED WITH FLUSH CHROME PLATED COMBINATION KEY LOCKS AND CATCHES. LOCKS SHALL BE ALL KEYS ALIKE AND TWO KEYS FURNISHED TO THE OWNER.

COLUMN-TYPE ENCLOSURES SHALL BE SIMILAR TO THE STANDARD ENCLOSURE EXCEPT PANEL SHALL BE APPROXIMATELY 8-1/2 INCHES WIDE FOR MOUNTING BETWEEN BUILDING COLUMN WEBS AS INDICATED, AND PROVIDED WITH EXTENSION TROUGH AND PULLBOX WITH NEUTRAL BAR WHEN SHOWN ON THE DRAWINGS.

WHERE SPACES ARE NOTED ON THE DRAWINGS, EQUIP THE PANELBOARD WITH BUS AND ALL NECESSARY HARDWARE FOR FUTURE CIRCUIT BREAKER INSTALLATION.

METAL FRAME AND PLASTIC COVERED TYPEWRITTEN CARD SHALL BE MOUNTED INSIDE EACH PANEL DOOR. INFORMATION ENTERED onto THE CARDS SHALL CORRESPOND TO THE CIRCUIT NUMBERS AS INSTALLED IN THE FIELD.

2. OVER-CURRENT PROTECTIVE DEVICES: GENERAL USE CIRCUIT BREAKERS FOR PANELBOARDS SHALL BE BOLT-ON MOLDED PLASTIC CASE TYPES 1, 2, OR 3 POLE, QUICK-MAKE, QUICK-BREAK OPERATING HANDLE, POSITION INDICATING AND THERMAL MAGNETIC TRIP DEVICE. FURNISH 1 AND 2 POLE BREAKERS WITH COMMON OPERATING HANDLE AND COMMON TRIP MECHANISM. ALL CIRCUIT BREAKERS FOR SWITCHING APPLICATIONS SHALL BE UL LISTED TYPE "SMO" FOR THAT APPLICATION. ALL CIRCUIT BREAKERS USED FOR PROTECTION OF MOTORS, REFRIGERATION EQUIPMENT, OR HVAC EQUIPMENT SHALL BE UL LISTED TYPE "HACR" FOR THAT APPLICATION.

CIRCUIT BREAKERS FURNISHED WITH PANELBOARDS SHALL CONFORM TO THE STANDARD INTERRUPTING RATINGS AS PER NEC. GROUND FAULT CIRCUIT INTERRUPTERS SHALL BE SIMILAR TO GENERAL USE CIRCUIT BREAKERS SPECIFIED: 15-20 AMPERE, 1 OR 2 POLES WITH 5 MA SENSITIVITY. FURNISH WHEN INDICATED ON THE DRAWINGS.

FUSED OVER 600 AMPS SHALL BE BUSSMAN HI-CAP TIME DELAY TYPE KRP-C, OR GOLD SHAWMUT 44BQ (601-2000 AMPERES) 600VOLT, U.L. CLASS 1 WITH MINIMUM INTERRUPTING RATING OF 200,000 AMPERES RMS SYMMETRICAL.

FUSES 600 AMP OR BELOW SHALL BE BUSSMAN LOW-PEAK OJAL ELEMENT TYPE LPN-RK (250 VOLT) OR LPS-RK (600 VOLT) OR GOLD SHAWMUT AMP-TRAP TYPE AZK (600 VOLT) OR A6K (600 VOLT) U.L. CLASS RK1 WITH MINIMUM INTERRUPTING RATING OF 200,000 AMPER RMS SYMMETRICAL.

PROVIDE SPARE CIRCUIT BREAKERS INSTALLED IN PANELBOARDS AS INDICATED ON THE PANEL SCHEDULE AS SHOWN ON THE DRAWINGS. PROVIDE 10% SPARE (MINIMUM OF 3) OF EACH TYPE AND RATING OF FUSES INSTALLED.

3. SAFETY SWITCHES: PROVIDE FUSIBLE ON NON-FUSIBLE SAFETY SWITCHES AS INDICATED ON THE DRAWINGS. SWITCHES SHALL BE QUICK-MAKE, QUICK-BREAK, HEAVY DUTY VISIBLE BLADE TYPE, HORSEPOWER AND L-SQUARED T RATED. USE NEMA 12 ENCLOSURES IN FACTORY AREAS NEMA 1 ENCLOSURES IN OTHER OUTDOOR AREAS AND NEMA 4X STAINLESS STEEL TYPE ENCLOSURES UNLESS OTHERWISE INDICATED ON THE DRAWINGS. FURNISH THREE POLE, SINGLE THROW SWITCHES UNLESS OTHERWISE INDICATED, WITH CURRENT AND VOLTAGE RATINGS AS INDICATED.

PROVIDE SAFETY SWITCHES WITH AN EXTERNAL OPERATING HANDLE INTERLOCKED WITH THE COVER DOOR TO PREVENT THE DOOR FROM BEING OPENED WHILE THE SWITCH IS IN THE "ON" POSITION EXCEPT BY OPERATING AN INCONSPICUOUS INTERLOCK DEFEATING MECHANISM. PROVIDE MEANS FOR PADLOCKING THE OPERATING HANDLE IN THE "OFF" POSITION. EQUIP SWITCHES WITH AUXILIARY CONTACTS WHEN INDICATED.

FUSE CLIPS SHALL BE RE

PLUMBING SYSTEMS AND EQUIPMENT

PART 1 - GENERAL

- 1.01 REFERENCE TO OVERALL PROJECT
A. The General Conditions, Supplementary Conditions, and all applicable requirements of the overall project, except as otherwise amended shall apply to all work herein.
B. Related Documents: Drawings and general provisions of the contract including General Supplemental, and Special Conditions, Instruction to Bidders, and Division 1 specification sections, apply to work of the section.
C. Building materials which are scheduled to be incorporated into the Work under the agreement shall first either be certified by the Manufacturer to be asbestos free or be inspected and tested by accredited parties and certified to be free of asbestos content in accordance with by EPA and AHERA.
D. The Owner reserves the right to inspect all material and equipment at random at the job site. Materials containing asbestos or equipment substituted or provided without approval of the architect shall be declared in nonconformance with the document requirements and shall be removed immediately at the Contractor's expense.

1.02 SCOPE

- A. The work under this Section shall be to provide a complete plumbing system. All items of work, of cost and expense of any nature whatsoever belonging with or necessary to the completion of work called for in this Specification or in the Contract Documents are hereby specified to be included in this Contract.
B. Work covered by this Section of the specifications and accompanying drawings consists of furnishing all labor, equipment, appliances and materials and in performing all operations in connection with installation of a complete plumbing system for the proposed building as indicated and specified. This Section shall also include all incidental items not ordinarily specified, but necessary for the complete installation.
C. All equipment and materials mentioned in these specifications and/or shown on the Drawings shall be furnished, except where otherwise specifically noted, completely installed, adjusted, and left in a safe and satisfactory operating condition. All accessories, appliances and connections necessary for the operation of the equipment shall be furnished and installed.
D. The plumbing systems consist of the following principal items:
1. Underground sanitary sewer system to points indicated on the drawings.
2. Above ground sanitary waste, and vent systems.
3. Above ground domestic hot water, and cold water systems, natural gas systems.
4. Plumbing fixtures and equipment.
5. Insulation of plumbing systems.
6. Aboveground rainwater systems.
7. Underground rainwater system to points indicated on the drawings.

1.03 DRAWINGS AND SPECIFICATIONS

- A. The commencement of work under this Section indicates that the Contractor has examined and has knowledge of the architectural, structural, electrical, existing plumbing, mechanical, site work Drawings and Specifications. The failure of the Contractor to acquaint himself with all available information shall not relieve him of any responsibility for performing his work properly.

1.04 ORDINANCES, PERMITS AND CODES

- A. It shall be the Contractor's duty to perform the work and provide the materials covered by these specifications in conformance with all ordinances and regulations of all authorities having jurisdiction.
B. The Contractor shall obtain and pay for all permits, connection, and inspection fees as required for the complete installation of the plumbing systems.
C. All work herein shall conform to all applicable laws, ordinances and regulations of the local utility companies.
D. The work shall be in accordance with, but not limited to, the requirements of:
1. National Fire Protection Association
2. National Safety Code
3. Applicable Energy Code for Buildings
4. Local Plumbing Code
5. International Plumbing Code
E. Codes and regulations referred to are minimum standards. Where the requirements of these specifications or drawings exceed those of the codes and regulations, the drawings and specifications govern.

1.05 COORDINATION AND CONFLICTS

- A. The Contractor shall coordinate his work so that it does not interfere with the work of other trades. It shall be the Contractor's duty to see that his work is installed in a timely manner.
B. Drawings indicate approximate locations of fixtures, apparatus and piping. It is required that piping generally be concealed above ceilings and in walls.
C. Where minor deviations from plans are required in order to conform to space limitations and building conditions, such changes shall be made by the Contractor at no additional cost to the Owner and shall be subject to the approval of the Architect.

1.06 WARRANTY

- A. All equipment shall be started, tested, adjusted, and placed in satisfactory operating condition by the Contractor. All equipment shall be covered for the duration of the manufacturer's guarantee or warranty and the Subcontractor shall furnish the Owner with all manufacturer's guarantees or warranties.
B. Equipment furnished shall be guaranteed for a period of one (1) year from date of acceptance.

1.07 RECORD DOCUMENTS

- A. Contractor shall furnish at the time of request for final payment, copies of a brochure containing the following information as called for in these specifications.
1. Letter of guarantees.
2. Operating instructions.
3. Manufacturer's parts data and service instructions on all items of equipment.
4. Manufacturer's guarantees and warranties.

1.08 MOTORS

- A. Motors shall be wound for the currents specified under the Electrical Plans and Specifications. Motor running currents shall not exceed the manufacturer's name plate full load amperes. Motors other than hermetic type shall be manufactured in accordance with NEMA Standards. All motors installed outdoors shall be enclosed, weatherproof type, unless installed within weatherproof type equipment housing.

1.09 ELECTRICAL WORK

- A. Motors, controls, relays, contactors and switches required for proper operation of equipment covered under this Section, except items specified to be furnished under the Electrical Section, shall be furnished by the Subcontractor under this Section of the Specifications. Devices which are a part of the power wiring circuit and which are not an integral part of the equipment shall be installed under the Electrical Section.
B. All control wiring shall be furnished and installed under this Section.
C. Power wiring, unless otherwise indicated hereinbefore, shall be furnished and installed under the Electrical Section of the Specifications.
D. Devices, materials and installation shall conform to requirements of the Electrical section, except as specified herein.
E. All motors, and motor switches shall be for the voltage and phase shown on the Electrical Plans and Specifications.

1.10 PRODUCTS AND EXECUTION

- A. All materials, equipment, fixtures and apparatus shall be new and shall bear the label of the Underwriters' Laboratories, Inc., where UL standards have been established for such material.

1.11 SUBMITTALS

- A. All materials and equipment which the Contractor proposes to furnish shall be submitted to the engineer for review and approval. Data shall be complete in all respects and shall reference, where applicable, to the unit symbol utilized on the Drawings and Specifications.
B. Submittal review and approval is considered as general acceptance of the basic applicability of the equipment. Contractor is responsible for the installation of the equipment and/or alternate arrangement of the equipment within a given space. When the Contractor desires to use substituted equipment, he shall be responsible for providing submittal documents which provide pertinent information including capacities to the engineer. No equipment may be substituted for an approved piece of equipment without the approval of the engineer/architect. Where the substituted equipment creates the need for alterations in any portion of the work depicted in the contract documents, it shall be the Contractor's responsibility to notify all of the affected parties and coordinate these items with all other trades. Further, it shall be the Contractor's responsibility to assume any additional cost to the contract created by the substituted equipment.
C. Substituted equipment is considered to be any equipment other than the first named item in the Specifications or on the Drawings, or any item not approved as a submittal.
D. Contractor further agrees that if deviations, discrepancies or conflicts between Shop Drawings and Specifications are discovered either prior to or after Shop Drawing Submittals are processed by the Engineer, the design drawings and Specifications shall control and shall be followed. Review of submittal data shall in no way relieve the Contractor of his duty to perform all work and provide all equipment in strict compliance with the requirements set forth in the contract documents.

- E. Each individual submittal item for materials and equipment shall be marked to show specification section and paragraph number which pertains to the item. Failure to mark submittals in accordance with the above format shall be considered due cause for rejection of shop drawings.
F. Submittals shall be made on all plumbing fixtures and equipment.
G. Submit for review complete data and Drawings on the following items:
1. Backflow preventers
2. Cleanouts
3. Drains
4. Fixtures, faucets, traps, drains, tailpieces, etc.
5. Insulation
6. Pipe hangers, supports and attachments
7. Piping
8. Pressure gages
9. Pressure reducing valves
10. T&P relief valves
11. Thermometers
12. Vacuum breakers
13. Valves
14. Water heaters

1.12 RECORD DRAWINGS

- A. Upon completion of the Project, the Contractor shall submit a set of prints indicating as-built conditions of all piping and equipment, and incorporating changes made during construction. Prints may be made from corrected tracings or copies of shop drawings.
B. A record of as-built conditions shall be kept throughout the Project and shall be used in the preparation of the final record drawings.

PART 2 - PRODUCTS

2.01 PIPE AND FITTINGS

- A. Pipe and fittings shall be as listed herein and shall be used for the services indicated.
B. Schedule 40 polyvinyl chloride pipe & fitting ASTM D2665-78:
1. Aboveground sanitary, waste, and vent piping.
2. Aboveground rainwater piping.
C. Schedule 40 polyvinyl chloride pipe and fitting ASTM D2665-78 with solvent weld joints meeting ASTM D2466-78 using solvent cement conforming to ASTM D2564-80.
1. Sanitary, waste and vent piping below slab on grade.
2. Rainwater piping below slab on grade.
D. Type "K" copper tubing, ASTM B88-1988a, with 95-5 soldered joints and wrought copper, ANSI B16.22-1988a, or cast bronze, ANSI 95-5 B16.18-1988a, socket fittings for:
1. Underground water service piping 3" in size and smaller to a point 1'-0" above the finished floor.
E. Type "L" hard drawn copper tubing, ASTM B88-1988a, with 95-5 soldered joints and wrought copper, ANSI B16.22-1988a, or cast bronze, ANSI 95-5 B16.18-1988a, socket fittings for:
1. Water piping above slab.
F. Type "L" soft drawn copper tubing, ASTM B88-1988a for:
1. Water piping below slab on grade without joints.
G. Schedule 40 black steel pipe with standard weight, banded black malleable iron fittings.
1. Natural gas piping.

2.02 DIELECTRIC ADAPTERS

- A. Dielectric adapters shall be provided between copper and iron pipe connections and between ferrous and nonferrous piping or equipment.

2.03 VALVES

- A. General
1. Valves of the same type on the project shall be of one manufacturer.
2. Valves shall have the name or trademark of the manufacturers and the working pressure stamped or cast on the valve body.
3. Valve handle shall be oriented, when installed, to provide maximum accessibility for operation.
B. Valves for Domestic Water System:
1. Ball valves 3" in size and smaller shall have bronze body, two-piece, full port, blow-out proof stem, threaded ends for 600 psig wog. Valves shall be:
Table:
Threaded Ends
a. Milwaukee UPBA-100
b. Crane 9201
c. Niloco T-585-66-LF
2. Check valves 2" in size and smaller shall be horizontal swing type with bronze body, bronze disc for 125# SWP. Valves shall be:
Table:
Threaded Ends
a. Milwaukee UP1509
b. Crane 41TF
c. Niloco T-413-Y-LF

2.04 CLEANOUTS

- A. Provide cleanouts in soil and waste lines as shown, as required by the governing code as follows:
1. At the bottom of each exposed fixture trap which is not integral with the fixture.
2. At the end of each branch drainage line.
3. At each change of horizontal direction greater than 45 degrees.
4. At the foot of each soil stack.
5. In horizontal drain lines at intervals of not more than 50' for inside piping and 100' for outside piping.
B. For Walls: Cleanouts shall be extra heavy cleanout tee with countersunk bronze plug trapped for machine screw, shallow stainless steel face-of-wall access cover, securing screw. Cleanouts shall be equal to:
Table:
1. J.R. Smith 4472
2. Josam 58600-PLG
3. Zum Z-1460-S
4. Wade W-8470-R-75
For Piping Concealed in Pipe Chase or Shaft: Cleanout shall have cast iron ferrule, bronze plug trapped for machine screw, shallow stainless steel face-of-wall access cover, and securing screw. Cleanouts shall be equal to:
Table:
1. J.R. Smith 4472
2. Josam 58690
3. Zum Z-1470
4. Wade W-8590-D
D. For Concrete Floors: Cleanouts shall have cast iron body, adjustable round scribed nickel bronze cover and rim, securing screw, and countersunk plug. Cleanouts shall be equal to:
Table:
1. J.R. Smith 4250
2. Zum ZN-1400
3. Wade W-6010W-7040
E. For Tile Floors: Cleanouts shall have cast iron body, adjustable square scribed nickel bronze cover and rim, securing screw, and countersunk plug. Cleanouts shall be equal to:
Table:
1. J.R. Smith 4148
2. Zum ZN-1400
3. Wade W-6010-SW-7040-S
F. For Carpeted Floors: Cleanouts shall have cast iron body, adjustable square nickel bronze cover and rim, carpet marker, and countersunk plug. Cleanouts shall be equal to:
Table:
1. J.R. Smith 4022-Y
2. Zum ZN-1400-NH
3. Wade W-6000-3-75
G. For Cleanouts to Grade: Cleanouts shall have cast iron ferrule and countersunk bronze plug. Cleanouts shall be set in a 12" x 12" x 6" deep poured concrete pad set flush with grade. Cleanouts shall be equal to:
Table:
1. J.R. Smith 4263
2. Zum Z-1440
3. Wade WL-8550-S

2.05 TRAPS

- A. Provide traps for all fixtures, and drains, except as noted otherwise. Set traps true and level. Provide exposed traps with brass cleaning screws.
B. Full "S" traps, bell traps, or crown vented traps shall not be used.
C. Traps for handicap lavatories shall be installed parallel to wall and as close to wall as possible.

2.06 UNIONS

- F. Provide a union in each connection to each piece of equipment so it may be readily removed.
G. Unions in drainage pipes on fixture side of traps may be slip or flange type with soft rubber or plastic gaskets.
H. Unions in steel pipe 2" or smaller shall be ground joint with brass to iron seat.
I. Unions in pipes larger than 2" shall be flange and gasket type. Flanges in steel and wrought iron pipe shall be cast iron.

2.07 HANGERS AND SUPPORTS

- A. Plumbing piping underground shall be firmly bedded on solid ground on the body of the pipe.
B. Block cast iron water pipe with concrete to undisturbed earth to prevent blowing out joints. Provide the rods for all outside joints.
C. Where several pipes 2-1/2" and smaller run parallel and in the same plane, they may be supported on gang or multiple hangers; larger piping shall be independently hung, parallel and equally spaced.
D. Supports for steel pipe and for copper tubing 1-1/4" or larger, shall not be more than 10' apart. Supports for copper tubing 1" and smaller shall be not more than 8' apart. Pipes shall be supported within 1" of each elbow.
E. Support each horizontal length of sanitary, waste and vent pipe, excluding fittings. Maximum distance between hangers shall be 5'-0".
F. Vertical pipe subject to movement shall be supported from wall by means of pipe clamp.
G. Support domestic hot and cold water piping in spaces behind plumbing fixtures by brackets and U-bolts secured to waste and vent stacks. Size U-bolts to bear on the piping.
H. Hangers shall be complete with rods and supports proportioned to the size of pipe 2nd insulation to be supported, in accordance with manufacturer's recommendations.
I. Inserts installed in existing concrete construction and for piping 2-1/2" and smaller shall be Rawl "SABER-TOOTH", or Phillips "RED HEAD", self-drilling shells.
J. Do not pierce waterproofing with support bolts.
K. Size hangers for insulated piping to bear on outside of insulation.
L. Provide insulation protectors at hangers bearing on outside of insulation. Provide rigid insert or rigid section of insulation at each insulation protector.
M. After hanger rods are installed in inserts in finished concrete ceiling, fill the remaining opening with cement so that no hole shows at the ceiling.
N. Pipe hangers and supports shall be installed and furnished in accordance with recommendations set forth in Manufacturers Standardization Society Standard Practices No. SP-69 and SP-68.
O. Hangers and supports shall be manufactured by:
1. Grinnell
2. Michigan
3. F&S

2.08 SLEEVES

- A. Provide where pipes pass through walls, floors and roofs.
B. Sleeves shall be standard weight steel pipe in concrete and masonry construction.
C. Sleeves through interior drywall construction shall be 26 gauge galvanized sheet metal.
D. Sleeves are not required at individual plumbing fixtures.
E. Omit pipe sleeves in concrete floor slabs on grade.
F. Wall sleeves shall be full thickness of walls.
G. Sleeves may be omitted when openings are core drilled for concealed vertical and horizontal piping.
H. Make sleeves through outside walls watertight. Caulk between plumbing pipe and sleeve with oakum and lead. Pack with fiberglass and caulk, 1" deep at each face with non-hardening sealant between pipe and sleeve.
I. Size sleeves for insulated pipes to allow full thickness insulation.
J. Pipes penetrating walls below grade shall be sealed with a waterproof, modular, mechanical expansion seal consisting of interlocking synthetic rubber links shaped to continuously fill the annular space between the pipe and wall opening. Sizing of links and wall sleeve shall be determined by manufacturer.
K. Sleeves for all piping penetrating fire rated walls and floor shall be provided with 3M Fire Barrier No. CP-25 fire proofing caulking, or equal, in annular space between sleeve and piping.

2.09 FLOORS, WALLS AND CEILING PLATES

- A. Where exposed piping passes through floors, walls and ceilings, except in mechanical or equipment rooms, escutcheons shall be provided:
1. Escutcheons shall be chrome-plated steel plates, hinged type with setback.
2. Escutcheons shall be as manufactured by Michigan, F&S or Grinnell.
3. Escutcheons for chrome-plated connections at plumbing fixtures shall be as specified under the plumbing fixtures.
B. Main pressure reducing valves shall be equal to:
Table:
1. Watts Series 223-S
2. Mueller Co. Series No. H-8300
3. Clayton Series 90-01

2.10 WATER PRESSURE REDUCING VALVES (If static pressure exceeds 80 psig)

- A. Provide in the cold water service to the building.
B. Each valve shall have capacities and characteristics as shown on drawings.
C. Each pressure reducing valve shall be provided with a strainer.
D. Provide a 3-1/2" 0-200 psig dial pressure gauge at the inlet and outlet of each valve.
E. Main pressure reducing valves shall be equal to:
Table:
1. Watts Series 223-S
2. Mueller Co. Series No. H-8300
3. Clayton Series 90-01

2.11 INSULATION

- A. All pipe insulation material shall have a permanent composite insulation jacket and adhesive with a fire and smoke hazard rating as tested by procedure ASTM E-84, NFPA 255 and UL 723, not exceeding:
1. flame spread - 25
2. smoke developed - 50
B. The use of staples for securing insulation will not be permitted.
C. Insulation shall be applied on clean, dry surfaces. All insulation shall be continuous through walls, ceiling openings, sleeves and hangers.
D. The following shall be insulated:
1. aboveground, hot and hot water circulating piping. Any cold water in attic space.
2. all hot water supply pipes, tailpiece, P-trap and horizontal waste pipe for all handicap lavatories and sinks.
3. Condensate drain piping and horizontal drain lines receiving condensate.
E. Do not insulate the following items:
1. chrome-plated piping at plumbing fixtures.
2. unions.
F. Insulation shall be one-piece fibrous glass sectional pipe insulation with factory applied glass reinforced aluminum foil and white kraft paper flame retardant vapor barrier jacket. Longitudinal jacket laps and butt strips shall be self-sealing. Insulation shall have an average thermal conductivity not to exceed 0.23 BTU-h per square foot per degrees F per hour at a mean temperature of 75 degrees F. Insulation shall be equal to:
Table:
1. Johns-Manville Flame Safe AP-T
2. Owens-Corning Fiberglass 25 ASJ/SSL
3. CertainTeed Fiberglas 500 degrees Snap-On ASJ/SSL
4. "Trewwrap" KIT500R Slid. White - By Brocor Products, Inc. to be used for all handicap lavatories and sinks.
G. Insulate piping with 1" thick insulation for water piping and 1/2" for waste piping.
H. Seal all ends of pipe insulation with white vapor barrier coating.
I. Butt all joints of pipe insulation together and secure all jacket laps with lap adhesive. Seal all butt joints with joint strips furnished with insulation.
J. Insulate fittings, flanges, valves (including packing nut) with preformed or mitered fiberglass fittings of equal thickness and composition to adjacent pipe insulation. Wire fittings in place and cover with a smoothing coat of finishing cement. Finish with glass fabric embedded into a coat of white breather coating. Glass fabric shall overlap adjoining insulation at least 2". White fabric and mastic shall be used on exposed fittings.

PLUMBING FIXTURES

- A. Fixtures shall have smooth impervious surfaces, free from defects and concealed fouling surfaces and be Grade "A" with name or trademark of the manufacturer printed on or pressed into closets and lavatories. A label which cannot be removed without destroying it, containing the manufacturer's name or trademark and the quality or class of the fixture shall be affixed to all fixtures and not removed until after the work is accepted.
B. Set fixtures level and in alignment with walls.
C. Caulk between fixtures and mounting surfaces.
D. FIXTURES Must be equal in quality to those specified in this specification. The fixtures shown on the drawing schedule are to describe a level of quality, finish, color, and material type. Fixtures on drawing schedule will take precedence over any fixtures in this specification. The franchise requires that approved plumbing fixtures be used. Contractor to verify selection of fixtures with Owner, Architect, and Franchise approval before purchasing or installing.
A. Water Closet Standard:
Table:
Fixture American Standard, Kohler
Seat American Standard, Church
Bolt Caps CR1912DL Brasscraft
B. Water Closet ADA:
Table:
Fixture American Standard, Kohler
Seat American Standard, Church
Bolt Caps CR1912DL Brasscraft
C. Lavatory :21-1/4" X 17-3/4"
Table:
Fixture American Standard, Kohler
Faucet American Standard, Delta, Moen
D. Bathub Standard - Enameled Cast iron, Americast
Table:
Fixture American Standard, Kohler
Shower/Tub Trim American Standard, Delta, Moen
E. Bar Sink
Table:
Fixture American Standard, Elkay, Kohler
Faucet Delta, American Standard, Kohler, Moen
F. Panty Sink
Table:
Fixture American Standard, Kohler, Elkay
Faucet American Standard, Delta, Moen
G. Washing Machine Connection
Table:
Fixture 4512 Water-Tite
H. Shower to be field fabricated or as noted on drawing
Table:
Shower Valve American Standard, Delta, Moen
Hand Shower American Standard, Delta, Moen

2.14 FIXTURE SUPPLY STOPS

- A. Supply stops for regular lavatories and sinks shall be Brass Craft CS-500-A with 1/2" sweat inlets, bell escutcheons, angle stop valve, flexible tube risers with faucet sink adaptors as required for faucets with female threaded connections. All exposed piping and parts shall be chromium-plated.
B. Supply stops for all handicap lavatories and sinks shall be offset type and installed as close to wall as possible. Stops shall be chrome plated.
C. Supply stop for electric water coolers shall be Brass Craft R-14 straight stop or R-19 angle stop with 1/2" sweat inlet with 3/8" O.D. compression riser outlet. Valve shall be contained within fountain cabinet.
D. Supply stops for sink faucets and other equipment not furnished with stops shall be gate valves as specified herein.
E. Equal products - Eastman Central, Sterling Faucet (Rockwell) McGuire.

2.15 FIXTURE P-TRAPS

- A. P-traps for handicap lavatories and sinks shall be installed parallel to wall and as close to wall as possible.
C. Lavatory P-traps - 1-1/4" size.
D. Sink P-traps - 1-1/2" size.

PART 3 - EXECUTION

3.01 GENERAL FOR PIPING INSTALLATION

- A. Install horizontal drains and waste pipes with a fall of 1/8" per foot, unless otherwise required by code or noted on the plans.
B. Use reducing fittings between different size pipe. Ream steel, brass and copper pipe after cutting, turn on end and knock loose dirt and scale out.
C. Install water service pipes in trenches separate from sewers.
D. Install water piping outside the building with not less than 36" cover.
E. Slope water piping to drain back to the mains.
F. Make changes in horizontal direction in soil and waste piping with long radius fittings or with Y-branches and 1/8 or 1/16 bends.
G. Group exposed pipe together neatly and arrange control valves at fixture for ease of operation.
H. Piping installed below the level of footings shall be installed one foot horizontally from the footing for each foot of depth below the footing.

3.02 EXCAVATING, TRENCHING AND BACKFILLING

- A. Perform all excavating to install piping herein specified. All excavated materials not to be used for backfilling shall be removed and disposed of. All excavating shall be made by open cut. No tunneling shall be done.
B. The bottom of the trenches shall be graded to provide uniform bearing and support for each section of the pipe on undisturbed soil at every point along its entire length, except for the portions of the pipe sections excavated for sealing of pipe joints. Depressions for joints shall be dug after the trench bottom has been graded. Overdepths shall be backfilled with loose, granular, moist earth, tamped.
C. The trenches shall not be backfilled until all specified pressure tests are performed. Trenches shall be backfilled with sandy clay gravel, free from large clods of earth and stones, in deposited layers and tamped until the pipe has a cover of not less than the adjacent existing ground. The compaction of the filled trench shall be 95% Proctor unless otherwise approved by the engineer.
D. Setting the backfill with water will not be permitted.
E. Recape any trenches not meeting compaction requirements or where settlement occurs, refill, compact, and restore the surface to the grade and compaction specified above.

3.03 TESTS

- A. Test drainage and vent piping before fixtures are installed by capping or plugging and filling the system with water, allowing it to stand filled for 1 hour. If tested in sections, each section shall be subjected to not less than a 10' head.
B. Test water supply piping before fixtures and faucets are connected by applying a hydrostatic pressure of 125 psi test pressure for 1 hour.
C. Test each fixture for soundness, stability of support and operation.
D. Test piping under floor slabs and in floor fill before slabs are poured. Test pressure shall be held for 1 hour.
E. Piping which is not tight under tests shall be taken down and reassembled.
F. Tests of the piping system shall be made in the presence of the Architect or his representative.
G. The final test shall be made while pipe is exposed to view where possible.

3.04 PAINTING

- A. Factory painted equipment that has been scratched or marred shall be repaired to match original color.

3.05 CLEANING AND ADJUSTING

- A. All equipment, fixtures, pipe, valves and fittings shall be cleaned of grease, oil, paint spots, metal cuttings, sludge, and construction debris before final inspection.

3.06 STERILIZATION

- A. Upon completion of installation and test of potable water supply piping, all such piping shall be disinfected in accordance with the following procedure:
1. All potable water piping shall be disinfected by a mixture containing not less than 0.6 pounds of high-test calcium hypochlorite, or 2 pounds of chlorinated lime to each 1,000 gallons of water to provide not less than 50 ppm of available chlorine. The mixture shall be injected into the system and retained for not less than twenty-four (24) hours at which time the chlorine level shall be at 10 ppm or greater. The system shall then be drained, flushed with potable water until only a normal chlorine residual remains (2 ppm) and placed in service or.
2. If local Health Authority require different and/or additional procedures, these requirements shall be met.
3. A certificate, or letter certifying acceptance by the Health Authority shall be submitted.

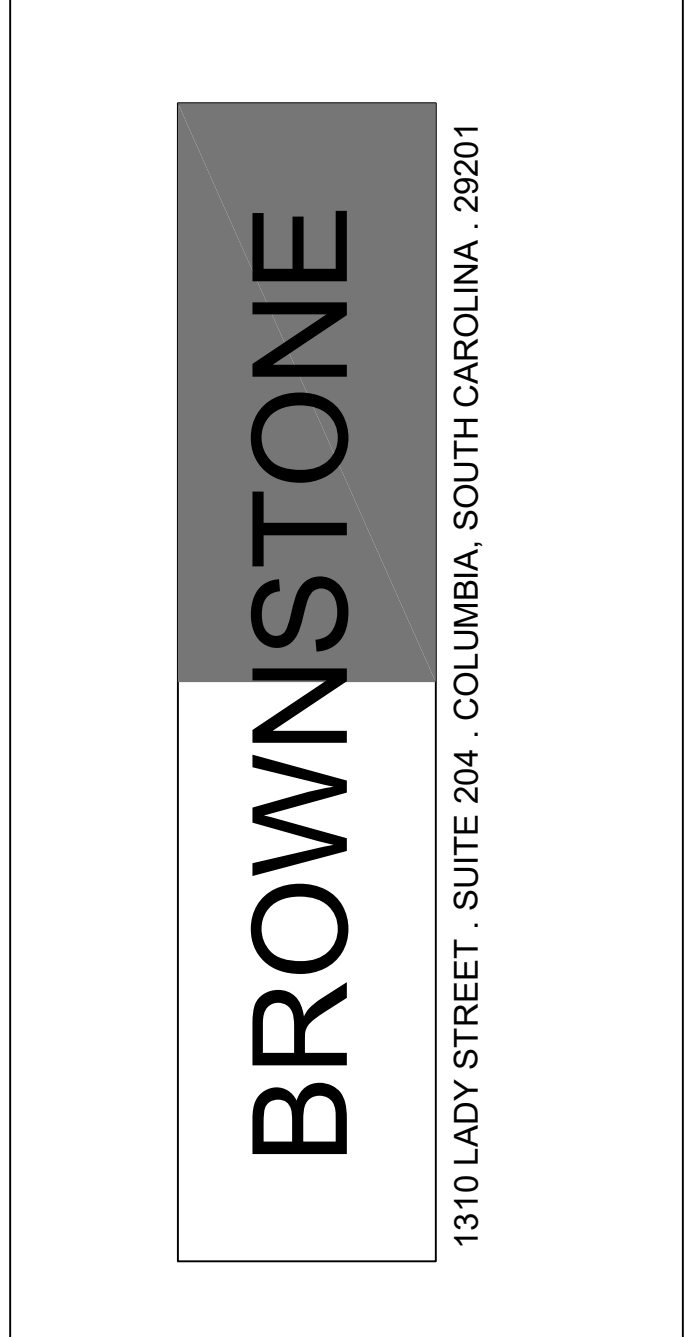
3.07 WELDING QUALIFICATIONS

- A. Welding shall be in accordance with procedures of the National Certified Pipe Welding Bureau, or other approved procedure, and conform to requirements of the ASME Boiler and Pressure Vessel Code or the ASA Code for Pressure Piping. Welders shall be qualified under the above procedures and certified by the National Certified Pipe Welding Bureau or other recognized testing authority.

3.08 PIPE JOINTS

- A. Joints in brass and steel pipe 2 1/2" and smaller, except as otherwise specified, shall be screwed. Apply Rectorseal #5 joint compound to the male threads only, or make joint with teflon tape.
B. No threads shall show in exposed chromium plated piping.
C. Slip joints of coupling joints in brass drainage pipe are permitted of fixture's side of traps only.
D. Nipples having less than one inch between threads shall be extra strong.

END OF SECTION 15400



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Date
4 NOVEMBER, 2016

Table with 3 columns: No., Item, Date

Key Plan

Sheet Title
PLUMBING SPECIFICATION

P104
Drawn By Dryer
Checked By Dryer

WATER SUPPLY WELLS (FRESH WATER SUPPLY WELL SPECIFICATION BY OWNER)

SECTION - WATER SUPPLY WELLS (Provided as a Guideline for water well system design and installation)

PART 1 - GENERAL

1.1 SUMMARY

A. This Section includes the following:

Cable-tool, Rotary drilled, Reverse-rotary drilled, Driven water supply wells.

1. Submersible well pumps.

1.3 DEFINITIONS

- A. ABS: Acrylonitrile-butadiene-styrene plastic.
B. PA: Polyamide (nylon) plastic.
C. PE: Polyethylene plastic.
D. PP: Polypropylene plastic.
E. PVC: Polyvinyl chloride plastic.

1.4 PERFORMANCE REQUIREMENTS

Minimum Tested Water Supply Well Performance Capacity: _____ gallons per minute

1.5 ALLOWANCES

Allowance amounts and quantities are specified in Section 012100 "Allowances."

- 1. Water Supply Well Depth Allowance: Install complete and functional well to depth indicated in Section 012100 "Allowances."
2. Labor for water supply well installation.
3. Furnishing and installing casing materials, grout, well screen, and packing materials in required diameter to comply with minimum performance requirements specified in the Section Text.
4. Furnishing and installing well pump.

Water supply wells and well pumps are covered by cash allowance. [Allowance includes labor and materials.]

F. Well pumps are covered by cash allowance. [Allowance includes labor and materials.]

1.6 UNIT PRICES

Unit prices are useful when nature of the Work is well defined but extent or quantity of the Work is not known or is likely to change. Provide space on the Bid Form for bidders to propose unit-price amounts.

- A. Unit-Price Amounts: As stipulated in the Form of Agreement.
B. Measurement and Payment Procedures: Specified in Section 012200 "Unit Prices."

Coordinate units (e.g., feet or meters) and what is included in units (e.g., water supply well casing, and grout) stipulated in the Form of Agreement with those described in paragraph below. Retain grout if rotary or reverse-rotary drilling method is used.

C. Measurement Units for Water Supply Wells, Casings, and Grout: Per linear foot (meter) of well depth.

1.7 ACTION SUBMITTALS

- A. Product Data: Submit certified performance curves and rated capacities of selected well pumps and furnished specialties and accessories for each type and size of well pump indicated.
B. Shop Drawings: Show layout and connections for well pumps.
1. Wiring Diagrams: Power, signal, and control wiring.
2. Setting Drawings: Include templates and directions for installing foundation bolts, anchor bolts, and other anchorages.
3. Project Record Documents: Record the following data for each water supply well:
a. Casings: Material, diameter, thickness, weight per foot (meter) of length, and depth below grade.
b. Screen: Material, construction, diameter, and opening size.
c. Pumping Test: Static water level, maximum safe yield, and drawdown at maximum yield.
d. Log: Formation log indicating strata encountered.
e. Alignment: Certification that well is aligned and plumb within specified tolerances.

1.8 INFORMATIONAL SUBMITTALS

- A. Field quality-control reports, including the following:
1. Substrata formations.
2. Water-bearing formations.
3. Water levels.
4. Laboratory water analysis.
5. Well-screen analysis.
6. Performance test data.

1.9 CLOSEOUT SUBMITTALS

A. Operation and Maintenance Data: For each well pump to include in emergency, operation, and maintenance manuals.

1.10 QUALITY ASSURANCE

- A. Well Driller Qualifications: An experienced water supply well driller licensed in the jurisdiction where Project is located.
B. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.
C. Comply with AWWA A100 for water supply wells.

1.11 PROJECT CONDITIONS

- A. Interruption of Existing Water Service: Do not interrupt water service to facilities occupied by Owner or others unless permitted under the following conditions and then only after arranging to provide temporary water service according to requirements indicated:
1. Notify [Architect] [Construction Manager] [Owner] no fewer than [seven] <insert number> days in advance of proposed interruption of water service.
2. Do not proceed with interruption of water service without [Architect's] [Construction Manager's] [Owner's] written permission.

Well Drilling Water: Provide temporary water and piping for drilling purposes. Provide necessary piping for water supply.

PART 2 - PRODUCTS

2.1 WELL CASINGS Authorities having jurisdiction may require one of the following or allow other materials. Well designer to determine what material are installed.

- A. Steel Casing: AWWA C200, single ply, steel pipe with threaded ends and threaded couplings for threaded joints.
B. ABS Casing: ASTM F 480, ABS, Schedule [40] [80] bell-and-spigot pipe and couplings for solvent-cemented joints.
C. PVC Casing: ASTM F 480 and NSF 14, PVC, Schedule [40] [80] bell-and-spigot pipe and couplings for solvent-cemented joints. [Include NSF listing mark "NSF wc."]
D. Well Seals: Casing cap, with holes for piping and cables, that fits into top of casing and is removable, waterproof, and vermin proof.

2.2 GROUT If rotary drilled or reverse-rotary drilled water well.

- A. Cement: ASTM C 150, Type II.
B. Aggregates: ASTM C 33, fine and coarse grades.
C. Water: Potable.

2.3 WATER WELL SCREENS (Material to be verify with Authority having Jurisdiction.)

- A. Screen Material: Fabricated of ASTM A 986, Type 304 stainless steel with, welded, with continuous-slot, V-shaped openings that widen inwardly or tube, with slotted or perforated surface and designed for well-screen applications.
1. Screen Couplings: Butt-type, stainless-steel coupling rings.
2. Screen Fittings: Screen, with necessary fittings, closes bottom and makes tight seal between top of screen and well casing.
3. Maximum Entering Velocity: 0.1 fps (0.03 m/s).

2.4 PACK MATERIALS (If rotary drilled or reverse-rotary drilled water well is specified and pack material is required.

- A. Coarse, uniformly graded filter sand, maximum 1/8 inch (3 mm) in diameter.
B. Fine gravel, maximum 1/4 inch (6 mm) in diameter.

2.5 SUBMERSIBLE WELL PUMPS

B. Description: Submersible, vertical-turbine well pump complying with HI 2.1-2.2 and HI 2.3; with the following features:

- 1. Impeller Material: [Stainless steel] [Silicon bronze].
2. Motor: Capable of continuous operation under water, with protected submersible power cable.
3. Column Pipe: ASTM A 53/A 53M, Schedule 40, galvanized-steel pipe with threaded ends and cast-iron or steel threaded couplings.
4. Discharge Piping: ASTM D 2239, SDR Numbers 5, 3, 7, or 9 PE pipe; made with PE compound number required to give pressure rating not less than [160 psig (1100 kPa)] [200 psig (1360 kPa)]. Include NSF listing mark "NSF pw."
a. Insert Fittings for PE Pipe: ASTM D 2609, made of PA, PP, or PVC with serrated, male insert ends matching inside of pipe. Include bands or crimp rings.

Capacities and Characteristics:

- 1. Capacity: gpm .
2. Discharge Head: psig .
3. Discharge Size: NPS.
4. Speed: rpm.
5. Motor Horsepower:
6. Lift: feet.
7. Pressure Rating: psig .
8. Volts:
9. Phases:
10. Hertz:
11. Full-Load Amperes:
12. Minimum Circuit Ampacity:
13. Maximum Overcurrent Protection:

2.6 MOTORS

A. General requirements for motors are specified in Section 220513 "Common Motor Requirements for Plumbing Equipment."

- 1. Motor Sizes: Minimum size as indicated. If not indicated, large enough so driven load will not require motor to operate in service factor range above 1.0.
2. Controllers, Electrical Devices, and Wiring: Electrical devices and connections are specified in electrical Sections.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Pilot-Hole Data: Review pilot-hole test analysis furnished by Owner, if available, otherwise see paragraph B.
B. Neighborhood Well Data: Review operating and test analyses.

3.2 INSTALLATION

- A. Construct well using [cable-tool] [rotary drilling] [reverse-rotary drilling] [driven] method.
B. Take samples of substrata formation at 10-foot (3-m) intervals and at changes in formation throughout entire depth of each water supply well. Carefully preserve samples on-site in glass jars properly labeled for identification.
C. Excavate for mud pit or provide aboveground structure, acceptable to authorities having jurisdiction, to allow settlement of cuttings and circulation of drill fluids back to well without discharging to on-site waterways.
D. Enlarge pilot hole and install permanent casing, screen, and grout. Install first section of casing with hardened steel driving shoe of an OD slightly larger than casing couplings if threaded couplings are used.
E. Set casing and liners round, plumb, and true to line.
F. Join casing pipe as follows:
1. Ream ends of pipe and remove burrs.
2. Remove scale, slag, dirt, and debris from inside and outside casing before installation.
3. Out bevel in ends of casing pipe and make threaded joints for steel casings.

ABS and PVC casings. Do not use ABS pipe for wells deeper than 100 feet (30 m).

- 4. Clean and make solvent-cemented joints.

If rotary drilled or reverse-rotary drilled well is constructed. Revise first paragraph if another grout mix is required.

- G. Mix grout in proportions of 1 cu. ft. (0.03 cu. m) or a 94-lb (42.6-kg) sack of cement with 5 to 6 gal. (19 to 23 L) of water. Bentonite clay may be added in amounts of 3 to 5 lb/cu. ft. (1.4 to 2.3 kg/0.03 cu. m) for a 94-lb (42.6-kg) sack of cement. If bentonite clay is added, water may be increased to 6.5 gal./cu. ft. (25.0/0.03 cu. m) of cement.

H. Place grout continuously, from bottom to top surface, to ensure filling of annular space in one operation. Do not perform other operations in well within 72 hours after grouting of casing. When quick-setting cement is used, this period may be reduced to 24 hours.

If required.

- I. Provide permanent casing with temporary well cap. Install with top of casing 36 inches (910 mm) above finished grade.
J. Develop wells to maximum yield per foot (meter) of drawdown.
1. Extract maximum practical quantity of sand, drill fluid, and other fine materials from water-bearing formation.
2. Avoid settlement and disturbance of strata above water-bearing formation.
3. Do not disturb sealing around well casings.
4. Continue developing wells until water contains no more than 2 ppm of sand by weight when pumped at maximum testing rate.

K. Install submersible well pumps according to HI 2.1-2.4 and provide access for periodic maintenance.

- 1. Before lowering permanent pump into well, lower a dummy pump that is slightly longer and wider than permanent pump to determine that permanent pump can be installed. Correct alignment problems.
2. Before lowering permanent pump into well, start pump to verify correct rotation.
3. Securely lighten discharge piping joints.
4. Connect motor to submersible pump and locate near well bottom.
a. Connect power cable while connection points are dry and undamaged.
b. Do not damage power cable during installation; use cable clamps that do not have sharp edges.
c. Install water-sealed surface plate that will support pump and piping.

3.3 CONNECTIONS

- A. Piping installation requirements are specified in Section 221113 "Facility Water Distribution Piping." Drawings indicate general arrangement of piping, fittings, and specialties.
1. Connect piping between well pump and water piping.
2. Connect building water distribution to well pipe inside well house.
B. Ground equipment according to Section 260526 "Grounding and Bonding for Electrical Systems."
C. Connect wiring according to Section 260519 "Low-Voltage Electrical Power Conductors and Cables."

3.4 WELL ABANDONMENT

A. Follow well-abandonment procedures of authorities having jurisdiction. Restore ground surface to finished grade.

3.5 FIELD QUALITY CONTROL

A. Test Preparation: Clean water supply wells of foreign substances. Swab casings using alkalis, if necessary, to remove foreign substances.

Test procedures in this Article are examples only. Verify requirements with authorities having jurisdiction.

B. Perform tests and inspections and prepare test reports.

C. Tests and Inspections:

- 1. Plumbness and Alignment Testing: Comply with AWWA A100.
2. Furnish samples of water-bearing formation to testing laboratory and well-screen manufacturer for mechanical sieve analysis.
3. Prepare reports on static level of ground water, level of water for various pumping rates, and depth to water-bearing strata.
4. Performance Test Preparation: Start well pump and adjust controls and pressure setting. Replace damaged and malfunctioning controls and equipment.
5. Performance Testing: Conduct final pumping tests after wells have been constructed, cleaned, and tested for plumbness and alignment.
a. Arrange to conduct tests, with seven days' advance notice, after test pump and auxiliary equipment have been installed. Note water-level elevations referred to for each assigned datum in wells.
b. Provide discharge piping to conduct water to locations where disposal will not create a nuisance or endanger adjacent property. Comply with requirements of authorities having jurisdiction.
c. Provide and maintain equipment of adequate size and type for measuring flow of water, such as weir box, orifice, or water meter.
d. Measure elevation to water level in wells.
e. Perform two bailer or air-ejection tests to determine expected yield. Test at depths with sufficient quantity of water to satisfy desired yields.
f. Test Pump: Variable capacity test pump with capacity equal to maximum expected yields at pressure equal to drawdown in wells, plus losses in pump columns and discharge pipes.
g. Start and adjust test pumps and equipment to required pumping rates.

Revise maximum time intervals and minimum duration of pumping tests in first subparagraph below to suit Project.

- h. Record readings of water levels in wells and pumping rates at [30] <insert number>-minute maximum intervals throughout 24-hour minimum period.
i. Record maximum yields when drawdown is [60 inches] <insert dimension> above top of suction screens after designated times.
j. Operate pumping units continuously for [eight] <insert number> hours after maximum drawdown is reached.
k. Record returning water levels in wells and plot curves of well recovery rates.
l. Remove sand, stones, and other foreign materials that may become deposited in wells after completing final tests.

D. Water Analysis Testing: Verify with Owner.

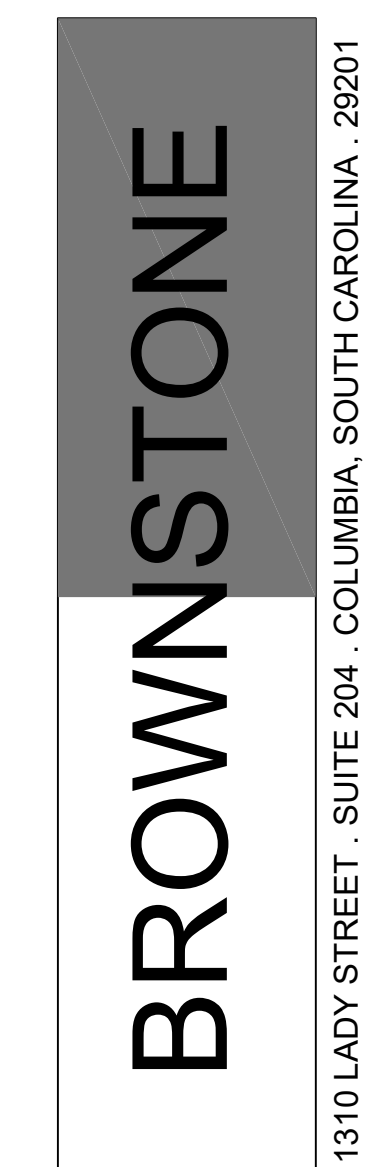
- 1. [Owner will engage][Engage] a qualified testing agency to make bacteriological, physical, and chemical analyses of water from each finished well and report the results. Make analyses according to requirements of authorities having jurisdiction.
2. Analyze water sample from each finished well for bacteriological, physical, and chemical quality and report the results. Make analyses according to requirements of authorities having jurisdiction.

3.6 CLEANING

- A. Disinfect water supply wells according to AWWA A100 and AWWA C654 before testing well pumps.
B. Follow water supply well disinfection procedures required by authorities having jurisdiction before testing well pumps.

3.7 PROTECTION

- A. Water Quality Protection: Prevent well contamination, including undesirable physical and chemical characteristics.
B. Ensure that mud pit will not leak or overflow into streams or wetlands. When well is accepted, remove mud and solids in mud pit from Project site and restore site to finished grade.
C. Provide casings, seals, sterilizing agents, and other materials to eliminate contamination; shut off contaminated water.
D. Exercise care to prevent breakdown or collapse of strata overlaying that from which water is to be drawn.
E. Protect water supply wells to prevent tampering and introducing foreign matter. Retain temporary well cap until installation is complete.
F. END OF SECTION



1310 LADY STREET - SUITE 204 - COLUMBIA, SOUTH CAROLINA - 29201

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Seal



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Date

4 NOVEMBER, 2016

Table with 3 columns: No., Item, Date. Multiple empty rows for tracking.

Key Plan

Sheet Title

PLUMBING SPECIFICATION

P105

Drawn By _____ Dryer
Checked By _____ Dryer

file



Catherine E. Heigel, Director

Promoting and protecting the health of the public and the environment

STATE WATER SYSTEM CONSTRUCTION PERMIT

Permission is Hereby Granted To: COTTAGEVILLE TOWN OF
72 SALLEY ACKERMAN DR
COTTAGEVILLE SC 29435

for the construction of a potable water source, storage and/or distribution system as shown on the attached water system layout sketch and in accordance with requirements set forth in the special conditions and the construction specifications of this permit described below:

PROJECT NAME: Town of Cottageville Recreation Park

COUNTY: Colleton

PROJECT DESCRIPTION: One 4", 10 gpm well with 20 gallons of usable storage and distribution system to serve 3 restrooms at a recreation park.

PERMIT NUMBER: 31370-WS

DATE OF ISSUE: August 08, 2016

EXPIRATION DATE: August 08, 2019

SPECIAL CONDITIONS: (see page 2 of this permit)

Once construction is complete, the Low Country Beaufort BEHS Office must be contacted at 843-846-1030 in order to obtain a final permit to operate. Written Final approval must be obtained before the system is placed into operation.

[Handwritten signature of Penny Cornett]

Penny Cornett, Office Manager
Low Country Beaufort BEHS

cc: Bureau of Water Permitting File
USGS, Stevenson Center, Suite 129, 720 Gracem Rd., Columbia, SC 29210-7651
A.W. Badr, SCDNR-Water Resources, PO Box 167, Columbia, SC 29202-0167

SPECIAL CONDITIONS

1. Based on a well yield of ten (10) gallons per minute (gpm), the hydropneumatic storage tank(s) shall have a **total useable volume**** of 20 gallons for the operating pressure range. This required volume may be decreased by 20 gallons for every one (1) gpm over ten (10) gpm, however in no case shall the usable volume be less than two (2) times the yield of the well (i.e., for a 13 gpm well the usable storage of the tank shall equal or exceed 26 gallons. If the yield of the well is less than 10 gpm the usable tank volume must be increased by 20 gallons for every one gallon per minute less than 10 gpm. **However, for this particular small water system, the minimum well yield shall be 10 gpm. ** The total gross storage required is three (3) times the amount of usable storage specified above.**

2. In order to obtain approval to place the newly constructed facilities into operation the following information must be submitted to Penny Cornett, LOW COUNTRY BEHS BEAUFORT , 104 Parker Drive, Burton, SC 29906, 843-846-1030.
 - (a) The well record form, which must be completed by the well driller (form enclosed).
 - (b) Results of the yield/performance test and pump curve for pump installed.
 - (c) Copy of the water quality analyses required by this permit (i.e., total coliform, chlorine residual, nitrate, iron, and manganese). Refer to Page 7 additional analyses.
Note: chlorine residual must be zero.
 - (d) The enclosed certification of construction form completed and signed by the well driller and contractor.

A final construction inspection will need to be conducted once the above information is submitted.

3. If in the future a water main from a publicly owned water system is installed adjacent to your property, this well must be physically disconnected from the water line, and service must be established with the water system. The well may be maintained for irrigation purposes only; otherwise, it must be properly abandoned.

CONSTRUCTION SPECIFICATIONS

A. Wells

- (1) The well must be drilled by a certified well driller registered in South Carolina.
- (2) The location of the well must be at least 100 feet from all potential pollution sources. Potential pollution sources include but are not limited to the following: septic tank, tile field, sewer line, abandoned unprotected well, waste treatment lagoon, storage lagoon, animal feed lot, chemical handling area, chemical storage area, petroleum storage area, waste disposal area, mine.
- (3) The location of the well must be at least 50 feet from all surface water bodies (lake, stream, river, pond, or drainage ditch which normally holds water).
- (4) The well must draw water from an aquifer a minimum of 50 feet deep.
- (5) Hand dug wells and wells constructed with casing materials of concrete or ceramic pipe shall not be used as a source of water for a public water system.
- (6) Wells or well pump stations in pits are prohibited.
- (7) The casing for rock wells must be galvanized iron or black steel and driven to refusal into firm bedrock. A drive shoe is recommended to be used on the end of the casing being driven into the firm bedrock. The top of the casing must extend at least twelve (12) inches above the concrete pad.
- (8) Screens, if used, can be either wire wound stainless steel or manufactured PVC. "Homemade" PVC screens shall not be used.
- (9) Where artificial filter packing is used, the gravel shall be free of foreign material and sterilized before being placed around the screen.
- (10) Grouting is required on all wells. The materials used for grouting shall be sand-cement, bentonite-cement mixture, or neat cement. Grouting for all wells shall be a minimum of 1.5 inches thick when using forced injection and 3 inches for gravity feed.
- (11) The annular space between the outside surface of the well casing and the bore hole shall be grouted with a sand-cement mixture, bentonite-cement mixture or neat cement. The sand cement or neat cement mixture shall be composed of not more than two (2) parts by weight of sand to one (1) part of cement with not more than seven (7) gallons of clean water per bag (one cubic foot or 94 pounds) of cement. The bentonite-cement mixture shall be composed of three (3) to five (5) pounds of bentonite mixed with seven (7) gallons of clean water per bag (one cubic foot or 94 pounds) of cement.
- (12) The minimum length of grout for sanitary protection shall be as follows:
 - (a) For open hole wells into bedrock aquifers the length of grout shall be to at least fifty (50) feet or firm bedrock, whichever is less. However, where bedrock is encountered at less than twenty (20) feet, at least twenty (20) feet of casing shall be used and the entire length of the casing shall be grouted.

- (b) For screened, natural filter wells and artificial filter (gravel pack) wells in to unconsolidated aquifers the length of grout shall be to fifty (50) feet or the first low permeability stratum (clay, marl, etc.), or to within ten (10) feet of the upper most screen when no low permeability stratum is encountered, whichever is greater.
- (c) For open hole wells into limestone aquifers the length of grout shall be to fifty (50) feet or firm limestone or firm marl, whichever is less. However, where limestone or firm marl is encountered at less than twenty (20) feet, at least 20 feet of casing shall be used and the entire length of the casing shall be grouted.

The Department may require an additional length of grout where warranted by site, geological and/or water quality conditions. See the special conditions of this permit for any special requirements concerning the length of grout.

- (13) The grout material shall be placed by tremie pipe, either by pouring or forced injection, after water or other drilling fluid has been circulated in the annular space sufficiently to clear all obstructions. There shall be a minimum annular space of three (3) inches for gravity feed and one and one-half (1.5) inches for forced injection between the outside surface of the casing and the formation. The minimum size tremie pipe shall be two (2) inches inside diameter for gravity feed and one (1) inch inside diameter for forced injection. When placing the grouting material, the tremie pipe shall be lowered to the bottom of the zone to be grouted and raised slowly as the grout material is introduced. The tremie pipe shall be kept full continuously from start to finish of the grouting procedure, with the discharge end of the tremie pipe being continuously submerged in the grout until the zone to be grouted is completely filled. The grout shall be allowed to properly cure before construction may be resumed. Other methods of installing the grout may be used if prior approval is given by the Department.
- (14) The casing shall be sealed with a suitable flanged, threaded, or welded cap or compression seal. The outside casing shall be sealed to, and centered in, a reinforced concrete pad. The concrete pad must be at least six (6) feet by six (6) feet by four (4) inches thick and sloped so that water will drain away from the casing.
- (15) A screened vent must be provided for the casing (except on packer jet wells). The vent must extend a minimum of eighteen (18) inches above the concrete pad. The vent can be the gooseneck type with twenty-four (24) mesh screen over the opening or manufactured slotted pipe with effective opening of .024 inches or smaller.
- (16) A well identification plate must be securely attached to the casing or embedded into the concrete pad. The plate must be made of a durable, weather-proof, material and contain the following information:
 - (a) Driller name and registration number;
 - (b) Date well completed;
 - (c) Total depth of well (in feet);
 - (d) Casing: Depth (in feet), Inside diameter (in inches);
 - (e) Screened intervals (of screened wells);
 - (f) Filter-pack interval (of wells with artificial filter-pack);
 - (g) Yield expressed in gallons per minute (gpm), or specific capacity expressed in gallons per minute per foot of drawdown (gpm/ft.-dd); and

- (h) Static water level and date measured
- (17) If a submersible pump is installed, the well head piping must include a check valve followed by a sample tap or hose bibb, a gated blow-off valve, and an in-line gate valve, all of which must be prior to any storage tank. A flow meter is also recommended. If a flow meter is installed it must be prior to the blow-off. Please refer to the attached diagram for an illustration of a typical well and tank installation when a submersible pump is used.
- (18) If a jet pump is installed, the well head piping must include a sample tap or hose bibb followed by a gated blow-off and an in-line gate valve, all of which must be prior to any storage tank. A flow meter is also recommended. If a flow meter is installed it must be prior to the blow-off. No check valve is required in the main line of the well head piping for a jet pump; however, a check valve must be provided on the sample tap or hose bibb and the discharge of the blow-off must be a minimum of 12 inches above the concrete pad. A check valve must be installed on the down-stream side of the storage tank. The purpose of not installing a check valve between the pump and the tank is so that the tank will help keep the pump primed. Please refer to the attached diagram for an illustration of a typical well and tank installation when a jet well pump is used.
- (19) A pressure relief valve shall be installed on the well head piping if the pump installed is capable of discharging at a greater pressure than the pressure rating of the storage tank. The pressure relief valve must be set at a pressure equal to or less than the pressure rating of the tank. This valve must also be sized to discharge the rated capacity of the pump.
- (20) All electrical wiring must be in rigid or flexible conduit.
- (21) The well head must be provided with a well house for protection from weather and vandalism. A lock must be installed on the door or cover. Well houses shall be constructed in a manner and of material that will allow one person easy access to the sampling taps and the well head piping for inspection, maintenance and sampling.
- (22) A yield/performance test must be performed for a period of at least 6 hours. Measurements must be recorded at least hourly for yield (gallons per minute) and water level. It is recommended that a test pump be used to perform this test so as to optimize the sizing and selection of the permanent pump. However, if the permanent pump is used, the test should be performed against the average system pressure (i.e., for a 30/50 operating pressure range the pressure should be 40 psi). This may be accomplished by partially closing the gate valve on the blow-off until the desired pressure is obtained. The gate valve may need to be adjusted further during the test in order to maintain the desired pressure. If the test is not performed against the average system pressure, the well yield will be what the pump is rated for at the average system pressure. The pump rating must come from the manufacturer's pump curve for the selected pump.
- (23) Any well abandonment shall be conducted by a certified well driller and in accordance with R.61-58.(B)(15) of the State Primary Drinking Water Regulations.

B. Storage

- (1) The pressure rating of the hydropneumatic storage tank(s) must be at least seventy-five (75) psi.
- (2) The hydropneumatic storage tank(s) must have adequate support and reaction blocking to prevent breaks

in the lines connected to the tank.

- (3) The hydropneumatic storage tank(s) must be equipped with a means to sample the tank, an isolation valve, and pressure gauge.
- (4) Except for a captive air storage tank, the hydropneumatic storage tank must also be equipped with a drain, separate inlet and outlet piping arranged so that water flows through the tank, and an automatic air make-up system. If an air compressor is used in the air make-up system, a pressure relief valve must also be installed on the tank.
- (5) If the tank is five hundred (500) gallons or larger an access manhole, a minimum two (2) inch diameter drain, and a vacuum relief valve must be provided. An air compressor shall be installed if the hydropneumatic storage tank two thousand (2000) gallons or larger.
- (6) Hydropneumatic storage tanks five hundred (500) gallons and larger must meet the requirements of the American Society of Mechanical Engineers for construction and installation of unfired pressure vessels and must carry its approval stamp.
- (7) Controls for operating the pump must be by pressure switch or other automatic means and set to operate on at least thirty (30) psi on /fifty (50) psi off range. A greater operating pressure may be required to assure that a minimum of 25 psi is maintained throughout the distribution system at all times. The maximum pressure range between the on/off operating pressures shall be a maximum of twenty (20) psi.
- (8) All paint coatings which come into contact with drinking water shall be certified as meeting the specifications of the American National Standards Institute/National Sanitation Foundation Standard 61.

C. Distribution System

- (1) PVC, polyethylene, galvanized iron, or copper piping is acceptable. All piping must be certified as meeting the specifications of the American National Standards Institute/National Sanitation Foundation Standard 61, Drinking Water System Components - Health Effects. Any pipe material, solder or flux used in a potable water system must be lead free. "Lead free" is defined to mean that solder and flux can contain no more than 0.2% lead; pipes and fittings not more than 8.0% lead. If polyethylene pipe is used, water tight compression fittings must be used. Radiator or pipe clamps shall not be used on any underground piping.
- (2) All external distribution piping shall be installed at least thirty (30) inches below grade. All single service water lines shall be at least eighteen (18) inches below grade. Where this is not possible, pipe shall be steel, ductile iron, or other approved material and method approved by the Department, and, when necessary, insulated from freezing.
- (3) Reaction blocking of poured concrete must be placed at all bends, tees, valves, etc. for all lines two and one half (2.5) inches and larger.
- (4) No water line shall be placed within ten (10) feet of a septic tank, sewer line, or manhole or within twenty five (25) feet of a drain field. Where a water line must cross a sewer line (not a drain field), there shall be a minimum of eighteen (18) inch vertical separation with the water line crossing over the top of the sewer line.

- (5) Adequate blow-offs shall be provided for periodic flushing of the system. If a dead end water line is greater than one and one half (1.5) inches in diameter and longer than two hundred (200) feet in length, installation of a blow-off is required. Please refer to the attached diagram for an illustration of a typical blow-off.
- (6) Upon completion, the distribution system must be pressure tested at a pressure equal to or exceeding the maximum working pressure. The pressure test must be held for at least two (2) hours without a drop in pressure.

D. Disinfection/Testing

- (1) Upon completion and setting of the permanent pump and following the pressure test, the well, storage tanks, and all piping must be disinfected by adding calcium hypochlorite or sodium hypochlorite to the well in sufficient amounts to produce at least a 50 milligram per liter concentration. (See Table #1) The pump must be run long enough to get the chlorine solution throughout the well head piping, tank, and distribution line. This solution must be retained for 24 hours then completely flushed from the system. The water must be tested for chlorine to insure that the chlorine solution has been completely flushed from the well and distribution system prior to sampling for total coliform bacteria. Once the chlorine solution has been removed, at least one sample must be collected from a point farthest from the well or metered connection and analyzed for total coliform bacteria by a DHEC certified laboratory. If the analysis indicates the presence of total coliform bacteria, the disinfection and sampling procedure must be repeated until the analysis indicates the absence of total coliform bacteria. A separate sample for total coliform analysis must be collected and analyzed from all tanks five hundred (500) gallons or larger.
- (2) In addition to the total coliform sample, a water sample must be collected from the well and tested for **nitrate, iron, and manganese**. The water sample must also be tested for **fluoride** if the well is located in one of the following counties: Horry, Georgetown, Charleston, Colleton, Beaufort, Jasper, Dorchester, Berkeley. The water sample must also be tested for **total uranium** if the well is located in one of the following counties: Greenville, Pickens. The water sample must also be tested for **radium** if the well is located in one of the following counties: Richland, Lexington, Aiken. These analyses must be performed by a DHEC certified laboratory.

CERTIFICATION OF CONSTRUCTION

WELL DRILLER CERTIFICATION

I do hereby certify that the: (circle those items completed by the well driller)

1. Well
2. Pump
Mfr. Name: _____ Model No: _____
H.P. _____ Length of drop pipe: _____ ft. Capacity _____ gpm
Type: Submersible Jet (shallow) Turbine Jet (deep)
 Reciprocating Centrifugal
3. Well head piping
4. Tank
Mfr. Name: _____ Model No: _____
Pressure range setting: _____ Usable Volume @ setting: _____
Type: Standard Bladder
5. Distribution system

have been constructed in accordance with the requirements specified in the construction permit.

Well Driller's Name(Print):

Well Driller's Signature:

Certification Number: _____ Date:

CERTIFICATION OF CONSTRUCTION

CONTRACTOR CERTIFICATION

I do hereby certify that the: (circle those items completed by the contractor)

1. Pump
Mfr. Name: _____ Model No: _____
H.P. _____ Length of drop pipe: _____ ft. Capacity _____ gpm
Type: Submersible Jet (shallow) Turbine Jet (deep)
 Reciprocating Centrifugal
2. Well head piping
3. Tank
Mfr. Name: _____ Model No: _____
Pressure range setting: _____ Usable Volume @ setting: _____
Type: Standard Bladder
4. Distribution system

have been constructed in accordance with the requirements specified in the construction permit.

Contractor's Name (Print):

Contractor's Signature: _____ Date:

Revised Table #1

Table 1: Quantity of Substance Required to Produce a 50 Part Per Million Concentration of Chlorine

Well Diameter (inches)	Ounces of Compound For Each 10-ft Depth of Water		
	Dry - 70% Calcium Hypochlorite* or Liquid - 12% Sodium Hypochlorite		Household Bleach
	Dry Measure	Liquid Measure	Liquid Measure
2	0.02	0.09 fl oz	0.21 fl oz
4	0.06	0.35 fl oz	0.81 fl oz
6	0.14	0.78 fl oz	1.88 fl oz
8	0.25	1.39 fl oz	3.33 fl oz
10	0.39	2.2 fl oz	5.21 fl oz
12	0.56	3.2 fl oz	7.51 fl oz
24	2.24	12.8 fl oz	30.0 fl oz
36	5.03	28.2 fl oz	67.51 fl oz

All quantities may be rounded to the nearest half-ounce for convenience of measurements.

128 fl oz = 8 pt = 4 qt = 1 gal

* 1 heaping teaspoon of 70% hypochlorite is approximately 2 ounce.

EXAMPLE:	6-inch diameter, 100 feet deep well with the water level 20 feet below ground level contains 80 feet of water
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To disinfect with household bleach, you would use 1.88 ounces for each 10 feet of depth or (8 x 1.88) = 15.04 ounces.

If the well depth or water level is not known, one (1) gallon of liquid household bleach may be used instead of the above amounts.



PERMIT TO CONSTRUCT
Onsite Wastewater System

File Nbr **2016070016**
County: Colleton

Name: TOWN OF COTTAGEVILLE

c/o COLLETON COUNTY - J STIEGL

Program Code: 362

Type Facility: RECREATION PARK

Address: 72 SALLY ACKERMAN DR
COTTAGEVILLE, SC 29435

System Code: 240

Subdivision:

Site: 72 SALLY ACKERMAN DR

TM#: 152-02-00-047.000

Block:

Lot:

COTTAGEVILLE, SC 29435

Water Supply: PRIVATE

PERMIT TO CONSTRUCT SYSTEM SPECIFICATIONS

Daily Flow (gpd): 300

Tank Sizes (gal): Septic Tank: 1000

Pump Chamber:

Grease Trap:

LTAR: .60

Trenches: Length (ft): 250 Width (in): 36 Max. Depth (in): 11

Agg. Depth (in): 6

Min Pump Capacity: gpm at

ft. of Head

SPECIAL INSTRUCTIONS/CONDITIONS

THIS PERMIT IS SITE SPECIFIC. ANY CHANGES TO THE SYSTEM MUST BE APPROVED BY DHEC. ALTERNATIVE TRENCH PRODUCTS APPROVED UNDER STATE RULES AND REGULATIONS MAY BE SUBSTITUTED. ANY UNAPPROVED CHANGES WILL VOID THIS PERMIT.

- All applicable setbacks set forth in Regulation 61-56 apply.
- Maximum Trench Depth not to exceed 11 inches
- Do not cut, fill, bulldoze, scrape or change the grade of the natural soils in the septic system area.
- Do not install under wet soil conditions. Minimum 75' from private well; 100' from public well.
- No parking, driving, building or paving over the area of septic system before or after installation.
- Minimum 12" cover over system after installation with 5' buffers and 10' tapers from outside edges of trenches.
- Preconstruction conference required for property owners who wish to install their own system.

PERMIT TO CONSTRUCT SYSTEM DIAGRAM

(NTS)



11/29/16
Revised based on revision submitted by the engineer KSC

Issued/Revised By:

[Signature]

Date:

11/29/16

DHEC 1781 (01/2014)

This Permit is Appealable Under the Administrative Procedures Act. There may be an Additional Fee for Changes in this Permit that Require a Site Reevaluation.



APPROVAL TO OPERATE

Onsite Wastewater System

File Nbr: **2016070016**

County: **Colleton**

Name: TOWN OF COTTAGEVILLE

Address: c/o COLLETON COUNTY - J STIEGL

Program Code: 362

Type Facility: RECREATION PARK

72 SALLY ACKERMAN DR
COTTAGEVILLE, SC 29435

Tax Map: 152-02-00-047.000

Subdivision

Site: 72 SALLY ACKERMAN DR

Water Supply: PRIVATE

Block:

Lot:

COTTAGEVILLE, SC 29435

ACTUAL INSTALLATION

(NTS)

FINAL APPROVAL

Installer:
Septic Tank Mfg:
Pump Chbr Mfg:
Pump Mfg:
Pump Model:
Grease Trap Mfg:
Aggregate:
Trench Dpth (in):
System Code:
Well Installed:
Well Dist (ft):
Building Dist (ft):
Property Dist (ft):
Water Dist (ft):

Elevation Readings

Stubout: _____ S/T Inlet: _____ S/T _____

Line No.

GPS Latitude:
Longitude:
Accuracy:

Comments:

Licensed Installer

Printed Name _____

License # _____

I hereby certify the system was installed in accordance with the referenced permit and R.61-56 and is in an exposed condition ready for inspection.

Licensed Installer Signature _____

Date _____

APPROVAL BY DHEC TO OPERATE

THIS CERTIFICATE OF FINAL APPROVAL IN NO WAY GUARANTEES THE LIFE OF THE SYSTEM OR THAT IT WILL FUNCTION PROPERLY UNDER ANY OR ALL CONDITIONS

Approved By: _____

Date: _____