Request for Proposal, 16MCO511 Concrete for Midland County Horseshoe Amphitheater

Date Required: March 8, 2016
Time Required: 2:00pm Local Time

INTRODUCTION:
Midland County, hereafter called County, invites sealed proposals from interested qualified Vendors, hereinafter called Vendors, to provide concrete for the Amphitheater. The following pages provide general information about the requirements and specifications for the package.

This request for proposal ("RFP") is part of a competitive procurement process which provides qualified vendors with a fair opportunity for their commodities and services to be considered, and to provide information concerning their expertise and experience in providing similar services to other customers. The RFP process provides a competitive negotiation platform, wherein price or cost is not the sole determinative factor. This process, designed to best serve the interests of the County, allows the County the flexibility to negotiate with interested, qualified Vendors (following designation by the Commissioners Court, one at a time) to arrive at a mutually agreeable relationship.

SITE SURVEY:
An Site Survey will be held at the Midland County Horseshoe. We will meet at the Pavilion Flag Poles at 2:00pm on Thursday February 18, 2016 and will promptly begin the survey of the site, which is just east of the Pavilion.

Midland County Horseshoe Arena and Pavilion
2514 Arena Trail
Midland, TX 79701

QUESTIONS:
If further information is required, please contact the Midland County Purchasing Department. All requests for information must be submitted in writing. Responses to all questions received will be sent to each Contractor/Vendor known to have copies of the Request for Proposal. Requests for information may be faxed to 432-688-4914 or e-mailed to pur103@co.midland.tx.us. All questions should be submitted on or before 5:00pm on Friday Thursday February 25, 2016. Questions received after said date and time will not receive a response. Answers and clarifications which are considered to materially change the solicitation will be issued as written addenda to the original RFP and will be posted to the Midland County website at www.co.midland.tx.us. Solution providers are responsible for ensuring all answers to questions are reviewed prior to bid submittal and that all issued added are properly acknowledged with their submitted proposal response. Midland County will not be responsible for any verbal exchange between the vendor and an employee of Midland County.
COPIES AND RECEIPT:
Please submit one (1) original, three (3) copies, and an electronic copy on USB drive of the proposal. An executed copy of the Proposal Affidavit SIGNED AND NOTARIZED (Page 7) must be included in each submission. Please note that if no Proposal Affidavit is included, the response will be rejected. Midland County is exempt from all state and federal taxes. Tax exempt certificates are available upon request.

All responses should be submitted in a sealed envelope, marked on the outside,

Concrete for Midland County Horseshoe Amphitheater 16MCO511

__________________________________________________
Company Name

Responses must be received by 2:00pm Local Time on Tuesday March 8, 2016. Late proposals will be rejected and returned without being opened. The clock in the Purchasing Agent’s office is the official time piece for this submission. If interested, Contractors may use mail or express systems to deliver their proposal to the Purchasing Department; they should insure that they are tendered to the carrier in plenty of time to reach the Purchasing Department by the time and date required. Facsimile transmitted proposals shall not be accepted.

SUBMISSION LOCATION: All bids which are mailed, shipped, delivered, etc. should be addressed as follows:

Midland County Purchasing Department
Midland County Courthouse
Attention: Kristy Engeldahl, Purchasing Agent
500 N. Loraine Street, Suite 1101
Midland, Texas  79701

DOCUMENTATION SUBMISSION:
The respondent must submit all required documentation. Failure to provide requested information may result in rejection of the proposal.

ALTERATION OF PROPOSAL:
A proposal may be altered, modified or amended by a Vendor at any time, prior to the time and date set forth above as the submission deadline. Alterations, modifications or amendments to a proposal must be made in the offices of the Purchasing Department. Any interlineations, alteration or erasure made on a proposal before the submission deadline must be initialed by the signer of the proposal, guaranteeing authenticity. A proposal may not be altered, modified or amended after the submission deadline.

WITHDRAWAL:
A proposal may not be withdrawn or canceled by the respondent for a period of sixty (60) days following the date designated for the receipt of proposals, and respondent so agrees upon submittal of their proposal.
CONFLICT OF INTEREST:
No public official shall have interest in this contract, in accordance with Vernon's Texas Codes annotated Local Government Code Title 5, Subtitle C, Chapter 171. Vendor is required to sign affidavit form included in Proposal documents.

Chapter 176 of the Texas Local Government Code requires a vendor who enters or seeks to enter into a contract for the sale or purchase of real property, goods, or services with a local governmental entity or local government officer thereof to file a conflict of interest disclosure questionnaire with the governmental entity prescribed.

A Conflict of Interest Questionnaire Form (CIQ) (see pages 11 and 12) must be submitted not later than the seventh (7th) business day after the date the vendor begins discussion, negotiation, applies or response to a request for proposal or bids, or correspondence in writing related to a potential contract with the local governmental entity. Midland County asks that you return this form along with your response to the RFP.

SILENCE OF SPECIFICATIONS:
The apparent silence of these specifications as to any detail of the apparent omission from it of a detailed description concerning any point, shall be regarded as meaning that only the best commercial practices are to prevail. All interpretations of these specifications shall be made on the basis of this statement.

CONFIDENTIALITY:
Contents of the proposals will remain confidential until the contract is awarded. At that time the contents will be made public under the Texas Public Information Act; except for any portion of a proposal which has been clearly marked as a trade secret or proprietary data (the entire proposal may not be so marked). Proposals will be opened, and the name of the firm submitting the proposal read aloud, acknowledged, at 2:05pm on Tuesday March 8, 2016, in the Purchasing Department Conference Room located in the Midland County Courthouse, Suite 1101. All respondents or other interested parties are invited to attend the opening.

Vendors are hereby notified that the Owner strictly adheres to all statutes, court decisions, and opinions of the Texas Attorney General with respect to disclosure of public information.

ADDITIONAL INFORMATION AND DEMONSTRATION, NEGOTIATIONS:
Prior to award, selected Vendors may be asked to provide further information concerning their proposal, up to and including presentations/demonstrations. The Midland County Commissioners Court reserves the right to reject any and all proposals or waive formalities as deemed in the best interests of Midland County. The County may also enter into discussions and revisions of proposals after submission and before award for the purpose of obtaining the best and final offer, and to accept the proposal deemed most advantageous to Midland County.

This request for proposal (RFP) is part of a competitive procurement process which is designed to best serve the interests of the County in obtaining complicated commodities and/or services. It also provides interested Contractors with a fair opportunity for their goods and services to be
considered. The RFP process is designed to be a competitive negotiation platform, where price is not required to be the sole determinative factor. Also, the County has the flexibility to negotiate with interested vendors (one at a time) to arrive at a mutually agreeable relationship. Negotiations will be arranged with vendors in a hierarchal order, starting with the vendor selected as the primary. If a contract cannot be negotiated, negotiations will, formally and in writing, end with that Vendor and proceed to move to the second vendor, and so forth until a contract is negotiated.

RIGHTS OF THE CONTRACTING AUTHORITY:
Midland County reserves the right to withdraw this RFP at any time and for any reason. Midland County also has the right to terminate its selection process at any time and to reject all responses, or all proposals. Receipt of the proposal materials by Midland County or submission of a proposal to Midland County confers no rights upon the vendor nor obligates Midland County in any manner.

Midland County intends to use the AIA Contract as shown in ATTACHMENT A.

All costs associated with the preparation or submittal of proposals shall be borne by the vendor, and no cost shall be sustained by Midland County.

ORAL COMMITMENT:
Vendors should clearly understand that any verbal representations made or assumed to be made during any discussions held between representatives of an vendor and any Midland County personnel or official are not binding on Midland County.

WAIVER OF CLAIMS:
Submission of a proposal indicates Vendor’s acceptance of the evaluation technique and Vendor’s recognition that some subjective judgments must be made by the County during the determination of qualification.

SELECTION CRITERIA:
Price is a primary consideration, however, it is not the only consideration to be used in the selection. The product and/or service to be provided is also of major importance. Midland County will require that the successful vendor provide a representative for all County related business, service, billing, installation, activation and termination of said service. The evaluation criteria and factors are identified on page 9.

ORDINANCES AND PERMITS:
The Contractor/Vendor agrees, during the performance of the work, to comply with all applicable Federal, State, or local code and ordinances.

INVOICES:
Invoices are to be mailed to P.O. Box 421, Midland, Texas 79702 and should cite the applicable Purchase Order Number. Any and all notices or other communications required or permitted by any contract awarded as a result of this RFP shall be served on or given to Midland County,
in writing, by personal delivery to the Purchasing Agent of Midland County, Texas, or by deposit with the United States Mail, postage prepaid, registered or certified mail, return receipt requested, addressed to the Midland County Purchasing Agent 500 N. Loraine Suite 1101 Midland, TX  79701, or at such other address as may have been specified by written notice to Vendor.

INSURANCE:
The awarded Vendor will maintain such insurance as will protect the Vendor and the County from claims under the Workers' Compensation Acts, and any amendments thereof, and from any other claims for damages from personal injury, including death, which may arise from operations under this agreement, whether such operations be by themselves or by any sub-Contractor, or anyone directly or indirectly employed by either of them. Current Certificate of such insurance shall be furnished to Midland County and shall show all applicable coverage(s).

Other insurance requirements are:
- General Liability (including completed operations) with a $1,000,000 per occurrence limit and $2,000,000 general aggregate.
- Commercial Automobile Liability with a limit of no less than $1,000,000. The coverage will also extend liability to hired and non-owned autos.
- Workers' Compensation with limit of $1,000,000 for Employers Liability.
- We also require a minimum umbrella (or follow form excess policy covering over general liability, auto liability and workers compensation) of no less than $2,000,000.

Midland County will require the selected Vendor to name Midland County as an additional for both the general liability and auto liability. A waiver of subrogation in favor of the County is required for the workers compensation. If the additional insured status or waiver of subrogation is not blanket, please send a copy of the actual endorsements prior to commencement of any work.

Midland County will require the selected Vendor to name Midland County as an additional insured and provide a waiver of subrogation prior to making a contract.

INDEMNIFICATION:
The Vendor shall defend, indemnify and save whole and harmless the County and all its officers, agents and employees from and against any and all demands, claims, suits, or causes of action of any character, name, kind or description brought for, or on account of, arising out of or in connection with the Vendor's performance or non-performance of any obligation of Vendor or any negligent act, misconduct or omission of the Vendor in the performance of its contractual obligations. The Vendor shall defend, indemnify, save, and hold harmless the County and its officers, agents, representatives and employees from and against any and all demands, claims, suits, or causes of action of any character, name, kind or description brought for, on account of, arising out of or in connection with Vendor's product or service.
STATUS OF INDEPENDENT CONTRACTOR:
Vendor shall be considered an independent contractor, for all purposes. Vendor will not at any
time, directly or indirectly, act as an agent, servant, representative or employee of the County.
Vendor will not take any action which is intended to create any commitments, duties, liabilities
or obligations on behalf of the County, without prior written consent of the County.

PARTIAL INVALIDITY:
In the event any one or more of the provisions contained in this RFP or any contract resulting
therefore, for any reason, be held to be invalid, illegal or unenforceable in any respect, such
invalidity, illegality or unenforceability shall not affect any other provision of this RFP or any
contract resulting therefore and this RFP or the contract resulting therefore shall be construed
as if such invalid, illegal or unenforceable provision had never been contained herein.

CONTRACT TERMINATION:
Non-performance of the Vendor/Contractor in terms of specifications or noncompliance with
terms of this contract shall be basis for termination of the contract by the County. Termination
in whole or in part, by the County may be made at its option and without prejudice to any other
remedy to which it may be entitled at law or in equity, or elsewhere under this contract, by
giving (60) sixty days written notice to the Contractor/Vendor with the understanding that all
work being performed under this contract shall cease upon the date specified in such notice.
The County shall not pay for work, equipment, services or supplies which are unsatisfactory.
Contractor/Vendor may be given reasonable opportunity prior to termination to correct any
deficiency. This, however, shall in no way be construed as negating the basis for termination
for non-performance. The right to terminate the notice thereof is controlled by these proposal
specifications and is not subject to being altered by contract.

LAW GOVERNING:
The parties under contract shall be subject to all Federal laws and regulations, and all rules and
regulations of the State of Texas. The laws of the State of Texas shall govern the interpretation
and application of the contract; regardless of where any disagreement over its terms should
arise or any case of action arise.

REMEDIES:
The successful vendor and Midland County agree that both parties have all rights, duties, and
remedies available as stated in the Uniform Commercial Code.

VENUE:
It is hereby agreed that the contract will be made in Midland, Midland County, Texas, and any
dispute arising as a result of it shall be governed by the laws of the State of Texas for the
purpose of any law suit, and the parties agree that such lawsuit shall be brought in Midland
County, Texas.
FUNDING CONTINGENCY:
Any contract awarded pursuant to this RFP shall be contingent on sufficient funding and authority being made available in each fiscal period by the appropriate officials of Midland County. If sufficient funding or authority is not made available, the contract shall become null and void.

ASSIGNMENT:
The Contractor shall not sell, assign transfer or convey this contract in whole or in part, without the prior written consent of the County.
SPECIFICATION

PURPOSE:
Midland County is in need of a company to obtain and pour concrete at the Midland County Horseshoe for the purpose of creating an Amphitheater, according to the attached design.

SUBCONTRACTOR AND/OR SUPPLIER IDENTIFICATION:
Should the Bidder subcontract any work, the Bidder shall indicate below the name of each subcontractor and/or supplier the bidder will use in the performance of the contract. The Bidder shall specify the work to be performed by the subcontractor or the materials to be provided by the supplier. Any changes in subcontractor and/or supplier listed below shall require prior approval by the Purchasing Office.

Vendors shall also verify that the Vendor can and will deliver the performance and payment bonds referred to below. In the event that a Vendor cannot make this verification, this may be grounds to reject the Vendor.

CONSTRUCTION LOCATION:
The Amphitheater is designed to be east of the Midland County Horseshoe Pavilion.

SPECIFICATIONS:
- All concrete will need to be poured and shaped according to the design documents provided by Vandergriff and Dunaway, see ATTACHMENT B and ATTACHMENT C.
- Vendor will provide an estimated number of days that will be needed to complete this project. However, all work is to be completed by April 30, 2016. Liquid damages will be assessed at $500 per day after April 30, 2016.
- Concrete spoils and washout pit furnished onsite by Midland County.
- Reinforcement steel is included in the scope of this RFP.
- Electrical, fencing, masonry, irrigation, landscape, and sod-work may be going on concurrently to this project. The scope of said concurrent work is not included in this RFP.
EVALUATION PROCESS:
The County will award to the bidder that submits a bid which represents the “best value” to the County. The best value shall not be based solely upon price but the bid which receives the highest cumulative score for each of the evaluation factors delineated herein.

CRITERIA:
Completed Proposal Form, see section 00 42 00 of ATTACHMENT C, is required. Company Affidavit, page 10, is required.

Tab 1 Previous Related Experience: (15 points, maximum)
- Indicate experience with publicly funded facilities of same approximate size and type as the anticipated project.
- Indicate safety record on previous projects.
- Indicate whether Vendor has had similar contracts terminated prior to completion or whether a bonding company surety has had to pay funds under a bond of the Vendor.

Tab 2 Identity and Location of Vendor: (5 points, maximum)
- Indicate the exact legal name of Vendor, its type of legal organization, its State of organization, its mailing address, the office/business location of the Vendor from which the Project will be managed; and, address Vendor’s availability to the Project and the County and the response time.

Tab 3 Duration to Complete: (20 points, maximum)
- Indicate the length of time that it will take the Vendor to complete this work.

Tab 4 References: (Include name, address, and phone number of contact): (10 points, maximum)
- Indicate (3 minimum) general references who can attest to the Vendor’s ability, performance, and safety record.

Tab 7 Cost: (50 points, maximum)
- Indicate the Vendor’s proposed price for the concrete work.
- Pricing MUST include $10,000.00 contingency allowance.
REQUIRED FORM
COMPANY AFFIDAVIT

The affiant, ___________________________ states with respect to this submission to County:

I (we) hereby certify that if the contract is awarded to our firm that no member or members of the governing body, elected official or officials, employee or employees of said County, or any person representing or purporting to represent the County, or any family member including spouse, parents, or children of said group, has received or has been promised, directly or indirectly, any financial benefit, by way of fee, commission, finder's fee or any other financial benefit on account of the act of awarding and/or executing a contract.

I hereby certify that I have full authority to bind the company and that I have personally reviewed the information contained in the RFP and this submission, and all attachments and appendices, and do hereby attest to the accuracy of all information contained in this submission, including all attachments and exhibits.

I acknowledge that any misrepresentation will result in immediate disqualification from any consideration in the submission process.

I further recognize that County reserves the right to make its award for any reason considered advantageous to the County. The company selected may be without respect to price or other factors.

Signature ___________________________ Date ___________________________

Name ___________________________ Phone ___________________________

Title ____________________________________________________________

Firm Name _______________________________________________________
Type of business organization (corporation, LLC, partnership, proprietorship)

Address ___________________________________________________________________________

County, State, Zip ___________________________________________________________________

Notary Seal Below
CONFLICT OF INTEREST QUESTIONNAIRE
For vendor doing business with local governmental entity

This questionnaire reflects changes made to the law by H.B. 23, 84th Leg., Regular Session. 
This questionnaire is being filed in accordance with Chapter 176, Local Government Code, by a vendor who 
has a business relationship as defined by Section 176.001(1-a) with a local governmental entity and the 
vendor meets requirements under Section 176.006(a).

By law this questionnaire must be filed with the records administrator of the local governmental entity not later 
than the 7th business day after the date the vendor becomes aware of facts that require the statement to be 
filed. See Section 176.006(a-1), Local Government Code.

A vendor commits an offense if the vendor knowingly violates Section 176.006, Local Government Code. An 
offense under this section is a misdemeanor.

1. Name of vendor who has a business relationship with local governmental entity.

2. Check this box if you are filing an update to a previously filed questionnaire. (The law requires that you file an updated 
completed questionnaire with the appropriate filing authority not later than the 7th business day after the date on which 
you became aware that the originally filed questionnaire was incomplete or inaccurate.)

3. Name of local government officer about whom the information is being disclosed. 

4. Describe each employment or other business relationship with the local government officer, or a family member of the 
officer, as described by Section 176.003(a)(2)(A). Also describe any family relationship with the local government officer. 
Complete subparts A and B for each employment or business relationship described. Attach additional pages to this Form 
CIQ as necessary.

A. Is the local government officer or a family member of the officer receiving or likely to receive taxable income, 
other than investment income, from the vendor?

☐ Yes ☐ No

B. Is the vendor receiving or likely to receive taxable income, other than investment income, from or at the direction 
of the local government officer or a family member of the officer AND the taxable income is not received from the 
local governmental entity?

☐ Yes ☐ No

5. Describe each employment or business relationship that the vendor named in Section 1 maintains with a corporation or 
other business entity with respect to which the local government officer serves as an officer or director, or holds an 
ownership interest of one percent or more.

6. Check this box if the vendor has given the local government officer or a family member of the officer one or more gifts 
as described in Section 176.003(a)(2)(B), excluding gifts described in Section 176.003(a-1).

7. Signature of vendor doing business with the governmental entity ___________________________ Date ____________

Form provided by Texas Ethics Commission www.ethics.state.tx.us Revised 11/30/2015
CONFLICT OF INTEREST QUESTIONNAIRE
For vendor doing business with local governmental entity

A complete copy of Chapter 176 of the Local Government Code may be found at http://www.statutes.legis.state.tx.us/Docs/LG/htm/LG.176.htm. For easy reference, below are some of the sections cited on this form.

Local Government Code § 176.001(1-a): “Business relationship” means a connection between two or more parties based on commercial activity of one of the parties. The term does not include a connection based on:
(A) a transaction that is subject to rate or fee regulation by a federal, state, or local governmental entity or an agency of a federal, state, or local governmental entity;
(B) a transaction conducted at a price and subject to terms available to the public; or
(C) a purchase or lease of goods or services from a person that is chartered by a state or federal agency and that is subject to regular examination by, and reporting to, that agency.

Local Government Code § 176.003(a)(2)(A) and (B):
(a) A local government officer shall file a conflicts disclosure statement with respect to a vendor if:
***
(2) the vendor:
(A) has an employment or other business relationship with the local government officer or a family member of the officer that results in the officer or family member receiving taxable income, other than investment income, that exceeds $2,500 during the 12-month period preceding the date that the officer becomes aware that
(i) a contract between the local governmental entity and vendor has been executed; or
(ii) the local governmental entity is considering entering into a contract with the vendor;
(B) has given to the local government officer or a family member of the officer one or more gifts that have an aggregate value of more than $100 in the 12-month period preceding the date the officer becomes aware that:
(i) a contract between the local governmental entity and vendor has been executed; or
(ii) the local governmental entity is considering entering into a contract with the vendor.

Local Government Code § 176.006(a) and (a-1)
(a) A vendor shall file a completed conflict of interest questionnaire if the vendor has a business relationship with a local governmental entity and:

(1) has an employment or other business relationship with a local government officer of that local governmental entity, or a family member of the officer, described by Section 176.003(a)(2)(A);
(2) has given a local government officer of that local governmental entity, or a family member of the officer, one or more gifts with the aggregate value specified by Section 176.003(a)(2)(B), excluding any gift described by Section 176.003(a-1); or
(3) has a family relationship with a local government officer of that local governmental entity.

(a-1) The completed conflict of interest questionnaire must be filed with the appropriate records administrator not later than the seventh business day after the later of:
(1) the date that the vendor:
(A) begins discussions or negotiations to enter into a contract with the local governmental entity; or
(B) submits to the local governmental entity an application, response to a request for proposals or bids, correspondence, or another writing related to a potential contract with the local governmental entity; or
(2) the date the vendor becomes aware:
(A) of an employment or other business relationship with a local government officer, or a family member of the officer, described by Subsection (a);
(B) that the vendor has given one or more gifts described by Subsection (a); or
(C) of a family relationship with a local government officer.
AGREEMENT made as of the Tenth day of February in the year 2016
(In words, indicate day, month and year.)

BETWEEN the Owner:
(Name, legal status, address and other information)

MIDLAND COUNTY
500 N. Loraine Street
Suite 1100
Midland, Texas 79701

and the Contractor:
(Name, legal status, address and other information)

To Be Determined

for the following Project:
(Name, location and detailed description)

MIDLAND COUNTY AMPHITHEATER - Concrete Package
2514 Arena Trail
Midland, Texas 79701

The Architect:
(Name, legal status, address and other information)

VANDERGRIFF GROUP ARCHITECTS, PC
312 N. Big Spring Street, Suite 100
Midland, Texas 79701
Telephone Number: (432) 687-0781

The Owner and Contractor agree as follows.

That Midland County shall provide:

1. Non potable water.
2. Electrical power adjacent to job site.
3. Construction toilets, as necessary.
4. Concrete spoils and washout pit.
ARTICLE 1  THE WORK OF THIS CONTRACT
The Contractor shall execute the Work described in the Contract Documents, except as specifically indicated in the Contract Documents to be the responsibility of others.

ARTICLE 2  DATE OF COMMENCEMENT AND SUBSTANTIAL COMPLETION
§ 2.1 The date of commencement of the Work shall be the date of this Agreement unless a different date is stated below or provision is made for the date to be fixed in a notice to proceed issued by the Owner. (Insert the date of commencement, if it differs from the date of this Agreement or, if applicable, state that the date will be fixed in a notice to proceed.)

March 15, 2016

§ 2.2 The Contract Time shall be measured from the date of commencement.
§ 2.3 The Contractor shall achieve Substantial Completion of the entire Work not later than _ _ days from the date of commencement, or as follows:
(Insert number of calendar days. Alternatively, a calendar date may be used when coordinated with the date of commencement. If appropriate, insert requirements for earlier Substantial Completion of certain portions of the Work.)

April 30, 2016

<table>
<thead>
<tr>
<th>Portion of Work</th>
<th>Substantial Completion Date</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

subject to adjustments of this Contract Time as provided in the Contract Documents.
(Insert provisions, if any, for liquidated damages relating to failure to achieve Substantial Completion on time or for bonus payments for early completion of the Work.)

ARTICLE 3 CONTRACT SUM
§ 3.1 The Owner shall pay the Contractor the Contract Sum in current funds for the Contractor’s performance of the Contract. The Contract Sum shall be one of the following:
(Insert provisions, if any, for liquidated damages relating to failure to achieve Substantial Completion on time or for bonus payments for early completion of the Work.)

§ 3.2 The Stipulated Sum shall be (Bid Price), subject to additions and deductions as provided in the Contract Documents.

§ 3.2.1 The Stipulated Sum is based upon the following alternates, if any, which are described in the Contract Documents and are hereby accepted by the Owner:
(State the numbers or other identification of accepted alternates in the bidding or proposal documents permitting the Owner to accept other alternates subsequent to the execution of this Agreement, attach a schedule of such other alternates showing the amount for each and the date when that amount expires.)

A. Performance and Payment Bonds – Add Alternate #1,

§ 3.2.2 Unit prices, if any:
(Identify and state the unit price, and state the quantity limitations, if any, to which the unit price will be applicable.)

<table>
<thead>
<tr>
<th>Item</th>
<th>Units and Limitations</th>
<th>Price Per Unit ($0.00)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

§ 3.2.3 Allowances included in the stipulated sum, if any:
(Identify allowance and state exclusions, if any, from the allowance price.)

<table>
<thead>
<tr>
<th>Item</th>
<th>Allowance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contingency</td>
<td>$10,000.00 (Ten Thousand Dollars)</td>
</tr>
</tbody>
</table>

(Paragraphs deleted)
ARTICLE 4 PAYMENTS

§ 4.1 PROGRESS PAYMENTS

§ 4.1.1 Based upon Applications for Payment submitted to the Architect by the Contractor and Certificates for Payment issued by the Architect, the Owner shall make progress payments on account of the Contract Sum to the Contractor as provided below and elsewhere in the Contract Documents.

§ 4.1.2 The period covered by each Application for Payment shall be one calendar month ending on the last day of the month.

§ 4.1.3 Provided that an Application for Payment is received by the Architect not later than the first business day of a month, the Owner shall make payment of the certified amount to the Contractor not later than the 30 days following receipt. If an Application for Payment is received by the Architect after the date fixed above, payment shall be made by the Owner not later than 30 business days after the Architect receives the Application for Payment.

(Federal, state or local laws may require payment within a certain period of time.)

§ 4.1.4 Retainage, if any, shall be withheld as follows:

Five Percent (5%) per Pay Application

§ 4.1.5 Payments due and unpaid under the Contract shall bear interest from the date payment is due at the rate stated below, or in the absence thereof, at the legal rate prevailing from time to time at the place where the Project is located.

(Insert rate of interest agreed upon, if any.)

5 % Five percent per annum.

§ 4.2 FINAL PAYMENT

§ 4.2.1 Final payment, constituting the entire unpaid balance of the Contract Sum, shall be made by the Owner to the Contractor when:

.1 the Contractor has fully performed the Contract except for the Contractor’s responsibility to correct Work as provided in Section 18.2, and to satisfy other requirements, if any, which extend beyond final payment;

.2 a final Certificate for Payment has been issued by the Architect.

§ 4.2.2 The Owner’s final payment to the Contractor shall be made no later than 30 days after the issuance of the Architect’s final Certificate for Payment, or as follows:

ARTICLE 5 DISPUTE RESOLUTION

§ 5.1 BINDING DISPUTE RESOLUTION

For any claim subject to, but not resolved by, mediation pursuant to Section 21.3, the method of binding dispute resolution shall be as follows:

(Check the appropriate box. If the Owner and Contractor do not select a method of binding dispute resolution below, or do not subsequently agree in writing to a binding dispute resolution method other than litigation, claims will be resolved in a court of competent jurisdiction.)

[ ] Arbitration pursuant to Section 21.4 of this Agreement

[ X ] Litigation in a court of competent jurisdiction in Texas
ARTICLE 6 ENUMERATION OF CONTRACT DOCUMENTS

§ 6.1 The Contract Documents are defined in Article 7 and, except for Modifications issued after execution of this Agreement, are enumerated in the sections below.

§ 6.1.1 The Agreement is this executed AIA Document A107-2007, Standard Form of Agreement Between Owner and Contractor for a Project of Limited Scope.

§ 6.1.2 The Supplementary and other Conditions of the Contract:

<table>
<thead>
<tr>
<th>Document</th>
<th>Title</th>
<th>Date</th>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

§ 6.1.3 The Specifications:
(Either list the Specifications here or refer to an exhibit attached to this Agreement.)

<table>
<thead>
<tr>
<th>Section</th>
<th>Title</th>
<th>Date</th>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>00 01 01</td>
<td>Title Page</td>
<td>2/10/2016</td>
<td>1</td>
</tr>
<tr>
<td>00 01 07</td>
<td>Seal Page</td>
<td>2/10/2016</td>
<td>1</td>
</tr>
<tr>
<td>00 01 10</td>
<td>Table of Contents</td>
<td>2/10/2016</td>
<td>2</td>
</tr>
<tr>
<td>00 01 15</td>
<td>List of Drawing Sheets</td>
<td>2/10/2016</td>
<td>1</td>
</tr>
<tr>
<td>00 42 00</td>
<td>Proposal Form</td>
<td>2/10/2016</td>
<td>3</td>
</tr>
<tr>
<td>01 11 00</td>
<td>Summary of Work</td>
<td>2/10/2016</td>
<td>2</td>
</tr>
<tr>
<td>01 30 00</td>
<td>Administrative Requirements</td>
<td>2/10/2016</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>Request for Interpretation</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Electronic Data Transfer &amp; Indemnification Agreement</td>
<td></td>
<td></td>
</tr>
<tr>
<td>01 33 00</td>
<td>Submittal Procedures</td>
<td>2/10/2016</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Submittal Transmittal</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Optional Product / System Comparison</td>
<td></td>
<td></td>
</tr>
<tr>
<td>01 35 43</td>
<td>Environmental Procedures</td>
<td>2/10/2016</td>
<td>3</td>
</tr>
<tr>
<td>01 42 19</td>
<td>Reference Standards</td>
<td>2/10/2016</td>
<td>17</td>
</tr>
<tr>
<td>01 45 29</td>
<td>Testing Laboratory Services</td>
<td>2/10/2016</td>
<td>3</td>
</tr>
<tr>
<td>01 50 00</td>
<td>Temporary Facilities and Controls</td>
<td></td>
<td></td>
</tr>
<tr>
<td>01 60 00</td>
<td>Product Requirements</td>
<td>2/10/2016</td>
<td>3</td>
</tr>
<tr>
<td>01 61 00</td>
<td>Common Product Requirements</td>
<td>2/10/2016</td>
<td>2</td>
</tr>
<tr>
<td>01 71 23</td>
<td>Field Engineering</td>
<td>2/10/2016</td>
<td>2</td>
</tr>
<tr>
<td>01 75 16</td>
<td>Startup Procedures</td>
<td>2/10/2016</td>
<td>2</td>
</tr>
<tr>
<td>01 77 00</td>
<td>Closeout Procedures</td>
<td>2/10/2016</td>
<td>7</td>
</tr>
<tr>
<td>03 30 00</td>
<td>Cast-In-Place Concrete</td>
<td>2/10/2016</td>
<td>7</td>
</tr>
<tr>
<td>04 20 00</td>
<td>Unit Masonry</td>
<td>2/10/2016</td>
<td>8</td>
</tr>
<tr>
<td>05 50 00</td>
<td>Metal Fabrications</td>
<td>2/10/2016</td>
<td>5</td>
</tr>
<tr>
<td>06 10 53</td>
<td>Miscellaneous Rough</td>
<td>2/10/2016</td>
<td></td>
</tr>
<tr>
<td>07 92 00</td>
<td>Carpentry</td>
<td>2/10/2016</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Joint Sealants</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number</td>
<td>Title</td>
<td>Date</td>
<td></td>
</tr>
<tr>
<td>--------</td>
<td>-------</td>
<td>--------</td>
<td></td>
</tr>
<tr>
<td>Sheet 1</td>
<td>Overall Site Plan/Cover</td>
<td>2/10/2016</td>
<td></td>
</tr>
<tr>
<td>Sheet 2</td>
<td>Site Plan</td>
<td>2/10/2016</td>
<td></td>
</tr>
<tr>
<td>Sheet 3</td>
<td>Enlarged Site Plan</td>
<td>2/10/2016</td>
<td></td>
</tr>
<tr>
<td>Sheet 4</td>
<td>Site Details</td>
<td>2/10/2016</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Site Details</td>
<td>2/10/2016</td>
<td></td>
</tr>
</tbody>
</table>

§ 6.1.4 The Drawings:
(Either list the Drawings here or refer to an exhibit attached to this Agreement.)

Portions of Addenda relating to bidding requirements are not part of the Contract Documents unless the bidding requirements are enumerated in this Article 6.

§ 6.1.5 The Addenda, if any.

<table>
<thead>
<tr>
<th>Number</th>
<th>Date</th>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2/10/2016</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2/10/2016</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2/10/2016</td>
<td></td>
</tr>
</tbody>
</table>

§ 6.1.6 Additional documents, if any, forming part of the Contract Documents:

.1 Exhibit A, Determination of the Cost of the Work, if applicable.
.2 AIA Document E201™-2007, Digital Data Protocol Exhibit, if completed, or the following:

.3 Other documents:
(List here any additional documents that are intended to form part of the Contract Documents.)

ARTICLE 7 GENERAL PROVISIONS
§ 7.1 THE CONTRACT DOCUMENTS
The Contract Documents are enumerated in Article 6 and consist of this Agreement (including, if applicable, Supplementary and other Conditions of the Contract), Drawings, Specifications, Addenda issued prior to the execution of this Agreement, other documents listed in this Agreement and Modifications issued after execution of this Agreement. A Modification is (1) a written amendment to the Contract signed by both parties, (2) a Change Order, (3) a Construction Change Directive or (4) a written order for a minor change in the Work issued by the Architect. The intent of the Contract Documents is to include all items necessary for the proper execution and completion of the Work by the Contractor. The Contract Documents are complementary, and what is required by
one shall be as binding as if required by all; performance by the Contractor shall be required to the extent consistent
with the Contract Documents and reasonably inferable from them as being necessary to produce the indicated
results.

§ 7.2 THE CONTRACT
The Contract Documents form the Contract for Construction. The Contract represents the entire and integrated
agreement between the parties hereto and supersedes prior negotiations, representations or agreements, either written
or oral. The Contract may be amended or modified only by a Modification. The Contract Documents shall not be
construed to create a contractual relationship of any kind between any persons or entities other than the Owner and
the Contractor.

§ 7.3 THE WORK
The term “Work” means the construction and services required by the Contract Documents, whether completed or
partially completed, and includes all other labor, materials, equipment and services provided or to be provided by
the Contractor to fulfill the Contractor’s obligations. The Work may constitute the whole or a part of the Project.

§ 7.4 INSTRUMENTS OF SERVICE
Instruments of Service are representations, in any medium of expression now known or later developed, of the
tangible and intangible creative work performed by the Architect and the Architect’s consultants under their
respective professional services agreements. Instruments of Service may include, without limitation, studies,
surveys, models, sketches, drawings, specifications, and other similar materials.

§ 7.5 OWNERSHIP AND USE OF DRAWINGS, SPECIFICATIONS AND OTHER INSTRUMENTS OF SERVICE
§ 7.5.1 The Architect and the Architect’s consultants shall be deemed the authors and owners of their respective
Instruments of Service, including the Drawings and Specifications, and will retain all common law, statutory and
other reserved rights, including copyrights. The Contractor, Subcontractors, Sub-subcontractors, and material or
equipment suppliers shall not own or claim a copyright in the Instruments of Service. Submittal or distribution to
meet official regulatory requirements or for other purposes in connection with this Project is not to be construed as
publication in derogation of the Architect’s or Architect’s consultants’ reserved rights.

§ 7.5.2 The Contractor, Subcontractors, Sub-subcontractors and material or equipment suppliers are authorized to
use and reproduce the Instruments of Service provided to them solely and exclusively for execution of the Work. All
copies made under this authorization shall bear the copyright notice, if any, shown on the Instruments of Service.
The Contractor, Subcontractors, Sub-subcontractors, and material or equipment suppliers may not use the
Instruments of Service on other projects or for additions to this Project outside the scope of the Work without the
specific written consent of the Owner, Architect and the Architect’s consultants.

§ 7.6 TRANSMISSION OF DATA IN DIGITAL FORM
If the parties intend to transmit Instruments of Service or any other information or documentation in digital form,
they shall endeavor to establish necessary protocols governing such transmission, unless otherwise provided in the
Agreement or in the Contract Documents.

ARTICLE 8 OWNER
§ 8.1 INFORMATION AND SERVICES REQUIRED OF THE OWNER
§ 8.1.1 The Owner shall furnish all necessary surveys and a legal description of the site.

§ 8.1.2 The Contractor shall be entitled to rely on the accuracy of information furnished by the Owner but shall
exercise proper precautions relating to the safe performance of the Work.

§ 8.1.3 Except for permits and fees that are the responsibility of the Contractor under the Contract Documents,
including those required under Section 9.6.1, the Owner shall secure and pay for other necessary approvals,
easements, assessments and charges required for the construction, use or occupancy of permanent structures or for
permanent changes in existing facilities.

§ 8.2 OWNER’S RIGHT TO STOP THE WORK
If the Contractor fails to correct Work which is not in accordance with the requirements of the Contract Documents,
or repeatedly fails to carry out the Work in accordance with the Contract Documents, the Owner may issue a written

Architects. All rights reserved. WARNING: This AIA® Document is protected by U.S. Copyright Law and International Treaties. Unauthorized
reproduction or distribution of this AIA® document, or any portion of it, may result in severe civil and criminal penalties, and will be prosecuted to
the maximum extent possible under the law. This draft was produced by AIA software at 18:07:43 on 02/10/2016 under Order No.212625761.1 which
expires on 01/12/2017, and is not for resale.
User Notes:
order to the Contractor to stop the Work, or any portion thereof, until the cause for such order is eliminated; however, the right of the Owner to stop the Work shall not give rise to a duty on the part of the Owner to exercise this right for the benefit of the Contractor or any other person or entity.

§ 8.3 OWNER'S RIGHT TO CARRY OUT THE WORK
If the Contractor defaults or neglects to carry out the Work in accordance with the Contract Documents, and fails within a ten-day period after receipt of written notice from the Owner to commence and continue correction of such default or neglect with diligence and promptness, the Owner, without prejudice to any other remedy the Owner may have, may correct such deficiencies and may deduct the reasonable cost thereof, including Owner's expenses and compensation for the Architect's services made necessary thereby, from the payment then or thereafter due the Contractor.

ARTICLE 9 CONTRACTOR
§ 9.1 REVIEW OF CONTRACT DOCUMENTS AND FIELD CONDITIONS BY CONTRACTOR
§ 9.1.1 Execution of the Contract by the Contractor is a representation that the Contractor has visited the site, become generally familiar with local conditions under which the Work is to be performed and correlated personal observations with requirements of the Contract Documents.

§ 9.1.2 Because the Contract Documents are complementary, the Contractor shall, before starting each portion of the Work, carefully study and compare the various Contract Documents relative to that portion of the Work, as well as the information furnished by the Owner pursuant to Section 8.1.1, shall take field measurements of any existing conditions related to that portion of the Work and shall observe any conditions at the site affecting it. These obligations are for the purpose of facilitating coordination and construction by the Contractor and are not for the purpose of discovering errors, omissions, or inconsistencies in the Contract Documents; however, the Contractor shall promptly report to the Architect any errors, inconsistencies, or omissions discovered by or made known to the Contractor as a request for information in such form as the Architect may require. It is recognized that the Contractor's review is made in the Contractor's capacity as a contractor and not as a licensed design professional unless otherwise specifically provided in the Contract Documents.

§ 9.1.3 The Contractor is not required to ascertain that the Contract Documents are in accordance with applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of public authorities; but the Contractor shall promptly report to the Architect any nonconformity discovered by or made known to the Contractor as a request for information in such form as the Architect may require.

§ 9.2 SUPERVISION AND CONSTRUCTION PROCEDURES
§ 9.2.1 The Contractor shall supervise and direct the Work, using the Contractor's best skill and attention. The Contractor shall be solely responsible for and have control over construction means, methods, techniques, sequences and procedures, and for coordinating all portions of the Work under the Contract, unless the Contract Documents give other specific instructions concerning these matters.

§ 9.2.2 The Contractor shall be responsible to the Owner for acts and omissions of the Contractor's employees, Subcontractors and their agents and employees, and other persons or entities performing portions of the Work for or on behalf of the Contractor or any of its Subcontractors.

§ 9.3 LABOR AND MATERIALS
§ 9.3.1 Unless otherwise provided in the Contract Documents, the Contractor shall provide and pay for labor, materials, equipment, tools, construction equipment and machinery, water, heat, utilities, transportation, and other facilities and services necessary for proper execution and completion of the Work whether temporary or permanent and whether or not incorporated or to be incorporated in the Work.

§ 9.3.2 The Contractor shall enforce strict discipline and good order among the Contractor's employees and other persons carrying out the Work. The Contractor shall not permit employment of unfit persons or persons not skilled in tasks assigned to them.

§ 9.3.3 The Contractor may make a substitution only with the consent of the Owner, after evaluation by the Architect and in accordance with a Modification.
§ 9.4 WARRANTY
The Contractor warrants to the Owner and Architect that materials and equipment furnished under the Contract will be of good quality and new unless the Contract Documents require or permit otherwise. The Contractor further warrants that the Work will conform to the requirements of the Contract Documents and will be free from defects, except for those inherent in the quality of the Work the Contract Documents require or permit. Work, materials, or equipment not conforming to these requirements may be considered defective. The Contractor's warranty excludes remedy for damage or defect caused by abuse, alterations to the Work not executed by the Contractor, improper or insufficient maintenance, improper operation or normal wear and tear under normal usage.

§ 9.5 TAXES
The County is a tax exempt entity and shall supply the Contractor a Tax Exemption Certificate.

§ 9.6 PERMITS, FEES, NOTICES, AND COMPLIANCE WITH LAWS
§ 9.6.1 Unless otherwise provided in the Contract Documents, the Contractor shall secure and pay for the building permit as well as other permits, fees, licenses and inspections by government agencies necessary for proper execution and completion of the Work that are customarily secured after execution of the Contract and legally required at the time bids are received or negotiations concluded.

§ 9.6.2 The Contractor shall comply with and give notices required by applicable laws, statutes, ordinances, codes, rules and regulations, and lawful orders of public authorities applicable to performance of the Work. If the Contractor performs Work knowing it to be contrary to applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of public authorities, the Contractor shall assume appropriate responsibility for such Work and shall bear the costs attributable to correction.

§ 9.7 ALLOWANCES
The Contractor shall include in the Contract Sum all allowances stated in the Contract Documents. The Owner shall select materials and equipment under allowances with reasonable promptness. Allowance amounts shall include the costs to the Contractor of materials and equipment delivered at the site and all required taxes, less applicable trade discounts. Allowance amounts shall not include the Contractor's costs for unloading and handling at the site, labor, installation, overhead, and profit.

§ 9.8 CONTRACTOR'S CONSTRUCTION SCHEDULES
§ 9.8.1 The Contractor, promptly after being awarded the Contract, shall prepare and submit for the Owner's and Architect's information a Contractor's construction schedule for the Work. The schedule shall not exceed time limits current under the Contract Documents, shall be revised at appropriate intervals as required by the conditions of the Work and Project, shall be related to the entire Project to the extent required by the Contract Documents, and shall provide for expeditious and practicable execution of the Work.

§ 9.8.2 The Contractor shall perform the Work in general accordance with the most recent schedule submitted to the Owner and Architect.

§ 9.9 SUBMITTALS
§ 9.9.1 The Contractor shall review for compliance with the Contract Documents and submit to the Architect Shop Drawings, Product Data, and similar submittals required by the Contract Documents in coordination with the Contractor's construction schedule and in such sequence as to allow the Architect reasonable time for review. By submitting Shop Drawings, Product Data, Samples and similar submittals, the Contractor represents to the Owner and Architect that the Contractor has (1) reviewed and approved them; (2) determined and verified materials, field measurements and field construction criteria related thereto, or will do so; and (3) checked and coordinated the information contained within such submittals with the requirements of the Work and of the Contract Documents. The Work shall be in accordance with approved submittals.

§ 9.9.2 Shop Drawings, Product Data, Samples and similar submittals are not Contract Documents.

§ 9.10 USE OF SITE
The Contractor shall confine operations at the site to areas permitted by applicable laws, statutes, ordinances, codes, rules and regulations, lawful orders of public authorities, and the Contract Documents and shall not unreasonably encumber the site with materials or equipment.
§ 9.11 CUTTING AND PATCHING
The Contractor shall be responsible for cutting, fitting or patching required to complete the Work or to make its parts fit together properly.

§ 9.12 CLEANING UP
The Contractor shall keep the premises and surrounding area free from accumulation of waste materials or rubbish caused by operations under the Contract. At completion of the Work, the Contractor shall remove waste materials, rubbish, the Contractor’s tools, construction equipment, machinery and surplus material from and about the Project.

§ 9.13 ROYALTIES, PATENTS AND COPYRIGHTS
The Contractor shall pay all royalties and license fees. The Contractor shall defend suits or claims for infringement of copyrights and patent rights and shall hold the Owner and Architect harmless from loss on account thereof, but shall not be responsible for such defense or loss when a particular design, process or product of a particular manufacturer or manufacturers is required by the Contract Documents or where the copyright violations are contained in Drawings, Specifications or other documents prepared by the Owner or Architect. However, if the Contractor has reason to believe that the required design, process or product is an infringement of a copyright or a patent, the Contractor shall be responsible for such loss unless such information is promptly furnished to the Architect.

§ 9.14 ACCESS TO WORK
The Contractor shall provide the Owner and Architect access to the Work in preparation and progress wherever located.

§ 9.15 INDEMNIFICATION
§ 9.15.1 To the fullest extent permitted by law, the Contractor shall indemnify and hold harmless the Owner, Architect, Architect’s consultants and agents and employees of any of them from and against claims, damages, losses and expenses, including but not limited to attorneys’ fees, arising out of or resulting from performance of the Work, provided that such claim, damage, loss or expense is attributable to bodily injury, sickness, disease or death, or to injury or to destruction of tangible property (other than the Work itself), but only to the extent caused by the negligent acts or omissions of the Contractor, a Subcontractor, anyone directly or indirectly employed by them or anyone for whose acts they may be liable, regardless of whether or not such claim, damage, loss or expense is caused in part by a party indemnified hereunder. Such obligation shall not be construed to negate, abridge, or reduce other rights or obligations of indemnity which would otherwise exist as to a party or person described in this Section 9.15.1.

§ 9.15.2 In claims against any person or entity indemnified under this Section 9.15 by an employee of the Contractor, a Subcontractor, anyone directly or indirectly employed by them or anyone for whose acts they may be liable, the indemnification obligation under Section 9.15.1 shall not be limited by a limitation on amount or type of damages, compensation or benefits payable by or for the Contractor or Subcontractor under workers’ compensation acts, disability benefit acts or other employee benefit acts.

ARTICLE 10 ARCHITECT
§ 10.1 The Architect will provide administration of the Contract and will be an Owner’s representative during construction, until the date the Architect issues the final Certificate for Payment. The Architect will have authority to act on behalf of the Owner only to the extent provided in the Contract Documents, unless otherwise modified in writing in accordance with other provisions of the Contract.

§ 10.2 The Architect will visit the site at intervals appropriate to the stage of the construction to become generally familiar with the progress and quality of the portion of the Work completed, and to determine in general, if the Work observed is being performed in a manner indicating that the Work, when fully completed, will be in accordance with the Contract Documents. However, the Architect will not be required to make exhaustive or continuous on-site inspections to check the quality or quantity of the Work. The Architect will not have control over, charge of, or responsibility for, the construction means, methods, techniques, sequences or procedures, or for safety precautions and programs in connection with the Work, since these are solely the Contractor’s rights and responsibilities under the Contract Documents.
§ 10.3 On the basis of the site visits, the Architect will keep the Owner reasonably informed about the progress and quality of the portion of the Work completed, and report to the Owner (1) known deviations from the Contract Documents and from the most recent construction schedule submitted by the Contractor, and (2) defects and deficiencies observed in the Work. The Architect will not be responsible for the Contractor's failure to perform the Work in accordance with the requirements of the Contract Documents. The Architect will not have control over or charge of and will not be responsible for acts or omissions of the Contractor, Subcontractors, or their agents or employees, or any other persons or entities performing portions of the Work.

§ 10.4 Based on the Architect's evaluations of the Work and of the Contractor's Applications for Payment, the Architect will review and certify the amounts due the Contractor and will issue Certificates for Payment in such amounts.

§ 10.5 The Architect has authority to reject Work that does not conform to the Contract Documents and to require inspection or testing of the Work.

§ 10.6 The Architect will review and approve or take other appropriate action upon the Contractor's submittals such as Shop Drawings, Product Data and Samples, but only for the limited purpose of checking for conformance with information given and the design concept expressed in the Contract Documents.

§ 10.7 The Architect will interpret and decide matters concerning performance under, and requirements of, the Contract Documents on written request of either the Owner or Contractor. The Architect will make initial decisions on all claims, disputes and other matters in question between the Owner and Contractor but will not be liable for results of any interpretations or decisions rendered in good faith.

§ 10.8 The Architect's decisions on matters relating to aesthetic effect will be final if consistent with the intent expressed in the Contract Documents.

§ 10.9 Duties, responsibilities and limitations of authority of the Architect as set forth in the Contract Documents shall not be restricted, modified or extended without written consent of the Owner, Contractor and Architect. Consent shall not be unreasonably withheld.

ARTICLE 11 SUBCONTRACTORS
§ 11.1 A Subcontractor is a person or entity who has a direct contract with the Contractor to perform a portion of the Work at the site.

§ 11.2 Unless otherwise stated in the Contract Documents or the bidding requirements, the Contractor, as soon as practicable after award of the Contract, shall furnish in writing to the Owner through the Architect the names of the Subcontractors or suppliers for each of the principal portions of the Work. The Contractor shall not contract with any Subcontractor or supplier to whom the Owner or Architect has made reasonable written objection within ten days after receipt of the Contractor's list of Subcontractors and suppliers. If the proposed but rejected Subcontractor was reasonably capable of performing the Work, the Contract Sum and Contract Time shall be increased or decreased by the difference, if any, occasioned by such change, and an appropriate Change Order shall be issued before commencement of the substitute Subcontractor's Work. The Contractor shall not be required to contract with anyone to whom the Contractor has made reasonable objection.

§ 11.3 Contracts between the Contractor and Subcontractors shall (1) require each Subcontractor, to the extent of the Work to be performed by the Subcontractor, to be bound to the Contractor by the terms of the Contract Documents, and to assume toward the Contractor all the obligations and responsibilities, including the responsibility for safety of the Subcontractor's Work, which the Contractor, by the Contract Documents, assumes toward the Owner and Architect, and (2) allow the Subcontractor the benefit of all rights, remedies and redress against the Contractor that the Contractor, by these Contract Documents, has against the Owner.

ARTICLE 12 CONSTRUCTION BY OWNER OR BY SEPARATE CONTRACTORS
§ 12.1 The Owner reserves the right to perform construction or operations related to the Project with the Owner's own forces, and to award separate contracts in connection with other portions of the Project or other construction or operations on the site under conditions of the contract identical or substantially similar to these, including those
portions related to insurance and waiver of subrogation. If the Contractor claims that delay or additional cost is involved because of such action by the Owner, the Contractor shall make such claim as provided in Article 21.

§ 12.2 The Contractor shall afford the Owner and separate contractors reasonable opportunity for introduction and storage of their materials and equipment and performance of their activities, and shall connect and coordinate the Contractor's activities with theirs as required by the Contract Documents.

§ 12.3 The Owner shall be reimbursed by the Contractor for costs incurred by the Owner which are payable to a separate contractor because of delays, improperly timed activities or defective construction of the Contractor. The Owner shall be responsible to the Contractor for costs incurred by the Contractor because of delays, improperly timed activities, damage to the Work or defective construction of a separate contractor.

ARTICLE 13 CHANGES IN THE WORK

§ 13.1 By appropriate Modification, changes in the Work may be accomplished after execution of the Contract. The Owner, without invalidating the Contract, may order changes in the Work within the general scope of the Contract consisting of additions, deletions or other revisions, with the Contract Sum and Contract Time being adjusted accordingly. Such changes in the Work shall be authorized by written Change Order signed by the Owner, Contractor and Architect, or by written Construction Change Directive signed by the Owner and Architect.

§ 13.2 Adjustments in the Contract Sum and Contract Time resulting from a change in the Work shall be determined by mutual agreement of the parties or, in the case of a Construction Change Directive signed only by the Owner and Architect, by the Contractor's cost of labor, material, equipment, and reasonable overhead and profit (10% overhead and 5% profit), unless the parties agree on another method for determining the cost or credit. Pending final determination of the total cost of a Construction Change Directive, the Contractor may request payment for Work completed pursuant to the Construction Change Directive. The Architect will make an interim determination of the amount of payment due for purposes of certifying the Contractor's monthly Application for Payment. When the Owner and Contractor agree on adjustments to the Contract Sum and Contract Time arising from a Construction Change Directive, the Architect will prepare a Change Order.

§ 13.3 The Architect will have authority to order minor changes in the Work not involving adjustment in the Contract Sum or extension of the Contract Time and not inconsistent with the intent of the Contract Documents. Such changes shall be effected by written order and shall be binding on the Owner and Contractor. The Contractor shall carry out such written orders promptly.

§ 13.4 If concealed or unknown physical conditions are encountered at the site that differ materially from those indicated in the Contract Documents or from those conditions ordinarily found to exist, the Contract Sum and Contract Time shall be equitably adjusted as mutually agreed between the Owner and Contractor; provided that the Contractor provides notice to the Owner and Architect promptly and before conditions are disturbed.

ARTICLE 14 TIME

§ 14.1 Time limits stated in the Contract Documents are of the essence of the Contract. By executing the Agreement the Contractor confirms that the Contract Time is a reasonable period for performing the Work.

§ 14.2 Unless otherwise provided, Contract Time is the period of time, including authorized adjustments, allotted in the Contract Documents for Substantial Completion of the Work.

§ 14.3 The term "day" as used in the Contract Documents shall mean calendar day unless otherwise specifically defined.

§ 14.4 The date of Substantial Completion is the date certified by the Architect in accordance with Section 15.4.3.

§ 14.5 If the Contractor is delayed at any time in the commencement or progress of the Work by changes ordered in the Work, by labor disputes, fire, unusual delay in deliveries, abnormal adverse weather conditions not reasonably anticipatable, unavoidable casualties or other causes beyond the Contractor's control, or by other causes which the Architect determines may justify delay, then the Contract Time shall be extended by Change Order for such reasonable time as the Architect may determine, subject to the provisions of Article 21.
ARTICLE 15 PAYMENTS AND COMPLETION
§ 15.1 APPLICATIONS FOR PAYMENT
§ 15.1.1 Where the Contract is based on a Stipulated Sum or the Cost of the Work with a Guaranteed Maximum Price, the Contractor shall submit to the Architect, before the first Application for Payment, a schedule of values, allocating the entire Contract Sum to the various portions of the Work, prepared in such form and supported by such data to substantiate its accuracy as the Architect may require. This schedule, unless objected to by the Architect, shall be used in reviewing the Contractor’s Applications for Payment, using AIA Document G702.

§ 15.1.3 Payments shall be made on account of materials and equipment delivered and suitably stored at the site for subsequent incorporation in the Work. If approved in advance by the Owner, payment may similarly be made for materials and equipment stored, and protected from damage, off the site at a location agreed upon in writing.

§ 15.1.4 The Contractor warrants that title to all Work covered by an Application for Payment will pass to the Owner no later than the time of payment. The Contractor further warrants that upon submittal of an Application for Payment all Work for which Certificates for Payment have been previously issued and payments received from the Owner shall, to the best of the Contractor’s knowledge, information and belief, be free and clear of liens, claims, security interests or other encumbrances adverse to the Owner’s interests.

§ 15.2 CERTIFICATES FOR PAYMENT
§ 15.2.1 The Architect will, within seven days after receipt of the Contractor’s Application for Payment, either issue to the Owner a Certificate for Payment, with a copy to the Contractor, for such amount as the Architect determines is properly due, or notify the Contractor and Owner in writing of the Architect’s reasons for withholding certification in whole or in part as provided in Section 15.2.3.

§ 15.2.2 The issuance of a Certificate for Payment will constitute a representation by the Architect to the Owner, based on the Architect’s evaluations of the Work and the data comprising the Application for Payment, that, to the best of the Architect’s knowledge, information and belief, the Work has progressed to the point indicated and that the quality of the Work is in accordance with the Contract Documents. The foregoing representations are subject to an evaluation of the Work for conformance with the Contract Documents upon Substantial Completion, to results of subsequent tests and inspections, to correction of minor deviations from the Contract Documents prior to completion and to specific qualifications expressed by the Architect. The issuance of a Certificate for Payment will further constitute a representation that the Contractor is entitled to payment in the amount certified. However, the issuance of a Certificate for Payment will not be a representation that the Architect has (1) made exhaustive or continuous on-site inspections to check the quality or quantity of the Work, (2) reviewed construction means, methods, techniques, sequences or procedures, (3) reviewed copies of requisitions received from Subcontractors and material suppliers and other data requested by the Owner to substantiate the Contractor’s right to payment; or (4) made examination to ascertain how or for what purpose the Contractor has used money previously paid on account of the Contract Sum.

§ 15.2.3 The Architect may withhold a Certificate for Payment in whole or in part, to the extent reasonably necessary to protect the Owner, if in the Architect’s opinion the representations to the Owner required by Section 15.2.2 cannot be made. If the Architect is unable to certify payment in the amount of the Application, the Architect will notify the Contractor and Owner as provided in Section 15.2.1. If the Contractor and the Architect cannot agree on a revised amount, the Architect will promptly issue a Certificate for Payment for the amount for which the Architect is able to make such representations to the Owner. The Architect may also withhold a Certificate for Payment or, because of subsequently discovered evidence, may nullify the whole or a part of a Certificate for Payment previously issued, to such extent as may be necessary in the Architect’s opinion to protect the Owner from loss for which the Contractor is responsible, including loss resulting from acts and omissions described in Section 9.2.2, because of

.1 defective Work not remedied;
.2 third party claims filed or reasonable evidence indicating probable filing of such claims unless security acceptable to the Owner is provided by the Contractor;
.3 failure of the Contractor to make payments properly to Subcontractors or for labor, materials or equipment;
.4 reasonable evidence that the Work cannot be completed for the unpaid balance of the Contract Sum;

AIA Document A107™ – 2007. Copyright © 1936, 1951, 1958, 1961, 1963, 1968, 1970, 1974, 1978, 1987, 1997 and 2007 by The American Institute of Architects. All rights reserved. WARNING: This AIA® Document is protected by U.S. Copyright Law and International Treaties. Unauthorized reproduction or distribution of this AIA® Document, or any portion of it, may result in severe civil and criminal penalties, and will be prosecuted to the maximum extent possible under the law. This draft was produced by AIA software at 16:37:43 on 02/10/2016 under Order No.2128252761_1 which expires on 01/12/2017, and is not for resale.

User Notes:
.5 damage to the Owner or a separate contractor;
.6 reasonable evidence that the Work will not be completed within the Contract Time and that the unpaid balance would not be adequate to cover actual or liquidated damages for the anticipated delay; or
.7 repeated failure to carry out the Work in accordance with the Contract Documents.

§ 15.2.4 When the above reasons for withholding certification are removed, certification will be made for amounts previously withheld.

§ 15.3 PROGRESS PAYMENTS
§ 15.3.1 The Contractor shall pay each Subcontractor, no later than seven days after receipt of payment, the amount to which the Subcontractor is entitled, reflecting percentages actually retained from payments to the Contractor on account of the Subcontractor’s portion of the Work. The Contractor shall, by appropriate agreement with each Subcontractor, require each Subcontractor to make payments to sub-subcontractors in similar manner.

§ 15.3.2 Neither the Owner nor Architect shall have an obligation to pay or see to the payment of money to a Subcontractor except as may otherwise be required by law.

§ 15.3.3 A Certificate for Payment, a progress payment, or partial or entire use or occupancy of the Project by the Owner shall not constitute acceptance of Work not in accordance with the Contract Documents.

§ 15.4 SUBSTANTIAL COMPLETION
§ 15.4.1 Substantial Completion is the stage in the progress of the Work when the Work or designated portion thereof is sufficiently complete in accordance with the Contract Documents so that the Owner can occupy or utilize the Work for its intended use.

§ 15.4.2 When the Contractor considers that the Work, or a portion thereof which the Owner agrees to accept separately, is substantially complete, the Contractor shall prepare and submit to the Architect a comprehensive list of items to be completed or corrected prior to final payment. Failure to include an item on such list does not alter the responsibility of the Contractor to complete all Work in accordance with the Contract Documents.

§ 15.4.3 Upon receipt of the Contractor’s list, the Architect will make an inspection to determine whether the Work or designated portion thereof is substantially complete. When the Architect determines that the Work or designated portion thereof is substantially complete, the Architect will issue a Certificate of Substantial Completion which shall establish the date of Substantial Completion, establish responsibilities of the Owner and Contractor for security, maintenance, heat, utilities, damage to the Work and insurance, and fix the time within which the Contractor shall finish all items on the list accompanying the Certificate. Warranties required by the Contract Documents shall commence on the date of Substantial Completion of the Work or designated portion thereof unless otherwise provided in the Certificate of Substantial Completion.

§ 15.4.4 The Certificate of Substantial Completion shall be submitted to the Owner and Contractor for their written acceptance of responsibilities assigned to them in such Certificate. Upon such acceptance and consent of surety, if any, the Owner shall make payment of retainage applying to such Work or designated portion thereof. Such payment shall be adjusted for Work that is incomplete or not in accordance with the requirements of the Contract Documents.

§ 15.5 FINAL COMPLETION AND FINAL PAYMENT
§ 15.5.1 Upon receipt of the Contractor’s written notice that the Work is ready for final inspection and acceptance and upon receipt of a final Application for Payment, the Architect will promptly make such inspection and, when the Architect finds the Work acceptable under the Contract Documents and the Contract fully performed, the Architect will promptly issue a final Certificate for Payment stating that to the best of the Architect’s knowledge, information and belief, and on the basis of the Architect’s on-site visits and inspections, the Work has been completed in accordance with terms and conditions of the Contract Documents and that the entire balance found to be due the Contractor and noted in the final Certificate is due and payable. The Architect’s final Certificate for Payment will constitute a further representation that conditions stated in Section 15.5.2 as precedent to the Contractor’s being entitled to final payment have been fulfilled.
§ 15.5.2 Final payment shall not become due until the Contractor has delivered to the Owner a complete release of all liens arising out of this Contract or receipts in full covering all labor, materials and equipment for which a lien could be filed, or a bond satisfactory to the Owner to indemnify the Owner against such lien. If such lien remains unsatisfied after payments are made, the Contractor shall refund to the Owner all money that the Owner may be compelled to pay in discharging such lien, including costs and reasonable attorneys’ fees.

§ 15.5.3 The making of final payment shall constitute a waiver of claims by the Owner except those arising from
.1 liens, claims, security interests or encumbrances arising out of the Contract and unsettled;
.2 failure of the Work to comply with the requirements of the Contract Documents; or
.3 terms of special warranties required by the Contract Documents.

§ 15.5.4 Acceptance of final payment by the Contractor, a Subcontractor or material supplier shall constitute a waiver of claims by that payee except those previously made in writing and identified by that payee as unsettled at the time of final Application for Payment.

ARTICLE 16. PROTECTION OF PERSONS AND PROPERTY
§ 16.1 SAFETY PRECAUTIONS AND PROGRAMS
The Contractor shall be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the performance of the Contract. The Contractor shall take reasonable precautions for safety of, and shall provide reasonable protection to prevent damage, injury or loss to
.1 employees on the Work and other persons who may be affected thereby;
.2 the Work and materials and equipment to be incorporated therein, whether in storage on or off the site, under care, custody or control of the Contractor or the Contractor’s Subcontractors or Sub-subcontractors; and
.3 other property at the site or adjacent thereto, such as trees, shrubs, lawns, walks, pavements, roadways, structures and utilities not designated for removal, relocation or replacement in the course of construction.

The Contractor shall comply with and give notices required by applicable laws, statutes, ordinances, codes, rules and regulations, and lawful orders of public authorities bearing on safety of persons and property and their protection from damage, injury or loss. The Contractor shall promptly remedy damage and loss to property caused in whole or in part by the Contractor, a Subcontractor, a sub-subcontractor, or anyone directly or indirectly employed by any of them, or by anyone for whose acts they may be liable and for which the Contractor is responsible under Sections 16.1.2 and 16.1.3, except for damage or loss attributable to acts or omissions of the Owner or Architect or by anyone for whose acts either of them may be liable, and not attributable to the fault or negligence of the Contractor. The foregoing obligations of the Contractor are in addition to the Contractor’s obligations under Section 9.15.

§ 16.2 HAZARDOUS MATERIALS
§ 16.2.1 The Contractor is responsible for compliance with the requirements of the Contract Documents regarding hazardous materials. If the Contractor encounters a hazardous material or substance not addressed in the Contract Documents, and if reasonable precautions will be inadequate to prevent foreseeable bodily injury or death to persons resulting from a material or substance, including but not limited to asbestos or polychlorinated biphenyl (PCB), encountered on the site by the Contractor, the Contractor shall, upon recognizing the condition, immediately stop Work in the affected area and report the condition to the Owner and Architect in writing. When the material or substance has been rendered harmless, Work in the affected area shall resume upon written agreement of the Owner and Contractor. By Change Order, the Contract Time shall be extended appropriately and the Contract Sum shall be increased in the amount of the Contractor’s reasonable additional costs of shutdown, delay and start-up.

§ 16.2.2 To the fullest extent permitted by law, the Owner shall indemnify and hold harmless the Contractor, Subcontractors, Architect, Architect’s consultants and agents and employees of any of them, from and against claims, damages, losses and expenses, including but not limited to attorneys’ fees, arising out of or resulting from performance of the Work in the affected area, if in fact, the material or substance presents the risk of bodily injury or death as described in Section 16.2.1 and has not been rendered harmless, provided that such claim, damage, loss or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the Work itself), except to the extent that such damage, loss or expense is due to the fault or negligence of the party seeking indemnity.
§ 16.2.3 If, without negligence on the part of the Contractor, the Contractor is held liable by a government agency for the cost of remediation of a hazardous material or substance solely by reason of performing Work as required by the Contract Documents, the Owner shall indemnify the Contractor for all cost and expense thereby incurred.

ARTICLE 17 INSURANCE AND BONDS

§ 17.1 The Contractor shall purchase from, and maintain in a company or companies lawfully authorized to do business in the jurisdiction in which the Project is located, insurance for protection from claims under workers' compensation acts and other employee benefit acts which are applicable, claims for damages because of bodily injury, including death, and claims for damages, other than to the Work itself, to property which may arise out of or result from the Contractor's operations and completed operations under the Contract, whether such operations be by the Contractor or by a Subcontractor or anyone directly or indirectly employed by any of them. This insurance shall be written for not less than limits of liability specified in the Contract Documents or required by law, whichever coverage is greater, and shall include contractual liability insurance applicable to the Contractor's obligations under Section 9.15. Certificates of Insurance acceptable to the Owner shall be filed with the Owner prior to commencement of the Work. Each policy shall contain a provision that the policy will not be canceled or allowed to expire until at least 30 days' prior written notice has been given to the Owner. The Contractor shall cause the commercial liability coverage required by the Contract Documents to include: (1) the Owner, the Architect and the Architect's Consultants as additional insureds for claims caused in whole or in part by the Contractor's negligent acts or omissions during the Contractor's operations; and (2) the Owner as an additional insured for claims caused in whole or in part by the Contractor's negligent acts or omissions during the Contractor's completed operations.

§ 17.2 OWNER'S LIABILITY INSURANCE

The Owner shall be responsible for purchasing and maintaining the Owner's usual liability insurance.

§ 17.3 PROPERTY INSURANCE

§ 17.3.1 Unless otherwise provided, the Contractor shall purchase and maintain, in a company or companies lawfully authorized to do business in the jurisdiction in which the Project is located, property insurance on an "all-risk" or equivalent policy form, including builder's risk, in the amount of the initial Contract Sum, plus the value of subsequent modifications and cost of materials supplied and installed by others, comprising total value for the entire Project at the site on a replacement cost basis without optional deductibles. Such property insurance shall be maintained, unless otherwise provided in the Contract Documents or otherwise agreed in writing by all persons and entities who are beneficiaries of such insurance, until final payment has been made as provided in Section 15.1 or until no person or entity other than the Owner has an insurable interest in the property required by this Section 17.3.1 to be covered, whichever is later. This insurance shall include interests of the Owner, the Contractor, Subcontractors and sub-subcontractors in the Project.

§ 17.3.2 The Owner shall file a copy of each policy with the Contractor before an exposure to loss may occur. Each policy shall contain a provision that the policy will not be canceled or allowed to expire, and that its limits will not be reduced, until at least 30 days' prior written notice has been given to the Contractor.

§ 17.3.3 The Owner and Contractor waive all rights against (1) each other and any of their subcontractors, sub-subcontractors, agents and employees, each of the other, and (2) the Architect, Architect's consultants, separate contractors described in Article 12, if any, and any of their subcontractors, sub-subcontractors, agents and employees for damages caused by fire or other causes of loss to the extent covered by property insurance obtained pursuant to Section 17.3 or other property insurance applicable to the Work, except such rights as they have to proceeds of such insurance held by the Owner as fiduciary. The Owner or Contractor, as appropriate, shall require of the Architect, Architect's consultants, separate contractors described in Article 12, if any, and the subcontractors, sub-subcontractors, agents and employees of any of them, by appropriate agreements, written where legally required for validity, similar waivers each in favor of other parties enumerated herein. The policies shall provide such waivers of subrogation by endorsement or otherwise. A waiver of subrogation shall be effective as to a person or entity even though that person or entity would otherwise have a duty of indemnification, contractual or otherwise, did not pay the insurance premium directly or indirectly, and whether or not the person or entity had an insurable interest in the property damaged.

§ 17.3.4 A loss insured under the Owner's property insurance shall be adjusted by the Owner as fiduciary and made payable to the Owner as fiduciary for the insureds, as their interests may appear, subject to requirements of any applicable mortgagee clause. The Contractor shall pay Subcontractors their just shares of insurance proceeds.
received by the Contractor, and by appropriate agreements, written where legally required for validity, shall require Subcontractors to make payments to their sub-subcontractors in similar manner.

§ 17.4 PERFORMANCE BOND AND PAYMENT BOND
§ 17.4.1 The Owner shall have the right to require the Contractor to furnish bonds covering faithful performance of the Contract and payment of obligations arising thereunder as stipulated in bidding requirements or specifically required in the Contract Documents on the date of execution of the Contract.

§ 17.4.2 Upon the request of any person or entity appearing to be a potential beneficiary of bonds covering payment of obligations arising under the Contract, the Contractor shall promptly furnish a copy of the bonds or shall authorize a copy to be furnished.

ARTICLE 18 CORRECTION OF WORK
§ 18.1 The Contractor shall promptly correct Work rejected by the Architect or failing to conform to the requirements of the Contract Documents, whether discovered before or after Substantial Completion and whether or not fabricated, installed or completed. Costs of correcting such rejected Work, including additional testing and inspections, the cost of uncovering and replacement, and compensation for the Architect’s services and expenses made necessary thereby, shall be at the Contractor’s expense, unless compensable under Section A.2.7.3 in Exhibit A, Determination of the Cost of the Work.

§ 18.2 In addition to the Contractor’s obligations under Section 9.4, if, within one year after the date of Substantial Completion of the Work or designated portion thereof or after the date for commencement of warranties established under Section 15.4.3, or by terms of an applicable special warranty required by the Contract Documents, any of the Work is found to be not in accordance with the requirements of the Contract Documents, the Contractor shall correct it promptly after receipt of written notice from the Owner to do so unless the Owner has previously given the Contractor a written acceptance of such condition. The Owner shall give such notice promptly after discovery of the condition. During the one-year period for correction of Work, if the Owner fails to notify the Contractor and give the Contractor an opportunity to make the correction, the Owner waives the rights to require correction by the Contractor and to make a claim for breach of warranty.

§ 18.3 If the Contractor fails to correct nonconforming Work within a reasonable time, the Owner may correct it in accordance with Section 8.3.

§ 18.4 The one-year period for correction of Work shall be extended with respect to portions of Work first performed after Substantial Completion by the period of time between Substantial Completion and the actual completion of that portion of the Work.

§ 18.5 The one-year period for correction of Work shall not be extended by corrective Work performed by the Contractor pursuant to this Article 18.

ARTICLE 19 MISCELLANEOUS PROVISIONS
§ 19.1 ASSIGNMENT OF CONTRACT
Neither party to the Contract shall assign the Contract without written consent of the other, except that the Owner may, without consent of the Contractor, assign the Contract to a lender providing construction financing for the Project if the lender assumes the Owner’s rights and obligations under the Contract Documents. The Contractor shall execute all consents reasonably required to facilitate such assignment.

§ 19.2 GOVERNING LAW
The Contract shall be governed by the law of the place where the Project is located, except, that if the parties have selected arbitration as the method of binding dispute resolution, the Federal Arbitration Act shall govern Section 21.4.

§ 19.3 TESTS AND INSPECTIONS
Tests, inspections and approvals of portions of the Work required by the Contract Documents or by applicable laws, statutes, ordinances, codes, rules and regulations or lawful orders of public authorities shall be made at an appropriate time. Unless otherwise provided, the Owner shall make arrangements for such tests, inspections and approvals with an independent testing laboratory or entity acceptable to the Owner, or with the appropriate public
authority, and shall bear all related costs of tests, inspections and approvals. The Contractor shall give the Architect timely notice of when and where tests and inspections are to be made so that the Architect may be present for such procedures. The Owner shall bear costs of (1) tests, inspections or approvals that do not become requirements until after bids are received or negotiations concluded, and (2) tests, inspections or approvals where building codes or applicable laws or regulations prohibit the Owner from delegating the costs to the Contractor.

§ 19.4 COMMENCEMENT OF STATUTORY LIMITATION PERIOD
The Owner and Contractor shall commence all claims and causes of action, whether in contract, tort, breach of warranty or otherwise, against the other arising out of or related to the Contract in accordance with the requirements of the final dispute resolution method selected in the Agreement within the period specified by applicable law, but in any case not more than 10 years after the date of Substantial Completion of the Work. The Owner and Contractor waive all claims and causes of action not commenced in accordance with this Section 19.4.

ARTICLE 20 TERMINATION OF THE CONTRACT
§ 20.1 TERMINATION BY THE CONTRACTOR
If the Architect fails to certify payment as provided in Section 15.2.1 for a period of 30 days through no fault of the Contractor, or if the Owner fails to make payment as provided in Section 4.1.3 for a period of 30 days, the Contractor may, upon seven additional days' written notice to the Owner and the Architect, terminate the Contract and recover from the Owner payment for Work executed, including reasonable overhead and profit, costs incurred by reason of such termination, and damages.

§ 20.2 TERMINATION BY THE OWNER FOR CAUSE
§ 20.2.1 The Owner may terminate the Contract if the Contractor
1. repeatedly refuses or fails to supply enough properly skilled workers or proper materials;
2. fails to make payment to Subcontractors for materials or labor in accordance with the respective agreements between the Contractor and the Subcontractors;
3. repeatedly disregards applicable laws, statutes, ordinances, codes, rules and regulations or lawful orders of a public authority; or
4. otherwise is guilty of substantial breach of a provision of the Contract Documents.

§ 20.2.2 When any of the above reasons exists, the Owner, upon certification by the Architect that sufficient cause exists to justify such action, may, without prejudice to any other remedy the Owner may have and after giving the Contractor seven days' written notice, terminate the Contract and take possession of the site and of all materials, equipment, tools, and construction equipment and machinery thereof owned by the Contractor and may finish the Work by whatever reasonable method the Owner may deem expedient. Upon request of the Contractor, the Owner shall furnish to the Contractor a detailed accounting of the costs incurred by the Owner in finishing the Work.

§ 20.2.3 When the Owner terminates the Contract for one of the reasons stated in Section 20.2.1, the Contractor shall not be entitled to receive further payment until the Work is finished.

§ 20.2.4 If the unpaid balance of the Contract Sum exceeds costs of finishing the Work, including compensation for the Architect's services and expenses made necessary thereby, and other damages incurred by the Owner and not expressly waived, such excess shall be paid to the Contractor. If such costs and damages exceed the unpaid balance, the Contractor shall pay the difference to the Owner. The amount to be paid to the Owner may be, as the case may be, certified by the Architect, upon application, and this obligation for payment shall survive termination of the Contract.

§ 20.3 TERMINATION BY THE OWNER FOR CONVENIENCE
The Owner may, at any time, terminate the Contract for the Owner's convenience and without cause. The Contractor shall be entitled to receive payment for Work executed, and costs incurred by reason of such termination, along with reasonable overhead and profit on the Work not executed.

ARTICLE 21 CLAIMS AND DISPUTES
§ 21.1 Claims, disputes and other matters in question arising out of or relating to this Contract, including those alleging an error or omission by the Architect but excluding those arising under Section 16.2, shall be referred initially to the Architect for decision. Such matters, except those waived as provided for in Section 21.8 and Sections

AIA Document A107™ - 2007. Copyright © 1936, 1951, 1958, 1981, 1983, 1986, 1970, 1974, 1978, 1987, 1997 and 2007 by The American Institute of Architects. All rights reserved. WARNING: This AIA® Document is protected by U.S. Copyright Law and International Treaties. Unauthorized reproduction or distribution of this AIA® Document, or any portion of it, may result in severe civil and criminal penalties, and will be prosecuted to the maximum extent possible under the law. This draft was produced by AIA software at 16:07:43 on 02/10/2016 under Order No.2128252761_1 which expires on 01/12/2017, and is not for resale.

User Notes:
§ 21.2 If a claim, dispute or other matter in question relates to or is the subject of a mechanic’s lien, the party asserting such matter may proceed in accordance with applicable law to comply with the lien notice or filing deadlines.

§ 21.3 The parties shall endeavor to resolve their disputes by mediation which, unless the parties mutually agree otherwise, shall be administered by the American Arbitration Association in accordance with their Construction Industry Mediation Procedures in effect on the date of the Agreement. A request for mediation shall be made in writing, delivered to the other party to this Agreement, and filed with the person or entity administering the mediation. The request may be made concurrently with the binding dispute resolution but, in such event, mediation shall proceed in advance of binding dispute resolution proceedings, which shall be stayed pending mediation for a period of 60 days from the date of filing, unless stayed for a longer period by agreement of the parties or court order. If an arbitration is stayed pursuant to this Section, the parties may nonetheless proceed to the selection of the arbitrator(s) and agree upon a schedule for later proceedings.

§ 21.4 If the parties have selected arbitration as the method for binding dispute resolution in the Agreement, any claim, subject to, but not resolved by, mediation shall be subject to arbitration which, unless the parties mutually agree otherwise, shall be administered by the American Arbitration Association, in accordance with the Construction Industry Arbitration Rules in effect on the date of this Agreement. Demand for arbitration shall be made in writing, delivered to the other party to the Contract, and filed with the person or entity administering the arbitration. The award rendered by the arbitrator or arbitrators shall be final, and judgment may be entered upon it in accordance with applicable law in any court having jurisdiction thereof.

§ 21.5 Either party, at its sole discretion, may consolidate an arbitration conducted under this Agreement with any other arbitration to which it is a party provided that (1) the arbitration agreement governing the other arbitration permits consolidation; (2) the arbitrations to be consolidated substantially involve common questions of law or fact; and (3) the arbitrations employ materially similar procedural rules and methods for selecting arbitrator(s).

§ 21.6 Any party to an arbitration may include by joinder persons or entities substantially involved in a common question of law or fact whose presence is required if complete relief is to be accorded in arbitration provided that the party sought to be joined consents in writing to such joinder. Consent to arbitration involving an additional person or entity shall not constitute consent to arbitration of a Claim not described in the written Consent.

§ 21.7 The foregoing agreement to arbitrate and other agreements to arbitrate with an additional person or entity duly consented to by parties to the Agreement shall be specifically enforceable under applicable law in any court having jurisdiction thereof.

§ 21.8 CLAIMS FOR CONSEQUENTIAL DAMAGES

The Contractor and Owner waive claims against each other for consequential damages arising out of or relating to this Contract. This mutual waiver includes:

1. damages incurred by the Owner for rental expenses, for losses of use, income, profit, financing, business and reputation, and for loss of management or employee productivity or of the services of such persons; and

2. damages incurred by the Contractor for principal office expenses including the compensation of personnel stationed there, for losses of financing, business and reputation, and for loss of profit except anticipated profit arising directly from the Work.

3. liquidated damages beyond the Contract completion date shall equal $500.00 (Five Hundred Dollars) per calendar day.

This mutual waiver is applicable, without limitation, to all consequential damages due to either party’s termination in accordance with Article 20. Nothing contained in this Section 21.8 shall be deemed to preclude an award of liquidated damages, when applicable, in accordance with the requirements of the Contract Documents.
This Agreement entered into as of the day and year first written above.

OWNER (Signature)
Mike Bradford, County Judge
(Printed name and title)

CONTRACTOR (Signature)
(Printed name and title)
Project Manual

Midland County Amphitheatre
2514 Arena Trail
Midland, Texas 79701

Concrete Bid Package

February 10, 2016

VGA Project #: 01515

SET # ____________________

VANDERGRIFF GROUP
ARCHITECTS • PC
312 N. BIG SPRING, SUITE 100  (432) 687-0781  MIDLAND, TEXAS
VGA@Vandergriff-Group.com
MIDLAND COUNTY AMPHITHEATRE – PROJECT NO. 01515
VANDERGRIFF GROUP ARCHITECTS, PC

Date: February 10, 2016

PROJECT MANUAL FOR:
Midland County Amphitheatre
2514 Arena Trail
Midland, Texas 79701

ARCHITECT OF RECORD:
Mark R. Pelletier, AIA
VANDERGRIFF GROUP ARCHITECTS, PC
312 N. Big Spring St., Suite 100 Midland, Texas 79701
(432) 687-0781
(432) 687-5205 fax
Divisions 0 through 1, 4 through 7 and 9

CONSULTING STRUCTURAL ENGINEER:
Achille Kodom, P.E.
EAKOM Engineering & Consulting
405 N. Marienfeld Street, Suite 210
Midland, Texas 79701
(432) 789-1390
Division 3

CONSULTING CIVIL ENGINEER:
James Brett Stephens, P.E.
DUNAWAY ASSOCIATES, LP
4000 N. Big Spring Street, Suite 101
Midland, Texas 79705
(432) 699-4889
Division 22

CONSULTING MEP ENGINEER:
James Holloway, P.E.
AGNEW ASSOCIATES, INC.
14205 Burnet Road, Suite 200 Austin, Texas 78728
(512) 828-0753
(512) 310-0750 fax
Division 26
# TABLE OF CONTENTS

The pages in each specification Section are numbered. The last page of each Section contains the words END OF SECTION. Notify Architect if any page is missing in a Section of the Project Manual.

<table>
<thead>
<tr>
<th>NUMBER</th>
<th>TITLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>INTRODUCTORY INFORMATION</td>
<td></td>
</tr>
<tr>
<td>00 01 01</td>
<td>Title Page</td>
</tr>
<tr>
<td>00 01 07</td>
<td>Seal Page</td>
</tr>
<tr>
<td>00 01 10</td>
<td>Table of Contents</td>
</tr>
<tr>
<td>00 01 15</td>
<td>List of Drawing Sheets</td>
</tr>
<tr>
<td>00 42 00</td>
<td>Proposal Form</td>
</tr>
</tbody>
</table>

| DIVISION 1 – GENERAL REQUIREMENTS | |
| 01 11 00 | Summary of Work |
| 01 30 00 | Administrative Requirements |
| • | Request for Interpretation |
| • | Electronic Data Transfer and Indemnification Agreement |
| 01 33 00 | Submittal Procedures |
| • | Submittal Transmittal |
| • | Optional Product/System Comparison |
| 01 35 43 | Environmental Procedures |
| 01 42 19 | Reference Standards |
| 01 45 29 | Testing Laboratory Services |
| 01 50 00 | Temporary Facilities and Controls |
| 01 60 00 | Product Requirements |
| 01 61 00 | Common Product Requirements |
| 01 71 23 | Field Engineering |
| 01 75 16 | Startup Procedures |
| 01 77 00 | Closeout Procedures |

| DIVISION 2 – SITE CONSTRUCTION | |
| Not Applicable |

| DIVISION 3 – CONCRETE | |
| 03 30 00 | Cast-In-Place Concrete |

| DIVISION 4 – MASONRY | |
| 04 20 00 | Unit Masonry | (Masonry Bid Package) |

| DIVISION 5 – METALS | |
| 05 50 00 | Metal Fabrications | (Misc. Metals Package) |

| DIVISION 6 – WOOD, PLASTICS, AND COMPOSITES | |
| 06 10 53 | Miscellaneous Rough Carpentry |

<p>| DIVISION 7 – THERMAL AND MOISTURE PROTECTION | |
| 07 92 00 | Joint Sealants |</p>
<table>
<thead>
<tr>
<th>NUMBER</th>
<th>TITLE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>DIVISION 8 – DOORS AND WINDOWS</td>
</tr>
<tr>
<td></td>
<td>Not Applicable</td>
</tr>
<tr>
<td></td>
<td>DIVISION 9 – FINISHES</td>
</tr>
<tr>
<td></td>
<td>Not Applicable</td>
</tr>
<tr>
<td></td>
<td>DIVISION 10 – SPECIALTIES</td>
</tr>
<tr>
<td></td>
<td>Not Applicable</td>
</tr>
<tr>
<td></td>
<td>DIVISION 22 – PLUMBING</td>
</tr>
<tr>
<td></td>
<td>22 14 26 Facility Storm Drains</td>
</tr>
<tr>
<td></td>
<td>DIVISION 26 – ELECTRICAL</td>
</tr>
<tr>
<td>26 05 00</td>
<td>Common Work Results for Electrical (Electrical Bid Package)</td>
</tr>
<tr>
<td>26 05 19</td>
<td>Low Voltage Electrical Power Conductors &amp; Cables (Electrical Bid Package)</td>
</tr>
<tr>
<td>26 05 26</td>
<td>Grounding and Bonding for Electrical Systems (Electrical Bid Package)</td>
</tr>
<tr>
<td>26 05 29</td>
<td>Hangers and Supports for Electrical Systems (Electrical Bid Package)</td>
</tr>
<tr>
<td>26 05 33</td>
<td>Raceway and Boxes for Electrical Systems (Electrical Bid Package)</td>
</tr>
<tr>
<td>26 05 43</td>
<td>Underground Ducts &amp; Raceway for Elect. Systems (Electrical Bid Package)</td>
</tr>
<tr>
<td>26 05 53</td>
<td>Identification for Electrical Systems (Electrical Bid Package)</td>
</tr>
<tr>
<td>26 56 00</td>
<td>Exterior Lighting (Electrical Bid Package)</td>
</tr>
<tr>
<td></td>
<td>DIVISION 31 – EARTHWORK</td>
</tr>
<tr>
<td></td>
<td>Completed Under First Contract</td>
</tr>
<tr>
<td></td>
<td>DIVISION 32 – EXTERIOR IMPROVEMENTS</td>
</tr>
<tr>
<td>32 31 13</td>
<td>Chain Link Fences and Gates (Fencing Bid Package)</td>
</tr>
<tr>
<td>32 31 19</td>
<td>Decorative Metal Fences and Gates (Fencing Bid Package)</td>
</tr>
<tr>
<td>32 84 00</td>
<td>Planting Irrigation (Landscaping Bid Package)</td>
</tr>
<tr>
<td>32 92 23</td>
<td>Sodding (Landscaping Bid Package)</td>
</tr>
<tr>
<td>32 93 00</td>
<td>Plants (Landscaping Bid Package)</td>
</tr>
</tbody>
</table>

END OF TABLE OF CONTENTS
LIST OF DRAWINGS INCLUDED

The following drawings indicate the Work to be performed under this Contract and are made part of these Specifications.

<table>
<thead>
<tr>
<th>DRAWING NO.</th>
<th>DRAWING TITLE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>COVER SHEET</td>
</tr>
<tr>
<td><strong>Architecture</strong></td>
<td></td>
</tr>
<tr>
<td>A-100</td>
<td>OVERALL SITE PLAN/COVER SHEET</td>
</tr>
<tr>
<td>A-101</td>
<td>SITE PLAN</td>
</tr>
<tr>
<td>A-110</td>
<td>ENLARGED SITE PLAN</td>
</tr>
<tr>
<td>A-121</td>
<td>SITE DETAILS</td>
</tr>
<tr>
<td>A-122</td>
<td>SITE DETAILS</td>
</tr>
<tr>
<td><strong>Civil</strong></td>
<td></td>
</tr>
<tr>
<td>C-100</td>
<td>GRADING PLAN</td>
</tr>
<tr>
<td>C-200</td>
<td>DRAINAGE PLAN</td>
</tr>
</tbody>
</table>

*For Reference Only*

**Civil**

1. GENERAL NOTES
2. PHASE I GRADING PLAN
3. PHASE I DRAINAGE PLAN
4. EROSION CONTROL PLAN

END OF SECTION 00 01 15
Ms. Kristy Engeldahl
Purchasing Agent
Midland County
500 North Loraine Street, Suite 1101
Midland, Texas 79701

Dear Ms. Engeldahl:

The undersigned, having carefully examined the project manual, drawings, and related documents dated February 10, 2016 and entitled:

Concrete Work
Midland County Amphitheater
2514 Arena Trail
Midland, Texas 79701

All as prepared by Vandergriff Group Architects, having made an on-site inspection of the premises and all other conditions affecting the cost and/or execution of the work, proposes to furnish all materials, labor, and equipment necessary to complete the work in accordance with said documents, of which this proposal is a part, for the following sum:

NOTE: PLEASE MARK “ADD” OR “DEDUCT” ON ALL ALTERNATES.

A. BASE PROPOSAL, Lump Sum:

_________________________________________________________________________

_________________________________________________________________________

Dollars ($_______)

B. ALTERNATE NO. 1 – (PERFORMANCE AND PAYMENT BOND AS INDICATED FOR BASE BID.)

For a Lump Sum:

_________________________________________________________________________

_________________________________________________________________________

Dollars ($_______)

Add/Deduct
(Circle One)

Note: All amounts shall be shown in both written and figure form. In case of discrepancy between the written amount and the figure, the written amount will govern.
The undersigned acknowledges receipt of ______ addenda to the Proposal Documents as follows:

No. _______ Date ____________  No. _______ Date ____________
No. _______ Date ____________  No. _______ Date ____________
No. _______ Date ____________  No. _______ Date ____________

(The Proposer is to fill in I.D. Number and date of each thereby acknowledging receipt of addenda).

If awarded the contract, the undersigned agrees to commence Work under this contract on or before a date to be specified in a written Notice to Proceed and to bring the project to Substantial Completion within _______ calendar days (fill in number of days) from the Notice to Proceed. However in no case later than April 30, 2016 from notice to proceed.

We agree to hold our proposal open beyond the Proposal Date for thirty (30) days.

If notified of the acceptance of this proposal within five (5) days of the time set for the opening of proposals, proposer agrees within ten (10) days of notification, to execute a contract on AIA Document A101, Standard Form of Agreement Between Owner and Contractor for the above work, for the agreed upon compensation.

PROPOSAL SECURITY, as defined in the Instructions to Proposers, which the Undersigned agrees to disposition of, as stated in Instructions to Proposers, is attached to this Proposal.

Upon acceptance of the Proposal by Owner and acceptance of Alternate No. 1, contractor shall furnish, at the time of the signing of the Contract, a PERFORMANCE BOND AND LABOR/MATERIAL PAYMENT BOND, in the amount of 100% of the Contract Price and proof of insurance. Surety shall meet requirements specified in Supplementary General Conditions.

I further agree as follows:

1. To submit, along with this proposal form, the following selection criteria information;
   • The number of calendar days required for substantial completion.
   • Resume and references of office project manager and superintendent.
   • Experience record.
   • List of proposed subcontractors (delivered to Midland County within 24 hours of proposed opening).

2. To submit (if required by the Architect) Insurance claims and litigation during last three years.

Selection of the Contractor shall be based on the price, proposed time and the bidder who provides goods or services at the best value for Midland County.

It is understood that the Owner reserves the right to accept or reject any and all Proposals and to waive all formalities in accordance with State law.
IMPORTANT NOTICE:

If Proposer is a Corporation, set forth the legal name of the Corporation, State of incorporation together with the signature of the officer or officers authorized to sign contracts on behalf of the corporation.

If Proposer is a Partnership, set forth the name of the firm together with the signature of the partner or partners authorized to sign contracts on behalf of the partnership.

The undersigned affirms that they are duly authorized to execute this proposal, that this company, corporation, firm, partnership or individual has not prepared this proposal in collusion with any other proposer, and that the contents of this proposal as to prices, terms or conditions of said proposal have not been communicated by the undersigned, not by any employee or agent to any other person engaged in this type of business prior to the official opening of this proposal.

Respectfully Submitted,

By: ________________________________
   (Authorized Signature)
Title: _______________________________
Date: _______________________________

Business Name, Mailing Address or P.O. Box and Zip Code
______________________________________________________________
______________________________________________________________
______________________________________________________________

Telephone Number with Area Code ________________
FAX Number with Area Code _________________________

Fill in the applicable information:
A Corporation, chartered in the State of ________________________________,
   authorized to do business in the State of Texas.
A Partnership, composed of ________________________________, and
   ________________________________ and ________________________________
An Individual operating under the name of ________________________________

Corporate Seal:

END OF DOCUMENT 00 42 00
SECTION 01 11 00

SUMMARY OF WORK

PART 1 – GENERAL

1.01 RELATED DOCUMENTS

A. Drawings, General Conditions of the Contract for Construction, Supplementary Conditions and Division 1 - General Requirements apply to Work of this section.

1.02 SECTION INCLUDES

A. Project; Work covered by Contract Documents.
B. Work under other contracts.
C. Work by Owner.
D. Owner supplied products.
E. Contractor use of site and premises.
F. Work Sequence.
G. Owner occupancy.

1.03 PROJECT: WORK COVERED BY CONTRACT DOCUMENTS

A. Without force or effect, Work of the total Project is generally described as follows:
   1. The Work comprises the concrete work for the completion of an Amphitheatre facility to the prepared mound at the Midland County Horseshoe Pavilion located at 2514 Arena Trail, Midland, Texas. It includes concrete flatwork, retaining walls, walkways, sidewalks ramps, Banner Pole Bases, Entry gate bases, foundation walls and trench drains. All rebar and steel reinforcement is part of the concrete package.

1.04 WORK UNDER OTHER CONTRACTS

There are no other separate contracts running consecutively at this time.

1.05 WORK BY OWNER

Items noted “NIC” (Not in Contract), or "Owner furnish/Owner installed" (OF/OI) will be furnished and installed by Owner during the construction period of this contract.

1.06 OWNER SUPPLIED PRODUCTS

A. Owner’s Responsibilities:
   1. Arranged for and deliver Owner reviewed Shop Drawings, Product Data, and Samples to contractor.
2. Arrange and pay for Product delivery to site.
3. On delivery, inspect Products jointly with Contractor.
4. Submit claims for transportation damage and replace damaged, defective, or deficient items.
5. Arrange for manufacturer’s warranties, inspections and service.

B. Contractor’s Responsibilities:
1. Review Owner reviewed Shop Drawings, Product Data, and Samples.
2. Receive and unload Products at site; inspect for completeness or damage, jointly with Owner.
3. Handle, store and install finish Products.
4. Repair or replace items damaged after receipt.

1.07 CONTRACTOR USE OF SITE AND PREMISES

A. Limit use of site and premises to allow:
1. Owner occupancy.
2. Work by Others and Work by Owner.
3. Use of site and adjacent premises by public for scheduled activities.

B. Construction Operations: Limited to areas indicated on drawings.

1.08 OWNER OCCUPANCY

A. The Owner will occupy the existing building during entire period of construction for the conduction of normal operations.

B. Cooperate with Owner to minimize conflict, and to facilitate Owner's operations. Schedule the Work to accommodate these requirements.

PART 2 – PRODUCTS

Not Used

PART 3 – EXECUTION

Not Used

END OF SECTION 01 11 00
PART 1 – GENERAL

1.01 RELATED DOCUMENTS

A. Drawings, General Conditions of the Contract for Construction, Supplementary Conditions and Division 1 - General Requirements apply to Work of this section.

B. Drawings, Standard General Conditions of the Construction Contract, Supplementary Conditions and Division 1 - General Requirements apply to Work of this section.

C. Drawings, Construction Contract Clauses, Supplementary Conditions and Division 1 - General Requirements apply to Work of this section.

1.02 SECTION INCLUDES

A. Coordination.

B. Field engineering.

C. Electronic files.

D. Material Safety Data Sheets (MSDS)

E. Preconstruction meeting.

F. Request for information.

G. Site mobilization meeting.

H. Progress meetings.

I. Pre-installation meetings.

J. Cutting and patching.

1.03 COORDINATION

A. Coordinate scheduling, submittals, and Work of the various sections of the Project Manual to assure efficient and orderly sequence of installation of interdependent construction elements, with provisions for accommodating items installed later.

B. Verify that utility requirements and characteristics of operating equipment are compatible with building utilities. Coordinate Work of various sections having interdependent responsibilities for installing, connecting to, and placing in service, such equipment.

C. Coordinate space requirements and installation of mechanical and electrical Work which are indicated diagrammatically on Drawings. Follow routing shown for pipes, ducts, and
conduit, as closely as practicable; place runs parallel with line of building. Utilize spaces efficiently to maximize accessibility for other installations, for maintenance, and for repairs.

D. In finished areas, except as otherwise indicated, conceal pipes, ducts, and wiring within the construction. Coordinate locations of fixtures and outlets with finish elements.

E. Large Apparatus: Any large piece of apparatus which is to be installed in any space in the building, and which is too large to permit access through windows, doorways or shafts, shall be brought to the job by the Contractor involved and placed in the space before the enclosing structure is completed.

F. Items which require electrical connections shall be coordinated with Division 16 for:
   1. Voltage
   2. Phase
   3. Ampacity
   4. No. and size of wires
   5. Wiring diagrams
   6. Starter size, details and location
   7. Control devices and details

G. Coordinate completion and clean up of Work of separate sections in preparation for Substantial Completion.

H. After Owner occupancy of premises, coordinate access to site for correction of defective Work and Work not in accordance with Contract Documents, to minimize disruption of Owner’s activities.

1.04 FIELD ENGINEERING

A. Employ a Land Surveyor registered in the State of Texas and acceptable to Architect.

B. Locate and protect survey control and reference points.

C. Control datum for survey is that shown on drawings.

D. Verify set-backs and easements, confirm drawing dimensions and elevations.

E. Provide field engineering services. Establish elevations, lines, and levels, utilizing recognized engineering survey practices.

F. Submit a copy of registered site drawing and certificate signed by the Land Surveyor that the elevations and locations of the Work are in conformance with the Contract Documents.

1.05 ELECTRONIC FILES

A. Electronic drawing files are available for purchase from the Architect upon request. Cost of the files is $100.00 per drawing sheet. Only the Contractor or his subcontractors and sub-subcontractors may purchase an electronic file. Contact the Architect's office to request the electronic file needed. An electronic file will be provided in Revit format of
the release currently used by the Architect. File will be provided on a CD or transferred electronically.

B. Prior to delivery of the file, purchaser shall sign an electronic file transfer release form provided by the Architect (sample of form included in this section). Payment for an electronic file shall occur upon delivery of file to purchaser.

C. Electronic file shall be used only for the production of information required by this project and shall not be used in any other form (in whole or part).

1.06 MATERIAL SAFETY DATA SHEETS (MSDS)

A. Comply with the most current requirements of the Department of State Health Services, Texas Asbestos Health Protection Rules (TAHPR), Title 25., HEALTH SERVICES, Part I, Chapter 295-Occupational Health, § 295.34-Asbestos Management in Facilities and Public Buildings, paragraph (i) as a minimum and as outlined below.

1. Submit MSDS on all products used in construction of Project.
2. Submit MSDS in 8 ½ x 11 inch format text pages, bound in three D-ring binders with durable plastic covers.
3. Prepare binder cover with printed title “MATERIAL SAFETY DATA SHEETS (MSDS)”, Title of Project, Project Address, Owner’s Name, Address and Phone, and Date of Construction Completion.
4. Internally subdivide the binder contents with permanent page dividers, organized into the 16 Division CSI format, with tab title clearly printed under reinforced laminated plastic tabs.
5. Prepare a table of contents, listing each of the 16 Divisions headings and listing each material/product under each heading by manufacturer and material/product name.
6. Submit two complete, identical binders of the aforementioned information and in the prescribed format.
7. Submit binders each month with Application for Payment. Binders shall include all MSDS for materials/products delivered or installed in Project since the previous month’s Application for Payment.
8. Failure to submit updated MSDS binders will cause Application for Payment to be held by Architect (not submitted to Owner for processing) until such time updated MSDS binders are received and reviewed for compliance by Architect.

1.07 PRECONSTRUCTION MEETING

A. Architect will schedule a meeting after Notice to Proceed.

B. Attendance Required: Owner, Architect, Engineer, Contractor and major Subcontractors.

C. Agenda:

1. Confirm submission of executed bonds and insurance certificates with contract.
2. Distribution of Contract Documents (if not previously distributed).
3. Submission of list of Subcontractors, list of products, Schedule of Values, and progress schedule (if not previously submitted).
5. Procedures and processing of field decisions, submittals, substitutions, applications for payments, proposal request, Change Orders and Contract
6. **Scheduling.**
   a. Use of premises by Owner and Contractor.
   b. Owner's requirements.
   c. Construction facilities and controls provided by Owner.
   d. Temporary utilities provided by Owner.
   e. Survey and building layout.
   f. Security and housekeeping procedures.
   g. Schedules.
   h. Procedures for testing.
   i. Procedures for maintaining record documents.
   j. Requirements for start-up of equipment.
   k. Inspection and acceptance of equipment put into service during construction period.

D. Record minutes and distribute copies within three days after meeting to participants with two copies to Architect and those affected by decisions made.

**1.08 REQUEST FOR INFORMATION**

A. Contractor shall use Architect's standard form when submitting Requests For Information (RFI). Architect will issue a copy of this form to Contractor in both hard copy and electronic media. Only Contractor can submit RFIs to Architect. RFI requests from subcontractors or material suppliers will not be considered.

B. All information indicated on the form to be provided by Contractor shall be complete before a request can be submitted to the Architect’s office. Requests with incomplete information will be returned to the Contractor. Submission of a complete RFI request by Contractor does not constitute an RFI until Architect makes the determination. If Architect determines that request can not be answered with the information provided in the Contract Documents, Architect will then assign an RFI tracking number. Requests determined by Architect not to be an RFI will be returned to Contractor without being assigned an RFI tracking number. A transmittal document returning the denied RFI request will be provided with a response indicating action to be taken by Contractor.

C. If request and proposed solution cannot fit on the form, an attachment may be identified in the Request or Contractor Proposed Solution areas, then attached to the form and submitted to Architect. RFIs may contain more than one item when the items are related issues. Otherwise, only one item shall be addressed on each RFI request.

D. Architect's response to the RFI will be in writing on the same form, or by attachment and issued to Contractor and Owner.

E. Responses from Architect will not change any requirement of the Contract Documents. Should Contractor believe an RFI response to cause a change to the Contract, Contractor shall give written notice to Architect in accordance with the requirements in the Contract. Written notice shall include specific reasons and an order of magnitude of Cost and/or Time that Contractor deems appropriate based on the Architect's RFI response. Contractor's written notice does not constitute a Change Order, but provide a basis for further review and discussion with the Architect.
1.09 SITE MOBILIZATION MEETING

A. Architect will schedule a meeting at the Project site prior to Contractor occupancy.

B. Attendance Required: Architect, Special Consultants, Contractor, Contractor's Superintendent, and major Subcontractors.

C. Agenda:
   1. Use of premises by Owner and Contractor.
   2. Owner's requirements.
   3. Construction facilities and controls provided by Owner.
   4. Temporary utilities provided by Owner.
   5. Survey and building layout.
   7. Schedules.
   8. Procedures for testing.
   10. Requirements for start-up of equipment.
   11. Inspection and acceptance of equipment put into service during construction period.

D. Record minutes and distribute copies within three days after meeting to participants with three copies to Architect and those affected by decisions made.

1.10 PROGRESS MEETINGS

A. Schedule and administer meetings throughout progress of the Work at minimum of once a week. At times of decreased activity progress meetings may be scheduled every two weeks.

B. Make arrangements for meetings, prepare agenda with copies for participants, preside at meetings.

C. Attendance Required: Job superintendent, major Subcontractors and suppliers, Architect as appropriate to agenda topics for each meeting.

D. Agenda:
   1. Review minutes of previous meetings.
   2. Review of Work progress.
   3. Field observations, problems, and decisions.
   4. Identification of problems which impede planned progress.
   5. Review of submittals schedule and status of submittals.
   6. Review of off-site fabrication and delivery schedules.
   7. Maintenance of progress schedule.
   8. Corrective measures to regain projected schedules.
   9. Planned progress during succeeding Work period.
   10. Coordination of projected progress.
   12. Effect of proposed changes on progress schedule and coordination.
   13. Other business relating to Work.
E. Record minutes, and distribute copies within three days to Architect, participants, and those affected by decisions made.

1.11 PRE-INSTALLATION MEETING

A. When required in individual specification Sections, convene a pre-installation meeting at Work site prior to commencing Work of the Section.

B. Require attendance of parties directly affecting, or affected by, Work of the specific Section.

C. Notify Architect four days in advance of meeting date.

D. Prepare agenda and preside at meeting.
   1. Review conditions of installation, preparation and installation procedures.
   2. Review coordination with related Work.

E. Record minutes, and distribute copies within three days after meeting to participants, with three copies to Architect.

PART 2 - PRODUCTS

2.01 EQUIPMENT ELECTRICAL CHARACTERISTICS AND COMPONENTS

A. Motors: Specific motor type is specified in individual specification sections.

B. Wiring Terminations: Provide terminal lugs to match branch circuit conductor quantities, sizes, and materials indicated. Size terminal lugs to NFPA 70, include lugs for terminal box.

C. Cord and Plug: Provide minimum 6 foot cord and plug including grounding connector for connection to electric wiring system. Cord of longer length is specified in individual specification sections.

PART 3 - EXECUTION

3.01 EXAMINATION

A. Verify that existing site conditions and substrate surfaces are acceptable for subsequent Work. Beginning new Work means acceptance of existing conditions.

B. Examine and verify specific conditions described in individual specification sections.

C. Verify that utility services are available, of the correct characteristics, and in the correct location.

3.02 PREPARATION

A. Clean substrate surfaces prior to applying next material or substance.

B. Seal cracks or openings of substrate prior to applying next material or substance.
C. Apply any manufacturer required or recommended substrate primer, sealer, or conditioner prior to applying any new material or substance in contact or bond.

3.03 CUTTING AND PATCHING

A. Employ skilled and experienced installer to perform cutting and patching.

B. Submit written request in advance of cutting or altering elements which affects:
   1. Structural integrity of element.
   2. Integrity of weather-exposed or moisture-resistant elements.
   3. Efficiency, maintenance, or safety of element.
   5. Work of Owner or separate contractor.

C. Execute cutting, fitting, and patching including excavation and fill, to complete Work, and to:
   1. Fit the several parts together, to integrate with other Work.
   2. Uncover Work to install or correct ill-timed Work.
   3. Remove and replace defective and non-conforming Work.
   4. Remove samples of installed Work for testing.
   5. Provide openings in elements of Work for penetrations of mechanical and electrical Work.

D. Execute Work by methods which will avoid damage to other Work, and provide proper surfaces to receive patching and finishing.

E. Cut rigid materials using masonry saw or core drill.

F. Restore Work with new products in accordance with requirements of Contract Documents.

G. Fit Work tight to pipes, sleeves, ducts, conduit, and other penetrations through surfaces.

H. Maintain integrity of wall, ceiling, or floor construction; completely seal voids.

I. Refinish surfaces to match adjacent finishes. For continuous surfaces, refinish to nearest intersection; for an assembly, refinish entire unit.

J. Identify any hazardous substance or condition exposed during the Work to the Architect for decision or remedy.

3.04 ATTACHMENTS

A. Request for Information Form.

B. Electronic Data Transfer Form

END OF SECTION 01 30 00
REQUEST FOR INTERPRETATION

Date: ____________________________ RFI#: _________________________________
To: Vandergriff Group Architects
    Midland, Texas
From: _________________________________
Address: _________________________________
Project: Midland County Amphitheatre
         Midland, Texas
          _________________________________
Phone: _______________________________________
VGA Project #: 01515
Fax: _______________________________________

*Items to be completed by Contractor before submittal to architect review.
* Specification Section/Paragraph No.: ___________ * Drawing Reference/Detail No.________

- Request:

- Contractor Proposed Solution

- Signed by: * Response needed in _____ Days

Sent to:

Response:

☐ Attachments:

Response From: To: Date Rec'd: Date Ret'd: ________________________________
Signed by: ________________________________

Copies: ☐ Owner  ☐ Consultants  ☐ ________________________________  ☐ ________________________________
Hold Harmless and Indemnification Agreement for Electronic File(s) ______________________
_____________________________________________________________________________

In consideration of Vandergriff Group providing certain electronic media to the recipient, the recipient covenants and agrees to be bound by the following:

In accepting or utilizing drawings or other data or any form of electronic media generated and provided by Vandergriff Group, the recipient covenants and agrees that all such drawings and data are instruments of service of Vandergriff Group. These files are transmitted without warranty as to their accuracy or suitability for the purpose to which the recipient intends to use them. Any use of the information obtained from these electronic files will be at the recipient’s sole risk.

Vandergriff Group retains ownership of the printed hard copy drawings of the electronic media. The recipient is granted a limited license for their use. Only printed copies of documents prepared, signed and sealed by Vandergriff Group may be relied upon as accurate. Being that Vandergriff Group’s work involves existing conditions and/or opinions as to facts determined by their observations, it is inappropriate for the recipient to make changes in any electronic media provided. Accordingly, any modification, extension or expansion of the electronic media, unless under the direction of Vandergriff Group, is prohibited and shall be without liability to Vandergriff Group. With the above in mind, the electronic media is furnished in “read only” format. Any tampering with the electronic media of Vandergriff Group immediately and automatically terminates the limited license granted herein.

The recipient agrees to waive all claims against Vandergriff Group, resulting in any way from any use of these drawings or electronic files. There are no expressed warranties made by Vandergriff Group with respect to the attached files, and any implied warranties are excluded. Because data stored in electronic media form can be altered, either intentionally or unintentionally, by transcription, machine error, environmental factors, or by operators, the recipient and/or user of the electronic media shall and does hereby release, indemnify, defend and hold harmless Vandergriff Group, their consultants, and the officers and employees of any of them and shall defend them from and against any and all claims, liabilities, damages, losses and costs, including but not limited to costs of defense, arising out of changes or modifications to the data in electronic media form in the possession of the recipient, or released to others and for any use of the printed hard copy, reports and electronic media outside the limited license granted hereunder. All terms and conditions set forth herein are hereby agreed to and accepted in their entirety as a condition of receipt of the referenced electronic file(s).

Name: ___________________________________________ e-mail address: _____________________

Signed:___________________________________________   Date:_____________________ _________

The above person is duly authorized to sign on the behalf of ____________________________________

Company Name

VGA@ VANDERGRIFF-GROUP.COM
PART 1 – GENERAL

1.01 DESCRIPTION

A. This Section specifies administrative and procedural requirements for handling and processing Shop Drawings, Product Data, Samples, Project Information and Contract Closeout Information submittals.

B. Provisions of this Section take precedence over provisions in General Conditions of the Contract for Construction governing Shop Drawings, Product Data, Samples, Project Information and Contract Closeout Information Submittals.

C. Submittals are not to be used as means for substitution requests.

D. Submittals that include substitutions will be returned without review or action.

E. Contact Architect in event of non-availability of specified product due to strikes, lockouts, bankruptcy, production discontinuance, proven shortage, or similar occurrences.

F. Notify Architect, in writing, with substantiating data as soon as non-availability becomes apparent.

G. Notify in time to avoid delay in construction.

H. Appropriateness and accuracy of calculations is responsibility of Contractor, and Contractor’s Professional Structural Engineer when such calculations are required to be professionally sealed.

I. When professional or other certification of performance criteria of materials, systems or equipment is required by Contract Documents, Architect shall be entitled to rely upon accuracy and completeness of such calculations and certifications.

1.02 DEFINITIONS

A. General:

1. Submittals are NOT Contract Documents.

2. Purpose of submittal is to demonstrate for those portions of Work, for which submittals are required by Contract Documents, the way Contractor proposed to conform to information given and design concept expressed in Contract Documents.

B. “Contractor”: The term Contractor shall mean Construction Manager and Contractor(s) when used in this section.

C. “Shop Drawing” Action Submittals:

1. Drawings to scale, diagrams, schedules and other data specially prepared for Work by Contractor or a Subcontractor, sub-subcontractor, manufacturer,
supplier or distributor to illustrate some portion of Work.

D. “Product Data” Action Submittals:
1. Illustrations, standard schedules, performance charts, instructions, brochures, color charts, performance curves, diagrams, test data and other information furnished by Contractor to illustrate material, product, equipment or system for some portion of Work.

E. “Sample Action” Submittals:
1. Physical examples which illustrate size, kind, pattern, texture, materials, equipment, systems or Workmanship and establish standards by which Work will be judged.
2. Samples also include job site Mock-ups and sample construction.

F. “Project Information” Submittals:
1. Items pertaining to quality control and Owner information which do not require review or response by Architect and are to be retained for project file only.
2. Examples include but are not limited to:
4. Certifications.
5. Design calculations.
6. Coordination drawings.
7. Architect may review at its sole discretion, for general compliance with Contract Documents only.
8. Review will not constitute a detailed check of submitted design calculations.

G. “Contract Closeout Information” Submittals:
1. Items pertaining to quality control and Owner information, which are required at Substantial or Final Completion, and do not require review or response by Architect.
2. Examples:
   a. Pre-occupancy test reports.
   b. Warranties.
   c. Operation and maintenance data.
   d. Owner instruction reports.
   e. Record documents.
   f. Extra materials or tools.

H. Acceptable Manufacturers and Products (Base and Optional): See Section 01605.

1.03 SUBMITTALS (Required BY this section)

A. Project information:

1.04 SCHEDULE OF SUBMITTALS

A. Complete Schedule of Submittals shall include Shop Drawings, Product Data, Samples, Project Information, and Contract Closeout Information required by specification section Submittal paragraphs.
1. Contractor or Subcontractors may require submittals for their coordination purposes even when submittals are not required by Contract Documents for Architect’s review. Do not include or submit such submittals to Architect.
2. Do not include or submit MSDS information.
3. Do not include or submit items not required to be submitted by Contract Documents.
4. Indicate proposed submittal dates for each submittal.
5. Arrange submittals by specification section:
   a. Submittals shall include items from one specification section only.
   b. Submit Shop Drawings, Product Data, and Project Information (except for Field Test Reports) items specified in a section at same time for a complete review.
      1) Shop Drawings: Individual submittal item. Subparagraphs represent description of items to include.
         a) Indicate additional submittals that will be generated as result of dividing required submittal by building, floor, area of a floor, or other subdivision.
         1) Product Data: Individual submittal item. Subparagraphs represent description of items to include as part of single submittal.
         2) Sample and Information submittals: Each subparagraph represents an individual submittal item.

6. Indicate submittals that will be provided to agencies having jurisdiction. Schedule sufficiently in advance of date required to allow agency reasonable time for review, and Contractor resubmission if necessary, and to cause no delay in Work or in activities of Owner or other contractors.
7. Schedule submittals sufficiently in advance of date required to allow Architect reasonable time for review, and Contractor’s resubmission if necessary, and to cause no delay in Work or in activities of Owner or other contractors.
8. Allow at least two weeks for Architect’s review and processing of each submittal, excluding mailing.
9. Do not submit large quantities of submittals at one time.
10. Schedule Contract Closeout Information submittals during last quarter of construction period and prior to Substantial Completion. See specific specification sections for requirements.

B. Partial payment requests may be withheld until satisfactory Schedule of Submittals has been received.

1.05 SHOP DRAWINGS

A. Shop Drawing Action Submittals are required as called for in each specification section Submittal paragraph.
   1. Do not use Contract Drawings as Shop Drawings.

B. Unless otherwise agreed to by Architect, submit two (2) high quality, high contrast reproducible bond paper copy of each Shop Drawing, unless quantity is indicated elsewhere. Architect will only return the original bond paper copy of each.
   1. Blue lines, sepias or third generation prints or faxes are not acceptable.
   2. Additional copies may be required by other entities, but Architect will not accept or return.
   3. Drawings shall be 610 x 915 mm 24 x 36 IN or not larger than 760 x 1065 mm 30
x 42 IN.
4. Allow clear space, approximately 25,806 mm² 40 SQ IN, for approval stamps on right hand side of document.
5. Provide title block indicating; Project name, Project number, drawing number, and name of entity preparing submittal.
6. Do not fold.
7. Submit in mailing tube.

1.06 PRODUCT DATA

A. Product Data Action Submittals are required as called for in each specification section Submittal paragraph.

B. Unless otherwise agreed to by Architect, submit two (2) originals, or high quality high contrast bond paper copies, unless quantity is indicated elsewhere that are suitable for reproduction of Product Data items such as equipment brochures, product catalog cuts of fixtures, standard catalog items, etc.
1. Faxes or third generation copies are not acceptable.
2. Additional copies may be required by other entities; however, Architect may not return them.
3. Include index if multiple items under specification section are included in submittal.
4. Mark each copy to show exact item, model, and options submitted for review.
5. Include scale details, sizes, dimensions, performance characteristics, capacities, wiring diagrams, controls and other pertinent data.
6. Data shall be 215 x 280 mm or 215 x 355 mm 8-1/2 x 11 IN or 8-1/2 x 14 IN maximum.
7. Do not fold.
8. Submit in envelope large enough for submitted items.

1.07 SAMPLES

A. Sample Action Submittals are required in applicable specification section Submittal paragraph.
1. Identify samples with manufacturer’s name, item, use, type, Project designation, specification section or drawing detail reference, color, range, texture, finish and other pertinent data.
2. Submit samples to address indicated, or Project site if required or requested.
3. Samples shall have a label affixed or attached thereto of sufficient size to accommodate Contractor’s and Architect’s approval stamp.
4. Architect may retain samples for comparison purposes.

1.08 PROJECT INFORMATION AND CONTRACT CLOSEOUT INFORMATION

A. Project Information and Contract Closeout Information submittals are required as called for by specification section Submittal paragraph.

B. Unless otherwise agreed to by Architect, submit to Architect’s for records one (1) original, or high quality high contrast copy of submittal suitable for reproduction, unless quantity is indicated elsewhere, submittal. Submit quantity indicated in specifications sections to Owner.
1. Architect is not required to return submittal.
2. Include pertinent data.
3. Information shall be 215 x 280 mm or 215 x 355 mm 8-1/2 x 11 IN or 8-1/2 x 14 IN maximum.
4. Do not fold. Submit in envelope large enough for submitted items.

1.09 TRANSMITTAL – GENERAL

A. Contractor is responsible for making submissions.
   1. Submit items to Contractor for transmittal to office of the Architect: Vandergriff Group Architects

B. Transmit items with Submittal Transmittal form included at end of this section, or supplied by Architect, or of a similar format approved in advance by Architect.
   1. If submittal is based on an "Optional" manufacturer listed in Part 2 of technical specification sections, instead of "Base" manufacturer listed, then submit completed form titled "Optional Product/System Comparison" included at end of this section along with Submittal Transmittal form.
      a. "Optional Product/System Comparison" form is not required to be submitted if "Optional" manufacturer product name, product number or model number or both are specifically listed in technical specification sections.
   2. Contact Architect for copy made for Project.
   3. Indicate Project name, Architect's project number, specification section title, description of submitted items or systems, manufacturer and submittal type on transmittal form.
   4. Indicate submitted date, approval and sign in appropriate space on transmittal form.
   5. Submittal Transmittal form shall stay with submittal throughout its routing.
      a. Make copy for file if necessary.
   6. Indicate submittal number in space provided on Submittal Transmittal form. Following submittal numbering system shall be used:
      a. Identify each submittal using applicable 5 or 6 digit specification section number from Contract Documents.
      b. After section number, indicate sequence number. First submittal of section series would be numbered “#####-1”, next would be “#####-2”, etc.
      c. If returned for re-submission, add a designation character. Second submission would be “#####-1A”, third would be “#####-1B”, etc.

C. Submit submittals required by Contract Documents according to approved Schedule of Submittals.

D. Submittals shall only include items from one specification section.
   1. Project Information Submittals and Contract Closeout Information Submittals shall be submitted separately from other submittals required by specification section.
   2. Submit all items specified in section at same time for complete review, except Contract Closeout Information Submittals.

E. Do not submit following:
   1. Submittals not required by specification section Submittal paragraph.
   2. Submittals required by other contractors or trades for their coordination that are
not required by specification section Submittal paragraph.

3. Submittal of products, systems or manufactures not specified.
4. Submittal of substitution.
5. Submittal of MSDS information.
6. Information on only a portion of a submittal.
7. Large quantities of submittals at one time.

F. Do not mark copies with highlighters that black out information, or turn opaque when reproduced, or will not scan or reproduce legibly.

1.10 CONTRACTOR AND SUBCONTRACTOR ACTION

A. Direct specific attention in writing with submittal or on submittal, indicating deviations from requirements of Contract Documents.
   1. Contractor shall not be relieved of responsibility for any deviation from requirements of Contract Documents by Architect’s approval of submittals unless, (1) Contractor has informed Architect in writing of such deviation at time of submission, and (2) Architect has given written approval to specific deviation as a minor change in Work, or (3) a Change Order or Construction Change Directive has authorized the deviation.
   2. Completed Work shall match appearance of approved samples and mock-ups.

B. Contractor represents and warrants that submittals shall be prepared by persons and entities possessing expertise and experience in the trade for which submittal is prepared, and if required by Architect or applicable law, by a licensed Professional Engineer or Structural Engineer (or other specialized Engineer) where so stipulated.

C. Contractor is responsible for confirmation and correlation of dimensions at Project site; for information that pertains solely to fabrication processes or to techniques of construction; and for coordination of Work of trades.

D. Contractor and Subcontractor shall review submittal required by Contract Documents for compliance with Contract Documents, approve and submit to Architect.

E. Submittal to Architect indicates Contractor, Subcontractor represent they have:
   1. Reviewed submittal for compliance with the Contract Documents;
   2. Determined and verified field measurements, and field construction criteria related thereto, or will do so;
   3. Determined and verified quantities, materials, performance criteria, installation requirements, catalog numbers and similar data related thereto;
   4. Determined substitutions have not been included;
   5. Checked, determined, verified and coordinated information contained within such submittals with requirements of Work, Contract Documents and other submittals;
   6. Certified that submittal is in compliance with Contract Documents, and have approved the submittal.

F. Resubmit items returned by Architect and marked “Revise and Resubmit” or “Not Approved” until approval is received.
   1. Direct specific attention, in writing, or on resubmitted submittals to revisions other than those requested by Architect on previous submittals.
   2. Bubble or otherwise clearly identify all changes from previous submittal.
3. Tag each re-submittal with a designation that reuses the previous submittal number and a suffix designating the re-submittal sequence in accordance with the numbering system indicated in this section.

G. Contractor shall reproduce and distribute copies of submittals after Architect’s review to:
1. Project site: Copy of “approved” or “approved as noted” submittals for use by Contractor’s field staff and Architect’s representatives.
2. Subcontractor/vendor.
3. Other Contractors, Subcontractors or vendors as may be required for coordination purposes.
4. Owner: Copy of “approved” or “approved as noted” submittals.
5. Authorities having jurisdiction: Copy of “approved” or “approved as noted” submittals if required by Authority Having Jurisdiction (AHJ).
6. Inspector (if any): Copy of “approved” or “approved as noted” submittals.

H. Contractor shall not be relieved from responsibility for coordination with other submittals or for errors or omissions in submittals by Architect’s approval thereof.

I. Material lists and quantity information included in submittals are sole responsibility of Contractor.

J. Where a submittal is required by Specifications, any related Work performed prior to Architect’s review and approval of the pertinent submission will be sole expense and responsibility of Contractor.

1.11 ARCHITECT ACTION on SUBMITTALS: SHOP DRAWINGS, PRODUCT DATA AND SAMPLES

A. Architect will review and approve or take other appropriate action upon Contractor’s submittals, but only for limited purpose of checking for conformance with information given and design concept expressed in Contract Documents.
1. Such review and action is limited to only those submittals identified in Contract Documents.
2. Architect’s review of such submittals is not conducted for purpose of determining accuracy and completeness of other details such as dimensions, quantities, or for substantiating instructions for installation or performance of equipment or systems, all of which remain responsibility of the Contractor.
3. Architect’s review or approval of a specific item shall not indicate approval of an assembly of which the item is a component.
4. Architect’s review or approval shall not constitute a review of safety or health precautions, or of any construction means, methods, techniques, sequences or procedures.
5. Architect’s approval of a resubmission shall not apply to revisions that Contractor has not directed specific attention to in writing on resubmitted submittals, other than those requested by Architect on previous submittal.

B. Architect’s action will be taken with such reasonable promptness as to cause no delay in Work or in activities of Owner, Contractor or separate contractors, while allowing sufficient time in Architect’s professional judgment to permit adequate review by Architect, Architect’s consultants, and Owner, if needed.
1. Architect’s obligation to review or approve submittals and to return them with
reasonable promptness is conditional upon prior review and approval of submittals by Contractor, and Contractor’s transmittal of submittals in accordance with Contract Documents and approved Schedule of Submittals.

C. Items not submitted in accordance with provisions of this section may be returned, without review or action.

1. Submittals which do not indicate Contractor has reviewed submittal for compliance with Contract Documents, and approved submittal.

2. Submittals which are not required by Contract Documents.

3. Submittal on items not approved for use by Contract Documents.

4. Submittals which include information from more than one specification section.

5. Project Information Submittals or Contract Closeout Information Submittals included with other submittals required by specification section Submittal paragraph.

6. Submittals required by other contractors or trades for their coordination that are not required by specification section Submittal paragraph.

7. Submittal of products, systems, or manufactures not specified.

8. Submittal of substitution.


10. Information on only a portion of a submittal.

11. If approved Submittal Transmittal form was not used.

D. If a submittal must be delayed for coordination with other submittals not yet submitted, Architect may, as an option, either return submittal with no action or notify Contractor of other submittals which must be received before submittal will be reviewed.

E. Additional copies of submittals not required or requested may not be returned.

F. Architect may review Project Information Submittals or Contract Closeout Information Submittals at its sole discretion, for general compliance with design concept expressed in Contract Documents.

G. Architect will post reviewed submittal and shop drawing information indicating comments and action taken for the Contractor’s use and distribution on HDR’s FTP (File Transfer Protocol) website. Additional information will be provided at the pre-construction conference in regard to accessing the website and reviewed submittal information.

1. Architect is not required to return Project Information and Contract Closeout Information submittals.

1.12 ATTACHMENTS

A. Submittal Transmittal

B. Option Product/Systems Comparison

END OF SECTION 01 33 00
**SUBMITTAL TRANSMITTAL**

**PROJECT:** Midland County Amphitheatre  
**ARCH PROJ. NO.:** 01515

**SPECIFICATION TITLE:**

**MANUFACTURER:**

- ☐ “Base” Manufacturer
- ☐ “Optional” Manufacturer  
  *(Do not submit on manufacturers not listed in specifications)*

*(Complete attached Optional Product/System Comparison form if manufacturer is an “Optional” manufacturer)*

**DESCRIPTION OF SUBMITTED ITEM:**

**TYPE:** ☐ Shop Drawing  ☐ Product Data  ☐ Sample  ☐ Project Information  ☐ Project Closeout

**NOTE 1:** Submittal transmittal to Architect indicates Contractor, and subcontractor has reviewed for compliance with Contract Documents and has approved submittal.

**NOTE 2:** THIS TRANSMITTAL FORM SHALL STAY WITH SUBMITTAL THROUGHOUT ROUTING. COPY FOR FILE.

<table>
<thead>
<tr>
<th>ROUTING SEQUENCE</th>
<th>ACTION TAKEN BY</th>
<th>DATE REC'D</th>
<th>DATE SENT</th>
<th>NUMBER COPIES</th>
<th>ACTION TAKEN</th>
</tr>
</thead>
<tbody>
<tr>
<td>SUBCONTRACTOR / SUPPLIER:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CONTRACTOR:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ARCHITECT: Vandergriff Group Architects PC</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CONTRACTOR:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SUBCONTRACTOR / SUPPLIER:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OWNER:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**ACTION LEGEND:** (Indicate in ACTION TAKEN column above)

- **A** REVIEWED
- **B** MAKE CORRECTIONS NOTED
- **X** REJECTED
- **R** REVISE AND RESUBMIT

**COMMENTS:**

- ☐ SEE ATTACHED COMMENTS
- ☐ SEE ENCLOSED SUBMITTAL FOR COMMENTS
- ☐ SUPPLEMENTAL INFORMATION REQUIRED
## OPTIONAL PRODUCT/SYSTEM COMPARISON

If submitting on a manufacturer listed as "optional" in technical specifications, complete this form, and submit with first submittal transmittal for product.

(Nota: Form not required if "optional" manufacturer product name, product number or model number or both are specifically listed in technical specification sections)

### PROJECT:
Midland County Amphitheatre

### VGA 01515

### SUBMITTAL NO: __ __ __ __ __ - __ __

<table>
<thead>
<tr>
<th>SECTION NUMBER</th>
<th>SEQUENCE NUMBER</th>
<th>RE-SUBMITTAL CHARACTER</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Specification Section No.: __________________________________________

Article(s)/paragraph(s): __________________________________________

## PRODUCT / SYSTEM COMPARISON:

Provide a one-to-one comparison with all specified product(s)

<table>
<thead>
<tr>
<th>SPEC DESIGNATION (IF ANY)</th>
<th>BASE MANUFACTURER’S PRODUCT/SYSTEM</th>
<th>SUBMITTED MANUFACTURER’S PRODUCT/SYSTEM</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Manufacturer:

Name, brand: __________________

Catalog No.: __________________

e tc.: __________________

### EFFECT OF PRODUCT:

Optional affects other parts of Work: No ☐ Yes ☐ (If yes, explain below)

Optional requires dimensional revision or redesign of structure or mechanical and electrical work: No ☐ Yes ☐ (If yes, explain below)

Same warrantee provided as specified base product: No ☐ Yes ☐ (If yes, explain below)

Explanation: __________________________________________

________________________________________

________________________________________

________________________________________

________________________________________

________________________________________

________________________________________

________________________________________

________________________________________

________________________________________

________________________________________

________________________________________
STATEMENT OF CONFORMANCE OF PRODUCT OR SYSTEM TO CONTRACT REQUIREMENTS:
Supplier, Subcontractor and Contractor in making submittal of Optional manufacturer’s product or system, or in using an Optional manufacturer’s product or system represent:

☐ They will coordinate installation of proposed product or system into Work, to include necessary changes or modifications or both to the Work, including additional costs to other contractors, when such changes result solely from the use of an Optional Manufacturer.

ACKNOWLEDGEMENTS:
FOLLOWING FIRM HEREBY REQUESTS CONSIDERATION OF OPTIONAL PRODUCT OR SYSTEMS:

Requested by (Firm):
Acknowledged by (print & sign):  Date: 
Position:  Phone: 

Subcontractor:
Acknowledged by (print & sign):  Date: 
Position:  Phone: 

Contractor:
Acknowledged by (print & sign):  Date: 
Position:  Phone: 

☐ Recommend approval:

CONSTRUCTION MANAGER'S ACKNOWLEDGMENT AND RECOMMENDATION:
☐ Do not recommend approval for following reasons:
☐ Returned to requester - Need more information:

Comment:

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

Construction Manager:
Acknowledged by (print & sign):  Date: 
Position:  

Midland County Amphitheatre 01 33 00 – 2 – Attachment B  Optional Product/ System Comparison Form
VGA 01515
SECTION 01 35 33
ENVIRONMENTAL PROJECT PROCEDURES

PART 1 – GENERAL

1.01 SUMMARY

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this section.

1.02 SUMMARY

A. This section includes:
   1. Environmental goals for project.
   2. Waste management procedures.

1.03 DEFINITIONS

A. Waste Materials: Large and small pieces of materials indicated which are excess to contract requirements and generally include materials salvaged from existing construction and items of trimmings, cuttings, and damaged goods resulting from new installations which cannot be effectively used in Work.

B. Type A Finishes: Material and finishes with potential for short-term levels of off gassing from chemicals inherent in their manufacturing process, or which are applied in form requiring vehicles or carriers for spreading which release high level or particulate matter in process of installation and/or curing. Including, but not limited to:
   1. Adhesives, sealants, and glazing compounds, specifically those with petrochemical vehicles or carriers.
   2. Wood preservatives, finishes, and paint.
   3. Control and/or expansion joint fillers.

1.04 SUBMITTALS

A. General: Submit in accordance with Section 01340.

B. Informational Submittals: Submit following:
   1. Construction waste management plan. Submit revisions to plan at time of revisions.

1.05 QUALITY ASSURANCE

A. Regulatory Requirements: Comply with applicable codes, laws rules, and regulations of authorities having jurisdiction concerning waste management and indoor air quality.

B. Certifications
   1. Contractor’s certification that construction waste materials have been disposed of
in accordance with Contractor’s submitted waste management plan.

1.07 PROJECT CONDITIONS

A. Environmental Requirements: Comply with requirements of other sections as appropriate.

PART 2 – PRODUCTS

Not Used.

PART 3 – EXECUTION

3.01 PREPARATION

A. Waste Management Plan: Before start of construction, prepare construction waste management plan on procedures to collect, segregate, and dispose of construction wastes and debris.
   1. Identify materials by categories to be recycled and corresponding recycling facilities.
   2. Include education and training procedures for construction personnel.
   3. Include procedures to enforce conformance to plan.

3.02 WASTE MANAGEMENT

A. General: Maximize salvage and recycling of waste materials from construction operations.
   1. Implement waste management from start of construction through to final completion.
   2. Comply with requirements of submitted waste management plan.

B. Construction Waste Materials for Recycling: Include salvage and recycling of following:
   1. Land clearing debris such as stumps and trees.
   2. Concrete, Masonry, and Other Inert Fill Material: Concrete; brick; rock; clean soil not intended for other on-site use; broken up asphalt pavement containing no ABC stone, clay concrete or other contaminants; and other inert material.
      a. Concrete and Masonry: Separate reinforcement and other metals.
   3. Metals: Metal scrap including iron, steel, stainless steel, galvanized sheet steel, zinc, lead, copper, brass, bronze, and aluminum.
      a. Separate metal by type.
   4. Cardboard: Clean, corrugated cardboard such as used for packaging, etc.
   5. Paper: Discarded office refuse such as unwanted files, correspondence, etc.
   6. Other Mixed Construction and Demolition Waste: Solid waste resulting solely from construction, remodeling, repair, or demolition operations on pavement, buildings, or other structures exclusive of waste materials listed in this section including roofing materials, insulation materials, floor finishes, wall finishes, ceiling finishes.

C. Non-Recyclable Construction Waste Materials: Collect and segregate non-recyclable waste for delivery to permitted landfill site:
   1. Mixed Solid Waste: Solid waste usually collected as municipal service, exclusive
of waste materials listed above.

2. Hazardous Waste: Comply with applicable codes, laws, rules, and regulations.

END OF SECTION 01 35 33
PART 1 – GENERAL

1.01 RELATED DOCUMENTS
A. Drawings, General Conditions of the Contract for Construction, Supplementary Conditions and Division 1 - General Requirements apply to Work of this section.

1.02 SECTION INCLUDES
A. Quality assurance.
B. Schedule of references.

1.03 QUALITY ASSURANCE
A. For products or workmanship specified by association, trade, or other consensus standards, comply with requirements of the standard, except when more rigid requirements are specified or are required by applicable codes.
B. Conform to reference standard by date of issue current on date of Contract Documents.
C. Obtain copies of standards when required by Contract Documents.
D. Should specified reference standards conflict with Contract Documents, request clarification from Architect before proceeding?
E. The contractual relationship duties and responsibilities of the parties in Contract nor those of the Architect shall not be altered from the Contract Documents by mention or inference otherwise in any reference document.

1.04 SCHEDULE OF REFERENCES
AA Aluminum Association
900 19th St., NW
Washington, DC 20006
www.aluminum.org
(202) 862-5100

AABC Associated Air Balance Council
1518 K St., NW
Washington, DC 20005
www.aabchq.com
(202) 737-0202

AAMA American Architectural Manufacturers Association
1827 Walden Office Sq., Suite 104
Schaumburg, IL 60173-4268
www.aamanet.org
(847) 303-5664
<table>
<thead>
<tr>
<th>Organization</th>
<th>Address</th>
<th>Phone Numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td>AHA</td>
<td>American Hardboard Association</td>
<td>(847) 934-8800</td>
</tr>
<tr>
<td></td>
<td>1210 W. Northwest Hwy</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Palatine, IL 60067</td>
<td></td>
</tr>
<tr>
<td></td>
<td><a href="http://www.hardboard.org">www.hardboard.org</a></td>
<td></td>
</tr>
<tr>
<td>AI</td>
<td>Asphalt Institute</td>
<td>(606) 288-4960</td>
</tr>
<tr>
<td></td>
<td>Research Park Drive</td>
<td></td>
</tr>
<tr>
<td></td>
<td>P.O. Box 14052</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Lexington, KY 40512-4052</td>
<td></td>
</tr>
<tr>
<td></td>
<td><a href="http://www.asphaltinstitute.org">www.asphaltinstitute.org</a></td>
<td></td>
</tr>
<tr>
<td>AIA</td>
<td>American Institute of Architects</td>
<td></td>
</tr>
<tr>
<td>AISC</td>
<td>American Institute of Steel Construction</td>
<td>(312) 670-2400</td>
</tr>
<tr>
<td></td>
<td>One East Wacker Dr., Suite 3100</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Chicago, IL 60601-2001</td>
<td></td>
</tr>
<tr>
<td></td>
<td><a href="http://www.aisc.org">www.aisc.org</a></td>
<td></td>
</tr>
<tr>
<td>AISI</td>
<td>American Iron and Steel Institute</td>
<td>(202) 452-7100</td>
</tr>
<tr>
<td></td>
<td>1101 17th St., NW, Suite 1300</td>
<td>(800) 277-3850</td>
</tr>
<tr>
<td></td>
<td>Washington, DC 20036</td>
<td></td>
</tr>
<tr>
<td></td>
<td><a href="http://www.steel.org">www.steel.org</a></td>
<td></td>
</tr>
<tr>
<td>AITC</td>
<td>American Institute of Timber Construction</td>
<td>(303) 792-9559</td>
</tr>
<tr>
<td></td>
<td>7012 S. Revere Pkwy, Suite 140</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Englewood, CO 80112</td>
<td></td>
</tr>
<tr>
<td></td>
<td><a href="http://www.aitc-glulam.org">www.aitc-glulam.org</a></td>
<td></td>
</tr>
<tr>
<td>AMCA</td>
<td>Air Movement and Control Association International, Inc.</td>
<td>(847) 394-0150</td>
</tr>
<tr>
<td></td>
<td>30 W. University Dr.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Arlington Heights, IL 60004-1893</td>
<td></td>
</tr>
<tr>
<td></td>
<td><a href="http://www.amca.org">www.amca.org</a></td>
<td></td>
</tr>
<tr>
<td>ANSI</td>
<td>American National Standards Institute</td>
<td>(202) 293-8020</td>
</tr>
<tr>
<td></td>
<td>1819 L. Street, N.W.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Washington, DC 20036</td>
<td></td>
</tr>
<tr>
<td></td>
<td><a href="http://www.ansi.org">www.ansi.org</a></td>
<td></td>
</tr>
<tr>
<td>APA/EWA</td>
<td>APA-The Engineered Wood Association</td>
<td>(253) 565-6600</td>
</tr>
<tr>
<td></td>
<td>P.O. Box 11700</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Tacoma, WA 98411-0700</td>
<td></td>
</tr>
<tr>
<td></td>
<td><a href="http://www.apawood.org">www.apawood.org</a></td>
<td></td>
</tr>
<tr>
<td>API</td>
<td>American Petroleum Institute</td>
<td>(202) 682-8000</td>
</tr>
<tr>
<td></td>
<td>1220 L St., NW</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Washington, DC 20005-4070</td>
<td></td>
</tr>
<tr>
<td></td>
<td><a href="http://www.api.org">www.api.org</a></td>
<td></td>
</tr>
<tr>
<td>AREMA</td>
<td>American Railway Engineering and Maintenance-of-Way Association</td>
<td>(301) 459-3200</td>
</tr>
<tr>
<td></td>
<td>8201 Corporate Drive, Suite 1125</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Landover, MD 02785-2230</td>
<td></td>
</tr>
<tr>
<td></td>
<td><a href="http://www.arema.org">www.arema.org</a></td>
<td></td>
</tr>
<tr>
<td>Acronym</td>
<td>Organization Name</td>
<td>Address</td>
</tr>
<tr>
<td>---------</td>
<td>------------------</td>
<td>---------</td>
</tr>
<tr>
<td>ARI</td>
<td>Air Conditioning and Refrigeration Institute</td>
<td>4301 Fairfax Dr., Suite 425, Arlington, VA 22203</td>
</tr>
<tr>
<td>ARRA</td>
<td>Asphalt Recycling and Reclaiming Association</td>
<td>#3 Church Circle, PMB 250, Annapolis, MD 21401</td>
</tr>
<tr>
<td>ASCE</td>
<td>American Society of Civil Engineers</td>
<td>World Headquarters, 1801 Alexander Graham Bell Dr., Reston, VA 20191-4400</td>
</tr>
<tr>
<td>ASHRAE</td>
<td>American Society of Heating, Refrigerating and Air-Conditioning Engineers</td>
<td>1791 Tullie Circle, NE, Atlanta, GA 30329</td>
</tr>
<tr>
<td>ASME</td>
<td>American Society of Mechanical Engineers</td>
<td>3 Park Ave., New York, NY 10016-5990</td>
</tr>
<tr>
<td>ASPA</td>
<td>American Sod Producers Association</td>
<td></td>
</tr>
<tr>
<td>ASPE</td>
<td>American Society of Plumbing Engineers</td>
<td>8614 W. Catalpa Avenue, Suite 1007, Chicago, IL 60656-1116</td>
</tr>
<tr>
<td>ASSE</td>
<td>American Society of Sanitary Engineering</td>
<td>901 Canterbury, Suite A, Westlake, OH 44145</td>
</tr>
<tr>
<td>ASTM</td>
<td>American Society for Testing and Materials</td>
<td>100 Barr Harbor Dr., West Conshohocken, PA 19428-2959</td>
</tr>
</tbody>
</table>
AWI  Architectural Woodwork Institute
     1952 Isaac Newton Sq. West
     Reston, VA 20190
     www.awinet.org
     (703) 733-0600

AWPA  American Wood-Preservers’ Association
      P.O. Box 5690
      Granbury, TX 76049
      www.awpa.com
      (817) 326-6300

AWS  American Welding Society
     550 NW LeJeune Rd.
     Miami, FL 33126
     www.amweld.org
     (800) 443-9353
     (305) 443-9353

AWWA American Water Works Association
       6666 W. Quincy Ave.
       Denver, CO 80235
       www.awwa.org
       (303) 794-7711

BHMA Builders’ Hardware Manufacturer Association
      355 Lexington Avenue, 17th floor
      New York, NY 10017
      www.buildershardware.com
      (212) 297-2122

BIA  Brick Institute of America
     The Brick Industry Association
     11490 Commerce Park Drive
     Reston, VA 28191-1525
     www.bia.org
     (703) 620-0010

CDA Copper Development Association Inc.
     260 Madison Ave., 16th Floor
     New York, NY 10016
     www.copper.org
     (800) 232-3282
     (212) 251-7200

CFR  Code of Federal Regulations

CGA Compressed Gas Association
     1725 Jefferson Davis Hwy, Suite 1004
     Arlington, VA 22202-4102
     www.cganet.com
     (703) 412-0900

CISCA Ceilings and Interior Systems Construction Association
       1500 Lincoln Hwy, Suite 202
       St. Charles, IL 60174
       www.cisca.org
       (630) 584-1919

CISPI Cast Iron Soil Pipe Institute
      5959 Shallowford Rd., Suite 419
      Chattanooga, TN 37421
      www.cispi.org
      (423) 892-0137
<table>
<thead>
<tr>
<th>Acronym</th>
<th>Organization Name</th>
<th>Address</th>
<th>Phone</th>
<th>Website</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLFMI</td>
<td>Chain Link Fence Manufacturers Institute</td>
<td>9891 Broken Land Pkwy, Suite 300</td>
<td>(301) 596-2583</td>
<td><a href="http://www.chainlinkinfo.org">www.chainlinkinfo.org</a></td>
</tr>
<tr>
<td>CRI</td>
<td>Carpet and Rug Institute</td>
<td>30722-2048</td>
<td>(800) 882-8846</td>
<td><a href="http://www.carpet-rug.com">www.carpet-rug.com</a></td>
</tr>
<tr>
<td>CRSI</td>
<td>Concrete Reinforcing Steel Institute</td>
<td>933 N. Plum Grove Rd.</td>
<td>(847) 517-1200</td>
<td><a href="http://www.crsi.org">www.crsi.org</a></td>
</tr>
<tr>
<td>CSSB</td>
<td>Cedar Shake and Shingle Bureau</td>
<td>P.O. Box 1178</td>
<td>(604) 462-8961</td>
<td><a href="http://www.cedarbureau.org">www.cedarbureau.org</a></td>
</tr>
<tr>
<td>CTI</td>
<td>Cooling Technology Institute</td>
<td>530 Wells Fargo Drive, Suite 218</td>
<td>(281) 583-4087</td>
<td><a href="http://www.cti.org">www.cti.org</a></td>
</tr>
<tr>
<td>DASMA</td>
<td>Door and Access Systems Manufacturers Association International</td>
<td>1300 Summer Avenue</td>
<td>(216) 241-7333</td>
<td><a href="http://www.dasma.com">www.dasma.com</a></td>
</tr>
<tr>
<td>DHI</td>
<td>The Door and Hardware Institute</td>
<td>14150 Newbrook Dr., Suite 200</td>
<td>(703) 222-2010</td>
<td><a href="http://www.dhi.org">www.dhi.org</a></td>
</tr>
<tr>
<td>DOT</td>
<td>Department of Transportation</td>
<td>400 7th Street, S.W.</td>
<td>(202) 366-4000</td>
<td><a href="http://www.dot.gov">www.dot.gov</a></td>
</tr>
<tr>
<td>EIMA</td>
<td>EIFS Industry Members Association</td>
<td>300 Corporate Center Dr., Suite 270</td>
<td>(800) 294-3462</td>
<td><a href="http://www.eifsfacts.com">www.eifsfacts.com</a></td>
</tr>
<tr>
<td>Organization</td>
<td>Address</td>
<td>Contact Information</td>
<td></td>
<td></td>
</tr>
<tr>
<td>--------------</td>
<td>---------</td>
<td>---------------------</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| EJCDC        | Engineers’ Joint Contract Documents Committee  
American Consulting Engineers Council  
1015 15th Street, N.W.  
Washington, DC 20005 | (202) 347-7474 |
| EJMA         | Expansion Joint Manufacturers Association  
25 North Broadway  
Tarrytown, NY 10591 | (914) 332-0040 |
| EPA          | Environmental Protection Agency  
US EPA/NSCEP  
P.O. Box 42419  
Cincinnati, Ohio 45242 | (800) 490-9198 |
| FAA          | Federal Aviation Administration  
800 Independence Ave., SW  
Washington, DC 20591 | (202) 366-4000 |
| FCC          | Federal Communications Commission  
445 12th Street, SW  
Washington, DC 20554 | (888) 225-5322 |
| FM           | FM Global  
Corporate Headquarters.  
P.O. Box 7500  
Johnston, RI 02919 | (781) 762-4300 |
| FS           | Federal Specification Unit  
General Services Admin.  
Federal Supply Service  
FSS Acquisition Management Center  
Environmental Programs and Engineering Policy Division  
Washington, DC 20406 | (703) 305-5682 |
| GA           | Gypsum Association  
810 First St., NE, Suite 510  
Washington, DC 20002 | (202) 289-5440 |
<table>
<thead>
<tr>
<th>Organization</th>
<th>Address</th>
<th>Phone Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>GANA</td>
<td>Glass Association of North America</td>
<td>(785) 271-0208</td>
</tr>
<tr>
<td></td>
<td>2945 Southwest Wanamaker Dr., Suite A</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Topeka, KS 66614</td>
<td></td>
</tr>
<tr>
<td></td>
<td><a href="http://www.glasswebsite.com/gana">www.glasswebsite.com/gana</a></td>
<td></td>
</tr>
<tr>
<td>HI</td>
<td>Hydronics Institute</td>
<td>(703) 525-7060</td>
</tr>
<tr>
<td></td>
<td>Division of Gas Appliance Manufacturers Association</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2107 Wilson Blvd., Suite 600</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Arlington, VA 22201</td>
<td></td>
</tr>
<tr>
<td></td>
<td><a href="http://www.gamanet.org">www.gamanet.org</a></td>
<td></td>
</tr>
<tr>
<td>HMMA</td>
<td>Hollow Metal Manufacturers Association</td>
<td>(312) 332-0405</td>
</tr>
<tr>
<td></td>
<td>Division of NAAMM</td>
<td></td>
</tr>
<tr>
<td></td>
<td>8 South Michigan Ave., Suite 1000</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Chicago, IL 60603</td>
<td></td>
</tr>
<tr>
<td></td>
<td><a href="http://www.naamm.org">www.naamm.org</a></td>
<td></td>
</tr>
<tr>
<td>HPMA</td>
<td>Hardwood Plywood Manufacturers Association</td>
<td></td>
</tr>
<tr>
<td>HPW</td>
<td>H.P. White Laboratory</td>
<td>(410) 838-6550</td>
</tr>
<tr>
<td></td>
<td>3114 Scarboro Road</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Street, Maryland 21154-1822</td>
<td></td>
</tr>
<tr>
<td>HPVA</td>
<td>Hardwood Plywood and Veneer Association</td>
<td>(703) 435-2900</td>
</tr>
<tr>
<td></td>
<td>P.O. Box 2789</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Reston, VA 20195-0789</td>
<td></td>
</tr>
<tr>
<td></td>
<td><a href="http://www.hpva.org">www.hpva.org</a></td>
<td></td>
</tr>
<tr>
<td>IAS</td>
<td>International Approval Services</td>
<td>(216) 524-4990</td>
</tr>
<tr>
<td></td>
<td>U.S. Operations</td>
<td></td>
</tr>
<tr>
<td></td>
<td>8501 E. Pleasant Valley Rd.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cleveland, Ohio 44131-5575</td>
<td></td>
</tr>
<tr>
<td></td>
<td><a href="http://www.approvals.org">www.approvals.org</a></td>
<td></td>
</tr>
<tr>
<td>ICBO</td>
<td>International Conference of Building Officials</td>
<td>(800) 284-4406</td>
</tr>
<tr>
<td></td>
<td>5360 Workman Mill Road</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Whittier, California 90601-2298</td>
<td></td>
</tr>
<tr>
<td></td>
<td><a href="http://www.icbo.org">www.icbo.org</a></td>
<td></td>
</tr>
<tr>
<td>ICC</td>
<td>International Code Council</td>
<td>(703) 931-4533</td>
</tr>
<tr>
<td></td>
<td>5203 Leesburg Pike #708</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Falls Church, VA 22041</td>
<td></td>
</tr>
<tr>
<td></td>
<td><a href="http://Www.intlcode.org">Www.intlcode.org</a></td>
<td></td>
</tr>
<tr>
<td>IEEE</td>
<td>Institute of Electrical and Electronics Engineers</td>
<td>(212) 419-7900</td>
</tr>
<tr>
<td></td>
<td>3 Park Ave.,17th Floor</td>
<td></td>
</tr>
<tr>
<td></td>
<td>New York, NY 10016-5997</td>
<td></td>
</tr>
<tr>
<td></td>
<td><a href="http://Www.ieee.org">Www.ieee.org</a></td>
<td></td>
</tr>
<tr>
<td>IES</td>
<td>Illuminating Engineering Society of North America</td>
<td>(212) 248-5000</td>
</tr>
<tr>
<td></td>
<td>120 Wall Street, 17th Floor</td>
<td></td>
</tr>
<tr>
<td></td>
<td>New York, NY 10005</td>
<td></td>
</tr>
<tr>
<td></td>
<td><a href="http://www.iesna.org">www.iesna.org</a></td>
<td></td>
</tr>
<tr>
<td>ID</td>
<td>Organization</td>
<td>Address</td>
</tr>
<tr>
<td>----</td>
<td>--------------------------------------</td>
<td>----------------------------------------------</td>
</tr>
<tr>
<td>ILI</td>
<td>Indiana Limestone Institute of America</td>
<td>400 Stone City Bank Building, Bedford, IN 47421</td>
</tr>
<tr>
<td>IMIAC</td>
<td>International Masonry Industry All-Weather Council</td>
<td>The James Brice House, Annapolis, MD 21401</td>
</tr>
<tr>
<td>IMSA</td>
<td>International Municipal Signal Association</td>
<td>PO BOX 539, Newark, NY 14513-0539</td>
</tr>
<tr>
<td>ISWA</td>
<td>Insect Screen Weavers Association</td>
<td></td>
</tr>
<tr>
<td>KCMA</td>
<td>Kitchen Cabinet Manufacturers Association</td>
<td>1899 Preston White Dr., Reston, VA 20191-5435</td>
</tr>
<tr>
<td>LPI</td>
<td>Lightning Protection Institute</td>
<td>3335 N. Arlington Heights Rd., Suite E, Arlington Heights, IL 60004</td>
</tr>
<tr>
<td>MBMA</td>
<td>Metal Building Manufacturers Association</td>
<td>1300 Sumner Ave., Cleveland, OH 44115-2851</td>
</tr>
<tr>
<td>MFMA</td>
<td>Maple Flooring Manufacturers Association</td>
<td>60 Revere Dr., Suite 500, Northbrook, IL 60062</td>
</tr>
<tr>
<td>MIA</td>
<td>Marble Institute of America</td>
<td>30 Eden Alley, Suite 301, Columbus, OH 43215</td>
</tr>
</tbody>
</table>
ML/SFA  Metal Lath/Steel Framing Association  (205) 787-2611
P.O. Box 3928
Birmingham, AL 35208
www.naamm.org

MSS  Manufacturers Standardization Society of the Valve and Fittings Industry  (703) 281-6613
127 Park St., NE
Vienna, VA 22180-4602
www.mss-hq.com

NAA  National Arborist Association  (800) 733-2622
Route 101, P.O. Box 1094
Amherst, NH 03031-1094
(603) 673-3311
www.natlarb.com

NAAMM  National Association of Architectural Metal Manufacturers  (312) 332-0405
8 South Michigan Ave., Suite 1000
Chicago, IL 60603
www.naamm.org

NAAMM  North American Association of Mirror Manufacturers  (913) 266-7013
(Division of GANA)
2945 Southwest Wanamaker Dr., Suite A
Topeka, KS 66614
www.glasswebsite.com

NACE  NACE International  (281) 228-6200
1440 South Creek Drive
Houston, TX 77084
www.nace.org

NAIMA  North American Insulation Manufacturers Association  (703) 684-0084
44 Canal Center Plaza, Suite 310
Alexandria, VA 22314
www.naima.org

NBGQA  National Building Granite Quarries Association, Inc.  (800) 557-2848
1220 L. St., NW, Suite 100-167
Washington, DC 20005
www.nbqqa.com

NBS  National Bureau of Standards

NCMA  National Concrete Masonry Association  (703) 713-1900
2302 Horse Pen Rd.
Herndon, VA 20171-3499
www.ncma.org
NCRP National Council on Radiation Protection and Measurement
7910 Woodmont Ave., Suite 800
Bethesda, MD 20814-3095
www.ncrp.com
(301) 657-2652

NEBB National Environmental Balancing Bureau
8575 Grovemont Circle
Gaithersburg, MD 20877
www.nebb.org
(301) 977-3698

NECA National Electrical Contractors Association
3 Bethesda Metro Center, Suite 1100
Bethesda, MD 20814
www.necanet.org
(301) 657-3110

NELMA Northeastern Lumber Manufacturers Association
272 Tuttle Rd.
P.O. Box 87A
Cumberland Center, ME 04021
www.nelma.org
(207) 829-6901

NEMA National Electrical Manufacturers Association
1300 N 17th St., Suite 1847
Rosslyn, VA 22209
www.nema.org
(703) 841-3200

NETA International Electrical Testing Association
P.O. Box 687
106 Stone St.
Morrison, CO 80465
www.netaworld.org
(303) 697-8441

NFoPA National Forest Products Association

NFPA National Fire Protection Association
One Batterymarch Park
P.O. Box 9101
Quincy, MA 02269-9101
www.nfpa.org
(800) 344-3555
(617) 770-3000

NFRC National Fenestration Rating Council
1300 Spring St., Suite 500
Silver Spring, MD 20910
www.nfrc.org
(301) 589-6372

NHLA National Hardwood Lumber Association

NIBS National Institute of Building Sciences
1090 Vermont Ave., NW, Suite 700
Washington, DC 20005-4905
www.nibs.org
(202) 289-7800
<table>
<thead>
<tr>
<th>Organization</th>
<th>Address</th>
<th>Phone Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>NIST</td>
<td>National Institute of Standards and Technology</td>
<td>(301) 975-4025</td>
</tr>
<tr>
<td></td>
<td>100 Bureau Dr., MS 2150</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Gaithersburg, MD 20899-2150</td>
<td></td>
</tr>
<tr>
<td></td>
<td><a href="http://www.nist.gov">www.nist.gov</a></td>
<td></td>
</tr>
<tr>
<td>NLA</td>
<td>National Lime Association</td>
<td>(703) 243-5463</td>
</tr>
<tr>
<td></td>
<td>200 North Glebe Rd., Suite 800</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Arlington, VA 22203</td>
<td></td>
</tr>
<tr>
<td></td>
<td><a href="http://www.lime.org">www.lime.org</a></td>
<td></td>
</tr>
<tr>
<td>NLGA</td>
<td>National Lumber Grades Authority</td>
<td>(604) 524-2393</td>
</tr>
<tr>
<td></td>
<td>#406-First Capital Pl.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>960 Quayside Dr.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>New Westminster, BC V3M 6G2, CANADA</td>
<td></td>
</tr>
<tr>
<td></td>
<td><a href="http://www.nlga.org">www.nlga.org</a></td>
<td></td>
</tr>
<tr>
<td>NOFMA</td>
<td>National Oak Flooring Manufacturers Association</td>
<td>(901) 526-5016</td>
</tr>
<tr>
<td></td>
<td>P.O. Box 3009</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Memphis, TN 38173-0009</td>
<td></td>
</tr>
<tr>
<td></td>
<td><a href="http://www.nofma.org">www.nofma.org</a></td>
<td></td>
</tr>
<tr>
<td>NPCA</td>
<td>National Paint and Coatings Association</td>
<td>(202) 462-6272</td>
</tr>
<tr>
<td></td>
<td>1500 Rhode Island Ave., NW</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Washington, DC 20005</td>
<td></td>
</tr>
<tr>
<td></td>
<td><a href="http://www.paint.org">www.paint.org</a></td>
<td></td>
</tr>
<tr>
<td>NRCA</td>
<td>National Roofing Contractors Association</td>
<td>(847) 299-9070</td>
</tr>
<tr>
<td></td>
<td>O'Hare International Center</td>
<td></td>
</tr>
<tr>
<td></td>
<td>10255 W. Higgins Rd., Suite 600</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Rosemont, IL 60018</td>
<td></td>
</tr>
<tr>
<td></td>
<td><a href="http://www.roofonline.org">www.roofonline.org</a></td>
<td></td>
</tr>
<tr>
<td>NSF</td>
<td>NSF International</td>
<td>(734) 769-8010</td>
</tr>
<tr>
<td></td>
<td>P.O. Box 130140</td>
<td>(800) 673-6275</td>
</tr>
<tr>
<td></td>
<td>Ann Arbor, MI 48113-0140</td>
<td></td>
</tr>
<tr>
<td></td>
<td><a href="http://www.nsf.org">www.nsf.org</a></td>
<td></td>
</tr>
<tr>
<td>NSPI</td>
<td>National Spa and Pool Institute</td>
<td>(703) 838-0083</td>
</tr>
<tr>
<td></td>
<td>2111 Eisenhower Ave.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Alexandria, VA 22314</td>
<td></td>
</tr>
<tr>
<td></td>
<td><a href="http://www.nspi.org">www.nspi.org</a></td>
<td></td>
</tr>
<tr>
<td>NSWMA</td>
<td>National Solid Wastes Management Association</td>
<td>(800)424-2869</td>
</tr>
<tr>
<td></td>
<td>Environmental Industry Associations</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4301 Connecticut Ave NW, Suite 300</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Washington, DC 20008</td>
<td></td>
</tr>
<tr>
<td></td>
<td><a href="http://www.envasns.org/nswma/Default.htm">www.envasns.org/nswma/Default.htm</a></td>
<td></td>
</tr>
<tr>
<td>Organization</td>
<td>Address</td>
<td>Phone Numbers</td>
</tr>
<tr>
<td>---------------------------</td>
<td>-------------------------------------------------</td>
<td>------------------------------------</td>
</tr>
<tr>
<td>NTMA</td>
<td>National Terrazzo and Mosaic Association</td>
<td>(800) 323-9736 (703) 779-1022</td>
</tr>
<tr>
<td></td>
<td>110 E. Market St., Suite 200-A</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Leesburg, VA 20176</td>
<td></td>
</tr>
<tr>
<td></td>
<td><a href="http://www.ntma.com">www.ntma.com</a></td>
<td></td>
</tr>
<tr>
<td>NUCA</td>
<td>National Utility Contractors Association</td>
<td>(703) 358-9300</td>
</tr>
<tr>
<td></td>
<td>4301 North Fairfax Dr., Suite 360</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Arlington, VA 22203-1627</td>
<td></td>
</tr>
<tr>
<td></td>
<td><a href="http://www.nuca.com">www.nuca.com</a></td>
<td></td>
</tr>
<tr>
<td>NWWDA</td>
<td>National Wood Window &amp; Door Manufacturers</td>
<td>(800) 223-2301</td>
</tr>
<tr>
<td></td>
<td>Association</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1400 East Touhy Avenue</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Suite 470</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Des Plaines, IL 60018</td>
<td></td>
</tr>
<tr>
<td></td>
<td><a href="http://www.nwwda.org">www.nwwda.org</a></td>
<td></td>
</tr>
<tr>
<td>OSHA</td>
<td>Occupational Safety and Health Association</td>
<td>(202) 693-1999</td>
</tr>
<tr>
<td></td>
<td>U.S. Department of Labor</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Office of Public Affairs - Room N3647</td>
<td></td>
</tr>
<tr>
<td></td>
<td>200 Constitution Avenue</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Washington, D.C. 20210</td>
<td></td>
</tr>
<tr>
<td></td>
<td><a href="http://www.osha-slc.gov">www.osha-slc.gov</a></td>
<td></td>
</tr>
<tr>
<td>PCA</td>
<td>Portland Cement Association</td>
<td>(847) 966-6200</td>
</tr>
<tr>
<td></td>
<td>5420 Old Orchard Rd.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Skokie, IL 60077</td>
<td></td>
</tr>
<tr>
<td></td>
<td><a href="http://www.portcement.org">www.portcement.org</a></td>
<td></td>
</tr>
<tr>
<td>PCI</td>
<td>Precast/Prestressed Concrete Institute</td>
<td>(312) 786-0300</td>
</tr>
<tr>
<td></td>
<td>209 W. Jackson Blvd.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Chicago, IL 60606-6938</td>
<td></td>
</tr>
<tr>
<td></td>
<td><a href="http://www.pci.org">www.pci.org</a></td>
<td></td>
</tr>
<tr>
<td>PDCA</td>
<td>Painting and Decorating Contractors of America</td>
<td>(703) 359-0826</td>
</tr>
<tr>
<td></td>
<td>3913 Old Lee Hwy, Suite 33-B</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fairfax, VA 22030</td>
<td></td>
</tr>
<tr>
<td></td>
<td><a href="http://www.pdca.com">www.pdca.com</a></td>
<td></td>
</tr>
<tr>
<td>PDI</td>
<td>Plumbing and Drainage Institute</td>
<td>(800) 589-8956</td>
</tr>
<tr>
<td></td>
<td>45 Bristol Dr.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>South Easton, MA 02375</td>
<td></td>
</tr>
<tr>
<td></td>
<td><a href="http://PDIonline.org">http://PDIonline.org</a></td>
<td></td>
</tr>
<tr>
<td>PS</td>
<td>Product Standard</td>
<td></td>
</tr>
<tr>
<td>PTI</td>
<td>Post Tensioning Institute</td>
<td>(602) 870-7540</td>
</tr>
<tr>
<td></td>
<td>1717 W. Northern Ave., Suite 114</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Phoenix, AZ 85021</td>
<td></td>
</tr>
<tr>
<td></td>
<td><a href="http://www.post-tensioning.org">www.post-tensioning.org</a></td>
<td></td>
</tr>
</tbody>
</table>
RCSC  Research Council on Structural Connections
www.boltcouncil.org

RILEM  RILEM Secretariat General
E N S - Bâtiment Cournot, 61 avenue du Président Wilson
F-94235 Cachan Cedex, France
www.rilem.org

RIS  The Redwood Inspection Service
630 J Street
Eureka, CA 95501
(707) 444-3024

RCSHSB  Southern Cypress Manufacturers Association
400 Penn Center Blvd., #530
Pittsburgh, PA 15235
www.cypressinfo.org
(877) 607-7262

RMA  Rubber Manufacturers Association
1400 K Street, NW
Suite 900
Washington, DC 20005
www.rma.org
(202) 682-4846

SCMA  Southern Cypress Manufacturers Association
400 Penn Center Blvd., #530
Pittsburgh, PA 15235
www.cypressinfo.org
(877) 607-7262

SDI  Steel Deck Institute
P.O. Box 25
Fox River Grove, IL 60021
www.sdi.org
(847) 462-1930

SDI  Steel Door Institute
30200 Detroit Rd.
Cleveland, OH 44145-1967
www.steeldoor.org
(440) 899-0010

SGCC  Safety Glazing Certification Council
PO Box 9
Henderson Harbor, NY 13651
www.sgcc.org
(315) 646-2234

SIGMA  Sealed Insulating Glass Manufacturers Association
401 N. Michigan Ave.
Chicago, IL 60611
www.sigmaonline.org/sigma
(312) 644-6610
<table>
<thead>
<tr>
<th>Acronym</th>
<th>Name</th>
<th>Address</th>
<th>Phone</th>
</tr>
</thead>
<tbody>
<tr>
<td>SJI</td>
<td>Steel Joist Institute</td>
<td>3127 10th Ave., North Ext. Myrtle Beach, SC 29577-6760</td>
<td>(843) 626-1995</td>
</tr>
<tr>
<td>SMACNA</td>
<td>Sheet Metal and Air Conditioning Contractors' National Association</td>
<td>4201 Lafayette Center Dr. Chantilly, VA 20151-1209</td>
<td>(703) 803-2980</td>
</tr>
<tr>
<td>SPIB</td>
<td>Southern Pine Inspection Bureau</td>
<td>4709 Scenic Hwy Pensacola, FL 32504-9094</td>
<td>(850) 434-2611</td>
</tr>
<tr>
<td>SPRI</td>
<td>Single Ply Roofing Institute</td>
<td>200 Reservoir St., 309 A Needham, MA 02494</td>
<td>(781) 444-0242</td>
</tr>
<tr>
<td>SSPC</td>
<td>SSPC: The Society for Protective Coatings</td>
<td>40 24th St., 6th Floor Pittsburgh, PA 15222-4656</td>
<td>(800) 837-8303 (412) 281-2331</td>
</tr>
<tr>
<td>STI</td>
<td>Steel Tank Institute</td>
<td>570 Oakwood Rd. Lake Zurich, IL 60047</td>
<td>(847) 438-8265</td>
</tr>
<tr>
<td>SWI</td>
<td>Steel Window Institute</td>
<td>1300 Sumner Ave. Cleveland, OH 44115-2851</td>
<td>(216) 241-7333</td>
</tr>
<tr>
<td>SWRI</td>
<td>Sealant, Waterproofing and Restoration Institute</td>
<td>2841 Main St. Kansas City, MO 64108</td>
<td>(816) 472-7974</td>
</tr>
<tr>
<td>TCA</td>
<td>Tile Council of America, Inc.</td>
<td>100 Clemson Research Blvd. Anderson, S.C. 29625</td>
<td>(864) 646-8453</td>
</tr>
<tr>
<td>TIA/EIA</td>
<td>Telecommunications Industry Association/Electronic Industries Alliance</td>
<td>2500 Wilson Blvd., Suite 300 Arlington, VA 22201</td>
<td>(703) 907-7700</td>
</tr>
<tr>
<td>Acronym</td>
<td>Organization</td>
<td>Address</td>
<td>Phone</td>
</tr>
<tr>
<td>---------</td>
<td>--------------</td>
<td>---------</td>
<td>-------</td>
</tr>
<tr>
<td>TMS</td>
<td>The Masonry Society</td>
<td>3970 Broadway, Suite 201-D, Boulder, CO 80304-1135</td>
<td>(303) 939-9700</td>
</tr>
<tr>
<td>TPI</td>
<td>Truss Plate Institute</td>
<td>583 D‘Onofrio Dr., Suite 200, Madison, WI 53719</td>
<td>(608) 833-5900</td>
</tr>
<tr>
<td>TPI</td>
<td>Turfgrass Producers International</td>
<td>1855-A Hicks Rd., Rolling Meadows, IL 60008</td>
<td>(800) 405-8873</td>
</tr>
<tr>
<td>TPI</td>
<td>Underwriters Laboratories Inc.</td>
<td>333 Pfingsten Rd., Northbrook, IL 60062-2096</td>
<td>(847) 272-8800</td>
</tr>
<tr>
<td>WCLIB</td>
<td>West Coast Lumber Inspection Bureau</td>
<td>P.O. Box 23145, Portland, OR 97281</td>
<td>(503) 639-0651</td>
</tr>
<tr>
<td>WDMA</td>
<td>Window and Door Manufacturers Association</td>
<td>1400 E. Touhy Ave., Suite 470, Des Plaines, IL 60018</td>
<td>(800) 223-2301</td>
</tr>
<tr>
<td>WH</td>
<td>Intertek Testing Services</td>
<td>3210 American Drive, Mississauga, Ontario, Canada L4V 1B3</td>
<td>(905) 678-7820</td>
</tr>
<tr>
<td>WIC</td>
<td>Woodwork Institute of California</td>
<td>3164 Industrial Blvd., West Sacramento, CA 95691</td>
<td>(916) 372-9943</td>
</tr>
<tr>
<td>WRI</td>
<td>Wire Reinforcement Institute</td>
<td>W.R.I. Technical Director, 301 E. Sandusky Street, Findlay, Ohio 45840-0450</td>
<td>(419) 425-9473</td>
</tr>
</tbody>
</table>
PART 2 – PRODUCTS

Not Used

PART 3 – EXECUTION

Not Used

END OF SECTION 01 42 19
SECTION 01 45 29
TESTING LABORATORY SERVICES

PART 1 – GENERAL

1.01  GENERAL

A.  Owner shall employ and pay for the services of an Independent Testing Laboratory to perform specified services and testing.

B.  Employment of laboratory shall in no way relieve Contractor’s obligations to perform the Work of the Contract.

1.02  RELATED REQUIREMENTS

A.  Inspections and testing required by laws, ordinances, rules, regulations, orders or approvals of public authorities.

B.  Inspections and testing required by Contract Documents: Respective sections of Specifications.

C.  Certification of products: Respective sections of Specifications.

1.03  QUALIFICATIONS OF LABORATORY:

A.  Meet “Recommended Requirements for Independent Laboratory Qualification”, published by American Council of Independent Laboratories.

B.  Meet basic requirements of ASTM E 329, “Practice for Use in the Evaluation of Inspection and Testing Agencies as Used in Construction” and ASTM E543, “Practice for Determining the Qualification of Nondestructive Testing Agencies.”

C.  Authorized to operate in the State of Texas.

D.  Acceptable to Architect/Engineer and approved in writing by Owner.

E.  Under the direction of a Registered Engineer licensed in the State of Texas and having a minimum of five (5) years engineering experience in inspection and testing of construction materials.

F.  Testing equipment calibrated at twelve (12) month intervals by devices of accuracy traceable to either National Bureau of Standards or accepted values of natural physical constants. Submit copies of certificates of calibration.

G.  Voluntarily participate in American Association of Laboratory (A2LA) accreditation program.
   1.  Laboratory shall possess a current Scope of Accreditation Certificate in type of tests required for the project.
   2.  Testing and inspection services performed at laboratory facility which has received A2LA accreditation, unless Owner specifically approves an alternate
A2LA accredited laboratory or an acceptable project QA/QC program which provides for an adequate "extension" of accredited laboratory. Such an "extended" laboratory which will operate more than a year must be separately assessed and accredited. A temporary field or project laboratory operating less than a year shall be under the full time supervision of management from an accredited laboratory. Test reports produced by the temporary field or project laboratory shall be signed by one of the accredited laboratory's signatories.

H. Inspectors and technicians with demonstrated competence in performing relevant tests and inspections and under direct supervision of persons meeting following requirements:
   1. NICET Level II Certification in concrete, soils; or ACI Level II Certification in concrete.
   2. AWS Certified Welding Inspector in structural steel field.
   3. ASNT Level II Certification in Radiographic or Ultrasonic Nondestructive Testing of shop and field welding.

1.04 AUTHORITY AND DUTIES OF LABORATORY

A. Cooperate with Owner, Architect and Contractor; provide qualified personnel after due notice.

B. Perform specified inspections, sampling and testing of materials and methods of construction.

C. Promptly notify Owner, Architect and Contractor of observed irregularities or deficiencies of Work or products.

D. Laboratory is not authorized to:
   1. Release, revoke, alter or enlarge on requirements of Contract Documents.
   2. Approve or accept any portion of the Work.
   3. Perform any duties of the Contractor.

E. Promptly submit written report of each test and inspection; 1 copy each to Architect, 1 copy to Structural Engineer and Owner and one copy to Contractor. Each report shall include:
   1. Date issued.
   2. Project title and number.
   3. Testing laboratory name, address and telephone number.
   4. Name and signature of laboratory inspector/technician and responsible reviewer.
   5. Date and time of sampling or inspection.
   6. Record of temperature and weather conditions.
   7. Date of test.
   8. Identification of product and Specification Section.
   9. Location of sample or test in the Project.
   10. Type of inspection or test.
   11. Results of tests and compliance with Contract Documents.
   12. Interpretation of test results that indicate unsatisfactory conditions.

F. Submit certificates of testing, inspection or approval that are required by laws, ordinances, rules, regulations, orders or approval of public authorities. Submit same number of copies as required for tests and inspections.
G. Combining tests from various buildings or differing areas into a single report shall be prohibited. Each test report shall be limited to a single building or area.

1.05 CONTRACTOR'S RESPONSIBILITIES

A. Cooperate with laboratory personnel and provide access to Work or to manufacturer's operations.

B. Deliver to laboratory adequate quantities of representative samples of materials proposed for use and which require testing.

C. Notify laboratory and Owner sufficiently in advance of operations (minimum of 48 hours) to allow for laboratory assignment of personnel and scheduling of tests.

D. Furnish incidental labor and facilities:
   1. To provide access to Work to be tested.
   2. To obtain and handle samples at Project site or at source of product to be tested.
   3. For storage and curing of test samples.

E. For Owner's Quality Assurance inspection and testing, furnish same incidental labor and facilities specified in this Article for Contractor's Quality Control Testing.

F. Make arrangements with laboratory and pay for additional samples and tests required for Contractor's convenience, including additional compressive strength tests required to confirm strength requirements for early form recovery.

G. Make arrangements with laboratory and pay for services to perform additional inspections, sampling and testing required when initial tests indicate Work does not comply with Contract Documents.

H. Coordinate and integrate inspection and testing services with Contractor's Quality Control Plan/Program, including:
   1. Compile and submit a complete list of inspections and tests required by the Contract Documents. List shall include test name, frequency, specification reference, and estimate of quantities.
   2. Record results of inspections and test conducted at site on appropriate Quality Control Reports.
   3. Record results of off-site inspections and tests on appropriate Quality Control Reports.

1.06 OWNER'S QUALITY ASSURANCE INSPECTION AND TESTING

A. The Owner may, from time to time, perform additional Quality Assurance inspections and testing in accordance with the General Conditions.
   1. The Owner will employ and pay for services of an independent testing laboratory to perform any additional Quality Assurance inspections and testing.

B. Quality Assurance inspections and testing conducted by the Owner's Quality Assurance Laboratory shall not relieve the Contractor from performing inspections and tests required by the Contract Documents or regulatory agencies.

C. The Owner reserves the right to utilize the Contractor's on-site Quality Control Laboratory Facilities, if any, for incidental handling, curing or storage of Quality
Assurance samples.

PART 2 – PRODUCTS

Not Applicable.

PART 3 – EXECUTION

Not Applicable.

END OF SECTION 01 45 29
PART 1 – GENERAL

1.01 RELATED DOCUMENTS

A. Drawings, General Conditions of the Contract for Construction, Supplementary Conditions and Division 1 - General Requirements apply to Work of this section.

1.02 SECTION INCLUDES

A. Temporary Utilities: Electricity, water, and sanitary facilities.
B. Temporary Controls: Barriers, enclosures and fencing, protection of the Work, and water control.
C. Construction Facilities: Parking, progress cleaning, project signage, and temporary buildings.

1.03 RELATED SECTIONS

A. Section 01 77 00 – Closeout Procedures: Final cleaning.

1.04 TEMPORARY ELECTRICITY

A. Temporary electrical service will be provided by Owner via outlets available within facility.
B. Owner shall pay cost of reasonable amount of energy used. Exercise measures to conserve energy.
C. Power Service Characteristics Available: Verify at site.
D. Permanent convenience receptacles may be utilized during construction.

1.05 TEMPORARY WATER SERVICE

A. Connect to existing water source as directed by the Owner for construction operations.
B. Owner shall pay cost of reasonable amount of water used. Exercise measures to conserve water.

1.06 TEMPORARY SANITARY FACILITIES

A. County will provide and maintain required portable facilities and enclosures. Privy pits shall not be used. Permanent building facilities shall not be used during construction operations.
1.07 BARRIERS
A. Provide barriers to prevent unauthorized entry to construction areas, and to protect adjacent properties from damage from construction operations.
B. Provide protection for plant life designated to remain. Replace damaged plant life.
C. Protect non-owned vehicular traffic, stored materials, site and structures from damage.
D. Provide barricades required by governing authorities for public rights-of-way.

1.08 WATER CONTROL
A. Grade site to drain. Maintain excavations free of water. Provide, operate, and maintain pumping equipment.
B. Protect site from puddling or running water. Provide water barriers as required to protect site from soil erosion.

1.09 PROTECTION OF INSTALLED WORK
A. Protect installed Work and provide special protection where specified in individual specification sections.
B. Provide temporary and removable protection for installed Products. Control activity in immediate Work area to minimize damage.
C. Provide protective coverings at railings and other finished products.
D. Prohibit traffic or storage upon waterproofed or roofed surfaces. If traffic or activity is necessary, obtain recommendations for protection from waterproofing or roofing material manufacturer. Stage area shall not be used for storage.
F. Prohibit traffic from landscaped areas.

1.10 SECURITY
A. Provide security and facilities to protect Work, and existing facilities, and Owner’s operations from unauthorized entry, vandalism, or theft.

1.11 PROGRESS CLEANING
A. Maintain areas free of waste materials, debris, and rubbish. Maintain site in a clean and orderly condition.
B. Remove waste materials, debris, and rubbish from site and dispose off-site at intervals as required to maintain clean site. Maximum interval for exterior clean-up shall be daily.

PART 2 – PRODUCTS
Not Used.
PART 3 – EXECUTION

Not Used.

END OF SECTION 01 50 00
SECTION 01 60 00
PRODUCT REQUIREMENTS

PART 1 – GENERAL

1.01 SUMMARY
A. Drawings, General Conditions of the Contract for Construction, Supplementary Conditions and Division 1 - General Requirements apply to Work of this section.

1.02 SECTION INCLUDES
A. Products.
B. Product Delivery, Storage and Handling.
C. Product options.
D. Substitutions.

1.03 RELATED SECTIONS
A. Section 01 4529 – Testing Laboratory Services.

1.04 PRODUCTS
A. Products: Means new material, components, equipment, fixtures, and systems forming the Work and does not include machinery and equipment used for preparation, fabrication, conveying and erection of the Work. Products may also include existing materials or components required for reuse.
B. Do not use materials and equipment removed from existing premises, except as specifically permitted by the contract documents.
C. Provide interchangeable components of the same manufacturer, for similar components.
D. Materials required to match existing Work and not otherwise specified, shall be equal to the existing Work in quality, color and finish. Workmanship and installation shall be comparable to adjacent existing Work. The Architect shall be the sole authority in determination of acceptable Work.

1.05 PRODUCT DELIVERY, STORAGE AND HANDLING
A. Delivery
   1. Deliver materials, products and equipment to the project site in manufacturer's original, unopened containers or packaging, with identifying labels intact and legible.
   2. Promptly inspect shipments to assure that products comply with requirements, quantities are correct, and products are undamaged.
   3. Provide equipment and personnel to handle products by methods to prevent
soiling, disfigurement, or damage.
4. Arrange deliveries in accord with the construction schedule and in ample time to facilitate inspection prior to installation to avoid unnecessary delays in the construction process.

B. Storage
1. Store and protect products in accordance with manufacturer’s instructions, with seals and labels intact and legible.
2. Store sensitive products in weather-tight, climate controlled enclosures.
3. For exterior storage of fabricated products, place on sloped supports, above ground.
4. Cover products subject to deterioration with impervious sheet covering. Provide ventilation to avoid condensation or potential degradation of products.
6. Provide equipment and personnel to store products by methods to prevent soiling, disfigurement, or damage.
7. Arrange storage of products to permit access for inspection. Periodically inspect to verify products are undamaged and are maintained in acceptable condition.
8. Materials, products and equipment may be stored off site in a bonded and insured warehouse approved by the Architect and Owner. Pay all costs incurred for off-site storage facilities. Products properly stored in off-site storage facilities may be included in progress pay requests with written approval of the Architect.

C Handling
1. Handle materials, products and equipment in a manner prescribed by manufacturer or specified to protect from damage during storage and installation.

1.06 PRODUCT OPTIONS
A. Products Specified by Reference Standards or by Description Only: Any product meeting those standards or description.

B. Products Specified by Naming One or More Manufacturers: Products of manufacturers named and meeting specifications, no options or substitutions allowed.

C. Products Specified by Naming One or More Manufacturers with a Provision for Substitutions: Submit a request for substitution for any manufacturer not named in accordance with the following article.

1.07 SUBSTITUTIONS
A. Instructions to proposers specify time restrictions for submitting requests for substitutions during the bidding period to requirements specified in this section.

B. Substitutions may be considered when a product becomes unavailable through no fault of the Contractor.

C. Document each request with complete data substantiating compliance of proposed substitution with contract documents.
D. A request constitutes a representation that the bidder:
   1. Has investigated proposed product and determined that it meets or exceeds the quality level of the specified product.
   2. Will provide the same warranty for the substitution as for the 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 for review or redesign services associated with re-approval by authorities.

E. Substitutions will not be considered when they are indicated or implied on shop drawing or product data submittals, without separate written request, or when acceptance will require revision to the contract documents.

F. Substitution Submittal Procedure:
   1. Submit four copies of request for substitution for consideration. Limit each request to one proposed substitution.
   2. Submit shop drawings, product data, and certified test results attesting to the proposed product equivalence. Burden of proof is on proposer.
   3. The Architect will notify Contractor, in writing, of decision to accept or reject request.

PART 2 – PRODUCTS

Not Used

PART 3 – EXECUTION

Not Used

END OF SECTION 01 60 00
PART 1 – GENERAL

1.01 SUMMARY

A. The performance of product, material, or system is result of manufacturing, fabrication, installation procedures, use, and maintenance:
   1. Therefore, Architect endeavors to specify quality levels for products, materials, or systems that are advertised to conceptually meet performance goals and desired attributes for the project.
      a. For most conceptually equal systems and materials, Architect may specify multiple manufactures.
      b. In some cases, based on quality and attribute goals for project, the number of manufacturers may be limited.

1.02 DEFINITIONS

A. Following definitions are applicable to acceptable manufacturers and products listed in technical specification sections:
   1. "Base" manufacturer:
      a. Manufacturer listed as "Base" in Part 2 of specification section.
      b. Manufacturer listed as "Base" is particular manufacturer of a specific product used as basis of design.
   2. "Optional" manufacturer:
      a. Manufacturer listed as "Optional" in Part 2 of specification section.
      b. More than one manufacturer may be listed as "Optional."
      c. Manufacturers listed as "Optional" are particular manufacturers of products similar to specific product used as basis of design.
      d. Listing manufacturer as "Optional" indicates acceptance of that manufacturer as supplier of a product, but only to the extent product complies with specified requirements, including salient qualities provided by "Base" manufacturer's product.
         1) Salient qualities include, but are not necessarily limited to following:
            a) Purpose and function.
            b) Material and finish.
            c) Strength, durability and other applicable physical properties.
            d) Compatibility and performance attributes for indicated application.
            e) Capacity and operating characteristics, where applicable.
            f) Size and configuration to extent required for fit with adjoining and adjacent conditions and within spatial limitations.
            g) Appearance, including exposed dimensions, profile, texture, pattern and color, where visible to personnel in finished space, or from exterior.
      e. Contractor is responsible for costs to provide dimensional, operational,
structural, utility or any other related adjustments to fit an "Optional" manufacturer's product into the Work.

f. See Section 01 3300, “Optional Product/System Comparison Form”.

3. "Base Product:"
   a. Term indicates specific product or system used as basis for design.
   b. Manufactures listed as "Optional Manufactures" may submit their equivalent products, but only if product complies with specified requirements, including salient qualities of "Base Product."
      1) Products proposed by "Optional" manufactures must also comply with descriptive requirements listed in technical specification.
      2) Optional Products that obviously differ in appearance and quality of "Base Product" will be rejected.
   c. Refer to preceding paragraph for additional requirements.

END OF SECTION 01 6100
SECTION 01 71 23
FIELD ENGINEERING

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this section.

1.02 SUMMARY

A. This Section specifies administrative and procedural requirements for field engineering services including, but not necessarily limited to, the following:
   1. Land survey Work required for layout of site. Site shall include work by General Contractor and that of the Owner for the work areas including site improvements, parking areas, and site utilities.

B. All costs shall be included in the contract sum.

1.03 SUBMITTALS

A. Certificates: Submit a certificate signed by the Land Surveyor or Professional Engineer certifying that the location and elevation of improvements comply with the Contract Documents.

B. Project Record Documents: Submit a record of Work performed and record survey data as required under provisions of Sections “Submittals” and “Contract Closeout”.

1.04 QUALITY ASSURANCE

A. Surveyor: Engage a Registered Land Surveyor to perform land surveying services required.

Part 2 – PRODUCTS

Not Applicable.

Part 3 – EXECUTION

3.01 EXAMINATION

A. The Owner will identify existing control points and property and property line corner stakes.

B. Verify layout information shown on the Drawings, in relation to the property survey and existing benchmarks before proceeding to lay out the Work. Locate and protect existing benchmarks and control points. Preserve permanent reference points during construction.
   1. Do not change or relocate benchmarks or control points without prior written
approval. Promptly report lost or destroyed reference points, or requirements to relocate reference points because of necessary changes in grades or locations.

2. Promptly replace lost or destroyed project control points. Base replacements on the original survey control points.

C. Establish and maintain a minimum of two permanent benchmarks on the site, referenced to data established by survey control points.
   1. Record benchmark locations, with horizontal and vertical data, on Project Record Documents.

D. Existing utilities and equipment: The existence and location of underground and other utilities and construction indicated as existing are not guaranteed. Before beginning site work, investigate and verify the existence and location of underground utilities and other construction.
   1. Prior to construction, verify the location and invert elevation at points of connection of sanitary sewer, storm sewer and water service piping.

3.02 PERFORMANCE

A. Working from lines and levels established by the property survey, establish benchmarks and markers to set lines and levels at each story of construction and elsewhere as needed to properly locate each element of the Project. Calculate and measure required dimensions within indicated or recognized tolerances. Do not scale Drawings to determine dimensions.
   1. Advise entities engaged in construction activities of marked lines and levels provided for their use.
   2. As construction proceeds, check every major element for line, level and plumb.

B. Site Improvements. Locate and lay out site improvements, including pavements, stakes for grading, fill and topsoil placement, utility slopes and invert elevations by instrumentation and similar appropriate means.

C. Existing Utilities: Furnish information necessary to adjust, move or relocate existing structures, utility poles, lines, services or other appurtenances located in, or affected by construction. Coordinate with local authorities having jurisdiction.

END OF SECTION 01 71 23
SECTION 01 75 16

STARTUP PROCEDURES

PART 1 – GENERAL

1.01 RELATED DOCUMENTS

A. Drawings, General Conditions of the Contract for Construction, Supplementary Conditions and Division 1 – General Requirements apply to Work of this Section.

1.02 SECTION INCLUDES

A. Starting systems.
B. Demonstration and instructions.
C. Testing, adjusting, and balancing.

1.03 RELATED SECTIONS

A. Section 01 45 29 – Testing Laboratory Services: Manufacturers field reports.
B. Section 01 77 00 – Project Closeout: System operation and maintenance data and extra materials.

1.04 STARTING SYSTEMS

A. Coordinate schedule for start-up various equipment and systems.
B. Notify Architect seven days prior to start-up of each item.
C. Verify that each piece of equipment or system has been checked for proper lubrication, drive rotation, belt tension, control sequence, or other conditions which may cause damage.
D. Verify that tests, meter readings, and specified electrical characteristics agree with those required by the equipment or system manufacturer.
E. Verify wiring and support components for equipment are complete and tested.
F. Execute start-up under supervision of responsible manufacturer’s representative and contractor’s personnel in accordance with manufacturer’s instructions.
G. When specified in individual specification Sections, require manufacturer to provide authorized representative to be present at site to inspect, check and approve equipment or system installation prior to start-up, and to supervise placing equipment or system in operation.
H. Submit a written report in that equipment or system has been properly installed and is functioning correctly.
1.05 DEMONSTRATION AND INSTRUCTIONS

A. Demonstrate operation and maintenance of products to Owner’s personnel two weeks prior to date of final inspection.

B. For equipment or systems requiring seasonal operation, perform demonstration for other season.

C. Utilize operation and maintenance manuals as basis for instruction. Review contents of manual with Owners’ personnel in detail to explain all aspects of operation and maintenance.

D. Demonstrate start-up operation, control, adjustment, trouble-shooting, servicing, maintenance, and shutdown of each item of equipment at agreed-upon times, at equipment location.

E. Prepare and insert additional data in operations and maintenance manuals when need for additional data becomes apparent during instruction.

PART 2 – PRODUCTS

Not Used

PART 3 – EXECUTION

Not Used

END OF SECTION 01 75 16
SECTION 01 77 00
CLOSEOUT PROCEDURES

PART 1 – GENERAL

1.01 RELATED DOCUMENTS
A. Drawings and general provisions of Contract, including General and Supplementary Conditions and other Division-1 Specification Sections, apply to this section.

1.02 SECTION INCLUDES
A. Administrative and procedural requirements for project closeout, including but not limited to:
   1. Inspection procedures.
   2. Project record document submittal.
   3. Operating and maintenance manual submittal.
   4. Submittal of warranties.
   5. Final cleaning.

1.03 RELATED SECTIONS
A. Closeout requirements for specific construction activities are included in the appropriate sections in Divisions 1 through 2.

1.04 SUBSTANTIAL COMPLETION
A. Preliminary Procedures: Before requesting inspection for certification of substantial completion, complete the following. List exceptions in the request.
   1. In the application for payment that coincides with, or first follows, the date substantial completion is claimed, show 100 percent completion for the portion of the Work claimed as substantially complete. Include supporting documentation for completion as indicated in these contract documents and a statement showing an accounting of changes to the contract sum.
      a. If 100 percent completion cannot be shown, include a list of incomplete items, the value of incomplete construction, and reasons the Work is not complete.
   2. Advise Owner of pending insurance change-over requirements.
   3. Submit specific warranties, workmanship bonds, maintenance agreements, final certifications and similar documents.
   4. Obtain and submit releases enabling the Owner unrestricted use of the Work and access to services and utilities.

B. Final Site Visit for Substantial Completion Procedures: On receipt of a request for site visit, the Architect will either proceed with site visit, “Punch List”, or advise the Contractor of unfilled requirements. The Architect will prepare the certificate of substantial completion following site visit, or advise the Contractor of construction that must be completed or corrected before the certificate will be issued.
   1. The Architect will repeat site visit when requested and assured by the Contractor that the Work has been completed.
1.05 **FINAL ACCEPTANCE**

A. Preliminary Procedures: Before requesting final site visit for certification of final acceptance and final payment, complete the following.
   1. Submit the final payment request with releases and supporting documentation not previously submitted and accepted. Include certificates of insurance for products and completed operations where required.
   2. Submit an updated final statement, accounting for final additional changes to the contract sum.
   3. Submit a certified copy of the Architect's final site visit list, "Punch List", of items to be completed or corrected, stating that each item has been completed or otherwise resolved for acceptance, and the list has been endorsed and dated by the Architect.
   4. Submit consent of surety to final payment.
   5. Submit a final liquidated damages settlement statement.
   6. Submit certified and executed final "Release or Waiver of Liens" for the Contractor, all subcontractors, material suppliers and all other entities which have supplied Work, materials or products to the job.

B. Re-inspection Procedure: The Architect will revisit the Work upon receipt of notice that all the Work, including Punch List items from earlier site visits, has been completed, except items whose completion has been delayed because of circumstances acceptable to the Architect.
   1. Upon completion of first re-inspection, the Architect will prepare a certificate of final acceptance, or advise the Contractor of Work that is incomplete or of obligations that have not been fulfilled but are required for final acceptance.

**PART 2 – PRODUCTS**

Not Used.

**PART 3 – EXECUTION**

3.01 **FINAL CLEANING**

A. General: General cleaning during construction is required by the general conditions and included in Section 01 50 00 "Temporary Facilities and Controls".

B. Removal of Protection: Remove temporary protection and facilities installed for protection of the Work during construction.

C. Compliance: Comply with regulations of authorities having jurisdiction and safety standards for cleaning. Do not burn waste materials. Do not bury debris or excess materials on the Owner's property. Do not discharge volatile, harmful or dangerous materials into drainage systems. Remove waste materials from the site and dispose of in a lawful manner.
   1. Where extra materials of value remaining after completion of associated Work have become the Owner's property, arrange for disposition of these materials as directed.

**END OF SECTION 01 77 00**
SECTION 03 30 00
CAST-IN PLACE CONCRETE

PART 1 – GENERAL

1.01 SUMMARY
A. This Section specifies cast-in-place concrete, reinforcement, concrete materials, miscellaneous materials, mixture design, placement procedures, and finishes.

1.02 SUBMITTALS
A. Product Data: For each type of product indicated.
B. Design Mixtures: For each concrete mixture.
C. Submit shop drawings for steel reinforcement. Show size, configuration, pertinent dimensions, number, exact position, and spacing of reinforcement and the exact location of all openings, framing, or special conditions affecting the work. All shop drawings shall be original drawings produced by the subcontractor or supplier and shall not be reproductions of the Contract Documents.

1.03 QUALITY ASSURANCE
A. Manufacturer Qualifications: A firm experienced in manufacturing ready-mixed concrete products and that complies with ASTM C 94/C 94M requirements for production facilities and equipment.
B. Comply with ACI 301, "Specification for Structural Concrete."
C. Comply with ACI 117, "Specifications for Tolerances for Concrete Construction and Materials."
D. Testing Agency: Approved testing laboratory selected and paid by the Owner.
E. Reference Standards:
   1. Reinforcement detailing, fabrication, and placement: Follow recommendations of ACI 301, 315 and 318 unless otherwise noted herein or on the Structural Drawings.
   2. Bar Bending Details and Placing Drawings: In accordance with the "Manual of Standard Practice for Detailing Reinforced Concrete Structures" (ACI 315, latest edition) and 2015 International Building Code, most stringent requirements.

1.04 DELIVERY, STORAGE AND HANDLING
A. Hauling Time: Discharge concrete transmitted in a truck mixer, agitator or other transportation device within 1-1/2 hours after the mixing water has been added to the cement and aggregate. When air temperature is above 90 deg F, reduce mixing and delivery time to 60 minutes.
B. Additional Water: Deliver concrete to the job in exact quantities required by the design mix. Should additional water be required before placing the concrete, Contractor shall have sole authority to authorize the addition of water. Any added water shall not exceed the maximum water / cement ratio or maximum slump of the approved mix design and, under no circumstance shall more than one half gallon per yard be added. Any additional water added to the mix after leaving the batch plant shall be indicated on the truck ticket and signed by the Contractor. Where extra water is added to the concrete it shall be mixed thoroughly for 40 revolutions of the drum or 3-1/2 minutes at mixing speed, whichever is greater.

PART 2 – PRODUCTS

2.01 FORMWORK

A. Exposed Concrete: New B-B Plyform (minimum), 4’ x 8’ sheets.

B. Non-exposed Concrete: Plywood, steel, or dressed lumber.

2.02 STEEL REINFORCEMENT

A. Reinforcing Bars: ASTM A 615/A 615M, Grade 60, deformed.

B. Plain-Steel Wire: ASTM A 82, as drawn.

C. Plain-Steel Welded Wire Reinforcement: ASTM A 185, fabricated from as-drawn steel wire into flat sheets.

2.03 CONCRETE MATERIALS

A. Cementitious Material: Use the following cementitious materials, of the same type, brand, and source throughout Project:
   1. Portland Cement: ASTM C 150, Type I/II. Supplement with the following:
      a. Fly Ash shall not exceed 15% replacement of total cement content using a 1:1 replacement factor.

B. Normal-Weight Aggregate: ASTM C 33, graded, nominal maximum aggregate size as specified.

C. Synthetic Fiber: fibrillated polypropylene fibers engineered and designed for use in concrete pavement, complying with ASTM C 1116, Type III, 1/2 to 1-1/2 inches long.

2.04 ADMIXTURES


B. Chemical Admixtures: Provide admixtures certified by manufacturer to be compatible with other admixtures and that will not contribute water-soluble chloride ions exceeding those permitted in hardened concrete. Do not use calcium chloride or admixtures containing calcium chloride.
   1. Water-Reducing Admixture: ASTM C 494/C 494M, Type A.
   2. Retarding Admixture: ASTM C 494/C 494M, Type B.
3. Water-Reducing and Retarding Admixture: ASTM C 494/C 494M, Type D.
4. High-Range, Water-Reducing Admixture: ASTM C 494/C 494M, Type F.
5. High-Range, Water-Reducing and Retarding Admixture: ASTM C 494/C 494M, Type G.
6. Plasticizing and Retarding Admixture: ASTM C 1017/C 1017M, Type II.

2.05 RELATED MATERIALS


2.06 CURING MATERIALS


B. Moisture-Retaining Cover: ASTM C 171, polyethylene film or white burlap-polyethylene sheet.

C. Water: Potable.

D. Curing Compound Clear (Exterior), Waterborne, Membrane-Forming Curing Compound, ASTM C 309, Type 1, Class B.

E. Curing and Sealing Compound (Interior) Clear, Waterborne, Membrane-Forming ASTM C 1315, Type 1, Class A.
   1. Sonneborn Kure 1315 or approved substitute

2.07 CONCRETE MIXTURES

A. Comply with ACI 301 requirements for concrete mixtures.

B. Prepare design mixes, proportioned according to ACI 301, as follows:

C. For Sidewalks, Curb and Gutter, Concrete Paving and Other Site Concrete.
   1. 4,000 psi
   2. Type I / II Cement
   3. 3/4" maximum aggregate size
   4. 6% plus or minus 1-1/2% entrained air
   5. 4" maximum slump
   6. Minimum 540 lbs. of cementitious material per cubic yard
   7. Use water reducing admixture per manufacturer's recommendations
   8. Use fibrous reinforcing at minimum dosage of 1.0 lbs. per cubic yard
   9. Maximum water / cement ratio of 0.45 for this mix

2.08 CONCRETE MIXING

A. Ready-Mixed Concrete: Measure, batch, mix, and deliver concrete according to ASTM C 94/C 94M and ASTM C 1116, and furnish batch ticket information.
PART 3 – EXECUTION

3.01 FORMWORK
A. Design, construct, erect, brace, and maintain formwork according to ACI 301.
B. Place dovetail anchor channel slots in formwork as indicated on drawings and indicated in these specifications.

3.02 STEEL REINFORCEMENT
A. Comply with CRSI's "Manual of Standard Practice" for fabricating, placing, and supporting reinforcement.
   1. Do not cut or puncture vapor retarder. Repair damage and reseal vapor retarder before placing concrete.

3.03 JOINTS
A. General: Construct joints true to line with faces perpendicular to surface plane of concrete. All joints shall be hand-tooled. Saw-cut joints are not allowed.
B. Contraction Joints in Slabs-on-Grade: Form weakened-plane contraction joints, sectioning concrete into areas as indicated. Construct Hand-Tooled contraction joints for a depth equal to at least one-fourth of concrete thickness.
C. Isolation Joints: Install joint-filler strips at junctions with slabs-on-grade and vertical surfaces, such as column pedestals, foundation walls, grade beams, and other locations, as indicated.
   1. Extend joint fillers full width and depth of joint, terminating below finished concrete surface for installation of specified sealant, unless otherwise indicated.

3.04 CONCRETE PLACEMENT
A. Comply with ACI 301 for measuring, batching, mixing, transporting, and placing concrete.
B. Before test sampling and placing concrete, water may be added at Project site, subject to limitations of ACI 301 and as stated in paragraph 1.04, B.
C. Consolidate concrete with mechanical vibrating equipment.

3.05 FINISHING FORMED SURFACES
A. Rough-Formed Finish: As-cast concrete texture imparted by form-facing material with tie holes and defective areas repaired and patched. Remove fins and other projections exceeding 1/2 inch.
   1. Apply to concrete surfaces not exposed to public view.
B. Smooth-Formed Finish: As-cast concrete texture imparted by form-facing material, arranged in an orderly and symmetrical manner with a minimum of seams. Repair and patch tie holes and defective areas. Remove fins and other projections exceeding 1/8 inch.
1. Apply to concrete surfaces exposed to public view, to receive a rubbed finish, or to be covered with a coating or covering material applied directly to concrete.

C. Rubbed Finish: Smooth sack rubbed cement finish, as defined in ACI 301.
   1. Apply smooth rubbed finish to smooth-formed finished as-cast concrete where 12” or greater exposure shows on foundation and retaining walls, or where otherwise indicated.

D. Related Unformed Surfaces: At tops of walls, horizontal offsets, and similar unformed surfaces adjacent to formed surfaces, strike off smooth and finish with a texture matching adjacent formed surfaces. Continue final surface treatment of formed surfaces uniformly across adjacent unformed surfaces, unless otherwise indicated.

3.06 FINISHING UNFORMED SURFACES

A. General: Comply with ACI 302.1R for screeding, restraightening, and finishing operations for concrete surfaces. Do not wet concrete surfaces during finishing operations.

B. Screed surfaces with a straightedge and strike off. Begin initial floating using bull floats or darbies to form a uniform and open-textured surface plane before excess moisture or bleedwater appears on surface.
   1. Do not further disturb surfaces before starting finishing operations.

C. Float Finish: Apply float finish to surfaces indicated and to surfaces to receive trowel finish.

D. Trowel Finish: Apply a hard trowel finish to surfaces indicated and to floor and slab surfaces exposed to view or to be covered with carpet, ceramic tile set over a cleavage membrane, paint, or another thin film-finish coating system.

E. Trowel and Fine-Broom Finish: Apply a partial trowel finish, stopping after second troweling, to surfaces indicated and to surfaces where ceramic is to be installed by either thickset or thin-set methods. Immediately after second troweling, and when concrete is still plastic, slightly scarify surface with a fine broom.

F. Nonslip Broom Finish: Apply a nonslip broom finish to surfaces indicated and to exterior concrete walks, platforms, steps, and ramps. Immediately after float finishing, slightly roughen trafficked surface by brooming with fiber-bristle broom perpendicular to main traffic route.

G. Tolerances:
   1. Concrete floors shall meet flatness surface tolerance of 3/16” in 10’ except as otherwise noted.
   2. Where floor drains occur, slope concrete to drain as indicated on drawings.

3.07 CONCRETE PROTECTING AND CURING

A. General: Protect freshly placed concrete from premature drying and excessive cold or hot temperatures. Comply with ACI 306.1 for cold-weather protection and with ACI 305R for hot-weather protection during curing.
B. Evaporation Retarder: Apply evaporation retarder to concrete surfaces if hot, dry, or windy conditions cause excessive moisture loss before and during finishing operations. Apply according to manufacturer’s written instructions after placing, screeding, and bull floating or darbying concrete, but before float finishing.

C. Begin curing after finishing concrete but not before free water has disappeared from concrete surface.

D. Curing Methods: Cure formed and unformed concrete for at least seven days by one or a combination of the following methods (depending on final finish to concrete):

1. Moisture-Retaining-Cover Curing: Cover concrete surfaces with moisture-retaining cover for curing concrete, placed in widest practicable width, with sides and ends lapped at least 12 inches, and sealed by waterproof tape or adhesive. Cure for not less than seven days. Immediately repair any holes or tears during curing period using cover material and waterproof tape.
   a. Utilize this “wet cure” on all interior concrete floors.

2. Curing Compound: Apply uniformly in continuous operation by power spray or roller according to manufacturer’s written instructions. Recoat areas subjected to heavy rainfall within three hours after initial application. Maintain continuity of coating and repair damage during curing period.
   a. Application of curing compound to slabs is limited to exterior applications.

3. Curing and Sealing Compound: Apply uniformly to interior floor slabs (following “wet cure”) where indicated (or where no other finish is indicated) and to areas of colored exterior concrete. Apply in a continuous operation by power spray or roller according to manufacturer’s written instructions. Recoat areas subjected to heavy rainfall within three hours after initial application. Repeat process 24 hours later and apply a second coat. Maintain continuity of coating and repair damage during curing period.

3.08 FIELD QUALITY CONTROL

A. Testing Agency: Owner will engage a qualified independent testing and inspecting agency to sample materials, perform tests, and submit test reports during concrete placement according to requirements specified in this Article.

B. Tests: Perform according to ACI 301. Tests shall include, but not be limited to the following:

1. Test Priority: Control tests shall be used to determine the concrete quality throughout the project; however, special tests have precedence over control tests, and core tests shall have precedence over all previous tests. Reports of tests shall be distributed as specified under Section 01 4529.

2. Slump Tests: In addition to the Owner’s testing, the Contractor shall provide necessary equipment and make tests in conformity with ASTM C143 as frequently as required to ensure specified slump for each mix design. The tests shall be made by a person thoroughly familiar with the requirements specified. Should the slump not comply with the limits stated in Article 2.03, the batch shall be rejected. The Contractor shall keep an accurate record of the time, location in the work, and the results of slump tests, which shall be available for inspection by the Owner and the Architect.

3. Control Tests: Control tests of concrete work shall be made on every fifty (50) cubic yards or fraction thereof of concrete placed. In any case, a minimum of
once during each day's pour. Samples shall be taken only after any extra water has been added and thoroughly mixed. Each test shall consist of six standard six (6) inch test cylinders cast and cured in accordance with ASTM C31 and ASTM C172. Two (2) cylinders shall be broken at the end of seven (7) days after placing, two (2) cylinders shall be broken at the end of 28 days after placing, and the remaining two cylinders shall be stored until their disposition is determined by the Architect. In general, the two (2) remaining cylinders will be broken only when the previous test reports indicated unsatisfactory results. When the 7 or 28 day tests indicate unsatisfactory results, all concrete work may be stopped until proper corrective measures have been taken to insure quality concrete in future work and all corrections deemed necessary have been made. Tests shall be made at the time control tests are taken and so stated in the reports to determine the slump, air content, unit weight, and temperature of the concrete. All tests shall be made in accordance with ASTM C143, C173 or C231, C138, and C1064.

4. Special Tests: Should the Contractor desire control tests to facilitate the early removal of forms, they shall be made in addition to those specified for control tests and shall be completely job cured. The expense for making additional test cylinders, testing, curing, and protection shall be the Contractor's.

5. Core Tests: If, at any time, the concrete control test specimens show a compressive strength at 28 days of less than that required or if the concrete has been frozen before it has taken the final set; so severely that, in the opinion of the Architect, its strength has been adversely affected; the Contractor shall, at his own expense, have sufficient core tests taken at the number and location to be approved by the Architect, to determine the actual condition of the concrete. The securing, preparing, and testing shall be in accordance with ASTM C42. Should the tests reveal that the concrete does not meet the requirements of this Specification, the Contractor shall, at his own expense, replace the entire section involved and/or make all corrections deemed necessary by the Architect.

3.09 HOUSEKEEPING PADS

A. Provide nominal 4” high concrete housekeeping pads at the following locations:
   1. Interior mechanical units, and other miscellaneous equipment as may be required.
   2. Exterior air handling and air conditioning units, and other miscellaneous equipment as may be required.

3.10 REPAIRS

A. Remove and replace concrete that does not comply with requirements in this Section.

B. Corrective Measures to Tolerances: Upon completion of specified finish and cure, and before placement of finish flooring, take such corrective measures as may be necessary to achieve specified flatness surface tolerance and finish. Where corrective measures are required, they shall address but not be limited to slab curling, improper placement, and improper finishing.

END OF SECTION 03 3000
SECTION 06 10 53
MISCELLANEOUS ROUGH CARPENTRY

PART 1 – GENERAL

1.01 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.02 SUMMARY

A. This Section includes the following:
   1. Wood blocking, cants, and nailers.
   2. Wood furring.

1.03 DEFINITIONS

A. Lumber grading agencies, and the abbreviations used to reference them, include the following:
   1. NELMA - Northeastern Lumber Manufacturers Association.
   2. NLGA - National Lumber Grades Authority.
   3. SPIB - Southern Pine Inspection Bureau.
   4. WCLIB - West Coast Lumber Inspection Bureau.
   5. WWPA - Western Wood Products Association.

1.04 SUBMITTALS

A. Product Data: For each type of process and factory-fabricated product. Indicate component materials and dimensions and include construction and application details.
   1. Include data for wood-preservative treatment from chemical treatment manufacturer and certification by treating plant that treated materials comply with requirements. Indicate type of preservative used, net amount of preservative retained, and chemical treatment manufacturer's written instructions for handling, storing, installing, and finishing treated material.
   2. Include data for fire-retardant treatment from chemical treatment manufacturer and certification by treating plant that treated materials comply with requirements. Include physical properties of treated materials, both before and after exposure to elevated temperatures when tested according to ASTM D 5516 and ASTM D 5664.
   3. For products receiving a waterborne treatment, include statement that moisture content of treated materials was reduced to levels specified before shipment to Project site.
   4. Include copies of warranties from chemical treatment manufacturers for each type of treatment.

B. Research/Evaluation Reports: For the following, showing compliance with building code in effect for Project:
   1. Preservative-treated wood.
   2. Fire-retardant-treated wood.
5. Expansion anchors.
6. Metal framing anchors.

1.05 QUALITY ASSURANCE

A. Forest Certification: For the following wood products, provide materials produced from wood obtained from forests certified by an FSC-accredited certification body to comply with FSC 1.2, "Principles and Criteria":
   1. Dimension lumber.
   2. Miscellaneous lumber.
   3. Plywood.

1.06 DELIVERY, STORAGE, AND HANDLING

A. Stack lumber, plywood, and other panels; place spacers between each bundle to provide air circulation. Provide for air circulation around stacks and under coverings.

PART 2 – PRODUCTS

2.01 WOOD PRODUCTS, GENERAL

A. Lumber: DOC PS 20 and applicable rules of lumber grading agencies certified by the American Lumber Standards Committee Board of Review.
   1. Factory marks each piece of lumber with grade stamp of grading agency.
   2. For exposed lumber indicated to receive a stained or natural finish, mark grade stamp on end or back of each piece
   3. Where nominal sizes are indicated, provide actual sizes required by DOC PS 20 for moisture content specified. Where actual sizes are indicated, they are minimum dressed sizes for dry lumber.
   4. Provide dressed lumber, S4S, unless otherwise indicated.
   5. Provide dry lumber with nineteen percent (19%) maximum moisture content at time of dressing for 2-inch nominal (38-mm actual) thickness or less, unless otherwise indicated.
   6. Provide dry lumber with fifteen percent (15%) maximum moisture content at time of dressing for 2-inch nominal (38-mm actual) thickness or less, unless otherwise indicated.

B. Wood Structural Panels:
   1. Plywood
   2. Thickness: As needed to comply with requirements specified but not less than thickness indicated.
   4. Factory mark panels according to indicated standard.

2.02 DIMENSION LUMBER

A. General: Provide dimension lumber of grades indicated according to the American
Lumber Standards Committee National Grading Rule provisions of the grading agency indicated.

C. Other Framing: Construction, Stud, or No. 2 grade and any of the following species:
   1. Douglas fir-larch; WCLIB or WWPA.
   2. Douglas fir-south; WWPA.
   3. Douglas fir-larch (north); NLGA.
   4. Hem-fir; WCLIB or WWPA.
   5. Hem-fir (north); NLGA.
   6. Southern pine; SPIB.
   7. Mixed southern pine; SPIB.
   8. Spruce-pine-fir (south); NELMA, WCLIB, or WWPA.
   9. Spruce-pine-fir; NLGA.

2.03 MISCELLANEOUS LUMBER

A. General: Provide lumber for support or attachment of other construction, including the following:
   1. Blocking.
   2. Nailers.
   3. Furring.

B. For items of dimension lumber size, provide Construction, Stud, or No. 2 grade lumber with fifteen percent (15%) maximum moisture content and any of the following species:
   1. Mixed southern pine; SPIB.
   2. Hem-fir or Hem-fir (north); NLGA, WCLIB, or WWPA.
   3. Spruce-pine-fir (south) or Spruce-pine-fir; NELMA, NLGA, WCLIB, or WWPA.
   4. Eastern softwoods; NELMA.
   5. Northern species; NLGA.
   6. Western woods; WCLIB or WWPA.

2.04 PANEL PRODUCTS

A. Miscellaneous Concealed Plywood: Exterior sheathing, span rating to suit framing in each location, and thickness as indicated but not less than one-half inch (1/2").

B. Miscellaneous Concealed Oriented Strand Board: Exposure 1 sheathing, span rating to suit framing in each location, and thickness as indicated but not less than one-half inch (1/2").

C. Plywood Underlayment: DOC PS 1, Exterior A-C with fully sanded face, thickness as indicated but not less than one-half inch (1/2").

D. Hardboard Underlayment: AHA A135.4, Class 4 (Service), Surface S1S; with back side sanded.

E. Miscellaneous Exposed Plywood: DOC PS 1, A-D Interior, thickness as indicated
but not less than one-half inch (1/2").

2.05 FASTENERS

A. General: Provide fasteners of size and type indicated that comply with requirements specified in this Article for material and manufacture.
   1. Where carpentry is exposed to weather, in ground contact, or in area of high relative humidity, provide fasteners with hot-dip zinc coating complying with ASTM A 153/A 153M.


C. Power-Driven Fasteners: CABO NER-272.

D. Wood Screws: ASME B18.6.1.

E. Screws for Fastening to Cold-Formed Metal Framing: ASTM C 954, except with wafer heads and reamer wings, length as recommended by screw manufacturer for material being fastened.

F. Lag Bolts: ASME B18.2.1. (ASME B18.2.3.8M).

G. Bolts: Steel bolts complying with ASTM A 307, Grade A (ASTM F 568M, Property Class 4.6); with ASTM A 563 (ASTM A 563M) hex nuts and, where indicated, flat washers.

H. Expansion Anchors: Anchor bolt and sleeve assembly of material indicated below with capability to sustain, without failure, a load equal to 6 times the load imposed when installed in unit masonry assemblies and equal to 4 times the load imposed when installed in concrete as determined by testing per ASTM E 488 conducted by a qualified independent testing and inspecting agency.

2.06 METAL FRAMING ANCHORS

1. General: Provide galvanized steel framing anchors of structural capacity, type, and size indicated and acceptable to authorities having jurisdiction.


PART 3 – EXECUTION

3.01 INSTALLATION, GENERAL

A. Discard units of material with defects that impair quality of carpentry and that are too small to use with minimum number of joints or optimum joint arrangement.
B. Set carpentry to required levels and lines, with members plumb, true to line, cut, and fitted. Fit carpentry to other construction; scribe and cope as needed for accurate fit. Locate furring, nailers, blocking, and similar supports to comply with requirements for attaching other construction.

C. Securely attach carpentry work as indicated and according to applicable codes and recognized standards.

D. Use fasteners of appropriate type and length. Predrill members when necessary to avoid splitting wood.

3.02 WOOD BLOCKING, AND NAILER INSTALLATION

A. Install where indicated and where required for attaching other work. Form to shapes indicated and cut as required for true line and level of attached work. Coordinate locations with other work involved.

B. Attach items to substrates to support applied loading. Recess bolts and nuts flush with surfaces, unless otherwise indicated.

3.03 WOOD FURRING INSTALLATION

A. Install level and plumb with closure strips at edges and openings. Shim with wood as required for tolerance of finish work.

3.04 PANEL PRODUCT INSTALLATION


B. Particleboard Underlayment: Comply with the National Particleboard Association's recommendations for type of subfloor indicated. Fill and sand gouges, gaps, and chipped edges. Sand uneven joints flush.

C. Hardboard Underlayment: Comply with AHA's "Application Instructions for Basic Hardboard Products" and hardboard manufacturer's written instructions for preparing and applying hardboard underlayment.

END OF SECTION 06 10 53
PART 1 – GENERAL

1.01 SUMMARY

A. This Section includes joint sealants for the following applications, including those specified by reference to this Section:
   1. Exterior joints in horizontal traffic surfaces.

1.02 PERFORMANCE REQUIREMENTS

A. Provide elastomeric joint sealants that establish and maintain watertight and airtight continuous joint seals without staining or deteriorating joint substrates.

1.03 SUBMITTALS

A. Product Data: For each joint-sealant product indicated.

B. Samples: For each type and color of joint sealant required, provide Samples with joint sealants in 1/2-inch-wide joints formed between two 6-inch-long strips of material matching the appearance of exposed surfaces adjacent to joint sealants.

C. Preconstruction field test reports.

D. Compatibility and adhesion test reports.

E. Product certificates.

1.04 QUALITY ASSURANCE

A.     Mockups: Build mockups incorporating sealant joints, as follows, to verify selections made under sample submittals and to demonstrate aesthetic effects and set quality standards for materials and execution:
   1. Joints in mockups of typical assemblies specified in other Sections that are indicated to receive elastomeric joint sealants, which are specified by reference to this Section.
      a. Include details as directed by Architect.
      b. Completed and approved mock-ups may be included in final work provided they are protected until substantial completion and are subject to balance of specifications in this project manual.

1.05 WARRANTY

A. Special Installer's Warranty: Installer's standard form in which Installer agrees to repair or replace elastomeric joint sealants that do not comply with performance and other requirements specified in this Section within specified warranty period.
   1. Warranty Period: Two years from date of Substantial Completion.
B. Special Manufacturer’s Warranty: Manufacturer’s standard form in which elastomeric sealant manufacturer agrees to furnish elastomeric joint sealants to repair or replace those that do not comply with performance and other requirements specified in this Section within specified warranty period.
1. Warranty Period: 10 years from date of Substantial Completion.

PART 2 - PRODUCTS

2.01 MANUFACTURERS
A. Products: Subject to compliance with requirements, provide one of the products listed in other Part 2 articles.

2.02 MATERIALS, GENERAL
A. Compatibility: Provide joint sealants, backings, and other related materials that are compatible with one another and with joint substrates under conditions of service and application, as demonstrated by sealant manufacturer, based on testing and field experience.

B. Colors of Exposed Joint Sealants: As Selected from Manufacturer’s full range.

2.03 ELASTOMERIC JOINT SEALANTS
A. Elastomeric Sealants: Comply with ASTM C 920 and other requirements indicated for each liquid-applied chemically curing sealant specified, including those referencing ASTM C 920 classifications for type, grade, class, and uses related to exposure and joint substrates.

B. Stain-Test-Response Characteristics: Where elastomeric sealants are specified to be nonstaining to porous substrates, provide products that have undergone testing according to ASTM C 1248 and have not stained porous joint substrates indicated for Project.

C. Silicone Construction Sealant:
1. ASTM C 920, Type S, Grade NS, Class 25.
3. Acceptable manufacturers and product:
   a. Dow-Corning “795” or “790”
   b. G E Silicones “Silpruf SCS 2000”
   c. Pecora Corp. “864” or “890”
   d. Sonneborn/ChemRex, Inc. Sonolastic “Omniseal”
   e. Tremco Inc.- “Spectrem 1” or “Spectrem 2”

2.04 JOINT-SEALANT BACKING
A. General: Provide sealant backings of material and type that are nonstaining; are compatible with joint substrates, sealants, primers, and other joint fillers; and are approved for applications indicated by sealant manufacturer based on field experience and laboratory testing.
B. Cylindrical Sealant Backings: ASTM C 1330, Type C (closed-cell material with a surface skin), and of size and density to control sealant depth and otherwise contribute to producing optimum sealant performance:

C. Elastomeric Tubing Sealant Backings: Neoprene, butyl, EPDM, or silicone tubing complying with ASTM D 1056, nonabsorbent to water and gas, and capable of remaining resilient at temperatures down to minus 26 deg F. Provide products with low compression set and of size and shape to provide a secondary seal, to control sealant depth, and to otherwise contribute to optimum sealant performance.

D. Bond-Breaker Tape: Polyethylene tape or other plastic tape recommended by sealant manufacturer for preventing sealant from adhering to rigid, inflexible joint-filler materials or joint surfaces at back of joint where such adhesion would result in sealant failure. Provide self-adhesive tape where applicable.

2.05 MISCELLANEOUS MATERIALS

A. Primer: Material recommended by joint-sealant manufacturer where required for adhesion of sealant to joint substrates indicated, as determined from preconstruction joint-sealant-substrate tests and field tests.

B. Cleaners for Nonporous Surfaces: Chemical cleaners acceptable to manufacturers of sealants and sealant backing materials, free of oily residues or other substances capable of staining or harming joint substrates and adjacent nonporous surfaces in any way, and formulated to promote optimum adhesion of sealants to joint substrates.

C. Masking Tape: Nonstaining, nonabsorbent material compatible with joint sealants and surfaces adjacent to joints.

PART 3 - EXECUTION

3.01 PREPARATION

A. Surface Cleaning of Joints: Clean out joints immediately before installing joint sealants.
   1. Remove all foreign material from joint substrates that could interfere with adhesion of joint sealant.
      a. Clean porous joint substrate surfaces by brushing, grinding, blast cleaning, mechanical abrading, or a combination of these methods to produce a clean, sound substrate capable of developing optimum bond with joint sealants. Remove loose particles remaining after cleaning operations above by vacuuming or blowing out joints with oil-free compressed air.
   2. Remove laitance and form-release agents from concrete.
      a. Clean nonporous surfaces with chemical cleaners or other means that do not stain, harm substrates, or leave residues capable of interfering with adhesion of joint sealants.

B. Joint Priming: Prime joint substrates, where recommended in writing by joint-sealant manufacturer, based on preconstruction joint-sealant-substrate tests or prior experience. Apply primer to comply with joint-sealant manufacturer's written instructions. Confine
primers to areas of joint-sealant bond; do not allow spillage or migration onto adjoining surfaces.

C. Masking Tape: Use masking tape where required to prevent contact of sealant with adjoining surfaces that otherwise would be permanently stained or damaged by such contact or by cleaning methods required to remove sealant smears. Remove tape immediately after tooling without disturbing joint seal.

3.02 INSTALLATION

A. Sealant Installation Standard: Comply with recommendations in ASTM C 1193 for use of joint sealants as applicable to materials, applications, and conditions indicated.

B. Install sealant backings of type indicated to support sealants during application and at position required to produce cross-sectional shapes and depths of installed sealants relative to joint widths that allow optimum sealant movement capability.
   1. Do not leave gaps between ends of sealant backings.
   2. Do not stretch, twist, puncture, or tear sealant backings.
   3. Remove absorbent sealant backings that have become wet before sealant application and replace them with dry materials.

C. Install bond-breaker tape behind sealants where sealant backings are not used between sealants and backs of joints.

D. Install sealants using proven techniques that comply with the following and at the same time backings are installed:
   1. Place sealants so they directly contact and fully wet joint substrates.
   2. Completely fill recesses in each joint configuration.
   3. Produce uniform, cross-sectional shapes and depths relative to joint widths that allow optimum sealant movement capability.

E. Tooling of Nonsag Sealants: Immediately after sealant application and before skinning or curing begins, tool sealants according to requirements specified below to form smooth, uniform beads of configuration indicated; to eliminate air pockets; and to ensure contact and adhesion of sealant with sides of joint.
   1. Remove excess sealant from surfaces adjacent to joints.
   2. Use tooling agents that are approved in writing by sealant manufacturer and that do not discolor sealants or adjacent surfaces.
   3. Provide concave joint configuration per Figure 5A in ASTM C 1193, unless otherwise indicated.

F. Clean off excess sealant or sealant smears adjacent to joints as the Work progresses by methods and with cleaning materials approved in writing by manufacturers of joint sealants and of products in which joints occur.

3.03 SCHEDULE OF SEALANTS

A. Silicone Construction Sealant: Building joints on exterior side of exterior walls.

END OF SECTION 07 92 00
SECTION 22 14 26
FACILITY STORM DRAINS

PART 1 – GENERAL

1.01 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General Conditions, Supplementary Conditions and Division-1 General Requirements, apply to the work of this section.

1.02 WORK INCLUDED

A. Furnish and install complete:
   1. ACO KlassikDrain K100 sloped steel edge rail channel system (trench drain system).
   2. ACO Drain Type 410Q/412Q Perforated galvanized steel grate.
   3. ADS Duraslot surface drain.

1.03 RELATED WORK

A. Division 3 - Concrete

1.04 REFERENCES

A. Publications listed herein are part of this specification to the extent referenced. The criteria established in the specifications shall take precedence over the standards referenced herein. (Three examples of reference standards are given below.)

   a. ASTM F2306, Standard Specification for Corrugated Profile-Wall Polyethylene (PE) Pipe and Fittings

1.05 DEFINITIONS

A. Define industry and product terms as necessary.

1.06 SYSTEM DESCRIPTION

A. ACO trench drain system and grates shall be installed in accordance with the manufacturer's installation instructions and recommendations.

B. ADS Duraslot installation shall be in accordance with Hall Construction Products and Services (HCPS) recommended installation instructions.

C. Trench drain covers shall cover the trench completely and shall be flush with surrounding finish floor surfaces to allow unrestricted pedestrian traffic.
D. ACO trench drain grates shall be certified to EN 1433 Load Class A – 3,500 lbs. (70 psi) at a minimum.

E. ACO trench drain system shall be a sloped channel system having a built-in slope of 0.50% as shown on plans. All channels shall be interlocking with a male/female joint.

1.07 QUALITY ASSURANCE

A. Manufacturer: Obtain ACO trench drain system, grate, and ADS Duraslot assemblies through one source from a single manufacturer.
      a. The Manufacturer shall have documented management and control of the processes that influence the quality of its products.
      b. The Manufacturer shall have documented management and control of the processes that influence the quality of its customer service.
   2. Manufacturer shall have a minimum of ten (10) years of experience in the fabrication of trench drain systems and grate assemblies.

B. Installer: Firm with not less than three (3) years of successful experience in the installation of systems similar to those required by this project and acceptable to the manufacturer of the system.

1.08 SUBMITTALS

A. Submission must be made within ten (10) working days of the General Contract award to avoid project delay. If not adhered to, the Architect will designate the exact product to be used, and the contractor will have no recourse.
   1. Submit manufacturer’s specifications and technical data, including Material Safety Data Sheets, installation instructions, and, as required, catalog cuts and templates explaining construction and providing for incorporation of the product into the project.
   2. Submit certificates, copies of independent test reports, or research reports showing compliance with specified performance requirements.
   3. Submit shop drawings showing complete fabrication details for all trench drain systems, and grates, including required anchorage to surrounding construction, recesses, blocking, and connections between similar and dissimilar trench cover assemblies.

1.09 DELIVERY, STORAGE AND HANDLING

A. Provide temporary protective cover on aluminum, and galvanized steel finished surfaces.

B. Deliver trench drains and grates to jobsite in new, clean, unopened crates of sufficient size and strength to protect materials during transit.

C. Store components in original containers in a clean, dry location.

D. Handle components with equipment of sufficient size to preclude hazard to personnel or damage to components.
1.10 WARRANTY

A. Submit manufacturer's warranty that materials furnished will perform as specified for a period of not less than one (1) year when installed in accordance with manufacturer's recommendations.

PART 2 — PRODUCTS

2.01 ACCEPTABLE MANUFACTURERS

A. Furnish and install as noted in specifications and as indicated on drawings, ACO KlassikDrain – K100 Galvanized steel edge rail channel system, and Type 410Q/412Q Perforated galvanized steel grate as manufactured by: ACO Polymer Products, Inc., P.O. Box 12067, Casa Grande, AZ 85130; phone (520) 421-9988, toll free (888) 490-9552, or fax (520) 421-9899.

B. Furnish and install as noted in the specifications and as indicated on drawings, ADS Duraslot as manufactured by ADS, Inc. 4640 Trueman Boulevard, Hilliard, OH 43026; phone 1-800-821-6710, or fax 1-614-658-0204.

C. The products herein specified are standard manufactured products of the listed manufacturer.

D. Substitutions: Submit proposed substitutions in writing to Architect no less than 10 days before bids are due. Submit samples and product data to demonstrate acceptability of proposed substitute. Acceptance will be by Addendum.

2.02 MATERIALS

A. ACO grate shall be 16 gauge galvanized steel, ASTM F1267.

B. ACO trench drain K100 channels shall be manufactured from polyester resin polymer concrete with integrally cast-in galvanized steel edge rails.

C. ADS Duraslot pipe shall be HDPE dual wall pipe meeting AASHTO M294, Type S or ASTM F2306, with an aluminum grate frame meeting the requirements of ASTM B209, and a ½- #13 galvanized steel grate meeting the requirements of ASTM F1267.

D. Fasteners, accessories, and other materials required for complete installation to manufacturer's instructions.

PART 3 — EXECUTION

3.01 EXAMINATION

A. Contractor shall verify that field measurements are as shown on shop drawings prior to releasing materials for fabrication by the manufacturer.

B. Installer shall examine conditions under which work is to be performed and shall notify the contractor in writing of unsatisfactory conditions. Installer shall not proceed until unsatisfactory conditions have been corrected in a manner acceptable to the installer.
3.02 INSTALLATION
A. Install trench drain systems and grates in accordance with the manufacturer’s written installation instructions.
B. Align work plumb, level, and, as required, flush with adjacent surfaces.

3.03 CLEANING
A. Clean exposed surfaces as recommended by the manufacturer.

3.04 ADJUSTING AND PROTECTION
A. Inspect system components for proper fit. Adjust, repair or replace components not conforming to requirements. Repair or replacement of an individual unit shall be as approved by the Architect.
B. Finished units shall be without damage. Units damaged during shipping or construction shall be repaired by the contractor at the expense of the party damaging the material, in accordance with the contract requirements.
C. Protect installation from damage by work of other Sections. Where required, remove and store grates and install temporary protection over trench; re-install grates prior to Substantial Completion of the work.

3.05 GENERAL RESPONSIBILITY
A. Any variation from this specification resulting in additional cost to any other contractor or subcontractor on this project shall be the sole financial responsibility of the contractor for the work of this section.

3.06 SCHEDULE
A. Indicate ACO, and ADS product number on Drawings or Schedule.
   1. ACO KlassikDrain trench drain system: ___________________
   2. ACO Grate Cover: ___________________
   3. ADS Duraslot trench drain system: ___________________

END OF SECTION 22 14 26