PLANS, SPECIFICATIONS, PROPOSAL AND CONTRACT FOR THE

DVIP RESTROOM REMODELING PROJECT IOWA CITY, IOWA

PROJECT MANUAL

FOR

DVIP RESTROOM REMODELING PROJECT

OWNER: Domestic Violence Prevention Program

P.O. Box 3170

Iowa City, Iowa 52244

ARCHITECT: Thomas McInerney, Architect

1208 Marcy Street, Iowa City, IA 52240

Telephone: (319)331-0365

Project Architect: Thomas McInerney
e-mail: thomas@thomasarchitect.com

BIDS DUE: February 19, 2016

2:30 PM

Office of the Domestic Violence Prevention Program

1105 S Gilbert Court, Suite #300

Iowa City, Iowa 52240

PREBID MEETING: February 9, 2016, 10:00am

Location: Call or text (319)331-0365

ISSUE FOR BID: January 26, 2016

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NOTICE TO BIDDERS DVIP RESTROOM REMODELING PROJECT

Sealed proposals will be received by the Domestic Violence Intervention Program (DVIP), 1105 S. Gilbert Ct., Suite 300, Iowa City, Iowa, 52240 until 2:30 P.M. on the 19th day of February, 2016. Sealed proposals will be opened immediately thereafter. Bids submitted by fax machine shall not be deemed a "sealed bid" for purposes of this Project. Proposals received after this deadline will be returned to the bidder unopened. Proposals will be acted upon within 1 business day. A pre-bid meeting will be held on site in Iowa City, Iowa on February 9, 2016 at 10:30 AM (contact Architect at phone number 319-331-0365 for the location).

The Project will involve the following:

The project is an interior renovation of two existing public restrooms on the second floor of an existing building. The intent is to provide accessibility to the restrooms. The project also includes the replacement of the entry doors and hardware to each of the second floor dwelling units.

ENGINEER'S ESTIMATE:\$ 115,000

The following limitations shall apply to this Project:

Working Days: 89 (eighty-nine days) Specified Start Date: February 22, 2016 Liquidated Damages: \$100 per day Estimated completion date: May 20, 2016

Copies of said plans and specifications and form of proposal blanks may be secured at the Office of Thomas McInerney Architect Iowa City, Iowa, 52240, phone number (319) 331-0365, by bona fide bidders. A \$20 non-refundable handling fee is required for each set of plans and specifications provided to bidders or other interested persons. The fee shall be in the form of a check, made payable to "Thomas McInerney Architect".

Prospective bidders are advised that the DVIP of Iowa City desires to employ minority contractors and subcontractors on DVIP projects. A listing of minority contractors can be obtained from the Iowa Department of Economic Development at (515) 242-4721 and the Iowa Department of Transportation Contracts Office at (515) 239-1422. By virtue of statutory authority, preference must be given to products and provisions grown and coal produced within the State of Iowa, and to Iowa domestic labor, to the extent lawfully required under Iowa Statutes. The Iowa reciprocal resident

DVIP RESTROOM REMODELING PROJECT

bidder preference law applies to this Project. DVIP reserves the right to reject any or all proposals, and also reserves the right to waive technicalities and irregularities.

INSTRUCTIONS TO BIDDERS

ARTICLE 1 - DEFINITIONS

- 1. Bidding documents include the bidding requirements and the contract documents. The bidding requirements include the Advertisement or Invitation to bid, Instructions to Bidders, the Bid Form, other sample bidding and contract forms, and the Contract Forms including addenda issued prior to receipt of bids.
- 1.2 The contract documents for the work consist of the Owner/Contractor Agreement, the Conditions of the Contract (General and Supplementary Conditions), the Drawings, the Specifications and all addenda issued prior to and all modifications issued after execution of the Contract.
- 1.3 Definitions set forth in AIA document A201, "General Conditions of the Contract for Construction", 2007 edition, or in other Contract Documents are applicable to the bidding documents.
 - A. Addenda are written or graphic instruments issued by the Architect prior to execution of the Contract which modify or interpret the Bidding Documents by addition, deflection, clarifications or correction.
 - B. A bid is a complete and properly signed proposal to do the work or designated portion thereof for the sums stipulated therein, submitted in accordance with the bidding documents.
 - C. The base bid is the sum stated in the bid for which the Bidder offers to perform the work described in the bidding documents as the Base, to which work may be added, or from which work may be deducted for sums stated in alternate bids.
 - D. An alternate bid (or Alternate) is an amount stated in the bid to be added to or deducted from the amount of the base bid if the corresponding change in the work, as described in bidding documents, is accepted.
 - E. A unit price is an amount stated in the bid as a price per unit of measurement for materials or services as described in the bidding documents or in the contract documents.
 - F. A bidder is a person or entity who submits a bid.
 - G. A sub-bidder is a person or entity who submits a bid to a bidder for materials, equipment or labor for a portion of the work.

ARTICLE 2 - BIDDER'S REPRESENTATIONS

- 1. The bidder by making a bid represents that the bidder has read and understands the bidding documents, and the bid is made in accordance with those documents.
 - A. The Bidder has read and understands the bidding documents or contract documents, to the extent that such documentation relates to the work for which the bid is submitted.
 - B. The bidder has visited the site, has become familiar with local conditions under which the work is to be performed, and has correlated the bidder's personal observations with the requirements of the contract documents.
 - C. The bid is based upon the materials, equipment and systems required by the bidding documents without exception.

ARTICLE 3 - BIDDING DOCUMENTS

1. Documents

- A. Complete sets of the bidding documents may be obtained from the office of Office of Thomas McInerney Architect lowa City, lowa, 52240, phone number (319) 331-0365, for the non-refundable handling fee as indicated.
- B. Bidders shall use complete sets of bidding documents in preparing bids. Neither the Owner nor the Architect assumes responsibility for errors or misinterpretations resulting from the use of incomplete sets of bidding documents. No partial sets will be issued.
- C. In making copies of the bidding documents available on the above terms, the Owner and the Architect do so only for the purpose of obtaining bids for the work, and do nor confer license or grant permission for any other use of the bidding documents.

D. Interpretation or Correction of Bidding Documents

- The bidder shall carefully study and compare the bidding documents with each other, and with other work being bid concurrently or presently under construction to the extent that it relates to the work for which the bid is being submitted, shall examine the site and local conditions, and shall at once report to the Architect errors, inconsistencies or ambiguities discovered.
- 2. Bidders and sub-bidders requiring clarification or interpretation of the bidding documents shall make a written request which shall reach the Architect at least nine days prior to the date for receipt of bids.
- Interpretations, corrections and changes of the bidding documents will be made by addendum. Interpretations, corrections and changes to the bidding documents made in any other manner will not be binding, and bidders shall not rely upon them.

E. Substitutions

- 1. The materials, products and equipment described in the bidding documents establish a standard of required function, dimension, appearance and quality to be met by any proposed substitution. Refer to for substitution requirements in Section 01 6000 Product Requirements.
- 2. If the Architect approves a proposed substitution prior to receipt of bids, such approval will be set forth in an addendum. Bidders shall not rely upon approvals made in any other manner.

F. Addenda

- 1. Addenda will be mailed or delivered to all who are known by the Architect to have a complete set of bidding documents.
- 2. Copies of addenda will be made available for inspection wherever bidding documents are on file for that purpose.
- 3. No addenda will be issued later than four (4) days prior to the date for receipt of bids, except for any one or more of the following reasons:
 - 1. An addendum withdrawing the request for bids.
 - 2. An addendum which includes postponement of the date for receipt of bids.
 - 3. An addendum issued after receipt of bids and prior to execution of the

contract.

4. Each bidder shall ascertain prior to submitting a bid that he has received all addenda issued, and the bidder shall acknowledge their receipt in the proper location on the bid form.

ARTICLE 4 – BIDDING PROCEDURES

1. Form and Style of Bids

- A. A separate copy of the bid form is contained within the back cover of this document.
- B. Fill in all blanks on the bid form by typewriter or manually in ink.
- C. Where so indicated by the makeup of the bid form, sums shall be expressed in both words and numerals, and in case of discrepancy between the two, the amount written in words will govern.
- D. Interlineations, alterations or erasures shall be initialed by the signer of the bid.
- E. All requested alternates shall be bid. If no change in the base bid is required, enter "No Change".
- F. Where two or more bids for designated portions of the work have been requested, the bidder may, without forfeiture of the bid security, state the bidder's refusal to accept award of less than the combination of bids stipulated by the bidder. The bidder shall make no additional stipulation on the bid form, nor qualify the bid in any other manner.
- G. Each copy of the bid shall include the legal name of the bidder and a statement that the bidder is a sole proprietor, a partnership, a corporation or some other legal entity. Each copy shall be signed by the person or persons legally authorized to bind the bidder to a contract.
- H. No bid may be withdrawn for a period of 30 calendar days after the date of opening.

3. Submission of Bids

- A. The form for bid and the bid security shall be enclosed in **separate** sealed opaque envelopes. Both envelopes shall be addressed to the party receiving the bids ("Domestic Violence Intervention Program, Iowa City, Iowa"), and shall be identified with the project name, the bidder's name and address, and the envelope's contents. If the bid is sent by mail, the sealed envelopes shall be enclosed in a separate mailing envelope with the notation "SEALED BID ENCLOSED" on the face of that envelope.
- B. Bids shall be deposited at the designated location prior to the time and date for receipt of bids.
 - 1. Location: Office of the Domestic Violence Intervention Program, 1105 S Gilbert Court, Suite #300, Iowa City, Iowa, 52240.
 - 2. Time and Date: Bids due before and opened at 2:30 p.m., February 19, 2016.
- C. Bids received after the time and date for receipt of bids <u>will be returned</u> unopened.
- D. The bidder shall assume full responsibility for timely delivery at the location designated for receipt of bids.

E. Oral, telephonic, or telegraphic bids are invalid and will not receive consideration.

4. Modification or Withdrawal of Bid

- A. A bid may not be modified, withdrawn or canceled the bidder after the stipulated time and date designated for the receipt of bids, and each bidder so agrees in submitting his bid.
- B. Prior to the time and date designated for receipt of bids, a bid submitted may be modified or withdrawn by notice to the party receiving bids at the place designated for receipt of bids. Such notice shall be in writing, signed by the person or persons legally authorized to bind the bidder to a contract. If written notice is electronic, written confirmation from the person or persons legally authorized to bind the bidder to a contract shall also be mailed and postmarked on or before the date and time set for receipt of bids, and it shall be so worded as not to reveal the amount of the original bid.
- C. Withdrawn bids may be resubmitted up to the time designated for the receipt of bids provided that they are then fully in conformance with these Instructions to Bidders.

ARTICLE 5 – CONSIDERATION OF BIDS

1. Opening of Bids

A. The properly identified bids received on time will be opened publicly and will be read aloud.

2. Rejection of Bids

A. The Owner will have the right to reject any or all bids, and to reject a bid not accompanied by the required bid security or by another data required by the bidding documents, or to reject a bid which is in any way incomplete or irregular.

3. Acceptance of Bid (Award)

- A. It is the intent of the Owner to award a contract to the lowest responsive responsible bidder provided the bid has been submitted in accordance with the requirements of the bidding documents, and does not exceed the funds available. The Owner will have the right to waive informalities or irregularities in a bid received, and to accept the bid which, in his judgment, is in his own best interest.
- B. The Owner will have the right to accept bid alternates in any order or combination, and to determine the low bidder on the basis of the sum of the base bid and the accepted alternates.

ARTICLE 6 - POST-BID INFORMATION

1. Submittals

- A. The names of those persons, firms, companies or other parties with whom the bidder intends to enter into a major subcontract, together with the type of subcontracted work and approximate dollar amount of the subcontract will be submitted within 24 hours of bid opening by the apparent lowest responsive, responsible bidder.
- B. The bidder shall, within seven (7) days of notification of selection for the award of a contract for the work, submit the following information to the Architect:
 - 3. A designation of the work to be performed by the bidder with the bidder's own forces.
 - 4. The proprietary names and the suppliers or principal items or system of materials and equipment proposed for the project.
- C. The bidder will be required to establish to the satisfaction of the Architect and the Owner the reliability and responsibility of the persons or entities proposed to furnish and perform the work described in the bidding documents.
- D. Prior to the award of the contract, the Architect will notify the bidder in writing if either the Owner or Architect, after due investigation, has reasonable objection to any such proposed person or entity. If the Owner or the Architect has reasonable objection to such proposed person or entity, the bidder may, at the bidder's option:
 - 1. Withdraw the bid.
 - 2. Submit an acceptable substitute person or entity with an adjustment in the bid price to cover the difference in cost occasioned by such substitution.
- D. The Owner may accept the adjusted bid price or may disqualify the bidder. In the event of either withdrawal or disqualification, bid security will not be forfeited.

ARTICLE 8 – PRE-BID CONFERENCE

1. Conference

A. Bidder is encouraged to attend a pre-bid conference on January 9, 2016, 10:30am, on-site in Iowa City. Contact the office of Thomas McInerney Architect at (319) 331-0365 for the address.

FORM OF PROPOSAL

DVIP RESTROOM REMODELING PROJECT IOWA CITY, IOWA

| Name | of Bidder: |
|--|---|
| Addre | ss of Bidder: |
| BIDS | RECEIVED BEFORE: 2:30 PM local time on January 7, 2016 |
| TO: | Domestic Violence Intervention Program (DVIP) 1105 S. Gilbert Ct., Suite 300 Iowa City, Iowa 52240 |
| Requi super DVIP Drawi inclus | ponse to your request for bids, and in compliance with the Procurement and Contracting rements, the undersigned proposes to furnish all labor, materials and equipment, all vision, coordination, and all related incidentals necessary to perform the work to complete RESTROOM REMODELING PROJECT in strict accordance with the Project Manual and the ngs dated January 26, 2016 including Addenda numbered, and, ive, prepared by Thomas McInerney Architect, for the Base Bid Lump Sum of : |
| BASE | BID |
| | Dollars (\$ |

The undersigned bidder certifies that this proposal is made in good faith, and without collusion or connection with any other person or persons bidding on the work.

The undersigned bidder states that this proposal is made in conformity with the Contract Documents and agrees that, in the event of any discrepancies or differences between any conditions of this proposal and the Contract Documents prepared by Thomas McInerney Architect, the more specific shall prevail.

In submitting this Proposal, The undersigned agrees that the Bid will not be withdrawn for a period of thirty (30) consecutive calendar days following the date of the Bid Opening. Further, that if a Notice to Proceed or a prepared Agreement provided by the Owner is received at the business address identified below within the thirty (30) day period, the undersigned will, within ten (10) days of receipt, acknowledge acceptance of the contract award.

The undersigned will then execute and deliver to the Owner address the Agreement, the Procurement, and the certificates of insurance, and will proceed in accordance with requirements

| of the | Contract | Documents | for this | project, | and | have | the | Project | at | Substantial | Completion | on | or |
|--------|----------|-----------|----------|----------|-----|------|-----|---------|----|-------------|------------|----|----|
| before | May 20, | 2016. | | • | | | | - | | | | | |
| | | | | | | | | | | | | | |

| Firm: |
|---------------|
| |
| Signature: |
| Printed Name: |
| Title: |
| Address: |
| |
| Phone: |
| Contact: |

FORM OF AGREEMENT

| | THIS | AGREE | MENT is made and entered into by and between the |
|----------|--------|-----------|---|
| Domes | stic | Violen | e Intervention Program of Iowa City, Iowa ("Owner"), and |
| | | | ("Contractor"). |
| , | Whe | reas the | Owner has prepared certain plans, specifications, proposal and bid |
| docume | ents o | dated the | day of, 20, for the |
| | | | Project ("Project"), and |
| , | Whe | reas, sa | d plans, specifications, proposal and bid documents accurately and fully |
| describe | e the | terms a | d conditions upon which the Contractor is willing to perform the Project. |
| | NOV | V, THER | FORE, IT IS AGREED: |
| | 1. | The | wner hereby accepts the attached proposal and bid documents of the |
| | | Contr | ctor for the Project, and for the sums listed therein. |
| | 2. | This A | greement consists of the following component parts which are incorporated |
| | | hereir | by reference: |
| | | a. | Addenda Numbers; |
| | | b. | "General Conditions of the Contract for Construction" AIA DOC A201-2007, |
| | | | as amended; |
| | | C. | Plans; |
| | | d. | Specifications and Supplementary Conditions; |
| | | e. | Notice to Bidders; |
| | | f. | Note to Bidders; |
| | | g. | Performance and Payment Bond; |
| | | h. | Restriction on Non-Resident Bidding on Non-Federal-Aid Projects; |
| | | i. | Contract Compliance Program (Anti-Discrimination Requirements); |
| | | j. | Proposal and Bid Documents; and |
| | | k. | This Instrument. |

The above components are deemed complementary and should be read together. In the

event of a discrepancy or inconsistency, the more specific provision shall prevail.

 Payments are to be made to the Contractor in accordance with the Supplementary Conditions.

The Project base bid submitted by form of proposal is in the amount of:

To be completed after award and no/100 Dollars (\$ 0.00).

| DATED this | day of | , 20 |
|----------------|--------|-------------------------------|
| Owner | | Contractor |
| (Signature) | | (Signature) |
| (Printed name) | | (Printed name) |
| | | (Title) |
| ATTEST: | | ATTEST: |
| | | (Title) (Company Official) |
| Approved By: | | |
| | | |

GENERAL CONDITIONS

"General Conditions of the Contract for Construction" AIA DOC A201-2007 amended, shall apply except as amended in the Supplementary Conditions.

SUPPLEMENTARY CONDITIONS

INTENT

These Supplementary conditions amend and supplement the "General Conditions of the Contract for Construction", AIA document A201, 2007 edition and other provisions of the contract documents as indicated below. All provisions which are not so amended or supplemented remain in full force and effect.

Modifications to articles of AIA document to A201 (2007):

Refer to ARTICLE 1 - GENERAL PROVISIONS:

After subparagraph 1.2.3, add:

1.2.3.1 Miscellaneous definitions:

Products: Means new material, machinery, components, equipment, fixtures, and systems forming the Work, but 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.

Provide: To furnish or supply, plus install complete in place, tested and approved.

Furnish or Supply: To supply and deliver, unload, inspect for damage.

Install: To unpack, assemble, erect, apply, place, finish, cure, protect, clean, and ready for use.

The terms "approved," "required," and "as directed" refer to and indicate the work or materials that may be approved, required, or directed by the Architect acting as the Owner's representative.

The terms "shown," "indicated," "detailed," "noted," "scheduled," and terms of similar import, refer to requirements contained in the Contract Documents.

After Paragraph 1.6.1, add the following Paragraph:

1.6.2 Six copies of the Drawings and Project Manual will be furnished, free of charge, to the Contractor for use during the construction of the Work. The Contractor may secure additional copies of Project Manual and Drawings from the Architect at the Architect's usual charge for reproduction and handling.

Refer to ARTICLE 3 - CONTRACTOR

At the end of Paragraph 3.4.2, add the following words to the sentence:

"...or Construction Change Directive."

At the end of Subparagraph 3.7.1, add:

"The Owner, through the Architect, will submit for review and approval Drawings and Specifications to the appropriate public authorities and governmental agencies having jurisdiction."

Delete the last sentence at the end of Subparagraph 3.10.2:

"If the Contractor fails to submit a submittal schedule, the Contractor shall not be entitled to any increase in Contract Sum or extension of Contract Time based on the time required for review of submittals."

Refer to ARTICLE 7 - CHANGES IN THE WORK

Add Paragraph 7.2.2 as follows:

7.2.2 Adjustment to the Contract Sum shall be based on mutual acceptance of a lump sum properly itemized and supported by sufficient substantiating data to permit evaluation. The lump sum shall include the expenditures and savings of those performing the Work attributable to the change plus a percentage fee for overhead and profit and subsequent markup(s).

Expenditures and savings attributable to changes in the Work shall be limited to the following:

- 1) cost of labor, including social security, unemployment insurance, fringe benefits, and workmen's compensation insurance;
- 2) cost of materials, supplies and equipment including cost of transportation, whether incorporated or consumed;
- 3) rental costs of machinery and equipment, exclusive of hand tools, whether rented from the Contractor or others; and
- 4) cost of field supervision directly attributable to the change, and
- 5) costs of premium increases for bonds and insurance related to the Work.

In case of an increase in the Contract Sum, an allowance for overhead and profit determined as follows:

Fee for overhead and profit for those performing the Work attributable to the change is fifteen percent of the sum of 1), 2), 3), and 4) above.

The Contractor shall be allowed to add a five percent markup to the cost of change order work performed by a subcontractor.

A subcontractor shall be allowed to add a five percent markup to the cost of change order work performed by a sub subcontractor.

Delete Paragraph 7.3.6, and substitute the following:

7.3.6 If the Contractor does not respond promptly or disagrees with the adjustment in the Contract Sum, the Architect shall determine the adjustment in the Contract Sum based on the method provided in Paragraph 7.2.2, using reasonable expenditures and savings of those performing the Work attributable to the change.

Refer to ARTICLE 8 - TIME

Add the following Paragraph:

8.1.5: Contract Time is identified in Document 00 5200 - Agreement Form.

Refer to ARTICLE 9 - PAYMENTS AND COMPLETION

Delete Subparagraph 9.5.3 entirely.

Change paragraph 9.6.1 to read as follows:

9.6.1 After the Architect has issued a Certificate of Payment, the Owner shall make partial payments to the Contractor each month. To insure proper performance of the Contract, the Owner will retain 5% of each payment amount or such larger amount that will insure that there always remains a sufficient balance to complete the work, such retainage to be held until Final Acceptance of Work and shall so notify the Architect.

Delete the first two sentences from Subparagraph 9.6.4:

"The Owner has the right to request written evidence from the Contractor that the

Contractor has properly paid Subcontractors and material and equipment suppliers amounts paid by the Owner to the Contractor for subcontracted Work. If the Contractor fails to furnish such evidence within seven days, the Owner shall have the right to contact Subcontractors to ascertain whether they have been properly paid."

At the end of Paragraph 9.10.1, add the following:

"Final Payment shall be released after thirty-one (31) days following completion and final written acceptance by the Owner of all Work required by the Contract."

Refer to ARTICLE 11 - INSURANCE AND BONDS

Delete original Paragraph 11.1.2, and replace with the following:

11.1.2 Contractor's insurance policies required by this Section 11.1 shall be maintained without interruption from the date of commencement of the Work until final payment and termination of any coverage required to be maintained after final payment.

All Contractor's insurance policies shall contain provisions that the insurance companies have no right of recovery or subrogation against the "Additional Insured"; it being the intent that the insurance as effected shall protect all parties, and the Contractor's Carrier shall be primary (liable).

All Contractor's insurance policies shall name as "Additional Insured":

The Owner, its Employees, Agents and Assigns, and

The Architect, its Employees, Agents and Assigns.

The Contractor's liability insurance required by Subparagraph 11.1.1 shall be written on an "occurrence" basis for not less than the following coverages:

.1 Workers' Compensation and Employer's Liability:

Workers' Compensation: Statutory

Employer's Liability:

\$500,000 per Accident.

\$500,000 Disease, policy limit.

\$500,000 Disease, each employee.

The Contractor's policy shall include the "Alternate Employer" endorsement specifically naming the Owner.

.2 Commercial General Liability (Including Premises--Operations; Products and Completed Operations; Contractual Liability; and Broad Form Property Damage):

General Aggregate: \$2,000,000 and it shall apply, in total, to this project only.

Products - Completed Operations Aggregate: \$2,000,000; maintain for one (1) year after final payment. Broad form property damage coverage shall include completed operations.

Personal Injury Limit: \$1,000,000 each occurrence.

Fire Damage: \$100,000 on any one fire.

Medical Expense: \$5,000 on any one person.

Umbrella Excess Liability: \$5,000,000 over primary insurance.

.3 Comprehensive Automobile Liability (owned, non-owned, and hired vehicles):

Combined Single Limit: \$1,000,000 each occurrence.

The entire amount of the Contractor's liability insurance policy coverage limits shall be payable by the Contractor's insurer, with no deductible to be paid by, or self-insured retention to be attributed to, the Contractor unless this requirement is waived by the Owner. If policy is subject to any special exclusions or limitations not common to the type of coverage being provided, such exclusions or limitations shall be noted on the Certificate of Insurance.

In the event that any of the policies of insurance or insurance coverage identified on the Contractor's Certificate of Insurance are cancelled or modified, or in the event that the Contractor incurs liability losses, either due to activities under this Contract, or due to other activities not under this Contract but covered by the same insurance, and such losses exhaust the aggregate limits of Contractor's liability insurance, then in that event the Owner may at their discretion either suspend Contractor's operations or activities under this Contract or terminate this Contract, and withhold payment for work performed on the Contract.

At the end of Paragraph 11.1.3, add the following:

"Certificates shall be ACORD Form 25-S and AIA Document G715, Instruction Sheet and Supplemental Attachment for ACORD Certificate of Insurance 25-S."

Refer to Section 11.3 - PROPERTY INSURANCE:

Delete the words "Unless otherwise provided, the Owner..." from the beginning of the first sentence in Paragraph 11.3.1 and replace with the following: "The Contractor".

Delete Subparagraph 11.3.1.3 entirely.

Delete Paragraph 11.3.2 entirely.

Delete Paragraph 11.3.3 entirely.

Delete Paragraph 11.3.4 entirely.

Delete the words "Owner as fiduciary..." from the end of the first sentence in Paragraph 11.3.7 and replace with the following: "Contractor as fiduciary".

Change the beginning of the first sentence in Paragraph 11.3.8 to read as follows: "A loss insured under **Contractor's** property insurance shall be adjusted by the **Contractor** as fiduciary and made payable to the **Contractor** as fiduciary for the insureds.".

Delete Paragraph 11.3.9 entirely.

Delete Paragraph 11.3.10 entirely.

Refer to Section 11.4 - PERFORMANCE BOND AND PAYMENT BOND

At the end of Paragraph 11.4.1, add the following:

The Contractor shall provide the following bonds:

100 percent Payment Bond on AIA A311.

100 percent Performance Bond on AIA A312.

Deliver bonds within 3 days after execution of the Contract.

Refer to ARTICLE 13 - MISCELLANEOUS PROVISIONS

Delete the following words from the first sentence of Paragraph 13.1 GOVERNING LAW:

"...except that, if the parties have selected arbitration as the method of binding dispute resolution, the Federal Arbitration Act shall govern Section 15.4 ..."

Delete Paragraph 13.7 TIME LIMITS ON CLAIMS entirely and replace with the following:

13.7 TIME LIMITS ON CLAIMS

13.7.1 As between the Owner and Contractor:

- .1 Before Substantial Completion. As to acts or failures to act occurring prior to the relevant date of Substantial Completion, any applicable statute of limitations shall commence to run and any alleged cause of action shall be deemed to have accrued in any and all events not later than such date of Substantial Completion;
- .2 Between Substantial Completion and Final Certificate for Payment. As to acts or failures to act occurring subsequent to the relevant date of Substantial Completion and prior to issuance of the final Certificate for Payment, any applicable statute of limitations shall commence to run and any alleged cause of action shall be deemed to have accrued in any and all events not later than the date of issuance of the final Certificate for Payment; and
- .3 After Final Certificate for Payment. As to acts or failures to act occurring after the relevant date of issuance of the final Certificate of Payment, any applicable statute of limitations shall commence to run and any alleged cause of action shall be deemed to have accrued in any and all events not later than the date of any act or failure to act by the Contractor pursuant to any Warranty provided under Paragraph 3.5, the date of any correction of the Work or failure to correct the Work by the Contractor under Paragraph 12.2, or the date of actual commission of any other act or failure to perform any duty or obligation by the Contractor or Owner, whichever occurs last.

END OF SECTION

SECTION 00 8100 - SPECIAL CONDITIONS

PART 1 - GENERAL

- Special Conditions Supplement for all CDBG Contracts and Agreements
 Exhibit B.
 - A. Comply with all requirements of the attached: Supplement for all CDBG Contracts and Agreements Exhibit B.
 - B. In accordance with special conditions Supplement for all CDBG Contracts and Agreements Exhibit B, comply with the Prevailing Wage Rates set forth in the attached: General Decision Number: IA160037 01/22/2016 IA37.
- Special Conditions Regarding the safety of residents and confidentiality at the DVIP Shelter.
 - A. The Domestic Violence Intervention Program will conduct background checks for criminal charges, child-abuse charges or convictions for the past five years for any and all persons representing the Contractor who may be on site at any time in association with subject project.
 - The Contractor will be required to submit the names of all individuals schedule to visit the site to the Owner's representative at least 24 hours in advance of scheduled visit.
 - 2. All individuals who work on site in association with subject property will be required to sign a confidentiality statement regarding the location of the shelter, information concerning any individuals on site, and any activities witnessed on the premises.

Special Conditions

Exhibit B

Supplement for all CDBG Contracts and Agreements

| City of Iowa City is referred to as "recipient" | below and | as "contractor and |
|---|-----------|-----------------------|
| subcontractor." | and | agree to abide by the |
| following provisions, as applicable: | | - |

1) Clean Air Act (42 U.S.C. 7401 et seq.) and the Federal Water Pollution Control Act (33 U.S.C. 1251 et seq.), as amended.

Contracts and subgrants of amounts in excess of \$100,000 shall comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act (42 U.S.C. 7401 et seq.) and the Federal Water Pollution Control Act as amended (33 U.S.C. 1251 et seq.). Violations shall be reported to HUD and the Regional Office of the Environmental Protection Agency (EPA).

Contractors and subcontractors agree:

- a. That any facility to be used in the performance of the contract or subcontract or to benefit from the contract is not listed on the Environmental Protection Agency (EPA) List of Violating Facilities;
- b. To comply with all the requirements of Section 114 of the Clean Air Act, as amended, 42 U.S.C. 1857 et seq. and Section 308 of the Federal Water Pollution Control Act, as amended, 33 U.S.C. 1251 et seq. relating to inspection, monitoring, entry, reports, and information, as well as all other requirements specified in Section 114 and Section 308 of the Acts, respectively, and all other regulations and guidelines issued thereunder;
- c. That, as a condition for the award of this contract, the contractor or subcontractor will notify the awarding official of the receipt of any communication from the EPA indicating that a facility to be used for the performance of or benefit from the contract is under consideration to be listed on the EPA List of Violating Facilities;
- d. To include or cause to be included in any construction contract or subcontract which exceeds \$100,000 the aforementioned criteria and requirements.

2) Contract Work Hours and Safety Standards Act (40 U.S.C. 327 through 333)

Where applicable, all contracts awarded by recipients in excess of \$2,000 for construction contracts and in excess of \$2,500 for other contracts that involve the employment of mechanics or laborers shall include a provision for compliance with Sections 102 and 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 327-333), as supplemented by Department of Labor regulations (29 CFR part 5). Under Section 102 of the Act, each contractor shall be required to compute the wages of every mechanic and laborer on the basis of a standard workweek of 40 hours. Work in excess of the standard workweek is permissible provided that the worker is compensated at a rate of not less than 1 1/2 times the basic rate of pay for all hours worked in excess of 40 hours in the workweek. Section 107 of the Act is applicable to construction work and provides that no laborer or mechanic shall be required to work in surroundings or under working conditions which are unsanitary, hazardous or dangerous. These requirements do not apply to the purchases of supplies or materials or articles ordinarily available on the open market, or contracts for transportation or transmission of intelligence.

3) Copeland "Anti-Kickback" Act (18 U.S.C. 874 and 40 U.S.C. 276c)

All contracts and subgrants in excess of \$2,000 for construction or repair awarded by recipients and subrecipients shall comply with the Copeland ``Anti-Kickback" Act (18 U.S.C. 874), as supplemented by Department of Labor regulations (29 CFR part 3, ``Contractors and Subcontractors on Public Building or Public Work Financed in Whole or in Part by Loans or Grants from the United States"). The Act provides that each contractor or subrecipient shall be prohibited from inducing, by any means, any person employed in the construction, completion, or repair of public work, to give up any part of the compensation to which he is otherwise entitled. The recipient shall report all suspected or reported violations to HUD.

4) Davis-Bacon Act, as amended (40 U.S.C. 276a to 276a-5)

When required by Federal program legislation, all construction contracts awarded by the recipients and subrecipients of more than \$2,000 shall include a provision for compliance with the Davis- Bacon Act (40 U.S.C. 276a to 276a-5) and as supplemented by Department of Labor regulations (29 CFR part 5, `Labor Standards Provisions Applicable to Contracts Governing Federally Financed and Assisted Construction"). Under this Act, contractors shall be required to pay wages to laborers and mechanics at a rate not less than the minimum wages specified in a wage determination made by the Secretary of Labor. In addition, contractors shall be required to pay wages not less than once a week. The recipient shall place a copy of the current prevailing wage determination issued by the Department of Labor in each solicitation and the award of a contract shall be conditioned upon the acceptance of the wage determination. The recipient shall report all suspected or reported violations to HUD.

5) Debarment and Suspension (E.O.s 12549 and 12689)

No contract shall be made to parties listed on the General Services Administration's List of Parties Excluded from Federal Procurement or Nonprocurement Programs in accordance with E.O.s 12549 and 12689, "Debarment and Suspension," as set forth at 24 CFR part 24. This list contains the names of parties debarred, suspended, or otherwise excluded by agencies, and contractors declared ineligible under statutory or regulatory authority other than E.O. 12549. Contractors with awards that exceed the small purchase threshold shall provide the required certification regarding its exclusion status and that of its principal employees.

6) Drug-Free Workplace Requirements

The Drug-Free Workplace Act of 1988 (42 U.S.C. 701) requires grantees (including individuals) of federal agencies, as a prior condition of being awarded a grant, to certify that they will provide drug-free workplaces. Each potential recipient must certify that it will comply with drug-free workplace requirements in accordance with the Act and with HUD's rules at 24 CFR part 24, subpart F.

7) Equal Employment Opportunity

Contractor shall comply with E.O. 11246, ``Equal Employment Opportunity," as amended by E.O. 11375, ``Amending Executive Order 11246 Relating to Equal Employment Opportunity," and as supplemented by regulations at 41 CFR part 60, ``Office of Federal Contract Compliance Programs, Equal Employment Opportunity, Department of Labor."

During the performance of the contract, the Contractor agrees as follows:

a. The Contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex or national origin. The Contractor will take affirmative action to insure that applicants are employed and that employees are treated during employment, without regard to their race, color, religion, sex or national origin. Such action shall include, but not be limited to the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the municipality setting forth the provisions of the non-discrimination clause.

- b. The Contractor will, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex or national origin.
- c. The Contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice, to be provided by the property Owner, advising the labor union of workers' representative of the Contractor's commitments under this section and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

- d. The Contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations and relevant orders of the Secretary of Labor.
- e. The Contractor will furnish all information and reports required by Executive Order 11246 amended as of September 24, 1965, and by the rules, regulations and orders of the Secretary of Labor, or the Secretary of Housing and Urban Development, pursuant thereto, and will permit access to his books, records, and accounts by the property owner, the City, the Secretary of Housing and Urban Development and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations and orders.
- f. In the event of the Contractor's non-compliance with the non-discrimination clauses of this contract or with any of such rules, regulations or orders, this contract may be cancelled, terminated or suspended in whole or in part and the Contractor may be declared ineligible for further Government contracts or Federally funded constructed contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies involved as provided in Executive Order 11246 of September 24, 1965, or by rule, regulations or order of the Secretary of Labor, or as otherwise provided by law
- g. The Contractor will include the provisions of paragraphs (a) through (g) in every subcontract or purchase order unless exempted by rules, regulations or orders of the Secretary of Labor issued pursuant to Section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The Contractor will take such action with respect to any subcontract or purchase order as the property owner may direct as a means of enforcing such provisions, including sanctions for non-compliance; provided, however, that, in the event the Contractor becomes involved in, or is threatened with litigation with a subcontractor or vendor as a result of such direction, the Contractor may request the United States to enter into such litigation to protect the interest of the United States.

In addition to the federal EEO requirements above, Contractor agrees that its employees and agents shall not discriminate against any person in employment or public accommodation because of race, religion, color, creed, gender identity, sex, national origin, sexual orientation, mental or physical disability, marital status, or age. "Employment" shall include but not be limited to hiring, accepting, registering, classifying, promoting, or referring to employment. "Public accommodation" shall include but not be limited to providing goods, services, facilities, privileges and advantages to the public.

8) Lobbying and Influencing Federal Employees

- i. No Federal appropriated funds shall be paid, by or on behalf of the contractor, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the making of any Federal grant and the amendment or modification of any Federal grant.
- ii. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with any Federal grant, the contractor shall complete and submit Standard Form-LLL, "Disclosure of Lobby Activities," in accordance with its instructions.
- iii. The Recipient shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure."

9) Nonsegregated Facilities

The federally-assisted construction contractor certifies that she or he does not maintain or provide, for his employees, any segregated facilities at any of his establishments and that she or he does not permit his

employees to perform their services at any location, under his control, where segregated facilities are maintained. The federally-assisted construction contractor certifies that she or he will not maintain or provide, for his employees, segregated facilities at any of his establishments and that she or he will not permit his employees to perform their services at any location under his control where segregated facilities are maintained. The federally assisted construction contractor agrees that a breach of this certification is a violation of the Equal Opportunity Clause in this contract.

As used in this certification, the term "segregated facilities" means any waiting rooms, work areas, restrooms, and washrooms, restaurants and other eating areas, timeclocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees which are segregated by explicit directives or are, in fact, segregated on the basis of race, color, religion, or national origin because of habit, local custom, or any other reason. The federally-assisted construction contractor agrees that (except where she or he has obtained identical certifications from proposed subcontractors for specific time periods) she or he will obtain identical certifications from proposed subcontractors prior to the award of subcontracts exceeding \$10,000 which are not exempt from the provisions of the Equal Opportunity Clause and that she or he will retain such certifications in his files.

10) Section 3 of the Housing and Urban Development Act of 1968

Contractor agrees to comply with Section 3 requirements, the regulations set forth in 24 CFR 135, and to include the following language in all subcontracts executed under this Agreement:

a. The work to be performed under this contract is subject to the requirements of Section 3 of the Housing and Urban Development Act of 1968, as amended, 12 U.S.C. 1701u (Section 3). The purpose of Section 3 is to ensure that employment and other economic opportunities generated by HUD assistance or HUD-assisted projects covered by Section 3 shall, to the greatest extent feasible, be directed to low- and very low-income persons, particularly persons who are recipients of HUD assistance for housing.

- b. The parties to this contract agree to comply with HUD's regulations in 24 CFR part 135, which implement Section 3. As evidenced by their execution of this contract, the parties to this contract certify that they are under no contractual or other impediment that would prevent them from complying with the part 135 regulations.
- c. The contractor agrees to send to each labor organization or representative of workers with which the contractor has a collective bargaining agreement or other understanding, if any, a notice advising the labor organization or workers' representative of the contractor's commitments under this Section 3 clause, and will post copies of the notice in conspicuous places at the work site where both employees and applicants for training and employment positions can see the notice. The notice shall describe the Section 3 preference, shall set forth minimum number and job titles subject to hire, availability of apprenticeship and training positions, the qualifications for each; and the name and location of the person(s) taking applications for each of the positions; and the anticipated date the work shall begin.
- d. The contractor agrees to include this Section 3 clause in every subcontract subject to compliance with regulations in 24 CFR part 135, and agrees to take appropriate action, as provided in an applicable provision of the subcontract or in this Section 3 clause, upon a finding that the subcontractor is in violation of the regulations in 24 CFR part 135. The contractor will not subcontract with any subcontractor where the contractor has notice or knowledge that the subcontractor has been found in violation of the regulations in 24 CFR part 135.
- e. The contractor will certify that any vacant employment positions, including training positions, that are filled (1) after the contractor is selected but before the contract is executed, and (2) with persons other than those to whom the regulations of 24 CFR part 135 require employment opportunities to be directed, were not filled to circumvent the contractor's obligations under 24 CFR part 135.
- f. Noncompliance with HUD's regulations in 24 CFR part 135 may result in sanctions, termination of this contract for default, and debarment or suspension from future HUD assisted contracts.
- g. With respect to work performed in connection with Section 3 covered Indian housing assistance, section 7(b) of the Indian Self-Determination and Education Assistance Act (25 U.S.C. 450e) also applies to the work

to be performed under this contract. Section 7(b) requires that to the greatest extent feasible (i) preference and opportunities for training and employment shall be given to Indians, and (ii) preference in the award of contracts and subcontracts shall be given to Indian organizations and Indian-owned Economic Enterprises. Parties to this contract that are subject to the provisions of Section 3 and section 7(b) agree to comply with Section 3 to the maximum extent feasible, but not in derogation of compliance with section 7(b).

11) Women and Minority Owned Business Enterprises

Contractor shall use its best efforts to afford minority and women-owned business enterprises (at least fifty-one (51) percent owned and controlled by minority group members or women) the maximum practicable opportunity to participate in the performance of this Agreement.

12) Federal Labor Provisions

Applicability

The Project or Program to which the construction work covered by this contract pertains is being assisted by the United States of America and the following Federal Labor Standards Provisions are included in this Contract pursuant to the provisions applicable to such Federal assistance.

- A. 1. (i) Minimum Wages. All laborers and mechanics employed or working upon the site of the work will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR Part 3), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics. Contributions made or costs reasonably anticipated for bona fide fringe benefits under Section l(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of 29 CFR 5.5(a)(1)(iv); also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs, which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided that the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under 29 CFR 5.5(a)(1)(ii) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible, place where it can be easily seen by the workers.
- (ii) (a) Any class of laborers or mechanics which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. HUD shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:
- (1) The work to be performed by the classification requested is not performed by a classification in the wage determination; and
- (2) The classification is utilized in the area by the construction industry; and
- (3) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.
- (b) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and HUD or its designee agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by HUD or its designee to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, D.C. 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise HUD or its designee or will notify HUD or its designee within the 30-day period that additional time is necessary. (Approved by the Office of Management and Budget under OMB control number 12150140.)

 (c) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and HUD or its designee do not agree on the proposed classification and wage rate (including

the amount designated for fringe benefits, where appropriate), HUD or its designee shall refer the questions, including the views of all interested parties and the recommendation of HUD or its designee, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise HUD or its designee or will notify HUD or its designee within the 30-day period that additional time is necessary. (Approved by the Office of Management and Budget under OMB Control Number 12150140.)

- (d) The wage rate (including fringe benefits where appropriate) determined pursuant to subparagraphs (1)(ii) (b) or (c) of this paragraph, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.
- (iii) Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

 (iv) If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, Provided, That the Secretary of Labor has found, upon the written

request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program. (Approved by the Office of Management and Budget under OMB Control Number 1215-0140.)

- 2. Withholding. HUD or its designee shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld from the contractor under this contract or any other Federal contract with the same prime contractor, or any other Federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee or helper, employed or working on the site of the work, all or part of the wages required by the contract, HUD or its designee may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased. HUD or its designee may, after written notice to the contractor, disburse such amounts withheld for and on account of the contractor or subcontractor to the respective employees to whom they are due. The Comptroller General shall make such disbursements in the case of direct Davis-Bacon Act contracts.
- 3. (i) Payrolls and basic records. Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in Section l(b)(2)(B) of the Davis-bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5 (a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in Section l(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs. (Approved by the Office of Management and Budget under OMB Control Numbers 1215-0140 and 1215-0017.)
- (ii) (a) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to HUD or its designee if the agency is a party to the contract, but if the agency is not such a party, the contractor will submit the payrolls to the applicant sponsor, or owner, as the case may be, for transmission to HUD or its designee. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i). This information may be submitted in any form desired. Optional Form WH-347 is available for this purpose and may be purchased from the Superintendent of Documents (Federal Stock Number 029-005-00014-1), U.S. Government Printing Office, Washington, DC 20402. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. (Approved by the Office of Management and Budget under OMB Control Number 1215-0149.)

- **(b)** Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:
- (1) That the payroll for the payroll period contains the information required to be maintained under 29 CFR 5.5 (a)(3)(i) and that such information is correct and complete;
- (2) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in 29 CFR Part 3;
- (3) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.
- (c) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by subparagraph A.3.(ii)(b).
- (d) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under Section 1001 of Title 18 and Section 231 of Title 31 of the United States Code. (iii) The contractor or subcontractor shall make the records required under subparagraph A.3.(i) available for inspection, copying, or transcription by authorized representatives of HUD or its designee or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, HUD or its designee may, after written notice to the contractor, sponsor, applicant or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

4. Apprentices and Trainees.

(i) Apprentices. Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman "s hourly rate) specified in the contractor's or subcontractor "s registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved. (ii) Trainees. Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the

predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of

Labor, Employment and Training Administration. The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved. (iii) Equal employment opportunity. The utilization of apprentices, trainees and journeymen under 29 CFR Part 5 shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR Part 30.

- **5. Compliance with Copeland Act requirements.** The contractor shall comply with the requirements of 29 CFR Part 3 which are incorporated by reference in this contract
- **6. Subcontracts.** The contractor or subcontractor will insert in any subcontracts the clauses contained in subparagraphs 1 through 11 of this paragraph A and such other clauses as HUD or its designee may by appropriate instructions require, and a copy of the applicable prevailing wage decision, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in this paragraph.
- 7. Contract termination; debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

 8. Compliance with Davis-Bacon and Related Act Requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR Parts 1, 3, and 5 are herein incorporated by reference in this contract
- **9. Disputes concerning labor standards.** Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR Parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and HUD or its designee, the U.S. Department of Labor, or the employees or their representatives.
- 10. (i) Certification of Eligibility. By entering into this contract the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of Section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1) or to be awarded HUD contracts or participate in HUD programs pursuant to 24 CFR Part 24.
- (ii) No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of Section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1) or to be awarded HUD contracts or participate in HUD programs pursuant to 24 CFR Part 24.
- (iii) The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001. Additionally, U.S. Criminal Code, Section 1 01 0, Title 18, U.S.C., "Federal Housing Administration transactions", provides in part: "Whoever, for the purpose of . . . influencing in any way the action of such Administration..... makes, utters or publishes any statement knowing the same to be false..... shall be fined not more than \$5,000 or imprisoned not more than two years, or both."
- 11. Complaints, Proceedings, or Testimony by Employees. No laborer or mechanic to whom the wage, salary, or other labor standards provisions of this Contract are applicable shall be discharged or in any other manner discriminated against by the Contractor or any subcontractor because such employee has filed any complaint or instituted or caused to be instituted any proceeding or has testified or is about to testify in any proceeding under or relating to the labor standards applicable under this Contract to his employer.
- **B.** Contract Work Hours and Safety Standards Act. The provisions of this paragraph B are applicable only where the amount of the prime contract exceeds \$100,000. As used in this paragraph, the terms "laborers" and

"mechanics" include watchmen and guards. (1) Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of 40 hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of 40 hours in such workweek.

- (2) Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in subparagraph (1) of this paragraph, the contractor and any subcontractor responsible therefore shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in subparagraph (1) of this paragraph, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of 40 hours without payment of the overtime wages required by the clause set forth in sub paragraph (1) of this paragraph.
- (3) Withholding for unpaid wages and liquidated damages. HUD or its designee shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contract, or any other Federally-assisted contract subject to the Contract Work Hours and Safety Standards Act which is held by the same prime contractor such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in subparagraph (2) of this paragraph.
- (4) Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in subparagraph (1) through (4) of this paragraph and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in subparagraphs (1) through (4) of this paragraph.
- **C. Health and Safety.** The provisions of this paragraph C are applicable only where the amount of the prime contract exceeds \$100,000.
- (1) No laborer or mechanic shall be required to work in surroundings or under working conditions which are unsanitary, hazardous, or dangerous to his health and safety as determined under construction safety and health standards promulgated by the Secretary of Labor by regulation.
- (2) The Contractor shall comply with all regulations issued by the Secretary of Labor pursuant to Title 29 Part 1926 and failure to comply may result in imposition of sanctions pursuant to the Contract Work Hours and Safety Standards Act, 40 USC 3701 et seq.
- (3) The Contractor shall include the provisions of this paragraph in every subcontract so that such provisions will be binding on each subcontractor. The Contractor shall take such action with respect to any subcontract as the Secretary of Housing and Urban Development or the Secretary of Labor shall direct as a means of enforcing such provisions.

13) Access and Maintenance of Records

The contractor must maintain all required records for five years after final payments are made and all other pending matters are closed.

At any time during normal business hours and as frequently as is deemed necessary, the contractor shall make available to the Iowa Department of Economic Development, the State Auditor, the General Accounting Office, and the Department of Housing and Urban Development, for their examination, all of its records pertaining to all matters covered by this contract and permit these agencies to audit, examine, make excerpts or transcripts from such records, contract, invoices, payrolls, personnel records, conditions of employment, and all other matters covered by this contract.

14) Civil Rights Provisions

As applicable, the Subcontractor agrees to comply with:

a. Title VI of the Civil Rights Act of 1964 as amended Title VI, codified at 42 U.S.C. § 2000d, prohibits racial discrimination by recipients of federal funds as follows: No person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance.

b. Title VIII of the Civil Rights Act of 1968 as amended Title VIII of the Civil Rights Act of 1968, as amended by the Fair Housing Act of 1988, which is codified at 42 U.S.C. § 3604, prohibits discriminating against persons in the sale or rent or a dwelling based on disability. Discrimination includes a refusal to make reasonable accommodations in rules and policies, when such accommodations may be necessary to afford such person equal opportunity to use and enjoy a dwelling.

lowa Civil Rights Act of 1965: The Iowa Civil Rights Act prohibits discrimination in employment based on positive HIV tests or on AIDS or the symptoms of AIDS and on the basis of pregnancy, childbirth, and related conditions. Also prohibited is employment discrimination based on age, race, creed, color, sex, national origin, religion, and disability. The Iowa Civil Rights Act is administered and enforced by the Iowa Civil Rights Commission (ICRC).

c. Section 109 of Title I of the Housing and Community Development Act of 1974 as amended Section 109 is codified at 42 USC 5309 and provides that no person shall on the ground of race, color, national origin, religion, or sex be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity funded in whole or in part with CDBG funds.

d. Americans with Disabilities Act of 1990 as amended

The Americans with Disabilities Act of 1990, as amended, prohibits private employers, state and local governments, employment agencies and labor unions from discriminating against qualified individuals with disabilities in job application procedures, hiring, firing, advancement, compensation, job training, and other terms, conditions, and privileges of employment. The ADA covers employers with 15 or more employees, including state and local governments.

e. Section 504 of the 1973 Rehabilitation Act

The Subcontractor agrees to comply with all Federal regulations issued pursuant to compliance with Section 504 of the Rehabilitation Act of 1973 (29 U.S.C. 794), which prohibits discrimination against the individuals with disabilities or handicaps in any Federally assisted program. The Contractor shall provide the Subcontractor with any guidelines necessary for compliance with that portion of the regulations in force during the term of this Agreement.

f. Age Discrimination Act of 1975

This prohibits discrimination on the basis of age in programs or activities receiving Federal financial assistance.

g. Executive Order 11063

This Executive Order signed by President Kennedy "prohibits discrimination in the sale, leasing, rental, or other disposition of properties and facilities owned or operated by the federal government or provided with federal funds."

15) Prevailing Wage.

General Decision Number: IA150037 01/22/2016 IA37

Superseded General Decision Number: IA20140037

State: Iowa

Construction Type: Building

County: Johnson County in Iowa.

BUILDING CONSTRUCTION PROJECTS (does not include single family homes or apartments up to and including 4 stories).

Note: Executive Order (EO) 13658 establishes an hourly minimum wage of \$10.15 for 2016 that applies to all contracts subject to the Davis-Bacon Act for which the solicitation is issued on or after January 1, 2015. If this contract is covered by the

DVIP RESTROOM REMODELING PROJECT

EO, the contractor must pay all workers in any classification listed on this wage determination at least \$10.15 (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract. The EO minimum wage rate will be adjusted annually. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

| 1 | 01/08/2016 01/22/2016 | |
|--|--------------------------|---------|
| BRIA0001-007 05/05/2013 | | |
| | Rates | Fringes |
| BRICKLAYER | | |
| BRIA0001-009 07/01/2013 | | |
| | Rates | Fringes |
| TILE SETTER | • | 9.30 |
| CARP1260-014 05/01/2014 | | |
| | Rates | Fringes |
| CARPENTER, Includes Dryw Hanging, Form Work, and Stud Installation | Metal | 15.27 |
| CARP2158-003 06/01/2014 | ! | |
| | Rates | Fringes |
| MILLWRIGHT | • | 19.50 |

| | Rates | Fringes |
|---|---------------------|-------------------------|
| Power equipment operators: GROUP 1 | \$ 24.32 | 13.40 13.40 13.40 |
| POWER EQUIPMENT OPERATORS CLASSIF | ICATIONS | |
| GROUP 1 - Backhoe; Crane; Excavate GROUP 2 - Bulldozer; Forklift; Sc GROUP 3 - Bobcat/Skid Loader; Grad | raper der/Blade; | |
| IRON0089-005 05/01/2014 | Rates | Fringes |
| IRONWORKER (Ornamental, Reinforcing and Structural) | | |
| LABO0309-009 05/01/2012 | Rates | Fringes |
| Mason Tender - Brick Mason Tender - | | 9.91 |
| Cement/Concrete Pipelayer | | 9.91 9.91 |
| Plasterer Tender | \$ 21.36 | 9.91 |
| * PAIN0447-006 05/05/2015 PAINTER, Excludes Drywall | Rates | Fringes |
| Finishing/Taping Brush and Roller Spray | \$ 22.85 | 9.69 9.69 |
| PLUM0125-013 05/01/2013 | Rates | Fringes |
| PIPEFITTER | \$ 35.79 | 13.44 |
| ROOF0182-005 05/01/2015 | Rates | Fringes |
| ROOFER | \$ 22.66 | 10.09 |
| TEAM0238-003 05/01/2015 | Rates | Fringes |
| TRUCK DRIVER | \$ 25.54 | 5.60+a |
| a. Pension - \$208.80 per week | | |

| SUIA2008-033 09/11/2008 | Rates | Fringes |
|--|-------|---------|
| ASBESTOS WORKER/HEAT & FROST INSULATOR\$ | 14.05 | 0.00 |
| CEMENT MASON/CONCRETE FINISHER\$ | 17.12 | 2.38 |
| DRYWALL FINISHER/TAPER\$ | 20.88 | 0.00 |
| ELECTRICIAN\$ | 18.88 | 3.37 |
| GLAZIER\$ | 15.40 | 3.99 |
| LABORER: Common or General\$ | 14.35 | 3.62 |
| LABORER: Landscape & Irrigation\$ | 8.98 | 0.00 |
| PLASTERER\$ | 22.90 | 0.00 |
| PLUMBER\$ | 20.60 | 3.86 |
| SHEET METAL WORKER\$ | | 2.54 |

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of "identifiers" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than "SU" or "UAVG" denotes that the union classification and rate were prevailing for that classification in the survey.

Example:

PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the "SU" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

- 1.) Has there been an initial decision in the matter? This can be:
- * an existing published wage determination
- * a survey underlying a wage determination
- * a Wage and Hour Division letter setting forth a position on a wage determination matter
- * a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations Wage and Hour Division U.S. Department of Labor 200 Constitution Avenue, N.W. Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator U.S. Department of Labor 200 Constitution Avenue, N.W. Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board U.S. Department of Labor 200 Constitution Avenue, N.W. Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

SECTION 011000 - SUMMARY

PART 1 GENERAL

1.01 PROJECT

- A. Project Name: DVIP RESTROOM REMODELING PROJECT.
- B. Owner's Name: Domestic Violence Intervention Program of Iowa City.
- C. Architect's Name: Thomas McInerney Architect.
- D. The Project consists of the interior renovation of two existing public restrooms on the second floor of an existing building. The intent is to provide accessibility to the restrooms. The project also includes the replacement of the entry doors and hardware to each of the second floor dwelling units.

1.02 CONTRACT DESCRIPTION

A. Contract Type: A single prime contract based on a Stipulated Price as described in Document FG - Form of Agreement.

1.03 DESCRIPTION OF ALTERATIONS WORK

- A. Scope of demolition and removal work is the responsibility of the Contractor.
- B. Plumbing: Alter existing system and add new construction, keeping existing in operation.
- C. HVAC: Alter existing system and add new construction, keeping existing in operation.
- D. Electrical Power and Lighting: Alter existing system and add new construction, keeping existing in operation.

1.04 OWNER OCCUPANCY

- B. OWNER intends to occupy the Project upon Substantial Completion.
- C. Cooperate with OWNER to minimize conflict and to facilitate OWNER's operations.
- D. Schedule the Work to accommodate OWNER occupancy.

1.05 CONTRACTOR USE OF SITE AND PREMISES

- A. Arrange use of site and premises to allow:
 - 1. OWNER occupancy and continued operation.
 - 2. Use of site and premises by the public and adjacent Tenant.
- B. Provide access to and from site as required by law, adjacent Property Owners and by OWNER:
 - 1. Emergency Building Exits During Construction: Keep all exits required by code open during construction period; provide temporary exit signs if exit routes are temporarily altered.
 - 2. Do not obstruct roadways, sidewalks, or other public ways without permit.
- C. Existing building spaces may not be used for storage.
- D. Time Restrictions:

1. Prohibit the conduct of especially noisy interior and exterior work (over 90 decibels within 10 feet of source) between the hours of 6PM to 8AM.

1.06 WORK SEQUENCE

- A. Coordinate construction schedule and operations with OWNER.
- PART 2 PRODUCTS NOT USED
- PART 3 EXECUTION NOT USED

SECTION 012000 - PRICE AND PAYMENT PROCEDURES

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Procedures for preparation and submittal of applications for progress payments.
- B. Change procedures.

1.02 RELATED SECTIONS

- A. Section FG Form of Agreement: Contract Sum, payment period.
- B. Section GC General Conditions: Additional requirements for progress payments, final payment, changes in the Work.
- C. Section SC Supplementary Conditions: Percentage allowances for Contractor's overhead and profit.
- D. Section 01 7700 Closeout Procedures.

1.03 SCHEDULE OF VALUES

- A. Submit a printed schedule on AIA Form G703 Application and Certificate for Payment Continuation Sheet. Contractor's standard form or electronic media printout will be considered.
- B. Submit Schedule of Values in duplicate within 15 days after date established in Notice to Proceed.
- C. Format: Utilize the Table of Contents of this Project Manual. Identify each line item with number and title of the specification Section. Identify site mobilization, bonds and insurance, and Contractor's overhead and profit.
- D. Revise schedule to list approved Change Orders, with each Application For Payment.

1.04 APPLICATIONS FOR PROGRESS PAYMENTS

- A. Make applications for progress payments in amounts equal to ninetyfive percent of the value of Work completed, including cost of materials and equipment properly stored at the jobsite, less the amount of previous payments.
- B. Payment Period: Submit at intervals stipulated in the Agreement.
- C. Present required information in typewritten form.
- D. Form: AIA G702 Application and Certificate for Payment and AIA G703 Continuation Sheet including continuation sheets when required.
- E. Execute certification by signature of authorized officer.
- F. Use data from approved Schedule of Values. Provide dollar value in each column for each line item for portion of work performed and for stored Products.
- G. List each authorized Change Order as a separate line item, listing Change Order number and dollar amount as for an original item of Work.

- H. Submit three copies of each Application for Payment.
- I. Include the following with the application:
 - 1. Construction progress schedule, revised and current as specified in Section 01 3000 Administrative Requirements.
 - 2. Partial release of liens from major Subcontractors and vendors.
 - 3. Affidavits attesting to off-site stored products.
- J. When Architect requires substantiating information, submit data justifying dollar amounts in question. Provide one copy of data with cover letter for each copy of submittal. Show application number and date, and line item by number and description.

1.05 MODIFICATION PROCEDURES

- A. Architect will advise of minor changes in the Work not involving an adjustment to Contract Sum or Contract Time as authorized by the Conditions of the Contract by issuing supplemental instructions on Architect's form.
- B. Construction Change Directive: Architect may issue a document, signed by OWNER, instructing Contractor to proceed with a change in the Work, for subsequent inclusion in a Change Order.
 - 1. The document will describe changes in the Work, and will designate method of determining any change in Contract Sum or Contract Time.
 - 2. Promptly execute the change in Work.
- C. Proposal Request: Architect may issue a document which includes a detailed description of a proposed change with supplementary or revised Drawings and specifications, a change in Contract Time for executing the change with a stipulation of any overtime work required and the period of time during which the requested price will be considered valid. Contractor shall prepare and submit a fixed price quotation within 15 days.
- D. Contractor may propose a change by submitting a request for change to Architect, describing the proposed change and its full effect on the Work, with a statement describing the reason for the change, and the effect on the Contract Sum and Contract Time with full documentation and a statement describing the effect on Work by separate or other contractors. Document any requested substitutions in accordance with Section 01 6000.
- E. Computation of Change in Contract Amount:
 - For change requested by Architect for work falling under a fixed price contract, the amount will be based on Contractor's price quotation.
 - 2. For change requested by Contractor, the amount will be based on the Contractor's request for a Change Order as approved by Architect.
 - 3. For pre-determined unit prices and quantities, the amount will based on the fixed unit prices.
 - 4. For change ordered by Architect without a quotation from Contractor, the amount will be determined by Architect based on the Contractor's substantiation of costs as specified for Time and Material work.
- F. Substantiation of Costs: Provide full information required for

evaluation.

- 1. On request, provide following data:
 - a. Quantities of products, labor, and equipment.
 - b. Taxes, insurance, and bonds.
 - c. Overhead and profit.
 - d. Justification for any change in Contract Time.
 - e. Credit for deletions from Contract, similarly documented.
- Support each claim for additional costs with additional information:
 - a. Origin and date of claim.
 - b. Dates and times work was performed, and by whom.
 - c. Time records and wage rates paid.
 - d. Invoices and receipts for products, equipment, and subcontracts, similarly documented.
- 3. For Time and Material work, submit itemized account and supporting data after completion of change, within time limits indicated in the Conditions of the Contract.
- G. Execution of Change Orders: Architect will issue Change Orders for signatures of parties as provided in the Conditions of the Contract on AIA G701.
- H. After execution of Change Order, promptly revise Schedule of Values and Application for Payment forms to record each authorized Change Order as a separate line item and adjust the Contract Sum.
- I. Promptly revise progress schedules to reflect any change in Contract Time, revise sub-schedules to adjust times for other items of work affected by the change, and resubmit.
- J. Promptly enter changes in Project Record Documents.

1.06 APPLICATION FOR FINAL PAYMENT

- A. Final Payment shall be the remaining balance of five percent of the final contract sum (contract retainage).
- B. Prepare Application for Final Payment as specified for progress payments, identifying total adjusted Contract Sum, previous payments, and sum remaining due.
- C. Application for Final Payment will not be considered until the following have been accomplished:
 - All closeout procedures specified in Section 01 7700 Closeout Procedures .
 - 2. Owner's written acceptance of the completed Work.
- D. Final Payment shall become due after 30 days following the Owner's final acceptance of the Work.
- PART 2 PRODUCTS NOT USED
- PART 3 EXECUTION NOT USED

SECTION 012100 - ALLOWANCES

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Cash allowances.
- B. Contingency allowance.

1.02 RELATED SECTIONS

A. Section 01 2000 - Price and Payment Procedures: Additional payment and modification procedures.

1.03 CASH ALLOWANCES

- A. Costs Included in Cash Allowances: Cost of product to Contractor or subcontractor, less applicable trade discounts, less applicable taxes.
- B. Costs Not Included in Cash Allowances: Product handling at the site, including unloading, uncrating, and storage; protection of products from elements and from damage; and labor for installation and finishing.
- C. Architect Responsibilities:
 - 1. Select products in consultation with OWNER and transmit decision to Contractor.
 - 2. Prepare Change Order.
- D. Contractor Responsibilities:
 - 1. Obtain proposals from suppliers and offer recommendations.
 - 2. On notification of which products have been selected, execute purchase agreement with designated supplier.
 - Arrange for and process shop drawings, product data, and samples.
 Arrange for delivery.
- E. Differences in costs will be adjusted by Change Order.

1.04 CONTINGENCY ALLOWANCE

- A. Contractor's costs for products, delivery, installation, labor, insurance, payroll, taxes, bonding, equipment rental, overhead and profit will be included in Change Orders authorizing expenditure of funds from this Contingency Allowance.
- B. Funds will be drawn from the Contingency Allowance only by Change Order.
- C. At closeout of Contract, funds remaining in Contingency Allowance will be credited to Owner by Change Order.

1.05 INSPECTING AND TESTING ALLOWANCES

- A. Costs Included in Inspecting and Testing Allowances: Cost of engaging an inspecting or testing agency; execution of inspecting and tests; and reporting results.
- B. Costs Not Included in the Inspecting and Testing Allowances:
 - 1. Costs of incidental labor and facilities required to assist

- inspecting or testing agency.
- 2. Costs of testing services used by Contractor separate from Contract Document requirements.
- 3. Costs of retesting upon failure of previous tests as determined by Architect.
- C. Payment Procedures:
 - 1. Submit one copy of the inspecting or testing firm's invoice with next application for payment.
 - 2. Pay invoice on approval by Architect.
- D. Differences in cost will be adjusted by Change Order.

1.06 ALLOWANCES SCHEDULE

- A. Contingency Allowance: Include the stipulated sum/price of \$3,000 for use upon Owner's instructions.
- PART 2 PRODUCTS NOT USED
- PART 3 EXECUTION NOT USED

SECTION 013000 - ADMINISTRATIVE REQUIREMENTS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Preconstruction meeting.
- B. Progress meetings.
- C. Construction progress schedule.
- D. Submittals for review, information, and project closeout.
- E. Number of copies of submittals.
- F. Submittal procedures.

1.02 RELATED SECTIONS

- A. Section 01 1000 Summary.
- B. Section 01 7700 Closeout Procedures.
- C. Section 01 7800 Closeout Submittals: Project record documents.
- D. Section 01 7900 Demonstration and Training: Instruction of Owner's operating personnel.

1.04 PROJECT COORDINATION

- A. Project Coordinator: Owner's designated contact person.
- B. Cooperate with the Project Coordinator in allocation of mobilization areas of site; for field offices and sheds, for construction access, traffic, and parking facilities.
- C. During construction, coordinate use of site and facilities through the Project Coordinator.
- D. Comply with instructions of the Project Coordinator for use of temporary utilities and construction facilities.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.01 PRECONSTRUCTION MEETING

- A. Architect will schedule a meeting after Owner's "Notice to Proceed".
- B. Attendance Required:
 - 1. OWNER.
 - 2. Architect.
 - Contractor.
 - 4. Major Subcontractors.

C. Agenda:

- 1. Distribution of Contract Documents.
- 2. Submission of list of Subcontractors, list of Products, schedule of values, and progress schedule.
- 3. Designation of personnel representing the parties to Contract, the Owner's jobsite representative, the Contractor's key administrative

- and field personnel, and Architect.
- 4. Procedures and processing of field decisions, submittals, substitutions, applications for payments, proposal request, Change Orders, and Contract closeout procedures.
- 5. Scheduling.
- D. Architect will record minutes and distribute copies within three days after meeting to participants, with two copies to OWNER, Contractor participants, and those affected by decisions made.

3.02 CONTRACTOR'S PROGRESS MEETINGS

- A. Schedule and administer meetings throughout progress of the Work at maximum monthly intervals.
- B. Make arrangements for meetings, prepare agenda with copies for participants, preside at meetings.
- C. Attendance Required: Job superintendent, major Subcontractors and suppliers, OWNER, 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. Maintenance of quality and work standards.
 - 11. Effect of proposed changes on progress schedule and coordination.
 - 12. Other business relating to Work.
- E. Record minutes and distribute copies within two days after meeting to participants, with two copies to Architect, OWNER, participants, and those affected by decisions made.

3.03 CONSTRUCTION PROGRESS SCHEDULE - See Section 01 3216

- A. Within 15 days after date established in Notice to Proceed, submit preliminary schedule defining planned operations for the first 60 days of Work, with a general outline for remainder of Work.
- B. If preliminary schedule requires revision after review, submit revised schedule within 10 days.
- C. Within 20 days after review of preliminary schedule, submit draft of proposed complete schedule for review.
 - 1. Include written certification that major contractors have reviewed and accepted proposed schedule.
- D. Incorporate the following schedule for contract closeout:
 - 1. Closeout Meeting: Schedule at least 45 days prior to anticipated date of Substantial Completion. Submit initial copy of Operation

- and Maintenance Manuals for review.
- 2. Demonstration and Instruction: Schedule at least 15 days prior to Substantial Completion.
- 3. Contractor's Punchlist and Notification of Substantial Completion: Submit at least 10 days prior to anticipated date of Substantial Completion.
 - a. Architect will schedule verification inspection of Work within 5 days of receipt of Contractor's Notice of Substantial Completion.
- 4. Architect will issue "Certificate of Substantial Completion" in accordance with provisions in the Conditions of the Contract.
- 5. Closeout Submittals: See Section 01 7800 Execution and Closeout Requirements. Submit within 25 days following Substantial Completion.
- 6. Final Change Order: Architect will prepare and issue within 5 days after Substantial Completion.
- 7. Contractor's Notification of Final Completion: Architect will schedule Final Inspection of the Work within 5 days of receipt of Contractor's Notice.
- 8. Architect will issue Final Certificate for Payment upon Owner's Final Acceptance of the Work.
- 9. Final Payment: See Section 01 2000 Price and Payment Procedures. Payment due and payable 30 days after Owner's Final Acceptance of the Work.
- E. Submit updated schedule with each Application for Payment.

3.04 SCHEDULE FORMAT

- A. Bar Charts: Include a separate bar for each major portion of Work or operation.
- B. Listings: In chronological order according to the start date for each activity. Identify each activity with the applicable specification section number.
- C. Sheet Size: Multiples of 8-1/2 x 11 inches.
- D. Scale and Spacing: To allow for notations and revisions.

3.05 SUBMITTALS FOR REVIEW

- A. When the following are specified in individual sections, submit them for review:
 - 1. Product data.
 - 2. Shop drawings.
 - 3. Samples for selection.
 - 4. Samples for verification.
- B. Submit to Architect for review for the limited purpose of checking for conformance with information given and the design concept expressed in the contract documents.
- C. Samples will be reviewed only for aesthetic, color, or finish selection.
- D. After review, provide copies and distribute in accordance with

Submittal Procedures article below and for record documents purposes described in Section 01 7800 - CLOSEOUT SUBMITTALS.

3.06 SUBMITTALS FOR INFORMATION

- A. When the following are specified in individual sections, submit them for information:
 - 1. Design data.
 - 2. Certificates.
 - 3. Test reports.
 - 4. Inspection reports.
 - 5. Manufacturer's instructions.
 - 6. Manufacturer's field reports.
 - 7. Other types indicated.
- B. Submit for Architect's knowledge as contract administrator or for OWNER. No action will be taken.

3.07 SUBMITTALS FOR PROJECT CLOSEOUT

- A. When the following are specified in individual sections, submit them at project closeout:
 - 1. Project record documents.
 - 2. Operation and maintenance data.
 - 3. Warranties.
 - 4. Bonds.
 - 5. Other types as indicated.
- B. Submit for OWNER's benefit during and after project completion.

3.08 NUMBER OF COPIES OF SUBMITTALS

- A. Documents for Review:
 - 1. Small Size Sheets, Not Larger Than $8-1/2 \times 11$ inches: Submit the number of copies which the Contractor requires, plus two copies which will be retained by the Architect.
 - 2. Larger Sheets, Not Larger Than 24 \times 36 inches: Submit one reproducible transparency and two opaque reproduction.
- B. Documents for Information: Submit two copies.
- C. Documents for Project Closeout: Make three reproductions of submittal originally reviewed. Submit one extra of submittals for information.
- D. Samples: Submit the number specified in individual specification sections; one of which will be retained by Architect.
 - 1. After review, produce duplicates.
 - 2. Retained samples will not be returned to Contractor unless specifically so stated.

3.09 SUBMITTAL PROCEDURES

- A. Transmit each submittal with approved form.
- B. Sequentially number the transmittal form. Revise submittals with original number and a sequential alphabetic suffix.
- C. Identify Project, Contractor, Subcontractor or supplier; pertinent drawing and detail number, and specification section number, as

appropriate on each copy.

- D. Apply Contractor's stamp, signed or initialed certifying that review, approval, verification of Products required, field dimensions, adjacent construction Work, and coordination of information is in accordance with the requirements of the Work and Contract Documents.
- E. Deliver submittals to Architect at business address.
- F. Schedule submittals to expedite the Project, and coordinate submission of related items.
- G. For each submittal for review, allow 15 days excluding delivery time to and from the Contractor.
- H. Identify variations from Contract Documents and Product or system limitations which may be detrimental to successful performance of the completed Work.
- I. Provide space for Contractor and Architect review stamps.
- J. When revised for resubmission, identify all changes made since previous submission.
- K. Distribute copies of reviewed submittals as appropriate. Instruct parties to promptly report any inability to comply with requirements.
- L. Submittals not requested will not be recognized or processed.

3.10 ATTACHED FORMS

A. Transmittal Form for "Construction Submittals".

CONSTRUCTION SUBMITTAL

Project No.: 15.42

NOTE: A Construction Submittal is required for each Specification Section.

DO NOT bind together separate submittals from different Specification Sections.

This form is to be used *only* if there are no deviations from the Contract Documents.

DVIP RESTROOM REMODELING PROJECT

Project Description: (Project Title, Facility Name and Address)

IOWA CITY, IOWA

SUBMITTAL TYPE:

| | Re-Submittal | Information (Waiver) | |
|--------------|---------------|---------------------------|--|
| Product Data | Shop Drawings | Quality Control/Assurance | Comply with all submittal requirements in the Project Manual |
| Test Reports | Certificate | Contract Closeout | as per Section 013000 and the particular Specification Section for |
| Design Data | Samples | Other | which you are transmitting material. |

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| | ٠. |

FROM:

DATE:

Specification Number and Title:

| Part | Туре | Description |
|------|------|-------------|
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| | | |

Contractor's Certification:

We have verified that all material or equipment contained in this submittal meets all the requirements specified or shown (no exceptions).

Contractor/Contractor's Representative (Print Name)

Signature

SECTION 014000 - QUALITY REQUIREMENTS

PART 1 GENERAL

1.01SECTION INCLUDES

- A. Quality assurance submittals.
- B. Mock-ups.
- C. Control of installation.
- D. Tolerances.
- E. Testing and inspection services.
- F. Manufacturers' field services.

1.02 RELATED SECTIONS

- A. Section 01 3000 Administrative Requirements: Submittal procedures.
- B. Section 01 6000 Product Requirements: Requirements for material and product quality.

1.03 REFERENCES

1.04 SUBMITTALS

- A. Testing Agency Qualifications:
 - 1. Prior to start of Work, submit agency name, address, and telephone number, and names of full time specialist and responsible officer.
- B. Test Reports: After each test/inspection, promptly submit two copies of report to Architect and to Contractor.
 - 1. Include:
 - a. Date issued.
 - b. Project title and number.
 - c. Name of inspector.
 - d. Date and time of sampling or inspection.
 - e. Identification of product and specifications section.
 - f. Location in the Project.
 - g. Type of test/inspection.
 - h. Date of test/inspection.
 - i. Results of test/inspection.
 - j. Conformance with Contract Documents.
 - k. When requested by Architect, provide interpretation of results.
 - 2. Test reports are submitted for Architect's knowledge as contract administrator or for the OWNER, for information for the limited purpose of assessing conformance with information given and the design concept expressed in the contract documents.
- C. Certificates: When specified in individual specification sections, submit certification by the manufacturer and Contractor or installation/application subcontractor to Architect, in quantities specified for Product Data.
 - Indicate material or product conforms to or exceeds specified requirements. Submit supporting reference data, affidavits, and

- certifications as appropriate.
- 2. Certificates may be recent or previous test results on material or product, but must be acceptable to Architect.
- D. Manufacturer's Instructions: When specified in individual specification sections, submit printed instructions for delivery, storage, assembly, installation, start-up, adjusting, and finishing, for the OWNER's information. Indicate special procedures, perimeter conditions requiring special attention, and special environmental criteria required for application or installation.
- E. Manufacturer's Field Reports: Submit reports for Architect's benefit as contract administrator or for OWNER.
 - Submit for information for the limited purpose of assessing conformance with information given and the design concept expressed in the contract documents.

1.05 TESTING AND INSPECTION AGENCIES

- A. OWNER will employ and pay for services of an independent testing agency to perform specified testing and inspection.
- B. Employment of agency in no way relieves Contractor of obligation to perform Work in accordance with requirements of Contract Documents.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.01CONTROL OF INSTALLATION

- A. Monitor quality control over suppliers, manufacturers, products, services, site conditions, and workmanship, to produce Work of specified quality.
- B. Comply with manufacturers' instructions, including each step in sequence.
- C. Should manufacturers' instructions conflict with Contract Documents, request clarification from Architect before proceeding.
- D. Comply with specified standards as minimum quality for the Work except where more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.
- E. Have Work performed by persons qualified to produce required and specified quality.
- F. Verify that field measurements are as indicated on shop drawings or as instructed by the manufacturer.
- G. Secure products in place with positive anchorage devices designed and sized to withstand stresses, vibration, physical distortion, and disfigurement.

3.02MOCK-UPS

A. Tests will be performed under provisions identified in this section

- and identified in the respective product specification sections.
- B. Assemble and erect specified items with specified attachment and anchorage devices, flashings, seals, and finishes.
- C. Accepted mock-ups shall be a comparison standard for the remaining Work.
- D. Where mock-up has been accepted by Architect and is specified in product specification sections to be removed, remove mock-up and clear area when directed to do so.

3.03 TOLERANCES

- A. Monitor fabrication and installation tolerance control of products to produce acceptable Work. Do not permit tolerances to accumulate.
- B. Comply with manufacturers' tolerances. Should manufacturers' tolerances conflict with Contract Documents, request clarification from Architect before proceeding.
- C. Adjust products to appropriate dimensions; position before securing products in place.

3.04 TESTING AND INSPECTION

- A. See individual specification sections for testing required.
- B. Testing Agency Duties:
 - 1. Test samples of mixes submitted by Contractor.
 - 2. Provide qualified personnel at site. Cooperate with Architect and Contractor in performance of services.
 - 3. Perform specified sampling and testing of products in accordance with specified standards.
 - Ascertain compliance of materials and mixes with requirements of Contract Documents.
 - 5. Promptly notify Architect and Contractor of observed irregularities or non-conformance of Work or products.
 - 6. Perform additional tests and inspections required by Architect.
 - 7. Submit reports of all tests/inspections specified.
- C. Limits on Testing/Inspection Agency Authority:
 - 1. Agency may not release, revoke, alter, or enlarge on requirements of Contract Documents.
 - 2. Agency may not approve or accept any portion of the Work.
 - 3. Agency may not assume any duties of Contractor.
 - 4. Agency has no authority to stop the Work.
- D. Contractor Responsibilities:
 - 1. Deliver to agency at designated location, adequate samples of materials proposed to be used which require testing, along with proposed mix designs.
 - Cooperate with laboratory personnel, and provide access to the Work and to manufacturers' facilities.
 - 3. Provide incidental labor and facilities:
 - a. To provide access to Work to be tested/inspected.

- b. To obtain and handle samples at the site or at source of Products to be tested/inspected.
- c. To facilitate tests/inspections.
- d. To provide storage and curing of test samples.
- 4. Notify Architect and laboratory 24 hours prior to expected time for operations requiring testing/inspection services.
- 5. Employ services of an independent qualified testing laboratory and pay for additional samples, tests, and inspections required by Contractor beyond specified requirements.
- Arrange with OWNER's agency and pay for additional samples, tests, and inspections required by Contractor beyond specified requirements.
- E. Re-testing required because of non-conformance to specified requirements shall be performed by the same agency on instructions by Architect. Payment for re testing will be charged to the Contractor by deducting testing charges from the Contract Price.

3.05MANUFACTURERS' FIELD SERVICES

- A. When specified in individual specification sections, require material or product suppliers or manufacturers to provide qualified staff personnel to observe site conditions, conditions of surfaces and installation, quality of workmanship, start-up of equipment, test, adjust and balance of equipment as applicable, and to initiate instructions when necessary.
- B. Report observations and site decisions or instructions given to applicators or installers that are supplemental or contrary to manufacturers' written instructions.

3.06 DEFECT ASSESSMENT

- A. Replace Work or portions of the Work not conforming to specified requirements.
- B. If, in the opinion of Architect, it is not practical to remove and replace the Work, Architect will direct an appropriate remedy or adjust payment.

SECTION 015000 - TEMPORARY FACILITIES AND CONTROLS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Temporary utilities.
- B. Temporary telephone service.
- C. Temporary sanitary facilities.
- D. Temporary Controls: Barriers, enclosures, and fencing.
- E. Security requirements.
- F. Vehicular access and parking.
- G. Waste removal facilities and services.
- H. Project identification sign.

1.02 TEMPORARY UTILITIES

- A. Provide and pay for all electrical power, lighting, heating and cooling, and ventilation required for construction purposes.
- B. Existing facilities may not be used.
- C. New permanent facilities may not be used.
- D. Use trigger-operated nozzles for water hoses, to avoid waste of water.

1.03 TELEPHONE SERVICE

- A. Provide, maintain, and pay for telephone service to field office at time of project mobilization.
- B. Provide, maintain and pay for facsimile service and a dedicated telephone line to field office at time of project mobilization.

1.04 TEMPORARY SANITARY FACILITIES

- A. Provide and maintain required facilities and enclosures. Provide at time of project mobilization.
- B. Maintain daily in clean and sanitary condition.

1.05 BARRIERS

- A. Provide barriers to prevent unauthorized entry to construction areas, to allow for owner's use of site and to protect existing facilities and adjacent properties from damage from construction operations and demolition.
- B. Provide barricades and covered walkways required by governing authorities for public rights-of-way and for public access to existing building.
- C. Protect non-owned vehicular traffic, stored materials, site, and structures from damage.

1.06 EXTERIOR ENCLOSURES

A. Provide temporary insulated weather tight closure of exterior openings to accommodate acceptable working conditions and protection for Products, to allow for temporary heating and maintenance of required ambient temperatures identified in individual specification sections, and to prevent entry of unauthorized persons. Provide access doors with self-closing hardware and locks.

1.07 INTERIOR ENCLOSURES

- A. Provide temporary partitions and ceilings as indicated to separate work areas from OWNER-occupied areas, to prevent penetration of dust and moisture into OWNER-occupied areas, and to prevent damage to existing materials and equipment.
- B. Construction: Framing and reinforced polyethylene sheet materials with closed joints and sealed edges at intersections with existing surfaces:

1.08 SECURITY

- A. Provide security and facilities to protect Work, existing facilities, and OWNER's operations from unauthorized entry, vandalism, or theft.
- B. Coordinate with OWNER's security program.

1.09 VEHICULAR ACCESS AND PARKING

- A. Coordinate access and haul routes with governing authorities and OWNER.
- B. Provide and maintain access to fire hydrants, free of obstructions.
- C. Provide means of removing mud from vehicle wheels before entering streets.
- D. Designated existing on-site roads may be used for construction traffic.
- E. Provide temporary parking areas to accommodate construction personnel. When site space is not adequate, provide additional off-site parking.

1.10 WASTE REMOVAL

- A. Provide waste removal facilities and services as required to maintain the site in clean and orderly condition.
- B. Provide containers with lids. Remove trash from site periodically.
- C. If materials to be recycled or re-used on the project must be stored on-site, provide suitable non-combustible containers; locate containers holding flammable material outside the structure unless otherwise approved by the authorities having jurisdiction.
- D. Open free-fall chutes are not permitted. Terminate closed chutes into appropriate containers with lids.

1.11 REMOVAL OF UTILITIES, FACILITIES, AND CONTROLS

A. Remove temporary utilities, equipment, facilities, materials, prior to

DVIP RESTROOM REMODELING PROJECT

Substantial Completion inspection.

- B. Remove underground installations to a minimum depth of 2 feet. Grade site as indicated.
- C. Clean and repair damage caused by installation or use of temporary work.
- D. Restore existing facilities used during construction to original condition.
- E. Restore new permanent facilities used during construction to specified condition.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

SECTION 016000 - PRODUCT REQUIREMENTS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. General product requirements.
- B. Transportation, handling, storage and protection.
- C. Product option requirements.
- D. Substitution limitations and procedures.
- E. Spare parts and maintenance materials.

1.02 RELATED SECTIONS

A. Section 01 4000 - Quality Requirements: Product quality monitoring.

1.03 SUBMITTALS

- A. Proposed Products List: Submit list of major products proposed for use, with name of manufacturer, trade name, and model number of each product.
 - 1. Submit within 15 days after date of Notice to Proceed.
 - 2. For products specified only by reference standards, list applicable reference standards.
- B. Product Data Submittals: Submit manufacturer's standard published data. Mark each copy to identify applicable products, models, options, and other data. Supplement manufacturers' standard data to provide information specific to this Project.
- C. Shop Drawing Submittals: Prepared specifically for this Project; indicate utility and electrical characteristics, utility connection requirements, and location of utility outlets for service for functional equipment and appliances.
- D. Sample Submittals: Illustrate functional and aesthetic characteristics of the product, with integral parts and attachment devices. Coordinate sample submittals for interfacing work.
 - 1. For selection from standard finishes, submit samples of the full range of the manufacturer's standard colors, textures, and patterns.
- E. Indicate utility and electrical characteristics, utility connection requirements, and location of utility outlets for service for functional equipment and appliances.

PART 2 PRODUCTS

2.01 NEW PRODUCTS

A. Provide new products unless specifically required or permitted by the Contract Documents.

2.02 PRODUCT OPTIONS

A. Products Specified by Reference Standards or by Description Only: Use any product meeting those standards or description.

- B. Products Specified by Naming One or More Manufacturers: Use a product of one of the 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.

2.03 SPARE PARTS AND MAINTENANCE PRODUCTS

- A. Provide spare parts, maintenance, and extra products of types and in quantities specified in individual specification sections.
- B. Deliver to Project site; obtain receipt prior to final payment.

PART 3 EXECUTION

3.01 SUBSTITUTION PROCEDURES

- A. Substitutions may be considered when a product becomes unavailable through no fault of the Contractor.
- B. Document each request with complete data substantiating compliance of proposed substitution with Contract Documents.
- C. A request for substitution constitutes a representation that the submitter:
 - 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 and Architect for review or redesign services associated with acceptance of substitutions and re-approval by authorities.
- D. 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.

E. Substitution Submittal Procedure:

- Submit three copies of request for substitution for consideration. Limit each request to one proposed substitution. Requests shall be submitted on Form 01 6000A: REQUEST/CERTIFICATION FOR PROPOSED SUBSTITUTE PRODUCTS (this form is found after the end of this Section).
- Submit shop drawings, product data, and certified test results attesting to the proposed product equivalence. Burden of proof is on proposer.
- 3. Thomas McInerney Architect will notify Contractor in writing of decision to accept or reject request.

3.02 TRANSPORTATION AND HANDLING

- A. Coordinate schedule of product delivery to designated prepared areas in order to minimize site storage time and potential damage to stored materials.
- B. Transport and handle products in accordance with manufacturer's instructions.
- C. Transport materials in covered trucks to prevent contamination of product and littering of surrounding areas.
- D. Promptly inspect shipments to ensure that products comply with requirements, quantities are correct, and products are undamaged.
- E. Provide equipment and personnel to handle products by methods to prevent soiling, disfigurement, or damage.

3.03 STORAGE AND PROTECTION

- A. Designate receiving/storage areas for incoming products so that they are delivered according to installation schedule and placed convenient to work area in order to minimize waste due to excessive materials handling and misapplication.
- B. Store and protect products in accordance with manufacturers' instructions.
- C. Store with seals and labels intact and legible.
- D. Store sensitive products in weather tight, climate controlled, enclosures in an environment favorable to product.
- E. For exterior storage of fabricated products, place on sloped supports above ground.
- F. Provide bonded off-site storage and protection when site does not permit on-site storage or protection.
- G. Cover products subject to deterioration with impervious sheet covering. Provide ventilation to prevent condensation and degradation of products.
- H. Store loose granular materials on solid flat surfaces in a well-drained area. Prevent mixing with foreign matter.
- Prevent contact with material that may cause corrosion, discoloration, or staining.
- J. Provide equipment and personnel to store products by methods to prevent soiling, disfigurement, or damage.
- K. Arrange storage of products to permit access for inspection. Periodically inspect to verify products are undamaged and are maintained in acceptable condition.

FORM 01 6000A

|)U | EST/CERTIFICATION FOR PROPOSED SUBSTITUTE PRODUCTS | | |
|----------|--|--------------|--------------------|
| 3 | | | |
|)J | ECT: | | |
|)] | DATE: | | |
| <u>.</u> | undersigned hereby states the following: | | |
|] | Having examined the Drawings, Specifications and other Bid and being familiar with the conditions surrounding the materials/products/systems herein proposed for acceptance project, do hereby certify that the function, appearance performance of the following: | insta for | allation the ab |
| | Complies with requirements contained in the Drawings and specifications sections: | the | e follow |
| | Upon acceptance of the above materials/products/system, with the proposed Contract Documents shall be maintained. | full | complia |
| ; | Submitted by: | | |
| ; | Signature Title | | |
| | Firm | | |
| - | Address | | |
| ; | Telephone Date | | |

Signature shall be by person having authority to legally bind his firm to the above terms. Failure to provide legally binding signature will result in retraction of approval

SECTION 017300 - EXECUTION REQUIREMENTS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Examination, preparation, and general installation procedures.
- B. Requirements for alterations work, including selective demolition, except removal, disposal, and/or remediation of hazardous materials and toxic substances.
- C. Pre-installation meetings.
- D. Cutting and patching.
- E. Laying out the work.
- F. Cleaning and protection.
- G. Starting of systems and equipment.

1.02 RELATED SECTIONS

- A. Section 01 1000 Summary: Limitations on working in existing building; continued occupancy; work sequence; identification of salvaged and relocated equipment and materials.
- B. Section 01 5000 Temporary Facilities and Controls: Temporary exterior enclosures, heating, cooling, and ventilating facilities.
- D. Section 01 7700 Closeout Procedures: Closeout procedures related to achieving Substantial Completion and Final Completion of the Work.
- E. Section 01 7800 Closeout Submittals: Project record documents, operation and maintenance data, warranties and bonds.
- G. Section 01 7900 Demonstration and Training: Training Owner personnel in operation and maintenance of equipment and systems.
- H. Individual Product Specification Sections:
 - Advance notification to other sections of openings required in work of those sections.

1.03 SUBMITTALS

- A. See Section 01 3000 Administrative Requirements, for submittal procedures.
- B. Survey work: Submit name, address, and telephone number of Surveyor before starting survey work.
 - 1. On request, submit documentation verifying accuracy of survey work.
 - 2. Submit a copy of site drawing signed by the Land Surveyor, that the elevations and locations of the work are in conformance with Contract Documents.
 - 3. Submit surveys and survey logs for the project record.
- C. Cutting and Patching: Submit written request in advance of cutting or alteration which affects:
 - 1. Structural integrity of any element of Project.
 - 2. Integrity of weather exposed or moisture resistant element.

- 3. Efficiency, maintenance, or safety of any operational element.
- 4. Visual qualities of sight exposed elements.
- D. Project Record Documents: Accurately record actual locations of capped and active utilities.

1.05 PROJECT CONDITIONS

- A. 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.
- C. Ventilate enclosed areas to assist cure of materials, to dissipate humidity, and to prevent accumulation of dust, fumes, vapors, or gases.
- D. Dust Control: Execute work by methods to minimize raising dust from construction operations. Provide positive means to prevent air-borne dust from dispersing into atmosphere.
- E. Erosion and Sediment Control: Plan and execute work by methods to control surface drainage from cuts and fills, from borrow and waste disposal areas. Prevent erosion and sedimentation.
 - 1. Provide temporary measures such as berms, dikes, and drains, to prevent water flow.
 - 2. Periodically inspect earthwork to detect evidence of erosion and sedimentation; promptly apply corrective measures.
- F. Rodent Control: Provide methods, means, and facilities to prevent rodents from accessing or invading premises.
- G. Pollution Control: Provide methods, means, and facilities to prevent contamination of soil, water, and atmosphere from discharge of noxious, toxic substances, and pollutants produced by construction operations.

1.06 COORDINATION

- A. See Section 01 1000 Summary, for occupancy-related requirements.
- B. Coordinate scheduling, submittals, and work of the various sections of the Project Manual to ensure efficient and orderly sequence of installation of interdependent construction elements.
- C. Notify affected utility companies and comply with their requirements.
- D. Verify that utility requirements and characteristics of new 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.
- E. Coordinate space requirements, supports, 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 lines of building. Utilize spaces efficiently to maximize accessibility for other installations, for maintenance, and for repairs.

- F. In finished areas except as otherwise indicated, conceal pipes, ducts, and wiring within the construction. Coordinate locations of fixtures and outlets with finish elements.
- G. Coordinate completion and clean-up of work of separate sections.
- 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.

PART 2 PRODUCTS

2.01 PATCHING MATERIALS

- A. New Materials: As specified in product sections; match existing products and work for patching and extending work.
- B. Type and Quality of Existing Products: Determine by inspecting and testing products where necessary, referring to existing work as a standard.
- C. Product Substitution: For any proposed change in materials, submit request for substitution described in Section 01 6000 - Product Requirements.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that existing site conditions and substrate surfaces are acceptable for subsequent work. Start of work means acceptance of existing conditions.
- B. Verify that existing substrate is capable of structural support or attachment of new work being applied or attached.
- C. Examine and verify specific conditions described in individual specification sections.
- D. Take field measurements before confirming product orders or beginning fabrication, to minimize waste due to over-ordering or misfabrication.
- E. Verify that utility services are available, of the correct characteristics, and in the correct locations.
- F. Prior to Cutting: Examine existing conditions prior to commencing work, including elements subject to damage or movement during cutting and patching. After uncovering existing work, assess conditions affecting performance of work. Beginning of cutting or patching means acceptance of existing conditions.

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 manufacturer required or recommended substrate primer, sealer, or conditioner prior to applying any new material or substance in

contact or bond.

3.03 PREINSTALLATION MEETINGS

- A. When required in individual specification sections, convene a preinstallation meeting at the 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 examination, preparation and installation procedures.
 - 2. Review coordination with related work.
- E. Record minutes and distribute copies within two days after meeting to participants, with two copies to Architect, OWNER, participants, and those affected by decisions made.

3.04 LAYING OUT THE WORK

- A. Verify locations of survey control points prior to starting work.
- B. Promptly notify Architect of any discrepancies discovered.
- C. Contractor shall locate and protect reference points.
- D. Control datum for survey is that indicated on Drawings.
- E. Protect and preserve permanent reference points during construction.
- F. Promptly report to Architect the loss or destruction of any reference point or relocation required because of changes in grades or other reasons.
- G. Replace dislocated survey control points based on original survey control. Make no changes without prior written notice to Architect.
- H. Utilize recognized engineering survey practices.
- I. Establish a minimum of two permanent bench marks on site, referenced to established control points. Record locations, with horizontal and vertical data, on project record documents.
- J. Establish elevations, lines and levels. Locate and lay out by instrumentation and similar appropriate means:
 - 1. Site improvements including pavements; stakes for grading and fill placement; utility locations, slopes, and invert elevations.
 - 2. Grid or axis for structures.
 - 3. Building foundation and ground floor elevations.
- K. Periodically verify layouts by same means.
- L. Maintain a complete and accurate log of control and survey work as it progresses.

3.05 GENERAL INSTALLATION REQUIREMENTS

- A. Install products as specified in individual sections, in accordance with manufacturer's instructions and recommendations, and so as to avoid waste due to necessity for replacement.
- B. Make vertical elements plumb and horizontal elements level, unless otherwise indicated.
- C. Install equipment and fittings plumb and level, neatly aligned with adjacent vertical and horizontal lines, unless otherwise indicated.
- D. Make consistent texture on surfaces, with seamless transitions, unless otherwise indicated.
- E. Make neat transitions between different surfaces, maintaining texture and appearance.

3.06 ALTERATIONS

- A. Drawings showing existing construction and utilities are based on casual field observation and existing record documents only.
 - 1. Verify that construction and utility arrangements are as shown.
 - Report discrepancies to Architect before disturbing existing installation.
 - Beginning of alterations work constitutes acceptance of existing conditions.
- B. Separate areas in which alterations are being conducted from other areas that are still occupied.
 - 1. Provide, erect, and maintain temporary dustproof partitions of construction specified in Section 01 5000 in locations indicated on drawings.
- C. Maintain weatherproof exterior building enclosure except for interruptions required for replacement or modifications; take care to prevent water and humidity damage.
 - 1. Where openings in exterior enclosure exist, provide construction to make exterior enclosure weatherproof.
 - Insulate existing ducts or pipes that are exposed to outdoor ambient temperatures by alterations work.
- D. Remove existing work as indicated and as required to accomplish new work.
 - 1. Remove items indicated on drawings.
 - 2. Relocate items indicated on drawings.
 - 3. Where new surface finishes are to be applied to existing work, perform removals, patch, and prepare existing surfaces as required to receive new finish; remove existing finish if necessary for successful application of new finish.
 - 4. Where new surface finishes are not specified or indicated, patch holes and damaged surfaces to match adjacent finished surfaces as closely as possible.
- E. Services (Including but not limited to HVAC, Plumbing, Fire Protection, Electrical, and Telecommunications): Remove, relocate, and extend existing systems to accommodate new construction.

- Maintain existing active systems that are to remain in operation; maintain access to equipment and operational components; if necessary, modify installation to allow access or provide access panel.
- 2. Where existing systems or equipment are not active and Contract Documents require reactivation, put back into operational condition; repair supply, distribution, and equipment as required.
- 3. Where existing active systems serve occupied facilities but are to be replaced with new services, maintain existing systems in service until new systems are complete and ready for service.
 - a. Disable existing systems only to make switchovers and connections; minimize duration of outages.
 - b. Provide temporary connections as required to maintain existing systems in service.
- 4. Verify that abandoned services serve only abandoned facilities.
- 5. Remove abandoned pipe, ducts, conduits, and equipment, including those above accessible ceilings; remove back to source of supply where possible, otherwise cap stub and tag with identification; patch holes left by removal using materials specified for new construction.
- F. Protect existing work to remain.
 - 1. Prevent movement of structure; provide shoring and bracing if necessary.
 - 2. Perform cutting to accomplish removals neatly and as specified for cutting new work.
 - Repair adjacent construction and finishes damaged during removal work.
 - 4. Patch as specified for patching new work.
- G. Adapt existing work to fit new work:
 - When existing finished surfaces are cut so that a smooth transition with new work is not possible, terminate existing surface along a straight line at a natural line of division and make recommendation to Architect.
 - 2. Where removal of partitions or walls results in adjacent spaces becoming one, rework floors, walls, and ceilings to a smooth plane without breaks, steps, or bulkheads.
 - 3. Where a change of plane of 1/4 inch or more occurs in existing work, submit recommendation for providing a smooth transition for Architect review and request instructions.
- H. Refinish existing surfaces as indicated:
 - 1. Where rooms or spaces are indicated to be refinished, refinish all visible existing surfaces to remain to the specified condition for each material, with a neat transition to adjacent finishes.
 - 2. If mechanical or electrical work is exposed accidentally during the work, re-cover and refinish to match.
 - 3. Patch as specified for patching new work.
- I. Clean existing systems and equipment.
- J. Remove demolition debris and abandoned items from alterations areas and dispose of off-site; do not burn or bury.

- K. Do not begin new construction in alterations areas before demolition is complete.
- L. Comply with all other applicable requirements of this section.

3.07 CUTTING AND PATCHING

- A. Execute cutting and patching including excavation and fill to complete the work, to uncover work in order to install improperly sequenced work, to remove and replace defective or non-conforming work, to remove samples of installed work for testing when requested, to provide openings in the work for penetration of mechanical and electrical work, to execute patching to complement adjacent work, and to fit products together to integrate with other work.
- B. Execute work by methods to avoid damage to other work, and which will provide appropriate surfaces to receive patching and finishing. In existing work, minimize damage and restore to original condition.
- C. Employ original installer to perform cutting for weather exposed and moisture resistant elements, and sight exposed surfaces.
- D. Cut rigid materials using masonry saw or core drill. Pneumatic tools not allowed without prior approval.
- E. Restore work with new products in accordance with requirements of Contract Documents.
- F. Fit work air tight to pipes, sleeves, ducts, conduit, and other penetrations through surfaces.
- G. Refinish surfaces to match adjacent finish. For continuous surfaces, refinish to nearest intersection or natural break. For an assembly, refinish entire unit.
- H. Make neat transitions. Patch work to match adjacent work in texture and appearance. Where new work abuts or aligns with existing, perform a smooth and even transition.
- I. Patch or replace surfaces that are damaged, lifted, discolored, or showing other imperfections due to patching work. Repair substrate prior to patching finish. Finish patches to produce uniform finish and texture over entire area. When finish cannot be matched, refinish entire surface to nearest intersections.

3.08 PROGRESS CLEANING

- A. Maintain areas free of waste materials, debris, and rubbish. Maintain site in a clean and orderly condition.
- B. Remove debris and rubbish from pipe chases, plenums, attics, crawl spaces, and other closed or remote spaces, prior to enclosing the space.
- C. Broom and vacuum clean interior areas prior to start of surface finishing, and continue cleaning to eliminate dust.
- D. Collect and remove waste materials, debris, and trash/rubbish from site periodically and dispose off-site; do not burn or bury.

3.09 PROTECTION OF INSTALLED WORK

- A. Protect installed work from damage by construction operations.
- B. Provide special protection where specified in individual specification sections.
- C. Provide temporary and removable protection for installed products. Control activity in immediate work area to prevent damage.
- D. Provide protective coverings at walls, projections, jambs, sills, and soffits of openings.
- E. Protect finished floors, stairs, and other surfaces from traffic, dirt, wear, damage, or movement of heavy objects, by protecting with durable sheet materials.
- F. 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.
- G. Remove protective coverings when no longer needed; reuse or recycle plastic coverings if possible.

3.10 STARTING SYSTEMS

- A. Coordinate schedule for start-up of various equipment and systems.
- B. Notify Architect and owner 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, and for conditions which may cause damage.
- D. Verify tests, meter readings, and specified electrical characteristics agree with those required by the equipment or system manufacturer.
- E. Verify that wiring and support components for equipment are complete and tested.
- F. Execute start-up under supervision of applicable Contractor personnel and manufacturer's representative in accordance with manufacturers' 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 that equipment or system has been properly installed and is functioning correctly.

3.11 DEMONSTRATION AND INSTRUCTION

A. See Section 01 7900 - Demonstration and Training.

3.12 ADJUSTING

A. Adjust operating products and equipment to ensure smooth and unhindered operation.

B. Testing, adjusting, and balancing HVAC systems: See Section 23 05 93.

3.13 FINAL CLEANING

- A. Execute final cleaning prior to final project assessment.
 - 1. Clean areas to be occupied by OWNER prior to final completion before OWNER occupancy.
- B. Use cleaning materials that are nonhazardous.
- C. Clean interior and exterior glass, surfaces exposed to view; remove temporary labels, stains and foreign substances, polish transparent and glossy surfaces, vacuum carpeted and soft surfaces.
- D. Clean equipment and fixtures to a sanitary condition with cleaning materials appropriate to the surface and material being cleaned.
- E. Clean filters of operating equipment.
- F. Clean debris from roofs, gutters, downspouts, and drainage systems.
- G. Clean site; sweep paved areas, rake clean landscaped surfaces.
- H. Remove waste, surplus materials, trash/rubbish, and construction facilities from the site; dispose of in legal manner; do not burn or bury.

3.14 CLOSEOUT PROCEDURES

- A. Refer to Section 01 7700.
- B. Make submittals that are required by governing or other authorities.1. Provide copies to Architect and OWNER.
- C. OWNER will occupy all of the building as specified in Section 01 1000Summary.

3.15 MAINTENANCE SERVICE

- A. Furnish service and maintenance of components indicated in specification sections for 1 (one) year from date of Substantial Completion.
- B. Examine system components at a frequency consistent with reliable operation. Clean, adjust, and lubricate as required.
- C. Include systematic examination, adjustment, and lubrication of components. Repair or replace parts whenever required. Use parts produced by the manufacturer of the original component.
- D. Maintenance service shall not be assigned or transferred to any agent or Subcontractor without prior written consent of the OWNER.

END OF SECTION

SECTION 017700 - CLOSEOUT PROCEDURES

PART 1 GENERAL

1.01SECTION INCLUDES

- A. Contract closeout procedures related to:
 - 1. Substantial Completion of the Work and
 - 2. Final inspection and Owner's acceptance of the Work.
- B. Closeout submittals including:
 - 1. Substantial Completion documents.
 - 2. Final Application for Payment with supporting documents.
 - 3. Project Record Documents.
 - 4. Warranties and Bonds.

1.02 RELATED SECTIONS

- A. Section GC General Conditions: Warranty, and correction of work.
- B. Section 01 3000 Administrative Requirements: Submittal procedures for shop drawings, product data, and samples.
- C. Section 01 7800 Operation and Maintenance Data: Preparation of Operation and Maintenance Manuals.
- D. Section 01 7900 Demonstration and Training: Operation and maintenance instruction of Owner's personnel.
- E. Individual product sections: Specific requirements for operation and maintenance data.
- F. Individual product sections: Warranties required for specific products or Work.

1.03 SUBMITTALS

- A. Contractor's Declaration of Substantial Completion: Submit three copies of required forms and related documentation certifying that status of Work is consistent with "Substantial Completion".
- B. Operation and Maintenance Manuals: Provide three sets of revised documents in final form for use by Owner's personnel. Submit at least 45 days prior to date of Declaration of Substantial Completion.
- C. Material and Product Warranties: Submit fully executed manufacturers' warranties within ten days following Date of Substantial Completion except as follows:
 - For equipment and component parts of equipment put into service during construction with OWNER"S permission, submit documents within ten days after acceptance; list date of acceptance as the beginning of the warranty period .
 - For items of Work for which acceptance is delayed beyond date of Substantial Completion, submit within ten days after acceptance; list date of acceptance as the beginning of the warranty period.
- D. Contractor's Statement of Final Completion: Submit two copies of required forms certifying that Work has been fully completed; make submittal within 45 days after Date of Substantial Completion.

- E. Claim for Final Payment: Submit two copies of required final Application for Payment forms together with supporting documents.
- F. Evidence of Payments and Release of Liens: Submit two copies of required forms with claim for Final Payment.
- G. Project Record Documents: Submit required Record Documents with claim for Final Payment.

1.04 COORDINATION

- A. Coordinate scheduling, submittals, and inspection of the work of the various sections of the Project Manual to ensure efficient and orderly closeout procedure, with provision for accommodating items installed later.
- B. Final Utility Connections: Notify affected utility companies and comply with their requirements for final connections.

1.05 PRE- SUBSTANTIAL COMPLETION MEETING

A. Convene 30 days before submitting Declaration of Substantial Completion for purpose of reviewing required closeout procedures with representatives of Owner and Architect.

1.06 PROJECT CONDITIONS

- A. Coordinate completion and ensure clean-up of work of separate sections of the Project Manual.
- B. The Owner intends to occupy the entire project area at Date of Substantial Completion.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.01PREPARATION FOR SUBSTANTIAL COMPLETION

- A. Operation and Maintenance Manuals:
 - 1. Comply with additional requirements in Section 01 7800.
 - Include operating instructions and maintenance data prepared by personnel experienced in maintenance and operation of described equipment and systems.
 - 3. Use Operating and Maintenance Manuals as reference for instruction of Owner's personnel.
- B. Demonstration and Training:
 - 1. Comply with additional requirements in Section 01 7900.
 - 2. Prior to Substantial Completion, perform demonstration and train Owner's personnel in proper operation and maintenance of equipment and systems designated in individual sections of the Project Manual.
- C. Preliminary Inspection for Substantial Completion:
 - 1. Schedule and conduct preliminary inspection of the Work accompanied by Owner's Project Representative.
 - a. Determine and identify items to be listed for correction and completion (punchlist) on Contractor's Declaration of Substantial Completion.

- 2. Verify that surface finish materials are properly installed in accordance with manufacturer's recommendations and exposed surfaces are clean and free from damage.
- 3. Verify final adjustment of operating items, equipment and system components to ensure smooth and unhindered operation.
- 4. Verify specific operating and performance requirements described in individual specification sections.
 - a. Secure certification by TAB contractor that testing, adjusting and balancing work has been completed, and respective systems are performing in accordance with specified design requirements.
 - b. Replace filters of operating equipment.
- 5. Verify that utility services are properly connected and of the correct characteristics.
- 6. Verify inspection and acceptance of the respective portions of the Work by Authorities Having Jurisdiction (AHJ).

3.02 SUBSTANTIAL COMPLETION DOCUMENTS

- A. Contractor's Declaration of Substantial Completion:
 - 1. Provide the necessary assurance that the progress of the Work is consistent with Substantial Completion as defined by the Contract Documents.
 - 2. Upon receipt of the required forms the Architect will schedule and conduct a Substantial Completion Inspection.
- B. Certificate of Substantial Completion: Upon verification of Contractor's Punchlist, and subsequent determination by Architect that status of Work is suitable for occupancy by the Owner, the Architect will prepare Certificate of Substantial Completion (AIA Doc G704-2000).
- C. Complete and correct respective items of work listed and attached to the Certificate of Substantial Completion within 30 days following Date of Substantial Completion.

3.03 FINAL CLOSEOUT DOCUMENTS

- A. Contractor's Statement of Final Completion: Certify that the Work is complete and has been inspected and found to be in compliance with the Contract Documents.
- B. Claim for Final Payment:
 - 1. Prepare application for payment on approved forms.
 - 2. Amount of final payment shall be the Contractor's retainage (5% of the contract amount).
 - 3. In accordance with Iowa law, final payment shall become due and payable 31 days after the date of Owner's written acceptance of the completed Work.
- C. Evidence of Payments and Release of Liens: Prepare the following:
 - 1. "Contractors Affidavit of Payment of Debts and Claims" (AIA Doc G706).
 - 2. "Contractor's Affidavit of Release of Liens" (AIA Doc G706A).
 - a. Include separate waivers of lien from subcontractors, suppliers, and others with lien rights against property of the

Owner.

- 3. Obtain "Consent of Surety to Final Payment" (AIA Doc G707).
- D. Project Record Documents:
 - 1. Submit one set of the following Record Documents; record actual revisions to the Work:
 - a. Drawings
 - b. Specifications
 - c. Addenda
 - d. Change Orders and other modifications to the Contract.
 - e. Reviewed shop drawings, product data, and samples.
 - Ensure entries are complete and accurate, enabling future reference by the Owner.
 - 3. Specifications: Legibly mark and record at each product section description of actual products installed, including the following:
 - a. Manufacturer's name and product model and number.
 - b. Product substitutions or alternates utilized.
 - c. Changes made by Addenda and modifications.
 - 4. Record Drawings and Shop Drawings: Legibly mark each item to record actual construction including:
 - a. Measured horizontal and vertical locations of underground utilities and appurtenances, referenced to permanent surface improvements.
 - b. Measured locations of internal utilities and appurtenances concealed in construction, referenced to visible and accessible features of the Work.
 - c. Field changes of dimension and detail.
 - d. Details not on original Contract Drawings.
- E. Material and Product Warranties:
 - 1. Obtain required warranties executed in duplicate by responsible subcontractors, suppliers and manufacturers, within ten days after completion of the applicable item of work. Except for items put into use with OWNER'S permission, leave date of beginning of time of warranty until Date of Substantial Completion is determined.
 - 2. Verify that documents are in proper form, contain full information, and are notarized.
 - 3. Co-execute warranty documents when required.
 - 4. Retain warranties until time specified for submittal.
 - Include photocopies of each in operation and maintenance manuals; indicate on Table of Contents.

3.04FINAL INSPECTION OF THE WORK

- A. Following submittal of required closeout documents, the Architect will conduct a Final Inspection of the Work.
- B. Accompany Owner's Project Representative and Architect on final inspection of the Work.
- C. Complete items of work determined and identified during final inspection.

3.05OWNER'S FINAL ACCEPTANCE OF THE WORK

A. Upon satisfactory completion of the Work, the Architect will recommend

- acceptance of the completed Work by the Owner and final payment to the Contractor.
- B. The Owner will notify the Contractor in writing of the effective date of their acceptance of the Work.

END OF SECTION

SECTION 017800 - CLOSEOUT SUBMITTALS

PART 1 GENERAL

1.01SECTION INCLUDES

- A. Project Record Documents.
- B. Operation and Maintenance Data.
- C. Warranties and bonds.
- D. Evidence of payments and release of liens.

1.02 RELATED SECTIONS

- A. Section GC General Conditions: Additional requirements for progress payments, final payment, changes in the Work.
- B. Section 01 3000 Administrative Requirements: Submittals procedures, shop drawings, product data, and samples.
- C. Section 01 7000 Execution and Closeout Requirements: Contract closeout procedures.
- D. Section 01 7900 Demonstration and Training: Operation and maintenance instruction of Owner's personnel.
- E. Individual Product Sections: Specific requirements for operation and maintenance data.
- F. Individual Product Sections: Warranties required for specific products or Work.

1.03 SUBMITTALS

- A. Project Record Documents: Submit documents to Architect with claim for final Application for Payment.
- B. Operation and Maintenance Data:
 - 1. Submit two copies of preliminary draft or proposed formats and outlines of contents before start of Work. Architect will review draft and return one copy with comments.
 - 2. Submit 1 copy of completed documents 45 days prior to "Substantial Completion". This copy will be reviewed and returned, with Architect comments. Revise content of all document sets required prior to final submission.
 - 3. Submit three sets of revised final documents in final form at least 15 days prior to "Substantial Completion" for use by Owner's personnel during demonstration and training activities.

C. Warranties and Bonds:

- 1. For equipment or component parts of equipment put into service during construction with OWNER's permission, submit documents within ten days after acceptance.
- 2. Make other submittals within ten days after Date of Substantial Completion, prior to final Application for Payment.
- 3. For items of Work for which acceptance is delayed beyond Date of Substantial Completion, submit within ten days after acceptance,

listing the date of acceptance as the beginning of the warranty period.

D. Evidence of Payments and Release of Liens: Submit required documents to Architect with Application for Final Payment.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.01 PROJECT RECORD DOCUMENTS

- A. Maintain on site one set of the following record documents; record actual revisions to the Work:
 - 1. Drawings.
 - 2. Specifications.
 - 3. Addenda.
 - 4. Change Orders and other modifications to the Contract.
 - 5. Reviewed shop drawings, product data, and samples.
- B. Ensure entries are complete and accurate, enabling future reference by OWNER.
- C. Store record documents separate from documents used for construction.
- D. Record information concurrent with construction progress.
- E. Specifications: Legibly mark and record at each product section description of actual products installed, including the following:
 - 1. Manufacturer's name and product model and number.
 - 2. Product substitutions or alternates utilized.
 - 3. Changes made by Addenda and modifications.
- F. Record Drawings and Shop Drawings: Legibly mark each item to record actual construction including:
 - 1. Measured horizontal and vertical locations of underground utilities and appurtenances, referenced to permanent surface improvements.
 - 2. Measured locations of internal utilities and appurtenances concealed in construction, referenced to visible and accessible features of the Work.
 - 3. Field changes of dimension and detail.
 - 4. Details not on original Contract drawings.

3.02OPERATION AND MAINTENANCE DATA

- A. For Each Product or System: List names, addresses and telephone numbers of Subcontractors and suppliers, including local source of supplies and replacement parts.
- B. Product Data: Mark each sheet to clearly identify specific products and component parts, and data applicable to installation. Delete inapplicable information.
- C. Drawings: Supplement product data to illustrate relations of component parts of equipment and systems, to show control and flow diagrams. Do not use Project Record Documents as maintenance drawings.
- D. Typed Text: As required to supplement product data. Provide logical

sequence of instructions for each procedure, incorporating manufacturer's instructions.

3.03 OPERATION AND MAINTENANCE DATA FOR MATERIALS AND FINISHES

- A. For Each Product, Applied Material, and Finish:
 - 1. Product data, with catalog number, size, composition, and color and texture designations.
- B. Instructions for Care and Maintenance: Manufacturer's recommendations for cleaning agents and methods, precautions against detrimental cleaning agents and methods, and recommended schedule for cleaning and maintenance.

3.04 OPERATION AND MAINTENANCE DATA FOR EQUIPMENT AND SYSTEMS

- A. For Each Item of Equipment and Each System:
 - 1. Description of unit or system, and component parts.
 - 2. Identify function, normal operating characteristics, and limiting conditions.
 - 3. Include performance curves, with engineering data and tests.
 - 4. Complete nomenclature and model number of replaceable parts.
- B. Panelboard Circuit Directories: Provide electrical service characteristics, controls, and communications; typed.
- C. Include color coded wiring diagrams as installed.
- D. Operating Procedures: Include start-up, break-in, and routine normal operating instructions and sequences. Include regulation, control, stopping, shut-down, and emergency instructions. Include summer, winter, and any special operating instructions.
- E. Maintenance Requirements: Include routine procedures and guide for preventative maintenance and trouble shooting; disassembly, repair, and reassembly instructions; and alignment, adjusting, balancing, and checking instructions.
- F. Provide servicing and lubrication schedule, and list of lubricants required.
- G. Include manufacturer's printed operation and maintenance instructions.
- H. Include sequence of operation by controls manufacturer.
- I. Provide original manufacturer's parts list, illustrations, assembly drawings, and diagrams required for maintenance.
- J. Provide control diagrams by controls manufacturer as installed.
- K. Provide charts of valve tag numbers, with location and function of each valve, keyed to flow and control diagrams.
- L. Provide list of original manufacturer's spare parts, current prices, and recommended quantities to be maintained in storage.
- M. Include test and balancing reports.
- N. Additional Requirements: As specified in individual product specification sections.

3.05OPERATION AND MAINTENANCE MANUALS

- A. Prepare instructions and data by personnel experienced in maintenance and operation of described products.
- B. Prepare data in the form of an instructional manual.
- C. Binders: Commercial quality, 8-1/2 x 11 inch three D side ring binders with durable plastic covers; 2 inch maximum ring size. When multiple binders are used, correlate data into related consistent groupings.
- D. Cover: Identify each binder with typed or printed title OPERATION AND MAINTENANCE INSTRUCTIONS; identify title of Project; identify subject matter of contents.
- E. Provide tabbed dividers for each separate product and system, with typed description of product and major component parts of equipment.
- F. Text: Manufacturer's printed data, or typewritten data on 24 pound paper.
- G. Drawings: Provide with reinforced punched binder tab. Bind in with text; fold larger drawings to size of text pages.
- H. Arrange content by systems under section numbers and sequence of Table of Contents of this Project Manual.
- I. Contents: Prepare a Table of Contents for each volume, with each product or system description identified, in three parts as follows:
 - 1. Part 1: Directory, listing names, addresses, and telephone numbers of Architect, Contractor, Subcontractors, and major equipment suppliers.
 - 2. Part 2: Operation and maintenance instructions, arranged by system and subdivided by specification section. For each category, identify names, addresses, and telephone numbers of Subcontractors and suppliers. Identify the following:
 - a. Significant design criteria.
 - b. List of equipment.
 - c. Parts list for each component.
 - d. Operating instructions.
 - e. Maintenance instructions for equipment and systems.
 - f. Maintenance instructions for special finishes, including recommended cleaning methods and materials, and special precautions identifying detrimental agents.
 - 3. Part 3: Project documents and certificates, including the following:
 - a. Shop drawings and product data.
 - b. Air and water balance reports.
 - c. Certificates.
 - d. Photocopies of warranties and bonds.
- J. Table of Contents: Provide title of Project; names, addresses, and telephone numbers of Architect and Contractor with name of responsible parties; schedule of products and systems, indexed to content of the volume.

3.06WARRANTIES AND BONDS

- A. Obtain warranties and bonds, executed in duplicate by responsible Subcontractors, suppliers, and manufacturers, within ten days after completion of the applicable item of work. Except for items put into use with OWNER's permission, leave date of beginning of time of warranty until the Date of Substantial completion is determined.
- B. Verify that documents are in proper form, contain full information, and are notarized.
- C. Co-execute submittals when required.
- D. Retain warranties and bonds until time specified for submittal.
- E. Include photocopies of each in operation and maintenance manuals, indexed separately on Table of Contents.

3.07 EVIDENCE OF PAYMENTS AND RELEASE OF LIENS

- A. Execute "Contractor's Affidavit of Payment of Debts and Claims" (AIA Doc G706).
- B. Submit "Contractor's Affidavit of Release of Liens" (AIA Doc G706A), together with:
 - 1. Separate waivers of lien from subcontractors, suppliers, and others with lien rights against property of the Owner.
- C. Obtain "Consent of Surety to Final Payment" (AIA Doc G707).

END OF SECTION

SECTION 017823 - OPERATION AND MAINTENANCE DATA

PART 1 GENERAL

1.01SECTION INCLUDES

- A. Operation and Maintenance Data.
- B. Warranties and bonds.

1.02 RELATED SECTIONS

- A. Section GC General Conditions: Warranty, and correction of work.
- B. Section 01 3000 Administrative Requirements: Submittals procedures, shop drawings, product data, and samples.
- C. Section 01 7700 Closeout Procedures: Contract closeout procedures.
- D. Section 01 7900 Demonstration and Training: Operation and maintenance instruction of Owner's personnel.
- E. Individual Product Sections: Specific requirements for operation and maintenance data.
- F. Individual Product Sections: Warranties required for specific products or Work.

1.03 SUBMITTALS

- A. Operation and Maintenance Data:
 - 1. Preliminary Draft: Prepare two copies before start of Work.

 Indicate proposed formats and outlines of contents. Architect will review draft and return one copy with comments.
 - 2. Submit 1 copy of completed documents 45 days prior to "Substantial Completion". This copy will be reviewed and returned, with Architect comments. Revise content of all document sets required prior to final submission.
 - 3. Submit three sets of revised final documents in final form at least 15 days prior to "Substantial Completion" for use by Owner's personnel during demonstration and training activities specified in Section 01 7900.
- B. Product and Material Warranties: Obtain required manufacturer's warranties; assemble original documents in separate three-ring binder to be submitted within ten days after Date of Substantial Completion, prior to final Application for Payment.
 - 1. Ensure that manufacturer's warranties have been completed in OWNER's name and registered with respective manufacturer.
 - Include photocopies of each in operation and maintenance manuals, indexed separately on Table of Contents.

1.04 PRE-SUBMITTAL MEETING

A. Convene 15 days before starting work on revised Operation and Maintenance Manuals for the purpose of reviewing Architect's comments on preliminary draft.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.01 PREPARATION OF OPERATION AND MAINTENANCE MANUALS

- A. Prepare instructions and data by personnel experienced in maintenance and operation of described products.
- B. Prepare data in the form of an instructional manual.
- C. Binders: Commercial quality, 8-1/2 x 11 inch three D side ring binders with durable plastic covers; 2 inch maximum ring size. When multiple binders are used, correlate data into related consistent groupings.
- D. Cover: Identify each binder with typed or printed title OPERATION AND MAINTENANCE INSTRUCTIONS; identify title of Project; identify subject matter of contents.
- E. Provide tabbed dividers for each separate product and system, with typed description of product and major component parts of equipment.
- F. Text: Manufacturer's printed data, or typewritten data on 24 pound paper.
- G. Drawings: Provide with reinforced punched binder tab. Bind in with text; fold larger drawings to size of text pages.
- H. Arrange content by systems under section numbers and sequence of Table of Contents of this Project Manual.
- I. Contents: Prepare a Table of Contents for each volume, with each product or system description identified, in three parts as follows:
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 - 2. Part 2: Operation and maintenance instructions, arranged by system and subdivided by specification section. For each category, identify names, addresses, and telephone numbers of Subcontractors and suppliers. Identify the following:
 - a. Significant design criteria.
 - b. List of equipment.
 - c. Parts list for each component.
 - d. Operating instructions.
 - e. Maintenance instructions for equipment and systems.
 - 3. Part 3: Project documents and certificates, including the following:
 - a. Shop drawings and product data.
 - b. Air and water balance reports.
 - c. Certificates.
 - d. Photocopies of warranties and bonds.
- J. Provide a listing in Table of Contents for design data, with tabbed dividers and space for insertion of data.

K. Table of Contents: Provide title of Project; names, addresses, and telephone numbers of Architect and Contractor with name of responsible parties; schedule of products and systems, indexed to content of the volume.

3.020PERATION AND MAINTENANCE DATA

- A. For Each Product or System: List names, addresses and telephone numbers of Subcontractors and suppliers, including local source of supplies and replacement parts.
- B. Product Data: Mark each sheet to clearly identify specific products and component parts, and data applicable to installation. Delete inapplicable information.
- C. Drawings: Supplement product data to illustrate relations of component parts of equipment and systems, to show control and flow diagrams. Do not use Project Record Documents as maintenance drawings.
- D. Typed Text: As required to supplement product data. Provide logical sequence of instructions for each procedure, incorporating manufacturer's instructions.

3.03 OPERATION AND MAINTENANCE DATA FOR MATERIALS AND FINISHES

- A. For Each Product, Applied Material, and Finish:
 - 1. Product data, with catalog number, size, composition, and color and texture designations.
- B. Instructions for Care and Maintenance: Manufacturer's recommendations for cleaning agents and methods, precautions against detrimental cleaning agents and methods, and recommended schedule for cleaning and maintenance.

3.04 OPERATION AND MAINTENANCE DATA FOR EQUIPMENT AND SYSTEMS

- A. For Each Item of Equipment and Each System:
 - 1. Description of unit or system, and component parts.
 - Identify function, normal operating characteristics, and limiting conditions.
 - 3. Include performance curves, with engineering data and tests.
 - 4. Complete nomenclature and model number of replaceable parts.
- B. Panelboard Circuit Directories: Provide electrical service characteristics, controls, and communications; typed.
- C. Include color coded wiring diagrams as installed.
- D. Operating Procedures: Include start-up, break-in, and routine normal operating instructions and sequences. Include regulation, control, stopping, shut-down, and emergency instructions. Include summer, winter, and any special operating instructions.
- E. Maintenance Requirements: Include routine procedures and guide for preventative maintenance and trouble shooting; disassembly, repair, and reassembly instructions; and alignment, adjusting, balancing, and

- checking instructions.
- F. Provide servicing and lubrication schedule, and list of lubricants required.
- G. Include manufacturer's printed operation and maintenance instructions.
- H. Include sequence of operation by controls manufacturer.
- I. Provide original manufacturer's parts list, illustrations, assembly drawings, and diagrams required for maintenance.
- J. Provide control diagrams by controls manufacturer as installed.
- K. Provide charts of valve tag numbers, with location and function of each valve, keyed to flow and control diagrams.
- L. Provide list of original manufacturer's spare parts, current prices, and recommended quantities to be maintained in storage.
- M. Include test and balancing reports.
- N. Additional Requirements: As specified in individual product specification sections.

3.05WARRANTIES

- A. Obtain warranties and bonds, executed in duplicate by responsible Subcontractors, suppliers, and manufacturers, within ten days after completion of the applicable item of work. Except for items put into use with OWNER's permission, leave date of beginning of time of warranty until the Date of Substantial completion is determined.
- B. Retain warranties and bonds until time specified for submittal.
- C. Manual: Bind in commercial quality $8-1/2 \times 11$ inch three D side ring binders with durable plastic covers.

END OF SECTION

SECTION 017900 - DEMONSTRATION AND TRAINING

PART 1 GENERAL

1.01SUMMARY

- A. Demonstration of products and systems where indicated in specific specification sections.
- B. Training of OWNER personnel in operation and maintenance is required for:
 - 1. All software-operated systems.
 - 2. HVAC systems and equipment.
 - 3. Plumbing equipment.
 - 4. Electrical systems and equipment.
 - 5. Conveying systems.
 - 6. Items specified in individual product Sections.
- C. Training of OWNER personnel in care, cleaning, maintenance, and repair is required for:
 - 1. Roofing, waterproofing, and other weather-exposed or moisture protection products.
 - 2. Finishes, including flooring, wall finishes, ceiling finishes.
 - 3. Fixtures and fittings.
 - 4. Items specified in individual product Sections.

1.02 RELATED SECTIONS

A. Section 01 7800 - Closeout Submittals: Operation and maintenance manuals.

1.03 SUBMITTALS

- A. See Section 01 3000 Administrative Requirements, for submittal procedures.
- B. Training Plan: OWNER will designate personnel to be trained; tailor training to needs and skill-level of attendees.
 - 1. Submit to Architect for transmittal to OWNER.
 - 2. Submit not less than four weeks prior to start of training.
 - 3. Revise and resubmit until acceptable.
 - 4. Provide an overall schedule showing all training sessions.
 - 5. Include at least the following for each training session:
 - a. Identification, date, time, and duration.
 - b. Description of products and/or systems to be covered.
 - c. Name of firm and person conducting training; include qualifications.
 - d. Intended audience, such as job description.
 - e. Objectives of training and suggested methods of ensuring adequate training.
 - f. Methods to be used, such as classroom lecture, live demonstrations, hands-on, etc.
 - g. Media to be used, such a slides, hand-outs, etc.
 - h. Training equipment required, such as projector, projection screen, etc., to be provided by Contractor.
- C. Training Manuals: Provide training manual for each attendee; allow

for minimum of two attendees per training session.

- 1. Include applicable portion of O&M manuals.
- 2. Include copies of all hand-outs, slides, overheads, video presentations, etc., that are not included in O&M manuals.
- 3. Provide one extra copy of each training manual to be included with operation and maintenance data.

D. Training Reports:

- 1. Identification of each training session, date, time, and duration.
- 2. Sign-in sheet showing names and job titles of attendees.
- 3. List of attendee questions and written answers given, including copies of and references to supporting documentation required for clarification; include answers to questions that could not be answered in original training session.
- 4. Include Owner's formal acceptance of training session.

1.04QUALITY ASSURANCE

- A. Instructor Qualifications: Familiar with design, operation, maintenance and troubleshooting of the relevant products and systems.
 - 1. Provide as instructors the most qualified trainer of those contractors and/or installers who actually supplied and installed the systems and equipment.
 - 2. Where a single person is not familiar with all aspects, provide specialists with necessary qualifications.

1.05 PROJECT CONDITIONS

- A. Coordinate preparation of operation and maintenance data specified in Section 01 7823.
- B. Schedule work to ensure demonstration and training sessions are completed prior to request for Substantial Completion.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.01DEMONSTRATION - GENERAL

- A. Demonstrations conducted during system start-up do not qualify as demonstrations for the purposes of this section, unless approved in advance by OWNER.
- B. Demonstration may be combined with OWNER personnel training if applicable.
- C. Operating Equipment and Systems: Demonstrate operation in all modes, including start-up, shut-down, seasonal changeover, emergency conditions, and troubleshooting, and maintenance procedures, including scheduled and preventive maintenance.
 - 1. Perform demonstrations not less than two weeks prior to Substantial Completion.
 - 2. For equipment or systems requiring seasonal operation, perform demonstration for other season within six months.
- D. Non-Operating Products: Demonstrate cleaning, scheduled and preventive maintenance, and repair procedures.

1. Perform demonstrations not less than two weeks prior to Substantial Completion.

3.02TRAINING - GENERAL

- A. Conduct training on-site unless otherwise indicated.
- B. OWNER will provide classroom and seating at no cost to Contractor.
- C. Provide training in minimum two hour segments.
- D. Training schedule will be subject to availability of OWNER's personnel to be trained; re-schedule training sessions as required by OWNER; once schedule has been approved by OWNER failure to conduct sessions according to schedule will be cause for OWNER to charge Contractor for personnel "show-up" time.
- E. Review of Facility Policy on Operation and Maintenance Data: During training discuss:
 - 1. The location of the O&M manuals and procedures for use and preservation; backup copies.
 - Typical contents and organization of all manuals, including explanatory information, system narratives, and product specific information.
 - 3. Typical uses of the O&M manuals.
- F. Product- and System-Specific Training:
 - 1. Review the applicable O&M manuals.
 - 2. For systems, provide an overview of system operation, design parameters and constraints, and operational strategies.
 - Review instructions for proper operation in all modes, including start-up, shut-down, seasonal changeover and emergency procedures, and for maintenance, including preventative maintenance.
 - 4. Provide hands-on training on all operational modes possible and preventive maintenance.
 - 5. Emphasize safe and proper operating requirements; discuss relevant health and safety issues and emergency procedures.
 - 6. Discuss common troubleshooting problems and solutions.
 - 7. Discuss any peculiarities of equipment installation or operation.
 - 8. Discuss warranties and guarantees, including procedures necessary to avoid voiding coverage.
 - 9. Review recommended tools and spare parts inventory suggestions of manufacturers.
 - 10. Review spare parts and tools required to be furnished by Contractor.
 - 11. Review spare parts suppliers and sources and procurement procedures.
- G. Be prepared to answer questions raised by training attendees; if unable to answer during training session, provide written response within three days.

END OF SECTION

SECTION 02 4119 - SELECTIVE DEMOLITION

PART 1 - GENERAL

1.01 REFERENCE STANDARDS AND RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.
- B. Specifications throughout all Divisions of the Project Manual are directly applicable to this Section, and this Section is directly applicable to them.
- C. The latest published edition of a reference shall be applicable to this Project unless identified by a specific edition date.
- D. All reference amendments adopted prior to the effective date of this Contract shall be applicable to this Project.
- E. All materials, installation and workmanship shall comply with all applicable requirements and standards.

1.02 SUBMITTALS

A. Record Documents:

- 1. Schedule indicating proposed sequence of operations for selective demolition Work to Owner's Representative for review prior to start of Work. Include coordination for shutoff, capping, and continuation of utility services as required, together with details for dust and noise control protection.
 - a. Provide detailed sequence of demolition and removal Work to ensure uninterrupted progress of Owner's on-site operations.
 - b. Coordinate with Owner's continuing occupation of portions of existing building and with Owner's partial occupancy of completed new addition.
- 2. Photographs of existing conditions of structure surfaces, equipment, and adjacent improvements that might be misconstrued as damage related to removal operations. File with Owner's Representative prior to start of Work.

1.03 PROJECT CONDITIONS

- A. Owner will occupy portions of the building immediately adjacent to areas of selective demolition. Conduct selective demolition Work in manner that will minimize need for disruption of Owner's normal operations. Provide minimum of 72 hours advance notice to Owner of demolition activities that will affect Owner's normal operations.
- F. Owner assumes no responsibility for actual condition of items or structures to be demolished.
 - Conditions existing at time of inspection for bidding purposes will be maintained by Owner insofar as practicable. However, minor variations within structure may occur by Owner's removal and salvage operations prior to start of selective demolition Work.
- G. Promptly repair damages caused to adjacent facilities by demolition Work.
- H. Conduct selective demolition operations and debris removal to ensure minimum interference with roads, streets, walks, and other adjacent occupied or used facilities.
 - 1. Do not close, block, or otherwise obstruct streets, walks, or other occupied or used facilities without written permission from authorities having jurisdiction. Provide alternate routes around closed or obstructed traffic ways if required by governing regulations.
- I. Do not use cutting torches for removal until Work area is cleared of flammable materials. At concealed spaces, such as interior of ducts and pipe spaces, verify condition of hidden space before starting flame cutting operations. Maintain portable fire suppression devices during flame cutting operations.
- J. Maintain existing utilities indicated to remain in service and protect them against damage during demolition operations.
 - Do not interrupt utilities serving occupied or used facilities, except when authorized in writing by authorities having jurisdiction. Provide temporary services during interruptions to existing utilities, as acceptable to governing authorities.
 - 2. Maintain fire protection services during selective demolition operations.
- K. Use water sprinkling, temporary enclosures, and other methods to limit dust and dirt migration. Comply with governing regulations pertaining to environmental protection.

1. Do not use water when it may create hazardous or objectionable conditions such as ice, flooding, and pollution.

PART 2 - PRODUCTS

2.01 GENERAL

A. All materials shall meet or exceed all applicable referenced standards, federal, state and local requirements, and conform to codes and ordinances of authorities having jurisdiction.

2.02 MATERIAL OWNERSHIP

- A. Except for items or materials indicated to be reused, salvaged, or otherwise indicated to remain the Owner's property, demolished materials shall be become the Contractor's property and shall be removed from the Site with further disposition of the Construction's option.
- B. Historical items, relics, and similar objects including, but not limited to, cornerstones and their contents, commemorative plaques and tablets, antiques, and other items of interest or value to the Owner, which may be encountered during demolition, remain the Owner's property. Carefully remove and salvage each item or object in a manner to prevent damage and deliver promptly to the Owner.

PART 3 - EXECUTION

3.01 PREPARATION

- L. Provide interior and exterior shoring, bracing, or support to prevent movement, settlement, or collapse of areas to be demolished and adjacent facilities to remain.
 - 1. Cease operations and notify Owner's Representative immediately if safety of structure appears to be endangered. Take precautions to support structure until determination is made for continuing operations.
 - 2. Locate, identify, stub off, and disconnect utility services that are not indicated to remain.
 - a. Provide bypass connections as necessary to maintain continuity of service to occupied areas of building. Provide minimum of 72 hours advance notice to Owner if shutdown of service is necessary during changeover.

3.02 INSTALLATION

- A. Installation shall meet or exceed all applicable federal, state and local requirements, referenced standards and conform to codes and ordinances of authorities having jurisdiction.
- B. All installation shall be in accordance with manufacturer's published recommendations.

3.03 DEMOLITION

- A. Perform selective demolition Work in a systematic manner. Use such methods as required to complete Work indicated on Drawings in accordance with demolition schedule and governing regulations.
 - 1. Demolish concrete and masonry in small sections. Cut concrete and masonry at junctures with construction to remain using power driven masonry saw or hand tools; do not use power driven impact tools.
 - 2. Locate demolition equipment throughout structure and promptly remove debris to avoid imposing excessive loads on supporting walls, floors, or framing.
 - 3. Provide services for effective air and water pollution controls as required by local authorities having jurisdiction.
 - 4. Demolish foundation walls to a depth of not less than 12 inches below existing ground surface. Demolish and remove below grade wood or metal construction. Break up below grade concrete slabs.
 - 5. For interior slabs on grade, use removal methods that will not crack or structurally disturb adjacent slabs or partitions. Use power saw where possible.
 - 6. If unanticipated mechanical, electrical, or structural elements that conflict with intended function or design are encountered, investigate and measure both nature and extent of the conflict. Submit report to Owner's Representative in written, accurate detail. Pending receipt of directive from Owner's Representative, rearrange selective demolition schedule as necessary to continue overall job progress without undue delay.

3.04 DISPOSAL OF DEMOLISHED MATERIALS

A. Remove from building Site debris, rubbish, and other materials resulting from demolition operations. Transport and legally dispose off Site.

- B. If hazardous materials are encountered during demolition operations, comply with applicable regulations, laws, and ordinances concerning removal, handling, and protection against exposure or environmental pollution.
- C. Burning of removed materials is not permitted on the Project Site.

CLEANUP AND REPAIR

- A. Upon completion of demolition Work, remove tools, equipment, and demolished materials from the Project Site.
- B. Remove protections and leave interior areas broom clean.
- C. Repair demolition performed in excess of that required.
- D. Return elements of construction and surfaces to remain to condition existing prior to start operations.
- E. Repair adjacent construction or surfaces soiled or damaged by selective demolition Work.

END OF SECTION 02 4119

SECTION 061000 - ROUGH CARPENTRY

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Framing lumber.
- B. Preservative treatment of wood.
- C. Miscellaneous framing and sheathing.
- D. Telephone and electrical panel boards.
- E. Miscellaneous wood nailers and furring strips.

1.3 REFERENCES

- A. AFPA T10 Wood Frame Construction Manual; American Forest and Paper Association.
- B. ASTM A 153/A 153M Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware.
- C. ASTM E 84 Standard Test Method for Surface Burning Characteristics of Building Materials.
- D. AWPA C2 Lumber, Timber, Bridge Ties and Mine Ties -- Preservative Treatment by Pressure Processes; American Wood-Preservers' Association.
- E. AWPA C9 Plywood -- Preservative Treatment by Pressure Processes; American Wood-Preservers' Association.
- F. AWPA C20 Structural Lumber -- Fire Retardant Treatment by Pressure Processes; American Wood-Preservers' Association.
- G. AWPA C27 Plywood -- Fire-Retardant Treatment by Pressure Processes; American Wood-Preservers' Association.
- H. AWPA U1 Use Category System: User Specification for Treated Wood; American Wood-Preservers' Association.
- I. PS 1 Construction and Industrial Plywood; National Institute of Standards and Technology (Department of Commerce).
- J. PS 20 American Softwood Lumber Standard; National Institute of Standards and Technology (Department of Commerce).

1.4 SUBMITTALS

- A. See Section 01 3000 Administrative Requirements, for submittal procedures.
- B. Manufacturer's Certificate: Certify that wood products supplied for rough carpentry meet or exceed specified requirements.

1.5 QUALITY ASSURANCE

A. Lumber: Comply with PS 20 and approved grading rules and inspection agencies.

- 1. Acceptable Lumber Inspection Agencies: Any agency with rules approved by American Lumber Standards Committee.
- B. Preservative-Treated Wood: Provide lumber and plywood marked or stamped by an ALSC-accredited testing agency, certifying level and type of treatment in accordance with AWPA standards.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. General: Cover wood products to protect against moisture. Support stacked products to prevent deformation and to allow air circulation.
- B. Fire Retardant Treated Wood: Prevent exposure to precipitation during shipping, storage, or installation.

PART 2 PRODUCTS

2.1 GENERAL REQUIREMENTS

A. Lumber fabricated from old growth timber is not permitted.

2.2 DIMENSION LUMBER

- A. Sizes: Nominal sizes as indicated on drawings.
- B. Moisture Content: S-dry or MC19.
- C. Stud Framing (2 x 2 through 2 x 6):
 - 1. Species: SPF.
 - 2. Grade: No. 2.
- D. Joist and Small Beam Framing (2 x 6 through 4 x 16):
 - 1. Species: SPF.
 - 2. Grade: No. 2.
- E. Miscellaneous Blocking, Furring, and Nailers:
 - 1. Species: SPF.
 - 2. Lumber: No. 2.

2.3 CONSTRUCTION PANELS

- A. Wall or Roof Sheathing: Plywood, PS 1, Grade C-D, Exposure I.
- B. Other Applications:
 - 1. Concealed Plywood: PS 1, C-C Plugged, exterior grade.
 - 2. Exposed Plywood: PS 1, A-D, interior grade.
 - 3. Electrical Component Mounting: APA rated sheathing, fire retardant treated.

2.4 ACCESSORIES

- A. Fasteners and Anchors:
 - Metal and Finish: Hot-dipped galvanized steel per ASTM A 153/A 153M for high humidity and preservative-treated wood locations, unfinished steel elsewhere.
 - 2. Drywall Screws: Bugle head, hardened steel, power driven type, length three times thickness of sheathing.

2.5 FACTORY WOOD TREATMENT

- A. Treated Lumber and Plywood: Comply with requirements of AWPA U1 Use Category System for wood treatments determined by use categories, expected service conditions, and specific applications.
- B. Preservative Pressure Treatment of Lumber Above Grade: AWPA Use Category UC3B, Commodity Specification A (Treatment C2) using waterborne preservative to 0.25 lb/cu ft retention.
 - 1. Kiln dry lumber after treatment to maximum moisture content of 19 percent.
 - 2. Treat lumber in contact with roofing, flashing, or waterproofing.
 - 3. Treat lumber in contact with masonry or concrete.
 - 4. Preservative Pressure Treatment of Plywood Above Grade: AWPA Use Category UC2 and UC3B, Commodity Specification F (Treatment C9) using waterborne preservative to 0.25 lb/cu ft retention.
 - a. Kiln dry plywood after treatment to maximum moisture content of 19 percent.
 - b. Treat plywood in contact with masonry or concrete.
 - c. Treat plywood in other locations as indicated.

PART 3 EXECUTION

3.1 FRAMING INSTALLATION

- A. Extend partition framing to structure above in all locations. Set structural members level, plumb, and true to line. Discard pieces with defects that would lower required strength or result in unacceptable appearance of exposed members.
- B. Make provisions for temporary construction loads, and provide temporary bracing sufficient to maintain structure in true alignment and safe condition until completion of erection and installation of permanent bracing.
- C. Install structural members full length without splices unless otherwise specifically detailed.
- D. Comply with member sizes, spacing, and configurations indicated, and fastener size and spacing indicated, but not less than required by applicable codes and AFPA Wood Frame Construction Manual.
- E. Install horizontal spanning members with crown edge up and not less than 1-1/2 inches of bearing at each end.
- F. Construct double joist headers at floor and ceiling openings and under wall stud partitions that are parallel to floor joists; use metal joist hangers unless otherwise detailed.
- G. Frame openings with two or more studs at each jamb; support headers on cripple studs.
- H. Provide miscellaneous members as indicated or as required to support finishes, fixtures, specialty items, and trim.

3.2 INSTALLATION OF ACCESSORIES AND MISCELLANEOUS WOOD

- A. Place sill gasket directly on cementitious foundation. Puncture gasket cleanly and fit tightly to protruding foundation anchor bolts.
- B. Coordinate installation of wood decking and glue laminated structural units.
- C. Curb roof openings except where prefabricated curbs are provided. Form corners by alternating lapping side members.
- D. Coordinate curb installation with installation of decking and support of deck openings.

3.3 INSTALLATION OF CONSTRUCTION PANELS

A. Wall Sheathing: Secure with long dimension parallel to wall studs, with ends over firm bearing and staggered, using nails or screws.

3.4 TOLERANCES

- A. Framing Members: 1/8 inch from true position, maximum.
- B. Variation from Plane (Other than Floors): 1/8 inch in 10 feet maximum.

END OF SECTION

SECTION 07 2129 - INSULATION

PART 1 - GENERAL

1.01 SUMMARY

- A. Section Includes: Medium-density, polyurethane spray foam insulation.
- B. Coordinate mechanical ventilation and fresh air supply with Mechanical sections and ASHRAE Guidelines for optimum indoor air quality.

1.02 REFERENCES

- A. American Society for Testing and Materials International (ASTM)
- B. ASTM C 518: Standard Test Method for Steady-State Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus
- C. ASTM E 84: Test Method for Surface Burning Characteristics of Building Materials
- D. ASTM E 96: Standard Test Methods for Water Vapor Transmission of Materials
- E. ASTM E 283: Standard Test Method for Determining Rate of Air Leakage Through Exterior Windows, Curtain Walls, and Doors Under Specified Pressure Differences Across the Specimen

1.03 SUBMITTALS

- A. Product Data for each type of insulation product specified.
- B. Product test reports performed by a qualified third-party testing agency evidencing compliance of insulation products with specified requirements including those for thermal resistance, fire-test-response characteristics, water-vapor transmission, and other properties, based on comprehensive testing of current products.
- C. Evaluation Report: Evidence of compliance of foam-plastic insulations with International Building Code (IBC), International Residential Code (IRC), International Energy Conservation Code (IECC).
- D. Manufacturer's certificate certifying insulation provided meets or exceeds specified requirements.
- E. Installer's certificate showing the Icynene installation certification.
- F. Sample warranty

1.04 QUALITY ASSURANCE

- A. Manufacturer's Qualifications: Product produced in an ISO 9001 registered factory.
- B. Single Source Responsibility: Single source product from one manufacturer.
- C. Installer Qualifications: Engage an Icynene Licensed Dealer (installer) who has been trained and certified by Icynene.

- D. Fire-Test-Response Characteristics: Provide materials specified as determined by testing identical products per test method indicated below by a testing and inspecting agency acceptable to authorities having jurisdiction. Identify materials with appropriate markings of applicable testing and inspecting agency.
- E. Surface-Burning Characteristics: ASTM E 84
- F. Toxicity/Hazardous Materials
- G. Provide products that contain no urea-formaldehyde
- H. Provide products that contain no PBDEs
- I. Provide products that are "Low-emitting"

1.05 DELIVERY, STORAGE, AND HANDLING

- A. Comply with manufacturers written instructions for handling and protection prior to and during installation.
- B. Store both components in a temperature controlled area between 65 and 85 degrees F. Do not allow product to freeze.
- C. Use only those components that are supplied by the Manufacturer.

1.06 PROJECT CONDITIONS

A. Do not expose to sunlight, except to extent necessary for period of installation and concealment.

PART 2 - PRODUCTS

2.01 MANUFACTURERS

A. Polyurethane Spray Foam Insulation: "ICYNENE MD-C-200" by Icynene Inc.

2.02 MATERIALS

- A. General: Provide insulating materials that comply with requirements and with referenced standards.
- B. ICYNENE MD-C-200 $^{\text{TM}}$ Spray Foam Insulation: Medium-density, conforming to the following:
- D. Air Permeance (for 1 inch of material): ASTM E 283: <0.02 L/s.m² @75 Pa
- E. Water Vapor Transmission (for 1.5 inches of material): ASTM E 96; 0.9 perms
- F. Flame Spread and Smoke Developed Rating: ASTM E 84
- G. Flame Spread: Less than 25
- H. Smoke Development: Less than 450
- I. Product Description: ICC/ES Evaluation Report No. ESR 3199

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Examine substrates and conditions, under which work is to be performed.

 Do not proceed until unsatisfactory conditions have been corrected.
- B. Review placement area to determine final location will not be within 3 inches of any heat source where the temperature will exceed 180 deg F per ASTM C 411 or in accordance with authorities having jurisdiction.

3.02 PREPARATION

A. Clean substrates and cavities of loose materials capable of interfering with insulation placement.

3.03 APPLICATION

- A. Site mix liquid components supplied by Icynene and installed by Independent Icynene Licensed Dealer.
- B. Apply insulation to substrates in compliance with manufacturer's written instructions.
- C. Extend insulation in thickness indicated to envelop entire area to be insulated.
- D. Water-Piping Coordination: If water piping is located within insulated exterior walls, coordinate location of piping to ensure that it is placed on warm side of insulation and insulation encapsulates piping.
- E. Apply insulation to produce thickness required for indicated following areas:
 - 1. Inside surface of Exterior Walls: 3 inches.
 - 2. Inside surface of Interior Walls: 2 inches.

3.04 REPAIRS

A. Any repairs must be effected by an Icynene Licensed Dealer.

3.05 PROTECTION

A. Protect installed insulation from damage due to harmful weather exposures, physical abuse, and other causes. Provide temporary coverings where insulation is subject to abuse.

SECTION 07 90 05 - JOINT SEALERS

GENERAL

- 1. SECTION INCLUDES
 - A. Joint sealant and sealer.
- 2. RELATED SECTIONS
 - A. Section 09 30 00 Tiling.
- REFERENCES
 - A. AAMA 808.3 Specification for Exterior Perimeter Sealing Compound.
 - B. ASTM International (ASTM):
 - 1. ASTM C 510 Standard Test Method for Staining and Color Change of Single- or Multicomponent Joint Sealants.
 - 2. ASTM C 661 Standard Test Method for Indentation Hardness of Elastomeric-Type Sealants by Means of a Durometer.
 - 3. ASTM C 679 Standard Test Method for Tack-Free Time of Elastomeric Sealants.
 - 4. ASTM C 719 Standard Test Method for Adhesion and Cohesion of Elastomeric Joint Sealants Under Cyclic Movement (Hockman Cycle).
 - 5. ASTM C 794 Standard Test Method for Adhesion-in-Peel of Elastomeric Joint Sealants.
 - 6. ASTM C 834 Standard Test Method for Adhesion-in-Peel of Elastomeric Joint Sealants.
 - 7. ASTM C 920 Standard Specification for Elastomeric Joint Sealants.
 - 8. ASTM C1382 Standard Test Method for Determining Tensile Adhesion Properties of Sealants When Used in Exterior Insulation and Finish Systems (EIFS) Joints.
 - 9. ASTM D 412 Standard Test Methods for Vulcanized Rubber and Thermoplastic ElastomersTension.
 - 10. ASTM D 6511 Standard Test Methods for Solvent Bearing Bituminous Compounds.
 - 11. ASTM E 84 Standard Test Method for Surface Burning Characteristics of Building Materials.
 - 12. ASTM E 90 Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements.
 - 13. ASTM E 162 Standard Test Method for Surface Flammability of Materials Using a Radiant Heat Energy Source.
 - 14. ASTM E 662 Standard Test Method for Specific Optical Density of Smoke Generated by Solid Materials.
 - 15. ASTM G 155 Standard Practice for Operating Xenon Arc Light Apparatus for Exposure of Non-Metallic Materials.
 - C. CAN/CGSB-19. 13-M87 Sealing Compound, One-Component, Elastomeric, Chemical Curing.

- D. FDA regulation 21-CFR-177.2600 Rubber Articles Intended For Repeated Use.
- E. Federal specification TT-S-00230C Sealing Compound: Elastomeric Type, Single Component (For Calking, Sealing, And Glazing In Buildings And Other Structures).
- F. GreenSeal GS-36 Specifications Standard For Adhesives For Commercial Use.
- G. National Science Foundation (NSF) 51 Food Equipment Materials.
- H. South Coast Air Quality Management District (SCAQMD) Rule #1168 Adhesive And Sealant Applications.
- I. Underwriters Laboratory (UL) 723 Test for Surface Burning Characteristics of Building Materials.

4. SUBMITTALS

- A. Submit under provisions of Section 01 30 00 Administrative Requirements.
- B. Product Data: Manufacturer's data sheets on each product to be used, including:
 - 1. Preparation instructions and recommendations.
 - 2. Storage and handling requirements and recommendations.
 - 3. Installation methods.

5. OUALITY ASSURANCE

- A. Manufacturer Qualifications: Firm engaged in manufacture of construction sealants, with minimum 10 years experience.
- B. Installer Qualifications: Experienced installer with a successful track record of five years or more, or a member of Sealant Waterproofing and Restoration Institute.
- C. Mock-Up: Provide a mock-up for evaluation of surface preparation techniques and application workmanship.
 - 1. Finish areas designated by Architect.
 - Do not proceed with remaining work until workmanship, color, and sheen are approved by Architect.
 - 3. Refinish mock-up area as required to produce acceptable work.

6. DELIVERY, STORAGE, AND HANDLING

A. Store products in manufacturer's unopened packaging until ready for installation.

7. PROJECT CONDITIONS

A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's recommended limits.

2.PRODUCTS

2.1. MANUFACTURERS

- A. Acceptable Manufacturer: Franklin International Inc. Titebond, which is located at: 2020 Bruck St.; Columbus, OH 43207; Toll Free Tel: 800-877-4583; Tel: 614-443-0241; Fax: 614-445-1813; Email: request info (BeeMiller@franklininternational.com); Web: www.titebond.com
- B. Requests for substitutions will be considered in accordance with provisions of Section 016000 Product Requirements.

2.2. SEALANTS

- A. Multi-Purpose Sealant:
 - Product: Titebond WeatherMaster Sealant as manufactured by Franklin International Inc.
 - a. Type: A one-component, moisture cure, non-priming, premium grade, low VOC advanced MS polymer sealant.
 - 1. Titebond WeatherMaster Translucent is an advanced neutral cure silicone and is not paintable.
 - b. Class: ASTM C920 Type S Grade NS Class 25 Use NT, M (when primed), G and A.
 - c. Class: CAN/CGSB-19. 13-M87 Classification MCG-2-25-A-N (white, colors and crystal clear).
 - d. Exceeds the requirements of ASTM D412, ASTM C510, ASTM C661, ASTM C679 and ASTM C719.
 - e. Exceeds requirements of Federal specification TT-S-00230C Type II Class A (white, colors and crystal clear).
 - f. USDA approved for use in meat and poultry areas (white, colors and crystal clear).
 - g. Reactive VOC: 9 g/L (less than 2 percent wt) white and colors, 11 g/L (less than 2 percent wt) crystal clear, 3 g/L (less than 0.3 percent wt) translucent.
 - h. Solids 98 percent.
 - 2. Product: Titebond WeatherMaster ULTIMATE MP Sealant as manufactured by Franklin International Inc.
 - a. Type: A one-component, moisture cure, non-priming, premium grade, low VOC advanced MS polymer sealant.
 - 1. Titebond WeatherMaster ULTIMATE MP Translucent is an advanced neutral cure silicone and is not paintable.
 - b. Exceeds the requirements of ASTM C920 Type S Grade NS Class 50. Use NT, T, G, A and M.
 - 1. Titebond WeatherMaster ULTIMATE MP Translucent is Class 25.
 - c. Federal Specification TT-S-00230C, Type II, Class A.
 - d. Tested in accordance with ASTM C1382 for use in EIFS systems (white & colors).
 - e. Meets the requirements of AAMA 808.3-92 (translucent).
 - f. Reactive VOC: 9 g/L (less than 2 percent wt) white and colors, 11 g/L (less than 2 percent wt) crystal clear, 3 g/L (less than 0.3 percent wt) translucent.
 - 3. Product: Titebond 100 percent Silicone Sealant as manufactured

by Franklin International Inc.

- a. Type: Silicone.
- b. Solids 85 percent.
- c. Non-reactive VOC 30 g/L (less than3 percent wt.).
- d. Meets the performance requirements of Federal Specification TT-S-001543A and TT-S-00230C.
- e. Meets the performance requirements of ASTM C920.
- f. Meets requirements of FDA regulation 21-CFR-177.2600 for indirect food contact.
- g. NSF 51 Certified for direct food contact.
- 4. Product: Titebond UA 920 as manufactured by Franklin International Inc.
 - a. Type: Urethane / Modified Acrylic Blend (Siliconized).
 - b. Exceeds requirements of ASTM C920 Grade NS Class 25 and ASTM C834 Type OP for white and colors (Type C for Clear) Grade -18 degrees CC
 - c. Exceeds requirements of Federal specification TT-S-00230C Type II Class A
 - d. No failures when tested in accordance with ASTM C1382 when used per ASTM C920 Class 25
 - e. Meets the performance requirements of AAMA 808.3
 - f. Solids 70 percent white & colors, 65 percent clear.
 - g. Non-reactive VOC 18g/L (less than1.5 percent) white & colors, 11 g/L (less than1.5 percent) clear.

B. Acoustical Smoke & Sound Sealant:

- 1. Product: Titebond GREENchoice Acoustical Smoke & Sound Sealant as manufactured by Franklin International Inc.
 - a. Type: Acrylic polymer (non-reactive) Medium-viscosity caulk.
 - b. Mold & mildew resistant.
 - c. Exceeds the requirements of ASTM C661, ASTM C834, ASTM D217 and ASTM D412.
 - d. UL Tested and classified. Tested in accordance with ASTM ${\tt E84}$ and ASTM ${\tt E90}$.
 - e. Complies with UL 723.
 - f. Meets NFPA Class A fire rating.
 - g. Meets GreenSeal GS-36 specifications.

C. Siding Sealant:

- 1. Product: Titebond All Siding Sealant as manufactured by Franklin International Inc.
 - a. Type: Acrylic.
 - b. Meets ASTM C920 Type S Grade NS Class 25, ASTM C834 Type OP Grade -18 degrees CC.
 - c. Meets Federal Specification TT-S-00230C Type II Class A.
 - d. ASTM C661: Indentation Hardness (Shore A): 16.
 - e. ASTM C794: Adhesion in Peel:
 - 1. Glass 16.7 pli 100 percent cohesive failure.
 - 2. Aluminum 16.5 pli 100 percent cohesive failure.
 - Cement- 9pli 50 percent cohesive failure 50 percent Substrate failure.
 - f. Solids 78 percent.
 - g. Non-reactive VOC 25 g/L (less than1.5 percent wt.).

- D. Kitchen & Bath Sealant:
 - 1. Product: Titebond Kitchen & Bath Sealant as manufactured by Franklin International Inc.
 - a. Type: Modified acrylic.
 - b. Color White, almond and clear.
 - C. Meets ASTM C834 Type OP Grade 0 degrees CC (Type C Grade NF for clear).
 - d. Complies with FDA 21-CFR-177.2600.

E. Painters Caulk:

- 1. Product: Titebond Painters Caulk as manufactured by Franklin International Inc.
 - a. Type: Latex, White.
 - b. Solids 82 percent.
 - c. Non-reactive VOC 23 g/L (less than1.5 percent).
 - d. Meets ASTM C-834 Type OP Grade -18 degrees CC.
- 2. Product: Titebond Painters Plus Caulk as manufactured by Franklin International Inc.
 - Type: Siliconized acrylic.
 - b. White and colors exceed the requirements of ASTM C834 Type OP Grade -18 degrees CC.
 - c. Clear exceeds the requirements of ASTM C834 Type C Grade 0 degrees CC.
 - d. Solids 82 percent white, 60 percent clear, 87 percent colors,
 - e. Non-reactive VOC 23 g/L (less than1.5 percent) white, 5 g/L (less than1.5 percent) clear, 21 g/L (less than1.5 percent) colors.

F. Roof Cement Sealant:

- 1. Product: Titebond Roof Cement Sealant as manufactured by Franklin International Inc.
 - a. Type: Asphalt (reactive) based patching compound.
 - b. Formulated to meet Federal Specification SS-C-153C Type I.
 - c. Complies to ASTM D6511, SCAQMD Rule #1168.
 - d. Solids 73 percent.
 - e. Non-reactive VOC 300 g/L.

3.EXECUTION

3.1. EXAMINATION

A. Clean surfaces thoroughly prior to installation. Surfaces must be cleaned down to the original substrate and free of any material or contaminant that may prevent or deter Examine joints to receive sealants. Notify Project Manager or Architect if conditions are not acceptable. Do not begin surface preparation or application until unacceptable conditions have been corrected.

3.2. PREPARATION

A. Clean surfaces thoroughly prior to installation. Surfaces must be cleaned down to the original substrate and free of any material or contaminant that may prevent or deter adhesion. Such contaminates include, but are not limited to: dirt, frost, loose particles,

existing sealants, grease, oils, rust, and similar items.

3.3. INSTALLATION

- A. Backer rod or bond breaker tape The depth of the sealant must be controlled by using a suitable sealant backing material. The backing material must also function as a bond breaker to eliminate three sided adhesion and allow the sealant to expand and contract properly as designed.
- B. Application: For best results, sealant should be applied when joint is at midpoint of its designed dynamic expansion and contraction. Always apply sealant in bead form. After joints have been completely filled, they should be neatly tooled to eliminate air pockets or voids, and to ensure good substrate wetting for optimum adhesion. Dry tooling is recommended and use of solvents or soapy water as tooling agents is discouraged. Do not smear, feather or wipe sealant to a thin consistency or film outside of joint area unless the area has been masked with tape or if it will be painted. Once sealant is dry to touch and does not transfer, remove masking tape.
- C. Cleanup: Uncured sealant may be cleaned with isopropyl alcohol. After curing, excess sealant must be cut or scraped away. Follow solvent vendor's precautions when using solvents.
 - Titebond WeatherMaster Translucent (#44011), Titebond WeatherMaster Metal Roof Translucent (#61111) and Titebond WeatherMaster Ultimate MP Translucent (#71111) can be cleaned with mineral spirits or similar solvent before cured.

3.4. PROTECTION

- A. Protect sealants in joints from damage until fully cured.
- B. Touch-up, repair or replace damaged products before Substantial Completion.

SECTION 08 - WOOD COMPOSITE DOORS

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Passage Doors

1.02 REFERENCES

- A. National Fire Protection Association (NFPA)
 - 1. NFPA 252: Standard Methods of Fire Tests of Door Assemblies.
- B. Underwriters Laboratories, Inc. (UL)
 - 1. UL 10B: Standard for Fire Tests of Door Assemblies (Note: Neutral pressure standard)
 - 2. UL 10C: Standard for Positive Pressure Fire Tests of Door Assemblies.

1.03 DESIGN REQUIREMENTS

A. Fire-Rated Door Assemblies: Fire door assemblies shall meet or exceed fire-protection ratings indicated when tested in accordance with NFPA 252, UL 10B and UL 10C.

1.04 SUBMITTALS

- A. Refer to Section 01 3000 Submittal Procedures.
- B. Product Data: Submit door manufacturer current product literature, including installation instruction.
- C. Samples: Provide finish samples for all products.
- D. Quality Assurance Submittals
 - 1. Manufacturer Instructions: Provide manufacturer's written installation instructions.
- E. Closeout Submittals

Refer to Section 01 7800 Closeout Submittals.

1.05 DELIVERY, STORAGE AND HANDLING

- A. Refer to Section 01 6000 Product Requirements.
- B. Deliver doors, materials and components in manufacturer's original, unopened, undamaged containers with identification labels intact.
- C. Store doors as recommended by manufacturer.

1.06 WARRANTY

- A. Refer to Section 01 7800 CloseOut Submittals.
- B. Manufacturer standard warranty indicating that the door will be free from material and workmanship defects from the date of substantial completion for the time periods indicated below:
 - 1. Door Unit: 5 years

PART 2 PRODUCTS

2.01 MANUFACTURER

- A. JELD-WEN® Interior Doors; 3305 Lakeport Blvd; Klamath Falls, OR 97601, USA; Phone 877.535.3462, fax 541.882.3455; website www.jeld-wen.com.
- B. Basis of Design: Doors are based on JELD-WEN's Flush Interior Doors.

2.02 PASSAGE DOORS

- A. Core and Frame
 - 1. Solid core with all-wood frame.
 - a. Thickness: 1-3/4 inch with 20-minute fire rating.
 - 2. Jambs
 - a. Jamb Width: 4-9/16 inch
 - b. Jamb Type: Split
 - c. Jamb Species: Stainable Pine

B. Finish:

1. Unfinished Hardwood: Sliced Red Oak.

PART 3 EXECUTION

3.01 GENERAL

A. Install doors in accordance with manufacturer's installation guidelines and recommendations.

3.02 EXAMINATION

- A. Inspect door prior to installation.
- B. Inspect rough opening for compliance with door manufacturer recommendations. Verify rough opening conditions are within recommended tolerances.

3.03 PREPARATION

- A. Prepare door for installation in accordance with manufacturer's recommendations.
- B. Trim bottom of jamb sides to achieve desired distance between door bottom and finished floor height.

3.04 INSTALLATION

- A. Place door unit into opening and level hinge side of jamb. Use shims fastened through jamb and stop to level and temporarily secure in place.
- B. Level latch side of jamb. Use shims fastened through jamb and stop to level and temporarily secure in place.
- C. Verify spacing between jamb and door is uniform on all sides. Adjust as necessary.
- D. Shim top of jamb in center of opening and fasten with nail.
- E. Re-check for square, level and even spacing around door. Nail securely in place through stop, jamb, shims and into studs every 12 inches.
- F. Set nails.
- G. Install trim on both sides using nails every 12 to 16 inch
- H. Stain door and frame to match existing doors.

SECTION 08 7120

DOOR HARDWARE

PART 1 - GENERAL

1.1 DESCRIPTION

- A. Work included:
 - 1. Furnish door hardware required to complete the Work as shown on the Drawings and as specified herein.
 - 2. Finish trim attachments and fastenings, specified or otherwise required, for proper and complete installation.
 - 3. Deliver to the job site those items of door hardware scheduled to be installed at the job site, and deliver to other points of installation those items of door hardware scheduled to be factory installed.
- B. Related documents:
 - Documents affecting work of this section include, but are not necessarily limited to, General Conditions, Supplementary Conditions, and Sections in Division 1 of these Specifications.

1.2 QUALITY ASSURANCE

A. Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this section.

1.3 SUBMITTALS

- A. Comply with pertinent provisions of Section 01340.
- B. Product data:
 - 1. Materials list of items proposed to be provided under this Section in hardware groups based on hardware schedules included in this section. Approval of this list by the Architect will not relieve the Contractor of the responsibility to provide all door hardware items required for the Work even though such required items may not have been shown on the approved list.
 - 2. Manufacturer's specifications and other data needed to prove compliance with the specified requirements.
 - 3. Manufacturer's recommended installation procedures which, when approved by the Architect, will become the basis for accepting or rejecting actual installation procedures used on the Work.
- C. Shop drawings in sufficient detail to show fabrication, installation, anchorage, and interface of the work of this Section with the work of adjacent trades.
- D. Samples:
 - 1. Within 15 calendar days after being so requested by the Architect, deliver to the Architect Samples of each door hardware item.
 - 2. All Samples will be returned to the Contractor; provide those Samples which are approved by the Architect are positively

identified and are installed in the Work at locations agreed to by the Architect.

E. Templates: In a timely manner to assure orderly progress of the Work, deliver templates or physical samples of the approved door hardware items to pertinent manufacturers of interfacing items such as doors and frames.

1.4 PRODUCT HANDLING

A. Individually package each unit of door hardware, complete with proper fastenings and appurtenances, clearly marked on the outside to indicate contents and specific locations in the Work.

PART 2 - PRODUCTS

2.1 GENERAL

- A. Fasteners:
 - Furnish necessary screws, bolts, and other fasteners of suitable size and type to anchor the hardware in position for long life under hard use.
 - Where necessary, furnish fastener with toggle bolts, expansion shields, hex bolts, and other anchors approved by the Architect, according to the material to which the hardware is to be applied and according to the recommendations of the hardware manufacturer.
 - 3. Provide fasteners which harmonize with the hardware as to door and material.
- B. Where butts are required to swing 180 degrees, furnish butts of sufficient throw to clear the trim.
- C. Furnish silencers for door frames at the rate of three for each single door and two for each door or pair of doors; except weatherstripped doors and doors with light seals or smoke seals.

2.2 FINISH

A. All hardware shall be finished "Satin Chromium Plated," US26D, except as indicated otherwise.

2.3 KEYING

- A. Factory key and masterkey locks and cylinders as directed by the Architect.
- B. Furnish three keys for each lock.
- C. Construction keying:
 - 1. Furnish a construction masterkey system with 10 keys for locks and cylinders.
 - 2. Use only the construction keys during construction.
 - 3. Upon substantial completion of the Work, as that Date is established by the Architect, void the construction key system and, in the presence of the Architect, demonstrate that the specified keying system is operating properly.
- D. Identification and delivery: Identify permanent keys with tags, and send direct to the Owner by registered mail or receipted personal delivery.

2.4 TOOLS AND MANUALS

A. With the delivery of permanent keys, deliver to the Owner one complete set of adjustment tools and one set of maintenance manuals for locksets, latchsets, closers, and panic devices.

2.5 ACCEPTABLE PRODUCTS

- A. Hinges
 - 1. Full mortise, butt hinges
 - a. Provide five knuckle, standard weight hinges:
 - Plain bearing (PB) or ball bearing (BB) type as schedule. Ball bearing hinges shall have hardened steel raceways with chrome alloy steel balls.
 - 2) Size: 4-1/2" x 4-1/2" with square corners.
 - 3) Steel base metal, polished and plated, except provide stainless steel for exterior application.
 - 4) Non-rising S/S pins with button tips, provide non-removable pin for exterior applications.
 - b. Provide 1-1/2 pair hinges for each door leaf 3'-0" wide x 7'-0" high or smaller; for larger door leafs, provide 2 pair of hinges.
 - c. Where spring hinges are scheduled, coil spring shall have positive adjustment. Install spring hinges at middle and lower locations. Always install ball-bearing type hinge at upper location.
- B. Heavy duty cylindrical locksets with lever handles
 - 1. Manufacturer: Yale Security Inc.
 - 2. 5300LN Series (ANSI A156.2 Series 3000, Grade 2)
 - a. Backset: 2-3/4"
 - b. Dead locking latchbolt with 1/2" throw.
 - c. Standard strike with curved lip and wrought box.
 - d. Function:
 - 1. Privacy: F76B
 - 2. Passage: F75
 - e. Lever design: Monroe
- C. Bumpers
 - 1. Manufacturer: Bobrick
 - a. Type: Wall mounted.
 - b. Model: B-687
- D. Closers
 - 1. Manufacturer: LCN closers
 - 2. Exterior doors: 4040-cush
 - a. Non-handed, heavy duty, cast iron closer with adjustable spring power.
 - b. Provide "Cush-N-Stop" arm.
- E. Weatherstripping
 - 1. Manufacturer: Reese
 - a. Head and jamb: "Polyprene" self adhesive gasket, #797.
 - b. Bottom door sweep: Nylon brush type #967 DUR.
- F. Aluminum thresholds
 - 1. Saddle type
 - 2. Material: Extruded aluminum with duranodic finish.
- G. Pulls
 - 1. Type: Tubular
 - 2. Manufacturer: Rockwood Manufacturing
 - a. Model: RM-201

PART 3 - EXECUTION

3.1 DELIVERIES

A. Stockpile items sufficiently in advance to assure their availability, and make necessary deliveries in a timely manner to assure orderly progress of the total Work.

3.2 COORDINATION

- A. Coordinate as required with other trades to assure proper and adequate provision in the work of those trades for interface with the work of this Section.
- B. Upon completion of the Work, and as a condition of its acceptance, provide the inspection, adjustment, and report described in Article 1.2 above.

3.3 INSTALLATION OF DOOR HARDWARE

- A. Install only specified finish hardware, with the proper equipment, in accordance with the hardware manufacturer's templates and instruction.
- B. Hardware locations shall be as follows unless otherwise indicated in Contract Documents.
- C. Firmly anchor all components into position for long life under hard use, using only the anchoring devices furnished with the hardware item, or fasteners provided by this Contractor and approved by Architect.
- D. Hardware Removal: Immediately before finish painting commences, remove hardware, with the exception of prime coated items, tag, box, and reinstall after finish painting is completed.

3.4 INSPECTION AND ADJUSTMENT

- A. Inspect each installed door and finish hardware item and verify that each has been installed in strict accordance with this specification, is in proper condition and functions in its intended manner.
- B. Adjust all operable devices for proper operation. Communicate questions regarding adjustment and installation of devices directly to supplier or manufacturer.
- C. Adjust doors to operate freely and swing as designed.

3.5 DOOR HARDWARE SCHEDULE

A. Set Hardware

#1 Hinges

Cylindrical Lockset, Passage function.

Weatherstripping

Closer

#2 Hinges

Cylindrical Lockset, Privacy function

Bumper

SECTION 09 2116 - GYPSUM BOARD ASSEMBLIES

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Level 5 finish system.
- B. Gypsum wallboard.
- C. Joint treatment and accessories.

1.02 RELATED SECTIONS

- A. Section 06 1000 Rough Carpentry: Building framing and sheathing.
- B. Section 07 9005 Joint Sealers: Acoustic sealant.

1.03 REFERENCES

- A. ANSI A108.11 American National Standard for Interior Installation of Cementitious Backer Units.
- B. ANSI Al18.9 American National Standard Specifications for Cementitious Backer Units.
- C. ASTM C 36 Standard Specification for Gypsum Wallboard.
- D. ASTM C 442 Standard Specification for Gypsum Backing Board, Gypsum Coreboard, and Gypsum Shaftliner Board.
- E. ASTM C 475 Standard Specification for Joint Compound and Joint Tape for Finishing Gypsum Board.
- F. ASTM C 514 Standard Specification for Nails for the Application of Gypsum Board.
- G. ASTM C 557 Standard Specification for Adhesives for Fastening Gypsum Wallboard to Wood Framing.
- H. ASTM C 665 Standard Specification for Mineral-Fiber Blanket Thermal Insulation for Light Frame Construction and Manufactured Housing.
- I. ASTM C 840 Standard Specification for Application and Finishing of Gypsum Board.
- J. ASTM C 1002 Standard Specification for Steel Self-Piercing Tapping Screws for the Application of Gypsum Panel Products or Metal Plaster Bases to Wood Studs or Steel Studs.
- K. ASTM C 1047 Standard Specification for Accessories for Gypsum Wallboard and Gypsum Veneer Base.
- L. ASTM C1396 Standard Specification for Gypsum Board.
- M. GA-600-12 Fire Resistance Design Manual; Gypsum Association.

1.04 QUALITY ASSURANCE

- A. Perform in accordance with ASTM C 840. Comply with requirements of GA-600 for fire-rated assemblies.
- B. Applicator Qualifications: Company specializing in performing gypsum board application and finishing with minimum five years of experience.

PART 2 - PRODUCTS

2.01 GYPSUM BOARD MATERIALS

- A. Gypsum Wallboard: ASTM C1396. Sizes to minimize joints in place; ends square cut.
 - 1. Type X: Fire resistant, UL or WH rated.
 - a. Application: Walls.
 - b. Thickness: 5/8 inch.
 - c. Edges: Tapered.

2.02 LEVEL 5 FINISH SYSTEM

- A. High Build Drywall Surfacer: Vinyl acrylic latex-based coating for spray application, designed to take the place of skim coating and separate paint primer in achieving Level 5 finish.
- B. Acceptable Products:
 - 1. "Level Coat" manufactured by Magnum Products: www.levelcoat.com.
 - 2. "SHEETROCK Brand Primer-Surfaceer, TUFF-HIDE" manufactured by US Gypsum Company.
 - 3. "ProForm Brand Surfacer/Primer" manufacturered by National Gypsum Company.

2.03 ACCESSORIES

- A. Acoustic Insulation: ASTM C 665; preformed glass fiber, friction fit type, thickness matching depth of wall framing, unfaced.
- B. Acoustic Sealant: As specified in Section 07 9005 Joint Sealers.
- C. Finishing Accessories: ASTM C 1047, galvanized steel or rolled zinc, unless otherwise indicated.
 - 1. Types: As detailed or required for finished appearance.
 - 2. Special Shapes: In addition to conventional cornerbead and control joints, provide U-bead at exposed panel edges.
- D. Joint Materials: ASTM C 475 and as recommended by gypsum board manufacturer for project conditions.
 - 1. Tape: 2 inch wide, coated glass fiber tape for joints and corners, except as otherwise indicated.
 - 2. Ready-mixed vinyl-based joint compound.
- E. Screws: ASTM C 1002; self-piercing tapping type.
- F. Nails: ASTM C 514.
- G. Anchorage to Substrate: Tie wire, nails, screws, and other metal supports, of type and size to suit application; to rigidly secure materials in place.
- H. Adhesive for Attachment to Wood: ASTM C 557.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify that project conditions are appropriate for work of this section to commence.

3.02 ACOUSTIC ACCESSORIES INSTALLATION

- A. Acoustic Insulation: Place tightly within spaces, around cut openings, behind and around electrical and mechanical items within partitions, and tight to items passing through partitions.
- B. Acoustic Sealant: Install as follows:
 - 1. Place one bead continuously on substrate before installation of perimeter framing members.
 - 2. Place continuous bead at perimeter of each layer of gypsum board.
 - 3. In non-fire-rated construction, seal around all penetrations by conduit, pipe, ducts, and rough-in boxes.

3.03 GYPSUM WALLBOARD INSTALLATION

- A. Comply with ASTM C 840 and manufacturer's instructions. Install to minimize butt end joints, especially in highly visible locations.
- B. Single-Layer Non-Rated: Install gypsum board in most economical direction, with ends and edges occurring over firm bearing.
 - 1. Exception: Tapered edges to receive joint treatment at right angles to framing.
- C. Double-Layer Non-Rated: Use gypsum board for first layer, placed parallel to framing or furring members, with ends and edges occurring over firm bearing. Place second layer perpendicular to framing or furring members. Offset joints of second layer from joints of first layer.
- D. Gypsum Soffit Board: Install perpendicular to framing, with staggered end joints over framing members or other solid backing.
- E. Installation on Wood Framing: For rated assemblies, comply with requirements of listing authority.

3.04 INSTALLATION OF TRIM AND ACCESSORIES

- A. Control Joints: Place control joints consistent with lines of building spaces and as follows:
 - Not more than 30 feet apart on walls and ceilings over 25 feet long.
 - 2. Locate over doors aligned along each jamb.
- B. Corner Beads: Install at external corners, using longest practical lengths.
- C. Edge Trim: Install at locations where gypsum board abuts dissimilar materials.

3.05 JOINT TREATMENT

A. Finish gypsum board in scheduled areas in accordance with levels defined in ASTM C 840 and as scheduled below.

- B. Tape, fill, and sand exposed joints, edges, and corners to produce smooth surface ready to receive finishes.
 - 1. Feather coats of joint compound so that camber is maximum 1/32 inch.
 - 2. Taping, filling, and sanding is not required at surfaces behind adhesive applied ceramic tile and fixed cabinetry.
 - 3. Taping, filling and sanding is not required at base layer of double layer applications.
- C. Apply skim coat of topping compound over entire surface after joints have been properly treated to achieve Level 5 finish.
- D. Fill and finish joints and corners of cementitious backing board as recommended by manufacturer.

3.06 TOLERANCES

A. Maximum Variation of Finished Gypsum Board Surface from True Flatness: 1/8 inch in 10 feet in any direction.

3.07 FINISH LEVEL SCHEDULE

A. Level 5: Walls and ceilings exposed to view.

SECTION 09 28 16 - GLASS MAT GYPSUM TILE BACKER

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. This Section includes the following:
 - Moisture-resistant Embedded Glass Reinforced Gypsum Tile Backer.

1.3 REFERENCES

- A. ASTM C 473: Standard Test Methods for Physical Testing of Gypsum Panel Products
- B. ASTM C 840: Standard Specification for the Application and Finishing of Gypsum Board
- C. ASTM C 954: Standard Specification for Steel Drill Screws for the Application of Gypsum Panel Products or Metal Plaster Bases to Steel Studs from 0.033 in (0.84 mm) to .112 in (2.84 mm) in Thickness
- D. ASTM C 1002: Standard Specification for Steel Self-Piercing Tapping Screws for the Application of Gypsum Panel Products or Metal Plaster Bases to Wood Studs or Steel Studs
- E. ASTM C 1178: Standard Specification for Glass Mat Water-Resistant Gypsum Backing Panel
- F. ASTM D 3273: Standard Test Method for Resistance to Growth of Mold on the Surface of Interior Coatings in an Environmental Chamber
- G. ASTM E 96: Standard Test Methods for Water Vapor Transmission of Materials
- H. ASTM E 84 Test Method for Surface Burning Characteristics of Building Materials
- I. ASTM E 119: Standard Test Methods for Fire Tests of Building Construction and Materials
- J. ASTM G 21 Standard Practice for Determining Resistance of Synthetic Polymeric Materials to Fungi
- K. California Department of Public Health CDPH/EHLB/Standard Method Version 1.1, 2010
- L. GA-214 Recommended Levels of Gypsum Board Finish
- M. GA-216 Application and Finishing of Gypsum Board
- N. GA-231 Assessing Water damage to Gypsum Board
- O. GA-238 Guidelines for the Prevention of Mold Growth on Gypsum Board
- P. Health Product Declaration Standard v2.0 hpdcollaborative.org
- Q. ISO 14024 Environmental Labels and Declarations Type I Environmental Labeling Principles and Procedures
- R. Tile Council of North America: TCA Handbook for Ceramic Tile Installation
- S. ANSI: American National Standard Specifications for the Installation of Ceramic Tile

1.4 SUBMITTALS

- A. Submit in accordance with Section 01 30 00.
- B. Product Data: For each type of product indicated.
- C. Informational Submittals: Submit manufacturer's instructions, special procedures, and perimeter conditions requiring special attention.

1.5 QUALITY ASSURANCE

- A. Fire-Test-Response Characteristics: For assemblies with fireresistance ratings, provide materials and construction identical to those of assemblies tested for fire resistance per ASTM E 119.
- B. Single Source Responsibility: Except where specified otherwise, obtain gypsum board products, joint treatment, and accessories from single manufacturer or from manufacturers recommended by prime manufacturer of gypsum board products.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Store materials protected against damage from weather, direct sunlight, surface contamination, construction traffic, or other causes. Stack flat on leveled supports off the ground, under cover, and fully protected from weather.
 - 1. Store and support Tile Backer board in flat stacks to prevent sagging.
 - 2. Protect materials to keep them dry.
 - 3. Protect panels to prevent damage to edges, ends, and surfaces.

Part 2 - PRODUCT

2.1 GLASS MAT GYPSUM TILE BACKER

- A. Fully embedded glass mat gypsum tile backer meeting the requirements of ASTM C 1178.
 - 1. CertainTeed Gypsum, Inc.
 - a. Basis of Design: "Diamondback GlasRoc Tile Backer" with EGRG technology
 - b. Substitutions: Submit in accordance with Section 016000.
 - 2. Type and Thickness: Type X, 5/8 inch.
 - a. Flame spread: ASTM E 84: Class A.
 - b. Smoke developed: ASTM E 84: Class A.
 - 3. Standard Size: 4 feet by 8 feet.

2.2 GLASS MAT GYPSUM TILE BACKER JOINT TREATMENT MATERIALS

A. Glass-Fiber Mesh Tape: Alkali-resistant self-adhering glass-fiber tape, minimum 2 inches wide, 10 by 10 or 10 by 20 threads/inch.

2.3 ACCESSORY MATERIALS

A. Fasteners: Steel galvanized roofing nails or corrosion resistant backer board screws of type, length and spacing as recommended by tile backer manufacturer.

Part 3 - EXECUTION

3.1 GLASS MAT GYPSUM TILE BACKER INSTALLATION

- A. Comply with GA-216, ASTM C 840, TCA Handbook for Ceramic Tile Installation and manufacturer's written instructions.
- B. Install CertainTeed Diamondback GlasRoc Tile Backer with diamond textured side facing inwards to receive tile.
- C. Cut boards at penetrations, edges, and other obstructions of work; fit tightly against abutting construction, unless otherwise indicated.
- D. Install boards with a 1/4 inch setback where they abut bathtub or shower receptors to prevent wicking.
- E. Allow no joints greater than 1/8 inch.
- F. Apply fasteners so screw heads bear tightly against gray acrylic coated face of tile backer boards; do not countersink fasteners.
- G. Do not install an additional vapor barrier in conjunction with tile backer boards.
- H. Space wall framing members a maximum of 16 inches o.c.
- I. Horizontal Installation: Install tile backer with long edges in contact with edges of adjacent boards without forcing. Abut ends of boards over centers of stud, and stagger end joints of adjacent boards not less than one stud spacing.
- J. Space fasteners approximately 6 inches o.c. and set back a minimum of 3/8 inch from edges and ends of boards.
- K. Limitations:
 - A. Do not use as a base for nailing and mechanical fastening.
 - B. Do not install on shower floors or in shower curbs.

3.2 TILE BACKER JOINT TREATMENT

- A. Seal tile backer joints, as required, according to tile backer manufacturer's written recommendations.
 - 1. Apply bead of sealant in 1/4 inch setback between tile backer boards and tub or shower receptor.
 - 2. Apply alkali-resistant glass-fiber mesh tape to tile backer board joints, apply and trowel latex-modified thinset mortar in entire face of tape.

SECTION 09 3000 - TILING

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Tile for floor applications.
- B. Non-ceramic trim.

1.2 RELATED SECTIONS

- A. Section 07 90 05 Joint Sealant
- B. Section 09 28 16 Glass Mat Gypsum Tile Backer

1.3 REFERENCES

- A. American National Standards Institute (ANSI):
 - ANSI A108/A118/A136.1 Specifications for the Installation of Ceramic Tile.
 - 2. ANSI A137.1 Specifications for Ceramic Tile.
- B. American International (ASTM):
 - ASTM C 144 Standard Specification for Aggregate for Masonry Mortar.
 - 2. ASTM C 150 Standard Specification for Portland Cement.
 - 3. ASTM C 207 Standard Specification for Hydrated Lime for Masonry Purposes.
 - 4. ASTM C 503 Specification for Marble Building Stone (Exterior).
 - 5. ASTM C 615 Specification for Granite Dimension Stone.
 - 6. ASTM C 629 Specification for Slate Dimension Stone.
 - 7. ASTM C 847 Standard Specification for Metal Lath.
 - 8. ASTM C 1028 Standard Test Method for Determining the Static Coefficient of Friction or Ceramic Tile and Other Like Surfaces by the Horizontal Dynamometer Pull-Meter Method.
 - 9. ASTM D 4397 Specification for Polyethylene Sheeting for Construction, Industrial, and Agricultural Applications.
- C. Tile Council of North America (TCNA): TCA Handbook for Ceramic Tile Installation, 2007.

1.4 SUBMITTALS

- A. See Section 01 3000 Administrative Requirements, for submittal procedures.
- B. Product Data: Provide manufacturers' data sheets on tile, mortar, grout, and accessories. Include instructions for using grouts and adhesives.
- C. Manufacturer's Certificate: Certify that products meet or exceed specified requirements.

- D. Maintenance Data: Include recommended cleaning methods, cleaning materials, stain removal methods, and polishes and waxes.
- E. Maintain one copy of TCA Handbook and ANSI A108 Series/A118 Series on site.
- F. Installer Qualifications: Company specializing in performing tile installation, with minimum of 5 years of documented experience.

1.5 PRE-INSTALLATION MEETING

A. Convene one week before starting work of this section.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Protect adhesives from freezing or overheating in accordance with manufacturer's instructions.

1.7 ENVIRONMENTAL REQUIREMENTS

- A. Do not install adhesives in an unventilated environment.
- B. Maintain ambient and substrate temperature of 50 degrees F during installation of mortar materials.

1.8 EXTRA MATERIALS

A. Provide 4 sq. ft of each size, color, and surface finish of tile specified.

PART 2 PRODUCTS

2.1 ACCEPTABLE MANUFACTURERS

- A. American Olean Tile Co., which is located at: 7834 C. F. Hawn Fwy. P. O. Box 17130; Dallas, TX 75217; Toll Free Tel: 888-AOT TILE; Tel: 214-398-1411; Fax: 215-822-1353; Email: request info (suzi.rodriguez@daltile.com) or (gina_garza@americanolean.com); Web: www.americanolean.com
- B. Requests for substitutions will be considered in accordance with provisions of Section 016000 Product Requirements.

2.2 MOSAIC TILE

- A. Homogeneous porcelain tile; ANSI A137.1, and as follows:
 - 1. Basis of Design: Unglazed Colorbody Porcelain Mosaics
 - a. Mosaic Field Tile Size: 1 by 1 inches.
 - b. Moisture Absorption: Less than 0.5 percent.
 - c. Surface Finishes: Plain, Abrasive.
 - d. Trim Name: Built-up Base, Bullnose, Bullnose Corner, Cove Base, Cove Base Corner, Cove Base In-Corner, Pool Nosing Corner, Round Cap Corner, Round Cap In-Corner, Stretcher, Universal Cove Base Outcorner

2.3 NON-CERAMIC TRIM

- A. Non-Ceramic Trim: Satin-finished anodized aluminum, style and dimensions to suit application, for setting using tile mortar or adhesive.
- B. Manufacturer: Schluter Systems, L.P., 194 Pleasant Ridge Road, Plattsburgh, NY 12901- 5841. Tel.: (800) 472-4588. Fax: (800) 477-9783. E-mail: specassist@schluter.com. Internet: www.schluter.com.
- C. Use in the following locations:
 - 1. Transition between floor finishes: "RENO-TK".
 - 2. Transition between tub and wall: "DILEX-AS".

2.4 MORTAR MATERIALS

- A. Mortar Bond Coat Materials:
 - 1. Portland Cement type: thin-set, latex modified mortar complying with ANSI A118.4 and A118.11.
 - a. Acceptable product: LATICRETE 254 Platinum as manufactured by LATICRETE International
 1 LATICRETE Park North
 Bethany, CT 06524-3423 USA
 Telephone: +1.203.393.0010, ext. 235
 Toll Free: 1.800.243.4788, ext. 235
 Fax: +1.203.393.1684
 Website: www.laticrete.com

2.5 GROUT MATERIALS

- A. Grout: Polymer modified cement grout, unsanded, complying with ANSI A118.7.
 - 1. Color: gray.

2.6 ACCESSORY MATERIALS

- A. Uncoupling Membrane: 1/8 inch thick polyurethane matting with three-dimensional grid structure with dovetail shaped cavities and fleece webbing laminated to the underside to provide a mechanical bond to the substrate adhesive.
 - 1. Acceptable Product: "DITRA" by Schluter Systems.
 - Use in the following locations: horizontal surfaces receiving tile.
- B. Waterproof Membrane and Vapor Retarder:
 - 1. Use in the following locations: vertical surfaces receiving tile.
 - a. Pliable, sheet-applied, bonded waterproof membrane and vapor retarder:
 - i. Acceptable Product: "KERDI" by Schluter Systems.
 - ii. Acceptable Product "HYDRO BAN® Sheet Membrane" by LATICRETE International

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify that sub-floor surfaces are smooth and flat within the tolerances specified for that type of work and are ready to receive tile.
 - 1. Walls: 1/8 inch in 8 feet.
 - 2. Floors: 1/8 inch in 10 feet.
- B. Verify that wall surfaces are smooth and flat within the tolerances specified for that type of work and are ready to receive tile.
- C. Verify that concrete sub-floor surfaces are ready for tile installation by testing for moisture emission rate and alkalinity; obtain instructions if test results are not within limits recommended by tile manufacturer and setting materials manufacturer.
- D. Verify that required floor-mounted utilities are in correct location.
- E. Acceptability of Surfaces: Inspect surfaces to be tiled to ensure proper bonding can be achieved, and to verify that surfaces are free of curing membranes, oil, grease, wax and dust.

3.2 PREPARATION

- A. Protect surrounding work from damage.
- B. Vacuum clean surfaces and damp clean.
- C. Seal substrate surface cracks with filler. Level existing substrate surfaces to acceptable flatness tolerances.

3.3 INSTALLATION - GENERAL

- A. Install tile and grout in accordance with applicable requirements of ANSI A108.1 through A108.13, manufacturer's instructions, and TCA Handbook recommendations.
- B. Lay tile to pattern indicated. Do not interrupt tile pattern through openings.
- C. Cut and fit tile to penetrations through tile, leaving sealant joint space. Form corners neatly. Align floor joints.
- D. Place tile joints uniform in width, subject to variance in tolerance allowed in tile size. Make joints watertight, without voids, cracks, excess mortar, or excess grout.
- E. Form internal angles square and external angles bullnosed.
- F. Install non-ceramic trim in accordance with manufacturer's instructions.
- G. Sound tile after setting. Replace hollow sounding units.

- H. Keep expansion joints free of adhesive or grout. Apply sealant to joints.
- I. Allow tile to set for a minimum of 48 hours prior to grouting.
- J. Grout tile joints. Use standard grout unless otherwise indicated.
- K. Apply sealant to junction of tile and dissimilar materials and junction of dissimilar planes.

3.4 INSTALLATION - FLOORS - THIN-SET METHODS

- A. Over interior wood substrates, install in accordance with TCA Handbook Method F113, dry-set or latex-portland cement bond coat, with standard grout, unless otherwise indicated.
- B. Use uncoupling membrane under all floor tile.

3.5 INSTALLATION - WALL TILE

- A. Over cementitious backer units install in accordance with TCA Handbook Method W223, organic adhesive.
- B. Provide waterproofing membrane and vapor barrier under all wall tile.

3.6 CLEANING

A. Clean tile and grout surfaces.

3.7 PROTECTION OF FINISHED WORK

A. Do not permit traffic over finished floor surface for 4 days after installation.

SECTION 09 9000 - PAINTING AND COATINGS

PART 1 - GENERAL

1. REFERENCE STANDARDS

- A. The latest published edition of a reference shall be applicable to this Project unless identified by a specific edition date.
- B. All reference amendments adopted prior to the effective date of this Contract shall be applicable to this Project.
- C. All materials, installation and workmanship shall comply with the applicable requirements and standards.

2. DEFINITIONS

- A. "Paint" includes coating systems materials, primers, emulsions, enamels, stains, sealers and fillers, and other applied materials whether used as prime, intermediate, or finish coats.
- B. "Substrate" as used herein means the surface to which paint is to be applied. In the case of previously painted existing surfaces, substrate means the surface to which the existing paint was applied.

3. QUALITY ASSURANCE

- A. Single Source Responsibility: Provide primers and undercoat paint produced by the same manufacturer as the finish coats.
- B. Coordination of Work: Review other sections in which primers are provided to ensure compatibility of the total systems for various substrates. On request, furnish information on characteristics of finish materials to ensure use of compatible primers.
- C. Notify the Architect of problems anticipated using the materials specified.
- D. Material Quality: Provide the manufacturer's best quality trade sale paint material of the various coating types specified. Paint material containers not displaying manufacturer's product identification will not be acceptable.
- E. Odor Eliminating Additive: At all locations scheduled to receive solvent or alkyd-based coatings, provide an odor-eliminating additive to minimize the presence of odor from wet and drying paint films.
 - Provide additive recommended and approved by the primer/finish coat manufacturer for use with their paint. Benjamin Moore does not recommend an "odor eliminator additive" for Benjamin Moore Paints.

2. Subject to compliance with above requirements, "Bio Zapp Paint Odor Eliminator" by Bio Zapp Laboratories, (941/922-9199) is acceptable.

4. SUBMITTALS

A. Samples:

- Samples for initial color selection in the form of manufacturer's color charts.
 - a. After color selection, the Architect will furnish color chips for surfaces to be coated.

2. Samples for verification purposes:

- a. Provide samples of each color and material to be applied, with texture to simulate actual conditions, on representative samples of the actual substrate.
- b. Define each separate coat, including block fillers and primers.
- c. Use representative colors when preparing samples for review.
- d. Resubmit until required sheen, color, and texture are achieved.
- e. Provide a list of material and application for each coat of each sample. Label each sample as to location and application.
- f. Submit samples on the following substrates for the Architect's review of color and texture only:
 - 1. Ferrous Metal: Provide two 4 inch square samples of flat metal and two 8 inch long samples of solid metal for each color and finish.
 - 2. Drywall: Provide two 12 by 12-inch samples of each color and finish.

B. Product Data:

- 1. Submit manufacturer's catalog cuts and descriptive information on each product used. Include preparation requirements and application instructions.
- C. Record Documents: Provide record approved samples and product data.

5. DELIVERY, STORAGE and HANDLING

A. Deliver materials to the job site in the manufacturer's original, unopened packages and containers bearing manufacturer's name and label and the following information:

- 1. Product name or title of material.
- 2. Product description (generic classification or binder type).
- 3. Manufacturer's stock number and date of manufacture.
- 4. Contents by volume, for pigment and vehicle constituents.
- 5. Thinning instructions.
- 6. Application instructions.
- 7. Color name and number.
- B. Store materials not in use in tightly covered containers in a well ventilated area at a minimum ambient temperature of 45 deg F (7 degrees C). Maintain containers used in storage in a clean condition, free of foreign materials and residue.
 - 1. Protect from freezing. Keep storage area neat and orderly. Remove oily rags and waste daily. Take necessary measures to ensure that workers and work areas are protected from fire and health hazards resulting from handling, mixing, and application.

6. PROJECT CONDITIONS

- A. Apply water-based paints only when the temperature of surfaces to be painted and surrounding air temperatures are between 50 degrees F (10 degrees C) and 90 degrees F (32 degrees C).
- B. Apply solvent thinned paints only when the temperature of surfaces to be painted and surrounding air temperatures are between 45 degrees F (7 degrees C) and 95 degrees F (35 degrees C).
- C. Do not apply paint in snow, rain, fog, or mist, when the relative humidity exceeds 85 percent, at temperatures less than 5 degrees F (3 degrees C) above the dew point, or to damp or wet surfaces.
 - Painting may continue during inclement weather if surfaces and areas to be painted are enclosed and heated within temperature limits specified by the manufacturer during application and drying periods.

PART 2 PRODUCTS

1. MANUFACTURES

PPG Industries, Inc.

www.ppg.com

One PPG Place

Pittsburgh, PA 15272

Benjamin Moore Paints 101Paragon Drive www.benjaminmoore.com Montvale, NJ 07645

Glidden Professional 15885 West Sprague Road, www.gliddenprofessional.com Strongsville, OH 44136

The Sherwin-Williams Company 101 Prospect Ave. Www.Sherwin-Williams.com Cleveland, OH 44115

2. PAINT SCHEDULE

- A. Provide the following paint systems for the various substrates, as indicated. Provide only the listed prime and finish coat materials unless otherwise recommended in writing by the paint manufacturer for each specific substrate.
- B. Where specific finish paint material is not indicated, refer to notes and finish schedules for finish paint material and gloss levels for each surface to be painted.

3. INTERIOR PAINTING SCHEDULE

- A. Gypsum Drywall; 2 finish coats over primer:
 - 1. Primer:
 - a. PPG: Pure Performance Interior Latex Primer 9-900.
 - b. Benjamin Moore: N372 Eco Spec WB interior latex primer.
 - c. Glidden Professional: LM 9116 Lifemaster 0 VOC Primer.
 - d. S-W: ProMar 200 Zero VOC Interior Latex Primer B28-2600
 Series.
 - 2. Finish Coat:
 - a. PPG: Pure Performance Interior Latex Eggshell 9-300.
 - b. Benjamin Moore: N374 Eco Spec WB Eggshell Finish.
 - c. Glidden Professional: LM 9300 Lifemaster 0 VOC Interior Eggshell.

- d. S-W: ProMar 200 Zero VOC Interior Latex Eg-shel B20-2600 Series.
- B. Ferrous Metal; 2 finish coats of water borne semi-gloss acrylic latex enamel over primer:
 - 1. Waterborne Acrylic Primer:
 - a. PPG: Pitt-Tech 100 percent Acrylic Primer 90-712.
 - b. Benjamin Moore: P29 Super Spec HP Direct to Metal Acrylic Semi-gloss.
 - c. Glidden Professional: Devflex 4020 PF Direct to Metal Primer and Flat Finish.
 - d. S-W: Pro Industrial Pro-Cryl Universal Primer B66 Series.

2. Finish Coat:

- a. PPG: Pitt-Tech 100 percent Acrylic Satin Direct to Metal 90-474.
- b. Benjamin Moore: P29 Super Spec HP Direct to Metal Acrylic Semi-gloss.
- c. Glidden Professional: Lifemaster Oil Interior/Exterior Semi-Gloss Paint 1506 Series.
- d. S-W: Pro-Industrial Semi-Gloss Acrylic B66-600 Series.
- C. Galvanized Metal; 2 finish coats of water borne semi-gloss acrylic latex enamel over primer:
 - 1. Waterborne Acrylic Galvanized Metal Primer:
 - a. PPG: Pitt-Tech 100 percent Acrylic Primer 90-712.
 - b. Benjamin Moore: P29 Super Spec HP Direct to Metal Acrylic Semi-gloss.
 - c. Glidden Professional: Devflex 4020 PF Direct to Metal Primer and Flat Finish.
 - d. S-W: Pro Industrial Pro-Cryl Universal Primer B66 Series.

2. Finish Coat:

- a. PPG: Pitt-Tech 100 percent Acrylic Satin Direct to Metal 90-474.
- b. Benjamin Moore: P29 Super Spec HP Direct to Metal Acrylic Semi-gloss.
- c. Glidden Professional: Lifemaster Oil Interior/Exterior Semi-Gloss Paint 1506 Series.

- d. S-W: Pro-Industrial Semi-Gloss Acrylic B66-600 Series.
- D. Aluminum: 2 finish coats of water borne acrylic latex enamel over primer:
 - 1. Waterborne Acrylic Galvanized Metal Primer:
 - a. PPG: Pitt-Tech 100 percent Acrylic Primer 90-712.
 - b. Benjamin Moore: P29 Super Spec HP Direct to Metal Acrylic Semi-gloss.
 - c. Glidden Professional: Devflex 4020 PF Direct to Metal Primer and Flat Finish.
 - d. S-W: Pro Industrial Pro-Cryl Universal Primer B66 Series.

2. Finish Coat:

- a. PPG: Pitt-Tech 100 percent Acrylic Satin Direct to Metal 90-474.
- b. Benjamin Moore: P29 Super Spec HP Direct to Metal Acrylic Semi-gloss.
- c. Glidden Professional: Lifemaster Oil Interior/Exterior Semi-Gloss Paint 1506 Series.
- d. S-W: Pro-Industrial Semi-Gloss Acrylic B66-600 Series.

PART 3 EXECUTION

1. PREPARATION

- A. Examine substrates and conditions under which painting will be performed for compliance with requirements for application of paint. Do not begin paint application until unsatisfactory conditions have been corrected.
 - 1. Start of painting will be construed as the Applicator's acceptance of surfaces and conditions within a particular area.
- B. General Procedures: Remove hardware and hardware accessories, plates, machined surfaces, lighting fixtures, and similar items in place that are not to be painted, or provide surface applied protection prior to surface preparation and painting. Remove these items if necessary for complete painting of the items and adjacent surfaces. Following completion of painting operations in each space or area, have items reinstalled by workers skilled in the trades involved.
 - 1. Clean surfaces before applying paint or surface treatments. Remove oil and grease prior to cleaning. Schedule cleaning and painting so that dust and other contaminants from the cleaning process will not fall on wet, newly painted surfaces.

- C. Surface Preparation: Clean and prepare surfaces to be painted in accordance with the manufacturer's instructions for each particular substrate condition and as specified.
 - 1. Provide barrier coats over incompatible primers and existing surfaces, or remove and reprime. Notify Architect in writing of problems anticipated with using the specified finish coat material with substrates primed by others.
 - 2. Ferrous Metals: Clean non-galvanized ferrous metal surfaces that have not been shop coated; remove oil, grease, dirt, loose mill scale, and other foreign substances. Use solvent or mechanical cleaning methods that comply with recommendations of the Steel Structures Painting Council.
 - a. Blast steel surfaces clean as recommended by the paint system manufacturer and in accordance with requirements of SSPC specification SSPCSP 10.
 - a. Treat bare and sandblasted or pickled clean metal with a metal treatment wash coat before priming.
 - a. Touch up bare areas and shop applied prime coats that have been damaged. Wire brush, clean with solvents recommended by the paint manufacturer, and touch up with the same primer as the shop coat.
 - 3. Galvanized Surfaces: Clean galvanized surfaces with nonpetroleum based solvents so that the surface is free of oil and surface contaminants. Remove pretreatment from galvanized sheet metal fabricated from coil stock by mechanical methods.
- D. Materials Preparation: Carefully mix and prepare paint materials in accordance with manufacturer's directions.
 - 1. Maintain containers used in mixing and application of paint in a clean condition, free of foreign materials and residue.
 - 2. Stir material before application to produce a mixture of uniform density; stir as required during application. Do not stir surface film into material. Remove film and, if necessary, strain material before using.
 - 3. Use only thinners approved by the paint manufacturer, and only within recommended limits.

2. INSTALLATION

- A. Installation shall meet or exceed all applicable federal, state and local requirements, referenced standards and conform to codes and ordinances of authorities having jurisdiction.
- B. All installation shall be in accordance with manufacturer's published recommendations

3. APPLICATION

- A. Apply paint in accordance with manufacturer's directions. Use applicators and techniques best suited for substrate and type of material being applied.
- B. Paint exposed surfaces whether or not colors are designated in "schedules," except where a surface or material is specifically indicated not to be painted or is to remain natural. Where an item or surface is not specifically mentioned, paint the same as similar adjacent materials or surfaces. If color or finish is not designated, the Architect will select from standard colors or finishes available.
 - Painting of mechanical, electrical, and plumbing items is limited to exposed natural gas piping, exposed fire sprinkler piping, and roof top exhaust fan hoods. Items in mechanical and electrical rooms shall not be field painted unless otherwise scheduled on Drawings.
- C. At "unoccupied" interior areas, painting is not required on prefinished items or finished metal surfaces.
 - 1. Do not paint over Underwriter's Laboratories, Factory Mutual or other code required labels or equipment name, identification, performance rating, or nomenclature plates.
- D. Do not paint over dirt, rust, scale, grease, moisture, scuffed surfaces, or conditions detrimental to formation of a durable paint film.
 - 1. Provide finish coats that are compatible with primers used.
 - a. The number of coats and film thickness required is the same regardless of the application method. Do not apply succeeding coats until the previous coat has cured as recommended by the manufacturer. Sand between applications where sanding is required to produce an even smooth surface in accordance with the manufacturer's directions.
 - b. Apply additional coats when undercoats, stains, or other conditions show through final coat of paint until paint film is of uniform finish, color, and appearance. Give special attention to ensure that surfaces, including edges, corners, crevices, welds, and exposed fasteners, receive a dry film thickness equivalent to that of flat surfaces.
 - 2. The term "exposed surfaces" includes areas visible when permanent or builtin fixtures, convector covers, covers for finned tube radiation, grilles, and similar components are in place. Extend coatings in these areas as required to maintain the system integrity and provide desired protection.

- a. Paint surfaces behind movable equipment and furniture same as similar exposed surfaces. Paint surfaces behind permanently fixed equipment or furniture with prime coat only before final installation of equipment.
- b. Paint interior surfaces of ducts, where visible through registers or grilles, with a flat, nonspecular black paint.
- E. Scheduling Painting: Apply first coat to surfaces that have been cleaned, pretreated, or otherwise prepared for painting as soon as practicable after preparation and before subsequent surface deterioration.
 - 1. Allow sufficient time between successive coats to permit proper drying. Do not recoat until paint has dried to where it feels firm, and does not deform or feel sticky under moderate thumb pressure and where application of another coat of paint does not cause lifting or loss of adhesion of the undercoat.
- F. Minimum Coating Thickness: Apply materials at not less than the manufacturer's recommended spreading rate. Provide a total dry film thickness of the entire system as recommended by the manufacturer.
- G. Prime Coats: Before application of finish coats, apply a prime coat of material as recommended by the manufacturer to material that is required to be painted or finished and has not been prime coated by others. Recoat primed and sealed surfaces where evidence of suction spots or unsealed areas in first coat appears, to assure a finish coat with no burn through or other defects due to insufficient sealing.

4. CLEANING

- A. At the end of each workday, remove empty cans, rags, rubbish, and other discarded paint materials from the site.
- B. Upon completion of painting, clean glass and paint spattered surfaces. Remove spattered paint by washing and scraping, using care not to scratch or damage adjacent finished surfaces.

5. PROTECTION

- A. Protect work of other trades, whether to be painted or not, against damage by painting. Correct damage by cleaning, repairing or replacing, and repainting, as acceptable to Architect.
- B. Provide "wet paint" signs to protect newly painted finishes. Remove temporary protective wrappings provided by others for protection of their work after completion of painting operations.
 - 1. At completion of construction activities of other trades, touch up and restore damaged or defaced painted surfaces.

SECTION 10810 - TOILET ACCESSORIES

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Toilet Room Accessories.

1.02 RELATED SECTIONS

A. Section 09 2621 - Gypsum Board Assemblies.

1.03 REFERENCES

- A. ATBCB ADAAG Americans with Disabilities Act Accessibility Guidelines; US Architectural and Transportation Barriers Compliance Board.
- B. ASTM A 240/A 240M Standard Specification for Chromium and Chromium-Nickel Stainless Steel Plate, Sheet, and Strip for Pressure Vessels and for General Applications.
- C. ASTM A 554 Standard Specification for Welded Stainless Steel Mechanical Tubing.
- D. ASTM F 446 Standard Consumer Safety Specification for Grab Bars and Accessories Installed in the Bathing Area.

1.04 SUBMITTALS

- A. See Section 013000 Administrative Requirements, for submittal procedures.
- B. Product Data: Manufacturer's product data for products specified, indicating selected options and accessories.
- C. Shop Drawings:
 - 1. Plans: Locate each specified unit in project.
 - 2. Elevations: Indicate mounting height of each specified unit in project.
 - 3. Details: Indicate anchoring and fastening details, required locations and types of anchors and reinforcement, and materials required for correct installation of specified products not supplied by manufacturer of products of this section.

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- D. Manufacturer's printed installation instructions for each specified product.
- E. Closeout Submittals: Warranty documents, issued and executed by manufacturer of products of this section, and countersigned by Contractor.

1.05 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Minimum five (5) years of documented experience producing products of the types specified in this section.
- B. Regulatory Requirements: Conform to ADAAG requirements.

1.06 DELIVERY, STORAGE, AND HANDLING

- A. Factory-apply strippable protective vinyl coating to sight-exposed surfaces after finishing of products; ship products in manufacturer's standard protective packaging.
- B. Storage and Protection: Store products in manufacturer's protective packaging until installation.

1.07 WARRANTY

- A. See Section 017800 Closeout Submittals, for additional warranty requirements.
- B. Manufacturer's standard warranty against defects in product workmanship and materials.
- C. Manufacturer's 15-year warranty against silver spoilage of mirrors.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Basis of design: Bobrick Washroom Equipment, Inc.: www.bobrick.com.
- B. Other Acceptable Manufacturers:
 - 1. Bobrick Washroom Equipment, Inc.: www.bobrick.com.
 - 2. Bradley Corporation, Washroom Accessories Division: www.bradleycorp.com.
 - 3. Substitutions: Section 016000 Product Requirements.

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C. Supply all products of this section from a single manufacturer.

2.02 MATERIALS

A. Stainless Steel Sheet: ASTM A 240/A 240M, Type 304, 18-8 alloy. No.4 satin finish.

2.03 TOILET ACCESSORIES

- A. Basic Construction Requirements:
 - Doors: Fabricated from minimum 0.0313 inch stainless steel sheet, formed hems at sight-exposed edges; welded corners, finished to match sheet finish.
 - 2. Cabinets: Fabricated from minimum 0.0313 inch stainless steel sheet, formed hems at sight-exposed edges; all joints welded, sight-exposed welds finished to match sheet finish.
 - 3. Hinges: Stainless steel piano hinge, 3/16 inch diameter barrel, full length of cabinet; hinge leaves spot-welded to door and cabinet body.
 - 4. Locks: Tumbler locks, keyed alike other toilet accessory locks, with two keys for each lock.
 - 5. Stainless Steel Finish: No.4 satin.
- B. Soap Dish: Model B-4380, provide one at each tub on wall with controls and as indicated on drawings.
- C. Paper Towel Dispenser and Waste Receptacle: Model B-3942.
- D. Toilet Paper Holder: Model B-3888, provide one at each toilet.
- E. Heavy Duty Wall Hook (WH): Model B-2116, as indicated on drawings.
- F. Curtain Rod: Model B-6047, as indicated on drawings.
- G. Mirror: Model B-165 1836, provide one at each hand sink.
- H. Soap Dispenser: Model B-2111, provide one at each hand sink.
- I. Baby Changing Station: Model KB110-SSRE, provide one in each restroom with bath tub.

2.05 GRAB BARS

- A. Grab Bars Basic Requirements: Fabricated to comply with ASTM F 446 and to withstand a 900 pound force, from ASTM A 554 stainless steel tubing, 0.050 inch, Type 304, 18-8 alloy; formed 1-1/2 inch radius return to wall at each end; each end heliarc-welded to minimum 11 gage stainless steel circular flange; welds finished to match tube finish.
- B. Grab Bars (GB): Series B-6806.
- C. Grab Bar Snap-on Mounting Flanges: Snap-on stainless steel cover, 3-1/4 inch diameter by 1/2 inch deep, for concealing grab bar mounting flange.
- D. Sizes and configurations:
 - 1. Provide a 18" long vertical, 36" long back and 42" long side grab bars at each toilet.
 - 2. Provide one 18" long vertical, one 24" horizontal and two 48" long horizontal grab bars at each tub.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verification of Conditions:
 - 1. Prepared openings are sized and located in accordance with shop drawings.
 - 2. Reinforcement and anchoring devices are correct type and are located in accordance with shop drawings.
- B. Installer's Examination:
 - Examine conditions under which construction activities of this section are to be performed, then submit written notification if such conditions are unacceptable.
 - 2. Transmit two copies of installer's report to Architect within 24 hours of receipt.
 - 3. Beginning construction activities of this section before unacceptable conditions have been corrected is prohibited.

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4. Beginning construction activities of this section indicates installer's acceptance of conditions.

3.02 INSTALLATION

- A. Install toilet accessories plumb and level in accordance with shop drawings and manufacturer's printed installation instructions.
- B. Locate toilet accessories at heights specified by Americans with Disabilities Act (ADA).

3.03 CLEANING

- A. Remove manufacturer's protective vinyl coating from sight-exposed surfaces 24 hours before final inspection.
- B. Clean surfaces in accordance with manufacturer's recommendations.

3.04 PROTECTION OF INSTALLED PRODUCTS

- A. Protect products from damage caused by subsequent construction activities.
- B. Field repair of damaged product finishes is prohibited; replace products having damaged finishes caused by subsequent construction activities.

SECTION 10 4410 - PLASTIC SIGNS

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Engraved plastic signs.

1.02 SUBMITTALS

- A. See Section 01 3000 Administrative Requirements, for submittal procedures.
- B. Shop drawings in sufficient detail to show fabrication, installation, anchorage, and interface of the work of this Section with the work of adjacent trades.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Plastic Signs:
 - 1. Best Sign Systems, Inc: www.bestsigns.com.
 - 2. Substitutions: See Section 01 6000 Product Requirements.

2.02 ENGRAVED SIGNS

- A. Engraved Signs: Laminated colored plastic; lettering engraved through face to expose core color:
 - Comply with applicable provisions of ANSI/ICC A117.1, including Braille.
 - 2. Total Thickness: 1/16 inch.
 - 3. Edges: Filleted.
 - 4. Character Font: Helvetica.
 - 5. Color: Black with white colored core.

2.03 ACCESSORIES

A. Mounting Hardware: Chrome screws.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify that substrate surfaces are ready to receive work.

3.02 INSTALLATION

- A. Install in accordance with manufacturer's instructions.
- B. Install signs after surfaces are finished, in locations indicated.
- C. Position sign on the wall adjacent to the strike side of the door, 60" above the floor.

3.03 SCHEDULE

- A. Restroom Door Graphic: "male", "child", "female" and "wheelchair" graphic image and "FAMILY RESTROOM" in capital letters with Braille; 8 required. See detail A4 on sheet A-501.
- B. Laundry Door Graphic: "LAUNDRY" in capital letters with Braille;
 2 required. See detail C4 on sheet A-501.