

SPECIFICATIONS
FOR
PAXTON SENIOR CENTER FACILITY

FOR



City of Paxton

FOR BIDDING PURPOSE ONLY – NOT FOR CONSTRUCTION

05-24-2024



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SECTION 000115
LIST OF DRAWING SHEETS

The drawings listed below accompanying this specification form as part of the contract.

ARCHITECTURAL

<u>DWG. NO.</u>	<u>TITLE</u>	<u>DATE</u>
CS-001	COVER SHEET	5/24/24
GN-001	GENERAL NOTES	5/24/24
A001	LIFE SAFETY PLAN W/ FURNITURE 1 ST FL.	5/24/24
A002	LIFE SAFETY PLAN 1 ST FL. PLAN	5/24/24
A003	OCCUPANCY CALC. 1 ST FL. PLAN	5/24/24
A101	FIRST FLOOR PLAN	5/24/24
A102	RAISED FLOOR PLAN	5/24/24
A103	ROOF PLAN	5/24/24
A104	ENLARGED PLAN AND INT. ELEVATIONS-- RESTROOM	5/24/24
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A300	BUILDING SECTIONS	5/24/24
A301	BUILDING SECTIONS	5/24/24
A401	WALL SECTIONS	5/24/24
A402	WALL SECTIONS	5/24/24
A500	REFLECTED CEILING PLAN -- 1 ST FL PLAN	5/24/24
A501	REFLECTED CEILING PLAN -- RAISED FL	5/24/24
A600	ADA SIGNAGE AND DETAILS	5/24/24
A601	ADA DETAILS	
A602	ARCHITECTURAL DETAILS	5/24/24
A603	ARCHITECTURAL DETAILS	5/24/24
A604	ARCHITECTURAL DETAILS	5/24/24
A701	DOOR AND WINDOW SCHEDULES AND ELEVATIONS	5/24/24
A801	FINISHES FLOOR PLAN	5/24/24

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A106	ENLARGED PLAN AND INT. ELEV. – SERVING AREA	5/24/24
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A701	DOOR AND WINDOW SCHEDULES AND ELEVATIONS	5/24/24
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STRUCTURAL

<u>DWG. NO.</u>	<u>TITLE</u>	<u>DATE</u>
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S101	FOUNDATION PLAN	5/24/24
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MECHANICAL

<u>DWG. NO.</u>	<u>TITLE</u>	<u>DATE</u>
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M101	MECHANICAL SPECIFICATIONS	5/24/24
M200	MECHANICAL FLOOR PLAN - DUCTWORK	5/24/24
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<u>DWG. NO.</u>	<u>TITLE</u>	<u>DATE</u>
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P101	PLUMBING SPECIFICATIONS	5/24/24
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P300	PLUMBING RISER DIAGRAM – SANITARY WATER	5/24/24
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**SECTION 001113
ADVERTISEMENT FOR BIDS**

1.1 PROJECT INFORMATION

- A. Notice to Bidders: Qualified bidders may submit bids for project as described in this document. Submit bids according to the Instructions to Bidders.
- B. Project Identification: Senior Center – Walton County
 - 1. Project Location: 22174 US Highway 331, Paxton, FL32567
- C. Owner: City of Paxton
 - 1. Owner's Representative: Judy Williams, City Clerk
- D. Architect: Forefront Architecture and Engineering, LLC
 - 1. Architect's representative: Lennard Davis
 - 2. Architect's address: 1230 Oakley Seaver Dr.#100, Clermont
 - 3. Architect's phone: 888.850.3323
- E. Project Description: Construction of a new single story, community facility approximately 3,485 SF. The proposed facility is designed to provide a service and activity center for Senior Citizens and will consist of a dining and activity area as well as handicapped accessible bathrooms and serving area. The project also includes a new site development with parking, landscaping providing power, gas, water, connection to sewer and any other utility shown in the contract documents.
- F. Construction Contract: Bids will be received for the following Work:
 - 1. General Construction Contract.

1.2 BID SUBMITTAL AND OPENING

- A. Owner will receive sealed lump sum bids until the bid time and date at the location given below. Owner will consider bids prepared in compliance with the Instructions to Bidders issued by Owner and delivered as follows:
 - 1. Bid Date: July 9th, 2024
 - 2. Bid Time: 2:00 pm
 - 3. Location:
 - 4. Address: 21872 U.S.HWY 331 N., Laurel Hill, FL 32567
 - 5. Mail In Address: Same as above
- B. Bids will thereafter be publicly opened and read aloud.

1.3 PREBID MEETING

- A. Prebid Meeting: See Document 002513 "Prebid Meetings."
- B. Prebid Meeting: June 17th, 09:00 a.m. local time.
- C. Attendance: Prospective prime bidders are encouraged to attend.
- D. Location: 21872 U.S.HWY 331 N., Laurel Hill, FL 32567

1.4 DOCUMENTS

- A. Printed Procurement and Contracting Documents may be examined at the office of the Owner.
 - 1. Electronic Documents (pdfs) are available upon request from the architect's office via e-mail.
 - 2. Forefront Architecture & Engineering, e-mail: patriciam@ff-ae.com.
- B. Addendums: Contact the office of the architect or plan center to be placed on the official bidders list to receive addendums.
- C. Viewing Procurement and Contracting Documents: Available for examination at City of Paxton:
 - 1. 21872 U.S.HWY 331 N., Laurel Hill, FL 32567
 - a. www.paxtonfl.net
 - b. j.williams@paxtonfl.net,
 - c. Phone: : 850-834-2489

1.5 REVIEW AND APPROVAL

- A. No bids may be withdrawn for a period of 90 days after opening of bids. Construction contract must be reviewed and approved; notice to Proceed will be issued following approval.

1.6 TIME OF COMPLETION AND LIQUIDATED DAMAGES

- A. Successful bidder shall begin the Work on receipt of the Notice to Proceed and shall complete the Work in 240 business days. Work is subject to liquidated damages of \$500 per day.

1.7 BIDDER'S QUALIFICATIONS

- A. Bidders and their subcontractors must be qualified and properly licensed under the laws governing their respective trades in their state of residence. All license fees, permits, etc., must be up to date and have been paid in full.
- B. BONDING AND INSURANCE: Bidders must be able to obtain bonding and insurance.
- C. BID GUARANTEE BOND: Bond of not less than 5% of the total bid amount, payable to the owner is required for all bids. The bid guarantee shall be a certified check, bank draft, U.S. bonds at par value or a BID BOND secured by a surety company. Personal checks are not acceptable. The bid Guarantee shall not be returned until the Performance and Payment Bonds are verified, executed and returned.
- D. PERFORMANCE BOND and separate LABOR AND MATERIAL PAYMENT BOND in a form acceptable to Owner will be required of the successful Bidder prior to the start of construction to ensure faithful performance of the contract. Each shall be in the amount of 100 percent (100%) of the contract amount.

1.8 NOTIFICATION

- A. This Advertisement for Bids document is Tuesday, May 28, 2024.

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**SECTION 002000
INSTRUCTIONS TO BIDDERS**

BIDS will be received by the City of Paxton (herein called the "Owner"), at 21872 U.S. Hwy 331 N Laurel Hill, FL 32567, the office of the Owner, until 2:00 pm, Local Time, on July 9th 2024, and then at said office publicly opened and read aloud.

Each BID must be submitted in a sealed envelope, addressed to 21872 U.S. Hwy 331 N Laurel Hill, FL 32567.

Each sealed envelope containing a BID must be plainly marked on the outside as BID for and the envelope should bear on the outside the BIDDER'S name, address, and license number, if applicable. If multiple projects are bid, each project shall be presented in its own envelope. If forwarded by mail, the sealed envelope containing the BID must be enclosed in another envelope addressed to the OWNER at the above mentioned address.

All BIDS must be made on the required BID form. All blank spaces for BID prices must be filled in, in legible ink or typewritten, and the BID form must be fully completed and executed when submitted. Two copies of the bid form are required (1 original and 1 copy shall suffice).

The OWNER may waive any informalities or minor defects or reject any and all BIDS. Any BID may be withdrawn prior to the above scheduled time for the opening of BIDS or authorized postponement thereof. Any BID received after the time and date specified shall not be considered. No BIDDER may withdraw a BID within 45 days after the actual date of the opening thereof. Should there be reasons why the contract cannot be awarded within the specified period, the time may be extended by mutual agreement between the OWNER and the BIDDER.

BIDDERS must satisfy themselves of the accuracy of the estimated quantities in the BID Schedule by examination of the site and a review of the drawings and specifications including ADDENDA. After the date and time of the BID Opening, the BIDDER shall not assert that there was a misunderstanding concerning the quantities of WORK or of the nature of the WORK to be done.

A mandatory Pre-Bid Conference shall be held at the office of the Owner at 9:00am. CST on June 17th, 2024.

The OWNER shall provide to BIDDERS prior to BIDDING, all information which is pertinent to, and delineates and describes, the land owned and rights-of-way acquired or to be acquired.

The CONTRACT DOCUMENTS contain the provisions required for the construction of the project. Information obtained from an officer, agent, or employee of the OWNER or any other person shall not affect the risks or obligations assumed by the CONTRACTOR or relieve the contractor from fulfilling any of the conditions of the contract.

Each BID must be accompanied by a BID bond payable to the Owner for five percent of the total amount of the BID. As soon as the BID prices have been compared, the OWNER will return the BONDS of all except the three lowest responsible BIDDERS. When the Agreement is executed, the bonds of the remaining two unsuccessful BIDDERS will be retained until the payment BOND and performance BOND have been executed and approved, after which it will be returned. A certified check may be used in lieu of a BID BOND.

The following are items required (Two copies each) to be turned in as part of the BID for this project:

1. BID, Section 004113, all pages.

2. BID BOND, Section 004313, all pages (BIDDER may use the enclosed form or a standard bonding company form. In either case, an approved Florida Power of Attorney form must be attached). Cashier's check or certified check may also be used.
3. Qualification Form, Section 004324, all pages.
4. Copy(s) of current valid licenses to provide services or engage in business in accordance with Section 489.113 Florida Statutes and other applicable laws and/or regulations.

A PERFORMANCE BOND and a PAYMENT BOND each in the amount of 100 percent of the CONTRACT PRICE, with a corporate surety approved by the OWNER, will be required for the faithful performance of the contract.

Attorneys-in-fact who sign BID BONDS or payment BONDS and performance BONDS must file with each BOND a certified and effective dated copy of their power of attorney.

Community Development Block Grant Program documents are included in this specification package for reference. The selected bidder will be required to comply with the requirements in these documents and will be required to submit (2) copies of these documents within 10 working days of award of the project.

The party to whom the contract is awarded will be required to execute the Agreement and obtain the performance BOND and payment BOND within ten (10) calendar days from the date when NOTICE OF AWARD is delivered to the BIDDER. The NOTICE OF AWARD shall be accompanied by the necessary Agreement and BOND forms. In case of failure of the BIDDER to execute the Agreement, the OWNER may consider the BIDDER in default, in which case the BID BOND accompanying the proposal shall become the property of the OWNER.

The OWNER within ten (10) days of receipt of acceptable PERFORMANCE BOND, PAYMENT BOND and AGREEMENT signed by the party to whom the AGREEMENT was awarded shall sign the AGREEMENT and return to such party an executed Original of the AGREEMENT. In the event that the OWNER has not received all easements or permits from local permitting authorities, signing of the AGREEMENT may be delayed until all easements and permits are in hand, but shall not be delayed more than 45 days from the date of signature by the BIDDER. Should the OWNER not execute the AGREEMENT within such period, the BIDDER may by WRITTEN NOTICE withdraw the signed AGREEMENT. Such notice of withdrawal shall be effective upon receipt of the notice by the OWNER.

The NOTICE TO PROCEED shall be issued within ten (10) days of the execution of the Agreement by the OWNER. Should there be reasons why the NOTICE TO PROCEED cannot be issued within such period, the time may be extended by mutual agreement between the OWNER and CONTRACTOR. If the NOTICE TO PROCEED has not been issued within the ten (10) day period or within the period mutually agreed upon, the CONTRACTOR may terminate the Agreement without further liability on the part of either party.

The OWNER may make such investigations as deemed necessary to determine the ability of the BIDDER to perform the WORK, and the BIDDER shall furnish to the OWNER all such information and data for this purpose as the OWNER may request. The OWNER reserves the right to reject any without justification and to award the contract to any BIDDER regardless of BID amount.

A conditional or qualified BID will not be accepted.

Award will be made to the lowest responsible BIDDER.

All applicable laws, ordinances, and the rules and regulations of all authorities having jurisdiction over construction of the PROJECT shall apply to the contract throughout.

Each BIDDER is responsible for inspecting the site and for reading and being thoroughly familiar with the CONTRACT DOCUMENTS. The failure or omission of any BIDDER to do any of the foregoing shall in no way relieve any BIDDER from any obligation in respect to its BID.

BIDDERS shall supply the names and addresses of major material SUPPLIERS and SUBCONTRACTORS.

The architectural firm is Forefront Architecture and Engineering. 1230 Oakley Seaver Dr. Suite 100, Clermont, FL 3471.

. Questions concerning the contract shall be directed to Patricia Mugnol via e-mail:

patriciam@ff-ae.com.

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**SECTION 002513
PREBID MEETINGS**

1.1 PREBID MEETING

- A. Owner/ Architect will conduct a Prebid meeting with prospective contractors as indicated below:
1. Meeting Date and Time: June 17th, 09:00 am local time.
- B. Attendance:
1. Prime Bidders: Attendance at Prebid meeting is required.
 2. Subcontractors: Attendance at Prebid meeting is optional but encouraged.
- C. Agenda: Prebid meeting agenda will include review of topics that may affect proper preparation and submittal of bids, including the following:
1. Procurement and Contracting Requirements:
 - a. Advertisement for Bids.
 - b. Instructions to Bidders.
 - c. Bidder Qualifications.
 - d. Bonding.
 - e. Insurance.
 - f. Bid Security.
 - g. Bid Form and Attachments.
 - h. Notice of Award.
 2. Communication during Bidding Period:
 - a. Obtaining documents.
 - b. Bidder's Requests for Information.
 - c. Bidder's Substitution Request/Prior Approval Request.
 - d. Addenda.
 3. Contracting Requirements:
 - a. Agreement.
 - b. The General Conditions.
 - c. The Supplementary Conditions.
 - d. Other Owner requirements.
 4. Construction Documents:
 - a. Scopes of Work.
 - b. Temporary Facilities.
 - c. Use of Site.
 - d. Work Restrictions.
 - e. Alternates, Allowances, and Unit Prices.
 - f. Substitutions following award.
 5. Schedule:
 - a. Project Schedule.
 - b. Contract Time.
 - c. Liquidated Damages.
 - d. Other Bidder Questions.
 6. Site/facility visit or walkthrough.
 7. Post-Meeting Addendum.
- D. Minutes: Entity responsible for conducting meeting will record and distribute meeting minutes to attendees and others known by the issuing office to have received a complete set of Procurement and Contracting Documents. Minutes of meeting are issued as Available Information and do not constitute a modification to the Procurement and Contracting Documents. Modifications to the Procurement and Contracting Documents are issued by written Addendum only.

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**SECTION 002600
PROCUREMENT SUBSTITUTION PROCEDURES**

1.1 DEFINITIONS

- A. Procurement Substitution Requests: Requests for changes in products, materials, equipment, and methods of construction from those indicated in the Procurement and Contracting Documents, submitted **prior to receipt of bids**.
- B. Substitution Requests: Requests for changes in products, materials, equipment, and methods of construction from those indicated in the Contract Documents, submitted following Contract award. See Section 012500 "Substitution Procedures" for conditions under which Substitution requests will be considered following Contract award.

1.2 QUALITY ASSURANCE

- A. Compatibility of Substitutions: Investigate and document compatibility of proposed substitution with related products and materials. Engage a qualified testing agency to perform compatibility tests recommended by manufacturers.

1.3 PROCUREMENT SUBSTITUTIONS

- A. Procurement Substitutions, General: By submitting a bid, the Bidder represents that its bid is based on materials and equipment described in the Procurement and Contracting Documents, including Addenda. Bidders are encouraged to request approval of qualifying substitute materials and equipment when the Specifications Sections list materials and equipment by product or manufacturer name.
- B. Procurement Substitution Requests will be received and considered by Owner when the following conditions are satisfied, as determined by Architect; otherwise requests will be returned without action:
 - 1. Extensive revisions to the Contract Documents are not required.
 - 2. Proposed changes are in keeping with the general intent of the Contract Documents, including the level of quality of the Work represented by the requirements therein.
 - 3. The request is fully documented and properly submitted.

1.4 SUBMITTALS

- A. Procurement Substitution Request: Submit to Owner/Architect. Procurement Substitution Request must be made in writing in compliance with the following requirements:
 - 1. Requests for substitution of materials and equipment will be considered if received no later than 10 days prior to date of bid opening.
 - 2. Submittal Format: Submit a copy of each written Procurement Substitution Request, using the **SUBSTITUTION REQUEST FORM** bound in Project Manual following this section. Include with the form the following information:
 - a. Identify the product or the fabrication or installation method to be replaced in each request. Include related Specifications Sections and drawing numbers.
 - b. Provide complete documentation on both the product specified and the proposed substitute, including the following information as appropriate:
 - 1) Point-by-point comparison of specified and proposed substitute product data, fabrication drawings, and installation procedures.
 - 2) Copies of current, independent third-party test data of salient product or

- system characteristics.
- 3) Samples where applicable or when requested by Architect.
- 4) Detailed comparison of significant qualities of the proposed substitute with those of the Work specified. Significant qualities may include attributes such as performance, weight, size, durability, visual effect, sustainable design characteristics, warranties, and specific features and requirements indicated. Indicate deviations, if any, from the Work specified.
- 5) Material test reports from a qualified testing agency indicating and interpreting test results for compliance with requirements indicated.
- 6) Research reports, where applicable, evidencing compliance with building code in effect for Project. .
- 7) Coordination information, including a list of changes or modifications needed to other parts of the Work and to construction performed by Owner and separate contractors, which will become necessary to accommodate the proposed substitute.
- c. Provide certification by manufacturer that the substitute proposed is equal to or superior to that required by the Procurement and Contracting Documents, and that its in-place performance will be equal to or superior to the product or equipment specified in the application indicated.
- 3. Bidder, in submitting the Procurement Substitution Request, waives the right to additional payment or an extension of Contract Time because of the failure of the substitute to perform as represented in the Procurement Substitution Request.
- B. Architect's Action:
 - 1. Architect may request additional information or documentation necessary for evaluation of the Procurement Substitution Request. Architect will notify all bidders of acceptance of the proposed substitute by means of an Addendum to the Procurement and Contracting Documents.
- C. Architect's approval of a substitute during bidding does not relieve Contractor of the responsibility to submit required shop drawings and to comply with all other requirements of the Contract Documents.

SUBSTITUTION REQUEST FORM

TO: _____
ATTENTION: _____
FAX: _____
EMAIL: _____
PROJECT: _____

SPECIFIED ITEM: _____

Item	Page	Description
The undersigned requests consideration of the following:		

PROPOSED SUBSTITUTION: _____
Provide a description of changes to Contract Documents that proposed substitution will require for its proper installation.

Attached data identified in section 012600 including: product description, specifications, drawings, photographs, performance and test data adequate for evaluation of the request; applicable portions of the data are clearly identified.

The undersigned states that the following paragraphs, unless modified on attachments, are correct:

1. The proposed substitution does not affect dimensions shown on Drawings.
2. The undersigned will pay for changes to the building design, including engineering design, detailing and construction costs caused by the requested substitution.
3. The proposed substitution will have no adverse effect on other trades, the construction schedule or specified warranty requirements.
4. Maintenance and service parts will be locally available for the proposed substitution.
5. The undersigned in submitting this form waives the right to additional payment or an extension of Contract Time because of the failure of the substitute to perform as represented.
6. The undersigned further states that the function, appearance and quality of the Proposed Substitution is equivalent or superior to the Specified Item.

Submitted by _____

Signature _____

Firm _____

Address _____

Date _____

Fax _____

Telephone _____

E-mail _____

Attachments _____

SECTION 004113
BID FORM - STIPULATED SUM (SINGLE-PRIME CONTRACT)

1.1 BID INFORMATION

- A. Bidder: _____.
- B. Project Name: _____
- C. Project Location: _____
- D. Owner: _____
- E. Architect: Forefront Architecture and Engineering

1.2 CERTIFICATIONS AND BASE BID

- A. Base Bid, Single-Prime (All Trades) Contract: The undersigned Bidder, having carefully examined the Procurement and Contracting Requirements, Conditions of the Contract, Drawings, Specifications, and all subsequent Addenda, as prepared by Forefront Architecture and Engineering, having visited the site, and being familiar with all conditions and requirements of the Work, hereby agrees to furnish all material, labor, equipment and services, including all scheduled allowances, necessary to complete the construction of the above-named project, according to the requirements of the Procurement and Contracting Documents, for the stipulated sum of:

1. _____ Dollars (\$_____).

1.3 BID GUARANTEE

- A. The undersigned Bidder agrees to execute a contract for this Work in the above amount and to furnish surety as specified within 10 days after a written Notice of Award, if offered within 120 days after receipt of bids, and on failure to do so agrees to forfeit to Owner the attached cash, cashier's check, certified check, U.S. money order, or bid bond, as liquidated damages for such failure, in the following amount constituting five percent (5%) of the Base Bid amount above:

1. _____ Dollars (\$_____).

- B. In the event Owner does not offer Notice of Award within the time limits stated above, Owner will return to the undersigned the cash, cashier's check, certified check, U.S. money order, or bid bond.

- C. Deductive Alternate No. 1: Removal of (1) one unisex restroom with access from the reception area, and use this room as a storage room.

1. _____ Dollars (\$_____) per unit.

Deductive Alternate No. 2: Replace the metal roof with shingles.

2. _____ Dollars (\$_____) per unit.

Deductive Alternate No. 3: Removal of the port cochere.

3. _____ Dollars (\$ _____) per unit.

Deductive Alternate No. 4: Remove the millwork partition.

4. _____ Dollars (\$ _____) per unit.

Deductive Alternate No. 5: Replace the faux wood wrap from columns and beams with drywall.

5. _____ Dollars (\$ _____) per unit.

1.4 SUBCONTRACTORS AND SUPPLIERS

A. The following companies shall execute subcontracts for the portions of the Work indicated:

1. Plumbing Work: _____.

2. HVAC Work: _____.

3. Electrical Work: _____.

4. Fueling System: _____.

1.5 TIME OF COMPLETION

A. The undersigned Bidder proposes and agrees hereby to commence the Work of the Contract Documents on a date specified in a written Notice to Proceed to be issued by Architect, and shall fully complete the Work within 240 calendar days.

1.6 ACKNOWLEDGEMENT OF ADDENDA

A. The undersigned Bidder acknowledges receipt of and use of the following Addenda in the preparation of this Bid:

1. Addendum No. 1, dated _____.

2. Addendum No. 2, dated _____.

3. Addendum No. 3, dated _____.

4. Addendum No. 4, dated _____.

1.7 BID SUPPLEMENTS

A. The following supplements are a part of this Bid Form and are attached hereto.

1. Bid Form Supplement - Bid Bond Form.

2. Bid Form Supplement – Bid Qualification Form.

1.8 CONTRACTOR'S LICENSE

A. The undersigned further states that it is a duly licensed contractor, for the type of work proposed, in The State of Florida, and that all fees, permits, etc., pursuant to submitting this proposal have been paid in full.

1.9 SUBMISSION OF BID

Respectfully submitted this day of, 2024.

Submitted By:
(Name of bidding firm or corporation)

Authorized Signature:
(Handwritten signature)

Signed By:
(Type or print name)

Title:
(Owner/Partner/President/Vice President)

Street Address:

City, State, Zip

Phone:

License No.:

**SECTION 004313
BID BOND**

KNOW ALL MEN BY THESE PRESENTS, that we, _____ the undersigned,
as Principal, and _____ as Surety, are hereby held and firmly bound
unto City Of Paxton as OWNER in the penal sum of
\$_____ for the payment of which, well and truly to be made, we hereby jointly and
severally bind ourselves, successors and assigns.

Signed, this _____ day of _____, 20_____.

The Condition of the above obligation is such that whereas the Principal has submitted to
_____ a certain BID, attached hereto and hereby made a part hereof to
enter into a contract in writing, for Construction of a new Community Facility at ☐ 22174 US Highway 331,
Paxton FL32567 ☐

NOW, THEREFORE,

- (a) If said BID shall be rejected, or;
- (b) If said BID shall be accepted and the Principal shall execute and deliver a contract in the Form of Contract attachment hereto (properly completed in accordance with said BID) and shall furnish a BOND for faithful performance of said contract, and for the payment of all persons performing labor furnishing materials in connection therewith, and shall in all other respects perform the agreement created by the acceptance of said BID, then this obligation shall be void, otherwise the same shall remain in force and effect; it being expressly understood and agreed that the liability of the Surety for any and all claims hereunder shall, in no event, exceed the penal amount of this obligation as herein stated.

The Surety, for value received, hereby stipulates, and agrees that the obligations of said Surety and its BOND shall be in no way impaired or affected by any extension of the time within which the OWNER may accept such BID; and said Surety does hereby waive notice of any such extension.

IN WITNESS WHEREOF, the Principal and the Surety have hereunto set their hands and seals, and such of them as are corporations have caused their corporate seals to be hereto affixed and these presents to be signed by their proper officers, the day and year first set forth above.

(L.S.)

Principal Signature

Surety Signature

By:

(Print Name)

IMPORTANT Surety companies executing bonds must appear on the Treasury Department's most current list (Circular 570 as amended), be authorized to transact business in the State of Florida, must have a current rating of A or better with A.M. Best, and the form of the bonds and the insurance company issuing the bonds must meet the approval of the attorney for the owner.

--- E N D ---

**SECTION 004324
QUALIFICATION FORM**

1.1 BID INFORMATION

- A. Bidder: _____
- B. Project Name: _____
- C. Project Location: _____
- D. Owner: City of Paxton, FL.
- E. Architect: Forefront Architecture and Engineering.

1.2 BID FORM SUPPLEMENT

- A. This form is required to be attached to the Bid Form.
- B. Owner reserves the right to reject a bid based on Owner's and Architect's evaluation of qualification information.

1.3 RECORD OF SUCCESSFUL PROJECT COMPLETION – REFERENCES

- A. Provide contact information for three successfully completed projects. Do not submit additional sheets.

Project 1, Owner's Name or Organization:	
Project Type:	
Project Size:	
Dollar Value:	
Phone number:	

Project 2, Owner's Name or Organization:	
Project Type:	
Project Size:	
Dollar Value:	
Phone number:	

Project 3, Owner's Name or Organization:	
Project Type:	
Project Size:	
Dollar Value:	

Phone number:	
---------------	--

1.1 SUBMITTED BY

Respectfully submitted this _____ day of _____, 2024.

Submitted By:

(Insert name of bidding firm or corporation)

Authorized Signature:

(Handwritten signature)

Signed By:

(Type or print name)

Title:

(Owner/Partner/President/Vice President)

**SECTION 005000
NOTICE OF AWARD**

TO	
-----------	--

PROJECT NAME:

Paxton Senior Center Facility

The OWNER has considered the BID submitted by you, for the above-described WORK in response to its Advertisement for Bids and Information for Bidders.

You are hereby notified that your BID has been accepted for items in the amount of \$_____.

You are required by the Information for Bidders to execute the AGREEMENT and furnish the required Contractor's Performance Bond, Payment Bond, and Certificates Of Insurance within ten (10) calendar days from the date of the Notice of Award.

If you fail to execute said Agreement and furnish said bonds within ten (10) calendar days from the date of this Notice, said OWNER will be entitled to consider all your rights arising out of the OWNER's acceptance of your BID as abandoned and as a forfeiture of your Bid Bond. The OWNER will be entitled to such other rights as may be granted by law.

You are required to return an acknowledged copy of this NOTICE OF AWARD to the OWNER.

Dated this _____ day of _____, 20_____.

Owner: City of Paxton

By:

Title: Mayor

Receipt of the above NOTICE OF AWARD is hereby acknowledged by:

_____ this _____ day of _____, 20_____.
(Print Name)

Signed: _____

Title: _____

**SECTION 006000
PROJECT FORMS**

1.1 FORM OF AGREEMENT AND GENERAL CONDITIONS

- A. The following form of Owner/Contractor Agreement and form of the General Conditions shall be acceptable by the City of Paxton.

B.

1.2 ADMINISTRATIVE FORMS

- A. Administrative Forms: Additional administrative forms are specified in Division 01 General Requirements.
- B. Preconstruction Forms:
 - 1. Form of Performance Bond and Labor and Material Bond: "Performance Bond and Payment Bond."
- C. Information and Modification Forms:
 - 1. Form for Requests for Information (RFIs): successful bidder's standard RFI form.
 - 2. Change Order Form:
- D. Payment Forms:
 - 1. Schedule of Values Form: successful bidder's standard schedule of values form.
 - 2. Payment Application: "Application and Certificate for Payment and Continuation Sheet."
 - 3. Form of Contractor's Affidavit: "Contractor's Affidavit of Payment of Debts and Claims."
 - 4. Form of Affidavit of Release of Liens: "Contractor's Affidavit of Payment of Release of Liens."
 - 5. Form of Consent of Surety: "Consent of Surety to Final Payment."

1.3 AGREEMENT FORM

THIS AGREEMENT, made and entered into this ____ day of _____, 20__, by and Between City of Paxton, hereinafter called "Owner", and _____ hereinafter called "Contractor". WITNESSETH, that the parties hereto do mutually agree as follows:

ARTICLE I: For and in consideration of the payments and agreements hereinafter mentioned to be made and performed by said Owner, said Contractor agrees with said Owner to perform and complete in a workmanlike manner all work required under the bidding schedule of said Owner's Specifications entitled PAXTON SENIOR CENTER FACILITY in accordance with the Specifications and drawings therefore, to furnish at his own expense all labor, materials, equipment, tools, and services necessary therefore, except such materials, equipment, and services as may be stipulated in said Specifications to be furnished by said Owner, and to do everything required by this Agreement and said Specifications and drawings.

ARTICLE II: For furnishing all said labor, materials, equipment, tools, and services, furnishing and removing all plant, temporary structures, tools, and equipment, and doing everything required by this Agreement and the said Specifications and drawings; also for all loss and damage arising out of the nature of the work aforesaid, or from the action of the elements, or from any unforeseen difficulties which may arise during the prosecution of the work until its acceptance by said Owner, and for all risks of every description connected with the work, also for all expenses resulting from the suspension or discontinuance of work, except as in the said Specifications are expressly stipulated to be borne by said Owner; and for completing the work in accordance with the requirements of said Specifications and drawings, said Owner will pay and said Contractor shall receive, in full compensation therefor, the price(s) named in the above-mentioned proposal(s).

ARTICLE III: The Owner hereby contracts with said Contractor to perform the work according to the terms of this Agreement for the above-mentioned price(s), and agrees to pay the same at the time, in the manner, and upon the conditions stipulated in the said Specifications; and the said parties for themselves, their heirs, executors, administrators, successors, and assignees, do hereby agree to the full performance of the covenants herein contained.

ARTICLE IV: The Notice Inviting Bids, Information for Bidders, Instructions to Bidders, Proposal, Performance and other bonds, Notice of Award, Notice to Proceed, Information Required of Bidder, Information for Preparing Proposal, General Conditions, Specifications, drawings, and all addenda issued by the Owner with respect to the foregoing prior to the opening of bids, are hereby incorporated in and made part of this agreement.

ARTICLE V: The parties herein each agree that should they default in any of the covenants or agreements contained herein, the defaulting party shall pay all costs and expenses, including a reasonable attorney's fee which may arise or accrue from enforcing this agreement, or in pursuing any remedy provided hereunder or by the statutes or other laws of the State of Utah, whether such costs and expenses are incurred with or without suit or before or after judgment period.

IN WITNESS WHEREOF, the parties hereto have caused this Contract to be executed the day and year first above written.

OWNER

City of Paxton

Attest: _____
Signature

By: _____
Signature

Title

Title

(Seal)

CONTRACTOR

Attest: _____
Signature

By: _____
Signature

Title

Title

1.4 LABOR AND MATERIAL BOND

KNOW ALL MEN BY THESE PRESENTS,

That _____ as Contractor, and _____ as Surety, are held firmly bound unto City of Paxton hereinafter called "Owner", in the sum of _____ dollars, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

WHEREAS, said Contractor has been awarded and is about to enter into the annexed contract with said Owner to perform all work required under the bidding schedule of the Owner's Specifications entitled PAXTON SENIOR CENTER FACILITY.

NOW THEREFORE, if said Contractor, or subcontractor, fails to pay for any materials, equipment, or other supplies, or for rental of same, used in connection with the performance of work contracted to be done, or for amounts due under applicable State law for any work or labor thereon, said Surety will pay for the same in an amount not exceeding the sum specified above, and, in the event suit is brought upon this bond, a reasonable attorney's fee to be fixed by the court. This bond shall inure to the benefit of any persons, companies, or corporations entitled to file claims under applicable State law.

PROVIDED, HOWEVER, that this bond is executed pursuant to the provisions of the 2023 Florida Statutes, as amended, and all liabilities on this bond shall be determined in accordance with said provisions to the extent as if it was copies at length herein.

PROVIDED, that any alterations in the work to be done or the materials to be furnished, or changes in the time of completion, which may be made pursuant to the terms of said contract, shall not in any way release said Contractor or said Surety thereunder, nor shall any extensions of time granted under the provisions of said contract release either said Contractor or said Surety, and notice of such alterations or extensions of the contract is hereby waived by said Surety.

SIGNED AND SEALED, this _____ day of _____, 20____.

(Contractor)

(Surety)

By: _____
(Signature)

By: _____
(Signature)

(SEAL AND NOTARIAL ACKNOWLEDGMENT OF SURETY)

1.5 PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS,

That _____ as Contractor, and _____
as Surety, are held firmly bound unto City of Paxton hereinafter called "Owner", in the sum of
_____ dollars, for the payment of which sum well
and truly to be made, we bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and
severally, firmly by these presents.

WHEREAS, said Contractor has been awarded and is about to enter into the annexed contract with said Owner to
perform all work required under the bidding schedule of the Owner's Specifications entitled **Paxton Senior Center
Facility**.

NOW THEREFORE, if said Contractor shall perform all the requirements of said contract required to be performed
on his part, at the times and in the manner specified therein, then this obligation shall be null and void, otherwise it
shall remain in force and effect.

PROVIDED, HOWEVER, that this bond is executed pursuant to the provisions of the 2023 Florida Statue, as
amended, and all liabilities on this bond shall be determined in accordance with said provisions to the extent as if it
was copies at length herein.

PROVIDED, that any alterations in the work to be done or the materials to be furnished, or changes in the time of
completion, which may be made pursuant to the terms of said contract, shall not in any way release said Contractor
or said Surety thereunder, nor shall any extensions of time granted under the provisions of said contract release
either said Contractor or said Surety, and notice of such alterations or extensions of the contract is hereby waived by
said Surety.

SIGNED AND SEALED, this ____ day of _____, 20 ____.

(Contractor)

(Surety)

By: _____
(Signature)

By: _____
(Signature)

(SEAL AND NOTARIAL ACKNOWLEDGMENT OF SURETY)

1.6 NOTICE OF AWARD

PAXTON SENIOR CENTER FACILITY – WALTON COUNTY

TO: _____

PROJECT DESCRIPTION

AGING FACILITY – WALTON COUNTY has considered the BID submitted to you for the above described WORK in response to its Notice Inviting Bids and Instructions to Bidders.

You are hereby notified that your BID has been accepted for items in the amount of

\$ _____.

You are required by the Instructions to Bidders to execute the Contract and furnish the required Contractor's Performance Bond and Payment Bond and certificates of insurance within ten calendar days from the date of this Notice to you.

If you fail to execute said Contract and to furnish said bonds within ten days from the date of this Notice, said Owner will be entitled to consider all your rights arising out of the Owner's acceptance of your BID as abandoned and as a forfeiture of your Bid Bond. The Owner will be entitled to such other rights as may be granted by law.

You are required to return an acknowledged copy of NOTICE OF AWARD to the Owner.

Dated this ____ day of _____, 20____.

By _____

Title _____

ACCEPTANCE OF NOTICE OF AWARD

By _____

Title _____

Date _____

1.7 NOTICE TO PROCEED

PAXTON SENIOR CENTER FACILITY – WALTON COUNTY

TO: _____ DATE: _____

PROJECT DESCRIPTION Senior Center (New construction one story community facility)

You are hereby notified to commence work in accordance with the Contract dated _____, 20____, on or before _____, 20____, and you are to complete the work by _____, 20____.

By _____

Title _____

ACCEPTANCE OF NOTICE

Receipt of the above NOTICE to
PROCEED is hereby acknowledged
this the _____ day of
_____, 20____.

By _____

Title _____

1.8 CONTRACTOR'S APPLICATION FOR PAYMENT

To: _____

From: _____

Project: PAXTON SENIOR CENTER FACILITY – WALTON COUNTY

Payment Request No.: _____

Period: _____ through _____

1. Contract Time _____ Calendar Days

2. Time Elapsed _____ Calendar Days

3. Remainder _____ Calendar Days

4. Work Completed _____ Percent

5. Time Elapsed _____ Percent

6. Original Contract Amount \$ _____

7. Approved Change Order No's _____ \$ _____

8. Adjusted Contract Amount \$ _____

	<u>Previous Period</u>	<u>This Period</u>
9. Total Value to Date	9a _____	9b _____
10. Total Retainage to Date	10a _____	10b _____
11. Value This Request	11a _____	11b _____
12. Retainage This Request	12a _____	12b _____
13. Reduction of Retainage	13a _____	13b _____

14. NET PAYMENT AMOUNT TO CONTRACTOR

We certify the above is a true statement of work done.

CONTRACTOR -

BY: _____

TITLE: _____

DATE: _____

ARCHITECT – FOREFRONT A&E

BY: _____

TITLE: _____

DATE: _____

OWNER – CITY OF PAXTON

BY: _____

TITLE: _____

DATE: _____

1.9 CHANGE ORDER

ORDER NO. _____

DATE _____

CONTRACT FOR: PAXTON SENIOR CENTER FACILITY – WALTON COUNTY

OWNER: CITY OF PAXTON

TO: _____

(Contractor)

You are hereby requested to comply with the following changes from the Contract Documents, Plans and

Specifications:

Description of Changes			
(Supplemental Plans & Specifications Attached)		Decrease	Increase
Item#		Contract Price	Contract Price

JUSTIFICATION:

Contract Price will be Increased by the sum of: \$ _____

Current Contract Price including previous Change Orders \$ _____

New Contract Price including this Change Orders will be: \$ _____

This document will become a modification to the Contract and all provision will apply hereto.

Requested _____
(Contractor) (Date)

Recommended _____
(Engineer) (Date)

Approved _____
(Owner) (Date)

1.10 AFFIDAVIT OF PAYMENT

PAXTON SENIOR CENTER FACILITY – WALTON COUNY

To All Whom it May Concern:

WHEREAS, the undersigned Contractor has furnished labor and materials under a contract dated
for the project named PAXTON SENIOR CENTER FACILITY of which CITY OF PAXTON, FL is the Owner.

NOW, THEREFORE, this _____ day of _____, 20____, the undersigned Contractor hereby certifies that,
except as listed below, he has paid in full or has otherwise satisfied all obligations for all materials and equipment
furnished, for all work, labor, and services performed, and for all known indebtedness and claims against the
Contractor for damages arising in any manner in connection with the performance of the Contract referenced above
for which the Owner or his property might in any way be held responsible.

EXCEPTIONS: (If none, write "none". If required by the Owner, the Contractor shall furnish bond satisfactory to
the Owner for each Exception.)

Contractor (Name of sole ownership, corporation or partnership)

Affix corporate
seal here

(Signature of Authorized Representative)

Title: _____

1.10 CONSENT OF SURETY FOR FINAL PAYMENT

PAXTON SENIOR CENTER FACILITY – WALTON COUNTY

Project Name: PAXTON SENIOR CENTER FACILITY – WALTON COUNTY

Location _____

Type of Contract _____

Amount of Contract _____

In accordance with the provisions of the above-named contract between the Owner and the Contractor, the following named surety:

on the Payment Bond of the following named Contractor:

hereby approves of final payment to the Contractor, and further agrees that said final payment to the Contractor shall not relieve the Surety Company named herein of any of its obligations to the following named Owner (as set forth in said Surety Company's bond):

IN WITNESS WHEREOF, the Surety Company has hereunto set its hand and seal this

_____ day of _____, 20____.

(Name of Surety Company)

(Signature of Authorized Representative)

(Name of Authorized Representative)

Title: _____

--- E N D ---

**SECTION 007000
PERFORMANCE BOND**

KNOW ALL PERSONS BY THESE PRESENTS: that

(Name of Contractor)

(Address of Contractor)

a _____, hereinafter called Principal, and
(Corporation, Partnership or Individual)

(Name of Surety)

(Address of Surety)

hereinafter called Surety, are held and firmly bound unto:

City of Paxton

(Name of Owner)

21872 U.S.HWY 331 N., Laurel Hill, FL 32567

(Address of Owner)

hereinafter called OWNER, total aggregate penal sum of _____

_____ Dollars (\$_____) in lawful money of the United States, for the
payment of

which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors,
and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION is such that whereas, the Principal entered into a certain contract
with the OWNER, dated the _____ day of _____, 20____, a copy of which is
hereto attached and made a part hereof for the construction of:

PERFORMANCE BOND

007000-- 1 -

Paxton Senior Center Facility

NOW, THEREFORE, if the Principal shall well, truly and faithfully perform its duties, all the undertakings, covenants, terms, conditions, and agreements of said contract during the original term thereof, and any extensions thereof which may be granted by the OWNER with or without notice to the SURETY and during the one year guaranty period and if the PRINCIPAL shall satisfy all claims and demands incurred under such contract, and shall fully indemnify and save harmless the OWNER from all costs and damages which it may suffer by reason of failure to do so, and shall reimburse and repay the OWNER all outlay and expense which the OWNER may incur in making good any default, then this obligation shall be void, otherwise to remain in full force and effect.

PROVIDED, FURTHER, that the security, for value received hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the contract or to WORK to be performed thereunder or the SPECIFICATIONS accompanying same shall in any way affect its obligation on this BOND, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the contract or to the WORK or to the SPECIFICATIONS.

PROVIDED, FURTHER, that it is expressly agreed that the BOND shall be deemed amended automatically and immediately, without formal and separate amendments hereto, upon amendment to the Contract not increasing the contract price more than 20 percent, so as to bind the PRINCIPAL and the SURETY to the full and faithful performance of the CONTRACT as so amended. The term "Amendment", wherever used in this BOND, and whether referring to this BOND, or the Contract Documents, shall include any alteration, addition, extension, or modification of any character whatsoever.

PROVIDED, FURTHER, that no final settlement between the OWNER and the PRINCIPAL shall abridge the right of the other beneficiary hereunder, whose claim may be unsatisfied. The OWNER is the only beneficiary hereunder.

IN WITNESS WHEREOF, this instrument is executed in three (3) counterparts, each of which shall be deemed an original, this the _____ day of _____, 20____.

ATTEST:

(Principal) Secretary

(SEAL)

ATTEST:

Principal

By: _____

Witness as to Principal

(Address)

(Address)

ATTEST:

Witness as to Surety

Surety

By: _____

Attorney-in-Fact

(Address)

(Address)

NOTE: Date of BOND must not be prior to date of Contract.

If CONTRACTOR is partnership, all partners should execute BOND.

IMPORTANT: Surety companies executing bonds must appear on the Treasury Department's most current list (Circular 570 as amended), be authorized to transact business in the State of Florida, must have a current rating of A or better with A.M. Best, and the form of the bonds and the insurance company issuing the bonds must meet the approval of the attorney for the Owner.

--- E N D ---

00 00 00 PROCUREMENT AND CONTRACTING REQUIREMENTS

SECTION 00 73 00 - CDBG SUPPLEMENTAL CONDITIONS

CDBG Supplemental Conditions

The supplemental conditions contained in this section are intended to cooperate with, to supplement, and to modify the general conditions and other specifications. In case of disagreement with any other section of this contract, the Supplemental Conditions shall govern.

1. Termination (Cause and Convenience)
2. Access to Records
3. Retention of Records
4. Remedies
5. Environmental Compliance (Clean Air Act and Clean Water Act)
6. Energy Efficiency
7. Special Equal Opportunity Provisions
8. Conflict of Interest
9. Utilization of Minority and Women's Businesses
10. Federal Labor Standards Provisions (Davis-Bacon, Copeland, and Contract Work Hours Act)
11. Guidance to Contractor for Compliance with Labor Standards Provisions
12. E-Verify

=====

1. Termination (Cause and Convenience)

- A. This contract may be terminated in whole or in part in writing by either party in the event of substantial failure by the other party to fulfill its obligations under this contract through no fault of the terminating party, provided that no termination may be effected unless the other party is given:
 - (1) not less than ten (10) calendar days written notice (delivered by certified mail, return receipt requested) of intent to terminate; and
 - (2) an opportunity for consultation with the terminating party prior to termination.
- B. This contract may be terminated in whole or in part in writing by the local government for its convenience, provided that the other party is afforded the same notice and consultation opportunity specified in 1(a) above.
- C. If termination for default is effected by the local government, an equitable adjustment in the price for this contract shall be made, but
 - (1) no amount shall be allowed for anticipated profit on unperformed services or other work, and
 - (2) any payment due to the contractor at the time of termination may be adjusted to cover any additional costs to the local government because of the contractor's default.

If termination for convenience is effected by the local government, the equitable adjustment shall include a reasonable profit for services or other work performed for which profit has not already been included in an invoice.

For any termination, the equitable adjustment shall provide for payment to the contractor for services rendered and expenses incurred prior to receipt of the notice of intent to terminate, in addition to termination settlement costs reasonably incurred by the contractor relating to commitments (e.g., suppliers, subcontractors) which had become firm prior to receipt of the notice of intent to terminate.

- D. Upon receipt of a termination action under paragraphs (a) or (b) above, the contractor shall (1) promptly discontinue all affected work (unless the notice directs otherwise) and (2) deliver or otherwise make available to the local government all data, drawings, reports specifications, summaries and other such information, as may have been accumulated by the contractor in performing this contract, whether completed or in process.

CDBG Supplemental Conditions for Construction Contracts

April, 2015

- E. Upon termination, the local government may take over the work and may award another party a contract to complete the work described in this contract.
- F. If, after termination for failure of the contractor to fulfill contractual obligations, it is determined that the contractor had not failed to fulfill contractual obligations, the termination shall be deemed to have been for the convenience of the local government. In such event, adjustment of the contract price shall be made as provided in paragraph (c) above.

2. Access to Records

The local government, the Florida Department of Economic Opportunity, the U.S. Department of Housing and Urban Development, the Comptroller General of the United States, the Chief Financial Officer of the State of Florida, the Auditor General of the State of Florida, the Florida Office of Program Policy Analysis and Government Accountability, and any of their duly authorized representatives, shall have access to any books, documents, papers, and records of the contractor which are directly pertinent to this contract for the purpose of making audit, examination, excerpts, and transcriptions.

3. Retention of Records

The contractor shall retain all records relating to this contract for six years after the local government makes final payment and all other pending matters are closed.

4. Remedies

Unless otherwise provided in this contract, all claims, counter-claims, disputes and other matters in question between the local government and the contractor, arising out of or relating to this contract, or the breach of it, will be decided by arbitration, if the parties mutually agree, or in a Florida court of competent jurisdiction.

5. Environmental Compliance

If this contract exceeds \$100,000, the contractor shall comply with all applicable standards, orders, or requirements issued under section 306 of the Clean Air Act (42 USC 1857(h)), section 508 of the Clean Water Act (33 USC 1368), Executive Order 11738, and U.S. Environmental Protection Agency regulations (40 CFR Part 15). The contractor shall include this clause in any subcontracts over \$100,000.

6. Energy Efficiency

The contractor shall comply with any mandatory standards and policies relating to energy efficiency which are contained in the state energy conservation plan issued in compliance with the Energy Policy and Conservation Act (Public Law 94-163).

7. Special Equal Opportunity Provisions**A. Activities and Contracts Not Subject to Executive Order 11246, as Amended**

(Applicable to Federally assisted construction contracts and related subcontracts \$10,000 and under.)

During the performance of this contract, the contractor agrees as follows:

- (1) The contractor shall not discriminate against any employee or applicant for employment because of race, color, religion, sex, sexual orientation, gender identity, or national origin. The contractor shall take affirmative action to ensure that applicants for employment are employed, and that employees are treated during employment, without regard to their race, color, religion, sex, sexual orientation, gender identity, 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.

CDBG Supplemental Conditions for Construction Contracts

April, 2015

- (2) The contractor shall post in conspicuous places, available to employees and applicants for employment, notices to be provided by Contracting Officer seeking forth the provisions of this nondiscrimination clause. The contractor shall state that all qualified applicants be considered without regard to race, color, religion, sex, sexual orientation, gender identity, or national origin.
- (3) Contractors shall incorporate foregoing requirements in all subcontracts.

B. Executive Order 11246, as Amended (through 2014), Section 202 Equal Opportunity Clause (Applicable to contracts/subcontracts above \$10,000)

During the performance of this contract, the contractor agrees as follows:

- (1) The contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, sexual orientation, gender identity, or national origin. The contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, religion, sex, sexual orientation, gender identity, 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 contracting officer setting forth the provisions of this nondiscrimination clause.
- (2) The contractor will, in all solicitations or advancements 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, sexual orientation, gender identity, or national origin.
- (3) The contractor will not discharge or in any other manner discriminate against any employee or applicant for employment because such employee or applicant has inquired about, discussed, or disclosed the compensation of the employee or applicant or another employee or applicant. This provision shall not apply to instances in which an employee who has access to the compensation information of other employees or applicants as a part of such employee's essential job functions discloses the compensation of such other employees or applicants to individuals who do not otherwise have access to such information, unless such disclosure is in response to a formal complaint or charge, in furtherance of an investigation, proceeding, hearing, or action, including an investigation conducted by the employer, or is consistent with the contractor's legal duty to furnish information."
- (4) 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 agency contracting officer, advising the labor union or workers' representative of the contractor's commitments under Section 202 of Executive Order No. 11246 of September 24, 1965, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
- (5) The contractor will comply with all provisions of Executive Order No. 11246 of Sept. 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.
- (6) The contractor will furnish all information and reports required by Executive Order No. 11246 of September 24, 1965, and by the rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the contracting agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.
- (7) In the event of the contractor's noncompliance with the nondiscrimination 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 in accordance with procedures authorized in Executive Order No. 11246 of Sept. 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order No. 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.

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- (8) The contractor will include the provisions of paragraphs (1) through (7) 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 No. 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 may be directed by the Secretary of Labor as a means of enforcing such provisions including sanctions for noncompliance: 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 interests of the United States.

(C) Notice of Requirement for Affirmative Action to Ensure Equal Employment Opportunity (Executive Order 11246). (Applicable to contracts/subcontracts exceeding \$10,000.)

- (a) The Offerer's or Bidder's attention is called to the "Equal Opportunity Clause" and the "Standard Federal Equal Employment Opportunity Construction Contract Specifications" set forth herein.
- (b) The goals and timetables for minority and female participation, expressed in percentage terms for the Contractor's aggregate workforce in each trade on all construction work in the covered area, are as follows:

Female participation: 6.9% (statewide)

Minority participation (See Appendix at CDBG-25 for goals for each county)

These goals are applicable to all Contractor's construction work (whether or not it is federally-assisted) performed in the covered area. If the Contractor performs construction work in a geographic area located outside of the covered area, it shall apply the goals established for such geographic area where the work is actually performed. With regard to this second area, the Contractor also is subject to the goals for both its federally involved and non-federally involved construction.

The Contractor's compliance with Executive Order and the regulations in 41 CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4.3 (a), and its efforts to meet the goals established or the geographic area where the contract resulting from his solicitation is to be performed. The hours of minority and female employment or training must be substantially uniform throughout the length of the contract and in each trade the Contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor or from project to project for the sole purpose of meeting the Contractor's goals shall be a violation of the contract, the Executive Order, and the regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

- (c) The Contractor shall provide written notification to the Director of the Office of Federal Contract Compliance Programs within 10 working days of award of any construction subcontract in excess of \$10,000 at any tier for construction work under the contract resulting from this solicitation. The notification shall list the name, address, and telephone number of the subcontractor; employer identification number; estimated dollar amount of the subcontract; estimated starting and completion dates of the subcontract; and the geographical area in which the contract is to be performed.
- (d) As used in this Notice, and in the contract resulting from the solicitation, the "covered area" is the county in which the contract work is being undertaken.

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(D) 41 CFR 60-4.3. Equal Opportunity Clauses

- (a) The equal opportunity clause published at 41 CFR 60-1.4(a) of this chapter is required to be included in, and is part of, all nonexempt Federal contracts and subcontracts, including construction contracts and subcontracts. The equal opportunity clause published at 41 CFR 60-1.4(b) is required to be included in, and is a part of, all nonexempt federally assisted construction contracts and subcontracts. In addition to the clauses described above, all Federal contracting officers, all applicants and all nonconstruction contractors, as applicable, shall include the specifications set forth in this section in all Federal and federally assisted construction contracts in excess of \$10,000 to be performed in geographical areas designated by the Director pursuant to § 60-4.6 of this part and in construction subcontracts in excess of \$10,000 necessary in whole or in part to the performance of nonconstruction Federal contracts and subcontracts covered under the Executive order.

Standard Federal Equal Employment Opportunity Construction Contract Specifications (Executive Order 11246).

1. As used in these specifications:
 - A. “Covered area” means the geographical area described in the solicitation from which this contract resulted;
 - B. “Director” means Director, Office of Federal Contract Compliance Programs, United States Department of Labor, or any person to whom the Director delegates authority;
 - C. “Employer identification number” means the Federal Social Security number used on the Employer’s quarterly Federal Tax Return, U. S. Treasury Department Form 941.
 - D. “Minority” includes:
 - (i) Black (all persons having origins in any of the Black African racial groups not of Hispanic origin);
 - (ii) Hispanic (all persons of Mexican, Puerto Rican, Cuban, Central or South American or other Spanish Culture or origin, regardless of race);
 - (iii) Asian and Pacific Islander (all persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Island); and
 - (iv) American Indian or Alaskan Native (all persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participation or community identification).
2. Whenever the contractor, or any subcontractor at any tier, subcontracts a portion of the work involving any construction trade, it shall physically include in each subcontract in excess of \$10,000 the provisions of these specifications and the notice which contains the applicable goals for minority and female participation and which is set forth in the solicitations from which this contract resulted.
3. If the contractor is participating (pursuant to 41 CFR 60-4.5) in a Hometown Plan approved by the U. S. Department of Labor in the covered area either individually or through an association, its affirmative action obligations on all work in the Plan area (including goals and timetables) shall be in accordance with that Plan for those trades which have unions participating in the Plan. Contractors must be able to demonstrate their participation in and compliance with the provisions of any such Hometown Plan. Each contractor or subcontractor participating in an approved Plan is individually required to comply with its obligations under the EEO clause, and to make a good faith effort to achieve each goal under the Plan in each trade in which it has employees. The overall good faith performance by other contractors or subcontractors toward a goal in an approved Plan does not excuse any covered contractor’s or subcontractor’s failure to take good faith efforts to achieve the Plan goals and timetables.

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4. The contractor shall implement the specific affirmative action standards provided in paragraphs 7.A. through P. of these specifications. The goals set forth in the solicitation from which this contract resulted are expressed as percentages of the total hours of employment and training of minority and female utilization the contractor should reasonably be able to achieve in each construction trade in which it has employees in the covered area. Covered construction contractors performing construction work in geographical areas where they do not have a federal or federally-assisted construction contract shall apply the minority and female goals established for the geographic area where the contract is being performed. Goals are published periodically in the Federal Register in notice form and such notices may be obtained from any Office of Federal Contract Compliance Programs office or from Federal procurement contracting officers. The Contractor is expected to make substantially uniform progress in meeting its goals in each craft during the period specified.
5. Neither the provisions of any collective bargaining agreement, nor the failure by a union with whom the Contractor has a collective bargaining agreement, to refer either minorities or women shall excuse the Contractor's obligations under these specifications, Executive Order 11246, or the regulations promulgated pursuant thereto.
6. In order for the nonworking training hours of apprentices and trainees to be counted in meeting the goals, such apprentices and trainees must be employed by the contractor during the training period, and the contractor must have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees must be trained pursuant to training programs approved by the U. S. Department of Labor.
7. The Contractor shall take specific affirmative actions to ensure equal employment opportunity. The evaluation of the Contractor's compliance with these specifications shall be based upon its effort to achieve maximum results from its actions. The Contractor shall document these efforts fully, and shall implement affirmative action steps at least as extensive as the following:
 - (a) Ensure and maintain a working environment free of harassment, intimidation, and coercion at all sites, and in all facilities at which the contractor's employees are assigned to work. The contractor, where possible, will assign two or more women to each construction project. The contractor shall specifically ensure that all foremen, superintendents, and other on-site supervisory personnel are aware of and carry out the contractor's obligation to maintain such a working environment, with specific attention to minority or female individuals working at such sites or in such facilities.
 - (b) Establish and maintain a current list of minority and female recruitment sources, provide written notification to minority and female recruitment sources and to community organizations when the contractor or its unions have employment opportunities available, and maintain a record of the organizations' responses.
 - (c) Maintain a current file of the names, addresses, and telephone numbers of each minority and female off-the-street applicant and minority or female referral from a union, a recruitment source, or community organization and of what action was taken with respect to each such individual. If such individual was sent to the union hiring hall for referral and was not referred back to the contractor by the union or, if referred, not employed by the contractor, this shall be documented in the file with the reason therefor, along with whatever additional actions the contractor may have taken.
 - (d) Provide immediate written notification to the Director when the union or unions with which the contractor has a collective bargaining agreement has not referred to the contractor a minority person or woman sent by the contractor, or when the contractor has other information that the union referral process has impeded the contractor's efforts to meet its obligations.

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- (e) Develop on-the-job training opportunities and/or participate in training programs for the areas which expressly include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the contractor's employment needs, especially those programs funded or approved by the Department of Labor. The contractor shall provide notice of these programs to the sources compiled under 7.(b) above.
- (f) Disseminate the contractor's EEO policy by providing notice of the policy to unions and training programs and requesting their cooperation in assisting the contractor in meeting its EEO obligations; by including it in any policy manual and collective bargaining agreement; by publicizing it in the company newspaper, annual report, etc.; by specific review of the policy with all management personnel and with all minority and female employees at least once a year; and by posting the company EEO policy on bulletin boards accessible to all employees at each location where construction work is performed.
- (g) Review, at least annually, the company's EEO policy and affirmative action obligations under these specifications with all employees having any responsibility for hiring, assignment, layoff, termination, or other employment decisions including specific review of these items with on-site supervisory personnel such as superintendents, general foremen, etc., prior to the initiation of construction work at any job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.
- (h) Disseminate the contractor's EEO policy externally by including it in any advertising in the news media, specifically including minority and female news media, and providing written notification to and discussing the contractor's EEO policy with other contractors and subcontractors with whom the contractor does or anticipates doing business.
- (i) Direct its recruitment efforts, both oral and written, to minority, female and community organizations, to schools with minority and female recruitment students and to minority and female recruitment and training organizations serving the contractor's recruitment area and employment needs. Not later than one month prior to the date for the acceptance of applications for apprenticeship or other training by any recruitment source, the contractor shall send written notification to organizations such as the above, describing the openings, screening procedures, and tests to be used in the selection process.
- (j) Encourage present minority and female employees to recruit other minority persons and women and, where reasonable, provide after school, summer and vacation employment to minority and female youth both on the site and in other areas of a contractor's work force.
- (k) Validate all tests and other selection requirements where there is an obligation to do so under 41 CFR 60-3.
- (l) Conduct, at least annually, an inventory and evaluation at least of all minority and female personnel for promotional opportunities and encourage these employees to seek or to prepare for, through appropriate training, etc., such opportunities.
- (m) Ensure that seniority practices, job classifications, work assignments and other personnel practices, do not have a discriminatory effect by continually monitoring all personnel and employment related activities to ensure that the EEO policy and the contractor's obligations under these specifications are being carried out.
- (n) Ensure that all facilities and company activities are nonsegregated except that separate or single-user toilet and necessary changing facilities shall be provided to assure privacy between the sexes.
- (o) Document and maintain a record of all solicitations of offers for subcontracts from minority and female construction contractors and suppliers, including circulation of solicitations to minority and female contractor associations and other business associations.
- (p) Conduct a review, at least annually, of all supervisors' adherence to and performance under the contractor's EEO policies and affirmative action obligations.

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8. Contractors are encouraged to participate in voluntary associations which assist in fulfilling one or more of their affirmative action obligations 7.(a) through (p). The efforts of a contractor association, joint contractor-union, contractor-community, or other similar group of which the contractor is a member and participant, may be asserted as fulfilling any one or more of its obligations under 7.(a) through (p) of these specifications provided that the contractor actively participates in the group, makes every effort to assure that the group has a positive impact on the employment of minorities and women in the industry, ensures that the concrete benefits of the program are reflected in the contractor's minority and female workforce participation, makes a good faith effort to meet its individual goals and timetables, and can provide access to documentation which demonstrates the effectiveness of actions taken on behalf of the contractor. The obligation to comply, however, is the contractor's and failure of such a group to fulfill an obligation shall not be a defense for the contractor's noncompliance.
9. A single goal for minorities and separate single goal for women have been established. The contractor, however, is required to provide equal employment opportunity and to take affirmative action for all minority groups, both male and female, and all women, both minority and non-minority. Consequently, the contractor may be in violation of the Executive Order if a particular group is employed in a substantially disparate manner (for example, even though the contractor has achieved its goals for women generally, the contractor may be in violation of the Executive Order if a specific minority group of women is underutilized).
10. The contractor shall not use the goals and timetables or affirmative action standards to discriminate against any person because of race, color, religion, sex, or national origin.
11. The contractor shall not enter into any subcontract with any person or firm debarred from government contracts pursuant to Executive Order 11246.
12. The contractor shall carry out sections and penalties for violation of these specifications and of the Equal Opportunity Clause, including suspension, termination and cancellation of existing subcontracts as may be imposed or ordered pursuant to Executive Order 11246, as amended, and its implementing regulations, by the Office of Federal Contract Compliance Programs. Any contractor who fails to carry out such sanctions and penalties shall be in violation of these specifications and Executive Order 11246, as amended.
13. The contractor, in fulfilling its obligations under these specifications, shall implement specific affirmative action steps, at least as extensively as those standards prescribed in paragraph 7 of these specifications, so as to achieve maximum results from its effort to ensure equal employment opportunity. If the contractor fails to comply with the requirements of the Executive Order, the implementing regulations, or these specifications, the Director shall proceed in accordance with 41 CFR 60-4.8.
14. The contractor shall designate a responsible official to monitor all employment related activity to ensure that the company EEO policy is being carried out, to submit reports relating to the provisions hereof as may be required by the Government and to keep records. Records shall at least include for each employee, the name, address, telephone numbers, construction trade, union affiliation, if any, employee identification number when assigned, social security number, race, sex, status (e.g., mechanic, apprentice trainee, helper, or laborer), dates of changes in status, hours worked per week in the indicated trade, rate of pay, and locations at which the work was performed. Records shall be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, contractors shall not be required to maintain separate records.
15. Nothing herein provided shall be construed as a limitation upon the application of other laws which establish different standards of compliance and upon the application of requirements for the hiring of local or other area residents (e.g., those under the Public Works Employment Act of 1977 and the Community Development Block Grant Program).

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E. Certification of Non-Segregated Facilities (Contracts over \$10,000)

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

As used in this certification, “segregated facilities” mean any waiting rooms, work areas, rest rooms and wash rooms, restaurants, and other eating areas, time clocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities which are segregated by explicit directive or are in fact segregated on the basis of race, creed, color, or national origin, because of habit, local custom, or otherwise.

The contractor further agrees that (except where it has obtained identical certifications from proposed subcontractors for specific time periods) it 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; that it will retain such certifications in its files; and that it will forward the following notice to such proposed subcontractors (except where the proposed subcontractors have submitted identical certifications for specific time periods) .

F. Civil Rights Act of 1964

Under Title VI of the Civil Rights Act of 1964, no person shall, on the grounds 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.

G. Section 109 of the Housing and Community Development Act of 1974

No person in the United States shall on the grounds of race, color, national original, 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 funds made available under this title.

H. “Section 3” Compliance in the Provision of Training, Employment and Business Opportunities

- (1) 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 USC 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.
- (2) 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.

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- (3) 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.
- (4) 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.
- (5) 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.
- (6) 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.
- (7) 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 USC 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).

I. Section 503 Handicapped (Contracts \$2,500 or more)

- (1) The Contractor will not discriminate against any employee or applicant for employment because of physical or mental handicap in regard to any position for which the employee or applicant for employment is qualified. The Contractor agrees to take affirmative action to employ, advance in employment and otherwise treat qualified handicapped individuals without discrimination based upon their physical or mental handicap in all employment practices such as the following: employment, upgrading, demotion or transfer, recruitment, advertising, layoff or termination, rates of pay or other forms of compensation, and selection for training, including apprenticeship.
- (2) The Contractor agrees to comply with the rules, regulations and relevant orders of the Secretary of Labor issued pursuant to the Act.
- (3) In the event of the Contractor's noncompliance with the requirements of this clause, actions for noncompliance may be taken in accordance with the rules, regulations, and relevant orders of the Secretary of Labor issued pursuant to the Act.
- (4) The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices in a form to be prescribed by the Director, provided by or through the contracting officer. Such notices shall state the Contractor's obligation under the law to take affirmative action to employ and advance in employment qualified handicapped employees and applicants for employment, and the rights of applicants and employees.

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- (5) The contractor will notify each labor union or representative of workers with which it has a collective bargaining agreement or their contract understanding, that the contractor is bound by the terms of Section 503 of the Rehabilitation Act of 1973, and is committed to take affirmative action to employ and advance in employment physically and mentally handicapped individuals.
- (6) The contractor will include the provisions of this clause in every subcontract or purchase order of \$2,500 or more unless exempted by rules, regulations, or orders of the Secretary issued pursuant to Section 503 of the Act, 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 Director of the Office of Federal Contract Compliance Programs may direct to enforce such provisions, including action for noncompliance.

J. Age Discrimination in Employment Act of 1967, as Amended

It shall be unlawful for an employer-

- (1) to fail or refuse to hire or to discharge any individual or otherwise discriminate against any individual with respect to his compensation, terms, conditions, or privileges of employment, because of such individual's age;
- (2) to limit, segregate, or classify his employees in any way which would deprive or tend to deprive any individual of employment opportunities or otherwise adversely affect his status as an employee, because of such individual's age; or
- (3) to reduce the wage rate of any employee in order to comply with this chapter.

K. Title II of the Genetic Information Nondiscrimination Act of 2008 (GINA)

- (1) Under Title II of the Genetic Information Nondiscrimination Act, it is illegal to discriminate against employees or applicants because of genetic information. Employers are prohibited from using genetic information in making employment decisions. GINA restricts employers and other entities covered by Title II (employment agencies, labor organizations and joint labor-management training and apprenticeship programs - referred to as "covered entities") from requesting, requiring or purchasing genetic information, and strictly limits the disclosure of genetic information.

The law forbids discrimination on the basis of genetic information when it comes to any aspect of employment, including hiring, firing, pay, job assignments, promotions, layoffs, training, fringe benefits, or any other term or condition of employment.

- (2) "Genetic information" includes information about an individual's genetic tests and the genetic tests of an individual's family members, as well as information about the manifestation of a disease or disorder in an individual's family members (i.e. family medical history). Family medical history is included in the definition of genetic information because it is often used to determine whether someone has an increased risk of getting a disease, disorder, or condition in the future.

8. Conflict of Interest of Officers or Employees of the Local Jurisdiction, Members of the Local Governing Body, or Other Public Officials

No officer or employee of the local jurisdiction or its designees or agents, no member of the governing body, and no other public official of the locality who exercises any function or responsibility with respect to this contract, during his/her tenure or for one year thereafter, shall have any interest, direct or indirect, in any contract or subcontract, or the proceeds thereof, for work to be performed. Further, the contractor shall cause to be incorporated in all subcontracts the language set forth in this paragraph prohibiting conflict of interest.

9. Utilization of Minority and Women Firms (M/WBE)

The contractor shall take all necessary affirmative steps to assure that M/WBE firms are utilized when possible as suppliers and/or subcontractors, as applicable. Prior to contract award, the contractor shall document efforts to utilize M/WBE firms, including identifying what firms were solicited as suppliers and/or subcontractors, as applicable. Information regarding certified M/WBE firms can be obtained from:

- Florida Department of Management Services, Office of Supplier Diversity,
- Florida Department of Transportation (construction services, particularly highway),
- Minority Business Development Center in most major cities, and
- Local government M/WBE programs in many large counties and cities.

A firm recognized as an M/WBE by any of the above agencies is acceptable for the CDBG program.

10. Federal Labor Standards Provisions

(Davis-Bacon Act, Copeland Act, and Contract Works Hours & Safety Standards Act) The Project 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) (a) Minimum Wages. All laborers and mechanics employed or working upon the site of the work (or under the United States Housing Act of 1937 or under the Housing Act of 1949 in the construction or development of the project), 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 1(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.

- (b) (i) 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

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- (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.
- (ii) 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 1215-0140.)
 - (iii) In the event that 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 designed 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 the additional time is necessary. (Approved by the Office of Management and Budget under OMB Control Number 1215-0140.)
 - (iv) The wage rate (including fringe benefits where appropriate) determined pursuant to subparagraphs (b)(ii) or (iii) 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.
- (c) 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.
 - (d) 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 (or under the United States Housing Act of 1937 or under the Housing Act of 1949 in the construction or development of the project), all or part of the wages required by the contract, HUD, or its designee may, after written notice to the contractor, sponsor, applicant, or owners, 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.

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- (3) (a) 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 (or under the United States Housing Act of 1937, or under the Housing Act of 1949, in the construction or development of the project). 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 1(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 1(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).
- (b) (i) 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 owners, 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 Part 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).
- (ii) 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 Part 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.
- (iii) The weekly submission of a properly executed certification set forth on the reverse side of Option Form WH-347 shall satisfy the requirement for submission of the “Statement of Compliance” required by paragraph A(3)(b)(ii) of this section.

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- (iv) 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.
- (c) The contractor or subcontractor shall make the records required under paragraph A(3)(a) of this section 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 to make such records available may be grounds for debarment action pursuant to 29 CFR Part 5.12.
- (4) (a) 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, Bureau of Apprenticeship and Training, or with a State Apprenticeship Agency recognized by the Bureau, 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 Bureau of Apprenticeship and Training 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 the determination. In the event the Bureau of Apprenticeship and Training, or a State Apprenticeship Agency recognized by the Bureau, 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.

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- (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 contract 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 this part 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 29 CFR 5.5(a)(1) through (10) and such other clauses as HUD or its designee may by appropriate instructions require, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contract shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR Part 5.5.
- (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 referenced 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 U. S. Department of Labor (USDOL) 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 USDOL, or the employees or their representatives.
- (10) (a) **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.

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- (b) 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.
- (c) The penalty for making false statements is prescribed in the U. S. Criminal Code, 18 USC 1001. Additionally, U.S. Criminal Code, Section 1010, Title 18, USC, “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. As used in the 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 forty 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 forty 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 forty hours without payment of the overtime wages required by the clause set forth in subparagraph (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
 - (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.

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- (2) The contractor shall comply with all regulations issued by the Secretary of Labor pursuant to Title 29 Part 1926 (formerly part 1518) and failure to comply may result in imposition of sanctions pursuant to the Contract Work Hours and Safety Standards Act (Public Law 91-54.83 State 96).
- (3) The contractor shall include the provisions of this Article 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.

11. Guidance to Contractor for Compliance with Labor Standards Provisions

A. Contracts with Two Wage Decisions

If the contract includes two wage decisions, the contractor, and each subcontractor who works on the site, must submit either two separate payrolls (one for each wage decision) or one payroll which identifies each worker twice and the hours worked under each wage decision. One single payroll, reflecting each worker once, may be submitted provided the Contractor uses the higher rate in the wage decisions for each identical job classification. However, where a job classification is not listed in a wage decision and is needed for that portion of the work, the classification **must** be added to the wage decision. A worker may not be paid at the rate for a classification using the hourly rate for that same classification in another wage decision. After the additional classification is approved, the contractor may pay the higher of the two rates and submit one payroll, if desired.

B. Complying with Minimum Hourly Amounts

- (1) The minimum hourly amount due to a worker in each classification is the total of the amounts in the “Rates” and “Fringe Benefits” (if any) columns of the applicable wage decision.
- (2) The contractor may satisfy this minimum hourly amount by any combination of cash and bona fide fringe benefits, regardless of the individual amounts reflected in the “Rates” and “Fringe Benefits” columns.
- (3) A contractor payment for a worker which is required by law is not a fringe benefit in meeting the minimum hourly amount due under the applicable wage decision. For example, contractor payments for FICA or unemployment insurance are not a fringe benefit; however, contractor payments for health insurance or retirement are a fringe benefit. Generally, a fringe benefit is bona fide if (a) it is available to most workers and (b) involves payments to a third party.
- (4) The hourly value of the fringe benefit is calculated by dividing the contractor’s annual cost (excluding any amount contributed by the worker) for the fringe benefit by 2080. Therefore, for workers with overtime, an additional payment may be required to meet the minimum hourly wages since generally fringe benefits have no value for any time worked over 40 hours weekly. (If a worker is paid more than the minimum rates required by the wage decision, this should not be a problem. As long as the total wages received by a worker for straight time equals the hours worked times the minimum hourly rate in the wage decision, the requirement of the Davis-Bacon and Related Acts has been satisfied.)

C. Overtime

For any project work over 40 hours weekly, a worker generally must be paid 150% of the actual hourly cash rate received, not the minimum required by the wage decision. (The Davis-Bacon and related acts only establish minimum rates and does not address overtime; the Contract Work Hours Act contains the overtime requirement and uses “basic rate of pay” as the base for calculation, not the minimum rates established by the Davis-Bacon and related acts.)

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D. Deductions

Workers who have deductions, not required by law, from their pay must authorize these deductions in writing. The authorization must identify the purpose of each deduction and the amount, which may be a specific dollar amount or a percentage. A copy of the authorization must be submitted with the first payroll containing the deduction. If deducted amounts increase, another authorization must be submitted. If deducted amounts decrease, no revision to the original authorization is needed. Court-ordered deductions, such as child support, may be identified by the responsible payroll person in a separate document. This document should identify the worker, the amount deducted and the purpose. A copy of the court order should be submitted.

E. Classifications Not Included in the Wage Decision

If a classification not in the wage decision is required, please advise the owner's representative in writing and identify the job classification(s) required. In some instances, the State agency may allow the use of a similar classification in the wage decision.

Otherwise, the contractor and affected workers must agree on a minimum rate, which cannot be lower than the lowest rate for any trade in the wage decision. Laborers (including any subcategory of the laborer classification) and truck drivers are not considered a trade for this purpose. If the classification involves a power equipment operator, the minimum cannot be lower than the lowest rate for any power equipment operator in the wage decision. The owner will provide forms to document agreement on the minimum rate by the affected workers and contractor.

The USDOL must approve the proposed classification and rate. The contractor may pay the proposed rate until the USDOL makes a determination. Should the USDOL require a higher rate, the contractor must make wage restitution to the affected worker(s) for all hours worked under the proposed rate.

F. Supervisory Personnel

Foremen and other supervisory personnel who spend at least 80% of their time supervising workers are not covered by the Davis-Bacon and Related Acts. Therefore, a wage decision will not include such supervisory classifications and their wages are not subject to any minimums under the Davis-Bacon and Related Act or overtime payments under the Contract Work Hours and Safety Standards Act. However, foremen and other supervisory personnel who spend less than 80% of their time engaged in supervisory activities are considered workers/mechanics for the time spent engaged in manual labor and must be paid at least the minimum in the wage decision for the appropriate classification(s) based on the work performed.

G. Sole Proprietorships/Independent Contractors/Leased Workers

The nature of the relationship between a prime contractor and a worker does not affect the requirement to comply with the labor standards provisions of this contract. The applicability of the labor standards provisions is based on the nature of the work performed.

If the work performed is primarily manual in nature, the worker is subject to the labor standards provisions in this contract. For example, if John Smith is the owner of ABC Plumbing and performs all plumbing work himself, then Mr. Smith is subject to the labor standards provisions, including minimum wages and overtime. His status as "owner" is irrelevant for labor standards purposes.

If a worker meets the IRS standards for being an independent contractor, and is employed as such, this means that the worker must submit a separate payroll as a subcontractor rather than be included on some other payroll. The worker is still subject to the labor standards provisions in this contract, including minimum wages and overtime.

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If a contractor or subcontractor leases its workers, they are subject to the labor standards provisions in this contract, including minimum wages and overtime. The leasing firm must submit payrolls and these payrolls must reflect information required to determine compliance with the labor standards provisions of this contract, including a classification for each worker based on the nature of the work performed, number of regular hours worked, and number of overtime hours worked.

H. Apprentices/Helpers

A worker may be classified as an apprentice **only if participating in a federal or state program**.

Documentation of participation must be submitted. Generally, the apprentice program specifies that the apprentice will be compensated at a percentage of the journeyman rate. For Davis-Bacon Act purposes, the hourly rate cannot be lower than the percentage of the hourly rate for the classification in the applicable wage decision.

If the worker does not participate in a federal or state apprentice program, then the worker must be classified according to duties performed. This procedure may require classification in the “trade” depending on tools used, or as a laborer if specialized tools of the trade are not used. The contractor may want to consult with the Wage and Hour Division of the U.S. Department of Labor located in most large cities regarding the appropriate classification.

Presently, no worker may be classified as a “helper”. As with apprentices not participating in a formal apprentice program, the worker must be classified according to duties performed and tools used.

12. E-Verify

Contractors and subcontractors performing work funded by CDBG subgrants are required to enroll in the U.S. Department of Homeland Security’s E-Verify system to verify the employment eligibility of all new employees that they hire during the term of their contracts under Executive Order 11-116, signed by the Governor of Florida on May 27, 2011.

- (a) E-Verify is an Internet-based system that allows businesses to determine the eligibility of their employees to work in the United States. A contractor or subcontractor that has not signed up for E-Verify and executed a memorandum of understanding with the Department of Homeland Security can enroll in the E-Verify system on the Department of Homeland Security’s website listed below:

<http://www.uscis.gov/e-verify/e-verify-enrollment-page>

- (b) Contractors and subcontractors shall enroll in the E-Verify system prior to hiring any new employee after the effective date of their contracts to perform work on CDBG-funded projects. The address for obtaining an Employer Memorandum of Understanding is:

[http://www.uscis.gov/sites/default/files/USCIS/Verification/E-Verify/E-Verify Native Documents/MOU for E-Verify Employer.pdf](http://www.uscis.gov/sites/default/files/USCIS/Verification/E-Verify/E-Verify%20Native%20Documents/MOU%20for%20E-Verify%20Employer.pdf)

- (c) The Department of Homeland Security offers tutorials and other assistance at the web address below:

<http://www.uscis.gov/e-verify/you-start>

Appendix
Minority Participation Goals

These are the goals, by county, for meeting the minority participation portion of Section 7-B(2)(b) of the CDBG Supplemental Conditions. These are contractor workforce goals, not goals for subcontracting to minority and women firms. Solicitation of minority and women firms as subcontractors is a separate federal requirement which the contractor must document compliance with.

<u>Tampa-St. Petersburg Area</u>	<u>Percentage</u>
Hillsborough, Pinellas, Pasco.....	17.9
Charlotte, Citrus, Collier, DeSoto,.....	17.1
Hardee, Hernando, & Highlands (all seven counties)	
Lee.....	15.3
Manatee.....	15.9
Polk.....	18.0
Sarasota.....	10.5

<u>Tallahassee Area</u>	
Leon, Wakulla.....	24.3
Calhoun, Franklin, Gadsden, Jackson,.....	29.5
Jefferson, Liberty, Madison, & Taylor (all eight counties)	

<u>Pensacola - Panama City Area</u>	
Bay.....	14.1
Escambia, Santa Rosa.....	18.3
Gulf, Holmes, Okaloosa,.....	15.4
Walton, & Washington (all five counties)	

<u>Jacksonville Area</u>	
Alachua.....	20.6
Baker, Clay, Duval, Nassau, & St. Johns.....	21.8
Bradford, Columbia, Dixie, Gilchrist.....	22.2
Hamilton, Lafayette, Levy, Marion, Putnam, Suwannee, & Union (all 11 counties)	

<u>Orlando - Daytona Beach Area</u>	<u>Percentage</u>
Volusia.....	15.7
Brevard.....	10.7
Orange, Osceola, & Seminole (all three counties).....	15.5
Flagler, Lake, & Sumter (all three counties).....	14.9

<u>Miami - Fort Lauderdale Area</u>	
Dade.....	39.5
Broward.....	15.5
Palm Beach.....	22.4
Glades, Hendry, Indian River, Monroe,.....	30.4
Okeechobee, Martin, & St. Lucie (all seven counties)	

Certifications

SWORN STATEMENT PURSUANT TO SECTION 287.133(3)(a),
FLORIDA STATUTES, ON PUBLIC ENTITY CRIMES

THIS FORM MUST BE SIGNED AND SWORN TO IN THE PRESENCE OF A NOTARY PUBLIC OR OTHER OFFICIAL AUTHORIZED TO AND MINISTER OATHS.

1. This sworn statement is submitted to _____
[print name of the public entity]
by _____
[print individual's name and title]
for _____
[print name of entity submitting sworn statement]

whose business address is

and (if applicable) its Federal Employer Identification Number (FEIN) is _____

(If the entity has no FEIN, include the Social Security Number of the individual signing this sworn statement: _____.)

2. I understand that a "public entity crime" as defined in Paragraph 287.133(1)(g), Florida Statutes, means a violation of any state or federal law by a person with respect to and directly related to the transaction of business with any public entity or with an agency ~~text~~ political subdivision of any other state or of the United States, including, but not limited to, any bid or contract for goods or services to be provided to any public entity or an agency or political subdivision of any other state or of the United States and involving antitrust, fraud, theft, bribery, collusion, racketeering, conspiracy, or material misrepresentation.
3. I understand that "convicted" or "conviction" as defined in Paragraph 287.133(1)(b), Florida Statutes, means a finding of guilt or a conviction of a public entity crime, with or without an adjudication of guilt, in any federal or state trial court of record relating to charges brought by indictment or information after July 1, 1989, as a result of a jury verdict, nonjury trial, or entry of a plea of guilty or nolo contendere.
4. I understand that an "affiliate" as defined in Paragraph 287.133(1)(a), Florida Statutes, means:
1. A predecessor or successor of a person convicted of a public entity crime; or
 2. An entity under the control of any natural person who is active in the management of the entity and who has been convicted of a public entity crime. The term "affiliate" includes those officers, directors, executives, partners, shareholders, employees, members, and agents who are active in the management of an affiliate. The ownership by one person of shares constituting a controlling interest in another person, or a pooling of equipment or income among persons when not for fair market value under an arm's length agreement, shall be a prima facie case that one person controls another person. A person who knowingly enters into a joint venture with a person who has been convicted of a public entity crime in Florida during the preceding 36 months shall be considered an affiliate.
5. I understand that a "person" as defined in Paragraph 287.133(1)(e), Florida Statutes, means any natural person or entity organized under the laws of any state or of the United States with the legal power to enter into a binding contract and which bids or applies to bid on contracts for the provision of goods or services let by a public entity, or which otherwise transacts or applies to transact business with a public entity. The term "person" includes those officers, directors, executives, partners, shareholders, employees, members, and agents who are active in management of an entity.

6. Based on information and belief, the statement which I have marked below is true in relation to the entity submitting this sworn statement. [Indicate which statement applies]

_____ Neither the entity submitting this sworn statement, nor any of its officers, directors, executives, partners, shareholders, employees, members, or agents who are active in the management of the entity, nor any affiliate of the entity has been charged with and convicted of a public entity crime subsequent to July 1, 1989.

_____ The entity submitting this sworn statement, or one or more of its officers, directors, executives, partners, shareholders, employees, members, or agents who are active in the management of the entity, or an affiliate of the entity has been charged with and convicted of a public entity crime subsequent to July 1, 1989.

_____ The entity submitting this sworn statement, or one or more of its officers, directors, executives, partners, shareholders, employees, members, or agents who are active in the management of the entity or an affiliate of the entity has been charged with and convicted of a public entity crime subsequent to July 1, 1989. However, there has been a subsequent proceeding before a Hearing Officer of the State of Florida, Division of Administrative hearings and the Final Order entered by the Hearing Officer determined that it was not in the public interest to place the entity submitting this sworn statement on the convicted vendor list. (attach a copy of the final order)

I UNDERSTAND THAT THE SUBMISSION OF THE FORM TO THE CONTRACTING OFFICER FOR THE PUBLIC ENTITY IDENTIFIED IN PARAGRAPH 1 (ONE) ABOVE IS FOR THAT PUBLIC ENTITY ONLY AND, THAT THIS FORM IS VALID THROUGH DECEMBER 31 OF THE CALENDAR YEAR IN WHICH IT IS FILED. I ALSO UNDERSTAND THAT I AM REQUIRED TO INFORM THE PUBLIC ENTITY PRIOR TO ENTERING INTO A CONTRACT IN EXCESS OF THE THRESHOLD AMOUNT PROVIDED IN SECTION 287.017, FLORIDA STATUTES FOR CATEGORY TWO OF ANY CHANGE IN THE INFORMATION CONTAINED IN THIS FORM.

[signature]

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

Personally known _____

Or Produced identification _____

Notary Public – State of _____

(Type of Identification)

My commission expires _____

(Printed, typed or stamped
commission name of notary public)



Certification Regarding Debarment, Suspension, and Other Responsibility Matters (Primary Covered Transactions)

April, 2015

Recipient: City of Paxton Contract Number: 22CV-S16

Name of Company Selected as a Prime Contractor: _____

DUNS Number: _____

- 1) The prospective primary participant certifies to the best of its knowledge and belief, that it and its principals:
 - (a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;
 - (b) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
 - (c) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph 1)(b) of this certification; and
 - (d) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.
- (2) Where the prospective primary participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

Authorized Signature

Date

Name Typed

Title

Street Address

City, State, Zip



**Certification Regarding Debarment, Suspension, Ineligibility
and Voluntary Exclusion (Subcontractor)**

April, 2015

Recipient: City of Paxton Contract Number: 22CV-S16

Name of Subcontractor: _____

DUNS Number: _____

Lower Tier Covered Transactions

- (1) The prospective lower tier participant certifies, by submission of this document, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.
- (2) Where the prospective lower tier participant is unable to certify to the above statement, the prospective participant shall attach an explanation to this form.

Authorized Signature

Date

Name Typed

Title

Street Address

City, State, Zip

(24 CFR 24.510 and 24 CFR, Part 24, Appendix A)

MBE/WBE

DOCUMENTATION OF MBE AND WBE SUBCONTRACTORS

All Bidders are required in accordance with 24 CFR 85.36 (e) (2) (vi) to document efforts to solicit minority-owned and women owned subcontractors if subcontracts are to be let. Failure to document these efforts and complete this certification will cause the bid to be declared non-responsive and possibly rejected.

At a minimum, bidders are required to take the following action:

Assuring that minority businesses and women's business enterprises are solicited whenever they are potential sources by including written documentation of such action with the bid proposal. Written documentation may include, for example (1) written quotes from MBEs and WBEs; (2) letters of solicitation prepared by the bidder and sent to MBEs and WBEs who may be potential sources; or (3) written accounts of telephone solicitations of MBEs and WBEs. Such accounts must include the name of the MBE or WBE firm, mailing address, telephone number and contact person at the MBE or WBE firm.

I hereby certify that no subcontracts will be let on this project.

Name of firm

Signature of representative

Print or type name

Date

**IF SUBCONTRACTS ARE TO BE LET, COMPLETE THE CERTIFICATION ON THE
FOLLOWING PAGE**

I hereby certify that the **attached documentation** of efforts to solicit MBE and WBE subcontractors is to the best of my knowledge true and accurate. Furthermore, I understand that the **attached documentation** will be verified by the Owner prior to awarding a contract.

Name of firm

Signature of representative

Print or type name

Date

MBE/WBE List
Walton County

Vendor Name	Contact	Address	City	State	Phone Number
Bravo Zulu Logistics, LLC	Everlyn Coleman	3906 US Highway 98 W	Santa Rosa Beach	FL	(850) 687-0063
C. C. Bailey Construction & Development, Inc.	connie bailey	p o box 1222	Defuniak Springs	FL	850-699-1024
Diversified Building Services, Inc.	Kimala Williams	13123 E Emerald Coast Pkwy	Panama City Beach	FL	850-428-9469
Florida Homes Direct LLC	Rita Bottoms	18235 Hwy 331 S	Freeport	FL	850-708-2040
SAMM Enterprises Inc.	Melanie Adams	PO Box 1258	Paxton	FL	850-834-4377
SVN, LLC	Shanae Allen	3906 US Hwy 98W 1923	Santa Rosa Beach	FL	(850) 240-5557
Titus Coin Laundry Equipment Company Inc	Robert Titus	6629 Elva Street	Milton	FL	850-626-2228
ZLIC Outdoors, LLC	Carrie Williams	PO Box 256	Defuniak Springs	FL	850-635-5202
Bravo Zulu Logistics, LLC	Everlyn Coleman	3906 US Highway 98 W	Santa Rosa Beach	FL	(850) 687-0063
Diversified Building Services, Inc.	Kimala Williams	13123 E Emerald Coast Pkwy	Panama City Beach	FL	850-428-9469
Panhandle Business & Trading Group USA, LLC	Joe Broadnax	500 Grand Blvd.	Miramar Beach	FL	850-714-2941
SVN, LLC	Shanae Allen	3906 US Hwy 98W 1923	Santa Rosa Beach	FL	(850) 240-5557
Brown Electric Inc.	Richard Brown	1394 County HWY 283 South	Santa Rosa Beach	FL	850-231-2519
21 Whiskey LLC	Robin O'Bannon	310 Vinings Way Blvd	Destin	FL	480-436-4865
All Around USA Limited Liability Company	Chelsey Simmons	1992 Lewis Turner Blvd	Fort Walton Beach	FL	(850) 633-9116
CAOWENS & ASSOCIATES INC	JACQUELINE OWENS	26 SITE C-6 RD	FREEPORT	FL	352-222-9147
DECLAREN	Maddie DELVA	6982 SW 38TH CT	MIRAMAR	FL	(561) 602-9395
Hall's Junk Removal, LLC	KENDRICK HALL	3805 Kings Lake Rd	Defuniak Springs	FL	850-419-8227
Honorable Solutions LLC	Robert Thompson	89 Windy Hill Dr	Defuniak Springs	FL	(703) 930-8000
J.A.R Consulting Solutions, LLC	Richard Ndesokia	132 Bayou Manor Rd	Santa Rosa Beach	FL	573-230-5325
L&J CONSTRUCTION COMPANY, INC	Landon Meadows	606	Statesville	NC	980-829-6142
Styled by yava	yava johnson	92 monroe street	defuniak springs	FL	850-520-6418
@850 TAXI, INC	Luis Razzetti	93 Dune Lakes Circle	Santa Rosa Beach	FL	(850) 829-4002
C&H and Son Construction	Harold Serrano	3357 County Highway 2A	Defuniak Springs	FL	850-585-1405
Emerald Coast Psychology LLC	Julian Salinas	10 S 4th Street	Defuniak Springs	FL	(850) 496-5690
Endeavor Ventures, LLC	Chris Uriarte	755 Grand Blvd., Suite B-105	Miramar Beach	FL	850-708-8258
Envision Concrete Solutions LLC	Johnny Zamora	235 Camellia Ct	Freeport	FL	615-977-0171
Gulf Comm-Plex, LLC	Bob Campbell	876 HILL STREET	Defuniak Springs	FL	850-892-3404
Julian A Salinas	Mandi Porterfield	PO Box 6512	Miramar Beach	FL	850-496-5690
McWhorter Vallee Design Inc.	Anthony Vallee	37 South 10th Street, Suite 2B	Defuniak Springs	FL	850-226-9311
RJH & Associates Inc.	Robert Hinojosa	12590 Emerald Coast Parkway	Miramar Beach	FL	850-608-6221
Tri Power Fitness	Maria Netherland	254 Windchime Way	Freeport	FL	(719) 250-1316
XLM Painting	Latonya Mltry	362 Kaylee Rd	Freeport	FL	(850) 461-0159
Zurwelle Whittaker, Inc	Eddie Martinez	900 West 49 Street	hiialeah	FL	305-534-4668

Section 3

SECTION 3 CONTRACT CLAUSE

All Section 3 covered contracts and subcontracts must include the following clause:

- I. 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 USC.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.
- II. The parties to this contract agree to comply with HUD's regulations in 24 CFR part 75, 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 75 regulations.
- III. 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; the name and location of the person(s) taking applications for each of the positions; and the anticipated date the work shall begin.
- IV. The contractor agrees to include this Section 3 Clause in every subcontract subject to compliance with regulations in 24 CFR part 75, and agrees to take appropriate actions, 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 75. 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 75.
- V. 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 75 require employment opportunities to be directed, were not filled to circumvent the contractor's obligations under 24 CFR part 75.
- VI. Noncompliance with HUD's regulations in 24 CFR part 75 may result in sanctions, termination of this contract for default, and debarment or suspension from future HUD assisted contracts.
- VII. 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 USC 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).

CONTRACTOR SECTION 3 PLAN

_____ (Contractor) agrees to implement affirmative steps to comply with the Section 3 requirements set forth at 24 CFR 75 directed at increasing the utilization of lower income residents and businesses within the City or County of **Paxton**.

- A. To implement Section 3 requirements by seeking the assistance of local officials in determining the exact boundaries of the applicable project area.
- B. To attempt to recruit from within the City/County the necessary number of lower income residents through local advertising media, signs placed at the proposed site for the project, and community organizations and public or private institutions operating within or serving the project area.
- C. To maintain a list of all lower income residents who have applied either on their own or on referral from any source, and to employ such persons, if otherwise eligible and if a vacancy exists.
- D. To insert this Section 3 plan in all bid documents, and to require all bidders to submit a Section 3 affirmative action plan including utilization goals and the specific steps planned to accomplish these goals.
- E. To formally contact unions, subcontractors and trade associations to secure their cooperation for this program.
- F. To maintain records, including copies of correspondence, memoranda, etc., which document that all the above affirmative action steps have been taken.
- G. To appoint or recruit an executive official of the company or agency as Equal Opportunity Officer to coordinate the implementation of this Section 3 plan.
- H. To list all permanent workforce for this project by job title.
- I. To list all projected workforce needs for this project by job classification and time frame for potential hire.

As officers and representatives of _____
(Name of Bidder)

We, the undersigned, have read and fully agree to the above and become a party to the full implementation of this program.

_____ Signature

_____ Title _____ Date

**Section 3 Participation Report**
(Construction Prime Contractor)

April, 2015

Local Government: City of PaxtonCDBG Contract #: 22CV-S16

This form must be completed by the prime contractor for any construction contract over \$100,000. Voluntary reporting for contracts under \$100,000 is encouraged.

Contractor's Name: _____

Contractor's DUNS Number: _____

Contract Amount: \$ _____

1. Does the business qualify as a "Section 3 Business Concern" because	
a) It is at least <u>51% owned</u> by Section 3 residents*, or	<input type="checkbox"/> Yes <input type="checkbox"/> No
b) At least 30% of its <u>permanent full-time employees</u> are	
i) Currently Section 3 residents*, or	<input type="checkbox"/> Yes <input type="checkbox"/> No
ii) Were Section 3 residents* within first three years of employment, or	<input type="checkbox"/> Yes <input type="checkbox"/> No
c) Will at least 25% (dollar value) of construction subcontracts (no material/supplies/equipment vendors unless they are also installing same) be to businesses meeting (a) or (b) above?	<input type="checkbox"/> Yes <input type="checkbox"/> No
If <i>yes</i> , list any Section 3 subcontractors and subcontract amount:	
Subcontractors	Subcontract Amount
	\$
	\$
	\$
2. Will the contractor be hiring any additional staff (office or field) for this project?	
<input type="checkbox"/> Yes <input type="checkbox"/> No	
• If <i>yes</i> , what types of jobs will be filled, and how many additional hires are estimated in each job type?	

***Section 3 resident means:**

- (1) A public housing resident; or
- (2) An individual who resides in the metropolitan area or nonmetropolitan county in which the section 3 covered assistance is expended, and who is:
 - (i) *A low-income person*, as this term is defined in section 3(b)(2) of the 1937 Act (42 U.S.C. 1437a(b)(2)). Section 3(b)(2) of the 1937 Act defines this term to mean families (including single persons) whose incomes do not exceed 80 per centum of the median income for the area, as determined by the Secretary, with adjustments for smaller and larger families, except that the Secretary may establish income ceilings higher or lower than 80 per centum of the median for the area on the basis of the Secretary's findings that such variations are necessary because of prevailing levels of construction costs or unusually high or low-income families; or
 - (ii) *A very low-income person*, as this term is defined in section 3(b)(2) of the 1937 Act (42 U.S.C. 1437a(b)(2)). Section 3(b)(2) of the 1937 Act (42 U.S.C. 1437a(b)(2)) defines this term to mean families (including single persons) whose incomes do not exceed 50 per centum of the median family income for the area, as determined by the Secretary with adjustments for smaller and larger families, except that the Secretary may establish income ceilings higher or lower than 50 per centum of the median for the area on the basis of the Secretary's findings that such variations are necessary because of unusually high or low family incomes.
- (3) A person seeking the training and employment preference provided by section 3 bears the responsibility of providing evidence (if requested) that the person is eligible for the preference.

Note: This contract is funded with federal funds, and this information is required for construction contracts over \$100,000 for reporting purposes. See Section 3 portion of *CDBG Supplemental Conditions for Construction Projects* for additional information.

**Documentation for Business Claiming Section 3 Status**

April, 2015

Name of Business: _____

DUNS Number of Business: _____

Address of Business: _____

Type of Business: ☐ Corporation ☐ Partnership
☐ Sole Proprietorship ☐ Joint Venture

Attached is the following documentation as evidence of our Section 3 status:
_____**For a business claiming status as a Section 3 resident-owned enterprise**

☐ Copy of resident lease ☐ Copy of receipt of public assistance
☐ Copy of evidence of participation in a public assistance program ☐ Other evidence

_____**For a business claiming Section 3 status by subcontracting 25 percent of the dollar amount awarded to qualified Section 3 businesses**☐ List of Section 3 subcontractor(s) and subcontract amount(s).
_____**For a business claiming Section 3 status based on at least 30 percent of their workforce currently qualifying as Section 3 residents or having been qualified as Section 3 eligible residents within three years of date of first employment with the business**

☐ List of all current full-time employees, and
☐ List of employees claiming Section 3 status and for each such employee:
☐ PHA/IHA Residential lease less than three years from date of employment, or
☐ Other evidence of Section 3 status less than three years from day of employment.

I certify that the above information is correct.

Signature_____
Type Name and Title_____
Date

Note: The local government shall maintain this form and supporting documentation in the CDBG project files for review during monitoring.

**CERTIFICATION OF BIDDER
REGARDING SECTION 3
AND SEGREGATED FACILITIES**

_____ Name of Proposed Contractor	Paxton CDBG 22CV-S16 _____ Project Name and Number
--------------------------------------	---

The undersigned hereby certifies that:

- a. Section 3 provisions are included in the Contract.
- b. A written Section 3 plan was prepared and submitted as part of the bid proceedings
- c. No segregated facilities will be maintained.

Signer Name _____

Title _____

_____ Signature	_____ Date
--------------------	---------------

Davis-Bacon

NOTICE TO ALL BIDDERS

THIS PROJECT IS SUBJECT TO
DAVIS-BACON WAGE RATES.
BOTH PRIME AND SUBCONTRACTORS WILL BE
REQUIRED TO SUBMIT WEEKLY PAYROLLS
VERIFYING THAT ALL EMPLOYEES ON THIS JOB
WERE PAID AT DAVIS-BACON WAGE RATES
OR HIGHER.

IT IS THE RESPONSIBILITY
OF THE PRIME CONTRACTOR
TO INSURE THAT ALL SUBCONTRACTORS
PROVIDE WEEKLY PAYROLLS AND
TO WITHHOLD PAYMENT FROM SUBCONTRACTORS
IF THEY ARE NOT PROVIDED ON A TIMELY BASIS.

IN ADDITION, PRIME CONTRACTORS ARE SUBJECT
TO "SECTION 3" PROVISIONS FOR HIRING LOCAL
LOW AND MODERATE INCOME PERSONS AND
AFFIRMATIVELY SOLICITING AND DOCUMENTING
THE SOLICITATION OF MINORITY AND WOMEN
OWNED BUSINESS SUBCONTRACTORS.

Superseded General Decision Number: FL20230231

State: Florida

Construction Type: Building

County: Walton County in Florida.

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

Note: Contracts subject to the Davis-Bacon Act are generally required to pay at least the applicable minimum wage rate required under Executive Order 14026 or Executive Order 13658. Please note that these Executive Orders apply to covered contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but do not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(1).

If the contract is entered into on or after January 30, 2022, or the contract is renewed or extended (e.g., an option is exercised) on or after January 30, 2022:	<ul style="list-style-type: none">. Executive Order 14026 generally applies to the contract.. The contractor must pay all covered workers at least \$17.20 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in 2024.
If the contract was awarded on or between January 1, 2015 and January 29, 2022, and the contract is not renewed or extended on or after January 30, 2022:	<ul style="list-style-type: none">. Executive Order 13658 generally applies to the contract.. The contractor must pay all covered workers at least \$12.90 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on that contract in 2024.

The applicable Executive Order minimum wage rate will be adjusted annually. If this contract is covered by one of the Executive Orders and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must still submit a conformance request.

Additional information on contractor requirements and worker protections under the Executive Orders is available at <http://www.dol.gov/whd/govcontracts>.

Modification Number Publication Date
0 01/05/2024

ELEV0124-002 01/01/2023

	Rates	Fringes
ELEVATOR MECHANIC.....	\$ 47.93	37.335+a+b

FOOTNOTE:

a. Employer contributions 8% of regular hourly rate to vacation pay credit for employee who has worked in business more than 5 years; Employer contributions 6% of regular hourly rate to vacation pay credit for employee who has worked in business less than 5 years.

b. Paid Holidays: New Year's Day; Memorial Day; Independence Day; Labor Day; Veterans Day; Thanksgiving Day; The Friday after Thanksgiving Day; and Christmas Day.

ENGI0487-021 07/01/2016

	Rates	Fringes
OPERATOR: Crane		
All Cranes 160 Ton		
Capacity and Over.....	\$ 33.05	9.20
All Cranes Over 15 Ton		
Capacity.....	\$ 32.05	9.20
OPERATOR: Forklift.....	\$ 23.25	9.20
OPERATOR: Mechanic.....	\$ 32.05	9.20
OPERATOR: Oiler.....	\$ 23.50	9.20

IRON0402-001 10/01/2023

	Rates	Fringes
IRONWORKER, ORNAMENTAL.....	\$ 27.75	15.27

PLUM0234-012 09/21/2023

	Rates	Fringes
PIPEFITTER (Includes HVAC Unit Installation).....	\$ 35.09	16.50

SUFL2014-040 08/16/2016

	Rates	Fringes
CARPENTER, Includes Form Work....	\$ 16.38 **	0.00
CEMENT MASON/CONCRETE FINISHER...	\$ 14.61 **	0.00
ELECTRICIAN.....	\$ 17.39	2.57
INSULATOR: Mechanical (Duct, Pipe and Mechanical System Insulation).....	\$ 20.78	10.89

IRONWORKER, REINFORCING.....	\$ 22.81	11.58
IRONWORKER, STRUCTURAL.....	\$ 23.79	8.74
LABORER: Common or General, Including Cement Mason Tending...	\$ 11.38 **	0.62
LABORER: Pipelayer.....	\$ 13.56 **	1.34
OPERATOR: Backhoe/Excavator/Trackhoe.....	\$ 22.07	8.80
OPERATOR: Bulldozer.....	\$ 15.40 **	1.90
OPERATOR: Grader/Blade.....	\$ 18.97	0.00
OPERATOR: Loader.....	\$ 14.83 **	1.84
OPERATOR: Roller.....	\$ 14.43 **	4.78
PAINTER: Brush, Roller and Spray.....	\$ 14.54 **	2.01
PLUMBER.....	\$ 19.40	0.36
ROOFER.....	\$ 16.99 **	0.00
SHEET METAL WORKER, Includes HVAC Duct Installation.....	\$ 20.05	0.00
TILE SETTER.....	\$ 18.01	0.00
TRUCK DRIVER: Dump Truck.....	\$ 13.22 **	2.12
TRUCK DRIVER: Lowboy Truck.....	\$ 14.24 **	0.00

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

=====
 ** Workers in this classification may be entitled to a higher minimum wage under Executive Order 14026 (\$17.20) or 13658 (\$12.90). Please see the Note at the top of the wage determination for more information. Please also note that the minimum wage requirements of Executive Order 14026 are not currently being enforced as to any contract or subcontract to which the states of Texas, Louisiana, or Mississippi, including their agencies, are a party.

Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including

preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at <https://www.dol.gov/agencies/whd/government-contracts>.

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) (iii)).

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 National Office because National Office has 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.

=====

END OF GENERAL DECISION"

Superseded General Decision Number: FL20230151

State: Florida

Construction Type: Highway

County: Walton County in Florida.

HIGHWAY CONSTRUCTION PROJECTS

Note: Contracts subject to the Davis-Bacon Act are generally required to pay at least the applicable minimum wage rate required under Executive Order 14026 or Executive Order 13658. Please note that these Executive Orders apply to covered contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but do not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(1).

If the contract is entered into on or after January 30, 2022, or the contract is renewed or extended (e.g., an option is exercised) on or after January 30, 2022:	<ul style="list-style-type: none">. Executive Order 14026 generally applies to the contract.. The contractor must pay all covered workers at least \$17.20 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in 2024.
If the contract was awarded on or between January 1, 2015 and January 29, 2022, and the contract is not renewed or extended on or after January 30, 2022:	<ul style="list-style-type: none">. Executive Order 13658 generally applies to the contract.. The contractor must pay all covered workers at least \$12.90 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on that contract in 2024.

The applicable Executive Order minimum wage rate will be adjusted annually. If this contract is covered by one of the Executive Orders and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must still submit a conformance request.

Additional information on contractor requirements and worker protections under the Executive Orders is available at <http://www.dol.gov/whd/govcontracts>.

Modification Number	Publication Date
0	01/05/2024

ELEC0349-002 09/01/2023

	Rates	Fringes
ELECTRICIAN.....	\$ 39.81	14.62

SUFL2013-012 08/19/2013

	Rates	Fringes
CARPENTER, Includes Form Work....	\$ 12.77 **	0.00
CEMENT MASON/CONCRETE FINISHER...	\$ 12.40 **	0.00
HIGHWAY/PARKING LOT STRIPING: Operator (Striping Machine).....	\$ 12.89 **	0.00
IRONWORKER, REINFORCING.....	\$ 13.86 **	0.00
LABORER (Traffic Control Specialist).....	\$ 11.40 **	0.00
LABORER: Asphalt, Includes Raker, Shoveler, Spreader and Distributor.....	\$ 10.79 **	0.00
LABORER: Common or General.....	\$ 9.75 **	0.00
LABORER: Flagger.....	\$ 9.91 **	0.00
LABORER: Grade Checker.....	\$ 11.16 **	0.00
LABORER: Landscape & Irrigation.....	\$ 9.13 **	0.00
LABORER: Pipelayer.....	\$ 11.66 **	0.00
OPERATOR: Backhoe/Excavator/Trackhoe.....	\$ 12.34 **	0.00
OPERATOR: Bobcat/Skid Steer/Skid Loader.....	\$ 11.60 **	0.00
OPERATOR: Broom/Sweeper.....	\$ 10.90 **	0.00
OPERATOR: Bulldozer.....	\$ 12.92 **	0.00
OPERATOR: Crane.....	\$ 17.83	0.00
OPERATOR: Distributor.....	\$ 12.71 **	0.00
OPERATOR: Forklift.....	\$ 11.14 **	0.00
OPERATOR: Grader/Blade.....	\$ 13.88 **	0.00
OPERATOR: Loader.....	\$ 11.66 **	0.00
OPERATOR: Mechanic.....	\$ 12.37 **	0.00

OPERATOR: Milling Machine.....	\$ 13.10 **	0.00
OPERATOR: Oiler.....	\$ 11.38 **	0.00
OPERATOR: Paver (Asphalt, Aggregate, and Concrete).....	\$ 13.96 **	0.00
OPERATOR: Post Driver (Guardrail/Fences).....	\$ 16.00 **	0.00
OPERATOR: Roller.....	\$ 10.44 **	0.00
OPERATOR: Screed.....	\$ 13.49 **	0.00
OPERATOR: Tractor.....	\$ 11.00 **	0.00
OPERATOR: Trencher.....	\$ 16.00 **	0.00
TRUCK DRIVER: Dump Truck.....	\$ 10.97 **	0.00
TRUCK DRIVER: Lowboy Truck.....	\$ 14.13 **	0.00
TRUCK DRIVER: Water Truck.....	\$ 12.04 **	0.00

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

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** Workers in this classification may be entitled to a higher minimum wage under Executive Order 14026 (\$17.20) or 13658 (\$12.90). Please see the Note at the top of the wage determination for more information. Please also note that the minimum wage requirements of Executive Order 14026 are not currently being enforced as to any contract or subcontract to which the states of Texas, Louisiana, or Mississippi, including their agencies, are a party.

Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at <https://www.dol.gov/agencies/whd/government-contracts>.

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) (iii)).

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
National Office because National Office has 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:

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

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

=====
END OF GENERAL DECISION"

**SECTION 008000
PAYMENT BOND**

KNOW ALL PERSONS BY THESE PRESENTS: that

(Name of Contractor)

(Address of Contractor)

a _____, hereinafter called PRINCIPAL, and
(Corporation, Partnership or Individual)

(Name of Surety)

hereinafter called SURETY, are held and firmly bound unto:

(Name of Owner)

(Address of Owner)

hereinafter called OWNER and unto all persons, firms and corporations who or which may furnish labor, or who furnish materials to perform as described under the contract and to their successors and assigns in the total aggregate penal sum of _____

_____ Dollars (\$_____) in lawful money of the United States, for the payment of which sum well and truly made, we bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION is such that whereas, the PRINCIPAL entered into a certain contract with the OWNER, dated the _____ day of _____, 20____, a copy of which is hereto attached and made a part hereof for the construction of:

Paxton Senior Center Facility

NOW, THEREFORE, if the PRINCIPAL shall promptly make payment to all persons, firms, and corporations furnishing materials for or performing labor in the prosecution of the WORK provided for in such contract, and any authorized extensions or modifications thereof, including all amounts due for materials, lubricants,

oil, gasoline, coal and coke, repairs on machinery, equipment and tools, consumed or used in connection with the construction of such WORK, and for all labor cost incurred in such WORK including that by a SUBCONTRACTOR, and to any mechanic or material man lienholder whether it acquires its lien by operation of State or Federal law; then this obligation shall be void, otherwise to remain in full force and effect.

PROVIDED, that beneficiaries or claimants hereunder shall be limited to the SUBCONTRACTORS, and persons, firms, and corporations having a direct contract with the PRINCIPAL or its SUBCONTRACTORS.

PROVIDED, FURTHER, that the said SURETY for value received hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the contract or to the WORK to be performed thereunder or the SPECIFICATIONS accompanying the same shall in any way affect its obligation on this BOND, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of this contract or to the WORK or to the SPECIFICATIONS.

PROVIDED, FURTHER, that no suit or action shall be commenced hereunder by any claimant: (a) Unless claimant, other than one having a direct contract with the PRINCIPAL, shall have given written notice to any two of the following: The PRINCIPAL, the OWNER, or the SURETY above named within ninety (90) days after such claimant did or performed the last of the work or labor, or furnished the last of the materials for which said claim is made, stating with substantial accuracy the amount claimed and the name of the party to whom the materials were furnished, or for whom the work or labor was done or performed. Such notice shall be served by mailing the same by registered mail or certified mail, postage prepaid, in an envelope addressed to the PRINCIPAL, OWNER, or SURETY, at any place where an office is regularly maintained for the transaction of business, or served in any manner in which legal process may be served in the state in which the aforesaid project is located, save that such service need not be made by a public officer. (b) After the expiration of one (1) year following the date of which PRINCIPAL ceased work on said CONTRACT, it being understood, however, that if any limitation embodied in the BOND is prohibited by any law controlling the construction hereof, such limitation shall be deemed to be amended so as to be equal to the minimum period of limitation permitted by such law.

PROVIDED, FURTHER, that it is expressly agreed that this BOND shall be deemed amended automatically and immediately, without formal and separate amendments hereto, upon amendment to the Contract not increasing the contract price more than 20 percent, so as to bind the PRINCIPAL and the SURETY to the full and faithful performance of the Contract as so amended.

The term "Amendment", wherever used in this BOND and whether referring to this BOND, or the contract Documents shall include any alteration, addition, extension or modification of any character whatsoever.

PROVIDED, FURTHER, that no final settlement between the OWNER and the CONTRACTOR shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

IN WITNESS WHEREOF, this instrument is executed in three (3) counterparts, each of which shall be deemed an original, this the _____ day of _____, 20____.

ATTEST:

(Principal) Secretary

(SEAL)

Principal

By: _____

Witness as to Principal

(Address)

(Address)

ATTEST:

Witness as to Surety

Surety

By: _____

Attorney-in-Fact

(Address)

(Address)

NOTE: Date of BOND must not be prior to date of Contract.

If CONTRACTOR is partnership, all partners should execute BOND.

IMPORTANT: Surety companies executing bonds must appear on the Treasury Department's most current list (Circular 570 as amended), be authorized to transact business in the State of Florida, must have a current rating of A or better with A.M. Best, and the form of the bonds and the insurance company issuing the bonds must meet the approval of the attorney for the Owner.

--- E N D ---

**SECTION 009000
NOTICE TO PROCEED**

TO		DATE	
		PROJECT	
		Paxton Senior Center Facility	

You are hereby notified to commence WORK in accordance with the Agreement dated _____, on or before _____, and you are to complete the WORK within **TBD** consecutive calendar days thereafter. The date of completion of all WORK is therefore _____.

Owner: _____

By: _____

Title: _____

ACCEPTANCE OF NOTICE

Receipt of the above NOTICE TO PROCEED is hereby acknowledged by,
_____ this the _____ day of _____, **20**_____.

Contractor: _____

By: _____

Title: _____

--- E N D ---

**SECTION 010000
GENERAL CONDITIONS**

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8	Substitutions	33	Project Completion/Final Acceptance
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11	Protection of Work, Property, Persons	36	Equal Opportunity Requirements
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24	Indemnification	49	Severability
25	Separate Contracts		

1. DEFINITIONS

- 1.1 Wherever used in the bid documents, the following terms shall have the meanings indicated and shall be applicable to both the singular and plural thereof;
- 1.2 Addenda - Written or graphic instruments issued prior to the execution of the Agreement which modify or interpret the bid documents, drawings and specifications, by additions, deletions, clarifications or corrections.
- 1.3 Bid - The offer or proposal of the bidder submitted on the prescribed form setting forth the prices for the work to be performed.
- 1.4 Bidder - Any person, firm or corporation submitting a bid for the work.
- 1.5 Bid Documents - The contract, including advertisement for bids, information for bidders, bid, bid bond, agreement, payment bond, performance bond, notice of award, notice to proceed, change order, drawings, specifications, addenda and Division 0 and Division 1 requirements.
- 1.6 Bonds - Bid, performance and payment bonds and other instruments of surety, furnished by the contractor and the contractor's surety in accordance with the bid documents.
- 1.7 Change Order - A written order to the contractor authorizing an addition, deletion or revision in the work within the general scope of the bid documents, or authorizing an adjustment in the contract price or contract time.
- 1.8 Contract Price - The total monies payable to the contractor under the terms and conditions of the bid documents.
- 1.9 Contract Time - The number of calendar days stated in the bid documents for the completion of the work.
- 1.10 Contractor - The person, firm or corporation with whom the owner has executed the agreement.
- 1.11 Drawings - The parts of the bid documents which show the characteristics and scope of the work to be performed and which have been prepared or approved by the engineer.
- 1.12 Engineer - The person, firm or corporation named as such in the bid documents.
- 1.13 Field Order - A written order effecting a change in the work not involving an adjustment in the contract price or an extension of the contract time, issued by the engineer to the contractor during construction.
- 1.14 Notice of Award - The written notice of the acceptance of the bid from the owner to the successful bidder
- 1.15 Notice to Proceed - Written communication issued by the owner to the contractor authorizing him/her to proceed with the work and establishing the date for commencement of the work.
- 1.16 Owner - A public or quasi-public body or authority, corporation, association, partnership or an individual for whom the work is to be performed.

- 1.17 Project - The undertaking to be performed as provided in the contract documents.
- 1.18 Project Representative - The authorized representative of the owner who is assigned to the project site or any part thereof.
- 1.19 Shop Drawings - All drawings, diagrams, illustrations, brochures, schedules and other data which are prepared by the contractor, a subcontractor, manufacturer, supplier or distributor, which illustrate how specific portions of the work shall be fabricated or installed.
- 1.20 Specifications - A part of the bid documents consisting of written descriptions of a technical nature of materials, equipment, construction systems, standards and workmanship.
- 1.21 Subcontractor - An individual, firm or corporation having a direct contract with the contractor or with any other subcontractor for the performance of a part of the work at the site.
- 1.22 Substantial Completion - That date certified by the Engineer when the construction of the project or a specified part thereof is sufficiently completed, in accordance with the bid documents, so that the project or specified part can be utilized for the purposes for which it is intended.
- 1.23 Supplemental General Conditions - modifications and supplements to the General Conditions required by the owner.
- 1.24 Supplier - Any person or organization who supplies materials or equipment for the work, including that fabricated to a special design, but who does not perform labor at the site.
- 1.25 Work - All labor necessary to produce the construction required by the bid documents and all materials and equipment incorporated or to be incorporated in the project.
- 1.26 Written Notice - Any notice to any party of the Agreement relative to any part of this Agreement in writing and considered delivered and the service thereof completed, when posted by certified or registered mail to the said party at their last given address, or delivered in person to said party or their authorized representative for the work.

2. ADDITIONAL INSTRUCTIONS AND DETAIL DRAWINGS

- 2.1 The Contractor may be furnished additional instructions and detail drawings, by the Engineer, as necessary to carry out the work required by the bid documents.
- 2.2 The additional drawings and instructions thus supplied will become a part of the bid documents. The Contractor shall carry out the work in accordance with the additional detail drawings and instructions.

3. SCHEDULES, REPORTS AND RECORDS

- 3.1 The contractor shall submit to the owner such schedule of quantities and costs, progress schedules, payrolls, reports, estimates, records and other data where applicable as are required by the bid documents for the work to be performed.
- 3.2 Prior to the first partial payment estimate, the contractor shall submit construction progress schedules showing the order in which the contractor proposes to carry on the work,

including dates at which the various parts of the work will be started, estimated date of completion of each part and, as applicable:

- 3.2.1 The dates at which special detail drawings will be required; and
- 3.2.2 Respective dates for submission of shop drawings, the beginning of manufacture, the testing and the installation of materials, supplies and equipment.
- 3.3 The contractor shall also submit a schedule of payments that the contractor anticipates will be earned during the course of the work.

4. DRAWINGS AND SPECIFICATIONS

- 4.1 The intent of the drawings and specifications is that the contractor shall furnish all labor, materials, tools, equipment and transportation necessary for the proper execution of the work in accordance with the bid documents and all incidental work necessary to complete the project in an acceptable manner, ready for use, occupancy or operation by the owner.
- 4.2 In case of conflict between the drawings and specifications, the specifications shall govern. Figure dimensions on drawings shall govern over general drawings.
- 4.3 Any discrepancies found between the drawings and specifications and site conditions or any inconsistencies or ambiguities in the drawings or specifications shall be immediately reported to the Engineer, in writing, who shall promptly correct such inconsistencies or ambiguities, in writing. Work done by the Contractor after discovery of such discrepancies, inconsistencies or ambiguities shall be done at the Contractor's risk.

5. SHOP DRAWINGS

- 5.1 The contractor shall provide shop drawings as may be necessary for the prosecution of the work as required by the bid documents. The Engineer shall promptly review all shop drawings. The Engineer's approval of any shop drawing shall not release the contractor from responsibility for deviations from the bid documents. The approval of any shop drawing which substantially deviates from the requirement of the bid documents shall be evidenced by a change order.
- 5.2 The Contractor shall be required to submit five (5) copies of pertinent information, shop drawings and literature on all materials and items of equipment to be installed in conjunction with those specifications. Before ordering or installing any of the equipment or materials, the Contractor shall have one copy of submittal data on each item approved by the Engineer in writing and returned to him.
- 5.3 When submitted for the Engineer's review, shop drawings shall bear the Contractor's certification that he has reviewed, checked and approved the shop drawings and that they are in conformance with the requirements of the bid documents.
- 5.4 Portions of the work requiring a shop drawing or sample submission shall not begin until the shop drawing or submission has been approved by the Engineer. A copy of each approved shop drawing and each approved sample shall be kept in good order by the contractor at the site and shall be available to the Engineer.
- 5.5 OPERATION AND MAINTENANCE MANUALS

The Contractor shall furnish the Engineer five (5) complete, bound and indexed sets of literature giving the following information:

1. Clear and concise instructions for operation, adjustment, and lubrication and other maintenance of the equipment. These instructions shall include a complete lubrication chart.
2. A list of all parts of the equipment, with catalog numbers and other data necessary for ordering replacement parts.
3. Such instructions and parts lists shall have been prepared specifically for the model and type of equipment furnished and shall not refer to other models and types of similar equipment.

5.6 RECORD DRAWINGS

A complete set of record drawings shall be kept by the Contractor. These records shall show all items of construction and equipment which differ in size, shape or location from those shown on the contract drawings. All new fitting installations shall be referenced to two (2) permanent points. These records shall be kept up-to-date daily. They may be kept on a marked-up set of contract drawings for this purpose, or in any other form which is approved prior to the beginning of the work. These record drawings shall be turned over to the Engineer at final inspection of the project, or upon request for the Engineer's review.

6. MATERIALS, SERVICES AND FACILITIES

- 6.1 It is understood that, except as otherwise specifically stated in the bid documents, the Contractor shall provide and pay for all materials, labor, tools, equipment, water, light, power, transportation, supervision, temporary construction of any nature and all other services and facilities of any nature whatsoever necessary to execute, complete and deliver the work within the specified time.
- 6.2 Materials and equipment shall be so stored as to insure the preservation of their quality and fitness for the work. Stored materials and equipment to be incorporated in the work shall be located so as to facilitate prompt inspection.
- 6.3 Manufactured articles, materials and equipment shall be applied, installed, connected, erected, used, cleaned and conditioned as directed by the manufacturer.
- 6.4 Materials, supplies and equipment shall be in accordance with samples submitted by the Contractor and approved by the Engineer.
- 6.5 Materials, supplies or equipment to be incorporated into the work shall not be purchased by the Contractor or the Subcontractor subject to a chattel mortgage or under a conditional sale contract or other agreement by which an interest is retained by the seller.

7. INSPECTION AND TESTING

- 7.1 All materials and equipment used in the construction of the project shall be subject to adequate inspection and testing in accordance with generally accepted standards, as required and defined in the bid documents.
- 7.2 The owner shall provide all inspection and testing services not required by the bid documents.

- 7.3 The Contractor shall provide, at the Contractor's expense, the testing and inspection services required by the bid documents.
- 7.4 If the bid documents, laws, ordinances, rules, regulations or orders of any public authority having jurisdiction require any work to specifically be inspected, tested or approved by someone other than the Contractor, the Contractor will give the Engineer timely notice of readiness. The Contractor will then furnish the Engineer the required certificates of inspection, testing or approval.
- 7.5 Inspections, tests or approvals by the Engineer or others shall not relieve the Contractor from the obligations to perform the work in accordance with the requirements of the bid documents.
- 7.6 The Engineer and the Engineer's representatives will at all times have access to the work. In addition, authorized representatives and agents of any participating Federal or State agency shall be permitted to inspect all work, material, payrolls, records of personnel, invoices of materials and other relevant data and records. The Contractor will provide proper facilities for such access and observation of the work and also for any inspection or testing thereof.
- 7.7 If any work is covered contrary to the written instructions of the Engineer it must, if requested by the Engineer, be uncovered for the Engineer's observation and replaced at the Contractor's expense.
- 7.8 If the Engineer considers it necessary or advisable that covered work be inspected or tested by others, the Contractor, at the Engineer's request, will uncover, expose or otherwise make available for observation, inspection or testing as the Engineer may require, that portion of the work in question, furnishing all necessary labor, materials, tools and equipment.
- If it is found that such work is defective, the Contractor will bear all the expenses of such uncovering, exposure, observation, inspection and testing and of satisfactory reconstruction, if however, such work is not found to be defective, the Contractor will be allowed an increase in the contract price or an extension of the contract time, or both, directly attributable to such uncovering, exposure, observation, inspection, testing and reconstruction and an appropriate change order shall be issued.
- 7.9 Where Engineering inspections are required by the Bid Documents, the Contractor shall verify that the items are ready to be inspected and/or tested prior to notifying the Engineer. Following notification, the engineer will then make the necessary trip to witness the test or inspection.
- If the inspection is not ready to be made or the required testing fails to meet specifications, then the Contractor shall pay all costs associated with that inspection trip.
- These costs shall include time spent by the Engineer and/or inspector and the direct expenses (i.e. Mileage, etc.) associated with the failing inspection. Only the test in which the system passes will be included in the general inspection of the job for the Owner.
- 7.10 The Contractor will furnish and pay for the services of a qualified independent testing laboratory approved by the Engineer to provide project quality control if required. It is the Contractor's responsibility to notify the Engineer and testing laboratory as items become ready for tests. Retesting of all testing failures shall be at the Contractor's expense. Testing

laboratory shall work under direction of the Contractor. Copies of reports of all tests shall be sent to Contractor, Engineer and Owner.

8. SUBSTITUTIONS

- 8.1 Whenever a material, article or piece of equipment is identified on the drawings or specifications by reference to brand name or catalogue numbers, it shall be understood that this is referenced for the purpose of defining the performance or other salient requirements and that other products of equivalent capacities, quality and function shall be considered.

The Contractor may request the substitution of a material, article or piece of equipment of equivalent substance and function for those referred to in the bid documents by reference to brand name or catalogue number, and if, in the opinion of the Engineer, such material, article or piece of equipment is of equivalent substance and function to that specified, the Engineer may approve its substitution and use by the Contractor. Any cost differential shall be deductible from the contract price and the bid documents shall be appropriately modified by change order. The Contractor warrants that if substitutes are approved, no major changes in the function or general design of the project will result. Incidental changes or extra component parts required to accommodate the substitute will be made by the Contractor without a change in the contract price or contract time.

- 8.2 If a bidder bases their bid on "or equal" products and if the Owner and/or its consulting engineer determine that one or more of the bidder's proposed "or equal" projects fails to meet the specifications, the bidder may be required to provide products conforming with the specifications at no additional cost to the Owner.
- 8.3 Contractor shall reimburse Owner for the charges of Engineer and Engineer's consultants for evaluating each proposed substitute submitted after the effective date of the Agreement and all costs resulting from any delays in the work while the substitute was undergoing review.

9. PATENTS

- 9.1 The Contractor shall pay all applicable royalties and license fees and shall defend all suits or claims for infringement of any patent rights and save the owner harmless from loss on account thereof, except that the owner shall be responsible for any such loss when a particular process, design or product of a particular manufacturer or manufacturers is specified. However, if the Contractor has reason to believe that the design, process or product specified is an infringement of a patent, the Contractor shall be responsible for such loss unless the Contractor promptly gives such information to the Engineer.

10. SURVEYS, PERMITS, REGULATIONS

- 10.1 The owner shall furnish all boundary surveys and establish all base lines for locating the principal component parts of the work together with a suitable number of bench marks adjacent to the work as shown in the bid documents. From the information provided by the owner, unless otherwise specified in the bid documents, the Contractor shall develop and make all detail surveys needed for construction such as slope stakes, batter boards, stakes for pipe locations and other working points, lines, elevations and cut sheets.

- 10.2 The Contractor shall carefully preserve bench marks, reference points and stakes and, in case of willful or careless destruction, shall be charged with the resulting expense and shall be responsible for any mistake that may be caused by their unnecessary loss or disturbance.
- 10.3 Surveyor Procedures: Verify layout information shown on drawings, in relation to property survey and existing benchmarks, before proceeding with layout of actual work. Record deviations from required lines and levels, and advise Engineer promptly upon detection of deviations exceeding indicated or recognized tolerances. Record deviations which are accepted (not corrected) on record drawings.
- 10.4 Should the Contractor in the course of the work find that the points, grades and levels which are shown upon the Drawing are not conformable to the physical conditions of the locality at the proposed work or structure, he shall immediately inform the Engineer of the discrepancy between actual physical conditions of the locality of the proposed work, and the points, grades and levels which are shown on the drawings. No claim shall be made by the Contractor against the Owner for compensation or damage by reasons of failure of the Engineer to represent upon said drawings, points, grades and levels conformable to the actual physical conditions of the locality of the proposed work.
- 10.5 Permits and licenses of a temporary nature necessary for the prosecution of the work shall be secured and paid for by the Contractor unless otherwise stated in the Supplemental General Conditions. Permits, licenses and easements for permanent structures or permanent changes in existing facilities shall be secured and paid for by the owner, unless otherwise specified. The Contractor shall give all notices and comply with all laws, ordinances, rules and regulations bearing on the conduct of the work as drawn and specified. If the Contractor observes that the bid documents are at variance therewith, the Contractor shall promptly notify the Engineer, in writing, and any necessary changes shall be adjusted as provided in Section 13, CHANGES IN THE WORK.

11. PROTECTION OF WORK, PROPERTY AND PERSONS

- 11.1 The Contractor will be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the work. The Contractor will take all necessary precautions for the safety of and will provide the necessary protection to prevent damage, injury or loss to all employees on the work and other persons who may be affected thereby, all the work and all materials or equipment to be incorporated therein, whether in storage on or off the site and other property at the site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures and utilities not designated for removal, relocation or replacement in the course of construction.
- 11.2 The Contractor will comply with all applicable laws, ordinances, rules, regulations and orders of any public body having jurisdiction. The Contractor will erect and maintain, as required by the conditions and progress of the work, all necessary safeguards for safety and protection. The Contractor will notify owners of adjacent utilities when prosecution of the work may affect them.

The Contractor will remedy all damage, injury or loss to any property caused, directly or indirectly, in whole or part, by the Contractor, any Subcontractor or anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, except damage or loss attributable to the fault of the bid documents or to the acts or omissions of the owner, of the Engineer or anyone employed by either of them or anyone for whose acts either of them may be liable and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of the Contractor.

- 11.3 In emergencies affecting the safety of persons or the work or property at the site or adjacent thereto, the Contractor, without special instructions or authorization from the Engineer or owner, shall act to prevent threatened damage, injury or loss. The Contractor will give the Engineer prompt written notice of any significant changes in the work or deviations from the bid documents caused thereby and a change order shall thereupon be issued covering the changes and deviations involved.
- 11.4 In order to protect the lives and health of its employees under the Contract, the Contractor shall comply with all pertinent provisions of the Occupational Safety and Health Administration (OSHA), any State Safety and Health agency requirements.
- 11.5 The Contractor alone shall be responsible for the safety, efficiency, and adequacy of its plant, appliances, and methods, and for any damage which may result from their failure or their improper construction, maintenance or operation.

12. SUPERVISION BY CONTRACTOR

- 12.1 The Contractor will supervise and direct the work. He will be solely responsible for the means, methods, techniques, sequences and procedures of construction. The Contractor will employ and maintain on the work a qualified supervisor or superintendent who shall have been designated, in writing, by the Contractor as the Contractor's representative at the site. The supervisor shall have full authority to act on behalf of the Contractor and all communications given to the supervisor shall be as binding as if given to the Contractor. The supervisor shall be present on the site at all times as required to perform adequate supervision and coordination of the work.

13. CHANGES IN THE WORK

- 13.1 The owner may at any time, as the need arises, order changes within the scope of the work without invalidating the Agreement. If such changes increase or decrease the amount due under the bid documents, or in the time required for performance of the work, an equitable adjustment shall be authorized by change order.
- 13.2 The Engineer also may, at any time, by issuing a field order, make changes in the details of the work. The Contractor shall proceed with the performance of any changes in the work so ordered by the Engineer unless the Contractor believes that such field ORDER entitles the Contractor to a change in contract price or time, or both, in which event the Contractor shall give the Engineer written notice thereof within seven (7) days after the receipt of the ordered change. Thereafter, the Contractor shall document the basis for the change in contract price or time within thirty (30) days. The Contractor shall not execute such changes pending the receipt of an executed change order or further instruction from the owner.

14. CHANGES IN CONTRACT PRICE

- 14.1 The contract price may be changed only by a change order. All changes affecting the project's construction cost or modifications of the terms or conditions of the contract must be authorized by means of a written contract change order which is mutually agreed to by the Owner and Contractor.

The contract change order will include extra work for which quantities have been altered from those shown in the bidding schedule, as well as decreases or increases in the quantities of installed units which are different than those shown in the bidding schedule

because of final measurements. All changes must be recorded on a contract change order before they can be included in partial payment estimate. The value of any work covered by a change order or of any claim for increase or decrease in the contract price shall be determined by one or more of the following methods in the order of precedence listed below:

- A. Unit prices previously approved.
- B. An agreed lump sum.

14.2 When the Contract sum is in whole or in part based on unit prices, the Owner reserves the right to increase or decrease a unit price quantity as may be deemed reasonable or necessary in order to complete the work contemplated by this Contract.

14.3 Any claim for an increase or decrease in the contract price shall be based on written notice delivered by the party making the claim to the other party and to Engineer promptly (but in no event later than fourteen days) after the occurrence of the event giving rise to the claim and stating the general nature of the claim. Notice of the amount of the claim with supporting data shall be delivered within thirty days after such occurrence.

15. TIME FOR COMPLETION AND LIQUIDATED DAMAGES

15.1 The date of beginning and the time for completion of the work are essential conditions of the bid documents and the work embraced shall be commenced on a date specified in the Notice to Proceed.

15.2 The Contractor will proceed with the work at such rate of progress to insure full completion within the contract time. It is expressly understood and agreed, by and between the Contractor and the Owner, that the contract time for the completion of the work described herein is a reasonable time, taking into consideration the average climatic and economic conditions and other factors prevailing in the locality of the work.

15.3 If the Contractor shall fail to complete the work within the contract time, or extension of time granted by the owner, then the Contractor will pay to the owner the amount for liquidated damages as specified in the bid for each calendar day that the Contractor shall be in default after the time stipulated in the bid documents.

15.4 The Contractor shall not be charged with liquidated damages or any excess cost when the delay in completion of the work is due to the following and the Contractor has promptly given written notice of such delay to the owner or Engineer.

15.4.1 To any preference, priority or allocation order duly issued by the owner.

15.4.2 To unforeseeable causes beyond the control and without the fault or negligence of the Contractor, including but not restricted to, acts of God, or of the public enemy, acts of the owner, acts of another Contractor in the performance of a contract with the owner, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes and abnormal and unforeseeable weather; and

15.4.3 To any delays of Subcontractor's occasioned by any of the causes specified in paragraphs 15.4.1 and 15.4.2 of this article.

15.4.4 Schedule of Work/Contract Time Extension

- 15.4.4.1 All work under this contract shall be arranged and be carried out in such a manner as to complete the work on or before the contract completion date. The Contractor must notify the owner at the time of bidding if the chronology of the work as shown or the subdivision of work will affect warranties or guarantees in any way. No such claim shall be allowed once the work has begun.
- 15.4.4.2 Should the Contractor(s) work, through no fault of the Engineer, the Owner, or other Contractors, fail to progress according to the schedule, and if, in the opinion of the Engineer, the work cannot be completed within the time stated in the contract, or if deemed necessary to protect this or adjoining work from damage, the Contractor shall work such additional time over the established hours of work, including Holidays as required to meet the schedule time without additional expense to the Owner.
- 15.4.4.3 The Contractor is required to furnish adequate manpower at the project to complete the work within the time allowed by the progress schedule. Should payment of premium time, bonuses, or the like be necessary to attract sufficient manpower for the project, such extra labor costs shall be borne by the Contractor without additional compensation from the Owner.
- 15.4.4.4 When so ordered, in writing, by the Project Engineer, whether to advance the contract completion date, or for any other reason for the Owner's benefit, the Contractor shall work overtime and or additional shifts and shall be reimbursed by the Owner for his actual net premium costs of such overtime and or shifts so ordered and so worked, including insurance and taxes applicable thereto, (without other overhead or profit). Such costs and expenses shall be subject to audit by the Owner.
- 15.4.4.5 Inclement weather will be reason for granting extension in contract time if the number of delays of rain (trace not included) for the period of the Contract is in excess of the average for that period for the past five (5) years. The increase in time shall be one day for each day of inclement weather over the average.
- 15.4.4.6 The date of substantial completion shall be that date when the Owner can receive use and benefit of the work completed. The contract time will stop at the date of substantial completion. However, this does not relieve the Contractor of finishing the project within a timely manner.
- If after 30 calendar days from the date of substantial completion, the Contractor is not completely finished with the project, the Owner reserves the right to re-enact the liquidated damage clause for that time over the 30-day period after substantial completion date. Liquidated damages will be applied until all work is fully completed including any outstanding punch list items.

16. CORRECTION OF WORK

- 16.1 The Contractor shall promptly remove from the premises all work rejected by the Engineer for failure to comply with the bid documents, whether incorporated in the construction or not, and the Contractor shall promptly replace and re-execute the work in accordance with the bid documents and without expense to the owner and shall bear the expense of making good all work of other Contractor's destroyed or damaged by such removal or replacement.
- 16.2 All removal and replacement work shall be done at the Contractor's expense. If the Contractor does not take action to remove such rejected work within ten (10) days after receipt of written notice, the owner may remove such work and store the materials at the expense of the Contractor.
- 16.3 If within one year after the date of Substantial Completion or such longer period of time as may be prescribed by Laws or Regulations or by the terms of any special guarantee required by the bid documents or by any specific provision of the bid documents, any work is found to be defective, Contractor shall promptly, without cost to Owner and in accordance with Owner's written instructions: (i) correct such defective work, or, if it has been rejected by Owner, remove it from the site and replace it with work that is not defective, and (ii) satisfactorily correct or remove and replace any damage to other work or the work of others resulting therefrom. If Contractor does not promptly comply with the terms of such instructions, or in an emergency where delay would cause serious risks of loss or damage, Owner may have the defective work corrected or the rejected work removed and replaced, and all claims, costs, losses and damages caused by or resulting from such removal and replacement (including but not limited to all costs of repair or replacement of work of others) will be paid by Contractor.
- 16.4 Where defective work (and damage to other work resulting therefrom) has been corrected, removed or replaced under paragraph 16, the correction period hereunder with respect to such work will be extended for an additional period of one year after such correction or removal and replacement has been satisfactorily completed.

17. SUBSURFACE CONDITIONS

- 17.1 The Contractor shall promptly and before such conditions are disturbed, except in the event of an emergency, notify the owner by written notice of:
- 17.1.1 Subsurface or latent physical conditions at the site differing materially from those indicated in the bid documents; or
- 17.1.2 Unknown physical conditions at the site, of an unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in the bid documents.
- 17.2 The owner shall promptly investigate the conditions, and if it is found that such conditions do so materially differ and cause an increase or decrease in the cost of, or in the time required for, performance of the work, an equitable adjustment shall be made and the bid documents shall be modified by a change order. Any claim of the Contractor for adjustment hereunder shall not be allowed unless the required written notice has been given; provided that the owner may, if the owner determines the facts so justify, consider and adjust any such claims asserted before the date of final payment.

18. SUSPENSION OF WORK, TERMINATION AND DELAY

18.1 The owner may suspend the work or any portion thereof for a period of not more than ninety days or such further time as agreed upon by the Contractor, by written notice to the Contractor and the Engineer which shall fix the date on which work shall be resumed. The Contractor will resume that work on the date so fixed. The Contractor will be allowed an increase in the contract price or an extension of the contract time, or both, directly attributable to any suspension.

18.2 If the Contractor is adjudged a bankrupt or insolvent, or makes a general assignment for the benefit of its creditors, or if a trustee or receiver is appointed for the Contractor or for any of its property, or if Contractor files a petition to take advantage of any debtor's act, or to reorganize under the bankruptcy or applicable laws, or repeatedly fails to supply sufficient skilled workmen or suitable materials or equipment, or repeatedly fails to make prompt payments to Subcontractors or for labor, materials or equipment or disregards laws, ordinances, rules, regulations or orders of any public body having jurisdiction of the work or disregards the authority of the Engineer, or otherwise violates any provision of the bid documents, then the owner may, without prejudice to any other right or remedy and after giving the Contractor and its surety a minimum of ten (10) days from delivery of a written notice, terminate the services of the Contractor and take possession of the project and of all materials, equipment, tools, construction equipment and machinery thereon owned by the Contractor, and finish the work by whatever method the owner may deem expedient.

In such case, the Contractor shall not be entitled to receive any further payment until the work is finished. If the unpaid balance of the contract price exceeds the direct and indirect costs of completing the project, including compensation for additional professional services, such excess shall be paid to the Contractor.

If such costs exceed such unpaid balance, the Contractor will pay the difference to the owner. Such costs incurred by the owner will be determined by the Engineer and incorporated in a change order.

18.3 Where the Contractor's services have been so terminated by the owner, said termination shall not affect any right of the owner against the Contractor then existing or which may thereafter accrue. Any retention or payment of monies by the owner due the Contractor will not release the Contractor from compliance with the bid documents.

After ten (10) days from delivery of a written notice to the Contractor and the Engineer, the owner may, without cause and without prejudice to any other right or remedy, elect to abandon the project and terminate the contract. In such case, the Contractor shall be paid for all work executed and any expense sustained plus reasonable profit.

18.4 If, through no act or fault of the Contractor, the work is suspended for a period of more than ninety (90) days by the owner or under an order of court or other public authority, or the Engineer fails to act on any request for payment within thirty (30) days after it is submitted, or the owner fails to pay the Contractor substantially the sum approved by the Engineer or awarded by arbitrators within thirty (30) days of its approval and presentation, then the Contractor may, after ten (10) days from delivery of a written notice to the owner and the Engineer terminate the contract and recover from the owner payment for all work executed and all expenses sustained. In addition and in lieu of terminating the contract, if the Engineer has failed to act on a request for payment or if the owner has failed to make any payment as aforesaid, the Contractor may upon ten (10) days written notice to the owner and the Engineer stop the work until paid all amounts then due, in which event and upon resumption of the work change orders shall be issued for adjusting the contract price or

extending the contract time or both to compensate for the costs and delays attributable to the stoppage of the work.

- 18.5 If the performance of all or any portion of the work is suspended, delayed, or interrupted as a result of a failure of the owner or Engineer to act within the time specified in the bid documents, or if no time is specified, within a reasonable time, an adjustment in the contract price or an extension of the contract time, or both, shall be made by change order to compensate the Contractor for the costs and delays necessarily caused by the failure of the owner or Engineer.

19. PAYMENT TO CONTRACTOR

- 19.1 Once, each month, the Contractor will submit to the Engineer a partial payment estimate filled out and signed by the Contractor covering the work performed during the period covered by the partial payment estimate and supported by such data as the Engineer may reasonably require. If payment is requested on the basis of materials and equipment not incorporated in the work but delivered and suitably stored at or near the site, the partial payment estimate shall also be accompanied by such supporting data, satisfactory to the owner, as will establish the owner's title to the material and equipment and protect the owner's interest therein, including applicable insurance. The Engineer will, within ten (10) days after receipt of each partial payment estimate, either indicate in writing approval of payment, and present the partial payment estimate to the owner, or return the partial payment estimate to the Contractor indicating in writing the reasons for refusing to approve payment. In the latter case, the Contractor may make the necessary corrections and resubmit the partial payment estimate.

The owner will, within ten (10) days of presentation of an approved partial payment estimate, pay the Contractor a progress payment on the basis of the approved partial payment estimate less the retainage. The retainage shall be an amount equal to 10% of said estimate until 50% of the work has been completed.

At 50% completion, further partial payments shall be made in full to the Contractor and no additional amounts may be retained unless the Engineer certifies that the job is not proceeding satisfactorily, but amounts previously retained shall not be paid to the Contractor. At 50% completion or any time thereafter when the progress of the work is not satisfactory, additional amounts may be retained but in no event shall the total retainage be more than 10% of the value of the work completed. Upon substantial completion of the work, any amount retained may be paid to the Contractor. When the work has been substantially completed, except for work which cannot be completed because of weather conditions, lack of materials or other reasons which in the judgement of the owner are valid reasons for noncompletion, the owner may make additional payment, retaining at all times an amount sufficient to cover the estimated cost of the work still to be completed.

- 19.2 The request for payment may also include an allowance for the cost of such major materials and equipment which are suitably stored either at or near the site.
- 19.3 Prior to substantial completion, the owner, with the approval of the Engineer and with the concurrence of the Contractor, may use any completed or substantially completed portions of the work. Such use shall not constitute an acceptance of such portions of the work.
- 19.4 The owner shall have the right to enter the premises for the purpose of doing work not covered by the bid documents. This provision shall not be construed as relieving the Contractor of the sole responsibility for the care and protection of the work, or the

restoration of any damaged work except such as may be caused by agents or employees of the owner.

19.5 Upon completion and acceptance of the work, the Engineer shall issue a certificate attached to the final payment request that the work has been accepted under the conditions of the bid documents. The entire balance found to be due the Contractor, including the retained percentages, but except such sums as may be lawfully retained by the owner, shall be paid to the Contractor within thirty (30) days of completion and acceptance of the work.

19.6 The Contractor will indemnify and save the owner or the owner's agents harmless from all claims growing out of the lawful demand of Subcontractors, laborers, workmen, mechanics, materialmen and furnishers of machinery and parts thereof, equipment, tools and all supplies, incurred in the furtherance of the performance of the work.

The Contractor shall, at the owner's request, furnish satisfactory evidence that all obligations of the nature designated above have been paid, discharged or waived. If the Contractor fails to do so, the owner may, after having notified the Contractor, either pay unpaid bills or withhold from the Contractor's unpaid compensation a sum of money deemed reasonably sufficient to pay any and all such lawful claims until satisfactory evidence is furnished that all liabilities have been fully discharged whereupon payment to the Contractor shall be resumed in accordance with the terms of the bid documents, but in no event shall the provisions of this sentence be construed to impose any obligations upon the owner to either the Contractor, the Contractor's Surety or any third party. In paying any unpaid bills of the Contractor, any payment so made by the owner shall be considered as a payment made under the bid documents by the owner to the Contractor and the owner shall not be liable to the Contractor for any such payments made in good faith.

19.7 If the owner fails to make payment thirty (30) days after approval by the Engineer, in addition to other remedies available to the Contractor, there shall be added to each such payment interest at the maximum legal rate commencing on the first day after said payment is due and continuing until the payment is received by the Contractor.

19.8 The Contractor shall furnish evidence that payment received on the basis of materials and equipment, not incorporated and suitably stored, has in fact been paid to the respective supplier(s) within sixty (60) days of the Application of Payment on which the material/equipment first appeared. Failure to procure said evidence of payment shall result in the withdrawal of previous approval(s) and removal of the related equipment and materials from the Application of Payment.

20. ACCEPTANCE OF FINAL PAYMENT AS RELEASE

20.1 The acceptance by the Contractor of final payment shall be and shall operate as a release to the owner of all claims and all liability to the Contractor other than claims in stated amounts as may be specifically excepted by the Contractor for all things done or furnished in connection with this work and for every act and neglect of the owner and others relating to or arising out of this work. Any payment however, final or otherwise, shall not release the Contractor or its sureties from any obligations under the bid documents or the Performance and Payment Bonds.

21. INSURANCE

- 21.1 The Contractor shall purchase and maintain such insurance as will protect it from claims set forth below which may arise out of, or result from, the Contractor's execution of the work, whether such execution be by the Contractor, any Subcontractor, or by anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable.
- 21.1.1 Claims under workmen's compensation, disability benefit and other similar employee benefit acts;
- 21.1.2 Claims for damages because of bodily injury, occupational sickness or disease, or death of employees;
- 21.1.3 Claims for damages because of bodily injury, sickness or disease, or death of any person other than employees;
- 21.1.4 Claims for damages insured by usual personal injury liability coverage which are sustained, (1) by any person as a result of an offense directly or indirectly related to the employment of such person by the Contractor, or (2) by any other person; and
- 21.1.5 Claims for damages because of injury to or destruction of tangible property, including loss of use resulting therefrom.
- 21.2 Certificates of Insurance acceptable to the owner shall be filed with the owner prior to commencement of the work. These Certificates shall contain a provision that coverages afforded under the policies will not be cancelled unless at least fifteen (15) days prior written notice has been given to the owner.
- 21.3 The Contractor shall procure and maintain, at the Contractor's own expense, during the contract time, Liability insurance as hereinafter specified:
- 21.3.1 Contractor's General Public Liability and Property Damage Insurance, including vehicle coverage issued to the Contractor and protecting the Contractor from all claims for personal injury including death, and all claims for destruction of or damage to property, arising out of or in connection with any operations under the bid documents, whether such operations be by the Contractor or by any Subcontractor employed by the Contractor or anyone directly or indirectly employed by the Contractor.
- Insurance shall be written with a limit of liability of not less than \$1,000,000.00 for all damages arising out of bodily injury, including death, at any time resulting therefrom, sustained by any one person in any one accident; and a limit of liability of not less than \$1,000,000.00 aggregate for any such damages sustained by two or more persons in any one accident. Insurance shall be written with a limit of liability of not less than \$500,000.00 for all property damage sustained by any one person in any one accident; and a limit of liability of not less than \$500,000.00 aggregate for any such damage sustained by two or more persons in any one accident.
- 21.3.2 The Contractor shall acquire and maintain, if applicable, Fire and Extended Coverage Insurance upon the project to the full insurable value thereof for the benefit of the owner, the Contractor, and Subcontractors as their interest may

appear. This provision shall in no way release the Contractor or Contractor's Surety from obligations under the bid documents to fully complete the project.

- 21.4 The Contractor shall procure and maintain, at the Contractor's own expense, during the contract time, in accordance with the provisions of the laws of the state in which the work is performed, Worker's Compensation Insurance, including occupational disease provisions, for all of the Contractor's employees at the site of the project and in case any work is sublet, the Contractor shall require such Subcontractor similarly to provide Workmen's Compensation Insurance, including occupational disease provisions for all of the latter's employees unless such employees are covered by the protection afforded by the Contractor. In case any class of employees engaged in hazardous work under this contract at the site of the project is not protected under Workmen's Compensation statute, the Contractor shall provide and shall cause each Subcontractor to provide adequate and suitable insurance for the protection of its employees not otherwise protected.
- 21.5 The Contractor shall secure, if applicable, "All Risk" type Builder's Risk Insurance for work to be performed. Unless specifically authorized by the owner, the amount of such insurance shall not be less than the contract price totalled in the bid. The policy shall cover not less than the losses due to fire, explosion, hail, lightning, vandalism, malicious mischief, wind, collapse, riot, aircraft and smoke during the contract time and until the work is accepted by the owner. The policy shall name as the insured the Contractor and the owner.
- 21.6 Installation Floater insurance is to be purchased when Builder's Risk insurance is inappropriate, or when Builder's Risk insurance will not respond, to cover damage or destruction to materials, renovations, repairs or equipment being installed or otherwise being handled or stored by the Contractor or Subcontractors, including offsite storage, transit and installation. The amount of coverage should be adequate to provide full replacement value of the property, repairs, additions, equipment or materials being installed, otherwise being handled or stored on or off premises.
- 21.7 In the event that a claim be made against the required policies, all deductibles and fees will be the responsibility of the Contractor.

22. CONTRACT SECURITY

- 22.1 The Contractor shall, within ten (10) days after the receipt of the NOTICE OF AWARD, furnish the owner with a Performance Bond and a Payment Bond in penal sums equal to the amount of the contract price, conditioned upon the performance by the Contractor of all undertakings, covenants, terms, conditions and agreements of the bid documents, and upon the prompt payment by the Contractor to all persons supplying labor and materials in the prosecution of the work provided by the bid documents. Such Bonds shall be executed by the Contractor and a corporate bonding company licensed to transact such business in the state in which the work is to be performed and named on the current list of "Surety Companies Acceptable on Federal Bonds" as published in the Treasury Department Circular Number 570. The expense of these Bonds shall be borne by the Contractor. If at any time a surety on any such Bond is declared a bankrupt or loses its right to do business in the state in which the work is to be performed or is removed from the list of Surety Companies accepted on Federal Bonds, Contractor shall within ten (10) days after notice from the owner to do so, substitute an acceptable Bond (or Bonds) in such form and sum and signed by such other surety or sureties as may be satisfactory to the owner. The premiums on such Bond shall be paid by the Contractor. No further payment shall be deemed due nor shall be made until the new surety or sureties shall have furnished an acceptable Bond to the owner.

23. ASSIGNMENTS

- 23.1 Neither the Contractor nor the owner shall sell, transfer, assign or otherwise dispose of the contract or any portion thereof, or of any right, title or interest therein, or any obligations thereunder, without written consent of the other party.

24. INDEMNIFICATION

- 24.1(a) The Contractor will indemnify and hold harmless the Engineer and their agents and employees from and against all claims, damages, losses and expenses including attorney's fees arising out of or resulting from the performance of the work, provided that any such claims, damage, loss or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property including the loss of use resulting therefrom; and is caused in whole or in part by any negligent or willful act or omission of the Contractor, Subcontractor, and anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable.
- (b) The Contractor will indemnify and hold harmless the owner, their officers and employees, from liabilities, damages, losses and costs, including, but not limited to, reasonable attorney's fees, to the extent caused by the negligence, recklessness, or intentional wrongful misconduct of the Contractor and persons employed or utilized by Contractor in the performance of the construction contract.
- 24.2 In any and all claims against the owner or the Engineer, or any of their agents or employees, by any employee of the Contractor, any Subcontractor, anyone directly or indirectly employed by any of them, or anyone for whose acts any of them may be liable, the indemnification obligation shall not be limited in any way by any limitation on the amount or type of damages, compensation or benefits payable by or for the Contractor or any Subcontractor under Workmen's Compensation acts, disability benefit acts or other employee benefits acts.
- 24.3 The obligation of the Contractor under this paragraph shall not extend to the liability of the Engineer, its agents or employees arising out of the preparation or approval of maps, drawings, opinions, reports, surveys, change orders, designs or specifications.

25. SEPARATE CONTRACTS

- 25.1 The owner reserves the right to let other contracts in connection with this project. The Contractor shall afford other Contractors reasonable opportunity for the introduction and storage of their materials and the execution of their work, and shall properly connect and coordinate the work with theirs.

If the proper execution or results of any part of the Contractor's work depends upon the work of any other Contractor, the Contractor shall inspect and promptly report to the Engineer any defects in such work that render it unsuitable for such proper execution and results.

- 25.2 The owner may perform additional work related to the project or the owner may let other contracts containing provisions similar to these. The Contractor will afford the other Contractors who are parties to such Contracts (or the owner, if the owner is performing the additional work) reasonable opportunity for the introduction and storage of materials and equipment and the execution of work, and shall properly connect and coordinate the work with theirs.

- 25.3 If the performance of additional work by other Contractors or the owner is not noted in the bid documents prior to the execution of the contract, written notice thereof shall be given to the Contractor prior to starting any such additional work. If the Contractor believes that the performance of such additional work by the owner or others involves additional expense or entitles it to an extension of the contract time, the Contractor may make a claim thereof as provided in Sections 14 and 15 of these General Conditions.

26. SUBCONTRACTING

- 26.1 The Contractor may utilize the services of specialty SUBCONTRACTS on those parts of the work which, under normal contracting practices, are performed by specialty Subcontractors.
- 26.2 The Contractor shall not award work to Subcontractor(s), in excess of fifty (50%) percent of the contract price, without prior written approval of the owner.
- 26.3 The Contractor shall be fully responsible to the owner for the acts and omissions of its Subcontractors, and of persons either directly or indirectly employed by them, as the Subcontractor is fully responsible for the acts and omissions of persons directly employed by it.
- 26.4 The Contractor shall cause appropriate provisions to be inserted in all subcontracts relative to the work to bind Subcontractors to the Contractor by the terms of the bid documents insofar as applicable to the work of Subcontractors and give the Contractor the same power as regards terminating any subcontract that the owner may exercise over the Contractor under any provision of the bid documents.
- 26.5 Nothing contained in this contract shall create any contractual relation between any Subcontractor and the Owner.
- 26.6 Notwithstanding any other provision of these bid documents to the contrary, Owner and Engineer are under no duty or obligation whatsoever to any Sub-Contractor, laborer or other party to ensure that payments due and owing by the Contractor to any of them will be made. Such parties shall rely only on the Contractor's surety bonds for remedy of nonpayment by the Contractor.
- 26.7 The Contractor shall supply the names and addresses of subcontractors and material suppliers when requested to do so by the Owner.
- 26.8 The Contractor shall not use a subcontractor or material supplier against whom the Owner has a reasonable objection.

27. ENGINEER'S AUTHORITY

- 27.1 The Engineer shall act as the owner's representative during the construction period, shall decide questions which may arise as to quality and acceptability of materials furnished and work performed, and shall interpret the intent of the bid documents in a fair and unbiased manner. The Engineer will make visits to the site and determine if the work is proceeding in accordance with the bid documents.
- 27.2 The Contractor will be held strictly to the intent of the bid documents in regard to the quality of materials, workmanship and execution of the work. Inspections may be at the factory or fabrication plant of the source of material supply.

27.3 The Engineer will not be responsible for the construction means, controls, techniques, sequences, procedures or construction safety.

27.4 The Engineer shall promptly make decisions relative to interpretation of the bid documents.

28. LAND AND RIGHTS-OF-WAY

28.1 Prior to issuance of Notice to Proceed, the owner shall obtain all land and rights-of-way necessary for carrying out and for the completion of the work to be performed pursuant to the bid documents, unless otherwise mutually agreed.

28.2 The Owner shall provide to the Contractor information which delineates and describes the lands owned and rights-of-way acquired.

28.3 The Contractor shall provide, at its own expense and without liability to the owner, any additional land and access thereto that the Contractor may desire for temporary construction facilities or for storage of materials.

29. GUARANTEE

29.1 The Contractor shall guarantee all materials and equipment furnished and work performed for a period of one (1) year from the date of substantial completion. The Contractor warrants and guarantees for a period of one (1) year from the date of substantial completion of the system that the completed system is free from all defects due to faulty materials or workmanship and the Contractor shall promptly make such corrections as may be necessary by reason of such defects including the repairs of the damage of other parts of the system resulting from such defects.

The owner will give notice of observed defects with reasonable promptness. In the event that the Contractor should fail to make such repairs, adjustments or other work that may be made necessary by such defects, the owner may do so and charge the Contractor the cost thereby incurred. The Performance Bond shall remain in full force and effect through the guarantee period.

29.2 An eleven (11) month inspection shall be performed by a representative of the Owner, Engineer and Contractor. Items identified as failing the inspection shall be corrected at the Contractor's expense. If portions of the Contract become completed ahead of another portion, then the warranty shall start upon last substantial completion date.

29.3 Additional or extended warranties may be required in other sections of these Bid Documents.

29.4 No material, supplies or equipment for the work shall be purchased by the Contractor subject to any chattel mortgage or under a conditional sale or other agreement by which an interest therein or any part thereof is retained by the seller or supplier.

The Contractor warrants good title to all materials, supplies and equipment installed or incorporated in the work and agrees upon completion of all work to deliver the premises, together with all improvements and appurtenances constructed or placed thereon by him, to the Owner free from any claims, liens or charges and further agrees that neither he nor any person, firm, or corporation furnishing any material or labor for any work covered by this contract shall have any right to a lien upon the premises or any improvements or appurtenances thereon as a result of the Contractor's failing in his commitment to the

Owner or any person, firm or corporation furnishing any material or labor for any work covered by this contract.

The Contractor shall not at any time suffer or permit any lien, attachment, or other encumbrances under the law of Florida or otherwise by any person or persons whomsoever to remain on file with the Owner against any money due or to become due for any work done or materials furnished under the contract or by reason of any other claim or demand against the Contractor. Such lien, attachment, or other encumbrance, until it is removed, shall preclude any and all claims or demands for any payment under virtue of the contract.

- 29.5 Upon completion of the project, the Contractor shall fully execute five (5) original copies of Section 01715, Guarantee of the Work.

30. ARBITRATION BY MUTUAL AGREEMENT

- 30.1 All claims, disputes, and other matters in question arising out of, or relating to, the Bid Documents or the breach thereof, except for claims which have been waived by making an acceptance of final payment as provided by Section 20, may be decided by arbitration if the parties mutually agree. Any agreement to arbitrate shall be specifically enforceable under the prevailing arbitration law. The law rendered by the arbitrators shall be final, and judgement may be entered upon it in any court having jurisdiction thereof. (REV. 2/16/83, PN 869)
- 30.2 Notice of the request for arbitration shall be filed in writing with the other party to the Bid Documents and a copy filed with the Engineer. Request for arbitration shall in no event be made on any claim, dispute, or other matter in question which would be barred by the applicable statute of limitations.
- 30.3 The Contractor will carry on the work and maintain the progress schedule during any arbitration proceedings, unless otherwise mutually agreed in writing.

31. TAXES

- 31.1 The Contractor will pay all sales, consumer, use and other similar taxes required by the laws of the place where the work is performed.

32. CONFLICT OF INTEREST

- 32.1 Unacceptable bidders. An Engineer (individual or firm including persons they employ) who has prepared plans and specifications will not be considered an acceptable bidder. Any firm or corporation in which such Engineer (including persons they employ) is an officer, employee or holds or controls a substantial interest will not be considered an acceptable bidder.

Contracts or purchases by the Contractor shall not be awarded or made to a supplier or manufacturer if the Engineer (firm or individual) who prepared the plans and specifications has a corporate or financial affiliation with the supplier or manufacturer. Bids will not be awarded to firms or corporations which are owned or controlled wholly or in part by a member of the governing body of the Owner or to an individual who is such a member.

- 32.2 The Owner's officers, employees, or agents shall not engage in the award or administration of the contract if a conflict of interest, real or apparent, would be involved. Such a conflict

would arise when: (a) the employee, officer or agent; (b) any member of their immediate family; (c) their partner or (d) an organization which employs, or is about to employ, any of the above has financial or interest in the Contractor. The Owner's officers, employees, or agents shall neither solicit nor accept gratuities, favors or anything of monetary value from the Contractor or subcontractor.

33. PROJECT COMPLETION/FINAL ACCEPTANCE

- 33.1 As soon as work is substantially complete, the Contractor will request a final inspection. This inspection will be made by the Owner's Representative, the Engineer, and the Contractor. Any work remaining to be completed or any defective work will be listed on a "Final Punch List" and delivered to the Contractor. Any defects discovered after issuance of the final punch list shall be corrected under the project warranty.
- 33.2 Final acceptance of any portion of the project will occur after all punch list items are completed and the work is in accordance with the plans and specifications.
- 33.3 All facilities will be subject to inspection and acceptance by any Governmental and State Agency having jurisdiction prior to acceptance by the Owner.

34. GRATUITIES

- 34.1 If the Owner finds after a notice and hearing that the Contractor, or any of the Contractor's agents or representatives, offered or gave gratuities in the form of entertainment, gifts (or otherwise) to any official, employee, or agent of the Owner, the State, or other officials in an attempt to secure this Contract or favorable treatment in awarding, amending, or making any determinations related to the performance of this Contract, the Owner may, by written notice to the Contractor, terminate this Contract. The Owner may also pursue other rights and remedies that the law or this Contract provides. However, the existence of the facts on which the Owner bases such findings shall be an issue and may be reviewed in proceedings under the Remedies Clause of this Contract.
- 34.2 In the event this Contract is terminated as provided in paragraph 34.1 above, the Owner may pursue the same remedies against the Contractor as it could pursue in the event of a breach of the Contract by the Contractor. As a penalty, in addition to any other damages to which it may be entitled by law, the Owner may pursue exemplary damages in an amount (as determined by the Owner) which shall be not less than three nor more than ten times the costs the Contractor incurs in providing any such gratuities to any such officer or employee.

35. AUDIT AND ACCESS TO RECORDS

- 35.1 For all negotiated contracts (except those of \$10,000 or less), the Owner or any of their duly authorized representatives, shall have access to any books, documents, papers and records of the Contractor, which are pertinent to the Contract, for the purpose of making audits, examinations, excerpts and transcriptions. The Contractor shall maintain all required records for three years after final payment is made and all other pending matters are closed.

36. EQUAL OPPORTUNITY REQUIREMENTS

- 36.1 For all contracts in excess of \$10,000, the Contractor shall comply with Executive Order 11246, entitled "Equal Employment Opportunity", as amended by Executive Order 11375, and as supplemented in Department of Labor regulations (41 CFR Part 60).
- 36.2 The Contractor's compliance with Executive Order 11246 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the Standard Federal Equal Employment Opportunity Construction Contract Specifications, as set forth in 41 CFR Part 60-4 and its efforts to meet the goals established for the geographic area where the Contract is to be performed.

The hours of minority and female employment and training must be substantially uniform throughout the length of the Contract, and in each trade, and the Contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor or from project to project for the sole purpose of meeting the Contractor's goals shall be a violation of the Contract, the Executive order and the regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

37. CONTRACTS AND COOPERATION

- 37.1 At the same time that work under this contract is being provided at the site, there may be other Contractors working on the site. The Owner reserves the right to award other contracts for work to be constructed at the same time, and in connection with, the work included in this contract.
- 37.2 The Contractor shall cooperate with all other Contractors in such a manner, and to such extent, as best to facilitate the completion of the entire project in the shortest time possible, subject to, at all times, the approval of the Engineer. It shall be the duty of each Contractor to work with the other Contractors, render such assistance, and to arrange his work in such a manner that shall allow the entire project to be delivered complete and in the best possible condition.
- 37.3 The Contractor shall keep himself fully informed at all times regarding all details of the work of other Contractors working at the site, and he shall be responsible for all delays that may result from his failure to install his own work in the proper manner and at the proper time.

38. USE OF SITE

- 38.1 The Contractor(s) shall confine their use of the site for storage of materials, erection of temporary facilities and parking of vehicles to areas within his Contract limits as directed by the Engineer. The Contractor shall not unnecessarily encumber the premises at any time.
- 38.2 Areas of the site in which work under this contract may be performed will be used by other Contractors for storage of materials, erection of temporary facilities and parking of vehicles. Areas used by other Contractors will be vacated, as directed by the Engineer to permit work under this Contract, provided reasonable notice is given requesting such, all in accordance with this Contractor's construction schedule.
- 38.3 No signs or advertisements shall be displayed on the site except with the written consent of the Owner.

39. TEMPORARY FACILITIES

- 39.1 The Contractor shall provide electric power, water and other utilities as he may require for his construction purposes, and shall pay all costs incurred unless otherwise provided in the Bid Documents. At completion of the contract, all temporary facilities shall be removed from the site.
- 39.2 The Contractor shall provide sanitary facilities for his workmen at all times. Sanitary facilities shall be of an approved chemical type with regular servicing, as approved by the Engineer and Health Authorities.

40. PRECAUTIONS

- 40.1 Attention is called to the fact that Contractor is responsible for contacting all utility companies to obtain locations of all existing utilities or obstructions which he may encounter during construction. After location of utilities by the appropriate utility company, it is the Contractor's responsibility to protect all such utility lines, including service lines and appurtenances, and to replace at his own expense any which may be damaged by the Contractor's equipment, or forces during construction of the project.
- 40.2 Barricades, Guards and Safety Provisions: To protect persons from injury and to avoid property damage, adequate barricades, construction signs, torches, red lanterns and guards shall be placed and maintained during progress of construction work and until it is safe for both pedestrians and vehicular traffic. Rules and regulations of local authorities regarding safety provisions shall be observed.
- 40.3 Traffic Controls: Trenching and earthwork shall be conducted in a manner to cause the least interruption to traffic. Where traffic must cross open trenches, provide suitable bridges.
- 40.4 Work in Progress: Protect completed work from damage by other work in progress. Maintain such protection as long as work is in progress.
- 40.5 The Contractor shall at all times during construction activity control turbidity caused by construction related acts, by the placement of containment curtains, hay bales or suitable temporary erosion control barriers. The pumping and discharge of trench water shall be in accordance with all local, State, and Federal agencies which control such activities. Any permits for such activities shall be obtained by the Contractor and the cost of same be included in the bid price submitted.

41. OWNERSHIP OF HIDDEN VALUABLE MATERIALS

- 41.1 If the excavation of this project uncovers treasure or valuable materials of any kind buried or hidden within the work, it shall remain the property of the Owner, other provisions in the documents to the contrary notwithstanding. Guard same until it is turned over to the Owner.

42. SILENCE OF SPECIFICATIONS

- 42.1 The apparent silence of these specifications and supplemental specifications as to any details or the omission from it of a detailed description concerning any point shall be regarded as meaning that all work shall be performed in accordance with the Florida DOT Standard Specifications for Road and Bridge Construction, latest Edition.

43. ESTIMATES AND PAYMENTS

- 43.1 The Contractor shall submit to the Engineer at time of signing his Contract a schedule of values (if not already given in the Bid Schedule) of the various parts of the work aggregating the total sum of the Contract, divided so as to facilitate payments, and made out in such forms as the Engineer may direct, and if required, supported by the evidence of the correctness. The schedule, upon approval by the Engineer, shall be used as a basis of payment.
- 43.2 No error or oversight in the making of estimates or certificates shall relieve the Contractor from his obligation to do and complete the work according to the true intent of the specifications and drawings.
- 43.3 In case labor or materials not in strict accordance with the drawings and specifications are furnished, no certificates will be issued until the defective work has been removed and replaced to the satisfaction of the Engineer.
- 43.4 In case the Contractor shall fail to complete his Contract or before the time stated in the Contract, no further estimates or payments shall be made until the entire completion of the Contract.

44. DISPOSAL OF WASTE MATERIALS

- 44.1 No burial of waste materials will be permitted on the premises. The Contractor shall at all times keep the premises free from accumulations of waste material or debris caused by his employees or work and shall remove same when necessary or required by the Engineer.

45. CLAIM PERIOD

- 45.1 No claim of the Contractor shall be allowed unless 1) Contractor has given written notice within 14 days of the incident, and 2) within thirty days after Contractor has given the written notice, Contractor submits to Owner a detailed claim setting forth Contractor's right to recover any additional costs and lost time as provided in the General Conditions. No claim by the Contractor for an equitable adjustment hereunder shall be allowed if asserted after final payment under this Contract.

46. REGULAR WORKING HOURS

- 46.1 Regular working hours are defined as up to ten hours per day, Monday through Friday, beginning no earlier than 7:00 A.M. and ending no later than 5:00 P.M., excluding holidays. Whenever the Contractor is performing any part of the work, with the exception of equipment maintenance and cleanup, Owner's representative and/or inspection will be required. Requests to work other than regular working hours must be submitted to the Owner's designated representative, at least 48 hours prior to any proposed weekend work or scheduled extended workweeks, to give the Owner ample time to arrange for representation and/or inspection during those periods. Periodic unscheduled overtime on weekdays will be permitted provided that two hours notice is provided to the Owner's designated representative. Maintenance of the Contractor's equipment and cleanup may be performed during hours other than regular working hours.

- 46.2 Contractor shall reimburse the Owner for additional engineering and/or inspection costs incurred as a result of overtime work in excess of the regular working hours. At Owner's option, overtime costs may either be deducted from the Contractor's monthly payment request or deducted from the Contractor's retention prior to release of final payment. Engineering/Inspection costs shall be calculated at the following rates:

Field Representative	\$75.00/hour
Engineer	\$125.00/hour

47. DEFECTIVE WORK

- 47.1 The Contractor shall not be entitled to an extension of the Contract Time for correcting or removing defective work.

48. SUBSTANTIAL COMPLETION

- 48.1 The Work will be considered substantially complete when each of the following portions of the Work is completed to the satisfaction of the Owner:
1. All components of the Work have been installed, tested and approved.
 2. All repair and coating systems have been properly cured.
 3. All data specified in the Bid Documents have been delivered to the Owner.
 4. All instructions have been provided to the designated Owner's representative(s) in accordance with the Bid Documents.
 5. All training has been completed.

49. SEVERABILITY

- 49.1 Any provision or part of these General Conditions held to be void or unenforceable under any law or regulation shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon Contractor and owner, who agree that the General Conditions shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.

--- END ---

**SECTION 014000
SUPPLEMENTARY GENERAL CONDITIONS**

1.0 RELATED DOCUMENTS

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

1.1 SUMMARY

- A. This Section includes administrative and procedural requirements for quality assurance and quality control.
- B. Testing and inspecting services are required to verify compliance with requirements specified or indicated. These services do not relieve Contractor of responsibility for compliance with the Bid Document requirements.
 - 1. Specific quality-control requirements for individual construction activities are specified in the Sections that specify those activities. Requirements in those Sections may also cover production of standard products.
 - 2. Specified tests, inspections, and related actions do not limit Contractor's quality-control procedures that facilitate compliance with the Bid Document requirements.
 - 3. Requirements for Contractor to provide quality-control services required by Engineer, Owner, or authorities having jurisdiction are not limited by provisions of this Section.
- C. Related Sections include the following:
 - 1. Divisions 2 Sections for specific test and inspection requirements.

1.2 DEFINITIONS

- A. Quality-Assurance Services: Activities, actions, and procedures performed before and during execution of the Work to guard against defects and deficiencies and ensure that proposed construction complies with requirements.
- B. Quality-Control Services: Tests, inspections, procedures, and related actions during and after execution of the Work to evaluate that completed construction complies with requirements. Services do not include contract enforcement activities performed by Engineer.
- C. Testing Agency: An entity engaged to perform specific tests, inspections, or both. Testing laboratory shall mean the same as testing agency.

1.3 SUBMITTALS

- A. Qualification Data: For testing agencies specified in "Quality Assurance" Article to demonstrate their capabilities and experience. Include proof of qualifications in the form of a recent report on the inspection of the testing agency by a recognized authority.
- B. Schedule of Tests and Inspections: Prepare in tabular form and include the following:
 - 1. Specification Section number and title.

2. Description of test and inspection.
3. Identification of applicable standards.
4. Identification of test and inspection methods.
5. Number of tests and inspections required.
6. Time schedule or time span for tests and inspections.
7. Entity responsible for performing tests and inspections.
8. Requirements for obtaining samples.
9. Unique characteristics of each quality-control service.

C. Reports: Prepare and submit certified written reports that include the following:

1. Date of issue.
2. Project title and number.
3. Name, address, and telephone number of testing agency.
4. Dates and locations of samples and tests or inspections.
5. Names of individuals making tests and inspections.
6. Description of the Work and test and inspection method.
7. Identification of product and Specification Section.
8. Complete test or inspection data.
9. Test and inspection results and an interpretation of test results.
10. Ambient conditions at time of sample taking and testing and inspecting.
11. Comments or professional opinion on whether tested or inspected Work complies with the Contract Document requirements.
12. Name and signature of laboratory inspector.
13. Recommendations on retesting and reinspecting.

D. Permits, Licenses, and Certificates: For Owner's records, submit copies of permits, licenses, certifications, inspection reports, releases, jurisdictional settlements, notices, receipts for fee payments, judgments, correspondence, records, and similar documents, established for compliance with standards and regulations bearing on performance of the Work.

1.4 QUALITY ASSURANCE

- A. Factory-Authorized Service Representative Qualifications: An authorized representative of manufacturer who is trained and approved by manufacturer to inspect installation of manufacturer's products that are similar in material, design, and extent to those indicated for this Project.
- B. Professional Engineer Qualifications: A professional engineer who is legally qualified to practice in jurisdiction where Project is located and who is experienced in providing engineering services of the kind indicated. Engineering services are defined as those performed for installations of the system, assembly, or product that are similar to those indicated for this Project in material, design, and extent.
- C. Testing Agency Qualifications: An agency with the experience and capability to conduct testing and inspecting indicated, as documented by ASTM E 548, and that specializes in types of tests and inspections to be performed.
- D. Preconstruction Testing: Testing agency shall perform preconstruction testing for compliance with specified requirements for performance and test methods.
- E. Contractor responsibilities include the following:

1. Provide test specimens and assemblies representative of proposed materials and construction. Provide sizes and configurations of assemblies to adequately demonstrate capability of product to comply with performance requirements.
 2. Submit specimens in a timely manner with sufficient time for testing and analyzing results to prevent delaying the Work.
- F. Testing Agency Responsibilities: Submit a certified written report of each test, inspection, and similar quality-assurance service to Engineer, with copy to Contractor and Owner. Interpret tests and inspections and state in each report whether tested and inspected work complies with or deviates from the Bid documents.

1.5 QUALITY CONTROL

- A. Contractor Responsibilities: Unless otherwise indicated, provide quality-control services specified and required by authorities having jurisdiction.
1. Where testing services are indicated, engage a qualified testing agency to perform these quality-control services.
 - a. Contractor shall not employ the same entity engaged by Owner, unless agreed to in writing by Owner.
 2. Notify testing agencies at least 24 hours in advance of time when Work that requires testing or inspecting will be performed.
 3. Where quality-control services are indicated, submit a certified written report, in duplicate, of each quality-control service.
 4. Testing and inspecting requested by Contractor and not required by the Bid documents are Contractor's responsibility.
 5. Submit additional copies of each written report directly to authorities having jurisdiction, when they so direct.
- B. Manufacturer's Field Services: Where indicated, engage a factory-authorized service representative to inspect field-assembled components and equipment installation, including service connections. Report results in writing.
- D. Retesting/Reinspecting: Regardless of whether original tests or inspections were Contractor's responsibility, provide quality-control services, including retesting and reinspecting, for construction that revised or replaced Work that failed to comply with requirements established by the Bid documents.
- E. Testing Agency Responsibilities: Cooperate with Engineer and Contractor in performance of duties. Provide qualified personnel to perform required tests and inspections.
1. Notify Engineer and Contractor promptly of irregularities or deficiencies observed in the Work during performance of its services.
 2. Interpret tests and inspections and state in each report whether tested and inspected work complies with or deviates from requirements.
 3. Submit a certified written report, in duplicate, of each test, inspection, and similar quality-control service through Contractor.
 4. Do not release, revoke, alter, or increase requirements of the Bid documents or approve or accept any portion of the Work.
 5. Do not perform any duties of Contractor.
- F. Associated Services: Cooperate with agencies performing required tests, inspections, and similar quality-control services, and provide reasonable auxiliary services as requested.

Notify agency sufficiently in advance of operations to permit assignment of personnel.
Provide the following:

1. Access to the Work.
 2. Incidental labor and facilities necessary to facilitate tests and inspections.
 3. Adequate quantities of representative samples of materials that require testing and inspecting. Assist agency in obtaining samples.
 4. Facilities for storage and field-curing of test samples.
 5. Delivery of samples to testing agencies.
 6. Preliminary design mix proposed for use for material mixes that require control by testing agency.
 7. Security and protection for samples and for testing and inspecting equipment at Project site.
- G. Coordination: Coordinate sequence of activities to accommodate required quality-assurance and quality-control services with a minimum of delay and to avoid necessity of removing and replacing construction to accommodate testing and inspecting.
1. Schedule times for tests, inspections, obtaining samples, and similar activities.

PART 2 – PRODUCTS (Not Used)

PART 3 – EXECUTION

3.0 REPAIR AND PROTECTION

- A. General: On completion of testing, inspecting, sample taking, and similar services, repair damaged construction and restore substrates and finishes.
- B. Provide materials and comply with installation requirements specified in other Sections of these Specifications. Restore patched areas and extend restoration into adjoining areas in a manner that eliminates evidence of patching.
- C. Protect construction exposed by or for quality-control service activities.
- D. Repair and protection are Contractor's responsibility.

END OF SECTION 01400

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**SECTION 011000
SUMMARY**

PART 1 GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:
 - 1. Work covered by Contract Documents.
 - 2. Phased construction.
 - 3. Work by Owner.
 - 4. Owner-furnished products.
 - 5. Contractor-furnished, Owner-installed products.
 - 6. Access to site.
 - 7. Coordination with occupants.
 - 8. Work restrictions.
 - 9. Specification and drawing conventions.
- B. Related Requirements:
 - 1. Section 015000 Temporary Facilities and Controls for limitations and procedures governing temporary use of Owner's facilities.

1.3 WORK COVERED BY CONTRACT DOCUMENTS

- A. The Work of Project is defined by the Contract Documents and consists of the following:
 - 1. Project Description: The new Magna Water General Office Building.
- B. Type of Contract:
 - 1. Project will be constructed under a single prime contract.

1.4 PHASED CONSTRUCTION

- A. The Work shall be conducted in two phases, with each phase substantially complete as indicated:
 - 1. Phase One: Construction of site improvements—under separate contract. Building Contractor to coordinate with Site Contractor.
 - 2. Phase Two: The building as shown on the documents. Phase two shall be substantially complete and ready for occupancy at time of Substantial Completion for the Work.
- B. Before commencing Work of each phase, submit an updated copy of Contractor's construction schedule showing the sequence, commencement and completion dates, and move-out and -in dates of Owner's personnel for all phases of the Work

1.5 WORK BY OWNER

- A. General: Cooperate fully with Owner so work may be carried out smoothly, without interfering with or delaying work under this Contract or work by Owner. Coordinate the Work of this Contract with work performed by Owner.
- B. Preceding Work: Owner or his specialty contractor(s) will perform the following construction operations at Project site. Those operations are scheduled to be substantially complete before work under this Contract begins.
 - 1.
 - 2.

1.6 OWNER-FURNISHED PRODUCTS

- A. Owner will furnish products indicated. The Work includes receiving, unloading, handling, storing, protecting, and installing Owner-furnished products and making building services connections.
- B. Owner-Furnished Products:
 - 1. As noted on the drawings and specifications. .

1.7 ACCESS TO SITE

- A. General: Contractor shall have limited use of Project site for construction operations as indicated on Drawings by the Contract limits and as indicated by requirements of this Section.
- B. Use of Site: Limit use of Project site to areas within the Contract limits indicated. Do not disturb portions of Project site beyond areas in which the Work is indicated.
 - 1. Limits: Limit site disturbance, including earthwork and clearing of vegetation, to 40 feet (12.2 m) beyond building perimeter; 10 feet (3 m) beyond surface walkways, patios, surface parking, and utilities less than 12 inches (300 mm) in diameter; 15 feet (4.5 m) beyond primary roadway curbs and main utility branch trenches; and 25 feet (7.6 m) beyond constructed areas with permeable surfaces (such as pervious paving areas, stormwater detention facilities, and playing fields) that require additional staging areas in order to limit compaction in the constructed area.
 - 2. Driveways, Walkways and Entrances: Keep driveways and entrances serving premises clear and available to Owner, Owner's employees, and emergency vehicles at all times. Do not use these areas for parking or storage of materials.
 - a. Schedule deliveries to minimize use of driveways and entrances by construction operations.
 - b. Schedule deliveries to minimize space and time requirements for storage of materials and equipment on-site.

1.8 COORDINATION WITH OCCUPANTS

- 1. Not occupied.

1.9 WORK RESTRICTIONS

- A. Work Restrictions, General: Comply with restrictions on construction operations.
 - 1. Comply with limitations on use of public streets and with other requirements of authorities having jurisdiction.

- B. On-Site Work Hours: Limit work on the site to normal business working hours of 7:00 a.m. to 5:00 p.m., Monday through Friday, unless otherwise indicated.
- A. Existing Utility Interruptions: Do not interrupt utilities serving facilities occupied by Owner, others, or neighbors unless permitted under the following conditions and then only after providing temporary utility services according to requirements indicated:
 - 1. Notify Architect and Owner not less than two days in advance of proposed utility interruptions.
- B. Nonsmoking Building: Smoking is not permitted within the building or within 25 feet (8 m) of entrances, operable windows, or outdoor-air intakes.
- C. Controlled Substances and Obscenity: Use of illegal drugs, tobacco products, other (non-doctor prescribed) controlled substances, and pornography on the project site is not permitted. Contractor is to assure the use of prescribed substances do not interfere with safe operations of a project site.

1.2 SPECIFICATION AND DRAWING CONVENTIONS

- A. Specification Content: The Specifications use certain conventions for the style of language and the intended meaning of certain terms, words, and phrases when used in particular situations. These conventions are as follows:
 - 1. Imperative mood and streamlined language are generally used in the Specifications. The words "shall," "shall be," or "shall comply with," depending on the context, are implied where a colon (:) is used within a sentence or phrase.
 - 2. Specification requirements are to be performed by Contractor unless specifically stated otherwise.
- B. Division 01 General Requirements: Requirements of Sections in Division 01 apply to the Work of all Sections in the Specifications.
- C. Drawing Coordination: Requirements for materials and products identified on Drawings are described in detail in the Specifications. One or more of the following are used on Drawings to identify materials and products:
 - 1. Terminology: Materials and products are identified by the typical generic terms used in the individual Specifications Sections.
 - 2. Abbreviations: Materials and products are identified by abbreviations published as part of the U.S. National CAD Standard and scheduled on Drawings.
- D. Keynoting: Materials and products are identified by reference keynotes referencing Specification Section numbers found in this Project Manual.

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**SECTION 012100
ALLOWANCES**

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. The drawings and provisions of the General and Supplementary Conditions and Division 01 Specification sections, and other clarifications apply to this section.

1.2 SUMMARY

- A. Section includes administrative and procedural requirements governing allowances.
 - 1. Certain items are specified in the Contract Documents by allowances. Allowances have been established in lieu of additional requirements and to defer selection of actual materials and equipment to a later date when direction will be provided to Contractor. If necessary, additional requirements will be issued by Change Order.
- B. Types of allowances include the following:
 - 1. Lump-sum allowances.
 - 2. Unit-cost allowances.
 - 3. Quantity allowances.
 - 4. Contingency allowances.
- C. Related Requirements:
 - 1. Section 01 22 00 "Unit Prices" for procedures for using unit prices.
 - 2. Section 01 40 00 "Quality Requirements" for procedures governing the use of allowances for testing and inspecting.

1.3 SELECTION AND PURCHASE

- A. At the earliest practical date after award of the Contract, advise the Owner/Architect of the date when final selection and purchase of each product or system described by an allowance must be completed to avoid delaying the Work.
- B. At Architect's request, obtain proposals for each allowance for use in making final selections. Include recommendations that are relevant to performing the Work.
- C. Purchase products and systems selected by Architect from the designated supplier.

1.4 ACTION SUBMITTALS

- A. Submit proposals for purchase of products or systems included in allowances, in the form specified for Change Orders.

1.5 INFORMATIONAL SUBMITTALS

- A. Submit invoices or delivery slips to show actual quantities of materials delivered to the site for use in fulfillment of each allowance.
- B. Submit time sheets and other documentation to show labor time and cost for installation of allowance items that include installation as part of the allowance.
- C. Coordinate and process submittals for allowance items in same manner as for other portions of the Work.

1.6 COORDINATION

- A. Coordinate allowance items with other portions of the Work. Furnish templates as required to coordinate installation.

1.7 LUMP-SUM, UNIT-COST AND QUANTITY ALLOWANCES

- A. Allowance shall include cost to Contractor of specific products and materials ordered by Owner or selected by Architect under allowance and shall include applicable taxes, and freight, and delivery to Project site.
- B. Unless otherwise indicated, Contractor's costs for receiving and handling at Project site, labor, installation, overhead and profit, and similar costs related to products and materials ordered by Owner and or selected by Architect under allowance shall be included as part of the Contract Sum and not part of the allowance.
- C. Unused Materials: Return unused materials purchased under an allowance to manufacturer or supplier for credit to Owner, after installation has been completed and accepted.
 - 1. If requested by Architect, retain and prepare unused material for storage by Owner. Deliver unused material to Owner's storage space as directed.

1.8 CONTINGENCY ALLOWANCES

- A. Use the contingency allowance only as directed by Architect for Owner's purposes and only by Change Orders that indicate amounts to be charged to the allowance.
- B. Contractor's overhead, profit, and related costs for products and equipment ordered by Owner under the contingency allowance are included in the allowance and are not part of the Contract Sum. These costs include delivery, installation, taxes, insurance, equipment rental, and similar costs.
- C. Change Orders authorizing use of funds from the contingency allowance will include Contractor's related costs and reasonable overhead and profit margins.

- D. At Project closeout, credit unused amounts remaining in the contingency allowance to Owner by Change Order.

1.9 TESTING AND INSPECTING ALLOWANCES

- A. Testing and inspecting allowances include the cost of engaging testing agencies, actual tests and inspections, and reporting results.
- B. The allowance does not include incidental labor required to assist the testing agency or costs for retesting if previous tests and inspections result in failure. The cost for incidental labor to assist the testing agency shall be included in the Contract Sum.
- C. Costs of services not required by the Contract Documents are not included in the allowance.
- D. At Project closeout, credit unused amounts remaining in the testing and inspecting allowance to Owner by Change Order.

1.10 ADJUSTMENT OF ALLOWANCES

- A. Allowance Adjustment: To adjust allowance amounts, prepare a Change Order proposal based on the difference between purchase amount and the allowance, multiplied by final measurement of work-in- place where applicable. If applicable, include reasonable allowances for cutting losses, tolerances, mixing wastes, normal product imperfections, and similar margins.
 - 1. Include installation costs in purchase amount only where indicated as part of the allowance.
 - 2. If requested, prepare explanation and documentation to substantiate distribution of overhead costs and other margins claimed.
 - 3. Submit substantiation of a change in scope of work, if any, claimed in Change Orders related to unit-cost allowances.
 - 4. Owner reserves the right to establish the quantity of work-in-place by independent quantity survey, measure, or count.
- B. Submit claims for increased costs because of a change in scope or nature of the allowance described in the Contract Documents, whether for the purchase order amount or Contractor's handling, labor, installation, overhead, and profit.
 - 1. Do not include Contractor's or subcontractor's indirect expense in the Change Order cost amount unless it is clearly shown that the nature or extent of work has changed from what could have been foreseen from information in the Contract Documents.
 - 2. No change to Contractor's indirect expense is permitted for selection of higher- or lower-priced materials or systems of the same scope and nature as originally indicated.

PART 2 - PRODUCTS (Not Used)

PART 3 – EXECUTION

3.1 EXAMINATION

- A. Examine products covered by an allowance promptly on delivery for damage or defects. Return damaged or defective products to manufacturer for replacement.

3.2 PREPARATION

- A. Coordinate materials and their installation for each allowance with related materials and installations to ensure that each allowance item is completely integrated and interfaced with related work.

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**SECTION 012200
UNIT PRICES**

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative and procedural requirements for unit prices.
- B. Related Requirements:
 - 1. Section 012600 Contract Modification Procedures for procedures for submitting and handling Change Orders.
 - 2. Section 014000 Quality Requirements for general testing and inspecting requirements.

1.3 DEFINITIONS

- A. Unit price is an amount incorporated in the Agreement, applicable during the duration of the Work as a price per unit of measurement for materials, equipment, or services, or a portion of the Work, added to or deducted from the Contract Sum by appropriate modification, if the scope of Work or estimated quantities of Work required by the Contract Documents are increased or decreased.

1.4 PROCEDURES

- A. Unit prices include all necessary material, plus cost for delivery, installation, insurance, applicable taxes, overhead, and profit.
- B. Measurement and Payment: See individual Specification Sections for work that requires establishment of unit prices. Methods of measurement and payment for unit prices are specified in those Sections.
- C. Owner reserves the right to reject Contractor's measurement of work-in-place that involves use of established unit prices and to have this work measured, at Owner's expense, by an independent surveyor acceptable to Contractor.
- D. List of Unit Prices: A schedule of unit prices is included in Part 3. Specification Sections referenced in the schedule contain requirements for materials described under each unit price.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 SCHEDULE OF UNIT PRICES

A. Unit Price 1:

B. Unit Price No. 2:

--- E N D ---

**SECTION 012500
SUBSTITUTION PROCEDURES**

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes administrative and procedural requirements for substitutions.
- B. Related Requirements:
 - 1.

1.2 DEFINITIONS

- A. Substitutions: Changes in products, materials, equipment, and methods of construction from those required by the Contract Documents and proposed by Contractor.

1.3 ACTION SUBMITTALS

- A. Substitution Requests after contract award: Submit three copies of each request for consideration. Identify product or fabrication or installation method to be replaced. Include Specification Section number and title and Drawing numbers and titles. Refer to section 00 2113 for substitutions during bidding.
 - 1. Substitution Request Form: Use facsimile of form provided in Project Manual.
 - 2. Documentation: Show compliance with requirements for substitutions and the following, as applicable:
 - a. Statement indicating why specified product or fabrication or installation cannot be provided, if applicable.
 - b. Coordination information, including a list of changes or revisions needed to other parts of the Work and to construction performed by Owner and separate contractors, that will be necessary to accommodate proposed substitution.
 - c. Detailed comparison of significant qualities of proposed substitution with those of the Work specified. Include annotated copy of applicable Specification Section. Significant qualities may include attributes such as performance, weight, size, durability, visual effect, sustainable design characteristics, warranties, and specific features and requirements indicated. Indicate deviations, if any, from the Work specified.
 - d. Product Data, including drawings and descriptions of products and fabrication and installation procedures.
 - e. Samples, where applicable or requested.
 - f. Certificates and qualification data, where applicable or requested.
 - g. List of similar installations for completed projects with project names and addresses and names and addresses of architects and owners.
 - h. Material test reports from a qualified testing agency indicating and interpreting test results for compliance with requirements indicated.
 - i. Research reports evidencing compliance with building code in effect for Project, from ICC-ES.
 - j. Detailed comparison of Contractor's construction schedule using proposed substitution with products specified for the Work, including effect on the overall Contract Time. If specified product or method of construction cannot be

- provided within the Contract Time, include letter from manufacturer, on manufacturer's letterhead, stating date of receipt of purchase order, lack of availability, or delays in delivery.
 - k. Cost information, including a proposal of change, if any, in the Contract Sum.
 - l. Contractor's certification that proposed substitution complies with requirements in the Contract Documents except as indicated in substitution request, is compatible with related materials, and is appropriate for applications indicated.
 - m. Contractor's waiver of rights to additional payment or time that may subsequently become necessary because of failure of proposed substitution to produce indicated results.
- 3. Architect's Action: If necessary, Architect will request additional information or documentation for evaluation within seven days of receipt of a request for substitution. Architect will notify Contractor of acceptance or rejection of proposed substitution within 15 days of receipt of request, or seven days of receipt of additional information or documentation, whichever is later.
 - a. Forms of Acceptance: Change Order, Construction Change Directive, or Architect's Supplemental Instructions for minor changes in the Work.
 - b. Use product specified if Architect does not issue a decision on use of a proposed substitution within time allocated.

1.4 QUALITY ASSURANCE

- A. Compatibility of Substitutions: Investigate and document compatibility of proposed substitution with related products and materials. Engage a qualified testing agency to perform compatibility tests recommended by manufacturers.

PART 2 - PRODUCTS

2.1 SUBSTITUTIONS

- A. Substitutions for Cause: Submit requests for substitution immediately on discovery of need for change, but not later than 15 days prior to time required for preparation and review of related submittals.
 - 1. Conditions: Architect will consider Contractor's request for substitution when the following conditions are satisfied:
 - a. Requested substitution is consistent with the Contract Documents and will produce indicated results.
 - b. Requested substitution will not adversely affect Contractor's construction schedule.
 - c. Requested substitution has received necessary approvals of authorities having jurisdiction.
 - d. Requested substitution is compatible with other portions of the Work.
 - e. Requested substitution has been coordinated with other portions of the Work.
 - f. Requested substitution provides specified warranty.
 - g. If requested substitution involves more than one contractor, requested substitution has been coordinated with other portions of the Work, is uniform and consistent, is compatible with other products, and is acceptable to all contractors involved.

- B. Substitutions for Convenience: Architect will consider requests for substitution if received within 20 days after the Notice to Proceed.
1. Conditions: Architect will consider Contractor's request for substitution when the following conditions are satisfied:
 - a. Requested substitution offers Owner a substantial advantage in cost, time, energy conservation, or other considerations, after deducting additional responsibilities Owner must assume. Owner's additional responsibilities may include compensation to Architect for redesign and evaluation services, increased cost of other construction by Owner, and similar considerations.
 - b. Requested substitution does not require extensive revisions to the Contract Documents.
 - c. Requested substitution is consistent with the Contract Documents and will produce indicated results.
 - d. Requested substitution will not adversely affect Contractor's construction schedule.
 - e. Requested substitution has received necessary approvals of authorities having jurisdiction.
 - f. Requested substitution is compatible with other portions of the Work.
 - g. Requested substitution has been coordinated with other portions of the Work.
 - h. Requested substitution provides specified warranty.
 - i. If requested substitution involves more than one contractor, requested substitution has been coordinated with other portions of the Work, is uniform and consistent, is compatible with other products, and is acceptable to all contractors involved.

PART 3 - EXECUTION (Not Used)

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**SECTION 012600
CONTRACT MODIFICATION PROCEDURES**

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes administrative and procedural requirements for handling and processing Contract modifications.

1.2 MINOR CHANGES IN THE WORK

- A. Architect will issue supplemental instructions authorizing minor changes in the Work, not involving adjustment to the Contract Sum or the Contract Time, on AIA Document G710, "Architect's Supplemental Instructions."

1.3 PROPOSAL REQUESTS

- A. Owner-Initiated Proposal Requests: Architect will issue a detailed description of proposed changes in the Work that may require adjustment to the Contract Sum or the Contract Time. If necessary, the description will include supplemental or revised Drawings and Specifications.
 - 1. Work Change Proposal Requests issued by Architect are not instructions either to stop work in progress or to execute the proposed change.
 - 2. Within time specified in Proposal Request or 12 days, when not otherwise specified, after receipt of Proposal Request, submit a quotation estimating cost adjustments to the Contract Sum and the Contract Time necessary to execute the change.
 - a. Include a list of quantities of products required or eliminated and unit costs, with total amount of purchases and credits to be made. If requested, furnish survey data to substantiate quantities.
 - b. Indicate applicable taxes, delivery charges, equipment rental, and amounts of trade discounts.
 - c. Include costs of labor and supervision directly attributable to the change.
 - d. Include an updated Contractor's construction schedule that indicates the effect of the change, including, but not limited to, changes in activity duration, start and finish times, and activity relationship. Use available total float before requesting an extension of the Contract Time.
 - e. Quotation Form: Use CSI Form 13.6D, "Proposal Worksheet Summary," and Form 13.6C, "Proposal Worksheet Detail." Or forms acceptable to Architect.
- B. Contractor-Initiated Work Change Proposals: If latent or changed conditions require modifications to the Contract, Contractor may initiate a claim by submitting a request for a change to Architect.
 - 1. Include a statement outlining reasons for the change and the effect of the change on the Work. Provide a complete description of the proposed change. Indicate the effect of the proposed change on the Contract Sum and the Contract Time.
 - 2. Include a list of quantities of products required or eliminated and unit costs, with total amount of purchases and credits to be made. If requested, furnish survey data to substantiate quantities.
 - 3. Indicate applicable taxes, delivery charges, equipment rental, and amounts of trade

- discounts.
- 4. Include costs of labor and supervision directly attributable to the change.
- 5. Include an updated Contractor's construction schedule that indicates the effect of the change, including, but not limited to, changes in activity duration, start and finish times, and activity relationship. Use available total float before requesting an extension of the Contract Time.
- 6. Comply with requirements in Section 012500 "Substitution Procedures" if the proposed change requires substitution of one product or system for product or system specified.
- 7. Work Change Proposal Request Form: Use CSI Form 13.6A, "Change Order Request (Proposal)," with attachments CSI Form 13.6D, "Proposal Worksheet Summary," and Form 13.6C, "Proposal Worksheet Detail." or form acceptable to Architect.

1.4 ADMINISTRATIVE CHANGE ORDERS

- A. Unit-Price Adjustment: See Section 012200 "Unit Prices" for administrative procedures for preparation of Change Order Proposal for adjusting the Contract Sum to reflect measured scope of unit-price work.

1.5 CHANGE ORDER PROCEDURES

- A. On Owner's approval of a Work Changes Proposal Request, Architect will issue a Change Order for signatures of Owner and Contractor on AIA Document G701.

1.6 CONSTRUCTION CHANGE DIRECTIVE

- A. Construction Work Change Directive: Architect may issue a Construction Work Change Directive on AIA Document G714. Construction Work Change Directive instructs Contractor to proceed with a change in the Work, for subsequent inclusion in a Change Order.
 - 1. Construction Work Change Directive contains a complete description of change in the Work. It also designates method to be followed to determine change in the Contract Sum or the Contract Time.
- B. Documentation: Maintain detailed records on a time and material basis of work required by the Construction Work Change Directive.
 - 1. After completion of change, submit an itemized account and supporting data necessary to substantiate cost and time adjustments to the Contract.

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**SECTION 012900
PAYMENT PROCEDURES**

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes administrative and procedural requirements necessary to prepare and process Applications for Payment.
- B. Related Requirements:
 - 1. Section 012200 Unit Prices for administrative requirements governing the use of unit prices.
 - 2. Section 012600 Contract Modification Procedures for administrative procedures for handling changes to the Contract.
 - 3. Section 013200 Construction Progress Documentation for administrative requirements governing the preparation and submittal of the Contractor's construction schedule.

1.2 SCHEDULE OF VALUES

- A. Coordination: Coordinate preparation of the schedule of values with preparation of Contractor's construction schedule. Cost-loaded Critical Path Method Schedule may serve to satisfy requirements for the schedule of values.
 - 1. Coordinate line items in the schedule of values with other required administrative forms and schedules, including the following:
 - a. Application for Payment forms with continuation sheets.
 - b. Submittal schedule.
 - c. Items required to be indicated as separate activities in Contractor's construction schedule.
 - 2. Submit the schedule of values to Architect at earliest possible date but no later than seven days before the date scheduled for submittal of initial Applications for Payment.
- B. Format and Content: Use Project Manual table of contents as a guide to establish line items for the schedule of values.
 - 1. Identification: Include the following Project identification on the schedule of values:
 - a. Project name and location.
 - b. Name of Architect.
 - c. Architect's project number.
 - d. Contractor's name and address.
 - e. Date of submittal.
 - 2. Arrange schedule of values consistent with format of AIA Document G703 .
 - 3. Provide a breakdown of the Contract Sum in enough detail to facilitate continued evaluation of Applications for Payment and progress reports. Provide multiple line items for principal subcontract amounts in excess of five percent of the Contract Sum.
 - 4. Round amounts to nearest whole dollar; total shall equal the Contract Sum.
 - 5. Provide a separate line item in the schedule of values for each part of the Work where Applications for Payment may include materials or equipment purchased or fabricated and stored, but not yet installed.
 - 6. Provide separate line items in the schedule of values for initial cost of materials, for each subsequent stage of completion, and for total installed value of that part

- of the Work.
7. Allowances: Provide a separate line item in the schedule of values for each allowance. Show line-item value of unit-cost allowances, as a product of the unit cost, multiplied by measured quantity. Use information indicated in the Contract Documents to determine quantities.
 8. Each item in the schedule of values and Applications for Payment shall be complete. Include total cost and proportionate share of general overhead and profit for each item.
 - a. Temporary facilities and other major cost items that are not direct cost of actual work-in-place may be shown either as separate line items in the schedule of values or distributed as general overhead expense, at Contractor's option.
 9. Schedule Updating: Update and resubmit the schedule of values before the next Applications for Payment when Change Orders or Construction Change Directives result in a change in the Contract Sum.

1.3 APPLICATIONS FOR PAYMENT

- A. Each Application for Payment shall be consistent with previous applications and payments as certified by Architect and paid for by Owner.
 1. Initial Application for Payment, Application for Payment at time of Substantial Completion, and final Application for Payment involve additional requirements.
- B. Payment Application Times: The date for each progress payment is indicated in the Agreement between Owner and Contractor. The period of construction work covered by each Application for Payment is the period indicated in the Agreement.
- C. Application for Payment Forms: Use AIA Document G702 and AIA Document G703 as form for Applications for Payment.
- D. Application Preparation: Complete every entry on form. Notarize and execute by a person authorized to sign legal documents on behalf of Contractor. Architect will return incomplete applications without action.
 1. Entries shall match data on the schedule of values and Contractor's construction schedule. Use updated schedules if revisions were made.
 2. Include amounts of Change Orders and Construction Change Directives issued before last day of construction period covered by application.
- E. Transmittal: Submit three signed and notarized original copies of each Application for Payment to Architect by a method ensuring receipt within 24 hours. One copy shall include waivers of lien and similar attachments if required.
 1. Transmit each copy with a transmittal form listing attachments and recording appropriate information about application.
- F. Waivers of Mechanic's Lien: With each Application for Payment, submit waivers of mechanic's lien from entities lawfully entitled to file a mechanic's lien arising out of the Contract and related to the Work covered by the payment.
 1. When an application shows completion of an item, submit conditional final or full waivers.
 2. Owner reserves the right to designate which entities involved in the Work must submit waivers.

- G. Initial Application for Payment: Administrative actions and submittals that must precede or coincide with submittal of first Application for Payment include the following:
 - 1. List of subcontractors.
 - 2. Schedule of values.
 - 3. Contractor's construction schedule (preliminary if not final).
 - 4. Schedule of unit prices.
 - 5. Submittal schedule (preliminary if not final).
 - 6. Certificates of insurance and insurance policies.

- H. Application for Payment at Substantial Completion: After Architect issues the Certificate of Substantial Completion, submit an Application for Payment showing 100 percent completion for portion of the Work claimed as substantially complete.
 - 1. Include documentation supporting claim that the Work is substantially complete and a statement showing an accounting of changes to the Contract Sum.

- I. Final Payment Application: After completing Project closeout requirements, submit final Application for Payment with releases and supporting documentation not previously submitted and accepted, including, but not limited, to the following:
 - 1. Evidence of completion of Project closeout requirements.
 - 2. Insurance certificates for products and completed operations where required and proof that taxes, fees, and similar obligations were paid.
 - 3. Updated final statement, accounting for final changes to the Contract Sum.
 - 4. AIA Document G706-1994, "Contractor's Affidavit of Payment of Debts and Claims."
 - 5. AIA Document G706A-1994, "Contractor's Affidavit of Release of Liens."
 - 6. AIA Document G707-1994, "Consent of Surety to Final Payment."
 - 7. Evidence that claims have been settled.
 - 8. Final meter readings for utilities, a measured record of stored fuel, and similar data as of date of Substantial Completion or when Owner took possession of and assumed responsibility for corresponding elements of the Work.
 - 9. Final liquidated damages settlement statement.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

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**SECTION 013100
PROJECT MANAGEMENT AND COORDINATION**

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes administrative provisions for coordinating construction operations on Project including, but not limited to, the following:
 - 1. Coordination drawings.
 - 2. Requests for Information (RFIs).
 - 3. Project meetings.
- B. Related Requirements:
 - 1. The drawings and provisions of the General and Supplementary Conditions and Division 01 Specification sections, and other clarifications apply to this section.

1.2 DEFINITIONS

- A. RFI: Request from Owner, Architect, or Contractor seeking information required by or clarifications of the Contract Documents.

1.3 INFORMATIONAL SUBMITTALS

- A. Subcontract List: Prepare a written summary identifying individuals or firms proposed for each portion of the Work, including those who are to furnish products or equipment fabricated to a special design. Use CSI Form 1.5A or similar form acceptable to architect. Include the following information in tabular form:
 - 1. Name, address, and telephone number of entity performing subcontract or supplying products.
 - 2. Number and title of related Specification Section(s) covered by subcontract.
 - 3. Drawing number and detail references, as appropriate, covered by subcontract.

1.4 GENERAL COORDINATION PROCEDURES

- A. Coordination: Coordinate construction operations included in different Sections of the Specifications to ensure efficient and orderly installation of each part of the Work. Coordinate construction operations, included in different Sections that depend on each other for proper installation, connection, and operation.
 - 1. Schedule construction operations in sequence required to obtain the best results where installation of one part of the Work depends on installation of other components, before or after its own installation.
 - 2. Coordinate installation of different components to ensure maximum performance and accessibility for required maintenance, service, and repair.
 - 3. Make adequate provisions to accommodate items scheduled for later installation.
- B. Prepare memoranda for distribution to each party involved, outlining special procedures required for coordination. Include such items as required notices, reports, and list of attendees at meetings.
 - 1. Prepare similar memoranda for Owner and separate contractors if coordination of their Work is required.

- C. Administrative Procedures: Coordinate scheduling and timing of required administrative procedures with other construction activities and activities of other contractors to avoid conflicts and to ensure orderly progress of the Work. Such administrative activities include, but are not limited to, the following:
1. Preparation of Contractor's construction schedule.
 2. Preparation of the schedule of values.
 3. Installation and removal of temporary facilities and controls.
 4. Delivery and processing of submittals.
 5. Progress meetings.
 6. Pre-installation conferences.
 7. Project closeout activities.
 8. Startup and adjustment of systems.

1.5 COORDINATION DRAWINGS

- A. Coordination Drawings, General: Prepare coordination drawings according to requirements in individual Sections, where installation is not completely shown on Shop Drawings, where limited space availability necessitates coordination, or if coordination is required to facilitate integration of products and materials fabricated or installed by more than one entity.
1. Content: Project-specific information, drawn accurately to a scale large enough to indicate and resolve conflicts. Do not base coordination drawings on standard printed data. Include the following information, as applicable:
 - a. Indicate functional and spatial relationships of components of architectural, structural, civil, mechanical, and electrical systems.
 - b. Indicate dimensions shown on the Drawings. Specifically note dimensions that appear to be in conflict with submitted equipment and minimum clearance requirements. Provide alternate sketches to Architect indicating proposed resolution of such conflicts. Minor dimension changes and difficult installations will not be considered changes to the Contract.
- B. Coordination Drawing Organization: Organize coordination drawings as follows:
1. Floor Plans and Reflected Ceiling Plans: Show architectural and structural elements, and mechanical, plumbing, fire-protection, fire-alarm, and electrical Work. Show locations of visible ceiling-mounted devices relative to acoustical ceiling grid.
 2. Plenum Space: Indicate sub-framing for support of ceiling and wall systems, mechanical and electrical equipment, and related Work. Locate components within ceiling plenum to accommodate layout of light fixtures indicated on Drawings.
 3. Mechanical Rooms: Provide coordination drawings for mechanical rooms showing plans and elevations of mechanical, plumbing, fire-protection, fire-alarm, and electrical equipment.
 4. Structural Penetrations: Indicate penetrations and openings required for all disciplines.
 5. Slab Edge and Embedded Items: Indicate slab edge locations and sizes and locations of embedded items for metal fabrications, sleeves, anchor bolts, bearing plates, angles, door floor closers, slab depressions for floor finishes, curbs and housekeeping pads, and similar items.
 6. Review: Architect will review coordination drawings to confirm that the Work is being coordinated, but not for the details of the coordination, which are Contractor's responsibility.

1.6 REQUESTS FOR INFORMATION (RFIs)

- A. General: Immediately on discovery of the need for additional information or interpretation of the Contract Documents, Contractor shall prepare and submit an RFI in the form acceptable to architect.

1. Architect will return RFIs submitted to Architect.
 2. Coordinate and submit RFIs in a prompt manner so as to avoid delays in Contractor's work or work of subcontractors.
- B. Content of the RFI: Include a detailed, legible description of item needing information or interpretation and the following:
1. Project name.
 2. Project number.
 3. Date.
 4. Name of Contractor.
 5. Name of Architect.
 6. RFI number, numbered sequentially.
 7. RFI subject.
 8. Specification Section number and title and related paragraphs, as appropriate.
 9. Drawing number and detail references, as appropriate.
 10. Field dimensions and conditions, as appropriate.
 11. Contractor's suggested resolution. If Contractor's solution(s) impacts the Contract Time or the Contract Sum, Contractor shall state impact in the RFI.
 12. Contractor's signature.
 13. Attachments: Include sketches, descriptions, measurements, photos, Product Data, Shop Drawings, coordination drawings, and other information necessary to fully describe items needing interpretation.
- C. RFI Forms: AIA Document G716 Software-generated form with substantially the same content as indicated above, or similar form acceptable to Architect.
- D. Architect's Action: Architect will review each RFI, determine action required, and respond. Allow seven working days for Architect's response for each RFI. RFIs received by Architect after 1:00 p.m. will be considered as received the following working day.
1. The following RFIs will be returned without action:
 - a. Requests for approval of submittals.
 - b. Requests for approval of substitutions.
 - c. Requests for coordination information already indicated in the Contract Documents.
 - d. Requests for adjustments in the Contract Time or the Contract Sum.
 - e. Requests for interpretation of Architect's actions on submittals.
 - f. Incomplete RFIs or inaccurately prepared RFIs.
 2. Architect's action may include a request for additional information, in which case Architect's time for response will date from time of receipt of additional information.
 3. Architect's action on RFIs that may result in a change to the Contract Time or the Contract Sum may be eligible for Contractor to submit Change Proposal according to Section 012600 Contract Modification Procedures.
 - a. If Contractor believes the RFI response warrants change in the Contract Time or the Contract Sum, notify Architect in writing within 10 days of receipt of the RFI response.
- E. RFI Log: Prepare, maintain, and submit a tabular log of RFIs organized by the RFI number. Submit log weekly. Use CSI Log Form 13.2B or similar form acceptable to architect. Include the following:
1. Project name.
 2. Name and address of Contractor.
 3. Name and address of Architect.
 4. RFI number including RFIs that were dropped and not submitted.
 5. RFI description.
 6. Date the RFI was submitted.

7. Date Architect's response was received.
- F. On receipt of Architect's action, update the RFI log and immediately distribute the RFI response to affected parties. Review response and notify Architect within seven days if Contractor disagrees with response.
 1. Identification of related Minor Change in the Work, Construction Change Directive, and Proposal Request, as appropriate.

1.7 PROJECT MEETINGS

- A. General: Contractor shall schedule and conduct meetings and conferences at Project site unless otherwise indicated.
 1. Attendees: Inform participants and others involved, and individuals whose presence is required, of date and time of each meeting. Notify Owner and Architect of scheduled meeting dates and times.
 2. Agenda: Prepare the meeting agenda. Distribute the agenda to all invited attendees.
 3. Minutes: Entity responsible for conducting meeting will record significant discussions and agreements achieved. Distribute the meeting minutes to everyone concerned, including Owner and Architect, within three days of the meeting.
- B. Preconstruction Conference: Contractor shall schedule and conduct a preconstruction conference before starting construction, at a time convenient to Owner and Architect, but no later than 10 days after execution of the Agreement.
 1. Attendees: Authorized representatives of Owner, Architect; Contractor and its superintendent; major subcontractors; suppliers; and other concerned parties shall attend the conference. Participants at the conference shall be familiar with Project and authorized to conclude matters relating to the Work.
 2. Agenda: Discuss items of significance that could affect progress, including the following:
 - a. Tentative construction schedule.
 - b. Critical work sequencing and long-lead items.
 - c. Designation of key personnel and their duties.
 - d. Procedures for processing field decisions and Change Orders.
 - e. Procedures for RFIs.
 - f. Procedures for testing and inspecting.
 - g. Procedures for processing Applications for Payment.
 - h. Distribution of the Contract Documents.
 - i. Submittal procedures.
 - j. Preparation of record documents.
 - k. Use of the premises.
 - l. Work restrictions.
 - m. Working hours.
 - n. Responsibility for temporary facilities and controls.
 - o. Procedures for moisture and mold control.
 - p. Procedures for disruptions and shutdowns.
 - q. Construction waste management and recycling.
 - r. Parking availability.
 - s. Office, work, and storage areas.
 - t. Equipment deliveries and priorities.
 - u. First aid.
 - v. Security.
 - w. Progress cleaning.
 3. Minutes: Entity responsible for conducting meeting will record and distribute meeting minutes.

- C. Progress Meetings: Conduct progress meetings at weekly intervals for the first 8 weeks of construction then biweekly thereafter.
 - 1. Attendees: In addition to representatives of Owner and Architect, each contractor, subcontractor, supplier, and other entity concerned with current progress or involved in planning, coordination, or performance of future activities shall be represented at these meetings. All participants at the meeting shall be familiar with Project and authorized to conclude matters relating to the Work.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

--- E N D ---

**SECTION 013200
CONSTRUCTION PROGRESS DOCUMENTATION**

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes administrative and procedural requirements for documenting the progress of construction during performance of the Work, including the following:
 - 1. Contractor's construction schedule.
 - 2. Construction schedule updating reports.
 - 3. Daily construction reports.
 - 4. Site condition reports.

1.2 DEFINITIONS

- A. Activity: A discrete part of a project that can be identified for planning, scheduling, monitoring, and controlling the construction project. Activities included in a construction schedule consume time and resources.
 - 1. Critical Activity: An activity on the critical path that must start and finish on the planned early start and finish times.
 - 2. Predecessor Activity: An activity that precedes another activity in the network.
 - 3. Successor Activity: An activity that follows another activity in the network.
- B. CPM: Critical path method, which is a method of planning and scheduling a construction project where activities are arranged based on activity relationships. Network calculations determine when activities can be performed and the critical path of Project.
- C. Critical Path: The longest connected chain of interdependent activities through the network schedule that establishes the minimum overall Project duration and contains no float.
- D. Float: The measure of leeway in starting and completing an activity.
 - 1. Float time is not for the exclusive use or benefit of either Owner or Contractor, but is a jointly owned, expiring Project resource available to both parties as needed to meet schedule milestones and Contract completion date.

1.3 INFORMATIONAL SUBMITTALS

- A. Format for Submittals: Submit required submittals in the following format:
 - 1. Two paper copies.
- B. Startup Network Diagram: Of size required to display entire network for entire construction period. Show logic ties for activities.
- C. Contractor's Construction Schedule: Initial schedule, of size required to display entire schedule for entire construction period.
- D. CPM Reports: Concurrent with CPM schedule, submit each of the following reports. Format for each activity in reports shall contain activity number, activity description, original duration, remaining duration, early start date, early finish date, late start date, late finish date, and total float in calendar days.
 - 1. Activity Report: List of all activities sorted by activity number and then early start date, or actual start date if known.

2. Logic Report: List of preceding and succeeding activities for all activities, sorted in ascending order by activity number and then early start date, or actual start date if known.
 3. Total Float Report: List of all activities sorted in ascending order of total float.
- E. Construction Schedule Updating Reports: Submit with Applications for Payment.
- F. Daily Construction Reports: Submit at weekly intervals.
- G. Site Condition Reports: Submit at time of discovery of differing conditions.

1.4 COORDINATION

- A. Coordinate Contractor's construction schedule with the schedule of values, list of subcontracts, submittal schedule, progress reports, payment requests, and other required schedules and reports.
1. Secure time commitments for performing critical elements of the Work from entities involved.
 2. Coordinate each construction activity in the network with other activities and schedule them in proper sequence.

PART 2 - PRODUCTS

2.1 CONTRACTOR'S CONSTRUCTION SCHEDULE, GENERAL

- A. Time Frame: Extend schedule from date established for the Notice of Award the Notice to Proceed to date of Substantial Completion.
1. Contract completion date shall not be changed by submission of a schedule that shows an early completion date, unless specifically authorized by Change Order.
 2. Activity Duration: Define activities so no activity is longer than 14 days, unless specifically allowed by Architect.
 3. Procurement Activities: Include procurement process activities for the following long lead items and major items, requiring a cycle of more than 30 days, as separate activities in schedule. Procurement cycle activities include, but are not limited to, submittals, approvals, purchasing, fabrication, and delivery.
 4. Startup and Testing Time: Include no fewer than 15 days for startup and testing.
 5. Substantial Completion: Indicate completion in advance of date established for Substantial Completion, and allow time for Architect's administrative procedures necessary for certification of Substantial Completion.
 6. Punch List and Final Completion: Include not more than 20 days for completion of punch list items and final completion.
- B. Upcoming Work Summary: Prepare summary report indicating activities scheduled to occur or commence prior to submittal of next schedule update. Summarize the following issues:
1. Unresolved issues.
 2. Unanswered Requests for Information.
 3. Rejected or unreturned submittals.
 4. Notations on returned submittals.
 5. Pending modifications affecting the Work and Contract Time.
- C. Recovery Schedule: When periodic update indicates the Work is 14 or more calendar days behind the current approved schedule, submit a separate recovery schedule indicating means by which Contractor intends to regain compliance with the schedule.

- D. Computer Scheduling Software: Prepare schedules using current version of a program that has been developed specifically to manage construction schedules.

2.2 CONTRACTOR'S CONSTRUCTION SCHEDULE (GANTT CHART)

- A. Gantt-Chart Schedule: Submit a comprehensive, fully developed, horizontal, Gantt-chart-type, Contractor's construction schedule within 30 days of date established for the Notice to Proceed.

2.3 REPORTS

- A. Daily Construction Reports: Prepare a daily construction report recording the following information concerning events at Project site:
 - 1. List of subcontractors at Project site.
 - 2. List of separate contractors at Project site.
 - 3. Approximate count of personnel at Project site.
 - 4. Equipment at Project site.
 - 5. Material deliveries.
 - 6. High and low temperatures and general weather conditions, including presence of rain or snow.
 - 7. Accidents.
 - 8. Meetings and significant decisions.
 - 9. Unusual events.
 - 10. Stoppages, delays, shortages, and losses.
 - 11. Meter readings and similar recordings.
 - 12. Emergency procedures.
 - 13. Orders and requests of authorities having jurisdiction.
 - 14. Change Orders received and implemented.
 - 15. Construction Change Directives received and implemented.
 - 16. Services connected and disconnected.
 - 17. Equipment or system tests and startups.
 - 18. Partial completions and occupancies.
 - 19. Substantial Completions authorized.
- B. Site Condition Reports: Immediately on discovery of a difference between site conditions and the Contract Documents, prepare and submit a detailed report. Submit with a Request for Information. Include a detailed description of the differing conditions, together with recommendations for changing the Contract Documents.

PART 3 - EXECUTION

3.1 CONTRACTOR'S CONSTRUCTION SCHEDULE

- A. Contractor's Construction Schedule Updating: At bi-monthly intervals, update schedule to reflect actual construction progress and activities. Issue schedule before each regularly scheduled progress meeting.
 - 1. Revise schedule immediately after each meeting or other activity where revisions have been recognized or made. Issue updated schedule concurrently with the report of each such meeting.
 - 2. Include a report with updated schedule that indicates every change, including, but not limited to, changes in logic, durations, actual starts and finishes, and activity durations.
 - 3. As the Work progresses, indicate final completion percentage for each activity.

- B. Distribution: Distribute copies of approved schedule to Architect Owner, separate contractors, testing and inspecting agencies, and other parties identified by Contractor with a need-to-know schedule responsibility.
1. Post copies in Project meeting rooms and temporary field offices.
 2. When revisions are made, distribute updated schedules to the same parties and post in the same locations. Delete parties from distribution when they have completed their assigned portion of the Work and are no longer involved in performance of construction activities.

--- E N D ---

**SECTION 013233
PHOTOGRAPHIC DOCUMENTATION**

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes administrative and procedural requirements for the following:
 - 1. Preconstruction photographs.
 - 2. Periodic construction photographs.
- B. Related Requirements:
 - 1. The drawings and provisions of the General and Supplementary Conditions and Division 01 Specification sections, and other clarifications apply to this section.

1.2 INFORMATIONAL SUBMITTALS

- A. Key Plan: Submit key plan of Project site and building with notation of vantage points marked for location and direction of each photograph. Indicate elevation or story of construction. Include same information as corresponding photographic documentation.
- B. Digital Photographs: Electronically transmit, unaltered, original, full-size image files weekly.
 - 1. Digital Camera: Minimum sensor resolution of 8 megapixels.
 - 2. Identification: Provide the following information with each image description in file metadata tag:
 - a. Name of Project.
 - b. Name and contact information for photographer.
 - c. Date photograph was taken.
 - d. Description of vantage point, indicating location, direction (by compass point), and elevation or story of construction.

1.3 USAGE RIGHTS

- A. Obtain and transfer copyright usage rights from photographer to Owner for unlimited reproduction of photographic documentation.

PART 2 - PRODUCTS

2.1 PHOTOGRAPHIC MEDIA

- A. Digital Images: Provide images in JPG format, with minimum size of 8 megapixels.

PART 3 - EXECUTION

3.1 CONSTRUCTION PHOTOGRAPHS

- A. Photographer: Engage a qualified photographer to take construction photographs.
- B. General: Take photographs using the maximum range of depth of field, and that are in focus, to clearly show the Work. Photographs with blurry or out-of-focus areas will not be

accepted.

1. Maintain key plan with each set of construction photographs that identifies each photographic location.
- C. Digital Images: Submit digital images exactly as originally recorded in the digital camera, without alteration, manipulation, editing, or modifications using image-editing software.
1. Date and Time: Include date and time in file name for each image.
 2. Field Office Images: Maintain one set of images accessible in the field office at Project site, available at all times for reference. Identify images in the same manner as those submitted to Architect
- D. Preconstruction Photographs: Before commencement of excavation take photographs of Project site and surrounding properties, including existing items to remain during construction, from different vantage points, as directed by Architect.
1. Flag excavation areas before taking construction photographs.
 2. Take 12 photographs to show existing conditions adjacent to property before starting the Work.
- E. Periodic Construction Photographs: Take 10 photographs weekly, with timing each month adjusted to coincide with the cutoff date associated with each Application for Payment. Select vantage points to show status of construction and progress since last photographs were taken.
- F. Final Completion Construction Photographs: Take 20 color photographs after date of Substantial Completion for submission as Project Record Documents. Architect will inform photographer of desired vantage points.
- G. Additional Photographs: Architect may request photographs in addition to periodic photographs specified. Additional photographs will be paid for by Change Order and are not included in the Contract Sum.
1. Three days' notice will be given, where feasible.
 2. In emergency situations, take additional photographs within 24 hours of request.
 3. Circumstances that could require additional photographs include, but are not limited to, the following:
 - a. Special events planned at Project site.
 - b. Immediate follow-up when on-site events result in construction damage or losses.
 - c. Photographs to be taken at fabrication locations away from Project site. These photographs are not subject to unit prices or unit-cost allowances.
 - d. Substantial Completion of a major phase or component of the Work.
 - e. Extra record photographs at time of final acceptance.
 - f. Owner's request for special publicity photographs.

--- E N D ---

**SECTION 013300
SUBMITTAL PROCEDURES**

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes requirements for the submittal schedule and administrative and procedural requirements for submitting Shop Drawings, Product Data, Samples, and other submittals.
- B. Related Requirements:
 - 1. The drawings and provisions of the General and Supplementary Conditions and Division 01 Specification sections, and other clarifications apply to this section.

1.2 DEFINITIONS

- A. Action Submittals: Written and graphic information and physical samples that require Architect's responsive action.
- B. Informational Submittals: Written and graphic information and physical samples that do not require Architect's responsive action. Submittals may be rejected for not complying with requirements.

1.3 ACTION SUBMITTALS

- A. Submittal Schedule: Submit a schedule of submittals, arranged in chronological order by dates required by construction schedule. Include time required for review, ordering, manufacturing, fabrication, and delivery when establishing dates. Include additional time required for making corrections or revisions to submittals noted by Architect and additional time for handling and reviewing submittals required by those corrections.

1.4 SUBMITTAL ADMINISTRATIVE REQUIREMENTS

- A. Architect's Digital Data Files: Electronic copies of digital data files of the Contract Drawings **may** be provided by Architect for Contractor's use in preparing submittals and shop drawings.
 - a. Architect makes no representations as to the accuracy or completeness of digital data drawing files as they relate to the Contract Drawings.
 - b. Contractor shall execute a data licensing agreement in the form of AIA Document C106, Digital Data Licensing Agreement or an Agreement form acceptable to Owner and Architect.
- B. Coordination: Coordinate preparation and processing of submittals with performance of construction activities.
 - 1. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals, and related activities that require sequential activity.
 - 2. Coordinate transmittal of different types of submittals for related parts of the Work so processing will not be delayed because of need to review submittals concurrently for coordination.
 - a. Architect reserves the right to withhold action on a submittal requiring coordination with other submittals until related submittals are received.

- C. Processing Time: Allow time for submittal review, including time for resubmittals, as follows. Time for review shall commence on Architect's receipt of submittal. No extension of the Contract Time will be authorized because of failure to transmit submittals enough in advance of the Work to permit processing, including resubmittals.
 - 1. Initial Review: Allow 15 days for initial review of each submittal. Allow additional time if coordination with subsequent submittals is required. Architect will advise Contractor when a submittal being processed must be delayed for coordination.
 - 2. Intermediate Review: If intermediate submittal is necessary, process it in same manner as initial submittal.
 - 3. Resubmittal Review: Allow 15 days for review of each resubmittal.
- D. Paper Submittals: Place a permanent label or title block on each submittal item for identification.
 - 1. Indicate name of firm or entity that prepared each submittal on label or title block.
 - 2. Provide a space approximately 6 by 8 inches on label or beside title block to record Contractor's review and approval markings and action taken by Architect.
 - 3. Include the following information for processing and recording action taken:
 - a. Project name.
 - b. Date.
 - c. Name of Architect.
 - d. Name of Construction Manager.
 - e. Name of Contractor.
 - f. Name of subcontractor.
 - g. Name of supplier.
 - h. Name of manufacturer.
- E. Options: Identify options requiring selection by Architect.
- F. Deviations: Identify deviations from the Contract Documents on submittals.
- G. Resubmittals: Make resubmittals in same form and number of copies as initial submittal.
 - 1. Note date and content of previous submittal.
 - 2. Note date and content of revision in label or title block and clearly indicate extent of revision.
 - 3. Resubmit submittals until they are marked with approval notation from Architect's action stamp.
- H. Distribution: Furnish copies of final submittals to manufacturers, subcontractors, suppliers, fabricators, installers, authorities having jurisdiction, and others as necessary for performance of construction activities. Show distribution on transmittal forms.
- I. Use for Construction: Retain complete copies of submittals on Project site. Use only final action submittals that are marked with approval notation from Architect's action stamp.

PART 2 - PRODUCTS

2.1 SUBMITTAL PROCEDURES

- A. General Submittal Procedure Requirements:
 - 1. Action Submittals: Submit three paper copies of each submittal unless otherwise indicated. Architect will return two copies.
 - 2. Informational Submittals: Submit two paper copies of each submittal unless otherwise indicated. Architect will not return copies.

3. Certificates and Certifications Submittals: Provide a statement that includes signature of entity responsible for preparing certification. Certificates and certifications shall be signed by an officer or other individual authorized to sign documents on behalf of that entity.
- B. Product Data: Collect information into a single submittal for each element of construction and type of product or equipment.
1. If information must be specially prepared for submittal because standard published data are not suitable for use, submit as Shop Drawings, not as Product Data.
 2. Mark each copy of each submittal to show which products and options are applicable.
 3. Include the following information, as applicable:
 - a. Manufacturer's catalog cuts.
 - b. Manufacturer's product specifications.
 - c. Standard color charts.
 - d. Statement of compliance with specified referenced standards.
 - e. Testing by recognized testing agency.
 - f. Application of testing agency labels and seals.
 - g. Notation of coordination requirements.
 - h. Availability and delivery time information.
 4. For equipment, include the following in addition to the above, as applicable:
 - a. Wiring diagrams showing factory-installed wiring.
 - b. Printed performance curves.
 - c. Operational range diagrams.
 - d. Clearances required to other construction, if not indicated on accompanying Shop Drawings.
 5. Submit Product Data before or concurrent with Samples.
 6. Submit Product Data in the following format:
 - a. Three paper copies of Product Data unless otherwise indicated. Architect will return two copies.
- C. Shop Drawings: Prepare Project-specific information, drawn accurately to scale. Do not base Shop Drawings on reproductions of the Contract Documents or standard printed data, unless submittal based on Architect's digital data drawing files is otherwise permitted.
1. Preparation: Fully illustrate requirements in the Contract Documents. Include the following information, as applicable:
 - a. Identification of products.
 - b. Schedules.
 - c. Compliance with specified standards.
 - d. Notation of coordination requirements.
 - e. Notation of dimensions established by field measurement.
 - f. Relationship and attachment to adjoining construction clearly indicated.
 - g. Seal and signature of professional engineer if specified.
 2. Sheet Size: Except for templates, patterns, and similar full-size drawings, submit Shop Drawings on sheets at least 8-1/2 by 11 inches, but no larger than 30 by 42 inches .
 3. Submit Shop Drawings in the following format:
 - a. Three opaque copies of each submittal. Architect will retain two copies; remainder will be returned.
- D. Samples: Submit Samples for review of kind, color, pattern, and texture for a check of these characteristics with other elements and for a comparison of these characteristics between submittal and actual component as delivered and installed.
1. Transmit Samples that contain multiple, related components such as accessories together in one submittal package.
 2. Identification: Attach label on unexposed side of Samples that includes the following:

- a. Generic description of Sample.
 - b. Product name and name of manufacturer.
 - c. Sample source.
 - d. Number and title of applicable Specification Section.
 3. Disposition: Maintain sets of approved Samples at Project site, available for quality-control comparisons throughout the course of construction activity. Sample sets may be used to determine final acceptance of construction associated with each set.
 - a. Samples that may be incorporated into the Work are indicated in individual Specification Sections. Such Samples must be in an undamaged condition at time of use.
 - b. Samples not incorporated into the Work, or otherwise designated as Owner's property, are the property of Contractor.
 4. Samples for Initial Selection: Submit manufacturer's color charts consisting of units or sections of units showing the full range of colors, textures, and patterns available.
 - a. Number of Samples: Submit one full set(s) of available choices where color, pattern, texture, or similar characteristics are required to be selected from manufacturer's product line. Architect will return submittal with options selected.
 5. Samples for Verification: Submit full-size units or Samples of size indicated, prepared from same material to be used for the Work, cured and finished in manner specified, and physically identical with material or product proposed for use, and that show full range of color and texture variations expected. Samples include, but are not limited to, the following: partial sections of manufactured or fabricated components; small cuts or containers of materials; complete units of repetitively used materials; swatches showing color, texture, and pattern; color range sets; and components used for independent testing and inspection.
 - a. Number of Samples: Submit three sets of Samples. Architect will retain two Sample sets; remainder will be returned. Mark up and retain one returned Sample set as a project record sample.
 - 1) If variation in color, pattern, texture, or other characteristic is inherent in material or product represented by a Sample, submit at least three sets of paired units that show approximate limits of variations.
- E. Product Schedule: As required in individual Specification Sections, prepare a written summary indicating types of products required for the Work and their intended location. Include the following information in tabular form:
1. Submit product schedule in the following format:
 - a. Three paper copies of product schedule or list unless otherwise indicated. Architect will return two copies.
- F. Coordination Drawings Submittals: Comply with requirements specified in Section 01 3100 "Project Management and Coordination."
- G. Contractor's Construction Schedule: Comply with requirements specified in Section 01 3200 "Construction Progress Documentation."
- H. Application for Payment and Schedule of Values: Comply with requirements specified in Section 012900 Payment Procedures.
- I. Test and Inspection Reports and Schedule of Tests and Inspections Submittals: Comply with requirements specified in Section 014000 Quality Requirements.
- J. Closeout Submittals and Maintenance Material Submittals: Comply with requirements specified in Section 017700 Closeout Procedures.

- K. Maintenance Data: Comply with requirements specified in Section 017823 Operation and Maintenance Data.
- L. Qualification Data: Prepare written information that demonstrates capabilities and experience of firm or person. Include lists of completed projects with project names and addresses, contact information of architects and owners, and other information specified.
- M. Welding Certificates: Prepare written certification that welding procedures and personnel comply with requirements in the Contract Documents. Submit record of Welding Procedure Specification and Procedure Qualification Record on AWS forms. Include names of firms and personnel certified.
- N. Installer Certificates: Submit written statements on manufacturer's letterhead certifying that Installer complies with requirements in the Contract Documents and, where required, is authorized by manufacturer for this specific Project.
- O. Manufacturer Certificates: Submit written statements on manufacturer's letterhead certifying that manufacturer complies with requirements in the Contract Documents. Include evidence of manufacturing experience where required.
- P. Product Certificates: Submit written statements on manufacturer's letterhead certifying that product complies with requirements in the Contract Documents.
- Q. Material Certificates: Submit written statements on manufacturer's letterhead certifying that material complies with requirements in the Contract Documents.
- R. Material Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting test results of material for compliance with requirements in the Contract Documents.
- S. Product Test Reports: Submit written reports indicating that current product produced by manufacturer complies with requirements in the Contract Documents. Base reports on evaluation of tests performed by manufacturer and witnessed by a qualified testing agency, or on comprehensive tests performed by a qualified testing agency.
- T. Research Reports: Submit written evidence, from a model code organization acceptable to authorities having jurisdiction, that product complies with building code in effect for Project.
- U. Schedule of Tests and Inspections: Comply with requirements specified in Section 01 4000 "Quality Requirements."
- V. Preconstruction Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of tests performed before installation of product, for compliance with performance requirements in the Contract Documents.
- W. Compatibility Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of compatibility tests performed before installation of product. Include written recommendations for primers and substrate preparation needed for adhesion.
- X. Field Test Reports: Submit written reports indicating and interpreting results of field tests performed either during installation of product or after product is installed in its final location, for compliance with requirements in the Contract Documents.

PART 3 - EXECUTION

3.1 CONTRACTOR'S REVIEW

- A. Action and Informational Submittals: Review each submittal and check for coordination with other Work of the Contract and for compliance with the Contract Documents. Note corrections and field dimensions. **Mark with approval stamp before submitting to Architect.**
- B. Project Closeout and Maintenance Material Submittals: See requirements in Section 017700 Closeout Procedures.
- C. Approval Stamp: Stamp each submittal with a uniform, approval stamp. Include Project name and location, submittal number, Specification Section title and number, name of reviewer, date of Contractor's approval, and statement certifying that submittal has been reviewed, checked, and approved for compliance with the Contract Documents.

3.2 ARCHITECT'S ACTION

- A. General: Architect will not review submittals that do not bear Contractor's approval stamp and will return them without action.
- B. Action Submittals: Architect will review each submittal, make marks to indicate corrections or revisions required, and return it. Architect will stamp each submittal with an action stamp and will mark stamp appropriately to indicate action.
- C. Informational Submittals: Architect will review each submittal and will not return it, or will return it if it does not comply with requirements. Architect will forward each submittal to appropriate party.
- D. Incomplete submittals are unacceptable, will be considered nonresponsive, and will be returned for resubmittal without review.
- E. Submittals not required by the Contract Documents may not be reviewed and may be discarded.

--- E N D ---

**SECTION 013323
SHOP DRAWINGS, PRODUCT DATA, AND SAMPLES**

- 1-1. Refer to Articles titled SPECIFICATIONS AND DRAWINGS FOR CONSTRUCTION (FAR 52.236-21) and, SPECIAL NOTES (VAAR 852.236-91), in GENERAL CONDITIONS.
- 1-2. For the purposes of this contract, samples (including laboratory samples to be tested), test reports, certificates, and manufacturers' literature and data shall also be subject to the previously referenced requirements. The following text refers to all items collectively as SUBMITTALS.
- 1-3. Submit for approval, all of the items specifically mentioned under the separate sections of the specification, with information sufficient to evidence full compliance with contract requirements. Materials, fabricated articles and the like to be installed in permanent work shall equal those of approved submittals. After an item has been approved, no change in brand or make will be permitted unless:
 - A. Satisfactory written evidence is presented to, and approved by Contracting Officer, that manufacturer cannot make scheduled delivery of approved item or;
 - B. Item delivered has been rejected and substitution of a suitable item is an urgent necessity or;
 - C. Other conditions become apparent which indicates approval of such substitute item to be in best interest of the Government.
- 1-4. Forward submittals in sufficient time to permit proper consideration and approval action by Government. Time submission to assure adequate lead time for procurement of contract - required items. Delays attributable to untimely and rejected submittals (including any laboratory samples to be tested) will not serve as a basis for extending contract time for completion.
- 1-5. Submittals will be reviewed for compliance with contract requirements by Architect/Engineer, and action thereon will be taken by Architect/ Engineer on behalf of the Owner.
- 1-6. Upon receipt of submittals, Architect/Engineer will assign a file number thereto. Contractor, in any subsequent correspondence, shall refer to this file and identification number to expedite replies relative to previously approved or disapproved submittals.
- 1-7. The Owner reserves the right to require additional submittals, whether or not particularly mentioned in this contract. If additional submittals beyond those required by the contract are furnished pursuant to request therefor by Owner, adjustment in contract price and time will be made in accordance with Articles titled CHANGES (FAR 52.243-4) and CHANGES - SUPPLEMENT (VAAR 852.236-88) of the GENERAL CONDITIONS.
- 1-8. Schedules called for in specifications and shown on shop drawings shall be submitted for use and information of Owner and Architect-Engineer. However, the Contractor shall assume

responsibility for coordinating and verifying schedules. The Contracting Officer and Architect-Engineer assumes no responsibility for checking schedules or layout drawings for exact sizes, exact numbers and detailed positioning of items.

- 1-9. Submittals must be submitted by Contractor only and shipped prepaid. Contracting Officer assumes no responsibility for checking quantities or exact numbers included in such submittals.
- A. Submit samples required by Specification, in quadruplicate. Submit other samples in single units unless otherwise specified. Submit shop drawings, schedules, manufacturers' literature and data, and certificates in quadruplicate, except where a greater number is specified.
 - B. Submittals will receive consideration only when covered by a transmittal letter signed by Contractor. Letter shall be sent via first class mail or email and shall contain the list of items, name of Project, name of Contractor, contract number, applicable specification paragraph numbers, applicable drawing numbers (and other information required for exact identification of location for each item), manufacturer and brand, ASTM or Federal Specification Number (if any) and such additional information as may be required by specifications for particular item being furnished. In addition, catalogs shall be marked to indicate specific items submitted for approval.
 - 1. A copy of letter must be enclosed with items, and any items received without identification letter will be considered "unclaimed goods" and held for a limited time only.
 - 2. Each sample, certificate, manufacturers' literature and data shall be labeled to indicate the name and location of the Project, name of Contractor, manufacturer, brand, contract number and ASTM or Federal Specification Number as applicable and location(s) on project.
 - 3. Required certificates shall be signed by an authorized representative of manufacturer or supplier of material, and by Contractor.
 - C. In addition to complying with the applicable requirements specified in preceding Article 1.9, samples which are required to have Laboratory Tests (those preceded by symbol "LT" under the separate sections of the specification shall be tested, at the expense of Contractor, in a commercial laboratory approved by Owner.
 - 1. Laboratory shall furnish Owner with a certificate stating that it is fully equipped and qualified to perform intended work, is fully acquainted with specification requirements and intended use of materials and is an independent establishment in no way connected with organization of Contractor or with manufacturer or supplier of materials to be tested.
 - 2. Certificates shall also set forth a list of comparable projects upon which laboratory has performed similar functions during past five years.
 - 3. Samples and laboratory tests shall be sent directly to an approved commercial testing laboratory.
 - 4. Contractor shall send a copy of transmittal letter to both Owner and to Architect/Engineer simultaneously with submission of material to a commercial testing laboratory.

4. Contractor shall forward a copy of transmittal letter to Owner simultaneously with submission to a commercial testing laboratory.
 5. Laboratory test reports shall be sent directly to Owner for appropriate action.
 6. Laboratory reports shall list contract specification test requirements and a comparative list of the laboratory test results. When tests show that the material meets specification requirements, the laboratory shall so certify on test report.
 7. Laboratory test reports shall also include a recommendation for approval or disapproval of tested item.
- D. If submittal samples have been disapproved, resubmit new samples as soon as possible after notification of disapproval. Such new samples shall be marked "Resubmitted Sample" in addition to containing other previously specified information required on label and in transmittal letter.
- E. Approved samples will be kept on file by the Owner at the site until completion of contract, at which time such samples will be delivered to Contractor as Contractor's property. Where noted in technical sections of specifications, approved samples in good condition may be used in their proper locations in contract work. At completion of contract, samples that are not approved will be returned to Contractor only upon request and at Contractor's expense. Such request should be made prior to completion of the contract. Disapproved samples that are not requested for return by Contractor will be discarded after completion of contract.
- F. Submittal drawings (shop, erection or setting drawings) and schedules, required for work of various trades, shall be checked before submission by technically qualified employees of Contractor for accuracy, completeness and compliance with contract requirements. These drawings and schedules shall be stamped and signed by Contractor certifying to such check.
1. For each drawing required, submit one legible PDF or full size print.
 2. Each drawing shall have marked thereon, proper descriptive title, including Project name, location, project number, manufacturer's number, reference to contract drawing number, detail Section Number, and Specification Section Number.
 3. A space 120 mm by 125 mm (4-3/4 by 5 inches) shall be reserved on each drawing to accommodate approval or disapproval stamp.
 4. Submit drawings, ROLLED WITHIN A MAILING TUBE, fully protected for shipment.
 5. One reproducible print of approved or disapproved shop drawings will be forwarded to Contractor.
 7. When work is directly related and involves more than one trade, shop drawings shall be submitted to Architect/Engineer under one cover.
- 1-10. Samples (except laboratory samples), shop drawings, test reports, certificates and manufacturers' literature and data, shall be submitted for approval to

(Architect-Engineer)

(A/E P.O. Address)

(City, State and Zip Code)

- 1-11. At the time of transmittal to the Architect/Engineer, the Contractor shall also send a copy of the complete submittal directly to the Resident Engineer.
- 1-12. Samples (except laboratory samples) for approval shall be sent to Architect/Engineer, in care of Owner,

(P.O. Address)

(City, State and Zip Code)

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**SECTION 013526
SAFETY REQUIREMENTS**

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**SECTION 013526
SAFETY REQUIREMENTS**

1.1 APPLICABLE PUBLICATIONS:

- A. Latest publications listed below form part of this Article to extent referenced. Publications are referenced in text by basic designations only.
- B. American Society of Safety Engineers (ASSE):
 - A10.1-2011 Pre-Project & Pre-Task Safety and Health Planning
 - A10.34-2012 Protection of the Public on or Adjacent to Construction Sites
 - A10.38-2013 Basic Elements of an Employer's Program to Provide a Safe and Healthful Work Environment American National Standard Construction and Demolition Operations
- C. American Society for Testing and Materials (ASTM):
 - E84-2013 Surface Burning Characteristics of Building Materials
- D. The Facilities Guidelines Institute (FGI):
 - FGI Guidelines-2010 Guidelines for Design and Construction of Healthcare Facilities
- E. National Fire Protection Association (NFPA):
 - 10-2013 Standard for Portable Fire Extinguishers
 - 30-2012 Flammable and Combustible Liquids Code
 - 51B-2014 Standard for Fire Prevention During Welding, Cutting and Other Hot Work
 - 70-2014 National Electrical Code
 - 70B-2013 Recommended Practice for Electrical Equipment Maintenance
 - 70E-2012 Standard for Electrical Safety in the Workplace
 - 99-2012 Health Care Facilities Code
 - 241-2013 Standard for Safeguarding Construction, Alteration, and Demolition Operations
- F. The Joint Commission (TJC)
 - TJC Manual Comprehensive Accreditation and Certification Manual
- G. U.S. Nuclear Regulatory Commission
 - 10 CFR 20 Standards for Protection Against Radiation
- H. U.S. Occupational Safety and Health Administration (OSHA):
 - 29 CFR 1904 Reporting and Recording Injuries & Illnesses
 - 29 CFR 1910 Safety and Health Regulations for General Industry

29 CFR 1926 Safety and Health Regulations for Construction Industry
CPL 2-0.124 Multi-Employer Citation Policy

1.2 DEFINITIONS:

- A. OSHA "Competent Person" (CP). One who is capable of identifying existing and predictable hazards in the surroundings and working conditions which are unsanitary, hazardous or dangerous to employees, and who has the authorization to take prompt corrective measures to eliminate them (see 29 CFR 1926.32(f)).
- B. "Qualified Person" means one who, by possession of a recognized degree, certificate, or professional standing, or who by extensive knowledge, training and experience, has successfully demonstrated his ability to solve or resolve problems relating to the subject matter, the work, or the project.
- C. High Visibility Accident. Any mishap which may generate publicity or high visibility.
- D. Medical Treatment. Treatment administered by a physician or by registered professional personnel under the standing orders of a physician. Medical treatment does not include first aid treatment even through provided by a physician or registered personnel.
- E. Recordable Injuries or Illnesses. Any work-related injury or illness that results in:
 - 1. Death, regardless of the time between the injury and death, or the length of the illness;
 - 2. Days away from work (any time lost after day of injury/illness onset);
 - 3. Restricted work;
 - 4. Transfer to another job;
 - 5. Medical treatment beyond first aid;
 - 6. Loss of consciousness; or
 - 7. A significant injury or illness diagnosed by a physician or other licensed health care professional, even if it did not result in (1) through (6) above.

1.3 REGULATORY REQUIREMENTS:

- A. In addition to the detailed requirements included in the provisions of this contract, comply with 29 CFR 1926, comply with 29 CFR 1910 as incorporated by reference within 29 CFR 1926, comply with ASSE A10.34, and all applicable federal, state, and local laws, ordinances, criteria, rules and regulations. Submit matters of interpretation of standards for resolution before starting work. Where the requirements of this specification, applicable laws, criteria, ordinances, regulations, and referenced documents vary, the most stringent requirements govern except with specific approval and acceptance by the Owner or designated.

1.4 ACCIDENT PREVENTION PLAN (APP):

- A. The APP (aka Construction Safety & Health Plan) shall interface with the Contractor's overall safety and health program. Include any portions of the Contractor's overall safety and health program referenced in the APP in the applicable APP element and ensure it is site-specific. The Government considers the Prime Contractor to be the "controlling authority" for all worksite safety and health of each subcontractor(s). Contractors are responsible for informing their subcontractors of the safety provisions under the terms of the contract and the penalties for noncompliance, coordinating the work to prevent one craft from interfering with or creating hazardous working conditions for other crafts, and inspecting subcontractor operations to ensure that accident prevention responsibilities are being carried out.
- B. The APP shall be prepared as follows:
1. Written in English by a qualified person who is employed by the Prime Contractor articulating the specific work and hazards pertaining to the contract (model language can be found in ASSE A10.33). Specifically articulating the safety requirements found within these contract safety specifications.
 2. Address both the Prime Contractors and the subcontractors work operations.
 3. State measures to be taken to control hazards associated with materials, services, or equipment provided by suppliers.
 4. Address all the elements/sub-elements and in order as follows:
 - a. **SIGNATURE SHEET.** Title, signature, and phone number of the following:
 - 1) Plan preparer (Qualified Person such as corporate safety staff person or contracted Certified Safety Professional with construction safety experience);
 - 2) Plan approver (company/corporate officers authorized to obligate the company);
 - 3) Plan concurrence (e.g., Chief of Operations, Corporate Chief of Safety, Corporate Industrial Hygienist, project manager or superintendent, project safety professional). Provide concurrence of other applicable corporate and project personnel (Contractor).
 - b. **BACKGROUND INFORMATION.** List the following:
 - 1) Contractor;
 - 2) Contract number;
 - 3) Project name;
 - 4) Brief project description, description of work to be performed, and location; phases of work anticipated (these will require an AHA).

- c. **STATEMENT OF SAFETY AND HEALTH POLICY.** Provide a copy of current corporate/company Safety and Health Policy Statement, detailing commitment to providing a safe and healthful workplace for all employees. The Contractor's written safety program goals, objectives, and accident experience goals for this contract should be provided.
- d. **RESPONSIBILITIES AND LINES OF AUTHORITIES.** Provide the following:
 - 1) A statement of the employer's ultimate responsibility for the implementation of his SOH program;
 - 2) Identification and accountability of personnel responsible for safety at both corporate and project level. Contracts specifically requiring safety or industrial hygiene personnel shall include a copy of their resumes.
 - 3) The names of Competent and/or Qualified Person(s) and proof of competency/qualification to meet specific OSHA Competent/Qualified Person(s) requirements must be attached.;
 - 4) Requirements that no work shall be performed unless a designated competent person is present on the job site;
 - 5) Requirements for pre-task Activity Hazard Analysis (AHAs);
 - 6) Lines of authority;
 - 7) Policies and procedures regarding noncompliance with safety requirements (to include disciplinary actions for violation of safety requirements) should be identified;
- e. **SUBCONTRACTORS AND SUPPLIERS.** If applicable, provide procedures for coordinating activities with other employers on the job site:
 - 1) Identification of subcontractors and suppliers (if known);
 - 2) Safety responsibilities of subcontractors and suppliers.
- f. **TRAINING.**
 - 1) Site-specific orientation training at the time of initial hire or assignment to the project for every employee before working on the project site is required.
 - 2) Mandatory training and certifications that are applicable to this project (e.g., explosive actuated tools, crane operator, rigger, crane signal person, fall protection, electrical lockout/NFPA 70E, machine/equipment lockout, confined space, etc...) and any requirements for periodic retraining/recertification are required.
 - 3) Procedures for ongoing safety and health training for supervisors and employees shall be established to address changes in site hazards/conditions.
 - 4) OSHA 10-hour training is required for all workers on site and the OSHA 30-hour training is required for Trade Competent Persons (CPs)

g. SAFETY AND HEALTH INSPECTIONS.

- 1) Specific assignment of responsibilities for a minimum daily job site safety and health inspection during periods of work activity: Who will conduct (e.g., "Site Safety and Health CP"), proof of inspector's training/qualifications, when inspections will be conducted, procedures for documentation, deficiency tracking system, and follow-up procedures.
- 2) Any external inspections/certifications that may be required (e.g., contracted CSP or CSHT)

h. ACCIDENT INVESTIGATION & REPORTING. The Contractor shall conduct mishap investigations of all OSHA Recordable Incidents. The APP shall include accident/incident investigation procedure & identify person(s) responsible to provide the following to Owner or assigned.

- 1) Exposure data (man-hours worked);
- 2) Accident investigations, reports, and logs.

i. PLANS (PROGRAMS, PROCEDURES) REQUIRED. Based on a risk assessment of contracted activities and on mandatory OSHA compliance programs, the Contractor shall address all applicable occupational risks in site-specific compliance and accident prevention plans. These Plans shall include but are not be limited to procedures for addressing the risks associates with the following:

- 1) Emergency response ;
- 2) Contingency for severe weather;
- 3) Fire Prevention ;
- 4) Medical Support;
- 5) Posting of emergency telephone numbers;
- 6) Prevention of alcohol and drug abuse;
- 7) Site sanitation (housekeeping, drinking water, toilets);
- 8) Night operations and lighting ;
- 9) Hazard communication program;
- 10) Welding/Cutting "Hot" work ;
- 11) Electrical Safe Work Practices (Electrical LOTO/NFPA 70E);
- 12) General Electrical Safety
- 13) Hazardous energy control (Machine LOTO);
- 14) Site-Specific Fall Protection & Prevention;
- 15) Excavation/trenching;
- 16) Asbestos abatement;
- 17) Lead abatement;
- 18) Crane Critical lift;

- 19) Respiratory protection;
 - 20) Health hazard control program;
 - 21) Radiation Safety Program;
 - 22) Abrasive blasting;
 - 23) Heat/Cold Stress Monitoring;
 - 24) Crystalline Silica Monitoring (Assessment);
 - 25) Demolition plan (to include engineering survey);
 - 26) Formwork and shoring erection and removal;
 - 27) PreCast Concrete.
- C. Submit the APP to the Owner for review for compliance with contract requirements in accordance with Section 013323 SHOP DRAWINGS, PRODUCT DATA AND SAMPLES 15 calendar days prior to the date of the preconstruction conference for acceptance. Work cannot proceed without an accepted APP.
- D. Once accepted by the Owner, the APP and attachments will be enforced as part of the contract. Disregarding the provisions of this contract or the accepted APP will be cause for stopping of work, at the discretion of the Contracting Officer, until the matter has been rectified.
- E. Once work begins, changes to the accepted APP shall be made with the knowledge and concurrence of the Owner. Should any severe hazard exposure, i.e. imminent danger, become evident, stop work in the area, secure the area, and develop a plan to remove the exposure and control the hazard. Notify the Contracting Officer within 24 hours of discovery. Eliminate/remove the hazard. In the interim, take all necessary action to restore and maintain safe working conditions in order to safeguard onsite personnel, visitors, the public (as defined by ASSE/SAFE A10.34) and the environment.

1.5 ACTIVITY HAZARD ANALYSES (AHAS):

- A. AHAs are also known as Job Hazard Analyses, Job Safety Analyses, and Activity Safety Analyses. Before beginning each work activity involving a type of work presenting hazards not experienced in previous project operations or where a new work crew or sub-contractor is to perform the work, the Contractor(s) performing that work activity shall prepare an AHA (Example electronic AHA forms can be found on the US Army Corps of Engineers web site)
- B. AHAs shall define the activities being performed and identify the work sequences, the specific anticipated hazards, site conditions, equipment, materials, and the control measures to be implemented to eliminate or reduce each hazard to an acceptable level of risk.
- C. Work shall not begin until the AHA for the work activity has been accepted by the Owner and discussed with all engaged in the activity, including the Contractor, subcontractor(s), and Government on-site representatives at preparatory and initial control phase meetings.

1. The names of the Competent/Qualified Person(s) required for a particular activity (for example, excavations, scaffolding, fall protection, other activities as specified by OSHA and/or other State and Local agencies) shall be identified and included in the AHA. Certification of their competency/qualification shall be submitted to the Government Designated Authority (GDA) for acceptance prior to the start of that work activity.
2. The AHA shall be reviewed and modified as necessary to address changing site conditions, operations, or change of competent/qualified person(s).
 - a. If more than one Competent/Qualified Person is used on the AHA activity, a list of names shall be submitted as an attachment to the AHA. Those listed must be Competent/Qualified for the type of work involved in the AHA and familiar with current site safety issues.
 - b. If a new Competent/Qualified Person (not on the original list) is added, the list shall be updated (an administrative action not requiring an updated AHA). The new person shall acknowledge in writing that he or she has reviewed the AHA and is familiar with current site safety issues.
3. Submit AHAs to the Owner for review for compliance with contract requirements in accordance with Section 013323, SHOP DRAWINGS, PRODUCT DATA AND SAMPLES for review at least 15 calendar days prior to the start of each phase. Subsequent AHAs as shall be formatted as amendments to the APP. The analysis should be used during daily inspections to ensure the implementation and effectiveness of the activity's safety and health controls.
4. The AHA list will be reviewed periodically (at least monthly) at the Contractor supervisory safety meeting and updated as necessary when procedures, scheduling, or hazards change.
5. Develop the activity hazard analyses using the project schedule as the basis for the activities performed. All activities listed on the project schedule will require an AHA. The AHAs will be developed by the contractor, supplier, or subcontractor and provided to the prime contractor for review and approval and then submitted to the Owner.

1.6 PRECONSTRUCTION CONFERENCE:

- A. Contractor representatives who have a responsibility or significant role in implementation of the accident prevention program, as required by 29 CFR 1926.20(b)(1), on the project shall attend the preconstruction conference to gain a mutual understanding of its implementation. This includes the project superintendent, subcontractor superintendents, and any other assigned safety and health professionals.
- B. Discuss the details of the submitted APP to include incorporated plans, programs, procedures and a listing of anticipated AHAs that will be developed and implemented during the performance of the contract. This list of proposed AHAs will be reviewed at the conference and an agreement

will be reached between the Contractor and the Contracting Officer's representative as to which phases will require an analysis. In addition, establish a schedule for the preparation, submittal, review, and acceptance of AHAs to preclude project delays.

- C. Deficiencies in the submitted APP will be brought to the attention of the Contractor within 14 days of submittal, and the Contractor shall revise the plan to correct deficiencies and re-submit it for acceptance. Do not begin work until there is an accepted APP.

1.7 "SITE SAFETY AND HEALTH OFFICER" (SSHO) AND "COMPETENT PERSON" (CP):

- A. The Prime Contractor shall designate a minimum of one SSHO at each project site that will be identified as the SSHO to administer the Contractor's safety program and government-accepted Accident Prevention Plan. Each subcontractor shall designate a minimum of one CP in compliance with 29 CFR 1926.20 (b)(2) that will be identified as a CP to administer their individual safety programs.
- B. Further, all specialized Competent Persons for the work crews will be supplied by the respective contractor as required by 29 CFR 1926 (i.e. Asbestos, Electrical, Cranes, & Derricks, Demolition, Fall Protection, Fire Safety/Life Safety, Ladder, Rigging, Scaffolds, and Trenches/Excavations).
- C. These Competent Persons can have collateral duties as the subcontractor's superintendent and/or work crew lead persons as well as fill more than one specialized CP role (i.e. Asbestos, Electrical, Cranes, & Derricks, Demolition, Fall Protection, Fire Safety/Life Safety, Ladder, Rigging, Scaffolds, and Trenches/Excavations).
- D. The SSHO or an equally-qualified Designated Representative/alternate will maintain a presence on the site during construction operations in accordance with FAR Clause 52.236-6:
Superintendence by the Contractor. CPs will maintain presence during their construction activities in accordance with above mentioned clause. A listing of the designated SSHO and all known CPs shall be submitted prior to the start of work as part of the APP with the training documentation and/or AHA as listed in Section 1.8 below.
- E. The repeated presence of uncontrolled hazards during a contractor's work operations will result in the designated CP as being deemed incompetent and result in the required removal of the employee in accordance with FAR Clause 52.236-5: Material and Workmanship, Paragraph (c).

1.8 TRAINING:

- A. The designated Prime Contractor SSHO must meet the requirements of all applicable OSHA standards and be capable (through training, experience, and qualifications) of ensuring that the requirements of 29 CFR 1926.16 and other appropriate Federal, State and local requirements are met for the project. As a minimum the SSHO must have completed the OSHA 30-hour

Construction Safety class and have five (5) years of construction industry safety experience or three (3) years if he/she possesses a Certified Safety Professional (CSP) or certified Construction Safety and Health Technician (CSHT) certification or have a safety and health degree from an accredited university or college.

- B. All designated CPs shall have completed the OSHA 30-hour Construction Safety course within the past 5 years.
- C. In addition to the OSHA 30 Hour Construction Safety Course, all CPs with high hazard work operations such as operations involving asbestos, electrical, cranes, demolition, work at heights/fall protection, fire safety/life safety, ladder, rigging, scaffolds, and trenches/excavations shall have a specialized formal course in the hazard recognition & control associated with those high hazard work operations. Documented "repeat" deficiencies in the execution of safety requirements will require retaking the requisite formal course.
- D. All other construction workers shall have the OSHA 10-hour Construction Safety Outreach course and any necessary safety training to be able to identify hazards within their work environment.
- E. Submit training records associated with the above training requirements to the Owner for review for compliance with contract requirements in accordance with Section 01 33 23, SHOP DRAWINGS, PRODUCT DATA AND SAMPLES 15 calendar days prior to the date of the preconstruction conference for acceptance.
- F. Prior to any worker for the contractor or subcontractors beginning work, they shall undergo a safety briefing provided by the SSHO or his/her designated representative. As a minimum, this briefing shall include information on the site-specific hazards, construction limits, VAMC safety guidelines, means of egress, break areas, work hours, locations of restrooms, use of VAMC equipment, emergency procedures, accident reporting etc... Documentation shall be provided to the Resident Engineer that individuals have undergone contractor's safety briefing.
- G. Ongoing safety training will be accomplished in the form of weekly documented safety meeting.

1.9 INSPECTIONS:

- A. The SSHO shall conduct frequent and regular safety inspections (daily) of the site and each of the subcontractors CPs shall conduct frequent and regular safety inspections (daily) of their work operations as required by 29 CFR 1926.20(b)(2). Each week, the SSHO shall conduct a formal documented inspection of the entire construction areas with the subcontractors' "Trade Safety and Health CPs" present in their work areas. Coordinate with, and report findings and corrective actions weekly to Owner.
- B. A Certified Safety Professional (CSP) with specialized knowledge in construction safety or a certified Construction Safety and Health Technician (CSHT) shall randomly conduct a monthly site safety inspection. The CSP or CSHT can be a corporate safety professional or

independently contracted. The CSP or CSHT will provide their certificate number on the required report for verification as necessary.

1. Results of the inspection will be documented with tracking of the identified hazards to abatement.
2. The Owner will be notified immediately prior to start of the inspection and invited to accompany the inspection.
3. Identified hazard and controls will be discussed to come to a mutual understanding to ensure abatement and prevent future reoccurrence.
4. A report of the inspection findings with status of abatement will be provided to the Owner within one week of the onsite inspection.

1.10 ACCIDENTS, OSHA 300 LOGS, AND MAN-HOURS:

- A. Notify the Owner as soon as practical, but no more than four hours after any accident meeting the definition of OSHA Recordable Injuries or Illnesses or High Visibility Accidents, property damage equal to or greater than \$5,000, or any weight handling equipment accident. Within notification include contractor name; contract title; type of contract; name of activity, installation or location where accident occurred; date and time of accident; names of personnel injured; extent of property damage, if any; extent of injury, if known, and brief description of accident (to include type of construction equipment used, PPE used, etc.). Preserve the conditions and evidence on the accident site until the Owner determine whether a government investigation will be conducted.
- B. Conduct an accident investigation for recordable injuries and illnesses, for Medical Treatment defined in paragraph DEFINITIONS, and property damage accidents resulting in at least \$20,000 in damages, to establish the root cause(s) of the accident. Complete a report, and provide the report to the Owner within 5 calendar days of the accident. The Owner will provide copies of any required or special forms.
- C. A summation of all man-hours worked by the contractor and associated sub-contractors for each month will be reported to the Owner monthly.
- D. A summation of all OSHA recordable accidents experienced on site by the contractor and associated sub-contractors for each month will be provided to the Owner monthly. The contractor and associated sub-contractors' OSHA 300 logs will be made available to the Owner as requested.

1.11 PERSONAL PROTECTIVE EQUIPMENT (PPE):

- A. PPE is governed in all areas by the nature of the work the employee is performing. For example, specific PPE required for performing work on electrical equipment is identified in NFPA 70E, Standard for Electrical Safety in the Workplace.

B. Mandatory PPE includes:

1. Hard Hats – unless written authorization is given by the Owner in circumstances of work operations that have limited potential for falling object hazards such as during finishing work or minor remodeling. With authorization to relax the requirement of hard hats, if a worker becomes exposed to an overhead falling object hazard, then hard hats would be required in accordance with the OSHA regulations.
2. Safety glasses - unless written authorization is given by the Owner appropriate safety glasses meeting the ANSI Z.87.1 standard must be worn by each person on site.
3. Appropriate Safety Shoes – based on the hazards present, safety shoes meeting the requirements of ASTM F2413-11 shall be worn by each person on site unless written authorization is given by the Owner.
4. Hearing protection - Use personal hearing protection at all times in designated noise hazardous areas or when performing noise hazardous tasks.

1.12 FIRE SAFETY

- A. Fire Safety Plan: Establish and maintain a site-specific fire protection program in accordance with 29 CFR 1926. Prior to start of work, prepare a plan detailing project-specific fire safety measures, including periodic status reports, and submit to Owner for review for compliance with contract requirements in accordance with Section 013323, SHOP DRAWINGS, PRODUCT DATA AND SAMPLES. This plan may be an element of the Accident Prevention Plan.
- B. Site and Building Access: Maintain free and unobstructed access to facility emergency services and for fire, police and other emergency response forces in accordance with NFPA 241.
- C. Separate temporary facilities, such as trailers, storage sheds, and dumpsters, from existing buildings and new construction by distances in accordance with NFPA 241. For small facilities with less than 6 m (20 feet) exposing overall length, separate by 3m (10 feet).
- D. Temporary Construction Partitions:
 1. Install and maintain temporary construction partitions to provide smoke-tight separations between construction areas the areas that are described in phasing requirements and adjoining areas. Construct partitions of gypsum board or treated plywood (flame spread rating of 25 or less in accordance with ASTM E84) on both sides of fire retardant treated wood or metal steel studs. Extend the partitions through suspended ceilings to floor slab deck or roof. Seal joints and penetrations. At door openings, install Class C, ¾ hour fire/smoke rated doors with self-closing devices.
 2. Install _____(one-hour, two-hour, fire-rated)/ temporary construction partitions as shown on drawings to maintain integrity of existing exit stair enclosures, exit passageways, fire-rated

- enclosures of hazardous areas, horizontal exits, smoke barriers, vertical shafts and openings enclosures.
3. Close openings in smoke barriers and fire-rated construction to maintain fire ratings. Seal penetrations with listed through-penetration firestop materials in accordance with Section 078400, FIRESTOPPING.
 - E. Temporary Heating and Electrical: Install, use and maintain installations in accordance with 29 CFR 1926, NFPA 241 and NFPA 70.
 - F. Means of Egress: Do not block exiting for occupied buildings, including paths from exits to roads. Minimize disruptions and coordinate with Owner.
 - G. Egress Routes for Construction Workers: Maintain free and unobstructed egress. Inspect daily. Report findings and corrective actions weekly to Owner.
 - H. Fire Extinguishers: Provide and maintain extinguishers in construction areas and temporary storage areas in accordance with 29 CFR 1926, NFPA 241 and NFPA 10.
 - I. Flammable and Combustible Liquids: Store, dispense and use liquids in accordance with 29 CFR 1926, NFPA 241 and NFPA 30.
 - J. Standpipes: Install and extend standpipes up with each floor in accordance with 29 CFR 1926 and NFPA 241. Do not charge wet standpipes subject to freezing until weather protected.
 - K. Sprinklers: Install, test and activate new automatic sprinklers prior to removing existing sprinklers. NOT USED.
 - L. Existing Fire Protection: Do not impair automatic sprinklers, smoke and heat detection, and fire alarm systems, except for portions immediately under construction, and temporarily for connections. Provide fire watch for impairments more than 4 hours in a 24-hour period. Request interruptions in accordance with Article, OPERATIONS AND STORAGE AREAS, and coordinate with Owner. All existing or temporary fire protection systems (fire alarms, sprinklers) located in construction areas shall be tested as coordinated with the medical center. Parameters for the testing and results of any tests performed shall be recorded by the medical center and copies provided to the Resident Engineer.
 - M. Smoke Detectors: Prevent accidental operation. Remove temporary covers at end of work operations each day. Coordinate with Owner.
 - N. Hot Work: Perform and safeguard hot work operations in accordance with NFPA 241 and NFPA 51B. Coordinate with Owner at least ____ hours in advance. Designate contractor's responsible project-site fire prevention program manager to permit hot work.
 - O. Fire Hazard Prevention and Safety Inspections: Inspect entire construction areas weekly. Coordinate with, and report findings and corrective actions weekly to Owner.
 - P. Smoking: Smoking is prohibited in and adjacent to construction areas inside existing buildings and additions under construction. In separate and detached buildings under construction, smoking is prohibited except in designated smoking rest areas.

- Q. Dispose of waste and debris in accordance with NFPA 241. Remove from buildings daily.
- R. If required, submit documentation to the Owner that personnel have been trained in the fire safety aspects of working in areas with impaired structural or compartmentalization features.

1.13 ELECTRICAL

- A. All electrical work shall comply with NFPA 70 (NEC), NFPA 70B, NFPA 70E, 29 CFR Part 1910 Subpart J – General Environmental Controls, 29 CFR Part 1910 Subpart S – Electrical, and 29 CFR 1926 Subpart K in addition to other references required by contract.
- B. All qualified persons performing electrical work under this contract shall be licensed journeyman or master electricians. All apprentice electricians performing under this contract shall be deemed unqualified persons unless they are working under the immediate supervision of a licensed electrician or master electrician.
- C. All electrical work will be accomplished de-energized and in the Electrically Safe Work Condition (refer to NFPA 70E for Work Involving Electrical Hazards, including Exemptions to Work Permit). Any Contractor, subcontractor or temporary worker who fails to fully comply with this requirement is subject to immediate termination in accordance with FAR clause 52.236-5(c). Only in rare circumstance where achieving an electrically safe work condition prior to beginning work would increase or cause additional hazards, or is infeasible due to equipment design or operational limitations is energized work permitted. The Owner will make the determination if the circumstances would meet the exception outlined above. An AHA specific to energized work activities will be developed, reviewed, and accepted prior to the start of that work.
 - 1. Development of a Hazardous Electrical Energy Control Procedure is required prior to de-energization. A single Simple Lockout/Tagout Procedure for multiple work operations can only be used for work involving qualified person(s) de-energizing one set of conductors or circuit part source. Task specific Complex Lockout/Tagout Procedures are required at all other times.
 - 2. Verification of the absence of voltage after de-energization and Lockout/Tagout is considered “energized electrical work” (live work) under NFPA 70E, and shall only be performed by qualified persons wearing appropriate shock protective (voltage rated) gloves and arc rate personal protective clothing and equipment, using Underwriters Laboratories (UL) tested and appropriately rated contact electrical testing instruments or equipment appropriate for the environment in which they will be used.
 - 3. Personal Protective Equipment (PPE) and electrical testing instruments will be readily available for inspection by the Owner.
- D. Before beginning any electrical work, an Activity Hazard Analysis (AHA) will be conducted to include Shock Hazard and Arc Flash Hazard analyses (NFPA Tables can be used only as a last alternative and it is strongly suggested a full Arc Flash Hazard Analyses be conducted). Work

shall not begin until the AHA for the work activity has been accepted by the Owner and discussed with all engaged in the activity, including the Contractor, subcontractor(s), and Government on-site representatives at preparatory and initial control phase meetings.

- E. Ground-fault circuit interrupters. All 120-volt, single-phase 15- and 20-ampere receptacle outlets on construction sites shall have approved ground-fault circuit interrupters for personnel protection. "Assured Equipment Grounding Conductor Program" only is not allowed.

1.14 FALL PROTECTION

- A. The fall protection (FP) threshold height requirement is 6 ft (1.8 m) for ALL WORK, unless specified differently or the OSHA 29 CFR 1926 requirements are more stringent, to include steel erection activities, systems-engineered activities (prefabricated) metal buildings, residential (wood) construction and scaffolding work.
 - 1. The use of a Safety Monitoring System (SMS) as a fall protection method is prohibited.
 - 2. The use of Controlled Access Zone (CAZ) as a fall protection method is prohibited.
 - 3. A Warning Line System (WLS) may ONLY be used on floors or flat or low-sloped roofs (between 0 - 18.4 degrees or 4:12 slope) and shall be erected around all sides of the work area (See 29 CFR 1926.502(f) for construction of WLS requirements). Working within the WLS does not require FP. No worker shall be allowed in the area between the roof or floor edge and the WLS without FP. FP is required when working outside the WLS.
 - 4. Fall protection while using a ladder will be governed by the OSHA requirements.

1.15 SCAFFOLDS AND OTHER WORK PLATFORMS

- A. All scaffolds and other work platforms construction activities shall comply with 29 CFR 1926 Subpart L.
- B. The fall protection (FP) threshold height requirement is 6 ft (1.8 m) as stated in Section 1.16.
- C. The following hierarchy and prohibitions shall be followed in selecting appropriate work platforms.
 - 1. Scaffolds, platforms, or temporary floors shall be provided for all work except that can be performed safely from the ground or similar footing.
 - 2. Ladders less than 20 feet may be used as work platforms only when use of small hand tools or handling of light material is involved.
 - 3. Ladder jacks, lean-to, and prop-scaffolds are prohibited.
 - 4. Emergency descent devices shall not be used as working platforms.
- D. Contractors shall use a scaffold tagging system in which all scaffolds are tagged by the Competent Person. Tags shall be color-coded: green indicates the scaffold has been inspected and is safe to use; red indicates the scaffold is unsafe to use. Tags shall be readily visible, made of materials that will withstand the environment in which they are used, be legible and shall include:

1. The Competent Person's name and signature;
 2. Dates of initial and last inspections.
- E. Mast Climbing work platforms: When access ladders, including masts designed as ladders, exceed 20 ft (6 m) in height, positive fall protection shall be used.

1.16 EXCAVATION AND TRENCHES

- A. All excavation and trenching work shall comply with 29 CFR 1926 Subpart P.
- B. All excavations and trenches 5 feet in depth or greater shall require a written trenching and excavation permit (NOTE – some States and other local jurisdictions require separate state/jurisdiction-issued excavation permits). The permit shall be completed and provided to the Owner prior to commencing work for the day. At the end of the day, the permit shall be closed out and provided to the Owner. The permit shall be maintained onsite and include the following:
 1. Determination of soil classification
 2. Indication that utilities have been located and identified. If utilities could not be located after all reasonable attempt, then excavating operations will proceed cautiously.
 3. Indication of selected excavation protective system.
 4. Indication that the spoil pile will be stored at least 2 feet from the edge of the excavation and safe access provided within 25 feet of the workers.
 5. Indication of assessment for a potential toxic, explosive, or oxygen deficient atmosphere.
- C. If not using an engineered protective system such as a trench box, shielding, shoring, or other Professional Engineer designed system and using a sloping or benching system, soil classification cannot be Solid Rock or Type A. All soil will be classified as Type B or Type C and sloped or benched in accordance with Appendix B of 29 CFR 1926.

1.17 CRANES

- A. All crane work shall comply with 29 CFR 1926 Subpart CC.
- B. Prior to operating a crane, the operator must be licensed, qualified or certified to operate the crane.
- C. A detailed lift permit shall be submitted 14 days prior to the scheduled lift complete with route for truck carrying load, crane load analysis, siting of crane and path of swing. The lift will not be allowed without approval of this document.
- D. Crane operators shall not carry loads
 1. over the general public or Owner's personnel
 2. over any occupied building unless
 - a. the top two floors are vacated
 - b. or overhead protection with a design live load of 300 psf is provided

1.18 CONTROL OF HAZARDOUS ENERGY (LOCKOUT/TAGOUT)

- A. All installation, maintenance, and servicing of equipment or machinery shall comply with 29 CFR 1910.147 except for specifically referenced operations in 29 CFR 1926 such as concrete & masonry equipment [1926.702(j)], heavy machinery & equipment [1926.600(a)(3)(i)], and process safety management of highly hazardous chemicals (1926.64). Control of hazardous electrical energy during the installation, maintenance, or servicing of electrical equipment shall comply with Section 1.15 to include NFPA 70E and other specific requirements discussed in the section.

1.19 CONFINED SPACE ENTRY

- A. All confined space entry shall comply with 29 CFR 1910.146 except for specifically referenced operations in 29 CFR 1926 such as excavations/trenches [1926.651(g)].
- B. A site-specific Confined Space Entry Plan (including permitting process) shall be developed and submitted to the Owner.

1.20 WELDING AND CUTTING

As specified in section 1.14, Hot Work: Perform and safeguard hot work operations in accordance with NFPA 241 and NFPA 51B. Coordinate with Owner. Obtain permits from Owner at least _____ hours in advance. Designate contractor's responsible project-site fire prevention program manager to permit hot work.

1.21 LADDERS

- A. All Ladder use shall comply with 29 CFR 1926 Subpart X.
- B. All portable ladders shall be of sufficient length and shall be placed so that workers will not stretch or assume a hazardous position.
- C. Manufacturer safety labels shall be in place on ladders
- D. Step Ladders shall not be used in the closed position
- E. Top steps or cap of step ladders shall not be used as a step
- F. Portable ladders, used as temporary access, shall extend at least 3 ft (0.9 m) above the upper landing surface.
 - 1. When a 3 ft (0.9-m) extension is not possible, a grasping device (such as a grab rail) shall be provided to assist workers in mounting and dismounting the ladder.
 - 2. In no case shall the length of the ladder be such that ladder deflection under a load would, by itself, cause the ladder to slip from its support.
- G. Ladders shall be inspected for visible defects on a daily basis and after any occurrence that could affect their safe use. Broken or damaged ladders shall be immediately tagged "DO NOT USE," or with similar wording, and withdrawn from service until restored to a condition meeting their original design.

1.22 FLOOR & WALL OPENINGS

- A. All floor and wall openings shall comply with 29 CFR 1926 Subpart M.
- B. Floor and roof holes/openings are any that measure over 2 in (51 mm) in any direction of a walking/working surface which persons may trip or fall into or where objects may fall to the level below. See 21.F for covering and labeling requirements. Skylights located in floors or roofs are considered floor or roof hole/openings.
- C. All floor, roof openings or hole into which a person can accidentally walk or fall through shall be guarded either by a railing system with toeboards along all exposed sides or a load-bearing cover. When the cover is not in place, the opening or hole shall be protected by a removable guardrail system or shall be attended when the guarding system has been removed, or other fall protection system.
 - 1. Covers shall be capable of supporting, without failure, at least twice the weight of the worker, equipment and material combined.
 - 2. Covers shall be secured when installed, clearly marked with the word "HOLE", "COVER" or "Danger, Roof Opening-Do Not Remove" or color-coded or equivalent methods (e.g., red or orange "X"). Workers must be made aware of the meaning for color coding and equivalent methods.
 - 3. Roofing material, such as roofing membrane, insulation or felts, covering or partly covering openings or holes, shall be immediately cut out. No hole or opening shall be left unattended unless covered.
 - 4. Non-load-bearing skylights shall be guarded by a load-bearing skylight screen, cover, or railing system along all exposed sides. Workers are prohibited from standing/walking on skylights.

--- E N D ---

**SECTION 014000
QUALITY REQUIREMENTS**

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes administrative and procedural requirements for quality assurance and quality control.
- B. Testing and inspecting services are required to verify compliance with requirements specified or indicated. These services do not relieve Contractor of responsibility for compliance with the Contract Document requirements.
 - 1. Specified tests, inspections, and related actions do not limit Contractor's other quality- assurance and -control procedures that facilitate compliance with the Contract Document requirements.
 - 2. Requirements for Contractor to provide quality-assurance and -control services required by Architect, Owner, or authorities having jurisdiction are not limited by provisions of this Section.
 - 3. Specific test and inspection requirements are not specified in this Section.

1.2 DEFINITIONS

- A. Quality-Assurance Services: Activities, actions, and procedures performed before and during execution of the Work to guard against defects and deficiencies and substantiate that proposed construction will comply with requirements.
- B. Quality-Control Services: Tests, inspections, procedures, and related actions during and after execution of the Work to evaluate that actual products incorporated into the Work and completed construction comply with requirements. Services do not include contract enforcement activities performed by Architect or Owner.
- C. Preconstruction Testing: Tests and inspections performed specifically for Project before products and materials are incorporated into the Work, to verify performance or compliance with specified criteria.
- D. Product Testing: Tests and inspections that are performed by an NRTL, an NVLAP, or a testing agency qualified to conduct product testing and acceptable to authorities having jurisdiction, to establish product performance and compliance with specified requirements.
- E. Source Quality-Control Testing: Tests and inspections that are performed at the source, e.g., plant, mill, factory, or shop.
- F. Field Quality-Control Testing: Tests and inspections that are performed on-site for installation of the Work and for completed Work.
- G. Testing Agency: An entity engaged to perform specific tests, inspections, or both. Testing laboratory shall mean the same as testing agency.
- H. Installer/Applicator/Erector: Contractor or another entity engaged by Contractor as an employee, Subcontractor, or Sub-subcontractor, to perform a particular construction operation, including installation, erection, application, and similar operations.
 - 1. Use of trade-specific terminology in referring to a trade or entity does not require

that certain construction activities be performed by accredited or unionized individuals, or that requirements specified apply exclusively to specific trade(s).

- I. Experienced: When used with an entity or individual, "experienced" means having successfully completed a minimum of five previous projects similar in nature, size, and extent to this Project; being familiar with special requirements indicated; and having complied with requirements of authorities having jurisdiction.

1.3 CONFLICTING REQUIREMENTS

- A. Referenced Standards: If compliance with two or more standards is specified and the standards establish different or conflicting requirements for minimum quantities or quality levels, comply with the most stringent requirement. Refer conflicting requirements that are different, but apparently equal, to Architect for a decision before proceeding.
- A. Minimum Quantity or Quality Levels: The quantity or quality level shown or specified shall be the minimum provided or performed. The actual installation may comply exactly with the minimum quantity or quality specified, or it may exceed the minimum within reasonable limits. To comply with these requirements, indicated numeric values are minimum or maximum, as appropriate, for the context of requirements. Refer uncertainties to Architect for a decision before proceeding.

1.2 INFORMATIONAL SUBMITTALS

- A. Contractor's Statement of Responsibility: When required by authorities having jurisdiction, submit copy of written statement of responsibility sent to authorities having jurisdiction before starting work on the following systems:
 1. Seismic-force-resisting system, designated seismic system, or component listed in the designated seismic system quality-assurance plan prepared by Architect.
 2. Main wind-force-resisting system or a wind-resisting component listed in the wind-force-resisting system quality-assurance plan prepared by Architect.
- B. Testing Agency Qualifications: For testing agencies specified in "Quality Assurance" Article to demonstrate their capabilities and experience. Include proof of qualifications in the form of a recent report on the inspection of the testing agency by a recognized authority.

1.3 REPORTS AND DOCUMENTS

- A. Test and Inspection Reports: Prepare and submit certified written reports specified in other Sections. Include the following:
 1. Date of issue.
 2. Project title and number.
 3. Name, address, and telephone number of testing agency.
 4. Dates and locations of samples and tests or inspections.
 5. Names of individuals making tests and inspections.
 6. Description of the Work and test and inspection method.
 7. Identification of product and Specification Section.
 8. Complete test or inspection data.
 9. Test and inspection results and an interpretation of test results.
 10. Record of temperature and weather conditions at time of sample taking and testing and inspecting.
 11. Comments or professional opinion on whether tested or inspected Work complies

- with the Contract Document requirements.
 - 12. Name and signature of laboratory inspector.
 - 13. Recommendations on retesting and re-inspecting.
- B. Manufacturer's Field Reports: Prepare written information documenting tests and inspections specified in other Sections. Include the following:
- 1. Name, address, and telephone number of representative making report.
 - 2. Statement on condition of substrates and their acceptability for installation of product.
 - 3. Summary of installation procedures being followed, whether they comply with requirements and, if not, what corrective action was taken.
 - 4. Results of operational and other tests and a statement of whether observed performance complies with requirements.
 - 5. Other required items indicated in individual Specification Sections.
- C. Permits, Licenses, and Certificates: For Owner's records, submit copies of permits, licenses, certifications, inspection reports, releases, jurisdictional settlements, notices, receipts for fee payments, judgments, correspondence, records, and similar documents, established for compliance with standards and regulations bearing on performance of the Work.

1.4 QUALITY ASSURANCE

- A. General: Qualifications paragraphs in this article establish the minimum qualification levels required; individual Specification Sections specify additional requirements.
- B. Manufacturer Qualifications: A firm experienced in manufacturing products or systems similar to those indicated for this Project and with a record of successful in-service performance, as well as sufficient production capacity to produce required units.
- C. Fabricator Qualifications: A firm experienced in producing products similar to those indicated for this Project and with a record of successful in-service performance, as well as sufficient production capacity to produce required units.
- D. Installer Qualifications: A firm or individual experienced in installing, erecting, or assembling work similar in material, design, and extent to that indicated for this Project, whose work has resulted in construction with a record of successful in-service performance.
- E. Professional Engineer Qualifications: A professional engineer who is legally qualified to practice in jurisdiction where Project is located and who is experienced in providing engineering services of the kind indicated. Engineering services are defined as those performed for installations of the system, assembly, or products that are similar in material, design, and extent to those indicated for this Project.
- F. Specialists: Certain Specification Sections require that specific construction activities shall be performed by entities who are recognized experts in those operations. Specialists shall satisfy qualification requirements indicated and shall be engaged for the activities indicated.
- 1. Requirements of authorities having jurisdiction shall supersede requirements for specialists.
- G. Testing Agency Qualifications: An NRTL, an NVLAP, or an independent agency with the experience and capability to conduct testing and inspecting indicated, as documented according to ASTM E 329; and with additional qualifications specified in individual Sections; and, where required by authorities having jurisdiction, that is acceptable to authorities.
- 1. NRTL: A nationally recognized testing laboratory according to 29 CFR 1910.7.

2. NVLAP: A testing agency accredited according to NIST's National Voluntary Laboratory Accreditation Program.
- H. Manufacturer's Representative Qualifications: An authorized representative of manufacturer who is trained and approved by manufacturer to observe and inspect installation of manufacturer's products that are similar in material, design, and extent to those indicated for this Project.
- I. Preconstruction Testing: Where testing agency is indicated to perform preconstruction testing for compliance with specified requirements for performance and test methods, comply with the following:
 1. Contractor responsibilities include the following:
 - a. Provide test specimens representative of proposed products and construction.
 - b. Submit specimens in a timely manner with sufficient time for testing and analyzing results to prevent delaying the Work.
 - c. Build laboratory mockups at testing facility using personnel, products, and methods of construction indicated for the completed Work.
 - d. When testing is complete, remove test specimens, assemblies, and mockups, and laboratory mockups; do not reuse products on Project.
 2. Testing Agency Responsibilities: Submit a certified written report of each test, inspection, and similar quality-assurance service to Architect, with copy to Contractor. Interpret tests and inspections and state in each report whether tested and inspected work complies with or deviates from the Contract Documents.

1.5 QUALITY CONTROL

- A. Owner Responsibilities: Where quality-control services are indicated as Owner's responsibility, Owner will engage a qualified testing agency to perform these services.
 1. Owner will furnish Contractor with names, addresses, and telephone numbers of testing agencies engaged and a description of types of testing and inspecting they are engaged to perform.
 2. Costs for retesting and re-inspecting construction that replaces or is necessitated by work that failed to comply with the Contract Documents will be charged to Contractor, and the Contract Sum will be adjusted by Change Order.
- B. Contractor Responsibilities: Tests and inspections not explicitly assigned to Owner are Contractor's responsibility. Perform additional quality-control activities required to verify that the Work complies with requirements, whether specified or not.
 1. Where services are indicated as Contractor's responsibility, engage a qualified testing agency to perform these quality-control services.
 - a. Contractor shall not employ same entity engaged by Owner, unless agreed to in writing by Owner.
 2. Notify testing agencies at least 24 hours in advance of time when Work that requires testing or inspecting will be performed.
 3. Where quality-control services are indicated as Contractor's responsibility, submit a certified written report, in duplicate, of each quality-control service.
 4. Testing and inspecting requested by Contractor and not required by the Contract Documents are Contractor's responsibility.
 5. Submit additional copies of each written report directly to authorities having jurisdiction, when they so direct.
- C. Manufacturer's Field Services: Where indicated, engage a manufacturer's representative to observe and inspect the Work. Manufacturer's representative's services include examination of substrates and conditions, verification of materials, inspection of completed portions of

the Work, and submittal of written reports.

- D. Retesting/Reinspecting: Regardless of whether original tests or inspections were Contractor's responsibility, provide quality-control services, including retesting and re-inspecting, for construction that replaced Work that failed to comply with the Contract Documents.
- E. Testing Agency Responsibilities: Cooperate with Architect and Contractor in performance of duties. Provide qualified personnel to perform required tests and inspections.
 - 1. Notify Architect and Contractor promptly of irregularities or deficiencies observed in the Work during performance of its services.
 - 2. Determine the location from which test samples will be taken and in which in-situ tests are conducted.
 - 3. Conduct and interpret tests and inspections and state in each report whether tested and inspected work complies with or deviates from requirements.
 - 4. Submit a certified written report, in duplicate, of each test, inspection, and similar quality-control service through Contractor.
 - 5. Do not release, revoke, alter, or increase the Contract Document requirements or approve or accept any portion of the Work.
 - 6. Do not perform any duties of Contractor.
- F. Associated Services: Cooperate with agencies performing required tests, inspections, and similar quality-control services, and provide reasonable auxiliary services as requested. Notify agency sufficiently in advance of operations to permit assignment of personnel. Provide the following:
 - 1. Access to the Work.
 - 2. Incidental labor and facilities necessary to facilitate tests and inspections.
 - 3. Adequate quantities of representative samples of materials that require testing and inspecting. Assist agency in obtaining samples.
 - 4. Facilities for storage and field curing of test samples.
 - 5. Delivery of samples to testing agencies.
 - 6. Preliminary design mix proposed for use for material mixes that require control by testing agency.
 - 7. Security and protection for samples and for testing and inspecting equipment at Project site.
- G. Coordination: Coordinate sequence of activities to accommodate required quality-assurance and - control services with a minimum of delay and to avoid necessity of removing and replacing construction to accommodate testing and inspecting.
 - 1. Schedule times for tests, inspections, obtaining samples, and similar activities.

1.6 SPECIAL TESTS AND INSPECTIONS

- A. Special Tests and Inspections: Engage a qualified testing agency special inspector to conduct special tests and inspections required by authorities having jurisdiction as the responsibility of Owner, and as follows:
- B. Special Tests and Inspections: Conducted by a qualified testing agency special inspector as required by authorities having jurisdiction, as indicated in individual Specification Sections, and as follows:
 - 1. Verifying that manufacturer maintains detailed fabrication and quality-control procedures and reviews the completeness and adequacy of those procedures to perform the Work.
 - 2. Notifying Architect and Contractor promptly of irregularities and deficiencies observed in the Work during performance of its services.

3. Submitting a certified written report of each test, inspection, and similar quality-control service to Architect with copy to Contractor and to authorities having jurisdiction.
4. Submitting a final report of special tests and inspections at Substantial Completion, this includes a list of unresolved deficiencies.
5. Interpreting tests and inspections and stating in each report whether tested and inspected work complies with or deviates from the Contract Documents.
6. Retesting and re-inspecting corrected work.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 TEST AND INSPECTION LOG

- A. Test and Inspection Log: Prepare a record of tests and inspections. Include the following:
 1. Date test or inspection was conducted.
 2. Description of the Work tested or inspected.
 3. Date test or inspection results were transmitted to Architect.
 4. Identification of testing agency or special inspector conducting test or inspection.
- B. Maintain log at Project site. Post changes and revisions as they occur. Provide access to test and inspection log for Architect's reference during normal working hours.

3.2 REPAIR AND PROTECTION

- A. General: On completion of testing, inspecting, sample taking, and similar services, repair damaged construction and restore substrates and finishes.
 1. Provide materials and comply with installation requirements specified in other Specification Sections or matching existing substrates and finishes. Restore patched areas and extend restoration into adjoining areas with durable seams that are as invisible as possible. Comply with the Contract Document requirements for cutting and patching in Specification Section for Execution.
- B. Protect construction exposed by or for quality-control service activities.
- C. Repair and protection are Contractor's responsibility, regardless of the assignment of responsibility for quality-control services.

--- E N D ---

SECTION 014100 REGULATORY REQUIREMENTS

PART 1- GENERAL

1.01 DESCRIPTION OF WORK

- A. The work under this section of the specifications includes the listing of applicable codes, standards and fee requirements in the completion of the work.

Part 2 - BUILDING CODES

2.01 APPLICABLE BUILDING CODES

- A. The contractor shall comply with all the latest publications of applicable codes that have been adopted by federal, state and local codes including, but not limited, the following:
 - 1. Florida Building Code
 - 2. Florida Mechanical Code
 - 3. Florida Plumbing Code
 - 4. Florida Fire Prevention Code
 - 5. Life Safety Code (NFPA 101)
 - 6. National Electric Code
 - 7. Florida Accessibility Code (within the Florida Building Code)
 - 8. American with Disabilities Title 3 Regulation and U.S. public law no. 1.01-336
 - 9. Codes of the city and country in which the project is located.
 - 10. Standards of National Board of Fire Underwriters.
 - 11. Local Utility Company Regulations.
 - 12. Florida Product Approval for all components and cladding and all structural components in accordance with chapter 16 of the Florida Building Code.

2.02 STANDARDS

- A. Published specifications of government agencies, industry organizations and regulating agencies as noted in the various sections of these specifications.

2.03 FEES AND PERMIT

- A. The contractor shall obtain and pay for all building permits, fees and similar regulatory costs related to the construction of this project.
- B. Reference 453.2.2 of the Florida building code: exemption from local requirements:
 - 1. Each school board and Florida college board of trustees is deemed to be the owner of facilities within its respective jurisdiction. Boards shall provide for enforcement of the Florida Building Code and the Florida Fire Prevention Code as adopted by the state fire marshal, including standards for health, sanitation, and others as required by law.
 - 2. All public educational plants constructed by a community college are exempt from all other state, country, district, municipal or local building codes interpretations, building permits, and assessments of fees for building permits, ordinances and road closures.

- C. The owner will pay for all impact fees, fees to obtain permits from the applicable storm water management district, and fees, if any, from the utility company that furnishes primary electrical power to a new transformer. All other fees and costs are to be included in the contractor's base bid unless noted otherwise in the proposal.

PART 3 – EXECUTION

3.01 CURRENT EDITION

- A. When reference is made to codes, reference specifications, industry standards, data published by regulating agencies or industry-accepted organizations such reference is made to latest edition (including addenda) published and in effect on date of contract documents.

3.02 COMPLIANCE

- A. Codes and standards: the work shall be performed in compliance with all applicable codes and standards. If the contractor performs any work knowing it is contrary to such codes and standards, he shall assume full responsibility and bear all resultant costs.

- - - END - - -

**SECTION 014200
REFERENCES**

PART 1 - GENERAL

1.1 DEFINITIONS

- A. General: Basic Contract definitions are included in the Conditions of the Contract.
- B. "Approved": When used to convey Architect's action on Contractor's submittals, applications, and requests, "approved" is limited to Architect's duties and responsibilities as stated in the Conditions of the Contract.
- C. "Directed": A command or instruction by Architect. Other terms including "requested," "authorized," "selected," "required," and "permitted" have the same meaning as "directed."
- D. "Indicated": Requirements expressed by graphic representations or in written form on Drawings, in Specifications, and in other Contract Documents. Other terms including "shown," "noted," "scheduled," and "specified" have the same meaning as "indicated."
- E. "Regulations": Laws, ordinances, statutes, and lawful orders issued by authorities having jurisdiction, and rules, conventions, and agreements within the construction industry that control performance of the Work.
- F. "Furnish": Supply and deliver to Project site, ready for unloading, unpacking, assembly, installation, and similar operations.
- G. "Install": Operations at Project site including unloading, temporarily storing, unpacking, assembling, erecting, placing, anchoring, applying, working to dimension, finishing, curing, protecting, cleaning, and similar operations.
- H. "Provide": Furnish and install, complete and ready for the intended use.
- I. "Project Site": Space available for performing construction activities. The extent of Project site is shown on Drawings and may or may not be identical with the description of the land on which Project is to be built.

1.2 INDUSTRY STANDARDS

- A. Applicability of Standards: Unless the Contract Documents include more stringent requirements, applicable construction industry standards have the same force and effect as if bound or copied directly into the Contract Documents to the extent referenced. Such standards are made a part of the Contract Documents by reference.
- B. Publication Dates: Comply with standards in effect as of date of the Contract Documents unless otherwise indicated.
- C. Copies of Standards: Each entity engaged in construction on Project should be familiar with industry standards applicable to its construction activity. Copies of applicable standards are not bound with the Contract Documents.
 - 1. Where copies of standards are needed to perform a required construction activity, obtain copies directly from publication source.

1.3 ABBREVIATIONS AND ACRONYMS

A. Industry Organizations: Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the entities indicated in Thomson Gale's "Encyclopedia of Associations" or in Columbia Books' "National Trade & Professional Associations of the U.S."

B. Industry Organizations: Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the entities in the following list.

AA	Aluminum Association (The) AABC Associated Air Balance Council
AAMA	American Architectural Manufacturers Association
AASHTO	American Association of State Highway and Transportation Officials
AATCC	American Association of Textile Chemists and Colorists
ABAA	Air Barrier Association of America
ABMA	American Bearing Manufacturers Association
ACI	American Concrete Institute
ACPA	American Concrete Pipe Association
AEIC	Association of Edison Illuminating Companies, Inc. (The)
AF&PA	American Forest & Paper Association
AGA	American Gas Association
AHAM	Association of Home Appliance Manufacturers
AHRI	Air-Conditioning, Heating, and Refrigeration Institute,
(The) AI	Asphalt Institute
AIA	American Institute of Architects (The)
AISC	American Institute of Steel Construction
AISI	American Iron and Steel Institute
AITC	American Institute of Timber Construction
ALSC	American Lumber Standard Committee, Incorporated
AMCA	Air Movement and Control Association International, Inc.
ANSI	American National Standards Institute
AOSA	Association of Official Seed Analysts, Inc.
APA	APA - The Engineered Wood Association
APA	Architectural Precast Association
API	American Petroleum Institute
ARI	Air-Conditioning & Refrigeration Institute
ARMA	Asphalt Roofing Manufacturers Association
ASCE	American Society of Civil Engineers
ASCE/SEI	American Society of Civil Engineers/Structural Engineering Institute (See ASCE)
ASHRAE	American Society of Heating, Refrigerating and Air-Conditioning Engineers
ASME	ASME International (American Society of Mechanical Engineers International)
ASSE	American Society of Sanitary Engineering
ASTM	ASTM International (American Society for Testing and Materials International)
ATIS	Alliance for Telecommunications Industry Solutions
AWCMA	American Window Covering Manufacturers Association (Now WCMA)
AWCI	Association of the Wall and Ceiling Industry
AWI	Architectural Woodwork Institute
AWPA	American Wood Protection Association (Formerly: American Wood Preservers' Association)
AWS	American Welding Society
AWWA	American Water Works Association

BHMA	Builders Hardware Manufacturers Association
BIA	Brick Industry Association (The)
BICSI	BICSI, Inc.
BIFMA	BIFMA International (Business and Institutional Furniture Manufacturer's Association International)
BISSC	Baking Industry Sanitation Standards Committee
CCC	Carpet Cushion Council
CDA	Copper Development Association
CEA	Canadian Electricity Association
CEA	Consumer Electronics Association
CFFA	Chemical Fabrics & Film Association, Inc.
CGA	Compressed Gas Association
CIMA	Cellulose Insulation Manufacturers Association
CISCA	Ceilings & Interior Systems Construction Association
CISPI	Cast Iron Soil Pipe Institute
CLFMI	Chain Link Fence Manufacturers Institute
CPA	Composite Panel Association
CRI	Carpet and Rug Institute (The)
CRRC	Cool Roof Rating Council
CRSI	Concrete Reinforcing Steel Institute
CRRC	Cool Roof Rating Council
CSA	Canadian Standards Association
CSA	CSA International (Formerly: IAS - International Approval Services)
CSI	Construction Specifications Institute (The)
CSSB	Cedar Shake & Shingle Bureau
CTI	Cooling Technology Institute (Formerly: Cooling Tower Institute)
DHI	Door and Hardware Institute
ECA	Electrical Components Association
EIA	Electronic Industries Alliance
EIMA	EIFS Industry Members Association
EJCDC	Engineers Joint Contract Documents Committee
EJMA	Expansion Joint Manufacturers Association, Inc.
ESD	ESD Association (Electrostatic Discharge Association)
ETL SEMCO	Intertek ETL SEMCO (Formerly: ITS - Intertek Testing Service NA)
FIBA	Federation Internationale de Basketball (The International Basketball Federation)
FIVB	Federation Internationale de Volleyball (The International Volleyball Federation)
FM Approvals	FM Approvals LLC
FM Global	FM Global (Formerly: FMG - FM Global)
FRSA	Florida Roofing, Sheet Metal & Air Conditioning Contractors Association,
Inc. FSA	Fluid Sealing Association
FSC	Forest Stewardship Council
GA	Gypsum Association
GANA	Glass Association of North
America GRI	(Part of GSI)
GS	Green Seal
GSI	Geosynthetic Institute
HI	Hydronics Institute
HI/GAMA	Hydronics Institute/Gas Appliance Manufacturers Association Division of Air-Conditioning, Heating, and Refrigeration Institute (AHRI)
HMMA	Hollow Metal Manufacturers Association (Part of NAAMM)
HPVA	Hardwood Plywood & Veneer Association
HPW	H. P. White Laboratory, Inc.

IAPSC	International Association of Professional Security Consultants
ICBO	International Conference of Building Officials
ICEA	Insulated Cable Engineers Association, Inc.
ICRI	International Concrete Repair Institute, Inc.
ICPA	International Cast Polymer Association
IEC	International Electrotechnical Commission
IEEE	Institute of Electrical and Electronics Engineers, Inc. (The)
IES	Illuminating Engineering Society of North America
IEST	Institute of Environmental Sciences and Technology
IGMA	Insulating Glass Manufacturers Alliance
ILI	Indiana Limestone Institute of America, Inc.
ISA	Instrumentation, Systems, and Automation Society
ISO	International Organization for Standardization
ISSFA	International Solid Surface Fabricators Association
NA	(Now ETL SEMCO)
ITU	International Telecommunication Union
KCMA	Kitchen Cabinet Manufacturers Association
LGSEA	Light Gauge Steel Engineers Association
LMA	Laminating Materials Association (Now part of CPA)
LPI	Lightning Protection Institute
MBMA	Metal Building Manufacturers Association
MCA	Metal Construction Association
MFMA	Maple Flooring Manufacturers Association, Inc.
MFMA	Metal Framing Manufacturers Association, Inc.
MH	Material Handling (Now MHIA)
MHIA	Material Handling Industry of
America MIA	Marble Institute of America
MPI	Master Painters Institute
MSS	Manufacturers Standardization Society of The Valve and Fittings Industry
NAAMM	National Association of Architectural Metal Manufacturers
NACE	NACE International (National Association of Corrosion Engineers International)
NADCA	National Air Duct Cleaners Association
NAGWS	National Association for Girls and Women in Sport
NAIMA	North American Insulation Manufacturers Association
NBGQA	National Building Granite Quarries Association, Inc.
NCAA	National Collegiate Athletic Association (The)
NCMA	National Concrete Masonry Association
NCTA	National Cable & Telecommunications Association
NEBB	National Environmental Balancing Bureau
NECA	National Electrical Contractors Association
NeLMA	Northeastern Lumber Manufacturers' Association
NEMA	National Electrical Manufacturers Association
NETA	InterNational Electrical Testing Association
NFHS	National Federation of State High School Associations
NFPA	(National Fire Protection Association)
NFRC	National Fenestration Rating Council
NGA	National Glass Association
NHLA	National Hardwood Lumber Association
NLGA	National Lumber Grades Authority
NOFMA	NOFMA: The Wood Flooring Manufacturers Association (Formerly: National Oak Flooring Manufacturers Association)

NOMMA	National Ornamental & Miscellaneous Metals Association
NRCA	National Roofing Contractors Association
NRMCA	National Ready Mixed Concrete Association
NSF	NSF International (National Sanitation Foundation International)
NSSGA	National Stone, Sand & Gravel Association
NTMA	National Terrazzo & Mosaic Association, Inc.
(The) NWFA	National Wood Flooring Association
PCI	Precast/Prestressed Concrete Institute
PDI	Plumbing & Drainage Institute
PGI	PVC Geomembrane Institute
PTI	Post-Tensioning Institute
RCSC	Research Council on Structural Connections
RFCI	Resilient Floor Covering Institute
RIS	Redwood Inspection Service
SAE	SAE International
SCAQMD	South Coast Air Quality Management District
SCTE	Society of Cable Telecommunications Engineers
SDI	Steel Deck Institute
SDI	Steel Door Institute
SEFA	Scientific Equipment and Furniture Association
SEI/ASCE	Structural Engineering Institute/American Society of Civil Engineers (See ASCE)
SIA	Security Industry Association
SJI	Steel Joist Institute
SMA	Screen Manufacturers Association
SMACNA	Sheet Metal and Air Conditioning Contractors' National Association
SMPTE	Society of Motion Picture and Television Engineers
SPFA	Spray Polyurethane Foam Alliance (Formerly: SPI/SPFD - The Society of the Plastics Industry, Inc.; Spray Polyurethane Foam Division)
SPIB	Southern Pine Inspection Bureau (The)
SPRI	Single Ply Roofing Industry
SSINA	Specialty Steel Industry of North America
SSPC	The Society for Protective Coatings
STI	Steel Tank Institute
SWI	Steel Window Institute
SWPA	Submersible Wastewater Pump Association
TCA	Tilt-Up Concrete Association
TCNA	Tile Council of North America, Inc.
TEMA	Tubular Exchanger Manufacturers Association
TIA/EIA	Telecommunications Industry Association/Electronic Industries Alliance
TMS	The Masonry Society
TPI	Truss Plate Institute, Inc.
TPI	Turfgrass Producers International
TRI	Tile Roofing Institute
UL	Underwriters Laboratories Inc.
UNI	Uni-Bell PVC Pipe Association
USAV	USA Volleyball
USGBC	U.S. Green Building Council
USITT	United States Institute for Theatre Technology, Inc.
WASTEC	Waste Equipment Technology Association
WCLIB	West Coast Lumber Inspection Bureau
WCMA	Window Covering Manufacturers Association
WDMA	Window & Door Manufacturers Association

WI	(Formerly: NWWDA - National Wood Window and Door Association)
WMMPA	Woodwork Institute (Formerly: WIC - Woodwork Institute of California)
WSRCA	Wood Moulding & Millwork Producers Association
WWPA	Western States Roofing Contractors Association
	Western Wood Products Association

- C. Code Agencies: Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the entities in the following list.

DIN	Deutsches Institut fur Normung e.V.
IAPMO	International Association of Plumbing and Mechanical Officials
ICC	International Code Council
ICC-ES	ICC Evaluation Service, Inc.

- D. Standards and Regulations: Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the standards and regulations in the following list.

ADAAG	Americans with Disabilities Act
(ADA)	Architectural Barriers Act
(ABA)	Accessibility Guidelines for Buildings and Facilities Available from U.S. Access Board
CFR	Code of Federal Regulations
DOD	Department of Defense Military Specifications and Standards Available from Department of Defense Single Stock Point
FED-STD	Federal Standard (See FS)
FS	Federal Specification Available from Department of Defense Single Stock Point
FTMS	Federal Test Method Standard (See FS)
MIL	(See MILSPEC)
MIL-STD	(See MILSPEC)
MILSPEC	Military Specification and Standards Available from Department of Defense Single Stock Point
UFAS	Uniform Federal Accessibility Standards

--- E N D ---

SECTION 014216
DEFINITIONS

PART 1 GENERAL

1.01 DEFINITIONS

- A. Abbreviations, where not defined in contract documents, will be interpreted to mean the normal construction industry terminology, determined by recognized grammatical rules, by the architect/engineer. Plural words will be interpreted as singular words will be interpreted as plural where applicable for context of contract documents.
- B. Where abbreviations or acronyms are used, they mean the well-recognized name in building construction industry; refer uncertainties to architect/engineer before proceeding or consult "Encyclopedia of Associations" by Gale Research Company.
- C. Approved by architect/engineer: this in no case releases contractor from responsibility to fulfill requirements of contract documents.
- D. Basis of Design: where used, this indicates product is used as the basis for creating design and associated details. Unless other comparable manufacturers are listed, there is no substitution.
- E. Comparable product or manufacturer: a product or manufacturer specified and deemed comparable in terms of establishing design intent and compatibility with the integrated design. A comparable product or manufacturer can be submitted for the architect's review and approval as part of the submittal procedure. A comparable product or manufacturer does not require a product substitution request, nor the architect's review of a product substitution request.
- F. Contract Documents: the contract documents consist of the agreement, conditions of the contract (general, supplementary and other conditions), drawings, specifications, addenda issued prior to execution of the contract, other documents listed in the agreement and modifications issued after execution of the contract.
- G. Directed, requested, approved, accepted and similar terms: these terms imply "by the architect/engineer", unless otherwise indicated.
- H. Furnish: to supply, deliver, ready for storage, unload, unpack, and inspect for damage.
- I. Guarantee/Warranty (is synonymous): a promise or assurance, given in writing that attests to the quality or durability of a product or service, a pledge assumed by a person, entity or manufacturer that product or service will perform as represented, and will be considered as a full warranty, covering both labor and materials to be replaced if it does not meet the specifications or satisfactorily perform for the specified duration and without any cost to the owner.
- J. Indicated: shown on drawings by notes, graphics or schedules, or written into other portions of contract documents. Terms such as "shown", "noted", "scheduled" and are used to assist the reader in locating particular information.
- K. Install: to unpack, assemble, erect, apply, place, finish, cure, protect, clean, startup, and make ready for use.
- L. Installer: entity (firm or person) engaged to install work, contractor, subcontractor or sub-subcontractor. Installers are required to be skilled in work for which they are engaged.
- M. Minimum requirements: indicated requirements are for a specific minimum acceptable level of quality or quantity, as recognized in the industry. Actual work to be within specified tolerances or may exceed minimums. Refer ambiguities to architect/engineer for decision in any case before proceeding.
- N. Overlapping conflicting requirements: in contract documents, indicates that stringent requirements will be required. Refer ambiguities to architect/engineer for decision in any case before proceeding.
 - 1. Where optional requirements are specified, the option is intended to be contractors.

- O. Performance and Payment Bonds: a binding agreement, promise, as an obligation by an accredited person or bonding company assuring performance and payment of another person's or entity's contracted obligations.
- P. Product: material, machinery, components, equipment, fixture, and systems forming the work result. Not materials or equipment used for preparation, fabrication, conveying, or erection and not incorporated into the work result. Products may be new, never before used, or reused material or equipment.
- Q. Products substitution request: a request submitted by the general contractor to substitute a specified product or manufacturer that may not be a comparable product or manufacturer.
- R. Specification text format: underscoring, if used, facilitates "scan reading" and is not meant to lessen the effect of words not underscored. Imperative language is directed to contractor, unless specifically noted otherwise.
- S. Supply: same as furnish
- T. Testing laboratory: an independent entity engaged for the project to provide inspections, tests, interpretations, reports and similar services.

1.02 STANDARDS

- A. Industry standards: applicable standards of construction industry have same force and effect on performance of the work as if bound and published in full into contract documents. Standards referenced in contract documents have precedence over non-referenced standards, insofar as different standards may contain overlapping or conflicting requirements.
 - 1. Where standards are referenced in any section of the project manual shall mean that the whole or part of the standard requirement shall govern the applicable part of that section, except where the more stringent requirements are stated in that section, and then they shall govern.
 - 2. Manufacturer's recommendations: where reference is made to manufacturer's recommendations in any section of the project manual shall mean "as recommended by manufacturer". If manufacturer's recommendations are in conflict with the requirements in that section, the more stringent requirements in that section, the more stringent requirements shall govern.
 - 3. Manufacturer's instructions: where manufacturer's instructions are referenced in any section of the project manual and additional instructions are stipulated in that section, are against manufacturer's instructions the more stringent instructions shall govern.
- B. Construction wording: construction industry wording or "jargon" may have different meaning on interpretation to certain individuals. They are intended to mean the recognized phraseology and intent used in the local area. Refer uncertainties to architect before proceeding or consult "construction glossary" (1980 edition) by J. Stewart Stain, AIA, CSI.
- C. Caulking: in the method used such as filling cracks, crevices and joints, along intersections of wood, metal masonry and other materials or similar conditions by the use of putty like compound.
- D. Caulking compound: when used in the text refers to semi-drying or slow drying plastic material, used to seal joints around windows, door and the like where caulking is required, and it is synonymous with the word sealant.
- E. Sealant: is a plastic or putty like material used to exclude water, air and other foreign materials from joints, and can be applied by pressure gun or putty knife.

--- END ---

**SECTION 014219
REFERENCE STANDARDS**

PART 1 - GENERAL

1.1 DESCRIPTION

This section specifies the availability and source of references and standards specified in the project manual under paragraphs APPLICABLE PUBLICATIONS and/or shown on the drawings.

1.2 AVAILABILITY OF SPECIFICATION

The specifications cited in this solicitation may be obtained from the associations or organizations listed below.

AA	Aluminum Association Inc. http://www.aluminum.org
AABC	Associated Air Balance Council http://www.aabchq.com
AAMA	American Architectural Manufacturer's Association http://www.aamanet.org
AAN	American Nursery and Landscape Association http://www.anla.org
AASHTO	American Association of State Highway and Transportation Officials http://www.aashto.org
AATCC	American Association of Textile Chemists and Colorists http://www.aatcc.org
ACGIH	American Conference of Governmental Industrial Hygienists http://www.acgih.org
ACI	American Concrete Institute http://www.aci-int.net
ACPA	American Concrete Pipe Association http://www.concrete-pipe.org
ACPPA	American Concrete Pressure Pipe Association http://www.acppa.org
ADC	Air Diffusion Council http://flexibleduct.org
AGA	American Gas Association http://www.aga.org
AGC	Associated General Contractors of America http://www.agc.org

AGMA	American Gear Manufacturers Association, Inc. http://www.agma.org
AHAM	Association of Home Appliance Manufacturers http://www.aham.org
AIA	American Institute of Architects http://www.aia.org
AISC	American Institute of Steel Construction http://www.aisc.org
AISI	American Iron and Steel Institute http://www.steel.org
AITC	American Institute of Timber Construction http://www.aitc-glulam.org
AMCA	Air Movement and Control Association, Inc. http://www.amca.org
ANLA	American Nursery & Landscape Association http://www.anla.org
ANSI	American National Standards Institute, Inc. http://www.ansi.org
APA	The Engineered Wood Association http://www.apawood.org
ARI	Air-Conditioning and Refrigeration Institute http://www.ari.org
ASAE	American Society of Agricultural Engineers http://www.asae.org
ASCE	American Society of Civil Engineers http://www.asce.org
ASHRAE	American Society of Heating, Refrigerating, and Air-Conditioning Engineers http://www.ashrae.org
ASME	American Society of Mechanical Engineers http://www.asme.org
ASSE	American Society of Sanitary Engineering http://www.asse-plumbing.org
ASTM	American Society for Testing and Materials http://www.astm.org
AWI	Architectural Woodwork Institute http://www.awinet.org

AWS	American Welding Society http://www.aws.org
AWWA	American Water Works Association http://www.awwa.org
BHMA	Builders Hardware Manufacturers Association http://www.buildershardware.com
BIA	Brick Institute of America http://www.bia.org
CAGI	Compressed Air and Gas Institute http://www.cagi.org
CGA	Compressed Gas Association, Inc. http://www.cganet.com
CI	The Chlorine Institute, Inc. http://www.chlorineinstitute.org
CISCA	Ceilings and Interior Systems Construction Association http://www.cisca.org
CISPI	Cast Iron Soil Pipe Institute http://www.cispi.org
CLFMI	Chain Link Fence Manufacturers Institute http://www.chainlinkinfo.org
CPMB	Concrete Plant Manufacturers Bureau http://www.cpmc.org
CRA	California Redwood Association http://www.calredwood.org
CRSI	Concrete Reinforcing Steel Institute http://www.crsi.org
CTI	Cooling Technology Institute http://www.cti.org
DHI	Door and Hardware Institute http://www.dhi.org
EGSA	Electrical Generating Systems Association http://www.egsa.org
EEI	Edison Electric Institute http://www.eei.org
EPA	Environmental Protection Agency http://www.epa.gov

ETL	ETL Testing Laboratories, Inc. http://www.et1.com
FAA	Federal Aviation Administration http://www.faa.gov
FCC	Federal Communications Commission http://www.fcc.gov
FPS	The Forest Products Society http://www.forestprod.org
GANA	Glass Association of North America http://www.cssinfo.com/info/gana.html/
FM	Factory Mutual Insurance http://www.fmglobal.com
GA	Gypsum Association http://www.gypsum.org
GSA	General Services Administration http://www.gsa.gov
HI	Hydraulic Institute http://www.pumps.org
HPVA	Hardwood Plywood & Veneer Association http://www.hpva.org
ICBO	International Conference of Building Officials http://www.icbo.org
ICEA	Insulated Cable Engineers Association Inc. http://www.icea.net
ICAC	Institute of Clean Air Companies http://www.icac.com
IEEE	Institute of Electrical and Electronics Engineers http://www.ieee.org/
IMSA	International Municipal Signal Association http://www.imsasafety.org
IPCEA	Insulated Power Cable Engineers Association
NBMA	Metal Buildings Manufacturers Association http://www.mbma.com
MSS	Manufacturers Standardization Society of the Valve and Fittings Industry Inc. http://www.mss-hq.com
NAAMM	National Association of Architectural Metal Manufacturers http://www.naamm.org

NAPHCC	Plumbing-Heating-Cooling Contractors Association http://www.phccweb.org.org
NBS	National Bureau of Standards See - NIST
NBBPVI	National Board of Boiler and Pressure Vessel Inspectors http://www.nationboard.org
NEC	National Electric Code See - NFPA National Fire Protection Association
NEMA	National Electrical Manufacturers Association http://www.nema.org
NFPA	National Fire Protection Association http://www.nfpa.org
NHLA	National Hardwood Lumber Association http://www.natlhardwood.org
NIH	National Institute of Health http://www.nih.gov
NIST	National Institute of Standards and Technology http://www.nist.gov
NLMA	Northeastern Lumber Manufacturers Association, Inc. http://www.nelma.org
NPA	National Particleboard Association 18928 Premiere Court Gaithersburg, MD 20879 (301) 670-0604
NSF	National Sanitation Foundation http://www.nsf.org
NWWDA	Window and Door Manufacturers Association http://www.nwwda.org
OSHA	Occupational Safety and Health Administration Department of Labor http://www.osha.gov
PCA	Portland Cement Association http://www.portcement.org
PCI	Precast Prestressed Concrete Institute http://www.pci.org
PPI	The Plastic Pipe Institute http://www.plasticpipe.org

PEI	Porcelain Enamel Institute, Inc. http://www.porcelainenamel.com
PTI	Post-Tensioning Institute http://www.post-tensioning.org
RFCI	The Resilient Floor Covering Institute http://www.rfci.com
RIS	Redwood Inspection Service See - CRA
RMA	Rubber Manufacturers Association, Inc. http://www.rma.org
SCMA	Southern Cypress Manufacturers Association http://www.cypressinfo.org
SDI	Steel Door Institute http://www.steeldoor.org
IGMA	Insulating Glass Manufacturers Alliance http://www.igmaonline.org
SJI	Steel Joist Institute http://www.steeljoist.org
SMACNA	Sheet Metal and Air-Conditioning Contractors National Association, Inc. http://www.smacna.org
SSPC	The Society for Protective Coatings http://www.sspc.org
STI	Steel Tank Institute http://www.steeltank.com
SWI	Steel Window Institute http://www.steelwindows.com
TCA	Tile Council of America, Inc. http://www.tileusa.com
TEMA	Tubular Exchange Manufacturers Association http://www.tema.org
TPI	Truss Plate Institute, Inc. 583 D'Onofrio Drive; Suite 200 Madison, WI 53719 (608) 833-5900
IBC	International Building Code, International Code Council See ICBO

UL Underwriters' Laboratories Incorporated
<http://www.ul.com>

ULC Underwriters' Laboratories of Canada
<http://www.ulc.ca>

WCLIB West Coast Lumber Inspection Bureau
6980 SW Varns Road, P.O. Box 23145
Portland, OR 97223
(503) 639-0651

WRCLA Western Red Cedar Lumber Association
P.O. Box 120786
New Brighton, MN 55112
(612) 633-4334

WWPA Western Wood Products Association
<http://www.wwpa.org>

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**SECTION 014300
CONTRACTOR'S QUALITY ASSURANCE**

PART 1 - GENERAL

1.01 DESCRIPTION OF WORK

- A. This section administrative and procedural requirements for quality assurance services.
- B. Quality assurance services include inspections and test-related actions including reports, performed by independent agencies and governing authorities. They do not include contract enforcement activities performed by the architect.
- C. Inspection and testing services are required to verify compliance with requirements specified or indicated. These services do not relieve the contractor of responsibility for compliance with contract documents requirements.
- D. Requirements of this section relate to customized fabrication and installation procedures, not production of standard products.
- E. Inspections, tests and related actions specified are not intended to limit the contractor's quality control procedures that facilitate compliance with contract document requirements.
- F. Requirements for the contractor to provide quality control services required by the owner, architect, or authorities having jurisdiction are not limited by the provisions of this section.

1.02 QUALITY ASSURANCE

- A. Contractors shall maintain quality control over supervision, subcontractors, suppliers, manufacturers, products, services, workmanship and site conditions to produce work in accordance with contract documents.
- B. Workmanship
 - 1. Contractor and all sub-contractors shall comply with industry standards of the region, except when more restrictive tolerances or specified requirements indicate more rigid standards or more precise workmanship
 - 2. Provide suitably qualified personnel to produce work of specified quality

1.03 MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS

- A. Contractor shall comply with instructions and recommendations in full detail, including each step-in sequence
- B. Should instruction and/or recommendation conflict with contract documents, request clarification from architect before proceeding.
- C. Finishes indicate in the room finish legend on the drawings shall be installed per the manufacturer's written instructions and recommendations.

1.04 MANUFACTURER'S CERTIFICATION

- A. When required in the individual specification section, contractor shall obtain and submit to architect, manufacturer's certificate, certifying that products meet or exceed specified requirements, executed by responsible officer.

1.05 MANUFACTURER'S FIELD SERVICES

- A. When required individual specification section, contractor shall have manufacturer or supplier provide qualified representative to observe field conditions, conditions of surfaces and installation, quality workmanship, start-up of equipment, test, or adjust and balance of equipment as applicable.

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**SECTION 014500
CONTRACTOR'S QUALITY CONTROL**

PART 1 – GENERAL

1.01 DESCRIPTION OF WORK

- A. This section provides administrative and procedural requirements of contractor quality control on the project.
- B. Specific quality-control requirements for individual construction activities are specified in the section that governs those activities. Requirements in those sections may also cover production of manufactured products.
- C. Specified tests, inspections, and related actions do not limit contractor's quality-control procedures to fully comply with the contract document requirements in all regards.
- D. Provisions of this section do not limit the requirements for the contractor to provide quality-control services required by the contract documents or the authority having jurisdiction.

1.02 QUALITY CONTROL

- A. Quality control shall be the sole responsibility of the contractor, unless specifically noted otherwise. The contractor shall be responsible for all testing, coordination, start-up, operational checkout, and commissioning of all items of work included in the project, unless specifically noted otherwise. All costs for these services shall be included in the contractor's cost of work.
- B. The contractor shall assign one employee to be responsible for quality control. This individual may have other responsibilities but may not be the contractor's project superintendent.

1.03 QUALITY ASSURANCE

- A. The owner or owner's designated representative(s) will perform quality assurance. Owner's quality assurance procedures may include observations, inspections, testing, verification, monitoring and any other procedures deemed necessary by the owner to verify compliance with the contract documents.
- B. The contractor shall cooperate with and provide assistance to the owner related to owner's quality assurance procedures. The contractor shall provide to owner ladders, lifts, scaffolds, lighting, protection, safety equipment and any other devices and/or equipment (including operators if required) deemed necessary by the owner to access the work for observation/inspection.
- C. Owner may employ independent testing agencies to perform certain specified testing, as owner deems necessary. The contractor shall integrate the owner's independent testing services within the baseline project schedule and with other project activities.
- D. Owner's employment of an independent testing agency does not relieve the contractor of the contractor's obligation to perform the work in strict accordance with requirements of the contract documents.

1.04 TESTING AGENCY

- A. The contractor shall employ and pay for the services of an independent testing agency subject to the approval of the owner to perform all specified testing requiring an independent agency, unless specifically noted otherwise.
- B. Contractor's employment of an independent testing agency does not relieve the contractor of the contractor's obligation to perform the work in strict accordance with requirements of the contract documents.
- C. The contractor employed testing agency:

1. The testing agency must have the experience and capability to specialize in the types of test and inspections to be performed.
 2. The testing agency shall comply with the requirements of ASTM E 329, ASTM E 543, ASTM E 548, ASTM C 1021, ASTM C 1077, ASTM C 1093, and other relevant ASTM standards.
 3. The testing agency's laboratory must maintain a full-time engineer on staff to oversee and review the services. The engineer must be licensed in the state in which the tests are to be performed.
 4. The testing agency must calibrate all testing equipment at reasonable intervals (minimum yearly) with accuracy traceable to either national bureau of standards or accepted values of natural physical constants.
- D. The contractor shall not employ the same testing entity engaged by the owner for the project, without the owner's written approval.

1.05 TESTING

- A. Where specific testing is specified in a technical section of the specification or indicated in the contract documents, the contractor shall bear all costs of such tests unless the owner has expressly agreed in writing to pay for the test.
- B. Testing specifically identified to be conducted by owner, will be performed by an independent entity and will be arranged and paid for by the owner unless otherwise indicated in the contract documents. Should the test return unacceptable results, the contractor shall bear all costs of retesting and reinspection as well as the cost of all material consumed by testing, and replacement of unsatisfactory material and/or workmanship.
- C. The owner or the owner's designated representative will schedule the owner's testing services. The contractor must assist the owner's construction inspector to facilitate timelines of such testing services.
- D. The owner may engage additional consultants for testing, air balancing commissioning, or other special services. The activities of any such owner consultants are in addition to contractor testing of materials or systems necessary to prove that performance is in compliance with contract requirements. The contractor must cooperate with persons and firms engaged in these activities.

1.06 INSPECTIONS

- A. All the work is subject to inspection and verification of correct operation prior to 100% payment of the line item(s) pertaining to that aspect of the work.
- B. During the course of construction, the owner, architect/engineer, and/ or other owner representatives may visit the site for observation of the work in place. The contractor shall provide all necessary personnel and/or equipment for safe access to the work to be inspected or observed, regardless of frequency. This requirement shall extend to all owner personnel and their representatives. Some of these inspections will be informal and some will require formal notification by the contractor.
- C. The following are typical project inspections:
 1. Informal daily reviews of project conditions by the owner's designated representative and/or members of the project team. When considered appropriate, results of these reviews will be documents via observation reports or memorandum.
 2. Concealed space inspections shall be informally scheduled in advance by the contractor by submitting written notification at least five (5) calendar days prior to the inspection to the owner or the owner's designated representative and the architect. Subject areas include partitions, structural walls, chases, crawl spaces, ceiling spaces and any other work which will be difficult or impossible to examine once concealed in the final construction.

3. Progress inspections for piping, ductwork, and other systems shall be scheduled by the contractor as appropriate portions, or sections, of the work are completed. This is in addition to "system-wide" performance verification and tests. The contractor shall notify the owner or the owner's designated representative and the architect in writing at least five (5) days prior to the scheduled testing. The contractor shall conduct the tests and the owner, or his representatives, shall witness and approve the results.
 4. Overhead and above ceiling inspections are similar in nature and requirements to the concealed space inspections. Ceiling that are fixed in place, such as gypsum board or plaster, constitutes a concealed space inspection. Ceiling that are of "lay-in" type or where no finish ceiling is scheduled are considered an "overhead" inspection. Contractor shall include overhead and above ceiling inspections on the work progress schedule. Contractor shall provide written inspection request notice to the owner or the owner's designated representative and the architect at least five (5) calendar days in advance.
- D. No finish ceiling material shall be installed until all overhead punch list items have been resolved to the satisfaction of the owner.
- E. Completed work in the place necessary for an overhead inspection shall include all required infrastructure and appurtenance, inclusive of, but not limited to the following:
1. installation of ceiling grid or framework installation and operation of all above ceiling electrical work, including light fixtures.
 2. installation of all HVAC and plumbing work above ceiling with installation and connection of air devices.
 3. installation of fire sprinkler heads
 4. completion and owner approval of all required tests for above ceiling work.
 5. Inspections of building systems and equipment are intended to confirm acceptable operation. Contractor shall formally schedule the inspections through the owner's designated representative and architect/engineer. Contractor shall refer to technical specifications for additional requirements pertaining to system start-up, commissioning, operation, demonstration, and acceptance.
- F. The contractor shall perform a thorough checkout of operations with the manufacturer's representatives prior to requesting the formal inspection by the owner. Contractor must notify the owner's designated representative, in advance, as to when the manufacturer's representative is schedule to arrive at the site.
- G. Inspection and documented approval of individual equipment and/or system(s) must be accomplished prior to requesting substantial completion inspection for any area affected by said equipment and/or system.
- H. For "building-wide" and/or life safety systems, such as emergency lighting, emergency power, uninterruptible power supply systems, fire alarm, fire sprinkler systems, smoke evacuation systems, toxic gas monitoring, captured exhaust systems, etc. The formal start-up inspection shall be completed prior to requesting substantial completion inspection for any area of the project.
1. The manufacturer's representatives and the installing contractor shall demonstrate both operation and compliance to the owner's agents and consultants. If coordinated and schedule appropriately by the contractor, these equipment and/or systems inspections may also serve to provide the required owner training, if approved in advance by the owner.
 2. The contractor is responsible for requesting that the owner's designated representative and architect/engineer arrange for the inspection of materials, equipment, and work prior to assembly or enclosure that would make the materials, equipment, or work inaccessible for inspection and at other times as may be required.

- I. For any requested inspection, the contractor shall complete prior inspections to ensure that items are ready for inspection and acceptance by the owner and/or architect/engineer. The contractor shall be responsible for any and all costs incurred by the owner and/or owner's representatives, including consultants, resulting from a review or inspection that was schedule prematurely.
- J. The contractor shall coordinate the work and schedule the inspections in advance so as not to delay the work. All major inspections shall be indicated on the work progress schedule for advance planning. Contractor shall allow a minimum of five (5) calendar days to confirm schedule of requested inspections with owner and owner's representatives.

1.07 PRE-INSTALLATION CONFERENCE

- A. The contractor shall coordinate and conduct pre-installation conferences at the site for each construction activity that requires coordination with other construction. The installers and representatives of the manufacturers and fabricators involved in or affected by the installation, and its coordination or integration with other materials and installations that have preceded or will follow, shall attend the conference. The pre-installation conference(s) shall be convened following approval of submittals and at least two (2) weeks prior to commencement of the work.
- B. The purpose of the pre-installation conference(s) is for the contractor and all applicable subcontractors and/or suppliers and/or factory representatives to discuss all aspects of the installation of the work under consideration. Contractor shall direct special attention to the scheduled order of work, any impact on or by any other construction work, and to ensure the following:
 - 1. Clear understanding of drawing, specifications and approved submittal data.
 - 2. On-site inspection and acceptance of existing conditions.
 - 3. Means and methods of installation.
 - 4. Coordination with the work of other trades.
 - 5. Schedule, delivery, storage and protection of all materials relating to the work of this section.
 - 6. The contractor shall take and distribute minutes of the meeting to those in attendance within five working days thereafter.
- C. The contractor shall ensure attendance of the installing subcontractor, manufacturer and/or supplier (if appropriate), supporting subcontractors involved in the installation, and any other parties involved in the phase of work to be reviewed
- D. The contractor shall be prepared and familiar with the requirements of this project manual prior to attending the pre-installation conference. The contractor shall also bring all submittal shop drawings, product data, and samples to the pre-installation conference.
- E. The contractor shall prepare an agenda for each pre-installation conference and distribute to all proposed attendees.
- F. The contractor shall take minutes of the pre-installation conference(s) and distribute to all proposed attendees.
- G. Whether required in the technical specification or not, a pre-installation conference shall be conducted for the following work, if included in the project:
 - 1. Concrete:
 - a. Cast-in-place concrete
 - b. Lightweight insulating concrete
 - 2. Sheet waterproofing
 - 3. Unit masonry and accessories
 - 4. Structural framing and metal decking
 - 5. Decorative metal railings and monumental stairs

6. Architectural wood casework
 - a. Conference shall take place in coordination with installation of flooring products that casework shall be installed upon. Refer to section 09 65 00, part 3, and 06 41 00, part 3.
7. Vapor and air barriers
8. Roofing and roof insulation
9. Wall panels
10. Sheet metal flashing and trim
11. Roof accessories
12. Joint protection, sealants, expansion joint cover assemblies
13. Entrances, storefronts and curtain walls
14. Door hardware
15. Glazing
16. Gypsum board assemblies
17. Portland cement stucco
18. Floor tiling and preparation of concrete substrates
19. Resilient flooring
20. Walkway coverings
21. Exterior sun control devices.
22. Radiation protection
23. Elevators and elevator equipment rooms
24. All other fire suppression, plumbing, heating, ventilating and air conditioning, electrical, communications, electronic safety and security systems.
25. Earthwork and exterior improvements
26. Landscaping and irrigation
27. Site utilities
28. Other work that may be unique to a specific project not included above.

- - - END - - -

**SECTION 015000
TEMPORARY FACILITIES AND CONTROLS**

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Temporary utilities: electricity, lighting, heat, ventilation, telephone service, water, and sanitary facilities.
- B. Temporary controls: barriers, enclosures and fencing, protection of the work, and water control.
- C. Construction facilities: access roads, parking, progress cleaning, project signage, and temporary buildings.
- D. Restrictions on the use of existing adjacent facilities.

1.02 TEMPORARY ELECTRICITY

- A. Provide and pay for power service required for construction and testing from local utility source.
- B. Provide temporary electric feeder from existing electrical service at location as directed by utility company. Power consumption shall not disrupt owner's need for continuous service. Coordinate with owner before making taps or disturbing existing service.
- C. Provide separate metering and pay for cost of energy used until substantial completion. If electric is turned over to owner's name prior to substantial completion, reimburse owner for energy used up to substantial completion.
- D. Provide power outlets for construction operations, with branch wiring and distribution boxes located as required. Provide flexible power cords as required.
- E. Permanent convenience receptacles may be utilized during construction.

1.03 TEMPORARY LIGHTING

- A. Provide and maintain adequate lighting for construction operations to achieve a minimum lighting level of one (1) watt/SQFT.
- B. Provide and maintain 2-foot candle lighting to exterior staging and storage areas after dark for security purposes.
- C. Permanent building lighting may be utilized during construction.

1.04 TEMPORARY HEAT AND COOLING

- A. Provide and pay for heating and cooling as required to maintain specified conditions for construction operations or as required for proper conduct of operations included in the work.

1.05 TEMPORARY VENTILATION

- A. Ventilate enclosed areas to assist cure of material, to dissipate humidity, and to prevent accumulation of dust, fumes, vapors, or gases.

1.06 SITE COMMUNICATION

- A. Provide, maintain and pay for site communications to include telephone, telephone answering and messaging device, e-mail receiving and sending capabilities and fax receiving and sending capabilities. All such means of communication shall be

accessible from the commencement of construction through the final completion of the project.

1.07 TEMPORARY WATER SERVICE

- A. Provide, maintain, and pay for suitable quality water service required for construction operations. Coordinate with the owner if water supply is not separately metered. Pay all costs and expenses associated with such use.
- B. Extend branch piping with outlets located so water is available by hoses with threaded connections.

1.08 TEMPORARY SANITARY FACILITIES

- A. Provide and maintain the required facilities and enclosures on site. Maintain daily in clean and sanitary conditions. Adjacent building toilet facilities are not to be used.

1.09 BARRIERS

- A. Provide barriers to prevent unauthorized entry to construction areas and to protect existing facilities and adjacent properties from damage from construction operations.
- B. Provide barricades required by governing authorities for public rights-of-way

1.10 DUST CONTROL

- A. Execute work by methods to minimize rising dust from construction operations. If significant dust occurs resulting in complaints from adjacent tenants, revise method of operation immediately upon notification from the architect or owner.
- B. If excessive dust occurs after notification to contractor, the owner reserves the right to initiate immediate cleanup activities and back charge the contractor.

1.11 NOISE CONTROL

- A. Significant sustained operations which generate high noise levels (such as pile driving, jack hammer work, etc.) for periods exceeding 10 minutes shall be scheduled after normal office working hours or on weekends.
- B. The owner's resident manager should be notified at least 24 hours before any high noise generating operations commence. High levels of noise are any construction-related operations which, in the resident managers' opinion, significantly exceed the ambient noise levels normally occurring on site.
 - 1. Choice of equipment shall be such as to keep noise to a minimum. Gasoline or diesel-powered equipment shall be provided with proper muffles for noise abatement.
 - 2. If any on-going noise generating activity becomes objectionable by its longevity or intensity, an activity/time schedule shall be prepared for approval of the owner to enable the activity to continue during mutually acceptable times.
 - 3. If the owner or his agent notifies the contractor that significant noise levels are disturbing and negatively affecting the adjacent tenants, the contractor shall immediately stop the noise producing operations and reschedule it as required above.

1.12 PERSONNEL

- A. The contractor shall direct removal from the site of any personnel who are disrupting the normal and orderly conduct of operations by their actions or activities. No drug usage, alcohol usage or fighting is to be allowed at any time.

1. Occupants of adjacent facilities are to be treated with respect at all time. Obnoxious, crude, or otherwise non-civil behavior to occupants will not be tolerated and may result in the appropriate parties being banned from the job site by the owner.

1.13 TEMPORARY CONSTRUCTION

- A. Furnish, install, and maintain for the duration of construction all required scaffolds, tarpaulins, barricades, canopies, warning signs, steps, bridges, platforms, and other temporary constructions necessary for proper completion of the work. Such construction shall be in compliance with all federal and state **OSHA** and other safety regulations.

1.14 PROTECTION OF INSTALLED WORK

- A. Protect installed work and provide special protection where specified in individual specification sections.

1.15 SECURITY

- A. Provide security and facilities to protect work and owner's operations from unauthorized entry vandalism, or theft.

1.16 SAFETY

- A. Furnish, place and maintain barriers, signs, and warning lights required for safety and protection of site personal and adjacent existing facilities.
 1. Include safeguards to minimize risk to unauthorized persons.
 2. Install supports, shoring, and sheet piling in accordance with applicable **OSHA** regulations.

1.17 PARKING

Provide temporary surface parking areas to accommodate construction personnel.

1.18 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. Remove waste materials, debris, and rubbish from site a minimum of once every two weeks and dispose off-site.
- E. Inspect structures and pick up all scrap, debris and waste material. Remove all such items to the place designated for their storage.
- F. Sweep all interior spaces clean daily. "clean" shall be interpreted as meaning free from dust and other material capable of being removed by use of reasonable effort and-held broom.
- G. As required preparatory to installation of succeeding materials, clean structure or pertinent portions thereof to degree of cleanliness recommended by manufacturer of succeeding material, using equipment and materials required to achieve required cleanliness.
- H. While work is being performed in the space in which finish materials have been installed, clean finish floor daily, and more often if necessary. "clean" shall be interpreted as meaning free from all foreign material which, in the opinion of architect, may be injurious to finish floor material.

--- E N D ---

**SECTION 015800
PROJECT IDENTIFICATION**

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Provide temporary on-site informational signs: to direct traffic only.
- B. Remove signs on completion of construction, prior to obtaining certificate of occupancy

1.02 INFORMATION SIGNS

- A. Painted signs with painted lettering:
 - 1. Size of signs and lettering: sufficient size to provide direction to appropriate location on site or as may be required by regulatory agency.
- B. Erect at appropriate locations to provide the required information.

PART 2-PRODUCTS

2.01 SIGN MATERIAL

- A. Structures and framing: may be new or used, wood or metal, in sound condition structurally adequate to the work and suitable for specified finish.
- B. Rough hardware: galvanized.

PART 3 - EXECUTION

3.01 MAINTENANCE

- A. Maintain signs and supports in a neat, clean condition; repair damage to structure, framing or sign.
 - 1. Relocate information signs as required by progress of the work

3.02 REMOVAL

- A. Remove sing, framing and supports at completion of project.
- B. Leave areas clean and patch as required to obliterate sign usage.

--- END ---

**SECTION 016123
USE OF ARCHITECTURAL AND ENGINEERING DOCUMENTS**

PART 1 - GENERAL

1.01 GENERAL

- A. Construction documents are prepared by Forefront Architecture and Engineering and their consultants for the project indicated in the documents only. Forefront Architecture and Engineering and their consultants are deemed the authors of such documents and retain all common law, statutory and other reserve. Rights, including copyright.
- B. Electronic files of the construction documents in AutoCAD or Revit format will be available to the general contractor when, in the judgment of the architect and their consultants, it will help facilitate the submittal review process. The use and distribution of this copyrighted and confidential material is at the architect's and their consultants' discretion and is strictly limited. There is no implied or expressed warranty as to the accuracy of the electronic files and the information contained within is subject to change at the discretion of forefront architecture and engineering and their consultants.
- C. The following guidelines are applicable to requests for electronic files:
 - 1. The general contractor must submit an "electronic file request" form and sign a "release of liability" form found at the end of this specification section and submit to the project manager by fax or email. The files will not be released until the request has been approved by the project principal and the project manager.
 - 2. The following architectural drawings are the only electronic files available from Forefront Architecture and Engineering for distribution to the general contractor, for its use, and that of its sub-contractors in preparing shop drawing submittals:
 - a. Floor plans
 - b. Reflected ceiling plans
 - c. Floor pattern plans
 - d. Furniture plans
 - e. Interior elevations
 - 3. Requests are to be made in writing or by email and are to identify the specific sheets by sheet number.
 - 4. At the discretion of Forefront Architecture and Engineering, electronic file requests shall be processed as follows:
 - a. Electronic drawing files may be provided at no cost one time only after the drawings have been issued for construction documents to the general contractor.
 - b. Subsequent releases of completed, annotated electronic drawing files, will be billed to the general contractor at an hourly rate to cover the cost of preparation of the electronic drawing release package.
 - c. The electronic drawing files will be released by Forefront Architecture and Engineering to the general contractor upon receipt of payment.
 - d. File requests by the subcontractors are to be submitted through the general contractor as referenced above.
 - 5. At the discretion of Forefront Architecture and Engineering, the general contractor may contact the consultants directly to request copies of their

- drawings and abide by the policies and fees that each consultant may impose for releasing their documents.
6. Forefront architecture and engineering and their consultants will not be responsible for converting any files to the requester's drafting application and/or version.
 7. The requested electronic files will be sent via Newforma info exchange to the person requesting the files.
 8. A BIM / Revit model may be available for this project at the discretion of the architect. Release of this model is contingent on execution of a digital data licensing agreement between the architect and the general contractor.

--- END ---

**SECTION 016600
PROJECT STORAGE AND HANDLING REQUIREMENTS**

PART 1 - GENERAL

1.01 QUALITY ASSURANCE

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

1.02 MANUFACTURER'S RECOMMENDATIONS

- A. Except as otherwise approved by the architect, determine and comply with manufacturer's recommendations on product handling, storage and protection.

PART 2 - PRODUCTS

2.01 PACKAGING

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

PART 3 – EXECUTION

3.01 PROTECTION

- A. Protect finished surfaces, including jambs and soffit of openings used as passageways, through which equipment and materials are handled.
- B. Provide protection for finished floor surfaces in traffic areas prior to allowing equipment or materials to be moved over such surfaces.
- C. Maintain finished surfaces clean, unmarked and suitably protected until accepted by the owner.

3.02 REPAIRS AND REPLACEMENTS

- A. In the event of damage, promptly make replacement and repairs to the original contract requirements and at no additional cost to the owner.
- B. Additional time required to secure replacement and to make repairs would not be considered by the architect to justify an extension in the contract time of completion, or any additional costs to the owner for making these repairs.

3.03 STORAGE AT JOB SITE

A. General:

1. Metals (steel doors and frames): dry storage, all under cover, vented to prevent buildup of humidity, all off ground to provide air circulation.
2. Lumber:
 - a. Stack to provide air circulation.
 - b. Store materials for which a maximum moisture content is specified in an area where a moisture content can be maintained.
3. Finish carpentry, cabinetry, casework (if any).
 - a. Protect during transit and handling.
 - b. Do not deliver woodwork or cabinets until wet work, grinding and similar operations that could damage, soil or deteriorate woodwork or cabinets have been completed in installation areas. If, due to unforeseen circumstances, woodwork and cabinets must be stored in other than installation areas, store only in areas meeting requirements specified for installation areas.
4. Finishing hardware: dry shelved, locked storage.
5. All doors:
 - a. Protect doors during transit, storage and handling to prevent damage, soiling and deterioration. Package each door at the factory in a separate heavy paper type carton. Mark each carton for location to correspond with shop drawings.
 - b. Doors shall not be delivered until ready for use.
 - c. Doors shall be stored in a clean, dry place on edge, in an upright position, remaining
 - d. As such until hung and fitted ready for use.
 - e. Protect doors after installation and final acceptance by the owner.
6. Finished aluminum: same as for metals (steel doors and frames).
7. Gypsum wallboard systems: store and protect all metal studs, furring, insulation boards, batts, accessories and gypsum board to prevent any type of damage to these materials. Rusty material components, damp or wet insulation or gypsum boards will not be accepted.
8. Acoustical materials: materials shall be delivered to the job site in unbroken containers labeled and clearly marked. Materials shall not be removed from containers until ready to install but shall be stored in dry area with cartons neatly stacked. Before installation, acoustical board shall be stored for not less than 24 hours in the work area at the same temperature and relative humidity.
9. Linear items: store in dry area with spacers to provide ventilation. Stack linear items to prevent warping, complying with manufacturer's instructions.
10. Paints (volatile materials):
 - a. Volatile liquids shall be kept in approved safety containers.
 - b. Storage area for paint shall be equipped with not less than two (2) fire extinguishers (g02 type) sufficient to discharge 25-feet when fully charged and have current tags.
 - d. No other building materials shall be stored in this area.
 - e. Paint rags shall be removed daily from the building. Clean rags shall be stored in metal closed containers.

- - - END - - -

**SECTION 017123
FIELD ENGINEERING**

PART 1 - GENERAL

1.01 DESCRIPTION OF WORK

- A. Provide such field engineering services as are required for proper execution and completion of the work including, but not necessarily limited to establishing and maintaining lines and levels.
- B. General contractor shall employ and pay for a property licensed surveyor to establish and maintain lines and levels for the building as shown on the drawings and conforming to owner's original survey and benchmark.

1.02 QUALITY ASSURANCE

- A. In addition to procedures directed by the contractor for proper performance of the contractor's responsibilities:
 - 1. Locate and protect control points before starting work on the site. Preserve permanent reference points during progress of the work.

--- END ---

**SECTION 017300
EXECUTION**

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes general administrative and procedural requirements governing execution of the Work including, but not limited to, the following:
 - 1. Construction layout.
 - 2. Field engineering and surveying.
 - 3. Installation of the Work.
 - 4. Cutting and patching.
 - 5. Coordination of Owner-installed products.
 - 6. Progress cleaning.
 - 7. Starting and adjusting.
 - 8. Protection of installed construction.
 - 9. Correction of the Work.
- B. Related Requirements:
 - 1. The drawings and provisions of the General and Supplementary Conditions and Division 01 Specification sections, and other clarifications apply to this section.

1.2 INFORMATIONAL SUBMITTALS

- A. Certificates: Submit certificate signed by land surveyor certifying that location and elevation of improvements comply with requirements.

1.3 QUALITY ASSURANCE

- A. Land Surveyor Qualifications: A professional land surveyor who is legally qualified to practice in jurisdiction where Project is located and who is experienced in providing land-surveying services of the kind indicated.
- B. Cutting and Patching: Comply with requirements for and limitations on cutting and patching of construction elements.
 - 1. Structural Elements: When cutting and patching structural elements, notify Architect of locations and details of cutting and await directions from Architect before proceeding. Shore, brace, and support structural element during cutting and patching. Do not cut and patch structural elements in a manner that could change their load-carrying capacity or increase deflection
 - 2. Other Construction Elements: Do not cut and patch other construction elements or components in a manner that could change their load-carrying capacity, that results in reducing their capacity to perform as intended, or that results in increased maintenance or decreased operational life or safety.
 - 3. Visual Elements: Do not cut and patch construction in a manner that results in visual evidence of cutting and patching. Do not cut and patch exposed construction in a manner that would, in Architect's opinion, reduce the building's aesthetic qualities. Remove and replace construction that has been cut and patched in a visually unsatisfactory manner.

PART 2 - PRODUCTS

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Existing Conditions: The existence and location of underground and other utilities and construction indicated as existing are not guaranteed. Before beginning site work, investigate and verify the existence and location of underground utilities, mechanical and electrical systems, and other construction affecting the Work.
 - 1. Before construction, verify the location and invert elevation at points of connection of sanitary sewer, storm sewer, and water-service piping; underground electrical services, and other utilities.
 - 2. Furnish location data for work related to Project that must be performed by public utilities serving Project site.
- B. Examination and Acceptance of Conditions: Before proceeding with each component of the Work, examine substrates, areas, and conditions, with Installer or Applicator present where indicated, for compliance with requirements for installation tolerances and other conditions affecting performance. Record observations.
 - 1. Examine roughing-in for mechanical and electrical systems to verify actual locations of connections before equipment and fixture installation.
 - 2. Examine walls, floors, and roofs for suitable conditions where products and systems are to be installed.
 - 3. Verify compatibility with and suitability of substrates, including compatibility with existing finishes or primers.
- C. Proceed with installation only after unsatisfactory conditions have been corrected. Proceeding with the Work indicates acceptance of surfaces and conditions.

3.2 PREPARATION

- A. Existing Utility Information: Furnish information to local utility Owner that is necessary to adjust, move, or relocate existing utility structures, utility poles, lines, services, or other utility appurtenances located in or affected by construction. Coordinate with authorities having jurisdiction.
- B. Field Measurements: Take field measurements as required to fit the Work properly. Recheck measurements before installing each product. Where portions of the Work are indicated to fit to other construction, verify dimensions of other construction by field measurements before fabrication. Coordinate fabrication schedule with construction progress to avoid delaying the Work.
- C. Space Requirements: Verify space requirements and dimensions of items shown diagrammatically on Drawings.
- D. Review of Contract Documents and Field Conditions: Immediately on discovery of the need for clarification of the Contract Documents caused by differing field conditions outside the control of Contractor, submit a request for information to Architect according to requirements in Section 01 3100 "Project Management and Coordination."

3.3 CONSTRUCTION LAYOUT

Verification: Before proceeding to lay out the Work, verify layout information shown on

Drawings, in relation to the property survey and existing benchmarks. If discrepancies are discovered, notify Architect promptly.

- A. General: Engage a land surveyor to lay out the Work using accepted surveying practices.
 - 1. Establish benchmarks and control points to set lines and levels at each story of construction and elsewhere as needed to locate each element of Project.
 - 2. Establish limits on use of Project site.
 - 3. Establish dimensions within tolerances indicated. Do not scale Drawings to obtain required dimensions.
 - 4. Inform installers of lines and levels to which they must comply.
 - 5. Check the location, level and plumb, of every major element as the Work progresses.
 - 6. Notify Architect when deviations from required lines and levels exceed allowable tolerances.
 - 7. Close site surveys with an error of closure equal to or less than the standard established by authorities having jurisdiction.
- B. Site Improvements: Locate and lay out site improvements, including pavements, grading, fill and topsoil placement, utility slopes, and rim and invert elevations. Building Lines and Levels: Locate and lay out control lines and levels for structures, building foundations, column grids, and floor levels, including those required for mechanical and electrical work. Transfer survey markings and elevations for use with control lines and levels.

Level foundations and piers from two or more locations.
- C. Record Log: Maintain a log of layout control work. Record deviations from required lines and levels. Include beginning and ending dates and times of surveys, weather conditions, name and duty of each survey party member, and types of instruments and tapes used. Make the log available for reference by Architect.

3.4 FIELD ENGINEERING

- A. Reference Points: Locate existing permanent benchmarks, control points, and similar reference points before beginning the Work. Preserve and protect permanent benchmarks and control points during construction operations.
- B. Benchmarks: Establish and maintain a minimum of two permanent benchmarks on Project site, referenced to data established by survey control points. Comply with authorities having jurisdiction for type and size of benchmark.
 - 1. Record benchmark locations, with horizontal and vertical data, on Project Record Documents.

3.5 INSTALLATION

- A. General: Locate the Work and components of the Work accurately, in correct alignment and elevation, as indicated.
 - 1. Make vertical work plumb and make horizontal work level.
 - 2. Where space is limited, install components to maximize space available for maintenance and ease of removal for replacement.
 - 3. Conceal pipes, ducts, and wiring in finished areas unless otherwise indicated.
- B. Comply with manufacturer's written instructions and recommendations for installing products in applications indicated.
- C. Install products at the time and under conditions that will ensure the best possible results.

Maintain conditions required for product performance until Substantial Completion.

- D. Conduct construction operations so no part of the Work is subjected to damaging operations or loading in excess of that expected during normal conditions of occupancy.
- E. Sequence the Work and allow adequate clearances to accommodate movement of construction items on site and placement in permanent locations.
- F. Tools and Equipment: Do not use tools or equipment that produce harmful noise levels.
- G. Templates: Obtain and distribute to the parties involved templates for work specified to be factory prepared and field installed. Check Shop Drawings of other work to confirm that adequate provisions are made for locating and installing products to comply with indicated requirements.
- H. Attachment: Provide blocking and attachment plates and anchors and fasteners of adequate size and number to securely anchor each component in place, accurately located and aligned with other portions of the Work. Where size and type of attachments are not indicated, verify size and type required for load conditions.
 - 1. Mounting Heights: Where mounting heights are not indicated, mount components at heights directed by Architect.
 - 2. Allow for building movement, including thermal expansion and contraction.
 - 3. Coordinate installation of anchorages. Furnish setting drawings, templates, and directions for installing anchorages, including sleeves, concrete inserts, anchor bolts, and items with integral anchors, that are to be embedded in concrete or masonry. Deliver such items to Project site in time for installation.
- I. Joints: Make joints of uniform width. Where joint locations in exposed work are not indicated, arrange joints for the best visual effect. Fit exposed connections together to form hairline joints.
- J. Hazardous Materials: Use products, cleaners, and installation materials that are not considered hazardous.

3.6 CUTTING AND PATCHING

- A. Cutting and Patching, General: Employ skilled workers to perform cutting and patching. Proceed with cutting and patching at the earliest feasible time, and complete without delay.
 - 1. Cut in-place construction to provide for installation of other components or performance of other construction, and subsequently patch as required to restore surfaces to their original condition.
- B. Existing Warranties: Remove, replace, patch, and repair materials and surfaces cut or damaged during installation or cutting and patching operations, by methods and with materials so as not to void existing warranties.
- C. Temporary Support: Provide temporary support of work to be cut.
- D. Protection: Protect in-place construction during cutting and patching to prevent damage. Provide protection from adverse weather conditions for portions of Project that might be exposed during cutting and patching operations.
- E. Adjacent Occupied Areas: Avoid interference with use of adjoining areas or interruption

of free passage to adjoining areas.

- F. Cleaning: Clean areas and spaces where cutting and patching are performed. Remove paint, mortar, oils, putty, and similar materials from adjacent finished surfaces.

3.7 PROGRESS CLEANING

- A. General: Clean Project site and work areas daily, including common areas. Enforce requirements strictly. Dispose of materials lawfully.
 - 1. Comply with requirements in NFPA 241 for removal of combustible waste materials and debris.
 - 2. Do not hold waste materials more than seven days during normal weather or three days if the temperature is expected to rise above 80 deg F.
 - 3. Containerize hazardous and unsanitary waste materials separately from other waste. Mark containers appropriately and dispose of legally, according to regulations.
- B. Site: Maintain Project site free of waste materials and debris.
- C. Work Areas: Clean areas where work is in progress to the level of cleanliness necessary for proper execution of the Work.
 - 1. Remove liquid spills promptly.
 - 2. Where dust would impair proper execution of the Work, broom-clean or vacuum the entire work area, as appropriate.
- D. Installed Work: Keep installed work clean. Clean installed surfaces according to written instructions of manufacturer or fabricator of product installed, using only cleaning materials specifically recommended. If specific cleaning materials are not recommended, use cleaning materials that are not hazardous to health or property and that will not damage exposed surfaces.
- E. Concealed Spaces: Remove debris from concealed spaces before enclosing the space.
- F. Exposed Surfaces in Finished Areas: Clean exposed surfaces and protect as necessary to ensure freedom from damage and deterioration at time of Substantial Completion.
- G. Waste Disposal: Do not bury or burn waste materials on-site. Do not wash waste materials down sewers or into waterways.
- H. During handling and installation, clean and protect construction in progress and adjoining materials already in place. Apply protective covering where required to ensure protection from damage or deterioration at Substantial Completion.
- I. Clean and provide maintenance on completed construction as frequently as necessary through the remainder of the construction period. Adjust and lubricate operable components to ensure operability without damaging effects.
- J. Limiting Exposures: Supervise construction operations to assure that no part of the construction completed or in progress, is subject to harmful, dangerous, damaging, or otherwise deleterious exposure during the construction period.

3.8 STARTING AND ADJUSTING

- A. Start equipment and operating components to confirm proper operation. Remove malfunctioning units, replace with new units, and retest.

- B. Adjust equipment for proper operation. Adjust operating components for proper operation without binding.
- C. Test each piece of equipment to verify proper operation. Test and adjust controls and safeties. Replace damaged and malfunctioning controls and equipment.
- D. Manufacturer's Field Service: Comply with qualification requirements in Specification section for "Quality Requirements."

3.9 PROTECTION OF INSTALLED CONSTRUCTION

- A. Provide final protection and maintain conditions that ensure installed Work is without damage or deterioration at time of Substantial Completion.
- B. Comply with manufacturer's written instructions for temperature and relative humidity.

--- E N D ---

**SECTION 017329
CUTTING AND PATCHING**

PART 1 – GENERAL

1.01 DESCRIPTION OF WORK

- A. Contractor shall be responsible for all cutting, fitting and patching, Including attendant excavation and backfill required to complete the work or to:
 - 1. Make as several parts fit together properly.
 - 2. Uncover portions of the work to provide for installation of ill-timed work.
 - 3. Remove and replace defective work.
 - 4. Remove and replace work not conforming to requirements of contract documents.
 - 5. Remove samples of installed work as specified for testing.
 - 6. Provide routine penetrations of non-structural surfaces for Installation of piping and electrical conduit.

Part 2 - PRODUCTS

2.01 MATERIALS

- A. Comply with specifications and standards for each specific product involved.

PART 3 – EXECUTION

3.01 INSPECTION

- A. After uncovering work, inspect conditions affecting conditions, installation of products, or performance of work.
- B. Report unsatisfactory or questionable conditions to architect in writing; do not proceed with work until architect has provided further instructions.

3.02 PREPARATION

- A. Provide adequate temporary support as necessary to assure structural value or integrity of affected portions of project from damage.
- B. Provide devices and methods to protect other portions of the project from damage.
- C. Provide protection from elements for that portion of the project which may be exposed by cutting and patching work and maintain excavations free from water.

3.03 PERFORMANCE

- A. Execute cutting and demolition by methods which prevent damage to other work and will provide proper surfaces to receive installation of repairs.
- B. Restore work which has been out or removed; install new products to provide completed work in accordance with requirements of contract documents.

- C. Fit work airtight to pipes, sleeves, ducts, conduit and other penetrations through surfaces.
 - 1. Fireproof as required.
- D. Refinish entire surfaces as necessary to provide an even finish to match adjacent finishes.
 - 1. For continuous surfaces, refinish to nearest intersection.
 - 2. For an assembly, refinish the entire unit.

- - - END - - -

**SECTION 017413
PROGRESS CLEANING**

PART 1 - GENERAL

1.01 DESCRIPTION OF WORK

- A. This section addresses cleaning and disposal of waste materials, debris and rubbish during construction.
- B. Maintain areas under contractor's control, free of waste materials, debris and rubbish. Maintain site in a clean and orderly condition.
- C. Provide covered containers for depositing debris and rubbish. Periodically dispose of accumulations of extraneous materials.
- D. Periodically clean interior areas to provide suitable conditions for finishing work. Generation of dust and similar debris during cleaning shall be minimized.

PART 2- PRODUCTS

PART 3 - EXECUTION

3.01 CLEANING

- A. Remove all debris and rubbish from pipe chases, plenums, above ceilings, attics, crawl spaces and other closed or remote spaces prior to closing the space.
- B. Broom clean interior areas prior to start of surface finishing and continue cleaning on an as-needed basis. Areas shall be free of dust when installing clear finishes such as varnish on wood.
- C. Control cleaning operations so that dust and other particulates will not adhere to wet or newly coated surfaces.

3.02 DISPOSAL

- A. Remove waste materials, debris and rubbish from work areas daily and dispose of it in dumpster or other means. The location of dumpster or similar containers shall be approved by the owner if not situated within the limits of construction. Transport off-site periodically to approved dump site.

--- END ---

**SECTION 017423
FINAL CLEANING**

PART 1 – GENERAL

1.01 DESCRIPTION OF WORK

- A. Execute cleaning prior to inspection for substantial completion of each designated portion of the work.

1.02 QUALITY ASSURANCE

- A. Conduct cleaning and disposal operations to comply with codes, ordinances, regulations and pollution laws.

PART 2 - PRODUCTS

2.01 CLEANING MATERIALS AND EQUIPMENT

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

2.02 COMPATIBILITY

- A. Use only the cleaning materials and equipment which are compatible with the surface being cleaned, as recommended by the manufacturer of the material.
- B. Use only those cleaning materials which will not create hazards to health or property, and which will not damage surfaces.

PART 3 - EXECUTION

3.01 FINAL INSPECTION OF CLEANING

- A. Prior to final completion or owner occupancy, contractor shall conduct an inspection of sight-exposed interior and exterior surfaces, and all work areas to verify that the entire work is clean.

3.02 CLEANING DURING WARRANTY OR FINAL COMPLETION

- A. The contractor is responsible for the execution of this section during any repairs, corrections or adjustments made during the period between substantial completion and final completion and also during any warranty repair work.

--- END ---

**SECTION 017700
CLOSEOUT PROCEDURES**

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes administrative and procedural requirements for contract closeout, including, but not limited to, the following:
 - 1. Substantial Completion procedures.
 - 2. Final completion procedures.
 - 3. Warranties.
 - 4. Final cleaning.
 - 5. Repair of the Work.
- B. Related Requirements:
 - 1. The drawings and provisions of the General and Supplementary Conditions and Division 01 Specification sections, and other clarifications apply to this section.

1.2 ACTION SUBMITTALS

- A. Product Data: For cleaning agents.
- B. Contractor's List of Incomplete Items: Initial submittal at Substantial Completion.
- C. Certified List of Incomplete Items: Final submittal at Final Completion.

1.3 CLOSEOUT SUBMITTALS

- A. Certificates of Release: From authorities having jurisdiction.
- B. Certificate of Insurance: For continuing coverage.
- C. Field Report: For pest control inspection.

1.4 MAINTENANCE MATERIAL SUBMITTALS

- A. Schedule of Maintenance Material Items: For maintenance material submittal items specified in other Sections.

1.5 SUBSTANTIAL COMPLETION PROCEDURES

- A. Contractor's List of Incomplete Items: Prepare and submit a list of items to be completed and corrected (Contractor's punch list), indicating the value of each item on the list and reasons why the Work is incomplete.
- B. Submittals Prior to Substantial Completion: Complete the following a minimum of 10 days prior to requesting inspection for determining date of Substantial Completion. List items below that are incomplete at time of request.
 - 1. Certificates of Release: Obtain and submit releases from authorities having jurisdiction permitting Owner unrestricted use of the Work and access to services and utilities. Include occupancy permits, operating certificates, and similar releases.

2. Submit closeout submittals specified in other Division 01 Sections, including project record documents, operation and maintenance manuals, final completion construction photographic documentation, damage or settlement surveys, property surveys, and similar final record information.
 3. Submit closeout submittals specified in individual Sections, including specific warranties, workmanship bonds, maintenance service agreements, final certifications, and similar documents.
 4. Submit maintenance material submittals specified in individual Sections, including tools, spare parts, extra materials, and similar items, and deliver to location designated by Architect. Label with manufacturer's name and model number where applicable.
 - a. Schedule of Maintenance Material Items: Prepare and submit schedule of maintenance material submittal items, including name and quantity of each item and name and number of related Specification Section. Obtain Architect's signature for receipt of submittals.
 5. Submit test/adjust/balance records.
 6. Submit changeover information related to Owner's occupancy, use, operation, and maintenance.
- C. Procedures Prior to Substantial Completion: Complete the following a minimum of 10 days prior to requesting inspection for determining date of Substantial Completion. List items below that are incomplete at time of request.
1. Advise Owner of pending insurance changeover requirements.
 2. Make final changeover of permanent locks and deliver keys to Owner. Advise Owner's personnel of changeover in security provisions.
 3. Complete startup and testing of systems and equipment.
 4. Perform preventive maintenance on equipment used prior to Substantial Completion.
 5. Instruct Owner's personnel in operation, adjustment, and maintenance of products, equipment, and systems.
 6. Advise Owner of changeover in heat and other utilities.
 7. Participate with Owner in conducting inspection and walkthrough with local emergency responders.
 8. Terminate and remove temporary facilities from Project site, along with mockups, construction tools, and similar elements.
 9. Complete final cleaning requirements, including touchup painting.
 10. Touch up and otherwise repair and restore marred exposed finishes to eliminate visual defects.
- D. Inspection: Submit a written request for inspection to determine Substantial Completion a minimum of 10 days prior to date the work will be completed and ready for final inspection and tests. On receipt of request, Architect will either proceed with inspection or notify Contractor of unfulfilled requirements. Architect will prepare the Certificate of Substantial Completion after inspection or will notify Contractor of items, either on Contractor's list or additional items identified by Architect, that must be completed or corrected before certificate will be issued.
1. Re-inspection: Request re-inspection when the Work identified in previous inspections as incomplete is completed or corrected.
 2. Results of completed inspection will form the basis of requirements for final completion.

1.6 FINAL COMPLETION PROCEDURES

- A. Preliminary Procedures: Before requesting final inspection for determining final completion, complete the following:

1. Submit a final Application for Payment according to Section 01 2900 "Payment Procedures."
 2. Certified List of Incomplete Items: Submit certified copy of Architect's Substantial Completion inspection list of items to be completed or corrected (punch list), endorsed and dated by Architect. Certified copy of the list shall state that each item has been completed or otherwise resolved for acceptance.
 3. Certificate of Insurance: Submit evidence of final, continuing insurance coverage complying with insurance requirements.
 4. Instruct Owner's personnel in operation, adjustment, and maintenance of products, equipment, and systems.
- B. Inspection: Submit a written request for final inspection to determine acceptance. On receipt of request, Architect will either proceed with inspection or notify Contractor of unfulfilled requirements. Architect will prepare a final Certificate for Payment after inspection or will notify Contractor of construction that must be completed or corrected before certificate will be issued.
1. Re-inspection: Request re-inspection when the Work identified in previous inspections as incomplete is completed or corrected.

1.7 LIST OF INCOMPLETE ITEMS (PUNCH LIST)

- A. Organization of List: Include name and identification of each space and area affected by construction operations for incomplete items and items needing correction including, if necessary, areas disturbed by Contractor that are outside the limits of construction. Use CSI Form 14.1A or similar form acceptable to architect.
1. Organize list of spaces in sequential order, starting with exterior areas first.
 2. Organize items applying to each space by major element, including categories for ceiling, individual walls, floors, equipment, and building systems.
 3. Submit list of incomplete items in one of the following format:
 - a. MS Excel electronic file. Architect will return annotated copy.
 - b. Three paper copies unless otherwise indicated. Architect will return two copies.

1.8 SUBMITTAL OF PROJECT WARRANTIES

- A. Time of Submittal: Submit written warranties on request of Architect for designated portions of the Work where commencement of warranties other than date of Substantial Completion is indicated, or when delay in submittal of warranties might limit Owner's rights under warranty.
- B. Organize warranty documents into an orderly sequence based on the table of contents of the Project Manual.
1. Bind warranties and bonds in heavy-duty, three-ring, vinyl-covered, loose-leaf binders, thickness as necessary to accommodate contents, and sized to receive 8-1/2-by-11-inch paper.
 2. Provide heavy paper dividers with plastic-covered tabs for each separate warranty. Mark tab to identify the product or installation. Provide a typed description of the product or installation, including the name of the product and the name, address, and telephone number of Installer.
 3. Identify each binder on the front and spine with the typed or printed title "WARRANTIES," Project name, and name of Contractor.
 4. Warranty Electronic File: Scan warranties and bonds and assemble complete warranty and bond submittal package into a single indexed electronic PDF file with links enabling navigation to each item. Provide bookmarked table of contents at

beginning of document.

- C. Provide additional copies of each warranty to include in operation and maintenance manuals.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Cleaning Agents: Use cleaning materials and agents recommended by manufacturer or fabricator of the surface to be cleaned. Do not use cleaning agents that are potentially hazardous to health or property or that might damage finished surfaces.

PART 3 - EXECUTION

3.1 FINAL CLEANING

- A. General: Perform final cleaning. Conduct cleaning and waste-removal operations to comply with local laws and ordinances and Federal and local environmental and antipollution regulations.
- B. Cleaning: Employ experienced workers or professional cleaners for final cleaning. Clean each surface or unit to condition expected in an average commercial building cleaning and maintenance program. Comply with manufacturer's written instructions.
 - 1. Complete the following cleaning operations before requesting inspection for certification of Substantial Completion for entire Project or for a designated portion of Project:
 - a. Clean Project site, yard, and grounds, in areas disturbed by construction activities, including landscape development areas, of rubbish, waste material, litter, and other foreign substances.
 - b. Sweep paved areas broom clean. Remove petrochemical spills, stains, and other foreign deposits.
 - c. Rake grounds that are neither planted nor paved to a smooth, even-textured surface.
 - d. Remove tools, construction equipment, machinery, and surplus material from Project site.
 - e. Remove snow and ice to provide safe access to building.
 - f. Clean exposed exterior and interior hard-surfaced finishes to a dirt-free condition, free of stains, films, and similar foreign substances. Avoid disturbing natural weathering of exterior surfaces. Restore reflective surfaces to their original condition.
 - g. Remove debris and surface dust from limited access spaces, including roofs, plenums, shafts, trenches, equipment vaults, manholes, attics, and similar spaces.
 - h. Sweep concrete floors broom clean in unoccupied spaces.
 - i. Vacuum carpet and similar soft surfaces, removing debris and excess nap; clean according to manufacturer's recommendations if visible soil or stains remain.
 - j. Clean transparent materials, including mirrors and glass in doors and windows. Remove glazing compounds and other noticeable, vision-obscuring materials. Replace chipped or broken glass and other damaged transparent materials. Polish mirrors and glass, taking care not to scratch surfaces.
 - k. Remove labels that are not permanent.

- l. Wipe surfaces of mechanical and electrical equipment and similar equipment. Remove excess lubrication, paint and mortar droppings, and other foreign substances.
- m. Clean plumbing fixtures to a sanitary condition, free of stains, including stains resulting from water exposure.
- n. Replace disposable air filters and clean permanent air filters. Clean exposed surfaces of diffusers, registers, and grills.
- o. Clean light fixtures, lamps, globes, and reflectors to function with full efficiency.
- p. Leave Project clean and ready for occupancy.

3.2 REPAIR OF THE WORK

- A. Complete repair and restoration operations before requesting inspection for determination of Substantial Completion.
- B. Repair or remove and replace defective construction. Repairing includes replacing defective parts, refinishing damaged surfaces, touching up with matching materials, and properly adjusting operating equipment. Where damaged or worn items cannot be repaired or restored, provide replacements. Remove and replace operating components that cannot be repaired. Restore damaged construction and permanent facilities used during construction to specified condition.
 - 1. Remove and replace chipped, scratched, and broken glass, reflective surfaces, and other damaged transparent materials.
 - 2. Touch up and otherwise repair and restore marred or exposed finishes and surfaces. Replace finishes and surfaces that already show evidence of repair or restoration.
 - a. Do not paint over "UL" and other required labels and identification, including mechanical and electrical nameplates. Remove paint applied to required labels and identification.
 - 3. Replace parts subject to operating conditions during construction that may impede operation or reduce longevity.
 - 4. Replace burned-out bulbs, bulbs noticeably dimmed by hours of use, and defective and noisy starters in fluorescent and mercury vapor fixtures to comply with requirements for new fixtures.

--- E N D ---

SECTION 017823
OPERATION AND MAINTENANCE DATA

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes administrative and procedural requirements for preparing operation and maintenance manuals, including the following:
 - 1. Operation and maintenance documentation directory.
 - 2. Emergency manuals.
 - 3. Operation manuals for systems, subsystems, and equipment.
 - 4. Product maintenance manuals.
 - 5. Systems and equipment maintenance manuals.

1.2 CLOSEOUT SUBMITTALS

- A. Manual Content: Operations and maintenance manual content is specified in individual Specification Sections to be reviewed at the time of Section submittals. Submit reviewed manual content formatted and organized as required by this Section.
 - 1. Architect will comment on whether content of operations and maintenance submittals are acceptable.
 - 2. Where applicable, clarify and update reviewed manual content to correspond to revisions and field conditions.
- B. Format: Submit operations and maintenance manuals in one of the following formats:
 - 1. PDF electronic file. Assemble each manual into a composite electronically indexed file. Submit on digital media acceptable to Architect.
 - a. Name each indexed document file in composite electronic index with applicable item name. Include a complete electronically linked operation and maintenance directory.
 - b. Enable inserted reviewer comments on draft submittals.
 - 2. Three paper copies. Include a complete operation and maintenance directory. Enclose title pages and directories in clear plastic sleeves. Architect will return two copies.
- C. Manual Submittal: Submit each manual in final form prior to requesting inspection for Substantial Completion and at least 15 days before commencing demonstration and training. Architect will return copy with comments.
 - 1. Correct or revise each manual to comply with Architect's comments. Submit copies of each corrected manual within 15 days of receipt of Architect's comments and prior to commencing demonstration and training.

PART 2 - PRODUCTS

2.1 REQUIREMENTS FOR EMERGENCY, OPERATION, AND MAINTENANCE MANUALS

- A. Directory: Prepare a single, comprehensive directory of emergency, operation, and maintenance data and materials, listing items and their location to facilitate ready access to desired information.

- B. Organization: Unless otherwise indicated, organize each manual into a separate section for each system and subsystem, and a separate section for each piece of equipment not part of a system. Each manual shall contain the following materials, in the order listed:
 - 1. Title page.
 - 2. Table of contents.
 - 3. Manual contents.
- C. Title Page: Include the following information:
 - 1. Subject matter included in manual.
 - 2. Name and address of Project.
 - 3. Name and address of Owner.
 - 4. Date of submittal.
 - 5. Name and contact information for Contractor.
 - 6. Name and contact information for Construction Manager.
 - 7. Name and contact information for Architect.
 - 8. Name and contact information for Commissioning Authority.
 - 9. Names and contact information for major consultants to the Architect that designed the systems contained in the manuals.
 - 10. Cross-reference to related systems in other operation and maintenance manuals.
- D. Table of Contents: List each product included in manual, identified by product name, indexed to the content of the volume, and cross-referenced to Specification Section number in Project Manual.
- E. Manual Contents: Organize into sets of manageable size. Arrange contents alphabetically by system, subsystem, and equipment. If possible, assemble instructions for subsystems, equipment, and components of one system into a single binder.
- F. Manuals, Electronic Files: Submit manuals in the form of a multiple file composite electronic PDF file for each manual type required.
 - 1. Electronic Files: Use electronic files prepared by manufacturer where available.
 - 2. Where scanning of paper documents is required, configure scanned file for minimum readable file size.
 - 3. File Names and Bookmarks: Enable bookmarking of individual documents based on file names. Name document files to correspond to system, subsystem, and equipment names used in manual directory and table of contents. Group documents for each system and subsystem into individual composite bookmarked files, then create composite manual, so that resulting bookmarks reflect the system, subsystem, and equipment names in a readily navigated file tree. Configure electronic manual to display bookmark panel on opening file.
- G. Manuals, Paper Copy: Submit manuals in the form of hard copy, bound and labeled volumes.
 - 1. Binders: Heavy-duty, three-ring, vinyl-covered, loose-leaf post-type binders, in thickness necessary to accommodate contents, sized to hold 8-1/2-by-11-inch paper; with clear plastic sleeve on spine to hold label describing contents and with pockets inside covers to hold folded oversize sheets.
 - a. Identify each binder on front and spine, with printed title "OPERATION AND MAINTENANCE MANUAL," Project title or name, and subject matter of contents, and indicate Specification Section number on bottom of spine. Indicate volume number for multiple-volume sets.
 - 2. Dividers: Heavy-paper dividers with plastic-covered tabs for each section of the manual. Mark each tab to indicate contents. Include typed list of products and major

components of equipment included in the section on each divider, cross-referenced to Specification Section number and title of Project Manual.

3. Protective Plastic Sleeves: Transparent plastic sleeves designed to enclose diagnostic software storage media for computerized electronic equipment.
4. Drawings: Attach reinforced, punched binder tabs on drawings and bind with text.
 - a. If oversize drawings are necessary, fold drawings to same size as text pages and use as foldouts.
 - b. If drawings are too large to be used as foldouts, fold and place drawings in labeled envelopes and bind envelopes in rear of manual. At appropriate locations in manual, insert typewritten pages indicating drawing titles, descriptions of contents, and drawing locations.

2.2 EMERGENCY MANUALS

- A. Content: Organize manual into a separate section for each of the following:
 1. Type of emergency.
 2. Emergency instructions.
 3. Emergency procedures.
- B. Type of Emergency: Where applicable for each type of emergency indicated below, include instructions and procedures for each system, subsystem, piece of equipment, and component:
 1. Fire.
 1. Flood.
 2. Gas leak.
 3. Water leak.
 4. Power failure.
 5. Water outage.
 6. System, subsystem, or equipment failure.
 7. Chemical release or spill.
- B. Emergency Instructions: Describe and explain warnings, trouble indications, error messages, and similar codes and signals. Include responsibilities of Owner's operating personnel for notification of Installer, supplier, and manufacturer to maintain warranties.
- C. Emergency Procedures: Include the following, as applicable:
 1. Instructions on stopping.
 2. Shutdown instructions for each type of emergency.
 3. Operating instructions for conditions outside normal operating limits.
 4. Required sequences for electric or electronic systems.
 5. Special operating instructions and procedures.

2.2 OPERATION MANUALS

- A. Content: In addition to requirements in this Section, include operation data required in individual Specification Sections and the following information:
 1. System, subsystem, and equipment descriptions. Use designations for systems and equipment indicated on Contract Documents.
 2. Performance and design criteria if Contractor is delegated design responsibility.
 3. Operating standards.
 4. Operating procedures.
 5. Operating logs.
 6. Wiring diagrams.

7. Control diagrams.
 8. Piped system diagrams.
 9. Precautions against improper use.
 10. License requirements including inspection and renewal dates.
- B. Descriptions: Include the following:
1. Product name and model number. Use designations for products indicated on Contract Documents.
 2. Manufacturer's name.
 3. Equipment identification with serial number of each component.
 4. Equipment function.
 5. Operating characteristics.
 6. Limiting conditions.
 7. Performance curves.
 8. Engineering data and tests.
 9. Complete nomenclature and number of replacement parts.
- C. Operating Procedures: Include the following, as applicable:
1. Startup procedures.
 2. Equipment or system break-in procedures.
 3. Routine and normal operating instructions.
 4. Regulation and control procedures.
 5. Instructions on stopping.
 6. Normal shutdown instructions.
 7. Seasonal and weekend operating instructions.
 8. Required sequences for electric or electronic systems.
 9. Special operating instructions and procedures.
- D. Systems and Equipment Controls: Describe the sequence of operation, and diagram controls as installed.
- E. Piped Systems: Diagram piping as installed and identify color-coding where required for identification.

2.3 PRODUCT MAINTENANCE MANUALS

- A. Content: Organize manual into a separate section for each product, material, and finish. Include source information, product information, maintenance procedures, repair materials and sources, and warranties and bonds, as described below.
- B. Source Information: List each product included in manual, identified by product name and arranged to match manual's table of contents. For each product, list name, address, and telephone number of Installer or supplier and maintenance service agent, and cross-reference Specification Section number and title in Project Manual.
- C. Product Information: Include the following, as applicable:
1. Product name and model number.
 2. Manufacturer's name.
 3. Color, pattern, and texture.
 4. Material and chemical composition.
 5. Reordering information for specially manufactured products.

- D. Maintenance Procedures: Include manufacturer's written recommendations and the following:
 - 1. Inspection procedures.
 - 2. Types of cleaning agents to be used and methods of cleaning.
 - 3. List of cleaning agents and methods of cleaning detrimental to product.
 - 4. Schedule for routine cleaning and maintenance.
 - 5. Repair instructions.
- E. Repair Materials and Sources: Include lists of materials and local sources of materials and related services.
- F. Warranties and Bonds: Include copies of warranties and bonds and lists of circumstances and conditions that would affect validity of warranties or bonds.

2.4 SYSTEMS AND EQUIPMENT MAINTENANCE MANUALS

- A. Content: For each system, subsystem, and piece of equipment not part of a system, include source information, manufacturers' maintenance documentation, maintenance procedures, maintenance and service schedules, spare parts list and source information, maintenance service contracts, and warranty and bond information, as described below.
- B. Source Information: List each system, subsystem, and piece of equipment included in manual, identified by product name and arranged to match manual's table of contents. For each product, list name, address, and telephone number of Installer or supplier and maintenance service agent, and cross-reference Specification Section number and title in Project Manual.
- C. Manufacturers' Maintenance Documentation: Manufacturers' maintenance documentation including the following information for each component part or piece of equipment:
 - 1. Standard maintenance instructions and bulletins.
 - 2. Drawings, diagrams, and instructions required for maintenance, including disassembly and component removal, replacement, and assembly.
 - 3. Identification and nomenclature of parts and components.
 - 4. List of items recommended to be stocked as spare parts.
- D. Maintenance Procedures: Include the following information and items that detail essential maintenance procedures:
 - 1. Test and inspection instructions.
 - 2. Troubleshooting guide.
 - 3. Precautions against improper maintenance.
 - 4. Disassembly; component removal, repair, and replacement; and reassembly instructions.
 - 5. Aligning, adjusting, and checking instructions.
 - 6. Demonstration and training video recording, if available.
- C. Maintenance and Service Schedules: Include service and lubrication requirements, list of required lubricants for equipment, and separate schedules for preventive and routine maintenance and service with standard time allotment.
- D. Spare Parts List and Source Information: Include lists of replacement and repair parts, with parts identified and cross-referenced to manufacturers' maintenance documentation and local sources of maintenance materials and related services.
- E. Maintenance Service Contracts: Include copies of maintenance agreements with name and

telephone number of service agent.

- F. Warranties and Bonds: Include copies of warranties and bonds and lists of circumstances and conditions that would affect validity of warranties or bonds.

PART 3 - EXECUTION

3.1 MANUAL PREPARATION

- A. Emergency Manual: Assemble a complete set of emergency information indicating procedures for use by emergency personnel and by Owner's operating personnel for types of emergencies indicated.
- B. Product Maintenance Manual: Assemble a complete set of maintenance data indicating care and maintenance of each product, material, and finish incorporated into the Work.
- C. Operation and Maintenance Manuals: Assemble a complete set of operation and maintenance data indicating operation and maintenance of each system, subsystem, and piece of equipment not part of a system.
- D. Manufacturers' Data: Where manuals contain manufacturers' standard printed data, include only sheets pertinent to product or component installed. Mark each sheet to identify each product or component incorporated into the Work. If data include more than one item in a tabular format, identify each item using appropriate references from the Contract Documents. Identify data applicable to the Work and delete references to information not applicable.
- E. Drawings: Prepare drawings supplementing manufacturers' printed data to illustrate the relationship of component parts of equipment and systems and to illustrate control sequence and flow diagrams. Coordinate these drawings with information contained in record Drawings to ensure correct illustration of completed installation.
 - 1. Do not use original project record documents as part of operation and maintenance manuals.
- F. Comply with Specification section for Closeout Procedures for schedule for submitting operation and maintenance documentation.

--- E N D ---

**SECTION 017839
PROJECT RECORD DOCUMENTS**

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes administrative and procedural requirements for project record documents, including the following:
 - 1. Record Drawings.
 - 2. Record Specifications.
 - 3. Record Product Data.
- B. Related Requirements:
 - 1. The drawings and provisions of the General and Supplementary Conditions and Division 01 Specification sections, and other clarifications apply to this section.

1.2 CLOSEOUT SUBMITTALS

- A. Record Drawings: Comply with the following:
 - 1. Number of Copies: Submit copies of record Drawings as follows:
 - a. Initial Submittal:
 - 1) Submit one paper-copy set(s) of marked-up record prints.
 - 2) Architect will indicate whether general scope of changes, additional information recorded, and quality of drafting are acceptable.
 - b. Final Submittal:
 - 1) Submit PDF electronic files of scanned record prints and two set(s) of prints.
- B. Record Specifications: Submit two paper copies and one annotated PDF electronic files of Project's Specifications, including addenda and contract modifications.
- C. Record Product Data: Submit two paper copies and annotated PDF electronic files and directories of each submittal.

PART 2 – PRODUCTS

2.1 RECORD DRAWINGS

- A. Record Prints: Maintain one set of marked-up paper copies of the Contract Drawings and Shop Drawings, incorporating new and revised Drawings as modifications are issued.
 - 1. Preparation: Mark record prints to show the actual installation where installation varies from that shown originally. Require individual or entity who obtained record data, whether individual or entity is Installer, subcontractor, or similar entity, to provide information for preparation of corresponding marked-up record prints.
 - a. Give particular attention to information on concealed elements that would be difficult to identify or measure and record later.
 - b. Record data as soon as possible after obtaining it.
 - c. Record and check the markup before enclosing concealed installations.
 - 2. Mark the Contract Drawings and Shop Drawings completely and accurately. Use personnel proficient at recording graphic information in production of marked-up record prints.
 - 3. Mark record sets with erasable, red-colored pencil. Use other colors to distinguish between changes for different categories of the Work at same location.
 - 4. Note Construction Change Directive numbers, alternate numbers, Change Order numbers, and similar identification, where applicable.

2.2 RECORD SPECIFICATIONS

- A. Preparation: Mark Specifications to indicate the actual product installation where installation varies from that indicated in Specifications, addenda, and contract modifications.
 - 1. Give particular attention to information on concealed products and installations that cannot be readily identified and recorded later.
 - 2. Mark copy with the proprietary name and model number of products, materials, and equipment furnished, including substitutions and product options selected.
 - 3. Record the name of manufacturer, supplier, Installer, and other information necessary to provide a record of selections made.
 - 4. Note related Change Orders, record Product Data, and record Drawings where applicable.
- B. Format: Submit record Specifications as annotated PDF electronic file, paper copy or scanned PDF electronic file(s) of marked-up paper copy of Specifications.

2.3 RECORD PRODUCT DATA

- A. Preparation: Mark Product Data to indicate the actual product installation where installation varies substantially from that indicated in Product Data submittal.
 - 1. Give particular attention to information on concealed products and installations that cannot be readily identified and recorded later.
 - 2. Include significant changes in the product delivered to Project site and changes in manufacturer's written instructions for installation.
 - 3. Note related Change Orders, record Specifications, and record Drawings where applicable.
- B. Format: Submit record Product Data as annotated PDF electronic file, paper copy or scanned PDF electronic file(s) of marked-up paper copy of Product Data.

2.4 MISCELLANEOUS RECORD SUBMITTALS

- A. Assemble miscellaneous records required by other Specification Sections for miscellaneous record keeping and submittal in connection with actual performance of the Work. Bind or file miscellaneous records and identify each, ready for continued use and reference.
- B. Format: Submit miscellaneous record submittals as PDF electronic file, paper copy or scanned PDF electronic file(s) of marked-up miscellaneous record submittals.

PART 3 - EXECUTION

3.1 RECORDING AND MAINTENANCE

- A. Recording: Maintain one copy of each submittal during the construction period for project record document purposes. Post changes and revisions to project record documents as they occur; do not wait until end of Project.
- B. Maintenance of Record Documents and Samples: Store record documents and Samples in the field office apart from the Contract Documents used for construction. Do not use project record documents for construction purposes. Maintain record documents in good order and in a clean, dry, legible condition, protected from deterioration and loss. Provide access to project record documents for Architect's reference during normal working hours.

--- E N D ---

03 00 00 CONCRETE

**SECTION 03 54 00
CAST UNDERLAYMENT**

PART 1 GENERAL

1.01 SUBMITTALS

- A. Product data: provide manufacturer's data sheets documenting physical characteristics and product limitations of underlayment materials. Include information on surface preparation, environmental limitations, and installation instructions.

1.02 QUALITY ASSURANCE

- A. Applicator qualifications: company specializing in performing the work of this section and approved by manufacturer.
- B. Pre-installation conference: refer to section 01 45 00 - contractor's quality control for requirements.

1.03 DELIVERY, STORAGE, AND HANDLING

- A. Store products in manufacturer's unopened packaging until ready for installation.
- B. Keep dry and protect from direct sun exposure, freezing, and ambient temperature greater than 105 degrees f.

1.04 FIELD CONDITIONS

- A. Do not install underlayment until floor penetrations and peripheral work are complete.
- B. Maintain minimum ambient temperatures of 50 degrees f 24 hours before, during and 72 hours after installation of underlayment.
- C. During the curing process, ventilate spaces to remove excess moisture.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Cementitious underlayment:
Locally procured self-leveling concrete product from a reputable concrete source.

2.02 MATERIALS

- A. Cast underlayment, general:
 - 1. Conform to applicable code for combustibility or flame spread requirements.
 - 2. Provide certificate of compliance from authority having jurisdiction indicating approval of underlayment materials in the required fire rated assembly.
- B. Cementitious underlayment: blended cement MBR, that when mixed with water in accordance with manufacturer's directions will produce self-leveling underlayment with the following properties:
 - 1. Compressive strength: minimum 4000 psi after 28 days, tested per ASTM C109/C109m.
 - 2. Flexural strength: minimum 1000 psi after 28 days, tested per ASTM C348.
 - 3. Density: 125 lb./cu ft, nominal.
 - 4. Final set time: 1-1/2 to 2 hours, maximum.
 - 5. Thickness: capable of thickness from feather edge to maximum 3-1/2 inch.
 - 6. Surface burning characteristics: flame spread/smoke developed index of 0/0 in accordance with ASTM ES4.
- C. Water: potable and not detrimental to underlayment mix materials.
- D. Primer: manufacturer's recommended type.
- E. Joint and crack filler: latex based filler, as recommended by manufacturer.

2.03 MIXING

- A. Site mix materials in accordance with manufacturer's instructions.
- B. Add aggregate for areas where thickness will exceed 1/2 inch. Mix underlayment and water for at least two minutes before adding aggregate and continue mixing to assure that aggregate has been thoroughly coated.
- C. Mix to self-level consistency without over-watering.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that substrate surfaces are clean, dry, unfrozen, do not contain petroleum byproducts, or other compounds detrimental to underlayment material bond to substrate.

3.02 PREPARATION

- A. Remove substrate surface irregularities. Fill voids and deck joints with filler. Finish smoothly.
- B. Vacuum clean surfaces.
- C. Prime substrate in accordance with manufacturer's instructions. Allow it to dry.
- D. Close floor openings.

3.03 INSTALLATION

- A. Install underlayment in accordance with manufacturer's instructions.
- B. Place to indicate thickness, with top surface level to 1/8 inch in 10 ft.

3.04 CURING

- A. Once the underlayment starts to set, prohibit foot traffic until final set has been reached.
- B. Air cure in accordance with manufacturer's instructions.

3.05 PROTECTION

- A. Protect against direct sunlight, heat, and wind; prevent rapid drying to avoid shrinkage and cracking.
- B. Do not permit traffic over unprotected floor underlayment surfaces.

3.06 CLEANING

- A. Protect adjacent areas from material spillage. Remove excess materials from existing surfaces.
- B. Remove all debris as a result of the work of this section.

--- END ---

05 00 00 METALS

**SECTION 05 50 00
METAL FABRICATIONS**

PART 1 GENERAL

1.01 DEFINITIONS

- A. Definition: metal fabrications include items made from steel and aluminum shapes, plates, bars, strips, tubes, pipes and castings which are not a part of structural or other metal systems specified elsewhere.

1.02 SUBMITTALS

- A. Shop drawings: indicate profiles, sizes, connection attachments, reinforcing, anchorage, size and type of fasteners, and accessories. Include erection drawings, elevations, and details where applicable.

1.03 QUALITY ASSURANCE

- A. Design materials and fabrication under direct supervision of a professional structural engineer experienced in design of this work and licensed in the state in which the project is located
- B. Fabricator qualifications: a qualified steel fabricator that is accredited by ias ac172.

PART 2 PRODUCTS

2.01 MATERIALS – STEEL

- A. STEEL SECTIONS: ASTM A38/A36M.
- B. STEEL TUBING: ASTM A500/A500M, GRADE B COLD-FORMED STRUCTURAL TUBING.
- C. PLATES: ASTM A283/A283M.
- D. PIPE: ASTM A53/A53M, GRADE B SCHEDULE 40, BLACK FINISH.
- E. ZINC COATING: ASTM A653, GRADE 33
- F. FASTENERS: TYPE 304 OR 316 STAINLESS STEEL.
- G. BOLTS, NUTS, AND WASHERS: 1, TYPE 1, PLAIN.
- H. WELDING MATERIALS: AWS D1.1/D1.1M; TYPE REQUIRED FOR MATERIALS BEING WELDED.
- I. SHOP AND TOUCH-UP PRIMER. SSPC-PAINT 15, COMPLYING WITH VOC LIMITATIONS OF AUTHORITIES HAVING JURISDICTION.
- J. COORDINATE PRIMER MATERIAL WITH FINISHED COATINGS TO ASSURE COMPATIBILITY.K.TOUCH-UP PRIMER FOR GALVANIZED SURFACES: SSPC

- K. PAINT 20, TYPE I - INORGANIC, COMPLYING WITH VOC LIMITATIONS OF AUTHORITIES HAVING JURISDICTION.

2.02 MATERIALS – ALUMINUM

- A. EXTRUDED ALUMINUM: ASTM B221 (ASTM B221M), 6063 ALLOY, T8 TEMPER.
- B. SHEET ALUMINUM: ASTM B209 (ASTM 8209M), 5052 ALLOY, H32 OR H22 TEMPER.
- C. ALUMINUM-ALLOY DRAWN SEAMLESS TUBES: ASTM B210 (ASTM B210M), 6063 ALLOY, T6 TEMPER.
- D. ALUMINUM-ALLOY BARS: ASTM B211 (ASTM B211M), 6061 ALLOY, T6 TEMPER.
- E. ALUMINUM-ALLOY SAND CASTINGS: ASTM B26/B26M.
- F. ALUMINUM-ALLOY DIE CASTINGS: ASTM B85/B85M.
- G. BOLTS, NUTS, AND WASHERS: TYPE 304 OR 316 STAINLESS STEEL.
- H. WELDING MATERIALS: AWS D1.2/D1.2M; TYPE REQUIRED FOR MATERIALS BEING WELDED.

2.03 FABRICATION

- A. Fit and shop assemble items in largest practical sections, for delivery to site.
- B. Fabricate items with joints tightly fitted and secured.
- C. Grind exposed joints flush and smooth with adjacent finish surface. Make exposed joints butt tight, flush, and hairline. Ease exposed edges to small uniform radius.
- D. Exposed mechanical fastenings: flush countersunk screws or bolts; unobtrusively located; consistent with design of component, except where specifically noted otherwise.
- E. Supply components required for anchorage of fabrications. Fabricate anchors and related components of same material and finish as fabrication, except where specifically noted otherwise.
- F. Shop paint miscellaneous steel metal work, except members or portions of members to be embedded in concrete or masonry, surfaces and edges to be field welded and galvanized surfaces, unless otherwise specified.
 - 1. Remove scale, rust and other deleterious materials before applying shop coat. Clean off heavy rust and loose mil scale in accordance with SSPC sp-2 "hand tool cleaning", or SSPC sp-3 "power tool cleaning" or SSPC sp-7 "brush off blast cleaning"
 - 2. Remove oil, grease and similar contaminants in accordance with SSPC sp-1 "solvent cleaning"
 - 3. Immediately after surface preparation, brush or spray on primer in accordance with manufacturer's instructions, and at a rate to provide uniform WFT to provide not less 2.0 mils dft. Use painting methods which will result in full coverage of joints, corners, edges and exposed surfaces.
 - 4. Apply shop coat to fabricated metal items, except apply 4.0 mils dft of paint to surfaces inaccessible after assembly or erection. Change color of second and third coat to distinguish it from final coat.

2.04 FINISHES – STEEL

- A. Primer paint steel items.
 - 1. Do not prime surfaces in direct contact with concrete, where field welding is required, and items to be covered with sprayed fireproofing.
 - 2. Do not prime surfaces that are to be galvanized.
- B. Prepare surfaces to be primed in accordance with SSPC-SP2.
- C. Clean surfaces of rust, scale, grease, and foreign matter prior to finishing.
- D. Prime painting: one coat.
- E. Galvanizing of structural steel members: hot dip galvanized after fabrication to ASTM A123/A123m requirements.
- F. Galvanizing of non-structural items: hot dip galvanize after fabrication to ASTM A123/A123m requirements.

2.05 FINISHES – ALUMINUM

- A. Interior aluminum surfaces: class I natural anodized.
- B. Class I natural anodized finish: AAMA 611 AA-M12C22A41 clear anodic coating not less than 0.7 mils thick.
- C. Apply one coat of bituminous paint to concealed aluminum surfaces in contact with cementitious of dissimilar materials.

2.06 FABRICATION TOLERANCES

- A. Squareness: 1/8-inch maximum difference in diagonal measurements.
- B. Maximum offset between faces: 1/16 inch.
- C. Maximum misalignment of adjacent members: 1/16 inch.
- D. Maximum bow: 1/8 inch in 48 inches.
- E. Maximum deviation from plane: 1/16 inch in 48 inches.

2.07 FASTENERS

- A. General: provide zinc-coated fasteners for exterior use or where built into exterior walls. Select fasteners for the type, grade and class required.
- B. Provide stainless steel fasteners, bolts, nuts, washers and miscellaneous accessories used in contact with aluminum.
- C. Bolts and nuts: regular HEX HEAD TYPE, ASTM A 307, GRADE A.
- D. Lag bolts: square head type, FS FF B-561
- E. Machine screws: cadmium plated steel, FS FF-S-92.
- F. Wood screws: flat head carbon steel, FS FF-S-111
- G. Plain washers: round, carbon steel, FS FF-W-92
- H. Masonry anchorage devices: expansion shields, FS FF-S-325
- I. Toggle bolts: tumble wing type, FS FF-B-588, type, class and style as required.
- J. Lock washers: helical spring type carbon steel, FS FF-W-84.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that field conditions are acceptable and are ready to receive work.

3.02 PREPARATION

- A. Clean and strip primed steel items to bare metal where site welding is required.
- B. Supply setting templates to the appropriate entities for steel items required to be cast into concrete or embedded in masonry.

3.03 INSTALLATION

- A. Install items plumb and level, accurately fitted, free from distortion or defects.
- B. Provide for erection loads, and for sufficient temporary bracing to maintain true alignment until completion of erection and installation of permanent attachments.
- C. Field weld components indicated on shop drawings. All field welds are to be ground smooth where exposed to view.
- D. Perform field welding in accordance with AWS d1.1/d1.1m.
- E. Obtain approval prior to site cutting or marking adjustments not scheduled.
- F. After erection, prime welds, abrasions, and surfaces not shop primed or galvanized, except surfaces to be in contact with concrete.
- G. Use concealed field splices wherever possible. Provide cutouts, fittings and anchorages as required for coordination of assembly and installation with other work.

3.04 TOLERANCES

- A. Maximum variation from plumb: $\frac{1}{4}$ inch per story, noncumulative.
- B. Maximum offset from true alignment: $\frac{1}{4}$ inch.
- C. Maximum out-of-position: $\frac{1}{4}$ inch.

3.05 ADJUST AND CLEAN

- A. Touch-up painting: immediately after erection, clean field welds, bolted connections and abraded areas of shop paint, and paint exposed areas with same material as used for shop painting. Apply by brush or spray to provide a minimum dry film thickness of 20 mils.
- B. For galvanized surfaces: clean field welds, bolted connections and abraded areas and apply 2 coats of galvanizing repair paint.

3.06 CLEAN-UP

- A. Remove accumulation of waste materials, rubbish, excess containers and packaging. Dispose of waste off site. Do not dump on site.

--- END ---

**SECTION 054000
COLD FORMED METAL FRAMING**

PART 1 GENERAL

1.01 RELATED DOCUMENTS

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

1.02 SECTION INCLUDES

- A. Load bearing formed steel stud exterior wall.
- B. Design system to accommodate construction tolerances, deflection of building structural members, and clearances of intended openings.
- C. Related Work Specified Elsewhere
 - 1. Section 05120 - Structural Steel
 - 2. Section 06100 - Rough Carpentry

1.03 SUBMITTALS

- A. Shop Drawings: indicate component details, framed openings, bearing, spacing, welds, anchorage, loading, type and location of fasteners, and accessories or items required of related work.
- B. Provide calculations for loadings and stresses of framing sealed by Professional Engineer registered in State of Florida.
- C. Product Data: indicate framing system components, including fasteners and accessories; and erection instructions detailing sequence of construction and requirements for temporary bracing.
- D. Certificates: Manufacturer's Certificate that materials meet specification requirements.

1.04 QUALITY ASSURANCE

- A. Design Criteria: "Specifications for the Design of Cold-Formed Steel Structural Members", American Iron and Steel institute (AISI).
- B. Perform design under direct supervision of a Professional Structural Engineer licensed in the State of Florida.
- C. Welding Standards: Comply with applicable provisions of AWS 01.1 "Structural Welding Code-- Steel."
- D. Installers: Minimum 3 years' experience on comparable cold-formed metal framing project.

PART 2 PRODUCTS

2.01 FRAMING MATERIAL

- A. Manufacturers:
 - 1. MarinoWare Industries, (800) 627-4661, www.marinoware.com
 - 2. National Gypsum Co., (800) 628-4662, www.nationalgypsum.com
 - 3. USG Interiors, Inc. (312) 606 5756, www.usg.com
 - 4. Dietrich Industries, Inc. (352) 748-720, www.dietrichindustries.com
- B. Studs and/or joists and accessories shall be of the type, size, steel thickness and spacing shown on the plans. Studs, track, bracing, and bridging shall be manufactured per ASTM A 446, and formed from steel having a G-60 galvanized coating, meeting ASTM A 525 and C 955.
- C. Galvanized studs, joists, and accessories, 16 ga. or heavier, shall be formed from steel that conforms to the requirements of ASTM A-446 with a yield of 50 ksi and per AISI-1986.
- D. Galvanized studs, joists, and accessories, 18 ga. or lighter, shall be formed from steel that conforms to the requirements of ASTM A-446 with a yield of 33 ksi and per AISI-1986.
- E. All materials 18 ga. or heavier shall have G-60 coating.
- F. All materials 20 ga. or lighter shall have G-40 coating.

2.02 ACCESSORIES

- A. Bracing, Furring, Bridging, Plates, Gussets, Clips: Formed sheet steel, thickness determined for conditions encountered; same finish as framing members.
- B. Screws: ASTM A90, hot dip galvanized, self-drilling, self-tapping.
- C. Anchorage Devices: Drilled expansion bolts.
- D. Welding: In accordance with AWS 01.1 and AWS D1.3.
- E. Primer: Touch-up for galvanized surfaces.

2.03 FABRICATION

- A. Fabricate assemblies of sizes and profiles required; with framing members fitted, reinforced, and braced.
- B. Fit and assemble in largest practical sections for delivery to site, ready for installation

PART 3 EXECUTION

3.01 EXAMINATION AND PREPARATION

- A. Verify that substrate surfaces and building framing components are ready to receive work.

3.02 ERECTION

- A. Install components in accordance with manufacturer's instructions.
- B. Align floor and ceiling tracks. Position members plumb, square, and true to line. Set joists parallel and level, with lateral bracing and bridging. Secure in place in accordance with the structural drawings.
- C. Construct corners using a minimum of three studs. Double stud wall openings, door and window jambs, and heads over doors.
- D. Erect load bearing studs one piece full length. Splicing of studs is not permitted. Wire tying of components is not permitted.
- E. Locate joist end bearing directly over load bearing studs or provide load distributing member to top of stud track.
- F. Allow for deflection, directly below horizontal building framing for non-load bearing framing.
- G. Install horizontal bridging in accordance with manufacturers recommendations; one row for studs 8 feet high; two rows for studs 12 feet high; and three rows for studs 16 feet high.
- H. Attach furring channels to studs for attachment of fixtures anchored to walls and for attachment of mechanical and electrical items within walls.

3.03 TOLERANCES

- A. Vertical alignment of studs shall be within 1/8-inch per 10'-0" of the span.
- B. Horizontal alignment of studs shall be within 1/8-inch per 10'-0" of the respective lengths.

--- END ---

06 00 00 WOOD, PLASTICS, AND COMPOSITES

**SECTION 06 05 73
WOOD TREATMENT**

PART GENERAL

1.01 SECTION INCLUDES

- A. Site applied termiticide for wood materials.
- B. Site applied termiticide for other building materials.
- C. Site applied mildewcide for wood materials.

1.02 RELATED REQUIREMENTS

- A. Section 01 61 16 - volatile organic compound (VOC) content restrictions.
- B. Section 08 30 00 - cast-in-place concrete.
- C. Section 06 10 00 - rough carpentry: factory treatment for wood products.
- D. Section 06 12 19 - structural insulated panels: factory treatment for wood products
- E. Section 06 13 24: factory treatment for wood products.
- F. Section 06 13 24 - heavy timber framing: factory treatment for wood products.
- G. section 08 15 00 - wood decking: factory treatment for wood products.
- H. Section 06 17 53 - shop fabricated wood trusses: treatment for wood products.
- I. Section 06 17 53 - shop-fabricated wood trusses: factory treatment for wood products.
- J. Section 06 18 00 - glued-laminated construction: factory treatment for wood products.

1.03 SUBMITTALS

- A. See section 01 30 00 - administrative requirements, for submittal procedures.
- B. Product data: provide technical data on insulated sheathing, wood preservative materials, and application instructions.
- C. Warranty: submit manufacturer warranty and ensure that forms have been completed in owner's name and registered with manufacturer.

1.04 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.

1.05 WARRANTY

- A. See section 01 78 00 - closeout submittals, for additional warranty requirements.
- B. Site applied termiticide and mildewcide: correct defective work within a twenty-five-year period after date of substantial completion.

PART 2 PRODUCTS**2.01 SITE APPLIED WOOD TREATMENT**

- A. Manufacturers:
 - 1. Nisus Corporation: www.nisuscorp.com <http://www.nisuscorp.com>>.
 - 2. Substitutions: see section 01 60 00 - product requirements.
- B. Site applied termiticide and mildewcide: borate mineral salt based, spray applied termiticide, mildewcide and mold growth preventative.
- C. Site applied termiticide for wood, steel and concrete; borate mineral salt based, spray applied termiticide formulated for use on wood, steel, concrete and other building materials.
 - 1. Active ingredient: 40% minimum disodium octaborate tetrahydrate (dot).
 - 2. Carrier and penetrant: proprietary glycol solution.
 - 3. Products:
 - a. Nisus corporation; product www.nisuscorp.com www.nisuscorp.com
Substitutions: see section 01 6000 - product requirements.

PART 3 EXECUTION**3.01 PREPARATION**

- A. Remove dust, dirt and other contaminants from treatment surfaces. Remove tarpaulins, drop cloths, strippable protective films, etc., from areas to be treated move equipment and stored materials that block or prevent product application.

3.02 INSTALLATION – GENERAL

- A. Provide temporary ventilation during and immediately after installation sufficient to remove indoor air contaminants.

3.03 SITE APPLIED WOOD TREATMENT

- A. Comply with manufacturers written mixing and installation instructions.
- B. Termiticide: apply to foundations, structure and other items as listed.
 - 1. All structural wood and sill plates within 24 inches, minimum, of point of contact with foundation.
 - 2. All wood, wood based and cellulose sheathing within 24 inches, minimum, of point of contact with foundation.

3. Concrete foundations 2 inches, minimum, from sill plate.
- C. Mildewcide: apply to wood and wood-based building materials as listed.
1. All structural wood and sill plates within 24 inches, minimum, of point of contact with foundation.
 2. All wood, wood based and cellulose sheathing within 24 inches, minimum, of point of contact with foundation.

--- END ---

**SECTION 06 10 00
ROUGH CARPENTRY**

PART 1 GENERAL

1.01 SUBMITTALS

- A. Product data: provide technical data on wood preservative materials.

1.02 QUALITY ASSURANCE

- A. Coordinate installation with all trades affected, with requirements of rough carpentry materials.
- B. Hold pre-installation conferences with various trades as may be required from time-to-time, to ensure that proper blocking, backing and installation of anchors and the like is accomplished as various trades work progresses.

1.03 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, and installation.

1.04 WARRANTY

- A. See section 01 78 36 - warranties, guarantees and bonds for additional warranty requirements.
- B. Correct defective work within a one year period after date of substantial completion.

PART 2 PRODUCTS

Species: Douglas fir-larch, unless otherwise indicated.

2.01 DIMENSION LUMBER

- A. Grading agency: Southern Pine Inspection Bureau, inc; SPIB (gr).
- B. Sizes: nominal sizes as indicated on drawings, provide dressed lumber S4S unless otherwise indicated.
- C. Moisture content: S-dry or MC19.
- D. Miscellaneous framing, blocking, nailers and furring:
 - 1. Lumber: no. 2 or standard grade.
 - 2. Boards: standard or no. 3.

2.02 CONSTRUCTION PANELS

- A. Communications and electrical room mounting boards: fire retardant treated PS 1 a-d plywood; 3/4 inch thick, flame spread index of 25 or less, smoke developed index of 450 or less, when tested in accordance with ASTM e84.

2.03 ACCESSORIES

- A. Fasteners and anchors:
 - 1. Hot-dipped galvanized steel per ASTM a153/a153m for high humidity and preservative-treated wood locations.
 - 2. Types 304 and 316 stainless steel or other proprietary fasteners per ASTM a153 for fire-retardant-treated plywood, rough carpentry exposed to weather, and roofing locations.
 - 3. Anchors: expansion shield and lag bolt type for anchorage to solid masonry or concrete.
 - 4. Nails: annular or ring shank for superior backout resistance.
- B. Separation sheet: self-adhering, high temperature resistant, "peel and stick" membrane. The separation sheet shall be placed between pressure treated wood (unless pressure treated with inorganic boron - refer to article 2.05 and all adjacent metal assemblies including metal decking, edge metal flashing, drip edge, coping, etc. Acceptable manufacturers are as follows:
 - 1. WR GRACE; ULTRA.
 - 2. WR GRACE; ICE AND WATER SHIELD HT.
 - 3. HENRY COMPANY; BLUESKIN PE200 HT.
 - 4. CARLISLE COATINGS & WATERPROOFING INC.; CCD WIP 300HT.
 - 5. SUBSTITUTIONS: see section 01 25 13 - product substitution procedures.

2.04 FACTORY WOOD TREATMENT

- A. Treated lumber and plywood: comply with requirements of AWWA u1 - use category system for wood treatments determined by use categories, expected service conditions, and specific applications.
 - 1. Fire-retardant treated wood: mark each piece of wood with producer's stamp indicating compliance with specified requirements.
 - 2. Preservative-tested wood: provide lumber and plywood marked or stamped by an AISC-accredited testing agency, certifying level and type of treatment in accordance with AWWA standards.
 - 3. All treated wood shall not promote corrosion when in contact with aluminum, carbon steel, cold-formed metal framing, etc.: including when galvanized coating is nicked and/or penetrated by fasteners.
- B. Fire retardant treatment:
 - 1. Manufacturers: subject to compliance with requirements, available manufacturers offering products that may be incorporated into the work include, but are not limited to the following:
 - a. Arch wood protection, inc.

- b. Hoover treated wood products, inc.
 - c. Koppers performance chemicals, inc.
 - d. Substitutions: not permitted.
- 2. Interior type a: AWP u1, use category UCFA, commodity specification h, low temperature (low hygroscopic) type, chemically treated and pressure impregnated;
 - a. Able to provide a maximum flame spread index of 25 when tested in accordance with ASTM e84, with no evidence of significant combustion when test is extended for an additional 20 minutes.
 - b. Kiln dry wood after treatment to a maximum moisture content of 19 percent for lumber and 15 percent for plywood.
 - c. Treat rough carpentry items as indicated.
 - d. Do not use treated wood in applications exposed to weather or where the wood may become wet.
- C. Preservative treatment:
 - 1. Manufacturers: subject to compliance with requirements, available manufacturers offering products that may be incorporated into the work include, but are not limited, to the following:
 - a. Arch wood protection, inc.
 - b. Koppers performance chemicals, INC;_____: www.koppersperformancachemicals.com.
 - c. Viance, LIC.
 - d. Substitutions: not permitted.
 - 2. Preservative pressure treatment of lumber above grade: 1, use category uc3b, Commodity specification a using waterborne preservative to 0.10 LB/cu ft retention.
 - a. Treat lumber in contact with roofing, flashing, or waterproofing, unless otherwise indicated in sub-paragraph 3., below.
 - b. Treat lumber in contact with masonry or concrete,
 - c. Treat lumber less than 18 inches above grade.
 - d. Treat lumber in other locations as indicated.
 - 3. Preservative pressure treatment of lumber above grade, at locations such as wood for roofing, wood bucks at windows, etc., which would be in contact with aluminum or ferrous metals (including carbon steel with zinc, hot dip galvanized coating, or other protective coatings), should not have chemical treatment such as alkaline copper quaternary (ACQ) or similar compounds due to the highly corrosive action with such metals: AWP u1, use category uc3b, commodity specification a using waterborne preservative to 0.25 LB/cu ft retention, SBX, p25, inorganic boron.
 - a. Kiln dry lumber after treatment to maximum moisture content of 19 percent.
 - b. Treat lumber as indicated in sub-paragraph 3.

4. Preservative pressure treatment of plywood above grade: 1, use category uc2 and uc3b, commodity specification of using waterborne preservative to 0.25 LB/CU FT retention.
 - a. Treat plywood in contact with roofing, flashing, or waterproofing.
 - b. Treat plywood in contact with masonry or concrete.
 - c. Treat plywood less than 18 inches above grade.
 - d. Treat plywood in other locations as indicated.

PART 3 EXECUTION

3.01 PREPARATION

- A. Install sill separation sheet under sill plate of framed walls bearing on foundations; puncture sill separation sheet cleanly to fit tightly around protruding anchor bolts.
- B. Coordinate installation of rough carpentry members specified in other sections.

3.02 INSTALLATION – GENERAL

- A. Select material sizes to minimize waste,
- B. Reuse scrap to the greatest extent possible; clearly separate scrap for use on site as accessory components, including shims, bracing, and blocking.

Where treated wood is used on interior, provide temporary ventilation during and immediately after installation sufficient to remove indoor air contaminants.

3.03 BLOCKING, NAILERS, AND SUPPORTS INSTALLATION

- A. Provide framing and blocking members indicated or as required to support finishes, fixtures, specialty items, and trim.
- B. In framed assemblies that have concealed spaces, provide solid wood fire-blocking as required by applicable local code, to close concealed draft openings between floors and between top story and root/attic space; other material acceptable to code authorities may be used in lieu of solid wood blocking.
- C. Provide blocking attached to studs as backing and support for wall-mounted items,
- D. Where ceiling-mounting is indicated, provide blocking and supplementary supports above ceiling, unless otherwise indicated.
- E. Provide the following spec non structured framing and blocking.
 1. Cabinets and shelf support,
 2. Wall brackets.
 3. Handrails.
 4. Grab bars.
 5. Toilet and bath accessories.
 6. Well-mounted door stops.
 7. Chalkboard and markerboards.
 8. Wall paneling and trim.
 9. Joints of rigid wall coverings that occur between studs.
 10. Well-mounted and ceiling-mounted equipment.

3.04 INSTALLATION OF CONSTRUCTION PANELS

- A. Communications and electrical room mounting boards: securely attach panels to substrate.
 - 1. Where panels are required to be full floor-to-ceiling height due to size of communications or electrical panel, install with long edge of board parallel to studs, bottom of board to be 4 inches minimum above finished floor.
 - 2. Install adjacent boards without gape.

3.05 SITE APPLIED WOOD TREATMENT

- A. Apply preservative treatment compatible with factory applied treatment at site-sawn cuts. Comply with manufacturer's instructions and recommendations.

3.06 TOLERANCES

- A. Framing members: 1/4 inch from true position, maximum.
- B. Variation from plane (other than floors): 1/4 inch in 10 feet maximum, and 1/4 inch in 30 feet maximum.

3.07 CLEANING

- A. Waste disposal
 - 1. Comply with applicable regulations.
 - 2. Do not burn scrap on the project site.
 - 3. Do not burn scraps that have been pressure treated.
 - 4. Do not send materials treated with pentachlorophenol, cca, or aca to co-generation facilities or "waste-to-energy" facilities
- B. Do not leave any wood, shavings, sawdust, ie. On the ground or buried h fl.
- C. Prevent sawdust and wood shavings from entering the storm drainage system.

- - - END - - -

SECTION 062000 FINISH CARPENTRY

PART 1 GENERAL

1.01 RELATED DOCUMENTS

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

1.02 SECTION INCLUDES

- A. Finish carpentry items and interior architectural millwork not specified by the Interior Designer, Includes, but are not limited to: Trims, casing, jambs, crowns, and wall bases of finger-joint quality.
- B. Related Work Specified Elsewhere:
 - 1. Section 06100 - Rough Carpentry.
 - 2. Section 0641 O - Custom Casework.
 - 3. Section 0821O - Wood Doors.

1.03 SUBMITIALS

- A. Shop Drawings: Indicate materials, component profiles, fastening methods, jointing details, finishes, and accessories.
- B. Product data for each type of factory-fabricated product and process specified, including details of construction relative to materials, dimensions of individual components, profiles, textures, and colors, in the form of manufacturer's color charts and or chips.
- C. Samples: Submit two, 48-inch length size samples illustrating wood type and specified finish.
 - 1. Individual unit entry door mill work to be full size mock-up.

1.04 QUALITY ASSURANCE

- A. Perform Work in accordance with AWI Custom Quality as defined in AWI Quality Standards, 1999 Edition. Wood shall be clear and free of knots.
- B. Installer Qualifications: Arrange for installation of finish carpentry by a firm that can demonstrate successful experience in installing finish carpentry items similar in type and quality to those required for this Project.

1.05 REGULATORY REQUIREMENTS

- A. Conform to applicable code for fire retardant requirements.

1.06 JOB CONDITIONS

- A. Do not deliver interior finish carpentry until environmental conditions meet requirements specified for installation areas. If finish carpentry must be stored in other than installation areas, store only in areas where environmental conditions meet requirements specified for installation areas.

PART 2 PRODUCTS

1.07 LUMBER MATERIALS

- A. Softwood Lumber: PS 20; Graded in accordance with AWI Custom; white pine species, maximum moisture content of 8 percent; finger-joint quality, suitable for painting.
- B. Shelving: 3/4-inch boards of same species as interior softwood trim.
- C. Wall base: 5-1/4" standard profile; with exception of 3-1/2" at bathrooms.
- D. Casing: 3-1/4" standard profile.
- E. Crown Molding: 5-1/4" standard profile. Locations: Residential Unit Foyer, Dining Room, Grand Salon, and Master Bedroom and at Elevator Lobby, unless otherwise noted on the Interior Designer's Drawings.

1.08 ACCESSORIES

- A. Fasteners: Size and type to suit application; Stainless Steel Type 304 for exposed exterior; Hot dipped galvanized steel for concealed exterior, high humidity and treated wood locations, plain finish elsewhere.
 - 1. Provide nails or screws insufficient length to penetrate minimum of 1-1/2 inches into substrate, unless otherwise noted on the drawings.
- B. Contact Adhesives: Water Base type.
- C. Wall Adhesive: Cartridge type, compatible with wall substrate, capable of achieving durable bond.
- D. Primer: Alkyd primer sealer type.

1.09 FABRICATION

- A. Fabricate to AWI Custom standards.

PART 3 EXECUTION

3.01 EXAMINATION AND PREPARATION

- A. Prime paint surfaces of items or assemblies in contact with cementitious materials, before installation.

- B. Examine substrates for compliance with requirements for installation tolerances and other conditions affecting installation and performance of finish carpentry. Do not proceed with installation until unsatisfactory conditions have been corrected.

3.02 INSTALLATION

- A. Install work in accordance with AWI Custom Quality Standard.
- B. Do not use finish carpentry materials that are unsound, warped, bowed, twisted, improperly treated or finished, not adequately seasoned, or too small to fabricate with proper jointing arrangements.
- C. Install finish carpentry plumb, level, true, and aligned with adjacent materials. Use concealed shims where required for alignment.
- D. Install to tolerance of 1/8 inch in 8 feet for plumb and level. Install adjoining finish carpentry with 1/16 inch maximum offset for flush installation and 1/8 inch maximum offset for reveal installation.

3.03 PREPARATION FOR FINISH

- A. Sand work smooth and set exposed fasteners. Apply wood filler in exposed fastener indentations.

3.04 PROTECTION

- A. Provide final protection and maintain conditions that ensure finish carpentry is without damage or deterioration at time of Final Completion.

--- END ---

07 00 00 THERMAL AND MOISTURE PROTECTION

SECTION 071900 WATER REPELLENTS

PART 1 GENERAL

1.01 RELATED DOCUMENTS

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

1.02 SECTION INCLUDES

- A. This Section includes clear water-repellent coatings for the following vertical and nontraffic horizontal surfaces, as indicated on the drawings, including, but not limited to:
 - 1. Simulated Stone Veneer.
 - 2. Concrete (unpainted).
 - 3. Architectural Precast Concrete/Cast Stone.
 - 4. Concrete unit masonry (unpainted and unglazed).
- B. Related Sections Specified Elsewhere:
 - 1. Section 03330 – Concrete.
 - 2. Section 03450 – Architectural Precast Concrete.
 - 3. Section 04220 – Unit Masonry.
 - 4. Section 04730 – Simulated Stone.
 - 5. Section 07900 – Sealants.

1.03 PERFORMANCE REQUIREMENTS

- A. Provide water repellents with the following properties based on testing manufacturer's standard products, according to test methods indicated, applied to substrates simulating Project conditions using same materials and application methods to be used for Project.
 - 1. Absorption: Minimum 90 percent reduction of absorption after 24 hours in comparison of treated and untreated specimens.
 - a. Concrete Unit Masonry: ASTM C 140.
 - b. Hardened Concrete: ASTM C 642.
 - 2. Water-Vapor Transmission: Maximum 10 percent reduction in rate of vapor transmission in comparison of treated and untreated specimens, per ASTM E 96.
 - 3. Water penetration and Leakage through Masonry: Maximum 90 percent reduction in Leakage rate in comparison of treated and untreated specimens, per ASTM E 514.
 - 4. Durability: Maximum 5 percent loss of water repellency after 2500 hours of weathering in comparison to specimens before weathering, per ASTM G 53.
 - 5. Permeability: Minimum 80 percent breathable in comparison of treated and untreated specimens, per ASTM D 1653.

6. Chloride-Ion Intrusion in Concrete: Transportation Research Board, National Research Council's NCHRP Report 244, Series II tests.
 - a. Reduction of Water and Chloride Absorption: 80 percent.

1.04 SUBMITTALS

- A. Product Data: Include manufacturer's specifications, surface preparation and application instructions, recommendations for water repellents for each surface to be treated, and protection and cleaning instructions. Include data substantiating that materials are recommended by manufacturer for applications indicated and comply with requirements.
- B. Samples: Of each substrate indicated to receive water repellent, 12 inches square, with specified repellent treatment applied to half of each sample.
- C. Applicator Certificates: Signed by manufacturer certifying that the applicator complies with requirements.
- D. Certification by water repellent manufacturer that products supplied comply with local regulations controlling use of VOCs.
- E. Material Certificates: Signed by manufacturer certifying that pedestrian traffic coatings comply with requirements, based on comprehensive testing of current product formulations within the last three years.
- F. Material Test Reports: Indicate and interpret test results for compliance of water repellents with requirements indicated.

1.05 QUALITY ASSURANCE

- A. Installer (Applicator) Qualifications: An experienced applicator who has at least three years experience specialized in installing work similar in material, design, and extent to that indicated for this Project and who is acceptable to manufacturer.
 1. Certification: Written approval or license of applicator by water repellent manufacturer.
- B. Manufacturer Qualifications: Company specializing in water repellent coatings with ten years minimum satisfactory experience.
- C. Testing Agency Qualifications: An independent testing agency with experience and capability to conduct testing indicated in "Performance Requirements" Article without delaying the Work, per ASTM E 548.
- D. Regulatory Requirements: Comply with applicable rules of pollution- control regulatory agency having jurisdiction in Project locale regarding VOCs and use of hydrocarbon solvents.
- E. Field Samples: Architect will select one representative surface for each substrate to receive water repellents. Apply water repellent to each substrate, with either partial or full coverage as directed. Comply with application requirements of this Section.
 1. Obtain Architect's approval of field samples before applying water repellents.
 2. Keep field samples undisturbed during construction as a standard for judging completed pedestrian traffic coating. Undamaged field samples may be incorporated into the Work.

1.06 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials in original packages and containers with seals unbroken and bearing manufacturer's labels showing in the following information:
 - 1. Manufacturer's brand name.
 - 2. Type of material.
 - 3. Directions of storage.
 - 4. Date of manufacture and shelf life.
 - 5. Mixing and application instructions.
- B. Store materials in a clean, dry location protected from exposure to direct sunlight. In storage areas, maintain environmental conditions within range recommended in writing by manufacturer.

1.07 PROJECT CONDITIONS

- A. Environmental Limitations: Apply water repellents within the range of ambient and substrate temperatures recommended in writing by manufacturer. Do not apply water repellents to damp or wet substances, when temperatures are below 40 deg F, when relative humidity exceeds 85 percent, or when temperatures are less than 5 deg F above dew point.
 - 1. Do not apply water repellents in rain, fog, or mist, or when such weather conditions are imminent during the application and curing period.
 - 2. Do not apply water repellents to concrete surfaces and mortar have cured for less than 28 days.
 - 3. Do not apply water repellents if application is earlier than 24 hours after surfaces have been wet.
 - 4. Do not apply water repellents if windy condition exists that may cause water repellent to be blown onto vegetation or surfaces not intended to be coated.

1.08 WARRANTY

- A. General Warranty: Special warranty specified in this Article shall not deprive Owner of other rights. Owner may have under other provisions of the Contract Documents and shall be in addition to, and run concurrent with, other warranties made by Contractor under requirements of the Contract Documents, including but not limited to requirements of State of Florida Statute Article 718-203.
- B. Special Warranty: Submit a written warranty, executed by the applicator and water repellent manufacturer, covering materials and labor, agreeing to repair or replace materials that fail to provide water repellency within the specified warranty period. Warranty does not include deterioration or failure of coating due to unusual weather phenomena, failure of prepared and treated substrate, formation of new joints and cracks in excess of 1/16 inch 1,5mm wide, fire, vandalism, or abuse by maintenance equipment.
- C. Warranty Period: Five (5) years from the date Substantial Completion.

PART 2 – PRODUCTS

2.01 MANUFACTURER

- A. The following products and manufacturers has been approved for use, and the types and application of the water repellent is indicated in the drawings.
1. Silanes: With 3.3 lb/gal.400 g/L VOCs less.
 - a. Euco-Guard S-40; Euclid Chemical Company (The).
 - b. Hydrozo Enviroseal 20, manufactured by Hydrozo, a div. of ChemRex Corp. www.chemrex.com
 - c. Hydrozo 40; Chem-Rex Corp.
 - d. Chem-Trete 40D; Huls America, Inc.
 2. Silicones: With 3.3 lb/gal. 400g/L VOCs or less.
 - a. Silicone Waterpeller Formular “W”; Euclid Chemical Company (The).
 - b. Blok-Guard WB; ProSoCo, Inc.
 3. Acrylics: With 3.3 lb/gal. 400g/L VOCs or less.
 - a. Thoroshield; Chem-Rex Corp.
 - b. Diamond Seal VOX; Euclid Chemical Company (The).
 - c. Seal-Krete Waterproofing Sealer; Seal-Krete, Inc.

2.02 WATER REPELLENTS

- A. Silanes, 20 percent Solids: Penetrating water repellent. A monometric compound containing approximately 20 percent alkyltrialkoxysilanes with alcohol, mineral spirits, water, or other proprietary solvent carrier.
- B. VOC-Complying Water Repellents: Products complying with local regulations controlling use of VOCs, as certified by manufacturer.
- C. Silicon Sealer: Film-forming, polymerized, silicone-resin water repellent for dense substrates; somplying with FS SS-W-110.
- E. High-Solids Acrylic: Water-clear, breathing coating of acrylic resins; water-based, solvent-based, or acrylic emulsion solution containing 15 percent solids or more by volume.

2.03 MISCELLANEOUS MATERIALS

- A. Joint Sealants: as specified in Section 07900.

PART 3 – EXECUTION

3.01 EXAMINATION AND PREPARATION

- A. Examine substrates, with Applicator present, for compliance with requirements and for other conditions affecting performance of water repellents.
1. Verify compatibility with and suitability of substrates.
 2. Provide applicator with surfaces that are broom clean, dry, sound and free of voids, bugholes, rockpockets, honeycombs, protrusions, excessive roughness,

- foreign matter, frost, and contaminants which may inhibit application or performance of the coating system.
3. Begin coating application only after minimum concrete curing and drying period recommended by water repellent manufacturer has passed, after unsatisfactory conditions have been corrected, and after surfaces are dry.
 4. Verify that Substrates are visibly dry and free of moisture. Test for moisture by plastic sheet method according to ASTM D 4263.
 5. Application of coating indicates acceptance of surfaces and conditions.
- B. Clean substrate of substances that might interfere with penetration or performance of water repellents. Test for moisture content, according to repellent manufacturer's written instructions, to ensure surface is sufficiently dry.
1. Formed Concrete: Remove oil, curing compounds, laitance, and other substances that could prevent adhesion or penetration of water repellents.
- C. Test for pH level, according to water repellent manufacturer's written instructions, to ensure chemical bond to silicate minerals.
- D. Protect adjoining work, including sealant bond surfaces, from spillage or blow-over of water repellent. Cover adjoining and nearby surfaces of aluminum and glass if there is the possibility of water being deposited on surfaces. Cover live plants and grass.
- E. Coordination with Sealants: Do not apply water repellent until sealants for joints adjacent to surfaces receiving water-repellent treatment have been installed and cured.
1. Water-repellent work may precede sealant application only if sealant adhesion and compatibility have been tested and verified using substrate, water repellent, and sealant materials identical to those used in the work.

3.02 APPLICATION

- A. Apply a heavy-saturation spray coating of water repellent on surfaces indicated for treatment using low-pressure spray equipment. Comply with manufacture' written instructions for using airless spraying procedure, unless otherwise indicated.
1. Precast Work: At Contractor's option, first application of water repellent on precast concrete unit may be completed before installing units. Mask sealant-bond surfaces to prevent water repellent from migrating onto joint surfaces.

3.03 JOINT AND CRACK TREATMENT

- A. Prepare, treat, rout, and fill joints and cracks in substances according to ASTM C 1127 and water repellent manufacturer's written recommendations. Before coating surfaces, remove dust and dirt from joints and cracks according to ASTM D 4258.
1. Comply with recommendations in ASTM C 1193 for joint-sealant installation.

3.04 FIELD QUALITY CONTROL

- A. Manufacturer's Field Service: Provide services of a factory-authorized technical service representative to inspect and approve the substrate before application and to instruct the applicator on the product and application method to be used.

3.05 CLEAN-UP

- A. Promptly remove coating material from adjacent surfaces with MEK, Toulene, or Xylene: leave work area in broom clean condition.

3.06 CURING AND PRETECTING

- A. Cure water repellents according to manufacturer's written recommendations. Prevent contamination and damage during applications and curing stages. Allow work to cure a minimum of 72 hours before opening to pedestrian traffic.
- B. Protect water repellents from damage and wear during remainder of construction period.

--- END ---

**SECTION 072100
BUILDING INSULATION**

PART 1 GENERAL

1.01 RELATED DOCUMENTS

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

1.02 SECTION INCLUDES

- A. Un-faced batt thermal insulation in exterior roof construction (attic), Interior walls between air- conditioned and non-air-conditioned spaces, and elsewhere as indicated on the drawings.
- B. Rigid closed cell extruded polystyrene thermal board insulation.
- C. Sound attenuation blankets are specified in Section 09250.
- D. Related Work Specified Elsewhere:
 - 1. Section 06100 - Rough Carpentry.
 - 2. Section 09250 - Gypsum Board Systems.
- E. insulation wrap on storm and sanitary piping is specified in the MEP drawings.

1.03 SUBMITTALS

- A. Product data for each type of insulation product specified.
- B. Samples for Verification: Full-size units for each type of exposed insulation indicated.
- C. Product test reports from and based on tests performed by qualified independent testing laboratory evidencing compliance of insulation products with requirements including R-values, fire performance characteristics, perm ratings, water absorption ratings, and other properties, based on comprehensive testing of current products.

1.04 QUALITY ASSURANCE

- A. Fire Performance Characteristics: Provide insulation materials identical to those whose indicated fire performance characteristics have been determined per the ASTM test method indicated below, by UL or other testing and inspecting organizations acceptable to authorities having jurisdiction. Identify products with appropriate markings of applicable testing and inspecting organization.
 - 1. Surface Burning Characteristic: ASTM E 84.
 - 2. Fire Resistance Ratings: ASTM E 119.
 - 3. Combustion Characteristics: ASTM E 136.
- B. Single-Source Responsibility for insulation Products: Obtain each type of building insulation from a single source with resources to provide products of consistent quality in appearance and physical properties without delaying progress of the Work.

- C. Comply with the following ASTM Standards:
 - 1. ASTM C 665-01 - Standard Specification for Mineral Fiber Blanket Thermal insulation for Light Frame Construction.
 - 2. ASTM C 1289-02 - Standard Specification for Faced Rigid Cellular Polyisocyanurate Thermal Insulation Board.
 - 3. ASTM C 578-01 - Standard Specification for Rigid, Cellular Polystyrene Thermal insulation.

1.05 JOB CONDITIONS

- A. Protection:
 - 1. Protect insulation materials from weather and construction processes. Comply with special recommendations of manufacturers for protection of materials from ultraviolet radiation.
 - 2. Do not allow insulation to become wet or soiled.
 - 3. Comply with precautions and recommendations of manufacturer.
- B. Deliver in original, unopened packages with all quality control labels clearly legible.

1.06 WARRANTY

- A. General Warranty: The special warranty specified in this Article shall not deprive the Owner of other rights the Owner may have under other provisions of the Contract Documents and shall be in addition to, and run concurrent with, other warranties made by the Contractor under requirements of the Contract Documents, including but not limited to requirements of State of Florida Statute Article 718-203.
- B. Special installer's Warranty: Written warranty, signed by installer agreeing to repair or replace building insulation that does not comply with performance and other requirements specified in this Section within specified warranty period.
 - 1. Warranty Period: to be determined under contract in accordance with State of Florida Statute Article 718-203.
- C. Special Manufacturer's Warranty: Written warranty, signed by building insulation manufacturer agreeing to replace insulation that does not retain R-Values prescribed over time nor comply with performance and other requirements specified in this Section within specified warranty period.
 - 1. Warranty Period: to be determined under contract in accordance with State of Florida Statute Article 718-203.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products which may be incorporated in the work include, but are not limited to, the following:

1. Batt insulation
 - a. Certained Corp., Atlanta, GA (404) 455-4750 www.certainteed.com
 - b. Mansville Building Materials, (404) 449-3300 www.jm.com
 - c. Owens-Corning Fiberglas Corp, (407) 788-0870 www.owenscorning.com
 - d. Knauf Fiber Glass (800) 825-4434 www.knauffiberglass.com
2. Extruded Polystyrene Board insulation:
 - a. DiversiFoam Products (763) 477-5854
 - b. Dow Chemical Company (800) 441-4369 www.dow.com
 - c. Owens Corning (800) 438-7465 www.owenscorning.com

2.02 INSULATION MATERIALS

- A. Batt insulation: ASTM C665, preformed glass fiber batt, conforming to the following:
 1. Thermal Resistance: R-Values shall meet or exceed values in the Energy Code calculations for the project.
 2. Thickness: per R-value. Refer to drawings and Energy
 3. Calculations. 3. Facing: un-faced in locations indicated in the drawings.
 4. Fire Resistance: ASTM E 845:
 - a. Flame spread: 0-25.
 - b. Fuel contributed: 0-50.
 - c. Smoke developed: 45-175
- B. Rigid Closed Cell Extruded Polystyrene Board insulation: ASTM C 578, Type X, density 1.35 lb/cu.ft. minimum, compressive strength 15 psi.
 1. Fire Resistance: ASTM E84
 2. Thermal Resistance: R-value = 5.0 at 75 degrees F mean temperature per inch of thickness.

2.03 ACCESSORIES

- A. Adhesive for Bonding insulation : insulation manufacturer's recommended adhesive compatible with substrates to receive insulation.

PART 3 EXECUTION

3.01 EXAMINATION AND PREPARATION

- A. Verify that substrate, and adjacent materials, are clean, dry and ready to receive insulation.

- B. Verify that surface to receive insulation is free of matter that may inhibit insulation adhesion.
- C. Beginning installation means acceptance of substrate and project conditions.

3.02 INSTALLATION - BATT INSULATION

- A. Install insulation in accordance with insulation manufacturer's instructions.
- B. Install in wall and ceiling spaces without gaps or voids.
- C. Fit insulation tight in spaces. Leave no gaps or voids. Remove projections that interfere with placement.
- D. Install friction fit insulation tight to framing members, around all pipes, sleeves, boxes, and penetrations, completely filling prepared spaces. Do not compress or in any way reduce the thickness of the insulation to facilitate installation.
- E. Apply a single layer of insulation of required thickness, unless otherwise shown or required to make up total thickness.

3.03 INSTALLATION - EXTRUDED BOARD INSULATION INSULATION

- A. Install insulation in accordance with insulation manufacturer's instructions to concrete block walls. Use primer and adhesive recommended by insulation manufacturer.

3.04 PROTECTION

- A. General: Protect installed insulation and vapor retarders from damage due to harmful weather exposures, physical abuse, and other causes. Provide temporary coverings or enclosures where insulation will be subject to abuse and cannot be concealed and protected by permanent construction immediately after installation.

--- END ---

SECTION 07 41 13
SHEET METAL ROOFING

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Metal roofing, including flashing and accessories.
- B. Metal wall and fascia panels.
- C. Metal soffit panels.

1.02 RELATED SECTIONS

- A. Section 07 62 00 - Sheet Metal Flashing and Trim [07 62 00] - Sheet Metal Flashing and Trim.
- B. Section 07 71 13 - Manufactured Copings [07 71 00] - Manufactured Roof Specialties: Coping and gravel stops.
- C. Section 07 90 00 - Joint Protection [07 92 00] - Joint Sealers.

1.03 REFERENCES

- A. ASTM A 653/A 653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process; 2001a.
- B. ASTM A792 / A792M - Standard Specification for Steel Sheet, 55 percent Aluminum-Zinc Alloy-Coated by the Hot-Dip Process.
- C. ASTM B 209 - Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate; 2001.
- D. ASTM E 283 - Standard Test Method for Determining the Rate of Air Leakage Through Exterior Windows, Curtain Walls, and Doors Under Specified Pressure Differences Across the Specimen; 1991 (Reapproved 1999).
- E. ASTM E 331 - Standard Test Method for Water Penetration of Exterior Windows, Skylights, Doors, and Curtain Walls by Uniform Static Air Pressure Difference; 2000.
- F. ASTM E 408/C - 1371: "Standard Test Method for Total Normal Emittance of Surfaces Using inspection - Meter Techniques.
- G. ASTM E 903/C - 1549: Standard Test Method for Solar Absorbance, using Integrating Spheres.
- H. ASTM E 1646 - Standard Test Method for Water Penetration of Exterior Metal Roof Panel Systems by Uniform Static Air Pressure Difference; 1995.
- I. ASTM E 1680 - Standard Test Method for Rate of Air Leakage Through Exterior Metal Roof Panel Systems; 1995.
- J. Dade County County (Florida) Acceptance Report Numbers: 01-1106-01 and 01-1106-02.
- K. FM - Tests Requirements for Class 1 Panel roofs, Factory Mutual Research Corporation.
- L. UL 580 - Standard for Tests for Uplift Resistance of Roof Assemblies; 1994.
- M. UL2218: Class 4 Impact Resistance Rating.

- N. SMACNA (ASMM) - Architectural Sheet Metal Manual; Sheet Metal and Air Conditioning Contractors National Association; 1993.

1.04 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.
- C. Shop Drawings: Submit shop drawings showing layout, profiles and product components, including anchorage, accessories, finish colors and textures.
- D. Selection Samples: For each finish product specified, two complete sets of color chips representing manufacturer's full range of available colors and patterns.
- E. Verification Samples: For each finish product specified, two samples, minimum size 6 inches (150 mm) square, representing actual product, color, and patterns.
- F. Manufacturer's Certificates: Certify products meet or exceed specified requirements.
- G. Operation and Maintenance Data: Include methods for maintaining installed products and precautions relating to cleaning materials and methods that might be detrimental to finishes and performance.
- H. Close Out: Warranty documents specified herein.

1.05 QUALITY ASSURANCE

- A. Installer Qualifications: Installer with documented experienced in performing work of this section who has specialized in the installation of work similar to that required for this project.
- B. Pre-Installation Meeting: Conduct pre-installation meeting to acquaint installers of roofing and related work with project requirements, substrate conditions, manufacturer's installation instructions and manufacturer's warranty requirements.

1.06 DELIVERY, STORAGE, AND HANDLING

- A. Store products in manufacturer's unopened packaging with identification labels intact until ready for installation.
- B. Store materials protected from exposure to harmful conditions. Store material in dry, above ground location.
 - 1. Stack pre-finished material to prevent twisting, bending, abrasion, scratching and denting. Elevate one end of each skid to allow for moisture to run off.
 - 2. Prevent contact with material that may cause corrosion, discoloration or staining.
 - 3. Do not expose to direct sunlight or extreme heat trim material with factory applied strippable film.

1.07 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 absolute limits.

1.08 WARRANTY

- A. Manufacturer's Warranty: Provide manufacturer's standard warranty document executed by authorized company official covering finish, including color, fade, chalking and film integrity.
- B. Warranty Period: 20 years commencing on Date of Substantial Completion.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Acceptable Manufacturer: Petersen Aluminum Corp., which is located at: 1005 Tonne Rd.; Elk Grove Village, IL 60007; Toll Free Tel: 800-722-2523; Tel: 847-228-7150; Fax: 847-956-7968; Email: [request info \(rheselbarth@petersenmail.com\)](mailto:request info (rheselbarth@petersenmail.com)); Web: <https://www.pac-clad.com>
- B. Substitutions: Not permitted.
- C. Requests for substitutions will be considered in accordance with provisions of Section 01 60 00 - Product Requirements.

2.02 SHEET METAL ROOFING

- A. General: Factory fabricated panels; panels fabricated on site using portable roll former are prohibited.
 - 1. Performance Requirements: Provide sheet metal roofing that has been manufactured, fabricated and installed to achieve the following performance without defects, damage, failure or infiltration of water.
 - a. Wind Uplift: Provide UL 580 Class 90 rated assembly.
 - b. FM: Test Requirements for Class 1 panel roofs.
 - c. Static Air Infiltration: 0.06 cu ft/min/sq ft (1.1 cu m/h/sq m) at 6.24 lb/sq ft (300 Pa) air pressure differential, maximum, when tested in accordance with ASTM E 283 or ASTM E 1680.
 - d. Water Infiltration: No evidence of water penetration at inward static air pressure differential of 12.0 lb/sq ft (575 kPa), when tested in accordance with ASTM E 331 or ASTM E 1646.
 - e. Thermal Movement: Accommodate movement expected due to ambient and surface temperature ranges likely to occur at project site.
 - 2. Panel Lengths: As indicated on drawings; panels 55 feet (16.76 m) and less fabricated in one continuous length.

3. Texture: Smooth texture, dull matte specular gloss 25 to 35 percent at 60 degrees F (15.5 degrees C).
 4. Texture: Standard E-5 stucco embossed pattern.
 5. Texture: Striated.
 6. Finish: Factory applied PAC-CLAD finish:
 - a. Topside: Full-strength fluoropolymer, 70 percent Kynar 500 or Hylar resin, 1.0 mil (0.025 mm) total dry film thickness.
 - b. Underside: Wash coat of 0.3 to 0.4 mil (0.076 to 0.1 mm) dry film thickness.
 - c. Color: As selected by Architect from manufacturer's standard colors.
 - d. Color: _____.
 7. Panel Fasteners: Non-penetrating type, as required to achieve wind uplift rating or otherwise as recommended by manufacturer.
- B. Roof Panels: Petersen Aluminum Tite-Loc Panels; tension-leveled panels with 2 inch (50 mm) high mechanically crimped standing seams.
1. Seam Style: Double-folded to 90 degrees.
 2. Seam Style: Triple-folded to 180 degrees (Tite-Loc Plus).
 3. Material: 24 gage, 0.024 inch (0.61 mm) ASTM A792 /A792M Galvalume steel, structural quality.
 4. Material: 22 gage, 0.03 inch (0.76 mm) ASTM A792 /A792M Galvalume steel, structural quality.
 5. Material: 0.032 inch (0.8 mm) aluminum, ASTM B 209 3105-H14 alloy.
 6. Material: 0.040 inch (0.1mm) aluminum, ASTM B 209 3105-H14 alloy.
 7. Panel Width: 12 inch (305 mm), center to center.
 8. Panel Width: 16 inch (406 mm), center to center.
 9. Panel Width: 18 inch (457 mm), center to center.
 10. Eave Notching: Factory produced eave notching for trimmed eave panels.
 11. Sealant Bead: Factory applied sealant bead.
- C. Roof Panels: Petersen Aluminum PAC-CLAD SNAP-CLAD Panels; tension leveled flat panels with continuously interlocked standing seam; one-piece design without separate seam cover.
1. Seam Height: 1-3/4 inches (44 mm) minimum.
 2. Material: 24 gage, 0.024 inch (0.61 mm) ASTM A792 /A792M Galvalume steel, structural quality.
 3. Material: 22 gage, 0.03 inch (0.76 mm) ASTM A792 /A792M Galvalume steel, structural quality.
 4. Material: 0.032 inch (0.8 mm) aluminum, ASTM B 209 3105-H14 alloy.
 5. Material: 0.040 inch (0.1mm) aluminum, ASTM B 209 3105-H14 alloy.
 6. Material: 16 oz. Cold Rolled Copper, ASTM B370.
 7. Panel Width: 10 inch (254 mm), center to center.
 8. Panel Width: 12 inch (305 mm), center to center.
 9. Panel Width: 16 inch (406 mm), center to center.
 10. Panel Width: 18 inch (457 mm), center to center.

11. Eave Notching: Factory produced eave notching for trimmed eave panels.
 12. Sealant Bead: Factory applied sealant bead.
- D. Roof Panels: Petersen Aluminum PAC-CLAD Redi-Roof Panels; tension leveled.
1. Panel Type: Standing seam panels, with 1-9/16 inch (40 mm) seam height; one-piece without separate seam cover; offset profile.
 2. Panel Type: Standing seam panels, with 1-3/8 inch (35 mm) seam height; one-piece without separate seam cover; flat profile.
 3. Panel Type: Batten panels, 1-1/4 inch (32 mm) batten height; with batten caps fabricated from matching material with positive, metal-to-metal locking mechanism; offset profile.
 4. Material: 24 gage, 0.024 inch (0.61 mm) ASTM A792 /A792M Galvalume steel, structural quality.
 5. Material: 0.032 inch (0.8 mm) aluminum, 3105-H14 alloy.
 6. Material: 16oz. Cold Rolled Copper, ASTM B370.
 7. Panel Width: 12 inches (305 mm), center to center.
 8. Panel Width: 16 inches (406 mm), center to center.
 9. Panel Width: 18 inches (457 mm), center to center.
 10. Curved Profile: Radius as indicated on drawings.
 11. Eave Notching: Factory produced eave notching for trimmed eave panels.
- E. Roof Panels: Petersen Aluminum PAC-CLAD Snap-On Panels; tension leveled flat panels with separate seam cover.
1. Type: Standing seam, with 1 inch (25.4 mm) seam height.
 2. Type: High standing seam, with 1-1/2 inch (38 mm) seam height.
 3. Type: Batten seam, with 1-1/2 inch (38 mm) batten height.
 4. Material: 24 gage, 0.024 inch (0.61 mm) ASTM A792 /A792M Galvalume steel, structural quality.
 5. Material: 22 gage, 0.03 inch (0.76 mm) ASTM A792 /A792M Galvalume steel, structural quality.
 6. Material: 0.032 inch (0.8 mm) aluminum, ASTM B 209 3105-H14 alloy.
 7. Panel Width: 11 inches (279 mm), center to center.
 8. Panel Width: 12 inches (305 mm), center to center.
 9. Panel Width: 18 inches (457 mm), center to center.
 10. Panel Width: 19 inches (482 mm), center to center.
 11. Panel Width: 20 inches (508 mm), center to center.
 12. Curved Profile: Radius as indicated on drawings.
- F. Roof Panels: Petersen Aluminum PAC T-250 Panels; tension-leveled panels with 2-5/8 inch (67 mm) high mechanically crimped standing seams.
1. Seam Style: Continuous interlock.
 2. Material: 24 gage, 0.024 inch (0.61 mm) ASTM A792 /A792M Galvalume steel, structural quality.
 3. Material: 22 gage, 0.03 inch (0.76 mm) ASTM A792 /A792M Galvalume steel, structural quality.
 4. Material: 0.032 inch (0.8 mm) aluminum, ASTM B 209 3105-H14 alloy.
 5. Material: 0.040 inch (0.1mm) aluminum, ASTM B 209 3105-H14 alloy.

6. Panel Type: Smooth Panel.
 7. Panel Type: Striations.
 8. Panel Width: 16 inch (406 mm), center to center.
 9. Panel Width: 18 inch (457 mm), center to center.
 10. Sealant Bead: Factory applied sealant bead.
- G. Roof Panels: Petersen Aluminum PAC-CLAD Integral Panels; tension leveled flat panels, one- piece design without separate seam cover.
1. Type: Standing seam, 1-1/2 inch (38 mm) seam height.
 2. Type: Batten seam, 1-1/2 inch (38 mm) seam height.
 3. Material: 24 gage, 0.024 inch (0.61 mm) ASTM A792 /A792M Galvalume steel, structural quality.
 4. Material: 0.032 inch (0.8 mm) aluminum, ASTM B 209 3105-H14 alloy.
 5. Panel Width: 11 inches (279 mm), center to center.
 6. Panel Width: 18 inch (457 mm), center to center.
 7. Panel Width: 19 inch (483 mm), center to center.
- H. Wall, Fascia, and Soffit Panels: Petersen Aluminum PAC-CLAD Flush Panels; tension leveled flat panels with interlocking 1 inch (25 mm) high legs.
1. Type: Flush seam.
 2. Type: Reveal seam.
 3. Stiffening Bead: One, manufacturer's standard.
 4. Stiffening Beads: Two, manufacturer's standard.
 5. Material: 24 gage, 0.024 inch (0.61 mm) ASTM A792 /A792M Galvalume steel, structural quality.
 6. Material: 22 gage, 0.03 inch (0.76 mm) ASTM A792 /A792M Galvalume steel, structural quality.
 7. Material: 0.032 inch (0.8 mm) aluminum, ASTM B 209 3105-H14 alloy.
 8. Material: 0.040 inch (1.0 mm) aluminum, ASTM B 209 3105-H14 alloy.
 9. Panel Width: 7 inches (178 mm), center to center.
 10. Panel Width: 11 inches (279 mm), center to center.
- I. Soffit Panels: Petersen Aluminum Soffit Panels; V-grooved.
1. Type: PAC-750.
 2. Type: PAC-850 (Hook and Grab Interlock Profile).
 3. Style: Solid.
 4. Style: Perforated, half of width.
 5. Style: Perforated, entire panel.
 6. Material: 0.032 inch (0.8 mm) aluminum, ASTM B 209 3105-H14 alloy.
 7. Panel Width: 12 inches (305 mm), center to center.
- J. Flashing and Trim: Manufacturer's standard flashing and trim profiles, factory formed; fabricated as recommended in SMACNA Architectural Sheet Metal Manual.
1. Material: Same as roof panels.
 2. Material: 24 gage, 0.024 inch (0.61 mm) ASTM A 653/A 653M A792 /A792M Galvalume steel, structural quality.

3. Material: 22 gage, 0.03 inch (0.76 mm) ASTM A792 /A792M Galvalume steel, structural quality.
4. Material: 0.032 inch (0.8 mm) aluminum, ASTM B 209 3105-H14 alloy.
5. Material: 0.040 inch (0.1mm) aluminum, ASTM B 209 3105-H14 alloy.
6. Material: 0.050 inch (0.13 mm) aluminum, ASTM B 209 3105-H14 alloy.
7. Material: 0.063 inch (0.16 mm) aluminum, ASTM B 209 3105-H14 alloy.
8. Material: 0.080 inch (1 mm) aluminum, ASTM B 209 3105-H14 alloy.
9. Finish: To match roof panels.
10. Color: To match roof panels.
11. Color: _____.

2.03 ACCESSORY MATERIALS

- A. Underlayment: ASTM D 226, Type II No. 30 asphalt saturated organic roofing felt.
- B. Plywood Deck: 5/8 inch (16 mm) nominal thickness; as specified in Section 06 10 00 - Rough Carpentry.
- C. Nailable Insulation: 1 inch (25 mm) minimum to 3-1/2 inch (89 mm) maximum nominal thickness classified polyisocyanurate foamed plastic, 2 pcf (32 kg/cu m) density, factory laminated to 7/16 Inch (11 mm) thick APA rated oriented strand board (OSB).
- D. Sealant: Elastomeric.
- E. Bituminous Coating: Cold-applied asphaltic mastic, free of asbestos fibers, sulfur, and other harmful impurities.
- F. Touch-Up Paint: Approved by panel manufacturer.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that substrates are acceptable for roofing installation in accordance with manufacturer's instructions.
- B. Do not begin installation until substrates have been properly prepared.
- C. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

3.02 INSTALLATION

- A. Install in accordance with manufacturer's instructions.
- B. Coordinate metal roofing with other work, including but not limited to drainage, flashing and trim, deck substrates, parapets, copings, walls, and other adjoining work.
- C. Install metal roofing panels to profiles, patterns and drainage indicated, in accordance with manufacturer's instructions, and as necessary to achieve specified performance and a leak-free installation. Allow for structural and thermal movement.
- D. Separate dissimilar metals using bituminous coating to prevent galvanic action.
- E. Use fasteners recommended by panel manufacturer; conceal fasteners wherever possible; cover and seal exposed fasteners.
- F. Provide uniform, neat seams; provide sealant-type joint where indicated and form joints to conceal sealant.

3.03 FIELD QUALITY CONTROL

- A. Post Installation Testing: Owner reserves right to perform post installation testing of installed sheet metal roofing.
- B. Manufacturer's Field Services: Upon Owner's request, provide manufacturer's field service consisting of product use recommendations and periodic site visit for inspection of product installation in accordance with manufacturer's instructions.

3.04 CLEANING

- A. Remove temporary coverings and protection of adjacent work areas.
- B. Touch-up, repair or replace damaged products.
- C. Clean in accordance with manufacturer's instructions prior to Substantial Completion.
- D. Remove construction debris from project site and legally dispose of debris.

3.05 PROTECTION

- A. Protect installed products until completion of project.
- B. Touch-up, repair or replace damaged products before Substantial Completion.

--- END ---

SECTION 07 92 00
JOINT SEALANTS

PART 1 GENERAL

1.01 SUBMITTALS

- A. See section 01 38 00 - submittal procedures, for submittal procedures.
- B. Preconstruction laboratory test reports: submit at least four weeks prior to start of installation.
- C. Preinstallation field adhesion test reports: submit field out preinstallation field adhesion test reports log within 10 days after completion of tests; include bagged test samples and photographic records.

1.02 QUALITY ASSURANCE

- A. Manufacturer qualifications: company specializing in manufacturing the products specified in this section with minimum three years documented experience.
- B. Installer qualifications: company specializing in performing the work of this section and with at least three years of documented experience and approved by manufacturer. Reconstruction laboratory testing: arrange for sealant manufacturer(s) to test each combination of sealant, substrate, backing, and accessories.
 - 1. Adhesion testing: in accordance with ASTM C794.
 - 2. Compatibility testing: in accordance with ASTM C1087.
 - 3. Allow sufficient time for testing to avoid delaying the work.
 - 4. Deliver to manufacturer sufficient samples for testing.
 - 5. Report manufacturer's recommended corrective measures, if any, including primers or techniques not indicated in product data submittals.
 - 6. Testing is not required if sealant manufacturer provides data showing previous testing, not older than 24 months, that shows satisfactory adhesion, lack of staining, and compatibility.
- C. Pre-installation conference: the contractor shall hold a preinstallation conference at the job site with all trades affected by the work of this section, to include representatives from the manufacturer and installer, at least two weeks prior to commencement of such work. The contractor shall advise the architect and the owner's representative at least three working days prior to the date of the meeting. The purpose of the meeting is to ensure the following:
 - 1. Clear understanding of drawings, specifications and approved submittal data
 - 2. Onsite inspection and acceptance of existing conditions
 - 3. Means and methods of installation
 - 4. Coordination with the work of other trades
 - 5. Schedule, delivery, storage and protection of all materials relating to the work of this section
 - 6. The contractor shall take and distribute minutes of the meeting to those in attendance within five working days thereafter.

- D. Preinstallation field adhesion test plan: include destructive field adhesion testing of one sample of each combination of sealant type and substrate, except interior acrylic latex sealants, and include the following for each tested sample.
1. Identification of testing agency.
 2. Name(s) of sealant manufacturers' field representatives you will be observing.
 3. Preinstallation field adhesion test log form: include the following data fields, with known information filled out.
 - a. Test date.
 - b. Copy of test method documents.
 - c. Age of sealant upon date of testing.
 - d. Test results, modeled after the sample form in the test method document.
 - e. Indicate use of photographic record of test.
- E. Owner will employ an independent testing agency to perform the field quality control inspection and testing as referenced in part 3 of this section and as follows, to prepare and submit the field quality control plan and log, and to provide recommendations of remedies in the case of failure.
1. The contractor shall cooperate with the testing agency and repair failures discovered and destructive test location damage.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Non-sag sealants: permits application in joints on vertical surfaces without sagging or slumping.
1. BASF Construction Chemicals-Building Systems: www.buildingsystems.basf.com
 2. Dow coming corporation: www.dowcoming.com/construction/sle
<<http://www.dowcoming.com/construction/sle>>
 3. Pecora corporation: www.pecora.com
 4. Tremco global sealants: www.tremcosealants.com
 5. USG: www.usg.com
 6. Sherwin-Williams: www.sherwin-williams.com
 7. Substitutions: see section 01 25 13 - product substitution procedures.
- B. Self-leveling sealants: pourable or self-leveling sealant that has sufficient flow to form a smooth, level surface when applied in a horizontal joint.
1. BASF construction chemicals-building systems: www.buildingsystems.basf.com
 2. Dow coming corporation: www.dowcoming.com/construction/sle
<http://www.dowcoming.com/construction/sle>
 3. Pecora corporation: www.pecora.com
 4. Tremco global sealants: www.tremcosealants.com
 5. Substitutions: see section 01 25 13 - product substitution procedures.

2.02 JOINT SEALANT APPLICATIONS

- A. Scope:

1. Interior joints: do not seal interior joints unless specifically indicated to be sealed. Interior joints to be sealed include, but are not limited to, the following items.
 - a. Joints between door, window, and other frames and adjacent construction.
 - b. In sound-rated wall and ceiling assemblies, gaps at electrical outlets, wiring devices, piping, and other openings; between wall/ceiling and other construction; and other flanking sound paths.
 2. exception: through-penetrations in sound-rated assemblies that are also fire-rated assemblies.
 - a. Other joints indicated below.
 3. Do not seal the following types of joints.
 - a. Joints indicated to be treated with manufactured expansion joint cover or some other type of sealing device.
 - b. Joints where sealant is specified to be provided by manufacturer of product to be sealed.
 - c. Joints where installation of sealant is specified in another section.
 - d. Joints between suspended panel ceilings/grid and walls.
- B. Interior joints: use nonsag, acrylic emulsion latex sealant, unless otherwise indicated.
1. Wall and ceiling joints in non-wet areas: acrylics emulsion latex sealant.
 2. Wall and ceiling joints in wet areas: non-sag polyurethane sealant for continuous liquid immersion.
 3. Floor joints in wet areas: non-sag polyurethane “non-traffic grade” sealant suitable for continuous liquid immersion.
 4. Wall, ceiling, and floor joints where tamper-resistance is required: non-sag tamper-resistant silyl-terminated polyurethane sealant.
 5. Joints between fixtures in wet areas and floors, walls, and ceilings: mildew-resistant silicone sealant; white
 6. In sound-rated assemblies: acrylic emulsion latex sealant
 7. Narrow control joints in interior concrete slabs: self-leveling epoxy sealant.
 8. Other floor joints: self-leveling polyurethane “traffic-grade” sealant.
- C. Interior wet areas: bathrooms, restrooms, kitchens, food service areas, and food processing areas; fixtures in wet areas include plumbing fixtures, food service equipment, countertops, cabinets, and other similar items.
- D. Sound-rated assemblies: walls and ceilings identified as “stated”, “sound-rated”, or “acoustical”.

1.03 JOINT SEALANTS-GENERAL

- A. Sealants and primers: provide products having lower volatile organic compound (VOC) content than indicated in SCAQMD 1168.

2.04 NONSAG JOINT SEALANTS

- A. Mildew-resistant silicone sealant: ASTM c920, gradens, uses m and a; single

component, mildew resistant; not expected to withstand continuous water immersion or traffic.

1. Color: white
2. Manufacturers:

- a. Pecora corporation; 898nst sanitary silicone sealant-class 50:
www.pecora.com
- b. Base construction chemicals-buildings systems; Sonneborn Omni plus silicone sealant: www.buildingsystems.basf.com
- c. Dow Corning Corporation; 786 silicone sealant: www.dowcoming.com.
- d. Substitutions: see section 01 25 13-product substitution procedures.

- B. Tamper-resistant, silyl-terminated polyurethane (STPU) sealant: ASTM c920, grade ns, uses m and a; single component; not expected to withstand continuous water immersion or traffic.

1. Movement capability: plus and minus 12-1/2 percent, minimum.
2. Hardness range: 50 to 60, shore a, when tested in accordance with ASTM c661.
3. Color: manufacturer's standard white
4. Service temperature range: minus 40 to 180 degrees f.
5. Manufacturers:

- a. Pecora corporation; Dyn flex SC polyurethane STPU security sealant:
www.pecora.com
- b. Substitutions: see section 01 25 13 - product substitution procedures.

- C. Acrylic emulsion latex: water-based; ASTM c834, single component, non-staining, non-bleeding, non-segging; not intended for exterior use.

1. Color: manufacturer's standard white, type op (opaque).
2. Grade: ASTM c834; grade - nf.
3. Manufacturers:

- a. Pecora corporations: ac-20 +silicone acrylic latex caulking compounds:
www.pecora.com
- b. Sherwin-Williams company; 950a siliconized acrylic latex caulk:
www.sherwin-williams.com
- c. Tremco global sealants; TREMFLEX 834 siliconized interior acrylic latex sealant: www.tremcosealants.com
- d. Tremco global sealants; synthetic rubber acoustical sealant:
www.tremcosealants.com
- e. USG; sheetrock brand acoustical sealant: www.usg.com
- f. BASF construction chemicals-buildings systems; Sonneborn Sonolac general-purpose siliconized acrylic latex caulk:
www.buildingsystems.basf.com
- g. Substitutions: see section 01 25 13 - product substitution procedures.

2.05 SELF-LEVELING SEALANTS

- A. Semi-rigid self-leveling epoxy joint filler: epoxy or epoxy/polyurethane copolymer; intended for filling cracks and control joints not subject to significant movement; rigid enough to support concrete edges under traffic.

1. Composition: multi-component, 100 percent solids by weight.
2. Hardness: minimum of 85 (shore a) or 35 (shore d), when tested in accordance with ASTM d2240 after 7 days.
3. Color: concrete gray
4. Joint width, minimum: 1/8 inch.
5. Manufacturers:
 - a. Dayton superior corporation; pro-poxy p606: www.daytonsuperior.com
 - b. Nox-Crete; DYNAFLEX 502: www.nox-crete.com
 - c. W.R. meadows, Inc; REZI-weld flex: www.wmeadows.com/sle.
 - d. Substitutions: see section 01 25 13 - product substitution procedures.

2.06 ACCESSORIES

- A. Backer rod: cylindrical cellular foam rod with surface that sealant will not adhere to, compatible with specific sealant used, and recommended by backing and sealant manufacturers for specific application.
 1. Type for joints not subject to pedestrian or vehicular traffic: ASTM c1330; type o-open cell polyurethane.
 - a. Use at locations receiving silicone sealant like curtain wall, in order to allow for sealant to cure in both directions.
 2. Type for joints subject to pedestrian or vehicular traffic: ASTM c1330; type c-closed cell polyethylene.
 3. Open cell: 40 to 50 percent larger in diameter than joint width.
 4. Closed cell and bi-cellular: 25 to 33 percent larger in diameter than joint width.
- B. Backing tape: self-adhesive polyethylene tape with surface that sealant will not adhere to and recommended by tape and sealant manufacturers for specific application.
- C. Masking tape: self-adhesive, nonabsorbent, non-staining, removable without adhesive residue, and compatible with surfaces adjacent to joints and sealants.
- D. Joint cleaner: non-corrosive and non-staining type, recommended by sealant manufacturer; compatible with joint forming materials.
- E. Primers: type recommended by sealant manufacturers to suit application; non-staining.
- F. Weep hole vent: used horizontally as a weep hole, cut to fit, in 3/4 inch to 1-inch-wide joints in precast or tilt-up concrete panels.
 1. Products:
 - a. Hohmann & Barnard, Inc. ; product: qv - Quadro-vent.
 - b. Wire-bond; product: cell vent (3601).
 - c. Substitutions: see section 01 25 13 product substitution procedures.
 2. Finishes: to be selected by architect from manufacturer's standard range of colors.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that joints are ready to receive work.
- B. Verify that backing materials are compatible with sealants.
- C. Verify that backer rods are of the correct size.
- D. Preinstallation adhesion testing: install a sample for each test location shown in the test plan.
 - 1. Test each sample as specified in part 1 under quality assurance article.
 - 2. Notify architect of date and time that test will be performed, at least 7 days in advance.
 - 3. Arrange for sealant manufacturer's technical representative to be present during test.
 - 4. Record each test on preinstallation adhesion test log as indicated.
 - 5. If any sample fails, review products and installation procedure, consult manufacturer, or take whatever other measures are necessary to ensure adhesion; re-test in a different location; if unable to obtain satisfactory adhesion, report to architect.
 - 6. After completion of tests, remove remaining sample material and prepare joint for new sealant installation.

3.02 PREPARATION

- A. Remove loose materials and foreign matter that could impair adhesion of sealant.
- B. Clean joints, and prime as necessary, in accordance with manufacturer's instructions.
- C. Perform preparation in accordance with manufacturer's instructions and ASTM c1193.
 - 1. At any structural silicone sealant locations that require the use of a two-part fast-cure type in contact with a high performance organic coating, special substrate preparation requirements shall include:
 - a. Alcohol-soaked "SCOTCH-BRITE" pads.
 - b. Painted surface shall be abraded using the pad, and then wiped clean with a lint-free rag.
 - c. No structurally glazed unit shall be moved prior to sample testing that shows 100% cohesion has been achieved.
- D. Mask elements and surfaces adjacent to joints from damaged and disfigurement due to sealant work, be aware that sealant drips and smears may not be completely removable.
- E. Concrete floor joints that will be exposed in completed work: test joint filler in inconspicuous area to verify that it does not stain or discolor slab.

3.03 INSTALLATION

- A. Perform work in accordance with sealant manufacturer's requirements for preparation of surface and material installation instruction.
- B. Perform installation in accordance with ASTM c1193.
- C. Perform acoustical sealant application work in accordance with ASTM c919.
- D. When using back-up tube or rod stock, avoid lengthwise stretching of material; do not twist or braid tube or rod back-up stock.
- E. Measure joint dimensions and size joint backers to achieve width-to-depth ratio, neck dimension, and surface bond area as recommended by manufacturer, except where specific dimensions are indicated.

1. Where sealant joint widths or depth between adjoining trades are installed which doesn't comply with sealant manufacturer's recommendations, request direction from architect on how to proceed.
- F. Installation tool:
 1. For installing back-up material, provide a blunt surface tool of wood or plastic, having shoulders designed to ride on the adjacent finished surface and a protrusion of the required dimensions to assure uniform depth of back-up material below the sealant.
 2. Do not, under any circumstances, use a screwdriver or similar tool for this purpose.
 3. Using the approved tool, smoothly and uniformly place the back-up material to the depth indicated on the drawings or otherwise required, compressing the back-up material 25% to 50% and securing a positive fit.
- G. Priming: use only the primer approved by the sealant manufacturer for the particular application. Apply in strict accordance with the manufacturer's recommendations.
- H. Install bond breaker backing tape where backer rod cannot be used.
- I. Install sealant free of air pockets, foreign embedded matter, ridges, and sags, and without getting sealant on adjacent surfaces.
- J. Do not install sealant when ambient temperature is outside manufacturer's recommended temperature range or will be outside that range during the entire curing period, unless manufacturer's approval is obtained and instructions are followed.
- K. Nonsag sealant: tool surface concave, unless otherwise indicated; remove masking tape immediately after tooling sealant surface.
 1. Tool joints to form smooth, uniform beads with slightly concave surfaces. Finish joints shall be straight, uniform, smooth and neatly finished. Remove any excess sealant from adjacent surface of joint, leaving the work in a meet. Clean condition.
 - a. Tooling agents should only be used if recommended by the sealant manufacturer.
 2. Where an irregular surface or sensitive joint border exist, the applicator shall apply masking tape at the edge of the joint to insure joint neatness and protection. Tape to be removed after sealant is applied.
- L. Concrete floor joint filler: after full cure, shave joint filler flush with the top of concrete slab.

3.04 FIELD QUALITY CONTROL

- A. Owner will employ an independent testing agency to perform field quality control inspection and testing as specified in part 1 under quality assurance article.
- B. Remove and replace failed portions of sealants using same materials and procedures as indicated for original installation.
- C. Repair destructive test location damage immediately after evaluation and recording of results.

3.05 CLEANING

- A. Remove masking tape immediately after joints have been tooled.
 - 1. Clean adjacent surfaces free from sealant as the application progresses, using solvent or cleaning agent recommended by manufacturer of the sealant used.
 - 2. Upon completion of the work of this section, promptly remove from the job site all debris, empty containers and surplus material derived from this portion of the work.

3.06 POST-OCCUPANCY

- A. Post-occupancy inspection: perform visual inspection of entire length of project sealant joints at a time that joints have opened to their greatest width; i.e. at the low temperature in the thermal cycle. Report failures immediately and repair.

--- END ---

08 00 00 OPENINGS

**SECTION 08 11 13
HOLLOW METAL DOORS AND FRAMES**

PART 1 GENERAL

1.01 SUBMITTALS

- A. Product data: materials and details of design and construction, hardware locations, reinforcement type and locations, anchorage and fastening methods, and finishes; and one copy of referenced standards/guidelines.
- B. Shop drawings:
 - 1. Shop drawings to include fabrication and installation of all steel doors and frames. Include details of each frame type, elevations of door design types, gauges, conditions at openings, details of construction, locations and reinforcements and details of joints and connections. Show anchorage items and accessory items.
- C. Label construction certification: submit manufacturer's certification for borrowed light frames and fire-rated doors and frames that each assembly has been constructed with materials equivalent to requirements for labeled construction.

1.02 QUALITY ASSURANCE

- A. Manufacturer qualifications: company specializing in manufacturing the products specified in this section with minimum five years documented experience.
- B. Pre-installation conference: the contractor shall hold a preinstallation conference at the job site with all trades affected by the work of this section, to include representative from the manufacturer and installer, at least two weeks prior to commencement of such work. The contractor shall advise the architect and the owner's representative at least three working days prior to the date of the meeting- the purpose of the meeting is to ensure the following:
 - 1. Clear understanding of drawings, specifications and approved submittal data
 - 2. Onsite inspection and acceptance of existing conditions
 - 3. Means and methods of installation
 - 4. Coordination with the work of other trades
 - 5. Schedule, delivery, storage and protection of all materials relating to the work of this section.
 - 6. The contractor shall take and distribute minutes of the meeting to those in attendance within five working days thereafter.

1.03 WARRANTY

- A. See section 01 78 36 - warranties, guarantees and bonds.
- B. All steel doors and frames shall be guaranteed against failure due to faulty materials and workmanship for a period of five (5) years from date of substantial completion of the project except that frame and door reinforcement for hinges shall be guaranteed for life of the building.

- C. Provide two year installer warranty to repair or replace materials due to defective installation.

1.04 DELIVERY, STORAGE, AND HANDLING

- A. Comply with NAAMM HMMA 840 or ANSI/SDI a250.8 (SDI-100) in accordance with specified requirements
- B. Protect with resilient packaging: avoid humidity built-up under coverings; prevent corrosion and adverse effects on factory applied painted finish.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Hollow metal doors and frames:
 - 1. Ceco door, and ASSA ABLOY GROUP COMPANY: www.assaabloydss.com
 - 2. Republic doors: www.republicdoor.com
 - 3. Steelcraft, and Allegion brand: www.allegion.com/sle
 - 4. Basis for design: Curries
 - 5. Substitutions: not permitted.

2.02 DESIGN CRITERIA

- A. Requirements for hollow metal doors and frames:
 - 1. Steel used for fabrication of doors and frames shall comply with one or more of the following requirements; galvanized steel conforming to ASTM a653/a653m, cold-rolled steel conforming to ASTM a1008/a1008m, or hot-rolled pickled and oiled (HRPO) steel conforming to ASTM a1011/a1011m, commercial steel (cs) type b for each.
 - 2. Accessibility: comply with ICC a117.1 and ADA standards.
 - 3. Glazed lights: non-removable stops on non-secure side; sizes and configurations as indicated on drawings. Style: flush.
 - 4. Hardware preparations, selections and locations: comply with NAAMM HMMA 830 and NAAMM HMMA 831 or BHMA a156.115 and ANSI/SDI a250.8 (sdi-100) in accordance with specified requirements.
 - 5. Zinc coating for typical interior and/or exterior locations: provide metal components zinc-coated (galvanized) and/or zinciron alloy-coated (galvanized) by the hot-dip process in accordance with ASTM a653/a653m, with manufacturer's standard coating thickness, unless noted otherwise for specific hollow metal doors and frames.
 - a. Based on NAAMM HMMA custom guideline: provide at least a25/zf75 (galvanized) for interior applications, and at least a60/zf180 (galvanized) or g80/z180 (galvanized) for corrosive locations.
 - b. Combined requirements: if a particular door and frame unit is indicated to comply with more than one type of requirement comply with the specified requirements for each type; for instance, an exterior door that is also indicated as being sound-rated must comply with the requirements

specified for exterior door and for sound-rated doors; where two requirements conflict, comply with the most stringent.

2.03 HOLLOW METAL FRAMES

- A. Comply with standards and/or custom guidelines as indicated for corresponding door in accordance with applicable door frame requirements.
- B. Interior door frames, non-fire-rated: fully welded type.
 - 1. Frame metal thickness: 16 gage, 0.053 inch, minimum.
 - 2. Frame finish: factory primed and field finished
- C. Interior door frames, fire-rated: fully welded type.
 - 1. Fire rating: same as door, labeled.
 - 2. Frame metal thickness: 16 gage, 0.053 inch, minimum.
 - 3. Frame finish: factory primed and field finished.
- D. Frames for wood doors: comply with frame requirements in accordance with corresponding door.
- E. Borrowed lites glazing frames: construction and face dimensions to match door frames, and as indicated on drawings.

2.04 ACCESSORIES

- A. Glazing: as specified in section 08 80 00, factory installed.
- B. Removable stops: formed sheet steel, shape as indicated on drawings, mitered or butted corners; prepared for countersink style tamper proof screws.
- C. Astragals for double doors: specified in section 08 71 00.
- D. Grout for frames: Portland cement grout with maximum 4 inch slump for hand troweling; thinner pumpable grout is prohibited.
- E. Silencers: resilient rubber, fitted into drilled hole; 3 on strike side of single door, 3 on center mullion of pairs, and 2 on head of pairs without center mullions.
- F. Temporary frame spreaders: provide for factory- or shop assembled frames.
- G. Reinforcements: manufacturer's standard and backed up with an angle, full width of reinforcement plate, welded to plate and frame for all closer and hinge plates. Install hinge reinforcing with backup, full height for double door frames to comply with warranty requirements specified herein.

2.05 FINISHES

- A. Primer: rust-inhibiting, complying with ANSI/SDI a250.10, door manufacturer's standard.
 - 1. Coordinate type of primer to assure adoptability with finish coatings. See section 09 91 23 interior painting.
- B. Bituminous coating: asphalt emulsion or other high-build, water resistant, resilient coating.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify existing conditions before starting work
- B. Verify that opening sizes and tolerance are acceptable.
- C. Verify that finished walls are in plane to ensure proper door alignment.

3.02 PREPARATION

- A. Shop apply water based bituminous coating at inside of the frame throats, before frames are delivered to the field, in order to mitigate the grout when and the drying process.

3.03 INSTALLATION - GENERAL

- A. Install doors and frames in accordance with manufacturer's instructions and related requirements of specified door and frame standards or custom guidelines indicated.
- B. Coordinate frame anchor placement with wall construction.
- C. Grout frames in masonry construction, using hand trowel methods; brace frames so that pressure of grout before setting will not deform frames.
- D. Install door hardware as specified in section 08 71 00.
- E. Comply with glazing installation requirements of section 08 80 00.
- F. Coordinate installation of electrical connections to electrical hardware items.
- G. Touch up damaged factory finishes.

3.04 FINISH HARDWARE PREPARATION

- A. Prepare doors and frames in accordance with ANSI/SDI a250.8 to receive mortised and concealed hardware in accordance with final finish hardware schedule and template provided by hardware supplier. Notify pre-finished door supplier of type hardware templates provided.
- B. Mortise and reinforce doors and frames with not less than 1/8" steel, drilled and tapped to receive the specified mortise hardware.
 - 1. Reinforcement for surface-applied hardware such as closer, brackets, stops, protective plates and similar items shall provide a tapping thickness of not less than 1/8".
 - a. Provide closer reinforcement on both sides of all doors and frames in exterior openings, openings, in fire rated partitions and in other interior openings that by function and/or as indicated in the applicable hardware sets are to have door closer.
 - b. On all doors and frames, provide not less than 10 gauge plates for hinge each way (i.e., hinge 4-1/2"; reinforcement 8-1/2"= 4-1/4" from center of hinge).
- C. Lockset reinforcement: for door and frame see table iv = ANSI/SDI a250.8.
 - 1. Example: mortise locksets, dead bolts, flush bolts, chains, bored or cylindrical locks, hold-open arms, panic devices; not less than 14 gauge.
- D. Locate finish hardware as shown on final shop drawing or if not shown, in accordance with "recommended locations for builder's hardware", published by door and hardware

institute.

3.05 FIELD QUALITY CONTROL

- A. See section 01 45 00 contractor's quality control for general requirements for field quality control and inspection.

3.06 TOLERANCES

- A. Clearances between door and frame: comply with related requirements of NAAMM HMMA 805.
- B. Maximum diagonal distortion: 1/16 in measured with straight edge, corner to corner.

3.07 ADJUSTING AND CLEANING

- A. Fastener filling: fill heads of exposed fasteners on doors and all frames with surface filler. Allow to harden and grind smooth.
- B. Prime coat touch-up: immediately after erection, sand smooth any rusted or damaged area of prime coat and apply touch-up of compatible air-drying primer.
- C. Final adjustment: check and readjust operating finish hardware items, leaving all steel doors and frames undamaged and in complete and proper operating conditions.
- D. Adjust for smooth and balanced door movement.
- E. Test sound control doors for force to close, latch, and unlatch; adjust as necessary in compliance with requirements.

--- END ---

**Section 08 14 16
FLUSH WOOD DOORS**

PART 1 GENERAL

1.01 SUBMITTALS

- A. Product data: indicate door core materials and construction; veneer species, type and characteristics.
- B. shop drawings: show doors and frames, elevations, sizes, types, swings, undercuts, beveling, blocking for hardware, factory machining, factory finishing, cutouts for glazing and other details.
- C. Samples: submit four samples of door veneer, 6 by 6 inch in size illustrating wood grain, stain color, and sheen.

1.02 QUALITY ASSURANCE

- A. Maintain one copy of the specified door quality standard on site for review during installation and finishing.
- B. Manufacturer qualifications: company specializing in manufacturing the products specified in this section, with not less than three years of documented experience.
- C. Company with at least one project within the past 5 years with value of woodwork within 20 percent of cost of woodwork for this project.
- D. Pre-installation conference: the contractor shall hold a preinstallation conference at the job site with all trades affected by the work of this section, to include representatives from the installer, at least two weeks prior to commencement of such work. The contractor shall advise the architect and the owner's representative at least three working days prior to the date of the meeting. The purpose of the meeting is to ensure the following:
 - 1. Clear understanding of drawings, specifications and approved submittal data.
 - 2. Onsite inspection and acceptance of existing conditions.
 - 3. Means and methods of installation
 - 4. Coordination with the work of other trades.
 - 5. Schedule, delivery, storage and protection of all materials relating to the work of this section.
 - 6. The contractor shall take and distribute minutes of the meeting to those in attendance within five working days thereafter.

1.03 DELIVERY, STORAGE AND HANDLING

- A. Package, deliver and store doors in accordance with specified quality standard.
- B. Accept doors on site in manufacturer's packaging. Inspect for damage.
- C. Protect doors with resilient packaging sealed with heat shrunk plastic, do not store in damp or wet areas; or in areas where sunlight might bleach veneer. Break seal on site to permit ventilation.

1.04 WARRANTY

- A. See section 01 78 36 – warranties, guarantees and bonds for additional warranty requirements.
- B. Interior doors: provide manufacturer's warranty for the life of the installation.
- C. Include coverage for delamination of veneer, warping beyond specified installation tolerances, defective materials, and telegraphing core construction.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Wood veneer faced doors:
 - 1. VT Industries.
 - 2. Eggers industries.
 - 3. Algoma doors.
 - 4. Marshfield door systems.
 - 5. Basis for design: Marshfield door systems.
 - 6. Substitutions: not permitted.

2.02 DOOR AND PANELS

- A. Doors: refer to drawings for locations and additional requirements.
 - 1. Quality level: custom grade, in accordance with WD,A i.s. 1a. Architectural wood flush door standards.
 - 2. Performance duty level: heavy duty level in accordance with ANSI/WDMA i.s. 1a.
 - 3. Wood veneer faced doors: 5-ply unless otherwise indicated.
- B. Interior doors: 1-3/4 inches thick unless otherwise indicates; flush construction
 - 1. provide solid core doors at each location
 - 2. fire-rated doors: tested to 20 minutes, 60 minutes, 90 minutes, and ratings as indicated on drawings in accordance with 1- positive pressure; 1 labeled without any visible seals when door is open.
 - 3. sound resistant doors with STC ratings as calculated in accordance with ASTM e413, tested in accordance with ASTM e1408.
 - 4. wood veneer facing with factory transparent finish as indicated on drawings.

2.03 DOOR AND PANEL CORES

- A. Non-rated solid core, 20 minute rated doors and C-45 minute rated doors as applicable: type particleboard core (pc), plies and faces as indicated above.
- B. Sound resistant doors: equivalent to type pc construction with core as required to achieve rating specified; plies and faces as indicated above.

2.04 DOOR FACINGS

- A. Wood veneer facing for transparent finish: species, grain, and stain to match existing adjacent doors.

1. Vertical edges: same species as face veneer.
2. “pair match” each pair of doors; “set match” pairs of doors within 10 feet of each other when doors are closed.
3. transoms: continuous match to doors.

2.05 DOOR CONSTRUCTION

- A. Fabricate doors in accordance with door quality standard specified.
- B. Where supplementary protective edge trim is required, install trim after veneer facing has been applied full-width.
- C. Factory machine doors for hardware other than surface-mounted hardware, in accordance with hardware requirements and dimensions.
- D. Factory fit doors for frame opening dimensions identified on shop drawings, with edge clearances in accordance with specified quality standard.
- E. Provide edge clearances in accordance with the quality standard specified.

2.06 FACTORY FINISHING – WOOD VENEER DOORS

- A. Finish work in accordance with WDMA i.s. 1a standards as follows:
 1. Transparent:
 - a. WDMA tr-6 catalyzed u/v cure polyurethane.
 - b. Stain: as selected by architect.
 - c. Sheen: satin.
- B. Factory finish doors in accordance with approved sample.

2.07 ACCESSORIES

- A. Glazing: as specified in section 08 80 00.
 1. Vision panel glass: provide vision panel glass in/on fire door assemblies per the following fire rating marking:
 - a. D-h-90 for 1-1/2-hr fire-rated door
 - b. D-h-nt-45 or d-h-45 for ¾-hr fire-rated door
 - c. D-h-20 or d-h-oh45 for 1/3-hr fire-rated door
 - d. Fire-rated glazing that exceeds the h (hose-stream) / (temperature)/xxx (minutes) fire-resistance marking are permitted, per Florida building code, 716.3.1
- B. Door hardware: as specified in section 08 71 00.
 1. Door hardware to include gasketing and thresholds specified in section 08 71 00 door hardware for sound resistant doors required to meet specified STC ratings.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify existing conditions before starting work.
- B. Verify that opening sizes and tolerances are acceptable.
- C. Do not install doors in frame openings that are not plumb or are out-of-tolerance for size or alignment.

3.02 INSTALLATION

- A. Install doors in accordance with manufacturer's instructions and specified quality standard.
- B. Do not field cut or trim; if fit or clearance is not correct, replace door.
- C. Use machine tools to cut or drill for hardware.
- D. Coordinate installation of doors with installation of frames and hardware.
- E. Install door louvers plumb and level.
- F. Install gasketing and thresholds for sound resistant doors.

3.03 TOLERANCES

- A. Conform to specified quality standard for fit and clearance tolerances.
- B. Conform to specified quality standard for telegraphing, warp, and squareness.

3.04 ADJUSTING

- A. Adjust doors for smooth and balanced door movement.
- B. Adjust closers for full closure.

3.05 CLEAN UP

- A. Periodically clean up and arrange removal of all debris resulting from work to assure a presentable job at all times. Following completion of this phase of the work, clean up all dirt and rubbish, remove from premises and leave the spaces broom clean.

--- END ---

SECTION 08 43 13
ALUMINUM-FRAMED STOREFRONTS

PARTS 1 GENERAL

1.01 SUBMITTALS

- A. See section 01 33 00 – submittal procedures.
- B. Product data: provide component dimensions, describe components within assembly, anchorage and fasteners, glass and infill, door hardware, and internal drainage details
- C. Shop drawings: indicate systema dimensions, framed opening requirements and tolerances, affected related work, expansion and contraction joint location and details, and field welding required.
- D. Design data: at exterior framing / door systems, provide framing member structural and physical characteristics, engineering calculations, and dimensional limitations.
- E. Hardware schedule: complete itemization of each item of hardware to be provided for each door, cross-referenced to door identification numbers in contract documents.

1.02 QUALITY ASSURANCE

- A. Designer qualifications: design structural support framing components under direct supervision of a professional structural engineer experienced in design of this work and licensed in the state in which the project is located.
- B. Manufacturer qualifications: company specializing in performing work of type specified and with at least three years of documented experience.

1.03 DELIVERY, STORAGE, AND HANDLING

- A. Handle products of this section in accordance with AAMA cw-10
- B. Protect finished aluminum surfaces with wrapping. Do not use adhesive papers or sprayed coatings that bond to aluminum when exposed to sunlight or weather.

1.04 FIELD CONDITIONS

- A. Do not install sealants when ambient temperature is less than 40 degrees F. maintain this minimum temperature during and 48 hours after installation.

1.05 WARRANTY

- A. Correct defective work within a five years period after date of substantial completion.

PART 2 PRODUCTS

2.01 BASIS OF DESIGN INTERIOR FRAMING

- A. Interior: center-set style:

1. Basis of design manufacturer: Kawneer; product: tri-fab 400.
 2. Vertical mullion dimensions: 1-1/2 inches by 4 inches deep.
- B. Other manufacturers: provide either the product identified as “basis of design” or an equivalent product of one of the manufacturers listed below:
1. YKK Ap America inc: www.ykkap.com <http://www.ykkap.com>
- C. Substitutions: see section 01 25 13 – product substitution procedures.
1. For any product not identified as “basis of design”, submit information as specified for substitution.

2.02 BASIS OF DESIGN – DOORS

- A. Interior: narrow stile, monolithic glazing:
1. Basis of design manufacturer: Kawneer; product: 350 medium stile entrance.
 2. Thickness: 1-3/4 inches.
- B. Other manufacturers: provide either the product identified as “basis of design” or an equivalent product of one of the manufacturer listed below:
1. YKK Ap America inc: www.ykkap.com <http://www.ykkap.com>

2.03 STOREFRONT

- A. Aluminum-framed storefront: factory fabricated, factory finished aluminum framing members with infill, and related flashing, anchorage and attachment devices.
1. Fabrication: joints and comers flush, hairline, and weatherproof, accurately fitted and secured; prepared to received anchors and hardware; fasteners and attachments concealed from view; reinforced as required for imposed loads.
 2. Construction: eliminate noises caused by wind and thermal movement, prevent vibration harmonics, and prevent “stack effect” in internal spaces.
 3. Movement: allow for movement between storefront and adjacent constructions, without damage to components or deterioration of seals.
 4. Perimeter clearance: minimize space between framing members and adjacent construction while allowing expected movement.

2.04 COMPONENTS

- A. Glazing: as specified in section 08 80 00.
- B. Swing doors: glazed aluminum.
1. Thickness: 1-3/4 inches.
 2. Finish: same as storefront.

2.05 MATERIALS

- A. Extruded aluminum: ASTM b221 (ASTM b221m).
- B. Structural steel sections: ASTM a36/a36m; shop primed.
- C. Exposed flashings: aluminum sheet, 20 gags, 0.032-inch minimum thickness; finish to match framing members.
- D. Shop and touch-up primer for steel components: zinc oxide, alkyd, linseed oil primer appropriate for use over hand cleaned steel.

2.06 FINISHES

- A. At interior locations:
 - 1. Class i natural anodized finish: AAMA 611 aa-m12c22a41 clear anodic coating not less than 0.7 mils thick.

2.07 HARDWARE

- A. For each door, include all sweep strip and threshold.
- B. Other door hardware: storefront manufacturer's standard type to suit application.
 - 1. Finish on hand-contacted items: polished stainless steel-us32, bright stainless steel.
 - 2. Finish on hinges: brushed/satin stainless – us32d, satin stainless steel.
 - 3. For each door, include butt hinges, pivots, push handle, pull handle, exit device, narrow stile handle latch, and closer.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify dimensions, tolerances, and method of attachment with other work.
- B. Verify that wall openings and adjoining air and vapor seal materials are ready to receive work of this section.

--- END ---

**SECTION 08 71 00
FINISH HARDWARE**

PART 1 GENERAL

1.01 RELATED DOCUMENTS

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

1.02 SECTION INCLUDES

- A. Hardware for wood, hollow metal, and aluminum doors.
- B. Thresholds, weatherstripping, seals, and door gaskets.
- C. Related Work Specified Elsewhere:
 - 1. Section 08110 - Steel Doors and Frames
 - 2. Section 08210 - Wood and Mirror Doors
 - 3. Section 08305 - Access Doors.
 - 4. Section 08360 - Overhead Doors.
 - 5. Section

1.03 SUBMITTALS

- A. Product Data: Submit manufacturers technical product data for each item of hardware in accordance with Division-1 section "Submittals". Include whatever information may be necessary to show compliance with requirements and include instructions for installation and for maintenance of operating parts and finishes.
- B. Shop Drawings & Templates: Indicate locations and mounting heights of each type of hardware, electrical characteristics, and connection requirements.
- C. Shop Drawings of electrified door hardware with Wiring Diagrams: Detail wiring for power, signal, and control systems and differentiate between manufacturer-installed and field-installed wiring.
 - 1. Detail interface between electrified door hardware and fire alarm and security access system.
- D. Hardware Schedule: Submit final hardware schedule in manner indicated below. Coordinate hardware with doors, frames and related work to ensure proper size, thickness, hand, function and finish of hardware.
 - 1. Final Hardware Schedule Content: Based on finish hardware indicated, organize hardware schedule into "hardware sets" indicating complete designation of every item required for each door or opening. include the following information:
 - a. Type, style, function, size and finish of each hardware item.
 - b. Name and manufacturer of each item.
 - c. Fastenings and other pertinent information.

- d. Location of hardware set cross-referenced to indications on Drawings both on floor plans and in door and frame schedule.
 - e. Explanation of all abbreviations, symbols, codes, etc. contained in schedule.
 - f. Mounting locations for hardware.
 - g. Door and frame sizes and materials.
 - h. Keying information.
- E. Samples: Prior to submittal of the final hardware schedule and prior to final ordering of finish hardware, submit one sample of each type of exposed hardware unit, finished as required, and tagged with full description for coordination with schedule. Return samples to supplier.
- F. Operating and Maintenance instructions: include data on operating hardware, lubrication requirements, and inspection procedures related to preventative maintenance.

1.04 QUALITY ASSURANCE

- A. Perform Work in accordance with ANSI A 117.1 - Specifications for Making Buildings and Facilities Accessible to and Usable by Physically Handicapped People.
- B. Hardware Supplier: Company specializing in supplying commercial and residential door hardware with five (5) years documented experience and approved by manufacturer.
 - 1. Door hardware supplier with warehousing facilities in Project's vicinity and who is or employs a qualified Architectural Hardware Consultant, available during the course of the Work to consult with Contractor, Architect, and Owner about door hardware and keying.
 - 2. Electrified Door Hardware Supplier Qualification: An experienced door hardware supplier who has completed projects with electrified door hardware similar in material, design, and extent to that indicated for this Project, whose work has resulted in construction with a record of successful in-service performance, and who is acceptable to manufacturer of primary materials.
 - 3. Scheduling Responsibility: Preparation of door hardware and keying schedules.
- C. Fire-Rated Openings: Provide hardware for fire-rated openings in compliance with NFPA Standard No. 80 and local building code requirements. Provide only hardware which has been tested and listed by UL or FM for types and sizes of doors required and complies with requirements of door and door frame labels.
- D. Manufacturer: Obtain each type of hardware (latch and lock sets, hinges, closers, etc.) from a single manufacturer, although several may be indicated as offering products complying with requirements.

- E. Codes & Standards: Provide products complying with these standards and requirements specified elsewhere in this section
 - 1. Butts and Hinges: BHMA A156.1.
 - 2. Locks and Lock Trim: BHMA A156.2.
 - 3. Exit Devices: BHMA A156.3.
 - 4. Door Controls - Closers: BHMA A156.4.
 - 5. Architectural Door Trim: BHMA A156.6.
 - 6. Template Hinge Dimensions: BHMA A156.7.
 - 7. Door Controls - Overhead Holders: BHMA A156.8.
 - 8. Sliding & Folding Door Hardware: BHMA A156.14.
 - 9. Closer Holder Release Devices: BHMA A156.15.
 - 10. Auxiliary Hardware: BHMA A156.16.
 - 11. Self-Closing Hinges & Pivots: BHMA A156.17.
 - 12. Materials & Finishes: BHMA A156.18.
 - 13. Electromagnetic Locks: BHMA A156.23.

1.05 COORDINATION

- A. Coordinate work of this section with other directly affected sections requiring any integral reinforcement for door hardware.
- B. Electrical System Roughing-in: Coordinate layout and installation of electrified door hardware with connections to fire alarm system and detection devices, access control & security systems.
- C. Responsibilities of Finish Hardware Supplier:
 - 1. Submittals: Provide through Contractor required Product Data, Final Hardware Schedule, Separate Keying Schedule (if required), and samples as specified in Part 1 - General of this section, unless otherwise indicated.
 - 2. Construction Schedule: inform Contractor at earliest possible date of estimated times and dates to process submittals, to furnish templates, to deliver hardware, and to perform other work associated with furnishing Finish Hardware for purposes of including in construction progress schedule and then comply with this schedule.
 - 3. Coordination and Templates: Assist Contractor as required to coordinate hardware with other work in respect to both fabrication and installation. Furnish Contractor with templates and deliver hardware to proper locations.
 - 4. Product Handling: Package, identify, deliver, and inventory hardware.
 - 5. Discrepancies: Based on requirements indicated in Contract Documents in effect at time of hardware selection, furnish proper types, finishes, and quantities of finish hardware, including fasteners, and Owner's maintenance tools; and furnish or replace any items of finish hardware resulting from shortages and incorrect items, at no cost to the Owner or Contractor. Obtain signed receipts from Contractor for all delivered materials.

1.06 DELIVERY, STORAGE, AND HANDLING

- A. Package hardware items individually. Label and identify package with door opening code to match schedule.
- B. Packaging of hardware is responsibility of supplier. As material is received by hardware supplier from various manufacturers, sort and repackage in containers clearly marked with appropriate hardware set number to match set numbers of approved hardware schedule. Two or more identical sets may be packaged in same container.
- C. Deliver templates and hardware required for shop application to the factory of the respective fabricators, at Supplier's expense, and in ample time not to impede the progress of their work.
- D. Deliver keys to Owner by security shipment direct from hardware supplier.
- E. Provide secure lock-up for hardware delivered to the project, but not yet installed. Control handling and installation of hardware items which are not immediately replaceable, so that completion of the work will not be delayed by hardware losses, both before and after installation.

1.07 MAINTENANCE

- A. Provide manufacturer's maintenance services on door closers for one year from Date of Final Completion.
- B. Maintenance Tools and Instructions: Furnish a complete set of specialized tools and maintenance instructions as needed for Owner's continued adjustment, maintenance, and removal and replacement of door hardware.

1.08 WARRANTY

- A. General Warranty: The special warranty specified in this Article shall not deprive the Owner of other rights the Owner may have under other provisions of the Contract Documents and shall be in addition to, and run concurrent with, other warranties made by the Contractor under requirements of the Contract Documents, including but not limited to requirements of State of Florida Statute Article 718-203.
- B. Special Warranty: Written warranty, executed by manufacturer agreeing to repair or replace components of door hardware that fail in materials or workmanship within specified warranty period. Failures include, but are not limited to, the following:
 - 1. Structural failures including excessive deflection, cracking, or breakage.
 - 2. Faulty operation of operators and door hardware.
 - 3. Deterioration of metals, metal finishes, and other materials beyond normal weathering.
- C. Warranty Period: Three (3) years from date of Final Completion, unless otherwise indicated.

- D. Warranty Period for Manual Closers: Ten (10) years from date of Final Completion subject to Owner acceptance.
- E. Warranty Period for Concealed Floor Closers: Five (5) years from date of Final Completion subject to Owner acceptance.

PART 2 PRODUCTS

2.01 PRODUCTS

A. ACCEPTABLE MANUFACTURERS

- 1. Hinges: Hager
- 2. Deadbolts: Emtek.
- 3. Unit Entry Door Mortise Locks: Emtek, model selection by Owner.
- 4. Unit Interior Door Leversets: Emtek, model selection by Owner.
- 5. Public Area Doors Mortise Locks: Emtek, model selection by Owner.
- 6. Back of House Leversets: Emtek, model selection by Owner.
- 7. Wall Stops, Flush Bolts: Ives
- 8. Door Closers: LCN; Dorma
- 9. Kick Plates: Rockwood
- 10. Thresholds/Weatherstripping: Pemko

2.02 KEYING

- A. Door Locks: keying as described in paragraph 3.4 to Owner's satisfaction.
 - 1. When locks are provided by the door manufacturer, provide cylinders master keyed to the system designated by Owner, or keyed alike to the residential unit in which the lock occurs.

2.03 FABRICATION

- A. Manufacturer's Nameplate: Do not provide manufacturers' products that have manufacturer's name or trade name displayed in a visible location (omit removable nameplates) except in conjunction with required fire-rated labels and as otherwise approved by Architect.
 - 1. Manufacturer's identification will be permitted on rim of lock cylinders only.
- B. Base Metals: Produce door hardware units of base metal, fabricated by forming method indicated, using manufacturer's standard metal alloy, composition, temper, and hardness. Furnish metals of a quality equal to or greater than that of specified door hardware units and BHMA A 156.18 for finishes. Do not furnish manufacturer's standard materials or forming methods if different from specified standard.
- C. Fasteners: Provide door hardware manufactured to comply with published templates generally prepared for machine, wood, and sheet metal screws. Provide screws according to commercially recognized industry standards for application

intended. Provide Phillips flat-head screws with finished heads to match surface of door hardware, unless otherwise indicated.

1. Concealed Fasteners: For door hardware units that are exposed when door is closed, except for units already specified with concealed fasteners. Do not use through bolts for installation where bolt head or nut on opposite face is exposed unless it is the only means of securely attaching the door hardware. Where through bolts are used on hollow door and frame construction, provide sleeves for each through bolt.
2. Fasteners for Wood Doors: Comply with requirements of DHI WDHS.2, "Recommended Fasteners for Wood Doors."

2.04 FINISHES

- A. Comply with BHMA A 156.18. Finishes to be selected by Owner/Architect.
 1. Hinges at Unit Entry doors and Common Area doors to match finish hardware.
 2. Hinges on Unit Interior doors to be paint grade.
 3. Closers at Common Area doors to match finish hardware. If closer finish cannot match door finish hardware provide white ESP finish.
- B. Protect mechanical finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.
- C. Appearance of Finished Work: Variations in appearance of abutting or adjacent pieces are acceptable if they are within one-half of the range of approved Samples. Noticeable variations in the same piece are not acceptable. Variations in appearance of other components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.

PART 3 EXECUTION

3.01 FINISH HARDWARE SCHEDULE PREPARATION

- A. The Owner will select a Supplier acceptable to the Contractor, who will prepare a schedule for review and approval by the Architect and the Owner, and obtain approval for the price which will be charged against the allowance.
- B. The Supplier will provide 6 copies of the complete approved schedule to the Contractor, together with the price.
- C. Contractor will then proceed to order the hardware from the designated Supplier, exactly as scheduled; furnish copies of the Schedule and distribute templates to Subcontractors and other parties involved, check the deliveries against the schedule, issue receipts and pay for the delivered items, after which he shall be solely responsible for their storage and care, and replace any shortage or damage without cost to the Owner.

3.02 EXAMINATION AND PREPARATION

- A. Verify that doors and frames are ready to receive work and dimensions are as instructed by the manufacturer.
- B. Examine roughing-in for electrical power systems to verify actual locations of wiring connections before electrified door hardware installation.

3.03 INSTALLATION

- A. Install each hardware item in compliance with the manufacturer's instructions and recommendations. Wherever cutting and fitting is required to install hardware onto or into surfaces which are later to be painted or finished in another way, coordinate removal, storage and reinstallation or application of surface protections with finishing work specified in the Division-9 sections. Do not install surface-mounted items until finishes have been completed on the substrate.
- B. Use templates provided by hardware item manufacturer.
- C. Mount Hardware units at heights indicated in "Recommended Locations for Builders Hardware for Standard Steel Doors and Frames" and DHI WDHS.3, "Recommended Locations for Architectural Hardware for Wood Flush Doors." by the Door and Hardware institute, except as specifically indicated or required to comply with governing regulations, and except as may be otherwise directed by Architect/Owner.
 - 1. Dead latches to be at same height as lever latches.
- D. Set units level, plumb and true to line and location. Adjust and reinforce the attachment substrate as necessary for proper installation and operation.
- E. Drill and countersink units which are not factory-prepared for anchorage fasteners. Space fasteners and anchors in accordance with industry standards.
- F. Set thresholds for exterior doors in full bed of butyl-rubber or polyisobutylene mastic sealant.

3.04 KEYING

- A. Key locksets and cylinders as directed by Owner.
- B. Furnish two individual keys for each lock, and two master keys for each system.
- C. Provide construction master key system. Supplier shall deliver permanent keys directly to Owner's authorized representative in the key cabinet specified, arranged in a system approved by Owner, each set identified by tagging. All components to be in new condition.

3.05 ADJUST & CLEAN

- A. At final completion, leave hardware clean and without disfigurement. Supplier will then have a competent Architectural Hardware Consultant check the work to ensure that hardware is properly installed, keying is as scheduled, and functions are being performed as intended. Correct deficiencies noted in the inspection before final completion of the project.

- B. Adjust and check each operating item of hardware and each door, to ensure proper operation or function of every unit. Replace units which cannot be adjusted to operate freely and smoothly as intended for the application made.
 - 1. Spring Hinges: Adjust to achieve positive latching when door is allowed to close freely from an open position of 30 degrees.
 - 2. Door Closers: Adjust sweep period so that, from an open position of 70 degrees, the door will take at least 3 seconds to move to a point 3 inches from the latch, measured to the leading edge of the door.
- C. Clean adjacent surfaces soiled by hardware installation.
- D. Final Adjustment: Wherever hardware installation is made more than one month prior to acceptance or occupancy of a space or area, return to the work during the week prior to acceptance or occupancy, and make final check and adjustment of all hardware items in such space or area. Clean operating items as necessary to restore proper function and finish of hardware and doors. Adjust door control devices to compensate for final operation of heating and ventilating equipment.
- E. Continued Maintenance Service: Approximately six months after the acceptance of hardware in each area, the installer, accompanied by the representative of the latch and lock manufacturer, shall return to the project and re-adjust every item of hardware to restore proper function of doors and hardware. Consult with and instruct Owner's personnel in recommended additions to the maintenance procedures. Replace hardware items which have deteriorated or failed due to faulty design, materials or installation of hardware units. Prepare a written report of current and predictable problems (of substantial nature) in the performance of the hardware.

--- END ---

09 00 00 FINISHES

**SECTION 09 21 16
GYPSUM BOARD ASSEMBLIES**

PART 1 GENERAL

1. Onsite inspection and acceptance of existing conditions
2. Means and methods of installation.
3. Coordination with the work of other trades.
4. Schedule, delivery, storage and protection of all materials relating to the work of this section.
5. The contractor shall take and distribute minutes of the meeting to those in attendance within five working days thereafter.

PART 2 PRODUCTS

2.01 GYPSUM BOARD ASSEMBLIES

- A. Provide completed assemblies complying with ASTM C840 and GA-216.
 1. See part 3 for finishing requirements.
- B. Interior partitions indicated as acoustic: provide with the following characteristics:
 1. Acoustic attenuation: STC as indicated, calculated in accordance with ASTM e413, based on test conducted in accordance with ASTM e90.
- C. Shaft walls at HVAC shafts: provide completed assemblies with the following characteristics:
 1. Air pressure within shaft: sustained loads of 5 lb./sq ft with maximum mid-span deflection of l/240.
 2. Acoustic attenuation: STC of 45-49 calculated in accordance with ASTM e413, based on tests conducted in accordance with ASTM e90.
- D. Shaft walls at elevator shafts: provide completed assemblies with the following characteristics:
 1. Air pressure within shaft: intermittent loads of 5 lb./sq ft with maximum mid-span deflection of l/360.
 2. Acoustic attenuation: STC of 45-49 calculated in accordance with ASTM e413, based on tests conducted in accordance with ASTM e90.

2.02 METAL FRAMING MATERIALS

- A. Manufacturers - metal framing, connectors, and accessories:
 1. Clark Dietrich building systems.
 2. Marino ware.
 3. Steel-con.
 4. Scafco.
 5. Telling Industries.

- B. Non-load-bearing framing system components: galvanized sheet steel, of size and properties necessary to comply with ASTM c645 and ASTM c754, with maximum deflection of wall framing of $\frac{1}{240}$ at 5 psf.
 - 1. Studs: "C" shaped with flat or formed webs with knurled faces, 20 gauge, spaced 16 inches on-center, unless otherwise permitted per ASTM c754.
 - 2. Runners: u shaped, sized to match studs.
Furring: hat-shaped sections, minimum depth of $\frac{7}{8}$ inch.
- C. Shaft wall studs and accessories: ASTM c645; galvanized sheet steel, of size and properties necessary to comply with ASTM c754 and specified performance requirements.
 - 1. Manufacturers - shaft wall studs and accessories:
 - a. Same manufacturer as other framing materials.
- D. Partition head to structure connection: provide mechanical anchorage devices that accommodate deflection using slotted holes, screws and anti-friction bushings, preventing rotation of studs while maintaining structural performance of partition. Track shall have minimum 2-1/2-inch leg.
 - 1. Structural performance: maintain lateral load resistance and vertical movement capacity required by applicable code, when evaluated in accordance with AISI S100-12.
 - 2. Material: ASTM A653/A653m steel sheet, SS grade 50/340, with G60/Z180 hot dipped galvanized coating.
 - 3. Provide components UL-listed for use in UL-listed fire-rated head of partition joint systems indicated on drawings.
 - 4. Deflection and firestop track:
 - a. Provide mechanical anchorage devices as described above that accommodate deflection while maintaining the fire-rating of the wall assembly.
 - b. Products for fastening of studs to track:
 - 5. Fire track corporation; PosiKlip.
 - 6. Substitutions: not permitted.
 - a. Products for deflection tracks at non-rated partitions:
 - 7. Slip track systems, brady innovations; SLP-RK.
 - 8. Metal-lite, Inc; the system.
 - 9. Substitutions: see section 01 25 13 - product substitution procedures.
- E. Blocking; 3-inch x 20-gauge steel flat plate.
 - 1. Basis of design: Clark Dietrich; backing plate.
 - 2. Locations include, but not limited to: shelves, cabinets, fixtures, and handrails.
 - 3. Plumbing fixtures and architectural wood casework located in bariatric rooms (exam rooms, patient rooms, toilet rooms, etc.) Are required to withstand loading

of 1,000 lbs. Should backing plate not be adequate for this loading, a structural engineer licensed in the state of Florida shall provide adequate support at these locations; refer to article 1.02 for submittal requirements.

2.03 BOARD MATERIALS

A. Gypsum wall board: paper-faced gypsum panels as defined in ASTM c1396/c1396m; sizes to minimize joints in place; ends square cut.

1. Application: use for vertical surfaces and ceilings unless otherwise indicated.
2. Glass mat faced gypsum panels as defined in ASTM c1658/c1658m, suitable for paint finish, of the same core type and thickness may be substituted for paper-faced board.
3. Unfaced fiber-reinforced gypsum panels as defined in ASTM c1278/c1278m, suitable for paint finish, of the same core type and thickness may be substituted for paper-faced board.
4. Mold resistance: score of 10, when tested in accordance with ASTM d3273.
5. At assemblies indicated with fire-rating: use type required by indicated tested assembly; if no tested assembly is indicated, use type X board, UL or WH listed.
6. Thickness:
 - a. Vertical surfaces: 5/8 inch.
 - b. Ceilings: 5/8 inch.

Multi-layer assemblies: thickness as indicated on drawings.

7. Glass mat faced products:
 - a. Continental Building Products; weather defense platinum interior
 - b. Continental Building Products weather defense platinum interior type x.
 - c. Georgia-Pacific gypsum: Dens Armor plus.
 - d. Georgia-Pacific gypsum; Dens Armor plus fireguard c.
 - e. National Gypsum Company; Gold Bond exp interior extreme gypsum panel.
 - f. Georgia-Pacific gypsum; Dens Armor plus impact-resistant interior panels.,
 - g. National Gypsum Company; Gold Bond exp fire-shield interior extreme gypsum panel.
 - h. National Gypsum Company; Gold Bond exp fire-shield interior extreme gypsum panel.
 - i. USG corporation: USG Sheetrock brand glass-mat panels mold tough.
 - j. Substitutions: see section 01 25 13 - product substitution procedures.
8. Unfaced products:
 - a. USG corporation; Fiberock aqua-tough interior panels.
 - b. USG corporation; Fiberock brad panels-abuse-resistant.
 - c. Substitutions: see section 01 25 13 - product substitution procedures.

B. Backing board for non-wet areas: water-resistant gypsum backing board as defined in ASTM c1396/c1396m; sizes to minimum joints in place; eds square cut.

1. Application: vertical surfaces behind thin set tile, except in wet areas.
 2. Mold resistance: score of 10, when tested in accordance with ASTM d3273.
 3. At assemblies indicated with fire-rating: use type required by indicated tested assembly; if no tested assembly is indicated, use type x board, UL or WH listed.
 4. Type: regular and type x, in locations indicated.
 5. Type x thickness: 5/8 inch.
 6. Regular board thickness: 5/8 inch.
 7. Edges: tapered.
 8. Products:
 - a. CertainTeed corporation; Prorok brand moisture & mold resistant gypsum board.
 - b. Georgia-Pacific Gypsum; Dens Armor Plus.
 - c. National Gypsum Company; gold bond XP gypsum board.
 - d. USG corporation; Sheetrock brand mold tough gypsum panels.
 - e. Substitutions: see section 01 25 13 - product substitution procedures.
- C. Shaft wall and core board: type x; 1 inch thick by 24 inches wide, beveled long edges, ends square cut.
1. Glass mat faced type: glass mat shaft liner gypsum panel or glass mat core board gypsum panel as defined in ASTM 1658/c1658m.
 2. Mold resistance: score of 10, when tested in accordance with ASTM d3273.
 3. Products:
 - a. Georgia-Pacific gypsum; Dens glass shaft liner (mold-resistant).
 - b. National gypsum company; Gold bond brand exp shaft liner.
 - c. National gypsum company; Gold bond brand 1" fire-shield shaft liner xp (mold-resistant).
 - d. USG corporation; sheetrock gypsum liner panels-enhanced (mold-resistant).
 - e. Substitution: see section 01 25 13 - product substitution procedures.

2.04 ACCESSORIES

- A. Acoustic insulation: ASTM c665; performed glass fiber, friction fit type, unfazed. Thickness: 3-1/2 inch.
- B. Acoustic sealant: acrylic emulsion latex or water-based elastomeric sealant; do not use solvent-based non-curing butyl sealant.
- C. Finishing accessories: ASTM c1047, galvanized steel or rolled zinc, unless noted otherwise.
 1. Types: as detailed or required for finished appearance.
 2. Special shapes: in addition to conventional corner bead and control joints, provide u-bead at exposed panel edges.
 3. Manufacturers - finishing accessories:
 - a. Same manufacturer as framing materials.

- D. Reveal molding:
 - 1. Fry Reglet reveals or architect approved equal extruded aluminum 6063 t5:
 - a. Drywall reveal molding: drm-625- by width shown on the drawings with factory manufacturer performed intersections and end caps.
 - b. Drywall corner reveal: dmct-1250.
 - 2. Demarcation bead: creates a separation between drywall finish and different substrate, such as epoxy floor coating.
 - a. Basis of design manufacturer: TRIM-TEX vinyl trim.
 - b. Flange: 1-3/8 inches mud type.
- E. Joint materials: ASTM c475/c475m 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.
 - 3. chemical hardening type compound.
- F. High build drywall surface: vinyl acrylic latex-based coating for spray application, designed to take the place of skin coating and separate paint primer in achieving level 5 finish.
- G. Textured finish materials: latex-based compound; plain.
- H. Screws for fastening of gypsum panel products to cold-formed steel studs less than 0.033 inch in thickness and wood members: ASTM c1002; self-piercing tapping screws, corrosion resistant.
- I. Screws for fastening of gypsum panel products to steel members from 0.033 to 0.112 inch in thickness: ASTM c954 steel drill screws, corrosion resistant.
- J. Anchorage to substrate: tie wire, nails, screws, and other metal supports, of type and size to suit application; to rigidly secure materials in place.

PART 3 EXECUTION

3.01 EXAMINATION

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

3.02 SHAFT WALL INSTALLATION

- A. Shaft wall framing: install in accordance with manufacturer's installation instructions.
 - 1. Fasten runners to structure with short leg to finished side, using appropriate power-driven fasteners at not more than 24 inches on center.
 - 2. Install studs at spacing required to meet performance requirements.
- B. Shaft wall liner: cut panels to accurate dimension and install sequentially between special friction studs.
 - 1. On walls over sixteen feet high, screw-attach studs to runners top and bottom.
 - 2. Seal perimeter of shaft wall and penetrations with acoustical sealant.

3.03 FRAMING INSTALLATION

- A. Metal framing: install in accordance with ASTM c754 and manufacturer's instructions.
- B. Studs: space studs at 16 inches on center.
 - 1. Extend partition framing to structure where indicated and to ceiling in other locations.
 - 2. Partitions terminating at ceiling: attach ceiling runner securely to ceiling track in accordance with manufacturer's instructions.
 - 3. Partitions terminating at structure: attach top runner to structure, maintain clearance of approximately 1" between top of studs and structure, and connect studs to slip type top track using specified mechanical devices in accordance with manufacturer's instructions; verify free movement of top of stud connections; do not leave studs unattached to track.
 - 4. Adequately brace all studs that do not extend to the underside of the structure above with angle bracing at not more than 4 feet on center secured to the top stud track and the structure above.
- C. Openings: reinforce openings as required for weight of doors or operable panels, using not less than double studs at jambs.
all openings shall have two (2) 20-gauge metal studs secured to each other with metal straps and screws at 24" o.c. each side to form a box or i-beam at each jamb and at bottom of the frame at floor anchor or as otherwise required for the weight of the door (s). The studs are to extend to the underside of the structure above and securely fastened.
- D. Install 20 gauge studs 16" on center at all locations that are to receive abuse resistant or impact resistant wallboard and at all locations that are to receive tile or stone materials.
- E. Standard wall furring: install at concrete walls scheduled to receive gypsum board, not more than 4 inches from floor and ceiling lines and abutting walls. Secure in place on alternate channel flanges at maximum 16 inches on center.
 - 1. Orientation: vertical unless otherwise shown on the drawings.
 - 2. Spacing: at 16 inches on center.
- F. Acoustic furring: install resilient channels at maximum 24 inches on center. Locate joints over framing members.
- G. Furring for fire ratings: install as required for fire resistance ratings indicated and to GA-600.
- H. Blocking: install nominal 2 x 6 pressure treated wood blocking or minimum 3" x 12 gauge steel flat plate mechanically fastened to studs for support of:
 - 1. Framed openings.
 - 2. Wall mounted cabinets.
 - 3. Plumbing fixtures.
 - 4. Toilet partitions.
 - 5. Toilet accessories.
 - 6. Wall mounted door hardware.

3.04 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 in accordance with manufacturer's instructions.
 - 1. Place two beads continuously on substrate before installation of perimeter framing members.
 - 2. Place continuous bead at perimeter of each layer of gypsum board.
 - 3. Seal around all penetrations by conduit, pipe ducts, and rough-in boxes, except where fire stopping is provided.

3.05 BOARD INSTALLATION

- A. Comply with ASTM c840, a-216, and manufacturer's instructions. Install to minimize butt end joints, especially in highly visible locations.
- B. Single-layer non-rated: install gypsum board parallel to framing, with ends and edges occurring over firm bearing. Offset horizontal and vertical joints on opposite sides of partition.
- 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. Use glass mat faced gypsum board at exterior walls and at other locations as indicated. Place second layer perpendicular to framing or furring members. Offset joints of second layer from joints of first layer.
- D. Installation on metal framing: use screws for attachment of gypsum board except face layer of non-rated double-layer assemblies, which may be installed by means of adhesive lamination.
- E. Curved surfaces: apply gypsum board to curved substrates in accordance with ga-226.
- F. Moisture protection: treat cut edges and holes in moisture resistant gypsum board and exterior gypsum soffit board with sealant.

3.06 INSTALLATION OF TRIM AND ACCESSORIES

- A. Control joints: place control joints consistent with lines of building spaces and as follows:
 - 1. Not more than 30 feet apart on walls and ceilings over 50 feet long.
 - 2. At exterior soffit, not more than 30 feet part in both directions.
- B. Corner beads: install at external corners, using longest practical lengths.
- C. Edge trim: install at locations where gypsum board abuts dissimilar materials and as indicated.

3.07 JOINT TREATMENT

- A. Glass mat faced gypsum board and exterior glass mat faced sheathing: use fiberglass joint tape, bedded and finished with chemical hardening type joint compound.
- B. Paper faced gypsum board: use paper joint tape, bedded with ready-mixed vinyl-based joint compound and finished with ready-mixed vinyl-based joint compound.
- C. Finish gypsum board in accordance with levels defined in astm c840, as follows:
 - 1. Level 5: exposed curved walls at public areas, where semigloss or high gloss

paint is applied, at walls where lightweight wall covering is indicated, at multi-color wall finish locations, and at walls where dry erase wall covering is indicated.

- a. All areas under direct natural light including but not limited to lobbies, corridors, and walls perpendicular to natural light sources.
 2. Level 4: exposed walls at all locations not identified to be level 5.
 3. Level 3: minimum at concealed, non-fire rated locations, in utility areas, behind cabinetry, on backing board to receive tile finish and commercial construction shell spaces.
 4. Level 2: minimum at concealed, non-fire rated locations, in utility areas, behind cabinetry, on backing board to receive tile finish, and commercial construction shell spaces.
 5. Level 1: fire rated wall areas above finished ceilings, whether or not accessible in the complete construction.
- D. Tape, fill, and sand exposed joints, edges, and corners to procedure 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.
- E. Where level 5 finish is indicated, spray apply high build drywall surface over entire surface after joints have been properly treated; achieve a flat and tool mark-free finish.
- F. Fill and finish joints and corners of cementitious backing board as recommended by manufacturer.

3.08 IDENTIFICATION OF FIRE BARRIERS, SMOKE BARRIERS, AND SMOKE PARTITIONS

- A. Install in strict compliance with the tested assembly referenced as shown on the drawings, and in accordance with the fire resistance design manual of the gypsum association.
- B. See section 07 84 00 - firestopping, and 07 92 00 - joint sealants, for types of materials and requirements for through wall penetrations or tested assemblies shown on the drawings.
- C. All fire barriers, smoke barriers, and smoke partitions shall have suggested signage or stenciling above ceilings and in all concealed spaces as follows:
 1. "smoke partition - protect all openings".
 2. "1-hour fire barrier - protect all openings".
 3. "1-hour smoke barrier - protect all openings".
 4. "2-hour fire barrier - protect all openings".
 5. "2-hour smoke barrier - protect all openings".
 6. "3-hour smoke barrier - protect all openings".
 7. "3-hour smoke barrier - protect all openings".
 8. "4-hour fire barrier - protect all openings".
 9. "4 hour smoke barrier - protect all openings".

- D. All fire barriers, smoke barriers, and smoke partitions shall have stenciling in 4 inch high letters, 3 inch minimum, 1/2 inch stroke, and not more than 15 feet on-center. Stickers are not acceptable and are cause for rejection of work.
- E. At all storage, linen storage, linen supply, clean linen supply, soiled linen storage and similar rooms, provide stenciling and painted red line demarcating 18-inch height beneath ceiling for limits of storage. Stencil at red line shall state, " no items stored above this line". Refer to OSHA publication 2236, 2002(revised).

3.09 TOLERANCES

- A. Maximum variation of finished gypsum board surface from true flatness: 1/8 inch in 10 feet in any direction.

--- END ---

SECTION 09 51 00 ACOUSTICAL CEILINGS

PART 1 GENERAL

- A. Sequence work to ensure acoustical ceilings are not installed until building is enclosed, sufficient HVAC is provided, dust generating activities have terminated, and overhead work is completed, tested, and approved.
- B. Do not install acoustical units after interior wet work is dry.

1.02 SUBMITTALS

- A. Shop drawings: indicate grid layout and related dimensioning, junctions with other ceiling finishes, and mechanical and electrical items installed in the ceiling if requested by the architect.
- B. Product data: provide data on suspension system components and acoustical units.
- C. Samples: submit two samples 12x12 illustrating material and finish of acoustical units.

1.03 QUALITY ASSURANCE

- A. Fire resistive assemblies: complete assembly listed and classified by UL (FRD) for the fire resistance indicated.
- B. Suspension system manufacturer qualifications: company specializing in manufacturing the products specified in this section with minimum three years documented experience.
- C. Acoustical unit manufacturer qualifications: company specializing in manufacturing the products specified in this section with minimum three years documented experience.

1.04 FIELD CONDITIONS

- A. Maintain uniform temperature of minimum 60 degrees F, and maximum humidity of 40 percent prior to, during, and after acoustical unit installation.

1.05 WARRANTY

- A. Submit a warrantee with the following minimum terms and conditions:
 - 1. Joint manufacturer and installer warrantee in writing that work under this section shall be free from defects of materials and workmanship from date of substantial completion of building for a period of one year.
 - 2. Warrantee shall provide for complete replacement of defective areas, including costs replacement.
 - 3. Replacements shall match adjacent surfaces in color texture and finish.

PART 2 PRODUCTS

2.01 ACOUSTICAL UNITS

- A. Acceptable manufacturers: refer to the room finish legend on the drawings for basis of

design manufacturer and product information.

1. Armstrong world industries, inc.
2. CertainTeed corporation.
3. USG.
4. Substitutions: see section 01 25 13 - product substitution procedures.

B. Acoustical units - general: ASTM e1264, class A.

1. Units for installation in fire-rated suspension system: listed and classified for the fire-resistive assembly as part of suspension system.
2. See the finish legend of the drawings for the manufacturer, panel types, sizes, thickness, edge treatments and surfaces patterns.

2.02 SUSPENSION SYSTEM(S)

A. Manufacturers:

1. Same as for acoustical units.

B. Suspension systems - general: complying with ASTM c635/c635m' die cut and interlocking components, with stabilizer bars, clips, splices, perimeter moldings, and hold down clips as required.

1. See the finish legend of the drawings for the manufacturer and type.
2. Where required suspension system shall be a component of a fire rated ceiling assembly.

C. Exposed aluminum suspension system: extruded aluminum, light-duty.

1. profile: tee; 15/16-inch-wide face.
Finish: painted white.

2.03 ACOUSTICAL UNIT ACCESSORIES

A. Support channels and hangers: galvanized steel; size and type to suit application, seismic requirements, and ceiling system flatness requirement specified.

B. Perimeter moldings: same material and finish as grid.

1. At exposed grid: provide I-shaped molding for mounting at same elevation as face grid.

C. Perimeter trim: extruded aluminum trim compatible with the exposed suspension system completes with brackets and clips as necessary for a complete installation. Size, color and shape are shown on the drawings.

D. Acoustical sealant for perimeter moldings: non-hardening, non skinning, for use in conjunction with suspended ceiling system.

E. Hanger wires: galvanized carbon steel, ASTM a641, soft temper, pre-stretched yield-stress load of at least three (3) times design load, but not less than 12 gauge (0.106 inches), table 1.

F. Touch-up paint: type and color to match acoustical and grid units.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify existing conditions before starting work.
- B. Verify that layout of hangers will not interfere with other work.

3.02 INSTALLATION - SUSPENSION SYSTEM

- A. Install suspension system in accordance with ASTM c636/ c636m, ASTM e580/e580m, and manufacturer's instructions and as supplemented in this section.
 - 1. Install additional wire hangers for light fixtures and the like. Thus, one at each corner of all 2'-0" x 2'-0" and 2'-0" x 4'-0" light fixtures, grilles as may be required to prevent undue loading of panels or suspension systems.
- B. Rigidly secure system, including integral mechanical and electrical components, for maximum deflection of 1:360.
- C. Lay out system to a balanced grid design with edge units no less than 50 percent of acoustical unit size.
- D. Install after major above-ceiling work is complete. Coordinate the location of hangers with other work.
- E. Hang suspension system independent of walls, columns, ducts, pipes and conduit. Where carrying members are spliced, avoid visible displacement of face plane of adjacent members.
- F. Where ducts or other equipment prevent the regular spacing of hangers, reinforce the nearest affected hangers and related carrying channels to span the extra distance.
- G. Do not support components on main runners or cross runners if weight causes total dead load to exceed deflection capability.
- H. Support fixture loads using supplementary hangers located within 6 inches of each corner, or support components independently.
- I. Do not eccentrically load system or induce rotation of runners.
- J. Perimeter molding: install at intersection of ceiling and vertical surfaces and at junctions with other interruptions.
 - 1. Install in bed of acoustical sealant.
 - 2. Used longest practical lengths.
 - 3. Overlap and rivet corners.
- K. Install light fixture boxes constructed of gypsum board above light fixtures in accordance with fire rated assembly requirements and light fixture ventilation requirements.

3.03 INSTALLATION - ACOUSTICAL UNITS

- A. Install acoustical units in accordance with manufacturer's instructions.
- B. Fit acoustic units in place, free from damaged edges or other defects detrimental to appearance and function.
- C. Fit border trim neatly against abutting surfaces.
- D. Install units after above-ceiling work is complete.
- E. Install acoustical units level, in uniform plane, and free from twist, warp, and dents.
- F. Cutting acoustical units:

1. Cut to fit irregular grid and perimeter edge trim.
 2. Make field cut edges of same profile as factory edges.
 3. Double cut and field paint exposed reveal edges.
- G. Where round obstructions occur, provide performed closure to match perimeter molding.
- H. Install hold-down clips on each panel to retain panels tight to grid system; where required to comply with fire rating requirements

3.04 TOLERANCES

- A. Maximum variation from flat and level surface: 1/8 inch in 10 feet.
- B. Maximum variation from plumb of grid systems; where required to comply with fire rating requirements.

--- END ---

**SECTION 09 65 00
RESILIENT FLOORING**

PART 1 - GENERAL

1.01 DESCRIPTION OF WORK

- A. Provide all resilient tile (vinyl composition), reducer strips, transition strips, resilient base (at resilient flooring), and other accessories noted herein.

1.03 SUSTAINABILITY REQUIREMENTS

- A. Sustainability requirements included in the Section are as follows:
 - 1. Meet established minimum pre-consumer percent content for vinyl composition tile and sheet vinyl products and documentation of Recycled materials.

1.04 REFERENCES

- A. ASTM International, latest editions.

D2047 Standard Test Method for Static Coefficient of Friction of Polish-Coated Floor Surfaces as Measured by the James Machine

E84 Test Method for Surface Burning Characteristics of Building Materials.

E648 Test Method for Critical Radiant Flux of Floor Covering Systems Using a Radiant Heat Energy Source.

E662 Test Method for Specific Optical Density of Smoke Generated by Solid Materials.

F710 Standard Practice for Preparing Concrete Floors to Receive Resilient Flooring

F1066 Standard specification for Vinyl Composition Floor Tile

F1700 Standard specification for Solid Vinyl Floor Tile

F1869 Standard Test Method for Measuring Moisture Vapor Emission Rate of Concrete Subfloor Using Anhydrous Calcium Chloride.

F1861 Standard Specification for Resilient Wall Base

F1913 Standard Specification for Vinyl Sheet Floor Covering Without Backing

- B. California Air Resource Board (CARB)
- C. National Fire Protection Association (NFPA)
Standard 253 Method of Test for Critical Radiant Flux of Floor Covering Systems Using a Radiant Heat Energy Source.
- D. Underwriters Laboratories

UL 410 UL Standard for Safety Slip Resistance of Floor Surface

- E. International Organization for Standardization (ISO)
- F. Where the language in any of the documents referred to herein is in the form of a recommendation or suggestion, such recommendations or suggestions shall be deemed mandatory under this contract.

1.05 SUBMITTALS

- A. Product Data
 - 1. Manufacturers' specifications, installation instructions, surface preparation requirements and maintenance manuals for each material specified.
- B. Samples
 - 1. For Initial Selection: Submit actual sections of resilient flooring materials, showing full range of colors and patterns available, for each type of resilient flooring required
 - 2. For Verification, prior to installation, submit the following:
 - a. Resilient tile: Full size, each type, size and color specified:
 - 1) Light Reflectivity (L.R.): Sample tiles submitted must have light reflective values of each tile noted either by Light Reflectivity (L.R.) Sample tiles submitted must have light reflective values of each tile noted either by Stamping L.R. value on back or Stamping L.R. value on back or Printed schedule form (submit in triplicate).
 - b. Resilient Base: 12" long sections, each type and color specified.
- C. Quality Assurance
 - 1. Furnish Installer's certification that it is a firm with not less than 5 years of successful experience in the installation of specified materials.
 - 2. Manufacturer's certification from an independent testing laboratory that resilient flooring complies with the fire test performance requirements
 - 3. Certification from flooring installer that the substrate surfaces have been examined and are acceptable
- D. Extra Materials
- E. FloorScore Certification
 - 1. Provide documentation that each product is FloorScore™ certified.
- F. Low Emitting Materials Compliance Submittals
 - 1. Provide documentation for each adhesive to be used indicating that the adhesives comply with V.O.C. requirements as stated in Specification Section G01600.
 - 2. Provide documentation that floor polish has 0% VOC or complies with CARB 2007 requirements.

1.06 QUALITY ASSURANCE

- A. Qualifications

1. Furnish Installer's certification that it is a firm with not less than 5 years of successful experience in the installation of specified materials.
- B. Certifications
 1. Furnish manufacturer's certification from an independent testing laboratory acceptable to authorities having jurisdiction that resilient flooring complies with the fire test performance requirements specified herein.
 2. Furnish certification from flooring installer that the substrate surfaces have been examined and are acceptable for installation of the Work of this Section.
- C. Fire Test Performance

Provide resilient flooring and wall base material that comply with the following performance criteria as determined by an independent testing laboratory acceptable to authorities having jurisdiction.

 1. Resilient flooring – Shall conform to Class 1:
 - a. Critical Radiant Flux (CRF): Not less than 0.45 watts per sq. cm. as per ASTM E648 or NFPA 253
 - b. Specific Optical Density Rating: Less than 450 as per ASTM E662.
 2. Resilient base – Shall conform to either Class B per ASTM E84 or Class 1 per ASTM E648 or NFPA 253: Compliance with Sections BC 803.1.1 and BC 806.8 of 2022 NYC Building code is also required.
 - a. Class B per ASTM E84
 - 1) Flame Spread Index: Not more than 75 as per ASTM E84.
 - 2) Smoke Density Index: Not more than 450 as per ASTM E84.
 - b. Class 1 per ASTM E648 or NFPA 253: Critical Radiant Flux (CRF) of not less than 0.45 watts per sq. cm.
- D. Slip Resistance
 1. All flooring materials with coatings shall have a slip resistance of at least 0.50 when tested in accordance with ASTM D2047.
 2. Flooring materials without coating shall have a slip resistance of at least 0.5 when tested in accordance with UL 410.

1.07 DELIVERY, STORAGE, AND HANDLING

- A. Delivery

Deliver material in good condition to the site in manufacturer's original unopened containers with label information clearly marked thereon.
- B. Storage

Store materials (resilient flooring, base and adhesives) in location protected from the weather and having a minimum temperature of 68 Deg. F for at least 24 hours prior to start of laying of flooring.

1.08 PROJECT CONDITIONS

- A. Environmental Requirements
Continuously heat spaces to receive flooring to a temperature of 68 Deg F for at least 48 hours prior to flooring installation, and for 48 hours after installation. Maintain a minimum temperature of 55°F. thereafter. Do not install products until they are at the same temperature as the spaces in which they are installed.
- B. Install resilient flooring and accessories after other finishing operations, including painting, have been completed. Do not install resilient flooring over concrete slabs until the latter has been cured and is sufficiently dry to achieve bond with adhesive as determined by manufacturer's recommended bond and moisture test. The Contractor shall allow sufficient time for the slab to dry out before installation of resilient flooring is started.

1.09 MAINTENANCE

- A. Extra Materials
 - 1. Furnish additional floor covering materials for replacement and maintenance to the Authority's Representative (to be transferred to the custodian), including manufacturer maintenance information.
 - 2. Furnish materials of each size, color pattern, and type of material included in the Work. All materials must be new, clean, undamaged and in original containers.
 - 3. Furnish materials at the rate of one (1) carton for each 1000-1500 sq. ft of material installed.

PART 2 - PRODUCTS

2.01 MANUFACTURERS

- A. Vinyl Composition Tile/Vinyl Tile
 - 1. Tarkett Inc. Houston Texas: Azrock® by Tarkett- Standard VCT and Expressions™ by Tarkett
 - 2. Mannington Mill, Salem, NJ: "Bond, Structure"
 - 3. AHF Products, Mountville, PA: "Standard Excelon Imperial Texture" and "Premium Excelon", an Armstrong Brand
- B. Resilient Wall Base and Accessories (Vinyl or Rubber base)
 - 1. Johnsonite/Tarkett
 - 2. Stoler Industries/Allstate Rubber Corp., Dalton GA
 - 3. Roppe, Fostoria, OH
 - 4. Burke by Mannington
 - 5. AHF Products
- C. Moisture Test Kits:
 - 1. Wagner Meters, Rouge River, OR
 - 2. Floor Seal Technology, Inc. Milpitas, CA 95112

2.02 MATERIALS

- A. Vinyl Composition Tile/Vinyl Tile: Contractor may select either material where VCT is indicated.
1. Vinyl Composition Tile (VCT)
Provide VCT product, in compliance with ASTM F1066, Class 2 through pattern, asbestos free, complying with the following requirements:
 - a. Size: 12" x 12" x 1/8" gage
 - b. Color: As selected by the owner
 - c. Light Reflectivity: Maximum range as per Manufacturers Light Reflectivity Tables
 - d. Restrooms and shower 35%
 - e. Tile shall be FloorScore™ certified.
 2. Solid Vinyl Tile
Provide solid Vinyl tile product, in compliance with ASTM F1700, Type B embossed, class III pattern, asbestos free, complying with the following requirements:
 - a. Size: 12" x 12" x .098"
 - b. Color: As indicated on the drawings
 - c. Light Reflectivity: Maximum range as per Manufacturers Light Reflectivity Tables
 - d. Restrooms and shower 35%
 - e. Tile shall be FloorScore™ certified.

2.03 ACCESSORIES

- A. Resilient Base
1. Resilient base shall be in compliance with ASTM F1861. Standard solid colors as selected:
 2. 4" high, 1/8" thick (tolerance +.005"), compression type.
 3. Top corner rounded, bottom covered, arranged for above floor application. Provide straight base for carpeting.
 4. Provide job formed inside and outside corners.
 5. Colors as selected by Architect/Matte finish.
 6. Base shall be FloorScore™ certified.
- B. Resilient Edge Strips, Transition Strips, Reducer Strips, etc.
1/8" thick, homogeneous vinyl or rubber, tapered or bullnose edge, color to match flooring, or as selected by Architect from standard colors available; not less than 1" wide. Material shall be FloorScore™ certified.
- C. Resilient Feature Strips 1/8" thick, vinyl composition or rubber, 1" x 24" standard colors. Material shall be FloorScore™ certified.
- D. Adhesives
1. Type as recommended by manufacturer for particular resilient flooring and base.
 2. Adhesive suitable for adhesion to plaster, concrete, masonry, metal or wood, waterproof after drying to resist action of water.

3. All adhesives used shall comply with V.O.C. requirements as stated in Specification Section G01600.
- E. Edging Strip
 1. Brass or White alloy metal.
 2. Under flange type, with anchors suitable for type of subfloor indicated.
- F. Vinyl Saddles
 1. Flush or tapered as indicated.
 2. Thickness to suit abutting floor covering material.
 3. Colors as selected by Project Architect.
- G. Concrete Slab Primer
Resilient flooring adhesive manufacturer's recommended primer for preparation of porous or dusty concrete, non-staining type.
- H. Flash Patching Compound
As specified in specification section 03542- Cement based self leveling underlayment, Hydraulic-cement-based, polymer-modified product that can be trowel-applied from 1/4" to a feather-edge to match adjacent floor elevations.
 1. Gypsum-based compounds are not permitted
- I. Floor Polish
As recommended by flooring manufacturer. VOC contents of floor polish must be CARB compliant.

PART 3 - EXECUTION

3.01 EXAMINATION

- A. General
 1. Installer shall inspect subfloor surfaces to determine that they are satisfactory. A satisfactory subfloor surface is one that is clean, dry, flat, smooth, level and free from cracks, holes, ridges, or coatings preventing adhesion, and other defects impairing performance or appearance. Notify the Authority of conditions, which will adversely affect flooring installation. Do not proceed with installation until conditions have been corrected.
 2. Installation of the resilient flooring (or any component thereof) shall indicate the Contractor's acceptance of the subfloor as a satisfactory substrate to its work.
 3. Do not allow resilient flooring work to proceed until subfloor surfaces are satisfactory.
- B. Concrete Subfloor
 1. Perform bond and moisture tests on concrete subfloors to determine if surfaces are sufficiently cured and dry as well as to ascertain presence of curing, sealing, hardening or any other compounds.
 - a. Bond Tests shall be in accordance with resilient flooring Manufacturer's Installation Manual.

- b. Moisture vapor transmission shall not exceed 5 pounds per 1,000 square feet in 24 hours. Tests shall be in accordance with ASTM F1869.
- c. Installer shall provide certification that the concrete substrate surfaces have been examined and are acceptable in accordance with this Article.

3.02 SURFACE PREPARATION

- A. Unless otherwise specified, follow the materials manufacturers' written instructions.
- B. Remove dirt, grease, oil, paint, varnish, wax, sealers, curing or hardening compounds and contaminants which may impair the full bonding of the materials to the substrate. Avoid organic solvents. Remove residual adhesives as recommended by the flooring manufacturer.
- C. Concrete Subfloor
Prepare concrete slabs in accordance with ASTM F710.
 - 1. Remove trowel marks or other projections by grinding or sanding.
 - 2. Level uneven surfaces with smooth troweling of mastic underlayment. Follow underlayment manufacturer's application and curing instructions.
 - 3. Provide a substrate surface with not more than 1/8" in 10'-0" variation from level or plane of required slope.
 - 4. Treat porous and dusty concrete with primer after vacuum cleaning the surface. Apply primer at the rate recommended by the primer manufacturer.
 - 5. Broom or vacuum clean subfloor prior to installation of flooring.

3.03 INSTALLATION – GENERAL

- A. Install resilient flooring materials in compliance with manufacturer's latest printed instructions.
- B. Scribe cut and fit resilient flooring to permanent fixtures, pipe trench covers, built-in cabinets, pipes, outlets columns, walls and partitions.
- C. Tightly cement resilient flooring to sub base without open cracks, voids, raising and puckering at joints, telegraphing of adhesive spreader marks or other surface imperfections.
- D. Hand roll flooring at perimeter of each covered area to assure adhesion.
- E. Spaces and areas where flooring is being installed shall be closed to traffic and other trades until flooring has set.
- F. Protect finished installation at all times. Contractor will be held responsible for all damage to flooring until Final Acceptance.

3.04 INSTALLATION OF TILE FLOORS

- A. Lay tile from center marks established with principal walls, discounting minor offsets, so that tile at opposite edges of room area are of equal width. Adjust as necessary to avoid use of cut widths less than 1/2 tile at room perimeters. Lay tile square to room axis.
- B. Match tiles for color and pattern by using tile from cartons in same sequence as manufactured and packaged if so numbered. Cut tile neatly around all fixtures. Broken, cracked, chipped, or deformed tiles are not acceptable.

1. Lay tile in patterns indicated and as directed by the Project Architect.
 2. Lay adjacent tile with direction of texture opposite adjoining tiles.
- C. Adhere tile flooring to substrates using full spread of adhesive to edge of covered area, applied as directed by tile manufacturer.
- D. Cut tiles using equipment and methods recommended by respective tile manufacturer. Provide smooth cut edges tightly fit to adjacent work.

3.07 INSTALLATION OF ACCESSORIES

- A. Apply wall base to walls, columns, pilasters, casework and other permanent fixtures in rooms or areas where base is required. Install base in lengths as long as practicable, with inside and outside corners job formed from base materials. Corner returns shall be not less than 6" in length and corners shall be formed without producing discoloration at bends. Tightly bond base to substrate throughout length of each piece, with continuous contact at horizontal and vertical surfaces. Do not stretch base during installation.
1. On masonry surfaces, or other similar irregular substrates, fill voids along top edge of resilient wall base with manufacturer's recommended adhesive filler material. Color to match base material.
- B. Place resilient edge strips tightly butted to flooring and secure with adhesive. Install edging strips at edges of flooring which would otherwise be exposed. Locate strips under doors.
- C. Where color of flooring changes between spaces, install feature strip between the two colors. Feature strip shall be centered under the door when it is in a closed position.
- D. Apply resilient accessories to areas as indicated and in strict accordance with manufacturer's installation instructions

3.09 CLEANING AND PROTECTION

- A. Perform the following operations immediately after completing resilient product installation:
1. Remove adhesive and other blemishes from exposed surfaces.
 2. Sweep and vacuum surfaces thoroughly.
 3. Damp-mop surfaces to remove marks and soil.
 - a. Do not wash surfaces until after time period recommended by manufacturer.
- B. Protect resilient products from mars, marks, indentations, and other damage from construction operations and placement of equipment and fixtures during remainder of construction period. Use protection methods recommended in writing by manufacturer.

1. Apply protective floor polish to horizontal surfaces of vinyl composition tile that are free from soil, visible adhesive, and surface blemishes if recommended in writing by manufacturer.
 - a. Use commercially available polish acceptable to manufacturer for vinyl composition tile.
2. Floor polish is not required for Solid Vinyl and Slip-retardant Vinyl Tile. Apply protective floor polish to horizontal surfaces of Slip-retardant vinyl tile only if recommended in writing by tile manufacturer.

--- END ---

**SECTION 09 68 13
TILE CARPETING**

PART 1 GENERAL

1.01 SUBMITTALS

- A. Product data: provide data on specified products, describing physical and performance characteristics; sizes, patterns, colors available, and method of installation.
- B. Samples: submit two carpet tiles illustrating color and pattern design for each carpet color selected.
- C. Submit documentation from a recognized testing laboratory that the concrete slabs meet the requirements of the manufacturer for relative humidity for moisture vapor emission and alkalinity prior to installing finished flooring.
- D. Certification: prior to installation of flooring, submit written certification by flooring manufacturer and adhesive manufacturer that condition of sub-floor is acceptable.

1.02 WARRANTY

- A. Manufacturer's standard warranty to include:
 - 1. Wear: the carpet will not wear more than 10% of its surface pile weight from abrasive wear for the life of the carpet.
 - 2. Static protection: carpet will not give static discharges in excess of 3.5kv when tested under AATCC test method 134 for the life of the carpet.
 - 3. Colorfastness to light: carpet made from solution dyed nylon fibers will not change color due to sunlight exposure to exceed the equivalent of 4.0 on the gray scale for color change as measured in accordance with AATCC method 16e for the life of the carpet.

PART 2 PRODUCTS

2.01 GENERAL

- A. See the drawings to include the finish legend, floor finish plan and floor pattern plan for the manufacturer, carpet type, series, color and other information that is specific to the selected product.

2.02 MANUFACTURERS

- A. Tile carpeting:
 - 1. Interface, inc.
 - 2. Lees carpet.
 - 3. Milliken & company.
 - 4. J & j industries, inc.
 - 5. Shaw floors
 - 6. Substitutions: see section 01 25 13 product substitution procedures.

2.03 ACCESSORIES

- A. Sub-floor filler: white premix latex; type recommended by flooring material manufacturer.
- B. Contact adhesive: compatible with tile carpeting material; releasable type.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that sub-floor surfaces are smooth and flat within tolerances specified for that type of work and are ready to receive carpet tile.
- B. Verify that sub-floor surfaces are dust-free and free of substances that could impair bonding of adhesive materials to subfloor surfaces.
- C. Cementitious sub-floor surfaces: verify that substrates are dry enough and ready for flooring installation by testing for moisture and ph.
 - 1. Test in accordance with ASTM f710.
- D. Verify that required floor-mounted utilities are in correct location.

3.02 PREPARATION

- A. Prepare floor substrates as recommended by flooring and adhesive manufacturers

3.03 INSTALLATION

- A. Starting installation constitutes acceptance of sub-floor conditions.
- B. Install carpet tile in accordance with manufacturer's instructions and cri 104 (commercial).
- C. Blend carpet from different cartons to ensure minimal variation in color match.
- D. Cut carpet tile square pattern, with pile direction alternating to next unit, set parallel to building lines.
- E. Lay carpet tile in square pattern, with pile direction alternating to next unit, set parallel to building lines.
- F. Fully adhere carpet tile to substrate.
- G. Trim carpet tile neatly at walls and around interruptions.

3.04 CLEANING

- A. Remove excess adhesive without damage, from floor, base, and wall surfaces. clean and vacuum carpet surfaces.

--- END ---

**SECTION 09 72 00
WALL COVERINGS**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Surface preparation and prime painting.
- B. Wall covering borders.

1.02 SUBMITTALS

- A. See section 01 33 00 - submittal procedures.
- B. Product data: provide data on wall covering and adhesive.
- C. Samples: submit two samples of wall covering, 8 by 8 inch in size illustrating color, finish, and texture.
- D. Test reports: indicate verification of flame and smoke ratings, when tested by ul.
- E. Manufacturer's installation instructions: indicate special procedures and perimeter conditions requiring special attention.
- F. Maintenance data: submit data on cleaning, touch-up, and repair of covered surfaces.
- G. Maintenance materials: furnish the following for owner's use in maintenance of project.
 - 1. See section 01 78 23 - operation and maintenance data for additional provisions.
 - 2. Extra wall covering materials: 25 linear feet of each color and pattern of wall covering; store where directed.
 - 3. Package and label each roll by manufacturer, color and pattern, and destination room number.
- H. Warranty: submit written warranty as required by article 1.7.

1.03 QUALITY ASSURANCE

- A. Surface burning characteristics classification: provide materials that meet classification ratings below:
 - 1. ASTM e84 (flame spread and smoke developed) II/b.
- B. Single source responsibility: obtain wall covering system components from a single source.
- C. Manufacturer qualifications: company specializing in manufacturing the type of products specified in this section with minimum five years of documented experience.
- D. Installer qualifications: company specializing in performing work of type specified and with at least three years of documented experience
- E. Pre-installation conferences: the contractor shall hold a preinstallation conference at the job site with all trades affected by the work of this section, to include representatives from the manufacturer and installer, at least two weeks prior to commencement of such work. The contractor shall advise the architect and the owner's representative at least three working days prior to the date of the meeting. The purpose of the meeting is to ensure the following:
 - 1. Clear understanding of drawings, specifications and approved submittal data.
 - 2. Onsite inspection and acceptance of existing conditions.

3. Means and methods of installation.
4. Coordination with the work of trades
5. Schedule, delivery, storage and protection of all materials relating to the work of this section.
6. The contractor shall take and distribute minutes of the meeting to those in attendance within five working days thereafter.

1.04 MOCK - UP

- A. Provide panel to show wall covering and means of installation and joint seaming technique.
- B. Locate where directed.
- C. Mock-up may not remain as part of the work.

1.05 DELIVERY, STORAGE, AND HANDLING

- A. Inspect roll materials at arrival on site, to verify acceptability.
- B. Protect packaged adhesive from temperature cycling and cold temperatures.
- C. Do not store roll goods on end.

1.06 FIELD CONDITIONS

- A. Do not apply materials when surface and ambient temperatures are outside the temperature ranges required by the adhesive or wall covering product manufacturer.
- B. Maintain these conditions 24 hours before, during, and after installation of adhesive and wall covering.

1.07 WARRANTY

- A. Installer: provide an installer warranty to remove and replace wall coverings that delaminate, develop irregular surfaces or have other defects due to faulty installation for a period of one year from the date of substantial completion
- B. Manufacturer: provide a manufacturer's standard warranty to include the replacement of wall coverings due to manufacturing defects for a period of five years from the date substantial completion.

PART 2 PRODUCTS

2.01 GENERAL

- A. See the drawings to include the finish legend for the manufacturer, type, series, color and other information that is specific to the selected product.

2.02 ALL COVERINGS

- A. General requirements:
 1. Surface burning characteristics: flame spread/smoke developed index of 25/50, maximum, when tested in accordance with ASTM e84.

2. Chemical and stain resistance: no visible staining or discoloration and no damage to surface texture when tested in accordance with ASTM d1308.
- B. Wall covering: vinyl roll stock, conforming to the following:
 1. Total weight: 20 oz/sq yd minimum.
 2. Roll width: 54 inches.
 3. Overcoating: manufacturer's standard coating for stain resistance.
 - C. Adhesive: type recommended by wall covering manufacturer to suit application on substrate.
 - D. Substrate filler: as recommended by adhesive and wall covering manufacturers; compatible with substrate.
 - E. Substrate primer and sealer: alkyd enamel type.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that substrate surfaces are prime painted and ready to receive work, and conform to requirements of the wall covering manufacturer.
- B. Measure moisture content of surfaces using an electronic meter. Do not apply wall coverings if moisture content of substrate exceeds level recommended by wall covering manufacturer.
- C. Verify flatness tolerance of surfaces does not vary more than 1/8 inch in 10 feet nor vary at a rate greater than 1/16 inch/ft.

3.02 PREPARATION

- A. Fill cracks in substrate and smooth irregularities with filler; sand smooth.
- B. Wash impervious surfaces with tetra-sodium phosphate, rinse and neutralize; wipe dry.
- C. Surface appurtenances: remove or mask electrical plates, hardware, light fixture trim, escutcheons, and fittings prior to preparing surfaces or finishing.
- D. Surfaces: correct defects and clean surfaces that affect work of this section.
- E. Marks: seal with shellac those that may bleed through surface finishes.
- F. Apply one coat of primer sealer to substrate surfaces. Allow to dry. Lightly sand smooth.
- G. Vacuum clean surfaces free of loose particles.

3.03 INSTALLATION

- A. Remove excess adhesive while wet from seam before proceeding to next wall covering sheet. Wipe clean with dry cloth.

3.04 CLEANING

- A. Clean wall coverings of excess adhesive, dust, dirt, and other contaminants.
- B. Clean wall covering using a sponge with a neutral PH cleaning solution. Do not use abrasive cleaners. Rinse thoroughly with water and let dry before using.
- C. Reinstall wall plates and accessories removed prior to work of this section.

3.05 PROTECTION

- A. Do not permit construction activities at or near finished wall covering areas.

--- END ---

**SECTION 09 91 23
INTERIOR PAINTING**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Scope: finish interior surfaces exposed to view, unless fully factory - finished and unless otherwise indicated.
 - 1. Both sides and edges of plywood backboards for electrical and telecom equipment before installing equipment.
 - 2. Mechanical and electrical:
 - a. In finished areas, paint insulated and exposed pipes, conduit, boxes, insulated and exposed ducts, hangers, brackets, collars and supports, mechanical equipment, and electrical equipment, unless otherwise indicated.
 - 3. color-coding of all plumbing piping is part of this section and shall be confirmed with owner's representative or facility management.
 - b. Paint interior surfaces of air ducts that are visible through grilles and louvers with one coat of flat black paint to visible surfaces.
 - c. Paint dampers exposed behind louvers, grilles, to match face panels.
- B. Do not paint or finish the following items:
 - 1. Items factory - finished unless otherwise indicated; materials and products having factory - applied primers are not considered factory finished.
 - 2. Items indicated to receive other finishes.
 - 3. Items indicated to remain unfinished.
 - 4. Fire rating labels, equipment serial number and capacity labels, bar code labels, and operating parts of equipment.
 - 5. Stainless steel, anodized aluminum, bronze, Terne coated stainless steel, and lead items.
 - 6. Marble, granite, slate, and other natural stones.
 - 7. Floors, unless specifically indicated.
 - 8. Ceramic and other tiles.
 - 9. Glass.
 - 10. Concrete masonry units in utility, mechanical, and electrical spaces.
 - 11. Acoustical materials, unless specifically indicated.
 - 12. Concealed pipes, ducts and conduits.

1.02 DEFINITIONS

- A. Conform to ASTM d16 for interception of terms used in this section.

1.03 SUBMITTALS

- A. Product data: provide complete list of products to be used, with the following information for each:
 - 1. Manufacturer's name, product name and/or catalog number, and general product category (e.g. "alkyd enamel").
 - 2. MPI product number (e.g. MPI #47).
 - 3. Cross-reference to specified paint system(s) product is to be used in; include description of each system.
- B. Samples: submit three paper "draw down" samples, 8-1/2 by 11 inches in size, illustrating range of colors available for each finishing product specified.
 - 1. Where sheen is specified, submit samples in only that sheen.
 - 2. Where sheen is not specified, discuss sheen options with architect before preparing samples, to eliminate sheens definitely not required.

1.04 WARRANTY

- A. In addition to general contractor's warranty, submit in writing painting contractor's warranty, that work under this section shall be free from defects in materials and workmanship from date of substantial completion of the building for a minimum period of one (1) year of manufacturer's standard warranty, whichever is greater.
 - 1. Warranty shall provide for complete replacement of defective areas, including costs required in the replacement of any adjacent areas or items that may be affected by such failure or replacement.
 - 2. Replacements shall match original materials and work, adjacent surfaces, in color, texture, and finish as intended by the contract documents. Spot or patch painting will not be considered as satisfactory replacement. Replacement shall be a complete wall from corner to corner, floor to ceiling. Ceiling shall be total ceiling.

PART 2 PRODUCTS**2.01 MANUFACTURERS**

- A. Provide paints and finishes from the same manufacturer to the greatest extent possible.
 - 1. In the event that a single manufacturer cannot provide specified products minor exceptions will be permitted provided approval by architect is obtained using the specified procedures for substitutions.
 - 2. Substitution of MPI-approved products by a different manufacturer is preferred over substitution of unapproved products by the same manufacturer.
 - 3. Substitution of a different paint system using MPI-approved products by the same manufacturer will be considered.
- B. Paints:
 - 1. Sherwin-Williams company: www.sherwin-williams.com.
- C. Primer sealers: same manufacturer as top coats.
- D. Substitutions: see section 01 25 13 - product substitution procedures.

2.02 PAINTS AND FINISHES – GENERAL

- A. Paints and finishes: ready mixed, unless intended to be a flied catalyzed paint.
 - 1. Where MPI paint numbers are specified, provide products listed in master painters institute approved product list, current edition available at www.paintinfo.com, for specified MPI categories, except as otherwise Indicated.
 - 2. Provide paints and finishes of a soft paste consistency, capable of being readily and uniformly dispersed to a homogenous coating, with good flow and brushing properties, and capable of drying or curing free of streaks or sags.
 - 3. Provide materials that are compatible with one another and the substrates indicated under conditions of service and application, as demonstrated by manufacturer based on testing and field experience.
 - 4. Supply each paint material in quantity required to complete entire project's work from a single production run.
 - 5. Do not reduce, thin, or dilute paint or finishes or add materials unless such procedure is specifically described in manufacturer's product instructions.
- B. Volatile organic compound (VOC) content:
 - 1. Provide paints and finishes that comply with the most stringent requirements specified in the following:
 - a. 40 CFR 59, subpart d-national volatile organic compound emission standards for architectural coatings.
 - b. Scaqmd 113 rule.
 - c. Architectural coatings VOC limits of the state in which the project is located.
 - 2. Determination of VOC content: testing and calculation in accordance with 40 CFR 59, subpart d (EPA method 24) exclusive of colorants added to a tint base and water added at project site; or other method acceptable to authorities having jurisdiction.
- C. Colors: as indicated on drawings.
 - 1. Extend colors to surface edges; colors may change at any edge as directed by architect.
 - 2. In finished areas, finish pipes, ducts, conduit, and equipment the same color as the wall/ceiling they are mounted on/under.
 - 3. In utility areas, finish equipment, piping, conduit and exposed duct work in colors according to the color-coding scheme indicated.

2.03 PAINT SYSTEMS – INTERIOR

- A. Paint i-op-interior surfaces to be painted, unless otherwise indicated: including gypsum board, two top coats and one coat primer; MPI #50.
 - 1. Products:
 - a. Sherwin-Williams; Promar 200 zero.
 - b. Top coat(s): interior latex; MPI #43, 44, 52, 53, 54, or 114
 - c. Topcoat sheen:
 - Eggshell: MPI gloss level 3; use this sheen at all locations.

- B. Paint IOP-md-dt-medium duty door/trim: for surfaces subject to frequent contact by occupants, including metals:
 - 1. Medium duty applications include doors, door frames, railings
 - 2. Two top coats and one coat primer; MPI #134.
 - a. Products:
Sherwin-Williams; pro-cryl universal primer.
 - 3. Top coat(s): interior light industrial coating, water based; MPI #153 or 154.
 - a. Products:
Sherwin-Williams; pro-cryl universal primer.
 - 4. Top coat sheen:
 - a. Semi-gloss: MPI gloss level 5; use this sheen at all locations.
- C. Paint i-op-md-wc- medium duty vertical and overhead: including gypsum board, concrete, and concrete masonry units. Refer to the finish plan and legend on the drawings for locations.
 - 1. Two top coats and one coat primer.
 - a. Gypsum board: latex primer; MPI #50.
products: Sherwin - Williams; Promar 200 zero.
 - b. Concrete: epoxy primer; MPI #177
products: Sherwin-Williams; Macropoxy 646 fast cure epoxy
 - c. Concrete masonry units (for dry environments): latex block filler; MPI #4
products: Sherwin-Williams; Loxon block surfacer.
 - d. Concrete masonry units (for wet environments): epoxy block filler; mpi #116
products: Sherwin-Williams; Kem Cati-coat hs epoxy filler/sealer
 - 2. Top coat(s): epoxy, semi-gloss; mpi #177.
 - a. Products:
Sherwin-Williams; Macropoxy 646 fast cure epoxy.
 - 3. Top coat sheen:
 - a. Semi-gloss: mpi gloss level 5; use this sheen at all locations.
- D. Paint i-op-df-dry wall: metals; exposed structure and overhead-mounted services in utilitarian spaces, including shop primed steel deck, structural steel, metal fabrications, galvanized ducts, galvanized conduit, and galvanized piping.
 - 1. One top coat and coat shop primer; MPI #275.
 - a. Products:
Sherwin-Williams; KEM-flash 00 primer.
 - 2. One top coat water-based dry fall.

3. Top coat: latex dry fall; MPI #118, 155, or 226
 - a. Products:
Sherwin-Williams waterborne acrylic dry fall, egg-shell. (MPI #155, 226)
4. Top coat sheen:
 - a. Eggshell: MPI gloss level 3; use this sheen at all locations.
- E. Paint i-tr-c- transparent finish on concrete floors.
 1. Refer to section 03 35 11 for concrete floor finishes.
- F. Paint wi-op-3l - wood, opaque, latex, 3 coat:
 1. To top coats and one coat of latex primer sealer; MPI #39.
 - a. Products:
Sherwin-Williams; prep rite problock primer sealer.
 2. Eggshell: two coats of latex enamel; MPI #114.
 - a. Products:
Sherwin-Williams; proclassic waterborne interior gloss enamel.
- G. Paint wi-tr-vs-wood, semi-transparent, varnish, stain:
 1. One coat of stain; MPI #90.
 - a. Products:
Sherwin-Williams; minwax interior oil stain-250
 2. Three coats varnish MPI #57.
 - a. Products:
Sherwin-Williams; wood classics polyurethane clear satin.
- H. Paint mi-op-3l - ferrous metals, unprimed, latex coat:
 1. One coat of latex primer; MPI #76.
 - a. Products:
Sherwin-Williams; KEM bond HS universal alkyd primer
 2. Semi-gloss: two coats of latex enamel; MPI #43.
 - a. Products:
Sherwin-Williams; Promar 200 zero VOC interior latex semi-gloss
- I. Paint gi-op-3l - gypsum board/plaster, latex, 3 coat:
 1. Two top coats and one coat of latex primer sealer MPI #50.
 - a. Products:
Sherwin-Williams; Promar 200 zero interior latex primer

2. Flat: two coats of latex enamel; MPI #44.
 - a. Products:
Sherwin-Williams; Promar 200 zero interior latex low sheen.
- J. Paint i-tr-f - fire-retardant coating, intumescent: refer to section 07 81 23.

2.04 ACCESSORY MATERIALS

- A. Accessory materials: provide primers, sealers, cleaning agents, cleaning cloths, sanding materials, and clean-up materials as required for final completion of painted surfaces.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Do not begin application of paints and finishes until substrates have been properly prepared.
- B. Verify that surfaces are ready to receive work as instructed by the product manufacturer.
- C. Measure moisture content of surfaces using an electronic moisture meter. Do not apply finishes unless moisture content of surfaces are below the following maximums:
 1. Gypsum wallboard: 12 percent.
 2. Masonry, concrete, and concrete masonry units: 12 percent.
 3. Interior wood: 15 percent, measured in accordance with ASTM D4442.
 4. Concrete floors and traffic surfaces: 8 percent.

3.02 PREPARATION

- A. Clean surfaces thoroughly and correct defects prior to application.
- B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.
- C. Concrete:
 1. Remove release agents, curing compounds, efflorescence, and chalk. Do not coat surfaces if moisture content or alkalinity of surfaces to be coated exceeds that permitted in manufacturer's written instructions.
 2. Prepare surface as recommended by top coat manufacturer and according to SSPCC-SP 13.
- D. Masonry:
 1. Remove release agents, curing compounds, efflorescence, and chalk. Do not coat surfaces if moisture content or alkalinity of surfaces to be coated exceeds that permitted in manufacturer's written instructions. Allow to dry.
 2. Prepare surface as recommended by top coat manufacturer.
- E. Concrete floors and traffic surfaces: remove contamination, acid etch, and rinse floors with clear water. Verify required acidulating balance is achieved. Allow to dry.
- F. Gypsum board: fill minor defects with filler compound. Spot prime defects after repair.
- G. Galvanized surfaces:

1. Remove surface contamination and oils and wash with solvent according to SSPC-SP
 2. Prepare surface according to SSPC-SP 2.
- H. Ferrous metal:
1. Solvent clean according to SSPC-SP 1.
 2. Shop-primed surfaces: sand and scrape to remove loose primer and rust. Feather edges to make touch-up patches inconspicuous. Clean surfaces with solvent. Prime bare steel surfaces. Re-prime entire shop-primed item.
 3. Remove rust, loose mill scale, and other foreign substance using methods recommended in writing by paint manufacturer and blast cleaning according to SSPC-SP 6 "commercial blast cleaning". Protect from corrosion until coated.
- I. Wood surfaces to receive opaque finish: wipe off dust and grit prior to priming. seal knots, pitch streaks, and sappy sections with sealer. Fill nail holes and cracks after primer has dried; sand between coats. Back prime concealed surfaces before installation.
- J. Wood surfaces to receive transparent finish: wipe off dust and grit prior to sealing, seal knots, pitch streaks, and sappy sections with sealer. Fill nail holes and cracks after sealer has dried; sand lightly between coats. Prime concealed surfaces with gloss varnish reduced 25 percent with thinner.
- K. Metal doors to be painted: prime metal door top and bottom edge surfaces.

3.03 APPLICATION

- A. Metal doors frames: paint both faces and all edges of metal doors and exposed surfaces of metal frames, including tops of frames.
- B. Ferrous metals: structural shapes , rods and associated accessories, paint all faces and edges with full build an in a manner to prevent "wrinkling" or "crawling".
- C. Color coding of wet piping: when color coding is requested, each item shall have colors as designated by owner's representative or facility management. In the event owner's representative o facility management does not have an existing standard, the industry standard shall prevail.
1. Direction of flow shall be indicated by black directional arrows, spaced approximately 4 feet on-center and not less than two times in areas less than 8 feet.
- D. Tinting colors: all paint coats shall be tinted approximate shade of final coat; each coat shall be one (1) shade darker than pre4ceding coat.
- E. Apply products in accordance with manufacturer's written instructions and recommendations in "MPI Architectural Painting Specification Manual".
- F. Where adjacent sealant is to be painted, do not apply finish coats until sealant is applied.
- G. Do not apply finishes to surfaces that are not dry. Allow applied coats to dry before next coat is applied.
1. Dft of paints to be applied for each coat shall be as recommended by paint manufacturer.
 2. Apply each coat to uniform appearance in thickness specified by manufacturer.
 3. Notify architect when application is ready for observation.

- H. Brush application: brush-out and work AOL brush coats onto the surfaces in an even film.
- I. Dark colors and deep clear colors: regardless of number of coats specified, apply as many coats as necessary for complete hide.
- J. Sand wood and metal surfaces lightly between coats to achieve required finish.
- K. Vacuum clean surfaces of loose particles. Use tack cloth to remove dust and particles just to applying next coat.
- L. Wood to receive transparent finishes: tint fillers to match wood. Work fillers into the grain before set. Wipe excess from surface.
- M. Reinstall electrical cover plates, hardware, light fixture trim, escutcheons, and fittings remove prior to finishing.

3.04 CLEANING

- A. Collect waste material that could constitute a fire hazard, place in closed metal containers, are remove daily from site.

3.05 PROTECTION

- A. Protect finishes until completion of project.
- B. Touch-up damaged finishes after substantial completion.

--- END ---

10 00 00 SPECIALTIES

**SECTION 10 14 00
SIGNAGE**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Room and door signs.
- B. Interior directional and informational signs.

1.02 REFERENCE STANDARDS

- A. 36 CFR 1191 - Americans with disabilities act (ADA) accessibility guidelines for buildings and facilities; architectural barriers act (ADA) accessibility guidelines; current edition.
- B. Ada standards - Americans with disabilities act (ADA) standards for accessible design.
- C. ICC a117.1 - accessible and usable buildings and facilities.
- D. ATBCB ADAAG - Americans with disabilities act accessibility guidelines.

1.03 SUBMITTALS

- A. See section 01 3000 - administrative requirements, for submittal procedures.
- B. Signage schedule: provide information sufficient to completely define each sign for fabrication, including room number, room name, other text to be applied, sign and letter sizes, fonts and colors.
 - 1. When room numbers to appear on signs differ from those on drawings, include the drawing room number on schedule.
 - 2. When content of signs is indicated to be determined later, request such information from owner through architect at least 2 months prior to start of fabrication; upon request, submit preliminary schedule.
 - 3. Submit for approval by owner through architect prior to fabrication.
- C. Samples: submit two samples of each type of sign, of size similar to that required for project, illustrating sign style, font, and method of attachment.

1.04 QUALITY ASSURANCE

- A. Manufacturer qualifications: company specializing in manufacturing the products specified in this section with minimum three years of document experience.

1.05 DELIVERY, STORAGE, AND HANDLING

- A. Package signs as required to prevent damage before installation.
- B. Package room and door signs in sequential order of installation, labeled by floor or building.
- C. Store adhesive at normal room temperature.

1.06 FIELD CONDITIONS

- A. Do not install tape adhesive when ambient temperature is lower than recommended by manufacturer.
- B. Maintain this minimum temperature during and after installation of signs.

PART 2 PRODUCTS

2.01 SIGNAGE APPLICATIONS

- A. Accessibility compliance: signs are required to comply with ADA standards and ICC a117.1 unless otherwise indicated; in the event of conflicting requirements, comply with the most comprehensive and specific requirements.
- B. Room and door signs: provide a sign for every doorway, whether it has a door or not, not including corridors, lobbies, and similar open areas.
 - 1. Sign type: flat signs with engraved panel media as specified.
 - 2. Provide "tactile" signage, with letters raised minimum 1/32 inch and grade ii braille.
 - 3. Character height: 1 inch.

--- END ---

**SECTION 10 26 01
WALL AND CORNER GUARDS**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Corner guards.

1.02 SUBMITTALS

- A. See section 01 33 00 - submittals procedures, for submittal procedures.
- B. Product data: indicate physical dimensions, features, anchorage details, and rough-in measurements.
- C. Shop drawings: include plans, elevation, sections, and attachment details.
- D. Warranty documentation: submit manufacturer warranty and ensure that forms have been completed in owner's name and registered with manufacturer.

1.03 DELIVERY, STORAGE, AND HANDLING

- A. Deliver wall and door protection items in original, undamaged protective packaging. Label item to designate installation locations.
- B. Protect work from moisture damage.
- C. Protect work from UV light damage.
- D. Do not deliver products to project site until areas for storage and installation are fully enclosed and interior temperature and humidity are in conformance with manufacturer's recommendations for each type of item.
- E. Store products in either horizontal or vertical position, in conformance with manufacturer's instructions.

1.04 WARRANTY

- A. See section 01 78 36 - warranties, guarantees, and bonds, for additional warranty requirements.
- B. Correct defective work within a five-year period after date of substantial completion.
- C. Provide a manufacturer's warranty to remove and replace materials found to be defective with five years from the date of substantial completion.
- D. Provide an installer's warranty to remove and replace materials found to fail due to improper installation for a period of two years from the date of substantial completion.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Corner guards:
 - 1. Construction specialties, inc.: www.c-sgroup.com.
 - 2. Inpro: www.inprocorp.com
 - 3. Koroseal interior products: www.koroseal.com.

4. Trin-Tex, Inc: www.trim-tex.com/#sle.
5. substitutions: see section 01 25 13 - product substitutions.

2.02 PRODUCT TYPES

- A. Corner guards- surface mounted:
 1. Material: type 430 stainless steel, no. 4 finish, 14 gage 0.0747 inch thick.
 2. Performance: resist lateral impact force of 100 lbs at any point without damage or permanent set.
 3. Surface burning characteristics: provide assemblies with flame spread index of 25 or less and smoke developed index of 450 or less, when tested in accordance with ASTM E84.
 4. Width of wings: 2 inches at classrooms and 3 inches at labs.
 5. Corner: square.
 6. Length: one piece.
- B. Adhesives and primers: as recommended by manufacturer. Exposed fasteners shall not be utilized.

2.03 FABRICATION

- A. Fabricate components with tight joints, corners and seams.

2.04 SOURCE QUALITY CONTROL

- A. See section 01 45 00 - contractor's quality control, for additional requirements.
- B. Provide wall and door protection systems of each type from a single source and Manufacturer

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that field measurements are as indicated on drawings.
- B. Verify that substrate surfaces for adhered items are clean and smooth.
 1. Test painted or wall covering surfaces for adhesion in inconspicuous area, as recommended by manufacturer. Follow adhesive manufacturer's recommendations for remedial measure at locations and/or application conditions where adhesion test's results are unsatisfactory.
- C. Start of installation constitutes acceptance of project conditions.

3.02 TOLERANCES

- A. Maximum variation from required height: 1/4 inch.
- B. Maximum variation from level or plane for visible length: 1/4 inch.

3.03 CLEANING

- A. Clean wall and door protection items of excess adhesive, dust, dirt, and other contaminants.

--- END ---

**SECTION 10 28 00
TOILET, BATH, AND LAUNDRY ACCESSORIES**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Commercial toilet accessories.
- B. Commercial shower and bath accessories.

1.02 REFERENCE STANDARDS

- A. ASTM a269/a269m - standard specification for seamless and welded austenitic stainless-steel tubing for general service.
- B. ASTM a666 - standard specification for annealed or cold-worked austenitic stainless-steel sheet, strip, plate, and flat bar.
- C. ASTM c1036 - standard specification for flat glass.
- D. ASTM c1503 - standard specification for silver flat glass mirror.
- E. ASTM f285 - standard consumer safety performance specification for diaper changing tables for commercial use.

1.03 ADMINISTRATIVE REQUIREMENTS

- A. Coordinate the work with the placement of internal wall reinforcement to receive anchor attachments.

1.04 SUBMITTALS

- A. See section 01 3000 - administrative requirements, for submittal procedures.
- B. Product data: submit data on accessories describing size, finish, details of function, and attachment methods.
- C. Manufacturer's installation instructions: indicate special procedures and conditions requiring special attention.

PART 2 PRODUCTS

2.01 MANUFACTURES

- A. Basis of design: Bobrick, Inc: www.bobrick.com <<http://www.bobrick.com>>.
- B. Commercial toilet, shower, and bath accessories:
 - 1. Bradley corporation; _____:
www.bradleycorp.com<<http://www.bradleycorp.com>>.
- C. Electric hand/hair dryers:
 - 1. American dryer, Inc; extreme air CPC:
www.americandryer.com<<http://www.americandryer.com>>.
 - 2. World dryer corporation; _____:
www.worlddryer.com<<http://www.worlddryer.com>>.
 - 3. Substitutions: section 01 6000 - product requirements.

- D. Diaper changing stations:
 - 1. Bradley corporation; _____: www.bradleycorp.com.
 - 2. Koala Kare products; _____: www.koalabear.com <<http://www.koalabear.com>>.
 - 3. Substitutions: 01 6000 - product requirements.
- E. Provide products of each category type by a single manufacturer.

2.02 MATERIALS

- A. Accessories - general: shop assembled, free of dents and scratches and packaged complete with anchors and fittings, steel anchor plates, adapters, and anchor components for installation.
- B. Stainless steel sheet: ASTM a666, type 304.
- C. Stainless steel tubing: ASTM a269/a269m, grade tp304 or tp316.
- D. Mirror glass: annealed float glass, ASTM c1036 type i, class 1, quality q2, with silvering, protective and physical characteristics complying with ASTM c1503.
- E. Adhesive: two component epoxy type, waterproof.
- F. Fasteners, screws, and bolts: hot dip galvanized; tamper-proof; security type.

2.03 FINISHES

- A. Stainless steel: satin finish, unless otherwise noted.

2.04 COMMERCIAL TOILET ACCESSORIES

- A. Commercial quality products as scheduled on the drawings.
- B. Toilet paper dispenser: double roll, surface mounted, for cordless type rolls.
- C. Combination towel dispenser/waste receptacle: recessed flush with wall, stainless steel; seamless wall flanges, continuous piano hinges, _____.
 - 1. Water receptacle lines: reusable, heavy-duty vinyl.
 - 2. Towel dispenser capacity: 400c-fold
 - 3. Waste receptacle capacity: 4 gallons
- D. Automated soap dispenser: liquid soap dispenser, wall-mounted, with stainless steel cover and window to gage soap level, tumbler lock.
- E. Framed mirrors: stainless steel framed, 1/4-inch-thick annealed float glass; ASTM c1036.
- F. Seat cover dispenser: stainless steel, surface mounted, reloading by hinged front panel, tumbler lock.
- G. Grab bars: stainless steel, 1-1/4 inches outside diameter, minimum 0.05-inch wall thickness, nonslip grasping surface finish, concealed flange mounting; 1-1/2 inches clearance between wall and inside of grab bar.
 - 1. Length and configuration: as indicated on drawing and as required buy codes.
- H. Sanitary napkin disposal unit: stainless steel, surface-mounted, self-closing door, locking bottom panel with full-length stainless-steel piano-type hinge, removable receptacle.
- I. Diaper changing station: wall-mounted folding diaper changing station for use in commercial toilet facilities, meeting or exceeding AST, f2285.
 - 1. Style: vertical.

2.05 COMMERCIAL SHOWER AND BATH ACCESSORIES

- A. Commercial quality products as scheduled on the drawings.
- B. B shower curtain rod: stainless steel tube, 1-1/4 inch outside diameter, 0.04-inch wall thickness, satin-finished, with 3 inch outside diameter, minimum 0.04 inch thick satin-finished stainless steel flanges, for concealed mounting.
- C. Shower curtain:
 - 1. Material: opaque vinyl, 0.008-inch thick, matte finish, with antibacterial treatment, flameproof and stain-resistant.
 - 2. Size: 36 by 72 inches, hemmed edges.
 - 3. Grommets: stainless steel; pierced through top hem on 6-inch centers.
 - 4. Color: white.
 - 5. Shower curtain hooks: chrome-plated or stainless-steel spring wire designed for snap closure.
- D. Folding shower seat: wall-mounted surface; set frame, structural support members, hinges and mechanical fasteners of type 304 stainless steel, I - shaped seat.
 - 1. Seat: phenolic or polymeric composite one-piece set or seat slats, of color as selected.
 - 2. ADA compliance.
- E. Robe hook: heavy-duty stainless steel, double prong, rectangular-shaped bracket and backplate for concealed attachment, satin finish.

PART 3 EXECUTION**3.01 EXAMINATION**

- A. Verify existing conditions before starting work.
- B. Verify exact location of accessories for installation.

3.02 INSTALLATION

- A. Install accessories in accordance with manufacturers' instructions in locations indicated on the drawings.
- B. Install plumb and level, securely and rigidly anchored to substrate.
- C. Mounting heights: as required by accessibility regulations, unless otherwise indicated.

--- END ---

12 00 00 FURNISHING

**SECTION 12 36 00
COUNTERTOPS**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Countertops for architectural cabinet work.
- B. Countertops for manufactured casework.
- C. Wall-hung counters and vanity tops.

1.02 RELATED REQUIREMENTS

- A. Section 06 41 00 - architectural wood casework.

1.03 REFERENCE STANDARDS

- A. ASTM E84 - STANDARD TEST METHOD FOR SURFACE BURNING CHARACTERISTICS OF BUILDING MATERIALS.
- B. AWI/AWMAC/WI (AWS) - ARCHITECTURAL WOODWORK STANDARDS.
- C. AWMAC/WI (NAAWS) - NORTH AMERICAN ARCHITECTURAL WOODWORK STANDARDS, U.S. VERSION 3.0.
- D. ISFA 2-01- CLASSIFICATION AND STANDARDS FOR SOLID SURFACING MATERIAL.
- E. ISFA 3-01 - CLASSIFICATION AND STANDARDS FOR QUARTZ SURFACING MATERIAL.
- F. NEMA LD 3 - HIGH-PRESSURE DECORATIVE LAMINATES.

1.04 SUBMITTALS

- A. See section 01 30 00 - administrative requirements, for submittal procedures.
- 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. Specimen warranty.
- C. Shop drawings: complete details of materials and installation: combine with shop drawings of cabinets and casework specified in other sections.
- D. Verification samples: for each finish product specified, minimum size 6 inches square, representing actual product, color, and patterns.
- E. Test reports: chemical resistance testing, showing compliance with specified requirements.

1.05 QUALITY ASSURANCE 1.06 DELIVERY, STORAGE, AND HANDLING.

- A. Store products in manufacturer's unopened packaging until ready for installation.
- B. Store and dispose of solvent - based materials, and materials used with solvent-based materials, in accordance with requirements of local authorities having jurisdiction.

1.07 FIELD 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 the manufacturer's absolute limits.

PART 2 PRODUCTS**2.01 COUNTERTOPS**

- A. Quality standard: custom grade, in accordance with AWI/AWMAC/WI (AWS) OR AWMAC/WI (NAAWS), unless noted otherwise.
- B. Plastic laminated countertops: high-pressure decorative laminate (HPDI) sheet bonded to substrate.
 - 1. Laminate sheet: NEMA Id 3, grade HGP, for postforming, 1 1/4" inch nominal thickness.
 - 2. To be used for temp locker room vanity only.
 - a. Surface burning characteristics: flame spread index of 25, maximum; smoke developed index of 450, maximum; eh tested in accordance with ASTM e84.
 - b. Finish: as selected by architect.
 - 3. Exposed edge treatment: postformed laminate; front edge substrate built up to minimum 1-1/4 inch thick with raised radiused edge, integral coved backsplash with radiused top edge.
 - 4. Back and end splashes: same material, same construction.
- C. Solid surfacing countertops: solid surfacing sheet or plastic resin casting over continuous substrate.
 - 1. Flat sheet thickness: 1/2 inch, minimum.
 - 2. Solid surfacing sheet and plastic resin castings: complying with ISFA 2-01 and NEMA Id 3; acrylic or polyester resin, mineral filler, and pigments; homogenous, no-porous and capable of being worked and repaired using standard woodworking tools; no surface coating; color and pattern consistent throughout thickness.
 - a. Finish on exposed surfaces: matte, gloss rating of 5 to 20.
 - b. Color and pattern: as indicated in the drawings.
 - 3. Other components thickness: 1/2 inch, minimum.
 - 4. Exposed edge treatment built up to minimum per drawings inch thick; square edge; use marine edge at sinks.
 - 5. Back and end splashes: same sheet material, square top; minimum 4 inches high.

2.02 FABRICATION

- A. Fabricate tops and splashes in the largest sections practicable, with top surface of joints flush.

1. Join lengths of tops using best method recommended by manufacturer.
 2. Fabricate to overhang fronts and ends of cabinets 1 inch except where top butts against cabinet or wall.
 3. Prepare all cutouts accurately to size; replace tops having improperly dimensioned or unnecessary cutouts or fixture holes.
 4. Round all edges 1/4" min.
- B. Provide back/end splash wherever counter edge abuts vertical surface.
1. Secure the countertop with concealed fasteners and with contact surfaces set in waterproof glue.
 2. Height: 4 inches, unless otherwise indicated.
- C. Solid surfacing: fabricate tops up to 144 inches long in one piece; join pieces with adhesive sealant in accordance with manufacturer's recommendations and instructions.
- D. Wall-mounted counters: provide skirts, aprons, brackets, and braces as indicated on drawings, finished to match.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Do not begin installation until the substrates have been properly prepared.
- B. If substrate preparation is the responsibility of another installer, notify architect of unsatisfactory preparation before proceeding. C. Verify that wall surfaces have been finished and mechanical and electrical services and outlets are installed in proper locations.

3.02 PREPARATION

- A. Clean surfaces thoroughly prior to installation.
- B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

3.03 INSTALLATION

- A. Securely attach countertops to cabinets using concealed fasteners. Make flat surfaces level; shim where required.
- B. Attach plastic laminate countertops using screws with minimum penetration into substrate board of 5/8 inch.
- C. Seal joint between back/end splashes and vertical surfaces.

3.04 TOLERANCES

- A. Variation from horizontal: 1/8 inch in 10 feet, maximum.
- B. Offset from wall, countertops: 1/8 inch maximum; 1/16 inch minimum.

3.05 CLEANING

- A. Clean countertops surfaces thoroughly.

3.06 PROTECTION

- A. Protect installed products until completion of project.
- B. Touch-up, repair or replace damaged products before date of substantial completion

--- END ---