

**GRAND ARMY OF THE REPUBLIC (GAR)
23 E. DOWNER PLACE
AURORA, IL**

PROJECT: LOWER LEVEL REMODELING

OWNER CONTACT:

DAN BARREIRO, CHIEF
COMMUNITY SERVICES OFFICER

CITY OF AURORA

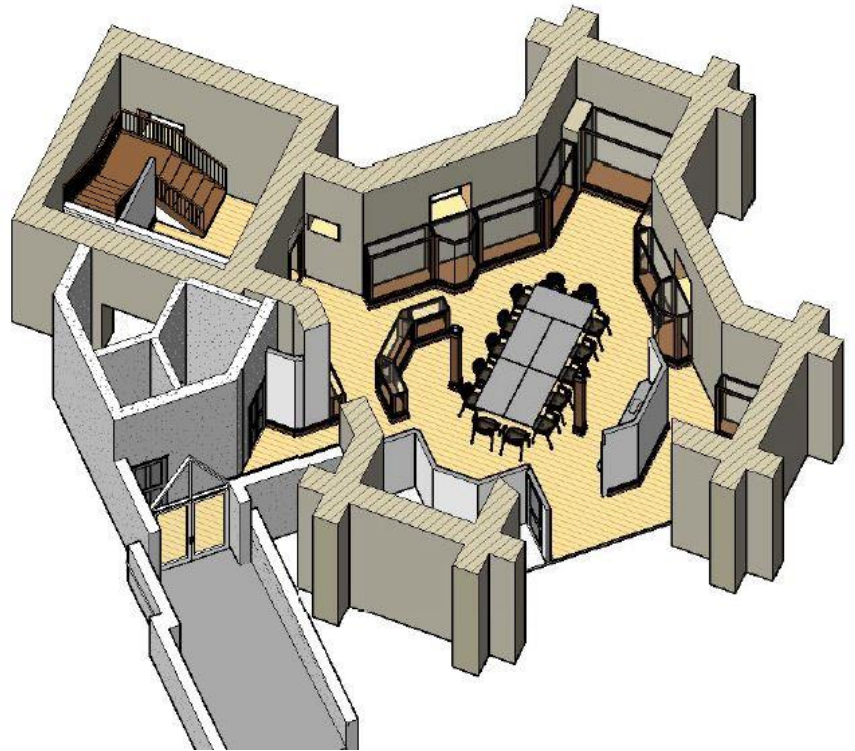
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ALLEN  **PEPA**
ARCHITECTS

AURORA
ILLINOIS

OUT TO BID MARCH 1, 2019

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**INVITATION TO BID
19-02
GRAND ARMY OF THE REPUBLIC LOWER LEVEL INTERIOR REMODEL
FOR THE CITY OF AURORA**

Sealed bids will be received at the office of the City Clerk, 44 East Downer Place, Aurora, Illinois 60507, until 2:00 p.m., Wednesday, March 27, 2019 for the anticipated Grand Army of the Republic Memorial Building Lower Level Interior Remodeling project located at 23 E. Downer Place, Aurora, IL.

The proposed work consists of remodeling the entire lower level with metal studs, drywall, finishing, architectural millwork, doors, floor and ceiling finishes, electrical conduit, wiring, lighting outlets and minor mechanical. No plumbing will be required. Approximate square footage is +/- 1500 square feet.

Specifications and other pertinent documents necessary for you to respond to this Invitation to Bid are included and can be located online at <https://www.aurora-il.org/bids.aspx>.

A mandatory pre-bid meeting will be held Tuesday, March 12, 2019 from 10:00 a.m. to 11:00 a.m. All bidders should meet at 23 E. Downer Place, Aurora, IL. **Bidders must be present at the start of the meeting to qualify to bid on the project.**

Questions regarding the bids are to be sent to the Director of Purchasing at PurchasingDL@aurora-il.org. All questions must be submitted in writing via e-mail by 8:00 a.m., Friday, March 15, 2019. Questions will be answered via bid addendum to be sent to those in attendance at the pre-bid meeting by 5:00 p.m., Monday, March 18, 2019. **Except at the pre-bid meeting, NO questions will be accepted or answered verbally. No questions will be accepted or answered after Friday, March 15, 2019, 8:00 a.m. cut-off date/time.**

It is the responsibility of the interested bidder to ensure they have received addendum, if any issued, and acknowledge such receipt where indicated.

Bid proposals are to be submitted on the bid proposal form provided entitled: "Bid Proposal 19-02: GAR Lower Level Remodel".

Bid proposals must be placed in an envelope, sealed, and clearly marked on the outside: "Bid Proposal 19-02: GAR Lower Level Remodel".

A bid bond or a certified check payable to the City of Aurora in the amount of 10% of the bid price is required with the bid presented. A 100% performance and payment bond will be required from the successful Bidder.

The City of Aurora has a local preference ordinance that would apply to this contract.

The City of Aurora encourages minority business firms to submit bids and encourages the successful firm to utilize minority businesses as applicable.

Any Bidder who owes the City money may be disqualified at the City's discretion.

Sufficient proof of liability and workmen's compensation insurance must be furnished to satisfy requirements of the City of Aurora.

When required by State Law, please be advised that all Bids must comply with the Illinois Prevailing Wage Act and the Prevailing Rate of Hourly Wages in the City of Aurora where the Work is to be performed is to be paid to all persons on the project.

The successful respondent shall comply with all codes, ordinances, rules, statutes, laws and regulations of the City of Aurora, State of Illinois as they apply to all Public Works construction projects.

The City of Aurora reserves the right at any time and for any reason to cancel this Invitation to Bid, to accept or reject any or all Bids or portion thereof, or accept an alternate bid. The City reserves the right to waive any immaterial defect in any bid, or technicality, informality or irregularity in the bids received, and to disregard all nonconforming or conditional bids or counter-proposals. Unless otherwise specified by the bidder or the City, the City reserves the right to hold the best bids for ninety (90) days from the opening date set forth above. The City may seek clarification from any bidder at any time and failure to respond promptly is cause for rejection. The City further reserves the right to award the bid to the lowest responsible Bidder whose offer best responds in quality, fitness and capacity to the requirements of the proposed work or usage and therefore is in the best interest of the City.

CITY OF AURORA

Jolene Coulter
Director of Purchasing

BIDDER'S CERTIFICATION

I/We hereby certify that:

- A. A complete set of bid papers, as intended, has been received, and that I/We will abide by the contents and/or information received and/or contained herein.
- B. I/We have not entered into any collusion or other unethical practices with any person, firm, or employee of the City which would in any way be construed as unethical business practice.
- C. I/We have adopted a written sexual harassment policy which is in accordance with the requirements of Federal, State and local laws, regulations and policies and further certify that I/We are also in compliance with all other equal employment requirements contained in Public Act 87-1257 (effective July 1, 1993) 775 ILCS 5/2-105 (A).
- D. I/We are in compliance with the most current "Prevailing Rate" of wages for laborers, mechanics and other workers as required by the City of Aurora Ordinance No. O18-054, adopted on June 26, 2018.
- E. I/We operate a drug free environment and drugs are not allowed in the workplace or satellite locations as well as City of Aurora sites in accordance with the Drug Free Workplace Act of January, 1992.
- F. The Bidder is not barred from bidding on the Project, or entering into this contract as a result of a violation of either Section 33E-3 or 33E-4 of the Illinois Criminal Code, or any similar offense of "bid rigging" or "bid rotating" of any state or the United States.
- G. I/We will submit, for all contracts in excess of \$25,000.00, a certificate indicating participation in apprenticeship and training programs approved and registered with the United States Department of Labor. Contractor shall check the box indicating that a copy of applicable program certification is attached.
- H. I/We will abide by all other Federal, State and local codes, rules, regulations, ordinances and statutes.

COMPANY NAME _____

ADDRESS _____

CITY/STATE/ZIP CODE _____

NAME OF CORPORATE/COMPANY OFFICIAL _____

PLEASE TYPE OR PRINT CLEARLY

TITLE _____

AUTHORIZED OFFICIAL SIGNATURE _____

DATE _____

Subscribed and Sworn to

TELEPHONE (____) _____

Before me this ____ day
of _____, 2019

Notary Public

STATE OF ILLINOIS)
)
County of Kane) ss.

BIDDER'S TAX CERTIFICATION

(BIDDER'S EXECUTING OFFICER), being first duly sworn on oath, deposes and states that all statements made herein are made on behalf of the Bidder, that this despondent is authorized to make them and that the statements contained herein are true and correct.

Bidder deposes, states and certifies that Bidder is not barred from contracting with any unit of local government in the State of Illinois as result of a delinquency in payment of any tax administered by the Illinois Department of Revenue unless Bidder is contesting, in accordance with the procedures established by the appropriate statute, its liability for the tax or the amount of the tax, all as provided for in accordance with 65 ILCS 5/11-42.1-1.

DATED this _____ day of _____, 2019.

By _____
(Signature of Bidder's Executing Officer)

(Print name of Bidder's Executing Officer)

(Title)

ATTEST/WITNESS:

By _____

Title _____

Subscribed and sworn to before me this
_____ day of _____, 2019.

Notary Public

(SEAL)

Apprenticeship or Training Program Certification

Return with Bid

All contractors are required to complete the following certification:

For this contract proposal or for all groups in this deliver and install proposal.

For the following deliver and install groups in this material proposal:

The City of Aurora policy, adopted in accordance with the provisions of the Illinois Highway Code, requires this contract to be awarded to the lowest responsive and responsible bidder. In addition to all other responsibility factors, this contract or deliver and install proposal requires all bidders and all bidders' subcontractors to disclose participation in apprenticeship or training programs that are approved by and registered with the United States Department of Labor's Bureau of Apprenticeship and Training, and applicable to the work of the above indicated proposals or groups. Therefore, all bidders are required to complete the following certification:

- I. Except as provided in paragraph IV below, the undersigned bidder certifies that it is a participant, either as an individual or as part of a group program, in an approved apprenticeship or training program applicable to each type of work or craft that the bidder will perform with its own employees.

- II. The undersigned bidder further certifies for work to be performed by subcontract that each of its subcontractors submitted for approval is, at the time of such bid, participating in an approved, applicable apprenticeship or training program applicable to the work of the subcontract.

- III. The undersigned bidder, by inclusion in the list in the space below, certifies the official name of each program sponsor holding the Certificate of Registration for all of the types of work or crafts in which the bidder is a participant and that will be performed with the bidder's employees. Types of work or craft that will be subcontracted shall be included and listed as subcontract work. The list shall also indicate any type of work or craft job category for which there is no applicable apprenticeship or training program available.

IV. Except for any work identified above, any bidder or subcontractor that shall perform all or part of the work of the contract or deliver and install proposal solely by individual owners, partners or members and not by employees to whom the payment of prevailing rates of wages would be required, check the following box, and identify the owner/operator workforce and positions of ownership.

The requirements of this certification and disclosure are a material part of the contract, and the contractor shall require this certification provision to be included in all approved subcontracts. The bidder is responsible for making a complete report and shall make certain that each type of work or craft job category that will be utilized on the project is accounted for and listed. **The City of Aurora requires a copy of each applicable Certificate of Registration issued by the United States Department of Labor evidencing such participation by the contractor and any or all of its subcontractors be included with the bid in order to qualify to bid on the project.**

The Bidder must also submit a signed and current dated letter(s) from the certificate holder(s) indicating that the Bidder may use the certificate to meet the above listed requirements for this specific project.

Bidder: _____

By: _____

(Signature)

Address: _____

Title _____

**CITY OF AURORA, ILLINOIS
INSTRUCTIONS TO BIDDERS**

01. REQUIREMENTS OF BIDDER

The successful Bidder may be required to (a) enter into a fully signed contract in writing with the City of Aurora covering matters and things as are set forth in the Bid Package; (b) execute a bond necessary for surety acceptable to the City of Aurora in the amount of one hundred percent (100%) of the full contract price and to be conditioned for the faithful fulfillment of the contract for the payment of all labor and materials used in the Work and to include the protection of the City from all liens and damages arising out of the Work; (c) carry insurance acceptable to the City covering public liability, property damage and workers compensation; and (d) pay workers in accordance with the schedule of prevailing wages for Kane County attached hereto.

02. ACCEPTANCE OF BIDS

- a. Bidder must submit an original bid response, marked as "original" and two (2) complete paper copies, and shall have provided all requested information, and submitted all appropriate forms, certificates, affidavits and addendum acknowledgements in each copy in order to be considered responsive.
- b. Bids must be submitted on the forms provided and all information and certifications called for must be furnished. Bids submitted in any other manner, or which fail to furnish all information or certificates required, may be summarily rejected. Bids may be modified or withdrawn prior to the time specified for the opening of bids. Bids shall be filled out legibly in ink or type-written with all erasures, strike overs and corrections initialed in ink by the person signing the bid. The bid shall include the legal name of the bidder, the complete mailing address, and be signed in ink by a person or persons legally authorized to bind the bidder to a contract. Name of person signing should be typed or printed below the signature.

Envelopes containing bids must be sealed and addressed to the City of Aurora City Clerk. The name and address of the bidder and the Invitation Number must be shown in the upper left corner of the envelope.

- c. The City of Aurora reserves the right at any time and for any reason to accept or reject any or all Bids or portion thereof, or accept an alternate bid. The City reserves the right to waive any immaterial defect in any bid, or technicality, informality or irregularity in the bids received, and to disregard all nonconforming or conditional bids or counter-proposals. Unless otherwise specified by the bidder or the City, the City reserves the right to hold the best bids for ninety (90) days from the opening date. Bidder agrees to accept a notice of award, if selected, based on the terms of this Bid Proposal in the event that a notification of award is received on or before expiration of the 90-day time period. The City reserves the right to cancel the Bid Proposal at any time, without liability for any loss, damage, cost or expense incurred or suffered by any Bidder as a result of that cancellation.

Each Bidder is solely responsible for the risk and cost of preparing and submitting a Bid Proposal.

- d. Although price is a consideration, qualifications and experience, capacity to handle the work, and response to the bid, will also be considered. No Bid Proposal will be considered unless the Bidder shall furnish evidence satisfactory to the City that he has the necessary facilities, abilities, experience, equipment, and financial and physical resources available to fulfill the conditions of the contract and execute the Work should the contract be awarded to them. Bid Proposal documents which are not responsive to the requirements herein may not be considered by the City for an award of the contract.

The contract will be awarded to the lowest responsive responsible Bidder. In determining the responsibility of any Bidder, the City may take into account other factors such as past records of its or other entities transactions with the Bidder, experience, ability to work cooperatively with the City and its staff, adequacy of equipment, ability to complete performance within necessary time limits, and other pertinent considerations such as, but not limited to, reliability, reputation, competency, skill, efficiency, facilities and resources.

The Bidder will be awarded in the City's best interests based on these and other legally-allowable considerations. The City and its representatives and agents may make any investigations deemed necessary to determine the ability of the Bidder to perform the Work. The Bidder shall furnish any information and data requested by the City for this purpose.

03. RECEIPT OF BIDS

- a. It is suggested that respondents allow a minimum of four (4) days for delivery through U.S. mail, or Bids may be delivered to the Office of the City Clerk in person. Overnight courier is acceptable provided timely receipt of Bids. The Bidder assumes responsibility for late delivery of the mail. It is the sole responsibility of the Bidder to see that his Bid is received in the proper time.
- b. Any Bid received by the Office of the City Clerk after **2:00 p.m. on Wednesday, March 27, 2019** shall be rejected.
- c. All Bids must be submitted upon the blank forms attached herein with all blank spaces filled in and any alterations or erasures explained. Bids that contain any omissions, erasures, or alterations, or that contain any additions or omissions of items not called for in the Bid Package, or that contain irregularities of any kind, may be rejected as informal. Bids shall be in strict conformity with the Bid Package and any applicable Addenda. Only Bids which are made out upon the Bid Form will be considered. Partial or incomplete Bids will not be considered.

04. WITHDRAWAL OF BIDS

Bidders are cautioned to verify their bids before submission. Negligence on the part of the bidder in preparing the bid confers no right for withdrawal or modification of the bid after it has been opened. Bidders may not withdraw their bid after the opening without the approval of the Director of Purchasing. Requests to withdraw a bid must be in writing

and properly signed. Bidders may, however, without prejudice, modify or withdraw its bid by written request, provided that the request is received by the City Clerk prior to the scheduled opening and at the address to which bid proposals were to be submitted. Following withdrawal or modification of its Bid Proposal, Bidder may submit a new Bid Proposal, provided it is received by the City Clerk prior to the bid proposal due date. No bid proposal will be opened which is received after the time and date scheduled for the Bid Proposals to be received.

05. BID DEPOSIT

Each Bidder shall deposit with his Bid a Bid guarantee consisting of a bank draft, Bid bond, cashier's check, or certified check drawn on a good and solvent National or State Bank and payable to the order of the City, in an amount not less than ten percent (10%) of the total amount of the Bid submitted, as a guaranty that in case the Bidder's Bid is accepted, the Bidder shall within one day after the date of such acceptance and notification thereof, deliver to the City a contract signed and executed by the Bidder, proper insurance certificates and a Performance and Payment Bond in one hundred percent of the contract sum furnished by a responsible bonding company acceptable to and written upon forms prepared or approved by the City as security for payment of labor and materials and for the faithful performance of the contract and compliance with the provisions of law relating to the payment of prevailing rate of wages. All Bid deposits will be retained by the City until a Bid award is made, at which time the Bid deposit will be promptly returned to the unsuccessful Bidders. The Bid deposit of the successful Bidder will be retained until the equipment, goods or services have been received or completed and found to be in compliance with the specifications. Performance by the Bidder shall not be considered complete, until final inspection and acceptance by the City of the Bidder's Work. Final inspection shall occur within 30 days after the actual completion of the Work. Execution of the contract is contingent upon receipt of an acceptable Performance and Payment Bond and any required certificates of insurance. Upon failure to meet the requirements of this paragraph, the Bidder shall forfeit the amount deposited as liquidated damages and no mistakes or errors on the part of the Bidder shall excuse the Bidder or entitle him to a return of the aforementioned amount.

06. BOND AND INSURANCE

The Bidder will be required to furnish a Performance and Payment Bond in the amount of one hundred percent (100%) of the full contract price, Public Liability Insurance, and Workers Compensation Insurance; all of which shall be acceptable to the City of Aurora.

The Bidder awarded the project will need to provide performance and payment bonds for one year with a letter attached from the bond company certifying that the bond may be automatically renewed for the second year.

The term Payment Bond shall be understood to mean the bond executed by the Bidder and his surety guaranteeing the payment of all sums of money due for any labor, materials, apparatus, fixtures, or machinery furnished to such principal for the purpose of performing the contract work.

The term Performance Bond shall be understood to mean the bond, executed by the contractor and his surety, guaranteeing complete execution of the contract.

Proof of liability insurance coverage through a reputable, recognized carrier shall be provided at the time of acceptance and signing of the contract and shall remain current for the duration of the contract.

The City of Aurora, by showing and substantiating sufficient proof of incompetence, negligence, poor or substandard workmanship which would cause unwarranted damage or deterioration of either premises, contents or appendages, reserves the right to terminate said Contractor without recourse from the City by successful Contractor.

07. CITY'S AGENT

The Director of Purchasing, or her delegate, shall represent and act for the City in all matters pertaining to the Bid proposal and contract in conjunction thereto.

08. INVESTIGATION

It shall be the responsibility of the Bidders to make any and all investigations necessary to become thoroughly informed of what is required and specified in the Bid. No plea of ignorance by the Bidders of conditions that exist or may hereafter exist as a result of failure or omission on the part of the Bidder to make the necessary examinations and investigations will be accepted as a basis for varying the requirements of the City of the compensation to the Bidder.

Each Bidder submitting a Bid is responsible for examining the complete Bid Package and all Addenda, and is also responsible for informing itself of all conditions that might in any way affect the cost or the performance of any Work. Failure to do so will be at the sole risk of the Bidder, and no relief will be given for errors or omissions by the Bidder. If awarded the contract, the Bidder will not be allowed any extra compensation by reason of any matter or thing concerning which such Bidder should have fully informed himself, because of his failure to have so informed himself prior to the bidding. The submission of a Bid shall be construed as conclusive evidence that the Bidder has made such examination as is required in this section and that the Bidder is conversant with local facilities and difficulties, the requirements of the Bid Package documents, and of pertinent, local, state and federal laws and codes, prevailing local labor and material markets, and has made due allowance in its Bid for all contingencies. Before any award is made of the contract to the Bidder, the Bidder may be required to, upon request of the City, furnish information concerning his performance record in his capacity to complete the Work in an efficient and timely manner.

09. BIDDER CAPABILITY

The City reserves the right to require of the Bidder proof of his/her capability to perform as required by the specifications. However, prequalification of the Bidder shall not be required. The City may, at its option, disqualify a Bidder and reject his proposal for cause. Reasons deemed sufficient for this action shall include, but not be limited to, the following:

- Evidence of collusion among bidders.
- Receipt of more than one bid proposal on any project from an individual, or from a corporation. This restriction does not apply to subcontractors.

- Default on any previous contract.
- Unreasonable failure to complete a previous contract within the specified time or for being in arrears on an existing contract without reasonable cause for being in arrears.
- Inability to perform as revealed by an investigation of the Proposer's financial statement, experience and/or plant and equipment.
- **Any proposer who owes the city money may be disqualified at the City's discretion.**

10. AWARD OF BID

It is the intent of the City to award a contract to the lowest responsive responsible bidder meeting specifications. The City reserves the right to determine the lowest responsive responsible bidder on the basis of an individual item, groups of items, or in any way determined to be in the best interests of the City. Award will be based on the following factors, but not limited to (where applicable): (a) adherence to all conditions and requirements of the bid specifications; (b) price; (c) qualifications of the bidder, including past performance, financial responsibility, general reputation, experience, service capabilities, and facilities; (d) delivery or completion date; (e) product appearance, workmanship, finish, taste, feel, overall quality, and results of product testing; (f) maintenance costs and warranty provisions; and (g) repurchase or residual value.

However, if the Bidder modifies limits, restricts or subjects his bid proposal to conditions that would change the requirements of the bid, this would be considered a conditional or qualified Bid Proposal and will not be accepted. The City reserves the right to delete any item listed in the bid.

11. PRICES

The price quoted for each item is the full purchase price, including delivery to destination and includes all transportation and handling charges, premiums on bonds, material or service costs and all other overhead charges of every kind and nature. Unless otherwise specified, prices shall remain firm for the contract period.

Unit prices shall not include any local, state or federal taxes. In case of mistake in extension of price, unit price shall govern. All prices must be typewritten or written in black ink. (The party signing the Bid Proposal or his/her authorized representative must initial any alteration in ink.)

12. DISCOUNTS

Prices quoted must be net after deducting all trade and quantity discounts. Where cash discounts for prompt payment are offered, the discount period shall begin with the date of receipt of a correct invoice or receipt or final acceptance of goods, whichever is later.

13. PAYMENT

Payment shall be made for services rendered. The City, after inspection and acceptance, and in consideration of the faithful performance by the Bidder, agrees to pay for the completion of the work embraced in this Contract, within thirty (30) days of the receipt of the invoice.

Time, in connection with any discount offered, will be computed from the date of delivery to the City or from the date a correct invoice is received by the City of Aurora Purchasing Division, if the latter date is later than the date of delivery.

Prices will be considered NET, if no payment discount is shown.

The successful Bidder shall submit invoices via e-mail to:

PurchasingDL@aurora-il.org

or Fax to **630-256-3559**

or Mail to the following address:

**City of Aurora
Attn: Purchasing Division
44 E. Downer Place
Aurora, IL 60507**

The City of Aurora offers electronic funds transfer (EFT) payment to our vendors. EFT is fast, simple, safe and secure and is *our preferred method of payment!* An authorization agreement form is included in this bid proposal package for your use and convenience.

14. TAXES

The City of Aurora is exempt, by law, from paying State and City Retailer's Occupation Tax, State Service Occupation Tax, State Use Tax and Federal Excise Tax upon City works and purchases. The City of Aurora's Sales Tax Exemption Number is E9996-0842-07.

15. DEFAULT

Time is of the essence of this contract and if delivery of acceptable items or rendering of services is not completed by the time promised, the City reserves the right, without liability, in addition to its other rights and remedies, to terminate the contract by notice effective when received by Bidder, as to stated items not yet shipped or services not yet rendered. The City will procure articles or service from other sources and hold the Bidder responsible for any excess cost incurred as provided for in Article 2 of the Uniform Commercial Code.

16. INTERPRETATION OR CORRECTION OF BIDDING DOCUMENTS

Bidders shall promptly notify the City of any ambiguity, inconsistency of error which they may discover upon examination of the bidding documents. Interpretations, corrections and changes will be made by addendum. Each bidder shall ascertain prior to submitting a bid that all addenda have been received and acknowledged in the bid.

17. INSPECTION

Materials or equipment purchased are subject to inspection and approval at the City's destination. The City reserves the right to reject and refuse acceptance of items which are not in accordance with the instructions, specifications, drawings or data of Bidder's warranty (express or implied). Rejected materials or equipment shall be removed by, or at the expense of, the Bidder promptly after rejection.

18. WARRANTY

Bidder warrants that all goods and services furnished hereunder will conform in all respects to the terms of the solicitation, including any drawings , specifications or standards incorporated herein, and that they will be free from latent and patent defects in materials, workmanship and title, and will be free from such defects in design . In addition, Bidder warrants that said goods and services are suitable for, and will perform in accordance with, the purposes for which they are purchased, fabricated, manufactured and designed or for such other purposes as are expressly specified in this solicitation. The City may return any nonconforming or defective items to the Bidder or require correction or replacement of the item at the time the defect is discovered, all at the Bidder's risk and expense. Acceptance shall not relieve the Bidder of its responsibility.

Contractor and/or Bidder (as case may be) expressly warrants that all goods and services (real property and all structures thereon) will conform to the drawings, materials, performance and any other specifications, samples or other description furnished by the City, and will be fit and sufficient for the purpose intended, merchantable, of good material and workmanship. Contractor and/or Bidder (as case may be) agrees that these warranties shall run to the City of Aurora, its successor, assigns, customers and users of the products or services and that these warranties shall survive acceptance of the goods or performance of the services.

19. CANCELLATION

The City reserves the right to cancel the whole or any part of the contract if the Bidder fails to perform any of the provisions in the contract or fails to make delivery within the time stated. The Bidder will not be liable to perform if situations arise by reason of strikes, acts of God or public enemy, acts of the City, fires or floods.

20. SIGNATURES

Bid proposals must be signed by the Bidder with his/her usual signature. Bids by partnerships must be signed with the partnership name by all members of the partnership, or an authorized representative, followed by the signature and title of the person signing.

Bids by corporations must be signed with the name of the corporation, followed by the signature and title of the person authorized to bind it in the matter. All signatures must be in ink.

When a corporation submits a Bid, its agent must present legal evidence that he has lawful authority to sign said Bid and that the corporation has a legal existence. In the event that any corporation organized and doing business under the laws of any foreign state is the successful Bidder, such corporation must present evidence before any contract is executed that it is authorized to do business in the State of Illinois. Bids by corporations must be executed in the corporate name by the President or a Vice President (or other corporate officer accompanied by evidence of authority to sign), and the signature must be attested by the Secretary or an Assistant Secretary, and the corporate seal must be affixed. The corporate address and state of incorporation must be shown below the signature. Bids by partnerships must be executed in the partnership name and signed by a partner whose title must appear under the signature, and the official address of the partnership must be shown below the signature. Any corrections to entries made on the Bid forms shall be initialed by the person signing the Bid. When requested by the City, satisfactory evidence of the authority of any signature on behalf of the Bidder shall be furnished.

21. SPECIAL CONDITIONS

Wherever special conditions are written into the Special Conditions and Specifications which are in conflict with conditions stated in these Instructions to Bidders, the conditions stated in Special Conditions and Specifications shall take precedence.

22. PERMITS AND LICENSES

The successful Bidder shall obtain, at its own expense, all permits and licenses which may be required to complete the contract.

23. REGULATORY COMPLIANCE

Bidder represents and warrants that the goods or services furnished hereunder (including all labels, packages and container for said good) comply with all applicable standards, rules and regulations in effect under the requirements of all Federal, State and local laws, rules and regulations as applicable, including the Occupational Safety and Health Act as amended, with respect to design, construction, manufacture or use for their intended purpose of said goods or services. Bidder shall furnish "Material Safety Data Sheet" in compliance with the Illinois Toxic Substances Disclosure to Employees Act.

24. ROYALTIES AND PATENTS

Bidder shall pay all royalties and license fees. Bidder shall defend all suits or claims for infringement of any patent or trademark rights and shall hold the City harmless from loss on account thereof.

25. REFERENCES

Sufficient references of all like public and/or private agencies must be presented on a separate sheet and attached to this Bid. Listing must include company name, contact person, telephone number and date purchased. All Bidders, as a condition of and prior to entry into a contract, agree that a complete background investigation of the principals of the Bidder and all employees who will work on the project may be made. Bidders agree to cooperate with the appropriate City of Aurora personnel to supply all information necessary to complete these investigations. The City of Aurora in its complete discretion may disqualify any Bidder, including low Bidder, and may void any contract previously entered into based on its background investigation.

26. ELIGIBILITY

By signing this bid, the bidder hereby certifies that they are not barred from bidding on this contract as a result of a violation of Article 33E, Public Contracts of the Illinois Criminal Code of 1961, as amended (Illinois Compiled Statutes, 720 ILCS 5/33E-1).

27. COMPLIANCE WITH LAWS AND REGULATIONS

The Bidder shall at all times observe and comply with all Federal, State, Municipal and other local laws, ordinances, regulations, and requirements which in any manner affect the conduct of the Work, and with all Federal, State and local laws and policies of non-discrimination, sexual harassment, prevailing wages and others applicable thereto; and all such orders or decrees as exist at the present and which may be enacted later, of bodies or tribunals having jurisdiction or authority over the Work, and no plea of misunderstanding or ignorance thereof will be considered. He shall indemnify and save harmless the City and all its officers, agents, employees and servants against any requirement, claim or liability arising from or based on the violation of any such law, ordinance, regulation, order or decree, whether by himself or his employees.

28. PATENTED DEVICES, MATERIALS, AND PROCESSES

It is mutually understood and agreed that without exception contract prices are to include all royalties and costs arising in the Work. It is the intent that whenever the Bidder is required or desires to use any design, device, material, or process covered by letters or patent or copyright, the right of such use shall be provided for by suitable legal agreement with the patent owner. The Bidder in all cases shall indemnify and save harmless the City from any and all claims for infringement by reason of the use of any such patent design, device, materials, or process, to be performed or used under the contract, and shall indemnify and save harmless the said City for any costs, expenses, attorney's fees, and damages which it may be obligated to pay, by reason of any such infringement at any time during the prosecution or after the completion of the Work.

29. PROTECTION AND RESTORATION OF PROPERTY

It is understood that in the execution of the Work herein provided for there may be interference with and/or damage to trees, shrubbery, crops, fences, railroad tracks, overhead structures such as poles, wires, cables, underground structures such as sewers,

gas mains, telephone conduits and cables, water mains, drains, service connections, wires, pipes, conduits, located along, adjacent to, and/or crossing the locations of the Work, and that it may be necessary to relocate or reconstruct certain of such structures, improvements, and installations and/or to make repairs to the same by reasons of doing the Work herein provided for, and it is therefore particularly and specifically agreed that the Bidder except as otherwise herein provided, shall do the Work necessary for such relocation, reconstruction, and repair and shall bear and pay all of the cost and expense of such relocation, reconstruction, and/or repair of, and all damage done to any and all such pipe line and other structures, improvements, and installations, including service connections, if any, to adjacent property, existing at the date of the execution of the contract and/or existing, during the period of the Work to be done under the contract, which may be interfered with, damaged, and/or necessarily relocated, reconstructed, or repaired in the performance of the Work herein provided for, including the restoration and resurfacing of unpaved portions of public streets and alleys, rights-of-way, easements, and private property damaged or disturbed by the Work, the same to be restored to as good condition as the same existed at the time of the commencement of any such Work or relocation.

It is further agreed that the owners of any structures, improvements, installations, referred to in the preceding paragraph shall have the right to do the Work or any part thereof necessary for the relocation, reconstruction, replacement, repair, and other Work required by reason of any interference with and/or damage to such structures, improvements, installations, due to the prosecution of the Work and upon completion of such Work by them done, said owners may render bills to the Bidder for the cost and expenses thereof which bills shall be paid by the Bidder without extra compensation therefore from the City, upon demand by said owners, or upon demand made by the City upon the Bidder for the payment thereof.

30. INSURANCE AND HOLD HARMLESS PROVISION

At the Bidder's expense, the Bidder shall secure and maintain in effect throughout the duration of this contract, insurance of the following kinds and limits to cover all locations of the Bidder's operations. The Bidder shall furnish Certificates of Insurance to the City before starting or within ten (10) days after the execution of the contract, whichever date is reached first. All insurance policies shall be written with insurance companies approved by the City of Aurora and licensed to do business in the State of Illinois and having a rating of not less than A IX, according to the latest edition of the A.M. Best Company; and shall include a provision preventing cancellation of the insurance policy unless thirty (30) days prior written notice is given to the City. This provision shall also be stated on each Certificate of Insurance as: "Should any of the above described policies be canceled before the expiration date thereof, the issuing company will endeavor to mail 10 days written notice to the certificate holder named to the left".

If requested, the awardee of this proposal will give the City a copy of the insurance policies. The policies must be delivered to the City within two weeks of the request.

The limits of liability for the insurance required shall provide coverage for not less than the following amount, or greater where required by law:

- (1) Worker's Compensation Insurance - Statutory amount.
- (2) General Liability Insurance:

- (a) \$1,000,000 per occurrence and \$2,000,000 general aggregate
- (b) \$500,000 per occurrence for Property Damage
- (c) \$1,000,000 per occurrence for Personal Injury
- (3) Auto Liability Insurance:
 - (a) Bodily injury with limits not less than \$1,000,000
 - (b) Property damage with limits not less than \$500,000
- (4) Umbrella excess liability of \$1,000,000 per occurrence, \$2,000,000 aggregate

The Bidder shall include the City as a primary, non-contributory additional named insured on both General and Auto Liability Insurance policies and indicate said status on any Certificates of Insurance provided to the City pursuant to this project. All insurance premiums shall be paid without cost to the City.

The Bidder agrees to indemnify and save harmless the City of Aurora, their agents and employees from and against all loss and expenses (including costs and attorneys' fees) by reason of liability imposed by law or claims made upon the City of Aurora for damages because of bodily injury, including death at any time resulting therefrom sustained by any person or persons or on account of damage to property, including loss of use thereof, arising out of or in consequence of the performance of this project work, whether such claims or injuries to persons or damage to property be due to the negligence of the Bidder or his Subcontractors. The Bidder shall assume total risk and shall be responsible for any and all damages or losses caused by or in any way resulting from the work and provide all insurance necessary to protect and save harmless the City of Aurora and its employees.

31. LOCAL BIDDER PREFERENCE

O18-070 approved August 28, 2018 defines “Local business” to mean a vendor or contractor who has a valid, verifiable physical business address located within the corporate boundaries of the City of Aurora at least twelve months prior to a bid or proposal opening date, from which the vendor, contractor or consultant operates or performs business on a daily basis, including manufacturing production or distribution. The business must disclose the percentage of workforce in the City of Aurora; be registered with the City of Aurora, if applicable; be subject to City of Aurora taxes (inclusive of sales taxes); be current with property tax payments and sales tax payments; not have any outside cited code violations; not have any outstanding debts to the City of Aurora; have adequately qualified and trained staff to service the bid of interest.

32. MINORITY PARTICIPATION

The City of Aurora encourages minority business firms to submit proposers and encourages the successful contract bidder to utilized minority businesses as sub-contractors for supplies, equipment, services and construction.

33. WORKERS COMPENSATION ACT

The Bidder further agrees to insure his employees and their beneficiaries and to the employees and the beneficiaries of any subcontractor employed from time to time by him on said Work, the necessary first-aid, medical, surgical, and hospital services and any compensation provided for in the Workers Compensation Act of the State of Illinois that is or may be in force in the State.

Such insurance shall be placed by said Bidder in a company or association (to be approved by the City and to be accepted by the Council thereof) authorized under the laws of the State of Illinois to insure the liability above specified.

Said Bidder hereby further agrees to indemnify, keep and save harmless said City from all action, proceedings, claims, judgments, awards, and costs, loss, damages, expenses, and attorney's fees which may in any way come against said City by reason of any accidental injuries or death suffered by any of his employees or the employees of any subcontractor employed by him in and about the performance of the Work provided for in the contract, and any and all liability resulting thereupon; and said Bidder, in case of any suit, action, or proceeding on account of any or all of the foregoing shall defend the same for and on behalf of said City and indemnify the City therefore, and pay the amount of any and all awards and final judgments and orders rendered and entered therein, together with all loss, costs, damages, attorney's fees, and expenses incurred therein. Said Bidder shall be the sole employer of its employees and workers, and in no way so shall the City be considered a joint employer of same under any circumstance.

34. RESPONSIBLE BIDDER

Section 2-331(5) of the Aurora City Code requires that bidders for city contracts in excess of \$25,000 must participate in active apprenticeship and training programs approved and registered with the United States Department of Labor's Bureau of Apprenticeship and Training to be considered a responsible bidder. A bidder must affirm such participation in the Bidder's Certification submitted with any bid. Furthermore, **the bidder must submit a copy of each applicable program registration certificate with his/her bid.**

35. SUBLETTING OR ASSIGNMENT OF WORK

If the Bidder sublets the whole or any part of the Work to be done under the contract, with or without the written consent of the City, he shall not, under any circumstances, be relieved of his liabilities and obligations. All transactions of the City shall be with the Bidder; subcontractors shall be recognized only in the capacity of employees or workmen and shall be subject to the same requirements as to character and competence. In case any party or parties, to whom any work under the contract shall have been sublet, shall disregard the directions of the City or his duly authorized representatives, or shall furnish any unsatisfactory Work or shall fail or refuse in any way to conform to any of the provisions or conditions of the contract, then in that case, upon the written order of the City, the Bidder shall require said party or parties in default to discontinue Work under the contract. Said Work shall be corrected or made good and shall be continued and completed by the said Bidder or by such other party or parties as are approved by the City, in the manner and subject to all of the requirements specified in the contract.

36. PROSECUTION OF WORK

The Bidder shall begin the Work to be performed under the contract no later than ten (10) days after the execution and acceptance of the contract, unless otherwise provided. The Work shall be conducted in such a manner and with sufficient materials, equipment and labor as is considered necessary to insure its completion within the time specified in the contract. The Bidder shall solely be fully responsible for complying with State and local prevailing wage requirements in accordance with the Bidders Certification, and for all wage rate and hour regulations and applications.

37. GUARANTEE AND MAINTENANCE OF WORK

The Bidder shall guarantee the Work to be free from defects of any nature for a period of one year from and after the final acceptance and payment for the Work by the City, and the Bidder shall maintain said Work and shall make all needed repairs and/or replacements during this one year period which in the judgment of the Council, may be necessary to insure the delivery of the Work to the City in first-class condition and in full conformity with the plans and specifications therefore, at the expiration of the guarantee period.

38. CONTRACT

The successful Bidder will be required to execute a contract in the form attached hereto (as may be modified and amended by the City) within five (5) days after notice of award and receipt of the contract from the City and sign and deliver to the City all required copies of the contract. Failure on the part of the Bidder to execute the contract within five (5) days and provide the required evidence of insurance at, or before the execution of the contract, will be considered just cause for the annulment of the award of the Bid.

39. INSURANCE CERTIFICATES

At, or prior to, delivery of the signed contract, the successful Bidder shall deliver to the City the policies of insurance or insurance certificates as required by the contract Documents. All policies or certificates of insurance shall be approved by the City before the successful Bidder may proceed with the Work. Execution of the contract by the City is contingent upon receipt of the insurance policies or certificates. Failure to provide the evidence of insurance in the time provided for will result in disqualification and the Bid will be awarded to the next lowest Bidder or in the creation of a new Bid.

40. PERSONNEL AND EQUIPMENT

The Bidder shall provide an adequate number of competently trained personnel with sufficient supervision to provide the services required, and the Bidder shall provide identification of its personnel if requested by the City.

Any Bidder's employee whose employment is reasonably detrimental or objectionable to the City shall be immediately transferred from the premises upon the City's request. The exercise of the option shall not be construed as placing the City in charge of the Work or making the City responsible for safety.

All on the road vehicles or equipment shall be identified by the Bidder's name for

purpose of identification.

All tools or equipment required to carry out the operations within the scope of the contract shall be provided by the Bidder, and shall meet the standards of the Federal Occupational Safety and Health Act and State of Illinois safety codes as may be required by law. The City reserves the right to inspect the equipment that will be used prior to award of Bid.

41. TIME

Bidder shall schedule its Work and that of its subcontractors to meet the requirement of the City. Bidder shall perform the Work expeditiously in cooperation with the City's agents, employees, contractors and subcontractors. Bidder shall make no claim against City and no claim shall be allowed for any damages which may arise out of any delay caused by City, its agents, employees, contractor or subcontractors. Bidder's sole remedy for delay shall be an extension in the contract time.

42. QUESTIONS

Questions regarding the bids are to be sent to the Director of Purchasing at PurchasingDL@aurora-il.org. All questions must be submitted in writing via e-mail by 8:00 a.m., Friday, March 15, 2019. Questions will be answered via bid addendum to be sent to those in attendance at the pre-bid meeting by 5:00 p.m., Monday, March 18, 2019. **Except at the pre-bid meeting, NO questions will be accepted or answered verbally. No questions will be accepted or answered after Friday, March 15, 2019, 8:00 a.m. cut-off date/time.**

It is the responsibility of the interested bidder to assure they have received addendum, if any issued, and acknowledge such receipt where indicated.

PROJECT SUMMARY

GAR LOWER LEVEL REMODELING INTERIOR REMODELING

The City of Aurora is continuing their efforts to convert the Grand Army of the Republic Memorial Building (“GAR”) into a US military history museum. The octagonally shaped Gothic Revival styled building was originally built in 1877 by local civil war veterans to serve the community as a meeting hall and public library. It was placed on the National Register of Historic Places in 1984. There were renovations in 2016 to strengthen its foundation and turn the ground floor level into a Civil War museum. The effort of the next phase is to renovate the lower level as an extension of the museum space and also reintroduce functionality as a meeting space.

INTERIOR REMODELING SUMMARY

From the 2016 renovation the lower level has existing metal stud framing for walls and soffits. That existing framing will largely be used as-is with minimal demolition. The metal stud walls and soffits will be covered with 5/8” gypsum wall board, mud, sanded, and painted. The existing HVAC, Electrical, and Plumbing is in good condition and will require minimal addition. Additional electrical conduit and junction boxes will need to be installed to service new light fixtures. The existing concrete floor will need to be cleaned and prepped for new luxury vinyl plank flooring. The exposed limestone foundation also needs to be cleaned and will remain exposed as much as possible. A dropped ACT ceiling will be installed beneath the junction boxes with crown moulding around the perimeter. The majority of the project scope consists of finished carpentry concerning the new display cabinets placed around the space. They will enclose the foundations footing and be as tall as the ceiling / soffit allows. They will be primarily glass with lightly stained and lacquered white oak. The base moulding is to match the existing base moulding found on the ground level. Two new doors will need to be installed: one to close off the stairwell and a second one to close off the mechanical room.

SCHEDULE

Bidding to be completed by end of April 2019 with construction beginning immediately thereafter.



BID FORM

GRAND ARMY OF THE REPUBLIC – LOWER LEVEL REMODEL

Company Name: _____

Contact: _____

Phone Number and Email: _____

BID SUBMITTAL DATE: **Wednesday, March 27, 2019, 2:00 PM**
City of Aurora
Attn: City Clerk
44 E. Downer Place
Aurora, IL. 60505

1. BASE BID:

The undersigned, having become familiar with local conditions affecting the cost of the Work and with the agreement documents including, but not limited to, bidding requirements, conditions of the contract, contract, the drawings and specifications, hereby propose to perform everything required to be performed and to provide and furnish all the labor, materials, necessary tools, expendable equipment, insurance, overhead, profit, taxes, permits, inspection fees and all utility and transportation services necessary to perform and complete, in a workmanlike manner, the entire Work as per the contract documents which include but are not limited to: General Conditions, General Requirements, Special Conditions, Instructions to Bidders, Invitation to Bid, Bid Form, Drawings, Specifications and any Addenda issued thereto for the sum of:

2. TIME OF COMPLETION:

Mandatory Pre-Bid Meeting: Tuesday, March 12, 2019 at 10:00 AM.
Questions Due Date: Friday, March 15, 2019 by 8:00 AM.
Bid Due Date: Wednesday, March 27, 2019 by 2:00 PM.
Project Beginning: Beginning of April 2019.
Project Completion: Around October 2019. Winning Bidder to submit timetable.

3. ADDENDUM ACKNOWLEDGEMENT:

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4. BID PROPSAL

SCOPE OF WORK	DESCRIPTION:	TOTAL \$
GENERAL CONSTRUCTION	DIV. 01: GENERAL, 02: DEMOLITION, 03: CONCRETE PREP AND PATCH, 04: MASONRY TUCKPOINTING AND CLEANING, 07: SEALANT, DOORS, 09: WALLS AND GWB CEILING, AND MISC. INCLUDE OVERHEAD AND PROFIT	\$ _____
ARCHITECTURAL MILLWORK -CHERRY CABINETS AND GLASS, INSTALLED	DIVISION 06: ARCHITECTURAL MILLWORK (NOTED IN FINISH CARPENTRY SPEC) INCLUDE OVERHEAD AND PROFIT	\$ _____
ELECTRICAL AND MECHANICAL	DIVISIONS 15 AND 16 INCLUDE OVERHEAD AND PROFIT	\$ _____
<u>TOTAL BASE BID</u>	<u>WRITTEN AMOUNT:</u> _____ _____	\$ _____
ADDITIONAL INFORMATION AND ALTERNATES		
ALTERNATE #1: EXTERIOR CONCRETE STAIRS AND DECORATIVE RAILINGS	SEE SHEET A0-2: NEW STAIRS AND RAILINGS: INCLUDE OVERHEAD AND PROFIT	\$ _____

5. REJECTION AND WITHDRAWAL OF BID

In submitting this bid, it is understood that the right is reserved by the Owner to reject any and all bids and to waive any informalities in bidding. It is agreed that this bid (base bid and alternatives) may not be withdrawn for a period of one hundred twenty days (120) from the opening thereof.

SIGNATURE: _____ Date: _____

Printed Name and Title





BID CONDITIONS

It is expressly understood and agreed that the foregoing Total Bid amount is the basis for establishing the amount of the bid security on this bid for the **Grand Army of the Republic Memorial Building Lower Level Remodel**. The undersigned has carefully checked the above Bidding Schedule against the Specifications and other Contract Documents before preparing this bid and accepts the said quantities to be substantially correct, both as to classification and amount, and in accordance with the Specifications and other Contract Documents.

If this Bid is accepted and the undersigned shall fail to Contract as aforesaid and to give the Performance Security required by the General Conditions of Contract or by law, and to provide all insurance as required by the Contract Documents within five calendar (5) calendar days after the date of the award of the Contract, and thereupon the proposal and the acceptance thereof shall be null and void, and the forfeiture of such security accompanying this proposal shall operate and the same shall be the property of the Owner as liquidated damages.



PROPOSAL SIGNATURE

1. **CORPORATION:**

The Bidder is a corporation organized and existing under the laws of the State of _____, which operates under the legal name of

Corporate Name: _____

Business Address: _____

Telephone Number: _____

and the full name of its officers names are as follows:

President: _____

Secretary: _____

Treasurer: _____

Manager: _____

The signator is authorized to sign construction proposals and Contracts for the company by action of its Board or Directors taken, a certified copy, which is available upon request.

Signed By: _____

Title:

Date: _____

Attest: _____

Secretary



2. **PARTNERSHIP:**

The Bidder is a partnership consisting of individual partners whose full names and addresses are as follows:

Name: _____

Address: _____

Name: _____

Address: _____

Name: _____

Address: _____

The Partnership does business under the legal name of:

Firm Name: _____

Business Address: _____

Telephone Number: _____

Signed By: _____

Title:

Date: _____



3. **INDIVIDUAL:**

The Bidder is an individual whose full name is:

Name: _____

and if operating under a trade name, said trade name is as follows:

Trade Name: _____

Business Address: _____

Telephone Number: _____

Signed By: _____

Title:

Date: _____

CONTRACT

1. **THIS AGREEMENT**, made and concluded this _____ day of _____, 2019 between the **City of Aurora** acting by and through **the City Council of the City of Aurora**, known as the party of the first part, and **Insert Contractor Name, Insert Contractors City, Illinois**, their executors, administrators, successors, or assigns, known as the party of the second part.
2. **WITNESSETH:** That for and in consideration of the payments and agreements mentioned in the Proposal, attached hereto, to be made and performed by the part of the first part and, according to the terms expressed in the Contract Bond referring to these presents, the party of the second part agrees with said party of the first part, at their own proper cost and expense, to do all the work, furnish all materials, and all labor necessary to construct the **Grand Army of the Republic Memorial Building Lower Level Remodel Project** in accordance with the plans, specifications, and special provisions hereinafter described and in full compliance with all of the parts of this agreement and the requirements of the Engineer under it.
3. And it is also understood and agreed to that the Contract Documents for the **Grand Army of the Republic Memorial Building Lower Level Remodel Project** attached hereto, constitute all essential documents of this contract and are a part thereof.
4. **IN WITNESS WHEREOF**, the said parties have executed these presents on the date above mentioned.

For the Owner,
Party of the First Part **City of Aurora**

Attest: _____
(Corporate Seal)

By: _____
Richard C. Irvin, Mayor

For the Contractor,
Party of the Second Part **Insert Contractor Name, Insert City, Illinois**

Printed Name: _____

Signature: _____
President, Party of Second Part

Attest: Secretary

DOCUMENT 007200

GENERAL CONDITIONS

PART 1 - GENERAL

- 1.1 General Conditions of the Contract, prepared by the City of Aurora, hereinafter referred to as General Conditions, are hereby made a part of the Contract Documents.
 - A. A copy of the City of Aurora General Conditions are included at the end of this Section.
- 1.2 The Contractor is hereby specifically directed, as a condition of the Contract, to become acquainted with the Articles contained therein, and to notify and apprise all Subcontractors and other parties to the Contract of, and bind them to, its conditions.
- 1.3 No contractual adjustments shall be due as a result of failure on the part of the Contractor, Subcontractors or other parties to the Contract to be fully acquainted with the General Conditions.
- 1.4 The provisions of the General Conditions and Division 01 "General Requirements," apply to the Work specified in each Section of the Specifications.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF DOCUMENT



City of Aurora, IL - Local Vendor Preference Application

The business identified below is requesting to be placed on the City of Aurora, Illinois Local Vendor Preference list, in accordance with ordinance O18-070, approved August 28, 2018.

- 1) Date Submitted: _____
- 2) Name of Business: _____
- 3) Address of Local Office: _____
- 4) City, State, Zip: _____
- 5) Company's Web Address: _____
- 6) Phone: _____ Fax: _____
- 7) County your Local Business is Located In: _____

Submitted By (Signature): _____

Print Name and Title: _____

Email Address: _____

Sec. 2-410.-Prequalification; local bidder.

- (a) If an interested business would like to prequalify as a "local business", such a business shall complete and submit the prequalification application along with supporting documentation, as listed below, and the applicable fee as set by the City Council, to the Finance Department:
- a. Evidence that the business has established and maintained a physical presence in the City of Aurora, by virtue of the ownership or lease of all or a portion of a building for a period of not less than twelve (12) consecutive months prior to the submission of the prequalification application; and
 - b. Evidence demonstrating that the business is legally authorized to conduct business within the State of Illinois and the City of Aurora, and has a business registered to operate in the City if required; and
 - c. Evidence that the business is not a debtor to the City of Aurora. For purposes of this subparagraph, a debtor is defined as having outstanding fees, water bills, sales tax or restaurant/bar tax payments that are thirty (30) days or more past due, or has outstanding weed or nuisance abatements or liens, has failure to comply tickets or parking tickets that are not in dispute as to their validity and are not being challenged in court or other administrative processes.

Back up documentation for (a) a. and (a) b. must accompany this submittal or application will be rejected.

Please note for (a) c. above the City of Aurora will verify internally that your company does not have any outstanding fees. Your company should make sure that to the best of its knowledge all bills are current.

Return completed application, with all required backup documentation to:

City of Aurora, Attn: Purchasing Division, 44 E. Downer Place, Aurora, IL 60507

Or email to: PurchasingDL@Aurora-il.org

Do not write below this line: For City of Aurora use ONLY

- (a) a.
- (a) b.
- (a) c.

Date: _____

Approved: _____

Letter Sent: _____

Denied: _____

Initials: _____

STANDARD FORM OF PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS, that we _____
a corporation organized under the laws of the State of _____ and licensed
to do business in the State of Illinois, as Principal, and _____ a
corporation organized and existing under the laws of the State of _____,
with authority to do business in the State of Illinois, as Surety, are held and firmly bound
unto the City of Aurora, State of Illinois, in the penal sum of _____
Dollars (\$_____), lawful money of the United States, well and truly to be
paid unto said City of Batavia, Illinois for the payment of which we bind ourselves, our
successors, and assigns, jointly, severally, and firmly by these presents.

THE CONDITION OF THE FOREGOING OBLIGATION IS SUCH that whereas, the said
Principal has entered into a written contract with an Owner which is the City of Batavia,
Illinois and acts through the City Council of the City of Batavia for the construction of the
work designated **Grand Army of the Republic Memorial Building Lower Level
Remodel**, which contract hereby is referred to and made a part hereof, as if written herein
at length, and whereby the said Principal has promised and agreed to perform said work in
accordance with the terms of said contract, and has promised to pay all sums of money
due for any labor, materials, apparatus, fixtures or machinery furnished to such Principal for
the purpose of performing such work and has further agreed to pay all direct and indirect
damages to any person, firm, company, or corporation suffered or sustained on account of
the performance of such work during the time thereof and until such work is completed and
accepted; and has further agreed that this bond shall insure to the benefit of any person,
firm, company, or corporation, to whom any money may be due from the Principal, sub-
contractor, or otherwise, for any such labor, materials, apparatus, fixtures, or machinery so
furnished and that suit may be maintained on such bond by any such person, firm,
company, or corporation, for the recovery of any such money.

NOW THEREFORE, if the said Principal shall well and truly perform said work in
accordance with the terms of said contract, and shall pay all sums of money due or to
become due for any labor, materials, apparatus, fixtures, or machinery furnished to the
Contractor for the purpose of constructing such work, and shall commence and complete
the work within the time prescribed in said contract, and shall pay and discharge all
damages, direct and indirect, that may be suffered or sustained on account of such work
during the time of the performance thereof and until the said work shall have been
accepted, and shall hold the aforesaid Owner and its or the Owner's agents harmless on
account of any such damages, and shall in all respects fully and faithfully comply with all
the provisions, conditions, and requirements of said contract, then this obligation to be void;
otherwise to remain in full force and effect.

Approved this _____ day of _____

A.D. 2019.

IN WITNESS WHEREOF, we have
duly executed the foregoing obligation

this _____ day of _____,

A.D. 2019

Aurora City Council
Governing Body of Owner

By: _____
Richard C. Irvin, Mayor

Corporate
Name: _____

By: _____
President

Attest:

Attest: _____
Secretary

For: _____

Surety _____
(Seal)

Chrissa Simpkins, Dep. City Clerk

By: _____
Attorney in Fact (Seal)

Municipal or Corporate Seal

By: _____
Attorney in Fact (Seal)

State of Illinois)
) SS.
County of Kane)



STATE OF _____)
) SS
COUNTY OF _____)

NON-COLLUSION AFFIDAVIT

PROJECT: GRAND ARMY OF THE REPUBLIC MEMORIAL BUILDING LOWER LEVEL REMODEL

being first duly sworn deposes and says that he is _____ (sole owner, a partner, president, secretary etc.) of _____ the party making the foregoing proposal; that such is not made in the interest of or on behalf of any undisclosed person, partnership, company, association, organization or corporation; that such bid is genuine and not collusive or sham; that said bidder has not directly or indirectly induced or solicited any other bidder to put in false or sham bid, and has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or to refrain from bidding, that said bidder has not in any manner, directly or indirectly, sought by agreement, communication or conference with anyone to fix the bid price of said bidder or of any other bidder, or to fix any overhead, profit or cost element of such bid price, or of that of any other bidder, or to secure any advantage against the public body awarding the contract or anyone interested in the proper contract; that all statements contained in such bid are true; and further, that said bidder has not, directly or indirectly, submitted his bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid and will not pay any fee in connection therewith, to any corporation, partnership, company, association, organization, bid depository or to any member or agency thereof, or to any other individual except to such person or persons as have a partnership or other financial interest with said bidder in his general business.

Signed: _____ Title: _____

Subscribed and sworn to before me
this _____ day of _____, 2019.

Notary Public

NOTICE OF AWARD

To: Contractor Name
Street Address
Town, State, Zip Code:

Project Description: **GRAND ARMY OF THE REPUBLIC
LOWER LEVEL REMODEL**

The OWNER has considered the Bid Proposal submitted by you for the above-described WORK.

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

You are required by the Bid Conditions to execute the CONTRACT and furnish the required PERFORMANCE BOND and CERTIFICATES OF INSURANCE within five (5) calendar days from the date of this Notice of Award.

If you fail to execute said CONTRACT and to furnish said PERFORMANCE BOND and CERTIFICATE OF INSURANCE within five (5) calendar days from the date of this Notice of Award, the OWNER will be entitled to consider all your rights arising out of the OWNER'S acceptance of your Bid Proposal as abandoned and as a forfeiture of your Bid Guarantee. The OWNER will be entitled to such 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 **th day of **** 2019.

City of Batavia

By: _____
Title: Director of Public Works



CITY OF AURORA

RICHARD C. IRVIN
Mayor

ACCEPTANCE OF NOTICE

Receipt of the above Notice of Award is hereby acknowledged this _____ day of _____, 2019.

By: _____

Printed Name: _____

Title: _____

NOTICE TO PROCEED

Date: XX/XX/XXXX
To: _____

Project: **Grand Army of the Republic Memorial Building Lower Level Remodel**

You are hereby notified to commence Work in accordance with the Agreement dated _____, 2019.

CITY OF AURORA

By: _____
(Owner)(Title)

ACCEPTANCE OF NOTICE

Receipt of the above Notice to Proceed is hereby acknowledged

By: _____

This is the _____ day of _____, 20_____.

By: _____

Title: _____

SECTION 011000

SUMMARY

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Project information.
2. Work covered by Contract Documents.
3. Access to site.
4. Coordination with occupants.
5. Work restrictions.
6. 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.

1.2 PROJECT INFORMATION

A. Project Identification: City of Aurora – Grand Army of the Republic Building

1. Project Location: 23 E Downer Pl. Aurora, IL 60505.

B. Owner: City of Aurora.

C. Architect: Allen + Pepa Architects; 215 Fulton Street; Geneva, IL 60134.

1.3 WORK COVERED BY CONTRACT DOCUMENTS

A. The Work of Project is defined by the Contract Documents and as defined in the Owner's Project Summary.

B. Type of Contract:

1. Project will be constructed under a single prime contract.
 - a. Entire project will be carried out over several years' time, as budget and funds are available.

1.4 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 Work in areas indicated. Do not disturb portions of Project site beyond areas in which the Work is indicated.
 - 1. Contractor shall work with Owner regarding work areas and phasing of work to ensure sufficient space and access to work areas can be provided.
 - a. Owner will need sufficient notice of construction schedule to coordinate relocation of office staff as required to accommodate the Work. Contractor shall coordinate with Owner regarding time period required by Owner for such notices.
 - 2. Driveways, Walkways and Entrances: Keep driveways, loading areas, 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 for 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.
- C. Condition of Existing Building: Maintain portions of existing building affected by construction operations in a weathertight condition throughout construction period. Repair damage caused by construction operations.
- D. Condition of Existing Grounds: Maintain portions of existing grounds, landscaping, and hardscaping affected by construction operations throughout construction period. Repair damage caused by construction operations.

1.5 COORDINATION WITH OCCUPANTS

- A. Full Owner Occupancy: Owner will occupy site and existing building(s) during entire construction period. Cooperate with Owner during construction operations to minimize conflicts and facilitate Owner usage. Perform the Work so as not to interfere with Owner's day-to-day operations. Maintain existing exits unless otherwise indicated.
 - 1. Maintain access to existing walkways, corridors, and other adjacent occupied or used facilities. Do not close or obstruct walkways, corridors, or other occupied or used facilities without written permission from Owner and approval of authorities having jurisdiction.
 - 2. Notify Owner not less than 72 hours in advance of activities that will affect Owner's operations.

1.6 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 in the existing building to normal business working hours of 7:00 a.m. to 7:00 p.m., Monday through Friday, unless otherwise indicated.

1. Weekend Hours: As approved in writing by Owner.
 2. Early Morning Hours: As approved in writing by Owner.
 3. Hours for Utility Shutdowns: As approved in writing by Owner.
 4. Hours for Noisy Activity: As approved in writing by Owner.
- C. Existing Utility Interruptions: Do not interrupt utilities serving facilities occupied by Owner or others unless permitted under the following conditions and then only after providing temporary utility services according to requirements indicated:
1. Notify Owner not less than two days in advance of proposed utility interruptions.
 2. Obtain Owner's written permission before proceeding with utility interruptions.
- D. Noise, Vibration, and Odors: Coordinate operations that may result in high levels of noise and vibration, odors, or other disruption to Owner occupancy with Owner.
1. Notify Owner not less than two days in advance of proposed disruptive operations.
 2. Obtain Owner's written permission before proceeding with disruptive operations.
- E. Restricted Substances: Use of tobacco products and other controlled substances within the existing building is not permitted.

1.7 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 scheduled on Drawings.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION

SECTION 012500

SUBSTITUTION PROCEDURES

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes administrative and procedural requirements for substitutions.
 - 1. Substitution Requests shall be accepted during Bidding Period only. Substitution Requests received by Architect after Bidding Period may not be considered and may be rejected by Architect without consideration.
 - 2. Substitution Requests shall not be allowed for window materials.
- B. Related Requirements:
 - 1. Section 016000 "Product Requirements" for requirements for submitting comparable product submittals for products by listed manufacturers.

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. Substitutions for Cause: Changes proposed by Contractor that are required due to changed Project conditions, such as unavailability of product, regulatory changes, or unavailability of required warranty terms.

1.3 ACTION SUBMITTALS

- A. Substitution Requests: 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.
 - 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 method cannot be provided, if applicable.
 - b. Coordination of 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 substitutions 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 as well as 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 substitutions 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.

1.5 PROCEDURES

- A. Coordination: Revise or adjust affected work as necessary to integrate work of the approved substitutions.

1.6 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. If the following conditions are not satisfied, Architect will return requests without action, except to record noncompliance with these requirements:
 - a. Requested substitution is consistent with the Contract Documents and will produce indicated results.
 - b. Substitution request is fully documented and properly submitted.
 - c. Requested substitution will not adversely affect Contractor's construction schedule.
 - d. Requested substitution has received necessary approvals of authorities having jurisdiction.
 - e. Requested substitution is compatible with other portions of the Work.
 - f. Requested substitution has been coordinated with other portions of the Work.
 - g. Requested substitution provides specified warranty.
 - h. 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: Not allowed unless accepted in writing by authorized representative of City of Batavia (Owner).

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION

GRAND ARMY OF THE REPUBLIC MEMORAL BUILDING LOWER LEVEL REMODEL

TO: Lane Allen
Allen + Pepa Architects
215 Fulton Street
Geneva, IL 60134
e: lallen@allenpepa.com

INSTALLER: _____ PHONE: _____
Name of Installer

ADDRESS: _____

1. Specification Section: _____ Paragraph: _____

2. Reason for Substitution:

3. Proposed Substitute:
A. Name and Model No.: _____
B. Manufacturer: _____
Address: _____
Phone Number and Person to Contact: _____
C. Applicable reference standards: _____

D. Attachments:
1. Product Information:
a. Applicable performance and test data.
b. Color chart, if applicable.
c. Samples, if requested by Architect.
2. Sample product warranty, if applicable.
3. Installation instructions.

4. Manufacturer's Reputation: Attach evidence of manufacturer qualifications and reputation for prompt delivery and efficiency in servicing products, as applicable.

5. Comparison: Attach an itemized comparison of the proposed substitution with product specified, including test performance data.
6. Cost Data: Attach accurate cost data on proposed substitution in comparison with product specified.
7. Changes in Work: Attach data relating to changes required in other work to permit use of proposed substitution and changes required in construction schedule.
8. Schedule Impact: Attach a statement indicating the substitution's effect on the Contractor's Construction Schedule compared to the schedule without approval of the substitution. Indicate the effect of the proposed substitution on overall Contract Time.
9. Previous Installation: Attach list of not less than 5 similar projects on which proposed substitution was used. List name and address of project, date of installation, and name, address, and phone number of Architect.
 - A. List only projects in the Chicago area.
10. In making request for substitution, Contractor represents that:
 - A. It has examined the Drawings and Specifications and has determined that, to the best of its knowledge, the proposed substitution is appropriate for the use intended in the Drawings and Specifications, and will perform as well as or better than the specified product.
 - B. It will provide the same warranties for substitution as for product specified.
 - C. It will coordinate installation of accepted substitution into Work, making such changes as may be required for Work to be complete in all respects.
 - D. It waives all claims for additional costs related to substitution which consequently become apparent.
 - E. Cost data is complete and includes all related costs under its Contract.

Name of Manufacturer, Signature of Manufacturer's Representative DATE

Name of Installer, Signature of Installer's Representative DATE

Name of Prime Contractor, Signature of Prime Contractor's Representative DATE

Name of Coordinating Contractor, Signature of Coordinating Contractor's Representative DATE

END OF SUBSTITUTION REQUEST FORM

SECTION 012600

CONTRACT MODIFICATION PROCEDURES

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes administrative and procedural requirements for handling and processing Contract modifications.
- B. Related Requirements:
 - 1. Section 012500 "Substitution Procedures" for administrative procedures for handling requests for substitutions made after the Contract award.

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.

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 14 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 forms acceptable to Architect and authorized representative of City of Batavia (Owner).

- B. Contractor-Initiated 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. Proposal Request Form: Use form acceptable to Architect and authorized representative of City of Batavia (Owner).

1.4 CHANGE ORDER PROCEDURES

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

1.5 CONSTRUCTION CHANGE DIRECTIVE

- A. Construction Change Directive: Architect may issue a Construction Change Directive on AIA Document G714. Construction Change Directive instructs Contractor to proceed with a change in the Work, for subsequent inclusion in a Change Order.
1. Construction 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 Change Directive.
1. After completion of change, submit an itemized account and supporting data necessary to substantiate cost and time adjustments to the Contract.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION

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 012600 "Contract Modification Procedures" for administrative procedures for handling changes to the Contract.
 - 2. Section 013200 "Construction Progress Documentation" for administrative requirements governing the preparation and submittal of the Contractor's construction schedule.

1.2 DEFINITIONS

- A. Schedule of Values: A statement furnished by Contractor allocating portions of the Contract Sum to various portions of the Work and used as the basis for reviewing Contractor's Applications for Payment.

1.3 SCHEDULE OF VALUES

- A. Coordination: Coordinate preparation of the schedule of values with preparation of Contractor's construction schedule.
 - 1. Coordinate line items in the schedule of values with 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 after date of Notice of Award.
- B. Format and Content: Use Project Manual table of contents as a guide to establish line items for the schedule of values. Provide at least one line item for each Specification Section.
 - 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. 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.
 - a. Differentiate between items stored on-site and items stored off-site.
5. Overhead Costs: Include total cost and proportionate share of general overhead and profit for each line item.
6. Closeout Costs. Include separate line items under Contractor and principal subcontracts for Project closeout requirements in an amount totaling five percent of the Contract Sum and subcontract amount.
7. Schedule of Values Revisions: Revise the schedule of values when Change Orders or Construction Change Directives result in a change in the Contract Sum. Include at least one separate line item for each Change Order and Construction Change Directive.

1.4 APPLICATIONS FOR PAYMENT

- A. Each Application for Payment following the initial Application for Payment shall be consistent with previous applications and payments as certified by Architect and paid for by Owner.
- 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.
 1. Submit draft copy of Application for Payment (pencil draw) not less than 3 days prior to date established for meeting to review Contractor's Application for Payment. Submit electronically to Architect and Owner.
- 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 for work completed following previous Application for Payment, whether or not payment has been received. Include only amounts for work completed at time of Application for Payment.
 3. Include amounts of Change Orders and Construction Change Directives issued before last day of construction period covered by application.
 4. Indicate separate amounts for work being carried out under Owner-requested project acceleration.

- E. **Stored Materials:** Include in Application for Payment amounts applied for materials or equipment purchased or fabricated and stored, but not yet installed. Differentiate between items stored on-site and items stored off-site.
1. Provide certificate of insurance, evidence of transfer of title to Owner, and consent of surety to payment for stored materials.
 2. Provide supporting documentation that verifies amount requested, such as paid invoices. Match amount requested with amounts indicated on documentation; do not include overhead and profit on stored materials.
 3. Provide summary documentation for stored materials indicating the following:
 - a. Value of materials previously stored and remaining stored as of date of previous Applications for Payment.
 - b. Value of previously stored materials put in place after date of previous Application for Payment and on or before date of current Application for Payment.
 - c. Value of materials stored since date of previous Application for Payment and remaining stored as of date of current Application for Payment.
- F. **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.
- G. **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. Submit partial waivers on each item for amount requested in previous application, after deduction for retainage, on each item.
 2. When an application shows completion of an item, submit conditional final or full waivers.
 3. Owner reserves the right to designate which entities involved in the Work must submit waivers.
 4. Submit final Application for Payment with or preceded by conditional final waivers from every entity involved with performance of the Work covered by the application who is lawfully entitled to a lien.
 5. Waiver Forms: Submit executed waivers of lien on forms acceptable to Owner.
- H. **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. Contractor's construction schedule (preliminary if not final).
 3. Products list (preliminary if not final).
 4. Copies of authorizations and licenses from authorities having jurisdiction for performance of the Work.
 5. Initial progress report.
 6. Report of preconstruction conference.

- I. 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.
 2. This application shall reflect Certificate(s) of Substantial Completion issued previously for Owner occupancy of designated portions of the Work.

- J. 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.
 5. AIA Document G706A.
 6. Evidence that claims have been settled.
 7. Final meter readings for utilities and similar data as of date of Substantial Completion or when Owner took possession of and assumed responsibility for corresponding elements of the Work.
 8. Final liquidated damages settlement statement.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION

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. General coordination procedures.
 - 2. RFIs.
 - 3. Project meetings.
- B. Each contractor shall participate in coordination requirements. Certain areas of responsibility are assigned to a specific contractor.
- C. Related Requirements:
 - 1. Section 013200 "Construction Progress Documentation" for preparing and submitting Contractor's construction schedule.
 - 2. Section 017300 "Execution" for procedures for coordinating general installation and field-engineering services, including establishment of benchmarks and control points.
 - 3. Section 017700 "Closeout Procedures" for coordinating closeout of the Contract.

1.2 DEFINITIONS

- A. RFI: Request for Information. 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. Include the following information in tabular form:
 - 1. Name, address, telephone number, and email address 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.
- B. Key Personnel Names: Within 15 days of starting construction operations, submit a list of key personnel assignments, including superintendent and other personnel in attendance at Project site. Identify individuals and their duties and responsibilities; list addresses and cellular telephone numbers and e-mail addresses. Provide names, addresses, and telephone numbers of individuals assigned as alternates in the absence of individuals assigned to Project.

1.4 GENERAL COORDINATION PROCEDURES

- A. Coordination: Each contractor shall coordinate its construction operations with those of other contractors and entities to ensure efficient and orderly installation of each part of the Work. Each contractor shall coordinate its own operations with 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 with other contractors 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 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. Installation and removal of temporary facilities and controls.
 3. Delivery and processing of submittals.
 4. Progress meetings.
 5. Preinstallation conferences.
 6. Phase closeout activities.

1.5 REQUEST FOR INFORMATION (RFI)

- A. General: Immediately on discovery of the need for additional information, clarification, or interpretation of the Contract Documents, Contractor shall prepare and submit an RFI in the form specified.
1. Architect will return without response those RFIs submitted to Architect by other entities controlled by Contractor.
 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 suggested resolution 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.
 - a. Include dimensions, thicknesses, structural grid references, and details of affected materials, assemblies, and attachments on attached sketches.
- C. RFI Forms: Submit RFIs on form acceptable to Architect, or AIA Document G716.
1. Attachments shall be electronic files in PDF format.
- 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 Contractor-generated RFIs will be returned without action:
 - a. Requests for approval of submittals.
 - b. Requests for approval of substitutions.
 - c. Requests for approval of Contractor's means and methods.
 - d. Requests for coordination information already indicated in the Contract Documents.
 - e. Requests for adjustments in the Contract Time or the Contract Sum.
 - f. Requests for interpretation of Architect's actions on submittals.
 - g. 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 by Architect 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. 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 returned without action or withdrawn.
 5. RFI description.
 6. Date the RFI was submitted.
 7. Date Architect's response was received.
 8. Identification of related Minor Change in the Work, Construction Change Directive, and Proposal Request, as appropriate.
- 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.

1.6 DIGITAL PROJECT MANAGEMENT PROCEDURES

- A. Architect's Data Files Not Available: Architect will not provide Architect's CAD drawing digital data files for Contractor's use during construction.
- B. PDF Document Preparation: Where PDFs are required to be submitted to Architect, prepare as follows:
1. Assemble complete submittal package into a single indexed file incorporating submittal requirements of a single Specification Section and transmittal form with links enabling navigation to each item.
 2. Name file with submittal number or other unique identifier, including revision identifier.
 3. Certifications: Where digitally submitted certificates and certifications are required, provide a digital signature with digital certificate on where indicated.

1.7 PROJECT MEETINGS

- A. General: 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 a minimum of 10 working days prior to meeting.
 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: Schedule and conduct a preconstruction conference before starting construction, at a time convenient to Owner and Architect, but no later than 15 days after execution of the Agreement.
1. Attendees: Authorized representatives of Owner; Architect, and their consultants; 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. Responsibilities and personnel assignments.
 - b. Tentative construction schedule.
 - c. Critical work sequencing and long lead items.
 - d. Designation of key personnel and their duties.
 - e. Lines of communications.
 - f. Procedures for processing field decisions and Change Orders.
 - g. Procedures for RFIs.
 - h. Procedures for testing and inspecting.
 - i. Procedures for processing Applications for Payment.
 - j. Distribution of the Contract Documents.
 - k. Submittal procedures.
 - l. Preparation of Record Documents.
 - m. Use of the premises and existing building.
 - n. Work restrictions.
 - o. Working hours.
 - p. Owner's occupancy requirements.
 - q. Responsibility for temporary facilities and controls.
 - r. Procedures for moisture and mold control.
 - s. Procedures for disruptions and shutdowns.
 - t. Construction waste management and recycling.
 - u. Parking availability.
 - v. Office, work, and storage areas.
 - w. Equipment deliveries and priorities.
 - x. First aid.
 - y. Security.
 - z. Progress cleaning.
3. Minutes: Entity responsible for conducting meeting will record and distribute meeting minutes.

C. Preinstallation Conferences: Conduct a preinstallation conference at Project site before each construction activity when required by other sections and when required for coordination with other construction.

1. Attendees: Installer and representatives of 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 meeting. Advise Architect of scheduled meeting dates.
2. Agenda: Review progress of other construction activities and preparations for the particular activity under consideration, including requirements for the following:
 - a. Contract Documents.
 - b. Options.
 - c. Related RFIs.
 - d. Related Change Orders.
 - e. Purchases.
 - f. Deliveries.
 - g. Submittals.
 - h. Review of mockups.
 - i. Possible conflicts.

- j. Compatibility requirements.
 - k. Time schedules.
 - l. Weather limitations.
 - m. Manufacturer's written instructions.
 - n. Warranty requirements.
 - o. Compatibility of materials.
 - p. Acceptability of substrates.
 - q. Temporary facilities and controls.
 - r. Space and access limitations.
 - s. Regulations of authorities having jurisdiction.
 - t. Testing and inspecting requirements.
 - u. Installation procedures.
 - v. Coordination with other work.
 - w. Required performance results.
 - x. Protection of adjacent work.
 - y. Protection of construction and personnel.
3. Record significant conference discussions, agreements, and disagreements, including required corrective measures and actions.
 4. Reporting: Distribute minutes of the meeting to each party present and to other parties requiring information.
 5. Do not proceed with installation if the conference cannot be successfully concluded. Initiate whatever actions are necessary to resolve impediments to performance of the Work and reconvene the conference at earliest feasible date.
- D. Project Phase Closeout Conference: Schedule and conduct a project phase closeout conference at the end of each project phase, at a time convenient to Owner and Architect, but no later than 30 days after the date of Substantial Completion for that phase.
1. Purpose of the conference is to discuss "lessons learned" during that phase of the Project, that can be applied to subsequent Project phases.
 2. Attendees: Authorized representatives of Owner and Architect; Contractor and its superintendent; major subcontractors; suppliers; and other concerned parties.
- E. Progress Meetings: Conduct progress meetings at weekly intervals.
1. Coordinate dates of meetings with preparation of payment requests.
 2. 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.
 3. Agenda: Review and correct or approve minutes of previous progress meeting. Review other items of significance that could affect progress. Include topics for discussion as appropriate to status of Project.
 - a. Contractor's Construction Schedule: Review progress since the last meeting. Determine whether each activity is on time, ahead of schedule, or behind schedule, in relation to Contractor's construction schedule. Determine how construction behind schedule will be expedited; secure commitments from parties involved to do so. Discuss whether schedule

revisions are required to ensure that current and subsequent activities will be completed within the Contract Time.

- 1) Review schedule for next period.
- b. Review present and future needs of each entity present, including the following:
- 1) Interface requirements.
 - 2) Sequence of operations.
 - 3) Status of submittals.
 - 4) Deliveries.
 - 5) Off-site fabrication.
 - 6) Access.
 - 7) Site use.
 - 8) Temporary facilities and controls.
 - 9) Progress cleaning.
 - 10) Quality and work standards.
 - 11) Status of correction of deficient items.
 - 12) Field observations.
 - 13) Status of RFIs.
 - 14) Status of Proposal Requests.
 - 15) Pending changes.
 - 16) Status of Change Orders.
 - 17) Pending claims and disputes.
 - 18) Documentation of information for payment requests.
4. Minutes: Entity responsible for conducting the meeting will record and distribute the meeting minutes to each party present and to parties requiring information.
- a. Schedule Updating: Revise Contractor's construction schedule after each progress meeting where revisions to the schedule have been made or recognized. Issue revised schedule concurrently with the report of each meeting.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION

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. Daily construction reports.
 - 3. Site condition reports.
 - 4. Unusual event reports.

1.2 INFORMATIONAL SUBMITTALS

- A. Format for Submittals: Submit required submittals in PDF format.
- B. Contractor's Construction Schedule: Initial schedule, of size required to display entire schedule for entire construction period.
- C. Daily Construction Reports: Submit at weekly intervals.
- D. Site Condition Reports: Submit at time of discovery of differing conditions.
- E. Unusual Event Reports: Submit at time of unusual event.

1.3 COORDINATION

- A. Coordinate Contractor's Construction Schedule with the progress reports, payment requests, and other required schedules and reports.

1.4 CONTRACTOR'S CONSTRUCTION SCHEDULE, GENERAL

- A. Time Frame: Extend schedule from date established for the Notice to Proceed to date of final completion for the Project phase.
- B. Activities: Treat each separate area as a separate numbered activity.
 - 1. 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.
 - 2. Punch List and Final Completion: Include not more than 30 days for completion of punch list items and final completion.
- C. Milestones: Include milestones indicated in the Contract Documents in schedule, including, but not limited to, the Notice to Proceed, Substantial Completion, and final completion.

- D. Contractor's Construction Schedule Updating: As required during construction, update schedule to reflect actual construction progress and activities. Provide updated schedule at next 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.
- E. 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. Indicate changes to working hours, working days, crew sizes, equipment required to achieve compliance, and date by which recovery will be accomplished.
- F. 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. 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.

1.5 GANTT-CHART SCHEDULE REQUIREMENTS

- 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.
- B. Preparation: Indicate each significant construction activity separately. Identify first workday of each week with a continuous vertical line.

1.6 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. High and low temperatures and general weather conditions, including presence of rain or snow.
 - 3. Testing and inspection.
 - 4. Accidents.
 - 5. Meetings and significant decisions.
 - 6. Unusual events.
 - 7. Stoppages, delays, shortages, and losses.
 - 8. Emergency procedures.
 - 9. Orders and requests of authorities having jurisdiction.
- 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.

- C. Unusual Event Reports: When an event of an unusual and significant nature occurs at Project site, whether or not related directly to the Work, prepare and submit a special report. List chain of events, persons participating, responses by Contractor's personnel, evaluation of results or effects, and similar pertinent information. Advise Owner in advance when these events are known or predictable.
1. Submit unusual event reports directly to Owner within one day(s) of an occurrence. Distribute copies of report to parties affected by the occurrence.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION

SECTION 013300

SUBMITTAL PROCEDURES

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Administrative and procedural requirements for submittals.

1.2 SUBMITTAL FORMATS

A. Submittal Information: Include the following information in each submittal:

1. Project name.
2. Date.
3. Name of Architect.
4. Name of Contractor.
5. Name of firm or entity that prepared submittal.
6. Names of subcontractor, manufacturer, and supplier.
7. Unique submittal number, including revision identifier, as agreed upon at Preconstruction Conference. Include Specification Section number with sequential alphanumeric identifier; and alphanumeric suffix for resubmittals.
8. Number and title of related Specification Section.
9. Other necessary identification.
10. Remarks.
11. Signature of transmitter.

B. Options: Identify options requiring selection by Architect.

C. Deviations and Additional Information: On each submittal, clearly indicate deviations from requirements in the Contract Documents, including minor variations and limitations; include relevant additional information and revisions, other than those requested by Architect on previous submittals. Indicate by highlighting on each submittal or noting on attached separate sheet.

D. PDF Submittals: Prepare submittals as PDF package, incorporating complete information into each PDF file. Name PDF file with submittal number.

1.3 SUBMITTAL PROCEDURES

A. Prepare and submit submittals required by individual Specification Sections. Types of submittals are indicated in individual Specification Sections.

1. Email: Prepare submittals as PDF package, and transmit to Architect by sending via email. Include PDF transmittal form. Include information in email subject line as requested by Architect.

- B. Coordination: Coordinate preparation and processing of submittals with performance of construction activities.
 - 1. Submit all submittal items required for each Specification Section concurrently unless partial submittals for portions of the Work are indicated on approved submittal schedule.
 - 2. Coordinate transmittal of submittals for related parts of the Work specified in different Sections so processing will not be delayed because of need to review submittals concurrently for coordination.
- 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.
 - 4. Sequential Review: Where sequential review of submittals by Architect's consultants, Owner, or other parties is indicated, allow 21 days for initial review of each submittal.
- D. 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.
- E. 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.

1.4 SUBMITTAL REQUIREMENTS

- A. Product Data: Collect information into a single submittal for each element of construction and type of product or equipment.
 - 1. Mark each copy of each submittal to show which products and options are applicable.
- B. 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.
 - 1. Paper 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.

- C. Samples: Submit Samples for review of kind, color, pattern, and texture for a check of these characteristics with other materials.
1. Transmit Samples that contain multiple, related components such as accessories together in one submittal package.
 2. 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 not incorporated into the Work, or otherwise designated as Owner's property, are the property of Contractor.
 3. 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.
 4. 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.
- D. 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.
- E. Certificates:
1. Certificates and Certifications Submittals: Submit 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. Provide a notarized signature where indicated.

2. 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.
3. 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.
4. Material Certificates: Submit written statements on manufacturer's letterhead certifying that material complies with requirements in the Contract Documents.
5. Product Certificates: Submit written statements on manufacturer's letterhead certifying that product complies with requirements in the Contract Documents.

F. Test and Research Reports:

1. 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.
2. 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.
3. 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.
4. 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.
5. 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.

1.5 CONTRACTOR'S REVIEW

- A. General: 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. Contractor's Approval: Indicate Contractor's approval for each submittal with a uniform approval stamp. Include 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.
 1. Architect will not review submittals received from Contractor that do not have Contractor's review and approval.

1.6 ARCHITECT'S REVIEW

- A. Action Submittals: Architect will review each submittal, indicate corrections or revisions required, and return it.
 - 1. PDF Submittals: Architect will indicate, via markup on each submittal, the appropriate action.
- B. 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.
- C. Partial submittals prepared for a portion of the Work will be reviewed when use of partial submittals has received prior approval from Architect.
- D. Incomplete submittals are unacceptable, will be considered nonresponsive, and will be returned for resubmittal without review.
- E. Architect will return without review submittals received from sources other than Contractor.
- F. Submittals not required by the Contract Documents will be returned by Architect without action.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION

SECTION 014000

QUALITY REQUIREMENTS

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes administrative and procedural requirements for quality assurance and quality control.

1.2 DEFINITIONS

- A. Experienced: When used with an entity or individual, "experienced" unless otherwise further described 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.
- B. Field Quality-Control Tests: Tests and inspections that are performed on-site for installation of the Work and for completed Work.
- C. 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, assembly, 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).
- D. Mockups: Full-size physical assemblies that are constructed on-site as part of permanent construction. Mockups are constructed to verify selections made under Sample submittals; to demonstrate aesthetic effects and qualities of materials and execution; to review coordination, testing, or operation; to show interface between dissimilar materials; and to demonstrate compliance with specified installation tolerances. Mockups are not Samples. Unless otherwise indicated, approved mockups establish the standard by which the Work will be judged.
 - 1. Exterior Mockups: Mockups of the exterior envelope constructed on-site as part of permanent construction, consisting of multiple products, assemblies, and subassemblies.
- E. 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.
- F. Product Tests: Tests and inspections that are performed by a nationally recognized testing laboratory (NRTL) according to 29 CFR 1910.7, by a testing agency accredited according to NIST's National Voluntary Laboratory Accreditation Program (NVLAP), or by a testing agency qualified to conduct product testing and acceptable to authorities

having jurisdiction, to establish product performance and compliance with specified requirements.

- G. Testing Agency: An entity engaged to perform specific tests, inspections, or both. Testing laboratory shall mean the same as testing agency.
- H. 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.
- I. 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. Contractor's quality-control services do not include contract administration activities performed by Architect.

1.3 CONFLICTING REQUIREMENTS

- A. Conflicting Standards and Other Requirements: If compliance with two or more standards or requirements are specified and the standards or requirements 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 direction before proceeding.
- B. 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.

1.4 INFORMATIONAL SUBMITTALS

- A. 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.
- B. Reports: Prepare and submit certified written reports and documents as specified.
- C. Permits, Licenses, and Certificates: For Owner's record, 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.

1.5 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, telephone number, and email address 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 inspection.
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 re-testing and re-inspecting.

1.6 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. As applicable, procure products from manufacturers able to meet qualification requirements, warranty requirements, and technical or factory-authorized service representative requirements.
- 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, applying, 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. Testing Agency Qualifications: An NRTL, an NVLAP, or an independent agency with the experience and capability to conduct testing and inspection 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.
- F. Mockups: Before installing portions of the Work requiring mockups, build mockups for each form of construction and finish required to comply with the following requirements, using materials indicated for the completed Work:
 1. Build mockups in location indicated or, if not indicated, as directed by Architect.
 2. Notify Architect seven days in advance of dates and times when mockups will be constructed.
 3. Employ supervisory personnel who will oversee mockup construction. Employ workers that will be employed to perform same tasks during the construction at Project.
 4. Demonstrate the proposed range of aesthetic effects and workmanship.

5. Obtain Architect's approval of mockups before starting corresponding work, fabrication, or construction.
 - a. Allow seven days for initial review and each re-review of each mockup.
6. Maintain mockups during construction in an undisturbed condition as a standard for judging the completed Work.

1.7 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 inspection they are engaged to perform.
 2. Costs for retesting and reinspecting construction that replaces or is necessitated by work that failed to comply with the Contract Documents will be charged to Contractor.
- B. Contractor Responsibilities: Tests and inspections not explicitly assigned to Owner are Contractor's responsibility. Perform additional quality-control activities, whether specified or not, to verify and document that the Work complies with requirements.
 1. Unless otherwise indicated, provide quality-control services specified and those required by authorities having jurisdiction. Perform quality-control services required of Contractor by authorities having jurisdiction, whether specified or not.
 2. Engage a qualified testing agency to perform quality-control services, as indicated in Contract Documents.
 - a. Contractor shall not employ same entity engaged by Owner, unless agreed to in writing by Owner.
 3. Notify testing agencies at least 24 hours in advance of time when Work that requires testing or inspection will be performed.
 4. Where quality-control services are indicated as Contractor's responsibility, submit a certified written report, in duplicate, of each quality-control service.
 5. Testing and inspection requested by Contractor and not required by the Contract Documents are Contractor's responsibility.
 6. Submit additional copies of each written report directly to authorities having jurisdiction, when they so direct.
- C. Retesting/Reinspecting: Regardless of whether original tests or inspections were Contractor's responsibility, provide quality-control services, including retesting and reinspecting, for construction that replaced Work that failed to comply with the Contract Documents.
- D. 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 locations 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 duties of Contractor.

E. Associated Contractor Services: Cooperate with agencies and representatives 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 inspection. Assist agency in obtaining samples.
4. Facilities for storage and field curing of test samples.
5. Preliminary design mix proposed for use for material mixes that require control by testing agency.
6. Security and protection for samples and for testing and inspection equipment at Project site.

F. 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 inspection.

1. Schedule times for tests, inspections, obtaining samples, and similar activities.

1.8 SPECIAL TESTS AND INSPECTIONS

A. Special Tests and Inspections: Owner will engage a qualified testing agency to conduct special tests and inspections required by authorities having jurisdiction as the responsibility of Owner, and as follows:

1. Verifying that manufacturer maintains detailed fabrication and quality-control procedures and reviewing 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, which 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 reinspecting corrected work.

- B. Special Tests and Inspections: Conducted by a qualified testing agency as required by authorities having jurisdiction, as indicated in individual Specification Sections, and as follows:
1. Notifying Architect and Contractor promptly of irregularities and deficiencies observed in the Work during performance of its services.
 2. 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.
 3. Submitting a final report of special tests and inspections at Substantial Completion, which includes a list of unresolved deficiencies.
 4. Interpreting tests and inspections and stating in each report whether tested and inspected work complies with or deviates from the Contract Documents.
 5. Retesting and reinspecting 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.
1. Submit log at Project closeout as part of Project Record Documents.

3.2 REPAIR AND PROTECTION

- A. General: On completion of testing, inspection, 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 Section 017300 "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.

END OF SECTION

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": Unload, temporarily store, unpack, assemble, erect, place, anchor, apply, work to dimension, finish, cure, protect, clean, and similar operations at Project site.
- 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 Gale's "Encyclopedia of Associations: National Organizations of the U.S." or in Columbia Books' "National Trade & Professional Associations of the United States."

B. 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. This information is believed to be accurate as of the date of the Contract Documents.

1. IAPMO - International Association of Plumbing and Mechanical Officials; www.iapmo.org.
2. ICC - International Code Council; www.iccsafe.org.
3. ICC-ES - ICC Evaluation Service, LLC; www.icc-es.org.

C. Federal Government 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. Information is subject to change and is up to date as of the date of the Contract Documents.

1. COE - Army Corps of Engineers; www.usace.army.mil.
2. EPA - Environmental Protection Agency; www.epa.gov.
3. FG - Federal Government Publications; www.gpo.gov.
4. OSHA - Occupational Safety & Health Administration; www.osha.gov.
5. USPS - United States Postal Service; www.usps.com.

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. This information is subject to change and is believed to be accurate as of the date of the Contract Documents.

1. CFR - Code of Federal Regulations; Available from Government Printing Office; www.gpo.gov/fdsys.
2. FED-STD - Federal Standard; (See FS).
3. FS - Federal Specification; Available from DLA Document Services; www.quicksearch.dla.mil.
 - a. Available from Defense Standardization Program; www.dsp.dla.mil.
 - b. Available from General Services Administration; www.gsa.gov.
 - c. Available from National Institute of Building Sciences/Whole Building Design Guide; www.wbdg.org/ccb.
4. USAB - United States Access Board; www.access-board.gov.

5. USATBCB - U.S. Architectural & Transportation Barriers Compliance Board;
(See USAB).

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION

SECTION 015000

TEMPORARY FACILITIES AND CONTROLS

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes requirements for temporary utilities, support facilities, and security and protection facilities.

1.2 QUALITY ASSURANCE

- A. Accessible Temporary Egress: Comply with applicable provisions in the DOJ's "2010 ADA Standards for Accessible Design" and ICC/ANSI A117.1.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Dust-Control Adhesive-Surface Walk-Off Mats: Provide mats minimum 36 by 60 inches. Provide mats at locations of passage through temporary dust partitions.

2.2 TEMPORARY FACILITIES

- A. Storage and Fabrication Sheds or Trailers: Provide sheds or trailers sized, furnished, and equipped to accommodate materials and equipment for construction operations.
 - 1. Store combustible materials apart from building.

2.3 EQUIPMENT

- A. Fire Extinguishers: Portable, UL rated; with class and extinguishing agent as required by locations and classes of fire exposures.

PART 3 - EXECUTION

3.1 SUPPORT FACILITIES INSTALLATION

- A. Parking: Use areas designated on the Drawings for construction personnel parking.
- B. Waste Disposal Facilities: Use areas designated on the Drawings for locating waste-collection containers. Provide waste-collection containers in sizes adequate to handle waste from construction operations. Comply with requirements of authorities having jurisdiction. Comply with progress cleaning requirements in Section 017300 "Execution."

- C. Lifts and Hoists: Provide facilities necessary for hoisting materials and personnel.
 - 1. Truck cranes and similar devices used for hoisting materials are considered "tools and equipment" and not temporary facilities.
- D. Scaffolding: Provide scaffolding as necessary to provide working surfaces and areas for personnel and materials.
- E. Existing Elevator Use: Use of Owner's existing elevators will be permitted, subject to approval in writing by Owner, provided elevators are cleaned and maintained in a condition acceptable to Owner. At Substantial Completion, restore elevators to condition existing before initial use, including replacing worn cables, guide shoes, and similar items of limited life.
- F. Existing Stair Usage: Use of Owner's existing stairs will be permitted, provided stairs are cleaned and maintained in a condition acceptable to Owner. At Substantial Completion, restore stairs to condition existing before initial use.
- G. Sanitary Facilities: Provide temporary toilets, wash facilities, and drinking water for use of construction personnel. Locate temporary sanitary facilities where indicated on the Drawings. Comply with requirements of authorities having jurisdiction for type, number, location, operation, and maintenance of fixtures and facilities.

3.2 SECURITY AND PROTECTION FACILITIES INSTALLATION

- A. Protection of Existing Facilities: Protect existing vegetation, equipment, structures, utilities, and other improvements at Project site and on adjacent properties, except those indicated to be removed or altered. Repair damage to existing facilities.
- B. Environmental Protection: Provide protection, operate temporary facilities, and conduct construction as required to comply with environmental regulations and that minimize possible air, waterway, and subsoil contamination or pollution or other undesirable effects.
- C. Temporary Erosion and Sedimentation Control: Provide measures to prevent soil erosion and discharge of soil-bearing water runoff and airborne dust to undisturbed areas and to adjacent properties and walkways, according to requirements of EPA Construction General Permit or authorities having jurisdiction, whichever is more stringent.
 - 1. Verify that flows of water redirected from construction areas or generated by construction activity do not enter or cross tree- or plant-protection zones.
 - 2. Inspect, repair, and maintain erosion- and sedimentation-control measures during construction until permanent vegetation has been established.
 - 3. Clean, repair, and restore adjoining properties and roads affected by erosion and sedimentation from Project site during the course of Project.
 - 4. Remove erosion and sedimentation controls and restore and stabilize areas disturbed during removal.
- D. Stormwater Control: Comply with requirements of authorities having jurisdiction. Provide barriers in and around excavations and subgrade construction to prevent flooding by runoff of stormwater from heavy rains.

- E. Tree and Plant Protection: Install temporary fencing located as indicated or outside the drip line of trees to protect vegetation from damage from construction operations. Protect tree root systems from damage, flooding, and erosion.
- F. Temporary Egress: Maintain temporary egress from existing occupied facilities as indicated and as required by authorities having jurisdiction.
- G. Covered Walkway: Erect protective, covered walkway for passage of individuals through or adjacent to Project site. Coordinate with entrance gates, other facilities, and obstructions. Comply with regulations of authorities having jurisdiction.
- H. Temporary Enclosures: Provide temporary enclosures for protection of construction, in progress and completed, from exposure, foul weather, other construction operations, and similar activities. Provide temporary weathertight enclosure for building exterior.
- I. Temporary Partitions: Provide floor-to-ceiling dustproof partitions to limit dust and dirt migration and to separate areas occupied by Owner from dust and fumes.
- J. Temporary Fire Protection: Install and maintain temporary fire-protection facilities of types needed to protect against reasonably predictable and controllable fire losses. Comply with NFPA 241; manage fire-prevention program.
 - 1. Prohibit smoking in construction areas. Comply with additional limits on smoking specified in other Sections.

3.3 MOISTURE AND MOLD CONTROL

- A. Contractor's Moisture-Protection Plan: Describe delivery, handling, storage, installation, and protection provisions for materials subject to water absorption or water damage.
 - 1. Indicate methods to be used to avoid trapping water in finished work.
- B. Construction Period: Maintain enclosure of building during construction operations.
 - 1. After removal of existing windows, openings in building exterior envelope shall have temporary, insulated infill panels whenever construction operations are not taking place.

3.4 OPERATION, TERMINATION, AND REMOVAL

- A. Supervision: Enforce strict discipline in use of temporary facilities. To minimize waste and abuse, limit availability of temporary facilities to essential and intended uses.
- B. Termination and Removal: Remove each temporary facility when need for its service has ended, when it has been replaced by authorized use of a permanent facility, or no later than Substantial Completion. Complete or, if necessary, restore permanent construction that may have been delayed because of interference with temporary facility. Repair damaged Work, clean exposed surfaces, and replace construction that cannot be satisfactorily repaired.

END OF SECTION

SECTION 016000

PRODUCT REQUIREMENTS

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes administrative and procedural requirements for selection of products for use in Project; product delivery, storage, and handling; manufacturers' standard warranties on products; special warranties; and comparable products.
- B. Related Requirements:
 - 1. Section 012500 "Substitution Procedures" for requests for substitutions.
 - 2. Section 014200 "References" for applicable industry standards for products specified.

1.2 DEFINITIONS

- A. Products: Items obtained for incorporating into the Work, whether purchased for Project or taken from previously purchased stock. The term "product" includes the terms "material," "equipment," "system," and terms of similar intent.
 - 1. Named Products: Items identified by manufacturer's product name, including make or model number or other designation shown or listed in manufacturer's published product literature that is current as of date of the Contract Documents.
 - 2. New Products: Items that have not previously been incorporated into another project or facility. Products salvaged or recycled from other projects are not considered new products.
 - 3. Comparable Product: Product that is demonstrated and approved by Architect through submittal process to have the indicated qualities related to type, function, dimension, in-service performance, physical properties, appearance, and other characteristics that equal or exceed those of specified product.
- B. Basis-of-Design Product Specification: A specification in which a single manufacturer's product is named and accompanied by the words "basis-of-design product," including make or model number or other designation. In addition to the basis-of-design product description, product attributes and characteristics may be listed to establish the significant qualities related to type, function, in-service performance and physical properties, weight, dimension, durability, visual characteristics, and other special features and requirements for purposes of evaluating comparable products of additional manufacturers named in the specification.
- C. Subject to Compliance with Requirements: Where the phrase "Subject to compliance with requirements" introduces a product selection procedure in an individual Specification Section, provide products qualified under the specified product procedure. In the event that a named product or product by a named manufacturer does not meet the other requirements of the specifications, select another named

product or product from another named manufacturer that does meet the requirements of the specifications. Submit a comparable product request, if applicable.

1.3 ACTION SUBMITTALS

- A. Comparable Product Request Submittal: Submit request for consideration of each comparable product. Identify basis-of-design product or fabrication or installation method to be replaced. Include Specification Section number and title and Drawing numbers and titles.
 - 1. Include data to indicate compliance with the requirements specified in "Comparable Products" Article.
 - 2. Architect's Action: If necessary, Architect will request additional information or documentation for evaluation within seven days of receipt of a comparable product request. Architect will notify Contractor of approval or rejection of proposed comparable product request within 15 days of receipt of request, or seven days of receipt of additional information or documentation, whichever is later.
 - a. Form of Architect's Approval of Submittal: As specified in Section 013300 "Submittal Procedures."
 - b. Use product specified if Architect does not issue a decision on use of a comparable product request within time allocated.
- B. Basis-of-Design Product Specification Submittal: Comply with requirements in Section 013300 "Submittal Procedures." Show compliance with requirements.

1.4 QUALITY ASSURANCE

- A. Compatibility of Options: If Contractor is given option of selecting between two or more products for use on Project, select product compatible with products previously selected, even if previously selected products were also options.
 - 1. Each contractor is responsible for providing products and construction methods compatible with products and construction methods of other contractors.
 - 2. If a dispute arises between contractors over concurrently selectable but incompatible products, Architect will determine which products shall be used.
- B. Identification of Products: Except for required labels and operating data, do not attach or imprint manufacturer or product names or trademarks on exposed surfaces of products or equipment that will be exposed to view in occupied spaces or on the exterior.
 - 1. Labels: Locate required product labels and stamps on a concealed surface, or, where required for observation following installation, on a visually accessible surface that is not conspicuous.
 - 2. Equipment Nameplates: Provide a permanent nameplate on each item of service-connected or power-operated equipment. Locate on a visually accessible but inconspicuous surface. Include information essential for operation, including the following:
 - a. Name of product and manufacturer.

- b. Model and serial number.
- c. Capacity.
- d. Speed.
- e. Ratings.

1.5 PRODUCT DELIVERY, STORAGE, AND HANDLING

- A. Deliver, store, and handle products using means and methods that will prevent damage, deterioration, and loss, including theft and vandalism. Comply with manufacturer's written instructions.
- B. Delivery and Handling:
 - 1. Schedule delivery to minimize long-term storage at Project site and to prevent overcrowding of construction spaces.
 - 2. Coordinate delivery with installation time to ensure minimum holding time for items that are flammable, hazardous, easily damaged, or sensitive to deterioration, theft, and other losses.
 - 3. Deliver products to Project site in an undamaged condition in manufacturer's original sealed container or other packaging system, complete with labels and instructions for handling, storing, unpacking, protecting, and installing.
 - 4. Inspect products on delivery to determine compliance with the Contract Documents and to determine that products are undamaged and properly protected.
- C. Storage:
 - 1. Store products to allow for inspection and measurement of quantity or counting of units.
 - 2. Store materials in a manner that will not endanger Project structure.
 - 3. Store products that are subject to damage by the elements, under cover in a weathertight enclosure above ground, with ventilation adequate to prevent condensation.
 - 4. Comply with product manufacturer's written instructions for temperature, humidity, ventilation, and weather-protection requirements for storage.
 - 5. Protect stored products from damage and liquids from freezing.

1.6 PRODUCT WARRANTIES

- A. Warranties specified in other Sections shall be in addition to, and run concurrent with, other warranties required by the Contract Documents. Manufacturer's disclaimers and limitations on product warranties do not relieve Contractor of obligations under requirements of the Contract Documents.
 - 1. Manufacturer's Warranty: Written warranty furnished by individual manufacturer for a particular product and specifically endorsed by manufacturer to Owner.
 - 2. Special Warranty: Written warranty required by the Contract Documents to provide specific rights for Owner.
- B. Special Warranties: Prepare a written document that contains appropriate terms and identification, ready for execution.

1. Manufacturer's Standard Form: Modified to include Project-specific information and properly executed.
2. Specified Form: When specified forms are included with the Specifications, prepare a written document using indicated form properly executed.
3. See other Sections for specific content requirements and particular requirements for submitting special warranties.

C. Submittal Time: Comply with requirements in Section 017700 "Closeout Procedures."

PART 2 - PRODUCTS

2.1 PRODUCT SELECTION PROCEDURES

A. General Product Requirements: Provide products that comply with the Contract Documents, are undamaged and, unless otherwise indicated, are new at time of installation.

1. Provide products complete with accessories, trim, finish, fasteners, and other items needed for a complete installation and indicated use and effect.
2. Standard Products: If available, and unless custom products or nonstandard options are specified, provide standard products of types that have been produced and used successfully in similar situations on other projects.
3. Owner reserves the right to limit selection to products with warranties meeting requirements of the Contract Documents.
4. Where products are accompanied by the term "as selected," Architect will make selection.
5. Descriptive, performance, and reference standard requirements in the Specifications establish salient characteristics of products.

B. Product Selection Procedures:

1. Sole Product: Where Specifications name a single manufacturer and product, provide the named product that complies with requirements. Comparable products or substitutions for Contractor's convenience will not be considered.
 - a. Sole product may be indicated by the phrase: "Subject to compliance with requirements, provide the following: ..."
2. Sole Manufacturer/Source: Where Specifications name a single manufacturer or source, provide a product by the named manufacturer or source that complies with requirements. Comparable products or substitutions for Contractor's convenience will not be considered.
 - a. Sole manufacturer/source may be indicated by the phrase: "Subject to compliance with requirements, provide products by the following: ..."
3. Limited List of Products: Where Specifications include a list of names of both manufacturers and products, provide one of the products listed that complies with requirements.
 - a. Limited list of products may be indicated by the phrase: "Subject to compliance with requirements, provide one of the following: ..."

4. Limited List of Manufacturers: Where Specifications include a list of manufacturers' names, provide a product by one of the manufacturers listed that complies with requirements.
 - a. Limited list of manufacturers is indicated by the phrase: "Subject to compliance with requirements, provide products by one of the following: ..."
 5. Basis-of-Design Product: Where Specifications name a product, or refer to a product indicated on Drawings, and include a list of manufacturers, provide the specified or indicated product or a comparable product by one of the other named manufacturers. Drawings and Specifications indicate sizes, profiles, dimensions, and other characteristics that are based on the product named. Comply with requirements in "Comparable Products" Article for consideration of an unnamed product by one of the other named manufacturers.
 - a. For approval of products by unnamed manufacturers, comply with requirements in Section 012500 "Substitution Procedures" for substitutions for convenience.
- C. Visual Matching Specification: Where Specifications require "match Architect's sample," provide a product that complies with requirements and matches Architect's sample. Architect's decision will be final on whether a proposed product matches.
1. If no product available within specified category matches and complies with other specified requirements, comply with requirements in Section 012500 "Substitution Procedures" for proposal of product.
- D. Visual Selection Specification: Where Specifications include the phrase "as selected by Architect from manufacturer's full range" or similar phrase, select a product that complies with requirements. Architect will select color, gloss, pattern, density, or texture from manufacturer's product line that includes both standard and premium items.

2.2 COMPARABLE PRODUCTS

- A. Conditions for Consideration of Comparable Products: Architect will consider Contractor's request for comparable product when the following conditions are satisfied. If the following conditions are not satisfied, Architect may return requests without action, except to record noncompliance with these requirements:
1. Evidence that proposed product does not require revisions to the Contract Documents, is consistent with the Contract Documents, will produce the indicated results, and is compatible with other portions of the Work. Detailed comparison of significant qualities of proposed product with those named in the Specifications. Significant product qualities include attributes such as type, function, in-service performance and physical properties, weight, dimension, durability, visual characteristics, and other specific features and requirements.
 2. Evidence that proposed product provides specified warranty.
 3. List of similar installations for completed projects with project names and addresses and names and addresses of architects and owners, if requested.
 4. Samples, if requested.

- B. Submittal Requirements: Approval by the Architect of Contractor's request for use of comparable product is not intended to satisfy other submittal requirements. Comply with specified submittal requirements.

PART 3 - EXECUTION (Not Used)

END OF SECTION

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 scope coordination.
 - 2. Installation of the Work.
 - 3. Cutting and patching.
 - 4. Progress cleaning.
 - 5. Protection of installed construction.

- B. Related Requirements:
 - 1. Section 011000 "Summary" for limits on use of Project site.
 - 2. Section 024119 "Selective Demolition" for demolition and removal of selected portions of the building.

1.2 DEFINITIONS

- A. Cutting: Removal of in-place construction necessary to permit installation or performance of subsequent work.

- B. Patching: Fitting and repair work required to restore construction to original conditions after installation of subsequent work.

1.3 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For land surveyor.

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

1.4 QUALITY ASSURANCE

- A. 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 elements 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. Operational Elements: Do not cut and patch operating elements and related components in a manner that results in reducing their capacity to perform as intended or that results in increased maintenance or decreased operational life or safety.
 3. 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.
 4. 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.
- B. Manufacturer's Installation Instructions: Obtain and maintain on-site manufacturer's written recommendations and instructions for installation of products and equipment.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. General: Comply with requirements specified in other Sections.
- B. In-Place Materials: Use materials for patching identical to in-place materials. For exposed surfaces, use materials that visually match in-place adjacent surfaces to the fullest extent possible.
1. If identical materials are unavailable or cannot be used, use materials that, when installed, will provide a match acceptable to Architect for the visual and functional performance of in-place materials.

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 sitework, investigate and verify the existence and location of underground utilities, and other construction affecting the Work.
- 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 walls, floors, and roofs for suitable conditions where products and systems are to be installed.
 2. Verify compatibility with and suitability of substrates, including compatibility with existing finishes or primers.

- C. Written Report: Where a written report listing conditions detrimental to performance of the Work is required by other Sections, include the following:
 - 1. Description of the Work.
 - 2. List of detrimental conditions, including substrates.
 - 3. List of unacceptable installation tolerances.
 - 4. Recommended corrections.
- D. 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 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 013100 "Project Management and Coordination."

3.3 CONSTRUCTION LAYOUT

- A. 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.
- B. Site Improvements: Locate and lay out site improvements.

3.4 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.
- 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: Where possible, select tools or equipment that minimize production of excessive 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 portions of the 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. Repair or remove and replace damaged, defective, or nonconforming Work.
 - 1. Comply with Section 017700 "Closeout Procedures" for repairing or removing and replacing defective Work.

3.5 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. Temporary Support: Provide temporary support of work to be cut.

- C. 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.
- D. Adjacent Occupied Areas: Where interference with use of adjoining areas or interruption of free passage to adjoining areas is unavoidable, coordinate cutting and patching according to requirements in Section 011000 "Summary."
- E. Cutting: Cut in-place construction by sawing, drilling, breaking, chipping, grinding, and similar operations, including excavation, using methods least likely to damage elements retained or adjoining construction. If possible, review proposed procedures with original Installer; comply with original Installer's written recommendations.
 - 1. In general, use hand or small power tools designed for sawing and grinding, not hammering and chopping. Cut holes and slots neatly to minimum size required, and with minimum disturbance of adjacent surfaces. Temporarily cover openings when not in use.
 - 2. Finished Surfaces: Cut or drill from the exposed or finished side into concealed surfaces.
 - 3. Masonry: Cut using a cutting machine, such as an abrasive saw or a diamond-core drill.
 - 4. Proceed with patching after construction operations requiring cutting are complete.
- F. Patching: Patch construction by filling, repairing, refinishing, closing up, and similar operations following performance of other work. Patch with durable seams that are as invisible as practicable. Provide materials and comply with installation requirements specified in other Sections, where applicable.
 - 1. Inspection: Where feasible, test and inspect patched areas after completion to demonstrate physical integrity of installation.
 - 2. Exposed Finishes: Restore exposed finishes of patched areas and extend finish restoration into retained adjoining construction in a manner that will minimize evidence of patching and refinishing.
 - 3. Walls: Where walls or partitions that are removed extend one finished area into another, patch and repair wall surfaces in the new space. Provide an even surface of uniform finish, color, texture, and appearance.
 - a. Where patching occurs in a painted surface, prepare substrate and apply primer and intermediate paint coats appropriate for substrate over the patch, and apply final paint coat over entire unbroken surface containing the patch. Provide additional coats until patch blends with adjacent surfaces.
 - 4. Ceilings: Where required, patch, repair, or rehang in-place ceilings as necessary to provide an even-plane surface of uniform appearance.
 - 5. Exterior Building Enclosure: Patch components in a manner that restores enclosure to a weathertight condition and ensures thermal and moisture integrity of building enclosure.
- G. Cleaning: Clean areas and spaces where cutting and patching are performed. Remove paint, mortar, oils, putty, and similar materials from adjacent finished surfaces.

3.6 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.
 - a. Use containers intended for holding waste materials of type to be stored.
- 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. Comply with waste disposal requirements in Section 015000 "Temporary Facilities and Controls."
- 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 ensure that no part of the construction, completed or in progress, is subject to harmful, dangerous, damaging, or otherwise deleterious exposure during the construction period.

3.7 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. Protection of Existing Items: Provide protection and ensure that existing items to remain undisturbed by construction are maintained in condition that existed at commencement of the Work.
- C. Comply with manufacturer's written instructions for temperature and relative humidity.

END OF SECTION

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. Final cleaning.
 - 4. Repair of the Work.

1.2 ACTION SUBMITTALS

- A. Contractor's List of Incomplete Items: Initial submittal at Substantial Completion.
- B. Certified List of Incomplete Items: Final submittal at final completion.

1.3 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. Submit closeout submittals specified in other Division 01 Sections, including project record documents, operation and maintenance data, damage or settlement surveys, and similar final record information.
 - 2. Submit closeout submittals specified in individual Sections.
 - 3. 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.
- 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. Terminate and remove temporary facilities from Project site, along with construction tools and similar elements.
 - 2. Complete final cleaning requirements.
 - 3. Touch up paint 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. Request reinspection 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.

1.4 FINAL COMPLETION PROCEDURES

- A. Submittals Prior to Final Completion: Before requesting final inspection for determining final completion, complete the following:
1. Submit a final Application for Payment according to Section 012900 "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.
- B. Inspection: Submit a written request for final inspection to determine acceptance 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 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. Request reinspection when the Work identified in previous inspections as incomplete is completed or corrected.

1.5 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.
1. Submit list of incomplete items in format acceptable to Architect and Owner.

1.6 SUBMITTAL OF PROJECT WARRANTIES

- A. Time of Submittal: Submit written warranties on request of Architect for designated portions of the Work where warranties are indicated to commence on dates other than date of Substantial Completion, or when delay in submittal of warranties might limit Owner's rights under warranty.

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.
 - 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. Thoroughly clean interior and exterior of installed windows.
 - b. 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.
 - c. Sweep paved areas broom clean. Remove spills, stains, and other foreign deposits.
 - d. Remove tools, construction equipment, machinery, and surplus material
 - e. Clean transparent materials, including mirrors and glass in doors and windows. Remove glazing compounds and other noticeable, vision-obscuring materials. Polish glass, taking care not to scratch surfaces.
 - f. Remove labels that are not permanent.
 - g. Remove excess paint and mortar droppings, and other foreign substances.
- B. Construction Waste Disposal: Comply with waste disposal requirements in Section 015000 "Temporary Facilities and Controls."

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 that already show evidence of repair or restoration.
3. Replace parts subject to operating conditions during construction that may impede operation or reduce longevity.

END OF SECTION

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.
 - 4. Miscellaneous record submittals.
- B. Related Requirements:
 - 1. Section 017300 "Execution" for final property survey.
 - 2. Section 017700 "Closeout Procedures" for general closeout procedures.
 - 3. Section 017823 "Operation and Maintenance Data" for operation and maintenance data requirements.

1.2 CLOSEOUT SUBMITTALS

- A. Record Drawings: Comply with the following:
 - 1. Number of Copies: Submit one set(s) of marked-up record prints.
- B. Record Specifications: Submit annotated PDF electronic files of Project's Specifications, including addenda and contract modifications.
- C. Record Product Data: Submit annotated PDF electronic files and directories of each submittal.
- D. Miscellaneous Record Submittals: See other Specification Sections for miscellaneous record-keeping requirements and submittals in connection with various construction activities. Submit annotated PDF electronic files and directories of each submittal.
- E. Reports: Submit written report weekly indicating items incorporated into project record documents concurrent with progress of the Work, including revisions, concealed conditions, field changes, product selections, and other notations incorporated.

1.3 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. Accurately record information in an acceptable drawing technique.
 - c. Record data as soon as possible after obtaining it.
 - d. Record and check the markup before enclosing concealed installations.
 - e. Cross-reference record prints to corresponding photographic documentation.
2. Content: Types of items requiring marking include, but are not limited to, the following:
 - a. Dimensional changes to Drawings.
 - b. Revisions to details shown on Drawings.
 - c. Changes made by Change Order or Construction Change Directive.
 - d. Changes made following Architect's written orders.
 - e. Details not on the original Contract Drawings.
 - f. Field records for variable and concealed conditions.
 - g. Record information on the Work that is shown only schematically.
3. Mark the Contract Drawings and Shop Drawings completely and accurately. Use personnel proficient at recording graphic information in production of marked-up record prints.
4. Mark record sets with erasable, red-colored pencil. Use other colors to distinguish between changes for different categories of the Work at same location.
5. Mark important additional information that was either shown schematically or omitted from original Drawings.
6. Note Construction Change Directive numbers, alternate numbers, Change Order numbers, and similar identification, where applicable.

1.4 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. Note related Change Orders, record Product Data, and record Drawings where applicable.
- B. Format: Submit record Specifications as scanned PDF electronic file(s) of marked-up paper copy of Specifications.

1.5 RECORD PRODUCT DATA

- 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. 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.
- C. Format: Submit record Product Data as scanned PDF electronic file(s) of marked-up paper copy of Product Data.
 - 1. Include record Product Data directory organized by Specification Section number and title, electronically linked to each item of record Product Data.

1.6 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 scanned PDF electronic file(s) of marked-up miscellaneous record submittals.
 - 1. Include miscellaneous record submittals directory organized by Specification Section number and title, electronically linked to each item of miscellaneous record submittals.

1.7 MAINTENANCE OF RECORD DOCUMENTS

- A. Maintenance of Record Documents: Store record documents 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.

PART 2 - PRODUCTS

PART 3 - EXECUTION

END OF SECTION

SECTION 03300 - CAST-IN-PLACE CONCRETE

PART 1 - GENERAL

1.1 SECTION REQUIREMENTS

- A. Submittals: Contractor to provide recommended **concrete mix designs**.
- B. Comply with ASTM C 94; ACI 301, "Specification for Structural Concrete"; ACI 117, "Specifications for Tolerances for Concrete Construction and Materials"; and CRSI's "Manual of Standard Practice."
- C. Owner to engage a qualified independent testing agency to verify poured concrete.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Deformed Reinforcing Bars: ASTM A 615/A 615M, **Grade 60**.
- B. Plain Steel Wire: ASTM A 82, as drawn.
- C. Steel Welded-Wire Fabric: ASTM A 185, flat sheets not rolls.
- D. Portland Cement: ASTM C 150, Type I or II.
- E. Fly Ash: ASTM C 618, Type C or F.
- F. Aggregates: ASTM C 33, uniformly graded.
- G. Air-Entraining Admixture: ASTM C 260.
- H. Chemical Admixtures: ASTM C 494: Do not use any.
- I. Vapor Retarder: **Clear 10-mil- thick polyethylene sheet, 6" overlap**
- J. Joint-Filler Strips: ASTM D 1751, cellulosic fiber, or ASTM D 1752, cork.

2.2 MIXES

- A. Proportion normal-weight concrete mixes to provide the following properties:
 - 1. Compressive Strength: **4000 psi (27.6 MPa)** at 28 days.
 - 2. Slump Limit: 5" at SOG.
 - 3. Air Content: 5.5 to 7.0 percent for concrete exposed to freezing and thawing, 2 to 4 percent elsewhere.

PART 3 - EXECUTION

3.1 CONCRETING

- A. Construct formwork and maintain tolerances and surface irregularities within ACI 117 limits of Class A for concrete exposed to view and Class C for other concrete surfaces.
- B. Set water stops where indicated to ensure joint water-tightness.
- C. Place vapor retarder on prepared subgrade, with joints lapped **6 inches** and sealed.
- D. Accurately position, support, and secure reinforcement.
- E. Install construction, isolation, and contraction joints where indicated. Install full-depth joint-filler strips at isolation joints.
- F. Place concrete in a continuous operation and consolidate using mechanical vibrating equipment.
- G. Protect concrete from physical damage, premature drying, and reduced strength due to hot or cold weather during mixing, placing, and curing.
- H. Formed Surface Finish: Smooth-formed finish for concrete exposed to view, coated, or covered by waterproofing or other direct-applied material; rough-formed finish elsewhere.
- I. Slab Finishes: Medium Broom finish on exterior steps and landings.
- J. Uniformly spread **25 lb/100 sq. ft.** of dampened slip-resistive aggregate over initially floated surfaces; tamp and float.
- K. Cure formed surfaces by moist curing for at least seven days.
- L. Begin curing concrete slabs after finishing. **Apply membrane-forming curing and sealing compound to concrete after broom finish.**
- M. Owner will engage a testing agency to perform field tests and to submit test reports.
- N. Protect concrete from damage. Repair surface defects in formed concrete and slabs.
- O. Repair slabs not meeting surface tolerances by grinding high areas and by applying a repair underlayment to low areas receiving floor coverings and a repair topping to low areas to remain exposed.

END OF SECTION 03300

SECTION 05520 - HANDRAILS AND RAILINGS

PART 1 - GENERAL

1.1 SECTION REQUIREMENTS

- A. Structural Performance: Provide handrails and railings capable of withstanding structural loads required by ASCE 7.
- B. Submittals: **Shop Drawings**

PART 2 - PRODUCTS

2.1 METALS

- A. Stainless Steel Tube: ASTM A 500.
- B. Iron Castings: ASTM A 47, Grade 32510 or ASTM A 48, Class 30
- C. Brackets, Flanges, and Anchors: Cast or formed metal of same type of material and finish as supported rails, unless otherwise indicated.

2.2 OTHER MATERIALS

- A. Interior Wood Handrails and Rails: Hardwood handrails and rails of species and profile indicated with manufacturer's standard transparent finish.
- B. Nonshrink, Nonmetallic Grout: ASTM C 1107; recommended by manufacturer for exterior applications.

2.3 FABRICATION

- A. Assemble railing systems in shop to the greatest extent possible. Use connections that maintain structural value of joined pieces.
- B. Form changes in direction of railing members by **bending** and **mitering at elbow bends**.
- C. Fabricate railing systems and handrails for connecting members **by welding**.
- D. Provide manufacturer's standard wall brackets, flanges, miscellaneous fittings, and anchors to connect handrail and railing members to other construction.
- E. Provide wall returns at ends of wall-mounted handrails.

2.4 FINISHES

- A. Steel Railings: **Cleaned and shop primed and painted.**

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Fit exposed connections accurately together to form tight, hairline joints.
- B. Set handrails and railings accurately in location, alignment, and elevation and free from rack.
- C. Coat concealed surfaces of aluminum that will be in contact with cementitious materials or dissimilar metals, with a heavy coat of bituminous paint.
- D. Anchor posts in concrete with wall mounted brackets as show in drawings. Utilize 6" deep, 3/8" bolts

END OF SECTION 05520

SECTION 06100

ROUGH CARPENTRY

PART 1 - GENERAL

1.1 REFERENCE:

- A. Section 09910 Painting
- B. Section 05501 Metal Fabrications
- C. Section 07____ Sheet metal Roofing and fabrications

PART 2 - PRODUCTS

2.1 WOOD PRODUCTS, GENERAL

- A. Lumber: Provide dressed lumber, S4S, 19 percent maximum moisture content for 2-inch nominal thickness or less, marked with grade stamp of inspection agency.
- B. Engineered Wood Products: Acceptable to authorities having jurisdiction and for which current model code research or evaluation reports exist that show compliance with building code in effect for Project.
- C. Wood Structural Panels: DOC PS 2. Provide plywood complying with DOC PS 1, where plywood is indicated.
 - 1. Comply with APA's Form E30T "Engineered Wood Construction Guide"

2.2 LUMBER

- A. Dimension Lumber: The following grades are per inspection agency indicated:
 - 1. Non-Load-Bearing Interior Partitions: Construction, Stud, or No. 3.
 - 2. Framing Other Than Non-Load-Bearing Partitions: Construction or No. 2.
- B. Exterior and Interior Reclaimed Doug Fir:
 - 1. Acceptable Manufacturer: J. Hoffman Lumber Co., 1330 E State St, Sycamore, IL 60178 Sycamore, IL *(815) 899-2260
 - 2. Exterior:
 - a. Resawn Heavy Timber Fir for Exterior Beams and brackets ready for stain
 - b. Radiused beams with stainless steel reinforce bolting prior to delivery as per drawings ready for stain
 - c. 2 x 6 T&G Fir roof decking
 - d. 1 x 4 Fir ready for stain
 - e. Hilti and stainless steel through bolting anchors as detailed.
 - 3. Interior:
 - a. 1x6 Tongue and Groove Paneling ready for staining
 - b. 1 x 14 and 1 x 8 with locking miter edges as detailed in drawings ready for stain
- C. Miscellaneous Lumber: Construction, Stud, or No. 3 grade of any species for nailers, blocking, and similar members.

2.3 MISCELLANEOUS PRODUCTS

- A. Fasteners: Size and type indicated. Where rough carpentry is exposed to weather, in ground contact, or in area of high relative humidity, provide fasteners with hot-dip zinc coating complying with ASTM A 153/A 153M.
 - 1. Power-Driven Fasteners: CABO NER-272.
 - 2. Bolts: Steel bolts complying with ASTM A 307, Grade A; with ASTM A 563 hex nuts and, where indicated, flat washers.
- B. Metal Framing Anchors: Stainless Steel or Hot-dip galvanized steel of structural capacity, type, and size indicated.
- C. Adhesives for Field Gluing Panels to Framing: APA AFG-01.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Set rough carpentry to required levels and lines, with members plumb, true to line, cut, and fitted. Fit carpentry to other construction; scribe and cope for accurate fit. Locate nailers, blocking, and similar supports to comply with requirements for attaching other construction.
- B. Securely attach rough carpentry to substrates, complying with applicable codes and recognized standards and the following:
 - 1. CABO NER-272 for power-driven fasteners.
 - 2. Published requirements of metal framing anchor manufacturer.
 - 3. IBC 2015
- C. Fastening Methods: Comply with recommendations in APA's Form E30T "Engineered Wood Construction Guide" and the following:
- D. Countersink nail heads on exposed carpentry work and fill holes with wood filler.
- E. Installation of Panel Products: Comply with recommendations and "Code Plus" provisions in APA Form No. E30K
- F. Install wood trim with minimum number of joints practical, using full-length pieces from maximum lengths of lumber available. Cope at returns and miter at corners to produce tight-fitting joints with full-surface contact throughout length of joint. Use scarf joints for end-to-end joints.

END OF SECTION 06100

SECTION 06200
FINISH CARPENTRY

PART 1 - GENERAL

- A. Submittals:
1. Cabinetry Shop Drawings
 2. Solid Surface Countertops.

PART 2 - PRODUCTS

2.1 MATERIALS:

- A. Custom Glass Cabinets: Per Architectural Details:
1. Wood: Solid White Oak detailed per drawings. Stain and Shop spray Lacquer to match main level millwork.
 2. Glass:
 - a. Sides: 1/8" Tempered
 - b. Sliding Doors: 1/4" tempered
 - c. Top: 1/4" tempered
 - d. Pulls: Ground into The Glass
 3. Hardware:
 - a. Sliding Glass Doors with ball Bearings: Rockler EZ Glide Track GRP127=2 Bronze track in 3 and 4' lengths.
 - b. Wire Handle – black color
- B. Countertops-
- a. Quartz Countertop: www.stonedesign.com, Color Paradise Cove, Polished Finish, 3 cm thickness, 10 year Warranty
- C. Hardwood Wood Handrails for Stair and Guard Rail Railings:
- a. Similar to Vintage Woodworks (903)361-6296 P-2 #201-136 2 1/2" x 1 1/4" high railing. 3/4" channels per drawing details.
- D. Flat File Cabinet
- a. White Oak. Light stain to match Main Level. 26" x 37". Provide shop drawings.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Condition finish carpentry in installation areas for 24 hours before installing.
- B. Prime and back-prime lumber for painted finish exposed on the exterior.
- C. Install finish carpentry level, plumb, true, and aligned with adjacent materials.
- D. Scribe and cut to fit adjoining work. Refinish and seal cuts.
- E. Install standing and running trim with minimum number of joints practical, using full-length pieces from maximum lengths of lumber available. Stagger joints in adjacent and related trim. Cope at returns and miter at corners.
- F. Nail siding at each stud. Do not allow nails to penetrate more than one thickness of siding, unless otherwise recommended by siding manufacturer. Seal joints at inside and outside corners and at trim locations.
- G. Select and arrange paneling for best match of adjacent units. Install with uniform tight joints.

END OF SECTION 06200

SECTION 07920

JOINT SEALANTS

PART 1 - GENERAL

1.1 SECTION REQUIREMENTS

- A. Submittals: Product Data and color Samples.
- B. Environmental Limitations: Do not proceed with installation of joint sealants when ambient and substrate temperature conditions are outside limits permitted by joint sealant manufacturer or are below 40 deg F.

PART 2 - PRODUCTS

2.1 JOINT SEALANTS

- A. Compatibility: Provide joint sealants, joint fillers, and other related materials that are compatible with one another and with joint substrates under service and application conditions.
- B. Sealant for General Exterior Use Where Another Type Is Not Specified:
 - 1. Single-component, non-sag urethane sealant, ASTM C 920, Type S; Grade NS; Class 25; and Uses NT, M, A, and O.
- C. Sealant for Interior Use at Perimeters of Door and Window Frames:
 - 1. Latex sealant, single-component, non-sag, mildew-resistant, paintable, acrylic-emulsion sealant complying with ASTM C 834.

2.2 JOINT-SEALANT BACKING

- A. General: Provide sealant backings of material and type that are nonstaining; are compatible with joint substrates, sealants, primers, and other joint fillers; and are approved for applications indicated by sealant manufacturer.
- B. Cylindrical Sealant Backings: ASTM C 1330, of size and density to control sealant depth and otherwise contribute to producing optimum sealant performance.
- C. Bond-Breaker Tape: Polyethylene tape or other plastic tape recommended by sealant manufacturer for preventing sealant from adhering to rigid, inflexible joint-filler materials or joint surfaces at back of joint.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Comply with ASTM C 1193 and per manufacture's installation instructions.
- B. Comply with ASTM C 919 for use of joint sealants in acoustical applications.

END OF SECTION 07920

SECTION 08110

STEEL DOOR AND WINDOW FRAMES

PART 1 - GENERAL

1.1 SECTION REQUIREMENTS

- A. Submittals: Product Data and door schedule.
- B. Comply with ANSI A 250.8.
- C. Fire-Rated Door Assemblies: NFPA 80, tested per NFPA 252, and labeled and listed by UL, ITS, or another testing and inspecting agency acceptable to authorities having jurisdiction.

1.2 SUBMITTAL

- A. Coordinate approved shop drawings with all other trades and manufacturers whose products are used in conjunction with the Steel Doors and Frames under section 08100.
- B. Finish hardware supplier is to furnish templates, template reference number and/or physical hardware to the steel door and frame supplier in order to prepare the doors and frames to receive the finish hardware items.
- C. The steel door and window frame supplier will furnish to the architect (2) complete copies of the proposed steel door and frames schedule and/or shop drawings. Use the same reference number for details and openings as those on the contract drawings. After receipt of the approved door schedule the steel door and frame supplier will make any corrections and submit to the architect (2) sets of corrected schedules.
- D. Upon request of the architect or for any substitution to this specification, (2) copies of the steel door & frame manufacturers catalog cut sheets are to be submitted to the architect before any material is placed on the job site.

1.3 QUALITY ASSURANCE

- A. Provide Steel Doors and Frames complying with the Steel Door Institute recommended specifications for Standard Steel Doors and Frames ANSI/SDI 100 (Latest edition).
- B. Steel Door and window frames shall be manufactured to high quality standards in manufacturing facilities with annual certified conformance to ISO9001.

1.4 Delivery, Storage and Handling

- A. Door and window frames must be properly marked with door and window opening mark numbers to correspond with the schedule.
- B. Deliver all steel doors with corrugated edge protection and palletized to provide protection during transit and job storage.
- C. Inspect door and window frames upon delivery for damage. Minor damage is to be repaired, provided the repair is equal to new work and acceptable to the architect.
- D. Store door and window frames at the job site under cover. Place units on wood sills on the floor in a manner that will prevent rust and damage. Avoid the use of non-vented plastic or canvas shelters, which could create a humidity chamber. If the wrapper on

the frames becomes wet, remove the carton immediately. Provide a 1/4 inch space between stacked doors to promote air circulation.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Galvanized Steel Sheets: ASTM A 653/A 653M, A40 coating.

2.2 STEEL DOOR AND WINDOW FRAMES

- A. Products:
 - 1. Ceco Door Products
 - 2. Curries Company
 - 3. Republic Doors and Frames
- B. Interior Frames: ANSI A250.8; conceal fastenings, unless otherwise indicated.
 - 1. Steel Sheet Thickness for Exterior Frames: 16 Gauge
 - 2. Fabricate exterior frames from galvanized steel sheet, with mitered or coped and continuously welded corners.
- C. Door Silencers: Three on strike jambs of single-door frames and two on heads of double-door frames.
- D. Plaster Guards: Provide where mortar might obstruct hardware operation.
- E. Supports and Anchors: Existing wall anchors w/ expansion bolts.
- F. Prepare doors and frames to receive mortised and concealed hardware according to ANSI A250.6 and ANSI A115 Series standards.
- G. Reinforce frames to receive surface-applied hardware.
- H. Prime Finish: Manufacturer's standard, factory-applied coat of rust-inhibiting primer complying with ANSI A250.10 for acceptance criteria. Thorough priming of the top and bottom of the doors required.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Place steel frames to comply with SDI 105.
- B. Install doors to comply with ANSI A250.8. Shim as necessary to comply with SDI 122 and ANSI/DHI A115.1G.
- C. After installation, remove protective wrappings from doors and frames and touch up prime coat with compatible air-drying primer.
- D. Frames
 - 1. Prior to installation, all frames must be checked for rack, twist and out of square conditions.
 - 2. Place frames prior to enclosing walls and ceilings. Set frames accurately in position, plumbed and braced securely until permanent anchors are set. Remove

shipping bar spreader and insert a wood spreader cut to the opening width, notched to clear the stops.

3. Fill frames in masonry walls with mortar.
4. When temperature conditions necessitate an additive to be used in the plaster or mortar to prevent freezing, the contractor installing the frames shall coat the inside of the frames, in the field, with a corrosion inhibiting bituminous material.
5. SDI-105, "Recommended Erection Instructions for Steel Frames" and SDI-110 "Standard Steel Doors and Frames for Modular Masonry Construction" shall indicate the proper installation procedures.

E. Doors

1. Install doors plumb and in true alignment in a prepared opening and fasten them to achieve the maximum operational effectiveness and appearance
2. Proper door clearance must be maintained in accordance with SDI - 110.
3. Where necessary, only metal hinge shims are acceptable to maintain clearances.
4. "Installation Guide for Doors and Hardware" published by DHI is recommended for further details.

- F. Hardware must be applied in accordance with hardware manufacturer's templates and instructions.

3.2 ADJUST AND CLEAN

- A. Check and re-adjust operating finish hardware items in hollow metal work just prior to final inspection. Leave work in complete and proper condition.
- B. Immediately after erection, sand smooth any rusted or damaged areas of prime coat and apply to touch-up or compatible air-drying primer.

3.3 SCHEDULES

- A. After installation, copies of the door schedules are to be given to the owner when the building is accepted.

END OF SECTION 08110

SECTION 08710

FINISH HARDWARE

PART 1 - GENERAL

1.1 Refer to “General and Special Conditions” and “Instructions to Bidders”, Division 1 of Specifications. Requirements of these Sections and the project drawings shall govern work in this section.

1.2 SUMMARY

A. Section Includes:

1. Door Hardware.
2. Storefront and entrance door hardware.
3. Cylinders for doors fabricated with locking hardware.
4. Key Cabinets.
5. Costs of jobsite visit(s) necessary for keying conference(s), field verifying of existing conditions, and service issues which may be required during the course of construction.

B. Related Sections:

1. Division 1 – General Requirements
2. Division 6 - Finish Carpentry: Finish Hardware Installation.
3. Division 7 - Joint Sealers – exterior thresholds.
4. Division 8 - Metal Doors and Frames.
5. Division 8 – Special Doors.
6. Division 8 – Entrances and Storefronts.

C. Specific Omissions: Hardware for the following is specified or indicated elsewhere.

1. Signs, except where scheduled.
2. Toilet accessories, including grab bars.
3. Installation.
4. Rough hardware.

1.3 REFERENCES:

- A. Use date of standard in effect as of Bid date.
- B. American National Standards Institute – ANSI 156.18 – Materials and Finishes.
- C. ANSI A117.1 – Specifications for making buildings and facilities usable by physically handicapped people.
- D. ADA – Americans with Disabilities Act of 1990
- E. BHMA – Builders Hardware Manufacturers Association
- F. DHI – Door and Hardware Institute
- G. NFPA – National Fire Protection Association
 1. NFPA 80 – Fire Doors and Windows

2. NFPA 101 – Life Safety Code
 3. NFPA 105 – Smoke and Draft Control Door Assemblies
 4. NFPA 252 – Fire Tests of Door Assemblies
- H. UL – Underwriters Laboratories
1. UL10C – Fire Test of Door Assemblies as amended to incorporate positive pressure testing.
- I. WHI – Warnock Hersey Incorporated
- J. SDI – Steel Door Institute
- K. AWI – Architectural Woodwork Institute

1.4 SUBMITTALS & SUBSTITUTIONS

- A. SUBMITTALS: Submit six copies of schedule per Division 1. Organize **vertically formatted** schedule into “Hardware Sets” following guidelines established in Door & Hardware Institute Handbook (DHI) Sequence and Format for the Hardware Schedule with index of doors and headings, indicating complete designations of every item required for each door or opening. **Horizontal schedule format will be returned “Not Approved”**. Include following information:
1. Type, style, function, size, quantity and finish of hardware items. Use BHMA Finish codes per ANSI A156.18.
 2. Name, part number and manufacturer of each item.
 3. Fastenings and other pertinent information.
 4. Location of hardware set coordinated with floor plans and door schedule.
 5. Explanation of abbreviations, symbols, and codes contained in schedule.
 6. Mounting locations for hardware.
 7. Door and frame sizes, materials and degrees of swing.
 8. List of manufacturers used and their nearest representative with address and phone number.
 9. Catalog cuts.
- B. Bid and submit manufacturer’s updated/improved item if scheduled item is discontinued.
- C. Make substitution requests in accordance with Division 1. Only products bearing BHMA certification will be considered. Include product data and indicate benefit to the Project. Furnish operating samples on request.
1. Items listed with no substitute manufacturers have been requested by Owner to meet existing standard.

2. For products specified by naming several Products or Manufacturers select any one of the products or manufacturers named, which complies with the specifications. No substitute product will be considered.
- D. Furnish as-built/as-installed schedule with closeout documents, including keying schedule, manufacturers' installation, adjustment and maintenance information, and supplier's final inspection report.

1.4 QUALITY ASSURANCE:

A. Qualifications:

1. Hardware supplier: A recognized architectural finish hardware supplier, with warehousing facilities, who has been furnishing hardware in the project's vicinity for a period of not less than 2 years. Who is or who employs an experienced Architectural Hardware Consultant (AHC) who is available, at reasonable times during the course of the Work, for consultation about project's hardware requirements to Owner, Architect and Contractor.
 2. Responsible for detailing, scheduling and ordering of finish hardware.
- B. Hardware: New, free of defects, blemishes and excessive play. Obtain each kind of hardware (latch and locksets, exit devices, hinges and closers) from one manufacturer.
- C. Exit Doors: Operable from inside with single motion without the use of a key or special knowledge or effort.
- D. Fire-Rated Openings: In compliance with NFPA 80. Provide proper latching hardware, non-flaming door closers and approved-bearing hinges. Furnish openings complete.
- E. Pre-Installation Meetings: Prior to start of hardware installation, contractor shall schedule and conduct pre-installation meeting with hardware supplier, lock, exit device, and door closer manufacturers' representative(s), installer and related trades, to coordinate materials and techniques, and sequence complex hardware items and systems installation. Proper and correct installation and adjustment of hardware is to be reviewed, and criteria for punch list review will be established. Convene at least one week prior to commencement of related work. Written documentation of date and attendees/participants is to be provided to architect and owner for record.

1.5 DELIVERY, STORAGE AND HANDLING:

- A. Delivery: coordinate delivery to appropriate locations (shop or field).
 - 1. Key cabinet, permanent keys and cores: secured delivery direct to Owner's representative.
- B. Acceptance at Site: Items individually packaged in manufacturers' original containers, complete with proper fasteners and related pieces. Clearly mark packages to indicate contents, locations in hardware schedule and door numbers. Shipments direct from manufacturer to Site are not acceptable.
- C. Storage: Provide locked storage area for hardware, protect from moisture, sunlight, paint, chemicals, etc...

1.6 PROJECT CONDITIONS:

- A. Where exact types of hardware specified are not adaptable to finished shape or size of members requiring hardware, provide suitable types having as nearly as practical as the same operation and quality as type specified, subject to Architect's approval.

1.7 SEQUENCING AND COORDINATION:

- A. Reinforce walls for wall stops.
- B. Coordinate finish floor materials and floor-mounted hardware.
- C. Furnish manufacturer templates to door and frame fabricators.
- D. Use hardware consultant to check Shop Drawings for doors and entrances to confirm that adequate provisions will be made for proper hardware installation.

1.8 WARRANTY:

- A. Part of respective manufacturers' regular terms of sale. Provide manufacturers' warranties:
 - 1. Mortise Locksets: One year.
 - 2. Closers: Ten years mechanical
 - 3. Exit Devices: one year.
 - 4. Hinges: One year butt hinges, lifetime geared hinges.
 - 5. Other Hardware: One year.

1.9 COMMISSIONING:

- A. Test door hardware operation with climate control system and stairwell pressurization system both at rest and while in full operation.
- B. Test electrical hardware systems for satisfactory operation.
- C. Test hardware interfaced with fire/life-safety system for proper operation and release.

1.10 MAINTENANCE:

- A. Furnish operating and maintenance data of manufacturers for door hardware items. Include instructions for operation, adjustments and maintenance and parts list.
- B. Instruct personnel of Owner in proper adjustments and maintenance of door hardware and hardware finishes during final adjustment phase of hardware installation.
- C. Key bitting list shall be delivered from lock manufacturer directly to representative of Owner with return receipt. Furnish copy of transmittal letter to Architect.
- D. Furnish a complete set of specialized tools as needed for continued adjustment, maintenance, removal and replacement of door hardware by Owner.

PART 2 - PRODUCTS

2.1 MANUFACTURERS:

- A. Listed acceptable alternate manufacturers: submit for review products with equivalent function and features of scheduled products.

APPROVED MANUFACTURERS

Hinges: Hager, Ives, Stanley

Locks: Schlage (No substitution)

Cylinders and Keying: Key into existing masterkey system

Closers: LCN, Sargent, Corbin Russwin

Exit Devices: Von Duprin (No substitution)

Stops, Flush Bolts, Auxilliary Hardware: Hager, Ives, Rockwood

- B. Provide hardware items required to complete the work in accordance with these specifications and manufacturers' instructions.

1. Include items inadvertently omitted from this specification. Note these items in submittal for review. There will not be any extra's allowed for items that should have been picked up during bidding.
2. Where scheduled item is now obsolete, bid and furnish manufacturers updated item at no additional cost to the project.

2.2 HANGING MEANS:

- A. Conventional Hinges: Hinge open widths minimum, but, of sufficient throw to permit maximum door swing. Steel or stainless steel pins and concealed bearings.
1. Three hinges per leaf to 7 foot, 6 inch height. Add one for each additional 30 inches in height, or any fraction thereof.
 2. Extra heavy weight hinges on doors over 3 foot, 5 inches in width.
 3. Outswinging exterior doors: non-ferrous with non-removable (NRP) pins.
 4. Non-ferrous material exteriors and at doors subject to corrosive atmospheric conditions.
 5. Provide shims and shimming instructions for proper door adjustment.
 6. Scheduled Hinges are Ives 5BB1
 7. Accepted substitutions: McKinney TB2714, Stanley FBB179
- B. Continuous Hinges: A pinless assembly of three interlocking extrusions applied to the full height of the door and frame without mortising. The door leaf and jamb leaf shall be geared together for the entire length of the hinge and joined by a channel. Hinge knuckle shall be monolithic in appearance. Continuous hinge with visible knuckle separations are not acceptable. Vertical door loads shall be carried on minimum 3/4" acetal bearings through a full 180 degrees. The door leaf and jamb leaf shall have templated screw hole locations for future replacement needs. All heavy duty hinges (HD) shall have a minimum of 32 bearings for a 7' length.
1. Factory machine hinge leaves for electric power transfer device where specified in Hardware Sets.
 2. Scheduled Hinge: Ives 112HD / 224HD
 3. Accepted substitution: Pemko CFM-SLFHD, Zero 910DB / 914DB

2.3 LOCKSETS, LATCHSETS, DEADBOLTS:

- A. Mortise Locksets and Latchsets:
1. Chassis: cold-rolled steel, handing field changeable without disassembly.
 2. Latchbolts: 3/4 inch throw stainless steel anti-friction type.
 3. Lever Trim: through-bolted, accessible design, cast lever or solid extruded type levers as scheduled.

4. Spindles: security design independent break-away. Breakage of outside lever does not allow access to inside lever's hubworks to gain wrongful entry.
 5. Thumbturns: accessible design not requiring pinching or twisting motions to operate.
 6. Deadbolts: stainless steel 1-inch throw.
 7. Strikes: 16 gage curved steel, bronze or brass with 1 inch deep box construction, lips of sufficient length to clear trim and protect clothing.
 8. Scheduled Lock Series and Design: Falcon MA Series – Avalon design.
 9. Certifications:
 - a. ANSI A156.13, 1994, Grade 1 Operational, Grade 1 Security
 - b. ANSI/ASTM F476-84 Grade 31 UL Listed
10. Accepted substitutions: Schlage L9000 Series -07A design.

B. Aluminum Door Deadlock:

1. Adams-Rite MS1850S Series with armor faceplate to suit door edge. Backset shall be 1-1/2" unless door stile width requires narrower backset.

2.4 EXIT DEVICES/PANIC HARDWARE

A. General features:

1. Independent lab-tested 2,000,000 cycles.
2. Push-through touch pad design. No exposed touch bar fasteners, no exposed cavities when operated. Return stroke fluid dampeners and rubber bottoming dampeners, plus anti-rattle devices.
3. 3/4" throw deadlocking latchbolts.
4. No exposed screws to show through glass doors.
5. Non-handed basic device design with center case interchangeable with all functions, no extra parts required to effect change of function.
6. Releasable with 32 lb. maximum pressure under 250 lb. load to the door.

B. Specific features:

1. Lever Trim: Breakaway type, forged brass or bronze escutcheon min .130" thickness, match lockset lever design.
2. Fire-Labeled Devices: UL label indicating "Fire Exit Hardware".
3. Scheduled Exit Device: Falcon 25 series
4. Accepted substitutions: Von Duprin 99 series.

2.5 CLOSERS

A. General: One manufacturer for closer units throughout the Work.

B. Surface Closers:

1. Full rack-and-pinion type cylinder with removable non-ferrous cover.
2. Double heat-treated pinion shaft, single piece forged piston, chrome-silicon steel spring.
3. ISO 2000 certified. Units stamped with date-of-manufacture code.
4. Thru-bolts at wood doors unless doors are provided with closer blocking. Non-sized, and adjustable. Place closer inside building, stairs, and rooms.
5. Plates, brackets and special templating when needed for interface with particular header, door and wall conditions and neighboring hardware.
6. Opening pressure: Exterior doors 8.5 lb., interior doors 5 lb., labeled fire doors 15 lb.
7. Separate adjusting valves for closing speed, latching speed and backcheck, fourth valve for delayed action where scheduled.
8. Exterior door closers: tested to 100 hours of ASTM B117 salt spray test, furnish data on request.
9. Exterior doors do not require seasonal adjustments in temperatures from 120 degrees F to -30 degrees F, furnish data on request.
10. Non-flaming fluid will not fuel door or floor covering fires.
11. Scheduled Closers: Falcon SC71 series
12. Accepted substitutions: LCN 4030 series.

2.6 FLUSH BOLTS AND DUSTPROOF STRIKES, COORDINATORS

A. Manual Flush Bolts shall be provided in pairs, be non-handed, fit standard ANSI metal door prep and be UL listed for use on doors with fire ratings up to 3 hours. Bolts shall have minimum 5/8" bolt throw with 7/8" vertical adjustment. Top bolt rod shall be provided in length to position activating lever not more than 80 inches above the finished floor.

1. Scheduled manual flush bolts: Ives FB458
2. Accepted substitutions: Hiawatha 1520, Trimco 3917

B. Dustproof Strikes are to be spring loaded plunger type, with locking ring for use with threshold, or mounting flange for installation where no threshold is present.

1. Scheduled dustproof strikes: Ives DP2
2. Accepted substitutions: Hiawatha 1400, Trimco 3910

2.7 OVERHEAD STOPS AND HOLDERS

A. Surface mounted overhead stops and holders shall be heavy duty 300 series stainless steel, brass/bronze and steel materials, as required for specified finish,

with finished metal end caps. Templating of surface overhead stops and holders allows for 85 to 115 degree stop/hold open position.

1. Scheduled surface mounted overhead stops and holders are Glynn-Johnson 900 Series.
2. Accepted substitutions: Rixson 9 series.

2.8 OTHER HARDWARE

- A. Kick Plates: Four beveled edges, .050 inches minimum thickness, height and width as scheduled. Sheet-metal screws of bronze or stainless steel to match other hardware.
1. Scheduled kick plates are: Ives 8400
 2. Accepted substitutions: Hiawatha J102, Trimco K0050
- B. Door Stops: Provide stops to protect walls, casework or other hardware.
1. Unless otherwise noted in Hardware Sets, provide wall type with appropriate fasteners. Where wall type cannot be used, provide overhead type.
 2. Scheduled door stops are: Ives WS407CCV
 3. Accepted substitutions: Hiawatha W1326R, Trimco 1270WX
- C. Seals: Specially formulated to withstand greater temperature extremes while providing maximum protection against air infiltration. UL label applied to seals on rated doors. Substitute products: certify that the products equal or exceed specified material's thickness and durability. Proposed substitutions: submit for approval.
1. Meets UL10B and ASTM E283 classification.
 2. Sound control openings: Use components tested as a system using nationally accepted standards by independent laboratories. Ensure that the door leafs have the necessary sealed-in-place STC ratings.
 3. Fire-rated Doors, Intumescent Seals: Furnished by selected door manufacturer. Furnish fire-labeled opening assembly complete and in full compliance with UL10C / UBC Standard 7-2. Where required, intumescent seals vary in requirement by door type and door manufacturer – careful coordination required.
 4. Scheduled seals: National Guard Products 160S, 5050B
 5. Accepted substitutions: Pemko, Reese
- D. Sweeps: Specially formulated to withstand greater temperature extremes while providing maximum protection against air infiltration. Neoprene or nylon brush type as scheduled.

1. Scheduled sweeps: National Guard Products 200N
 2. Accepted substitutions: Pemko, Reese
- E. Thresholds: As scheduled and per details. Substitute products: certify that the products equal or exceed specified material's thickness. Proposed substitutions: submit for approval.
1. Exteriors: Set in full bed of butyl-rubber or polyisobutylene mastic sealant complying with requirements in Division 7 "Thermal and Moisture Protection". Non-ferrous ¼ inch fasteners and lead expansion shield anchors, or Red-Head #SFS-1420 (or approved equivalent) Flat Head Sleeve Anchors (SS/FHSL).
 2. Fire-rated openings, 90min or less duration: use thresholds to interrupt floor covering material under the door where that material has a critical radiant flux value less than 0.22 watts per square centimeter, per NFPA 253. Use threshold unit as scheduled. If none scheduled, request direction from Architect.
 3. Sound control openings: Set in bed of mastic sealant.
 4. Scheduled thresholds: National Guard Products 425, 804V, 896V
 5. Accepted substitutions: Pemko, Reese
- F. Push Plates: Push plates shall be minimum .050" thickness brass, bronze or stainless steel as appropriate for specified finish. Plates are to be in size scheduled in Hardware Sets. Beveled four sides, and provided with fasteners appropriate for attaching to doors.
1. Scheduled push plates: Ives 8200 4" X 16"
 2. Accepted substitutions: Hiawatha 200F, Trimco 1001-3
- G. Pull Plates: Where pull plates are listed in the Hardware Sets, provide 1" diameter round pull, 8" center-to-center, factory attached to push plate in size indicated.
1. Scheduled pull plates: Ives 8303-0
 2. Accepted substitutions: Hiawatha 200F X 536B, Trimco 1017-3B
- H. Push/Pull Bars: Where push/pull bars are listed in the Hardware Sets, provide 1" diameter round bar stock with 10" center-to-center offset pulls.
1. Scheduled push/pull bars: Ives 9190-0
 2. Accepted substitutions: Hiawatha 658A X 1081LBP, Trimco 1737
- I. Fasteners: Generally, exposed screws to be Phillips or Robertson drive. Flat head sleeve anchors (FHSL) may be slotted drive. Sheet metal and wood screws: full-thread. Sleeve nuts: full length to prevent door compression.

- J. Silencers: Interior hollow metal frames, 3 for single doors, 2 for pairs of doors. Omit where adhesive mounted seal occurs. Leave no unfilled/uncovered pre-punched silencer holes.

- K. Key Cabinet: As part of this contract, the finish hardware supplier shall provide one TelKee surface mounted key cabinet, Aristocrat "AWC" model. Capacity of key cabinet shall be same as number of locks and cylinders on project, plus an additional 50% for future expansion. Components of key cabinet shall include, in quantities to accommodate "job plus 50%" requirements listed above, the following:
 - 1. Numbered Label Sheets
 - 2. Key Gathering Envelopes
 - 3. Key Tags
 - 4. Permanent Key Tags for File Keys
 - 5. Duplicate Key Tags
 - 6. System Index Sheets:
 - a. Alphabetical Index
 - b. Hook Number Index
 - c. Key Numerical Index
 - d. Master Index
 - e. Cross Index
 - 7. Signature Cards
 - 8. Permanent Loan Register

2.9 FINISH:

- A. Generally BHMA 626 Satin Chromium.
 - 1. Areas using BHMA 626 to have push-plates, pulls and protection plates of BHMA 630, Satin Stainless Steel, unless otherwise noted.

- B. Door closers: factory powder coated to match other hardware, unless otherwise noted.

- C. Aluminum items: match predominant adjacent material. Seals to coordinate with frame color.

2.11 KEYING REQUIREMENTS:

- A. Key System: Falcon non-interchangeable core typically. Key blanks available from factory-direct sources and from after-market key blank manufacturers. For estimate use factory GMK charge.

1. Construction keying: furnish cylinders/cores factory construction keyed with 10 construction keys and 2 construction control keys.
- B. Locksets and cylinders: Keyed at factory of lock manufacturer where permanent records are maintained. Locks and cylinders same manufacturer.
- C. Permanent keys: Secured shipment direct from point of origination to Owner's representative.
- D. Bitting List: Secured shipment direct from point of origination to Owner.
- E. Supply three (3) cut keys per cylinder or lock.
- F. All keys to be stamped with "Do Not Duplicate" and appropriate key set.

PART 3 - EXECUTION

3.1 ACCEPTABLE INSTALLERS:

- A. Installer must demonstrate suitable competence and experience with installing finish hardware on like projects.

3.2 PREPARATION:

- A. Ensure that walls and frames are square and plumb before hardware installation.
- B. Locate hardware per SDI-100 and applicable building, fire, life-safety, accessibility, and security codes.
- C. Notify Architect of any code conflicts before ordering material.

3.3 INSTALLATION

- A. Install hardware per manufacturer's instructions and recommendations. Do not install surface-mounted items until finishes have been completed on substrate. Set units level, plumb and true to line and location. Adjust and reinforce attachment substrate for proper installation and operation.
 1. Gaskets: install jamb-applied gaskets before closers, overhead stops, rim strikes, etc. Install sweeps across bottoms of doors before astragals, cope sweeps around bottom pivots, trim astragals to tops of sweeps.
 2. When hardware is to be attached to existing metal surface and insufficient reinforcement exists, use RivNuts, NutSerts or similar anchoring device for screws.

3.4 ADJUSTING

- A. Adjust and check for proper operation and function. Replace units, which cannot be adjusted to operate freely and smoothly.
 - 1. Hardware damaged by improper installation or adjustment methods to be repaired or replaced to Owner's satisfaction at no additional cost to Owner.
- B. Inspection: Prior to owner's occupancy, the general contractor shall schedule and conduct a post-installation meeting with the hardware supplier and the manufacturer representative who supplied the commercial locks, the exit devices, the door controls/closers, etc.. The purpose is to eliminate any or all institutional door hardware "punch list" items. This will enable the general contractor and the owner to gain approval for their building occupancy permit much quicker.
- C. Follow-up inspection: Installer to provide letter of agreement to Owner that approximately 6 months after substantial completion, installer will visit Project with representatives of the manufacturers of the locking devices and door closers to accomplish following:
 - 1. Re-adjust hardware.
 - 2. Evaluate maintenance procedures and recommend changes or additions, and instruct Owner's personnel.
 - 3. Identify items that have deteriorated or failed.
 - 4. Submit written report identifying problems and likely future problems.

3.5 PROTECTION/CLEANING:

- A. Cover installed hardware, protect from paint, cleaning agents, weathering, carts/barrows, etc. Remove covering materials and clean hardware just prior to substantial completion.
- B. Clean adjacent wall, frame and door surfaces soiled from installation/reinstallation process.

3.6 SCHEDULE OF FINISH HARDWARE

- A. See door schedule in drawings for hardware set assignments.
- B. The following is a general listing of finish hardware requirements and is not intended as a final detailed schedule. It is the responsibility of the finish hardware supplier to thoroughly review these plans and specifications, and to include in his bid any items of finish hardware, whether or not specifically called for in the following hardware groups, required by established standards or practices, or as necessary to meet state and local building codes. These items include, but are

not specifically limited to, special templates, wiring diagrams, shim kits for exit devices, filler bars and door closer arm mounting brackets for bar type coordinators, drop plates or other door closer accessory items, special fasteners required for attachment of hardware to doors, frames, or other substrates, and filler plates for use as required by the permanent removal of hardware items from existing doors and/or frames. Where there is unclear or conflicting information in the Hardware Sets, the hardware supplier shall make every effort to gain clarity from the architect prior to bid date. If clarification is not made prior to bid date, the hardware supplier is to make note of any ambiguities or conflicts in the documents in his bid, and these issues will be resolved post-bid. There will be no "Extras" or Change Orders to cover errors and/or omissions which should have been evident prior to bidding.

END OF SECTION 08710

APPROVED MANUFACTURERS

Hinges: Hager, Ives, Stanley

Locks: Schlage (No substitution)

Cylinders and Keying: Key into existing masterkey system

Closers: LCN, Sargent, Corbin Russwin

Exit Devices: Von Duprin (No substitution)

Stops, Flush Bolts, Auxilliary Hardware: Hager, Ives, Rockwood

HARDWARE SETS

Items of hardware not definitely specified herein, but necessary for completion of the Work shall be provided. Such items shall be of type and quality suitable to the service required and comparable to the adjacent hardware. Where size and shape of members is such as to prevent the use of types specified, hardware shall be furnished of suitable types having as nearly as practicable the same operation and quality as the type specified. Sizes shall be adequate for the service required. Include such nuances as strike type, strike lip, raised barrel hinges, mounting brackets, fasteners, shims, and coordination between conflicting products. All doors shall be provided with a stop.

SET 01 (DOORS: D004)

3 EA	HINGES	BB1279 – 4.5 X 4.5	652	HAGER
1 EA	CLOSER	4040XP	689	LCN
1 EA	OVERHEAD STOP	GJ100 SERIES	630	GLYNN-JOHNSON
1 EA	WALL STOP	409	630	ROCKWOOD

SET 02 (DOORS: D005)

3 EA	HINGES	BB1279 – 4.5 X 4.5	652	HAGER
1 EA	CLASSROOM LOCK	ND70PD X RHO	626	SCHLAGE
1 EA	CLOSER	4040XP	689	LCN

SET 03 (DOORS: D100)

2 EA	SPRING HINGES		652	HAGER
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SECTION 08810

GLASS GLAZING

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes: Insulating glass units.
- B. Related Sections
 - 1. Drawings, General and Supplementary Conditions of the Contract, Division 1 and the following Specification Sections, apply to this Section.
 - 2. 08 4229 Automatic Sliding Entrances
 - 3. Steel doors and Frames

1.2 REFERENCES

- A. United States
 - 1. ANSI Z97.1 - American National Standard for Glazing Materials Used in Buildings - Safety Performance Specifications and Methods of Test.
 - 2. ASTM C162 - Standard Terminology of Glass and Glass Products.
 - 3. ASTM C1036 - Standard Specification for Flat Glass.
 - 4. ASTM C1048 - Standard Specification for Heat-Treated Flat Glass -- Kind HS, Kind FT Coated and Uncoated Glass.
 - 5. ASTM C1376 - Standard Specification for Pyrolytic and Vacuum Deposition Coatings on Glass.
 - 6. ASTM E773 - Standard Test Method for Seal Durability of Sealed Insulating Glass Units.
 - 7. ASTM E774 - Standard Specification for Sealed Insulating Glass Units.
 - 8. ASTM E1300 - Standard Practice for Determining the Minimum Thickness and Type of Glass Required to Resist a Specified Load.
 - 9. ASTM E2188 - Standard Test Method for Insulating Glass Unit Performance.
 - 10. Evaluation.
 - 11. CPSC 16 CFR 1201 - Safety Standard for Architectural Glazing Materials.
 - 12. Insulating Glass Manufacturers Alliance (IGMA)- Glazing Guidelines.
- B. United States & Canada
 - 1. GANA Glazing Manual; Glass Association of North America.
 - 2. GANA Sealant Manual; Glass Association of North America.
 - 3. Oldcastle Glass - Glazing Instructions.

1.3 DEFINITIONS

- A. Sealed Insulating Glass Unit Surfaces & Coating Orientation:
 - 1. Surface 1 – Exterior surface of outer pane (surface facing outdoors of outboard lite).
 - 2. Surface 2 – Interior surface of outer pane (surface facing indoors of outboard lite).
 - 3. Surface 3 – Exterior surface of inner pane (surface facing outdoors of inboard lite).
 - 4. Surface 4 – Room side surface of inner pane (surfacing facing indoors of inboard lite).

B. Performance Characteristics

1. Center-of-Glass – Performance values that take only the center portion of a glass makeup into account and not the framing members. Customarily found in Sweets catalogs and Oldcastle Glass GlasSelect™ and used in 08800 architectural specifications.
2. Glass thermal and optical performance properties shall be based on data and calculations from the current LBNL WINDOW 5.2 (or 4.1 – please specify which version) computer program.
3. Fenestration Performance – Performance values that take into account the total fenestration (center-of-glass and framing members). Normally identified with building energy codes such as ASHRAE-IESNA 90.1 and the IECC. These values can also be tested and certified by the National Fenestration Rating Council (NFRC).

1.4 SYSTEM DESCRIPTION

A. Design Requirements

1. Provide glazing systems capable of withstanding normal thermal movements, wind-loads and impact loads, without failure, including loss due to defective manufacture, fabrication and installation; deterioration of glazing materials; and other defects in construction.
2. Provide glass products in the thicknesses and strengths (annealed or heat-treated) required to meet or exceed the following criteria based on project loads and in-service conditions per ASTM E1300.
 - a. Minimum thickness of annealed or heat-treated glass products is selected, so the worst-case probability of failure does not exceed the following:
 - 1) 8 breaks per 1000 for glass installed vertically or not over 15 degrees from the vertical plane and under wind action.
 - 2) 1 break per 1000 for glass installed 15 degrees or more from the vertical plane and under action of wind and/or snow.

1.5 SUBMITTALS

- A. Submit 12-inch (305mm) square samples of each type of glass indicated (except clear monolithic glass products), and 12-inch (305mm) long samples of each color required (except black) for each type of sealant or gasket exposed to view.
- B. Submit manufacturer's product data sheet and glazing instructions.
- C. Glazing contractor shall obtain compatibility and adhesion test reports from sealant manufacturer, indicating that glazing materials were tested for compatibility and adhesion with glazing sealant, as well as other glazing materials including insulating units.
- D. Glazing Contractor shall provide test reports showing that the glass meets the requirements of any security test reports specified on drawings.

1.6 QUALITY ASSURANCE

- A. Comply with published recommendations of glass product manufacturers and organizations below, except where more stringent requirements are indicated. Refer to these publications for glazing terms not otherwise defined in this section or referenced standards.
 1. GANA Publications
 2. AAMA Publications

3. IGMA/IGMAC Publications

- B. Safety glass products in the US are to comply with CPSC 16 CFR Part 1201 for Category II materials.
- C. Safety glass products in Canada are to comply with the testing requirements of CAN/CGSB-12.1-M, Type 1 for Laminated Glass and Type 2 for Tempered Glass.
 - 1. Provide safety glass permanently marked with the company name or logo and CAN/CGSB-12.1-M if the product meets categories 1 and 2, or mark as CAN/CGSB 12.1-M-1 if the product meets the requirements of Category 1 only.
- D. Insulating Glass products are to be permanently marked either on spacers or at least one insulating unit component with appropriate certification label of inspecting and testing agency indicated below:
 - 1. US - Insulating Glass Certification Council (IGCC)
 - 2. Canada - Insulating Glass Manufacturers Alliance (IGMA) or Insulating Glass Manufacturers Association of Canada (IGMAC)
- E. Single-source fabrication responsibility: All glass fabricated for each type shall be processed and supplied by a single fabricator.

1.7 DELIVERY, STORAGE AND HANDLING

- A. Comply with manufacturer's instruction for receiving, handling, storing and protecting glass & glazing materials.
- B. Delivery: Deliver materials in manufacturer's original, unopened, undamaged containers with identification labels intact.
- C. Storage and Protection: Store materials protected from exposure to harmful environmental conditions and at temperature and humidity conditions recommended by the manufacturer.
- D. Exercise exceptional care to prevent edge damage to glass, and damage/deterioration to coating on glass.
- E. Where insulating glass units will be exposed to substantial altitude changes, comply with insulating glass fabricator's recommendations of venting and sealing.

1.8 PROJECT / SITE CONDITIONS

- A. Environmental Requirements: Installation of glass products at ambient air temperature below 40 degrees F (4.4 degrees C) is prohibited.
- B. Field Measurements: When construction schedule permits, verify field measurements with drawing dimensions prior to fabrication of glass products.

1.9 WARRANTY

- A. Provide a written 10-year limited warranty from date of manufacture for insulating glass. Warranty covers deterioration due to normal conditions of use and not to handling, installing, protecting and maintaining practices contrary to glass manufacturer's published instructions.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Manufacturer is used in this section to refer to a firm that produces primary glass or fabricated glass as defined in the referenced standards.
1. Oldcastle Glass
 2. Guardian Industries
 3. Pilkington
 4. PPG Industries
 5. Visteon Float Glass

2.2 MATERIALS

- A. Sealed Insulating Glass (IG) Units
1. Insulating Glass Unit Makeup
 - a. Outboard Lite
 - 1) Glass Type:
 - 2) Glass Tint:
 - 3) Nominal Thickness:
 - 4) Glass Strength: (*Annealed, Heat-Strengthened or Tempered*)
 - 5) Coating Orientation: (*N/A, Surface #1 or 2*)
 - b. Spacer
 - 1) Nominal Thickness:
 - 2) Gas Fill: (*Air or 90% Argon*)
 - c. Inboard Lite
 - 1) Glass Type:
 - 2) Glass Tint:
 - 3) Nominal Thickness:
 - 4) Glass Strength: (*Annealed, Heat-Strengthened or Tempered*)
 - 5) Coating Orientation: (*N/A, Surface # 3 or 4*)
 2. Performance Characteristics (Center of Glass)
 - a. Visible Transmittance: _____100%
 - b. Visible Reflectance: _____%
 - c. Winter U-factor (U-value): per 2015 IECC
 - d. Shading Coefficient (SC): per 2015 IECC
 - e. Solar Heat Gain Coefficient (SHGC): per 2015 IECC(Note: Repeat items from subparagraphs 1 and 2 for each type of insulating glass unit.)
 3. Provide hermetically sealed IG units with dehydrated airspace, dual sealed with a primary seal of polyisobutylene (PIB), or thermo plastic spacer (TPS) and a secondary seal of silicone or an organic sealant depending on the application.
 4. US Requirements:
 - a. Insulating glass units are certified through the Insulating Glass Certification Council (IGCC) to either ASTM E774, or to ASTM E2190, or both.
 - b. Annealed float glass shall comply with ASTM C1036, Type I, Class 1 (clear), Class 2 (tinted), Quality-Q3.
 - c. Heat-Strengthened float glass shall comply with ASTM C1048, Type I, Class 1 (clear), Class 2 (tinted), Quality Q3, Kind HS.
 - d. Tempered float glass shall comply with ASTM C1048, Type I, Class 1 (clear), Class 2 (tinted), Quality Q3, Kind FT.

B. Glazing Products

1. Select appropriate glazing sealants, tapes, gaskets and other glazing materials of proven compatibility with other materials that they contact. These include glass products, insulating glass unit seals and glazing channel substrates under installation and service conditions, as demonstrated by testing and field experience.

PART 3 EXECUTION

3.1 EXAMINATION

A. Site Verification and Conditions

1. Verify that site conditions are acceptable for installation of the glass.
2. Verify openings for glazing are correctly sized and within tolerance.
3. Verify that a functioning weep system is present.
4. Verify that the minimum required face and edge clearances are being followed.
5. Do not proceed with glazing until unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Protection

1. Handle and store product according to manufacturers' recommendations.

B. Surface Preparation

1. Clean and prepare glazing channels and other framing members to receive glass.
2. Remove coatings and other harmful materials that will prevent glass and glazing installation required to comply with performance criteria specified.

3.3 INSTALLATION

- A. Install products using the recommendations of manufacturers of glass, sealants, gaskets and other glazing materials, except where more stringent requirements are indicated, including those in the "GANA Glazing Manual".
- B. Verify that Insulating Glass (IG) Unit secondary seal is compatible with glazing sealants.
- C. Install glass in prepared glazing channels and other framing members.
- D. Install setting blocks in rabbets as recommended by referenced glazing standards in GANA Glazing Manual and IGMA Glazing Guidelines.
- E. Provide bite on glass, minimum edge and face clearances and glazing material tolerances recommended by GANA Glazing Manual.
- F. Provide weep system as recommended by GANA Glazing Manual.
- G. Set glass lites in each series with uniform pattern, draw, bow and similar characteristics.
- H. Distribute the weight of the glass unit along the edge rather than at the corner.
- I. Comply with manufacturer's and referenced industry recommendations on expansion joints and anchors, accommodating thermal movement, glass openings, use of setting blocks,

edge, face and bite clearances, use of glass spacers, edge blocks and installation of weep systems.

- J. Protect glass from edge damage during handling and installation.
- K. Prevent glass from contact with contaminating substances that result from construction operations, such as weld spatter, fireproofing or plaster.
- L. Remove and replace glass that is broken, chipped, cracked or damaged in any way.

3.4 CLEANING

- A. Clean excess sealant or compound from glass and framing members immediately after application, using solvents or cleaners recommended by manufacturers.
- B. Glass to be cleaned according to:
 - 1. GANA Glass Informational Bulletin GANA 01-0300 - Proper Procedures for Cleaning Architectural Glass Products.
 - 2. GANA Glass Information Bulletin GANA TD-02-0402 – Heat-Treated Glass Surfaces Are Different.
- C. Do not use scrapers or other metal tools to clean glass.

END OF SECTION 08810

SECTION 092900

GYPSUM BOARD

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Interior gypsum board.

1.2 ACTION SUBMITTALS

- A. Product Data: For each type of product.
- B. Samples: For each texture finish indicated on same backing indicated for Work.

PART 2 - PRODUCTS

2.1 GYPSUM BOARD, GENERAL

- A. Size: Provide maximum lengths and widths available that will minimize joints in each area and that correspond with support system indicated.

2.2 INTERIOR GYPSUM BOARD

2.3 PANELS, GENERAL

- A. SIZE: Provide in maximum lengths and widths available that will minimize joints in each area and that correspond with support system indicated.

2.4 INTERIOR GYPSUM BOARD

- A. GENERAL: Complying with ASTM C 36/C 36M or ASTM C 1396/C 1396M, as applicable to type of gypsum board indicated and whichever is more stringent.
- B. BASIS-OF-DESIGN PRODUCT: The design for each type of gypsum board and related products is based on G-P Gypsum products named. Subject to compliance with requirements, provide the named product or a comparable product by one of the following:
 - 1. Georgia-Pacific Gypsum
 - 2. Lafarge North America Inc.
 - 3. National Gypsum Company.
 - 4. USG Corporation.
- C. REGULAR TYPE:
 - 1. Basis-of-Design Product: USG Sheetrock Brand
 - 2. Thickness: 5/8 inch.
 - 3. Long Edges: Tapered.

- D. Rated Walls:

1. TYPE X:
2. Basis-of-Design Product: USG Sheetrock Brand Firecode Core
3. Thickness: 5/8 inch.
4. Long Edges: Tapered.

E. Foil-Backed Gypsum Board: ASTM C 1396/C 1396M.

1. Used at all Exterior Walls with tight butt joints on the back side
2. Core: To match existing board.
3. Long Edges: Tapered.

2.5 TRIM ACCESSORIES

A. Interior Trim: ASTM C 1047.

1. Material: Galvanized or aluminum-coated steel sheet, rolled zinc, plastic, or paper-faced galvanized-steel sheet.

2.6 JOINT TREATMENT MATERIALS

A. General: Comply with ASTM C 475/C 475M.

B. Joint Tape: Paper.

C. Joint Compound for Interior Gypsum Board: For each coat, use formulation that is compatible with other compounds applied on previous or for successive coats.

1. Prefilling: At open joints and damaged surface areas, use setting-type taping compound.
2. Embedding and First Coat: For embedding tape and first coat on joints, fasteners, and trim flanges, use setting-type taping compound.
3. Fill Coat: For second coat, use drying-type, all-purpose compound.
4. Finish Coat: For third coat, use drying-type, all-purpose compound.

2.7 AUXILIARY MATERIALS

A. General: Provide auxiliary materials that comply with referenced installation standards and manufacturer's written instructions.

B. Steel Drill Screws: ASTM C 1002 unless otherwise indicated.

C. Thermal Insulation: As specified in Section 072100 "Thermal Insulation."

PART 3 - EXECUTION

3.1 APPLYING AND FINISHING PANELS

A. Examine panels before installation. Reject panels that are wet, moisture damaged, and mold damaged.

B. Comply with ASTM C 840.

- C. Prefill open joints and damaged surface areas.
- D. Apply joint tape over gypsum board joints, except for trim products specifically indicated as not intended to receive tape.
- E. Gypsum Board Finish Levels: Finish panels to levels indicated below and according to ASTM C 840:
 - 1. Level 4: At panel surfaces that will be exposed to view unless otherwise indicated.
 - a. Primer and its application to surfaces are indicated on the Drawings.

3.2 PROTECTION

- A. Protect installed products from damage from weather, condensation, direct sunlight, construction, and other causes during remainder of the construction period.
- B. Remove and replace panels that are wet, moisture damaged, and mold damaged.

END OF SECTION

SECTION 09510

ACOUSTICAL PANEL CEILINGS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general conditions of Contract, including General and Supplementary Conditions and Divisions-1 Specification sections apply to work of this section.

1.2 SUMMARY

A. SECTION INCLUDES:

1. Acoustical ceiling panels.
2. Exposed grid suspension system.
3. Wire hangers, fasteners, main runners, cross tees, and wall angle moldings.

B. RELATED SECTIONS:

1. Section 09250 - Gypsum Board

C. SUBSTITUTIONS:

1. PRIOR APPROVAL: Unless otherwise provided for in the Contract documents, proposed product substitutions may be submitted no later than TEN (10) working days prior to the date established for receipt of bids. Acceptability of a proposed substitution is contingent upon the Architect's review of the proposal for acceptability and approved products will be set forth by the Addenda. If included in a Bid are substitute products which have not been approved by Addenda, the specified products shall be provided without additional compensation.
2. Submittals which do not provide adequate data for the product evaluation will not be considered. The proposed substitution must meet all requirements of this section, including but not necessarily limited to, the following: Single source materials suppliers (if specified in Section 1.5); Underwriters' Laboratories Classified Acoustical performance; Panel design, size, composition, color, and finish; Suspension system component profiles and sizes; Compliance with the referenced standards.

1.3 REFERENCES

A. American Society for Testing and Materials (ASTM):

1. ASTM C 635 Standard Specification for Metal Suspension Systems for Acoustical Tile and Lay-in Panel Ceilings.
2. ASTM C 636 Recommended Practice for Installation of Metal Ceiling Suspension Systems for Acoustical Tile and Lay-in Panels.
3. ASTM E 84 Standard Test Method for Surface Burning Characteristics of Building Materials.
4. ASTM E 1414 Standard Test Method for Airborne Sound Attenuation Between Rooms Sharing a Common Ceiling Plenum.
5. ASTM E 1111 Standard Test Method for Measuring the Interzone Attenuation of Ceilings Systems.
6. ASTM E 1264 Classification for Acoustical Ceiling Products.

7. ASTM D 3273 Standard Test Method for Resistance to Growth of Mold on the Surface of Interior Coatings in an Environmental Chamber.
8. ASTM E 119 Standard Test Methods for Fire Tests of Building Construction and Material.
9. ASTM D 638 Standard Test Method for Tensile Properties of Plastic.
10. CISCA Ceiling System Handbook and Acoustic Ceilings Use and Practice.

1.4 SUBMITTALS

- A. **PRODUCT DATA:** Submit manufacturer's technical data for each type of acoustical ceiling unit and suspension system required.
- B. **INSTALLATION INSTRUCTIONS:** Submit manufacturer's installation instructions for Vector product as referenced in 3.0 INSTALLATION Section.
- C. **MAINTENANCE INFORMATION:** Submit Vector Owner's Kit.
- D. **SAMPLES:** Minimum 6 inch x 6 inch samples of specified acoustical panel; 8 inch long samples of exposed wall molding and suspension system, including main runner and 4 foot cross tees.
- E. **SHOP DRAWINGS:** Layout and details of acoustical ceilings. Show locations of items which are to be coordinated with, or supported by the ceilings.
- F. **CERTIFICATIONS:** Manufacturer's certifications that products comply with specified requirements, including laboratory reports showing compliance with specified tests and standards. For acoustical performance, each carton of material must carry an approved independent laboratory classification of NRC, CAC, and AC.
- G. If the material supplied by the acoustical subcontractor does not have an Underwriter's Laboratory classification of acoustical performance on every carton, subcontractor shall be required to send material from every production run appearing on the job to an independent or NVLAP approved laboratory for testing, at the architect's or owner's discretion. All products not conforming to manufacturer's current published values must be removed, disposed of and replaced with complying product at the expense of the Contractor performing the work.

1.5 QUALITY ASSURANCE

- A. **SINGLE-SOURCE RESPONSIBILITY:** Provide acoustical panel units and grid components by a single manufacturer.
- B. **FIRE PERFORMANCE CHARACTERISTICS:** Identify acoustical ceiling components with appropriate markings of applicable testing and inspecting organization.
 1. **Surface Burning Characteristics:** As follows, tested per ASTM E 84 and complying with ASTM E 1264 for Class A products.
 - a. Flame Spread: 25 or less
 - b. Smoke Developed: 50 or less
- C. Handle acoustical ceiling units carefully to avoid chipping edges or damaged units in any way.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Deliver acoustical ceiling units to project site in original, unopened packages and store them in a fully enclosed space where they will be protected against damage from moisture, direct sunlight, surface contamination, and other causes.

- B. Before installing acoustical ceiling units, permit them to reach room temperature and a stabilized moisture content.
- C. Handle acoustical ceiling units carefully to avoid chipping edges or damaged units in any way.

1.7 PROJECT CONDITIONS

A. SPACE ENCLOSURE:

All ceiling products and suspension systems must be installed and maintained in accordance with Armstrong written installation instructions for that product in effect at the time of installation and best industry practice. Prior to installation, the ceiling product must be kept clean and dry, in an environment that is between 32°F (0°C) and 120°F (49°C) and not subject to Abnormal Conditions.

Abnormal conditions include exposure to chemical fumes, vibrations, moisture from conditions such as building leaks or condensation, excessive humidity, or excessive dirt or dust buildup.

HUMIGUARD PLUS CEILINGS: Installation of the products shall be carried out where the temperature is between 32°F (0° C) and 120°F (49° C). It is not necessary for the area to be enclosed or for HVAC systems to be functioning. All wet work (plastering, concrete, etc) must be complete and dry.

The ceilings must be maintained to avoid excessive dirt or dust buildup that would provide a medium for microbial growth on ceiling panels. Microbial protection does not extend beyond the treated surface as received from the factory, and does not protect other materials that contact the treated surface such as supported insulation materials.

1.8 WARRANTY

- A. **ACOUSTICAL PANEL:** Submit a written warranty executed by the manufacturer, agreeing to repair or replace acoustical panels that fail within the warranty period. Failures include, but are not limited to:
 - 1. Acoustical Panels: Sagging and warping as a result of defects in materials or factory workmanship.
 - 2. Grid System: Rusting and manufacturer's defects
 - 3. Acoustical Panels with BioBlock Plus or designated as inherently resistive to the growth of micro-organisms installed with Armstrong suspension systems: Visible sag and will resist the growth of mold/mildew and gram positive and gram negative odor and stain causing bacteria.
- B. **WARRANTY PERIOD HUMIGUARD:**
 - 1. Acoustical panels: Ten (10) years from date of substantial completion.
 - 2. Grid: Ten (10) years from date of substantial completion.
 - 3. Acoustical panels and grid systems with HumiGuard Plus or HumiGuard Max performance supplied by one source manufacturer is thirty (30) years from date of substantial completion.
- C. The Warranty shall not deprive the Owner of other rights the Owner may have under other provisions of the Contract Documents and will be in addition to and run concurrent with other warranties made by the Contractor under the requirements of the Contract Documents.

1.9 MAINTENANCE

- A. EXTRA MATERIALS: Deliver extra materials to Owner. Furnish extra materials described below that match products installed. Packaged with protective covering for storage and identified with appropriate labels.
1. Acoustical Ceiling Units: Furnish quality of full-size units equal to 5.0 percent of amount installed.
 2. Exposed Suspension System Components: Furnish quantity of each exposed suspension component equal to 2.0 percent of amount installed.

PART 2 – PRODUCTS

2.1 MANUFACTURERS

A. Ceiling Panels:

1. Armstrong World Industries, Inc.- Fine Fissure, 1734, Beveled Edge
2. USG Corporation – “F” - Fissured

2.2.0 ACOUSTICAL CEILING UNITS

A. Acoustical Panels Type ACT-1:

1. Style: Armstrong Fine Fissured 1734 with Beveled Edge, USG “F”-Fissured.
2. Surface Texture: Fine
3. Composition: Mineral Fiber
4. Color: White
5. Size: 24in X 24in X 5/8 in
6. Noise Reduction Coefficient (NRC): ASTM C 423; Classified with UL label on product carton, 0.70.
7. Ceiling Attenuation Class (CAC): ASTM C 1414; Classified with UL label on product carton, 33
8. Emissions Testing: Section 01350 Protocol, < 13.5 ppb of formaldehyde when used under typical conditions required by ASHRAE Standard 62.1-2004, "Ventilation for Acceptable Indoor Air Quality"
9. Flame Spread: ASTM E 1264; Class A (UL)
10. Light Reflectance (LR): ASTM E 1477; White Panel: Light Reflectance: 0.90.
11. Dimensional Stability: HumiGuard Plus - Temperature is between 32°F (0° C) and 120°F (49° C). It is not necessary for the area to be enclosed or for HVAC systems to be functioning. All wet work (plastering, concrete, etc) must be complete and dry.
12. Antimicrobial Protection: BioBlock Plus - Resistance against the growth of mold/mildew and gram positive and gram negative odor and stain causing bacteria.
13. Acceptable Product: Armstrong Fine Fissured 1734 with Beveled Edge, USG “F”-Fissured/

2.3. SUSPENSION SYSTEMS

A. Acoustical Panel Suspension

1. Product: Ceilingmax Ceiling Grid Kit
2. Composition: Virgin grade polyvinyl chloride (PVC)
3. Color: White – Match Acoustical Panel color.
4. Installation: Surface Mounted to existing substrate.
5. Grid Size (Nominal) 24" x 24
6. Grid Accessories:
 1. Runner: Extruded PVC at 24 inches on center.
 2. Cross Tees: Extruded PVC as 24 inches on center.
 3. Wall Bracket: Extruded PVC mechanically fastened to existing substrate at 24" on center.
 4. Top Hanger: Extruded PVC mechanically fastened to existing substrate. Top hanger notches 24 inches on center, starting 12 inches from ends.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Do not proceed with installation until all wet work such as concrete, terrazzo, plastering and painting has been completed and thoroughly dried out, unless expressly permitted by manufacturer's printed recommendations. (Exception: HumiGuard Max Ceilings).

3.2 PREPARATION

- A. Measure each ceiling area and establish layout of acoustical units to balance border widths at opposite edges of each ceiling. Avoid use of less than half width units at borders, and comply with reflected ceiling plans. Coordinate panel layout with mechanical and electrical fixtures.
- B. COORDINATION: Furnish layouts for preset inserts, clips, and other ceiling anchors whose installation is specified in other sections.
 1. Furnish concrete inserts and similar devices to other trades for installation well in advance of time needed for coordination of other work.

3.3 INSTALLATION

- A. Install suspension system and panels in compliance with ASTM C 636, with the authorities having jurisdiction, and in accordance with the manufacturer's instructions:
 1. Optima Vector/Ultima Vector Installation Instructions, LA295591.
- B. Suspend main beam from overhead construction with hanger wires spaced 4-0 on center along the length of the main runner. Install hanger wires plumb and straight. Hanger wires shall not be installed in convenience holes. For Vector panels the suspension system must be leveled to within 1/4" in 10 feet and must be square to within 1/16" in 2 feet.
- C. Install wall moldings at intersection of suspended ceiling and vertical surfaces. Miter corners where wall moldings intersect or install corner caps.

- D. Install acoustical panels in coordination with suspended system, with edges engaged on flanges of main runner and cross tees. Cut and fit panels neatly against abutting surfaces. Support edges by wall moldings.

3.4 ADJUSTING AND CLEANING

- A. Replace damaged and broken panels.
- B. Clean exposed surfaces of acoustical ceilings, including trim, edge moldings, and suspension members. Comply with manufacturer's instructions for cleaning and touch up of minor finish damage.
 - 1. Ceiling Touch-Up Paint, (Item #5760, 8oz. bottles) (Item #5761, quart size cans), "global white" latex paint should be used to hide minor scratches and nicks in the surface and to cover field tegularized edges that are exposed to view.
- C. Remove and replace work that cannot be successfully cleaned and repaired to permanently eliminate evidence of damage.

END OF SECTION 09510

SECTION 09910

PAINTING

PART 1 - GENERAL

1.1 SECTION REQUIREMENTS

- A. SUMMARY: paint exposed surfaces, new and existing, unless otherwise indicated.
 - 1. Paint the back side of access panels.
 - 2. Do not paint prefinished items, items with an integral finish, operating parts, and labels, unless otherwise indicated.
- B. SUBMITTALS: product data and samples. Provide paint 'draw-down' cards of each color and finish.
- C. MOCKUPS: full-coat finish sample of each type of coating, color, and substrate, applied where directed.
- D. Obtain block fillers and primers for each coating system from same manufacturer as finish coats.
- E. EXTRA MATERIALS: deliver to owner 1 gal. Of each color and type of finish coat paint used on project, in containers, properly labeled and sealed.

PART 2 - PRODUCTS

2.1 PAINT

- A. PRODUCTS:
 - 1. Sherwin Williams
 - 2. Benjamin Moore
 - 3. Pratt and Lambert
 - 4. Colors: to be selected.
- B. MATERIAL COMPATIBILITY: provide materials that are compatible with one another and with substrates.
- C. MATERIAL QUALITY: manufacturer's best-quality paint material of coating types specified that are formulated and recommended by manufacturer for application indicated.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Remove hardware, lighting fixtures and similar items that are not to be painted. Mask items that cannot be removed. Reinstall items in each area after painting is complete.
- B. Proper product selection, surface preparation, and application affect coating performance. Coating integrity and service life will be reduced because of improperly prepared surfaces. Selection and implementation of proper surface preparation ensures coating adhesion to the substrate and prolongs the service life of the coating system. Recognize that any surface preparation short of total removal of the old coating may compromise the service length of the system.
- C. Selection of the proper method of surface preparation depends on the substrate, the environment, and the expected service life of the coating system. Economics, surface

contamination, and the effect on the substrate will also influence the selection of surface preparation methods.

- D. The surface must be dry and in sound condition. Remove oil, dust, dirt, loose rust, peeling paint or other contamination to ensure good adhesion.
- E. Prior to attempting to remove mildew, it is always recommended to test any cleaner on a small, inconspicuous area prior to use. Bleach and bleaching type cleaners may damage or discolor existing paint films. Bleach alternative cleaning solutions may be advised. Remove mildew before painting by washing with a solution of 1 part liquid household bleach and 3 parts of warm water. Apply the solution and scrub the mildewed area. Allow the solution to remain on the surface for 10 minutes. Rinse thoroughly with clean water and allow the surface to dry 48 hours before painting. Wear protective glasses or goggles, waterproof gloves, and protective clothing. Quickly wash off any of the mixture that comes in contact with your skin. Do not add detergents or ammonia to the bleach/water solution..
- F. Previously Coated Surfaces: maintenance painting will frequently not permit or require complete removal of all old coatings prior to repainting. However, all surface contamination such as oil, grease, loose paint, mill scale, dirt, foreign matter, rust, mold, mildew, mortar, efflorescence, and sealers must be removed to assure sound bonding to the tightly adhering old paint. Glossy surfaces of old paint films must be clean and dull before repainting. Thorough washing with an abrasive cleanser will clean and dull in one operation, or, wash thoroughly and dull by sanding. Spot prime any bare areas with an appropriate primer. Recognize that any surface preparation short of total removal of the old coating may compromise the service length of the system. Check for compatibility by applying a test patch of the recommended coating system, covering at least 2 to 3 square feet. Allow to dry one week before testing adhesion per ASTM D3359. If the coating system is incompatible, complete removal is required per ASTM D4259.
- G. No exterior painting should be done immediately after a rain, during foggy weather, when rain is predicted, or when the temperature is below 50°F, unless products are designed specifically for these conditions. On large expanses of metal siding, the air, surface and material temperatures must be 50°F or higher to use low temperature products.

3.2 INTERIOR APPLICATION

- A. Apply coatings by brush, roller, spray or other applicators according to coating manufacturers written instructions.
 - 1. Use brushes only for exterior painting and where the use of other applicators is not practical.
 - 2. Use rollers for finish coat on interior walls and ceilings.
- B. PIGMENTED (OPAQUE) FINISHES: completely cover surfaces to provide a smooth, opaque surface of uniform appearance. Provide a finish free of cloudiness, spotting, holidays, laps, brush marks, runs, sags, ropiness, or other surface imperfections.
- C. TRANSPARENT (CLEAR) FINISHES: use multiple coats to produce a glass-smooth surface film of even luster. Provide a finish free of laps, runs, cloudiness, color irregularity, brush marks, orange peel, nail holes, or other surface imperfections.
- D. INTERIOR APPLICATION SCHEDULE:
 - 1. **ProMar® 200 Zero VOC Interior Latex** — A durable, professional quality zero VOC vinyl acrylic topcoat available in a Flat, Low Gloss, Low Sheen, Eg-Shel, Semi-Gloss and Gloss finish.

2. **Pro Industrial™ Acrylic Coating** — A single component, light industrial, 100% acrylic coating that flows and levels to a smooth finish. Available in an Eg-Shel, Semi-Gloss, and Gloss finish.
3. **RECOMMENDED FINISHES:**
 - a. Ceilings and Soffits: Flat Finish
 - b. **Walls:** Eg-Shel or Semi-Gloss Finish
 - c. **Trim:** Semi-Gloss Finish (unless otherwise noted)
4. **MATERIAL INSTALLATION SPECS:**
 - a. CMU — Concrete Masonry Units - Semi-Gloss Finish
 - 1) Primer: PrepRite® Block Filler, B25W25
 - 2) 1st coat: ProMar® 200 Zero VOC Interior Latex Semi-Gloss, B31-2600 Series
 - 3) 2nd coat: ProMar® 200 Zero VOC Interior Latex Semi-Gloss, B31-2600 Series
 - b. GYPSUM BOARD — WALLS -Semi-Eg-Shel Finish
 - 1) **Primer:** ProMar® 200 Zero VOC Latex Primer, B28W2600
1st coat: ProMar® 200 Zero VOC Interior Latex Eg-Shel, B26-2600 Series
 - 2) 2nd coat: ProMar® 200 Zero VOC Interior Latex Eg-Shel, B26-2600 Series
 - c. GYPSUM BOARD — CEILINGS AND SOFFITS- Flat Finish
 - 1) Primer: ProMar® 200 Zero VOC Latex Primer, B28W2600
 - 2) 1st coat: ProMar® 200 Zero VOC Interior Latex Flat, B30-2600 Series
 - 3) 2nd coat: ProMar® 200 Zero VOC Interior Latex Flat, B30-2600 Series
 - d. WOOD — PAINTED DOORS, FRAMES, TRIM AND CHAIR RAILS - Semi-Gloss Finish
 - 1) Primer: PrepRite ProBlock® Latex Primer/Sealer, B51 Series
 - 2) 1st coat: Pro Industrial™ Acrylic Semi-Gloss, B66-650 Series
 - 3) 2nd coat: Pro Industrial™ Acrylic Semi-Gloss, B66-650 Series
 - e. WOOD — STAINED DOORS, FRAMES, TRIM AND CHAIR RAILS - Stained Finish
 - 1) Stain: Minwax® 250 Interior Stain
 - 2) 2nd coat: Minwax® Oil Based Polyurethane Varnish, Satin
 - 3) 3rd coat: Minwax® Oil Based Polyurethane Varnish, Satin
 - f. FERROUS METAL — DOORS, FRAMES AND MISCELLANEOUS METALS - Semi-Gloss Finish
 - 1) Primer: Pro Industrial™ Pro-Cryl® Universal Primer, B66-310 Series
 - 2) 1st coat: Pro Industrial™ Acrylic Semi-Gloss, B66-650 Series
 - 3) 2nd coat: Pro Industrial™ Acrylic Semi-Gloss, B66-650 Series
 - g. FERROUS METAL — HIGH PERFORMANCE FINISH FOR STAIRS, HANDRAILS - Eg-Shel or Gloss Finish
 - 1) Primer: Pro Industrial™ Pro-Cryl® Universal Primer, B66-310 Series
1st coat: Pro Industrial™ Water Based Catalyzed Epoxy Eg-Shel, B73-360 Series or Gloss, B73-300 Series
 - 2) 2nd coat: Pro Industrial™ Water Based Catalyzed Epoxy Eg-Shel, B73-360 Series or Gloss, B73-300 Series

3.3 EXTERIOR PAINT APPLICATION SCHEDULE

- a.
- a. WOOD — EXTERIOR STAINED HEAVY TIMBER- Stained Finish
 - 1) Stain: Minwax® Exterior Stain
 - 2) 2nd coat: Minwax® Oil Based Polyurethane Varnish, Satin
 - 3) 3rd coat: Minwax® Oil Based Polyurethane Varnish, Satin
- b. FERROUS METAL — HIGH PERFORMANCE FINISH **FOR STAIRS, HANDRAILS** - Eg-Shel or Gloss Finish
 - 1) Primer: Pro Industrial™ Pro-Cryl® Universal Primer, B66-310 Series
 - 1st coat: Pro Industrial™ Water Based Catalyzed Epoxy Eg-Shel, B73-360 Series or Gloss, B73-300 Series
 - 2) 2nd coat: Pro Industrial™ Water Based Catalyzed Epoxy Eg-Shel, B73-360 Series or Gloss, B73-300 Series

END OF SECTION 09910