

**SECTION 00911 - ADDENDUM NUMBER 2**

PARTICULARS

1.01 DATE: July 3, 2013

1.02 PROJECT: UNIVERSITY OF SOUTH CAROLINA - Horizon Garage - Classroom Upfit

1.03 PROJECT NUMBER: State Project #H27-Z006, A/E #12029.01

1.04 OWNER: University of South Carolina

1.05 ARCHITECT: GMK Associates, Inc.

TO: PROSPECTIVE BIDDERS

2.01 This Addendum forms a part of the Contract Documents and modifies the Bidding Documents dated May, 2013, and Addendum Number 1 issued June 27, 2013, with amendments and additions noted below.

2.02 Acknowledge receipt of this Addendum in the space provided in the Bid Form. Failure to do so may disqualify the Bidder.

2.03 This Addendum consists of 2 pages and the following attachments:

- A. Table of Contents
- B. Specification Section 07218 - SPRAYED INSULATION
- C. Specification Section 08710 - DOOR HARDWARE.
- D. Specification Section 10523 - FIRE EXTINGUISHERS, CABINETS AND ACCESSORIES
- E. Specification Section 12490 - WINDOW SHADES

CHANGES TO THE PROJECT MANUAL

3.01 Table of Contents

- A. Replace existing Table of Contents with the attached Table of Contents.
  - 1. Section 10523 - FIRE EXTINGUISHERS, CABINETS AND ACCESSORIES added to the Table listing.

3.02 STANDARD BID FORM (SE-330)

- A. Replace with attachment.

3.03 Section 07218 - SPRAYED INSULATION

- A. Replace with attachment.

3.04 Section 08710 - DOOR HARDWARE

- A. Replace with attachment.

3.05 Section 10121 - TACKABLE WALL SURFACES

- A. Paragraph 1.01A.2 - Change "Prefabricated framed panels are not accepted." to "**Prebaricated framed panels are accepted.**"

3.06 Section 10523 – FIRE EXTINGUISHERS, CABINETS AND ACCESSORIES

- A. Add this section to the project manual.

3.07 Section 11131 - PROJECTION SCREENS

- A. Paragraph 2.01B.1 - Change "Dimensions: As indicated on drawings." to
- B. **"Screen Dimensions: 8'-0" wide x 8'-0" high."**

3.08 Section 12490- WINDOW SHADES

- A. Replace with attachment.

3.09 Section 15732 - VARIABLE REFRIGERANT VOLUMN (VRV) HVAC SYSTEMS

- A. Add the following approved manufacturers:
  1. Mitsubishi
  2. Panasonic
  3. Sanyo
  4. LG

CHANGES TO THE DRAWINGS

4.01 Drawing A8.0

- A. Replace with attached A8.0 reflecting changes in Door Schedule coordinating hardware sets with attached specification Section 08710.
- B. Partition Type A - Delete 2" x 2" fabrication angle. Fabrication of HSS framing can be welded or bolted; must provide clear surfaces for installation of metal studs and wallboard.

4.02 Drawing M2.2

- A. Ductless Split System Schedule; change Manufacturer from Misubishi to DAIKIN. All model numbers and data remain the same.

**END OF SECTION**

**BID FORM  
SE-330**

2011 Edition

*Bidders shall submit bids on only Bid Form SE-330.*

**BID SUBMITTED BY:** \_\_\_\_\_  
*(Bidder's Name)*

**BID SUBMITTED TO:** University of South Carolina  
*(Owner's Name)*

**FOR PROJECT:** H27-Z006                      Horizon Parking Garage-Classroom Upfit  
*(Number)*    *(Name)*

**OFFER**

§ 1. In response to the Invitation for Construction Bids and in compliance with the Instructions to Bidders for the above-named Project, the undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into a Contract with the Owner on the terms included in the Bidding Documents, and to perform all Work as specified or indicated in the Bidding Documents, for the prices and within the time frames indicated in this Bid and in accordance with the other terms and conditions of the Bidding Documents.

§ 2. Pursuant to Section 11-32-3030(1) of the SC Code of Laws, as amended, Bidder has submitted Bid Security as follows in the amount and form required by the Bidding Documents:

Bid Bond with Power of Attorney     Electronic Bid Bond     Cashier's Check  
*(Bidder check one)*

§ 3. Bidder acknowledges the receipt of the following Addenda to the Bidding Documents and has incorporated the effects of said Addenda into this Bid:

**ADDENDUM No:** \_\_\_\_\_

§ 4. Bidder accepts all terms and conditions of the Invitation for Bids, including, without limitation, those dealing with the disposition of Bid Security. Bidder agrees that this Bid, including all Bid Alternates, if any, may not be revoked or withdrawn after the opening of bids, and shall remain open for acceptance for a period of 60 Days following the Bid Date, or for such longer period of time that Bidder may agree to in writing upon request of the Owner.

§ 5. Bidder herewith offers to provide all labor, materials, equipment, tools of trades and labor, accessories, appliances, warranties and guarantees, and to pay all royalties, fees, permits, licenses and applicable taxes necessary to complete the following items of construction work:

**§ 6.1 BASE BID WORK** *(as indicated in the Bidding Documents and generally described as follows):*

The project consists of renovations and upfit to Horizon Parking Garage - classroom upfit.  
The Work includes, but is not limited to, finishes, HVAC, plumbing, electrical and roofing.

\_\_\_\_\_, which sum is hereafter called the Base Bid.

§ 6.2 **BID ALTERNATES** – as indicated in the Bidding documents and generally described as follows:

**ALTERNATE #1** (*Brief Description*): na

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**ADD TO** or  **DEDUCT FROM BASE BID:** \_\_\_\_\_

*(Bidder to Mark appropriate box to clearly indicate the price adjustment offered for each alternate)*

**ALTERNATE #2** (*Brief Description*): na

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**ADD TO** or  **DEDUCT FROM BASE BID:** \_\_\_\_\_

*(Bidder to Mark appropriate box to clearly indicate the price adjustment offered for each alternate)*

**ALTERNATE #3** (*Brief Description*): na

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**ADD TO** or  **DEDUCT FROM BASE BID:** \_\_\_\_\_

*(Bidder to Mark appropriate box to clearly indicate the price adjustment offered for each alternate)*

**BID FORM  
SE-330**

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**§ 7. LISTING OF PROPOSED SUBCONTRACTORS PURSUANT TO SECTION 3020(b)(i), CHAPTER 35, TITLE 11 OF THE SOUTH CAROLINA CODE OF LAWS, AS AMENDED – (See Instructions on the following page BF-3A)**

Bidder shall use the below-listed Subcontractors in the performance of the Subcontractor Specialty work listed:

<b>SUBCONTRACTOR SPECIALTY</b> By License Classification and/or Subclassification (Completed by Owner)	<b>SUBCONTRACTOR(S) OR PRIME CONTRACTOR'S NAME</b> ((Must be completed by Bidder) <b>BASE BID</b>	<b>SUBCONTRACTOR'S SC LICENSE NUMBER</b>
AC/PK		
Electrical		
na	<b>ALTERNATE # 1</b>	
na	<b>ALTERNATE # 2</b>	
na	<b>ALTERNATE # 3</b>	

If a Bid Alternate is accepted, Subcontractors listed for the Bid Alternate shall be used for the work of both the Alternate and the Base Bid work.

## **INSTRUCTIONS FOR SUBCONTRACTOR LISTING**

1. Section 7 of the Bid Form sets forth a list of subcontractor specialties for which bidder is required to identify by name the subcontractor(s) Bidder will use to perform the work of each listed specialty. Bidder must identify only the subcontractor(s) who will perform the work and no others.
2. For purposes of subcontractor listing, a Subcontractor is an entity who will perform work or render service to the prime contractor to or about the construction site. Material suppliers, manufacturers, and fabricators that will not perform physical work at the site of the project but will only supply materials or equipment to the bidder or proposed subcontractor(s) are not subcontractors and Bidder should not insert their names in the spaces provided on the bid form. Likewise, Bidder should not insert the names of sub-subcontractors in the spaces provided on the bid form but only the names of those entities with which bidder will contract directly.
3. Bidder must only insert the names of subcontractors who are qualified to perform the work of the listed specialties as specified in the Bidding Documents and South Carolina Licensing Laws.
4. If under the terms of the Bidding Documents, Bidder is qualified to perform the work of a specialty listed and Bidder does not intend to subcontract such work but to use Bidder's own employees to perform such work, the Bidder must insert its own name in the space provided for that specialty.
5. If Bidder intends to use multiple subcontractors to perform the work of a single specialty listing, Bidder must insert the name of each subcontractor Bidder will use, preferably separating the name of each by the word **"and"**. If Bidder intends to use both his own employees to perform a part of the work of a single specialty listing and to use one or more subcontractors to perform the remaining work for that specialty listing, bidder must insert his own name and the name of each subcontractor, preferably separating the name of each with the word **"and"**.
6. Bidder may not list subcontractors in the alternative nor in a form that may be reasonably construed at the time of bid opening as a listing in the alternative. A listing that requires subsequent explanation to determine whether or not it is a listing in the alternative is non-responsive. If bidder intends to use multiple entities to perform the work for a single specialty listing, bidder must clearly set forth on the bid form such intent. Bidder may accomplish this by simply inserting the word **"and"** between the name of each entity listed for that specialty. Owner will reject as non-responsive a listing that contains the names of multiple subcontractors separated by a blank space, the word "or", a virgule (that is a /), or any separator that the Owner may reasonably interpret as a listing in the alternative.
7. If Bidder is awarded the contract, bidder must, except with the approval of the owner for good cause shown, use the listed entities to perform the work for which they are listed.
8. If bidder is awarded the contract, bidder will not be allowed to substitute another entity as subcontractor in place of a subcontractor listed in Section 7 of the Bid except for one or more of the reasons allowed by the SC Code of Laws.
9. Bidder's failure to insert a name for each listed specialty subcontractor will render the Bid non-responsive.

**§ 8. LIST OF MANUFACTURERS, MATERIAL SUPPLIERS, AND SUBCONTRACTORS OTHER THAN SUBCONTRACTORS LISTED IN SECTION 7 ABOVE (FOR INFORMATION ONLY):** Pursuant to instructions in the Invitation for Bids, if any, Bidder will provide to Owner upon the Owner's request and within 24 hours of such request, a listing of manufacturers, material suppliers, and subcontractors, other than those listed in Section 7 above, that Bidder intends to use on the project. Bidder acknowledges and agrees that this list is provided for purposes of determining responsibility and not pursuant to the subcontractor listing requirements of SC Code Ann § 11-35-3020(b)(i).

**§ 9. TIME OF CONTRACT PERFORMANCE AND LIQUIDATED DAMAGES**

a. **CONTRACT TIME:** Bidder agrees that the Date of Commencement of the Work shall be established in a Notice to Proceed to be issued by the Owner and Bidder shall substantially complete the Work within 120 calendar days from the Date of Commencement, subject to adjustments as provided in the Contract Documents.

b. **LIQUIDATED DAMAGES:** Bidder further agrees that from the compensation to be paid, the Owner shall retain as Liquidated Damages the sum of \$ 500.00 for each calendar day the actual construction time required to achieve Substantial Completion exceeds the specified or adjusted time for Substantial Completion as provided in the Contract Documents. This sum is intended by the parties as the predetermined measure of compensation for actual damages, not as a penalty for nonperformance.

**§ 10. AGREEMENTS**

a. Bidder agrees that this bid is subject to the requirements of the law of the State of South Carolina.

b. Bidder agrees that at any time prior to the issuance of the Notice to Proceed for this Project, this Project may be canceled for the convenience of, and without cost to, the State.

c. Bidder agrees that neither the State of South Carolina nor any of its agencies, employees or agents shall be responsible for any bid preparation costs, or any costs or charges of any type, should all bids be rejected or the Project canceled for any reason prior to the issuance of the Notice to Proceed.

**§ 11. ELECTRONIC BID BOND**

By signing below, the Principal is affirming that the identified electronic bid bond has been executed and that the Principal and Surety are firmly bound unto the State of South Carolina under the terms and conditions of the AIA Document A310, Bid Bond, included in the Bidding Documents.

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*(Electronic Bid Bond Number)*

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*(Signature and Title)*

**BID FORM  
SE-330**

2011 Edition

**BIDDER'S TAXPAYER IDENTIFICATION**

FEDERAL EMPLOYER'S IDENTIFICATION NUMBER: \_\_\_\_\_

*OR*

SOCIAL SECURITY NUMBER: \_\_\_\_\_

**CONTRACTOR'S CLASSIFICATIONS AND SUBCLASSIFICATIONS WITH LIMITATIONS**

*Classification(s) & Limits:* \_\_\_\_\_

*Subclassification(s) & Limits:* \_\_\_\_\_

*SC Contractor's License Number(s):* \_\_\_\_\_

BY SIGNING THIS BID, THE PERSON SIGNING REAFFIRMS ALL REPRESENTATIONS AND CERTIFICATIONS MADE BY BOTH THE PERSON SIGNING AND THE BIDDER, INCLUDING WITHOUT LIMITATION, THOSE APPEARING IN ARTICLE 2 OF THE INSTRUCTIONS TO BIDDER. THE INVITATION FOR BIDS, AS DEFINED IN THE INSTRUCTIONS TO BIDDERS, IS EXPRESSLY INCORPORATE BY REFERENCE.

**SIGNATURE**

\_\_\_\_\_  
*(Legal Name of Person, Firm or Corporation Submitting Bid)*

\_\_\_\_\_  
*(Mailing Address for the above)*

BY: \_\_\_\_\_  
*(Signature)*

DATE: \_\_\_\_\_

TITLE: \_\_\_\_\_

TELEPHONE: \_\_\_\_\_



## SECTION 07218 - POLYICYNENE SPRAY INSULATION

### PART 1 GENERAL

#### 1.01 SECTION INCLUDES

- A. Polyicynene spray insulation at [ceiling] surfaces.

#### 1.02 REFERENCES

- A. American Society for Testing and Materials (ASTM):
  1. ASTM C518-[ ], Test Method for Steady-State Heat Flux Measurements and Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus.
  2. ASTM D2863-[ ], Test Method for Measuring the Minimum Oxygen Concentration to Support Candle-like Combustion of Plastics (Oxygen Index).
  3. ASTM E84-[ ], Test Method for Surface Burning Characteristics of Building Materials.
  4. ASTM E90-[ ], Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions.
  5. ASTM E96-[ ], Test Methods for Water Vapor Transmission Rate of Building Materials.
  6. ASTM E283-[ ], Test Method for Determining the Rate of Air Leakage Through Exterior Windows, Curtain Walls, and Doors Under Specified Differences Across the Specimen.

#### 1.03 SUBMITTALS

- A. Product Data: Provide data on materials, describing insulation properties, and surface burning characteristics.
- B. LEED Information: Indicate percentage of waste materials by weight diverted from landfill and recycled.
- C. Manufacturer's Installation Instructions: Indicate special procedures, perimeter conditions requiring special treatment.
- D. Manufacturer's Certificate: Certify that products meet or exceed specified requirements.

#### 1.04 QUALIFICATIONS

- A. Manufacturer: Company specializing in manufacturing the products specified in this section with minimum three (3) years documented experience.
- B. Applicator: Company specializing in performing the work of this section certified by the manufacturer.

#### 1.05 ENVIRONMENTAL REQUIREMENTS

- A. Toxicity/Hazardous Materials:
  1. Outgassing/Reactivity:
    - a. Formaldehyde: Products containing urea-formaldehyde will not be permitted.
    - b. Chlorofluorocarbons (CFCs)/HCFCs: Products and equipment requiring or using CFCs or HCFCs during the manufacturing process will not be permitted.
  2. Airtightness: Meet specific standards of the Energy Star Program of 1.5 Air Changes/Hour at 50 Pa.

#### 1.06 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials to site in manufacturer's original, unopened containers and packaging, with labels clearly indicating manufacturer and material.

- B. Store materials in an area protected from freezing and overheating damage and in accordance with manufacturer's instructions.
- C. Protect materials during handling and application to prevent damage and contamination.

## PART 2 PRODUCTS

### 2.01 MANUFACTURER

- A. Icynene Inc., 6747 Campobello Rd. Mississauga, Ontario L5N 2L7 Canada. Tel 800-758-7325. Fax 905-363-0102. Web Site: www.icynene.com.
- B. Substitutions: See Section 01600 - Product Requirements.

### 2.02 MATERIALS

- A. Polyisocyanurate Spray Insulation: Polyisocyanurate; hydrophobic, low-density, open-cell modified polyisocyanurate; conforming to the following:
  - 1. Thermal Resistance (R-Value/inch): ASTM C518; 3.6 hr/sq ft/degree F/BTU. In.
  - 2. Air Permeance (for 5.25 inches of material): ASTM E283; 0.0049 l/m2/second.
  - 3. Water Vapor Transmission (for 5 inches of material): ASTM E96; 10 perms.
  - 4. Sound Transmission Class (STC): ASTM E90; STC 37 in wood stud wall.
  - 5. Noise Reduction Coefficient (NRC): ASTM E90; NRC-0.7 in wood stud wall.
  - 6. Corrosion: No significant corrosion when in contact with steel under 85 percent relative humidity.
  - 7. Bacterial or Fungal Growth: No growth; no material deterioration.
  - 8. Flame Spread and Smoke Developed Rating: ASTM E84; <20/<400.
  - 9. Fuel Contribution: ASTM E84; 0.
    - a. Oxygen Index: ASTM D2863; average value 23.1 percent.
  - 10. Vapor Retarder: Vapor retarder paint or vapor diffusion retarder recommended by insulation manufacturer.

## PART 3 EXECUTION

### 3.01 EXAMINATION

- A. Verify existing conditions before starting work.
- B. Verify that substrate is free of any foreign material that will impede application.
- C. Verify that other work on and within spaces to be insulated is complete prior to application.
- D. Notify Architect of conditions that would adversely affect the application.
- E. Beginning of installation means applicator accepts existing conditions.

### 3.02 PREPARATION

- A. Comply with manufacturer's written installation instructions for preparing substrates indicated to receive insulation.
- B. Mask and protect adjacent surfaces from overspray or damage.
- C. Remove foreign materials, dirt, grease, oil, paint, laitance, efflorescence, and other substances that will affect application.

### 3.03 APPLICATION

- A. Apply insulation in accordance with manufacturer's written application instructions.
- B. Apply insulation to a reasonably uniform monolithic density without voids.
- C. Apply to minimum cured thickness of two \_\_\_\_\_ inch.
- D. Apply insulation to fill voids around doors and windows.
- E. Apply insulation to fill voids around accessible service and equipment penetrations [as noted on drawings].
- F. Seal plumbing stacks, electrical wiring and other penetrations into attic to control air leakage.
- G. Where building is designed to meet the specific airtightness standards of the Energy Star Program, apply insulation as recommended by manufacturer to provide airtight construction. Apply caulking to seal joints between structural assemblies.

#### 3.04 FIELD QUALITY CONTROL

- A. Inspect application for insulation thickness and density.

#### 3.05 PROTECTION OF FINISHED WORK

- A. Do not permit subsequent work to disturb applied insulation.

#### 3.06 CONSTRUCTION WASTE MANAGEMENT

- A. Plan and coordinate the insulation work to minimize the generation of offcuts and waste. Reuse insulation scraps to the maximum extent feasible.
  - 1. Separate and recycle waste materials in accordance with the Waste Management Plan and to the extent economically feasible.

**END OF SECTION**

## SECTION 08710 - DOOR HARDWARE

### PART 1 GENERAL

#### 1.01 SECTION INCLUDES

- A. Hardware for wood doors.
- B. Hardware for fire-rated doors.
- C. Electrically operated and controlled hardware.
- D. Lock cylinders for doors for which hardware is specified in other sections.
- E. Thresholds.
- F. Weatherstripping, seals and door gaskets.
- G. Furnish and install items known commercially as door hardware and included in the Part II Products and/or schedule portion of this section.
- H. Extent of Door Hardware required is as indicated on drawings and as scheduled.

#### 1.02 REFERENCE STANDARDS

- A. 36 CFR 1191 - Americans with Disabilities Act Accessibility Guidelines for Buildings and Facilities; Final Rule; 2010; (ADA Standards for Accessible Design).
- B. ADA - Americans With Disabilities Act.
- C. ANSI/ICC A117.1 - American National Standard for Accessible and Usable Buildings and Facilities; International Code Council; 2009.
- D. BHMA A156.1 - American National Standard for Butts and Hinges; Builders Hardware Manufacturers Association, Inc.; 2006 (ANSI/BHMA A156.1).
- E. BHMA A156.2 - American National Standard for Bored and Preamsembled Locks & Latches; Builders Hardware Manufacturers Association; 2003 (ANSI/BHMA A156.2).
- F. BHMA A156.3 - American National Standard for Exit Devices; Builders Hardware Manufacturers Association; 2001 (ANSI/BHMA A156.3).
- G. BHMA A156.4 - American National Standard for Door Controls - Closers; Builders Hardware Manufacturers Association, Inc.; 2000 (ANSI/BHMA A156.4).
- H. BHMA A156.5 - American National Standard for Auxiliary Locks & Associated Products; Builders Hardware Manufacturers Association; 2001 (ANSI/BHMA A156.5).
- I. BHMA A156.6 - American National Standard for Architectural Door Trim; Builders Hardware Manufacturers Association; 2005 (ANSI/BHMA A156.6).
- J. BHMA A156.7 - American National Standard for Template Hinge Dimensions; Builders Hardware Manufacturers Association; 2003 (ANSI/BHMA A156.7).
- K. BHMA A156.8 - American National Standard for Door Controls - Overhead Stops and Holders; Builders Hardware Manufacturers Association, Inc.; 2005 (ANSI/BHMA A156.8).
- L. BHMA A156.9 - American National Standard for Cabinet Hardware; Builders Hardware Manufacturers Association; 2010 (ANSI/BHMA A156.9).

- M. BHMA A156.12 - American National Standard for Interconnected Locks & Latches; Builders Hardware Manufacturers Association; 2005 (ANSI/BHMA A156.12).
  - N. BHMA A156.13 - American National Standard for Mortise Locks & Latches; Builders Hardware Manufacturers Association; 2005 (ANSI/BHMA A156.13).
  - O. BHMA A156.14 - American National Standard for Sliding & Folding Door Hardware; Builders Hardware Manufacturers Association; 2007 (ANSI/BHMA A156.14).
  - P. BHMA A156.15 - American National Standard for Release Devices - Closer Holder, Electromagnetic and Electromechanical; Builders Hardware Manufacturers Association; 2006 (ANSI/BHMA A156.15).
  - Q. BHMA A156.16 - American National Standard for Auxiliary Hardware; Builders Hardware Manufacturers Association; 2002 (ANSI/BHMA A156.16).
  - R. BHMA A156.17 - American National Standard for Self Closing Hinges & Pivots; Builders Hardware Manufacturers Association, Inc.; 2004 (ANSI/BHMA A156.17).
  - S. BHMA A156.18 - American National Standard for Materials and Finishes; Builders Hardware Manufacturers Association, Inc.; 2006 (ANSI/BHMA A156.18).
  - T. BHMA A156.20 - American National Standard for Strap and Tee Hinges and Hasps; Builders Hardware Manufacturers Association; 2006 (ANSI/BHMA A156.20).
  - U. BHMA A156.21 - American National Standard for Thresholds; Builders Hardware Manufacturers Association; 2009 (ANSI/BHMA A156.21).
  - V. BHMA A156.22 - American National Standard for Door Gasketing and Edge Seal Systems, Builders Hardware Manufacturers Association; 2005 (ANSI/BHMA A156.22).
  - W. BHMA A156.23 - American National Standard for Electromagnetic Locks; Builders Hardware Manufacturers Association, Inc.; 2004 (ANSI/BHMA A156.23).
  - X. BHMA A156.24 - American National Standard for Delayed Egress Locks; Builders Hardware Manufacturers Association; 2003 (ANSI/BHMA A156.24).
  - Y. DHI (LOCS) - Recommended Locations for Architectural Hardware for Standard Steel Doors and Frames; Door and Hardware Institute; 2004.
  - Z. DHI WDHS.3 - Recommended Locations for Architectural Hardware for Flush Wood Doors; Door and Hardware Institute; 1993; also in WDHS-1/WDHS-5 Series, 1996.
  - AA. NWWDA - National Wood Window and Door Association.
  - AB. SDI - Steel Door Institute.
  - AC. ITS (DIR) - Directory of Listed Products; Intertek Testing Services NA, Inc.; current edition.
  - AD. NFPA 80 - Standard for Fire Doors and Other Opening Protectives; 2010.
  - AE. NFPA 101 - Code for Safety to Life from Fire in Buildings and Structures; National Fire Protection Association; 2012.
  - AF. UL (BMD) - Building Materials Directory; Underwriters Laboratories Inc.; current edition.
- 1.03 ADMINISTRATIVE REQUIREMENTS
- A. Coordinate the manufacture, fabrication, and installation of products onto which door hardware

will be installed.

- B. Furnish templates for door and frame preparation to manufacturers and fabricators of products requiring internal reinforcement for door hardware.
- C. Preinstallation Meeting: Convene a preinstallation meeting one week prior to commencing work of this section; require attendance by all affected installers.

#### 1.04 SUBMITTALS

- A. See Section 01300 - Administrative Requirements, for submittal procedures.
- B. Provide explanation of all abbreviations, symbols, codes, etc., contained in schedule.
- C. Indicate mounting locations for hardware. Locations to be as detailed or in accordance with DHI recommendations.
- D. Approval of the schedule shall not relieve the supplier of the responsibility to furnish all finish hardware required to complete the building whether included in the approved schedule or not.
- E. Manufacturer's Installation Instructions: Indicate special procedures, perimeter conditions requiring special attention.
- F. Project Record Documents: Record actual locations of concealed equipment, services, and conduit.
- G. Maintenance Data: Include data on operating hardware, lubrication requirements, and inspection procedures related to preventative maintenance.
- H. Keys: Deliver with identifying tags to Owner by security shipment direct from hardware supplier.
- I. Warranty: Submit manufacturer's warranty and ensure that forms have been completed in Owner's name and registered with manufacturer.

#### 1.05 QUALITY ASSURANCE

- A. Single Source Responsibility: Obtain all products of a single nature from a single manufacturer, unless otherwise specified or scheduled.
- B. Standards for Fire-Rated Doors: Maintain one copy of each referenced standard on site, for use by Architect and Contractor.
- C. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section with minimum three years of documented experience.
- D. Hardware Supplier Qualifications: Company shall be a recognized architectural hardware supplier, specializing in supplying institutional door hardware, with warehousing facilities, who has been furnishing hardware in the project's vicinity and of the project's magnitude, with two years of experience.
  - 1. Hardware Supplier Personnel: Employ an Architectural Hardware Consultant (AHC), full time experienced who is available at reasonable times during the course of the work, for consultation about projects hardware requirements, with Owner, Architect and Contractor.
  - 2. Prior to installation, the hardware supplier will make a representative available for coordination meeting with the Contractor and Division 16 where required, at the job site to review proper installation, function, application, location and adjustment of finish hardware.

E. Inspection of Contract Documents:

1. Should items of hardware be required for proper door function, whether or not they are specified, furnish such items of type and quality for the service required and comparable to adjacent hardware.
2. No claims for extra charges will be allowed for any work, material or services resulting from errors or omissions in the contract documents that could have been foreseen prior to the bid opening date and included in the cost of finish hardware.

1.06 INSTRUCTION OF OWNER

- A. On completion of project, the hardware supplier shall instruct the Owner's representative(s) as to proper operation, adjustment and maintenance of finish hardware. Any hardware function or feature not readily apparent shall be demonstrated at this time.

1.07 DELIVERY, STORAGE, AND HANDLING

- A. Items shall be individually packaged and, so far as possible, delivered in the manufacturer's original container. Each package or box shall be clearly marked with manufacturer's name, catalog number, material, finish, hardware group number, item number, opening number and any other marking required for easy identification when receiving or installing hardware.
- B. The Contractor is responsible for storage and safe guarding finish hardware at job site.
- C. Templates
1. Furnish, to fabricators of doors and frames, all necessary schedules, instructions and accurate templates required for the preparation of doors, frames and other components of the building construction that receive finish hardware.
  2. Provide templates and schedules in ample time so as not to cause any delay in fabrication of items or materials concerned.

1.08 WARRANTY

- A. See Section 01780 - Closeout Submittals, for additional warranty requirements.
- B. Provide five year warranty for all door closers against defects in material and workmanship from the date of occupancy of the project.

1.09 ELECTRICAL HARDWARE

- A. Electrical hardware to be installed by the Contractor in accordance with manufacturer's instruction, neatly fitted, properly adjusted to operate as intended and left free of defects.
- B. Prior to installation, the hardware supplier shall confer with the Contractor at the job site to review proper installation, application, location and adjustment of finish hardware. Coordinate automatic door operator and or security system or other system requirements where applicable.
- C. Maintenance Tools and Instructions: Furnish a complete set of specialized tools and maintenance instructions as needed for Owner's continued adjustment, maintenance, and removal and replacement of door hardware.

PART 2 PRODUCTS

2.01 DOOR HARDWARE - GENERAL

- A. Provide all hardware specified or required to make doors fully functional, compliant with applicable codes, and secure to the extent indicated.

- B. Provide all items of a single type of the same model by the same manufacturer.
- C. Provide products that comply with the following:
  - 1. Applicable provisions of federal, state, and local codes.
  - 2. ADA Standards for Accessible Design.
  - 3. ANSI/ICC A117.1, American National Standard for Accessible and Usable Buildings and Facilities.
  - 4. Fire-Rated Doors: NFPA 80.
  - 5. All Hardware on Fire-Rated Doors: Listed and classified by UL as suitable for the purpose specified and indicated.
  - 6. Products Requiring Electrical Connection: Listed and classified by UL as suitable for the purpose specified and indicated.
- D. Function: Lock and latch function numbers and descriptions of manufactures series as listed in hardware schedule.
- E. Finishes: All door hardware the same finish unless otherwise indicated.
  - 1. Primary Finish: Satin chrome plated over nickel on brass or bronze, 626 (approx US26D).
  - 2. Finish Definitions: BHMA A156.18.
  - 3. Exceptions:
    - a. Where base metal is specified to be different, provide finish that is an appearance equivalent according to BHMA A156.18.
    - b. Hinges for Fire-Rated Doors: Steel base metal with painted finish.
    - c. Door Closer Covers and Arms: Color to be selected by Architect from manufacturer's standard colors.
    - d. Hardware for Aluminum Storefront Doors: Finished to match door, except hand contact surfaces to be satin stainless steel.
- F. Fasteners:
  - 1. Mineral Core Wood Doors: Sex bolts.

## 2.02 HINGES

- A. Hinges: Satin chrome (US26D) (652 BHMA)
- B. Hinges: Provide hinges on every swinging door.
  - 1. Provide five-knuckle full mortise butt hinges unless otherwise indicated.
  - 2. Provide ball-bearing hinges at all doors having closers.
  - 3. Provide hinges in the quantities indicated.
  - 4. Provide non-removable pins on exterior outswinging doors.
- C. Manufacturers - Hinges:
  - 1. Assa Abloy McKinney: [www.assaabloydss.com](http://www.assaabloydss.com).
  - 2. Hinges for interior use shall be cold rolled steel, brass or bronze of specified finish. Exterior hinges shall be stainless steel (630 BHMA).
  - 3. Pins shall be of button tip, non-rising for typical applications, with non-removable pins which shall be locked in place by set screw in barrel, used typically for all exterior doors.
  - 4. Hinges shall be square-cornered, full mortise, to template.
  - 5. Quantity of Hinges:
    - a. One hinge for each 2'-6" of door height or portion of 2'-6" door height.
    - b. Interior Hinges:
      - 1) Door 1-3/4" thick, up to and including 3'-0" wide, standard weight 0.134" thick, 4 1/2" x 4 1/2", ball bearing.



Mark	Lawrence	Stanley Hager	McKinney	
HG01	BB4101	FBB179	BB1279	TA2714
Mark	Lawrence	Stanley Hager	McKinney	
HG02	BB5151	FBB168	BB1168	T4A3786

6. Bommer Industries, Inc: [www.bommer.com](http://www.bommer.com).
7. Hager Companies: [www.hagerco.com](http://www.hagerco.com).
8. McKinney Hinge: [www.mckinneyhinge.com](http://www.mckinneyhinge.com).
9. Stanley Black & Decker: [www.stanleyblackanddecker.com](http://www.stanleyblackanddecker.com).

### 2.03 LOCKS AND LATCHES

- A. Locks: Provide a lock for every door, unless specifically indicated as not requiring locking.
  1. Hardware Sets indicate locking functions required for each door.
  2. If no hardware set is indicated for a swinging door provide an office lockset.
  3. Trim: Provide lever handle or pull trim on outside of all locks unless specifically stated to have no outside trim.
- B. Electrically Operated Locks: Fail secure unless otherwise indicated.
- C. Lock Cylinders: Manufacturer's standard tumbler type, six-pin standard core.
  1. Provide cams and/or tailpieces as required for locking devices required.
- D. Keying: Grand master keyed.
  1. Include construction keying.
- E. Latches: Provide a latch for every door that is not required to lock, unless specifically indicated "push/pull" or "not required to latch".

### 2.04 MORTISE LOCKSETS

- A. Locking Functions: As defined in BHMA A156.13.
- B. Manufacturers - Mortise Locksets:
  1. Assa Abloy Corbin Russwin, Sargent, or Yale: [www.assaabloydss.com](http://www.assaabloydss.com).
  2. Best Access Systems, division of Stanley Security Solutions: [www.bestlock.com](http://www.bestlock.com).
  3. Schlage: [www.schlage.com](http://www.schlage.com).
  4. Mechanically actuated anti-friction and deadbolts shall have at least 1/2" throws. For double doors and doors under UL label requirements, latchbolt throws shall be 3/4".
  5. Provide standard ASA strikes with curved lips of lengths to suit door and jamb conditions, with wrought box strikes.
    - a. Trim design criteria shall meet following requirements:
      - 1) Series: 8-inch Mortise Locksets - 8200 Series.
      - 2) Lever: LL Trim L Rose L Lever.
      - 3) Lever on door to hazardous areas shall have machined knurled finish to comply with ANSI A117.1.
      - 4) Escutcheons shall be cut to accommodate lock functions as scheduled.
    - b. Cylinder - Levers:
 

Mark	Sargent Function	
LK53	8265	Privacy
LK54	8205	Office
LK55	8237	Classroom
LK56	8204	Storeroom

### 2.05 FLUSHBOLTS

- A. Flushbolts: Lever extension bolts in leading edge of door, one bolt into floor, one bolt into top of frame.
  - 1. Pairs of Swing Doors: At inactive leaves, provide flush bolts of type as required to comply with code.
  - 2. Floor Bolts: Provide dustproof strike except at metal thresholds.
- B. Automatic Flushbolts: Automatically latch upon closing of door; automatic retraction of bolts when active leaf is opened.
- C. Coordinators: Provide on doors having closers and self-latching or automatic flushbolts to ensure that leaves close in proper order.
- D. Manufacturers - Flushbolts:
  - 1. Assa Abloy McKinney: [www.assaabloydss.com](http://www.assaabloydss.com).
  - 2. Hager Companies: [www.hagerco.com](http://www.hagerco.com).
  - 3. Ives: [www.ives.ingersollrand.com](http://www.ives.ingersollrand.com).

2.06 CLOSERS

- A. Closers: Factory applied clear aluminum lacquer
- B. Closers: Complying with BHMA A156.4.
  - 1. Provide surface-mounted, door-mounted closers unless otherwise indicated.
- C. Manufacturers - Closers:
  - 1. Assa Abloy Corbin Russwin, Norton, Rixson, Sargent, or Yale: [www.assaabloydss.com](http://www.assaabloydss.com).
  - 2. C. R. Laurence Co., Inc; \_\_\_\_\_: [www.crlaurence.com](http://www.crlaurence.com).
  - 3. Unless otherwise specified, closers shall be surfaced mounted with flat, rectangular covers that shall not project more than 2 3/8" from the door face. Closers shall have hydraulically controlled full rack and pinion mechanism. Closing speed, latch speed and back check shall be controlled by separate valves. Closer size shall be recommended by the manufacturer and furnish closers with adjustable spring power where scheduled. (Or) Door closers shall be fully adjustable from sizes 2 though 6. Door closers shall have reduced opening force for disabled access. Door closers shall be delayed action closing where scheduled. All door closers shall be the product of one manufacturer.
  - 4. Standard mount closers shall be used wherever possible. Furnish parallel arm or inverted or inverted mount closers where required to permit 180 degree swing of doors. Door closers shall be hidden from public view where possible by installation on the room side of door.
  - 5. Arm selection shall follow the requirements of the table below, with brackets, arms plates and other accessories as scheduled or as may be necessary to suit individual door conditions. Corner brackets will not be permitted.
 

Mark	LCN	Norton Dorma	Remarks
DC01	4010	7500	8600 [reg. arm, pull side]
  - 6. The sweep period of a closer shall be adjusted so that from an open position of 70 degrees, the door will take at least 3 seconds to move to a point 3" from the latch, measured to the leading edge of the door.
  - 7. The maximum force for pushing or pulling open a door shall be:
    - a. Non-fire rated interior door: 5 lbf (22.2 N).
  - 8. DORMA Group North America: [www.dorma-usa.com/usa](http://www.dorma-usa.com/usa).
  - 9. LCN: [www.lenclosers.com](http://www.lenclosers.com).
  - 10. \_\_\_\_\_.

## 2.07 STOPS AND HOLDERS

- A. Stops: Complying with BHMA A156.8; provide a stop for every swinging door, unless otherwise indicated.
  - 1. Provide wall stops, unless otherwise indicated.
  - 2. If wall stops are not practical, due to configuration of room or furnishings, provide overhead stop.
  - 3. Stop is not required if positive stop feature is specified for door closer; positive stop feature of door closer is not an acceptable substitute for a stop unless specifically so stated.
- B. Wall Stops:
- C. Overhead Holders/Stops:
- D. Manufacturers - Overhead Holders/Stops:
  - 1. Assa Abloy Rixson or Sargent: [www.assaabloydss.com](http://www.assaabloydss.com).
  - 2. C. R. Laurence Co., Inc: [www.crlaurence.com](http://www.crlaurence.com).
  - 3. Provide units on door heads, sized to accommodate door conditions as follows:  
Mark Glynn-Johnson  
OH05 GJ-455S
  - 4. DORMA Group North America: [www.dorma-usa.com/usa](http://www.dorma-usa.com/usa).
  - 5. Glynn-Johnson: [www.glynn-johnson.com](http://www.glynn-johnson.com).
- E. Manufacturers - Wall and Floor Stops/holders:
  - 1. Assa Abloy McKinney: [www.assaabloydss.com](http://www.assaabloydss.com).
  - 2. C. R. Laurence Co., Inc; \_\_\_\_\_: [www.crlaurence.com](http://www.crlaurence.com).
  - 3. Hager Companies: [www.hagerco.com](http://www.hagerco.com).
  - 4. Hiawatha, Inc: [www.hiawathainc.com](http://www.hiawathainc.com).
  - 5. Triangle Brass Manufacturing Co., Inc: [www.trimcobbw.com](http://www.trimcobbw.com).

## 2.08 GASKETING AND THRESHOLDS

- A. Manual and automatic flush bolts shall be "UL" listed and fit door and frame preparation in accordance with ANSI Standard A115. Face plate to match door edge conditions.
  - 1. Manual flush bolt shall be provided in sets, consisting of one top and one bottom bolt for each door. Bottom bolt shall have 12" long operating rod. Top bolt shall door heights up to 7'-0" increase bolt length so that operator is located no less than 6'-0" above floor.
  - 2. Dust proof strikes are required for all floor bolts. Provide strikes equal to Ives 489 for bottom bolts on interior doors.
  - 3. Manually Operated:  
Mark Ives Glynn-Johnson Remarks  
FB02 358B -- [Wood Doors]
- B. Gaskets: Complying with BHMA A156.22.
  - 1. On each door in smoke partition, provide smoke gaskets; top, sides, and meeting stile of pairs. If fire/smoke partitions are not indicated on drawings, provide smoke gaskets on each door identified as a "smoke door" and 20-minute rated fire doors.
  - 2. On wood doors with fire rating more than 20-minutes, provide frame-applied intumescent gaskets.
  - 3. On each exterior door, provide weatherstripping gaskets, unless otherwise indicated; top, sides, and meeting stiles of pairs.
    - a. Where exterior door is also required to have fire or smoke rating, provide gaskets functioning as both smoke and weather seals.

- C. Thresholds:
  - 1. At each exterior door, provide a threshold unless otherwise indicated.
- D. Manufacturers - Gasketing and Thresholds:
  - 1. Assa Abloy McKinney: www.assaabloydss.com.
  - 2. Hager Companies: www.hagerco.com.  
Mark Reese Pemko National Guard Zero  
WS01 33C 379CR 107N --
  - 3. National Guard Products, Inc: www.ngpinc.com.
  - 4. Pemko Manufacturing Co: www.pemko.com.
  - 5. Zero International, Inc: www.zerointernational.com.

## 2.09 KEY CONTROLS

- A. Key Management System: For each keyed lock on project, provide one set of consecutively numbered duplicate key tags with hanging hole and snap catch.
- B. Facility Manager's Key Cabinet: Sheet steel construction, piano hinged door with key lock.
  - 1. Mounting: Wall-mounted.
  - 2. Capacity: Actual quantity of keys, plus 25 percent additional capacity.
  - 3. Size key hooks to hold 6 keys each.
  - 4. Finish: Baked enamel, manufacturer's standard color.
  - 5. Key cabinet lock to building keying system.

## 2.10 ELECTRIC HARWARE

- A. System Coordination:
  - 1. Electrical hardware items are to be coordinated with power supply voltage, automatic door operators, fire alarm systems, security systems, etc., to function as intended and provide needed security and/or life safety requirements.
  - 2. Systems are to be inspected by supplier and functioning properly prior to all trades involved completing their work and leaving the site.
  - 3. If problems occur, all trades involved will be required to be present for a coordination meeting and to troubleshoot problems until finalizing proper operation.
  - 4. Provide power supply and electric power transfer for exit devices interfacing with magnetic locks and automatic door operators.
- B. See paragraph titled "Electrical Hardware" in Part 1 of this section relative to installation of this material.
- C. Magnetic Locks
  - 1. Electric hook-up provided by Division 16. Provide rectifier and transformer for 24v dc as required. Provide access controls. Provide mounting brackets for proper operation.

Mark	Locknetics	Remarks
ML02	320xATDxDSTMxMBSxRCP	[single inswing]
- D. Magnetic Holders
  - 1. Electric hook-up and requirements provided by Division 16.

Mark	Rixson DORMA	Remarks
MH02	FM508 EM508 Wall	
- E. Power Supply

Mark	Von Duprin
PS99	PS873

- F. Electric Power Transfer
  - Mark Von Duprin
  - EPT99 EPT-218

## 2.11 FASTENINGS

- A. Furnish expansion shields or tamp-in fasteners for items to be attached to brick, concrete or concrete block. Furnish toggle bolts for items to be attached to hollow tile, steel stud or demountable partitions.
- B. Furnish proper screws, sex bolts, through bolts, etc., as required to make secure attachment of each item to the material it is installed on.
- C. Exposed fastener finish to correspond with hardware item unless indicated otherwise.
  - 1. Provide hardware in compliance with ADA.

## PART 3 EXECUTION

### 3.01 EXAMINATION

- A. Verify that doors and frames are ready to receive work; labeled, fire-rated doors and frames are present and properly installed, and dimensions are as indicated on shop drawings.
- B. Verify that electric power is available to power operated devices and of the correct characteristics.

### 3.02 INSTALLATION

- A. Install hardware in accordance with manufacturer's instructions, the Door and Hardware Institute recommendations, applicable codes and reviewed shop drawings.
- B. Use templates provided by hardware item manufacturer.
- C. Finish hardware to be installed by the Contractor in accordance with manufacturer's instructions, neatly fitted, properly adjusted to operate as intended and free of defects.
- D. Install hardware on fire-rated doors and frames in accordance with code and NFPA 80.
- E. Surface mounted door closers and exit devices to be installed on wood fire door shall be furnished with through bolts or bolts with grommet nuts.
- F. Hinges to be installed on wood fire doors shall be furnished with full thread steel screws.
- G. Drill and countersink units, which are not factory-prepared for anchorage fasteners. Space fasteners and anchors in accordance with industry standards.

### 3.03 FIELD QUALITY CONTROL

- A. Field inspection and testing will be performed under provisions of Section 01400.
- B. Provide an Architectural Hardware Consultant to inspect installation and certify that hardware and installation has been furnished and installed in accordance with manufacturer's instructions and as specified.
- C. After installation has been completed, hardware supplier shall have a qualified hardware consultant check the job to determine the proper application of hardware according to the approved hardware schedule and keying schedule. Also, check the operation and adjustment of all hardware items.

3.04 ADJUSTING

- A. Adjust work under provisions of Section 01700.
- B. Adjust hardware for smooth operation.

3.05 PROTECTION

- A. Protect finished Work under provisions of Section 01700.
- B. Do not permit adjacent work to damage hardware or finish.
- C. Wherever cutting and fitting is required to install hardware onto or into surfaces, which are later to be painted or finished in another way, coordinate removal, storage and reinstallation or application of surface protections with finishing work specified in the Division 9 sections. Do not install surface-mounted items until finishes have been completed on the substrate.
- D. Clean adjacent surfaces soiled by hardware installation.
- E. The Contractor is responsible for the proper protection of all items of hardware until the Owner accepts the project as complete.

3.06 SCHEDULE

3.07 GENERAL

3.08 Hardware selection is based upon hardware groups for each opening.

A. Group Latching Function

O OFFICE  
S STOREROOM  
T TOILET

CRES CARD READER W/ ELECTRIC STRIKE

3.09 OFFICE

A. Hardware Group O-03

3-	Hinges	HG01	[inswing]
1-	Electric Lockset	LK07	[office function]
1-	Closer	DC01	[always closed]
1-	Bumper	BB01	[wall stop]
1-	Card Reader	CR01	
1-	Elect. Power Transfer	EPT99	[]
1-	Power Supply	PS99	

Balance of electrical requirements by Division 16. Coordinate with Division 16. Verify voltage.

B. Hardware Group O-04

6-	Hinges	HG01	[inswing]
1-	Electric Lockset	LK07	office function

C.	1-	Card Reader	CR01	
	2-	Closer	DC01	[always closed]
	2-	Bumper	BB01	[wall stop]
	1set-	Automatic Flush Bolt	FB03	
	1-	Elect. Power Transfer	EPT99	
	1-	Power Supply	PS99	

Balance of electrical requirements by Division 16. Coordinate with Division 16. Verify voltage.

### 3.10 STOREROOM

#### A. Hardware Group S-01

	3-	Hinges	HG01	[inswing or outswing]
	1-	Lockset	LK06	[storeroom function]
	1-	Closer	DC01	[Always closed]
	1-	Bumper	BB01	Wall stop

#### B. Hardware Group S-02

	3-	Hinges	HG01	[inswing or outswing]
	1-	Lockset	LK06	[storeroom function]
	1-	Closer	DC01	[always closed]
	1-	Bumper	BB01	[wall stop]
	1-	Overhead Stop	OH0	surface exterior

### 3.11 TOILET/BATH

#### A. Hardware Group T-01

	3-	Hinges	HG01	[inswing or outswing]
	1-	Lockset	LK03	[toilet function]
	1-	Bumper	BB01	[wall stop]
	1-	Closer	DC01	

#### B. Hardware Group T-02

	3-	Hinges	HG01	[inswing]
	1-	Lockset	LK03	[toilet function]
	1-	Closer	DC01	[always closed]
	1-	Bumper	BB01	[wall stop]
	1-	Overhead Stop	OH0	surface exterior

### 3.12 CARD READER/ELECTRIC STRIKE

A. Hardware Group CR/ES-01

1- Electric Lockset LK07 [office function]

B. 1- Card Reader CR01

C. 1- Elect. Power Transfer EPT99

D. 1- Power Supply PS99

Balance of electrical requirements by Division 16. Coordinate with Division 16. Verify voltage.

**END OF SECTION**



## **SECTION 10523 - FIRE EXTINGUISHERS, CABINETS AND ACCESSORIES**

### **PART 1 GENERAL**

#### **1.01 SECTION INCLUDES**

- A. Fire extinguishers.
- B. Fire extinguisher cabinets.

#### **1.02 REFERENCE STANDARDS**

- A. NFPA 10 - Standard for Portable Fire Extinguishers; 2010.
- B. UL (FPED) - Fire Protection Equipment Directory; Underwriters Laboratories Inc.; current edition.

#### **1.03 SUBMITTALS**

- A. See Section 01300 - Administrative Requirements, for submittal procedures.
- B. Shop Drawings: Indicate cabinet physical dimensions.
- C. Product Data: Provide extinguisher operational features, color and finish, and anchorage details.
- D. Manufacturer's Installation Instructions: Indicate special criteria and wall opening coordination requirements.
- E. Manufacturer's Certificate: Certify that products meet or exceed specified requirements.
- F. Maintenance Data: Include test, refill or recharge schedules and re-certification requirements.

#### **1.04 FIELD CONDITIONS**

- A. Do not install extinguishers when ambient temperature may cause freezing of extinguisher ingredients.

### **PART 2 PRODUCTS**

#### **2.01 MANUFACTURERS**

- A. Fire Extinguisher Cabinets and Accessories:
  - 1. JL Industries, Inc: [www.jlindustries.com](http://www.jlindustries.com).
  - 2. Larsen's Manufacturing Co: [www.larsensmfg.com](http://www.larsensmfg.com).
  - 3. Potter-Roemer: [www.potterroemer.com](http://www.potterroemer.com).
  - 4. Substitutions: See Section 01600 - Product Requirements.

#### **2.02 FIRE EXTINGUISHERS**

- A. Fire Extinguishers - General: Comply with product requirements of NFPA 10 and applicable codes, whichever is more stringent.
- B. Dry Chemical Type Fire Extinguishers: Stainless steel tank, with pressure gage.
  - 1. Class 2A-10 B:C.
  - 2. Size 10.
  - 3. Finish: Baked enamel, red color.

#### **2.03 FIRE EXTINGUISHER CABINETS**

- A. Construction: Manufacturer's standard enameled steel box, with trim, frame, door and hardware to suit cabinet type, trim style, and door style indicated. Weld all joints and grind smooth. Miter and weld perimeter door frames.
- B. Cabinet Configuration: Semi-recessed type.
  - 1. Sized to accommodate extinguisher and accessories.
  - 2. Form cabinet enclosure with right angle inside corners and seams. Form perimeter trim and door stiles.
- C. Door: 0.036 inch thick, reinforced for flatness and rigidity; latch. Hinge doors for 180 degree opening with continuous piano hinge. Provide roller type catch.
- D. Door Style: Solid.
- E. Cabinet Mounting Hardware: Appropriate to cabinet. Pre-drill for anchors.
- F. Weld, fill, and grind components smooth.
- G. Finish of Cabinet Exterior Trim and Door: Baked enamel, color as selected.
- H. Finish of Cabinet Interior: White enamel.

#### 2.04 ACCESSORIES

- A. Graphic Identification: FIRE EXTINGUISHER.

### PART 3 EXECUTION

#### 3.01 EXAMINATION

- A. Verify existing conditions before starting work.
- B. Verify rough openings for cabinet are correctly sized and located.

#### 3.02 INSTALLATION

- A. Install in accordance with manufacturer's instructions.
- B. Install cabinets plumb and level in wall openings, 48 inches from finished floor to top of cabinet.
- C. Secure rigidly in place.
- D. Place extinguishers in cabinets.

#### 3.03 IDENTIFICATION

- A. Identify existence of fire extinguisher in cabinet with lettering spelling FIRE EXTINGUISHER applied to door. Provide lettering to comply with requirements indicated for letter style, color, size, spacing and location or, if not otherwise indicated, as selected by Architect from manufacturer's standard arrangements.

#### 3.04 SCHEDULES

- A. Refer to drawings for locations.

**END OF SECTION**

## SECTION 12490 - WINDOW SHADES

### PART 2 PRODUCTS

#### 1.01 WINDOW SHADE APPLICATIONS

- A. Shades: Blackout shades.
  - 1. Type: Roller shades.
  - 2. Mounting: Inside (between jambs).
  - 3. Operation: Manual.

#### 1.02 ROLLER SHADES

- A. Roller Shades: Fabric roller shades complete with mounting brackets, roller tubes, hembars, hardware and accessories; fully factory-assembled.
  - 1. Drop: Regular roll.
  - 2. Size: As indicated on drawings.
- B. Fabric: Non-flammable, color-fast, impervious to heat and moisture, and able to retain its shape under normal operation; PVC-free; 100 percent recycled.
  - 1. Blackout Shades: Block virtually all the light; Openness Factor equal to zero (0).
  - 2. Flammability: Pass NFPA 701 large and small tests.
- C. Roller Tube: As required for type of operation, extruded aluminum with end caps.
  - 1. Fabric Attachment: Utilize double sided adhesive tape.
- D. Hembars and Hembar Pockets: Wall thickness designed for weight requirements and adaptation to uneven surfaces, to maintain bottom of shade straight and flat.
- E. Manual Operation: Clutch operated continuous loop; beaded ball chain meeting WCMA A100.1.

#### 1.03 ACCESSORIES

- A. Fascias: Size as required to conceal shade mounting.
  - 1. Style: As selected by Architect from shade manufacturer's full selection.
  - 2. Material and Color: To match shade.
- B. Brackets and Mounting Hardware: As recommended by manufacturer for mounting configuration and span indicated.
- C. Fasteners: Non-corrosive, and as recommended by shade manufacturer.

#### 1.04 FABRICATION

- A. Fabricate shades to fit openings within specified tolerances.
  - 1. Vertical Dimensions: Fill openings from head to sill with 1/2 inch space between bottom bar and window stool.
  - 2. Horizontal Dimensions - Inside Mounting: Fill openings from jamb to jamb.
- B. At openings requiring continuous multiple shade units with separate rollers, locate roller joints at window mullion centers; butt rollers end-to-end.

### PART 3 EXECUTION

#### 2.01 INSTALLATION

- A. Install in accordance with manufacturer's instructions and approved shop drawings, using mounting devices as indicated.

- B. Installation Tolerances:
  - 1. Maximum Offset From Level: 1/16 inch.
- C. Adjust level, projection and shade centering from mounting bracket. Verify there is no telescoping of shade fabric. Ensure shades for smooth operation.

#### 2.02 CLEANING

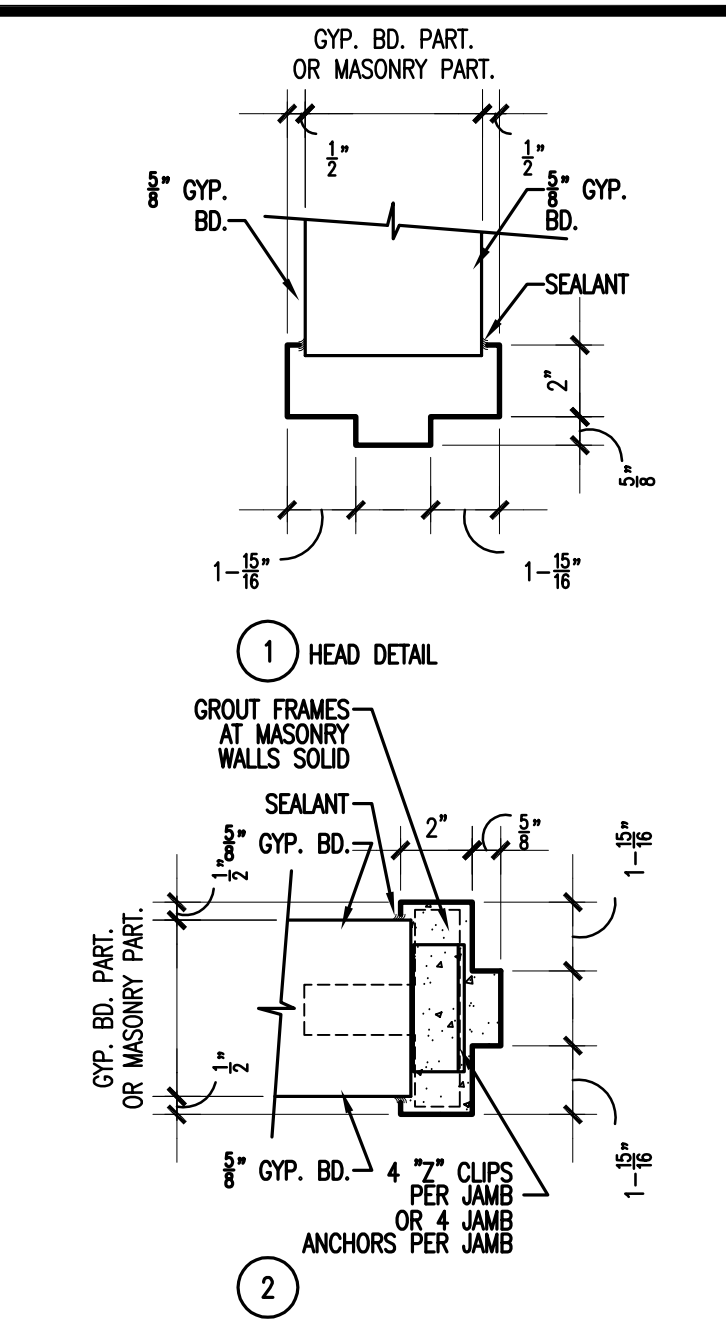
- A. Clean soiled shades and exposed components as recommended by manufacturer.
- B. Replace shades that cannot be cleaned to "like new" condition.

#### 2.03 PROTECTION

- A. Protect installed products from subsequent construction operations.
- B. Touch-up, repair or replace damaged products before Substantial Completion.

**END OF SECTION**

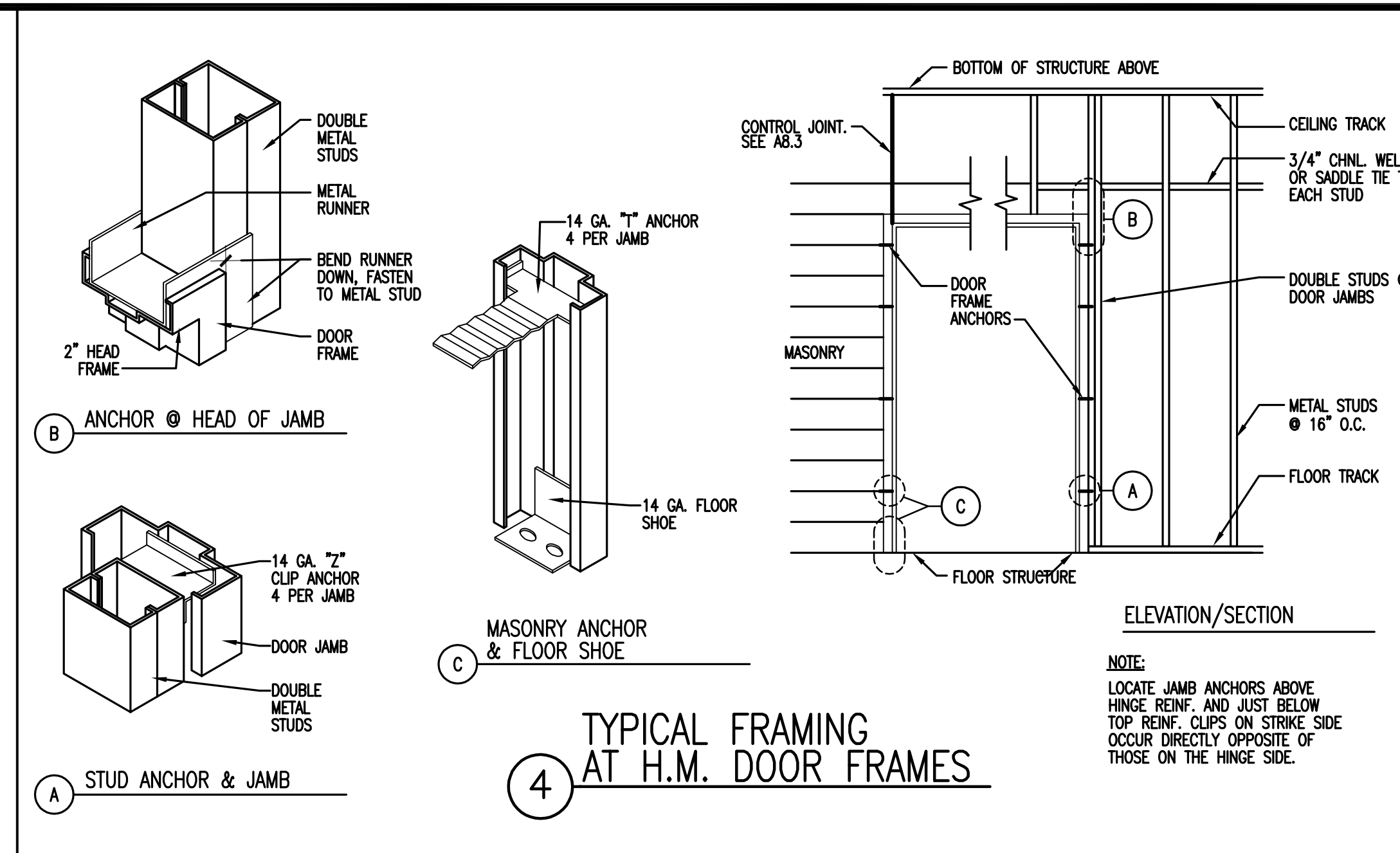
number	item	date
△	UPDATE CHANGES	3/5/2013
△	UPDATE CHANGES	5/7/2013
△	ADDENDUM 2	6/28/2013



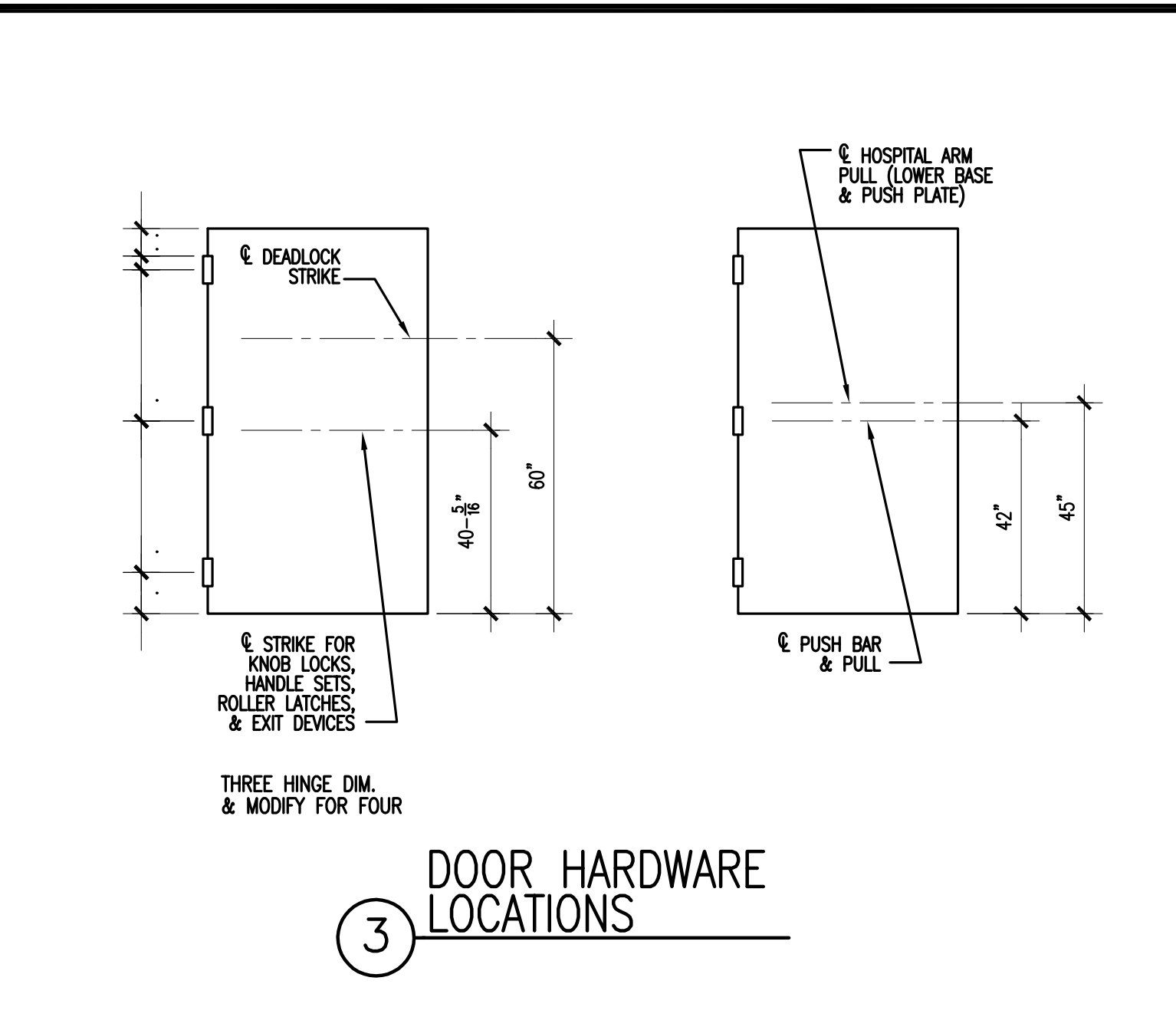
**5 HEAD/JAMB DETAILS**  
NOTE: GROUT ALL FRAMES SOLID.

**6 GENERAL NOTES**

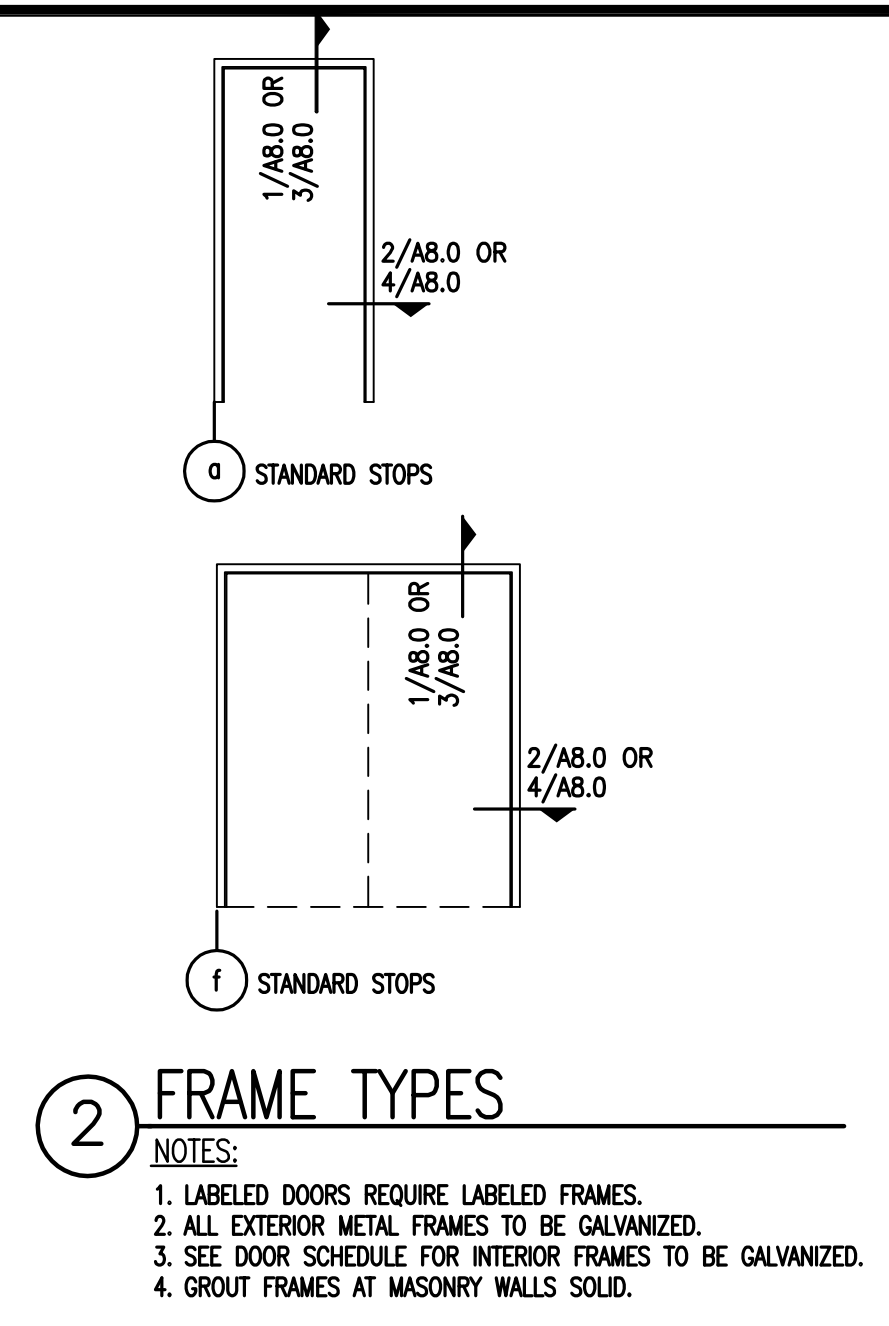
1. THIS DRAWING IS A COMPREHENSIVE MASTER SCHEDULE / DETAIL SHEET. NOT ALL ITEMS SHOWN ON THIS DRAWING ARE USED ON THIS PROJECT. PLEASE REFER TO INDIVIDUAL DRAWINGS FOR SPECIFIC ITEMS USED.



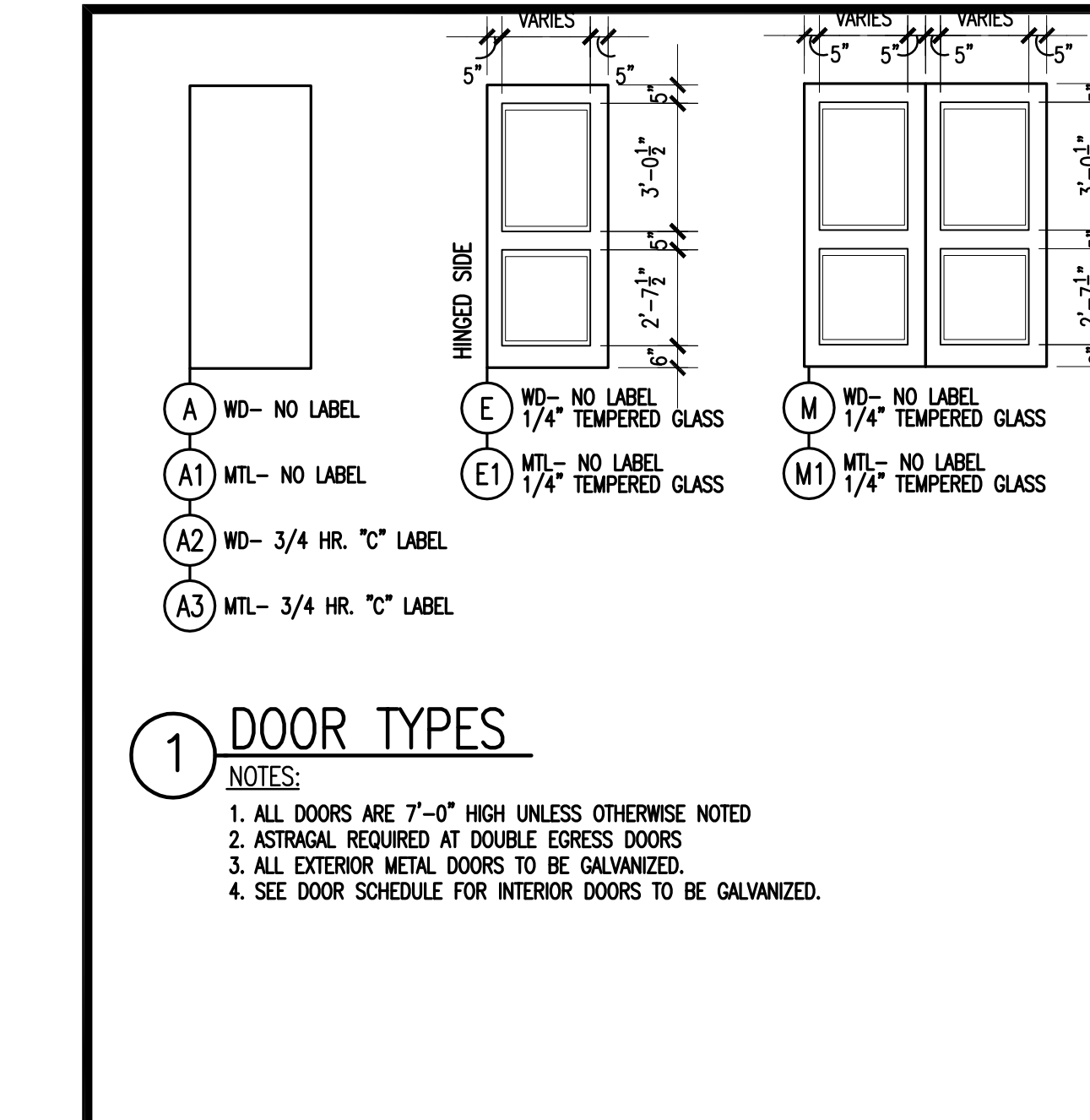
**4 TYPICAL FRAMING AT H.M. DOOR FRAMES**  
NOTE: LOCATE JAMB ANCHORS ABOVE HINGE REINF. AND JUST BELOW TOP REIN. CLIPS ON STRIKE SIDE OCCUR DIRECTLY OPPOSITE OF THOSE ON THE HINGE SIDE.



**3 DOOR HARDWARE LOCATIONS**



**2 FRAME TYPES**  
NOTES:  
1. LABELED DOORS REQUIRE LABELED FRAMES.  
2. ALL EXTERIOR METAL FRAMES TO BE GALVANIZED.  
3. SEE DOOR SCHEDULE FOR INTERIOR FRAMES TO BE GALVANIZED.  
4. GROUT FRAMES AT MASONRY WALLS SOLID.



**1 DOOR TYPES**  
NOTES:  
1. ALL DOORS ARE 7'-0\"/>

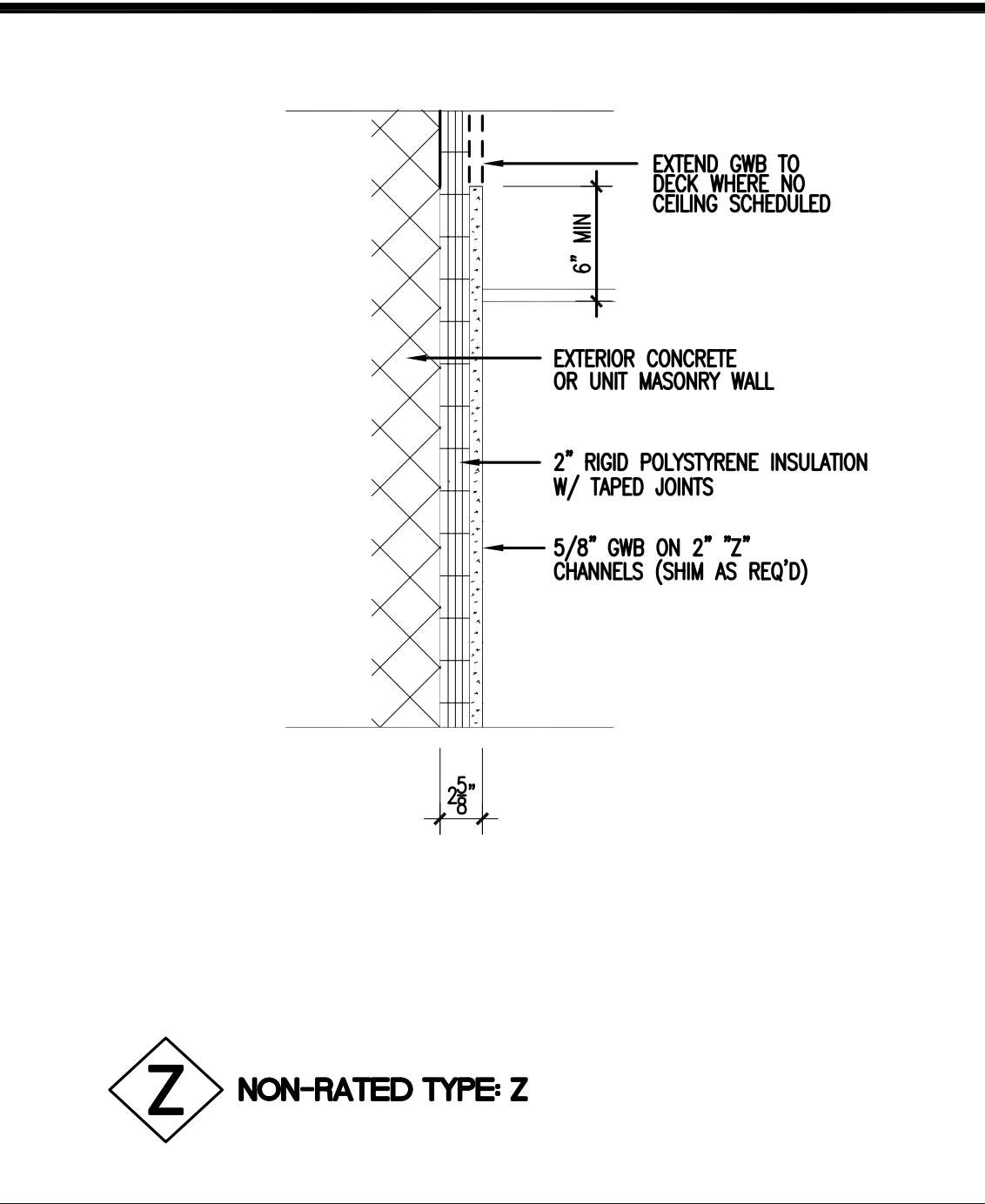
ROOM NAME	DOOR NUMBER	DOOR ELEV	DOOR SIZE	FRAME ELEV	HWDR SET	REMARKS
ENTRY	V201A	EXIST	EXISTING	EX	CRES	EXISTING DOOR. ADD ELECTRIC STRIKE & CARD READER
ENTRY	V201B	A	3'-0" X 7'-0"	d	T02	-
ENTRY	V201C	A	3'-0" X 7'-0"	d	T02	-
ENTRY	V201D	E	3'-0" X 7'-0"	d	O03	ELECTRIC STRIKE & CARD READER
ENTRY	V201E	A	3'-0" X 7'-0"	d	S01	-
ENTRY	V201F	A	3'-0" X 7'-0"	d	S02	-
ENTRY	V201G	M	5'-0" X 7'-0"	f	O04	ELECTRIC STRIKE & CARD READER
CLASSROOM	210	EXIST	EXISTING	EX	CRES	EXISTING DOOR. ADD ELECTRIC STRIKE & CARD READER
WORK STATIONS	203A	EXIST	EXISTING	EX	CRES	EXISTING DOOR. ADD ELECTRIC STRIKE & CARD READER
WORK STATIONS	203B	A	3'-0" X 7'-0"	d	T02	-
WORK STATIONS	203C	A	3'-0" X 7'-0"	d	T01	-

GENERAL NOTES:  
1. SEE SPECIFICATION SECTION 08710 FOR HARDWARE SETS FOR EACH DOOR.  
2. CONTRACTOR IS TO MODIFY DOOR FRAMES AS REQUIRED TO INSTALL ELECTRIC STRIKE AND CONTACTS.

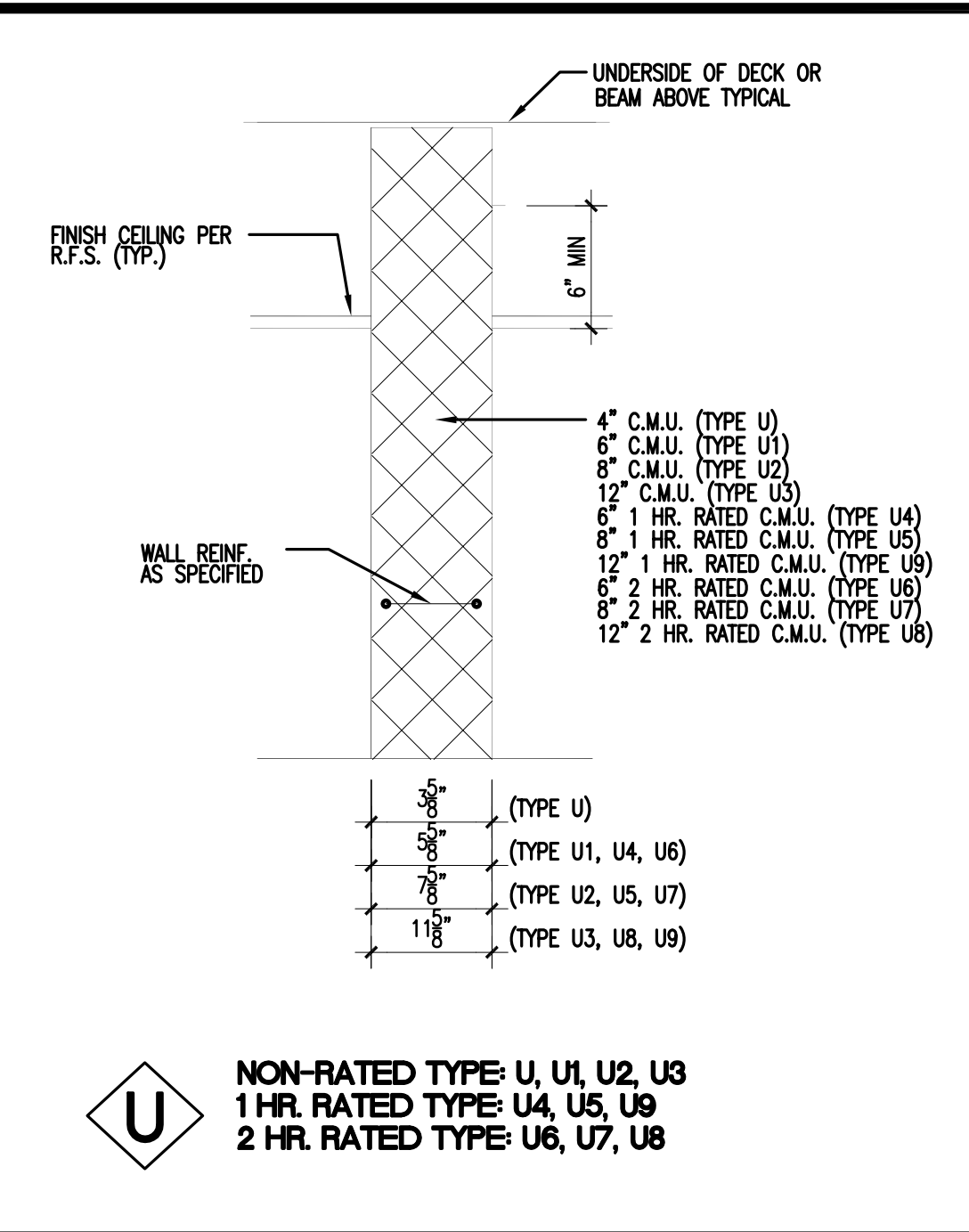
ROOM NUMBER	ROOM NAME	FLOOR		BASE	WALLS		CEILING		REMARKS
		FINISH	ACCENT		FINISH	ACCENT	FINISH	ACCENT	
V201	ENTRY	VT	-	RB	PNT	-	ACT	-	-
203	WORK STATIONS	CPT	-	RB	PNT	-	ACT	-	-
204	WOMENS TOILET	VT	-	RB	PNT	-	GYP	-	-
205	MENS TOILET	VT	-	RB	PNT	-	GYP	-	-
206	MENS TOILET	VT	-	RB	PNT	-	GYP	-	-
207	WOMENS TOILET	VT	-	RB	PNT	-	GYP	-	-
208	JANITOR	VT	-	RB	PNT	-	ACT	-	-
209	STORAGE	CPT	-	RB	PNT	-	ACT	-	-
210	CLASSROOM	CPT	-	RB	PNT	-	ACT	-	-

FINISH LEGEND:  
RB = RUBBER BASE  
PNT = PAINT  
VT = VINYL TILE  
CPT = CARPET  
GYP = GYPSUM BOARD

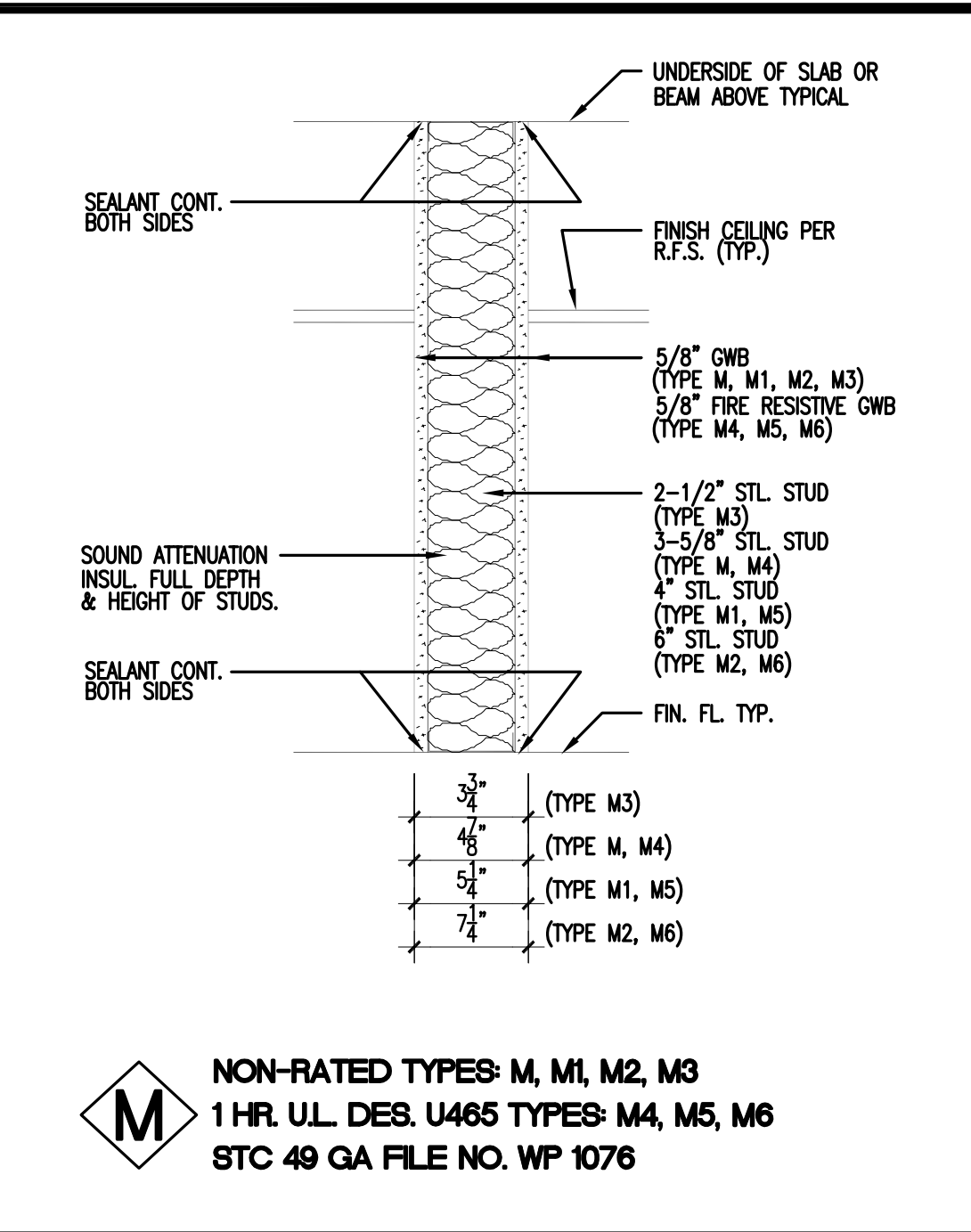
FINISH SCHEDULE NOTES:  
1. ALL ROOMS WITH ACT CEILING REFER TO SPECIFICATION SECTION 09511 SUSPENDED ACOUSTICAL CEILINGS FOR TYPE OF CEILING AND SUSPENSION SYSTEM TO BE USED IN EACH SPACE.  
2. PAINT ALL EXPOSED SURFACES OF EXISTING CONCRETE COLUMNS, TEES AND BEAMS.



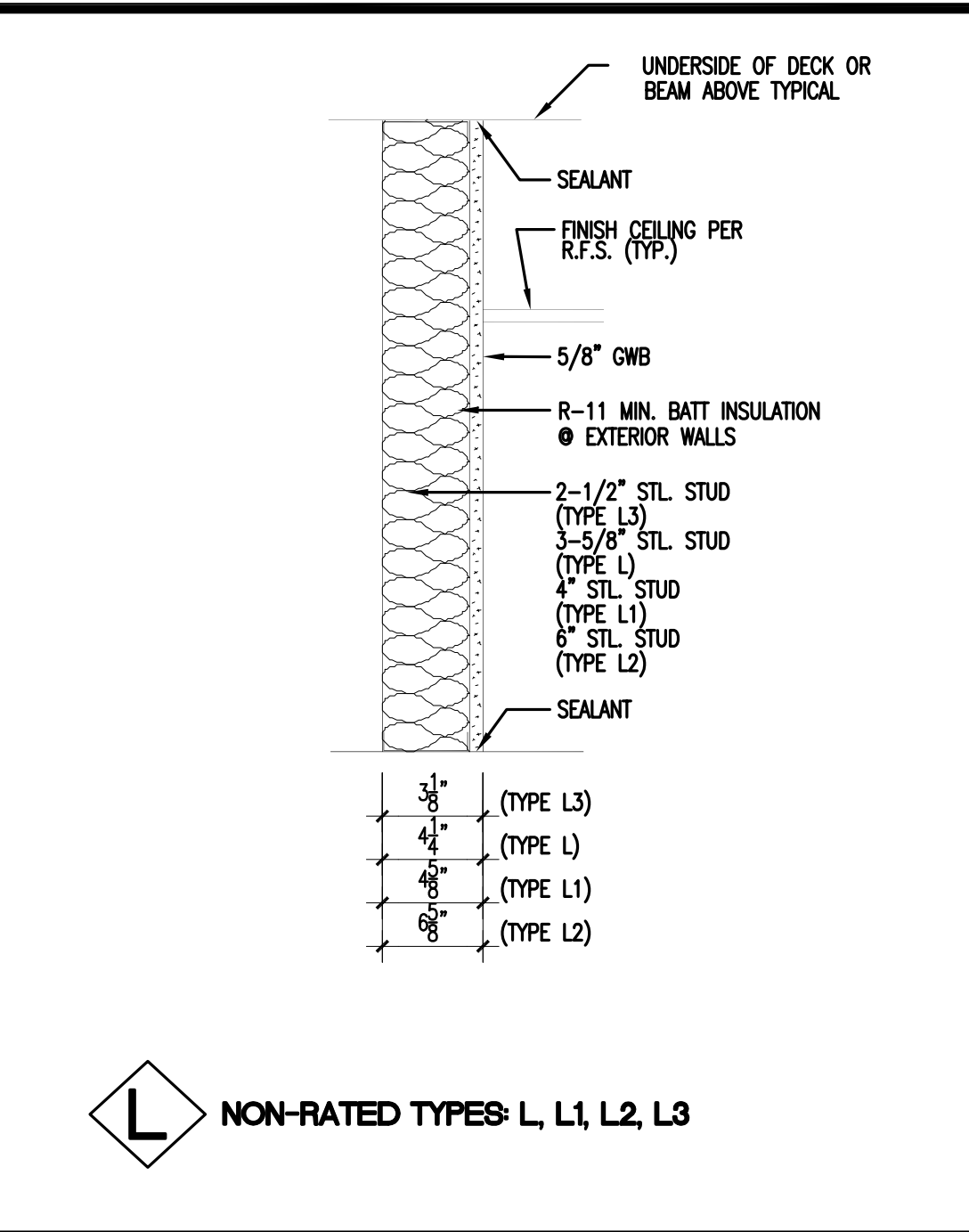
**Z NON-RATED TYPE Z**



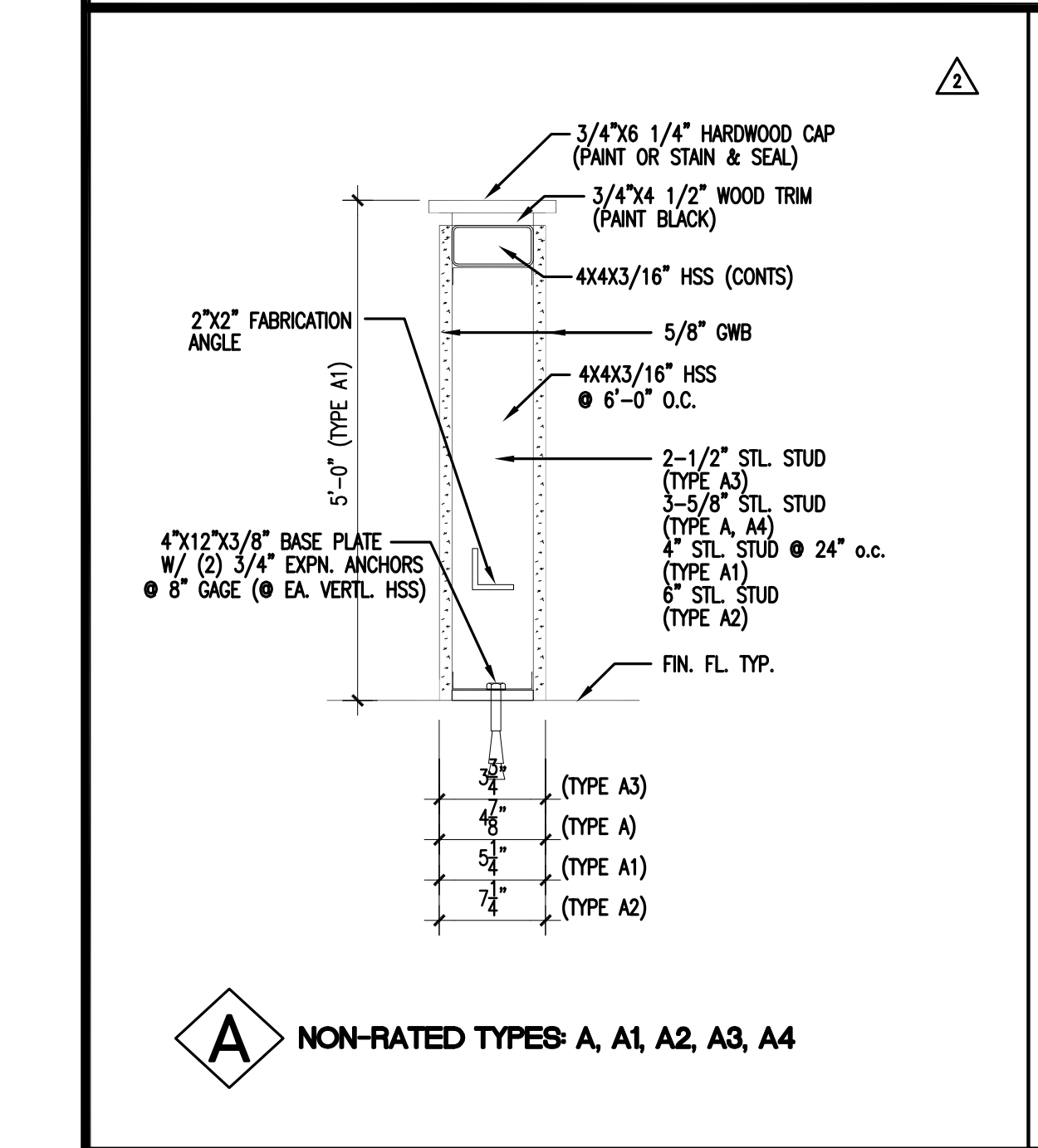
**U NON-RATED TYPE U, U1, U2, U3**  
1 HR. RATED TYPE U4, U5, U9  
2 HR. RATED TYPE U6, U7, U8



**M NON-RATED TYPES M, M1, M2, M3**  
1 HR. U.L. DES. U465 TYPES M4, M5, M6  
STC 49 GA FILE NO. WP 1076



**L NON-RATED TYPES L, L1, L2, L3**



**A NON-RATED TYPES A, A1, A2, A3, A4**

**7 PARTITION TYPES**