



## WTA ARCHITECTS

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### BULLETIN NO. 1 (Revised)

#### 491/20167.SDW - PHASE 500: CENTER FOR FORENSIC PSYCHIATRY- CREATE KITCHEN SALINE, MICHIGAN

WTA Project No. 2021094

~~January 08, 2025~~ February 11, 2025

The Contractor will kindly forward to the office of the Architect, within seven days of receiving this bulletin, the change in their contract amount for the following work items listed below. Please submit a quotation for each item listing itemized material costs and itemized labor costs, including the number of hours to complete the work.

#### ARCHITECTURAL

- Item A1      Reference Section 087100 (Re-Issued)  
A. Revised hardware set for door H132.A.
- Item A2      Reference Sheets A2.01 (Re-Issued)  
A. Added smoke area #13 with new smoke barrier between kitchen and corridors.
- Item A3      Reference Sheets A2.01, A2.02, & A3.01 (Re-Issued)  
A. Revised rated walls in Stair (H121), Stair (H200.A), (Kitchen (H123), Dry Storage (H124), and Storage (H119).  
B. Revised fire ratings for doors H121.A, H122.A, H122.B, H122.C, H124.A, H132.B, & H200.A.  
C. Added smoke area #13 and revised smoke area #12.
- Item A4      Reference Sheets A2.01, A2.02, A2.21, & A9.01 (Re-Issued)  
B. Revised door H132.A to be double-egress doors (refer to Structural).
- Item A5      Reference Sheets A2.21 (Re-Issued)  
A. Added notes to provide CMU infill above new door.  
C. Field Condition Clarifications: Revise location of west wall of Corridor Connector (H132) to be flush with edge of existing window as indicated on re-issued sheet.  
D. Field Condition Clarifications: Revise location of door H120.A as indicated on re-issued sheet.

#### STRUCTURAL

- Item S1:      Reference Sheet S2.02 and S7.01 (Re-Issued)  
A. Added deck edge angles and detail 17/S7.01.
- Item S2:      Reference Sheet S2.02 (Re-Issued)  
A. Clarification: Removed erroneous mechanical lintel callouts.

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- Item S3: Reference Sheet S2.02 **(Re-Issued)**  
A. Reduction of steel members along Line @C following shop drawing review.
- Item S4: Reference Sheet S2.02 **(Re-Issued)**  
A. Altered stair framing at landing.
- Item S5: Reference Sheet S2.02 **(Re-Issued)**  
A. Addition of HSS steel member at stair tower wall for brick support.
- Item S6: Reference Sheet S2.02 **(Re-Issued)**  
A. Addition of bracing angles at top of column 2-@C.
- Item S7: Reference Sheet S2.02 **(Re-Issued)**  
A. Steel support frames added for existing AC unit relocation to existing building roof structure.
- Item S8: Reference Sheet S2.01 **(Re-Issued)**  
A. Added footing doweling to existing basement wall at SW corner of the storage room following site excavations.
- Item S9: Reference Sheet S2.01 and S5.01 **(Re-Issued)**  
A. Added detail to clarify reinforcement for thickened slab under floor troughs and grease interceptor in kitchen. Ref detail 15/S5.01.
- Item S10: Reference Sheet S2.01 **(Re-Issued)**  
A. Provide F1 footing at new extents of masonry at door H120.A as shown on architectural sheet a2.21 issued on 1/08/25. Provide corner bars per structural concrete note 11, sheet S3.01. F1 footing shall be poured tight to existing warehouse trench footing.

### MECHANICAL

- Item M1: Reference Sheet M3.01 **(Not Re-Issued)**  
A. RFI #10 changed the RCP length. "Provide 9'-8" RCP's with 2' of spacing as recommended."
- Item M2: Reference Sheet M7.03 **(Re-Issued)**  
B. Increase pump HP for P-54 and P-55.
- Item M3: Reference Sheet M8.04 **(Not Re-Issued)**  
C. Line #1 from HWH sequence of operation needs to be removed. Boiler is always active due to VAV box reheat.

### ELECTRICAL

- Item E1: Reference Sheet E5.01 **(Re-issued)**  
A. Increase pump HP and FLA for P-54 and P-55.

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**WTA ARCHITECTS**

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Attachments: **Section 087100**, Sheets A2.01, A2.02, A2.21, A3.01, A9.01,  
S2.01, S2.02, **S3.01**, S5.01, S7.01, M7.03, & E5.01

Cc: Antler Construction Company, Inc.  
Department of Technology, Management and Budget  
Peter Basso Assoc., Inc.  
MacMillian Assoc., Inc.  
WTA Architects  
CommTech Design  
Stafford Smith  
ROWE Professional Services Company

## SECTION 087100 - DOOR 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 Work Included:
  - A. Furnish all items of Finish Hardware specified, scheduled, shown or required herein except those items specifically excluded from this section of the specification.
  - B. Related work:
    1. Division 00 00 00 - Procurement and Contracting Requirements
    2. Division 01 00 00 - General Requirements
    3. Division 06 00 00 - Wood, Plastics, and Composites
    4. Division 08 00 00 - Openings
    5. Division 10 00 00 - Specialties
    6. Division 11 00 00 - Equipment
    7. Division 26 00 00 - Electrical
    8. Division 27 00 00 - Communications
    9. Division 28 00 00 - Electronic Safety and Security
  - C. Specific Omissions: Hardware for the following is specified or indicated elsewhere, unless specifically listed in the hardware sets:
    1. Cabinet Hardware.
    2. Signs, except as noted.
    3. Folding partitions, except cylinders where detailed.
    4. Sliding aluminum doors
    5. Chain link and wire mesh doors and gates
    6. Access doors and panels
    7. Overhead and Coiling doors
- 1.3 Quality Assurance
  - A. Requirements of Regulatory Agencies:
    1. Furnish finish hardware to comply with the requirements of laws, codes, ordinances, and regulations of the governmental authorities having jurisdiction where such requirements exceed the requirements of the Specifications.
    2. Furnish finish hardware to comply with the requirements of the regulations for public building accommodations for physically handicapped persons of the governmental authority having jurisdiction and to comply with Americans with Disabilities Act.
    3. Provide hardware for fire-rated openings in compliance with NFPA 80 and state and local building code requirements. Provide only hardware that has been tested and listed by UL for types and sizes of doors required and complies with requirements of door and door frame labels.
  - B. Hardware Supplier:

1. Shall be an established firm dealing in contract builders' hardware. He must have adequate inventory, qualified personnel on staff and be located within 100 miles of the project. The distributor must be a factory-authorized dealer for all materials required. The supplier shall be or have in employment an Architectural Hardware Consultant(AHC).

C. Electrified Door Hardware Supplier:

1. Shall be an experienced door hardware supplier who has completed projects with electrified door hardware similar in material, design, and extent to that indicated for this project, whose work has resulted in construction with a record of successful in-service performance, and who is acceptable to manufacturer of primary materials.
2. Shall prepare data for electrified door hardware, including shop drawings, based on testing and engineering analysis of manufacturer's standard units in assemblies like those indicated for this project.
3. Shall have experience in providing consulting services for electrified door hardware installations.

D. Pre-installation Meeting:

1. Before hardware installation, General Contractor/Construction Manager will request a hardware installation meeting be conducted on the installation of hardware; specifically, that of locksets, closers, exit devices, overhead stops and coordinators. Manufacturer's representatives of the above products, in conjunction with the hardware supplier for the project, shall conduct the meeting. Meeting to be held at job site and attended by installers of hardware for aluminum, hollow metal and wood doors. Meeting to address proper coordination and installation of hardware, per finish hardware schedule for this specific project, by using installation manuals, hardware schedule, templates, physical product samples and installation videos.
2. When any electrical or pneumatic hardware is specified this meeting shall also include the following trades/installers: Electrical, Security, Alarm systems and Architect.
3. Convene one week or more prior to commencing work of this Section.
4. The Hardware Supplier shall include the cost of this meeting in his proposal.

E. Manufacturer:

1. **Mandatory: all manufacturers of door hardware are to match the existing facility.**
2. Obtain each type of hardware (latch and locksets, hinges, closers, etc.) from a single manufacturer, although several may be indicated as offering products complying with requirements.
3. Provide electrified door hardware from same manufacturer as mechanical door hardware, unless otherwise indicated.

1.4 Submittals:

A. Hardware Schedule

1. Submit number of Hardware Schedules as directed in Division 1.
2. Follow guidelines established in Door & Hardware Institute Handbook (DHI) Sequence and Format for the Hardware Schedule unless noted otherwise.
3. Schedule will include the following:
  - a. Door Index including opening numbers and the assigned Finish Hardware set.
  - b. Preface sheet listing category only and manufacturer's names of items being furnished as follows:

| CATEGORY | SPECIFIED | SCHEDULED |
|----------|-----------|-----------|
|----------|-----------|-----------|

|             |                |                |
|-------------|----------------|----------------|
| Hinges      | Manufacturer A | Manufacturer B |
| Lock sets   | Manufacturer X | Manufacturer X |
| Kick Plates | Open           | Manufacturer Z |

- c. Hardware Locations: Refer to Article 3.1 B.2 Locations.
- d. Opening Description: Single or pair, number, room locations, hand, active leaf, degree of swing, size, door material, frame material, and UL listing.
- e. Hardware Description: Quantity, category, product number, fasteners, and finish.
- f. Headings that refer to the specified Hardware Set Numbers.
- g. Scheduling Sequence shown in Hardware Sets.
- h. Product data of each hardware item, and shop drawings where required, for special conditions and specialty hardware.
- i. Electrified Hardware system operation description.
- j. "Vertical" scheduling format only. "Horizontal" schedules will be returned "Not Approved."
- k. Typed Copy.
- l. Double-Spacing.
- m. 8-1/2 x 11-inch sheets
- n. U.S. Standard Finish symbols or BHMA Finish symbols.

B. Product Data:

1. Submit, in booklet form Manufacturers Catalog cut sheets of scheduled hardware.
2. Submit product data with hardware schedule.

C. Samples:

1. Prior to submittal of the final hardware schedule and prior to final ordering of finish hardware, submit one sample, if required, of each type of exposed hardware unit, finished as required and tagged with full description for coordination with schedule.
2. Samples will be returned to the supplier. Units, which are acceptable and remain undamaged through submittal, review and field comparison procedures may, after final check of operation, be used in the work, within limitations of keying coordination requirements.

D. Key Schedule:

1. Submit detailed schedule indicating clearly how the Owner's final keying instructions have been followed.
2. Submit as a separate schedule.

E. Electrified Hardware Drawings:

1. Submit elevation drawings showing relationship of all electrical hardware components to door and frame.
  - a. Include wiring drawing showing point to point wire hook up for all components.
  - b. Include system operations descriptions for each type of opening; describe each possible condition.

F. Submit to General Contractor/Construction Manager, the factory order acknowledgement numbers for the various hardware items to be used on the project. The factory order acknowledgement numbers shall help to facilitate and expedite any service that may be required on a hardware item. General Contractor/Construction Manager shall keep these order acknowledgement numbers on file in the construction trailer.

1.5 Product Delivery, Storage, and Handling:

- A. Label each item of hardware with the appropriate door number and Hardware Schedule heading number and deliver to the installer so designated by the contractor.

1.6 Warranties:

- A. During the warranty period, replace defective work, including labor, materials and other costs incidental to the work. Replace work found to be defective as defined in the General Conditions.

PART 2 - PRODUCT

2.1 **Mandatory: all manufacturers of door hardware are to match the existing facility.**

2.2 Furnish each category with the products of only one manufacturer unless specified otherwise; this requirement is **mandatory** whether various manufacturers are listed or not.

2.3 Provide the products of manufacturer designated or if more than one manufacturer is listed, the comparable product of one of the other manufacturers listed. Where only one manufacturer or product is listed, it is understood that this is the owner's Building Standard and "no substitution" is allowed.

A. Hinges:

1. Furnish hinges of class and size as follows.
2. Furnish Ives 5BB1HW 4.5" x 4.5" (For Reference Only).
  - a. **Match existing facility manufacturer.**

B. Continuous Gear Hinge:

1. 6063-T6 aluminum alloy, anodized finish (cap on entire hinge painted if specified). Manufacture to template, uncut hinges non-handed, pin less assembly, three interlocking extrusions, full height of door and frame, lubricated polyacetal thrust bearing, fasteners 410 stainless steel plated and hardened. Anodizing of material shall be done after fabrication of components so that all bearing slots are anodized.
2. Length: 1" less than door opening height. Fastener 12-24 x 1/2" #3 Phillips keen form stainless steel self-tapping at aluminum and hollow metal doors, 12- 1/2" #3 Philips, flathead full thread at wood doors.
3. Furnish fire rated hinges "FR" at labeled openings.
  - a. For Wood and Hollow Metal frames;
    - 1) Ives 224XY (For Reference Only)
    - 2) Match existing facility manufacturer.
  - b. For Aluminum frames;
    - 1) Ives 112XY (For Reference Only)
    - 2) Match existing facility manufacturer.

C. Flush Bolts (For reference only - match existing facility manufacturer)

1. Automatic - metal doors:
  - a. Ives FB30 Series

- b. Equal product of any B.H.M.A. member.
  2. Automatic - wood doors:
    - a. Ives FB40 Series
    - b. Equal product of any B.H.M.A. member.
  3. Constant Latching: metal doors:
    - a. Ives FB50 Series
    - b. Equal product of any B.H.M.A. member.
  4. Constant Latching: wood doors:
    - a. Ives FB60 Series
    - b. Equal product of any B.H.M.A. member.
  5. Manual - wood and metal doors:
    - a. Ives FB458 Series
    - b. Equal product of any B.H.M.A. member.
  6. Dust Proof Strikes - furnish with all flush bolts, except at openings having thresholds:
    - a. Ives DP2
    - b. Equal product of any B.H.M.A. member.
- D. Locksets and Latch sets - Heavy Duty: (For reference only - match existing facility manufacturer)
  1. Function numbers listed are or Schlage
  2. Provide 2-3/4 inch backset.
  3. Provide strikes with extended lips where required to protect trim from being marred by latch bolt. Provide strike lips that do not project more than 1/8" beyond doorframe trim at single doors, have 7/8" lip to center at pairs of 1-3/4" doors and rose size 3 1/2 diameter
  5. Locksets and Latch sets:
    - a. Schlage L9000 series
  6. Lockset Trim:
    - a. Schlage HSLR and O3A
- E. Roller Latches: (For reference only - match existing facility manufacturer)
  - a. Ives RL30
- F. Exit Devices:
  1. Exit devices shall be touchpad style, fabricated of brass, bronze, stainless steel, or aluminum, plated to the standard architectural finishes to match the balance of the door hardware.
  2. All exit devices shall incorporate a fluid damper, which decelerates the touchpad on its return stroke and eliminates noise associated with exit device operation. Touchpad shall



- extend a minimum of one half of the door width. All latch bolts to be dead latching type, with a self-lubricating coating to reduce wear.
3. Endcap will be sloped to deflect any impact from carts, and they shall be flush with the external mechanism case. End caps that overlap and project above the mechanism case are unacceptable. End cap shall utilize a two-point attachment to the mounting bracket.
  4. Touchpad shall match exit device finish, and shall be stainless steel for US26, US26D, US28, US32, and US32D finishes. Only compression springs will be used in devices, latches, and outside trims or controls.
  5. Plastic templates shall be included with each exit device to facilitate a quick, easy and accurate installation.
  6. Strikes shall be roller type and come complete with a locking plate to prevent movement.
  7. All rim and vertical rod exit devices shall have passed a 5 million (5,000,000) cycle test based on ANSI A156.3, 1994, Grade 1 test standards and certified by an independent testing lab.
  8. All mortise exit devices shall have passed a 10 million (10,000,000) cycle test based on ANSI A156.3, 1994, Grade 1 test standards and certified by an independent testing lab.
  9. Exit devices shall be UL listed panic exit hardware. All exit devices for fire rated openings shall be UL labeled fire exit hardware.
  10. Lever trim for exit devices shall be vandal-resistant type, which will travel to a 90-degree down position when more than 35 pounds of torque are applied, and which can easily be re-set.
  11. Von Duprin 98/99 and 33A/35A Series. Series and function numbers as listed insets.
  12. Trim: Von Duprin 990 pull trim, 5 standard functions:
    - a. Classroom (TP)
    - b. Storeroom (NL)
    - c. Dummy trim (DT)
    - d. Passage (TP-BE)
    - e. Exit only (EO)

Trim: Von Duprin 33A/35A Series popular trims 360: lever or thumbpiece trim, 3 standard functions:

    - a. Classroom (L, T)
    - b. Passage (L-BE, T-BE)
    - c. Dummy (L-DT)

386: pull trim, 2 standard functions:

    - a. Storeroom (NL)
    - b. Dummy (DT)

388: optional pull trim, 1 standard function:

    - a. Storeroom (NL-OP)
  13. Von Duprin 98/99 and 33A/35A QELA Baseplate Conv. Kit series.
  14. Schlage PS902 with a Von Duprin 900-4RL is a 4-relay distribution board is a 2- amp 12/24 VDC output power supply for connection of electrified devices such Von Duprin exit devices equipped with the (QELA Baseplate Conv. kit series.)

G. Recessed Exit Devices:

1. Recessed exit devices shall be of the push pad design with straight or horizontal motion to eliminate pinch points. The push pad shall project a maximum of 1-3/4" from the face of the door in the closed position. The push pad shall project a maximum of 1-1/4" from the face of the door in the open position.
2. Latch bolts shall have a self-lubricating coating to reduce friction and wear.
3. Endcaps shall be diecast aluminum and be of a sloping design to deflect impact from carts.

4. Exit devices shall have compression springs, and all internal parts shall be zinc dichromate coated to prevent corrosion.
  5. Outside trim shall be heavy-duty type and fasten by means of concealed studs and through-bolt from the inside. Lever trim shall be cast brass with a minimum average thickness of .130".
  6. Exit devices shall be tested in accordance to ANSI/BHMA A156.3 Grade 1 by a BHMA certified testing laboratory.
  7. A written certification showing successful completion of a minimum of one million cycles must be also provided.
  8. Recessed exit devices shall be as manufactured by Von Duprin. Exit device series shall be 94/95 series.
  9. Trim:
    - a. Levers to match lockset design.
- H. Removable Mullion:
- a. Interior/Exterior doors, mullion is removable only using building keys.
    - 1) Match Existing
  - b. Interior Doors - UL listed, Mullion is removable only using building keys.
    - 1) Match Existing
- I. Push and Pull Hardware: (For reference only – match existing facility manufacturer)
1. Push Plates: Ives 8200 Series 6 x 16 x .050 inches. If stile widths will not accept 6 inches, provide stile width less two inches.
  2. Push Bars: Von Duprin 330/350
  3. Push-Pull Units: One-inch round rod. Push: Straight push bar, Pull: 90-degree offset, 12-inch centers. Attach top post of pull back to back with latch stile end of push bar, bottom post of pull and hinge stile end of push bar with endcaps.
  4. Pull, Offset: One-inch round rod, 90-degree offset, 12-inch centers.
  5. Pulls: One-inch round rod, straight 12-inch centers.
  6. Pull Plates: Ives 8303-8 4 x 16 x .050 inches. 8" center.
  7. Pull, Bi-Fold: Dummy Lever Trims. Levers to match lockset lever design.
  8. Pull, Wire: 3/4-inch diameter, 6-inch centers.
  9. Vandal Resistant Pulls: Ives VR900 Series. Stainless steel construction 0.120 inches thick.
  10. Manufacturer: Provide push and pull hardware from any member of B.H.M.A.
- J. Coordinator – Frame Stop Mounted:
1. Door coordinator shall prevent the active door from closing before inactive door. Stop mounted channel 1-5/8" x 5/8" steel tubing x length to suit door opening. Coordinator shall be UL listed. Furnish filler bars to fill gap between end of coordinator and inactive door frame. Furnish mounting brackets for all stop mounted hardware such as exit device strikes, door closer PA shoes, etc. Coordinators shall be prepared (cutout) at the factory for surface applied or concealed vertical rod panic devices if required.
  2. Furnish with carry bar CB1 when required for proper operation.
    - a. Ives COR x length to suit.
- K. Electric Strike:
1. Electric strikes shall provide remote release of latch bolts. They shall be designed for use with the type locks shown at each opening where required. Strikes will be UL Listed for Burglary-Resistant Electric Door Strike, and where required, shall be UL listed as electric strikes for Fire Doors or Frames. Faceplates shall be stainless steel with finish as specified for each opening. The locking components shall be stainless steel to resist damage and abuse.

2. Solenoids shall be of the continuous duty type for the voltage specified. Plug connectors will be furnished. Strikes shall have an adjustable backbox to compensate for misalignment of door and frame.
  3. Furnish strikes manufactured by VonDuprin
    - a. Von Duprin 6000 Series
    - b. Alternative subject to approval from DTMB Office of Infrastructure Protection, Security Program Coordinator
- L. Electric Power Transfer:
1. Transfer power from door frame to edge of door, UL listed R4504.
  2. Von Duprin EPT
- M. Access control wire – Profusion Genesis series cable 22/6+22/4+22/2+18/4 – Plenum or FTS.
- N. Closers:
1. Door closers shall have fully hydraulic, full rack and pinion action with a high strength cast iron cylinder. Cylinder body shall be 1 ½" in diameter, and double heat-treated pinion shall be 11/16" in diameter with double D slab drive arm connection.
  2. Hydraulic fluid shall be of a type requiring no seasonal closer adjustment for temperatures ranging from 120 degrees F to -30 degrees F.
  3. Spring power shall be continuously adjustable over the full range of closer sizes and allow for reduced opening force for the physically handicapped. Hydraulic regulation shall be by tamper- proof, non-critical valves. Closers shall have separate adjustment for latch speed, general speed, and backcheck.
  4. All closers shall have solid forged steel main arms (and forged forearms for parallel arm closers).
  5. All surface mounted mechanical closers shall be certified to exceed ten million (10,000,000) full load cycles by a recognized independent testing laboratory.
  6. Closers will have Powder coating finish certified to exceed 100 hours salt spray testing by ETL, an independent testing laboratory used by BHMA for ANSI certification.
  7. Refer to door and frame details and furnish accessories such as drop plates, panel adapters, spacers and supports as required to correctly install door closers. State degree of door swing in the hardware schedule.
  8. Furnish closers manufactured by LCN
    - a. LCN Series 4000.
- O. ADA Special Closers
1. Where "Low Energy Power Operated Door" as defined by ANSI Standard A156.19 is indicated for doors required to be accessible to the disabled, provide electrically powered operators complying with the ADA requirements for opening force and time to close standards.
  2. Full closing force shall be provided when the power or assist cycle ends.
  3. Modular design, adjustments easily accessible from the front, UL listed for use on labeled doors.
  4. Shall have "Second Chance" function to accommodate momentary resistance, "Breakaway" function in the electronically controlled clutch, "Soft Start" motor control function and "Maintain Hold-Open Switch" to hold the door open at 90 degree.

5. Shall have built in 12V and 24V power supply for actuators, card readers, electric strikes and magnetic door locks, inputs for both swing and stop side sensors and available to accept either 120VAC or 220VAC input power. All wiring connections between operator modules made by easy-to-handle electrical connectors. Shall comply with both UL and NEC requirements for Class 1 and Class 2 wiring by providing separate conduits for each.
6. Shall have seven independent electronic adjustments to tailor the operator for specific site conditions. Opening speed, holding force at 90 deg., sequential trigger and time delay, hold-open time at 90 deg., opening force, clutch "breakaway" force setting, electric strike trigger and time delay.
7. Shall have separate and independent adjustments for back check, main speed and latch speed.
8. Furnish actuators and other controls as shown in Hardware Sets.
9. Furnish operators manufactured by:
- 10. All installers must be certified by the American Association of Automatic Door Manufacturers (AAADM) is a trade association of power-operated automatic door manufacturers.**
  - a. Stanley Magic Force
  - b. LCN 4630/4640 Auto Equalizer™ Series Operators

P. Overhead Holders and Stops:

1. Type, function and fasteners must be same as Glynn-Johnson specified. Size per manufacturer's selector chart. Plastic end caps hold open mechanisms and shock blocks are not allowed. End caps must be finished same as balance of unit.
2. Manufacture products using base material of Brass/Bronze for US3, US4, & US10B finished products and 300 Stainless Steel for US32 & US32D finished products.
3. Type, function, and fasteners must be the same as Glynn-Johnson specified. Size per manufacturer's selector chart.
  - a. Von Duprin-Glynn-Johnson

Q. Kick Plates:

1. Furnish .050 inches thick, beveled three sides, 10" high x door width less 2" at single doors and less 1" at pairs. Where glass or louvers prevent this height, supply with height equal to height of bottom rail less 2".
2. Any BHMA manufacturing product meeting above is acceptable.

R. Bumpers:

1. Wrought, forged, or cast, approximately 2-1/2 inch diameter, convex or concave rubber center, concealed fasteners.
  - a. Ives WS407CCV
  - b. BHMA L02101.

S. Wall Stops:

1. Length to exceed projection of all other hardware. Provide with threaded studs and expansion shields for masonry wall construction. Install with slope at top.
  - a. Ives WS33
  - b. BHMA L12011 or L12021

T. Floor Stops:

1. Half dome. Furnish height to suit undercut.
  - a. Ives FB430 series
  - b. BHMA L12141

U. Wall Holders:

1. Products specified by series only; furnish strike length to exceed projection of all other hardware.
  - a. Ives WS40
  - b. Equal products of any BHMA manufacturer

V. Door Holding Magnets:

1. Electrically controlled, fail-safe, holds door open until current is interrupted.
2. Units will have 35 lbs. of holding force.
3. Units will be "tri-voltage", 12VDC, 24VAC/DC & 120VAC.
4. Furnish model to hold door away from wall to allow for any trim or levers on pull side of door.
  - a. LCN SEM 7800 series

W. Thresholds:

1. 1/2" high - 5" wide. Cope at jambs.
2. Furnish full wall opening width when frames are recessed.
3. Cope in front of mullions if thresholds project beyond door faces.
4. Furnish with non-ferrous Stainless-Steel Screws and Lead Anchors.
  - a. Zero as listed in sets
  - b. Equal of NGP or Reese

X. Door Sweeps:

1. Surface Sweeps:
  - a. Zero as listed in sets
  - b. Equal of NGP or Reese

Y. Weather-stripping:

1. Apply to head and jamb stops.
2. Solid Bar stock all sides
  - a. Zero as listed in sets
  - b. Equal by Zero or

Reese

AA. Meeting Stile Weather-stripping:

3. 2 Pc. Nylon brush type to seal gap between pairs of doors.
  - a. Zero as listed in sets
  - b. Equal by NGP or Reese

BB. Astragal:

1. Stainless steel, type 304, Finish 2B. 12 gauge 1-5/8 inch wide. #10 x 3/4" sheet metal screws.
  - a. Zero as listed in sets
  - b. Equal by NGP or Reese

CC. Astragal, Sound:

1. Overlapping type.
  - a. Zero as listed in sets
  - b. Equal by NGP or Reese
2. Meeting stile type.
  - a. Zero as listed in sets
  - b. Equal by NGP or Reese

DD. Sound Seal:

1. Adjustable type perimeter seal.
  - a. Zero as listed in sets
  - b. Equal by NGP or Reese

EE. Lock Protector:

1. Lock protector shall eliminate gap between door and frame. No exposed fasteners on face of unit.
  - a. Ives LG series

FF. Door Position Switches:

1. Coordinate voltage requirements with Electrical Drawings and Specifications.
2. Numbers used are Schlage Electronics
  - a. Surface 7766
  - b. Concealed 7764

GG. Key Control:

1. Key Cabinet
  - a. Provide a key control system including envelopes, labels, tags with self-locking key clips, receipt forms, 3 way visible card index, temporary markers, permanent markers, and standard metal cabinet, all as recommended by system manufacturer, with capacity for 150 percent of the number of locks required for the project.
  - b. Provide complete cross-index system set up by hardware supplier or Lockset manufacturer's representative or Lockset Manufacturers authorized Service Center. Place keys on markers and hooks in the cabinet as determined by the final key schedule. Provide hinged panel type cabinet for wall mounting. Provide one each wall mounted key cabinet.
  - c. Telkee WC Series with key loan record system.
  - d. Supplier shall include the cost of this service in their proposal.

HH. Fasteners:

1. Furnish fasteners of the proper type, size, quantity and finish. Use machine screws and expansion shields for attaching hardware to concrete or masonry, and wall grip inserts at hollow wall construction. Furnish machine screws for attachment to reinforced hollow metal doors and frames and reinforced aluminum doors and frames. Furnish full thread wood screws for attachment to solid wood doors and frames. "TEK" type screws are not acceptable.

**2. Sex bolts will not be permitted on reinforced metal doors or wood doors where blocking is specified.**

2.4 Finishes:

- A. Generally, Dull Chrome, US26D / BHMA 626. Provide finish for each item as indicated in sets.

2.5 Templates and Hardware Location:

- A. Furnish hardware made to template. Supply required templates and hardware locations to the door and frame manufacturers.
- B. Furnish metal template to frame/door supplier for continuous hinge.
- C. Refer to Article 3.1 B.2, Locations, and coordinate with templates.

2.6 Cylinders and Keying:

- A. Locks Cylinders and keys will be furnished with Schlage standard core or Best Small Format Interchangeable Core (SFIC). Coordinate keying requirements with State of Michigan Department of Technology, Management and Budget, Office of Infrastructure Protection.
- B. Provide cylinders with construction cores or keying for use during the construction period. When so directed, and in the presence of the Owner's security department or representative, convert construction cores or keying to the final system.

PART 3 - EXECUTION

3.1 Installation

A. General:

- 1. Install hardware according to manufacturer's installations and template dimensions. Attach all items of finish hardware to doors, frames, walls, etc. with fasteners furnished and required by the manufacture of the item.
- 2. Provide blocking/reinforcement for all wall mounted Hardware.
- 3. Reinforced hollow metal doors and frames and reinforced aluminum door and frames will be drilled and tapped for machine screws.
- 4. Solid wood doors and frames: full thread wood screws. Drill pilot holes before inserting screws.
- 5. Continuous gear hinges attached to hollow metal doors and frames and aluminum doors and frames: 12-24 x 1/2" #3 Phillips Keen form self-tapping. Use #13 or 3/16 drill for pilot.
- 6. Continuous Gear Hinges require continuous mortar guards of foam or cardboard 1/2" thick x frame height, applied with construction adhesive.
- 7. Install weather-strip gasket prior to parallel arm closer bracket, rim exit device or any stop mounted hardware. Gasket to provide a continuous seal around perimeter of door opening. Allow for gasket when installing finish hardware. Door closers will require special templating. Exit devices will require adjustment in backset.

B. Locations:

- 1. Dimensions are from finish floor to center line of items.
- 2. Include this list in Hardware Schedule.

CATEGORY

DIMENSION

Hinges

Door Manufacturer's Standard

|                            |                                   |
|----------------------------|-----------------------------------|
| Flush Bolt Levers          | 72" and 12"                       |
| Levers                     | Door Manufacturer's Standard      |
| Exit Device Touch Bar      | Per Template                      |
| Dead latch Cylinder pull.  | 43" unless conflicting with push- |
| Deadlock MS Cylinder pull. | 43" unless conflicting with push- |
| Hospital Push-Pull         | Manufacturer's Template           |
| Roller Latch               | At Head                           |
| Push-Pull Units            | 42" to centerline of Pull         |
| Offset Pulls               | Suitable for Exit Devices         |
| Pulls - Flush Cup          | 46"                               |
| Pulls (BTB)                | 46"                               |
| Push-Pulls                 | 46"                               |
| Push Plates                | 52"                               |
| Pull Plates                | 42"                               |
| Wire Pulls                 | 42"                               |
| Wall Stops/Holders         | At Head                           |
| Astragals                  | Pull side of active leaf          |
| Trim Protector Bars handle | Push side of door below lever     |
| Lock Protectors            | Pull side of door                 |

C. Field Quality Inspection:

1. Provide the services of a representative to inspect material furnished and its installation and is adjustment, and to instruct the Owner's personnel in adjustment, care and maintenance of hardware.
2. Locksets and exit devices shall be inspected by the factory representative after installation and after the HVAC system is in operation and balanced, to insure correct installation and proper operation.
3. Closers shall be inspected by the factory representative **(and adjusted when required after a Pre- Installation meeting has been conducted)** after installation and after the HVAC system is in operation and balanced, to insure correct installation and proper operation.
4. The manufacturer's representative shall prepare a written report stating compliance and recording locations and kinds of noncompliance. The original report shall be forwarded to the Architect with copies to the Contractor, hardware distributor, hardware installer and building owner.

D. Technical and Warranty Information:








1. At the completion of the project, the technical and warranty information coalesced and kept on file by the General Contractor/Construction Manager shall be given to the Owner or Owner's Agent. In addition to both the technical and warranty information, all factory order acknowledgement numbers supplied to the General Contractor/Construction Manager during the construction period shall be given to the Owner or Owner's Agent. The warranty information and factory order acknowledgement numbers shall serve to both expedite and properly execute any warranty work that may be required on the various hardware items supplied on the project.
2. Submit to General Contractor/Construction Manager, two copies each of parts and service manuals and two each of any special installation or adjustment tools. Include for locksets, exit devices, door closers and any electrical products



Hardware Group No. 01

H120.D H120.E

EACH TO HAVE:

| QTY |     | DESCRIPTION          | CATALOG NUMBER                 |   | FINISH | MFR |
|-----|-----|----------------------|--------------------------------|---|--------|-----|
| 1   | EA  | CONT. HINGE          | 112HD EPT                      |    | 628    | IVE |
| 1   | EA  | POWER TRANSFER       | EPT10                          |  ⚡ | 689    | VON |
| 1   | EA  | EU MORTISE LOCK      | L9095BDEU 03A RX CON 12/24 VDC |  ⚡ | 626    | SCH |
| 1   | EA  | H-SEC SURFACE CLOSER | 4211 AVB CUSH                  |    | 689    | LCN |
| 1   | SET | WEATHER SEAL         | (BY DOOR & FRAME MFR)          |   |        |     |
| 1   | EA  | DOOR SWEEP           | 39A                            |    | A      | ZER |
| 1   | EA  | THRESHOLD            | 656A-V3-223                    |    | A      | ZER |
| 1   | EA  | POWER SUPPLY         | (BY SECURITY CONTRACTOR)       |   |        |     |
| 2   | EA  | ACCESS CONTROL       | (BY SECURITY CONTRACTOR)       |   | ⚡      |     |
| 1   | EA  | DOOR CONTACT         | 679-05                         |  ⚡ | BLK    | SCE |








PRESENTING AN AUTHORIZED CREDENTIAL WILL UNLOCK THE LEVER TO ALLOW PASSAGE THROUGH THE OPENING. AN AUTHORIZED CREDENTIAL IS REQUIRED ON EACH SIDE OF THE OPENING.

COORDINATE SYSTEM OPERATION AND COMPONENT LOCATIONS WITH THE USER, THE ARCHITECT AND ALL RELATED TRADES.

Hardware Group No. 02

H122.A

EACH TO HAVE:

| QTY |    | DESCRIPTION          | CATALOG NUMBER                        |   | FINISH | MFR |
|-----|----|----------------------|---------------------------------------|---|--------|-----|
| 1   | EA | CONT. HINGE          | 224HD EPT                             |    | 628    | IVE |
| 1   | EA | POWER TRANSFER       | EPT10                                 |  ⚡ | 689    | VON |
| 1   | EA | EU MORTISE LOCK      | L9095BDEU 03A RX LX DPS CON 12/24 VDC |  ⚡ | 626    | SCH |
| 1   | EA | H-SEC SURFACE CLOSER | 4511T AVB                             |    | 689    | LCN |
| 1   | EA | KICK PLATE           | 8400 10" X 1 1/2" LDW B-CS TKTX       |    | 630    | IVE |
| 1   | EA | WALL STOP            | KG183                                 |   | BLK    | KIN |
| 1   | EA | GASKETING            | 488SBK PSA ZAG                        |    | BK     | ZER |
| 1   | EA | WIRE HARNESS         | CON-44                                |   | ⚡      | SCH |
| 1   | EA | POWER SUPPLY         | (BY SECURITY CONTRACTOR)              |   |        |     |
| 2   | EA | ACCESS CONTROL       | (BY SECURITY CONTRACTOR)              |   | ⚡      |     |
| 1   | EA | DOOR CONTACT         | 679-05                                |  ⚡ | BLK    | SCE |

PRESENTING AN AUTHORIZED CREDENTIAL WILL UNLOCK THE LEVER AND ALLOW PASSAGE THROUGH THE OPENING. A VALID CREDENTIAL IS REQUIRED ON EACH SIDE OF THE OPENING.



THIS OPENING IS PART OF A SECURITY INTERLOCK WITH OPENING H131.2

COORDINATE SYSTEM OPERATION AND COMPONENT LOCATIONS WITH THE USER, THE ARCHITECT AND ALL RELATED TRADES.

Hardware Group No. 03

H131.B

EACH TO HAVE:

| QTY |    | DESCRIPTION             | CATALOG NUMBER                           |   | FINISH | MFR |
|-----|----|-------------------------|--|---|--------|-----|
| 1   | EA | CONT. HINGE             | 224HD EPT SECWDHM                        |  | 628    | IVE |
| 1   | EA | POWER TRANSFER          | EPT10                                    |  | ✂ 689  | VON |
| 1   | EA | EU MORTISE LOCK         | L9095BDEU 03A RX LX DPS<br>CON 12/24 VDC |  | ✂ 626  | SCH |
| 1   | EA | H-SEC SURFACE<br>CLOSER | 4511T AVB                                |  | 689    | LCN |
| 1   | EA | KICK PLATE              | 8400 10" X 1 1/2" LDW B-CS<br>TKTX       |  | 630    | IVE |
| 1   | EA | WALL STOP               | KG183                                    |   | BLK    | KIN |
| 1   | EA | GASKETING               | 488SBK PSA ZAG                           |  | BK     | ZER |
| 1   | EA | WIRE HARNESS            | CON-44                                   |   | ✂      | SCH |
| 1   | EA | POWER SUPPLY            | (BY SECURITY CONTRACTOR)                 |   |        |     |
| 2   | EA | ACCESS CONTROL          | (BY SECURITY CONTRACTOR)                 |   | ✂      |     |
| 1   | EA | DOOR CONTACT            | 679-05                                   |  | ✂ BLK  | SCE |

PRESENTING AN AUTHORIZED CREDENTIAL WILL UNLOCK THE LEVER AND ALLOW PASSAGE THROUGH THE OPENING. A VALID CREDENTIAL IS REQUIRED ON EACH SIDE OF THE OPENING.







THIS OPENING IS PART OF A SECURITY INTERLOCK WITH OPENING H122.1

COORDINATE SYSTEM OPERATION AND COMPONENT LOCATIONS WITH THE USER, THE ARCHITECT AND ALL RELATED TRADES.

Hardware Group No. 04

H126.1






EACH TO HAVE:

| QTY |    | DESCRIPTION         | CATALOG NUMBER                     |   | FINISH | MFR |
|-----|----|---------------------|------------------------------------|---|--------|-----|
| 3   | EA | HINGE               | 5BB1HW 4.5 X 4.5 NRP               |  | 652    | IVE |
| 1   | EA | PRIVACY W/COIN TURN | L9044 03A 09-544 L283-722          |  | 626    | SCH |
| 1   | EA | SURFACE CLOSER      | 4011 MC                            |  | 689    | LCN |
| 1   | EA | KICK PLATE          | 8400 10" X 1 1/2" LDW B-CS<br>TKTX |  | 630    | IVE |
| 1   | EA | WALL STOP           | WS447                              |  | 626    | IVE |
| 1   | EA | GASKETING           | 488SBK PSA                         |  | BK     | ZER |

Hardware Group No. 05

H130.B

EACH TO HAVE:

| QTY |    | DESCRIPTION          | CATALOG NUMBER                 |   | FINISH | MFR |
|-----|----|----------------------|--------------------------------|---|--------|-----|
| 1   | EA | CONT. HINGE          | 224HD SEC                      |  | 628    | IVE |
| 1   | EA | ANTILIGATURE TIP     | TIPIT                          |   | 628    | SEL |
| 1   | EA | CLASSROOM LOCK       | L9070BDC HSLR 09-663           |  | 630    | SCH |
| 1   | EA | H-SEC SURFACE CLOSER | 4211 AVB EDA                   |  | 689    | LCN |
| 1   | EA | KICK PLATE           | 8400 10" X 1 1/2" LDW B-CS TKT |  | 630    | IVE |
| 1   | EA | MAGNETIC HOLDER      | 2400LR                         |   | 689    | ABH |
| 1   | EA | GASKETING            | 488SBK PSA ZAG                 |  | BK     | ZER |

DOORS MAY BE HELD-OPEN ELECTRONICALLY. UPON ACTIVATION OF THE BUILDING FIRE ALARM SYSTEM, THE DOORS WILL CLOSE AND POSITIVELY LATCH. COORDINATE SYSTEM OPERATION AND COMPONENT LOCATIONS WITH THE OWNER, THE ARCHITECT AND ALL RELATED TRADES.

Hardware Group No. 06

H120.B

H120.C

H131.D

EACH TO HAVE:








| QTY |  | DESCRIPTION | CATALOG NUMBER         |  | FINISH | MFR |
|-----|--|-------------|------------------------|--|--------|-----|
| 1   |  |             | (ALL HDWE BY DOOR MFR) |  |        |     |

Hardware Group No. 07

H131.C

H132.C

EACH TO HAVE:






| QTY |     | DESCRIPTION          | CATALOG NUMBER                |   | FINISH | MFR |
|-----|-----|----------------------|-------------------------------|---|--------|-----|
| 2   | EA  | CONT. HINGE          | 112HD EPT SEC                 |  | 628    | IVE |
| 2   | EA  | ANTILIGATURE TIP     | TIPIT                         |   | 628    | SEL |
| 2   | EA  | POWER TRANSFER       | EPT10                         |  | 689    | VON |
| 2   | EA  | TWO PT EU MORT LOCK  | LM9295EUBDC 03A CON 12/24 VDC |  | 626    | SCH |
| 2   | EA  | H-SEC SURFACE CLOSER | 4211 AVB CUSH                 |  | 689    | LCN |
| 1   | SET | WEATHER SEAL         | (BY DOOR & FRAME MFR)         |   |        |     |
| 2   | EA  | DOOR SWEEP           | 39A SEC                       |  | A      | ZER |
| 1   | EA  | THRESHOLD            | 656A-V3-223                   |  | A      | ZER |
| 1   | EA  | POWER SUPPLY         | (BY SECURITY CONTRACTOR)      |   |        |     |
| 2   | EA  | KEYPAD               | (BY SECURITY CONTRACTOR)      |   |        |     |
| 2   | EA  | DOOR CONTACT         | 679-05                        |  | BLK    | SCE |

PRESENTING AN AUTHORIZED PIN WILL UNLOCK THE LEVER TO ALLOW PASSAGE THROUGH THE OPENING. AN AUTHORIZED PIN IS REQUIRED ON EACH SIDE OF THE OPENING. COORDINATE SYSTEM OPERATION AND COMPONENT LOCATIONS WITH THE USER, THE ARCHITECT AND ALL RELATED TRADES.

Hardware Group No. 08

E126.A






EACH TO HAVE:

| QTY |    | DESCRIPTION          | CATALOG NUMBER             |   | FINISH | MFR |
|-----|----|----------------------|----------------------------|---|--------|-----|
| 2   | EA | CONT. HINGE          | 224HD                      |  | 628    | IVE |
| 2   | EA | ANTILIGATURE TIP     | TIPIT                      |   | 628    | SEL |
| 2   | EA | FIRE EXIT HARDWARE   | 9849-L-BE-F-03-LBL         |  | 626    | VON |
| 1   | EA | H-SEC SURFACE CLOSER | 4211 AVB CUSH              |  | 689    | LCN |
| 1   | EA | H-SEC SURFACE CLOSER | 4211 AVB EDA               |  | 689    | LCN |
| 2   | EA | KICK PLATE           | 8400 10" X 1" LDW B-CS TKT |  | 630    | IVE |
| 2   | EA | MAGNETIC HOLDER      | 2400LR                     |   | 689    | ABH |

Hardware Group No. 09

H125.A






EACH TO HAVE:

| QTY |    | DESCRIPTION       | CATALOG NUMBER             |   | FINISH | MFR |
|-----|----|-------------------|----------------------------|---|--------|-----|
| 3   | EA | HINGE             | 5BB1HW 4.5 X 4.5 NRP       |    | 652    | IVE |
| 1   | EA | OFFICE/ENTRY LOCK | L9050BDC 03A 09-544        |    | 626    | SCH |
| 1   | EA | KICK PLATE        | 8400 10" X 1 1/2" LDW B-CS |    | 630    | IVE |
| 1   | EA | WALL STOP         | WS447                      |   | 626    | IVE |
| 1   | EA | GASKETING         | 488SBK PSA                 |  | BK     | ZER |

Hardware Group No. 10

H124.A






EACH TO HAVE:

| QTY |    | DESCRIPTION    | CATALOG NUMBER             |   | FINISH | MFR |
|-----|----|----------------|----------------------------|---|--------|-----|
| 1   | EA | CONT. HINGE    | 224HD                      |  | 628    | IVE |
| 1   | EA | CLASSROOM LOCK | L9070BDC 03A               |  | 626    | SCH |
| 1   | EA | OH STOP        | 90S J                      |  | 630    | GLY |
| 1   | EA | ARMOR PLATE    | 8400 36" X 1 1/2" LDW B-CS |  | 630    | IVE |
| 1   | EA | GASKETING      | 488SBK PSA ZAG             |  | BK     | ZER |

Hardware Group No. 11

H127.A








EACH TO HAVE:

| QTY |    | DESCRIPTION    | CATALOG NUMBER                 |   | FINISH | MFR |
|-----|----|----------------|--------------------------------|---|--------|-----|
| 3   | EA | HINGE          | 5BB1HW 4.5 X 4.5 NRP           |  | 652    | IVE |
| 1   | EA | CLASSROOM LOCK | L9070BDC 03A                   |  | 626    | SCH |
| 1   | EA | KICK PLATE     | 8400 10" X 1 1/2" LDW B-CS TKT |  | 630    | IVE |
| 1   | EA | WALL STOP      | WS447                          |  | 626    | IVE |
| 1   | EA | GASKETING      | 488SBK PSA ZAG                 |  | BK     | ZER |

Hardware Group No. 12

E124.C H133.A

EACH TO HAVE:







| QTY |    | DESCRIPTION             | CATALOG NUMBER                               |   | FINISH | MFR |
|-----|----|-------------------------|--|---|--------|-----|
| 1   | EA | CONT. HINGE             | 224HD EPT SECWDHM                            |  | 628    | IVE |
| 1   | EA | ANTILIGATURE TIP        | TIPIT  |   | 628    | SEL |
| 1   | EA | POWER TRANSFER          | EPT10  |  | 689    | VON |
| 1   | EA | EL MORTISE LOCK         | L9095BDEL HSLR 09-663 RX LX<br>CON 12/24 VDC |  | 630    | SCH |
| 2   | EA | SFIC MORTISE CYL.       | 80-102                                       |   | 626    | SCH |
| 1   | EA | H-SEC SURFACE<br>CLOSER | 4211 AVB CUSH                                |  | 689    | LCN |
| 1   | EA | KICK PLATE              | 8400 10" X 1 1/2" LDW B-CS<br>TKTX           |  | 630    | IVE |
| 1   | EA | GASKETING               | 488SBK PSA                                   |  | BK     | ZER |
| 1   | EA | POWER SUPPLY            | (BY SECURITY CONTRACTOR)                     | ✂   |        |     |
| 2   | EA | ACCESS CONTROL          | (BY SECURITY CONTRACTOR)                     | ✂   |        |     |
| 1   | EA | DOOR CONTACT            | 679-05                                       |  | BLK    | SCE |

COORDINATE SYSTEM OPERATION AND COMPONENT LOCATIONS WITH THE USER, THE ARCHITECT AND ALL RELATED TRADES.

Hardware Group No. 13

H121.A H200.A







EACH TO HAVE:

| QTY |    | DESCRIPTION    | CATALOG NUMBER             |   | FINISH | MFR |
|-----|----|----------------|----------------------------|---|--------|-----|
| 3   | EA | HINGE          | 5BB1HW 4.5 X 4.5 NRP       |  | 652    | IVE |
| 1   | EA | STOREROOM LOCK | L9080BDC 03A               |  | 626    | SCH |
| 1   | EA | SURFACE CLOSER | 4011 MC                    |  | 689    | LCN |
| 1   | EA | KICK PLATE     | 8400 10" X 1 1/2" LDW B-CS |  | 630    | IVE |
| 1   | EA | WALL STOP      | WS33X                      |  | 626    | IVE |
| 1   | EA | GASKETING      | 488SBK PSA                 |  | BK     | ZER |

Hardware Group No. 13.1

H132.B







EACH TO HAVE:

| QTY |    | DESCRIPTION      | CATALOG NUMBER             |   | FINISH | MFR |
|-----|----|------------------|----------------------------|---|--------|-----|
| 1   | EA | CONT. HINGE      | 224HD                      |  | 628    | IVE |
| 1   | EA | ANTILIGATURE TIP | TIPIT                      |   | 628    | SEL |
| 1   | EA | STOREROOM LOCK   | L9080BDC HSLR 09-663       |  | 630    | SCH |
| 1   | EA | SURFACE CLOSER   | 4011 MC                    |  | 689    | LCN |
| 1   | EA | KICK PLATE       | 8400 10" X 1 1/2" LDW B-CS |  | 630    | IVE |
| 1   | EA | WALL STOP        | WS33X                      |  | 626    | IVE |
| 1   | EA | GASKETING        | 488SBK PSA                 |  | BK     | ZER |

Hardware Group No. 14

H131.A

EACH TO HAVE:








| QTY |    | DESCRIPTION          | CATALOG NUMBER              |   | FINISH | MFR |
|-----|----|----------------------|-----------------------------|---|--------|-----|
| 2   | EA | CONT. HINGE          | 224HD SEC                   |    | 628    | IVE |
| 1   | EA | PANIC HARDWARE       | 9849-EO-LBL-SEC             |    | 626    | VON |
| 1   | EA | PANIC HARDWARE       | 9875-HL-576A-SEC            |    | 626    | VON |
| 1   | EA | SFIC MORTISE CYL.    | 80-102                      |   | 626    | SCH |
| 2   | EA | H-SEC SURFACE CLOSER | 4211 AVB EDA                |    | 689    | LCN |
| 2   | EA | KICK PLATE           | 8400 10" X 1" LDW B-CS TKTX |    | 630    | IVE |
| 2   | EA | MAGNET               | SEM7820 12V/24V/120V        |  ⚡ | 689    | LCN |

DOORS MAY BE HELD-OPEN ELECTRONICALLY. UPON ACTIVATION OF THE BUILDING FIRE ALARM SYSTEM, THE DOORS WILL CLOSE AND POSITIVELY LATCH. COORDINATE SYSTEM OPERATION AND COMPONENT LOCATIONS WITH THE OWNER, THE ARCHITECT AND ALL RELATED TRADES.

Hardware Group No. 15

H201.A






EACH TO HAVE:

| QTY |     | DESCRIPTION        | CATALOG NUMBER         |   | FINISH | MFR |
|-----|-----|--------------------|------------------------|---|--------|-----|
| 1   | EA  | CONT. HINGE        | 224HD                  |    | 628    | IVE |
| 1   | EA  | DBL CYL STORE W/DB | L9466BDC 03A           |   | 626    | SCH |
| 1   | EA  | SURFACE CLOSER     | 4111 SHCUSH MCSRI      |  | 689    | LCN |
| 1   | EA  | KICK PLATE         | 8400 10" X 2" LDW B-CS |  | 630    | IVE |
| 1   | SET | GASKETING          | 429AA-S                |  | AA     | ZER |
| 1   | EA  | DOOR SWEEP         | 39A                    |  | A      | ZER |
| 1   | EA  | THRESHOLD          | 656A-V3-223            |  | A      | ZER |

**Hardware Group No. 16 <B1>**

H132.A

EACH TO HAVE:








| QTY |    | DESCRIPTION                   | CATALOG NUMBER                |   | FINISH         | MFR            |
|-----|----|-------------------------------|-------------------------------|---|----------------|----------------|
| 2   | EA | CONT. HINGE                   | 224HD SEC                     |  | 628            | IVE            |
| 4 2 | EA | FIRE EXIT HARDWARE            | 9849-EO-F-LBL-SEC             |  | 626            | VON            |
| 4   | EA | <del>FIRE EXIT HARDWARE</del> | <del>9875-HL-F-576A-SEC</del> |  | <del>626</del> | <del>VON</del> |
| 4   | EA | <del>SFIC MORTISE CYL.</del>  | <del>80-102</del>             |   | <del>626</del> | <del>SCH</del> |
| 2   | EA | H-SEC SURFACE CLOSER          | 4211 AVB EDA                  |  | 689            | LCN            |
| 2   | EA | KICK PLATE                    | 8400 10" X 1" LDW B-CS TKTX   |  | 630            | IVE            |
| 2   | EA | MAGNETIC HOLDER               | 2400LR                        |   | 689            | ABH            |

DOORS MAY BE HELD-OPEN ELECTRONICALLY. UPON ACTIVATION OF THE BUILDING FIRE ALARM SYSTEM, THE DOORS WILL CLOSE AND POSITIVELY LATCH. COORDINATE SYSTEM OPERATION AND COMPONENT LOCATIONS WITH THE OWNER, THE ARCHITECT AND ALL RELATED TRADES.

Hardware Group No. 17

H120.A

EACH TO HAVE:








| QTY |    | DESCRIPTION          | CATALOG NUMBER                |   | FINISH | MFR |
|-----|----|----------------------|-------------------------------|---|--------|-----|
| 2   | EA | CONT. HINGE          | 224HD EPT                     |    | 628    | IVE |
| 2   | EA | POWER TRANSFER       | EPT10                         |  ⚡ | 689    | VON |
| 2   | EA | TWO PT EU MORT LOCK  | LM9295EUBDC 03A CON 12/24 VDC |  ⚡ | 626    | SCH |
| 2   | EA | H-SEC SURFACE CLOSER | 4211 AVB CUSH                 |    | 689    | LCN |
| 2   | EA | ARMOR PLATE          | 8400 36" X 1" LDW B-CS        |    | 630    | IVE |
| 2   | EA | MAGNET               | SEM7820 12V/24V/120V          |  ⚡ | 689    | LCN |
| 2   | EA | WIRE HARNESS         | CON-44                        | ⚡   |        | SCH |
| 1   | EA | POWER SUPPLY         | (BY SECURITY CONTRACTOR)      | ⚡   |        |     |
| 2   | EA | ACCESS CONTROL       | (BY SECURITY CONTRACTOR)      | ⚡   |        |     |
| 2   | EA | DOOR CONTACT         | 679-05                        |  ⚡ | BLK    | SCE |

DOORS MAY BE HELD-OPEN ELECTRONICALLY. UPON ACTIVATION OF THE BUILDING FIRE ALARM SYSTEM, THE DOORS WILL CLOSE AND POSITIVELY LATCH. PRESENTING AN AUTHORIZED CREDENTIAL WILL UNLOCK THE LEVER TO ALLOW PASSAGE THROUGH THE OPENING. AN AUTHORIZED CREDENTIAL IS REQUIRED ON EACH SIDE OF THE OPENING. COORDINATE SYSTEM OPERATION AND COMPONENT LOCATIONS WITH THE USER, THE ARCHITECT AND ALL RELATED TRADES.

Hardware Group No. 18

H122.B H122.C

EACH TO HAVE:

| QTY |    | DESCRIPTION          | CATALOG NUMBER                |   | FINISH | MFR |
|-----|----|----------------------|-------------------------------|---|--------|-----|
| 2   | EA | CONT. HINGE          | 224HD EPT                     |  | 628    | IVE |
| 2   | EA | POWER TRANSFER       | EPT10                         |  | 689    | VON |
| 2   | EA | TWO PT EU MORT LOCK  | LM9295EUFBD 03A CON 12/24 VDC |  | 626    | SCH |
| 2   | EA | FIRE/LIFE HOLDER     | 4040SEH 24V/120V AC/DC AS REQ |  | 689    | LCN |
| 2   | EA | H-SEC SURFACE CLOSER | 4211 AVB CUSH                 |  | 689    | LCN |
| 2   | EA | ARMOR PLATE          | 8400 36" X 1" LDW B-CS        |  | 630    | IVE |
| 2   | EA | WIRE HARNESS         | CON-44                        | ⚡   |        | SCH |
| 1   | EA | POWER SUPPLY         | (BY SECURITY CONTRACTOR)      |   |        |     |
| 2   | EA | ACCESS CONTROL       | (BY SECURITY CONTRACTOR)      | ⚡   |        |     |
| 2   | EA | DOOR CONTACT         | 679-05                        |  | BLK    | SCE |

DOORS MAY BE HELD-OPEN ELECTRONICALLY. UPON ACTIVATION OF THE BUILDING FIRE ALARM SYSTEM, THE DOORS WILL CLOSE AND POSITIVELY LATCH.








PRESENTING AN AUTHORIZED CREDENTIAL WILL UNLOCK THE LEVER TO ALLOW PASSAGE THROUGH THE OPENING. AN AUTHORIZED CREDENTIAL IS REQUIRED ON EACH SIDE OF THE OPENING.

COORDINATE SYSTEM OPERATION AND COMPONENT LOCATIONS WITH THE USER, THE ARCHITECT AND ALL RELATED TRADES.

Hardware Group No. 19

H122.D

EACH TO HAVE:

| QTY |     | DESCRIPTION          | CATALOG NUMBER                 |   | FINISH | MFR |
|-----|-----|----------------------|--------------------------------|---|--------|-----|
| 1   | EA  | CONT. HINGE          | 112HD EPT                      |  | 628    | IVE |
| 1   | EA  | POWER TRANSFER       | EPT10                          |  | 689    | VON |
| 1   | EA  | EU MORTISE LOCK      | L9095BDEU 03A RX CON 12/24 VDC |  | 626    | SCH |
| 1   | EA  | H-SEC SURFACE CLOSER | 4211 AVB CUSH                  |  | 689    | LCN |
| 1   | SET | WEATHER SEAL         | (BY DOOR & FRAME MFR)          |   |        |     |
| 1   | EA  | DOOR SWEEP           | 39A                            |  | A      | ZER |
| 1   | EA  | THRESHOLD            | 656A-V3-223                    |  | A      | ZER |
| 1   | EA  | POWER SUPPLY         | (BY SECURITY CONTRACTOR)       |   |        |     |
| 2   | EA  | KEYPAD               | (BY SECURITY CONTRACTOR)       | ⚡   |        |     |
| 1   | EA  | DOOR CONTACT         | 679-05                         |  | BLK    | SCE |

PRESENTING AN AUTHORIZED PIN WILL UNLOCK THE LEVER TO ALLOW PASSAGE THROUGH THE OPENING. AN AUTHORIZED PIN IS REQUIRED ON EACH SIDE OF THE OPENING.






COORDINATE SYSTEM OPERATION AND COMPONENT LOCATIONS WITH THE USER, THE ARCHITECT AND ALL RELATED TRADES.



Hardware Group No. 20

H129.A








EACH TO HAVE:

| QTY |    | DESCRIPTION    | CATALOG NUMBER             |   | FINISH | MFR |
|-----|----|----------------|----------------------------|---|--------|-----|
| 1   | EA | CONT. HINGE    | 224HD                      |  | 628    | IVE |
| 1   | EA | CLASSROOM LOCK | L9070BDC 03A               |  | 626    | SCH |
| 1   | EA | ARMOR PLATE    | 8400 36" X 1 1/2" LDW B-CS |  | 630    | IVE |
| 1   | EA | WALL STOP      | WS447                      |  | 626    | IVE |
| 1   | EA | GASKETING      | 488SBK PSA ZAG             |  | BK     | ZER |

Hardware Group No. 21

H130.A

EACH TO HAVE:

| QTY |    | DESCRIPTION             | CATALOG NUMBER                               |   | FINISH | MFR |
|-----|----|-------------------------|--|---|--------|-----|
| 1   | EA | CONT. HINGE             | 224HD EPT SECWDHM                            |    | 628    | IVE |
| 1   | EA | ANTILIGATURE TIP        | TIPIT  |   | 628    | SEL |
| 1   | EA | POWER TRANSFER          | EPT10  |    | ⚡ 689  | VON |
| 1   | EA | EU MORTISE LOCK         | L9095BDEU HSLR 09-663 RX LX<br>CON 12/24 VDC |    | ⚡ 630  | SCH |
| 1   | EA | H-SEC SURFACE<br>CLOSER | 4211T AVB                                    |    | 689    | LCN |
| 1   | EA | KICK PLATE              | 8400 10" X 1 1/2" LDW B-CS<br>TKTX           |   | 630    | IVE |
| 1   | EA | WALL STOP               | KG183  |   | BLK    | KIN |
| 1   | EA | GASKETING               | 488SBK PSA ZAG                               |  | BK     | ZER |
| 2   | EA | ACCESS CONTROL          | (BY SECURITY CONTRACTOR)                     |   | ⚡      |     |
| 1   | EA | POWER SUPPLY            | PS902 900-4RL-FA 120/240 VAC                 |  | ⚡      | VON |

PRESENTING AN AUTHORIZED CREDENTIAL WILL UNLOCK THE LEVER AND ALLOW PASSAGE THROUGH THE OPENING. A VALID CREDENTIAL IS REQUIRED ON EACH SIDE OF THE OPENING.






COORDINATE SYSTEM OPERATION AND COMPONENT LOCATIONS WITH THE USER, THE ARCHITECT AND ALL RELATED TRADES.

Center For Forensic Psychiatry  
Kitchen  
Michigan Department of Health and Human Services  
Saline, Michigan

File No. 491/20167.SDW  
Index No. 5603  
PSC Project No. 2021094

Hardware Group No. 22  
H130.C

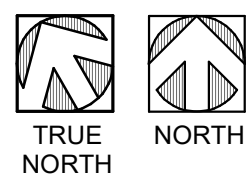
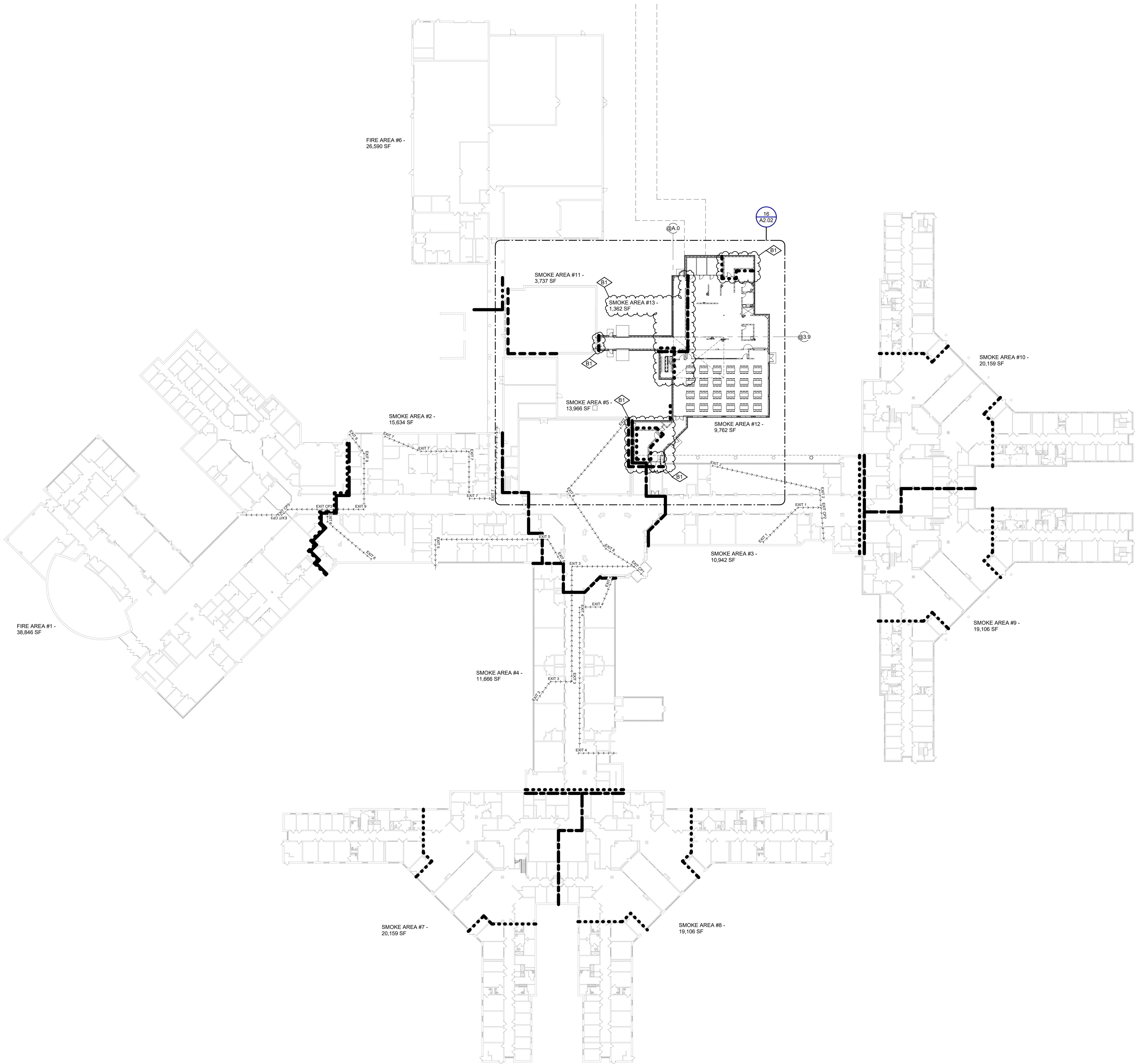
EACH TO HAVE:

| QTY |    | DESCRIPTION             | CATALOG NUMBER                     |   | FINISH | MFR |
|-----|----|-------------------------|------------------------------------|---|--------|-----|
| 1   | EA | CONT. HINGE             | 224HD SEC                          |  | 628    | IVE |
| 1   | EA | ANTILIGATURE TIP        | TIPIT                              |   | 628    | SEL |
| 1   | EA | CLASSROOM LOCK          | L9070BDC HSLR 09-663               |  | 630    | SCH |
| 1   | EA | H-SEC SURFACE<br>CLOSER | 4511T AVB                          |  | 689    | LCN |
| 1   | EA | KICK PLATE              | 8400 10" X 1 1/2" LDW B-CS<br>TKTX |  | 630    | IVE |
| 1   | EA | MAGNETIC HOLDER         | 2400LR                             |   | 689    | ABH |
| 1   | EA | GASKETING               | 488SBK PSA ZAG                     |  | BK     | ZER |

DOORS MAY BE HELD-OPEN ELECTRONICALLY. UPON ACTIVATION OF THE BUILDING FIRE  
ALARM SYSTEM, THE DOORS WILL CLOSE AND POSITIVELY LATCH.  
COORDINATE SYSTEM OPERATION AND COMPONENT LOCATIONS WITH THE OWNER, THE  
ARCHITECT AND ALL RELATED TRADES.

END OF SECTION

AutoCAD 2023 10/11/23 1:11 PM C:\Users\mfm\Documents\Center\Center 2021094.dwg 10/11/23 1:11 PM 10/11/23 1:11 PM



FIRST FLOOR CODE MASTER PLAN  
SCALE: 1/32" = 1'-0"

CODE LEGEND

- 3-HOUR BUILDING SEPARATION
- 2-HOUR BARRIER
- 1-HOUR ENCLOSURE / FIRE RESISTANCE RATING
- 1-HOUR SMOKE BARRIER
- TRAVEL DISTANCE
- 100% SPRINKLED
- DF DRINKING FOUNTAIN
- FE FIRE EXTINGUISHER
- 724 OCCUPANT LOAD
- # EXIT CAPACITY

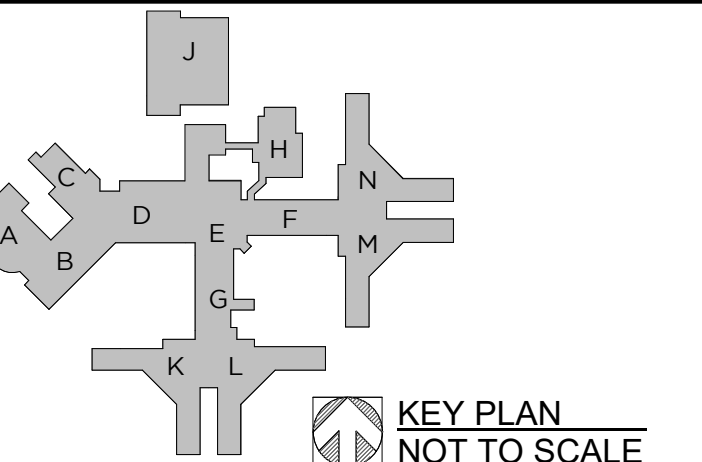
| CODE PLAN EGRESS PATH LENGTH |        |  |
|------------------------------|--------|--|
| PATH ID                      | LENGTH |  |
| EXIT CP1                     | 111'   |  |
| EXIT CP2                     | 26'    |  |
| EXIT CP3                     | 71'    |  |
| EXIT 1                       | 58'    |  |
| EXIT 2                       | 102'   |  |
| EXIT 3                       | 177'   |  |
| EXIT 4                       | 187'   |  |
| EXIT 5                       | 134'   |  |
| EXIT 6                       | 56'    |  |
| EXIT 7                       | 186'   |  |
| EXIT 8                       | 156'   |  |
| EXIT 9                       | 93'    |  |

NOTE: CP = COMMON PATH

| NO. | REVISION      | DATE     |
|-----|---------------|----------|
| B1  | BULLETIN NO 1 | 01/08/25 |

STATE OF MICHIGAN  
DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET  
FACILITIES AND BUSINESS SERVICES ADMINISTRATION  
DESIGN AND CONSTRUCTION DIVISION  
ADAM LACER, P.E., DIRECTOR

|                           |                        |
|---------------------------|------------------------|
| FILE NO.<br>491/20167.SDW | CONTRACT NO.<br>Y22003 |
|---------------------------|------------------------|



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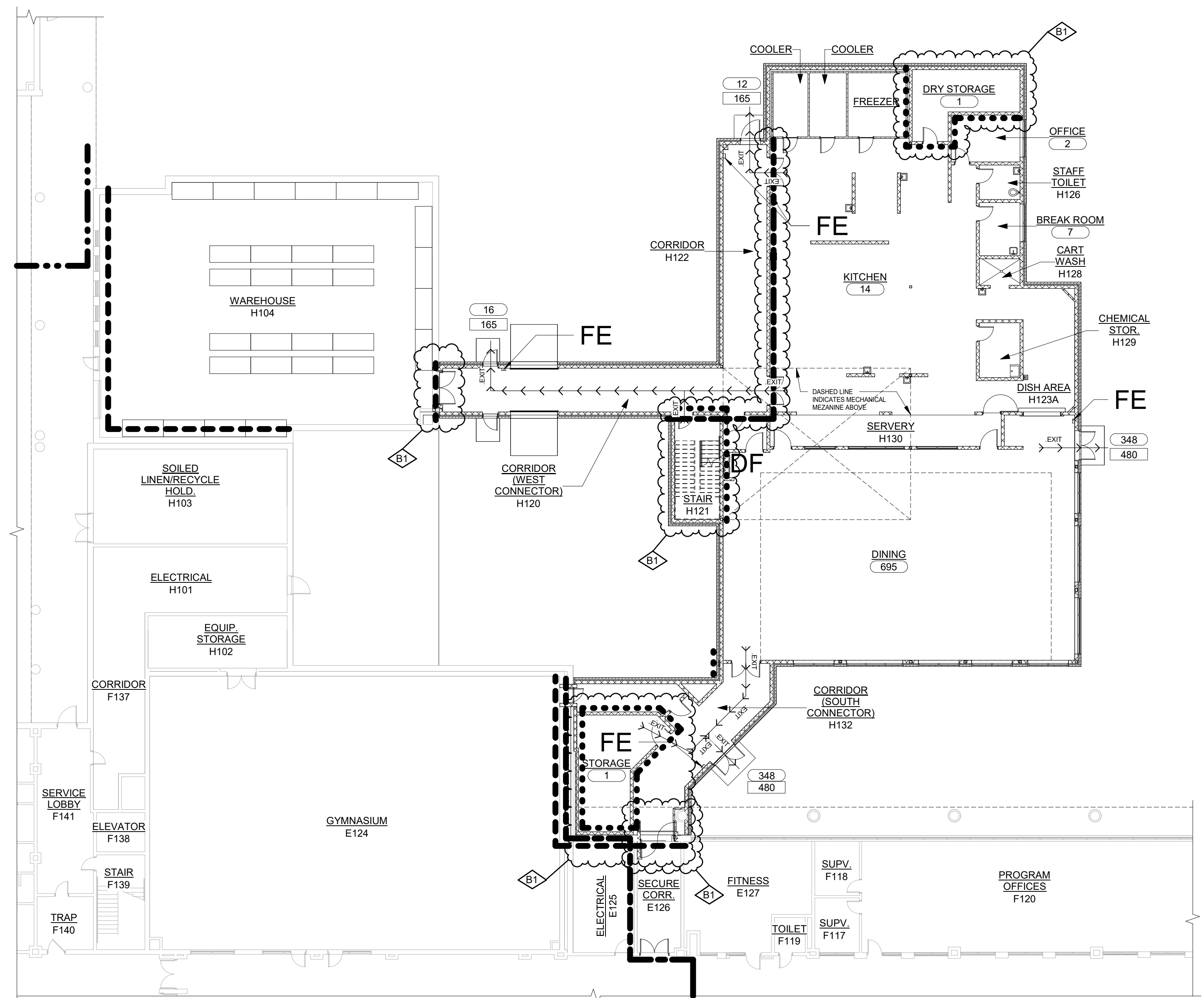
PROJECT TITLE  
491/20167.SDW - PHASE 500:  
CENTER FOR FORENSIC  
PSYCHIATRY - CREATE  
KITCHEN  
SALINE, MICHIGAN

SHEET TITLE  
FIRST FLOOR MASTER  
CODE AND TEMPORARY  
EGRESS PLAN

|                                   |                       |
|-----------------------------------|-----------------------|
| PROJECT NUMBER<br>2021094         | SHEET NUMBER<br>A2.01 |
| PROJECT DATE<br>SEPTEMBER 6, 2023 |                       |
| CHECKED BY<br>C.D.S.              |                       |



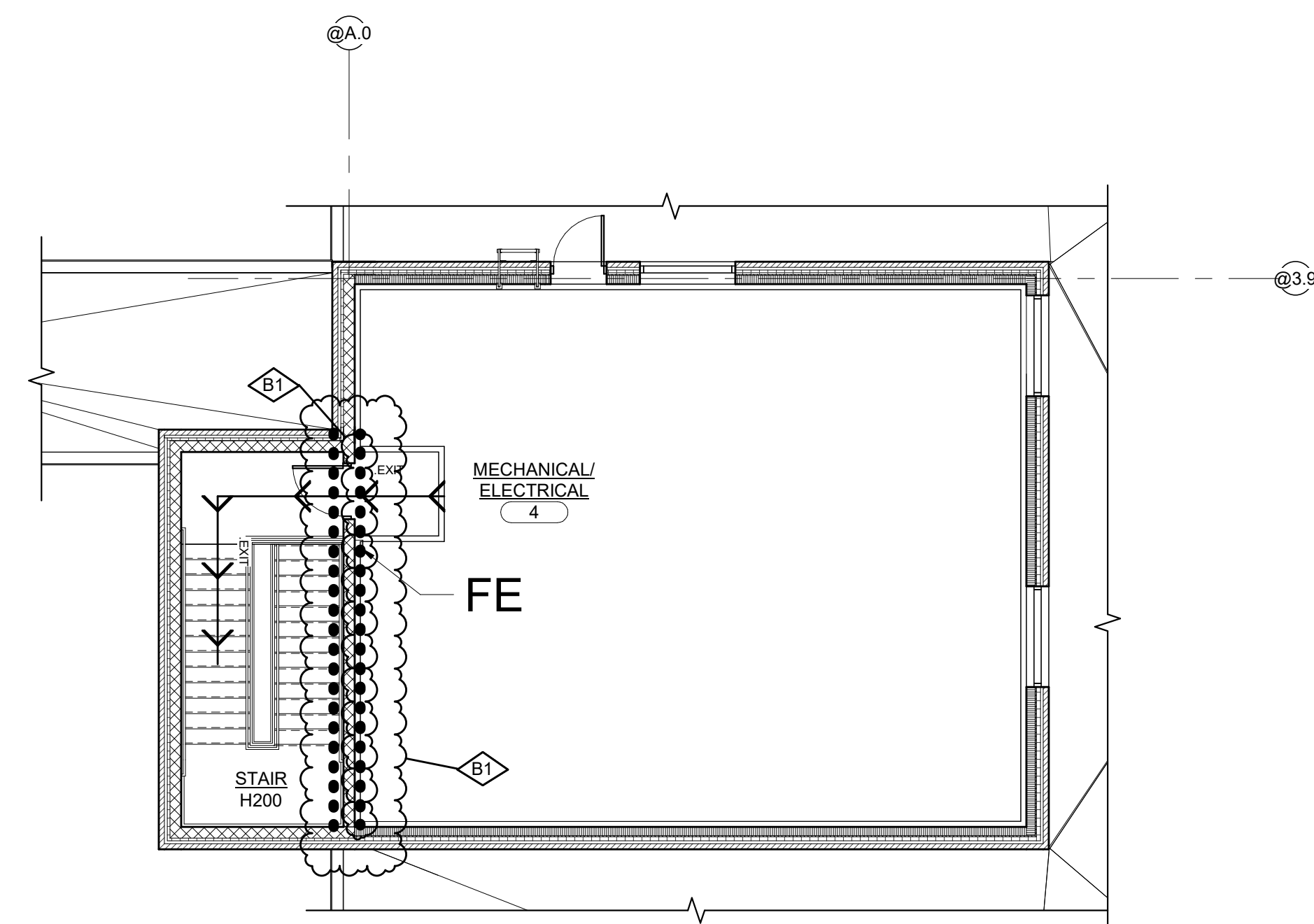
| CENTER FOR FORENSIC PSYCHIATRY - BUILDING CODE NOTES |   |  |                              |   |  |
|--|---|--|------------------------------|---|--|
| CODE REFERENCE                                       | 2012 NFPA<br>2015 MICHIGAN BUILDING CODE<br>ANSI A117.1<br>2015 PLUMBING CODE<br>2015 ELECTRICAL CODE<br>2015 MECHANICAL CODE |  |                              |   |  |
| DESCRIPTION  | REFERENCE   | EXISTING   | NEW ADDITION                 | REMARKS   |  |
| OCCUPANCY CLASSIFICATION                             | MBC 303.3 / 308.4   | I-2<br>CONDITION 1   | A-2                          | ASSEMBLY - DINING FACILITY & ASSOCIATED KITCHEN / INSTITUTIONAL - PSYCHIATRIC HOSPITAL  |  |
| CONSTRUCTION TYPE                                    | MBC 601   | IB   | IIB                          | TYPE IIB:<br>RATING FOR BLDG ELEMENTS = 0-HOUR<br>TYPE IB:<br>RATING FOR BLDG ELEMENTS = 2-HOUR<br>EXCEPTION:<br>NONBEAR INT WALLS = 0-HOUR<br>ROOF = 1-HOUR  |  |
| NONBEARING EXTERIOR WALL SEPARATION                  | MBC 602   | IB1 > 30 FT = 0-HOUR   | IIB.A = 0-HOUR               |   |  |
| FEATURES OF FIRE PROTECTION                          |   | FULLY SPRINKLED  |                              |   |  |
| BUILDING HEIGHT                                      | MBC 504.4   | ALLOWED - 5 STORIES - 180 FT.  | ALLOWED - 3 STORIES - 75 FT. | A-2: ACTUAL - 1 STORY - 18 FT.  |  |
| BUILDING AREA  | MBC 506.2   | UNLIMITED  | ALLOWED - 38,000 S.F.        | A-2: ACTUAL - 11,124 S.F.   |  |
| SEPARATED OCCUPANCIES                                | MBC 508.4   | I-2  | A-2                          | 2-HOUR FIRE BARRIER SEPARATION TO COMPLY WITH A-2 REQUIRMENTS   |  |
| INCIDENTAL USE AREAS                                 | MBC 509   | FURNACE ROOM WITH >400,000 BTU PER HOUR INPUT = 1-HOUR OR SPR.<br>BOILER ROOMS >15 PSI OR 10 HORSEPOWER = 1 HOUR OR SPR.<br><br>LAUNDRY ROOM > 100 S.F. = 1-HOUR<br>LABS = 1-HOUR & SPR.<br>PHY PLANT MAINT SHOPS = 1-HOUR |                              | BUILDING FULLY SPRINKLERED  |  |
| FIRE BARRIERS  | MBC 707   | SEPARATED OCCUPANCIES  |                              | CONTINUITY: TOP OF FND OR FLR/CLG ASSEMBLY TO UNDERSIDE OF FLR OR ROOF ABOVE - CONT THRU OUT CONCEALED SPACES   |  |
| INTERIOR WALL/CEILING FINISHES                       | MBC TABLE 803.11  | INTERIOR EXIT STAIRWAYS - B<br>CORRIDORS - B<br><br>ROOMS AND ENCLOSED SPACES - B<br>ADMIN - C<br>≤ 4 OCC - C  |                              | ROOMS AND ENCLOSED SPACES - C   |  |
| OCCUPANT LOAD  | MBC 1004.1.2  | STOR/MECH 1,300 S.F. (GROSS)<br>WAREHOUSE 1/500 S.F. (GROSS)<br><br>INPAT 1,240 S.F. (GROSS)<br>SLEEPING 1/120 S.F. (GROSS)  |                              | KITCHEN 1,200 S.F. (GROSS)<br>DINING ROOM/SERVING 1/5 S.F. (NET)  |  |
| FIRE EXTINGUISHERS                                   | NFPA 10   | 75' MAXIMUM DISTANCE APART   |                              | A-2 : TOTAL OCCUPANTS = 718   |  |
| COMMON PATH EGRESS TRAVEL                            | MBC 1006.2.1  | 75'  |                              | THAT PORTION OF THE EXIT ACCESS TRAVEL DISTANCE MEASURED FROM THE MOST REMOTE POINT WITHIN A STORY TO THAT POINT WHERE THE OCCUPANTS HAVE SEPARATE AND DISTINCT ACCESS TO TWO EXITS OR EXIT ACCESS DOOR-WAYS. |  |
| NUMBER OF EXITS                                      | MBC 1006.3.1  | REQUIRED:<br>(1) KITCHEN<br>(2) DINING   |                              | PROVIDED:<br>(2) DINING ROOM<br>(2) KITCHEN   |  |
| EXIT ACCESS TRAVEL DISTANCE                          | MBC 1017.2  | 200 FT.  |                              | 250 FT.   |  |
| CORRIDOR FIRE RESISTANCE                             | MBC 1020.1  | w/ SPRINKLER = 0 HOUR  |                              | FULLY SPRINKLERED   |  |
| MINIMUM CORRIDOR WIDTH                               | MBC 1020.2  | MIN. 44 INCHES<br><br>MIN. 96 INCHES FOR BED CLEARANCE   |                              |   |  |
| DEAD END CORRIDORS                                   | MBC 1020.4  | 20 FT.   |                              |   |  |
| ACCESSIBILITY  | MBC 1101.2  | DESIGNED AND CONSTRUCTED TO BE ACCESSIBLE  |                              |   |  |
| PLUMBING FIXTURES                                    | MPC TABLE 403.1   | NO ADDITIONAL STAFF OR PATIENTS ARE BEING ADDED TO THE FACILITY  |                              |   |  |
| ENERGY EFFICIENCY                                    | MEC   | ROOF - INSULATION ENTIRELY ABOVE DECK = R-30 CI<br>WALLS - MASS = R-11.4 C.I.<br>SLAB ON GRADE = R-15 FOR 24IN.  |                              |   |  |



16  
A2.02

FIRST FLOOR CODE PLAN

SCALE: 1/16" = 1'-0"











28  
A2.02

SECOND FLOOR CODE PLAN

SCALE: 1/8" = 1'-0"

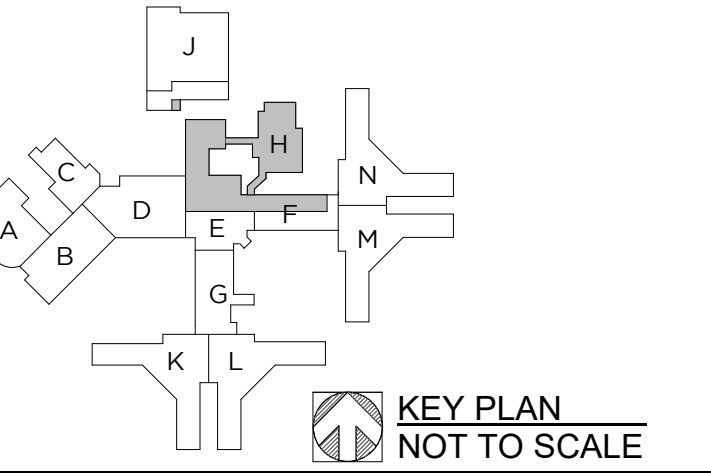
## CODE LEGEND

|   |   |
|---|---|
|    | 3-HOUR BUILDING SEPARATION                |
|    | 2-HOUR BARRIER                            |
|   | 1-HOUR ENCLOSURE / FIRE RESISTANCE RATING |
|  | 1-HOUR SMOKE BARRIER                      |
|  | TRAVEL DISTANCE                           |
|  | 100% SPRINKLED                            |
| <b>DF</b>   | DRINKING FOUNTAIN                         |
| <b>FE</b>   | FIRE EXTINGUISHER                         |
|  | OCCUPANT LOAD                             |
|  | EXIT CAPACITY                             |

|    |               |          |
|----|---------------|----------|
| 1  | BULLETIN NO 1 | 01/08/25 |
| O. | REVISION      | DATE     |

STATE OF MICHIGAN  
DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET  
FACILITIES AND BUSINESS SERVICES ADMINISTRATION  
DESIGN AND CONSTRUCTION DIVISION  
ADAM LACH, RA, DIRECTOR

|                             |                        |
|-----------------------------|------------------------|
| FILE NO.<br>91/20167.SDW    |                        |
| BIDDING CODE<br>1CODHHS7255 | CONTRACT NO.<br>Y22003 |




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PROJECT TITLE  
491/20167.SDW - PHASE 500:  
CENTER FOR FORENSIC  
PSYCHIATRY - CREATE  
KITCHEN  
ALINE, MICHIGAN

SHEET TITLE  
FIRST FLOOR PARTIAL  
CODE PLAN

|                                   |              |
|-----------------------------------|--------------|
| PROJECT NUMBER<br>2021094         | SHEET NUMBER |
| PROJECT DATE<br>SEPTEMBER 6, 2023 | A2.02        |
| CHECKED BY<br>C.D.S.              |              |



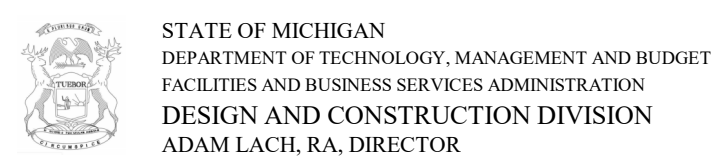
CONSTRUCTION GENERAL NOTES:

- WALL TYPES ARE INDICATED AS A DIAMOND WITH A NUMBER. REFER TO SHEET A0.01 FOR DESCRIPTION OF WALL TYPES.
- PLAN DIMENSIONS DO NOT INCLUDE WALL THICKNESS (REFER TO WALL TYPES).
- DOOR FRAMES ARE TO BE LOCATED 8" FROM THE PERPENDICULAR WALL ON THE HINGE SIDE OF THE DOOR AT MASONRY WALLS, UNLESS NOTED OTHERWISE.
- PROVIDE BLOCKING AT ALL WALL MOUNTED ITEMS INCLUDING BUT NOT LIMITED TO: PLUMBING ACCESSORIES, KITCHEN EQUIPMENT, ETC.
- ALL AREAS DAMAGED BY DEMOLITION WORK ARE TO BE PATCHED AND REPAIRED OR REPLACED TO MATCH ADJACENT SURFACES.
- PATCH AND REPAIR REMAINING WALLS, AT ARCHITECTURAL, MECHANICAL, AND ELECTRICAL DEMOLITION POINTS WITH SIMILAR MATERIALS IN SIZE, COLOR AND TEXTURE.
- PATCH AND REPAIR ALL EXISTING FLOORS AS REQUIRED WHERE EXISTING WALLS HAVE BEEN REMOVED.
- FURNITURE OR EQUIPMENT TO BE BUILT AND/ORG INSTALLED BY CONTRACTOR IS SPECIFICALLY NOTED, DIMENSIONED OR DETAILED. ALL OTHER FURNITURE OR EQUIPMENT WILL BE PROVIDED AND INSTALLED BY OWNER.
- FOR CASEWORK DETAILS - REFER TO "NORTHERN AMERICA ARCHITECTURAL WOODWORK STANDARDS (A.W.S.).
- CASEWORK DESIGNATION REFERS TO THE WIDTH (W) AND DEPTH (D) OF THE CABINET. REFER TO DIMENSIONS FOR HEIGHT. REFER TO "A.W.S." FOR CABINET NUMBER LOCATED BELOW DIMENSION LINE.

CONSTRUCTION KEYNOTES

- CONCRETE ENTRY SLAB (REFER TO STRUCTURAL)
- PLUMBING FIXTURE (REFER TO MECHANICAL)
- CASEWORK (REFER TO ELEVATIONS AND DETAILS)
- STAINLESS STEEL GRAB BARS
- PAPER TOWEL DISPENSER
- TOILET PAPER DISPENSER
- SANITARY NAPKIN RECEPTACLE
- MIRROR 18" x 36"
- SOAP DISPENSER
- RECESSED FIRE EXTINGUISHER CABINET
- FURNITURE AND EQUIPMENT (BY OWNER)
- SEMI-RECESSED DETENTION FIRE EXTINGUISHER CABINET
- PATCH AND REPAIR WALL CONSTRUCTION, WALL BASE, AND FLOORING TO MATCH EXISTING.
- COORDINATE LOCATION OF FLOOR TILE MOVEMENT JOINTS WITH ARCHITECT, TYPICAL OF TCNA EJ-171
- FIN TUBE RADIATOR (REFER TO MECHANICAL)
- PROVIDE NEW WATER COLD FLUID-APPLIED WATERPROOFING ALONG THE EXENT OF THE EXISTING FOUNDATION WALL - REFER TO CIVIL FOR COORDINATION OF NEW SIDEWALK, NEW ENTRY SLAB, AND FENCE MODIFICATIONS - USE CAUTION AS UNDERGROUND LINES ARE LOCATED IN THIS AREA
- MECHANICAL CHASE VERIFY SIZE WITH KITCHEN EQUIPMETN MFR. AND MECHANICAL (REFER TO MECHANICAL)
- MECHANICAL CHASE VERIFY CLEAR WIDTH REQUIRED WITH MECHANICAL (REFER TO MECHANICAL)
- EYE WASH STATION (REFER TO FOOD SERVICE AND MECHANICAL)
- SEMI-RECESSED WET CHEMICAL FIRE EXTINGUISHER CABINET
- REFER TO MECHANICAL AND ELECTRICAL DRAWINGS.

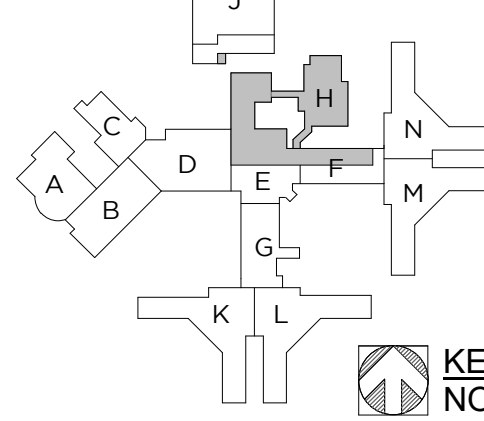
| NO. | REVISION      | DATE     |
|-----|---------------|----------|
| B1  | BULLETIN NO 1 | 01/08/25 |



FILE NO.  
491/20167.SDW

FUNDING CODE  
17ICODHHS7255

CONTRACT NO.  
Y22003



KEY PLAN  
NOT TO SCALE

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PROJECT TITLE  
491/20167.SDW - PHASE 500:  
CENTER FOR FORENSIC  
PSYCHIATRY - CREATE  
KITCHEN

SALINE, MICHIGAN

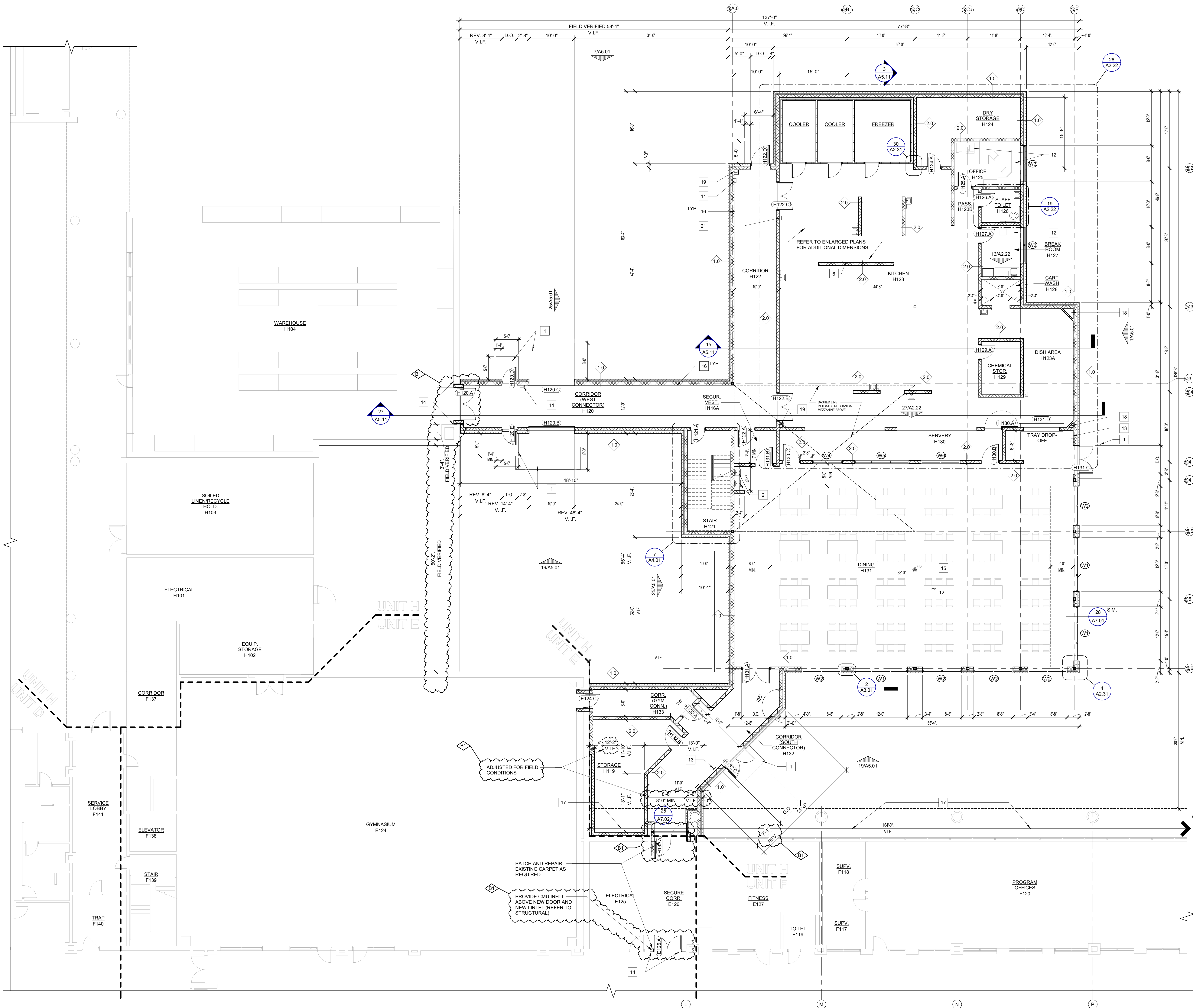
SHEET TITLE  
**FIRST FLOOR  
CONSTRUCTION PLAN**

PROJECT NUMBER  
2021094

PROJECT DATE  
SEPTEMBER 6, 2023

CHECKED BY  
C.D.S.

SHEET NUMBER  
**A2.21**



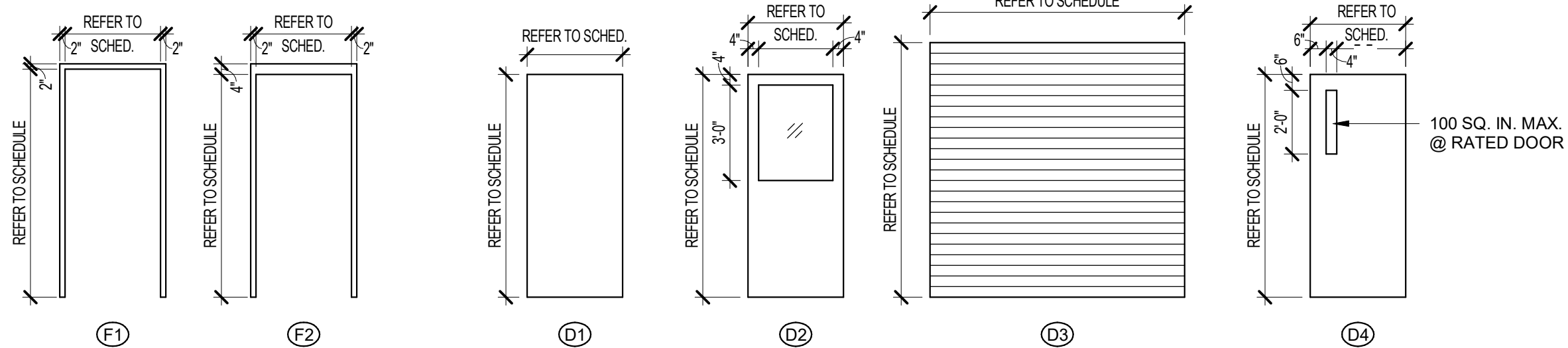
**FIRST FLOOR CONSTRUCTION PLAN**  
SCALE: 1/8" = 1'-0"



| ROOM FINISH SCHEDULE |                            |                |                 |                 |             |                 |             |          |             |        |             |        |             |          |              |          |
|----------------------|----------------------------|----------------|-----------------|-----------------|-------------|-----------------|-------------|----------|-------------|--------|-------------|--------|-------------|----------|--------------|----------|
| ROOM NO.             | ROOM NAME                  | FLOOR          | BASE            | MAT.            | FINISH      | MAT.            | FINISH      | MAT.     | FINISH      | MAT.   | FINISH      | MAT.   | FINISH      | CEILING  | CL.G. HEIGHT | REMARKS  |
| E124                 | GYMNASIUM                  | EXISTING       | EXIST.          | EXIST.          | PAINT       | EXIST. / C.M.U. | PAINT       | EXIST.   | PAINT       | EXIST. | PAINT       | EXIST. | PAINT       | EXIST.   | EXIST.       | O        |
| E126                 | SECURE CORR.               | EXIST. / CORR. | EXIST. / R.W.B. | EXIST. / C.M.U. | PAINT       | EXIST.          | PAINT       | EXIST.   | PAINT       | EXIST. | PAINT       | EXIST. | PAINT       | EXIST.   | EXIST.       | O        |
| H104                 | WAREHOUSE                  | EXISTING       | EXIST.          | EXIST.          | EXIST.      | EXIST.          | EXIST.      | EXIST.   | EXIST.      | EXIST. | EXIST.      | EXIST. | EXIST.      | EXIST.   | EXIST.       | O        |
| H116A                | SECUR. VEST.               | C. TILE        | C. TILE         | C.M.U.          | PAINT       | C.M.U.          | PAINT       | C.M.U.   | PAINT       | C.M.U. | PAINT       | C.M.U. | PAINT       | SAT-1    | --           | 9'-0" L  |
| H119                 | STORAGE                    | RTF            | R.W.B.          | C.M.U.          | PAINT       | C.M.U.          | PAINT       | C.M.U.   | PAINT       | C.M.U. | PAINT       | C.M.U. | PAINT       | SAT-1    | --           | 9'-0" L  |
| H120                 | CORRIDOR (WEST CONNECTOR)  | SEALED CONC.   | R.W.B.          | C.M.U.          | PAINT       | --              | --          | C.M.U.   | PAINT       | C.M.U. | PAINT       | C.M.U. | PAINT       | SAT-1    | --           | 9'-0" L  |
| H121                 | STAIR                      | SEALED CONC.   | R.W.B.          | C.M.U.          | EPOXY PAINT | C.M.U.          | EPOXY PAINT | C.M.U.   | EPOXY PAINT | C.M.U. | EPOXY PAINT | C.M.U. | EPOXY PAINT | EXP.     | PAINT        | L        |
| H122                 | CORRIDOR                   | SEALED CONC.   | R.W.B.          | C.M.U.          | PAINT       | C.M.U.          | PAINT       | C.M.U.   | PAINT       | C.M.U. | PAINT       | C.M.U. | PAINT       | SAT-1    | --           | 9'-0" L  |
| H123                 | KITCHEN                    | RSF            | RSF COVE        | C.M.U.          | EPOXY PAINT | C.M.U.          | EPOXY PAINT | C.M.U.   | EPOXY PAINT | C.M.U. | EPOXY PAINT | C.M.U. | EPOXY PAINT | SAT-2    | --           | 9'-0" N  |
| H123A                | DISH AREA                  | RSF            | RSF COVE        | C.M.U.          | EPOXY PAINT | C.M.U.          | EPOXY PAINT | C.M.U.   | EPOXY PAINT | C.M.U. | EPOXY PAINT | C.M.U. | EPOXY PAINT | SAT-2    | --           | 9'-0" N  |
| H124                 | DRY STORAGE                | RSF            | RSF COVE        | C.M.U.          | EPOXY PAINT | C.M.U.          | EPOXY PAINT | C.M.U.   | EPOXY PAINT | C.M.U. | EPOXY PAINT | C.M.U. | EPOXY PAINT | SAT-2    | --           | 8'-0" N  |
| H125                 | OFFICE                     | RSF            | R.W.B.          | C.M.U.          | PAINT       | C.M.U.          | PAINT       | C.M.U.   | PAINT       | C.M.U. | PAINT       | C.M.U. | PAINT       | SAT-1    | --           | 10'-0" L |
| H126                 | STAFF TOILET               | RSF            | R.W.B.          | C.M.U.          | EPOXY PAINT | C.M.U.          | EPOXY PAINT | C.M.U.   | EPOXY PAINT | C.M.U. | EPOXY PAINT | C.M.U. | EPOXY PAINT | SAT-2    | --           | 8'-0" L  |
| H127                 | BREAK ROOM                 | RSF            | R.W.B.          | C.M.U.          | EPOXY PAINT | C.M.U.          | EPOXY PAINT | C.M.U.   | EPOXY PAINT | C.M.U. | EPOXY PAINT | C.M.U. | EPOXY PAINT | SAT-1    | --           | 10'-0" L |
| H128                 | CART WASH                  | RSF            | RSF COVE        | C.M.U.          | EPOXY PAINT | C.M.U.          | EPOXY PAINT | C.M.U.   | EPOXY PAINT | C.M.U. | EPOXY PAINT | C.M.U. | EPOXY PAINT | SAT-2    | --           | 9'-0" N  |
| H129                 | CHEMICAL STOR.             | RSF            | RSF COVE        | C.M.U.          | EPOXY PAINT | C.M.U.          | EPOXY PAINT | C.M.U.   | EPOXY PAINT | C.M.U. | EPOXY PAINT | C.M.U. | EPOXY PAINT | SAT-2    | --           | 9'-0" N  |
| H130                 | SERVERY                    | C. TILE        | C. TILE         | C.M.U.          | PAINT       | C.M.U.          | PAINT       | C.M.U.   | PAINT       | C.M.U. | PAINT       | C.M.U. | PAINT       | SAT-2    | --           | 9'-0" L  |
| H131                 | DINING                     | C. TILE        | C. TILE         | C.M.U.          | PAINT       | C.M.U.          | PAINT       | C.M.U.   | PAINT       | C.M.U. | PAINT       | C.M.U. | PAINT       | GYP. BD. | EPOXY PAINT  | M        |
| H132                 | CORRIDOR (SOUTH CONNECTOR) | C. TILE        | C. TILE         | C.M.U.          | PAINT       | C.M.U.          | PAINT       | C.M.U.   | PAINT       | C.M.U. | PAINT       | C.M.U. | PAINT       | SAT-1    | --           | 8'-0" L  |
| H133                 | CORR. (GYM CONN.)          | RTF            | R.W.B.          | C.M.U.          | PAINT       | C.M.U.          | PAINT       | C.M.U.   | PAINT       | C.M.U. | PAINT       | C.M.U. | PAINT       | EXP.     | EPOXY PAINT  |          |
| H200                 | STAIR                      | SEALED CONC.   | R.W.B.          | C.M.U.          | EPOXY PAINT | C.M.U.          | EPOXY PAINT | C.M.U.   | EPOXY PAINT | C.M.U. | EPOXY PAINT | C.M.U. | EPOXY PAINT | EXP.     | EPOXY PAINT  |          |
| H201                 | MECHANICAL/ ELECTRICAL     | SEALED CONC.   | --              | GYP. BD.        | EPOXY PAINT | GYP. BD.        | EPOXY PAINT | GYP. BD. | EPOXY PAINT | C.M.U. | EPOXY PAINT | EXP.   | EPOXY PAINT |          |              |          |

| DOOR & FRAME SCHEDULE |                            |           |        |        |        |        |      |            |      |              |              |               |                   |      |               |  |
|-----------------------|----------------------------|-----------|--------|--------|--------|--------|------|------------|------|--------------|--------------|---------------|-------------------|------|---------------|--|
| DOOR NUMBER           | ROOM NAME                  | DOOR PAIR | WIDTH  | HEIGHT | THK.   | MAT.   | TYPE | FRAME MAT. | TYPE | HEAD         | JAMB         | SILL          | FIRE RATING LABEL | MIN. | REMARKS       |  |
| E124.C                | CORR. (GYM CONN.)          |           | 3'-0"  | 7'-0"  | 1 3/4" | H.M.   | D2   | H.M.       | F2   | 27/A7.02 SIM | 11/A2.31     | 30/A7.02 SIM. |                   | 90   | A, B, K, V    |  |
| E126.A                | SECURE CORR.               | X         | 3'-0"  | 7'-0"  | 1 3/4" | H.M.   | D2   | H.M.       | F2   | 20/A3.01 SIM | 25/A3.01     | --            |                   | 20   | B, C, D, G, V |  |
| H120.A                | CORR. (W. CONN.)           | X         | 3'-6"  | 7'-0"  | 1 3/4" | H.M.   | D4   | H.M.       | F2   | 27/A7.02     | 1/A2.31      | 30/A7.02      |                   | 90   | B, C, G, W    |  |
| H120.B                | CORR. (W. CONN.)           |           | 10'-0" | 8'-0"  | 1 3/8" | STEEL  | D3   | STEEL      | -    | 27/A3.01     | 28/A3.01     | --            |                   |      | H             |  |
| H120.C                | CORRIDOR (WEST CONNECTOR)  |           |        |        | 1 3/8" | STEEL  | D3   | STEEL      | -    | 27/A3.01     | 28/A3.01     | --            |                   |      | H             |  |
| H120.D                | CORR. (W. CONN.)           |           | 3'-0"  | 7'-2"  | 1 3/4" | H.M.   | D2   | H.M.       | F1   | 21/A3.01     | 29/A2.31 SIM | --            | B1                |      | C, G, T       |  |
| H120.E                | CORRIDOR (WEST CONNECTOR)  |           | 3'-0"  | 7'-2"  | 1 3/4" | H.M.   | D2   | H.M.       | F1   | 21/A3.01     | 29/A2.31 SIM | --            |                   |      | C, G, T       |  |
| H121.A                | STAIR                      |           | 3'-0"  | 7'-2"  | 1 3/4" | H.M.   | D4   | H.M.       | F1   | 30/A3.01     | 6/A2.31      | --            | B                 | 60   | A, H, R, W    |  |
| H122.A                | SECUR. VEST.               |           | 3'-8"  | 7'-2"  | 1 3/4" | WD.    | D2   | H.M.       | F1   | 20/A3.01     | 6/A2.31      | --            |                   |      | C, F, G, S    |  |
| H122.B                | CORRIDOR                   | X         | 3'-0"  | 7'-2"  | 1 3/4" | WD.    | D2   | H.M.       | F1   | 20/A3.01     | 6/A2.31      | --            |                   |      | C, G, R, Y    |  |
| H122.C                | CORRIDOR                   | X         | 3'-0"  | 7'-2"  | 1 3/4" | WD.    | D2   | H.M.       | F1   | 30/A3.01     | 6/A2.31      | --            | B1                |      | C, G, R, Y    |  |
| H122.D                | CORRIDOR                   |           | 4'-0"  | 7'-2"  | 1 3/4" | H.M.   | D2   | H.M.       | F1   | 21/A3.01     | 29/A2.31     | --            |                   |      | C, D, G, T    |  |
| H124.A                | DRY STORAGE                |           | 3'-0"  | 7'-2"  | 1 3/4" | H.M.   | D1   | H.M.       | F1   | 20/A3.01     | 6/A2.31      | --            |                   | 45   | A, H          |  |
| H125.A                | OFFICE                     |           | 3'-0"  | 7'-2"  | 1 3/4" | WD.    | D2   | H.M.       | F1   | 20/A3.01     | 6/A2.31      | --            |                   |      | H, R          |  |
| H126.A                | STAFF TOILET               |           | 3'-0"  | 7'-2"  | 1 3/4" | H.M.   | D1   | H.M.       | F1   | 20/A3.01     | 6/A2.31      | --            |                   |      | H             |  |
| H127.A                | BREAK ROOM                 |           | 3'-0"  | 7'-2"  | 1 3/4" | WD.    | D2   | H.M.       | F1   | 20/A3.01     | 6/A2.31      | --            |                   |      | H, R          |  |
| H129.A                | CHEMICAL STOR.             |           | 3'-0"  | 7'-2"  | 1 3/4" | H.M.   | D1   | H.M.       | F1   | 20/A3.01     | 6/A2.31      | --            |                   |      | H             |  |
| H130.A                | SERVERY                    |           | 3'-8"  | 7'-2"  | 1 3/4" | WD.    | D1   | H.M.       | F1   | 20/A3.01     | 6/A2.31      | --            |                   |      | C, G          |  |
| H130.B                | SERVERY                    |           | 3'-8"  | 7'-2"  | 1 3/4" | WD.    | D2   | H.M.       | F1   | 20/A3.01     | 6/A2.31      | --            |                   |      | H, S, Y       |  |
| H130.C                | SERVERY                    |           | 3'-8"  | 7'-2"  | 1 3/4" | WD.    | D2   | H.M.       | F1   | 20/A3.01     | 6/A2.31      | --            |                   |      | H, S, Y       |  |
| H131.A                | CORR. (S. CONN.)           | X         | 3'-0"  | 7'-2"  | 1 3/4" | WD.    | D2   | H.M.       | F1   | 20/A3.01     | 6/A2.31      | --            |                   |      | B, H, S       |  |
| H131.B                | CORR. (S. CONN.)           |           | 3'-0"  | 7'-2"  | 1 3/4" | WD.    | D2   | H.M.       | F1   | 20/A3.01     | 6/A2.31      | --            |                   |      | G, J, P, Q, S |  |
| H131.C                | DINING                     | X         | 3'-0"  | 7'-2"  | 1 3/4" | D.H.M. | D2   | D.H.M.     | F1   | 29/A3.01     | 5/A2.31      | --            | B1                |      | A, D, E, G, U |  |
| H131.D                |                            |           |        |        | 1/2"   | STEEL  | D3   | STEEL      | -    | 26/A3.01     | 26/A2.31     | 26/A3.01      |                   |      | X             |  |
| H132.A                | SECURE CORR.               | X         | 3'-6"  | 7'-0"  | 0"     | H.M.   | D4   | H.M.       | F2   | 27/A7.02     | 13/A2.31     | 30/A7.02      |                   | 90   | B, H, V       |  |
| H132.B                | STORAGE                    |           | 3'-8"  | 7'-2"  | 1 3/4" | H.M.   | D1   | H.M.       | F1   | 20/A3.01     | 6/A2.31      | --            |                   | 45   | A, H          |  |
| H132.C                | CORRIDOR (SOUTH CONNECTOR) | X         | 3'-0"  | 7'-2"  | 1 3/4" | D.H.M. | D2   | D.H.M.     | F1   | 21/A3.01     | 5/A2.31      | --            | B1                |      | A, D, E, G, U |  |
| H133.A                | CORR. (GYM CONN.)          |           | 3'-0"  | 7'-2"  | 1 3/4" | WD.    | D4   | H.M.       | F1   | 20/A3.01     | 6/A2.31      | --            |                   |      | D, K, S       |  |
| H200.A                | STAIR                      |           | 3'-0"  | 7'-2"  | 1 3/4" | H.M.   | D4   | H.M.       | F1   | 20/A3.01     | 6/A2.31      | --            | B                 | 60   | A, H, R, W    |  |
| H201.A                | STAIR                      |           | 3'-0"  | 7'-2"  | 1 3/4" | H.M.   | D1   | H.M.       | F1   | 22/A3.01     | 22/A3.01 SIM | --            |                   |      | H             |  |

| FINISH MATERIAL SCHEDULE        |                  |               |                          |               |   |
|---------------------------------|------------------|---------------|--------------------------|---------------|---|
| MATERIAL                        | MANUFACTURER     | STYLE         | COLOR                    | SIZE          | REMARKS   |
| C. TILE - CERAMIC TILING        | STONEPEAK        | SIMPLY MODERN | SIMPLY TAN, HONED FINISH | 12"x24"       | WITH MATCHING SIMPLY MODERN 6"x12" COVE BASE, LATICRETE GROUT     |
| PAINT - CEILINGS                | SHERWIN-WILLIAMS |               | SW1004 PURE WHITE        |               | COLOR: HEMP 27, 1/3 ASHLAR LAYING PATTERN                         |
| PAINT - EXTERIOR DOORS & FRAMES | SHERWIN-WILLIAMS |               | SW1004 PURE WHITE        |               |   |
| PAINT - INTERIOR DOORS & FRAMES | SHERWIN-WILLIAMS |               | SW1099 KNUBBY WOOL       |               |   |
| PAINT - STAIRS & RAILINGS       | SHERWIN-WILLIAMS |               | SW6215 ROCKY RIVER       |               |   |
| PAINT - WALLS                   | SHERWIN-WILLIAMS |               | SW1102 CHENILLE WHITE    |               |   |
| RSF - RESILIENT SHEET VINYL     | PROTECT-ALL      | CLASSIC       | LIGHT GRAY               | 5 FT. x 8 FT. | WITH MATCHING PROTECT-ALL 6" COVE BASE SYSTEM - ONLY WHERE NOTED. |
| RTF - RESILIENT TILE FLOORING   | TARKETT          | ID LATITUDE   | HEARTHSTONE              | 18"x18"       | DIRECT GLUE DOWN  |
| RWB - RESILIENT WALL BASE       | TARKETT          | TP RUBBER     | CHARCOAL 20              | 4" COVE       |   |
| SAT-1 - SUSPENDED ACOUSTIC TILE | ARMSTRONG        | PERFUSION     | WHITE                    | 24"x24"       |   |
| SAT-2 - SUSPENDED ACOUSTIC TILE | ARMSTRONG        | KITCHEN ZONE  | WHITE                    | 24"x24"       |   |

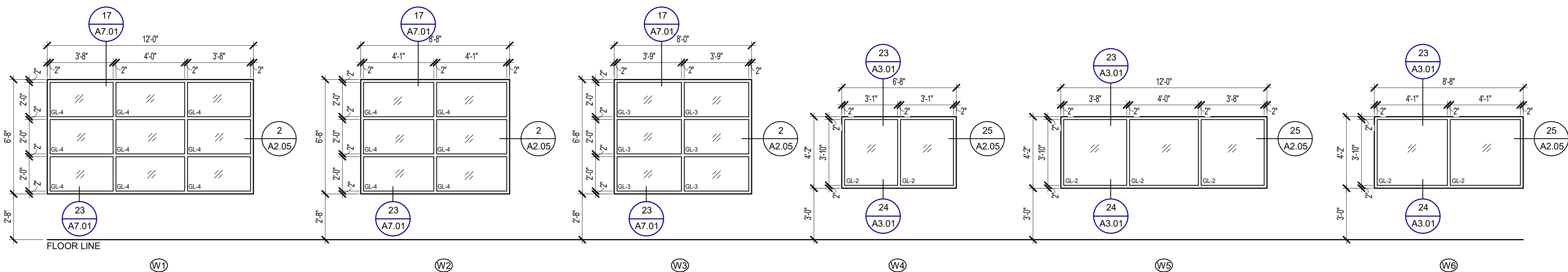


#### DOOR FRAMES

1/4" = 1'-0"

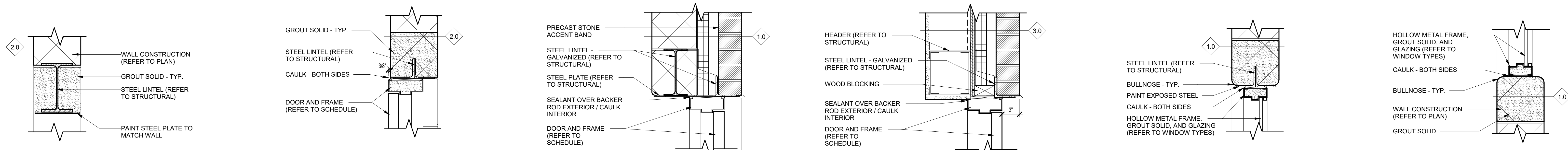
#### DOOR TYPES

1/4" = 1'-0"



#### WINDOW TYPES

1/4" = 1'-0"



19 A3.01 OPENING HEAD DETAIL @ SERVERY  
SCALE: 1 1/2" = 1'-0"

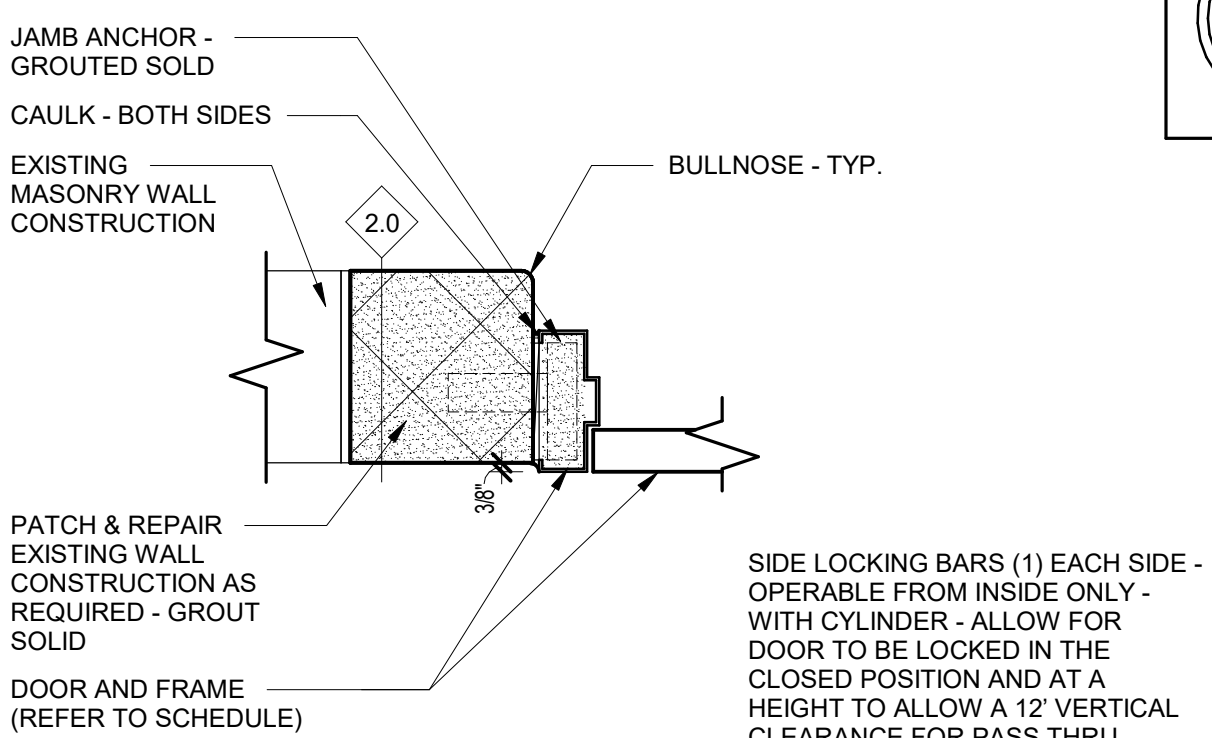
20 A3.01 TYP. INT DOOR HEAD DETAIL  
SCALE: 1 1/2" = 1'-0"

21 A3.01 TYP. EXT DOOR HEAD DETAIL  
SCALE: 1 1/2" = 1'-0"

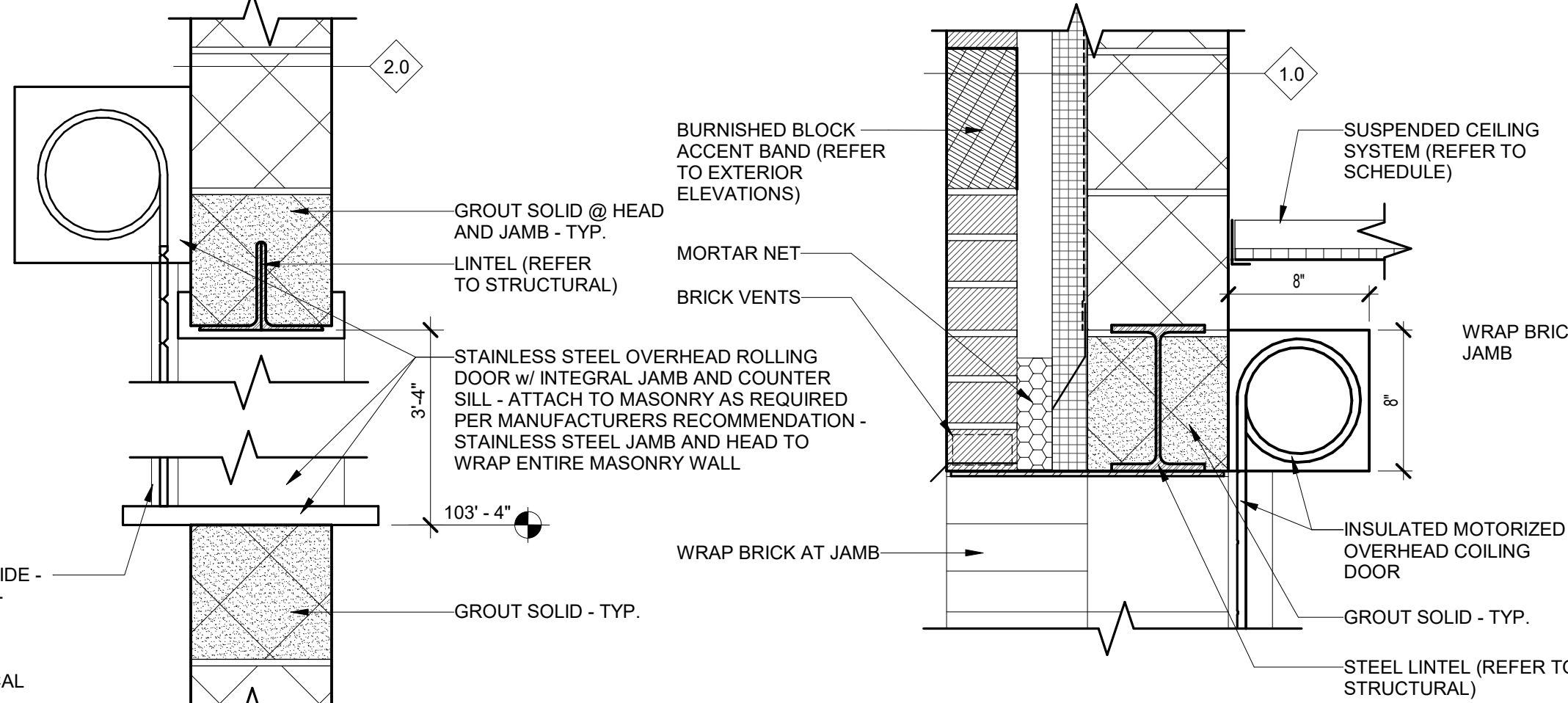
22 A3.01 DOOR HEAD DETAIL @ MECHANICAL / ELECTRICAL  
SCALE: 1 1/2" = 1'-0"

23 A3.01 TYP. WINDOW HEAD DETAIL  
SCALE: 1 1/2" = 1'-0"

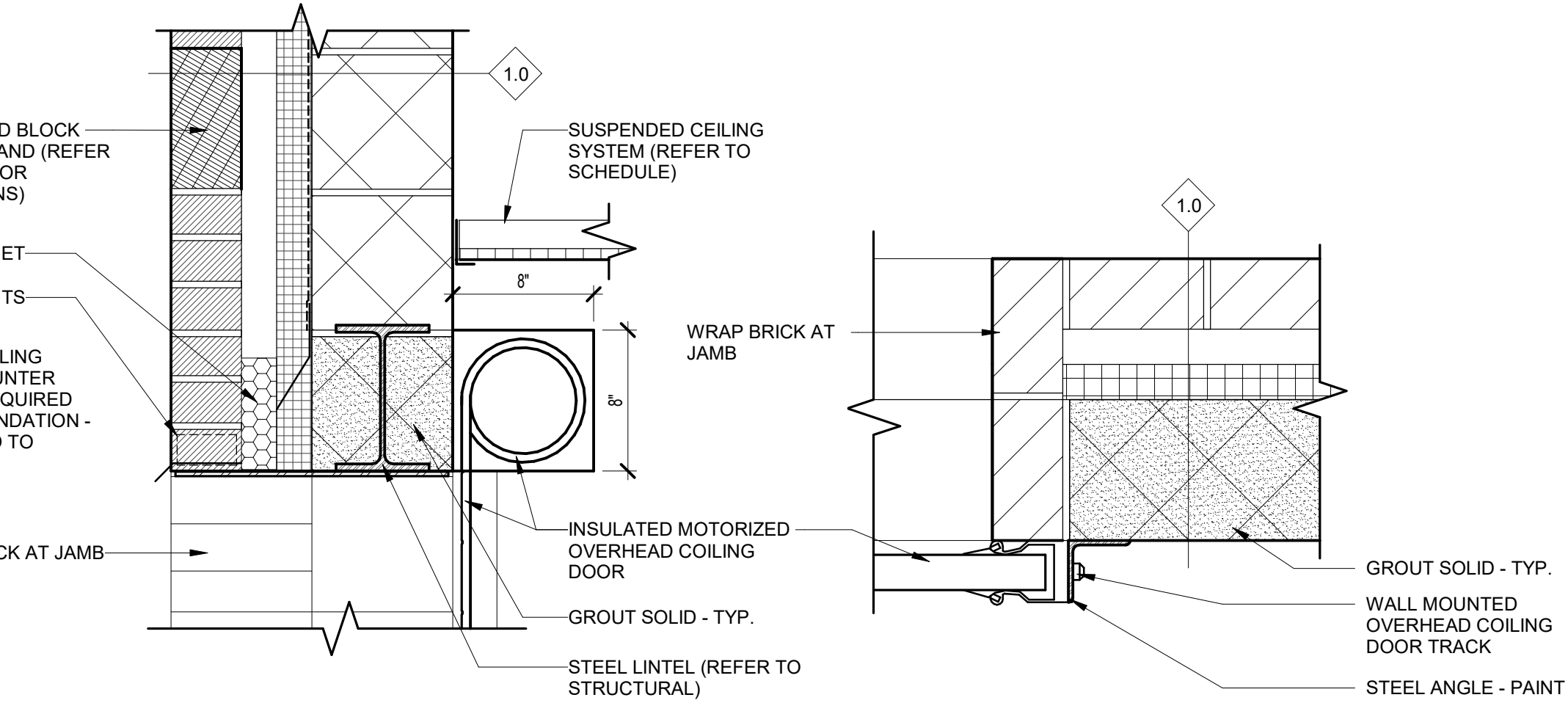
24 A3.01 TYP. WINDOW SILL DETAIL  
SCALE: 1 1/2" = 1'-0"



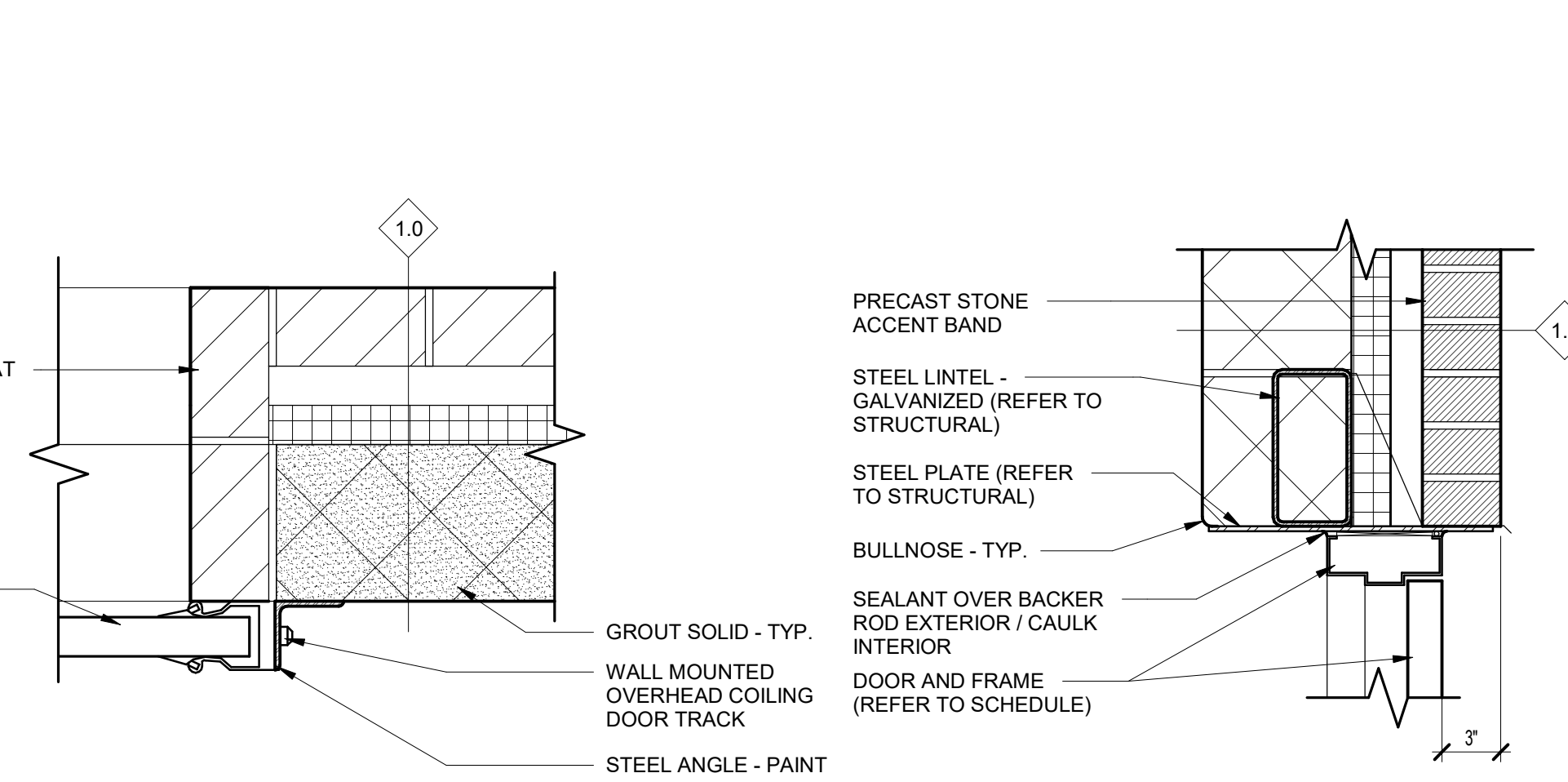
25 A3.01 TYP. INT DOOR JAMB DETAIL  
SCALE: 1 1/2" = 1'-0"



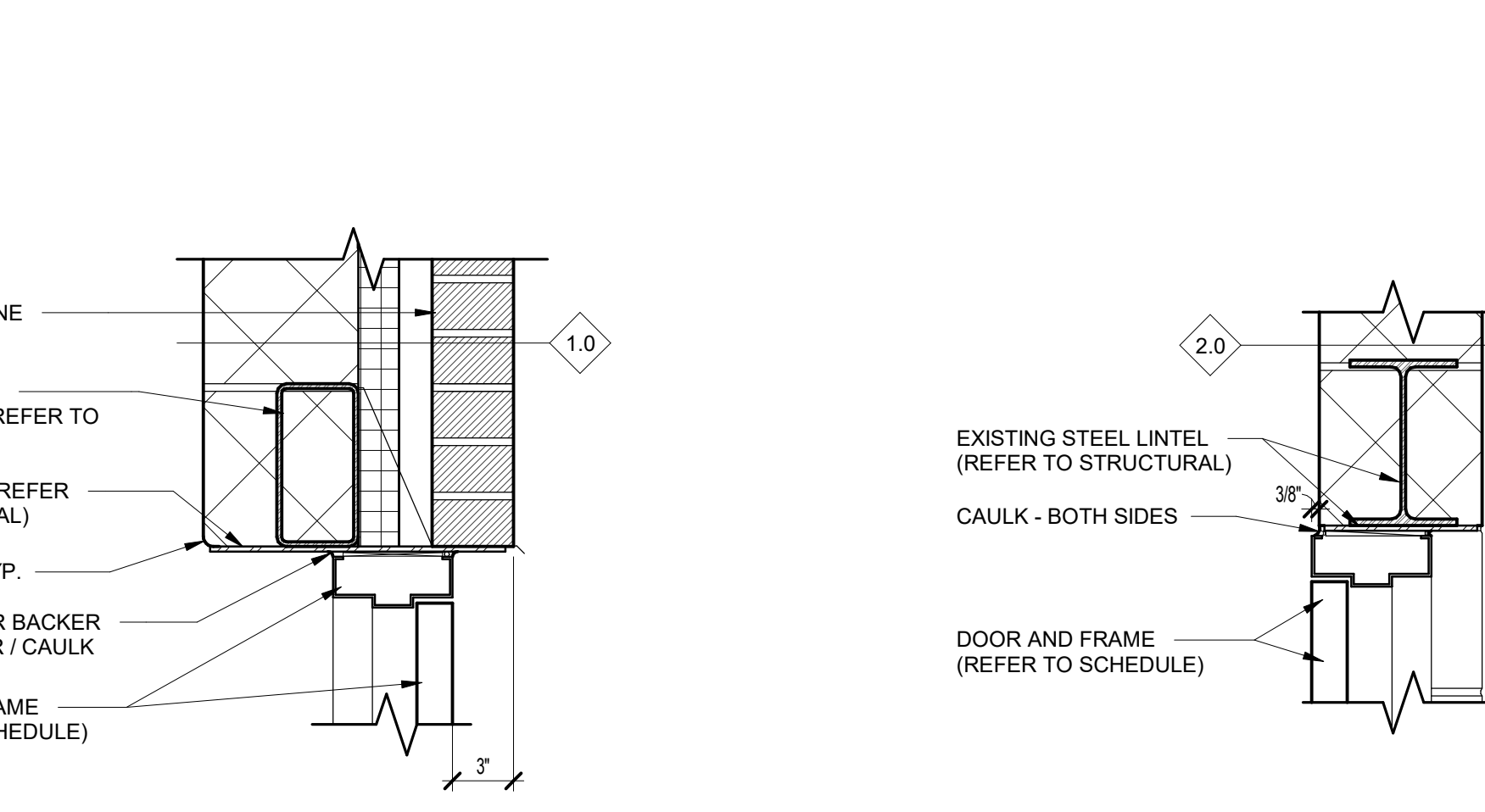
26 A3.01 COILING DOOR HEAD DETAIL @ TRAY DROP OFF  
SCALE: 1 1/2" = 1'-0"



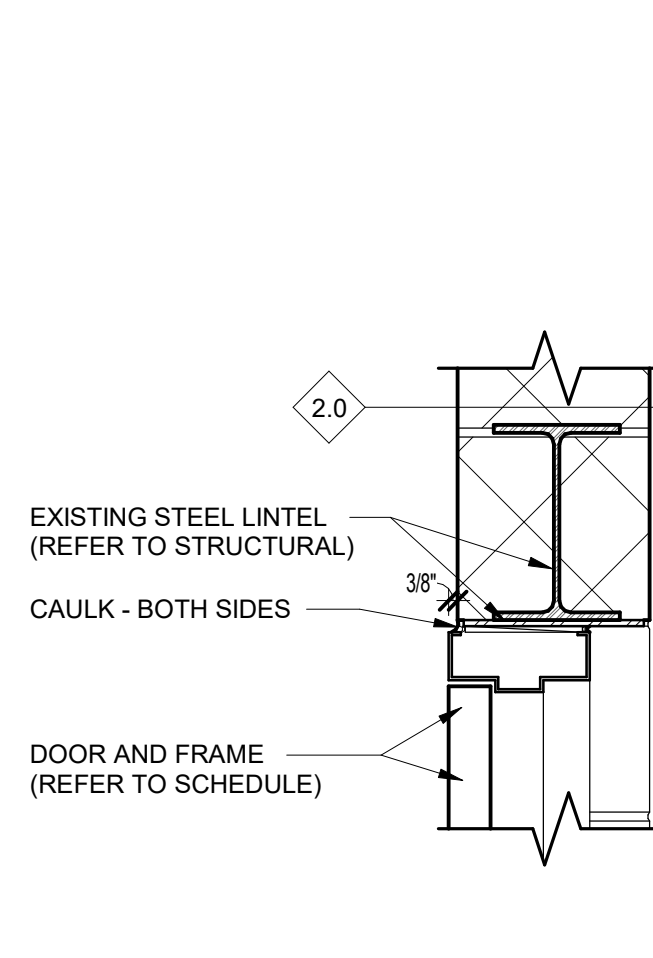
27 A3.01 COILING DOOR HEAD DETAIL @ CORRIDOR (WEST CONNECTOR)  
SCALE: 1 1/2" = 1'-0"



28 A3.01 JAMB DETAIL @ CORRIDOR  
SCALE: 1 1/2" = 1'-0"



29 A3.01 DOOR HEAD DETAIL  
SCALE: 1 1/2" = 1'-0"



30 A3.01 DOOR HEAD DETAIL  
SCALE: 1 1/2" = 1'-0"

#### SCHEDULE GENERAL NOTES:

- FINAL LOCATIONS OF DOOR CARD READERS, DOOR INTERCOMS AND PUSH BUTTONS TO BE FIELD VERIFIED WITH OWNER.
- REFER TO SHEET A0.01 AND MATERIAL SCHEDULE (THIS SHEET) FOR ABBREVIATIONS.
- WALL TYPES ARE INDICATED w/ A DIAMOND AND A NUMBER. REFER TO SHEET A0.01 FOR DESCRIPTION OF WALL TYPES.

#### SCHEDULE OF REMARKS:

- PROVIDE DOOR CLOSER.
- PROVIDE HOLD OPEN w/ CLOSER TIED INTO FIRE ALARM.
- PROVIDE A CARD READER INSIDE AND OUTSIDE.
- PROVIDE A DOOR INTERCOM w/ PUSH BUTTON INSIDE AND OUTSIDE.
- REINFORCED DETENTION DOOR.
- PROVIDE A DOOR INTERLOCKS INSIDE AND OUTSIDE.
- PROVIDE AN ELECTRIC LOCK.
- PROVIDE A MORTISE LOCK.
- NOT USED.
- PROVIDE A CARD READER OUTSIDE.
- PROVIDE A PUSH BAR ON INSIDE.
- PROVIDE HOLD-DOWN CLIPS FOR S.A.T. CEILING IN AREA NEAR EXTERIOR DOORS IN QUANTITY AND SPACING REQUIRED TO PREVENT MOVEMENT / UPLIFT OF CEILING TILES.
- CEILING HEIGHT VARIES (REFER TO CEILING PLAN).
- RSF FLOORING INCLUDES: Z-BAR COVE CAP, S.S. CORNER GUARDS @ COVE BASE CORNERS, AND S.S. TRANSITIONS STRIPS AT ALL FLOOR MATERIAL TRANSITIONS, BY FLRG MFR.
- PATCH AND REPAIR AT DEMOLITION POINTS.
- PROVIDE AN INTERLOCK INSIDE.
- PROVIDED AN INTERCOM w/ PUSH BUTTON INSIDE.
- DOOR LITE TO BE GL-1 (REFER TO SPECS).
- DOOR LITE TO BE GL-2 (REFER TO SPECS).
- DOOR LITE TO BE GL-3 (REFER TO SPECS).
- DOOR LITE TO BE GL-4 (REFER TO SPECS).
- DOOR LITE TO BE GL-5 (REFER TO SPECS).
- DOOR LITE TO BE GL-6 (REFER TO SPECS).
- PROVIDE DOOR STOP (REFER TO SPECS).
- PROVIDE CLOSER AND HOLD OPEN.

|     |               |          |
|-----|---------------|----------|
|     |               |          |
| B1  | BULLETIN NO 1 | 01/08/25 |
| NO. | REVISION      | DATE     |



FILE NO.  
491/20167.SDW

FUNDING CODE  
171CODHHS7255

CONTRACT NO.  
Y22003

WTAARCH.COM

WTA ARCHITECTS

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PROJECT TITLE  
491/20167.SDW - PHASE 500:

CENTER FOR FORENSIC  
PSYCHIATRY - CREATE  
KITCHEN

SALINE, MICHIGAN

SHEET TITLE  
ROOM FINISH & DOOR  
SCHEDS, DOOR & WDW  
TYPES, AND DOOR DTLs

PROJECT NUMBER  
2021094

SHEET NUMBER

PROJECT DATE  
SEPTEMBER 6, 2023

A3.01

CHECKED BY  
C.D.S.





1. COORDINATE INSTALLATION OF SUSPENDED CEILING SYSTEM WITH MECHANICAL AND ELECTRICAL SYSTEMS.
2. POSITION LIGHT FIXTURES IN CENTER OF CEILING TILES UNLESS NOTED OR DIMENSIONED OTHERWISE.
3. REFERENCE SPECIFICATIONS FOR SUSPENDED CEILING SYSTEM DESCRIPTION AND LOCATION REQUIREMENTS.
4. ELECTRICAL FIXTURES ARE SHOWN FOR LOCATION PURPOSES ONLY. REFER TO ELECTRICAL DRAWINGS AND SPECIFICATIONS FOR DETAILS.
5. FIRE DEVICES AND EXIT LIGHTING NOT INDICATED ON ARCHITECTURAL DRAWINGS. REFER TO ELECTRICAL DRAWINGS FOR LOCATION, DETAILS, AND SPECIFICATIONS.
6. PROVIDE A S.T. HOLD DOWN CLIPS AT EXTERIOR DOORS.

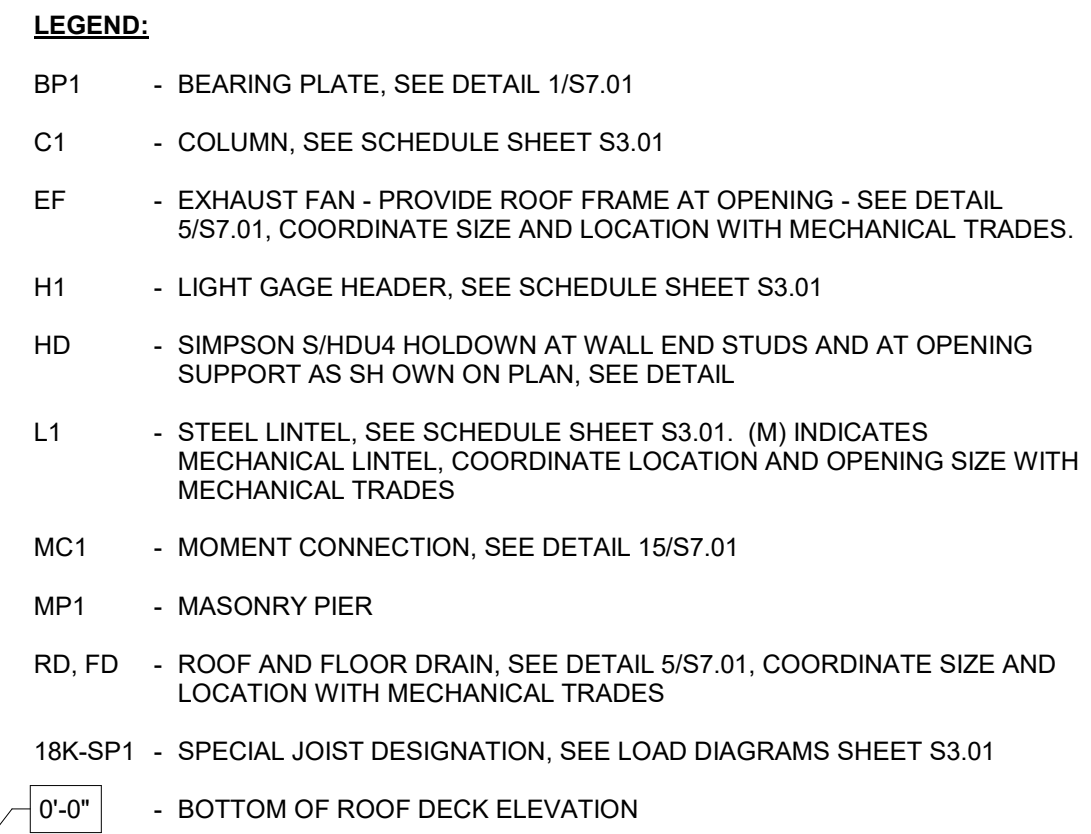
|                                   |       |
|-----------------------------------|-------|
| PROJECT DATE<br>SEPTEMBER 6, 2023 | A9.01 |
| CHECKED BY<br>C.D.S.              |       |





|                   |        |
|-------------------|--------|
| SEPTEMBER 6, 2023 | \$2.01 |
| CHECKED BY        |        |





|                   |      |
|-------------------|------|
| CHECKED BY<br>JAG | DATE |
|-------------------|------|

GENERAL

- VERIFY DIMENSIONS BEFORE COMMENCING WORK. REPORT DISCREPANCIES TO THE ARCHITECT.
- VERIFY OPENINGS IN THE FRAMING PLANS WITH THE ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS.
- ALL WORK SHALL CONFORM TO MICHIGAN BUILDING CODE 2015.
- DESIGN LOADS:
  - DESIGNED IN ACCORDANCE WITH MICHIGAN BUILDING CODE 2015.
  - ROOF SNOW LOAD: GROUND SNOW LOAD PG = 20 PSF  
FLAT ROOF SNOW LOAD, PF = 20 PSF  
SNOW EXPOSURE FACTOR, SE = 1.0  
SNOW LOAD IMPORTANCE FACTOR, I = 1.1  
THERMAL FACTOR, CT = 1.0  
DRIFTED SNOW LOAD, SEE DIAGRAM THIS SHEET
  - FLOOR LIVE LOADS:

|                   |         |
|-------------------|---------|
| STAIR             | 100 PSF |
| CORRIDOR, KITCHEN | 100 PSF |
| MECHANICAL ROOMS  | 125 PSF |
  - WIND LOADS: BASIC WIND SPEED, VULT = 120 MPH  
VASD = 93 MPH  
WIND EXPOSURE C  
INTERNAL PRESSURE COEFFICIENT, GC PI = +/-0.18  
WALL COMPONENTS & CLADDING:

| EFFECTIVE WIND AREA (FT <sup>2</sup> ) | POSITIVE PRESSURE (PSF) | NEGATIVE PRESSURE (PSF) |
|--|-------------------------|-------------------------|
| -END ZONE                              |                         |                         |
| 10                                     | 33                      | -44                     |
| 20                                     | 32                      | -41                     |
| 30                                     | 30                      | -38                     |
| 100                                    | 29                      | -35                     |
| -INTERIOR ZONE                         |                         |                         |
| 10                                     | 33                      | -36                     |
| 20                                     | 32                      | -35                     |
| 30                                     | 30                      | -33                     |
| 100                                    | 29                      | -31                     |
  - EARTHQUAKE DESIGN DATA:  
SEISMIC RISK CATEGORY, III  
SEISMIC IMPORTANCE FACTOR, I = 1.25  
SPECTRAL RESPONSE COEFFICIENTS: SDS = 0.104, SD1 = .08  
SITE CLASS, D  
BASIC SEISMIC - FORCE - RESISTING SYSTEM: SHEAR WALL, MOMENT FRAME  
SEISMIC DESIGN CATEGORY, B
- SPECIAL INSPECTIONS:
  - SPECIAL INSPECTIONS SHALL BE IN ACCORDANCE WITH THE MICHIGAN BUILDING CODE 2015 SECTION 1700.
  - THE FOLLOWING TYPES OF WORK REQUIRE SPECIAL INSPECTIONS: (REFER TO THE BUILDING CODE AND SPECIFICATIONS FOR DETAILED INSPECTION REQUIREMENTS)
    - PREPARED FILL.
    - CONCRETE CONSTRUCTION.
    - STEEL CONSTRUCTION.
    - MASONRY CONSTRUCTION.
    - SPRAYED FIRE-RESISTIVE MATERIALS.

FOUNDATION NOTES

- FOUNDATIONS ARE DESIGNED BASED ON SOIL BEARING OF 2000 PSF. IF SOIL OF THIS CAPACITY IS NOT FOUND AT THE ELEVATION NOTED, ENLARGE OR LOWER FOOTINGS AT THE DIRECTION OF THE ARCHITECT/ENGINEER.
- PLACE STRUCTURAL BACKFILL MEETING OR EXCEEDING MDOT CLASS II IN LAYERS NOT EXCEEDING 9" LOOSE THICKNESS. COMPACT EACH LAYER TO AT LEAST 95% OF THE MAXIMUM DENSITY PER ASTM D-1557. COMPACTING BY FLOODING IS NOT PERMITTED.
- CENTER FOOTINGS UNDER WALL LOCATION AND COLUMNS UNLESS NOTED.
- EARTH FORMS ARE NOT PERMITTED UNLESS SPECIFICALLY NOTED.
- DISTURBANCE OF THE FOUNDATION BEARING SOILS SHALL BE AVOIDED.
- EXISTING FOUNDATIONS OR FLOOR SLAB ENCOUNTERED DURING SITE GRADINGS AND EXCAVATION SHALL BE REMOVED TO A DEPTH OF TWO (2) FEET BELOW NEW CONSTRUCTION. REPLACE WITH STRUCTURAL BACKFILL.
- PROVIDE BOND BREAK MATERIAL BETWEEN ALL GRADE SLABS AND VERTICAL SURFACES.
- BACKFILL AND EXCAVATION PER SPECIFICATIONS.
- FOLLOWING DEMOLITION OF STRUCTURES AND STRIPPING OF TOPSOIL, PREPARE SOILS IN ACCORDANCE WITH SOILS REPORT BY SME DATED FEBRUARY 9, 2022.

CONCRETE NOTES

- ACI BUILDING CODE (318-14); MANUAL OF STANDARD PRACTICE FOR DETAILING (315) FOR THE MIXING, FABRICATION AND PLACEMENT OF CONCRETE, REINFORCING STEEL AND ACCESSORIES.
- CONCRETE STRENGTH - STANDARD WEIGHT CONCRETE:

|  |                                   |
|--|-----------------------------------|
| FOOTINGS, WALLS, PIERS:                      | F <sub>C</sub> = 3000 MINIMUM PSI |
| CONCRETE SLABS ON GRADE:                     | F <sub>C</sub> = 3500 MINIMUM PSI |
| EXTERIOR CONCRETE SLABS EXPOSED TO DE-ICING: | F <sub>C</sub> = 4500 MINIMUM PSI |
- REINFORCING - BARS: ASTM A-615 GRADE 60  
WELDED WIRE FABRIC: ASTM A-1064
- CONCRETE SLABS ON GRADE REINFORCING: 5/8" - W1.4XW1.4 WWF UNLESS NOTED. LOCATED IN THE UPPER 1/3 OF SLAB THICKNESS.
- PROVIDE SAWCUT CONTROL JOINTS AT APPROXIMATELY 20' ON CENTER EACH WAY IN SLABS ON GRADE. SEE DETAILS. LOCATE JOINTS UNDER PARTITIONS WHENEVER POSSIBLE. CONSTRUCTION JOINTS AT CONTRACTOR'S OPTION.
- DEPRESS SLABS AS REQUIRED FOR FLOOR FINISHES. SEE ARCHITECT.
- SLOPE FLOORS AS REQUIRED TO FLOOR DRAINS. SEE ARCHITECT.
- FORM ALL CONCRETE.
- EXPOSED EDGES OF CONCRETE BEAMS, COLUMNS, ETC. SHALL BE CHAMFERED 1/4".
- PROVIDE CORNER BARS FOR ALL CONTIGUOUS CORNERS.
- WATER/CEMENT RATIO LIMITS:

|                           |  |
|---------------------------|--|
| F <sub>C</sub> = 3000 PSI | 0.58 NON-AIR ENTRAINED, 0.50 AIR ENTRAINED |
| F <sub>C</sub> = 3500 PSI | 0.62 NON-AIR ENTRAINED, 0.50 AIR-ENTRAINED |
| F <sub>C</sub> = 4500 PSI | 0.4 AIR-ENTRAINED                          |
- SLUMP LIMITS:  
3" FOR FOUNDATIONS, 4" FOR SLABS AND WALLS
- PROVIDE AIR ENTRAINED CONCRETE FOR EXTERIOR EXPOSURES.
- CONTRACTOR TO SUBMIT SIZE AND LAYOUT OF CONCRETE WALL SLEEVES, OPENINGS, ETC. FOR REVIEW PRIOR TO CONCRETE PLACEMENT.
- REINFORCING LAP LENGTH: 45 BAR DIAMETERS (36 IF STAGGERED) FOR BARS UP TO #5, 60 BAR DIAMETERS (48 IF STAGGERED) FOR BARS LARGER THAN #5.

MASONRY NOTES

- WORK SHALL BE PERFORMED IN ACCORDANCE WITH ACI 530 SPECIFICATIONS.
- MORTAR: AS SPECIFIED.
- GROUT: ASTM C476, F<sub>C</sub>=2000 PSI, TESTED PER ASTM C1019.
- REINFORCING BARS SHALL BE ASTM A-615, GRADE 60, LAP MINIMUM 40 BAR DIAMETERS FOR #5 BARS AND SMALLER, LAP MINIMUM 60 BAR DIAMETERS FOR BARS LARGER THAN #5 UNLESS NOTED OTHERWISE.
- HORIZONTAL WALL REINFORCING: PER ASTM A-82, 9 GA. HOT DIPPED GALVANIZED PER ASTM A-153 (1.5 OZ PER SF), LADDER TYPE, EQUAL TO DURA-WAL. BED JOINTS AT 10" O.C. AND AT 1<sup>ST</sup> AND 2<sup>ND</sup> BED JOINTS AT BOTTOM OF WALL. TOP OF WALL ABOVE LINTELS AND BELOW SILLS. REINFORCING CONTINUOUS EXCEPT AT VERTICAL CONTROL JOINTS. SIDE RODS LAPPED A MINIMUM OF 6' AT SPLICES. PROVIDE PREFABRICATED CORNERS AND TEES.
- CONCRETE MASONRY UNITS: ASTM C-90, GRADE N, TWO CORE TYPE FOR REINFORCED MASONRY. DESIGN BASED ON F<sub>m</sub> = 2000 PSI.
- VERTICAL WALL REINFORCING: 1 - #5 EACH SIDE OF MASONRY OPENINGS, CONTROL JOINTS AND AS SHOWN. IN GROUT FILLED BLOCK CORES.
- VERTICAL BAR REINFORCING: PLACE ACCURATELY AND MECHANICALLY HOLD IN POSITION WHILE GROUTING. GROUTING SHALL BE DONE IN LIFTS NOT EXCEEDING 4'-0" AND MECHANICALLY CONSOLIDATED IN PLACE; CONSOLIDATION BY RODDING NOT ACCEPTABLE.
- PROVIDE COMPLETELY GROUTED UNITS:
  - UNDER PRECAST FLOOR PLANK BEARING
  - UNDER CAST-IN-PLACE CONCRETE FLOOR BEARING
  - UNDER PRECAST ARCHITECTURAL CONCRETE PANEL BEARING
  - UNDER BRICK VENEER BEARING
  - UNDER ANY CHANGE OF WALL THICKNESS, I.E.: 8" ON TOP OF 12"
  - UNDER STEEL JOIST OR BEAM BEARING.
- PROVIDE LINTELS FOR OPENINGS IN MASONRY WALLS OVER 8" WIDE. SEE SCHEDULE(S).
- RUNNING BOND MASONRY SHALL BE BUILT INTEGRALLY AT WALL CORNERS UNLESS INDICATED OTHERWISE.
- BLOCK CONTROL JOINTS SHALL BE "MICHIGAN" TYPE UNLESS NOTED OTHERWISE. HORIZONTAL REINFORCING SHALL BE DISCONTINUOUS AT CONTROL JOINTS.
- TEMPORARY WALL BRACING IS THE CONTRACTORS RESPONSIBILITY. CONFORM TO APPLICABLE CODES AND STANDARDS.
- CONTRACTOR SHALL KEEP THE AIR SPACE CAVITY BETWEEN THE CONCRETE MASONRY AND VENEER COMPLETELY CLEAR OF MORTAR AND DEBRIS.

STRUCTURAL STEEL

- STRUCTURAL STEEL: FABRICATED AND ERECTED PER THE AISC MANUAL OF STEEL CONSTRUCTION.

|                   |                            |
|-------------------|----------------------------|
| W-BEAMS:          | ASTM A-992 GR. 50.         |
| HSS:              | ASTM A-500 GRADE B.        |
| STEEL PIPE:       | ASTM A53, TYPE E, GRADE B. |
| ALL OTHER SHAPES: | ASTM A-36                  |
- ANCHOR RODS: 36 KSI, ASTM F-1554.
- WELDS: TO BE 70 KSI LOW HYDROGEN FILLER METAL PLACED BY WELDERS CERTIFIED IN WELD POSITION BY AWS D1.1. STRUCTURAL WELDING CODE. ALL WELDS SHALL BE APPLIED TO SURFACES FREE OF GREASE, PAINT, DIRT, OR OTHER HARMFUL MATERIAL.
- BOLTED CONNECTIONS: 3/4" DIAMETER A-325 BOLTS WITH HEAVY HEX NUTS UNLESS NOTED. DESIGNED FOR BEARING CONNECTIONS, TIGHTENED TO **SNUG TIGHT** CRITERIA UNLESS NOTED OTHERWISE.
- STEEL PRIMER: RUST INHIBITING ALKYL INDUSTRIAL PRIMER, SSPC 6, 1.5 MIL MINIMUM THICKNESS EXCEPT STEEL WHICH WILL RECEIVE SPRAYED-ON FIRE PROOFING.
- BEAM CONNECTIONS SHALL BE DESIGNED TO SUPPORT ONE-HALF THE TOTAL UNIFORM LOAD CAPACITY PER AISC. WHEREVER POSSIBLE, EXTEND CONNECTIONS FULL DEPTH OF BEAM.
- SHEAR TAB CONNECTIONS TO STEEL BEAMS ARE NOT ACCEPTABLE UNLESS BEAMS OF EQUAL DEPTHS ARE FASTENED ON OPPOSITE SIDES OF THE STEEL BEAM.
- BEAM BEARING PLATES ARE TO BE LOCATED ON CENTER OF WALL UNLESS NOTED OTHERWISE. BEAR BEAM FULL LENGTH OF BEARING PLATES.
- WHERE BEAMS BEAR ON COLUMNS, BEAMS BEAR ON BEAMS. BEAMS HANG FROM BEAMS, OR COLUMNS BEAR ON BEAMS. STIFFENER PLATES MINIMUM 1/4" THICK.
- TEMPORARY BRACING IS TO BE MAINTAINED UNTIL PERMANENT CONNECTIONS ARE COMPLETED, APPROVED, AND SUPPORTED SLABS ARE CAST AND CURED.
- INSTALL BRICK SUPPORT SHELF MEMBERS AFTER ALL SUPPORTED CONCRETE FLOOR SLABS AND ROOF DECK WITH ROOFING IS IN PLACE.
- BEAMS AND GIRDERS HAVE BEEN DESIGNED WITHOUT SHORING REQUIRED. INSTALLATION OF SHORING IS PERMITTED AT CONTRACTOR'S OPTION. ANTICIPATED BEAM DEFLECTION UNDER WET CONCRETE LOAD IS SPAN/360, 3/4" MAX.
- DO NOT ALLOW LOADS ON SLAB UNTIL CONCRETE HAS ATTAINED A MINIMUM OF 75% OF THE 28-DAY SPECIFIED STRENGTH.
- STEEL JOISTS
  - OPEN WEB STEEL JOIST: DESIGN, FABRICATE AND ERECT PER STEEL JOIST INSTITUTE (SJI) SPECIFICATIONS.
  - ITEMS SUPPORTED BY JOISTS SHALL BE ATTACHED AT PANEL POINTS WHERE POSSIBLE. SEE JOIST REINFORCEMENT DETAIL FOR NON-PANEL POINT LOADING.
  - WELDING OF SUPPORTS TO JOISTS WILL NOT BE PERMITTED UNLESS SPECIFICALLY NOTED.
  - NO STRUCTURAL MEMBER INCLUDING OPEN WEB STEEL JOIST SHALL BE CUT OR MODIFIED WITHOUT PRIOR WRITTEN APPROVAL OF THE JOIST MANUFACTURER AND THE ARCHITECT/ENGINEER.
  - BRIDGING: SIZED NOT LESS THAN MINIMUM REQUIREMENT OF SJI.
  - SPECIAL LOADING CONDITIONS ARE SHOWN ON THE DRAWINGS AND SHALL BE USED IN THE DESIGN OF THE STEEL JOIST AS INDICATED ON THE PLANS.
  - PROVIDE UPLIFT BRIDGING PER SJI. STEEL JOISTS SHALL BE DESIGNED FOR A NET UPLIFT PRESSURE OF 7 PSF.
  - JOIST GIRDERS TO BE DESIGNED FOR L600 DEFLECTION UNLESS NOTED OTHERWISE.

METAL DECK

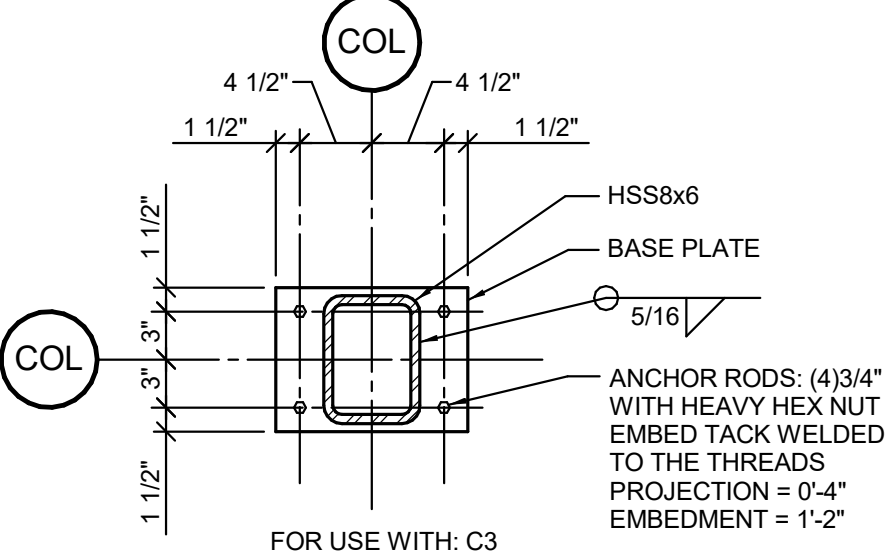
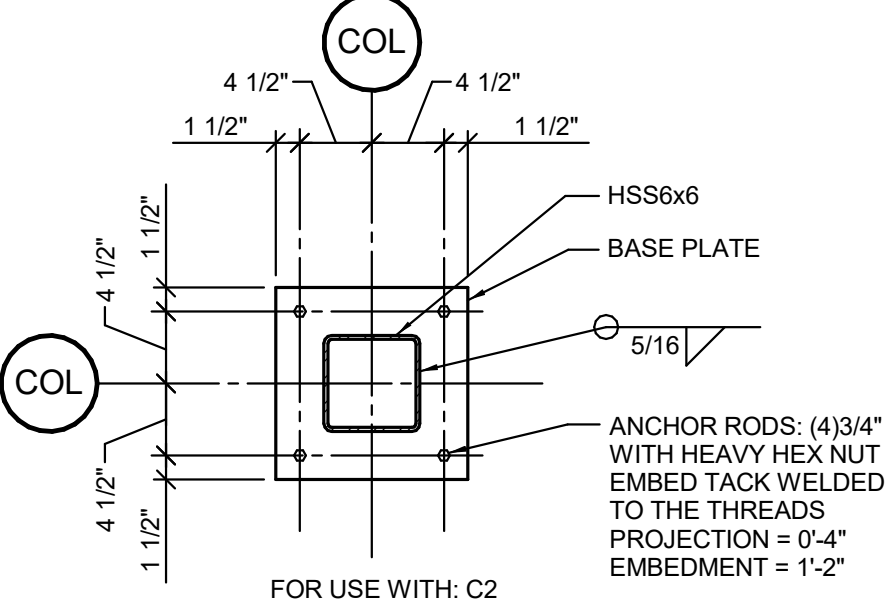
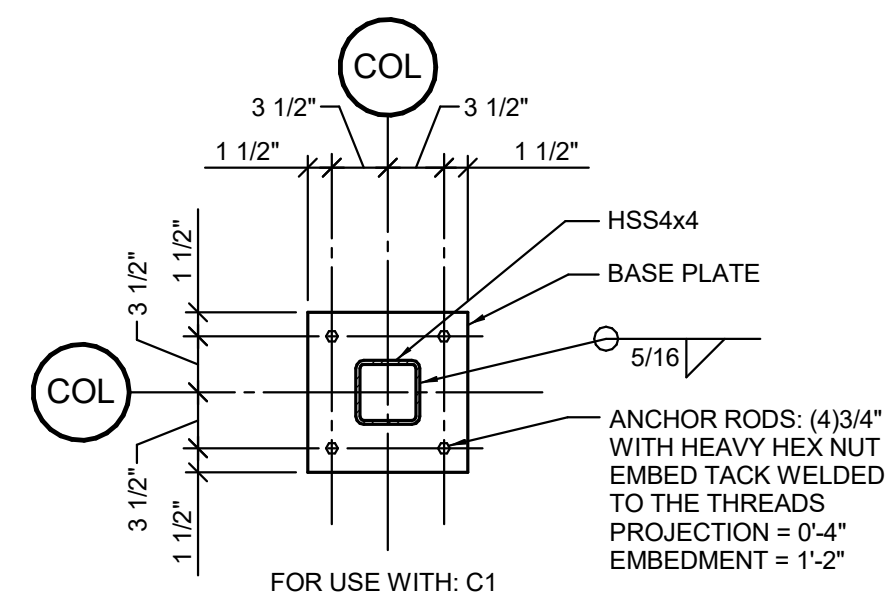
- ROOF DECK: 1 1/2", 20 GAUGE, WIDE RIB, MINIMUM 3 SPANS. DESIGNED AND FABRICATED PER STEEL DECK INSTITUTE SPECIFICATIONS (SDI). WELD TO SUPPORTS WITH 5/8" DIAMETER PUDDLE WELDS 12" SPACING. FASTEN SIDE LAPS WITH #10 SCREWS AT 3'-0" MAXIMUM.
- FORM DECK: 1.0C20: S MIN = 167 IN3/FT, I MIN = .088 IN4/FT GALVANIZED.  
1.5C20: S MIN = 224 IN3/FT, I MIN = .197 IN4/FT GALVANIZED.  
CAPABLE OF SUPPORTING WET CONCRETE LOAD WITHOUT SHORING. WELD TO STEEL PER MANUFACTURER'S RECOMMENDATIONS.
- DECK FINISH: AS SPECIFIED.
- ROOF DECK OPENINGS LARGER THAN 12" SHALL BE REINFORCED WITH A STEEL ROOF FRAME. SEE ROOF FRAME DETAIL ON DRAWINGS.

LIGHT GAGE METAL FRAMING

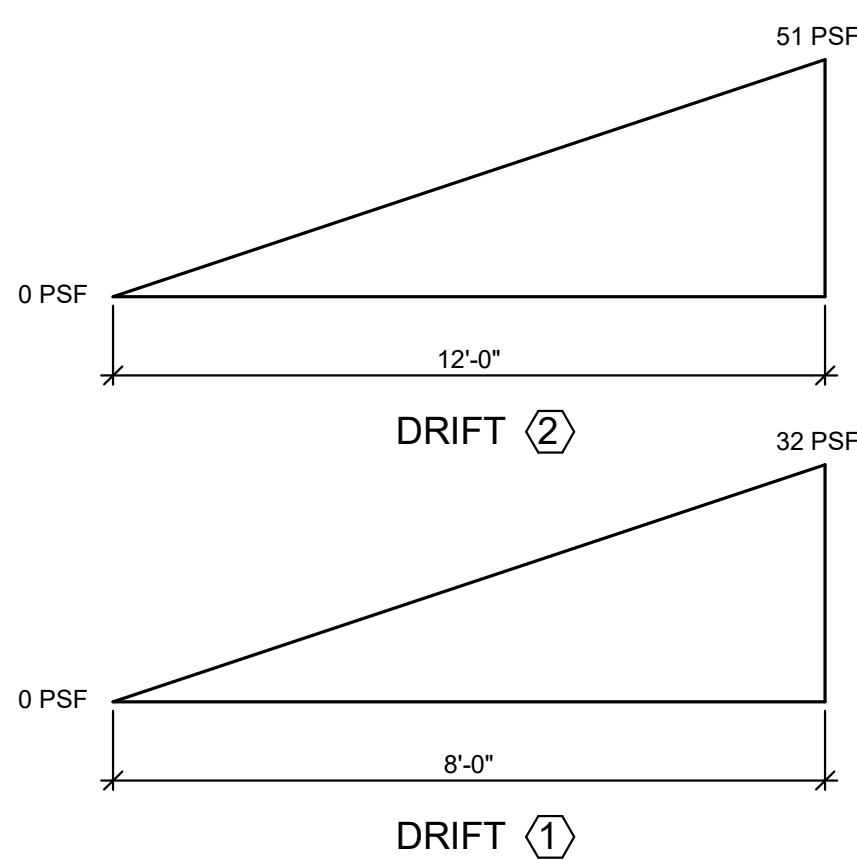
- ALL STUDS SHALL BE FORMED FROM HOT-DIPPED GALVANIZED STEEL, G-60 COATING, CORRESPONDING TO THE REQUIREMENTS OF ASTM A653, STRUCTURAL QUALITY, GRADE 33, WITH A MINIMUM YIELD OF 33 KSI. MEMBERS DESIGNED PER AMERICAN IRON AND STEEL INSTITUTE (AISI) "SPECIFICATION FOR THE DESIGN OF COLD FORMED STEEL STRUCTURAL MEMBERS". MEMBER DESIGNATIONS IN ACCORDANCE WITH THE STEEL STUD MANUFACTURERS ASSOCIATION (SSMA) I.E. 600-S-162-33.
- MEMBER SIZES INDICATED ON THE DRAWINGS AND CAPABLE OF SUPPORTING THE AS INDICATED IN GENERAL NOTE "GENERAL 1.D" FOR WALL COMPONENTS AND CLADDINGS PRESSURES.
- MAX. ALLOWABLE DEFLECTION: L/600; BRICK VENEER SUPPORT, L/240; OTHER.
- CONTRACTOR TO BE RESPONSIBLE FOR FINAL DESIGN OF LIGHT GAGE FRAMING MEMBERS, CONNECTIONS AND COMPONENTS. SHOP DRAWINGS SHALL BE PREPARED UNDER THE SUPERVISION OF A REGISTERED PROFESSIONAL ENGINEER IN THE STATE OF MICHIGAN AND SUBMITTED TO THE ARCHITECT/ENGINEER FOR REVIEW.

PLYWOOD SHEATHING

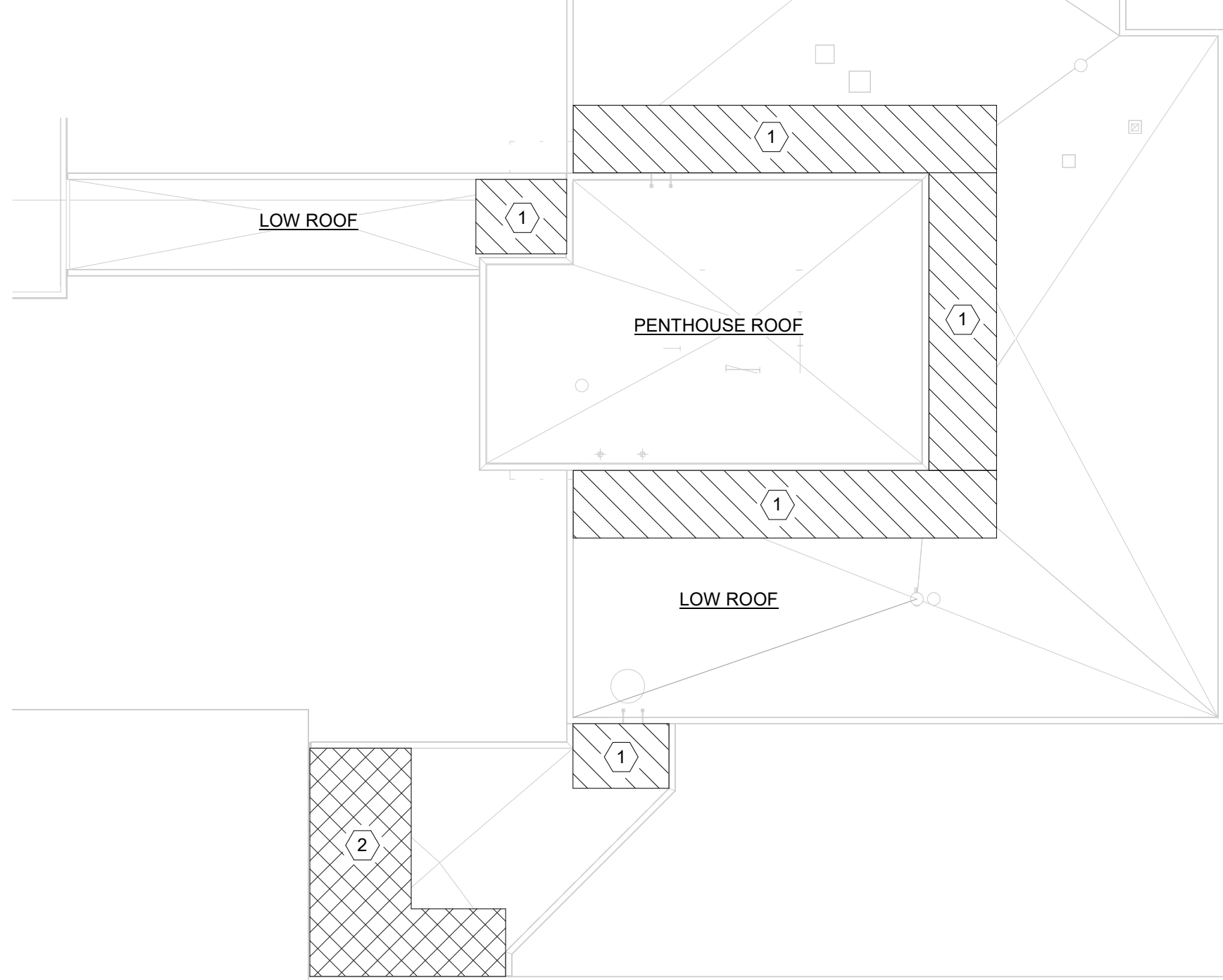
- PLYWOOD FOR WALLS SHALL BE 1/2" THICK APA RATED SHEATHING. (24/16)
- ROOF SHEATHING FASTENED WITH #8 SCREWS AT 6" O.C. AT PANEL EDGES AND INTERMEDIATE SUPPORTS UNLESS NOTED OTHERWISE.
- PANELS SHALL BE LAID IN A STAGGERED PATTERN, CONTINUOUS OVER TWO SPANS.



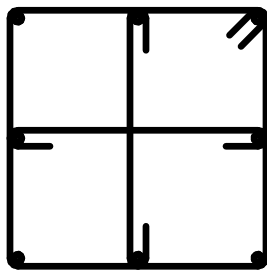
ANCHOR ROD LAYOUTS



SNOW DRIFTING DIAGRAM - PLAN



SNOW DRIFTING DIAGRAM - PLAN



FOR USE WITH: P1

VERTICAL REINFORCEMENT LAYOUT

FOOTING SCHEDULE

Fy=60 KSI  
Fc=3000 PSI

| MARK | SIZE          | DEPTH | REINFORCING     | DESCRIPTION |
|------|---------------|-------|-----------------|-------------|
| F1   | 1'-8" x CONT  | 1'-0" | (2) #5 CONT     | -           |
| F2   | 2'-0" x CONT  | 1'-0" | (2) #5 CONT     | -           |
| F3   | 4'-0" x 4'-0" | 1'-0" | (5) #5 EACH WAY | -           |
| F4   | 5'-0" x 5'-0" | 1'-0" | (6) #5 EACH WAY | -           |
| F5   | 7'-0" x 7'-0" | 1'-6" | (8) #5 EACH WAY | -           |
| F6   | 9'-0" x 9'-0" | 1'-6" | (10) #5 EW, T&B | -           |

PIER SCHEDULE

Fy=60ksi  
Fc=3000 psi

| MARK | SIZE    | VERT REINF | TIES        | REMARKS |
|------|---------|------------|-------------|---------|
| P1   | 20"x20" | (8) #6     | #3 AT 12"OC | -       |

SEE VERTICAL REINFORCEMENT LAYOUT THIS SHEET  
TOP OF PIER = 99'-4" (UNO)

COLUMN SCHEDULE

W SECTIONS: Fy=50KSI  
HSS SECTIONS: Fy=48ksi

| MARK | SIZE       | BASE PL        | CAP PL          | REMARKS |
|------|------------|----------------|-----------------|---------|
| C1   | HSS4x4x1/4 | 3/4"x10"x10"   | 7/2"            | -       |
| C2   | HSS6x6x1/2 | 1 1/8"x12"x12" | 1 1/4"x8"x1'-1" | -       |
| C3   | HSS8x6x5/8 | 3/4"x10"x12"   | 1 1/2"          | -       |
| C3A  | HSS8x6x5/8 | 3/4"x10"x12"   | 1 1/4"x8"x1'-1" | -       |

STEEL LINTEL SCHEDULE

Fy=36 KSI

| MARK | CLEAR SPAN                    | SIZE                 | BEARING EACH END                |
|------|-------------------------------|----------------------|---------------------------------|
| L1   | 4'-0"                         | L3 1/2x2 1/2x1/4 SLV | 4"                              |
| L2   | 5'-0"                         | L3 1/2x3x1/4 SLV     | 6"                              |
| L3   | 6'-0"                         | L3 1/2x3 1/2x1/4     | 6"                              |
| L4   | 7'-0"                         | L4x3 1/2x1/4 LLV     | 6"                              |
| L5   | 8'-0"                         | L5x3 1/2x1/4 LLV     | 8"                              |
| L6   | 9'-0"                         | L6x3 1/2x 3/8 LLV    | 8"                              |
|      |                               |                      |                                 |
| L7   | W8x18 + PL 1/4x7 1/2"         |                      | 8"                              |
| L8   | W8x13 + PL 1/4x1'-3 1/2"      |                      | 8"                              |
| L9   | W8x24 + PL 1/4x1'-3 1/2"      |                      | 8"                              |
| L10  | HSS8x3x1/2 + PL 1/4x1'-3 1/2" |                      | DETAIL 15S7.01, BP1 AT CMU/WALL |
| L11  | W8x21 + PL 1/4x7 1/2"         |                      | 8"                              |

NOTE: 1. GROUT BELOW BEAM BEARING PER DETAIL 15S7.01.

2. BEARING LENGTH IS OVER CMU OR COMPOSITE BRICK/BLOCK. DO NOT BEAR ON BRICK VENEER.

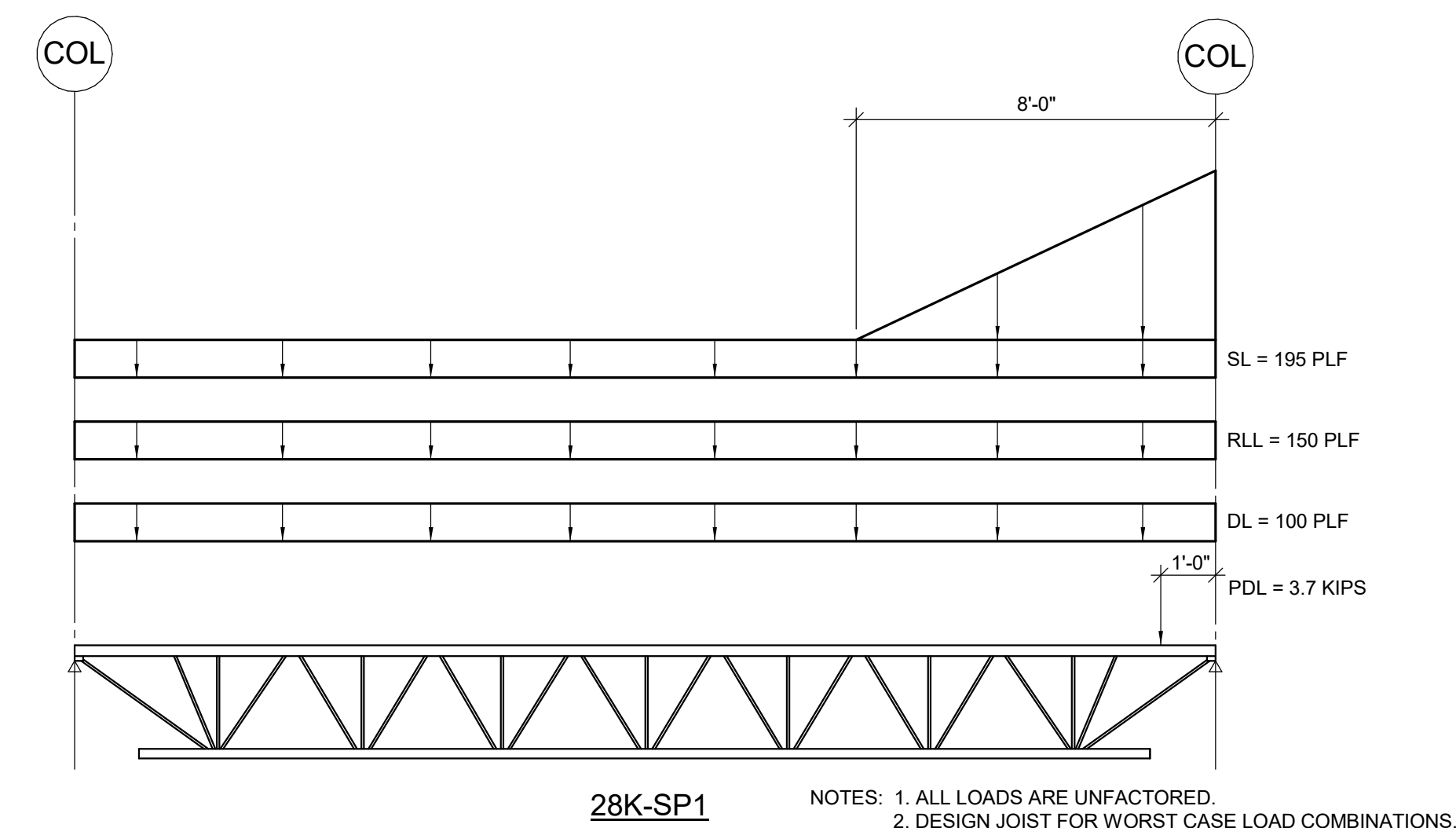
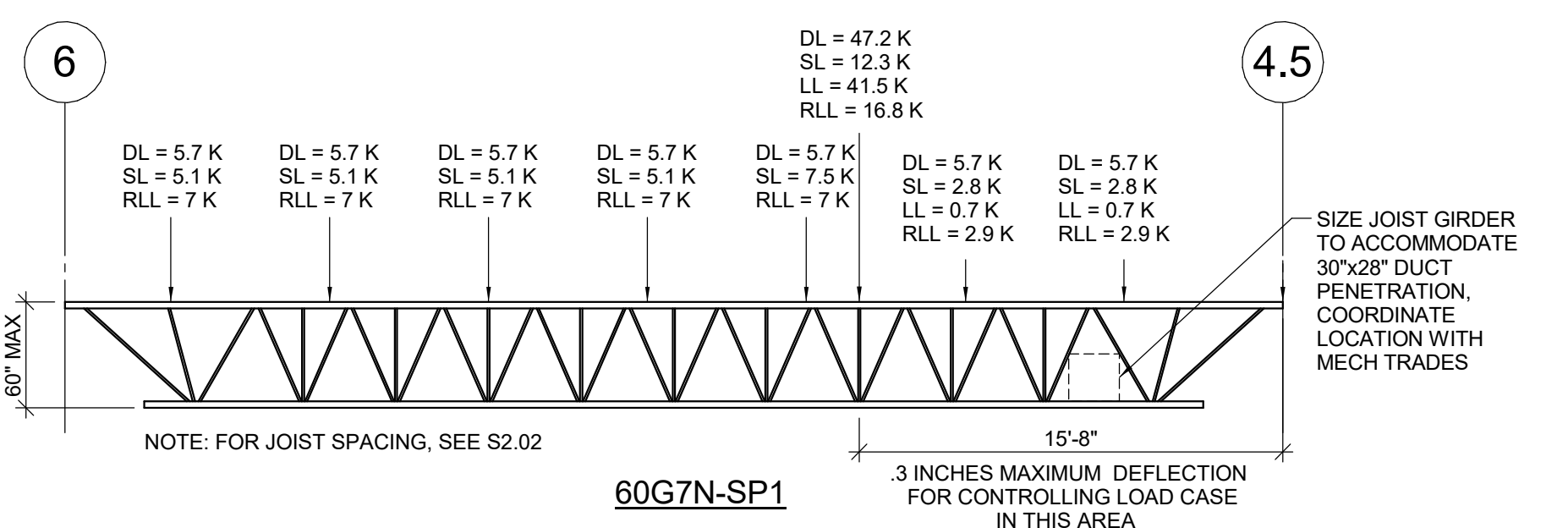
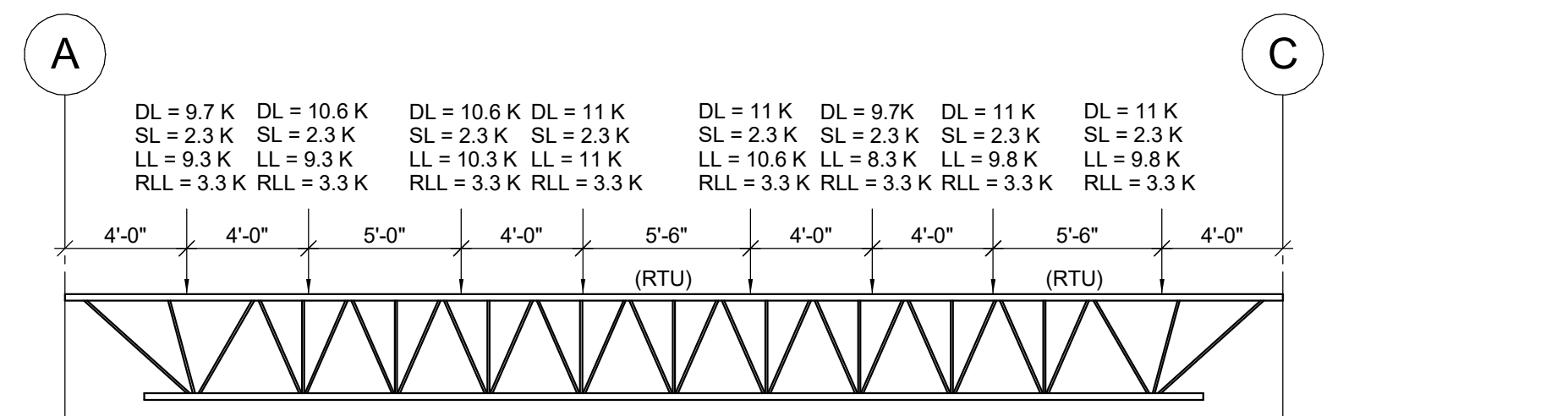
3. ANCHOR MASONRY TO BEAMS WITH 9 GA WIRE TIES EACH SIDE AT 2'-8" O.C.

4. PROVIDE STEEL LINTELS AT ALL MASONRY WALL OPENINGS, INCLUDING MECHANICAL AND ELECTRICAL GREATER THAN 8" WIDE. SEE LINTEL SCHEDULE.

HEADER SCHEDULE

| MARK | SIZE           | MIN BEARING |
|------|----------------|-------------|
| H1   | (2) 600S162-68 | (2) STUDS   |
| H2   | (2) 800S300-97 | (2) STUDS   |

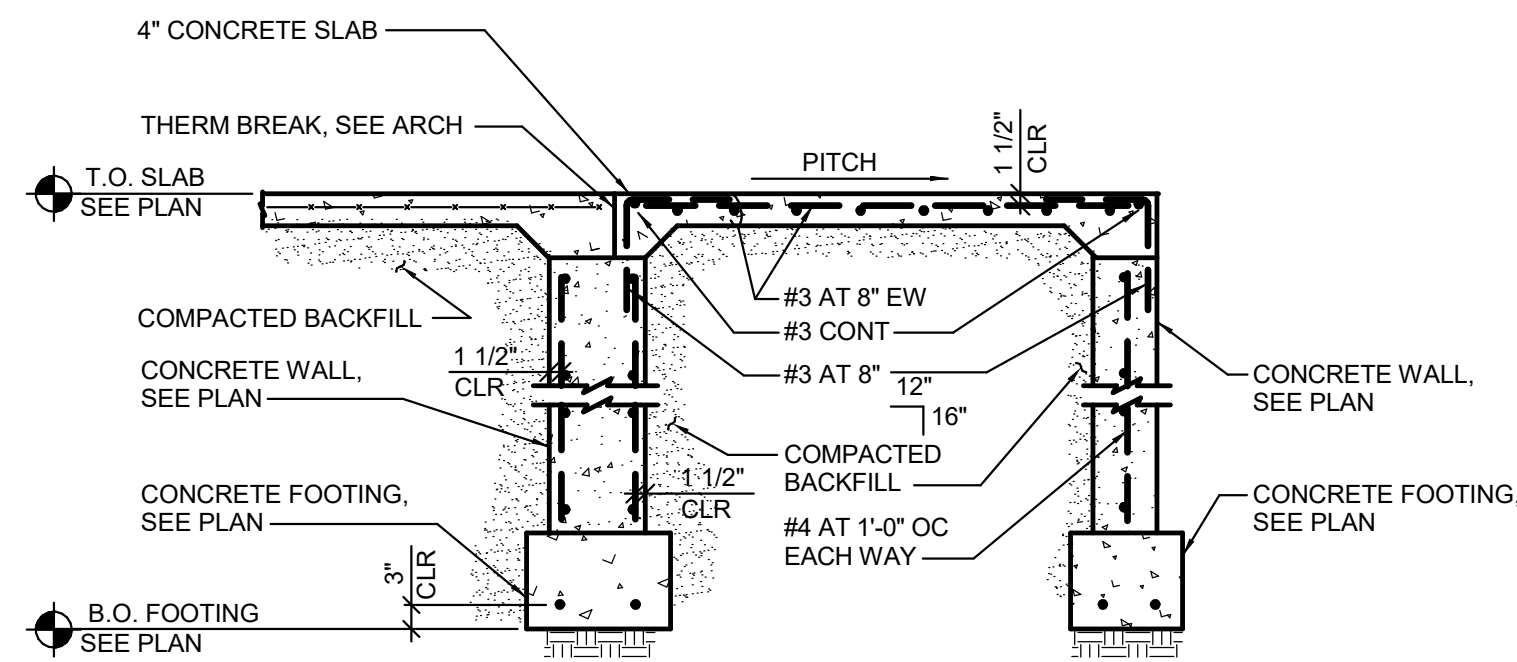
NOTE: PROVIDE (2) FULL HEIGHT STUDS ON EITHER SIDE OF BEARING STUDS



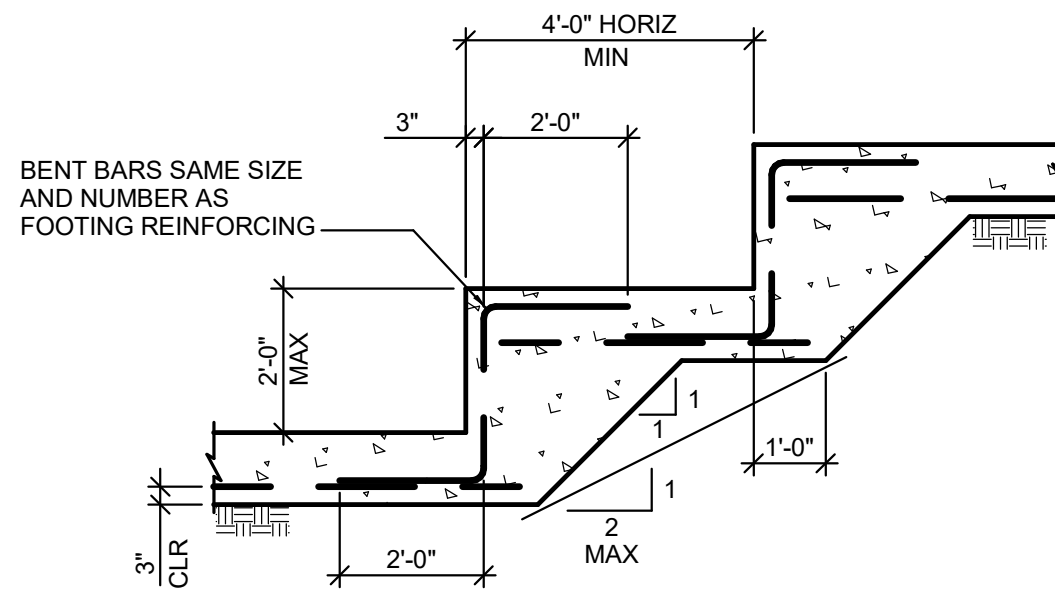
- NOTES:
- ALL LOADS ARE UNFACTORED.
  - DESIGN JOIST FOR WORST CASE LOAD COMBINATIONS.
  - DEAD LOADS DO NOT INCLUDE JOIST SELF-WEIGHT.
  - VERIFY ALL DIMENSIONS.
  - COORDINATE SIZE AND LOCATION OF MECHANICAL RTU WITH MECHANICAL CONTRACTOR.
  - SL = SNOW LOAD  
DL = DEAD LOAD  
RLL = ROOF LIVE LOAD  
PDL = CONCENTRATED DEAD LOAD  
WD = DRIFTED SNOW LOAD
  - MECHANICAL UNIT WEIGHTS HAVE BEEN INCLUDED DL DESIGNATIONS UNO.
  - JOIST WEB CONFIGURATION BY JOIST MANUFACTURER.

SPECIAL JOIST DIAGRAM

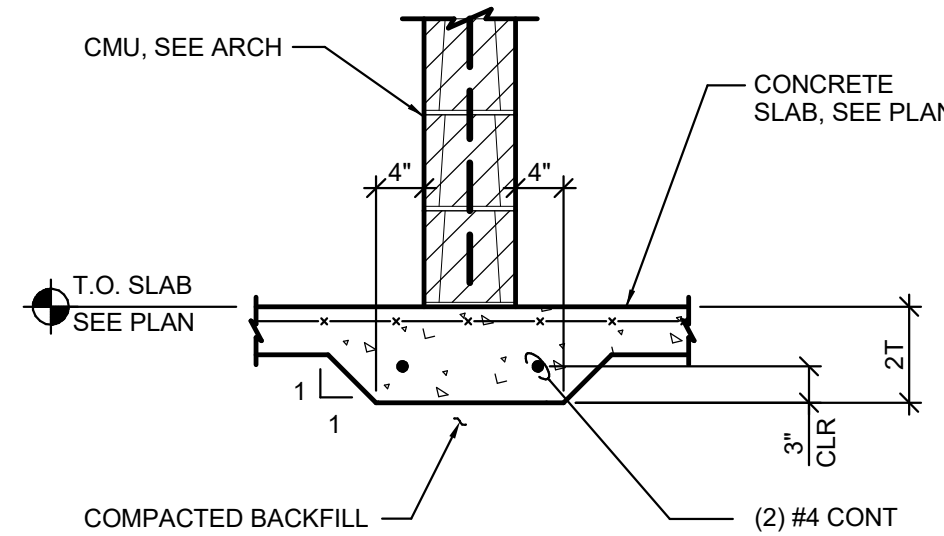




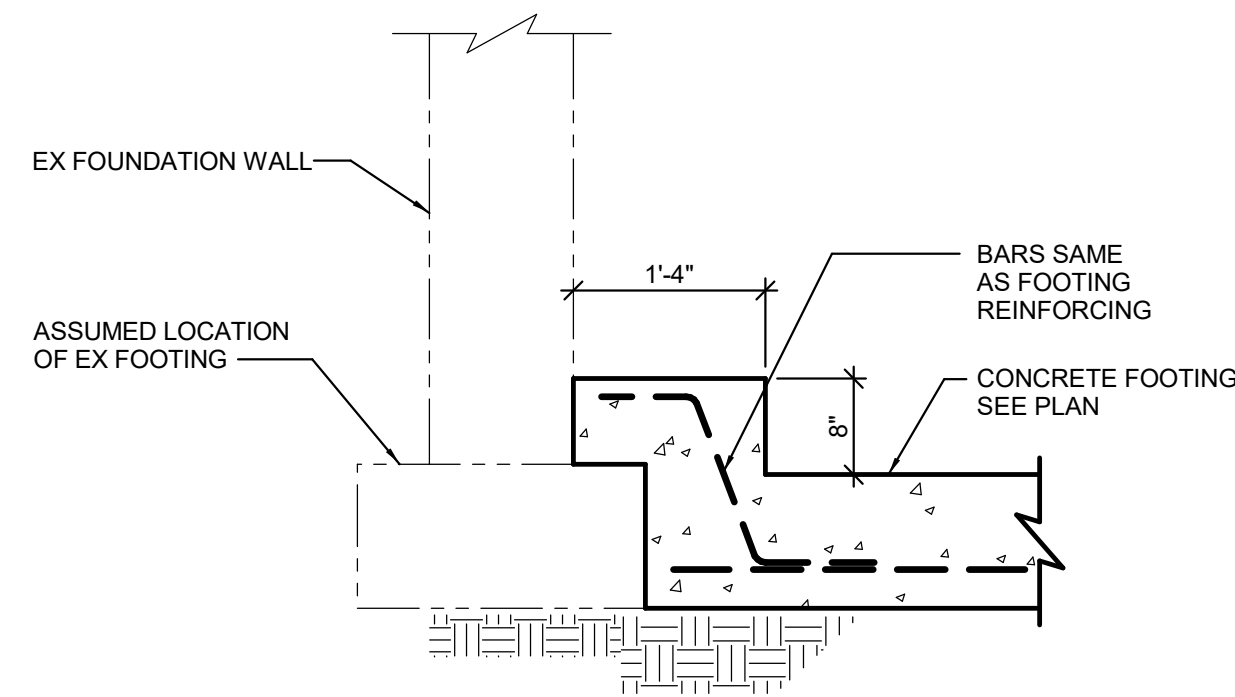
1 ENTRY SLAB  
S5.01 1/2" = 1'-0"



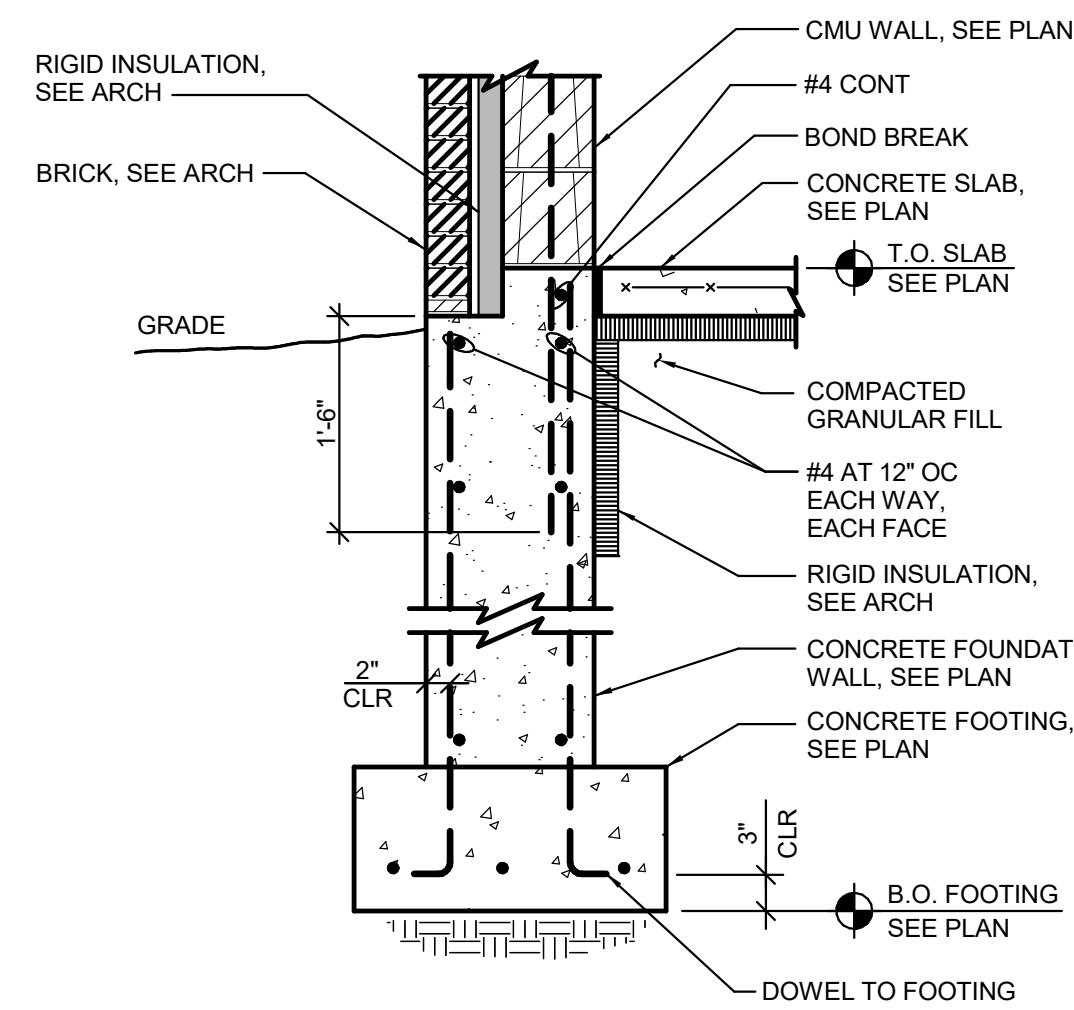
2 STEP FOOTING  
S5.01 3/8" = 1'-0"



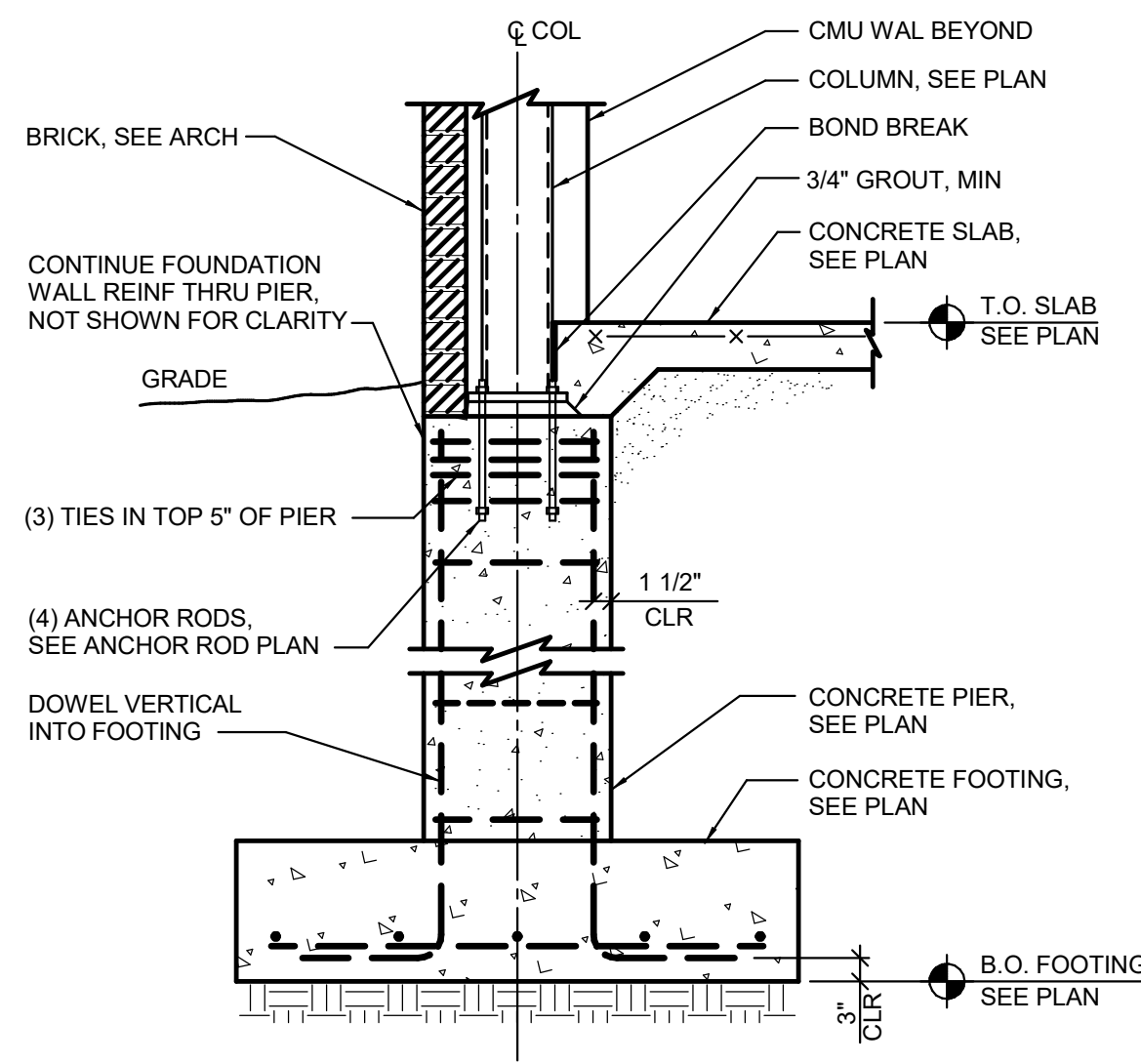
3 THICKENED SLAB  
S5.01 3/4" = 1'-0"



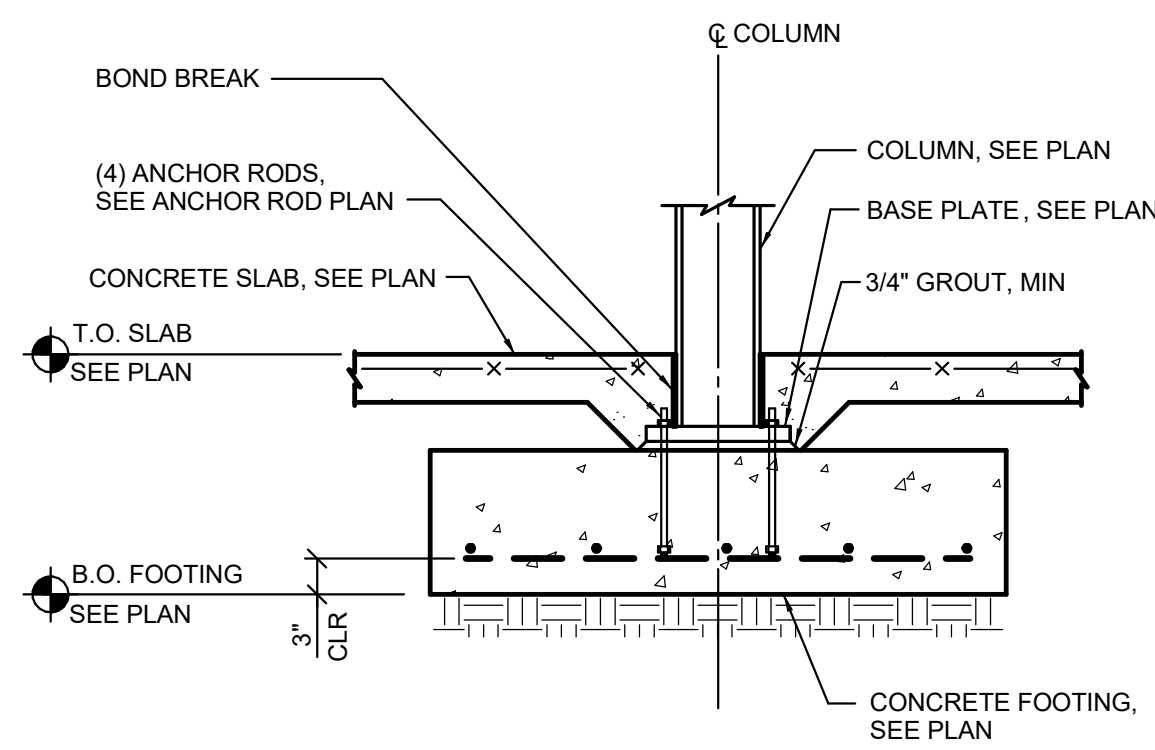
4 NEW FOOTING AT EXISTING  
S5.01 3/4" = 1'-0"



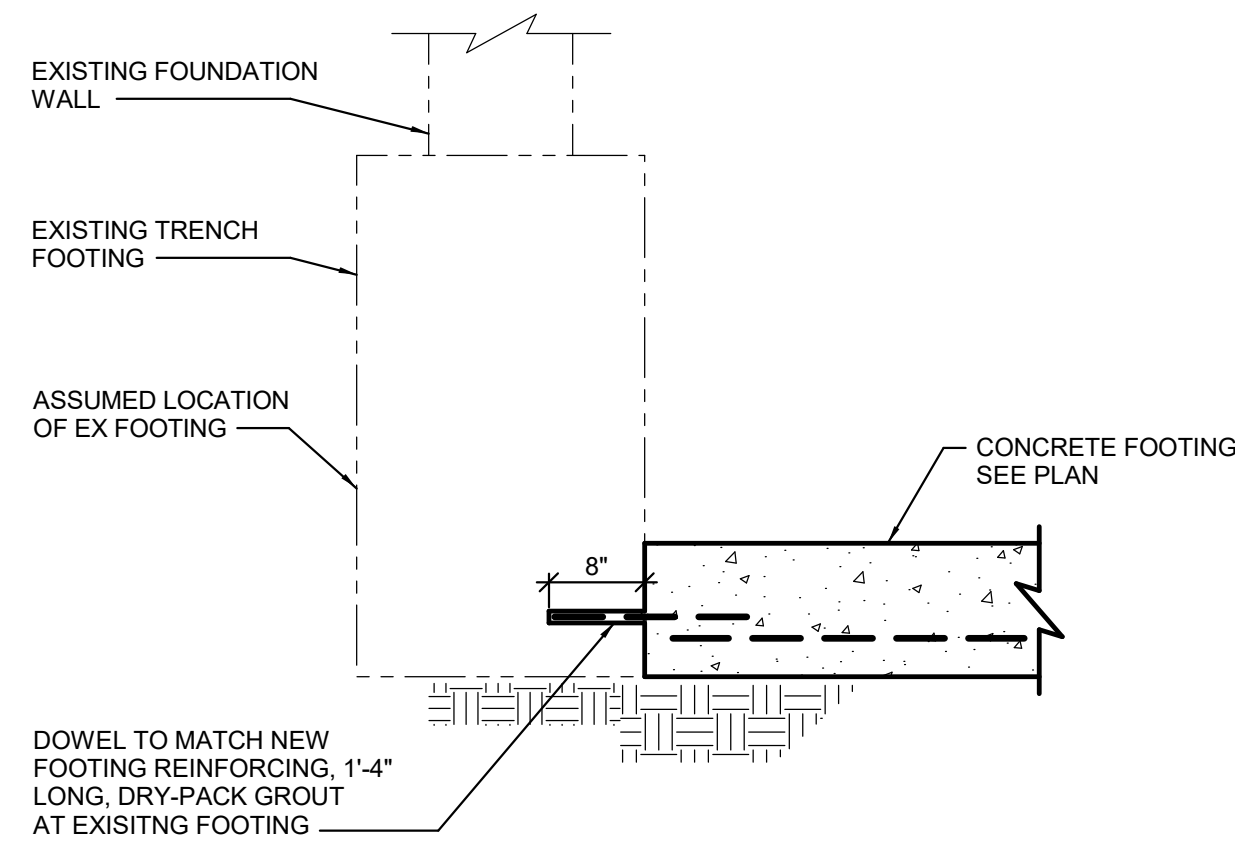
5 EXTERIOR WALL FOOTING  
S5.01 3/4" = 1'-0"



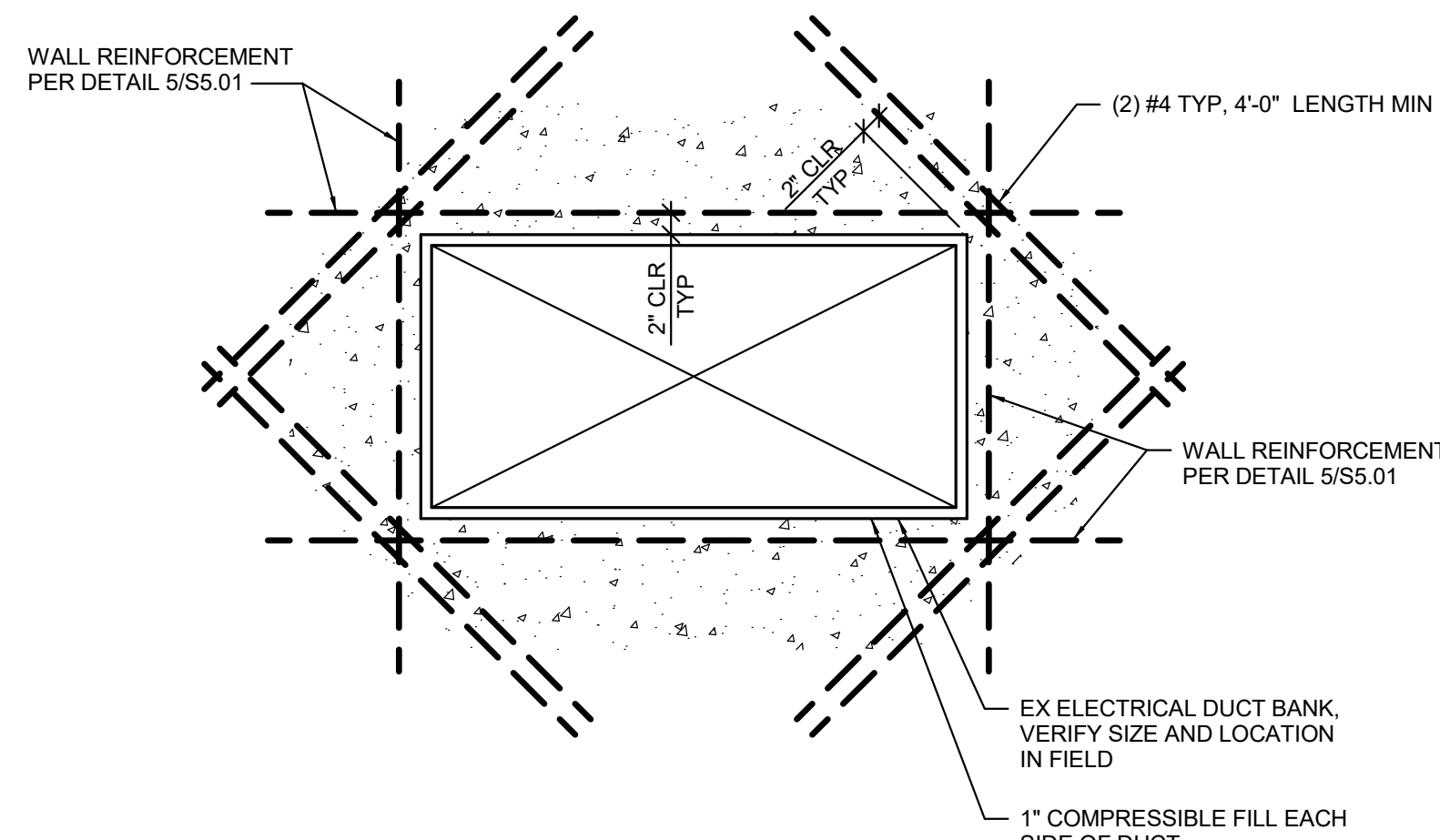
6 COLUMN FOOTING WITH PIER  
S5.01 3/4" = 1'-0"



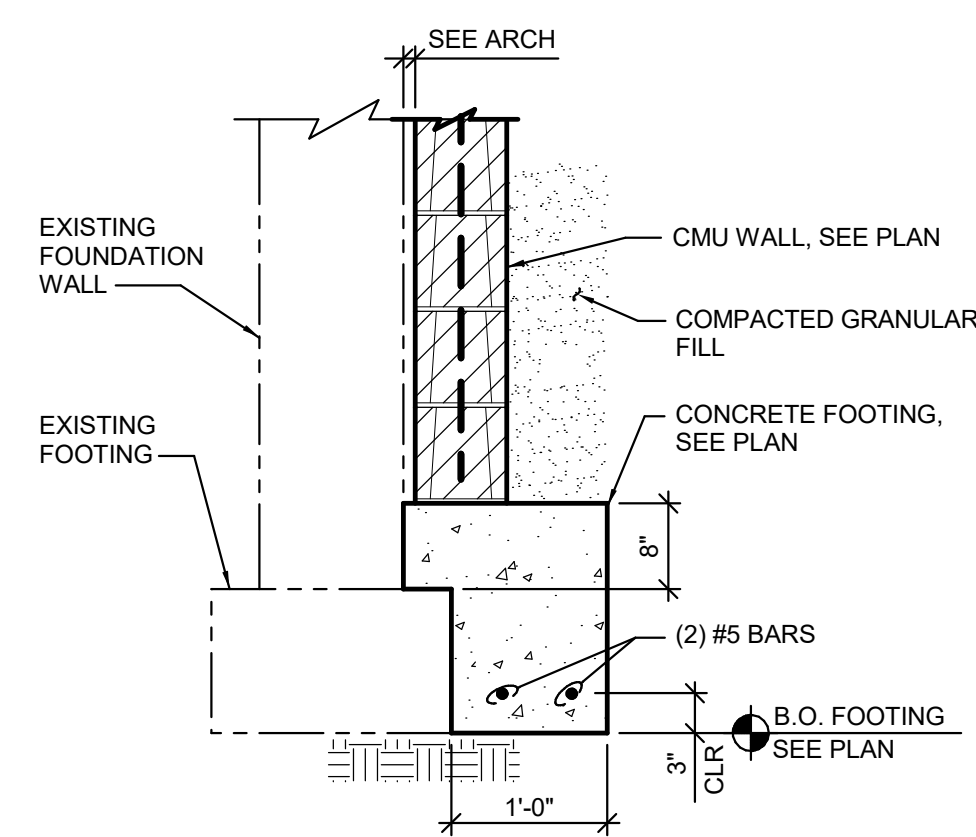
7 INTERIOR COLUMN FOOTING  
S5.01 3/4" = 1'-0"



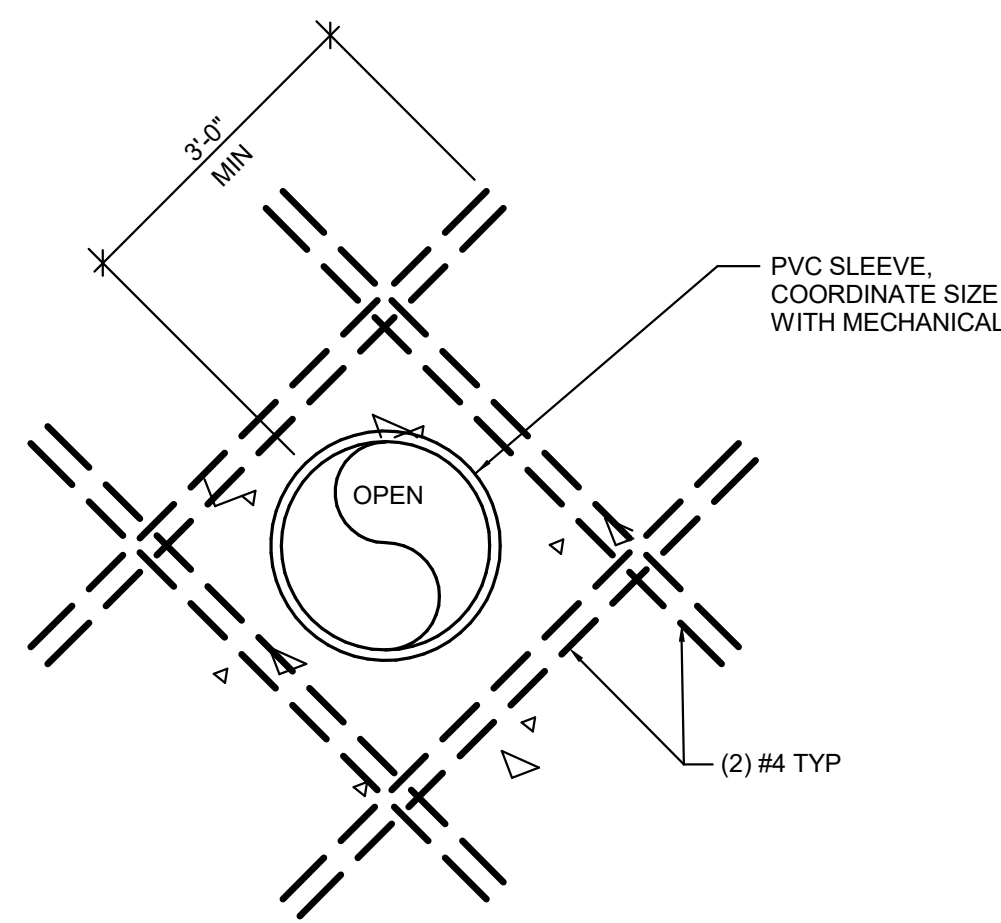
8 NEW FOOTING AT EXISTING  
S5.01 3/4" = 1'-0"



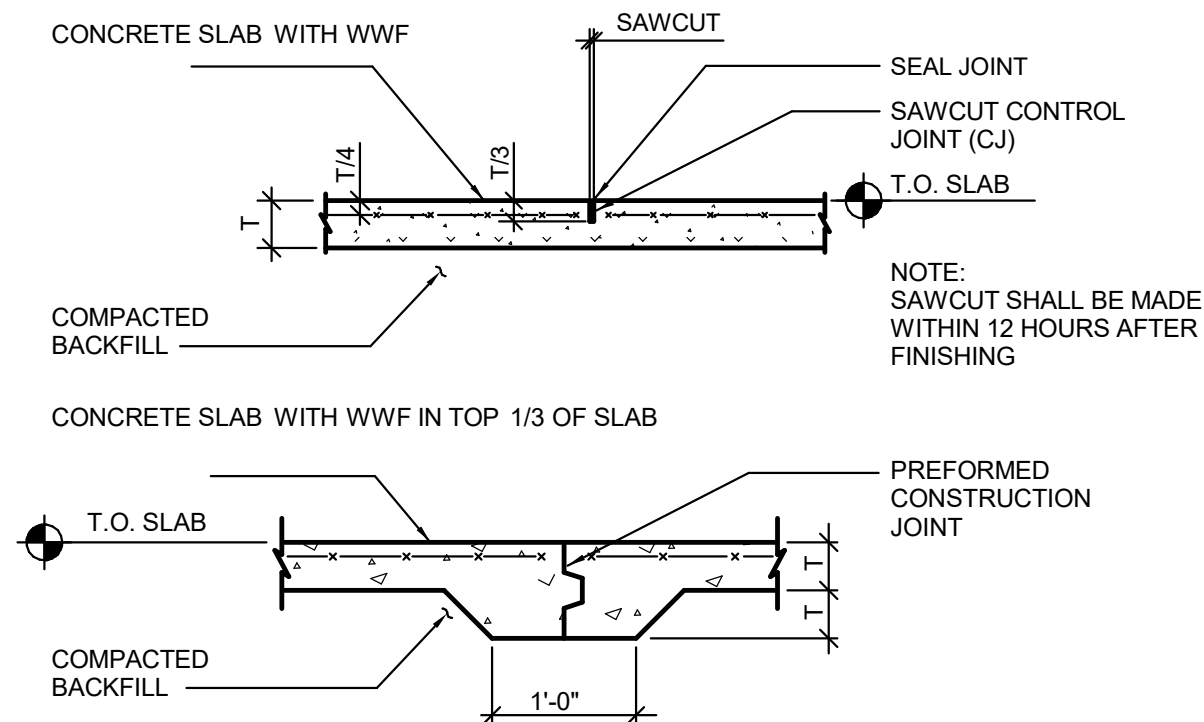
9 WALL REINFORCING AT EXISTING DUCT BANK  
S5.01 3/4" = 1'-0"



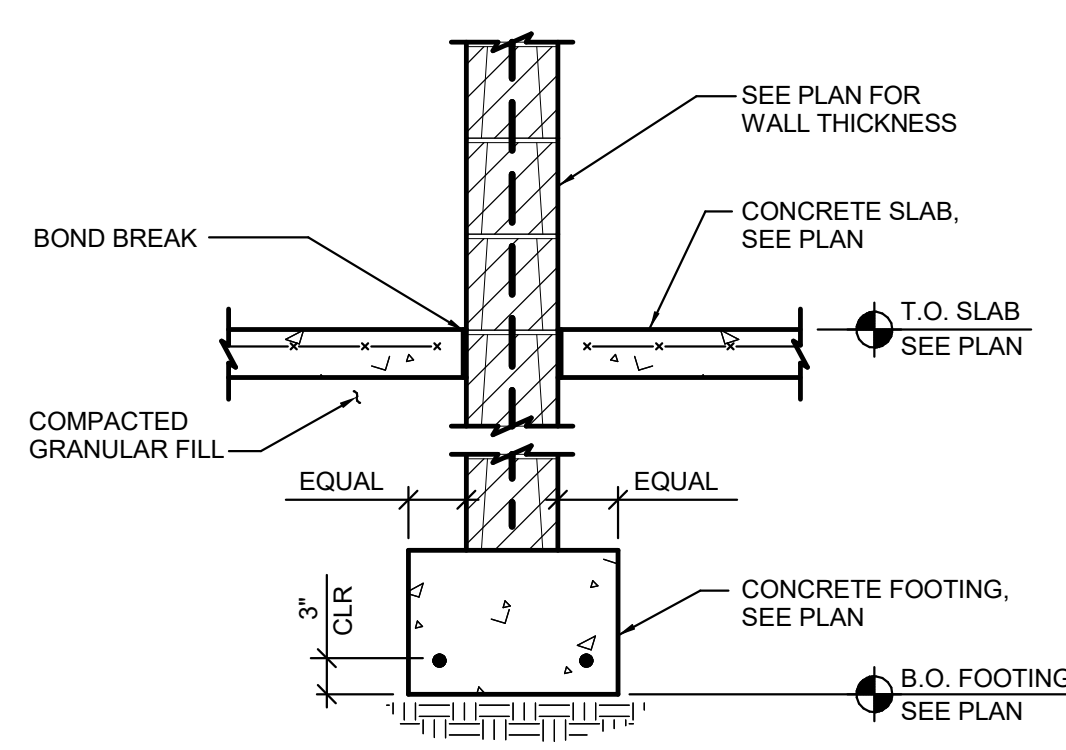
10 FOOTING AT EXISTING  
S5.01 3/4" = 1'-0"



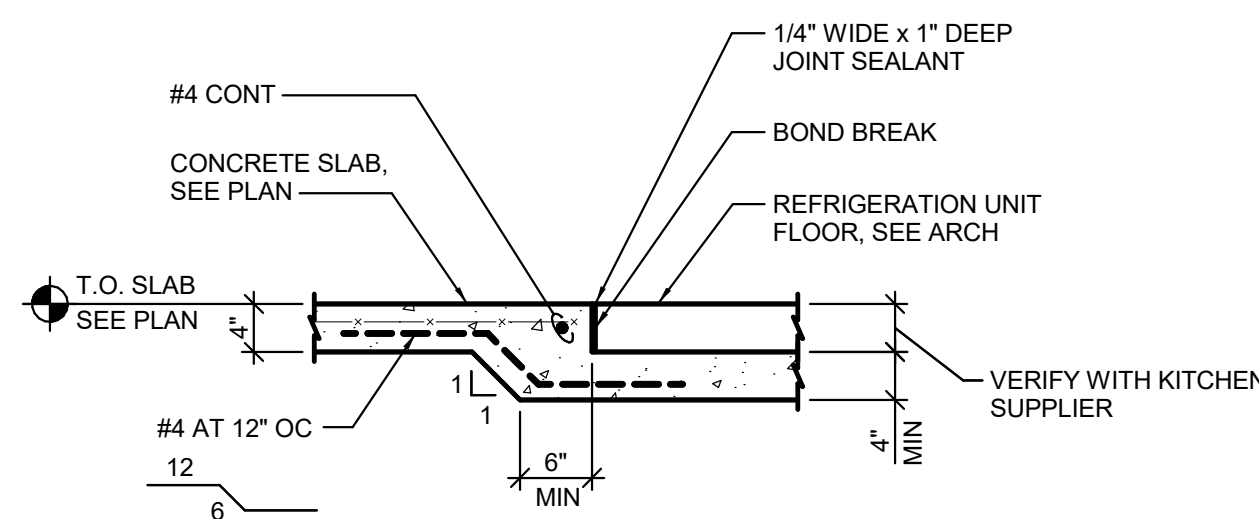
11 WALL OPENING REINFORCEMENT  
S5.01 3/4" = 1'-0"



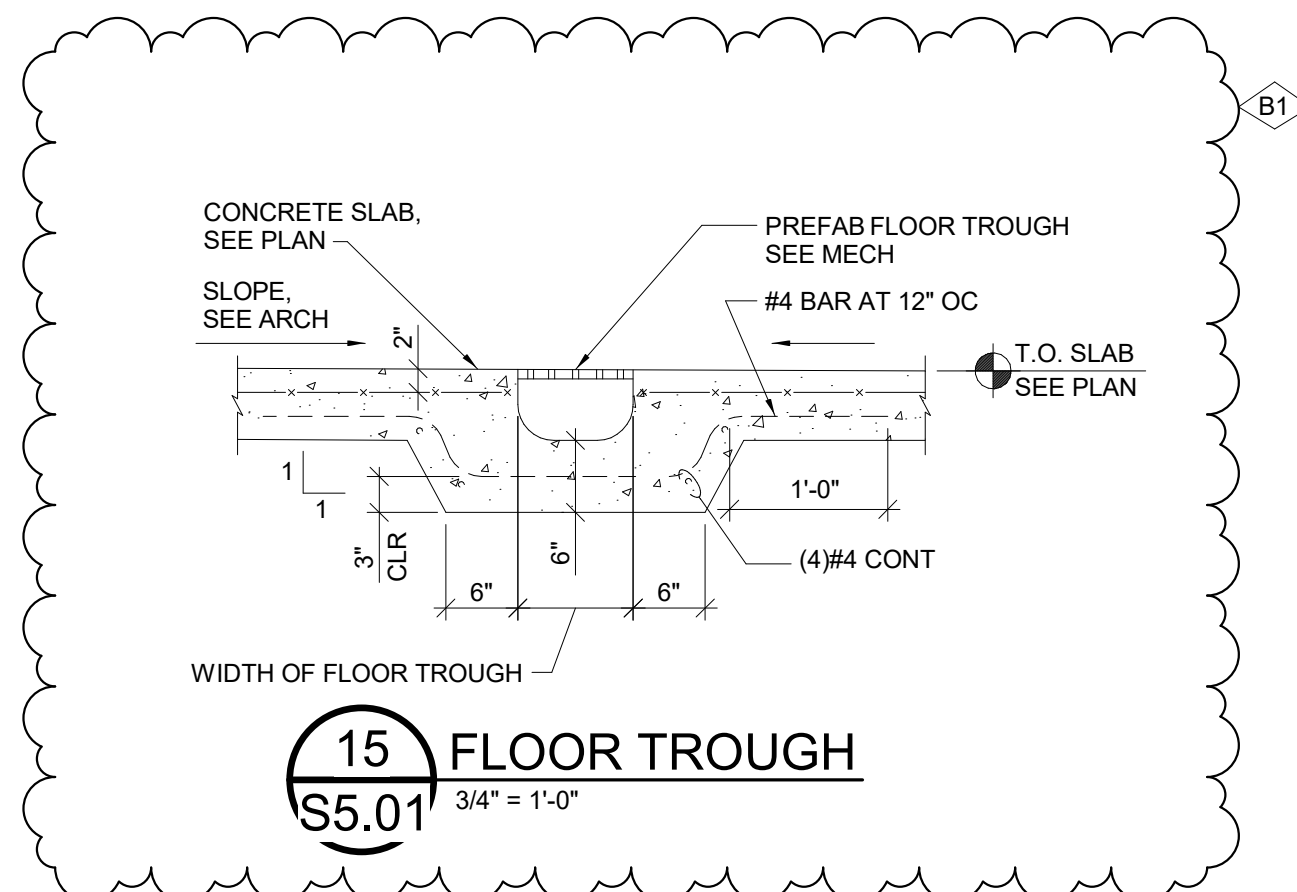
12 CONTROL/CONSTRUCTION JOINTS  
S5.01 3/4" = 1'-0"



13 INTERIOR WALL FOOTING  
S5.01 3/4" = 1'-0"



14 FLOOR SLAB EDGE DETAIL  
S5.01 3/4" = 1'-0"



15 FLOOR TROUGH  
S5.01 3/4" = 1'-0"

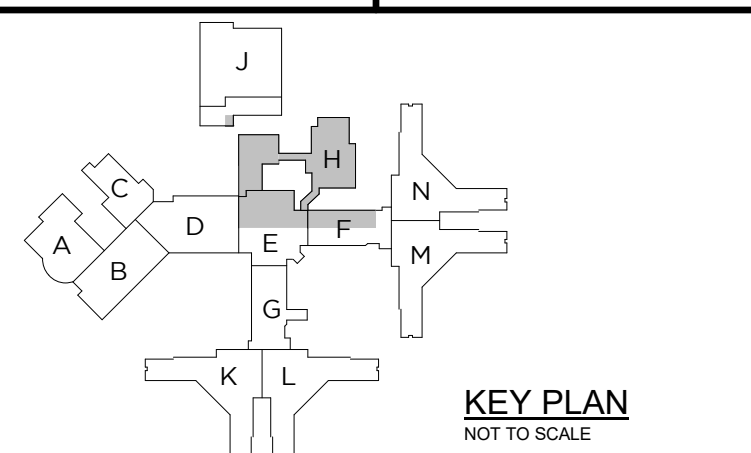
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| B1  | BULLETIN NO. 1 | 01/08/25 |
| A3  | ADDENDUM NO. 3 | 09/28/23 |
| NO. | REVISION       | DATE     |

STATE OF MICHIGAN  
DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET  
FACILITIES AND BUSINESS SERVICES ADMINISTRATION  
DESIGN AND CONSTRUCTION DIVISION  
ADAM LACH, RA, DIRECTOR

FILE NO.  
491/20167.SDW

FUNDING CODE  
171CODHHS7255

CONTRACT NO.  
Y22003



WTAAARCH.COM

WTAA ARCHITECTS

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PROJECT TITLE  
491/20167.SDW - PHASE 500:

CENTER FOR FORENSIC  
PSYCHIATRY - CREATE  
KITCHEN

SALINE, MICHIGAN

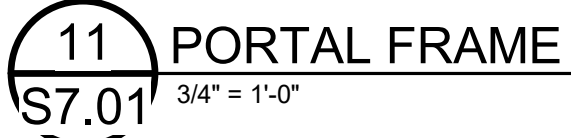
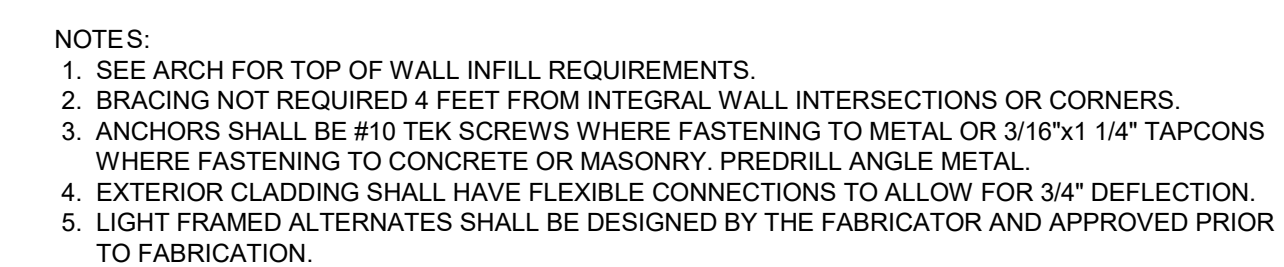
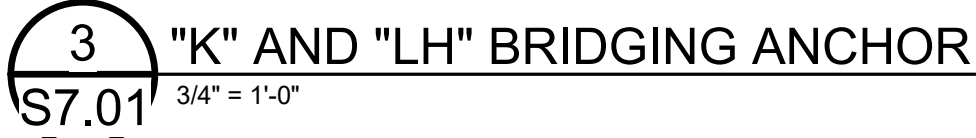
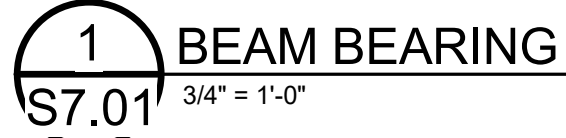
SHEET TITLE  
FOUNDATION DETAILS

PROJECT NUMBER  
2021094

PROJECT DATE  
SEPTEMBER 6, 2023

CHECKED BY  
JAG

SHEET NUMBER  
S5.01





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| AIR HANDLING UNIT SUPPLY AIR FAN SCHEDULE |               |             |             |                 |                 |                               |      |           |       |     |      |            |                         |            |       |                  |                     |              |             |
|---|---------------|-------------|-------------|-----------------|-----------------|-------------------------------|------|-----------|-------|-----|------|------------|-------------------------|------------|-------|------------------|---------------------|--------------|-------------|
| UNIT IDENTIFICATION                       | SYSTEM SERVED | TYPE        | AIRFLOW CFM | E.S.P. IN. W.G. | T.S.P. IN. W.G. | MINIMUM WHEEL DIAMETER INCHES | RPM  | FAN CLASS | MOTOR |     |      |            | MODULATION/CONTROL TYPE | ELECTRICAL |       |                  |                     | MODEL NUMBER | KEYED NOTES |
|   |               |             |             |                 |                 |                               |      |           | BHP   | HP  | RPM  | DRIVE TYPE |                         | VOLTS      | PHASE | SCOR KA (NOTE 5) | OPTIONS/ACCESSORIES |              |             |
| RF-1                                      | AHU-21H       | CENTRIFUGAL | 10,000      | 1.0             | 1.19            | 22.25                         | 2403 | 2         | 5.12  | 7.5 | 1750 | DIRECT     | VFD                     | 460        | 3     |                  |                     | CAH021GDGC   |             |

GENERAL NOTES:  
1. REFER TO SCHEDULES GENERAL NOTES.  
2. MODEL NUMBERS ARE DAIKIN UNLESS OTHERWISE NOTED.  
3. DESIGN MINIMUM OUTSIDE AIRFLOW CFM (VENTILATION) LISTED IS BASED ON THE ESTIMATED MAXIMUM OCCUPANT LOAD. REFER TO TEMPERATURE CONTROL DRAWINGS FOR OUTSIDE AIR CONTROL SEQUENCE.  
4. REFER TO AIR HANDLING UNIT FILTER SCHEDULE FOR AIR PRESSURE DROP TO BE USED FOR TOTAL STATIC PRESSURE CALCULATIONS.  
5. CONTROLLER (E.G. VARIABLE FREQUENCY CONTROLLER, MOTOR STARTER) FOR SPECIFIED EQUIPMENT SHALL BE MANUFACTURED AND MARKED PER NEC WITH A MINIMUM SHORT CIRCUIT CURRENT RATING AS INDICATED.

KEYED NOTES:  
1. PROVIDE BUNGY CORD MAINTENANCE LED LIGHT 235" LONG, WITH MAGNETIC BASE AND FLEXIBLE CORD  
2. PROVIDE TWO BLANK OFF SHEETS FOR SUPPLY FAN

| MODULAR AIR HANDLING UNIT DIMENSIONS |                     |                    |                     |                            |                        |              |             |
|--------------------------------------|---------------------|--------------------|---------------------|----------------------------|------------------------|--------------|-------------|
| UNIT IDENTIFICATION                  | MAXIMUM UNIT LENGTH | MAXIMUM UNIT WIDTH | MAXIMUM UNIT HEIGHT | MAXIMUM UNIT WEIGHT POUNDS | MANUFACTURER LEAD TIME | MANUFACTURER | KEYED NOTES |
| AHU-21H                              | 310"                | 90"                | 58"                 | 5504                       | ----                   | DAIKIN       | 1           |
| AHU-22H                              | 166"                | 80"                | 52"                 | 2877                       | ----                   | DAIKIN       | 1           |

GENERAL NOTES:  
1. FOR REFERENCE ONLY

KEYED NOTES:  
1. AHU TO BE SHIPPED IN SECTIONS AND THEN BROKEN DOWN TO FIT THROUGH DOORWAYS. CONTRACTOR TO REASSEMBLE AHU IN ROOM UNDER DIRECTION FROM MANUFACTURER

| MODULAR AIR HANDLING UNIT COMPONENT SCHEDULE |                   |                   |                   |                   |                   |                   |                   |                   |                   |             |
|--|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------|
| UNIT IDENTIFICATION                          | POSITION NUMBER 1 | POSITION NUMBER 2 | POSITION NUMBER 3 | POSITION NUMBER 4 | POSITION NUMBER 5 | POSITION NUMBER 6 | POSITION NUMBER 7 | POSITION NUMBER 8 | POSITION NUMBER 9 | KEYED NOTES |
| AHU-21H                                      | PLENUM            | ACCESS            | RF-1              | ECONOMIZER        | AF-1              | HC-1              | CC-1              | ACCESS            | SF-1              | 1           |
| AHU-22H                                      | PLENUM            | AF-2              | HC-2              | ACCESS            | SF-2              | ---               | ---               | ---               | ---               | 1           |

GENERAL NOTES:  
1. MODULES SELECTED BASED ON DAIKIN INDOOR MODULAR CLIMATE CHANGER AIR HANDLING UNIT.  
2. POSITION NUMBERS ARE INDICATED IN THE DIRECTION OF AIRFLOW FROM RETURN AIR INLET TO SUPPLY AIR DISCHARGE.

KEYED NOTES:  
1. AHU TO BE SHIPPED IN SECTIONS AND THEN BROKEN DOWN TO FIT THROUGH EXISTING DOORWAYS. CONTRACTOR TO REASSEMBLE AHU IN ROOM UNDER DIRECTION FROM MANUFACTURER  
2. AHU IS IS PRE-PURCHASED AND ASSIGNED TO THE CONTRACTOR FOR DELIVERY AND INSTALLATION

| AIR HANDLING UNIT FILTER SCHEDULE |               |                         |                |                     |                   |                   |              |              |               |              |                                    |                |              |               |            |             |
|-----------------------------------|---------------|-------------------------|----------------|---------------------|-------------------|-------------------|--------------|--------------|---------------|--------------|------------------------------------|----------------|--------------|---------------|------------|-------------|
| UNIT I.D.                         | SYSTEM SERVED | TYPE                    | AIRFLOW<br>CFM | AIR PRESS. DROP     |                   | EFFICIENCY<br>IES | FILTER MEDIA |              |               |              |                                    | HOUSING        |              |               | MODEL NO.  | KEYED NOTES |
|                                   |               |                         |                | INITIAL<br>IN. W.G. | DIRTY<br>IN. W.G. |                   | QUAN.        | WIDTH<br>IN. | HEIGHT<br>IN. | DEPTH<br>IN. | MIN. MEDIA<br>FACE AREA<br>SQ. FT. | ACCESS<br>TYPE | WIDTH<br>IN. | HEIGHT<br>IN. |            |             |
| AF-1                              | AHU-21H       | PLEATED                 | 10,000         | 0.22                | 1.0               | 8                 | 3/3          | 24/24        | 24/20         | 2            | 20                                 | SIDE           | 18           | 48            | CAH021GDGC |             |
| AF-1                              | AHU-21H       | VARICEL SH<br>CARTRIDGE | 10,000         | 0.53                | 1.5               | 13                | 3/3          | 24/24        | 24/20         | 12           | 20                                 | SIDE           | 18           | 48            | CAH021GDGC |             |
| AF-2                              | AHU-22H       | PLEATED                 | 8700           | 0.08                | 1.0               | 8                 | 3/6/3        | 24/20/12     | 24/24/24      | 2/2/2        | 12/20/6                            | SIDE           | 26           | 42            | CAH018GDGM |             |

GENERAL NOTES:  
1. MODEL NUMBERS ARE FARR UNLESS OTHERWISE NOTED.  
2. PROVIDE 25% TO 30% EFFICIENT 2 INCH THROW AWAY PREFILTERS  
3. MERV DESIGNATES THE "MINIMUM EFFICIENCY REPORTING VALUE" AS EVALUATED UNDER ASHRAE STANDARD 52.2 1999.  
4. AIR HANDLING UNIT TOTAL STATIC PRESSURE FOR VARIABLE AIR VOLUME SYSTEMS IS BASED ON THE FILTER DIRTY AIR PRESSURE DROP AND AVERAGE/MOLIFE FILTER AIR PRESSURE DROP FOR CONSTANT VOLUME SYSTEMS UNLESS NOTED OTHERWISE.

KEYED NOTES:  
1. PROVIDE THREE SETS OF EACH TYPE OF FILTER

| AIR HANDLING UNIT SUPPLY AIR FAN SCHEDULE |               |             |             |                      |                 |                 |                               |      |           |       |      |      |            |                         |            |       |                  |                     |              |             |
|---|---------------|-------------|-------------|----------------------|-----------------|-----------------|-------------------------------|------|-----------|-------|------|------|------------|-------------------------|------------|-------|------------------|---------------------|--------------|-------------|
| UNIT IDENTIFICATION                       | SYSTEM SERVED | TYPE        | AIRFLOW CFM | OUTSIDE AIR FLOW CFM | E.S.P. IN. W.G. | T.S.P. IN. W.G. | MINIMUM WHEEL DIAMETER INCHES | RPM  | FAN CLASS | MOTOR |      |      |            | MODULATION/CONTROL TYPE | ELECTRICAL |       |                  |                     | MODEL NUMBER | KEYED NOTES |
|   |               |             |             |                      |                 |                 |                               |      |           | BHP   | HP   | RPM  | DRIVE TYPE |                         | VOLTS      | PHASE | SCOR KA (NOTE 5) | OPTIONS/ACCESSORIES |              |             |
| SF-1                                      | AHU-21H       | CENTRIFUGAL | 10,000      | 3000                 | 2.0             | 4.89            | 24.5                          | 1796 | 2         | 11.29 | 15.0 | 1750 | DIRECT     | VFD                     | 460        | 3     |                  |                     | CAH021GDGC   |             |
| SF-2                                      | AHU-22H       | CENTRIFUGAL | 8700        | 8700                 | 1.5             | 3.51            | 18.25                         | 3650 | 2         | 7.9   | 10   | 3500 | DIRECT     | VFD                     | 460        | 3     |                  |                     |              |             |

GENERAL NOTES:  
1. REFER TO SCHEDULES GENERAL NOTES.  
2. MODEL NUMBERS ARE DAIKIN UNLESS OTHERWISE NOTED.  
3. DESIGN MINIMUM OUTSIDE AIRFLOW CFM (VENTILATION) LISTED IS BASED ON THE ESTIMATED MAXIMUM OCCUPANT LOAD. REFER TO TEMPERATURE CONTROL DRAWNGS FOR OUTSIDE AIR CONTROL SEQUENCE.  
4. REFER TO AIR HANDLING UNIT FILTER SCHEDULE FOR AIR PRESSURE DROP TO BE USED FOR TOTAL STATIC PRESSURE CALCULATIONS.  
5. CONTROLLER (E.G. VARIABLE FREQUENCY CONTROLLER, MOTOR STARTER) FOR SPECIFIED EQUIPMENT SHALL BE MANUFACTURED AND MARKED PER NEC WITH A MINIMUM SHORT CIRCUIT CURRENT RATING AS INDICATED.

KEYED NOTES:  
1. PROVIDE BUNGY CORD MAINTENANCE LED LIGHT 235" LONG, WITH MAGNETIC BASE AND FLEXIBLE CORD  
2. PROVIDE TWO BLANK OFF SHEETS FOR SUPPLY FAN

| CHILLED WATER COOLING COIL SCHEDULE |               |                     |                              |                    |             |           |           |           |           |                         |                           |          |            |           |           |                         |                               |              |             |
|-------------------------------------|---------------|---------------------|------------------------------|--------------------|-------------|-----------|-----------|-----------|-----------|-------------------------|---------------------------|----------|------------|-----------|-----------|-------------------------|-------------------------------|--------------|-------------|
| UNIT IDENTIFICATION                 | SYSTEM SERVED | MAXIMUM NUMBER ROWS | MAXIMUM FM DENSITY FINS/INCH | TOTAL CAPACITY MBH | AIR         |           |           |           |           |                         | MINIMUM FACE AREA SQ. FT. | WATER    |            |           |           |                         | CONTROL VALVE W.P.D. FT. HEAD | MODEL NUMBER | KEYED NOTES |
|                                     |               |                     |                              |                    | AIRFLOW CFM | E.D.B. °F | E.W.B. °F | L.D.B. °F | L.W.B. °F | MAXIMUM A.P.D. IN. W.G. |                           | FLOW GPM | FLUID TYPE | E.W.T. °F | L.W.T. °F | MAXIMUM W.P.D. FT. HEAD |                               |              |             |
| CC-1                                | AHU-21H       | 6                   | 9                            | 388.6              | 10000       | 79.7      | 65.9      | 53.9      | 53.0      | 0.69                    | 20.1                      | 63.7     | W          | 44.0      | 56.2      | 16.0                    | 15                            | SWL0906B     | #           |

GENERAL NOTES:  
1. MODEL NUMBERS ARE DAIKIN UNLESS OTHERWISE NOTED.  
2. COIL SELECTIONS BASED ON .00025 FOULING FACTOR.  
3. FLUID TYPE: W = WATER, PGXX = PROPYLENE GLYCOL SOLUTION XX PERCENTAGE OF GLYCOL, EGXX = ETHYLENE GLYCOL SOLUTION XX PERCENTAGE OF GLYCOL.

| HOT WATER HEATING COIL SCHEDULE |               |                     |                               |              |             |           |           |                         |                           |          |            |           |           |                              |              |             |
|---------------------------------|---------------|---------------------|-------------------------------|--------------|-------------|-----------|-----------|-------------------------|---------------------------|----------|------------|-----------|-----------|------------------------------|--------------|-------------|
| UNIT IDENTIFICATION             | SYSTEM SERVED | MAXIMUM NUMBER ROWS | MAXIMUM FIN DENSITY FINS/INCH | CAPACITY MBH | AIR         |           |           |                         | MINIMUM FACE AREA SQ. FT. | WATER    |            |           |           | CONTROL VALVE W.P.D. FT. HD. | MODEL NUMBER | KEYED NOTES |
|                                 |               |                     |                               |              | AIRFLOW CFM | E.D.B. °F | L.D.B. °F | MAXIMUM A.P.D. IN. W.G. |                           | FLOW GPM | FLUID TYPE | E.W.T. °F | L.W.T. °F |                              |              |             |
| HC-1                            | AHU-21H       | 2                   | 10                            | 305.5        | 10000       | 43.0      | 70.9      | 0.30                    | 15.1                      | 19.7     | PG35       | 130       | 99        | 2.00                         | 15           | 5WH1002B    |
| HC-2                            | AHU-22H       | 2                   | 10                            | 804.5        | 8700        | -10.0     | 82.0      | 0.33                    | 16.0                      | 42.2     | PG35       | 130       | 94        | 8.6                          | 15           | 5WH1002C    |

GENERAL NOTES:  
1. MODEL NUMBERS ARE DAIKIN UNLESS OTHERWISE NOTED.  
2. COIL SELECTION BASED ON .00025 FOULING FACTOR.  
3. FLUID TYPE: W = WATER, PGXX = PROPYLENE GLYCOL SOLUTION XX PERCENTAGE OF GLYCOL, EGXX = ETHYLENE GLYCOL SOLUTION XX PERCENTAGE OF GLYCOL.

| AIR TERMINAL TYPE |                    |   |        |        |         |         |         |               |               |
|-------------------|--------------------|---|--------|--------|---------|---------|---------|---------------|---------------|
| DUCT CONNECTIONS  |                    | DISCHARGE SOUND POWER/RADIATED SOUND POWER - dB |        |        |         |         |         | DIMENSIONS    |               |
| INLET SIZE INCHES | OUTLET SIZE INCHES | 125 Hz  | 250 Hz | 500 Hz | 1000 Hz | 2000 Hz | 4000 HZ | LENGTH INCHES | HEIGHT INCHES |
| 6a                | 12x8               | 73/66   | 69/63  | 62/52  | 56/42   | 53/40   | 49/36   |               |               |
| 8a                | 12x10              | 72/68   | 70/59  | 66/53  | 63/47   | 57/46   | 53/46   |               |               |
| 10a               | 14x12-1/2          | 78/71   | 70/61  | 65/56  | 61/50   | 58/47   | 53/45   |               |               |
| 12a               | 16x15              | 76/72   | 73/63  | 69/59  | 65/53   | 61/48   | 57/46   |               |               |
| 16a               | 24x18              | 78/70   | 73/63  | 70/58  | 68/53   | 64/52   | 59/50   |               |               |
| 24x16             | 38x18              | 83/74   | 81/69  | 76/63  | 74/54   | 73/48   | 68/41   |               |               |

GENERAL NOTES:  
1. MODEL NUMBERS ARE TITUS UNLESS OTHERWISE NOTED.  
2. MAXIMUM SOUND POWER LEVEL BASED ON 2" PRESSURE DROP ACROSS UNIT WITH NO ALLOWANCE FOR EXTERNAL ATTENUATION.

KEYED NOTES:  
1. BASED ON 350 CFM  
2. BASED ON 650 CFM  
3. BASED ON 900 CFM  
4. BASED ON 1500 CFM  
5. BASED ON 2500 CFM  
6. BASED ON 5300 CFM

| AIR TERMINAL UNIT WITH HOT WATER COIL SCHEDULE |            |                           |                  |                 |                  |                  |                 |                               |                       |             |       |      |          |            |           |     |           |                         |             |                               |
|--|------------|---------------------------|------------------|-----------------|------------------|------------------|-----------------|-------------------------------|-----------------------|-------------|-------|------|----------|------------|-----------|-----|-----------|-------------------------|-------------|-------------------------------|
| UNIT IDENTIFICATION                            | INLET SIZE | AREA SERVED               | UNIT SERVED FROM | AIR FLOW        |                  |                  |                 |                               | HEATING COIL (NOTE 3) |             |       |      |          |            |           |     |           |                         | KEYED NOTES |                               |
|  |            |                           |                  | COOLING MAX CFM | COOLING MIN. CFM | HEATING MIN. CFM | HEATING MAX CFM | MAXIMUM A.P.D. W/COL IN. W.G. | CAPACITY MBH          | NUMBER ROWS | WATER |      |          |            |           |     |           |                         |             |                               |
|  |            |                           |                  |                 |                  |                  |                 |                               |                       |             | AIR   |      | FLOW GPM | FLUID TYPE | E.W.T. °F |     | L.W.T. °F | MAXIMUM W.P.D. FT. HEAD |             | CONTROL VALVE W.P.D. FT. HEAD |
| E.D.B. °F                                      | L.D.B. °F  |                           |                  |                 |                  |                  |                 |                               |                       |             |       |      |          |            |           |     |           |                         |             |                               |
| VBR-H108                                       | 6          | H132,H119, H133           | AHU-21H          | 260             | 80               | 80               | 260             | 0.11                          | 5.0                   | 2           | 55.0  | 90.0 | 0.5      | PG35       | 130       | 100 | 0.29      | 15                      | 3-WAY       |                               |
| VBR-H109                                       | 12         | DINING H131               | AHU-21H          | 1080            | 325              | 325              | 1080            | 0.16                          | 20.6                  | 2           | 55.0  | 90.0 | 1.2      | PG35       | 130       | 100 | 1.41      | 15                      | 3-WAY       |                               |
| VBR-H110                                       | 12         | DINING H131               | AHU-21H          | 1080            | 325              | 325              | 1080            | 0.16                          | 20.6                  | 2           | 55.0  | 90.0 | 1.2      | PG35       | 130       | 100 | 1.41      | 15                      | 3-WAY       |                               |
| VBR-H111                                       | 12         | DINING H131/ SERVERY H130 | AHU-21H          | 1280            | 325              | 325              | 1280            | 0.22                          | 24.4                  | 2           | 55.0  | 90.0 | 1.5      | PG35       | 130       | 100 | 2.77      | 15                      | 3-WAY       |                               |
| VBR-H112                                       | 12         | DINING H131/ SERVERY H130 | AHU-21H          | 1280            | 325              | 325              | 1280            | 0.22                          | 24.4                  | 2           | 55.0  | 90.0 | 1.5      | PG35       | 130       | 100 | 2.77      | 15                      | 3-WAY       |                               |
| VBR-H113                                       | 12         | KITCHEN H123              | AHU-21H          | 1260            | 325              | 325              | 1260            | 0.21                          | 24.0                  | 2           | 55.0  | 90.0 | 1.4      | PG35       | 130       | 100 | 2.63      | 15                      | 3-WAY       |                               |
| VBR-H114                                       | 12         | KITCHEN H123              | AHU-21H          | 1375            | 325              | 325              | 1375            | 0.22                          | 24.3                  | 2           | 55.0  | 90.0 | 1.5      | PG35       | 130       | 100 | 2.74      | 15                      | 3-WAY       |                               |
| VBR-H115                                       | 6          | BREAK ROOM H127           | AHU-21H          | 205             | 80               | 80               | 205             | 0.08                          | 4.0                   | 2           | 55.0  | 90.0 | 0.5      | PG35       | 130       | 100 | 0.11      | 15                      | 3-WAY       |                               |
| VBR-H116                                       | 12         | KITCHEN H123              | AHU-21H          | 1330            | 325              | 325              | 1330            | 0.30                          | 25.3                  | 2           | 55.0  | 90.0 | 1.5      | PG35       | 130       | 100 | 1.78      | 15                      | 3-WAY       |                               |
| VBR-H117                                       | 6          | OFFICE H125               | AHU-21H          | 200             | 80               | 80               | 200             | 0.07                          | 3.9                   | 2           | 55.0  | 90.0 | 0.5      | PG35       | 130       | 100 | 0.10      | 15                      | 3-WAY       |                               |
| VBR-H118                                       | 8          | CORRIDOR H122             | AHU-21H          | 600             | 145              | 145              | 600             | 0.34                          | 11.5                  | 2           | 55.0  | 90.0 | 0.7      | PG35       | 130       | 100 | 4.95      | 15                      | 3-WAY       |                               |
| VBR-H119                                       | 6          | STORAGE H124              | AHU-21H          | 150             | 80               | 80               | 150             | 0.03                          | 3.1                   | 1           | 55.0  | 90.0 | 0.5      | PG35       | 130       | 100 | 0.05      | 15                      | 3-WAY       |                               |

GENERAL NOTES:  
1. MODEL NUMBERS ARE TITUS UNLESS OTHERWISE NOTED.  
2. MAXIMUM PRESSURE DROP SCHEDULED SHALL BE THE MAXIMUM ALLOWABLE STATIC PRESSURE FOR BOX AND COIL. AT THE MAXIMUM CFM.  
3. HEATING COIL SELECTION BASED ON HEATING MAXIMUM AIR FLOW.  
4. FLUID TYPE: W = WATER, PGXX = PROPYLENE GLYCOL SOLUTION XX PERCENTAGE OF GLYCOL, EGXX = ETHYLENE GLYCOL SOLUTION XX PERCENTAGE OF GLYCOL.

| KITCHEN EXHAUST DUCT REQUIREMENT SCHEDULE |                         |                                     |                  |               |                             |           |                   |
|---|-------------------------|-------------------------------------|------------------|---------------|-----------------------------|-----------|-------------------|
| EXHAUST SYSTEM                            | MINIMUM DESIGN PRESSURE | MINIMUM DESIGN TEMPERATURE (DEG. F) | WORKING PRESSURE | TEST PRESSURE | LIGHT TEST                  | TEST TIME | ALLOWABLE LEAKAGE |
| GREASE DUCT                               | 20 PSIG                 | >200                                | -5" PSIG         | 20 PSIG       | TEST ALL JOINTS PER NFPA 96 | 2 HOURS   | NONE              |

NOTES:  
1. CONTRACTOR TO TEST ALL JOIST PER NFPA 96  
2. CAP END OF GREASE DUCTS AND TEST WITCH COMPRESSED AIR, REDO JOIST THAT DO NOT PASS, HOLD TEST FOR MINIMUM 2 HOURS

| PUMP SCHEDULE       |               |           |         |               |               |            |  |               |                 |                      |       |    |      |                         |            |       |                  |                     |              |             |
|---------------------|---------------|-----------|---------|---------------|---------------|------------|--|---------------|-----------------|----------------------|-------|----|------|-------------------------|------------|-------|------------------|---------------------|--------------|-------------|
| UNIT IDENTIFICATION | SYSTEM SERVED | LOCATION  | TYPE    | COUPLING TYPE | WATERFLOW GPM | FLUID TYPE | COLDEST SYSTEM OPERATING TEMP. °F FOR PUMP SELECTION | PUMP HEAD FT. | OVERLOAD GPM    | MINIMUM EFFICIENCY % | MOTOR |    |      | MODULATION/CONTROL TYPE | ELECTRICAL |       |                  |                     | MODEL NUMBER | KEYED NOTES |
|                     |               |           |         |               |               |            |  |               |                 |                      | BHP   | HP | RPM  |                         | VOLTS      | PHASE | SCOR KA (NOTE 4) | OPTIONS/ACCESSORIES |              |             |
| P-54                | HWH           | PENTHOUSE | IN-LINE | CLOSE         | 140           | PG35       | 70 °F  | 69            | NON-OVERLOADING | 77.4                 | 3.97  | 5  | 3600 | AUTO                    | 480        | 3     | 5                | ---                 | E-90-2AAC    |             |
| P-55                | HWH           | PENTHOUSE | IN-LINE | CLOSE         | 140           | PG35       | 70 °F  | 69            | NON-OVERLOADING | 77.4                 | 3.97  | 5  | 3600 | AUTO                    | 480        | 3     | 5                | ---                 | E-90-2AAC    |             |



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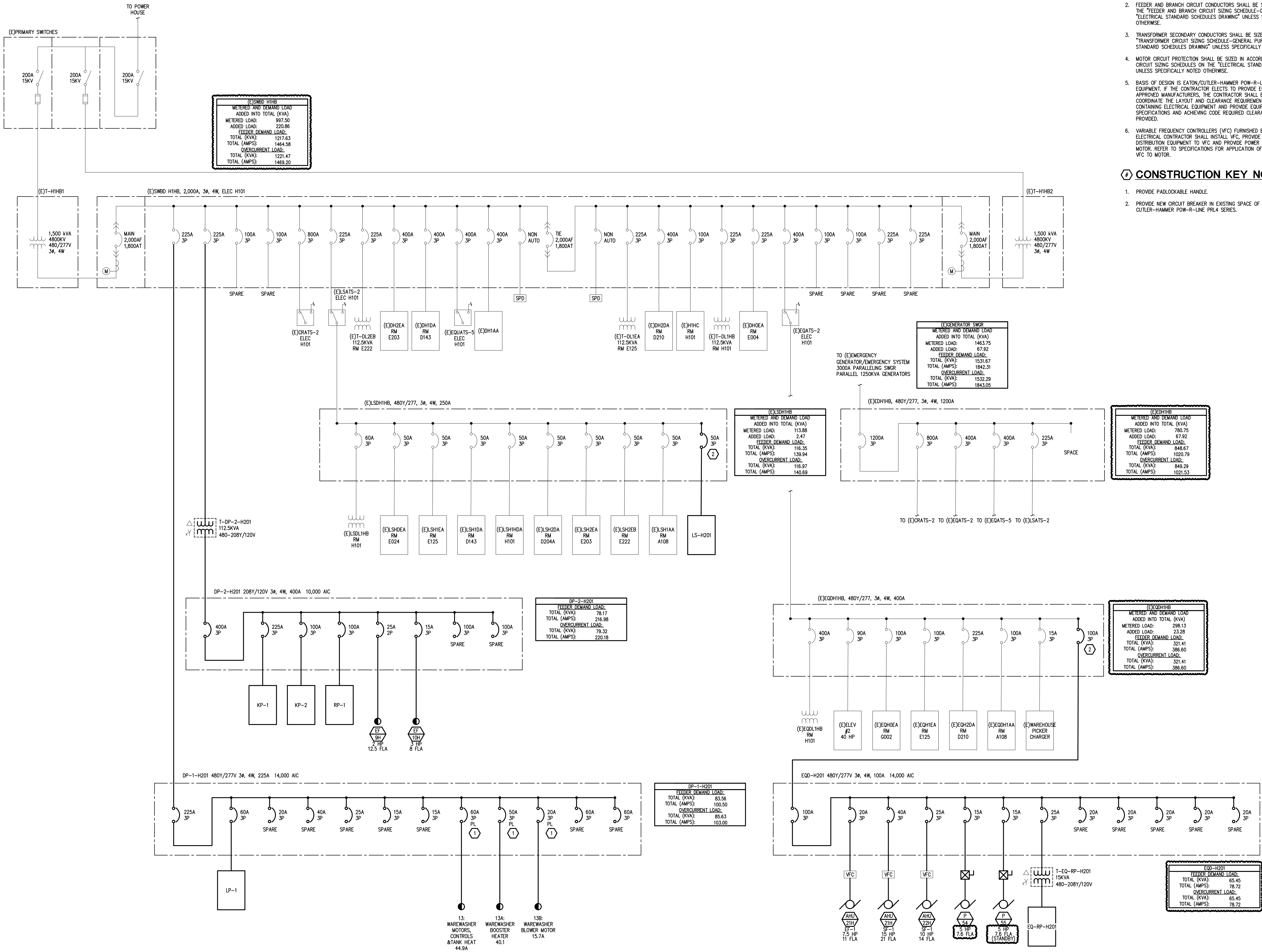


DIAGRAM GENERAL NOTES:

- THESE DRAWINGS REPRESENT THE GENERAL EXTENT AND ARRANGEMENT OF SYSTEMS, COORDINATE EXACT EQUIPMENT LOCATIONS, ELEVATIONS, AND FINAL CONNECTION REQUIREMENTS. PROVIDE EACH SYSTEM COMPLETE, INCLUDING ALL NECESSARY COMPONENTS, FITTINGS AND OFFSETS.
- FEEDER AND BRANCH CIRCUIT CONDUCTORS SHALL BE SIZED IN ACCORDANCE WITH THE "FEEDER AND BRANCH CIRCUIT SIZING SCHEDULE-GENERAL PURPOSE" ON THE ELECTRICAL STANDARD SCHEDULES DRAWING UNLESS SPECIFICALLY NOTED OTHERWISE.
- TRANSFORMER SECONDARY CONDUCTORS SHALL BE SIZED IN ACCORDANCE WITH THE "TRANSFORMER CIRCUIT SIZING SCHEDULE-GENERAL PURPOSE" ON THE ELECTRICAL STANDARD SCHEDULES DRAWING UNLESS SPECIFICALLY NOTED OTHERWISE.
- MOTOR CIRCUIT PROTECTION SHALL BE SIZED IN ACCORDANCE WITH THE MOTOR CIRCUIT SIZING SCHEDULES ON THE "ELECTRICAL STANDARD SCHEDULES DRAWING" UNLESS SPECIFICALLY NOTED OTHERWISE.
- BASIS OF DESIGN IS EATON/CUTLER-HAMMER POW-R-LINE DISTRIBUTION EQUIPMENT. IF THE CONTRACTOR ELECTS TO PROVIDE EQUIPMENT FROM OTHER APPROVED MANUFACTURERS, THE CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE THE LAYOUT AND CLEARANCE REQUIREMENTS IN ALL SPACES CONTAINING ELECTRICAL EQUIPMENT AND PROVIDE EQUIPMENT MEETING THE SPECIFICATIONS AND ACHIEVING CODE REQUIRED CLEARANCES WITHIN THE SPACE PROVIDED.
- VARIABLE FREQUENCY CONTROLLERS (VFC) FURNISHED BY MECHANICAL TRADES. ELECTRICAL CONTRACTOR SHALL INSTALL VFC, PROVIDE POWER FEEDER FROM DISTRIBUTION EQUIPMENT TO VFC AND PROVIDE POWER FEEDER FROM VFC TO MOTOR. REFER TO SPECIFICATIONS FOR APPLICATION OF VFC POWER CABLE FROM VFC TO MOTOR.

CONSTRUCTION KEY NOTES:

- PROVIDE PADLOCKABLE HANDLE.
- PROVIDE NEW CIRCUIT BREAKER IN EXISTING SPACE OF PANEL. EXISTING PANEL IS CUTLER-HAMMER POW-R-LINE FRL4 SERIES.

ONE-LINE DIAGRAM - SWITCHBOARD H1HB  
NO SCALE

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PROJECT TITLE  
491/20167.SDW - PHASE 500:

CENTER FOR FORENSIC  
PSYCHIATRY - CREATE  
KITCHEN

SALINE, MICHIGAN

SHEET TITLE  
ONE LINE DIAGRAM - NEW  
WORK

PROJECT NUMBER

2021094

PROJECT DATE

AUGUST 23, 2023

CHECKED BY

TLC

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E5.01

