



ADDENDUM 02

Date: June 23, 2023

Project: Johnson County Administration and Health & Human Services Buildings Remodeling Project

Project number: 21212000

Client: Johnson County, Iowa

Project Location: Iowa City Iowa

This Addendum forms a part of the contract documents and modifies the original bidding documents dated 6/6/2023 as noted below. Acknowledge receipt of this Addendum in the space provided on the bid form. Failure to do so may subject the bidder to disqualification.

To: All Plan Holders

Contents: (6) Addendum Narrative
(2) Bidder questions and answers.
(4) Pre-Bid Agenda and Sign In Sheet & Project Directory
(38) Specifications
(13) Drawing Sheets

SEALS AND SIGNATURES

I hereby certify that the portion of this technical submission described below was prepared by me or under my direct supervision and responsible charge. I am a duly licensed Professional Architect under the laws of the State of Iowa.

Signature

Date

Justin Bishop, AIA
Iowa license number 06497
My license renewal date is June 30, 2024

Pages or sheets covered by this seal:



Architectural Drawings and Divisions 0-13, except sections listed under other seals

I hereby certify that the portion of this technical submission described below was prepared by me or under my direct supervision and responsible charge. I am a duly licensed Professional Engineer under the laws of the State of Iowa.

Signature	Date
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Brent W. Jackman
Iowa license number 18193
My license renewal date is June 30, 2024

Pages or sheets covered by this seal:
Civil Drawings

I hereby certify that the portion of this technical submission described below was prepared by me or under my direct supervision and responsible charge. I am a duly licensed Professional Landscape Architect under the laws of the State of Iowa.

Signature	Date
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Bradley C. Hill
Iowa license number 19593
My license renewal date is June 30, 2024

Pages or sheets covered by this seal:
033000, 042000, 051200, 053100, 055000, 316600

I hereby certify that the portion of this technical submission described below was prepared by me or under my direct supervision and responsible charge. I am a duly licensed Professional Engineer under the laws of the State of Iowa.

Signature	Date
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Dwight Clopton Schumm
Iowa license number 13694
My license renewal date is December 31, 2021
Pages or sheets covered by this seal:

SPECIFICATIONS

Unless noted below, individual specification sections are reissued in full as part of this addendum.

Additions to the specification language are indicated by a bold underline and deletions are crossed out.

1. **04 20 02 – UNIT MASONRY PATCHING**
 - a. ADD entire section.
2. **08 14 16 FLUSH WOOD DOORS**
 - a. REVISE STC ratings for Sound-Rated Doors.
3. **08 17 00 DOOR HARDWARE (revise as note below, section is not reissued)**
 - a. Delete the following hardware from door 305.1:
 - i. Electric power transfer
 - ii. Electrolynx Harness
 - iii. Position switch
 - iv. Power supply
 - v. Card Reader
 - b. Delete the following hardware from doors 305.2, 155.1, 141A.1:
 - i. Electric strike
 - ii. Position switch
 - iii. Card reader
 - c. Add the following hardware to doors S2-2 and 311.2:
 - i. Electrical power transfer
 - ii. ElectroLynx harness
 - iii. Position switch
 - iv. Power supply
 - v. Electric strike
 - vi. Card reader
4. **08 43 13 ALUMINUM FRAMED STOREFRONTS**
 - a. ADD detail for entrance swing doors.
 - b. ADD Manko Window Systems as an acceptable manufacturer.
 - c. DELETE outswing casement windows.
5. **09 54 00 SEAMLESS ACOUSTIC CEILING AND WALL ASSEMBLIES**
 - a. ADD USG Ensemble Acoustical Drywall Ceiling and Wall system to acceptable manufactures.
6. **09 54 26 - SUSPENDED WOOD CEILING SYSTEM**
 - a. DELETE entire section.
7. **10 11 00 VISUAL DISPLAY UNITS**
 - a. ADD ASI to the list of acceptable manufacturers.
8. **10 28 00 TOILET ACCESSORIES**
 - a. ADD clarification of facility standard products
 - b. ADD Electric Hand Dryer basis-of-design

9. 12 24 13 ROLLER WINDOW SHADES

- a. ADD Light Harvesting Shading Solutions to the list of acceptable manual shade manufacturers.
- b. ADD RS-232 communication device to the motorized shade system.

10. 10 22 39.13 FOLDING GLASS-PANEL PARTITIONS

- a. ADD Solar Innovations Inc. to the list of acceptable manufacturers
- b. REVISE required STC of the system to be STC 44.

DRAWINGS

CIVIL

None

STRUCTURAL

None

ARCHITECTURAL

1. A-101B – HHS LEVEL THREE FLOOR PLAN
 - a. DRAWING 1:
 - i. ADD Section
 - b. DRAWING 2:
 - i. REVISE walls at board room entry as shown in drawings.
2. A-111B – HHS LEVEL THREE REFLECTED CEILING PLAN
 - a. DRAWING 1:
 - i. REVISE ceilings, walls and lights in lobby and boardroom as shown.
 - b. DRAWING 2:
 - i. REVISE boardroom ceiling as shown
 - c. DRAWING 3:
 - i. ADD boardroom section as shown.
3. A301 – BUILDING SECTIONS
 - a. DRAWING 1:
 - i. REVISE section graphics to clarify existing construction.
 - b. DRAWING 2:
 - i. REVISE section graphics to clarify existing construction.
 - c. DRAWING 4:
 - i. ADD building section.
4. A601 – DOORS, GLAZING, AND SIGNAGE SCHEDULES
 - a. HHS TEMPORARY DOOR SCHEDULE
 - i. DELETE card reader from door 305.1
 - ii. ADD card reader to door S2-3
 - b. HHS NEW DOOR SCHEDULE
 - i. ADD card reader to door 311.2
 - c. ADMIN DOOR SCHEDULE
 - i. DELETE card reader from 141A.1



- ii. REVISE door 155.1 to be existing
 - iii. DELETE card reader from door 155.1
- 5. A608 – FINISH SCHEDULE AND SPECS
 - a. FINISH SCHEDULE
 - i. ADD USG Equivalent products to the acoustic ceiling tile types.
 - ii. DELETE AWP-1 type from acoustical wall panel types.
 - iii. DELETE Acoustic Wall Panel type AWP-1
 - iv. REVISE window treatment specifications.

PLUMBING

None

MECHANICAL

- 1) H-101B HHS LEVEL THREE AND ROOF HVAC PLAN
 - a) HHS -LEVEL 3 HVAC PLAN -PHASE 2. Refer to Conference 150B. REVISE diffuser layout to match the Architectural Reflected Ceiling Plan.

ELECTRICAL

- 1) ED-101A ADM ELECTRICAL DEMOLITION PLANS
 - a) ADM-Level 1 Electrical Demo Plan. Refer to exterior south wall. REVISE demolished wall pack to be existing to remain.
- 2) E101B HHS Level Three Electrical Temporary and Phase 2 Lighting Plans
 - a) HHS Level 3 Lighting Plan. Refer to Lobby 302. REVISE lighting Layout. Refer to attached revised sheet E101B.
- 3) E-201A ADM ELECTRICAL POWER PLANS
 - a) ADM- Level 1 Electrical Plan. Refer to Conference 150B. ADD tag ABF-3 to floor box.
 - b) ADM- Level 2 Electrical Plan. Refer to Conference 230. ADD tag ABF-5 to unlabeled floor boxes.
- 4) E-201B HHS LEVEL THREE ELECTRICAL TEMPORARY AND PHASE 2 POWER PLANS
 - a) Refer to HHS – LEVEL 3 ELECTRICAL POWER PLAN- TEMPORARY, west electrical room. ADD note E-8 at transformer T-P3C
 - b) Refer to ELECTRICAL KEYED NOTES. ADD note E-8: E-8 NEW TRANSFORMER TO BE MOUNTED HIGH TO MAINTAIN NEC REQUIRED CLEARANCE IN FRONT OF PANELBOARDS. PROVIDE STRUCTURAL SUPPORT. RELOCATE STRIP LIGHT AS REQUIRED.
- 5) E-400 ENLARGED ELECTRICAL PLANS
 - a) HHS – BOARD ROOM 301 ENLARGED LIGHTING PLAN – PHASE 2.
 - i) MOVE light fixture LB12 locations to coordinate with reflected ceiling plan. Refer to attached revised sheet E-400.
 - b) ADM – LEVEL 2 ENLARGED TELECOM 242 POWER PLAN.
 - i) ADD designation “L6-20R” adjacent to the special receptacles (three locations). Refer to attached revised sheet E-400.
 - c) HHS – LEVEL 3 ENLARGED TELECOM 306C POWER PLAN.
 - i) ADD designation “L6-20R” adjacent to the special receptacles (two locations). Refer to attached revised sheet E-400.
- 6) E-500B HHS ELECTRICAL SCHEMATIC RISER INFORMATION.

- a) REVISE detail 2 to indicate transformer T-P3C mounted high. Refer to attached revised sheet E-500B
- 7) E-520 – ELECTRICAL LIGHTING SCHEDULE AND CONTROLS
 - a) Refer to Light Fixture Schedule. ADD the following manufacturers:
 - i) Type LS1: FC Lighting
- 8) E-540 – ELECTRICAL NOTES AND SYMBOLS
 - a) Refer to General Electrical Notes. ADD note 29. 29. DIVISION 26 CONTRACTOR TO COORDINATE MOTORIZED SHADE INSTALLATION REQUIREMENTS WITH THE GENERAL CONTRACTOR AND SECTION 122413 VENDOR. SHADES ARE SCHEMATICALLY INDICATED AS 120V ELECTRICAL CONNECTIONS; HOWEVER, SHADES WILL BE LOW VOLTAGE WITH LINE VOLTAGE COMPONENTS LOCATED ABOVE THE ACCESSIBLE CEILING. PROVIDE ALL CONNECTIONS FOR SHADE SYSTEM COMPONENTS INCLUDING CONTROLLERS AND RS232 INTERFACES. PROVIDE LOW-VOLTAGE ROUGH-INS TO SHADES AND CONTROL LOCATIONS AND PROVIDE INTERCONNECTING WIRING.

TECHNOLOGY

- 9) TA-101B – HHS LEVEL THREE AUDIO VISUAL PLA, SCHEDULE, NOTES, AND SYMBOLS
 - a) See HHS – Board Room 301 Enlarged Audio Visual Plan – Phase . REVISE Speaker Layout to coordinate with reflecting ceiling plan. Refer to attached sheet TA-101B.
- 10) TY-101A-ADM SECURITY
 - a) Refer to Vestibule 155, ACD-02. Remove ACD-02 and associated new access control devices from the project. See Revised Sheet TY-101A
 - b) Refer to Vestibule 141A, ACD-29. Remove ACD-29 and associated new access control devices from the project. See Revised Sheet TY-101A
- 11) TY-101B-HHS LEVEL THREE TEMPORARY AND PHASE 2 SECURITY PLANS
 - a) Refer to Swing Space 305, ACD-T10 and ACD-T11. Remove ACD-T10, ACD-T11 and associated new access control devices from project. See Revised Sheet TY-101B
 - b) Refer to Swing Space 306A, ACD-T08. Remove ACD-T08 and associated new access control devices from the project. See Revised Sheet TY-101B
 - c) Refer to south stairwell, ACD-T13. Move ACD-T13 and associated new access control devices to Phase-2 work, the east door of Corridor 311. See Revised Sheet TY-101.
- 12) TY-500 Access Control Schedule, Details, Security Notes & Schedules
 - a) Refer to ADM Access Control Door Schedule & HHS Access Control Door Schedule; see revised sheet TY-500



BIDDER QUESTIONS:

Question: Will parking be available during construction?

Answer: During Phase 0 and Phase 2, parking will be available at 821 S. Clinton which is across the street from the HHS building. During Phase 1 the parking lot east of the Administration building will be available for contractor parking.

Question: Will there be interior storage available for construction materials like lighting?

Answer: Depending on construction activities and phasing, the storage room in the SW corner of Level 1 of the Administration Building and areas within the work area of HHS L3 could be utilized for materials storage. Areas outside of the work area will not be available.

Question: Should the building permit fee be included in the Bid?

Answer: Yes

Question: In the Administration Building, is there glycol in the hydronic system?

Answer: It does not appear so in the heating water system, but it does appear that the chilled water system is 30% propylene glycol.

Question: Is MC cable allowed and, if so, where?

Answer: Refer to 260533, 2.01, H, 4. MC cable may be used for the HHS level 3 temporary office finish only. MC cable to be removed by the end of construction.

Question: In the Administration building, where should the heating and waterlines be capped after they are removed?

Answer: Demo piping and cap at the nearest active main.

(continued on next page)



BIDDER QUESTIONS (continued)

Question: PVC piping was allowed for Vent and Waste lines. Are different materials required for fire rating or when routed through a wild return?

Answer: Per the specifications, PVC may only be used where allowable by code. PVC does not meet the flame spread/smoke spread requirements of a return plenum, so it is not acceptable there.

Question: In the Administration building, are fire sprinklers required in the Mechanical Mezzanine?

Answer: Yes, see drawing FX-101A for additional information.

Question: The decorative wood panels detailed on A-511 are noted to be "Solid Laminated Wood Panel", clarify specification.

Answer: The panels are specified to be built from 2" thick solid wood stock (quarter cut white oak) laminated together to achieve panel width.

Question: What is the MFR or of the HVAC controls in HHS and Administration Buildings?

Answer: Johnson Controls

END OF ADDENDUM #1



PRE-BID AGENDA

Date: June 20th, 2023
Project: Johnson County Administration and Health & Human Services Buildings Remodeling Project
Project No.: 21412000
Subject: Pre-Bid Meeting Agenda

Attendees:

Design Team
Owner Team
Sign-In Sheet

Agenda:

1. Introductions:

- a. OPN Architects
- b. Civil Engineer
- c. Electrical Engineer
- d. Mechanical Engineer
- e. Technology Engineer
- f. Owner Representatives

2. Project Description:

- a. Estimated Cost of Construction:
 - a. \$8,716,341
- b. Architectural Description:
 - a. The bids are for a single Prime Contract (civil, general, mechanical, and electrical combined) for a phased renovation of the Administration and Health and Human Services buildings. Phase 0 will include the partial renovation of the third level of the Health and Human Services building to serve as an employee swing space. Phase 1 will include renovation of level one and level two of the Administration Building and ADA site improvements. Phase 2 will include partial build out of level three of the Health and Human Services Building.
- c. Any known Issues:
 - a. Phase 0: HHS L3 Temp Space: Levels 1 and 2 will be occupied.
 - b. Phase 2: HHS L3 Buildout: Level 1 and 2 will be occupied.

3. Other associated Bids (bid or owner performed):

- a. Separate Bid: Furniture and General Moving between Phase 0 and Phase 1, and Phase 1 and Phase 2.
- b. Owner: AV and Technology work

4. Bidding Document Procurement:

- a. Rapids Reproductions (\$200 deposit or MBI card) 2 sets GCs
- b. Digital and Physical Plans rooms as listed in the Advertisement for Bids section 00 11 13

5. Project Schedule

- a. Bid Date:
 - a. 2:00 PM, Thursday July 13th, 2023

- b. Award Bid:
 - a. No earlier than July 20th, 2023
- c. Mobilization Date:
 - a. Immediately upon execution of the Agreement.
- d. Phasing Plan:
 - e. Phase 0: HHS L3 Temp Space: August 1, 2023 thru October 23, 2023.
 - f. Phase 1: Administration Building Renovation and Sitework: November 13, 2023 thru July 16, 2024
 - g. Phase 2: HHS L3 Buildout: July 31, 2024 thru January 29, 2025.

6. **Bidding Requirements:**

- a. Bid Bond Required (5%)
- b. Performance Bond is required
- c. Bid Forms in Project Specification Manual
- d. This project is exempt from all Iowa sales tax
- e. Substitution Requests to be submitted during bidding.
- f. Bidder questions or substitution request deadline is 5:00 PM on Tuesday June 27th.
- g. Final Addendum will be issued on Friday, June 30th.

7. **Questions**

8. **Walk Through**

OPN Architects:

Zack Writer (zwriter@opnarchitects.com)



Subject: Pre-Bid Conference

Email:

[illegible]



Date: 6/20/23

Project: Johnson County Administration and Health & Human Services Buildings Remodeling Project

Project Number: 21412000

Subject: Pre-Bid Conference

Name:

Company:

Email:

[illegible]

**SECTION 04 20 02
UNIT MASONRY PATCHING**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Patching of concrete Block (CMU).
- B. Patching of clay facing brick.
- C. Mortar and grout.
- D. Reinforcement and anchorage.
- E. Flashings.
- F. Lintels.
- G. Accessories.

1.02 REFERENCE STANDARDS

- A. ASTM A615/A615M - Standard Specification for Deformed and Plain Carbon-Steel Bars for Concrete Reinforcement 2020.
- B. ASTM A641/A641M - Standard Specification for Zinc-Coated (Galvanized) Carbon Steel Wire 2019.
- C. ASTM A951/A951M - Standard Specification for Steel Wire for Masonry Joint Reinforcement 2016, with Editorial Revision (2018).
- D. ASTM A1064/A1064M - Standard Specification for Carbon-Steel Wire and Welded Wire Reinforcement, Plain and Deformed, for Concrete 2018a.
- E. ASTM C67/C67M - Standard Test Methods for Sampling and Testing Brick and Structural Clay Tile 2021.
- F. ASTM C90 - Standard Specification for Loadbearing Concrete Masonry Units 2021.
- G. ASTM C144 - Standard Specification for Aggregate for Masonry Mortar 2018.
- H. ASTM C150/C150M - Standard Specification for Portland Cement 2021.
- I. ASTM C207 - Standard Specification for Hydrated Lime for Masonry Purposes 2018.
- J. ASTM C216 - Standard Specification for Facing Brick (Solid Masonry Units Made From Clay or Shale) 2021.
- K. ASTM C270 - Standard Specification for Mortar for Unit Masonry 2019a, with Editorial Revision.
- L. ASTM C404 - Standard Specification for Aggregates for Masonry Grout 2018.
- M. ASTM C476 - Standard Specification for Grout for Masonry 2020.
- N. ASTM C979/C979M - Standard Specification for Pigments for Integrally Colored Concrete 2016.
- O. BIA Technical Notes No. 7 - Water Penetration Resistance – Design and Detailing 2017.
- P. BIA Technical Notes No. 13 - Ceramic Glazed Brick Exterior Walls 2017.
- Q. TMS 402/602 - Building Code Requirements and Specification for Masonry Structures 2016.

1.03 SUBMITTALS

- A. Product Data: Provide data for masonry units, fabricated wire reinforcement, mortar, and masonry accessories.
- B. Samples:
 - 1. Submit four samples of facing brick units to illustrate color, texture, and extremes of color range.
 - 2. Submit samples of mortar to confirm color match with existing mortar. Cure sample at least two weeks prior to starting patching to confirm color match with existing mortar

before beginning patching work.

1.04 QUALITY ASSURANCE

- A. Comply with provisions of TMS 402/602, except where exceeded by requirements of the contract documents.
- B. Fire-Resistance Ratings: Where indicated to have a fire-rating, provide materials and construction identical to those of assemblies with fire-resistance ratings determined per ASTM E 119 by a testing and inspecting agency, by equivalent concrete masonry thickness, or by other means, as acceptable to authorities having jurisdiction.

1.05 PROJECT CONDITIONS

- A. Cold-Weather Requirements: Do not use frozen materials or materials mixed or coated with ice or frost. Do not build on frozen substrates. Remove and replace unit masonry damaged by frost or by freezing conditions. Comply with cold-weather construction requirements contained in ACI 530.1/ASCE 6/TMS 602. General Contractor to provide winter protection and heat sources for installation of masonry units, as required to maintain project constructions schedule, at no additional cost to Owner.
- B. Hot-Weather Requirements: Comply with hot-weather construction requirements contained in ACI 530.1/ASCE 6/TMS 602. When ambient temperature exceeds 100 deg F, or 90 deg F with a wind velocity greater than 8 mph, do not spread mortar beds more than 48 inches ahead of masonry. Set masonry units within one minute of spreading mortar.

1.06 DELIVERY, STORAGE, AND HANDLING

- A. Deliver, handle, and store masonry units by means that will prevent mechanical damage and contamination by other materials.
- B. Handle and store masonry units in pallets with protective covering. Do not remove protective covering until ready for installation.

PART 2 PRODUCTS

2.01 CONCRETE MASONRY UNITS

- A. Concrete Block: Comply with referenced standards and as follows:
 - 1. Size: Standard units with nominal face dimensions of 16 by 8 inches and nominal depths as indicated on drawings.
 - 2. Load-Bearing Units (CMU): ASTM C90, normal weight.
 - a. Exposed Faces: Manufacturer's standard color and texture where indicated.
 - b. Where fire-rating is indicated, provide rated units which will provide the fire-rating indicated on drawings.
 - c. Aggregates: Conform to ASTM C33.
 - d. Provide special units, including bull noses, for 90 degree corners, lintels, jambs, sash, control joints, headers, bond beams, and other conditions conforming to ASTM C90.

2.02 BRICK UNITS

- A. Facing Brick: ASTM C216, Type FBS Smooth, Grade SW.
 - 1. Color, Texture and Size: Match existing brick.
 - 2. Special shapes:
 - a. Provide special shapes for applications where shapes produced by sawing would result in sawed surfaces being exposed to view.
 - b. Provide special shapes for applications requiring brick of size, form, color, and texture on exposed surfaces that cannot be produced by sawing.

2.03 MORTAR AND GROUT MATERIALS

- A. Portland Cement: ASTM C150/C150M, Type I; color as required to produce approved color sample.
 - 1. Not more than 0.60 percent alkali.
- B. Hydrated Lime: ASTM C207, Type S.

- C. Mortar Aggregate: ASTM C144.
- D. Grout Aggregate: ASTM C404.
- E. Pigments for Colored Mortar: Pure, concentrated mineral pigments specifically intended for mixing into mortar and complying with ASTM C979.
- F. Water: Clean and potable.
- G. Do not use calcium chloride in mortar or grout.
- H. Cold Weather Admixtures: ASTM C494, non-chloride, non-corrosive, accelerating type recommended by the manufacturer for use in masonry mortar of composition indicated.

2.04 REINFORCEMENT AND ANCHORAGE

- A. Reinforcing Steel: ASTM A615/A615M, Grade 40 (40,000 psi), deformed billet bars; galvanized.
- B. Joint Reinforcement: Use ladder type joint reinforcement where vertical reinforcement is involved and truss type elsewhere, unless otherwise indicated.
- C. Single Wythe Joint Reinforcement: ASTM A951/A951M.
 - 1. Type: Truss or ladder.
 - 2. Material: ASTM A1064/A1064M steel wire, mill galvanized to 16 CFR 1201 Class 3.
 - 3. Size: 0.1483 inch side rods with 0.1483 inch cross rods; width as required to provide not less than 5/8 inch of mortar coverage on each exposure.
- D. Flexible Anchors: 2-piece anchors that permit differential movement between masonry and building frame, sized to provide not less than 5/8 inch of mortar coverage from masonry face.

2.05 FLASHINGS

- A. Membrane Asphaltic Flashing Materials:
 - 1. Rubberized Asphalt Flashing: Self-adhering polymer modified asphalt sheet; 40 mils (0.040 inch) minimum total thickness; 8 mil cross-laminated polyethylene bonded to adhesive rubberized asphalt, with a removable release liner.
- B. Drip Edge: Stainless steel; angled drip with hemmed edge; compatible with membrane and adhesives.

2.06 ACCESSORIES

- A. Cavity Mortar Control: Semi-rigid polyethylene or polyester mesh panels, sized to thickness of wall cavity, and designed to prevent mortar droppings from clogging weeps and cavity vents and allow proper cavity drainage.
- B. Cavity Vents:
 - 1. Type: Cellular plastic vents.
 - 2. Color(s): To match existing.
- C. Cleaning Solution:
 - 1. Do not use products containing hydrochloric (muriatic) acid, hydrofluoric acid, or ammonium bifluoride.
 - 2. For removing localized ferrous staining: Use oxalic acid or phosphoric acid; mix one part acid with ten parts water by volume. Higher concentrations may be used for local application.
- D. Compressible Filler: Premolded, closed cell, filler strips complying with ASTM D 1056, Grade 2A1; compressible up to 35 percent; of width and thickness indicated; formulated from neoprene or urethane.

2.07 LINTELS

- A. Masonry Lintels: Prefabricated or built-in-place masonry lintels made from bond beam CMUs with reinforcing bars placed as indicated and filled with coarse grout. Cure precast lintels before handling and installing. Temporarily support built-in-place lintels until cured.

- B. Prefabricated Steel Lintels: See Section 05 50 00 - Metal Fabrications.

2.08 MORTAR AND GROUT MIXING

- A. Mortar for Unit Masonry: ASTM C270, using the Proportion Specification.
1. Exterior, loadbearing masonry: Type S.
 2. Exterior, non-loadbearing masonry: Type N.
 3. Interior, loadbearing masonry: Type S.
 4. Interior, non-loadbearing masonry: Type N.
- B. Colored Mortar: Proportion selected pigments and other ingredients to match existing mortar, without exceeding manufacturer's recommended pigment-to-cement ratio.
- C. Grout: ASTM C476. Consistency required to fill completely volumes indicated for grouting; fine grout for spaces with smallest horizontal dimension of 2 inches or less; coarse grout for spaces with smallest horizontal dimension greater than 2 inches.
- D. Mixing: Use mechanical batch mixer and comply with referenced standards.

PART 3 EXECUTION

3.01 PREPARATION

- A. Provide temporary bracing as necessary during installation of masonry work.
- B. Carefully remove existing masonry, mortar and grout in locations being patched. Replace units damaged during demolition or repair.

3.02 INSTALLATION, GENERAL

- A. Use full-size units without cutting if possible. If cutting is required, cut units with motor-driven saws, provide clean, sharp, unchipped edges. Allow units to dry before laying unless wetting of units is specified. Install cut units with cut surfaces and, where possible, cut edges concealed.
- B. Select and arrange units for exposed unit masonry produce a uniform blend of colors and textures.
- C. Wetting of Brick: Wet brick before laying if initial rate of absorption exceeds 30g/30 sq. in. per minute where tested per ASTM C 67. Allow units to absorb water so they are damp but not wet at time of laying.
- D. Comply with tolerances in ACI 530.1/ASCE 6/TMS 620 and with the following:
1. For conspicuous vertical lines, such as external corners, door jambs, reveals, and expansion and control joints, do not vary from plumb by more than 1/8 inch in 10 feet, 1/4 inch in 20 feet, or 1/2 inch maximum.
 2. For conspicuous horizontal lines, such as lintels, sills, parapets, and reveals, do not vary from level by more than 1/8 inch in 10 feet, 1/4 inch in 20 feet, or 1/2 inch maximum.

3.03 PLACING AND BONDING

- A. Patch masonry areas with materials matching appearance of existing materials.
- B. Lay solid masonry units in full bed of mortar, with full head joints, uniformly jointed with other work.
- C. Lay hollow masonry units with face shell bedding on head and bed joints.
- D. Buttering corners of joints or excessive furrowing of mortar joints is not permitted.
- E. Remove excess mortar and mortar smears as work progresses.
- F. Interlock intersections and external corners. Avoid using less-than-half-size units, particularly at corners, jambs, and where possible at other locations.
- G. Do not shift or tap masonry units after mortar has achieved initial set. Where adjustment must be made, remove mortar and replace.
- H. Perform job site cutting of masonry units with proper tools to provide straight, clean, unchipped edges. Prevent broken masonry unit corners or edges.

- I. Stopping and Resuming Work: Stop work by racking back units in each course from those in course below; do not tooth. When resuming work, clean masonry surfaces that are to receive mortar, remove loose masonry units and mortar, and wet brick if required before laying fresh masonry.

3.04 WEEPS/CAVITY VENTS

- A. Install weeps in veneer and cavity walls at 24 inches on center horizontally on top of through-wall flashing above shelf angles and lintels and at bottom of walls.
- B. Install cavity vents in veneer and cavity walls at 24 inches on center horizontally below shelf angles and lintels and near top of walls.

3.05 REINFORCEMENT AND ANCHORAGE - GENERAL

- A. Install new reinforcement to overlap existing.
- B. Install new masonry veneer ties to secure veneer to backup wall.

3.06 MASONRY FLASHINGS

- A. Install flashings as follows:
 1. Whether or not specifically indicated, install masonry flashing to divert water to exterior at all locations where downward flow of water will be interrupted.
 - a. Extend flashings full width at such interruptions and at least 6 inches, minimum, into adjacent masonry or turn up flashing ends at least 1 inch, minimum, to form watertight pan at non-masonry construction.
 - b. Remove or cover protrusions or sharp edges that could puncture flashings.
 - c. Seal lapped ends and penetrations of flashing before covering with mortar.
 - d. Install metal drip edges beneath flexible flashing at exterior face of wall. Stop flexible flashing 1/2 inch back from outside face of wall and adhere flexible flashing to top of metal drip edge.
 - e. Lap end joints of flashings at least 4 inches and seal watertight with manufacturer approved sealant.
- B. Lap end joints of flashings at least 4 inches and seal watertight with flashing sealant/adhesive.

3.07 LINTELS

- A. Steel Lintels: Install steel lintel supplied from Division 5 of this specification. Provide a minimum of 8 inches of end bearing on each side of opening unless noted otherwise. All exterior exposed steel lintels (outside the buildings moisture protection enclosure envelope) shall be hot-dip galvanized in accordance with ASTM A123.
- B. Bond Beam Lintels:
 1. Use specially shaped lintel units at hollow masonry unit walls, with reinforcing bars as shown and filled with concrete grout. Extend bond beam lintel reinforcing a minimum of 24 inches past opening each side. Continue reinforcing around corners where less than 24 inches of straight wall length is available.
 2. Place and consolidate concrete without disturbing the reinforcing.
 3. Allow lintels to reach 100 percent of their design strength before removing temporary supports.
 4. Do not place vertical control joints through bond beams. Place the vertical control joints at each end the bond beam lintel.

3.08 TOLERANCES

- A. Maximum Variation from Alignment of Columns: 1/4 inch.
- B. Maximum Variation From Unit to Adjacent Unit: 1/16 inch.
- C. Maximum Variation from Plane of Wall: 1/4 inch in 10 ft and 1/2 inch in 20 ft or more.
- D. Maximum Variation from Plumb: 1/4 inch per story non-cumulative; 1/2 inch in two stories or more.

- E. Maximum Variation from Level Coursing: 1/8 inch in 3 ft and 1/4 inch in 10 ft; 1/2 inch in 30 ft.
- F. Maximum Variation of Mortar Joint Thickness: Head joint, minus 1/4 inch, plus 3/8 inch.
- G. Maximum Variation from Cross Sectional Thickness of Walls: 1/4 inch.
- H. Maximum variation from masonry unit to adjacent masonry unit is 1/32 inch.

3.09 CLEANING

- A. Remove large particles of mortar from exposed brick with wood paddles or scrapers.
- B. Clean soiled surfaces with cleaning solution.
- C. Use soft, nylon-bristle brush or roller for acidic cleaners. For neutral or alkaline cleaners, use soft, natural-bristle brush or roller.
- D. Apply sealer to ground face masonry units per manufacturer's written instructions.
- E. Use non-metallic tools in cleaning operations.

3.10 PROTECTION

- A. Without damaging completed work, provide protective boards at exposed external corners that are subject to damage by construction activities.

END OF SECTION

**SECTION 08 14 16
FLUSH WOOD DOORS**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Flush wood doors; flush and flush glazed configuration; fire-rated, non-rated, and acoustical.

1.02 RELATED REQUIREMENTS

- A. Section 08 11 13 - Hollow Metal Doors and Frames.
- B. Section 08 71 00 - Door Hardware.
- C. Section 08 80 00 - Glazing.

1.03 REFERENCE STANDARDS

- A. AWI/AWMAC/WI (AWS) - Architectural Woodwork Standards, 2nd Edition 2014, with Errata (2016).
- B. NFPA 80 - Standard for Fire Doors and Other Opening Protectives 2022.
- C. UL 10C - Standard for Positive Pressure Fire Tests of Door Assemblies Current Edition, Including All Revisions.

1.04 SUBMITTALS

- A. Product Data: Indicate door core materials and construction; veneer species, type and characteristics.
- B. Shop Drawings: Show doors and frames, elevations, sizes, types, swings, undercuts, beveling, blocking for hardware, factory machining, factory finishing, cutouts for glazing and other details.
- C. Samples: Submit two samples of door construction, 12 by 12 inch in size cut from top corner of door.
- D. Manufacturer's Installation Instructions: Indicate special installation instructions.
- E. Warranty, executed in Owner's name.

1.05 QUALITY ASSURANCE

- A. Quality Standard: In addition to requirements specified, comply with AWI's "Architectural Woodwork Quality Standards Illustrated."

1.06 DELIVERY, STORAGE, AND HANDLING

- A. Package, deliver and store doors in accordance with specified quality standard.
- B. Accept doors on site in manufacturer's packaging, and inspect for damage.
- C. Protect doors with resilient packaging; do not store in damp or wet areas or areas where sunlight might bleach veneer; seal top and bottom edges with tinted sealer if stored more than one week, and break seal on site to permit ventilation.

1.07 WARRANTY

- A. Interior Doors: Provide manufacturer's warranty for the life of the installation.
- B. Include coverage for delamination of veneer, warping beyond specified installation tolerances, defective materials, and telegraphing core construction.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Wood Veneer Faced Doors:
 - 1. Masonite Architectural: www.architectural.masonite.com.
 - 2. VT Industries, Inc: www.vtindustries.com/#sle.
 - 3. Substitutions: See Section 01 25 00 - Submittal Procedures.
- B. Sound-Rated Wood Doors:

1. Masonite Architectural; Acoustically-Rated Door Solutions:
www.architectural.masonite.com/#sle.

2.02 DOORS

- A. Doors:
 1. Quality Standard: Custom Grade, Heavy Duty performance, in accordance with AWI/AWMAC/WI (AWS), unless noted otherwise.
 2. Wood Veneer Faced Doors: 5-ply or 7-ply unless otherwise indicated.
- B. Interior Doors: 1-3/4 inches thick unless otherwise indicated; flush construction.
 1. Provide solid core doors at each location.
 2. Fire Rated Doors: Tested to ratings indicated on drawings in accordance with UL 10C - Positive Pressure; Underwriters Laboratories Inc (UL) or Intertek/Warnock Hersey (WHI) labeled without any visible seals when door is open.

2.03 DOOR AND PANEL CORES

- A. Non-Rated Solid Core and 20 Minute Rated Doors: Type structural composite lumber core (SCLC), plies and faces as indicated.
- B. Fire-Rated Doors: Mineral core type, with fire resistant composite core (FD), plies and faces as indicated above; with core blocking as indicated below:
 1. Blocking: Provide composite blocking with improved screw-holding capability approved for use in door of fire-protection ratings indicated:
 - a. 5 inch top rail blocking.
 - b. 5 inch bottom rail blocking, in doors indicated to have protection plates.
 - c. 5 inch midrail blocking, in doors indicated to have armor plates or exit devices.
 2. Edge Construction: At hinge stiles, provide laminated-edge construction with improved screw-holding capability and split resistance. Comply with specified requirements for exposed edges.
- C. Sound-Rated Doors: Where indicated in the door schedule on Drawings provide **STC 35 and STC 44 [ADD 2]** doors supplied with seals and gaskets tested by manufacturer.

2.04 DOOR FACINGS

- A. Veneer Facing for Transparent Finish: See drawings for interior Finish Specs for species and cut, HPVA Grade A, with with slip match between leaves of veneer, balance match of spliced veneer leaves assembled on door or panel face.
 1. Vertical Edges: Same species as face veneer.
 2. "Pair Match" each pair of doors; "Set Match" pairs of doors within 10 feet of each other when doors are closed.
- B. Veneer Facing for Opaque Finish: Medium density overlay (MDO), in compliance with indicated quality standard.
- C. Facing Adhesive: Type I - waterproof.

2.05 DOOR CONSTRUCTION

- A. Fabricate doors in accordance with door quality standard specified.
- B. Factory machine doors for hardware other than surface-mounted hardware, in accordance with hardware requirements and dimensions.
- C. Factory fit doors for frame opening dimensions identified on shop drawings, with edge clearances in accordance with specified quality standard.
 1. Exception: Doors to be field finished.
- D. Provide edge clearances in accordance with the quality standard specified.

2.06 FINISHES - WOOD VENEER DOORS

- A. Finish work in accordance with AWI/AWMAC/WI (AWS), Section 5 - Finishing for grade specified and as follows:

1. Transparent:
 - a. System - 5, Varnish, Conversion.
 - b. Sheen: Flat.
 2. Opaque:
 - a. System - 5, Varnish, Conversion.
 - b. Color: As selected by Architect.
 - c. Sheen: Flat.
- B. Factory finish doors in accordance with approved sample.
- C. Seal door top and bottom edges with color sealer to match door facing.

2.07 ACCESSORIES

- A. Hollow Metal Door Frames: See Section 08 11 13.
- B. Glazing: See Section 08 80 00.
- C. Glazing Stops: Wood, of same species as door facing, mitered corners; prepared for countersink style tamper proof screws.
- D. Door Hardware: See Section 08 71 00.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify existing conditions before starting work.
- B. Verify that opening sizes and tolerances are acceptable.
- C. Do not install doors in frame openings that are not plumb or are out-of-tolerance for size or alignment.

3.02 INSTALLATION

- A. Install doors in accordance with manufacturer's instructions and specified quality standard.
1. Install fire-rated doors in accordance with NFPA 80 requirements.
- B. Factory-Finished Doors: Do not field cut or trim; if fit or clearance is not correct, replace door.
- C. Use machine tools to cut or drill for hardware.
- D. Coordinate installation of doors with installation of frames and hardware.
- E. Align in frames for uniform clearances at each edge.
- F. Coordinate installation of glazing.

3.03 TOLERANCES

- A. Comply with specified quality standard for fit and clearance tolerances.
- B. Comply with specified quality standard for telegraphing, warp, and squareness.

3.04 ADJUSTING

- A. Adjust doors for smooth and balanced door movement.
- B. Adjust closers for full closure.

END OF SECTION

SECTION 08 43 13
ALUMINUM-FRAMED STOREFRONTS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Aluminum-framed storefront, with vision glass.
- B. Aluminum doors and frames.
- C. Weatherstripping.

1.02 RELATED REQUIREMENTS

- A. Section 08 80 00 - Glazing: Glass and glazing accessories.

1.03 REFERENCE STANDARDS

- A. AAMA CW-10 - Care and Handling of Architectural Aluminum from Shop to Site 2015.
- B. AAMA 501.2 - Quality Assurance and Diagnostic Water Leakage Field Check of Installed Storefronts, Curtain Walls, and Sloped Glazing Systems 2015.
- C. AAMA 609 & 610 - Cleaning and Maintenance Guide for Architecturally Finished Aluminum (Combined Document) 2015.
- D. AAMA 611 - Voluntary Specification for Anodized Architectural Aluminum 2020.
- E. ASTM B221 - Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes 2021.
- F. ASTM B221M - Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes (Metric) 2021.
- G. ASTM E283 - Standard Test Method for Determining the Rate of Air Leakage Through Exterior Windows, Curtain Walls, and Doors Under Specified Pressure Differences Across the Specimen 2004 (Reapproved 2012).
- H. ASTM E330/E330M - Standard Test Method for Structural Performance of Exterior Windows, Doors, Skylights and Curtain Walls by Uniform Static Air Pressure Difference 2014 (Reapproved 2021).
- I. ASTM E331 - Standard Test Method for Water Penetration of Exterior Windows, Skylights, Doors, and Curtain Walls by Uniform Static Air Pressure Difference 2000 (Reapproved 2016).

1.04 SUBMITTALS

- A. Product Data: Provide component dimensions, describe components within assembly, anchorage and fasteners, glass and infill, internal drainage details.
- B. Shop Drawings: Indicate system dimensions, framed opening requirements and tolerances, affected related Work, expansion and contraction joint location and details, and field welding required. Include plans, elevations, sections, details, attachments to other work, embedment type, size and layout.
 - 1. Provide water control diagrams for condensation and infiltration evacuation.
 - 2. Include structural analysis data signed and sealed by the professional engineer, licensed in the State in which the project is located, responsible for their preparation.
- C. Samples: Submit two samples 2x3 inches in size illustrating finished aluminum surface, glass, glazing materials.

1.05 QUALITY ASSURANCE

- A. Designer Qualifications: Design structural support framing components under direct supervision of a Professional Structural Engineer experienced in design of this Work and licensed in the State in which the Project is located.
- B. Manufacturer Qualifications: Company specializing in performing work of type specified and with at least three years of documented experience.

1.06 DELIVERY, STORAGE, AND HANDLING

- A. Handle products of this section in accordance with AAMA CW-10.
- B. Protect finished aluminum surfaces with wrapping. Do not use adhesive papers or sprayed coatings that bond to aluminum when exposed to sunlight or weather.

1.07 FIELD CONDITIONS

- A. Do not install sealants when ambient temperature is less than 40 degrees F. Maintain this minimum temperature during and 48 hours after installation.

1.08 WARRANTY

- A. Standard Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of aluminum-framed systems that do not comply with requirements or that deteriorate as defined in this Section within specified warranty period.
 - 1. Failures include, but are not limited to, the following:
 - a. Structural failures including, but not limited to, excessive deflection.
 - b. Noise or vibration caused by thermal movements.
 - c. Deterioration of metals and other materials beyond normal weathering.
 - d. Water leakage through fixed glazing and framing areas.
 - e. Failure of operating components to function properly.
 - 2. Warranty Period: Two years from date of Substantial Completion.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Basis of Design:
 - 1. Exterior Storefront System: Kawneer, Trifab VG 451T.
 - 2. Interior Storefront System, Kawneer, Trifab VG 451.
 - 3. **Entrance Doors: Kawneer, 350 Swing Entrance Doors. [ADD 2]**
- B. Other Acceptable - Aluminum-Framed Storefronts Manufacturers:
 - 1. EFCO Corporation: www.efcocorp.com/sle.
 - 2. Kawneer North America: www.kawneer.com/#sle.
 - 3. **Manko Window Systems, Inc: www.mankowindows.com/#sle. [ADD 2]**
 - 4. Oldcastle BuildingEnvelope: www.oldcastlebe.com/#sle.
 - 5. Pittco Architectural Metals Inc: www.pittcometals.com/#sle.
 - 6. Tubelite, Inc: www.tubeliteinc.com/#sle.
 - 7. YKK AP America Inc.: www.ykkap.com.

2.02 ALUMINUM-FRAMED STOREFRONT

- A. Aluminum-Framed Storefront: Factory fabricated, factory finished aluminum framing members with infill, and related flashings, anchorage and attachment devices.
 - 1. Finish: Class I natural anodized.
 - a. Factory finish all surfaces that will be exposed in completed assemblies. Factory finish all surfaces
 - 2. Fabrication: Joints and corners flush, hairline, and weatherproof, accurately fitted and secured; prepared to receive anchors and hardware; fasteners and attachments concealed from view; reinforced as required for imposed loads.
 - 3. Construction: Eliminate noises caused by wind and thermal movement, prevent vibration harmonics, and prevent "stack effect" in internal spaces.
 - 4. System Internal Drainage: Drain to the exterior by means of a weep drainage network any water entering joints, condensation occurring in glazing channel, and migrating moisture occurring within system.
 - 5. Expansion/Contraction: Provide for expansion and contraction within system components caused by cycling temperature range of 170 degrees F over a 12 hour period without causing detrimental effect to system components, anchorages, and other building elements.

6. Movement: Allow for movement between storefront and adjacent construction, without damage to components or deterioration of seals.
 7. Perimeter Clearance: Minimize space between framing members and adjacent construction while allowing expected movement.
- B. Performance Requirements:
1. General: Provide aluminum-framed systems, including anchorage, capable of withstanding, without failure, the effects of the following:
 - a. Structural loads.
 - b. Thermal movements.
 - c. Movements of supporting structure indicated on Drawings including, but not limited to, story drift and deflection from uniformly distributed and concentrated live loads.
 - d. Dimensional tolerances of building frame and other adjacent construction.
 - e. Failure includes the following:
 - 1) Deflection exceeding specified limits.
 - 2) Thermal stresses transferred to building structure.
 - 3) Framing members transferring stresses, including those caused by thermal and structural movements, to glazing.
 - 4) Noise or vibration created by wind and thermal and structural movements.
 - 5) Loosening or weakening of fasteners, attachments, and other components.
 - 6) Sealant failure.
 - 7) Failure of operating units to function properly.
 2. Structural Loads:
 - a. Wind Loads: As indicated on Structural Drawings.
 - b. Seismic Loads: As indicated on Structural Drawings.
 3. Deflection of Framing Members Normal to Wall Plane: Limited to 1/175 of clear span for spans up to 13 feet 6 inches and to 1/240 of clear span plus 1/4 inch for spans greater than 13 feet 6 inches or an amount that restricts edge deflection of individual glazing lites to 3/4 inch, whichever is less.
 4. Structural-Test Performance: Systems tested according to ASTM E 330 as follows:
 - a. When tested at positive and negative wind-load design pressures, systems do not evidence deflection exceeding specified limits.
 - b. When tested at 150 percent of positive and negative wind-load design pressures, systems, including anchorage, do not evidence material failures, structural distress, and permanent deformation of main framing members exceeding 0.2 percent of span.
 - c. Test Durations: As required by design wind velocity but not less than 10 seconds.
 5. Wind Loads: Design and size components to withstand the specified load requirements without damage or permanent set, when tested in accordance with ASTM E330/E330M, using loads 1.5 times the design wind loads and 10 second duration of maximum load.
 - a. Member Deflection: Limit member deflection to flexure limit of glass in any direction, with full recovery of glazing materials.
 6. Water Penetration Resistance on Manufactured Assembly: No uncontrolled water on interior face, when tested in accordance with ASTM E331 at pressure differential of 8 psf.
 7. Air Leakage Laboratory Test: Maximum of 0.06 cu ft/min sq ft of wall area, when tested in accordance with ASTM E283 at 6.27 psf pressure differential across assembly.

2.03 COMPONENTS

- A. Aluminum Framing Members: Tubular aluminum sections, thermally broken with interior section insulated from exterior, drainage holes and internal weep drainage system.
1. Framing members for interior applications need not be thermally broken.
 2. Cross-Section: As indicated on drawings.
- B. Glazing: As specified in Section 08 80 00.
- C. **Swing Doors: Glazed aluminum. [ADD 2]**
1. **Thickness: 1-3/4 inches.**

2. **Top Rail: 4 inches wide.**
3. **Vertical Stiles: 4-1/2 inches wide.**
4. **Bottom Rail: 10 inches wide.**
5. **Glazing Stops: Square.**
6. **Finish: Same as storefront.**

D. ~~Outswing Casement Windows:~~

1. ~~Basis of Design: Kawneer, GlassVent Outswing Casement Windows.~~
2. ~~Substitutions: See Section 01 25 00 — Substitution Procedures.~~
3. ~~Performance:~~
 - a. ~~Performance Requirements: Provide aluminum windows of performance indicated that comply with AAMA/WDMA/CSA 101/I.S.2/A440 (NAFS).~~
 - 1) ~~Performance Class and Grade: AW-PG90-AP/AW-PG90-G~~
 - b. ~~Air Infiltration: The test specimen shall be tested in accordance with ASTM E283 at a minimum size of 36" x 60". Air infiltration rate shall not exceed 0.10 cfm/ft² at a static air pressure differential of 6.24 psf.~~
 - c. ~~Water Resistance: The test specimen shall be tested in accordance with ASTM E547 and ASTM E331 at a minimum size of 36" x 60" Casement Outswing. There shall be no leakage as defined in the test method at a static air pressure differential of 15 psf.~~
 - d. ~~Uniform Load Deflection: A minimum static air pressure difference of 90 psf shall be applied in the positive and negative direction in accordance with ASTM E330. There shall be no deflection in excess of L/175 of the span of any framing member.~~
 - e. ~~Uniform Load Structural: A minimum static air pressure difference of 135 psf shall be applied in the positive and negative direction in accordance with ASTM E330. The unit shall be evaluated after each load with permanent set not to exceed 0.2% of span length.~~
 - f. ~~Component Testing: Window components shall be tested in accordance with procedures described in AAMA/WDMA/CSA 101/I.S.2/A440 and AAMA 910.~~
 - g. ~~Energy Efficiency:~~
 - 1) ~~Thermal testing per AAMA 1503 within 1600 Wall System 1, at the prescribed 59" x 24" test size glazed using a single lite of 1" insulating glass composed of 1/4" clear low-E .035 #2, 1/2" air space with warm edge spacer, 1/4" clear with the following results:~~
 - (a) ~~Condensation Resistance Factor: Minimum (51 frame) and (63 glass) CRF.~~
 - (b) ~~Thermal Transmittance: Maximum 0.72 BTU/hr/ft²/°F U-value~~
4. ~~Hardware:~~
 - a. ~~4-Bar Hinges~~
 - b. ~~Cam Locking Handles. [ADD 2]~~

2.04 MATERIALS

- A. Extruded Aluminum: ASTM B221 (ASTM B221M).
- B. Fasteners: Stainless steel.
- C. Sill Flashing Sealant: Elastomeric, silicone or polyurethane, compatible with flashing material.

2.05 FINISHES

- A. Class I Natural Anodized Finish: AAMA 611 AA-M12C22A41 Clear anodic coating not less than 0.7 mils thick.

2.06 HARDWARE

- A. For each door, include weatherstripping and sill sweep strip.
- B. Other Door Hardware: As specified in Section 08 71 00.
- C. Weatherstripping: Wool pile, continuous and replaceable; provide on all doors.
- D. Sill Sweep Strips: Resilient seal type, retracting, of neoprene; provide on all doors.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify dimensions, tolerances, and method of attachment with other work.
- B. Verify that wall openings and adjoining air and vapor seal materials are ready to receive work of this section.

3.02 INSTALLATION

- A. Install wall system in accordance with manufacturer's instructions.
- B. Attach to structure to permit sufficient adjustment to accommodate construction tolerances and other irregularities.
- C. Provide alignment attachments and shims to permanently fasten system to building structure.
- D. Align assembly plumb and level, free of warp or twist. Maintain assembly dimensional tolerances, aligning with adjacent work.
- E. Provide thermal isolation where components penetrate or disrupt building insulation.
- F. Install sill flashings. Turn up ends and edges; seal to adjacent work to form water tight dam.
- G. Where fasteners penetrate sill flashings, make watertight by seating and sealing fastener heads to sill flashing.
- H. Install anti-walking clips in openings that are more than three frames wide per manufacturers instructions.
- I. Install anchors with separators and isolators to prevent metal corrosion and electrolytic deterioration.
- J. Coordinate attachment and seal of perimeter air and vapor barrier materials.
- K. Pack fibrous insulation in shim spaces at perimeter of assembly to maintain continuity of thermal barrier.
- L. Metal Protection:
 - 1. Where aluminum will contact dissimilar metals, protect against galvanic action by painting contact surfaces with primer or by applying sealant or tape or installing nonconductive spacers as recommended by manufacturer for this purpose.
 - 2. Where aluminum will contact concrete or masonry, protect against corrosion by painting contact surfaces with bituminous paint.
 - 3. If necessary protect the exterior framing during masonry wash down.
- M. Install hardware using templates provided.
- N. Install glass in accordance with Section 08 80 00, using glazing method required to achieve performance criteria.
- O. Entrances: Install to produce smooth operation and tight fit at contact points.
 - 1. Exterior Entrances: Install to produce tight fit at weather stripping and weathertight closure.
 - 2. Field-Installed Hardware: Install surface-mounted hardware according to hardware manufacturers' written instructions using concealed fasteners to greatest extent possible.
- P. Door Hardware: Install door hardware specified in Division 8 Section "Door Hardware."
- Q. Touch-up minor damage to factory applied finish; replace components that cannot be satisfactorily repaired.

3.03 TOLERANCES

- A. Maximum Variation from Plumb: 0.06 inch per 3 feet non-cumulative or 0.06 inch per 10 feet, whichever is less.
- B. Maximum Misalignment of Two Adjoining Members Abutting in Plane: 1/32 inch.

3.04 FIELD QUALITY CONTROL

- A. Before installation of interior finishes, test a minimum of 25 feet by 1 story of installed storefront for water leakage in accordance with AAMA 501.2 hose test. Tested area shall show no evidence of water penetration.
- B. Repair or remove work where test results and inspections indicate that it does not comply with specified requirements.
- C. Additional testing and inspecting, at Contractor's expense, will be performed to determine compliance of replaced or additional work with specified requirements.

3.05 ADJUSTING

- A. Adjust operating hardware and sash for smooth operation.

3.06 CLEANING

- A. Remove protective material from pre-finished aluminum surfaces.
- B. Upon completion of installation, thoroughly clean aluminum surfaces in accordance with AAMA 609 & 610.

END OF SECTION

SECTION 09 54 00
SEAMLESS ACOUSTIC CEILING AND WALL ASSEMBLIES

PART 1 - GENERAL

1.01 SUMMARY

- A. Section Includes
 - 1. Acoustical ceiling panels
 - a. Wire hangers, fasteners, main runners, cross tees, and wall angle moldings
 - 1) Perimeter Trim
 - 2. Seamless acoustical wall panels.

1.02 RELATED SECTIONS

- A. Section 09 21 16 - Gypsum Board Assemblies
- B. Divisions 23 - HVAC Air Distribution
- C. Division 26 - Electrical

1.03 REFERENCES

- A. American Society for Testing and Materials (ASTM):
 - 1. ASTM A 1008 Standard Specification for Steel, Sheet, Cold Rolled, Carbon, Structural, High-Strength Low-Alloy and High-Strength Low-Alloy with Improved Formability
 - 2. ASTM A 641 Standard Specification for Zinc-Coated (Galvanized) Carbon Steel Wire
 - 3. ASTM A 653 Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) by the Hot-Dip Process
 - 4. ASTM C 645 Standard Specification for Metal Suspension Systems
 - 5. ASTM C 636 Recommended Practice for Installation of Metal Ceiling Suspension Systems for Acoustical Tile and Lay-in Panels
 - 6. ASTM C754 AND C1858 All installations should be in compliance with these tests.
 - 7. ASTM D 3273 Standard Test Method for Resistance to Growth of Mold on the Surface of Interior Coatings in an Environmental Chamber
 - 8. ASTM E 84 Standard Test Method for Surface Burning Characteristics of Building Materials
 - 9. ASTM E 580 Installation of Metal Suspension Systems in Areas Requiring Moderate Seismic Restraint
 - 10. ASTM C 423 Sound Absorption and Sound Absorption Coefficients by the Reverberation Room Method
 - 11. ASTM E 1414 Standard Test Method for Airborne Sound Attenuation between Rooms Sharing a Common Ceiling Plenum
 - 12. ASTM E 1264 Classification for Acoustical Ceiling Products
 - 13. ASTM E3090 All references to suspension component property testing per this test method.
- B. International Building Code
- C. ASHRAE Standard 62.1-2004, Ventilation for Acceptable Indoor Air Quality
- D. NFPA 70 National Electrical Code
- E. ASCE 7 American Society of Civil Engineers, Minimum Design Loads for Buildings and Other Structures
- F. International Code Council-Evaluation Services - AC 156 Acceptance Criteria for Seismic Qualification Testing of Non-structural Components
- G. International Code Council-Evaluation Services Report - Seismic Engineer Report
 - 1. ESR 1289 - Armstrong Suspension Systems

1.04 SUBMITTALS

- A. Shop Drawings: Layout and details of ceilings. Show locations of items that are to be coordinated with, or supported by the ceilings.
- B. Installation Instructions: Submit manufacturer's installation instructions as referenced in Part three, Installation.
- C. Product Data: Submit manufacturer's technical data for each type of ceiling unit and suspension system required.
- D. Samples: Minimum 6 x 6 inch samples of specified panel; 8 inch long samples of exposed wall molding and suspension system, including main runner and 4 foot cross tees.
- E. Certifications: Manufacturer's certifications that products comply with specified requirements, including laboratory reports showing compliance with specified tests and standards.

1.05 QUALITY ASSURANCE

- A. Single-Source Responsibility: Provide acoustical panel units and grid components by a single manufacturer.
- B. Fire Performance Characteristics: Identify acoustical ceiling components with appropriate markings of applicable testing and inspecting organization.
- C. Surface Burning Characteristics: As follows, tested per ASTM E 84 and complying with ASTM E 1264 Classification.
- D. Acoustical Panels: As with other architectural features located at the ceiling that may obstruct or skew the planned fire sprinkler pattern through possibly delay or accelerate the activation of the sprinkler or fire detection systems by channeling heat from a fire either toward or away from the device. Designers and installers are advised to consult a fire protection engineer, NFPA 13, or their local codes for guidance where automatic fire detection and suppression systems are present.
- E. Coordination of Work: Coordinate acoustical ceiling work with installers of related work including, but not limited to building insulation, gypsum board, light fixtures, mechanical systems, electrical systems, and sprinklers.

1.06 DELIVERY, STORAGE AND HANDLING

- A. Deliver acoustical ceiling units to project site in original, unopened packages and store them in a fully enclosed space where they will be protected against damage from moisture, direct sunlight, surface contamination, and other causes.
- B. Before installing acoustical ceiling units, permit them to reach room temperature and a stabilized moisture content. Store all material within temperature limits required by manufacturer.
- C. Handle acoustical ceiling units carefully to avoid chipping edges or damaged units in any way.

1.07 PROJECT CONDITIONS

- A. Space Enclosure:
 - 1. Building areas to receive ceilings shall be free of construction dust and debris. Panels shall be installed in areas where the building is enclosed and the HVAC is continuously functioning. This product is not recommended for exterior applications, where standing water is present, or where moisture will come into direct contact with the ceiling.

1.08 WARRANTY

- A. Acoustical Panel: Submit a written warranty executed by the manufacturer, agreeing to repair or replace panels that fail within the warranty period. Failures include, but are not limited to the following:
 - 1. Acoustical Panels: Manufacturer's defects in material
 - 2. Grid System: Rusting and manufacturer's defects
- B. Warranty Period:
 - 1. Acoustical panels: Ten (10) years from date of substantial completion

2. Suspension: Ten (10) years from date of substantial completion

1.09 MAINTENANCE

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

PART 2 - PRODUCTS

2.01 MANUFACTURERS

- A. Basis of Design: Armstrong, AcoustiBuilt Seamless Acoustical Ceiling and Wall Systems.
 1. **USG Ensemble Acoustical Drywall Ceiling and Wall System [ADD 2]**
 2. Substitutions: Refer to Section 01 25 00 - Substitution Procedures.

2.02 ACOUSTICAL CEILING UNITS

- A. Acoustical Panels
 1. Surface Texture: Fine
 2. Composition: Mineral Fiber
 3. Color: White
 4. Size: 48 in x 72 in x 7/8 in
 5. Edge Profile: Tapered edges four sides
 6. Noise Reduction Coefficient (NRC): ASTM C 423; Panel 0.80 (UL).
 7. Ceiling Attenuation Class (CAC): ASTM C 1414; Panel 46 (UL).
 8. Articulation Class (AC): ASTM E 1111
 9. Flame Spread: ASTM E 1264; Class A
 10. Light Reflectance (LR) White Panel: ASTM E 1477; 0.87
- B. Wall Attachments:
 1. Screws Coarse-thread drywall or laminating screws
 - a. #6 x 1-5/8" Coarse Thread Drywall Screws
 2. Adhesives:
 - a. Loctite PL Premium® Polyurethane Construction Adhesive.
 - b. OSI F38 Drywall Panel Adhesive.
- C. Ceiling Suspension Systems and Washers
 1. All main beams and cross tees shall be commercial quality hot-dipped galvanized steel
 - a. Main beam: manufactured main beam- 1-1/2" knurled face with screw stop reverse hem by 1-11/16 inches high. Drywall Main Beams are factory punched with cross tee routs, hanger wire holes, and main beam clip for a strong secure connection and fast accurate alignment. Both short span and drywall main beams are Heavy-duty performance per ASTM C635
 2. Cross Tees: manufactured cross tee- 1-1/2" knurled face with screw stop reverse hem by 1-1/2 inches high with factory punched cross tee routs and hanger wire holes and XL stake on clip for a strong secure connection.
 3. Wall Molding: 12ft Knurled Angle Molding 1-1/4" Face
 4. Hanger wire: a Class 1 zinc coating, soft temper, pre-stretched, with a yield stress load of at least time three times the design load, but not less than 12-gauge.
 5. Fasteners (for Panel attachment)
 - a. #6 x1-1/4" Fine thread or sharp point self-drilling drywall screws
 - b. Grip-plate washers.
 6. Perimeter Systems
 - a. Commercial quality extruded aluminum alloy 6063 trim channel, factory finished in baked polyester paint. Commercial quality galvanized steel unfinished T-bar

connection clips; galvanized steel splice plates.

- 1) Color: White
- 2) Height: As indicated on drawings.
- 3) Basis-of-Design: Armstrong, Axiom Trim.

D. Finish

1. Joint Compound
 - a. Setting Compound: Lightweight setting-type drywall joint compound, Ultra lightweight drying-type drywall joint compound
 - b. Joint Tape: Self-Adhesive mesh drywall joint tape
2. Spray Applied Finish: Manufacturer's Fine Texture Finish for seamless acoustic panels.

PART 3 - EXECUTION

3.01 INSTALLATION

- A. Install in accordance with manufacturer's written instructions.
- B. Suspend main beam from overhead construction with hanger wires spaced 4-0 ft. or 6-0 ft. on center along the length of the main runner. Install hanger wires plumb and straight.
- C. Cross tees shall be installed 16" on center
- D. Install wall moldings/perimeter trim at intersection of suspended ceiling and vertical surfaces
- E. Main runners and cross tees shall be attached at perimeter conditions
- F. When determining the grid layout, consider the long edges of the boards must run parallel with the cross tees.
- G. This system relies on a square grid system to ensure panel edges align at centers of cross tees. If the installation does not meet these squareness requirements, the panel edges may run off the grid system.
 1. The system must be square to within 1/8" over a 48" x 48" module.
 2. The suspension system must be leveled to within 1/4" in 10'.

3.02 PREPARATION

- A. Do not proceed with installation until all wet work such as concrete, terrazzo, plastering and painting has been completed and thoroughly dried out, unless expressly permitted by manufacturer's printed recommendations.
 1. Coordination: Furnish layouts for preset inserts, clips, and other ceiling anchors whose installation is specified in other sections.
 2. Furnish concrete inserts and similar devices to other trades for installation well in advance of time needed for coordination of other work.

3.03 INSTALLATION

- A. Follow manufacturer installation instructions.
- B. Controls joints are required following the standards used for gypsum board listed in ASTM C840, Section 20
 1. Ceilings with perimeter relief shall not exceed 50 LF and 2500 SF between control joints
 2. Ceilings without perimeter relief shall not exceed 30 LF and 900 SF between control joints
- C. Panel joints and fasteners are finished with tape and compound to create a flat surface. While the materials used to finish acoustic panels are also used to finish drywall, the procedure has unique requirements.
- D. Joint compound coverage shall be limited to preserve the acoustical performance of the panels. Compound at panel joints shall not exceed 8 inch widths. Compound applied to field fasteners shall not exceed 4 inch by 4-inch areas. All compound shall be smooth and free of tool marks and ridges. Panels are to be finished with taping knives. Production tools, including boxes, are not permitted.

- E. Sanding and inspection: Throughout the sanding process, inspect the surface frequently for flatness. Direct a light across the ceiling to highlight unevenness that requires attention.
- F. Fine Texture Finish shall be applied in 4 coat process (additional coat may be used to achieve the desired finish) as called out in the installation instructions. Apply fine texture finish for acoustic panels in multiple coats, layered to achieve a uniform appearance and acoustical performance. Practice spraying to ensure proper calibration and technique are achieved. Refer to manufacturer's installation videos.
 - 1. Must be applied with an air assist spray system (refer to manufacturers installation instructions for required equipment). The Fine texture finish is not intended for use with airless spay or to be manually applied by rolling.
 - 2. See manufactures installation instructions for correct pressure settings for spray system, finish preparation, spray calibration and spray procedure and technique.

3.04 ADJUSTING AND CLEANING

- A. To remove soot, dirt, and dust use a vacuum operating at low power with a soft brush or use a dry soot cleaning sponge.
- B. Clean exposed surfaces of acoustical ceilings, including trim, edge moldings, and suspension members. Comply with manufacturer's instructions for cleaning and touch up of minor finish damage. Remove any ceiling products that cannot be successfully cleaned and or repaired. Replace with attic stock or new product to eliminate evidence of damage.

END OF SECTION

**SECTION 10 11 00
VISUAL DISPLAY UNITS**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Markerboards

1.02 RELATED REQUIREMENTS

- A. Section 06 10 00 - Rough Carpentry: Blocking and supports.

1.03 REFERENCE STANDARDS

- A. ASTM A424/A424M - Standard Specification for Steel, Sheet, for Porcelain Enameling 2018.

1.04 SUBMITTALS

- A. See Section 01 30 00 - Administrative Requirements, for submittal procedures.
- B. Product Data: Provide manufacturer's data on chalkboard, markerboard, tackboard, tackboard surface covering, trim, and accessories.
- C. Shop Drawings: Indicate wall elevations, dimensions, joint locations , special anchor details.
- D. Maintenance Data: Include data on regular cleaning, stain removal .

1.05 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section with minimum three years documented experience.

1.06 WARRANTY

- A. Provide five year warranty for chalkboard and markerboard to include warranty against discoloration due to cleaning, crazing or cracking, and staining.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Visual Display Boards:
 - 1. Best-Rite Manufacturing.
 - 2. Claridge Products and Equipment, Inc: www.claridgeproducts.com.
 - 3. Marsh Industries: www.marsh-ind.com.
 - 4. W. E. Nea Slate Company: www.nealslate.com.
 - 5. **ASI American Specialties Inc. [ADD 2]**

2.02 VISUAL DISPLAY UNITS

- A. Markerboards: Porcelain enamel on steel, laminated to core.
 - 1. Size: As indicated on drawings.
 - 2. Frame: Extruded aluminum , with concealed fasteners.
 - 3. Frame Profile: 1-1/2 inch wide, rectangular trim.
 - 4. Frame Finish: Anodized, natural.
 - 5. Accessories: Provide marker tray and map rail.

2.03 MATERIALS

- A. Porcelain Enameled Steel Sheet: ASTM A424/A424M, Type I, Commercial Steel, with fired-on vitreous finish.

2.04 ACCESSORIES

- A. Map Rail: Extruded aluminum, manufacturer's standard profile, with cork insert and runners for accessories; 1 inch wide overall , full width of frame.
- B. Marker Tray: Aluminum, manufacturer's standard profile, one piece full length of markerboard, molded ends, concealed fasteners, same finish as frame.
- C. Mounting Brackets: Concealed.

- D. Marker Sets: Provide a four (4) marker set (blue, red, green, black) and a dry eraser for each room where marker boards are installed.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that field measurements are as indicated.
- B. Verify that internal wall blocking is ready to receive work and positioning dimensions are as indicated on shop drawings.

3.02 INSTALLATION

- A. Install boards in accordance with manufacturer's instructions.
- B. Install visual display surfaces in locations and at mounting heights indicated on Drawings.
- C. Visual Display Boards: Attach concealed clips, hangers, and grounds to wall surfaces and to visual display boards with fasteners at not more than 16 inches o.c. Secure both top and bottom of boards to walls.
- D. Secure units level and plumb.

3.03 CLEANING

- A. Clean board surfaces in accordance with manufacturer's instructions.

END OF SECTION

**SECTION 10 28 00
TOILET ACCESSORIES**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Commercial toilet accessories.
- B. Diaper changing stations.
- C. Utility room accessories.

1.02 REFERENCE STANDARDS

- A. ASTM A666 - Standard Specification for Annealed or Cold-Worked Austenitic Stainless Steel Sheet, Strip, Plate, and Flat Bar 2015.
- B. ASTM C1036 - Standard Specification for Flat Glass 2021.
- C. ASTM C1503 - Standard Specification for Silvered Flat Glass Mirror 2018.
- D. ASTM F2285 - Standard Consumer Safety Performance Specification for Diaper Changing Tables for Commercial Use 2004, with Editorial Revision (2016).

1.03 SUBMITTALS

- A. Product Data: Submit data on accessories describing size, finish, details of function, and attachment methods.
- B. Samples: Submit two samples of each accessory, illustrating color and finish.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Commercial Toilet, Shower, and Bath Accessories: [ADD 2]
 - 1. Bobrick; www.bobrick.com
 - 2. No substitutions, facility standard

2.02 MATERIALS

- A. Accessories - General: Shop assembled, free of dents and scratches and packaged complete with anchors and fittings, steel anchor plates, adapters, and anchor components for installation.
- B. Stainless Steel Sheet: ASTM A666, Type 304.
- C. Mirror Glass: Annealed float glass, ASTM C1036 Type I, Class 1, Quality Q2, with silvering, protective and physical characteristics complying with ASTM C1503.
- D. Fasteners, Screws, and Bolts: Hot dip galvanized; tamper-proof; security type.

2.03 FINISHES

- A. Stainless Steel: Satin finish, unless otherwise noted.

2.04 COMMERCIAL TOILET ACCESSORIES

- A. Toilet Paper Dispenser: Roll-in-reserve type, designed to allow automatic activation of reserve roll when needed, or manual activation by pressing release bar, surface-mounted, stainless steel unit with pivot hinge, tumbler lock.
 - 1. Basis-of-Design Product: B-2888 Surface-Mounted Multi Roll Toilet Tissue Dispenser.
- B. Combination Towel Dispenser/Waste Receptacle: Recessed with projecting waste receptacle and automatic roll paper towel dispenser, stainless steel; seamless wall flanges, continuous piano hinges, satin finish.
 - 1. Towel dispenser capacity: 8" diameter rolls.
 - 2. Waste receptacle capacity: 18 gallons.
 - 3. Provide accessories as required for hardwired power.
 - 4. Basis-of-Design Products: Bobrick, B-39747 Recessed Convertible Automatic, Universal Roll Towel Dispenser/Waste Receptacle.

- C. Automated Soap Dispenser: Foam soap dispenser, wall-mounted, with stainless steel cover and window to gauge soap level.
 - 1. Minimum Capacity: 27 ounces.
 - 2. Basis-of-Design: Bobrick, B-2013 Automatic Wall-Mounted Foam Soap Dispenser.
- D. Automated Hand Sanitizer Dispenser: Sanitizer dispenser, wall-mounted, with stainless steel cover and window to gauge soap level.
 - 1. Minimum Capacity: 27 ounces.
 - 2. Basis-of-Design: Bobrick, B-2013 Automatic Wall-Mounted Foam Soap Dispenser.
- E. Mirrors: Stainless steel framed, 1/4 inch thick annealed float glass; ASTM C1036.
 - 1. Annealed Float Glass: Silvering, protective and physical characteristics in compliance with ASTM C1503.
 - 2. Size: As indicated on drawings.
 - 3. Frame: 0.05 inch angle shapes, with mitered corners, and tamperproof hanging system; satin finish.
 - 4. Basis-of-Design Product: Bobrick, B-165 Mirror.
- F. Grab Bars: Stainless steel, nonslip grasping surface finish.
 - 1. Standard Duty Grab Bars:
 - a. Push/Pull Point Load: 250 pound-force, minimum.
 - b. Dimensions: 1-1/4 inch outside diameter, minimum 0.05 inch wall thickness, exposed flange mounting, 1-1/2 inch clearance between wall and inside of grab bar.
 - c. Length and Configuration: As indicated on drawings.
 - d. Basis-of-Design Product: Bobrick, B-6806 1-1/2" Diameter Straight Grab Bar.
- G. Sanitary Napkin Disposal Unit: Stainless steel, surface-mounted.
 - 1. Basis-of-Design Product: Bobrick, B-35139 Trimline Surface Mounted Sanitary Napkin Disposal

2.05 ELECTRIC HAND/HAIR DRYERS

- A. **Electric Hand Dryers: Traditional fan-in-case type, with downward fixed nozzle. [ADD 2]**
 - 1. Operation: Automatic, sensor-operated on and off.
 - 2. Mounting: Surface mounted.
 - 3. Cover: Stainless steel with brushed finish.
 - a. Tamper-resistant screw attachment of cover to mounting plate.
 - 4. Electric Hand Dryer Products:
 - a. Basis-of-Design Product: Bobrick B-7128.

2.06 DIAPER CHANGING STATIONS

- A. Vertical Diaper Changing Station: Wall-mounted folding diaper changing station for use in commercial toilet facilities, meeting or exceeding ASTM F2285.
 - 1. Material: Stainless steel.
 - 2. Mounting: Surface.
 - 3. Color: Gray.
 - 4. Minimum Rated Load: 250 pounds.
 - 5. Basis-of-Design Products: Bobrick, KB301-01SS Stainless Steel Veneer Vertical Baby Changing Station.
- B. Horizontal Diaper Changing Station: Wall-mounted folding diaper changing station for use in commercial toilet facilities, meeting or exceeding ASTM F2285.
 - 1. Material: Stainless steel.
 - 2. Mounting: Surface.
 - 3. Color: Gray.
 - 4. Minimum Rated Load: 250 pounds.
 - 5. Basis-of-Design Products: Bobrick, KB200-01SS Horizontal Wall Mounted Baby Changing Station.

2.07 UTILITY ROOM ACCESSORIES

- A. Combination Utility Shelf/Mop and Broom Holder: 0.05 inch thick stainless steel, Type 304, with 1/2 inch returned edges, 0.06 inch steel wall brackets.
 - 1. Hooks: 4, 0.06 inch stainless steel rag hooks at shelf front.
 - 2. Mop/broom holders: Three spring-loaded rubber cam holders at shelf front.
 - 3. Length: 34 inches.
 - 4. Basis-of-Design Product: Bobrick, B-239 Utility Shelf with Mop/Broom Holders and Hooks.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify existing conditions before starting work.
- B. Verify exact location of accessories for installation.
- C. For electrically-operated accessories, verify that electrical power connections are ready and in the correct locations.

3.02 PREPARATION

- A. Provide templates and rough-in measurements as required.

3.03 INSTALLATION

- A. Install accessories in accordance with manufacturer's instructions in locations indicated on the drawings.
- B. Install plumb and level, securely and rigidly anchored to substrate.
- C. Mounting Heights: As required by accessibility regulations, unless otherwise indicated on drawings.

3.04 PROTECTION

- A. Protect installed accessories from damage due to subsequent construction operations.

SECTION 12 24 13
ROLLER WINDOW SHADES

GENERAL

1.01 SUMMARY

- A. Section Includes:
 - 1. Motorized roller shades.
 - 2. Manual roller shades.
 - 3. Shade accessories.
 - 4. Control systems.

1.02 RELATED TRADES REQUIREMENT

- A. Refer to Division 26 - Electrical - wiring from power panel to shade drive locations; connect power panel

1.03 REFERENCES

- A. American National Standards Institute/Institute of Electrical and Electronic Engineers (ANSI/IEEE):
 - 1. C62.41-1991 - Recommended Practice for Surge Voltages in Low-Voltage AC Power Circuits.
 - 2. D4674 -02a Standard Test Method for Accelerated Testing for Color Stability of Plastics Exposed to Indoor Fluorescent Lighting and Window-Filtered Daylight.
- B. National Fire Protection Association (NFPA) 701 (2004) - Standard Methods of Fire Tests for Flame Propagation.
- C. Underwriters Laboratories, Inc. (UL):
 - 1. 1310 - Class 2 Power Units.
 - 2. 508 - Industrial Control Equipment.

1.04 SUBMITTALS

- A. Submittals for Review:
 - 1. Shop Drawings; include:
 - a. Shade schedule indicating room number, opening sizes, quantities and key to details.
 - b. Head, jamb and sill details, and mounting dimension requirements for each product and mounting condition.
 - c. One-line wiring system diagrams including connection details and overall arrangement of shades and control locations.
 - 2. Samples:
 - a. Fabric sample showing specified color.
 - b. Samples showing color and finish selection for controls available for review.
 - 3. Product Data; include:
 - a. Descriptive literature and details for each product type including materials, finishes, construction, and dimensions of individual components, profiles, and mounting requirements.
 - b. Wiring diagrams, installation instructions, and operating instructions.
- B. Quality Control Submittals:
 - 1. Test Reports: Indicating compliance with specified fabric properties.
 - 2. Certification: Morton International Laboratory Report for PVC coated fabrics and bacterial and mildew resistance.

1.05 QUALITY ASSURANCE

- A. Manufacturer Qualifications:
 - 1. Assign responsibility for design, engineering, installation, and performance of window shade system to manufacturer and their qualified dealers and installers.
 - 2. Furnish shading system and electrical control equipment for complete installation

3. Qualified to supply specified products and to honor claims against product presented in accordance with warranty.

1.06 DELIVERY, STORAGE, AND HANDLING

- A. Store products in manufacturer's unopened packaging until ready for installation.
- B. Do not deliver shades until concrete, masonry, plaster, painting, and other wet work is complete and dry.
- C. Deliver shades to project in protective packaging, labeled to identify each shade for each opening.
- D. Include installation, programming, and maintenance instructions.

1.07 PROJECT CONDITIONS

- A. Maintain environmental conditions in installation areas within manufacturer's recommended limits:
 1. Ambient operating temperature: 32 to 104 degrees F.
 2. Humidity: 0 to 90 percent, non-condensing
- B. Do not install products under environmental conditions outside manufacturer's absolute limits.
- C. Do not install shade system until building is operating at ambient temperature and humidity ranges that are consistent with those intended for building's ultimate use.

1.08 COORDINATION

- A. Coordinate pre-wiring of system with electrical contractor utilizing manufacturer's approved low voltage wiring to each shade drive location. (Electrical contractor to provide and run low voltage shade wire to window locations from power panel as coordinated with shade installer.)
- B. Fabricate shades after obtaining field dimensions for each opening.
- C. Coordinate construction of surrounding conditions to allow for timely field dimension verification.

1.09 WARRANTY

- A. Provide manufacturer's 5 years (at 100%), and an additional 3 years (50%), parts warranty for defective equipment.

1.10 MAINTENANCE

- A. Make ordering of new equipment for expansions, replacements, and spare parts available to qualified dealer or installer.
- B. Manufacturer to provide 24-hour, 7-day a week technical support to troubleshoot system wiring and aid in system programming.

PART 2 - PRODUCTS

2.01 PRODUCTS

- A. Basis-of-Design:
 1. Manual Shades:
 - a. Lutron, Manual Roller Shades.
 - b. **Light Harvesting Shading Solutions [ADD 2]**
 2. Motorized Shades:
 - a. Lutron, Motorized Shades
 3. Substitutions: See Section 01 25 00 - Substitution Procedures.

2.02 SYSTEM DESCRIPTION

- A. Motorized Roller Shade System: Ultra-quiet, precision-controlled electronic drive unit contained within head tube, controlling shade movement.
- B. Manual Roller Shades: The clutch shall be made of high-strength fiberglass reinforced polyester with high carbon steel springs. And, shades shall stop upon release of clutch
- C. Controls: Wall mounted keypads for motorized in offices.

2.03 SYSTEM REQUIREMENTS

- A. Motorized Roller Shades System Description:
1. Ultra-quiet, precision-controlled electronic drive unit housed inside roller tube, controlling shade movement.
 2. Audible noise: Maximum 49 dBA measured 3 feet from electronic drive unit. No audible clicks when motor starts or stops.
 3. Operate independently, without use of external group controllers.
 4. Control shade speed for tracking within plus or minus 0.0625 inch throughout entire travel.
 5. Include 10-year power failure memory for preset stops, open and close limits, shade grouping and subgrouping, and system configuration.
 6. Systems with multiple electronic drive units electronically synchronized to start, stop, and move in unison.
 7. **Shade installer to provide one RS-232 device (with power to support the device) for integration with AV in Conference Rooms 110 and 120. Integration with shade controller to AV System is by others. [ADD 2]**
- B. Manual Roller Shades System Description
1. Clutch Roller Shades shall be a ball chain-operated system utilizing a bidirectional wrap spring clutch and never require any adjustment of the shade.
 2. The system must be capable of smoothly raising and lowering the shade to any desired height and maintaining that position without slippage.
 3. The shade cannot be operable by any other means other than the chain. Pulling on the hem bar will not disengage the clutch.
 4. The system will provide a maximum fabric gap of 0.75" per side.
 5. Shade shall stop upon release of clutch. Systems that slide to a stop are not acceptable.
 6. Clutch may be mounted on either the right or left end of the roller tube and fabric may be forward or reverse rolled.
 7. The clutch shall be made of high-strength fiberglass reinforced polyester with high carbon steel springs.
 8. Manufacturer shall identify appropriate shade tube and clutch size based on shade size, fabric type, and application requirements.
 9. Fabric shall be connected to tube with double-sided adhesive strip applied for exact and firm mounting of the fabric and for easy adjustment of fabric to prevent telescoping.
 - a. A minimum of one turn of fabric will be placed on the roller before the working section of fabric starts to protect the fabric and smooth out the starting seam.
 10. Chain will be made of #10 stainless steel 90-pound test ball chain. Chain will be provided with connector and upper and lower ball stops.
 11. Chains to be anchored to side jamb with tensioner to ensure proper use of chain and as required for safety.
 12. Clutch Idle End Cap: Two-piece unit consisting of an outside sleeve and center bearing shaft made of high-strength fiberglass reinforced polyester.
 - a. The outside sleeve shall be free to rotate on the shaft, providing the bearing surfaces on which the roller rides in order to provide a smooth and quiet rotation without wearing on the system.
 13. Clutch Mounting Brackets
 - a. Shall be .072" galvanized steel
 - b. Shall be universally applicable for mounting inside, outside or to the ceiling, with the clutch on either the right or left side of the roller.
 - c. The clutch mounts flush to the face of the bracket resulting in the smallest possible light gap between fabric and window frame.
- C. Grouping:
1. Keypads can control any electronic drive unit without separate group controller.
 2. System groups and subgroups configured at point of control without rewiring and without access to electronic drive unit.

3. System may contain multiple electronic drive units.
4. Keypads and interfaces able to operate any group or subgroup of electronic drive units.
- D. System Controls:
 1. Shades controlled by built-in shade columns or by keypad.
 2. Electronic drive units and keypads contain microprocessors, allowing high level programming from any source.
 3. System devices, including shades, connected through common communication link.
- E. Motorized Roller Shades System Performance:
 1. One-touch control of shades by means of keypad
 2. Capable of stopping within accuracy of 0.125 inch at any point between open and close limits.
 3. Store over 250 programmable stop points, including open, close, and any other position.
 4. Presets set by 5-second button push and hold from keypad.
 5. Presets recalled by keypad.
 6. Open and close limits programmable from electronic drive unit, wall-mounted keypad.
 7. System components electro-static discharge protected.

2.04 ROLLER SHADES

- A. Mounting:
 1. Brackets to provide symmetrical light gaps of 0.75 inch on each side of shade.
 2. Roller shade leveling adjustment allowing leveling adjustment while roller shades are mounted to brackets.
 3. Allow side-to-side adjustment up to 0.375 inch on each side while shade is mounted to bracket.
 4. Projection adjustment up to 0.50 inch.
 5. Coupling:
 - a. Single electronic drive unit capable of driving multiple shades where noted in schedule.
 - b. Allows for precision adjustment of bottom bar levels without removing roller from installed point or fabric from roller tube.
- B. Shade Tube: Fabric connected to tube using double-sided adhesive strip with minimum of one turn of fabric on roller before working section of fabric starts.
- C. Housing: Provide blocking support/adequate support. See schedule for details.
- D. Fabric:
 1. Pass NFPA 701 large and small scale tests.
 2. Where applicable, seal shade fabric or treat PVC-coated fabric edges to prevent fraying.
 3. Minimum 5 mm "No Growth Contact Area", tested to ASTM G22 for ATCC6538 (*Staphylococcus aureus*) and ATCC13388 (*Pseudomonas aeruginosa*).
 4. No growth, tested to ASTM G21 for ATCC9642, ATCC9348, and ATCC9645.
 5. Fabric selection:
- E. Bottom Bar: Lutron hembar.

2.05 ACCESSORIES

- A. Wall Mounted Controls:
 1. Low voltage keypads with faceplates attached without visible means of attachments, with backlit buttons: Type: QS Shade Keypad - SeeTouch keypad; color white -keypad(s) located where indicated on plans.
- B. Power Supplies:
 1. Electronic drive units powered with 24 VDC from approved power supply; power supply via NEC Class 2 power source.
 2. Shade Installer to provide shade power panels.

2.06 SOURCE QUALITY CONTROL

- A. Perform full-function testing on completed assemblies prior to shipment.

PART 3 - EXECUTION

3.01 INSTALLATION

- A. Install in accordance with manufacturer's instructions and approved Shop Drawings.
- B. Install shades to provide smooth operation.
- C. Locate controls where directed.
- D. Connect to power supply and control wiring.

3.02 ADJUSTING

- A. Adjust level, projection, and shade centering from mounting brackets.
- B. Adjust fabric on tube if visibly telescoping.

3.03 DEMONSTRATION

- A. Demonstrate proper operation and maintenance of window shade system to Owner.

END OF SECTION

**SECTION 10 22 39.13
FOLDING GLASS-PANEL PARTITIONS**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Interior aluminum-framed folding glass-panel partitions, horizontal opening.

1.02 RELATED REQUIREMENTS

- A. Section 06 10 00 - Rough Carpentry: Wood blocking and track support shimming.

1.03 REFERENCE STANDARDS

- A. AAMA 611 - Voluntary Specification for Anodized Architectural Aluminum 2020.
- B. AAMA 1801 - Voluntary Specification for the Acoustical Rating of Exterior Windows, Doors, Skylights and Glazed Wall Sections 2021.
- C. AAMA 2603 - Voluntary Specification, Performance Requirements and Test Procedures for Pigmented Organic Coatings on Aluminum Extrusions and Panels (with Coil Coating Appendix) 2021.
- D. AAMA 2604 - Voluntary Specification, Performance Requirements and Test Procedures for High Performance Organic Coatings on Aluminum Extrusions and Panels (with Coil Coating Appendix) 2021, with Errata (2022).
- E. AAMA 2605 - Voluntary Specification, Performance Requirements and Test Procedures for Superior Performing Organic Coatings on Aluminum Extrusions and Panels (with Coil Coating Appendix) 2022.
- F. ASTM B221 - Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes 2021.
- G. ASTM B221M - Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes (Metric) 2021.
- H. ASTM C864 - Standard Specification for Dense Elastomeric Compression Seal Gaskets, Setting Blocks, and Spacers 2005 (Reapproved 2019).
- I. ASTM D1187/D1187M - Standard Specification for Asphalt-Base Emulsions for Use as Protective Coatings for Metal 1997 (Reapproved 2018).
- J. ASTM E90 - Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements 2009 (Reapproved 2016).
- K. ASTM E330/E330M - Standard Test Method for Structural Performance of Exterior Windows, Doors, Skylights and Curtain Walls by Uniform Static Air Pressure Difference 2014 (Reapproved 2021).
- L. ASTM E413 - Classification for Rating Sound Insulation 2022.
- M. ASTM E557 - Standard Guide for Architectural Design and Installation Practices for Sound Isolation Between Spaces Separated by Operable Partitions 2012 (Reapproved 2020).
- N. ASTM E1425 - Standard Practice for Determining the Acoustical Performance of Windows, Doors, Skylight, and Glazed Wall Systems 2014.
- O. ASTM E2190 - Standard Specification for Insulating Glass Unit Performance and Evaluation 2019.

1.04 SUBMITTALS

- A. Product Data: Provide data on partition materials, operation, hardware and accessories, and colors and finishes available.
- B. Design Data: Design calculations bearing seal and signature of structural engineer licensed to practice in the State in which the Project is located, showing loads at points of attachment to the building structure.

- C. Shop Drawings: Indicate layout, dimensions, identification of components, and interface with adjacent construction.
 - 1. Include field measurements of openings.
 - 2. Include details of:
 - a. Requirements for support and bracing of overhead track.
 - b. Installation details.
 - c. Appearance of manufacturer-supplied door hardware and fittings.
- D. Selection Samples: Two sets, representing manufacturer's full range of available metal and glass materials and finishes.
- E. Certificates: Certify that partition system meets or exceeds specified acoustic requirements.
- F. Manufacturer's Installation Instructions: Include complete preparation, installation, and cleaning requirements.

1.05 QUALITY ASSURANCE

- A. Sound Transmission Class (STC): As indicated, calculated in accordance with ASTM E413, based on tests performed in accordance with ASTM E90, on panel size of 100 sq ft.

1.06 DELIVERY, STORAGE, AND HANDLING

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

1.07 WARRANTY

- A. Manufacturer Warranty: Provide Folding Glass Partition system manufacturer's standard limited warranty as per manufacturer's published warranty document in force at time of purchase, subject to change, against defects in materials and workmanship beginning Date of Substantial Completion.
 - 1. Rollers and Glass Seal Failure: Ten (10) years.
 - 2. All Other Components: Ten (10) years.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. **Interior Aluminum-Framed Folding Glass-Panel Partitions - Horizontal Opening:**
 - 1. **NanaWall Systems, Inc: www.nanawall.com/#sle.**
 - a. **NW Acoustical 645 Thermally Broken Aluminum Framed Folding Glass Panel System**
 - 2. **Solar Innovations, Inc: www.solarinnovations.com/#sle**
 - a. **SI3000 Series G3 Acoustical Framed Folding Glass Panel System [ADD 2]**
 - 3. Substitutions: See Section 01 60 00 - Product Requirements.

2.02 INTERIOR FOLDING GLASS-PANEL PARTITIONS - HORIZONTAL OPENING

- A. Basis of Design: NanaWall Systems, Inc; NW Acoustical 645 Thermally Broken Aluminum-Framed Folding Glass-Panel System: www.nanawall.com.
 - 1. Substitutions: See Section 01 25 00 - Substitution Procedures.
 - 2. Folding Glass-Panel Partitions: Floor mounted, factory fabricated assemblies consisting of full-width aluminum-framed glass panels; complete with support and anchorage devices.
 - a. Design to withstand normal operation without damage, racking, sagging, or deflection.
 - b. Prepare for specified hardware whether specified in this section or not.
 - c. Protect finished metal surfaces with strippable film.
 - d. Factory assemble to greatest extent practicable; may be disassembled to accommodate shipping constraints.
 - 3. Performance Criteria:
 - a. Acoustical Performance: Provide folding glass-panel partition assemblies tested by qualified testing agency in accordance with ASTM E90, ASTM E1425, or AAMA

1801.
 - 1) Sound Transmission Class (STC) Rating: STC of ~~45~~ **44 [ADD 2]** minimum, calculated in accordance with ASTM E413.
 - b. Structural Performance: No glazing material breakage or permanent damage to fasteners, anchors, hardware, or actuating mechanisms, when tested in accordance with ASTM E330/E330M.
 - 1) Installed partition system track capable of supporting imposed loads, with maximum deflection of 1/360 of span.
4. Configuration: Inward and outward opening, as indicated on drawings; bifolding panels hinged to side jamb; stacking as indicated on drawings, with locking swing panel hinged to side jamb where shown on drawings.
5. Glazed Aluminum-Framed Panel Construction:
 - a. Aluminum Frames: Factory finished; manufacturer's standard corner construction; thermally broken.
 - 1) Panels: Single lite.
 - 2) Panel Size: As indicated on drawings.
 - b. Aluminum Frame Finish: Powder coating in accordance with AAMA 2604.
 - c. Insulated Glass Unit (IGU) Thickness: 1-9/16 inch.
 - 1) Glass Spacers: Manufacturer's standard gray finish.
 - d. Glass: Standard reduced iron.
6. Sliding-Folding Hardware: Manufacturer's standard combination sliding and folding hardware with top and bottom tracks.
7. Overhead Track: Extruded aluminum box track, factory fabricated; corner, intersection, and hanger access fittings to suit partition movement and stacking indicated; track joints reinforced with stainless steel junction plates.
 - a. Track Suspension System: Provide brackets, hanger rods, and hardware for attachment to structure, with at least 6-inch vertical adjustment range and capable of adjustments without removing panels from tracks.
8. Track Hangers: 4-wheeled, ball-bearing, stainless steel rollers on vertical axles; two per panel; providing smooth movement and directional control, and preventing accidental panel rotation.
9. Sill Type: ADA-compliant flush sill with high heel protector insert, with sealant, shims and fasteners at necessary locations.
 - a. Finish: To match the panel frame.
10. Operable Panel Hardware:
 - a. On Panel Runs with Operable Swing Door: Multi-point locking with latch, deadbolt and lever handles on both sides on swing panel.
 - b. On Panel Runs without Operable Swing Door: Two point locking with flat handle on inside only.
11. Panel Hinges:
 - a. Clear anodized aluminum with stainless-steel security hinge pins with setscrews.
12. Convertible Door Panel Fittings and Hardware:
 - a. Top and bottom pivots concealed in full width top and bottom rails.
13. Acoustic Seals: Provide acoustic seals in accordance with project requirements.

2.03 MATERIALS

- A. Glazing:
 1. Insulating Glass Units (IGU): Hermetically sealed double pane units, 1/4 inch thick lights, clear, low iron float glass panes, unit thickness as indicated; certified by independent testing agency to comply with ASTM E2190.
 2. Setting Blocks: Manufacturer's standard type; complying with ASTM C864.
- B. Aluminum Components: Complying with ASTM B221 (ASTM B221M), alloy 6063, temper as indicated, with anodized finish complying with AAMA 611, and powder coating complying with AAMA 2603 or AAMA 2604 for select colors.

2.04 ACCESSORIES

- A. Anchors: Hot-dipped galvanized or stainless steel in accordance with project and manufacturer's installation requirements.
- B. Bituminous Paint: Cold-applied asphalt emulsion complying with ASTM D1187/D1187M, Type I.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify track supports are laterally braced and will permit track to be level within 1/4 inch of required position and parallel to the floor surface.
- B. Verify floor flatness of 1/8 inch in 10 feet, non-cumulative.
- C. Do not begin installation until supports and adjacent substrates have been properly prepared.
- D. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

3.02 PREPARATION

- A. Clean substrates thoroughly prior to installation.
- B. Prepare substrates using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

3.03 INSTALLATION

- A. Install partition in accordance with manufacturer's instructions and ASTM E557.
- B. Fit and align partition assembly and pocket doors level and plumb.

3.04 TOLERANCES

- A. Maintain dimensional tolerances and alignment with adjacent work.
- B. Maximum Variation from Plumb: 1/16 inch.
- C. Maximum Variation from Level: 1/16 inch.
- D. Longitudinal or Diagonal Warp: Plus or minus 1/8 inch from 10 feet straight edge.

3.05 ADJUSTING

- A. Adjust partition assembly to provide smooth operation from stacked to full open position. Do not over-compress acoustic seals.

3.06 CLEANING

- A. Thoroughly clean surfaces and materials installed as part of this work.
 - 1. Remove protective material from factory finished surfaces.
 - 2. Remove labels and visible markings.
 - 3. Wash surfaces by method recommended and acceptable to manufacturer; rinse and wipe surfaces clean.

3.07 CLOSEOUT ACTIVITIES

- A. Demonstrate operation of partition and identify potential operational problems.

3.08 PROTECTION

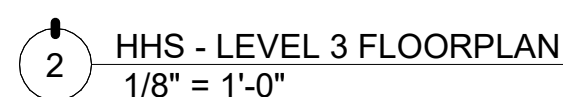
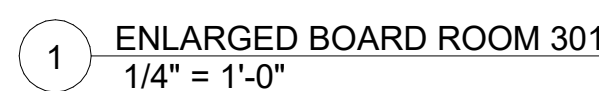
- A. Protect installed products and materials until Date of Substantial Completion.
- B. Touch-up, repair or replace damaged products before Date of Substantial Completion.

END OF SECTION

1. DIMENSIONS ARE MEASURED FACE-OF-FINISH TO FACE-OF-FINISH OR ROUGH MASONRY OPENING UNLESS NOTED OTHERWISE - TYPICAL FOR ALL DRAWINGS.
2. FIELD VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS - TYPICAL FOR ALL DRAWINGS.
3. IN THE EVENT OF A DISCREPANCY BETWEEN ARCHITECTURAL AND CONSULTANT DRAWINGS, NOTIFY ARCHITECT IMMEDIATELY PRIOR TO COMMENCING WORK - TYPICAL FOR ALL DRAWINGS.
4. ALL PENETRATIONS IN FIRE RATED FLOORS AND WALLS MUST BE SEALED WITH APPROPRIATE FIRESTOPPING SYSTEM.
5. PATCH AND REPAIR EXISTING FLOOR SLABS AND WALL SURFACES DAMAGED FROM DEMOLITION.
6. PATCH AND REPAIR EXISTING WALL SURFACES WHERE EXISTING ITEMS ARE REMOVED.
7. INSTALL ALL FIRE EXTINGUISHERS AS REQUIRED PER NFPA 10

EXISTING WORK
NEW WORK

08 35.A1	INTERIOR SLIDING PASS WINDOW
11 52	WALL MOUNTED DISPLAY OF RE: AV DRAWINGS FOR ROUGH
11 52.A1	RECESSED AV RACK, RE: AV DRAWINGS
21 20.A1	SEMI-RECESSED FIRE EXTINGUISHER CABINET
26 05.A2	FLOOR BOX, RE: ELECTRICAL DRAWINGS



1. CEILING-MOUNTED FIXTURES, SPRINKLERS AND EQUIPMENT SHALL BE CENTERED IN CEILING PANELS OR GYPSUM BOARD SOFFITS AND EQUALLY SPACED UNLESS NOTED OTHERWISE.
2. CENTER CEILING GRID IN ROOMS AS SHOWN UNLESS NOTED OTHERWISE.
3. CONCEALED SPRINKLER HEAD COVERS SHALL BE COLOR MATCHED BY MANUFACTURER TO MATCH ADJACENT SOFFIT/ACF UNLESS NOTED OTHERWISE.
4. COORDINATE LOCATIONS OF EXIT LIGHTS AND EMERGENCY LIGHTS SHOWN ON ARCHITECTURAL DRAWINGS. IN THE EVENT OF A DISCREPANCY, VERIFY WITH ARCHITECT PRIOR TO INSTALLATION.
5. CEILING FIXTURE DIMENSIONS ARE TAKEN FROM CENTERLINE OF FIXTURE UNLESS NOTED OTHERWISE.
6. REFER TO ARCHITECTURAL DRAWINGS (ELEVATIONS & REFLECTED CEILING PLANS) FOR ALL MECHANICAL AND ELECTRICAL DEVICE AND FIXTURE LOCATIONS & MOUNTING HEIGHTS. IF NOT CLEARLY SPECIFIED, CONTACT ARCHITECT FOR FURTHER CLARIFICATION. MECHANICAL & ELECTRICAL DRAWINGS ARE FOR FIXTURE TYPE REFERENCE ONLY.
7. PAINT ALL EXPOSED STRUCTURE, DECK, DUCTWORK, CONDUIT, ETC. IN AREAS NOTED TO BE OPEN TO STRUCTURE UNLESS NOTED OTHERWISE. PAINTING OF EXPOSED STRUCTURE TO BE DONE AFTER ALL UTILITIES ARE INSTALLED.
8. REFER TO STRUCTURAL AND MEPT DRAWING FOR ADDITIONAL DEMOLITION INFORMATION.

KEYNOTE LEGEND

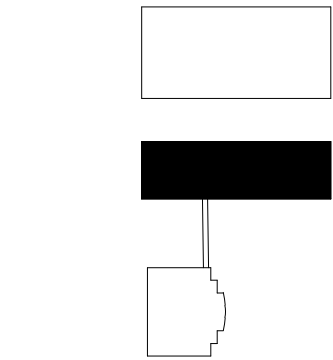
CEILING TYPE LEGEND

- ACP-1 2'x6' ACOUSTIC CEILING
- ACP-2 2'x2' ACOUSTIC CEILING TYPE 1
- ACP-3 2'x2' ACOUSTIC CEILING TYPE 2
- ACP-4 2'x6' ACOUSTIC CEILING HIGH NRC
- GWB-1 GYPSUM BOARD CEILING
- GWB-2 SEAMLESS ACOUSTIC CEILING
- OTS OTS OPEN TO STRUCTURE

CEILING LEGEND

- LINEAR FIXTURE
- LINEAR PENDANT
- RECESSED FIXTURE
- DOWN LIGHT PENDANT
- UTILITY LIGHT
- SPRINKLER
- SPEAKER
- MICROPHONE
- WIRELESS ROUTER
- CEILING MOUNT CLOCK
- DATA / POWER FOR CEILING MOUNT MONITORS
- CEILING MOUNT CAMERA
- PROJECTOR
- HVAC RETURN DIFFUSER
- HVAC SUPPLY DIFFUSER
- HVAC SLOT DIFFUSER
- HVAC CYLINDER DIFFUSER
- ACCESS PANEL
- CEILING MOUNTED MONITORS
- MANUAL ROLLER SHADE (WT-1)
- MOTORIZED ROLLER SHADE (WT-2)
- CEILING MOUNTED CAMERA
- CEILING MOUNTED SPEAKER

Key Plan:



Revision	Description	Date
ADD 2	ADDENDUM 2	6/2/2023

OPN Project No.

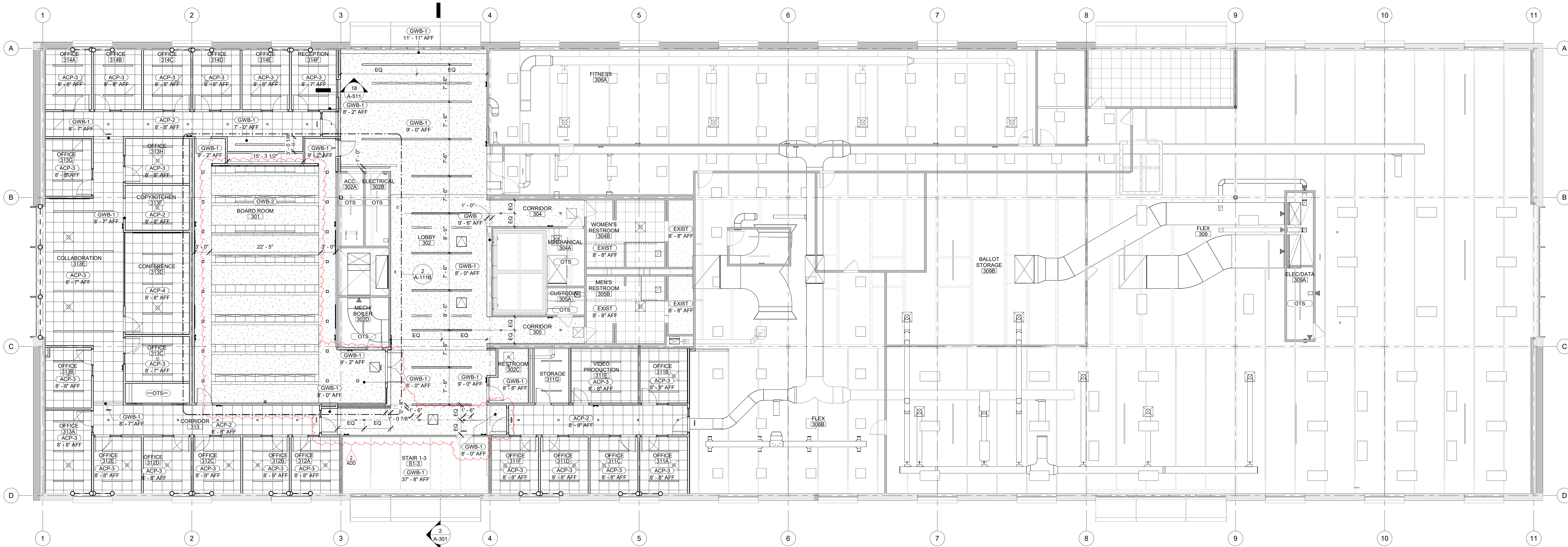
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Sheet Title:
BID DOCUMENTS 06/06/23

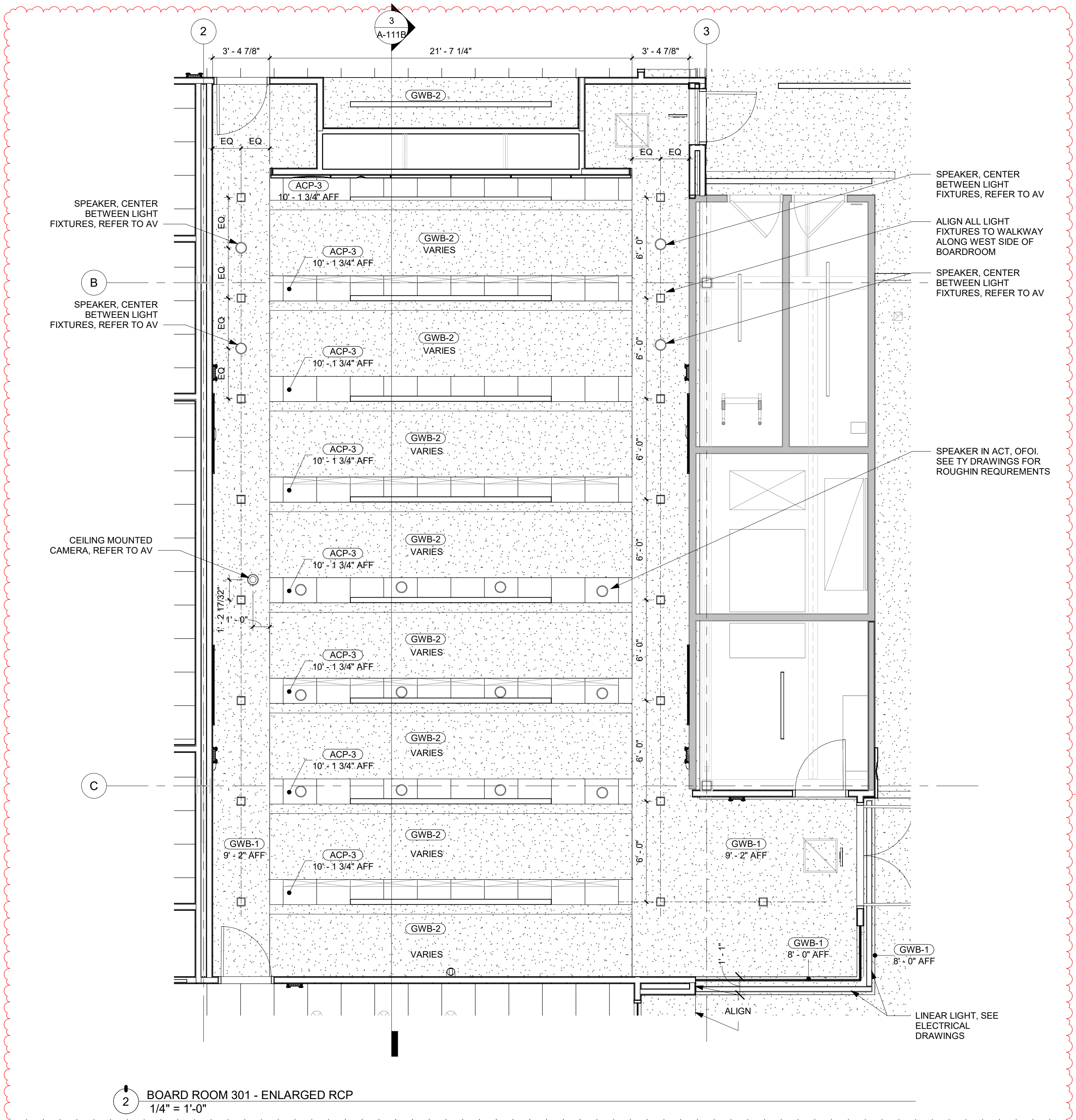
Sheet Name:
HHS LEVEL THREE
REFLECTED CEILING PLAN

Sheet Number:

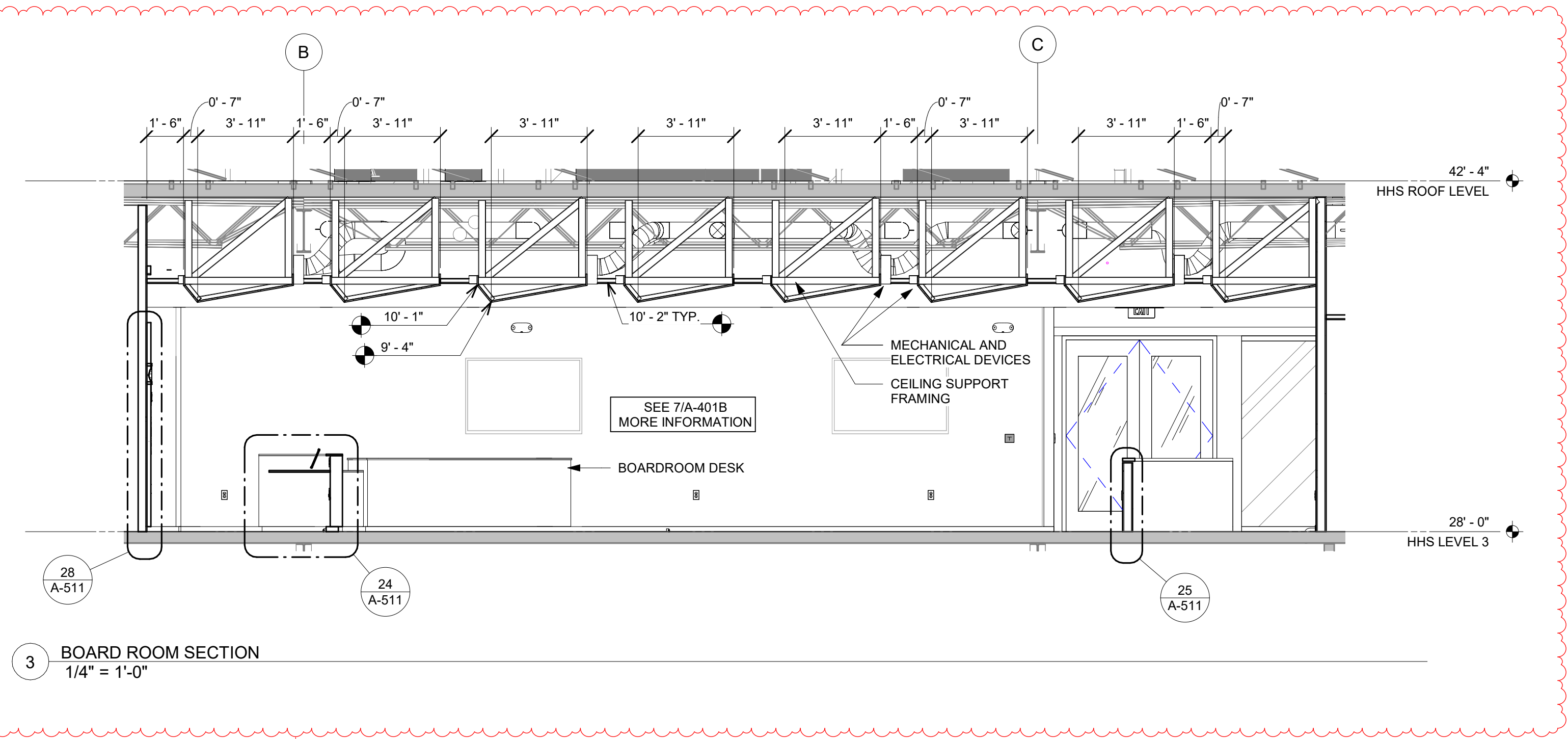
A-111B



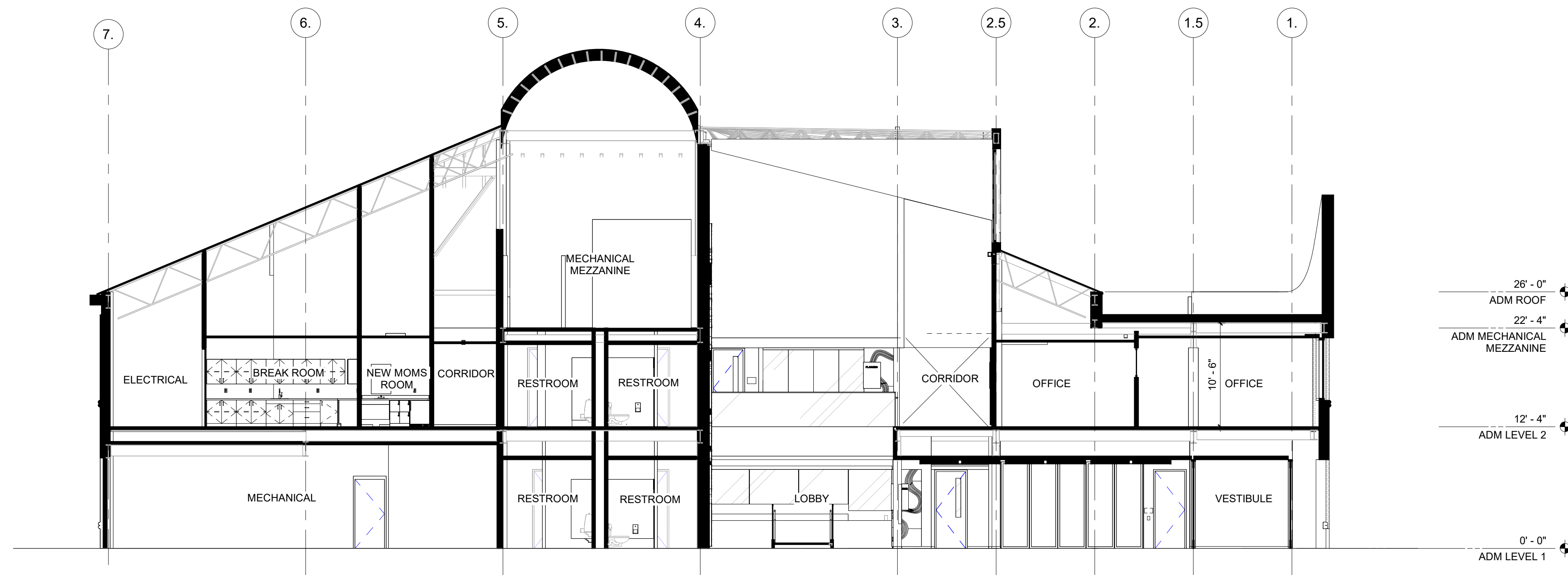
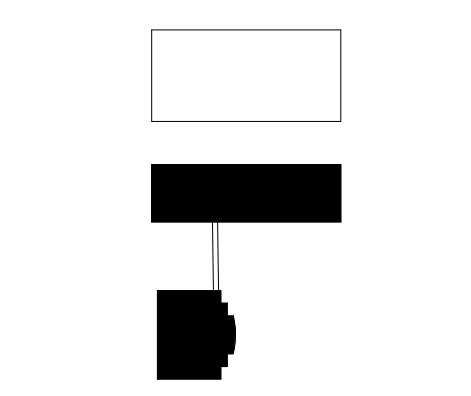
1 HHS LEVEL 3
1/8" = 1'-0"



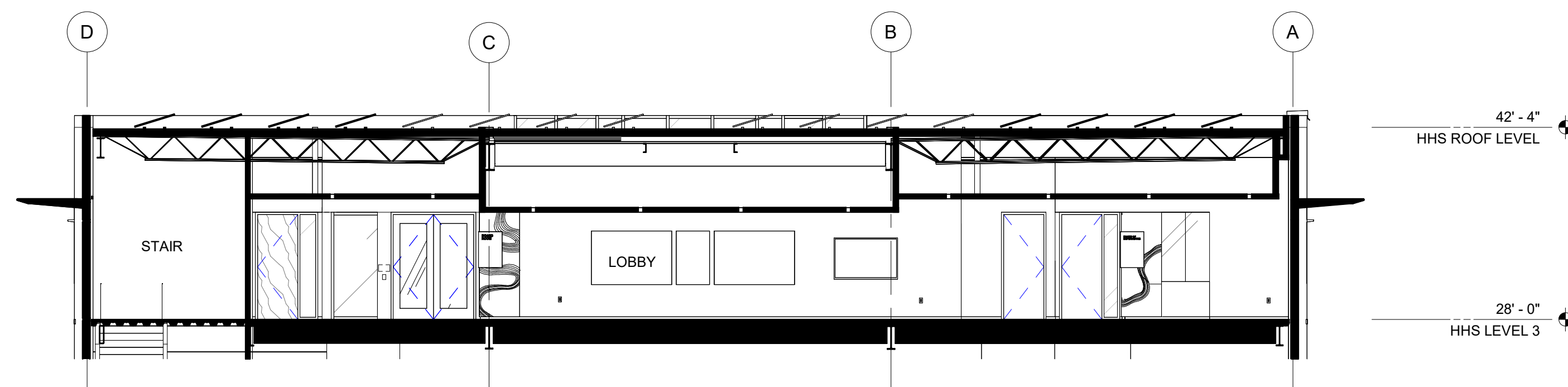
2 BOARD ROOM 301 - ENLARGED RCP
1/4" = 1'-0"



3 BOARD ROOM SECTION
1/4" = 1'-0"



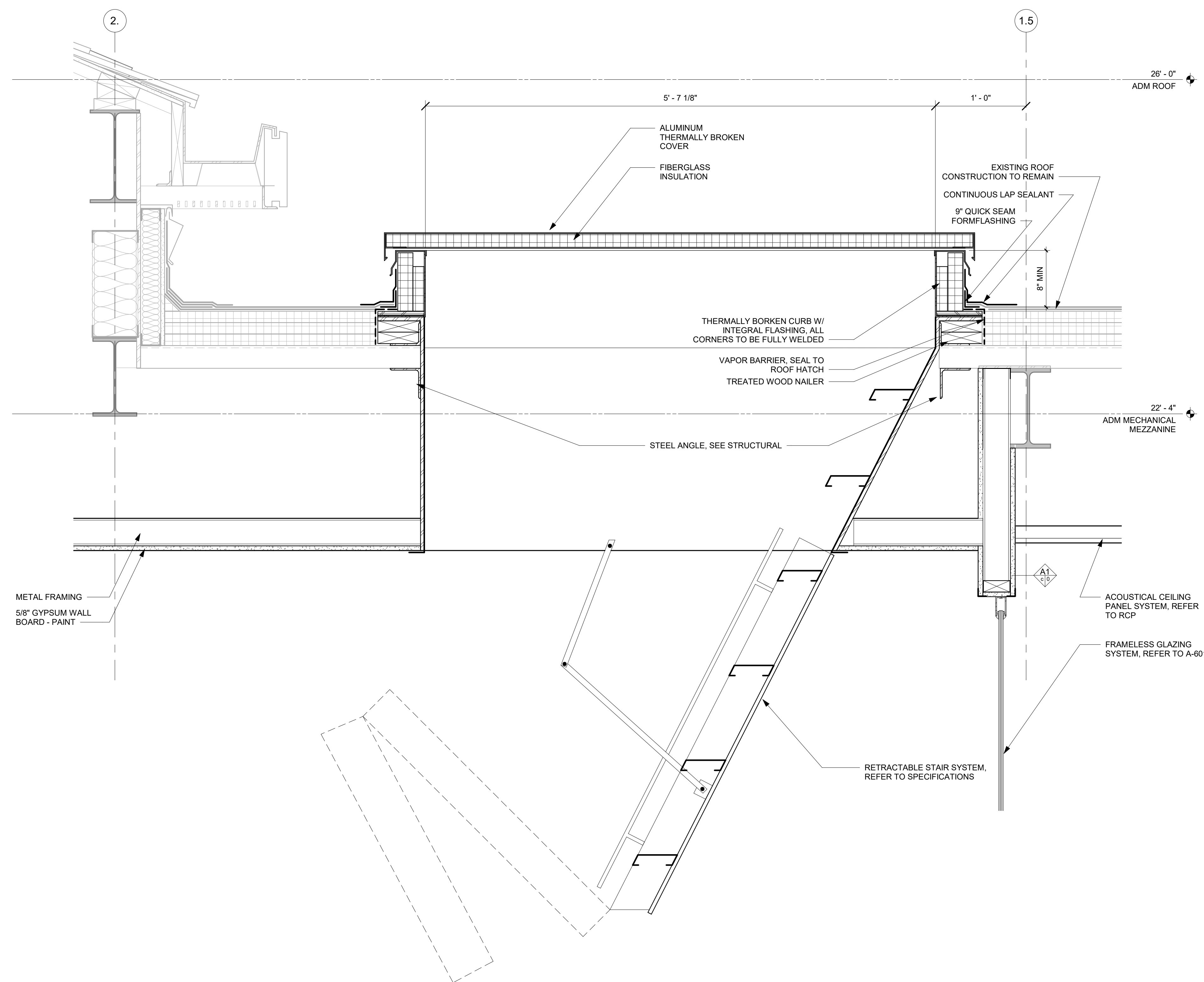
1 ADMIN BUILDING SECTION E/W
1/8" = 1'-0"



2 HHS BUILDING SECTION
1/8" = 1'-0"



4 ADMIN BUILDING SECTION N/S
1/8" = 1'-0"



3 SECTION DETAIL - ROOF HATCH AT DISAPPEARING STAIRS
1 1/2" = 1'-0"

DOOR SCHEDULE - HHS LEVEL 3 TEMPORARY DOORS											
DOOR NUMBER	DOOR TYPE	PANEL WIDTH	PANEL HEIGHT	PANEL MATERIAL	PANEL FINISH	FRAME TYPE	FRAME MATERIAL	FRAME FINISH	FIRE RATINGS	REMARKS	
302A	EXISTING	3'-0"	7'-0"	EXISTING	PNT	EXISTING	EXISTING	PNT	--	1, 11	
302B	EXISTING	3'-0"	7'-0"	EXISTING	EXISTING	EXISTING	EXISTING	PNT	--	1	
303.1	EXISTING	3'-0"	7'-0"	EXISTING	EXISTING	EXISTING	EXISTING	PNT	--	1	
303.2	F-1	3'-0"	7'-0"	WD	STN	01	HM	PNT	--	1	
303.3	F-1	3'-0"	7'-0"	WD	STN	01	HM	PNT	--	1	
304A	EXISTING	3'-0"	7'-0"	EXISTING	EXISTING	EXISTING	EXISTING	PNT	--	1	
304B	EXISTING	3'-0"	7'-0"	EXISTING	EXISTING	EXISTING	EXISTING	PNT	--	1	
305.1	F-1	3'-0"	7'-0"	WD	STN	01	HM	PNT	--	1	
305.2	EXISTING	3'-0"	7'-0"	EXISTING	EXISTING	EXISTING	EXISTING	PNT	--	1	
305.3	F-1	3'-0"	7'-0"	WD	STN	01	HM	PNT	--	1	
305A	EXISTING	3'-0"	7'-0"	EXISTING	EXISTING	EXISTING	EXISTING	PNT	--	1	
305B	EXISTING	3'-0"	7'-0"	EXISTING	EXISTING	EXISTING	EXISTING	PNT	--	2	
306.1	F-1	3'-0"	7'-0"	WD	STN	01	HM	PNT	--	1	
306.2	F-1	3'-0"	7'-0"	WD	STN	01	HM	PNT	--	1	
306A	F-1	3'-0"	7'-0"	WD	STN	01	HM	PNT	--	1	
306A.1	F-1	3'-0"	7'-0"	WD	STN	01	HM	PNT	--	1	
306A.2	F-1	3'-0"	7'-0"	WD	STN	01	HM	PNT	--	1	
306B.1	F-1	3'-0"	7'-0"	WD	STN	01	HM	PNT	--	1	
306B.2	F-1	3'-0"	7'-0"	WD	STN	01	HM	PNT	--	1	
306B.3	F-1	3'-0"	7'-0"	WD	STN	01	HM	PNT	--	1	
306B.4	EXISTING	3'-0"	7'-0"	EXISTING	EXISTING	EXISTING	EXISTING	PNT	--	1	
306C	F-1	3'-0"	7'-0"	WD	STN	01	HM	PNT	--	1	
306D.1	F-1	3'-0"	7'-0"	WD	STN	01	HM	PNT	--	1	
306D.2	EXISTING	3'-0"	7'-0"	EXISTING	EXISTING	EXISTING	EXISTING	PNT	--	1	
306E	F-1	3'-0"	7'-0"	WD	STN	01	HM	PNT	--	1	
309	EXISTING	3'-0"	7'-0"	EXISTING	EXISTING	EXISTING	EXISTING	PNT	--	1	
309A	EXISTING	3'-0"	7'-0"	EXISTING	EXISTING	EXISTING	EXISTING	PNT	--	1	
309B	EXISTING	3'-0"	7'-0"	EXISTING	EXISTING	EXISTING	EXISTING	PNT	--	1	
51-3	EXISTING	3'-0"	7'-0"	EXISTING	PNT	EXISTING	EXISTING	PNT	--	1	
52-3	EXISTING	3'-0"	7'-0"	EXISTING	EXISTING	EXISTING	EXISTING	PNT	--	1	

DOOR SCHEDULE - HHS NEW											
DOOR NUMBER	DOOR TYPE	PANEL WIDTH	PANEL HEIGHT	PANEL MATERIAL	PANEL FINISH	FRAME TYPE	FRAME MATERIAL	FRAME FINISH	FIRE RATINGS	REMARKS	
301.1	F-2	3'-0"	7'-10"	WD	STN	01	HM	PNT	--	1, 3, 8	
301.2	F-1	3'-0"	7'-10"	WD	STN	01	HM	PNT	--	1, 3, 8	
301.3	F-1	3'-0"	7'-10"	WD	STN	01	HM	PNT	--	1, 3	
301.4	F-1	3'-0"	7'-10"	WD	STN	01	HM	PNT	--	1, 3	
302C	F-1	3'-0"	7'-10"	WD	STN	01	HM	PNT	--	1	
302D	F-1	3'-0"	7'-10"	WD	STN	01	HM	PNT	--	1	
311.1	FL-1	3'-0"	7'-10"	WD	STN	03	HM	PNT	--	1, 3	
311.2	FL-1	3'-0"	7'-10"	WD	STN	01	HM	PNT	--	1	
311A	F-1	3'-0"	7'-10"	WD	STN	02	HM	PNT	--	1	
311B	F-1	3'-0"	7'-10"	WD	STN	02	HM	PNT	--	1	
311C	F-1	3'-0"	7'-10"	WD	STN	02	HM	PNT	--	1	
311D	F-1	3'-0"	7'-10"	WD	STN	02	HM	PNT	--	1	
311E	F-1	3'-0"	7'-10"	WD	STN	01	HM	PNT	--	1	
311F	F-1	3'-0"	7'-10"	WD	STN	01	HM	PNT	--	1	
311G	F-1	3'-0"	7'-10"	WD	STN	01	HM	PNT	--	1	
312A	F-1	3'-0"	7'-10"	WD	STN	02	HM	PNT	--	1	
312B	F-1	3'-0"	7'-10"	WD	STN	02	HM	PNT	--	1	
312C	F-1	3'-0"	7'-10"	WD	STN	02	HM	PNT	--	1	
312D	F-1	3'-0"	7'-10"	WD	STN	02	HM	PNT	--	1	
312E	F-1	3'-0"	7'-10"	WD	STN	02	HM	PNT	--	1	
312F.1	F-4	6'-0"	7'-0"	WD	STN	NA	NA	NA	--	1	
312F.2	F-4	6'-0"	7'-0"	WD	STN	NA	NA	NA	--	1	
313	F-1	3'-0"	7'-10"	WD	STN	01	HM	PNT	--	3	
313A	FL-1	3'-0"	7'-10"	WD	STN	05	HM	PNT	--	1	
313B	F-1	3'-0"	7'-10"	WD	STN	02	HM	PNT	--	1	
313C	F-1	3'-0"	7'-10"	WD	STN	02	HM	PNT	--	1	
313D	F-1	3'-0"	7'-10"	WD	STN	01	HM	PNT	--	1	
313G	F-1	3'-0"	7'-10"	WD	STN	02	HM	PNT	--	1	
313H	F-1	3'-0"	7'-10"	WD	STN	02	HM	PNT	--	1	
314	FL-1	3'-0"	7'-10"	WD	STN	05	HM	PNT	--	1	
314A	F-1	3'-0"	7'-10"	WD	STN	02	HM	PNT	--	1	
314B	F-1	3'-0"	7'-10"	WD	STN	02	HM	PNT	--	1	
314C	F-1	3'-0"	7'-10"	WD	STN	02	HM	PNT	--	1	
314D	F-1	3'-0"	7'-10"	WD	STN	02	HM	PNT	--	1	
314E	F-1	3'-0"	7'-10"	WD	STN	02	HM	PNT	--	1	
314F	F-1	3'-0"	7'-10"	WD	STN	02	HM	PNT	--	1	

DOOR SCHEDULE - ADM NEW											
DOOR NUMBER	DOOR TYPE	PANEL		PANEL MATERIAL	PANEL FINISH	FRAME TYPE	FRAME		FIRE RATINGS	REMARKS	
		WIDTH	HEIGHT				MATERIAL	FINISH			
100.1	FL-1	3'-0"	8'-10"	AL	NA	AF	AL	NA	--	13	
100.2	FL-1	3'-0"	8'-10"	AL	NA	AF	AL	NA	--	1, 2	
100.3	FL-1	3'-0"	8'-10"	AL	NA	AF	AL	NA	--	13	
100.4	FL-1	3'-0"	8'-10"	WD	STN	01	AL	NA	--	2	
110.1	F-1	3'-0"	7'-10"	WD	STN	01	HM	PNT	--	1, 12	
110.2	BY MFR	14'-6"	9'-0"	NA	NA	NA	NA	NA	--		
110.3	BY MFR	16'-0"	9'-0"	NA	NA	NA	NA	NA	--		
113A	EXISTING	3'-0"	7'-0"	EXISTING	EXISTING	EXISTING	EXISTING	PNT	--	10	
120.1	F-1	3'-0"	7'-10"	WD	STN	01	HM	PNT	--	1, 12	
120.2	BY MFR	14'-6"	9'-0"	NA	NA	NA	NA	NA	--		
120.3	BY MFR	16'-0"	9'-0"	NA	NA	NA	NA	NA	--		
130.1	NL-1	3'-0"	7'-9 1/2"	WD	PNT	01	HM	PNT	--		
130.2	OC-1	19'-2"	8'-0"	NA	NA	NA	NA	NA	--	7	
130A	FL-1	3'-0"	7'-10"	WD	STN	02	HM	PNT	--		
130B	FL-1	3'-0"	7'-10"	WD	STN	02	HM	PNT	--		
130C	FL-1	3'-0"	7'-10"	WD	STN	02	HM	PNT	--		
130D	EXISTING	3'-0"	7'-0"	EXISTING	EXISTING	EXISTING	EXISTING	PNT	--	4, 10	
130E.1	NL-1	3'-0"	7'-10"	WD	PNT	01	HM	PNT	--	45	
130E.2	NL-2	3'-0"	7'-10"	WD	PNT	01	HM	PNT	--	45	
141.1	EXISTING	3'-0"	7'-0"	EXISTING	EXISTING	EXISTING	EXISTING	PNT	--	10	
141.2	EXISTING	3'-0"	7'-0"	EXISTING	EXISTING	EXISTING	EXISTING	PNT	--	10	
141A.1	EXISTING	3'-0"	7'-0"	EXISTING	EXISTING	EXISTING	EXISTING	PNT	--	10	
141A.2	EXISTING	3'-0"	7'-0"	EXISTING	EXISTING	EXISTING	EXISTING	PNT	--	10	
141A.3	EXISTING	3'-0"	7'-0"	EXISTING	EXISTING	EXISTING	EXISTING	PNT	--	10	
142	F-2	3'-0"	8'-0"	HM	PNT	01	HM	PNT	--		
143.1	EXISTING	3'-0"	9'-0"	EXISTING	EXISTING	EXISTING	EXISTING	PNT	--	10	
143.2	EXISTING	3'-0"	9'-0"	EXISTING	EXISTING	EXISTING	EXISTING	PNT	--	10	
144.1	EXISTING	3'-0"	7'-0"	EXISTING	EXISTING	EXISTING	EXISTING	PNT	--	10	
144.2	F-1	3'-0"	7'-10"	WD	STN	01	HM	PNT	--		
145	F-1	3'-0"	7'-10"	WD	STN	01	HM	PNT	--		
146	F-1	3'-0"	7'-10"	WD	STN	01	HM	PNT	--	2	
147	F-1	3'-0"	7'-10"	WD	STN	01	HM	PNT	--	2	
148	F-1	3'-0"	7'-10"	WD	STN	01	HM	PNT	--	2	
150.1	F-1	3'-0"	7'-10"	WD	PNT	01	HM	PNT	--		
150.2	NL-1	3'-0"	7'-9 1/2"	WD	PNT	01	HM	PNT	--	1	
150.3	OC-1	12'-8"	8'-0"	NA	NA	NA	NA	NA	--	5, 7	
150.4	OC-1	18'-6"	8'-0"	NA	NA	NA	NA	NA	--	5, 7	
150.5	OC-1	19'-1"	8'-0"	NA	NA	NA	NA	NA	--	5, 7	
150A.1	F-1	3'-0"	7'-10"	WD	STN	01	HM	PNT	--		
150A.2	F-1	4'-0"	8'-0"	HM	PNT	01	HM	PNT	--		
150B	FL-1	3'-0"	7'-10"	WD	STN	01	HM	PNT	--		
150C	FL-1	3'-0"	7'-10"	WD	STN	01	HM	PNT	--		
150D	FL-1	3'-0"	7'-10"	WD	STN	01	HM	PNT	--		
150E	FL-1	3'-0"	7'-10"	WD	STN	01	HM	PNT	--		
150F	FL-1	3'-0"	7'-10"	WD	STN	01	HM	PNT	--		
150G	FL-1	3'-0"	7'-10"	WD	STN	01	HM	PNT	--	4	
150H	FL-1	3'-0"	7'-10"	WD	STN	01	HM	PNT	--		
150I	FL-1	3'-0"	7'-10"	WD	STN	02	HM	PNT	--		
155.1	EXISTING	6'-0"	6'-9 1/2"	EXISTING	EXISTING	EXISTING	EXISTING	PNT	--	2	
155.2	F-2	3'-0"	8'-0"	HM	PNT	01	HM	PNT	--		
201	EXISTING	3'-0"	7'-10"	EXISTING	EXISTING	EXISTING	EXISTING	PNT	--		
210.1	NL-1	3'-0"	7'-9 1/2"	WD	PNT	01	HM	PNT	--	1	
210.2	OC-1	13'-0"	8'-4"	NA	NA	NA	NA	NA	--	7	
210A.1	FL-1	3'-0"	7'-10"	WD	STN	02	HM	PNT	--		
210A.2	F-1	3'-0"	7'-10"	WD	PNT	01	HM	PNT	--		
220.1	NL-1	3'-0"	7'-9 1/2"	WD	PNT	01	HM	PNT	--	1	
220.2	F-1	3'-0"	7'-10"	WD	STN	01	HM	PNT	--	4	
220.3	OC-1	13'-0"	8'-4"	NA	NA	NA	NA	NA	--	7	
220A	FL-1	3'-0"	7'-10"	WD	STN	01	HM	PNT	--	1	
220B	FL-1	3'-0"	7'-10"	WD	STN	01	HM	PNT	--	1	
220C	FL-1	3'-0"	7'-10"	WD	STN	01	HM	PNT	--	1	
220D	FL-1	3'-0"	7'-10"	WD	STN	01	HM	PNT	--	1	
220E	FL-1	3'-0"	7'-10"	WD	STN	01	HM	PNT	--	1	
220F	FL-1	3'-0"	7'-10"	WD	STN	01	HM	PNT	--	1	
230.1	NL-1	3'-0"	7'-9 1/2"	WD	PNT	01	HM	PNT	--	1	
230.2	NL-1	3'-0"	7'-10"	WD	STN	01	HM	PNT	--	45	
230.3	OC-1	27'-7"	8'-0"	NA	NA	NA	NA	NA	--	5, 7	
230A	FL-1	3'-0"	7'-10"	WD	STN	02	HM	PNT	--		
230B	FL-1	3'-0"	7'-10"	WD	STN	02	HM	PNT	--		
230C	FL-1	3'-0"	7'-10"	WD	STN	02	HM	PNT	--		
232	F-1	3'-0"	7'-10"	WD	STN	01	HM	PNT	--	1	
240.1	NL-1	3'-0"	7'-10"	WD	STN	01	HM	PNT	--	1	
240B	FL-1	3'-0"	7'-10"	WD	STN	03	HM	PNT	--	45, 12	
240C	FL-1	3'-0"	7'-10"	WD	STN	03	HM	PNT	--		
240D	FL-1	3'-0"	7'-10"	WD	STN	03	HM	PNT	--		
240E	FL-1	3'-0"	7'-10"	WD	STN	01	HM	PNT	--		
240F	FL-1	3'-0"	7'-10"	WD	STN	05	HM	PNT	--		
240G	FL-1	3'-0"	7'-10"	WD	STN	01	HM	PNT	--		
240H.1	FL-1	3'-0"	7'-10"	WD	STN	03	HM	PNT	--	3	
240H.2	FL-1	3'-0"	7'-10"	WD	STN	03	HM	PNT	--	1	
240I.1	FL-1	3'-0"	7'-10"	WD	STN	01	HM	PNT	--	1, 3	
242A	F-1	3'-0"	7'-10"	WD	STN	01	HM	PNT	--	1	
242B	F-1	3'-0"	7'-10"	WD	STN	01	HM	PNT	--	1	
245	FL-1	3'-0"	7'-10"	WD	STN	02	HM	PNT	--	1, 3	
246	F-1	3'-0"	7'-10"	WD	STN	01	HM	PNT	--	2	
248	F-1	3'-0"	7'-10"	WD	STN	01	HM	PNT	--	2	
248	F-1	3'-0"	7'-10"	WD	STN	01	HM	PNT	--	2	
249	NL-1	3'-0"	7'-10"	WD	STN	01	HM	PNT	--	45, 8, 9	
250.1	NL-1	3'-0"	7'-9 1/2"	WD	PNT	01	HM	PNT	--		
250.2	NL-1	3'-0"	7'-10"	WD	STN	01	HM	PNT	--	45, 12	
250A	NL-1	3'-0"	7'-9 1/2"	WD	PNT	01	HM	PNT	--	1, 2	
250B	FL-1	3'-0"	7'-10"	WD	STN	01	HM	PNT	--		
250C	FL-1	3'-0"	7'-10"	WD	PNT	01	HM	PNT	--		
250D	FL-1	3'-0"	7'-10"	WD	STN	01	HM	PNT	--		
250E	FL-1	3'-0"	7'-10"	WD	STN	01	HM	PNT	--		
250F	FL-1	3'-0"	7'-10"	WD	STN	01	HM	PNT	--	3	
250H	FL-1	3'-0"	7'-10"	WD	STN	01	HM	PNT	--		
250I	FL-1	3'-0"	7'-10"	WD	STN	01	HM	PNT	--		
250K	FL-1	3'-0"	7'-10"	WD	STN	01	HM	PNT	--		

ROOM FINISH SCHEDULE - ADM									
Level	Number	ROOM NAME	FLOOR			WALL FINISH			CEILING MATERIAL
			FINISH	BASE	NORTH	EAST	SOUTH	WEST	
ADM LEVEL 1									
ADM LEVEL 1	100	VESTIBULE	WOG-1PCT-1	WB-3	PT-1	--	PT-1	--	OTAGWB
ADM LEVEL 1	101	LOBBY	PCT-1	WB-3	PT-1WD-2	PT-1	PT-1	PT-1	OTAGWB
ADM LEVEL 1	110	CONFERENCE	CPT-2,3,4	WB-3	PT-1	PT-1	PT-1	PT-1	AC-3/3GWB
ADM LEVEL 1	113A	CLOSET	SC	WB-1	PT-1	PT-1	PT-1	PT-1	EX
ADM LEVEL 1	120	CONFERENCE	CPT-2,3,4	WB-3	PT-1	PT-1	PT-1	PT-1	AC-3/3GWB
ADM LEVEL 1	130	OPEN OFFICE	CPT-2,4	WB-1	PT-1	PT-1	PT-1	PT-1	AC-3/3GWB
ADM LEVEL 1	130A	OFFICE	CPT-2	WB-1	PT-1	PT-1	PT-1	PT-1	AC-3
ADM LEVEL 1	130B	OFFICE	CPT-2	WB-1	PT-1	PT-1	PT-1	PT-1	AC-3
ADM LEVEL 1	130C	OFFICE	CPT-2	WB-1	PT-1	PT-1	PT-1	PT-1	AC-3
ADM LEVEL 1	130D	SECURE STORAGE	SC	WB-1	PT-1	PT-1	PT-1	PT-1	AC-2
ADM LEVEL 1	130E	WORKROOM	RF-1	WB-1	PT-1	PT-1	PT-1	PT-1	AC-2
ADM LEVEL 1	141	STORAGE	SC	WB-1	PT-1	PT-1	PT-1	PT-1	OTS
ADM LEVEL 1	141A	VESTIBULE	WOM-1	WB-1	PT-1	PT-1	PT-1	PT-1	OTS
ADM LEVEL 1	141B	SECURE STORAGE	SC	WB-1	PT-1	PT-1	PT-1	PT-1	OTS
ADM LEVEL 1	142	FIRE SPRINKLER	SC	WB-1	PT-1	PT-1	PT-1	PT-1	OTS
ADM LEVEL 1	143	MECHANICAL	SC	WB-1	PT-1	PT-1	PT-1	PT-1	OTS
ADM LEVEL 1	144	CUST.	SC	WB-1	PT-1	PT-1	PT-1	PT-1	OTS
ADM LEVEL 1	145	RESTROOM	PCT-1	PCT-2B	PCT-2BPT-2	PCT-2BPT-2	PCT-2BPT-2	PCT-2BPT-2	GWB
ADM LEVEL 1	146	MENS RESTROOM	PCT-1	PCT-2A2B	PCT-2BPT-2	PCT-2BPT-2	PCT-2BPT-2	PCT-2BPT-2	GWB
ADM LEVEL 1	147	CUSTODIAN	SC	WB-1	PT-1	PT-1FRP	PT-1FRP	PT-1	OTS
ADM LEVEL 1	148	WOMENS RESTROOM	PCT-1	PCT-2A2B	PCT-2BPT-2	PCT-2BPT-2	PCT-2BPT-2	PCT-2BPT-2	GWB
ADM LEVEL 1	149	CORRIDOR	PCT-1	WB-3	PT-1WD-2	PT-1	PT-1	PT-1	GWB
ADM LEVEL 1	150	OFFICE	CPT-2,4	WB-1	PT-1	PT-1	PT-1	PT-1	AC-3/3GWB
ADM LEVEL 1	150A	WORKROOM	RF-1	WB-1	PT-1	PT-1	PT-1	PT-1	AC-3
ADM LEVEL 1	150B	CONFERENCE	CPT-2	WB-1	PT-1	PT-1	PT-1	PT-1	AC-3
ADM LEVEL 1	150C	OFFICE	CPT-2	WB-1	PT-1	PT-1	PT-1	PT-1	AC-3
ADM LEVEL 1	150D	OFFICE	CPT-2	WB-1	PT-1	PT-1	PT-1	PT-1	AC-3
ADM LEVEL 1	150E	OFFICE	CPT-2	WB-1	PT-1	PT-1	PT-1	PT-1	AC-3
ADM LEVEL 1	150F	OFFICE	CPT-2	WB-1	PT-1	PT-1	PT-1	PT-1	AC-3
ADM LEVEL 1	150G	OFFICE	CPT-2	WB-1	PT-1	PT-1	PT-1	PT-1	AC-3
ADM LEVEL 1	150H	OFFICE	CPT-2	WB-1	PT-1	PT-1	PT-1	PT-1	AC-3
ADM LEVEL 1	150I	OFFICE	CPT-2	WB-1	PT-1	PT-1	PT-1	PT-1	AC-3
ADM LEVEL 1	150J	OFFICE	CPT-2	WB-1	PT-1	PT-1	PT-1	PT-1	AC-3
ADM LEVEL 1	155	VESTIBULE	WOG-1PCT-1	WB-3	PT-1	PT-1	PT-1	PT-1	GWB
ADM LEVEL 1	152-1	STAIR 2	PCT-1	WB-3	PT-1	PT-1	PT-1	PT-1	OTS
ADM LEVEL 2									
ADM LEVEL 2	210	OPEN OFFICE	CPT-2,4	WB-1	PT-1	PT-1	PT-1	PT-1	AC-3/3GWB
ADM LEVEL 2	210A	OFFICE	CPT-2,4	WB-1	PT-1	PT-1	PT-1	PT-1	AC-3
ADM LEVEL 2	220	OPEN OFFICE	CPT-2,4	WB-1	PT-1	PT-1	PT-1	PT-1	AC-3/3GWB
ADM LEVEL 2	220A	OFFICE	CPT-2	WB-1	PT-1	PT-1	PT-1	PT-1	AC-3
ADM LEVEL 2	220B	OFFICE	CPT-2	WB-1	PT-1	PT-1	PT-1	PT-1	AC-3
ADM LEVEL 2	220C	OFFICE	CPT-2	WB-1	PT-1	PT-1	PT-1	PT-1	AC-3
ADM LEVEL 2	220D	OFFICE	CPT-2	WB-1	PT-1	PT-1	PT-1	PT-1	AC-3
ADM LEVEL 2	220E	OFFICE	CPT-2	WB-1	PT-1	PT-1	PT-1	PT-1	AC-3
ADM LEVEL 2	220F	OFFICE	CPT-2	WB-1	PT-1	PT-1	PT-1	PT-1	AC-3
ADM LEVEL 2	230	OPEN OFFICE	CPT-2,4	WB-1	PT-1	PT-1	PT-1	PT-1	AC-3/3GWB
ADM LEVEL 2	230A	OFFICE	CPT-2	WB-1	PT-1	PT-1	PT-1	PT-1	AC-3
ADM LEVEL 2	230B	OFFICE	CPT-2	WB-1	PT-1	PT-1	PT-1	PT-1	AC-3
ADM LEVEL 2	230C	OFFICE	CPT-2	WB-1	PT-1	PT-1	PT-1	PT-1	AC-3
ADM LEVEL 2	231	CORRIDOR	PCT-1	WB-3	PT-1	--	PT-1WD-2	PT-1	OTAGWB
ADM LEVEL 2	232	MECH ACCESS	SC	WB-1	PT-1	PT-1	PT-1	PT-1	PT-1
ADM LEVEL 2	240	OPEN OFFICE	CPT-2,4	WB-1	PT-1	PT-1	PT-1	PT-1	AC-3
ADM LEVEL 2	240A	WORKROOM	CPT-2,4	WB-1	PT-1	PT-1	PT-1	PT-1	AC-3
ADM LEVEL 2	240B	OFFICE	CPT-2	WB-1	PT-1	PT-1	PT-1	PT-1	AC-3
ADM LEVEL 2	240C	OFFICE	CPT-2	WB-1	PT-1	PT-1	PT-1	PT-1	AC-3
ADM LEVEL 2	240D	OFFICE	CPT-2	WB-1	PT-1	PT-1	PT-1	PT-1	AC-3
ADM LEVEL 2	240E	OFFICE	CPT-2	WB-1	PT-1	PT-1	PT-1	PT-1	AC-3
ADM LEVEL 2	240F	OFFICE	CPT-2	WB-1	PT-1	PT-1	PT-1	PT-1	AC-3
ADM LEVEL 2	240G	STORAGE	CPT-2	WB-1	PT-1	PT-1	PT-1	PT-1	AC-2
ADM LEVEL 2	240H	SMALL CONFERENCE	CPT-2,4	WB-1	PT-1	PT-1	PT-1	PT-1	AC-4
ADM LEVEL 2	241	CORRIDOR	PCT-1	WB-3	--	PT-1	PT-1	PT-1	AC-1
ADM LEVEL 2	241A	MOMS ROOM	RF-1	WB-1	VWC-2B	VWC-2A	VWC-2A	VWC-2A	AC-3
ADM LEVEL 2	242	BREAKROOM	RF-1	PT-1PCT-3	PT-1PCT-3	PT-1	PT-1	PT-1	AC-2
ADM LEVEL 2	242A	TELECOM	SC	WB-1	PT-1	PT-1	PT-1	PT-1	OTS
ADM LEVEL 2	244	RESTROOM	PCT-1	PCT-2B	PCT-2BPT-2	PCT-2BPT-2	PCT-2BPT-2	PCT-2BPT-2	GWB
ADM LEVEL 2	245	CONFERENCE	WOM-1	WB-1	PT-1	PT-1	PT-1	PT-1	OTS
ADM LEVEL 2	246	MENS RESTROOM	PCT-1	PCT-2A2B	PCT-2BPT-2	PCT-2BPT-2	PCT-2APT-2	GWB	PT-1
ADM LEVEL 2	247	CUSTODIAN	SC	WB-1	PT-1	PT-1FRP	PT-1FRP	PT-1	OTS
ADM LEVEL 2	248	WOMENS RESTROOM	PCT-1	PCT-2A2B	PCT-2BPT-2	PCT-2BPT-2	PCT-2BPT-2	PCT-2BPT-2	GWB
ADM LEVEL 2	249	STAIRS	PCT-1	WB-3	PT-1	PT-1	PT-1	PT-1	AC-2
ADM LEVEL 2	250	OPEN OFFICE	CPT-2,4	WB-1	PT-1	PT-1	PT-1	PT-1	AC-3
ADM LEVEL 2	250A	RECEPTION	CPT-2,4	WB-1	PT-1	PT-1	PT-1	PT-1	AC-3
ADM LEVEL 2	250B	WORKROOM	CPT-2	WB-1	PT-1	PT-1	PT-1	PT-1	AC-3
ADM LEVEL 2	250C	OFFICE	CPT-2	WB-1	PT-1	PT-1	PT-1	PT-1	AC-3
ADM LEVEL 2	250D	OFFICE	CPT-2	WB-1	PT-1	PT-1	PT-1	PT-1	AC-3
ADM LEVEL 2	250E	OFFICE	CPT-2	WB-1	PT-1	PT-1	PT-1	PT-1	AC-3
ADM LEVEL 2	250F	OFFICE	CPT-2	WB-1	PT-1	PT-1	PT-1	PT-1	AC-3
ADM LEVEL 2	250G	CONFERENCE	CPT-2,4	WB-1	PT-1	PT-1	PT-1	PT-1	AC-4
ADM LEVEL 2	250H	OFFICE	CPT-2	WB-1	PT-1	PT-1	PT-1	PT-1	AC-3
ADM LEVEL 2	250J	OFFICE	CPT-2	WB-1	PT-1	PT-1	PT-1	PT-1	AC-3
ADM LEVEL 2	250K	OFFICE	CPT-2	WB-1	PT-1	PT-1	PT-1	PT-1	AC-3
ADM LEVEL 2	250L	OFFICE	CPT-2	WB-1	PT-1	PT-1	PT-1	PT-1	AC-3
ADM LEVEL 2	250M	OFFICE	CPT-2	WB-1	PT-1	PT-1	PT-1	PT-1	AC-3
ADM LEVEL 2	250N	OFFICE	CPT-2	WB-1	PT-1	PT-1	PT-1	PT-1	AC-3
ADM LEVEL 2	251	ELEV	WOM-1	--	PLAM-1	PLAM-1	PLAM-1	PLAM-1	--
ADM LEVEL 2	256	CORRIDOR	PCT-1	WB-3	PT-1WD-2	--	PT-1	--	OTAGWB/AC-1

ACOUSTICAL CEILING PANELS

ACP-1: MANUFACTURER: ARMSTRONG

STYLE: CALLA
SIZE: 24" X 72"
GRID TYPE: PRELUDE XL
EDGE PROFILE: BEVELED REGULAR 15/16
COLOR: WHITE

MANUFACTURER: USG
STYLE: MARS HIGH NRC (88665)
SIZE: 24" X 72"
GRID TYPE: DONN BRAND DX
EDGE PROFILE: BEVELED REGULAR 15/16
COLOR: WHITE

APPLICATION: LARGE FORMAT AT PUBLIC SPACES

ACP-2: MANUFACTURER: ARMSTRONG
STYLE: CANYON
SIZE: 24" X 72"
GRID TYPE: PRELUDE XL
EDGE PROFILE: BEVELED REGULAR 15/16
COLOR: WHITE

MANUFACTURER: USG
STYLE: MARS (88785)
SIZE: 24" X 24"
GRID TYPE: DONN BRAND DX
EDGE PROFILE: BEVELED REGULAR 15/16
COLOR: WHITE

MANUFACTURER: ARMSTRONG
STYLE: CANYON
SIZE: 24" X 24"
GRID TYPE: PRELUDE XL
EDGE PROFILE: SQUARE REGULAR 15/16
COLOR: WHITE

MANUFACTURER: USG
STYLE: MARS HIGH NRC (88135)
SIZE: 24" X 24"
GRID TYPE: DONN BRAND DX
EDGE PROFILE: BEVELED REGULAR 15/16
COLOR: WHITE

APPLICATION: OFFICES

ACP-4: MANUFACTURER: ARMSTRONG
STYLE: CALLA HIGH NRC
SIZE: 24" X 24"
GRID TYPE: PRELUDE XL
EDGE PROFILE: SQUARE REGULAR 15/16
COLOR: WHITE

MANUFACTURER: USG
STYLE: MARS HIGH NRC (88138)
SIZE: 24" X 24"
GRID TYPE: DONN BRAND DX
EDGE PROFILE: BEVELED REGULAR 15/16
COLOR: WHITE

APPLICATION: CONFERENCE & MEETING ROOMS

ACOUSTICAL WALL PANELS

AWP-1: MANUFACTURER: ARMSTRONG
PRODUCT: ACOUSTIBUILT
SIZE: 48" X 96" X 7/8"
FINISH: FINE TEXTURE FINISH
BY MFR TO MATCH PT-1

MANUFACTURER: USG
PRODUCT: ENSEMBLE
SIZE: 48" X 96" X 7/8"
FINISH: FINE TEXTURE FINISH
BY MFR TO MATCH PT-1

CARPET

CPT-1: NOT USED

CPT-2: MANUFACTURER: PATOCRAFT
STYLE: REACT
COLOR: ARTFULLY RUSTED
SIZE: 12" X 48"
APPLICATION: ADM & HHS - SEE FINISH PLANS

CPT-3: MANUFACTURER: PATOCRAFT
STYLE: ETCHED
COLOR: ARTFULLY RUSTED
SIZE: 12" X 48"
APPLICATION: ADM & HHS - SEE FINISH PLANS

CPT-4: MANUFACTURER: PATOCRAFT
STYLE: PATINA
COLOR: ARTFULLY RUSTED
SIZE: 12" X 48"
APPLICATION: ADM & HHS - SEE FINISH PLANS

CPT-5: MANUFACTURER: INTERFACE
STYLE: SL80
COLOR: GRAPHITE
SIZE: 25 CM X 1 M
APPLICATION: AME - SEE FINISH PLANS

CPT-6: MANUFACTURER: INTERFACE
STYLE: SL80
COLOR: GRAPHITE FADE
SIZE: 25 CM X 1 M
APPLICATION: AME - SEE FINISH PLANS

CPT-7: MANUFACTURER: INTERFACE
STYLE: ON LINE
COLOR: AZURE
SIZE: 25 CM X 1 M
APPLICATION: AME - BLUE ACCENT

FABRIC

F-1: MANUFACTURER: CARNEGIE
PATTERN: XOREL - METEOR
COLOR: 759
BACKING: UNBACKED
APPLICATION: TACKABLE FABRIC @ DESKS

PLASTIC LAMINATE

PLAM-1: MANUFACTURER: WILSONART
COLOR: SESAME VELVET ELM
APPLICATION: BREAKROOM - VERTICAL FACE OF CASEWORK

PLAM-2: MANUFACTURER: WILSONART
COLOR: FIELD ELM
FINISH: SOFTGRAN
APPLICATION: VERTICAL FACE OF CASEWORK

PLAM-3: NOT USED

PLAM-4: NOT USED

PLAM-5: NOT USED

PLAM-6: MANUFACTURER: FORMICA
COLOR: GRAYSTONE
FINISH: MATTE
APPLICATION: RECEPTION DESKS - SEE DETAILS

PLAM-7: MANUFACTURER: WILSONART
COLOR: NATURAL RECON
FINISH: FINE VELVET
APPLICATION: HHS BOARD ROOM DESKS

PAINT

PT-1: MANUFACTURER: SHERWIN WILLIAMS
COLOR: EXTRA WHITE
SHEEN: TYPICAL EGG-SHELL
GUSTODIAL: SOLED STORAGE - EPOXY
APPLICATION: FIELD COLOR

PT-2: MANUFACTURER: BENJAMIN MOORE
COLOR: SOFT CHINGILLA
APPLICATION: ACCENT - RESTROOMS ABOVE TILE

PORCELAIN TILE

PCT-1: MANUFACTURER: ERGON
STYLE: STONE PROJECT
COLOR: SAND CONTROFALDA
FINISH: NATURAL
SIZE: 24" X 48"
INSTALL METHOD: MONOLITHIC
APPLICATION: LOBBY FLOOR TILE

NOTE: STAIR TREAD PROFILE TO BE USED ON REFINISHED STAIR TREADS IN ADM BUILDING.

PCT-2A: MANUFACTURER: DALTILE
COLLECTION: RIGID CLAY
STYLE: RIDGE WALL TILE
COLOR: SALT
SIZE: 12" X 24"
INSTALL METHOD: VERTICAL MONOLITHIC
APPLICATION: RESTROOM WALL TILE

PCT-2B: MANUFACTURER: DALTILE
COLLECTION: RIGID CLAY
STYLE: METAL REVEAL BASE
COLOR: SALT
SIZE: 12" X 24"
INSTALL METHOD: VERTICAL MONOLITHIC
APPLICATION: RESTROOM WALL TILE

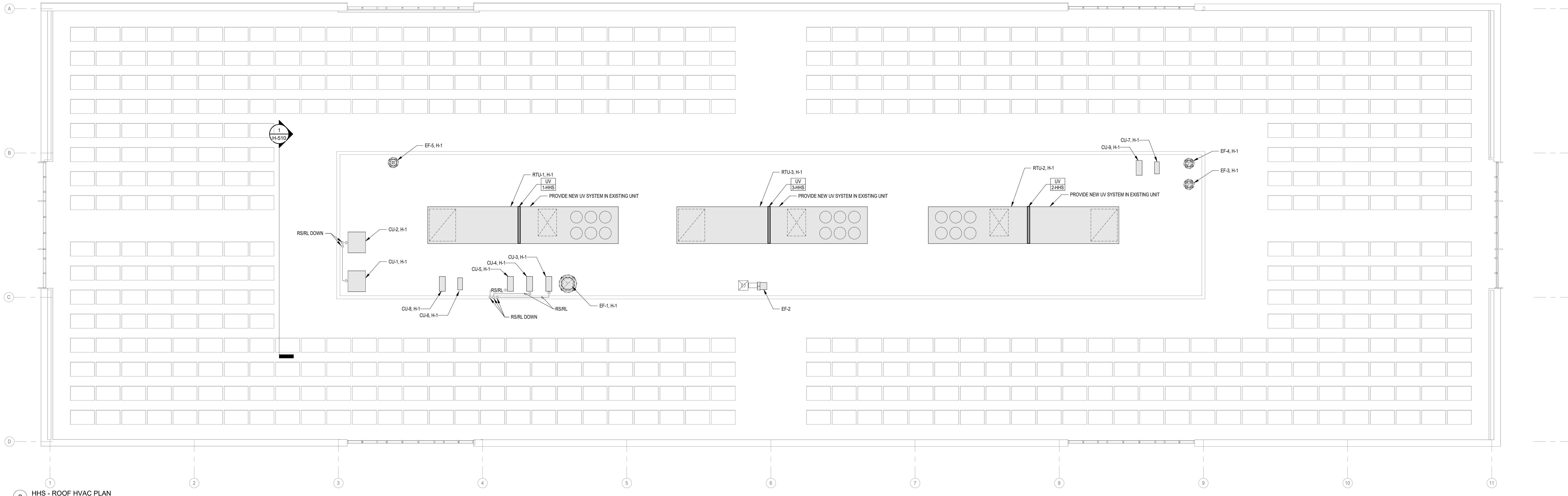
PCT-2 CORNER PIECE: PROVIDE SCHLUTER-FINEC-SQ AT ALL EXPOSED EDGES OF TILE IN RESTROOM.

PCT-2 TRIM PIECE: PROVIDE SCHLUTER-JOLLY AT ALL EXPOSED EDGES OF TILE IN RESTROOM.

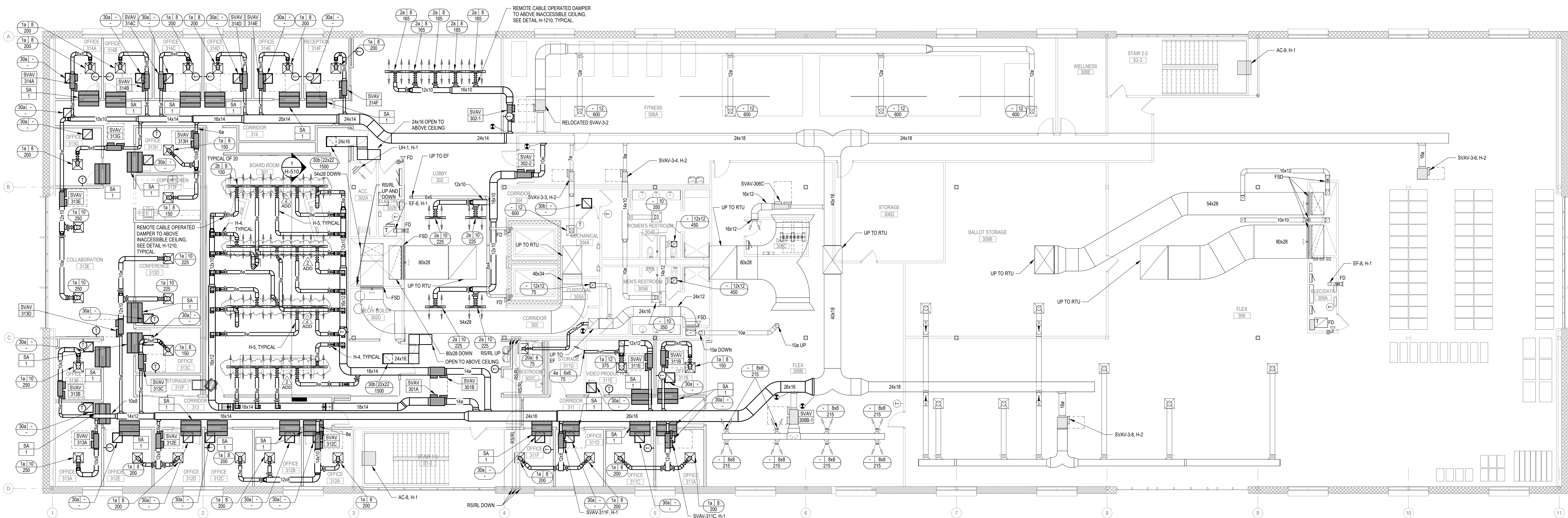
PCT-3: MANUFACTURER: DESIGN AND DIRECT SOURCE
STYLE: SANTOS HERITAGE FIELD
COLOR: SNOW CRACKLE
FINISH: GLOSS
SIZE: 4" X 4"
INSTALL METHOD: MONOLITHIC
APPLICATION: BREAKROOM BACKSPLASH

PCT-3 TRIM PIECE: PROVIDE SCH

KEYED NOTES	
H-1	EXISTING TO REMAIN.
H-2	EXISTING VAV BOX WITH ELECTRIC HEAT TO REMAIN. CONTROL'S CONTRACTOR TO PROVIDE NEW CONTROLLER AND THERMOSTAT AND CONNECT TO NEW BAS.
H-4	DUCTWORK TO BE ROUTED HIGH THROUGH JOIST WEBBING. COORDINATE DUCT PLACEMENT WITH EXISTING STRUCTURE.
H-5	DUCTWORK TO BE ROUTED HIGH IN JOIST SPACE. COORDINATE DUCT PLACEMENT WITH EXISTING STRUCTURE.



HHS - ROOF HVAC PLAN
1/8" = 1'-0"



HHS - LEVEL 3 HVAC PLAN - PHASE 2
1/8" = 1'-0"

GRILLE AND DIFFUSER KEY

GRILLE OR DIFFUSER PLAN MARK

DIFFUSER NECK SIZE

CFM

COORDINATE CEILING DIFFUSERS WITH ARCHITECTURAL REFLECTED CEILING PLANS

RETURN GRILLE TAGS INDICATE DESIGN RETURN AIRFLOW DURING OCCUPIED OPERATION BUT ALL RETURN GRILLES AND DIFFUSERS ARE SIZED FOR 100% OF SUPPLY AIRFLOW

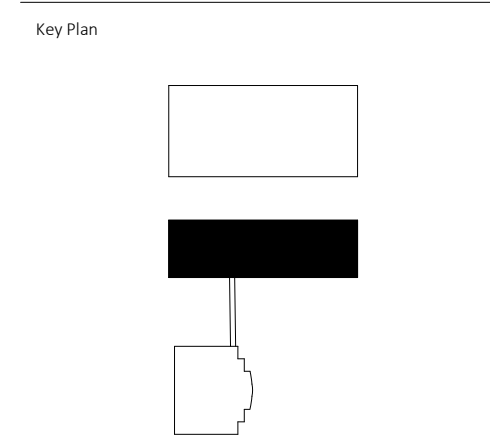
NEW WORK KEY

EXISTING

NEW / REVISED

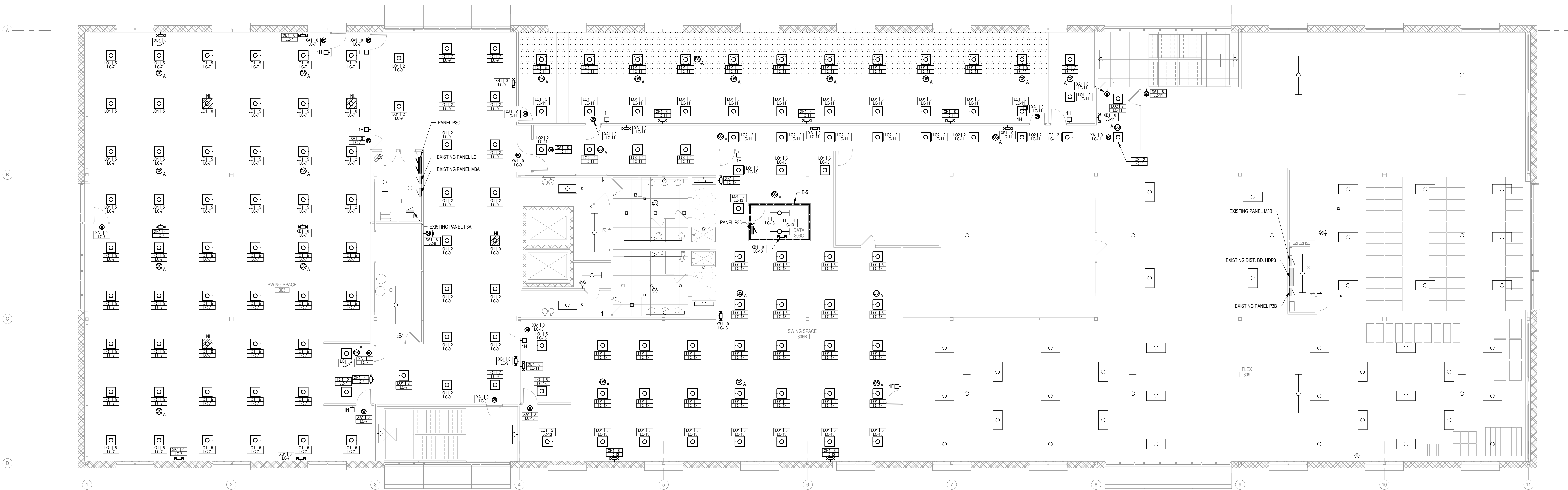
EXISTING EQUIPMENT

NEW / REVISED EQUIPMENT

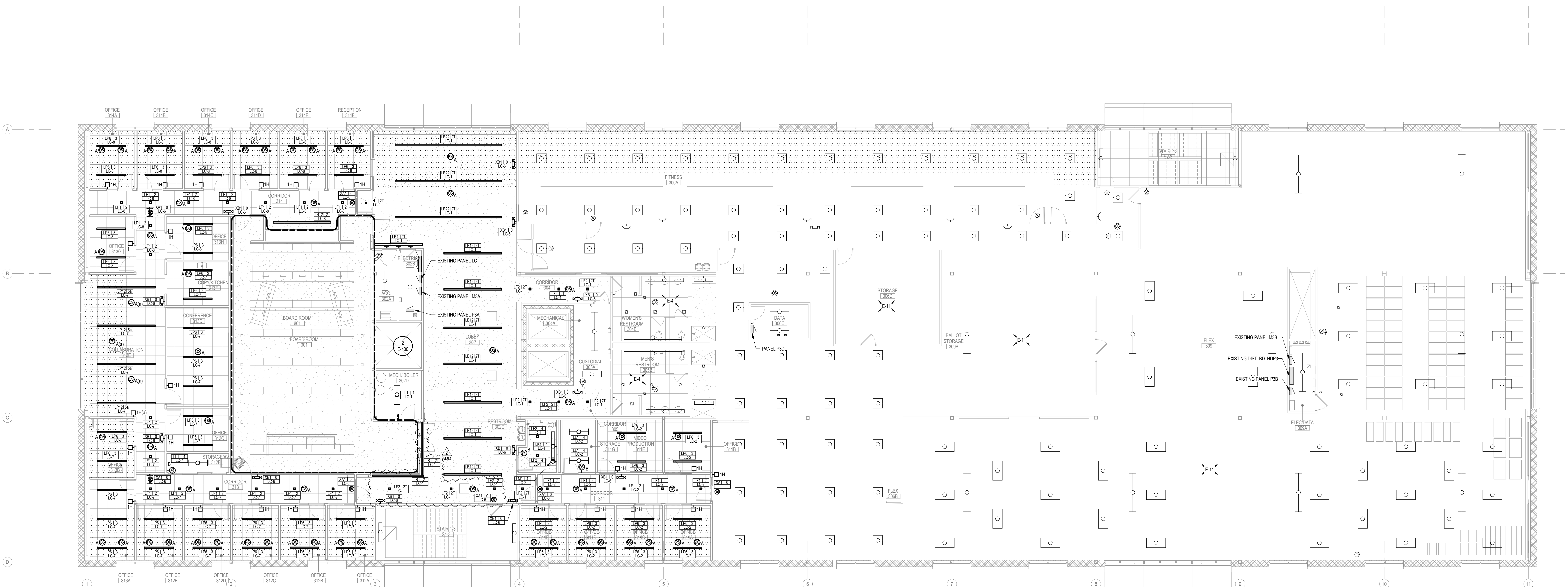


Revision	Description	Date
ADD-2	ADDENDUM 2	06/03/2013

KEYED NOTES	
E-4	EXISTING LIGHTING AND POWER IN RESTROOMS TO REMAIN. PROTECT CIRCUITS THROUGHOUT.
E-6	THIS SECTION TO RESEVE PERMANENT ELECTRICAL.
E-11	SURFACE WIREWAY TO TEMPORARY FURNITURE. VERIFY EXACT LAYOUT WITH OWNERS FURNITURE VENDOR.



1 HHS - LEVEL 3 ELECTRICAL LIGHTING PLAN - TEMPORARY
1/8" = 1'-0"

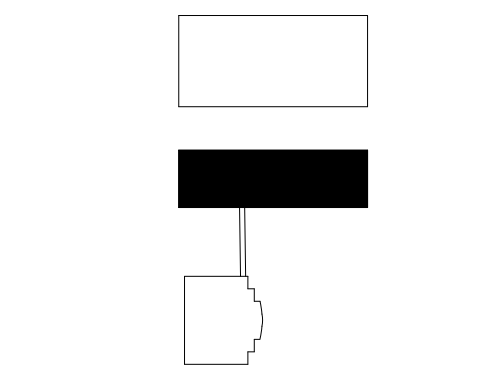


2 HHS - LEVEL 3 ELECTRICAL LIGHTING PLAN - PHASE 2
1/8" = 1'-0"

LIGHTING/SWITCHING KEY	
LIGHTING	
- LIGHTING CONTROLS OPERATION SEQUENCE (I.E., PER DETAILS)	
FUTURE TYPE - PER SCHEDULE	
- SWITCHING ZONE (A.B.C.)	
- CIRCUT DATA PANEL NAME: CIRCUT NUMBER (XXXX-AM) OR CIRCUIT NOTE E-4	
EM- EMERGENCY FIXTURE	
NL- NIGHT LIGHT	
COORDINATE CEILING MOUNTED DEVICES WITH ARCHITECTURAL REFLECTED CEILING PLAN	
SWITCHING	
- LIGHTING CONTROL STATION	
EX - INDICATES SWITCH CONTROLS. REFER TO LIGHTING CONTROL STATION CONFIGURATION DETAIL	
AL- INDICATES SWITCHING ZONES	
- DIMENSION INDICATES HEIGHT TO CENTER OF SWITCH ABOVE FINISH FLOOR (4'-0" TO CENTER IF NOT SHOWN)	

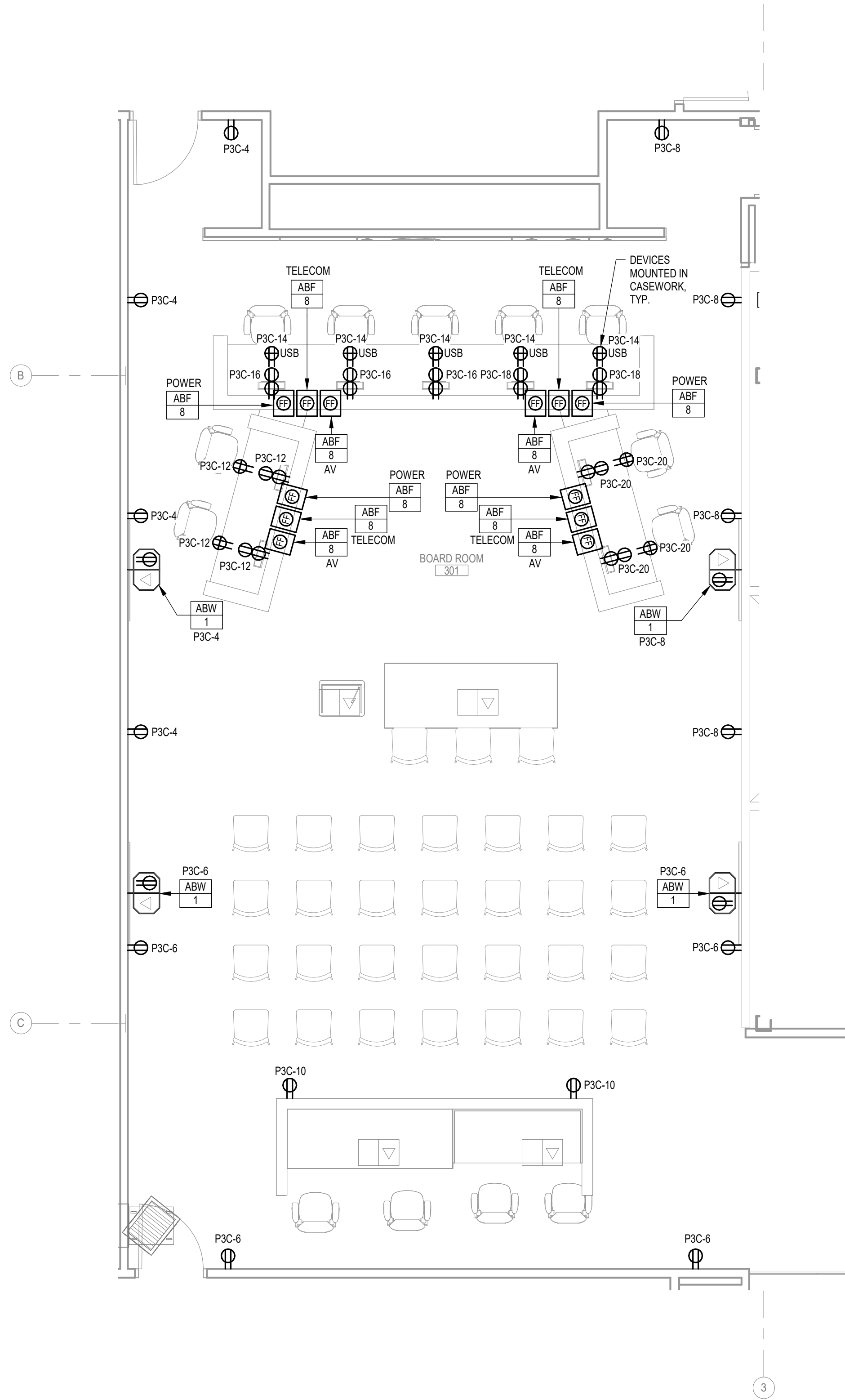
NEW WORK KEY	
-	EXISTING
-	NEW / REVISED
-	EXISTING EQUIPMENT
-	NEW / REVISED EQUIPMENT

Key Plan

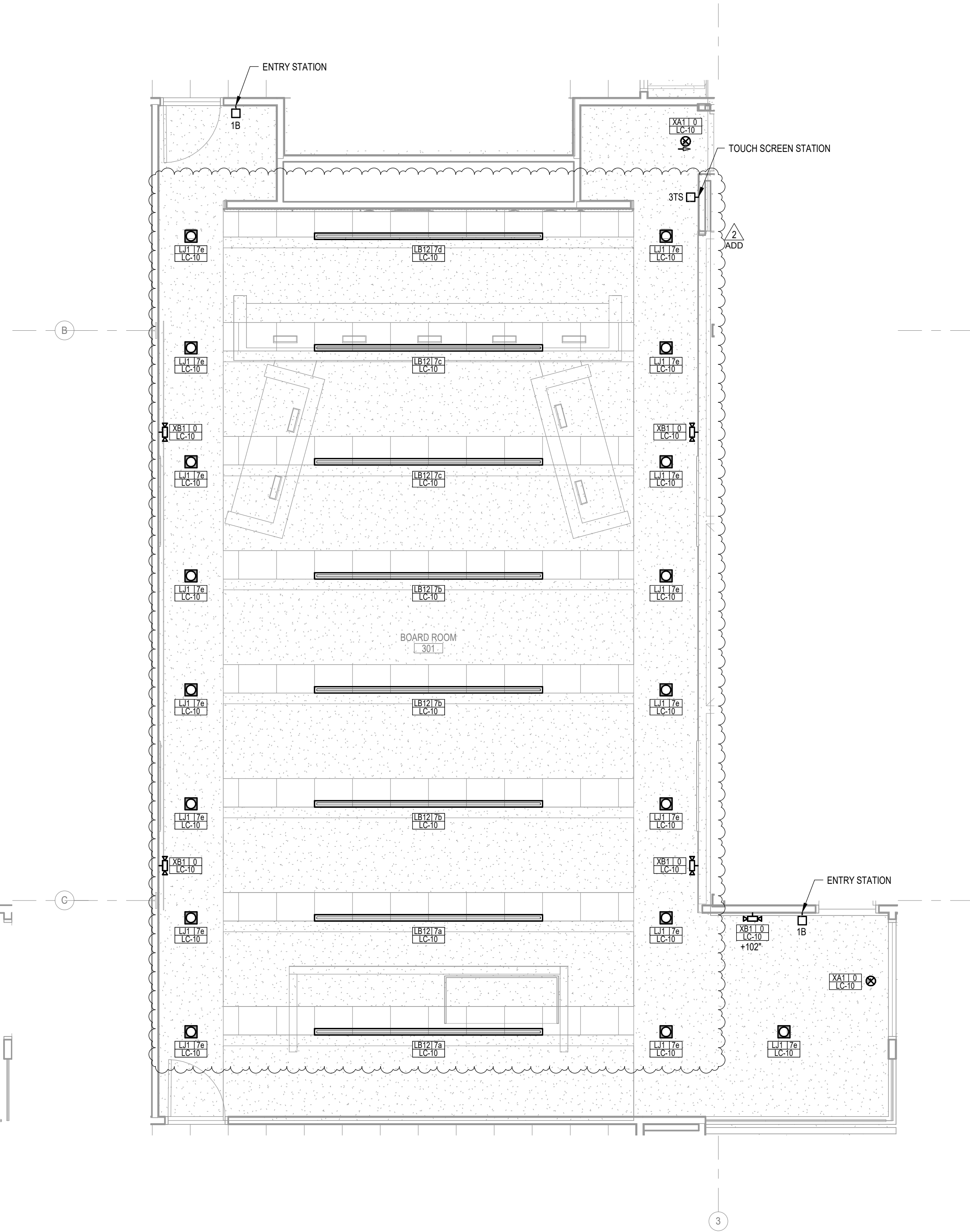


Revision	Description	Date
ADD-2	ADDENDUM #2	06/06/2023

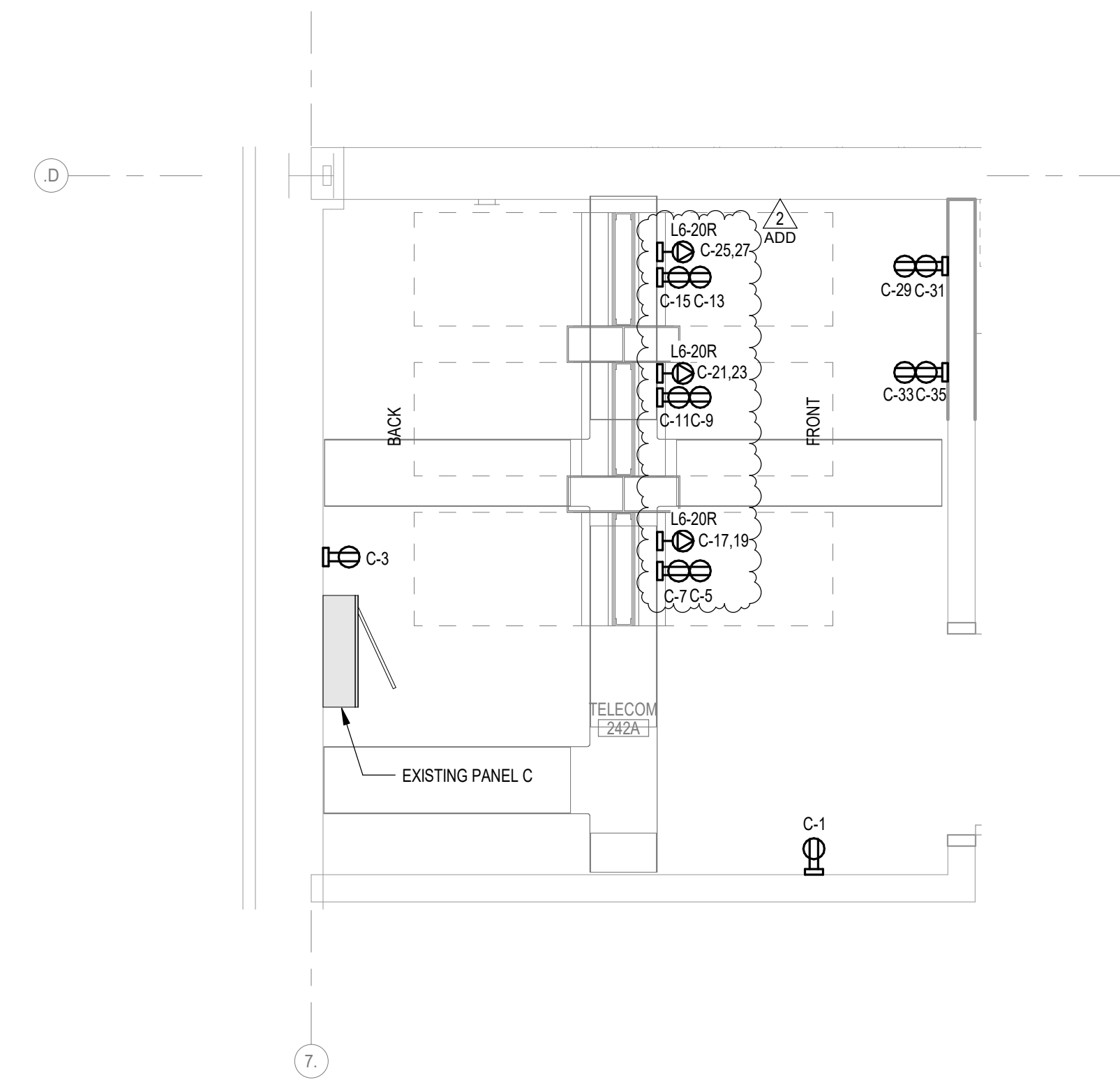
KEYED NOTES
E4 THIS SECTION TO RECEIVE
PERMANENT ELECTRICAL.



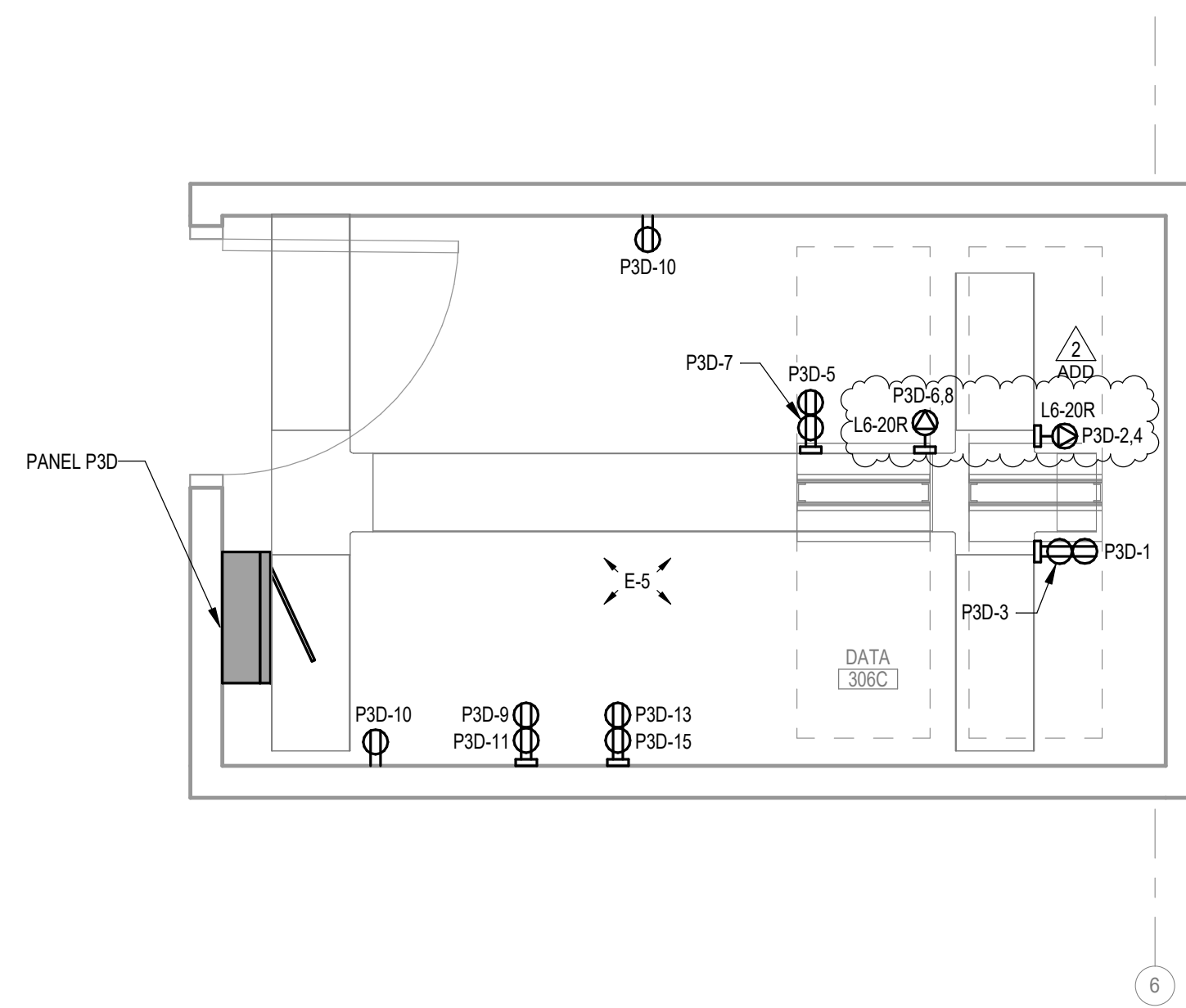
1 HHS - BOARD ROOM 301 ENLARGED ELECTRICAL POWER PLAN - PHASE 2
1/4" = 1'-0"



2 HHS - BOARD ROOM 301 ENLARGED ELECTRICAL LIGHTING PLAN - PHASE 2
1/4" = 1'-0"



3 ADM - LEVEL 2 ENLARGED TELECOM 242A POWER PLAN
1/2" = 1'-0"

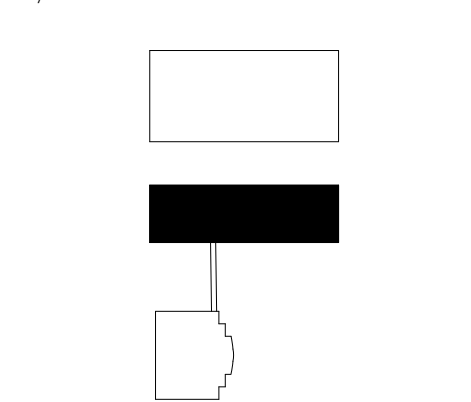


4 HHS - LEVEL 3 ENLARGED DATA 306C POWER PLAN - TEMPORARY
1/2" = 1'-0"

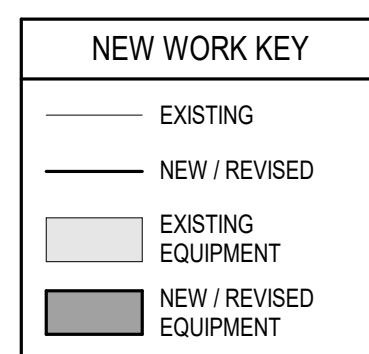
LIGHTING/SWITCHING KEY	
LIGHTING	
LIGHTING CONTROLS OPERATION SEQUENCE (1,2,...) PER DETAILS	
FUTURE TYPE - PER SCHEDULE	SWITCHING ZONE (A,B,...)
	CIRCUIT DATA PANEL NAME: CIRCUIT NUMBER (XXXX-4444) OR CIRCUIT NOTE E-4
EM: EMERGENCY FIXTURE	
NL: NIGHT LIGHT	
COORDINATE: CEILING MOUNTED DEVICES WITH ARCHITECTURAL REFLECTED CEILING PLAN	
SWITCHING	
L6-20-1 - LIGHTING CONTROL STATION	
EX - INDICATES SWITCH CONTROLS, REFER TO LIGHTING CONTROL STATION CONFIGURATION DETAIL	
A-B - INDICATES SWITCHING ZONES	
H-F - DIMENSION INDICATES HEIGHT TO CENTER OF SWITCH ABOVE FINISH FLOOR (H-F) TO CENTER IF NOT SHOWN	

NEW WORK KEY	
EXISTING	NEW / REVISED
EXISTING EQUIPMENT	NEW / REVISED EQUIPMENT

Key Plan



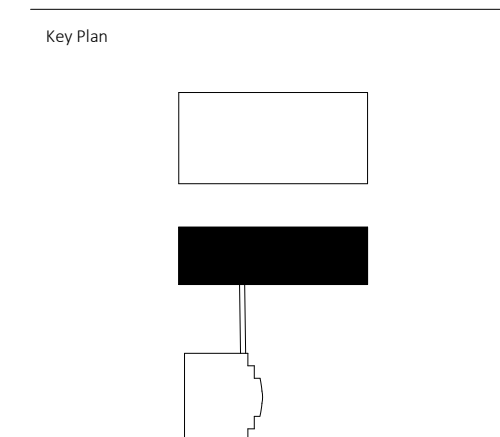
Revision	Description	Date
ADD-2	ADDENDUM 2	06/03/2013



2 HHS - ELECTRICAL SCHEMATIC RISER DIAGRAM - TEMPORARY
NOT TO SCALE

ELECTRICAL HHS RISER DIAGRAM NOTES:

1. PROTECT CELLULAR SERVICE PROVIDER SERVICE AND FEED THROUGH BUILDING THROUGHOUT CONSTRUCTION.
2. PROTECT 480V SOLAR FEED FROM ROOF THROUGHOUT CONSTRUCTION.



Revision	Description	Date
ADD 2	Addendum 2	06/23/2022

AUDIO VISUAL SYMBOLS

(NOTE: ALL SYMBOLS SHOWN MAY NOT BE REQUIRED FOR THIS PROJECT)
(NOTE: ALL STANDARD HEIGHT DEVICES: 10" AFF TO CENTER OF BOX UNLESS NOTED OTHERWISE)

*** AUDIO VISUAL DEVICES ***

- SPEAKER OUTLET - CEILING MOUNTED
X - INDICATES PLAN MARK OF SPEAKER DEVICE. SEE AV SCHEDULE
- SPEAKER OUTLET - WALL MOUNTED
X - INDICATES PLAN MARK OF SPEAKER DEVICE. SEE AV SCHEDULE
- MICROPHONE OUTLET (ULR ONLY) - IN FLOOR BOX OR CEILING MOUNTED
- MICROPHONE OUTLET (ULR ONLY) - WALL MOUNTED
- VOLUME CONTROL - WALL MOUNTED
- PROJECTOR - CEILING MOUNTED
- PROJECTOR - WALL MOUNTED
- PROJECTION SCREEN - CEILING MOUNTED
P - INDICATES MANUAL SCREEN
M - INDICATES MOTORIZED SCREEN
- PROJECTION SCREEN - WALL MOUNTED
P - INDICATES MANUAL SCREEN
M - INDICATES MOTORIZED SCREEN
- ELECTRONIC DISPLAY - CEILING MOUNTED
- ELECTRONIC DISPLAY - WALL MOUNTED
- AUDIO VISUAL ANTENNA
- AUDIO VISUAL DEVICE
- AUDIO VISUAL DEVICE - WALL MOUNTED

*** TYPICAL EQUIPMENT ***

- EQUIPMENT DESIGNATION PER EQUIPMENT SCHEDULE
- TECHNOLOGY RACK - 2 POST CLEARANCE BORDER
- TECHNOLOGY RACK - 4 POST CLEARANCE BORDER
- TECHNOLOGY RACK - SLIDE OUT
- TECHNOLOGY RACK - SWING OUT CLEARANCE BORDER
- SPECIAL CABINET AS NOTED - SURFACE MOUNTED
- SPECIAL CABINET AS NOTED - RECESSED MOUNTED
- GROUND BAR

*** TYPICAL RACEWAYS ***

- WIRE BASKET
- LADDER RACK
- SPLINE TRAY
W - INDICATES WIDTH IN INCHES
H - INDICATES HEIGHT IN INCHES
- CABLE J-HOOKS
- SPLICE CONNECTION FROM EXISTING TO NEW
- CONDUIT STUB
- CONDUIT CONTINUATION
- CONDUIT TURNING UP
- CONDUIT TURNING DOWN
- PULL BOX
- JUNCTION BOX - IN FLOOR BOX OR CEILING
- JUNCTION BOX - WALL MOUNTED
- FURNITURE FEED
- FURNITURE FEED - WALL MOUNTED

*** TYPICAL DEVICES ***

- FLOOR BOX / PONE THRU WITH SERVICES AS NOTED
- WALL BOX WITH SERVICES AS NOTED
- ANY WIRING DEVICE WITH THIS SYMBOL INDICATES SURFACE MOUNTED OUTLET BOX
- ANY WIRING DEVICE WITH THIS SYMBOL INDICATES WIRELESS NETWORK CAPABILITY

GENERAL TELECOMMUNICATIONS NOTES:

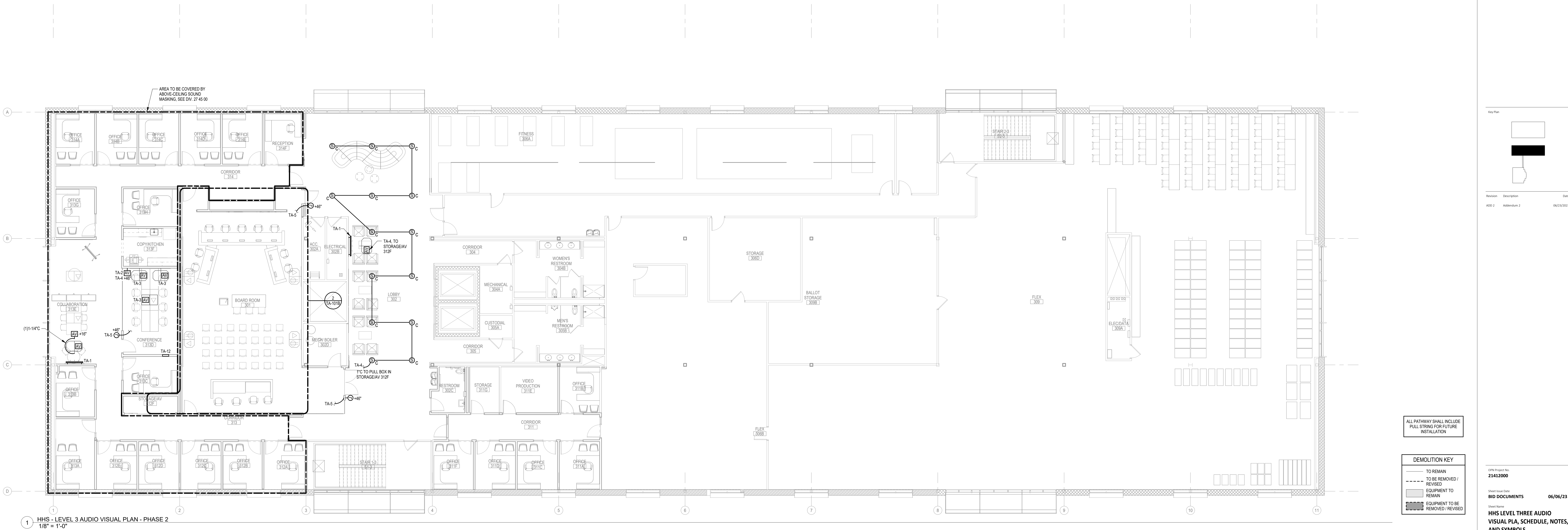
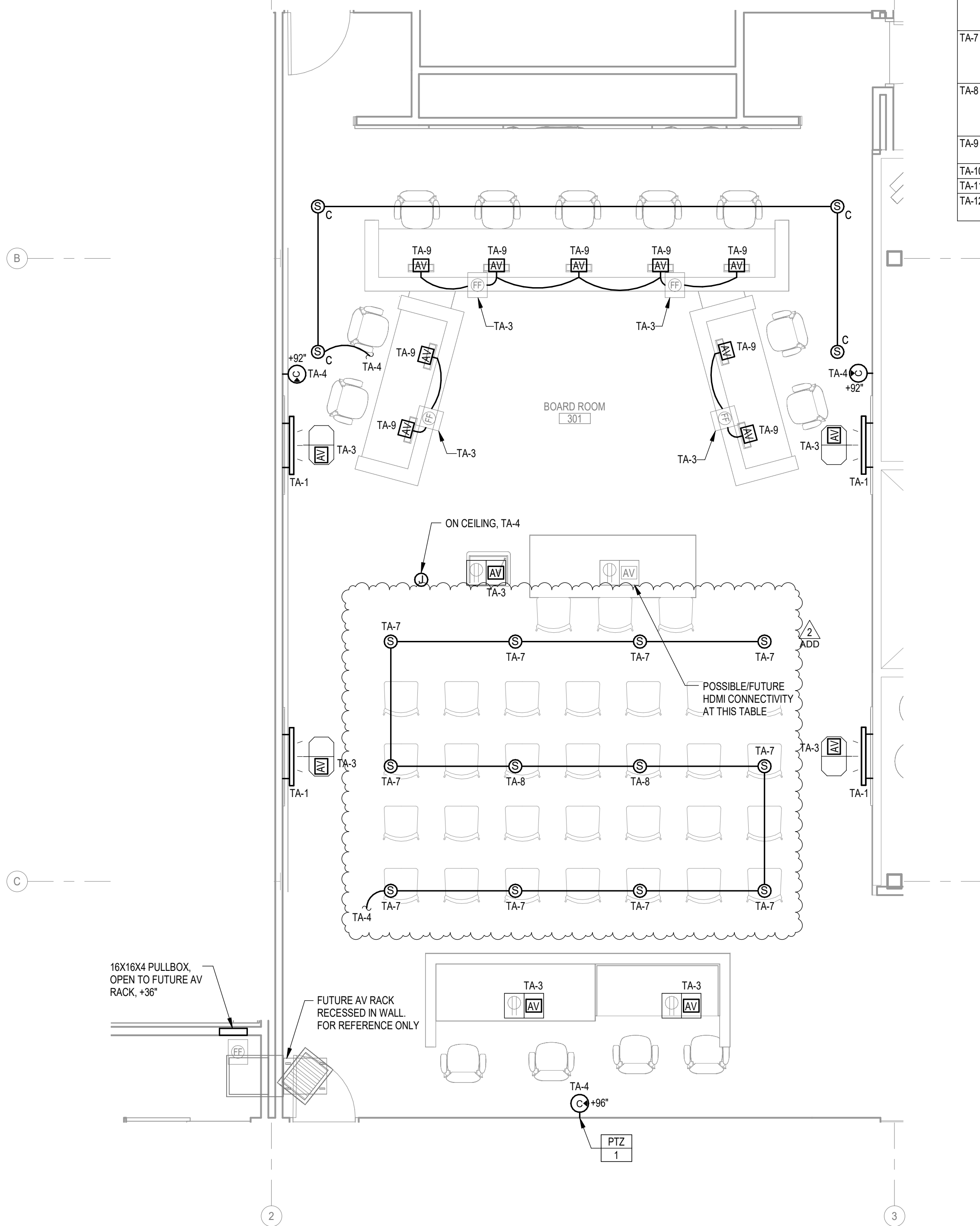
- THE DIVISION 26 CONTRACTOR SHALL STUDY ALL TELECOM PLANS INCLUDING READING ALL TELECOM GENERAL AND SPECIFIC NOTES FOR INSTRUCTIONS THAT WILL AFFECT OR PERTAIN TO THE ELECTRICAL CONTRACTOR.
- THE DIVISION 26 CONTRACTOR SHALL PROVIDE AND INSTALL ALL TELECOM CONDUITS TO ACCESSIBLE CEILING SPACE (THEY SHALL NOT BE TERMINATED ABOVE HARD LIDS OR IN EXPOSED AREAS) UNLESS INSTRUCTED OTHERWISE. STUD ALL TELECOM CONDUITS TO THE ACCESSIBLE CEILING SPACE IN THE SAME ROOM AS THE OPENING.
- THE DIVISION 26 CONTRACTOR SHALL NOT DARY CHAIN ANY VOICEDATA CABLING OR AV CABLING CONDUITS WHEN ROUTING FROM BOXES TO ACCESSIBLE CEILING SPACES, ETC.
- THE DIVISION 26 CONTRACTOR SHALL PROVIDE AND INSTALL BUSHINGS ON ALL TELECOM CONDUITS AT THE TIME OF CONDUIT INSTALLATION.
- COORDINATE ROUTING OF RACEWAY AND EQUIPMENT TO MAINTAIN ACCESS TO FILTERS, MOTORS, ELECTRICAL EQUIPMENT, AND CONTROLS. IN NO CASE SHALL RACEWAY, CABLING RINGS, OR EQUIPMENT PASS DIRECTLY OVER ELECTRICAL PANELS OR DISCONNECTS OR RESTRICT ACCESS TO ANY ELECTRICAL EQUIPMENT INCLUDING JUNCTION BOXES.
- CONDUIT MINIMUM SIZES SHALL BE PER THE ELECTRICAL RACEWAY SPECIFICATIONS UNLESS NOTED OTHERWISE.
- THE DIVISION 26 CONTRACTOR SHALL VERIFY ALL QUANTITIES.
- THE DIVISION 26 CONTRACTOR SHALL FASTEN ALL EQUIPMENT TO STRUCTURE SO EVERYTHING IS COMPLETELY SOLID.
- THE DIVISION 27 CONTRACTOR SHALL USE HOOK AND LOOP FASTENERS ON CABLING EXCLUSIVELY. NO THE WIRING. EXCEPTION: THE WIRING MAY BE USED LOOSELY FOR DRESSING CABLES DURING INSTALLATION, BUT SHALL BE REMOVED AND REPLACED WITH HOOK AND LOOP FASTENERS BEFORE JOB IS COMPLETE.
- THE MAXIMUM DISTANCE BETWEEN ALL J-HOOKS SHALL BE FIVE FEET. ALL J-HOOKS SHALL BE SIZED TO HAVE AT LEAST 50% CAPACITY AVAILABLE FOR FUTURE GROWTH. CONTRACTOR SHALL NOT FASTEN CABLING TO PIPING, DUCTWORK, CONDUITS, OR ANYTHING OTHER THAN CONTRACTOR INSTALLED J-HOOKS OR CABLE TRAY SUPPORTED FROM STRUCTURE. CONTRACTOR SHALL NOT LAY CABLE OVER PIPING, DUCTWORK, CONDUITS, CEILING GRID/FILES, AND ANY OTHER BUILDING STRUCTURE ELEMENT OR BUILDING SUPPORT SYSTEM DEVICE. USE LOW VOLTAGE PATHWAY ONLY.
- ALL TELECOM CABLING IN FINISHED SPACES IS TO BE ROUTED CONCEALED IN WALLS UNLESS SPECIFICALLY NOTED OTHERWISE. ALL EXPOSED CABLING AND CABLING BEHIND INACCESSIBLE CONSTRUCTION (SUCH AS IN WALLS AND ABOVE DRYWALL CEILINGS) SHALL BE ROUTED IN CONDUIT WHICH IS PROVIDED AND INSTALLED BY THE DIVISION 26 CONTRACTOR. ALL WALL PENETRATIONS SHALL BE SLEEVED WITH CONDUIT.
- THE CONTRACTOR SHALL NOT PULL ANY CABLING THROUGH CONDUITS THAT DO NOT HAVE THE REQUIRED BUSHINGS INSTALLED. CABLE DAMAGED DUE TO BEING INSTALLED THROUGH CONDUITS WITH NO BUSHINGS SHALL BE REPLACED BY THE CONTRACTOR AT NO CHARGE TO THE OWNER.
- THE CONTRACTOR SHALL REVIEW THE ARCHITECTURAL PLANS FOR FIRE WALL LOCATIONS, THEN FURNISH AND INSTALL FIRE STOPPING IN ALL TELECOM CONDUITS INCLUDING THOSE WITH CABLING IN THEM AND THOSE TELECOM SLEEVES OR CONDUITS WITHOUT CABLING IN THEM FOR THOSE FIRE WALL LOCATIONS.
- THE TELECOM STRUCTURED CABLING SHALL NOT HAVE PAINT OR PAINT OVERPRAY ON THE CABLING JACKET WHICH MAY DEGRADE THE PERFORMANCE OF THE CABLING AND VOID THE WARRANTY. CABLING WHICH HAS PAINT (UNT) SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE (IT CANNOT BE CLEANED MECHANICALLY OR WITH SOLVENTS. IT SHALL BE REPLACED).
- THE CONTRACTOR SHALL ARRANGE FOR A PRE-INSTALLATION MEETING WITH THE DIVISION 26 CONTRACTOR FOR REVIEW OF SLEEVE PLACEMENT PRIOR TO ROUGH-IN. THE DIVISION 26 CONTRACTOR SHALL INCLUDE MATERIAL AND LABOR COST FOR AN ALLOWANCE OF 10" EXTRA 2" DIA CONDUIT SLEEVES TO BE USED AS DIRECTED DURING THE PRE-INSTALLATION MEETING OR AS OTHERWISE DIRECTED BY THE DESIGN PROFESSIONAL OR OWNER.

AUDIOVISUAL SCHEDULE					
PLAN MARK	DESCRIPTION	FURNISHED BY	INSTALLED BY	REMARKS	NOTES
S (C)	70V LOUDSPEAKER BACK-CAN FOR OWNER LOUDSPEAKERS (JBL 8138)	DIV 27	DIV 27	JBL MTC-81B88	

Contractor Shall Check Specifications For Possible Further Details

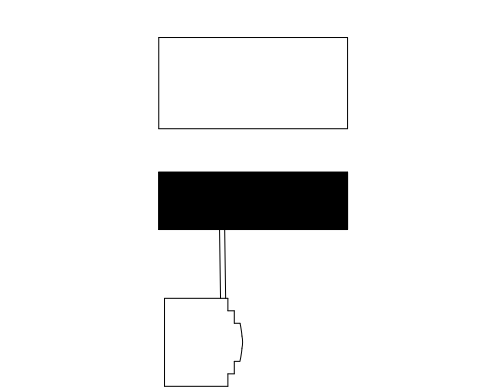
2 HHS - BOARD ROOM 301 ENLARGED AUDIO VISUAL PLAN - PHASE 2
1/4" = 1'-0"

AUDIO VISUAL KEYED NOTES	
TA-1	LOCATION OF OWNER-PROVIDED DISPLAY FOR REFERENCE ONLY
TA-2	DIV 26 IS 33 CONTRACTOR SHALL PROVIDE A 5-SQUARE JUNCTION BOX WITH 2-GANG RING.
TA-3	ROUTE PATHWAY IDENTIFIED IN ACTIVATION BOX SCHEDULE BACK TO ROOMS AV RACK PULL BOX LOCATION
TA-4	ROUTE TO BACK TO ROOMS AV RACK PULL BOX LOCATION
TA-5	26 IS 33 CONTRACTOR SHALL PROVIDE A 4-SQUARE JUNCTION BOX WITH 2-GANG OPENING. 27 IS 33 CONTRACTOR SHALL PROVIDE NETWORK PATCH CABLE TO OWNER FOR FUTURE TOUCHPANEL
TA-6	FOR FUTURE SCREEN LOW VOLTAGE CONNECTION, 26 IS 33 CONTRACTOR SHALL PROVIDE RACK SQUARE JUNCTION BOX WITH REACH OF ACCESSIBLE CEILING AND ROUTE 3/4" FROM HERE TO RACK AV PULL BOX IN LIEU OF 1" USED FOR AV RACKS.
TA-7	LOUDSPEAKER LOCATION SHALL BE A JUNCTION BOX IN LIEU OF BACK CAN USED ELSEWHERE. PROVIDE A 4-SQUARE JUNCTION BOX ABOVE AND WITHIN REACH OF 11/2" CEILING TILE LOCATION. COORDINATE WITH DIFFUSER DUCTWORK AND LIGHTING FIXTURES.
TA-8	LOUDSPEAKER LOCATION SHALL BE A JUNCTION BOX IN LIEU OF BACK CAN USED ELSEWHERE. PROVIDE A 4-SQUARE JUNCTION BOX ABOVE AND WITHIN REACH OF 11/2" CEILING TILE LOCATION. COORDINATE WITH DIFFUSER DUCTWORK AND LIGHTING FIXTURES.
TA-9	JUNCTION BOXES SHALL BE 2-GANG BELOW WORKSPACE, IN THE KNEE SPACE, OF THE TABLE, AND HAVE A ROUTE TO THE FURNITURE FEED.
TA-10	NOT USED
TA-11	NOT USED
TA-12	10X10X4 PULL BOX, 2"4" OPEN TO AV RACK, 1 1/4" TO ACCESSIBLE CEILING AND 1" TO EACH ROUGH-IN UNLESS OTHERWISE KEYNOTED.



1 HHS - LEVEL 3 AUDIO VISUAL PLAN - PHASE 2
1/8" = 1'-0"

Key Plan



Revision	Description	Date
ADD-2	Addendum 2	06/06/2013

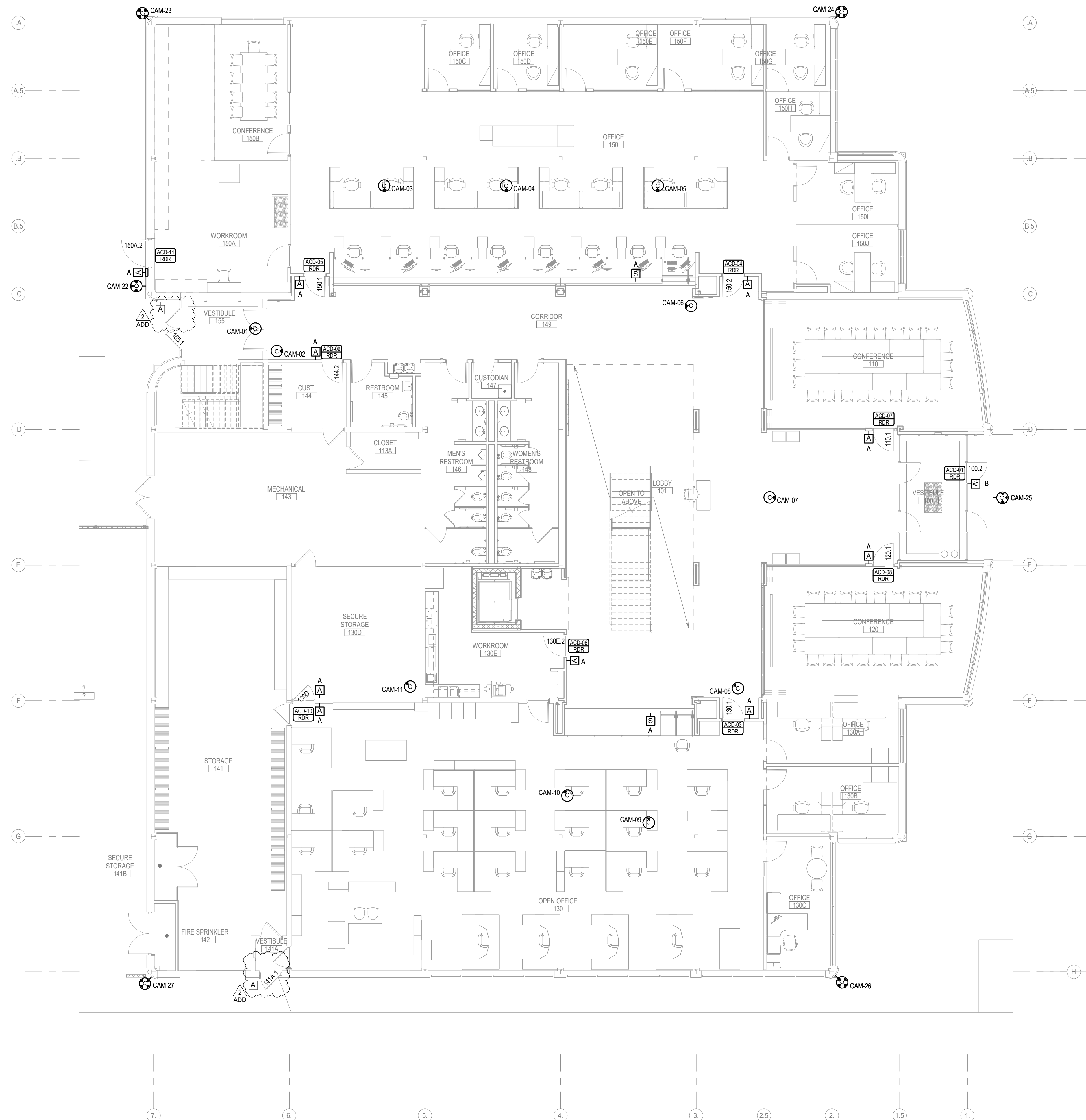
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Sheet Name
BID DOCUMENTS

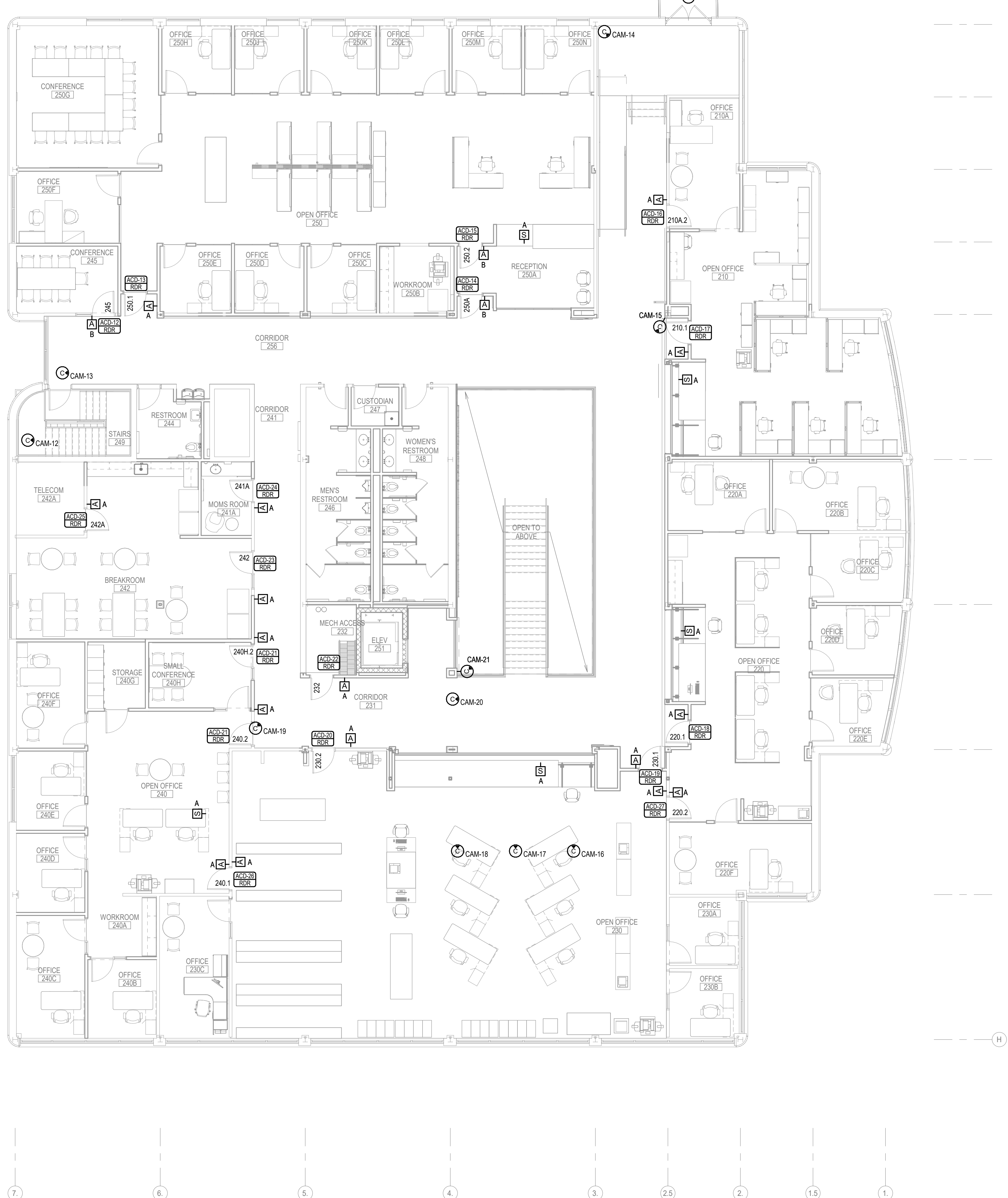
Client Name
HHS LEVEL THREE AUDIO VISUAL PLA, SCHEDULE, NOTES, AND SYMBOLS

Client Number
06/06/23

KEYED NOTES



1 ADM - LEVEL 1 SECURITY PLAN
1/8" = 1'-0"



2 ADM - LEVEL 2 SECURITY PLAN
1/8" = 1'-0"

NEW WORK KEY

EXISTING	NEW / REVISED
EXISTING EQUIPMENT	NEW / REVISED EQUIPMENT

