

## ADDENDUM NO. 2

### NCSU Renovations to the Don Ellis Building

SCO ID# 19-21547  
NCSU ID# 201920037  
SFK PROJECT NO. 1368-20

SKINNER FARLOW KIRWAN ARCHITECTURE  
RALEIGH, NORTH CAROLINA

December 13, 2023

#### NOTICE TO CONTRACTORS:

The Contract Documents for the above-referenced Project are modified as set forth in this Addendum. The original Contract Documents and any previously issued addenda remain in full force and effect, except as modified by this Addendum, which is hereby made part of the Contract Documents. Bidder shall take this Addendum into consideration when preparing and submitting a bid.

All principal contractors shall be responsible for seeing that their subcontractors are properly apprised of the contents of this Addendum. All contractors shall acknowledge receipt of the Addendum.

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#### GENERAL

**Bid Submittal Deadline - unchanged**

#### SPECIFICATIONS

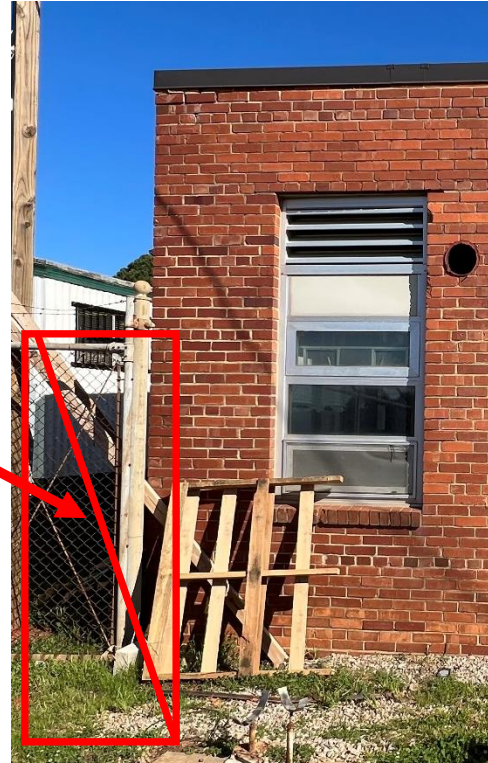
1. Form of Proposal: Replace with Form of Proposal attached. See attached.
  - a. Schalge was added to the list of preferred brands for Alternate No. 8
2. Section 012300 "Alternates": Paragraph 3.1 H. Alternate no 8: Add Schlage and Von Duprin to the list of preferred brands for Door Hardware.
3. Section 087100 "Door Hardware": Replace with attached section. See attached.

- a. Section revised in its entirety to reflect preferred brand alternates and new door hardware schedule.
4. Section 081416 “ Flush Wood Doors”. **Replace** paragraph 2.3.A sub-paragraph 2 with the following: **“Basis of Design”: Color to match Masonite Asprio Series White Birch Plain Sliced Nutmeg**
5. Section 096513 “ Resilient Base and Accessories”: **Replace** paragraph 2.2.H. with **H. Color to be :Basis of Design: Colonial Grey TA5 by Tarkett**
6. Section Section 096813 “Tile Carpeting” **Replace** paragraph 2.2.B for walk-off carpet with the following:
  1. **Construction: Tufted Textured Loop**
  2. **Face Fiber Type: 100% Recycled Content Nylon**
  3. **Dye Method: Solution Dyed**
  4. **Gauge: 47.2 per 10cm**
  5. **Stiches: 39.37 per 10 cm**
  6. **Pile thickness: 0.14” loop**
  7. **Size: 19.69” x 19.69”**
  8. **Installation: Monolithic Recommended**
  9. **Color & Pattern: “Basis of Design” – Interface Step Repeat Pattern SF899, Color 103940 Iron**
7. Section 099123 “Interior Painting”: **Replace** with attached specification.
  - a. Additional notes provided in examination and preparation along with an updated paint color schedule and painting for concrete floor at elevator shaft.
8. Section 123623.13 “Plastic Laminate Clad Countertops”. **Replace** paragraph 2.2.D sub paragraph 1.a , with the following: Basis of Design : **Laminate to be Wilsonart North Sea D90-60**
9. Section 142400 Hydraulic Elevator: **Add** to paragraph 2.12.C : **Contractor to provide NCSU preferred brand Gaitronics Phone.** And **add** to paragraph 2.11.C for traveling cable- **and Gaitronics phone**
10. Section 260519 Low-Voltage Electrical Power: **Replace** with attached specification.
  - a. Revised to include the overhead conductors. See attached.

## DRAWINGS

1. Sheet L-100: Add the following to the demo scope on sheet L-100: **Remove existing fence and post shown in photograph at right at southwest corner of the building in its entirety. Prepare disturbed area and replace sod as required to create consistent condition at grade.**

Remove existing fence and post.



2. Sheet AB-002: See architectural Sheet D-100 for additional knee wall at room 205 that requires removal of lead containing glazed block along exterior wall.
3. Sheet D-100: **Replace** with D-100 attached
  - a. See additional notes for demolition and location of additional glazed knee wall removal at room 205.
  - b. See additional notes for demolition of boiler.
4. Sheet A-100: **Replace** with sheet A-100 attached.
  - a. Door numbers added for first floor restrooms 110 and 112
5. Sheet A-200: **Replace** with sheet A-101 attached.
  - a. Notes for brick repair added.
  - b. Locations for parapet damage repair added
  - c. North elevation of electrical room added with notes.
  - d. Notes for sealant replacement and painting at existing steel lintels and coal chute.
6. Sheet A-300: **Replace** with sheet A-300 attached
  - a. Minimum clearance for duct work shown in section 1.
7. Sheet A-600: **Replace** with sheet A-600 attached
  - a. Door schedule updated.
8. Sheet A-700: **Replace** with sheet A-700 attached.
  - a. Finish schedule updated
9. Sheet P-201: **Revise drawing 1/P-201 to include new 3/4" makeup water line to serve the mechanical equipment in Mechanical Room 140. Provide new 3/4" tap and isolation valve off the currently shown 3/4" water line upstream of the Hose Bibb (HB-1) and**

**Trap Primer (TP-3) connections. Provide new RPZ backflow preventer and extend piping to mechanical equipment as noted on detail 9/M-602. Piping, valve and fittings shall be installed and insulated in accordance with the specifications.**

10. Sheet M-100: **Add** note “**REMOVE EXISTING BOILER. EXISTING CONCRETE PAD FOR BOILER TO REMAIN.**”
  - a. The door location for the data closet is changed.
11. Sheet ED-200: **Replace** with sheet ED-200 attached
  - a. See revised drawing ED-200, keyed notes 3 and 5 for changes to remove the existing weather head and CT/Meter Base. Previously they were existing-to-remain.
12. Sheet E-200: **Replace** with sheet E-200 attached.
  - a. See revised drawing E-200, detail #6 and keyed note 15 for changes to include the new overhead feed and a new weather head.
13. Sheet E-300: **Replace** with E-300 attached.
  - a. Revised to show double door to data room
14. Sheet E-301: **Replace** with E-301 attached.
  - a. Revised to show double door to data room
15. Sheet E-401 : **Replace** with sheet E-401 attached
  - a. See revised drawing E-401 for changes to include a new overhead feed from the pole-mounted transformers. Revised sheet also includes the load from the parking-lot lighting project that taps into the Don Ellis overhead feed.

#### Clarifications

No.	Question / Issue	Response
1	Chilled and hot water make up	See revisions indicated on Sheet P-201 in addendum items above

**END OF ADDENDUM NO. 2**

# FORM OF PROPOSAL

Don Ellis Building Renovation

Contract: General Construction

North Carolina State University

Bidder: \_\_\_\_\_

SCO ID: # 19-21547-02A / NCSU ID: # 201920037

Date: \_\_\_\_\_

The undersigned, as bidder, hereby declares that the only person or persons interested in this proposal as principal or principals is or are named herein and that no other person than herein mentioned has any interest in this proposal or in the contract to be entered into; that this proposal is made without connection with any other person, company or parties making a bid or proposal; and that it is in all respects fair and in good faith without collusion or fraud. The bidder further declares that he has examined the site of the work and the contract documents relative thereto, and has read all special provisions furnished prior to the opening of bids; that he has satisfied himself relative to the work to be performed. The bidder further declares that he and his subcontractors have fully complied with NCGS 64, Article 2 in regards to E-Verification as required by Section 2.(c) of Session Law 2013-418, codified as N.C. Gen. Stat. § 143-129(j).

The Bidder proposes and agrees if this proposal is accepted to contract with the

***North Carolina State University***

in the form of contract specified below, to furnish all necessary materials, equipment, machinery, tools, apparatus, means of transportation and labor necessary to complete the construction of

*Don Ellis Building Renovation*

in full in complete accordance with the plans, specifications and contract documents, to the full and entire satisfaction of the State of North Carolina, and

*North Carolina State University, and Skinner Farlow Kirwan Architecture.*

with a definite understanding that no money will be allowed for extra work except as set forth in the General Conditions and the contract documents, for the sum of:

**SINGLE PRIME CONTRACT:**

Base Bid:

\_\_\_\_\_ Dollars(\$)

General Subcontractor:

Plumbing Subcontractor:

\_\_\_\_\_ Lic \_\_\_\_\_

\_\_\_\_\_ Lic \_\_\_\_\_

Mechanical Subcontractor:

Electrical Subcontractor:

\_\_\_\_\_ Lic \_\_\_\_\_

\_\_\_\_\_ Lic \_\_\_\_\_

GS143-128(d) requires all single prime bidders to identify their subcontractors for the above subdivisions of work. A contractor whose bid is accepted shall not substitute any person as subcontractor in the place of the subcontractor listed in the original bid, except (i) if the listed subcontractor's bid is later determined by the contractor to be non-responsible or non-responsive or the listed subcontractor refuses to enter into a contract for the complete performance of the bid work, or (ii) with the approval of the awarding authority for good cause shown by the contractor.

**ALTERNATES:**

Should any of the alternates as described in the contract documents be accepted, the amount written below shall be the amount to be "added to" or "deducted from" the base bid. (Strike out "Add" or "Deduct" as appropriate.)

**GENERAL CONTRACT:**

Alternate No. 1    **Full Build-out of 2<sup>nd</sup> floor Ceilings and Associated Lighting and HVAC 2<sup>nd</sup> Floor**  
(Add) (Deduct) \_\_\_\_\_ Dollars(\$)

Alternate No. 2    **Carpet 2<sup>nd</sup> Floor**  
(Add) (Deduct) \_\_\_\_\_ Dollars(\$)

Alternate No. 3    **Additional Walls and Doors on 2<sup>nd</sup> Floor**  
(Add) (Deduct) \_\_\_\_\_ Dollars(\$)

Alternate No. 4    **New Entry Vestibule & Additional Exterior Flatwork per Drawings**  
(Add) (Deduct) \_\_\_\_\_ Dollars(\$)

Alternate No. 5    **Loading Dock Canopy**  
(Add) (Deduct) \_\_\_\_\_ Dollars(\$)

Alternate No. 6    **Free Standing Pre-fabricated Aluminum Canopy**  
(Add) (Deduct) \_\_\_\_\_ Dollars(\$)

Alternate No. 7    **2<sup>nd</sup> Boiler**  
(Add) (Deduct) \_\_\_\_\_ Dollars(\$)

Alternate No. 8    **Door Hardware by LCN, Von Duprin, Schlage and Best (Preferred Brands)**  
(Add) (Deduct) \_\_\_\_\_ Dollars(\$)

Alternate No. 9    **Fire Alarm Dialers by Firelite (Preferred Brand)**  
(Add) (Deduct) \_\_\_\_\_ Dollars(\$)

Alternate No. 10    **Elevator Controls by MRE and Phone by Gaintronics (Preferred Brand)**  
(Add) (Deduct) \_\_\_\_\_ Dollars(\$)

Alternate No. 11    **Sanitary Napkin Disposal Unit by Bobrick (Preferred Brand)**  
(Add) (Deduct) \_\_\_\_\_ Dollars(\$)

**UNIT PRICES**

Unit prices quoted and accepted shall apply throughout the life of the contract, except as otherwise specifically noted. Unit prices shall be applied, as appropriate, to compute the total value of changes in the base bid quantity of the work all in accordance with the contract documents.

**GENERAL CONTRACT:**

No. 1 Removal of Unsatisfac. Soil - \_\_\_\_\_ Unit Cu. Yd. Unit Price (\$)\_\_\_\_\_

No. 2 Brick Repair and Repointing \_\_\_\_\_ . Unit Per Brick Unit Price (\$)\_\_\_\_\_

**MINORITY BUSINESS PARTICIPATION REQUIREMENTS**

*Provide with the bid* - Under GS 143-128.2(c) the undersigned bidder shall identify **on its bid** (Identification of Minority Business Participation Form) the minority businesses that it will use on the project with the total dollar value of the bids that will be performed by the minority businesses. **Also** list the good faith efforts (Affidavit **A**) made to solicit minority participation in the bid effort.

**NOTE:** A contractor that performs all of the work with its own workforce may submit an Affidavit (**B**) to that effect in lieu of Affidavit (**A**) required above. The MB Participation Form must still be submitted even if there is zero participation.

*After the bid opening* - The Owner will consider all bids and alternates and determine the lowest responsible, responsive bidder. Upon notification of being the apparent low bidder, the bidder shall then file within 72 hours of the notification of being the apparent lowest bidder, the following:

An Affidavit (**C**) that includes a description of the portion of work to be executed by minority businesses, expressed as a percentage of the total contract price, which is equal to or more than the 10% goal established. This affidavit shall give rise to the presumption that the bidder has made the required good faith effort and Affidavit **D** is not necessary; \* **OR** \* % goal, Affidavit (**D**) of its good faith effort to meet the goal shall be provided. The document must include evidence of all good faith efforts that were implemented, including any advertisements, solicitations and other specific actions demonstrating recruitment and selection of minority businesses for participation in the contract.

**Note:** Bidders must always submit **with their bid** the Identification of Minority Business Participation Form listing all MB contractors, vendors and suppliers that will be used. If there is no MB participation, then enter none or zero on the form. Affidavit A **or** Affidavit B, as applicable, also must be submitted with the bid. Failure to file a required affidavit or documentation with the bid or after being notified apparent low bidder is grounds for rejection of the bid.

## Proposal Signature Page

The undersigned further agrees that in the case of failure on his part to execute the said contract and the bonds within ten (10) consecutive calendar days after being given written notice of the award of contract, the certified check, cash or bid bond accompanying this bid shall be paid into the funds of the owner's account set aside for the project, as liquidated damages for such failure; otherwise the certified check, cash or bid bond accompanying this proposal shall be returned to the undersigned.

Respectfully submitted this day of \_\_\_\_\_

\_\_\_\_\_  
(Name of firm or corporation making bid)

WITNESS:

\_\_\_\_\_  
(Proprietorship or Partnership)

By: \_\_\_\_\_  
Signature

Name: \_\_\_\_\_  
Print or type

Title \_\_\_\_\_  
(Owner/Partner/Pres./V.Pres)

Address \_\_\_\_\_

ATTEST:

By: \_\_\_\_\_

Title: \_\_\_\_\_  
(Corp. Sec. or Asst. Sec. only)

License No. \_\_\_\_\_

Federal I.D. No. \_\_\_\_\_

Email Address: \_\_\_\_\_

(CORPORATE SEAL)

Addendum received and used in computing bid:

Addendum No. 1 \_\_\_\_\_ Addendum No. 3 \_\_\_\_\_ Addendum No. 5 \_\_\_\_\_ Addendum No. 7 \_\_\_\_\_  
Addendum No. 2 \_\_\_\_\_ Addendum No. 4 \_\_\_\_\_ Addendum No. 6 \_\_\_\_\_ Addendum No. 8 \_\_\_\_\_



## SECTION 08 71 00 – DOOR HARDWARE

### GENERAL

#### 1.01 RELATED DOCUMENTS

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

#### 1.02 SUMMARY

- A. Section includes:

- 1. Mechanical and electrified door hardware for:
  - a. Swinging doors.
  - b. Sliding doors.
- 2. Electronic access control system components, including:
  - a. Electronic access control devices.

- B. Exclusions: Unless specifically listed in hardware sets, hardware is not specified in this section for:

- 1. Windows
- 2. Cabinets (casework), including locks in cabinets
- 3. Signage
- 4. Toilet accessories
- 5. Overhead doors

- C. Related Sections:

- 1. Division 01 Section “Alternates” for alternates affecting this section.
- 2. Division 07 Section “Joint Sealants” for sealant requirements applicable to threshold installation specified in this section.
- 3. Division 09 sections for touchup finishing or refinishing of existing openings modified by this section.
- 4. Division 13 Section “Radiation Protection” for requirements for lead-lining for door hardware at openings indicated to receive radiation protection.
- 5. Division 26 sections for connections to electrical power system and for low-voltage wiring.
- 6. Division 28 sections for coordination with other components of electronic access control system.

#### 1.03 REFERENCES

- A. UL - Underwriters Laboratories

- 1. UL 10B - Fire Test of Door Assemblies
- 2. UL 10C - Positive Pressure Test of Fire Door Assemblies

3. UL 1784 - Air Leakage Tests of Door Assemblies
  4. UL 305 - Panic Hardware
- B. DHI - Door and Hardware Institute
1. Sequence and Format for the Hardware Schedule
  2. Recommended Locations for Builders Hardware
  3. Key Systems and Nomenclature
- C. ANSI - American National Standards Institute
1. ANSI/BHMA A156.1 - A156.29, and ANSI/BHMA A156.31 - Standards for Hardware and Specialties

#### 1.04 SUBMITTALS

A. General:

1. Submit in accordance with Conditions of Contract and Division 01 requirements.
2. Highlight, encircle, or otherwise specifically identify on submittals deviations from Contract Documents, issues of incompatibility or other issues which may detrimentally affect the Work.

B. Action Submittals:

1. Product Data: Product data including manufacturers' technical product data for each item of door hardware, installation instructions, maintenance of operating parts and finish, and other information necessary to show compliance with requirements.
2. Riser and Wiring Diagrams: After final approval of hardware schedule, submit details of electrified door hardware, indicating:
  - a. Wiring Diagrams: For power, signal, and control wiring and including:
    - 1) Details of interface of electrified door hardware and building safety and security systems.
    - 2) Schematic diagram of systems that interface with electrified door hardware.
    - 3) Point-to-point wiring.
    - 4) Risers.
3. Samples for Verification: If requested by Architect, submit production sample or sample installations of each type of exposed hardware unit in finish indicated, and tagged with full description for coordination with schedule.
  - a. Samples will be returned to supplier in like-new condition. Units that are acceptable to Architect may, after final check of operations, be incorporated into Work, within limitations of key coordination requirements.
4. Door Hardware Schedule: Submit schedule with hardware sets in vertical format as illustrated by Sequence of Format for the Hardware Schedule as published by the Door and Hardware Institute. Indicate complete designations of each item required for each door or opening, include:
  - a. Door Index; include door number, heading number, and Architects hardware set number.
  - b. Opening Lock Function Spreadsheet: List locking device and function for each opening.
  - c. Type, style, function, size, and finish of each hardware item.
  - d. Name and manufacturer of each item.
  - e. Fastenings and other pertinent information.
  - f. Location of each hardware set cross-referenced to indications on Drawings.

- g. Explanation of all abbreviations, symbols, and codes contained in schedule.
- h. Mounting locations for hardware.
- i. Door and frame sizes and materials.
- j. Name and phone number for local manufacturer's representative for each product.
- k. Operational Description of openings with any electrified hardware (locks, exits, electromagnetic locks, electric strikes, automatic operators, door position switches, magnetic holders or closer/holder units, and access control components). Operational description should include how door will operate on egress, ingress, and fire and smoke alarm connection.
  - 1) Submittal Sequence: Submit door hardware schedule concurrent with submissions of Product Data, Samples, and Shop Drawings. Coordinate submission of door hardware schedule with scheduling requirements of other work to facilitate fabrication of other work that is critical in Project construction schedule.

5. Key Schedule:

- a. All keying shall be provided by NCSU Lockshop
6. Templates: After final approval of hardware schedule, provide templates for doors, frames and other work specified to be factory prepared for door hardware installation.

C. Informational Submittals:

- 1. Qualification Data: For Supplier, Installer and Architectural Hardware Consultant.
- 2. Product Certificates for electrified door hardware, signed by manufacturer:
  - a. Certify that door hardware approved for use on types and sizes of labeled fire-rated doors complies with listed fire-rated door assemblies.
- 3. Certificates of Compliance:
  - a. Certificates of compliance for fire-rated hardware and installation instructions if requested by Architect or Authority Having Jurisdiction.
  - b. Installer Training Meeting Certification: Letter of compliance, signed by Contractor, attesting to completion of installer training meeting specified in "QUALITY ASSURANCE" article, herein.
  - c. Electrified Hardware Coordination Conference Certification: Letter of compliance, signed by Contractor, attesting to completion of electrified hardware coordination conference, specified in "QUALITY ASSURANCE" article, herein.
- 4. Product Test Reports: For compliance with accessibility requirements, based on evaluation of comprehensive tests performed by manufacturer and witnessed by qualified testing agency, for door hardware on doors located in accessible routes.
- 5. Warranty: Special warranty specified in this Section.

D. Closeout Submittals:

- 1. Operations and Maintenance Data: Provide in accordance with Division 01 and include:
  - a. Complete information on care, maintenance, and adjustment; data on repair and replacement parts, and information on preservation of finishes.
  - b. Catalog pages for each product.
  - c. Name, address, and phone number of local representative for each manufacturer.
  - d. Parts list for each product.
  - e. Final approved hardware schedule, edited to reflect conditions as installed.
  - f. Final keying schedule

- g. Copies of floor plans with keying nomenclature
- h. As-installed wiring diagrams for each opening connected to power, both low voltage and 110 volts.
- i. Copy of warranties including appropriate reference numbers for manufacturers to identify project.

#### 1.05 QUALITY ASSURANCE

- A. Product Substitutions: Comply with product requirements stated in Division 01 and as specified herein.
  - 1. Where products indicate “acceptable manufacturers” or “acceptable manufacturers and products”, provide product from specified manufacturers, subject to compliance with specified requirements and “Single Source Responsibility” requirements stated herein.
- B. Supplier Qualifications and Responsibilities: Recognized architectural hardware supplier with record of successful in-service performance for supplying door hardware similar in quantity, type, and quality to that indicated for this Project and that provides certified Architectural Hardware Consultant (AHC) available to Owner, Architect, and Contractor, at reasonable times during the Work for consultation.
  - 1. Warehousing Facilities: In Project's vicinity.
  - 2. Scheduling Responsibility: Preparation of door hardware and keying schedules.
  - 3. Engineering Responsibility: Preparation of data for electrified door hardware, including Shop Drawings, based on testing and engineering analysis of manufacturer's standard units in assemblies similar to those indicated for this Project.
  - 4. Coordination Responsibility: Coordinate installation of electronic security hardware with Architect and electrical engineers and provide installation and technical data to Architect and other related subcontractors.
    - a. Upon completion of electronic security hardware installation, inspect and verify that all components are working properly.
- C. Installer Qualifications: Qualified tradesmen, skilled in application of commercial grade hardware with record of successful in-service performance for installing door hardware similar in quantity, type, and quality to that indicated for this Project.
- D. Architectural Hardware Consultant Qualifications: Person who is experienced in providing consulting services for door hardware installations that are comparable in material, design, and extent to that indicated for this Project and meets these requirements:
  - 1. For door hardware, DHI-certified, Architectural Hardware Consultant (AHC).
  - 2. Can provide installation and technical data to Architect and other related subcontractors.
  - 3. Can inspect and verify components are in working order upon completion of installation.
  - 4. Capable of producing wiring diagrams.
  - 5. Capable of coordinating installation of electrified hardware with Architect and electrical engineers.
- E. Single Source Responsibility: Obtain each type of door hardware from single manufacturer.
  - 1. Provide electrified door hardware from same manufacturer as mechanical door hardware, unless otherwise indicated.
  - 2. Manufacturers that perform electrical modifications and that are listed by testing and inspecting agency acceptable to authorities having jurisdiction are acceptable.

- F. Fire-Rated Door Openings: Provide door hardware for fire-rated openings that complies with NFPA 80 and requirements of authorities having jurisdiction. Provide only items of door hardware that are listed and are identical to products tested by Underwriters Laboratories, Intertek Testing Services, or other testing and inspecting organizations acceptable to authorities having jurisdiction for use on types and sizes of doors indicated, based on testing at positive pressure and according to NFPA 252 or UL 10C and in compliance with requirements of fire-rated door and door frame labels.
- G. Smoke- and Draft-Control Door Assemblies: Where smoke- and draft-control door assemblies are required, provide door hardware that meets requirements of assemblies tested according to UL 1784 and installed in compliance with NFPA 105.
  - 1. Air Leakage Rate: Maximum air leakage of 0.3 cfm/sq. ft. (3 cu. m per minute/sq. m) at tested pressure differential of 0.3-inch wg (75 Pa) of water.
- H. Electrified Door Hardware: Listed and labeled as defined in NFPA 70, Article 100, by testing agency acceptable to authorities having jurisdiction.
- I. Keying Conference:
  - 1. Owner to conduct keying conference inviting required attendees as needed.
- J. Pre-installation Conference: Conduct conference at Project site.
  - 1. Review and finalize construction schedule and verify availability of materials, Installer's personnel, equipment, and facilities needed to make progress and avoid delays.
  - 2. Inspect and discuss preparatory work performed by other trades.
  - 3. Inspect and discuss electrical roughing-in for electrified door hardware.
  - 4. Review sequence of operation for each type of electrified door hardware.
  - 5. Review required testing, inspecting, and certifying procedures.
- K. Coordination Conferences:
  - 1. Installation Coordination Conference: Prior to hardware installation, schedule and hold meeting to review questions or concerns related to proper installation and adjustment of door hardware.
    - a. Attendees: Door hardware supplier, door hardware installer, Contractor.
    - b. After meeting, provide letter of compliance to Architect, indicating when meeting was held and who was in attendance.
  - 2. Electrified Hardware Coordination Conference: Prior to ordering electrified hardware, schedule and hold meeting to coordinate door hardware with security, electrical, doors and frames, and other related suppliers.
    - a. Attendees: electrified door hardware supplier, doors and frames supplier, electrified door hardware installer, electrical subcontractor, Owner, Architect and Contractor.
    - b. After meeting, provide letter of compliance to Architect, indicating when coordination conference was held and who was in attendance.

#### 1.06 DELIVERY, STORAGE, AND HANDLING

- A. Inventory door hardware on receipt and provide secure lock-up for hardware delivered to Project site.
- B. Tag each item or package separately with identification coordinated with final door hardware schedule, and include installation instructions, templates, and necessary fasteners with each item or package.

1. Deliver each article of hardware in manufacturer's original packaging.
- C. Project Conditions:
1. Maintain manufacturer-recommended environmental conditions throughout storage and installation periods.
  2. Provide secure lock-up for door hardware delivered to Project, but not yet installed. Control handling and installation of hardware items so that completion of Work will not be delayed by hardware losses both before and after installation.
- D. Protection and Damage:
1. Promptly replace products damaged during shipping.
  2. Handle hardware in manner to avoid damage, marring, or scratching. Correct, replace or repair products damaged during Work.
  3. Protect products against malfunction due to paint, solvent, cleanser, or any chemical agent.
- E. Deliver keys to manufacturer of key control system for subsequent delivery to Owner.
- F. Deliver keys and permanent cores to Owner by registered mail or overnight package service.

#### 1.07 COORDINATION

- A. Coordinate layout and installation of floor-recessed door hardware with floor construction. Cast anchoring inserts into concrete. Concrete, reinforcement, and formwork requirements are specified in Division 03.
- B. Installation Templates: Distribute for doors, frames, and other work specified to be factory prepared. Check Shop Drawings of other work to confirm that adequate provisions are made for locating and installing door hardware to comply with indicated requirements.
- C. Security: Coordinate installation of door hardware, keying, and access control with Owner's security consultant.
- D. Electrical System Roughing-In: Coordinate layout and installation of electrified door hardware with connections to power supplies and building safety and security systems.
- E. Direct shipments not permitted, unless approved by Contractor.

#### 1.08 WARRANTY

- A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of door hardware that fail in materials or workmanship within specified warranty period.
  1. Warranty Period: Years from date of Final Acceptance, for durations indicated.
    - a. Closers:
      - 1) Mechanical: 30 years.
    - b. Exit Devices:
      - 1) Mechanical: 3 years.
      - 2) Electrified: 1 year.

- c. Locksets:
    - 1) Mechanical: 10 years.
    - 2) Electrified: 1 year.
  - d. Continuous Hinges: Lifetime warranty.
  - e. Key Blanks: Lifetime
2. Warranty does not cover damage or faulty operation due to improper installation, improper use or abuse.

#### 1.09 MAINTENANCE

##### A. Extra Materials:

- 1. Furnish extra materials that match products installed and that are packaged with protective covering for storage and identified with labels describing contents in quantities as determined by Owner.

##### B. Maintenance Tools:

- 1. Furnish complete set of special tools required for maintenance and adjustment of hardware, including changing of cylinders.

### PRODUCTS

#### 2.01 MANUFACTURERS

- A. Approval of manufacturers and/or products other than those listed as "Scheduled Manufacturer" or "Acceptable Manufacturers" in the individual article for the product category shall be in accordance with QUALITY ASSURANCE article, herein.
- B. Approval of products from manufacturers indicated in "Acceptable Manufacturers" is contingent upon those products providing all functions and features and meeting all requirements of scheduled manufacturer's product.
- C. Hand of Door: Drawings show direction of slide, swing, or hand of each door leaf. Furnish each item of hardware for proper installation and operation of door movement as shown.
- D. Where specified hardware is not adaptable to finished shape or size of members requiring hardware, furnish suitable types having same operation and quality as type specified, subject to Architect's approval.

#### 2.02 MATERIALS

##### A. Fasteners

- 1. Provide hardware manufactured to conform to published templates, generally prepared for machine screw installation.

2. Furnish screws for installation with each hardware item. Finish exposed (exposed under any condition) screws to match hardware finish, or, if exposed in surfaces of other work, to match finish of this other work including prepared for paint surfaces to receive painted finish.
  3. Provide concealed fasteners for hardware units exposed when door is closed except when no standard units of type specified are available with concealed fasteners. Do not use thru-bolts for installation where bolt head or nut on opposite face is exposed in other work unless thru-bolts are required to fasten hardware securely. Review door specification and advise Architect if thru-bolts are required.
  4. Install hardware with fasteners provided by hardware manufacturer.
- B. Provide screws, bolts, expansion shields, drop plates and other devices necessary for hardware installation.
1. Where fasteners are exposed to view: Finish to match adjacent door hardware material.

## 2.03 HINGES

### A. Manufacturers and Products:

1. Scheduled Manufacturer and Product: Ives 5BB series
2. Acceptable Manufacturers and Products: Hager BB series, Stanley FBB Series

### B. Requirements:

1. Provide five-knuckle ball bearing hinges conforming to ANSI/BHMA A156.1.
2. 1-3/4 inch (44 mm) thick doors, up to and including 36 inches (914 mm) wide:
  - a. Exterior: Standard weight, bronze or stainless steel, 4-1/2 inches (114 mm) high
  - b. Interior: Standard weight, steel, 4-1/2 inches (114 mm) high
3. 1-3/4 inch (44 mm) thick doors over 36 inches (914 mm) wide:
  - a. Exterior: Heavy weight, stainless steel, 4-1/2 inches (114 mm) high
  - b. Interior: Heavy weight, steel, 4-1/2 inches (114 mm) high
4. 2 inches or thicker doors:
  - a. Exterior: Heavy weight, bronze or stainless steel, 5 inches (127 mm) high
  - b. Interior: Heavy weight, steel, 5 inches (127 mm) high
5. Provide three hinges per door leaf for doors 90 inches (2286 mm) or less in height, and one additional hinge for each 30 inches (762 mm) of additional door height.
6. Hinge Pins: Except as otherwise indicated, provide hinge pins as follows:
  - a. Steel Hinges: Steel pins
  - b. Non-Ferrous Hinges: Stainless steel pins
  - c. Out-Swinging Exterior Doors: Non-removable pins
  - d. Out-Swinging Interior Lockable Doors: Non-removable pins
  - e. Interior Non-lockable Doors: Non-rising pins
7. Width of hinges: 4-1/2 inches (114 mm) at 1-3/4 inch (44 mm) thick doors, and 5 inches (127 mm) at 2 inches (51 mm) or thicker doors. Adjust hinge width as required for door, frame, and wall conditions to allow proper degree of opening.



## 2.04 CONTINUOUS HINGES

### A. Aluminum Geared

#### 1. Manufacturers:

- a. Scheduled Manufacturer: Ives.
- b. Acceptable Manufacturers: Select, Stanley.

#### 2. Requirements:

- a. Provide aluminum geared continuous hinges conforming to ANSI/BHMA A156.26, Grade 1.
- b. Provide aluminum geared continuous hinges, where specified in the hardware sets, fabricated from 6063-T6 aluminum, with 0.25-inch (6 mm) diameter Teflon coated stainless steel hinge pin.
- c. Provide split nylon bearings at each hinge knuckle for quiet, smooth, self-lubricating operation.
- d. Provide hinges capable of supporting door weights up to 450 pounds, and successfully tested for 1,500,000 cycles.
- e. On fire-rated doors, provide aluminum geared continuous hinges that are classified for use on rated doors by testing agency acceptable to authority having jurisdiction.
- f. Install hinges with fasteners supplied by manufacturer.
- g. Provide hinges 1 inch (25 mm) shorter in length than nominal height of door, unless otherwise noted or door details require shorter length and with symmetrical hole pattern.

## 2.05 ELECTRIC POWER TRANSFER

### A. Manufacturers:

- a. Scheduled Manufacturer: Von Duprin EPT-10
- b. Acceptable Manufacturers: ABH PT1000, Securitron CEPT-10

### B. Provide power transfer with electrified options as scheduled in the hardware sets. Provide with number and gage of wires sufficient to accommodate electric function of specified hardware.

### C. Locate electric power transfer per manufacturer's template and UL requirements, unless interference with operation of door or other hardware items.

## 2.06 FLUSH BOLTS

### A. Manufacturers:

1. Scheduled Manufacturer: Ives
2. Acceptable Manufacturers: Burns, Rockwood

### B. Requirements:

1. Provide automatic, constant latching, and manual flush bolts with forged bronze or stainless steel face plates, extruded brass levers, and with wrought brass guides and strikes. Provide 12 inch (305 mm) steel or brass rods at doors up to 90 inches (2286 mm) in height. For doors over 90 inches (2286 mm) in height increase top rods by 6 inches (152 mm) for each additional 6 inches (152 mm) of door height. Provide dust-proof strikes at each bottom flush bolt.

## 2.07 COORDINATORS

### A. Manufacturers:

1. Scheduled Manufacturer: Ives
2. Acceptable Manufacturers: Burns, Rockwood

### B. Requirements:

1. Where pairs of doors are equipped with automatic flush bolts, an astragal, or other hardware that requires synchronized closing of the doors, provide bar-type coordinating device, surface applied to underside of stop at frame head.
2. Provide filler bar of correct length for unit to span entire width of opening, and appropriate brackets for parallel arm door closers and surface vertical rod exit device strikes. Factory-prep coordinators for vertical rod devices if required.

## 2.08 MORTISE LOCKS

### A. Manufacturers and Products:

1. Owner Preferred Manufacturer and Product: Best 45H Series
2. Acceptable Manufacturers and Products: Corbin-Russwin ML2000 series, Dorma ML 9000 series

### B. Requirements:

1. Provide mortise locks conforming to ANSI/BHMA A156.13 Series 1000, Grade 1 Operational, Grade 1 Security, and manufactured from heavy gauge steel, containing components of steel with a zinc dichromate plating for corrosion resistance. Provide lock case that is multi-function and field reversible for handing without opening case. Cylinders: Refer to "KEYING" article, herein.
2. Provide locks with standard 2-3/4 inches (70 mm) backset with full 3/4 inch (19 mm) throw stainless steel mechanical anti-friction latchbolt. Provide deadbolt with full 1 inch (25 mm) throw, constructed of stainless steel.
3. Provide standard ASA strikes unless extended lip strikes are necessary to protect trim.
4. Provide electrified options as scheduled in the hardware sets. Where scheduled, provide a request to exit (RX) switch that is actuated with rotation of inside lever.
5. Lever Trim: Solid brass, bronze, or stainless steel, cast or forged in design specified, with wrought roses and external lever spring cages. Provide thru-bolted levers with 2-piece spindles.
  - a. Tactile Warning (Knurling): Where required by authority having jurisdiction. Provide on levers on exterior (secure side) of doors serving rooms considered to be hazardous.

## 2.09 EXIT DEVICES

### A. Manufacturers and Products:

1. Owner Preferred Manufacturer and Product: Von Duprin 98 series
2. Acceptable Manufacturers and Products: Detex Advantex 10 series, Precision Apex series.

### B. Requirements:

1. Provide exit devices tested to ANSI/BHMA A156.3 Grade 1, and UL listed for Panic Exit or Fire Exit Hardware. Cylinders: Refer to "KEYING" article, herein.

2. Provide touchpad type exit devices, fabricated of brass, bronze, stainless steel, or aluminum, plated to standard architectural finishes to match balance of door hardware.
3. Touchpad: Extend minimum of one half of door width. Match exit device finish, stainless steel for US26, US26D, US28, US32, and US32D finishes; and for all other finishes, provide compatible finish to exit device. No plastic inserts are allowed in touchpads.
4. Provide exit devices with deadlatching feature for security and for future addition of alarm kits and/or other electrified requirements.
5. Provide flush end caps for exit devices.
6. Provide exit devices with manufacturer's approved strikes.
7. Provide exit devices cut to door width and height. Install exit devices at height recommended by exit device manufacturer, allowable by governing building codes, and approved by Architect.
8. Mount mechanism case flush on face of doors or provide spacers to fill gaps behind devices. Where glass trim or molding projects off face of door, provide glass bead kits.
9. Provide cylinder dogging at non-fire-rated exit devices.
10. Removable Mullions: 2 inches (51 mm) x 3 inches (76 mm) steel tube. Where scheduled as keyed removable mullion, provide type that can be removed by use of a keyed cylinder, which is self-locking when re-installed.
11. Where lever handles are specified as outside trim for exit devices, provide heavy-duty lever trims with forged or cast escutcheon plates. Provide vandal-resistant levers that will travel to 90-degree down position when more than 35 pounds of torque are applied, and which can easily be re-set.
  - a. Lever Style: Match lever style of locksets
12. Provide UL labeled fire exit hardware for fire rated openings.
13. Provide factory drilled weep holes for exit devices used in full exterior application, highly corrosive areas, and where noted in hardware sets.
14. Provide electrified options as scheduled.
15. Provide devices with all control inputs – door position input, external inhibit input, fire alarm input; auxiliary locking; nuisance alarm and internal horn; and, remote signaling output self-contained in the device assembly.

## 2.10 POWER SUPPLIES

### A. Manufacturers and Products:

1. Scheduled Manufacturer and Product: Schlage or Von Duprin PS900 series
2. Acceptable Manufacturers and Products: Precision ELR series, Dynalock 5000 series.

### B. Requirements:

1. Provide power supplies, recommended and approved by manufacturer of electrified locking component, for operation of electrified locks, electrified exit devices, magnetic locks, electric strikes, and other components requiring power supply.
2. Provide appropriate quantity of power supplies necessary for proper operation of electrified locking components as recommended by manufacturer of electrified locking components with consideration for each electrified component using power supply, location of power supply, and approved wiring diagrams. Locate power supplies as directed by Architect.
3. Provide regulated and filtered 24 VDC power supply, and UL class 2 listed.
4. Options:
  - a. Provide power supply, where specified, with internal capability of charging sealed backup batteries 24 VDC, in addition to operating DC load.
  - b. Provide sealed batteries for battery back-up at each power supply where specified.

- c. Provide keyed power supply cabinet.
  - d. Provide Fire Alarm relay board where power supplies are provided for fail safe applications.
- 5. Provide power supply in an enclosure, complete, and requiring 120VAC to fused input.
  - 6. Provide power supply with emergency release terminals, where specified, that allow release of all devices upon activation of fire alarm system complete with fire alarm input for initiating “no delay” exiting mode.

## 2.11 CYLINDERS

### A. Manufacturers:

- 1. Owner Preferred Manufacturer: Schlage R134 7-Pin

### B. Requirements:

- 1. Provide small format interchangeable core (SFIC) cylinders/cores zero bitted with uncut key blanks to match Owner’s existing Schlage key system, compliant with ANSI/BHMA A156.5; latest revision, Section 12, Grade 1; permanent cylinders; cylinder face finished to match lockset, manufacturer’s series as indicated. Refer to “KEYING” article, herein.
- 2. Replaceable Construction Cores.
  - a. Provide temporary construction cores replaceable by permanent cores, furnished in accordance with the following requirements.
    - 1) 3 construction control keys
    - 2) 12 construction change (day) keys.
  - b. Provide and install construction cores for electronic wireless locks supplied by Security Contractor.
  - c. Provide permanent cores, zero bitted, to Owner as directed.
  - d. Owner will replace temporary construction cores with permanent cores.

## 2.12 KEYING

### A. Keying to be performed by Owner.

- 1. Provide Uncut keys with the following features:
  - a. Material: Nickel silver; minimum thickness of .107-inch (2.3mm)
  - b. Patent Protection: Keys and blanks protected by one or more utility patent(s) the year, 2029.
- 2. Quantity: Furnish in the following quantities.
  - a. 3 per cylinder/core.

## 2.13 DOOR CLOSERS

### A. Manufacturers and Products:

- 1. Owner Preferred Manufacturer and Product: LCN 4010/4110 series
- 2. Acceptable Manufacturers and Products: Sargent 281/281P10 series factory assembled (without PRV), Norton 9500/PR9500 series (without PRV).

B. Requirements:

1. Provide door closers conforming to ANSI/BHMA A156.4 Grade 1 requirements by BHMA certified independent testing laboratory. Stamp units with date of manufacture code.
2. Provide door closers with fully hydraulic, full rack and pinion action with high strength cast iron cylinder, and full complement bearings at shaft.
3. Cylinder Body: 1-1/2 inch (38 mm) diameter, with 5/8 inch (16 mm) diameter double heat-treated pinion journal.
4. Hydraulic Fluid: Fireproof, passing requirements of UL10C, and requiring no seasonal closer adjustment for temperatures ranging from 120 degrees F to -30 degrees F.
5. Spring Power: Continuously adjustable over full range of closer sizes, and providing reduced opening force as required by accessibility codes and standards.
6. Hydraulic Regulation: By tamper-proof, non-critical valves with separate adjustment for latch speed, general speed, and backcheck.
7. Provide closers with a solid forged steel main arms and factory assembled heavy-duty forged forearms for parallel arm closers.
8. Pressure Relief Valve (PRV) Technology: Not permitted.
9. Finish for Closer Cylinders, Arms, Adapter Plates, and Metal Covers: Powder coating finish which has been certified to exceed 100 hours salt spray testing as described in ANSI/BHMA Standard A156.4 and ASTM B117, or has special rust inhibitor (SRI).
10. Provide special templates, drop plates, mounting brackets, or adapters for arms as required for details, overhead stops, and other door hardware items interfering with closer mounting.

2.14 ELECTRO-HYDRAULIC AUTOMATIC OPERATORS

A. Manufacturers and Products:

1. Owner Preferred Manufacturer and Product: LCN 4600 Series
2. Acceptable Manufacturers and Products: Norton 6000 Series; Besam Power Swing

B. Requirements:

1. Provide low energy automatic operator units with hydraulic closer complying with ANSI/BHMA A156.19.
2. Hydraulic Fluid: Fireproof, passing requirements of UL10C, and requiring no seasonal closer adjustment for temperatures ranging from 120 degrees F to -30 degrees F.
3. Provide units with conventional door closer opening and closing forces unless power operator motor is activated. Provide door closer assembly with adjustable spring size, back-check, and opening and closing speed adjustment valves to control door
4. Provide units with on/off switch for manual operation, motor start up delay, vestibule interface delay, electric lock delay, and door hold open delay.
5. Provide drop plates, brackets, and adapters for arms as required for details.
6. Provide actuator switches and receivers for operation as specified.
7. Provide weather-resistant actuators at exterior applications.
8. Provide key switches with LED's, recommended and approved by manufacturer of automatic operator as required for function described in operation description of hardware group below. Cylinders: Refer to "KEYING" article, herein.
9. Provide complete assemblies of controls, switches, power supplies, relays, and parts/material recommended and approved by manufacturer of automatic operator for each individual leaf. Actuators control both doors simultaneously at pairs. Sequence operation of exterior and vestibule doors with automatic operators to allow ingress or egress through both sets of openings as directed by Architect. Locate actuators, key switches, and other controls as directed by Architect.

10. Provide units with vestibule inputs that allow sequencing operation of two units, and SPDT relay for interfacing with latching or locking devices.

## 2.15 DOOR TRIM

### A. Manufacturers:

1. Scheduled Manufacturer: Ives
2. Acceptable Manufacturers: Burns, Rockwood

### B. Requirements:

1. Provide push plates 4 inches (102 mm) wide by 16 inches (406 mm) high by 0.050 inch (1 mm) thick and beveled 4 edges. Where width of door stile prevents use of 4 inches (102 mm) wide plate, adjust width to fit.
2. Provide push bars of solid bar stock, diameter and length as scheduled. Provide push bars of sufficient length to span from center to center of each stile. Where required, mount back to back with pull.
3. Provide offset pulls of solid bar stock, diameter and length as scheduled. Where required, mount back to back with push bar.
4. Provide flush pulls as scheduled. Where required, provide back-to-back mounted model.
5. Provide pulls of solid bar stock, diameter and length as scheduled. Where required, mount back to back with push bar.
6. Provide pull plates 4 inches (102 mm) wide by 16 inches (406 mm) high by 0.050 inch (1 mm) thick, beveled 4 edges, and prepped for pull. Where width of door stile prevents use of 4 inches (102 mm) wide plate, adjust width to fit.
7. Provide wire pulls of solid bar stock, diameter and length as scheduled.
8. Provide decorative pulls as scheduled. Where required, mount back to back with pull.

## 2.16 PROTECTION PLATES

### A. Manufacturers:

1. Scheduled Manufacturer: Ives
2. Acceptable Manufacturers: Burns, Rockwood

### B. Requirements:

1. Provide kick plates, mop plates, and armor plates minimum of 0.050 inch (1 mm) thick, beveled four edges, with countersunk screw holes as scheduled. Furnish with sheet metal or wood screws, finished to match plates.
2. Sizes of plates:
  - a. Kick Plates: 10 inches (254 mm) high by 2 inches (51 mm) less width of door on single doors, 1 inch (25 mm) less width of door on pairs
  - b. Mop Plates: 4 inches (102 mm) high by 2 inches (51 mm) less width of door on single doors, 1 inch (25 mm) less width of door on pairs
  - c. Armor Plates: 36 inches (914 mm) high by 2 inches (51 mm) less width of door on single doors, 1 inch (25 mm) less width of door on pairs

## 2.17 OVERHEAD STOPS AND OVERHEAD STOP/HOLDERS

### A. Manufacturers:

1. Scheduled Manufacturers: Glynn-Johnson
2. Acceptable Manufacturers: Rixson, Sargent

### B. Requirements:

1. Provide heavy duty concealed mounted overhead stop or holder as specified for exterior and interior vestibule single acting doors.
2. Provide heavy duty concealed mounted overhead stop or holder as specified for double acting doors.
3. Provide heavy or medium duty and concealed or surface mounted overhead stop or holder for interior doors as specified. Provide medium duty surface mounted overhead stop for interior doors and at any door that swings more than 140 degrees before striking wall, open against equipment, casework, sidelights, and where conditions do not allow wall stop or floor stop presents tripping hazard.
4. Where overhead holders are specified provide friction type at doors without closer and positive type at doors with closer.

## 2.18 DOOR STOPS AND HOLDERS

### A. Manufacturers:

1. Scheduled Manufacturer: Ives
2. Acceptable Manufacturers: Burns, Rockwood

### B. Provide door stops at each door leaf:

1. Provide wall stops wherever possible. Provide convex type where mortise type locks are used and concave type where cylindrical type locks are used.
2. Where a wall stop cannot be used, provide universal floor stops for low or high rise options.
3. Where wall or floor stop cannot be used, provide medium duty surface mounted overhead stop.

## 2.19 THRESHOLDS, SEALS, DOOR SWEEPS, AUTOMATIC DOOR BOTTOMS, AND GASKETING

### A. Manufacturers:

1. Scheduled Manufacturer: Zero International
2. Acceptable Manufacturers: National Guard, Reese

### B. Requirements:

1. Provide thresholds, weather-stripping (including door sweeps, seals, and astragals) and gasketing systems (including smoke, sound, and light) as specified and per architectural details. Match finish of other items.
2. Size of thresholds:
  - a. Saddle Thresholds: 1/2 inch (13 mm) high by jamb width by door width
  - b. Bumper Seal Thresholds: 1/2 inch (13 mm) high by 5 inches (127 mm) wide by door width

3. Provide door sweeps, seals, astragals, and auto door bottoms only of type where resilient or flexible seal strip is easily replaceable and readily available.

## 2.20 SILENCERS

### A. Manufacturers:

1. Scheduled Manufacturer: Ives
2. Acceptable Manufacturers: Burns, Rockwood

### B. Requirements:

1. Provide "push-in" type silencers for hollow metal or wood frames.
2. Provide one silencer per 30 inches (762 mm) of height on each single frame, and two for each pair frame.
3. Omit where gasketing is specified.

## 2.21 COAT HOOKS

### A. Manufacturers:

1. Scheduled Manufacturer: Ives.
2. Acceptable Manufacturers: Burns, Rockwood

### B. Provide coat hooks as specified.

## 2.22 FINISHES

### A. Finish: BHMA 626/652 (US26D); except:

1. Hinges at Exterior Doors: BHMA 630 (US32D)
2. Continuous Hinges: BHMA 628 (US28)
3. Push Plates, Pulls, and Push Bars: BHMA 630 (US32D)
4. Protection Plates: BHMA 630 (US32D)
5. Overhead Stops and Holders: BHMA 630 (US32D)
6. Door Closers: Powder Coat to Match
7. Wall Stops: BHMA 630 (US32D)
8. Latch Protectors: BHMA 630 (US32D)
9. Weatherstripping: Clear Anodized Aluminum
10. Thresholds: Mill Finish Aluminum

## EXECUTION

### 3.01 EXAMINATION

- A. Prior to installation of hardware, examine doors and frames, with Installer present, for compliance with requirements for installation tolerances, labeled fire-rated door assembly construction, wall and floor construction, and other conditions affecting performance.



- B. Existing Door and Frame Compatibility: Field verify existing doors and frames receiving new hardware and existing conditions receiving new openings. Verify that new hardware is compatible with existing door and frame preparation and existing conditions.
- C. Examine roughing-in for electrical power systems to verify actual locations of wiring connections before electrified door hardware installation.
- D. Proceed with installation only after unsatisfactory conditions have been corrected.

### 3.02 PREPARATION

- A. Where on-site modification of doors and frames is required:
  - 1. Carefully remove existing door hardware and components being reused. Clean, protect, tag, and store in accordance with storage and handling requirements specified herein.
  - 2. Field modify and prepare existing door and frame for new hardware being installed.
  - 3. When modifications are exposed to view, use concealed fasteners, when possible.
  - 4. Prepare hardware locations and reinstall in accordance with installation requirements for new door hardware and with:
    - a. Steel Doors and Frames: For surface applied door hardware, drill and tap doors and frames according to ANSI/SDI A250.6.
    - b. Wood Doors: DHI WDHS.5 "Recommended Hardware Reinforcement Locations for Mineral Core Wood Flush Doors."
    - c. Doors in rated assemblies: NFPA 80 for restrictions on on-site door hardware preparation.

### 3.03 INSTALLATION

- A. Mounting Heights: Mount door hardware units at heights to comply with the following, unless otherwise indicated or required to comply with governing regulations.
  - 1. Standard Steel Doors and Frames: ANSI/SDI A250.8.
  - 2. Custom Steel Doors and Frames: HMMA 831.
  - 3. Wood Doors: DHI WDHS.3, "Recommended Locations for Architectural Hardware for Wood Flush Doors."
- B. Install each hardware item in compliance with manufacturer's instructions and recommendations, using only fasteners provided by manufacturer.
- C. Do not install surface mounted items until finishes have been completed on substrate. Protect all installed hardware during painting.
- D. Set units level, plumb and true to line and location. Adjust and reinforce attachment substrate as necessary for proper installation and operation.
- E. Drill and countersink units that are not factory prepared for anchorage fasteners. Space fasteners and anchors according to industry standards.
- F. Install operating parts so they move freely and smoothly without binding, sticking, or excessive clearance.

- G. Hinges: Install types and in quantities indicated in door hardware schedule but not fewer than quantity recommended by manufacturer for application indicated or one hinge for every 30 inches (750 mm) of door height, whichever is more stringent, unless other equivalent means of support for door, such as spring hinges or pivots, are provided.
- H. Lock Cylinders: Install construction cores to secure building and areas during construction period.
  - 1. Provide construction cores for any lock provided by security provider.
  - 2. Furnish permanent cores to Owner for installation.
- I. Wiring: Coordinate with Division 26, ELECTRICAL sections for:
  - 1. Conduit, junction boxes and wire pulls.
  - 2. Connections to and from power supplies to electrified hardware.
  - 3. Connections to fire/smoke alarm system and smoke evacuation system.
  - 4. Connection of wire to door position switches and wire runs to central room or area, as directed by Architect.
  - 5. Testing and labeling wires with Architect's opening number.
- J. Door Closers: Mount closers on room side of corridor doors, inside of exterior doors, and stair side of stairway doors from corridors. Closers shall not be visible in corridors, lobbies and other public spaces unless approved by Architect.
- K. Closer/holders: Mount closer/holders on room side of corridor doors, inside of exterior doors, and stair side of stairway doors.
- L. Power Supplies: Locate power supplies as indicated or, if not indicated, above accessible ceilings or in equipment room, or alternate location as directed on door and system headend details.
  - 1. Configuration: Provide least number of power supplies required to adequately serve doors with electrified door hardware.
- M. Thresholds: Set thresholds in full bed of sealant complying with requirements specified in Division 07 Section "Joint Sealants."
- N. Stops: Provide floor stops for doors unless wall or other type stops are indicated in door hardware schedule. Do not mount floor stops where they may impede traffic or present tripping hazard.
- O. Perimeter Gasketing: Apply to head and jamb, forming seal between door and frame.
- P. Meeting Stile Gasketing: Fasten to meeting stiles, forming seal when doors are closed.
- Q. Door Bottoms: Apply to bottom of door, forming seal with threshold when door is closed.

#### 3.04 FIELD QUALITY CONTROL

- A. Architectural Hardware Consultant: Engage qualified independent Architectural Hardware Consultant to perform inspections and to prepare inspection reports.
  - 1. Architectural Hardware Consultant will inspect door hardware and state in each report whether installed work complies with or deviates from requirements, including whether door hardware is properly installed and adjusted.

2. Owner will inspect door hardware and provide final punch list prior to Building Occupancy inspection.

### 3.05 ADJUSTING

- A. Initial Adjustment: Adjust and check each operating item of door hardware and each door to ensure proper operation or function of every unit. Replace units that cannot be adjusted to operate as intended. Adjust door control devices to compensate for final operation of heating and ventilating equipment and to comply with referenced accessibility requirements.
  1. Electric Strikes: Adjust horizontal and vertical alignment of keeper to properly engage lock bolt.
  2. Door Closers: Adjust sweep period to comply with accessibility requirements and requirements of authorities having jurisdiction.
- B. Occupancy Adjustment: Approximately three months after date of Final Acceptance, Installer's Architectural Hardware Consultant shall examine and readjust each item of door hardware, including adjusting operating forces, as necessary to ensure function of doors, door hardware, and electrified door hardware.

### 3.06 CLEANING AND PROTECTION

- A. Clean adjacent surfaces soiled by door hardware installation.
- B. Clean operating items as necessary to restore proper function and finish.
- C. Provide final protection and maintain conditions that ensure door hardware is without damage or deterioration at time of Final Acceptance.

### 3.07 DEMONSTRATION

- A. Provide training for Owner's maintenance personnel to adjust, operate, and maintain door hardware and door hardware finishes. Refer to Division 01 Section "Demonstration and Training."

### 3.08 DOOR HARDWARE SCHEDULE

- A. Locksets, exit devices, and other hardware items are referenced in the following hardware sets for series, type and function. Refer to the above specifications for special features, options, cylinders/keying, and other requirements.
- B. Hardware Sets:

Hardware Group No. 01

100 E100

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
1	EA	CONT. HINGE	112HD EPT	628	IVE
1	EA	POWER TRANSFER	EPT10	✓ 689	VON
1	EA	ELEC PANIC HARDWARE	LX-RX-QEL-98-NL-OP-110MD 24 VDC	✓ 626	VON
1	EA	RIM CYLINDER	80-129	626	SCH
1	EA	SFIC CORE	80-036	626	SCH
1	EA	90 DEG OFFSET PULL	8190EZHD 10" O	630-316	IVE
1	EA	SURF. AUTO OPERATOR	4642 WMS 120 VAC	✓ 689	LCN
2	EA	ACTUATOR, TOUCH	8310-853T	✓ 630	LCN
1	EA	BOLLARD POST	8310-866	✓ AL	LCN
1		WEATHERSTRIPPING	BY DOOR MANUFACTURER		
1	EA	RAIN DRIP	142AA	AA	ZER
1	EA	THRESHOLD	566A-223	A	ZER
1	EA	CARD READER	SUPPLIED AND INSTALLED BY ACCESS CONTROL PROVIDER	✓ BLK	SCE
1	EA	DOOR CONTACT	SUPPLIED AND INSTALLED BY ACCESS CONTROL PROVIDER	✓ BLK	SCE
1	EA	POWER SUPPLY	PS914 900-KL 900-4RL 900-BBK 120/240 VAC (COORDINATE POWER SUPPLY LOCATIONS WITH ACCESS CONTROL PROVIDER)	✓	VON
1	EA	DIAGRAM	ELEVATION		DLR
1	EA	DIAGRAM	POINT TO POINT		DLR

COORDINATE WITH ELECTRICAL AND SECURITY. ENTRY BY CREDENTIAL OR KEY OVERRIDE. DOORS CAN BE ELECTRICALLY UNLOCKED DURING BUSINESS HOURS. PRESSING ACTUATOR WILL AUTO OPEN DOOR.  
 WHEN DOOR IS LOCKED, PRESENTING VALID CREDENTIAL TO READER WILL RETRACT LATCHBOLT ON PANIC HARDWARE AND AUTO OPEN DOOR.  
 UPON LOSS OF POWER DOOR WILL BE LOCKED. DOOR IS ALWAYS AVAILABLE FOR FREE EGRESS. DOOR CONTACT TIED TO ACCESS CONTROL SYSTEM FOR MONITORING.

Hardware Group No. 02

E131

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
1	EA	CONT. HINGE	112HD EPT	628	IVE
1	EA	POWER TRANSFER	EPT10	⚡ 689	VON
1	EA	ELEC PANIC HARDWARE	LX-RX-QEL-98-NL-OP-110MD 24 VDC	⚡ 626	VON
1	EA	SFIC CORE	80-036	626	SCH
1	EA	90 DEG OFFSET PULL	8190EZHD 10" O	630-316	IVE
1	EA	SURFACE CLOSER	4111 SCUSH	689	LCN
1	SET	GASKETING	BY DOOR/FRAME MANUFACTURER		
1	EA	DOOR SWEEP	39A	A	ZER
1	EA	THRESHOLD	566A-223	A	ZER
1	EA	CARD READER	SUPPLIED AND INSTALLED BY ACCESS CONTROL PROVIDER	⚡ BLK	SCE
1	EA	DOOR CONTACT	SUPPLIED AND INSTALLED BY ACCESS CONTROL PROVIDER	⚡ BLK	SCE
1	EA	POWER SUPPLY	PS914 900-KL 900-4RL 900-BBK 120/240 VAC (COORDINATE POWER SUPPLY LOCATIONS WITH ACCESS CONTROL PROVIDER)	⚡	VON
1	EA	DIAGRAM	ELEVATION		DLR
1	EA	DIAGRAM	POINT TO POINT		DLR

COORDINATE WITH ELECTRICAL AND SECURITY. ENTRY BY CREDENTIAL OR KEY OVERRIDE. PRESENTING VALID CREDENTIAL TO READER WILL MOMENTARILY RETRACT LATCHBOLT AND ALLOW ENTRY. UPON LOSS OF POWER DOOR IS LOCKED. DOOR IS ALWAYS AVAILABLE FOR FREE EGRESS. DOOR CONTACT/LX/RX TIED TO ACCESS CONTROL SYSTEM FOR MONITORING.

Hardware Group No. 03

E118

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
1	EA	CONT. HINGE	112HD EPT	628	IVE
1	EA	POWER TRANSFER	EPT10	↗ 689	VON
1	EA	ELEC PANIC HARDWARE	LX-RX-QEL-98-NL-OP-110MD 24 VDC	↗ 626	VON
1	EA	SFIC CORE	80-036	626	SCH
1	EA	90 DEG OFFSET PULL	8190EZHD 10" O	630-316	IVE
1	EA	SURFACE CLOSER	4111 SCUSH	689	LCN
1	EA	GASKETING	488SBK PSA	BK	ZER
1	SET	GASKETING	BY DOOR/FRAME MANUFACTURER		
1	EA	DOOR SWEEP	39A	A	ZER
1	EA	THRESHOLD	566A-223	A	ZER
1	EA	CARD READER	SUPPLIED AND INSTALLED BY ACCESS CONTROL PROVIDER	↗ BLK	SCE
1	EA	DOOR CONTACT	SUPPLIED AND INSTALLED BY ACCESS CONTROL PROVIDER	↗ BLK	SCE
1	EA	POWER SUPPLY	PS914 900-KL 900-4RL 900-BBK 120/240 VAC (COORDINATE POWER SUPPLY LOCATIONS WITH ACCESS CONTROL PROVIDER)	↗	VON
1	EA	DIAGRAM	ELEVATION		DLR
1	EA	DIAGRAM	POINT TO POINT		DLR

COORDINATE WITH ELECTRICAL AND SECURITY. ENTRY BY CREDENTIAL OR KEY OVERRIDE. INTERCOM AT DOOR.

PRESENTING VALID CREDENTIAL TO READER WILL MOMENTARILY RETRACT LATCHBOLT AND ALLOW ENTRY.

UPON LOSS OF POWER DOOR IS LOCKED. DOOR IS ALWAYS AVAILABLE FOR FREE EGRESS. DOOR CONTACT/LX/RX TIED TO ACCESS CONTROL SYSTEM FOR MONITORING.

Hardware Group No. 04

110                      112

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
3	EA	HINGE	5BB1 4.5 X 4.5	652	IVE
1	EA	PRIVACY LOCK	L9040 17A L583-363 L283-721 ADA Thumb turn	626	SCH
1	EA	OH STOP	90S	630	GLY
1	EA	SURFACE CLOSER	4011	689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS	630	IVE
3	EA	SILENCER	SR64	GRY	IVE

Hardware Group No. 05

100-ALT

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
1	EA	CONT. HINGE	112HD	628	IVE
1	EA	DUMMY PUSH BAR	350	626	VON
1	EA	90 DEG OFFSET PULL	8190EZHD 10" O	630-316	IVE
1	EA	SURF. AUTO OPERATOR	4642 WMS 120 VAC	↗ 689	LCN
2	EA	ACTUATOR, TOUCH	8310-853T	↗ 630	LCN
1	EA	DIAGRAM	ELEVATION		DLR
1	EA	DIAGRAM	POINT TO POINT		DLR

COORDINATE WITH ELECTRICAL AND SECURITY.

PRESSING ACTUATOR WILL RETRACT LATCHBOLT ON PANIC HARDWARE AND AUTO OPEN DOOR.  
UPON LOSS OF POWER DOOR WILL BE LOCKED. DOOR IS ALWAYS AVAILABLE FOR FREE EGRESS.  
DOOR CONTACT TIED TO ACCESS CONTROL SYSTEM FOR MONITORING.

Hardware Group No. 06

E103

Provide each PR door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
2	EA	CONT. HINGE	112HD EPT	628	IVE
2	EA	POWER TRANSFER	EPT10	✓ 689	VON
1	EA	REMOVABLE MULLION	KR4954	689	VON
1	EA	ELEC PANIC HARDWARE	LD-LX-RX-98-EO	✓ 626	VON
1	EA	ELEC PANIC HARDWARE	LX-RX-QEL-98-NL 24 VDC	✓ 626	VON
1	EA	MORTISE CYLINDER	80-102	626	SCH
1	EA	RIM CYLINDER	80-129	626	SCH
2	EA	SFIC CORE	80-036	626	SCH
1	EA	SURFACE CLOSER	4111 SCUSH	689	LCN
1	EA	SURF. AUTO OPERATOR	4642 WMS 120 VAC	✓ 689	LCN
2	EA	ACTUATOR, TOUCH	8310-853T	✓ 630	LCN
1	EA	RAIN DRIP	142AA	AA	ZER
1	EA	GASKETING	488SBK PSA	BK	ZER
1	EA	MULLION SEAL	8780NBK PSA	BK	ZER
2	EA	DOOR SWEEP	39A	A	ZER
1	EA	THRESHOLD	566A-223	A	ZER
1	EA	CARD READER	SUPPLIED AND INSTALLED BY ACCESS CONTROL PROVIDER	✓ BLK	SCE
1	EA	DOOR CONTACT	SUPPLIED AND INSTALLED BY ACCESS CONTROL PROVIDER	✓ BLK	SCE
1	EA	POWER SUPPLY	PS914 900-KL 900-4RL 900-BBK 120/240 VAC (COORDINATE POWER SUPPLY LOCATIONS WITH ACCESS CONTROL PROVIDER)	✓	VON
1	EA	DIAGRAM	ELEVATION		DLR
1	EA	DIAGRAM	POINT TO POINT		DLR

COORDINATE WITH ELECTRICAL AND SECURITY. ENTRY BY CREDENTIAL OR KEY OVERRIDE.  
PRESENTING VALID CREDENTIAL TO CARD READER LOCK WILL MOMENTARILY UNLOCK LOCK  
AND ALLOW ENTRY. PRESSING EXTERIOR ACTUATOR WHEN DOOR IS UNLOCKED WILL AUTO  
OPEN DOOR. INTERIOR ACTUATOR ALWAYS ACTIVE.  
UPON LOSS OF POWER DOOR IS LOCKED.  
DOOR CONTACT TIED TO ACCESS CONTROL SYSTEM FOR MONITORING.



Hardware Group No. 07

E140

Provide each PR door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
6	EA	HINGE	5BB1 4.5 X 4.5 NRP	630	IVE
1	SET	CONST LATCHING BOLT	FB61P	630	IVE
1	EA	DUST PROOF STRIKE	DP2	626	IVE
1	EA	STOREROOM LOCK	L9080BDC 17A	626	SCH
1	EA	SFIC CORE	80-036	626	SCH
1	EA	OH STOP	90S	630	GLY
1	EA	SURFACE CLOSER	4111 SCUSH	689	LCN
2	EA	KICK PLATE	8400 10" X 1" LDW B-CS	630	IVE
1	EA	RAIN DRIP	142AA	AA	ZER
2	SET	MEETING STILE	328BK-S	BK	ZER
1	EA	GASKETING	488SBK PSA	BK	ZER
2	EA	DOOR SWEEP	39A	A	ZER
1	EA	THRESHOLD	566A-223	A	ZER

COORDINATE WITH ELECTRICAL AND SECURITY. ENTRY BY CREDENTIAL OR KEY OVERRIDE. PRESENTING VALID CREDENTIAL TO CARD READER LOCK WILL MOMENTARILY UNLOCK LOCK AND ALLOW ENTRY.

UPON LOSS OF POWER DOOR IS LOCKED. DOOR IS ALWAYS AVAILABLE FOR FREE EGRESS. DOOR CONTACT TIED TO ACCESS CONTROL SYSTEM FOR MONITORING.

Hardware Group No. 08

E140A            E199A

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
3	EA	HINGE	5BB1 4.5 X 4.5 NRP	630	IVE
1	EA	STOREROOM LOCK	L9080BDC 17A	626	SCH
1	EA	SFIC CORE	80-036	626	SCH
1	EA	SURFACE CLOSER	4111 SCUSH	689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS	630	IVE
1	EA	RAIN DRIP	142AA	AA	ZER
1	EA	GASKETING	488SBK PSA	BK	ZER
1	EA	DOOR SWEEP	39A	A	ZER
1	EA	THRESHOLD	566A-223	A	ZER

Hardware Group No. 09

213

Provide each PR door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
6	EA	HINGE	5BB1 4.5 X 4.5 NRP	652	IVE
2	EA	AUTO FLUSH BOLT	FB41P	630	IVE
1	EA	DUST PROOF STRIKE	DP2	626	IVE
1	EA	STOREROOM LOCK	L9080BDC 17A	626	SCH
1	EA	SFIC CORE	80-036	626	SCH
1	EA	COORDINATOR	COR X FL	628	IVE
2	EA	MOUNTING BRACKET	MB	689	IVE
2	EA	SURFACE CLOSER	4111 SCUSH	689	LCN
2	EA	KICK PLATE	8400 10" X 1" LDW B-CS	630	IVE
1	EA	GASKETING	488SBK PSA	BK	ZER
1	EA	WEATHERSTRIPPING	8217SBK PSA	BK	ZER

Hardware Group No. 10

208                      210

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
3	EA	HINGE	5BB1 4.5 X 4.5	652	IVE
1	EA	PRIVACY LOCK	L9040 17A L583-363 L283-721 ADA Thumb turn	626	SCH
1	EA	SURFACE CLOSER	4011	689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS	630	IVE
1	EA	WALL STOP	WS406/407CVX	630	IVE
3	EA	SILENCER	SR64	GRY	IVE

Hardware Group No. 11

114

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
2	EA	HINGE	5BB1 4.5 X 4.5	652	IVE
1	EA	ELECTRIC HINGE	5BB1 4.5 X 4.5 CON TW8	⚡ 652	IVE
1	EA	WIRELESS LOCKSET	AD-400-MS-70-MTK-SPA-B 4AA	⚡ 626	SCE
			BATTERY (SUPPLIED AND INSTALLED BY OWNER)		
1	EA	SFIC CORE	80-036	626	SCH
1	EA	SURFACE CLOSER	4011	689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS	630	IVE
1	EA	WALL STOP	WS406/407CVX	630	IVE
3	EA	SILENCER	SR64	GRY	IVE

COORDINATE WITH ELECTRICAL AND SECURITY. ENTRY BY CREDENTIAL OR KEY OVERRIDE.  
ELECTRIC HINGE FOR FUTURE HARDWIRED ACCESS CONTROL.  
PRESENTING VALID CREDENTIAL TO CARD READER LOCK WILL MOMENTARILY UNLOCK LOCK  
AND ALLOW ENTRY.  
UPON LOSS OF POWER DOOR IS LOCKED. DOOR IS ALWAYS AVAILABLE FOR FREE EGRESS.  
DOOR CONTACT TIED TO ACCESS CONTROL SYSTEM FOR MONITORING.

Hardware Group No. 12

102                      202                      231

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
3	EA	HINGE	5BB1 4.5 X 4.5	652	IVE
1	EA	PASSAGE SET	L9010 17A	626AM	SCH
1	EA	SURFACE CLOSER	4111 SCUSH	689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS	630	IVE
1	EA	GASKETING	488SBK PSA	BK	ZER

Hardware Group No. 13

212

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
2	EA	HINGE	5BB1 4.5 X 4.5 NRP	652	IVE
1	EA	ELECTRIC HINGE	5BB1 4.5 X 4.5 CON TW8	⚡ 652	IVE
1	EA	WIRELESS LOCKSET	AD-400-MS-70-MTK-SPA-B 4AA	⚡ 626	SCE
			BATTERY (SUPPLIED AND INSTALLED BY OWNER)		
1	EA	SFIC CORE	80-036	626	SCH
1	EA	SURFACE CLOSER	4111 SCUSH	689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS	630	IVE
3	EA	SILENCER	SR64	GRY	IVE

COORDINATE WITH ELECTRICAL AND SECURITY. ENTRY BY CREDENTIAL OR KEY OVERRIDE.  
ELECTRIC HINGE FOR FUTURE HARDWIRED ACCESS CONTROL.  
PRESENTING VALID CREDENTIAL TO CARD READER LOCK WILL MOMENTARILY UNLOCK LOCK  
AND ALLOW ENTRY.  
UPON LOSS OF POWER DOOR IS LOCKED. DOOR IS ALWAYS AVAILABLE FOR FREE EGRESS.  
DOOR CONTACT TIED TO ACCESS CONTROL SYSTEM FOR MONITORING.

Hardware Group No. 14

B100

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
3	EA	HINGE	5BB1 4.5 X 4.5 NRP	630	IVE
1	EA	STOREROOM LOCK	L9080BDC 17A	626	SCH
1	EA	SFIC CORE	80-036	626	SCH
1	EA	SURFACE CLOSER	4111 SCUSH	689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS	630	IVE
1	EA	GASKETING	488SBK PSA	BK	ZER

Hardware Group No. 15

104

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
2	EA	HINGE	5BB1 4.5 X 4.5	652	IVE
1	EA	ELECTRIC HINGE	5BB1 4.5 X 4.5 CON TW8	⚡ 652	IVE
1	EA	WIRELESS LOCKSET	AD-400-MS-70-MTK-SPA-B 4AA	⚡ 626	SCE
			BATTERY (SUPPLIED AND INSTALLED BY OWNER)		
1	EA	SFIC CORE	80-036	626	SCH
1	EA	SURFACE CLOSER	4011	689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS	630	IVE
3	EA	SILENCER	SR64	GRY	IVE

COORDINATE WITH ELECTRICAL AND SECURITY. ENTRY BY CREDENTIAL OR KEY OVERRIDE.  
 ELECTRIC HINGE FOR FUTURE HARDWIRED ACCESS CONTROL.  
 PRESENTING VALID CREDENTIAL TO CARD READER LOCK WILL MOMENTARILY UNLOCK LOCK  
 AND ALLOW ENTRY.  
 UPON LOSS OF POWER DOOR IS LOCKED. DOOR IS ALWAYS AVAILABLE FOR FREE EGRESS.  
 DOOR CONTACT TIED TO ACCESS CONTROL SYSTEM FOR MONITORING.

Hardware Group No. 16

216                      221

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
3	EA	HINGE	5BB1 4.5 X 4.5	652	IVE
1	EA	PASSAGE SET	L9010 17A	626AM	SCH
1	EA	WALL STOP	WS406/407CVX	630	IVE
3	EA	SILENCER	SR64	GRY	IVE

Hardware Group No. 17

201                      203                      204                      206

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
2	EA	HINGE	5BB1 4.5 X 4.5	652	IVE
1	EA	ELECTRIC HINGE	5BB1 4.5 X 4.5 CON TW8	⚡ 652	IVE
1	EA	WIRELESS LOCKSET	AD-400-MS-70-MTK-SPA-B 4AA	⚡ 626	SCE
			BATTERY (SUPPLIED AND INSTALLED BY OWNER)		
1	EA	SFIC CORE	80-036	626	SCH
1	EA	SURFACE CLOSER	4011	689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS	630	IVE
1	EA	WALL STOP	WS406/407CVX	630	IVE
3	EA	SILENCER	SR64	GRY	IVE

COORDINATE WITH ELECTRICAL AND SECURITY. ENTRY BY CREDENTIAL OR KEY OVERRIDE.  
 ELECTRIC HINGE FOR FUTURE HARDWIRED ACCESS CONTROL.  
 PRESENTING VALID CREDENTIAL TO CARD READER LOCK WILL MOMENTARILY UNLOCK LOCK  
 AND ALLOW ENTRY.  
 UPON LOSS OF POWER DOOR IS LOCKED. DOOR IS ALWAYS AVAILABLE FOR FREE EGRESS.  
 DOOR CONTACT TIED TO ACCESS CONTROL SYSTEM FOR MONITORING.

Hardware Group No. 18

121

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
2	EA	HINGE	5BB1 4.5 X 4.5	652	IVE
1	EA	ELECTRIC HINGE	5BB1 4.5 X 4.5 CON TW8	⚡ 652	IVE
1	EA	WIRELESS LOCKSET	AD-400-MS-70-MTK-SPA-B 4AA	⚡ 626	SCE
			BATTERY (SUPPLIED AND INSTALLED BY OWNER)		
1	EA	SFIC CORE	80-036	626	SCH
1	EA	SURFACE CLOSER	4011	689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS	630	IVE
1	EA	GASKETING	488SBK PSA	BK	ZER
1	EA	DOOR SWEEP	39A	A	ZER
1	EA	THRESHOLD	655A-223	A	ZER

COORDINATE WITH ELECTRICAL AND SECURITY. ENTRY BY CREDENTIAL OR KEY OVERRIDE.  
 ELECTRIC HINGE FOR FUTURE HARDWIRED ACCESS CONTROL.  
 PRESENTING VALID CREDENTIAL TO CARD READER LOCK WILL MOMENTARILY UNLOCK LOCK  
 AND ALLOW ENTRY.  
 UPON LOSS OF POWER DOOR IS LOCKED. DOOR IS ALWAYS AVAILABLE FOR FREE EGRESS.  
 DOOR CONTACT TIED TO ACCESS CONTROL SYSTEM FOR MONITORING.

Hardware Group No. 19

103

Provide each PR door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
5	EA	HINGE	5BB1 4.5 X 4.5 NRP	652	IVE
1	EA	ELECTRIC HINGE	5BB1 4.5 X 4.5 CON TW8	↗ 652	IVE
1	EA	AUTO FLUSH BOLT	FB41P	630	IVE
1	EA	DUST PROOF STRIKE	DP2	626	IVE
1	EA	WIRELESS LOCKSET	AD-400-MS-70-MTK-SPA-B 4AA BATTERY (SUPPLIED AND INSTALLED BY OWNER)	↗ 626	SCE
1	EA	SFIC CORE	80-036	626	SCH
1	EA	COORDINATOR	COR X FL	628	IVE
2	EA	MOUNTING BRACKET	MB	689	IVE
2	EA	SURFACE CLOSER	4111 SCUSH	689	LCN
2	EA	KICK PLATE	8400 10" X 1" LDW B-CS	630	IVE
1	EA	GASKETING	488SBK PSA	BK	ZER
1	EA	WEATHERSTRIPPING	8217SBK PSA	BK	ZER
2	EA	DOOR SWEEP	39A	A	ZER
1	EA	THRESHOLD	655A-223	A	ZER

COORDINATE WITH ELECTRICAL AND SECURITY. ENTRY BY CREDENTIAL OR KEY OVERRIDE.  
 ELECTRIC HINGE FOR FUTURE HARDWIRED ACCESS CONTROL.  
 PRESENTING VALID CREDENTIAL TO READER WILL MOMENTARILY UNLOCK LOCK AND ALLOW  
 ENTRY.  
 UPON LOSS OF POWER DOOR IS LOCKED. DOOR IS ALWAYS AVAILABLE FOR FREE EGRESS.  
 DOOR CONTACT TIED TO ACCESS CONTROL SYSTEM FOR MONITORING.

Hardware Group No. 20

215

Provide each PR door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
5	EA	HINGE	5BB1 4.5 X 4.5 NRP	652	IVE
1	EA	ELECTRIC HINGE	5BB1 4.5 X 4.5 CON TW8	↗ 652	IVE
1	SET	CONST LATCHING BOLT	FB61P	630	IVE
1	EA	DUST PROOF STRIKE	DP2	626	IVE
1	EA	WIRELESS LOCKSET	AD-400-MS-70-MTK-SPA-B 4AA BATTERY (SUPPLIED AND INSTALLED BY OWNER)	↗ 626	SCE
1	EA	SFIC CORE	80-036	626	SCH
1	EA	OH STOP	90S	630	GLY
1	EA	SURFACE CLOSER	4111 SCUSH	689	LCN
2	EA	KICK PLATE	8400 10" X 1" LDW B-CS	630	IVE
3	EA	SILENCER	SR64	GRY	IVE

COORDINATE WITH ELECTRICAL AND SECURITY. ENTRY BY CREDENTIAL OR KEY OVERRIDE.  
ELECTRIC HINGE FOR FUTURE HARDWIRED ACCESS CONTROL.  
PRESENTING VALID CREDENTIAL TO CARD READER LOCK WILL MOMENTARILY UNLOCK LOCK  
AND ALLOW ENTRY.  
UPON LOSS OF POWER DOOR IS LOCKED. DOOR IS ALWAYS AVAILABLE FOR FREE EGRESS.  
DOOR CONTACT TIED TO ACCESS CONTROL SYSTEM FOR MONITORING.

Hardware Group No. 21

E102

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
1	EA	CONT. HINGE	112HD EPT	628	IVE
1	EA	POWER TRANSFER	EPT10	↗ 689	VON
1	EA	ELEC PANIC HARDWARE	LX-RX-98-NL-OP-110MD	↗ 626	VON
1	EA	SFIC CORE	80-036	626	SCH
1	EA	90 DEG OFFSET PULL	8190EZHD 10" O	630-316	IVE
1	EA	SURFACE CLOSER	4111 SCUSH	689	LCN
1	SET	GASKETING	BY DOOR/FRAME MANUFACTURER		
1	EA	DOOR SWEEP	39A	A	ZER
1	EA	THRESHOLD	566A-223	A	ZER
1	EA	DOOR CONTACT	SUPPLIED AND INSTALLED BY ACCESS CONTROL PROVIDER	↗ BLK	SCE
1	EA	DIAGRAM	ELEVATION		DLR
1	EA	DIAGRAM	POINT TO POINT		DLR

COORDINATE WITH ELECTRICAL AND SECURITY. E  
DOOR CONTACT/LX/RX TIED TO ACCESS CONTROL SYSTEM FOR MONITORING.  
END OF SECTION 087100



## SECTION 099123 - INTERIOR PAINTING

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### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. Section includes surface preparation and the application of paint systems on the following interior substrates:
  - 1. Steel and iron.
  - 2. Gypsum board.
  - 3. Wood to receive opaque finish
  - 4. Masonry
  - 5. Exposed Ceilings and Ducts

#### 1.2 DEFINITIONS

- A. MPI Gloss Level 1: Not more than five units at 60 degrees and 10 units at 85 degrees, according to ASTM D 523.
- B. MPI Gloss Level 2: Not more than 10 units at 60 degrees and 10 to 35 units at 85 degrees, according to ASTM D 523.
- C. MPI Gloss Level 3: 10 to 25 units at 60 degrees and 10 to 35 units at 85 degrees, according to ASTM D 523.
- D. MPI Gloss Level 4: 20 to 35 units at 60 degrees and not less than 35 units at 85 degrees, according to ASTM D 523.
- E. MPI Gloss Level 5: 35 to 70 units at 60 degrees, according to ASTM D 523.
- F. MPI Gloss Level 6: 70 to 85 units at 60 degrees, according to ASTM D 523.
- G. MPI Gloss Level 7: More than 85 units at 60 degrees, according to ASTM D 523.

#### 1.3 ACTION SUBMITTALS<sup>1</sup>

- A. Product Data: For each type of product. Include preparation requirements and application instructions.
  - 1. Include Printout of current "MPI Approved Products List" for each product category specified, with the proposed product highlighted.
- B. Samples: For each type of paint system and in each color and gloss of topcoat.

#### 1.4 QUALITY ASSURANCE

- A. Mockups: Apply mockups of each paint system indicated and each color and finish selected to verify preliminary selections made under Sample submittals and to demonstrate aesthetic effects and set quality standards for materials and execution.
1. Architect will select one surface to represent surfaces and conditions for application of each paint system.
    - a. Vertical and Horizontal Surfaces: Provide samples of at least 100 sq. ft. (9 sq. m).
    - b. Other Items: Architect will designate items or areas required.
  2. Final approval of color selections will be based on mockups.
    - a. If preliminary color selections are not approved, apply additional mockups of additional colors selected by Architect at no added cost to Owner.
- B. Substrate condition: Review all substrate conditions prior to the installation and address all substrates with existing paint as outlined in the "Limited Lead Report".

### PART 2 - PRODUCTS

#### 2.1 MANUFACTURERS

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
1. Benjamin Moore & Co.
  2. Duron, Inc.
  3. Sherwin-Williams Company (The).

#### 2.2 PAINT, GENERAL

- A. MPI Standards: Products shall comply with MPI standards indicated and shall be listed in its "MPI Approved Products Lists."
- B. Material Compatibility:
1. Materials for use within each paint system shall be compatible with one another and substrates indicated, under conditions of service and application as demonstrated by manufacturer, based on testing and field experience.
  2. For each coat in a paint system, products shall be recommended in writing by topcoat manufacturers for use in paint system and on substrate indicated.
- C. Colors: As selected by Architect from manufacturer's full range or as indicated in a color schedule.

### 3.1 EXAMINATION

- A. Examine substrates and conditions, with Applicator present, for compliance with requirements for maximum moisture content and other conditions affecting performance of the Work.
- B. Maximum Moisture Content of Substrates: When measured with an electronic moisture meter as follows:
  - 1. Concrete: 12 percent.
  - 2. Fiber-Cement Board: 12 percent.
  - 3. Masonry (Clay and CMUs): 12 percent.
  - 4. Wood: 15 percent.
  - 5. Gypsum Board: 12 percent.
  - 6. Plaster: 12 percent.
- C. Conduct all moisture tests using a properly calibrated electronic Moisture Meter, except test concrete floors for moisture using a simple cover patch test.
- D. Verify suitability of substrates, including surface conditions and compatibility with existing finishes and primers.
- E. Proceed with coating application only after unsatisfactory conditions have been corrected.
  - 1. Application of coating indicates acceptance of surfaces and conditions.

### 3.2 PREPARATION

- A. Comply with manufacturer's written instructions and recommendations in "MPI Architectural Painting Specification Manual" applicable to substrates and paint systems indicated.
- B. Comply with all requirements of the "Limited Lead Report".
- C. Contractor to prepare all surfaces to remain for paint application prior to any new work installation of any trades occurring within the building.
- D. Contractor to prime at a minimum all columns and beams on the first floor prior to any new work installation of any trades occurring within the building to ensure full coverage of exposed steel.
- E. All exterior building envelope work shall be complete prior to the application of any interior painting.
- F. Perform no interior painting work unless adequate continuous ventilation and sufficient heating facilities are in place to maintain ambient air and substrate temperatures above minimum requirements for 24 hours before, during and after paint application. Provide supplemental ventilating and heating equipment if ventilation and heating from existing system is inadequate to meet minimum requirements.

- G. Perform no painting work when the relative humidity is above 85% or when the dew point is less than 5° F (3° C) variance between the air / surface temperature.
- H. Perform no painting work unless a minimum lighting level of 323 Lux (30-foot candles) is provided on surfaces to be painted or decorated.
- I. Apply paint only to dry, clean, properly cured and adequately prepared surfaces in areas where dust is no longer generated by construction activities such that airborne particles will not affect the quality of finished surfaces.
- J. Thoroughly clean all steel brackets and other supports under and around sink counters or any other bracketed items. Remove all flaking material.
- K. Remove hardware, covers, plates, and similar items already in place that are removable and are not to be painted. If removal is impractical or impossible because of size or weight of item, provide surface-applied protection before surface preparation and painting.
  - 1. After completing painting operations, use workers skilled in the trades involved to reinstall items that were removed. Remove surface-applied protection if any.

### 3.3 APPLICATION

- A. Apply paints according to manufacturer's written instructions and recommendations in "MPI Architectural Painting Specification Manual."
- B. Apply paints to produce surface films without cloudiness, spotting, holidays, laps, brush marks, roller tracking, runs, sags, ropiness, or other surface imperfections. Cut in sharp lines and color breaks.
- C. Paint finish shall continue through behind all wall-mounted items
- D. Contractor to paint all exposed interior surfaces including but not limited to conduit, junction boxes, supports, brackets, exposed ductwork,
  - 1. Exceptions to the above include spray applied fireproofing and exterior window frames and storefront
- E. Contractor to paint the floor of the elevator shaft.

### 3.4 INTERIOR PAINTING SCHEDULE

- A. Steel Substrates:
  - 1. Institutional Low-Odor/VOC Latex System MPI INT 5.1S: For all steel door frames, steel columns and beams
    - a. Prime Coat: Primer, rust inhibitive, water based MPI #107.
    - b. Intermediate Coat: Latex, interior, institutional low odor/VOC, matching topcoat.

- c. Topcoat: Latex, interior, institutional low odor/VOC, semi-gloss (MPI Gloss Level 5), MPI #147
- B. CMU and Masonry Substrates:
1. Latex System MPI INT 4.2A:
    - a. Block Filler: Block filler, latex, interior/exterior, MPI #4.
    - b. Intermediate Coat: Latex, interior, matching topcoat.
    - c. Topcoat: Latex, interior, semi-gloss (MPI Gloss Level 5), MPI #54.
- C. Gypsum Board and Plaster Substrates:
1. Institutional Low-Odor/VOC Latex System MPI INT 9.2M:
    - a. Prime Coat: Primer sealer, interior, institutional low odor/VOC, MPI #149.
    - b. Intermediate Coat: Latex, interior, institutional low odor/VOC, matching topcoat.
    - c. Topcoat: Latex, interior, institutional low odor/VOC (MPI Gloss Level 2), MPI #144 at all ceilings
    - d. Topcoat: Latex, interior, institutional low odor/VOC (MPI Gloss Level 4), MPI #146 at all corridor walls
    - e. Topcoat: Latex, interior, institutional low odor/VOC, semi-gloss (MPI Gloss Level 5), MPI #147 at all restroom walls and soffits and door frames.
    - f. Level 5), MPI #141.
- D. Wood Substrates: Wood Trim.
1. High-Performance Architectural Latex System MPI INT 6.3A:
    - a. Prime Coat: Primer, latex, for interior wood, MPI #39.
    - b. Intermediate Coat: Latex, interior, high performance architectural, matching topcoat.
    - c. Topcoat: Latex, interior, high performance architectural, semi-gloss (MPI Gloss Level 5), MPI #141.
- E. Exposed Ceilings and ceiling mounted items such as ducts and conduit. Were dry fall will not dry due to floor to ceiling clearance, protect floor prior to application.
1. Water-Based Dry-Fall System MPI INT 5.1C:
    - a. Prime Coat: Primer, alkyd, quick dry, for metal, MPI #76.
    - b. Topcoat: Dry fall, latex, flat, MPI #118.

F. Concrete Substrates, Elevator shaft floor:

1. Latex Floor Enamel System MPI INT 3.2A:
  - a. Prime Coat: Floor paint, latex, matching topcoat.
  - b. Intermediate Coat: Floor paint, latex, matching topcoat.
  - c. Topcoat: Floor paint, latex, low gloss (maximum MPI Gloss Level 3), MPI #60

Paint Color Schedule: To be determined from manufacturer's full range of colors. The schedule below is the basis of design.

Location	Manufacturer	Color Name and Number
Field Color Walls including all exposed PME	Sherwin Williams	SW7008 Alabaster White
Accent Color Walls including all exposed PME	Sherwin Williams	SW 6769 Maxi Teal
Ceilings and all ceiling elements including exposed PME	Sherwin Williams	SW7008 Alabaster White
HM Frames on Field Walls	Sherwin Williams	SW7008 Alabaster White
HM Frames on Accent Walls	Sherwin Williams	SW 6769 Maxi Teal
HM Frames Inside Restroom /Custodial	Sherwin Williams	SW7008 Alabaster White
Steel Handrails	Sherwin Williams	SW7650 Ellie Gray
Stair Steel Risers / Pan and Stringer	Sherwin Williams	SW7650 Ellie Gray
Steel columns	Sherwin Williams	SW7008 Alabaster White

END OF SECTION 099123

## SECTION 260519 - LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES

### PART 1 - GENERAL

#### 1.1 SUMMARY

##### A. Section Includes:

1. Building wires and cables rated 600 V and less.
2. Connectors, splices, and terminations rated 600 V and less.

#### 1.2 ACTION SUBMITTALS

- ##### A. Product Data: For each type of product.

#### 1.3 INFORMATIONAL SUBMITTALS

- ##### A. Field quality-control reports.

### PART 2 - PRODUCTS

#### 2.1 CONDUCTORS AND CABLES

- ##### A. Copper Conductors: Comply with NEMA WC 70/ICEA S-95-658.
- ##### B. Aluminum Conductors (service entrance only): Comply with ASTM B232, B233 & B836 and ANSI/ICEA S-76-474.
- ##### C. Conductor Insulation: Comply with NEMA WC 70/ICEA S-95-658 for Type THHN-2-THWN-2.
- ##### D. VFC Cable:
1. Comply with UL 1277, UL 1685, and NFPA 70 for Type TC-ER cable.
  2. Type TC-ER with oversized crosslinked polyethylene insulation, spiral-wrapped foil plus 85 percent coverage braided shields and insulated full-size ground wire, and sunlight- and oil-resistant outer PVC jacket.

#### 2.2 CONNECTORS AND SPLICES

- ##### A. Description: Factory-fabricated connectors and splices of size, ampacity rating, material, type, and class for application and service indicated.

## 2.3 SYSTEM DESCRIPTION

- A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application. Agencies must be approved by the NC Department of Insurance to label equipment.
- B. Comply with NFPA 70.

## 2.4 Manufacturers:

- A. Cable shall be provided by one of the following:
  - 1. Southwire.
  - 2. Encore Wire.
  - 3. Houston Wire & Cable.
  - 4. Priority Wire & Cable.
  - 5. CME Wire and Cable.

## PART 3 - EXECUTION

### 3.1 CONDUCTOR MATERIAL APPLICATIONS

- A. Service Entrance: Phase conductors to be compact stranded aluminum alloy 1350 with XLPE black insulation. Neutral conductor is to be bare stranded aluminum (alloy 1350) steel reinforced (ACSR). Cable to be in quadruplex orientation.
- B. Feeders: Copper. Solid for No. 10 AWG and smaller; stranded for No. 8 AWG and larger.
- C. Branch Circuits: Copper. Solid for No. 10 AWG and smaller; stranded for No. 8 AWG and larger.

### 3.2 CONDUCTOR INSULATION AND MULTICONDUCTOR CABLE APPLICATIONS AND WIRING METHODS

- A. Service Entrance: Polyethylene black insulation per ANCI/ICEA S-76-474.
- B. Exposed Feeders: Type THHN-2-THWN-2, single conductors in raceway.
- C. Exposed Branch Circuits: Type THHN-2-THWN-2, single conductors in raceway.
- D. Branch Circuits Concealed in Ceilings, Walls, and Partitions: Type THHN-2-THWN-2, single conductors in raceway.
- E. Cord Drops and Portable Appliance Connections: Type SO, hard service cord with stainless-steel, wire-mesh, and strain relief device at terminations to suit application.
- F. Class 1 Control Circuits: Type THHN-THWN, in raceway.



- G. Class 2 Control Circuits: Type THHN-THWN, in raceway.

### 3.3 INSTALLATION OF CONDUCTORS AND CABLES

- A. Conceal cables in finished walls, ceilings, and floors unless otherwise indicated.
- B. Complete raceway installation between conductor and cable termination points according to Section 260533 "Raceways and Boxes for Electrical Systems" prior to pulling conductors and cables.
- C. Use manufacturer-approved pulling compound or lubricant where necessary; compound used must not deteriorate conductor or insulation. Do not exceed manufacturer's recommended maximum pulling tensions and sidewall pressure values.
- D. Use pulling means, including fish tape, cable, rope, and basket-weave wire/cable grips, that will not damage cables or raceway.
- E. Install exposed cables parallel and perpendicular to surfaces of exposed structural members, and follow surface contours where possible.
- F. Support cables according to Section 260529 "Hangers and Supports for Electrical Systems."

### 3.4 CONNECTIONS

- A. Tighten electrical connectors and terminals according to manufacturer's published torque-tightening values. If manufacturer's torque values are not indicated, use those specified in UL 486A-486B.
- B. Make splices, terminations, and taps that are compatible with conductor material.
  - 1. Use oxide inhibitor in each splice, termination, and tap for aluminum conductors.
- C. Wiring at Outlets: Install conductor at each outlet, with at least 6 inches of slack.

### 3.5 IDENTIFICATION

- A. Identify and color-code conductors and cables according to Section 260553 "Identification for Electrical Systems."
- B. Identify each spare conductor at each end with identity number and location of other end of conductor and identify as spare conductor.

### 3.6 SLEEVE AND SLEEVE-SEAL INSTALLATION FOR ELECTRICAL PENETRATIONS

- A. Install sleeves and sleeve seals at penetrations of exterior floor and wall assemblies. Comply with requirements in Section 260544 "Sleeves and Sleeve Seals for Electrical Raceways and Cabling."

3.7 FIRESTOPPING

- A. Apply firestopping to electrical penetrations of fire-rated floor and wall assemblies to restore original fire-resistance rating of assembly.

3.8 FIELD QUALITY CONTROL

- A. Perform the following tests and inspections:
  - 1. After installing conductors and cables and before electrical circuitry has been energized, test service entrance and feeder conductors.
  - 2. Perform each visual and mechanical inspection and electrical test stated in NETA Acceptance Testing Specification. Certify compliance with test parameters.
- B. Test and Inspection Reports: Prepare a written report to record the following:
  - 1. Procedures used.
  - 2. Results that comply with requirements.
  - 3. Results that do not comply with requirements and corrective action taken to achieve compliance with requirements.
- C. Cables will be considered defective if they do not pass tests and inspections.

END OF SECTION 260519



#	date	note
1	12/05/2023	Rev. 1
2	12/12/2023	Rev. 2

**DEMOLITION SYMBOLS LEGEND**

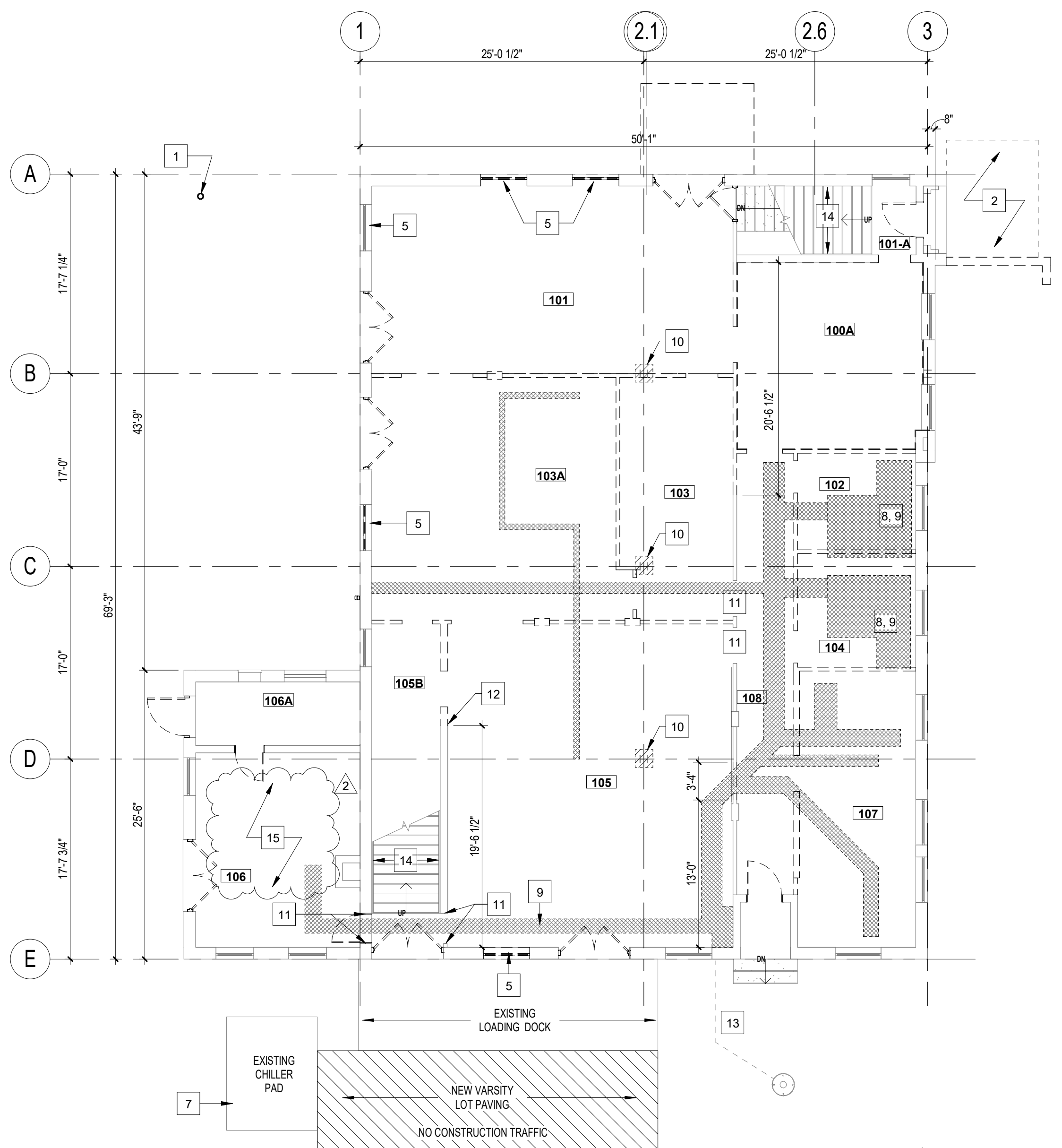
- REMOVE ALL CONSTRUCTION SHOWN DASHED COMPLETE, U.O.N.
- EXISTING WALL OR PARTITION TO REMAIN, TYP U.O.N.
- APPROX. AREA FOR FLOOR TRENCHING, SEE PME SHEETS
- APPROX. AREA FOR FLOOR REPAIR OF COLUMNS

**DEMOLITION PLAN GENERAL NOTES**

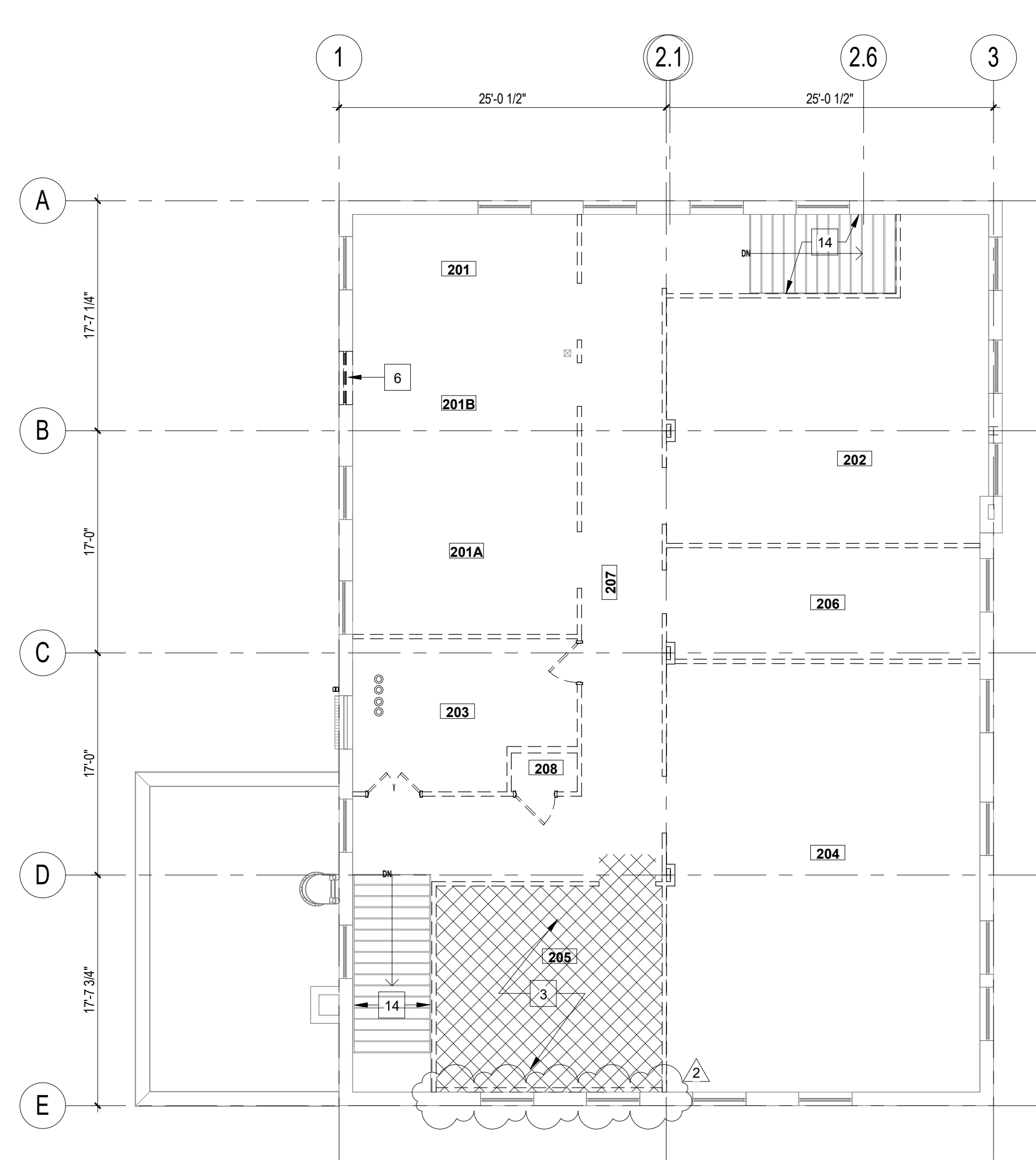
1. THE CONTRACTOR SCOPE INCLUDES THE FOLLOWING:
  - a. REMOVAL OF ALL ITEMS OF ANY NATURE SHOWN WITHIN SCOPE OF WORK.
  - b. BEFORE COMMENCING THE WORK, VERIFICATION AT THE SITE OF EXISTING CONSTRUCTION TO BE PRESERVED AND REPORTING TO THE ARCHITECT OF ANY DISCREPANCIES OR QUESTIONABLE ITEMS.
2. COMPLY WITH APPLICABLE LOCAL, STATE AND FEDERAL CODES AND REGULATIONS PERTAINING TO SAFETY OF PERSONS, PROPERTY AND ENVIRONMENTAL PROTECTION.
3. PRIOR TO DEMOLITION, MEET WITH OWNER AND ARCHITECT TO IDENTIFY ITEMS WHICH ARE TO BE SALVAGED. ALL OTHER DEMOLISHED MATERIALS ARE TO BE REMOVED FROM THE SITE AND DISPOSED OF LEGALLY BY THE CONTRACTOR.
4. EXISTING SERVICES AND SYSTEMS: MAINTAIN SERVICES AND SYSTEMS INDICATED TO REMAIN AND PROTECT THEM AGAINST DAMAGE DURING SELECTIVE DEMOLITION OPERATIONS. WHERE MECHANICAL OR ELECTRICAL SYSTEMS ARE INDICATED TO BE SELECTIVELY DEMOLISHED, LOCATE, IDENTIFY, DISCONNECT, AND SEAL OR CAP-OFF INDICATED UTILITY SERVICES IN CONCEALED LOCATION.
5. REMOVE AND SALVAGE DEBRIS FROM THE SITE DAILY AS IT ACCUMULATES. REMOVE RENOVATION MATERIALS FROM THE SITE, LEAVING A CLEAN, VACUUMED SPACE.
6. PROTECT EXISTING CONSTRUCTION TO REMAIN. REPAIR ANY DAMAGE TO EXISTING CONSTRUCTION IN A MANNER ACCEPTABLE TO THE OWNER OR REPLACE SUCH DAMAGE WITH NEW ACCEPTABLE TO OWNER AND AT NO COST TO OWNER.
7. REFER TO ENGINEERING PLANS FOR FURTHER DEMOLITION OF MECHANICAL, ELECTRICAL, FIRE PROTECTION AND PLUMBING ITEMS.
8. DEMO EXISTING DISCONTINUED MEP/FP CONDUITS AND OTHER MISC. ITEMS THAT PENETRATE EXISTING FLOORS, CEILING OR ROOF. FILL VOIDS NOT TO BE RE-USED PER STRUCTURAL DRAWING DETAILS AND MAINTAIN ANY EXISTING FIRE RATING.
9. DEMO EXISTING WIRES, STRUTS & ALL ITEMS ATTACHED TO THE CEILING.
10. DEMO EXISTING DISCONTINUED MEP/FP CONDUITS, DUCTWORK AND MISC. ITEMS THAT PENETRATE PARTITIONS. FILL VOIDS SOLID WITH GROUT AND MAINTAIN ANY EXISTING FIRE RATING.
11. REMOVE UNUSED WIRING BACK TO MAIN PANEL.
12. THE CONTRACTOR SHALL REMOVE ALL ABANDONED PIPING, CONDUIT, DEVICES & WIRING BACK TO SOURCE. REMOVE UNUSED WIRING BACK TO MAIN PANEL OR NEAREST JUNCTION BOX.
13. UTILIZE BRACING AND SHORING WHERE NECESSARY TO PREVENT COLLAPSE OF STRUCTURE OR PARTS THEREOF. GENERAL CONTRACTOR IS RESPONSIBLE FOR DESIGN AND CONSTRUCTION OF ALL BRACING AND SHORING.
14. REMOVE AND DISPOSE OF ALL EXISTING SWITCHES, TEL/DATA/VOICE WIRING, AND J-BOXES IN DEMOLITION AREA UNLESS SPECIFIED TO BE REUSED. PATCH AND REPAIR FLOOR AND WALLS TO AN "AS NEW" CONDITION.
15. WHERE DOORS ARE SHOWN TO BE DEMOLISHED, DEMOLISH DOOR AND FRAME.
16. AT SECOND FLOOR STAIR WALLS, DEMO TO SECOND FLOOR SLAB, WALL AT FIRST FLOOR TO REMAIN.
17. SEE HAZARDOUS MATERIALS PLAN FOR REMOVAL OF WALLS AT SECOND FLOOR.
18. FIREPROOFING AT SECOND FLOOR CEILING TO REMAIN IN PLACE. REMOVE AS NECESSARY FOR ANY WELDING, BOLTS OR OTHER ATTACHMENTS.

**DEMOLITION SHEET NOTES**

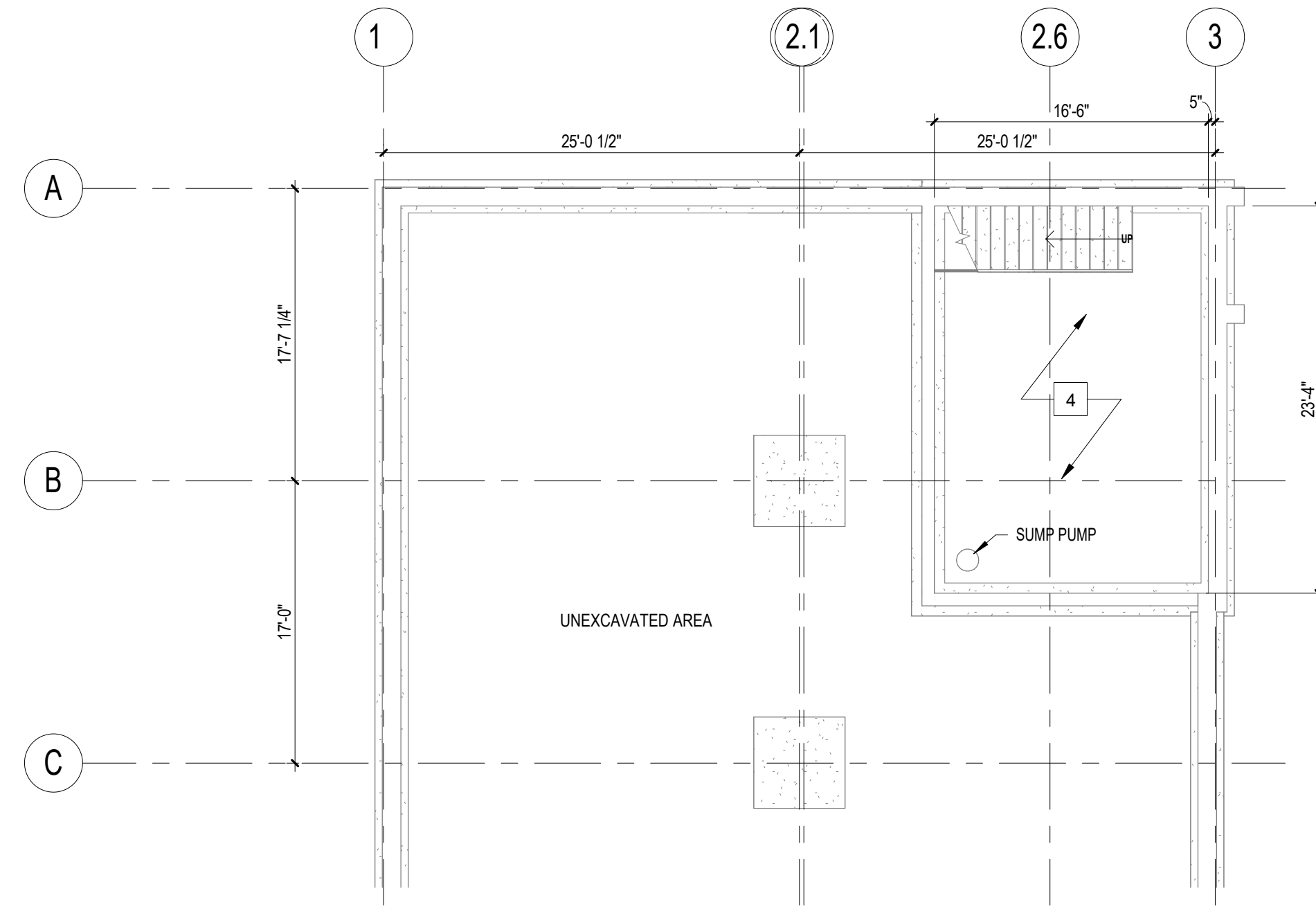
- 1 EXISTING BOLLARD & ASSOCIATED FOOTING TO BE REMOVED
- 2 DEMO LOW BRICK WALL & PATIO, SEE LANDSCAPE PLANS FOR SCOPE OF WORK THIS AREA
- 3 RAISED THRESHOLD AND MUD BED TERRACOTTA FLOOR TO BE DEMOLISHED, PROVIDE NEW CEMENTITIOUS SELF-LEVELLING FINISH FLOOR
- 4 NO NEW ARCHITECTURAL WORK THIS AREA - SEE PME SHEETS FOR SUMP PUMP REPLACEMENT
- 5 REMOVE EXISTING INFILL & REPLACE WINDOW GLASS ONLY - FRAME AND OPENING TO REMAIN, SEE ELEVATIONS & WINDOW SCHEDULES
- 6 DEMO EXISTING WINDOW, CAREFULLY REMOVE WHOLE BRICKS & CMU BENEATH OPENING TO LEVEL WITH SECOND FLOOR
- 7 EXISTING CHILLER PAD TO REMAIN
- 8 TRENCH FLOOR AS NECESSARY FOR NEW SHOWERS
- 9 TRENCH FLOOR AS NECESSARY FOR NEW DRAINS
- 10 EXISTING STEEL COLUMN TO REMAIN, SEE STRUCTURAL DRAWINGS FOR REPAIR OF STRUCTURAL COLUMNS AT BASE
- 11 DEMO EXISTING FULLY GROUTED HOLLOW METAL FRAMES
- 12 DEMO TO DIMENSION SHOWN - VERIFY IN FIELD THAT END OF WALL WILL BE A MINIMUM OF 12" BEYOND BEARING OF STAIR BEAM ON WALL
- 13 DEMO EXISTING 4" PIPING - REPLACE WITH NEW PIPING TO EXISTING MANHOLE, SEE PME SHEETS
- 14 REMOVE EXISTING HANDRAILS, CAREFULLY STORE FOR REUSE - SEE HAZARDOUS MATERIALS SPECS FOR TREATMENT OF PAINTED FINISH
- 15 REMOVE EXISTING BOILER



**1 First Floor Demolition**  
 1/8" = 1'-0"

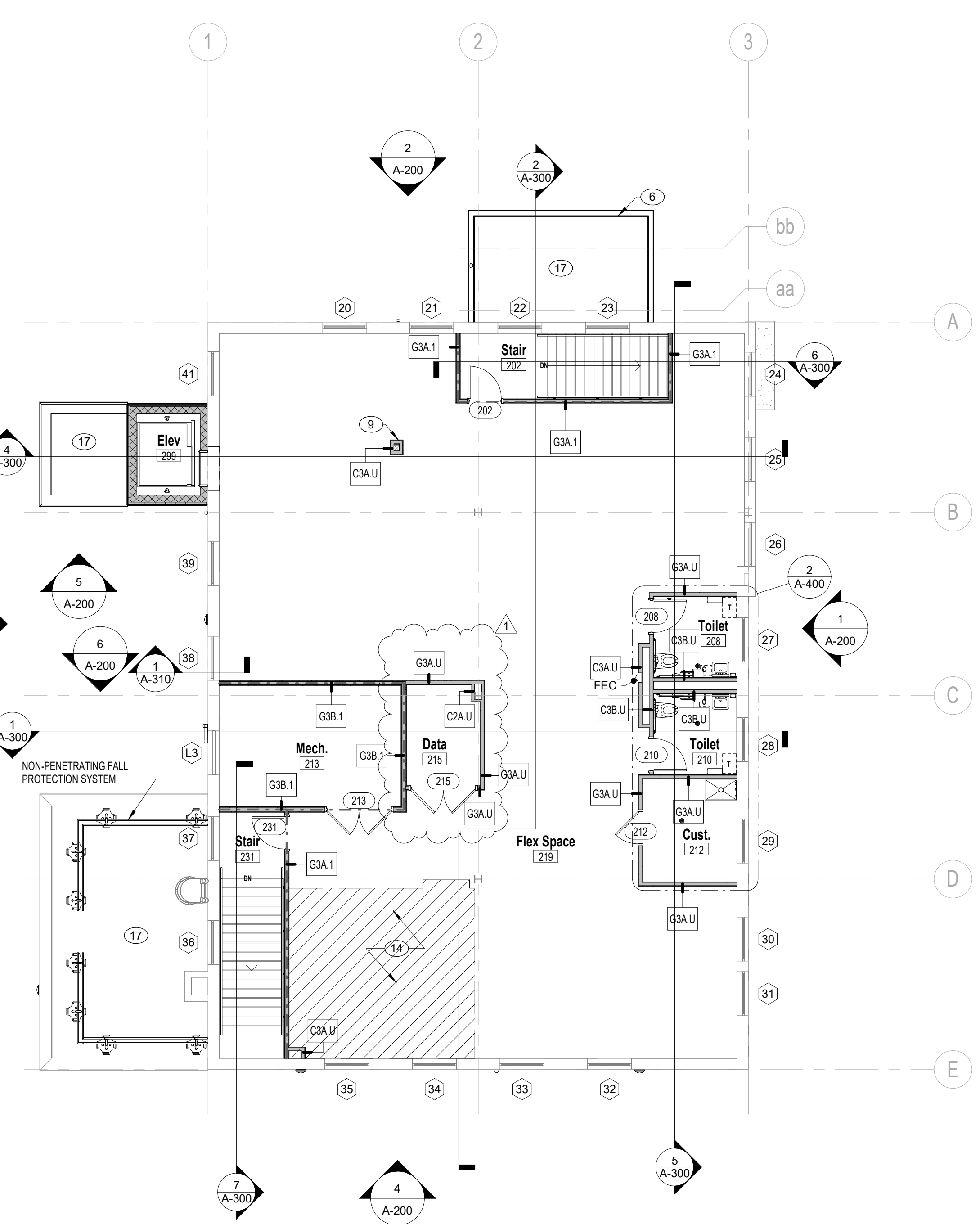
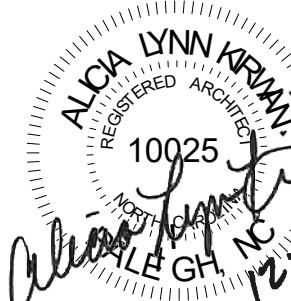


**2 Second Floor Demolition**  
 1/8" = 1'-0"

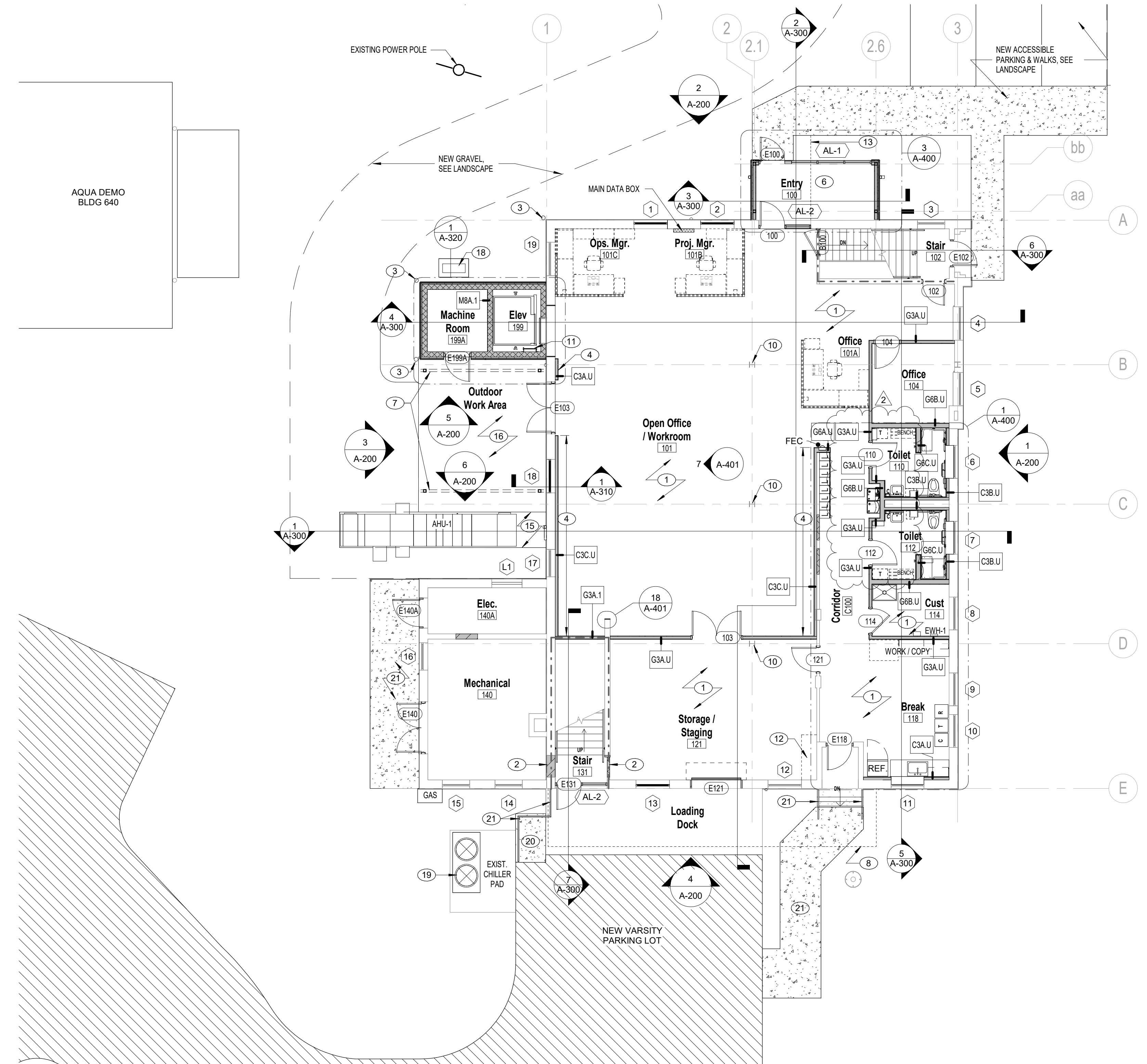


**3 Partial Basement Demo**  
 1/8" = 1'-0"





**2 Second Floor Plan - Base Bid**  
1/8" = 1'-0"



**1 First Floor Plan - Base Bid & Alternates**  
1/8" = 1'-0"

**CONSTRUCTION PLAN GENERAL NOTES**

1. ANY CONFLICTS BETWEEN SITE CONDITIONS AND DRAWINGS SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ARCHITECT/DESIGNER.
2. THE CONTRACT DOCUMENTS ARE COMPLEMENTARY TO EACH OTHER. WHAT IS REQUIRED FOR ONE DRAWING SHALL BE AS BINDING AS IF REQUIRED FOR ALL.
3. REVIEW LAYOUTS FOR PARTITIONS IN FIELD WITH ARCHITECT/DESIGNER PRIOR TO START OF CONSTRUCTION.
4. ALL EXISTING WALLS TO REMAIN ARE TO BE PATCHED AND REPAIRED TO MEET REQUIREMENTS OF NEW FINISHES. U.O.N. REFER TO SPECIFICATIONS FOR LEVEL OF FINISH. EXISTING FIRE BARRIER WALLS ARE TO BE PATCHED AND REPAIRED TO MAINTAIN THE EXISTING FIRE RATING AS WELL AS MEET REQUIREMENTS OF NEW FINISHES.
5. PENETRATIONS IN GYPSUM BOARD CONSTRUCTION ABOVE FINISHED CEILING SHALL BE EFFECTIVELY SEALED TO PREVENT SOUND LEAKAGE AT ACOUSTICAL PARTITIONS AND AT DEMISING PARTITIONS. U.O.N.
6. PROVIDE VERTICAL CONTROL JOINTS IN GWB EVERY 30'-0". VERIFY LOCATION WITH ARCHITECT U.O.N.
7. PARTITIONS ARE DIMENSIONED FROM FACE OF STUD OR MASONRY UNLESS OTHERWISE NOTED. MAINTAIN DIMENSIONS MARKED "CLEAR" OR "HOLD". ALLOW FOR THICKNESS OF FINISHES.
8. THE ARCHITECT RESERVES THE RIGHT TO MOVE ANY FIXTURE, RECEPTACLE OR BUILT-IN OBJECT UP UNTIL THE TIME HE/SHE SHALL APPROVE THE WALLS OR CEILINGS TO BE CLOSED. THIS APPROVAL SHALL TAKE PLACE PRIOR TO THE INSPECTORS APPROVAL SO AS NOT TO CONFLICT WITH ANY BUILDING OFFICIALS DECISIONS.
9. PROVIDE FIRE EXTINGUISHERS (WITH RECESSED CABINETS) IN QUANTITIES AND LOCATIONS SHOWN ON DWGS (MIN. 16000 SQ. FT. & 75' MAX TRAVEL DISTANCE). REVIEW FINAL LOCATIONS WITH THE ARCHITECT/DESIGNER PRIOR TO START OF CONSTRUCTION.
10. MAINTAIN ALL FIRE ALARM DEVICES, HORNS AND STROBES DURING THE WORK.
11. PROTECT AREA OF WORK AND ADJACENT AREAS FROM DAMAGE DURING CONSTRUCTION.
12. MAINTAIN WORK AREAS SECURE AND LOCKABLE DURING CONSTRUCTION. COORDINATE WITH OWNER TO ENSURE SECURITY.
13. DO NOT SCALE DRAWINGS. WRITTEN DIMENSIONS GOVERN. IN CASE OF CONFLICT, CONSULT THE ARCHITECT.
14. ALL DOOR OPENINGS TO BE 4" FROM NEAREST PERPENDICULAR PARTITION. U.O.N.
15. SEE EXISTING ELEVATION SHEET D-101 FOR WORK ASSOCIATED WITH EXISTING WINDOWS.
16. PAINT ALL EXISTING AND NEW WALLS, DOORS, EXISTING PAINTED STEEL, EXPOSED PINE AND FIRST FLOOR CEILINGS.

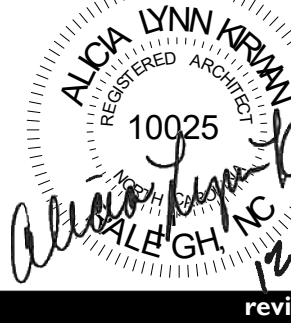
**PLAN KEY NOTES**

- |   |  |
|---|--|
| <ol style="list-style-type: none"> <li>1 PATCH AND REPAIR EXISTING CONCRETE FLOOR TO SMOOTH FINISH. SEAL AS SPECIFIED</li> <li>2 INFILL IN WALL TO MATCH EXISTING &amp; ALIGN W/ WALL &amp; WINDOW - MAINTAIN ONE HOUR FIRE RATING</li> <li>3 NEW BOLLARD. SEE LANDSCAPE FOR DETAILS</li> <li>4 WALL FOR EQUIPMENT TESTING. RUN IN FRONT OF EXISTING WINDOWS - 6'-6" TO TOP OF STUD. WRAP EXPOSED ENDS TO MATCH FACE</li> <li>5 WALL FOR EQUIPMENT TESTING - 7'-6" TO TOP OF STUD</li> <li>6 BASE BID: NO NEW ENTRY VESTIBULE. NEW DOOR AT DOOR 100 ONLY<br/>ALTERNATE 4: PROVIDE NEW ENTRY VESTIBULE</li> <li>7 BASE BID: NO CANOPY AT OUTDOOR WORK AREA<br/>ALTERNATE 6: PROVIDE PRE-MANUFACTURED FREESTANDING METAL CANOPY (14x15x11' HIGH) AT OUTDOOR WORK AREA</li> <li>8 BASE BID: NO CANOPY AT LOADING DOCK<br/>ALTERNATE 5: PROVIDE NEW CANOPY AT LOADING DOCK</li> <li>9 WRAP EXISTING DATA CHASE TO 8'-6" A.F.F.</li> <li>10 REPAIR EXISTING COLUMN &amp; PATCH FLOOR @ COLUMN AS REQUIRED FOR FLUSH, SMOOTH CONDITION - SEE STRUCTURAL PLANS FOR COLUMN REPAIRS</li> <li>11 PROVIDE STEEL PIT ACCESS LADDER. COORDINATE LOCATION WITH FINAL ELEVATOR INSTALLATION</li> <li>12 NEW BACKFLOW PREVENTER IN EXISTING LOCATION</li> </ol> | <ol style="list-style-type: none"> <li>13 EXTENT OF NEW SIDEWALK FOR BASE BID</li> <li>14 HATCH INDICATES APPROX. EXTENT OF NEW CEMENTITIOUS SELF-LEVELLING FINISH - FEATHER FLUSH TO EXISTING FLOOR</li> <li>15 EQUIPMENT PAD. SEE PME SHEETS</li> <li>16 CANOPY PAD. SEE "L" SHEETS</li> <li>17 SEE ROOF PLAN A-105 FOR ALL ROOFS &amp; ASSOCIATED DETAILS</li> <li>18 MINI-SPLIT SYSTEM OUTDOOR UNIT. SEE MECHANICAL PLANS</li> <li>19 NEW CHILLER ON EXISTING PAD. SEE MECHANICAL PLANS</li> <li>20 NEW CONCRETE PAD. SEE LANDSCAPE PLANS</li> <li>21 BASE BID: NO WORK THIS AREA<br/>ALTERNATE 4: PROVIDE NEW CONCRETE AT THESE AREAS AS SHOWN. SEE "L" SHEETS FOR DETAILS.</li> <li>22 NEW HANDRAIL</li> </ol> |
|---|--|

**LEGEND**

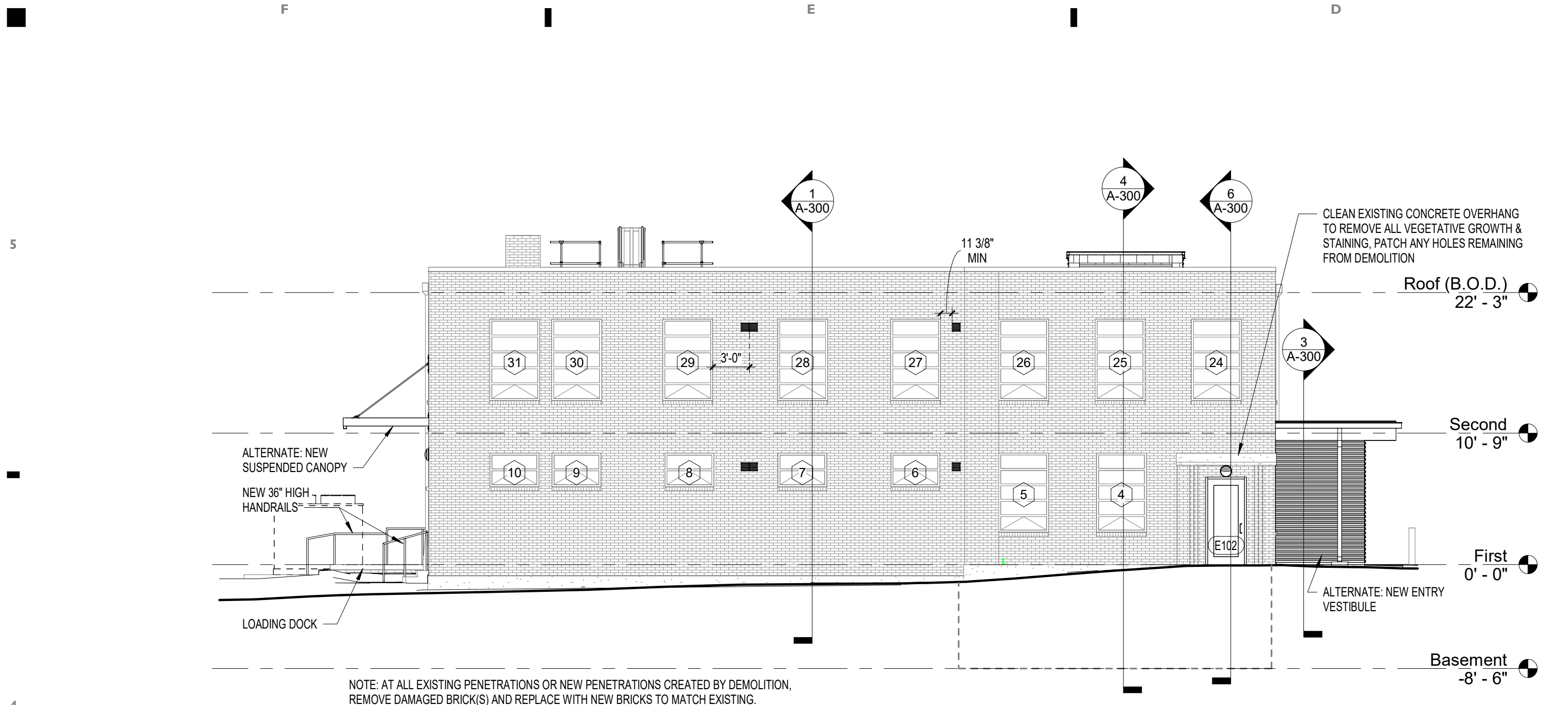
- |     |  |       |  |
|-----|--|-------|--|
| --- | ONE HOUR RATED ASSEMBLY                        | T     | TRASH CAN - PROVIDED BY OWNER  |
| --- | EXISTING WALL                                  | C     | COMPOST BIN - PROVIDED BY OWNER  |
| G3A | PARTITION TYPE                                 | R     | RECYCLE BIN - PROVIDED BY OWNER  |
| --- | NEW WALL                                       | L     | LOCKERS - PROVIDED BY OWNER  |
| --- | NEW DOOR (SEE DOOR SCHEDULE)                   |       | FURNITURE & CUBICLES PROVIDED AND INSTALLED BY OWNER. COORDINATE POWER AND DATA CONNECTIONS WITH OWNER |
| --- | DOOR NUMBER                                    | ---   | EXISTING WATER LINE  |
| 3   | CONSTRUCTION KEYNOTE TAG                       | SS-SS | EXISTING SANITARY SEWER LINE   |
| 11  | WINDOW TAG                                     |       |  |
| FEC | FIRE EXTINGUISHER RECESSED CABINET. SEE 2/G004 |       |  |



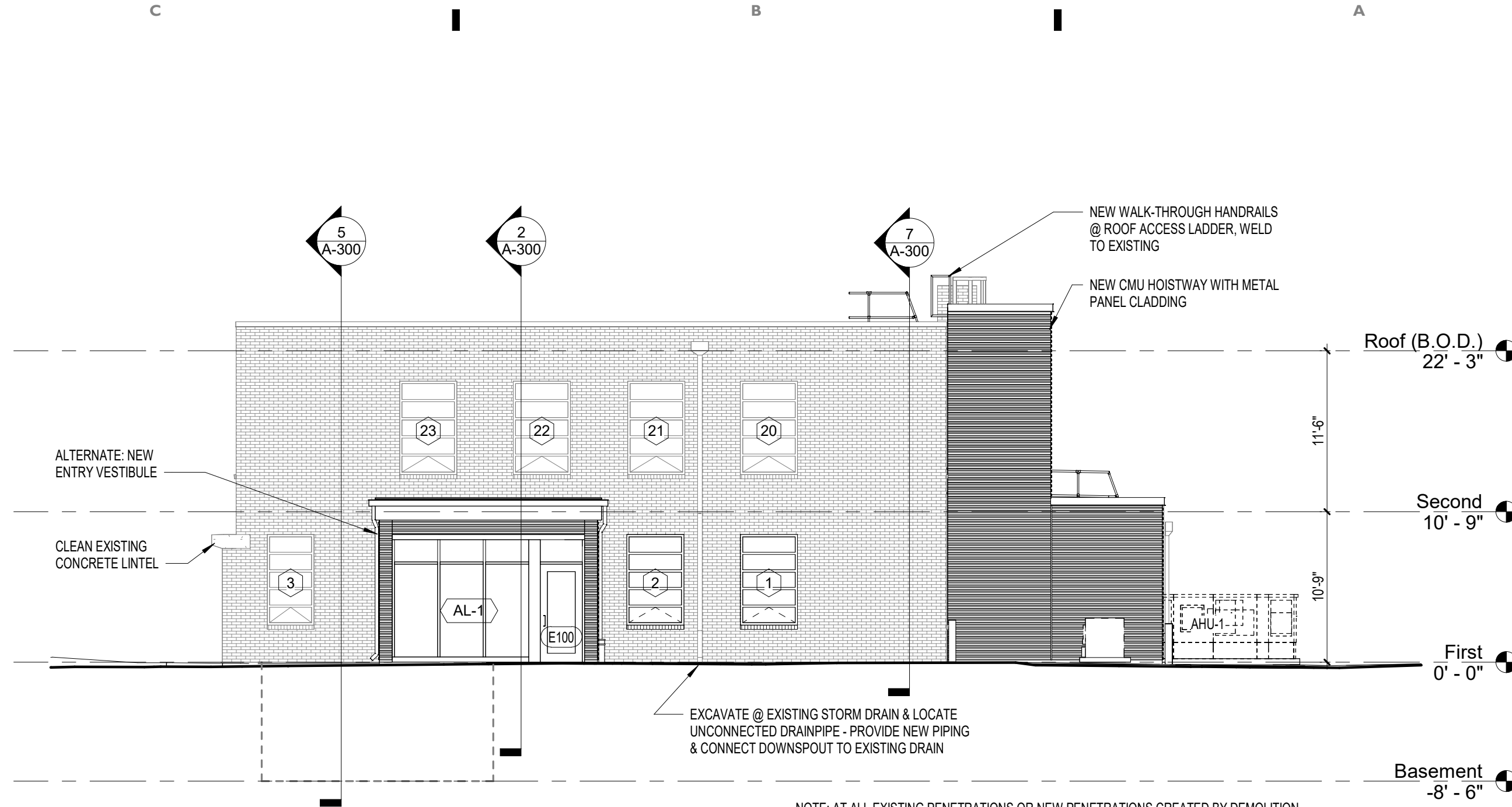


#	date	note
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2	12/12/2023	Rev. 2

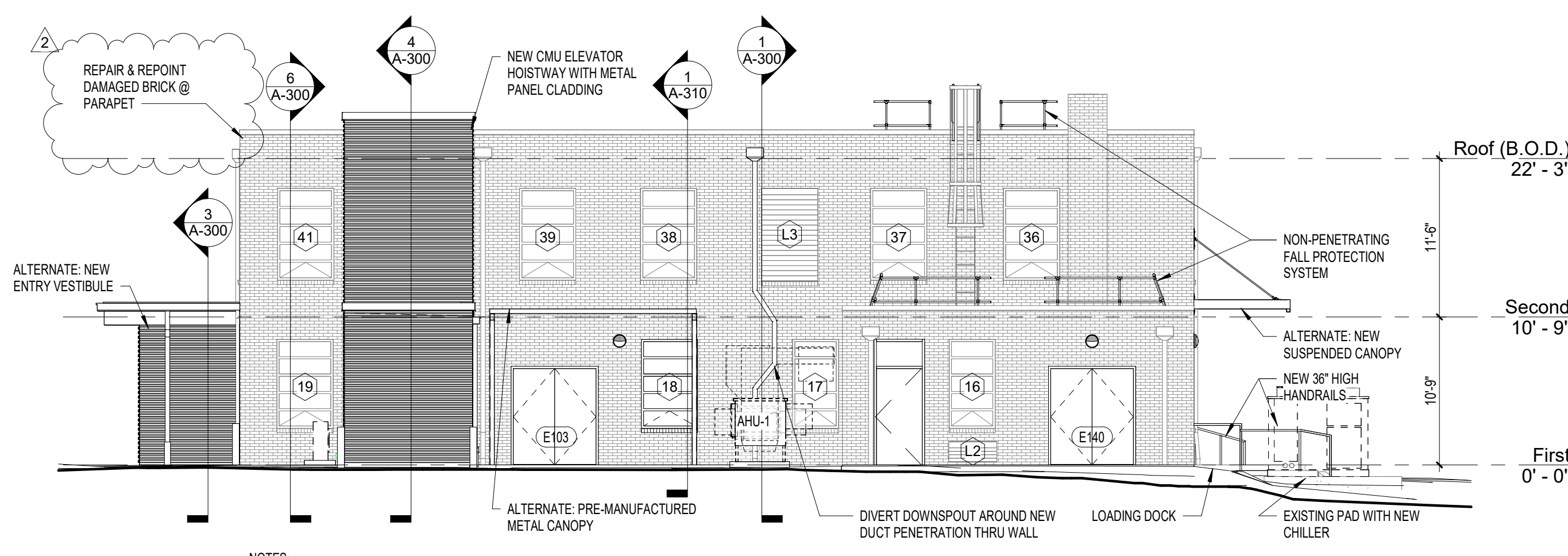
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DATE	11/20/2023
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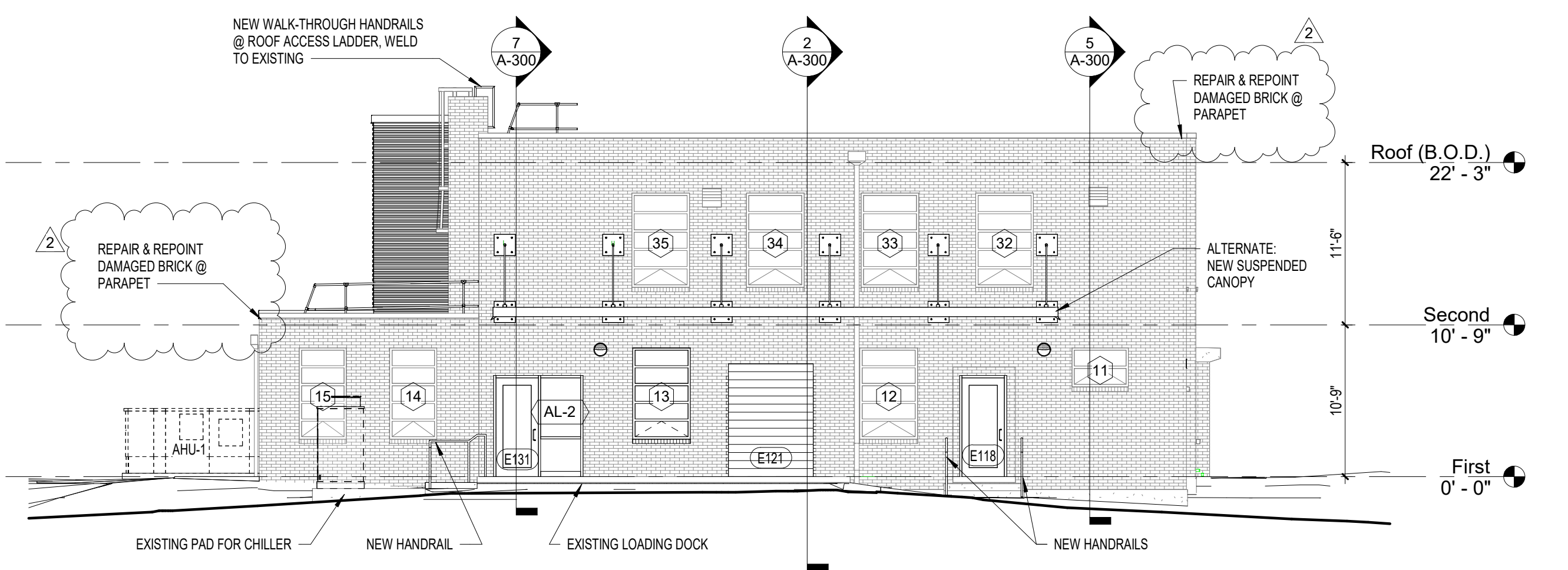
**1 East**  
1/8" = 1'-0"



**2 North**  
1/8" = 1'-0"



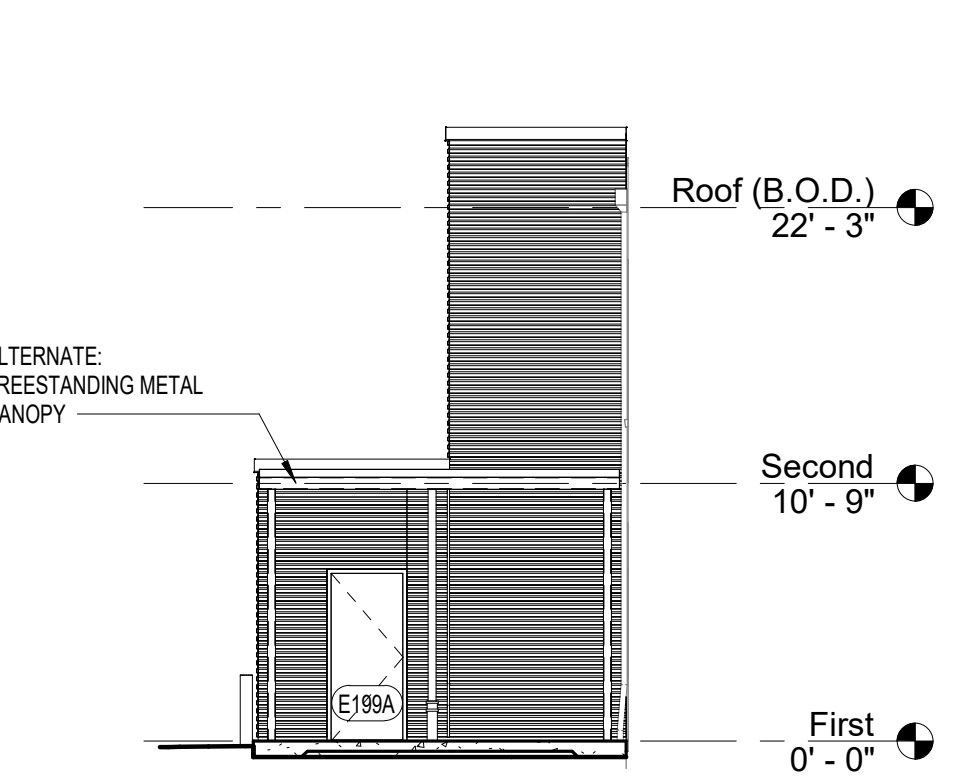
**3 West**  
1/8" = 1'-0"



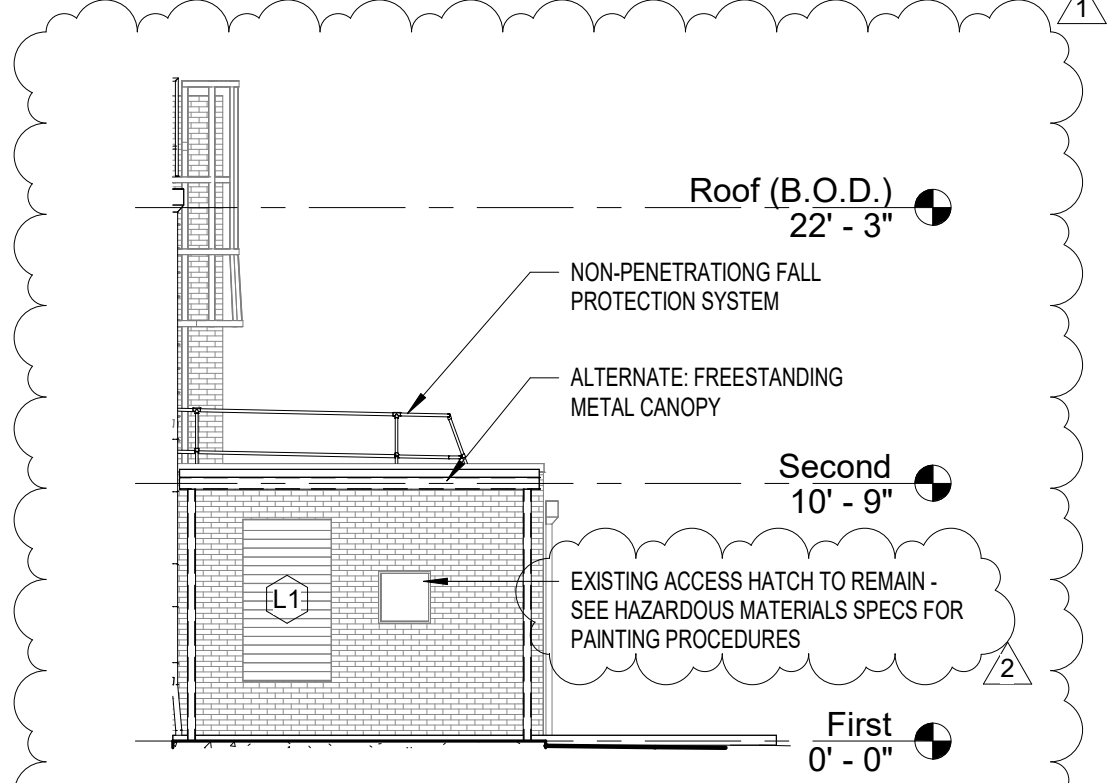
**4 South**  
1/8" = 1'-0"

**ELEVATION NOTES**

- AT ALL EXISTING PENETRATIONS OR NEW PENETRATIONS CREATED BY DEMOLITION, REMOVE DAMAGED BRICK(S) AND REPLACE WITH NEW BRICKS TO MATCH EXISTING. BASIS OF DESIGN LEE 200 RED SMOOTH & LEE 200 RED SMOOTH FLASHED. REPOINT AT AREAS OF REPAIR.
- PROVIDE AN ALLOWANCE FOR 32 EXISTING PENETRATIONS BETWEEN 2" AND 12" DIAMETER OR 2 SF, AND 50 EXISTING PENETRATIONS LESS THAN 2" DIAMETER.
- PAINT ALL EXTERIOR STEEL. SEE HAZARDOUS MATERIALS SPECIFICATIONS FOR LOCATIONS AND TREATMENT OF EXISTING LEAD CONTAINING PAINTED FINISHES.
- AT ALL EXISTING WINDOWS AND LOUVERS TO REMAIN REMOVE EXISTING SEALANT AT THE LINTEL PRIOR TO PREPPING FOR PAINTING. REPLACE SEALANT AFTER FINAL PAINTING OF LINTEL.

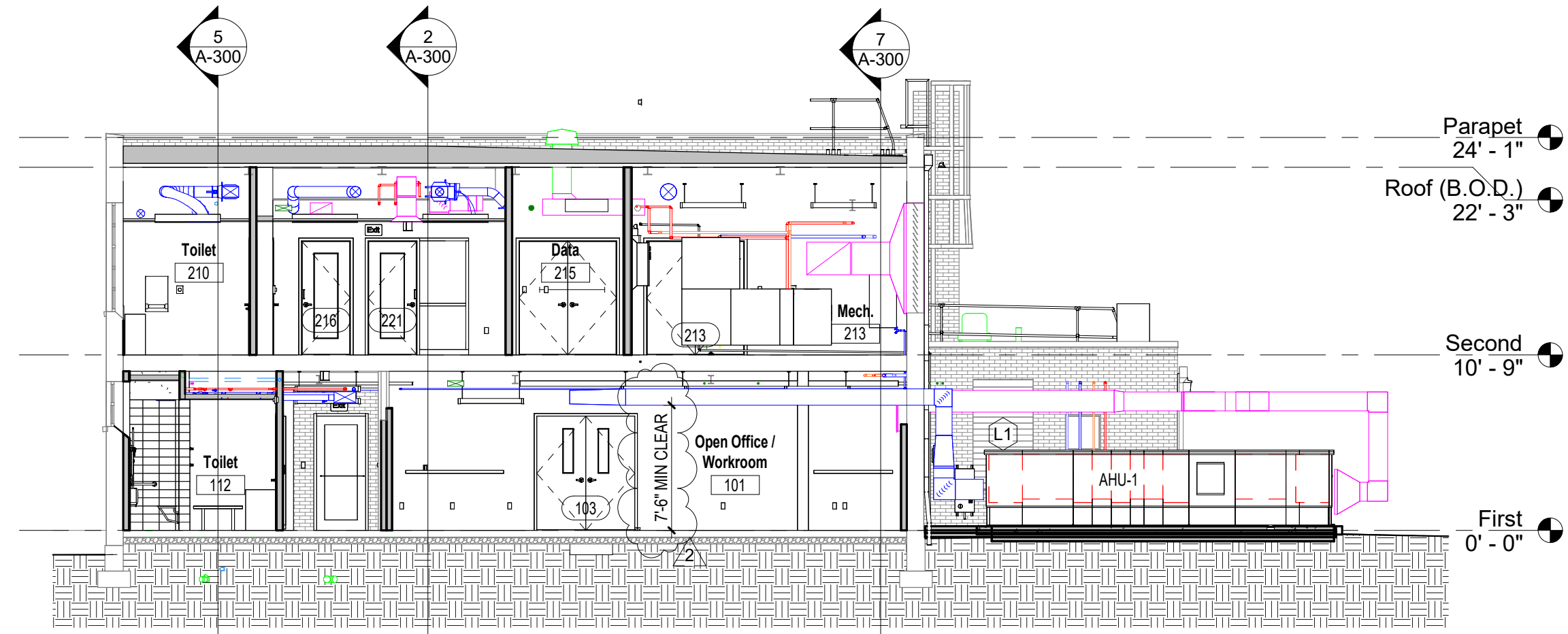


**5 South Elevation @ Machine Room**  
1/8" = 1'-0"

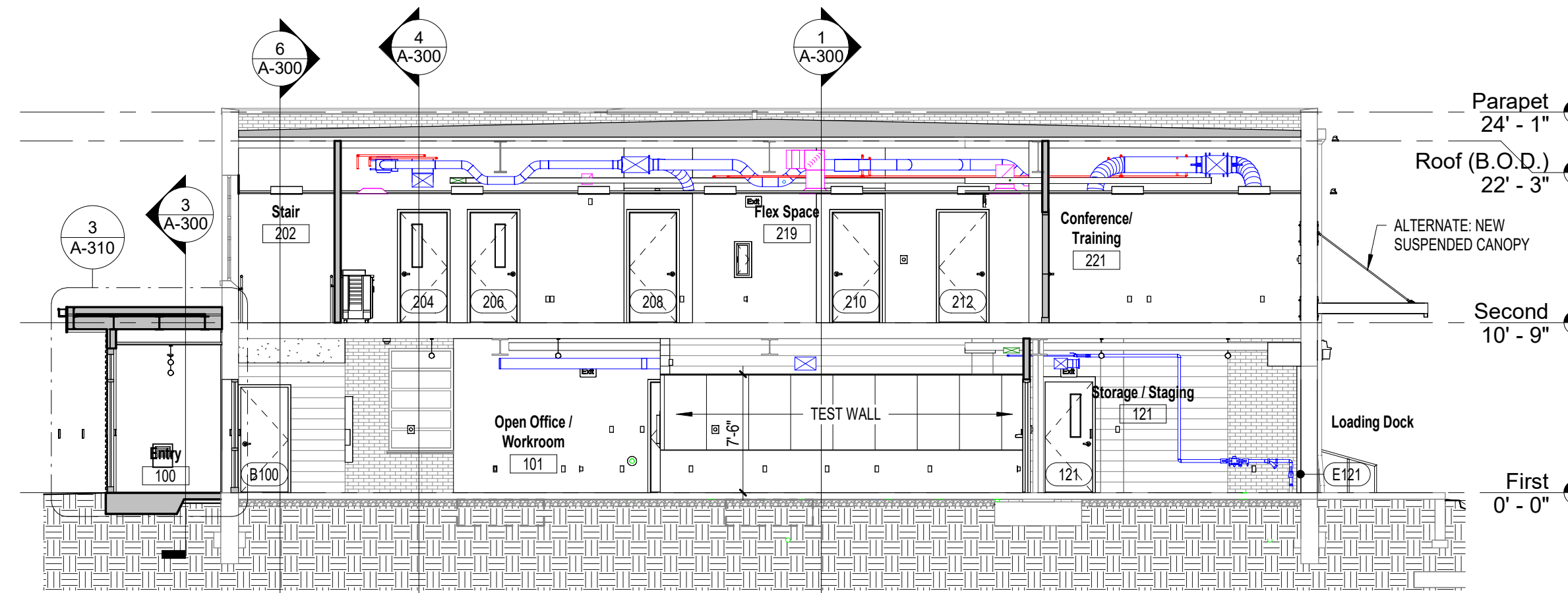


**6 North Elevation @ Electrical Room**  
1/8" = 1'-0"

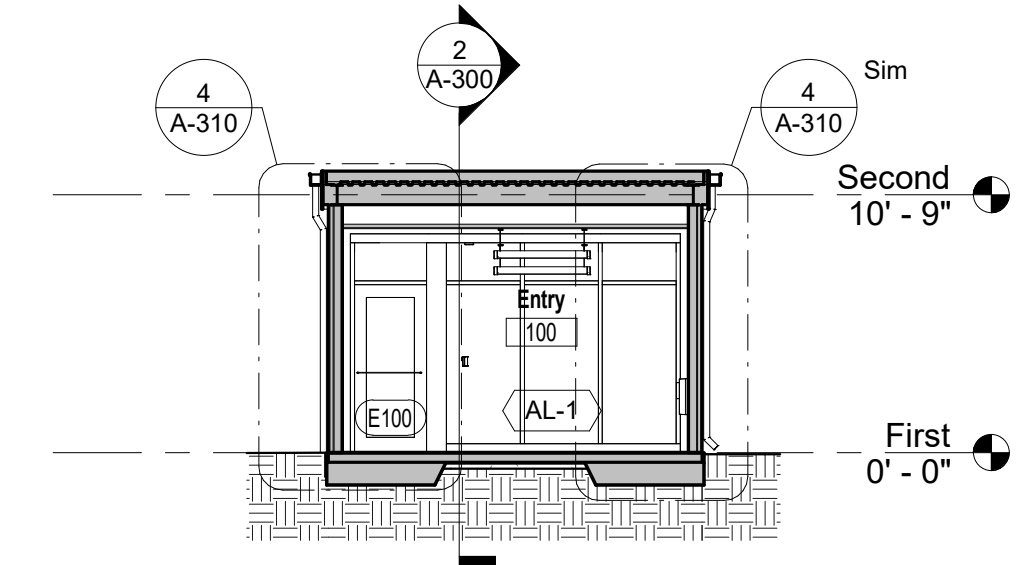




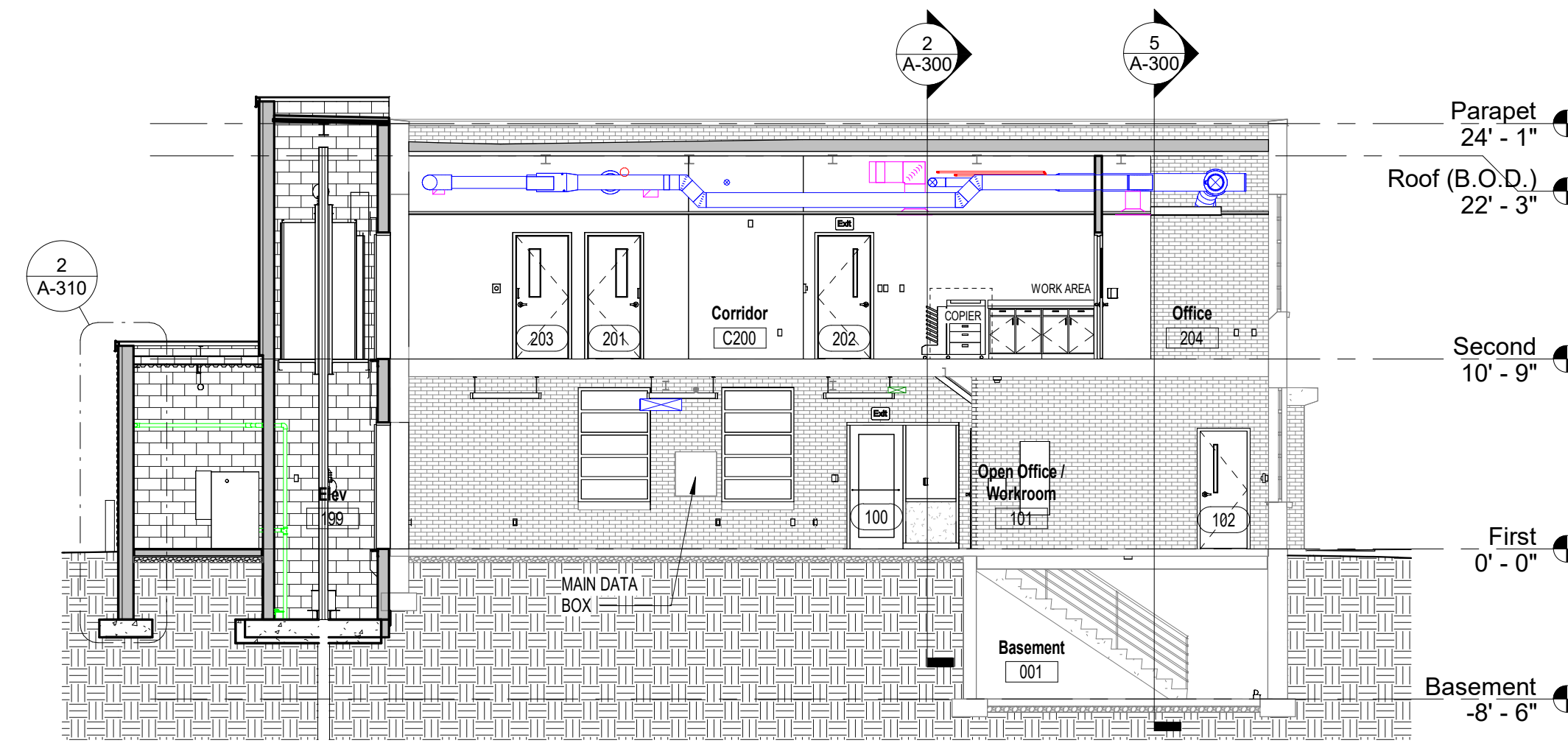
1 Section - All Alternates Shown  
1/8" = 1'-0"



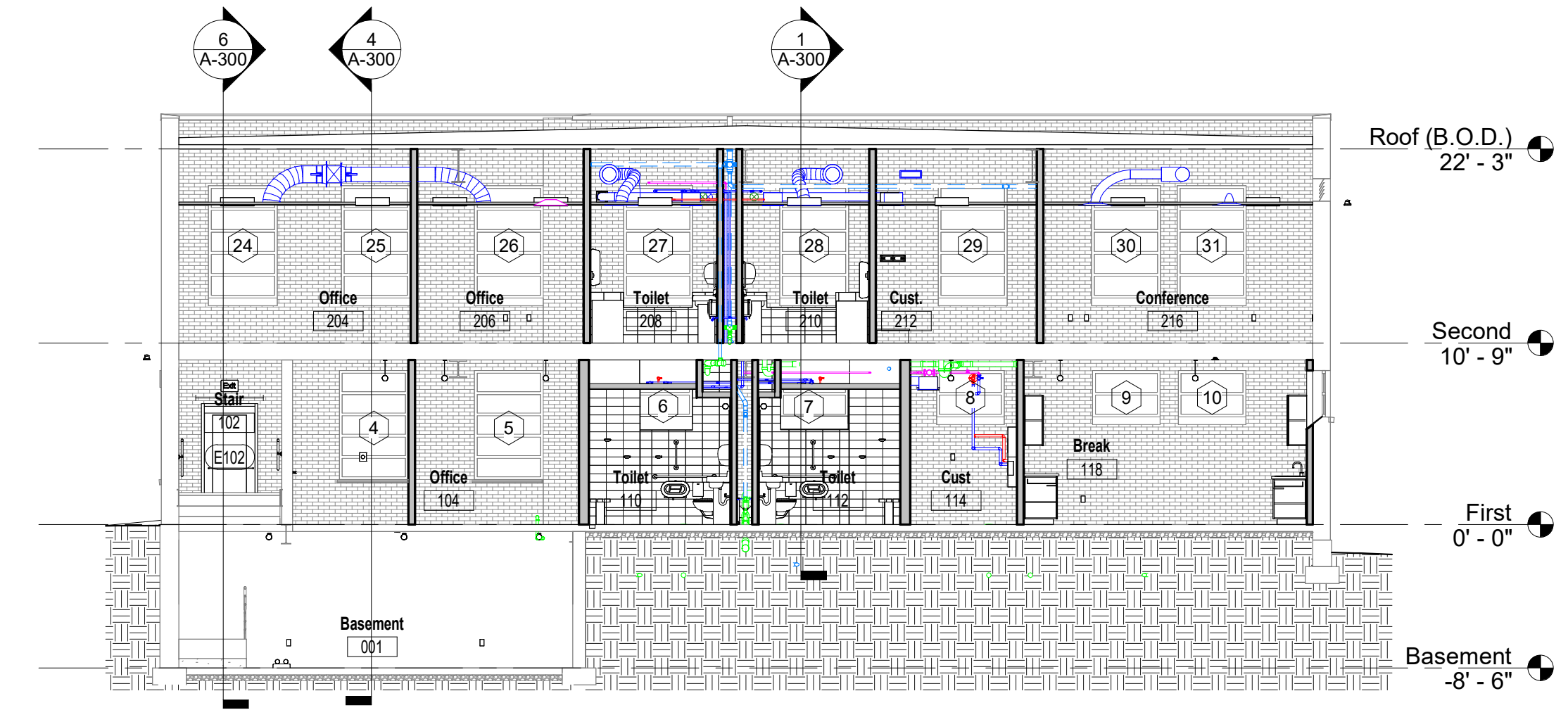
2 Section - All Alternates Shown  
1/8" = 1'-0"



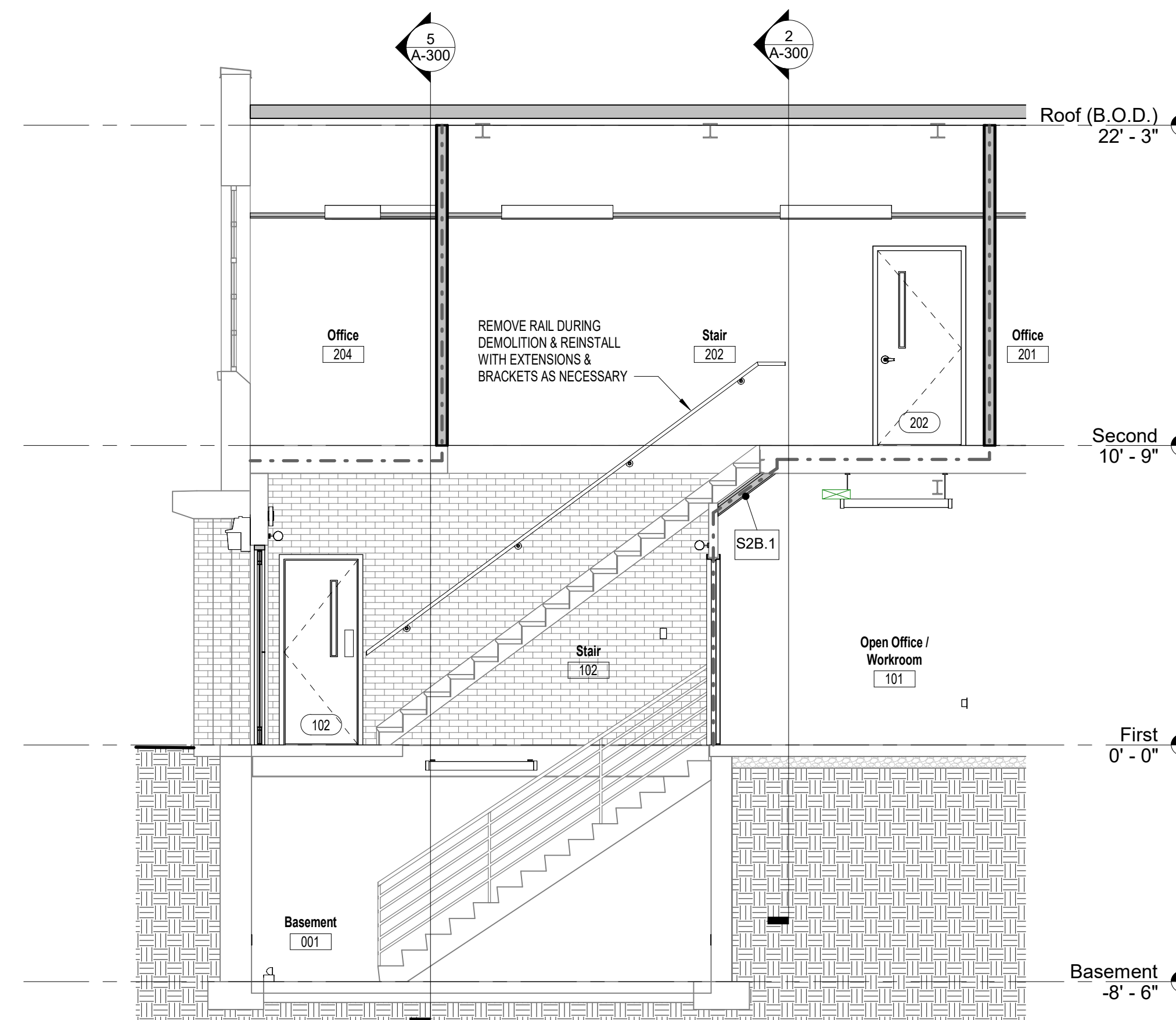
3 Section - Vestibule Alternate  
1/8" = 1'-0"



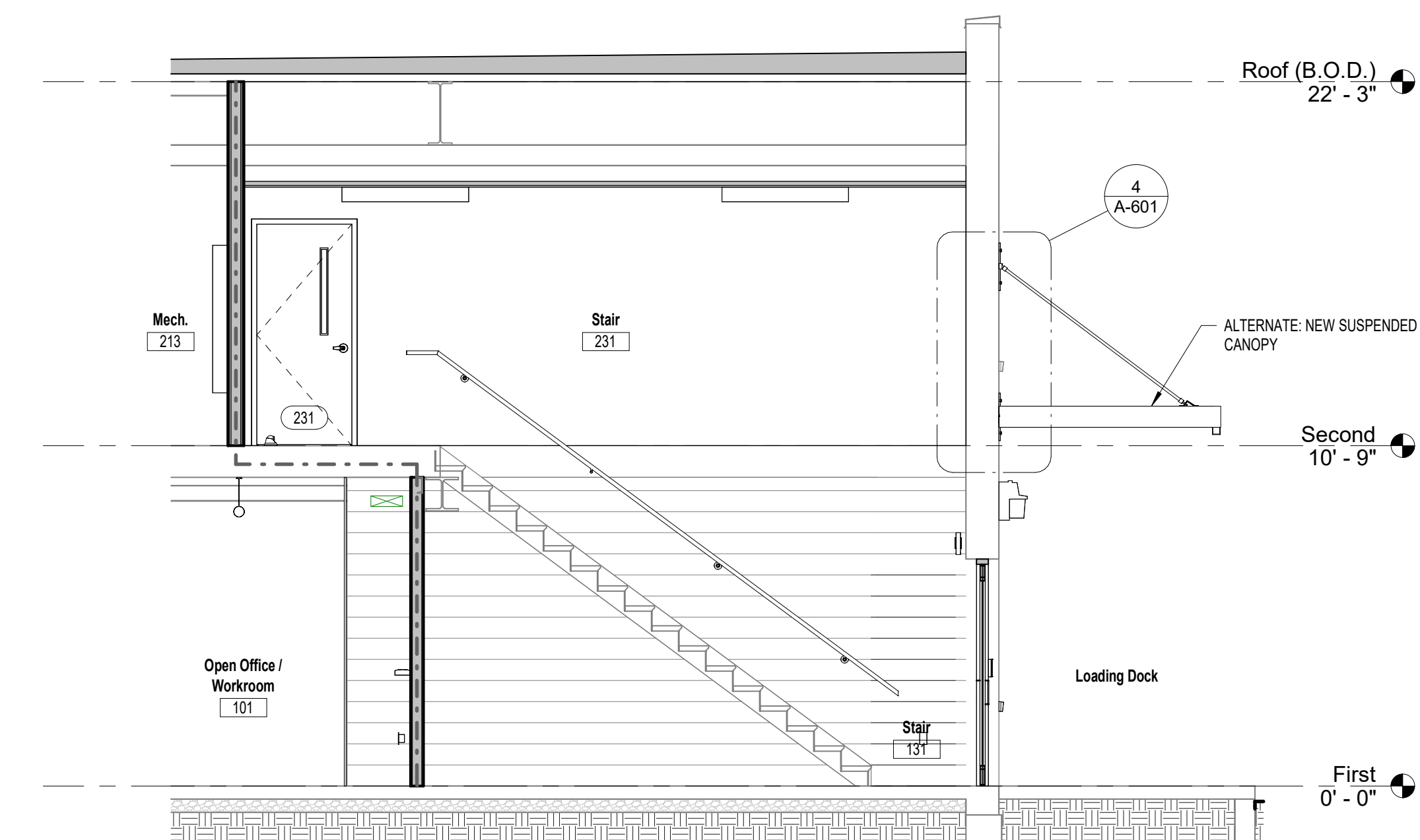
4 Section - All Alternates Shown  
1/8" = 1'-0"



5 Section - All Alternates Shown  
1/8" = 1'-0"



6 Stair 102 Section - Alternates Shown  
1/4" = 1'-0"



7 Stair 131 Section - Alternates Shown  
1/4" = 1'-0"

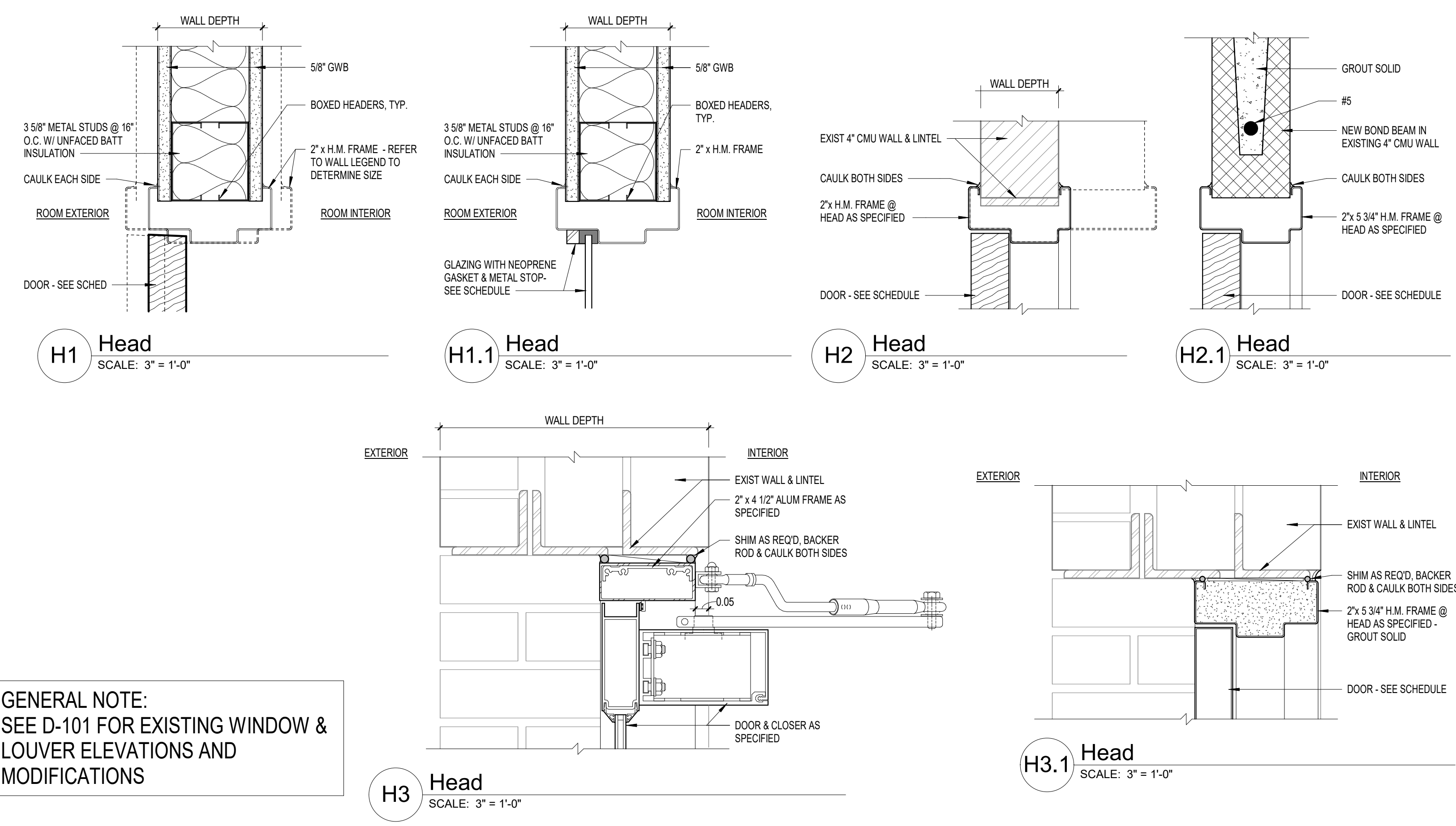
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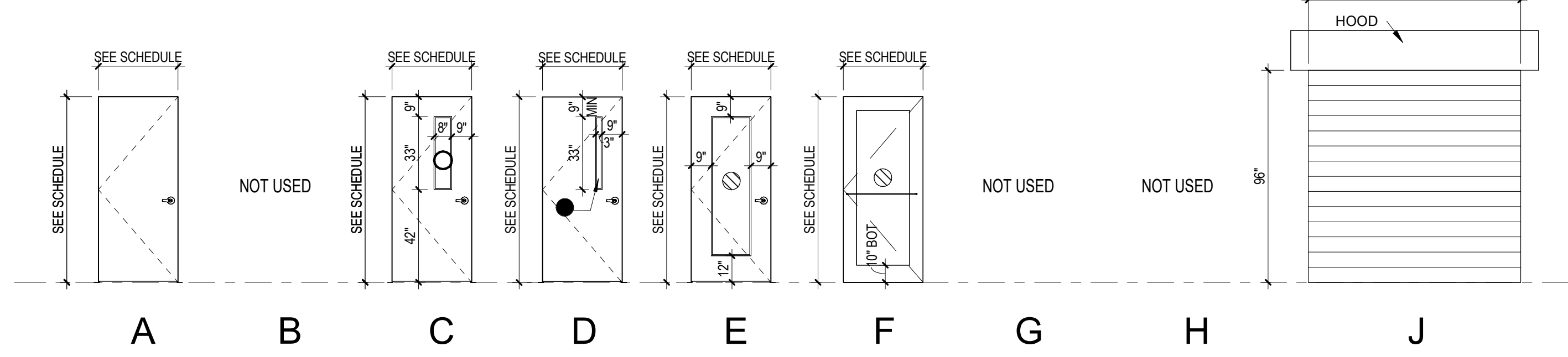
NUMBER	TO	FROM	DOOR				FRAME				FIRE RATING	HW SET	HEAD	JAMB	SILL	GLAZING	REMARKS	
			COUNT	WIDTH	HEIGHT	TYPE	MAT'L	FINISH	FRAME TYPE	MAT'L								FINISH
100	Entry	Open Office / Workroom	1	36"	84"	F	AL	FACT	AL-2	AL	FACT	-	5	H3	J3	S3	C	1,2,3,4
102	Stair	Open Office / Workroom	1	32"	80"	D	WD	STN	F1	HM	PT	1 HR	12	H2	J2	S1	B	
103	Open Office / Workroom	Storage / Staging	2	72"	84"	C	WD	STN	F1	HM	PT	-	15	H1	J1	S1	A	1
104	Office	Open Office / Workroom	1	36"	84"	C	WD	STN	F1	HM	PT	-	15	H1	J1	S1	A	
110	Toilet	Corridor	1	36"	84"	A	WD	STN	F1	HM	PT	-	4	H1	J1	S2	-	
112	Toilet	Corridor	1	36"	84"	A	WD	STN	F1	HM	PT	-	4	H1	J1	S2	-	
114	Cust.	Corridor	1	36"	84"	A	WD	STN	F1	HM	PT	-	11	H1	J1	S1	-	
121	Storage / Staging	Corridor	1	36"	84"	C	WD	STN	F1	HM	PT	-	18	H2.1	J2	S1	A	
201	Office	Corridor	1	36"	84"	C	WD	STN	F1	HM	PT	-	17	H1	J1	S1	A	
202	Stair	Corridor	1	36"	84"	D	WD	STN	F1	HM	PT	1 HR	12	H1	J1	S1	B	
203	Office	Corridor	1	36"	84"	C	WD	STN	F1	HM	PT	-	17	H1	J1	S1	A	1
204	Office	Corridor	1	36"	84"	C	WD	STN	F1	HM	PT	-	17	H1	J1	S1	A	1
206	Office	Corridor	1	36"	84"	C	WD	STN	F1	HM	PT	-	17	H1	J1	S1	A	1
208	Toilet	Corridor	1	36"	84"	A	WD	STN	F1	HM	PT	-	10	H1	J1	S2.1	-	
210	Toilet	Corridor	1	36"	84"	A	WD	STN	F1	HM	PT	-	10	H1	J1	S2.1	-	
212	Cust.	Corridor	1	36"	84"	A	WD	STN	F1	HM	PT	-	13	H1	J1	S1	-	1
213	Mech.	Flex Space	2	72"	84"	A	WD	STN	F1	HM	PT	1 HR	9	H1	J1	S1	-	
215	Flex Space	Dala	2	72"	84"	A	WD	STN	F1	HM	PT	-	20	H1	J1	S1	-	1
216	Conference	Corridor	1	36"	84"	E	WD	STN	F1	HM	PT	-	16	H1	J1	S1	A	1
221	Conference / Training	Flex Space	1	36"	84"	E	WD	STN	F2	HM	PT	-	16	H1	J1, J1.1, J1.2	S1	A	1
231	Stair	Flex Space	1	36"	84"	D	WD	STN	F1	HM	PT	1 HR	12	H1	J1	S1	B	
B100	Stair	Open Office / Workroom	1	36"	80"	D	WD	STN	F1	HM	PT	1 HR	14	H2	J2	S1	-	
E100	Entry	Exterior	1	36"	84"	F	AL	FACT	AL-1	AL	FACT	-	1	H4.1	J4, J4.1	S4	C	1,2
E102	Stair	Exterior	1	36"	84"	F	AL	FACT	F1	AL	FACT	-	21	H3	J3	S3	C	1,2
E103	Open Office / Workroom	Outdoor Work Area	2	72"	84"	A	HM	PT	F1	HM	PT	-	6	H3.1	J3.1	S3.1	-	1
E118	Corridor	Exterior	1	36"	84"	E	AL	FACT	F1	AL	FACT	-	3	H3	J3	S3	C	1,2
E121	Storage / Staging	Loading Dock	1	72"	96"	J	STL	FACT	F1	STL	FACT	-	6	H5	J5	S5	-	1,5
E131	Stair	Loading Dock	1	36"	84"	E	AL	FACT	AL-2	AL	FACT	-	2	H3	J3	S3	C	1,2
E140	Mechanical	Exterior	2	72"	84"	A	HM	PT	F1	HM	PT	-	7	H3.1	J3.1	S3.1	-	
E140A	Elev.	Exterior	1	40"	84"	A	HM	PT	-	-	-	-	8	-	-	-	-	EXIST TO REMAIN
E199A	Machine Room	Outdoor Work Area	1	36"	84"	A	HM	PT	F1	HM	PT	-	8	H3.1	J3.1	S3.1	-	

DOOR ABBREVIATIONS	DOOR REMARKS	DOOR GENERAL NOTES
AL ALUMINUM FACT FACTORY FINISH GL GLASS HM HOLLOW METAL PT PAINT STL STEEL STN STAIN WD WOOD NA NOT APPLICABLE	1. PROVIDE CARD READER, SECURITY DEVICES PROVIDED BY SECURITY CONTRACTOR. 2. GLASS IN RATED DOOR GREATER THAN 100 SQ. IN. MUST BE TESTED & LABELED = D-H-T-60 OR D-H-T-W-60 3. PROVIDE PUSH BUTTON AUTOMATIC DOOR OPEN DEVICE 4. BASE BID: HARDWARE GROUP 1, ALTERNATE 4: HARDWARE GROUP 5 5. COILING DOOR	A. DOORS AND DOOR HARDWARE TO BE ADA COMPLIANT WITH LOCAL BUILDING & FIRE CODES. B. SEE FLOOR PLANS AND PARTITION TYPES FOR THROAT DEPTHS C. UNDERCUT DOOR TO CLEAR TOP OF FLOOR FINISHES BY 1/4" U.O.N. D. GLAZING STOP TO BE ON ROOM SIDE OF FRAME WHEN FRAME IS IN CORRIDOR U.O.N. E. LOCK CORES TO BE COMPATIBLE WITH BUILDING STANDARD CYLINDERS AND KEYS TO MASTER SYSTEM. COORDINATE WITH BUILDING ENGINEER. F. ENTRY DOOR AND EXIT DOORS AND EXIT DOORS WITH CARD READERS TO BE TIED INTO FIRE ALARM SYSTEM & LOSS OF POWER AS FAIL SAFE MODE. G. ALL SINGLE DOORS TO RECEIVE 1-1/2" PAIR BUTT HINGES AND DOUBLE DOOR TO RECEIVE 3 PAIR BUTT HINGES. H. DOORS OVER 7'-0" HEIGHT TO RECEIVE 2 PAIR BUTT HINGES AT THE SINGLE DOOR AND 4 PAIR BUTT HINGES AT DOUBLE DOORS I. THE HARDWARE SET IS FURNISHED AS INFORMATION AND AS GUIDE ONLY THE COMPLETE QUANTITY REQUIREMENTS FOR EACH OPENING SHALL BE THE RESPONSIBILITY OF GC.

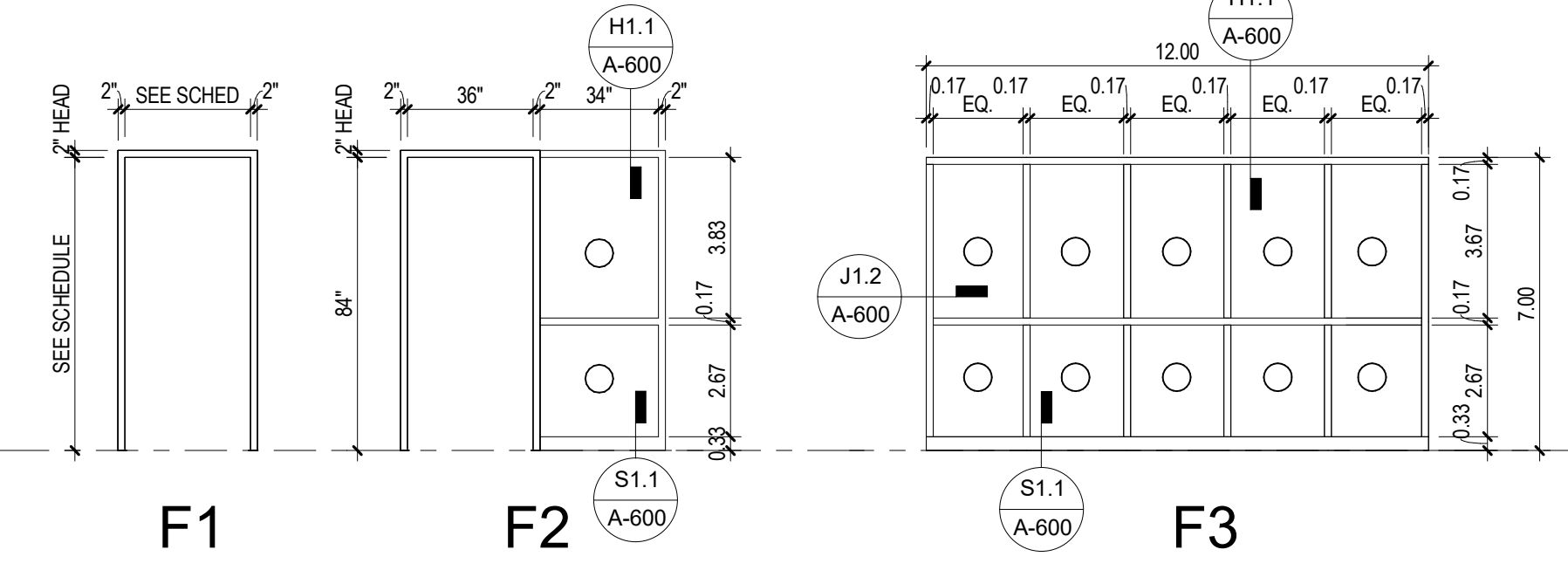
**GENERAL NOTE:**  
SEE D-101 FOR EXISTING WINDOW & LOUVER ELEVATIONS AND MODIFICATIONS



**DOOR ELEVATIONS**  
SCALE 1/4" = 1'-0"

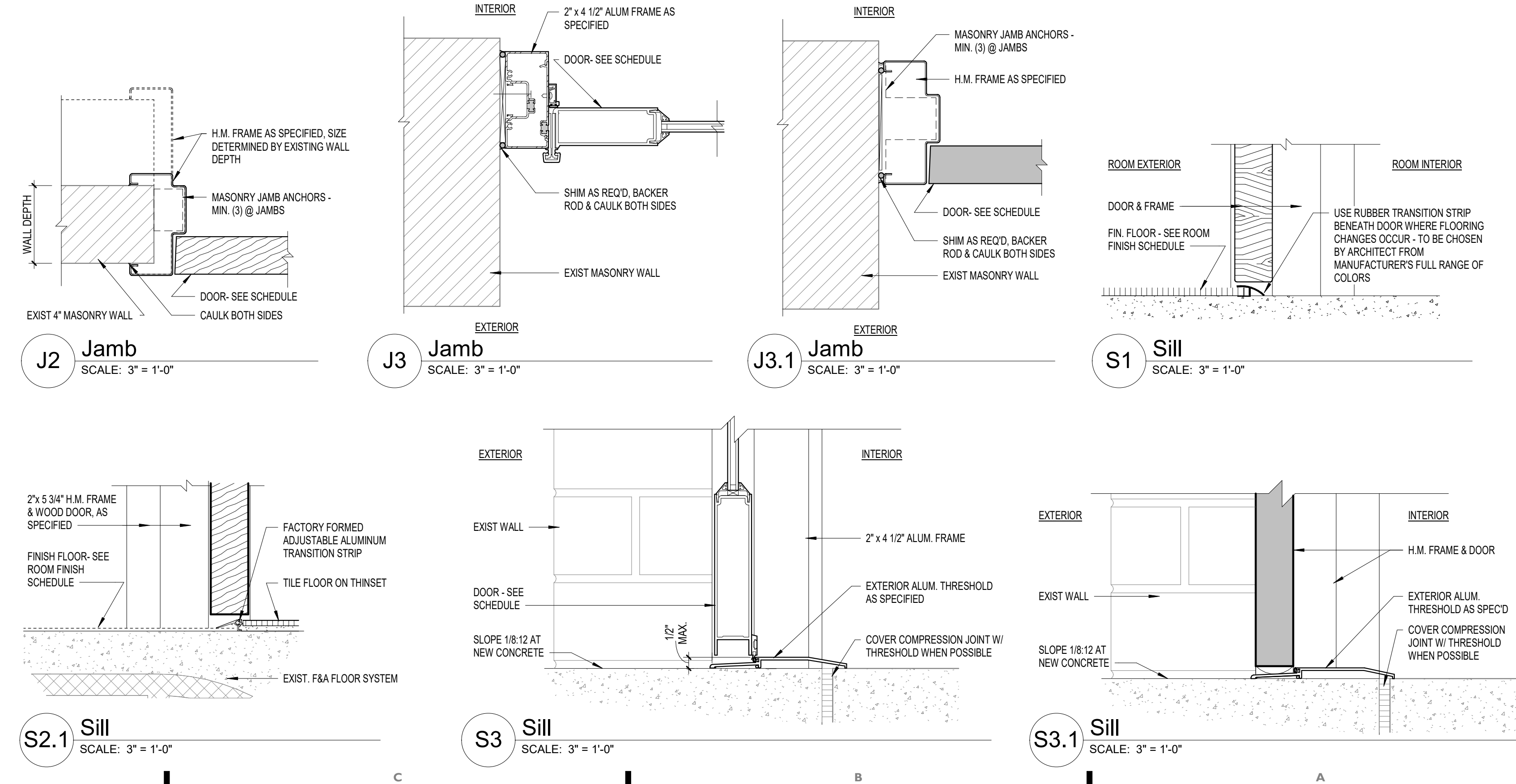
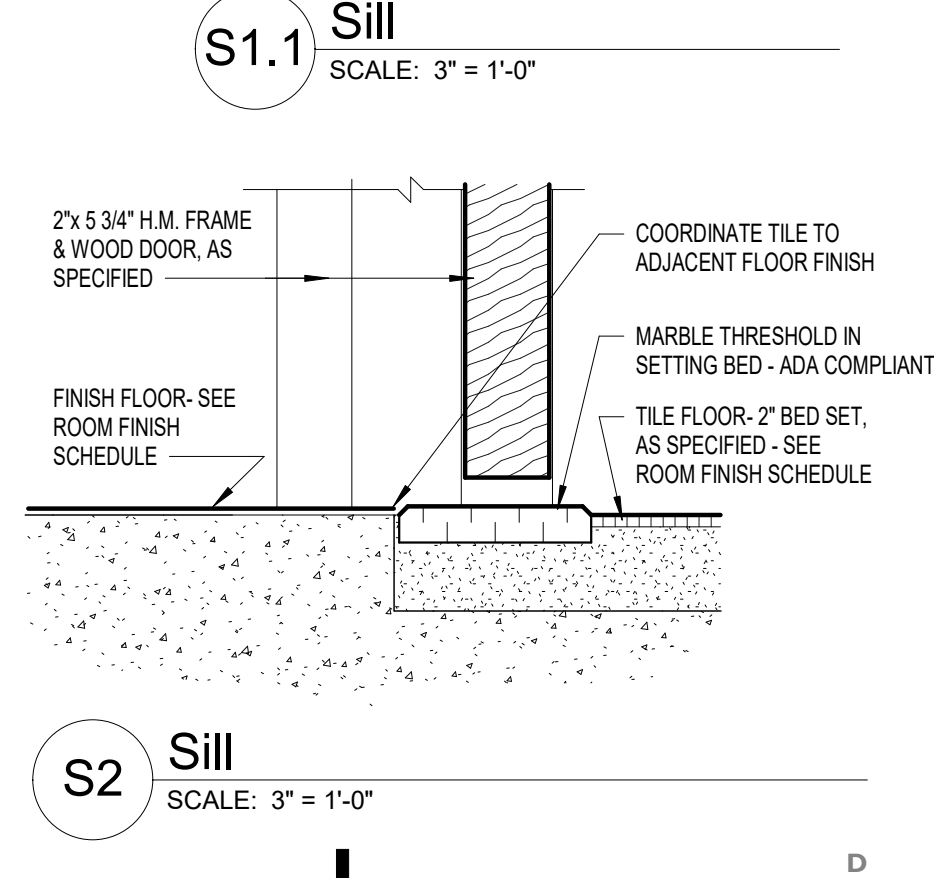
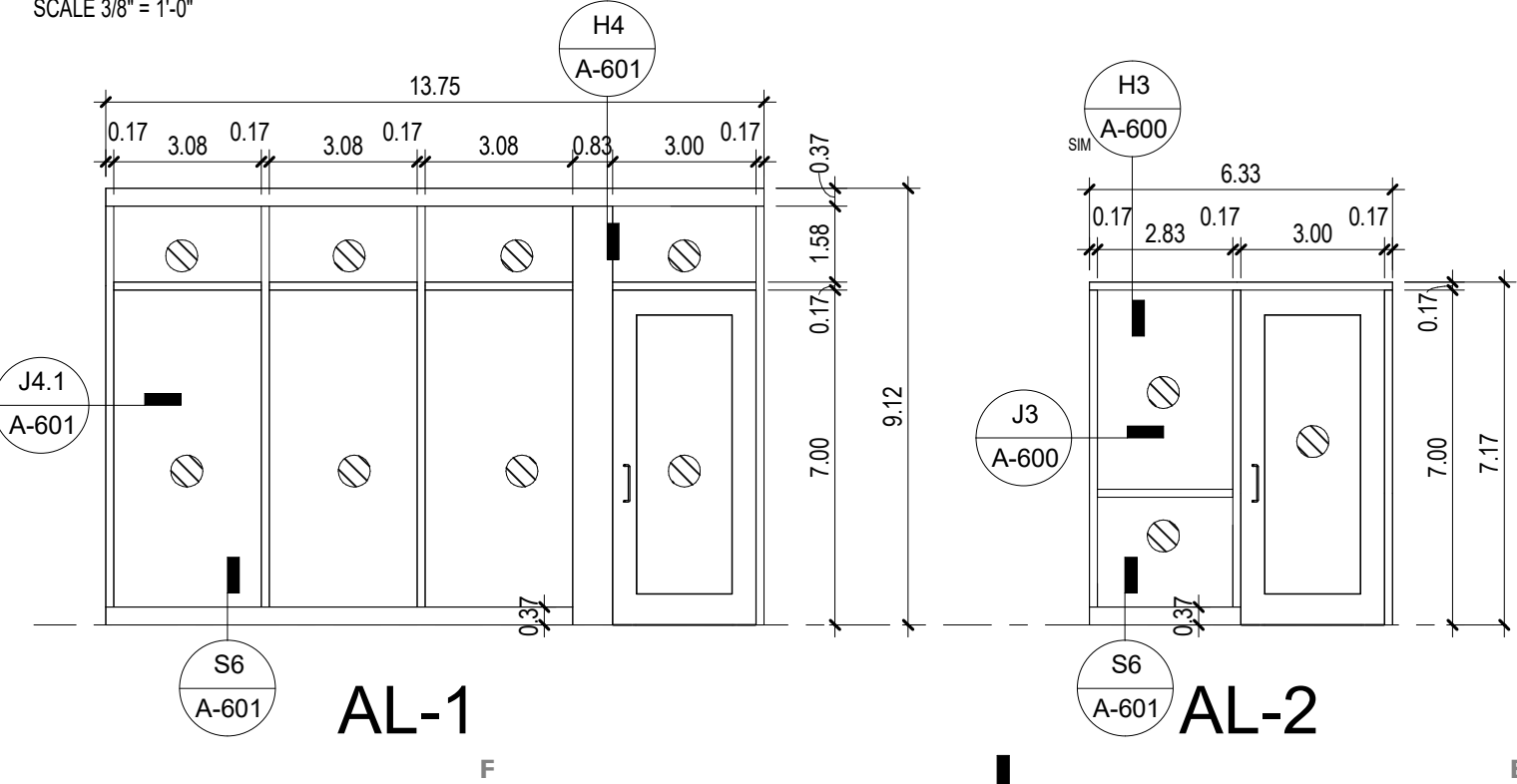


**FRAME ELEVATIONS**  
SCALE 3/8" = 1'-0"



GLAZING LEGEND	
○	TYPE A 1/4" TEMPERED PLATE - CLEAR
●	TYPE B 5/16" FIRELITE PLUS - CLEAR
◌	TYPE C 5/8" TEMPERED LOW E GLAZING - (EXTERIOR DOORS)

**STOREFRONT ELEVATIONS**  
SCALE 3/8" = 1'-0"



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consultants

project status

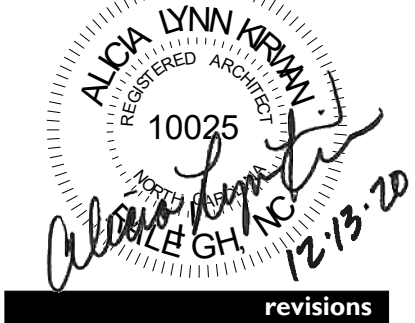
**Construction Documents for Bid**

owner id

SCO ID# 19-21547-02A

NCSU ID 201920037

seals



# date note

2 12/12/2023 Rev. 2

**Don E. Ellis Building (133) Renovations**  
1320 Varsity Drive, Raleigh, NC 27606  
North Carolina State University

PROJECT 1368-20  
DATE 11/20/2023  
DRAWN ADQ  
CHECKED ALK  
sheet name

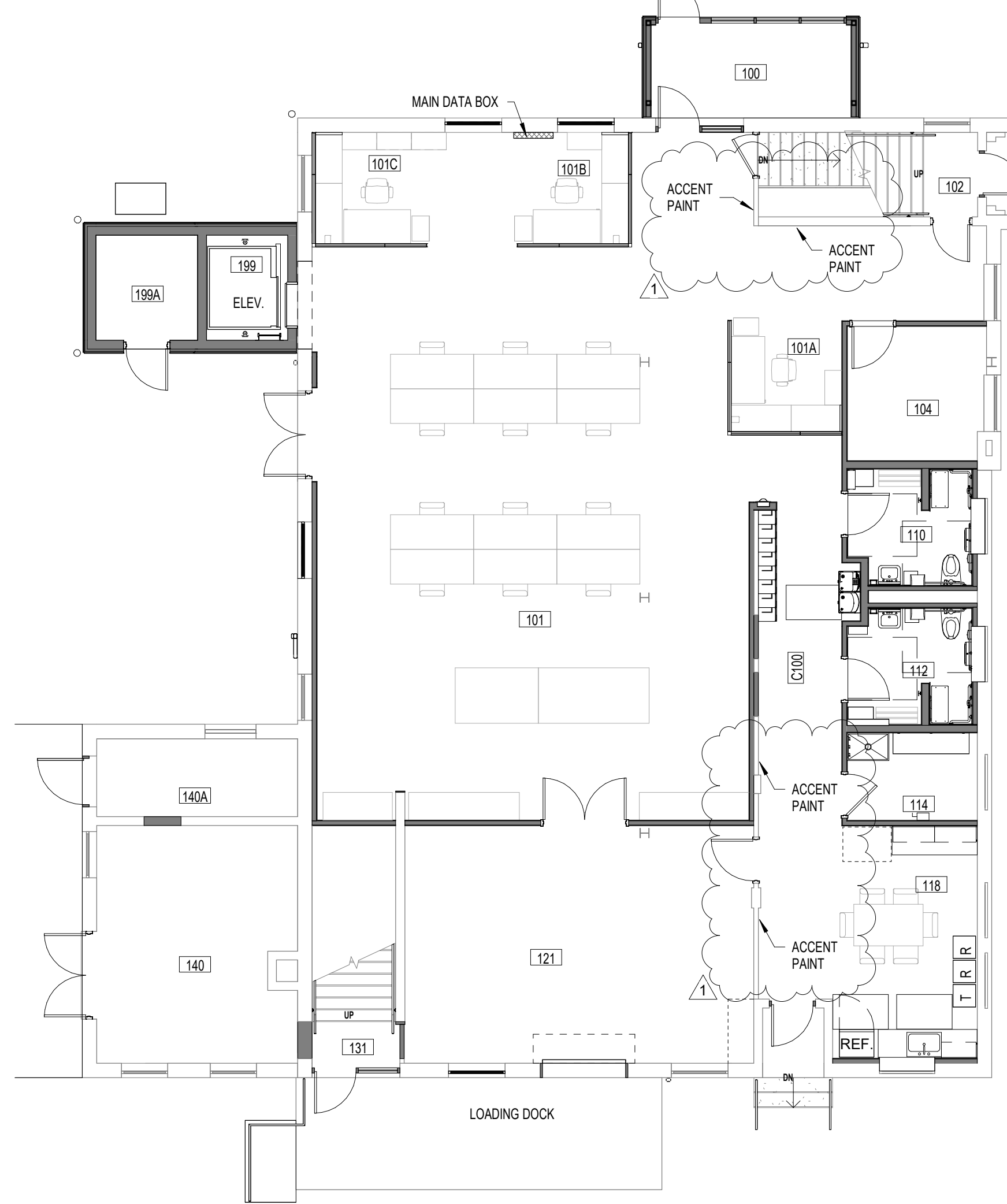
Door Schedule & Details

sheet no

**A-600**

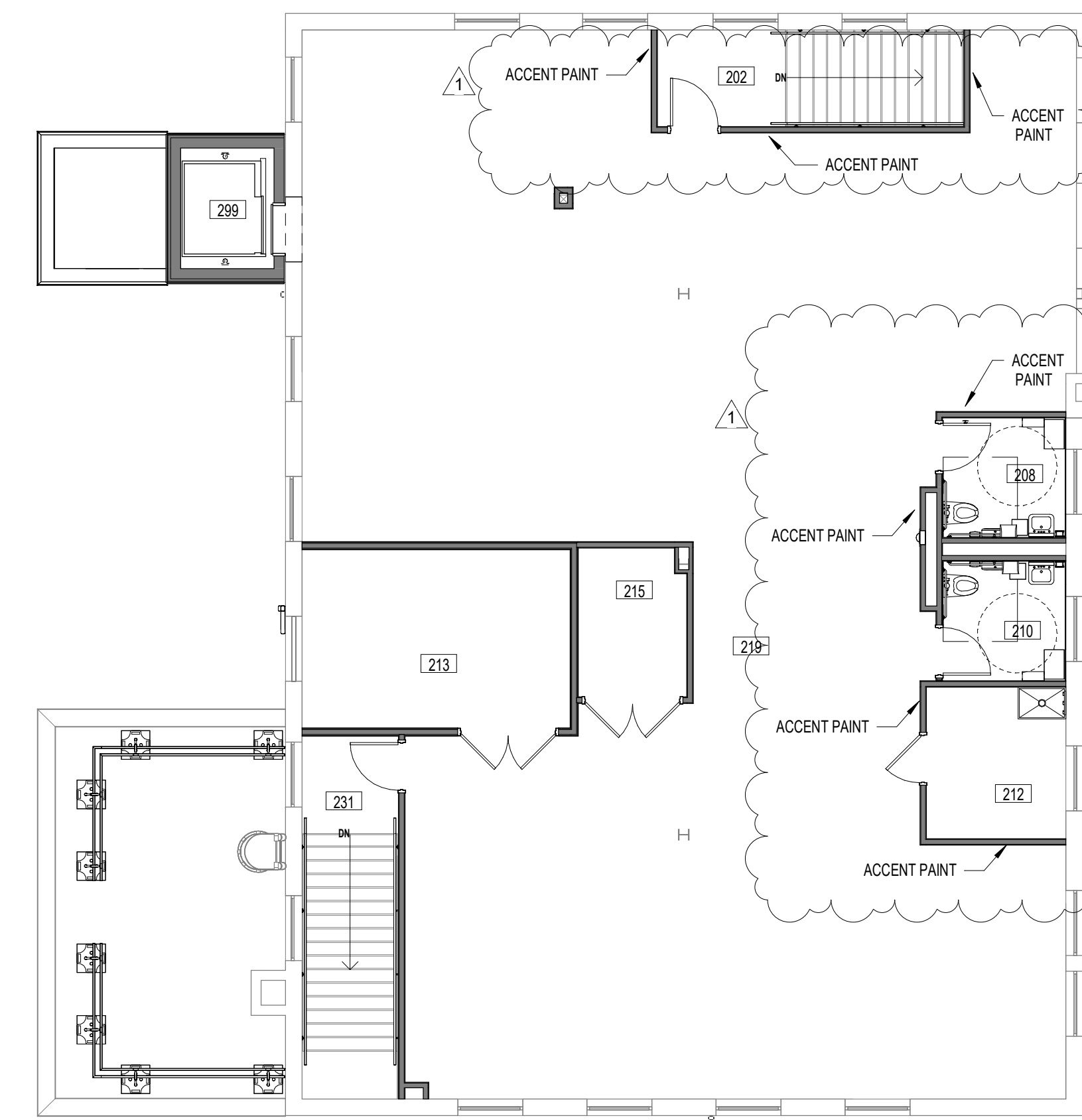


FINISH SCHEDULE - BASE						
Number	Name	Floor Finish	Base Finish	Wall Finish	Ceiling Finish	Comments
100	Entry	Walk Off Carpet	Rubber	Paint	GWB	
101	Open Office / Workroom	Polished Concrete	Rubber	Paint	Paint	
101A	Office	Polished Concrete	Rubber	Paint	Paint	
101B	Proj. Mgr.	Polished Concrete	Rubber	Paint	Paint	
101C	Ops. Mgr.	Polished Concrete	Rubber	Paint	Paint	
102	Stair	Walk Off Carpet	Rubber	Paint	Paint	
104	Office	Polished Concrete	Rubber	Paint	Paint	
110	Toilet	Porcelain Tile	Porcelain Tile	Paint/ Porcelain Tile	Paint	
112	Toilet	Porcelain Tile	Porcelain Tile	Paint/ Porcelain Tile	Paint	
114	Cust.	Sealed Concrete	Rubber	Paint	Paint	
118	Break	Polished Concrete	Rubber	Paint	Paint	
121	Storage / Staging	Sealed Concrete	Rubber	Paint	Paint	
131	Stair	Walk Off Carpet	Existing	Paint	-	
140	Mechanical	Sealed Concrete	Existing	Paint	2x2	
140A	Elec.	Sealed Concrete	Existing	Paint	2x2	
199	Elev Shaft	Paint	-	-	-	
199A	Machine Room	Sealed Concrete	Rubber	Paint	-	
202	Stair	Polished Conc	Rubber	Paint	2x2	
208	Toilet	Porcelain Tile	Porcelain Tile	Paint/ Porcelain Tile	2x2	
210	Toilet	Porcelain Tile	Porcelain Tile	Paint/ Porcelain Tile	2x2	
212	Cust.	Sealed Concrete	Rubber	Paint	2x2	
213	Mech.	Sealed Concrete	Rubber	Paint	2x2	
215	Data	Sealed Concrete	Rubber	Paint	2x2	
219	Flex Space	Existing	Existing	Paint	2x2	
231	Stair	Polished Conc	Rubber	Paint	2x2	

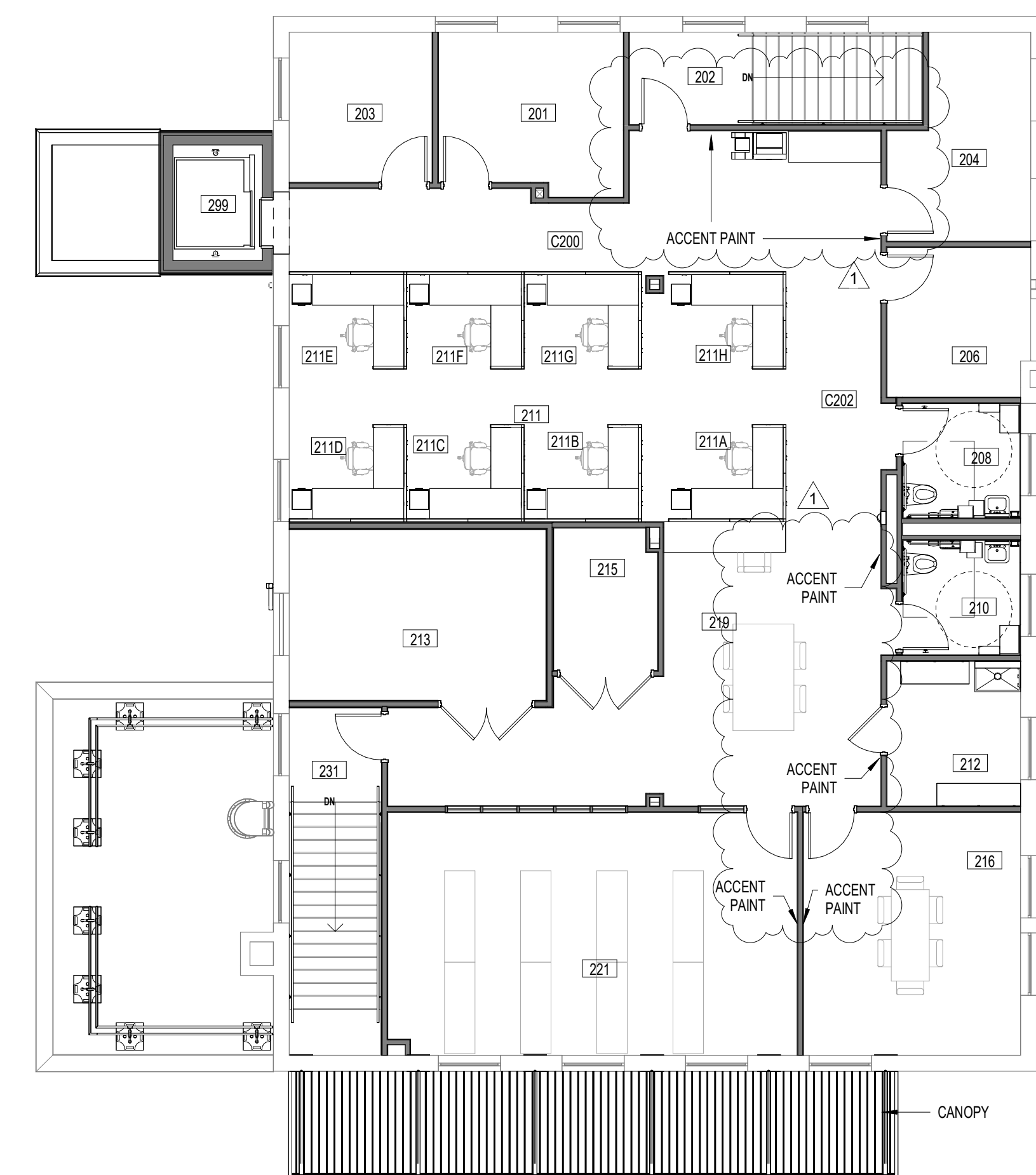


1 First Floor Finish Plan - Base + Alternates  
1/8" = 1'-0"

FINISH SCHEDULE - BASE + ALTERNATES						
Number	Name	Floor Finish	Base Finish	Wall Finish	Ceiling Finish	Comments
100	Entry	Walk Off Carpet	Rubber	Paint	GWB	
101	Open Office / Workroom	Polished Concrete	Rubber	Paint	Paint	
101A	Office	Polished Concrete	Rubber	Paint	Paint	
101B	Proj. Mgr.	Polished Concrete	Rubber	Paint	Paint	
101C	Ops. Mgr.	Polished Concrete	Rubber	Paint	Paint	
102	Stair	Walk Off Carpet	Rubber	Paint	Paint	
104	Office	Polished Concrete	Rubber	Paint	Paint	
110	Toilet	Porcelain Tile	Porcelain Tile	Paint/ Porcelain Tile	Paint	
112	Toilet	Porcelain Tile	Porcelain Tile	Paint/ Porcelain Tile	Paint	
114	Cust.	Sealed Concrete	Rubber	Paint	Paint	
118	Break	Polished Concrete	Rubber	Paint	Paint	
121	Storage / Staging	Sealed Concrete	Rubber	Paint	Paint	
131	Stair	Walk Off Carpet	Existing	Paint	-	
140	Mechanical	Sealed Concrete	Existing	Paint	2x2	
140A	Elec.	Sealed Concrete	Existing	Paint	2x2	
199	Elev Shaft	Paint	-	-	-	
199A	Machine Room	Sealed Concrete	Rubber	Paint	-	
201	Office	Carpet	Rubber	Paint	2x2	
202	Stair	Existing	Rubber	Paint	2x2	
203	Office	Carpet	Rubber	Paint	2x2	
204	Office	Carpet	Rubber	Paint	2x2	
206	Office	Carpet	Rubber	Paint	2x2	
208	Toilet	Porcelain Tile	Porcelain Tile	Paint/ Porcelain Tile	2x2	
210	Toilet	Porcelain Tile	Porcelain Tile	Paint/ Porcelain Tile	2x2	
211	Office Suite	Carpet	Rubber	Paint	2x2	
212	Cust.	Sealed Concrete	Rubber	Paint	2x2	
213	Mech.	Sealed Concrete	Rubber	Paint	2x2	
215	Data	Sealed Concrete	Rubber	Paint	2x2	
216	Conference	Carpet	Rubber	Paint	2x2	
219	Flex Space	Carpet	Rubber	Paint	2x2	
221	Conference/ Training	Carpet	Rubber	Paint	2x2	
231	Stair	Carpet	Rubber	Paint	2x2	
C100	Corridor	Polished Concrete	Rubber	Paint	Paint	
C200	Corridor	Carpet	Rubber	Paint	2x2	
C202	Corridor	Carpet	Rubber	Paint	2x2	



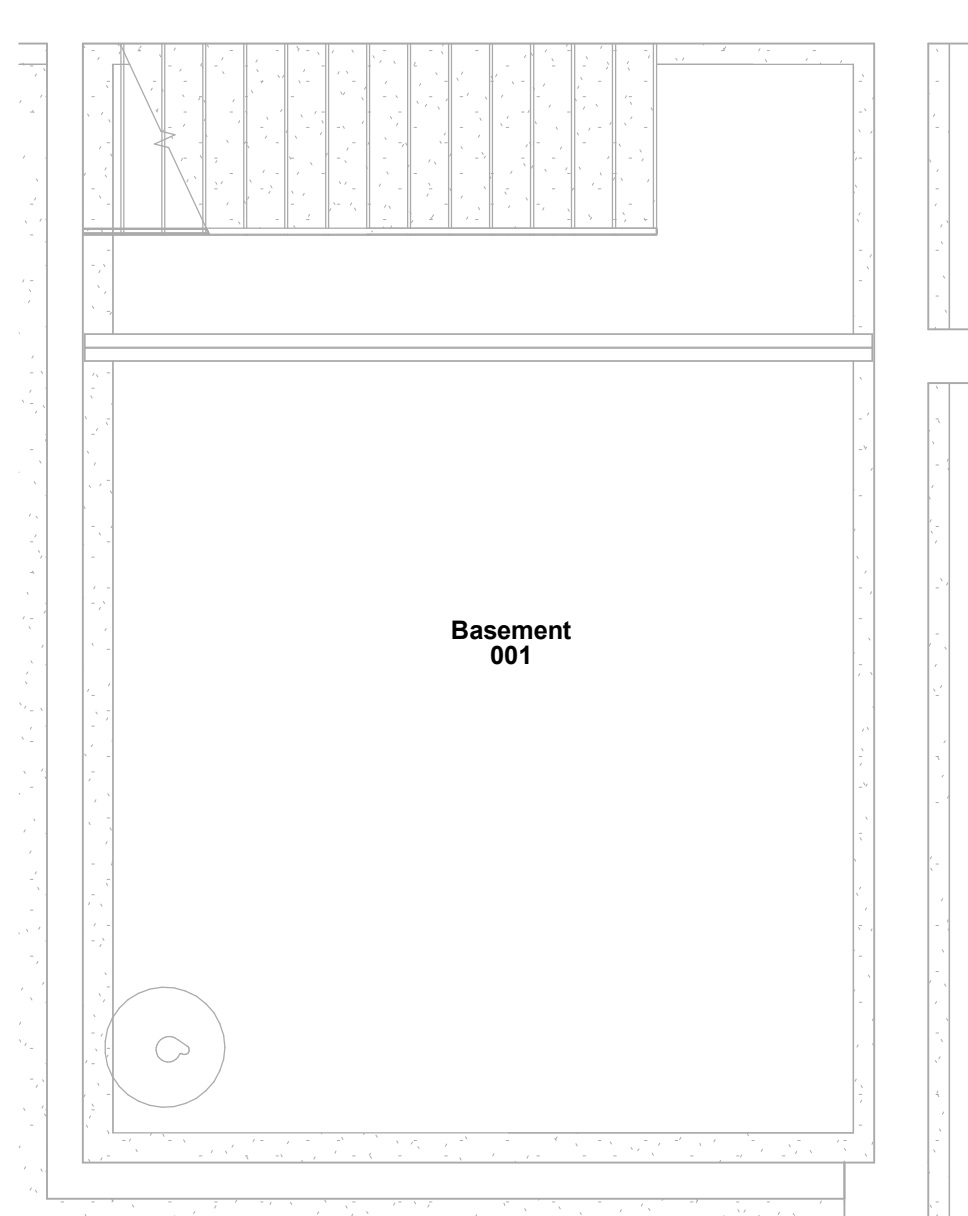
2 Second Floor Finish Plan - Base  
1/8" = 1'-0"



3 Second Floor Finish Plan - Base + Alternates  
1/8" = 1'-0"





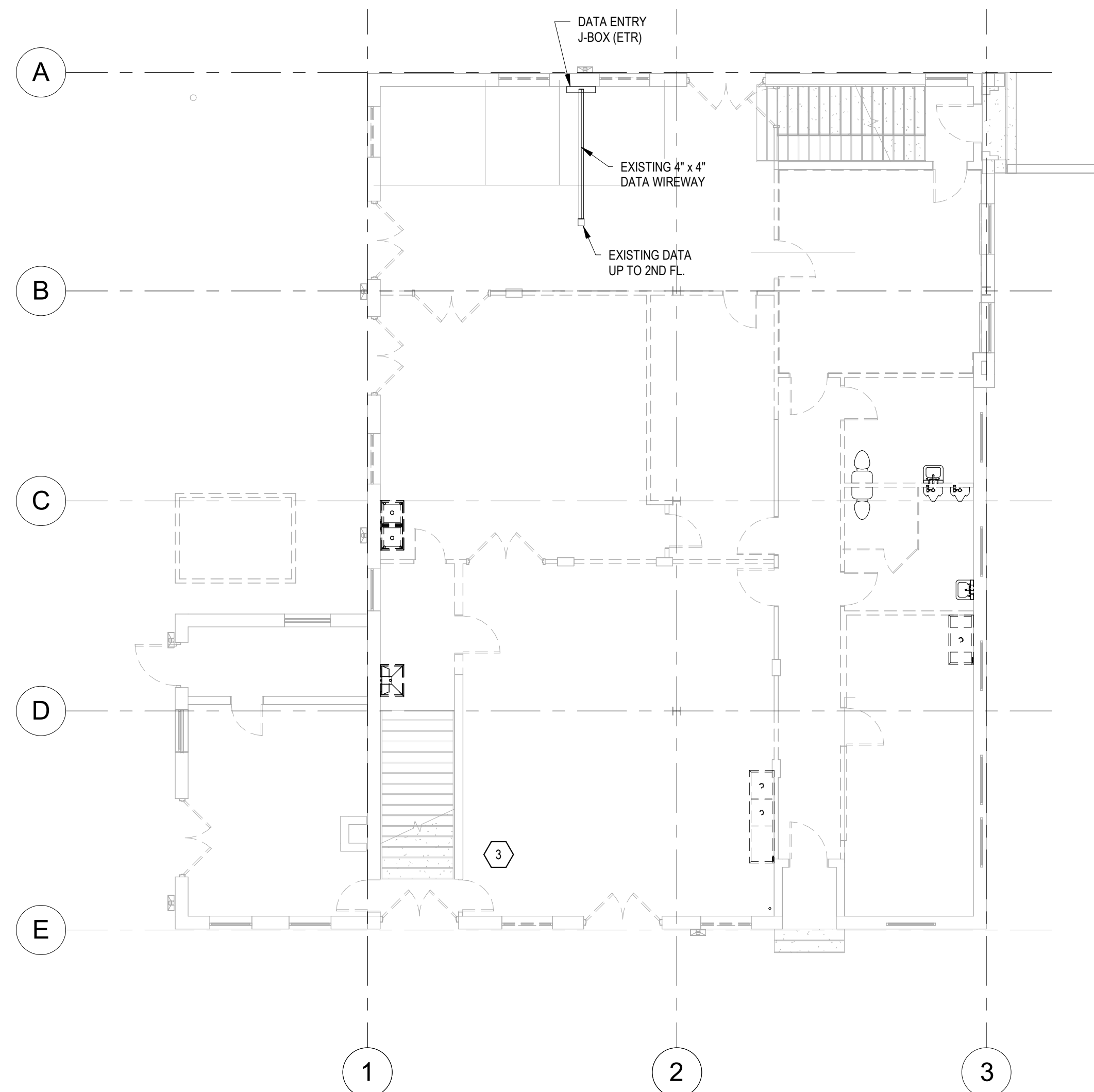


**3 BASEMENT POWER - DEMO**  
ED-200 SCALE: 1/4" = 1'-0"

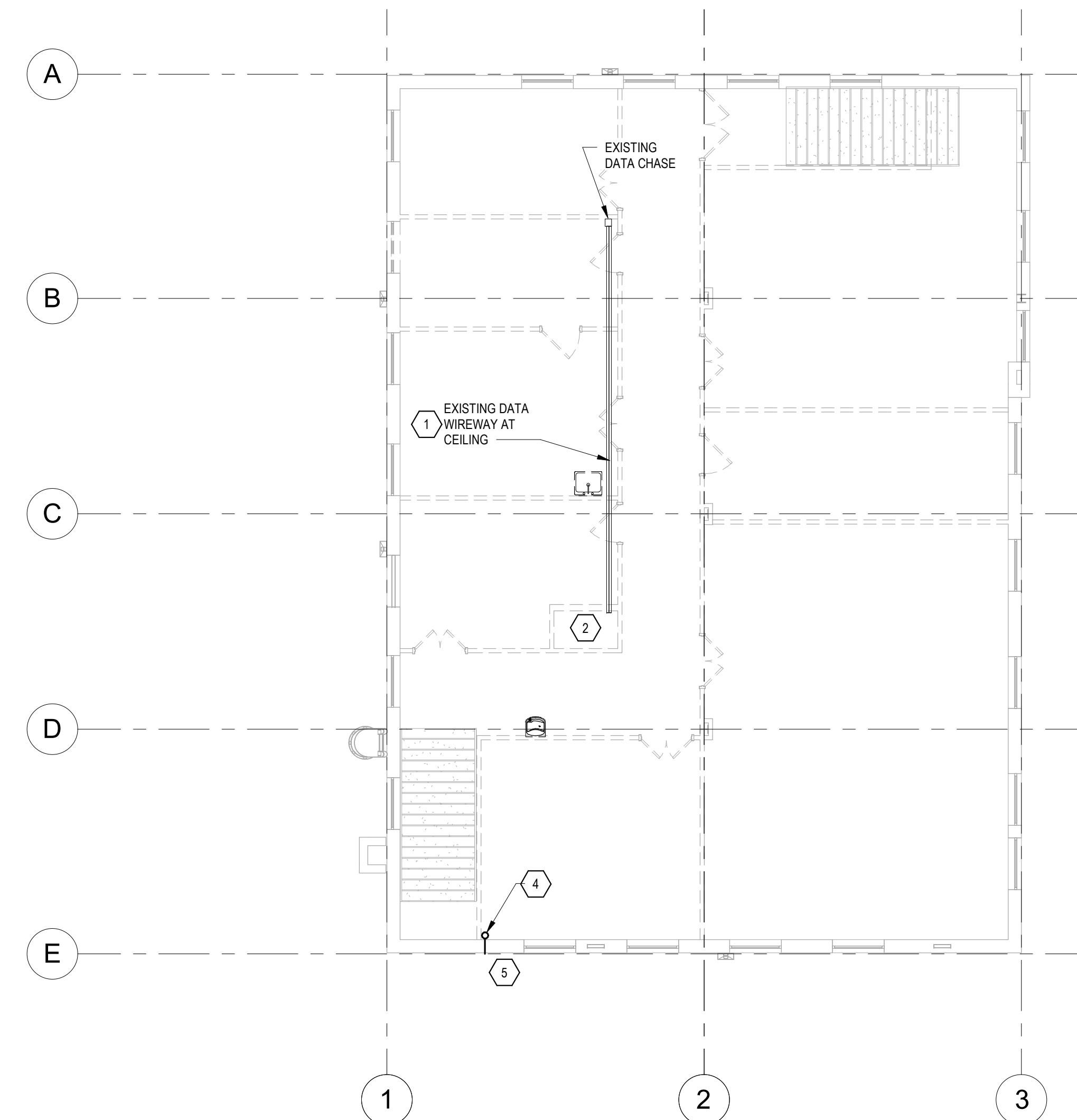
**GENERAL NOTES:**  
A. UNLESS NOTED OTHERWISE ON THE PLANS, ALL POWER/DATA/FIRE ALARM EQUIPMENT AND DEVICES AND ASSOCIATED WIRE/CONDUIT ARE TO BE REMOVED.

**KEYED NOTES:**

- 1 NCSU COMTECH PERSONNEL TO REMOVE STATION CABLES IN EXISTING WIREWAY. CONTRACTOR SHALL REMOVE CABLES AND CONDUITS FROM WIREWAY OUT TO EXISTING TELECOM OUTLET BOXES AND INSTALL KNOCKOUT SEALS IN WIREWAY WHERE CONDUITS WERE REMOVED. EXISTING WIREWAY TO BE REROUTED AS NOTED ON SHEET E-200 TO NEW DATA ROOM.
- 2 NCSU COMTECH PERSONNEL TO REMOVE ALL EQUIPMENT FROM EXISTING TELECOM ROOM. COMTECH WILL PULL BACK EXISTING ENTRANCE CABLES INTO WIREWAY.
- 3 EXISTING METER AND CT CABINET TO BE REMOVED.
- 4 REMOVE EXISTING INCOMING ELECTRICAL SERVICE. 3" CONDUIT DOWN THE CORNER OF THE ROOM, THROUGH THE FLOOR AND OVER TO ABOVE THE CT CABINET ON THE FIRST FLOOR. REMOVE CABLES BACK TO SPLICE WITH OVER-HEAD SERVICE CONDUCTORS.
- 5 EXISTING SERVICE WEATHERHEAD TO BE REMOVED.



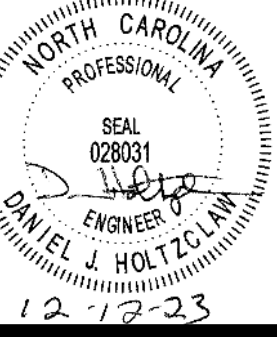
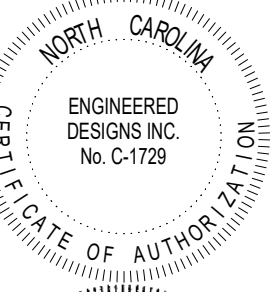
**1 FIRST FLOOR POWER - DEMO**  
ED-200 SCALE: 1/8" = 1'-0"



**2 SECOND FLOOR POWER - DEMO**  
ED-200 SCALE: 1/8" = 1'-0"

CDs FOR BID

SCO ID# 19-21547-02A  
NCSU ID 201920037

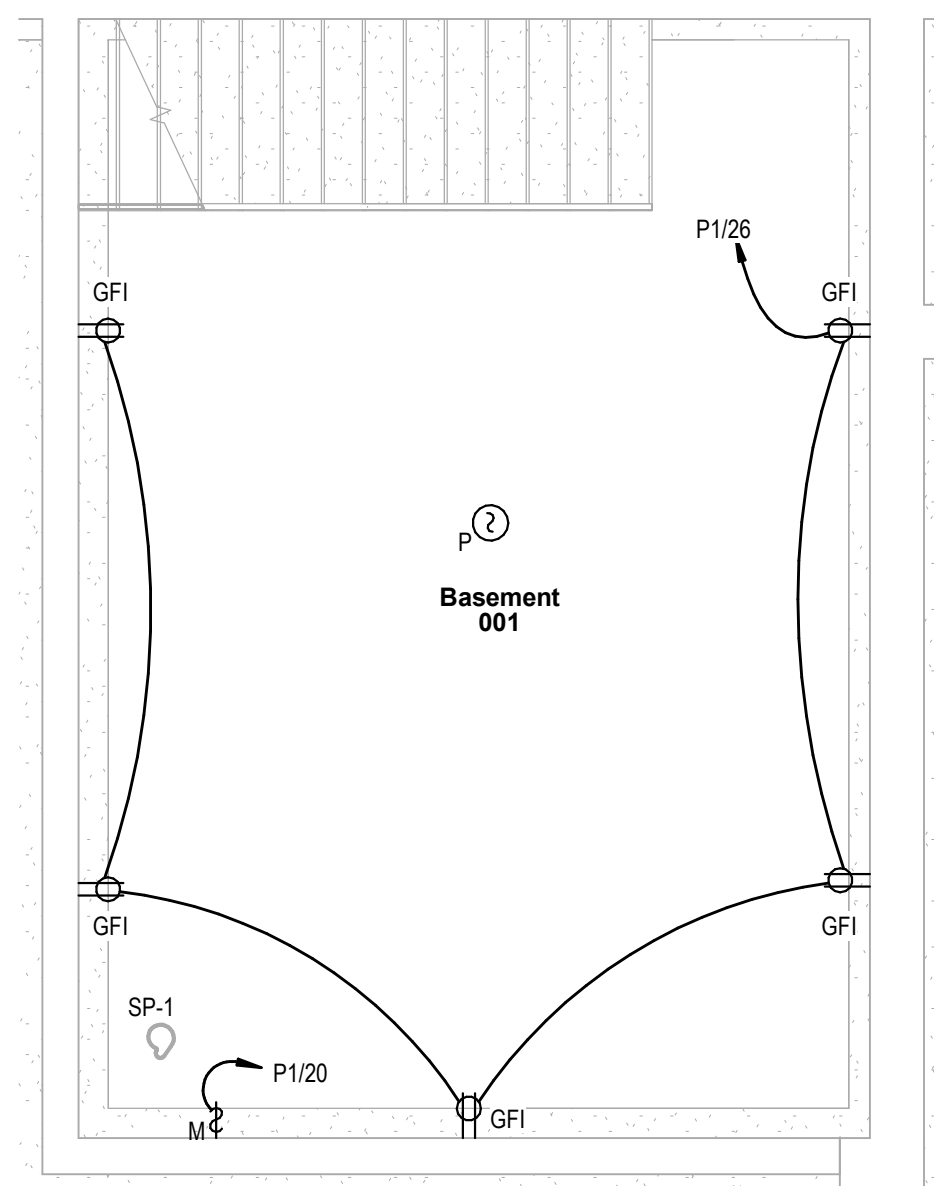


# date note  
1 12-12-23 ADDENDUM 2

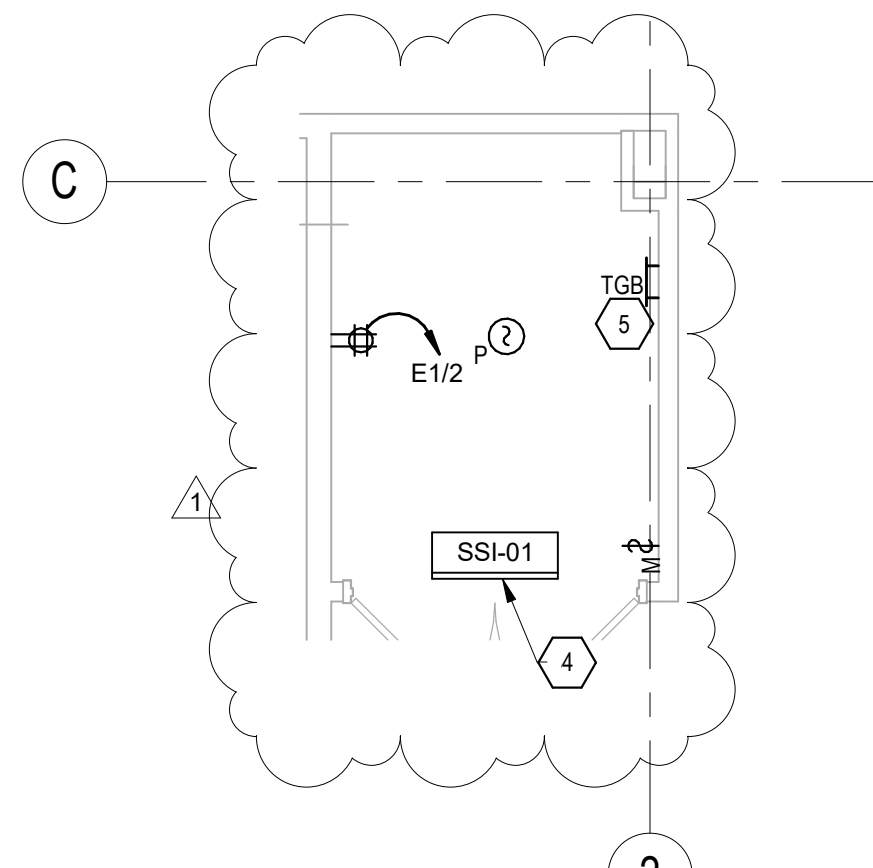
New Building For:  
**Don E. Ellis Building (133)**  
**Renovations**  
1320 Varsity Drive, Raleigh, NC 27606  
North Carolina State University

PROJECT 1368-20  
DATE 11-20-23  
DRAWN DJH  
CHECKED JRQ

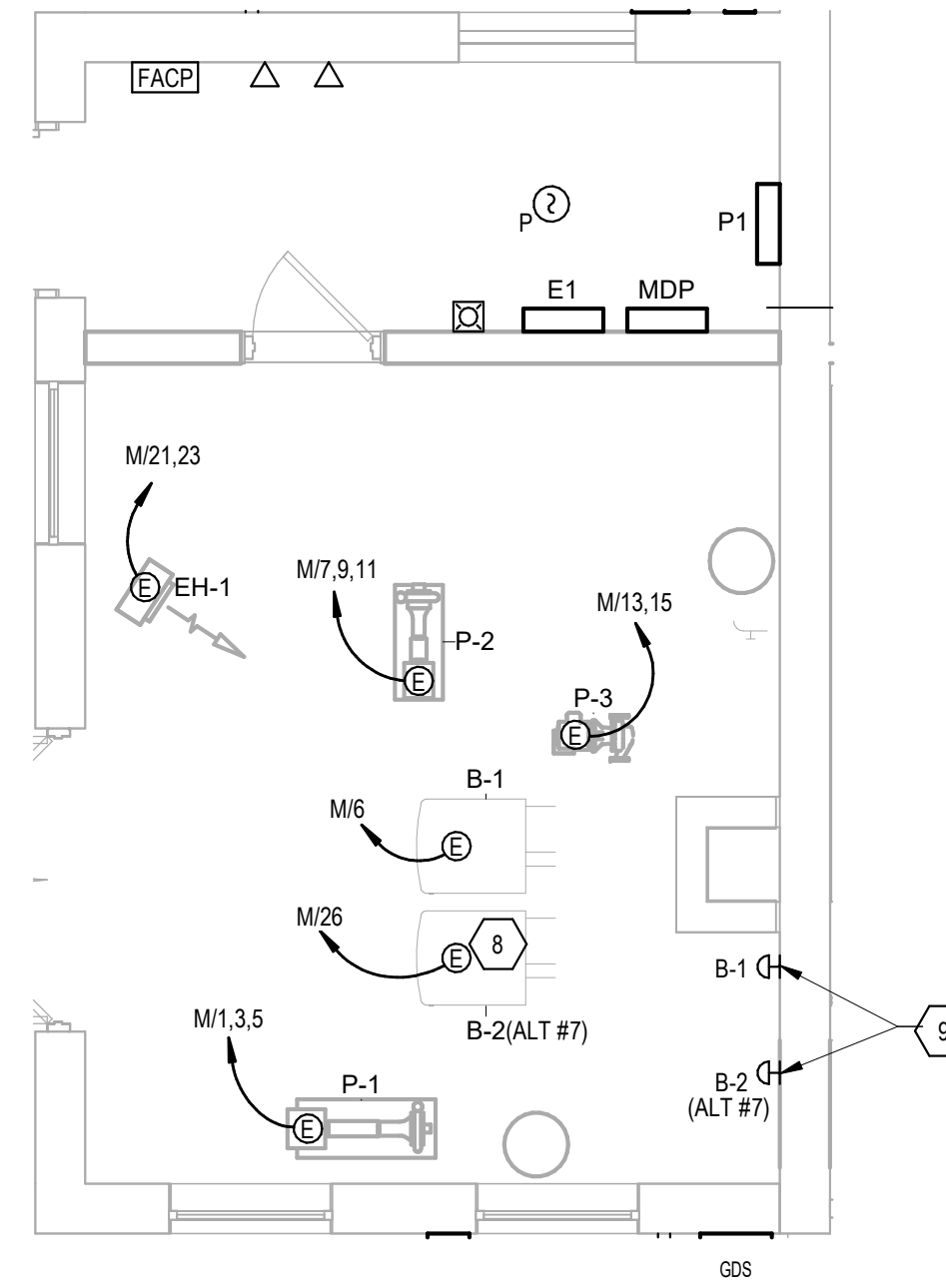
**POWER PLANS - DEMOLITION**



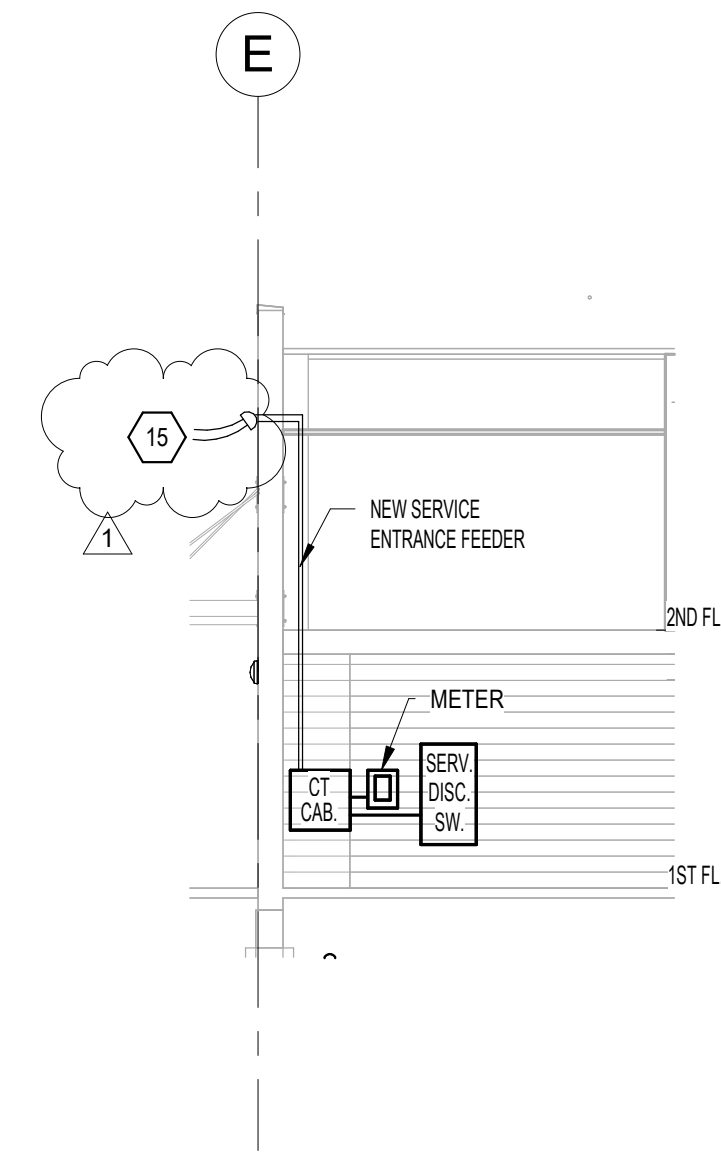
**3 BASEMENT POWER - NEW**  
E-200 SCALE: 1/4" = 1'-0"



**5 DATA ROOM 215 ENLARGED PLAN**  
E-200 SCALE: 1/4" = 1'-0"

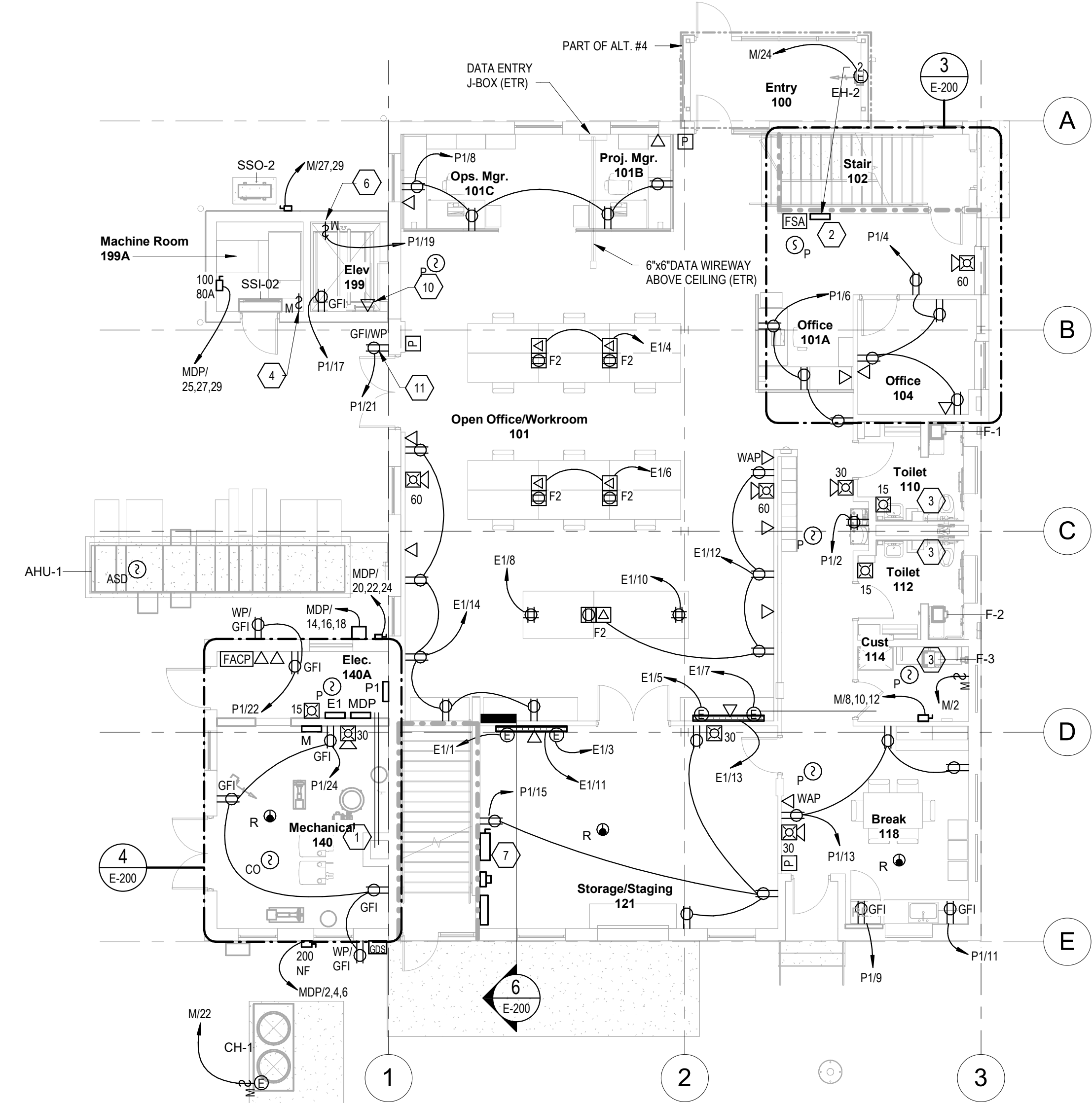


**4 ROOM 140 ENLARGED PLAN - POWER**  
E-200 SCALE: 1/4" = 1'-0"

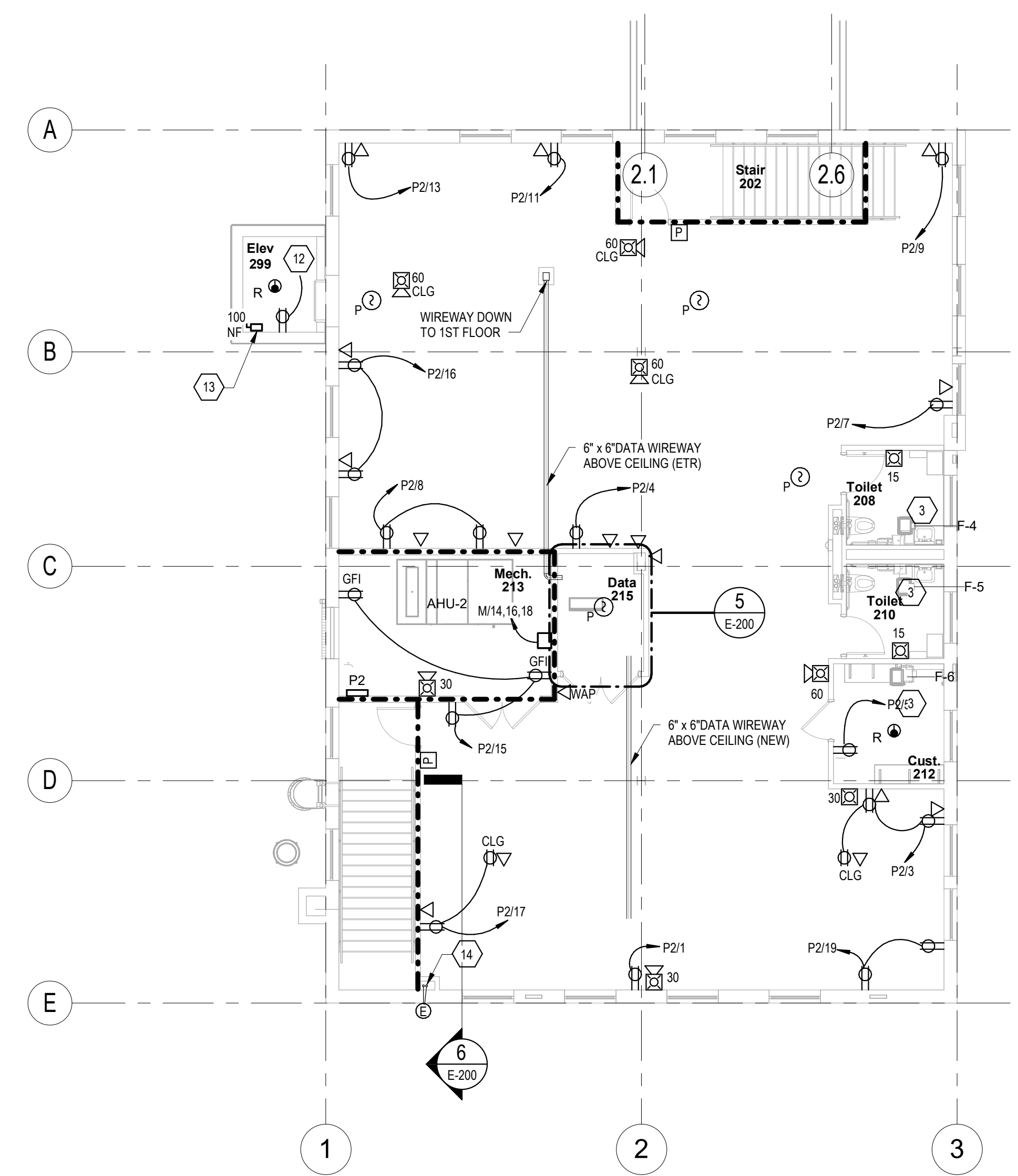


**6 SERVICE ENTRANCE ELEVATION**  
E-200 SCALE: 1/8" = 1'-0"

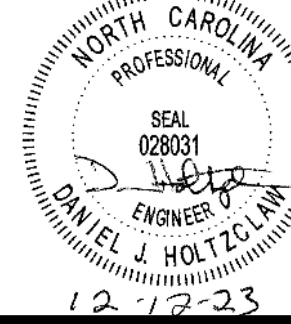
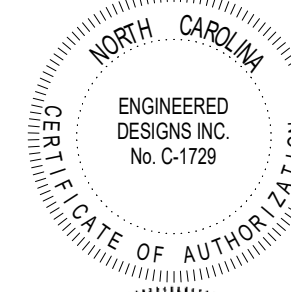
- KEYED NOTES THIS SHEET:**
- 1 PROVIDE TWO 2" RGS CONDUITS FROM THE MAIN ELECTRICAL ROOM UP THE CHIMNEY TO THE ROOF FOR FUTURE CONNECTION TO SOLAR ARRAY. REFER TO E-300 FOR ROOF PLAN.
  - 2 PROVIDE A DOCUMENT CABINET WITH A BUILT-IN USB DRIVE ADJACENT TO THE FIRE ALARM ANNUNCIATOR.
  - 3 CONNECT FAN TO THE LIGHTING CIRCUIT FOR THE SAME ROOM. FAN IS ON WHEN THE LIGHTS ARE ON.
  - 4 SPLIT SYSTEM INDOOR UNIT MOUNTED ABOVE DOOR. PROVIDE SNAP SWITCH FOR INDOOR UNIT. POWER ORIGINATES AT THE OUTDOOR UNIT.
  - 5 PROVIDE GROUND BAR AND #6AWG COPPER GROUND WIRE FROM BUILDING ELECTRICAL GROUND.
  - 6 LOCATE 120VAC DISCONNECT SWITCH FOR ELEVATOR SUMP PUMP SP-2 AT 12" GRADE. COORDINATE WITH PLUMBING.
  - 7 500A SERVICE-ENTRANCE RATED CIRCUIT BREAKER IN NEMA-1 ENCLOSURE. REFER TO RISER DIAGRAM FOR FURTHER INFORMATION. MOUNT NEXT TO METER AND C.T. CABINET.
  - 8 BOILER B-2 IS PART OF ALTERNATE BID #7. IT IS 100% STANDBY.
  - 9 EMERGENCY SHUT-OFF FOR BOILERS.
  - 10 PROVIDE EMERGENCY COMMUNICATIONS FOR THE HEARING AND SPEECH IMPAIRED AS WELL AS VIDEO MONITORING WITHIN THE ELEVATOR CAB.
  - 11 INSTALL NEMA-3R EXTERIOR BOX FOR A NETWORK OUTLET AND A DEDICATED 120VAC RECEPTACLE FOR FUTURE OUTDOOR EQUIPMENT TESTING.
  - 12 CONNECT SECOND FLOOR ELEVATOR SHAFT RECEPTACLE TO ELEVATOR PIT RECEPTACLE CIRCUIT. REFER TO DETAIL 1 ON THIS SHEET.
  - 13 NON-FUSED DISCONNECT IN ELEVATOR SHAFT ADJACENT TO ELEVATOR MOTOR.
  - 14 ROUTE SERVICE FEED THROUGH THE NEW CHASE IN THE CORNER OF THE ROOM, TO THE NEW CT CABINET. REFER TO SINGLELINE DIAGRAM FOR CONDUCTOR AND CONDUIT SIZE. REFER TO ELEVATION ON THIS SHEET FOR CONDUIT ROUTING.
  - 15 PROVIDE NEW OVERHEAD SERVICE FEED TO EXISTING POLE-MOUNTED TRANSFORMERS ON THE OTHER SIDE OF VARSITY DRIVE. REFER TO RISER DIAGRAM. PROVIDE NEW WEATHERHEAD AND SERVICE FEED PER RISER DIAGRAM.
- GENERAL NOTES THIS SHEET:**
- A FIRST FLOOR DEVICES SHOWN AS CEILING-MOUNTED SHALL BE MOUNTED TO THE EXISTING STRUCTURE. THERE IS NO GRID OR GYP CEILING BELOW THE STRUCTURE. DEVICES SHOWN AS 'ABOVE CEILING' SHALL BE MOUNTED ABOVE 9'-2" A.F.F. (ABOVE THE WINDOWS).



**1 FIRST FLOOR POWER - NEW WORK - BASE**  
E-200 SCALE: 1/8" = 1'-0"



**2 SECOND FLOOR POWER - NEW WORK - BASE**  
E-200 SCALE: 1/8" = 1'-0"



# date note  
1 12-12-23 ADDENDUM 2

New Building For:  
**Don E. Ellis Building (133)  
Renovations**  
1320 Varsity Drive, Raleigh, NC 27606  
North Carolina State University

PROJECT 1368-20  
DATE 11-20-23  
DRAWN Author  
CHECKED Checker

SYSTEMS PLANS -  
NEW WORK

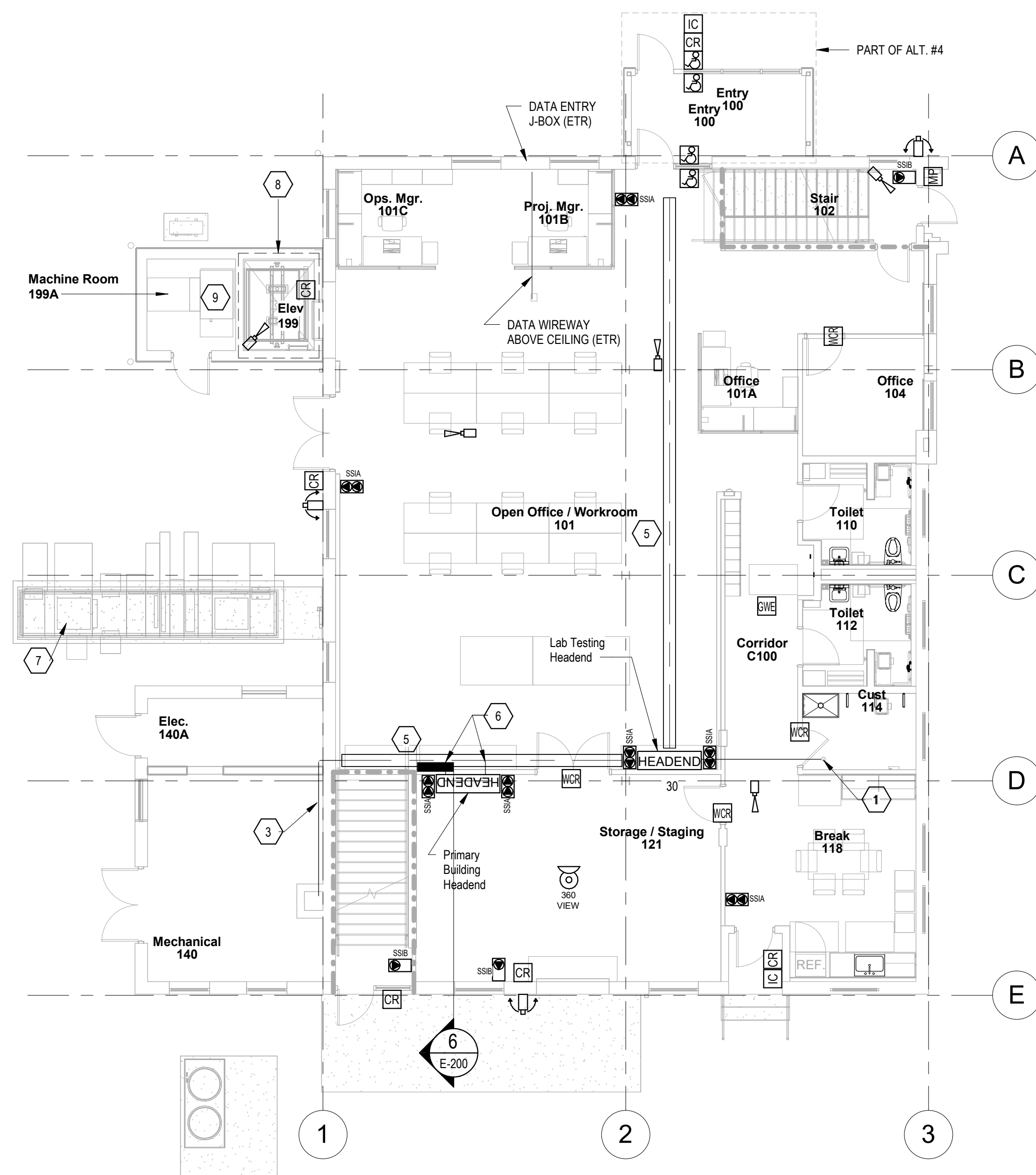
**E-300**

KEYED NOTES THIS SHEET:

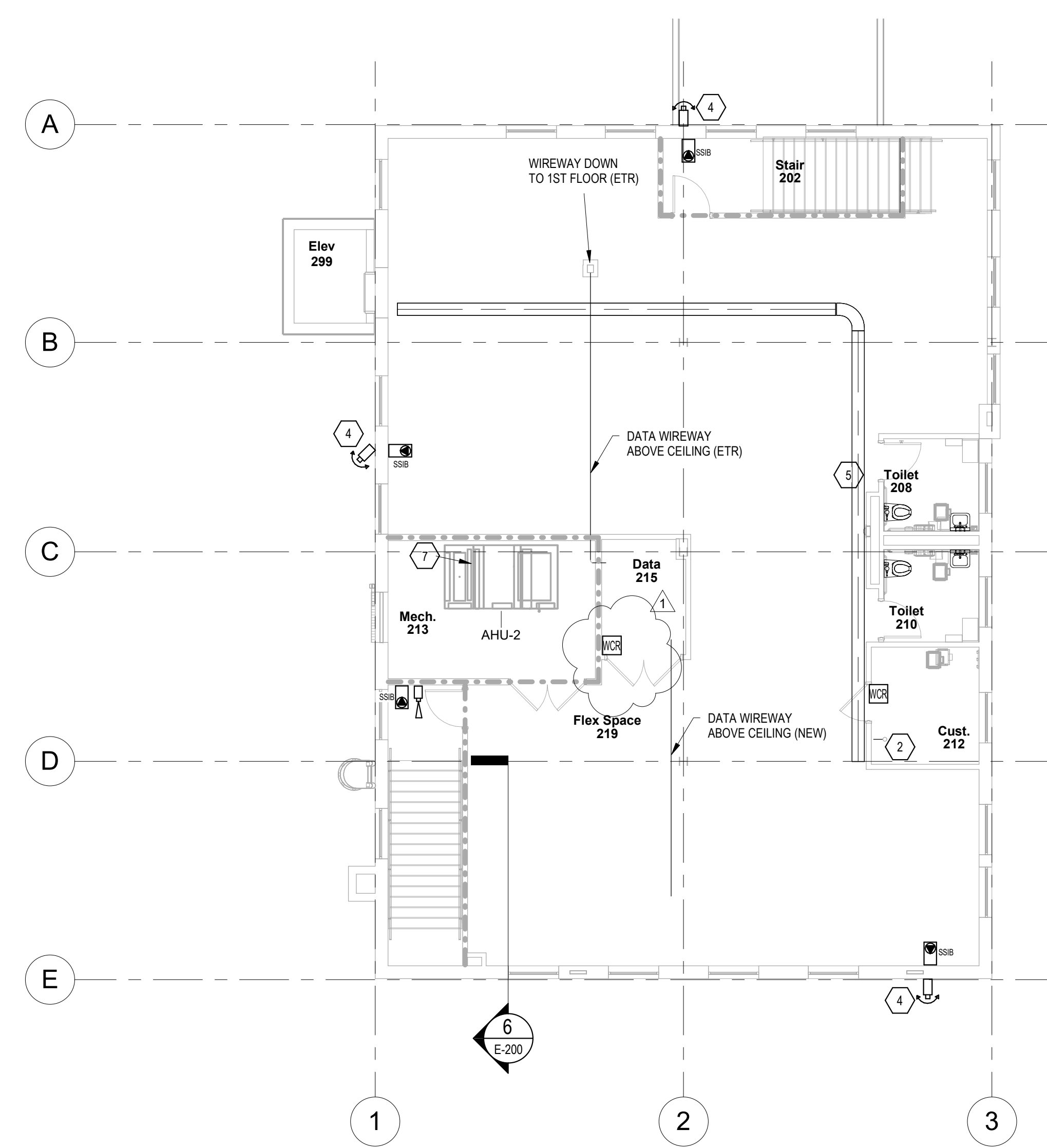
- 1 PROVIDE 2" EMT SECURITY CONDUIT FROM HEADEND EQUIPMENT TO 2" SECURITY RISER TO SECOND FLOOR SECURITY RACEWAY.
- 2 CONNECT 2" EMT SECURITY RISER CONDUIT FROM FIRST FLOOR TO SECOND FLOOR CABLE TRAY.
- 3 PROVIDE 1-1/4" SECURITY CONDUIT FROM SECURITY CABLE TRAY TO THE ROOF, VIA THE CHIMNEY, AND TERMINATED TO AN 8"X8"X6" NEMA 3 JUNCTION BOX TO SUPPORT ROOFTOP SECURITY EQUIPMENT.
- 4 CAMERA MOUNTED BELOW ROOF AT A HEIGHT ABOVE FINISHED GRADE TO BE DETERMINED.
- 5 NEW SECURITY CABLE TRAY.
- 6 PROVIDE TWO 2" CONDUITS FROM THE PRIMARY BUILDING HEADEND TO THE CABLE TRAY.
- 7 COORDINATE EXACT LOCATION OF DUCT-MOUNTED SMOKE DETECTOR WITH MECHANICAL.
- 8 NCSU SAT WILL REQUIRE ASSISTANCE FROM THE ELEVATOR CONTRACTOR TO INSTALL THE IN-CAB CAMERA AND CARD READER. THIS WILL NEED TO BE COORDINATED WITH THE ARCHITECT AND GENERAL CONTRACTOR.
- 9 PROVIDE A 1" EMT CONDUIT FROM THE ELEVATOR MACHINE ROOM TO THE SECURITY RACEWAY SO NCSU SAT CAN CONTROL THE IN-CAB CARD READER, LEVEL-2 BUTTON AND IN-CAB CAMERA FROM THE PRIMARY SECURITY HEADEND.

GENERAL NOTES THIS SHEET:

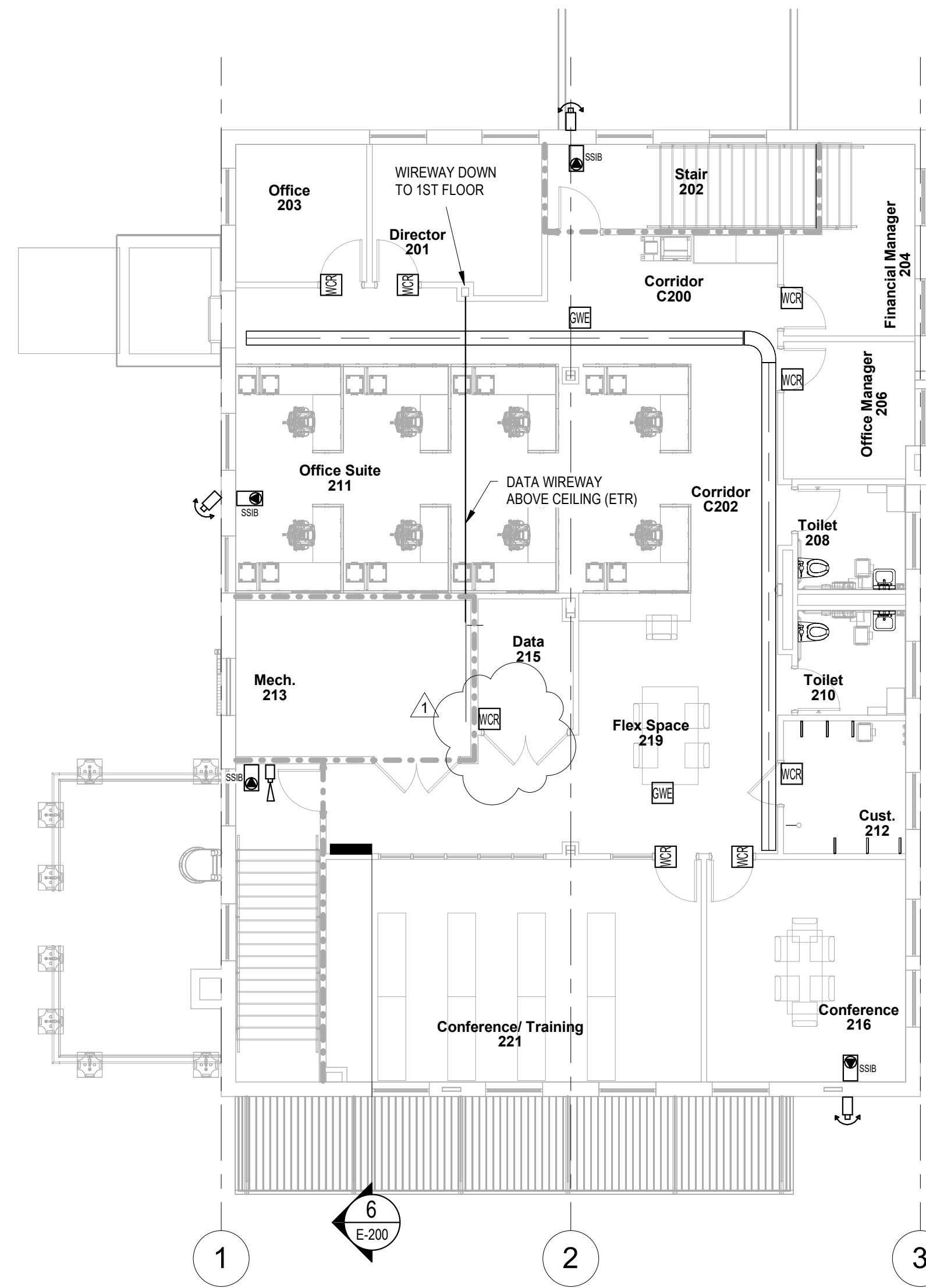
- A. PROVIDE POWER FOR SECOND FLOOR VAV BOXES FROM CIRCUIT M20. PROVIDE JUNCTION BOX AT EACH VAV BOX TO TERMINATE POWER WIRING.
- B. FIRST FLOOR DEVICES SHOWN AS CEILING-MOUNTED SHALL BE MOUNTED TO THE EXISTING STRUCTURE. THERE IS NO GRID OR GYP CEILING BELOW THE STRUCTURE. DEVICES SHOWN AS 'ABOVE CEILING' SHALL BE MOUNTED ABOVE 9'-2" A.F.F. (ABOVE THE WINDOWS).



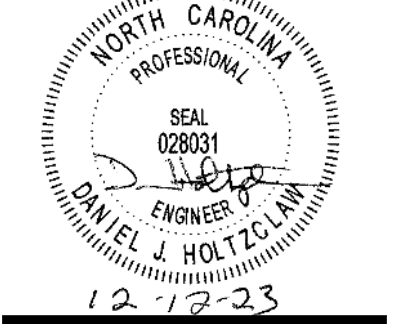
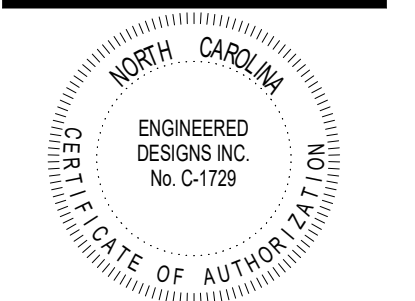
1 FIRST FLOOR SYSTEMS - NEW WORK - BASE  
E-300 SCALE: 1/8" = 1'-0"



2 SECOND FLOOR SYSTEMS - NEW WORK - BASE  
E-300 SCALE: 1/8" = 1'-0"



1 SECOND FLOOR SYSTEMS - NEW WORK - ALT #1  
 E-301 SCALE: 1/8" = 1'-0"



#	date	note
1	12-12-23	ADDENDUM 2

New Building For:  
**Don E. Ellis Building (133) Renovations**  
 1320 Varsity Drive, Raleigh, NC 27606  
 North Carolina State University

PROJECT	1368-20
DATE	11-20-23
DRAWN	Author
CHECKED	Checker

SYSTEMS ALT BID  
2ND FLOOR



