

MOODY•NOLAN LTD.
300 SPRUCE STREET
COLUMBUS, OHIO 43215

BID OPENING: May 12, 2022

ADDENDUM DATE: April 21, 2022

ADDENDUM NO. 2

TO THE PLANS AND SPECIFICATIONS FOR:

HARRIET'S HOPE

1581 W. Broad Street
Columbus, Ohio 43222

TO ALL BIDDERS:

Addendum No. 2 to the Drawings and Project Manual, dated April 4, 2022, Harriet's Hope as prepared by Moody Nolan, Inc., 300 Spruce St. Suite 300, Columbus, OH 43215.

This Addendum shall hereby be done and become part of the Contract Documents the same as if originally bound thereto. The following clarifications, amendments, additions, revisions, changes, and modifications change the original Contract Documents only in the amount and to the extent hereinafter specified in this Addendum.

Acknowledge receipt of this Addendum on the Bid Form.

NOTE: Bidders are responsible for becoming familiar with every item of this Addendum.

I. GENERAL REVISIONS

A. None

II. SPECIFICATION REVISIONS

A. TABLE OF CONTENTS

1. **ADD** specification section 32 31 19 Decorative Metal Fences and Gates.
2. **ADD** specification section 06 20 00 Finish Carpentry.

B. 04 00 00 MASONRY

1. Paragraph 2.01A.3 - **SWITCH** Base Bid Brick and Alternate Brick listings. See attached revised spec section.

C. 06 20 00 FINISH CARPENTRY

1. **ADD** specification section in its entirety to the Project Manual.

D. 07 46 33 VINYL SIDING

1. Paragraph 1.01A.3 – **CHANGE** to 7 ¼" Horizontal Band Board.
2. Paragraph 2.02.A – **ADD** "D. Horizontal Band Board – 7 ¼" wide insulated band board to be installed as indicated on the building elevations.

E. 08 19 00 INTERIOR DOORS

1. **REMOVE** unit entry door from interior door spec.

F. 08 41 13 ALUMINUM-FRAMED ENTRANCES AND STOREFRONTS

1. Paragraph 2.03E – **REPLACE** paragraph in its entirety. Provide wide stile doors. See attached revised spec section.

G. 08 54 00 COMPOSITE WINDOWS

1. Paragraph 1.01A – **ADD** casement operation to description.
2. Paragraph 2.02A – **ADD** OITC requirements.
3. Paragraph 2.02B.3 – **ADD** Limit Devices for the 2nd and 3rd floors.
4. See attached revised spec section.

H. 09 21 16 GYPSUM BOARD SYSTEMS

1. Paragraph 2.05C.4 – **ADD** USG Fiberock Brand Aqua-Tough AR for non-paper faced areas. See attached revised spec section.

I. 10 28 13 TOILET ACCESSORIES

1. Paragraph 2.03F – **ADD** for medicine cabinet - 16"x22"x3 5/8" Single frameless mirrored door.
2. **DELETE** Paragraph 2.03H Mirrors. Refer to glass spec for unframed mirrors in the units.

J. 11 12 00 PARKING CONTROL EQUIPMENT

1. Paragraph 2.01A.2c – **ADD** item #7 to Controls. See attached revised spec section.

K. 32 31 19 DECORATIVE METAL FENCES AND GATES

1. **ADD** specification section in its entirety to the Project Manual.

III. **DRAWING REVISIONS**

GENERAL

A. G100 CODE DATA

1. **UPDATED** Fire Protection Systems information. See attached revised sheet.

CIVIL

A. C205 GRADING & STORM SEWER PLAN

1. **REVISE** downspouts. One additional downspout added.

LANDSCAPE

A. L101 LANDSCAPE PLAN

1. **ADD** (8) SKYROCKET JUNIPERS TO AREA SOUTH OF EXISTING BUILDING.
2. **ADJUST** FENCE LOCATION TO SOUTH OF JUNIPERS. PLACE FENCE BEHIND BACK OF CURB.
3. **REVISE** PLAYGROUND BENCH MANUFACTURER & MODEL AS INDICATED.

ARCHITECTURAL

A. A101 LEVEL 01 - FLOOR PLAN – OVERALL

1. **ADD** 1/2" plywood sheathing under GWB in Storage S-101C.

B. A104 ROOF PLAN – OVERALL

1. **ADD** downspout, scupper and overflow scupper to the southwest portion of the roof. Shift adjacent downspout, scupper and overflow scupper. Adjust tapered roof insulation. See attached revised roof plan for details.

C. A301 EXTERIOR ELEVATIONS – OVERALL

1. **ADD** downspout, scupper and overflow scupper to south elevation. Shift adjacent downspout, scupper and overflow scupper. See attached revised roof plan for details.
2. **ADD** center 7 1/4" vinyl horizontal band board. See attached revised elevations for details.

D. A501 WALL SECTIONS

1. **CHANGE** the thickness of the gypsum cement underlayment to 3/4".
2. **ADD** 2x wood blocking at roof elevation

E. A502 WALL SECTIONS

1. **CHANGE** the thickness of the gypsum cement underlayment to 3/4".
2. **ADD** 2x wood blocking at roof elevation

F. A503 WALL SECTIONS

1. **CHANGE** the thickness of the gypsum cement underlayment to 3/4".
2. **ADD** 2x wood blocking at roof elevation

G. A701 DOOR & WINDOW SCHEDULES

1. **REVISED** door panel Type AP dimensions
2. **ADD** door panel Type AT. This is a solid core wood door with applied trim to face of door.

- H. A810 ENLARGED UNIT PLANS – 2 BEDROOM UNITS
 - 1. Typical Residential Door Schedule: **CHANGE** door U-A elevation to AT.
- I. A811 ENLARGED UNIT PLANS – 1 BEDROOM UNITS
 - 1. Typical Residential Door Schedule: **CHANGE** door U-A elevation to AT.
- J. A812 ENLARGED PLANS – COMMON AREAS
 - 1. **ADD** tackboard to west wall of Community Room CR-101.

TECHNOLOGY

- A. T000 – GENERAL INFORMATION - SYSTEMS
 - 1. **UPDATED** Wifi symbol description in Technology Symbol's list.
 - 2. **UPDATED** two-way communication device in Fire Alarm Symbol's list
- B. T101 – LEVEL 01 – FLOOR LAN - SYSTEMS
 - 1. **UPDATED** symbol for two-way communication at elevator.
 - 2. **REVISED** coded note 15.
- C. T102 – LEVEL 02 – FLOOR LAN - SYSTEMS
 - 1. **UPDATED** symbol for two-way communication at elevator.
 - 2. **REVISED** coded note 15.
- D. T103 – LEVEL 02 – FLOOR LAN - SYSTEMS
 - 1. **UPDATED** symbol for two-way communication at elevator.
 - 2. **REVISED** coded note 15.
- E. T501 – DETAILS - SYSTEMS
 - 1. **REVISED** detail 2.
- F. T502 – DETAILS - SYSTEMS
 - 1. **REVISED** details 1 and 2.
 - 2. **ADDED** details 3 and 4.

IV. ATTACHMENTS

- A. SPECIFICATIONS: TOC, 04 00 00, 06 20 00, 07 46 33, 08 19 00, 08 41 13, 08 54 00, 09 21 16, 10 28 13, 11 12 00 and 32 31 19.
- B. SHEETS: G100, C205, L101, A101, A104, A301, A501, A502, A503, A701, A810, A811, A812, T000, T101, T102, T103, T501, T502

END OF ADDENDUM NO. 2

TABLE OF CONTENTS

Cover Sheet
Table of Contents

VOLUME 1

DIVISION 00 – PROCUREMENT AND CONTRACTING REQUIREMENTS

00 31 32	Geotechnical Investigations
00 43 25	Substitution Procedures
	Substitution Form

DIVISION 01 - GENERAL REQUIREMENTS

01 21 13	Allowances
01 22 00	Unit Prices
01 23 00	Alternates
01 31 00	Project Management and Coordination
01 31 19	Project Meetings
01 32 16	Construction Schedules
01 33 23	Shop Drawings, Product Data, Samples
01 50 00	Temporary Facilities and Controls
01 60 00	Product Requirements
01 73 00	Execution Requirements
01 73 29	Cutting and Patching
01 74 00	Cleaning
01 74 19	Construction Waste Management and Disposal
01 81 13	Sustainable Design Requirements

DIVISION 02 – EXISTING CONDITION

02 41 13	Site Demolition
----------	-----------------

DIVISION 03 – CONCRETE

03 01 30	Concrete Cleaning and Sealing
03 30 00	Cast-In-Place Concrete
03 54 13	Gypsum Underlayment

DIVISION 04 – MASONRY

04 00 00	Masonry
04 72 00	Cast Stone

DIVISION 05 – METALS

05 12 00	Structural Steel
05 50 00	Metal Fabrications

DIVISION 06 – WOOD, PLASTICS AND COMPOSITES

06 10 00	Rough Carpentry
06 20 00	Finish Carpentry
06 10 50	Wood Blocking
06 17 53	Shop Fabricated Wood Trusses
06 40 00	Architectural Woodwork
06 61 00	Cast Polymer Fabrications
06 83 16	Fiberglass Reinforced Paneling

DIVISION 07 - THERMAL & MOISTURE PROTECTION

07 10 00	Waterproofing
07 21 00	Thermal Insulation
07 22 19.13	Nailable Wall Insulation
07 27 16	Plastic Sheet Air Barriers
07 46 33	Vinyl Siding
07 54 23	Thermoplastic Polyolefin Roofing
07 62 00	Sheet Metal Flashing and Trim
07 72 33	Roof Hatch
07 81 10	Spray-Applied Fireproofing
07 81 23	Intumescant Fireproofing
07 84 00	Firestopping
07 92 00	Joint Sealants

DIVISION 08 - DOORS & WINDOWS

08 11 13	Hollow Metal Doors and Frames
08 14 00	Wood Doors
08 19 00	Interior Doors
08 41 13	Aluminum-Framed Entrances and Storefronts
08 43 14	Interior Aluminum Storefront
08 41 23	Fire-Rated Glazed Steel Storefronts
08 54 00	Composite Windows
08 71 10	Door Hardware
08 81 00	Glass and Glazing

DIVISION 09 – FINISHES

09 21 16	Gypsum Board Systems
09 30 00	Tile
09 65 00	Resilient Flooring
09 68 00	Carpeting
09 91 00	Painting

DIVISION 10 - SPECIALTIES

10 11 00	Visual Display Surfaces
10 14 10	Interior Signage
10 14 19	Dimensional Letter Signage
10 22 26	Folding Panel Partitions
10 28 13	Toilet Accessories

10 41 16	Emergency Key Cabinets
10 44 00	Fire Extinguishers and Cabinets
10 55 23	Mailboxes
10 56 23	Wire Shelving

DIVISION 11 – EQUIPMENT

11 12 00	Parking Control Equipment
11 31 00	Residential Appliances

DIVISION 12 - FURNISHINGS

12 21 23	Horizontal Window Blinds (Cordless)
12 24 13	Roller Window Shades
12 32 00	Manufactured Wood Casework
12 56 51	Furniture, Furnishings and Accessories

DIVISION 14 - CONVEYING EQUIPMENT

14 24 23	Hydraulic Passenger Elevator
----------	------------------------------

VOLUME 2

DIVISION 21 - FIRE SURPRESSION

21 05 17	- Sleeves and Sleeve Seals for Fire Protection Piping
21 05 18	- Escutcheons for Fire-Suppression Piping
21 05 23	- General-Duty Valves for Fire Protection Piping
21 05 29	- Hangers and Supports for Fire Protection Piping and Equipment
21 05 53	- Identification for Fire-Suppression Piping and Equipment
21 13 13	- Wet-Pipe Sprinkler Systems

DIVISION 22 - PLUMBING

22 05 17	- Sleeves and Sleeve Seals for Plumbing Piping
22 05 18	- Escutcheons for Plumbing Piping
22 05 19	- Meters and Gages for Plumbing Piping
22 05 23	- General-Duty Valves for Plumbing Piping
22 05 29	- Hangers and Supports for Plumbing Piping and Equipment
22 05 53	- Identification for Plumbing Piping and Equipment
22 07 19	- Plumbing Piping Insulation
22 11 16	- Domestic Water Piping
22 11 19	- Domestic Water Piping Specialties
22 13 16	- Sanitary Waste and Vent Piping
22 13 19	- Sanitary Waste Piping Specialties
22 33 00	- Electric, Domestic-Water Heaters
22 40 00	- Plumbing Fixtures

DIVISION 23 - HVAC

23 05 00	- Common Work Results For HVAC
23 05 13	- Common Motor Requirements for HVAC Equipment

23 05 29 - Pipe Supports, Sleeves, and Seals
 23 05 53 - Identification for HVAC Piping and Equipment
 23 05 93 - Testing Adjusting and Balancing For HVAC
 23 07 13 - HVAC Duct Insulation
 23 07 19 - HVAC Piping Insulation
 23 21 13 - Hydronic Piping
 23 23 00 - Refrigerant Piping
 23 31 13 - Metal Ducts
 23 33 00 - Air Duct Accessories
 23 34 23 - HVAC Power Ventilators
 23 37 13 - Diffusers, Registers, and Grilles
 23 81 43 - Air-Source Unitary Heat Pumps
 23 82 19 - Air Handling Unit
 23 82 39.19 - Wall and Ceiling Unit Heaters

DIVISION 26 - ELECTRICAL

26 00 10	Electrical General Requirements
26 00 15	Submittals
26 00 20	Basic Electrical Materials and Methods
26 05 19	Low-Voltage Electrical Power Conductors and Cables
26 05 26	Grounding and Bonding for Electrical Systems
26 05 29	Hangers and Supports for Electrical Systems
26 05 33	Raceways and Boxes for Electrical Systems
26 05 43	Underground Ducts and Raceways for Electrical Systems
26 05 53	Identification for Electrical Systems
26 09 23	Lighting Control Devices
26 24 16	Panelboards
26 27 26	Wiring Devices
26 28 13	Fuses
26 28 16	Enclosed Switches and Circuit Breakers
26 28 19	Elevator Safety Switches
26 43 13	Surge Protection for Low-Voltage Electrical Power Circuits
26 51 19	Led Interior Lighting
26 52 13	Emergency and Exit Lighting
26 56 13	Lighting Poles and Standards
26 56 19	Led Exterior Lighting

DIVISION 27 - COMMUNICATIONS

27 00 01	General Requirements for Communications
27 05 02	Basic Materials & Methods for Communications
27 05 28	Pathways for Communications Systems
27 05 29	Hangers and Supports for Communications Systems
27 05 53	Identification for Communications
27 11 16	Communications Cabinets, Racks, Frames and Enclosures
27 11 23	Communications Cable Management and Ladder Rack
27 15 13	Communications Copper Horizontal Cabling

DIVISION 28 - ELECTRONIC SAFETY AND SECURITY

28 13 00	Access Control
----------	----------------

28 13 53	Network (IP) Intercom System
28 20 00	Video Surveillance
28 31 11	Digital, Addressable Fire-Alarm System
28 50 00	Emergency Responder Radio System

DIVISION 31 – EARTHWORK

31 00 00	Earthwork
31 10 00	Site Clearing
31 21 13	Radon Mitigation
31 22 13	Rough Grading
31 23 33	Piped Utilities-Basic Methods
31 25 00	Erosion and Sediment Control

DIVISION 32 – SITE IMPROVEMENTS

32 12 00	Flexible Pavement
32 13 00	Rigid Pavement
32 31 18	Decorative Metal Fences and Gates
32 92 00	Turf & Grasses
32 93 00	Plants

DIVISION 33 – UTILITIES

33 11 00	Water Distribution
33 41 00	Storm Sewer System
33 40 00	Storm Drainage

APPENDIX

HUD Noise Assessment - Harriet's Hope Residential Development
Phase 1 Environmental Site Assessment

SECTION 04 00 00

MASONRY

PART 1 GENERAL

1.01 WORK INCLUDED

A. Provide the following:

1. Face brick.
2. Concrete masonry units.
 - a. Standard
 - b. Fire-rated
3. Masonry lintels and setting of steel angles furnished under Section 05 50 00.
4. Setting bearing plates supported and embedded with masonry furnished under Section 05 50 00.
5. Provide masonry fill concrete and reinforcing steel where indicated on drawings. See Section 03 30 00.
6. Wall reinforcing and accessories.
7. Built-in collars, sleeves, inserts, anchors, ties, sockets, bolts, blocking, miscellaneous metal work, etc., in contact with, supported on or enclosed by masonry. When these items are furnished by others, they shall include information for setting.
8. Through-wall flashing.
9. Includes grouting solid all hollow metal door frames in masonry.
10. Mortar and grout.

1.02 RELATED SECTIONS

- A. Sustainable Design Requirements: Section 01 81 13.
- B. Cast Stone: Section 04 72 00.

1.03 DEFINITIONS

- A. Reinforced Masonry: Masonry containing reinforcing steel in grouted cells.

1.04 SUBMITTALS

- A. Product Data: For each different masonry unit, accessory and other manufactured products specified.
- B. Shop Drawings: Show fabrication and installation details for the following:
 1. Reinforcing Steel: Detail bending and placement of unit masonry reinforcing bars. Comply with ACI 315, "Details and Detailing of Concrete

- Reinforcement". Show elevations of reinforced walls.
2. Fabricated Flashing: Detail corner units, end-dam units, and other special applications.
- C. Samples: Provide samples of items specified herein to be used in the work.
- D. Submit certification that fire resistant concrete units conform to the requirements specified herein for Fire Resistant Concrete Block.
- E. Brick Cleaner
1. Applicator Qualifications: Submit qualifications of applicator.
 - a. Certification stating applicator is experienced in the application of the specified products.
 - b. List of recently completed masonry cleaning projects, including project name and location, names of owner and Architect, description of cleaning products used and substrates, applicable local environmental regulations, and application procedures.
 2. Environmental Regulations: Submit description for testing, handling, treatment, containment, collection, transport, disposal, and discharge of hazardous wastes and cleaning effluents. Describe any hazardous materials to be cleaned from substrates. Submit applicable local environmental regulations.
 3. Protection: Submit description for protecting surrounding areas, landscaping, building occupants, pedestrians, vehicles, and nonmasonry surfaces during the work from contact with masonry cleaners, stain removers, residues, rinse water, fumes, wastes, and cleaning effluents.
 4. Surface Preparation: Submit description for surface preparation of substrates to be completed before application of masonry cleaners and stain removers.
 5. Application: Submit description for application procedures of masonry cleaners.
- F. Material Test Reports: From a qualified testing agency indicating and interpreting test results of the following for compliance with requirements indicated.
1. Each type of masonry unit required.
 - a. Include size-variation data for brick, verifying that actual range of sizes falls within specified tolerances.
 - b. Include test results, measurements, and calculations establishing net-area compressive strength of masonry units.
 2. Mortar complying with property requirements of ASTM C270.
 3. Grout mixes complying with compressive strength requirements of ASTM C476. Include description of type and proportions of grout ingredients.
- G. Material Certificates: Signed by manufacturers certifying that each of the following items complies with requirements:

1. Each type of masonry unit required.
 - a. Include test data, measurements, and calculations establishing net-area compressive strength of masonry units.
 2. Each combination of masonry unit type and mortar type. Include statement of net-area compressive strength of masonry units, mortar type, and net-area compressive strength of masonry determined according to Tables 1 and 2 in ACI 530.1/ASCE 6/TMS 602.
 3. Each material and grade indicated for reinforcing bars.
 4. Each type and size of joint reinforcement.
 5. Each type and size of anchor, tie, and metal accessory.
- H. Cold-Weather Procedures: Detailed description of methods, materials and equipment to be used to comply with cold-weather requirements.
- I. Special Environmental Requirements: Submit the following in accordance with Section 01 81 13:
1. Local/Regional Materials
 - a. Sourcing location(s): Indicate location of extraction, harvesting, and recovery; indicate distance between extraction, harvesting, and recovery and the project site.
 - b. Manufacturing location(s): Indicate location of manufacturing facility; indicate distance between manufacturing facility and the project site.
 - c. Product Value: Indicate dollar value of product containing local/regional materials; include materials cost only.
 - d. Product Component(s) Value: Where product components are sourced or manufactured in separate locations, provide location information for each component. Indicate the percentage by weight of each component per unit of product.

1.05 QUALITY ASSURANCE

- A. Supervisor: A supervisory journeyman mason shall be appointed for the project and shall be present at all times masonry work is being performed and:
1. have a minimum of 5 years experience on masonry projects of this type and size.
 2. be thoroughly familiar with the design requirements, types of materials being installed, referenced standards and other requirements.
- B. Use only skilled journeyman masons for cutting and placing of masonry; no allowance shall be made for lack of skill on the part of the workmen.
- C. Consult other trades and make provisions that shall permit the installation of their work in a manner to avoid cutting and patching. Build-in work under other sections, as necessary, and as the work progresses.

- D. Unit Masonry Standard: Comply with ACI 530.1/ASCE 6/TMS 602, 2013 Edition "Specifications for Masonry Structures". Maintain one copy of the standard in project field office at all times during construction. Contractor's supervisory personnel shall be thoroughly familiar with the material as it applies to this Project.
- E. Concrete Unit Masonry Construction: Comply with the National Concrete Masonry Association (NCMA) "TEK Bulletins", and other requirements specified.
 - 1. NCMA TEK Bulletin 3-02A "Grouting for Concrete Masonry Walls".
 - 2. NCMA TEK Bulletin 8-02A "Removal of Stains from Concrete Masonry Walls".
 - 4. NCMA TEK Bulletin 10-01A "Crack Control in Concrete Masonry Walls".
 - 5. NCMA TEK Bulletin 10-02C "Control Joints for Concrete Masonry Walls".
 - 6. NCMA TEK Bulletin 14-2 "Reinforced Concrete Masonry".
 - 7. NCMA TEK Bulletin 19-04A "Flashing Concrete Masonry".
 - 8. NCMA TEK Bulletin 19-05A "Use of Flashing in Concrete Masonry Walls".
- F. Brick Industry Association (BIA)
 - 1. BIA Technical Notes No. 8 and 8B: Mortar for Brickwork.
 - 2. BIA Technical Notes No. 20: Cleaning Brick Masonry.
 - 3. BIA Technical Notes No. 28B: Brick Veneer.
- G. Sample Panels
 - 1. Construct where approved by Architect.
 - 2. Panel shall be at least 6 feet long by 6 feet high and shall show full color range, joint detail, reinforcement, through-wall flashing and drips, cavity drainage material, weeps and all other details of construction that will be used in the completed work. Include at least one 90° corner.
 - a. Include brick masonry, split face concrete masonry and cast stone; see Section 04 72 00
 - b. Clean sample panel using the same methods and materials that will be utilized for cleaning the building masonry.
 - 3. Construct additional panels as required by Architect if original panel construction is not acceptable.
 - 4. Do not start masonry construction until the sample panel is approved by the Architect.
 - 5. Retain acceptable sample as reference standard for the project.
 - 6. Demolish and remove panel from site after acceptance of work.

1.06 DELIVERY, STORAGE AND HANDLING

- A. Store cement and lime materials and masonry units off the ground, under cover and protected from weather damage. If units become wet, do not install until they are dry. Do not use cementitious materials that have become damp.
- C. Stockpile and store aggregates to prevent contamination from foreign materials, in locations where grading and other required characteristics can be maintained.

- D. Use care in handling units to avoid chipping and breakage.
- E. Locate storage areas where they will not be disturbed or damaged by construction operations.
- F. Protect finished floor areas from damage.

1.07 COLD WEATHER CONSTRUCTION

- A. Comply with recommended practices for cold weather construction of the International Masonry Industry All-Weather Council and requirements contained in ACI 530.1/ASCE 6/TMS 602.
- B. Do not build on frozen or snow covered work. Remove and replace masonry work damaged by frost or freezing.
- C. Requirements During Construction: Provide the following minimum requirements for the air temperatures listed:
 - 1. Above 40° F: Normal masonry procedures.
 - 2. 40° F to 32° F: Heat mixing water to produce mortar temperatures between 40° F and 120° F. Produce consecutive batches of mortar with the same temperatures falling within this range. Do not heat mortar to greater than 120° F.
 - 3. Below 32° F to 25° F: Heat sufficient mortar ingredients to produce mortar temperatures between 40° F and 120° F. Produce consecutive batches of mortar with the same temperatures falling within this range. Maintain mortar temperatures after mixing above 40° F. Do not heat mortar to greater than 120° F.
 - 4. Below 25° F to 20° F: Heat sufficient mortar ingredients to produce mortar temperatures between 40° F and 120° F. Produce consecutive batches of mortar with the same temperatures falling within this range. Maintain mortar temperatures after mixing above 40° F. Do not heat mortar to greater than 120° F. Maintain masonry above freezing using auxiliary heat. Provide enclosure when wind is in excess of 15 mph.
 - 5. Below 20° F: Heat sufficient mortar ingredients to produce mortar temperatures between 40° F and 120° F. Produce consecutive batches of mortar with the same temperatures falling within this range. Maintain mortar temperatures after mixing above 40° F. Do not heat mortar to greater than 120° F. Maintain masonry above freezing using enclosure and auxiliary heat.
- D. Protection Requirements for Completed Masonry (and masonry not being worked on): Provide the following minimum requirements for the mean daily air temperatures listed:
 - 1. Above 40° F: Normal masonry procedures.

2. 40° F to 32° F: Protect from rain or snow for 24 hours with weather-resistive membrane.
 3. Below 32° F to 20° F: Completely cover with weather-resistive membrane and maintain above freezing for 24 hours.
 4. Below 20° F: Provide weather-resistant enclosure and auxiliary heat to maintain above freezing for 24 hours.
- E. Requirements During Grouting Operations (Vertically Reinforced Walls): Provide the following minimum requirements for the air temperatures listed:
1. Above 32° F: Normal masonry procedures. Cover at end of work day with weather-resistive membrane.
 2. 32° F to 20° F: Heat grout materials to 90° F so grout has in-place temperature of 70° F at end of work day. Cover at end of work day with weather-resistive membrane and 1/2" thick insulating blanket.
 3. Below 20° F: Heat grout materials to 90° F so grout has in-place temperature of 70° F at end of work day. Cover at end of work day with weather-resistive membrane and 1" thick insulating blanket or maintain heated enclosure to 40° F for a period of 48 hours.
 - a. Grout Containing Type III Cement: Maintain 40° F temperature for 24 hours.

1.08 HOT WEATHER CONSTRUCTION

- A. Protect masonry construction from direct exposure to wind and sun when erected in an ambient air temperature of 90° F., or greater in shade with relative humidity less than 50%. Provide artificial shade and wind breaks and use cooled materials as required. Provide artificial shade, wind breaks, use cooled materials and other procedures outlined in BIA Tech Notes #1.

1.09 PROJECT CONDITIONS

- A. Do not apply uniform floor or roof loads for at least 12 hours and concentrated loads for at least 3 days after building masonry walls or columns.
1. Brace unsupported and newly laid masonry walls. Maintain bracing in place until building structure provides permanent bracing.
- B. Stain Prevention: Prevent grout, mortar, and soil from staining the face of masonry to be left exposed or painted. Immediately remove grout, mortar and soil that become in contact with such masonry.
1. Protect base of walls from rain-splashed mud and from mortar splatter by coverings spread on ground and over wall surface.
 2. Protect sills, ledges and projections from mortar droppings.
 3. Protect surfaces of window and door frames, as well as similar products with painted and integral finishes, from mortar droppings.
 4. Turn scaffold boards near the wall on edge at the end of each day to prevent rain from splashing mortar and dirt on completed masonry.

PART 2 PRODUCTS

2.01 CLAY MASONRY UNITS

A. Face Brick

1. Reference: Select exterior building brick conforming to ASTM C216, Grade SW.
2. Size and Color: Modular - Standard size and of a color range and texture selected by the Architect.
3. Manufacturer/Color
 - a. Base Bid Brick:
 - 1) **GENERAL SHALE (MERIDIAN) Steel**
 - b. Alternate Brick:
 - 1) **GLEN GERY BRICK Silverbrick.**
 - c. Other Manufacturers: Brick by other manufacturers may be used providing the above requirements are met or exceeded. Color and texture must be equal as approved by the Architect prior to bid.
4. Special Shapes: Provide solids, shelf angle bricks and other special shapes as indicated or required so as no brick cores are exposed to view. Color and texture to match face brick or accent brick as applicable.

2.02 CONCRETE MASONRY UNITS

A. General

1. Curing: Cure for at least 7 days and units must be at least 28 days old when used in the work.
2. Corners (Interior Walls): Provide bullnose edges at all outside corners unless otherwise indicated or directed.
3. Integral Water Repellents: Use in units exposed to weather. Amount as recommended by water repellent manufacturer as approved by concrete block manufacturer.
 - a. Type: Liquid polymeric, integral water-repellent admixture that does not reduce flexural bond strength. Units made with integral water repellent, when tested according to ASTM E 514 as a wall assembly made with mortar containing integral water-repellent manufacturer's mortar additive, with test period extended to 24 hours, shall show no visible water or leaks on the back of test specimen.
 - b. Products/Manufacturers: Subject to compliance with requirements, provide W. R. GRACE Dry-Block; MASTER BUILDERS' INC. Rheomix-Rheopel; ACME-HARDESTY CO. Acme-Shield; KRETE INDUSTRIES KreteControl 202 Internal Water Repellent; EUCLID CHEMICAL Hydrapel System.

B. Hollow Load Bearing, Solid Load Bearing (75%) and Fire Resistant Concrete Masonry Units

1. Type: Hollow, load bearing, standard modular size and shapes, thoroughly cured and dried.
2. References: ASTM C90.
3. Unit Compressive Strength: Provide units with minimum average net-area compressive strength of 1900 psi.
4. Weight Classification: Normal weight, unless otherwise indicated.
5. Linear Shrinkage: Not to exceed 0.065 percent, ASTM C426.
6. Aggregate: ASTM C33 normal weight aggregates. Cinder aggregates not permitted.
7. Fire Resistant
 - a. Rating: Design for fire ratings indicated on drawings.
 - b. Manufacturer
 - 1) Listed in the Building Materials List published by the Underwriters' Laboratories, Inc.
 - 2) In lieu of above, provide a report from a nationally recognized testing agency stating that the units are equivalent in fire rating to those furnished by the producers as listed above.
 - c. Location: Where indicated.

2.03 MORTAR

A. Materials

1. Portland Cement: ASTM C150, Type I or II, except Type III may be used for cold-weather construction. Provide natural color or white cement as required to produce mortar color indicated or selected.
2. Masonry Cement: ASTM C91, provide non-staining type for stonework.
3. Hydrated Lime: ASTM C207, Type S.
4. Aggregate: ASTM C144, clean masonry sand, not over 10% to pass No. 100 sieve for general use.
5. Water: Clean, fresh and free of deleterious amounts of acids, alkalis and foreign organic matter.
6. Water Repellent Admixture: W. R. GRACE Dry-Block, RHEOMIX - Rheopel Mortar Admixture; MASTER BUILDERS, INC., KRETE INDUSTRIES KreteGuard 390. Manufacturer must submit certification that water repellent admixture meets or exceeds requirements specified herein.
 - a. Conformance: ASTM E514.
 - b. Type: Integral polymeric water-repellents (IPWR).
7. Color Additive: Inorganic pigments as required to produce colored mortar as selected by Architect. SGS Colors by SOLOMON GRIND CHEM SERVICE; DAVIS COLORS or equal.
 - a. Resistant to alkali, light and weather
 - b. Unaffected by cement and free of water soluble salts.
8. Cold Weather Additive: Non-chloride, non-corrosive, accelerating admixture complying with ASTM C494, Type C or ASTM C1384 and recommended by the manufacturer for use in masonry mortar of

composition indicated.

B. Proprietary Mortar Cement: Conform to ASTM C91, containing hydrated lime.

1. Certification: Submit certified laboratory data substantiating conformance with structural requirements for mortars as specified; and that no adverse chemical reaction will occur with the specified masonry accessories and reinforcing. Certification must be received and approved by Architect prior to mortar use.
2. Suitable products are acceptable from the following manufacturers:
 - a. MIAMI
 - b. LEHIGH HANSON
 - c. ESSROC MATERIALS, INC. (Brixment)
 - d. QUIKRETE

C. Mixes - Unit Masonry

1. Provide water repellent admixture in all mortar used for exterior CMU masonry work. Add to mix in accordance with manufacturer's recommendations.
2. Type M Mortar
 - a. Use: Provide for CMU work below grade or in contact with earth.
 - b. Proportions: ASTM C270 proportions by volume. Minimum average compressive strength at 28 days of 2,500 psi.
 - c. Color: Natural color.
3. Type S Mortar
 - a. Use: Provide for all CMU work, except that indicated to receive Type M and glass block work.
 - b. Proportions: ASTM C270 proportions by volume. Minimum average compressive strength at 28 days of 1,800 psi.
4. Type N Mortar
 - a. Use: Provide for brick veneer and cast stone.
 - b. Proportions: ASTM C270 proportions by volume. Minimum average compressive strength at 28 days of 750 psi.
 - c. Colors: As selected by Architect.

D. Cast Stone Pointing Mortar: One part non-staining masonry cement, one part hydrated lime, and four parts damp, loose sand. Add coloring pigment as required to match mortar color selected by Architect.

2.04 GROUT

A. Masonry Grout - Mix

1. Fine Grout for Reinforced Masonry: Mix with mechanical mixer with sufficient water to the desired consistency in accordance with ASTM C476 Proportion Specifications.
 - a. Portland Cement: 1 part
 - b. Hydrated Lime: 0 to 1/10 part

- c. Fine Aggregate: 2-1/4 to 3 times the sum of the volumes of the cementitious materials
- 2. Coarse Grout for Reinforced Masonry: Mix with mechanical mixer with sufficient water to the desired consistency in accordance with ASTM C476 Proportion Specifications.
 - a. Portland Cement: 1 part
 - b. Hydrated Lime: 0 to 1/10 part
 - c. Fine Aggregate: 2-1/4 to 3 times the sum of the volumes of the cementitious materials.
 - d. Coarse Aggregate: 1 to 2 times the sum of the volumes of the cementitious materials.
- 3. Hand Mixing: Not acceptable.

2.05

REINFORCING

- A. Manufacturers: DUR-O-WALL; HECKMANN BUILDING PRODUCTS; HOHMANN & BARNARD; MASONRY REINFORCING CORPORATION OF AMERICA (WIREBOND). Where products are specified referencing a particular manufacturer, equal products from the manufacturers listed are acceptable providing the product meets the requirements indicated.
 - 1. Where a manufacturer is listed below for a specific product, it is to establish a level of quality. Similar products of equal quality from the above listed manufacturers are acceptable.
- B. Horizontal Joint Reinforcement
 - 1. General
 - a. Type: Ladder type, standard weight, galvanized.
 - b. Width: Approximately 2 in. less than nominal wall thickness.
 - c. Spacing: Continuous along horizontal joint, spaced 16 inches on center vertically, unless otherwise indicated.
 - 2. Longitudinal Wire
 - a. Single Wythe Walls: 2 wires.
 - b. Multi-wythe Walls:
 - 1) Each wythe less than 6 inches wide: 1 wire.
 - 2) Each wythe 6 inches and wider: 2 wires.
 - 3. Stacked Bond: A single wire of joint reinforcement to be placed in the horizontal joint every 16" vertically up the wall to create strength to the veneer. Comply with requirements in ACI 503/ASCE 5TMS 402.
- C. Metal "Z" Ties: 3/16" galvanized steel "Z" shaped wire ties, 2" narrower than wall width. For use in block wythes at control joints.
- D. Adjustable Veneer Anchor
 - 1. Wood Stud Back-Up: Screw on anchor plate fabricated 14 gage hot dipped galvanized steel. 1 1/4" x 6" long. 315D from by HECKMANN or similar products.

- a. Ties: Triangular tie, fabricated from 3/16" diameter galvanized cold drawn steel wire. Provide ties long enough to engage the anchor and be embedded not less than 2" into the bed joint of the masonry veneer. HECKMANN 316 Series.
- 2. Concrete Masonry Back-Up (Tie and Anchor): Ladder type reinforcing with double eye ties welded at each cross wire 15" o.c. to extend into cavity of the two wythe wall. A two pronged hook tie shall be inserted into the eye holes creating a positive connection to restrain compression and tension. Lox All Adjustable Eye Wire HOHMANN & BARNARD.
- F. Wire Mesh: Wire Mesh: 1/4" mesh of galvanized steel wire (min. 16 gage) or galvanized metal lath, cut into strips 1-1/2" narrower than wall width where used. For use at intersection of masonry walls.
- G. Reinforcing Steel - Bond Beam and Wall Reinforcement: Uncoated steel reinforcing bars; ASTM A615/A; ASTM A616, including Supplement 1; or ASTM A617/A, Grade 60.
- H. Partition Top Anchors: 12 gage galvanized steel plate with 7/16-inch diameter holes. HOHMANN & BARNARD PTA 422 or equal.

2.07 MISCELLANEOUS ITEMS

- A. Through-Wall Flashing: Provide one of the following types:
 - 1. Copper Composite
 - a. Characteristics:
 - 1) Type: Copper core with polymer fabric laminated to copper face on both sides with non-asphalt adhesive.
 - 2) Copper: ASTM B370, CDA Alloy 110
 - 3) Weight: 5 oz
 - 4) Fabric: polymer fabric; laminated both faces of copper core.
 - b. Mastic/sealant: One part 100% solids, solvent-free formulated silyl-terminated polyether (STPE), ASTM C920, Type S, Grade NS, Class 50.
 - c. Termination Strip: Provide type recommended by flashing manufacturer.
 - d. Manufacturers/Products
 - 1) YORK MANUFACTURING, INC.; Multi-Flash
 - 2) STS COATINGS, INC.; Gorilla Flash GF-500
 - 3) WIRE-BOND, INC.; Copper Seal
 - 4) ADVANCED BUILDING PRODUCT; Copper Sealtite
 - 2. Rubber Sheet
 - a. Material: Self-adhesive, cold-applied sheet consisting of 32 mil rubberized asphalt bonded to 8 mil polyethylene film. Provide with release film.
 - b. Mastic: Rubberized asphalt-based mastic.
 - c. Surface Primer (Conditioner): Type as recommended by manufacturer.
 - d. Manufacturer: Perm-A-Barrier by W. R. GRACE, Sando-Seal by SANDELL MANUFACTURING COMPANY, IPCO Wall Flashing;

ILLINOIS PRODUCTS CORPORATION, CCW 705 TWF;
CARLISLE COATINGS AND WATERPROOFING, POLYGUARD
400 TWF, ADVANCED BUILDING PRODUCTS Strip -N -Flash.

- B. Sheet Metal Drip Edge: Fabricated from 0.015" thick by minimum 3" wide stainless steel with hemmed edge. Comply with requirements specified in Section 07 62 00 - Flashing and Sheet Metal.
 - 1. Product: HECKMAN BUILDING PRODUCTS, IPCO stainless steel drip edge, ILLINOIS PRODUCTS CORPORATION or HOHMANN & BARNARD, INC.
- C. Preformed Masonry Control Joint Filler
 - 1. General: Extruded rubber complying with ASTM D2240, general purpose grade.
 - 2. Flange: Where applicable, locate as required for the particular joint configuration.
 - 3. Manufacturer: Rapid Regular Control Joint by DUR-O-WALL; HOHMANN & BARNARD, or equal.
- D. Brick Cleaning Compound: PROSOCO Sure Klean 600 Detergent; or equal commercial cleaning solution by NATIONAL CHEMSEARCH or AMERICAN CALMAL that will not harm masonry or adjacent materials and is acceptable to the masonry manufacturer. Cleaners containing muriatic acid are not acceptable.
- E. Isolation Liners: Locate between steel columns and masonry. Asphalt impregnated cellular paper, similar to WILLIAMS PRODUCTS Columns Boxboard, 1/4" single thickness or 1/2" double thickness. Use double thickness except where wall dimensions do not permit, then use single thickness.
- F. Reinforcing Bar Positioners: Wire units designed to fit into mortar bed joints spanning masonry unit cells with loops for holding reinforcing bars in center of cells. Units are formed from 0.142" steel wire, hot-dipped galvanized after fabrication.
 - 1. D/A 811 DUR-O-WALL
 - 2. D/A 816 DUR-O-WALL
 - 3. No. 376 Rebar Positioner HECKMAN
 - 4. #RB Rebar Positioner HOHMANN & BARNARD
 - 5. #RB-Twin Rebar Positioner HOHMANN & BARNARD
 - 6. Double O-Ring Rebar Positioner MASONRY REINFORCING CORPORATION OF AMERICA
 - 7. O-Ring Rebar Positioner MASONRY REINFORCING CORPORATION OF AMERICA
- G. Adhesive Anchor Bolts

1. In hollow CMU: Adhesive anchor systems with nylon or stainless steel screen inserts. Use 1/2 inch diameter anchors with 4-1/4 inch embedment. (Minimum allowable shear 900 pounds; minimum allowable tension 250 pounds/anchor.)
 2. In solid grouted CMU: Adhesive anchor systems. Use 1/2 inch diameter anchors with 4-1/4 inch embedment; (minimum allowable shear 2600 pounds; minimum allowable tension 2000 pounds/anchor).
- H. Cavity Protection Material: Minimum 1" thick, reticulated, nonabsorbent mesh, made from polyethylene strands and shaped to maintain drainage at weep holes without being clogged by mortar droppings.
1. Products: Subject to compliance with requirements, products that may be incorporated into the Work include, but are not limited to, the following:
 - a. Mortar Net; MORTAR NET USA, LTD.
 - b. Mortar Break; ADVANCE BUILDING PRODUCTS
 - c. Mortar Net; MASONRY REINFORCING CORPORATION OF AMERICA.
 - d. Mortar Net; HOHMANN & BARNARD, INC.
 - e. CavClear Masonry Mat; ARCHOVATIONS
 - f. Mortar Stop; POLYTITE MANUFACTURING CORP.
 - g. Mortar Grab; IPCO PRODUCTS.

PART 3 EXECUTION

3.01 INSPECTION

- A. Examine the substrates, structure, and installation conditions. Do not proceed with unit masonry work until unsatisfactory conditions are corrected.

3.02 PREPARATION

- A. Brick
1. Wet brick having ASTM C67 absorption rates greater than 0.025 oz. per square inch per minute. Use wetting methods which ensure that each masonry unit is nearly saturated, but surface dry when laid. During freezing weather, comply with the recommendations of BIA.
 2. Except for absorbent units specified to be wetted, lay masonry units dry.
- B. Concrete Masonry Units: Lay masonry units dry. Do not wet concrete masonry units.
- C. Establish lines, levels, and coursing.
- D. Coordination: Identify items that are to be built-in to masonry wall as specified in other section of these specifications. Verify that these items are available prior to commencing masonry work in these areas. Coordinate sizes of required openings. Items include, but are not necessarily limited too:

1. Access doors
2. Recessed fire extinguisher cabinets
3. Recessed toilet accessories

3.03 INSTALLATION - GENERAL

- A. Build walls to the full thickness shown. Build single wythe walls to the actual thickness of the masonry units, using units of nominal thickness shown or specified.
- B. Cut masonry units using motor-driven masonry saws to provide clean, sharp, unchipped edges. Cut units as required to provide pattern shown and to fit adjoining work neatly. Use full-size units without cutting wherever possible. Provide 100% solid units where webs would be exposed.
- C. Construction Tolerance: Comply with tolerances in ACI 530.1/ASCE 6/TMS 602 and the following:
 1. For conspicuous vertical lines, such as external corners, door jambs, reveals, and expansion and control joints, do not vary from plumb by more than $\frac{1}{4}$ " in 20 feet, nor $\frac{1}{2}$ " maximum.
 2. For vertical alignment of exposed head joints, do not vary from plumb by more than $\frac{1}{4}$ " in 10 feet, nor $\frac{1}{2}$ " maximum.
 3. For conspicuous horizontal lines, such as exposed lintels, sills, parapets, and reveals, do not vary from level by more than $\frac{1}{4}$ " in 20 feet, nor $\frac{1}{2}$ " maximum.
 4. For exposed bed joints, do not vary from thickness indicated by more than plus or minus $\frac{1}{8}$ ", with a maximum thickness limited to $\frac{1}{2}$ ". Do not vary from bed-joint thickness of adjacent courses by more than $\frac{1}{8}$ ".
 5. For exposed head joints, do not vary from thickness by more than plus or minus $\frac{1}{8}$ ". Do not vary from adjacent bed-joint and head-joint thicknesses by more than $\frac{1}{8}$ ".
- D. Openings: Form all chases and openings required for piping and other trades. After work is completed, close openings with masonry and seal around penetration.
- E. Seal all anchor penetrations and tears in the vapor barrier as a result of the work installed under this section.

3.04 ERECTION - BRICK AND CONCRETE MASONRY

- A. Masonry
 1. Layout walls in advance for accurate spacing of surface bond patterns, with uniform joint widths, and to properly locate returns and offsets. Avoid the use of less than half-size units at corners, jambs and other locations.
 2. Lay up walls plumb and true to comply with specified tolerance. Provide

- courses level, accurately spaced and coordinated with other work.
3. Pattern Bond: Lay exposed masonry in running bond with vertical joint in each course centered on units in courses above and below. Bond and interlock each course of each wythe at corners. Do not use units with less than 4" of horizontal face dimensions at corners.
 4. Lay hollow concrete masonry units with full mortar coverage on horizontal and vertical face shells. Bed webs in mortar in starting course on footings and slabs. Maintain 3/8" joint widths, except for minor variations required to maintain bond alignment.
 5. Joints
 - a. Exposed: Cut flush and finish (tool) with hardened metal tool to form a concave compressed joint. Same methods and types of tools to be used by all masons working on project.
 - b. Concealed: Cut flush and trowel point.
 6. Compress and cut joints flush for masonry foundation walls.
 7. Lay brick masonry units with completely filled bed and head joints. Butter ends with sufficient mortar to fill head joints and shove into place. Do not slush head joints.
- B. Horizontal Wall Reinforcement: Provide continuous masonry joint reinforcement as indicated. Install entire length of longitudinal side rods in mortar with a minimum cover of 5/8 inch on exterior side of walls, 1/2 inch elsewhere. Lap reinforcement a minimum of 6 inches.
1. Space reinforcement not more than 16 inches o.c.
 2. Space reinforcement not more than 8 inches o.c. in foundation walls and parapet walls.
 3. Provide reinforcement not more than 8 inches above and below wall openings and extending 12 inches beyond openings.
 - a. Reinforcement above is in addition to continuous reinforcement.
 4. Cut or interrupt joint reinforcement at control and expansion joints, unless otherwise indicated.
 5. Provide continuity at corners and wall intersections by using prefabricated "L" and "T" sections. Cut and bend reinforcing units as directed by manufacturer for continuity at returns, offsets, column fireproofing, pipe enclosures, and other special conditions.
 6. Provide additional reinforcement continuous in first joint above openings and in first joint below openings not extending to floor. Extend additional reinforcement a minimum of 4'-0" beyond opening.
- C. Brick Veneer/Metal Stud Wall Ties: Install in accordance with manufacturer's instructions. Locate one tie per every two square feet of wall surface.
- D. Cavity Wall Construction
1. Keep the air space clear and clean of all mortar droppings and other debris.
 2. Provide weeps spaced 24 inches apart.
 3. Provide cavity drainage protection or similar methods to ensure that weeps are clear of mortar droppings and drain to the building exterior.

4. Weeps using cellular vents located in brick head joints.
- E. Door Frames: Fill all frames installed in masonry with mortar.
- F. Bearing Points: Where a lintel, bar joist or similar member bears directly on concrete masonry, fill the cores of the two blocks courses directly under the member with grout to a limit of 16 inches beyond the end of the member.
- F. Bearing Points
 1. Lintels and Bar Joists: Where a lintel, bar joist or similar member bears directly on concrete masonry, fill the cores of the two blocks courses directly under the member with grout to a limit of 16 inches beyond the end of the member.
 2. Precast Concrete Deck: Where precast concrete deck units bear directly on concrete masonry, fill the cores of the top two block courses with grout.
- G. Where built-in items are to be embedded in cores of hollow masonry units, place a layer of metal lath in the joint below and rod mortar or grout into core.
- H. Control and Expansion Joints: Provide control joints for exterior and interior masonry construction in accordance with NCMA-TEK Bulletins 10-1A and 10-2B and BIA Technical Notes 18B.
 1. Unless otherwise indicated, provide control joints in masonry walls at maximum 24 foot intervals for exterior walls, maximum 30 foot intervals for interior walls, and at intersections of walls, except corners.
 - a. Exact locations as determined by the Architect if not specifically dimensioned.
 - b. If drawings do not indicate all control joints based on these maximums, allow for additional joints to be determined by the Architect prior to commencement of masonry work.
 - c. Locate control at steel columns.
 2. Provide 3/8" wide control joints, unless otherwise indicated. For joints in exterior walls, build in control joint filler strips as masonry wall is laid up allowing 3/4" for sealant and backup on each side of wall. For interior control joints, no filler is required; rake joint approximately 3/4" deep and install sealant and backup. See Section 07 92 00, Sealants.
 3. Do not carry horizontal joint reinforcement through control joint.
 4. Maintain lateral support of continuous wall at control joint in concrete block backup walls by using control joint filler, tongue and groove type control joint block, or similar type approved method. In cavity walls, place metal "Z" wall ties 16" on-center vertically in brick on each side of control joint.
 5. Maintain lateral support of intersecting interior masonry walls with wire mesh ties placed across joint between walls, spaced 16" on-center vertically.
- I. Thru-Wall Flashing

1. Provide at the following locations:
 - a. In first course above steel supports and shelf angles.
 - b. In first course above lintels at louvers, windows and doors.
 - c. In first course above grade around entire building perimeter.
 - d. In exterior walls that project above adjacent lower roof.
 - e. Below sills of window, louver and similar type wall openings.
 - f. Below parapet wall caps.
 - g. Other through wall flashing conditions where indicated.
 2. Ensure that flashings drain to exterior.
 3. Prepare masonry surfaces smooth and free of projections which could puncture flashing.
 4. Lay on slurry of fresh mortar and cover with mortar.
 5. End Dams: Provide end dams at all locations where flashing terminates within a wall. Over openings, carry minimum 6" beyond end of steel lintel and turn up edges to form pan. All corners folded, not cut.
 6. Install metal drip edges beneath flexible flashing at exterior face of wall. Stop flexible flashing 1/2 inch back from outside face of wall and adhere flexible flashing to top of metal drip edge.
 7. Top Edge Concealed Terminations: 8 inch minimum above drainage plane.
 8. Seal around all penetrations with mastic before covering with mortar.
 9. Joints
 - a. Install in longest lengths and with fewest joints possible but not less than 20 feet between joints.
 - b. Lap ends minimum 6 inches and seal with full bed of mastic.
 10. Continue flashings around corners and other gaps in shelf angles to prevent discontinuity.
 11. Continue flashing through expansion joints.
 12. Provide weeps at all thru-wall flashing locations. Space weeps as specified hereinbefore.
- J. Place cavity drainage material in cavities to comply with configuration requirements for cavity drainage material specified herein.
- K. Masonry, non-bearing walls carried to structure above: Terminate at normal joint width below surface and leave joint open for sealants.
1. At fire-rated partitions, install firestopping in joint between top of partition and underside of structure above to comply with Section 07 84 00, Firestopping.
- L. Stopping and Resuming Work: In each course, rack back one-half-unit length for one-half running bond or one-third-unit length for one-third running bond; do not tooth. Clean exposed surfaces of set masonry, wet clay masonry units lightly if required, and remove loose masonry units and mortar before laying fresh masonry.
- M. Built-in Work: As construction progresses, build in items specified under this and other Sections of the Specifications. Fill in solidly with masonry around built-in items.

- N. Steel Lintels: Install steel lintels at all masonry opening, whether indicated on the drawings or not. Provide minimum bearing of 8" on each jamb, unless otherwise indicated.

3.05 MORTAR

A. General

1. Batch Size: Controlled so that all material used within two (2) hours.
2. Mortar on Board
 - a. Keep well tempered with water so long as its cementing material has not started to set.
 - b. Do not retemper if initial set of cementing material has been reached, or if mortar has stiffened greatly.
3. Anti-freeze Admixture: Not permitted.
4. Water Repellent Admixture: Use with brick and concrete block exposed to exterior, mix as recommended by manufacturer.

B. Mixing

1. Machine mix dry in a batch mixer with care taken in adding water to mix to avoid overwetting.
2. Do not retamper in mixer at any time.
3. Continue mixing for a minimum of five (5) minutes after all materials are in mixer.

- C. Recharging: Completely empty and clean mixer before recharging.

3.06 PROTECTION

- A. Brace all walls while in green condition.

- B. Protection of Masonry: During construction, cover tops of walls, projections, and sills with waterproof sheeting at end of each day's work. Cover partially completed masonry when construction is not in progress.

1. Extend cover a minimum of 24 inches down both sides and hold cover securely in place.
2. Where one wythe of multiwythe masonry walls is completed in advance of other wythes, secure cover a minimum of 24 inches down face next to unconstructed wythe and hold cover in place.

3.07 REINFORCED MASONRY INSTALLATION

- A. Placing Reinforcement: Comply with requirements of ACI 530.1/ASCE 6/TMS 602.

1. General: Clean reinforcement of loose rust, mill scale, earth, ice or other

materials which will reduce bond to mortar or grout. Do not use reinforcement bars with kinks or bends not shown on drawings or final shop drawings, or bars with reduced cross-section due to excessive rusting or other causes.

- B. Grouting: Do not place grout until entire height of masonry to be grouted has attained sufficient strength to resist grout pressure.
 - 1. Comply with requirements of ACI 530.1/ASCE 6/TMS 602 for cleanouts and for grout placement, including minimum grout space and maximum pour height.
 - 2. Use "Fine Grout" per ASTM C 476 for filling spaces less than 4" in one or both horizontal directions.
 - 3. Use "Coarse Grout" per ASTM C 476 for filling spaces 4" to 10" in both horizontal directions.
 - 4. Use 3000 psi concrete for filling spaces 10" or larger in both horizontal directions.
- C. Bond Beams: Reinforce as indicated and fill with grout. Position reinforcement accurately at the spacing indicated. Place horizontal reinforcement as the masonry work progresses.
- D. Reinforced Concrete Masonry Walls: Install and align grout block units to provide continuous vertical voids in walls. Install reinforcing steel as work progresses. Use horizontal bars to position vertical bars. Fill grout block units cores solid with concrete fill.
 - 1. Place concrete fill in maximum 4'-0" vertical lifts. Recess top of fill minimum 1-1/2" below top of course to form a key with the following lift. Comply with NCMA TEK Bulletins 3-2, 3-3A and 14-2 recommendations.
 - 2. Coordinate placement of reinforcement and concrete fill with cast-in-place concrete and precast concrete work to provide continuous vertical and horizontal reinforcement full height of indicated walls.

3.08 REPAIR, POINTING AND CLEANING

- A. Remove and replace masonry units that are loose, chipped, broken, stained, or otherwise damaged. Provide new units to match adjoining units and install in fresh mortar pointed to eliminate evidence of replacement.
- B. During the tooling of joints, enlarge all voids or holes, and completely fill with mortar. Point up all joints at corners to provide a neat, uniform appearance.
- C. Cleaning - Brick Masonry: Clean all exposed brick masonry. Cleaning agents and methods subject to Architect's approval. Protect all stone. Damaged materials and work replaced at Contractor's expense.
 - 1. Before full-scale application, review manufacturer's product data sheets to determine the suitability of each product for the specific surfaces. Apply

- each masonry cleaner to test panel areas to determine dilution rates, dwell times, number of applications, compatibility, effectiveness, application procedures, effects of pressure rinsing, and desired results.
2. Apply masonry cleaners and stain removers to test panels in accordance with manufacturer's written instructions. Allow 48 hours or until test panels are thoroughly dry before evaluating final appearance and results. Do not begin full-scale application until test panels are inspected and approved by the Architect.
 3. Test Area Requirements:
 - a. Size: Minimum 5 feet by 4 feet each.
 - b. Locations: As determined by the Architect.
 - c. Masonry Cleaners: Number of test panels as required to completely test each masonry cleaner with each type of substrate to be cleaned.
 4. Test all cleaning effluents generated by the masonry cleaning of the test panels to determine any hazardous characteristics. Comply with applicable federal, state, and local environmental regulations including testing, handling, treatment, containment, collection, transport, disposal, and discharge of hazardous wastes.
 5. Muratic acid cleaning of brick masonry not permitted. Install and protect installed brick masonry so that acid cleaning is not required at completion of the work.
- D. Cleaning – Concrete Masonry: During construction of exposed CMU, minimize mortar and grout smears on exposed surfaces. Dry brush CMU surfaces at the end of each days work and after final pointing. Remove mortar stains and dirt from exposed surfaces.
1. Cleaning Solutions: Where cleaning solutions are required, they shall be provided at no additional cost to the Owner. Cleaning solutions must be approved by Architect and spot tested prior to use.
- E. Area Cleaning: Clean floors of all mortar droppings, including floor surfaces of accessible chases.

END OF SECTION

SECTION 06 20 00
FINISH CARPENTRY

PART 1 GENERAL

1.01 WORK INCLUDED

- A. Provide finish carpentry as indicated and specified. Work includes:
 - 1. Running and standing trim.
 - 2. Installation of shop fabricated millwork.

1.02 RELATED SECTIONS

- A. Wood Blocking: Section 06 10 50.
- B. Hollow Metal Doors and Frames: Section 08 11 13.
- C. Wood Doors: Section 08 14 00.
- D. Door Hardware: Section 08 71 10.
- E. Painting and Finishing: Section 09 91 00.
- F. Interior unit doors: Section 08 19 00

1.03 REFERENCES

- A. Standards: Wherever the following abbreviations are used herein, they shall refer to the corresponding standard:
 - 1. ANSI: American National Standards Institute.
 - 2. AWI: Architectural Woodwork Institute.
 - 3. P.S.: U.S. Product Standard.

1.04 SUBMITTALS

- A. Product Data: For each type of process and factory-fabricated product. Indicate component materials, dimensions, profiles, textures, and colors and include construction and application details.
- B Submit samples of all finish materials, include the following:
 - 1. Lumber with transparent finish for each species and cut. (three pieces, 12")
 - 2 Lumber with opaque finish. (12")

- 3. Prefinished wood paneling (12" x 12").
- 4. Hardwood plywood with transparent finish for each species (three pieces, 12" x 12")
- C Manufacturer's product data describing type and quality of items specified herein.

1.05 QUALITY ASSURANCE

- A. Installation: Performed only by experienced skilled finish carpenters.
- B. Provide lumber factory marked with type, grade, mill and grading agency identification on concealed surfaces. Omit marking and submit mill certificates for materials to receive transparent finishes that cannot be marked on a concealed surface.
- C. Fire-retardant treated wood shall conform to applicable requirements of AWP and NFPA.
- D. Quality Grade: Materials and fabrication shall be "custom grade" in accordance with "Quality Standard Illustrated," of the AWI conforming to the following sections:
 - 1. Section 100: Solid wood members.
 - 2. Section 300: Standing and running trim.
 - 3. Section 1700: Installation of architectural woodwork.

1.06 DELIVERY, STORAGE AND HANDLING

- A. Do not deliver materials until concrete, masonry and other similar wet work has been completed and is thoroughly dry, outside door openings are permanently watertight, exterior windows are glazed and, in case of temperature dropping below 60 degrees F., until temporary heating and ventilating systems are in operation.
 - 1. Do not store adhesives with materials that have a high capacity to absorb VOC emissions (i.e., materials which are woven, fibrous or porous in nature, such as acoustical ceilings, carpets, textiles, etc.).
 - 2. Do not store adhesives in occupied spaces.
- B. Protect finish carpentry during delivery, storage and handling to prevent damage, soiling and deterioration.
- C. Stack lumber, plywood, and other panels flat with spacers between each bundle to provide air circulation. Protect materials from weather by covering with waterproof sheeting, securely anchored. Provide for air circulation around stacks and under coverings.

1.07 PROJECT CONDITIONS

- A. Provide and maintain a constant temperature and humidity before, during and after

installation as required to maintain optimum moisture content of installed materials.

- B. Obtain measurements and verify dimensions and details before proceeding with finish carpentry.
- C. Do not install finish carpentry materials that are wet, moisture damaged, or mold damaged.
 - 1. Indications that materials are wet or moisture damaged include, but are not limited to, discoloration, sagging, or irregular shape.
 - 2. Indications that materials are mold damaged include, but are not limited to, fuzzy or splotchy surface contamination and discoloration.

PART 2 PRODUCTS

2.01 MATERIALS

- A. Lumber
 - 1. Provide lumber surfaced four sides (S4S) and worked to profiles and patterns shown. Nominal sizes are as shown, except where detailed dimensions are indicated.
 - 2. Moisture Content: Provide materials kiln-dried to moisture content complying with AWI Standards, Section 100-G-3.
 - 3. Softwood Lumber: Comply with PS-20, "American Softwood Lumber Standard", and with applicable rules of grading and inspection agency for species indicated.
 - a. Western Red Cedar, Ponderosa Pine, White Pine: Western Lumber Grading Rules, published by Western Wood Products Association (WWPA), or Standard Grading Rules for West Coast Lumber, No. 16, published by West Coast Lumber Inspection Bureau (WCLIB).
- B. Wood Trim - Painted Finish: In accordance with AWI 300, "Custom" Grade, and AWI 100, Grade I, except no checks will be allowable on visible surfaces. Plain sliced poplar. Well seasoned and kiln dried. Moisture content at time of fabrication shall not exceed 12%.

2.02 ACCESSORIES

- A. Wood Filler: Oil or solvent base, tint to match surface color.
- B. Glue: Aliphatic-resin, polyurethane, or resorcinol wood glue recommended by manufacturer for general carpentry use.
 - 1. Wood glue shall have a VOC content of 30 g/L or less when calculated according to 40 CFR 59, Subpart D (EPA Method 24).
- C. Paneling Adhesive: Comply with paneling manufacturer's written recommendations for adhesives.

1. Adhesive shall have a VOC content of 50 g/L or less when calculated according to 40 CFR 59, Subpart D (EPA Method 24).
- D. Multipurpose Construction Adhesive: Formulation complying with ASTM D 3498 that is recommended for indicated use by adhesive manufacturer.
1. Adhesive shall have a VOC content of 70 g/L or less when calculated according to 40 CFR 59, Subpart D (EPA Method 24).

2.02 FABRICATION

- A. General: Except as specified hereinafter, fabricate all work in accordance with AWI quality standards as specified. Work not specified with a level of quality shall be not less than "Custom" quality per AWI.
- B. Standing and Running Trim: Fabricate to dimensions, profiles and details indicated.
1. Cut moldings, wood door and window frames, trims and stops clean and sharply defined. Ease edges to approximately 1/16" radius, unless otherwise shown.
 2. Machine sand all flat work, except items to receive resawn surfaces.

PART 3 EXECUTION

3.01 PREPARATION

- A. Condition finish carpentry materials and products to average prevailing humidity conditions in installation areas before installing.
- B. Install blocking and anchoring devices built into substrates for anchorage of finish carpentry items.
- C. Verify mechanical, electrical, and building items affecting this Section are placed and ready to receive this work.
- D. Verify field dimensions.
- E. Backprime lumber for painted finish exposed on the exterior or to moisture and high relative humidity on the interior. Comply with requirements of Section 09 91 00.
- F. Ventilation for Adhesives: Comply, at a minimum, with the adhesive manufacturers' recommendations for space ventilation during and after installation. Maintain the following ventilation conditions during the adhesive curing period or for 72 hours after installation (whichever is longer): 1) supply 100% outside air 24 hours a day; 2) supply airflow at a rate of 6 air changes per hour, when outside air temperatures are between 55° F and 85° F and humidity is between 30% and 60%; and 3)

supply airflow at a rate of 1.5 air changes per hour, when outside air conditions are not within the range stipulated in the previous item 2.

3.02 INSTALLATION

- A. Discard material which is unsound, warped, bowed, twisted, improperly treated, not adequately seasoned or too small to fabricate work with minimum of joints or optimum jointing arrangements.
- B. Install finish carpentry materials and products plumb, level, true and straight with no distortion. Shim as required using concealed shims. Install to a tolerance of 1/8" in 8'-0" for plumb and level, and with 1/16" maximum offset in flush adjoining surfaces, 1/8" maximum offsets in revealed adjoining surfaces.
- C. Scribe and cut work to fit adjoining work and refinish cut surfaces or repair damaged finish at cuts.
- D. Standing and Running Trim: Install with minimum number of joints possible; using full-length pieces (from maximum length of lumber available) to the greatest extent possible. Stagger joints in adjacent and related members. Cope at returns, miter at corners and comply with Quality Standards for joinery.
- E. Anchor woodwork to anchors or blocking built-in or directly attached to substrates. Secure to grounds, stripping and blocking with countersunk concealed fasteners and blind nailing as required for a complete installation. Use fine finishing nail for exposed nailings, countersunk and filled flush with woodwork.

3.04 CLEANING AND PROTECTION

- A. Repair damaged and defective finish carpentry materials to eliminate functional and visual defects. Where not possible to repair properly, replace finish carpentry as directed by the Architect.
- B. Protect installed work during remaining construction operations.
- C. Clean woodwork on exposed and semi-exposed surfaces. Touch-up shop applied finishes to restore damaged or soiled areas.

END OF SECTION

SECTION 07 46 33

VINYL SIDING

PART 1 GENERAL

1.01 WORK INCLUDED

- A. Provide vinyl siding, corner board trim, window trim and miscellaneous trim as indicated on drawings or required.
 - 1. Board & Batten Vertical siding
 - 2. 4" Clapboard Horizontal siding
 - 3. **7 1/4" Band Board**
 - 4. 5" Window lineal.
 - 5. Trim and accessories for complete installation

1.02 RELATED SECTIONS

- A. Flashing: Section 07 62 00.

1.03 REFERENCES

- A. ASTM: American Society for Testing and Materials.

1.04 SUBMITTALS

- A. Samples: Submit minimum 9" long by full width sample of siding showing finish, pattern, color, gage and profile.
- B. Product Data: For each type of product.[Include construction details, material descriptions, dimensions of individual components and profiles, and finishes.

1.05 QUALITY ASSURANCE

- A. Vinyl Siding Installer Qualifications: A qualified installer who employs a VSI-certified Installer on Project.
- B. Mockups: Build mockups to verify selections made under Sample submittals and to demonstrate aesthetic effects and to set quality standards for fabrication and installation.

1.06 HANDLING AND STORAGE

- A. Exercise care so as not to damage or deform material.
- B. Stack on platforms or pallets and cover to protect from weather.

1.07 **WARRANTY**

A. Special Warranty: Manufacturer agrees to repair or replace products that fail in materials or workmanship within specified warranty period. Failures include, but are not limited to, the following:

1. Structural failures including cracking, fading, and deforming.
2. Deterioration of materials beyond normal weathering.
 - a. Fading is defined as loss of color, after cleaning with product recommended by manufacturer, of more than 5 Hunter color-difference units as measured according to ASTM D 2244.
3. Warranty Period: 10 years from date of Substantial Completion.

PART 2 PRODUCTS

2.01 **MANUFACTURER**

A. Specifications: Products by ALCOA BUILDING PRODUCTS; CERTAINTEED or ALSIDE are acceptable.

2.02 **SIDING, SOFFIT AND TRIM**

A. Siding - General Requirements: Polyvinyl chloride products with the following characteristics:

1. Siding: Comply with ASTM D 3679, Class 2.
2. PVC cell classification in accordance with ASTM D 1784: 13334.
3. Coefficient of linear expansion in accordance with ASTM D 696: .000029 inch per inch per degree F.
4. Tensile strength when tested in accordance with ASTM D 638: Minimum 7,100 pounds per square inch.
5. Modulus of elasticity when tested in accordance with ASTM D 638: Minimum 360,000 pounds per square inch, average.
6. Izod impact, standard 1/8 inch bar when tested in accordance with ASTM D 256: 3.30 foot-pounds per inch, average.
7. Shore D Hardness: Minimum 73.
8. Specific Gravity: Minimum 1.39.
9. Deflection temperature when tested in accordance with ASTM D 648: 170 degrees F, 264 pounds per square inch.
10. Smoke density rating when tested in accordance with ASTM D 2843: 48 percent, average.
11. Horizontal flammability, when tested in accordance with ASTM D 635:
 - a. Burn distance: 20 mm.
 - b. Burn time: Less than 5 seconds.
12. Surface burning characteristics when tested in accordance with ASTM E 84: Flame spread less than 20, fuel contribution 0, smoke density 400.
13. Fire Resistance - Siding: 1 hour, when tested in accordance with ASTM E 119, with siding applied over gypsum sheathing.
14. Flammability - Siding: Comply with requirements of UBC Std 26-9.

- B. Types and Material:
1. Wall Thickness: .044" nominal.
 2. Profile: As indicated
 3. Finish: Smooth.
 4. Color, Size and Type: As indicated. Provide three colors.
- C. Corner Board Trim and Window Trim: Provide corner trim and window surrounds; materials per manufacturer's requirements.
- D. **Bandboard: Horizontal Band Board – 7 ¼" wide insulated band board to be installed as indicated. CERTAINTEED Band Board NSCCWBAND # 5581401 or equal.**

2.03 ACCESSORIES

- A. Siding Accessories, General: Provide starter strips, edge trim, outside and inside corner caps, and other items as recommended by siding manufacturer for building configuration.
- B. Provide accessories made from same material as and matching color and texture of adjacent siding unless otherwise indicated.
- C. Vinyl Accessories: Integrally colored vinyl accessories complying with ASTM D 3679 except for wind-load resistance.
- D. Fasteners:
1. For fastening to wood, use [siding nails] [ribbed bugle-head screws] of sufficient length to penetrate a minimum of 1 inch (25 mm) into substrate.
 2. For fastening to metal, use ribbed bugle-head screws of sufficient length to penetrate a minimum of 1/4 inch (6 mm), or three screw-threads, into substrate.
 3. For fastening vinyl, use non-ferrous or coated fasteners. Where fasteners are exposed to view, use prefinished aluminum fasteners in color to match item being fastened.

PART 3 EXECUTION

3.01 INSPECTION

- A. Commencement of siding installation implies acceptance of the substrate as suitable to accept siding.

3.02 INSTALLATION

- A. Install vinyl siding and soffit and related accessories according to ASTM D 4756.
- B. Install in accordance with the latest edition of the "Rigid Vinyl Siding Application Manual", published by the Vinyl Siding Institute of the Society of the Plastics Industry, Inc.

- C. Provide "J -Blocks" at all siding areas where light fixtures, hose bibs, outlets and similar type items occur.

3.03 CLEAN UP

- A. Clean all siding surfaces of dirt, grime, and other surface blemishes.
- B. Remove from the site all excess material, shipping packaging, debris and etc., related to the siding work.

END OF SECTION

SECTION 08 19 00

INTERIOR DOORS

PART 1 GENERAL

1.01 WORK INCLUDED

- A. Provide interior doors as indicated and specified.
 - 1. Interior Unit: Solid core, MDF painted, one panel with pre-hung frames.
 - 2. ~~Unit Entry: Solid fire-rated core, MDF painted, one panel.~~
 - a. ~~Fire rating: 20 minute.~~

1.02 RELATED SECTIONS

- A. Installation: Section 06 20 00
- B. Hardware: Section 08 71 00.
- C. Hollow Metal Frames: Section 08 11 13.

1.03 SUBMITTALS

- A. Submit manufacturer's product data and installation instructions for each type of wood door required.
 - 1. Include details of core and edge construction.
 - 2. Include certification indicating compliance with specification requirements.

1.04 DELIVERY

- A. Deliver doors in manufacturer's original unopened protective packaging or wrapper.
- B. Store, handle and protect doors in accordance with manufacturer's recommendations to prevent damage, wetting, soiling and deterioration.
- C. Comply with AWI Section 1300-S-8 recommendations for care and handling at the site. Store doors inside the building, flat in a dry well-ventilated area.

1.05 LABEL DOOR REQUIREMENTS

- A. Fire Ratings Compliance: Comply with the label requirements of NFPA and applicable local codes. Fabricate doors and frames in accordance with requirements of NFPA Standard No. 80 and U.L. Standards.

B. Ratings Certifications

1. Provide U.L. labels permanently fastened on each door that is within the size limitations established by NFPA and U.L. for labeling.
2. Provide anchors for U.L. labeled frames required by the authority having jurisdiction.

PART 2 PRODUCTS

2.01 INTERIOR DOORS AND FRAMES – INTERIOR UNIT DOORS

A. Material - **Interior Unit** Frames

1. Provide lumber surfaced four sides (S4S) and worked to profiles and patterns required. Nominal sizes are as shown, except where detailed dimensions are indicated.
2. Moisture Content: Provide materials kiln-dried to moisture content complying with AWI Standards, Section 100-G-3.
3. Softwood Lumber: Comply with PS-20, "American Softwood Lumber Standard", and with applicable rules of grading and inspection agency for species indicated.
 - a. Western Red Cedar, Ponderosa Pine, White Pine: Western Lumber Grading Rules, published by Western Wood Products Association (WWPA), or Standard Grading Rules for West Coast Lumber, No. 16, published by West Coast Lumber Inspection Bureau (WCLIB).

B. Material - Medium Density Fiberboard (MDF): Thickness as specified unless otherwise indicated on Drawings. Maximum moisture content of 8%. Formaldehyde free. Meet the following minimum standards:

1. Internal Bond: 90 psi.
2. Modulus of Rupture: 2,500 psi.
3. Screw Holding Power: 325 pounds.
4. Density: Minimum 40 pounds per cubic foot.
5. Fire Rating: ASTM E84 Class A
 - a. Smoke Developed: 95
 - b. Flame Spread: 15

C. Pre-hung Door Assemblies, Solid core. Fabricate doors in accordance with WDMA I.S. 1A.

1. 1-3/4" thick with solid wood edge and sticking. Rails and stiles cores to be finger jointed wood. **Interior unit** doors to be pre-hung and pre-fit. Prepare for door hardware.
 - a. Interior Unit: Medium density fiberboard faced doors. 1 panel.
 - b. Unit Entry Doors: Medium density fiberboard faced doors. 1 panel.
 - 1) Fire Rating: Fire rated core - 20 minutes
2. **Interior Unit** Frames: Filled and primed medium or softwood. See Section 06 20 00 for door casing trim. Door frames to be fabricated assemblies with

- swing doors.
- a. Unit Entry Doors: Hollow Metal Frames: Section 08 11 13.
- 3. Finish
 - a. Interior Unit: Shop primed for field paint. See Section 09 91 00.
 - b. Unit Entry Doors: Shop primed for field paint. See Section 09 91 00.
- 4. Style: Shaker sticking/profile.
- 5. Finish: Smooth.
- 6. Hardware: Scheduled in 08 71 00.
- D. Hinges at Prehung Doors: Unless otherwise indicated, provide the following:
 - 1. Interior Hinges: Steel, with steel pin. Standard weight, five-knuckle.
 - 2. Screws: Phillips flat-head wood screws; screw heads finished to match surface of hinges.
- E. Basis of Design
 - 1. Interior Unit: MASONITE Lincoln Park.
 - 2. Unit Entry: MASONITE Le Chateau.

PART 3 EXECUTION

3.01 INSPECTION

- A. Examine substances, rough openings and installation conditions. Do not proceed with wood door installation until unsatisfactory conditions have been corrected.
- B. Installation constitutes acceptance of existing conditions and responsibility for satisfactory performance.

3.02 INSTALLATION

- A. Condition doors to average prevailing humidity in installation area before hanging.
- B. Install doors in accordance with manufacturer's installation instructions. Job fit doors and prepare to receive hardware. Bevel 1/8" in 2" at strike edges for clearance in arc of swing.
- C. Hang doors straight, plumb and square securely anchored into position. Adjust doors to provide uniform clearance and to contact stops uniformly. Remove and replace doors and frames which are warped, bowed or otherwise damaged.
- D. Install fire-rated doors in corresponding fire-rated frames in accordance with requirements of NFPA No. 80.

3.03 PROTECTION

- A. Protect installed doors from soiling, staining and damage until final acceptance.

- B. Repair or replace doors damaged beyond acceptable repair as directed by the Architect.

END OF SECTION

SECTION 08 41 13

ALUMINUM-FRAMED ENTRANCES AND STOREFRONTS

PART 1 GENERAL

1.01 WORK INCLUDED

- A. Work under this section includes the design of the aluminum entrance and window systems and all materials, labor and equipment for the complete installation of the work as shown on the drawings and specified herein. Work includes:
 - 1. Aluminum entrance doors.
 - 2. Aluminum entrance framing system for entrances, including sidelight and transom frames as indicated.
 - 5. Glass and glazing of the systems.
 - 6. Hardware.
 - 7. Anchors, fasteners, flashings, trim and accessories to complete the work.
 - 8. Sealants required within entrance and window construction.
 - 9. All gaskets, sealants and tapes required in final assembly of the work.
 - 10. Installation of lock cylinders furnished under Section 08 71 10.

1.02 RELATED SECTIONS

- A. Sustainable Design Requirements: Section 01 81 13.
- B. Joint Sealants: Section 07 92 00.
- C. Glazing: Section 08 81 00.
- D. Hardware: Section 08 71 10.

1.03 QUALITY ASSURANCE

- A. Provide aluminum doors and framing system manufactured by a single firm specializing in the production of this type of work.
- B. Installer Qualifications: Manufacturer's authorized representative who is trained and approved for installation of units required for this Project.
- C. Painted Finishes: Factory painted finish to be performed by an applicator specifically approved by the paint manufacturer. The applicator shall provide written notification of approval by paint manufacturer prior to application of the finish.

1.04 REFERENCES

- A. American Architectural Manufacturers Association (AAMA): Voluntary Specification, Performance Requirements and Test Procedures for Superior Performing High Performance Organic Coatings on Architectural Extrusions and Panels, AAMA 2605.

1.05 SUBMITTALS

- A. Submit the following:
 - 1. Framing system details.
 - 2. Door details.
 - 3. Window details.
 - 4. Installation instructions.
 - 5. Itemized schedule of door hardware.
 - 6. Finish samples.
- B. Tests: Submit two copies of test reports made or witnessed by an independent testing laboratory showing the results of tests conducted on previously manufactured windows of the type used on this project. The reports shall verify conformance to thermal movement, air and water infiltration and structural properties as described herein.
- C. Building Shop Drawings: Include complete evaluations of all systems; details and methods of anchorage; details of construction finishes; methods of assembly; location and installation of hardware and reinforcement for same; size, shape and thickness of materials; joints and connections; details of joining with other work.
 - 1. Scale: Include typical unit elevation of each system at 1/2" scale and details at full scale where practical.
- D. Product Data: Submit manufacturer's specifications for materials and fabrication of work, and instructions and recommendations for installation and maintenance. Include certified test reports showing compliance with requirements where a test method is indicated.
- E. Samples: Submit samples of each type and color and finish required by this Section, on 12" sections of extrusions or formed shapes and on 6" squares of sheet/plate. Include two or more samples in each set.
 - 1. Architect reserves right to require fabrication samples showing prime members, joinery, anchorage, expansion provisions, glazing and similar details, profiles and intersections.

1.05 DELIVERY, STORAGE AND HANDLING

- A. Pack, deliver, handle, store and protect materials from damage in accordance with AAMA Curtain Wall #10, "Care and Handling of Architectural Aluminum" recommendations.

1. Remove paper type wrappings when unloading.
2. Store materials inside the buildings whenever possible in clean, dry ventilated areas free of dust or corrosive fumes.
3. Stack members vertically or on edge, shim between components to provide water drainage and ventilation. Protect with adequate coverings, placed to provide adequate air circulation.
4. During installation, protect materials from lime mortar, run-off from concrete and copper, weld splatter, acids, roofing materials, solvents and abrasive cleaner.

1.06 PROJECT CONDITIONS

- A. Field Measurements: Verify actual locations of structural supports for aluminum-framed systems by field measurements before fabrication and indicate measurements on Shop Drawings.

1.07 WARRANTIES

- A. Submit written warranty signed by manufacturer, Contractor, and installer agreeing to repair or replace work which fails in materials or workmanship within three (3) years of the date of project acceptance.
 1. Failure of materials or workmanship shall include excessive leakage or air infiltration, excessive deflections and defects in accessories, weather seals and other components of work.
- B. Finish: Provide paint manufacturer's guarantee of paint finish against failure of paint finish. Failure includes blistering, peeling, cracking, flaking, checking, excessive color change and chalking. Color change shall not exceed 5 N.B.S. units (per ASTM D523) and chalking shall not less than a rating of 8 per ASTM D4214.
 1. Warranty Period: 20 years.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Basis of Design: Drawings and specifications are based on products by KAWNEER CO.
- B. Other Acceptable Manufacturers: Equal products by the following manufacturers are acceptable providing they meet or exceed the requirements specified herein and conform to the design intent indicated on the drawings:
 1. CRL – U.S. ALUMINUM
 2. EFCO
 3. OLDCASTLE BUILDING ENVELOPE
 4. TUBELITE DIVISION, INDAL, INC.

5. YKK AMERICA

2.02 MATERIALS

- A. Aluminum: Alloy and temper recommended by manufacturer for type of use and finish indicated.
 - 1. Sheet and Plate: ASTM B 209.
 - 2. Extruded Bars, Rods, Profiles, and Tubes: ASTM B 221.
 - 3. Extruded Structural Pipe and Tubes: ASTM B 429.
 - 4. Structural Profiles: ASTM B 308.
- B. Steel Reinforcement: Manufacturer's standard zinc-rich, corrosion-resistant primer, complying with SSPC-PS Guide No. 12.00; applied immediately after surface preparation and pretreatment. Select surface preparation methods according to recommendations in SSPC-SP COM and prepare surfaces according to applicable SSPC standard.
 - 1. Structural Shapes, Plates, and Bars: ASTM A 36.
 - 2. Cold-Rolled Sheet and Strip: ASTM A 1008.
 - 3. Hot-Rolled Sheet and Strip: ASTM A 1011.

2.03 STOREFRONT, WINDOW FRAMING AND ENTRANCE DOOR SYSTEMS

- A. Type: An integrated system of extruded aluminum sections, glazing devices, sealing devices, doors and hardware and operable windows.
- B. Materials: Provide aluminum alloy and temper for each shape as recommended by manufacturer and processor to comply with requirements of performance, fabrication, and application of finish.
 - 1. Thickness: As required to meet design requirements with a minimum of 1/8" for major sections.
- C. Framing: KAWNEER 451T, framing for 1" insulating glass.
 - 1. Type: Thermally broken, outside glazed, fixed type framing as indicated on drawings.
 - 2. Frame
 - a. Members: Main frame members designated specifically for manufacture of aluminum windows extruded from 6063-T5 aluminum alloy.
 - b. Glazing: Extruded snap-in type bead. Units to accept 1" insulating glass.
 - c. Trim: Provide all trim, sills, flashings and closures to complete installation.
 - d. Size
 - 1) Sightline: Nominal 2".
 - 2) Depth: 4-1/2".

3. Glazing Plane: As indicated
 4. Special Framing Shapes: Provide as detailed or as required to maintain design intent as indicated on building elevations drawings and section drawings. Aluminum extruded shapes and bent aluminum sheet, minimum 0.063", finished after fabrication.
 5. Vestibule Framing: Non-thermally broken; dimensions to match exterior framing. KAWNEER Trifab II 451. Units to accept 1/4" glass.
 6. Interior Framing: Non-thermally broken. KAWNEER Trifab II 451. Units to accept glass thickness indicated.
 - a. Designed to resist a 200 lb/SF concentrated load in any direction where indicated on the drawings.
 - b. Size
 - 1) Sightline: Nominal 2".
 - 2) Sill Sightline: Nominal 4-1/2"
 - 3) Depth: 4-1/2".
 7. Provide extruded solid backed framing shapes where framing abuts solid wall conditions.
- D. Performance Requirements: Exterior window wall system (excluding doors) shall meet or exceed the following performance requirements.
1. Wind loads: Provide storefront system; include anchorage, capable of withstanding wind load design pressures indicated on the drawings.
 2. Thermal Movement: Window framing system shall be designed to provide for expansion and contraction of component materials caused by a surface temperature range of 180° F., without causing buckling, stresses on glass, failure of joint seals, undue stress on structural elements, damaging loads on fasteners, reduction of performance, or other detrimental effects.
 - a. Doors: Function properly over the above specified temperature range.
 3. Air Infiltration: Air leakage shall not exceed 0.06 cfm per square foot of fixed wall area when tested in accordance; with ASTM E283 at test pressure not less than 6.24 psf.
 4. Water Infiltration
 - a. Provide drainage to exterior face of framing any water entering at joints.
 - b. No uncontrolled water penetration shall occur when tested in accordance with ASTM E331, at test pressure not less than 8.0 psf.
 5. Structural Properties - Uniform Load: A static air design load of 20 psf shall be applied in the positive and negative direction in accordance with ASTM E 330. There shall be no deflection in excess of L/175 of the span of any framing member. At a structural test load equal to 1.5 times the specified design load, no glass breakage or permanent set in the framing members in excess of 0.2% of their clear spans shall occur.
 6. Thermal Properties
 - a. Thermal Transmittance (U-factor): When tested to AAMA Specification 1503, the thermal transmittance (U-factor) shall not be more than (Glass to Center) 0.44 (low-e) BTU/hr/ft sq./degree F

- b. Condensation Resistance (CRF): When tested to AAMA Specification 1503, the condensation resistance factor shall not be less than (Glass to Center) 62 frame and 68 glass (low-e)

E. Glazed Aluminum Entrance Doors: Standard duty, wide stile, manufacturer's standard, single acting aluminum entrances. Provide thermally broken units without vestibules

- 1. **Stiles: Nominal 4 1/4" to 5" wide.**
- 2. **Rails**
 - a. **Top: 4 1/4" to 5" wide.**
 - b. **Bottom: 10" high.**
- 3. **Intermediate Rail: Provide if indicated.**
- 4. **Section Wall Thickness: .125" for major components; 0.05" for glazing moldings.**
- 5. **Door Thickness: 1-3/4" in vestibules. Provide thermally broken 2 1/4" units without vestibules.**
- 6. **Corners: Stiles through design, joined by concealed bolts and weld.**
- 7. **Provide complete with snap-in glazing stops and gaskets.**
- 8. **Sizes: As indicated. Provide single or pairs of doors as scheduled.**
- 9. **Exterior Entrance Weatherstripping: Stile with dual pile weathering with polymeric fin and bulb polymeric weatherstripping and pile weathering with polymeric fin in door frame system or equal by other approved manufacturer. Locate weatherstripping at jambs, head and meeting stiles (as applicable). Provide bottom rail with EPDM blade gasket sweep. Size sweep to close against door threshold. Sweep housing finish to match door finish.**
- 10. **Glazing: 1/4" thick in vestibules, insulated units without vestibules, unless otherwise indicated.**

2.04 FINISHES

- A. Finish: Fluoropolymer baked enamel finish with Kynar 500 (70%) resins by ELF ATOCHEM OF NORTH AMERICA INC.; "Trinar" by AKZO; "Duramar" by PPG; "Fluoron" by VALSPAR. Total dry film thickness not less than 1.0 mils, or coatings meet or exceed the requirements of AAMA 2605.
 - 1. Color: White - As selected by Architect from paint manufacturer's complete specified line.
 - 2. Application: Apply coating systems in strict accordance with manufacturer's printed instructions and recommendations. Refer to Quality Assurance in Part 1.
 - 3. Concealed members may be mill finished, providing they cannot be seen through the glass.

2.05 ENTRANCE DOOR HARDWARE

- A. Prepare and reinforce doors and frames for hardware. Factory fit and install hardware in accordance with Section 08 71 10 and manufacturer's requirements.

2.06 ACCESSORIES

- A. Fasteners: Aluminum, non-magnetic stainless steel or other materials warranted by manufacturer to be non-corrosive and compatible with aluminum components. Finish exposed fasteners to match aluminum work.
- B. Flashing, Trim and Accessories: Provide as required to complete the work. Finish shall match aluminum entrances and storefront finishes. Work includes:
 - 1. Aluminum closure panels, flashing and trim.
 - 2. Concealed Flashing: Dead-soft stainless steel, 26 gauge minimum, type selected by manufacturer for compatibility.
 - 3. All trim materials shall be finished after fabrication, unfinished exposed edges at holes and trim terminations are not acceptable.
- C. Brackets and Reinforcements: Manufacturer's high strength aluminum units where feasible; otherwise, nonmagnetic stainless steel or hot-dip galvanized steel complying with ASTM A123.
- D. Bituminous Coatings: Cold applied asphalt mastic complying with SSPC PS 12, compounded for 30 mil thickness per coat.

2.07 FABRICATION

- A. Provide manufacturer's standard fabrication and accessories that comply with indicated requirements. Minor dimension differences will be accepted in order to utilize manufacturer's standard products.
- B. Fit and assemble the work at the shop to the greatest extent possible. Disassemble only as required for shipment and erection. Maintain true continuity of line and accurate relation of planes and angles. Provide secure attachment and support at mechanical joints, with hairline fit of contacting members. Conceal fasteners wherever possible.
- C. Reinforce aluminum work as necessary at points of support or anchorage and at mechanical joints and points of attachment to meet performance requirements and for support of the system. Separate dissimilar metals with bituminous paint or preformed separators that will prevent corrosion. Separate metal surfaces at moving joints with plastic inserts or other non-abrasive concealed inserts.
- D. Coordinate work of this section with other work for proper sequence of construction without delays. Verify dimensions of supporting structure and other elements that precede wall system work before fabrication of required components. Provide for erection tolerances for other work where field measurements cannot be obtained.

PART 3 EXECUTION

3.01 INSPECTION

- A. Examine substrates supporting structure, and installation conditions. Do not proceed with aluminum entrances erection until unsatisfactory conditions have been corrected.
- B. Installation constitutes acceptance of existing conditions and responsibility for satisfactory performance.

3.02 INSTALLATION

- A. General
 - 1. Do not install component parts that are observed to be defective, including warped, bowed, dented, abraded and broken members.
 - 2. Remove and replace members that have been damaged during installation or thereafter before time of acceptance.
 - 3. Do not cut or trim component parts during erection, in a manner which would damage finish, decrease strength or result in a visual imperfection or a failure in performance of the work.
- B. Install components in accordance with the manufacturer's installation instructions and recommendations.
- C. Install component parts level, plumb, true to line and with uniform joints and reveals. Secure to structure with non-staining and non-corrosive shims, anchors, fasteners, spacers and fillers.
- D. Assembly and Anchorage: Anchor component parts securely in place, by bolting or other permanent mechanical attachment system, which will comply with performance requirements and permits movements as required.
 - 1. Anchor storefront sill to a continuous interior aluminum anchor.
- E. Apply a bituminous coating or other suitable separator on concealed contact surfaces of dissimilar materials, before assembly or installation to prevent corrosive or electrolytic action.
- F. Set sill members and entrance thresholds in a bed of sealant compound, or with joint fillers or gaskets to provide weathertight requirements.
- G. Install glass and glazing, in accordance with Section 08 81 00 and the manufacturer's requirements.
- H. Install joint sealants specified in Section 07 92 00, in accordance with the manufacturer's requirements.
- I. Coordinate installation of storefront framing with installation of air/vapor barrier transition membrane.

- J. Adjust operating hardware to function properly, without binding, and to provide tight proper fit at contact points and weatherstripping.

3.03 CLEANING AND PROTECTION

- A. Protect glass from breakage immediately upon installation, by attachment of streamers to framing held away from glass. Do not apply markings of any type to surfaces of glass.
- B. Remove protective coating when completion of construction activities no longer require its retention.
- C. Immediately before acceptance of the work, clean the aluminum entrance systems thoroughly, inside and out. Demonstrate proper cleaning methods to Owner's maintenance personnel during final cleaning. Prepare a "Cleaning and Maintenance Manual" listing types of cleaning compounds, cleaning methods, sealants and glazing materials used for cleaning, repair and maintenance of work and turn over to Owner upon acceptance of the work.

END OF SECTION

SECTION 08 54 00

COMPOSITE WINDOWS

PART 1 GENERAL

1.01 SCOPE

- A. Provide sound transmitted rated, composite awning **or casement** and fixed windows, complete with hardware, factory glazing, weatherstripping, anchorages, trim, attachments and accessories.

1.02 WORK SPECIFIED IN OTHER SECTIONS

- A. Vinyl Siding: Section 07 46 33
- B. Air Barrier: Section 07 27 19
- C. Sealant: Section 07 90 00.

1.03 PERFORMANCE REQUIREMENTS

- A. Performance Class and Grade: AAMA/WDMA/CSA 101/I.S.2/A440 as follows:
 - 1. Minimum Performance Class: LC
 - 2. Minimum Performance Grade: 30
- B. Thermal Transmittance: NFRC 100 maximum whole-window U-factor of 0.30 Btu/sq. ft. x h x deg F
- C. Solar Heat-Gain Coefficient (SHGC): NFRC 200 maximum whole-window SHGC of 0.30.
- D. Outside-Inside Transmission Class (OITC): Rated for not less than 27 OITC when tested for laboratory sound transmission loss according to ASTM E 90 and determined by ASTM E 1332.

1.04 QUALITY ASSURANCE

- A. Standards: Comply with the applicable provisions of American Architectural Manufacturers Association (AAMA) "Voluntary Specifications for Aluminum and Poly (Vinyl Chloride) (PVC) Prime Windows and Glass Doors, AAMA 101".
- B. Manufacturer: Minimum 5 years experience in manufacture of heavy intermediate steel windows similar to type required for this project.

1.05 SUBMITTALS

- A. Submit the following in accordance with the General Conditions and Division 1.
 - 1. Submit manufacturer's performance - product data and installation instructions.
 - 2. Submit shop drawings for fabrication and installation of windows. Include elevations and detail sections of every typical member and connections.
 - 3. Product Test Reports: For each type of window, for tests performed by a qualified testing agency.
 - 4. Submit finish samples.

1.06 MOCKUP INSTALLATION

- A. Provide window mockup installation to determine acceptability of installation methods and coordination with adjoining materials. Adjustments may be required by the Architect for compliance with the intent of the Contract Documents.
- B. Once the approval process is complete, the approved sample installation, modified as needed, will represent minimum installation quality for the work.
- C. Sample installation can be used in the finished work, when approved as such by the Owner.

1.07 DELIVERY AND STORAGE OF MATERIALS

- A. Pack, load, ship, unload, store and protect windows in a manner which will avoid abuse, damage and defacement in accordance with AAMA CW-10.
- B. Store all materials delivered to the site in locations designated by the Architect. Spaces will be located where stored materials will not be exposed to wetting or damage, and will permit easy access to and handling of the materials.
 - 1. Stack vertically or on edge so that water cannot accumulate on or within components.
 - 2. Use nonstaining wood or plastic shims between components to provide water drainage and air circulation.
- C. Deliver other materials, except bulk materials, to project site in manufacturer's unopened containers with name, brand type, grade and color fully indicated thereon. Store bulk materials as required to avoid any deleterious effects of weather, soiling or contamination.

1.08 WARRANTY

- A. Warranty for all work in this Section to operate properly and be weathertight for the standard manufacturer's warranty.
 - 1. Warranty Period: 10 years
- B. Provide Contractor's guarantee for all work under this Section to be free from defects of workmanship for a period on one year.

PART 2 PRODUCTS

2.01 MANUFACTURER

- A. Manufacturers: Windows by INTUS WINDOWS or ECO WINDOWS are acceptable provided they meet the specified requirements and are an equal as determined by the Architect. Provide design information and, upon requested, a full - size sample.

2.02 MATERIALS

- A. Frame and Window. **Provide units that are rated as OITC of 27 minimum.**
 - 1. Member: Extruded composite profile
 - 2. Overall Depth: 3-1/4 inches
 - 3. Glazing: Provide insulating glass units certified through The Insulating Glass Certification Council as conforming to the requirements of IGCC and ASTM E2190.
 - a. Outside-Inside Transmission Class (OITC) Rated: Provide glazing units consisting with (2) two 1/4" tempered glass units with 1/2" air space.
 - 4. Weatherstripping: Provide around entire perimeter of all operating sash.
 - 5. Exterior Color Retention: Resist fading with a change of no more than 5 Delta E units over 10 years in compliance with color retention provisions of AAMA 615 and ASTM D2244.
- B. Hardware: Provide manufacturer's standard hardware fabricated from aluminum, stainless steel, carbon steel complying with AAMA 907, or other corrosion-resistant material compatible with adjacent materials; designed to smoothly operate, tightly close, and securely lock windows, and sized to accommodate sash weight and dimensions.
 - 1. Operable Units: Gear-Type Rotary Operators: Complying with AAMA 901 when tested according to ASTM E 405, Method A. Provide operators that function without requiring the removal of interior screens or using screen wickets.
 - a. Hinges: Manufacturer's standard type for sash weight and size indicated
 - 2. Locks: Cam-type on each operable sash.
 - 3. Limit Devices: Limit devices designed to restrict sash opening. **Provide at second and third floors.**
 - a. Limit clear opening to 4 inches
 - 4. Screws, Clips and Other Fasteners: Manufacturer's standard non-corrosive type materials compatible with aluminum.
- C. Screens:
 - 1. Aluminum Frames: Manufacturer's standard aluminum alloy complying with SMA 1004 or SMA 1201. Fabricate frames with mitered or coped joints or corner extrusions, concealed fasteners, and removable PVC

spline/anchor concealing edge of frame.

a. Tubular Framing Sections and Cross Braces: Roll formed from aluminum sheet.

2. 18-by-16 mesh fiberglass fabric. Comply with ASTM D 3656.

D. Colors: As selected by Architect from manufacturer's standard colors.

2.04 GLAZING

A. Factory glaze sash.

B. Glass: 1" low E coated clear insulated, preassembled units consisting of organically sealed panes of glass enclosing a hermetically sealed dehydrated air space and complying with ASTM E774 for performance classification indicated as well as with other requirements specified for thermal glass characteristics, air space, sealing system, sealant, non metallic spacer material, corner design and desiccant.

C. Seal and Spacer Type: Dual sealed insulating glass units with polyisobutylene primary seal, silicone secondary seal and metal spacers with bent or soldered corners.

D. Performance:

1. Solar Heat Gain Coefficient: 0.30 minimum

2. U Factor: 0.30 minimum

2.05 FABRICATION

A. Manufacture each window to fit tightly within existing rough opening. Maximum allowable shim space is 1/2" per side jamb and 3/4" at head. Shim at sill to level low side with high side touching at the sill.

B. Provide window members and components with joints neatly made, free of burrs and tight fitting to provide hairline joints with ends capped, mitered, milled or machined as appropriate and approved and develop full structural value of members and provide permanent water tight joints.

C. Fasteners: Conceal fasteners wherever possible.

1. No through fasteners short circuiting thermal barrier permitted.

2. No bolts, screws or other components, metallic fastenings, etc., to impair independent frame movement.

3. All bolts, screws, fastenings, fillers, etc. bridging thermal barrier to be reinforced nylon or suitable low conductivity non-metallic materials.

PART 3 EXECUTION

3.01 INSPECTION

- A. Examine substrates, supporting structure and installation conditions. Do not proceed with window or door erection until unsatisfactory conditions have been corrected.
- B. Installation constitutes acceptance of existing conditions and responsibility for satisfactory performance.

3.02 INSTALLATION

- A. General
 - 1. Do not install component parts which are observed to be defective, including warped, bowed, dented, abraded, and broken members. Remove and replace members which have been damaged during installation or thereafter before time of acceptance.
 - 2. Do not cut or trim component parts during erection, in a manner which would damage finish, decrease strength or result in a visual imperfection of a failure in performance of the work.
- B. Install windows and doors in accordance with the manufacturer's specifications for the installation of window components and final shop drawings.
- C. Install component parts level, plumb, true to line and with uniform joints and reveals. Secure to structure with non-staining and non-corrosive shims, anchors, fasteners, spacers and fillers. Use erection equipment which will not mar or stain finished surfaces, and will not damage component parts.
- D. Assembly and Anchorage: Anchor component parts securely in place by bolting or other permanent mechanical attachment system which will comply with performance requirements and permit movements as required.
- E. Set sill members in a bed of sealant compound or with joint fillers or gaskets to provide weathertight requirements. Do not seal drainage holes (slots).

3.03 CLEANING AND PROTECTION

- A. Protect glass from breakage immediately upon installation, by attachment of streamers to framing held away from glass.
 - 1. Do not apply markings of any type on surfaces of glass.
- B. Immediately before acceptance of the work, clean the window thoroughly, inside and out.

END OF SECTION

SECTION 09 21 16

GYPSUM BOARD SYSTEMS

PART 1 GENERAL

1.01 SCOPE

- A. Provide gypsum board systems consisting of wall board and framing as indicated and specified. Work includes:
1. Gypsum board on wood framing.
 2. Fire-rated gypsum board construction where indicated.
 3. Edge trim, corner beads, control joints, accent reveals, fasteners, joint treatment materials and other accessories required for a complete installation.
 4. Includes installation of acoustical insulation specified in Section 07 21 00.
 5. Installation of metal access doors, including those provided by Plumbing and HVAC Contractors. See Section 08 31 13 and Divisions 22 and 23.

1.02 RELATED SECTIONS

- A. Sustainable Design Requirements: Section 01 81 13.
- B. Tile Backer Board: Section 09 30 00.
- C. Cold-Formed Metal Framing: Section 05 40 00.
- D. Acoustical Insulation: Section 07 21 00.
- E. Sealant: Section 07 92 00.
- F. Firestopping: Section 07 84 00.
- G. Wood Blocking: Section 06 10 50.
- H. Wood framing: Section 06 10 00.

1.03 QUALITY ASSURANCE

- A. Gypsum Board Systems: Comply with ASTM C840 "Application and Finishing of Gypsum Board", and as specified.
- B. Reference Standards: Wherever the following abbreviations are used herein they shall refer to the corresponding standard:
1. ASTM: American Society for Testing and Materials.

2. GA: Gypsum Association.

- C. Fire-Rated Construction: Comply with fire resistance ratings indicated on drawings and as required by governing authorities and codes. Provide materials, accessories and application procedures that have been listed by Underwriters Laboratories or tested in accordance with ASTM E119 for the type of construction shown.
- D. STC-Rated Assemblies: For STC-rated assemblies, provide materials and construction identical to those tested in assembly indicated, according to ASTM E90 and classified according to ASTM E413 by an independent testing agency.
- E. Guarantee: Submit written guarantee stating that cracks, delaminations or other imperfections in the drywall work which may develop within a period of 2 years from date of acceptance will be repaired at no cost to the Owner.
- F. Job Mock-Up: Prior to start of finishing operations a job standard mock-up will be prepared. A room similar in size to Room U201 will be completely finished, including joint and screw taping and spackling, sanding, surface preparation and painting. Repair or redo mock-up until accepted by Architect. Job mock-up must be acceptable to Architect before beginning gypsum board finishing operations. Retain and maintain mock-up throughout remainder of project as a minimum workmanship standard. Gypsum board finishing quality must meet or exceed the quality of job mock-up. See Section 09 91 00 for mock-up painting.
- G. Pre-Installation Conference: Conduct a pre-installation conference at Project site to review manufacturer's recommendations and referenced requirements for locating control joints in gypsum board walls and ceilings a minimum of one (1) week prior to beginning this portion of the Work. Have manufacturer's representative, contractor's representative and Architect present at this meeting. Conduct this conference to comply with requirements of Section 01 31 19, Project Meetings. See paragraph 3.08A for additional pre-installation conference requirements.

1.04 SUBMITTALS

- A. Submit manufacturer's product data and installation instructions for each gypsum board system component.
- B. Special Environmental Requirements: Submit the following in accordance with Section 01 81 13).
- C. Submit manufacturer's certification that fire-rated assemblies proposed meet project requirements, including evidence of approved test reports acceptable to governing building code enforcing authorities, that assemblies when installed with proposed materials, will meet or exceed fire ratings required.

1.05 DELIVERY, STORAGE AND HANDLING

- A. Deliver materials in manufacturer's original, unopened labeled containers.
- B. Store, protect and handle materials in accordance with manufacturer's recommendations to prevent damage, soiling and deterioration. Protect cold-formed metal framing from corrosion, deformation and other damage during delivery, storage and handling per requirements of AISI's "Code of Standard Practice".
- C. Protect adjoining surfaces against damage and soiling.

1.06 JOB CONDITIONS

- A. Coordinate installation sequencing with work of other trades.
 - 1. Verify completion of other work, including that of other trades, which will be concealed by gypsum drywall construction before installation of wallboard.

1.07 FIELD CONDITIONS

- A. Environmental Limitations: Comply with ASTM C840 requirements or gypsum board manufacturer's written recommendations, whichever are more stringent.

PART 2 PRODUCTS

2.01 MANUFACTURER

- A. Gypsum Board: U.S. GYPSUM CO.; CERTAINTEED CORP.; GEORGIA-PACIFIC CORP.; NATIONAL GYPSUM COMPANY; CONTINENTAL BUILDING PRODUCTS.
- B. Others as listed for specific products.

2.02 METAL FURRING

- A. Material
 - 1. Steel Sheet Components: Comply with ASTM C645 requirements for metal, unless otherwise indicated.
 - 2. Protective Coating: Coating with equivalent corrosion resistance of ASTM A653, G40, hot-dip galvanized, unless otherwise indicated.
- B. Rigid Furring Channels: Hat-shaped; minimum 0.022 inch uncoated metal thickness; 7/8" deep, unless otherwise indicated.
- C. Resilient Furring Channels: Minimum 0.0188" uncoated metal thickness; 1/2" deep; asymmetrical or hat-shaped members designed to reduce sound transmission.

2.05 GYPSUM BOARD

- A. General: Comply with ASTM C1396.
 - 1. Recycled Content of gypsum board: Synthetic drywall must be at least 95% recycled content; non-synthetic drywall it must be at least 10% post-consumer recycled content.
- B. Fire Rated Gypsum Wallboard: Type "C" or "X" (special fire retardant) to meet fire ratings for construction shown. Tapered edges. Thickness 5/8" unless otherwise indicated. Use at all locations indicated as meeting a specific fire resistance rating.
 - 1. Provide 5/8", Type X board at all locations not indicated to receive a specific type board.
- C. Moisture and Mold Resistant, Glass-Mat Gypsum Wallboard:
 - 1. ASTM C1396 (Section 5) and applicable sections ASTM C1658.
 - 2. Type X.
 - 2. Edges: Tapered.
 - 3. Thickness: 5/8 inch.
 - 4. Acceptable Products: Basis of design is **USG Fiberock Brand Aqua-Tough AR**. Other acceptable product include DensArmor Plus Firecode (Type X) by GEORGIA-PACIFIC, e²XP Interior Extreme by National Gypsum or equal by other gypsum board manufacturers listed in 2.01A.
 - 5. Water Absorption: ASTM C473, the average water absorption for panels is not greater than 5 percent by weight after two-hour immersion.
 - 6. Resistance to Mold Growth: ASTM D3273, "Standard Test Method for Resistance to Growth of Mold on the Surface of Interior Coatings in an Environmental Chamber," the panel score was 10.
 - 7. Use on non-ceramic tiled walls, with-in 4ft of water sourced fixtures, ceilings and soffits in toilet rooms, shower rooms and drying rooms; on ceramic tiled non-wet walls in toilet rooms; walls and partitions above ceilings. Maintain ratings where wall is required to be rated.
- D. Tile Backer Board: See Section 09 30 00.

2.06 ACCESSORIES

- A. Fasteners: Drywall screws and metal framing screws per manufacturer's instructions and recommendations for type and size, based on construction and conditions involved.
 - 1. Steel Drill Screws: ASTM C1002.
 - 2. Use screws complying with ASTM C 954 for fastening panels to steel members from 0.033 to 0.112 inch thick specified in Section 05 40 00.
- B. Trim: ASTM C1047.
 - 1. Manufacturers
 - a. Metal: BEADEX MANUFACTURING; CLARK DIETRICH

BUILDING SYSTEMS; listed gypsum board manufacturers

- b. Vinyl: VINYL TECH; VINYL CORP.; TRIM TEX
- 2. Corner Beads - Outside, Square Corners: 1-1/4 inch x 1-1/4 inch heavy gauge galvanized steel or vinyl, perforated.
- 3. Corner Beads - Outside, Non-square Corners: BEADDEX B-1 Splay Flexible Corner or equal. Concealed metal; two galvanized continuous strips laminated with paper trim; for application without mechanical fasteners.
- 4. Curved Edge Cornerbead: Notched or flexible edge.
- 5. Exposed Edges (Casing Beads): L-bead or LC-bead; exposed long flange receives joint compound. Size to suit wallboard. J-shaped bead that does not receive joint compound is not permitted.
- 6. Expansion (Control) Joints: Tape protected 1/4" wide x nominal 7/16" deep control slot.

C. Joint Treatment Materials: ASTM C475.

- 1. Joint Tape. Width to adequately cover joint.
 - a. Interior Gypsum Board: Paper.
 - b. Exterior Gypsum Soffit Board: Paper.
 - c. Glass-Mat Gypsum Sheathing Board: 10-by-10 glass mesh.
- 2. Joint Compound for Interior Gypsum Wallboard: For each coat use formulation that is compatible with other compounds applied on previous or for successive coats.
 - a. Prefilling: At open joints and damaged surface areas, use setting-type taping compound.
 - b. Embedding and First Coat: For embedding tape and first coat on joints, fasteners, and trim flanges, use setting-type taping compound.
 - 1) Use setting-type compound for installing paper-faced metal trim accessories.
 - c. Fill Coat: For second coat, use setting-type, sandable topping compound.
 - d. Finish Coat: For third coat, use setting-type, sandable topping compound.
 - e. Skim Coat: For final coat of Level 5 finish, use setting-type, sandable topping compound.
- 3. Joint Compound for Tile Backing Panels:
 - a. Water-Resistant Gypsum Backing Board: Use setting-type taping compound and setting-type, sandable topping compound.
 - b. Cementitious Backer Units: Section 09 30 00.

D. Additional Item: All additional accessories to complete work including nails and anchors to secure frames to walls and floors.

E. Acoustic Materials

- 1. Insulation: See Section 07 21 00.
- 2. Sealant: Nonsag, paintable, nonstaining latex sealant complying with ASTM C834. Product effectively reduces airborne sound transmission

through perimeter joints and openings in building construction as demonstrated by testing representative assemblies according to ASTM E90.

- a. Manufacturers
 - 1) USG Acoustical Sealant
 - 2) TREMCO Acoustical Sealant
 - 3) PECORA BA-98
- b. Acoustical joint sealant shall have a VOC content of 250 g/L or less when calculated according to 40 CFR 59, Subpart D (EPA Method 24).
3. Neoprene impregnated sealant tape.
4. Head of Wall Insulation: Pre-manufactured, high-density mineral fiber acoustical insulation shaped to fit the trapezoidal flutes, typical of metal decking and complying with ASTM E119 as safing insulation.

PART 3 EXECUTION

3.01 PREPARATION

- A. Provide adequate lighting and ventilation during installation and joint finishing treatment.
- B. Coordination with Sprayed Fire-Resistive Materials
 1. Before sprayed fire-resistive materials are applied, attach offset anchor plates or ceiling runners (tracks) to surfaces indicated to receive sprayed fire-resistive materials. Where offset anchor plates are required, provide continuous plates fastened to building structure not more than 24 inches o.c.
 2. After sprayed fire-resistive materials are applied, remove them only to extent necessary for installation of non-load-bearing steel framing. Do not reduce thickness of fire-resistive materials below that required for fire-resistance ratings indicated. Protect adjacent fire-resistive materials from damage.

3.02 INSPECTION

- A. Examine substrates and installation conditions. Do not proceed with gypsum wallboard work until unsatisfactory conditions have been corrected.
 1. Protrusions of framing, twisted framing members, or unaligned members must be repaired before installation of wallboard is started.
- B. Installation constitutes acceptance of existing conditions and responsibility for satisfactory performance.

3.03 FRAMING INSTALLATION

- A. See Section 06 10 00.

- B. Install all framing plumb and square with spacing as indicated.
- C. Provide supplementary framing, blocking, and bracing at terminations in gypsum board assemblies to support fixtures, equipment services, heavy trim, grab bars, toilet accessories, furnishings, or similar construction. Comply with details indicated and with recommendations of gypsum board manufacturer or, if none available, with United States Gypsum Company's "Gypsum Construction Handbook".
- D. Provide a minimum of two (2) screws per connection.

3.04 FURRING INSTALLATION

- A. Wall Application
 - 1. Attach to masonry with expansion anchors or at mortar joints with concrete nails or expansion anchors.
 - 2. Spacing shall be 16 in. o.c., unless otherwise indicated.
 - 3. Run vertically or horizontally for maximum efficiency.

3.05 GYPSUM BOARD INSTALLATION

- A. Gypsum Board Systems: Comply with ASTM C840.
- B. General
 - 1. Pre-installation Conference: Before start of gypsum board installation, meet at the project site with the Architect and installers of related work, including work requiring openings, chases, frames, access panels, support, similar integrated requirements and mechanical and electrical trades. Review potential interferences and conflicts and coordinate layout and sequencing requirements for proper installation and integration of the work.
 - a. Do not proceed with gypsum board installation until blocking, framing, bracing and other supports for subsequently applied work have been installed, reviewed and accepted by the Architect.
 - b. Do not install gypsum board until work concealed by gypsum board has been installed.
- C. Application
 - 1. Install gypsum board face side out. Do not install imperfect, damaged or damp boards.
 - 2. Butt boards together for a light contact at edges and ends with not more than 1/16" open space between boards. Do not force into place.
 - 3. Locate either edges or end joints over supports. Position boards so that both tapered edge joints abut. Do not place tapered edges against cut edges or ends. Stagger vertical joints over different studs on opposite sides of partitions.

4. Attach gypsum board to framing and blocking as required for additional support at openings and cutouts.
5. Floating Construction: Install gypsum board with "floating" internal corner construction, unless isolation of the intersecting board is indicated.
6. In addition to compliance with the standards, comply with specific requirements indicated for each type of arrangement of gypsum wallboard system shown. Space fasteners in accordance with manufacturer's recommendations and complying with referenced standards.
 - a. Walls and Partitions: Apply sheets horizontally or vertically. Provide maximum sheet lengths to minimize end joints with edges or ends over supports. In two layer applications, stagger joints of second layer from joints of first layer.
 - b. Cut and install panels to eliminate vertical joints in corners of door frames to ceiling.
 - c. Make cutouts to fit within wall plate, register and grille flanged. All cutouts made by knife or saw.
 - d. Make angles and corners clean, true, plumb and square; walls plumb, flat and straight and ceilings flat and level.
 - e. Ceilings: Apply gypsum board on ceilings, before application on walls and partitions. Install in direction and manner to minimize end joints. Stagger end joints over supports. In two layer applications, stagger joints of second layer from joints of first layer.
7. Provide drywall metal corner clips per sustainable design requirements.

3.07 INSTALLATION OF SOUND RATED PARTITIONS

- A. Provide sound-rated construction where indicated.
- B. Acoustic Insulation: Install single layer of acoustic batt insulation in designated partitions after one side of gypsum board is installed, filling width and height of partition completely. Attach to gypsum board with adhesive spots to prevent subsequent displacement.
- C. Extend partition stud system through acoustical ceilings to substrate. Apply gypsum board base panels full height, both sides of partition.
- D. Seal construction at perimeters, behind control joints, and at openings and penetrations with a continuous bead of acoustical sealant. Install acoustical sealant at both faces of partitions at perimeters and through penetrations. Comply with ASTM C919 and with manufacturer's written recommendations for locating edge trim and closing off sound-flanking paths around or through assemblies, including sealing partitions above acoustical ceilings.
- E. Seal partition perimeters. Provide continuous beads of acoustical sealant at juncture of both faces of runners or plates with floor and ceiling construction and wherever work abuts dissimilar materials. Seal prior to installation of sound attenuation insulation and gypsum board panels.
- F. Provide continuous beads of sealant at juncture of gypsum board and abutting

surface. Install gypsum board with 1/8" relief for sealant. Sealants to be contained within depth of gypsum board, not as a fillet.

- G. At openings and cutouts, fill open spaces between edges of gypsum board and fixtures, cabinets, ducts, and other flush or penetrating items, with continuous bead of acoustical sealant.
- H. If sound-rated partitions intersect non-sound-rated partitions, extend sound construction to completely close-off sound flanking paths through non-rated construction. Seal joints between face layers at vertical interior angles of intersecting partitions.
- I. Exercise particular care at walls surrounding toilet areas and walls and ceilings surrounding mechanical spaces to provide properly constructed sound-rated gypsum board partition and ceiling systems.
- J. Verify that electrical boxes are not located back-to-back; back-to back boxes to be offset at least one stud space. Do not close off non-complying conditions before notifying and receiving direction from Architect.

3.08 TRIM AND ACCESSORIES

- A. Install corner beads at external corners of gypsum wallboard and sheathing work. Use longest practical lengths.
- B. Install edge trim wherever edge of gypsum board or sheathing would be exposed or semi-exposed.
 - 1. Provide beaded trim to receive joint compound at all gypsum wallboard work.
 - 2. Provide L-type trim where work is abutted to other work and Kerf-type where work is kerfed to receive kerf leg.
 - 3. Provide U-type trim where edge is exposed, revealed, gasketed or sealant filled, including expansion joints.
- C. Attach to framing with steel drill screws. Clinch attachment to wallboard not acceptable.
- D. Control Joints
 - 1. Install control joints to isolate gypsum board surfaces as recommended by ASTM C840. Verify locations with Architect prior to installation. Generally locate joints as follows when:
 - a. Partition, furring or column fireproofing abuts a structural element (except floor) or dissimilar wall or ceiling.
 - b. Ceiling abuts a structural element, dissimilar wall or partition or other vertical penetration.
 - c. Construction changes within the plane of the partition or ceiling.
 - d. Partition or furring run exceeds 30'.

- e. Ceiling dimensions exceed 50' in either direction with perimeter relief; 30' without relief.
 - f. Exterior ceilings and soffits exceed 20' in either direction; align with window mullions, when applicable.
 - g. Wings of "L", "U", and "T"-shaped ceiling areas are joined.
 - h. Expansion or control joints occur in the base exterior wall.
 - i. Differential Deflection Conditions: All locations where partitions are supported by two or more structural members and subject to differential deflection by live or dead loading:
 - 1) Typical Framing Floor to Structure: Provide "Ceiling Deflection Track".
 - 2) Framing over One Floor (stairs, shafts, etc.): Provide control joints where studs are interrupted by structure.
2. Provide framing immediately on both sides of joint and back with 2"+/- gypsum board strips as required to maintain fire resistance rating.

3.09 FINISHING

- A. Comply with manufacturer's instructions for mixing, handling and application of materials. Apply treatment at joints both directions, at flanges of trim accessories, penetrations of gypsum board (electrical boxes, piping and similar work), fastener heads, surface defects and elsewhere indicated. Apply in manner that will result in each of these items being concealed when applied decoration has been completed.
- B. Prefill open joints of more than 1/16" with special chemical-hardening type bedding compound, before bedding joint tape.
- C. Apply joint tape at joints between gypsum boards, except where trim accessories are indicated.
- D. Do not use topping compound for bedding joint tape.
- E. Apply joint compound for the final coat of joint treatment, unless specifically recommended by the manufacturer for that use.
- F. Walls Above Acoustical Ceiling Systems: Tape and fill joints with two coats of joint compound, sanding not required.
- G. Leave all exposed surfaces smooth and even, ready for painting.
- H. Provide where indicated on the drawings levels of finish as specified in ASTM C840, "Recommended Specification on Levels of Gypsum Board Finish". Levels of finish consist of:
 - 1. Level 1 - **Areas Above Ceilings:** All joints and interior angles shall have tape embedded in joint compound. Provide surface free of excess joint compound. Tool marks and ridges are acceptable.
 - 2. Level 2 – **As a Substrate for Ceramic Tile:** All joints and interior angles to have tape embedded in joint compound and one separate coat of joint

compound applied over all joints, angles, fastener heads, and accessories. Surface shall be free of excess joint compound. Tool marks and ridges are acceptable.

3. Level 4 – **All Areas Not Indicated to Receive Levels 1, 2 or 5:** All joints and interior angles to have tape embedded in joint compound and three separate coats of joint compound applied over all joints, angles, fastener heads, and accessories. All joint compound shall be smooth and free of tool marks and ridges.

3.10 ADJUST AND CLEAN

- A. Remove any screw which does not engage into a framing member or spins freely.
- B. When paper face is punctured, drive new screw approximately 1-1/2" from defective fastener and remove defective fastener. Fill damaged surface with compound.
- C. Ridging
 1. Do not repair ridging until condition has fully developed: approximately 6 months after installation or one heating season.
 2. Sand ridges to reinforcing tape without cutting through tape.
 3. Fill concave areas on both sides of ridge with topping compound.
 4. After fill is dry, blend in topping compound over repaired area.
- D. Fill cracks with compound and finish smooth and flush.
- E. Remove and replace panels that are wet, moisture damaged, and mold damaged.
 1. Indications that panels are wet or moisture damaged include, but are not limited to, discoloration, sagging, or irregular shape.
 2. Indications that panels are mold damaged include, but are not limited to, fuzzy or splotchy surface contamination and discoloration.

3.11 PROTECTION

- A. Protect adjacent surfaces from drywall compound and promptly remove from floors and other non-drywall surfaces. Repair surfaces stained, marred, or otherwise damaged during drywall application.
- B. Protect installed products from damage from weather, condensation, direct sunlight, construction, and other causes during remainder of the construction period.

END OF SECTION

SECTION 10 28 13

TOILET ACCESSORIES

PART 1 GENERAL

1.01 SCOPE

- A. This section covers all toilet accessories. Extent of each type of accessory is indicated on the drawing and specified herein.
- B. Included are accessories for:
 - 1. Public toilet rooms.
 - 2. Unit bath rooms.

1.02 WORK SPECIFIED IN OTHER SECTION

- A. Unframed Mirrors (Units): Section 08 81 00.

1.03 QUALITY ASSURANCE

- A. Provide each type of products of one manufacturer. Provide locks with same keying for all accessory units in the project.
- B. Stamped names or labels on exposed faces of units not permitted.

1.04 SUBMITTALS

- A. Submit manufacturer's product data and installation instructions for each type of toilet accessory required.

1.05 DELIVERY, STORAGE AND HANDLING

- A. Delivery accessory items in manufacturer's original, unopened packaging.
- B. Store and handle materials in accordance with manufacturer's recommendations. Protect against soiling, damage and wetting.

1.06 PROJECT CONDITIONS

- A. Furnish anchoring devices and inserts for installation of toilet accessories. Coordinate delivery of items which must be set or built into other work.
- B. Provide setting drawings, templates and instructions for installation of anchorage devices.

1.07 WARRANTY

- A. Submit mirror manufacturer's written ten year warranty against silver spoilage.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Public Items Basis of Design: ASI and BRADLEY as indicated below.
1. Other Acceptable Manufacturers: Similar products by BOBRICK, A & J WASHROOM ACCESSORIES, AMERICAN SPECIALTIES are acceptable if materials meet the requirements of the Basis of Design and the types and styles are acceptable matches as approved by the Architect.
- B. Unit Items Basis of Design: As indicated below.
1. Other Acceptable Manufacturers: Similar products by others are acceptable if materials meet the requirements of the Basis of Design and the types and styles are acceptable matches as approved by the Architect.

2.02 PUBLIC ITEMS

- A. Toilet Paper Holder: ADA compliant, open controlled.
1. Double Roll: BOBRICK Model Classic Series B-265.
 - a. Type: Surface Mount.
 - b. Finish: Chrome plated.
- B. Soap Dispenser - Tank Type: BOBRICK Model ConturaSeries 818615
1. Type: Surface mounted, liquid dispenser.
 2. Material: Stainless Steel, 20 ga., type 304.
 3. Finish: Satin.
 4. Capacity: 40 oz.
- C. Handicap Bars: MOEN Series 8900
1. Diameter: 1-1/2 inch.
 2. Material: Stainless steel, standard satin finish.
 3. Fasteners: Concealed.
 4. Style and Length
 - a. As indicated; where not indicated provide 42" long horizontal and 18" vertical bars.
 - b. Provide both horizontal and vertical bars in conformance with ANSI A117.1, 604, 608 and 609.
- D. Paper Towel Dispenser: BOBRICK Model ClassicSeries B-262

1. Type: Dispenses C-fold and multifold paper towels 3-1/8" to 3-13/16" deep. Slots in sides of cabinet indicate refill time.
 2. Capacity: 400 C-fold or 525 multifold paper towels.
 3. Material: 22-gauge (0.8mm) stainless steel.
- E. Robe/Towel Hook: BOBRICK Model B-211
1. Type: Wall mounted, exposed fastener.
 2. Material: Plated brass. Satin nickel finish.
- F. Mirrors
1. Standard Framed Type: BOBRICK Model B-290
 - a. Frame: Stainless steel angle, theft resistant concealed fasteners.
 - b. Glass: Tempered 1/4" thick with full silver coating, copper coating and organic coating. Warranted by manufacturer 10 years against silver spoilage.
 - c. Size: 18" wide x 36" high, unless otherwise indicated or scheduled on the drawings.
- G. Mop Strip: BOBRICK Model B-223 x 24.
1. Description: Stainless steel, satin finish back plate with three spring activated rubber cam mop holders.
 2. Location: Provide at each janitors sink. Coordinate height with Architect.
- H. Janitor Closet Shelves: BOBRICK Model B-295 x 18
1. Type: Surface mounted.
 2. Material: Stainless steel, satin finish.
 3. Length: indicated".
 4. Depth: 5".
- J. Sanitary Napkin Disposal: BOBRICK Model ConturaSeries B-270
1. Type: Surface mounted. Hinged bottom for disposable liner removal.
 2. Material: Stainless steel, satin finish.
- K. Infant Changing Table: Stainless Steel
1. Description: Surface mount, fold down type. Concave molded polyethylene changing surface with safety strap. Folds up flat against wall when not in use. Provide with integral sanitary liner holder.
 - a. Sanitary Liners: Provide 2 cases (approximately 2,800) disposable liners.
 2. Manufacturer: KB110-SSWM Koala Bear Kare Horizontal Baby Changing Station by KOALA CORPORATION or equal by BROCAR PRODUCTS, FOUR D, INC. or other manufacturers listed in Article 2.01.

2.03 UNIT ITEMS

A. Toilet Paper Holder: MOEN Mason Models: YB8000CH (Mounting Posts) & YB8099CH (Roller)

1. Single Roll - post
2. Finish: Selected

B. Towel Bar: MOEN Models: YB8000CH (Mounting Posts), YB8098CH (18" Towel Bar), YB8094CH (24" Towel Bar)

1. Finish: Selected
2. Size: 18 and 24"

C. Towel Ring: MOEN Model: Mason YB8086CH

1. Finish: Selected
2. Size: 6.4 wide"

D. Shower Curtain Rod: 5' Decorative Curved MOEN Model: CSR2165CH.

1. Material: 22 gauge stainless steel
2. Rod Dimension: Rod 1" thick, 5.8" curve.

E. Handicap Bars: MOEN Series 8900

1. Diameter: 1-1/2 inch.
2. Material: Stainless steel, standard satin finish.
3. Fasteners: Concealed.
4. Style and Length
 - a. As indicated; where not indicated provide 42" long horizontal.
 - b. Provide both horizontal and vertical bars in conformance with ANSI A117.1, 604.5.

F. Medicine Cabinet: JENSEN Horizon

1. **16"x22"x3 5/8" Single frameless mirrored door**

G. Robe Hook: MOEN Model: Mason YB8003CH

1. Finish: Selected
2. Location: Back of all full bathroom doors

2.04 FABRICATION

A. Edges: All throat openings and similar type exposed edges of towel dispensers, seat cover dispensers, waste receptacles and similar type accessories to be hemmed or sufficiently rounded to preclude accidental cuts to users.

- B. Miters: Provide one-piece seamless beveled or return flange; open miters, if not welded, must be worked to eliminate sharp edges; edges which may cut or snag are not acceptable.

2.05 SCHEDULE OF ACCESSORIES

- A. Location, quantity and mounting height of accessories as indicated on drawings.
- B. Keyed Units: Key all similar types of units alike. Provide two keys per unit.

PART 3 EXECUTION

3.01 INSPECTION

- A. Installer: Examine substrates, previously installed inserts anchorages necessary for mounting of accessories and other conditions under which installation is to occur.
 - 1. Notify Contractor in writing of conditions detrimental to proper and time completion of the work.
 - 2. Do not proceed with work until satisfactory conditions have been corrected.

3.02 INSTALLATION

- A. Install in accordance with manufacturer's instructions using fasteners which are appropriate for substrate and recommended by manufacturer of unit. Install units and plumb and level, firmly anchored in positions indicated.
- B. Provide concealed fasteners wherever possible of types required for substrate conditions encountered.
 - 1. Stud and Gypsum Board: Screws or bolts anchored to 16 gage (minimum) metal plate blocking or wood blocking located within stud space. See Section 09 21 16 or 06 10 50.
- C. Lead, plastic or fiber plugs are not acceptable.
- D. Grab Bars: Coordinate grab bar locations as to right hand or left hand installations with field conditions.
 - 1. Install to withstand a downward load of at least 250 lbf, when tested according to ASTM F446.
- E. Upon completion of installation, adjust each accessory unit for proper operation and clean exposed surfaces. Turn over keys to designated Owner's personnel.

END OF SECTION

SECTION 11 12 00

PARKING CONTROL EQUIPMENT

PART 1 GENERAL

1.01 WORK INCLUDED

- A. Work includes all parking controls and appurtenances specified and all labor and materials required to install and make fully operational the parking control equipment as specified herein and as indicated on drawings. Provide the following:
 - 1. Barrier operator and gates.
 - 2. Coordination of access control system
 - 3. Detector loops.
 - 4. Wiring, conduit and other miscellaneous items as required for complete and operational systems.

1.02 RELATED SECTIONS

- A. Electrical: Division 26.
- B. Concrete: Section 03 30 00.

1.03 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Minimum five (5) years experience in the manufacture of parking control items similar to those specified for this project.
- B. Installers Qualifications: Approved by manufacturer with a minimum of five years experience in installation of similar type parking control items.
- C. Maintenance Service: Manufacturer or supplier to have maintenance office or technician within a 30 mile radius of the site.

1.04 SUBMITTALS

- A. Certification of Experience: Submit, on request only, written description of personnel, projects and equipment which document the experience and qualifications required of the installer(s).
- B. Submit the following:
 - 1. Manufacturer's product data.
 - 2. Assembly/installation instructions.
 - 3. Wiring diagrams.

4. Operating and maintenance data.

1.05 PRODUCT DELIVERY, STORAGE AND HANDLING

- A. Prevent damage to parking control items and associated equipment during handling and storage.
- B. Ship, handle and store items as recommended by manufacturer.

PART 2 PRODUCTS

2.01 MATERIALS/COMPONENTS

A. Vertical Pivot Lift Barrier Gates

1. General: UL 325 7th Ed. Listed & CAN/CSA C22.2 No. 247-14 Listed Rated for Continuous Duty Cycling
2. Properties:
 - a. Cabinet: 68" x 53" x 30"
 - 1) Frame: 2" Sq., 11 Ga. (.120).
 - 2) Mounting pads: 304 stainless steel.
 - 3) Skins - 18 Ga. galvaneal steel. Powder coat finish. Color as selected.
 - 4) Gate Mounting Hardware: 304 stainless steel
 - b. Arm Options Straight Arm: Breakaway option with reflective striping.
 - c. Controls: Card Access. Solid state coated programmable control board in an NEMA 4 electrical enclosure (Tested to -40° F).
 - 1) Security Breach Protection: Built in 24V brake when A/C or battery is present.
 - 2) Programmable Inputs, Outputs, & Relays: The board has 2 programmable inputs, 2 programmable outputs, and 2 built in relays for configuration and integration.
 - 3) Control Wiring: 16 & 18 Ga. Single conductor. Copper with electronic compression terminals.
 - 4) Delayed Closing: Programmable from 0 - 90 seconds.
 - 5) Preemptive outputs: 1 - 5 seconds before gate move.
 - 6) Monitored photo eyes: As recommended.
 - 7) **Provide (2) standard height gooseneck pole to mounts for card readers.**
 - d. Motor and Drive:
 - 1) RAD (Right Angle Drive): 1/2 HP, Gear Type, Right Angle Locking Worm Drive. Equip with disengage lever for manual operation.
 - 2) Dual Belt/High torque reduction system, counter balanced, Transport Maintenance pin (T/M)
 - e. Gates: ASTM B 221, alloy and temper 6063-T6, 2 1/2" sq. , 7 Ga. (.187) aluminum tubing frame with 3/4" pickets. Cable brace as required. Powder coat finish, color as selected.

- 3. Basis of Design Manufacturer/Model: AUTOGATE # 500 Buckeye.
 - a. Other Acceptable Manufacturers: Barrier gates manufactured by the following companies are acceptable providing they meet the requirements specified herein and an acceptable match as determined by the Architect.
 - 1) AMERICAN PARKING SYSTEMS.
 - 2) PFC CONTROLS.
- B. Detector loops: Provide as required to arm and reset all devices per manufacturer's requirements.

PART 3 EXECUTION

3.01 SURFACE CONDITIONS

- A. Prior to beginning work of the Section, verify that the installed work of other trades is complete and correct to the extent necessary for proper execution of the work of this Section.
 - 1. In the event of discrepancies immediately notify the Construction Manager. Do not proceed with work affected by the discrepancies until they have been resolved.

3.02 INSTALLATION

- A. Install all components in accordance with manufacturer's instructions and approved Shop Drawings.
- B. Leave each system in operating condition. Instruct Owner's personnel on operation, programming and maintenance of all components individually and the system complete.

END OF SECTION

SECTION 32 31 19

DECORATIVE METAL FENCES AND GATES

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Ornamental picket fencing.
- B. Ornamental swing gates.

1.02 RELATED SECTIONS

- A. Concrete: Section 03 30 00.

1.03 QUALITY ASSURANCE

- A. Manufacturer: Minimum of 5 years experience manufacturing ornamental picket fencing similar to the type specified and detailed for this project.
- B. Loading and Spacing: Completed fence panels and posts shall be capable of supporting a 400 lb. load (applied at midspan) without permanent deformation.

1.04 SUBMITTALS

- A. Shop drawings: Layout of fences and gates with dimensions, details, and finishes of components, accessories, and post foundations.
- B. Product Data: Manufacturer's catalog cuts indicating material compliance and specified options.
- C. Samples: Color selection for polymer finishes. If requested, samples of materials (e.g., finials, caps, and accessories).

1.05 WARRANTY

- A. All structural fence components (i.e. rails, pickets, and posts) shall be warranted within specified limitations, by the manufacturer for a period of 10 years from date of original purchase. Warranty shall cover any defects in material finish, including cracking, peeling, chipping, blistering or corroding.

PART 2 PRODUCTS

2.01 FENCE AND GATE MANUFACTURER

- A. Basis of Design: Drawings and specifications are based on Montage Industrial by AMERISTAR.
- B. Other Manufacturers: Fence systems manufactured by others are acceptable providing the fence components meet the requirements specified and is an acceptable match as determined by the Architect.
- C. Component sizes and spacing specified herein and indicated on the drawings are approximate and may be slightly adjusted per manufacturer's specific component designs.

2.02 ORNAMENTAL PICKET FENCE

- A. Material: Steel ASTM A924/A924M, with a minimum yield strength of 45,000 psi (310 MPa). The steel shall be hot-dip galvanized to meet the requirements of ASTM A653/A653M with a minimum zinc coating weight of 0.60 oz/ft² (276 g/m²), Coating Designation G-60 minimum.
- B. Pickets:
 - 1. Size pickets: 1" square x 16 Ga. tubing.
 - 2. Space pickets: 5" center-to-center.
 - 3. Attach each picket to each rail with screws or welds.
 - 4. Retaining Rods: 0.125" diameter galvanized steel
- B. Rails: Double-wall design with outside cross-section dimensions of 1.75" square and a minimum thickness of 12 Ga.
- C. Posts: Size as follows

<u>Fence Posts</u>	<u>Panel Height</u>
2-1/2" x 12 Ga.	Up to & Including 8' Height
3" x 12 Ga.	Over 8' Up to & Including 10' Height
4" x 11 Ga.	Over 10' Height
- D. Accessories: Assembled panels with ornamental accessories attached using security screws to prevent removal and vandalism. Provide stainless steel screws, with exposed heads finished to match fence finish.
- E. High Performance Finish: All pickets, channels, posts, fittings and accessories: Polyester coated individually after drilling and layout.
 - 1. Pre-Treatment: Power wash process
 - 2. Base coat: Thermoset epoxy; minimum 2 mils .

3. Finish: Polyester resin based power coating; minimum thickness of 2.0 mils.
4. Color: Black.

2.03 ACCESSORIES

- A. Ornamental Picket Fence Accessories: Provide indicated items required to complete fence system. Galvanize each ferrous metal item in accordance with ASTM B695 and finish to match framing.
- B. Post Caps: Formed or cast alloy, weathertight closure cap. Provide one post cap for each post. Match picket fence finish specified herein.

2.04 GATES

- A. Material: 1.5" x 14ga double channel rail, 1.75" sq. x 12ga. gate ends, and 1" sq. x 16ga. pickets. Gates that exceed 6' in width will have a 1.5" sq. x 12ga. intermediate upright. All rail and upright intersections shall be joined by welding. All picket and rail intersections shall also be joined by welding.
- B. Pedestrian swing gates: self-closing, having a gate leaf no larger than 48" width.
- C. Hardware: Latches permitting operation from both sides of gate, hinges, and keepers for each gate leaf more than 5 feet (1.52 m) wide. Provide center gate stops and cane bolts for pairs of gates. Fabricate latches with integral eye openings for padlocking; padlock accessible from both sides of gate.
- D. Hinges: BHMA A156.1, Grade 1, suitable for exterior use.
 1. Function: 39 - Full surface, triple weight, antifriction bearing.
 2. Material: Wrought steel, forged steel, cast steel, or malleable iron.
- E. Cane Bolts: Provide for inactive leaf of pairs of gates. Fabricated from 3/4-inch- (19-mm-) diameter, round steel bars, hot-dip galvanized after fabrication. Finish to match gates. Provide galvanized-steel pipe strikes to receive cane bolts in closed position.
- F. Finish: Match picket fence finish specified herein.

2.05 SETTING MATERIAL

- A. Concrete: See Section 03 30 00.

2.06 FABRICATION

- A. Pickets, rails and posts shall be pre-cut to specified lengths. Rails shall be pre-punched to accept pickets.

- B. Grommets: To be inserted into the pre-punched holes in the rails and pickets shall be inserted through the grommets so that pre-drilled picket holes align with the internal upper raceway of the rails
- C. Retaining Rods: To be inserted into each rail so that they pass through the pre-drilled holes in each picket, completing the panel assembly.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify areas to receive fencing are completed to final grades and elevations.

3.02 INSTALLATION - FENCE

- A. Install fence in accordance with manufacturer's instructions.
- B. Space posts uniformly at spacings indicated on the drawings.
- C. Concrete Set Posts: Drill hole in firm undisturbed or compacted soil. Holes shall have diameter 4 times greater than nominal outside dimension of post, and depths approximately 36" deep (6" deeper than post bottom). Place concrete around post in a continuous pour. Trowel finish around posts and slope to direct water away from posts.
- D. Surface mount (wall mount) posts with mounting plates where indicated. Fasten with lag bolts and shields.
- E. Check each post for vertical and top alignment, and maintain in position during placement and finishing operation.
- F. Align fence panels between posts. Firmly attach rail brackets to posts with bolt and lock nut, ensuring panels and posts remain plumb.

3.02 ACCESSORIES

- A. Install post caps and other accessories to complete fence.

3.03 CLEANING

- A. Clean up debris and unused material, and remove from site.

END OF SECTION

BASED ON 2017 OBC													
PLUMBING FIXTURE TOTALS													
	OCCUPANCY		WATER CLOSETS		URINALS PERMITTED FOR SUBSTITUTION	WATER CLOSETS MINUS URINALS		LAVATORIES		BATHS & SHOWERS		DRINKING FOUNTAINS	SERVICE SINKS
	MALE	FEMALE	MALE	FEMALE				MALE	FEMALE				
SUBTOTAL	48	50	0.59	0.85				0.37	0.39			0.48	
			1	1				1	1				
TOTAL	98		54		1		53	54		52		1	52

PLUMBING FIXTURE CALCULATOR													
CLASSIFICATION	OCCUPANCY TYPE	DESCRIPTION	OCCUPANCY TOTAL	GENDER OCCUPANCY TOTALS		WATER CLOSETS		URINALS	LAVATORIES		BATHTUBS OR SHOWERS	DRINKING FOUNTAINS	OTHER
				MALE	FEMALE	MALE	FEMALE		MALE	FEMALE			
ASSEMBLY	A-1	Theaters and other buildings for the performing arts and motion pictures	0	0	0	0.00	0.00	0.00	0.00	0.00	-	0.00	*1 SERVICE SINK TOTAL: 0
		Nightclubs, bars, taverns, dance halls and buildings for similar purposes	0	0	0	0.00	0.00	0.00	0.00	0.00	-	0.00	*1 SERVICE SINK TOTAL: 0
	A-2	Casino gaming areas	0	0	0	0	0	0.00	0	0	-	-	*1 SERVICE SINK TOTAL: 0
		Restaurants, banquet halls and food courts	0	0	0	0.00	0.00	0.00	0.00	0.00	-	0.00	*1 SERVICE SINK TOTAL: 0
		Auditoriums without permanent seating, art galleries, exhibition halls, museums, lecture halls, libraries, arcades and gymnasiums	63	31	32	0.25	0.49	0.16	0.16	0.16	-	0.13	*1 SERVICE SINK TOTAL: 1
	A-3	Passenger terminals and transportation facilities	0	0	0	0.00	0.00	0.00	0.00	0.00	-	0.00	*1 SERVICE SINK TOTAL: 0
		Places of worship and other religious services	0	0	0	0.00	0.00	0.00	0.00	0.00	-	0.00	*1 SERVICE SINK TOTAL: 0
	A-4	Coleseums, arenas, skating rinks, pools and tennis courts for indoor sporting events and activities	0	0	0	0.00	0.00	0.00	0.00	0.00	-	0.00	*1 SERVICE SINK TOTAL: 0
	A-5	Stadiums, amusement parks, bleachers and grandstands for outdoor sporting events and activities	0	0	0	0.00	0.00	0.00	0.00	0.00	-	0.00	*1 SERVICE SINK TOTAL: 0
	B	Buildings for the transaction of business, profess. services, other services involving merchandise, office bldgs, banks, light industrial and similar uses	35	17	18	0.34	0.36	0.17	0.21	0.23	-	0.35	*1 SERVICE SINK TOTAL: 1
	E	Educational facilities	0	0	0	0.00	0.00	0.00	0.00	0.00	-	0.00	*1 SERVICE SINK TOTAL: 0
FACTORY AND INDUSTRIAL	F-1 / F-2	Structures in which occupants are engaged in work fabricating, assembly or processing of products or materials	0	0	0	0.00	0.00	0.00	0.00	0.00	See Section 411 of the International Plumbing Code	0.00	*1 SERVICE SINK TOTAL: 0
	I-1	Residential care	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	*1 SERVICE SINK TOTAL: 0
		Hospitals, ambulatory nursing home care recipient	OCCUPANCY: 0 APPLICABLE ROOMS: 0	0	0	*1 PER ROOM TOTAL: 0		0	*1 PER ROOM TOTAL: 0	0.00	0.00	0.00	*1 SERVICE SINK TOTAL: 0
	I-2	Employees, other than residential care	0	0	0	0.00	0.00	0.00	0.00	0.00	-	0.00	-
		Visitors, other than residential care	0	0	0	0.00	0.00	0.00	0.00	0.00	-	0.00	-
		Prisons	OCCUPANCY: 0 APPLICABLE CELLS: 0	0	0	*1 PER CELL TOTAL: 0		0	*1 PER CELL TOTAL: 0	0.00	0.00	0.00	*1 SERVICE SINK TOTAL: 0
	I-3	Reformatories, detention centers and correctional centers	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	*1 SERVICE SINK TOTAL: 0
		Employees	0	0	0	0.00	0.00	0.00	0.00	0.00	-	0.00	-
	I-4	Adult day care and child day care	0	0	0	0.00	0.00	0.00	0.00	0.00	1 REQUIRED 0	0.00	*1 SERVICE SINK TOTAL: 0
	M	Retail stores, service stations, shops, salesrooms, markets and shopping centers	0	0	0	0.00	0.00	0.00	0.00	0.00	-	0.00	*1 SERVICE SINK TOTAL: 0
	R-1	Hotels, motels, boarding houses (transient)	SLEEPING UNITS: 0			*1 PER SLEEPING UNIT TOTAL: 0		0	*1 PER SLEEPING UNIT TOTAL: 0	*1 PER SLEEPING UNIT TOTAL: 0	-		*1 SERVICE SINK TOTAL: 0
	R-2	Dormitories, fratemies, sororities and boarding houses (not transient)	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	*1 SERVICE SINK TOTAL: 0
RESIDENTIAL	R-2	Apartment house	DWELLING UNITS: 0			*1 PER DWELLING UNIT TOTAL: 0		0	*1 PER DWELLING UNIT TOTAL: 0	*1 PER DWELLING UNIT TOTAL: 0	-		*1 KITCHEN SINK SEE DWELLING UNIT TOTAL: 0 *1 AUTOMATIC CLOTHES WASHER CONNECTION PER 20 DWELLING UNITS TOTAL: 0.00
	R-3	One, two, and Three-family dwellings. Multiple single-family dwellings, and lodging houses with five or fewer guestrooms	DWELLING UNITS: 52			*1 PER DWELLING UNIT TOTAL: 52		0	*1 PER DWELLING UNIT TOTAL: 52	*1 PER DWELLING UNIT TOTAL: 52	-		*1 KITCHEN SINK SEE DWELLING UNIT TOTAL: 52 *1 AUTOMATIC CLOTHES WASHER CONNECTION PER 20 DWELLING UNITS TOTAL: 52
	R-3	Congregate living facility with 16 or fewer persons and other R-3 occupancies	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	*1 SERVICE SINK TOTAL: 0
	R-4	Congregate care / residential care / assisted living facilities	0	0	0	0	0	0	0	0	0	0	*1 SERVICE SINK TOTAL: 0
STORAGE	S-1 / S-2	Structures for the storage of goods, warehouses, storerooms and freight depots, low and moderate hazard	0	0	0	0.00	0.00	0.00	0.00	0.00	See Section 411 of the International Plumbing Code TOTAL: 0	0.00	*1 SERVICE SINK TOTAL: 0

BUILDING INFORMATION		
OWNER NAME	COLUMBUS METROPOLITAN HOUSING AUTHORITY (CMHA)	
OWNER ADDRESS	880 EAST 11TH AVENUE COLUMBUS, OH 43211	
SITE ADDRESS	1581 WEST BROAD STREET, COLUMBUS, OHIO 43222	
DESCRIPTION		
PROJECT DESCRIPTION: HARRIET'S HOPE IS A 52-UNIT, THREE-STORY MULTI-FAMILY RESIDENTIAL FACILITY FOR ADULT CIS AND TRANSGENDER FEMALES IN FRANKLIN COUNTY, OHIO, THAT HAVE EXPERIENCED CHRONIC HOMELESSNESS OR ONE OR MORE VERIFIED HUMAN TRAFFICKING EVENTS AND THEIR MINOR DEPENDENTS. THE PROPOSED THREE-STORY BUILDING WILL BE WOOD FRAMED CONSTRUCTION AND HAVE A MEMBRANE ROOF SYSTEM. THE BUILDING WILL HAVE A MIX OF 1-BEDROOM AND 2-BEDROOM UNITS. VINYL WINDOW SYSTEMS ARE PROPOSED FOR THE DWELLING UNITS AND STOREFRONT FOR LIMITED AREAS IN THE COMMUNITY ROOM AND LOBBY. THE BUILDING WILL HAVE ELEVATORS SERVING THE LOBBY WITH COMMON AMENITIES LOCATED ON THE FIRST FLOOR. DWELLING UNIT DOORS WILL BE PRE-HUNG SOLID CORE. ALL FINISHES WILL MEET THE REQUIREMENTS OF OHFA'S QAP. SEE FOLLOWING DRAWING SHEETS FOR ADDITIONAL INFORMATION		
SITE INFORMATION		
SITE ZONING	AR-1 APARTMENT RESIDENTIAL	
SITE AREA	4.25 ACRES	
PARKING REQUIRED	REFER TO SITE PLANS	
BUILDING CODES		
TITLE	EDITION	
OHIO BUILDING CODE	2017 OBC	
OHIO PLUMBING CODE	2017 OPC	
OHIO MECHANICAL CODE	2017 OMC	
NATIONAL ELECTRICAL CODE	2017 NEC - NFPA 70	
INTERNATIONAL FUEL GAS CODE	2015 IFGC	
INTERNATIONAL ENERGY CONSERVATION CODE	2012 IECC	
ASHRAE 90.1 - 2010 ENERGY STANDARDS FOR BUILDINGS EXCEPT LOW-RISE RESIDENTIAL BUILDINGS	2010 ASHRAE 90.1	
ICC A117.1 - 2009 ACCESSIBLE AND USEABLE BUILDINGS AND FACILITIES	2009 IECC	
2010 ADA STANDARDS FOR ACCESSIBLE DESIGN	2010 ADA	
NFPA 101 LIFE SAFETY CODE	2015 NFPA 101 LIFE SAFETY CODE	
OHIO FIRE CODE	2017 OFC	
NATIONAL FIRE ALARM AND SIGNALING CODE	NFPA 72-10	
ENTERPRISE GREEN COMMUNITIES OR LEED CERTIFICATION		
GENERAL BUILDING HEIGHTS AND AREAS		
	REQUIREMENTS	SECTION/TABLE
CONSTRUCTION TYPE	5B (UNPROTECTED / SPRINKLERED)	602.5
USE GROUP	A-3 (ASSEMBLY - COMMUNITY ROOM)	303.4
MIXED USE - SEPARATED	B (BUSINESS - OFFICE)	304.1
	R-2 RESIDENTIAL SLEEPING UNITS w/ MORE THAN 3 DWELLING UNITS IN STRUCTURES w/ SHARED MEANS OF EGRESS	310.4
ALLOWABLE HEIGHT	A/B/R = 50 FT ZONING HEIGHT LIMIT = 35 FT	TABLE 504.3
ACTUAL HEIGHT	35 FT	
ALLOWABLE # OF STORIES ABOVE GRADE	A-3 = 2 STORIES B & R = 3 STORIES	TABLE 504.4
ACTUAL # OF STORIES ABOVE GRADE	3 STORIES	
ALLOWABLE AREA	A-3: 18,000 SF PER STORY B: 27,000 SF PER STORY R-2: 21,000 SF PER STORY	TABLE 506.2
ALLOWABLE AREA OF BUILDING	Aa = [A] + [(Ns x If)] A-3 = [18,000 + (6,000 x 0.07)] = 18,420 SF B = [27,000 + (9,000 x 0.07)] = 27,630 SF R-2 = [21,000 + (7,000 x 0.07)] = 21,490 SF	EQUATION 5-3
FRONTAGE INCREASE	If = [(FIP - 25) WIP If = [(205/35 - 25) 1] = 0.07	506.3.3
ACTUAL FLOOR AREA	FIRST FLOOR = 14,223 SF A-3 = 1,192 SF B = 3,481 SF R-2 = 9,549 SF SECOND FLOOR (R-2) = 14,821 SF THIRD FLOOR (R-2) = 14,821 SF TOTAL = 43,665 SF	

TYPES OF CONSTRUCTION		
CONSTRUCTION TYPE	TYPE 5B	TABLE 601
PRIMARY STRUCTURAL FRAME	0 HR	TABLE 601
EXTERIOR BEARING WALLS	0 HR WHERE SEPARATION DISTANCE ≥ 10 FT	TABLE 602
EXTERIOR NON-BEARING WALLS	0 HR WHERE SEPARATION DISTANCE ≥ 10 FT	TABLE 602
INTERIOR BEARING WALLS	0 HR	TABLE 601
INTERIOR NON-BEARING WALLS	0 HR	TABLE 601
FLOORS	0 HR	TABLE 601
ROOF	0 HR	TABLE 601
EXTERIOR WALL OPENINGS	UNLIMITED	TABLE 705.8.1 EXCEPTION 2
FIRE-RESISTIVE-RATED CONSTRUCTION		
STAIRWAY ENCLOSURES	1 HOUR CONNECTING < 4 STORIES	713.4
ELEVATOR ENCLOSURE	1 HOUR CONNECTING < 4 STORIES	713.4
HOISTWAY OPENING PROTECTION	NOT REQUIRED CONNECTING < 4 STORIES	3006.2
R-2 OCCUPANCY		4201.1 - 420.6
SEPARATION WALLS	FIRE PARTITION	708
DWELLING / SLEEPING UNITS	1/2 HR (SPRINKLERED)	708
CORRIDOR WALLS	1/2 HR (SPRINKLERED)	TABLE 1020.1
HORIZONTAL SEPARATION	1/2 HR (SPRINKLERED)	711
SEPARATION OF OCCUPANCIES	FIRE BARRIER	707
BETWEEN A & B	1 HR (SPRINKLERED)	TABLE 508.4
BETWEEN A & R	1 HR (SPRINKLERED)	TABLE 508.4
BETWEEN B & R	1 HR (SPRINKLERED)	TABLE 508.4
CORRIDORS	1/2 HOUR (SPRINKLERED - R2) 0 HOUR (SPRINKLERED - A & B)	TABLE 1020.1
OPENING PROTECTIVES	WALL RATING / DOOR RATING	TABLE 716.5
FIRE BARRIERS	1 HR / 1 HR	
FIRE PARTITIONS & CORRIDOR WALLS	1 HR / 1/3 HR - 1/2 HR / 1/3 HR	
ATTIC DRAFTSTOPPING	AREA 3,000 SF MAX OR ABOVE EVERY TWO DWELLING UNITS, WHICHEVER IS SMALLER	708.4 EXCEPTION 5
INTERIOR BEARING WALLS	1 HR IN ASSEMBLY/BUSINESS AREAS	711.2.3 R2 EXEMPTION
EXTERIOR BEARING WALLS	1 HR IN ASSEMBLY/BUSINESS AREAS 705.5 INSIDE EXPOSURE	
INTERIOR FINISHES		
CLASSIFICATION	REQUIREMENTS	SECTION
	A-3 / B / R-2	803
WALL AND CEILING - INT EXIT STAIRWAYS	CLASS B / B / C	TABLE 803.11
WALL AND CEILING - EXIT CORRIDORS	CLASS B / C / C	TABLE 803.11
WALL AND CEILING - ROOMS	CLASS C / C / C	TABLE 803.11
FLOOR COVERINGS	DOC FF-1 "PILL TEST" or ASTM D2859	804.4.1
FIRE PROTECTION SYSTEMS		
SPRINKLER SYSTEM	BUILDING WILL BE EQUIPPED THROUGHOUT WITH AN AUTOMATIC SPRINKLER SYSTEM IN ACCORDANCE WITH 903.3.1.1 (NFPA 13)	
FIRE EXTINGUISHERS	CLASS 2A - 75 TRAVEL DISTANCE / 6,000 SF AREA	906 / NFPA 10
FIRE ALARM SYSTEM		907.2.9 / NFPA 72
MANUAL FIRE ALARMS		907.2.9.1
SMOKE DETECTORS		907.2.9.2
MEANS OF EGRESS		
OCCUPANCY CALCULATION	REQUIREMENTS	SECTION
FIRST FLOOR	14,223 SF	1004
	ASSEMBLY 932 SF / 15 SF NET/PERSON = 63	
	BUSINESS 3,481 SF / 100 SF GROSS/PERSON = 35	
	RESIDENTIAL 9,549 SF / 200 SF GROSS/PERSON = 48	
	TOTAL FIRST FLOOR 146	
SECOND FLOOR	14,821 SF / 200 SF GROSS/PERSON = 75	
THIRD FLOOR	14,821 SF / 200 SF GROSS/PERSON = 75	
BUILDING TOTAL	296	
STAIRWAY WIDTH	44" MIN	1011.2
STAIRWAY EGRESS CAPACITY	0.3 INCH / OCCUPANT / FLOOR: 44" = 146	1005.3.1
DOOR EGRESS CAPACITY	0.2 INCH / OCCUPANT / FLOOR: 33" = 165	1005.3.2
TRAVEL DISTANCE LIMITATIONS	250' (SPRINKLERED)	TABLE 1017.2
COMMON PATH OF TRAVEL	125' (SPRINKLERED)	TABLE 1006.2.1
CORRIDOR WIDTH	44" MIN	TABLE 1020.2
WITHIN A DWELLING UNIT	36" MIN	
DEAD ENDS	50' (SPRINKLERED)	1020.4
MINIMUM NUMBER OF EXITS	1-500 OCCUPANTS = 2 EXITS	TABLE 1006.3.1
EXIT SEPARATION	1/3 DIAGONAL OF AREA SERVED (SPRINKLERED)	1007.1.1

#	DATE	CHANGE DESCRIPTION
1	04/21/2022	ADDENDUM #02



COLUMBUS METROPOLITAN HOUSING AUTHORITY
COMMUNITY. COMMITMENT. COLLABORATION.

HARRIET'S HOPE
1581 W. BROAD STREET
COLUMBUS, OH 43222
FOR
CMHA

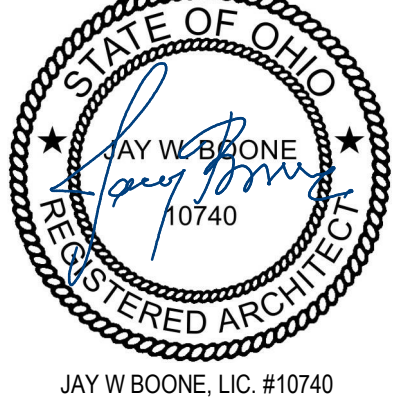


300 SPRUCE STREET
SUITE 300
COLUMBUS, OHIO 43215

PHONE: (614) 461-4664
FAX: (614) 280-8881

DRAWING TITLE:

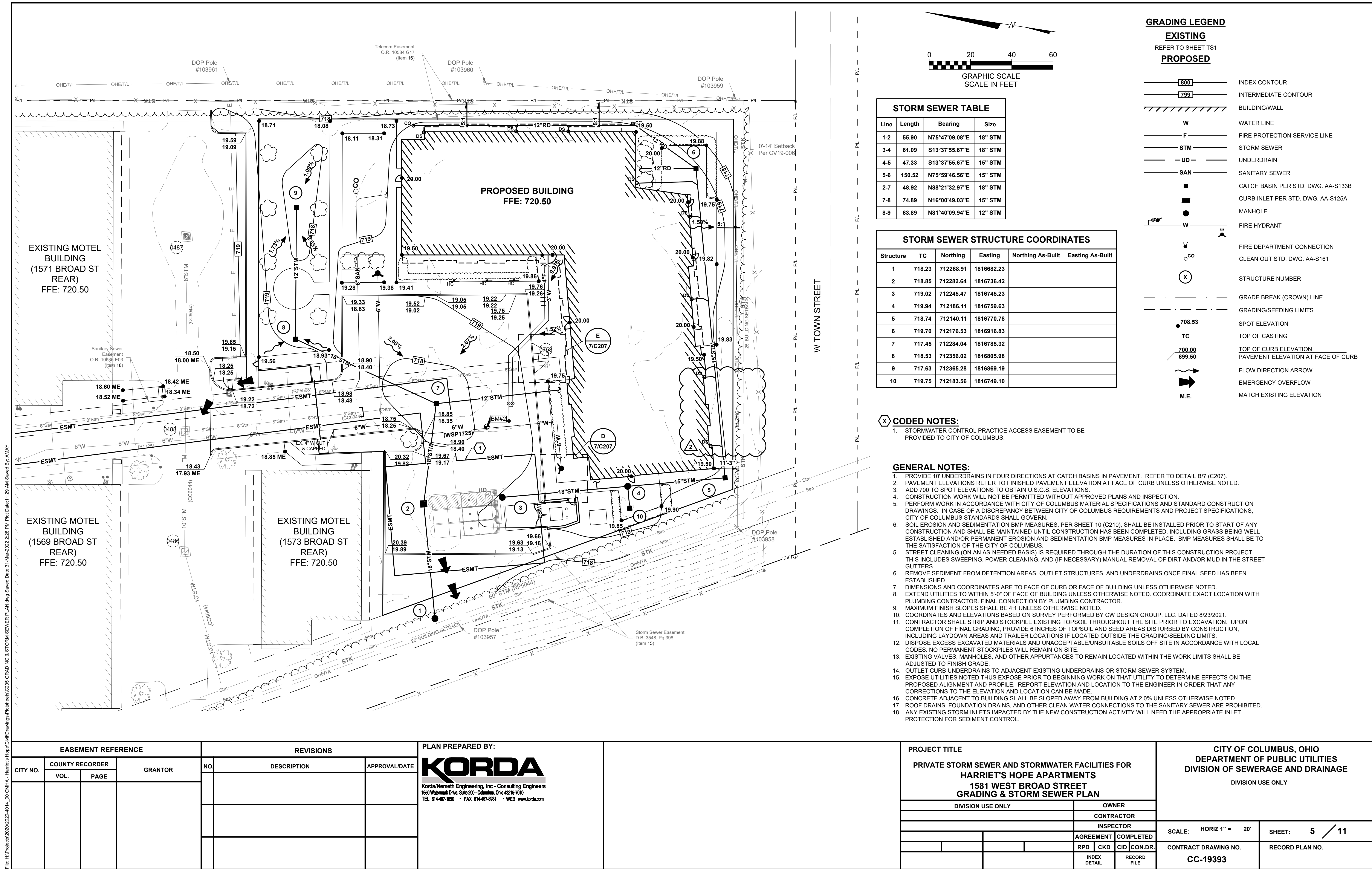
CODE DATA



JAY W. BOONE, LIC. #10740
EXP. DATE: 12/31/2022

APRIL 4, 2022

DRAWN BY: XXX	CHECKED BY: XXX
Proj. #20643	
G100	
PERMIT & BID SET	



EARTHWORK NOTES:

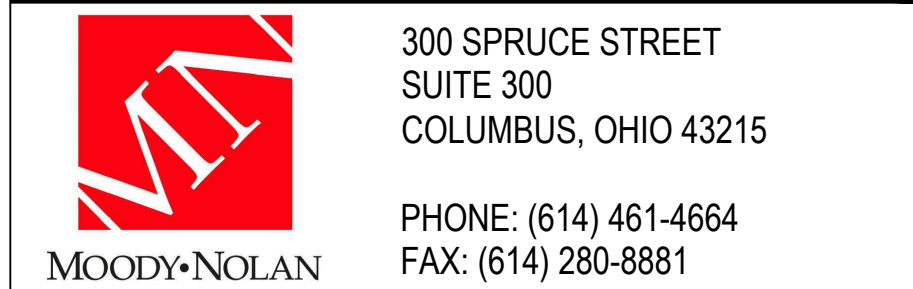
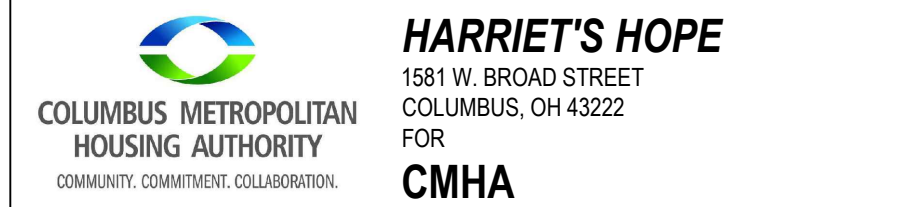
REFER TO GEOTECHNICAL EXPLORATION REPORT, PREPARED BY PROFESSIONAL SERVICE INDUSTRIES, PROJECT NO. 01021959, DATED OCTOBER 16, 2021 FOR SITE SOILS INFORMATION. SITE PREPARATION SHALL BE PER SPECIFICATION SECTION 31 00 00 UNLESS OTHERWISE NOTED IN THESE PLANS. PLEASE NOTE THE FOLLOWING SOIL REMEDIATION PROVISIONS FOR THIS PROJECT:

- CONTRACTOR SHALL STRIP AND STOCKPILE EXISTING TOPSOIL THROUGHOUT THE SITE PRIOR TO EXCAVATION. UPON COMPLETION OF FINAL GRADING, ALL ADDITIONAL TOPSOIL SHALL BE HAULED OFF-SITE AT THE CONTRACTOR'S EXPENSE.
- OLD FOUNDATIONS AND OTHER ITEMS ENCOUNTERED DURING EXCAVATION SHOULD BE COMPLETELY REMOVED AND BACKFILLED PER THE GEOTECHNICAL REPORT RECOMMENDATIONS. POTENTIAL UNDOCUMENTED FILL MAY EXIST WITHIN THE DEMOLISHED STRUCTURE AREAS.
- EXISTING SITE CONSISTS OF RUBBLE PILES FROM PREVIOUS BUILDING DEMOLITION. CONTRACTOR IS RESPONSIBLE FOR HAULING EXCESS MATERIAL OFF-SITE IN ACCORDANCE WITH LOCAL CODES.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONDUCT ANY DEWATERING OPERATIONS NECESSARY FOR EARTHWORK ACTIVITIES, AS SPECIFIED IN SPECIFICATION SECTION 31 00 00.

EXISTING FILL SOIL REMOVAL NOTES:

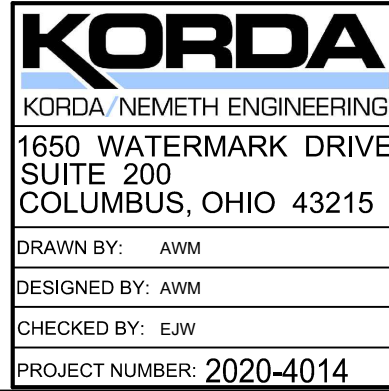
- AFTER STRIPPING TO PROPOSED SUBGRADE LEVEL, PROVIDE SUBGRADE PER SPECIFICATION SECTION 31 00 00 AND THE GEOTECHNICAL REPORT PRIOR TO PROOFROLL AND ADDITIONAL FILL PLACEMENT.
- DURING PROOFROLLING, SOILS THAT ARE OBSERVED TO RUT OR DEFLECT EXCESSIVELY (TYPICALLY GREATER THAN 1-INCH) UNDER THE MOVING LOAD SHOULD BE UNDERCUT AND REPLACED WITH PROPERLY COMPACTED LOW PLASTICITY FILL MATERIAL.
- PLACE FILL IN ACCORDANCE WITH SPECIFICATION SECTION 31 00 00.
- PROVIDE APPROVAL FROM TESTING AGENCY, IN WRITING SEALED BY A REGISTERED GEOTECHNICAL ENGINEER, FOR PLACEMENT OF SHALLOW SPREAD FOUNDATIONS AND SLAB ON NEW FILL MATERIALS PER THE GEOTECHNICAL REPORT.
- SOME EXISTING FILL SOIL WILL BE ACCEPTABLE AS FILL MATERIAL. PROVIDE ANY ADDITIONAL SOIL AS NECESSARY TO COMPLETE FILL CONSTRUCTION. DISPOSE OF ANY UNSUITABLE FILL OFF-SITE IN ACCORDANCE WITH LOCAL CODES.

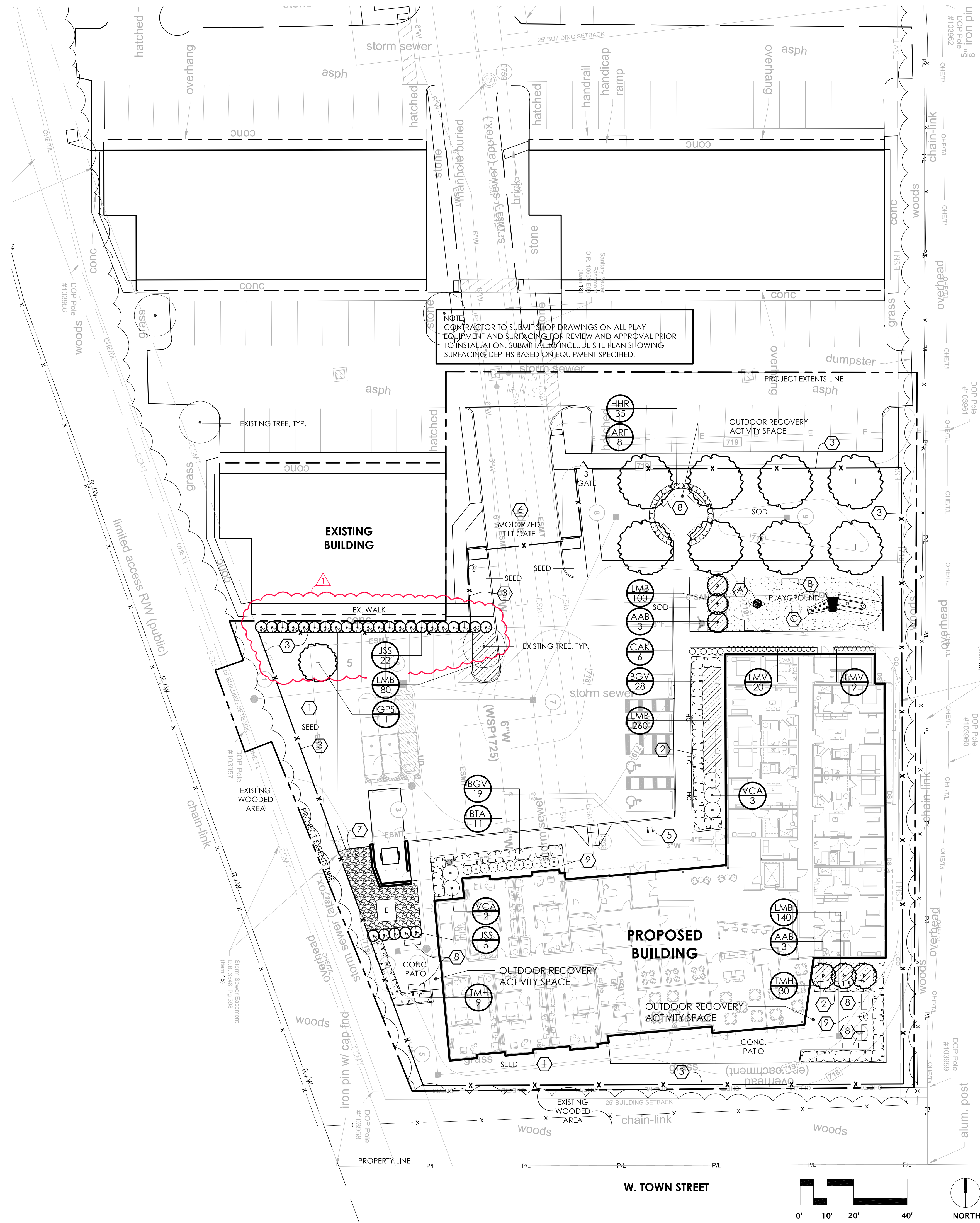
#	DATE	CHANGE DESCRIPTION
2	04/21/2022	ADDENDUM #2



GRADING & STORM SEWER PLAN

APRIL 4, 2022
DRAWN BY: AWM
Proj. #20643
C205
PERMIT & BID SET





PLANT MATERIALS LIST CONTRACTOR RESPONSIBLE FOR ALL PLANT QUANTITIES SHOWN ON PLAN						
QTY	ABR	COMMON NAME	BOTANICAL NAME	SIZE	ROOT	REMARKS
TREES						
8	ARF	RED SUNSET RED MAPLE	Acer rubrum 'Franksred'	2-1/2" Cal.	B&B	MATCHED FORM
6	AAB	AUTUMN BRILLIANCE SERVICEBERRY	Amelanchier x grandiflora 'Autumn Brilliance'	6'-7" Hgt.	B&B	MULTI-STEM
1	GPS	PRINCETON SENTRY GINKGO	Ginkgo biloba 'Princeton Sentry'	2-1/2" Cal.	B&B	
SHRUBS						
39	TMH	HICKS YEW	Taxus x media 'Hicksii'	36" Hgt.	B&B	3'-0" O.C.
5	VCA	KOREAN SPICE VIBURNUM	Viburnum carlesii	30"-36" Hgt.	B&B	
47	BGV	GREEN VELVET BOXWOOD	Buxus x 'Green Velvet'	18"-24" Hgt.	Cont.	3'-0" O.C.
11	BTB	ROSE GLOW BARBERRY	Berberis thunbergii f. atropurpurea 'Rose Glow'	24" Hgt.	Cont.	
27	JSS	SKYROCKET JUNIPER	Juniperus scopulorum 'Skyrocket'	5' Hgt.	B&B	
PERENNIALS/ ORNAMENTAL GRASSES						
605	LMB	BIG BLUE LILYTURF	Liriope muscari 'Big Blue'	1 Qt.	CONT.	
13	HHR	HAPPY RETURNS DAYLILY	Hemerocallis 'Happy Returns'	1 Gal.	CONT.	

PLAYGROUND EQUIPMENT

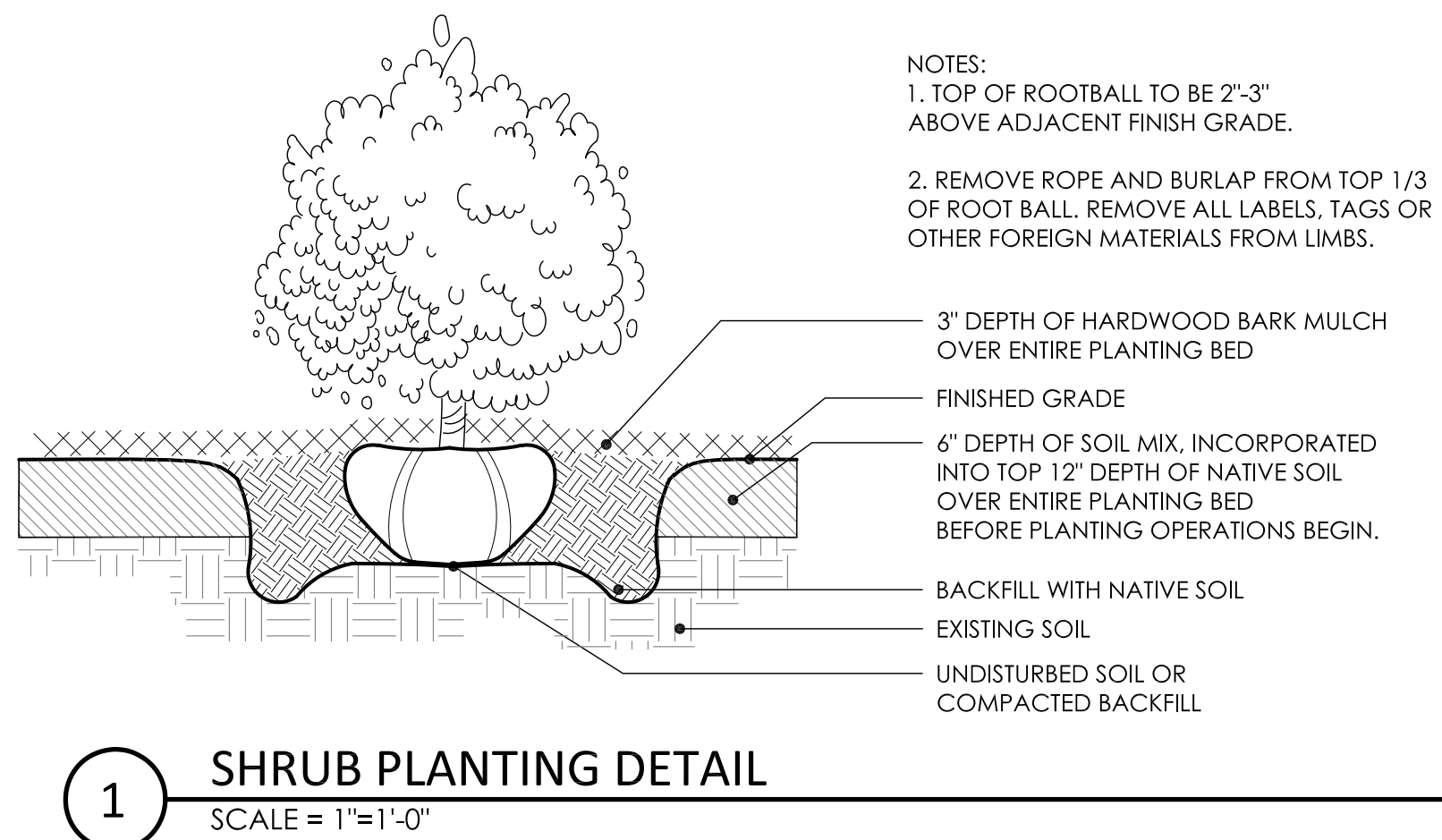
- (A) PALMETTO SAUCER BASKET SWING
MANUFACTURER: BERLINER
MODEL: 95.190.578
- (B) BACKLESS BENCH
MANUFACTURER: MYT-COAT
MODEL: MOD BENCH, SLATED STEEL
INGROUND MOUNT
- (C) UNITY SLIDE CLIMBER
MANUFACTURER: PLAYWORLD
MODEL: ZZXX0346

ZONING COMPLIANCE

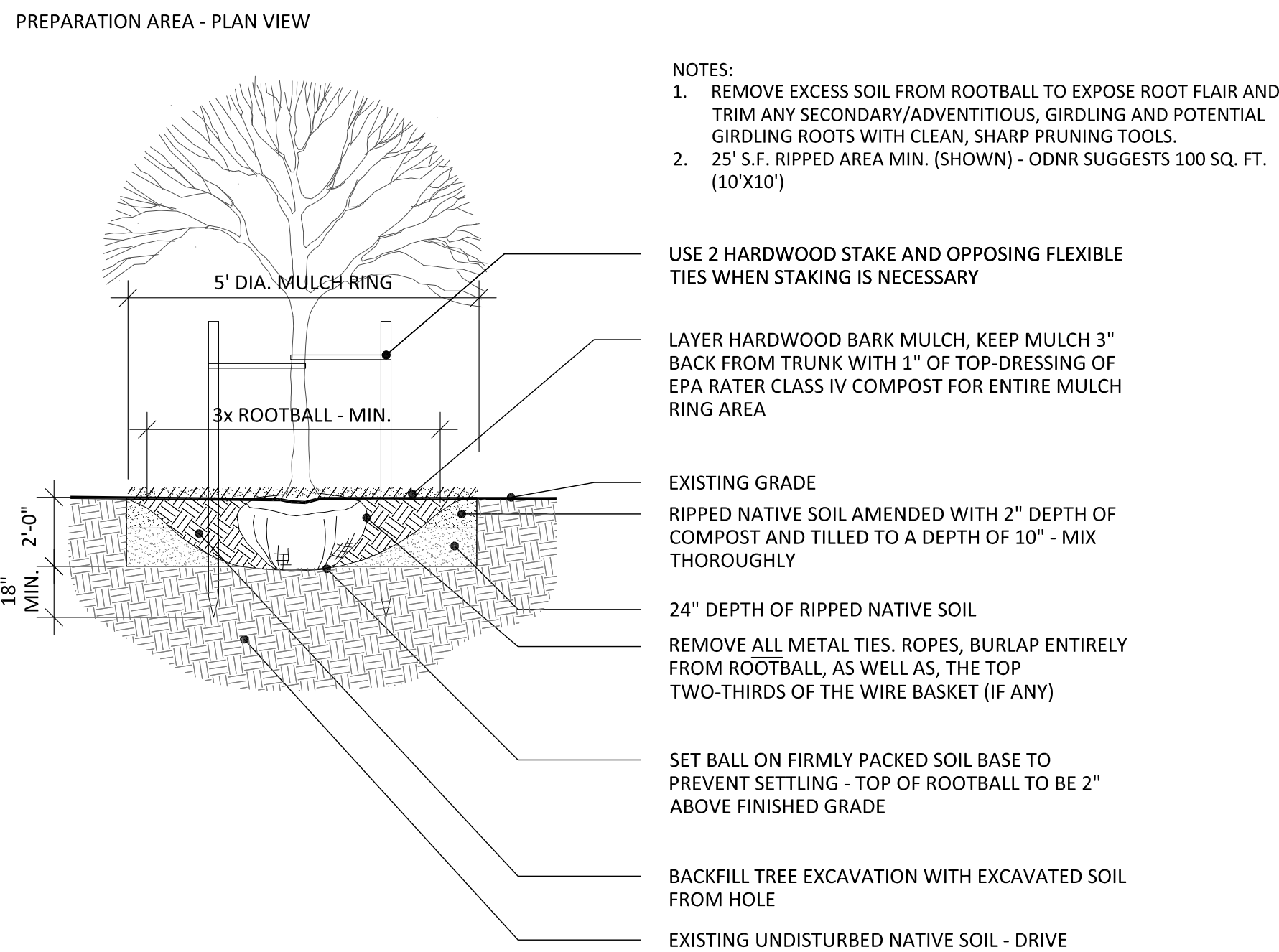
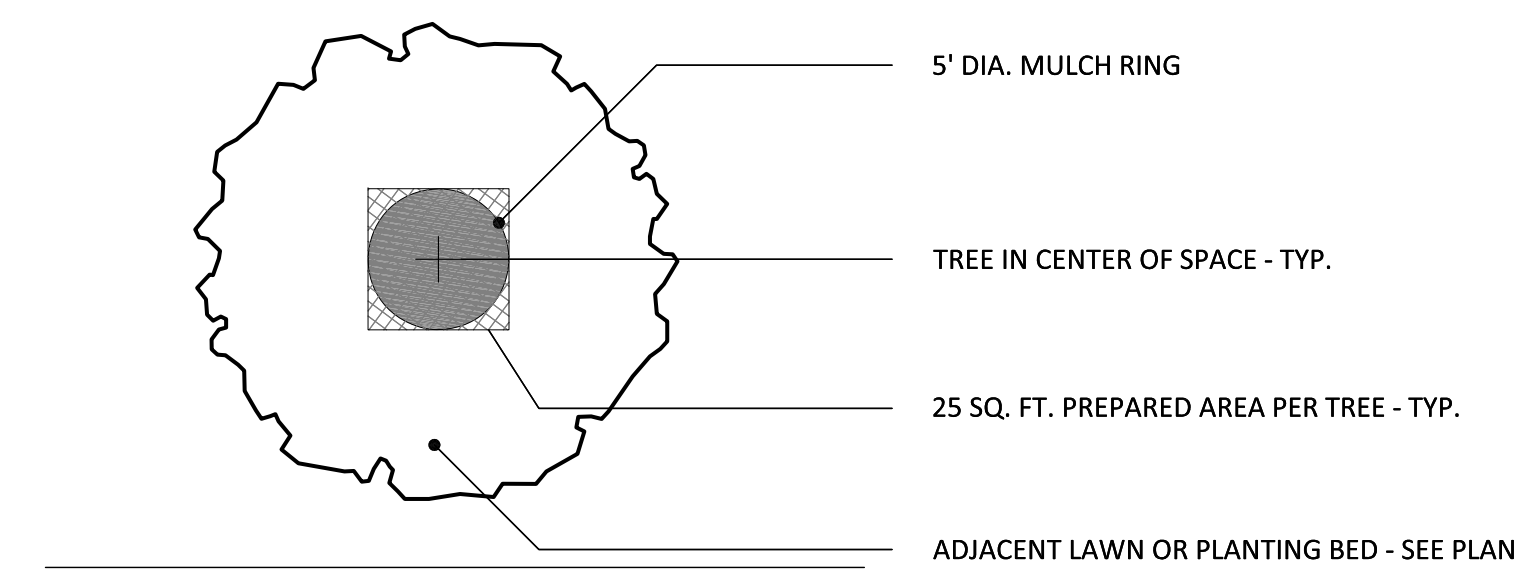
SECTION 3312.21 A INTERIOR LANDSCAPE. PROVIDE ONE TREE FOR EVERY TEN PARKING SPACES.
13 SPACES/ 10 = 1.3 OR 2 TREES REQUIRED
TREES PROVIDED = 5

SECTION 3312.49 BICYCLE PARKING
PROVIDE 1 BICYCLE SPACE PER 20 VEHICLE SPACES
BICYCLE SPACE REQUIRED = 2
BICYCLE SPACES PROVIDED = 2

SECTION 3321.07 LANDSCAPING - ONE TREE REQUIRED FOR EVERY 110 DWELLING UNITS
52 UNITS/ 10 = 5.2 OR 6 TREES REQUIRED
TREES PROVIDED = 6



1 SHRUB PLANTING DETAIL
SCALE = 1"=1'-0"



2 TREE PLANTING DETAIL FOR SHADE TREE PLANTING ONLY
SCALE 1/4" = 1'-0"

GENERAL NOTES

- EACH CONTRACTOR IS TO VERIFY WITH OWNER AND UTILITY COMPANIES THE LOCATIONS OF ALL UTILITIES PRIOR TO CONSTRUCTION. TO DETERMINE IN THE FIELD THE ACTUAL LOCATIONS AND ELEVATIONS OF ALL EXISTING UTILITIES, WHETHER SHOWN ON THE PLANS OR NOT. THE CONTRACTOR SHALL CALL UTILITY PROTECTION SERVICE 72 HOURS PRIOR TO CONSTRUCTION.
- EXAMINE FINISH SURFACE, GRADES, TOPSOIL QUALITY AND DEPTH. DO NOT START ANY WORK UNTIL UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED. VERIFY LIMITS OF WORK BEFORE STARTING.
- CONTRACTOR RESPONSIBLE FOR COST OF REPAIRS TO EXISTING SITE CONDITIONS WHEN DAMAGED BY CONTRACTOR. REPAIR TO THE SATISFACTION OF THE OWNER.
- ALL PLANT MASSES TO BE CONTAINED WITHIN 3" DEEP HARDWOOD BARK MULCH BED.
- CONTRACTOR SHALL MAINTAIN POSITIVE DRAINAGE IN LAWN AREAS.
- FINE GRADE LAWN AREAS TO PROVIDE A SMOOTH AND CONTINUAL GRADE FREE OF IRREGULARITIES OR DEPRESSIONS.
- CONTRACTOR SHALL SEED OR SOD ALL AREAS DISTURBED DURING CONSTRUCTION. SEE PLAN.
- ALL PLANTS SHALL MEET OR EXCEED STANDARDS SET IN THE U.S.A. STANDARD FOR NURSERY STOCK.
- ALL PLANTING OPERATIONS SHALL ADHERE TO THE AMERICAN ASSOCIATION OF NURSERYMEN STANDARDS.

CONSTRUCTION NOTES

- NEW LAWN AREA, FILL AREA WITH CLEAN FILL. AS REQUIRED TO BRING TO GRADE. PROVIDING TOPSOIL ON TOP 6" AND MEETING ADJACENT SURFACES FLUSH. PROVIDE POSITIVE DRAINAGE ACROSS ALL SURFACES.
- LANDSCAPE AREA, FILL WITH TOPSOIL. MINIMUM DEPTH SHALL BE 18". MEET ADJACENT SURFACES FLUSH. MOUND TO PROVIDE POSITIVE DRAINAGE ACROSS ALL SURFACES.
- DECORATIVE STEEL FENCE (6' HGT.) - SEE DETAIL 1 & 2. SHEET L1.02.
- DECORATIVE BOLLARD, TYP. OF 3 MANUFACTURER: TBD MODEL: TBD
- LOOP STYLE BACK RACK, TYP. OF 2 - SEE DETAIL 3, L1.02.
- MOTORIZED TILT GATE - SEE SPEC 11 12 00 PARKING CONTROL EQUIPMENT.
- DECORATIVE GRAVEL (MINERAL MULCH) - SEE DETAIL 4, L1.02.
- BENCH WITH BACK (TYP. OF 8), SURFACE MOUNTED MANUFACTURER: DUMOR, INC. MODEL: #505-60PLA FRAME COLOR: ARGENTO SLAT OPTIONS: GREY
- LITTER RECEPTACLE MANUFACTURER: DUMOR, INC. MODEL: #158-325H-FTO COLOR: ARGENTO

EDGE

PLANNING • LANDSCAPE ARCHITECTURE • URBAN DESIGN

330 WEST SPRING STREET, SUITE 350
COLUMBUS, OHIO 43215
614-486-3343

#	DATE	CHANGE DESCRIPTION
1	04/21/21	Addendum #2



HARRIET'S HOPE
1581 W. BROAD STREET
COLUMBUS, OH 43222
FOR
CMHA



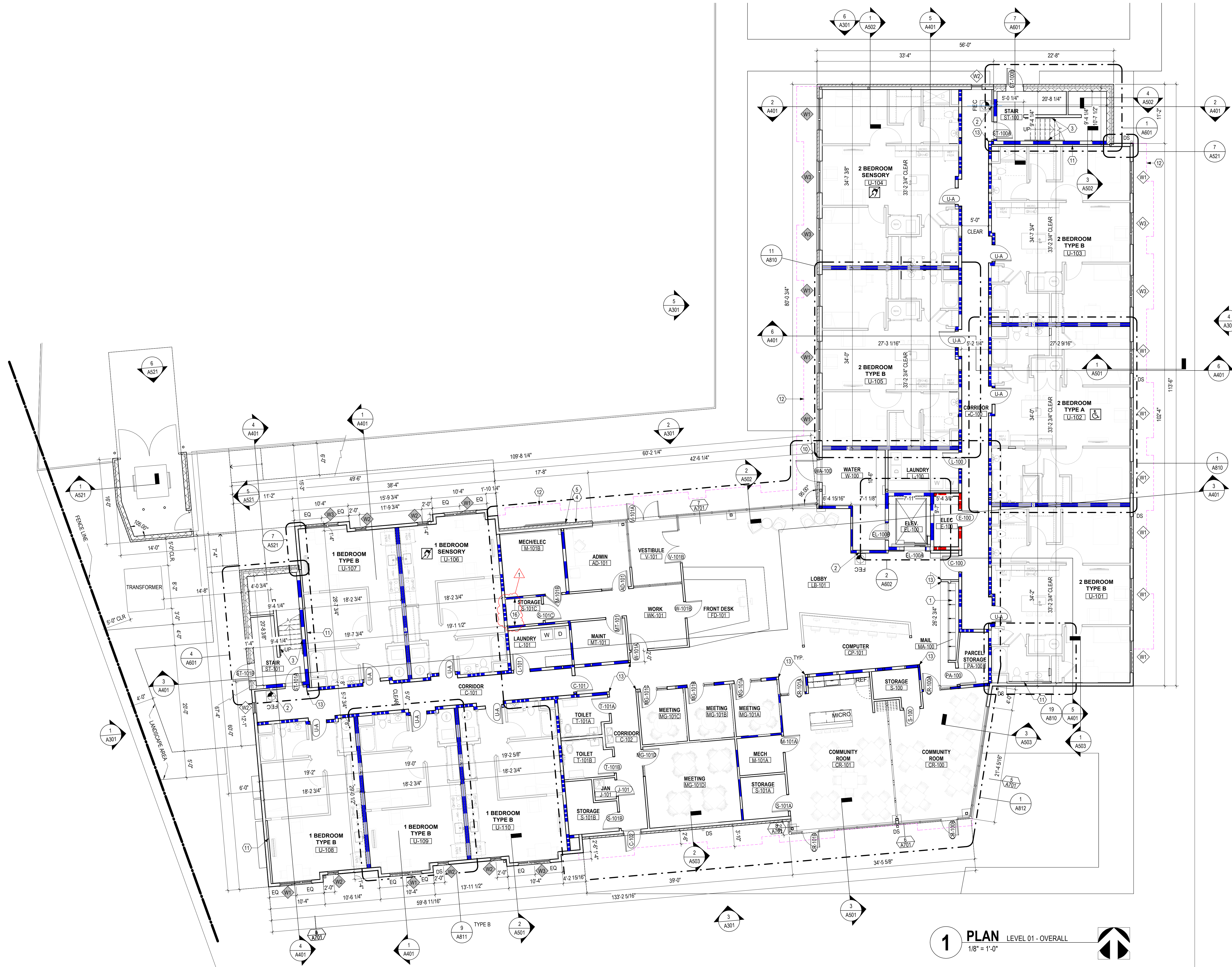
300 SPRUCE STREET
SUITE 300
COLUMBUS, OHIO 43215
PHONE: (614) 461-4664
FAX: (614) 280-8881

DRAWING TITLE:

LANDSCAPE PLAN



APRIL 4, 2022
DRAWN BY: BDF CHECKED BY: TS
Proj. #20643
L1.01
PERMIT & BID SET



- CODED NOTE LEGEND**
- METAL MAILBOXES AND PARCEL BOXES AS SHOWN IN FLOOR PLANS. DESIGN BASED ON THE MAILBOX WORKS OR EQUAL. PROVIDE ONE MAILBOX PER UNIT AND ONE PARCEL BOX PER FIVE MAILBOXES. BOTTOM OF UNIT SHALL NOT BE MOUNTED LOWER THAN 15 INCHES AFF AND TOP OF THE HIGHEST KEY HOLE SHALL NOT BE MOUNTED HIGHER THAN 48 INCHES AFF. SEE DETAIL FOR MORE INFORMATION.
 - PAINTED METAL RAILING AT STAIRS.
 - SEMI-RECESSED FIRE EXTINGUISHERS CABINETS SO THE INTEGRITY OF THE RATED WALL IS MAINTAINED. PROVIDE RATED CABINETS AT RATED WALL LOCATIONS.
 - SEMI-RECESSED FIRE EXTINGUISHERS CABINETS SO THE ARCHITECT AND MOUNT NO HIGHER THAN 4 FEET AFF. SEE ELECTRICAL INFORMATION.
 - KNOX BOX: COORDINATE FINAL LOCATION WITH FIRE DEPARTMENT.
 - NOT USED.
 - DRINKING FOUNTAIN: SEE PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION.
 - JANITORS SINK: SEE PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION.
 - ROOF HATCH ABOVE: LOCKABLE FROM STAIR SIDE.
 - FIRE DEPARTMENT CONNECTION. SEE FIRE PROTECTION AND PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION.
 - FIRE CUT WALL WITH PARTITION TYPE 11.11 W/ SOUND BATT INSULATION AT THIS LOCATION.
 - PROJECTION OF FLOOR ABOVE (DASHED).
 - CORNER GUARDS: TYPICAL.
 - 48" x 96" WHITEBOARD: TYPICAL. SEE SPECIFICATIONS.
 - 48" x 48" TACKBOARD: TYPICAL. SEE SPECIFICATIONS.
 - PROVIDE 1/2" PLYWOOD BEHIND ENTIRE WALL NOTED IN STORAGE.

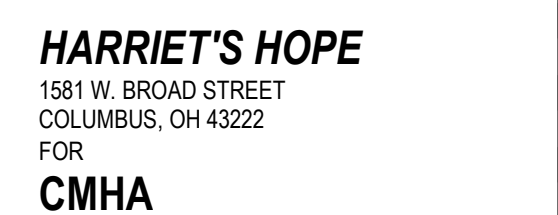
- GENERAL NOTES - FLOOR PLAN**
- EXTERIOR WALL DIMENSIONS ARE TO EXTERIOR FACE OF EXTERIOR SHEATHING OR EXTERIOR FACE OF BRICK. ALL OTHER DIMENSIONS ARE TO FACE OF STUD (UNLESS NOTED OTHERWISE).
 - SEE STRUCTURAL DRAWINGS FOR LOCATIONS OF ALL STEEL REINFORCING IN WALL & FLOOR CONSTRUCTION.
 - SEE ENLARGED PLANS AND FINISH SCHEDULE FOR ADDITIONAL INFORMATION OF LOCATIONS AND TYPES OF FINISH MATERIALS.
 - SEE ELEVATIONS & STRUCTURAL DRAWINGS FOR LOCATIONS OF EXPANSION & CONTROL JOINTS. CONTRACTOR SHALL PROVIDE ADDITIONAL INTERIOR CONTROL JOINTS AS REQUIRED TO COMPLY WITH MAXIMUM SPACING REQUIREMENTS IN SPECIFICATIONS AND NATIONAL MASONRY INSTITUTE.
 - MECHANICAL & ELECTRICAL EQUIPMENT SHALL BE ON HOUSEKEEPING PADS. PADS ARE TO BE PROVIDED BY THE TRADE SUPPLYING THE EQUIPMENT. SEE MECHANICAL & ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION. WORK TO BE COORDINATED THROUGH THE GENERAL TRADES.
 - CONTRACTOR PADS: 4" MIN. 4" THICK W/ W.F. UNLESS NOTED OTHERWISE. FURNITURE IS INCLUDED IN CONTRACT. SEE FINE DRAWINGS FOR ADDITIONAL INFO. PROVIDE RESIDENTIAL APPLIANCES IN RESIDENTIAL UNITS AND PUBLIC AREAS UNLESS NOTED OTHERWISE. ALL APPLIANCES TO BE PROVIDED AND INSTALLED BY GC.
 - ALL INTERIOR GYPSUM BOARD PARTITIONS TO INCLUDE THE USE OF 5/8" GYPSUM BOARD. WHERE NEW TUBS, SHOWERS & SURROUNDS. ALL SINKS, WATER HEATERS AND CLOTHES WASHERS ARE BEING PROVIDED AND INSTALLED. GYPSUM BOARD / SUBSTRATE IS TO BE MOISTURE-RESISTANT SUBSTRATE (NON-PAPER FACED). WITHIN 4 FEET OF ANY WATER SOURCES WHERE DRYWALL CAN BE SPLASHED.
 - FOR 1-PIECE TUBSHOWER UNIT, IT IS NOT REQUIRED TO INSTALL TYPICAL WALL OR TYVEK BEHIND UNIT EXCEPT AT FIRE RATED WALL ASSEMBLIES. INSTALL GYPSUM BOARD AS REQUIRED.
 - ALL DOORS LOCATED FOR PUBLIC ACCESS. ALL RESIDENTIAL ENTRANCES AND ALL USABLE DOORS IN ANSI TYPE A UNITS SHALL BE INSTALLED TO MAINTAIN THE DOOR CLEARANCE REQUIREMENTS OUTLINED ON THE TYPICAL PROJECT DETAILS SHEETS.
 - THRESHOLDS, IF PROVIDED AT PUBLIC DOORWAYS AND IN ANSI TYPE A UNITS, MUST BE 12 INCH HIGH MAXIMUM. CHANGES IN LEVEL OF 1/4 INCH HIGH MAXIMUM ARE PERMITTED TO BE VERTICAL. CHANGES IN LEVEL BETWEEN 1/4 INCH HIGH MINIMUM AND 1/2 INCH HIGH MAXIMUM MUST BE BEVELED WITH A SLOPE NOT STEEPER THAN 1:2.
 - GYPSUM UNDERLAYMENT: SHALL BE PROVIDED AT ALL FLOOR / CEILING ASSEMBLIES EXCEPT STAIR TREADS. ALL GYPSUM UNDERLAYMENT SHALL RECEIVE A FLOORING MATERIAL. GYPSUM UNDERLAYMENT SHALL NOT BE VISIBLE TO VIEW. FLOORING MATERIAL IS NOT REQUIRED UNDERNEATH BASE CABINETS BUT REQUIRED UNDER REMOVABLE BASE CABINETS.
 - ACOUSTICAL MAT: SHALL BE PROVIDED ON ALL WOOD FLOOR / CEILING ASSEMBLIES.
 - WHERE TUBS ARE LOCATED, PROVIDE AND INSTALL WOOD BLOCKING IN WALLS AROUND TUBS FOR FUTURE INSTALLATION OF GRAB BARS. WHERE ROLL-IN SHOWERS ARE LOCATED, PROVIDE AND INSTALL WOOD BLOCKING AND GRAB BARS IN WALLS AROUND SHOWER. SEE TYPICAL PROJECT DETAILS AND MEP DRAWINGS FOR ADDITIONAL INFORMATION.
 - PROVIDE BLOCKING FOR CURVED SHOWER RODS, LOCATED DIRECTLY ABOVE THE TOP OF THE SHOWER ENCLOSURE.
 - REFER TO MOUNTING HEIGHTS SCHEDULE FOR MOUNTING HEIGHTS.
 - PROVIDE AND INSTALL WINDOW COVERINGS AND HEAVY DUTY WINDOW SCREENS AT ALL RESIDENTIAL UNIT WINDOWS. PROVIDE AND INSTALL WINDOW COVERINGS AT COMMUNITY ROOMS CR-100 AND CR-101.
 - CALL OUT ALL EXTERIOR PENETRATIONS. REFER TO SPEC SECTION 07 92 00 JOINT SEALANTS FOR DETAILS.
 - ANY PENETRATIONS AT FIRE RATED WALLS ARE TO BE FIRESTOPPED.
 - PROVIDE AND INSTALL PASSIVE RADON REDUCTION SYSTEM AS NOTED. REFER TO TYPICAL PROJECT DETAILS, PLUMBING PLANS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.
 - PROVIDE AND INSTALL CORNER GUARDS AT ALL WALL CORNER LOCATIONS IN CORRIDORS AND PUBLIC AREAS.

- LEGEND - FLOOR PLAN**
- 2 HR FIRE RATED WALLS
 - 1 HR FIRE RATING - INCLUDING BUT NOT LIMITED TO STAIR WALLS, ELEVATOR WALLS AND UNIT DEMISING WALLS
 - 1 HR FIRE RATED CORRIDOR WALLS
 - INTERIOR PARTITION
 - SENSORY (HEARING / VISUALLY IMPAIRED) UNIT - SEE OVERALL FLOOR PLANS FOR LOCATIONS. LOCATE MEP EQUIPMENT AND DEVICES TO MAINTAIN CLEARANCES AS NOTED AND AS DASHED IN FLOOR PLANS. SEE MEP DRAWINGS FOR ADDITIONAL INFO.
 - ANSI TYPE A UNIT - SEE OVERALL FLOOR PLANS FOR LOCATIONS. LOCATE MEP EQUIPMENT AND DEVICES TO MAINTAIN CLEARANCES AS NOTED AND AS DASHED IN FLOOR PLANS. UNITS TO ALSO INCLUDE SENSORY (HEARING / VISUALLY IMPAIRED) UNIT FEATURES. SEE MEP DRAWINGS FOR ADDITIONAL INFO.
 - PLAN ELEVATION
 - SEMI-RECESSED, RATED FIRE EXTINGUISHER CABINET (F.E.C.) AND FIRE EXTINGUISHER. UNIT SHALL NOT ENCRUMB MORE THAN 4" INTO THE PATH OF EGRESS.
 - DIRECTION OF INSTALLATION OF LVT FLOORING. SEE A800 SERIES SHEETS FOR FINISH SCHEDULE.
 - DOOR TYPE
 - REQUIRED 30"x48" CLEAR FLOOR SPACE - 48" SHALL BE CENTERED AT APPLIANCES AND SINKS
 - ACCESSIBLE ROUTE, MINIMUM 36" CLEAR
 - WINDOW TYPE. SEE A700 SERIES SHEETS FOR SIZES, SIZES & LOCATIONS SHOWN FOR REFERENCE ONLY.
 - WINDOW TYPE. SEE A700 SERIES SHEETS FOR SIZES, SIZES & LOCATIONS SHOWN FOR REFERENCE ONLY. (NOISE MITIGATION = OITC 27)

#	DATE	CHANGE DESCRIPTION
1	04/21/2022	ADDENDUM #02



COLUMBUS METROPOLITAN HOUSING AUTHORITY
COMMUNITY. COMMITMENT. COLLABORATION.



HARRIET'S HOPE
1581 W. BROAD STREET
COLUMBUS, OH 43222
FOR
CMHA



300 SPRUCE STREET
SUITE 300
COLUMBUS, OHIO 43215
PHONE: (614) 461-4664
FAX: (614) 280-8881

DRAWING TITLE:
LEVEL 01 - FLOOR PLAN - OVERALL

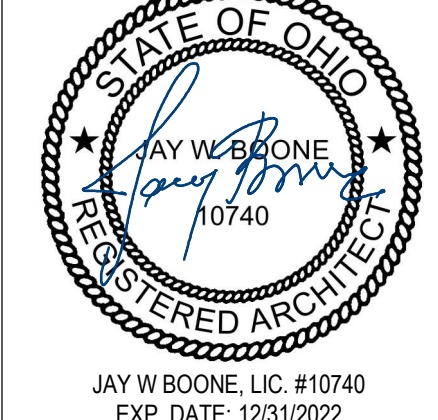
DATE: **APRIL 4, 2022**

DRAWN BY: XXXX
CHECKED BY: XXXX

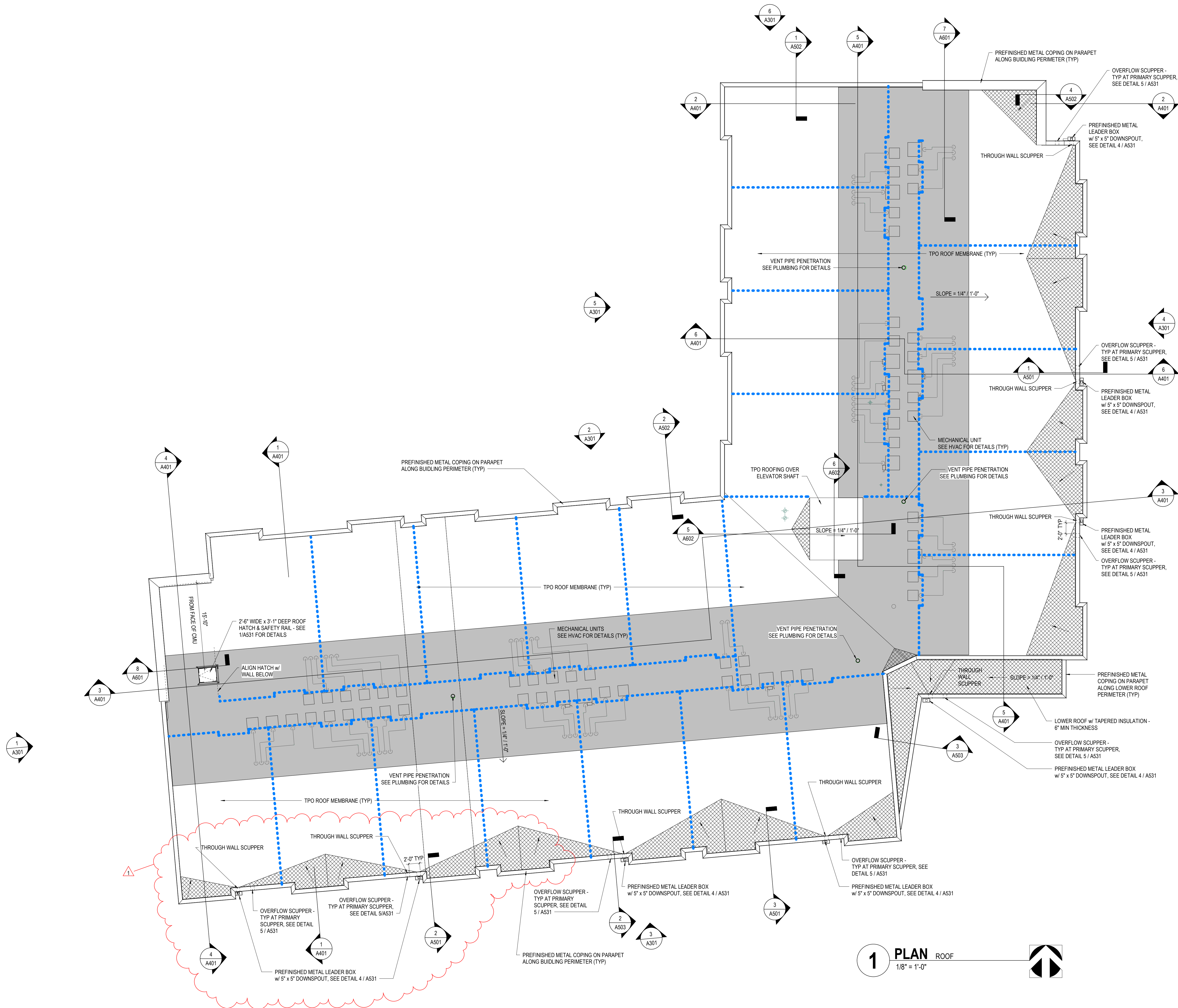
Proj. #20643

A101

PERMIT & BID SET



JAY W. BOONE, LIC. #10740
EXP. DATE: 12/31/2022



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

- GENERAL NOTES - ROOF PLAN**
- SEE STRUCTURAL DRAWINGS FOR TOP OF BEARING (T.O.B.) AT ALL PROPOSED ROOFS.
 - REFER TO MECHANICAL AND ARCHITECTURAL DRAWINGS FOR PIPE PENETRATION DETAIL AT ROOF.
 - REFER TO PLUMBING, HVAC AND ELECTRICAL DRAWINGS FOR INFORMATION REGARDING ROOF MOUNTED EQUIPMENT AND ALL REQUIRED ROOF PENETRATIONS.
 - INSTALL ROOF SADDLE OR CRICKET AT LOCATIONS ON ROOF WHERE EQUIPMENT ROOF PENETRATIONS BLOCKS DOWN FLOW OF WATER TO DRAINS.
 - GRAPHIC REPRESENTATION OF TAPERED INSULATION IS SIMPLIFIED AND SHALL SERVE FOR REFERENCE ONLY. IT IS CONTRACTOR RESPONSIBILITY TO PROVIDE POSITIVE DRAINAGE TO ROOF OR DECK DRAINS AT SLOPE 1/4" PER FOOT MINIMUM ON THE ENTIRE ROOF.
 - ROOFING ASSEMBLY SHALL CONTAIN A MINIMUM R-30 CONTINUOUS INSULATION ABOVE DECK.
 - ALL MECHANICAL EQUIPMENT SHALL BE LOCATED A MINIMUM OF 10'-0" AWAY FROM ROOF EDGES TO AVOID GUARDRAILS AS REQUIRED BY CODE.
 - SEE A500 SERIES SHEETS FOR TYPICAL ROOF DETAILS.
 - REFER TO TYPICAL PROJECT DETAILS FOR ADDITIONAL RADON MITIGATION SYSTEM INFORMATION.

- ROOF PLAN LEGEND**
- WEAR MEMBRANE. PROVIDE WITHIN 10' OF ALL ROOFTOP MECHANICAL UNITS.
 - TAPERED ROOF INSULATION. MINIMUM SLOPE 1/4":12"
 - WOOD DRAFT STOPPING SEALED TO UNDERSIDE OF ROOF DECK. UNLESS OTHERWISE DICTATED ON STRUCTURAL DRAWINGS, ASSEMBLY TO BE 2X FRAMING/PLYWOOD. SEALED TO ROOF DECK WITH FIRE CAULKING TO PROVIDE COMPARTMENTAL SMOKE SEPARATION. IN RATED PARTITION LOCATIONS, RATED ASSEMBLY PARTITION SHALL TERMINATE TO THE UNDERSIDE OF THE ROOF SHEATHING AND SERVE AS DRAFT STOPPING.

#	DATE	CHANGE DESCRIPTION
1	04/21/2022	ADDENDUM #02

COLUMBUS METROPOLITAN HOUSING AUTHORITY
COMMUNITY. COMMITMENT. COLLABORATION.

HARRIET'S HOPE
1581 W. BROAD STREET
COLUMBUS, OH 43222
FOR
CMHA

300 SPRUCE STREET
SUITE 300
COLUMBUS, OHIO 43215

PHONE: (614) 461-4664
FAX: (614) 280-8881

DRAWING TITLE: **ROOF PLAN - OVERALL**

JAY W. BOONE, LIC. #10740
EXP. DATE: 12/31/2022

APRIL 4, 2022

DRAWN BY: Author CHECKED BY: Checker

Proj. #20643

A104

PERMIT & BID SET



GENERAL NOTES - EXTERIOR ELEVATIONS

- REFER TO A700 SERIES FOR WINDOW AND DOOR DETAILS.
- REFER TO REFLECTED CEILING PLANS FOR EXTERIOR SOFFIT INFORMATION
- SEE ELEVATIONS AND STRUCTURAL DRAWINGS FOR LOCATIONS OF EXPANSION AND CONTROL JOINTS. CONTRACTOR SHALL PROVIDE ADDITIONAL INTERIOR CONTROL JOINTS AS REQUIRED TO COMPLY WITH MAXIMUM SPACING REQUIREMENTS IN SPECIFICATIONS AND NATIONAL MASONRY INSTITUTE. PROVIDE CONTROL JOINTS AT ALL MASONRY REINFORCED CORNERS
- ALL RESIDENTIAL WINDOWS TO RECEIVE WINDOW TREATMENTS.
- 4" WIDE MIN. VINYL CORNER TRIM TYPICAL AT ALL 90 DEGREE CORNERS WHERE FINISH MATERIAL IS VINYL SIDING.
- PROVIDE SIDING IN THREE (3) COLORS FROM MANUFACTURER'S STANDARD SELECTION OF COLORS.
- REFER TO A500 SERIES FOR TYPICAL EXTERIOR WALL ASSEMBLIES.

EXTERIOR GLAZING TYPES

	IG-1 EXTERIOR INSULATED GLAZING
	IG-1A EXTERIOR INSULATED GLAZING (NOISE MITIGATION = OITC 27)
	IG-2 EXTERIOR INSULATED GLAZING (SAFETY)
	IG-3 EXTERIOR INSULATED GLAZING (SPANDREL - COLOR BY ARCHITECT)

#	DATE	CHANGE DESCRIPTION
1	04/21/2022	ADDENDUM #02

COLUMBUS METROPOLITAN HOUSING AUTHORITY
COMMUNITY COMMITMENT. COLLABORATION.

HARRIET'S HOPE
1581 W. BROAD STREET
COLUMBUS, OH 43222
FOR
CMHA

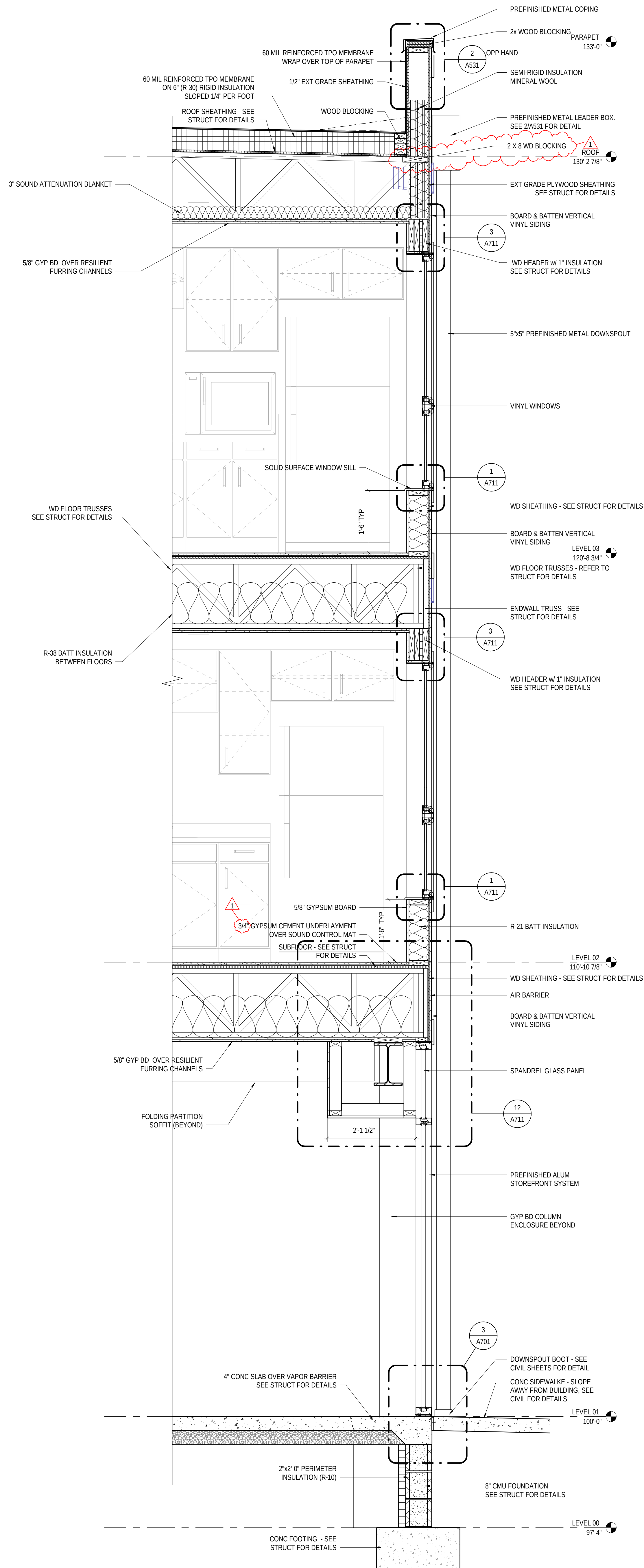
MOODY-NOLAN

300 SPRUCE STREET
SUITE 300
COLUMBUS, OHIO 43215
PHONE: (614) 461-4664
FAX: (614) 280-8881

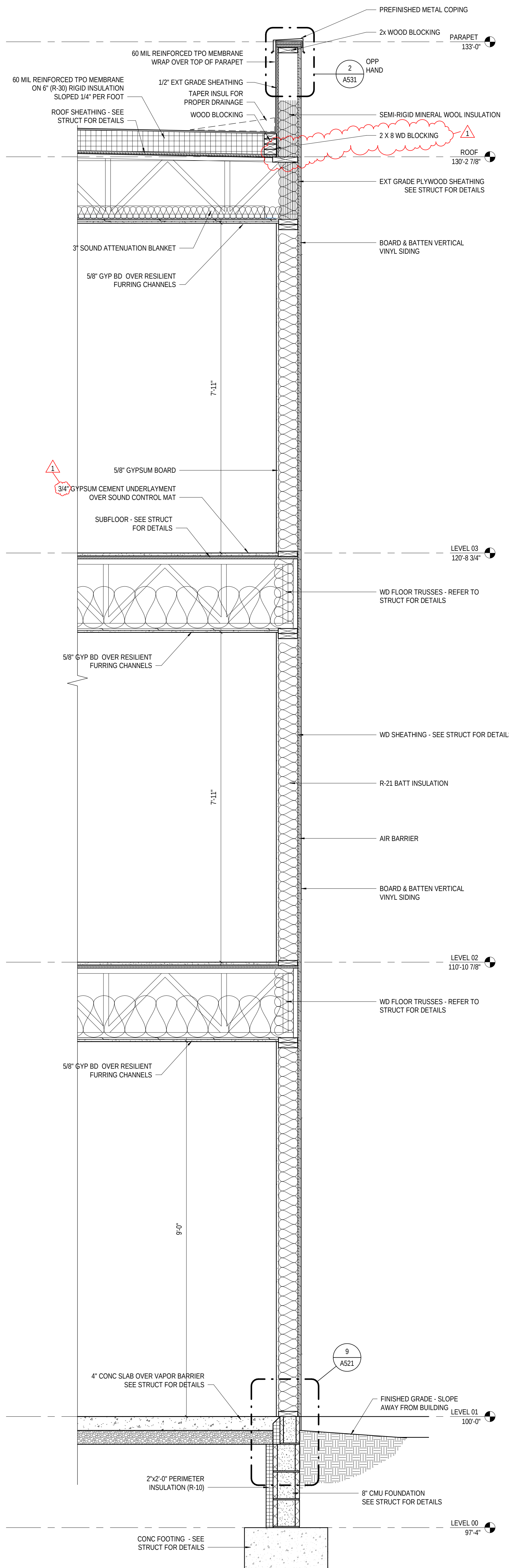
DRAWING TITLE:
**EXTERIOR ELEVATIONS -
OVERALL**

JAY W. BOONE, LIC. #10740
EXP. DATE: 12/31/2022

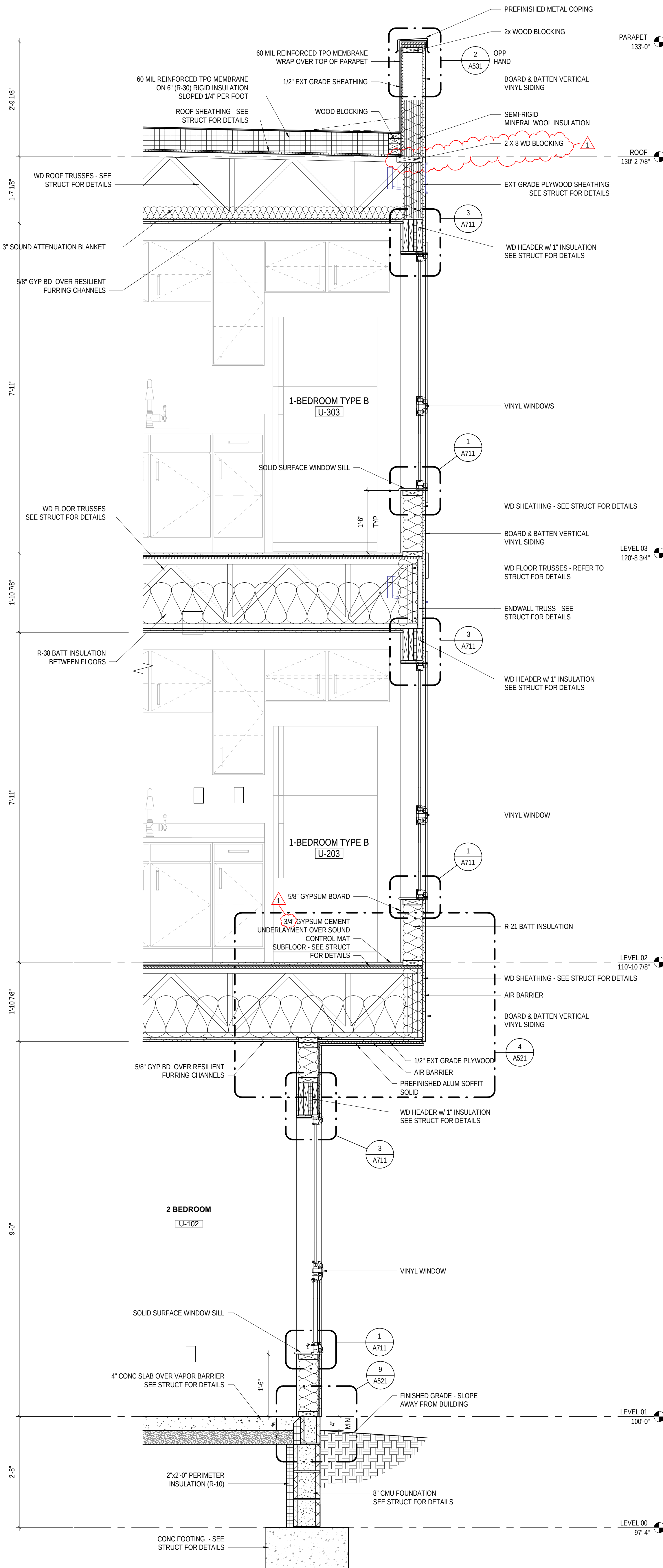
APRIL 4, 2022
DRAWN BY: XXX
CHECKED BY: XXX
Proj. #20643
A301
PERMIT & BID SET



3 SECTION
3/4" = 1'-0"
WALL SECTION @ SOUTH STOREFRONT
REF: 1 / A101



2 SECTION
3/4" = 1'-0"
WALL SECTION - TYPICAL
REF: 1 / A101



1 SECTION
3/4" = 1'-0"
WALL SECTION @ BUILDING OVERHANG
REF: 1 / A101

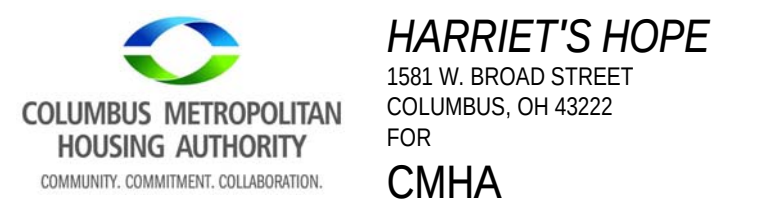
GENERAL NOTES - WALL SECTIONS

A. REFER TO GEOTECHNICAL REPORT AS INCLUDED IN THE CONTRACT DOCUMENTS.

GENERAL NOTES- BLDG ENVELOPE

IN ACCORDANCE WITH ASHRAE 90.1-2010 (5.4.3.1) BUILDING ENVELOPE SEALING, THE FOLLOWING AREAS OF THE BUILDING ENVELOPE SHALL BE SEALED, CAULKED, GASKETED, OR WEATHER-STRIPPED TO MINIMIZE AIR LEAKAGE:
A. JOINTS AROUND FENESTRATION AND DOOR FRAMES.
B. JUNCTIONS BETWEEN WALLS AND FOUNDATIONS, BETWEEN WALLS AT BUILDING CORNERS, BETWEEN WALLS AND STRUCTURAL FLOORS OR ROOFS, AND BETWEEN WALLS AND ROOF OR WALL PANELS.
C. OPENINGS AT PENETRATIONS OF UTILITY SERVICES THROUGH ROOFS, WALLS, AND FLOORS.
D. SITE-BUILT FENESTRATION AND DOORS.
E. BUILDING ASSEMBLIES USED AS DUCTS OR PLENUMS.
F. JOINTS, SEAMS, AND PENETRATIONS OF VAPOR RETARDERS.
G. ALL OTHER OPENINGS IN THE BUILDING ENVELOPE.
H. SEAL DUCT BOOTHS AT PENETRATIONS THROUGH DRYWALL/SUBFLOOR (BEFORE INSTALLING SUPPLY AND RETURN GRILLS).
I. ALL WALLS TOPS INCLUDING STOREFRONT ASSEMBLIES SHALL BE ATTACHED WITH A MINIMUM OF TWO 2x2 TOP PLATES.
J. SEE "WALL DETAILS" SHEET FOR TYPICAL EXTERIOR WALLS.
K. BATT INSULATION AT EXTERIOR WALLS TO BE A MINIMUM OF R-19. BATT INSULATION AT ROOF ATTICS TO BE A MINIMUM OF R-38 ADJACENT TO UNIT BALCONIES. AVERAGE INSULATION AT FLAT ROOFS AND SLOPED ROOFS ABOVE THE WOOD SHEATHING TO BE A MIN OF R-25.
L. SEE 1/A501 FOR TYPICAL EXTERIOR WALL ASSEMBLIES.

#	DATE	CHANGE DESCRIPTION
1	04/21/2022	ADDENDUM #02

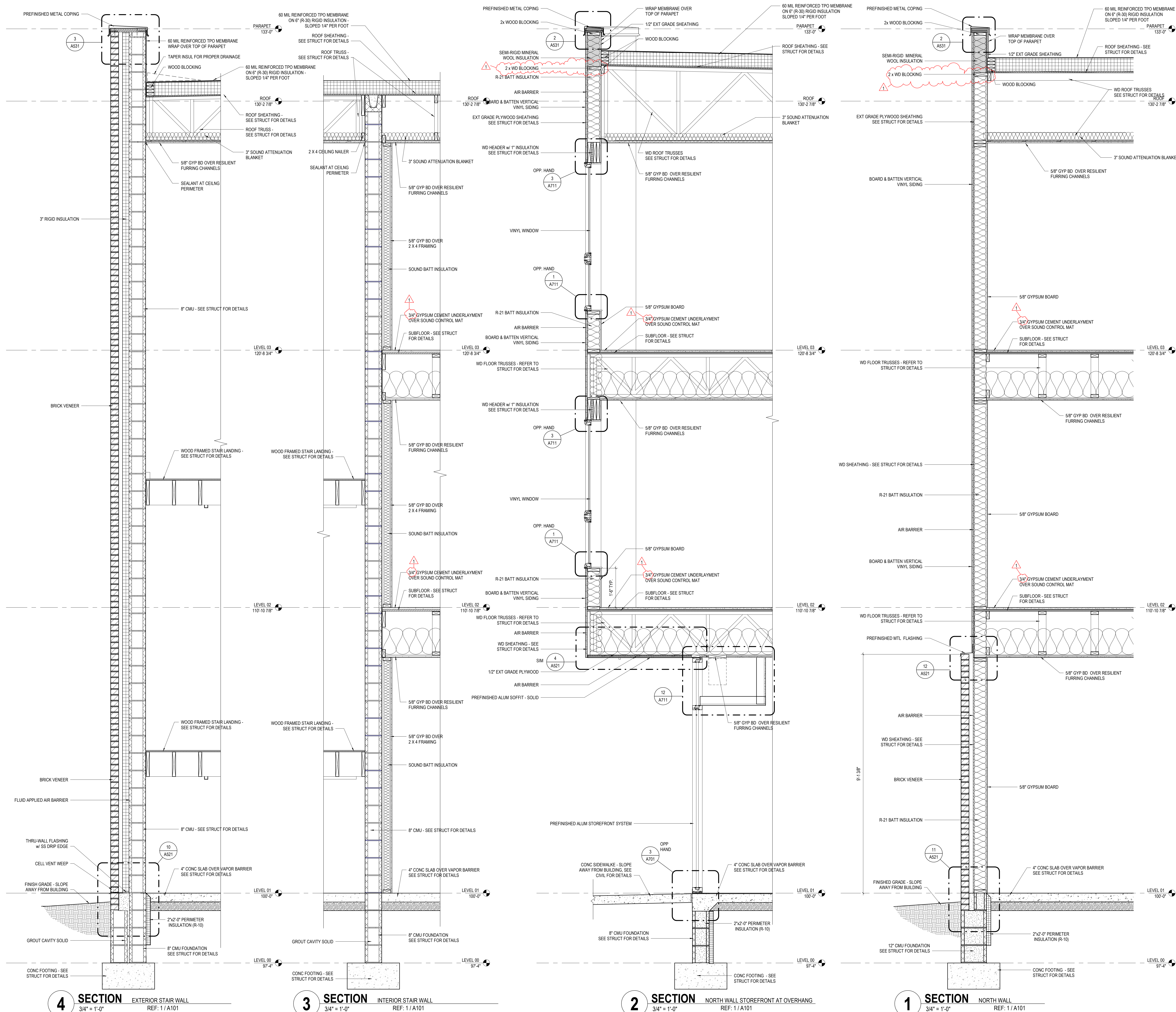


MOODY-NOLAN
300 SPRUCE STREET
SUITE 300
COLUMBUS, OHIO 43215
PHONE: (614) 461-4664
FAX: (614) 280-8881

DRAWING TITLE:

WALL SECTIONS

	APRIL 4, 2022
	DRAWN BY: XXXX CHECKED BY: XXXX
	Proj. #20643
	A501
JAY W. BOONE, LIC. #10740 EXP. DATE: 12/31/2022	PERMIT & BID SET



GENERAL NOTES - WALL SECTIONS

- A. REFER TO GEOTECHNICAL REPORT AS INCLUDED IN THE CONTRACT DOCUMENTS.

GENERAL NOTES- BLDG ENVELOPE

- IN ACCORDANCE WITH ASHRAE 90.1-2010 (5.4.3.1) BUILDING ENVELOPE SEALING, THE FOLLOWING AREAS OF THE BUILDING ENVELOPE SHALL BE SEALED, CAULKED, GASKETED, OR WEATHER-STRIPPED TO MINIMIZE AIR LEAKAGE:
- A. JOINTS AROUND FENESTRATION AND DOOR FRAMES.
 - B. JUNCTIONS BETWEEN WALLS AND FOUNDATIONS, BETWEEN WALLS AT BUILDING CORNERS, BETWEEN WALLS AND STRUCTURAL FLOORS OR ROOFS, AND BETWEEN WALLS AND ROOF OR WALL PANELS.
 - C. OPENINGS AT PENETRATIONS OF UTILITY SERVICES THROUGH ROOFS, WALLS, AND FLOORS.
 - D. SITE-BUILT FENESTRATION AND DOORS.
 - E. BUILDING ASSEMBLIES USED AS DUCTS OR PLENUMS.
 - F. JOINTS, SEAMS, AND PENETRATIONS OF VAPOR RETARDERS.
 - G. ALL OTHER OPENINGS IN THE BUILDING ENVELOPE.
 - H. SEAL DUCT BOOTS AT PENETRATIONS THROUGH DRYWALL/SUBFLOOR (BEFORE INSTALLING SUPPLY AND RETURN GRILLS).
 - I. ALL WALLS TOPS INCLUDING STOREFRONT ASSEMBLIES SHALL BE ATTACHED WITH A MINIMUM OF TWO (2) TOP PLATES.
 - J. SEE "WALL DETAILS" SHEET FOR TYPICAL EXTERIOR WALLS.
 - K. BATT INSULATION AT EXTERIOR WALLS TO BE A MINIMUM OF R-19. BATT INSULATION AT ROOF ATTICS TO BE A MINIMUM OF R-38 ADJACENT TO UNIT BALCONIES. AVERAGE INSULATION AT FLAT ROOFS AND SLOPED ROOFS ABOVE THE WOOD SHEATHING TO BE A MIN OF R-25.
 - L. SEE 1/A501 FOR TYPICAL EXTERIOR WALL ASSEMBLIES.

DATE CHANGE DESCRIPTION

1	04/21/2022	ADDENDUM #02



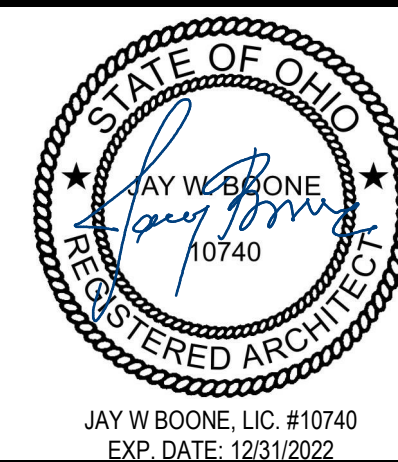
HARRIET'S HOPE
1581 W. BROAD STREET
COLUMBUS, OH 43222
FOR
CMHA



300 SPRUCE STREET
SUITE 300
COLUMBUS, OHIO 43215
PHONE: (614) 461-4664
FAX: (614) 280-8881

DRAWING TITLE:

WALL SECTIONS



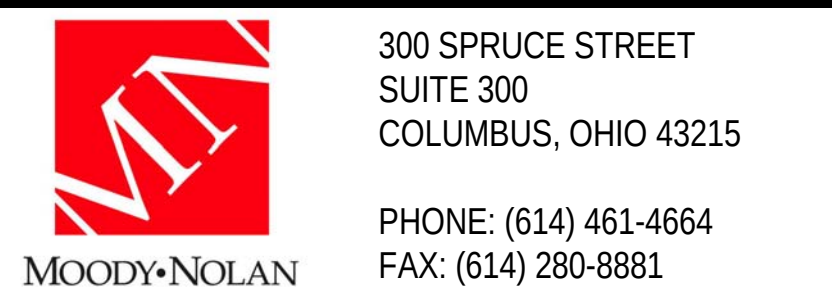
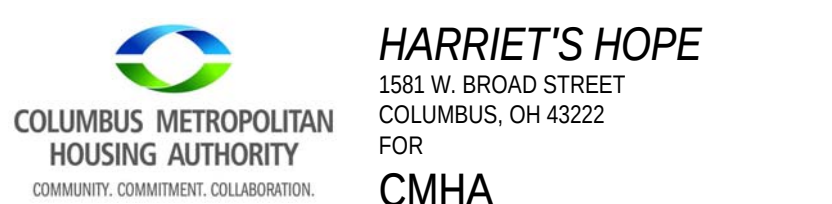
APRIL 4, 2022
DRAWN BY: XXXX
CHECKED BY: XXXX
Proj. #20643
A502
PERMIT & BID SET
JAY W. BOONE, LIC. #10740
EXP. DATE: 12/31/2022



A. REFER TO GEOTECHNICAL REPORT AS INCLUDED IN THE CONTRACT DOCUMENTS.

KEY VALUE	KEYNOTE TEXT
-----------	--------------

#	DATE	CHANGE DESCRIPTION
1	04/21/2022	ADDENDUM #02



DRAWING TITLE:

WALL SECTIONS

	APRIL 4, 2022
--	---------------

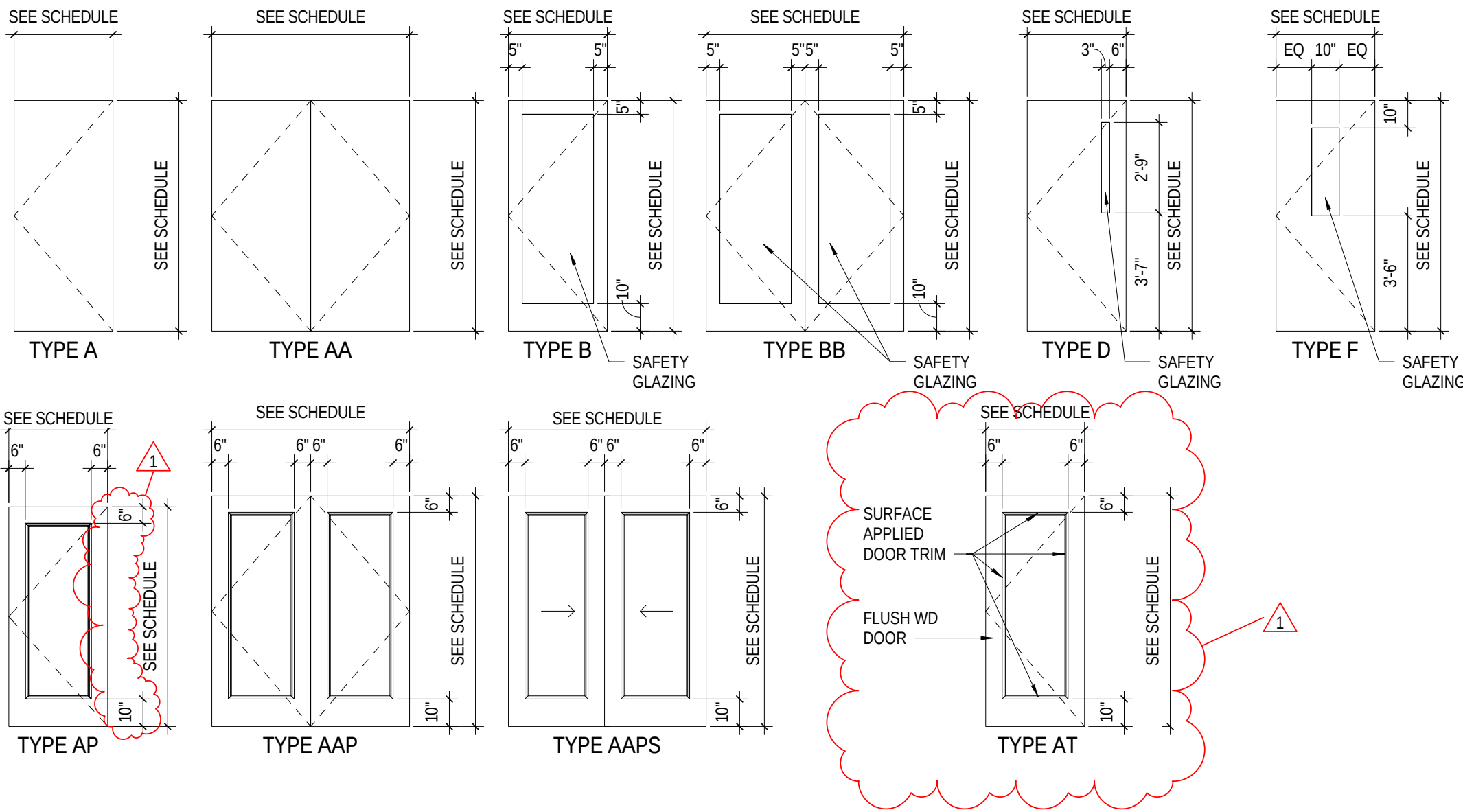
	DRAWN BY: XXX	CHECKED BY: X

	Proj. #20643
---	--------------

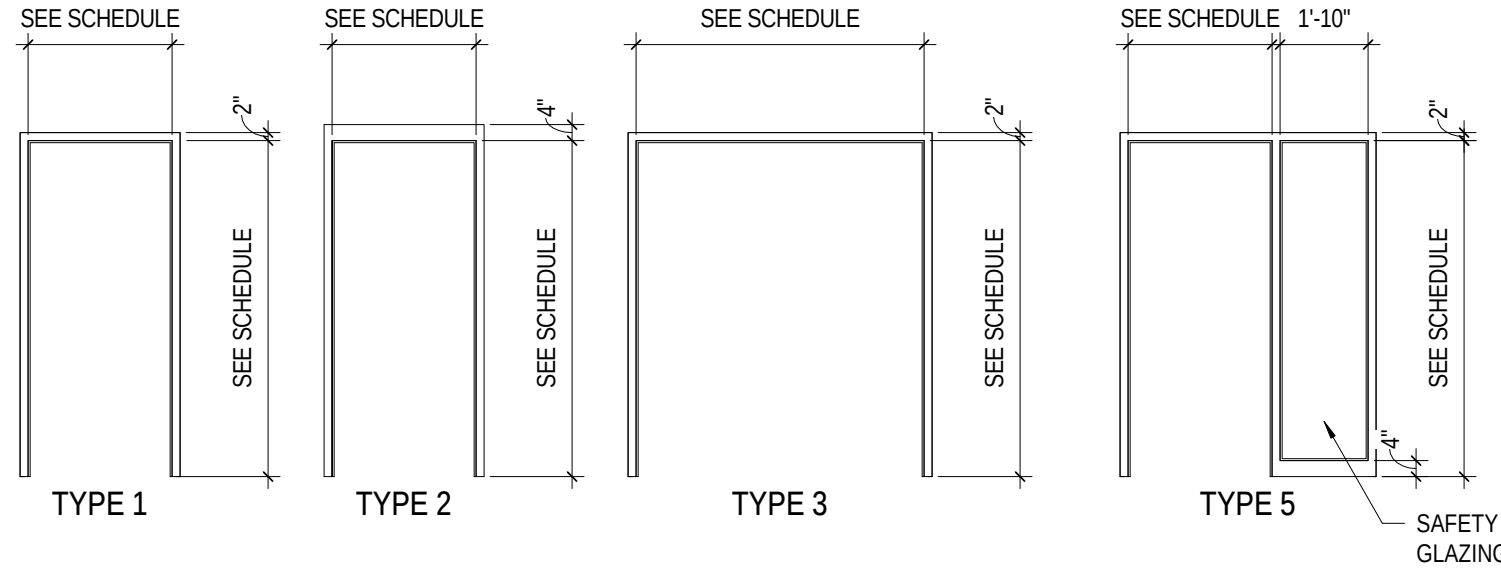
Gregory **A503**

JAY W BOONE, LIC. #10740 EXP. DATE: 12/31/2022	PERMIT & BID SET
---	------------------

DOOR PANEL TYPE LEGEND

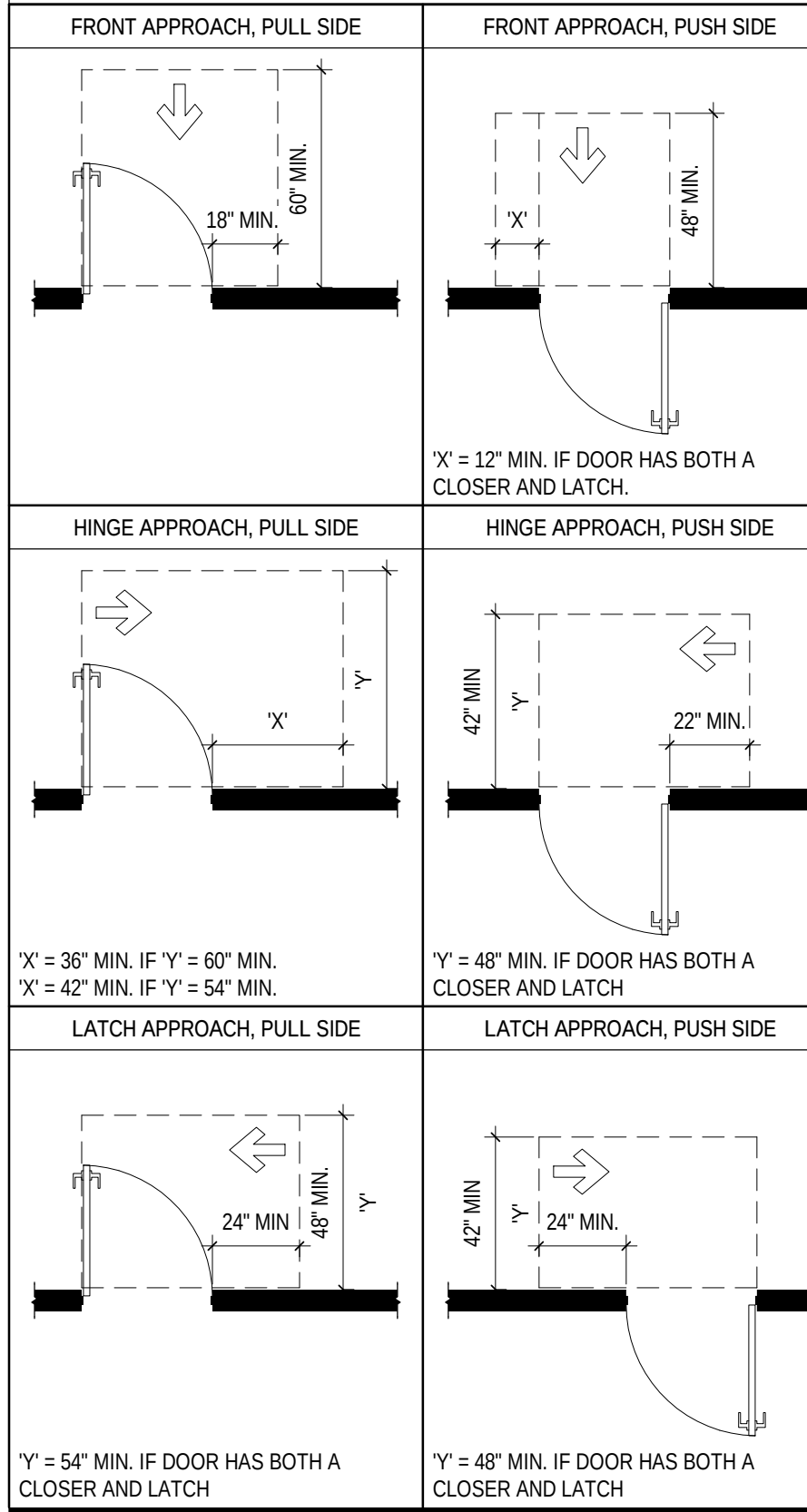


DOOR FRAME TYPE LEGEND

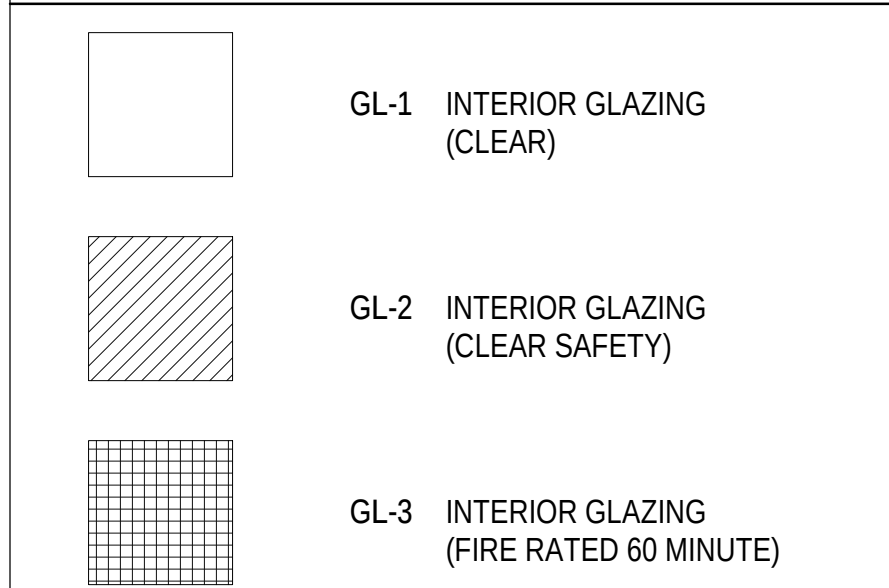


DOOR SCHEDULE												
DOOR				FRAME		FIRE RATING (MINUTES)	HDW SET	DETAILS - SHEET A710				REMARKS
NUMBER	ROOM NAME	WIDTH	HEIGHT	MATERIAL	ELEV			HEAD	JAMB	SILL		
AD-101	ADMIN	3'-0"	7'-0"	WD	A	HM	5	-	3	2	1	-
C-100	CORRIDOR	3'-0"	7'-0"	WD	A	HM	1	60	8	10	9	-
C-101	CORRIDOR	3'-0"	7'-0"	WD	A	HM	1	60	8	10	9	-
C-102	CORRIDOR	3'-0"	7'-0"	HM	A	HM	2	-	20	20	19	2/A701
CR-100A	COMMUNITY ROOM	3'-0"	7'-0"	WD	A	HM	5	60	16	10	9	-
CR-100B	COMMUNITY ROOM	3'-0"	7'-0"	ALUM	B	ALUM	6/A701	-	14	28	27	1/A701
CR-101A	COMMUNITY ROOM	3'-0"	7'-0"	WD	A	HM	5	60	16	10	9	-
CR-101B	COMMUNITY ROOM	3'-0"	7'-0"	ALUM	B	ALUM	6/A701	-	14	28	27	1/A701
E-100	ELEC	3'-0"	7'-0"	HM	A	HM	1	90	17	30	29	-
E-200	ELEC	3'-0"	7'-0"	HM	A	HM	1	60	17	10	9	-
E-300	ELEC	3'-0"	7'-0"	HM	A	HM	1	60	17	10	9	-
EL-100A	ELEV.	4'-0"	7'-0"	SS	BY MFR	SS	BY MFR	60	18	8/A620	7/A620	9/A620
EL-100B	ELEV.	3'-0"	7'-0"	HM	A	HM	2	60	12	4	3	-
EL-200	ELEV	4'-0"	7'-0"	SS	BY MFR	SS	BY MFR	60	18	8/A620	7/A620	9/A620
EL-300	ELEV	4'-0"	7'-0"	SS	BY MFR	SS	BY MFR	60	18	8/A620	7/A620	9/A620
J-101	JAN	3'-0"	7'-0"	HM	A	HM	1	-	9	2	1	-
J-201	JAN	3'-0"	7'-0"	HM	A	HM	1	-	10	2	1	-
J-301	JAN	3'-0"	7'-0"	HM	A	HM	1	-	10	2	1	-
L-100	LAUNDRY	3'-0"	7'-0"	HM	A	HM	1	20	4	10	9	-
L-101	LAUNDRY	3'-0"	7'-0"	HM	A	HM	1	20	4	10	9	-
L-200	LAUNDRY	3'-0"	7'-0"	HM	A	HM	1	20	4	10	9	-
L-300	LAUNDRY	3'-0"	7'-0"	HM	A	HM	1	20	4	10	9	-
M-101A	MECH	3'-0"	7'-0"	HM	A	HM	1	9	2	1	1	-
M-101B	MECHELEC	3'-0"	7'-0"	HM	A	HM	1	60	15	10	9	-
M-200	MECH	6'-0"	7'-0"	HM	AA	HM	3	20	13	10	9	-
M-300	MECH	6'-0"	7'-0"	HM	AA	HM	3	20	13	10	9	-
MG-101A	MEETING	3'-0"	7'-0"	WD	A	HM	5	-	1	24	18	-
MG-101B	MEETING	3'-0"	7'-0"	WD	A	HM	5	-	1	24	18	-
MG-101C	MEETING	3'-0"	7'-0"	WD	A	HM	5	-	1	24	18	-
MG-101D	MEETING	3'-0"	7'-0"	WD	A	HM	5	-	1	2	1	-
MT-101	MAINT	3'-0"	7'-0"	WD	F	HM	1	-	3	2	1	-
PA-100	PARCEL/STORAGE	3'-0"	7'-0"	HM	A	HM	1	-	6	2	1	-
S-100	STORAGE	3'-0"	7'-0"	HM	A	HM	1	-	9	2	1	-
S-101A	STORAGE	3'-0"	7'-0"	HM	A	HM	1	-	5	2	1	-
S-101B	STORAGE	3'-0"	7'-0"	HM	A	HM	1	-	5	2	1	-
S-101C	STORAGE	3'-0"	7'-0"	HM	A	HM	1	-	7	2	1	-
ST-100A	STAIR	3'-0"	7'-0"	HM	D	HM	2	60	22	4	3	-
ST-100B	STAIR	3'-0"	7'-0"	HM	A	HM	2	60	26	25	2/A701	-
ST-101A	STAIR	3'-0"	7'-0"	HM	D	HM	2	60	22	4	3	2/A701
ST-101B	STAIR	3'-0"	7'-0"	HM	A	HM	2	-	20	26	25	-
ST-200	STAIR	3'-0"	7'-0"	HM	D	HM	2	60	22	4	3	-
ST-201	STAIR	3'-0"	7'-0"	HM	D	HM	2	60	23	4	3	-
ST-300	STAIR	3'-0"	7'-0"	HM	D	HM	2	60	22	4	3	-
ST-301	STAIR	3'-0"	7'-0"	HM	D	HM	2	60	22	4	3	-
T-101A	TOILET	3'-0"	7'-0"	WD	A	HM	1	-	24	2	1	-
T-101B	TOILET	3'-0"	7'-0"	WD	A	HM	1	-	24	2	1	-
V-101A	VESTIBULE	6'-0"	7'-0"	ALUM	BB	ALUM	7/A701	-	19	28	27	1/A701
V-101B	VESTIBULE	6'-0"	7'-0"	ALUM	BB	ALUM	8/A701	-	21	28	21	-
W-101A	WORK	3'-0"	7'-0"	WD	A	HM	1	-	2	2	1	-
W-101B	WORK	3'-0"	7'-0"	WD	A	HM	1	-	2	2	1	-
WA-100	WATER	4'-0"	7'-0"	HM	A	HM	2	-	11	20	19	2/A701

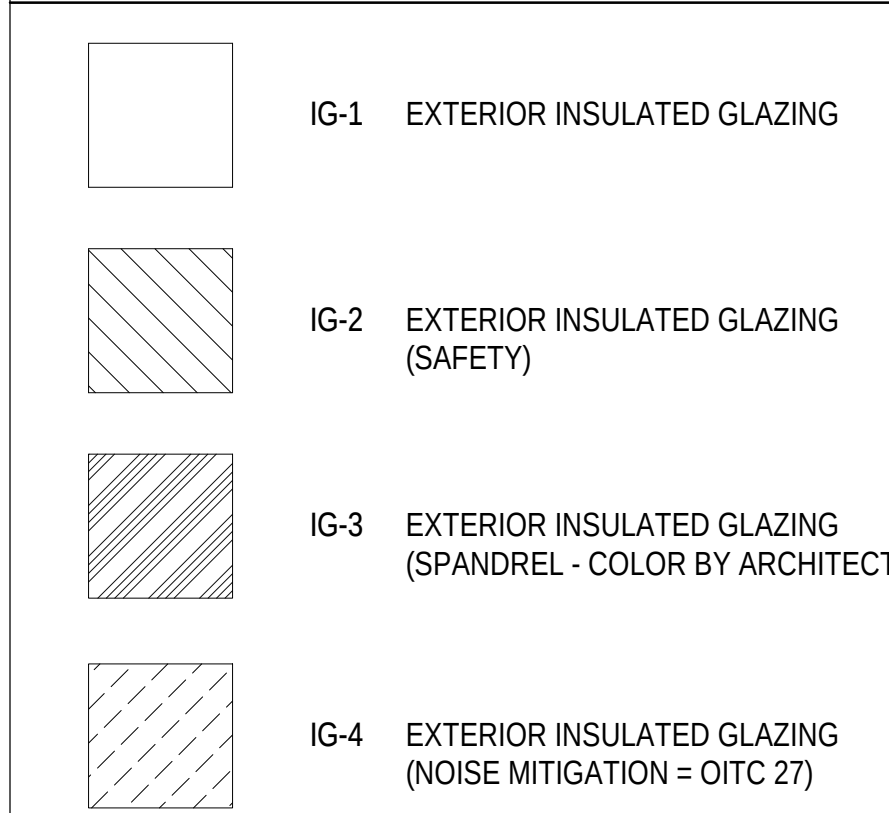
DOOR CLEARANCES



INTERIOR GLAZING TYPES



EXTERIOR GLAZING TYPES



SAFETY GLAZING
Based on 2006 IBC

All glazing, including plastic glazing shall meet all applicable Codes and regulations. As a MINIMUM all glazing at the following locations shall be safety glazing.

DOORS - Glazing in doors (swinging, sliding, storm, or other, except curved glazing at revolving doors).

SIDELIGHTS - Glazing in sidelights adjacent to a door.

ADJACENT TO DOORS - All glazing within 24" of a closed door if the glazing is within 60" of the floor measured vertically.

WALKING SURFACE - Glazing greater than 9 square feet in area if the bottom of the glazing is less than 18" AFF, and the top of the glazing is more than 36" AFF, and there is a walking surface within 36" of the glazing measured horizontally.

MIRRORS - Glazing at mirrors without continuous backing.

ELEVATORS - All glazing at elevator shafts and elevator cabs shall be laminated safety glazing.

#	DATE	CHANGE DESCRIPTION
1	04/21/2022	ADDENDUM #02

COLUMBUS METROPOLITAN HOUSING AUTHORITY
COMMUNITY. COMMITMENT. COLLABORATION.

HARRIET'S HOPE
1581 W. BROAD STREET
COLUMBUS, OH 43222
FOR
CMHA

MOODY-NOLAN

300 SPRUCE STREET
SUITE 300
COLUMBUS, OHIO 43215

PHONE: (614) 461-4664
FAX: (614) 280-8881

DRAWING TITLE:

DOOR & WINDOW SCHEDULES

APRIL 4, 2022

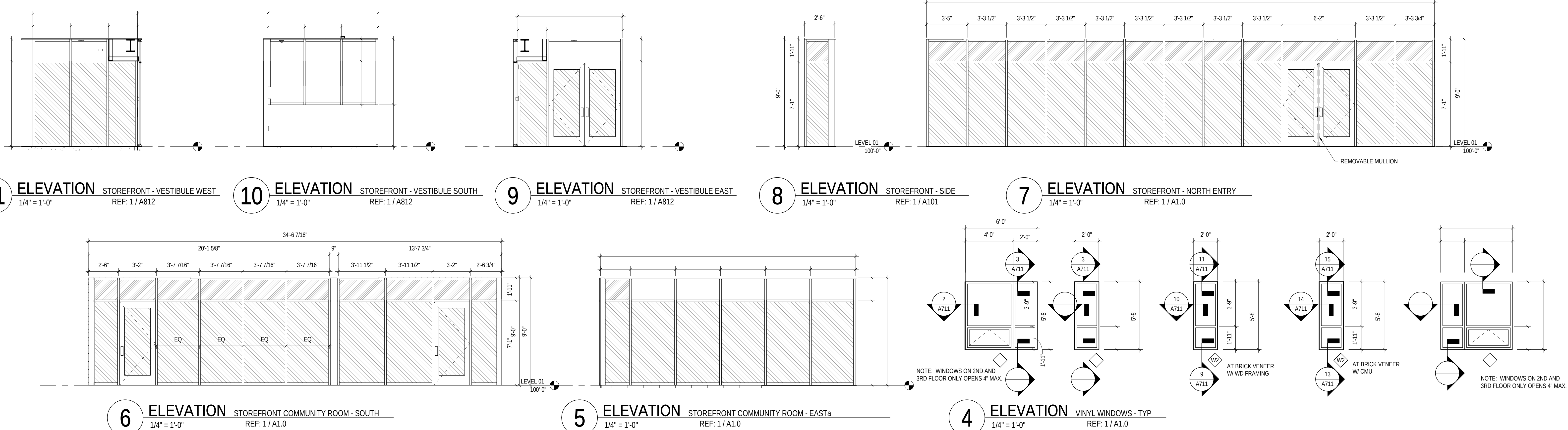
DRAWN BY: XXX CHECKED BY: XXX

Proj. #20643

A701

PERMIT & BID SET

JAY W. BOONE, LIC. #10740
EXP. DATE: 12/31/2022



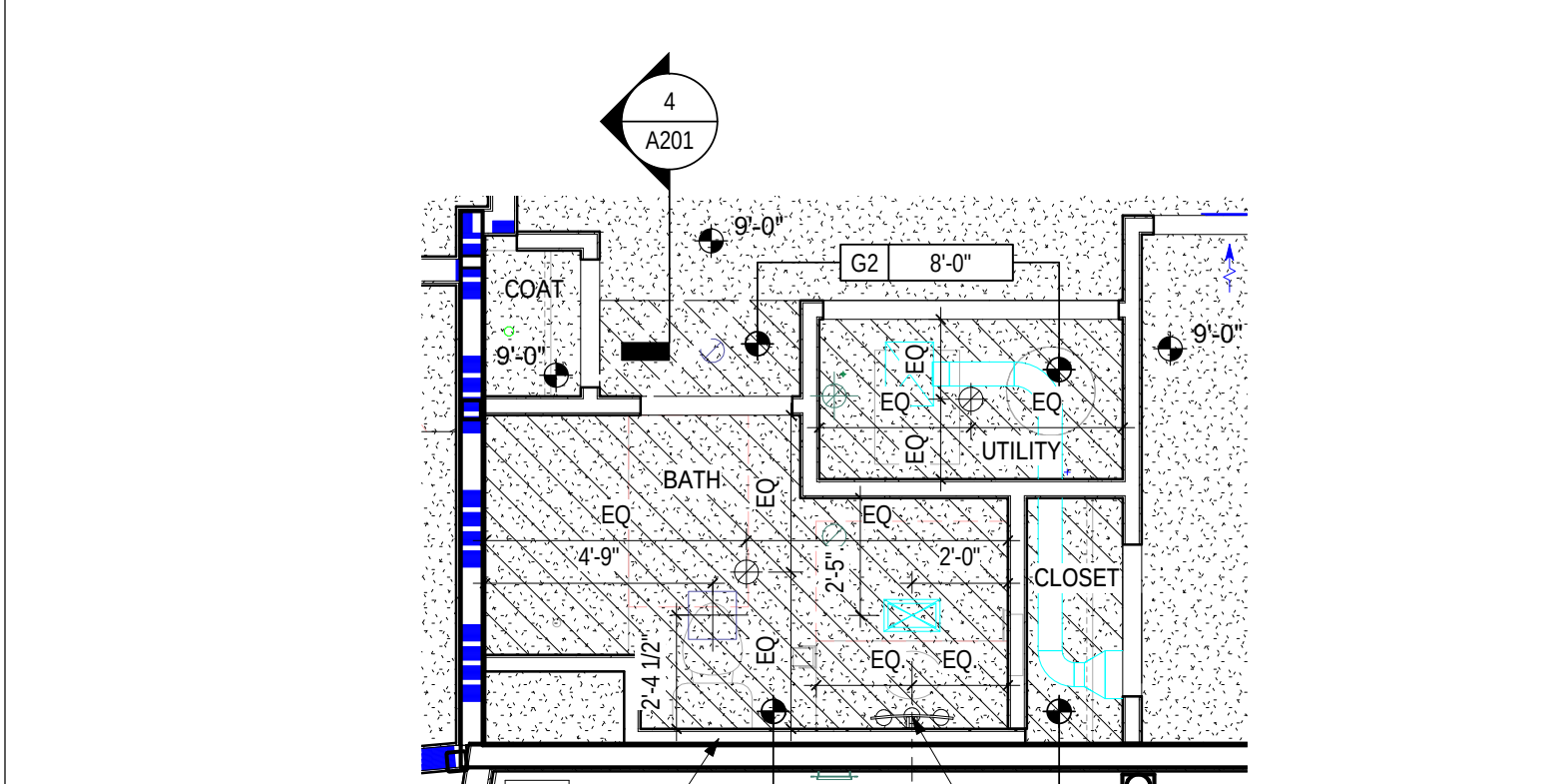
TYPICAL RESIDENTIAL DOOR SCHEDULE														
MARK	DOOR TYPE	DOOR			FRAME			FIRE RATING	H/DW SET	DETAILS - SHEET A710			REMARKS	
		WIDTH	HEIGHT	THICKNESS	MATERIAL	ELEV	MATERIAL			HEAD	JAMB	SILL		
U-A	UNIT ENTRY	3'-0"	6'-8"	1 3/4"	ID	AT	HM	1	20 MIN	U1	10	9	UNIT ENTRANCE DOOR, ALL UNIT TYPES	
U-BA	BATHROOM	3'-0"	6'-8"	1 3/4"	ID	AP	WD	1	U3	8	7		ALL UNIT TYPES, ALL BATH LOCATIONS	
U-B01	BEDROOM	3'-0"	6'-8"	1 3/4"	ID	AP	WD	1	U3	8	7		ALL UNIT TYPES, 90 DEGREE DOOR SWING	
U-B02	BEDROOM	3'-0"	6'-8"	1 3/4"	ID	AP	WD	1	U3	8	7		ALL UNIT TYPES, 140 DEGREE DOOR SWING	
U-B03	BEDROOM	3'-0"	6'-8"	1 3/4"	ID	AP	WD	1	U3	8	7		ALL UNIT TYPES, 180 DEGREE DOOR SWING	
U-CL1	CLOSET	3'-0"	6'-8"	1 3/4"	ID	AP	WD	1	U2	8	7		SINGLE SWING DOOR, TYPE A UNIT, ACCESSIBLE LOCATIONS, U.O.	
U-CL2	CLOSET	5'-0"	6'-8"	1 3/4"	ID	AAPS	WD	3	U5	14	13		BYPASS DOOR, TYPE B UNITS	
U-CL3	CLOSET	5'-0"	6'-8"	1 3/4"	ID	AAP	WD	3	U4	8	7		DOUBLE SWING DOOR, TYPE A UNIT, ACCESSIBLE LOCATIONS	
U-CL4	CLOSET	6'-0"	6'-8"	1 3/4"	ID	AAPS	WD	3	U5	14	13		BYPASS DOOR, TYPE B UNITS	
U-CO1	COAT	2'-6"	6'-8"	1 3/4"	ID	AP	WD	1	U2	8	7		ALL UNIT TYPES	
U-UT1	UTILITY	5'-0"	6'-8"	1 3/4"	ID	AAP	WD	3	U4	8	7		DOUBLE SWING DOOR, TYPE A UNIT, ACCESSIBLE LOCATIONS	
U-UT2	UTILITY	6'-0"	6'-8"	1 3/4"	ID	AAPS	WD	3	U5	14	13		BYPASS DOOR, TYPE B UNITS	

• PROVIDE A ROBE HOOK ON THE DOOR OF BATH ROOMS. HOOK TO FACE SIDE OF TOILET AREA.
• ALL DOOR WIDTHS IN OCCUPIED ROOMS OF BUILDING TO BE 32" MIN CLEAR.
• ALL DOORS PROVIDING ACCESS TO RESIDENTIAL SPACES TO BE PAINTED.
• HM = HOLLOW METAL, WD = WOOD, ID = INTERIOR DOOR (WOOD, SOLID CORE)
• SEE SHEET A701 FOR DOOR AND FRAME ELEVATIONS.

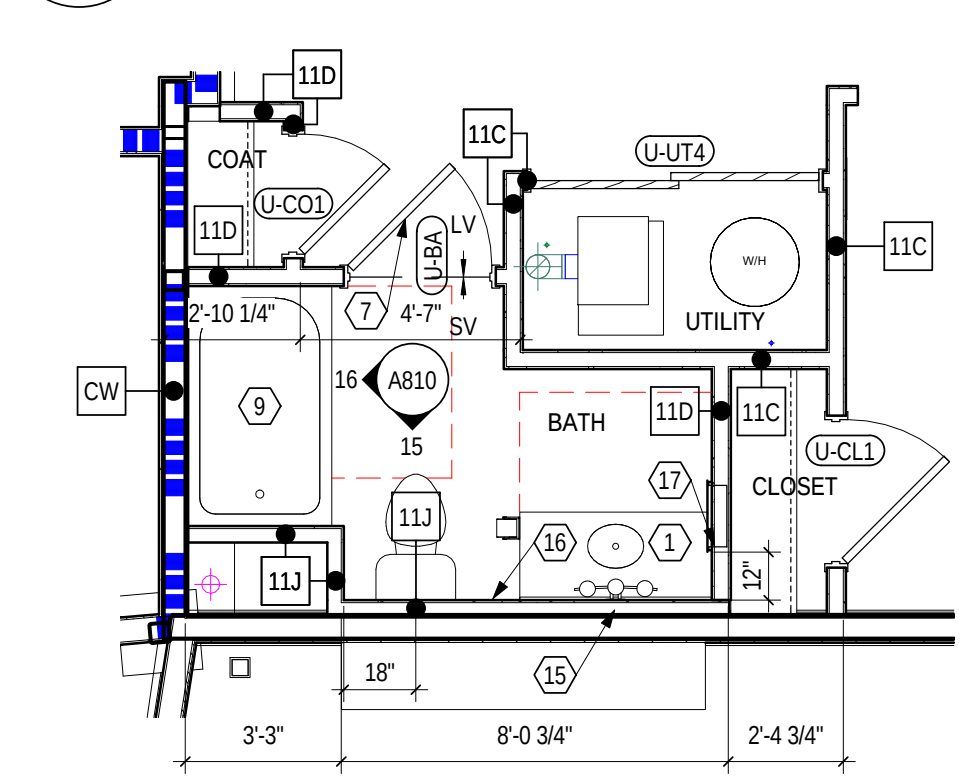
TYPICAL RESIDENTIAL UNIT FINISH SCHEDULE					
ROOM NAME	FINISH	FLOOR	WALLS	SPACE DESCRIPTION	KEYED REMARKS
HALL	LV	1	PT	4	
COAT	LV	1	PT	4	APPLIES TO COAT CLOSET
LIVING	LV	1	PT	4	
DINING	LV	1	PT	4	
KITCHEN	LV	1	PT	4	
BEDROOM	LV	1	PT	4	APPLIES TO BEDROOM CLOSETS
CLOSET	LV	1	PT	4	
BATH	SV	1	PT	4	
UTILITY	LV	1	PT	4	

GENERAL NOTES:
A. REFER TO "FINISH LEGEND" A800 FOR MATERIAL AND COLOR INFORMATION.
B. ALL UNIT INTERIOR DOORS AND DOOR FRAMES TO BE PAINTED PT-1 IN SEMI-GLOSS.
C. ALL WALL BASE WITHIN TO BE RB-1. WINDOW AND DOOR OPENINGS TO RECEIVE WOOD CASINGS. WINDOWS TO RECEIVE CULTURED MARBLE SILLS.
D. CEILINGS TO BE PAINTED PT-6.
E. CONTINUE FLOOR FINISH INTO KNEE SPACE OF REMOVABLE CABINETS, PAINT BACK WALL. INSTALL WALL BASE.
F. ALL EXTERIOR WINDOWS TO RECEIVE MINI-BLINDS WITH HIDDEN CORDS AS SPECIFIED IN THE PROJECT MANUAL.
G. KITCHEN CABINETS TO BE ADVANTA / NEWBURY SLAB / OR SIMILAR IN EXPRESSO (SINGLE UNITS) AND SLATE (FAMILY UNITS).

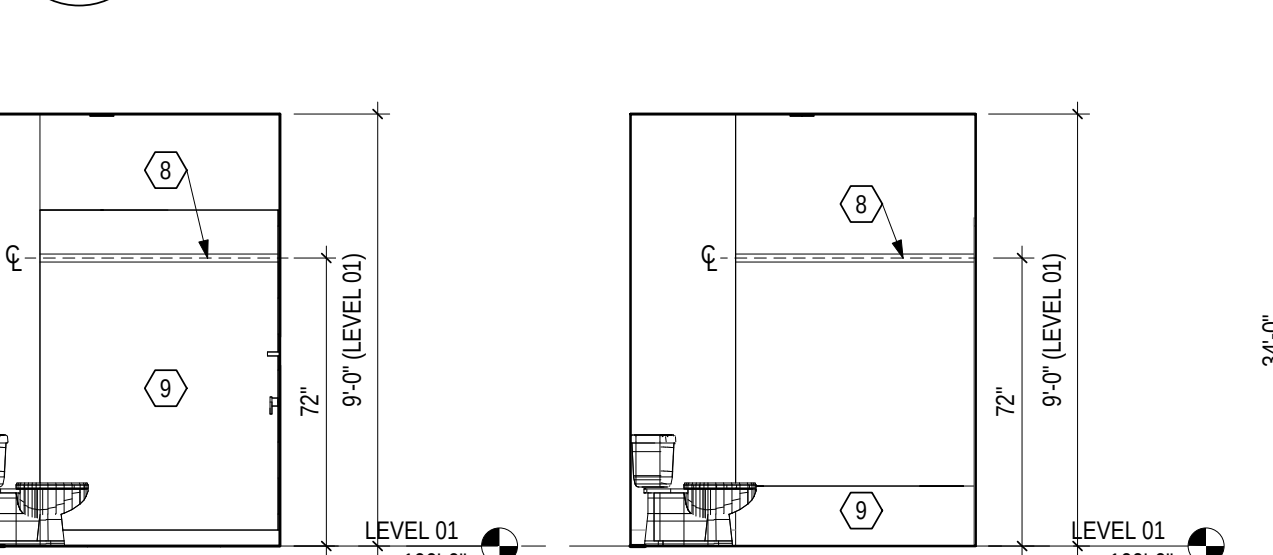
KEYED REMARKS:
1. COAT ROD AND SHELF SPAN FULL WIDTH OF CLOSET.
2. WIRE SHELVING, TYPE A OR B TO SPAN FULL WIDTH OF CLOSET.
3. KITCHEN COUNTERTOP TO BE PL-2 / KITCHEN CABINETS TO BE CB-1 (SINGLE UNIT) AND CB-2 (FAMILY UNIT).
4. TYPE A KITCHEN TO HAVE A 6" HIGH X 34" THICK SQUARE EDGE BACKSPLASH LENGTH OF BASE CABINERY. RECEPTACLES TO BE MOUNTED HORIZONTALLY IN THE BACKSPLASH.
5. BATH VANITY COUNTERTOP TO BE CULTURED MARBLE / CABINETS TO BE CB-1 (SINGLE UNIT) AND CB-2 (FAMILY UNIT).



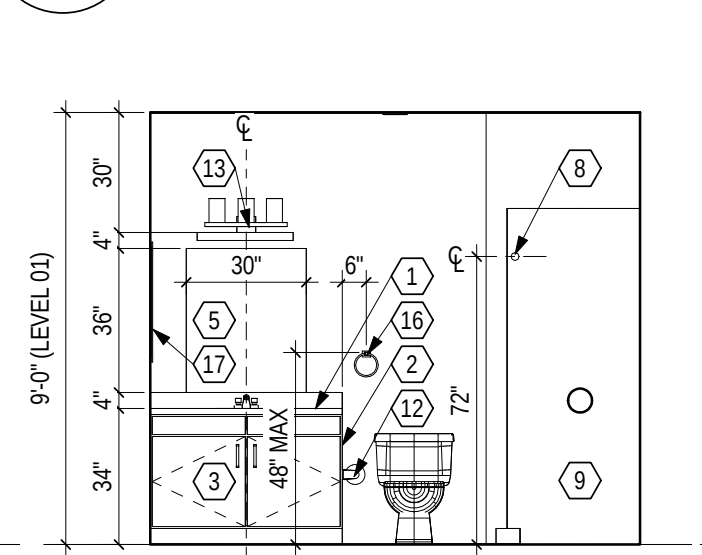
20 RCP LEVEL 01 - ENLARGED RCP - UNIT U-101
1/4" = 1'-0"



19 PLAN LEVEL 01 - ENLARGED PLAN - UNIT U-101
1/4" = 1'-0"



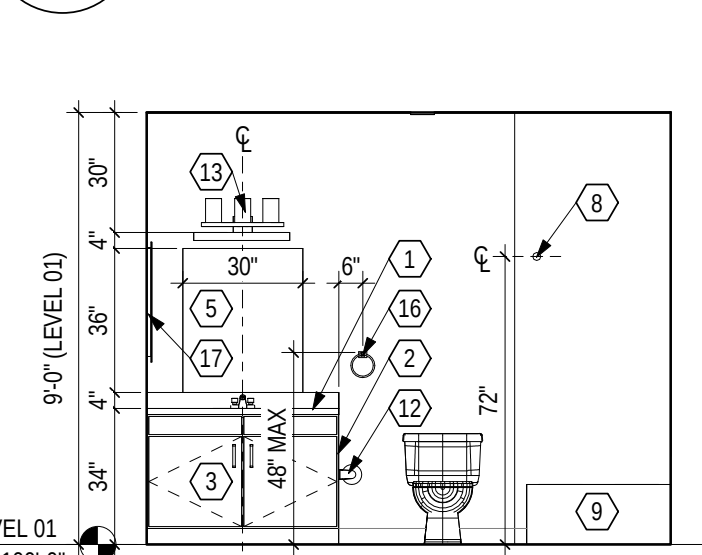
18 ELEVATION BATH - TYPE B
1/4" = 1'-0"



17 ELEVATION BATH - TYPE B
1/4" = 1'-0"



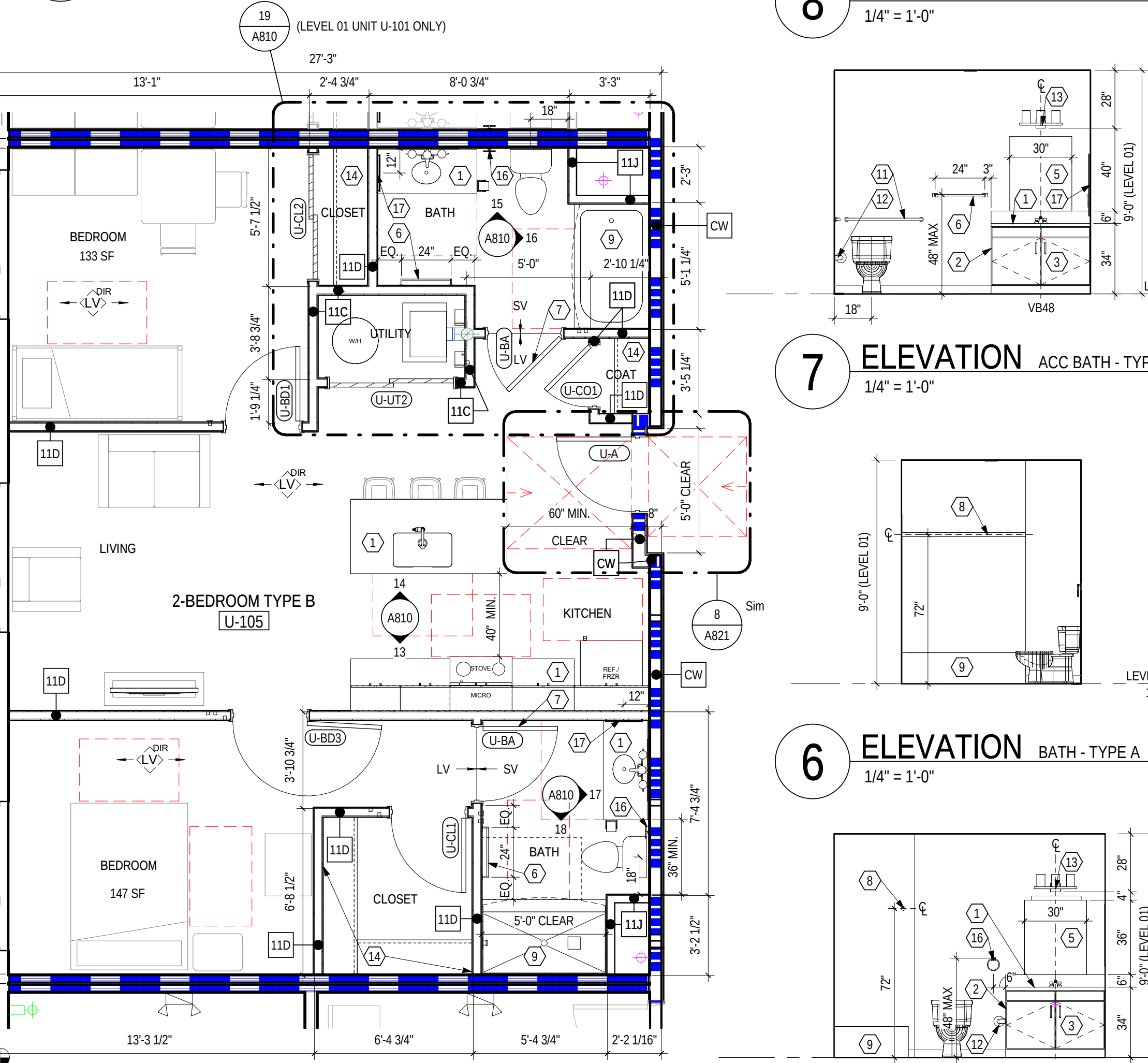
16 ELEVATION BATH - TYPE B
1/4" = 1'-0"



15 ELEVATION BATH - TYPE B
1/4" = 1'-0"



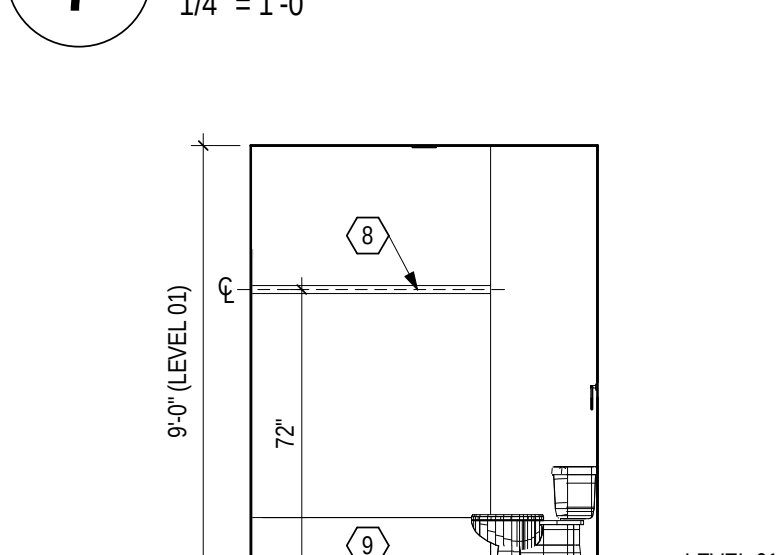
12 RCP 2-BEDROOM ENLARGED UNIT - ANSI TYPE B
1/4" = 1'-0"



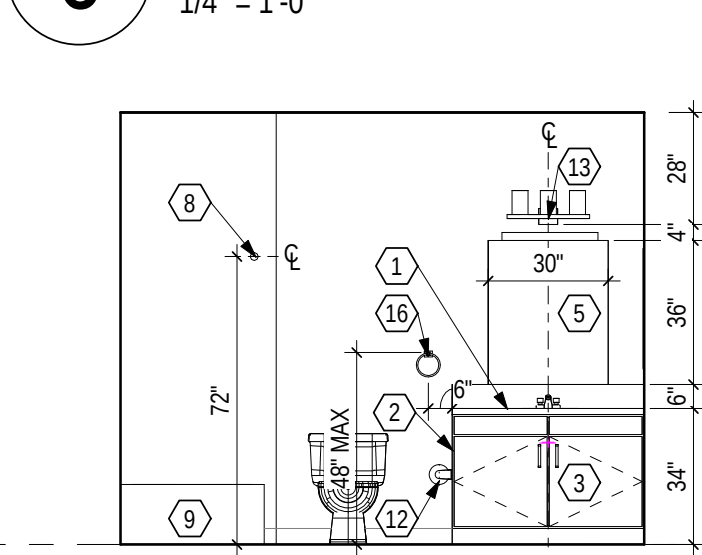
11 PLAN 2-BEDROOM ENLARGED UNIT - ANSI TYPE B
1/4" = 1'-0"



7 ELEVATION ACC BATH - TYPE A
1/4" = 1'-0"



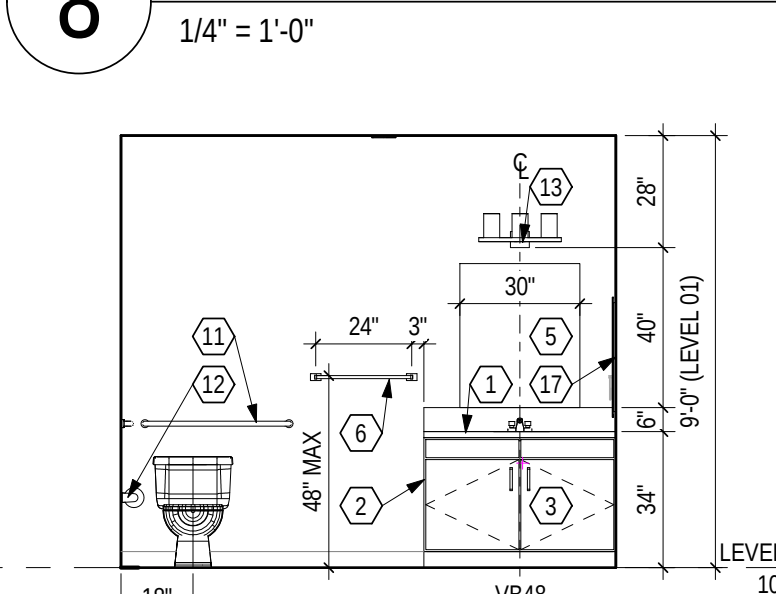
6 ELEVATION BATH - TYPE A
1/4" = 1'-0"



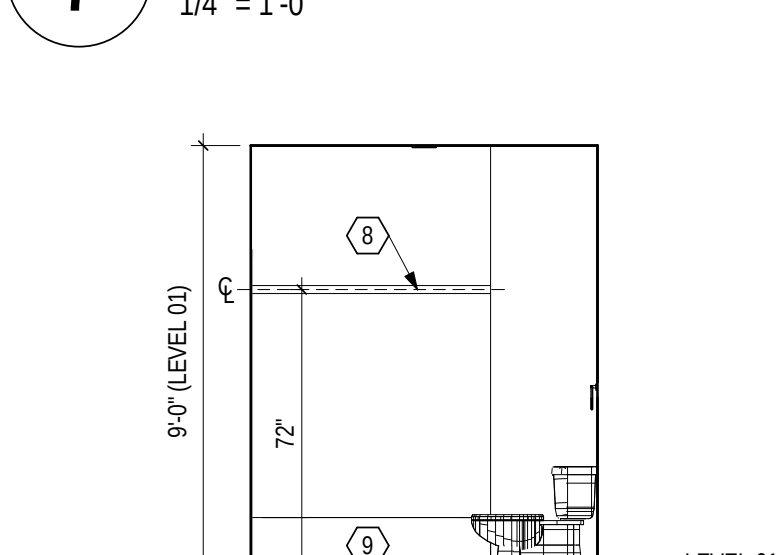
5 ELEVATION BATH - TYPE A
1/4" = 1'-0"



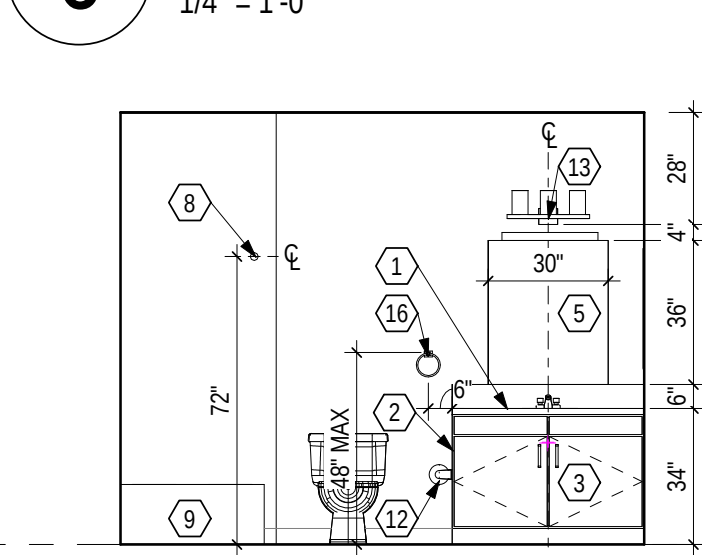
8 ELEVATION ACC BATH - TYPE A
1/4" = 1'-0"



7 ELEVATION ACC BATH - TYPE A
1/4" = 1'-0"



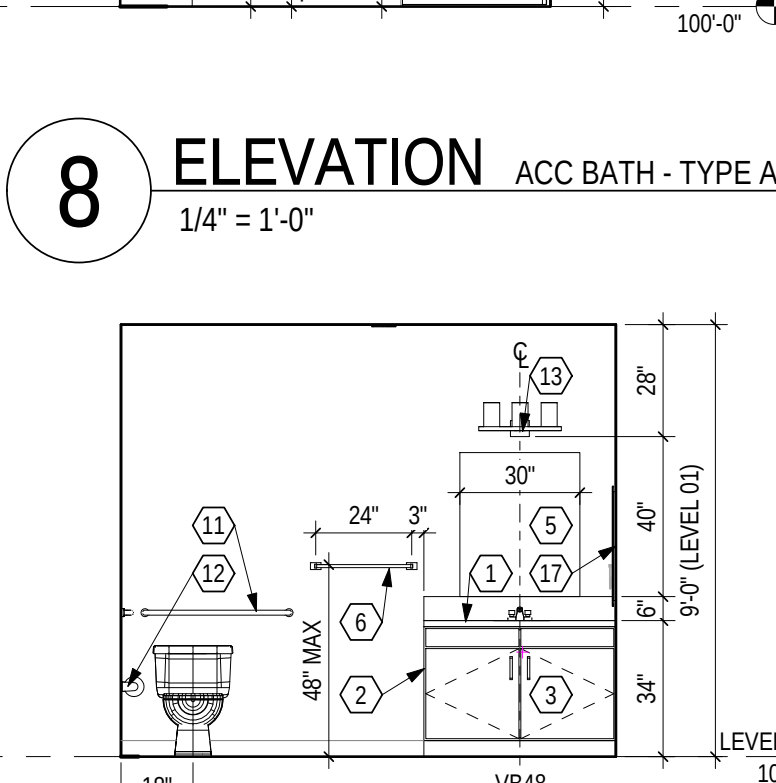
6 ELEVATION BATH - TYPE A
1/4" = 1'-0"



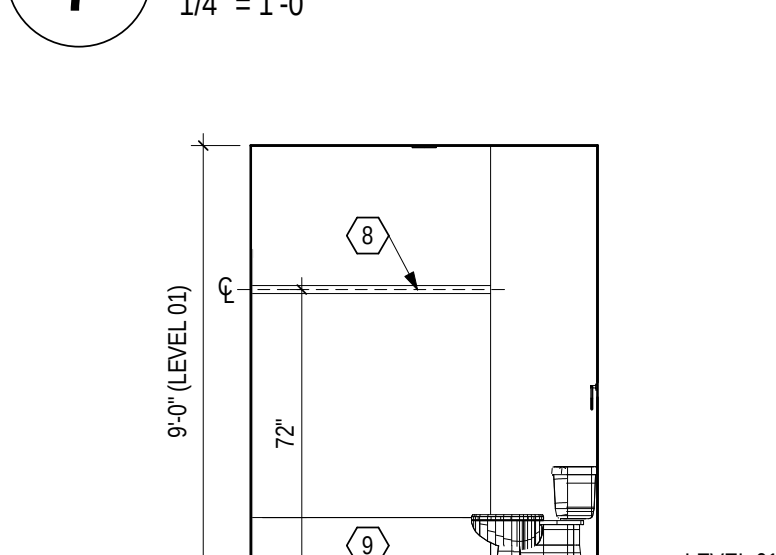
5 ELEVATION BATH - TYPE A
1/4" = 1'-0"



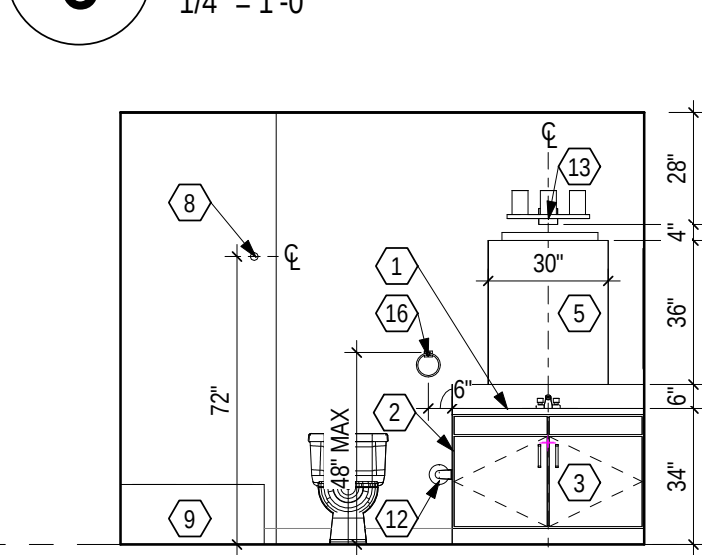
10 ELEVATION ACC BATH - TYPE A
1/4" = 1'-0"



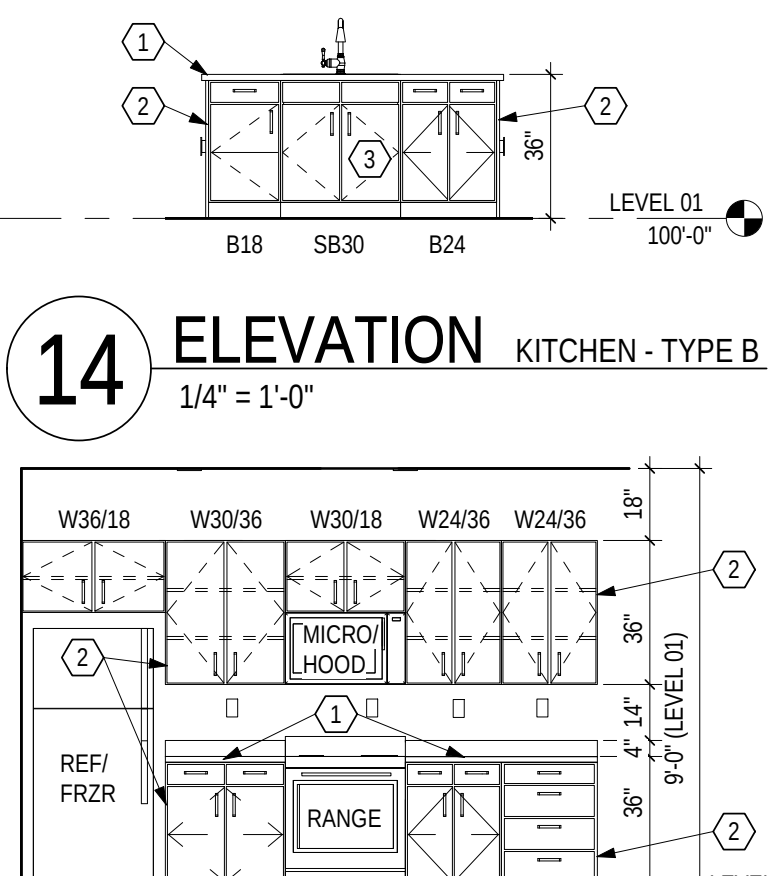
7 ELEVATION ACC BATH - TYPE A
1/4" = 1'-0"



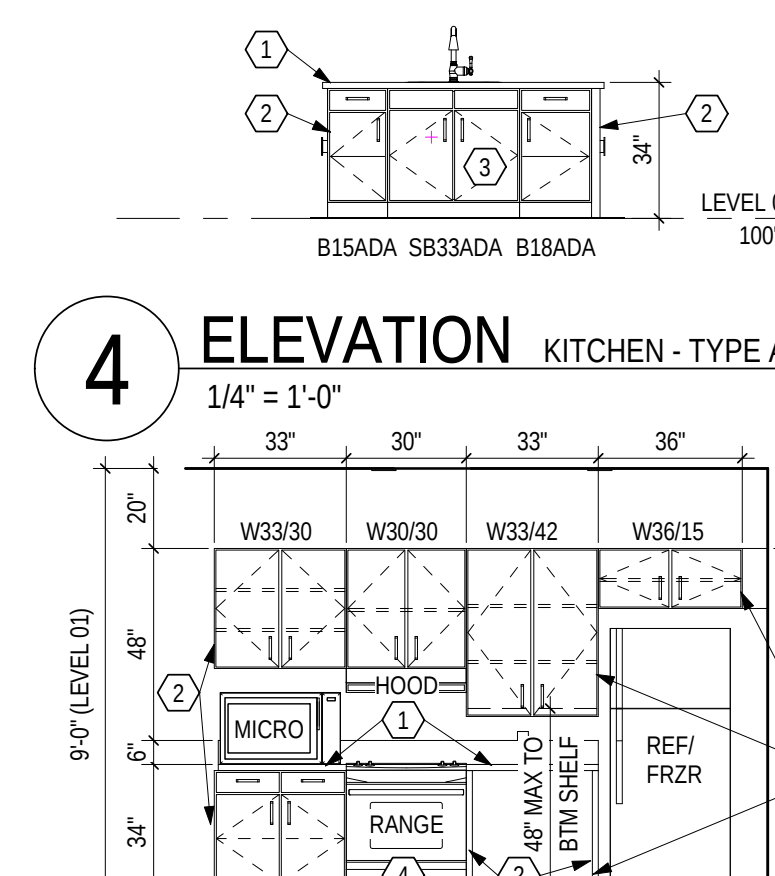
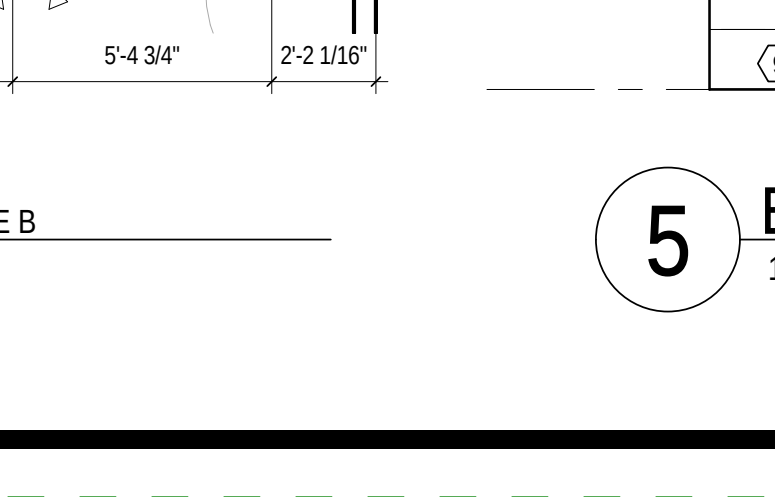
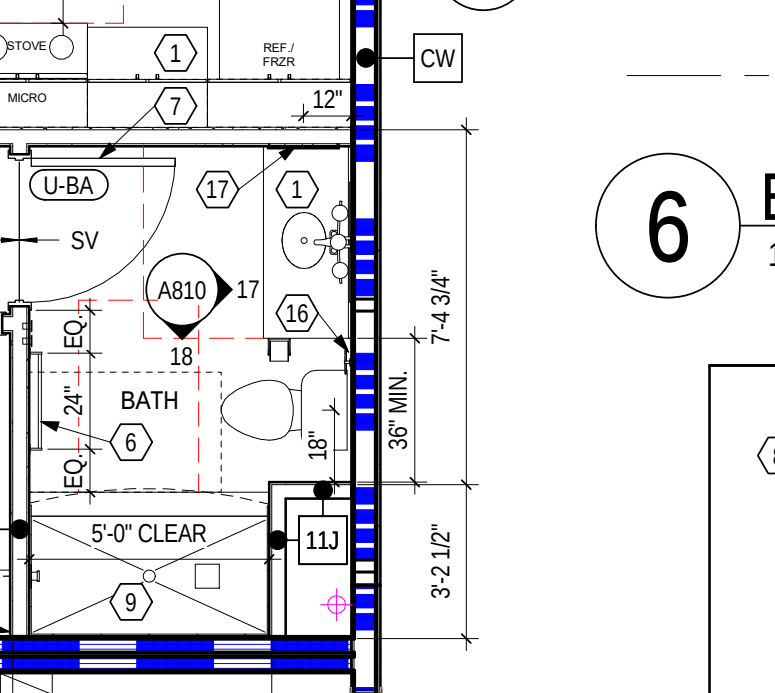
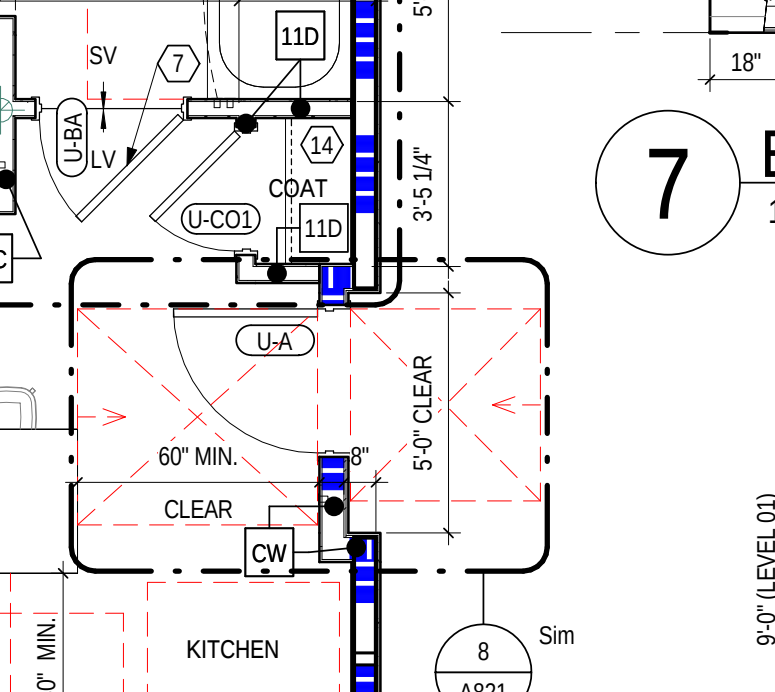
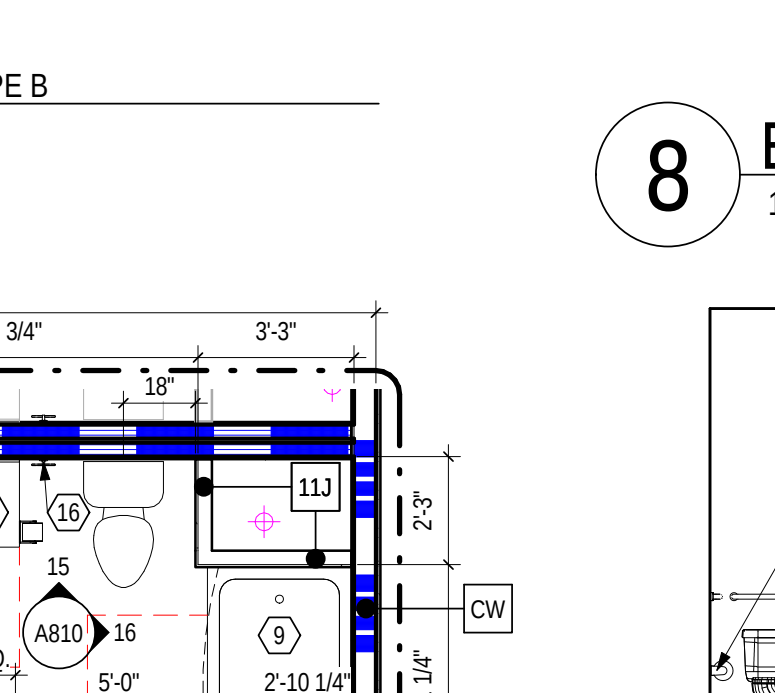
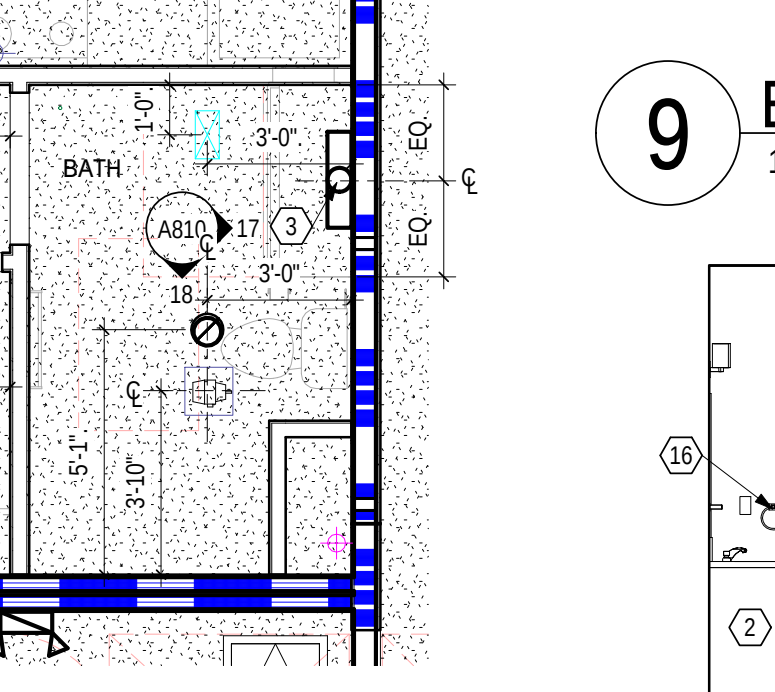
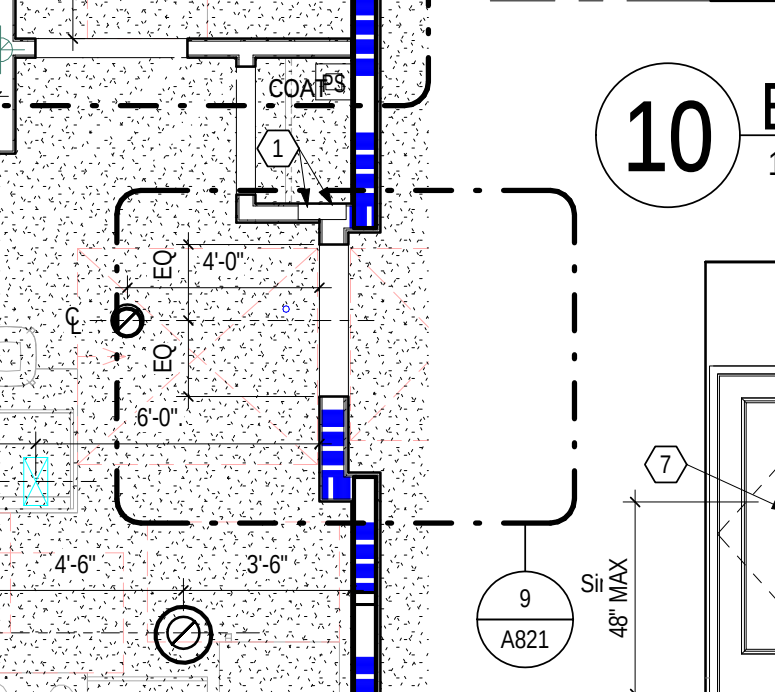
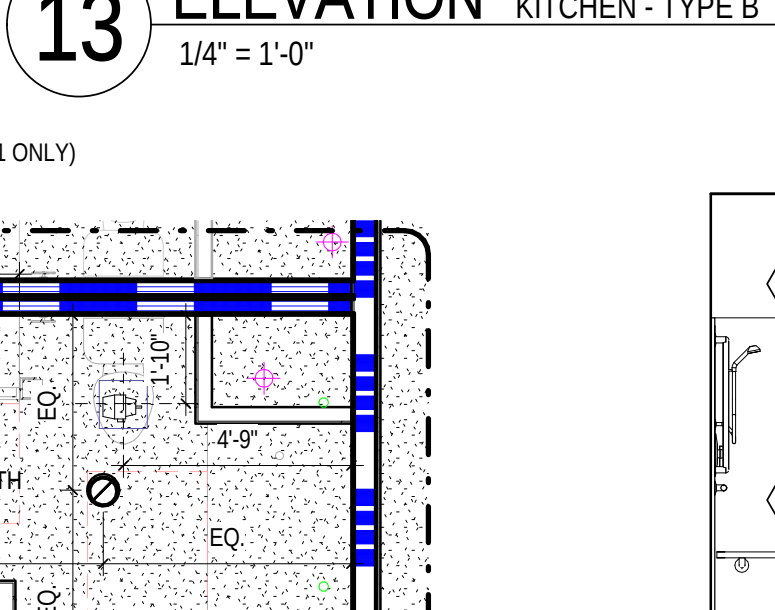
6 ELEVATION BATH - TYPE A
1/4" = 1'-0"



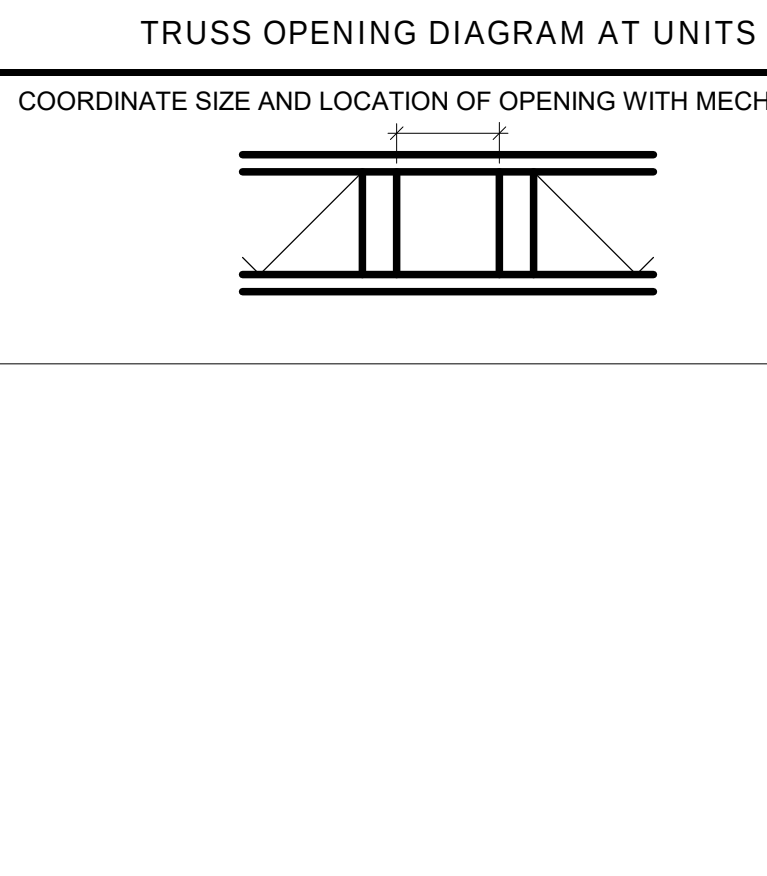
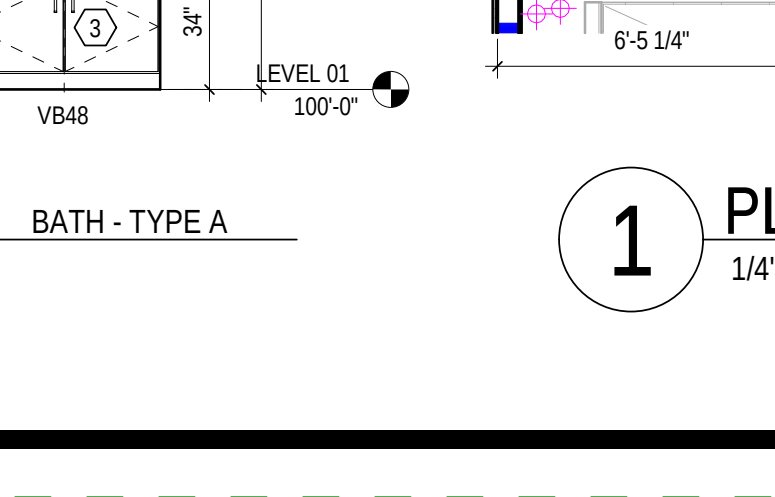
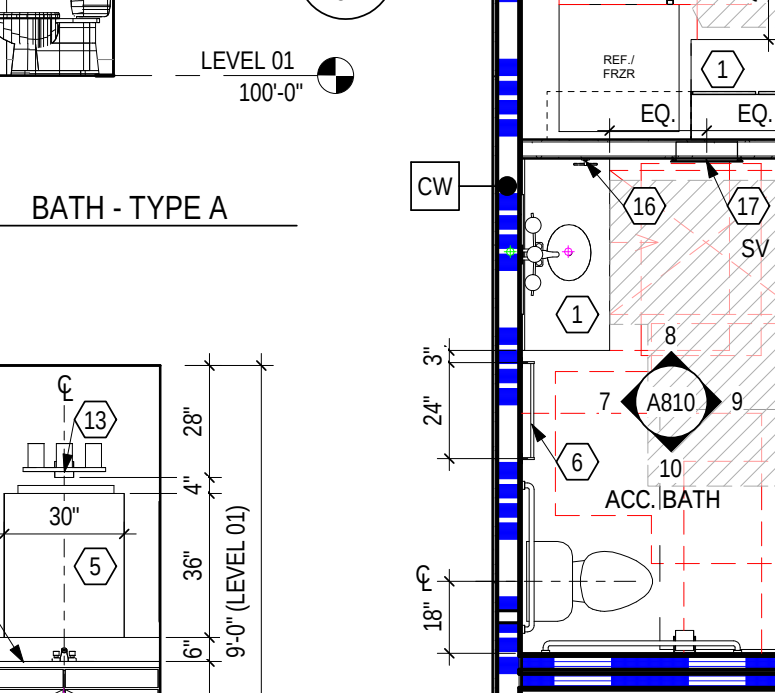
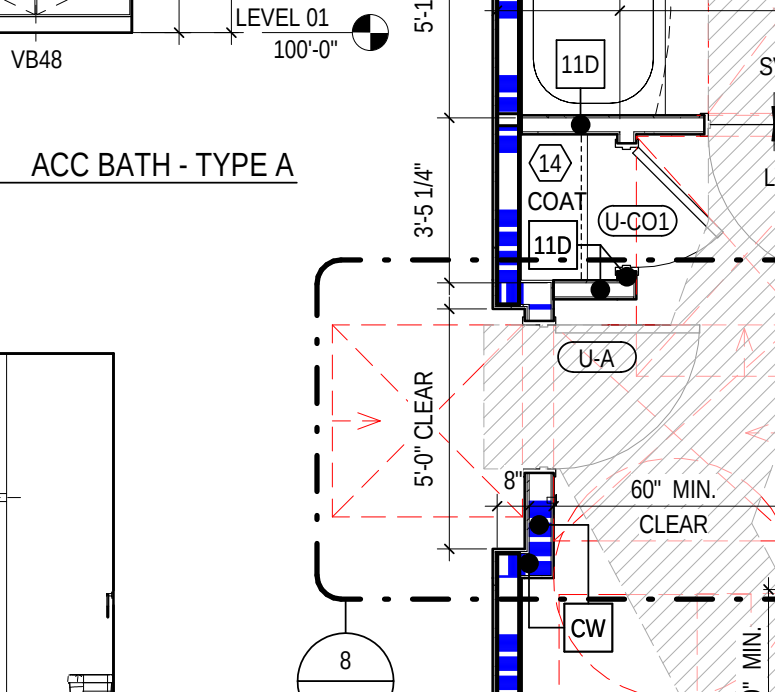
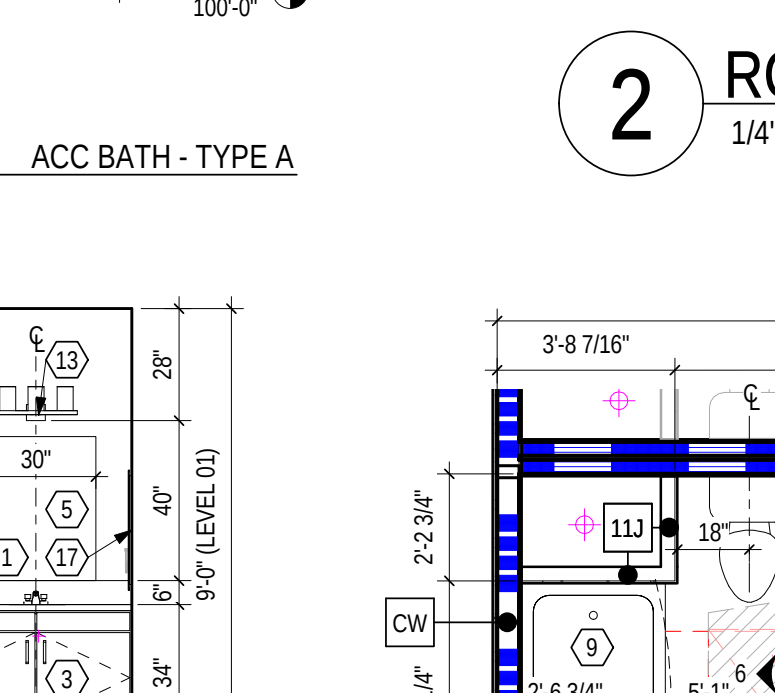
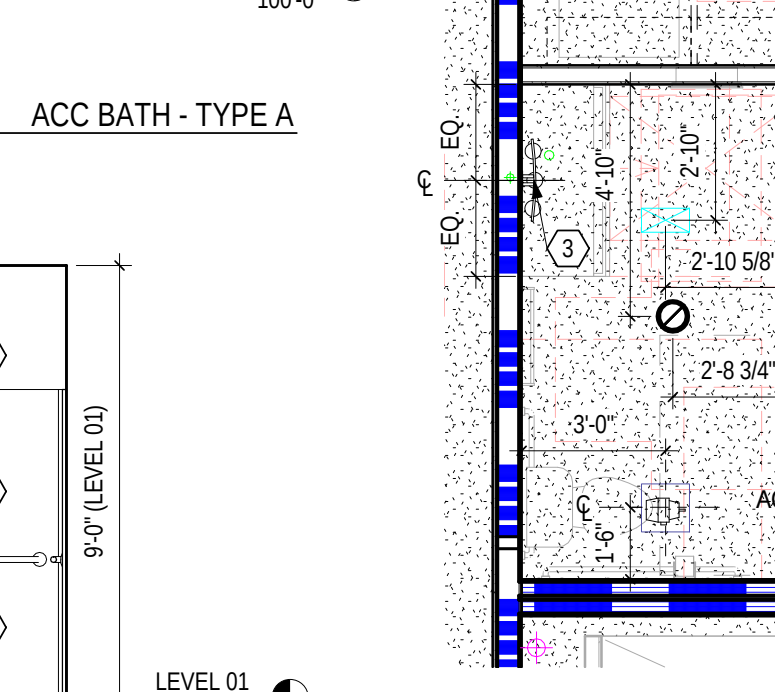
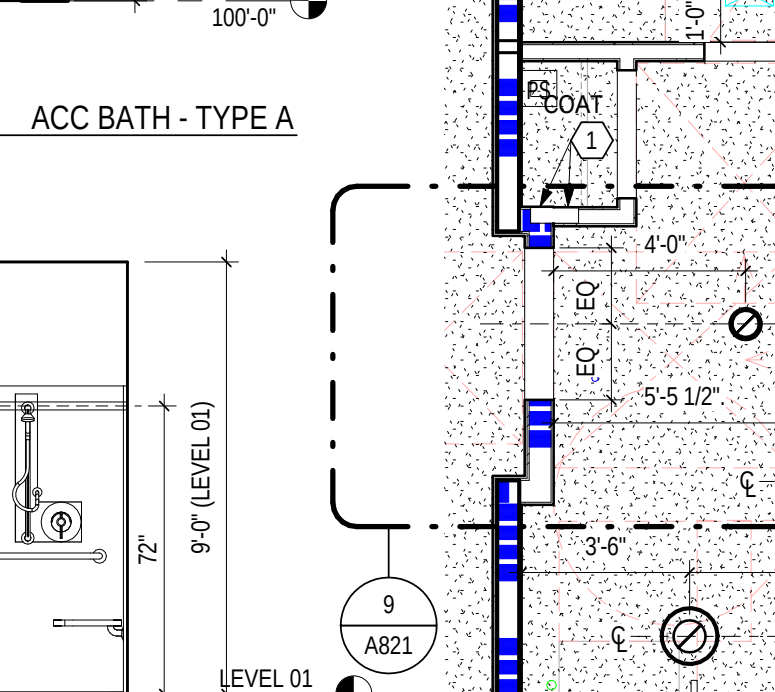
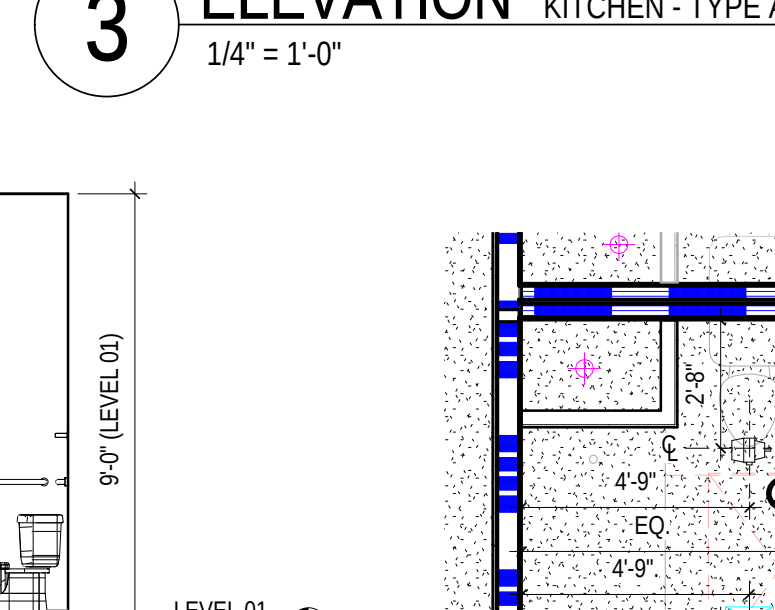
5 ELEVATION BATH - TYPE A
1/4" = 1'-0"



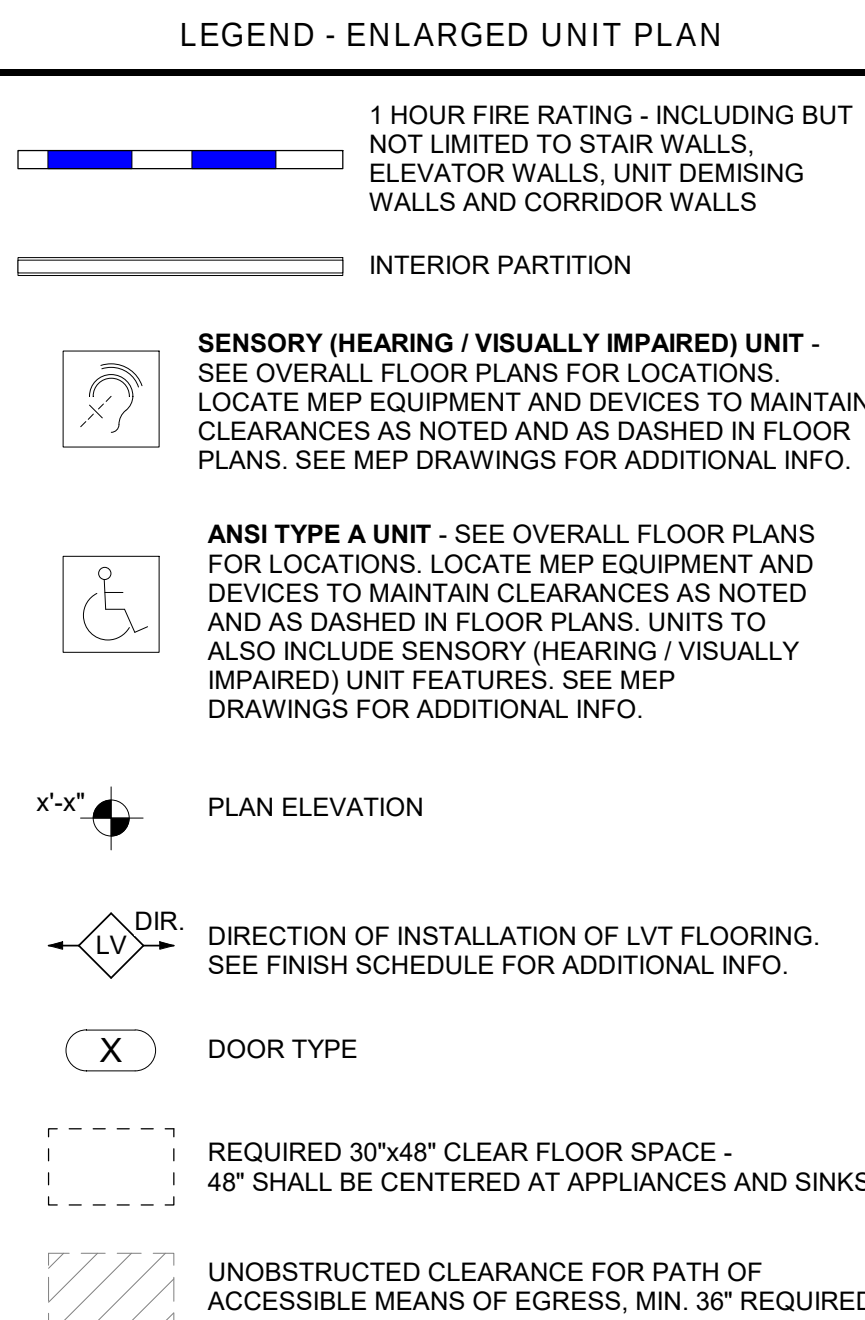
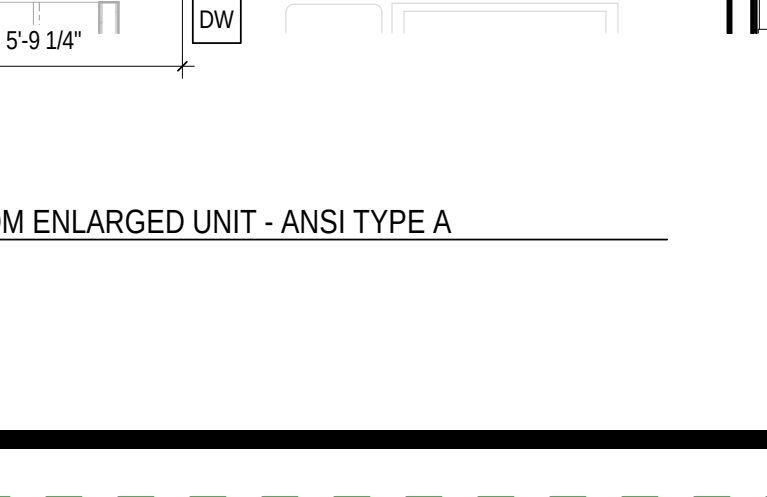
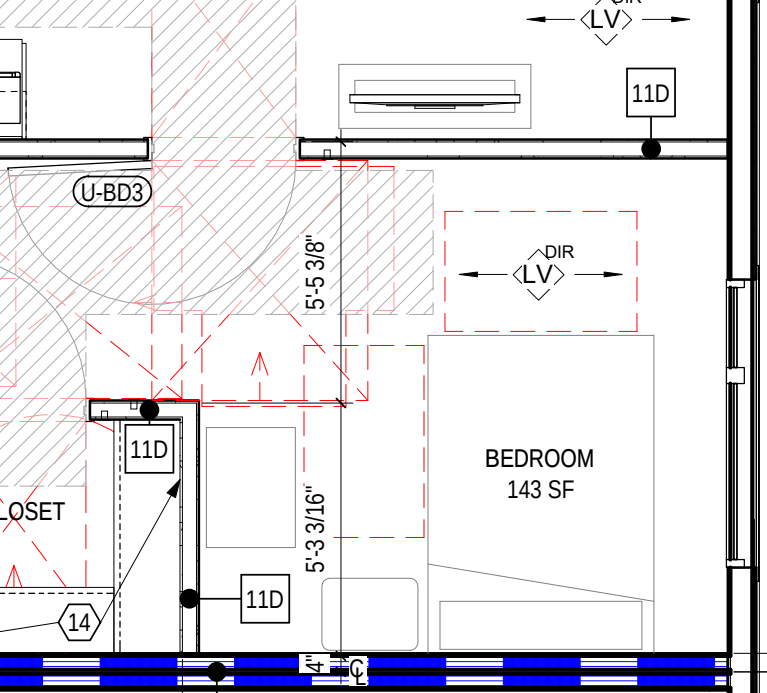
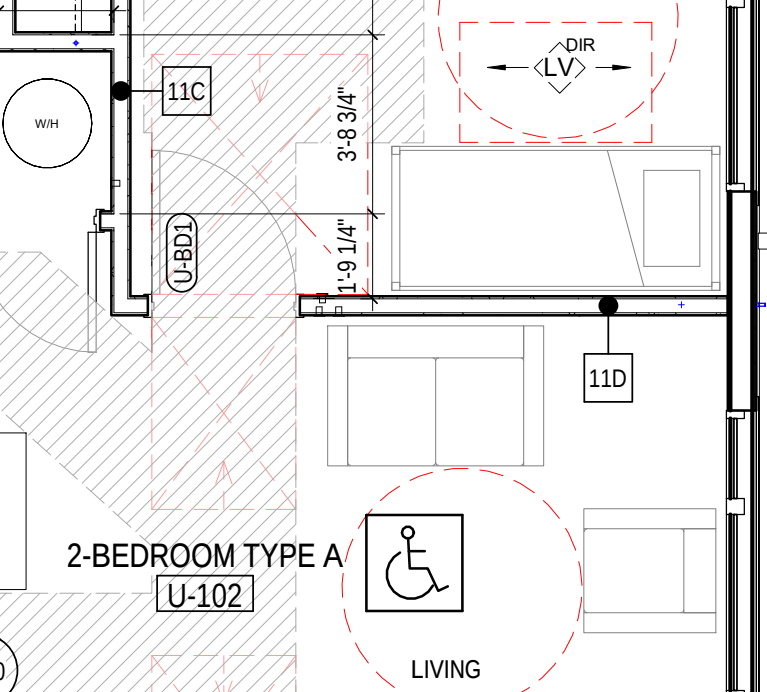
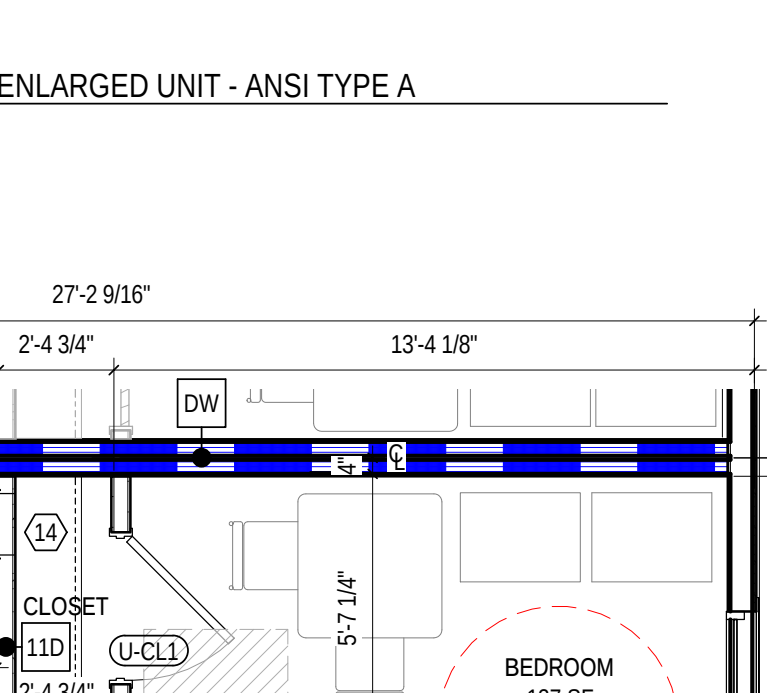
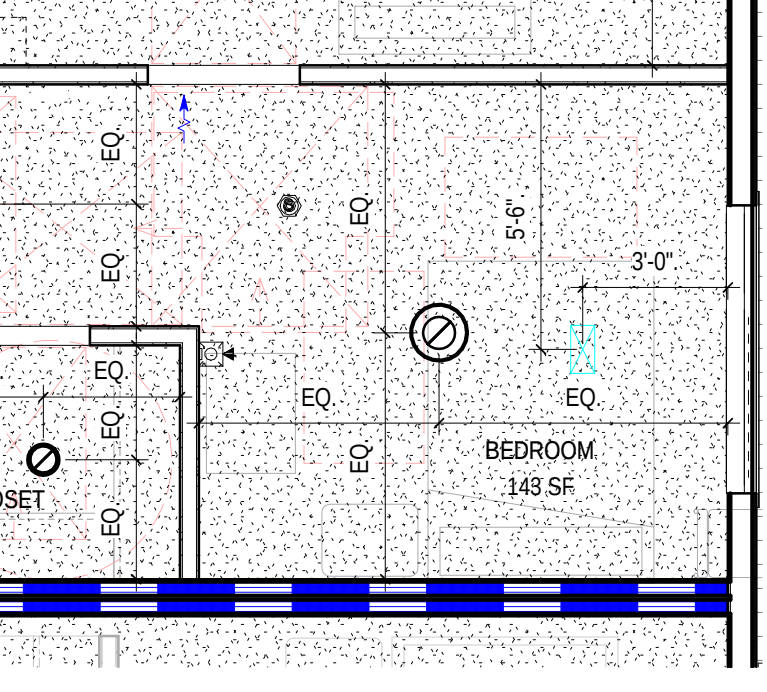
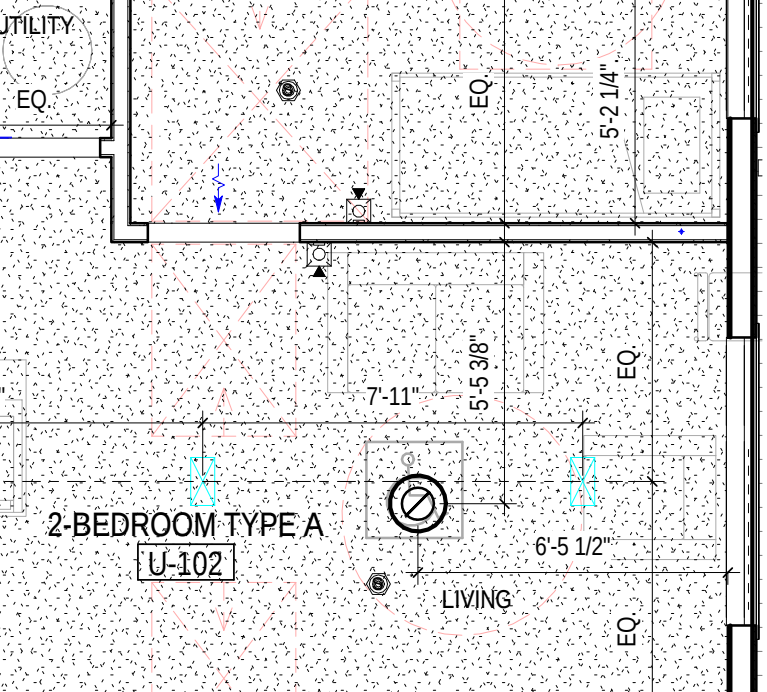
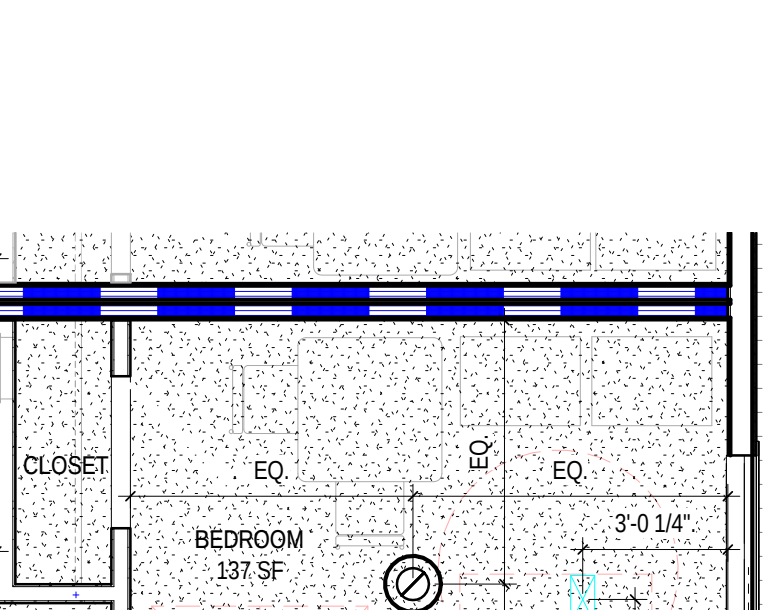
14 ELEVATION KITCHEN - TYPE B
1/4" = 1'-0"



4 ELEVATION KITCHEN - TYPE A
1/4" = 1'-0"



TRUSS OPENING DIAGRAM AT UNITS
COORDINATE SIZE AND LOCATION OF OPENING WITH MECHANICAL



LEGEND - ENLARGED UNIT PLAN

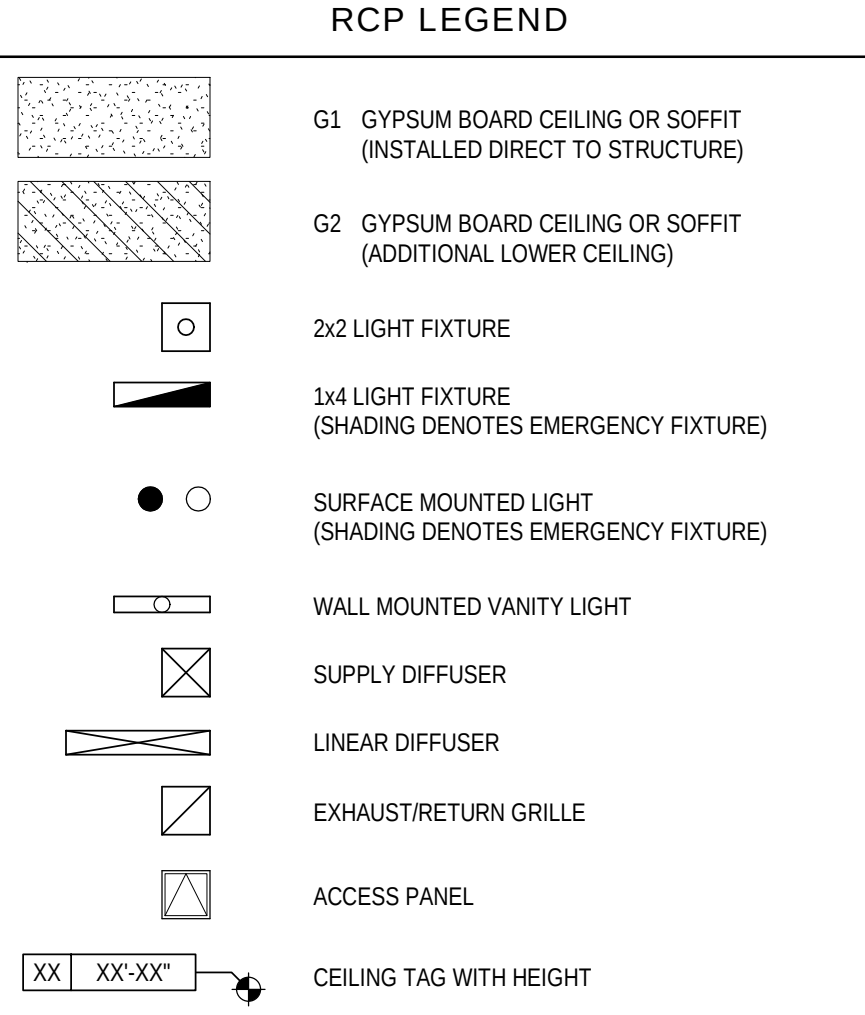
CODED NOTE LEGEND - ENLARGED UNIT PLANS / ELEVATIONS

SEE TYPICAL PROJECT DETAILS SHEETS FOR ADDITIONAL INFORMATION, INCLUDING ALL MOUNTING HEIGHT REQUIREMENTS.
1. PLUM COUNTER WITH COUNTERTOP METAL SUPPORTS. TOP OF COUNTER AT 36 INCHES A.F.F. IN TYPE B UNIT KITCHENS AND 34 INCHES MAX A.F.F. AT TYPE A UNIT KITCHENS. TYPE A & B VANITY COUNTERS TO BE AT 34 INCHES MAX A.F.F. IN TYPE A UNIT WORK AREAS PROVIDE INTERMEDIATE SUPPORTS & A TYPE A UNIT SINKS PROVIDE VALANCE.
2. FINISHED END PANEL, TYPICAL.
3. REMOVABLE CABINET FRONT AND BASE AT TYPE A AND TYPE B UNITS. MATCH ADJACENT CABINERY. SEE GENERAL NOTES.
4. RANGE WITH FRONT MOUNTED CONTROLS AT TYPE A UNIT KITCHENS. PROVIDE SKIRT AS NEEDED TO MOUNT COOKTOP AT 34 INCHES A.F.F. TO MATCH ADJACENT COUNTERTOP HEIGHT.
5. VANITY MIRROR, FULL WIDTH OF VANITY.
6. TOWEL BAR.
7. ROBE HOOK.
8. SHOWER CURTAIN ROD.
9. PREFABRICATED TUB / SHOWER. SEE PLUMBING PLANS.
10. ROLL-IN SHOWER WITH LINEAR FLOOR DRAIN AT AT TYPE A UNITS ONLY. REFER TO PLUMBING DRAWINGS.
11. GRAB BARS.
12. TOILET PAPER HOLDER.
13. LIGHT FIXTURE, CENTER ABOVE MIRROR, REFER TO ELECTRICAL DRAWINGS.
14. WIRE SHELVING. SEE GENERAL NOTES.
15. FURR OUT EXTERIOR WALL W PARTITION TYPE 113 AT LIVING ROOM LOCATION IN UNIT U-108 ONLY. SEE OVERALL PLANS FOR LOCATION.
16. TOWEL RING.
17. MEDICINE CABINET.

GENERAL NOTES - ENLARGED UNIT RCP

A. PAINT DESIGNATED FOR EXPOSED OVERHEAD STRUCTURE IS TO INCLUDE ALL EXPOSED COMPONENTS INCLUDING (BUT NOT EXCLUSIVE TO) DECKING, STRUCTURAL MEMBERS, MECHANICAL AND ELECTRICAL DELIVERY SYSTEMS, FIRE PROTECTION SYSTEMS (INCLUDING SPRINKLER HEADS), AND ALL OTHER MISCELLANEOUS BUILDING SYSTEMS LOCATED OVERHEAD. EACH OF THE ABOVEMENTIONED CATEGORIES IS TO INCLUDE ANY AND ALL ASSOCIATED SUPPORTS, FASTENERS, HANGERS, STRUTS, BRACES, BRACKETS, ETC.
B. LIGHT FIXTURES SHOWN TO INDICATE PROPOSED FIXTURES AND GENERAL DESIGN INTENT.
C. FINISHED CEILING HEIGHTS ARE FROM TOP OF FINISH FLOOR, U.O.D.
D. COORDINATE LOCATION OF FIXTURES WITH STRUCTURAL, MECHANICAL, ELECTRICAL, PLUMBING AND FIRE SUPPRESSION DRAWINGS. ANY CONFLICT BETWEEN TRADES, NOTIFY ARCHITECT PRIOR TO INSTALLATION.
E. FACE OF BULKHEADS SHALL ALIGN WITH FACE OF ADJACENT WALLS TO WHICH BULKHEADS ARE PARALLEL, U.O.D. OR DIMENSIONED.
F. PAINT DUCTWORK INSIDE AIR GRILLES FLAT COLOR.
G. ALL GYPSUM BOARD SOFFITS AND CEILINGS TO BE PAINTED FLAT CEILING WHITE (U.O.C.).
H. CEILING GRIDS ARE CENTERED ON ROOM, U.O.D. OR DIMENSIONED.
I. ALL CEILING DEVICES TO BE CENTERED IN TILE, U.O.D.
J. WHERE EXIT SIGNS OCCUR OVER A DOOR OR PAIR OF DOORS, CENTER SIGN ON DOOR OPENING.
K. GYPSUM BOARD CEILINGS FRAMED TO THE UNDERSIDE OF WOOD TRUSSES SHALL BE INSTALLED TIGHT TO THE BOTTOM CHORD WITH A 1/2 INCH RESILIENT CHANNEL. CEILINGS BELOW 2X WOOD FRAMING SHALL MATCH THE HEIGHT OF THE CEILINGS BELOW THE WOOD TRUSSES UNLESS NOTED OTHERWISE. ALL CEILING ACCESSORIES AND WALLS MUST MAINTAIN THE INTEGRITY OF THE FIRE RATED CEILING ASSEMBLIES.
L. SEE ELECTRICAL DRAWINGS FOR THE REQUIRED ELECTRICAL DEVICES. FIRST AND SECOND FLOOR REFLECTED CEILING PLANS SHOW GENERAL LOCATION OF CANS IN THE PUBLIC CORRIDORS.
M. CONTINUE RATED GYPSUM BOARD ABOVE ANY DROP CEILINGS AND SOFFITS. PROVIDE A RATED ACCESS PANEL AT ALL SMOKE DAMPER LOCATIONS. COORDINATE FINAL LOCATION WITH ARCHITECT. PROVIDE ONE ACCESS PANEL PER FLOOR AT ALL SHAFT LOCATIONS. ACCESS PANEL TO BE ON THE PUBLIC CORRIDOR SIDE. ON OPEN UNOCCUPIED SHAFT ENCLOSURES PROVIDE ONE RATED ACCESS PANEL PER FLOOR FOR FUTURE INSTALLATION OF MECHANICAL SYSTEMS.
O. COORDINATE FINAL SOFFIT LOCATION WITH FINAL CABINET LAYOUT.

RCP LEGEND



NOTE: COORDINATE ARCHITECTURAL REFLECTED CEILING PLANS WITH THE MECHANICAL AND ELECTRICAL DRAWINGS FOR NUMBER, SIZE, AND LOCATIONS. OF AND TYPES OF FIXTURES AND GRILLES. NOT ALL ITEMS SHOWN ON LEGEND MAY BE PRESENT IN PROJECT.

CODED NOTE LEGEND - ENL. UNIT RCP

1. ALIGN FEATURES
2. OPEN TO ABOVE
3. CENTER FIXTURE ABOVE VANITY, TYPICAL

GENERAL NOTES - ENLARGED UNIT PLANS
A. ALL DIMENSIONS ARE TO FACE OF STUD UNLESS NOTED OTHERWISE.
B. WALLS ARE 2X4 WOOD FRAMING U.O.D. SEE SHEET G003 FOR PARTITION INFO.
C. EXTERIOR WALL CONDITIONS VARY. REFER TO OVERALL FLOOR PLAN SHEETS FOR EXTERIOR WALL AND WINDOW CONDITIONS.
D. RESIDENTIAL UNITS TYPE B DENOTES ANSI TYPE B AND TYPE A DENOTES ANSI TYPE A. UNITS SHALL COMPLY WITH THE ACCESSIBILITY REQUIREMENTS REFERENCED ON THE CODE INFORMATION, THIS INCLUDES BUT IS NOT LIMITED TO: ADA AND ANSI 1009.
E. PROVIDE WOOD BLOCKING ON ALL RESIDENTIAL TYPE A AND TYPE B UNITS IN BATHS AND AS INDICATED ON "TYPICAL UNIT DETAILS" SHEETS. SEE ADDITIONAL AND ADD SERIES SHEETS FOR TYPE A & B UNIT LOCATIONS AND LAYOUTS. ALL UNITS TO RECEIVE BLOCKING FOR GRAB BARS (TYPE A UNITS) AND FUTURE GRAB BARS (TYPE B UNITS). SEE "TYPICAL UNIT DETAILS" SHEETS FOR LENGTHS AND LOCATIONS OF GRAB BARS.
F. PROVIDE WOOD BLOCKING NOT SHOWN OR SHOWN AS REQUIRED TO MOUNT MILLWORK, MEP DEVICES AND ALL FIXTURES.
G. ALL DOOR OPENINGS IN OCCUPIED ROOMS IN RESIDENTIAL AND PUBLIC AREAS SHALL BE MINIMUM 32 INCHES CLEAR OR GREATER.
H. COORDINATE TRUSS LAYOUT AND DESIGN WITH MECHANICAL, ELECTRICAL AND PLUMBING LAYOUT PRIOR TO FABRICATION. TRUSS SHOP DRAWINGS SHALL INDICATE PLUMBING LINES AND HVAC DUCTS. PROVIDE COORDINATION DRAWING TO ARCHITECT. FRAMING CONTRACTOR SHALL COORDINATE TRUSS FRAMING OFFSETS AS REQUIRED TO ACCOMMODATE SANITARY LINES AND OTHER MEP EQUIPMENT / FIXTURES.
I. INSTALL ACOUSTIC BATT INSULATION AT PARTITIONS WITH PLUMBING STACKS.
J. WATER SUPPLY AND DRAIN PIPES UNDER LAVATORIES AND SINKS MUST BE INSULATED TO PROTECT AGAINST CONTACT, INCLUDING COLD WATER SUPPLIES. PROVIDE SPAN FROTH INSULATION AT DEMISING AND EXTERIOR WALLS AT LOCATIONS AROUND PLUMBING INSTALLATIONS. PROVIDE A VALANCE AT AREAS WITH EXPOSED SINK DRAINS. SEE TYPICAL PROJECT DETAILS SHEETS FOR PLUMBING INSTALLATIONS.
K. HORIZONTAL OFFSETS IN PLUMBING DRAIN PIPES: PROVIDE ACOUSTIC PIPE INSULATION, REFER TO PLUMBING DRAWINGS.
L. ALL RESIDENTIAL UNITS TO RECEIVE A PREFABRICATED TUB (TYPE B UNIT AND NON-ACCESSIBLE BATH IN TYPE A UNITS) OR ROLL-IN SHOWER (ACCESSIBLE BATHS IN TYPE A UNITS). BLOCKING FOR INSTALLATION OF GRAB BARS AND OTHER SHOWER FIXTURES TO BE FACTORY INSTALLED IN PREFABRICATED UNITS. SEE PLUMBING INFORMATION, WALL ROUGH FRAMING DIMENSION REQUIREMENTS MUST BE COORDINATED WITH SELECTED TUB SHOWER UNIT. NOTE THAT THESE DIMENSIONS TEND TO VARY PER MANUFACTURER. SEE TYPICAL PROJECT DETAILS FOR LAYOUT OF TUB SHOWER BLOCKING AND FIXTURES. SEE PLUMBING DRAWINGS FOR EXACT DIMENSIONS REQUIRED.
M. LAUNDRY ROOM DRYER VENTING LOCATIONS SHALL BE COORDINATED WITH ARCHITECT. ROUTING SHALL NOT EXCEED 35 FEET WITH ONLY ONE BEND. LABEL LENGTH OF ANY DYER VENTING DUCT ON THE LAUNDRY ROOMS PER REQUIREMENT BY THE CITY OF COLUMBUS.
N. RANGES IN TYPE A UNITS ARE DROP IN TYPE. SEE SPECIFICATIONS. PROVIDE CABINET BASE TO MOUNT THE APPLIANCE AS REQUIRED TO ALIGN RANGE TOP WITH TOP OF COUNTERTOP.
O. ALL MEP OPERABLE COMPONENTS, FIXTURES, OUTLETS AND ALL OTHER RESIDENTIAL TOILET OR UNIT ACCESSORIES SHALL NOT BE MOUNTED LOWER THAN 18 INCHES AFF AND HIGHER THAN 48 INCHES. SEE TYPICAL PROJECT DETAILS FOR ADDITIONAL MOUNTING REQUIREMENTS.
P. ALL RESIDENTIAL UNIT MICROWAVES (TYPE B UNITS) AND RANGE HOODS (TYPE A UNITS) TO BE BLACK OR ENERGY STAR RATED. SEE TYPICAL ELECTRICAL INFORMATION. INSTALL PER ENERGY STAR AND LEED REQUIREMENTS.
Q. PROVIDE COUPLER TYPE MICROVALE ON ALL TYPE A UNIT KITCHENS AND MICROVALE BASE CABINET IN COMMUNITY ROOM KITCHEN.
R. ALL UNIT APPLIANCES ARE INCLUDED. SEE SPECIFICATIONS. UNIT KITCHEN SHALL BE BLACK OR ENERGY STAR RATED.
S. FOR KITCHEN ELECTRIC OUTLET RECEPTACLES, THE MAXIMUM ALLOWABLE HEIGHT TO THE CENTERLINE OF AN OUTLET IS 46 INCHES AFF WHEN REACHING OVER AN OBSTACLE 36 INCHES HIGH MAXIMUM AND 25 INCHES DEEP MAXIMUM. OUTLETS MUST BE A MINIMUM OF 36 INCHES FROM AN INSIDE CORNER OR 12 INCHES FROM END WALL. DM 5.3, 5.8
T. THERMOSTATS, SWITCHES, ELECTRIC OUTLETS, ELECTRICAL PANELBOARDS AND OTHER OPERABLE PARTS MUST BE LOCATED WITHIN AN ACCESSIBLE REACH RANGE FROM 15 INCHES TO 48 INCHES AFF FOR AN UNOBSTRUCTED REACH. DM 5.3, 5.5 AND 1003.3, 1004.9, 309.3, 309.
U. ELECTRICAL PANELS ON ALL RESIDENTIAL UNITS SHALL BE INSTALLED SO THE OPERABLE COMPONENTS ARE NOT HIGHER THAN 48 INCHES A.F.F. OR LOWER THAN 1 FEET, 8 INCHES A.F.F.
V. AT TYPE A UNITS, THE LOCATION OF CONTROLS FOR THE OVEN AND RANGE MUST NOT REQUIRE REACHING ACROSS THE BURNERS. ANSI 1003.2.5.4.4, 1003.2.5.4.4. SEE THE SPECIFICATIONS FOR APPLIANCE REQUIREMENTS.
W. KITCHEN SINKS AT TYPE A UNITS AND COMMUNITY ROOM KITCHEN SHALL INCLUDE REAR DRAINED SINKS TO ACCOMMODATE DISPOSALS. SINK BOWL SHALL NOT BE DEEPER THAN 6 1/2 INCHES.
X. AT TYPE A UNITS, THE FLUSH CONTROL FOR THE WATER CLOSET WILL BE LOCATED ON THE OPEN SIDE (AWAY FROM THE SIDE WALL).
Y. WHERE REQUIRED, INSTALL ANY MEP DEVICES / FIXTURES SO THE INTEGRITY OF RATED WALL IS MAINTAINED. CONTINUE TYPE X GYPSUM BOARD ASSEMBLY BEHIND MEP DEVICE / FIXTURE.
Z. EXTEND FINISH FLOOR MATERIAL UNDER KITCHEN APPLIANCES, VANITY IN ALL BATHS AND UNDERNEATH REMOVABLE UNIVERSAL BASE CABINETS. ALL CABINETS SURFACES VISIBLE INCLUDING AREAS EXPOSED AFTER REMOVING REMOVABLE BASE CABINETS MUST BE COVERED BY FINISHED END PANELS TO MATCH ADJACENT CASEWORK. EXPOSED SIDES OF CABINETS MUST BE COVERED BY FINISHED END PANELS TO MATCH ADJACENT CASEWORK.
AA. SIDES OF RANGE OR OPEN WORK AREAS BELOW BASE CABINETS MUST BE COVERED BY FINISHED END PANELS TO MATCH ADJACENT CASEWORK. EXPOSED SIDES OF WALL AND BASE CABINETS SHALL HAVE FINISH PANELS ON ALL EXPOSED TO VIEW.
BB. SEE "TYPICAL PROJECT DETAILS" SHEETS AND SHEET A800 FOR EXTENT OF FINISHES AT ALL UNIT ENTRANCES.
CC. UNIT FURNITURE IN CONTRACT. SEE FF&E DRAWINGS FOR ADDITIONAL INFO.
DD. PROVIDE ONE MIRROR AND ONE MEDICINE CABINET FOR EACH UNIT BATH. MIRROR WIDTH AS SHOWN ON BATH ELEVATIONS, TYPICAL. SEE TYPICAL PROJECT DETAILS SHEETS FOR MOUNTING HEIGHTS REQUIREMENTS AND SPECIFICATIONS FOR ALL OTHER REQUIRED TOILET ACCESSORIES.
EE. SEE TYPICAL PROJECT DETAILS SHEETS FOR MOUNTING HEIGHTS AND OTHER MOUNTING DIMENSIONS REQUIRED FOR PLUMBING AND OTHER FIXTURES REQUIRED.
FF. ALL RESIDENTIAL UNIT WINDOWS TO RECEIVE WINDOW TREATMENTS AS NOTED IN FINISH SCHEDULE.
GG. PROVIDE ONE DOOR VIEWER AT THE TYPE B UNIT ENTRY DOOR AND TWO DOOR VIEWERS AT THE TYPE A UNIT ENTRY DOOR.
HH. WIRE SHELVING REQUIREMENTS SHALL BE PROVIDED FOR ENTIRE WIDTH OF THE CLOSET AS FOLLOWS: BEDROOM CLOSET (1 SHELF AND ROD FIXED), COAT CLOSET (1 SHELF AND ROD FIXED), UTILITY (1 SHELF FIXED). SEE TYPICAL PROJECT DETAILS SHEETS FOR MOUNTING HEIGHT REQUIREMENTS.
II. ALL RESIDENTIAL UNITS TO RECEIVE PLASTIC LAMINATE KITCHEN AND VANITY COUNTERTOPS WITH DROP-IN SINKS. COMMUNITY ROOM KITCHEN TO RECEIVE QUARTZ COUNTERTOPS.
JJ. IN TYPE A UNITS AND PUBLIC AREAS, ALL COUNTERTOPS TO BE SET AT 34 INCHES MAXIMUM HEIGHT TO THE TOP OF KITCHEN OR BATH / TOILET SINK. RM. ON TYPE B UNITS, ALL VANITY COUNTERTOPS TO BE SET AT 34 INCHES MAXIMUM HEIGHT TO THE TOP OF BATH SINK RM.
KK. AT TYPE A UNITS AND PUBLIC AREAS WITH TOP SET BACKSPLASH, 1 INCH THICK SQUARE EDGE, RECEPTACLES TO BE LOCATED HORIZONTALLY ON FACE OF BACKSPLASH. BACKSPLASH TO BE 6 INCHES HIGH AT THESE LOCATIONS. AT TYPE A UNIT COUNTERTOPS WITHOUT BACKSPLASH, MOUNT CENTER OF WALL RECEPTACLES ABOVE COUNTER, NOT HIGHER THAN 40 INCHES A.F.F. COORDINATE WITH CASEWORK ELEVATIONS. SEE TYPICAL PROJECT DETAILS SHEETS.
LL. UNITS MAY BE OPPOSITE HAND OF THOSE SHOWN ON ENLARGED UNIT PLANS AND RCP'S. SEE OVERALL FLOOR PLANS FOR LOCATIONS AND ORIENTATION OF UNITS.

GENERAL NOTES - ENLARGED UNIT RCP

A. PAINT DESIGNATED FOR EXPOSED OVERHEAD STRUCTURE IS TO INCLUDE ALL EXPOSED COMPONENTS INCLUDING (BUT NOT EXCLUSIVE TO) DECKING, STRUCTURAL MEMBERS, MECHANICAL AND ELECTRICAL DELIVERY SYSTEMS, FIRE PROTECTION SYSTEMS (INCLUDING SPRINKLER HEADS), AND ALL OTHER MISCELLANEOUS BUILDING SYSTEMS LOCATED OVERHEAD. EACH OF THE ABOVEMENTIONED CATEGORIES IS TO INCLUDE ANY AND ALL ASSOCIATED SUPPORTS, FASTENERS, HANGERS, STRUTS, BRACES, BRACKETS, ETC.
B. LIGHT FIXTURES SHOWN TO INDICATE PROPOSED FIXTURES AND GENERAL DESIGN INTENT.
C. FINISHED CEILING HEIGHTS ARE FROM TOP OF FINISH FLOOR, U.O.D.
D. COORDINATE LOCATION OF FIXTURES WITH STRUCTURAL, MECHANICAL, ELECTRICAL, PLUMBING AND FIRE SUPPRESSION DRAWINGS. ANY CONFLICT BETWEEN TRADES, NOTIFY ARCHITECT PRIOR TO INSTALLATION.
E. FACE OF BULKHEADS SHALL ALIGN WITH FACE OF ADJACENT WALLS TO WHICH BULKHEADS ARE PARALLEL, U.O.D. OR DIMENSIONED.
F. PAINT DUCTWORK INSIDE AIR GRILLES FLAT COLOR.
G. ALL GYPSUM BOARD SOFFITS AND CEILINGS TO BE PAINTED FLAT CEILING WHITE (U.O.C.).
H. CEILING GRIDS ARE CENTERED ON ROOM, U.O.D. OR DIMENSIONED.
I. ALL CEILING DEVICES TO BE CENTERED IN TILE, U.O.D.
J. WHERE EXIT SIGNS OCCUR OVER A DOOR OR PAIR OF DOORS, CENTER SIGN ON DOOR OPENING.
K. GYPSUM BOARD CEILINGS FRAMED TO THE UNDERSIDE OF WOOD TRUSSES SHALL BE INSTALLED TIGHT TO THE BOTTOM CHORD WITH A 1/2 INCH RESILIENT CHANNEL. CEILINGS BELOW 2X WOOD FRAMING SHALL MATCH THE HEIGHT OF THE CEILINGS BELOW THE WOOD TRUSSES UNLESS NOTED OTHERWISE. ALL CEILING ACCESSORIES AND WALLS MUST MAINTAIN THE INTEGRITY OF THE FIRE RATED CEILING ASSEMBLIES.
L. SEE ELECTRICAL DRAWINGS FOR THE REQUIRED ELECTRICAL DEVICES. FIRST AND SECOND FLOOR REFLECTED CEILING PLANS SHOW GENERAL LOCATION OF CANS IN THE PUBLIC CORRIDORS.
M. CONTINUE RATED GYPSUM BOARD ABOVE ANY DROP CEILINGS AND SOFFITS. PROVIDE A RATED ACCESS PANEL AT ALL SMOKE DAMPER LOCATIONS. COORDINATE FINAL LOCATION WITH ARCHITECT. PROVIDE ONE ACCESS PANEL PER FLOOR AT ALL SHAFT LOCATIONS. ACCESS PANEL TO BE ON THE PUBLIC CORRIDOR SIDE. ON OPEN UNOCCUPIED SHAFT ENCLOSURES PROVIDE ONE RATED ACCESS PANEL PER FLOOR FOR FUTURE INSTALLATION OF MECHANICAL SYSTEMS.
O. COORDINATE FINAL SOFFIT LOCATION WITH FINAL CABINET LAYOUT.

GENERAL NOTES - ENLARGED UNIT RCP

A. PAINT DESIGNATED FOR EXPOSED OVERHEAD STRUCTURE IS TO INCLUDE ALL EXPOSED COMPONENTS INCLUDING (BUT NOT EXCLUSIVE TO) DECKING, STRUCTURAL MEMBERS, MECHANICAL AND ELECTRICAL DELIVERY SYSTEMS, FIRE PROTECTION SYSTEMS (INCLUDING SPRINKLER HEADS), AND ALL OTHER MISCELLANEOUS BUILDING SYSTEMS LOCATED OVERHEAD. EACH OF THE ABOVEMENTIONED CATEGORIES IS TO INCLUDE ANY AND ALL ASSOCIATED SUPPORTS, FASTENERS, HANGERS, STRUTS, BRACES, BRACKETS, ETC.

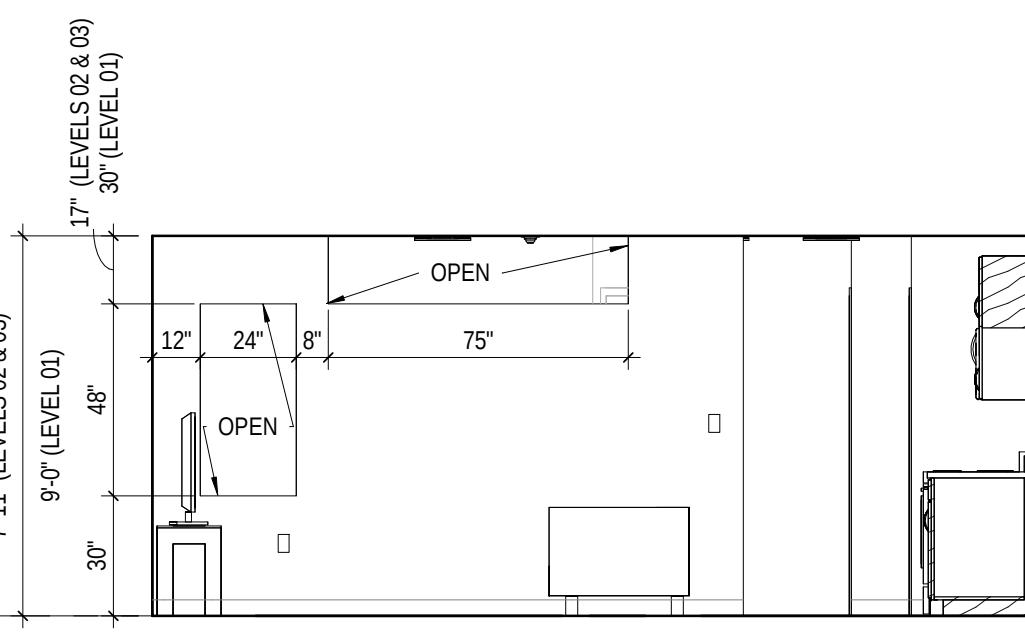
TYPICAL RESIDENTIAL DOOR SCHEDULE													
U-A	DOOR TYPE	DOOR				FRAME		FIRE RATING	HDW SET	DETAILS - SHEET A710			REMARKS
		WIDTH	HEIGHT	THICKNESS	MATERIAL	ELEV	MATERIAL			ELEV	HEAD	JAMB	
U-A	UNIT ENTRY	3'-0"	6'-8"	1 3/4"	ID	AT	HM	1	20 MIN	U1	10	9	UNIT ENTRANCE DOOR, ALL UNIT TYPES
U-BA	BATHROOM	3'-0"	6'-8"	1 3/4"	ID	AP	WD	1		U3	8	7	ALL UNIT TYPES, ALL BATH LOCATIONS
U-B01	BEDROOM	3'-0"	6'-8"	1 3/4"	ID	AP	WD	1		U3	8	7	ALL UNIT TYPES, 90 DEGREE DOOR SWING
U-B02	BEDROOM	3'-0"	6'-8"	1 3/4"	ID	AP	WD	1		U3	8	7	ALL UNIT TYPES, 140 DEGREE DOOR SWING
U-B03	BEDROOM	3'-0"	6'-8"	1 3/4"	ID	AP	WD	1		U3	8	7	ALL UNIT TYPES, 180 DEGREE DOOR SWING
U-CL1	CLOSET	3'-0"	6'-8"	1 3/4"	ID	AP	WD	1		U2	8	7	SINGLE SWING DOOR, TYPE A UNIT, ACCESSIBLE LOCATIONS, U.N.O.
U-CL2	CLOSET	5'-0"	6'-8"	1 3/4"	ID	AAPS	WD	3		U5	14	13	BYPASS DOOR, TYPE B UNITS
U-CL3	CLOSET	5'-0"	6'-8"	1 3/4"	ID	AAP	WD	3		U4	8	7	DOUBLE SWING DOOR, TYPE A UNIT, ACCESSIBLE LOCATIONS
U-CL4	CLOSET	6'-0"	6'-8"	1 3/4"	ID	AAPS	WD	3		U5	14	13	BYPASS DOOR, TYPE B UNITS
U-C01	COAT	2'-6"	6'-8"	1 3/4"	ID	AP	WD	1		U2	8	7	ALL UNIT TYPES
U-UT1	UTILITY	5'-0"	6'-8"	1 3/4"	ID	AAP	WD	3		U4	8	7	DOUBLE SWING DOOR, TYPE A UNIT, ACCESSIBLE LOCATIONS
U-UT2	UTILITY	5'-0"	6'-8"	1 3/4"	ID	AAPS	WD	3		U5	14	13	BYPASS DOOR, TYPE B UNITS

- PROVIDE A ROBE HOOK ON THE DOOR OF BATH ROOMS. HOOK TO FACE SIDE OF TOILET AREA.
- ALL DOOR WIDTHS IN OCCUPIED ROOMS OF BUILDING TO BE 32" MIN CLEAR.
- ALL DOORS PROVIDING ACCESS TO RESIDENTIAL SPACES TO BE PAINTED.
- HM = HOLLOW METAL, WD = WOOD, ID = INTERIOR DOOR (WOOD, SOLID CORE)
- SEE SHEET A701 FOR DOOR AND FRAME ELEVATIONS.

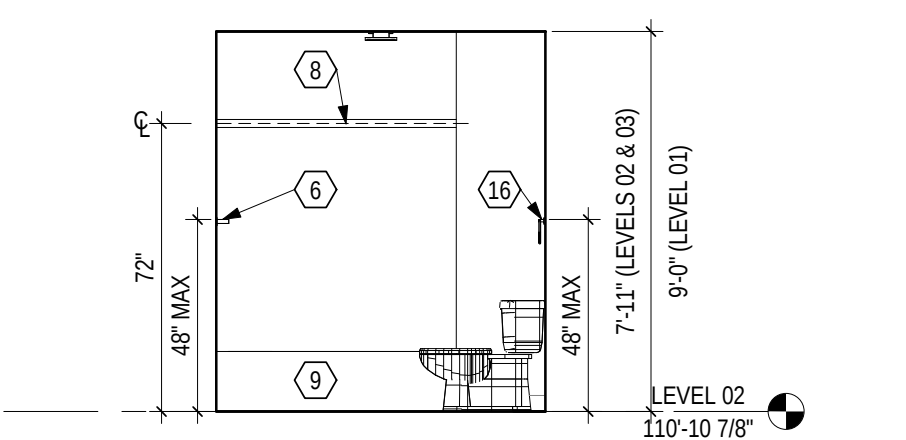
TYPICAL RESIDENTIAL UNIT FINISH SCHEDULE					
ROOM NAME	FLOOR FINISH	COLOR	WALLS FINISH	COLOR	SPACE DESCRIPTION
HALL	LV	1	PT	4	
COAT	LV	1	PT	4	APPLIES TO COAT CLOSET
LIVING	LV	1	PT	4	
DINING	LV	1	PT	4	
KITCHEN	LV	1	PT	4	
BEDROOM	LV	1	PT	4	APPLIES TO BEDROOM CLOSETS
CLOSET	LV	1	PT	4	
BATH	SV	1	PT	4	
UTILITY	LV	1	PT	4	

- GENERAL NOTES:
- A. REFER TO "FINISH LEGEND" A900 FOR MATERIAL AND COLOR INFORMATION.
B. ALL UNIT INTERIOR, DOORS AND DOOR FRAMES TO BE PAINTED PT-1 IN SEMI-GLOSS.
C. ALL WALL BASE WITHIN RESIDENTIAL UNITS TO BE RB-1. WINDOW AND DOOR OPENINGS TO RECEIVE WOOD CASINGS. WINDOWS TO RECEIVE CULTURED MARBLE SILLS.
D. CEILINGS TO BE PAINTED PT-6.
E. CONTINUE FLOOR FINISH INTO KNEE SPACE OF REMOVABLE CABINETS, PAINT BACK WALL, INSTALL WALL BASE.
F. ALL EXTERIOR WINDOWS TO RECEIVE MINI-BLINDS WITH HIDDEN CORDS AS SPECIFIED IN THE PROJECT MANUAL.
G. KITCHEN CABINETS TO BE ADVANTA / NEWBURY SLAB / OR SIMILAR IN EXPRESSO (SINGLE UNITS) AND SLATE (FAMILY UNIT).

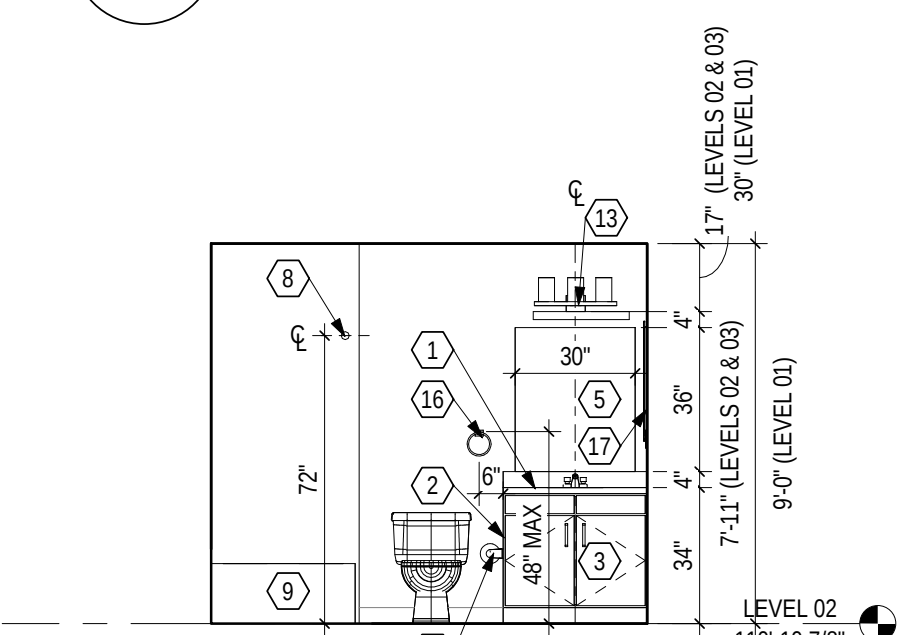
- KEYED REMARKS:
1. COAT ROD AND SHELF SPAN FULL WIDTH OF CLOSET.
2. WIRE SHELVING, TYPE A OR B TO SPAN FULL WIDTH OF CLOSET.
3. KITCHEN COUNTERTOP TO BE PL 2 / KITCHEN CABINERY TO BE CB-1 (SINGLE UNIT) AND CB-2 (FAMILY UNIT).
4. TYPE A KITCHEN TO HAVE A 6" HIGH X 34" THICK SQUARE EDGE BACKSPASH LENGTH OF BASE CABINERY.
5. RECEPTACLES TO BE MOUNTED HORIZONTALLY IN THE BACKSPASH.
6. BATH VANITY COUNTERTOP TO BE CULTURED MARBLE / CABINERY TO BE CB-1 (SINGLE UNIT) AND CB-2 (FAMILY UNIT).



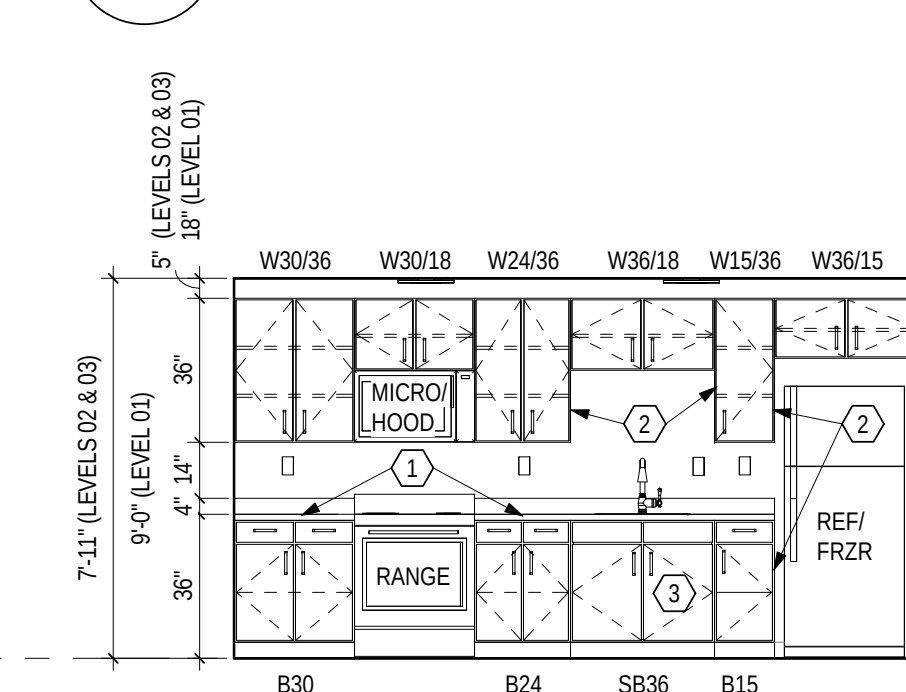
14 ELEVATION LIVING/BEDROOM WALL
1/4" = 1'-0"



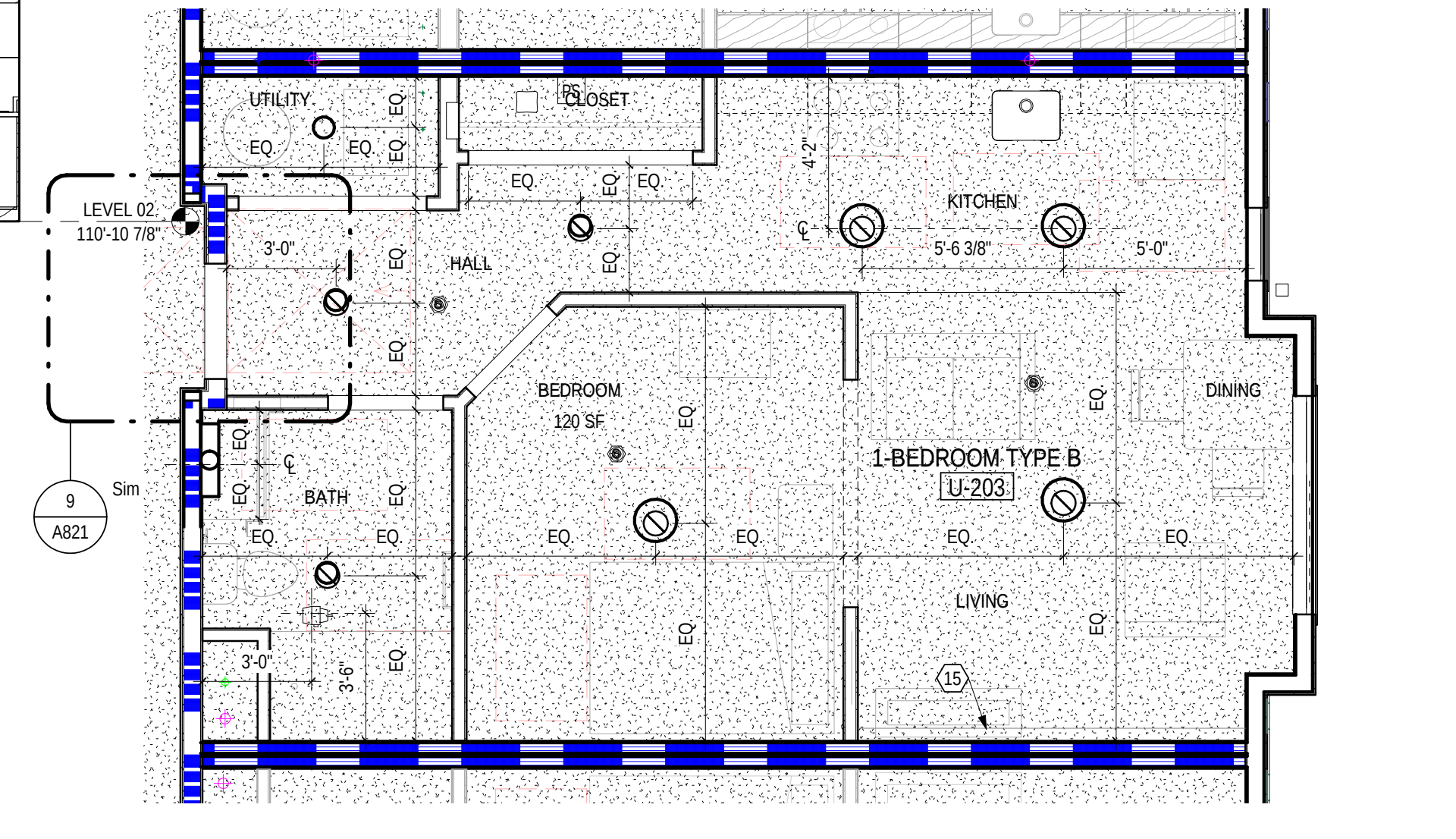
13 ELEVATION BATH - TYPE B
1/4" = 1'-0"



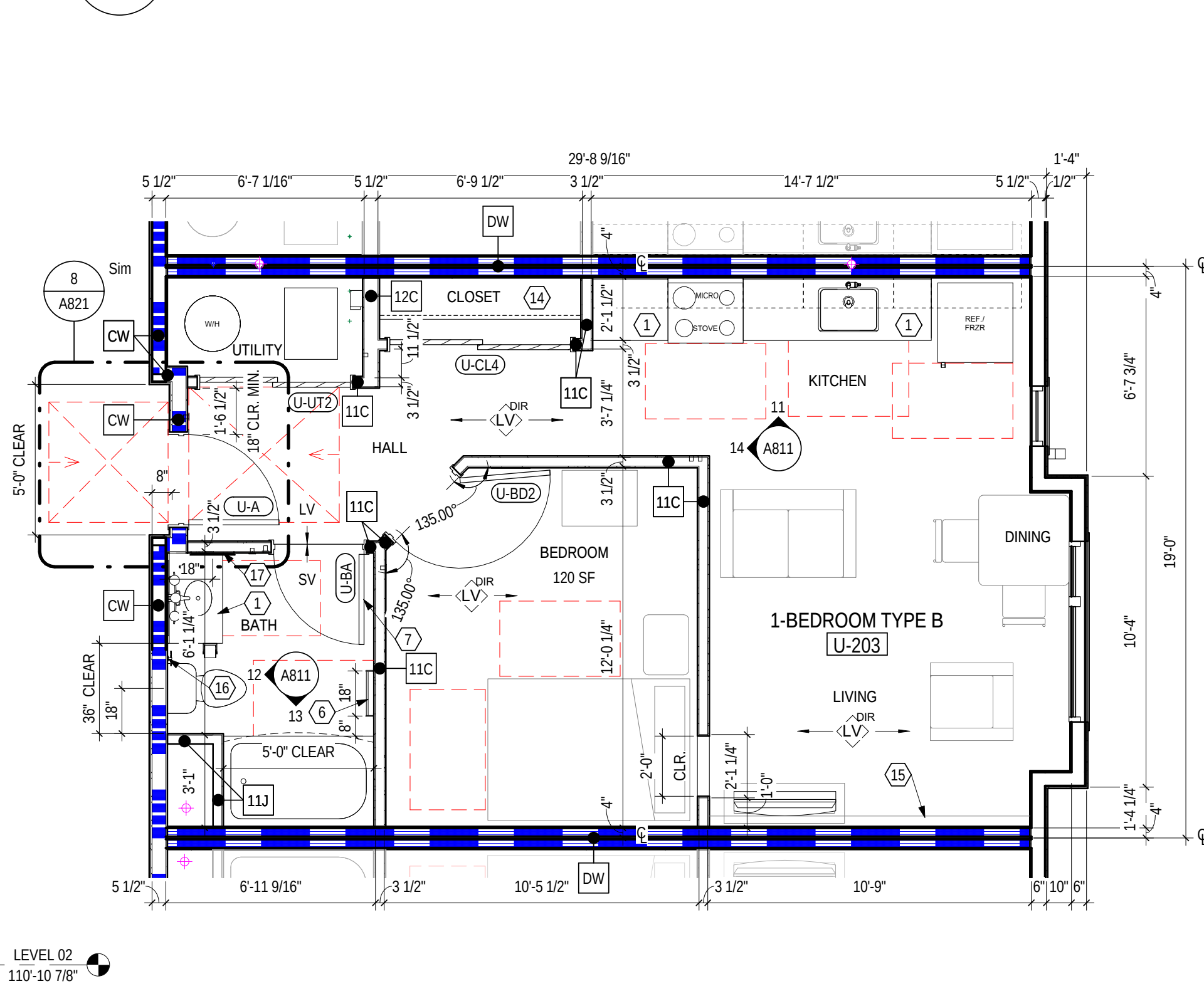
12 ELEVATION BATH - TYPE B
1/4" = 1'-0"



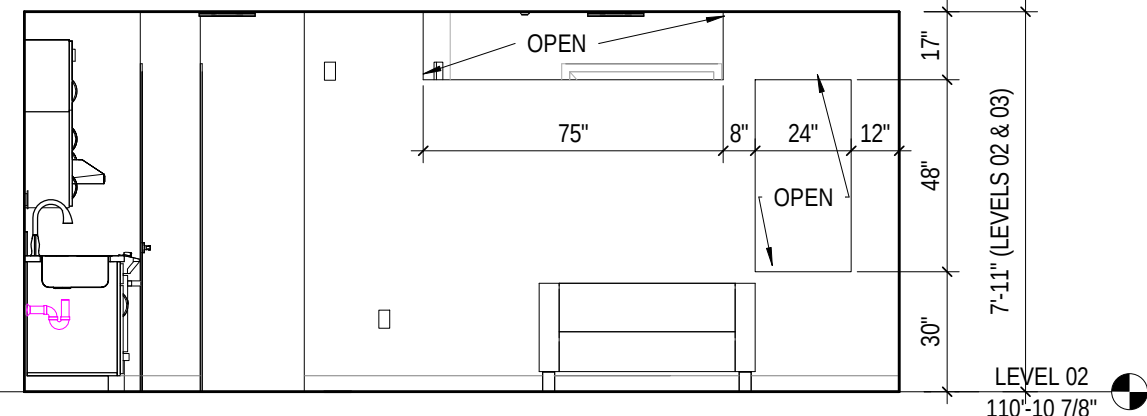
11 ELEVATION KITCHEN - TYPE B
1/4" = 1'-0"



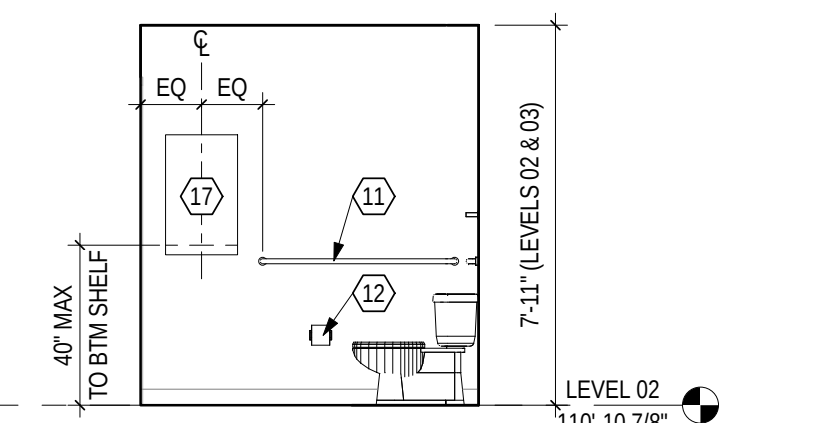
10 RCP 1-BEDROOM ENLARGED RCP - TYPE B
1/4" = 1'-0"



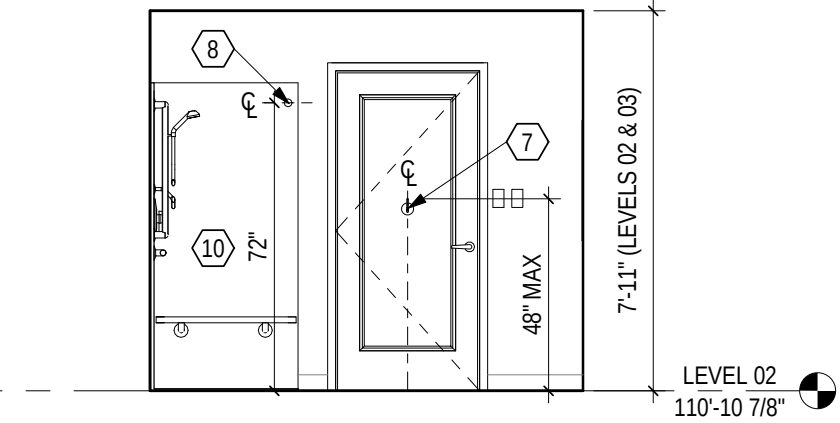
9 PLAN 1-BEDROOM ENLARGED UNIT - TYPE B
1/4" = 1'-0"



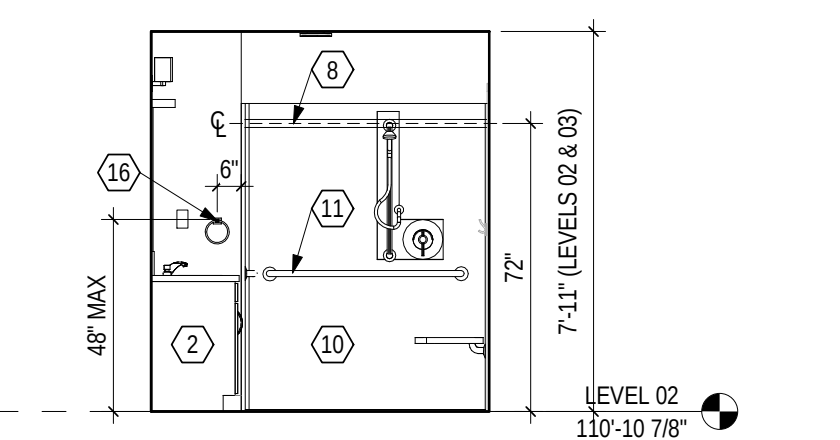
8 ELEVATION LIVING/BEDROOM WALL
1/4" = 1'-0"



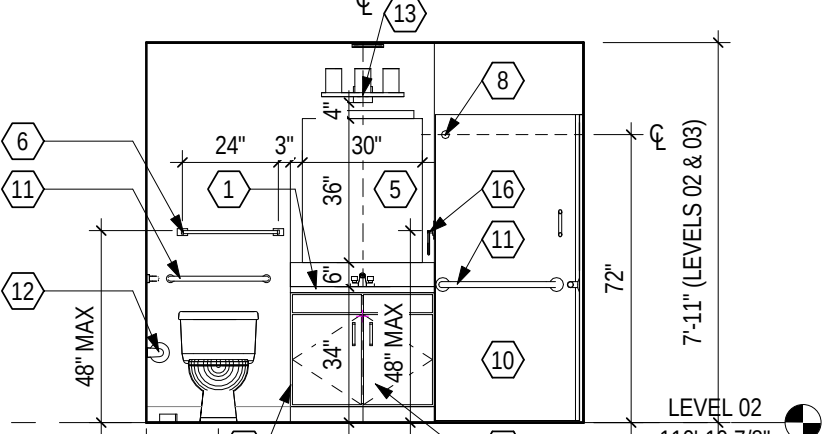
7 ELEVATION ACC BATH - TYPE A
1/4" = 1'-0"



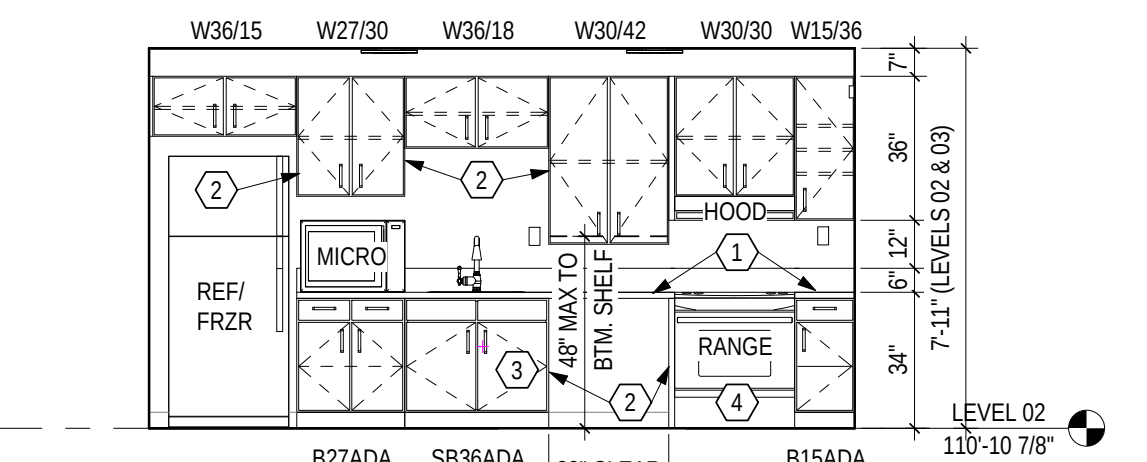
6 ELEVATION ACC BATH - TYPE A
1/4" = 1'-0"



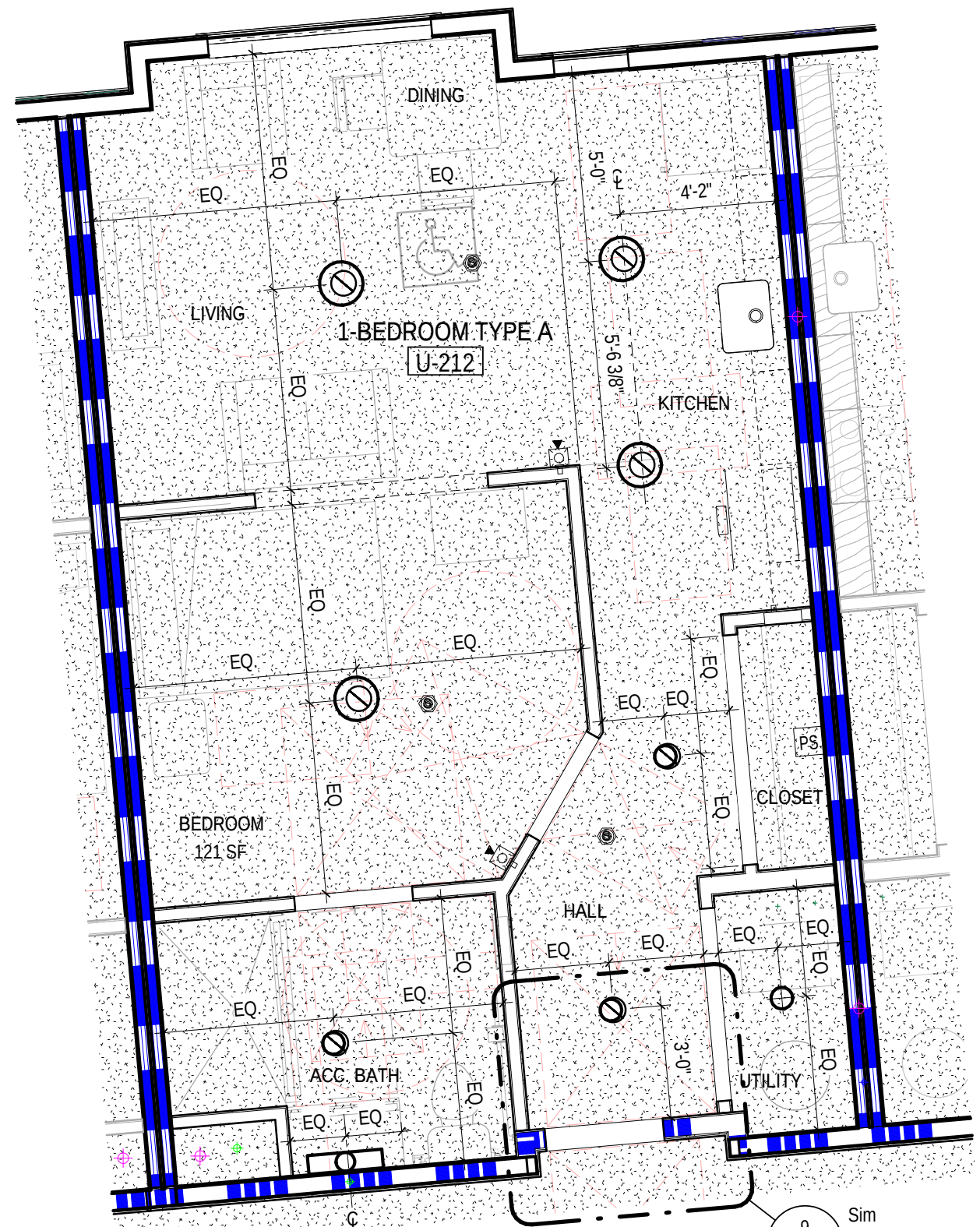
5 ELEVATION ACC BATH - TYPE A
1/4" = 1'-0"



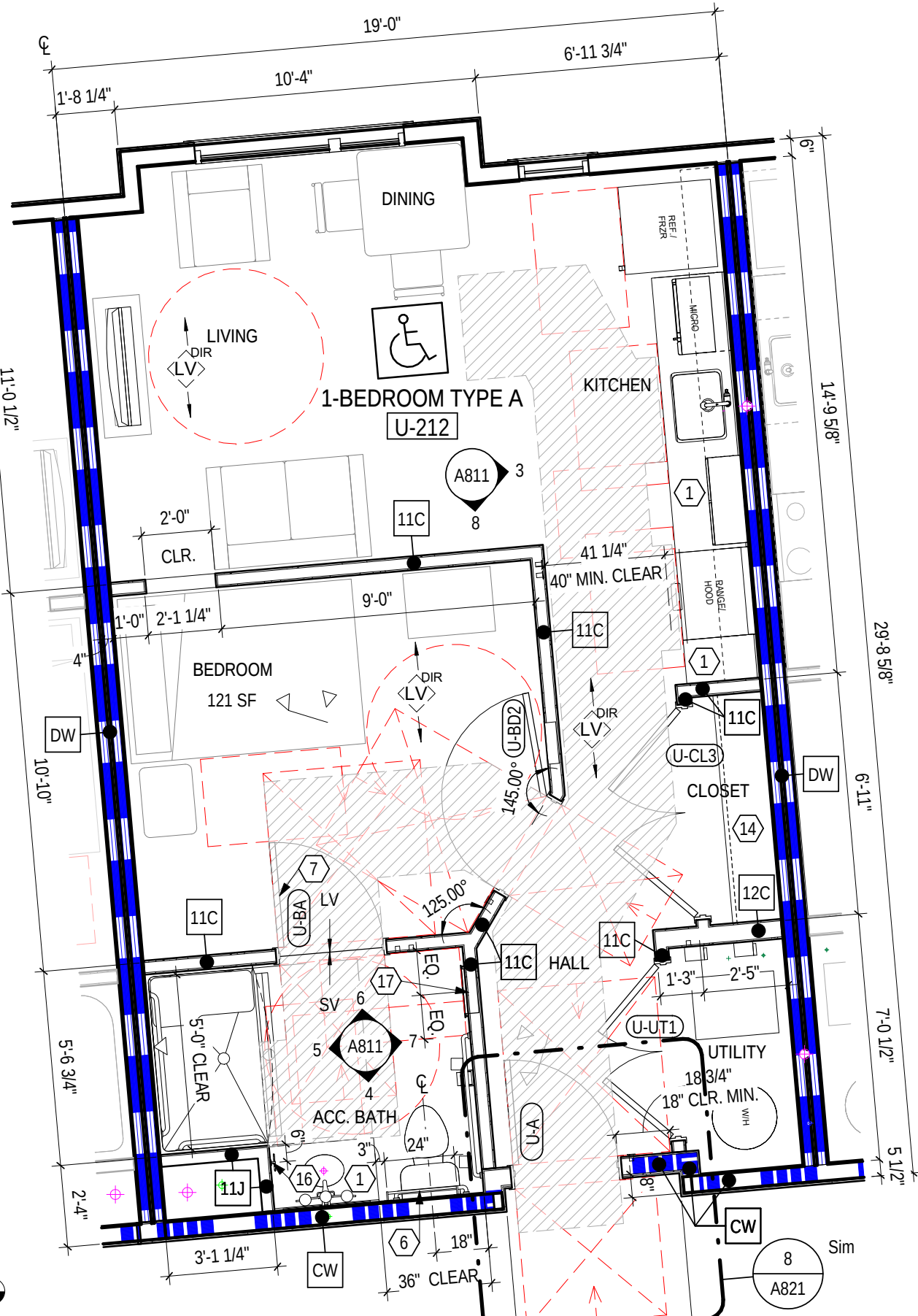
4 ELEVATION ACC BATH - TYPE A
1/4" = 1'-0"



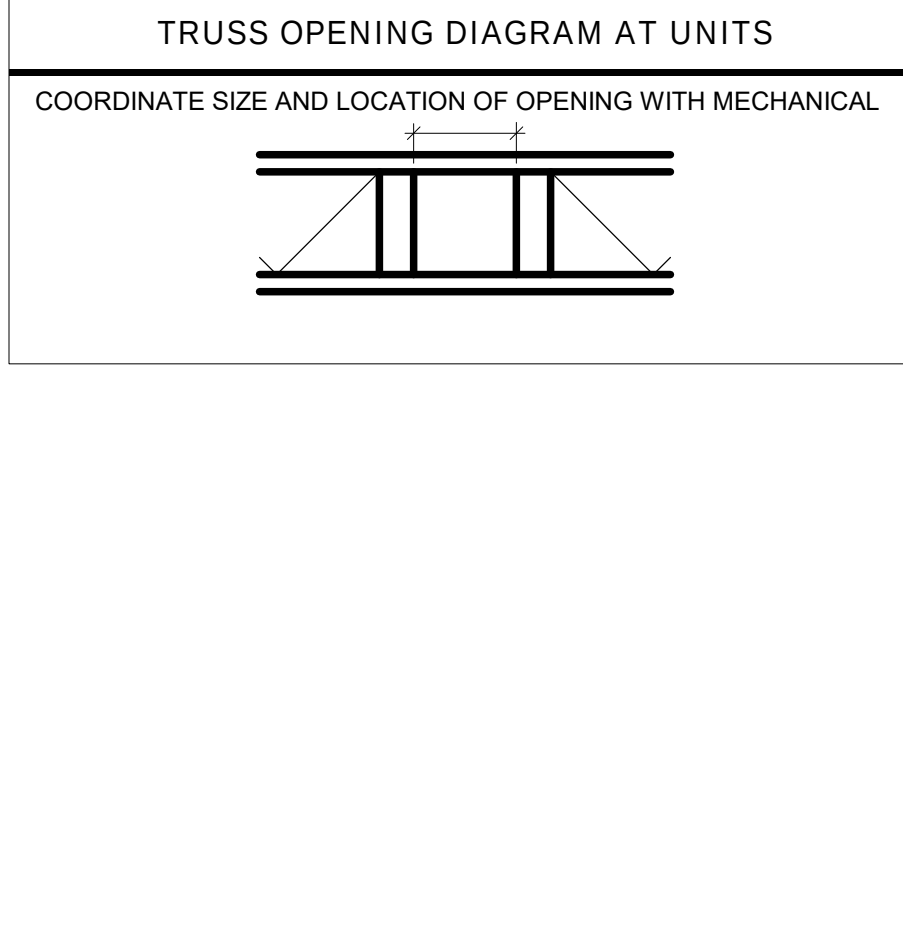
3 ELEVATION KITCHEN - TYPE A
1/4" = 1'-0"



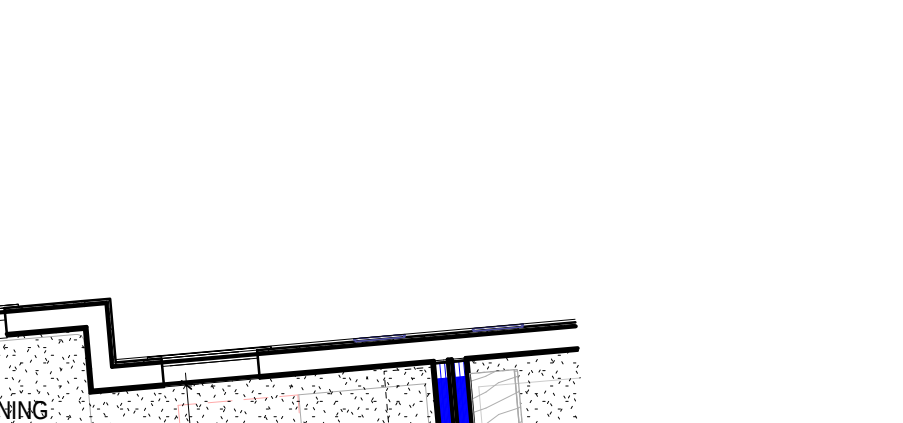
2 RCP 1-BEDROOM ENLARGED RCP - TYPE A
1/4" = 1'-0"



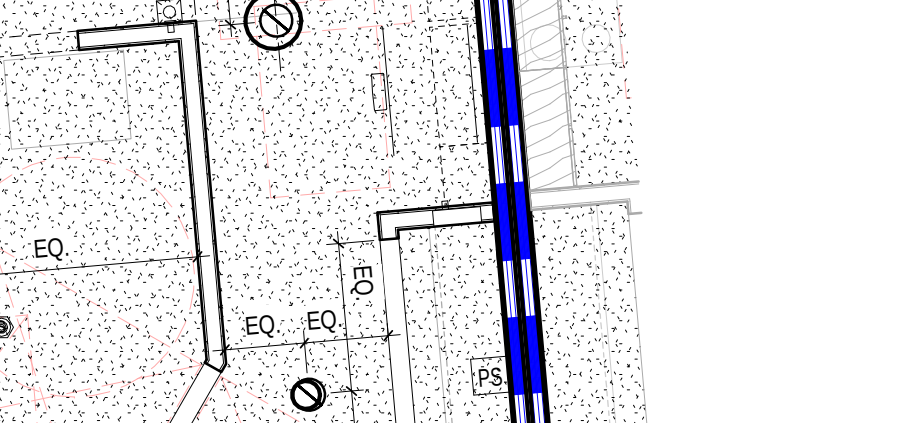
1 PLAN 1-BEDROOM ENLARGED UNIT - TYPE A
1/4" = 1'-0"



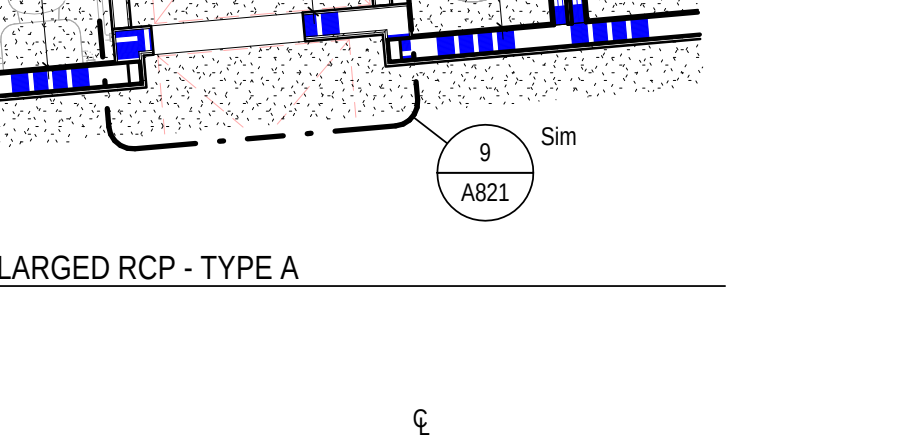
8 ELEVATION LIVING/BEDROOM WALL
1/4" = 1'-0"



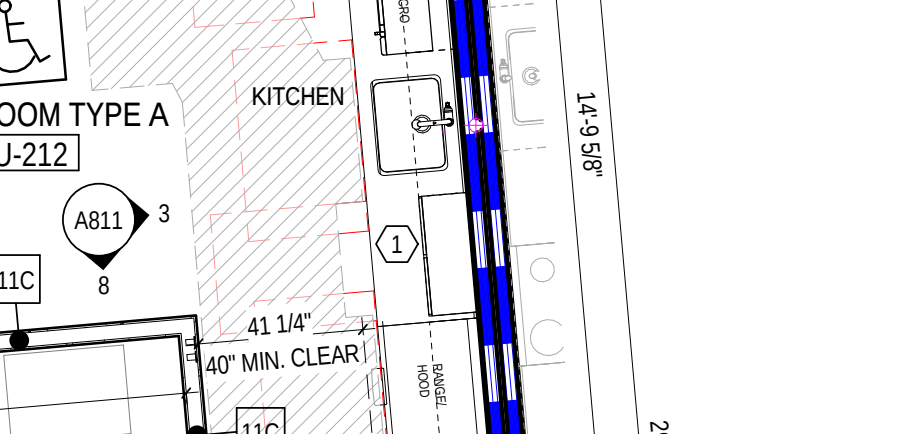
7 ELEVATION ACC BATH - TYPE A
1/4" = 1'-0"



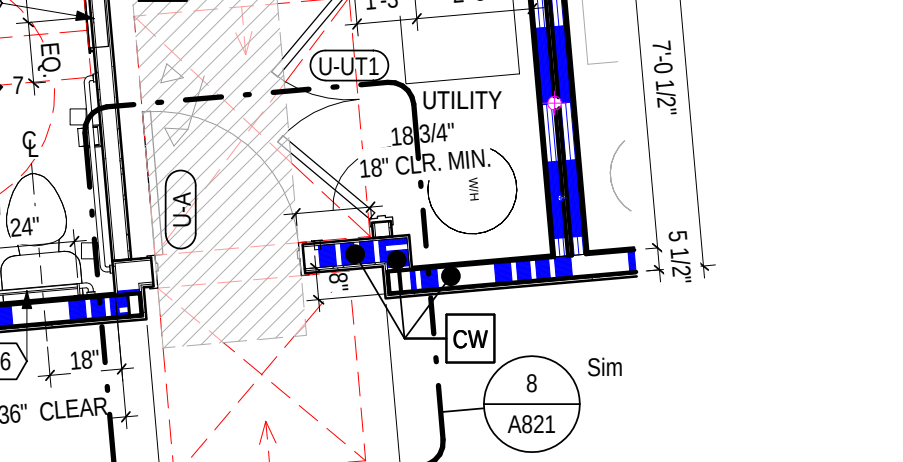
6 ELEVATION ACC BATH - TYPE A
1/4" = 1'-0"



5 ELEVATION ACC BATH - TYPE A
1/4" = 1'-0"



4 ELEVATION ACC BATH - TYPE A
1/4" = 1'-0"



3 ELEVATION KITCHEN - TYPE A
1/4" = 1'-0"

TRUSS OPENING DIAGRAM AT UNITS	
COORDINATE SIZE AND LOCATION OF OPENING WITH MECHANICAL.	

LEGEND - ENLARGED UNIT PLAN	
	1 HOUR FIRE RATING - INCLUDING BUT NOT LIMITED TO STAIR WALLS, ELEVATOR WALLS, UNIT DEMISING WALLS AND CORRIDOR WALLS
	INTERIOR PARTITION
	SENSORY (HEARING / VISUALLY IMPAIRED) UNIT - SEE OVERALL FLOOR PLANS FOR LOCATIONS. LOCATE MEP EQUIPMENT AND DEVICES TO MAINTAIN CLEARANCES AS NOTED AND AS DASHED IN FLOOR PLANS. SEE MEP DRAWINGS FOR ADDITIONAL INFO.
	ANSI TYPE A UNIT - SEE OVERALL FLOOR PLANS FOR LOCATIONS. LOCATE MEP EQUIPMENT AND DEVICES TO MAINTAIN CLEARANCES AS NOTED AND AS DASHED IN FLOOR PLANS. UNITS TO ALSO INCLUDE SENSORY (HEARING / VISUALLY IMPAIRED) UNIT FEATURES. SEE MEP DRAWINGS FOR ADDITIONAL INFO.
	PLAN ELEVATION
	DIRECTION OF INSTALLATION OF LVT FLOORING - SEE FINISH SCHEDULE FOR ADDITIONAL INFO.
	DOOR TYPE
	REQUIRED 30"x48" CLEAR FLOOR SPACE - 48" SHALL BE CENTERED AT APPLIANCES AND SINKS
	UNOBSTRUCTED CLEARANCE FOR PATH OF ACCESSIBLE MEANS OF EGRESS, MIN. 36" REQUIRED

CODED NOTE LEGEND - ENLARGED UNIT PLANS / ELEVATIONS

- SEE TYPICAL PROJECT DETAILS SHEETS FOR ADDITIONAL INFORMATION, INCLUDING ALL MOUNTING HEIGHT REQUIREMENTS.
- PLUM COUNTER WITH COUNTERTOP METAL SUPPORTS. TOP OF COUNTER AT 36 INCHES A.F.F. IN TYPE B UNIT KITCHENS AND 34 INCHES MAX A.F.F. AT TYPE A UNIT KITCHENS. TYPE A & B UNIT COUNTERTOPS TO BE AT 34 INCHES MAX A.F.F. IN TYPE A UNIT WORK AREAS PROVIDE INTERMEDIATE SUPPORTS & TYPE A UNIT SINKS PROVIDE VALANCE.
 - FINISHED END PANEL, TYPICAL.
 - REMOVABLE CABINET FRONT AND BASE AT TYPE A AND TYPE B UNITS. MATCH ADJACENT CABINETS. SEE GENERAL NOTES.
 - RANGE WITH FRONT MOUNTED CONTROLS AT TYPE A UNIT KITCHENS. PROVIDE SKIRT AS NEEDED TO MOUNT COOKTOP AT 34 INCHES A.F.F. TO MATCH ADJACENT COUNTERTOP HEIGHT.
 - VANITY MIRROR, FULL WIDTH OF VANITY.
 - TOWEL BAR.
 - ROBE HOOK.
 - SHOWER CURTAIN ROD.
 - PREFABRICATED TUB / SHOWER. SEE PLUMBING PLANS.
 - ROLL IN SHOWER WITH LINEAR FLOOR DRAIN AT AT TYPE A UNITS ONLY. REFER TO PLUMBING DRAWINGS.
 - GRAB BARS.
 - TOWEL HOLDER.
 - LIGHT FIXTURE, CENTER ABOVE MIRROR, REFER TO ELECTRICAL DRAWINGS.
 - WIRE SHELVING. SEE GENERAL NOTES.
 - FURR OUT EXTERIOR WALL W PARTITION TYPE 113 AT LIVING ROOM LOCATION IN UNIT U-108 ONLY. SEE OVERALL PLANS FOR LOCATION.
 - TOWEL RING.
 - MEDICINE CABINET.

GENERAL NOTES - ENLARGED UNIT RCP

- A. PAINT DESIGNATED FOR EXPOSED OVERHEAD STRUCTURE IS TO INCLUDE ALL EXPOSED COMPONENTS INCLUDING (BUT NOT EXCLUSIVE TO) DECKING, STRUCTURAL MEMBERS, MECHANICAL AND ELECTRICAL DELIVERY SYSTEMS, FIRE PROTECTION SYSTEMS (EXCLUDING SPRINKLER HEADS), AND ALL OTHER MISCELLANEOUS BUILDING SYSTEMS LOCATED OVERHEAD. EACH OF THE FOREMENTIONED CATEGORIES IS TO INCLUDE ANY AND ALL ASSOCIATED SUPPORTS, FASTENERS, HANGERS, STRUTS, BRACES, BRACKETS, ETC.
- B. LIGHT FIXTURES SHOWN TO INDICATE PROPOSED FIXTURES AND GENERAL DESIGN INTENT.
- C. FINISHED CEILING HEIGHTS ARE FROM TOP OF FINISH FLOOR, U.N.O.
- D. COORDINATE LOCATION OF FIXTURES WITH STRUCTURAL, MECHANICAL, ELECTRICAL, PLUMBING AND FIRE SUPPRESSION DRAWINGS, ANY CONFLICT BETWEEN TRADES, NOTIFY ARCHITECT PRIOR TO INSTALLATION.
- E. FACE OF BULKHEADS SHALL ALIGN WITH FACE OF ADJACENT WALLS TO WHICH BULKHEADS ARE PARALLEL, U.N.O. OR DIMENSIONED.
- F. PAINT DUCTWORK INSIDE AIR GRILLES FLAT COLOR.
- G. ALL GYPSUM BOARD SOFFITS AND CEILINGS TO BE PAINTED FLAT CEILING WHITE (U.N.O.).
- H. CEILING GRIDS ARE CENTERED ON ROOM, U.N.O. OR DIMENSIONED.
- I. ALL CEILING DEVICES TO BE CENTERED IN TILE, U.N.O.
- J. WHERE EXIT SIGNS OCCUR OVER A DOOR OR PAIR OF DOORS, CENTER SIGN ON DOOR OPENING.
- K. GYPSUM BOARD CEILINGS FRAMED TO THE UNDERSIDE OF WOOD TRUSSES SHALL BE INSTALLED TIGHT TO THE BOTTOM CHORD WITH A 1/2 INCH RESILIENT CHANNEL. CEILINGS BELOW 2X WOOD FRAMING SHALL MATCH THE HEIGHT OF THE CEILINGS BELOW THE WOOD TRUSSES UNLESS NOTED OTHERWISE. ALL CEILING ASSEMBLIES AND WALLS MUST MAINTAIN THE INTEGRITY OF THE FIRE RATED CEILING ASSEMBLIES.
- L. SEE ELECTRICAL DRAWINGS FOR THE REQUIRED ELECTRICAL DEVICES. FIRST AND SECOND FLOOR REFLECTED CEILING PLANS SHOW GENERAL LOCATION OF CANS IN THE PUBLIC CORRIDORS.
- M. CONTINUE RATED GYPSUM BOARD ABOVE ANY DROP CEILINGS AND SOFFITS. PROVIDE A RATED ACCESS PANEL AT ALL SMOKE DAMPER LOCATIONS. COORDINATE FINAL LOCATIONS WITH ARCHITECT. PROVIDE ONE ACCESS PANEL PER FLOOR AT ALL SHAFT LOCATIONS. ACCESS PANEL TO BE ON THE PUBLIC CORRIDOR SIDE, ON OPEN UNOCCUPIED SHAFT ENCLOSURES PROVIDE ONE RATED ACCESS PANEL PER FLOOR FOR FUTURE INSTALLATION OF MECHANICAL SYSTEMS.
- O. COORDINATE FINAL SOFFIT LOCATION WITH FINAL CABINET LAYOUT.

RCP LEGEND

	G1 GYPSUM BOARD CEILING OR SOFFIT (INSTALLED DIRECT TO STRUCTURE)
	G2 GYPSUM BOARD CEILING OR SOFFIT (ADDITIONAL LOWER CEILING)
	2X2 LIGHT FIXTURE
	1X4 LIGHT FIXTURE (SHADING DENOTES EMERGENCY FIXTURE)
	SURFACE MOUNTED LIGHT (SHADING DENOTES EMERGENCY FIXTURE)
	WALL MOUNTED VANITY LIGHT
	SUPPLY DIFFUSER
	LINEAR DIFFUSER
	EXHAUST/RETURN GRILLE
	ACCESS PANEL
	CEILING TAG WITH HEIGHT

NOTE: COORDINATE ARCHITECTURAL REFLECTED CEILING PLANS WITH THE MECHANICAL AND ELECTRICAL DRAWINGS FOR NUMBER, OF, AND LOCATIONS. OF, AND TYPES OF FIXTURES AND GRILLES. NOT ALL ITEMS SHOWN ON LEGEND MAY BE PRESENT IN PROJECT.

CODED NOTE LEGEND - ENL. UNIT RCP

- ALIGN FEATURES
- OPEN TO ABOVE
- CENTER FIXTURE ABOVE VANITY, TYPICAL

GENERAL NOTES - ENLARGED UNIT PLANS

- A. ALL DIMENSIONS ARE TO FACE OF STUD UNLESS NOTED OTHERWISE.
- B. WALLS ARE 2x4 WOOD FRAMING U.N.O. SEE SHEET G003 FOR PARTITION INFO.
- C. EXTERIOR WALL CONDITIONS VARY. REFER TO OVERALL FLOOR PLAN SHEETS FOR EXTERIOR WALL AND WINDOW CONDITIONS.
- D. RESIDENTIAL UNITS: TYPE B DENOTES TYPE B AND TYPE A DENOTES ANSI TYPE A. UNITS SHALL COMPLY WITH THE ACCESSIBILITY REQUIREMENTS REFERENCED ON THE CODE INFORMATION. THIS INCLUDES BUT IS NOT LIMITED TO ADA AND ANSI 109.
- E. PROVIDE WOOD BLOCKING ON ALL RESIDENTIAL TYPE A AND TYPE B UNITS IN BATHS AND AS INDICATED ON "TYPICAL UNIT DETAILS" SHEETS. SEE ADO SERIES AND ADO SERIES SHEETS FOR TYPE A & B UNIT LOCATIONS AND LAYOUTS. ALL UNITS TO RECEIVE BLOCKING FOR GRAB BARS (TYPE A UNITS) AND FUTURE GRAB BARS (TYPE B UNITS). SEE "TYPICAL UNIT DETAILS" SHEETS FOR LENGTHS AND LOCATIONS OF GRAB BARS.
- F. PROVIDE WOOD BLOCKING NOT SHOWN OR SHOWN AS REQUIRED TO MOUNT MILLWORK, MEP DEVICES AND ALL FIXTURES.
- G. ALL DOOR OPENINGS TO BE USABLE / OCCUPIED ROOMS IN RESIDENTIAL AND PUBLIC AREAS SHALL BE MINIMUM 32 INCHES CLEAR OR GREATER.
- H. COORDINATE TRUSS LAYOUT AND DESIGN WITH MECHANICAL, ELECTRICAL AND PLUMBING LAYOUT PRIOR TO FABRICATION. TRUSS SHOP DRAWINGS SHALL INDICATE PLUMBING LINES AND HVAC DUCTS. PROVIDE COORDINATION DRAWING TO ARCHITECT. FRAMING CONTRACTOR SHALL COORDINATE TRUSS FRAMING OFFSETS AS REQUIRED TO ACCOMMODATE SANITARY LINES AND OTHER MEP EQUIPMENT / FIXTURES.
- I. INSTALL ACOUSTIC BATT INSULATION AT PARTITIONS WITH PLUMBING STACKS.
- J. WATER SUPPLY AND DRAIN PIPES UNDER LAVATORIES AND SINKS MUST BE INSULATED TO PROTECT AGAINST CONTACT, INCLUDING COLD WATER SUPPLIES. PROVIDE SPRAY FOAM INSULATION AT DEMISING AND EXTERIOR WALLS AT LOCATIONS AROUND PLUMBING INSTALLATIONS. PROVIDE A VALANCE AT AREAS WITH EXPOSED SINK DRAINS. SEE TYPICAL PROJECT DETAILS SHEETS FOR REQUIREMENTS.
- K. HORIZONTAL OFFSETS IN PLUMBING DRAIN PIPES: PROVIDE ACOUSTIC PIPE INSULATION, REFER TO PLUMBING DRAWINGS.
- L. ALL RESIDENTIAL UNITS TO RECEIVE A PREFABRICATED TUB (TYPE B UNIT AND NON-ACCESSIBLE BATH IN TYPE A UNITS) OR ROLL-IN SHOWER (ACCESSIBLE BATHS IN TYPE A UNITS). BLOCKING FOR INSTALLATION OF GRAB BARS AND OTHER SHOWER FIXTURES TO BE FACTORY INSTALLED IN PREFABRICATED UNITS. SEE PLUMBING INFORMATION, WALL ROUGH FRAMING DIMENSION REQUIREMENTS MUST BE COORDINATED WITH SELECTED TUB SHOWER UNIT. NOTE THAT THESE DIMENSIONS TEND TO VARY PER MANUFACTURER. SEE TYPICAL PROJECT DETAILS FOR LAYOUT OF TUB / SHOWER BLOCKING AND FIXTURES. SEE PLUMBING DRAWINGS FOR EXACT DIMENSIONS REQUIRED.
- M. LAUNDRY ROOM DRYER VENTING LOCATIONS SHALL BE COORDINATED WITH ARCHITECT. ROUTING SHALL NOT EXCEED 35 FEET WITH ONLY ONE BEND. LABEL LENGTH OF ANY DRYER VENTING DUCT ON THE LAUNDRY ROOMS PER REQUIREMENT BY THE CITY OF COLUMBUS.
- N. RANGES IN TYPE A UNITS ARE DROP IN TYPE: SEE SPECIFICATIONS. PROVIDE CABINET BASE TO MOUNT THE APPLIANCE AS REQUIRED TO ALIGN RANGE TOP WITH TOP OF COUNTERTOP.
- O. ALL MEP OPERABLE CONTROLS, FIXTURES, OUTLETS AND ALL OTHER RESIDENTIAL TOILET OR UNIT ACCESSORIES SHALL NOT BE MOUNTED LOWER THAN 18 INCHES AFF AND HIGHER THAN 48 INCHES. SEE TYPICAL PROJECT DETAILS FOR ADDITIONAL MOUNTING REQUIREMENTS.
- P. ALL RESIDENTIAL UNIT MICROWAVES (TYPE B UNITS) AND RANGE HOODS (TYPE A UNITS) TO BE TYPED AND VENTED TO THE EXTERIOR. SEE ELECTRICAL INFORMATION. INSTALL PER ENERGY STAR AND LEED REQUIREMENTS.
- Q. PROVIDE COUNTER TYPE MICROWAVE ON ALL TYPE A UNIT KITCHENS AND MICROWAVE BASE CABINET IN COMMUNITY ROOM KITCHEN.
- R. ALL UNIT APPLIANCES ARE INCLUDED. SEE SPECIFICATIONS. UNIT KITCHEN APPLIANCES TO BE TYPED AND VENTED TO THE EXTERIOR. SEE ELECTRICAL INFORMATION. INSTALL PER ENERGY STAR AND LEED REQUIREMENTS.
- S. FOR KITCHEN ELECTRIC OUTLET RECEPTACLES, THE MAXIMUM ALLOWABLE HEIGHT TO THE CENTERLINE OF AN OUTLET IS 46 INCHES AFF WHEN REACHING OVER AN OBSTRUCTION 36 INCHES HIGH MAXIMUM AND 25-1/2 INCHES DEEP MAXIMUM. OUTLETS MUST BE A MINIMUM OF 36 INCHES FROM AN INSIDE CORNER OR 12 INCHES FROM END WALL. DM 5.3, 5.8.
- T. THERMOSTATS, SWITCHES, ELECTRIC OUTLETS, ELECTRICAL PANELBOARDS AND OTHER OPERABLE PARTS MUST BE LOCATED WITHIN AN ACCESSIBLE REACH RANGE FROM 15 INCHES TO 48 INCHES AFF AT AN UNOBSTRUCTED REACH DM 5.3, 5.5 AND 1003.3, 1004.9, 309.3, 309.
- U. ELECTRICAL PANELS ON ALL RESIDENTIAL UNITS SHALL BE INSTALLED SO THAT THE OPERABLE COMPONENTS ARE NOT HIGHER THAN 48 INCHES A.F.F. OR LOWER THAN 1 FEET, 8 INCHES A.F.F.
- V. AT TYPE A UNITS, THE LOCATION OF CONTROLS FOR THE OVEN AND RANGE MUST NOT REQUIRE REACHING ACROSS THE BURNERS. ANSI 1003.2.5.4.4, 1003.12.5.5.4. SEE THE SPECIFICATIONS FOR APPLIANCE REQUIREMENTS.
- W. KITCHEN SINKS AT TYPE A UNITS AND COMMUNITY ROOM KITCHEN SHALL INCLUDE REAR DRAINED SINKS TO ACCOMMODATE DISPOSALS. SINK BOWL SHALL NOT BE DEEPER THAN 6 1/2 INCHES.
- X. AT TYPE A UNITS, THE FLUSH CONTROL FOR THE WATER CLOSET WILL BE LOCATED ON THE OPEN SIDE (AWAY FROM THE SIDE WALL).
- Y. WHERE REQUIRED, INSTALL ANY MEP DEVICES / FIXTURES SO THE INTEGRITY OF RATED WALL IS MAINTAINED. CONTINUE TYPE X GYPSUM BOARD ASSEMBLY BEHIND MEP DEVICE / FIXTURE.
- Z. EXTEND FINISH FLOOR MATERIAL UNDER KITCHEN APPLIANCES, VANITY IN ALL BATHS AND UNDERNEATH REMOVABLE UNIVERSAL BASE CABINETS. ALL CABINETS SURFACES VISIBLE INCLUDING AREAS EXPOSED AFTER REMOVING REMOVABLE BASE CABINETS MUST BE COVERED BY FINISHED END PANELS TO MATCH ADJACENT CASEWORK. EXPOSED SIDES OF CABINETS MUST BE COVERED BY FINISHED END PANELS TO MATCH ADJACENT CASEWORK.
- AA. SIDES OF RANGE OR OPEN WORK AREAS BELOW BASE CABINETS MUST BE COVERED BY FINISHED END PANELS TO MATCH ADJACENT CASEWORK. EXPOSED SIDES OF WALL AND BASE CABINETS SHALL HAVE FINISH PANELS ON ALL EXPOSED TO VIEW.
- BB. SEE "TYPICAL PROJECT DETAILS" SHEETS AND SHEET A900 FOR EXTENT OF FINISHES AT ALL UNIT ENTRANCES.
- CC. UNIT FURNITURE IN CONTRACT. SEE FF&E DRAWINGS FOR ADDITIONAL INFO.
- DD. PROVIDE ONE MIRROR AND ONE MEDICINE CABINET FOR EACH UNIT BATH. MIRROR WIDTH AS SHOWN ON BATH ELEVATIONS, TYPICAL. SEE TYPICAL PROJECT DETAILS SHEETS FOR MOUNTING HEIGHTS REQUIREMENTS AND SPECIFICATIONS FOR ALL OTHER REQUIRED TOILET ACCESSORIES.
- EE. SEE TYPICAL PROJECT DETAILS SHEETS FOR MOUNTING HEIGHTS AND OTHER MOUNTING DIMENSIONS REQUIRED FOR PLUMBING AND OTHER FIXTURES REQUIRED.
- FF. ALL RESIDENTIAL UNIT WINDOWS TO RECEIVE WINDOW TREATMENTS AS NOTED IN FINISH SCHEDULE.
- GG. PROVIDE ONE DOOR VIEWER AT THE TYPE B UNIT ENTRY DOOR AND TWO DOOR VIEWERS AT THE TYPE A UNIT ENTRY DOOR.
- HH. WIRE SHELVING REQUIREMENTS SHALL BE PROVIDED FOR ENTIRE WIDTH OF THE CLOSET AS FOLLOWS: BEDROOM CLOSET (1 SHELF AND ROD FIXED), COAT CLOSET (1 SHELF AND ROD FIXED), UTILITY (1 SHELF FIXED). SEE TYPICAL PROJECT DETAILS SHEETS FOR MOUNTING HEIGHT REQUIREMENTS.
- II. ALL RESIDENTIAL UNITS TO RECEIVE PLASTIC LAMINATE KITCHEN AND VANITY COUNTERTOPS WITH DROP-IN SINKS. COMMUNITY ROOM KITCHEN TO RECEIVE QUARTZ COUNTERTOPS.
- JJ. IN TYPE A UNITS AND PUBLIC AREAS, ALL COUNTERTOPS TO BE SET AT 34 INCHES MAXIMUM HEIGHT TO THE TOP OF KITCHEN OR BATH / TOILET SINK. RIM. ON TYPE B UNITS, ALL VANITY COUNTERTOPS TO BE SET AT 34 INCHES MAXIMUM HEIGHT TO THE TOP OF BATH SINK RIM.
- KK. AT TYPE A UNITS AND PUBLIC AREAS, SET BACKSPASH 1 INCH THICK SQUARE EDGE. RECEPTACLES TO BE LOCATED HORIZONTALLY ON FACE OF BACKSPASH. BACKSPASH TO BE 6 INCHES HIGH AT THESE LOCATIONS. AT TYPE A UNIT COUNTERTOPS WITHOUT BACKSPASH, MOUNT CENTER OF WALL RECEPTACLES ABOVE COUNTER, NOT HIGHER THAN 40 INCHES A.F.F. COORDINATE WITH CASEWORK ELEVATIONS. SEE TYPICAL PROJECT DETAILS SHEETS.
- LL. UNITS MAY BE OPPOSITE HAND OF THOSE SHOWN ON ENLARGED UNIT PLANS AND RCP'S. SEE OVERALL FLOOR PLANS FOR LOCATIONS AND ORIENTATION OF UNITS.

#	DATE	CHANGE DESCRIPTION
1	04/21/2022	ADDENDUM #02

HARRET'S HOPE
1381 W. BROAD STREET
COLUMBUS, OH 43222
FOR
CMHA

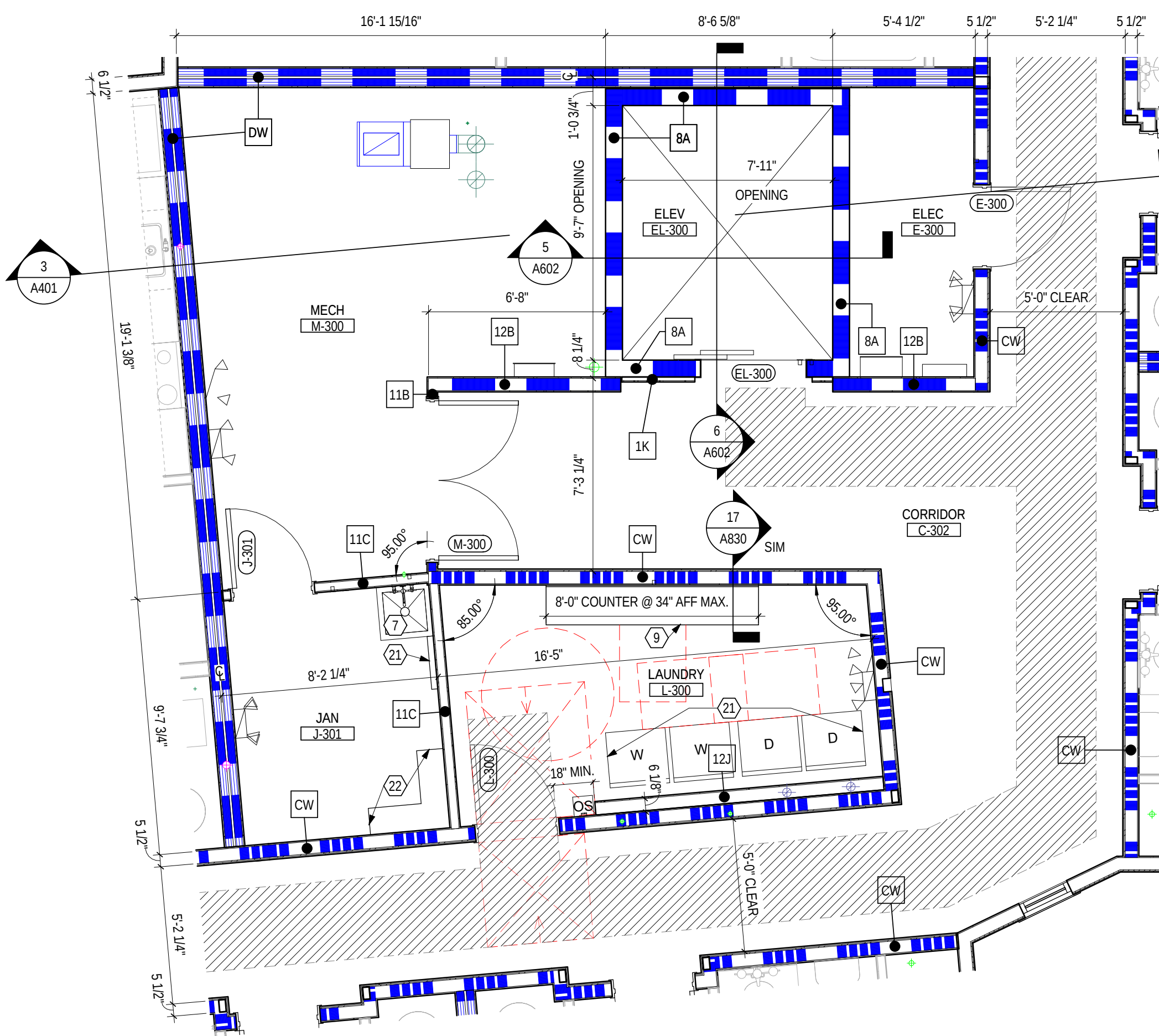
MOODY-NOLAN
300 SPRUCE STREET
SUITE 300
COLUMBUS, OHIO 43215
PHONE: (614) 461-4664
FAX: (614) 280-8881

ENLARGED UNIT PLANS - 1-BEDROOM UNITS

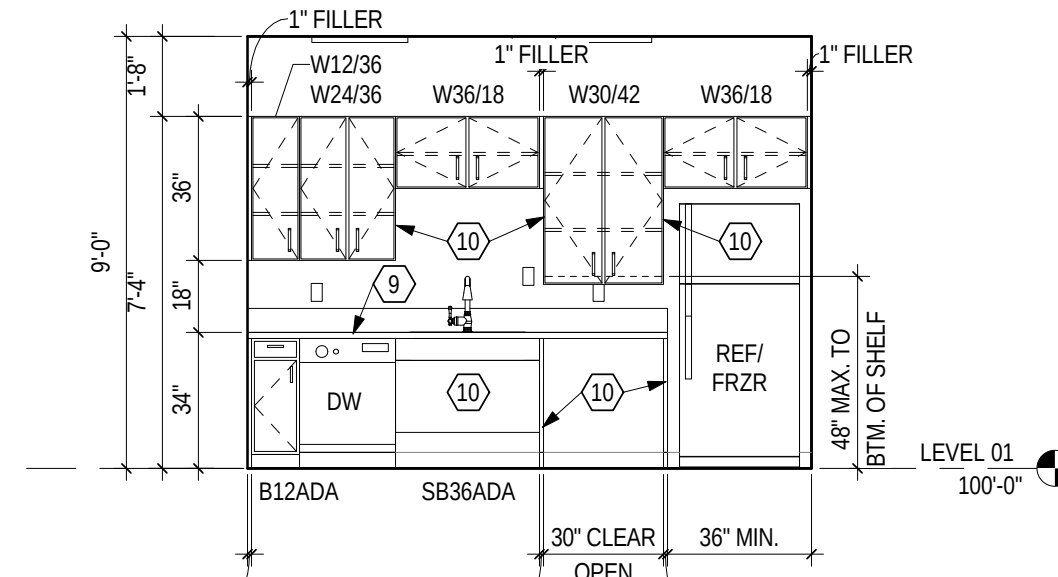
APRIL 4, 2022
DRAWN BY: XXX CHECKED BY: XXX
Proj. #20643

A811

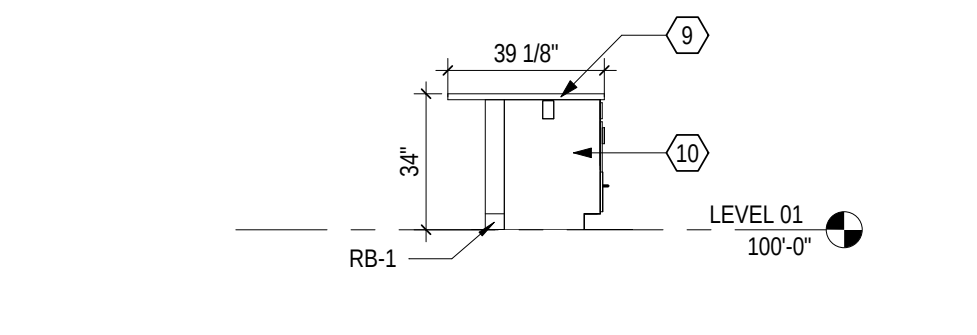
JAY W BOONE, LIC. #10740
EXP. DATE: 12/31/2022
PERMIT & BID SET



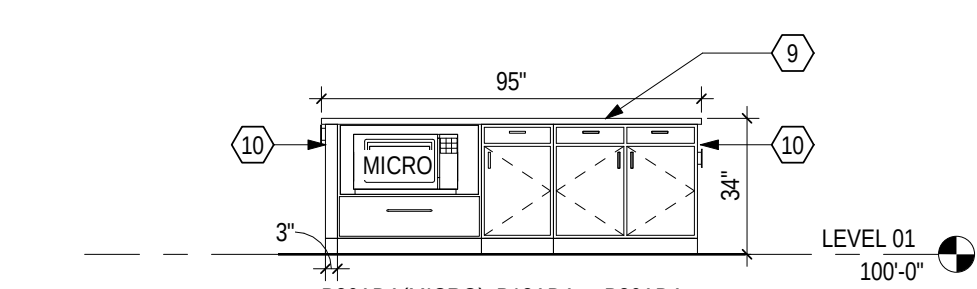
13 ENLARGED PLAN TYPICAL RESIDENTIAL FLOOR ELEVATOR CORE
1/4" = 1'-0" REF: 1 / A102



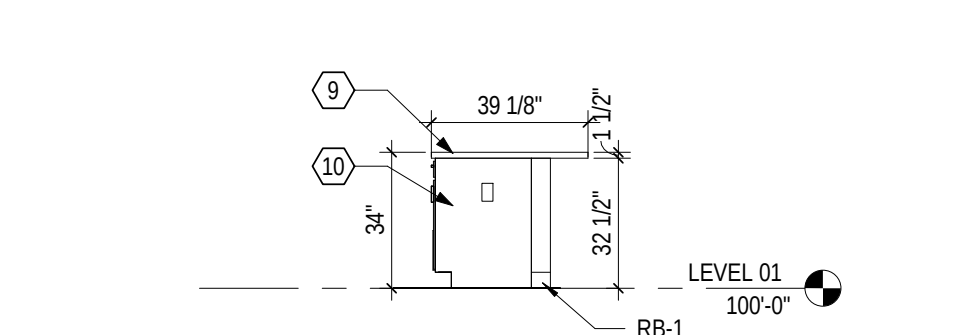
12 ELEVATION COMMUNITY ROOM KITCHEN
1/4" = 1'-0"



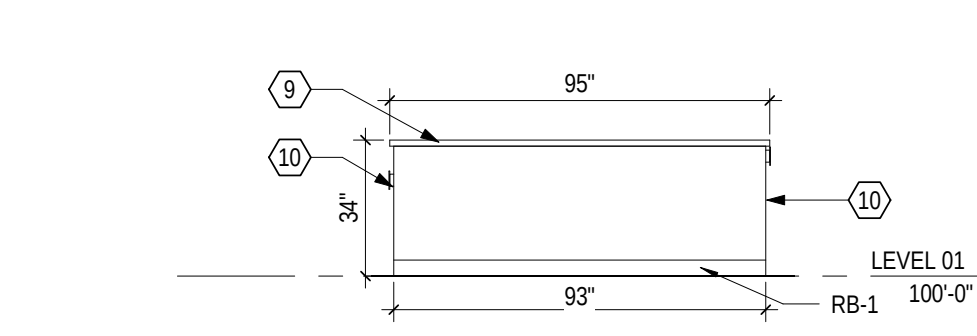
11 ELEVATION COMMUNITY KITCHEN ISLAND - WEST
1/4" = 1'-0" REF: 1 / A110



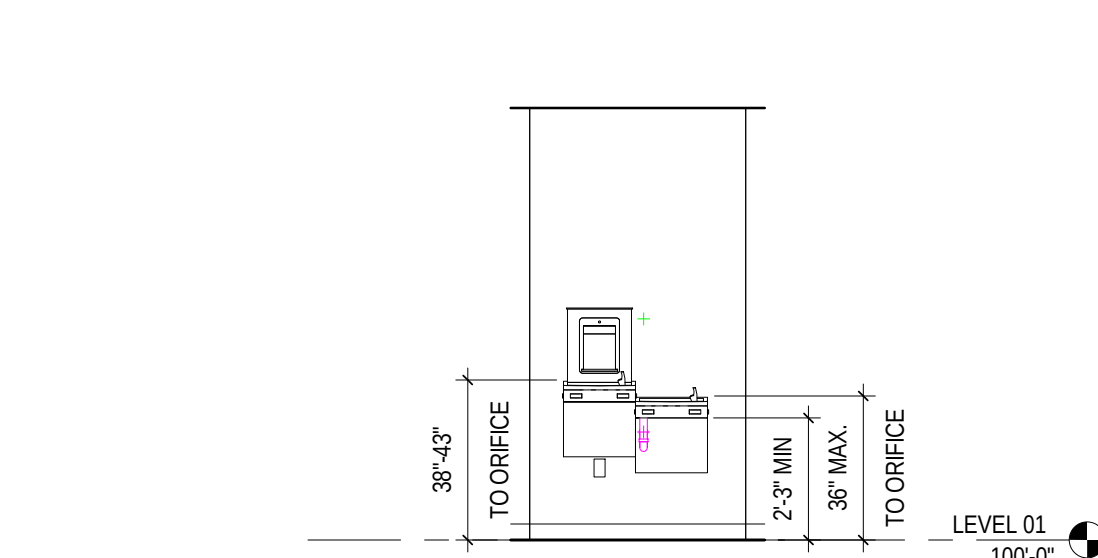
10 ELEVATION COMMUNITY KITCHEN ISLAND - SOUTH
1/4" = 1'-0" REF: 1 / A110



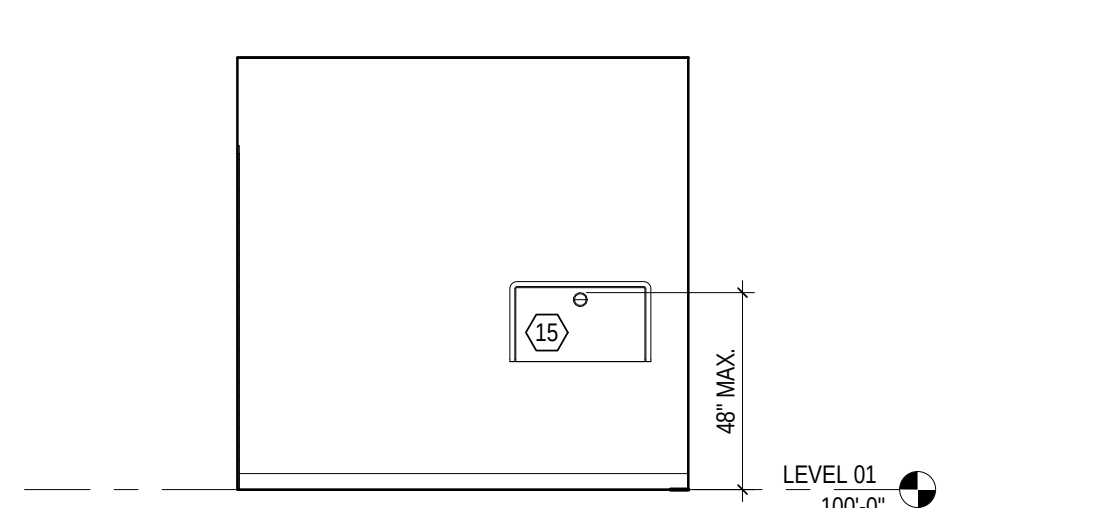
9 ELEVATION COMMUNITY KITCHEN ISLAND - EAST
1/4" = 1'-0" REF: 1 / A110



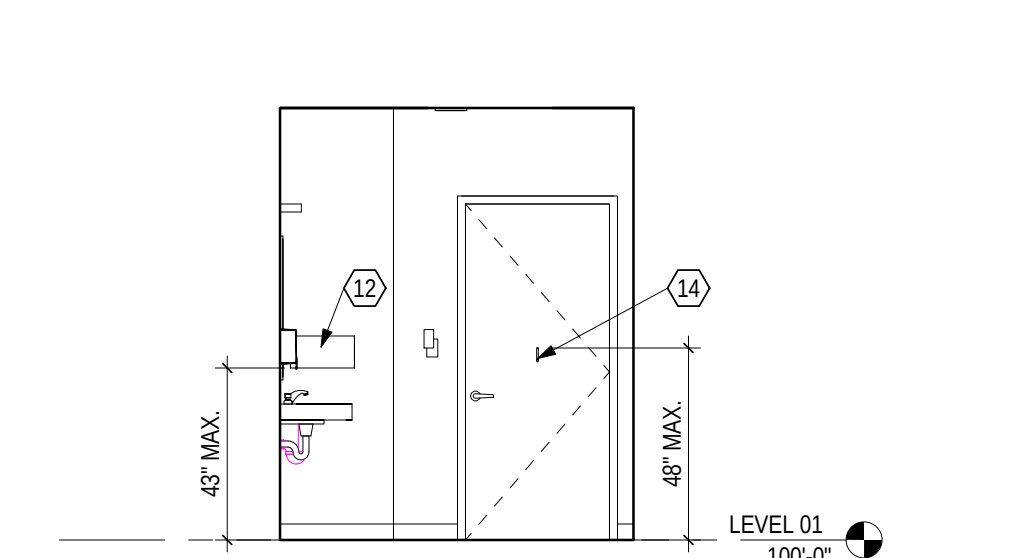
8 ELEVATION COMMUNITY KITCHEN ISLAND - NORTH
1/4" = 1'-0" REF: 1 / A110



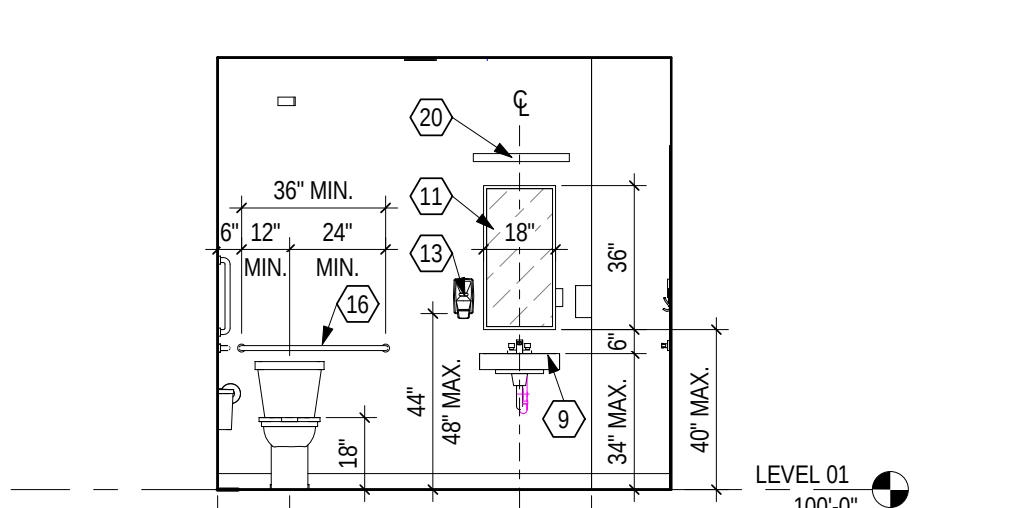
7 ELEVATION DRINKING FOUNTAIN
1/4" = 1'-0"



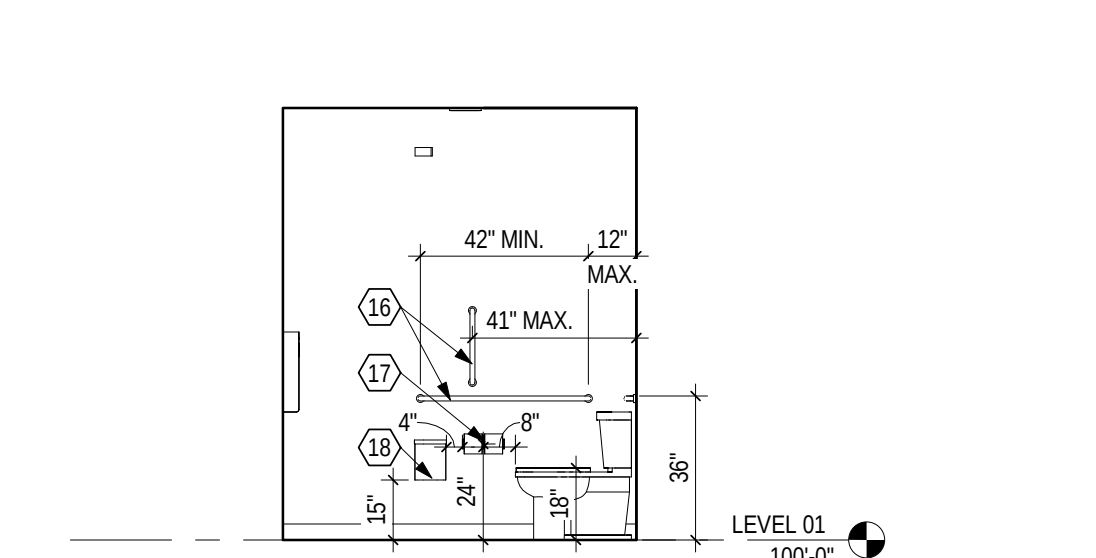
6 ELEVATION PUBLIC TOILET - CHANGING TABLE
1/4" = 1'-0"



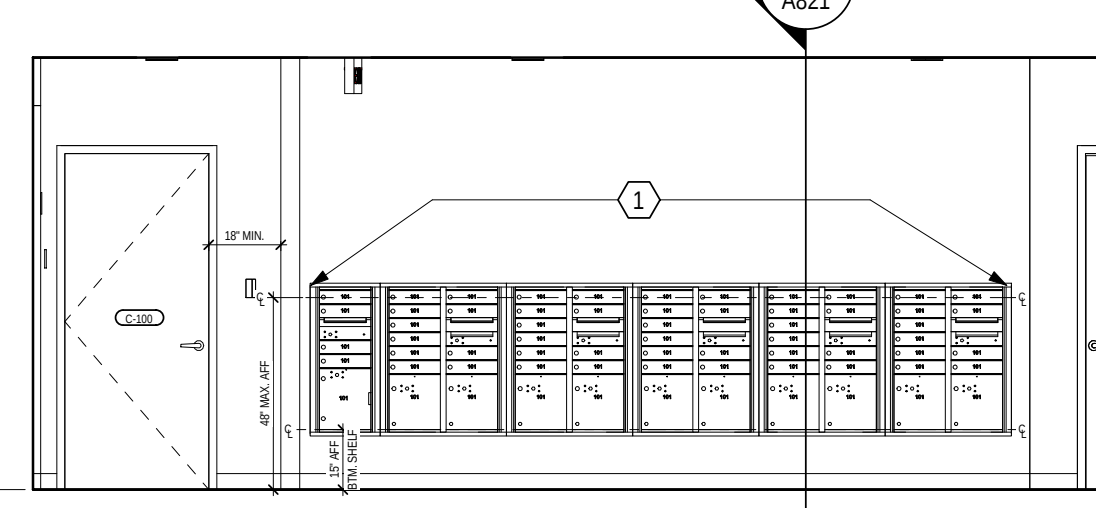
5 ELEVATION PUBLIC TOILET - DOOR
1/4" = 1'-0"



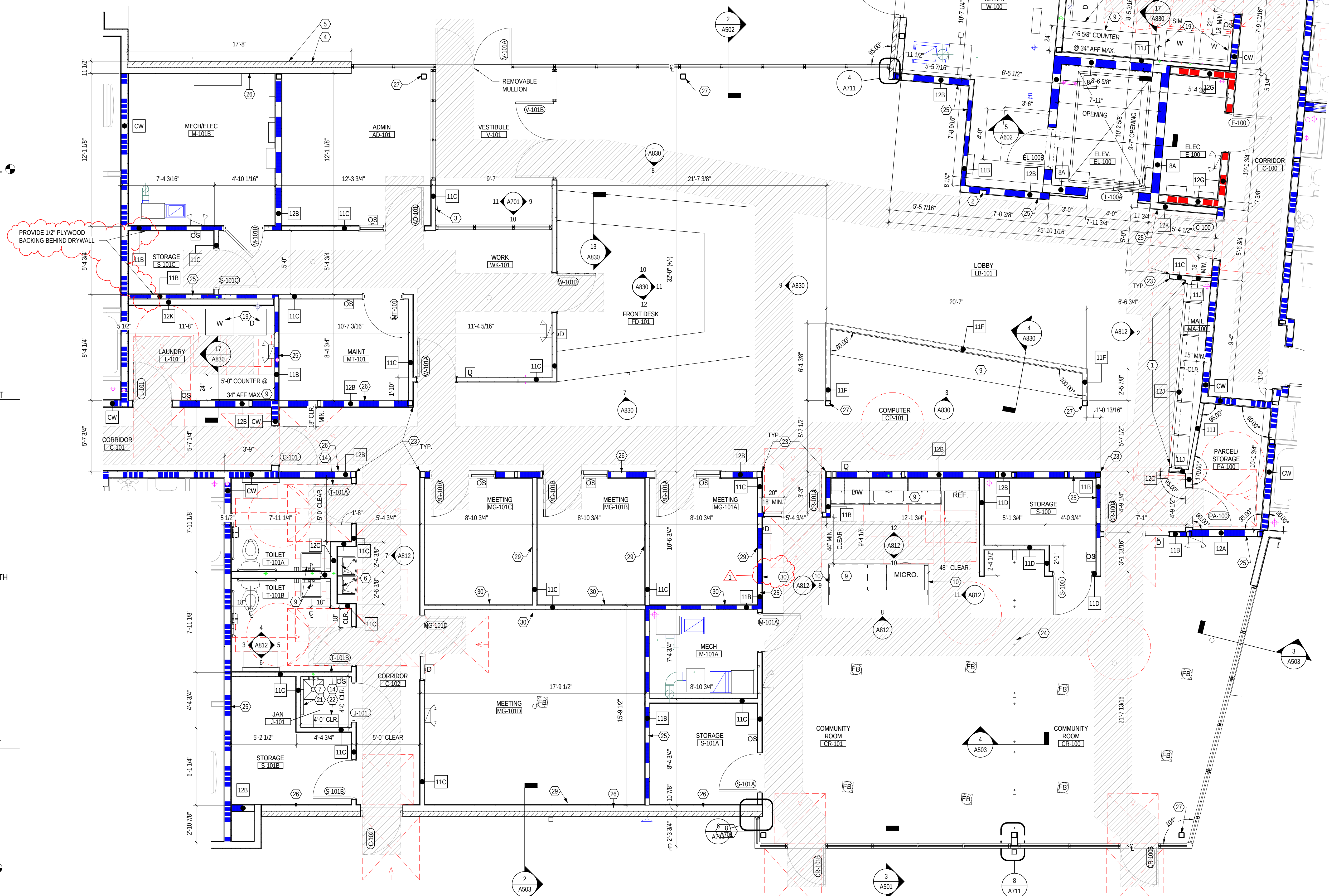
4 ELEVATION PUBLIC TOILET - SINK
1/4" = 1'-0"



3 ELEVATION PUBLIC TOILET - TOILET
1/4" = 1'-0"



2 ELEVATION MAIL KIOSK
1/4" = 1'-0"



1 ENLARGED PLAN LEVEL 01 - ENLARGED PLAN - AMENITY
1/4" = 1'-0" REF: 1 / A101

GENERAL NOTES - ENLARGED PLANS

- COMMUNITY ROOM KITCHEN APPLIANCES TO BE FINGERPRINT-FREE STAINLESS STEEL.
- PROVIDE AND INSTALL GARBAGE DISPOSAL AT COMMUNITY ROOM KITCHEN SINK.
- PROVIDE WOOD BLOCKING NOT SHOWN OR SHOWN AS REQUIRED TO MOUNT MARKERBOARDS, TACKBOARDS AND TELEVISIONS WHERE REQUIRED.

CODED NOTE LEGEND

- SEE TYPICAL PROJECT DETAILS SHEETS FOR ADDITIONAL INFORMATION, INCLUDING ALL MOUNTING HEIGHT REQUIREMENTS.
- METAL MAILBOXES AND PARCEL BOXES AS SHOWN IN FLOORS PLANS. DESIGN BASED ON THE MAILBOX WORKS OR EQUAL. PROVIDE ONE MAILBOX PER UNIT AND ONE PARCEL BOX PER EVERY FIVE MAILBOXES. BOTTOM OF UNIT SHALL NOT BE MOUNTED LOWER THAN 15 INCHES AFF AND TOP OF THE HIGHEST KEY HOLE SHALL NOT BE MOUNTED HIGHER THAN 48 INCHES AFF. SEE DETAIL FOR MORE INFORMATION.
 - INSTALL SEMI-RECESSED FIRE EXTINGUISHERS CABINETS SO THE INTEGRITY OF THE RATED WALL IS MAINTAINED. PROVIDE RATED CABINETS AT RATED WALL LOCATIONS.
 - SEMI-RECESSED ALPHONE. COORDINATE EXACT LOCATION WITH ARCHITECT AND MOUNT NO HIGHER THAN 4 FEET AFF. SEE ELECTRICAL INFORMATION.
 - KNOX BOX. COORDINATE FINAL LOCATION WITH FIRE DEPARTMENT. NOT USED.
 - DRINKING FOUNTAIN. SEE PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION.
 - JANITOR'S SINK. SEE PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION.
 - FIRE DEPARTMENT CONNECTION. SEE FIRE PROTECTION AND PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION.
 - TOP OF COUNTERTOPS AND SINK RIM TO BE AT 34 INCHES MAXIMUM AFF AT PUBLIC KITCHENS AND TOILETS. PROVIDE AND INSTALL QUARTZ COUNTER WITH COUNTERTOP METAL SUPPORTS IN KITCHENS AND PUBLIC COUNTER AREAS. PROVIDE AND INSTALL WALL HUNG PORCELAIN SINK WITH METAL SUPPORTS IN PUBLIC TOILETS. IN ALL PUBLIC AREAS WORK SPACES. PROVIDE INTERMEDIATE SUPPORTS AND AT ALL PUBLIC SINKS PROVIDE VALANCE OR PLUMBING PROTECTION/WRAP.
 - FINISHED END PANEL TYPICAL.
 - WALL MOUNTED MIRROR. SEE NOTED ON ELEVATION.
 - PAPER TOWEL DISPENSER.
 - SOAP DISPENSER.
 - ROBE HOOK ON TOILET ROOM DOORS. HOOK TO FACE SIDE OF TOILET AREA.
 - CHANGING TABLE.
 - GRAB BARS.
 - TOILET PAPER HOLDER.
 - SANITARY NAPKIN DISPOSAL.
 - FRONT-LOADING WASHER AND DRYER EQUIPMENT. PROVIDE PEDESTAL AS NEEDED TO PROVIDE CONTROLS THAT ARE WITHIN ACCESSIBLE REACH RANGES. ALL CLOTHES WASHERS TO BE ENERGY STAR-RATED.
 - LIGHT FIXTURE. CENTER ABOVE MIRROR. REFER TO ELECTRICAL DRAWINGS.
 - MOP STRIP.
 - JANITOR CLOSET SHELVES.
 - CORNER GUARDS. TYPICAL.
 - CENTER TWO SECTIONS (2) OF FOLDING PARTITION WALL TO INCLUDE FULL HEIGHT MARKER/ TACK BOARD. ALL OTHER SECTIONS TO BE CARPET. EXTEND 1 HR FIRE BARRIER TO FLOOR SHEATHING ABOVE.
 - 1 HR FIRE RATED BEARING WALL - ONLY STRUCTURE NEEDS RATED.
 - PAINT EXPOSED STL COLUMN.
 - PROJECTION OF FLOOR ABOVE (DASHED).
 - 48" x 96" WHITEBOARD. TYPICAL. SEE SPECIFICATIONS.
 - 48" x 48" TACKBOARD. TYPICAL. SEE SPECIFICATIONS.

LEGEND - FLOOR PLAN

- 2 HR FIRE RATED WALLS
- 1 HR FIRE RATING - INCLUDING BUT NOT LIMITED TO STAIR WALLS, ELEVATOR WALLS AND UNIT DEMISING WALLS.
- 1 HR FIRE RATED CORRIDOR WALLS
- INTERIOR PARTITION
- PLAN ELEVATION
- SEMI-RECESSED, RATED FIRE EXTINGUISHER CABINET (F.E.C.) AND FIRE EXTINGUISHER. UNIT SHALL NOT ENCRUGH MORE THAN 4" INTO THE PATH OF EGRESS.
- DIRECTION OF INSTALLATION OF LVT FLOORING. SEE A800 SERIES SHEETS FOR FINISH SCHEDULE.
- DOOR TYPE
- REQUIRED 36"x48" CLEAR FLOOR SPACE - 48" SHALL BE CENTERED AT APPLIANCES AND SINKS
- ACCESSIBLE ROUTE, MINIMUM 36" CLEAR

#	DATE	CHANGE DESCRIPTION
1	04/21/2022	ADDENDUM #02

COLUMBUS METROPOLITAN HOUSING AUTHORITY
COMMUNITY. COMMITMENT. COLLABORATION.

HARRIET'S HOPE
1581 W. BROAD STREET
COLUMBUS, OH 43222
FOR
CMHA

300 SPRUCE STREET
SUITE 300
COLUMBUS, OHIO 43215

PHONE: (614) 461-4664
FAX: (614) 280-8881

MOODY-NOLAN

DRAWING TITLE:
ENLARGED PLANS - COMMON AREAS

APRIL 4, 2022

DRAWN BY: XXX CHECKED BY: XXX

Proj. #20643

A812

PERMIT & BID SET

JAY W BOONE, LIC. #10740
EXP. DATE: 12/31/2022

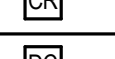
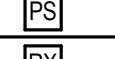
ABBREVIATIONS

NOTE: NOT ALL ABBREVIATIONS MAY BE USED.	
(A)	EXISTING TO BE ABANDONED
(D)	EXISTING TO BE DEMOLISHED
(E)	EXISTING TO REMAIN
(F)	FUTURE
(R)	EXISTING TO BE RELOCATED
A	AMPERE
AC	ALTERNATING CURRENT OR AIR CONDITIONER
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AIC	AMPS INTERRUPTING CAPACITY
ANNC	ANNUNCIATOR
AWG	AMERICAN WIRE GAUGE
BPS	BOLTED PRESSURE SWITCH
C	CONDUIT
CB	CIRCUIT BREAKER
CCTV	CLOSED CIRCUIT TELEVISION
CKT	CIRCUIT
CM	CONSTRUCTION MANAGER
DC	DIRECT CURRENT
DP	DISTRIBUTION PANELBOARD
DTT	DOUBLE TWIN TUBE
EB	ELECTRONIC BALLAST
EC	ELECTRICAL CONTRACTOR
EM	EMERGENCY
EMT	ELECTRICAL METAL TUBING
EWC	ELECTRIC WATER COOLER
FA	FIRE ALARM
FLA	FULL LOAD AMPS
G	GROUND
GC	GENERAL TRADES CONTRACTOR
GF	GROUND FAULT CIRCUIT INTERRUPTER
GEN	GENERATOR
HOA	HAND-OFF-AUTOMATIC
HP	HORSEPOWER
HPC	HIGH PRESSURE CONTACT SWITCH
HZ	HERTZ
IG	ISOLATED GROUND
IMC	INTERMEDIATE METAL CONDUIT
INCD	INCANDESCENT
KVA	KILOVOLT AMPERE
KW	KILOWATT
LTG	LIGHTING OR LIGHT
LRA	LOCKED ROTOR AMPS
MCA	MINIMUM CIRCUIT AMPACITY
MCB	MAIN CIRCUIT BREAKER
MCC	MOTOR CONTROL CENTER
MDP	MAIN DISTRIBUTION PANEL
MLO	MAIN LUGS ONLY
MOCF	MAXIMUM OVERCURRENT PROTECTION
MSB	MAIN SWITCHBOARD
MH	METAL HALIDE
MTS	MANUAL TRANSFER SWITCH
NAC	NOTIFICATION APPLIANCE CIRCUIT
NC	NORMALLY CLOSED
NO	NORMALLY OPEN
NF	NON-FUSED
OCC	OCCUPANCY
PA	PUBLIC ADDRESS
POE	POWER OVER ETHERNET
PVC	POLYVINYL CHLORIDE (PLASTIC PIPE)
PWR	POWER
RECP	RECEPTACLE
SCA	SHORT-CIRCUIT AMPS
STP	SHIELDED, TWISTED PAIR
TC	TIME CLOCK
TRT	TRIPLE TUBE
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
UTP	UNSHIELDED, TWISTED PAIR
V	VOLT
W	WATT
WAP	WIRELESS ACCESS POINT
WH	WATTHOUR
WP	WEATHERPROOF, NEMA 3R UNO
XFMR	TRANSFORMER
Z	IMPEDANCE
PH	PHASE

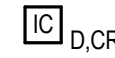
TECHNOLOGY SYMBOLS

NOTE: NOT ALL SYMBOLS MAY BE USED.	
	WALL MOUNTED PHONE OUTLET (50" AFF): 1-CAT5e, WHITE CABLE AND JACK
	WALL MOUNTED DATA / PHONE OUTLET (18" AFF): 1-CAT6 BLUE CABLE AND JACK (DATA); 1-CAT5e WHITE CABLE AND JACK (PHONE OR VOIP / DATA)
	WALL MOUNTED DATA OUTLET (18" AFF): # = NUMBER OF CAT6, BLUE CABLES AND JACKS
	CEILING OR FLOOR MOUNTED DATA OUTLET: (2) BLUE CAT6 CABLES AND JACKS, CH-CEILING; F-FLOOR
	FLUSH CEILING MOUNTED SINGLE GANG BOX WITH SINGLE BLUE, CAT6 CABLE AND JACK, INCLUDES WIRELESS ACCESS POINT SIMILAR TO UBQUITI U6 PRO OR APPROVED EQUAL
	RECESSED DEEP CONNECTION BOX MOUNTED BEHIND TV LOCATION (ARLINGTON TVBU555-1 OR APPROVED EQUAL) WITH PROVISIONS FOR ONE DUPLEX POWER RECEPTACLE: ONE BLUE, CAT6 CABLE AND JACK; ONE RG6 CABLE AND F CONNECTOR KEYSTONE
	WALL MOUNT, 26 R.U., SWING OUT EQUIPMENT CABINET, 50"1 x 26"10 x 22"0, 200 POUNDS CAPACITY, BASIS OF DESIGN: MIDDLE ATLANTIC CWR-26-22zz
	TELEPHONE TERMINAL BOARD/PLYWOOD BACKBOARD: REFER TO PLANS FOR ACTUAL LENGTHS
	30" x 14.5" STRUCTURED MEDIA CENTER WITH TWO DEVICE SHELVES AND INTERNAL DUPLEX POWER RECEPTACLE, BASIS OF DESIGN: LEGRAND ENP3050-NA-30

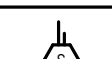
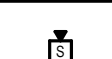
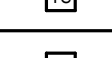
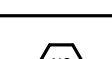
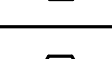
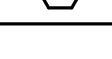
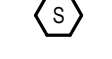
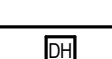
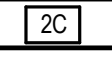
SECURITY SYMBOLS

NOTE: NOT ALL SYMBOLS MAY BE USED.	
	DOMI TYPE CAMERA WITH IR ILLUMINATORS, CAT6 YELLOW CABLE AND JACK TO ELECTRIC / TELECOM, ROOM.
	CARD READER
	DOOR CONTACT SENSOR
	ELECTRIC STRIKE
	PS-902 ACCESS CONTROLLED DOOR POWER SUPPLY
	REQUEST EXIT
	POWER TRANSFER DEVICE, HINGE SIDE
	PUSH BUTTON
	EMERGENCY BLUE PHONE, REFER TO SHEET ES101 FOR ADDITIONAL INFORMATION.

INTERCOM SYMBOLS

NOTE: NOT ALL SYMBOLS MAY BE USED.	
	MASTER STATION, YELLOW CAT6 CABLE TO ELEC. / COMM. ROOM DATA CABINET PATCH PANEL, INCLUDE POE INJECTOR.
	DOOR STATION WITH CARD READER, YELLOW CAT6 CABLE TO ELEC. / COMM. ROOM DATA CABINET PATCH PANEL, INCLUDE POE INJECTOR AND DOOR RELEASE RELAY.

FIRE ALARM SYMBOLS

NOTE: NOT ALL SYMBOLS MAY BE USED.	
	MANUAL PULL STATION (REFER TO DETAILS ON E503 FOR MOUNTING HEIGHTS)
	HEAT DETECTOR
	DUCT MOUNTED HEAT DETECTOR
	SMOKE DETECTOR
	DUCT MOUNTED SMOKE DETECTOR
	SPEAKER (REFER TO DETAILS ON E503 FOR MOUNTING HEIGHTS)
	SPEAKER WITH STROBE (REFER TO DETAILS ON E503 FOR MOUNTING HEIGHTS)
	HORN (REFER TO DETAILS ON E503 FOR MOUNTING HEIGHTS)
	HORN WITH STROBE (REFER TO DETAILS ON E503 FOR MOUNTING HEIGHTS)
	STROBE (REFER TO DETAILS ON E503 FOR MOUNTING HEIGHTS)
	WALL MOUNTED STROBE (REFER TO DETAILS ON E503 FOR MOUNTING HEIGHTS)
	BELL, 120V
	WATER FLOW SWITCH BY DIVISION 21, DIVISION 28 TO PROVIDE ADDRESSABLE MODULE FOR MONITORING
	WATER TAMPER SWITCH BY DIVISION 21, DIVISION 28 TO PROVIDE ADDRESSABLE MODULE FOR MONITORING
	FIV VALVE BY DIVISION 21, DIVISION 28 TO PROVIDE ADDRESSABLE MODULE FOR MONITORING
	ADDRESSIBLE INPUT-OUTPUT MODULE
	ISOLATION MODULE
	CEILING MOUNTED SMOKE ALARM WITH BATTERY BACKUP, NONSYSTEM - FOR LOCAL DETECTION AND ALARM WITHIN APARTMENT UNITS. X = BLANK - SMOKE ALARM; X = CO - COMBINATION SMOKE AND CARBON MONOXIDE (CO) ALARM
	MAGNETIC DOOR HOLDER
	FIREMAN'S PHONE
	REMOTE INDICATOR STATION FOR DUCT SMOKE DETECTOR (REFER TO DETAILS ON E503 FOR MOUNTING HEIGHTS)
	WALL MOUNTED REMOTE INDICATOR STATION FOR DUCT (REFER TO DETAILS ON E503 FOR MOUNTING HEIGHTS)
	REMOTE INDICATOR TEST SWITCH
	FAN SHUT-DOWN RELAY
	FIRE ALARM ANNUNCIATOR PANEL
	FIRE ALARM CONTROL PANEL
	NOTIFICATION APPLIANCE CIRCUIT PANEL
	ELEVATOR LOBBY TWO WAY COMMUNICATION SYSTEM

#	DATE	CHANGE DESCRIPTION
1	04-21-2022	ADDENDUM NO. 2



COLUMBUS METROPOLITAN HOUSING AUTHORITY
COMMUNITY. COMMITMENT. COLLABORATION.

HARRIET'S HOPE
1581 W. BROAD STREET
COLUMBUS, OH 43222
FOR
CMHA

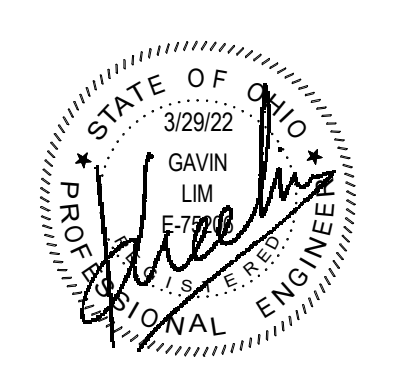


MOODY•NOLAN

300 SPRUCE STREET
SUITE 300
COLUMBUS, OHIO 43215

PHONE: (614) 461-4664
FAX: (614) 280-8881

DRAWING TITLE:
GENERAL INFORMATION - SYSTEMS



STATE OF OHIO
GAVIN LM
ELECTRICAL ENGINEER
No. 105476
EXPIRATION DATE 12/31/2025

APRIL 4, 2022

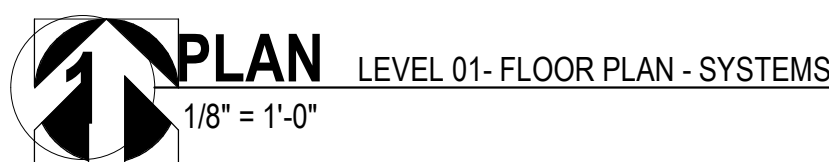
DRAWN BY: Author	CHECKED BY: Checker
Proj. #20643	
T000	
PERMIT & BID SET	



AFMC
ADVANCED ENGINEERING CONSULTANTS

Mechanical | Electrical | Plumbing | Fire Protection | Utilities
1405 Dublin Road
Columbus, Ohio 43215

Tel: (614) 486-4778
Fax: (614) 486-4082



- A. COORDINATE MOUNTING HEIGHT AND FINAL LOCATIONSS OF ALL DEVICES AND EQUIPMENT WITH ARCHITECTURAL DETAILS AND ELEVATIONS PRIOR TO ROUGH-IN.
- B. AT ALL DATA OUTLETS, PROVIDE 4" JUNCTION BOX WITH SINGLE GANG MUD RING.
- C. PROVIDE CAT5e, CAT6 AND R66 COAX CABLEING FROM EACH MEDIA CENTER BOX TO ELECTRICAL RACK ON THIS FLOOR. PROVIDE A MINIMUM OF 25' OF SERVICE LOOP PER CABLE IN THE ROOM FOR TERMINATION INTO WALL MOUNTED CABINET. COORDINATE EXCEPT REQUIREMENTS WITH OWNER AND VENDOR PRIOR TO ROUGH-IN.
- D. SEE ENLARGED ELECTRICAL PLANS FOR DETAILS OF TELECOMMUNICATIONS AND ACCESS CONTROL REQUIREMENTS IN LIVING UNITS.

- A. THE FIRE ALARM SYSTEM IS A DELEGATED DESIGN AND SHALL BE COMPLETED BY AN OHIO CERTIFIED FIRE ALARM SYSTEM DESIGNER, MINIMUM NET WEIGHT III, B.
- B. THE FIRE ALARM SYSTEM DESIGNER SHALL PREPARE CONSTRUCTION DOCUMENTS AND FIRE ALARM SHOP DRAWINGS IN ACCORDANCE WITH OBC SECTIONS 106 AND 907 AND NFPA 72. THESE DOCUMENTS SHALL BE PREPARED AND SUBMITTED TO THE A/E FOR REVIEW AND APPROVAL PRIOR TO SUBMISSION TO THE A/H.
- C. REFER TO SPECIFICATION SECTION 28 31 00 - FIRE ALARM SYSTEM FOR ADDITIONAL INFORMATION AND REQUIREMENTS.
- D. FIRE ALARM SYSTEM EQUIPMENT, DEVICES AND NOTIFICATION APPLIANCES ARE SHOWN ON TYPICAL "F" AND "T" SERIES SHEETS. INDICATE GENERALIZED LOCATIONS AND GENERALIZED REQUIREMENTS ONLY. EXACT TYPES, LOCATIONS, QUANTITIES, SETTINGS, ETC. SHALL BE DETERMINED BY THE FIRE ALARM SYSTEM DESIGNER AND INDICATED ON THE FIRE ALARM SHOP DRAWINGS. COORDINATE EXACT LOCATIONS WITH FIRE ALARM SHOP DRAWINGS PRIOR TO ROUGH-IN.
- E. INITIATING DEVICES SHALL BE PROVIDED IN ACCORDANCE WITH NFPA 72, CHAPTER 17.
- F. NOTIFICATION APPLIANCES SHALL BE PROVIDED IN ACCORDANCE WITH NFPA 72, CHAPTER 18.
- G. COORDINATE WITH FIRE PROTECTION CONTRACTOR FOR INTERFACE REQUIREMENTS WITH THE FIRE SUPPRESSION (SPRINKLER) SYSTEM.
- H. COORDINATE WITH MECHANICAL CONTRACTOR FOR INTERFACE REQUIREMENTS TO SHUT-DOWN COMMON AREA HVAC EQUIPMENT UPON FIRE ALARM SYSTEM ACTIVATION.

1. PROVIDE 3/4" FIRE-RATED PLYWOOD FROM FLOOR TO CEILING FOR COMMUNICATIONS EQUIPMENT MOUNTING. PLYWOOD SHALL BE PAINTED WITH A GRAY MARINE GRADE PAINT.
2. PROVIDE (3) 4" PVC RACEWAYS WITH PULLWIRE FROM TELEPHONE UTILITY PROVIDER POINT OF SERVICE TO UTILITY SERVICE ENTRANCE EQUIPMENT. COORDINATE WITH THE TELECOMMUNICATIONS UTILITY PROVIDER AND SITE CONTRACTOR TO DETERMINE POINT OF SERVICE AND CONDUIT PATHWAY FROM POINT OF SERVICE THROUGH THE SITE AND INTO ROOM E-100 PRIOR TO BEGINNING OF WORK.
3. PROVIDE TWO DEDICATED TELEPHONE LINES FOR THE ELEVATOR CAR TERMINATED AT THE ELEVATOR CONTROLLER PER ELEVATOR MANUFACTURER'S REQUIREMENTS. PROVIDE ELEVATOR LOCATION ELEVATOR MANUFACTURER'S LAYOUT. REQUIREMENTS PRIOR TO ROUGH-IN.
4. PROVIDE DATA OUTLET FOR INTERCOM DOOR STATION.
5. PROVIDE TWO-WAY COMMUNICATION MASTER STATION TO BE LOCATED ADJACENT TO FIRE ALARM ANNUNCIATOR PANEL. PROVIDE 1 PAIR VOICE (POTS) LINE TO 110 BLOCK IN ROOM.
6. PROVIDE FIRE ALARM MODULE TO MONITOR LOSS OF COMMUNICATION OF TWO-WAY COMMUNICATION INTERCOM STATION.
7. PROVIDE HANDCAP PUSHBUTTON MOUNTED ON MULLION. COORDINATE EXACT REQUIREMENTS WITH APPROVED SHOP DRAWINGS.
8. PROVIDE DATA OUTLET FOR DESK MOUNTED INTERCOM MASTER STATION.
9. PROVIDE CARD READER AND ACCESS CONTROL DEVICES. REFER TO DETAIL 37501.
10. WALL MOUNT, 26 IN. SWING OUT EQUIPMENT CABINET: 50 1/4" x 26 1/4" x 22 D; 200 POUNDS CAPACITY. BASIS OF DESIGN: MODEL ATLANTIC CWR-26-22zz. FOR PATCH PANELS AND OWNERS NETWORK ELECTRONICS AND UPS.
11. PROVIDE 110 BLOCK WITH CROSS CONNECT FOR TELEPHONE SERVICE.
12. FIRE ALARM TWO-WAY COMMUNICATION INTERCOM STATION TO BE LOCATED ADJACENT TO THE ELEVATOR. REFER TO TWO-WAY COMMUNICATION DIAGRAM FOR ADDITIONAL REQUIREMENT.
13. PROVIDE TMGB. REFER TO DETAILS 47501.
14. TWO-WAY COMMUNICATION REMOTE ALARM SUPPLY. PROVIDE FIRE ALARM MODULE TO MONITOR LOSS OF POWER. REFER TO TWO-WAY COMMUNICATION DIAGRAM FOR ADDITIONAL REQUIREMENTS.
15. FIELD COORDINATE EXACT LOCATION OF ACCESS POINT WITH OWNERS IT REPRESENTATIVE PRIOR TO INSTALLATION.
16. AT CONTRACTORS OPTION, CLAY TRAY (BASKET TYPE; 12" WIDE X 4" DEEP) MAY BE PROVIDED ABOVE CEILING FOR CORRIDOR FOR LOW VOLTAGE CABLES.
17. RESERVE THIS BACKBOARD SPACE FOR ACCESS CONTROL PANELS ON THE LEFT AND TOP OFFERS FOR CABLE TV ON THE RIGHT.

#	DATE	CHANGE DESCRIPTION
1	04-21-2022	ADDENDUM NO. 2



HARRIET'S HOPE
1581 W. BROAD STREET
COLUMBUS, OH 43222
FOR
CMHA



300 SPRUCE STREET
SUITE 300
COLUMBUS, OHIO 43215

PHONE: (614) 461-4664
FAX: (614) 280-8881

DRAWING TITLE:
**LEVEL 01 - FLOOR PLAN -
SYSTEMS**

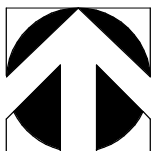
APRIL 4, 2022

DRAWN BY: Author	CHECKED BY: Checker
------------------	---------------------

Proj. #20643

T101

PERMIT & BID SET



1

PLAN LEVEL 02 - FLOOR PLAN - SYSTEMS
1/8" = 1'-0"

GENERAL NOTES

- COORDINATE MOUNTING HEIGHT AND FINAL LOCATIONS OF ALL DEVICES AND EQUIPMENT WITH ARCHITECTURAL DETAILS AND ELEVATIONS PRIOR TO ROUGH-IN.
- AT ALL DATA OUTLETS, PROVIDE 4" JUNCTION BOX WITH SINGLE GANG MUD RING.
- PROVIDE CAT5e, CAT6 AND R66 COAX CABLEING FROM EACH MEDIA CENTER BACK TO ELECTRICAL ROOM ON THIS FLOOR. COIL A MINIMUM OF 25' OF SERVICE LOOP PER CABLE IN THE ROOM FOR TERMINATION INTO WALL MOUNTED CABINET. COORDINATE EXACT REQUIREMENTS WITH OWNER AND VENDOR PRIOR TO ROUGH-IN.
- SEE ENLARGED ELECTRICAL PLANS FOR DETAILS OF TELECOMMUNICATIONS AND ACCESS CONTROL REQUIREMENTS IN LIVING UNITS.

FIRE ALARM GENERAL NOTES

- THE FIRE ALARM SYSTEM IS A DELEGATED DESIGN AND SHALL BE COMPLETED BY AN OHIO CERTIFIED FIRE ALARM SYSTEM DESIGNER, MINIMUM NICET LEVEL III.
- THE FIRE ALARM SYSTEM DESIGNER SHALL PREPARE CONSTRUCTION DOCUMENTS AND FIRE ALARM SHOP DRAWINGS IN ACCORDANCE WITH OBC SECTIONS 106 AND 907 AND NFPA 72. THESE DOCUMENTS SHALL BE PREPARED AND SUBMITTED TO THE AE FOR REVIEW AND APPROVAL PRIOR TO SUBMISSION TO THE AHJ.
- REFER TO SPECIFICATION SECTION 28 31 00 - FIRE ALARM SYSTEM FOR ADDITIONAL INFORMATION AND REQUIREMENTS.
- FIRE ALARM SYSTEM EQUIPMENT, DEVICES AND NOTIFICATION APPLIANCES AS SHOWN ON THE "E" AND "T" SERIES SHEETS INDICATE GENERALIZED LOCATIONS AND GENERALIZED REQUIREMENTS ONLY. EXACT TYPES, LOCATIONS, QUANTITIES, SETTINGS, ETC. SHALL BE DETERMINED BY THE FIRE ALARM SYSTEM DESIGNER AND INDICATED ON THE FIRE ALARM SHOP DRAWINGS. COORDINATE EXACT LOCATIONS WITH FIRE ALARM SHOP DRAWINGS PRIOR TO ROUGH-IN.
- INITIATING DEVICES SHALL BE PROVIDED IN ACCORDANCE WITH NFPA 72, CHAPTER 17.
- NOTIFICATION APPLIANCES SHALL BE PROVIDED IN ACCORDANCE WITH NFPA 72, CHAPTER 16.
- COORDINATE WITH FIRE PROTECTION CONTRACTOR FOR INTERFACE REQUIREMENTS WITH THE FIRE SUPPRESSION (SPRINKLER) SYSTEM.
- COORDINATE WITH MECHANICAL CONTRACTOR FOR INTERFACE REQUIREMENTS TO SHUTDOWN COMMON AREA HVAC EQUIPMENT UPON FIRE ALARM SYSTEM ACTIVATION.

CODED NOTES

- PROVIDE 3/4" FIRE-RATED PLYWOOD FROM FLOOR TO CEILING FOR OWNER FURNISHED TELECOMMUNICATIONS EQUIPMENT. PLYWOOD SHALL BE PAINTED WITH A GRAY MARINE GRADE PAINT.
- PROVIDE (3) 4" PVC CONDUIT SLEEVES IN FLOOR FOR TELECOMMUNICATIONS RISERS.
- FIRE ALARM TWO-WAY COMMUNICATION INTERCOM STATION TO BE LOCATED ADJACENT TO THE ELEVATOR. REFER TO TWO-WAY COMMUNICATION DIAGRAM FOR ADDITIONAL REQUIREMENTS.
- PROVIDE FIRE ALARM MODULE TO MONITOR LOSS OF COMMUNICATION OF TWO-WAY COMMUNICATION INTERCOM STATION.
- PROVIDE TGB. REFER TO DETAILS 6/TS01.
- PROVIDE CARD READER AND ACCESS CONTROL DEVICES. REFER TO DETAIL 3/TS01.
- TWO-WAY COMMUNICATION REMOTE POWER SUPPLY. PROVIDE FIRE ALARM MODULE TO MONITOR LOSS OF POWER. REFER TO TWO-WAY COMMUNICATION DIAGRAM FOR ADDITIONAL REQUIREMENTS.
- FIELD COORDINATE EXACT LOCATION OF ACCESS POINT WITH OWNER'S IT REPRESENTATIVE PRIOR TO INSTALLATION.
- AT CONTACTORS OPTION, CABLE TRAY (BASKET TYPE, 12" WIDE X 4" DEEP) MAY BE PROVIDED ABOVE CEILING FOR CORRIDOR FOR LOW VOLTAGE CABLEING.
- WALL MOUNT, 26 R.U., SWING OUT EQUIPMENT CABINET, 50"H x 26"W x 22"D, 200 POUNDS CAPACITY. BASIS OF DESIGN: MIDDLE ATLANTIC CMR-26-2222. FOR PATCH PANELS AND OWNER'S NETWORK ELECTRONICS AND UPS.
- RESERVE THIS BACKBOARD SPACE FOR ACCESS CONTROL PANELS ON THE LEFT AND TAP-OFFS FOR CABLE TV ON THE RIGHT.
- PROVIDE 110 BLOCK WITH CROSS CONNECT FOR TELEPHONE SERVICE.

#	DATE	CHANGE DESCRIPTION
1	04-21-2022	ADDENDUM NO. 2



HARRIET'S HOPE
1581 W. BROAD STREET
COLUMBUS, OH 43222
FOR
CMHA

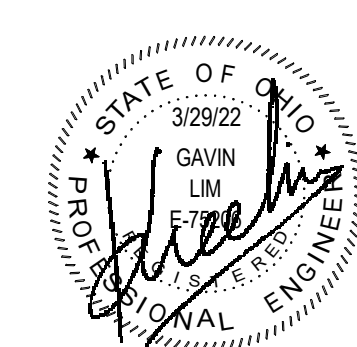


300 SPRUCE STREET
SUITE 300
COLUMBUS, OHIO 43215

PHONE: (614) 461-4664
FAX: (614) 280-8881

DRAWING TITLE:

**LEVEL 02 - FLOOR PLAN -
SYSTEMS**



APRIL 4, 2022

DRAWN BY: Author CHECKED BY: Checker

Proj. #20643

T102

PERMIT & BID SET



**ADVANCED
ENGINEERING
CONSULTANTS**
Mechanical | Electrical | Plumbing | Fire Protection | Utilities
1405 Dublin Road
Columbus, Ohio 43215
Tel: (614) 486-4778
Fax: (614) 486-4082



1 PLAN LEVEL 03 - FLOOR PLAN - SYSTEMS
1/8" = 1'-0"

GENERAL NOTES

- COORDINATE MOUNTING HEIGHT AND FINAL LOCATIONS OF ALL DEVICES AND EQUIPMENT WITH ARCHITECTURAL DETAILS AND ELEVATIONS PRIOR TO ROUGH-IN.
- AT ALL DATA OUTLETS, PROVIDE 4" JUNCTION BOX WITH SINGLE GANG MUD RING.
- PROVIDE CAT5e, CAT6 AND R66 COAX CABLING FROM EACH MEDIA CENTER BACK TO ELECTRICAL ROOM ON THIS FLOOR. COIL A MINIMUM OF 25' OF SERVICE LOOP PER CABLE IN THE ROOM FOR TERMINATION INTO WALL MOUNTED CABINET. COORDINATE EXACT REQUIREMENTS WITH OWNER AND VENDOR PRIOR TO ROUGH-IN.
- SEE ENLARGED ELECTRICAL PLANS FOR DETAILS OF TELECOMMUNICATIONS AND ACCESS CONTROL REQUIREMENTS IN LIVING UNITS.

FIRE ALARM GENERAL NOTES

- THE FIRE ALARM SYSTEM IS A DELEGATED DESIGN AND SHALL BE COMPLETED BY AN OHIO CERTIFIED FIRE ALARM SYSTEM DESIGNER, MINIMUM NICET LEVEL III.
- THE FIRE ALARM SYSTEM DESIGNER SHALL PREPARE CONSTRUCTION DOCUMENTS AND FIRE ALARM SHOP DRAWINGS IN ACCORDANCE WITH OBC SECTIONS 106 AND 907 AND NFPA 72. THESE DOCUMENTS SHALL BE PREPARED AND SUBMITTED TO THE A/E FOR REVIEW AND APPROVAL PRIOR TO SUBMISSION TO THE A/H.
- REFER TO SPECIFICATION SECTION 28 31 00 - FIRE ALARM SYSTEM FOR ADDITIONAL INFORMATION AND REQUIREMENTS.
- FIRE ALARM SYSTEM EQUIPMENT, DEVICES AND NOTIFICATION APPLIANCES AS SHOWN ON THE "E" AND "T" SERIES SHEETS INDICATE GENERALIZED LOCATIONS AND GENERALIZED REQUIREMENTS ONLY. EXACT TYPES, LOCATIONS, QUANTITIES, SETTINGS, ETC., SHALL BE DETERMINED BY THE FIRE ALARM SYSTEM DESIGNER AND INDICATED ON THE FIRE ALARM SHOP DRAWINGS. COORDINATE EXACT LOCATIONS WITH FIRE ALARM SHOP DRAWINGS PRIOR TO ROUGH-IN.
- INITIATING DEVICES SHALL BE PROVIDED IN ACCORDANCE WITH NFPA 72, CHAPTER 17.
- NOTIFICATION APPLIANCES SHALL BE PROVIDED IN ACCORDANCE WITH NFPA 72, CHAPTER 18.
- COORDINATE WITH FIRE PROTECTION CONTRACTOR FOR INTERFACE REQUIREMENTS WITH THE FIRE SUPPRESSION (SPRINKLER) SYSTEM.
- COORDINATE WITH MECHANICAL CONTRACTOR FOR INTERFACE REQUIREMENTS TO SHUTDOWN COMMON AREA HVAC EQUIPMENT UPON FIRE ALARM SYSTEM ACTIVATION.

CODED NOTES

- PROVIDE 3/4" FIRE-RATED PLYWOOD FROM FLOOR TO CEILING FOR TELECOMMUNICATIONS EQUIPMENT MOUNTING. PLYWOOD SHALL BE PAINTED WITH A GRAY MARINE GRADE PAINT.
- PROVIDE (2) 4" PVC CONDUIT SLEEVES FOR TELECOMMUNICATIONS RISER.
- FIRE ALARM TWO-WAY COMMUNICATION INTERCOM STATION TO BE LOCATED ADJACENT TO THE ELEVATOR. REFER TO TWO-WAY COMMUNICATION DIAGRAM FOR ADDITIONAL REQUIREMENTS.
- PROVIDE FIRE ALARM MODULE TO MONITOR LOSS OF COMMUNICATION OF TWO-WAY COMMUNICATION INTERCOM STATION.
- PROVIDE TGB. REFER TO DETAILS 6/T501.
- TWO-WAY COMMUNICATION REMOTE POWER SUPPLY. PROVIDE FIRE ALARM MODULE TO MONITOR LOSS OF POWER. REFER TO TWO-WAY COMMUNICATION DIAGRAM FOR ADDITIONAL REQUIREMENTS.
- FIRE ALARM DEVICES LOCATED IN ELEVATOR SHAFT. COORDINATE WITH THE FIRE PROTECTION CONTRACTOR AND MOUNT HEAT DETECTOR WITHIN 24" OF SPRINKLER HEAD.
- PROVIDE CARD READER AND ASSOCIATED ACCESS CONTROL DEVICES. REFER TO DETAIL 3/T501.
- FIELD COORDINATE EXACT LOCATION OF ACCESS POINT WITH OWNERS IT REPRESENTATIVE PRIOR TO INSTALLATION.
- AT CONTRACTORS OPTION, CABLE TRAY (BASKET TYPE, 12" WIDE X 4" DEEP) MAY BE PROVIDED ABOVE CEILING FOR CORRIDOR FOR LOW VOLTAGE CABLING.
- WALL MOUNT, 26 R.U., SWING OUT EQUIPMENT CABINET, 50"H x 28"W x 22"D, 200 POUNDS CAPACITY, BASIS OF DESIGN: MIDDLE ATLANTIC CWR-26-22zz. FOR PATCH PANELS AND OWNERS NETWORK ELECTRONICS AND UPS.
- RESERVE THIS BACKBOARD SPACE FOR ACCESS CONTROL PANELS ON THE LEFT AND TAP-OFFS FOR CABLE TV ON THE RIGHT.
- PROVIDE 110 BLOCK WITH CROSS CONNECT FOR TELEPHONE SERVICE.

#	DATE	CHANGE DESCRIPTION
1	04-21-2022	ADDENDUM NO. 2



COLUMBUS METROPOLITAN
HOUSING AUTHORITY
COMMUNITY. COMMITMENT. COLLABORATION.

HARRIET'S HOPE
1581 W. BROAD STREET
COLUMBUS, OH 43222
FOR
CMHA

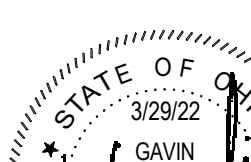


MOODY•NOLAN

300 SPRUCE STREET
SUITE 300
COLUMBUS, OHIO 43215

PHONE: (614) 461-4664
FAX: (614) 280-8881

DRAWING TITLE: LEVEL 03 - FLOOR PLAN - SYSTEMS

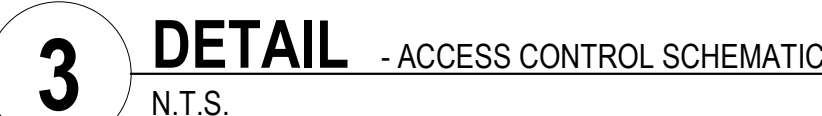
	APRIL 4, 2022	
	DRAWN BY: Author	CHECKED BY: Checker
	Proj. #20643	
	T103	
	PERMIT & BID SET	



1



2



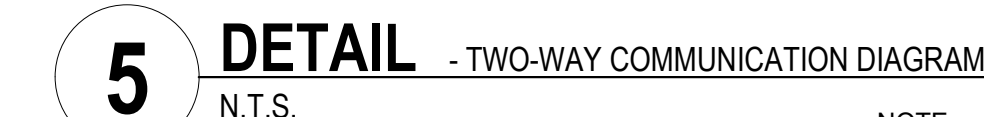
NOTE:
COORDINATE EXACT REQUIREMENTS WITH ARCHITECTURAL DOOR HARDWARE SCHEDULE
AND SPECIFICATIONS PRIOR TO ROUGH-IN.



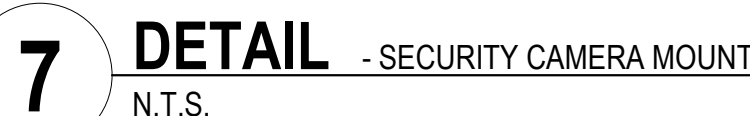
N.T.S.



NTS



NOTE:
SUBJECT TO COMPLIANCE WITH REQUIREMENTS, THE CONTRACTOR
MAY PROVIDE PRODUCT OF EQUAL MANUFACTURE AT HIS DISCRETION



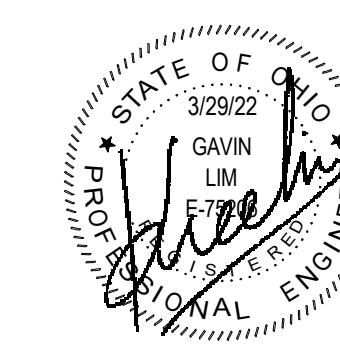
NTS

300 SPRUCE STREET
SUITE 300
COLUMBUS, OHIO 43215

PHONE: (614) 461-4664
FAX: (614) 280-8881

DRAWING TITLE

DETAILS - SYSTEMS



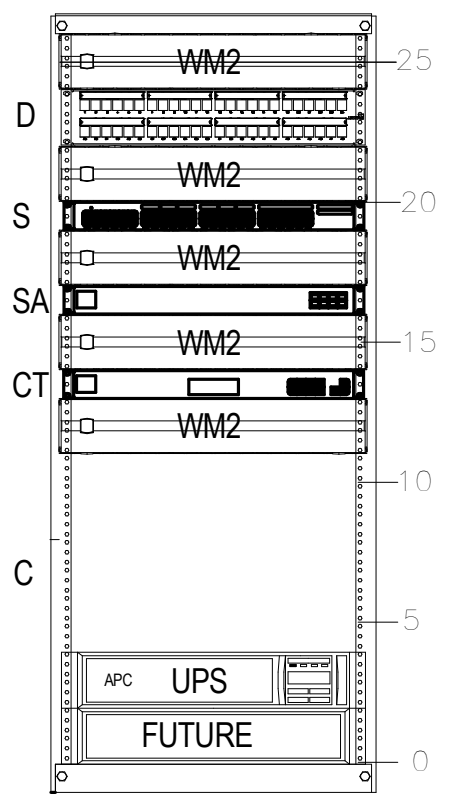
APRIL 4, 2022

DRAWN BY: Author	CHECKED BY: Check
------------------	-------------------

Proj. #20643

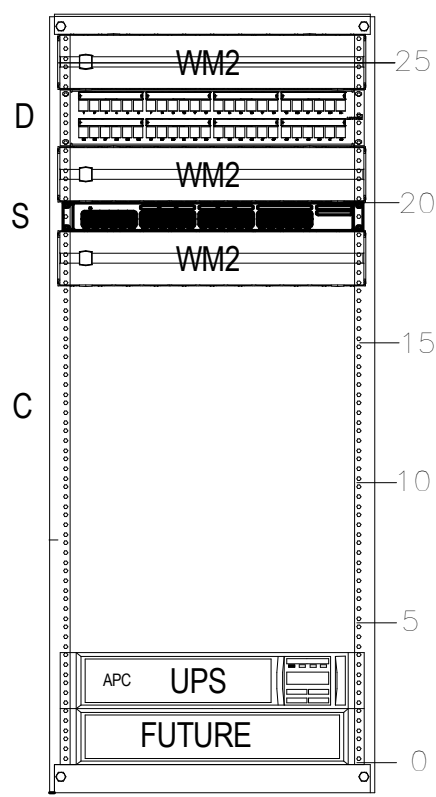
T501

PERMIT & BID SET



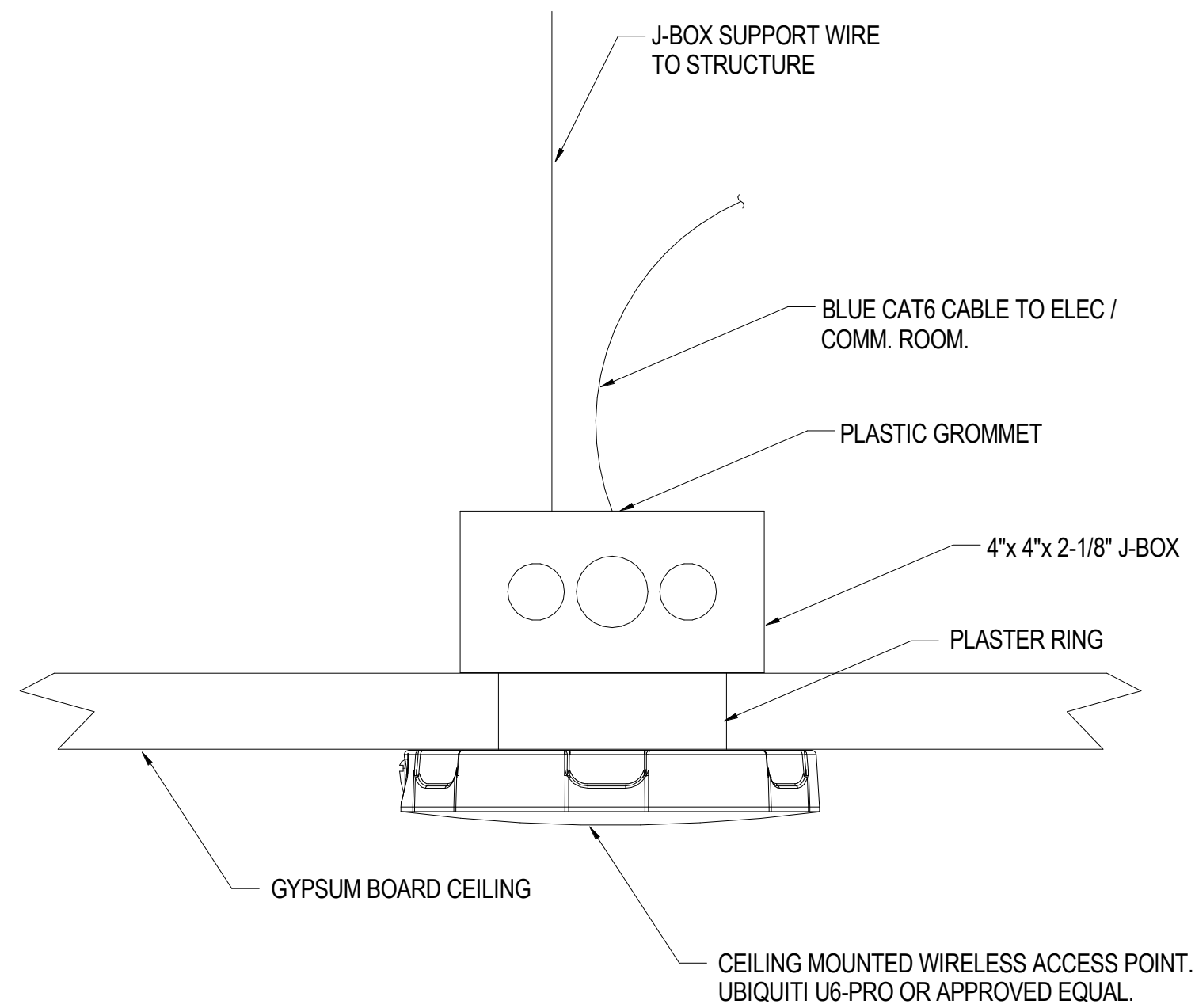
CABINET, PATCH PANEL AND WIRE MANAGEMENT DESCRIPTION TABLE	
C	WALL MOUNT, 26 RACK UNIT, SWING OUT EQUIPMENT CABINET WITH PLEXIGLASS DOOR, 200 POUNDS CAPACITY, 50"H x 26"W x 22"D. BASIS OF DESIGN: MIDDLE ATLANTIC CWR-26-2ZZZ OR APPROVED EQUAL.
D	2U, 48 PORT, PATCH PANEL AND CABLE MANAGEMENT BAR, FOR 8P8C, CAT 6 OR CAT6A, MODULAR JACK INSERTS. SIMILAR TO PANDUIT CP48BLY OR APPROVED EQUAL. (FOR COMMON AREA DATA, UNIT DATA AND SECURITY CAMERA JACKS)
WM2	2 RACK UNIT HORIZONTAL WIRE MANAGEMENT. SIMILAR TO CHATSWORTH EVOLUTION, #35441-XO2 OR APPROVED EQUAL.
S	PROVIDE 48-PORT, POE, GIGABIT ETHERNET SWITCH SIMILAR TO UBIQUITI USW-PRO-48-POE WITH RACKMOUNT EARS OR APPROVED EQUAL. SWITCH SHALL INCLUDE AT LEAST TWO PORTS FOR SFP+ MODULES. SWITCH SHALL INCLUDE ONE, 10G, SFP+ FIBER MODULE COMPATIBLE WITH LC CONNECTORS AND OM4 MULTIMODE CABLE.
SA	PROVIDE 8-PORT, GIGABIT ETHERNET AGGREGATION SWITCH SIMILAR TO UBIQUITI USW-AGGREGATION WITH RACKMOUNT EARS OR APPROVED EQUAL. SWITCH SHALL INCLUDE AT LEAST SIX PORTS FOR SFP+ MODULES. SWITCH SHALL INCLUDE SIX, 10G, SFP+ FIBER MODULES COMPATIBLE WITH LC CONNECTORS AND OM4 MULTIMODE CABLE.
CT	PROVIDE COMBINATION ROUTER, WIRELESS ACCESS POINT CONTROLLER AND 8 PORT SWITCH SIMILAR TO UBIQUITI DREAM MACHINE SPECIAL EDITION WITH RACK EARS OR APPROVED EQUAL. ROUTER/CONTROLLER SHALL INCLUDE AT LEAST TWO PORTS FOR SFP+ MODULES. UNIT SHALL INCLUDE ONE, 10G, SFP+ FIBER MODULE COMPATIBLE WITH LC CONNECTORS AND OM4 MULTIMODE CABLE.

1 DETAIL - RACK ELEVATION - WALL MOUNT EQUIPMENT CABINET - 1ST (GROUND) FLOOR
N.T.S.

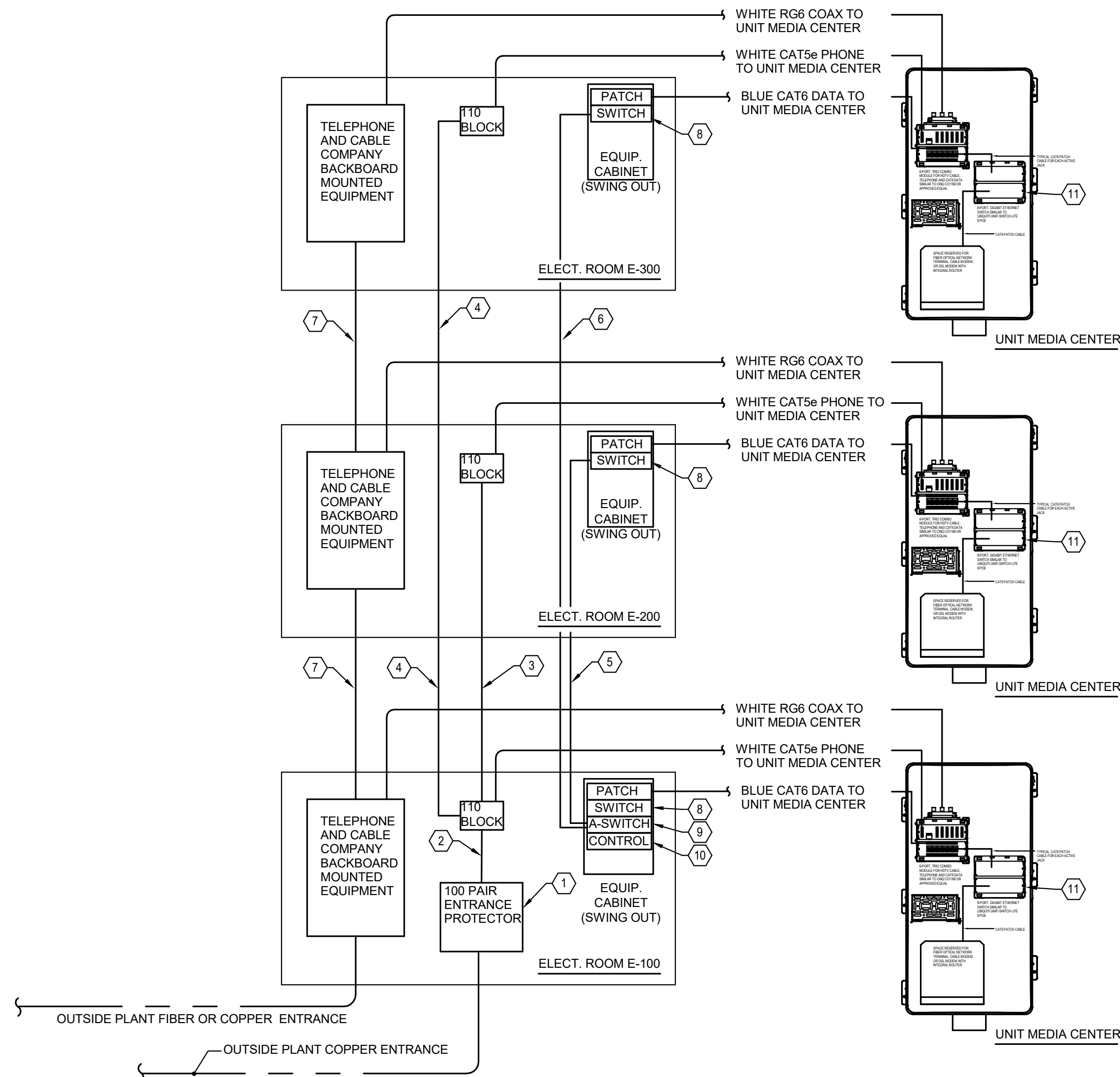


CABINET, PATCH PANEL AND WIRE MANAGEMENT DESCRIPTION TABLE	
C	WALL MOUNT, 26 RACK UNIT, SWING OUT EQUIPMENT CABINET WITH PLEXIGLASS DOOR, 200 POUNDS CAPACITY, 50"H x 26"W x 22"D. BASIS OF DESIGN: MIDDLE ATLANTIC CWR-26-2ZZZ OR APPROVED EQUAL.
D	2U, 48 PORT, PATCH PANEL AND CABLE MANAGEMENT BAR, FOR 8P8C, CAT 6 OR CAT6A, MODULAR JACK INSERTS. SIMILAR TO PANDUIT CP48BLY OR APPROVED EQUAL. (FOR COMMON AREA DATA, UNIT DATA AND SECURITY CAMERA JACKS)
WM2	2 RACK UNIT HORIZONTAL WIRE MANAGEMENT. SIMILAR TO CHATSWORTH EVOLUTION, #35441-XO2 OR APPROVED EQUAL.
S	PROVIDE 48-PORT, POE, GIGABIT ETHERNET SWITCH SIMILAR TO UBIQUITI USW-PRO-48-POE WITH RACKMOUNT EARS OR APPROVED EQUAL. SWITCH SHALL INCLUDE AT LEAST TWO PORTS FOR SFP+ MODULES. SWITCH SHALL INCLUDE ONE, 10G, SFP+ FIBER MODULE COMPATIBLE WITH LC CONNECTORS AND OM4 MULTIMODE CABLE.

3 DETAIL - RACK ELEVATION - WALL MOUNT EQUIPMENT CABINET -2ND & 3RD FLOOR
N.T.S.



4 DETAIL - WIFI ACCESS POINT AND MOUNTING
N.T.S.



2 DETAIL - TELECOMMUNICATIONS RISER DIAGRAM
N.T.S.

- SHEET KEYNOTES:**
- PROVIDE 100 PAIR ENTRANCE PROTECTORS WITH SOLID STATE PROTECTOR MODULES AND 110 CONNECTIVITY.
 - PROVIDE 4-25 PAIR (100 PAIR TOTAL) CAT 5E BACKBONE CABLE. TERMINATE SOURCE ON ENTRANCE PROTECTOR AND OTHER END ON CAT5E, 110 CROSS CONNECT BLOCKS.
 - PROVIDE 2-25 PAIR CAT 5E BACKBONE CABLES. TERMINATE SOURCE ON ELECT. ROOM E-100, CAT5E 110 CROSS-CONNECT BLOCKS. ON THE OTHER END TERMINATE 50 PAIR ON ROOM E-200, CAT5E, 110 BLOCKS.
 - PROVIDE 2-25 PAIR CAT 5E BACKBONE CABLES. TERMINATE SOURCE ON ELECT. ROOM E-100, CAT5E 110 CROSS-CONNECT BLOCKS. ON THE OTHER END TERMINATE 50 PAIR ON ROOM E-300, CAT5E, 110 BLOCKS.
 - PROVIDE TWO, 2- STRAND, OM4 FIBER OPTIC, AQUA BACKBONE CABLES TERMINATED WITH LC CONNECTORS. TERMINATE SOURCE ON ELECT. ROOM E-100, AGGREGATION SWITCH SFP+ MODULE. ON THE OTHER END, TERMINATE OM4 CABLE ON ROOM E-200 SWITCH SFP+ MODULE IN EQUIPMENT CABINET. THE SECOND FIBER CABLE IS SPARE.
 - PROVIDE TWO, 2- STRAND, OM4 FIBER OPTIC, AQUA BACKBONE CABLES TERMINATED WITH LC CONNECTORS. TERMINATE SOURCE ON ELECT. ROOM E-100, AGGREGATION SWITCH SFP+ MODULE. ON THE OTHER END, TERMINATE OM4 CABLE ON ROOM E-300 SWITCH SFP+ MODULE IN EQUIPMENT CABINET. THE SECOND FIBER CABLE IS SPARE.
 - PROVIDE TWO, RG-11, COAXIAL BACKBONE CABLES TERMINATED IN F CONNECTORS. AMPLIFIERS AND TAPOFFS ARE BY THE CABLE TV COMPANY.
 - PROVIDE 48-PORT, POE, GIGABIT ETHERNET SWITCH SIMILAR TO UBIQUITI USW-PRO-48-POE WITH RACKMOUNT EARS OR APPROVED EQUAL. SWITCH SHALL INCLUDE AT LEAST TWO PORTS FOR SFP+ MODULES. SWITCH SHALL INCLUDE ONE, 10G, SFP+ FIBER MODULE COMPATIBLE WITH LC CONNECTORS AND OM4 MULTIMODE CABLE.
 - PROVIDE 8-PORT, GIGABIT ETHERNET AGGREGATION SWITCH SIMILAR TO UBIQUITI USW-AGGREGATION WITH RACKMOUNT EARS OR APPROVED EQUAL. SWITCH SHALL INCLUDE AT LEAST SIX PORTS FOR SFP+ MODULES. SWITCH SHALL INCLUDE SIX, 10G, SFP+ FIBER MODULES COMPATIBLE WITH LC CONNECTORS AND OM4 MULTIMODE CABLE.
 - PROVIDE COMBINATION ROUTER, WIRELESS ACCESS POINT CONTROLLER AND 8 PORT SWITCH SIMILAR TO UBIQUITI DREAM MACHINE SPECIAL EDITION WITH RACK EARS OR APPROVED EQUAL. ROUTER/CONTROLLER SHALL INCLUDE AT LEAST TWO PORTS FOR SFP+ MODULES. UNIT SHALL INCLUDE ONE, 10G, SFP+ FIBER MODULE COMPATIBLE WITH LC CONNECTORS AND OM4 MULTIMODE CABLE.
 - PROVIDE 8-PORT, ETHERNET NETWORK SWITCH WITH POWER OVER ETHERNET CAPABILITY IN MEDIA CABINET SIMILAR TO UBIQUITI USW-LITE-8-POE OR APPROVED EQUAL.

#	DATE	CHANGE DESCRIPTION
1	04-21-2022	ADDENDUM NO. 2



COLUMBUS METROPOLITAN
HOUSING AUTHORITY
COMMUNITY. COMMITMENT. COLLABORATION.

HARRIET'S HOPE
1581 W. BROAD STREET
COLUMBUS, OH 43222
FOR
CMHA



MOODY+NOLAN

300 SPRUCE STREET
SUITE 300
COLUMBUS, OHIO 43215

PHONE: (614) 461-4664
FAX: (614) 280-8881

DRAWING TITLE:

DETAILS - SYSTEMS

APRIL 4, 2022	
DRAWN BY: Author	CHECKED BY: Checker
Proj. #20643	
T502	
PERMIT & BID SET	