# ALURA APARTMENTS - VILLAGE AT DISCOVERY PARK BUILDING 8 TYPE "A"

D		2 TMENTS - VILLAGE AT DIS ARTMENT BUILDING TYPI
		LEE'S SUMMIT, JACKSON COUNTY, MISSOURI
	PROJECT INFORMATION	INDEX TO DRAWINGS
	SITE DATA SITE ZONING: (SEE CIVIL)	Sheet NumberSheet Issue Sheet NameCurrent Revision DateCurrent Revision DescriptionSheet Sheet NumberSheet Issue Sheet NameCurrent 
	SITE SIZE: (SEE CIVIL)         SITE DENSITY: (SEE CIVIL)         NO. OF PARKING SPACES: (SEE CIVIL)         BUILDING DATA (BLDGS. 4, 6, 8 & 11)         DWELLING UNITS         LABEL       COMPLIANCE WITH       SQ FT       QTY       SUBTOTAL         1-BR-A       ANSI "B"       ANSI "B", FHA       692       16       11,072 SF	1 - COVER SHEET         0.0A       COVER SHEET         15 APR 2025       16 MAY 2025       ADDENDUM #1         SP1.0A       SPECIFICATIONS       15 APR 2025       15 APR 2025       ISSUE SET         SP1.1A       SPECIFICATIONS       15 APR 2025       15 APR 2025       ISSUE SET         SP1.2A       SPECIFICATIONS       15 APR 2025       15 APR 2025       ISSUE SET         SP1.3A       SPECIFICATIONS       15 APR 2025       15 APR 2025       ISSUE SET         SP1.3A       SPECIFICATIONS       15 APR 2025       15 APR 2025       ISSUE SET         MEP1       MECHANICAL ELECTRICAL PLUMBING COVER SHEET       15 APR 2025       15 APR 2025       ISSUE SET         MEP2       SITE UTILITIES PLAN       15 APR 2025       15 APR 2025       ISSUE SET         MEP3       SITE LIGHTING PLAN       15 APR 2025       15 APR 2025       ISSUE SET         MEP4       SITE LIGHTING PLAN (BUILDING 1 ONLY)       15 APR 2025       15 APR 2025       ISSUE SET
U	1-BR-A       ANSI "B"       ANSI "B", FHA       692       16       11,072       SF         1-BR-B       ANSI "B"       ANSI "B", FHA       795       8       6,360       SF         1-BR-C       ANSI "B"       ANSI "B", FHA       572       4       2,288       SF         2-BR-A       ANSI "B"       ANSI "B", FHA       1051       6       6,306       SF         2-BR-A       ANSI "B"       ANSI "B", FHA       1051       1       1,051       SF         2-BR-A       ANSI "B"       ANSI "B", FHA       1051       1       1,051       SF         2-BR-A       ANSI "B"/AV       ANSI "B", FHA/AV       1051       1       1,051       SF         2-BR-B       ANSI "B"/AV       ANSI "B", FHA/AV       1051       1       1,051       SF	2 - STRUCTURAL (BY CROCKETT ENGINEERING CONSULTANTS)M101HVAC PLAN - FIRST & SECOND FLOORS15 APR 202515 APR 2025ISSUE SETS100GENERAL STRUCTURAL DATA15 APR 202515 APR 2025ISSUE SETM101HVAC PLAN - THIRD & FOURTH FLOORS15 APR 202515 APR 2025ISSUE SETS200FOUNDATION PLAN15 APR 202515 APR 2025ISSUE SETM501HVAC DETAILS & SCHEDULES15 APR 202515 APR 2025ISSUE SETS210FOUNDATION DETAILS15 APR 202515 APR 2025ISSUE SETM501HVAC DETAILS & SCHEDULES15 APR 202515 APR 2025ISSUE SETS211FOUNDATION DETAILS15 APR 202515 APR 2025IS APR 2025IS APR 2025ISSUE SETEP102POWER PLAN - FIRST & SECOND FLOORS15 APR 2025IS APR 2025ISSUE SETS3002ND FLOOR FRAMING PLAN15 APR 202515 APR 2025IS APR 2025IS APR 2025ISSUE SETEL101LIGHTING PLAN - FIRST & SECOND FLOORS15 APR 2025IS APR 2025ISSUE SETEL101LIGHTING PLAN - FIRST & SECOND FLOORS15 APR 2025IS APR 2025ADDENDUM #S2002ND FLOOR FRAMING PLAN15 APR 202515 APR 2025IS APR 2025IS APR 2025IS APR 2025IS APR 2025S2012ND FLOOR FRAMING PLAN15 APR 202515 APR 2025IS APR 2025IS APR 2025IS APR 2025IS APR 2025IS APR 2025S2022ND FLOOR FRAMING PLAN15 APR 202515 APR 2025IS APR 2025IS APR 2025IS APR 2025IS APR 2025IS AP
	DWELLING UNIT AREA:       44       37,224       SF         NON-DWELLING AREA:       BALCONIES, CORRIDOR, COMMON AREA & SPRINKLER ROOM       10,226       SF         TOTAL BUILDING AREA:       47,450       SF         TOTAL RENTAL UNITS:       (44) TOTAL UNITS, PER BUILDING:       (28) 1-BR UNITS, (16) 2-BR UNITS         BUILDING DATA (BLDG. 1)	5300A       SHEAR WALL PLAN       15 APR 2025       15 APR 2025       ISSUE SET         5400       3RD FLOOR FRAMING PLAN       15 APR 2025       15 APR 2025       ISSUE SET         5500       4TH FLOOR FRAMING PLAN       15 APR 2025       15 APR 2025       ISSUE SET         5510       FLOOR FRAMING DETAILS       15 APR 2025       15 APR 2025       ISSUE SET         5511       FLOOR FRAMING PLAN       15 APR 2025       15 APR 2025       ISSUE SET         5600       ROOF FRAMING DETAILS       15 APR 2025       15 APR 2025       ISSUE SET         6600       ROOF FRAMING PLAN       15 APR 2025       15 APR 2025       ISSUE SET         6600       ROOF FRAMING PLAN       15 APR 2025       15 APR 2025       ISSUE SET         6600       ROOF FRAMING PLAN       15 APR 2025       15 APR 2025       ISSUE SET         6000       ROOF FRAMING PLAN       15 APR 2025       15 APR 2025       ISSUE SET         F1002       FIRE PROTECTION PLAN - THIRD & FOURTH       15 APR 2025       ISSUE SET         F2008       F2008       F2008       F2008       15 APR 2025       ISSUE SET
_	DWELLING UNITS         LABEL         COMPLIANCE WITH         SQ FT         QTY         SUBTOTAL           1-BR-A         ANSI "B"         ANSI "B", FHA         692         16         11,072         5F           1-BR-B         ANSI "B"         ANSI "B", FHA         795         8         6,360         5F           1-BR-C         ANSI "B"         ANSI "B", FHA         572         4         2,288         5F           2-BR-A         ANSI "B"         ANSI "B", FHA         1051         8         8,408         5F           2-BR-B         ANSI "B"         ANSI "B", FHA         1137         8         9,096         5F	S610ROOF FRAMING DETAILS15 APR 202515 APR 2025ISSUE SETS611ROOF FRAMING DETAILS15 APR 202515 APR 2025ISSUE SETS612ROOF FRAMING DETAILS15 APR 202515 APR 2025ISSUE SET3 - ARCHITECTURAL15 APR 202515 APR 2025ISSUE SETA1.0AFIRST FLOOR BUILDING PLAN15 APR 202516 MAY 2025ADDENDUM #1A1.1ASECOND FLOOR BUILDING PLAN15 APR 202515 APR 2025ISSUE SETPW101WATER PLAN - FIRST & SECOND FLOORS15 APR 202515 APR 2025ISSUE SETPW102WATER PLAN - THIRD & FOURTH FLOORS15 APR 202515 APR 2025ISSUE SETPW102WATER PLAN - THIRD & FOURTH FLOORS15 APR 202515 APR 2025ISSUE SET
	2-BR-B       ANSI "B"       ANSI "B", FHA       1137       8       9,096	A1.2A       THIRD FLOOR BUILDING PLAN       15 APR 2025       15 APR 2025       ISSUE SET         A1.3A       FOURTH FLOOR BUILDING PLAN       15 APR 2025       15 APR 2025       ISSUE SET         A1.4A       1-BR UNIT DIMENSION PLANS, DOOR SCHEDULE, NOTES & WALL TYPES       15 APR 2025       15 APR 2025       ISSUE SET         A1.5A       2-BR UNIT DIMENSION PLANS       15 APR 2025       15 APR 2025       ISSUE SET         A1.6A       ENLARGED COMMON APEA DIMENSION PLANS       15 APR 2025       15 APR 2025       ISSUE SET         M16A       ENLARGED COMMON APEA DIMENSION PLANS       15 APR 2025       15 APR 2025       ISSUE SET         M16A       ENLARGED COMMON APEA DIMENSION PLANS       15 APR 2025       15 APR 2025       ISSUE SET         M16A       ENLARGED COMMON APEA DIMENSION PLANS       15 APR 2025       15 APR 2025       ISSUE SET
	BLDG. & RELATED CODES: 2018 IBC, 2018 IPC, 2018 IMC, 2018 IECC ELECT. CODE: 2017 NEC FIRE CODE: 2018 IFC ACCESSIBILITY: 2009 ICC/ANSI A117.1, FAIR HOUSING ACT	Allow       Enclared common Area dimension reands       IS AIR 2025       IS AIR 2025       IS Sub Set         A1.7A       1-BR ACCESSIBILITY PLANS & NOTES       15 APR 2025       15 APR 2025       ISSUE SET         A1.8A       2-BR ACCESSIBILITY PLANS       15 APR 2025       15 APR 2025       ISSUE SET         A1.9A       ENLARGED COMMON AREA ACCESSIBILITY       15 APR 2025       IS APR 2025       ISSUE SET         A1.9A       ENLARGED COMMON AREA ACCESSIBILITY       15 APR 2025       IS APR 2025       ISSUE SET         VMEP2.2.1       ANSI B - AV - 2 BR - TYPE A - HVAC & WATER       15 APR 2025       ISSUE SET         VMEP2.2.1       ANSI B - AV - 2 BR - TYPE A - HVAC & WATER       15 APR 2025       ISSUE SET         VMEP2.2.1       ANSI B - AV - 2 BR - TYPE A - HVAC & WATER       15 APR 2025       ISSUE SET
В	MISC.: ALL APPLICABLE FEDERAL, STATE, LOCAL CODES, LAWS AND ORDINANCES BUILDING CODE DATA USE GROUP: R-2	A2.0AROOF PLAN, DETAILS & NOTES15 APR 202515 APR 202515 APR 202516 SUE SETA3.0AEXTERIOR ELEVATIONS15 APR 202515 APR 202515 APR 202516 SUE SETA3.1AEXTERIOR ELEVATIONS15 APR 202515 APR 202515 APR 202516 SUE SETA4.0AWALL SECTIONS15 APR 202515 APR 202515 APR 202515 APR 202516 SUE SET
	CONSTRUCTION TYPE: VA         EXT. WALL CONSTRUCTION: 1-HR RATED EXTERIOR WALLS (RATED FROM INSIDE)         OTHER CONSTRUCTION: 1/2-HR RATED CORRIDOR WALLS, 1-HR RATED UNIT SEPARATION WALLS, LOAD         BEARING WALLS, ROOF/CEILING & FLOOR/CEILING ASSEMBLIES, 2-HR WALLS &         ROOF/CEILING @ ELEVATOR & STAIR SHAFTS, UNRATED INTERIOR WALLS	A4.1AWALL SECTIONS15 APR 202515 APR 202515 APR 2025ISSUE SETA4.2AWALL SECTIONS15 APR 202515 APR 2025ISSUE SETA4.3AWALL SECTIONS15 APR 202515 APR 2025ISSUE SETA4.4AELEVATOR WALL SECTIONS15 APR 202515 APR 2025ISSUE SETA4.4AELEVATOR WALL SECTIONS15 APR 202515 APR 2025ISSUE SET
	ALLOW. AREA PER FLOOR:       R-2 = 12,000 SF         AREA ADJUSTMENTS:       FULL FRONTAGE INCREASE R-2 = 12,000(1.0025) × 30/30 = 9,000 SF/FLOOR         INCREASE = 21,000 SF / FLOOR TOTAL ALLOWABLE FOR R-2         ACTUAL AREA PER FLOOR:       1ST FLOOR = 12,101 SF, 2ND, 3RD & 4TH FLOORS = 11,783 SF EACH	A4.5ASTAIR SHAFT WALL SECTION & DETAILS15 APR 202515 APR 2025ISSUE SETA4.6AFRAMING DETAILS15 APR 202515 APR 2025ISSUE SETA4.7AFRAMING DETAILS15 APR 202515 APR 2025ISSUE SETA4.8AFLASHING DETAILS15 APR 202515 APR 2025ISSUE SET
_	ALLOW. HEIGHT & FLOORS:       R-2 = 60'-0", 4 STORIES         HEIGHT ADJUSTMENTS:       NONE REQUIRED, NONE TAKEN         ACTUAL HEIGHT & FLOORS:       58'-4 1/2", 4 STORIES         SPRINKLER SYSTEM:       NFPA 13R DESIGNED AND INSTALLED BY ACCREDITED FIRE PROTECTION SYSTEM	A5.0AFIRE RATED ASSEMBLIES15 APR 202515 APR 2025ISSUE SETA5.1AFIRE RATED ASSEMBLIES15 APR 202515 APR 2025ISSUE SETA5.2AFIRE RATED ASSEMBLIES15 APR 202515 APR 2025ISSUE SETA5.3AFIRE RATED ASSEMBLIES15 APR 202515 APR 2025ISSUE SET
	DESIGNER AND INSTALLER. PROTECTION SHALL INCLUDE ALL AREAS AS APPLICABLE BY LOCAL AND STATE CODES. COORDINATE WITH GC/OWNER REGARDING THE INSTALLATION OF THE WET/DRY FIRE SUPRESSION SYSTEM FOR UNCONDITIONED FREEZE PROTECTION PER O.O CODE DATA, PROVIDE FLEXIBLE DRY HEADS AT BALCONIES, PROVIDE FREEZE PROTECTED SOFFITS AS REQUIRED ON THE TOP FLOOR PER O.O CODE DATA INFORMATION. THIS COORDINATION SHOULUD	A5.4AFIRE RATED ASSEMBLIES15 APR 202515 APR 202516 SUE SETA5.5AFIRE RATED ASSEMBLIES15 APR 202515 APR 202516 SUE SETA5.6AFIRE RATED ASSEMBLIES15 APR 202515 APR 202516 SUE SETA6.0A1-BR FINISH PLANS, FINISH SCHEDULE & NOTES15 APR 202515 APR 202516 SUE SETA6.1A2-BR FINISH PLANS & FINISH SCHEDULE15 APR 202515 APR 202516 SUE SETA6.2ACOMMON AREA FINISH PLANS & FINISH15 APR 202516 MAY 2025ADDENDUM #1
	BE INCLUDED IN THE BASE BID.	SCHEDULESCHEDULEA7.0AINTERIOR ELEVATIONS NOTES AND DETAILS15 APR 202515 APR 2025ISSUE SETA7.1A1-BR INTERIOR ELEVATIONS15 APR 202515 APR 2025ISSUE SETA7.2A1-BR INTERIOR ELEVATIONS15 APR 202515 APR 2025ISSUE SETA7.3A2-BR INTERIOR ELEVATIONS15 APR 202515 APR 2025ISSUE SETA7.4A2-BR INTERIOR ELEVATIONS15 APR 202515 APR 2025ISSUE SET
Α		A8.0A15T & 2ND FLOOR REFLECTED CEILING PLANS15 APR 202515 APR 20251660E GETA8.1A3RD & 4TH FLOOR REFLECTED CEILING PLANS15 APR 202515 APR 20251660E GETLS1.0A1ST & 2ND FLOOR LIFE SAFETY PLANS15 APR 202515 APR 20251660E GETLS1.1A3RD & 4TH FLOOR LIFE SAFETY PLANS15 APR 202515 APR 20251660E GET

# E "A"

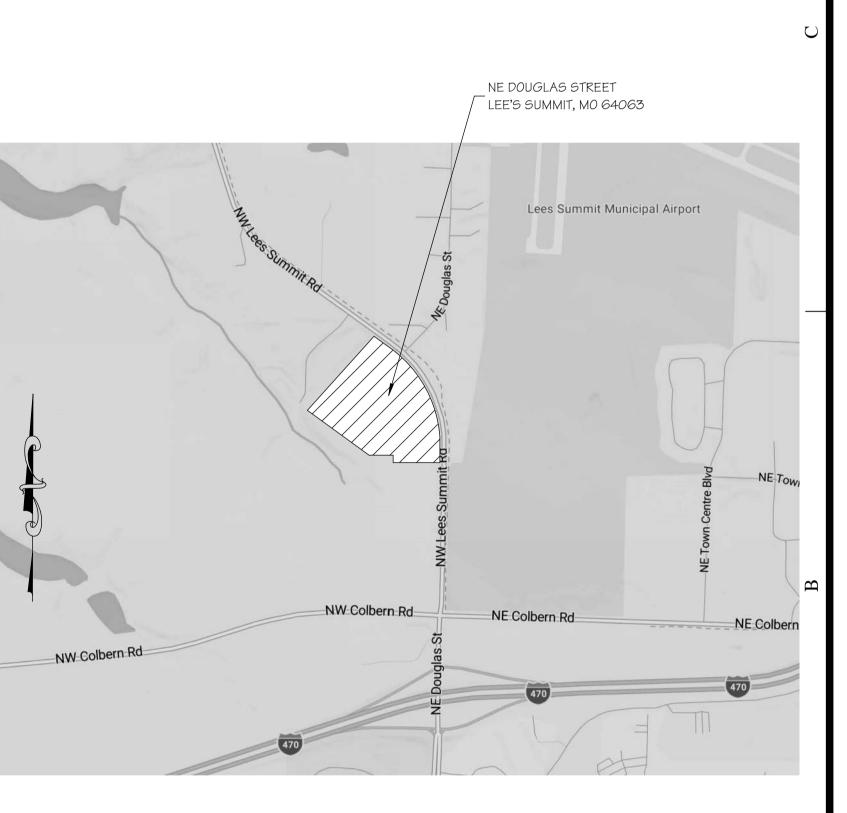
NOTE: PROJECT CONSTRUCTION MUST BE IN COMPLIANCE WITH ALL APPLICABLE CODES, ORDINANCES, LAWS, AND REGULATIONS AS ENUMERATED ELSEWHERE IN THE PLANS AND SPECIFICATIONS.

BY: BY: BY:

PM: <u>RS</u> PC: <u>CD</u>

# ARCHITECT'S JOB NO. 4938

# PROJECT LOCATION MAP



# SIGNATURE AREAS

ARCHITECT: WALLACE ARCHITECTS, LLC 302 CAMPUSVIEW DRIVE SUITE 208, COLUMBIA, MO 65201

OWNER: THE VILLAGE AT DISCOVERY PARK, LLC 3622 ENDEAVOR AVE., STE. 101, COLUMBIA, MO 65201

CONTRACTOR: INTRINSIC DEVELOPMENT, LLC 3622 ENDEAVOR AVE., STE. 101, COLUMBIA, MO 65201 DATE:

DATE:

DATE:



JOB NO.

4938

M. RANDALL PORTER

A 2012006244

16 MAY 2025

DT:	<u>TY</u>
QC:	MK

PLAN SET NO.

ADDENDUM #1

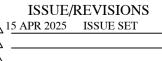
	2	3		5
DIVISION 03 - CONCRETE ECTION 03 35 11 - CONCRETE FLOOR FINISHES	Size: 0.1483 inch side rods with 0.1483 inch cross rods; width as required to provide not less than 5/8 inch of mortar coverage on each exposure.	DIVISION 05 - METALS SECTION 05 50 00 - METAL FABRICATIONS	DELIVERY, STORAGE, AND HANDLING Deliver materials to site in manufacturer's original, unopened packaging, with labels clearly	Type: Woven polypropylene with anti-slip polyolefin coating on both sides. Self Sealability: Passing nail sealability test specified in ASTM D1970/D1970M.
COATINGS	ACCESSORIES	MATERIALS - STEEL	identifying product name and manufacturer. Store products on flat level surface to prevent warping.	Ultraviolet (UV) Resistance and Weatherability: Approved in writing by manufactu exposure to weather for minimum of two months.
Curing and Sealing Compound, Moisture Emission-Reducing, Membrane-Forming: Liquid, membrane-forming, clear sealer, for application to newly-placed concrete; capable of providing adequate bond for flooring adhesives, initially and over the long term; with sufficient moisture	Preformed Control Joints: Neoprene material. Provide with corner and tee accessories, fused joints.	Steel Sections: ASTM A36/A36M. Plates: ASTM A283/A283M.	FIELD CONDITIONS	Low Temperature Flexibility: Passing test specified in ASTM D1970/D1970M. Water Vapor Permeance: Vapor retarder; maximum of 1 perm, when tested in
adequate bond for flooring adhesives, initially and over the long term; with sufficient moisture vapor impermeability to prevent deterioration of flooring adhesives due to moisture emission. Use this product to cure and seal all slabs to receive adhesively applied flooring.	Joint Filler: Closed cell polyethylene; oversized 50 percent to joint width; self expanding, by maximum lengths available	Pipe: ASTM A53/A53M, Grade B Schedule 40, black finish. Bolts, Nuts, and Washers: ASTM A307, Grade A, plain.	Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results.	accordance with ASTM E96/E96M Procedure A, desiccant method. Products:
Comply with ASTM C309 and ASTM C1315 Type I Class A.	Penetrating Water Repellent: Penetrating, water-based silicone water repellent for concrete and masonry.	Bolts, Nuts, and Washers: ASTM A307, Grade A, plain. Bolts, Nuts, and Washers: ASTM F3125/F3125M, Type 1, plain.	Allow at least 24 hours for materials to adapt to conditions at project site prior to installation. MANUFACTURERS	CertainTeed Roofing; DiamondDeck Underlayment: <a href="http://www.certainteed.com/#synthetic Underlayment: www.becn.cor">www.becn.cor</a> Beacon Roofing Supply Inc; Tri-Built Synthetic Underlayment: <a href="http://www.becn.cor">www.becn.cor</a>
VOC Content: Less than 100 g/L. Manufacturers: MasterKure CC 160 WB (formerly Kure-N-Seal) as manufactured by BASF Corp.	MORTAR MIXING	Welding Materials: AWS D1.1/D1.1M; type required for materials being welded. Shop and Touch-Up Primer: SSPC-Paint 15, complying with VOC limitations of authorities	Gable Louvers: MidAmerica Components: www.midamericacomponents.com	Underlayment: Asphalt-saturated organic roofing felt, unperforated, complying with AS D226/D226M, Type I, No. 15.
Curing and Sealing Compound, Low Gloss: Liquid, membrane-forming, clear, non-yellowing	Mortar for Unit Masonry: ASTM C270, using the Proportion Specification. Exterior, non-loadbearing masonry: Type N.	having jurisdiction.	Fypon LLC: www.fypon.com Builders Edge/Tapco International Corp: www.buildersedge.com	ACCESSORIES
acrylic; complying with ASTM C1315 Type 1 Class A. Application: Use at exposed slabs and toppings not scheduled to receive finish flooring.	Colored Mortar: Proportion selected pigments and other ingredients to match Architect's sample, without exceeding manufacturer's recommended pigment-to-cement ratio.	Touch-Up Primer for Galvanized Surfaces: SSPC-Paint 20, Type I - Inorganic, complying with VOC limitations of authorities having jurisdiction.	SIMULATED WOOD PRODUCTS	Roofing Nails: Standard round wire shingle type, galvanized steel, minimum 3/8 inch he diameter, 12 gauge, 0.109 inch nail shank diameter, 1-1/2 inch long and complying with
Vehicle: Water-based. VOC Content: OTC compliant.	Admixtures: Add to mixture at manufacturer's recommended rate and in accordance with	FABRICATION Fit and shop assemble items in largest practical sections, for delivery to site.	Gable Louvers: Molded polyurethane foam with factory-applied UV resistant primer suitable for field	F1667. Coil Nails: Standard round wire shingle type, barbed shank, of electro-galvanized steel
Manufacturers: Dayton Superior Corporation; Cure & Seal 1315 EF: www.daytonsuperior.com.	manufacturer's instructions; mix uniformly. COURSING	Fabricate items with joints tightly fitted and secured.	applied paint finish. Style: As indicated on the Drawings.	wire gage, 0.125 - 0.109 inch shank diameter, 3/8 inch head diameter, of sufficient leng penetrate through roof sheathing or 3/4 inch into roof sheathing or decking.
Euclid Chemical Company; DIAMOND CLEAR VOX: www.euclidchemical.com. ECTION 03 52 10 - LIGHTWEIGHT CONCRETE FLOOR FILL	Maintain masonry courses to uniform dimension. Form vertical and horizontal joints of uniform thickness.	FABRICATED ITEMS Bollards: Steel pipe, concrete filled, crowned cap, as detailed; prime paint finish.	MATERIALS	Roof Vents: Aluminum construction with nailing flange and insect screen; equal to Moc 50 manufactured by Air Vent Inc.
MANUFACTURERS	Concrete Masonry Units:	Gate Posts and Gates for trash enclosure: Steel, angle and tube sections with sheet metal	Cellular PVC, Extruded, expanded PVC; UV-resistant, heat-stabilized, and rigid material. Density: 31 pounds per cubic foot, minimum.	Free Vent Area (net): 50 square inches. Size of Roof Opening: 8 inch round.
Lightweight Insulating Concrete: Elastizell Corp. of America: www.elastizell.com.	Bond: Running. Brick Units:	skin; prime paint finish. Provide all gate hardware including cane bolts, lock hasp, and hinges.	Deflection/Warping: ASTM D648, Not less than 130 deg F. Polypropylene, Molded high-density, UV stabilized.	METAL FLASHINGS
Or approved equal. MATERIALS	Bond: Running. SECTION 04 26 13 - MASONRY VENEER	Ledge Angles and Lintels Not Attached to Structural Framing: For support of masonry; galvanized finish.	Density: 4 pounds per cubic foot, minimum. Surface Burning Characteristics: Flame spread index of 75 maximum, smoke developed	General: Provide prefinished aluminum sheet metal flashing at eave edge, gable edge and gable face, color as selected by Owner/Architect.
Cement: ASTM C150/C150M, Portland Type I - Normal, gray color.	BRICK UNITS	FINISHES - STEEL	index of 450 or less, when tested in accordance with ASTM E84. Compressive Strength: Minimum 300 pounds per sq. inch.	Drip Flashings: Pre-formed drip-edge strips, 28 gauge, 0.0149 inch, furnished in 10 for minimum.
Water: ASTM C1602/C1602M; clean, potable, and not detrimental to concrete. Sand: ASTM C33: Washed and graded.	Manufacturers: Belden Brick: www.beldenbrick.com.	Prime paint steel items. SECTION 05 52 13 - RAILINGS	ACCESSORIES	Profile: Equal to Amerimax profile # FHA Manufacturers:
Aggregates: ASTM C332: 3/8 inch or smaller pea gravel, or lightweight aggregates may be	Endicott Clay Products Co: www.endicott.com. Meridian Brick LLC (formerly Boral USA): www.meridianbrick.com.	MANUFACTURERS	Fasteners: Manufacturer's standard concealed fastners, galvanized steel.	Amerimax: www.amerimax.com Or approved equal.
used. Admixtures: Admixtures for water reducing, or accelerating cure may be used in accordance	Sioux City Brick and Tile Co: www.siouxcitybrick.com	Aluminum Railings: Ultra Fencing and Railing; 2-Rail Juilet Balcony Railing: www.ultrarailing.com.	Adhesive: PVC plastic adhesive acceptable to manufacturer.	Fascia and Gable Flashing: Pre-formed or site-fabricated sheet metal fascia and gable
with manufacturer's recommendations where required for unusual project conditions.	Facing Brick: ASTM C216, Type FBS Smooth, Grade SW. Color and Texture: As selected by Owner.	RAILINGS - GENERAL REQUIREMENTS	Sealant (Urethane foam products): Urethane-based adhesive acceptable to manufacturer.	cladding, 24 gauge, 0.0201 inch minimum thickness. Hem exposed edges of flashings minimum 1/4 inch on underside.
Waterproofing: Self-adhesive, rubberized asphalt waterproofing membrane with a minimum .42 psf density, by others	MORTAR MATERIALS Portland Cement: ASTM C150/C150M, Type I; color as required to produce approved color	Design, fabricate, and test railing assemblies in accordance with the most stringent requirements of applicable local code.	Division 07 - THERMAL AND MOISTURE PROTECTION	SECTION 07 46 46 - FIBER-CEMENT SIDING FIBER-CEMENT SIDING
Reinforcement: 1/2 inch polyester fibers with a tensile strength greater than 130ksi or as recommended by by manufacturer.	sample.	Distributed Loads: Design railing assembly, wall rails, and attachments to resist distributed force of 50 pounds per linear foot applied to the top of the assembly and in any direction,	SECTION 07 21 00 - THERMAL INSULATION FIELD CONDITIONS	Lap Siding: Individual horizontal boards made of cement and cellulose fiber formed un
CONCRETE MIX	Hydrated Lime: ASTM C207, Type S. Mortar Aggregate: ASTM C144.	without damage or permanent set. Test in accordance with ASTM E935. Concentrated Loads: Design railing assembly, wall rails, and attachments to resist a	Do not install insulation adhesives when temperature or weather conditions are detrimental to	pressure with integral surface texture, in compliance with ASTM C1186, Type A, Grade machined edges, for nail attachment.
Test for compressive strength in accordance with ASTM C495/C495M, for wet density in accordance with ASTM C138/C138M, and for dry density after oven drying.	Pigments for Colored Mortar: Pure, concentrated mineral pigments specifically intended for mixing into mortar and complying with ASTM C979/C979M.	concentrated Loads: Design railing assembly, wall rails, and attachments to resist a concentrated force of 200 pounds applied at any point on the top of the assembly and in any direction, without damage or permanent set. Test in accordance with ASTM E935.	successful installation. FOAM BOARD INSULATION MATERIALS	Style: Standard lap style. Texture: Simulated cedar grain.
ACCESSORIES Reinforcement:	Mixing into mortar and complying with ASTM C979/C979M. Water: Clean and potable.	Building Stair Dimensions: See drawings for Pipe and Tube railing configurations and heights.	Extruded Polystyrene (XPS) Board Insulation: Comply with ASTM C578 with either natural skin or cut cell surfaces.	Length: 12 feet, nominal. Width (Height): 9-1/2 inches.
Hexagonal woven wire mesh; galvanized, sizes as recommended by manufacturer.	Packaged Dry Material for Mortar for Unit Masonry: Premixed Portland cement, hydrated lime, and sand; complying with ASTM C1714/C1714M and capable of producing mortar of the	Hand Rails and Wall Rails: 1-1/2 inches, diameter round. Top and Intermediate Rails (Building Stairs): 1-1/2 inches square.	or cut cell surfaces. Type: ASTM C578, Type IV. Type and Thermal Resistance, R-value: Type IV, 5.0 (0.88), minimum, per 1 inch	Thickness: 7/16 inch, nominal. Finish: Factory applied primer.
CURING Prohibit load and foot traffic for a minimum of 24 hours from time of initial set, or longer if	specified strength in accordance with ASTM C270 with the addition of water only. Type: Type N.	Posts (Building Stairs): 1-1/2 inches square. Pickets (Building Stairs): 1/2 inch square solid bar.	Type and Thermal Resistance, R-value: Type IV, 5.0 (0.88), minimum, per 1 inch thickness at 75 degrees F mean temperature. Products:	Warranty: 50 year limited; transferable. Products:
applicator determines project or weather conditions require. Floor should not be loaded for a minimum of one week (7 days), then when loaded, loads	REINFORCEMENT AND ANCHORAGE	Cane Detection Rails (Building Stairs): 1-1/2 inches square. Provide anchors and other components as required to attach to structure, made of same	Products: DuPont de Nemours, Inc; Styrofoam Brand Highload 40: building.dupont.com. Kingspan Insulation LLC; GreenGuard XPS Type IV, 25 psi: www.kingspan.com.	Allura, a division of Plycem USA, Inc: www.allurausa.com/#sle. James Hardie Building Products, Inc: www.jameshardie.com/#sle.
should be distributed and not concentrated.	Reinforcing Steel: ASTM A615/A615M, Grade 40 (40,000 psi) yield strength, deformed billet bars; galvanized.	materials as railing components unless otherwise indicated; where exposed fasteners are	Owens Corning Corporation; FOAMULAR Extruded Polystyrene (XPS) Insulation:	Nichiha USA, Inc: www.nichiha.com/#sle.
Cure in accordance with lightweight aggregate manufacturer's instructions. TION 03 54 00 - CAST UNDERLAYMENT	Residential Wall Ties: Corrugated formed sheet metal, 7/8 inch wide by 0.05 inch thick, hot dip galvanized to ASTM A 153/A 153M, Class B, sized to extend at least 1-1/2 inches into the	unavoidable provide flush countersunk fasteners. For anchorage to stud walls, provide backing plates, for bolting anchors.	www.ocbuildingspec.com. GLASS FIBER BLANKET INSULATION MATERIALS	ACCESSORIES Trim: Same material and texture as siding.
DELIVERY, STORAGE, AND HANDLING	veneer with at least 5/8 inch of mortar coverage from masonry face.	Posts: Provide adjustable flanged brackets. Provide welding fittings to join lengths, seal open ends, and conceal exposed mounting bolts.	Glass Fiber Batt Insulation: Flexible preformed batt or blanket, complying with ASTM C665; friction fit.	Flashing: Aluminum, 26 gage, 0.0179 inch minimum base metal thickness.
Store products in manufacturer's unopened packaging until ready for installation.	THRU-WALL FLASHINGS Metal Flashing Materials:	Provide welding fittings to join lengths, seal open ends, and conceal exposed mounting bolts and nuts, including but not limited to elbows, T-shapes, splice connectors, flanges, escutcheons, and well brackets.	Thermal Resistance at exterior walls: R-value of 20 minimum. Facing: kraft paper.	Sealant: Elastomeric, polyurethane or silyl-terminated polyether/polyurethane, and capa
Keep dry and protect from direct sun exposure, freezing, and ambient temperature greater than 105 degrees F.	Stainless Steel Flashing: ASTM A666, Type 304, soft temper; 26 gauge, 0.0187 inch thick; finish 2B to 2D.	escutcheons, and wall brackets. ALUMINUM MATERIALS	Products: CertainTeed Corporation: www.certainteed.com.	being painted. SECTION 07 54 00 - THERMOPLASTIC MEMBRANE ROOFING
FIELD CONDITIONS Maintain minimum ambient temperatures of 50 degrees F 24 hours before, during and 72	Flashing Sealant/Adhesives: VOC-compliant sealants and adhesives as supplied or	Aluminum Tube: Minimum wall thickness of 0.127 inch; ASTM B429/B429M, ASTM B241/B241M, or ASTM B483/B483M.	Johns Manville: www.jm.com. Owens Corning Corporation: www.ocbuildingspec.com.	DELIVERY, STORAGE, AND HANDLING
hours after installation of underlayment.	recommended by flashing manufacturer. ACCESSORIES	Solid Bars and Flats: ASTM B211/B211M.	FOAM INSULATION	Store materials in weather protected environment, clear of ground and moisture. Ensure storage and staging of materials does not exceed static and dynamic load-beari
MANUFACTURERS Gypsum Underlayment:	Preformed Control Joints: Neoprene material. Provide with corner and tee accessories, fused joints.	Welding Fittings: No exposed fasteners; cast aluminum. Exposed Fasteners: Flush countersunk screws or bolts; consistent with design of railing.	Single component polyurethane, low pressure foam sealant complying with ASTM E2178 for exterior wall penetrations.	capacities of roof decking. FIELD CONDITIONS
ARDEX Engineered Cements; ARDEX K15: www.ardexamericas.com. Maxxon Corporation; Gyp-Crete: www.maxxon.com.	Joint Filler: Closed cell polyethylene; oversized 50 percent to joint width; self expanding; in	ALUMINUM RAILING SYSTEMS AT PORCHES AND BALCONIES	R-value; 1 inch of material at 72 degrees F: 4.7, minimum. Minimum Density: 1.0 pounds per cubic foot.	Do not apply roofing membrane when ambient temperature is below 40 degrees F or all
USG; Levelrock® Series 2500 Floor Underlayment: www.usg.com.	maximum lengths available. Weeps:	Pre-manufactured aluminum porch and balcony railing systems. Welded aluminum rails, pickets and mounting flanges for attachment to structure.	Manufacturers: Dow Chemical Co.; Great Stuff: www.greatstuff.dow.com.	degrees F. Do not apply roofing membrane to damp or frozen deck surface or when precipitation is
MATERIALS Cast Underlayments, General:	Type: Polyester mesh. Cleaning Solution: Non-acidic, not harmful to masonry work or adjacent materials.	Aluminum Tube: Minimum wall thickness of 0.127 inch; ASTM B241/B241M, ASTM	FOMO Products Inc.; Handi Foam: www.fomo.com/handifoam. Touch 'n Seal Inc.; All Seasons: www.touch-n-seal.com.	expected or occurring. MANUFACTURERS
Comply with applicable code for combustibility or flame spread requirements.	Penetrating Water Repellent: Penetrating, water-based silicone water repellent for concrete	B429/B429M, ASTM B483/B483M. Solid Bars and Flats: ASTM B211/B211M.	Single component polyurethane, low pressure, low pressure build, foam sealant complying with ASTM E2178 for windows and doors.	Thermoplastic Polyolefin (TPO) Membrane Roofing Materials:
Gypsum-Based Underlayment: Gypsum based mix, that when mixed with water in accordance with manufacturer's directions will produce self-leveling underlayment with the following	and masonry.	Pigmented Organic Coating System: AAMA 2603 polyester or acrylic baked enamel finish. Color: Black	R-value; 1 inch of material at 72 degrees F: 4.7, minimum. Minimum Density: 1.10 pounds per cubic foot.	Carlisle Roofing Systems, Inc; Sure-Weld TPO: www.carlisle-syntec.com. Firestone Building Products, LLC; UltraPly Platinum: www.firestonebpco.com.
properties: Compressive Strength: Minimum 3000 pounds per square inch, tested per ASTM C472.	Prefabricated Steel Lintels, Galvanized: Install loose steel lintels over masonry openings	Non-Weld Mechanical Fittings: Slip-on cast aluminum, with flush setscrews for tightening by	Manufacturers: Dow Chemical Co.; Great Stuff Window & Door: www.greatstuff.dow.com.	GAF; EverGuard Extreme TPO 60 mil: www.gaf.com. Johns Manville; JM TPO - 60 mil: www.jm.com.
Density: Maximum 120 pounds per cubic foot. Surface Burning Characteristics: Flame spread/Smoke developed/Fuel Contribution	where indicated on plans, or as required. MORTAR MIXING	standard hex wrench, no bolts or screw fasteners. Exposed Fasteners: Flush countersunk screws or bolts; consistent with design of railing.	FOMO Products Inc.; Handi Foam Window & Door: www.fomo.com/handifoam. Touch 'n Seal Inc.; No Warp: www.touch-n-seal.com.	Insulation: BASF Corporation; BASF Neopor GPS: www.neopor.basf.us.
index of 0/0/0 in accordance with ASTM E84. Material shall not contain any source of nutrients to sustain mold growth.	Mortar for Unit Masonry: ASTM C270, Proportion Specification.	STEEL RAILING SYSTEM AT BUILDING STAIRS	ACCESSORIES	Carlisle SynTec; SecurShield Insulation: www.carlisle-syntec.com. GAF; EnergyGuard Polyiso: www.gaf.com.
Aggregate: Dry, well graded, washed silica aggregate, approximately 1/8 inch in size and acceptable to underlayment manufacturer.	Colored Mortar: Proportion selected pigments and other ingredients to match Architect's sample, without exceeding manufacturer's recommended pigment-to-cement ratio.	Steel Tube: ASTM A500/A500M, Grade B cold-formed structural tubing. Welding Fittings: Factory or shop-welded from matching pipe or tube; seams continuously	Tape: Reinforced polyethylene film with acrylic pressure sensitive adhesive. Insulation Fasteners: Lengths of unfinished, 13 gauge, 0.072 inch high carbon spring steel with	Versico Roofing Systems; SecurShield Insulation: www.versico.com/#sle.
Water: ASTM C1602/C1602M; clean, potable, and not detrimental to underlayment mix	COURSING Maintain masonry courses to uniform dimension. Form vertical and horizontal joints of uniform	welded; joints and seams ground smooth. Exposed Fasteners: Flush countersunk screws or bolts; consistent with design of railing.	chisel or mitered tips, held in place by tension, length to suit insulation thickness and substrate, capable of securely supporting insulation in place.	ROOFING - UNBALLASTED APPLICATIONS Thermoplastic Membrane Roofing: One ply membrane, fully adhered, over vapor retar
materials. Primer: Manufacturer's recommended type.	Maintain masonry courses to uniform dimension. Form vertical and horizontal joints of uniform thickness.	Exposed Fasteners: Flush countersunk screws or bolts; consistent with design of railing. ALUMINUM FINISHES	Adhesive: Type recommended by insulation manufacturer for application.	insulation. Roofing Assembly Requirements:
Joint and Crack Filler: Latex based filler, as recommended by manufacturer.	Brick Units: Bond: Running.	High Performance Organic Coating System: AAMA 2604 multiple coat, thermally cured fluoropolymer system.	SECTION 07 21 26 - BLOWN INSULATION MATERIALS	Solar Reflectance Index (SRI): Minimum of 64 based on three-year aged value; if
DIVISION 04 - MASONRY	SECTION 04 73 00 - MANUFACTURED STONE MASONRY	DIVISION 06 - WOOD, PLASTICS, AND COMPOSITES	Refer to Specification/Selection Design sheets.	three-year aged data is not available, minimum of 82 initial value. Calculate SRI in accordance with ASTM E1980.
ION 04 20 00 - UNIT MASONRY DELIVERY, STORAGE, AND HANDLING	DELIVERY, STORAGE, AND HANDLING Store products in manufacturer's unopened packaging until ready for installation.	SECTION 06 20 00 - FINISH CARPENTRY	Applications: Provide blown insulation in attic as indicated on drawings. Loose Fill Insulation: ASTM C739, cellulose fiber type, bulk for pneumatic placement.	Field applied coating may not be used to achieve specified SRI. Roof-Ceiling Fire Resistance Rating: Comply with UL (FRD) Assembly Design Not
Deliver, handle, and store masonry units by means that will prevent mechanical damage and	Prevent mechanical damage and contamination by other materials.	DELIVERY, STORAGE, AND HANDLING Protect from moisture damage.	Loose Fill Insulation: ASTM C739, cellulose fiber type, bulk for pneumatic placement. Thermal Transmittance (U-value): 0.27 BTU/hr sq ft deg F, maximum. Total Thermal Resistance at Attic:	Insulation Thermal Resistance (R-Value): 5 per inch, minimum; provide insulation thickness required.
contamination by other materials such as mud, grease, or other debris. Concrete Masonry Units: Store cubes in single stacks on level ground, covered and	Protect Portland cement based materials from moisture and humidity. Store under cover off the ground in a dry location.	Store flat, on level area, to prevent warping.	Garage and Maintenance Buildings: R-value of 38 (deg F hr sq ft)/Btu, minimum.	Acceptable Insulation Types - Constant Thickness Application: Minimum 2 layers of polyisocyanurate board.
protected from inclement weather. Veneer Brick: Inspect bricks upon delivery at site and immediately inform manufacturer or	MANUFACTURERS	FINISH CARPENTRY ITEMS Surface Burning Characteristics: Provide materials having fire and smoke properties as	ACCESSORIES Roof Ventilation Baffles: Prefabricated ventilation channels for placement under roof sheathing	Primer, Roof Coating: Water-based primer with high-tack finish that promotes adhesion elastomeric roof coatings.
supplier of any observed defects. Protect bagged materials and brick siding units from rain and groundwater by covering	Adhered Manufactured Stone Masonry Veneer (AMSMV): Coronado Stone Products: www.coronado.com.	required by applicable code.	with baffles to prevent wind-washing. SECTION 07 25 00 - WEATHER BARRIERS	MEMBRANE ROOFING AND ASSOCIATED MATERIALS
and storing on pallets or other means.	Cultured Stone: www.culturedstone.com. Eldorado Stone: www.eldoradostone.com.	Exterior Finish Carpentry Items: Manufacturers: Acceptable manufacturers of cellular PVC moldings and trim;	WATER-RESISTIVE AIR BARRIERS	Membrane Roofing Materials: TPO: Thermoplastic polyolefin (TPO) complying with ASTM D6878/D6878M, she
Concrete Block: Comply with referenced standards and as follows:	Environmental StoneWorks: www.estoneworks.com. MANUFACTURED STONE MASONRY VENEER	Azek Building Products; www.azek.com. Door and Window Casings and Moldings at Masonry Veneer: Molded Cellular PVC;	Description: Materials installed behind exterior wall coverings; designed to prevent liquid water from further penetration into exterior wall assembly. Primary materials include mechanically	contains reinforcing fabrics or scrims. Thickness: 60 mil, 0.060 inch, minimum.
Size: Standard units with nominal face dimensions of 16 by 8 inches and nominal depth of 8 inches.	Manufactured Stone Veneer: Cast masonry units using a mixture of cement, lightweight	suitable for paint finish, in profiles scheduled below: Door and Window trim: To match Azek Brick mould,1-1/2 inch x 2 inch.	applied sheets; accessory materials include flashings and seam tapes. Water-Resistive and Air Barrier, Multilayers: Outer layers of nonwoven, spunbonded	Color: White.
Load-Bearing Units: ASTM C90, medium weight. BRICK UNITS	aggregates, concrete additives and color pigments to replicate appearance of natural stone and designed to be applied with a cementitious mortar to a backing surface, complying with ASTM C1670/C1670M and ICC ES AC51	Interior Finish Carpentry Items (Dwelling Units): Manufacturers: Acceptable millwork manufacturers of casings, molding and trim.	polypropylene with vapor permeable, watertight polymeric middle layer. Air Permeance: 0.004 cfm/sq ft, maximum, when tested in accordance with ASTM E2178.	Seaming Materials: As recommended by membrane manufacturer. Vapor Retarder: Material approved by roof manufacturer complying with requirements
Manufacturers:	ASTM C1670/C1670M and ICC-ES AC51. Style: As Selected by Owner.	Woodgrain Millwork; www.woodgrain.com. Trimco Millwork; www.trimcomillwork.com.	Water Vapor Permeance: 54 perms, minimum, when tested in accordance with ASTM E96/E96M using Procedure A - Desiccant Method, at 73.4 degrees F.	rating classification; compatible with roofing and insulation materials. Flexible Flashing Material: Same material as membrane.
Belden Brick: www.beldenbrick.com. Endicott Clay Products Co: www.endicott.com.	Color, Texture, Range, Special Shapes: As selected. MORTAR APPLICATIONS	Metrie Inc.; www.metrei.com	Products: DuPont Building Innovations; Tyvek Home Wrap with FlexWrap NF, StraightFlash,	COVER BOARDS
Meridian Brick LLC (formerly Boral USA); : www.meridianbrick.com. Sioux City Brick and Tile Co: www.siouxcitybrick.com	Use only factory premixed packaged dry materials for mortar, with addition of water only at	Moldings, Bases, Casings, and Miscellaneous Trim: Clear white pine, solid or finger jointed; primed for paint finish, in profiles as scheduled below:	StraightFlash VF, Tyvek Wrap Caps, and Tyvek Tape: www.dupont.com. Kingspan Insulation LLC; GreenGuard HPW Building Wrap with GreenGuard Butyl	Cover Boards: Glass-mat faced gypsum panels complying with ASTM C1177/C1177M Thickness: 1/2 inch, fire-resistant.
Facing Brick: ASTM C216, Type FBS Smooth, Grade SW. Color and texture: As selected by Owner.	project site. Exception: If a specified mix design is not available in a premixed dry package, provide	Door Trim: 11/16 inch x 2-1/4 inch Colonial Wood Casing. Baseboard Trim: 9/16 inch by 3-1/4 inch Colonial Wood Base. Wiedew Silly Eventure grade Clear White Dine, 4 inch v 4 inches persingly back	Flashing and GreenGuard SuperStretch Flashing: www.trustgreenguard.com. National Shelter Products, Inc; DRYLine HP with Dryline Sheathing Tape, ATX	
Actual size: 3-5/8 inches x 2-1/4 inches x 7-5/8 inches.	equivalent mix design using standard non-premixed materials. Mortar Color: Natural gray unless otherwise indicated.	Window Sill: Furniture grade Clear White Pine, 1 inch x 4 inches nominal, back primed with eased edges.	Flashing, and ATX Flex Flashing: www.drylinewrap.com.	
MORTAR MATERIALS Portland Cement: ASTM C150/C150M, Type I; color as required to produce approved color	Scratch Coat Mortars: Scratch coat mortars for application directly to metal lath.	LUMBER MATERIALS Softwood Lumber: Clear White Pine species, plain sawn, maximum moisture content of 6	Seal and Perimeter Tapes: As recommended by water-resistive barrier manufacturer.	
sample. Hydrated Lime: ASTM C207, Type S.	Prepackaged/Preblended: ASTM C1714/C1714M, Type N or Type S. Setting Bed Mortars: Setting bed used to adhere manufactured stone veneer units to scratch	percent; with vertical grain, of quality suitable for transparent finish.	Flashings: As recommended by water-resistive barrier manufacturer for application. Flexible Flashing: Self-adhesive sheet flashing complying with ASTM D1970/D1970M, except	
Mortar Aggregate: ASTM C144.	coat mortar or to bondable concrete or concrete masonry. Prepackaged/Preblended: ASTM C1714/C1714M, Type S.	CELLULAR PVC MOLDINGS AND TRIM Cellular PVC Trim: Extruded, expanded PVC; UV-resistant, heat-stabilized, and rigid material.	slip resistance requirement is waived if not installed on a roof. SECTION 07 31 13 - ASPHALT SHINGLES	
Pigments for Colored Mortar: Pure, concentrated mineral pigments specifically intended for mixing into mortar and complying with ASTM C979/C979M.	MORTAR MIXES	Density: 31 pounds per cubic foot, minimum. Flame Spread: ASTM E84, 75, maximum.	MANUFACTURERS	
Water: Clean and potable.	Packaged Dry Material for Mortar for Unit Masonry: Premixed Portland cement, hydrated lime, and sand; complying with ASTM C1714/C1714M and capable of producing mortar of the	PLASTIC LAMINATE MATERIALS	Asphalt Shingles: CertainTeed; Landmark Series: www.certainteed.com.	
Packaged Dry Material for Mortar for Unit Masonry: Premixed Portland cement, hydrated lime, and sand; complying with ASTM C1714/C1714M and capable of producing mortar of the	specified strength in accordance with ASTM C270 with the addition of water only. Color: Standard gray.	ACCESSORIES Primer: As specified in Section 09 91 23.	GAF; Timberline American Harvest: www.gaf.com/sle. Owens Corning Corp; Oakridge: www.owenscorning.com.	
specified strength in accordance with ASTM C270 with the addition of water only. Type: Type N.	ACCESSORIES	Wood Filler: Solvent base, tinted to match surface finish color.	ASPHALT SHINGLES	
Packaged Dry Material for Grout for Masonry: Premixed cementitious materials and dried aggregates; capable of producing grout of the specified strength in accordance with ASTM	Metal Lath with Rainscreen Drainage Material: Factory-assembled combination of mesh drainage material and metal lath.	Epoxy Filler: As recommended by composite resin manufacturer, to match color of window sills.	Asphalt Shingles: Asphalt-coated glass felt, mineral granule surfaced, complying with ASTM D3462/D3462M.	
C476 with the addition of water only. Type: Fine.	Diamond Mesh Metal Lath: ASTM C847, galvanized, self-furring. Rainscreen Drainage Mesh: 90 percent open non-woven polyester mesh.	HARDWARE	Fire Resistance: Class A, complying with ASTM E108. Wind Resistance (Uplift): Class D, when tested in accordance with ASTM	
REINFORCEMENT AND ANCHORAGE	Water-Resistive Air Barrier: See Section 07 25 00.	Countertop Support Brackets: Fixed, L-shaped, corner reinforced, face-of-wall mounting. Material: Steel.	D7158/D7158M. Self-sealing type.	
Reinforcing Steel: ASTM A615/A615M, Grade 40 (40,000 psi), deformed billet bars; galvanized.	Flashings: See Section 04 20 00.	Finish: Manufacturer's standard, factory-applied, textured powder coat. Color: Black.	Style: Laminated overlay. SHEET MATERIALS	
Joint Reinforcement: Use ladder type joint reinforcement where vertical reinforcement is		Support Length: 24 inches.	Smooth Surfaced Roll Roofing: Asphalt-coated organic felt, with smooth asphalt coating both sides, complying with ASTM D6380/D6380M, Class S, Type III, 51.1 lb/100 sq ft.	
involved and truss type elsewhere, unless otherwise indicated. Multiple Wythe Joint Reinforcement: ASTM A951/A951M.		FABRICATION Cap exposed plastic laminate finish edges with material of same finish and pattern.	Eave and Valley Protection Membrane: Self-adhering polymer-modified asphalt sheet	
Type: Truss.		When necessary to cut and fit on site, provide materials with ample allowance for cutting.	complying with ASTM D1970/D1970M; 40 mil total thickness; with strippable treated release paper and polyethylene sheet top surface.	
Nype. Truss. Material: ASTM A1064/A1064M steel wire, mill galvanized to ASTM A641/A641M, Class		Provide frim for scribing and site outfing		
		Provide trim for scribing and site cutting. SECTION 06 66 00 - ORNAMENTAL SIMULATED WOODWORK	Underlayment: Synthetic non-asphaltic sheet, intended by manufacturer for mechanically fastened roofing underlayment without sealed seams and meeting requirements of ASTM D226/D226M.	5 ISSUE





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	1	2	3 DIVISION 08 - OPENINGS	4 Water Penetration Resistance: No uncontrolled leakage on interior face when tested in		STEOF MISS
		Sleeves or pipes penetrating exterior walls.	SECTION 08 11 13 - HOLLOW METAL DOORS AND FRAMES	accordance with ASTM E547 at differential pressure of 15 percent of Performance Grade (PG).	Finish: High performance organic coatings. Finish Color: Black.	M. RANDALL
	Products: Georgia-Pacific; DensDeck: www.densdeck.com.	Sleeves or pipes penetrating masonry or concrete walls. Openings below ledge angles in masonry.	DELIVERY, STORAGE, AND HANDLING Protect with resilient packaging; avoid humidity build-up under coverings; prevent corrosion	Air Leakage: Maximum of 0.30 cu ft/minute/sq ft at 1.57 psf differential pressure, when tested in accordance with ASTM E283.	Performance Requirements Wind Loads: Design and size components to withstand the specified load requirements	PORTER
	INSULATION	Lap joints in and penetrations through weather barriers. Exterior Siding:	and adverse effects on factory applied painted finish.  MANUFACTURERS	Thermal Transmittance: U-factor of 0.35, maximum, that includes window glazing, door and frame system based on average window size required for project and determined in	without damage or permanent set, when tested in accordance with ASTM E330/E330M, using loads 1.5 times the design wind loads and 10 second duration of maximum load.	A-2012006244
	Total Thermal Resistance: Provide a total R-value of 30 above all conditioned spaces. Polyisocyanurate (ISO) Board Insulation: Rigid cellular foam, complying with ASTM C1289.	Fiber-Cement Siding. Interior Joints:	Hollow Metal Doors and Frames:	accordance with NFRC 100.	Air Leakage: 0.06 cfm/sq ft maximum leakage of storefront wall area when tested in accordance with ASTM E283/E283M at 1.57 psf pressure difference.	Rechite Chite
	Classifications: Type II: Faced with either cellulosic facers or glass fiber mat facers on both major	Do not seal interior joints indicated on drawings as not sealed. Do not seal gaps and openings in gypsum board and suspended ceilings	Fleming Door Products, an Assa Abloy Group company: www.assaabloydss.com. Republic Doors, an Allegion brand: www.republicdoor.com.	Forced Entry Resistance (FER): Tested to comply with ASTM F476 requirements having at least Grade 10 performance for each required swinging door assembly.	COMPONENTS	Alteration of the second second
	surfaces of the core foam. Class 1 - Faced with glass fiber reinforced cellulosic felt facers on both major	Seal the following joints: Joints between door frames and window frames and adjacent construction.	Steelcraft, an Allegion brand: www.allegion.com. PERFORMANCE REQUIREMENTS	SECTION 08 14 16 - WOOD DOORS DELIVERY, STORAGE, AND HANDLING	Aluminum Framing Members: Tubular aluminum sections, thermally broken with interior section insulated from exterior, drainage holes and internal weep drainage system.	15 APR 2025 M. RANDALL PORTER
	surfaces of core foam. Board Thickness: 4.0 inches.	Gypsum board to wood or masonry. Metal to gypsum board, wood, or masonry.	Requirements for Hollow Metal Doors and Frames: Steel Sheet: Comply with one or more of the following requirements; galvannealed steel	Package, deliver and store doors in accordance with specified quality standard.	Glazing Stops: Flush. Cross-Section: 2 by 4.5 inch nominal dimension.	ARCHITECT LICENSE# A-2012006244
	ACCESSORIES	Perimeter of counter tops and vanity tops Perimeter of plumbing fixtures, shower surrounds, drains, or piping.	complying with ASTM A653/A653M, cold-rolled steel complying with ASTM A1008/A1008M, or hot-rolled pickled and oiled (HRPO) steel complying with ASTM	Protect doors with resilient packaging sealed with heat shrunk plastic; do not store in damp or wet areas or areas where sunlight might bleach veneer; seal top and bottom edges with tinted	Swing Doors: Glazed aluminum. Thickness: 1-3/4 inches.	A-2012000244
	Stack Boots: Prefabricated flexible boot and collar for pipe stacks through membrane; same material as membrane.	Do not seal the following types of joints: Joints where sealant is specified to be furnished and installed by manufacturer of	A1011/A1011M, commercial steel (CS) Type B, for each. Accessibility: Comply with ICC A117.1 and ADA Standards.	sealer if stored more than one week, and break seal on site to permit ventilation. MANUFACTURERS	Top Rail: 4 inches wide.	
	Cant and Edge Strips: Wood fiberboard, compatible with roofing materials; cants formed to 45 degree angle.	product to be sealed. Joints where sealant installation is specified in other sections.	Typical Door Face Sheets: Flush. Zinc Coating for Typical Interior and/or Exterior Locations: Provide metal components	Molded Panel Doors	Bottom Rail: 10 inches wide. Finish: Same as storefront.	I Z
	Insulation Joint Tape: Glass fiber reinforced type as recommended by insulation manufacturer compatible with roofing materials; 6 inches wide; self adhering.	Additional Locations: In addition to locations listed or shown on the Drawings to receive continuous sealant materials, a continuous bead of sealant, appropriate to construction	zinc-coated (galvanized) and/or zinc-iron alloy-coated (galvannealed) by the hot-dip process in accordance with ASTM A653/A653M, with manufacturer's standard coating	Masonite International Corp.: www.masonite.com. Baird Brothers Sawmill Inc.: www.bairdbrothers.com.	MATERIALS	
	Membrane Adhesive: As recommended by membrane manufacturer.	materials and locations, shall be provided/installed at: Horizontal joint between bottom of wood sill plate and top of foundation wall or slab on	thickness, unless noted otherwise for specific hollow metal doors and frames. Based on SDI Standards: Provide at least A40/ZF120 (galvannealed) when	Jeld-Wen Inc.: www.jeldwen.com.	Extruded Aluminum: ASTM B221 (ASTM B221M). Fasteners: Stainless steel.	R P
	Surface Conditioner for Adhesives: Compatible with membrane and adhesives. Thinners and Cleaners: As recommended by adhesive manufacturer, compatible with	grade. Horizontal joint(s) between double/triple top plates.	necessary, coating not required for typical interior door applications, and at least A60/ZF180 (galvannealed) for corrosive locations.	Doors: Refer to drawings for locations and additional requirements.	Exposed Flashings: Aluminum sheet, 20 gauge, 0.032 inch minimum thickness; finish to	
	membrane. Insulation Adhesive: As recommended by insulation manufacturer.	Vertical joint(s) between double/triple studs in general framing and at door/window rough openings.	HOLLOW METAL DOORS	Quality Standard: Economy Grade, Standard Duty performance, in accordance with AWI/AWMAC/WI (AWS), unless noted otherwise.	match framing members. Glazing Gaskets: Type to suit application to achieve weather, moisture, and air infiltration	
ş	ECTION 07 62 00 - SHEET METAL FLASHING AND TRIM	Stud cavities blocked at change in ceiling heights. Penetrations through top and bottom plates.	Exterior Doors: Thermally insulated. Based on SDI Standards: ANSI/SDI A250.8 (SDI-100).	Interior Doors: 1-3/8 inches thick unless otherwise indicated; molded panel construction. Style: 2-Panel as indicated on drawings.	requirements. FINISHES	N LI
	DELIVERY, STORAGE, AND HANDLING	Seam(s) in band joists. Gaps in exterior wall sheathing.	Level 1 - Standard-duty. Physical Performance Level C, 250,000 cycles; in accordance with ANSI/SDI	DOOR AND PANEL CORES	High Performance Organic Coating: AAMA 2604; multiple coats, thermally cured	NIS N
	Stack material to prevent twisting, bending, and abrasion, and to provide ventilation. Slope metal sheets to ensure drainage.	Penetrations in exterior wall sheathing. Penetrations in gypsum board of insulated exterior walls.	A250.4. Model 1 - Full Flush.	Hollow Core Doors: Type - Standard (FSHC); plies and faces as indicated above. DOOR FACINGS	fluoropolymer system. HARDWARE	$\square$
	Prevent contact with materials that could cause discoloration or staining. SHEET MATERIALS	Exterior Joints: Use non-sag polyurethane sealant, unless otherwise indicated. Masonry Expansion Joints: Two-part polyurethane.	Door Face Metal Thickness: 20 gauge, 0.032 inch, minimum. Door Thickness: 1-3/4 inches, nominal.	Hardboard Facing for Opaque Finish: ANSI A135.4, Class 2 - Standard, Molded Panel hardboard, 1/8 inch thick.	For each door, include weatherstripping, sill sweep strip, and threshold.	
	Pre-Finished Aluminum: ASTM B209 (ASTM B209M); 20 gauge, (0.032 inch) thick; plain finish	Metal to Masonry: Two-part polyurethane. Lap Joints in Sheet Metal Fabrications: Two-part polyurethane, non-curing.	Door Finish: Factory primed and field finished.	DOOR CONSTRUCTION	Other Door Hardware: Storefront manufacturer's standard type to suit application. For each door, include butt hinges.	Y.
	shop pre-coated with modified silicone coating. FABRICATION	General Flashing and Flashing to Brick: One-part polyurethane. Sleeves in Walls: One-part polyurethane.	Fire-Rated Doors: Based on SDI Standards: ANSI/SDI A250.8 (SDI-100).	Fabricate doors in accordance with door quality standard specified. Factory machine doors for hardware other than surface-mounted hardware, in accordance with	SECTION 08 53 13 - VINYL WINDOWS DELIVERY, STORAGE, AND HANDLING	
	General: Provide prefinished aluminum sheet metal flashing at changes in adjacent siding materials and other flashing indicated, color as selected by Owner/Architect.	Interior Joints: Use non-sag acrylic sealant, unless otherwise indicated. Gypsum Board or Plaster to Masonry or Wood: Acrylic.	Level 1 - Standard-duty. Physical Performance Level C, 250,000 cycles; in accordance with ANSI/SDI	hardware requirements and dimensions.	Protect finished surfaces with wrapping. Do not use adhesive papers or sprayed coatings that	
	Form sections true to shape, accurate in size, square, and free from distortion or defects.	Metal to Gypsum Board, Plaster to Masonry or Wood. Acrylic. Metal to Gypsum Board, Plaster or Masonry: Acrylic. Metal to Brick: Two-part polyurethane.	A250.4. Model 1 - Full Flush.	Factory fit and hang doors to frames constructed for the opening dimensions identified on the Drawings, with edge clearances in accordance with specified quality standard.	bond when exposed to sunlight or weather. FIELD CONDITIONS	A U
	Form pieces in longest possible lengths. Form material with flat lock seams, except where otherwise indicated; at moving joints, use	Joints between Fixtures in Wet Areas and Floors, Walls, and Ceilings: Mildew-resistant silicone sealant: white.	Door Face Metal Thickness: 20 gauge, 0.032 inch, minimum. Fire Rating: As indicated on Door Schedule, tested in accordance with UL 10C and	FRAMES Jambs: Wood jambs shall be fabricated as a flat jamb with applied stops, or a one piece jamb	Do not install sealants when ambient temperature is less than 40 degrees F.	ГП Q
	sealed lapped, bayonet-type or interlocking hooked seams. COLLECTOR BOXES AND DOWNSPOUT FABRICATION	JOINT SEALANTS - GENERAL	NFPA 252 ("positive pressure fire tests"). Provide units listed and labeled by UL (DIR).	with milled stops, solid or finger-jointed white pine. Factory primed, white.	MANUFACTURERS Vinyl Windows:	50
	COLLECTOR BOXES AND DOWNSPOUT FABRICATION Collector Boxes: SMACNA (ASMM), Rectangular profile with visable overflow.	Sealants and Primers: Provide products having lower volatile organic compound (VOC) content than indicated in SCAQMD 1168.	Door Thickness: 1-3/4 inches, nominal. HOLLOW METAL FRAMES	Hinges: Mortise jamb for 3-1/2 inch, standard duty radius hinges. Strike: Jamb to be machined for a full lip cylindrical strike plate.	Alside, Inc; Series 1700: www.alside.com. All Temp Windows Inc.; Series 1800: www.alltempwindows.com	AN N
	Downspouts: Rectangular profile. Collector box and Downspouts: Size for rainfall intensity determined by a storm occurrence of	ACCESSORIES	Comply with standards and/or custom guidelines as indicated for corresponding door in	FINISHES	Jeld-Wen Inc.; Builders Vinyl Series: www.jeldwen.com.	
	in 10 years in accordance with SMACNA (ASMM).	Sealant Backing Rod, Closed-Cell Type: Cylindrical flexible sealant backings complying with ASTM C1330 Type C.	accordance with applicable door frame requirements. Exterior Door Frames: Knock-down type.	Factory prime door faces, stiles, and rails with manufacturer's standard water based latex primer; white.	DESCRIPTION Vinyl Windows: Factory fabricated frame and sash members of extruded, hollow,	S II
	EXTERIOR PENETRATION FLASHING PANELS Flashing Panels for Exterior Wall Penetrations: Premanufactured components and accessories	Size: 25 to 50 percent larger in diameter than joint width. Products:	Door Frames, Fire-Rated: Knock-down type. Fire Rating: Same as door, labeled.	SECTION 08 14 33 - STILE AND RAIL WOOD DOORS Accept doors on site in manufacturer's packaging, and inspect for damage.	ultra-violet-resistant, polyvinyl chloride (PVC) with integral color; with factory-installed glazing, hardware, related flashings, anchorage and attachment devices.	N.
	as required to preserve integrity of building envelope; suitable for conduits and facade materials to be installed.	Nomaco, Inc; HBR: www.nomaco.com/#sle.	FINISHES	Protect doors with resilient packaging sealed with heat shrunk plastic; do not store in damp or	Configuration: As indicated on drawings. Product Type: H - Hung window, vertically sliding; Single Hung.	
	ACCESSORIES		Primer: Rust-inhibiting, complying with ANSI/SDI A250.10, door manufacturer's standard.	wet areas or areas where sunlight might bleach veneer; seal top and bottom edges with tinted sealer if stored more than one week, and break seal on site to permit ventilation.	Product Type: FW - Fixed window. Egress Units: Window units installed in dwelling unit bedrooms shall meet or exceed	
	Fasteners: Galvanized steel, with soft neoprene washers. Concealed Sealants: Non-curing butyl sealant.		ACCESSORIES Glazing: Fire-rated safty glazing, factory installed.	MANUFACTURERS Stile and Rail Wood Doors:	minimum requirements for classification as emergency egress units per the currently adopted edition of the building code.	Ľ,
	Exposed Sealants: ASTM C920; elastomeric sealant, with minimum movement capability as		SECTION 08 11 20 - RESIDENTIAL STEEL PATIO DOORS	Forte Opening Solutions (formerly Masonite Architectural); Aspiro Authentic Stile & Rail Doors: www.forteopenings.com.	Color: Black.	
ę	recommended by manufacturer for substrates to be sealed; color to match adjacent material. ECTION 07 71 23 - MANUFACTURED GUTTERS AND DOWNSPOUTS		DELIVERY, STORAGE, AND HANDLING Package, deliver and store doors in accordance with specified quality standard	DOORS	Energy Star Rating: Provide windows eligible for Energy Star Rating. PERFORMANCE REQUIREMENTS	
	DELIVERY, STORAGE, AND HANDLING		Package, deliver and store doors in accordance with specified quality standard. Protect doors with resilient packaging. Do not store in damp or wet areas, or in areas of direct	Quality Standard: Standard Grade, Standard Duty performance, in accordance with WDMA I.S. 6A.	Grade: AAMA/WDMA/CSA 101/I.S.2/A440 requirements for specific window type: Performance Class (PC): R.	
	Stack material to prevent twisting, bending, or abrasion, and to provide ventilation. Slope to drain.		sunlight. MANUFACTURERS	Interior Doors: 1-3/4 inches thick unless otherwise indicated; veneer and lumber stile and rail construction; dowel joints. Transparent finish.	Performance Grade (PG): 15, with minimum design pressure (DP) of 15.04 psf.	
	Prevent contact with materials that could cause discoloration, staining, or damage. MATERIALS		Insulated Steel Patio Doors: Therma Tru: Traditions Series: www.thermatru.com.	Wood veneer facing with factory transparent finish as indicated on drawings.	Air Leakage: Maximum of 0.30 cu ft/minute/sq ft at 1.57 psf differential pressure, when tested in accordance with ASTM E283.	SUI
	Pre-Finished Aluminum Sheet: ASTM B209 (ASTM B209M); 0.027 inch thick. Finish: Plain, shop pre-coated with acrylic coating.		Taylor Entrance Systems; Edgewood: www.taylordoor.com. Bayer Built Inc; Select Steel Series: www.bayerbuilt.com.	DOOR FACINGS Veneer Facing for Transparent Finish: Natural Birch, veneer grade in accordance with quality	Thermal Transmittance: U-factor of 0.25, maximum, that includes window glazing and frame system based on average window size required for project and determined in accordance with	S
	COMPONENTS		Stanley Door Products; Sta-Tru Series: www.stanleydoors.com.	standard indicated, plain sliced (flat cut), with slip match between leaves of veneer, running match of spliced veneer leaves assembled on door or panel face.	AAMA 1503, ASTM E1423, or NFRC 100. Solar Heat Gain Coefficient (SHGC): SHGC value of 0.40 maximum.	A
	Gutters: 6 inch K-style profile. Downspouts: 3 inch by 4 inch Rectangular profile, minimum.		COMPONENTS Steel Patio Doors: Insulated steel door entry systems; prehung in wood frames.	Adhesive: Type II - Water Resistant.	Visible Light Transmittance: value of 0.52 minimum.	
	Anchors and Supports: Profiled to suit gutters and downspouts.		Thickness: 1-3/4 inches, unless otherwise indicated. Exterior Skin: 24 gauge (0.022 inch), tension leveled cold rolled steel, zinc coated,	DOOR CONSTRUCTION Fit door edge trim to edge of stiles after applying veneer facing.	COMPONENTS Glazing: Insulated double pane, annealed glass, clear, low-E coated, argon filled, with glass	E R
	Gutter Supports: Straps. Downspout Supports: Straps.		factory primed. Interior Frame: Kiln-dried pine or engineered lumber; door bottom edge: moisture/decay	Bond edge banding to cores.	thicknesses as recommended by manufacturer for specified wind conditions. Frame Depth: 4-1/2 inch minimum.	
	Fasteners: Same material and finish as gutters and downspouts, with soft neoprene washers. FABRICATION		resistant composite. Core: Foamed-in-place, CFC-free, polyurethane foam bonded to exterior skin; density	Factory machine doors for finish hardware in accordance with hardware requirements and dimensions. Do not machine for surface hardware.	Insect Screens: Aluminum, extruded or roll-formed frame with mitered and reinforced corners;	
	Form gutters and downspouts of profiles and size indicated.		1.9 pcf minimum. Reinforcement: Solid wood blocking in full area of passage and deadbolt locksets.	Fire Rated Doors: Tested to 20 minutes in accordance with UL 10C - Positive Pressure; listed in UL (DIR).	apply screen mesh taut to frame; secure to window with hardware to allow easy removal. Frame Finish: Manufacturer's standard, color to match window frame and sash color.	Y
	Form sections square, true, and accurate in size, in maximum possible lengths, free of distortion or defects detrimental to appearance or performance. Allow for expansion at joints.		Provide continuous blocking for top 8 inches of door for installation of automatic closer devise where scheduled.	Frames: Provided and assembled by third party fabricators to manufacturer's specifications. Frame: Milled from 5/4 kiln-dried white pine, finger-jointed composite at bottom of frame,	HARDWARE Vertical Sliding Sash: Concealed, heavy duty block and tackle balancers, provide two for each	
	Hem exposed edges of metal. Fabricate gutter and downspout accessories; seal watertight.		Finish: Factory primed; ready for field painting.	profiled 1/2 inch stops, and factory-clad with prefinished metal or vinyl. Provide 6 degree sill gain prep.	sash and jamb.	
	Fabricate gutter and downspout accessories; seal watertight.		Typical Dwelling Unit Paatio Doors: Configuration: Full French.	Frame Depth: 4-9/16 inch, minimum. Hardware preparation: Frames shall be mortised, reinforced, drilled and tapped at the	Sash lock: Lever handle and keeper with cam lock, provide at least one for each operating sash.	
	Acrylic polyester coating: Baked enamel system complying with AAMA 2603. ACCESSORIES		Frames: Provided and assembled by third party fabricators to manufacturer's specifications. Frame: Milled from 5/4 kiln-dried white pine, finger-jointed composite at bottom of frame,	factory to receive hardware as specified in the hardware schedule.	Window Opening Control Devices: ASTM F2090-13 opening control devices that limit opening size to less than 4 inches maximum with release function to permit window to open fully.	
	Offset Downspout Adapters: PVC adapter for connecting 3 inch x 4 inch downspouts to 4 inch		profiled 1/2 inch stops, and factory-clad with prefinished metal or vinyl. Provide 6 degree sill gain prep.	FINISHES Finish work in accordance with WDMA I.S. 6A for Grade specified and as follows:	Required for all Dwelling Unit operable windows when sill is less than 36 inches above finish floor, and window unit is located greater than 72 inches above finish grade.	
ę	solid white or green drain tile. ECTION 07 92 00 - JOINT SEALANTS		Frame Depth: 4-9/16 inch, minimum. Thresholds: Refer to Section 08 71 00 - Door Hardware.	Transparent: Manufacturers standard, in compliance with performance duty level indicated.	Finish of Exposed Hardware: Baked enamel, match interior sash and frame color.	<b>U</b>
	MANUFACTURERS		Glazing: Double glazed, clear, Low-E coated, argon gas filled, fully tempered, with glass	SECTION 08 43 13 - ALUMINUM-FRAMED STOREFRONTS	SECTION 08 71 00 - DOOR HARDWARE DELIVERY, STORAGE, AND HANDLING	
	Non-Sag Sealants: Permits application in joints on vertical surfaces without sagging or slumping.		thicknesses as recommended by manufacturer for specified wind conditions. Fully Tempered Glass: ASTM C1048, Kind FT - Fully Tempered.	MANUFACTURERS Aluminum-Framed Storefronts Manufacturers:	Package hardware items individually; label and identify each package with door opening code to match door hardware schedule.	
	BASF Construction Chemicals-Building Systems: www.buildingsystems.basf.com. Dow Chemical Company: www.dow.com.		Air Space: 3/4 inch. Weatherstripping: Jacketed thermoset closed-cell foam, press-fit in kerfs at jamb stops in	EFCO Corporation: www.efcocorp.com. Kawneer North America: www.kawneer.com.	to match door hardware schedule. DESIGN AND PERFORMANCE CRITERIA	
	GE Silicones Inc.: www.ge.com. Pecora Corporation: www.pecora.com.		frames.	Manko Window Systems, Inc: www.mankowindows.com. Oldcastle BuildingEnvelope: www.oldcastlebe.com.	Provide specified door hardware as required to make doors fully functional, compliant with applicable codes, and secure to extent indicated.	
	Sika Corporation: www.usa-sika.com. Tremco Commercial Sealants & Waterproofing: www.tremcosealants.com/#sle.		Door Sweeps: Extruded thermoplastic elastomer, finned and chambered design, press-fit into bottom edge of doors.	Tubelite, Inc: www.tubeliteinc.com.	Provide door hardware products that comply with the following requirements:	
	JOINT SEALANT APPLICATIONS		PERFORMANCE REQUIREMENTS Comply with AAMA/WDMA/CSA 101/I.S.2/A440 requirements in accordance with the	ALUMINUM-FRAMED STOREFRONT Aluminum-Framed Storefront: Factory fabricated, factory finished aluminum framing	Applicable provisions of federal, state, and local codes. Accessibility: UFAS, ADA Standards, and ICC A117.1 as applicable.	
	Scope: Exterior Joints: Do not seel exterior joints unless indicated on drawings as sealed		following: Performance Class (PC): R.	members with infill, and related flashings, anchorage and attachment devices. Glazing Rabbet: For 1 inch insulating glazing.	Fire-Rated Doors: NFPA 80, listed and labeled by qualified testing agency for fire protection ratings indicated, based on testing at positive pressure in accordance with	
	Do not seal exterior joints unless indicated on drawings as sealed. Seal the following joints:		Design Pressure (DP): In accordance with applicable codes.	Glazing Position: Centered (front to back).	NFPA 252 or UL 10C. Hardware on Fire-Rated Doors: Listed and classified by UL (DIR) as suitable for	
	Wall expansion and control joints. Joints between doors, windows, and other frames or adjacent construction.				application indicated.	
	Joints between different exposed materials. Flashing and adjacent building materials.					
	Vertical siding/masonry joints.					WALLACE ARCHITECTS,
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Lock Function: Provide lock and latch function numbers and descriptions of manufacturer's series. See Door Hardware Schedule at end of this section.	Ives, an Allegion brand: www.allegion.com/us. Prime-Line Inc: www.primeline.net	DIVISION 09 - FINISHES	Resilient Base: ASTM F1861, Type TV, vinyl, thermoplastic; top set Style B, Cove. Manufacturers:	Paint ME-OP-2A - Ferrous Metals, Primed, Alkyd, Water Based, 2 Coat: Paint MgE-OP-3A - Galvanized Metals, Alkyd, 3 Coat:	AT CER
HINGES	Viewer: Provide at inside of door at eye level to see who is on outside of door.	SECTION 09 21 16 - GYPSUM BOARD ASSEMBLIES	Armstrong World Industries, Inc: www.armstrong.com. Johnsonite, a Tarkett Company: www.johnsonite.com.	PRIMERS	M. RANDALL
Manufacturers: McKinney; an Assa Abloy Group company: www.assaabloydss.com.	Material: Stainless steel. Size: 1/2 inch diameter mounting hole.	GYPSUM BOARD ASSEMBLIES	Roppe Corporation: www.roppe.com.	Primers: Provide the following unless other primer is required or recommended by	PORTER
Hager Companies: www.hagerco.com/#sle.	View: 160 degree field of view.	Provide completed assemblies complying with ASTM C840 and GA-216. Fire-Rated Assemblies: Provide completed assemblies with the following characteristics:	Height: 4 inches. Thickness: 0.125 inch.	manufacturer of top coats. Interior/Exterior Latex Block Filler.	A 2012006241
Stanley Manufacturing Co.: www.stanleyhardware.com. Hinges: Comply with BHMA A156.1, Grade 3.	KEY CONTROL SYSTEMS	Fire-Rated Partitions: UL listed assembly No. U305; One (1) hour rating.	Finish: Satin.	Rust-Inhibitive Water Based Primer; MPI #107. Latex Primer for Exterior Wood; MPI #6.	PROVINCE TOUCH
Provide hinges on every swinging door.	Key Control Systems: Comply with guidelines of BHMA A156.28. FIRE DEPARTMENT LOCK BOX	Fire-Rated Roof/Ceiling Assemblies: UL listed assembly No. P556; one (1) hour rating. METAL FRAMING MATERIALS	Color: To be selected by Owner from manufacturer's full range. ACCESSORIES	SECTION 09 91 23 - INTERIOR PAINTING	COLONIA STREET
Provide self-closing spring hinges on dwelling unit entry doors. Provide ball-bearing hinges at each door with closer.	Manufacturers:	Steel Sheet: ASTM A1003/A1003M, subject to the ductility limitations indicated in AISI S220	Subfloor Filler: Fast-setting, portland-cement based; type recommended by adhesive material	SECTION INCLUDES	15 APR 2025
Provide non-removable pins on exterior outswinging doors.	Knox Company; Knox-Box Rapid Entry System, 3200 Series: www.knoxbox.com. Fire Department Lock Box:	or equivalent.	manufacturer. Primers, Adhesives, and Seam Sealer: Waterproof; types recommended by flooring	Scope: Finish interior surfaces exposed to view, unless fully factory-finished and unless otherwise indicated.	M. RANDALL PORTER ARCHITECT LICENSE
EXIT DEVICES Manufacturers:	Heavy-duty, surface mounted, solid stainless-steel box with hinged door and interior	Non-structural Framing System Components: ASTM C645; galvanized sheet steel, of size and properties necessary to comply with ASTM C754 for the spacing indicated, with maximum	manufacturer.	Both sides and edges of plywood backboards for electrical and telecom equipment before	A-2012006244
Corbin Russwin, Sargent, or Yale; an Assa Abloy Group company:	gasket seal; single drill resistant lock with dust covers. FINISHES	deflection of wall framing of L/120 at 5 psf. Resilient Furring Channels: Single or double leg configuration; 1/2 inch channel depth.	VOC Content Limits: As specified in Section 01 61 16.	installing equipment. Both sides and all edges of interior wood doors.	
Www.assaabloydss.com. Hager Companies: www.hagerco.com.	Finishes: Provide door hardware of same finish, unless otherwise indicated.	BOARD MATERIALS	Moldings, Transition and Edge Strips: Same material as flooring. Sound Control Underlayment: Recycled rubber type.	Mechanical and Electrical:	
Von Duprin, an Allegion brand: www.allegion.com/us.	Primary Finish: 619; satin nickel plated, clear coated, with brass or bronze base material; BHMA A156.18.	Manufacturers - Gypsum-Based Board:	Manufacturers:	Paint interior surfaces of air ducts that are visible through grilles and louvers with one coat of flat black paint to visible surfaces.	
Exit Devices: Comply with BHMA A156.3, Grade 3. Leverset design to match lockset trim.	HARDWARE SETS	American Gypsum Company: www.americangypsum.com. Georgia-Pacific Gypsum: www.gpgypsum.com.	Pliteq, Inc; GenieMat RST: www.pliteq.com. Roll Thickness: 3/8 inch, nominal.	Do Not Paint or Finish the Following Items: Items factory-finished unless otherwise indicated; materials and products having	
Provide exit devices properly sized for door width and height.	Group No 01: Dwelling Unit Building Elevator Lobby Entry Door	National Gypsum Company: www.nationalgypsum.com. USG Corporation: www.usg.com.	SECTION 09 68 13 - TILE CARPETING	factory-applied primers are not considered factory finished.	P N
Provide strike as recommended by manufacturer for application indicated. Provide UL (DIR) listed exit device assemblies for fire-rated doors and panic device	3 EA Hinges - 3-1/2 inch x 3-1/2 inch	Gypsum Wallboard: Paper-faced gypsum panels as defined in ASTM C1396/C1396M; sizes to	FIELD CONDITIONS Store materials in area of installation for minimum period of 24 hours prior to installation.	Items indicated to receive other finishes. Fire rating labels, equipment serial number and capacity labels, bar code labels, and	
assemblies for non-fire-rated doors.	1 EA Exit device with exterior locking lever trimset 1 EA Electric Strike	minimize joints in place; ends square cut. Application: Use for vertical surfaces and ceilings, unless otherwise indicated.	Store materials in area of installation for minimum period of 24 hours prior to installation. MANUFACTURERS	operating parts of equipment. Floors, unless specifically indicated.	
ELECTRIC STRIKES Manufacturers:	1 EA Proximity Reader - exterior	Glass mat faced gypsum panels, as defined in ASTM C1658/C1658M, suitable for paint	Tile Carpeting:	Ceramic and other tiles.	
Adams Rite, HES, or Securitron; an Assa Abloy Group company:	1 EA Closer 1 EA Accessible Threshold	finish of the same core type shall be used in tub/shower alcoves. Mold Resistance: Score of 10, when tested in accordance with ASTM D3273.	Interface, Inc: www.interfaceinc.com. Milliken & Company: www.milliken.com.	Glass. Concealed pipes, ducts, and conduits.	N LI
www.assaabloydss.com. dormakaba; RCI 0 Series: www.dormakaba.com.	Group No 02: Dwelling Unit Building Stair Tower Exterior Exit Doors	Mold resistant board is required at all damp locations.	Mohawk Group: www.mohawkgroup.com.	DELIVERY, STORAGE, AND HANDLING	$> \infty$
Pamex, Inc; Electric Strikes: www.pamexinc.com.		Vertical Surfaces: 5/8 inch, or as indicated.	MATERIALS	Paint Materials: Store at minimum ambient temperature of 45 degrees F and a maximum of	
Electric Strikes: Comply with BHMA A156.31, Grade 1. Provide UL (DIR) listed burglary-resistant electric strike; style to suit locks.	<ul> <li>3 EA Hinges - 3-1/2 inch x 3-1/2 inch</li> <li>1 EA Exit device with exterior locking lever trimset</li> </ul>	Ceilings: 5/8 inch. Paper-Faced Products:	Tile Carpeting: Tufted, manufactured in one color dye lot. Product: Cut Pile; as selected by Owner.	90 degrees F, in ventilated area, and as required by manufacturer's instructions. FIELD CONDITIONS	
Provide non-handed 24 VDC electric strike suitable for door frame material and scheduled lock configuration.	1 EA Electric Strike 1 EA Proximity Reader - exterior	Mold-Resistant, Paper-Faced Products:	Tile Size: 18 by 18 inch, nominal. Thickness: 1/2 inch.	Do not apply materials when surface and ambient temperatures are outside the temperature	
Provide field selectable Fail Safe/Fail Secure modes.	1 EA Closer	GYPSUM BOARD ACCESSORIES Finishing Accessories: ASTM C1047, galvanized steel or rolled zinc, unless noted otherwise.	Color: As selected by Owner.	ranges required by the paint product manufacturer. Follow manufacturer's recommended procedures for producing best results, including testing of	
CYLINDRICAL LOCKS	1 EA Accessible Threshold	Joint Materials: ASTM C475/C475M and as recommended by gypsum board manufacturer for	VOC Content: Provide CRI (GLP) certified product. Pile Weight: 18 oz/sq yd.	Follow manufacturer's recommended procedures for producing best results, including testing of substrates, moisture in substrates, and humidity and temperature limitations.	
Manufacturers: Basis of Design: Schlage 'Elon'.	Group No 03: Dwelling Unit Building Stair Tower Egress Doors - Refer to plans for Fire-rating	project conditions. Joint Compound: Drying type, vinyl-based, ready-mixed.	Fiber Treatment: Soil/Stain Protection. Primary Backing Material: Polypropylene.	MANUFACTURERS	
Sargent or Yale; an Assa Abloy Group company: www.assaabloydss.com. Hager Companies: www.hagerco.com.	Provide fire-rated hardware.	Screws for Fastening of Gypsum Panel Products to Cold-Formed Steel Studs Less than 0.033	ACCESSORIES	Paints: Behr Paint Company: www.behr.com.	
Schlage, an Allegion brand: www.allegion.com/us.	3 EA Hinges - 3-1/2 inch x 3-1/2 inch 1 EA Exit device with lever trimset	inches in Thickness and Wood Members: ASTM C1002; self-piercing tapping screws, corrosion-resistant.	Subfloor Filler: White premix latex; type recommended by flooring material manufacturer.	Benjamin Moore Paints: www.benjaminmoore.com. PPG Paints: www.ppgpaints.com.	
Cylindrical Locks (Bored): Comply with BHMA A156.2, Grade 3. Bored Hole: 2-1/8 inch diameter.	1 EA Smoke gaskets	SECTION 09 30 00 - TILING	Edge Strips: Vinyl, color as selected by Architect.	Sherwin-Williams Company: www.sherwin-williams.com.	
Latchbolt Throw: 1/2 inch, minimum.	1 EA Closer	DELIVERY, STORAGE, AND HANDLING	Adhesives: Compatible with materials being adhered; maximum VOC content as specified in Section	PAINTS AND FINISHES - GENERAL	50
Backset: 2-3/4 inch unless otherwise indicated. AUXILIARY LOCKS (DEADLOCKS)	Group No 04: Dwelling Unit Building Exterior Sprinkler Room Entry Doors	Protect adhesives from freezing or overheating in accordance with manufacturer's instructions.	01 61 16.	Volatile Organic Compound (VOC) Content: Provide paints and finishes that comply with the most stringent requirements specified in	
Manufacturers:	3 EA Hinges - 3-1/2 inch x 3-1/2 inch	TILE Manufacturers: All products of each type by the same manufacturer.	Carpet Tile Adhesive: Recommended by carpet tile manufacturer; releasable type. SECTION 09 91 13 - EXTERIOR PAINTING	the following:	
Basis of Design: Schlage 'B60' & 'B680'. Yale; an Assa Abloy Group company: www.assaabloydss.com.	<ol> <li>EA Dead Latch - single cylinder w/ thumb turn</li> <li>EA Locking Leverset</li> </ol>	American Olean Corporation: www.americanolean.com.	SECTION INCLUDES	40 CFR 59, Subpart DNational Volatile Organic Compound Emission Standards for Architectural Coatings.	SCII 1
Hager Companies: www.hagerco.com.	1 EA Closer 1 EA Threshold	Dal-Tile Corporation: www.daltile.com. Crossville Inc: www.crossvilleinc.com.	Scope: Finish exterior surfaces exposed to view, unless fully factory-finished and unless	SCAQMD 1113 Rule. Ozone Transport Commission (OTC) Model Rule, Architectural, Industrial, and	
<ul> <li>Schlage, an Allegion brand: www.allegion.com/us.</li> <li>Auxiliary Locks (Deadlocks): Comply with BHMA A156.36, Grade 3.</li> </ul>	Group No 05: Common Area Secure Interior Doors - 20 Min Fire-rated	Porcelain Tile: ANSI A137.1, standard grade.	otherwise indicated, including the following: Factory-primed Entry doors.	Maintenance Coatings; www.otcair.org; specifically:	
Type: Bored (cylindrical).	For use at I.T. closets, Sprinkler rooms. Provide Fire-rated hardware.	Size: 6 by 6 inch, nominal. Thickness: 1/4 inch.	Exposed surfaces of steel lintels and ledge angles. Galvanized roof flashings and drip edges.	Opaque, Flat: 50 g/L, maximum. Opaque, Nonflat: 150 g/L, maximum.	
Application: Bored. Backset: 2-3/4 inch, unless otherwise indicated.		Edges: Square. Surface Finish: Non-slip.	Steel Bollards.	Opaque, High Gloss: 250 g/L, maximum. Architectural coatings VOC limits of the State of Missouri.	
Bolt Throw: 1 inch, with latch made of hardened steel.	3 EA Hinges - 3-1/2 inch x 3-1/2 inch 1 EA Locking Leverset	Color(s): To be selected by Owner from manufacturer's standard range.	Mechanical and Electrical: Exposed pipe and conduit.	Determination of VOC Content: Testing and calculation in accordance with 40 CFR 59,	
CLOSERS	1 EA Closer 1 EA Wall-mounted Stop	TRIM AND ACCESSORIES	Do Not Paint or Finish the Following Items:	Subpart D (EPA Method 24), exclusive of colorants added to a tint base and water added at project site; or other method acceptable to authorities having jurisdiction.	LIN I
Manufacturers; Surface Mounted: Basis of Design: Falcon SC93/94; Jamb top.		Non-Ceramic Trim: Satin natural anodized extruded aluminum, style and dimensions to suit application, for setting using tile mortar or adhesive.	Items factory-finished unless otherwise indicated; materials and products having factory-applied primers are not considered factory finished.	Colors: To be selected from manufacturer's full range of available colors.	
Sargent, Yale, or AdamsRite; an Assa Abloy Group company: www.assaabloydss.com. Hager Companies: www.hagerco.com.	Group No 06: Dwelling Unit Entry Door - 20 MIn Fire-rated Provide fire-rated hardware.	SETTING MATERIALS	Items indicated to receive other finishes.	PAINT SYSTEMS - INTERIOR	
Falcon or LCN, an Allegion brand: www.allegion.com/us.		Latex-Portland Cement Mortar Bond Coat: ANSI A118.4.	Fire rating labels, equipment serial number and capacity labels, and operating parts of equipment.	Paint I-OP - Interior Surfaces to be Painted, Unless Otherwise Indicated: Including gypsum board, wood, uncoated steel, and shop primed steel.	
Closers: Comply with BHMA A156.4, Grade 3. Type: Surface mounted to door.	<ul> <li>3 EA Self-closing spring Hinges - 3-1/2 inch x 3-1/2 inch</li> <li>1 EA Dead latch - single cylinder w/ thumb turn</li> </ul>	Applications: Use this type of bond coat where indicated, and where no other type of bond coat is indicated.	Stainless steel, anodized aluminum, bronze, terne-coated stainless steel, zinc, and lead. Floors, unless specifically indicated.	Top Coat(s): Interior Latex. Primer: As recommended by top coat manufacturer for specific substrate.	
Provide door closer on each exterior door of the common areas.	<ol> <li>EA Passage Leverset</li> <li>EA Viewer (peephole) (2 ea. at accessible dwelling units)</li> </ol>	GROUTS	Brick, glass unit masonry, architectural concrete, cast stone, integrally colored plaster and	Paint I-OP-MD-DT - Medium Duty Door/Trim: For surfaces subject to frequent contact by	
Provide door closer on each fire-rated and smoke-rated door of the Stair towers. Spring hinges are not an acceptable self-closing device.	1 EA Smoke gaskets & Automatic floor sweep	Standard Grout: ANSI A118.6 standard cement grout. Applications: Use this type of grout where indicated and where no other type of grout is	stucco. Glass.	occupants, including metals and wood: Top Coat(s): Interior Alkyd, Water Based.	S ~
At outswinging exterior doors, mount closer on interior side of door.	1 EA Wall-mounted Stop	indicated.	DELIVERY, STORAGE, AND HANDLING	Primer: As recommended by top coat manufacturer for specific substrate.	
Provide adapter plate where required. WALL STOPS	Group No 07: Dwelling Unit Patio/Balcony Door	MAINTENANCE MATERIALS	Paint Materials: Store at minimum ambient temperature of 45 degrees F and a maximum of 90 degrees F, in ventilated area, and as required by manufacturer's instructions.	PRIMERS	A
Manufacturers:	3 EA Hinges - 3-1/2 inch x 3-1/2 inch	Grout Sealer: Liquid-applied, moisture and stain protection for existing or new Portland cement grout.	FIELD CONDITIONS	Primers: Provide the following unless other primer is required or recommended by manufacturer of top coats.	
Basis of Design: Trimco 1270 Series. Rockwood; an Assa Abloy Group company: www.assaabloydss.com.	<ol> <li>EA Dead latch - double cylinder</li> <li>EA Passage Leverset</li> </ol>	Composition: Water-based colorless silicone.	Do not apply materials when surface and ambient temperatures are outside the paint product	Interior Latex Primer Sealer.	
Hiawatha, Inc, division of Activar Construction Products Group, Inc:	1 EA Threshold 1 EA Wall-mounted Stop	ACCESSORY MATERIALS Waterproofing Membrane at Floors: Specifically designed for bonding to cementitious	manufacturer's temperature ranges. Follow manufacturer's recommended procedures for producing best results, including testing of	Latex Primer for Interior Wood. DIVISION 10 - SPECIALTIES	
www.activarcpg.com/hiawatha. Trimco: www.trimcohardware.com.		substrate under thick mortar bed or thin-set tile; complying with ANSI A118.10.	substrates, moisture in substrates, and humidity and temperature limitations.	SECTION 10 14 00 - SIGNAGE	
Wall Stops: Comply with BHMA A156.16, Grade 3 and Resilient Material Retention Test as	Group No 08: Dwelling Unit - Bedroom and Bath Doors	SECTION 09 65 00 - RESILIENT FLOORING	MANUFACTURERS	SIGNAGE APPLICATIONS	
described in this standard. Provide wall stops to prevent damage to wall surface upon opening door.	3 EA Hinges - 3-1/2 inch x 3-1/2 inch	DELIVERY, STORAGE, AND HANDLING Store all materials off of the floor in an acclimatized, weather-tight space.	Paints: Behr Paint Company: www.behr.com.	Accessibility Compliance: Signs are required to comply with, UFAS, ADA Standards, and ICC A117.1 and applicable building codes, unless otherwise indicated; in the event of conflicting	
Material: Aluminum spring with vinyl cap.	<ol> <li>EA Privacy Leverset w/ push-button latching</li> <li>EA Wall-mounted Stop</li> </ol>	Maintain temperature in storage area between 65 degrees F and 90 degrees F.	Benjamin Moore Paints: www.benjaminmoore.com. PPG Paints: www.ppgpaints.com.	requirements, comply with the most comprehensive and specific requirements.	
THRESHOLDS		TILE FLOORING	Sherwin-Williams Company: www.sherwin-williams.com.	Room and Door Signs: Provide signs as indicated in Signage Schedule. Sign Type: Flat signs with raised panel media as specified.	
Manufacturers: Pemko; an Assa Abloy Group company: www.assaabloydss.com.	Group No 09: Dwelling Unit - Closet Double Swing Doors Provide for each door in the pair.	Vinyl Plank: Printed film type, with transparent or translucent wear layer, floating floor. Manufacturers:	PAINTS AND FINISHES - GENERAL	Interior Directional and Informational Signs:	
Hager Companies: www.hagerco.com. National Guard Products, Inc: www.ngpinc.com.	3 EA Hinges - 3-1/2 inch x 3-1/2 inch	Metroflor Corporation; Konecto - 'Project Plank': www.aspectaflooring.com.	Volatile Organic Compound (VOC) Content: Provide paints and finishes that comply with the most stringent requirements specified in	Sign Type: Same as room and door signs.	
Thresholds: Comply with BHMA A156.21.	1 EA Ball Catch	Shannon Specialty Floors, Inc; Tuf Stuf Woodland Path: www.shannonspecialtyfloors.com.	the following: 40 CFR 59, Subpart DNational Volatile Organic Compound Emission Standards for	Building Identification Signs: Sign Type: Dimensional Letters and Numbers, 4 inch high minimum; wall-mounted.	
Provide threshold at each exterior door, unless otherwise indicated. Type: Low Profile.	1 EA Ball Catch 1 EA Wall-mounted Stop	Minimum Requirements: Comply with ASTM F1700, of Class corresponding to type specified.	Architectural Coatings.	Material: plastic letters & numbers. Install at building exteriors as directed by Owner	
Thresholds at outswing exterior doors may be rabbeted with door stop type; 1/4 inch vertical rise, 1/2 inch total height; maximum 1:2 bevel.	Group No. 10: Dwelling Unit - Other lateriar Dears	Plank Tile Size: 6 by 36 inch.	Ozone Transport Commission (OTC) Model Rule, Architectural, Industrial, and Maintenance Coatings; www.otcair.org; specifically:	Dwelling Unit Identification Signs:	
Material: Aluminum.	Group No 10: Dwelling Unit - Other Interior Doors	Wear Layer Thickness: 0.012 inch. Total Thickness: 0.177 inch.	Opaque, Flat: 50 g/L, maximum. Opaque, Nonflat: 150 g/L, maximum.	Sign Type: Flat signs with raised panel media as specified. Material: Fiberglass or Photopolymer signs.	
Threshold Surface: Thermally broken.	3 EA Hinges - 3-1/2 inch x 3-1/2 inch 1 EA Passage Leverset	Color: To be selected by Owner from manufacturer's full range.	Opaque, Nonflat: 150 g/L, maximum. Opaque, High Gloss: 250 g/L, maximum.	Mounting: Countersunk Screws.	
BALL CATCH Manufacturers:	1 EA Wall-mounted Stop	STAIR COVERING Stair Treads: Rubber; full width and depth of stair tread in one piece; tapered thickness.	Architectural coatings VOC limits of the State of Missouri. Determination of VOC Content: Testing and calculation in accordance with 40 CFR 59,	Install on outside wall at apartment entries as directed or indicated on drawings. Office Directional Sign:	T E Dia
Basis of Design: Ives 347.		Manufacturers:	Subpart D (EPA Method 24), exclusive of colorants added to a tint base and water added	Sign Type: Flat signs with printed panel media as specified.	
Rockwood; an Assa Abloy Group company: www.assaabloydss.com. Ives, an Allegion brand: www.allegion.com/us.		Johnsonite, a Tarkett Company; Angle Fit: www.johnsonite.com. Mannington Commercial; TS Stair Treads: www.manningtoncommercial.com.	at project site; or other method acceptable to authorities having jurisdiction. Colors: To be selected from manufacturer's full range of available colors.	Material: Fiberglass or Photopolymer signs. Size: 24 inch by 36 inch.	
Ball Catch: Provide on doors not provided with latchsets that must stay in closed position		Roppe Corporation; Rubber Stair Treads: www.roppe.com. Nominal Thickness: 0.1875 inch.	PAINT SYSTEMS - EXTERIOR	Mounting: Pole- mounted. Text: 'OFFICE' with directional arrow (direction of arrow per Owner)	
within the frame. Location: Mount ball catch at top of door with strike plate fastened to head of door frame.		Nosing: Square.	Paint E-OP - Exterior Surfaces to be Painted, Unless Otherwise Indicated: Including concrete masonry units, engineered wood siding, primed wood, primed metal, and primed urethane	Monument Sign: Provide sign as indicated on Drawings.	
Material: Brass.		Texture: Smooth. Color: As selected by Owner.	decorative elements.	Traffic Signs: Provide Parking/Traffic signs and mounting poles of types indicated on	
VIEWER Manufacturers:		Stair Risers: Full height and width of tread in one piece, matching treads in material and color.	Top Coat(s): Exterior Latex. Paint ME-OP-3A - Ferrous Metals, Unprimed, Alkyd, 3 Coat:	drawings.	
Basis of Design: Ives U696.		Thickness: 0.080 inch.	r ant ME-OF-OA - Lettous Metals, Oriphined, Aikyd, 5 Coat.	Flat Signs: Signage media without frame.	
		RESILIENT BASE		Color and Font: Unless otherwise indicated:	
				Character Font: Helvetica, Arial, or other sans serif font. Character Case: Upper case only.	
				Background Color: Selected by Owner/Architect.	WALLACE ARCHITECTS, LI
				Character Color: Contrasting color. TACTILE SIGNAGE MEDIA	MISSOURI STATE CERTIFICA OF AUTHORITY: 200301961
				Engraved Panels: Laminated colored plastic; engraved through face to expose core as	COPYRIGHT (C) 202
				background color:	1ST ISSUE
				Injection Molded Panels: One-piece acrylic plastic, with raised letters and braille. Applied Character Panels: Acrylic plastic base, with applied acrylic plastic letters and braille.	15 APR 2025
				DIMENSIONAL LETTERS	15 / <b>M N</b> 2025
				Plastic Letters:	ISSUE/REVISIONS
				Material: Injection molded plastic. SECTION 10 28 00 - TOILET AND BATH ACCESSORIES	$\frac{15 \text{ APR } 2025}{15 \text{ ISSUE SET}}$
$\checkmark$				MANUFACTURERS	
				Fixture and Accessory Manufacturers::	$\Diamond$ ————
				Better Homes Products, Inc.: www.betterhomesproducts.com. Pfister, a Spectrum Brands company: www.pfisterfaucets.com.	☆
				Delta Faucet Company, Inc.: www.deltafaucet.com.	
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**ISSUE SET** 

1	2	3	4	5	SSSSSSS A
Commercial Toilet and Shower Accessories:	DIVISION 11 - EQUIPMENT	DIVISION 12 - FURNISHINGS	Uppermost and lowermost calls are answered as soon as they are reached without	Access Control Unit:	THE OF MISSOL
ASI - American Specialties, Inc: www.americanspecialties.com. Bradley Corporation: www.bradleycorp.com.	SECTION 11 30 13 - RESIDENTIAL APPLIANCES KITCHEN APPLIANCES	SECTION 12 21 13 - HORIZONTAL LOUVER BLINDS MANUFACTURERS	consideration of the car travel direction.	Control Capability: 15 doors/ 15 readers. Database:	₩ M. RANDALL PORTER
Bobrick Washroom Equipment Inc.: www.bobrick.com. MATERIALS	Energy Star Rating: Provide Equipment Eligible for Energy Star Rating where available and	Horizontal Louver Blinds:	EMERGENCY POWER Set-up elevator operation to run with elevator emergency power supply when the normal	Quantity of Access Codes Supported: 8000. Operating Modes Supported:	$A_{-2012006244}$
Accessories - General: Shop assembled, free of dents and scratches and packaged complete	applicable. Refrigerator, Accessible Dwelling Units: Free-standing, side-by-side, and frost-free.	CACO Inc.: www.cacoinc.com SWFcontract, a division of Spring Window Fashions, LLC.: www.swfcontract.com.	building power supply fails, and in compliance with ASME A17.1 requirements. Elevator Emergency Power Supply: Supplied by battery backup; provide elevator system	Proximety key fob. Features:	Madal for
with anchors and fittings, steel anchor plates, adapters, and anchor components for installation.	Capacity: Total minimum storage of 17.0 cubic ft; minimum 25 percent freezer capacity. Energy Usage: Energy Star Rated.	Bali Blinds. Graber Blinds	components as required for emergency power characteristics.	Dedicated power loss alarm input. Supports database and event exporting.	RCHITEC'S
Stainless Steel Sheet: ASTM A666, Type 304.	Features: Include glass shelves, automatic icemaker, light in freezer compartment, and	BLINDS	Emergency Lighting: Comply with ASME A17.1 elevator lighting requirements. MATERIALS	Supports database backup.	15 APR 2025
Galvanized Sheet Steel: Hot-dipped galvanized steel sheet, ASTM A653/A653M, with G90/Z275 coating.	ADA compliant front-mounted controls. Exterior Finish: Porcelain enameled steel, color as selected by Owner.	Description: Horizontal slat louvers hung from full-width headrail with full-width bottom rail. Manual Operation: Control of raising and lowering by counterbalance spring with full range	Rolled Steel Sections, Shapes, Rods: ASTM A36/A36M.	Computers: Workstation Computers: Unless otherwise indicated, workstation computer hardware and	M. RANDALL PORTER
Mirror Glass: Annealed float glass, ASTM C1036 Type I, Class 1, Quality Q2, with silvering, protective and physical characteristics complying with ASTM C1503.	Manufacturers: To be selected by Owner.	locking; blade angle adjustable by control wand.	Sheet Steel: Hot-dipped galvanized steel sheet, ASTM A653/A653M, with G90/Z275 coating.	associated peripherals not furnished by access control system manufacturer to be provided by Contractor as part of work of this section, meeting access control system	ARCHITECT LICENSE# A-2012006244
Adhesive: silicone, waterproof.	Refrigerator, Typical Dwelling Units: Free-standing, side-by-side, and frost-free. Capacity: Total minimum storage of 17.0 cubic ft; minimum 29 percent freezer capacity.	Plastic Slats: Extruded PVC, square slat corners. Width: 1 inch.	Stainless Steel Sheet: ASTM A666, Type 304; No. 4 Brushed finish unless otherwise indicated. Extruded Aluminum: ASTM B221 (ASTM B221M), natural anodized finish unless otherwise	equipment manufacturer's recommended requirements. Servers: Unless otherwise indicated, server hardware and associated peripherals not	
Fasteners, screws, and bolts: Corrosion resistant or stainless steel.	Features: Include glass shelves, automatic icemaker, and light in freezer compartment.	Thickness: 0.017 inch. Texture: Smooth.	indicated.	furnished by access control system manufacturer to be provided by Contractor as part of work of this section, meeting access control system equipment manufacturer's	
Toilet Paper Dispenser: Single roll, surface mounted bracket type, nickel-plated solid brass.	Exterior Finish: Porcelain enameled steel, color as selected by Owner. Manufacturers:	Slat Support: Woven polypropylene cord, ladder configuration.	Elevator, No. 1 & 2:	recommended requirements.	I Z
Product: Candlestick Park #2209 manufactured by Better Homes Products, or equal. Mirrors: Stainless steel framed, 1/4 inch thick annealed float glass; ASTM C1036.	To be selected by Owner. Range, Accessible Dwelling Units: Electric, free-standing, with plug-in heating elements and	Head Rail: Pre-finished, formed steel box, with end caps; internally fitted with hardware, pulleys, and bearings for operation; same depth as width of slats.	Car and Hoistway Entrances, Each Elevator Floor Lobby: Framed Opening Finish and Material: Alkyd enamel on steel.	ACCESS CONTROL POINT PERIPHERALS Provide devices compatible with control units and software.	I WI
Annealed Float Glass: Silvering, protective and physical characteristics in compliance with ASTM C1503.	removable drip pans. Size: 30 inches wide.	Bottom Rail: Pre-finished, formed steel ; with end caps.	Car Door Material: Stainless steel, with rigid sandwich panel construction. Hoistway Door Material: Stainless steel, with rigid sandwich panel construction.	Provide devices suitable for operation under the service conditions at the installed location.	L D I
Size: As indicated on drawings.	Oven: Manual cleaning.	Color: Same as headrail. Lift Cord: Braided nylon, continuous loop with restraining device; comply with WCMA A100.1.	CAR EQUIPMENT AND MATERIALS	Readers and Keypads: General Requirements:	
Grab Bars: Stainless steel, textured surface. Standard Duty Grab Bars:	Elements: Four (4). Controls: Solid state electronic.	Control Wand: Extruded solid plastic; hexagonal shape.	Elevator Car, No. 1 & 2: Car Operating Panel: Provide main and auxiliary; flush-mounted applied face plate, with	Provide readers compatible with credentials to be used. Proximity Readers:	NO NO
Dimensions: 1-1/2 inch outside diameter, minimum 0.05 inch wall thickness, concealed flange mounting, 1-1/2 inch clearance between wall and inside of grab	Features: Include oven door window, broiler pan and grid, oven light, anti-tip restraint, and front mounted controls.	SECTION 12 35 30 - RESIDENTIAL CABINETS AND COUNTERTOPS CABINETS	illuminated call buttons corresponding to floors served with "Door Open" button, "Door Close" button, alarm button, and emergency call button.	Utilize 125 kHz RF communication with compatible credentials.	N E E
bar. Finish: Safety-grip.	Manufacturers: To be selected by Owner.	Manufacturers:	Panel Material: Integral with front return; one per car. Car Floor Position Indicator: Above door with illuminating position indicators.	Proximity Reader: Read Range: Up to 12 inches.	Š Z
Product: Series 832 manufactured by Bradley, or equal.	Range, Typical Dwelling Units: Electric, free-standing, with plug-in heating elements and removable drip pans.	All Wood Cabinetry Inc.; "All Wood": <a href="http://www.allwoodfast.com">www.allwoodfast.com</a> American Traditions/S&W Cabinets, Inc; Shaker Poplar: <a href="http://www.swcabinets.com">www.swcabinets.com</a>	Flooring: Resilient sheet flooring. Front Return Panel: Match material of car door.	Features: Tamper output.	
Shower Curtain Rod: Stainless steel tube, 1 inch outside diameter, 0.04 inch wall thickness, satin-finished, with 3 inch outside diameter, minimum 0.04 inch thick satin-finished stainless	Size: 30 inches wide.	Wellborn Cabinet, Inc; Home Concepts - All Plywod: www.wellborn.com/#sle. Wolf Home Products; Wolf Classic Cabinets: www.wolfhomeproducts.com/#sle.	Door Wall: Stainless steel. Side Walls: Stainless steel.	ACCESSORIES	
steel flanges, for concealed mounting. Product: Model B-207 manufactured by Bobrick, or equal.	Oven: Manual cleaning. Elements: Four (4).	Cabinet Box: Framed construction.	Rear Wall: Stainless steel.	Unless otherwise indicated, credentials to be provided by Contractor.	
Towel Bar: Solid brass, nickel-plated.	Controls: Push-to-turn knobs with electronic clock and timer. Features: Include oven door window, broiler pan and grid, oven light, and anti-tip	Cabinet Door/Drawer Configuration: Partial overlay. Cabinet Doors:	Hand Rail: Aluminum, at three side walls. Provide open clearance space 1-1/2 inch (38 mm) wide to face of wall.		
Finish: Satin. Length: 24 inches.	restraint. Exterior Finish: Porcelain enameled steel, color as selected by Owner.	3/4 inch kiln-dried hardwood frame; mortice and tenon construction, 1/4 inch plywood	Aluminum Finish: Clear anodized. Ceiling:		
Product: Candlestick Park #2224 manufactured by Better Homes Products, or equal. Towel Ring: Solid brass, nickel-plated, 2-1/2 inch extension from wall, with round ring, for	Manufacturers: To be selected by Owner.	center panel with hardwood veneer finsh. Drawers:			
concealed attachment. Finish: Satin.	Cooking Exhaust, Accessible Dwelling Units: Range hood; fan and light wired to wall switches.	1/2 inch Birch plywood full box with butted joints, 1/4 inch Birch plywood bottom.	DIVISION 28 - ELECTRONIC SAFETY AND SECURITY		
Product: Candlestick Park #2204 manufactured by Better Homes Products, or equal.	Refer to drawings for switch heights. Size: 30 inches wide.	Shelves: 5/8 inch plywood. Exposed shelf edges: Finish with manufacturer's standard edge banding, color	SECTION 28 10 00 - ACCESS CONTROL		ГПО
Robe Hook: Solid brass, nickel-plated, double-prong for concealed attachment. Finish: Satin.	Fan: Two-speed, 220 cfm Exhaust: Recirculating.	coordinated with other exposed finishes. Cabinet Hardware: As selected from manufacturer's standard types, styles and finishes.	ADMINISTRATIVE REQUIREMENTS Coordination:		50
Product: Candlestick Park #2202 manufactured by Better Homes Products, or equal.	Features: Include cooktop light and removable grease filter. Exterior Finish: Painted steel, color as selected by Owner.	Drawer and Cabinet Pulls: Satin nickel, wire pulls 4 inches wide	Coordinate the work with other installers to provide suitable door hardware as required for		N <sub>N</sub>
SECTION 10 44 00 - FIRE PROTECTION SPECIALTIES MANUFACTURERS	Manufacturers:	Exterior Finish: Factory-applied urethane; 2 color coats with top coat min. Color: To be selected by Owner from manufacturer's standard line.	both access control functionality and code compliance. Coordinate the work with other installers to provide power for equipment at required		
Fire Extinguishers:	To be selected by Owner. Microwave/Hood, Typical Dwelling Units: Over-the-range, microwave/hood combination.	COUNTERTOPS	locations. Notify Architect of any conflicts with or deviations from Contract Documents. Obtain		
Kidde, a unit of United Technologies Corp: www.kidde.com. Pyro-Chem, a Tyco Business: www.pyrochem.com.	Capacity: 1.7 cubic ft. Power: 1000 watts.	Kitchen Countertops and all Countertops in Laundry: Post formed plastic laminate over particle board with, rolled edge, and coved to back splash.	direction before proceeding with work. DELIVERY, STORAGE, AND HANDLING		
Strike First Corporation of America: www.strikefirstusa.com. Fire Extinguisher Cabinets and Accessories:	Fan: Two-speed, 220 cfm Exhaust: Recirculating.	Colors/Patterns: To be selected by Owner from manufacturer's standard line. Vanity Countertops: Post formed plastic laminate over particle board, coved to back splash.	Receive, inspect, handle, and store products in accordance with manufacturer's instructions.		
JL Industries, Inc; Clear Vu Model 1535F25: www.jlindustries.com.	Features: Include turntable, cooktop light, night light, 2-speed exhaust fan, built-in trim	Colors/Patterns: To be selected by Owner from manufacturer's standard line.	Store products in manufacturer's unopened packaging, keep dry and protect from damage until ready for installation.		<b>V</b>
Larsen's Manufacturing Co; Model C2409R: www.larsensmfg.com. FIRE EXTINGUISHERS	kit, and undercabinet mounting kit. Exterior Finish: Painted steel, color as selected by Owner.	WINDOW SILLS	MANUFACTURERS		)
Fire Extinguishers - General: Comply with product requirements of NFPA 10 and applicable	Manufacturers: To be selected by Owner.	Self edged plastic laminate over particle board with, square front nosing and self-edged sides. FABRICATION	Access Control Units - Basis of Design: DKS Door King; Series 1830. Access Control Units:		
codes, whichever is more stringent. Multipurpose Dry Chemical Type Fire Extinguishers: Carbon steel tank, with pressure gauge.	Microwave, Accessible Dwelling Units: Countertop.	Shop assemble casework for delivery to site in units easily handled and to permit passage	Bosch Security Systems: www.boschsecurity.us/#sle.		
Stored Pressure Operated: Deep Drawn. Class: A:B:C type.	Capacity: 1.3 cubic ft. Power: 1000 watts.	through building openings. Fabricate tops and splashes in the largest sections practicable, with top surface of joints flush.	DoorKing, Inc: www.doorking.com/#sle. Honeywell International, Inc: www.honeywellaccess.com/#sle.		
Size: 5 pound; For installation in Common areas. Size: 2.5 pound; For installation in individual Dwelling Units.	Height: 12 inches maximum. Features: Include turntable.	Provide back/end splash wherever counter edge abuts vertical surface unless otherwise indicated.	ACCESS CONTROL SYSTEM REQUIREMENTS		
FIRE EXTINGUISHER CABINETS	Exterior Finish: Painted steel, color as selected by Owner. Manufacturers:	indicated.	Provide new access control system consisting of required equipment, conduit, boxes, wiring, connectors, hardware, supports, accessories, software, system programming, etc. as		
Fire Rated Cabinet Construction: hour-rating as required for assembly. Steel; double wall or outer and inner boxes with 5/8 inch thick fire barrier material.	To be selected by Owner. Dishwasher, Accessible Dwelling Units: Undercounter, for installation at 34 inch counters.		necessary for a complete operating system that provides the functional intent indicated. Surge Protection:		A D
Cabinet Configuration: Semi-recessed type.	Controls: Solid state electronic.	SECTION 14 21 00 - ELECTRIC TRACTION ELEVATORS MANUFACTURERS	Provide surge protection for readers and door strikes/locks. Access Control Points:		
— Door Glazing: Acrylic plastic, clear, 1/8 inch thick, full view bubble shape and set in resilient channel glazing gasket.	Cycles: Six (6), including heavy, sanitize, normal, eco, quick, and rinse and hold. Features: Include rinse aid dispenser, optional no-heat dry, optional water temperature	Manufacturers - Electric Traction Elevators: Otis Elevator Company; Gen3 Core: www.otis.com.	Exterior Doors:		$\neg$ $A$
SECTION 10 55 00 - POSTAL SPECIALTIES	boost, adjustable upper rack, and adjustable lower rack. Finish: Porcelain enameled steel, color as selected by Owner.	Schindler Elevator Corporation; Schindler 3100: www.us.schindler.com/#sle.	Function: Operational and emergency. Access: Controlled entry, free exit.		A E E
CENTRAL MAIL DELIVERY BOXES Central Mail Delivery Boxes: Provide products approved for United States Postal Service	Manufacturers: To be selected by Owner.	TK Elevator (formerlyThyssenKrupp): www.tkelevator.com. ELECTRIC TRACTION ELEVATORS	Peripherals on Secure Side: Reader/Keypad: Contacless key fob reader.		
(USPS) delivery.	Dishwasher, Typical Dwelling Units: Undercounter. Controls: Solid state electronic.	Electric Traction Passenger Elevator: Electric Traction Elevator Equipment:	Locking Device: Electric strike. Configuration: Fail-secure.		
Wall-Mounted Mailboxes:, Complying with 39 CFR 111 (USPS-STD-4C). Unit A: Front-loading with pair of master doors, double-column design, 9 customer	Wash Options: Three (3).	Gearless Traction Machine: Single wrapped traction driving sheave, with dual brake.	Computers Required:		
compartments, 1 outgoing mail compartment, and 2 parcel compartments; free-standing enclosure mounted.	Cycles: Four (4), including heavy, normal, light, and auto-sense. Features: Include rinse aid dispenser, optional no-heat dry, optional water temperature	Drive System: Variable voltage alternating current (AC).	Workstation Computer(s): Quantity: One.		A
Florence Manufacturing Company; Model # 4CADD-09. Quantity: 5 Units.	boost, adjustable upper rack, and customizable bottom rack . Finish: Porcelain enameled steel, color as selected by Owner.	Operation Control Type: Selective Collective Automatic Operation Control.	Location(s): Leasing Office. Peripherals required for each workstation computer:		
SECTION 10 57 23 - CLOSET AND UTILITY SHELVING	Manufacturers: To be selected by Owner.	Interior Car Height: 93 inch. Electrical Power: 208 volts; alternating current (AC); three phase; 60 Hz.	Mouse and keyboard. Monitor(s): One.		
MANUFACTURERS Wire Storage Shelving:	Grease Shield: Wall-mounted backsplash type; countersunk screw attachment.	Rated Net Capacity: 3500 pounds. Rated Speed: 200 feet per minute.	Alarm/report printer. Interface with Other Systems:		
ClosetMaid Corporation : www.closetmaid.com.	Material: Vinyl. Width: To match width of range.	Number of Stops: 4. Number of Openings: 4 Front.	Provide products compatible with other systems requiring interface with access control		
Rubbermaid, Inc: www.rubbermaidpro.com. WIRE STORAGE SHELVING SYSTEMS	Finish: Color as selected by Owner. RESIDENTIAL LAUNDRY APPLIANCES	Traction Machine Location: Top of hoistway shaft.	system. Interface with electrically operated door hardware as specified in Section 08 71 00.		
Applications:	Provide Equipment Eligible for Energy Star Rating.	PERFORMANCE REQUIREMENTS Regulatory Requirements: Comply with ASME A17.1, applicable local codes, and authorities	Provide products listed, classified, and labeled as suitable for the purpose intended. Access Control Units and Readers: Listed and labeled as complying with UL 294.		
Shelf Depth: 12 inches, unless otherwise indicated. Bedroom Closets:	Clothes Washer, Accessible Units: Front-loading. Size: Large capacity.	having jurisdiction (AHJ). Accessibility Requirements: Comply with UFAS and ADA Standards.	ACCESS CONTROL UNITS AND SOFTWARE		
Wall-to-wall shelf with free sliding hanger rod. Provide intermediate bracing for shelves longer than 36 inches.	Controls: Solid state electronic. Cycles: Include normal, permanent press, delicate, and soak.	OPERATION CONTROLS	Provide access control units and software compatible with readers to be connected. Unless otherwise indicated, provide software and licenses required for fully operational system.		
Coat Closets: Wall-to-wall shelf with integral hanger rod.	Motor Speed: Two-speed, three combinations. Features: Include bleach dispenser, fabric softener dispenser, sound insulation, end of	Elevator Controls: Provide landing operating panels and landing indicator panels. Landing Operating Panels: Metallic type, one for originating "Up" and one for originating	Oniess otherwise indicated, provide software and itcenses required for fully operational system.		
Provide intermediate bracing for shelves longer than 36 inches. Linen and Pantry Shelving:	cycle signal, and front-mounted controls. Finish: Painted steel, color white.	"Down" calls, one button only at terminating landings; with illuminating indicators. Landing Indicator Panels: Illuminating.			nbii
Wall-to-wall shelves spaced as shown on the drawings, not less than 16 inch deep.	Manufacturers:	Comply with UFAS and ADA Standards for elevator controls.			
Wire Shelving: Factory-assembled coated wire mesh shelf assemblies for wall-mounting, with components and connections required to produce a rigid structure that is free of buckling and	To be selected by Owner. Clothes Dryer: Electric.	Interconnect elevator control system with building fire alarm and smoke alarm systems. Emergency Communication System: An emergency 2-way communiction system in compliance			
warping. Construction: Cold-drawn steel wire with average tensile strength of 100,000 psi	Size: Large capacity. Controls: Solid state electronic, with temperature-sensing dry control.	with ICC (IBC)-2018 that is fully accessible to the deaf, hard of hearing, and speech impaired. System Requirements:			
resistance welded into uniform mesh units, square, rigid, flat, and free of dents or other distortions, with wires trimmed smooth.	Temperature Selections: Four. Cycles: Include normal, permanent press, knit/delicate, and air only.	Visual and text-based and video-based system. Continuously live monitored interactive service.			
Coating: PVC or epoxy, applied after fabrication, covering surfaces. Hanging Rod: Tubular steel, 1 inch diameter, with end caps on open ends.	Features: Include interior light, reversible door, sound insulation, end of cycle signal, and	Shall include voice-only options for the hearing.			
Hanging Rod: Tubular steel, 1 inch diameter, with end caps on open ends. Mounting Hardware for Wire Shelving: Provide manufacturer's standard mounting hardware;	front-mounted controls. Finish: Painted steel, color white.	Lobby Monitoring Panel: Locate status indicator and control panel for each individual elevator in Central Control			
include support braces, wall brackets, back clips, end clips, poles, and other accessories as required for complete and secure installation; factory finished to match shelving.	Manufacturers: To be selected by Owner.	Room. OPERATION CONTROL TYPE			
Fasteners: As recommended by manufacturer for mounting substrates.	Combination Clothes Washer/Dryer (Stacked), Typical Dwelling Unit, Electric, stationary. Size: Compact.	Selective Collective Automatic Operation Control: Applies to car in single elevator shaft.			WALLACE ARCHITECTS, LL
	Controls: Rotary.	Refer to description provided in ASME A17.1. Automatic operation by means of one button in the car for each landing served and by			MISSOURI STATE CERTIFICA OF AUTHORITY: 200301961
	Cycles: Include normal, permanent press, delicate, and soak. Temperature Selections: Four.	"UP" and "DOWN" buttons at the landings. Stops are registered by momentary actuation of landing car buttons without consideration			COPYRIGHT © 202
	Finish: Painted steel, color as selected by Owner. Manufacturers:	of the number of buttons actuated or the sequence buttons actuated, but the stops are made in the order that landings are reached in each direction of travel.			1ST ISSUE
	To be selected by Owner.	All "UP" landing calls are made when car is traveling in the up direction. All "DOWN" landing calls are made when car is traveling in the down direction.			15 APR 2025
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					JOB NO.

job no. 4938

**ISSUE SET** 

2

# Alura Village Apartment Building Type "A"

### TIMBER

TIMBER WORK SHALL CONFORM TO ALL REQUIREMENTS OF THE CURRENT ANSI/AWC NATIONAL DESIGN SPECIFICATION (NDS) FOR WOOD CONSTRUCTION WITH 2018 NDS SUPPLEMENT FOR WOOD CONSTRUCTION. WITH THE FOLLOWING SUPPLEMENTAL REQUIREMENTS:

FOR CON		BER SIZES, THE SPECIES AI
Α.	2X4	SPF No.1/No.2
В.	2X6	SPF No.1/No.2
C.	2X8	DF-L No.2
D.	2X10	DF-L S.S.
E.	2X12	DF-L S.S.

EQUIVALENT (OR BETTER) GRADES & SPECIES MAY BE SUBMITTED FOR THE ENGINEER'S APPROVAL.

- 2. SIZES SHOWN FOR LUMBER ARE NOMINAL SIZES.
- PRESSURE-IMPREGNATED BY AN APPROVED PROCESS AND PRESERVATIVE.
- 4. SPLICING OF JOISTS, STUDS, OR HEADERS IS PROHIBITED EXCEPT AS SHOWN.
- 2018 ANSI/AWC NDS FOR WOOD CONSTRUCTION NDS SUPPLEMENT.
- OF THE 2018 ANSI/AWC NDS FOR WOOD CONSTRUCTION WITH 2018 NDS SUPPLEMENT. 7. COMMON NAILS SHALL BE USED, UNLESS NOTED OTHERWISE. IN ADDITION, NAILS SHALL BE
- OTHERWISE.
- 9. CONNECTIONS/CONNECTORS SHALL BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS.

### POST-INSTALLED ANCHORS

- 1. ALL POST-INSTALLED ANCHORS SHALL MEET THE REQUIREMENTS OF THE CODE-CITED EDITION OF ACI
- 2. EXPANSION ANCHORS HAVE BEEN DESIGNED AS HILTI KWIK BOLT TZ ANCHORS. UNLESS NOTED
- OTHERWISE. MASONRY, UNLESS NOTED OTHERWISE.
- 4. EQUIVALENT ANCHORS MAY BE SUBMITTED FOR THE ENGINEER'S APPROVAL. SUBMITTALS ARE THE CONTRACTOR'S RESPONSIBILITY AND MUST INCLUDE ICC ES EVALUATION REPORTS FROM THE INTERNATIONAL CODE COUNCIL (ICC).
- 5. EMBEDMENT DEPTH IS DEFINED AS THE DISTANCE FROM THE SURFACE OF THE LOAD-BEARING BASE HOLE BUT NOT YET EXPANDED.
- TEMPERATURES ARE BELOW 40 DEG F, ONLY NON-EPOXY-BASED ADHESIVES SHALL BE USED. 7. POST-INSTALLED ANCHORS SHALL ONLY BE USED WHERE SPECIFIED ON THE DRAWINGS. THE CONTRACTOR SHALL OBTAIN APPROVAL FROM THE ENGINEER PRIOR TO USING POST-INSTALLED CONFLICTS WITH EXISTING REINFORCING BARS. HOLES SHALL BE DRILLED AND CLEANED PER ANCHOR
- MANUFACTURER'S SPECIFICATIONS.

### STRUCTURAL STEEL

- 1. FABRICATION AND ERECTION OF STRUCTURAL STEEL SHALL BE IN ACCORDANCE WITH THE CURRENT
- PRACTICE FOR STEEL BUILDINGS AND BRIDGES AND CURRENT OSHA STANDARDS.
- 3. BOLTS, UNLESS OTHERWISE SHOWN, SHALL CONFORM TO ASTM A325-N, SIZE AS PER PLAN.
- 4. ANCHOR BOLTS, UNLESS OTHERWISE SHOWN, SHALL CONFORM TO ASTM F1554 GRADE 36.
- 5. SPLICING OF STRUCTURAL STEEL IS PROHIBITED EXCEPT AS DETAILED. THE SPECIFICATIONS. ALL STEEL SURFACES EMBEDDED IN CONCRETE SHALL NOT BE PAINTED. PREPARATION OF STEEL SURFACES SHALL MEET THE REQUIREMENTS OF THE STEEL STRUCTURES PAINTING COUNCIL (SSPC-SP1) AND THE REMOVAL OF GREASE AND OIL BY SOLVENT CLEANING
- THE AWS STRUCTURAL WELDING CODE. WELDING ELECTRODES SHALL BE E70XX.

# GENERAL NOTES

### ELEVATION DATUM

SEE ARCHITECTURAL DRAWINGS OR SITE PLAN FOR FINISH FLOOR ELEVATIONS

### DESIGN SPECIFICATIONS 2018 INTERNATIONAL BUILDING CODE

# EARTHWORK

EARTHWORK OPERATIONS SHALL BE PERFORMED UNDER THE DIRECTION OF A PROFESSIONAL TESTING AGENCY TO ASSURE COMPLIANCE WITH THE RECOMMENDATIONS OF THE SOILS REPORT PREPARED BY OLSSON, INC. DATED AUGUST 22, 2019.

### CONCRETE

CONCRETE WORK SHALL CONFORM TO ALL REQUIREMENTS OF THE CURRENT ACI 301, SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS, ACI 318 BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE, ACI 305 SPECIFICATIONS FOR HOT WATER CONCRETE, AND ACI 306 SPECIFICATIONS FOR COLD WEATHER

- CONCRETE, WITH THE FOLLOWING ADDITIONAL REQUIREMENTS: 1. CONCRETE SHALL DEVELOP THE FOLLOWING 28-DAY MINIMUM COMPRESSIVE STRENGTH:
- 3.000 PSI FOUNDATIONS CAST-IN-PLACE WALLS 3.500 PSI
- FLOOR SLAB 4,000 PSI EXTERIOR SLABS, WALLS AND CURBS - 4,000 PSI
- 2. ALL FOOTINGS SHALL BEAR ON UNDISTURBED SOIL OR ENGINEERED FILI
- 3. CHLORIDE- BASED ADMIXTURES ARE PROHIBITED IN ALL REINFORCED CONCRETE.
- 4. REINFORCING STEEL SHALL CONFORM TO ASTM A615, A616, OR A617, GRADE 60. 5. ALL CONTINUOUS REINFORCING STEEL THAT MEETS AT A CORNER SHALL BE TIED TOGETHER WITH A
- CORNER BAR THAT HAS SUFFICIENT LAP DISTANCE IN EACH DIRECTION 6. CONTINUOUS REINFORCING BARS LAP LENGTH SHALL BE A MINIMUM OF 48 BAR DIAMETERS UNLESS
- NOTED OTHERWISE 7. CONCRETE SLUMP SHALL BE A MAXIMUM OF 4" +/- 1" (ASTM C- 143) AS DELIVERED IN THE FIELD CONTRACTOR MAY USE CHEMICAL ADMIXTURES TO ATTAIN A MAXIMUM SLUMP OF 8" FOR WORKABILITY. NO WATER MAY BE ADDED TO THE CONCRETE MIX ON SITE UNLESS WATER IS WITHHELD AT THE BATCHING FACILITY. IF WATER IS WITHHELD AT THE BATCHING FACILITY IT SHOULD BE REFLECTED ON THE LOAD TICKET. THE TOTAL AMOUNT OF WATER IN THE MIX SHALL NOT EXCEED WHAT IS NOTED ON
- THE APPROVED MIXED. THIS SHALL BE NOTED IN THE SPECIAL INSPECTOR'S RECORDS. 8. CONCRETE EXPOSED TO WEATHER, VEHICLES, AND/OR DEICING CHEMICALS SHALL BE AIR-ENTRAINED WITH 6% (+/-) 1.5% ENTRAINED AIR BY VOLUME AT POINT OF DISCHARGE. DO NOT ALLOW AIR
- CONTENT OF TROWELED FINISHED FLOORS TO EXCEED 3%. 9. SUBMIT CONCRETE MIX PROPORTIONS PRIOR TO START OF WORK. DO NOT BEGIN CONCRETE
- PRODUCTION UNTIL MIXES HAVE BEEN REVIEWED AND ARE ACCEPTABLE TO THE ENGINEER. 10.READY MIX CONCRETE SHALL COMPLY WITH REQUIREMENTS OF ASTM C94.
- 11.CONCRETE WORK EXECUTION
- A. CONSTRUCT FORMS TO CORRECT SIZE, SHAPE, ALIGNMENT, ELEVATION AND POSITION; AND TO SUPPORT VERTICAL AND LATERAL LOADS.
- B. POSITION, SUPPORT, AND SECURE REINFORCEMENT AGAINST DISPLACEMENT. MINIMUM CONCRETE COVER FOR REINFORCEMENT SHALL BE, UNLESS NOTED OTHERWISE ON THE DRAWINGS:

  - NOT EXPOSED TO WEATHER OR
  - .....1 ½ INCHES IN CONTACT WITH EARTH .....
- C. PROVIDE CONTROL JOINTS IN SLABS-ON-GRADE AT NOT GREATER THAN 15 FEET ON CENTER IN EACH DIRECTION. SAW CUT CONTROL JOINTS MINIMUM 1/4 OF SLAB DEPTH, AS SOON AFTER SLAB FINISHING WITHOUT DISLODGING AGGREGATE.
- D. STEEL TROWEL FINISH ALL INTERIOR CONCRETE SLABS, BROOM FINISH ALL EXTERIOR CONCRETE
- E. CURE ALL CONCRETE IN COMPLIANCE WITH ACI 301, USING A LIQUID TYPE MEMBRANE,
- NON-RESIDUAL, CURING COMPOUND COMPLYING WITH ASTM C309. ASSURE COMPATIBILITY WITH FINISH FLOOR COVERING.

# Lee's Summit, Jackson County, Missouri

PREFABRICATED WOOD TRUSSES

- 1. FLOOR & ROOF TRUSSES SHALL BE DESIGNED IN ACCORDANCE WITH THE TRUSS PLATE INSTITUTE (TPI) DESIGN SPECIFICATION FOR METAL PLATE CONNECTED WOOD TRUSSES, AND THE ANSI/AWC NATIONAL DESIGN SPECIFICATION (NDS) FOR WOOD CONSTRUCTION.
- 2. PROVIDE TEMPORARY AND PERMANENT BRACING ON ALL TRUSSES, AS REQUIRED TO PROVIDE MEMBER AND TRUSS STABILITY.
- 3. FLOOR & ROOF TRUSSES SHALL BE DESIGNED AND CONSTRUCTED FOR A MAXIMUM TOTAL LOAD DEFLECTION OF L/360 AND TO SAFELY SUPPORT THE FOLLOWING LOADS:
  - A. DEAD, LIVE, SNOW, WIND, EARTHQUAKE: SEE PROJECT DESIGN DATA ON COVER SHEET. B. MECHANICAL PIPE LOAD: TRUSSES SHALL BE DESIGNED FOR A CONCENTRATED LOAD OF 250
  - LBS HUNG ANYWHERE ALONG THE BOTTOM CHORD.
- C. OVER-FRAMING LOAD: TRUSSES SHALL ALSO BE DESIGNED TO SUPPORT ADDITIONAL OVERBUILD FRAMING, SUCH AS THAT WHICH FORMS VALLEYS AND HIPS ON ROOFS. D. DRIFTED SNOW LOAD: TRUSSES SHALL BE DESIGNED TO SUPPORT DRIFTED SNOW LOADS IN
- ACCORDANCE WITH THE APPROPRIATE BUILDING CODE. E. IN-PLANE LATERAL LOADS: TRUSSES SHALL BE DESIGNED TO SUPPORT ANY LATERAL LOADS CARRIED AXIALLY IN THE PLANE OF THE TRUSS, AS SHOWN ON THE PLANS.
- 4. GABLED END TRUSSES SHALL HAVE VERTICAL MEMBERS SPACED AT 16" O.C. MAXIMUM.
- 5. SUBMITTALS SHALL INCLUDE THE FOLLOWING: A. SHOP DRAWINGS PREPARED UNDER THE SUPERVISION OF, AND SIGNED AND SEALED BY, A PROFESSIONAL ENGINEER REGISTERED IN THE STATE WHERE THE PROJECT IS BUILT. THESE DRAWINGS SHALL INDICATE SPECIES, GRADE, AND SIZES OF LUMBER TO BE USED; PITCH, SPAN, CAMBER, CONFIGURATION, AND SPACING FOR EACH TYPE OF TRUSS REQUIRED; TYPE, SIZE, MATERIAL, FINISH, AND LOCATION OF METAL CONNECTOR PLATES; AND BEARING DETAILS. SHOW TRUSS LAYOUT AND ALL REQUIRED TEMPORARY AND PERMANENT BRACING AFFECTING THE

STRUCTURAL CAPACITY OF THE TRUSSES. PROVIDE COMPLETE ENGINEERING DESIGN CALCULATIONS THAT INCLUDE DESIGN VALUES, DESIGN ANALYSIS INDICATING LOADING, ASSUMED ALLOWABLE STRESSES, STRESS DIAGRAMS, AND CALCULATIONS, AND ANY OTHER INFORMATION NEEDED FOR REVIEW. THE CALCULATIONS SHALL HAVE BEEN SIGNED AND SEALED BY A QUALIFIED PROFESSIONAL ENGINEER WHO IS REGISTERED IN THE STATE WHERE THE PROJECT IS BUILT AND WHO IS RESPONSIBLE FOR PREPARATION OF THE CALCULATIONS.

# SPECIAL INSPECTIONS

THE FOLLOWING ITEMS REQUIRE SPECIAL INSPECTION IN ACCORDANCE WITH CHAPTER 17 OF THE INTERNATIONAL BUILDING CODE.

- a. CONCRETE GROUT DESIGN MIX (PERIODIC)
- b. PLACING OF CONCRETE AND REINFORCING STEEL (CONTINUOUS OF CONCRETE SAMPLING / PERIODIC OF REINFORCING)
- c. BOLTS & ANCHORS EMBEDDED IN CONCRETE (PERIODIC)
- d. STRUCTURAL STEEL FABRICATIONS (UNLESS AISC APPROVED) (PERIODIC)
- e. STRUCTURAL STEEL BOLTING & WELDING (PERIODIC)
- f. POST INSTALLED ANCHORS IN CONCRETE (CONTINUOUS)
- q. IN-SITU SOILS, EXCAVATIONS, FILLING & COMPACTION (PERIODIC)
- h. WOOD FRAMING:
- h.a. SHEAR WALLS; WALL SIZE, CONFIGURATION, BLOCKING, PANEL GRADE, PANEL THICKNESS, AND FASTENING. (PERIODIC)
- h.b. DIAPHRAGMS (FLOOR AND ROOF SHEATHING); SIZE, CONFIGURATION, BLOCKING, PANEL GRADE, PANEL THICKNESS, AND FASTENING. (PERIODIC)
- h.c. FRAMING MEMBERS AND DETAILS (PERIODIC)
- h.d. MATERIAL GRADE (PERIODIC)
- h.e. CONNECTIONS; HANGERS, HOLD DOWNS, BUILT-UP COLUMNS, BUILT-UP BEAMS (PERIODIC)

h.f. PRE-ENGINEERED TRUSSES; FRAMING, CONNECTIONS, BRIDGING (PERIODIC) THE CONTRACTOR SHALL REQUEST SPECIAL INSPECTION OF THE ITEMS LISTED ABOVE PRIOR TO THOSE ITEMS BECOMING INACCESSIBLE AND UNOBSERVABLE DUE TO PROGRESSION OF THE WORK.

1 FOR COMMON MEMBER SIZES, THE SPECIES AND GRADES SHALL BE AS FOLLOWS, UNLESS NOTED

3. TIMBER EXPOSED TO WEATHER OR GROUND, OR IN CONTACT WITH CONCRETE OR MASONRY SHALL BE

5. BOLTS SHALL CONFORM TO ASTM A307. HOLES SHALL BE DRILLED PER SECTION 12.1.3 OF THE

6. LAG SCREWS AND WOOD SCREWS SHALL BE INSTALLED PER SECTIONS 12.1.4 & 12.1.5 RESPECTIVELY,

GALVANIZED, IF EXPOSED TO WEATHER OR MOISTURE. TOE-NAILS SHALL BE DRIVEN PER SECTION

12.1.6.3 OF THE 2018 ANSI/AWC NDS FOR WOOD CONSTRUCTION WITH 2018 NDS SUPPLEMENT. 8. FASTENING SHALL BE PER THE IBC MINIMUM FASTENING SCHEDULE, TABLE 2304.10.1, UNLESS NOTED

318, APPENDIX "D", AND SHALL BE ACCEPTABLE FOR BOTH CRACKED AND UNCRACKED CONCRETE.

3. ADHESIVE ANCHORS HAVE BEEN DESIGNED TO USE HILTI HIT HY 200 ADHESIVE IN CONCRETE OR SOLID

MATERIAL TO THE DEEPEST PART OF THE ANCHOR AFTER THE ANCHOR HAS BEEN DRIVEN INTO THE

6. ADHESIVE ANCHORS SHALL BE ACCEPTABLE FOR LONG-TERM LOADING. WHEN BASE MATERIAL ANCHORS FOR MISSING OR MISPLACED CAST-IN-PLANE ANCHORS. CARE SHALL BE TAKEN TO AVOID

8. STAINLESS STEEL ANCHORS ARE REQUIRED AT ALL PERMANENTLY EXPOSED WEATHER CONDITIONS.

EDITION OF THE AISC SPECIFICATIONS FOR STRUCTURAL STEEL BUILDINGS, THE AISC CODE OF STANDARD 2. WIDE FLANGE SHAPES SHALL CONFORM TO ASTM A992. STRUCTURAL TUBES SHALL CONFORM TO ASTM A500 GRADE B. ALL OTHER STRUCTURAL STEEL SHALL CONFORM TO ASTM A36.

6. ALL STRUCTURAL AND MISCELLANEOUS STEEL ITEMS SHALL RECEIVE ONE COAT OF "IRONCLAD RETARDO RUST INHIBITIVE PAINT 163" (BENJAMIN MOORE) OR APPROVED EQUAL UNLESS OTHERWISE INDICATED IN (SSPC-SP1) AND THE REMOVAL OF MILL SCALE, RUST, WELD FLUX AND SLAG BY HAND TOOL CLEANING (SSPC-SP2). PRIMER SHALL BE APPLIED AT THE MANUFACTURER'S RECOMMENDED RATE BUT NOT LESS THAN ONE GALLON PER 400 SQ.FT. THEREBY DEPOSITING A DRY FILM THICKNESS OF NOT LESS THAN 1.5 MILS. ANY SCARRED AREAS SHALL BE TOUCHED UP WITH THE SAME PAINT AFTER ERECTION. 7. ALL WELDING SHALL BE DONE BY QUALIFIED WELDERS IN ACCORDANCE WITH THE CURRENT EDITION OF

> COVER / GENERAL STRUCTU FOUNDATION PLAN FOUNDATION DETAILS FLOOR FRAMING PLANS FLOOR FRAMING DETAILS ROOF FRAMING PLAN ROOF FRAMING DETAILS

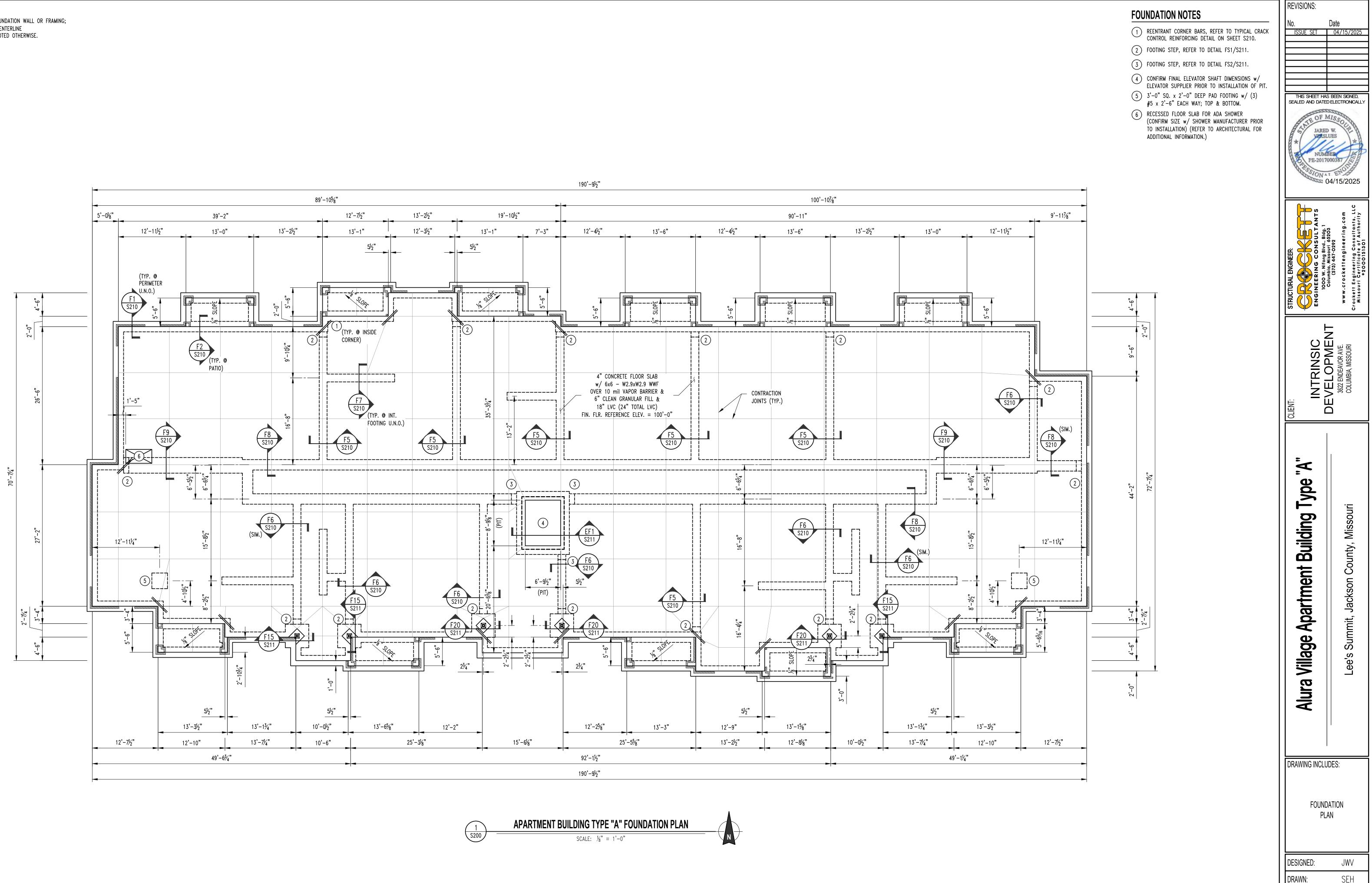
DESIGN	DATA		
2018 INTERNATIONAL BUILDING CODE / ASCE 7-1	6		
BUILDING OCCUPANCY CATEGORY		I	
ROOF LOAD DATA			
LIVE LOAD		20	
ASPHALT SHINGLES + FELT		4.0	
5/8" OSB ROOF SHEATHING		2.5	
PRE-ENGINEERED WOOD TRUSSES @ 2-0" O.C	2.	4.0	
INSULATION (BLOWN) MECHANICAL ALLOWANCE		1.5	
5/8" GYP, CEILING		5.0 3.0	
SOLAR		5.0	
TOTAL TO TRUSSES	-		lbs/sq.ft
FLOOR LOAD DATA			
LIVE LOAD (COMMON AREA)		40 (100)	
3/8" UNDERLAYMENT & 1-1/8" GYPCRETE		16	
3/4" SHEATHING		4	
MECHANICAL ALLOWANCE		4	
5/8" GYP. CEILING		3	
FLOOR STRUCTURE TOTAL TO FLOOR TRUSS	ä.	70 (130)	North Control of the
		10(30)	lbs/sq.ft
RAIN LOADING DATA 15 MINUTE RAIN INTENSITY		7.49	in/hr
60 MINUTE RAIN INTENSITY		3.52	in/hr
ROOF SNOW LOAD DATA* (*UNBALANCED & DI IN ADDITION TO UNI			
	CHINECAD, WILL		
$p_a = C_e =$		1.0	lbs/sq.ft
/ <sub>s</sub> =		1.0	
C, =		1.0	
$p_f =$			lbs/sq.ft
WIND DESIGN DATA			
V <sub>utt</sub> =		109	M.P.H. (3-SECOND GUST)
RISK CATEGORY		I	
EXPOSURE		С	
INTERNAL PRESSURE COEFFICIENT =		± 0.18	
MAXIMUM COMPONENTS & CLADDING WIND	•	/-30.33	lbs/sq.ft
EARTHQUAKE DESIGN DATA			
RISK CATEGORY		I	
<i>I<sub>E</sub></i> =		1.0	
<i>S</i> <sub><i>S</i></sub> <i>=</i>		0.1	
SITE CLASS		0.068	
		C 0.086	
S <sub>DS</sub> = S <sub>DI</sub> =		0.086	
S DI - SEISMIC DESIGN CATEGORY		0.000 B	
BASIC SEISMIC-FORCE-RESISTING SYSTEM = LIGHT-FRAME (WOOD) WALLS SHEATHI SHEAR RESISTANCE	ED WITH WOOD S		RAL PANELS RATED FOR
R=		6.5	
$R = \Omega_o =$		6.5 3.0	
$C_d =$		4.0	
DESIGN BASE SHEAR	V=	0.013 W	
EQUIVALENT LATERAL FORCE PROCEDURE			
NET ALLOWABLE SOIL BEARING (**PER GEOTECHNICAL REPORT PREPARED BY O	LSSON, INC. DATE		lbs/sq.ft** ST 22, 2019)
INDEX OF SHEETS			
DATA	S100		
	S200		
	S210-S211		
	S300-S500		
	CE10 CE11		

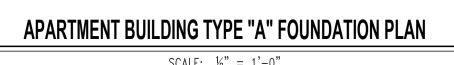
S510-S511

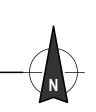
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S600

DIENCING DEVELOPMENT DEVELOPM	RE	EVISIONS:	
STRUCTURAL ENGINEERING COUNTY, MISSOURI COUNTY, MISSOURI COUNTY	No		
DEVELOPMENT COLOMIC CONTRACTOR CONTRACT	IE		
STRUCTURAL ENGINEERING COUNTY, MISSOURI COUNTY, MISSOURI COUNTY			
STRUCTURAL ENGINEERING COUNTY, MISSOURI COUNTY, MISSOURI COUNTY			
Alura Village Apartment Building Type "A" Alura Village Apartment Building Type "A" CIENT Alura Village Apartment Building Type "A" CIENT Alura Village Apartment Building Type "A" CIENT Alura Village Apartment Building Type "A" CIENT CIEN	- Contraction of the contraction	ALED AND DATE	DELECTRONICALLY
Interview of the second		NSULTANTS	i 65203 292 neering.com onsultants, LLC of Authority 301
Image: Additional system       Image: Additional system         Image: Additional system	CLIENT.		<b>UEVELOPMEN</b> 3622 ENDEAVOR AVE. COLUMBIA, MISSOURI
GENERAL STRUCTURAL DATA DESIGNED: JWV DRAWN: SEH PROJECT NO.: 230286 SHEET:		<b>Building Type</b>	Lee's Summit, Jackson County, Missouri
DRAWN: SEH PROJECT NO.: 230286 SHEET:	DF	GEN	ERAL
PROJECT NO.: 230286 SHEET:		ESIGNED:	JWV
SHEET:			
	PF	ROJECT NO.:	230286
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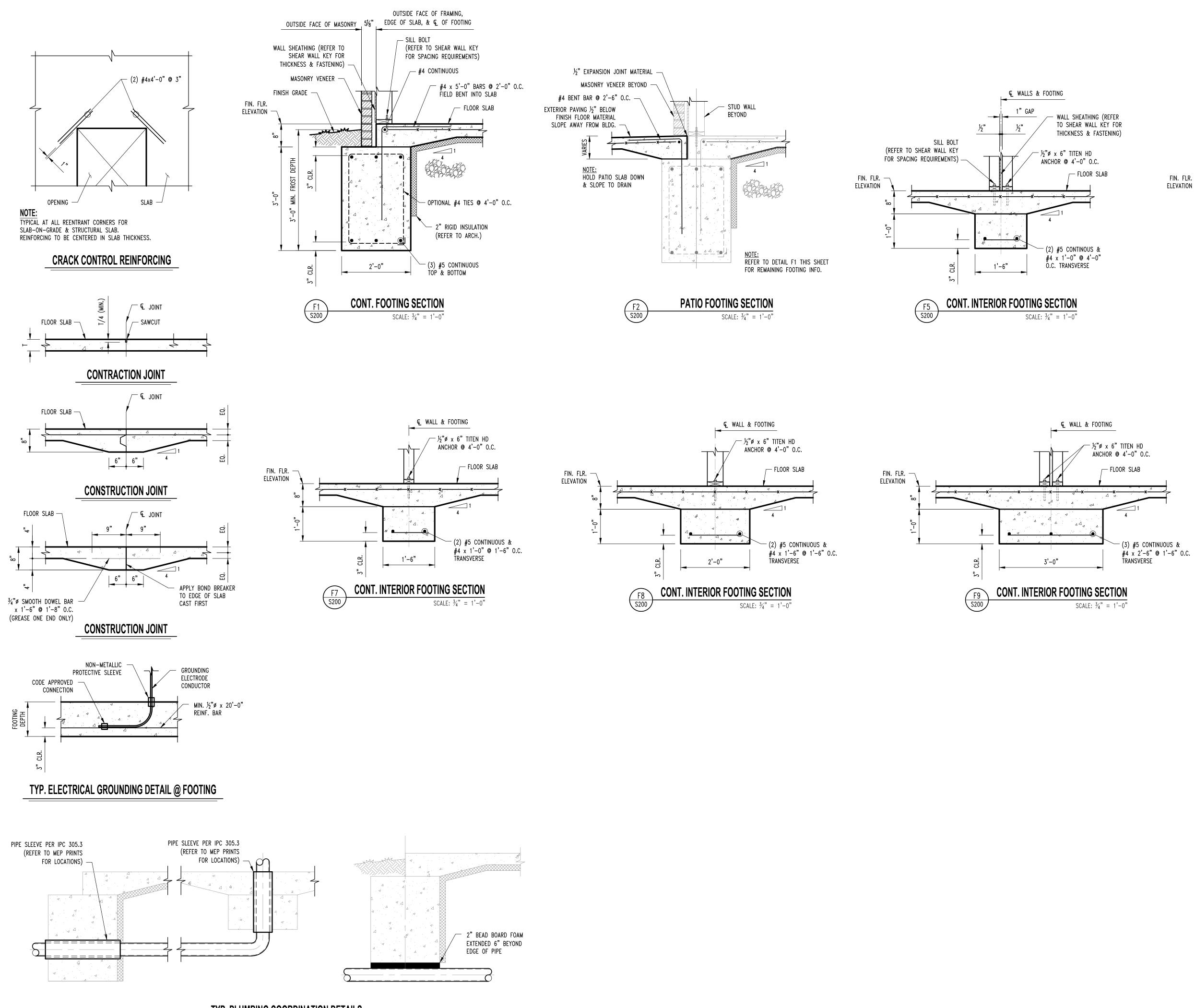




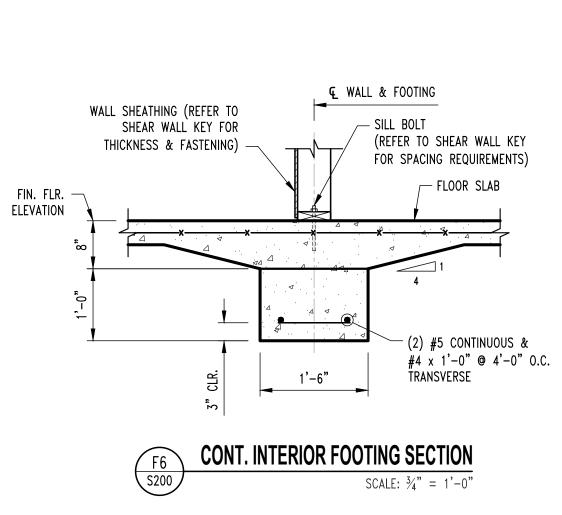
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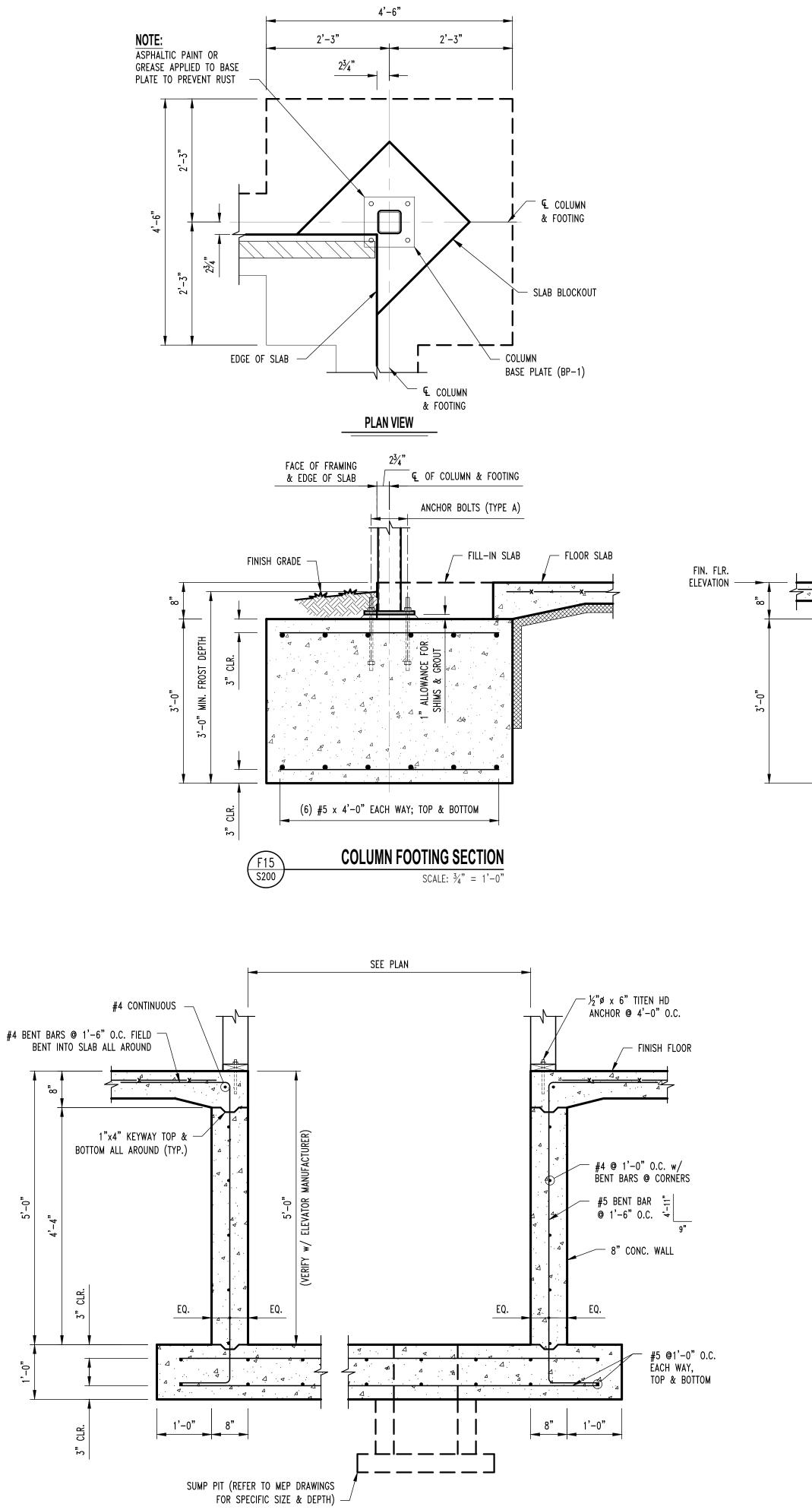
SHEET:



TYP. PLUMBING COORDINATION DETAILS



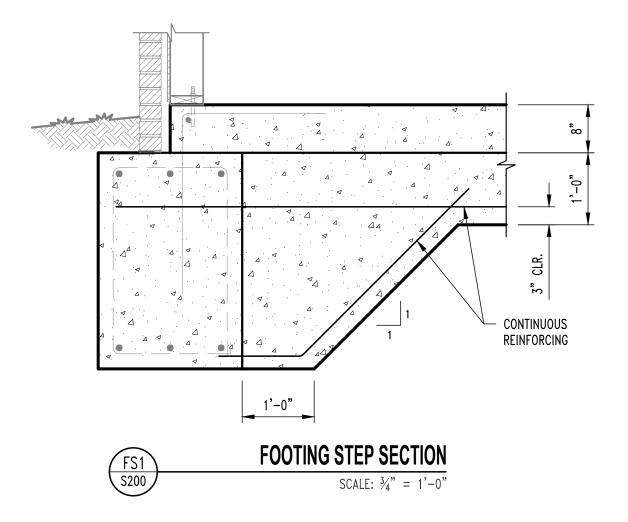
REVISIONS:	
No. ISSUE SET	Date 04/15/2025
THIS SHEET HA SEALED AND DATE	S BEEN SIGNED,
STATE OF I JAREI VELSI * NUM PE-2017	BER OUSSING ADALLA
STRUCTURAL ENGINEER:	Columbia, Missouri 65203 (573) 447-0292 www.crockettengineering.com Crockett Engineering Consultants, LLC Missouri Certificate of Authority #2000151301
CLIENT: INTRINSIC	<b>UEVELOPMENI</b> 3622 ENDEAVOR AVE. COLUMBIA, MISSOURI
a Village Apartment Building Type "A"	ee's Summit, Jackson County, Missouri
Alura	
FOUNE	JDES:
Foune Det	JDES: JDES: DATION AILS
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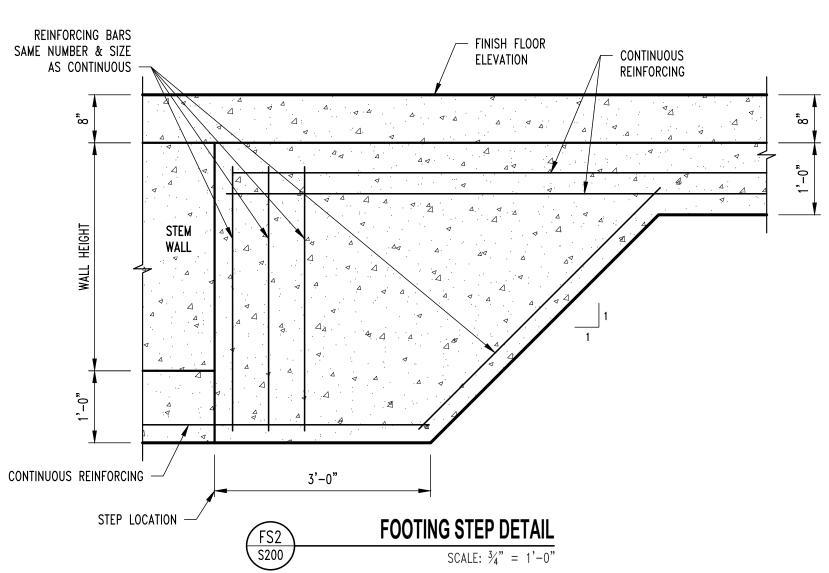


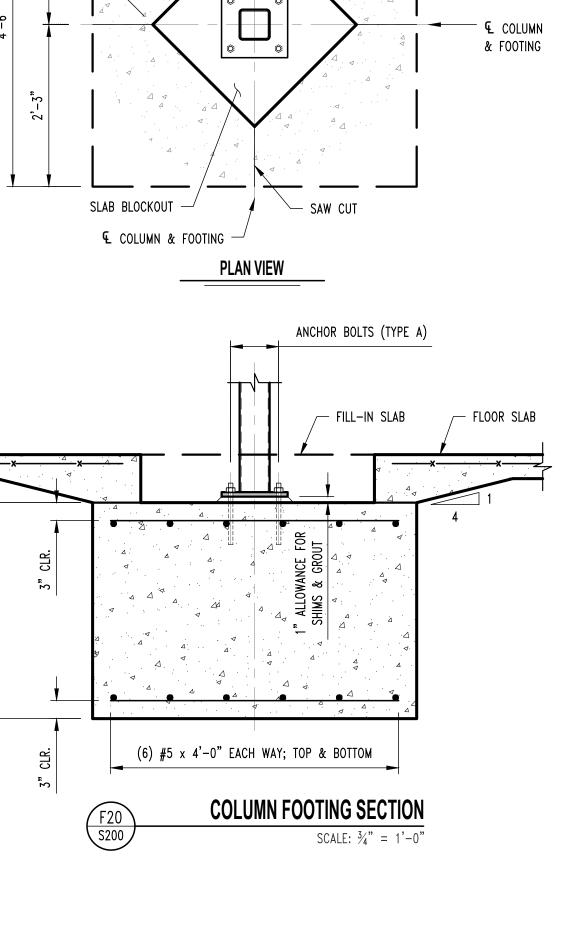
**ELEVATOR PIT SECTION** SCALE:  $\frac{3}{4}$ " = 1'-0"

EF1 S200

NOTE: COORDINATE DIMENSIONS w/ ELEVATOR MANUFACTURER PRIOR TO INSTALL





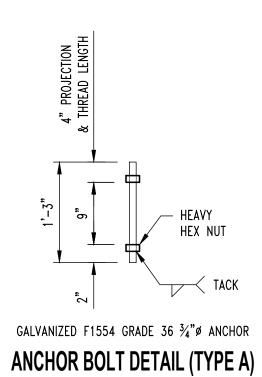


4'-6"

2'-3"

2'-3"

— COLUMN BASE PLATE (BP-1)



4" 4"

BASE PLATE (BP-1)

⊕ -

11/2"

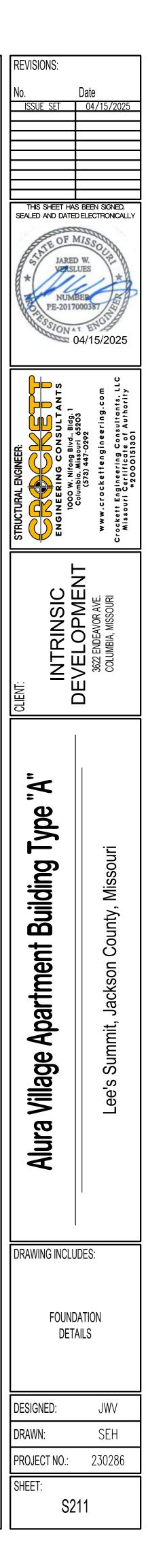
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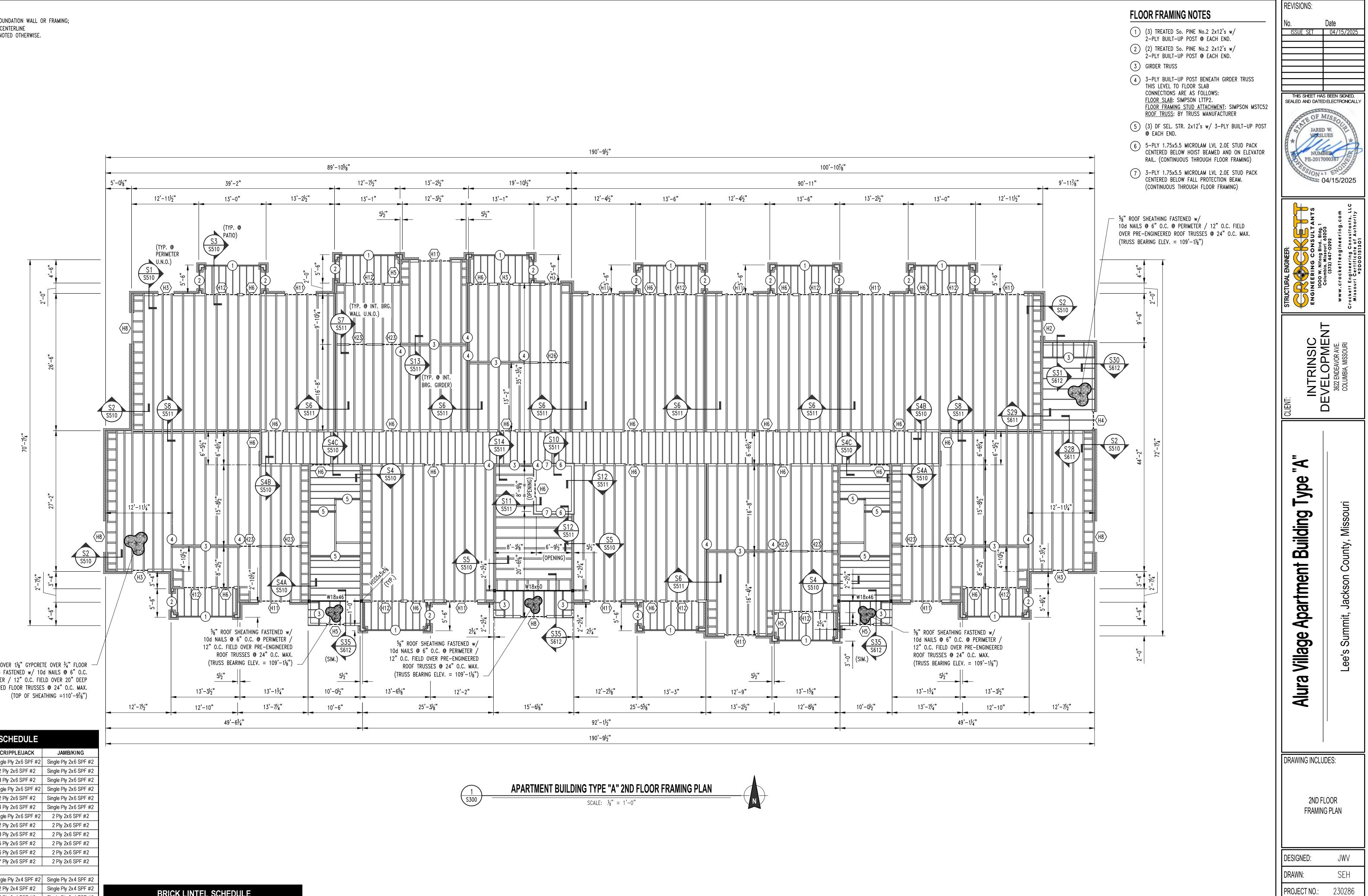
12"

HSS5x5 COL.

1½"

⊊ <sup>15</sup>⁄16"ø HOLES





$\frac{3}{8}$ " UNDERLAYMENT OVER 1 $\frac{1}{8}$ " GYPCRETE OVER $\frac{3}{4}$ " FLOOR -
SHEATHING FASTENED w/ 10d NAILS @ 6" O.C.
PERIMETER / 12" O.C. FIELD OVER 20" DEEP
PRE-ENGINEERED FLOOR TRUSSES @ 24" O.C. MAX.
(TOP OF SHEATHING $=110'-9\%$ ")

LABEL	HEADER	CRIPPLE/JACK	JAMB/KING
"H1"	2 Ply 2x6 SPF #2	Single Ply 2x6 SPF #2	Single Ply 2x6 SPF #2
"H2"	2 Ply 2x6 SPF #2	2 Ply 2x6 SPF #2	Single Ply 2x6 SPF #2
"H3"	2 Ply 2x6 SPF #2	3 Ply 2x6 SPF #2	Single Ply 2x6 SPF #2
"H4"	2 Ply 2x8 Doug Fir #2	Single Ply 2x6 SPF #2	Single Ply 2x6 SPF #2
"H5"	2 Ply 2x8 Doug Fir #2	2 Ply 2x6 SPF #2	Single Ply 2x6 SPF #2
"H6"	2 Ply 2x8 Doug Fir #2	4 Ply 2x6 SPF #2	Single Ply 2x6 SPF #2
"H7"	2 Ply 2x10 Doug Fir Sel. Struct	Single Ply 2x6 SPF #2	2 Ply 2x6 SPF #2
"H8"	2 Ply 2x10 Doug Fir Sel. Struct	2 Ply 2x6 SPF #2	2 Ply 2x6 SPF #2
"H9"	2 Ply 2x10 Doug Fir Sel. Struct	3 Ply 2x6 SPF #2	2 Ply 2x6 SPF #2
"H10"	2 Ply 2x10 Doug Fir Sel. Struct	5 Ply 2x6 SPF #2	2 Ply 2x6 SPF #2
"H11"	2 Ply 2x10 Doug Fir Sel. Struct	6 Ply 2x6 SPF #2	2 Ply 2x6 SPF #2
"H12"	2 Ply 2x10 Doug Fir Sel. Struct	7 Ply 2x6 SPF #2	2 Ply 2x6 SPF #2
"H21"	2 Ply 2x8 Doug Fir #2	Single Ply 2x4 SPF #2	Single Ply 2x4 SPF #2
"H22"	2 Ply 2x8 Doug Fir #2	2 Ply 2x4 SPF #2	Single Ply 2x4 SPF #2
"H23"	2 Ply 2x8 Doug Fir #2	3 Ply 2x4 SPF #2	Single Ply 2x4 SPF #2
"H24"	2 Ply 2x10 Doug Fir Sel. Struct	2 Ply 2x4 SPF #2	Single Ply 2x4 SPF #2
"H25"	2 Ply 2x10 Doug Fir Sel. Struct	3 Ply 2x4 SPF #2	Single Ply 2x4 SPF #2
"H26"	2 Ply 2x10 Doug Fir Sel. Struct	4 Ply 2x4 SPF #2	Single Ply 2x4 SPF #2

BRICK LINTEL SCHEDULE		
LENGTH	MEMBER SIZE (GALVANIZED)	
L ≤ 4'-0"	L4x4x3/8 WITH 6" BEARING EACH END	
L ≤ 6'-6"	L6x4x3/8 (LLV) WTH 6" BEARING EACH END	





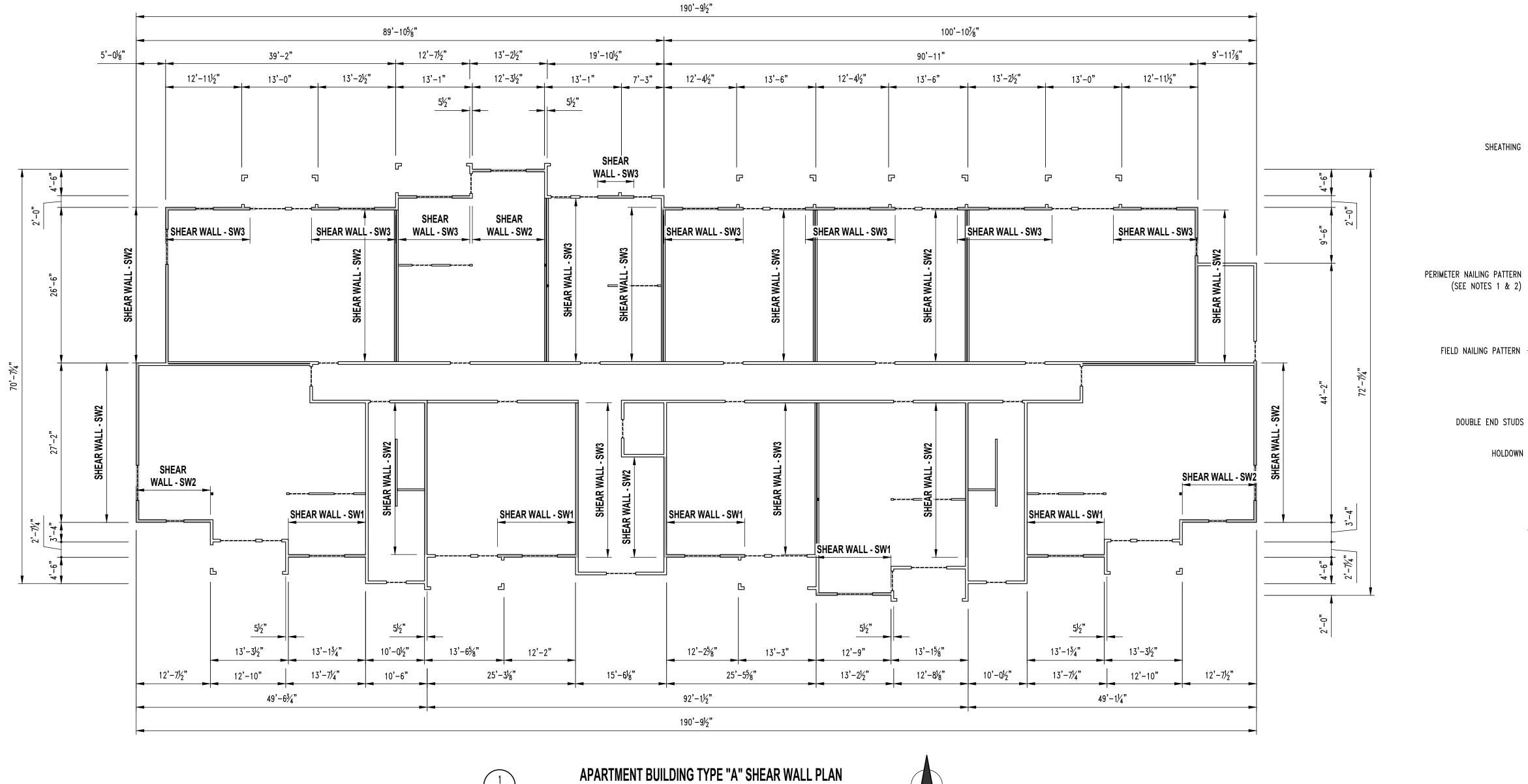
SHEET:

S300

### NOTE:

ALL DIMENSIONS ARE FROM FACE OF FOUNDATION WALL OR FRAMING; EDGE OF SLAB OR TRUSS/RAFTER; OR CENTERLINE

OF COLUMN, BEAM, OR JOIST UNLESS NOTED OTHERWISE.



SCALE:  $\frac{3}{32}$ " = 1'-0"

## SHEAR WALL KEY

<u>SW1 SHEAR WALL</u> FIRST FLOOR

- 7/16" OSB SHEATHING FASTENED WITH 8D NAILS @ 4" O.C. @ PERIMETER / 12" O.C. FIELD
- 1/2" DIAMETER X 6" SIMPSON TITEN HD ANCHOR SCREWS @ 1'-6" O.C. REQUIRES SIMPSON HDU8-SDS 2.5 HOLDOWN FASTENED TO 3-PLY STUDS W/ (20) ¼" X
- 2½" SDS STUD BOLTS W/ 7/8" DIAMETER A307 THREADED ROD W/ 16" TOTAL (8" INTO FOOTING) SIMPSON "AT-3G" EPOXY EMBEDMENT AT EACH END OF THE SHEAR WALL SECOND FLOOR

S300A

SW2 SHEAR WALL

FIRST FLOOR

FIELD

 7/16" OSB SHEATHING FASTENED WITH 8D NAILS @ 4" O.C. @ PERIMETER / 12" O.C. FIELD

- FASTEN SILL PLATE W/ SIMPSON SDWH 4" SCREWS @ 0'-6" O.C. OR (4) @ EACH TRUSS • REQUIRES SIMPSON MSTC52 STRAP THE FASTENED TO 3-PLY STUDS W/ (44) 12D NAILS AT EACH END OF THE SHEAR WALL
- THIRD FLOOR

7/16" OSB SHEATHING FASTENED WITH 8D NAILS @ 4" O.C. @ PERIMETER / 12" O.C.

- FIELD • FASTEN SILL PLATE W/ SIMPSON SDWH 4" SCREWS @ 1'-0" O.C. OR (2) @ EACH TRUSS
- REQUIRES SIMPSON MSTC40 STRAP TIE FASTENED TO 3-PLY STUDS W/ (28) 12D NAILS
- AT EACH END OF THE SHEAR WALL FOURTH FLOOR 7/16" OSB SHEATHING FASTENED WITH 8D NAILS @ 4" O.C. @ PERIMETER / 12" O.C.
- FIELD
- FASTEN SILL PLATE W/ SIMPSON SDWH 4" SCREWS @ 1'-0" O.C. OR (2) @ EACH TRUSS • REQUIRES SIMPSON MSTC40 STRAP THE FASTENED TO 3-PLY STUDS W/ (28) 12D NAILS AT EACH END OF THE SHEAR WALL

 REQUIRES SIMPSON HDU5-SDS2.5 HOLDOWN FASTENED TO 3-PLY STUDS W/ (14) ¼" X 2½" SDS SCREWS W/ 5/8" DIAMETER A307 THREADED ROD W/ 14" TOTAL (6" INTO FOOTING) SIMPSON "AT-3G" EPOXY EMBEDMENT AT EACH END OF THE SHEAR WALL SECOND FLOOR

• 7/16" OSB SHEATHING FASTENED WITH 8D NAILS @ 4" O.C. @ PERIMETER / 12" O.C. FIELD

• FASTEN SILL PLATE W/ SIMPSON SDWH 4" SCREWS @ 1'-0" O.C. OR (2) @ EACH TRUSS REQUIRES SIMPSON MSTC40 STRAP TIE FASTENED TO 3-PLY STUDS W/ (28) 12D NAILS AT EACH END OF THE SHEAR WALL

THIRD FLOOR • 7/16" OSB SHEATHING FASTENED WITH 8D NAILS @ 4" O.C. @ PERIMETER / 12" O.C.

- FIELD • FASTEN SILL PLATE W/ SIMPSON SDWH 4" SCREWS @ 1'-0" O.C. OR (2) @ EACH TRUSS
- REQUIRES SIMPSON MSTC40 STRAP TIE FASTENED TO 3-PLY STUDS W/ (28) 12D NAILS AT EACH END OF THE SHEAR WALL

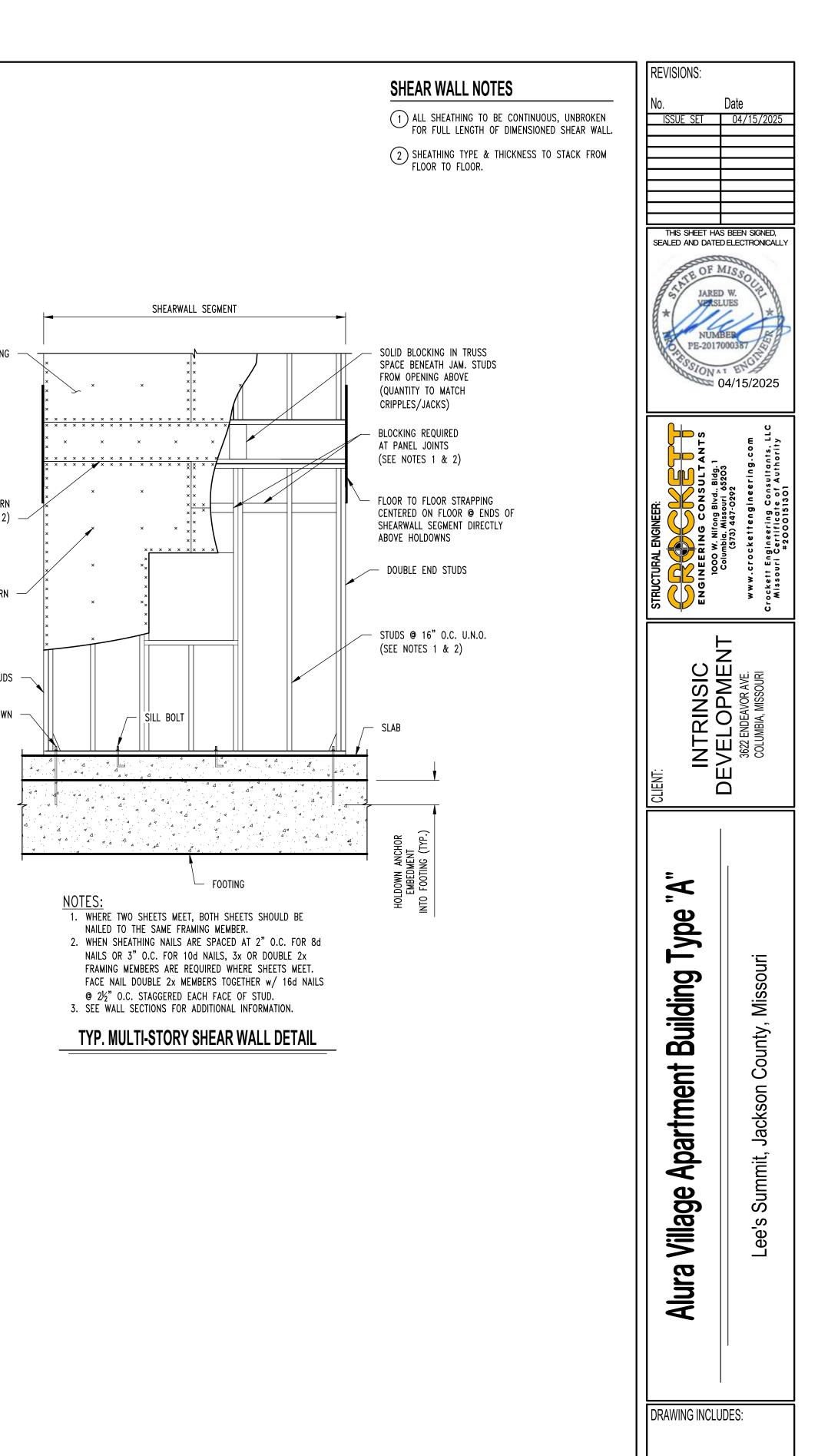
FOURTH FLOOR • 7/16" OSB SHEATHING FASTENED WITH 8D NAILS @ 4" O.C. @ PERIMETER / 12" O.C.

- FIELD • FASTEN SILL PLATE W/ SIMPSON SDWH 4" SCREWS @ 1'-0" O.C. OR (2) @ EACH TRUSS
- REQUIRES SIMPSON MSTC40 STRAP TIE FASTENED TO 3-PLY STUDS W/ (28) 12D NAILS AT EACH END OF THE SHEAR WALL

SW3 SHEAR WALL • 7/16" OSB SHEATHING FASTENED WITH 8D NAILS @ 4" O.C. @ PERIMETER / 12" O.C. • 1/2" DIAMETER X 6" SIMPSON TITEN HD ANCHOR SCREWS @ 1'-6" O.C.

FIRST FLOOR

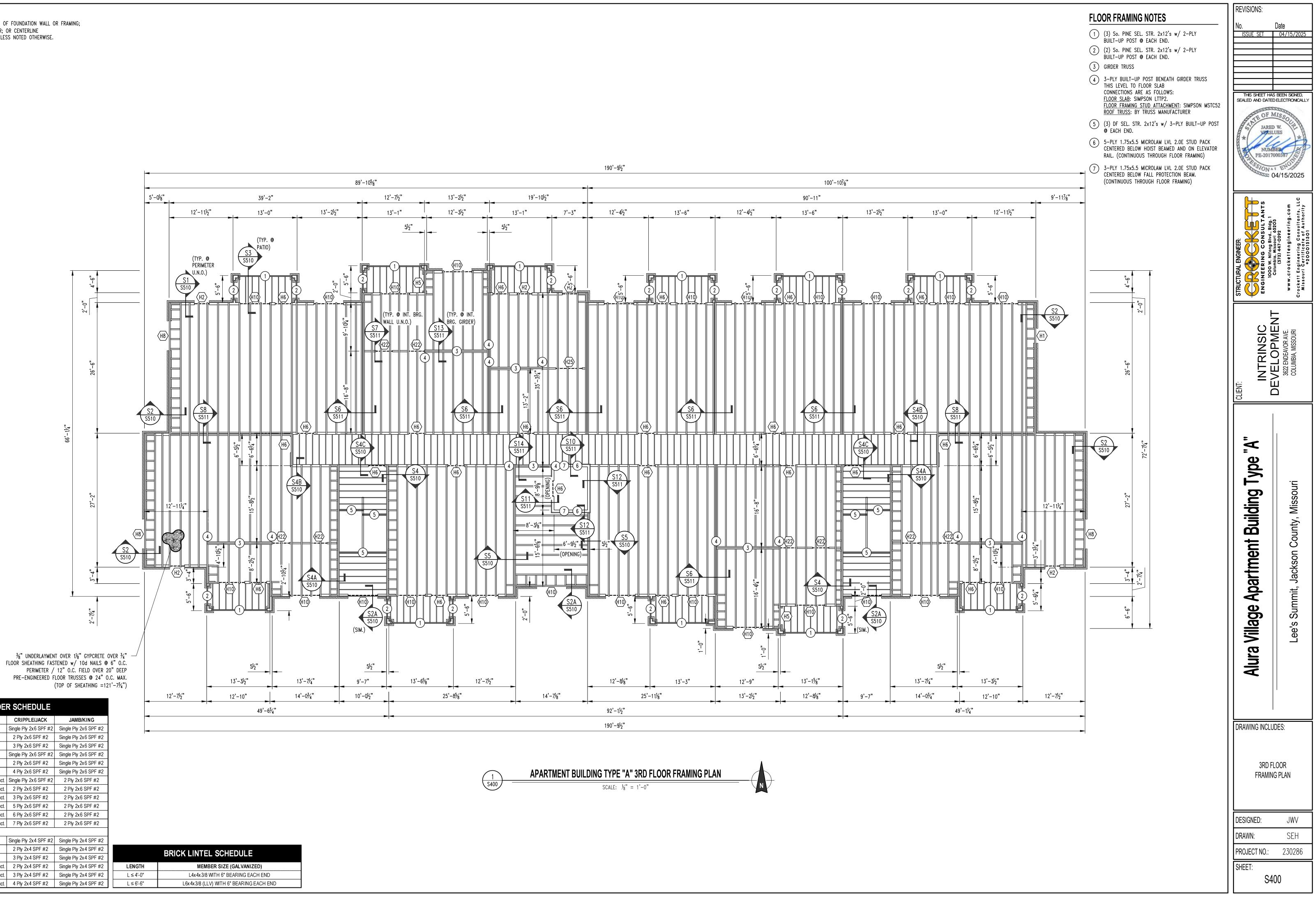
- 7/16" OSB SHEATHING FASTENED WITH 8D NAILS @ 4" O.C. @ PERIMETER / 12" O.C. FIELD
- 1/2" DIAMETER X 6" SIMPSON TITEN HD ANCHOR SCREWS @ 2'-0" O.C. REQUIRES SIMPSON DTT2Z-SDS 2.5 HOLDOWN FASTENED TO 3-PLY STUDS W/ (8) ¼" X 2½" SDS SCREWS W/ 1/2" DIAMETER A307 THREADED ROD W/ 14" TOTAL (6" INTO FOOTING) SIMPSON "AT-3G" EPOXY EMBEDMENT AT EACH END OF THE SHEAR WALL
- SECOND FLOOR • 7/16" OSB SHEATHING FASTENED WITH 8D NAILS @ 4" O.C. @ PERIMETER / 12" O.C.
- FIELD
- FASTEN SILL PLATE W/ SIMPSON SDWH 4" SCREWS @ 1'-0" O.C. OR (2) @ EACH TRUSS REQUIRES SIMPSON MISTC40 STRAP THE FASTENED TO 3-PLY STUDS W/ (28) 12D NAILS AT EACH END OF THE SHEAR WALL
- THIRD FLOOR • 7/16" OSB SHEATHING FASTENED WITH 8D NAILS @ 4" O.C. @ PERIMETER / 12" O.C.
- FIELD • FASTEN SILL PLATE W/ SIMPSON SDWH 4" SCREWS @ 1'-0" O.C. OR (2) @ EACH TRUSS
- REQUIRES SIMPSON MSTC40 STRAP TIE FASTENED TO 3-PLY STUDS W/ (28) 12D NAILS AT EACH END OF THE SHEAR WALL
- FOURTH FLOOR • 7/16" OSB SHEATHING FASTENED WITH 8D NAILS @ 4" O.C. @ PERIMETER / 12" O.C.
- FIELD • FASTEN SILL PLATE W/ SIMPSON SDWH 4" SCREWS @ 1'-0" O.C. OR (2) @ EACH TRUSS
- REQUIRES SIMPSON MSTC40 STRAP TIE FASTENED TO 3-PLY STUDS W/ (28) 12D NAILS AT EACH END OF THE SHEAR WALL
- TYPICAL WALL UNLESS NOTED
  - 7/16" OSB SHEATHING FASTENED WITH 8D NAILS @ 4" O.C. @ PERIMETER / 12" O.C. FIELD
  - 1/2" DIAMETER X 6" SIMPSON TITEN HD ANCHOR SCREWS @ 3'-0" O.C. • FASTEN SILL PLATE W/ SIMPSON SOWH 4" SCREWS @ 1'-0" O.C. OR (2) @ EACH TRUSS



SHEAR WALL PLAN	

DESIGNED:	JWV
DRAWN:	SEH
PROJECT NO.:	230286
SHEET:	

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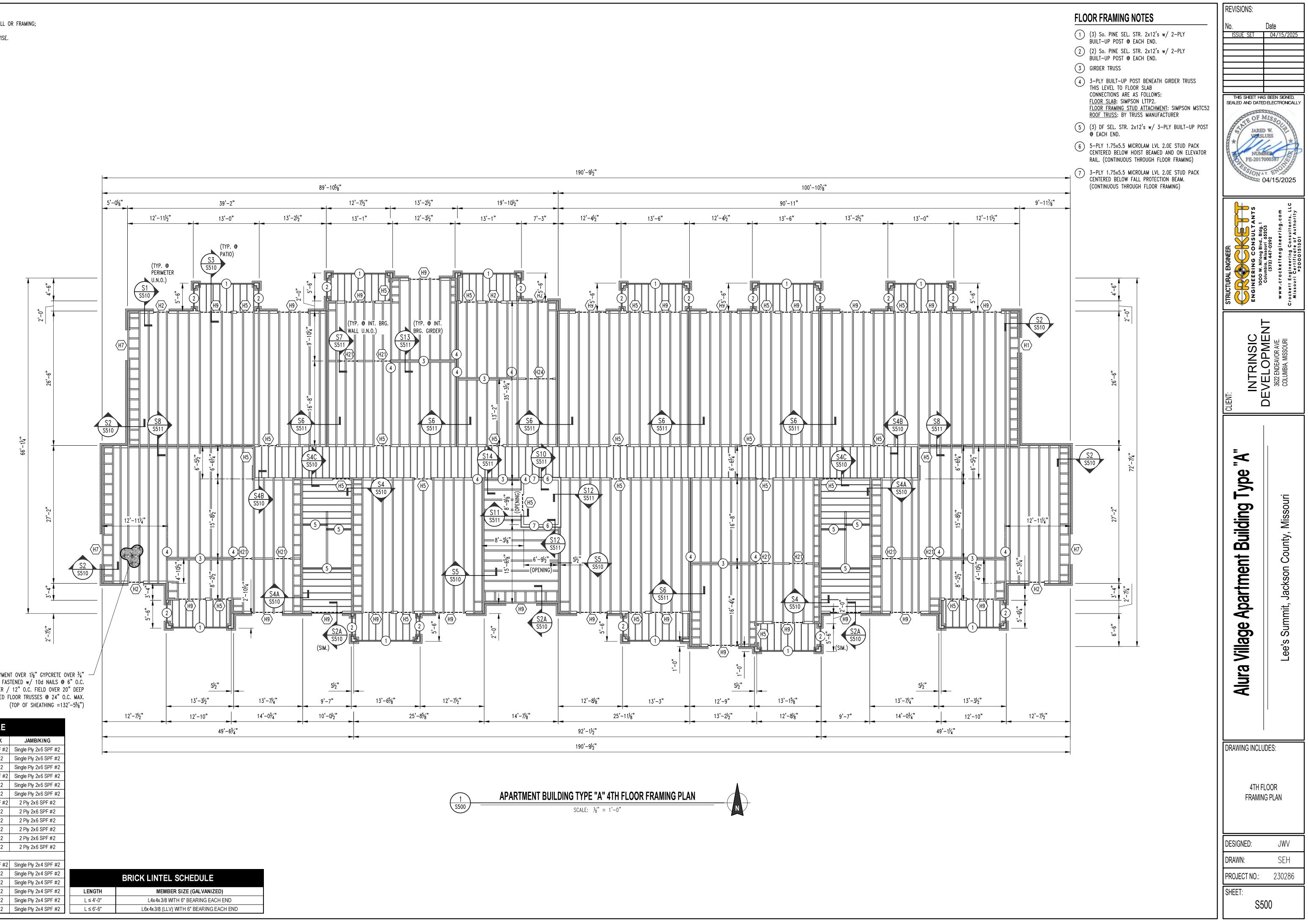


LABEL	HEADER	CRIPPLE/JACK	JAMB/KING
"H1"	2 Ply 2x6 SPF #2	Single Ply 2x6 SPF #2	Single Ply 2x6 SPF #2
"H2"	2 Ply 2x6 SPF #2	2 Ply 2x6 SPF #2	Single Ply 2x6 SPF #2
"H3"	2 Ply 2x6 SPF #2	3 Ply 2x6 SPF #2	Single Ply 2x6 SPF #2
"H4"	2 Ply 2x8 Doug Fir #2	Single Ply 2x6 SPF #2	Single Ply 2x6 SPF #2
"H5"	2 Ply 2x8 Doug Fir #2	2 Ply 2x6 SPF #2	Single Ply 2x6 SPF #2
"H6"	2 Ply 2x8 Doug Fir #2	4 Ply 2x6 SPF #2	Single Ply 2x6 SPF #2
"H7"	2 Ply 2x10 Doug Fir Sel. Struct	Single Ply 2x6 SPF #2	2 Ply 2x6 SPF #2
"H8"	2 Ply 2x10 Doug Fir Sel. Struct	2 Ply 2x6 SPF #2	2 Ply 2x6 SPF #2
"H9"	2 Ply 2x10 Doug Fir Sel. Struct	3 Ply 2x6 SPF #2	2 Ply 2x6 SPF #2
"H10"	2 Ply 2x10 Doug Fir Sel. Struct	5 Ply 2x6 SPF #2	2 Ply 2x6 SPF #2
"H11"	2 Ply 2x10 Doug Fir Sel. Struct	6 Ply 2x6 SPF #2	2 Ply 2x6 SPF #2
"H12"	2 Ply 2x10 Doug Fir Sel. Struct	7 Ply 2x6 SPF #2	2 Ply 2x6 SPF #2
"H21"	2 Ply 2x8 Doug Fir #2	Single Ply 2x4 SPF #2	Single Ply 2x4 SPF #2
"H22"	2 Ply 2x8 Doug Fir #2	2 Ply 2x4 SPF #2	Single Ply 2x4 SPF #2
"H23"	2 Ply 2x8 Doug Fir #2	3 Ply 2x4 SPF #2	Single Ply 2x4 SPF #2
"H24"	2 Ply 2x10 Doug Fir Sel. Struct	2 Ply 2x4 SPF #2	Single Ply 2x4 SPF #2
"H25"	2 Ply 2x10 Doug Fir Sel. Struct	3 Ply 2x4 SPF #2	Single Ply 2x4 SPF #2
"H26"	2 Ply 2x10 Doug Fir Sel. Struct	4 Ply 2x4 SPF #2	Single Ply 2x4 SPF #2

	BRICK LINTEL SCHEDULE
LENGTH	MEMBER SIZE (GALVANIZED)
L ≤ 4'-0"	L4x4x3/8 WITH 6" BEARING EACH END
L ≤ 6'-6"	L6x4x3/8 (LLV) WITH 6" BEARING EACH END



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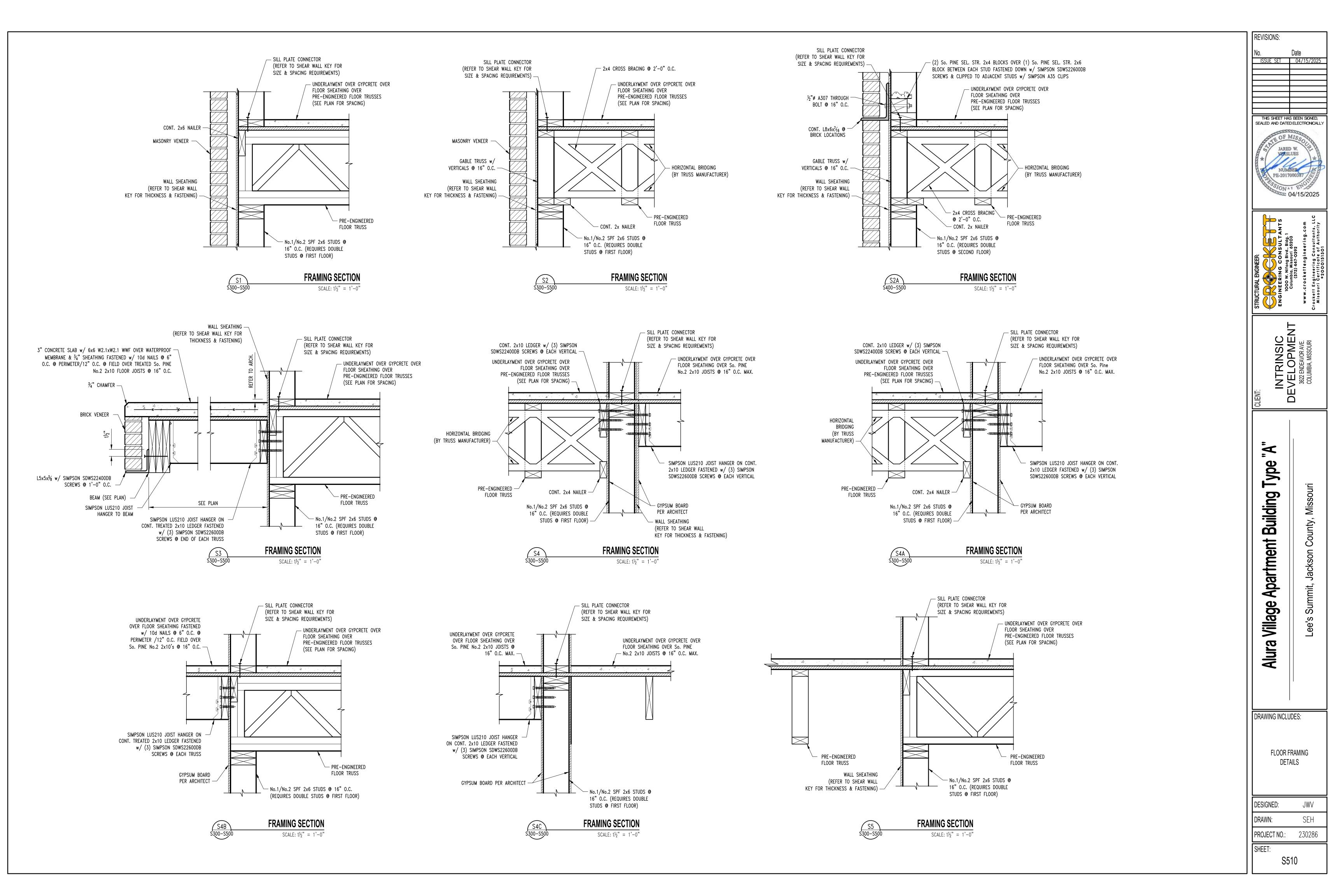


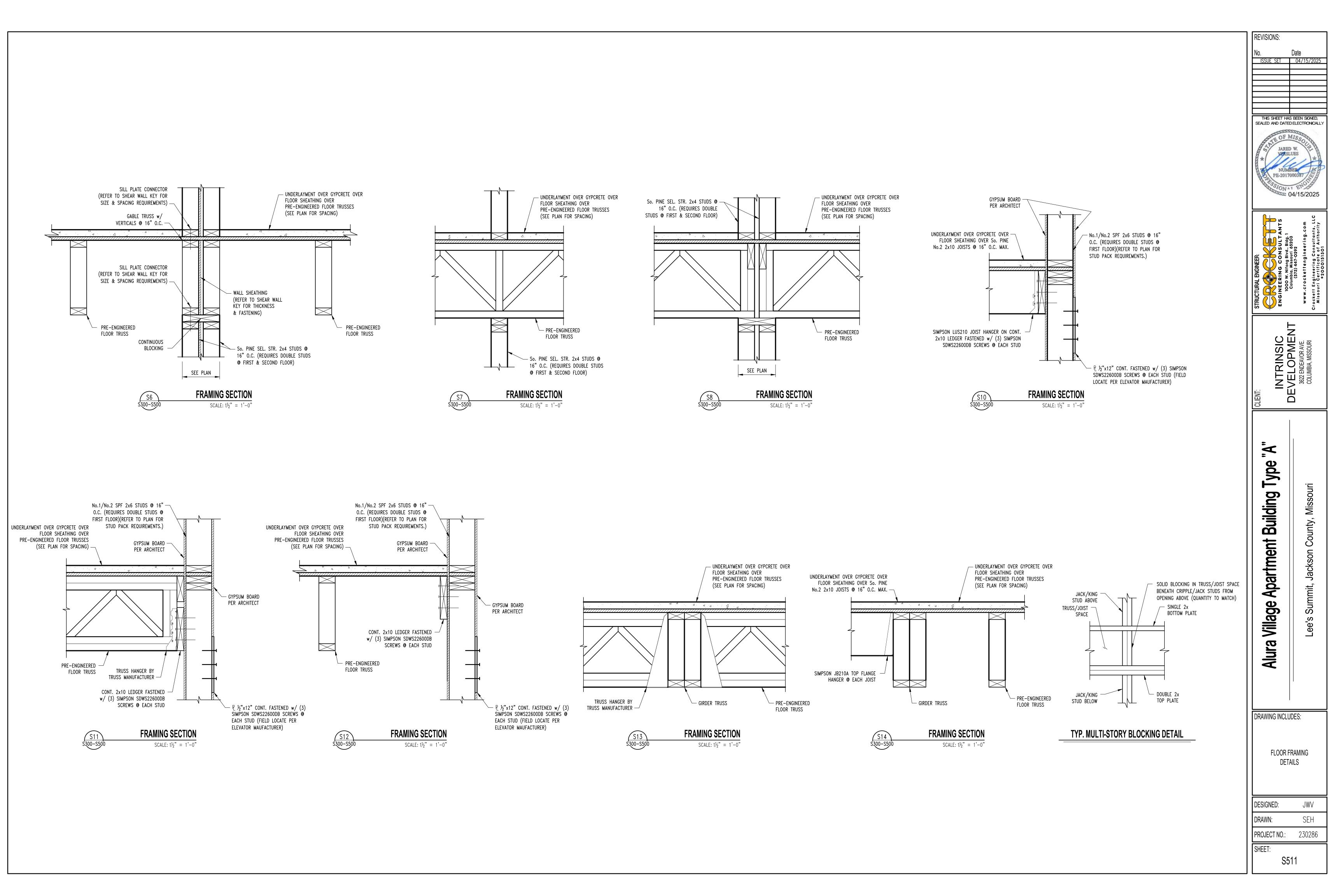
$\frac{3}{8}$ UNDERLAYMENT OVER 1 $\frac{1}{8}$ GYPCRETE OVER $\frac{3}{4}$	· -
FLOOR SHEATHING FASTENED w/ 10d NAILS @ 6" 0.C	•
PERIMETER / 12" O.C. FIELD OVER 20" DEEI	נ
PRE-ENGINEERED FLOOR TRUSSES @ 24" O.C. MAX	
(TOP OF SHEATHING =132'-5%"	)
(	<i>,</i>

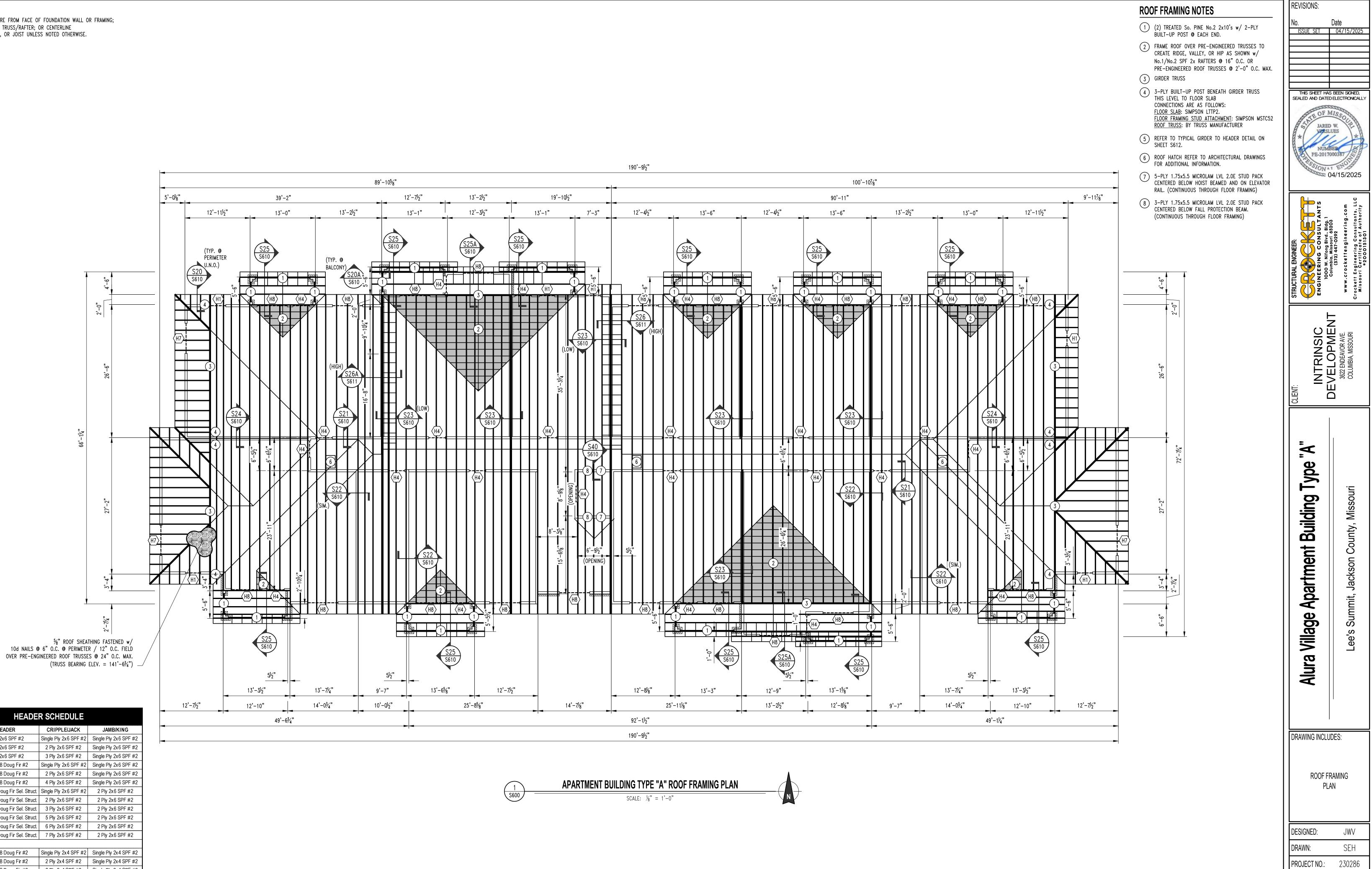
ABEL	HEADER	CRIPPLE/JACK	JAMB/KING
"H1"	2 Ply 2x6 SPF #2	Single Ply 2x6 SPF #2	Single Ply 2x6 SPF #2
"H2"	2 Ply 2x6 SPF #2	2 Ply 2x6 SPF #2	Single Ply 2x6 SPF #2
"H3"	2 Ply 2x6 SPF #2	3 Ply 2x6 SPF #2	Single Ply 2x6 SPF #2
"H4"	2 Ply 2x8 Doug Fir #2	Single Ply 2x6 SPF #2	Single Ply 2x6 SPF #2
"H5"	2 Ply 2x8 Doug Fir #2	2 Ply 2x6 SPF #2	Single Ply 2x6 SPF #2
"H6"	2 Ply 2x8 Doug Fir #2	4 Ply 2x6 SPF #2	Single Ply 2x6 SPF #2
"H7"	2 Ply 2x10 Doug Fir Sel. Struct	Single Ply 2x6 SPF #2	2 Ply 2x6 SPF #2
"H8"	2 Ply 2x10 Doug Fir Sel. Struct	2 Ply 2x6 SPF #2	2 Ply 2x6 SPF #2
"H9"	2 Ply 2x10 Doug Fir Sel. Struct	3 Ply 2x6 SPF #2	2 Ply 2x6 SPF #2
"H10"	2 Ply 2x10 Doug Fir Sel. Struct	5 Ply 2x6 SPF #2	2 Ply 2x6 SPF #2
"H11"	2 Ply 2x10 Doug Fir Sel. Struct	6 Ply 2x6 SPF #2	2 Ply 2x6 SPF #2
"H12"	2 Ply 2x10 Doug Fir Sel. Struct	7 Ply 2x6 SPF #2	2 Ply 2x6 SPF #2
"H21"	2 Ply 2x8 Doug Fir #2	Single Ply 2x4 SPF #2	Single Ply 2x4 SPF #2
"H22"	2 Ply 2x8 Doug Fir #2	2 Ply 2x4 SPF #2	Single Ply 2x4 SPF #2
"H23"	2 Ply 2x8 Doug Fir #2	3 Ply 2x4 SPF #2	Single Ply 2x4 SPF #2
"H24"	2 Ply 2x10 Doug Fir Sel. Struct	2 Ply 2x4 SPF #2	Single Ply 2x4 SPF #2
"H25"	2 Ply 2x10 Doug Fir Sel. Struct	3 Ply 2x4 SPF #2	Single Ply 2x4 SPF #2
"H26"	2 Ply 2x10 Doug Fir Sel. Struct	4 Ply 2x4 SPF #2	Single Ply 2x4 SPF #2

BRICK LINTEL SCHEDULE		
LENGTH	MEMBER SIZE (GALVANIZED)	
L ≤ 4'-0"	L4x4x3/8 WITH 6" BEARING EACH END	
L ≤ 6'-6"	L6x4x3/8 (LLV) WITH 6" BEARING EACH END	







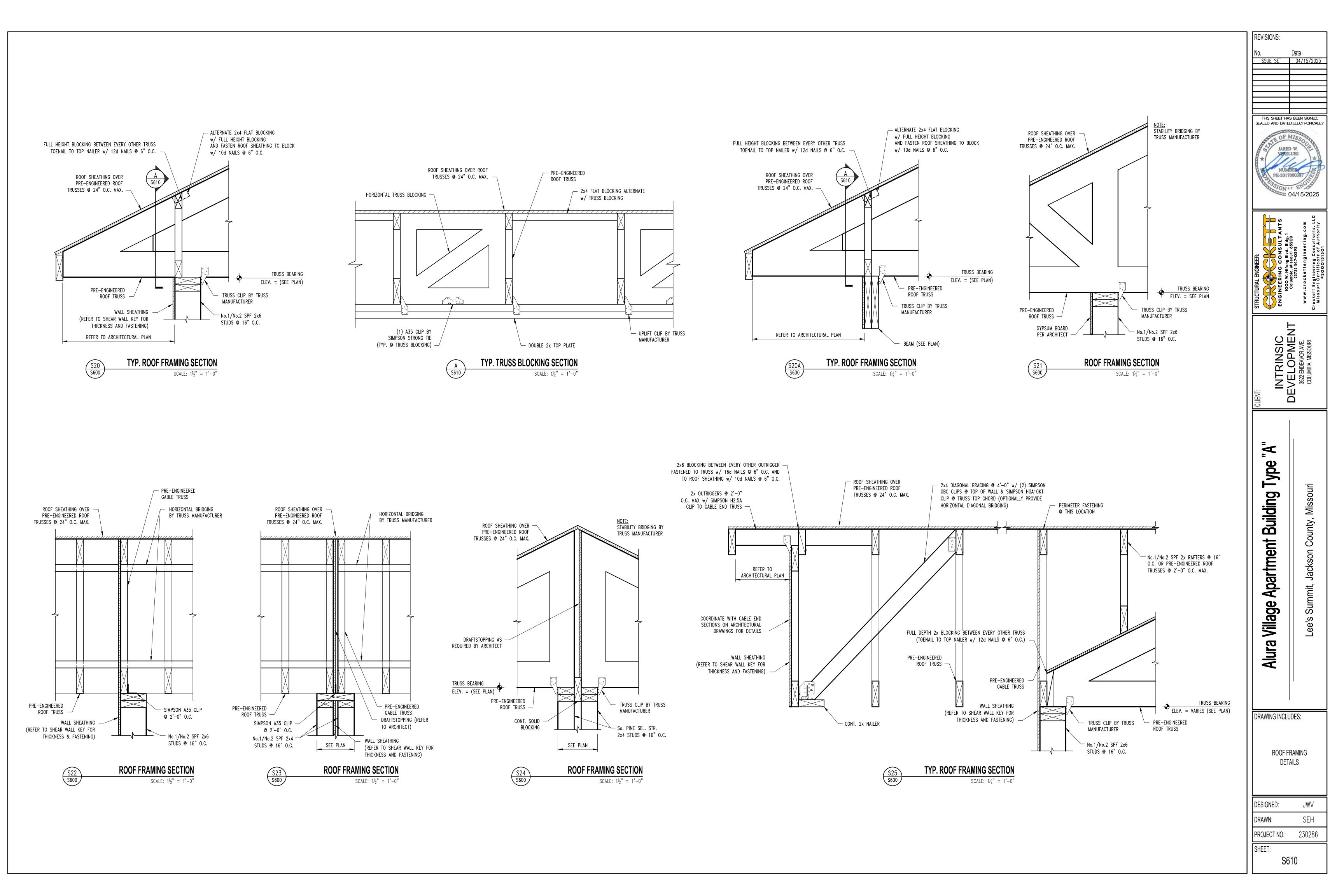


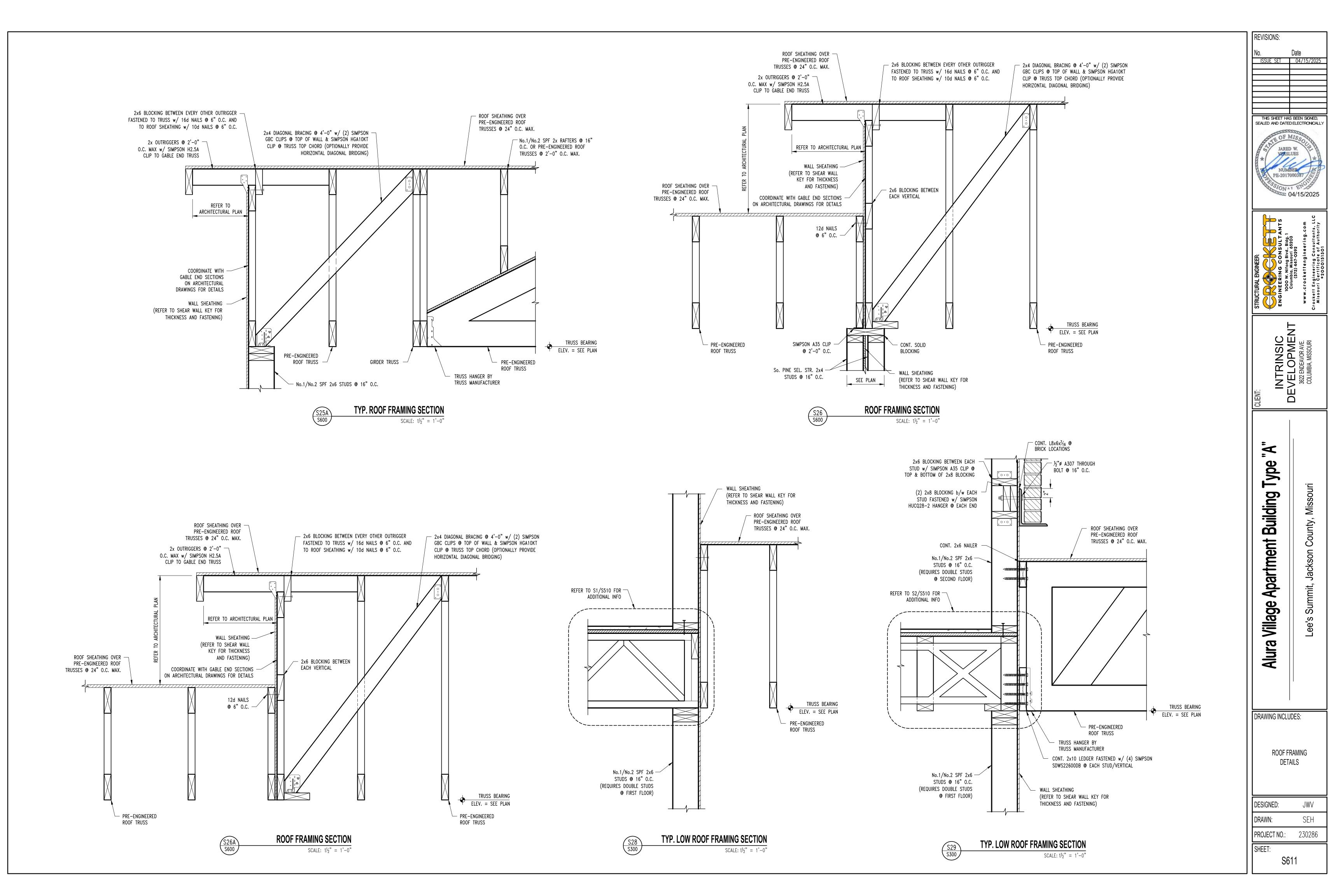
	HEADE	R SCHEDULE	
LABEL	HEADER	CRIPPLE/JACK	JAMB/KING
"H1"	2 Ply 2x6 SPF #2	Single Ply 2x6 SPF #2	Single Ply 2x6 SPF #2
"H2"	2 Ply 2x6 SPF #2	2 Ply 2x6 SPF #2	Single Ply 2x6 SPF #2
"H3"	2 Ply 2x6 SPF #2	3 Ply 2x6 SPF #2	Single Ply 2x6 SPF #2
"H4"	2 Ply 2x8 Doug Fir #2	Single Ply 2x6 SPF #2	Single Ply 2x6 SPF #2
"H5"	2 Ply 2x8 Doug Fir #2	2 Ply 2x6 SPF #2	Single Ply 2x6 SPF #2
"H6"	2 Ply 2x8 Doug Fir #2	4 Ply 2x6 SPF #2	Single Ply 2x6 SPF #2
"H7"	2 Ply 2x10 Doug Fir Sel. Struct	Single Ply 2x6 SPF #2	2 Ply 2x6 SPF #2
"H8"	2 Ply 2x10 Doug Fir Sel. Struct	2 Ply 2x6 SPF #2	2 Ply 2x6 SPF #2
"H9"	2 Ply 2x10 Doug Fir Sel. Struct	3 Ply 2x6 SPF #2	2 Ply 2x6 SPF #2
"H10"	2 Ply 2x10 Doug Fir Sel. Struct	5 Ply 2x6 SPF #2	2 Ply 2x6 SPF #2
"H11"	2 Ply 2x10 Doug Fir Sel. Struct	6 Ply 2x6 SPF #2	2 Ply 2x6 SPF #2
"H12"	2 Ply 2x10 Doug Fir Sel. Struct	7 Ply 2x6 SPF #2	2 Ply 2x6 SPF #2
"H21"	2 Ply 2x8 Doug Fir #2	Single Ply 2x4 SPF #2	Single Ply 2x4 SPF #2
"H22"	2 Ply 2x8 Doug Fir #2	2 Ply 2x4 SPF #2	Single Ply 2x4 SPF #2
"H23"	2 Ply 2x8 Doug Fir #2	3 Ply 2x4 SPF #2	Single Ply 2x4 SPF #2
"H24"	2 Ply 2x10 Doug Fir Sel. Struct	2 Ply 2x4 SPF #2	Single Ply 2x4 SPF #2
"H25"	2 Ply 2x10 Doug Fir Sel. Struct	3 Ply 2x4 SPF #2	Single Ply 2x4 SPF #2
"H26"	2 Ply 2x10 Doug Fir Sel. Struct	4 Ply 2x4 SPF #2	Single Ply 2x4 SPF #2

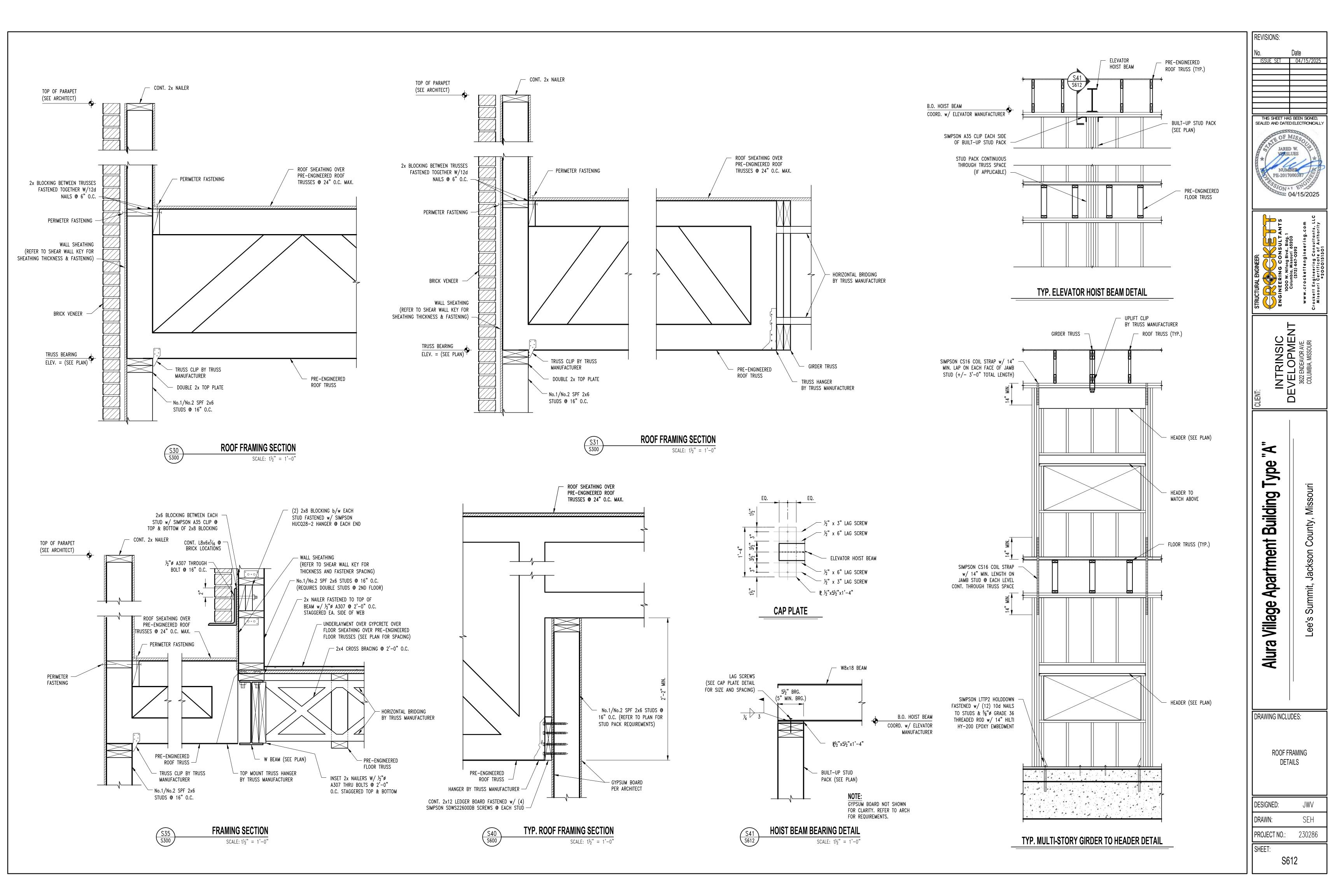


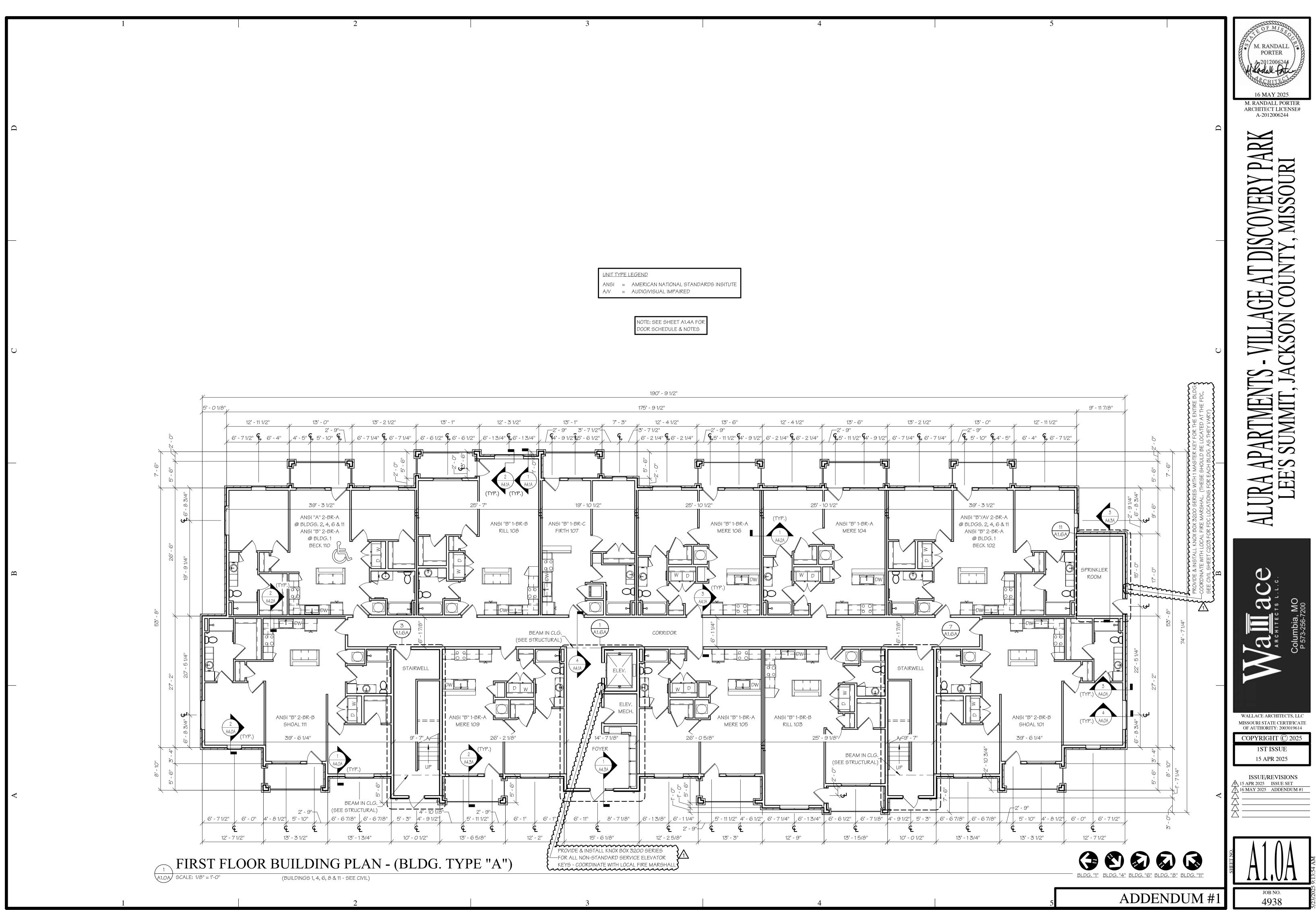
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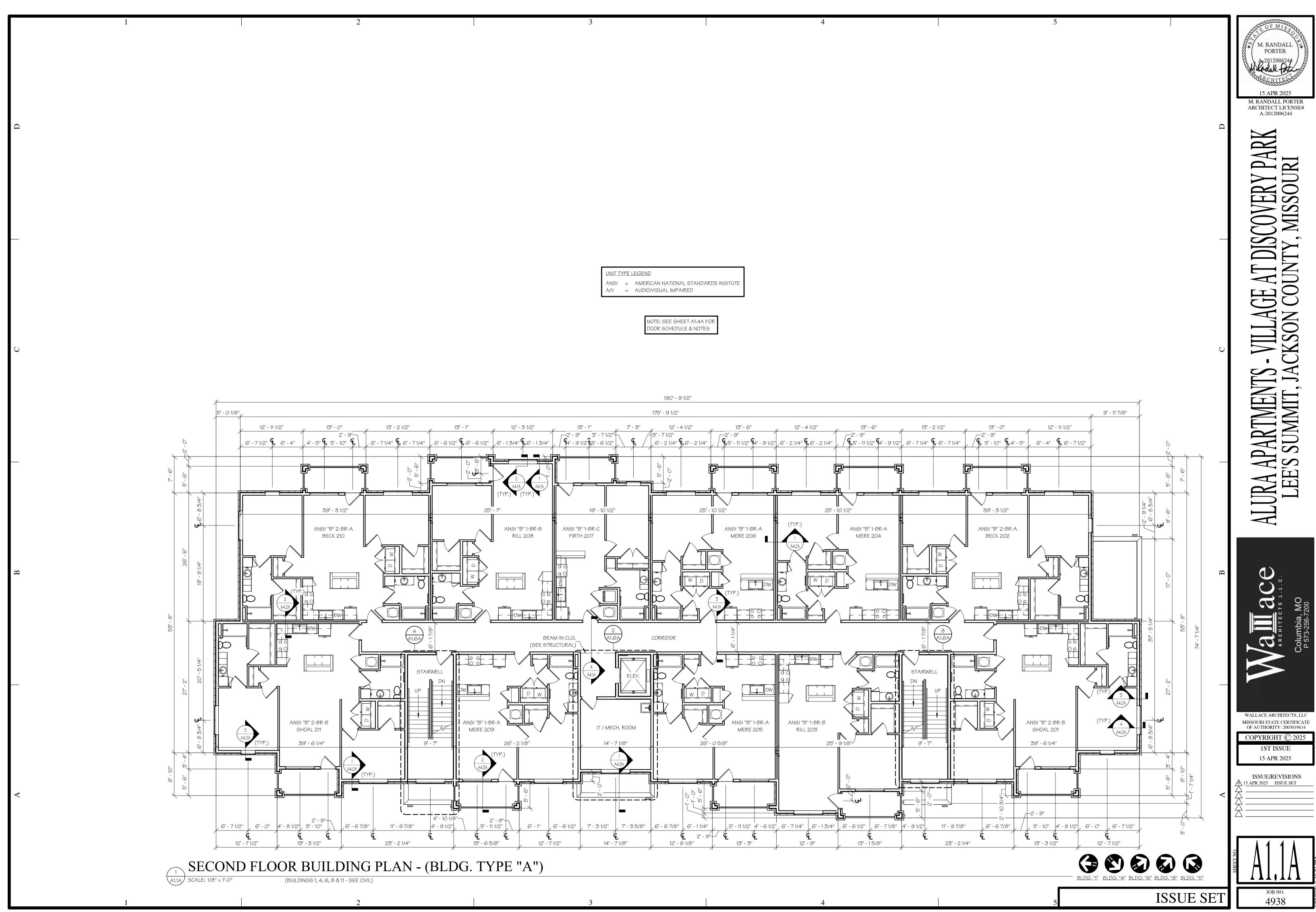
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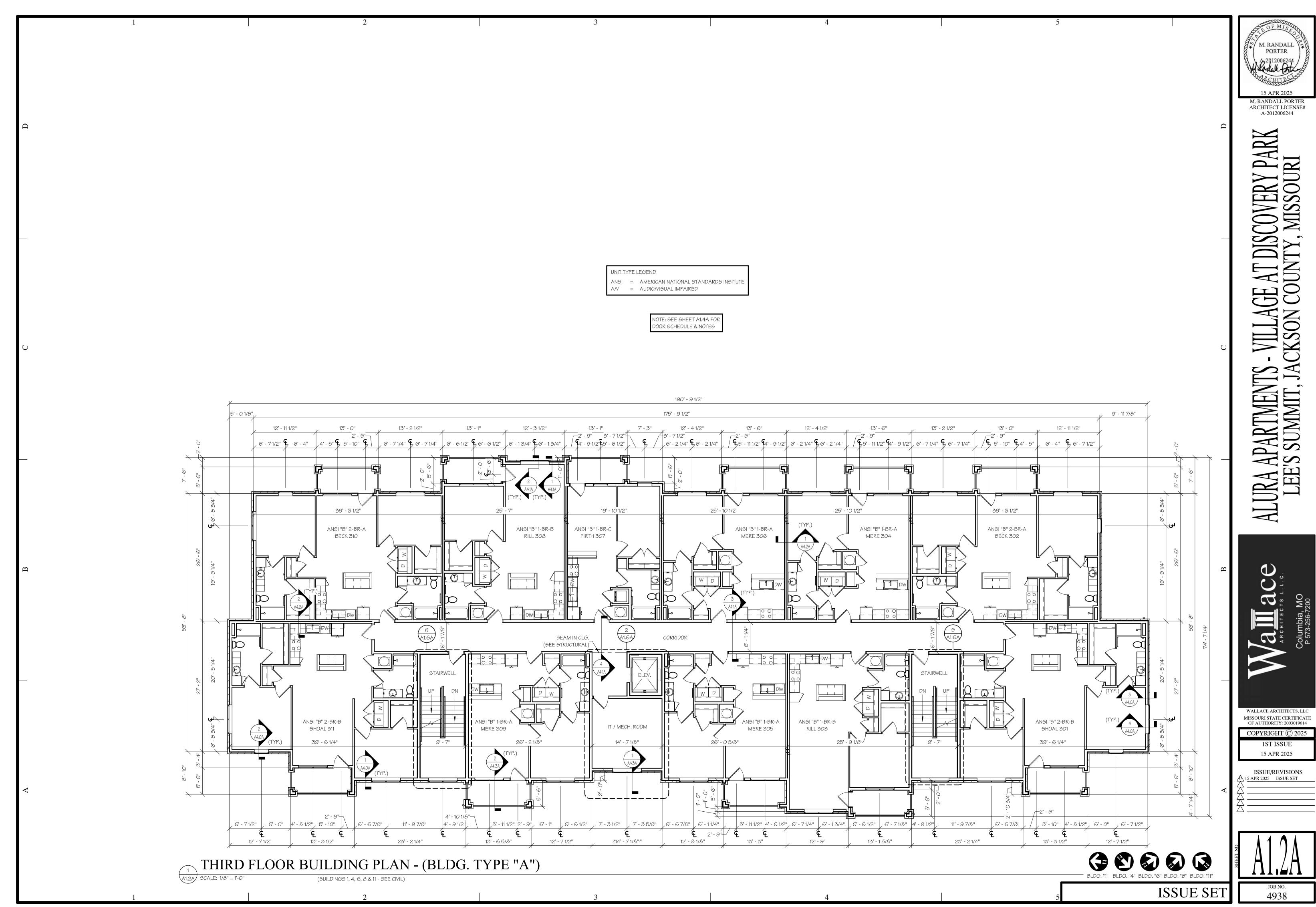


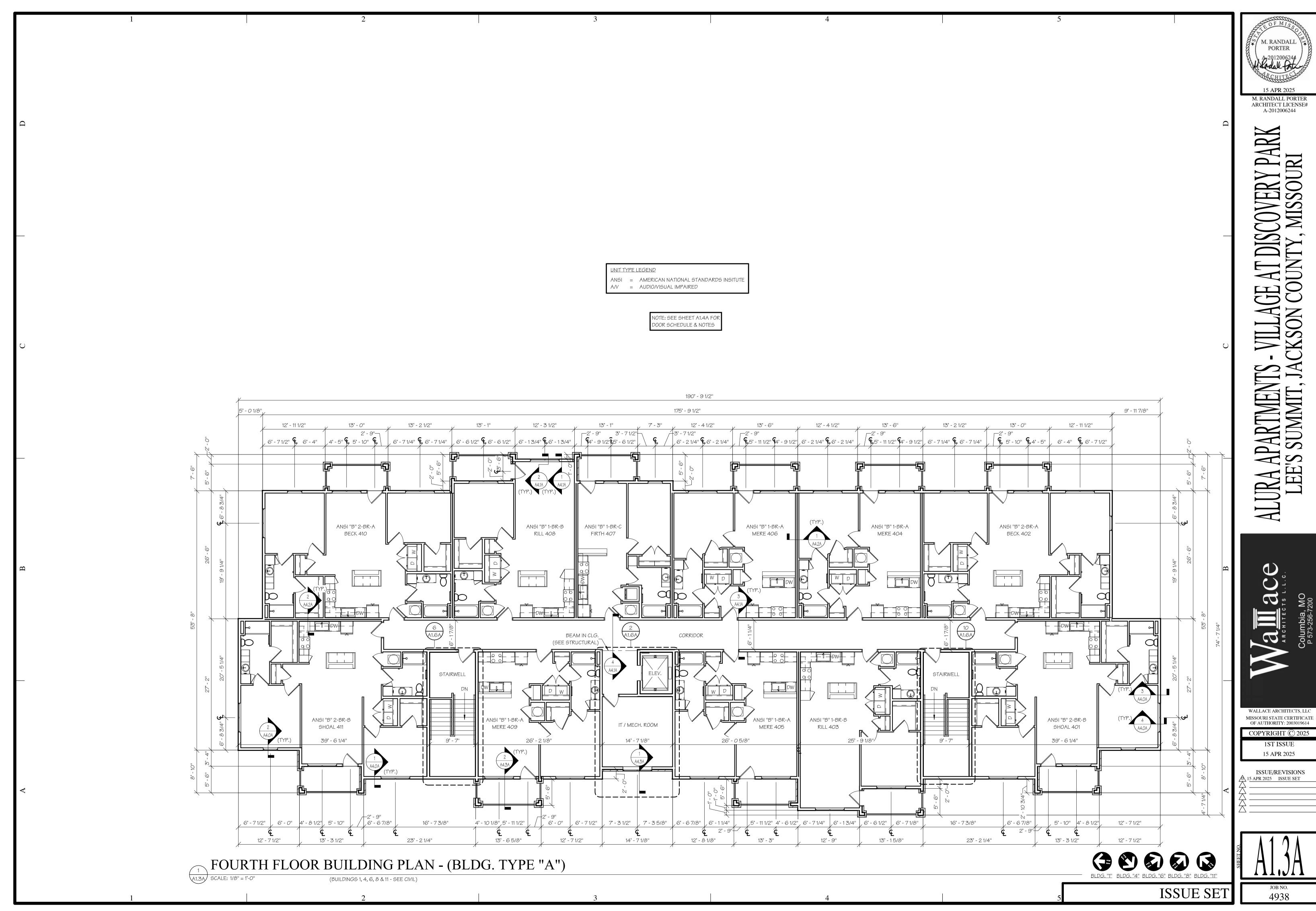


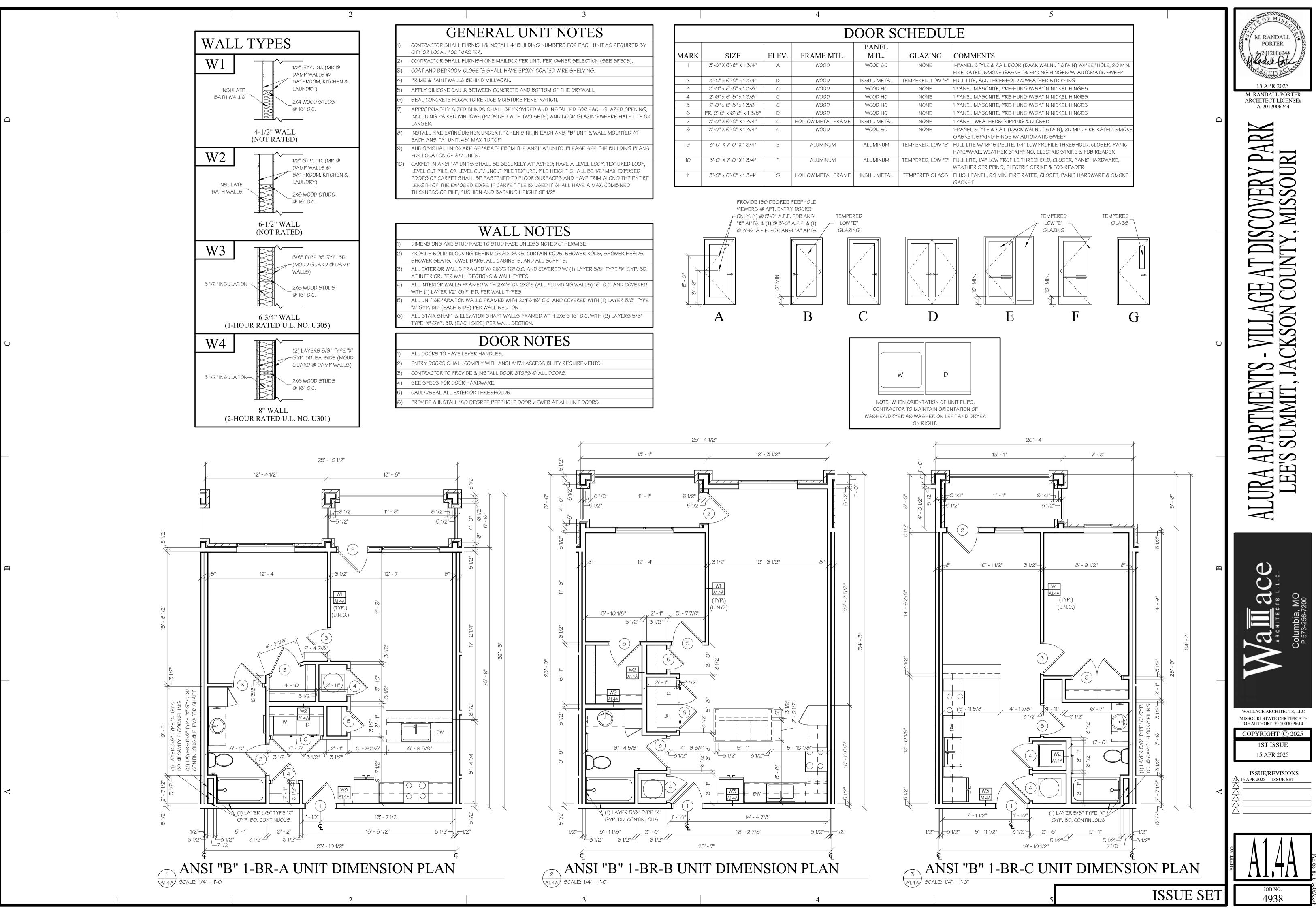




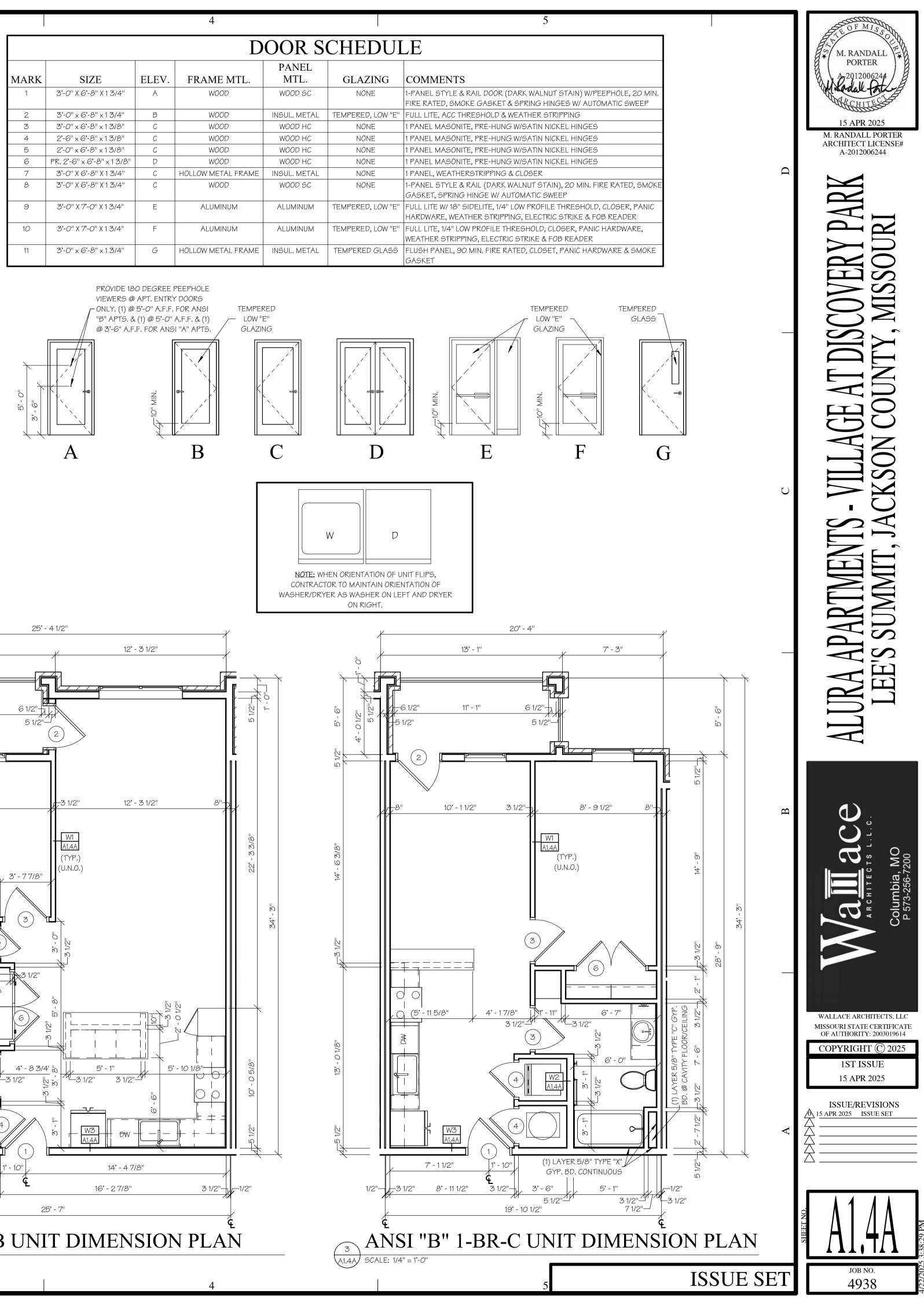


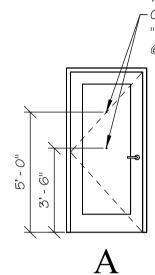


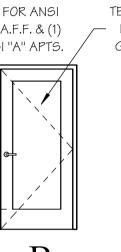


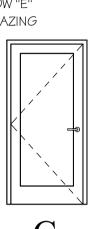


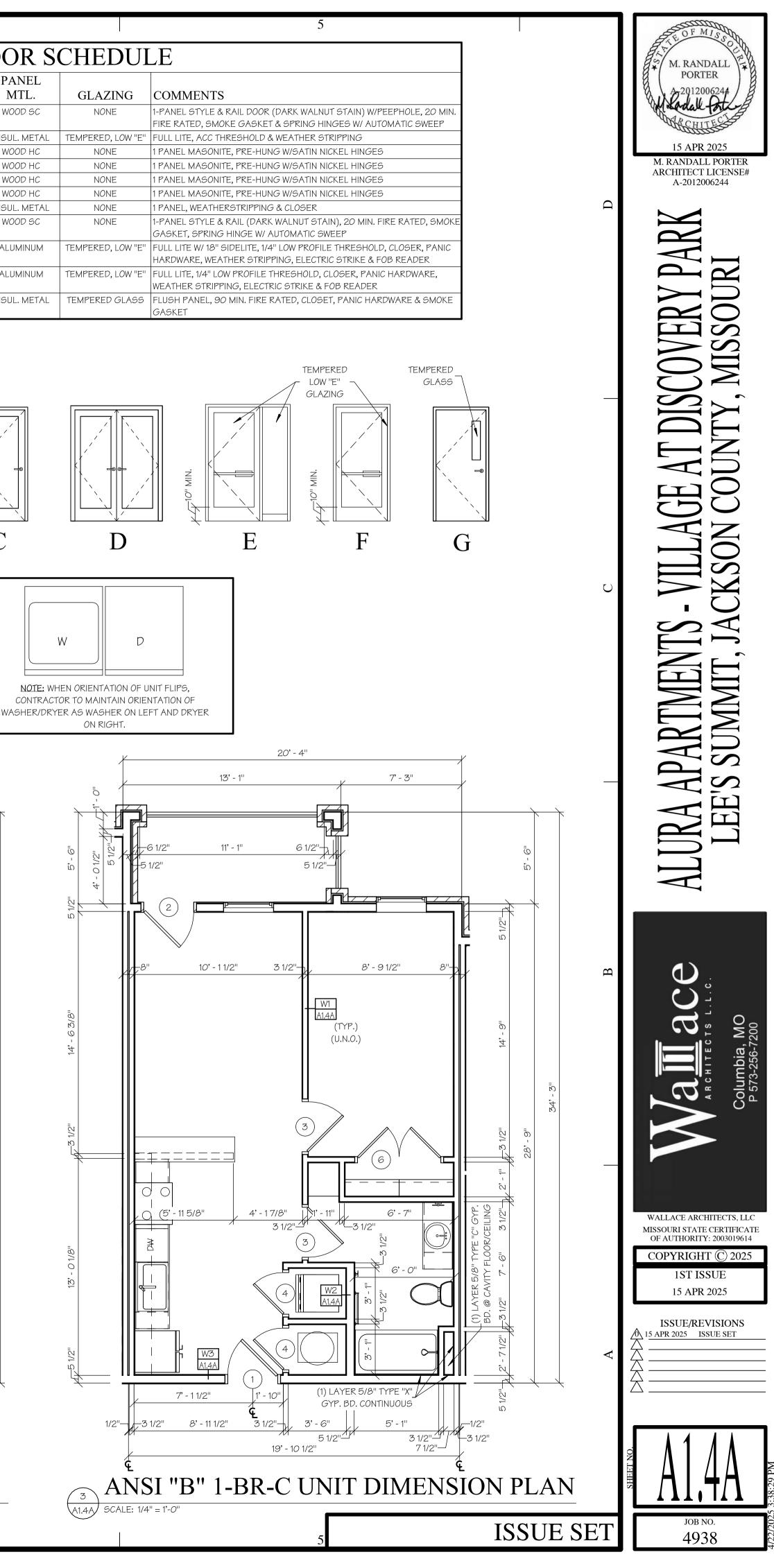
GENERAL	UNIT NOTES

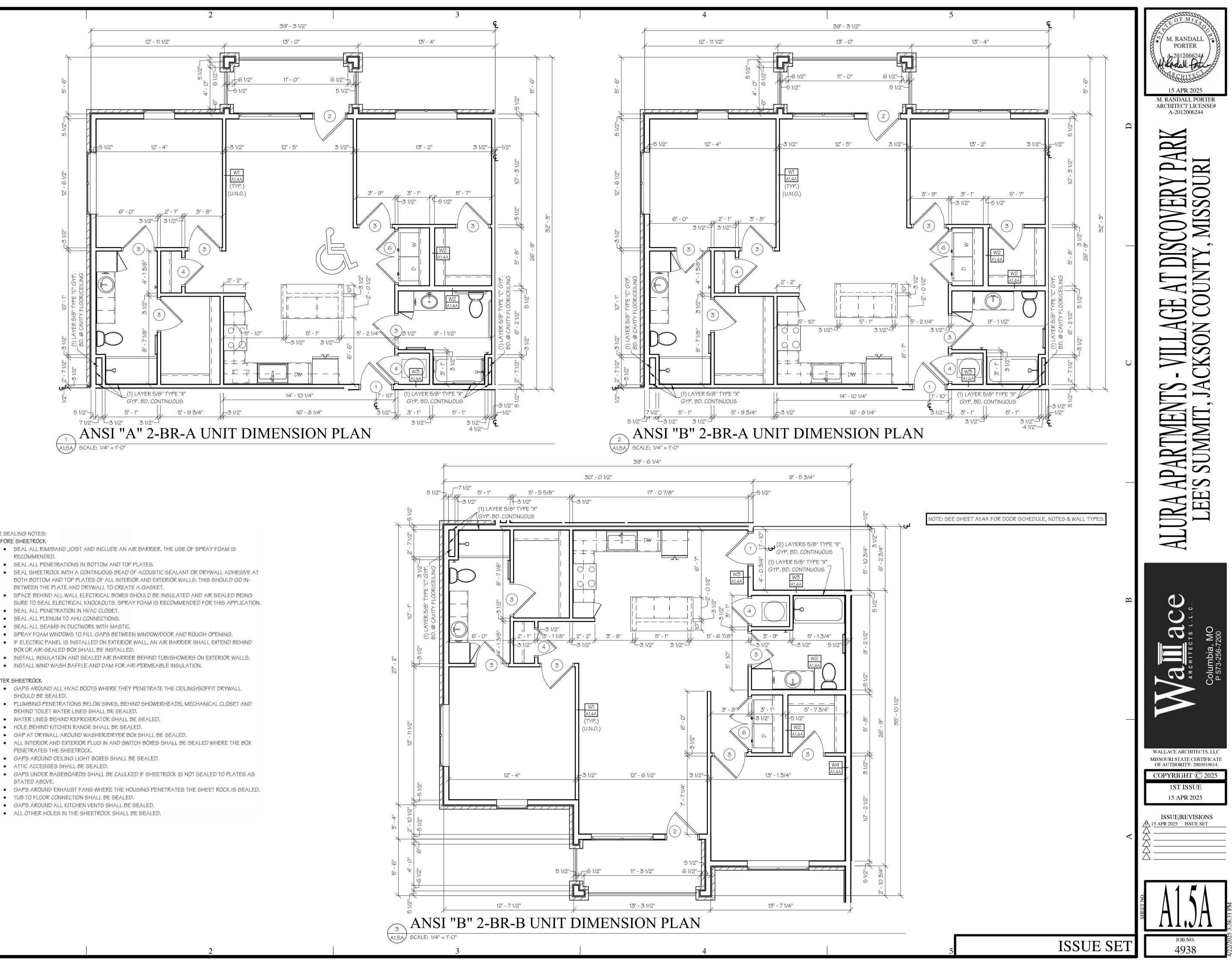










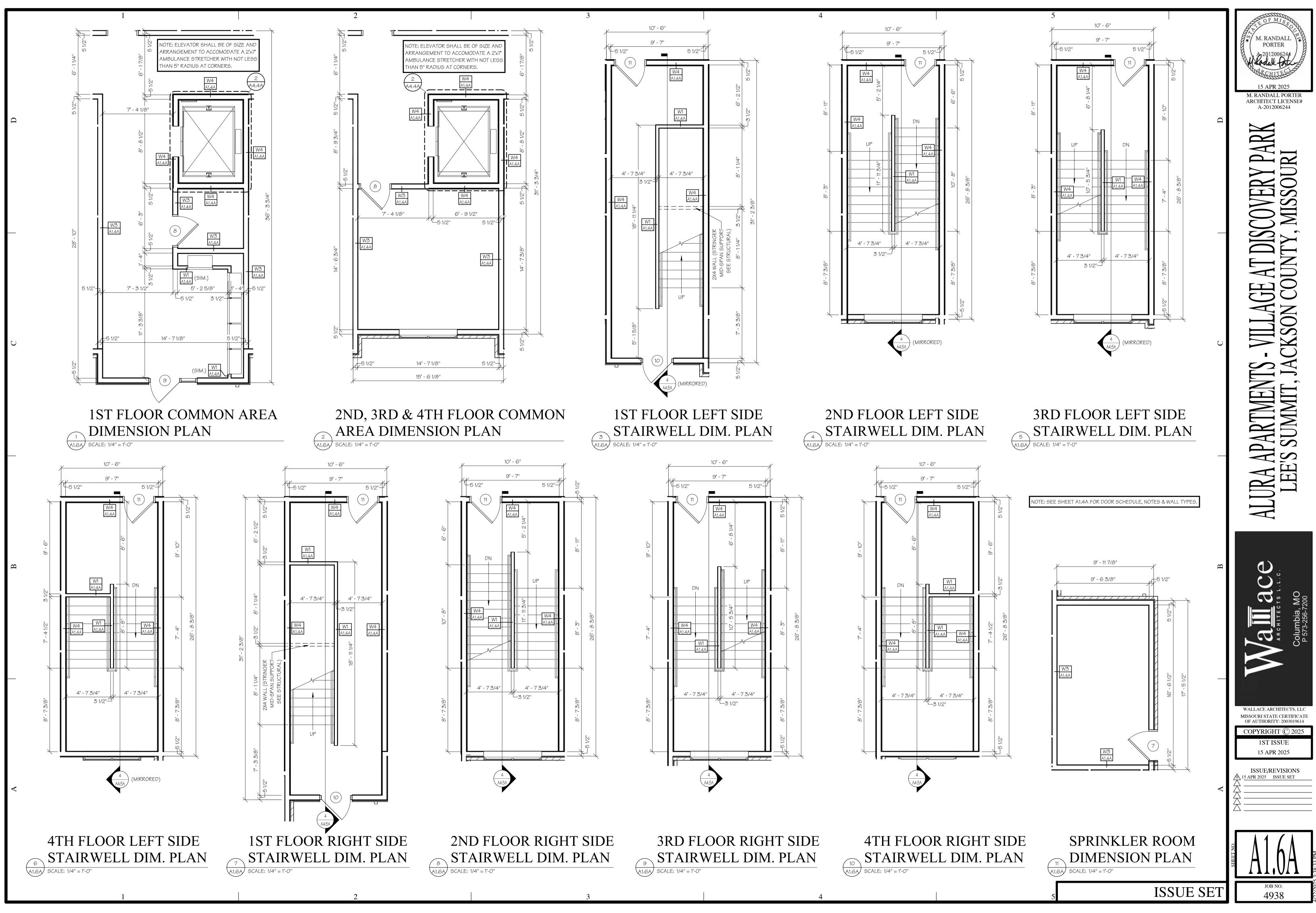


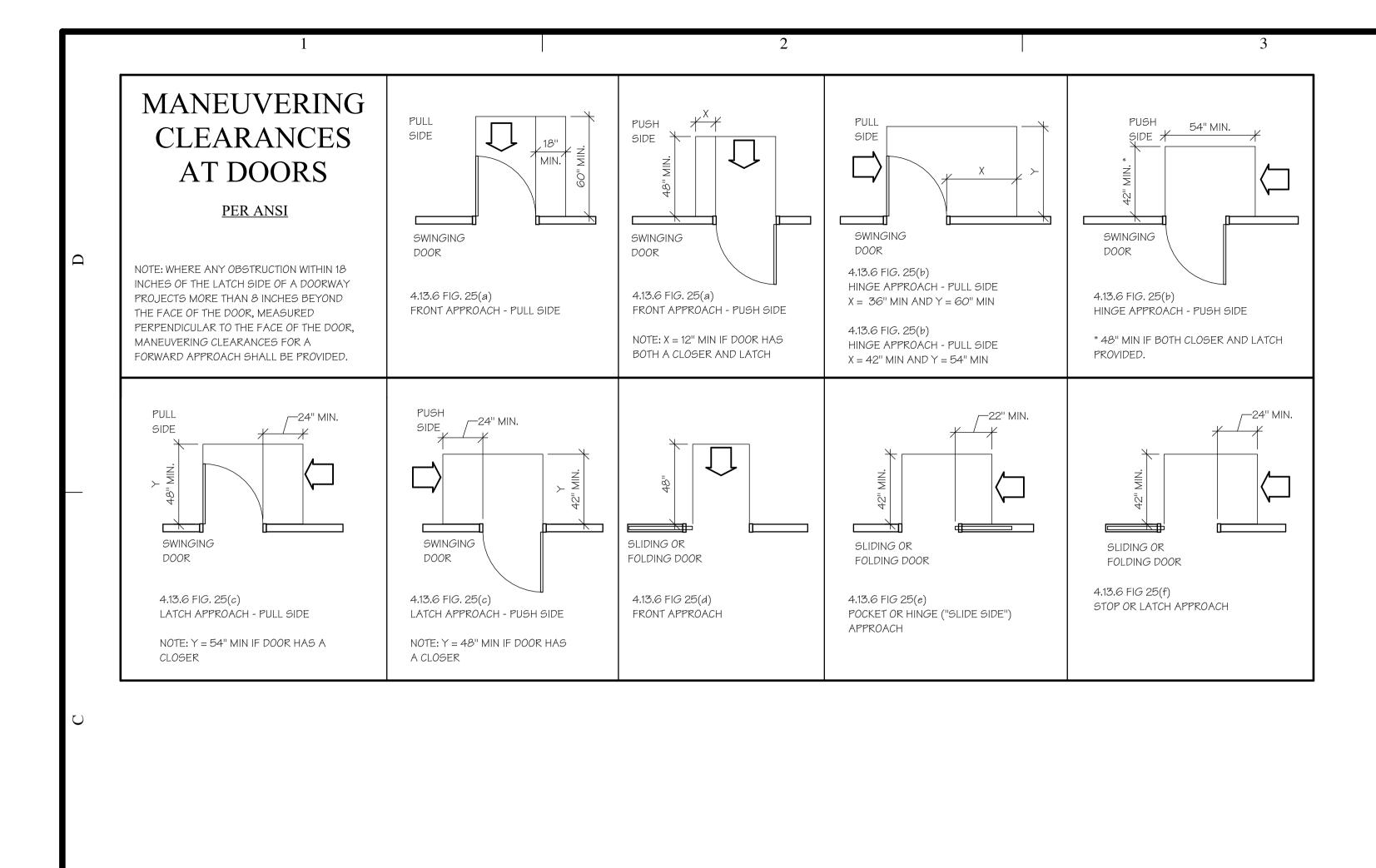
### AIR SEALING NOTES: BEFORE SHEETROCK

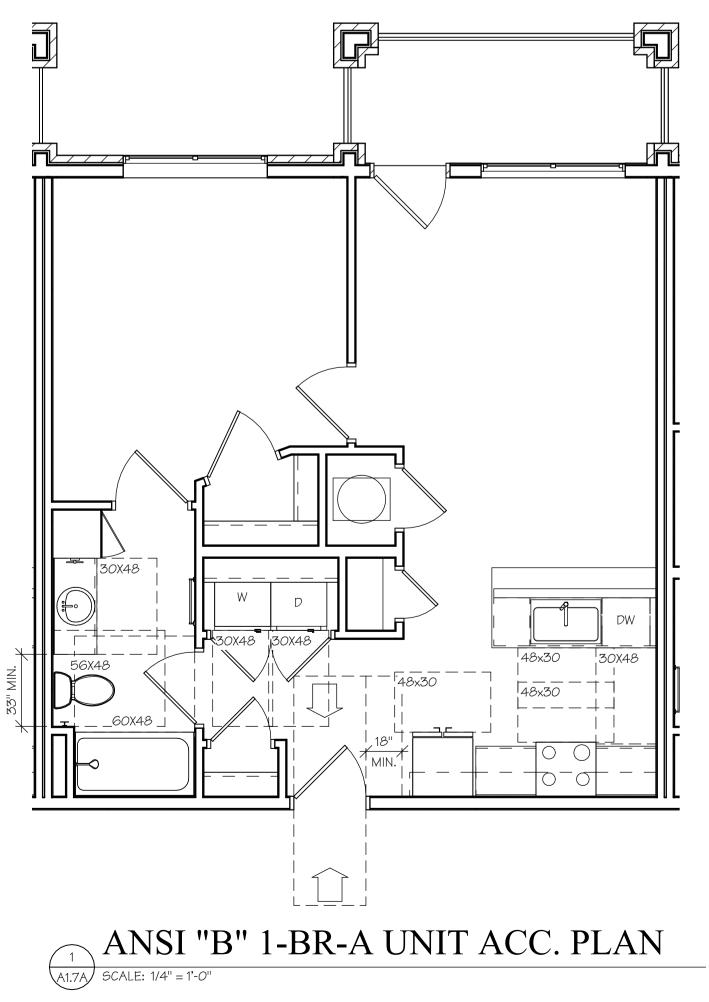
- SEAL ALL RIM/BAND JOIST AND INCLUDE AN AIR BARRIER. THE USE OF SPRAY FOAM IS RECOMMENDED.
- SEAL ALL PENETRATIONS IN BOTTOM AND TOP PLATES.
- SEAL SHEETROCK WITH A CONTINUOUS BEAD OF ACOUSTIC SEALANT OR DRYWALL ADHESIVE AT BOTH BOTTOM AND TOP PLATES OF ALL INTERIOR AND EXTERIOR WALLS. THIS SHOULD GO IN-
- SPACE BEHIND ALL WALL ELECTRICAL BOXES SHOULD BE INSULATED AND AIR SEALED BEING SURE TO SEAL ELECTRICAL KNOCKOUTS. SPRAY FOAM IS RECOMMENDED FOR THIS APPLICATION.
- SEAL ALL PENETRATION IN HVAC CLOSET.
- SEAL ALL PLENUM TO AHU CONNECTIONS.
- SEAL ALL SEAMS IN DUCTWORK WITH MASTIC.
- SPRAY FOAM WINDOWS TO FILL GAPS BETWEEN WINDOW/DOOR AND ROUGH OPENING. • IF ELECTRIC PANEL IS INSTALLED ON EXTERIOR WALL, AN AIR BARRIER SHALL EXTEND BEHIND
- BOX OR AIR-SEALED BOX SHALL BE INSTALLED.
- INSTALL INSULATION AND SEALED AIR BARRIER BEHIND TUB/SHOWERS ON EXTERIOR WALLS. INSTALL WIND WASH BAFFLE AND DAM FOR AIR-PERMEABLE INSULATION.

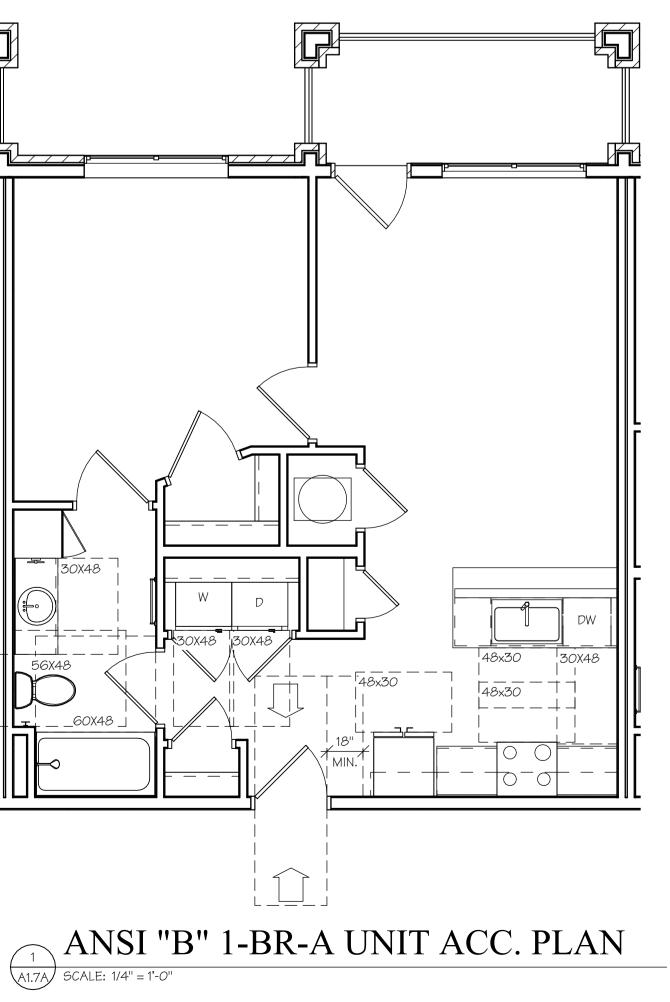
AFTER SHEETROCK

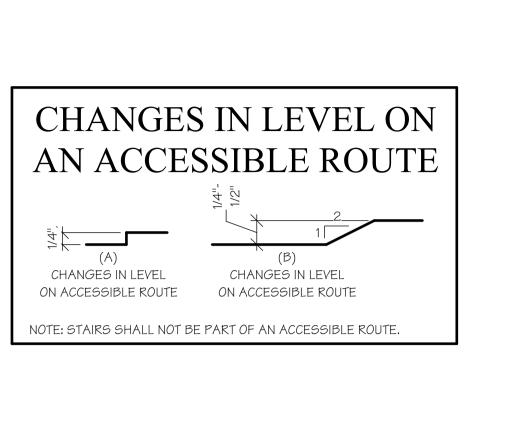
- GAPS AROUND ALL HVAC BOOTS WHERE THEY PENETRATE THE CEILING/SOFFIT DRYWALL
- SHOULD BE SEALED. • PLUMBING PENETRATIONS BELOW SINKS, BEHIND SHOWERHEADS, MECHANICAL CLOSET AND
- BEHIND TOILET WATER LINES SHALL BE SEALED.
- HOLE BEHIND KITCHEN RANGE SHALL BE SEALED.
- ALL INTERIOR AND EXTERIOR PLUG IN AND SWITCH BOXES SHALL BE SEALED WHERE THE BOX
- PENETRATES THE SHEETROCK.
- GAPS UNDER BASEBOARDS SHALL BE CAULKED IF SHEETROCK IS NOT SEALED TO PLATES AS
- STATED ABOVE. • GAPS AROUND EXHAUST FANS WHERE THE HOUSING PENETRATES THE SHEET ROCK IS SEALED.
- TUB TO FLOOR CONNECTION SHALL BE SEALED.



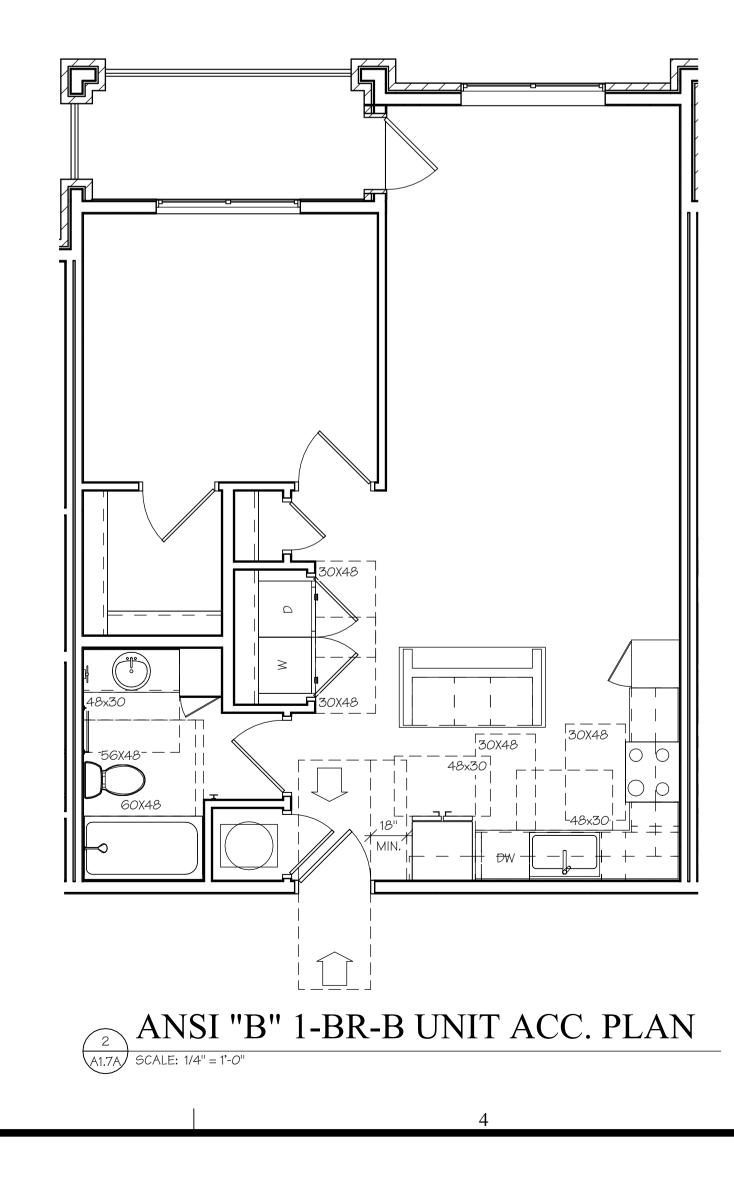








1)	VALVE A7.0A
2)	PROVI
2)	HOSE
3)	OFF-S
	EASIE
4)	INSTA
5)	PROVI
	A.F.F.
6)	BOTTO
7)	VANIT
8)	EXTEN
	A
	<b>_</b>
1)	COUN.
2)	EXTEN
	PROVI
3)	TOE K



# ANSI "A" UNIT BATH NOTES E & SHOWER HEAD SHALL BE ON 2X6 WALL OR WALL @ LAV,. (SEE BATH ELEVATIONS SHEET

VIDE HAND-HELD SHOWER W/VACUUM BREAKER (IN LIEU OF FIXED SHOWER HEAD), FLEXIBLE E, & 24" SLIDE BAR.

SET SHOWER VALVE CONTROL SO IT IS CENTERED 12" TO 15" FROM OUTER EDGE OF SHOWER FOR IER ACCESS. & 30:" A.F.F. (LEVER TYPE CONTROL).

ALL GRAB BARS WITH ROUND HEAD SCREWS. VIDE & INSTALL 36" GRAB BAR BEHIND @ 42" GRAB BAR BESIDE WATER CLOSET ON WALL @ 34 . (SEE BATH ELEVATIONS SHEET A7.0A)

TOM OF MIRROR TO REST ON COUNTERTOP BACKSPLASH.

TY SINK FAUCET TO BE LEVER TYPE, & EXPOSED PIPING TO BE WRAPPED W/ PIPE WRAP. ND VINYL FLOORING BENEATH LAV. SPACE.

# ANSI "A" UNIT KITCHEN NOTES ITER HEIGHT SHALL BE 34" A.F.F. TO TOP OF SINK.

END VINYL FLOORING BENEATH SINK SPACE AND THE 30" WORKSPACE BESIDE THE RANGE. VIDE REMOVABLE FRONT & FLOOR IN LIEU OF SINK BASE.

KICK SPACE @ BOTTOM OF BASE CABINETS SHALL REMAIN 4" MIN. (STANDARD) ADD SEPARATE WALL SWITCHES FOR RANGE HOOD FAN AND RANGE HOOD LIGHT (SEE ELECTRICAL PLANS)

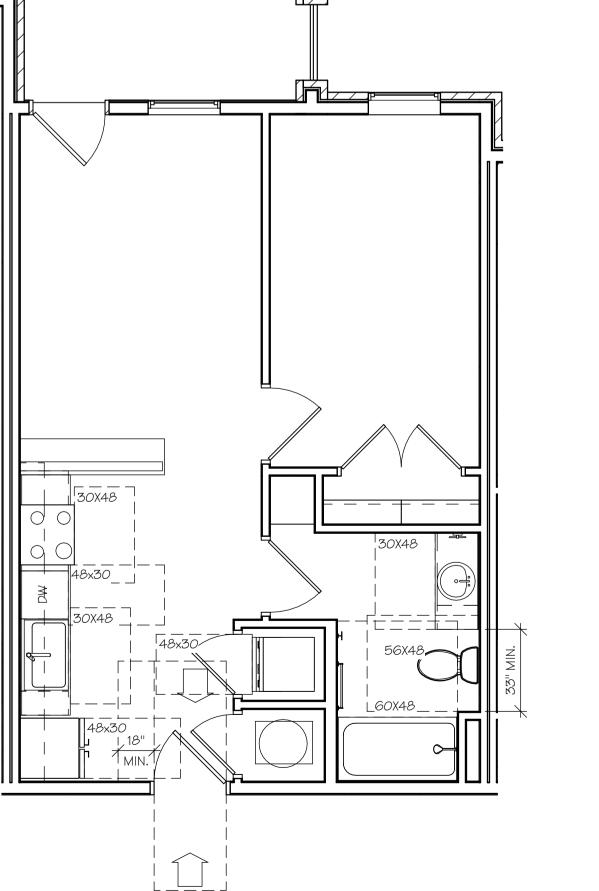
ADD SWITCH FOR CONTROL OF LIGHT OVER SINK & GABAGE DISPOSAL.

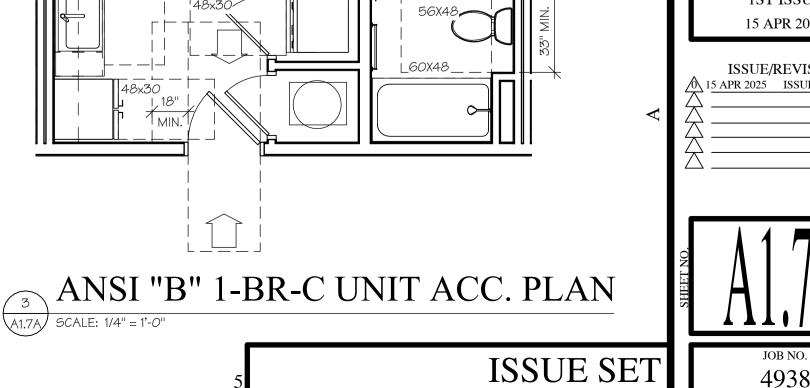
A1.7A SCALE: 1/4" = 1'-0"

TOP OF WALL TELEPHONE OUTLET TO BE 48" MAX. A.F.F.

INSULATE EXPOSED PIPING BELOW KITCHEN SINK W/ PIPE WRAP.

DISHWASHER HOOKUPS ARE UNDER SINK, ACCESS OPENING IS TO BE MADE THROUGH END PANEL OF SINK.

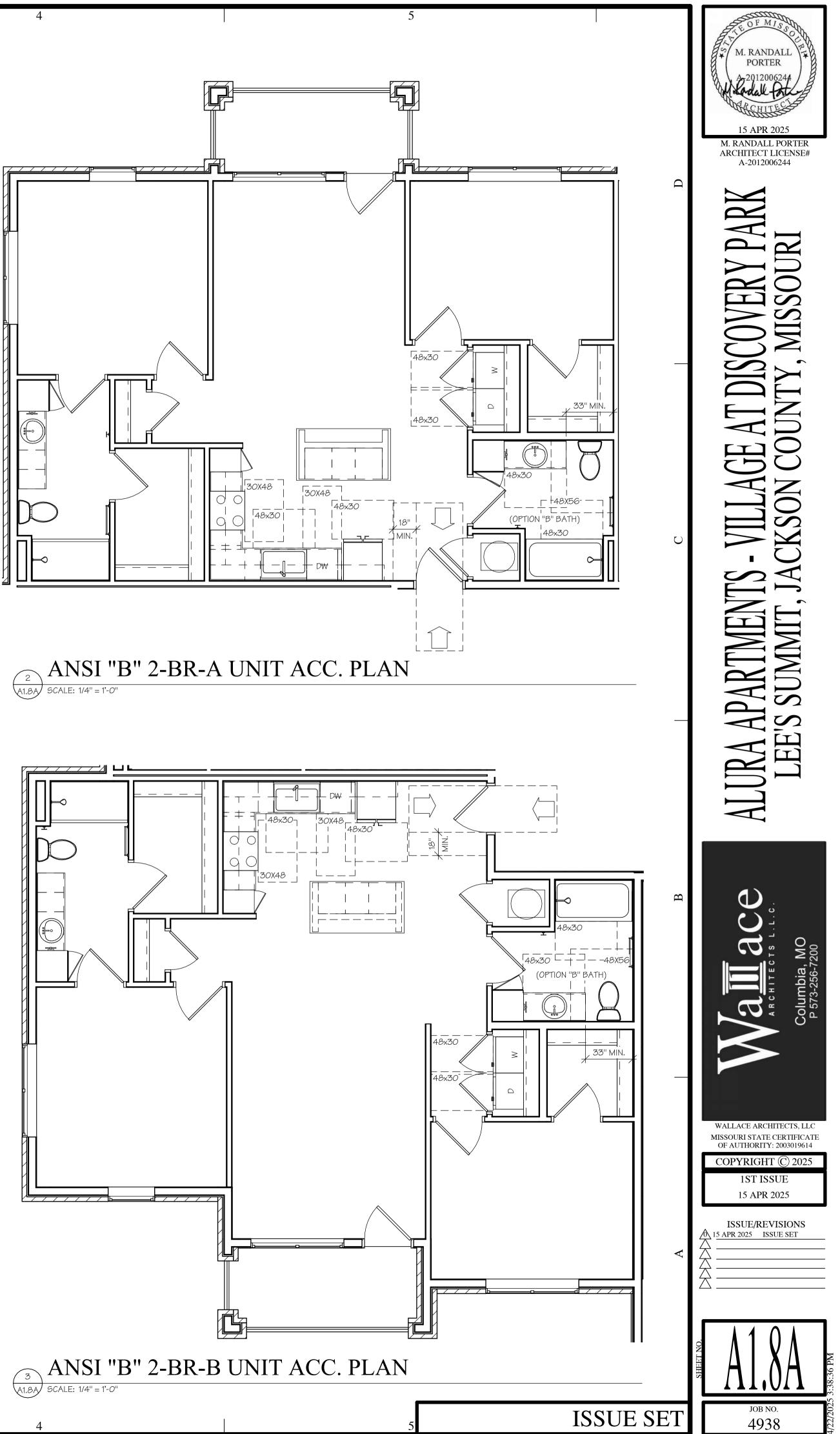


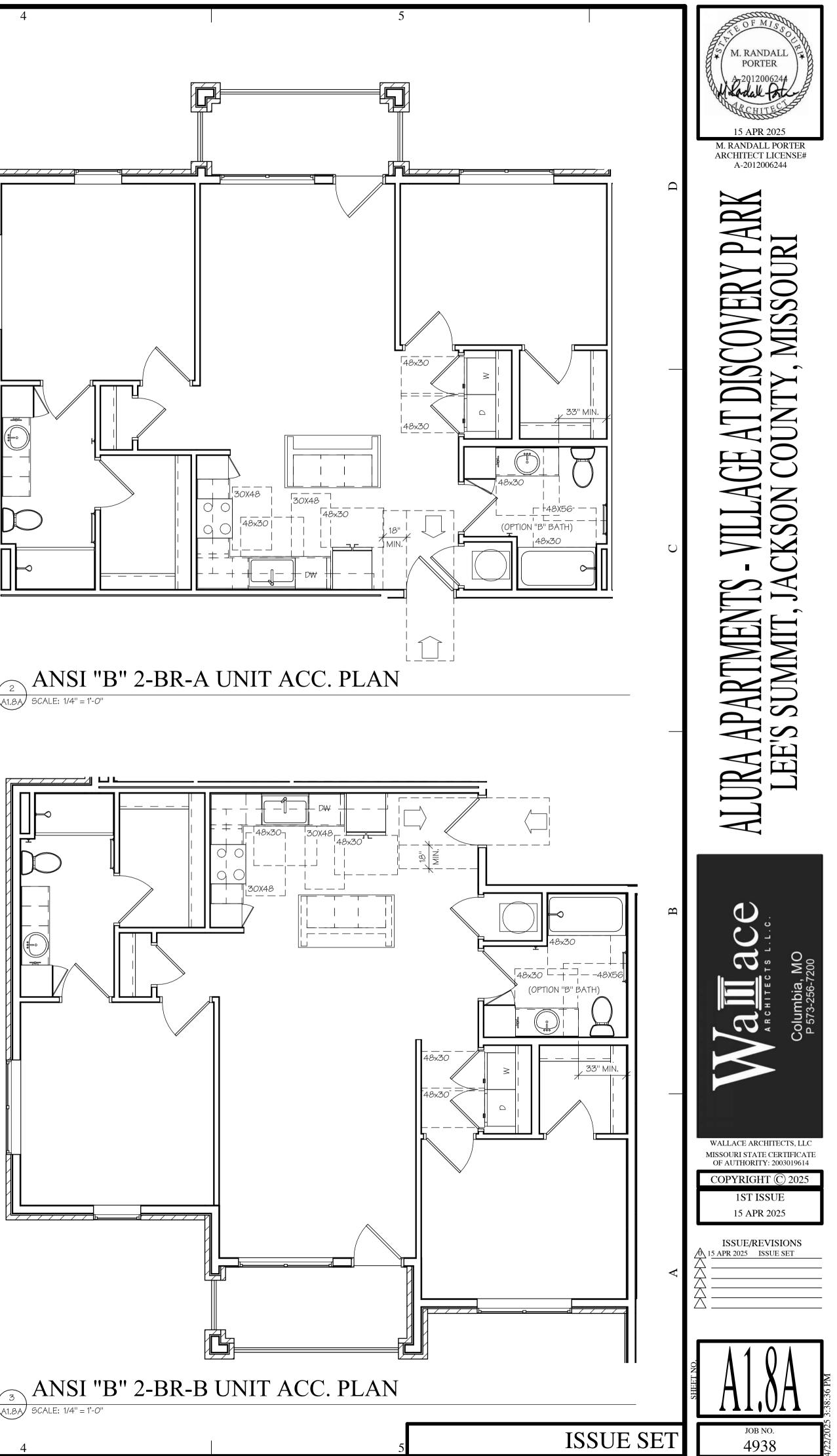


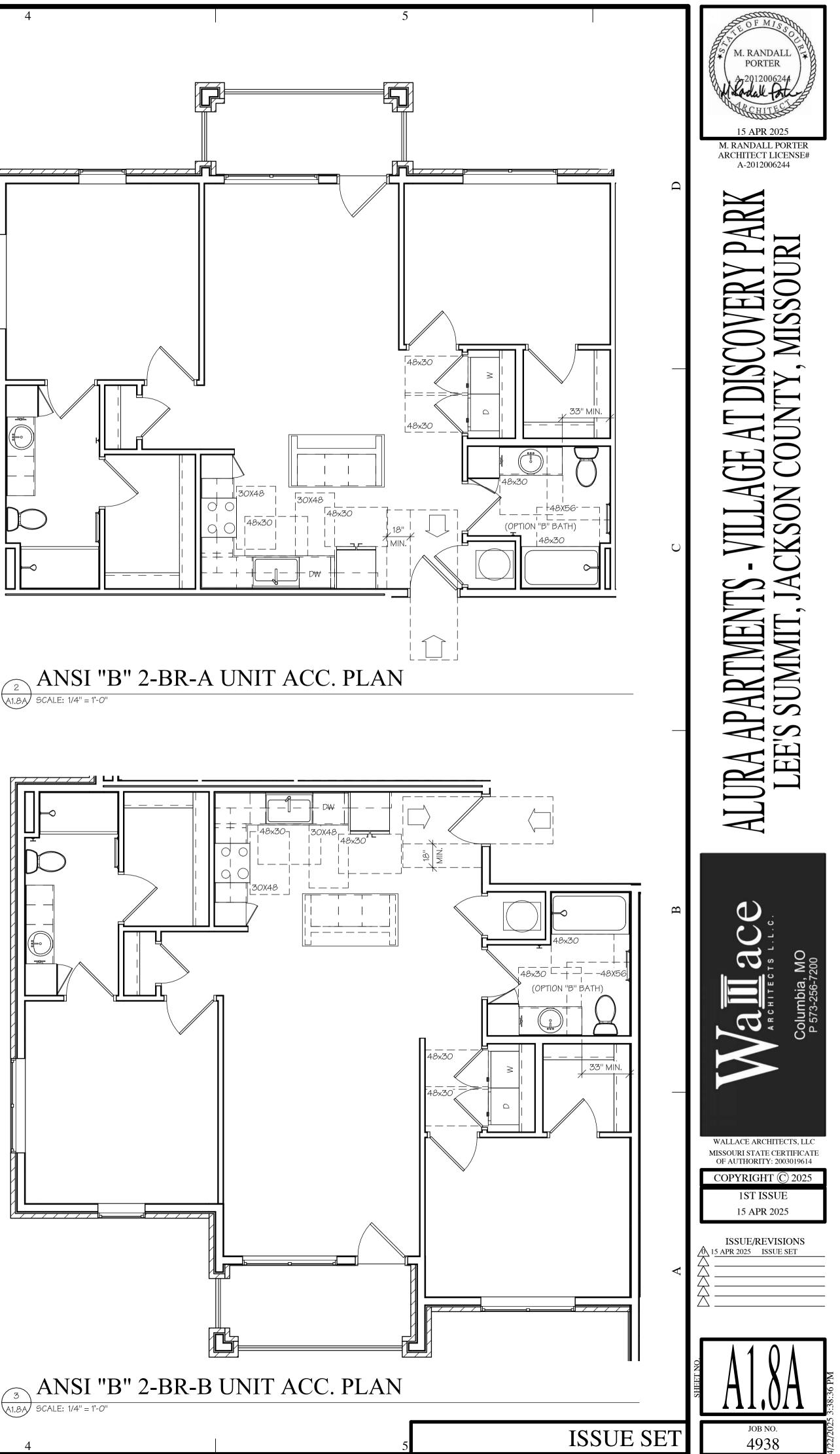


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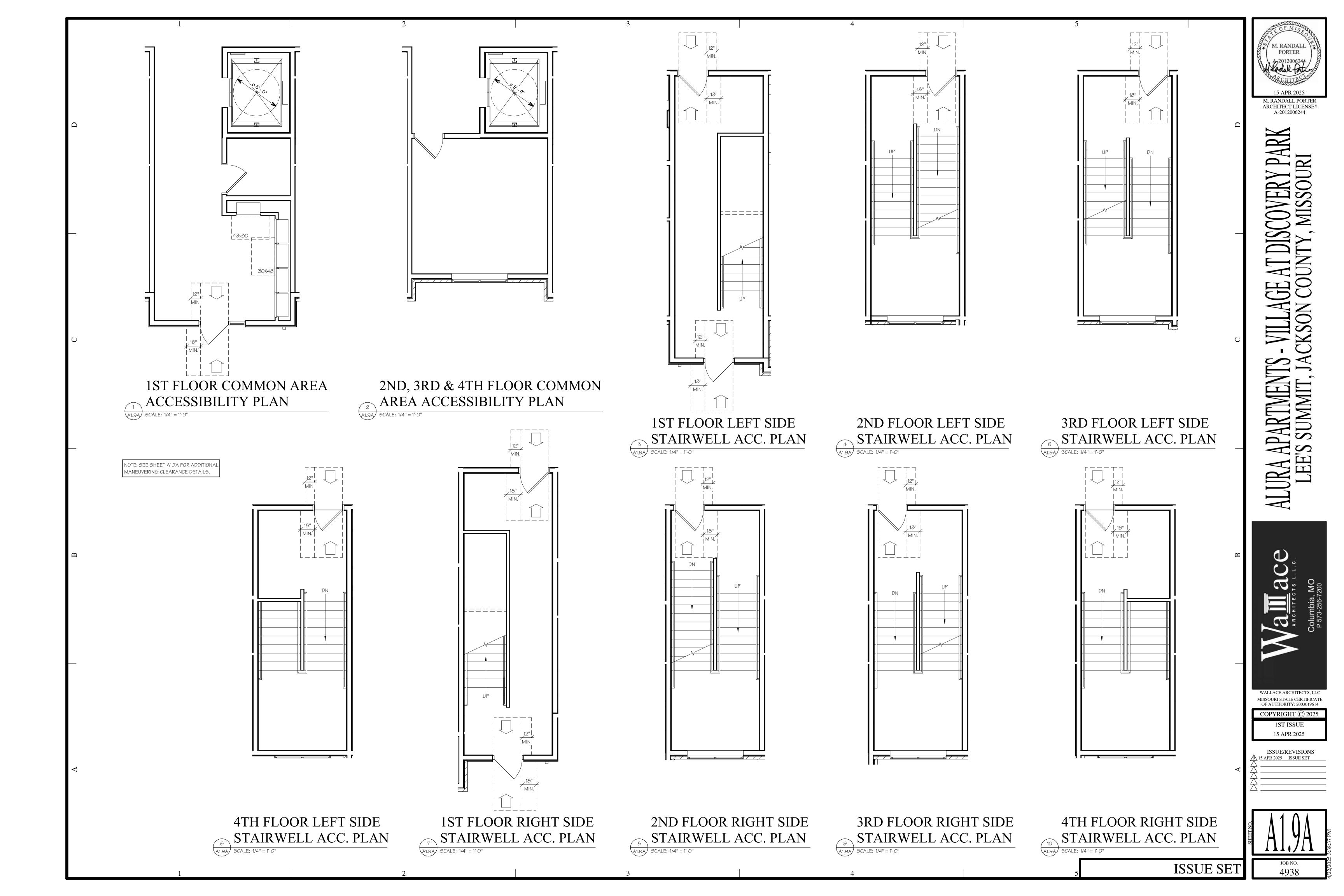




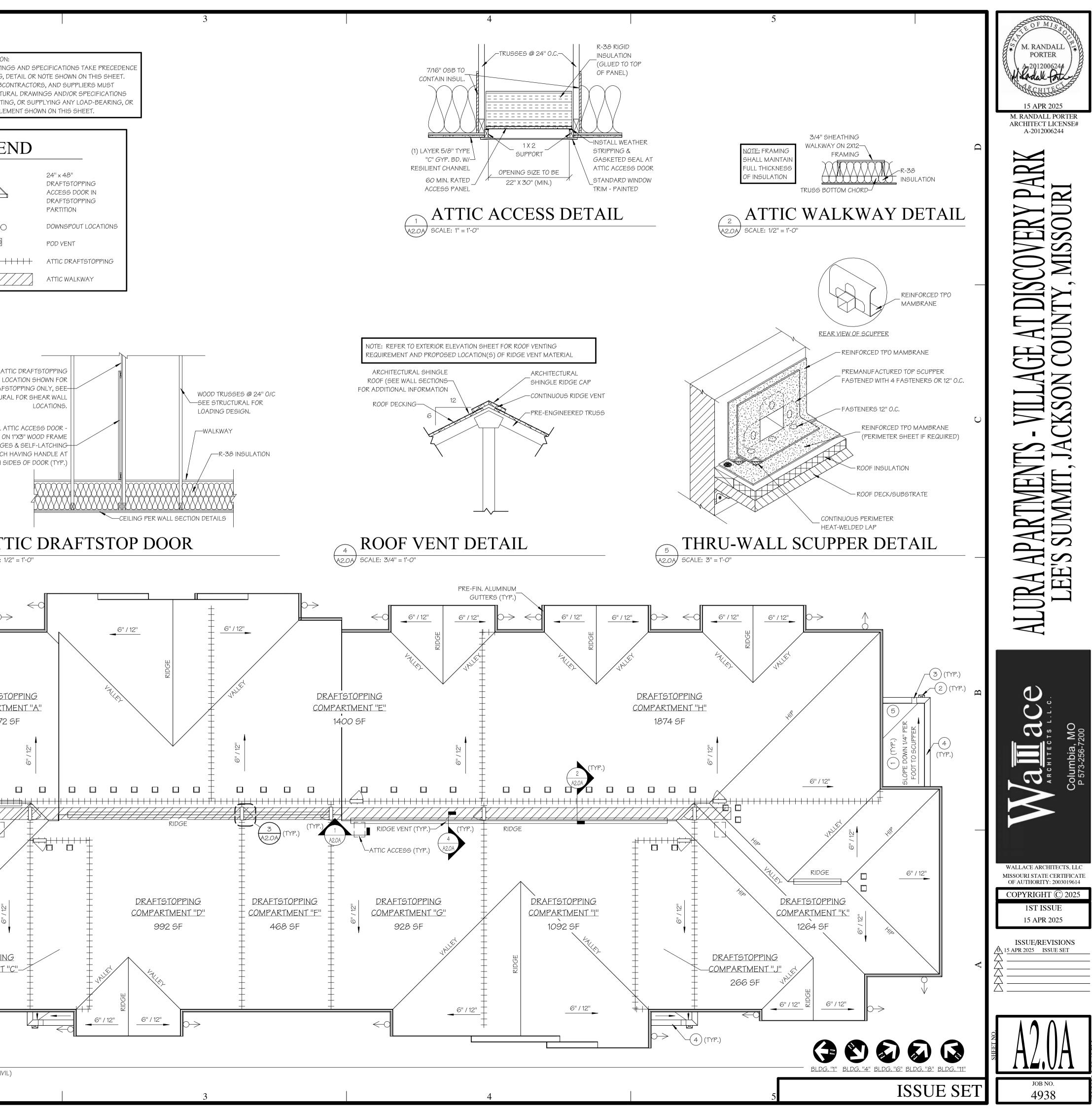




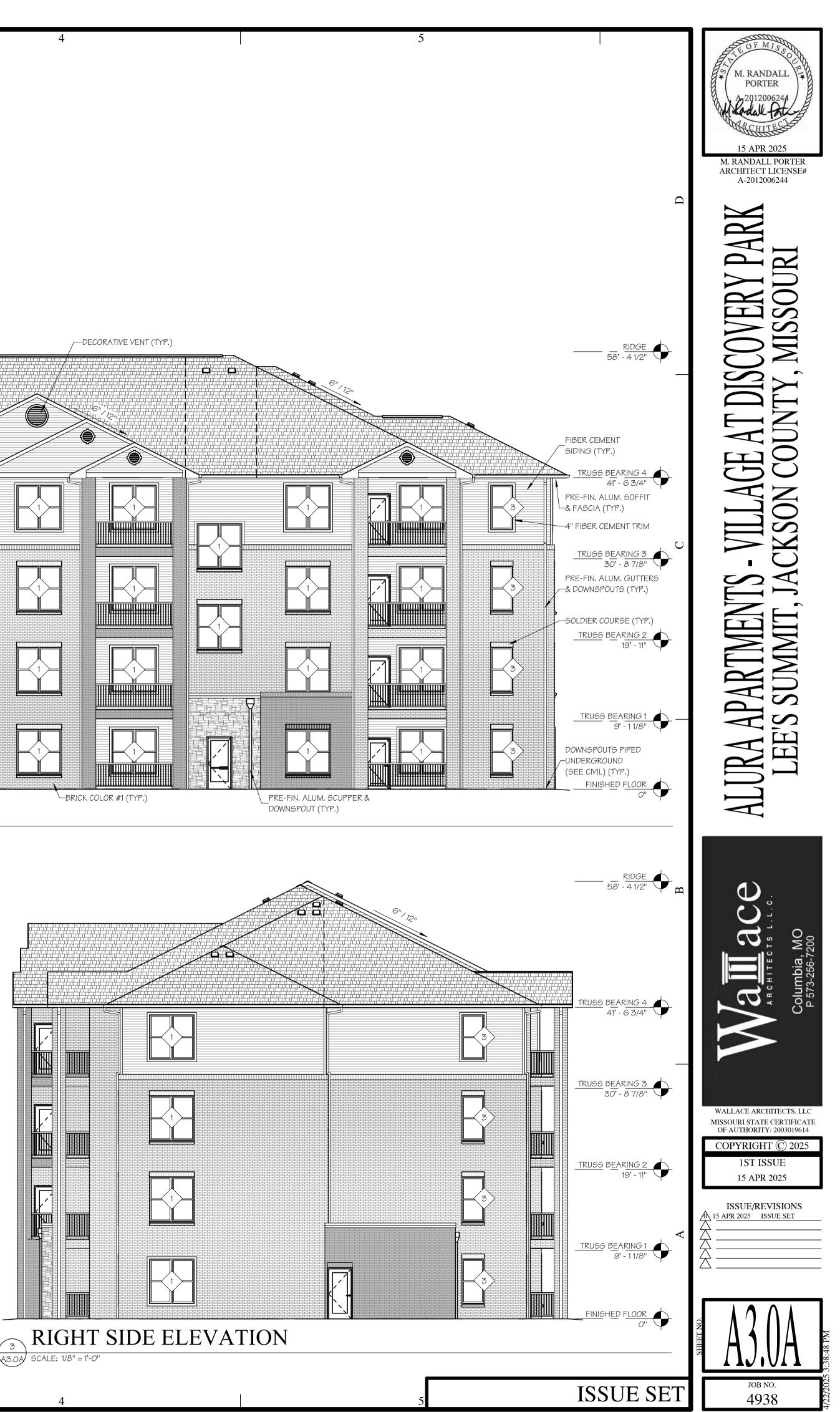
NOTE: SEE SHEET A1.7A FOR ADDITIONAL MANEUVERING CLEARANCE DETAILS.

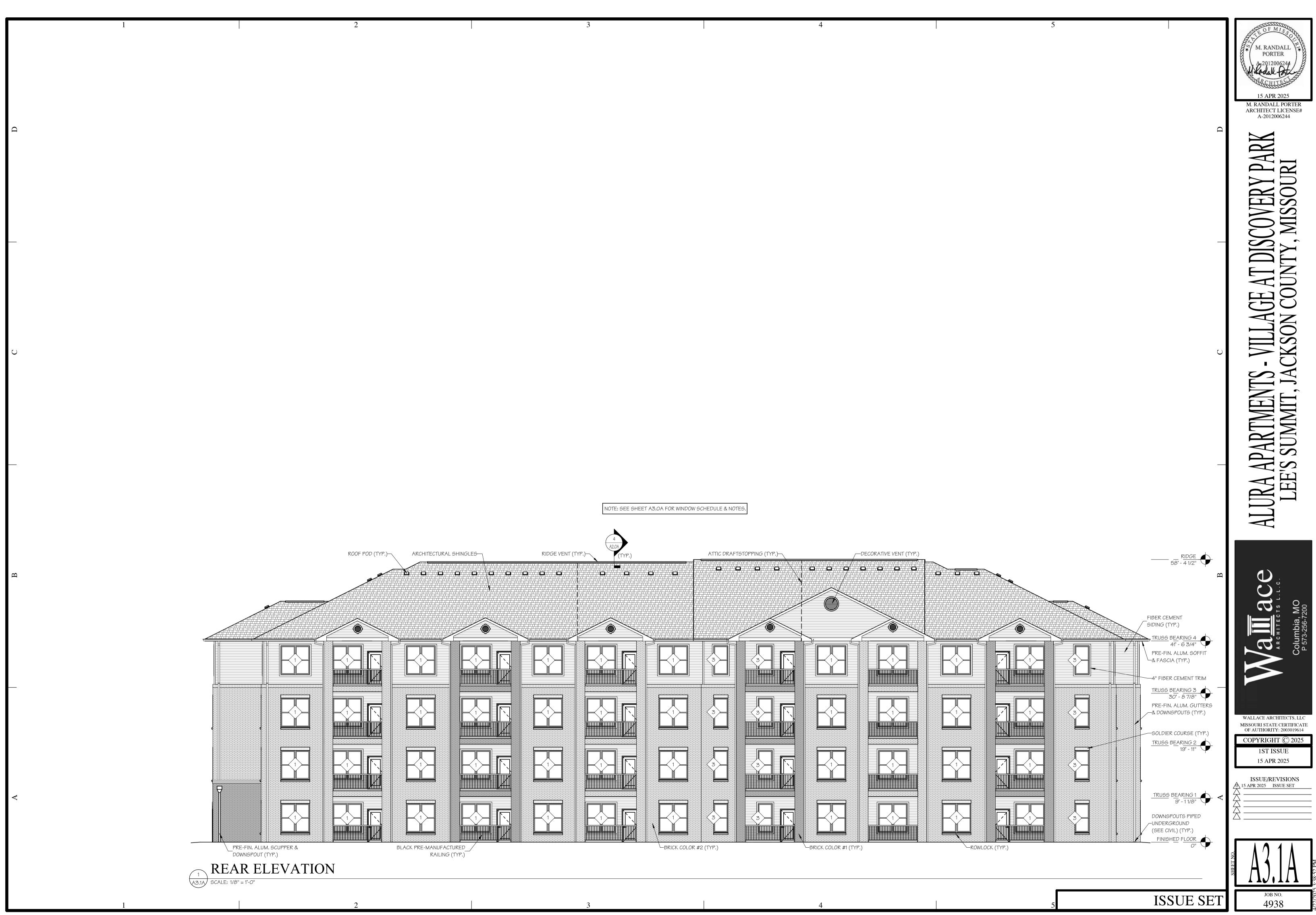


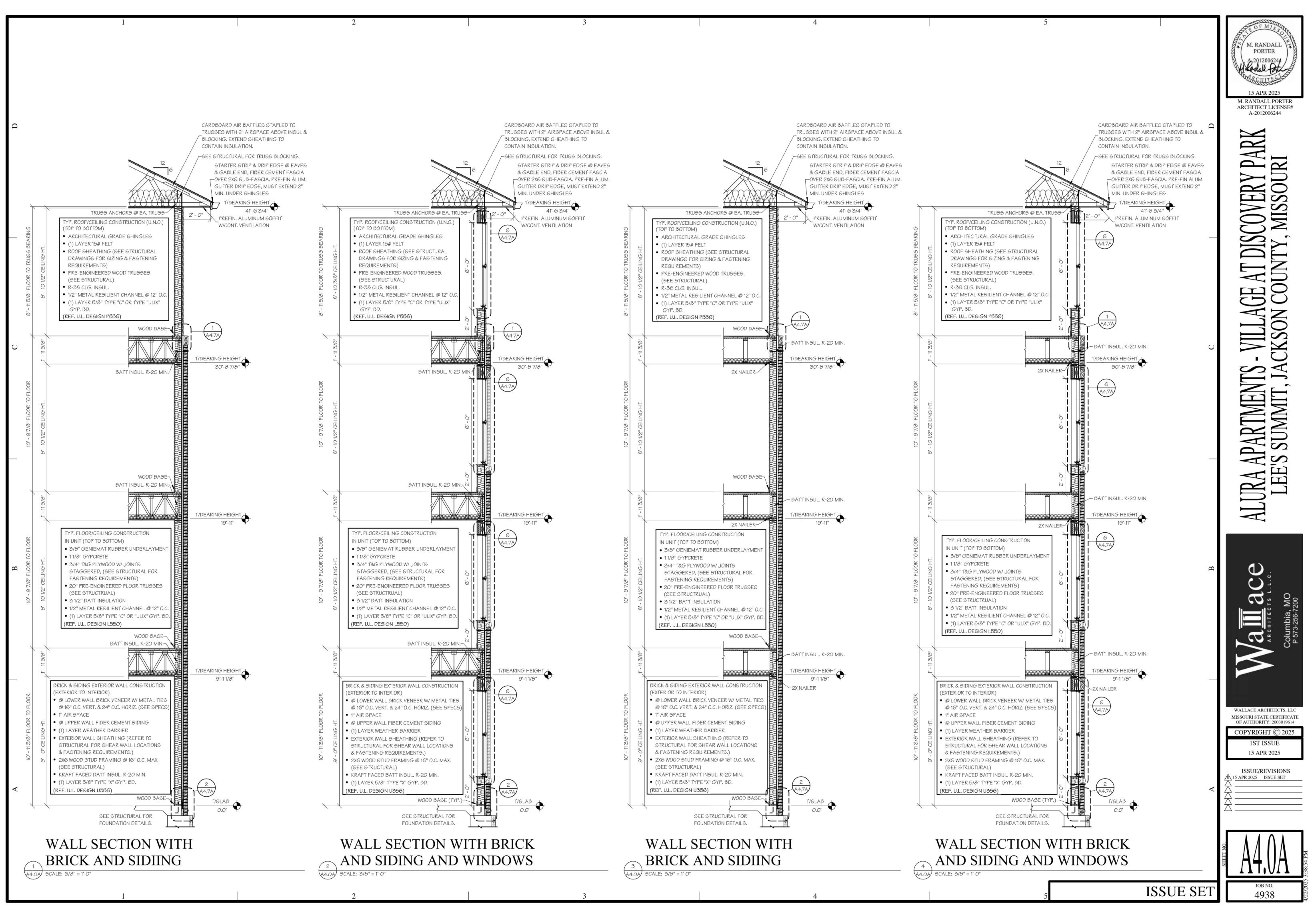
	1					2
	ATTIC COM	PART	MENT V	'ENTILA	ATION	SPECIAL INSTRUCTION:
	NAME	AREA	TOTAL REQ'D VENT. (SQ. IN.)		ROOF VENT (SQ. IN.)	STRUCTURAL DRAWING
	DRAFTSTOPPING COMPARTMENT "A"	1972 SF	947	473	473	CONTRACTORS, SUBCO REFERENCE STRUCTUR BEFORE CONSTRUCTING
	DRAFTSTOPPING COMPARTMENT "B" DRAFTSTOPPING COMPARTMENT "C"	1264 SF 266 SF	606 128	303 64	303 64	LOAD-RESISTING ELEN
	DRAFTSTOPPING COMPARTMENT "D" DRAFTSTOPPING COMPARTMENT "E"	992 SF 1400 SF	476 672	238 336	238 336	
D	DRAFTSTOPPING COMPARTMENT "F" DRAFTSTOPPING COMPARTMENT "G"	468 SF 928 SF	225 446	112 223	112 223	LEGE
	DRAFTSTOPPING COMPARTMENT "H" DRAFTSTOPPING COMPARTMENT "I"	1874 SF 1092 SF	900	450 262	450	
	DRAFTSTOPPING COMPARTMENT "J"	266 SF	128	64	64	
	DRAFTSTOPPING COMPARTMENT "K"	1264 SF	607	303	303	
	ATTIC DI	RAFT	STOPPIN	NG NOT	ΈS	$\leftarrow$ O
	1) DRAFTSTOPPING MATERIALS S PANEL, 3/8" PARTICLEBOARD, 1					$\bigcirc$
	MINERAL WOOL OR GLASS FIBE	R, OR OTHER	APPROVED MATERIALS	ADEQUATELY SUPP	ORTED.	++++++
	<ul><li>2) DRAFTSTOPPING SHALL BE PRO</li><li>3) DRAFTSTOPPING SHALL BE INS</li></ul>					
	SEPARARTION WALS THAT DO N 4) THE ATTIC SPACE SHALL BE SU					
	ABOVE EVERY TWO DWELLING U	INITS, WHICHE	EVER IS SMALLER.			
	GENERAL AT		VENTI	ΔΤΙΟΝΙ	NOTES	
	1) TOTAL FREE AREA SHALL EQUA					
	<ul><li>ROOF PEAK AND 50% AT SOFFIT</li><li>2) SPECIFIED RIDGE VENT LENGTH</li></ul>		I 18 SQ. IN. FREE AREA F	PER LINEAL FOOT. AI	DJUST VENT	7/16" OSB ATT
	LENGTH AS REQUIRED BASED ( 3) SPECIFIED VENTILATION POD QL	ON FREE ARE	A OF SPECIFIC VENTILA	TOR USED.		OSB LOC DRAFST
	REQUIRED BASED ON FREE ARE					STRUCTURAI
	RUC	)FINI	G KEYNO	OTES		24"X 48" TALL AT
	60 MIL. TPO ROOFING S				D SYSTEMS OVER	1/2" PLYWOOD ON W/SPRING HINGES
	1 COVERBOARD & ROOF D 2 THRU WALL SCUPPER (C	ECKING.				GATE LATCH H BOTH SID
	3 OVERFLOW DRAIN (CORD		,	IING HEIGHT. 4" MIN.	OPENING.	
	4 PARAPET, HEIGHT VARIE 5 TAPERED INSULATION, C			ALL SECTIONS		
						۲
						3 A2.0A SCALE: 1/2
					PRE-FIN. ALUMINUN	
					<	
						KIDGE
					TIN	- VNLET
					$\mathbf{i}$	$\bigvee$
					$\mathbf{i}$	DRAFTSTC COMPARTM
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				IN <sup>R</sup>	1264 9	
4					'/ K	DRAFTSTOPPING
				,		COMPARTMENT "(
					RIDGE	
				$\leftarrow$ (	6" / 12" ×	6" / 12"
					u <b>.</b>	II~ ~ ~
				ROOF	<b>DI ΑΝ</b> Ι	
			6 A2.0/			DINGS 1, 4, 6, 8 & 11 - SEE CIVIL)
			v.z.0/		(DUIL	- 11 - JEE CIVIL)
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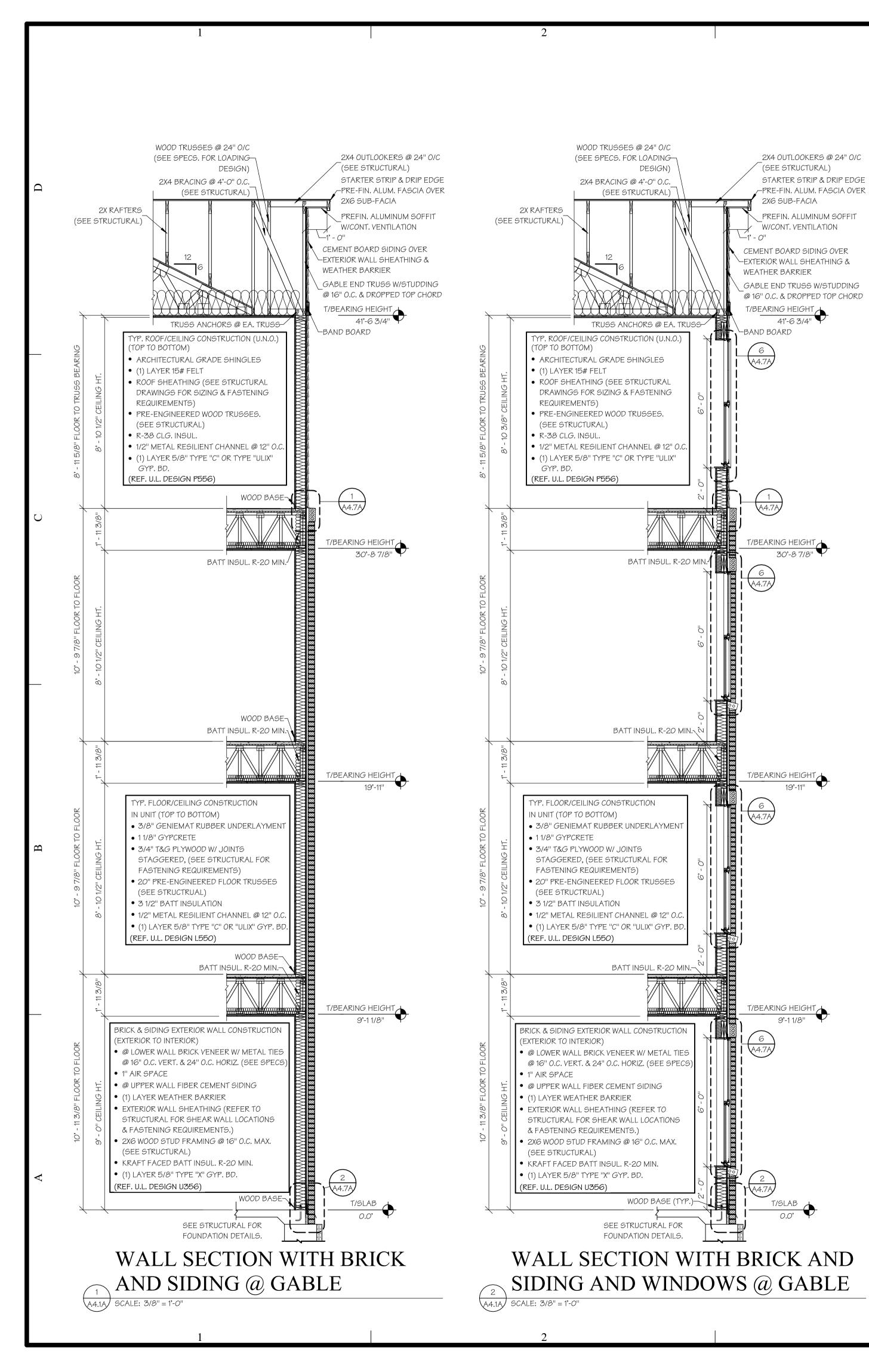


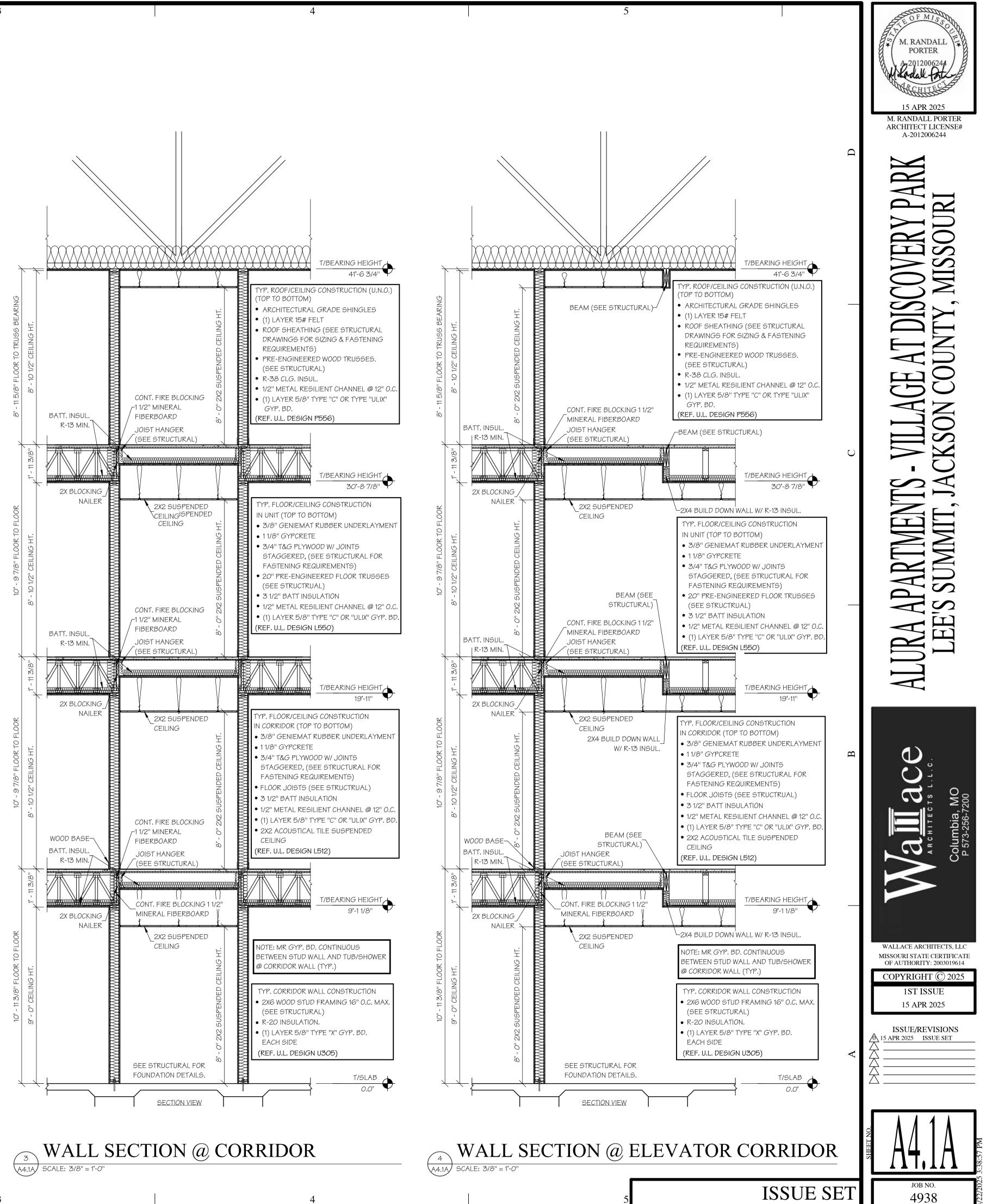




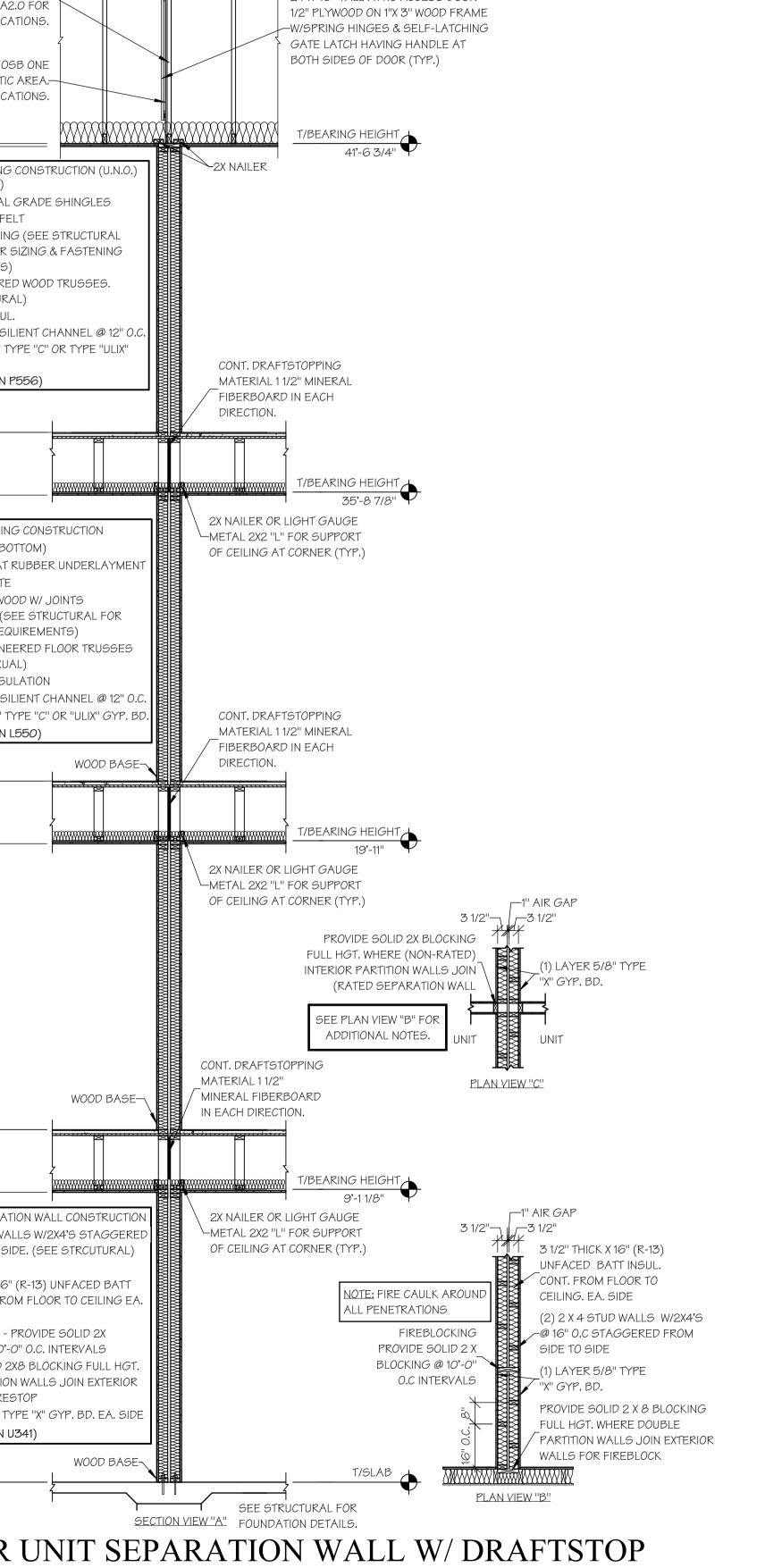


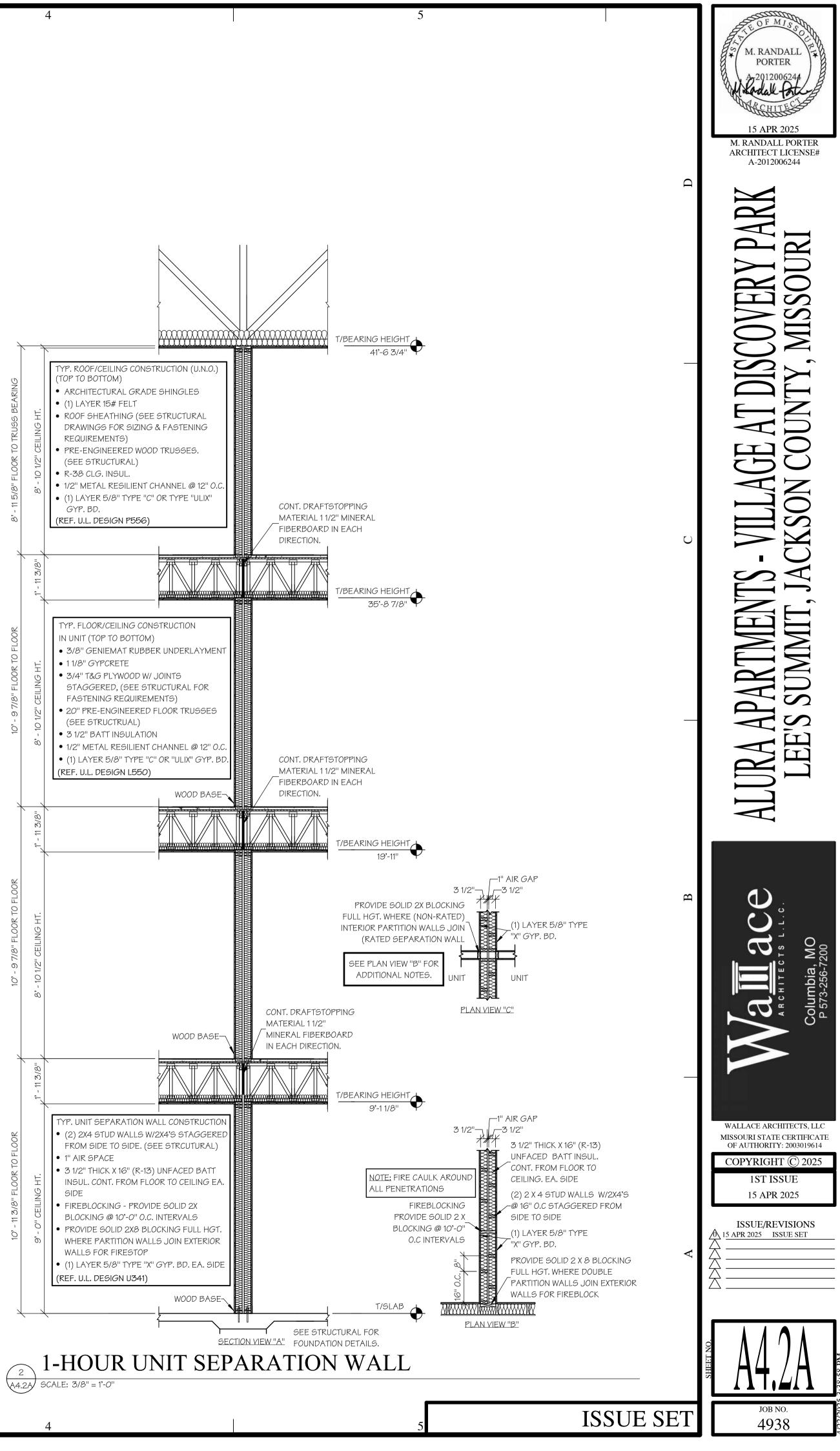




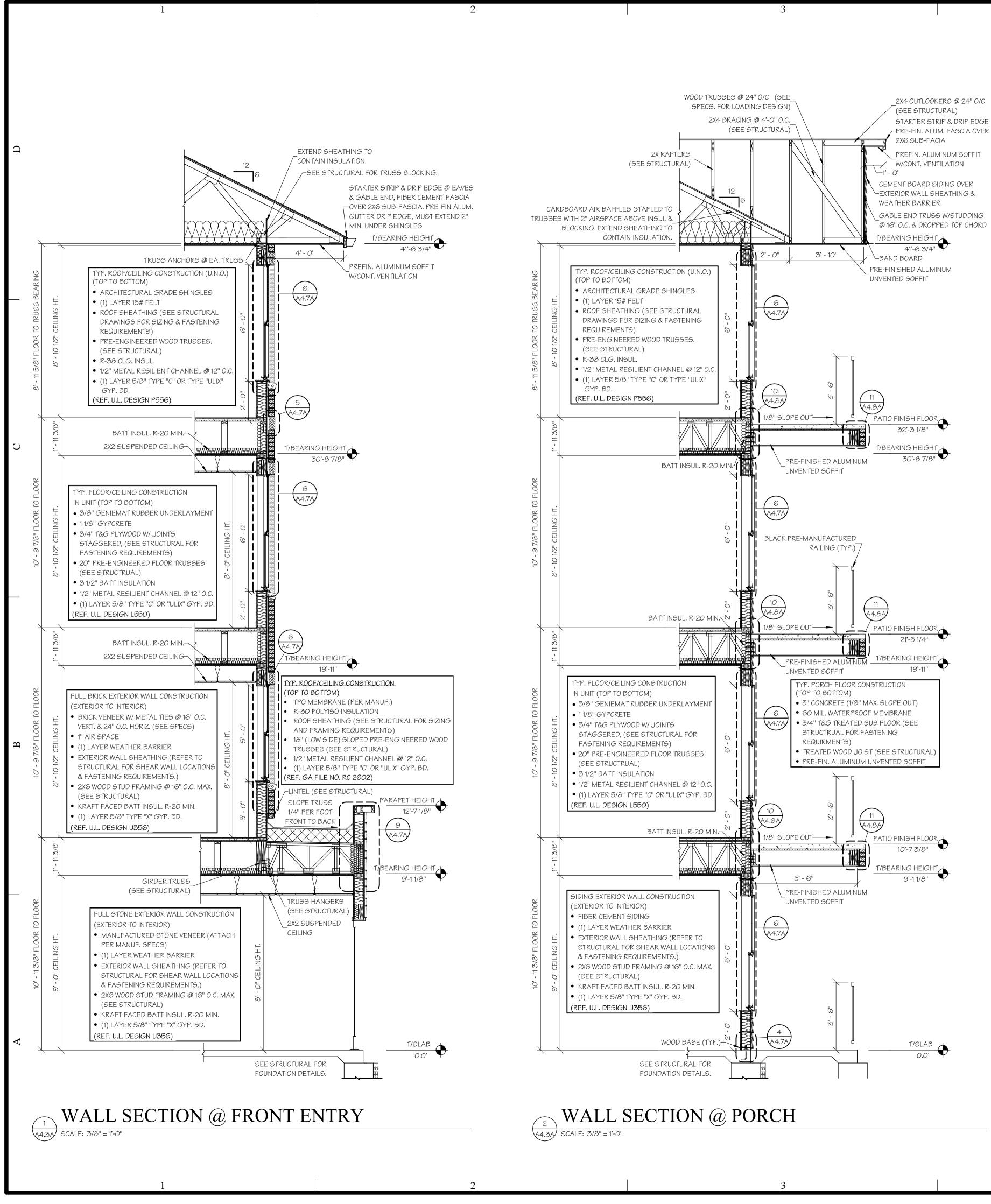


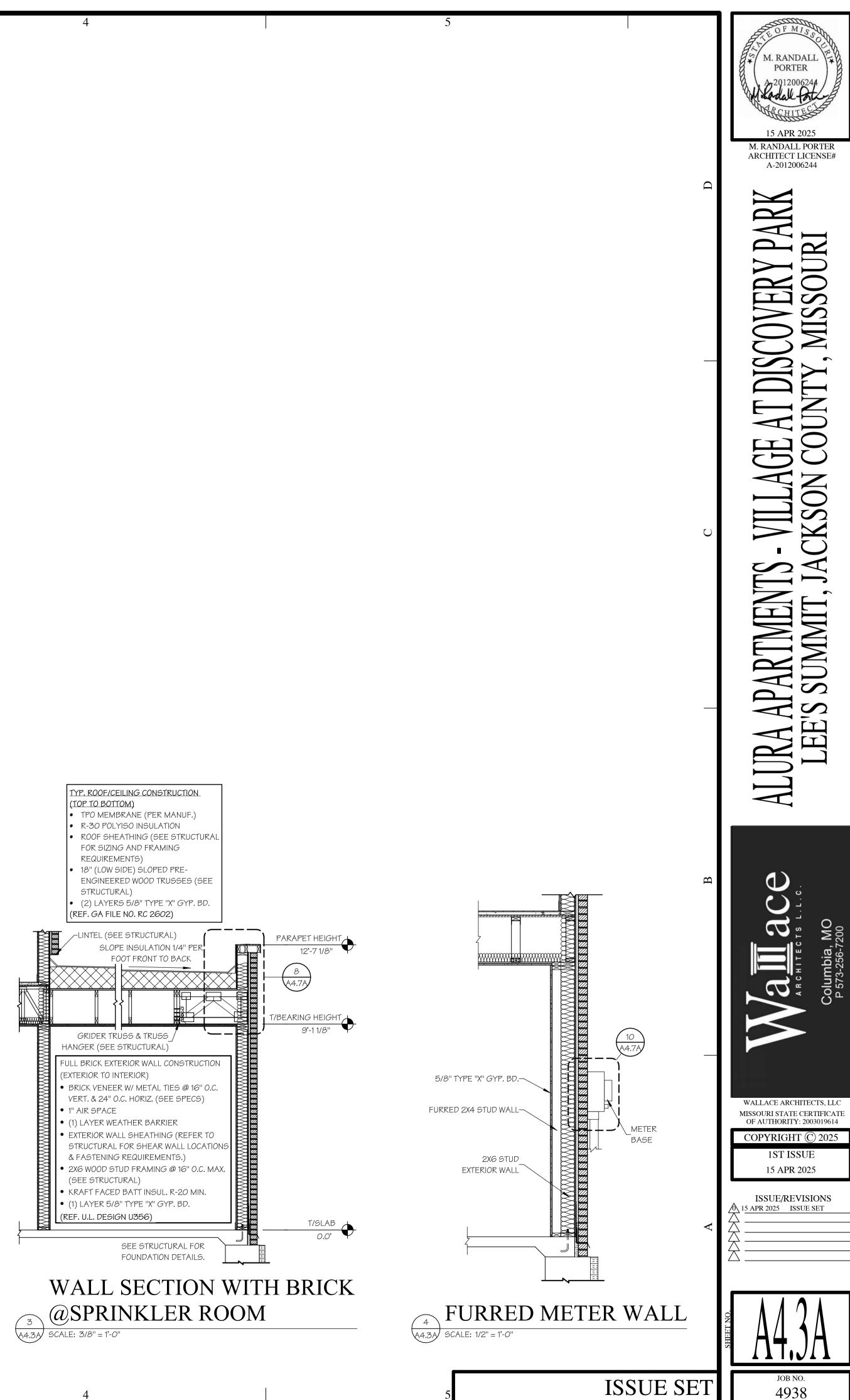
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D					
			OVE	R UNIT SE AFTSTOP	STALL GABLE ROOF TRUE EPARATION WALL FOR ATT PING. SEE SHEET A2.0 FC RAFTSTOPPING LOCATION
			DR	AFTSTOP	? - (1) LAYER 7/16'' OSB ON
					F TRUSS THRU ATTIC ARE. 200F PLAN FOR LOCATION:
_			:		TYP. ROOF/CEILING CONS (TOP TO BOTTOM)
			8' - 11 5/8" FLOOR TO TRUSS BEARING	HT.	<ul> <li>ARCHITECTURAL GRAI</li> <li>(1) LAYER 15# FELT</li> <li>ROOF SHEATHING (SE</li> </ul>
			R TO TRUS	2" CEILING HT.	DRAWINGS FOR SIZING REQUIREMENTS) • PRE-ENGINEERED WOO (SEE STRUCTURAL)
			2/8,, FL00	8' - 10 1/2"	<ul> <li>R-38 CLG. INSUL.</li> <li>1/2" METAL RESILIENT</li> <li>(1) LAYER 5/8" TYPE "(</li> </ul>
U			<i>∞</i> ,		GYP. BD. (REF. U.L. DESIGN P556)
J			:	11 3/8"	
				1 - 1	
			0 FLOOR		TYP. FLOOR/CEILING CON IN UNIT (TOP TO BOTTOM • 3/8" GENIEMAT RUBB
			9 7/8" FLOOR TO FLOOR	CEILING HT.	<ul> <li>11/8" GYPCRETE</li> <li>3/4" T&amp;G PLYWOOD W. STAGGERED, (SEE ST FASTENING REQUIREN</li> </ul>
_			10, - 9,7/	- 10 1	<ul> <li>20" PRE-ENGINEERED (SEE STRUCTRUAL)</li> <li>3 1/2" BATT INSULATION</li> </ul>
				Ø	<ul> <li>1/2" METAL RESILIENT</li> <li>(1) LAYER 5/8" TYPE "( (REF. U.L. DESIGN L550)</li> </ul>
			:	3/8"	
				1 - 11 3/	
В			LOOR		
			9 7/8" FLOOR TO FLOOR	ING HT.	
			1	<u> </u>	
			6	<i>8</i> , -1	
-				,1' - 11 3/8"	
			ŭζ		TYP. UNIT SEPARATION W • (2) 2X4 STUD WALLS W
			10' - 11 3/8" FLOOR TO FLOOR		FROM SIDE TO SIDE. (6 • 1" AIR SPACE • 3 1/2" THICK X 16" (R-13
			3/8" FL00	CEILING HT.	INGUL. CONT. FROM FL SIDE • FIREBLOCKING - PROVI BLOCKING @ 10'-0" 0.0
V			- 10 - 11	9' - 0"	<ul> <li>PROVIDE SOLID 2X8 BL WHERE PARTITION WAL WALLS FOR FIRESTOP</li> </ul>
					• (1) LAYER 5/8" TYPE "X (REF. U.L. DESIGN U341)
			:	ĹĹ	
			(	1 1	-HOUR U
			A	4.2A) 50	CALE: 3/8" = 1'-0"
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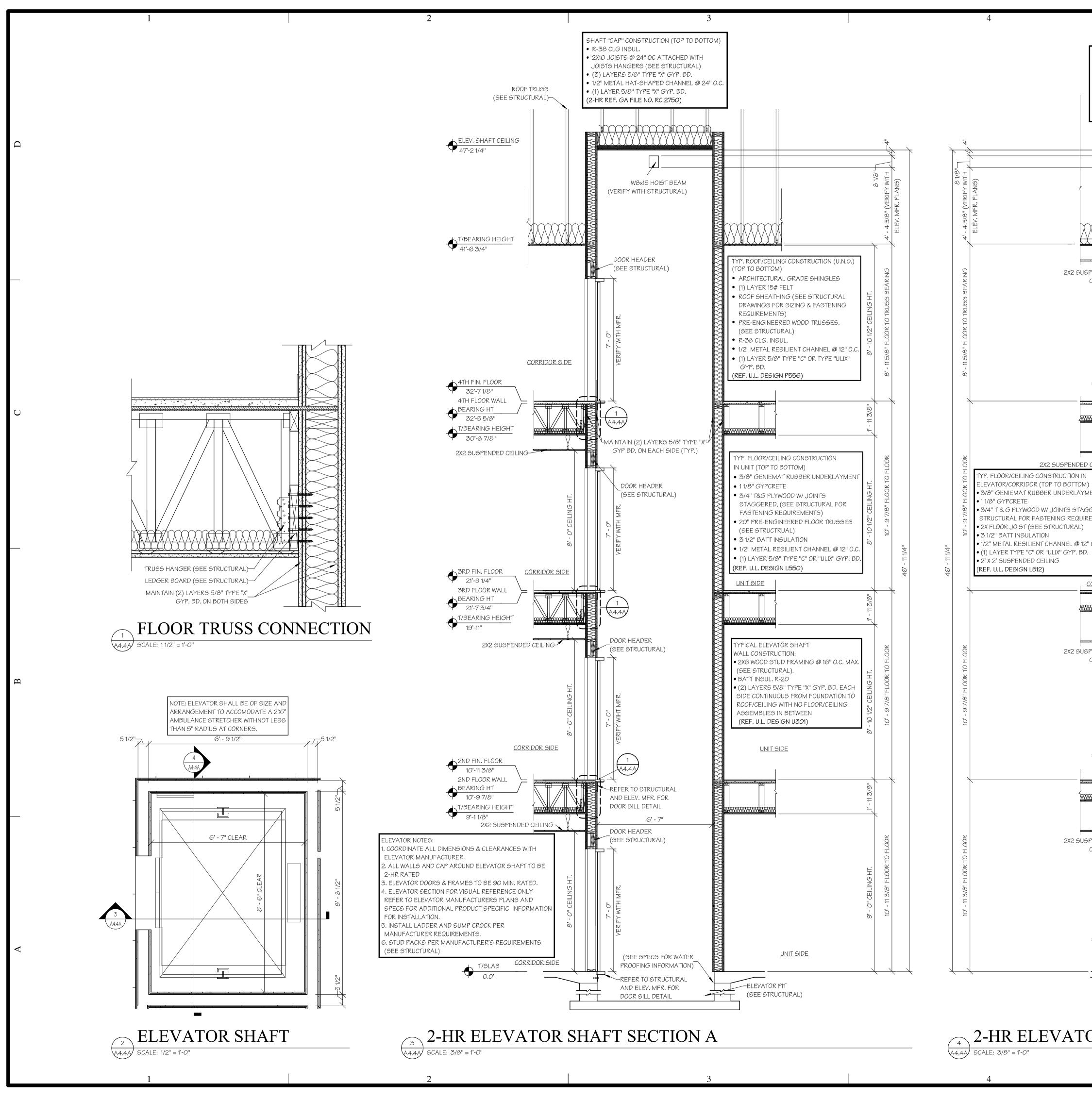


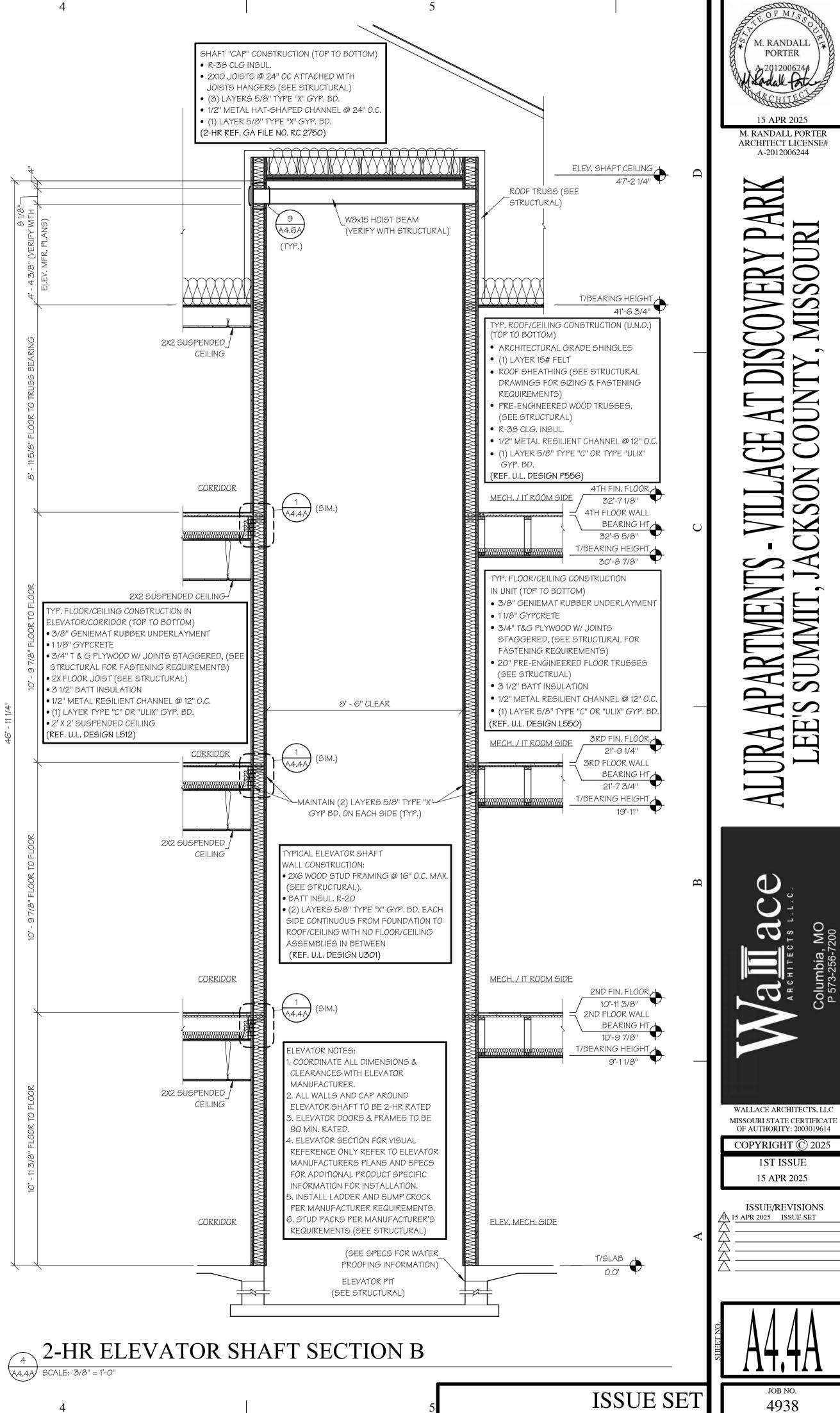


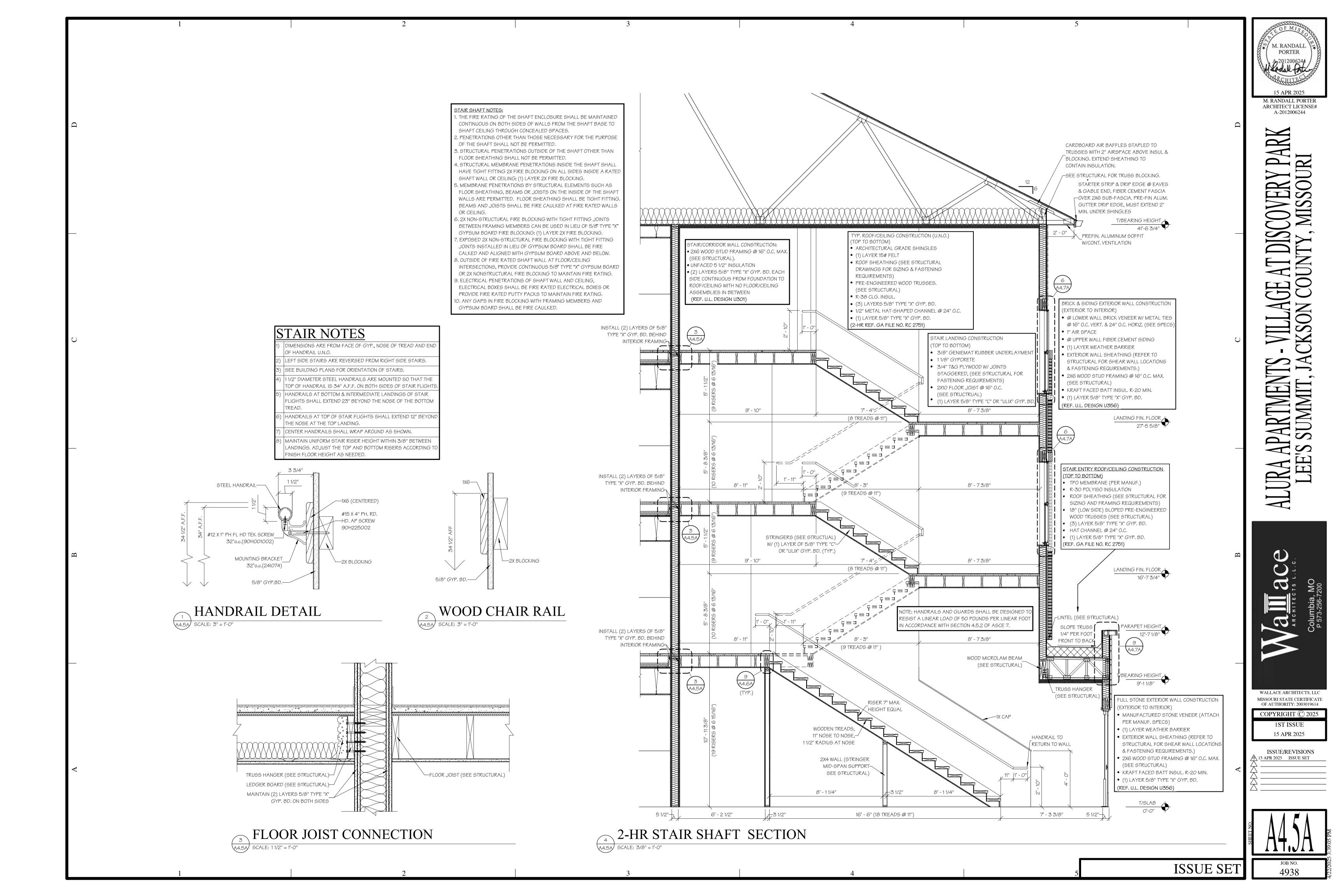
24"X 48" TALL ATTIC ACCESS DOOR -

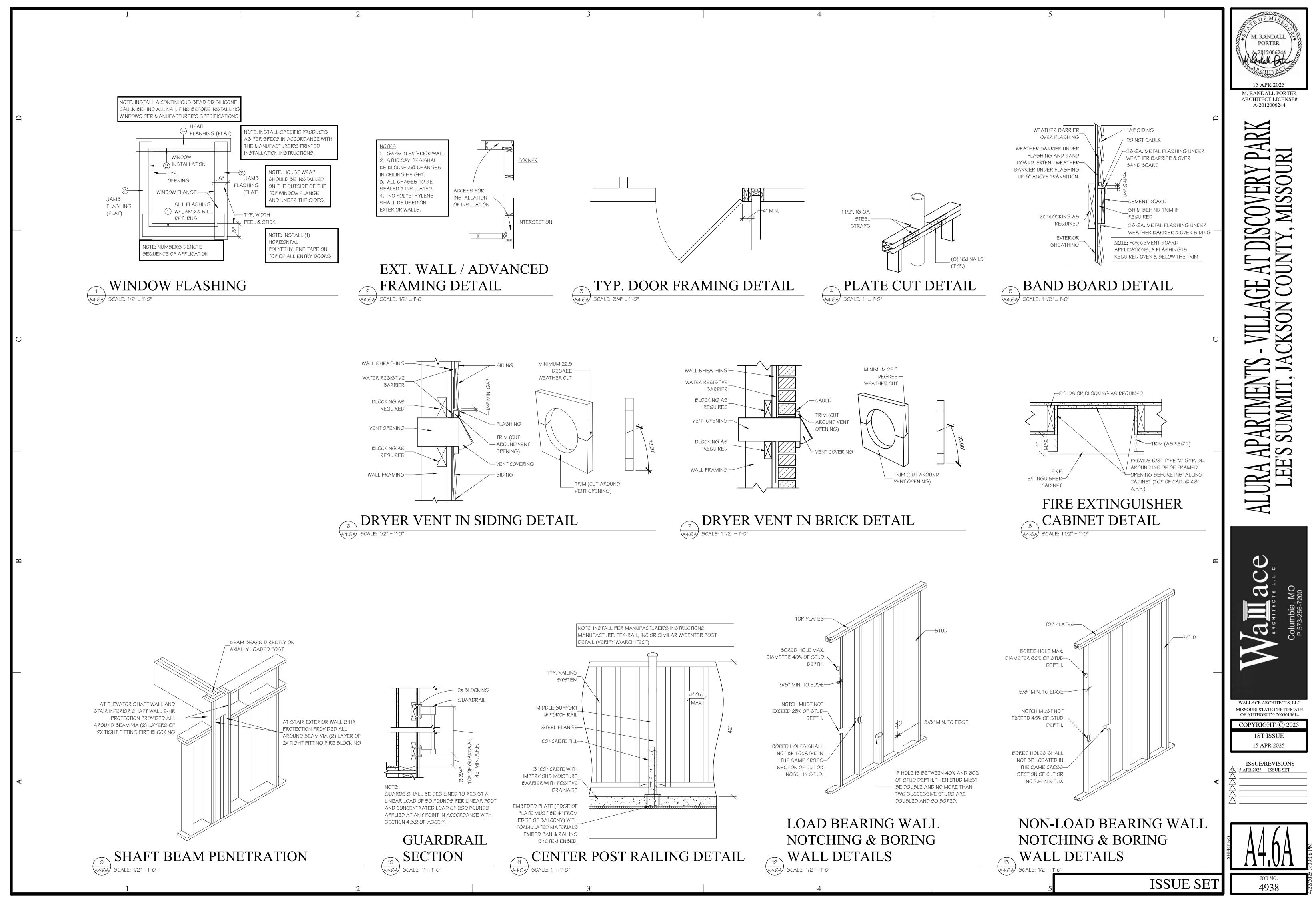


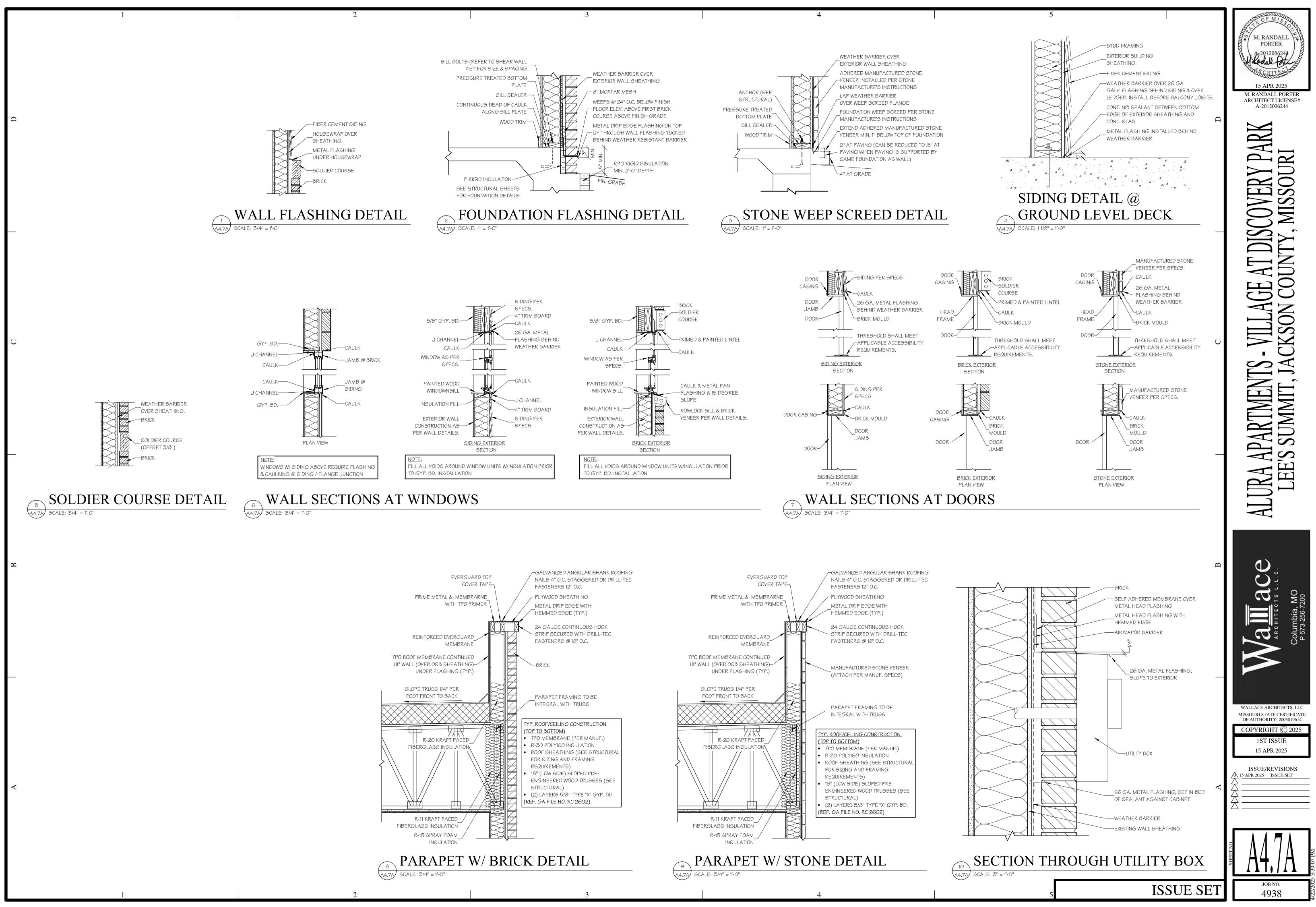


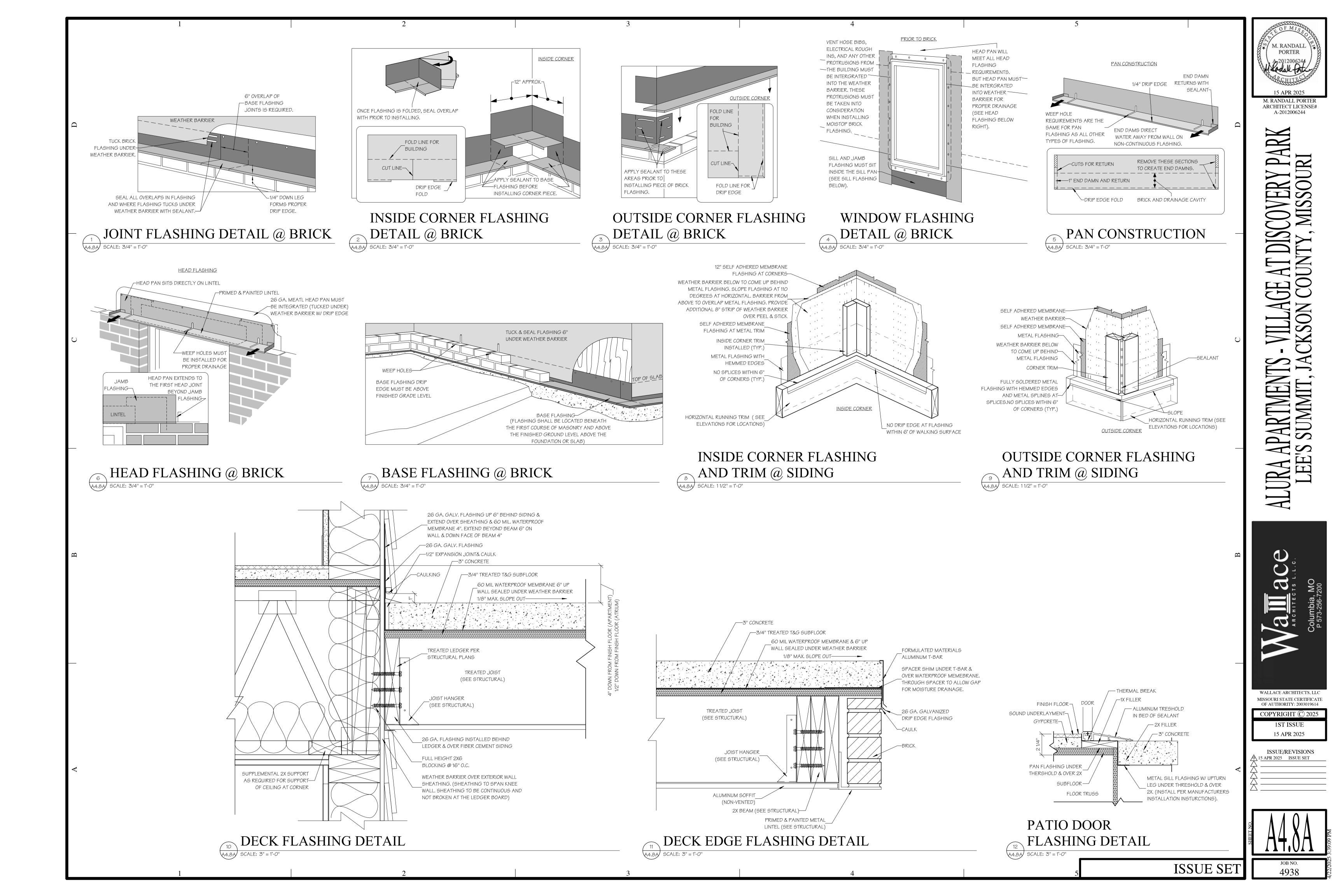












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Design No. L512	AERIX INDUSTRIES — Floor Topping Mixture		Alternate Floor Mat Materials* — (Optional) — bottom loose laid over the subfloor. Floor topping	<ul> <li>Floor mat material Nom. 1/4 in. entangled net core with a contribution of 1 in.</li> </ul>	ompressible fabric attached to the	Floor Mat Reinforcement — (Optional) - Refer to manufacturer's with floor mat reinforcement.	's instructions regarding minimum thickness of floor toppir
Unrestrained Assembly Rating — 1 Hr.	Deleted. System No. 6		KEENE BUILDING PRODUCTS CO INC — Quiet (			Metal Lath — (Optional) — Expanded steel diamond mesh, 2.5 lb	b / sq yd loose laid over floor mat material.
Finish Rating — 21 Min. or (16 Min. See Item 5A) This design was evaluated using a load design method other than the Limit States Design Method (e.g., Working Stress	System No. 7 Subflooring — Min 19/32 in. thick wood structural panels, min grade "C-D" or "Sh	heathing" Face grain of playood or strength axis of panels to be		System No. 14		Fiberglass Mesh Reinforcement — (Optional) — Coated non-wo	oven glass fiber mesh grid loose laid over floor mat material
used — See Guide <u>BXUV</u> or <u>BXUV7</u>	perpendicular to the joists with joints staggered. Vapor Barrier — (Optional) — Nom 0.030 in. thick commercial asphalt saturated		axis of panels to be perpendicular to the trusses v	tructural panels, min grade "Underlayment" or "Single-Floor". with end joints staggered 4 ft. Panels secured to trusses with truss. Staples having equal or greater withdrawal and lateral r	n construction adhesive and No. 6d	2. Wood Joists — Min 2 by 10, spaced 16 in. OC and effectively fi	fireblocked in accordance with local codes.
* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.	Finish Flooring — Floor Topping Mixture* — Min 3/4 in. thickness of floor toppi	ing mixture having a min compressive strength of 1000 psi.	substituted for the 6d nails.	ck, 4 ft wide gypsum board, installed with long dimension pe		3. Cross Bridging — Min 1 by 3 in. or min 2 by 10 solid blocking.	e
	Mixture shall consist of 5 to 8 gal of water to 80 lbs of floor topping mixture to 2.1 ULTRA QUIET FLOORS — UQF-A, UQF-Super Blend, UQF-Plus 2000	i cu it of sand.		steel screws spaced 12 in. OC and located a min of 1-1/2 in.		3A. Horizontal Bridging — Used in lieu of Item 3 in same joist ba Wood 2 by 4 in. secured between joists with nails.	ay as ceiling damper (Item 4), when ceiling damper is emplo
Sul	System No. 8 Subflooring — Min 15/32 in. wood structural panels, min grade "C-D" or "Sheathi	ing" Face grain of plywood or strength axis of panels to be				<ol> <li>Ceiling Damper* — (Optional) — Max nom area shall be 198 Max height of damper shall be 8-3/4 in. Aggregate damper openi</li> </ol>	
per per	perpendicular to joists with joints staggered. Vapor Barrier — (Optional) — Nom 0.030 in thick commercial asphalt saturated f		Floor Mat Materials* — (As an alternate to the s MAXXON CORP — Type Encapsulated Sound Ma	single layer gypsum board) — Floor mat material loose laid d lat.	over the submoon.	installed in accordance with the manufacturers installation instructions.	
	Finish Flooring — Floor Topping Mixture* — Min 3/4 thickness of floor topping Refer to manufacturer's instructions accompanying the material for specific mix de	g mixture having a minimum compressive strength of 1500 psi.	Gypsum Board* — (For use when floor mat is use	sed) Two layers of nom 5/8 in. thick, 4 ft wide gypsum board,		AIR BALANCE INC — Type 299 (See Item 5A)	
MA	MAXXON CORP — Type Maxxon Standard and Maxxon High Strength			naterial. Gypsum board secured to each other with 1 in. long l from side and end joints. The joints of the gypsum board are he subfloor.	to be staggered a minimum of 12	AIR KING VENTILATION PRODUCTS — Series FRAS, Series FRAK, Serie	
	Floor Mat Materials* — (Optional) —Floor mat material loose laid over the subfl minimum thickness of floor topping over each floor mat material.	floor. Refer to manufacturer's instructions regarding the	GEORGIA-PACIFIC GYPSUM L L C — Type DS			CENTRAL VENTILATION SYSTEMS CO L L C — Models C-S/R-HC(-A),	C-RD-HC(-A)
	MAXXON CORP — Type Encapsulated Sound Mat.		Subflooring — Min 15/32 in. thick wood structur	System No. 15 ural panels, min grade "C-D" or "Sheathing". Face grain of ply		GREENHECK FAN CORP — Model CRD-1WJ	
	Floor Mat Reinforcement — (Optional) Refer to manufacturer's instructions regar reinforcement.	arding minimum thickness of floor topping for use with floor mat	perpendicular to the joists with joints staggered. Vapor Barrier — (Optional) — Nom 0.030 in. thi		a ang ang ang ang ang ang ang ang ang an	METAL-FAB INC — Models MSCDHC, MRCDHC	
	Metal Lath (Optional) — 3/8 in. expanded galvanized steel diamond mesh, 3.4 lbs,	s/sq yd loose laid over the floor mat material.	Finish Flooring — Floor Topping Mixture* — M	Min 3/4 or 1 in. thickness of floor topping mixture for 19/32 of rength of 1000 psi. Refer to manufacturer's instructions acco	or 15/32 in. thick wood structural	METAL INDUSTRIES INC — Models CD-S/R-HC, CD-S/R-HC-A, CD-RD	-HC, CD-RD-HC-A
	System No. 9 Subflooring — Min 15/32 in. thick wood structural panels, min grade "C-D" or "Sh		mix design.			NCA MFG INC — Models CD-S/R-HC, CD-S/R-HC-A, CD-RD-HC, CD-RI	.D-HC-A
System No. 1	perpendicular to the joists with joints staggered. <b>Vapor Barrier</b> — (Optional) Nom 0.030 in. thick commercial asphalt saturated felt.		DEPENDABLE LLC — GSL M3.4, GSL K2.6, GSL-CS	and GSL KH		BRISK MFG INC — Model BMI-50-CRD-S/R-WT	
"Sheathing". Face grain of plywood or strength axis of panels to be perpendicular to the joists with joints staggered.	Finish Flooring — Floor Topping Mixture* — Min 3/4 in. thickness of floor toppi psi. Refer to manufacturer's instructions accompanying the material for specific mis	ping mixture having a minimum compressive strength of 1500	UNITED STATES GYPSUM CO — Levelrock SLC			PRICE INDUSTRIES LTD — Models CD-S/R-HC, CD-RD-HC	
For the state of t	FORMULATED MATERIALS LLC — Types FR-25, FR-30, and SiteMix		Floor Mat Materials* — (Optional) — Nom. 1/4 KEENE BUILDING PRODUCTS CO INC — Type Q	i in. thick loose laid over the subfloor. Floor topping thicknes: Quiet Qurl 55/025 and Quiet Qurl 55/025 N		RUSKIN COMPANY — Model CFD7	
of plywood to be perpendicular to joists with joints staggered. System No. 2 UN	UNITED STATES GYPSUM CO — Levelrock SLC					UNITED ENERTECH CORP — Models C-S/R-HC(-A), C-RD-HC(-A)	
Subflooring — Min 15/32 in. thick wood structural panels, min grade "C-D" or "Sheathing". Face grain of plywood or strength axis of panels to be perpendicular to the joists with joints staggered.	Alternate Floor Mat Material* — (Optional) Floor mat material nominal 2 - 9.5 m	nm thick loose laid over the subfloor. Floor topping thickness	be a minimum of 1 in.	– Floor mat material Nom. 3/8 in. thick loose laid over the sul	noor. Floor topping thickness shall	5. Gypsum Board* — Nom 1/2 or 5/8 in. thick, 4 ft wide gypsum	board, installed with long dimension perpendicular to joist
	shall be a minimum of 3/4 in. FORMULATED MATERIALS LLC — Types M1, M2, M3, Elite, Duo, R1, and R2		KEENE BUILDING PRODUCTS CO INC — Type C	Quiet Qurl 60/040 and Quiet Qurl 60/040 N		secured with 5d and 6d cement coated cooler nails, spaced 6 in. C spaced 3/4 and 1/2 in. from side and end joints, respectively.	
Refer to manufacturer's instructions accompanying the material for specific mix design. UNITED STATES GYPSUM CO — Types LRK, HSLRK, CSD	System No. 10		Alternate Floor Mat Materials* — (Optional) — be a minimum of 1-1/2 in.	– Floor mat material Nom. 3/4 in. thick loose laid over the sul	floor. Floor topping thickness shall	AMERICAN GYPSUM CO — Types AG-C	
Sul	Subflooring — Min 1 by 6 in. T & G lumber fastened diagonally to joists, or min 1 board (OSB) wood structural panels, min grade "C-D" or "Sheathing". Face grain of	15/32 in. thick plywood or min 7/16 in. thick oriented strand	KEENE BUILDING PRODUCTS CO INC — Type C	Quiet Qurl 65/075, Quiet Qurl 65/075 N		CABOT MANUFACTURING ULC — Type C	
Fin	joists with joints staggered. Finish Floor — Mineral and Fiber Board* — Min 1/2 in. thick, supplied in sizes ra		Alternate Floor Mat Materials* — (Optional) — be a minimum of 3/4 in.	– Floor mat material Nom. 1/8 in. thick loose laid over the sul	əfloor. Floor topping thickness shall	<b>CERTAINTEED GYPSUM INC</b> — Type C	
the minimum thickness of floor topping over each floor mat material.	a min of 12 in. with adjacent sub-floor joints. HOMASOTE CO — Type 440-32 Mineral and Fiber Board		KEENE BUILDING PRODUCTS CO INC — Type C	Quiet Qurl 52/013 and Quiet Qurl 52/013 N		CGC INC — Types C, IP-X2, IPC-AR	
Alternate Floor Mat Materials* — (Optional) — Nom 3/8 in. thick floor mat material loose laid over the subfloor. Floor topping	System No. 11		Alternate Floor Mat Materials* — (Optional) — bottom loose laid over the subfloor. Floor topping	– Floor mat material Nom. 1/4 in. entangled net core with a c ng thickness shall be a minimum of 1 in.	ompressible fabric attached to the	CERTAINTEED GYPSUM INC — Type LGFC-C/A	
thickness shall be as specified under Floor Topping Mixture. Su	System No. 11 Subflooring — Min 15/32 in. thick wood structural panels, min grade "C-D" or "Sh perpendicular to the joists with joints staggered.		KEENE BUILDING PRODUCTS CO INC — Quiet (			GEORGIA-PACIFIC GYPSUM L L C — Types 5, DAPC, TG-C	
Sustem No. 2	Vapor Barrier — (Optional) — Nom 0.030 in. thick commercial asphalt saturated		Subflooring — Min 1 by 6 in, T & G lumber f	System No. 16 fastened diagonally to joists, or min 15/32 in. thick woo	od structural panels, min grade "C-	NATIONAL GYPSUM CO — Types eXP-C, FSK-C, FSW-C	
Subflooring — Min 19/32 in. thick wood structural panels, min grade "C-D" or "Sheathing". Face grain of plywood or strength axis of panels to be	Finish Flooring — Floor Topping Mixture* — Min 3/4 or 1 in. thickness of floor t panels respectively, having a min compressive strength of 1000 psi. Refer to manul mix design.	topping mixture for 19/32 of 15/32 in. thick wood structural	-	strength axis of panels to be perpendicular to the joists	with joints staggered.	PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM — Type C	2 or PG-C
	ARCOSA SPECIALTY MATERIALS — AccuCrete® Types NexGen, Green, Prime and	nd PrePour, AccuRadiant®, AccuLevel® Types G40, G50 and SD30	Classification Marking as to Fire Resistance wi	<b>Is</b> — Min 3/4 in. to 1-1/2 in. thickness of any Floor Topp with a minimum compressive strength of 1500 psi.	ng Mixture bearing the UL	PANEL REY S A — Types PRC, PRC2	
HACKER INDUSTRIES INC — Type Hacker Sound-Mat	UNITED STATES GYPSUM CO — Levelrock SLC		See Floor- and Roof-Topping Mixtures (CCOX) of Floor Mat Materials* — (Optional) — Floor (	category for names of Classified Companies.	ar the subfloor. When used	THAI GYPSUM PRODUCTS PCL — Type C	
Brimer to be applied to the surface of the mat prior to the placement of a min 1 1/4 in (22 mm) of floor tenning mixture	Alternate Floor Mat Material* — (Optional) - Floor mat material nominal 2 - 9.5 i	mm thick loose laid over the subfloor. Floor topping shall be a		mat material nom 1/8 in. to 3/4 in. thick. Loose laid ove loose laid over the floor mat material. Floor topping ma	terial thickness is dependent on	UNITED STATES GYPSUM CO — Types C, IP-X2, IPC-AR	
HACKER INDUSTRIES INC — Type Hacker Sound-Mat II.	min of 3/4 in. or 1 in. thickness of floor topping mixture for 19/32 or 15/32 in. thick <b>ARCOSA SPECIALTY MATERIALS</b> — AccuQuiet® Types D13, D-18, D25, DX38, EM	sk wood structural panels respectively.		or, Acousti-flor CSM. Floor topping thickness depends on pro-		USG BORAL DRYWALL SFZ LLC — Type C	
Alternate Floor Mat Materials — (Optional) — Floor mat material nom 1/8 in. (3 mm) thick loose laid over the subfloor. Floor topping thickness	EM.750S.		Acousti-flor (1/8 in. thick) - Floor topping thicknes				
	System No. 12 Subflooring — 15/32 or 19/32 in. thick wood structural panels, min. grade "C-D" of to be perpendicular to inject with joints staggard		Acousti-flor (1/4 in. thick) - Floor topping thicknes Acousti-flor (3/8 in. thick) - Floor topping thicknes			USG MEXICO S A DE C V — Types C, IP-X2, IPC-AR 5A. Gypsum Board* — (Finish Rating - 16 min.) Required when A	Air Balance Inc. Type 299 ceiling damper (Itom 4) is installed
Alternate Floor Mat Materials — (Optional) — Floor mat material nom 1/4 in. (6 mm) thick loose laid over the subfloor. Floor topping thickness	to be perpendicular to joists with joints staggered. Vapor Barrier — (Optional) — Nom 0.030 in. thick commercial asphalt saturated		Acousti-flor (3/4 in. thick) - Floor topping thicknes	ess shall be a minimum of 1-1/2 in.		5A. Gypsum Board* — (Finish Rating - 16 min.) Required when A in. thick, 48 in. wide gypsum board, installed with long dimension 6d cement coated nails spaced 6 in. OC with the first nails located	n perpendicular to joists. Gypsum board secured with 1-7/8 i
shall be a min of 1 in. (25 mm)	Finish Flooring — Floor Topping Mixture* — Min 3/4 or 1 in. thickness of floor t panels respectively, having a min compressive strength of 2100 psi. Refer to manul	the state of the s	Metal Lath — (Optional) — Expanded steel d	diamond mesh, 2.5 lb / sq yd loose laid over floor mat r		UNITED STATES GYPSUM CO — Type C	
miz	mix design. System No. 13	1	Fiberglass Mesh Reinforcement — (Optiona	nal) — Coated non-woven glass fiber mesh grid loose lai	d over floor mat material.	<b>USG BORAL DRYWALL SFZ LLC</b> — Type C	
thickness shall be a min of 1-1/4 in. (32 mm) Sul	Subflooring — Min 15/32 in. thick wood structural panels, min grade "C-D" or "Sh perpendicular to the joists with joints staggered.	heathing". Face grain of plywood or strength axis of panels to be		System No. 17 fastened diagonally to joists, or min 15/32 in. thick woo		USG MEXICO S A DE C V — Type C	
	Vapor Barrier — (Optional) - Commercial asphalt saturated felt, 0.030 in. thick. Vapor Barrier — (Optional) - Nom 0.010 in. thick commercial rosin-sized building		5 5 11	strength axis of panels to be perpendicular to the joists	5 P-55	5B. Gypsum Board* — (As an alternative to Items 5 and 5A) Nom Items 5 and 5A, with max screw spacing 6 in. OC.	$\mathfrak n$ 5/8 in. thick, 48 in. wide gypsum board installed, as describ
thickness shall be a min of 1-1/2 in. (38 mm)	Vapor Barrier — (Optional) - Nom 0.010 in. thick commercial rosin-sized building Finish Flooring* — Min 3/4 in. thickness of any Floor Topping Mixture bearing the Roof-Topping Mixtures (CCOX) category for names of Classified Companies.	e UL Classification Marking as to Fire Resistance. See Floor- and		<ul> <li>Min 1 in. thickness of floor topping mixture having a poppanying the material for specific mix design.</li> <li>X AP Rapid Plus</li> </ul>	ain compressive strength of 4500	CGC INC — Type ULIX	
FICKER INDUSTRIES INC - Type FIRMI-FILL SCIM 750, Quiet Quit 05/075	Floor Mat Materials* — (Optional) — Nom. 1/4 in. thick loose laid over the subflo		51 12541 - 10 - 10 - 10 - 10 - 10 - 10 - 10 -	System No. 18	27 - 50 - 98 - 60 - 11 - 14	UNITED STATES GYPSUM CO — ULIX	
floor mat material. Hacker Floor Primer to be applied prior to the placement of the metal lath. When metal lath is used, floor topping thickness a nom 1-1/4 in. over the floor mat.	KEENE BUILDING PRODUCTS CO INC — Type Quiet Qurl 55/025 and Quiet Qurl			fastened diagonally to joists, or min 15/32 in. thick woo strength axis of panels to be perpendicular to the joists		<ol> <li>Finishing System — (Not Shown) — Vinyl, dry or premixed jo 2 in. wide paper tape embedded in first layer of compound over a applied to the entire surface of gypsum board.</li> </ol>	
Finish Flooring — Floor Topping Mixture* — Min 3/4 in. thickness of floor topping mixture having a min compressive strength of 1100 psi. be Mixture shall consist of 6.8 gal of water to 80 lbs of floor topping mixture to 1.9 cu ft of sand.	Alternate Floor Mat Materials* — (Optional) — Floor mat material Nom. 3/8 in. t be a minimum of 1 in.		Vapor Barrier — (Optional) - Commercial asp	sphalt saturated felt, 0.030 in. thick.		7. Grille — Steel grille, installed in accordance with the installation	on instructions provided with the ceiling damper.
KE HACKER INDUSTRIES INC — Firm-Fill Gypsum Concrete, Firm-Fill 2010, Firm-Fill 3310, Firm-Fill 4010, Firm-Fill High Strength, Gyp-Span Radiant	KEENE BUILDING PRODUCTS CO INC — Type Quiet Qurl 60/040 and Quiet Qurl	I 60/040 N	Vapor Barrier — (Optional) - Nom 0.010 in. t	thick commercial rosin-sized building paper.		8. Discrete Products Installed in Air-handling Spaces* — Autor	
Contain March 1	Alternate Floor Mat Materials* — (Optional) — Floor mat material Nom. 3/4 in. t be a minimum of 1-1/2 in.	11 3		<ul> <li>Min 3/4 in. thickness of any Floor Topping Mixture be d Roof-Topping Mixtures (CCOX) category for names of the d Roof-Topping Mixtures (CCOX) category for names of the d Roof-Topping Mixtures (CCOX) category for names of the d Roof-Topping Mixtures (CCOX) category for names of the d Roof-Topping Mixtures (CCOX) category for names of the d Roof-Topping Mixtures (CCOX) category for names of the d Roof-Topping Mixtures (CCOX) category for names of the d Roof-Topping Mixtures (CCOX) category for names of the d Roof-Topping Mixtures (CCOX) category for names of the d Roof-Topping Mixtures (CCOX) category for names of the d Roof-Topping Mixtures (CCOX) category for names (CCOX) category for n</li></ul>	Classified Companies.	with item 4, Ruskin Company's Model CFD7 damper (CABS). Ceilir manufacturer's instructions with side outlet only. Entire assembly accordance with the instructions provided by the automatic balance	to be installed into any UL Class 0 or Class 1 flexible air duct
subsecting mining and the wood structural panels, thin grade to or sheathing race grain of plywood or strength axis of panels to be	KEENE BUILDING PRODUCTS CO INC — Type Quiet Qurl 65/075, Quiet Qurl 65/0			wn) - Floor mat material loose laid over the subfloor. Re		accordance with the instructions provided by the automatic balan METAL INDUSTRIES INC — Model ABV-4, ABV-5, ABV-6	cing vaive/damper manufacturer.
perpendicular to the joists with joints staggered.	Alternate Floor Mat Materials* — (Optional) — Floor mat material Nom. 1/8 in. t be a minimum of 3/4 in.		regarding the minimum thickness of floor top LOW & BONAR INC — EnkaSonic® by Colbond	pping over each floor mat material. d a member of the Low & Bonar group Types 125, 250, 250 P	us, 400, 400 Plus, 750, and 750 Plus.	* Indicates such products shall bear the UL or cUL Certificati (such as Cana	tion Mark for jurisdictions employing the UL or cUL Cert ada), respectively.
perpendicular to the joists with joints staggered.  Vapor Barrier — (Optional) — Nom 0.030 in. thick commercial asphalt saturated felt.  Finish Flooring — Floor Topping Mixture* — Min 1-1/2 in. thickness of floor topping mixture having a min compressive strength of 1000 psi be	24MAG REVIAL COLORIDATES COLORIDATES COLORIDATES					(	Last Updated on 2
perpendicular to the joists with joints staggered. KEI Vapor Barrier — (Optional) — Nom 0.030 in. thick commercial asphalt saturated felt. Finish Flooring — Floor Topping Mixture* — Min 1-1/2 in. thickness of floor topping mixture having a min compressive strength of 1000 psi and a cast density of 100 plus or minus 5 pcf. Foam concentrate mixed 40:1 by volume with water and expanded at 100 psi through nozzle.	KEENE BUILDING PRODUCTS CO INC — Type Quiet Qurl 52/013 and Quiet Qurl	I 52/013 N					
perpendicular to the joists with joints staggered.       KEI         Vapor Barrier — (Optional) — Nom 0.030 in. thick commercial asphalt saturated felt.       Alt         Finish Flooring — Floor Topping Mixture* — Min 1-1/2 in. thickness of floor topping mixture having a min compressive strength of 1000 psi and a cast density of 100 plus or minus 5 pcf. Foam concentrate mixed 40:1 by volume with water and expanded at 100 psi through nozzle.       Alt         Mixture shall consist of 1.4 cu feet of preformed foam concentrate to 94 lbs Type I Portland cement, 300 lbs of sand with 5-1/2 gal of water.       KEI         ELASTIZELL CORP OF AMERICA — Type FF       System No. 5	KEENE BUILDING PRODUCTS CO INC — Type Quiet Qurl 52/013 and Quiet Qur	I 52/013 N					
perpendicular to the joists with joints staggered.       KEI         Vapor Barrier — (Optional) — Nom 0.030 in. thick commercial asphalt saturated felt.       Alt         Finish Flooring — Floor Topping Mixture* — Min 1-1/2 in. thickness of floor topping mixture having a min compressive strength of 1000 psi and a cast density of 100 plus or minus 5 pcf. Foam concentrate mixed 40:1 by volume with water and expanded at 100 psi through nozzle.       Alt         Mixture shall consist of 1.4 cu feet of preformed foam concentrate to 94 lbs Type I Portland cement, 300 lbs of sand with 5-1/2 gal of water.       KEI         ELASTIZELL CORP OF AMERICA — Type FF       Type FF	KEENE BUILDING PRODUCTS CO INC — Type Quiet Qurl 52/013 and Quiet Qur	I 52/013 N		2 HOUR	GA FILE NO. RC	C 2751 GENERIC	2 HOUR

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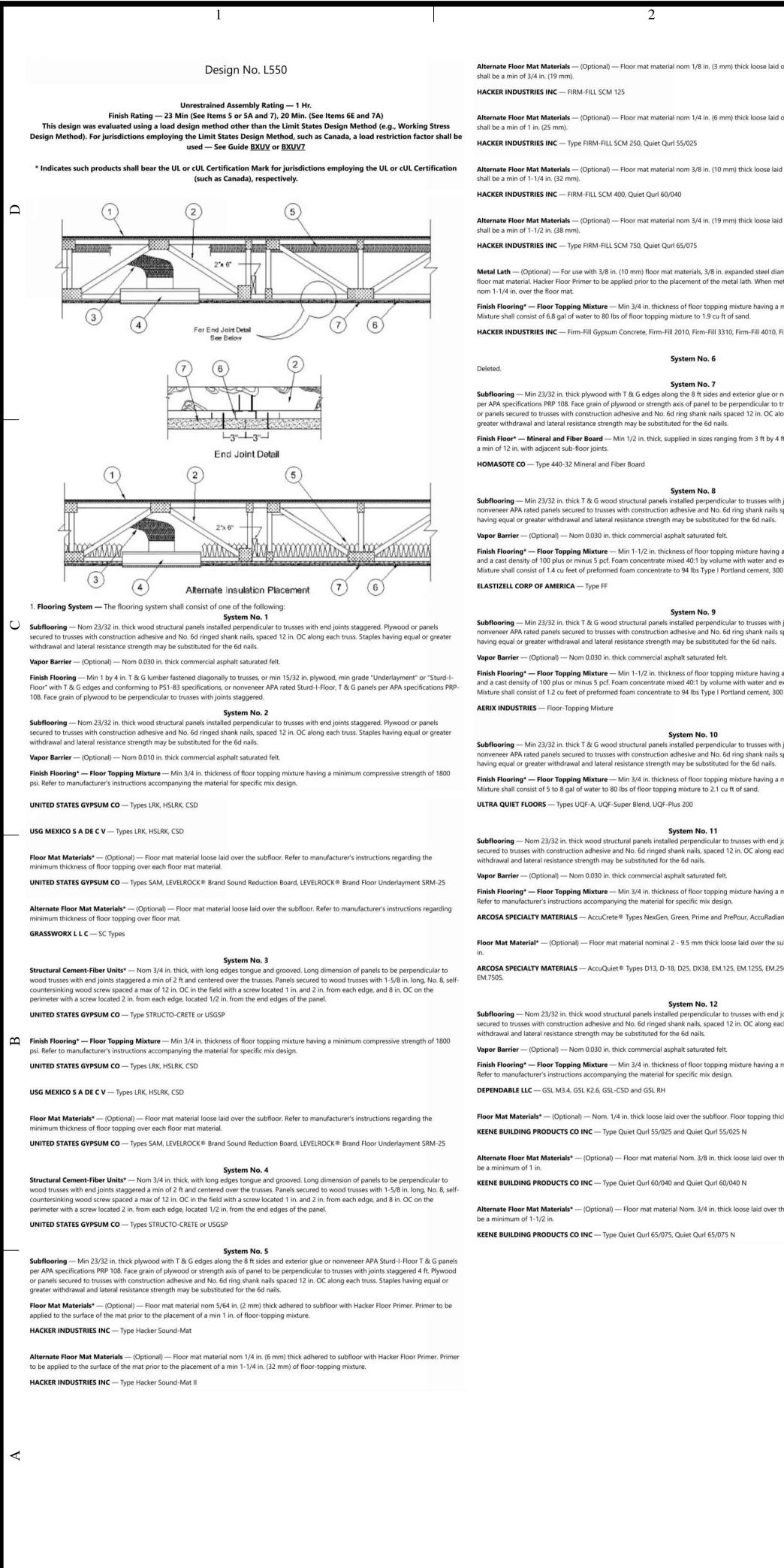
GYPSUM WALLBOARD, RIGID FURRING CHANNELS, WOOD JOISTS or WOOD I-JOISTS, ROOF COVERING Fire Design: Base layer 5/8" type X gypsum wallboard applied at right angles to either 2 x 8 wood joists or 9-1/2" deep wood I-joists 24" o.c. with 1-1/4" Type W screws 12" o.c. Second layer 5/8" type X gypsum wallboard applied at right angles to joists or I-joists with 2" Type W screws 12" o.c. Third layer 5/8" type X gypsum wallboard applied at right angles to joists or I-joists with 2-1/2" Type W screws 12" o.c. Hat-shaped rigid furring channels 24" o.c. applied at right angles to joists or I-joists or I-joist aright angles to joist or I-joist I-face layer 5/8" type X gypsum wallboard applied at right angles to furring channels with 1-1/8" Type S screws 12" o.c. Wood joists or I-joists supporting 3/4" T&G edge plwwood applied at right angles to joists or I-joists Approx. Ceiling Weight: 12 psf (Fire) Fire Test: UL R4024, 00NK26545, supporting 3/4" T&G edge plywood applied at right angles to joists or I-joists with 8d nails 6" o.c. at joints and 12" at intermediate joists or I-joists. Appropriate roof covering. 4-27-01; UL R4042, 03NK11206, 3-19-03; UL Design L556; ULC Design M514 Second layer joints offset 24" from base layer joints. Third layer joints offset 12" from second layer joints.

**Base** layer <sup>5</sup>/<sub>8</sub>" type X gypsum wallboard applied at right angles to wood roof trusses 24" o.c. with 1<sup>1</sup>/<sub>4</sub>" Type W drywall screws 12" o.c. **Second** layer <sup>5</sup>/<sub>8</sub>" type X gypsum wallboard applied at right angles to trusses with 2" Type W drywall screws 12" o.c. Second layer joints offset 24" from base layer joints. Third layer 5/8" type X gypsum wallboard applied at right angles to trusses with 21/2" Type W drywall screws 12" o.c. Third layer joints offset 12" from second layer joints. Hat-shaped rigid furring channels 24" o.c. applied at right angles to trusses over third layer with two 21/2" long Type W drywall screws at each truss. **Face** layer 5/8" type X gypsum wallboard applied at right angles to furring channels with 11/8" Type S drywall screws 12" o.c. Wood trusses supporting <sup>3</sup>/<sub>4</sub>" T & G edge wood structural panels applied at right angles to trusses with 8d nails 6" o.c. at joints and 12" at intermediate I-joists. Appropriate roof covering. **Ceiling provides two-hour fire-resistance protection for wood framing.** Approx. Ceiling Weight: Fire Test: 12 psf UL R4024, 00NK26545, 4-27-01, UL Design L556



**ISSUE SET** 

JOB NO.



Alternate Floor Mat Materials --- (Optional) --- Floor mat material nom 1/8 in. (3 mm) thick loose laid of

HACKER INDUSTRIES INC — FIRM-FILL SCM 125

Alternate Floor Mat Materials - (Optional) - Floor mat material nom 1/4 in. (6 mm) thick loose laid of

HACKER INDUSTRIES INC — Type FIRM-FILL SCM 250, Quiet Qurl 55/025

Alternate Floor Mat Materials --- (Optional) --- Floor mat material nom 3/8 in. (10 mm) thick loose laid shall be a min of 1-1/4 in. (32 mm).

HACKER INDUSTRIES INC — FIRM-FILL SCM 400, Quiet Qurl 60/040

Alternate Floor Mat Materials --- (Optional) --- Floor mat material nom 3/4 in. (19 mm) thick loose laid shall be a min of 1-1/2 in. (38 mm).

Metal Lath -- (Optional) -- For use with 3/8 in. (10 mm) floor mat materials, 3/8 in. expanded steel diar

nom 1-1/4 in, over the floor mat. Finish Flooring\* — Floor Topping Mixture — Min 3/4 in. thickness of floor topping mixture having a r

Mixture shall consist of 6.8 gal of water to 80 lbs of floor topping mixture to 1.9 cu ft of sand. HACKER INDUSTRIES INC - Firm-Fill Gypsum Concrete, Firm-Fill 2010, Firm-Fill 3310, Firm-Fill 4010, F

System No. 6

System No. Subflooring - Min 23/32 in. thick plywood with T & G edges along the 8 ft sides and exterior glue or r per APA specifications PRP 108. Face grain of plywood or strength axis of panel to be perpendicular to t or panels secured to trusses with construction adhesive and No. 6d ring shank nails spaced 12 in. OC alo greater withdrawal and lateral resistance strength may be substituted for the 6d nails. Finish Floor\* — Mineral and Fiber Board — Min 1/2 in. thick, supplied in sizes ranging from 3 ft by 4 ft

#### System No. 8

Subflooring — Min 23/32 in. thick T & G wood structural panels installed perpendicular to trusses with nonveneer APA rated panels secured to trusses with construction adhesive and No. 6d ring shank nails s having equal or greater withdrawal and lateral resistance strength may be substituted for the 6d nails. Vapor Barrier — (Optional) — Nom 0.030 in. thick commercial asphalt saturated felt.

Finish Flooring\* — Floor Topping Mixture — Min 1-1/2 in. thickness of floor topping mixture having and a cast density of 100 plus or minus 5 pcf. Foam concentrate mixed 40:1 by volume with water and Mixture shall consist of 1.4 cu feet of preformed foam concentrate to 94 lbs Type I Portland cement, 300 ELASTIZELL CORP OF AMERICA — Type FF

#### System No. 9

Subflooring - Min 23/32 in. thick T & G wood structural panels installed perpendicular to trusses with nonveneer APA rated panels secured to trusses with construction adhesive and No. 6d ring shank nails s having equal or greater withdrawal and lateral resistance strength may be substituted for the 6d nails. Vapor Barrier — (Optional) — Nom 0.030 in. thick commercial asphalt saturated felt.

Finish Flooring\* — Floor Topping Mixture — Min 1-1/2 in. thickness of floor topping mixture having and a cast density of 100 plus or minus 5 pcf. Foam concentrate mixed 40:1 by volume with water and Mixture shall consist of 1.2 cu feet of preformed foam concentrate to 94 lbs Type I Portland cement, 300

#### System No. 10

Subflooring - Min 23/32 in. thick T & G wood structural panels installed perpendicular to trusses with nonveneer APA rated panels secured to trusses with construction adhesive and No. 6d ring shank nails having equal or greater withdrawal and lateral resistance strength may be substituted for the 6d nails. Finish Flooring\* — Floor Topping Mixture — Min 3/4 in. thickness of floor topping mixture having a r Mixture shall consist of 5 to 8 gal of water to 80 lbs of floor topping mixture to 2.1 cu ft of sand. ULTRA QUIET FLOORS — Types UQF-A, UQF-Super Blend, UQF-Plus 200

#### System No. 11

Subflooring — Nom 23/32 in. thick wood structural panels installed perpendicular to trusses with end j secured to trusses with construction adhesive and No. 6d ringed shank nails, spaced 12 in. OC along eac withdrawal and lateral resistance strength may be substituted for the 6d nails.

Vapor Barrier — (Optional) — Nom 0.030 in. thick commercial asphalt saturated felt.

Finish Flooring\* - Floor Topping Mixture - Min 3/4 in. thickness of floor topping mixture having a r Refer to manufacturer's instructions accompanying the material for specific mix design.

ARCOSA SPECIALTY MATERIALS — AccuCrete® Types NexGen, Green, Prime and PrePour, AccuRadian

ARCOSA SPECIALTY MATERIALS - AccuQuiet® Types D13, D-18, D25, DX38, EM.125, EM.125S, EM.25

#### System No. 12

Subflooring - Nom 23/32 in. thick wood structural panels installed perpendicular to trusses with end j secured to trusses with construction adhesive and No. 6d ringed shank nails, spaced 12 in. OC along eacl withdrawal and lateral resistance strength may be substituted for the 6d nails.

Vapor Barrier — (Optional) — Nom 0.030 in. thick commercial asphalt saturated felt. Finish Flooring\* — Floor Topping Mixture — Min 3/4 in. thickness of floor topping mixture having a r Refer to manufacturer's instructions accompanying the material for specific mix design. DEPENDABLE LLC — GSL M3.4, GSL K2.6, GSL-CSD and GSL RH

KEENE BUILDING PRODUCTS CO INC - Type Quiet Qurl 55/025 and Quiet Qurl 55/025 N

Alternate Floor Mat Materials\* --- (Optional) --- Floor mat material Nom. 3/8 in. thick loose laid over the

KEENE BUILDING PRODUCTS CO INC — Type Quiet Qurl 60/040 and Quiet Qurl 60/040 N

Alternate Floor Mat Materials\* -- (Optional) -- Floor mat material Nom. 3/4 in. thick loose laid over the

KEENE BUILDING PRODUCTS CO INC - Type Quiet Qurl 65/075, Quiet Qurl 65/075 N

	3	4	
over the subfloor. Floor topping thickness	Alternate Floor Mat Materials* — (Optional) — Floor mat material Nom. 1/8 in. thick loose laid over the subfloor. Floor topping thickness shall be a minimum of 3/4 in. KEENE BUILDING PRODUCTS CO INC — Type Quiet Qurl 52/013 and Quiet Qurl 52/013 N	6B. Steel Framing Members* — (Not Shown) — As an alternate to Items 6 and 6A. a. Furring Channels — Formed of No. 25 MSG galv steel, 2-9/16 in. or 2-23/32 in. wide by 7/8 in. deep, spaced 12 in perpendicular to wood structural members. Channels secured to trusses as described in Item b. Ends of adjoining cha 6 in. and tied together with double strand of No. 18 AWG galv steel wire near each end of overlap.	
over the subfloor. Floor topping thickness	Alternate Floor Mat Materials* — (Optional) — Floor mat material Nom. 1/4 in. entangled net core with a compressible fabric attached to the bottom loose laid over the subfloor. Floor topping thickness shall be a minimum of 1 in.	<ul> <li>b. Steel Framing Members* — Used to attach furring channels (Item a) to trusses (Item 2). Clips spaced 48 in. OC, R (2.75) clips secured to bottom of trusses with No. 8 by 2-1/2 in. course drywall screw through the center grommet. R (2.75) clips secured to consecutive trusses with No. 8 by 1-1/2 in. coarse drywall screw through the center hole. Furring (2.75) clips secured to consecutive trusses with No. 8 by 1-1/2 in. coarse drywall screw through the center hole.</li> </ul>	RSIC-V and RSIC-V
d over the subfloor. Floor topping thickness	<ul> <li>KEENE BUILDING PRODUCTS CO INC — Quiet Qurl 55/025 MT and Quiet Qurl 55/025 N MT</li> <li>System No. 13</li> <li>Subflooring — — Nom 23/32 in. thick wood structural panels installed perpendicular to trusses with end joints staggered. Plywood or panels secured to trusses with construction adhesive and No. 6d ringed shank nails, spaced 12 in. OC along each truss. Staples</li> </ul>	friction fitted into clips. RSIC-1 and RSIC-V clips for use with 2-9/16 in. wide furring channels. RSIC-1 (2.75) and RSIC- use with 2-23/32 in. wide furring channels. Adjoining channels are overlapped as described in Item a. As an alternate adjoining channels may be overlapped 6 in. and secured together with two self-tapping No. 6 framing screws, min 7/ midpoint of the overlap, with one screw on each flange of the channel. Additional clips required to hold furring chan	C-V (2.75) clips for e, ends of 7/16 in. long at the
	having equal or greater withdrawal and lateral resistance strength may be substituted for the 6d nails.	the gypsum board butt joints, as described in Item 7. <b>PAC INTERNATIONAL L L C</b> — Types RSIC-1, RSIC-V, RSIC-1 (2.75), RSIC-V (2.75)	
d over the subfloor. Floor topping thickness	<ul> <li>Vapor Barrier — (Optional) — Nom 0.030 in. thick commercial asphalt saturated felt.</li> <li>Finish Flooring* — Floor Topping Mixture — Min 3/4 in. thickness of floor topping mixture having a min compressive strength of 1000 psi. Refer to manufacturer's instructions accompanying the material for specific mix design.</li> <li>FORMULATED MATERIALS LLC — Types FR-25, FR-30, and SiteMix</li> </ul>	6C. Steel Framing Members* — (Not Shown) — As an alternate to Items 6, 6A and 6B. a. Furring Channels — Formed of No. 25 MSG galv steel, 2-3/8 in. wide by 7/8 in. deep, spaced 12 in. OC perpendict When insulation (Item5 or 5A) is applied over the resilient channel/gypsum panel ceiling membrane, the resilient chan be reduced to 12 in. OC. Channels secured to trusses as described in Item 6Cb. Ends of adjoining channels overlappe together with double strand of No. 18 AWG galvanized steel wire near each end of overlap.	annel spacing sha
mond mesh, 3.4 lbs/sq yd placed over the etal lath is used, floor topping thickness a min compressive strength of 1100 psi.	Floor Mat Material* — (Optional) — Floor mat material nominal 2 - 9.5 mm thick loose laid over the subfloor. Floor topping shall be a min of 3/4 in. FORMULATED MATERIALS LLC — Types M1, M2, M3, Elite, Duo, R1, and R2	b. Steel Framing Members* — Used to attach furring channels (Item 6Ca) to trusses (Item 2). Clips spaced 48 in. OC the bottom of the trusses with one No. 8 by 2-1/2 in. long coarse drywall screw through center grommet. Furring chan fitted into clips. Adjoining channels are overlapped as described in Item 6Ca. As an alternate, ends of adjoining channels and the statement of t	nannels are friction
Firm-Fill High Strength, Gyp-Span Radiant	2. <b>Trusses</b> — Parallel chord trusses, spaced a max of 24 in. OC, fabricated from nom 2 by 4 lumber, with lumber oriented vertically or horizontally. Min truss depth is 12 in. Truss members secured together with min 0. 0356 in. thick galvanized steel plates. Plates have 5/16 in. long teeth projecting perpendicular to the plane of the plate. The teeth are in pairs facing each other (made by the same punch), forming a split tooth type plate. Each tool has a chisel point on its outside edge. These points are diagonally opposite each	overlapped 6 in. and secured together with two self-tapping No. 6 framing screws, min 7/16 in. long at the midpoint with one screw on each flange of the channel. Additional clips required to hold furring channel that supports the gyp joints, as described in Item 7. Not evaluated for use with Item 5A or when insulation is draped over Furring Channels. <b>PLITEQ INC</b> — Type Genie Clip	t of the overlap, psum board butt
nonveneer APA Sturd-I-Floor T & G panels trusses with joints staggered 4 ft. Plywood	other for each pair. The top half of each tooth has a twist for stiffness. The pairs are repeated on approx. 7/8 in. centers with four rows of teeth per inch of plate width. 3. <b>Air Duct*</b> — Any UL Class 0 or Class 1 flexible air duct installed in accordance with the instructions provided by the damper	6D. Alternate Steel Framing Members* — (Not Shown) — As an alternate to items 6, 6A, 6B and 6C, furring channed Framing Members as described below. a. Furring Channels — Formed of No. 25 MSG galv steel, 2-5/8 in. wide by 7/8 in deep, spaced 16 in OC, perpendicu When insulation (Item5 or 5A) is applied over the resilient channel/gypsum panel ceiling membrane, the resilient cha	ular to trusses.
ong each truss. Staples having equal or	manufacturer.	be reduced to 12 in. OC. Channels secured to trusses as described in Item b.	
ft to 8 ft by 12 ft. All joints to be staggered	4. Damper* — For use with min 18 in. deep trusses. Max nom 20 in. long by 18 in. wide by 2-1/8 in. high, fabricated from galvanized steel. Plenum box max size nom 21 in. long by 18 in. wide by 16 in. high fabricated from either galvanized steel or Classified Air Duct Materials bearing the UL Classification Marking for Class 0 or Class 1 rigid air duct material. Installed in accordance with the instructions provided by the manufacturer. Max damper openings not to exceed 180 sq in. per 100 sq ft of ceiling area. NAILOR INDUSTRIES INC — Types 0755, 0755A, 0756, 0756D, 0757, 0757D, 0757FP, 0757DFP, 0758, 0759, 0760, 0761, 0762, 0763, CRD5, CRD5D, CRD6D, CRD6FP, CRD6DFP	b. Steel Framing Members* — Used to attach furring channels (Item a) to the trusses (Item 2). Clips spaced at 48" C the bottom of the trusses with one 2 in. Coarse Drywall Screw with 1 in. diam washer through the center hole. Furring then friction fitted into clips. Ends of channels are overlapped 6" and tied together with double strand of No. 18 AWC wire. Additional clips are required to hold the Gypsum Butt joints as described in item 7. STUDCO BUILDING SYSTEMS — RESILMOUNT Sound Isolation Clips - Type A237 or A237R	ng channels are
joints staggered 4 ft. Plywood or spaced 12 in. OC along each truss. Staples	<b>SAFE AIR DOWCO</b> — Types 0455, 0455A, 0456, 0456D, 0457, 0457D, 0457-DB, 0457-CB, 0463-FB, 0457-EB, 0463-GB, 0463	6E. <b>Resilient Channels - (Not Shown)</b> — For Use With Item 7A - Formed from min 25 MSG galv steel installed perperturses and spaced 16 in. OC. Channels secured to each truss with 1-5/8 in. long Type S bugle head steel screws. Cha 4 in. at splices. Two channels, spaced 6 in. OC, oriented opposite each gypsum panel end joint. Additional channels s	annels overlapped shall extend min 6
a min compressive strength of 1000 psi expanded at 100 psi through nozzle. 0 lbs of sand with 5-1/2 gal of water.	5. Batts and Blankets* — (Optional) — Glass fiber or mineral wool insulation bearing the UL Classification Marking as to Surface Burning Characteristics and/or Fire Resistance. When no insulation is installed in the concealed space the resilient channels are spaced 24 in. OC. When the resilient channels (Item 6) are spaced 16 in. OC, the insulation shall be a max of 3-1/2 in. thick, and shall be secured against the subflooring with staples at 12 in. OC or held suspended in the concealed space with 0.090 in. diam galv steel wires attached to the wood trusses at 12 in. OC. When the resilient channels are spaced a max of 12 in. OC or when the Steel Framing Members (Item 6A) are used, there is no limit in the overall thickness of insulation, and the insulation can be secured against the subflooring, held suspended in the concealed space or draped over the resilient channels (or Steel Framing Members) and gypsum	<ul> <li>in. beyond each side edge of panel. Insulation, Item 5B is applied over the resilient channel/gypsum panel (Item 7A) of membrane.</li> <li>6F. Alternate Steel Framing Members* — (Not Shown) — As an alternate to items 6, 6A, 6B, 6C, 6D and 6E furring of Steel Framing Members as described below.</li> <li>a. Furring Channels — — Formed of No. 25 MSG galv steel, 2-1/2 in. wide by 7/8 in deep, spaced 16 in OC, perpend When insulation (Item5 or 5A) is applied over the resilient channel/gypsum panel ceiling membrane, the resilient channel/gypsum panel ceiling membrane, the resilient channel/gypsum panel ceiling membrane.</li> </ul>	channels and dicular to trusses.
i joints staggered 4 ft. Plywood or	panel membrane. The finished rating has only been determined when the insulation is secured to the subflooring. 5A. Loose Fill Material* — (Optional) — As an alternate to Item 5, when the resilient channels (Item 6) are spaced a maximum of 12	be reduced to 12 in. OC. Channels secured to trusses as described in Item b.	OC and secured to
spaced 12 in. OC along each truss. Staples a min compressive strength of 1000 psi	in. OC, or when the Steel Framing Members (Item 6A) are used - Any loose fill material bearing the UL Classification Marking for Surface Burning Characteristics. There is no limit in the overall thickness of insulation. The finished rating when loose fill material is used has not been determined.	the bottom of the trusses with one 2-1/2 in. Coarse Drywall Screw with 1 in. diam washer through the center hole. Fu are then friction fitted into clips. Ends of channels are overlapped 6" and tied together with double strand of No. 18 / steel wire. Additional clips are required to hold the Gypsum Butt joints as described in item 7. <b>REGUPOL AMERICA</b> — Type SonusClip	urring channels
expanded at 100 psi through nozzle. 0 lbs of sand with 5.5 gal of water.	5B. <b>Cavity Insulation - Batts and Blankets* or Loose Fill Material* - (Not Shown)</b> — (As described above in Items 5 and 5A) — For Use with Item 7A — Min. 3-1/2 in thick with no limit on maximum thickness fitted in the concealed space, draped over the resilient channel (Item 6E)/gypsum board (Item 7A) ceiling membrane.	6G. <b>Steel Framing Members*</b> — (Optional, Not Shown) — As an alternate to Item 6. a. <b>Furring Channels</b> — Formed of No. 25 MSG galv steel, nominal 2-1/2 in. wide by 7/8 in. deep, spaced as indicated perpendicular to the trusses. Channels secured to Cold Rolled Channels at every intersection with a 3/4 in. TEK screw furring channel leg. Ends of adjoining channels overlapped 12 in. and fastened together with two double strand No.	w through each
i joints staggered 4 ft. Plywood or spaced 12 in. OC along each truss. Staples	5C. Foamed Plastic* — (As alternate to Item 5 and 5A, Not Shown) — Spray foam insulation applied directly to the underside of the plywood subflooring. Spray foam insulation installed to a maximum thickness of 10 in. at a nominal 0.5 lb/ft <sup>3</sup> or 2.0 lb/ft <sup>3</sup> density, depending on the product installed. Spray foam insulation is limited to use with minimum 18 in. deep trusses (Item 2). When spray foam insulation is installed, resilient channels (Item 6) shall be installed maximum 12 in. OC, with channels adjacent to butt joints of gypsum board (Item 7) spaced maximum 3 in. away from gypsum butt joints. Gypsum board (Item 7) to be installed using minimum	<ul> <li>wire ties, one at each end of overlap, or with two 3/4 in. TEK screws in each leg of the overlap section. Two furring channels of gypsum board (Item 7), each extending a min of 6 in. beyond both side edges of the board.</li> <li>b. Cold Rolled Channels — 1-1/2 in. by 1/2 in., formed from No. 16 ga. galv steel, positioned vertically and parallel t</li> </ul>	hannels used at
min compressive strength of 1000 psi.	1-1/4 in. long Type S screws, spaced maximum 8 in. OC, and butted end joints shall be staggered min. 2 ft within the assembly, and occur midway between the continuous furring channels. If used with a fire damper (Item 4) in the concealed space, minimum 1 in. clearance to be maintained between damper housing and spray foam insulation. Not evaluated for use with Items 5 through 5B, or 6A through 6E, or 7A.	fitted into the channel caddy on the Steel Framing Members (Item 6Gd) and secured with two 3/4 in. TEK screws. Adj cold rolled channels lapped min. 12 in. and secured along bottom legs with four 3/4 in. TEK screws and wire-tied tog double strand 18 SWG galv steel wire ties, one at each end of overlap.	ljoining lengths of
joints staggered. Plywood or panels ch truss. Staples having equal or greater	BASF CORP — Enertite® NM, Enertite® G, FE178®, Spraytite® 178, Spraytite® 81206, Walltite® 200, Walltite® US, Walltite® US-N, and Walltite® HP+	c. <b>Blocking</b> — Where truss design does not permit direct, full contact of the hanger bracket, a piece of nominal 2 by (blocking), min. 12 in. long to permit full contact of the hanger bracket, to be secured vertically to the side of the trus and bottom of the blocking at each Steel Framing Member (Item 6Gd) location with 16d nails or minimum 2-1/2 in.	usses at the top
min compressive strength of 1000 psi.	5D. Foamed Plastic* — (As alternate to Items 5 - not to be used in combination with any alternates to 5) — Spray foam insulation applied directly to the underside of the plywood subflooring. Spray foam insulation installed to a maximum thickness of 11 in. at a nominal 1.0 lb/ft <sup>3</sup> - 2.5 lb/ft <sup>3</sup> density, while maintaining a minimum 7 in. clearance between the spray foam insulation and the gypsum board (Item 7). Spray foam insulation is limited for use with minimum 18 in. deep trusses (Item 2). When spray foam insulation is	d. <b>Steel Framing Members*</b> — Spaced 48 in. OC. max along truss, and secured to the truss on alternating trusses wi 1/2 in. screws through mounting holes on the hanger bracket. <b>PAC INTERNATIONAL L C</b> — Type RSIC-SI-CRC EZ Clip	<i>v</i> ith two, #10 x 1-
nt®, AccuLevel® Types G40, G50 and SD30	installed, resilient channels (Item 6) shall be installed maximum 12 in. OC, with channels adjacent to butt joints of gypsum board spaced maximum 3 in. away from gypsum butt joints. Gypsum board to be installed using minimum 1-1/4 in. long Type S screws, spaced maximum 8 in. OC, and butted end joints shall be staggered min. 2 ft within the assembly, and occur midway between the	6H. <b>Steel Framing Members* —</b> (Not Shown) — As an alternate to Item 6. a. <b>Furring Channels —</b> Formed of No. 25 MSG galv steel, nominal 2-1/2 in. wide by 7/8 in. deep, spaced as indicated	d in Item 6
ubfloor. Floor topping shall be a min of 3/4	continuous furring channels, as illustrated above. If used with a fire damper (Item 4) in the concealed space, no clearance is necessary between damper housing and spray foam insulation. Only for use with item 4 not evaluated for use with alternates to item 4. CARLISLE SPRAY FOAM INSULATION —Types SealTite Pro Closed Cell (CC), SealTite Pro Open Cell (OC), SealTite Pro OCX, SealTite Pro No Trim	perpendicular to trusses and friction fit into Steel Framing Members (Item 6Hc). Ends of adjoining channels overlapp together with double strand of No. 18 SWG galv steel wire near each end of overlap or with two TEK screws along ea	oed 6 in. and tied ach leg of the 6 in
50, EM.250S, EM.375, EM.375S, EM.750, and	<ul> <li>21, SealTite Pro One Zero, Foamsulate Closed Cell, Foamsulate OCX, Foamsulate 70, and Foamsulate HFO.</li> <li>6. Resilient Channels — Formed from min 25 MSG galv steel installed perpendicular to trusses. When no insulation is installed in the concealed space resilient channels are spaced 24 in. When the insulation (Item 5) is installed to the underside of the subfloor the</li> </ul>	overlap. Two furring channels used at end joints of gypsum board (Item 7). Butt joint channels held in place by strong placed upside down, on top of, and running perpendicular to primary furring channels, extending 6 in. longer than le side joint. Strong back channels spaced maximum 48 in. OC. Strong back channels secured to every intersection of p channels with four 7/16 in. pan head screws, two along each of the legs at intersections. Butt joint channels run perp	length of gypsum primary furring pendicular to
joints staggered. Plywood or panels ch truss. Staples having equal or greater	resilient channels are spaced 16 in. OC. When insulation (Item 5 or 5A) is applied over the resilient channel/gypsum panel ceiling membrane, or when foamed plastic insulation (Item 5C) is sprayed to the underside of the subfloor, the resilient channel spacing shall be reduced to 12 in. OC. Channels secured to each truss with 1-1/4 in. long Type S bugle head steel screws. Channels overlapped 4 in. at splices. Two channels, spaced 6 in. OC, oriented opposite each gypsum panel end joint as shown in the above illustration. Additional channels shall extend min 6 in. beyond each side edge of panel.	<ul> <li>strong back channels and shall be minimum 6 in. longer than length of joint, secured to strong back channels with 7, screws, two along each of the legs at intersection with strong back channels.</li> <li>b. <b>Blocking</b> — Where truss design does not permit direct, full contact of the hanger bracket, a piece of nominal 2 by (blocking), min. 12 in. long to permit full contact of the hanger bracket, to be secured vertically to the side of the trust of the hanger bracket.</li> </ul>	y 4 in. lumber usses at the top
min compressive strength of 1000 psi.	6A. <b>Steel Framing Members*</b> — (Not Shown) — As an alternate to Item 6. a. <b>Main Runners</b> — Nom 10 or 12 ft long, 15/16 in. or 1-1/2 in. wide face, spaced 4 ft OC perpendicular to trusses. Main runners hung a min of 2 in. from bottom chord of trusses with 12 SWG galv steel wire. Wires spaced max 48 in. OC.	and bottom of the blocking at each Steel Framing Member (Item 6Hc) location with 16d nails or minimum 2-1/2 in. s c. <b>Steel Framing Members*</b> — Used to attach furring channels (Item 6Ha) to trusses. Clips spaced 48 in. OC and sec webs at each furring channel intersection with min. 3/4 in. long self-drilling #10 x 1-1/2 in. screws through each of th locations. Furring channels are friction fitted into clips.	cured along truss
ckness shall be a minimum of 3/4 in.	b. Cross Tees or Channels — Cross tees, nom 4 ft long, 15/16 in. or 1-1/2 in. wide face, or cross channels, nom 4 ft long, 1-1/2 in. wide face, installed perpendicular to the main runners, spaced 16 in. OC. Additional cross tees or channels used at 8 in. from each side of butted panel end joints. The cross tees or channels may be riveted or screw-attached to the wall angle or channel to facilitate the ceiling installation.	<ul> <li>PAC INTERNATIONAL L L C — Type RSIC-S1-1 Ultra</li> <li>61. Steel Framing Members* — (Optional - Not Shown) — Used to attach resilient channels (Item 6) to trusses (Item 48 in. OC and secured to trusses with one No. 8 x 2-1/2 in. coarse drywall screw through center grommet hole. Channels (Item 48 in. OC and secured to trusses with one No. 8 x 2-1/2 in. coarse drywall screw through center grommet hole. Channels (Item 48 in. OC and secured to trusses with one No. 8 x 2-1/2 in. coarse drywall screw through center grommet hole. Channels (Item 48 in. OC and secured to trusses with one No. 8 x 2-1/2 in. coarse drywall screw through center grommet hole. Channels (Item 48 in. OC and secured to trusses)</li> </ul>	nnels secured to
he subfloor. Floor topping thickness shall	c. Wall Angles or Channels — Min 0.016 in. thick painted or galvanized steel angle with 1 in. legs or channel with a 1 by 1 1/2 by 1 in. profile, attached to walls at perimeter of ceiling with fasteners 16 in. OC. Used to support steel framing member ends and for screw-attachment of the gypsum panels. CGC INC — Type DGL, RX	clips with one #10 x 1/2 in. pan-head self-drilling screw. Ends of adjoining channels overlapped 6 in. and secured tog 15 x 1/2 in. Philips Modified screws spaced 2-1/2 in. from the center of the overlap. Gypsum board butt joints require resilient channels spaced 1-1/2 in. from the butt joint on either side. One edge of the extra channels will extend to ar where it is secured with a clip. <b>KEENE BUILDING PRODUCTS CO INC</b> — Type RC+ Assurance Clip	re additional
he subfloor. Floor topping thickness shall	USG INTERIORS LLC — Type DGL, RX	6J. <b>Steel Framing Members*</b> — (Optional, Not Shown) — Used as an alternate method to attach resilient channels to members. A resilient sound isolation accessory shall be used at each attachment point of the resilient channels and s O.C. Channel ends butted and centered under the structural members and attached with one accessory at each end. accessories used to hold resilient channels that support the gypsum board end joints. The accessory envelops the me	spaced max 24 in. . Additional

mbrane, the resilient channel spacing shall

CGC INC — Type ULIX

staggered minimum 48 in. OC.

staggered minimum 24 in. OC.

UNITED STATES GYPSUM CO — Types C, IP-X2, IPC-AR

USG MEXICO S A DE C V — Types C, IP-X2, IPC-AR

USG BORAL DRYWALL SFZ LLC — Type C

UNITED STATES GYPSUM CO — Type ULIX

8. Finishing System — (Not Shown) — Vinyl, dry or premixed joint compound, applied in two coats to joints and screw-heads. Nom 2 two double strand No. 18 SWG galv steel in. wide paper tape embedded in first layer of compound over all joints. As an alternate, nom 3/32 in. thick veneer plaster may be applied to the entire surface of gypsum board.

7A. Gypsum Board\* - (Not Shown) - For use with Items 5B and 6E. Nom 5/8 in. thick, 48 in. wide gypsum panels installed with long

dimension perpendicular to resilient channels. Gypsum panels secured with 1 in. long Type S bugle head steel screws spaced 8 in. OC

and located a min of 1/2 in. from side joints and 3 in. from the end joints. Finish Rating with this ceiling system is 20 min.

\* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively. Last Updated on 2021-06-10

). Clips spaced 48 in. OC and secured to

n 2). Clips spaced at 48" OC and secured to in. from the continuous furring channels) to support the floating end of the gypsum board. Each of these shorter sections of furring channel shall the center hole. Furring channels are extend one truss beyond the width of the gypsum panel and be attached to the adjacent trusses with one SonusClip at every truss involved with uble strand of No. 18 AWG galvanized steel the butt joint.

galv steel installed perpendicular to le head steel screws. Channels overlapped nt. Additional channels shall extend min 6 **CGC INC** — Types C, IP-X2, IPC-AR

deep, spaced as indicated in Item 6, with a 3/4 in. TEK screw through each

(Item 6) to trusses (Item 2). Clips spaced ter grommet hole. Channels secured to ped 6 in. and secured together with two #8 board butt joints require additional hannels will extend to an adjacent truss

the resilient channel. The accessory and resilient channel are fastened to the structural members with the screws supplied with the accessory and per the accessory manufacturer's installation instructions. Gypsum Board butt joints staggered minimum 24 in. OC and b. Ends of adjoining channels overlapped Gypsum Board screws spaced 8 in. OC when used. PAC INTERNATIONAL L L C — Type RC-1 Boost

7. Gypsum Board\* — Nom 5/8 in. thick, 48 in. wide gypsum panels. When resilient channels (Item 6) are used, gypsum panels installed with long dimension perpendicular to resilient channels. Gypsum panels secured with 1 in. long Type S bugle head steel screws spaced 12 in. OC and located a min of 1/2 in. from side joints and 3 in. from end joints. When insulation (Items 5 or 5A) is applied over the resilient channel/gypsum panel ceiling membrane the screw spacing shall be reduced to 8 in. OC. End joints secured to both resilient channels as shown in end joint detail. When foamed plastic insulation (Item 5C) is applied to the underside of the 6 framing screws, min 7/16 in. long at the subflooring, screw spacing shall be reduced to 8 in. OC and minimum 1-1/4 in. long Type S screws to install gypsum to the resilient ired to hold furring channel that supports channels (Item 6), and butted end joints shall be staggered min. 2 ft within the assembly, and occur midway between the continuous furring channels. End joints secured to both resilient channels as shown in end joint detail. When Steel Framing Members (Item 6A) are used, gypsum panels installed with long dimension perpendicular to cross tees with side joints centered along main runners and end joints centered along cross tees. Panels fastened to cross tees with 1 in. long Type S bugle-head screws spaced 8 in. OC in the field and along end joints. Panels fastened to main runners with 1 in. long Type S bugle-head screws spaced midway between cross tees. Screws along sides and ends of panels spaced 3/8 to 1/2 in. from board edge. End joints of panels shall be staggered with mbrane, the resilient channel spacing shall spacing between joints on adjacent panels not less than 2 ft OC. When Steel Framing Members (Item 6B or 6C) are used, gypsum panels installed with long dimensions perpendicular to furring channels. Panels attached to the furring channels using 1 in. long Type S bugle-head steel screws spaced 8 in. OC along butted end joints and in the field of the panel. Butted end joints shall be staggered min. 2 ft within the assembly, and occur midway between the continuous furring channels. Each end of each gypsum panel shall be supported by a single length of furring channel equal to the width of the gypsum panel plus 6 in. on each end. The two support furring channels shall be spaced approximately 3-1/2 in. OC, and be attached to underside of the truss with one clip at each end of the channel. When Steel Framing Members (Item 6D) are used, one layer of nom 5/8 in. thick, 4 ft wide gypsum board is installed with long dimensions perpendicular to furring channels. Gypsum board secured to furring channels with nom 1 in. long Type S buglehead steel screws spaced 8 in. OC in the field of the board. Gypsum board butted end joints shall be staggered minimum 48 in. and centered over main furring channels. At the gypsum board butt joints, each end of each gypsum board shall be supported by a single length of furring channel equal to the width of the gypsum board plus 3 in. on each end. The two support furring channels shall be spaced approximately 3 in. in from joint. Screw spacing along the gypsum board butt joint and along both additional channels shall be 8 in. OC. Additional screws shall be placed in the adjacent section of gypsum board into the aforementioned 3 in. extension of the extra butt joint channels as well as into the main channel that runs between. Butt joint furring channels shall be attached with a RESILMOUNT Sound Isolation Clip at each end of the channel.

When Steel Framing Members (Item 6F) are used, one layer of nom 5/8 in. thick, 4 ft wide gypsum board is installed with long dimensions

in the field of the board. Gypsum board butted end joints shall be staggered minimum 48 in, and centered over main furring channels. At the

perpendicular to furring channels. Gypsum board secured to furring channels with nom 1 in. long Type S bugle-head steel screws spaced 8 in. OC

avpsum board butt joints, an additional single length of furring channel shall be installed and be spaced approximately 3 in. from the butt joint (6

When Steel Framing Members (Item 6G) are used, nom 5/8 in. thick, 4 ft wide gypsum board, installed as described in Item 7. Adjacent butt joints

When Steel Framing Members (Item 6H) are used, nom 5/8 in. thick, 4 ft wide gypsum board, installed as described in Item 7. Butt joints

M. RANDALL PORTER Ladal tota 15 APR 2025 M. RANDALL PORTER ARCHITECT LICENSE# A-2012006244



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JOB NO 4938

**ISSUE SET** 



NATIONAL GYPSUM CO — Type FSW (finish rating 24 min)

UNITED STATES GYPSUM CO — Type AR (finish rating 24 min), Type SCX (finish rating 24 min), Type SG rating 24 min), Type WRX (finish rating 24 min), Type WRC (finish rating 24 min), Type IP-X1 (finish rating Type SHX (finish rating 24 min), Type FRX-G (finish rating 24 min), Type IP-AR (finish rating 24 min), Type

USG MEXICO S A DE C V — Type AR (finish rating 24 min), Type C (finish rating 24 min), Type WRX (finish 24 min), Type IP-X1 (finish rating 24 min), Type IP-X2 (finish rating 24 min), Type SHX (finish rating 24 min min), Type IPC-AR (finish rating 24 min)

3B. Gypsum Board\* - (As an alternate to Item 3) - Nom 3/4 in. thick, installed with 1-7/8 in. In in Item 3 or 1-3/8 in. long Type W coarse thread gypsum panel steel screws as described in Item CGC INC — Types AR, IP-AR

UNITED STATES GYPSUM CO — Types AR, IP-AR

USG MEXICO S A DE C V — Types AR, IP-AR

3C. Gypsum Board\* - (As an alternate to Items 3, 3A and 3B) - 5/8 in. thick, 2 ft wide, tongue to one side of the assembly. Installed with 1-7/8 in. long cement coated nails as described in Iter thread gypsum panel steel screws as described in Item 3A. Joint covering (Item 2) not required. CGC INC — Type SHX

UNITED STATES GYPSUM CO — Type SHX

USG MEXICO S A DE C V — Type SHX

3D. Gypsum Board\* - (As an alternate to Items 3, 3A, 3B, or 3C - Not Shown) - For Direct A thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vert staggered min 1 stud cavity on opposite sides of studs. Wallboard secured to studs with 1-5/8 in panel steel screws spaced 8 in. OC at perimeter and in the field. Lead batten strips required behind gypsum wallboard and optional at remaining stud locations. Lead batten strips, min 1-1/2 in. wic thickness of 0.125 in. placed on the face of studs and attached to the stud with two 1 in. long Ty the top of the strip and one at the bottom of the strip. Lead discs or tabs may be used in lieu of or optional at other locations. Max 3/4 in. diam by max 0.125 in. thick lead discs compression fit or max 1/2 in. by 1-1/4 in. by max 0.125 in. thick lead tabs placed on gypsum boards underneath installation of the screws. Lead batten strips to have a purity of 99.9% meeting the Federal specif RAY-BAR ENGINEERING CORP — Type RB-LBG (finish rating 24 min)

3E. Gypsum Board\* — (As an alternate to Items 3, 3A, 3B, 3C, and 3D) — 5/8 in. thick gypsum p either horizontally or vertically. Gypsum panels fastened to framing with 1-1/4 in, long Type W of screws spaced a max 8 in. OC, with last 2 screws 1 and 4 in. from edge of board or nailed 7 in. OC in. long, 0.0915 in. shank diam and 15/64 in. diam heads. When used in widths of other than 48 GEORGIA-PACIFIC GYPSUM L L C — Type DGG (finish rating 20 min), GreenGlass Type X (finish rating 2

3F. Gypsum Board\* — (As an alternate to Items 3, 3A, 3B, 3C, 3D, and 3E) — 5/8 in. glass-mat fa horizontally or vertically. Gypsum panels nailed 7 in. OC around the perimeter and in the field w long, 0.0915 in. shank diam and 15/64 in. diam heads. Nails shall be placed 1 inch and 3 inch from

CGC INC — Type USGX (finish rating 22 min)

USG MEXICO S A DE C V — Type USGX (finish rating 22 min.)

3G. Gypsum Board\* - (As an alternate to Items 3 through 3F) - 5/8 in. thick paper surfaced a 7 in. OC with 6d cement coated nails 1-7/8 in. long, 0.0915 in. shank diam and 15/64 in. diam her GEORGIA-PACIFIC GYPSUM L L C — Type X ComfortGuard Sound Deadening Gypsum Board (finish ratio

3H. Gypsum Board\* - (As an alternate to Items 3) - Not to be used with items 6 or 7. 5/8 in. 1 only. Gypsum panels nailed 7 in. OC with 6d cement coated nails 1-7/8 in. long, 0.0915 in. shank NATIONAL GYPSUM CO — Type SBWB

Panels nailed 7 in. OC with 6d cement coated nails 1-7/8 in. long, 0.0915 in. shank diam and 15/6 with paper tape and two layers of joint compound. Nailheads covered with two layers of joint co PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM — Type QuietRock ES (finish rating 20 min)

3J. Gypsum Board\* — (As an alternate to Item 3) — 5/8 in. thick paper surfaced applied vertical secured with 1-1/4 in. Type W coarse thread gypsum panel steel screws spaced a maximum of 1 CERTAINTEED GYPSUM INC — Type SilentFX

3K. Gypsum Board\* — (As an alternate to Item 3) — 5/8 in. thick gypsum panels, with beveled, s either horizontally or vertically. Gypsum panels fastened to framing with 1-1/4 in. long Type W co screws spaced a maximum 8 in. OC with the last screw 1 in. from the edge of the board. When u gypsum panels are to be installed horizontally. NATIONAL GYPSUM CO — Type FSK (finish rating 20 min), Type FSK-G (finish rating 20 min), Type FSW i rating 24 min), Type FSW-3 (finish rating 20 min), Type FSW-5 (finish rating 22 min), Type FSW-G (finish r min), Type FSW-C (finish rating 20 min), Type FSMR-C, Type FSW-6 (finish rating 20 min), Type FSL (finish

opposite sides of studs. Wallboard secured to studs with 1-5/8 in. long Type W coarse thread gy OC at perimeter and in the field. Lead batten strips required behind vertical joints of lead backed remaining stud locations. Lead batten strips, min 2 in. wide, max 10 ft long with a max thickness studs and attached to the stud with two 1 in. long Type S-8 pan head steel screws, one at the top of the strip. Lead discs, max 5/16 in. diam by max 0.140 in. thick. compression fitted or adhered of strips to have a purity of 99.5% meeting the Federal specification QQ-L-201f, Grades "B, C or D". MAYCO INDUSTRIES INC — "X-Ray Shielded Gypsum"

3M. Gypsum Board\* --- (As an alternate to Items 3) --- For Direct Application to Studs Only --layer. Nom 5/8 in. thick lead backed gypsum panels with beveled, square or tapered edges, appl over studs and staggered min 1 stud cavity on opposite sides of studs. Wallboard secured to stud thread gypsum panel steel screws spaced 8 in. OC at perimeter and in the field when applied as face layer screw length to be increased to 2-1/2 in. Lead batten strips required behind vertical joint and optional at remaining stud locations. Lead batten strips, min 2 in. wide, max 8 ft long with a the face of studs and attached to the stud with construction adhesive and two 1 in. long Type Stop of the strip and one at the bottom of the strip. Lead discs, nominal 3/8 in. diam by max 0.085 adhered over the screw heads. Lead batten strips and discs to have a purity of 99.9% meeting the Grade "C". Fasteners for face layer gypsum panels (Items 4, 4A or 4B) when installed over lead backed board to be min 2-1/2 in. Type S-12 bugle head steel screws spaced as described in Item 4. RADIATION PROTECTION PRODUCTS INC - Type RPP - Lead Lined Drywall

I		
e SGX (finish rating 24 min), Type C (finish	3N. <b>Gypsum Board*</b> — (As an alternate to Item 3) — 5/8 in. thick, 4 ft. wide, applied horizontally or vertically with vertical joints centered over studs and staggered one stud cavity on opposite sides of studs. Secured as described in Item 3 or 3A. <b>CERTAINTEED GYPSUM INC</b> — Easi-Lite Type X (finish rating 24 min), Easi-Lite Type X-2 (finish rating 24 min)	5D. <b>Glass Fiber Insulation</b> — (As an alternate to Item 5C) — 3 in. thick glass fiber batts bearing Surface Burning and/or Fire Resistance, friction-fitted to fill the interior of the wall. See <b>Batts ar</b> for names of Classified companies.
ting 24 min), Type IP-X2 (finish rating 24 min), ype IPC-AR (finish rating 24 min)	3O. Wall and Partition Facings and Accessories* — (As an alternate to Item 3, Not Shown) — Nominal 5/8 in. thick, 4 ft wide panels, applied vertically. Panels nailed 7 in. OC with 6d cement coated nails 1-7/8 in. long, 0.0915 in. shank diam and 15/64 in. diam heads. Panel joints covered with paper tape and two layers of joint compound. Nailheads covered with two layers of joint compound. PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM — Type QuietRock 527 (finish rating 24 min).	5E. <b>Batts and Blankets*</b> — (Required for use with Wall and Partition Facings and Accessories, It 3-1/2 in. thick, min. density of 0.80 pcf, with a flame spread of 25 or less and a smoke developed completely fill the stud cavities. See Batts and Blankets Category (BKNV) for names of manufact
(finish rating 24 min), Type WRC (finish rating I min), Type SCX, Type IP-AR (finish rating 24	3P. <b>Gypsum Board*</b> — (As an alternate to Item 3, Not Shown) — Two layers nom. 5/16 in. thick gypsum panels applied vertically or horizontally. Horizontal edge joints and horizontal butt joints on opposite sides of studs need not be staggered or backed by wood studs. Horizontal joints on the same side between face and base layers need not be staggered. Base layer gypsum panels fastened to	5F. <b>Fiber, Sprayed*</b> — (Optional, Not Shown — Not for use with Items 6, 6A, 6B, 6C, or 6D) — A (Item 5) and Item 5A - Spray applied granulated mineral fiber material. The fiber is applied with pcf, to completely fill the enclosed cavity in accordance with the application instructions supplies <b>Sprayed</b> (CCAZ).
in. long cement coated nails as described	studs with 1-1/4 in. long drywall nails spaced 8 in. OC. Face layer gypsum panels fastened to studs with 1-7/8 in. long drywall nails spaced 8 in. OC starting with a 4" stagger. <b>NATIONAL GYPSUM CO</b> — Type FSW (finish rating 25 min)	AMERICAN ROCKWOOL MANUFACTURING, LLC — Type Rockwool Premium Plus
tem 3A.	3Q. <b>Gypsum Board*</b> — (As an alternate to Item 3) — 5/8 in. thick gypsum panels, with beveled, square, or tapered edges, applied either horizontally or vertically. Gypsum panels fastened to framing with 1-1/4 in. long Type W coarse thread gypsum panel steel screws spaced a maximum 10 in. OC with the last two screws 4 and 1 in. from the edges of the board. When used in widths other than 48 in., gypsum panels are to be installed horizontally.	5G. <b>Fiber, Sprayed*</b> — (Optional, Not Shown — Not for use with Items 6, 6A, 6B, 6C, or 6D). — (Item 5) and Item 5A - Brown Colored Spray applied cellulose fiber. The fiber is applied with wat cavity in accordance with the application instructions supplied with the product. The minimum of <b>INTERNATIONAL CELLULOSE CORP</b> — Celbar-RL
	<b>CERTAINTEED GYPSUM INC</b> — Type LGFC6A (finish rating 21 min), Type LGFC2A, Type LGFC-C/A, Type LGFC-WD, Type LGLLX	5H. Foamed Plastic* — (Optional -For use with Item 3R) — Spray applied, foamed plastic insulato completely filling stud cavity. SES FOAM INC — Nexseal™ 2.0 or Nexseal™ 2.0 LE Spray Foam and Sucraseal Spray Foam.
gue and groove edge, applied horizontally 1 Item 3 or 1-1/4 in. long Type W coarse ed.	3R. <b>Gypsum Board*</b> — (As an alternate to Item 3. For use with Item 5H) — Any 5/8 in. thick, 4 ft. wide, Gypsum Board listed in Item 3 above. Applied either horizontally or vertically, and screwed to panels with 1-5/8 in. long Type W coarse thread steel screws at 8 in. OC at perimeter and in the field with the last two screws 4 and 3/4 in. from the edges of the board when applied as the base layer. When used in widths other than 48 in., gypsum panels are to be installed horizontally.	51. <b>Fiber, Sprayed*</b> — (Not Shown — Not for use with Item 6) — As an alternate to Batts and Bi cellulose material. The fiber is applied with water to completely fill the enclosed cavity in accord supplied with the product. To facilitate the installation of the material, any thin, woven or non-w means possible to the outer face the studs. The material shall reach equilibrium moisture conterposed of the stude.
	3S. <b>Gypsum Board*</b> — 3/4 in. thick paper or vinyl surfaced, with beveled, square, or tapered edges, applied either horizontally or vertically. Gypsum panels secured as described in Item 3 with nail length increased to 2 in. <b>PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM</b> — Type PG-13	on either face of the studs. The minimum dry density shall be 5.79 $lbs/ft^3$ . <b>APPLEGATE HOLDINGS L L C</b> — Applegate Advanced Stabilized Cellulose Insulation
t Application to Studs Only- Nom 5/8 in. /ertical joints centered over studs and /8 in. long Type W coarse thread gypsum	3T. Wall and Partition Facings and Accessories* — (As an alternate to 5/8 in. thick board as outlined in Item 3) — Nominal 1-3/8 in. thick, 4 ft wide panels, applied vertically or horizontally. Fastened with #6 x 2 in. long drywall screws spaced 8 in. OC along the perimeter and 12 in. OC in the field. PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM — Type QuietRock 545	5J. Foamed Plastic* — (Optional, Not Shown - For use with Item 3U) — Spray applied, foamed from partial fill to completely filling stud cavity. GACO WESTERN L L C — Types GacoEZSpray F4500, GacoProFill FR6500R, Gaco 052N, GacoOnePass F1 Gaco WallFoam 183M
behind vertical joints of lead backed . wide, max 10 ft long with a max g Type S-12 pan head steel screws, one at u of or in addition to the lead batten strips n fitted or adhered over steel screw heads	3U. <b>Gypsum Board*</b> — (As an alternate to Item 3 - For use with Foamed Plastic products, Item 5J) — 5/8 in. thick, 4 ft. wide, applied vertically with vertical joints centered over studs and staggered one stud cavity on opposite sides of studs. Gypsum panels nailed 7 in. OC with 6d cement coated nails 1-7/8 in. long, 0.0915 in. shank diam and 15/64 in. diam heads. <b>AMERICAN GYPSUM CO</b> — Types AGX-1	5K. Foamed Plastic* — (Optional, Not Shown - For use with Item 3V) — Spray applied, foamed from partial fill to completely filling stud cavity. CARLISLE SPRAY FOAM INSULATION — Types SealTite Pro Closed Cell (CC), SealTite Pro Open Cell (O 21, SealTite Pro One Zero, Foamsulate Closed Cell, Foamsulate OCX, Foamsulate 70, and Foamsulate HFG
eath screw locations prior to the becification QQ-L-201f, Grade "C".	BEIJING NEW BUILDING MATERIALS PUBLIC LTD CO — Type DBX-1	6. Steel Framing Members* — (Optional, Not Shown) — Furring channels and Steel Framing N a. Furring Channels — Formed of No. 25 MSG galv steel. 2-9/16 in. or 2-23/32 in. wide by 7/8 is perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining chan together with double strand of No. 18 SWG galv steel wire near each end of overlap. As an alter
m panels, with square edges, applied W coarse thread gypsum panel steel	CABOT MANUFACTURING ULC — Type X	be overlapped 6 in. and secured together with two self-tapping #6 framing screws, min. 7/16 in with one screw on each flange of the channel. Gypsum board attached to furring channels as de
n. OC with 6d cement coated nails 1-7/8 48 in., gypsum boards are to be installed	CERTAINTEED GYPSUM INC — Type X	b. <b>Steel Framing Members*</b> — Used to attach furring channels (Item 6a) to studs. Clips spaced clips secured to studs with No. 8 x 2-1/2 in. coarse drywall screw through the center grommet.
ng 23 min) at faced with square edges, applied either d with 6d cement coated nails 1-7/8 in.	CGC INC — Type SCX PANEL REY S A — Type ARX, PRX	to studs with No. 8 x 1-1/2 in. coarse drywall screw through the center hole. Furring channels ar RSIC-V clips for use with 2-9/16 in. wide furring channels. RSIC-1 (2.75) and RSIC-V (2.75) clips f channels.
from horizontal joints and 7 inch OC	SIAM GYPSUM INDUSTRY (SARABURI) CO LTD — Type EX-1	<ul> <li>PAC INTERNATIONAL L C — Types RSIC-1, RSIC-V, RSIC-1 (2.75), RSIC-V (2.75)</li> <li>6A. Steel Framing Members* — (Optional, Not Shown) — Furring channels and Steel Framing</li> </ul>
	THAI GYPSUM PRODUCTS PCL — Type X	described below:
	UNITED STATES GYPSUM CO — Types SCX and SGX	a. Furring Channels — Formed of No. 25 MSG galv steel, spaced 24 in. OC perpendicular to studescribed in Item b. Ends of adjoining channels are overlapped 6 in. and tied together with dou wire near each end of overlap. Batts and Blankets placed in stud cavity as described in Item 5. The furring channels as described in Item 3.
	USG BORAL DRYWALL SFZ LLC — Types SCX and SGX	b. <b>Steel Framing Members* —</b> Used to attach furring channels (Item 6Aa) to one side of studs
d applied vertically. Gypsum panels nailed n heads. n rating 27 min)	USG MEXICO S A DE C V — Type SCX 3V. Gypsum Board* — (As an alternate to Item 3. For use with Item 5K) — Any 5/8 in. thick, 4 ft. wide, Gypsum Board listed in Item 3	secured to studs with two No. 8 x 2-1/2 in. coarse drywall screws, one through the hole at each friction fitted into clips. <b>KINETICS NOISE CONTROL INC</b> — Type Isomax
in. thick paper surfaced applied vertically ank diam and 15/64 in. diam heads.	<ul> <li>above. Applied vertically with vertical joints centered over studs and staggered one stud cavity on opposite sides of studs. Gypsum panels secured to studs with 1-5/8 in. long Type W coarse thread gypsum panel steel screws spaced 8 in. OC at perimeter and in the field.</li> <li>4. Steel Corner Fasteners — (Optional) — For use at wall corners. Channel shaped, 2 in. long by 1 in. high on the back side with two</li> </ul>	6B. <b>Steel Framing Members*</b> — (Optional, Not Shown) — Furring channels and Steel Framing a. <b>Furring Channels</b> — Formed of No. 25 MSG galv steel. 2-3/8 in. wide by 7/8 in. deep, spaced Channels secured to studs as described in Item b. Ends of adjoining channels are overlapped 6 strand of No. 18 SWG galv steel wire near each end of overlap. As an alternate, ends of adjoining
n. thick, 4 ft wide panels, applied vertically. 15/64 in. diam heads. Panel joints covered at compound.	1/8 in. wide cleats protruding into the 5/8 in. wide channel, fabricated from 24 gauge galv steel. Fasteners applied only to the end or cut edge (not along tapered edges) of the gypsum board, no greater than 2 in. from corner of gypsum board, max spacing 16 in. OC. Nailed to adjacent stud through tab using one No. 6d cement coated nail per fastener. Corners of wall board shall be nailed to top and bottom plate using No. 6d cement coated nails.	and secured together with two self-tapping #6 framing screws, min. 7/16 in. long at the midpoi each flange of the channel. Gypsum board attached to furring channels as described in Item 3. b. <b>Steel Framing Members*</b> — Used to attach furring channels (Item 6Ba) to studs. Clips space
min) tically or horizontally. Gypsum panels	5. Batts and Blankets* — (Optional — Required when Item 6A is used (RC-1)) — Glass fiber or mineral wool insulation. Placed to completely or partially fill the stud cavities. When Item 6A is used, glass fiber or mineral wool insulation shall be friction-fitted to	studs with No. 8 x 1-1/2 in. coarse drywall screw through the center hole. Furring channels are f <b>PLITEQ INC</b> — Type Genie Clip
of 12 in. OC. led, square, or tapered edges, applied	completely of partially in the stud cavities. When item on is used, glass liber of mineral woof insulation shall be includi-inted to completely fill the stud cavities. CERTAINTEED CORP JOHNS MANVILLE	6C. Steel Framing Members* — (Optional, Not Shown) — Furring channels and Steel Framing a. Furring Channels — Formed of No. 25 MSG galv steel. Spaced 24 in. OC perpendicular to stu described in Item b. Ends of adjoining channels overlapped 6 in. and tied together with double wire. Gypsum board attached to furring channels as described in Item 3.
W coarse thread gypsum panel steel en used in widths other than 48 in.,	KNAUF INSULATION LLC	b. Steel Framing Members* — Used to attach furring channels (Item 6Ca) to studs. Clips space
SW (finish rating 20 min), Type FSW-2 (finish ish rating 20 min), Type FSK-C (finish rating 20 nish rating 24 min).	MANSON INSULATION INC ROCKWOOL — Types Acoustical Fire Batts and Type AFB, min. density 1.69 pcf / 27.0 kg/m <sup>3</sup>	<ul> <li>No. 2 in. coarse drywall screw with 1 in. diam washer through the center hole. Furring channels STUDCO BUILDING SYSTEMS — RESILMOUNT Sound Isolation Clips - Type A237 or A237R</li> <li>6D. Steel Framing Members* — (Optional, Not Shown) — Furring channels and Steel Framing</li> </ul>
Nom 5/8 in. thick lead backed gypsum r studs and staggered min 1 stud cavity on d gypsum panel steel screws spaced 8 in.	ROCKWOOL MALAYSIA SDN BHD — Type Acoustical Fire Batts ROCK WOOL MANUFACTURING CO — Delta Board	a. Furring Channels — Formed of No. 25 MSG galv steel, spaced 24 in. OC, and perpendicular to described in Item b. Ends of adjoining channels overlapped 6 in. and secured in place with a do steel wire. Gypsum board attached to furring channels as described in Item 3.
cked gypsum wallboard and optional at ness of 0.140 in. placed on the face of	THERMAFIBER INC — Type SAFB, SAFB FF	b. <b>Steel Framing Members*</b> — Used to attach furring channels (Item 6Da) to studs. Clips space
e top of the strip and one at the bottom red over the screw heads. Lead batten r D".	5A. Fiber, Sprayed* — (Not Shown — Not for use with Item 6) — As an alternate to Batts and Blankets (Item 5) — Spray applied	No. 8 x 2-1/2 in. coarse drywall screw through the center hole. Furring channels are friction fitte <b>REGUPOL AMERICA</b> — Type SonusClip
— For use as the base layer or as the face applied vertically. Vertical joints centered	cellulose material. The fiber is applied with water to completely fill the enclosed cavity in accordance with the application instructions supplied with the product with a nominal dry density of 2.7 lb/ft <sup>3</sup> . Alternate Application Method: The fiber is applied without water or adhesive at a nominal dry density of 3.5 lb/ft <sup>3</sup> , in accordance with the application instructions supplied with the product. When Item 6B is used, Fiber, Sprayed shall be INS735, INS745, INS750LD, INS765LD, INS773LD or SANCTUARY.	6E. <b>Steel Framing Members*</b> — (Optional, Not Shown) — Resilient channels and Steel Framing a. <b>Resilient Channels</b> — Formed of No. 25 MSG galv steel, spaced 24 in. OC, and perpendicular described in Item b. Ends of adjoining channels overlapped 6 in. and secured in place with two screws spaced 2-1/2 in. from the center of the overlap. Gypsum board attached to resilient char
b studs with 1-5/8 in. long Type W coarse d as the base layer. When applied as the al joints of lead backed gypsum wallboard th a max thickness of 0.14 in. placed on	U S GREENFIBER L L C — INS735, INS745, INS750LD and SANCTUARY for use with wet or dry application. INS515LD, INS541LD, INS735, INS765LD, and INS773LD are to be used for dry application only	b. <b>Steel Framing Members*</b> — Used to attach resilient channels (Item 6Ea) to studs. Clips spac with No. 8 x 2-1/2 in. coarse drywall screw through the center hole. Resilient channels are secur pan-head self-drilling screw.
e S-12 pan head steel screws, one at the 0.085 in. thick. Compression fitted or g the Federal specification QQ-L-201f, d backed board to be min 2-1/2 in. Type	5B. <b>Fiber, Sprayed*</b> — (Not Shown - Not for use with Item 6) — As an alternate to Batts and Blankets (Item 5) - Spray applied cellulose insulation material. The fiber is applied with water to interior surfaces in accordance with the application instructions supplied with the product. Applied to completely fill the enclosed cavity. Minimum dry density of 4.3 pounds per cubic ft. <b>NU-WOOL CO INC</b> — Cellulose Insulation	<ul> <li>KEENE BUILDING PRODUCTS CO INC - Type RC+ Assurance Clip</li> <li>6F. Steel Framing Members* — (Optional, Not Shown) — Furring channels and Steel Framing</li> <li>a. Furring Channels — Formed of No. 25 MSG galv steel. 2-23/32 in. wide by 7/8 in. or 1-1/2 in</li> <li>to study. Channels secured to study as described in Item b. Ends of adjoining channels are over</li> </ul>

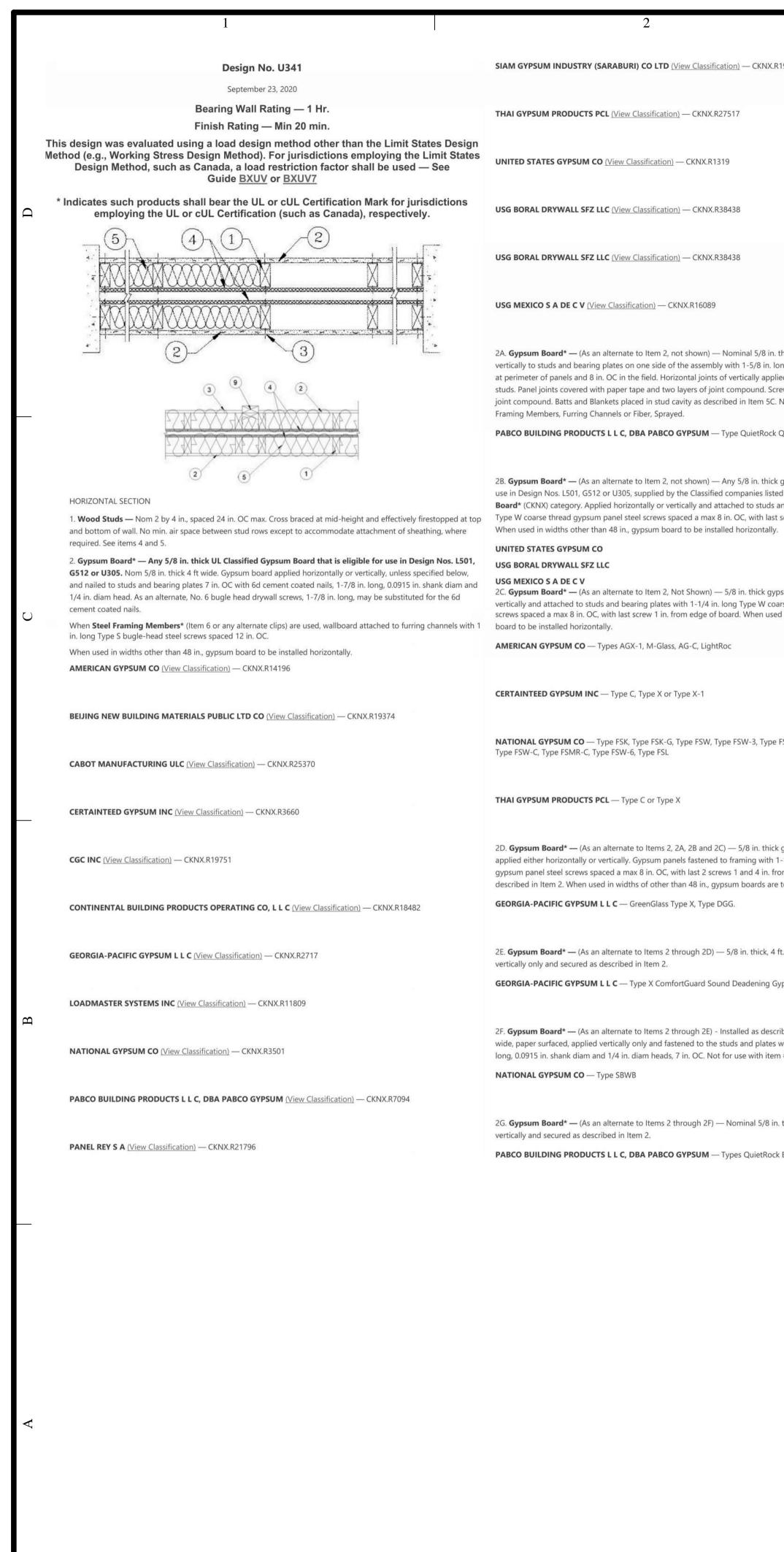
5C. Batts and Blankets\* — Required for use with resilient channels, Item 7, 3 in. thick mineral wool batts, friction-fitted to fill interior of wall. THERMAFIBER INC — Type SAFB, SAFB FF

a. Furring Channels - Formed of No. 25 MSG galv steel. 2-23/32 in. wide by 7/8 in. or 1-1/2 in to studs. Channels secured to studs as described in Item b. Ends of adjoining channels are over double strand of No. 18 SWG galv steel wire near each end of overlap. As an alternate, ends of a 6 in. and secured together with two self-tapping #6 framing screws, min. 7/16 in. long at the mi on each flange of the channel. Gypsum board attached to furring channels as described in Item

		STEOF MISSO
g the UL Classification Marking as to <b>nd Blankets</b> (BKNV or BZJZ) Categories	b. <b>Steel Framing Members*</b> — Used to attach furring channels (Item 6Fa) to studs. Clips spaced 48 in. OC. Clips secured to studs with No. 8 x 2-1/2 in. coarse drywall screw through the center grommet. Furring channels are friction fitted into clips. <b>CLARKDIETRICH BUILDING SYSTEMS</b> — Type ClarkDietrich Sound Clip	M. RANDALL PORTER
Item 3D) — Glass fiber insulation, nom ed of 50 or less, friction-fitted to turers.	6G. <b>Steel Framing Members*</b> — (Optional, Not Shown) — Used as an alternate method to attach resilient channels to wall studs. A resilient sound isolation accessory shall be used at each attachment point of the resilient channels and spaced max 16 in. O.C. Channel ends butted and centered under the structural members and attached with one accessory at each end. Additional accessories used to hold resilient channels that support the gypsum board end joints. The accessory envelops the mounting edge of the resilient channel.	A 2012006244
As an alternate to Batts and Blankets a adhesive, at a minimum density of 4.0 ed with the product. See <b>Fiber,</b>	The accessory and resilient channel are fastened to the structural members with the screws supplied with the accessory and per the accessory manufacturer's installation instructions. <b>PAC INTERNATIONAL L L C</b> — Type RC-1 Boost	15 APR 2025 M. RANDALL PORTER
- As an alternate to Batts and Blankets ater to completely fill the enclosed stud dry density shall be 4.30 lbs/ft <sup>3</sup> .	<ul> <li>7. Furring Channel — Optional — Not Shown — For use on one side of the wall - Resilient channels, 25 MSG galv steel, spaced vertically 24 in. OC, flange portion screw attached to one side of studs with 1-1/4 in. long diamond shaped point, double lead Phillips head steel screws. When resilient channels are used, insulation, Items 5C or 5D is required.</li> <li>8. Caulking and Sealants — (Not Shown, Optional) — A bead of acoustical sealant applied around the partition perimeter for sound control.</li> </ul>	ARCHITECT LICENSE# A-2012006244
lation, at any thickness from partial fill	<ol> <li>9. STC Rating — The STC Rating of the wall assembly is 56 when it is constructed as described by Items 1 through 6, except:</li> <li>A. Item 2, above — Nailheads Shall be covered with joint compound.</li> </ol>	AR I
Blankets (Item 5) - Spray-applied dance with the application instructions woven netting may be attached by any ent before the installation of materials	B. Item 2, above — Joints As described, shall be covered with fiber tape and joint compound. C. Item 5, above — Batts and Blankets* The cavities formed by the studs shall be friction fit with R-19 unfaced fiberglass insulation batts measuring 6-1/4 in. thick and 15-1/4 in. wide.	SOUR
l plastic insulation, at any thickness	D. Item 6, above — Steel Framing Members* Type RSIC-1 clips shall be used to attach gypsum board to studs on either side of the wall assembly.	IS
1850, GacoOnePass Low GWP F1880, and	E. Item 8, above — Caulking and Sealants (Not Shown) A bead of acoustical sealant shall be applied around the partition perimeter for sound control.	MC
d plastic insulation, at any thickness	F. Steel Corner Fasteners (Item 4), Fiber, Sprayed (Items 5A and 5B) and Steel Framing Members (Item 6A), not evaluated as alternatives for obtaining STC rating.	Y,
DC), SealTite Pro OCX, SealTite Pro No Trim FO. Members as described below: in. deep, spaced 24 in. OC annels are overlapped 6 in. and tied ernate, ends of adjoining channels may n. long at the midpoint of the overlap, lescribed in Item 3. d 48 in. OC. RSIC-1 and RSIC-1 (2.75)	<ol> <li>Wall and Partition Facings and Accessories* — (Optional, Not Shown) — Nominal 1/2 in. thick, 4 ft wide panels, for optional use as an additional layer on one or both sides of the assembly. Panels attached in accordance with manufacturer's recommendations. When the QR-500 or QR-510 panel is installed between the wood framing and the UL Classified gypsum board, the required UL Classified gypsum board layer(s) is/are to be installed as indicated as to fastener type and spacing, except that the required fastener length shall be increased by a minimum of 1/2 in. Not evaluated or intended as a substitute for the required layer(s) of UL Classified Gypsum Board.</li> <li>PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM — Type QuietRock QR-500 and QR-510</li> <li>11. Cementitious Backer Units* — (Optional Item Not Shown — For Use On Face Of 1 Hr Systems With All Standard Items Required) - 7/16 in., 1/2 in., 5/8 in., 3/4 in. or 1 in. thick, min. 32 in. wide. Applied vertically or horizontally with vertical joints centered over studs.</li> </ol>	AGE AT D COUNT
RSIC-V and RSIC-V (2.75) clips secured re friction fitted into clips. RSIC-1 and for use with 2-23/32 in. wide furring	<ul> <li>Fastened to studs and runners with cement board screws of adequate length to penetrate stud by a minimum of 3/8 in. for steel framing members, and a minimum of 3/4 in. for wood framing members spaced a max of 8 in. OC. When 4 ft. wide boards are used, horizontal joints need not be backed by framing.</li> <li>NATIONAL GYPSUM CO — Type DuraBacker, PermaBase, DuraBacker Plus, or PermaBase Plus</li> <li>12. Non-Bearing Wall Partition Intersection — (Optional) —Two nominal 2 by 4 in. studs or nominal 2 by 6 in. studs nailed together</li> </ul>	SON
y Members on one side of studs as uds. Channels secured to studs as	with two 3 in. long 10d nails spaced a max. 16 in. OC. vertically and fastened to one side of the minimum 2 by 4 in. stud with 3 in. long 7 10d nails spaced a max. 16 in. OC. vertically. Intersection between partition wood studs to be flush with the 2 by 4 in. studs. The wall partition wood studs are to be framed by with a second 2 by 4 in. wood stud fastened with 3 in. long 10d nails spaced a max. 16 in.	
uble strand of No. 18 SWG galv steel Two layers of gypsum board attached to	<ul> <li>OC. vertically. Maximum one non-bearing wall partition intersection per stud cavity. Non-bearing wall partition stud depth shall be at a minimum equal to the depth of the bearing wall.</li> <li>13. Mesh Netting — (Not Shown) — Any thin, woven or non-woven fibrous netting material attached with staples to the outer face of</li> </ul>	JA.
s only. Clips spaced 48 in. OC., and n end of the clip. Furring channels are	one row of studs to facilitate the installation of the sprayed fiber from the opposite row. 14. <b>Mineral and Fiber Board* —</b> (Optional, Not Shown) — For optional use as an additional layer on one side of wall. Nom 1/2 in. thick, 4 ft wide with long dimension parallel and centered over studs. Attached to framing with 2 in. long Type W steel screws, spaced 12 in. OC. The required UL Classified gypsum board layer(s) is/are to be installed as indicated as to fastener type and spacing, except	
Members as described below: d 24 in. OC perpendicular to studs. in. and tied together with double ng channels may be overlapped 6 in. int of the overlap, with one screw on	<ul> <li>12 in. OC. The required OL classified gypsum board layer(s) is/are to be installed as indicated as to fasteller type and spacing, except that the required fasteller type and spacing, except layer(s) of UL Classified Gypsum Board.</li> <li>HOMASOTE CO — Homasote Type 440-32</li> <li>14A. Mineral and Fiber Board* — (Optional, Not Shown) — For use with Items 14B-14E) — For optional use as an additional layer on one side of wall. Nom 1/2 in. thick, 4 ft wide with long dimension parallel and centered over studs. Attached to framing with minimum</li> </ul>	SUM
ed 48 in. OC. Genie clips secured to friction fitted into clips.	1-3/8 in. long ring shanked nails or 1-1/4 in. long Type W steel screws, spaced 12 in. OC along board edges and 24 in. OC in field of board along intermediate framing. Not evaluated or intended as a substitute for the required layer(s) of UL Classified Gypsum Board. <b>HOMASOTE CO</b> — Homasote Type 440-32	AP S
9 Members as described below: tuds. Channels secured to studs as 9 strand of No. 18 AWG galvanized steel	<ul> <li>14B. Glass Fiber Insulation — (For use with Item 14A) — 3-1/2 in. thick glass fiber batts bearing the UL Classification Marking as to Surface Burning and/or Fire Resistance, placed to fill the interior of the wall. See Batts and Blankets (BKNV or BZJZ) categories for names of Classified companies.</li> <li>14C. Batts and Blankets* — (As an alternate to Item 14B, For use with Item 14A), 3 in. thick mineral wool batts, placed to fill interior</li> </ul>	URA LEF
ed 48 in. OC., and secured to studs with are friction fitted into clips.	of wall, attached to the 3-1/2 in. face of the studs with staples placed 24 in. OC. <b>THERMAFIBER INC</b> — Type SAFB, SAFB FF 14D. <b>Adhesive</b> — (For use with Item 14A) — Construction grade adhesive applied in vertical, serpentine, nominal 3/8 in. wide beads down the length of both vertical edges of Mineral and Fiber Board (Item 14A).	AL
g Members as described below: to studs. Channels secured to studs as buble strand of No. 18 AWG twisted	14E. <b>Gypsum Board*</b> — (For use with Item 14A) — 5/8 in. thick, 4 ft wide, applied vertically over Mineral and Fiber Board (Item 14A) with vertical joints located anywhere over stud cavities. Secured to mineral and fiber boards with 1-1/2 in. Type G Screws spaced 8 in. OC along edges of each vertical joint and 12 in. OC in intermediate field of the Mineral and Fiber Board (Item 14A). Secured to outermost studs and bearing plates with 2 in. long Type S screws spaced 8 in. OC. Gypsum Board joints covered with paper tape and	
ed 48 in. OC., and secured to studs with ed into clips.	joint compound. Screw heads covered with joint compound. Finish Rating 30 Min.	
g Members as described below: Ir to studs. Channels secured to studs as		
No. 8 15 x 1/2 in. Philips Modified Truss annels as described in Item 3.	CGC INC — Types C, IP-X2, IPC-AR CERTAINTEED GYPSUM INC — Type LGFC-C/A	
ced 48 in. OC., and secured to studs red to clips with one No. 10 x 1/2 in.	GEORGIA-PACIFIC GYPSUM L L C — Types 5, DAPC, TG-C	Н Т Е О h I T Е О -256-7
Members as described below:	NATIONAL GYPSUM CO — Types FSK-C, FSW-C	A R CHI
n. deep, spaced 24 in. OC perpendicular rlapped 6 in. and tied together with	PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM — Type PG-C	
adjoining channels may be overlapped nidpoint of the overlap, with one screw n 3.	PANEL REY S A — Type PRC	
	THAI GYPSUM PRODUCTS PCL — Type C 	
	USG BORAL DRYWALL SFZ LLC — Type C	
	USG MEXICO S A DE C V — Types C, IP-X2, IPC-AR	WALLACE ARCHITECTS, LLC MISSOURI STATE CERTIFICATE
	14F. <b>Mineral and Fiber Board</b> — (Optional, Not Shown) — For optional use as an additional layer on one side of wall - Nom 1/2 in. thick, 4 ft wide, square edge fiber boards applied vertically to studs on one side of the wall in between the wood studs and the UL	OF AUTHORITY: 2003019614
	Classified Gypsum Board (Item 3). Fiber boards applied vertically to study on one side of the wan in between the wood study and the OC Classified Gypsum Board (Item 3). Fiber boards installed with 1-1/4 in. long, Type W, bugle head, coarse thread gypsum board screws spaced 12 in. OC max, with the last screws spaced 2 in. and 6 in. from edge of board. Gypsum board (Item 3) installed as indicated as to fastener type and spacing, except that the required fastener length shall be increased by a minimum of 1/2 in. Not evaluated or intended as a substitute for the required layer(s) of UL Classified Gypsum Board. <b>BLUE RIDGE FIBERBOARD INC</b> — SoundStop	1ST ISSUE 15 APR 2025
	* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively. Last Updated on 2021-12-07	ISSUE/REVISIONS

**ISSUE SET** 

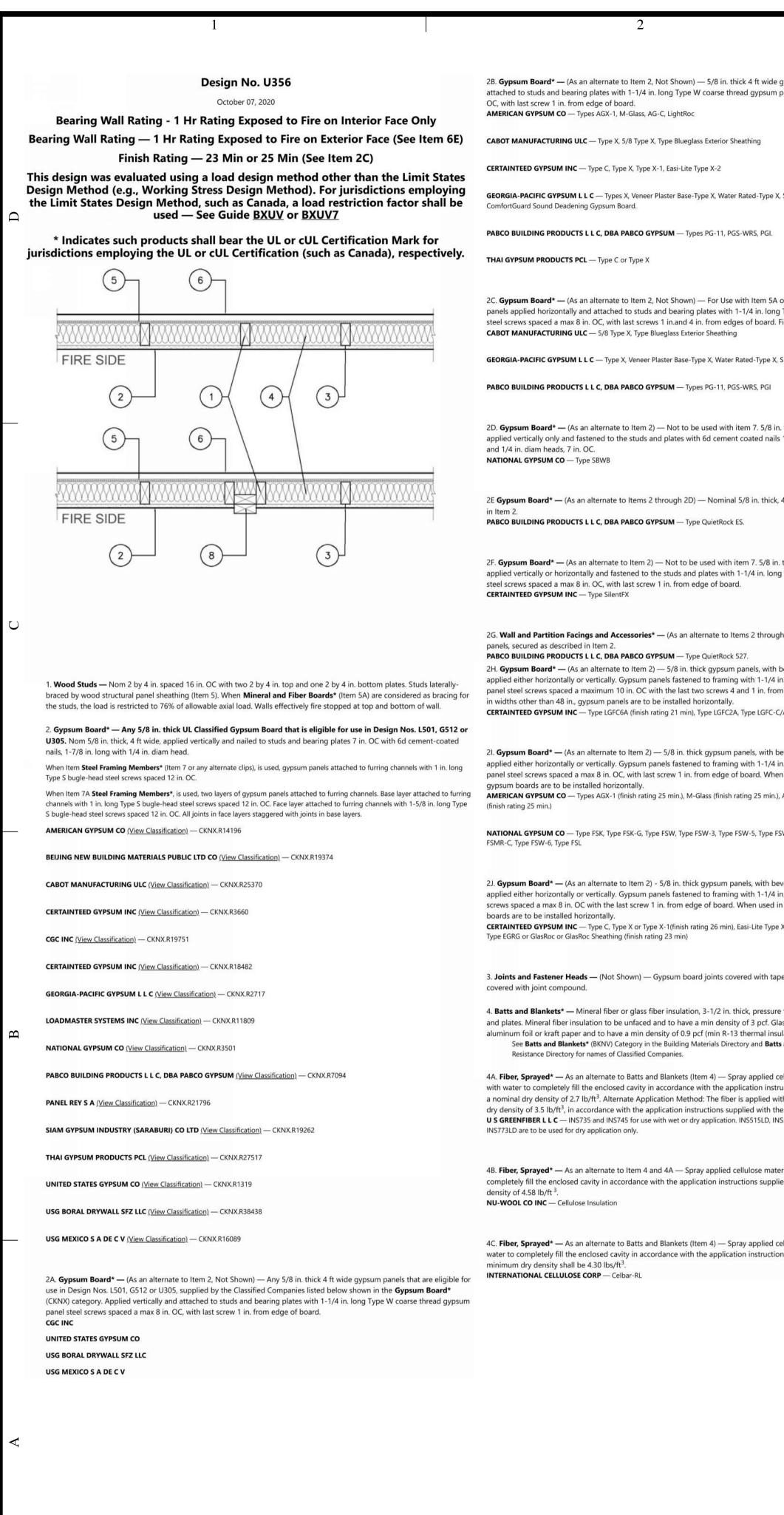
JOB NO.



319262	2H. <b>Gypsum Board*</b> — (As an alternate to Items 2 through 2G) — Installed as described in Item 2. 5/8 in. thick, 4 ft. wide, paper surfaced, applied vertically or horizontally fastened to the studs and plates with 1-1/4 in. long Type W coarse thread gypsum panel steel screws spaced a max 8 in. OC, with last screw 1 in. from edge of board.	two self-tapping #6 framing screws, min. 7/16 in. long at the midpoint of t flange of the channel. Wallboard attached to furring channels as described
	CERTAINTEED GYPSUM INC — Type SilentFX	B. Steel Framing Members* — Used to attach furring channels (Item a) to OC., and secured to studs with No. 8 x 2-1/2 in. coarse drywall screw throu channels are friction fitted into clips. RSIC-1 clip for use with 2-9/16 in. wid for use with 2-23/32 in. wide furring channels.
	<ol> <li>Wall and Partition Facings and Accessories* — (As an alternate to Items 2 through 2H) — Nominal 5/8 in. thick,</li> <li>4 ft wide panels, applied vertically and secured as described in Item 2.</li> </ol>	PAC INTERNATIONAL L L C — Types RSIC-1, RSIC-1 (2.75).
	PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM — Type QuietRock 527.	6A. <b>Steel Framing Members* —</b> (Optional, Not Shown, As an alternate to Item 6) Framing Members as described below:
	2J. <b>Gypsum Board*</b> — (As an alternate to 5/8 in. Type FSW in Item 2) — 2 layers nom. 5/16 in. thick gypsum panels applied vertically or horizontally. Horizontal joints on the same side need not be staggered. Inner layer attached with fasteners, as described in item 2, spaced 24 in. OC. Outer layer attached per Item 2. <b>NATIONAL GYPSUM CO</b> — Type FSW.	a. <b>Furring Channels</b> — Formed of No. 25 MSG galv steel. 2-3/8 in. wide by perpendicular to studs. Channels secured to studs as described in Item b. E overlapped 6 in. and tied together with double strand of No. 18 SWG galv As an alternate, ends of adjoining channels may be overlapped 6 in. and se tapping #6 framing screws, min. 7/16 in. long at the midpoint of the overlap the channel. Gypsum board attached to furring channels as described in Item
thick, 4 ft wide panels, applied ong Type S screws spaced 12 in. OC	2K. <b>Gypsum Board*</b> — (As an alternate to Item 2) — 5/8 in. thick gypsum panels, with beveled, square, or tapered edges, applied either horizontally or vertically. Gypsum panels fastened to framing with 1-1/4 in. long Type W coarse thread gypsum panel steel screws spaced a maximum 10 in. OC with the last two screws 4 and 1 in. from the edges of the board. When used in widths other than 48 in., gypsum panels are to be installed horizontally.	<ul> <li>b. Steel Framing Members* — Used to attach furring channels (Item a) to clips secured to studs with No. 8 x 1-1/2 in. coarse drywall screw through t friction fitted into clips.</li> <li>PLITEQ INC — Type Genie Clip</li> </ul>
ied panels need not be backed by rewheads covered with two layers of Not evaluated for use with Steel	<b>CONTINENTAL BUILDING PRODUCTS OPERATING CO, L L C</b> — Type LGFC6A (finish rating 21 min), Type LGFC2A, Type LGFC-C/A, Type LGFC-WD, Type LGLLX	6B. <b>Steel Framing Members* —</b> (Optional, Not Shown, As an alternate to Item 6) Framing Members as described below:
QR-530 (finish rating 23 min).	3. Joints and Nailheads — Gypsum board joints of outer layer covered with tape and joint compound. Nail heads of outer layer covered with joint compound. As an alternate, nom 3/32 in. thick gypsum veneer plaster may be applied to the entire surface of Classified veneer baseboard with joints reinforced with paper tape.	a. <b>Furring Channels</b> — Formed of No. 25 MSG galv steel. Spaced 24 in. Of secured to studs as described in Item b. Ends of adjoining channels overlag double strand of No. 18 AWG galvanized steel wire. Gypsum board attached
c gypsum panels that are eligible for ed below shown in the <b>Gypsum</b> and bearing plates with 1-1/4 in. long t screw 1 in. from edge of board.	<ol> <li>Sheathing — (Optional) — Septum may be sheathed with min 7/16 in. thick wood structural panels min grade "C-D" or "Sheathing" or min 1/2 in. thick Mineral and Fiber Boards*.</li> <li>See Mineral and Fiber Boards (CERZ) category for names of Classified companies.</li> </ol>	in Item 2. b. <b>Steel Framing Members*</b> — Used to attach furring channels (Item 6Ba) and secured to studs with 2 in. coarse drywall screw with 1 in. diam washer channels are friction fitted into clips.
-	5. Batts and Blankets* — 3-1/2 in. max thickness glass or mineral fiber batt insulation. Optional when sheathing (Item 4) is used on both halves of wall.	<b>STUDCO BUILDING SYSTEMS</b> — RESILMOUNT Sound Isolation Clips - Ty
psum panels applied horizontally or	See <b>Batts and Blankets</b> (BZJZ) category for list of Classified companies. 5A. <b>Fiber, Sprayed*</b> — As an alternate to Batts and Blankets (Item 5) — Spray applied cellulose material. The fiber is applied with water to completely fill the enclosed cavity in accordance with the application instructions supplied with the product with a nominal dry density of 2.7 lb/ft <sup>3</sup> . Alternate Application Method: The fiber is applied without water	6C. <b>Steel Framing Members*</b> — (Optional, Not Shown, As an alternate to Item 6) Framing Members as described below:
arse thread gypsum panel steel ed in widths other than 48 in., gypsum	or adhesive at a nominal dry density of 3.5 lb/ft <sup>3</sup> , in accordance with the application instructions supplied with the product. <b>U S GREENFIBER L L C</b> — INS735, INS745 and INS750LD for use with wet or dry application. INS515LD, INS541LD, INS735, INS765LD, and INS773LD are to be used for dry application only.	A. <b>Furring Channels</b> — Formed of No. 25 MSG galv steel. Spaced 24 in. Of secured to studs as described in Item 6Cb. Ends of adjoining channels over double strand of No. 18 AWG galvanized steel wire. Gypsum board attache in Item 2.
	5B. <b>Fiber, Sprayed*</b> — As an alternate to Batts and Blankets (Item 5) when Sheathing (Item 4) is used on both halves of wall - Spray applied cellulose insulation material. The fiber is applied with water to interior surfaces in accordance with the application instructions supplied with the product. Applied to completely fill the enclosed cavity. Minimum dry density of 4.3 pounds per cubic ft.	B. <b>Steel Framing Members*</b> — Used to attach furring channels (Item 6CA and secured to studs with No. 8 x 2-1/2 in. coarse drywall screw through th friction fitted into clips. <b>REGUPOL AMERICA</b> — Type SonusClip
FSW-5, Type FSW-G, Type FSK-C,	NU-WOOL CO INC — Cellulose Insulation	6D. <b>Steel Framing Members*</b> — (Optional, Not Shown, As an alternate to Item 6) Framing Members as described below:
	5C. <b>Batts and Blankets*</b> — (Required for use with Wall and Partition Facings and Accessories, Item 2A. Use of Sheathing, Item 4, does not nullify requirement of Item 5C for use with Item 2A) — Glass fiber insulation, nom 3-1/2 in. thick, min. density of 0.80 pcf, with a flame spread of 25 or less and a smoke developed of 50 or less, friction-fitted to completely fill the stud cavities. See Batts and Blankets Category (BKNV) for names of manufacturers.	a. <b>Resilient Channels</b> — Formed of No. 25 MSG galv steel, spaced 24 in. C Channels secured to studs as described in Item b. Ends of adjoining chann place with two No. 8 15 x 1/2 in. Philips Modified Truss screws spaced 2-1/ Gypsum board attached to resilient channels as described in Item 2.
k gypsum panels, with square edges, 1-1/4 in. long Type W coarse thread rom edge of board or nailed as e to be installed horizontally.	5D. <b>Fiber, Sprayed*</b> — As an alternate to Batts and Blankets (Item 5) and Item 5A when Sheathing (Item 4) is used on both halves of wall - Spray applied cellulose fiber. The fiber is applied with water to completely fill the enclosed cavity in accordance with the application instructions supplied with the product. The minimum dry density shall be 4.30 lbs/ft <sup>3</sup> .	b. Steel Framing Members* — Used to attach resilient channels (Item 6D, and secured to studs with No. 8 x 2-1/2 in. coarse drywall screw through th secured to clips with one No. 10 x 1/2 in. pan-head self-drilling screw. KEENE BUILDING PRODUCTS CO INC — Type RC+ Assurance Clip
	INTERNATIONAL CELLULOSE CORP — Celbar-RL	
ft. wide, paper surfaced applied sypsum Board.	5E. <b>Fiber, Sprayed*</b> — As an alternate to Batts and Blankets (Item 5) - Spray-applied cellulose material. The fiber is applied with water to completely fill the enclosed cavity in accordance with the application instructions supplied with the product. To facilitate the installation of the material, any thin, woven or non-woven netting may be attached by any means possible to the outer face the studs. The material shall reach equilibrium moisture content before the installation of materials on either face of the studs. The minimum dry density shall be 5.79 lbs/ft <sup>3</sup> .	6E. <b>Steel Framing Members*</b> — (Optional, Not Shown, As an alternate to Item 6) attach resilient channels to wall studs. A resilient sound isolation accessory shall be the resilient channels and spaced max 24 in. O.C. Channel ends butted and centere and attached with one accessory at each end. Additional accessories used to hold gypsum board end joints. The accessory envelops the mounting edge of the resilier resilient channel are fastened to the structural members with the screws supplied v accessory manufacturer's installation instructions.
ribed in Item 2. 5/8 in. thick, 4 ft. with 6d cement coated nails 1-7/8 in.	APPLEGATE HOLDINGS L L C — Applegate Advanced Stabilized Cellulose Insulation	PAC INTERNATIONAL L L C — Type RC-1 Boost
n #6.	6. <b>Steel Framing Members* —</b> (Optional, Not Shown) — Furring channels and Steel Framing Members as described below:	6F <b>Steel Framing Members* —</b> (Optional, Not Shown, As an alternate to Item 6) - Framing Members as described below:
n. thick, 4 ft wide panels, applied	A. <b>Furring Channels</b> — Formed of No. 25 MSG galv steel. 2-9/16 in. or 2-23/32 in. wide by 7/8 in. deep, spaced 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels are overlapped 6 in. and tied together with double strand of No. 18 SWG galv steel wire near each end of overlap. As an alternate, ends of adjoining channels may be overlapped 6 in. and secured together with	a <b>Furring Channels</b> — Formed of No. 25 MSG galv steel. 2-23/32 in. wide 24 in. OC perpendicular to studs. Channels secured to studs as described in are overlapped 6 in. and tied together with double strand of No. 18 SWG g

	5	SKEOF MISS
of the overlap, with one screw on each	self-tapping #6 framing screws, min. 7/16 in. long at the midpoint of the overlap, with one screw on each	M. RANDALL
bed in Item 2.	flange of the channel. Gypsum board attached to furring channels as described in Item 2. b <b>Steel Framing Members*</b> — Used to attach furring channels (Item 6Fa) to studs. Clips spaced maximum 48	PORTER A 2012006244
rough the center grommet. Furring wide furring channels. RSIC-1 (2.75) clip	in. OC. Clips secured to studs with No. 8 x 2-1/2 in. coarse drywall screw through the center grommet. Furring channels are friction fitted into clips.	Whadall forthe
	CLARKDIETRICH BUILDING SYSTEMS — Type ClarkDietrich Sound Clip	15 APR 2025
	7. Wall and Partition Facings and Accessories* — (Optional, Not shown) — Nominal 1/2 in. thick, 4 ft wide panels,	M. RANDALL PORTER ARCHITECT LICENSE#
n 6) — Furring channels and Steel	for optional use as an additional layer on one or both sides of the assembly. Panels attached in accordance with manufacturer's recommendations. When the QR-500 or QR-510 panel is installed between the wood framing and the	A-2012006244
e by 7/8 in. deep, spaced 24 in. OC	UL Classified gypsum board, the required UL Classified gypsum board layer(s) is/are to be installed as indicated as to fastener type and spacing, except that the required fastener length shall be increased by a minimum of 1/2 in. Not	
b. Ends of adjoining channels are alv steel wire near each end of overlap.	evaluated or intended as a substitute for the required layer(s) of UL Classified Gypsum Board. PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM — Type QuietRock QR-500 and QR-510	A A
d secured together with two self- erlap, with one screw on each flange of		P/ RI
n Item 2. a) to studs. Clips spaced 48 in. OC. Genie	8. Mineral and Fiber Board* — ((Optional, Not Shown) — For optional use as an additional layer on one or both sides of wall. Nom 1/2 in. thick, 4 ft wide with long dimension parallel and centered over studs. Attached to framing as	
gh the center hole. Furring channels are	described in Item 2. The required UL Classified gypsum board layer(s) is/are to be installed as indicated as to fastener type and spacing, except that the required fastener length shall be increased by a minimum of 1/2 in. Not evaluated or	
	intended as a substitute for the required layer(s) of UL Classified Gypsum Board. <b>HOMASOTE CO</b> — Homasote Type 440-32	
	HOMASOTE CO — Homasote Type 440-52	
n 6) — Furring channels and Steel	9. Non-Bearing Wall Partition Intersection — (Optional) — Two nominal 2 by 4 in. stud or nominal 2 by 6 in. stud	
. OC perpendicular to studs. Channels rlapped 6 in, and tied together with	nailed together with two 3in. long 10d nails spaced a max. 16 in. OC. vertically and fastened to one side of the minimum 2 by 4 in. stud with 3 in. long 10d nails spaced a max 16 in. OC. vertically. Intersection between partition	
ached to furring channels as described	wood studs to be flush with the 2 by 4 in. studs. The wall partition wood studs are to be framed by with a second 2 by 4 in. wood stud fastened with 3 in. long 10d nails spaced a max. 16 in. OC. vertically. Maximum one non-bearing wall partition intersection per stud cavity. Non-bearing wall partition stud depth shall be at a minimum equal to the depth	
5Ba) to studs. Clips spaced 48 in. OC., sher through the center hole. Furring	of the bearing wall.	A'NU U
- Type A237R	(Optional, Not Shown) Alternate Construction For Use On One Side Of The Wall. 10. Mineral and Fiber Board* — For use with Items 10A-10D) —Nom 1/2 in. thick, 4 ft wide with long dimension	
The search	parallel and centered over studs. Attached to framing with minimum 1-3/8 in. long ring shanked nails or 1-1/4 in. long Type W steel screws, spaced 12 in. OC along board edges and 24 in. OC in field of board along intermediate framing.	Ϋ́N
n 6) — Furring channels and Steel	Not evaluated or intended as a substitute for the required layer(s) of UL Classified Gypsum Board. HOMASOTE CO — Homasote Type 440-32	
. OC perpendicular to studs. Channels	10A. <b>Glass Fiber Insulation</b> — (For use with Item 10) — 3-1/2 in. thick glass fiber batts bearing the UL Classification Marking as to Surface Burning and/or Fire Resistance, placed to fill the interior of the wall. See Batts and Blankets	KS KS
overlapped 6 in. and tied together with ached to furring channels as described	(BKNV or BZJZ) categories for names of Classified companies.	
GCA) to studs. Clips spaced 48 in. OC.,	10B. <b>Batts and Blankets*</b> — (As an alternate to Item 10B, For use with Item 10), 3 in. thick mineral wool batts, placed to fill interior of wall, attached to the 3-1/2 in. face of the studs with staples placed 24 in. OC.	JA
h the center hole. Furring channels are	THERMAFIBER INC — Type SAFB, SAFB FF	
		E E E E E E E E E E E E E E E E E E E
	10C. <b>Adhesive</b> — (For use with Item 10) — Construction grade adhesive applied in vertical, serpentine, nominal 3/8 in. wide beads down the length of both vertical edges of Mineral and Fiber Board (Item 14A).	
n 6) — Resilient channels and Steel	10D. <b>Gypsum Board*</b> — (For use with Item 10) — 5/8 in. thick, 4 ft wide, applied vertically over Mineral and Fiber Board (Item 14A) with vertical joints located anywhere over stud cavities. Secured to mineral and fiber boards with 1- 1/2 in Type 6. Screws spaced 8 in OC along adapt of each vertical joint and 12 in OC in intermediate field of the	N N
n. OC, and perpendicular to studs. annels overlapped 6 in. and secured in	1/2 in. Type G Screws spaced 8 in. OC along edges of each vertical joint and 12 in. OC in intermediate field of the Mineral and Fiber Board (Item 10). Secured to outermost studs and bearing plates with 2 in. long Type S screws spaced 8 in. OC. Gypsum Board joints covered with paper tape and joint compound. Screw heads covered with joint	S
2-1/2 in. from the center of the overlap.	compound. Finish Rating 30 Min.	- AS
6Da) to studs. Clips spaced 48 in. OC., h the center hole. Resilient channels are	AMERICAN GYPSUM CO — Type AG-C	EE
	CERTAINTEED GYPSUM INC — Type C	T III
6) — Used as an alternate method to	CONTINENTAL BUILDING PRODUCTS OPERATING CO, L L C — Type LGFC-C/A	
Il be used at each attachment point of tered under the structural members old resilient channels that support the		
silient channel. The accessory and ed with the accessory and per the	GEORGIA-PACIFIC GYPSUM L L C — Types 5, DAPC, TG-C	
	NATIONAL GYPSUM CO — Types FSK-C, FSW-C	
6) — Furring channels and Steel	PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM — Type PG-C	
ide by 7/8 in. or 1-1/2 in. deep, spaced		П 1 т E с bia,
ed in Item b. Ends of adjoining channels /G galv steel wire near each end of d 6 in. and secured together with two	PANEL REY S A — Type PRC	A R C H
o ni. and secured together with two	THAI GYPSUM PRODUCTS PCL — Type C	
	UNITED STATES GYPSUM CO — Type CTypes C, IP-X2, IPC-AR	
	<b>USG BORAL DRYWALL SFZ LLC</b> — Type C	WALLACE ARCHITECTS, LLC MISSOURI STATE CERTIFICATE
	USG MEXICO S A DE C V — Types C, IP-X2, IPC-AR	OF AUTHORITY: 2003019614
		1ST ISSUE
	* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.	15 APR 2025
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ISSUE SE



t wide gypsum panels applied vertically and ypsum panel steel screws spaced a max 8 in.	4D. <b>Fiber, Sprayed*</b> — As an alternate to Batts and Blankets (Item 4) — Spray applied, granulated mineral fiber material. The fiber is applied with adhesive, at a minimum density of 4.0 pcf, to completely fill the enclosed cavity in accordance with the application instructions supplied with the product. See Fiber, Sprayed (CCAZ). <b>AMERICAN ROCKWOOL MANUFACTURING, LLC</b> — Type Rockwool Premium Plus	<ul> <li>7C. Steel Framing Members* — (Optional, Not Shown, As an alternate to Item 7) — Members as described below:</li> <li>a. Furring Channels — Formed of No. 25 MSG galv steel. Spaced 24 in. OC p to studs as described in Item b. Ends of adjoining channels overlapped 6 in. a No. 18 AWG galvanized steel wire.Gypsum board attached to furring channel</li> </ul>
g	5. Wood Structural Panel Sheathing — Min 7/16 in. thick, 4 ft wide wood structural panels, min grade "C-D" or "Sheathing". Installed with long dimension of sheet (strength axis) or face grain of plywood parallel with or perpendicular to studs. Vertical joints centered on studs. Horizontal joints backed with nom 2 by 4 in. wood blocking. Attached to studs on exterior side of wall with 6d cement coated box nails spaced 6 in. OC at perimeter of panels and 12 in. OC along interior studs.	b. <b>Steel Framing Members*</b> — Used to attach furring channels (Item 7Ca) to secured to studs with 2 in. coarse drywall screw with 1 in. diam washer throu friction fitted into clips. <b>STUDCO BUILDING SYSTEMS</b> — RESILMOUNT Sound Isolation Clips - Type A237F
-Type X, Sheathing Type-X, Soffit-Type X, Type X , PGI.	<ul> <li>5A. Mineral and Fiber Boards* — As an alternate to Item 5 - Min 1/2 in. thick, 4 ft wide sheathing, installed vertically to studs. Vertical joints centered on studs. Horizontal joints backed with nom 2 by 4 in. wood blocking. Attached to studs on exterior side of wall with 1-1/2 in. long galvanized roofing nails spaced 6 in. OC at perimeter of panels and 12 in. OC along interior studs. As an option a weather resistive barrier may be applied over the Mineral and Fiber Boards.</li> <li>6. Exterior Facings — Installed in accordance with the manufacturer's installation instructions. One of the following exterior</li> </ul>	<ul> <li>7D. Steel Framing Members* — (Optional, Not Shown, As an alternate to Item 7) – Members as described below:</li> <li>a. Furring Channels — Formed of No. 25 MSG galv steel. Spaced 24 in. OC p to studs as described in Item 7Db. Ends of adjoining channels overlapped 6 i No. 18 AWG galvanized steel wire. Gypsum board attached to furring channels</li> </ul>
em 5A only - 5/8 in. thick 4 ft wide gypsum in. long Type W coarse thread gypsum panel poard. Finish Rating is 25 min.	<ul> <li>facings is to be applied over the sheathing:</li> <li>A. Vinyl Siding — Molded Plastic* — Contoured rigid vinyl siding having a flame spread value of 20 or less.</li> <li>See Molded Plastic (BTAT) category in the Building Materials Directory for names of manufacturers.</li> <li>B. Particle Board Siding — Hardboard exterior sidings including patterned panel or lap siding.</li> </ul>	b. <b>Steel Framing Members*</b> — Used to attach furring channels (Item 7Da) to secured to studs with No. 8 x 2-1/2 in. coarse drywall screw through the cent into clips. <b>REGUPOL AMERICA</b> — Type SonusClip
Type X, Sheathing Type-X, Soffit-Type X	C. Wood Structural Panel or Lap Siding — APA Rated Siding, Exterior, plywood, OSB or composite panels with veneer faces and structural wood core, per PS 1 or APA Standard PRP-108, including textured, rough sawn, medium density overlay, brushed, grooved and lap siding.	7E. <b>Steel Framing Members* —</b> (Optional, Not Shown, As an alternate to Item 7) — Members as described below:
, PGI	D. <b>Cementitious Stucco</b> — Portland cement or synthetic stucco systems with self-furring metal lath or adhesive base coat. Thickness from 3/8 to 3/4 in., depending on system.	<ul> <li>a. Resilient Channels — Formed of No. 25 MSG galv steel, spaced 24 in. OC, secured to studs as described in Item b. Ends of adjoining channels overlapp</li> <li>8 15 x 1/2 in. Philips Modified Truss screws spaced 2-1/2 in. from the center or resilient channels as described in Item 2.</li> </ul>
. 5/8 in. thick, 4 ft. wide, paper surfaced, ed nails 1-7/8 in. long, 0.0915 in. shank diam	E. <b>Brick Veneer</b> — Any type on nom 4 in. wide brick veneer. When brick veneer is used, the rating is applicable with exposure on either face. Brick veneer fastened with corrugated metal wall ties attached over sheathing to wood studs with 8d nail per tie: ties spaced not more than each sixth course of brick and max 32 in. OC horizontally. One in. air space provided between brick veneer and sheathing.	b. <b>Steel Framing Members*</b> — Used to attach resilient channels (Item 7Ea) f secured to studs with No. 8 x 2-1/2 in. coarse drywall screw through the cent clips with one No. 10 x 1/2 in. pan-head self-drilling screw. <b>KEENE BUILDING PRODUCTS CO INC</b> — Type RC+ Assurance Clip
n. thick, 4 ft wide panels, secured as described	F. Exterior Insulation and Finish System (EIFS) — Nom 1 in. Foamed Plastic* insulation bearing the UL Classification Marking, attached over sheathing and finished with coating system, or Portland cement or synthetic stucco systems, in accordance with manufacturer's instructions. See Foamed Plastic (BRYX and CCVW) categories for names of Classified companies.	7F <b>Steel Framing Members*</b> — (Optional, Not Shown, As an alternate to Item 7) — Members as described below: a <b>Furring Channels</b> — Formed of No. 25 MSG galv steel. 2-23/32 in. wide by
5/8 in. thick, 4 ft. wide, paper surfaced, in. long Type W coarse thread gypsum panel	<ul> <li>G. Siding — Aluminum or steel siding attached over sheathing to studs.</li> <li>H. Fiber-Cement Siding — Fiber-cement exterior sidings including smooth and patterned panel or lap siding.</li> <li>I. Wall and Partition Facings and Accessories* — Stone veneer is mortar bonded to a lath, scratch coat and water resistant barrier applied to sheathing, installed in accordance with the manufacturers installation instructions, and meeting the requirements of local code agencies.</li> </ul>	perpendicular to studs. Channels secured to studs as described in Item b. End in. and tied together with double strand of No. 18 SWG galv steel wire near of adjoining channels may be overlapped 6 in. and secured together with two 7/16 in. long at the midpoint of the overlap, with one screw on each flange of furring channels as described in Item 2.
through 2F) — Nominal 5/8 in. thick, 4 ft wide	ELDORADO STONE OPERATIONS L L C — Type Eldorado Stone	b <b>Steel Framing Members*</b> — Used to attach furring channels (Item 7Fa) to Clips secured to studs with No. 8 x 2-1/2 in. coarse drywall screw through the friction fitted into clips.
s, with beveled, square, or tapered edges, 1-1/4 in. long Type W coarse thread gypsum in. from the edges of the board. When used LGFC-C/A, Type LGFC-WD, Type LGLLX	J. <b>Cementitious Backer Units</b> — 1/2 in. or 5/8 in., min. 32 in. wide Applied vertically or horizontally with vertical joints centered over studs. Fastened to studs and runners with cement board screws of adequate length to penetrate stud by a minimum 3/4 in., spaced a max of 8 in. OC. Horizontal joints need not be backed by framing. When Cementitious Backer Units are used, the rating is applicable with exposure on either face. Cementitious Backer Units for use as substrate for exterior finishes such as ceramic tile, slate, marble, natural stone, manufactured stone, thin brick, or Portland cement or synthetic stucco.	<b>CLARKDIETRICH BUILDING SYSTEMS</b> — Type ClarkDietrich Sound Clip 8. <b>Non-Bearing Wall Partition Intersection</b> — (Optional) — Two nominal 2 by 4 in together with two 3in. long 10d nails spaced a max. 16 in. OC. vertically and fastened stud with 3 in. long 10d nails spaced a max 16 in. OC. vertically. Intersection between 2 by 4 in. studs. The wall partition wood studs are to be framed by with a second 2 b 10d nails spaced a max. 16 in. OC. vertically. Maximum one non-bearing wall partition
with beveled, square, or tapered edges, 1-1/4 in. long Type W coarse thread gypsum d. When used in widths of other than 48 in., 5 min.), AG-C (finish rating 25 min.), LightRoc	6A. <b>Building Units*</b> — As an alternate to Exterior Facing Item 6 — Insulated steel panels, 12 through 42 in. wide. Attached over sheathing through retainer clips to studs or support steel with No. 14 hex head self-tapping screws located at each joint in the concealed lip of the units and spaced in accordance with the structural design requirements. KINGSPAN INSULATED PANELS INC — Types 200, 300, 400, 900, or KS series, 2 through 6 in. thickness; CWP-V, H, 2 through 3 in. nominal thickness or Designwall 2000 or Designwall 4000, 2 and 3 in. nominal thickness.	bearing wall partition stud depth shall be at a minimum equal to the depth of the be * Indicates such products shall bear the UL or cUl jurisdictions employing the UL or cUL Certificat respectively.
Type FSW-G, Type FSK-C, Type FSW-C, Type	<ol> <li>Steel Framing Members* — (Optional, Not Shown) — Furring Channels and Steel Framing Members as described below:</li> <li>a. Furring Channels — Formed of No. 25 MSG galv steel. 2-9/16 in. or 2-23/32 in. wide by 7/8 in. deep, spaced 24 in.</li> <li>OC perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels are</li> </ol>	
with beveled, square, or tapered edges, 1-1/4 in. long Type W coarse thread steel used in widths other than 48 in., gypsum	overlapped 6 in. and tied together with double strand of No. 18 SWG galv steel wire near each end of overlap. As an alternate, ends of adjoining channels may be overlapped 6 in. and secured together with two self-tapping #6 framing screws, min. 7/16 in. long at the midpoint of the overlap, with one screw on each flange of the channel. Gypsum board attached to furring channels as described in Item 2.	
te Type X (finish rating 24 min), Easi-Lite Type X-2,	b. <b>Steel Framing Members*</b> — Used to attach furring channels (Item 7A) to studs. Clips spaced 48 in. OC., and secured to studs with No. 8 x 2-1/2 in. coarse drywall screw through the center grommet. Furring channels are friction fitted into clips. RSIC-1 clip for use with 2-9/16 in. wide furring channels. RSIC-1 (2.75) clip for use with 2-23/32 in. wide furring channels.	GA FILE NO. RC 26
vith tape and joint compound. Fastener heads	PAC INTERNATIONAL L L C — Types RSIC-1, RSIC-1 (2.75).	WOOD Base layer 5/8" type X gypsur
ressure fit to fill wall cavities between studs pcf. Glass fiber insulation to be faced with nal insulation rating). nd <b>Batts and Blankets*</b> (BZJZ) Category in the Fire	<ul> <li>7A. Steel Framing Members* — (Optional, Not Shown, As an alternate to Item 7) — Furring channels and Steel Framing Members as described below:         <ul> <li>a. Furring Channels — Formed of No. 25 MSG galv steel, spaced 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels are overlapped 6 in. and tied together with double strand of No. 18 SWG galv steel wire near each end of overlap. Two layers of gypsum board attached to furring channels as described in Item 2.</li> </ul> </li> </ul>	o.c. with 11/4" Type W or wallboard or gypsum vene S drywall screws 12" o.c. screws 12" o.c. placed 2" layer joints. Wood trusses to trusses with 8d nails. Ap
plied cellulose material. The fiber is applied on instructions supplied with the product with blied without water or adhesive at a nominal with the product. 5LD, INS541LD, INS735, INS745, INS765LD, and	b. <b>Steel Framing Members*</b> — Used to attach furring channels (Item 7Aa) to interior side of studs. Clips spaced 48 in. OC., and secured to studs with two No. 8 x 2-1/2 in. coarse drywall screws, one through the hole at each end of the clip. Furring channels are friction fitted into clips. <b>KINETICS NOISE CONTROL INC</b> — Type Isomax.	
se material. The fiber is applied with water to s supplied with the product. Nominal dry	<ul> <li>7B. Steel Framing Members* — (Optional, Not Shown, As an alternate to Item 7) — Furring channels and Steel Framing Members as described below:</li> <li>a. Furring Channels — Formed of No. 25 MSG galv steel. 2-3/8 in. wide by 7/8 in. deep, spaced 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels are overlapped 6 in. and tied together with double strand of No. 18 SWG galv steel wire near each end of overlap. As an alternate, ends of adjoining channels may be overlapped 6 in. and secured together with two self-tapping #6 framing screws, min. 7/16 in. long at the midpoint of the overlap, with one screw on each flange of the channel. Gypsum board attached to furring channels as described in Item 2.</li> </ul>	
plied cellulose fiber. The fiber is applied with structions supplied with the product. The	b. <b>Steel Framing Members*</b> — Used to attach furring channels (Item a) to studs. Clips spaced 48 in. OC. Genie clips secured to studs with No. 8 x 1-1/2 in. coarse drywall screw through the center hole. Furring channels are friction fitted into clips. <b>PLITEQ INC</b> — Type Genie Clip	

in. stud or nominal 2 by 6 in. stud nailed ned to one side of the minimum 2 by 4 in. een partition wood studs to be flush with the 2 by 4 in. wood stud fastened with 3 in. long ition intersection per stud cavity. Non- bearing wall. <b>UL Certification Mark for</b> ation (such as Canada)			IMENTS MIT, JA
tation (such as Canada), Last Updated on 2020-10-07 2602 GENERIC	1 HOUR		ALURA APART LEE'S SUM
DD TRUSSES, GYPSUM WALLBOARD sum wallboard applied at right angles to wood roof trusses 24" or S drywall screws 24" o.c. Face layer 5/8" type X gypsum neer base applied at right angles to trusses with 17/8" Type W or c. at joints and intermediate trusses and 11/2" Type G drywall 2" back on either side of end joints. Joints offset 24" from base as supporting 1/2" wood structural panels applied at right angles Appropriate roof covering.	FIRE         Image: state s	В	ABCHITECTS L.L.C. Columbia, MO P573-256-7200
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		A	WALLACE ARCHITECTS, LLC MISSOURI STATE CERTIFICATE OF AUTHORITY: 2003019614 COPYRIGHT © 2025 1ST ISSUE 15 APR 2025 ISSUE/REVISIONS 15 APR 2025 ISSUE SET

	1 2	
	Design No. U301 November 21, 2023	4E. Gypsum Board* — (As an alternat secured as described in Item 4. GEORGIA-PACIFIC GYPSUM L L C — Typ
	Bearing Wall Rating — 2 Hr. Finish Rating — 66 Min. This design was evaluated using a load design method other than the Limit States Design Method (e.g., Working Stress	4F. Gypsum Board* — (As an alternat applied vertically and secured as desc NATIONAL GYPSUM CO — Type SBWB
	Design Method). For jurisdictions employing the Limit States Design Method, such as Canada, a load restriction factor shall be used — See Guide <u>BXUV</u> or <u>BXUV7</u> * Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification	4G. Gypsum Board * — (As an alterna secured as described in Item 4. PABCO BUILDING PRODUCTS L L C, DB
	(such as Canada), respectively.	4H. <b>Gypsum Board*</b> — (As an alterna applied vertically or horizontally and s <b>CERTAINTEED GYPSUM INC</b> — Type Sile
	$\begin{array}{c c} \hline \\ \hline $	41. <b>Gypsum Board*</b> — (As an alternate attached to studs with 1-1/4 in. long T Type W steel screws spaced 8 in. OC o between inner and outer layers stagge compound. As an alternate to the join Classified veneer baseboard. Joints rei X Gypsum Board is not to be used with <b>NATIONAL GYPSUM CO</b> — Types eXP-C
	<ol> <li>Nailheads — Exposed or covered with joint compound.</li> <li>Joints — Exposed joints covered with joint compound and paper tape. Joint compound and paper tape may be omitted when</li> </ol>	4J. <b>Gypsum Board*</b> — (As an alternat layer. Nom 5/8 in. thick lead backed g over studs and staggered min 1 stud o thread gypsum panel steel screws spa
_	square edge boards are used. As an alternate, nom 3/32 in. thick gypsum veneer plaster may be applied to the entire surface of Classified veneer baseboard with the joints reinforced with paper tape. 3. <b>Nails</b> — 6d cement coated nails 1-7/8 in. long, 0.0915 in. shank diam, 1/4 in. diam heads, and 8d cement coated nails 2-3/8 in. long, 0.113 in. shank diam, 9/32 in. diam heads.	face layer screw length to be increased and optional at remaining stud location the face of studs and attached to the the bottom of the strip. Lead discs, may batten strips and discs to have a purity
	4. <b>Gypsum Board*</b> — 5/8 in. thick, two layers applied either horizontally or vertically. Inner layer attached to studs with the 1-7/8 in. nails spaced 6 in. OC. Outer layer attached to studs over inner layer with the 2-3/8 in. long nails spaced 8 in. OC. Vertical joints located over studs. All joints in face layers staggered with joints in base layers. Joints of each base layer offset with joints of base layer on	layer gypsum panels (Items 4, 4A or 4 spaced as described in Item 4. MAYCO INDUSTRIES INC — "X-Ray Shie
	opposite side. When used in widths other than 48 in., gypsum board to be installed horizontally. When <b>Steel Framing Members*</b> (Item 6 or any alternate clips) are used, base layer attached to furring channels with 1 in. long Type S bugle-head steel screws spaced max 24 in. OC; face layer attached with 1-5/8 in. long Type S bugle-head steel screws spaced max 12 in. OC. <b>AMERICAN GYPSUM CO</b> — Types AGX-1, M-Glass, AG-C, AGX-11, LightRoc <b>BEIJING NEW BUILDING MATERIALS PUBLIC LTD CO</b> — Type DBX-1	4K. Gypsum Board* — For use with It 1 in. long steel screws spaced 8 in. OC spaced 8 in. OC. All joints in face layer opposite side. Insulation, Items 8 or 9 AMERICAN GYPSUM CO — Types AGX <sup></sup> NATIONAL GYPSUM CO — Types eXP-C CERTAINTEED GYPSUM INC — Types EC
· )	CABOT MANUFACTURING ULC — Type X, 5/8 Type X, Moisture Resistant Type X, Gypsum Sheathing Type X, Mold & Mildew Resistant Type X and Mold & Mildew Resistant AR Type X, Type Blueglass Exterior Sheathing	4L. <b>Gypsum Board*</b> — (As an alternat layer. Nom 5/8 in. thick lead backed g
	CERTAINTEED GYPSUM INC — Types EGRG, GlasRoc, GlasRoc-2, Type C, Type X-1, Type LWTX	over studs and staggered min 1 stud of thread gypsum panel steel screws spa face layer screw length to be increased and optional at remaining stud location
	CGC INC — Types AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, ULIX, ULX, USGX, WRC, WRX	the face of studs and attached to the s top of the strip and one at the bottom adhered over the screw heads. Lead b
	CERTAINTEED GYPSUM INC — Types LGFC2A, LGFC6A, LGFC-C/A, LGFC-WD, LGLLX, CLLX	Grade "C". Fasteners for face layer gyp S-12 bugle head steel screws spaced a
	GEORGIA-PACIFIC GYPSUM L L C — Types 5, 6, 9, C, DAP, DD, DA, DAPC, DGG, DS, GPFS6. LS, TG-C, Type X, Veneer Plaster Base-Type X, Water Rated-Type X, Sheathing Type-X, Soffit-Type X, GreenGlass Type X, Type LWX, Veneer Plaster Base-Type LWX, Water Rated-Type LWX, Sheathing Type-LWX, Soffit-Type LWX, Type DGLW, Water Rated-Type DGLW, Sheathing Type- DGLW, Soffit-Type DGLW, Type LW2X, Veneer Plaster Base - Type LW2X, Water Rated - Type LW2X, Sheathing - Type LW2X, Soffit - Type LW2X, Type DGL2W, Water Rated - Type DGL2W, Sheathing - Type DGL2W	ADIATION PROTECTION PRODUCTS II 4M. Gypsum Board* — (As an alterna over studs and staggered one stud car CERTAINTEED GYPSUM INC — 5/8" Easi
	NATIONAL GYPSUM CO — Types eXP-C, FSK, FSK-C, FSK-G, FSW, FSW-3, FSW-5, FSW-6, FSW-8, FSW-C, FSW-G, FSMR-C, FSL, RSX	4N. <b>Gypsum Board*</b> — (As an alterna or horizontally. Two layers of 5/16 in. f same side need not be staggered. Inne
_	NATIONAL GYPSUM CO — Riyadh, Saudi Arabia — Type FR, or WR.	24 in. OC. Outer layer of each double <b>NATIONAL GYPSUM CO</b> — Type FSW
	PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM — Types C, PG-2, PG-3, PG-3W, PG-4, PG-5, PG-5W, PG-5WS, PG-9, PG-11, PG-C, PGS-WRS, PGI	40. Wall and Partition Facings and A panels, applied vertically and secured PABCO BUILDING PRODUCTS L L C, DB
	PANEL REY S A — Types PRC, PRC2, PRX, RHX, MDX, ETX, GREX, GRIX	4P. Gypsum Board* — (As an alternat
	SIAM GYPSUM INDUSTRY (SARABURI) CO LTD — Type EX-1 THAI GYPSUM PRODUCTS PCL — Type C or Type X	attached to studs with 1-1/4 in. long T board. Outer layer attached to studs o layer with the last two screws 4 and 1 between inner and outer layers stagge
	UNITED STATES GYPSUM CO — Types AR, C, FRX-G, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, ULIX, ULX, USGX, WRC, WRX	compound. When used in widths othe CERTAINTEED GYPSUM INC — Type LGF
<u>م</u>	USG BORAL DRYWALL SFZ LLC — Types C, SCX, USGX USG MEXICO S A DE C V — Types AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, ULX, USGX, WRC, WRX	4Q. Gypsum Board* — (As an alterna Fire Resistance (CKNX) eligible for use screwed to studs with 1-5/8 in. long Ty screws 4 and 3/4 in. from the edges of
	4A. <b>Gypsum Board*</b> — (As an alternate to Item 4) — Nom 3/4 in. thick, installed as described in Item 4. CGC INC — Types AR, IP-AR	1/2 in. All joints in face layers staggere installed horizontally.
	UNITED STATES GYPSUM CO — Types AR, IP-AR	4R. Gypsum Board* — As an Alternat framing with 1-1/4 in. long Type W co board. Outer layers fastened to framin
	USG MEXICO S A DE C V — Types AR, IP-AR	with last screw 1 in. from edge of boar face layers staggered with joints in bas CERTAINTEED GYPSUM INC — Types EC
	4B. <b>Gypsum Board*</b> — (As an alternate to Items 4 and 4A) — 5/8 in. thick, 2 ft wide, tongue and groove edge, applied horizontally as the outer layer to one side of the assembly. Secured as described in Item 4. Joint covering (Item 2) not required. <b>CGC INC</b> — Type SHX	4S. <b>Gypsum Board*</b> — (As an alternat attached to studs with the 1-7/8 in. na
	UNITED STATES GYPSUM CO — Type SHX	spaced 8 in. OC. Vertical joints located offset with joints of base layer on opp <b>AMERICAN GYPSUM CO</b> — Types AGX- <sup>-</sup>
_	USG MEXICO S A DE C V — Type SHX	BEIJING NEW BUILDING MATERIALS P
	4C. <b>Gypsum Board*</b> — (As an alternate to Items 4, 4A or 4B — Not Shown) — For Direct Application to Studs Only- For use on one or both sides of the wall as the base layer or one or both sides of the wall as the face layer. Nom 5/8 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over studs and staggered min 1 stud cavity on opposite sides of studs. Wallboard secured to studs with 1-5/8 in. long Type W coarse thread gypsum panel steel screws spaced 8 in. OC at perimeter and in the field when applied as the base layer. When applied as the face layer screw length to be increased to 2-1/2 in. Lead batten strips required behind vertical joints of lead backed gypsum wallboard and optional at remaining stud locations. Lead	CABOT MANUFACTURING ULC — "5/8" CGC INC — Type SCX
	batten strips, min 1-1/2 in. wide, max 10 ft long with a max thickness of 0.125 in. placed on the face of studs and attached to the stud with two 1 in. long Type S-12 pan head steel screws, F4j.one at the top of the strip and one at the bottom of the strip. Lead discs or tabs may be used in lieu of or in addition to the lead batten strips or optional at other locations. Max 3/4 in. diam by max 0.125 in. thick lead discs compression fitted or adhered over steel screw heads or max 1/2 in. by 1-1/4 in. by max 0.125 in. thick lead tabs placed on gypsum boards underneath screw locations prior to the installation of the screws. Lead batten strips to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C". Fasteners for face layer gypsum panels (Items 4, 4A or 4B) when installed over lead backed board to be min 2-1/2 in. Type S-12 bugle head steel screws spaced as described in Item 4. <b>RAY-BAR ENGINEERING CORP</b> — Type RB-LBG.	PANEL REY S A — Type PRX
4	4D. <b>Gypsum Board*</b> — As an Alternate to Item 4 — 5/8 in. thick applied either horizontally or vertically. Inner layers fastened to framing with 1-1/4 in. long Type W coarse thread gypsum panel steel screws spaced a max 8 in. OC, with last screw 1 in. from edge of board. Outer layers fastened to framing with 1-7/8 in. long Type W coarse thread gypsum panel steel screws spaced a max 8 in. OC, with last screw 1 in. from edge of board. When used in widths other than 48 in., gypsum board to be installed horizontally. All joints in face layers staggered with joints in base layers. Joints of each base layer offset with joints of base layer on opposite side. <b>AMERICAN GYPSUM CO</b> — Types AGX-1, M-Glass, AG-C, LightRoc	

- (As an alternate to Item 4) — Not to be used with item 6, 6A, 6B or 6C. 5/8 in. thick, 4 ft. wide, paper surfaced, nd secured as described in Item 4

I \* — (As an alternate to Items 4 through 4F) — Nominal 5/8 in. thick, 4 ft wide panels, applied vertically and d in Item 4.

RODUCTS L L C, DBA PABCO GYPSUM — Types QuietRock ES

I\* — (As an alternate to Item 4) — Not to be used with item 6, 6A, 6B, or 6C. 5/8 in. thick, 4 ft. wide, paper surfaced, horizontally and secured as described in Item 4. UM INC — Type SilentFX

— (As an alternate to item 4) — 5/8 in. thick, two layers applied either horizontally or vertically. Inner layer vith 1-1/4 in. long Type W steel screws spaced 8 in. OC. Outer layer attached to studs over inner layer with 2 in. long spaced 8 in. OC offset 6 in. from base layer. Vertical joints located over studs. Vertical and horizontal joints outer layers staggered. Outer layer joints covered with joint tape and compound, screwheads covered with joint Iternate to the joint compound nom 3/32 in. thick gypsum veneer plaster may be applied to the entire surface of aseboard. Joints reinforced. Wallboard other than 48 in. wide must be applied horizontally. The SoundBreak XP Type not to be used with Item 6, 6A, 6B, or 6C. CO — Types eXP-C, FSK, FSK-C, FSK-G, FSW, FSW-3, FSW-5, FSW-6, FSW-C, FSW-G, FSMR-C, SBWB

- (As an alternate to Items 4) - For Direct Application to Studs Only- For use as the base layer or as the face thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered ggered min 1 stud cavity on opposite sides of studs. Wallboard secured to studs with 1-5/8 in. long Type W coarse el steel screws spaced 8 in. OC at perimeter and in the field when applied as the base layer. When applied as the igth to be increased to 2-1/2 in. Lead batten strips required behind vertical joints of lead backed gypsum wallboard naining stud locations. Lead batten strips, min 2 in. wide, max 10 ft long with a max thickness of 0.140 in. placed on nd attached to the stud with two 1 in. long Type S-8 pan head steel screws, one at the top of the strip and one at trip. Lead discs, max 5/16 in. diam by max 0.140 in. thick. compression fitted or adhered over the screw heads. Lead iscs to have a purity of 99.5% meeting the Federal specification QQ-L-201f, Grades "B, C or D". Fasteners for face ls (Items 4, 4A or 4B) when installed over lead backed board to be min 2-1/2 in. Type S-12 bugle head steel screws d in Item 4.

INC — "X-Ray Shielded Gypsum"

**1\*** — For use with Item 7 — 5/8 in. thick, two layers applied vertically. Inner layer attached to resilient channels with rews spaced 8 in. OC. Outer layer attached to resilient channels over inner layer with 1-5/8 in. long steel screws joints in face layers staggered with joints in base layers. Joints of each base layer offset with joints of base layer on ation, Items 8 or 9 is required.

M CO — Types AGX-1, M-Glass, AG-C, AGX-11

CO — Types eXP-C, FSK, FSK-C, FSK-G, FSW, FSW-3, FSW-5, FSW-6, FSW-C, FSW-G, FSMR-C, SBWB. UM INC — Types EGRG, GlasRoc, GlasRoc-2, Type C, Type X-1, Easi-Lite Type X, SilentFX

r — (As an alternate to Items 4) — For Direct Application to Studs Only- For use as the base layer or as the face hick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered gered min 1 stud cavity on opposite sides of studs. Wallboard secured to studs with 1-5/8 in. long Type W coarse el steel screws spaced 8 in. OC at perimeter and in the field when applied as the base layer. When applied as the ngth to be increased to 2-1/2 in. Lead batten strips required behind vertical joints of lead backed gypsum wallboard naining stud locations. Lead batten strips, min 2 in. wide, max 8 ft long with a max thickness of 0.14 in. placed on nd attached to the stud with construction adhesive and two 1 in. long Type S-12 pan head steel screws, one at the d one at the bottom of the strip. Lead discs, nominal 3/8 in. diam by max 0.085 in. thick. compression fitted or crew heads. Lead batten strips and discs to have a purity of 99.9% meeting the Federal specification QQ-L-201f, s for face layer gypsum panels (Items 4, 4A or 4B) when installed over lead backed board to be min 2-1/2 in. Type eel screws spaced as described in Item 4. TION PRODUCTS INC — Type RPP - Lead Lined Drywall

d\* — (As an alternate to Item 4) — 5/8 in. thick, 4 ft. wide, two layers applied vertically with vertical joints centered gered one stud cavity on opposite sides of studs. Secured as described in Item 4. UM INC — 5/8" Easi-Lite Type X

rd\* — (As an alternate to 5/8 in. Type FSW in Items 4 or 4I) — Nom. 5/16 in. thick gypsum panels applied vertically layers of 5/16 in. for every single layer of 5/8 in. gypsum board described in Item 4 or 4I. Horizontal joints on the t be staggered. Inner layer of each double 5/16 in. layer attached with fasteners, as described in item 4 or 4I, spaced yer of each double 5/16 in. layer attached per Item 4 or 4I. CO — Type FSW

ion Facings and Accessories\* — (As an alternate to Items 4 through 4N) — Nominal 5/8 in. thick, 4 ft wide cally and secured as described in Item 4.

RODUCTS L L C, DBA PABCO GYPSUM — Type QuietRock 527

• — (As an alternate to Item 4) — 5/8 in. thick, two layers applied either horizontally or vertically. Inner layer with 1-1/4 in. long Type W steel screws spaced 10 in. OC with the last two screws 4 and 1 in. from the edges of the attached to studs over inner layer with 1-7/8 in. long Type W steel screws spaced 10 in. OC offset 5 in. from base two screws 4 and 1 in. from the edges of the board. Vertical joints located over studs. Vertical and horizontal joints outer layers staggered. Outer layer joints covered with joint tape and compound, screwheads covered with joint used in widths other than 48 in., gypsum panels are to be installed horizontally. UM INC — Type LGFC6A, Type LGFC2A, Type LGFC-C/A, Type LGFC-WD, Type LGLLX

d\* — (As an alternate to Item 4. For use with Item 13) — Any 5/8 in. thick, 4 ft. wide, Gypsum Board UL Classified for NX) eligible for use in Design Nos. U305 and L501 or G512. Two layers, applied either horizontally or vertically, and vith 1-5/8 in. long Type W coarse thread steel screws at 8 in. OC at perimeter and in the field with the last two from the edges of the board when applied as the base layer. For the face layer, screw length to be increased to 2ace layers staggered with joints in base layers. When used in widths other than 48 in., gypsum panels are to be

\* — As an Alternate to Item 4 — 5/8 in. thick applied either horizontally or vertically. Inner layers fastened to 4 in. long Type W coarse thread gypsum panel steel screws spaced a max 8 in. OC, with last screw 1 in. from edge of fastened to framing with 1-7/8 in. long Type W coarse thread gypsum panel steel screws spaced a max 8 in. OC, from edge of board. When used in widths other than 48 in., gypsum board to be installed horizontally. All joints in ed with joints in base layers. Joints of each base layer offset with joints of base layer on opposite side. UM INC — Types EGRG, GlasRoc, GlasRoc-2, Type C, Type X-1, Easi-Lite Type X, SilentFX

r — (As an alternate to Item 4. For use with Item 13A) — 5/8 in. thick, two layers applied vertically. Inner layer with the 1-7/8 in. nails spaced 6 in. OC. Outer layer attached to studs over inner layer with the 2-3/8 in. long nails ertical joints located over studs. All joints in face layers staggered with joints in base layers. Joints of each base layer base layer on opposite side. CO — Types AGX-1

ING MATERIALS PUBLIC LTD CO — Type DBX-1

JRING ULC — "5/8 Type X"

#### SIAM GYPSUM INDUSTRY (SARABURI) CO LTD — Type EX-1

THAI GYPSUM PRODUCTS PCL — Type X

UNITED STATES GYPSUM CO — Type SCX

USG BORAL DRYWALL SFZ LLC — Types SCX

USG MEXICO S A DE C V — Type SCX

4T. Gypsum Board\* — (As an alternate to Item 4. For use with Item 13B) — Any 5/8 in. thick, 4 ft. wide, Gypsum Board listed i above. Two layers applied vertically with vertical joints centered over studs and staggered one stud cavity on opposite sides of All joints in outer layers staggered with joints in inner layers. Inner layer attached to studs with 1-5/8 in. long Type W coarse th gypsum panel steel screws spaced 8 in. OC at perimeter and in the field. Outer layer attached to studs over inner layer with the in. long Type W coarse thread gypsum panel steel screws spaced 8 in. OC.

4U. Gypsum Board\* - (As an alternate to Item 4. For use with Item 13C) - Any 5/8 in. thick, 4 ft. wide, Gypsum Board listed 4 above. Two layers applied vertically with vertical joints centered over studs and staggered one stud cavity on opposite sides All joints in outer layers staggered with joints in inner layers. Inner layer attached to studs with 1-1/4 in. long Type W screws s in. OC at perimeter and in the field. Outer layer attached to studs over inner layer with 1-7/8 in. long Type W screws spaced 8

5. Molded Plastic\* — Not Shown, Optional — Solid vinyl siding mechanically secured over the outer layer to framing membe accordance with manufacturer's recommended installation details. ALSIDE, DIV OF ASSOCIATED MATERIALS INC

GENTEK BUILDING PRODUCTS LTD

VYTEC CORP

6. Steel Framing Members\* — (Optional, Not Shown) — Furring channels and Steel Framing Members as described below: A. Furring Channels — Formed of No. 25 MSG galv steel. 2-9/16 in. or 2-23/32 in. wide by 7/8 in. deep, spaced 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels are overlapped 6 in. and together with double strand of No. 18 SWG galv steel wire near each end of overlap. As an alternate, ends of adjoining channel be overlapped 6 in. and secured together with two self-tapping #6 framing screws, min. 7/16 in. long at the midpoint of the or with one screw on each flange of the channel. Wallboard attached to furring channels as described in Item 4.

B. Steel Framing Members\* - Used to attach furring channels (Item 6a) to studs. Clips spaced 48 in. OC., and secured to stude No. 8 x 2-1/2 in. coarse drywall screw through the center grommet. Furring channels are friction fitted into clips. RSIC-1 clip fo with 2-9/16 in. wide furring channels. RSIC-1 (2.75) clip for use with 2-23/32 in. wide furring channels. PAC INTERNATIONAL L L C — Types RSIC-1, RSIC-1 (2.75)

6A. Steel Framing Members\* — (Optional, Not Shown, As an alternate to Item 6) — Furring channels and Steel Framing Mem described below:

A. Furring Channels - Formed of No. 25 MSG galv steel. Spaced 24 in. OC perpendicular to studs. Channels secured to studs described in Item b. Ends of adjoining channels overlapped 6 in. and tied together with double strand of No. 18 AWG galvaniz wire. Gypsum board attached to furring channels as described in Item 4.

B. Steel Framing Members\* — Used to attach furring channels (Item 6Aa) to studs. Clips spaced 48 in. OC., and secured to st 2 in. coarse drywall screw with 1 in. diam washer through the center hole. Furring channels are friction fitted into clips. STUDCO BUILDING SYSTEMS — RESILMOUNT Sound Isolation Clips - Type A237R

6B. Steel Framing Members\* — (Optional, Not Shown, As an alternate to Item 6) — Furring channels and Steel Framing Mem described below:

A. Furring Channels - Formed of No. 25 MSG galv steel. Spaced 24 in. OC perpendicular to studs. Channels secured to studs described in Item 6Bb. Ends of adjoining channels overlapped 6 in. and tied together with double strand of No. 18 AWG galva steel wire. Gypsum board attached to furring channels as described in Item 4.

B. Steel Framing Members\* - Used to attach furring channels (Item 6Ba) to studs. Clips spaced 48 in. OC., and secured to stude 2-1/2 in. coarse drywall screw through the center hole. Furring channels are friction fitted into clips. **REGUPOL AMERICA** — Type SonusClip

6C. Steel Framing Members\* — (Optional, Not Shown, As an alternate to Item 6) — Resilient channels and Steel Framing Mer described below:

a. Resilient Channels — Formed of No. 25 MSG galv steel, spaced 24 in. OC, and perpendicular to studs. Channels secured to described in Item b. Ends of adjoining channels overlapped 6 in, and secured in place with two No. 8 15 x 1/2 in. Philips Modif screws spaced 2-1/2 in. from the center of the overlap. Gypsum board attached to resilient channels as described in Item 4.

b. Steel Framing Members\* — Used to attach resilient channels (Item 6Ca) to studs. Clips spaced 48 in. OC., and secured to a with No. 8 x 2-1/2 in coarse drywall screw through the center hole. Resilient channels are secured to clips with one No. 10 x pan-head self-drilling screw.

KEENE BUILDING PRODUCTS CO INC — Type RC+ Assurance Clip

6D. Steel Framing Members\* - (Optional, Not Shown, As an alternate to Item 6) - Used as an alternate method to attach r channels to wall studs. A resilient sound isolation accessory shall be used at each attachment point of the resilient channels an spaced max 24 in. O.C. Channel ends butted and centered under the structural members and attached with one accessory at e Additional accessories used to hold resilient channels that support the gypsum board end joints. The accessory envelops the mounting edge of the resilient channel. The accessory and resilient channel are fastened to the structural members with the sc supplied with the accessory and per the accessory manufacturer's installation instructions. PAC INTERNATIONAL L L C — Type RC-1 Boost

6E Steel Framing Members\* — (Optional, Not Shown, As an alternate to Item 6) — Furring channels and Steel Framing Mem described below:

a Furring Channels — Formed of No. 25 MSG galv steel. 2-23/32 in. wide by 7/8 in. deep, spaced 24 in. OC perpendicular to s Channels secured to studs as described in Item b. Ends of adjoining channels are overlapped 6 in. and tied together with doub strand of No. 18 SWG galv steel wire near each end of overlap. As an alternate, ends of adjoining channels may be overlapped and secured together with two self-tapping #6 framing screws, min. 7/16 in. long at the midpoint of the overlap, with one screws each flange of the channel. Gypsum board attached to furring channels as described in Item 4.

b Steel Framing Members\* - Used to attach furring channels (Item 6Ea) to studs. Clips spaced maximum 48 in. OC. Clips see studs with No. 8 x 2-1/2 in. coarse drywall screw through the center grommet. Furring channels are friction fitted into clips.

CLARKDIETRICH BUILDING SYSTEMS — Type ClarkDietrich Sound Clip

7. Furring Channel — Optional — Not Shown — For use on one side of the wall with Item 4K — Resilient channels, 25 MSG g spaced vertically 24 in. OC, flange portion screw attached to one side of studs with 1-1/4 in. long diamond shaped point, doub Phillips head steel screws. When resilient channels are used, insulation, Item 8 or 9 is required.

8. Batts and Blankets\* — Required for use with resilient channels, Item 7, min. 3 in. thick mineral wool batts, placed to fill inter wall, attached to the nom 4 in. face of the studs with staples placed 24 in. OC. ROCKWOOL — Type SAFEnSOUND, min. 1.8 pcf.

THERMAFIBER INC — Type SAFB, SAFB FF

9. Batts and Blankets\* — (As an alternate to Item 8) — Min. 3 in. thick glass fiber batts bearing the UL Classification Marking Surface Burning and/or Fire Resistance, friction-fitted to fill the stud cavities. See Batts and Blankets (BKNV or BZJZ) Categories names of Classified companies.

9A. Fiber, Sprayed\* — (Optional) — As an alternate to Batts and Blankets (Item 8), Required for use with resilient channels, Ite Not for use with Item 6, 6A, 6B, or 6C. — Spray applied mineral wool insulation. The fiber is applied with adhesive, at a minimu

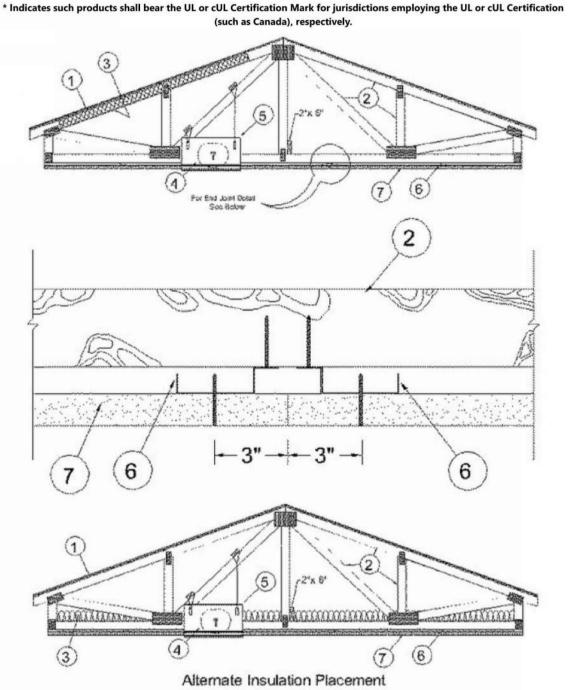
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<form></form>		When the QR-500 or QR-510 panel is installed between the wood framing and the UL Classified gypsum board, the required UL	CHITE CHITE
<text>     How results in the first set of the set of the</text>		length shall be increased by a minimum of 1/2 in. Not evaluated or intended as a substitute for the required layer(s) of UL Classified	
<text></text>			ARCHITECT LICENSE#
<form><ul> <li>Martines</li> <li>Martines</li></ul></form>	ed in Item 4 s of studs.		
<text></text>	e thread	studs. Face layer fastened over gypsum board to studs and runners with cement board screws of adequate length to penetrate stud by	
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<text></text>	ed in Item les of studs.		
<text></text>	s spaced 8 I 8 in. OC.	below.	
<text></text>		Channels vertically at a horizontal spacing not greater than 24 inches OC., over the moisture barrier. Acry Metal Channels attached	
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<text></text>			N SI
<text></text>		B. Insulated system with metal channels — Install moisture barrier over the Gypsum Board Item 4. Install galvanized Z girt channels	$\square \Im \Sigma$
<text></text>	<i>r</i> :	max. spacing of 24" OC. Z girt channels attached through the Gypsum Board and the moisture barrier to the wood studs with screws	
<text></text>	nd tied nnels may	thickness of mineral wool insulation not to exceed 6 in. As per manufacturer's instructions install Acry Metal Channels vertically over	
<ul> <li>Andrew Marken Mar</li></ul>	e overlap,	stainless steel screws at a max spacing of 24 in. OC, along with manufacturers approved adhesive (3M 540 or Tremco Vulcum 116).	
<text></text>	studs with		A U
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<ul> <li>Mariana</li> <li>Mariana</li></ul>	lomber	through the moisture barrier and the Gypsum Board to the Wood studs using fasteners specified by the manufacturer and fasteners	50
<text></text>		fasteners spaced at maximum 24 inches OC along with Tremco Vulcum 116 adhesive applied in a zigzag pattern along every wood	V V
<ul> <li>And and a material of a static base of a ba</li></ul>	nized steel		
<ul> <li>And And And And And And And And And And</li></ul>	studs with	Insulation over moisture barrier and the Gypsum Board Item 4, max thickness of insulation not to exceed 4 inches. Install 1" x 3" wood	
<ul> <li>Ale Care all records blacks of the device approximation of the part of the device approximation of the theorem parts in the device approximation of the theorem parts in the device approximation of the device approximation of the theorem parts in the device approximation of the device approximatio</li></ul>		Gypsum Board and moisture barrier to the Wood Studs using fasteners specified by the manufacturer and fasteners spaced max. 24 in.	
<ul> <li>Maria Maria Maria Maria Maria Maria Managama Managam</li></ul>	lembers as	24 in. OC and Tremco Vulcum 116 adhesive applied in a zigzag pattern along every wood strap. Joint treatment in between panels to	
<ul> <li>And Mail</li> <li>And Mail&lt;</li></ul>	uds as	ACRYTEC PANEL INDUSTRIES — Nominal 5/8 inch thick Acrytec Panel.	Ĺ
<ul> <li>And Anda</li> <li>And Anda</li> <li>A Dia Mande - Answart 2 and Faster - Capital and the and the and a page specified, framed page in the and a page specified. The and page in the and a page specified in and a page in the and a page specified in and a page in the and a page specified in and a page in the and a page specified in and a page in the and a page specified in and a page in the and a page specified in and a page in the and a page specified in and a page in the and a page specified in and a page in the and a page specified in and a page in the and a page specified in and a page in the and a page specified in and a page in the and a page specified in and a page in the and a page specified in and a page specified</li></ul>	lvanized		LIN L
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<ul> <li>Handa Matana Mat</li></ul>	lembers as	HOLCIM SOLUTIONS AND PRODUCTS US, LLC — Types GacoEZSpray F4500, GacoProFill FR6500R, Gaco 052N, GacoOnePass F1850,	
definitions definitions the protecting is completely life gradies down. All LISE second se		13B. Foamed Plastic* — (Optional, Not Shown - For use with Item 4T) — Spray applied, foamed plastic insulation, at any thickness	A SI
<ul> <li>and A. Rando R. Marti, C. Approximation Rates and a state of the state</li></ul>	dified Truss	from partial fill to completely filling stud cavity. CARLISLE SPRAY FOAM INSULATION — Types SealTite ONE, SealTite Pro Closed Cell (CC), SealTite Pro Open Cell (OC), SealTite Pro OCX, SealTite	S P
<ul> <li>A control of the second of the</li></ul>	o studs		E
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bards, any thickes, applied wetrally with writed joins located over study. May be used with Model Plastic, then 5 or part installation instructions. Instructions. The Mitter Model and Construction MATRIAS, LLC — An RE, "Xd RW. bards, may thickes, applied wetrally with writed joins (actived over study. May be used with Model Plastic, then 5 or part installation instructions. Instructions. The Mitter Model and Construction MATRIAS, LLC — An RE, "Xd RW. bards, may thickes, applied wetrally with writed joins (actived one study. Res 1) List, or Sa In title, if it, dived.—Applied wetrally with model joins (actived one study. Res 1) List, or Sa In title, if it, dived.—Applied wetrally and model plastic instructions. The Mitter Model and Internet wetrally and model and and model. Res 1) List, or Sa In title, if it, dived.—Applied wetrally with wetral joins (actived and under its head across of adequate length to ponetrate the mark of the study and and its head active and the its head active ac			
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terning by a minimum of of Win, spaced a max Bin o.c. NATIONAL CIPSUM Co - Type FRC/ Siguly steel, ubble lead teelor of as a to res for Rem 7, mum Termine	ouble bed 6 in.	16. Building Units - (Optional Item Not Shown - For use over Gypsum Board, Item 4) 1 in., 2 in. or 3 in. thick, 4 ft. wide - Applied vertically or	
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## Design No. P556

## December 6, 2023

Unrestrained Assembly Rating — 1 Hr. Finish Rating - 24 or 25 Min (See Items 3, 3A and 3B) This design was evaluated using a load design method other than the Limit States Design Method (e.g., Working Stress Design Method). For jurisdictions employing the Limit States Design Method, such as Canada, a load restriction factor shall be used — See Guide BXUV or BXUV7



1. Roofing System\* — Any UL Class A, B or C Roofing System (TGFU) or Prepared Roof Covering (TFWZ) acceptable for use over nom 15/32 in. thick wood structural panels, min. grade "C-D" or "Sheathing". Nom 15/32 in. thick wood structural panels secured to trusses with No. 6d ringed shank nails. Nails spaced 12 in. OC along each truss. Staples having equal or greater withdrawal and lateral resistance strength may be substituted for the 6d nails. Construction adhesive is optional and may be used with either nails or staples.

2. Trusses — Pitch or Parallel chord trusses, spaced a max of 24 in. OC, fabricated from nom 2 by 4 lumber, with lumber oriented vertically or horizontally. Truss members secured together min.0.0356 in. thick galv steel plates. Plates have 5/16 in. long teeth projecting perpendicular to the plane of the plate. The teeth are in pairs facing each other (made by the same punch), forming a split tooth type plate. Each tooth has a chisel point on its outside edge. These points are diagonally opposite each other for each pair. The

top half of each tooth has a twist for stiffness. The pairs are repeated on approximately 7/8 in. centers with four rows of teeth per inch of plate width. Minimum parallel chord truss depth shall be 18 in. Where the truss intersects with the interior face of the exterior walls, the interior face of the exterior walls, the min truss depth may be reduced to 3 in, if the batts and blankets (Item 3) are used as shown in the above illustration (Alternate Insulation Placement) and are firmly packed against the intersection of the bottom chords and the plywood sheathing.

3. Batts and Blankets\* — (Optional) -Glass fiber insulation, secured to the wood structural panesl with staples spaced 12 in. OC or to the trusses with 0.090 in. diam galv steel wires spaced 12 in. OC. Any glass fiber insulation bearing the UL Classification Marking as to Surface Burning Characteristics and/or Fire Resistance, having a min density of 0.5 pcf. As an option, the insulation may be fitted in the b. Steel Framing Members\* — Used to attach furring channels (Item a) to trusses (Item 2). Clips spaced 48 in. OC. RSIC-1 and RSIC-1 concealed space, draped over the resilient channel/gypsum board ceiling membrane when resilient channels and gypsum board attachment is modified as specified in Items 6 and 7. The Finish Rating is 24 min. when the insulation is draped over the resilient channels and gypsum board ceiling membrane and 25 min. when it is installed on underside of the plywood deck or when it is omitted.

3A. Loose Fill Material\* — As an alternate to Item 3 — Any thickness of loose fill material bearing the UL Classification Marking for Surface Burning Characteristics, having a min density of 0.5 pcf, fitted in the concealed space, draped over the resilient channel/gypsum board ceiling membrane when resilient channels and gypsum board attachment is modified as specified in Items 6 and 7. The finished rating when loose fill material is used has not been determined.

3B. Fiber, Sprayed\* — As an alternate to Items 3 and 3A (not evaluated for use with Items 6B, 6C, 6D and 6E) — Any thickness of spray-applied cellulose insulation material, having a min density of 0.5 lb/ft3, applied with water, over the resilient channel/avpsum board ceiling membrane when resilient channels and gypsum board attachment is modified as specified in Items 6 and 7. Fiber, Sprayed is applied with moisture in accordance with the application instructions supplied with the product. The finish rating when Fiber Sprayed is used has not been determined. Alternate application method: The fiber is applied without water or adhesive in accordance with the application instructions supplied with a minimum density of 0.5 lb/ft3 over the resilient channel/gypsum board ceiling membrane when resilient channels and gypsum board attachment is modified as specified in Items 6 and 7. Alternate application method: The fiber is applied without water or adhesive to a nominal density of 3.5 lb/ft3 behind netting (Item 9) stapled to the rafters. The netting is stapled at both lower edges of the rafters creating a cavity to accept the cellulose fiber. APPLEGATE GREENFIBER ACQUISITION LLC — Insulmax and SANCTUARY for use with wet or dry application. INS510LD, INS515LD, and INS541LD are to be used for dry application only.

3C. Foamed Plastic\* --- (As an alternate to Item 3 - Not Shown) --- Spray foam insulation applied directly to the underside of the underside of the roofing system (Item 1). Spray foam insulation installed to a maximum thickness of 10 in. at a nominal 0.5 lb/ft<sup>3</sup> density, while maintaining a minimum 8-1/2 in. clearance between the spray foam insulation and the gypsum board (Item 7). When spray foam insulation is used, resilient channels (Item 6) shall be installed maximum 12 in. OC, with channels adjacent to butt joints of gypsum board (Item 7) installed at 6 in. OC to allow for maximum 3 in. spacing off ends of the gypsum board joints. Gypsum board (Item 7) to be installed using 1-1/4 in. long Type S screws, spaced maximum 8 in. OC, and butted end joints shall be staggered min. 2 ft within the assembly, and occur midway between the continuous furring channels. If used with a ceiling radiation damper in the concealed space, minimum 1 in. clearance to be maintained between damper housing and spray foam insulation. . Limited to resilient channels, Item 6 only, no Item 6 alternates. The finished rating when this insulation is used has not been determined. SES FOAM INC — Sucraseal

3D. Foamed Plastic\* - (As alternate to Item 3 - Not Shown) - Spray foam insulation applied directly to the underside of the roofing system (Item 1). Spray foam insulation installed to a maximum thickness of 10 in. at a nominal 0.5 lb/ft<sup>3</sup> or 2.0 lb/ft<sup>3</sup> density, depending on the product installed. When spray foam insulation is installed, resilient channels (Item 6) shall be installed maximum 12 in. OC, with channels adjacent to butt joints of gypsum board (Item 7) spaced maximum 3 in. away from gypsum butt joints. Gypsum board (Item 7) to be installed using minimum 1-1/4 in. long Type S screws, spaced maximum 8 in. OC, and butted end joints shall be staggered min. 2 ft within the assembly, and occur midway between the continuous furring channels. If used with a ceiling radiation damper in the concealed space, minimum 1 in. clearance to be maintained between damper housing and spray foam insulation. Limited to resilient channels, Item 6 only, no Item 6 alternates. The finished rating when this insulation is used has not been BASF CORP — Enertite® NM, Enertite® G, FE178®, Spraytite® 178, Spraytite® 81206, Walltite® 200, Walltite® US, Walltite® US-N, and

Walltite® HP+

3E. Foamed Plastic\* - (As an alternate to Item 3 - Not Shown) - Spray foam insulation applied directly to the underside of the underside of the roofing system (Item 1). Spray foam insulation installed to a maximum thickness of 17 in. at a nominal 0.5 lb/ft<sup>3</sup> density, while maintaining a minimum 1-1/2 in. clearance between the spray foam insulation and the gypsum board (Item 7). When spray foam insulation is used, resilient channels (Item 6) shall be installed maximum 12 in. OC, with channels adjacent to butt joints of gypsum board (Item 7) installed at 6 in. OC to allow for maximum 3 in. spacing off ends of the gypsum board joints. Gypsum board (Item 7) to be installed using 1-1/4 in. long Type S screws, spaced maximum 8 in. OC, and butted end joints shall be staggered min. 2 ft within the assembly, and occur midway between the continuous furring channels. If used with a fire damper (Items 5 through 5B) in the concealed space, no clearance is necessary between damper housing and spray foam insulation. . Limited to resilient channels, Item 6 only, no Item 6 alternates. The finished rating when this insulation is used has not been determined. SES FOAM INC — EasySeal.5, EasySeal ULD

3F. Foamed Plastic\* - (As an alternate to Item 3 - Not Shown) - Spray foam insulation applied directly to the underside of the underside of the roofing system (Item 1). Spray foam insulation installed to a maximum thickness of 17 in. at a nominal 0.5 lb/ft<sup>3</sup> density, while maintaining a minimum 1-1/2 in. clearance between the spray foam insulation and the gypsum board (Item 7). When spray foam insulation is used, resilient channels (Item 6) shall be installed maximum 12 in. OC, with channels adjacent to butt joints of gypsum board (Item 7) installed at 6 in. OC to allow for maximum 3 in. spacing off ends of the gypsum board joints. Gypsum board (Item 7) to be installed using 1-1/4 in. long Type S screws spaced maximum 8 in. OC, and butted end joints shall be staggered min. 2 ft within the assembly, and occur midway between the continuous furring channels. If used with a fire damper (Items 5 through 5B) in the concealed space, no clearance is necessary between damper housing and spray foam insulation. Limited to resilient channels, Item 6 only, no Item 6 alternates. The finished rating when this insulation is used has not been runners hung a min of 2 in. from bottom chord of trusses with 12 SWG galv steel wire. Wires located a max of 48 in. OC. determined.

EVEREST SYSTEMS LLC — Opticell 0.5

4. Air Duct\* — For use with Ceiling Dampers\* - Any UL Class 0 or Class 1 flexible air duct installed in accordance with the instructions provided by the damper manufacturer.

5. Ceiling Damper\* — Max 14 in. long by 14 in. wide by 18 in. high ceiling damper with boot or box assembly, fabricated from galv steel. The aggregate area of the register opening(s) through the ceiling membrane shall not exceed 98 sq in. per 100 sq ft of ceiling area. Damper assembly installed in accordance with the manufacturers installation instructions. AIRE TECHNOLOGIES INC — Model 50 w/Boot, 50EA w/Boot, 51 w/Boot, 50 w/Box, 50EA w/Box or 51 w/Box.

AIRVAC INDUSTRIES - Series AVI-50 w/Boot, AVI-50EA w/Boot, AVI-51 w/Boot, AVI-50 w/Box, AVI-50EA w/Box, AVI-51 w/Box,

5A. Alternate Ceiling Damper\* — Max 12 in. diameter damper and insulated register box assembly. The maximum size of the register box assembly is nom. 20 in. long by 20 in. wide and 4 in. high fabricated from galv. Steel. Aggregate area of the register opening(s) through the ceiling membrane shall not exceed 128 sq in. per 100 sq ft of ceiling area. Damper assembly installed in accordance with the manufacturers installation instructions. AIRE TECHNOLOGIES INC — Series 57

#### AIRVAC INDUSTRIES - Model AVI-57IB

5B. Alternate Ceiling Damper\* — Max 20 in, long by 16 in, wide by 4 in, high rectangular damper with duct board plenum box assembly. The maximum outer dimensions of the plenum box assembly is 23-1/2 in. long by 19-1/2 in. wide and 17 in. high fabricated from 6pcf, 1-1/2 to 2 in. thick Knauf Air Duct Board M\*. Aggregate area of the register opening(s) through the ceiling membrane shall not exceed 160 sq in. per 100 sq ft ceiling area. Damper assembly installed in accordance with the manufacturers installation

#### AIRE TECHNOLOGIES INC — Series 58 AIRVAC INDUSTRIES — Series AVI-58

instructions.

5C. Alternate Ceiling Damper\* — (Optional. To be used with Air Duct Item 4.) — For use with min. 18 in. deep trusses. Max 7-11/32 in. long by 7-11/16 in. wide fabricated from galvanized steel. Aggregate area of the register opening(s) through the ceiling membrane shall not exceed 28.5 sq in, per 100 sg ft of ceiling area. Damper assembly installed in accordance with the manufacturer's installation instructions.

#### AIRE TECHNOLOGIES INC - Models ITG-CRD2.

5D. Alternate Ceiling Damper\* - (Optional. To be used with Air Duct Item 4.) - For use with min. 18 in. deep trusses. Max 9-11/16 in long by 9-1/16 in. wide fabricated from galvanized steel. Aggregate area of the register opening(s) through the ceiling membrane shall not exceed 44.5 sq in. When batt insulation (Item 3, 3A or 3B) is draped over the resilient channel/gypsum board ceiling membrane, the resilient channel per 100 sq ft of ceiling area. Damper assembly installed in accordance with the manufacturer's installation instructions.

#### AIRE TECHNOLOGIES INC - Models SIG-CRD2

5E. Alternate Ceiling Damper\* — (Optional. To be used with Air Duct Item 4.) — For use with min. 18 in. deep trusses. Max 10-13/32 in. long by 10-22/32 in. wide fabricated from galvanized steel. Aggregate area of the register opening(s) through the ceiling membrane shall not exceed 56 sq in. per 100 sq ft of ceiling area. Damper assembly installed in accordance with the manufacturer's installation instructions.

#### AIRE TECHNOLOGIES INC - Models SMT-CRD2

5F. Alternate Ceiling Damper\* — (Optional. To be used with Air Duct Item 4.) — For use with min. 18 in. deep trusses. Max 8-13/16 in. wide and 8-1/2 in. long fabricated from galvanized steel. Aggregate area of the register opening(s) through the ceiling membrane shall not exceed 37.5 sq in, per 100 sq ft of ceiling area. Damper assembly installed in accordance with the manufacturer's installation instructions.

#### AIRE TECHNOLOGIES INC - Models GBR-CRD2

6. Furring Channels — Resilient channels formed of 25 MSG galv steel, spaced 16 in. OC, installed perpendicular to trusses. When batt and blanket material, Item 3, is draped over the resilient channel/gypsum board ceiling membrane, the spacing shall be 12 in. OC. Channels secured to each truss with 1-1/4 in. long Type S steel screws. Channels overlapped 4 in. at splices. Channels oriented opposite at board butt joints (spaced 6 in. OC) as shown in the above illustration.

a. Furring Channels - Formed of No. 25 MSG galv steel, 2-9/16 in. or 2-23/32 in. wide by 7/8 in. deep, spaced 16 in. OC perpendicular to trusses. When batt insulation (Item 3) is draped over the resilient channel/gypsum board ceiling membrane, the resilient channel spacing shall be reduced to 12 in. OC. Channels secured to trusses as described in Item b. Ends of adjoining channels overlapped 6 in. and tied together with double strand of No. 18 SWG galv steel wire near each end of overlap.

(2.75) clips secured to alternating trusses with No. 8 x 2-1/2 in. coarse drywall screw through the center grommet. RSIC-V and RSIC-V (2.75) clips secured to alternating trusses with No. 8 x 1-1/2 in, coarse drywall screw through the center hole. Furring channels are friction fitted into clips. RSIC-1 and RSIC-V clips for use with 2-9/16 in. wide furring channels. RSIC-1 (2.75) and RSIC-V (2.75) clips for use with 2-23/32 in. wide furring channels. Adjoining channels are overlapped as described in Item a. As an alternate, ends of adjoining channels may be overlapped 6 in. and secured together with two self-tapping No. 6 framing screws, min 7/16 in. long at the midpoint of the overlap, with one screw on each flange of the channel. Additional clips required to hold furring channel that supports the gypsum board butt joints, as described in Item 7.

## PAC INTERNATIONAL L L C — Types RSIC-1, RSIC-V, RSIC-1 (2.75), RSIC-V (2.75).

6B. Steel Framing Members\* — (Not Shown) - As an alternate to Items 6 and 6A.

a. Furring Channels — Hat-shaped furring channels, 7/8 in. deep by 2-5/8 in. wide at the base and 1-1/4 in. wide at the face, formed from No. 25 ga. galv steel, spaced max 16 in. OC perpendicular to trusses and Cold Rolled Channels (Item 6Bb). Furring channels secured to Cold Rolled Channels at every intersection with a 1/2 in. pan head self-drilling screw through each furring channel leg. Ends of adjoining channels overlapped 4 in. and tied together with two double strand No. 18 SWG galv steel wire ties, one at each end of overlap. Supplemental furring channels at base layer and outer layer gypsum board butt joints are not required. Batts and Blankets draped over furring channels as described in Item 3. Two layers of gypsum board attached to furring channels as described in Item 7.

b. Cold Rolled Channels — 1-1/2 in. by 1/2 in., formed from No. 16 ga. galv steel, positioned vertically and parallel to trusses, frictionfitted into the channel caddy on the Steel Framing Members (Item 6Bd). Adjoining lengths of cold rolled channels lapped min. 6 in. and wire-tied together with two double strand 18 SWG galv steel wire ties, one at each end of overlap.

c. Blocking — Where truss design does not permit direct, full contact of the hanger bracket, a piece of nominal 2 by 4 in. lumber (blocking), min. 6 in. long to permit full contact of the hanger bracket, to be secured vertically to the side of the truss (Item 2) at the top and bottom of the blocking at each Steel Framing Member (Item 6Bd) location.

d. Steel Framing Members\* — Hangers spaced 48 in. OC. max along truss, and secured to the Blocking (Item 6Bc) on alternating trusses with a single 5/16 in. by 2 in. hex head lag bolt or four #6 1-1/4 in. drywall screws through mounting hole(s) on the hanger bracket. The two 1/4 in. long steel teeth on the hanger are embedded in the side of the blocking. Hanger positioned on blocking and leveling bolt height adjusted such that furring channels are flush with bottom of trusses before gypsum board installation. Spring gauge of hanger chosen per manufacturer's instructions. KINETICS NOISE CONTROL INC — Type ICW.

6C. Steel Framing Members\* — (Not Shown) - As an alternate to Items 6, 6A and 6B. a. Furring Channels — Formed of No. 25 MSG galv steel, 2-3/8 in. wide by 7/8 in. deep installed perpendicular to wood structural members. Channels spaced a max of 16 in. OC when no insulation (Item 3, 3A or 3B) is fitted in the concealed space or a max of 12 in OC when insulation (Item 3, 3A or 3B) is fitted in the concealed space. Channels secured to trusses as described in Item 6Cb. Ends of

b. Steel Framing Members\* — Used to attach furring channels (Item 6Ca) to trusses (Item 2). Clips secured to the bottom chord of each truss (24 in. OC) with one No. 8 by 2-1/2 in. long coarse drywall screw through center grommet. Furring channels are friction fitted into clips. Adioining channels are overlapped as described in Item 6Ca. As an alternate, ends of adjoining channels may be overlapped 6 in. and secured together with two self-tapping No. 6 framing screws, min 7/16 in. long at the midpoint of the overlap,

with one screw on each flange of the channel. Additional clips required to hold furring channel that supports the gypsum board butt joints, as described in Item 7. PLITEQ INC — Type Genie Clip

6D. Steel Framing Members\* — (Not Shown) - As an alternate to Items 6, 6A, 6B and 6C. a. Main runners — Installed perpendicular to trusses — Nom 10 or 12 ft long, 15/16 in. or 1-1/2 in. wide face, spaced 4 ft OC. Main

b. Cross tees or channels --- Nom 4 ft long, 15/16 in. or 1-1/2 in. wide face or cross channels, nom 4 ft long, 1-1/2 wide face, installed perpendicular to the main runners, spaced 16 in. OC. Additional cross tees or channels used at 8 in. from each side of butted gypsum board end joints. The cross tees or channels may be riveted or screw-attached to the wall angle or channel to facilitate the ceiling installation.

c. Wall angles or channels — Used to support steel framing member ends and for screw-attachment of the gypsum board — Min 0.016 in. thick painted or galvanized steel angle with 1 in. legs or min. 0.016 in. thick painted or galvanized steel channel with a 1 by 1-1/2 by 1 in. profile, attached to walls at perimeter of ceiling with fasteners 16 in. OC. CGC INC — Type DGL or RX.

#### USG INTERIORS LLC — Type DGL or RX.

6E. Alternate Steel Framing Members\* - (Not Shown) - As an alternate to items 6, 6A, 6B, 6C and 6D, furring channels and Steel

Framing Members as described below. a. Furring Channels - Formed of No. 25 MSG galv steel, 2-5/8 in. wide by 7/8 in deep, spaced 16 in OC, perpendicular to trusses. When batt insulation (Item 3, 3A or 3B) is draped over the resilient channel/gypsum board ceiling membrane, the resilient channel spacing shall be reduced to 12 in. OC. Channels secured to trusses as described in Item b.

b. Steel Framing Members\* — Used to attach furring channels (Item a) to the wood trusses (Item 2). Clips spaced at 48" OC and secured to the bottom of the trusses with one 2 in. Coarse Drywall Screw with 1 in. diam washer through the center hole. Furring channels are then friction fitted into clips. Ends of channels are overlapped 6" and tied together with double strand of No. 18 AWG galvanized steel wire. Additional clips are required to hold the Gypsum Butt joints as described in Item 7. STUDCO BUILDING SYSTEMS — RESILMOUNT Sound Isolation Clips - Type A237 or A237R

6F. Steel Framing Members\* — (Not Shown) - As an alternate to Items 6 through 6E- Not for use with Items 3, 3A, or 3B. Main runners nom 12 ft long, spaced 72 in. OC. Main runners suspended by min 12 SWG galv steel hanger wires spaced 48 in. OC. Cross tees, nom 6 ft long, installed perpendicular to main runners and spaced 24 in. OC. Additional 6 ft long cross tees required at each gypsum board end joint with butted gypsum board end joints centered between cross tees spaced 8 in, OC. The main runners and cross tees may be riveted or screw attached to the wall angle or channel to facilitate the ceiling installation. USG INTERIORS LLC — Type DGL or RX

6G. Alternate Steel Framing Members\* — (Not Shown) - As an alternate to items 6 through 6F furring channels and Steel Framing Members as described below

a. Furring Channels — Formed of No. 25 MSG galv steel, 2-1/2 in. wide by 7/8 in deep, spaced 16 in OC, perpendicular to trusses. spacing shall be reduced to 12 in. OC. Channels secured to trusses as described in Item b.

b. Steel Framing Members\* — Used to attach furring channels (Item a) to the wood trusses (Item 2). Clips spaced at 48" OC and secured to the bottom of the trusses with one 2-1/2 in. Coarse Drywall Screw with 1 in. diam washer through the center hole. Furring channels are then friction fitted into clips. Ends of channels are overlapped 6" and tied together with double strand of No. 18 AWG galvanized steel wire. Additional clips are required to hold the Gypsum Butt joints as described in Item 7. REGUPOL AMERICA — Type SonusClip

6H. Furring Channels — For use with American Gypsum Co. Type AG-C gypsum board only. Resilient channels formed of 25 MSG galy steel, spaced 16 in OC, installed perpendicular to trusses. When insulation material, Item 3, 3A or 3B, is applied over the resilient channel/gypsum board ceiling membrane, the spacing may remain at 16 in. OC. Channels secured to each truss with 1-1/4 in. long Type S steel screws. Channels overlapped 4 in, at splices. Channels oriented opposite at gypsum board butt joints (spaced 6 in, OC) as shown in the above illustration.

1 in. long Type S screws spaced 12 in. OC and located a min of 1/2 in. from side joints and 3 in. from the end joints. At end joints, two resilient channels are used, extending a min of 6 in. beyond both ends of the joint. When insulation (Item 3, 3A, 3B) is draped over the resilient channel/gypsum board ceiling membrane, screws shall be installed at 8 in. OC.

When Steel Framing Members\* (Item 6A or 6C) are used, sheets installed with long dimension perpendicular to furring channels and side joints the min truss depth shall be 5-1/4 in. with a min roof slope of 3/12 and a min. average depth of 18 in. Where the truss intersects with of sheet located beneath trusses. Gypsum board screws are driven through channel spaced 12 in. OC in the field when no insulation (Item 3, 3A, of sheet located beneath trusses. Gypsum board screws are driven through channel spaced 12 in. OC in the field when no insulation (Item 3, 3A, of sheet located beneath trusses. Gypsum board screws are driven through channel spaced 12 in. OC in the field when no insulation (Item 3, 3A, of sheet located beneath trusses. Gypsum board screws are driven through channel spaced 12 in. OC in the field when no insulation (Item 3, 3A, of sheet located beneath trusses. Gypsum board screws are driven through channel spaced 12 in. OC in the field when no insulation (Item 3, 3A, of sheet located beneath trusses. Gypsum board screws are driven through channel spaced 12 in. OC in the field when no insulation (Item 3, 3A, ot sheet located beneath trusses. Gypsum board screws are driven through channel spaced 12 in. OC in the field when no insulation (Item 3, 3A, ot sheet located beneath trusses. Gypsum board screws are driven through channel spaced 12 in. OC in the field when no insulation (Item 3, 3A, ot sheet located beneath trusses. Gypsum board screws are driven through channel spaced 12 in. OC in the field when no insulation (Item 3, 3A, ot sheet located beneath trusses. Gypsum board screws are driven through channel spaced 12 in. OC in the field when no insulation (Item 3, 3A, ot sheet located beneath trusses. Gypsum board screws are driven through channel spaced 12 in. OC in the field when no insulation (Item 3, 3A, ot sheet located beneath trusses. Gypsum board screws are driven through channel spaced 12 in. OC in the field when no insulation (Item 3, 3A, ot sheet located beneath trusses. Gypsum board screws are driven through channel spaced 12 in. OC in the field when no insulation (Item 3, 3A, ot sheet located beneath trusses. Gypsum board scre 3B) is fitted in the concealed space or 8 in OC in the field when insulation (Item 3 3A 3B) is fitted in the channel/gypsum board ceiling membrane. Gypsum board butt joints shall be staggered min. 2 ft within the assembly, and occur between the main furring channels. At the gypsum board butt joints, each end of the gypsum board shall be supported by a single length of furring channel equal to the width of the gypsum board plus 6 in. on each end. The furring channels shall be spaced approximately 3-1/2 in. OC, and be attached to the trusses with one clip at each end of the channel. Screw spacing along the butt joint to attach the gypsum board to the furring channels shall be 8 in OC. Second (outer) layer of gypsum board required when furring channels (Item 6A, a) are spaced 24 in. OC and insulation is fitted in the concealed space, draped over the furring channel/gypsum board ceiling membrane. Outer layer of gypsum board attached to the furring channels using 1-5/8 in. long Type S bugle-head screws spaced 8 in. OC at butted joints and 12 in. OC in the field. Butted end joints of outer layer to be offset a minimum of 8 in. from base layer end joints. Butted side joints of outer layer to be offset minimum 18 in. from butted side joints of base

> When Steel Framing Members (Item 6B) are used, two layers of nom 5/8 in, thick, 4 ft wide gypsum board are installed with long dimensions perpendicular to furring channels (Item 6Ba). Base laver attached to the furring channels using 1 in long Type S bugle head steel screws spaced 8 in, OC along butted end joints and 12 in, OC in the field of the board. Butted end joints centered on the continuous furring channels, Butted base layer end joints to be offset a min of 16 in. in adjacent courses. Outer layer attached to the furring channels using 1-5/8 in. long Type S bugle head steel screws spaced 8 in. OC at butted end joints and 12 in. OC in the field. Butted end joints centered on the continuous furring channels and offset a min of 16 in. from butted end joints of base layer. Butted side joints of outer layer to be offset min 16 in. from butted side joints of base

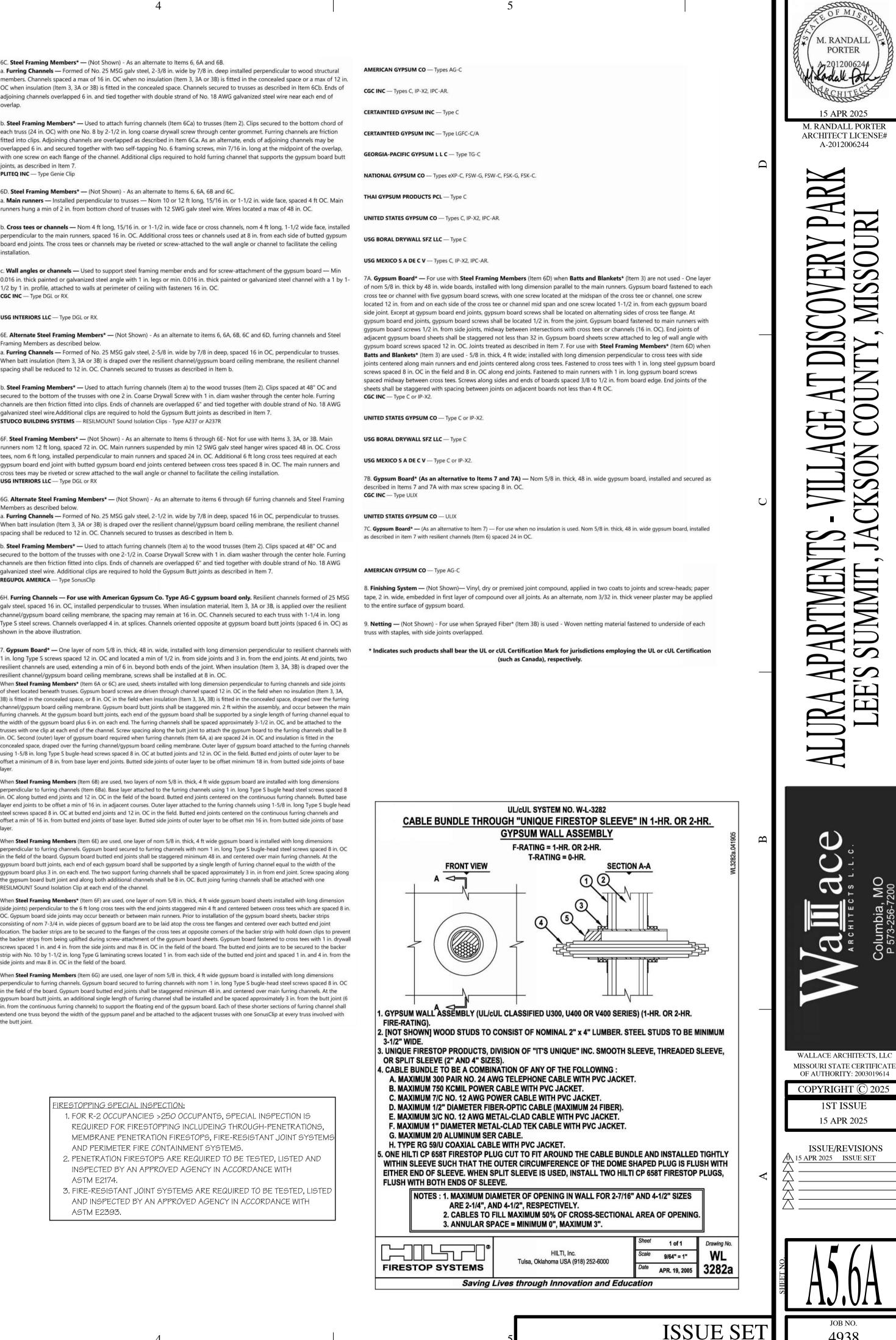
> When Steel Framing Members (Item 6E) are used, one layer of nom 5/8 in. thick, 4 ft wide gypsum board is installed with long dimensions perpendicular to furring channels. Gypsum board secured to furring channels with nom 1 in. long Type S bugle-head steel screws spaced 8 in. OC in the field of the board. Gypsum board butted end joints shall be staggered minimum 48 in. and centered over main furring channels. At the gypsum board butt joints, each end of each gypsum board shall be supported by a single length of furring channel equal to the width of the avosum board plus 3 in. on each end. The two support furring channels shall be spaced approximately 3 in. in from end joint. Screw spacing along the avosum board butt joint and along both additional channels shall be 8 in. OC. Butt joing furring channels shall be attached with one RESILMOUNT Sound Isolation Clip at each end of the channel.

> When Steel Framing Members\* (Item 6F) are used, one layer of nom 5/8 in. thick, 4 ft wide gypsum board sheets installed with long dimension (side joints) perpendicular to the 6 ft long cross tees with the end joints staggered min 4 ft and centered between cross tees which are spaced 8 in. OC. Gypsum board side joints may occur beneath or between main runners. Prior to installation of the gypsum board sheets, backer strips consisting of nom 7-3/4 in. wide pieces of gypsum board are to be laid atop the cross tee flanges and centered over each butted end joint location. The backer strips are to be secured to the flanges of the cross tees at opposite corners of the backer strip with hold down clips to prevent the backer strips from being uplifted during screw-attachment of the gypsum board sheets. Gypsum board fastened to cross tees with 1 in. drywall screws spaced 1 in. and 4 in. from the side joints and max 8 in. OC in the field of the board. The butted end joints are to be secured to the backer strip with No. 10 by 1-1/2 in. long Type G laminating screws located 1 in. from each side of the butted end joint and spaced 1 in. and 4 in. from the side joints and max 8 in. OC in the field of the board.

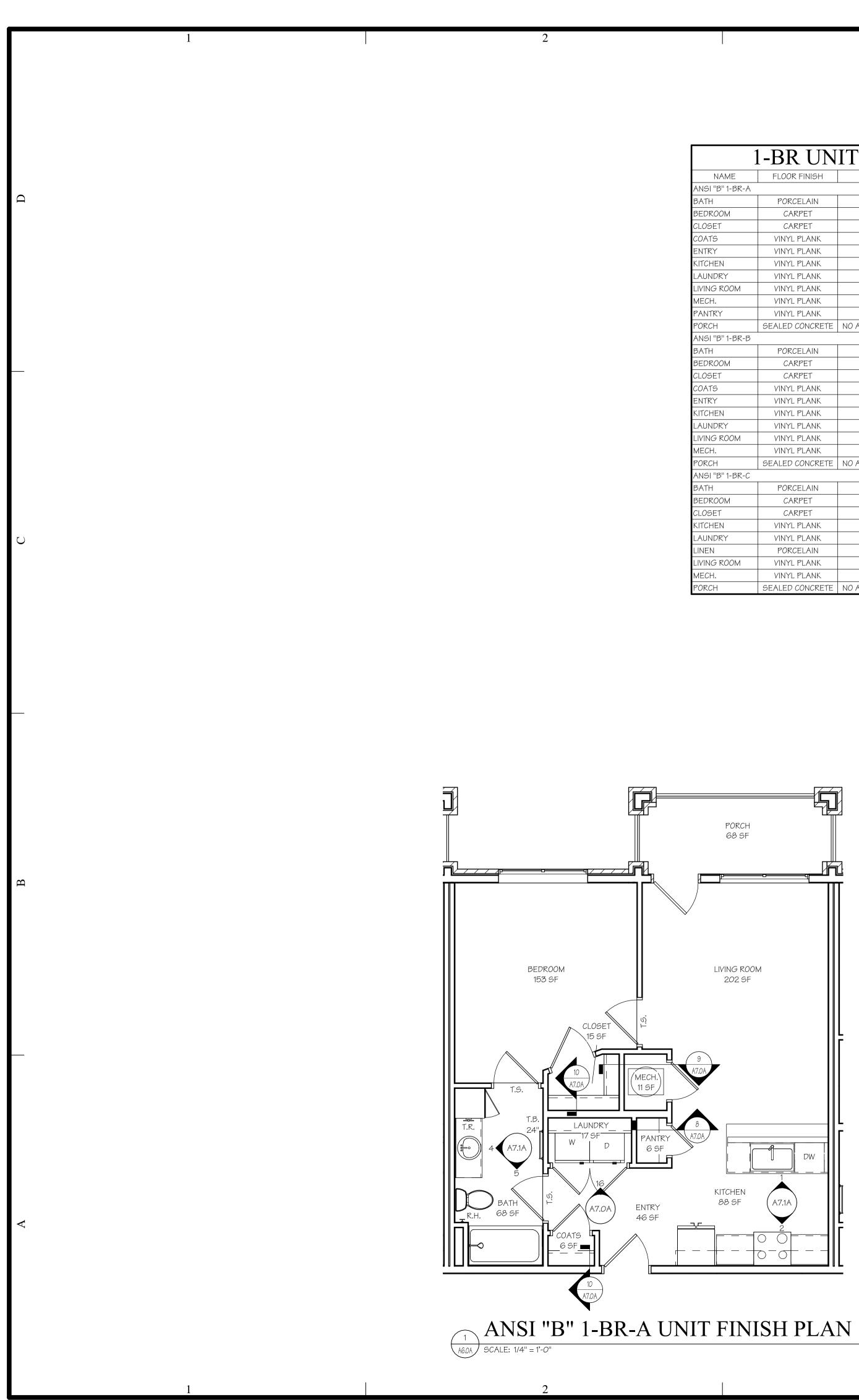
When Steel Framing Members (Item 6G) are used, one layer of nom 5/8 in. thick, 4 ft wide gypsum board is installed with long dimensions perpendicular to furring channels. Gypsum board secured to furring channels with nom 1 in. long Type S bugle-head steel screws spaced 8 in. OC in the field of the board. Gypsum board butted end joints shall be staggered minimum 48 in. and centered over main furring channels. At the gypsum board butt joints, an additional single length of furring channel shall be installed and be spaced approximately 3 in. from the butt joint (6 in, from the continuous furring channels) to support the floating end of the gypsum board. Each of these shorter sections of furring channel shall extend one truss beyond the width of the gypsum panel and be attached to the adjacent trusses with one SonusClip at every truss involved with the butt joint.

FIRESTOPPING SPECIAL INSPECTION:

- 1. FOR R-2 OCCUPANCIES >250 OCCUPANTS, SPECIAL INSPECTION IS REQUIRED FOR FIRESTOPPING INCLUDEING THROUGH-PENETRATIONS, MEMBRANE PENETRATION FIRESTOPS, FIRE-RESISTANT JOINT SYSTEMS AND PERIMETER FIRE CONTAINMENT SYSTEMS.
- 2. PENETRATION FIRESTOPS ARE REQUIRED TO BE TESTED, LISTED AND INSPECTED BY AN APPROVED AGENCY IN ACCORDANCE WITH ASTM E2174.
- 3. FIRE-RESISTANT JOINT SYSTEMS ARE REQUIRED TO BE TESTED, LISTED AND INSPECTED BY AN APPROVED AGENCY IN ACCORDANCE WITH ASTM E2393.





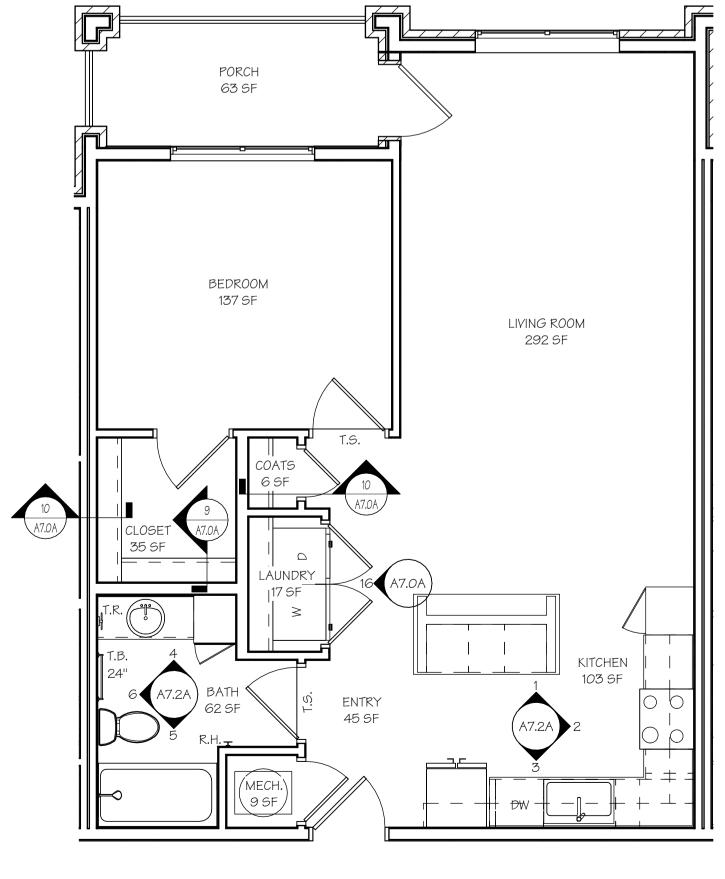


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	I-DK UN		I SCHEDU	
NAME	FLOOR FINISH	BASE FINISH	WALL FINISH	CEILING FINISH
ANSI "B" 1-BR-A				
BATH	PORCELAIN	WOOD BASE	PAINTED GYP. BD.	PAINTED GYP. BD.
BEDROOM	CARPET	WOOD BASE	PAINTED GYP. BD.	PAINTED GYP. BD.
CLOSET	CARPET	WOOD BASE	PAINTED GYP. BD.	PAINTED GYP. BD.
COATS	VINYL PLANK	WOOD BASE	PAINTED GYP. BD.	PAINTED GYP. BD.
ENTRY	VINYL PLANK	WOOD BASE	PAINTED GYP. BD.	PAINTED GYP. BD.
KITCHEN	VINYL PLANK	WOOD BASE	PAINTED GYP. BD.	PAINTED GYP. BD.
LAUNDRY	VINYL PLANK	WOOD BASE	PAINTED GYP. BD.	PAINTED GYP. BD.
LIVING ROOM	VINYL PLANK	WOOD BASE	PAINTED GYP. BD.	PAINTED GYP. BD.
МЕСН.	VINYL PLANK	WOOD BASE	PAINTED GYP. BD.	PAINTED GYP. BD.
PANTRY	VINYL PLANK	WOOD BASE	PAINTED GYP. BD.	PAINTED GYP. BD.
PORCH	SEALED CONCRETE	NO ADDITIONAL FINISH	NO ADDITIONAL FINISH	NO ADDITIONAL FINISH
ANSI "B" 1-BR-B				
BATH	PORCELAIN	WOOD BASE	PAINTED GYP. BD.	PAINTED GYP. BD.
BEDROOM	CARPET	WOOD BASE	PAINTED GYP. BD.	PAINTED GYP. BD.
CLOSET	CARPET	WOOD BASE	PAINTED GYP. BD.	PAINTED GYP. BD.
COATS	VINYL PLANK	WOOD BASE	PAINTED GYP. BD.	PAINTED GYP. BD.
ENTRY	VINYL PLANK	WOOD BASE	PAINTED GYP. BD.	PAINTED GYP. BD.
KITCHEN	VINYL PLANK	WOOD BASE	PAINTED GYP. BD.	PAINTED GYP. BD.
LAUNDRY	VINYL PLANK	WOOD BASE	PAINTED GYP. BD.	PAINTED GYP. BD.
LIVING ROOM	VINYL PLANK	WOOD BASE	PAINTED GYP. BD.	PAINTED GYP. BD.
МЕСН.	VINYL PLANK	WOOD BASE	PAINTED GYP. BD.	PAINTED GYP. BD.
PORCH	SEALED CONCRETE	NO ADDITIONAL FINISH	NO ADDITIONAL FINISH	NO ADDITIONAL FINISH
ANSI "B" 1-BR-C				
BATH	PORCELAIN	WOOD BASE	PAINTED GYP. BD.	PAINTED GYP. BD.
BEDROOM	CARPET	WOOD BASE	PAINTED GYP. BD.	PAINTED GYP. BD.
CLOSET	CARPET	WOOD BASE	PAINTED GYP. BD.	PAINTED GYP. BD.
KITCHEN	VINYL PLANK	WOOD BASE	PAINTED GYP. BD.	PAINTED GYP. BD.
LAUNDRY	VINYL PLANK	WOOD BASE	PAINTED GYP. BD.	PAINTED GYP. BD.
LINEN	PORCELAIN	WOOD BASE	PAINTED GYP. BD.	PAINTED GYP. BD.
LIVING ROOM	VINYL PLANK	WOOD BASE	PAINTED GYP. BD.	PAINTED GYP. BD.
МЕСН.	VINYL PLANK	WOOD BASE	PAINTED GYP. BD.	PAINTED GYP. BD.
PORCH	SEALED CONCRETE	NO ADDITIONAL FINISH	NO ADDITIONAL FINISH	NO ADDITIONAL FINISH

3

GENERAL UNIT
CONTRACTOR SHALL FURNISH & INSTALL 4" BUILDING NUMBE CITY OR LOCAL POSTMASTER.
CONTRACTOR SHALL FURNISH ONE MAILBOX PER UNIT, PER O
COAT AND BEDROOM CLOSETS SHALL HAVE EPOXY-COATED
PRIME & PAINT WALLS BEHIND MILLWORK.
APPLY SILICONE CAULK BETWEEN CONCRETE AND BOTTOM OF
SEAL CONCRETE FLOOR TO REDUCE MOISTURE PENETRATION.
APPROPRIATELY SIZED BLINDS SHALL BE PROVIDED AND INS INCLUDING PAIRED WINDOWS (PROVIDED WITH TWO SETS) AND LARGER.
INSTALL FIRE EXTINGUISHER UNDER KITCHEN SINK IN EACH A EACH ANSI "A" UNIT, 48" MAX. TO TOP.
AUDIO/VISUAL UNITS ARE SEPARATE FROM THE ANSI "A" UNITOR LOCATION OF A/V UNITS.
CARPET IN ANSI "A" UNITS SHALL BE SECURELY ATTACHED; H LEVEL CUT PILE, OR LEVEL CUT/ UNCUT PILE TEXTURE. PILE HEI EDGES OF CARPET SHALL BE FASTENED TO FLOOR SURFACE LENGTH OF THE EXPOSED EDGE. IF CARPET TILE IS USED IT S THICKNESS OF PILE, CUSHION AND BACKING HEIGHT OF 1/2"

4

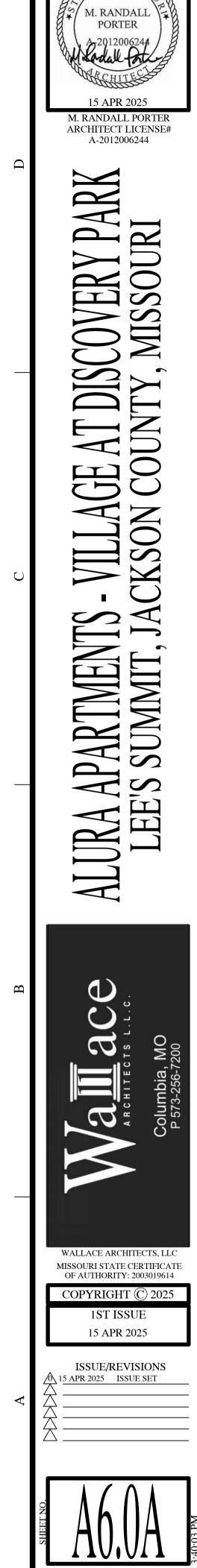


# ANSI "B" 1-BR-B UNIT FINISH PLAN

A6.0A SCALE: 1/4" = 1'-0"

Γ ΝΟΤΕΣ
MBERS FOR EACH UNIT AS REQUIRED BY
ER OWNER SELECTION (SEE SPECS).
ED WIRE SHELVING.
M OF THE DRYWALL.
ΓΙΟΝ.
INSTALLED FOR EACH GLAZED OPENING, AND DOOR GLAZING WHERE HALF LITE OR
CH ANSI "B" UNIT & WALL MOUNTED AT
UNITS. PLEASE SEE THE BUILDING PLANS
ED; HAVE A LEVEL LOOP, TEXTURED LOOP, E HEIGHT SHALL BE 1/2'' MAX. EXPOSED FACES AND HAVE TRIM ALONG THE ENTIRE IT SHALL HAVE A MAX. COMBINED

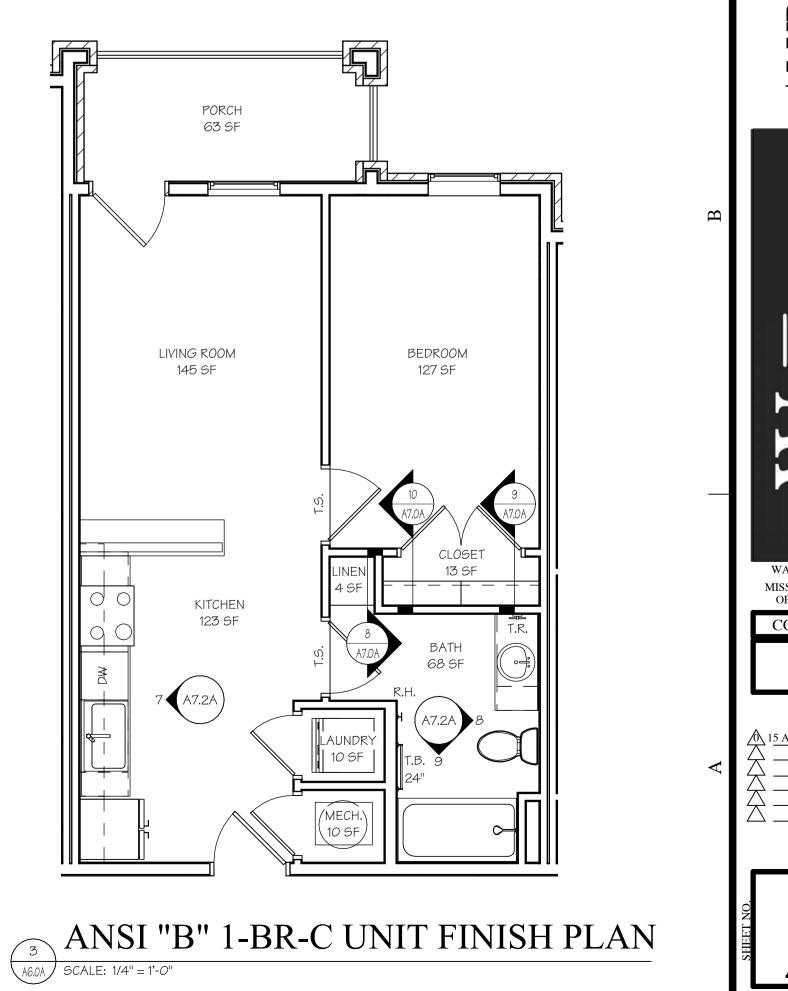
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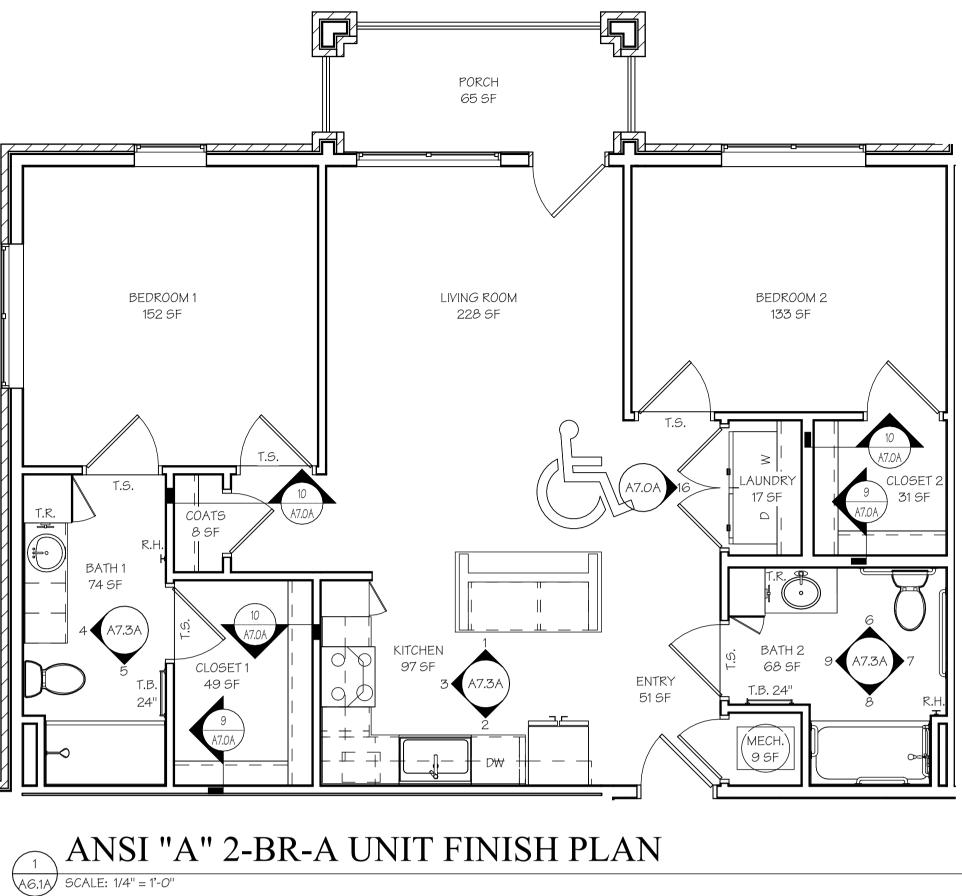


JOB NO.

4938

**ISSUE SET** 





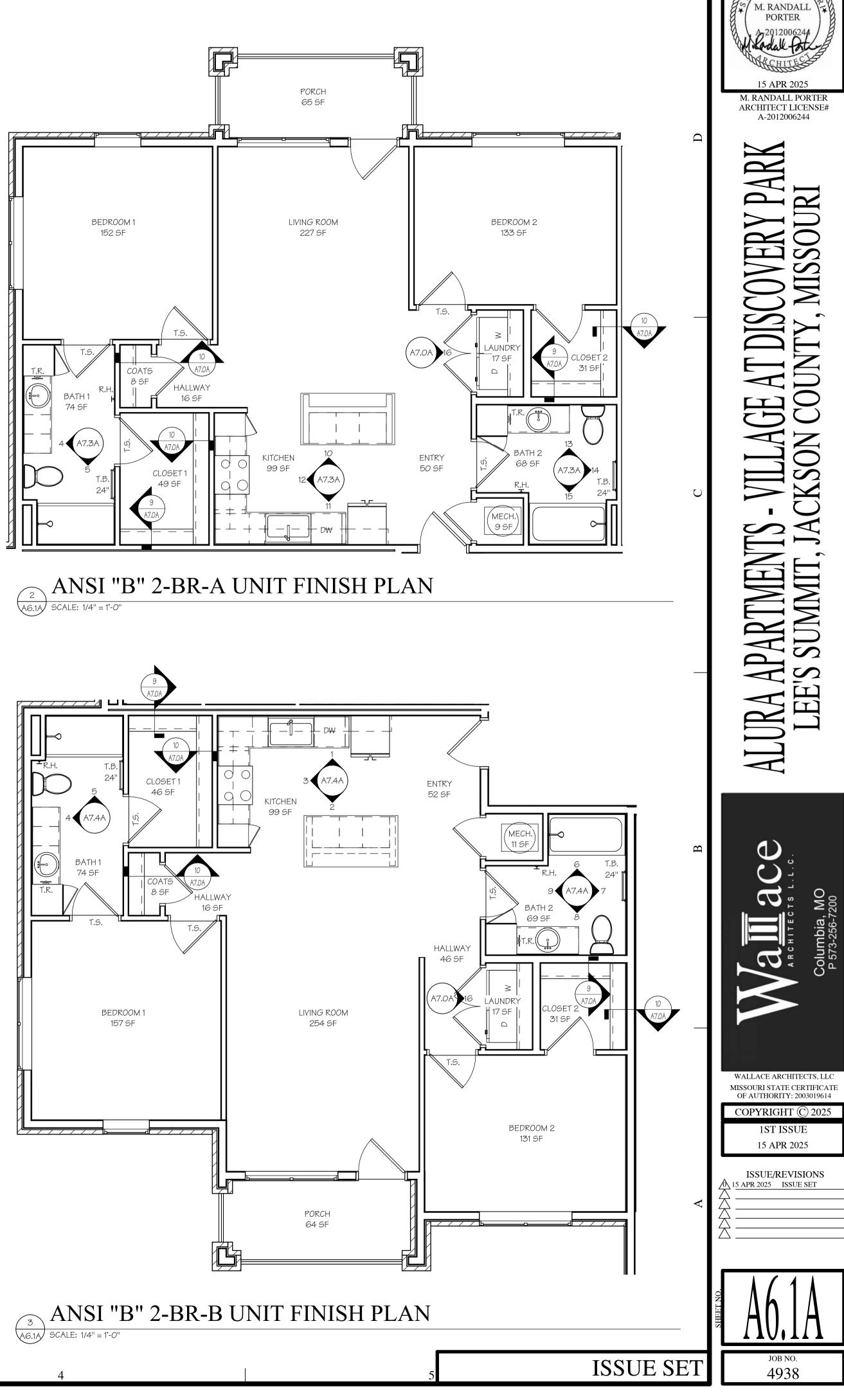
	2-BR UN	IT FINISH	I SCHEDU	JLE		
NAME	FLOOR FINISH	BASE FINISH	WALL FINISH	CEILING FINISH		
ANSI "A" 2-BR-A						
BATH 1	PORCELAIN	WOOD BASE	PAINTED GYP. BD.	PAINTED GYP. BD.		
BATH 2	PORCELAIN	WOOD BASE	PAINTED GYP. BD.	PAINTED GYP. BD.		
BEDROOM 1	CARPET	WOOD BASE	PAINTED GYP. BD.	PAINTED GYP. BD.		
BEDROOM 2	CARPET	WOOD BASE	PAINTED GYP. BD.	PAINTED GYP. BD.		
CLOSET 1	CARPET	WOOD BASE	PAINTED GYP. BD.	PAINTED GYP. BD.		
CLOSET 2	CARPET	WOOD BASE	PAINTED GYP. BD.	PAINTED GYP. BD.		
COATS	VINYL PLANK	WOOD BASE	PAINTED GYP. BD.	PAINTED GYP. BD.		
ENTRY	VINYL PLANK	WOOD BASE	PAINTED GYP. BD.	PAINTED GYP. BD.		
HALLWAY	VINYL PLANK	WOOD BASE	PAINTED GYP. BD.	PAINTED GYP. BD.		
KITCHEN	VINYL PLANK	WOOD BASE	PAINTED GYP. BD.	PAINTED GYP. BD.		
LAUNDRY	VINYL PLANK	WOOD BASE	PAINTED GYP. BD.	PAINTED GYP. BD.		
LIVING ROOM	VINYL PLANK	WOOD BASE	PAINTED GYP. BD.	PAINTED GYP. BD.		
MECH.	VINYL PLANK	WOOD BASE	PAINTED GYP. BD.	PAINTED GYP. BD.		
PORCH	SEALED CONCRETE	NO ADDITIONAL FINISH	NO ADDITIONAL FINISH	NO ADDITIONAL FINISH		
ANSI "B" 2-BR-A						
BATH 1	PORCELAIN	WOOD BASE	PAINTED GYP. BD.	PAINTED GYP. BD.		
BATH 2	PORCELAIN	WOOD BASE	PAINTED GYP. BD.	PAINTED GYP. BD.		
BEDROOM 1	CARPET	WOOD BASE	PAINTED GYP. BD.	PAINTED GYP. BD.		
BEDROOM 2	CARPET	WOOD BASE	PAINTED GYP. BD.	PAINTED GYP. BD.		
CLOSET 1	CARPET	WOOD BASE	PAINTED GYP. BD.	PAINTED GYP. BD.		
CLOSET 2	CARPET	WOOD BASE	PAINTED GYP. BD.	PAINTED GYP. BD.		
COATS	VINYL PLANK	WOOD BASE	PAINTED GYP. BD.	PAINTED GYP. BD.		
ENTRY	VINYL PLANK	WOOD BASE	PAINTED GYP. BD.	PAINTED GYP. BD.		
HALLWAY	VINYL PLANK	WOOD BASE	PAINTED GYP. BD.	PAINTED GYP. BD.		
KITCHEN	VINYL PLANK	WOOD BASE	PAINTED GYP. BD.	PAINTED GYP. BD.		
LAUNDRY	VINYL PLANK	WOOD BASE	PAINTED GYP. BD.	PAINTED GYP. BD.		
LIVING ROOM	VINYL PLANK	WOOD BASE	PAINTED GYP. BD.	PAINTED GYP. BD.		
MECH.	VINYL PLANK	WOOD BASE	PAINTED GYP. BD.	PAINTED GYP. BD.		
PORCH	SEALED CONCRETE	NO ADDITIONAL FINISH	NO ADDITIONAL FINISH	NO ADDITIONAL FINISH		
ANSI "B" 2-BR-B				-		
BATH 1	PORCELAIN	WOOD BASE	PAINTED GYP. BD.	PAINTED GYP. BD.		
BATH 2	PORCELAIN	WOOD BASE	PAINTED GYP. BD.	PAINTED GYP. BD.		
BEDROOM 1	CARPET	WOOD BASE	PAINTED GYP. BD.	PAINTED GYP. BD.		
BEDROOM 2	CARPET	WOOD BASE	PAINTED GYP. BD.	PAINTED GYP. BD.		
CLOSET 1	CARPET	WOOD BASE	PAINTED GYP. BD.	PAINTED GYP. BD.		
CLOSET 2	CARPET	WOOD BASE	PAINTED GYP. BD.	PAINTED GYP. BD.		
COATS	VINYL PLANK	WOOD BASE	PAINTED GYP. BD.	PAINTED GYP. BD.		
ENTRY	VINYL PLANK	WOOD BASE	PAINTED GYP. BD.	PAINTED GYP. BD.		
HALLWAY	VINYL PLANK	WOOD BASE	PAINTED GYP. BD.	PAINTED GYP. BD.		
HALLWAY	VINYL PLANK	WOOD BASE	PAINTED GYP. BD.	PAINTED GYP. BD.		
KITCHEN	VINYL PLANK	WOOD BASE	PAINTED GYP. BD.	PAINTED GYP. BD.		
LAUNDRY	VINYL PLANK	WOOD BASE	PAINTED GYP. BD.	PAINTED GYP. BD.		
LIVING ROOM	VINYL PLANK	WOOD BASE	PAINTED GYP. BD.	PAINTED GYP. BD.		
MECH.	VINYL PLANK	WOOD BASE	PAINTED GYP. BD.	PAINTED GYP. BD.		
PORCH	SEALED CONCRETE	NO ADDITIONAL FINISH	NO ADDITIONAL FINISH	NO ADDITIONAL FINISH		

Ω

В

A7.0A)

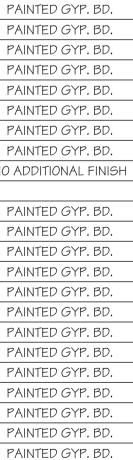
HOSE, & 24'' SLIDE BAR.

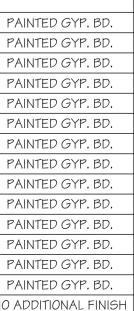






CEILING FINISH
AINTED GYP. BD.
AINTED GYP. BD.
AINTED GYP. BD.





)	OFF-SET SHOWER VALVE CONTROL SO IT IS CENTERED 12" TO 15" FROM OUTER EDGE OF SHOWER FOR EASIER ACCESS. & 30:" A.F.F. (LEVER TYPE CONTROL).
)	INSTALL GRAB BARS WITH ROUND HEAD SCREWS.
)	PROVIDE & INSTALL 36" GRAB BAR BEHIND @ 42" GRAB BAR BESIDE WATER CLOSET ON WALL @ 34"
	A.F.F. (SEE BATH ELEVATIONS SHEET A7.0A)
)	BOTTOM OF MIRROR TO REST ON COUNTERTOP BACKSPLASH.
	VANITY SINK FAUCET TO BE LEVER TYPE, & EXPOSED PIPING TO BE WRAPPED W/ PIPE WRAP.
)	EXTEND VINYL FLOORING BENEATH LAV. SPACE.

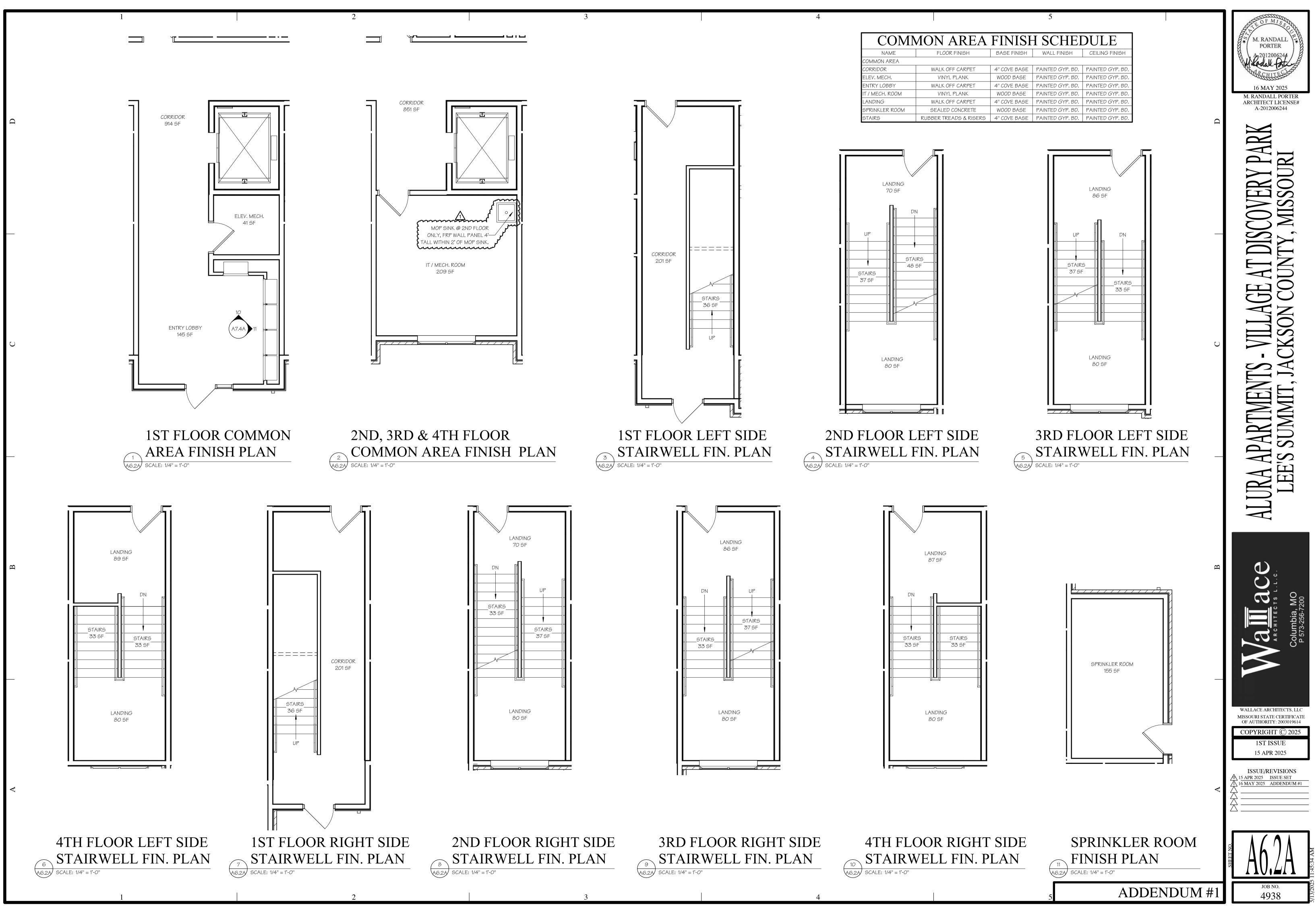
ANSI "A" UNIT BATH NOTES

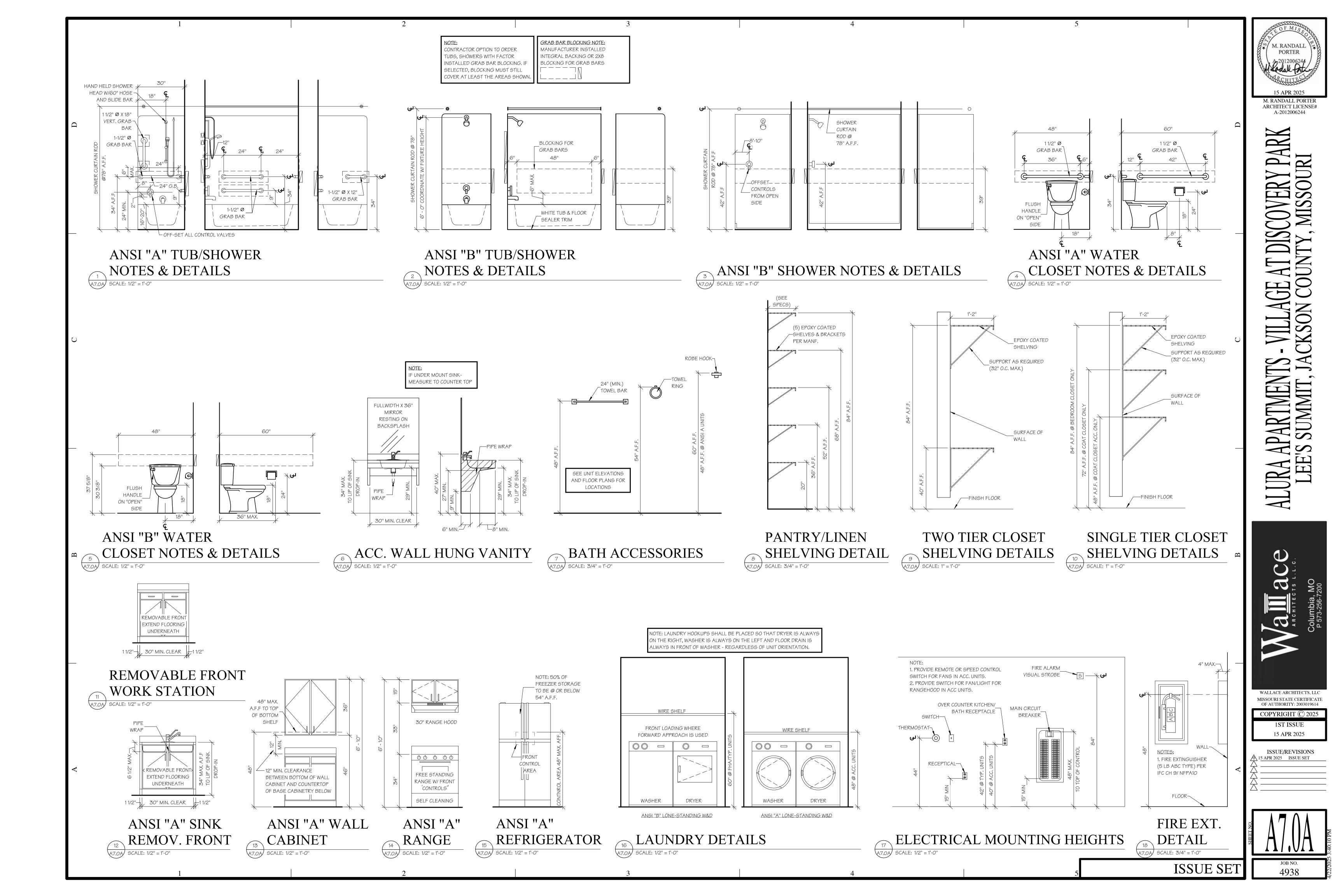
VALVE & SHOWER HEAD SHALL BE ON 2X6 WALL OR WALL @ LAV,. (SEE BATH ELEVATIONS SHEET

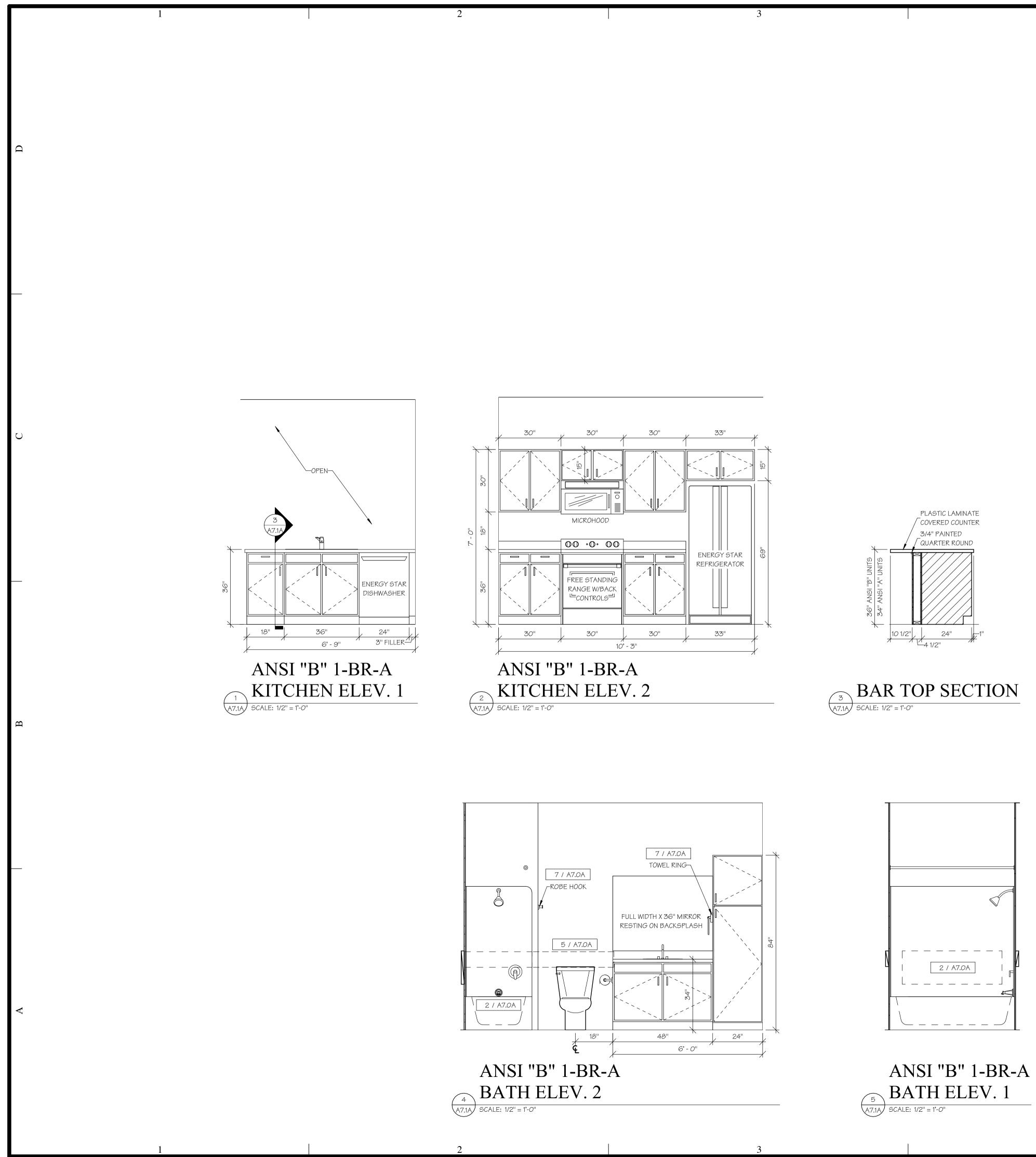
PROVIDE HAND-HELD SHOWER W/VACUUM BREAKER (IN LIEU OF FIXED SHOWER HEAD), FLEXIBLE

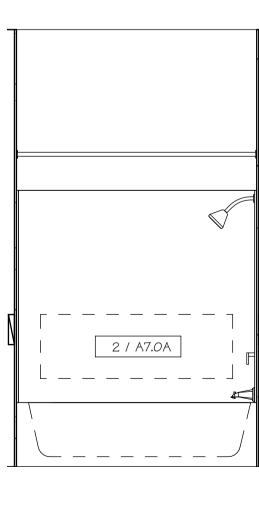
## ANSI "A" UNIT KITCHEN NOTES COUNTER HEIGHT SHALL BE 34" A.F.F. TO TOP OF SINK.

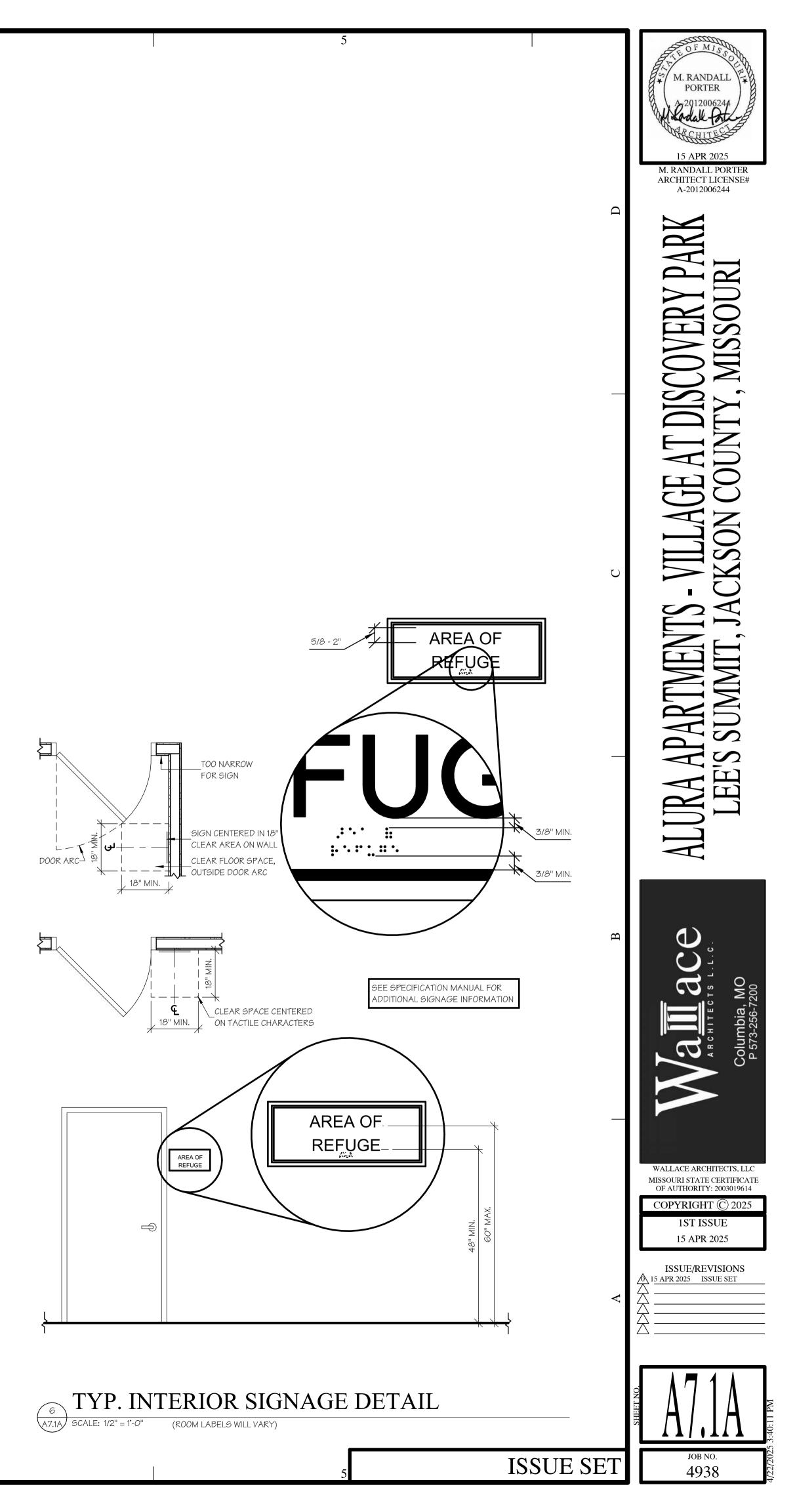
EXTEND VINYL FLOORING BENEATH SINK SPACE AND THE 30" WORKSPACE BESIDE THE RANGE. PROVIDE REMOVABLE FRONT & FLOOR IN LIEU OF SINK BASE. TOE KICK SPACE @ BOTTOM OF BASE CABINETS SHALL REMAIN 4" MIN. (STANDARD) ADD SEPARATE WALL SWITCHES FOR RANGE HOOD FAN AND RANGE HOOD LIGHT (SEE ELECTRICAL PLANS) ADD SWITCH FOR CONTROL OF LIGHT OVER SINK & GABAGE DISPOSAL TOP OF WALL TELEPHONE OUTLET TO BE 48" MAX. A.F.F. INSULATE EXPOSED PIPING BELOW KITCHEN SINK W/ PIPE WRAP. DISHWASHER HOOKUPS ARE UNDER SINK, ACCESS OPENING IS TO BE MADE THROUGH END PANEL OF SINK.

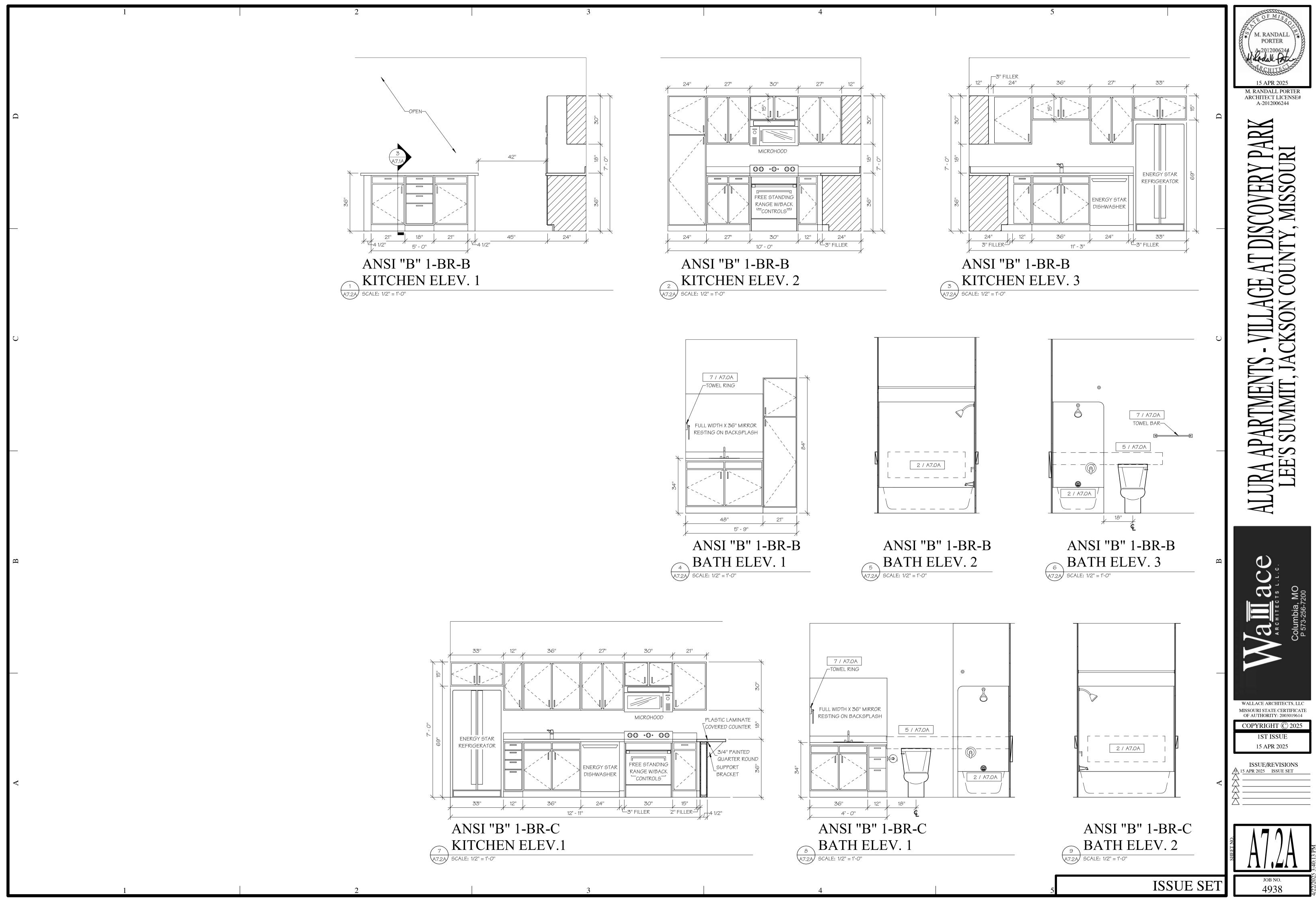


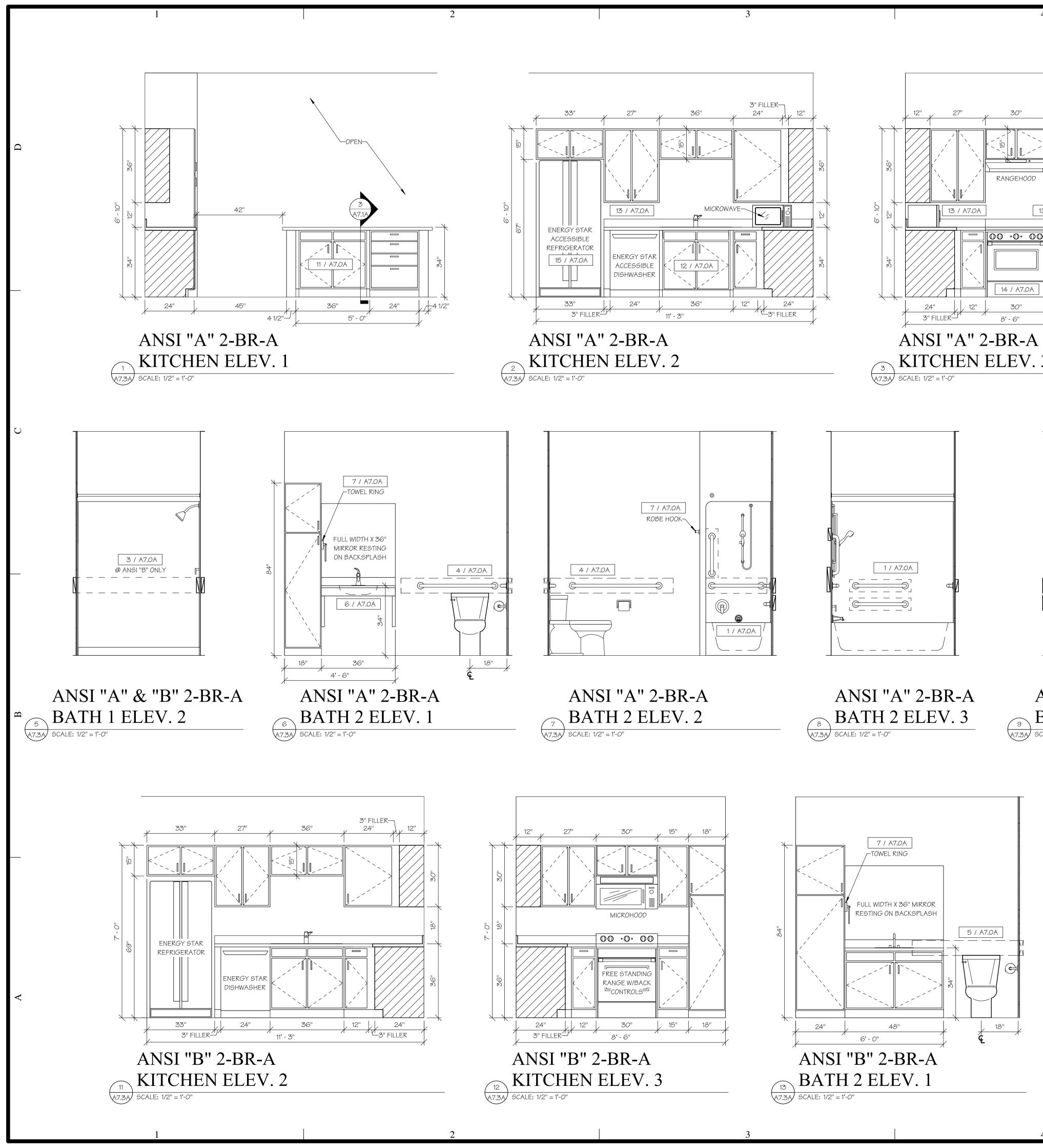


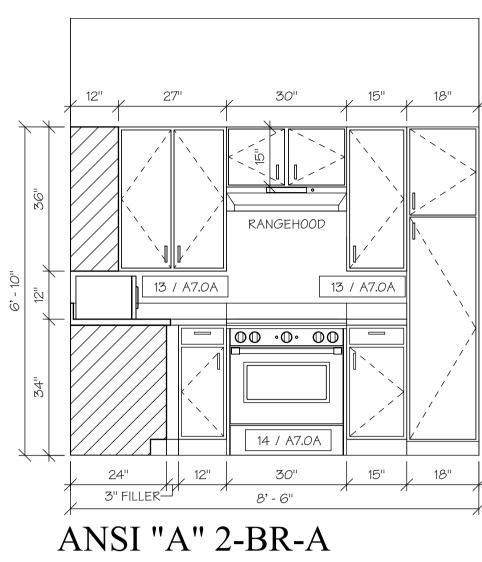




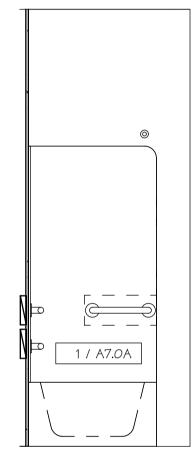




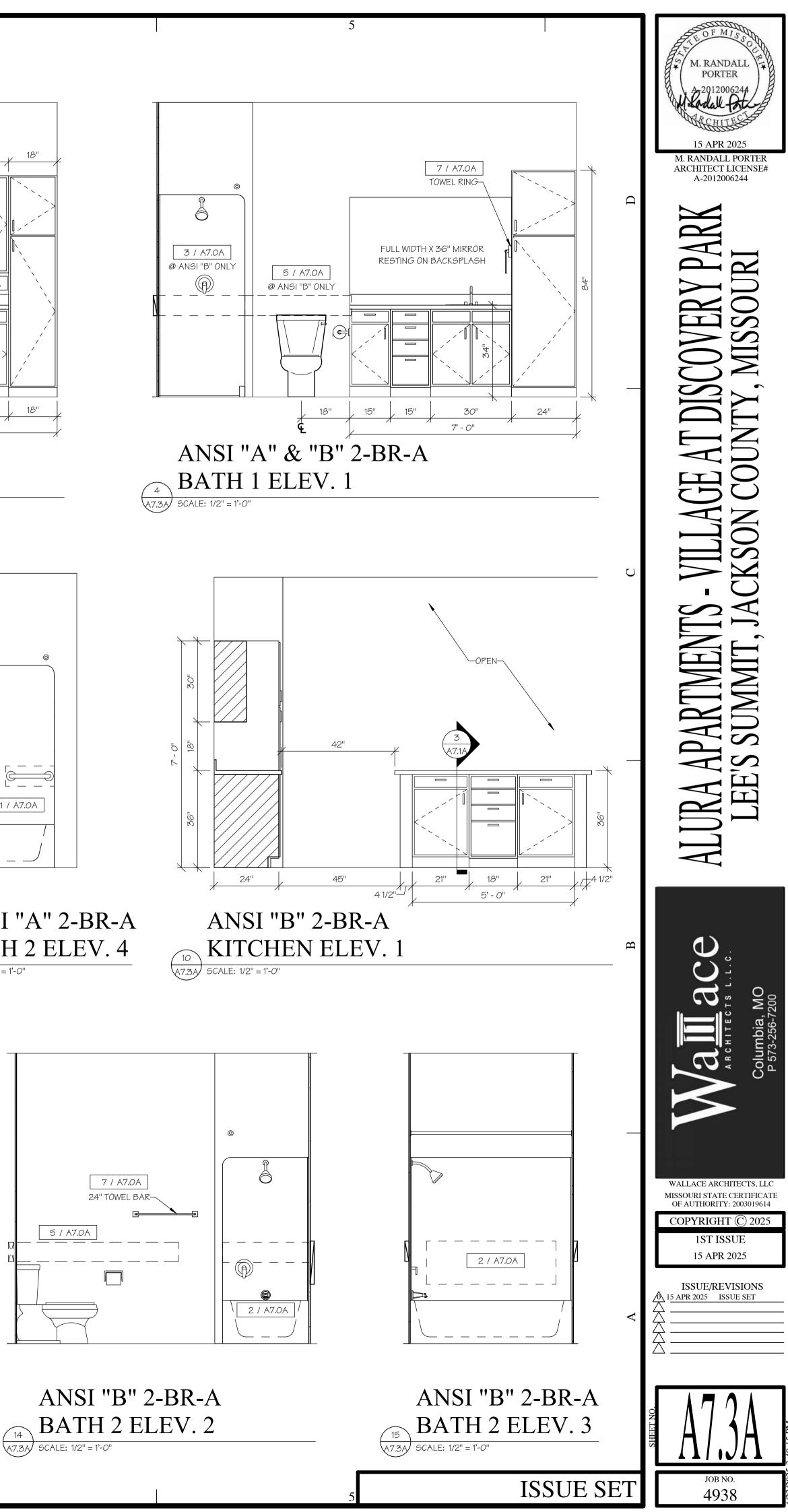


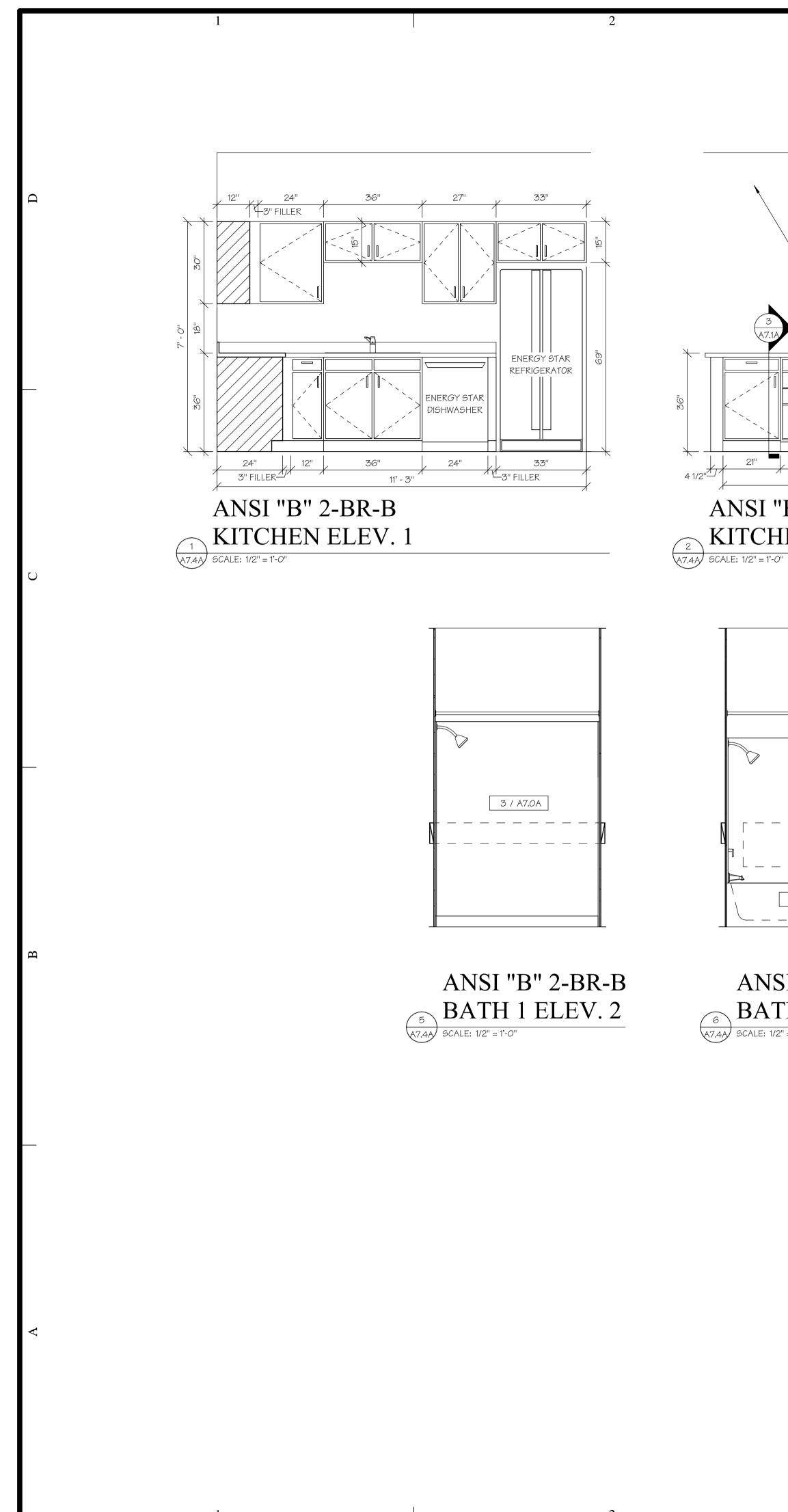


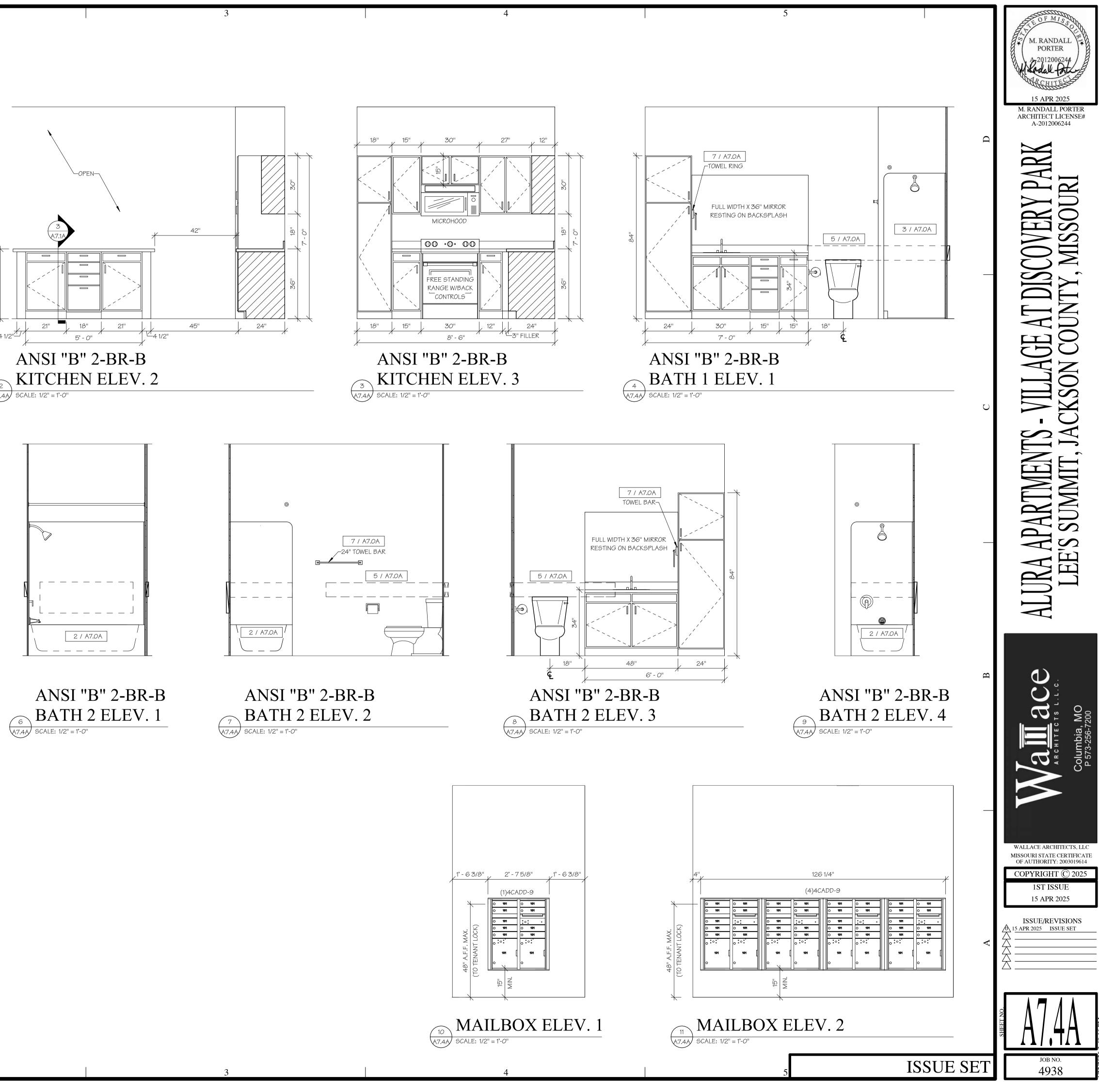
# **KITCHEN ELEV. 3**



# ANSI "A" 2-BR-A 9 BATH 2 ELEV. 4 A7.3A SCALE: 1/2" = 1'-0"



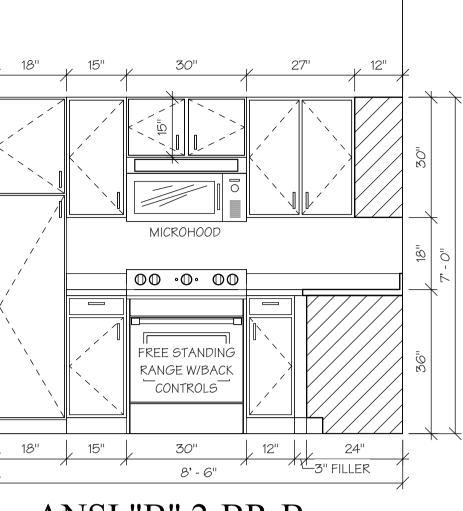




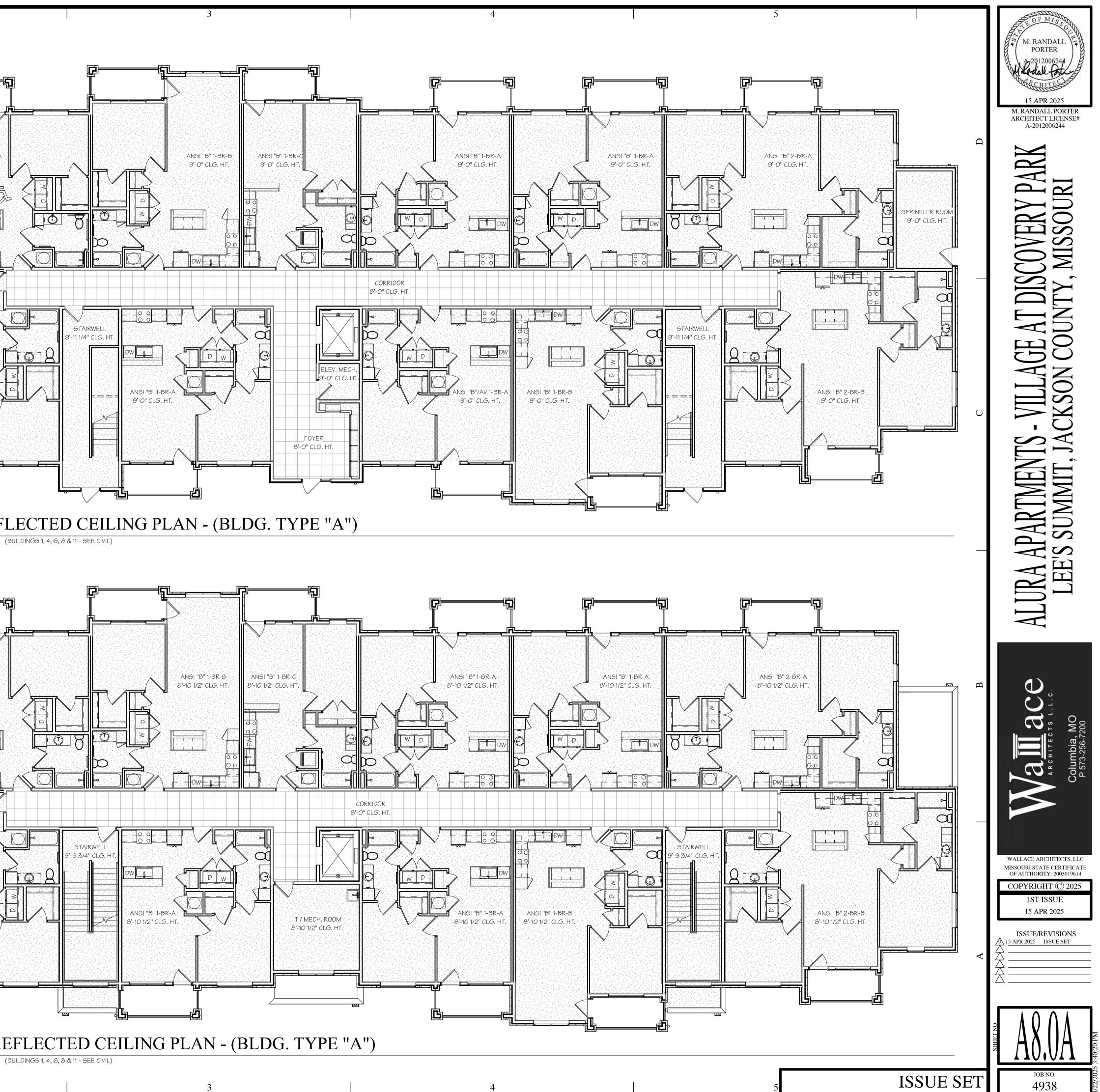


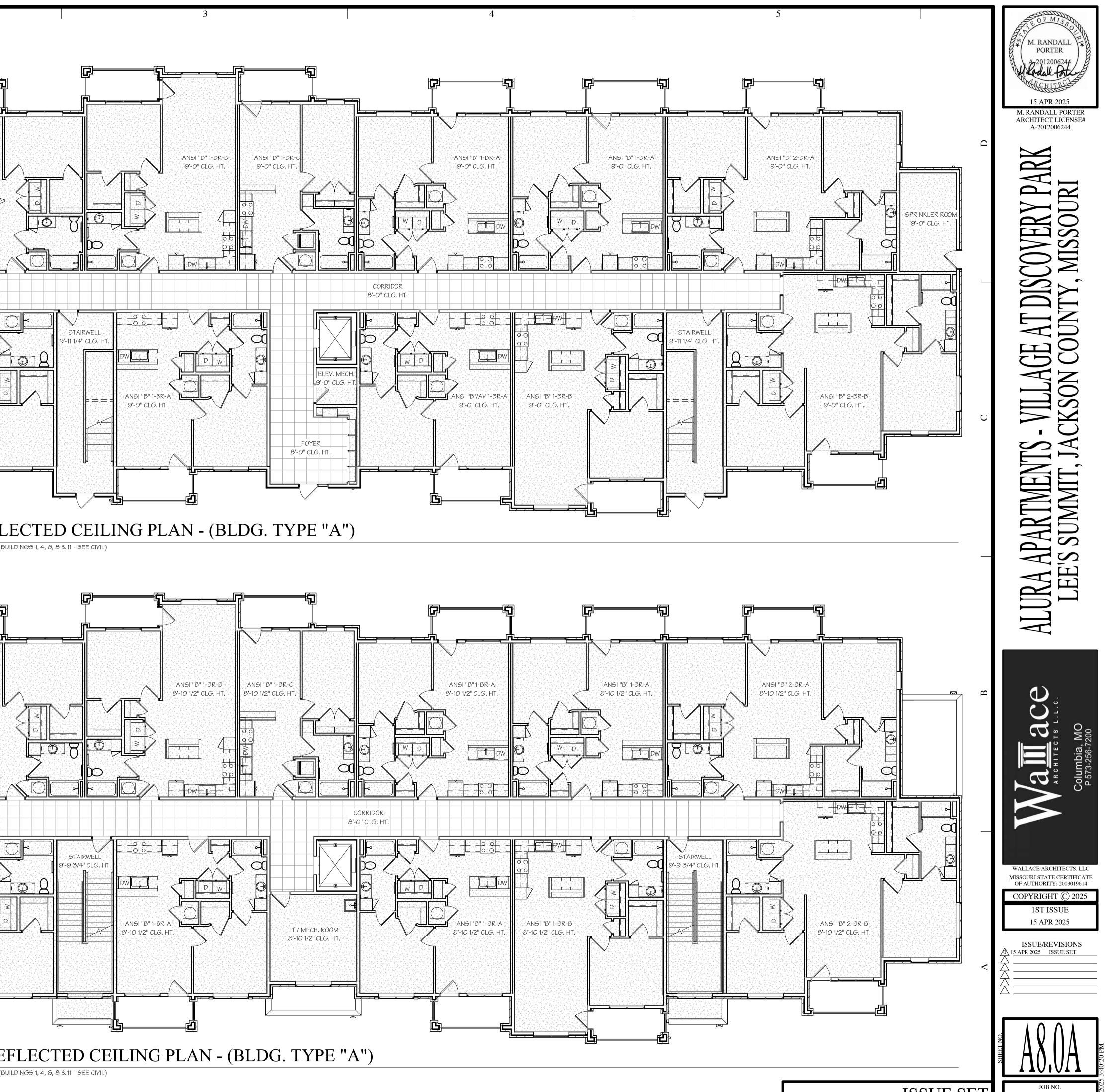
21"



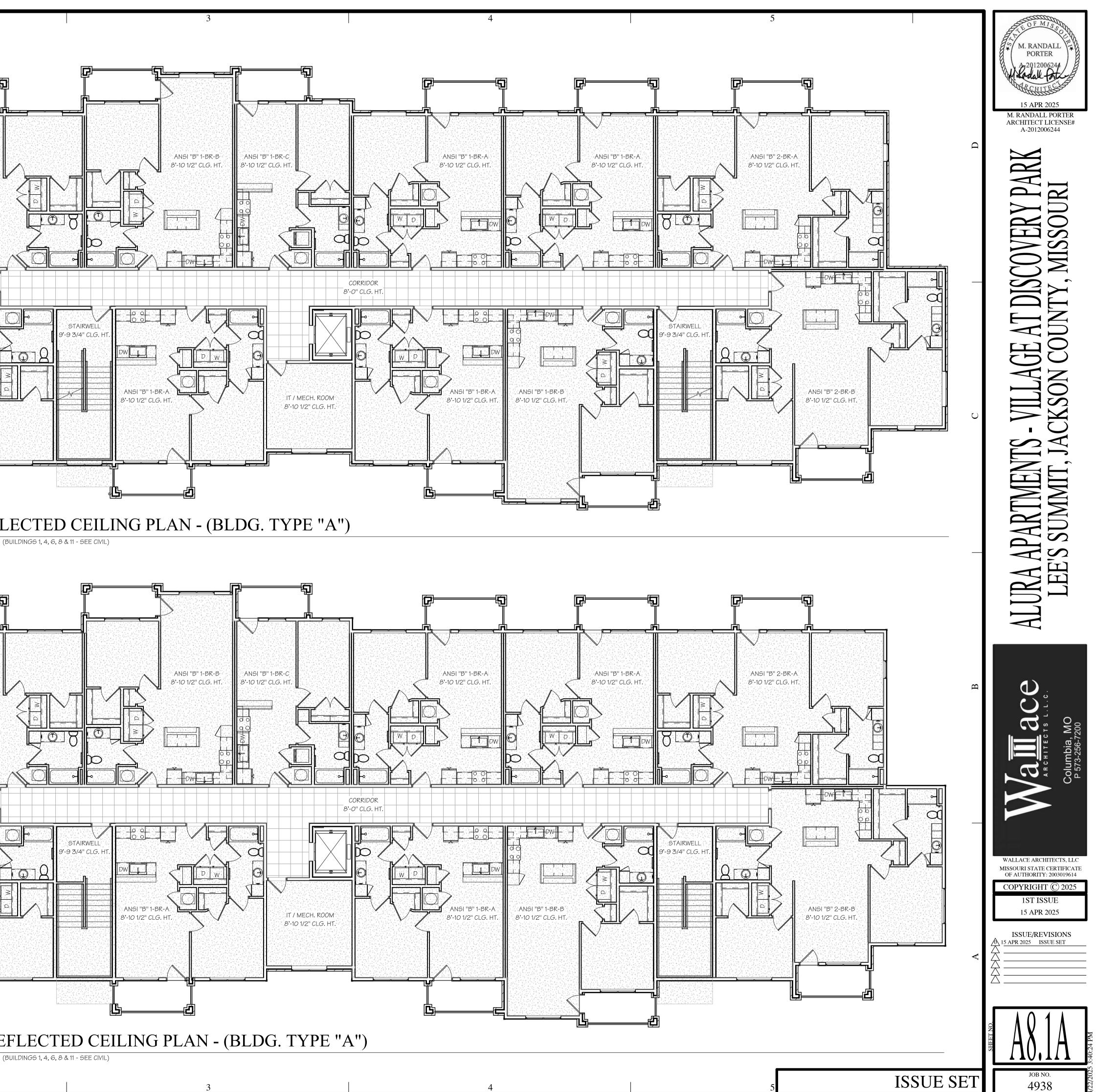


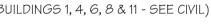
	1	2
	REFLECTED CEILING LEGEND	
	GYP. BD. AT BOTTOM OF TRUSS	
D	LAY-IN CEILING GRID	ANSI "A" 2-BR-A
	<ol> <li>PROVIDE GYP. BD. AND RESILIENT CHANNELS CONTINUOUS AT BOTTOM OF FLOOR FRAMING TO MEET FIRE ASSEMBLY REQUIREMENTS. ALL SUSPENDED &amp; FURRED CEILINGS TO BE BELOW COMPLETED FIRE RATED ASSEMBLY.</li> <li>PROVIDE FIRE RATE ENCLOSURES FOR ALL RECESSED LIGHT FIXTURES WHICH PENETRATE FIRE RATED FLOOR/CEILING AND ROOF/CEILING ASSEMBLIES. ENCLOSURE RATING TO MATCH ASSEMBLE THAT IS PENETRATED.</li> <li>SEE MEP PLANS FOR LIGHT FIXTURES AND VENTILATION GRILLES.</li> </ol>	9'-0" CLG. HT.
U		ANSI "B" 2-BR-B 9'-0" CLG. HT.
		1       FIRST FLOOR REF         AB.OA       SCALE: 1/8" = 1'-0"
В		ANGI "B" 2-BR-A 8'-10 1/2" CLG. HT.
		ANSI "B" 2-BR-B 8'-10 1/2" CLG. HT.
A		
		2 AB.OA SCALE: 1/8" = 1'-0"
	1	2

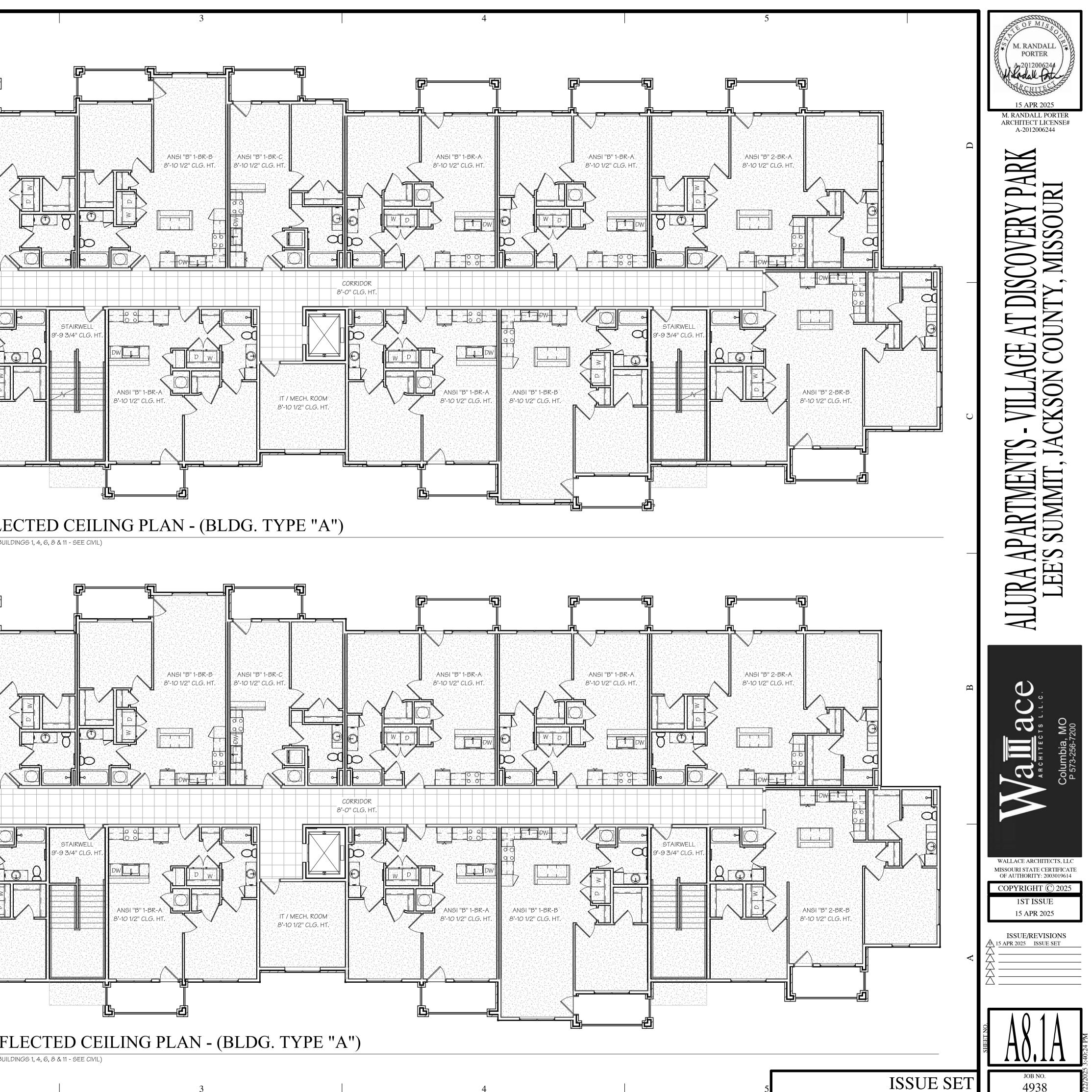




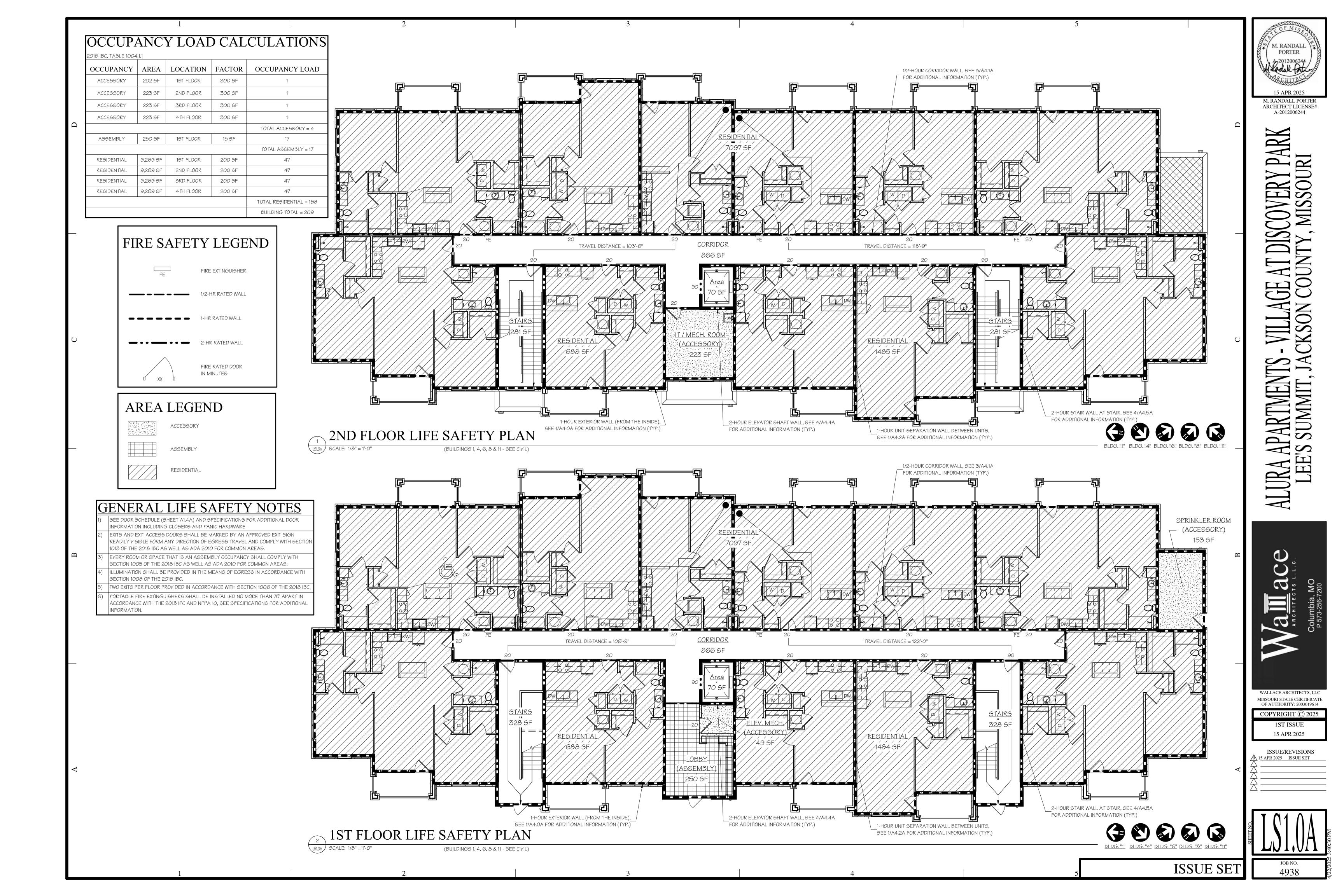
	1	2
	REFLECTED CEILING LEGEND	
	GYP. BD. AT BOTTOM OF TRUSS	
D	LAY-IN CEILING GRID	ANGI "B" 2-BR-A
	1. PROVIDE GYP. BD. AND RESILIENT CHANNELS CONTINUOUS AT BOTTOM OF FLOOR FRAMING TO MEET FIRE ASSEMBLY REQUIREMENTS. ALL SUSPENDED & FURRED CEILINGS TO BE BELOW COMPLETED FIRE RATED ASSEMBLY.	8'-10 1/2" CLG. HT.
	<ul> <li>2. PROVIDE FIRE RATE ENCLOSURES FOR ALL RECESSED LIGHT FIXTURES WHICH PENETRATE FIRE RATED FLOOR/CEILING AND ROOF/CEILING ASSEMBLIES. ENCLOSURE RATING TO MATCH ASSEMBLE THAT IS PENETRATED.</li> <li>3. SEE MEP PLANS FOR LIGHT FIXTURES AND VENTILATION GRILLES.</li> </ul>	
U		ANGI "B" 2-BR-B 8'-10 1/2" CLG. HT.
		THIRD FLOOR REF
_		A8.1A) SCALE: 1/8" = 1'-0"
~		ANSI "B" 2-BR-A. 8'-10 1/2" CLG. HT.
В		
_		
		ANGI "B" 2-BR-B 8'-10 1/2" CLG. HT.
A		
		2 FOURTH FLOOR R
	1	AB.1A) SCALE: 1/8" = 1'-0"

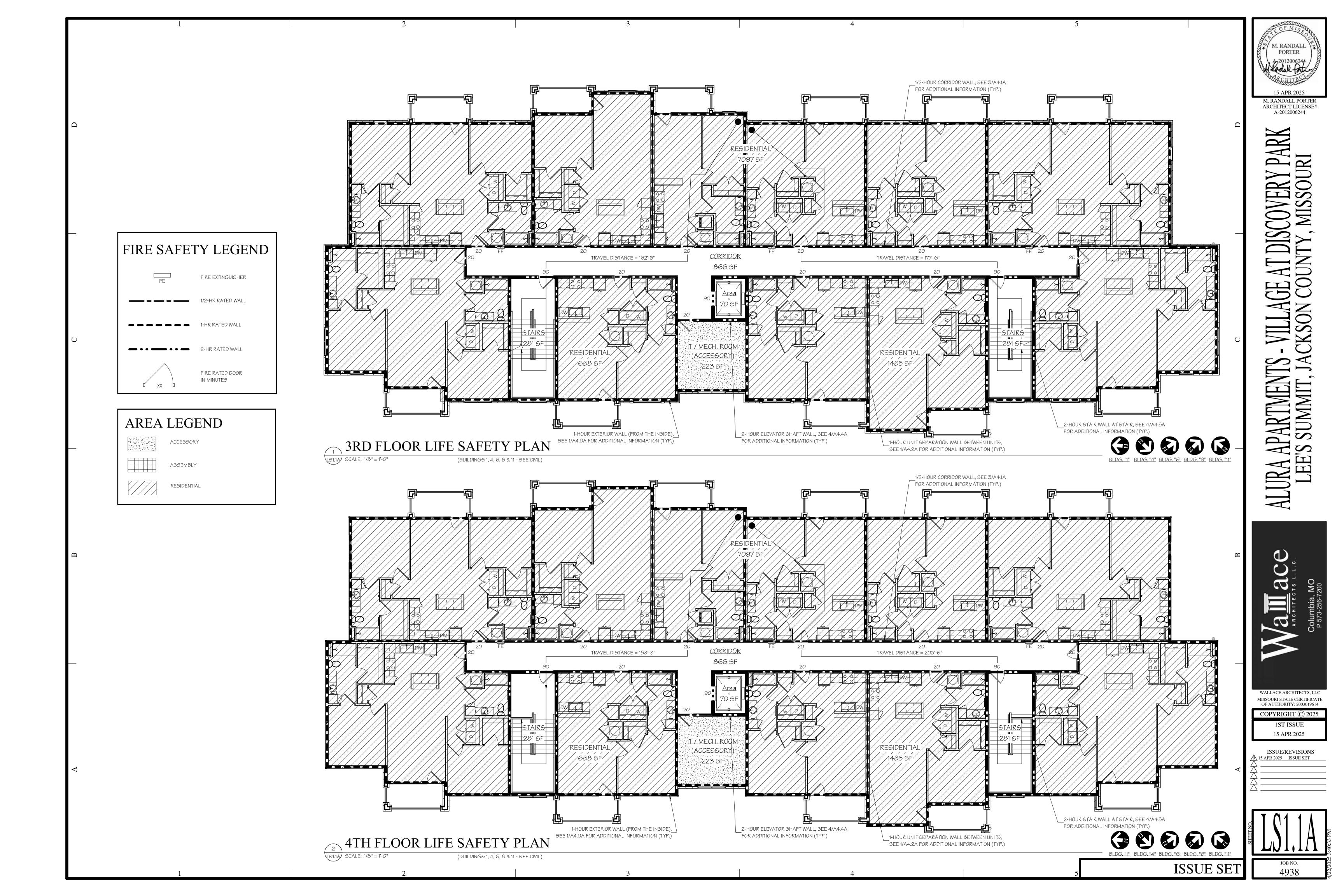






3	4	





# **MECHANICAL - ELECTRICAL - PLUMBING DESIGN DRAWINGS FOR:** The Village at Discovery Park Alura Apartments **Building 8 - Type A**

#### **GENERAL MEP SPECIFICATIONS**

#### GENERAL

- 1.1. ALL WORK SHALL BE PERFORMED IN COMPLIANCE WITH LOCALLY ADOPTED CODES AND ORDINANCES. IT IS THE RESPONSIBILITY OF CONTRACTOR TO REVIEW AND UNDERSTAND ALL DRAWINGS AND 1.2. SPECIFICATIONS IN CONTRACT DOCUMENTS. EACH CONTRACTOR IS RESPONSIBLE FOR ALL WORK ASSOCIATED WITH THEIR TRADE, REGARDLESS OF WHERE WORK IS DEPICTED IN PROJECT DRAWINGS OR SPECIFICATIONS.
- LAYOUT OF SYSTEMS SHOWN ON PLANS ARE APPROXIMATE AND SCHEMATIC IN NATURE. ALL SYSTEMS 1.3. WILL NEED TO BE FIELD-COORDINATED. CONTRACTOR SHALL INCLUDE THIS COORDINATION IN THEIR SCOPE AND INCLUDE ALL COSTS OF MODIFYING LAYOUT AS REOUIRED IN THEIR BID. PLANS ARE NOT INTENDED TO BE SHOP DRAWINGS FROM WHICH MATERIALS CAN BE ORDERED, FABRICATED, OR INSTALLED WITHOUT ADDITIONAL FIELD MEASUREMENTS AND COORDINATION.
- NOT ALL SPECIFIC PIECES AND COMPONENTS OF EACH SYSTEM ARE DETAILED OR OUTLINED ON PLANS. 1.4. CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL NECESSARY PARTS AND LABOR TO PRODUCE A COMPLETE AND FULLY OPERATIONAL SYSTEM UNLESS STATED OTHERWISE ON PLANS. CONTRACTOR IS TO PROVIDE AND INCLUDE ALL EQUIPMENT AND MATERIAL NEEDED TO COMPLETE WORK ASSOCIATED WITH THEIR BID UNLESS ANY ITEMS ARE SPECIFICALLY NOTED ON PLANS AS PROVIDED BY OTHERS. ALL MATERIALS TO BE NEW, FIRST CLASS, AND INSTALLED PER MANUFACTURER'S PUBLISHED
- INSTRUCTIONS. WHERE CONFLICTS EXIST BETWEEN MEP PLANS AND CIVIL, ARCHITECTURAL, OR STRUCTURAL PLANS, 1.5. NOTIFY MEP ENGINEER OF DISCREPANCIES FOR CLARIFICATION PRIOR TO PERFORMING ANY WORK THAT MAY CONTRADICT INFORMATION ELSEWHERE IN THE PROJECT PLANS.
- THESE PLANS ARE NOT TO BE SCALED. SEE ARCHITECTURAL PLANS FOR DIMENSIONS. WHERE THERE IS 1.6. A CONFLICT BETWEEN ARCHITECTURAL DIMENSIONS AND MEP DIMENSIONS, ARCHITECTURAL SHALL GOVERN
- 1.7. CONTRACTOR IS TO INCLUDE IN THEIR SCOPE THE COST OF ALL PERMITS, INSPECTIONS, METERING, TAPS, ETC. ASSOCIATED WITH THEIR WORK.
- CONTRACTOR IS RESPONSIBLE FOR ALL EXCAVATION, CUTTING, CORING, PATCHING, AND BACKFILL 1.8. REQUIRED TO COMPLETE THEIR WORK, UNLESS NOTED OTHERWISE ON PLANS.
- SPECIFIC EQUIPMENT MANUFACTURERS AND/OR MODEL NUMBERS LISTED ON PLANS ARE TO ESTABLISH 1.9. A BASIS-OF-DESIGN FOR QUALITY AND PERFORMANCE, VERIFY THAT SUBSTITUTIONS WILL BE ACCEPTABLE PRIOR TO PURCHASE & INSTALLATION.
- 1.10. NOTIFY ENGINEER OF ANY MAJOR PLAN DISCREPANCIES OR CONFLICTS PRIOR TO PROVIDING BIDS OR COMPLETING ANY WORK.
- SEE DISCIPLINE SHEETS FOR ADDITIONAL TRADE SPECIFIC SPECIFICATIONS. 1.11. WHERE SHUTDOWN OF ANY EXISTING UTILITY OR SERVICE TO BUILDING IS REQUIRED FOR 1.12. COMPLETION OF WORK, COORDINATE OUTAGE WITH OWNER AS TO NOT DISRUPT TYPICAL OPERATIONS.

#### 2. WORKMANSHIP

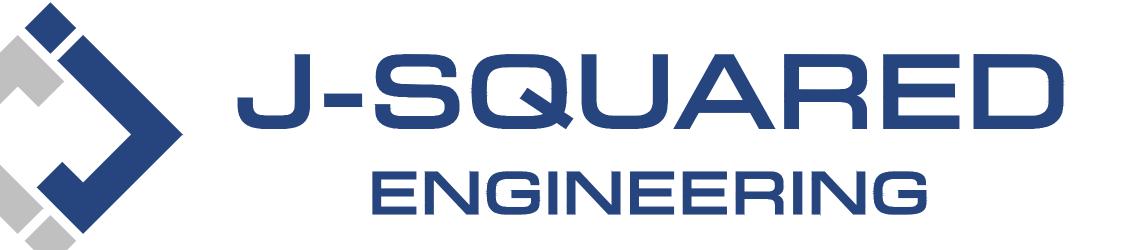
- SYSTEMS SHALL BE INSTALLED IN A FIRST-CLASS MANNER USING BEST ACCEPTABLE METHODS AND 2.1.
- PRACTICES. 2.2. ALL SYSTEMS SHALL BE INSTALLED PARALLEL OR PERPENDICULAR TO BUILDING ORIENTATION. COMPONENTS SHALL BE INSTALLED LEVEL AND PLUMB WITH ATTENTION GIVEN TO OVERALL
- AESTHETICS. 2.3. CONTRACTOR IS RESPONSIBLE FOR COORDINATING EQUIPMENT LOCATIONS AND SYSTEM ROUTING WITH OTHER TRADES PRIOR TO INSTALLATION.
- CONTRACTOR TO GUARANTEE ALL MATERIALS AND WORKMANSHIP FOR A PERIOD OF ONE YEAR FROM 2.4. THE DATE THE COMPLETED PROJECT IS RELEASED TO THE OWNER, UNLESS NOTED OTHERWISE ON PLANS.
- DURING INSTALLATION OF MATERIALS OR ACTIVITIES IN NEW WORK SCOPE, AVOID DAMAGING 2.5. EXISTING SURFACES AND EQUIPMENT TO REMAIN. ANY DAMAGE TO EXISTING SURFACES OR EQUIPMENT SHALL BE CORRECTED AT NO COST TO OWNER.

#### DEFERRED SUBMITTAL NOTES

## FIRE ALARM SYSTEM PROFESSIONAL LICENSED BY THE STATE. 1.2. PRIOR TO ROUGH-IN.

## 2. FIRE SPRINKLER SYSTEM

1.2.



# **Northeast Douglas Street** Lee's Summit, Jackson County, Missouri

1.1. FIRE ALARM CONTRACTOR SHALL PROVIDE DEFERRED SUBMITTAL PACKAGE FOR FIRE ALARM SYSTEM. SUBMITTAL SHALL INCLUDE BATTERY CALCULATIONS, VOLTAGE DROP CALCULATIONS, EQUIPMENT SPECIFICATIONS FOR DEVICES AND PANELS, ETC. DESIGN SHALL BE SEALED BY A QUALIFIED DESIGN

FIRE ALARM SYSTEM COMPONENTS SHOWN (IF APPLICABLE) ARE GENERAL AND SCHEMATIC IN NATURE, SHOWN FOR APPROXIMATE ROUGH-IN LOCATIONS AND OUANTITIES ONLY. CONTRACTOR TO VERIFY EXACT DEVICE LOCATIONS AND REQUIREMENTS WITH FIRE ALARM SYSTEM DESIGNER OF RECORD

1.1. FIRE SPRINKLER CONTRACTOR TO PROVIDE DEFERRED SUBMITTAL PACKAGE FOR FIRE SPRINKLER SYSTEM. SUBMITTAL SHALL INCLUDE HYDRAULIC CALCULATIONS AND SPRINKLER SYSTEM DRAWINGS SEALED BY A QUALIFIED DESIGN PROFESSIONAL LICENSED BY THE STATE. WHERE COMBINED FIRE & DOMESTIC WATER SUPPLY LINES ARE SHOWN ON PLANS, INSTALLING CONTRACTOR SHALL VERIFY WITH FIRE SPRINKLER CONTRACTOR THAT INCOMING LINE SIZE IS

ADEQUATE FOR FIRE SUPPRESSION SYSTEM.

## **REFERENCED CODES IN EFFECT**

PROJECT HAS BEEN DESIGNED IN COMPLIANCE WITH THE FOLLOWING CODES LISTED BELOW, BUT THIS IS NOT AN EXHAUSTIVE LIST. PROJECT SHALL COMPLY WITH ALL APPLICABLE CODES, STANDARDS, AND LOCAL REQUIREMENTS.

- 2018 INTERNATIONAL MECHANICAL CODE
- 2018 INTERNATIONAL PLUMBING CODE
- 2018 INTERNATIONAL FUEL GAS CODE 2018 INTERNATIONAL FIRE CODE
- 2017 NATIONAL ELECTRIC CODE

## FIRE RATED PENETRATION NOTES

- THIS BUILDING CONTAINS FIRE RATED ASSEMBLIES. SEE ARCHITECTURAL PLANS FOR LOCATIONS AND DETAILS. A UL-LISTED FIRESTOP SYSTEM SHALL BE INSTALLED AT EACH PENETRATION OF A HORIZONTAL OR VERTICAL
- RATED ASSEMBLY IN ACCORDANCE WITH ASTM E814 OR UL 1479. EACH CONTRACTOR IS RESPONSIBLE FOR PROVIDING PROTECTION FOR THEIR PENETRATIONS THRU RATED
- ASSEMBLIES. GENERAL CONTRACTOR IS RESPONSIBLE FOR PROVIDING AND MAINTAINING A CATALOG OF ALL UL LISTED FIRESTOP ASSEMBLIES, AND KEEPING A PHYSICAL COPY OF DETAILS FOR EACH USED FIRESTOP ASSEMBLY ON SITE FOR REFERENCE.

SHEET I IST TARLI

SHEET LIST	TABLE
SHEET #	SHEET TITLE
MEP1	MECHANICAL ELECTRICAL PLUMBING COVER SHEET
MEP2	SITE UTILITIES PLAN
MEP3	SITE LIGHTING PLAN
M101	HVAC PLAN - FIRST & SECOND FLOORS
M102	HVAC PLAN - THIRD & FOURTH FLOORS
M501	HVAC DETAILS & SCHEDULES
EP101	POWER PLAN - FIRST & SECOND FLOORS
EP102	POWER PLAN - THIRD & FOURTH FLOORS
EL101	LIGHTING PLAN - FIRST & SECOND FLOORS
EL102	LIGHTING PLAN - THIRD & FOURTH FLOORS
E501	ELECTRICAL DETAILS
E601	ELECTRICAL SCHEDULES
FP101	FIRE PROTECTION PLAN - FIRST & SECOND FLOORS
FP102	FIRE PROTECTION PLAN - THIRD & FOURTH FLOORS
PS101	SANITARY SEWER PLAN - FIRST & SECOND FLOORS
PS102	SANITARY SEWER PLAN - THIRD & FOURTH FLOORS
PW101	WATER PLAN - FIRST & SECOND FLOORS
PW102	WATER PLAN - THIRD & FOURTH FLOORS
P501	PLUMBING DETAILS & SCHEDULES
UMEP1.2	ANSI-B - 1 BR - TYPE A - UNIT MEP PLAN
UMEP1.4	ANSI B - 1 BR - TYPE B - UNIT MEP PLAN
UMEP1.5	ANSI B - 1 BR - TYPE C - UNIT MEP PLAN
UMEP2.1.1	ANSI A - 2 BR - TYPE A - UNIT HVAC & WATER PLAN
UMEP2.1.2	ANSI A - 2 BR - TYPE A - UNIT POWER & LIGHTING PLAN
UMEP2.2.1	ANSI B - AV - 2BR - TYPE A - HVAC & WATER PLAN
UMEP2.2.2	ANSI B - AV - 2BR - TYPE A - POWER & LIGHTING PLAN
UMEP2.3.1	ANSI B - 2 BR - TYPE A - UNIT HVAC & WATER PLAN
UMEP2.3.2	ASNI B - 2 BR - TYPE A - UNIT POWER & LIGHTING PLAN
UMEP2.4.1	ANSI B - 2 BR - TYPE B - UNIT HVAC & WATER PLAN
UMEP2.4.2	ANSI B - 2 BR - TYPE B - UNIT POWER & LIGHTING PLAN

## James Watson, P.E. PE-2015017071 MO Certificate of Authority # 201802968 J-SQUARED ENGINEERING 2400 Bluff Creek Drive, Suite Columbia, Missouri 65201 573.234.4492 vww.i-squaredeng.c j2 project n J2 DESIGN: ACW ISSUE TITLE DATE PERMIT SET 04 - 15 - 2025 Apartments FOR Ĺ S A Y

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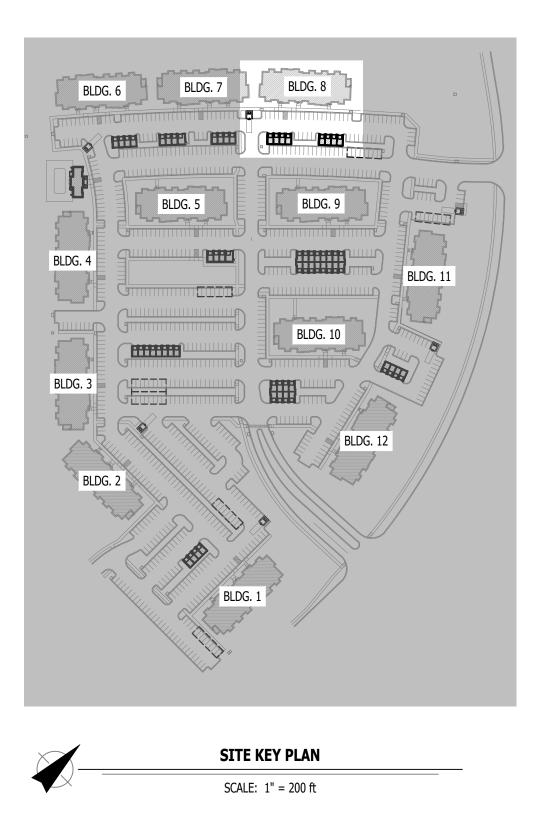
AHJ APPROVAL STAMP

SHEET TITLE

MECHANICAL ELECTRICAL PLUMBING COVER SHEET

SHEET NUMBER





## SITE UTILITIES PLAN SYMBOL LEGEND

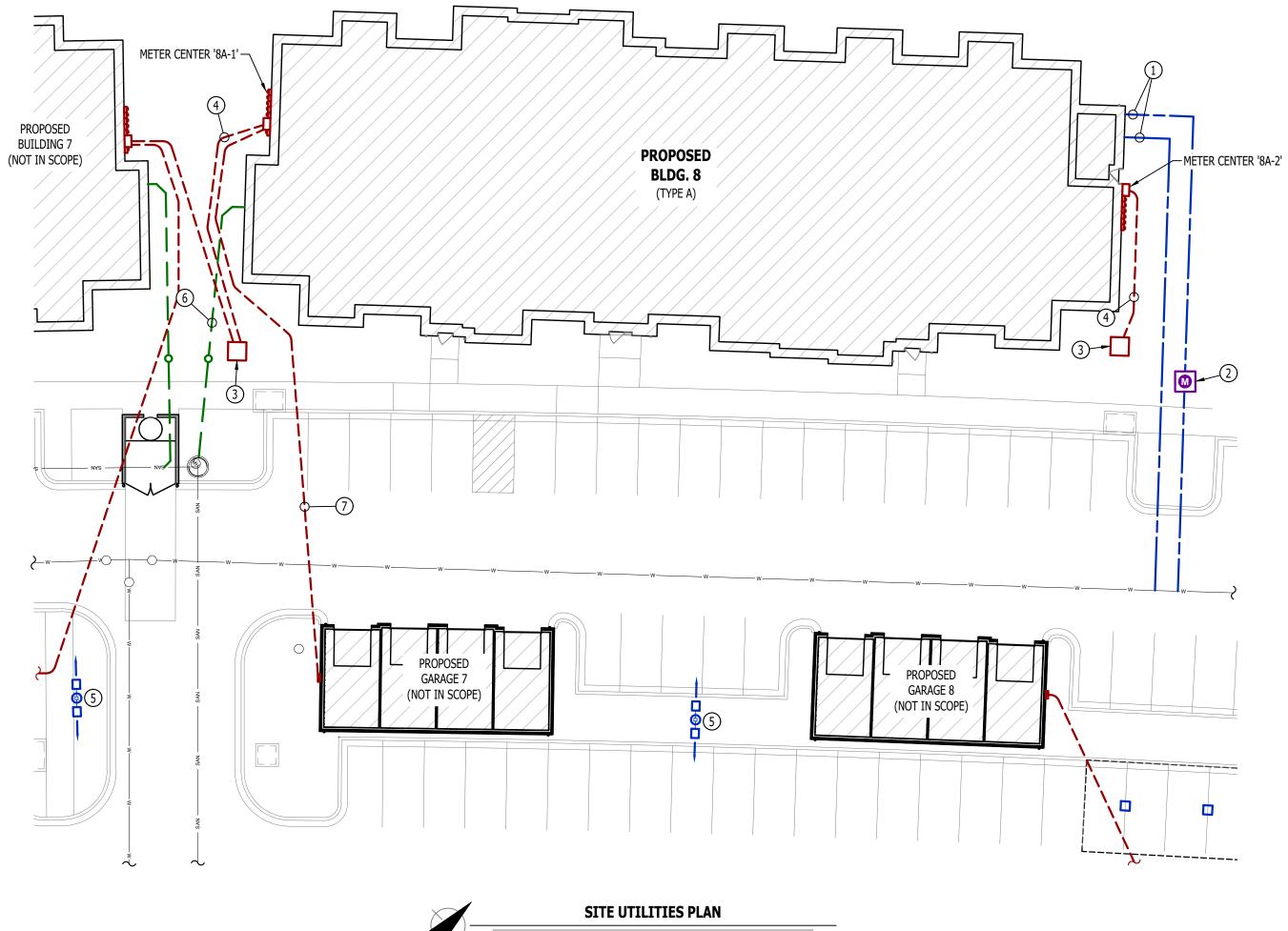
	SANITARY SEWER PIPING
	COLD WATER LINE
M	WATER METER
M	VALVE
	GAS LINE
G	GAS METER
$\left( \right)$	TIE INTO EXISTING
	ELECTRIC

## SITE UTILITIES PLAN GENERAL NOTES:

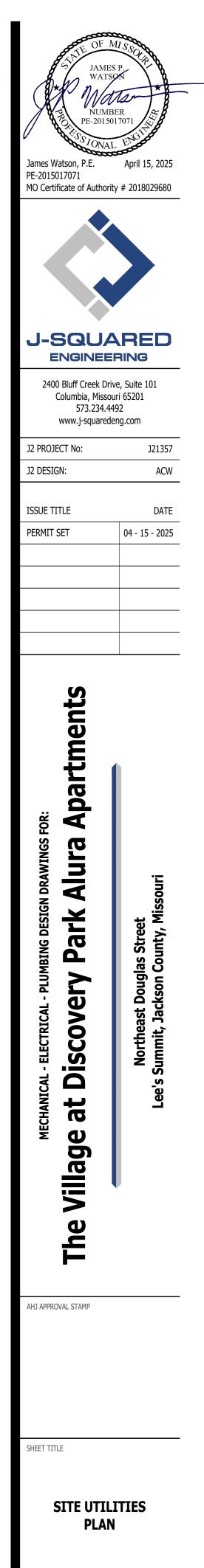
REFER TO CIVIL PLANS FOR EXACT UTILITY LOCATIONS, CONNECTIONS, DETAILS, ETC.
 COORDINATE EXACT LOCATIONS OF ALL ELECTRICAL CONDUITS & EQUIPMENT WITH EVERGY.

#### SITE UTILITIES PLAN KEY NOTES:

- 1 6" UN-METERED SPRINKLER LINE & 3" CW DOMESTIC LINE TO RISER ROOM (SEE PLUMBING PLANS FOR CONTINUATION).
- (2) (2) PARALLEL 2" CW LINES TO (2) PARALLEL 2" DOMESTIC METERS IN VAULT (SEE PLUMBING PLANS FOR DETAILS). (2) 2" CW LINES COMBIND DOWNSTREAM OF METERS TO (1) 3" CW LINE TO BUILDING.
- (3) PROPOSED PAD-MOUNTED TRANSFORMER (SEE POWER RISER FOR DETAILS).
- $\overbrace{4}^{\smile}$  underground secondary conduit/conductors (see power riser for details).
- $\overbrace{5}^{\smile}$  Pole Light (see site lighting plans for details).
- 6 6" SAN (SEE PLUMBING PLANS FOR DETAILS).
- (7) UNDERGROUND CONDUIT/CONDUCTORS FROM APARTMENT METER CENTER TO GARAGE (SEE GARAGE PLANS & POWER RISERS FOR DETAILS).

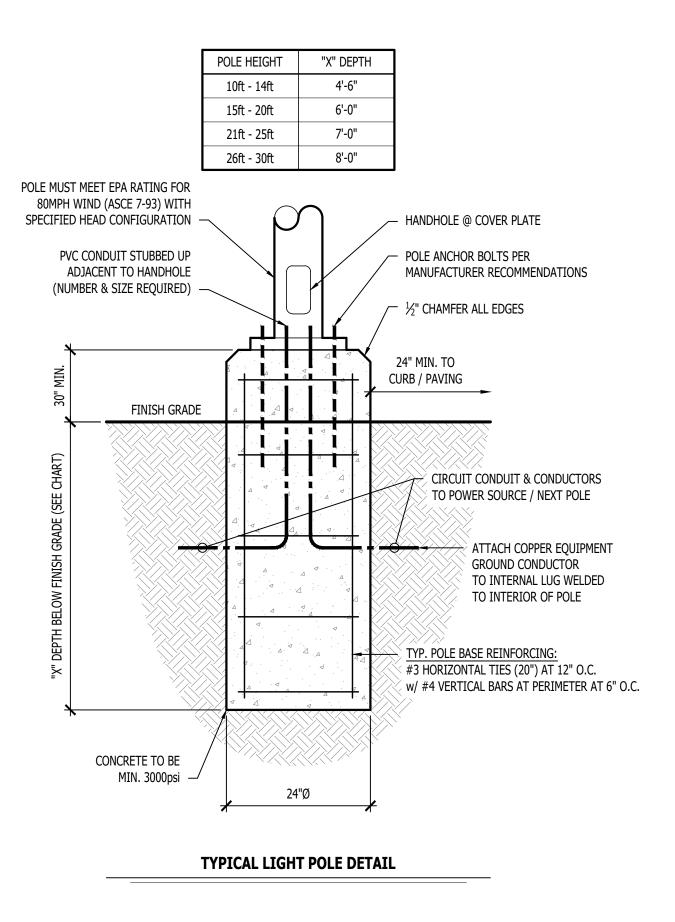


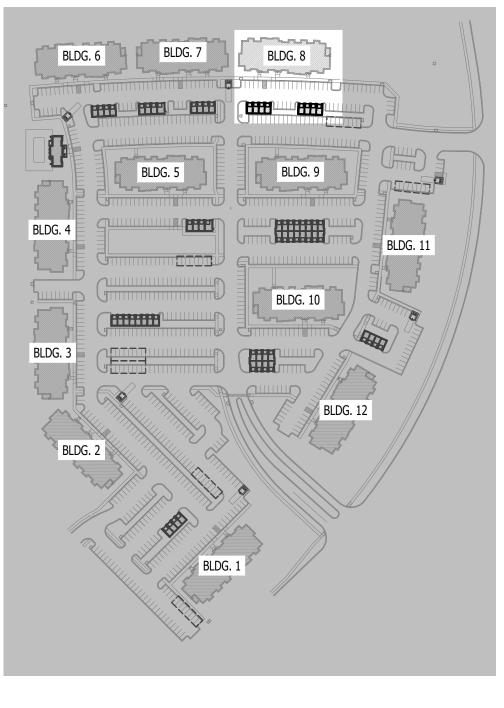
SCALE: 1" = 20 ft



SHEET NUMBER

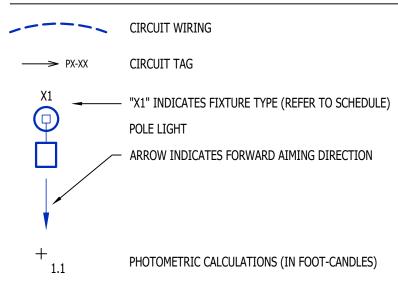






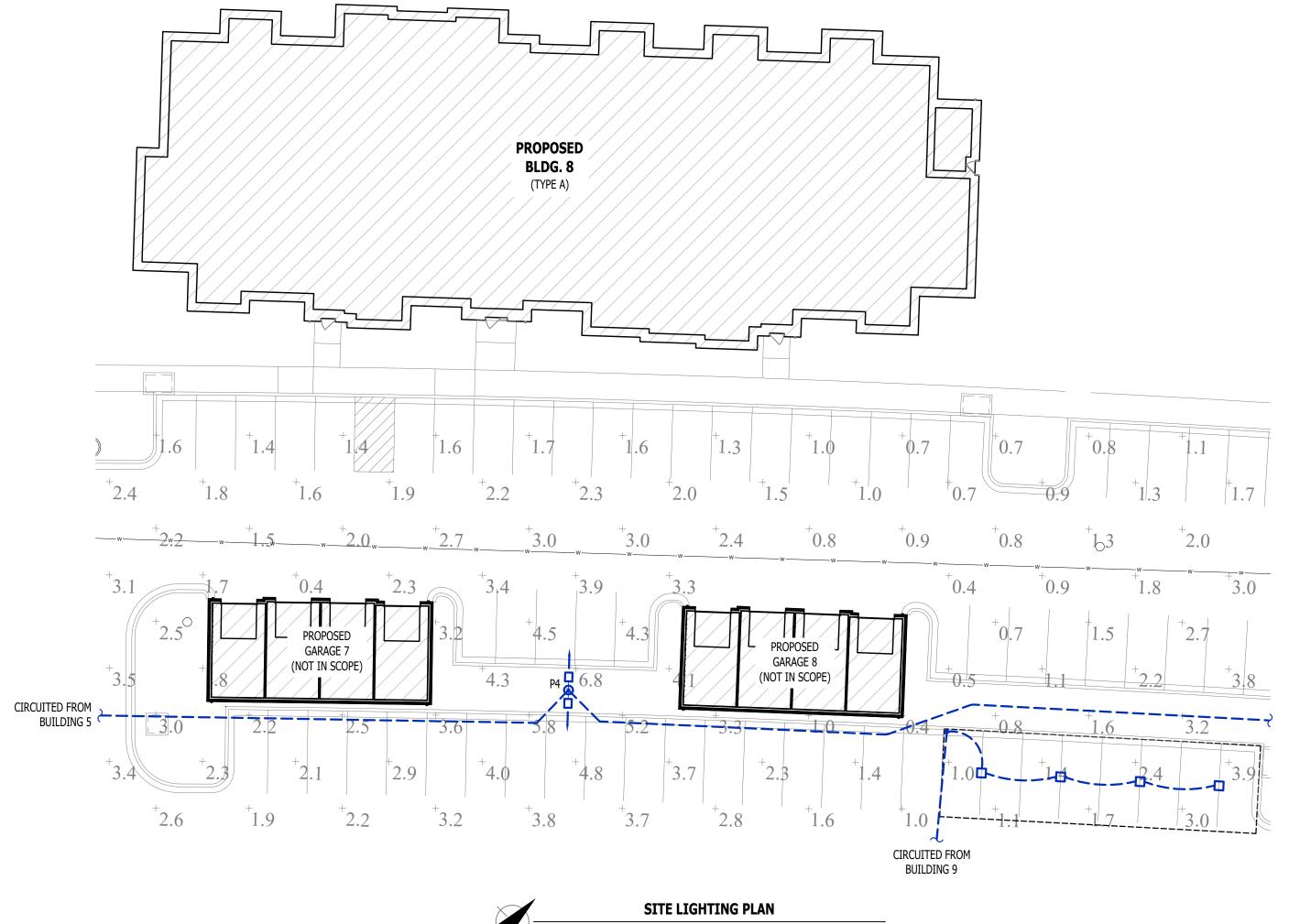
SITE KEY PLAN SCALE: 1" = 200 ft

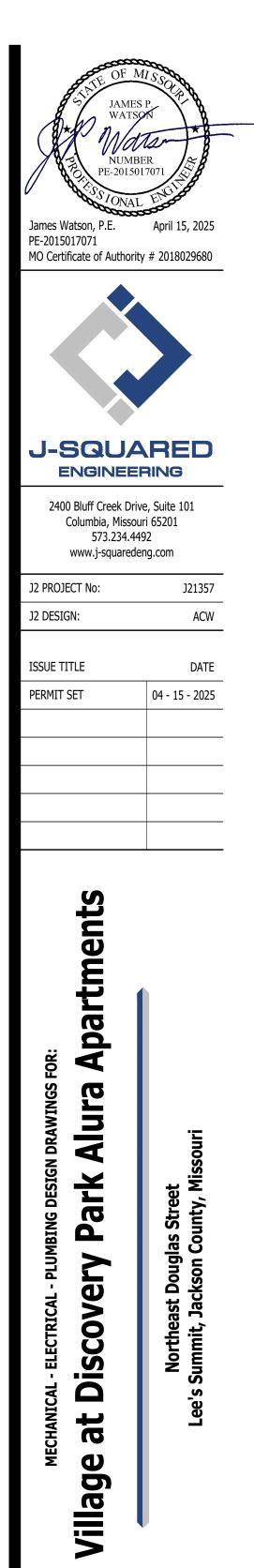
#### SITE LIGHTING PLAN SYMBOL LEGEND



#### SITE LIGHTING PLAN GENERAL NOTES:

- 1. SITE PHOTOMETRIC VALUES SHOWN HAVE BEEN CALCULATED PER SPECIFIED LIGHT FIXTURES AT INDICATED MOUNTING HEIGHTS. ANY CHANGES OR ALTERATIONS TO LIGHTING LAYOUT SHOWN WILL REQUIRE RECALCULATING SITE PHOTOMETRICS AND WILL THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR / EQUIPMENT SUPPLIER.
- 2. PHOTOMETRIC CALCULATIONS SHOWN DO NOT INCLUDE EXISTING LIGHT FIXTURE(S), ONLY NEW POLE LIGHT FIXTURE(S) SHOWN. CALCULATIONS ALSO INCLUDE NEW POLE LIGHT FIXTURES ON ADJACENT LOTS AS PART OF THIS DEVELOPMENT. REFER TO ADJACENT BUILDING SITE LIGHTING AND MASTER SITE LIGHTING PLANS FOR DETAILS & CALCULATIONS SUMMARIES.
- 3. PHOTOMETRIC CALCULATIONS DO NOT INCLUDE CARPORT LIGHTING.





AHJ APPROVAL STAMP

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SHEET TITLE

SITE LIGHTING PLAN

SHEET NUMBER



HVAC PLAN SYMBOL LEGEND X ----- EQUIPMENT TYPE (REFER TO EQUIPMENT SCHEDULE) - EQUIPMENT REFERENCE NUMBER T DIFFUSER/GRILLE TYPE (REFER TO SCHEDULE) ¥) ----- CUBIC FEET PER MINUTE (CFM) / FACE SIZE SUPPLY DUCTWORK RETURN DUCTWORK

EXHAUST DUCTWORK

CONDENSATION LINE

TIE INTO EXISTING

RETURN DIFFUSER

BALANCE DAMPER

MOTORIZED DAMPER

FIRE RATED DAMPER

SMOKE DAMPER

THERMOSTAT

CEILING RADIATION DAMPER

SUPPLY DIFFUSER (HATCH INDICATES "NO FLOW ZONE")

OUTSIDE AIR DUCTWORK

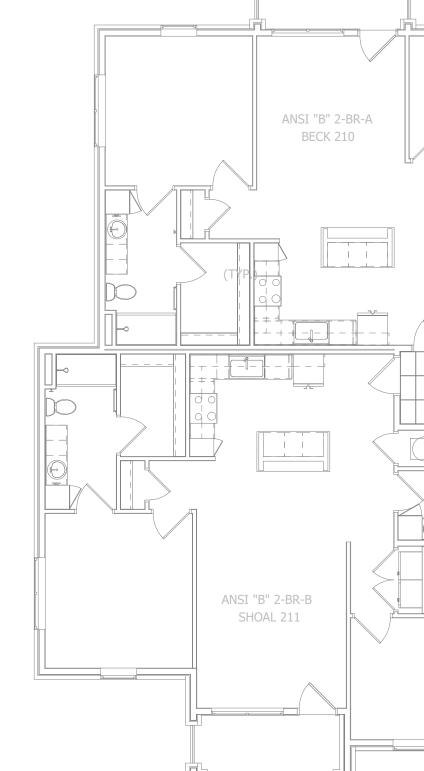
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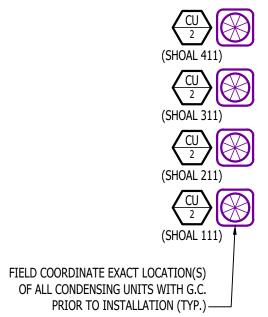
## HVAC PLAN GENERAL NOTES:

1. REFER TO M500 AND/OR M600 SERIES SHEETS FOR ADDITIONAL HVAC NOTES, DETAILS,

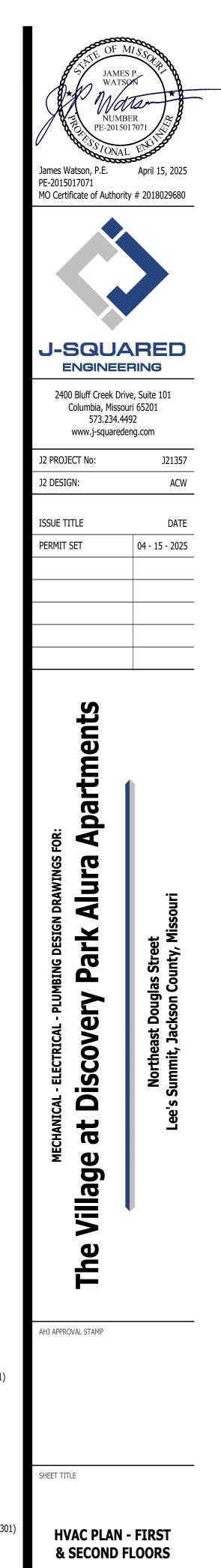
- REQUIREMENTS, AND SCHEDULES. 2. HVAC CONTRACTOR SHALL REVIEW ALL PROJECT DOCUMENTS AND COORDINATE LOCATION OF ALL EQUIPMENT, DUCTWORK, REFRIGERANT PIPING, CONDENSATE PIPING, HANGERS / SUPPORTS, ETC. WITH PLUMBING AND ELECTRICAL TRADES BEFORE INSTALLATION OF ANY MATERIAL. ADDITIONAL COSTS ASSOCIATED WITH LACK OF COORDINATION WILL NOT BE REIMBURSED.
- 3. ALL REFRIGERANT PIPING SHALL ROUTE WITHIN WALL CAVITIES AND ABOVE FINISHED CEILINGS TO REMAIN CONCEALED WHERE POSSIBLE. INSTALL PER MANUFACTURER'S SPECIFICATIONS.

#### HVAC PLAN KEY NOTES:

- (1) CONDENSATE DRAIN TO INDIRECT DISCHARGE TO FLOOR DRAIN WITHIN ROOM.
- (2) WALL HEATER PROVIDED & INSTALLED BY ELECTRICIAN.
- (3) MAINTAIN 10' MINIMUM SEPARATION BETWEEN ALL MECHANICAL FRESH AIR INTAKES AND EXHAUST LOUVERS (TYP.).







SHEET NUMBER

M101

HVAC PLAN SYMBOL LEGEND

	EQUIPMENT TYPE (REFER TO EQUIPMENT SCHEDULE) EQUIPMENT REFERENCE NUMBER DIFFUSER/GRILLE TYPE (REFER TO SCHEDULE) CUBIC FEET PER MINUTE (CFM) / FACE SIZE					
	SUPPLY DUCTWORK					
	RETURN DUCTWORK					
	EXHAUST DUCTWORK					
	OUTSIDE AIR DUCTWORK					
~~~~~	FLEX DUCT					
	CONDENSATION LINE					
$\left( \star \right)$	TIE INTO EXISTING					
	SUPPLY DIFFUSER (HATCH INDICATES "NO FLOW ZONE")					
$\square$	RETURN DIFFUSER					
<b></b>	BALANCE DAMPER					
Σ	MOTORIZED DAMPER					
ပ <u> </u>	CEILING RADIATION DAMPER					
□	FIRE RATED DAMPER					
<u></u>	SMOKE DAMPER					
	THERMOSTAT					



#### HVAC PLAN GENERAL NOTES:

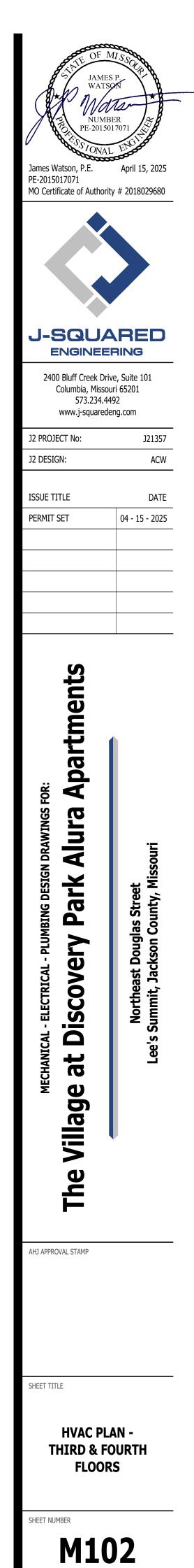
1. REFER TO M500 AND/OR M600 SERIES SHEETS FOR ADDITIONAL HVAC NOTES, DETAILS,

REQUIREMENTS, AND SCHEDULES. 2. HVAC CONTRACTOR SHALL REVIEW ALL PROJECT DOCUMENTS AND COORDINATE LOCATION OF ALL EQUIPMENT, DUCTWORK, REFRIGERANT PIPING, CONDENSATE PIPING, HANGERS / SUPPORTS, ETC. WITH PLUMBING AND ELECTRICAL TRADES BEFORE INSTALLATION OF ANY MATERIAL. ADDITIONAL COSTS ASSOCIATED WITH LACK OF COORDINATION WILL NOT BE REIMBURSED.

#### HVAC PLAN KEY NOTES:

- (1) CONDENSATE DRAIN TO INDIRECT DISCHARGE TO FLOOR DRAIN WITHIN ROOM.
- (2) MAINTAIN 10' MINIMUM SEPARATION BETWEEN ALL MECHANICAL FRESH AIR INTAKES AND EXHAUST LOUVERS (TYP.).
- (3) WALL HEATER PROVIDED & INSTALLED BY ELECTRICIAN.





#### HVAC SPECIFICATIONS

- 1. GENERAL
- 1.1. REFER TO GENERAL MEP SPECIFICATIONS SECTION FOR ADDITIONAL REQUIREMENTS.

## 2. WORKMANSHIP

- 2.1. COORDINATE WITH ALL OTHER TRADES SO THAT HVAC EQUIPMENT AND DUCT WORK DOES NOT BLOCK REQUIRED ACCESS OR CLEARANCE TO ANY EQUIPMENT, ACCESS PANELS, ELECTRICAL JUNCTION BOXES, ELECTRICAL PANELS, ETC.
- ALL HVAC EQUIPMENT IS TO BE INSTALLED PER MANUFACTURER'S PUBLISHED RECOMMENDATIONS 2.2.
- AND/OR INSTALLATION INSTRUCTIONS.
- ALL EQUIPMENT TO BE INSTALLED LEVEL AND PLUMB, PARALLEL OR PERPENDICULAR TO BUILDING 2.3. ORIENTATION WHERE POSSIBLE.
- ROOFTOP MOUNTED RTU'S & EXHAUST FANS SHALL BE INSTALLED ON CURBS PER MANUFACTURER'S 2.4. INSTRUCTIONS. CURB HEIGHT SHALL PROVIDE A MINIMUM OF 12" BETWEEN EQUIPMENT AND TOP OF ROOF IN ALL LOCATIONS.
- 2.5. GRADE MOUNTED RTUS, CONDENSING UNITS, AND HEAT PUMPS TO BE INSTALLED ON 4" REINFORCED CONCRETE PAD EXTENDING 4" BEYOND EACH EDGE OF THE EQUIPMENT, OR A MANUFACTURER APPROVED PRE-MANUFACTURED BASE.
- 2.6. APPROPRIATE ATTENTION SHALL BE GIVEN TO INDOOR AIR QUALITY THROUGHOUT CONSTRUCTION; PROTECT INSIDE OF NEW DUCTWORK & AIR-HANDLING EQUIPMENT FROM DUST, DIRT, DEBRIS, PAINT, MOISTURE, ETC. INSULATION SHALL BE REPLACED IF EXPOSED TO MOISTURE. AN INDEPENDENT, PROFESSIONAL DUCT CLEANING COMPANY SHALL CLEAN ALL NEW DUCTWORK IF EQUIPMENT WAS USED DURING CONSTRUCTION, AND EQUIPMENT/COILS SHALL ALSO BE THOROUGHLY CLEANED.
- 2.7. FIELD COORDINATE LOCATIONS OF ALL DIFFUSERS, GRILLES, REGISTERS, ETC. WITH LIGHT FIXTURE LOCATIONS AND ADJUST AS NECESSARY.

#### 3. EQUIPMENT

- 3.1. ALL EQUIPMENT SHOWN ON MECHANICAL PLANS SHALL BE PROVIDED & INSTALLED BY MECHANICAL CONTRACTOR UNLESS NOTED OTHERWISE.
- 3.2. ALL EQUIPMENT MUST PROVIDE PERFORMANCE AS SPECIFIED ON PLANS. WHERE SPECIFIC MANUFACTURERS AND/OR MODELS ARE INDICATED ON PLANS, CONTRACTOR TO PROVIDE MODEL INDICATED OR APPROVED EQUAL. VERIFY SUBSTITUTION APPROVAL PRIOR TO PURCHASE OR
- INSTALLATION OF EOUIPMENT. CONTRACTOR TO SUPPLY SUBMITTALS FOR ALL EQUIPMENT FOR REVIEW BY ARCHITECT AND ENGINEER. 3.3. FORMAL APPROVAL SHALL BE RECEIVED BY CONTRACTOR PRIOR TO EQUIPMENT PURCHASE.
- CONTRACTOR TO SHARE APPROVED EQUIPMENT SUBMITTALS WITH ANY PERTINENT ELECTRICAL OR 3.4. PLUMBING REQUIREMENTS WITH RESPECTIVE CONTRACTORS WITHIN TWO WEEKS OF RECEIVING APPROVED SUBMITTALS FROM ARCHITECT/ENGINEER.
- 3.5. ALL EQUIPMENT SHOWN ON PLANS SHALL BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS WITH ADEQUATE ACCESS AND CLEARANCE FOR SERVICING OR REPLACEMENT.
- ALL HORIZONTAL FURNACES WITH AC COILS SHALL BE EQUIPPED WITH CORROSION RESISTANT DRAIN 3.6. PAIN. DRAIN PAN TO DISCHARGE TO SANITARY WASTE VIA INDIRECT CONNECTION WITH AIR GAP. DRAIN PAN TO PROVIDE SECONDARY OVERFLOW OR FLOAT SWITCH INTERLOCKED WITH UNIT TO SHUT DOWN UNIT ON HIGH WATER SIGNAL.
- 3.7. ALL EXTERIOR REFRIGERANT COILS TO BE PROTECTED BY FACTORY EQUIPPED HAIL GUARDS. 3.8. REFRIGERANT PIPING TO BE ACR COPPER OR TYPE L COPPER.
- 3.9. ALL AIR HANDLING EQUIPMENT SHALL BE EQUIPPED WITH MERV-8 FILTRATION AT RETURN OPENING UNLESS OTHERWISE NOTED.
- ALL AIR FILTERS SHALL BE SIZED FOR A MAXIMUM FACE VELOCITY OF 500FPM. 3.10.
- PROVIDE & INSTALL ALL EQUIPMENT FLUES/VENTS PER MANUFACTURER'S SPECIFICATIONS. 3.11. TERMINATIONS SHALL BE AT LEAST 10' FROM ANY FRESH AIR INTAKE.
- 3.12. PROVIDE NEW AIR FILTERS IN ALL EQUIPMENT PRIOR TO TESTING & BALANCING AND BEFORE TURNING
- OVER SYSTEM(S) TO OWNERSHIP. 3.13. IF ANY EXISTING EQUIPMENT IS TO BE REUSED, CLEAN AND INSPECT EQUIPMENT PRIOR TO BEGINNING WORK. VERIFY THAT EQUIPMENT IS IN GOOD WORKING CONDITION, REPORT ANY DEFICIENCIES TO

## 4. DUCTWORK

- 4.1. DUCTWORK TO BE GALVANIZED STEEL, SEAL CLASS B, CONSTRUCTED PER SMACNA STANDARDS.
- 4.2. DUCTWORK THICKNESS: 4.2.1. 26 GA. MINIMUM UP TO 16" DUCT
- 4.2.2. 24 GA. UP TO 20"
- 4.2.3. 22 GA. UP TO 24"

ENGINEER.

- 4.2.4. 20 GA. UP TO 28"
- 4.2.5. 18 GA. UP TO 36"
- 4.3. TURNING VANES SHALL BE PROVIDED AND INSTALLED AT ALL 90° BENDS AND TEES. 4.4. ALL DUCT DIMENSIONS LISTED ARE TO INTERIOR OF DUCT LINER UNLESS NOTED OTHERWISE ON PLANS.
- BALANCE DAMPERS MUST BE PROVIDED TO ALLOW ADJUSTMENT AT EACH AIR TERMINAL. 4.5. WHERE BRANCH TAKEOFF IS ACCESSIBLE (ABOVE LAY-IN CEILING OR EXPOSED DUCT), BALANCE 4.5.1.
- DAMPER IS TO BE INSTALLED AT TAKEOFF. 4.5.2. WHERE TAKEOFF IS INACCESSIBLE (IN ATTIC OR SOFFIT), BALANCE DAMPER IS TO BE LOCATED
- SUCH THAT IT IS ACCESSIBLE FROM FACE OF AIR DEVICE. HVAC CONTRACTOR RESPONSIBLE FOR ALL DUCTWORK TRANSITIONS AND FITTINGS AS REQUIRED FOR 4.6. FINAL CONNECTIONS TO HVAC EQUIPMENT.
- 4.7. UNLESS NOTED OTHERWISE ON PLANS, FLEXIBLE DUCT CONNECTIONS MAY USED FROM BRANCH DUCTS TO FINAL AIR DEVICES, BUT SHALL NOT EXCEED 8'-0" IN LENGTH. FLEXIBLE DUCT CONNECTORS MUST BE SUPPORTED PER PLAN DETAILS.

#### 5. INSULATION

- 5.1. DUCTWORK 5.1.1. SEE "TYPICAL DUCT INSULATION DIAGRAM" FOR INSTALLATION SPECIFIC REQUIREMENTS.
- 5.1.2. INTERNAL DUCT LINER TO BE EQUAL TO 'JOHNS MANVILLE LINACOUSTIC R-300'.
- 5.1.3. EXTERNAL DUCT WRAP TO INCLUDE VAPOR BARRIER. EQUAL TO 'JOHNS MANVILLE MICROLITE' WITH FSK JACKET.
- WHERE INSULATION IS REQUIRED IN "TYPICAL DUCT INSULATION DIAGRAM", INCLUDE 5.1.4. INSULATION ON ALL FITTINGS, INCLUDING CANVAS FLEX CONNECTION FITTINGS. 5.2. REFRIGERANT PIPING

SPLIT SYSTEM (SUCTION LINE ONLY) - 1" CLOSED CELL ELASTOMERIC FOAM (EQUAL TO 5.2.1. 'ARMAFLEX AP').

5.3. VRV/VRF SYSTEMS (BOTH SUCTION AND HOT GAS LINES) 1 ½" EPDM (EQUAL TO 'AEROFLEX AEROCEL AC') WITHIN CONDITIONED SPACES & 2" EDPM (EQUAL TO 'AEROFLEX AEROCEL AC') IN UNCONDITIONED SPACES, AND WITH BANDED ALUMINUM SHIELDING IN EXTERIOR SPACES. 5.4. CONDENSATE PIPING

- 5.4.1.
- SPLIT SYSTEMS WHERE CONDENSATE PIPING IS LOCATED IN UNCONDITIONED SPACE, INSULATE WITH  $\frac{1}{2}$ " ELASTOMERIC. NO INSULATION REQUIRED WITHIN CONDITIONED SPACES. VRV/VRF - INSULATE WITH  $\frac{1}{2}$ " ELASTOMERIC. 5.4.2.
- 6. TESTING AND BALANCING
- ALL SYSTEMS MUST BE BALANCED TO WITHIN 10% OF VALUES INDICATED ON PLAN. 6.1.
- HVAC CONTRACTOR TO PROVIDE WRITTEN BALANCE REPORT INCLUDING FLOW VALUES INDICATED ON 6.2. PLANS, INITIAL MEASURED FLOW VALUES, AND FINAL MEASURED VALUES.
- 6.3. THIRD PARTY CERTIFIED TEST AND BALANCE NOT REQUIRED UNLESS OTHERWISE NOTED ON PLANS OR WITHIN PROJECT MANUAL.

	SPLIT SYSTEM SCHEDULE														
TAG	EQUIPMENT	QUIPMENT AREA SERVED	(TONS) ORIENTATION AIR			OA A IRFLOW	HEA TING			COOLING /67 WB, OA:95 DB)		<b>ELECTRICA L</b>			
IAG	DESCRIPTION	AREA SERVED		(CFM)	AIRFLOW MAX/MIN	ELECTRIC (KW)	SENSIBLE TOTAL		MIN EFF.				NOTES		
						(CFM)	240V (208V)	(KBTU)	(KBTU)	(SEER)	VOLTS/PH	MCA	OCP		
AHU-1	AIR HANDLER	APARTMENTS	1.5	UPFLOW	600	-	8 (6)	-	-	-	208/1	44	45	1, 2	
AHU-2	AIR HANDLER	APARTMENTS	2.0	UPFLOW	800	-	10 (7.2)	-	-	-	208/1	51	60	1, 2	
AHU-3	AIR HANDLER	CORRIDORS	2.0	UPFLOW	800	60 / 60	10 (7.2)	-	-	-	208/1	51	60	1, 2	
CU-1	CONDENSING UNIT	APARTMENTS	1.5	-	-	-	-	13.2	17.8	13	208/1	12	20	3, 4	
CU-2	CONDENSING UNIT	APARTMENTS	2.0	-	-	-	-	17.2	23.0	13	208/1	18	30	3, 4	
CU-3	CONDENSING UNIT	CORRIDORS	2.0	-	-	-	-	17.2	23.0	13	208/1	18	30	3, 4	

## NOTES:

1. PROVIDE AND INSTALL 7 DAY PROGRAMABLE HONEYWELL THERMOSTAT. COORDINATE EXACT MOUNTING LOCATION WITH OWNER. 2. INCLUDE CORROSION RESISTANT DRAIN PAN WITH OVERFLOW SWITCH WIRED TO SHUT DOWN UNIT.

3. WITH FACTORY HAIL GUARD.

4. LOW AMBIENT PACKAGE FOR OPERATION TO 0° F.



DUCT INSIDE THERMAL ENVELOPE
INSULATION REQUIREMENTS

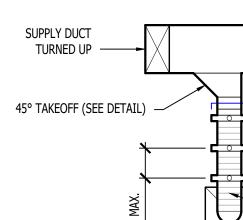
REC	TANGULAR SUPPLY = RETURN = EXHAUST = OUTSIDE AIR =	1" LINER 1" LINER NONE 2" WRAP
ROU	ND	
•	SUPPLY =	1½" WRAP
•	RETURN =	NÔNE
•	EXHAUST =	NONE
•	OUTSIDE AIR =	2" WRAP
SPIF	RAL	
•	SUPPLY =	NONE
•	RETURN =	NONE
•	EXHAUST =	NONE
•	OUTSIDE AIR =	2" WRAP



VOLUME DAMPER (SEE DETAIL) -

FIRE RATED DAMPER

LOCATE ACCESS DOOR NEAR DAMPER AS INDICATED

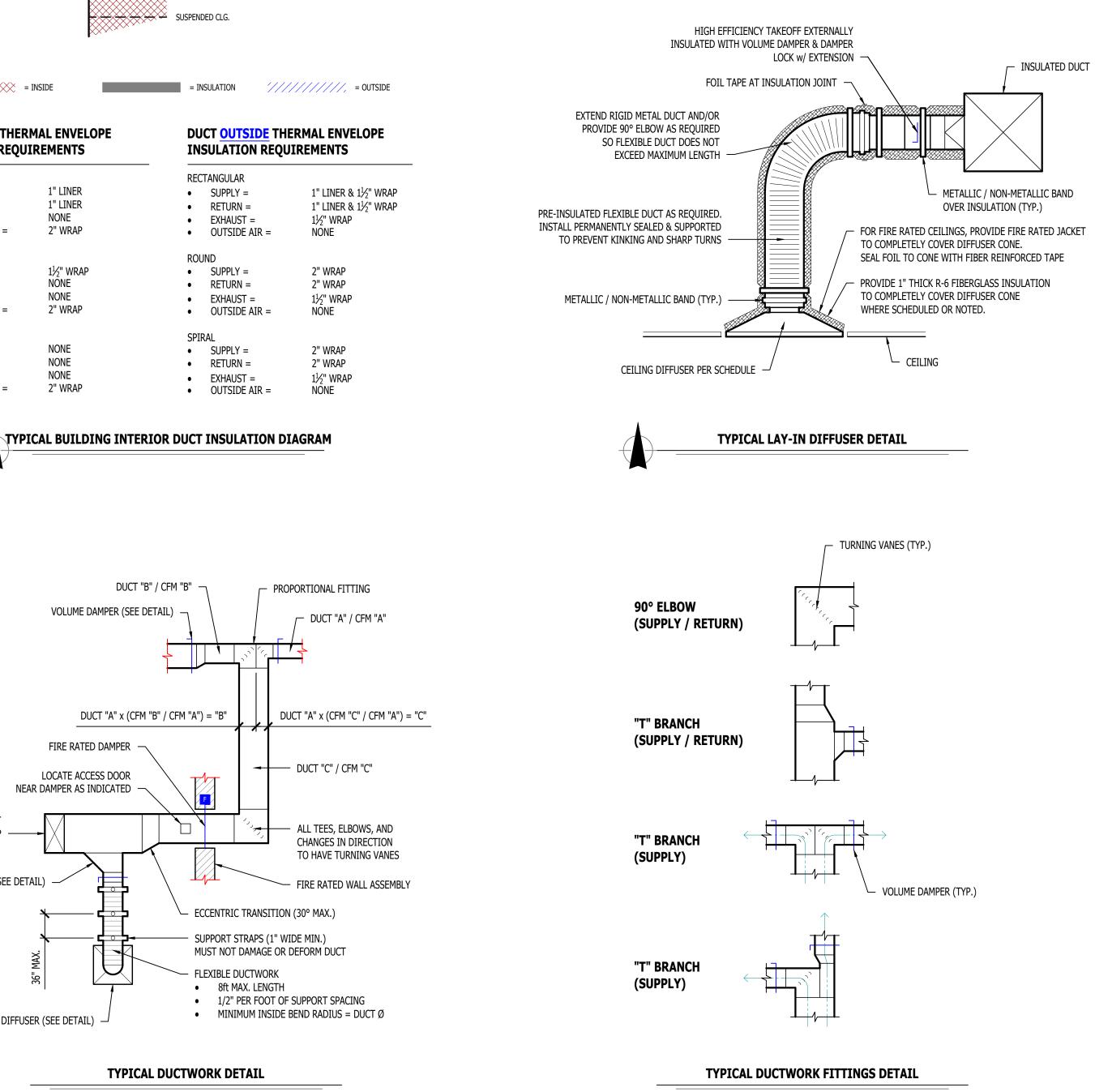


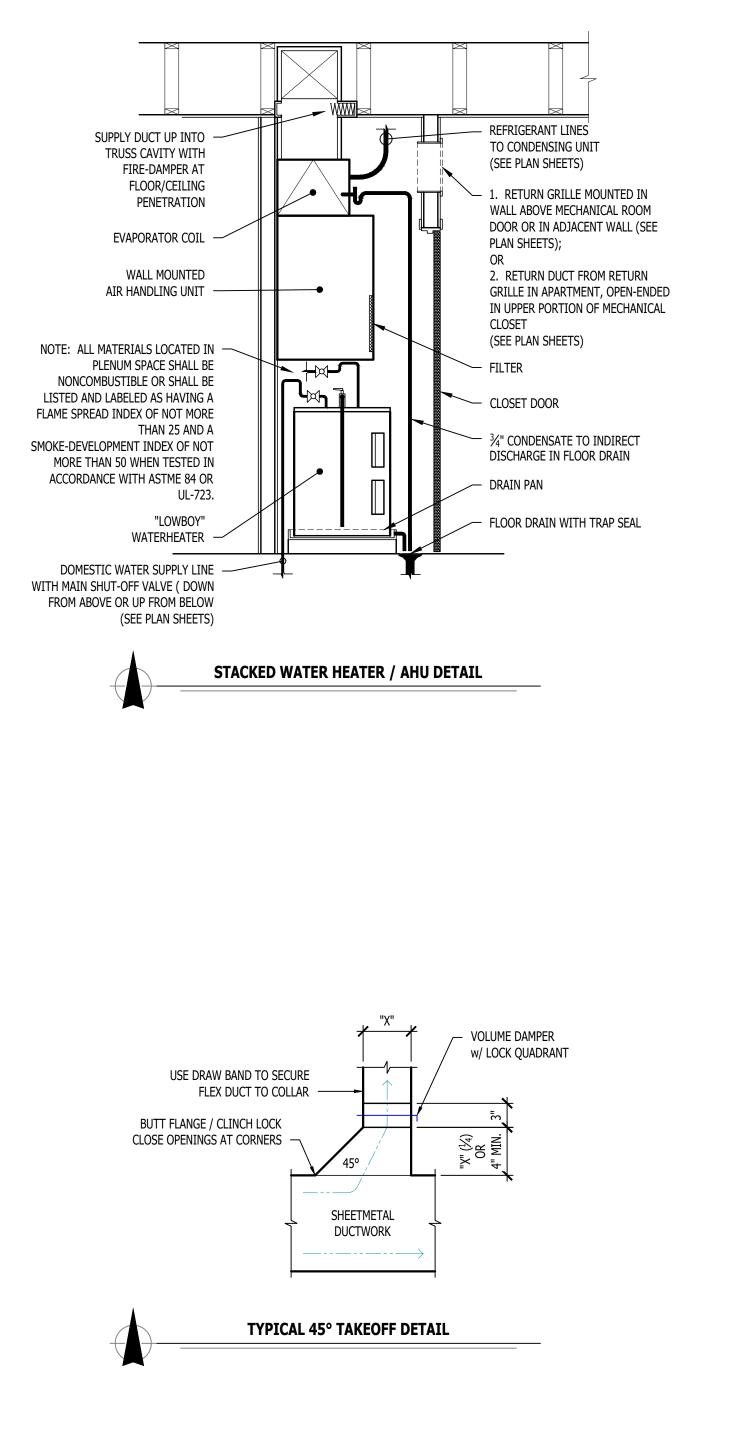
SUPPLY DIFFUSER (SEE DETAIL)

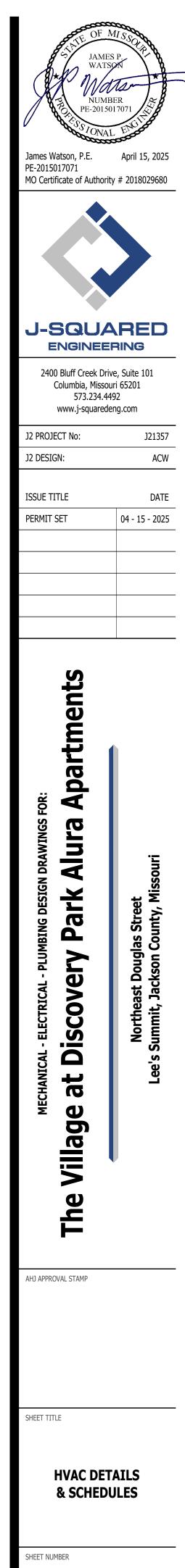
HARD CEILING

AIR DEVICE SCHEDULE						
TAG	SERVICE	MANUFACTURER (OR EQUAL)	MODEL (or Equal)	SIZE	COLOR / FINISH	NOTES
L1	OA / EXH	POTTORFF	EFD	AS INDICATED	PRIMED	PAINT TO MATCH EXTERIOR
R1	RETURN	PRICE	530	AS INDICATED	WHITE	
S1	SUPPLY	PRICE	520	12x6	WHITE	WITH CEILING RADIATION DAMPER
S2	SUPPLY	PRICE	SPD	24x24	WHITE	
S3	SUPPLY	PRICE	SPD	12x12	WHITE	WITH DRYWALL MOUNTING KIT
<b>NOTES:</b> 1.	l Verify Air D	DEVICE FINISHES WITH C	I )WNER/ARCHITECT	PRIOR TO INSTALLA	I ATION	

TAC	EQUIPMENT TYPE	MA NUFA CTURER (OR EQUA L)	MODEL (OR EQUAL)	FLOW		ELECTRICAL			NOTEC
TAG				CFM	S.P.	VOLT/PH	MCA	ОСР	NOTES
EF-1	EXHAUST FAN	BROAN / NUTONE	AE50	50	1/8"	120	1	20	1, 2
NOTES:									







M501

## POWER PLAN SYMBOL LEGEND

OWER PLAN SY	MBOL LEGEND	_	
	CIRCUIT WIRING		
──> PX-XX	CIRCUIT TAG	P	×
J	JUNCTION BOX	,	ANSI "B" 2-BR-A
XX +42	RECEPTACLE		BECK 210
	<ul> <li>INDICATES MOUNTING HEIGHT TO BOTTOM OF BOX (STANDARD @ 18" AFF UNLESS NOTED OTHERWISE)</li> </ul>		
	<ul> <li>"WP" = WEATHERPROOF OUTDOOR RECEPTACLE</li> <li>"AW" = ABOVE WINDOW RECEPTACLE</li> <li>"AC" = ABOVE CEILING RECEPTACLE</li> <li>"EX" = EXISTING RECEPTACLE TO REMAIN</li> </ul>		
P	GFCI DUPLEX CONVENIENCE RECEPTACLE		
Ŷ	208V RECEPTACLE		
₽	QUADPLEX CONVENIENCE RECEPTACLE		
Ŷ	USB OUTLET WITH USB-A & USB-C CHARGING PORT		
V	DATA / PHONE JACK BOX WITH 1" CONDUIT & PULL STRING UP TO CEILING SPACE (STANDARD @ 18" AFF UNLESS NOTED OTHERWISE)		
AP V	WIRELESS ACCESS POINT, CEILING MOUNTED		
$\mathbf{\Phi}$	FLOOR RECEPTACLE		
V	FLOOR DATA	, ANSI "E	з" 2-BR-B
D	DISCONNECT		DAL 211
FD	FUSED DISCONNECT		
FS	FUSED SWITCH		
SD	STARTER / DISCONNECT		
$\boldsymbol{\lambda}$	TIE INTO EXISTING		

#### SECURITY PLAN SYMBOL LEGEND

READER
DOOR CON

R

DC

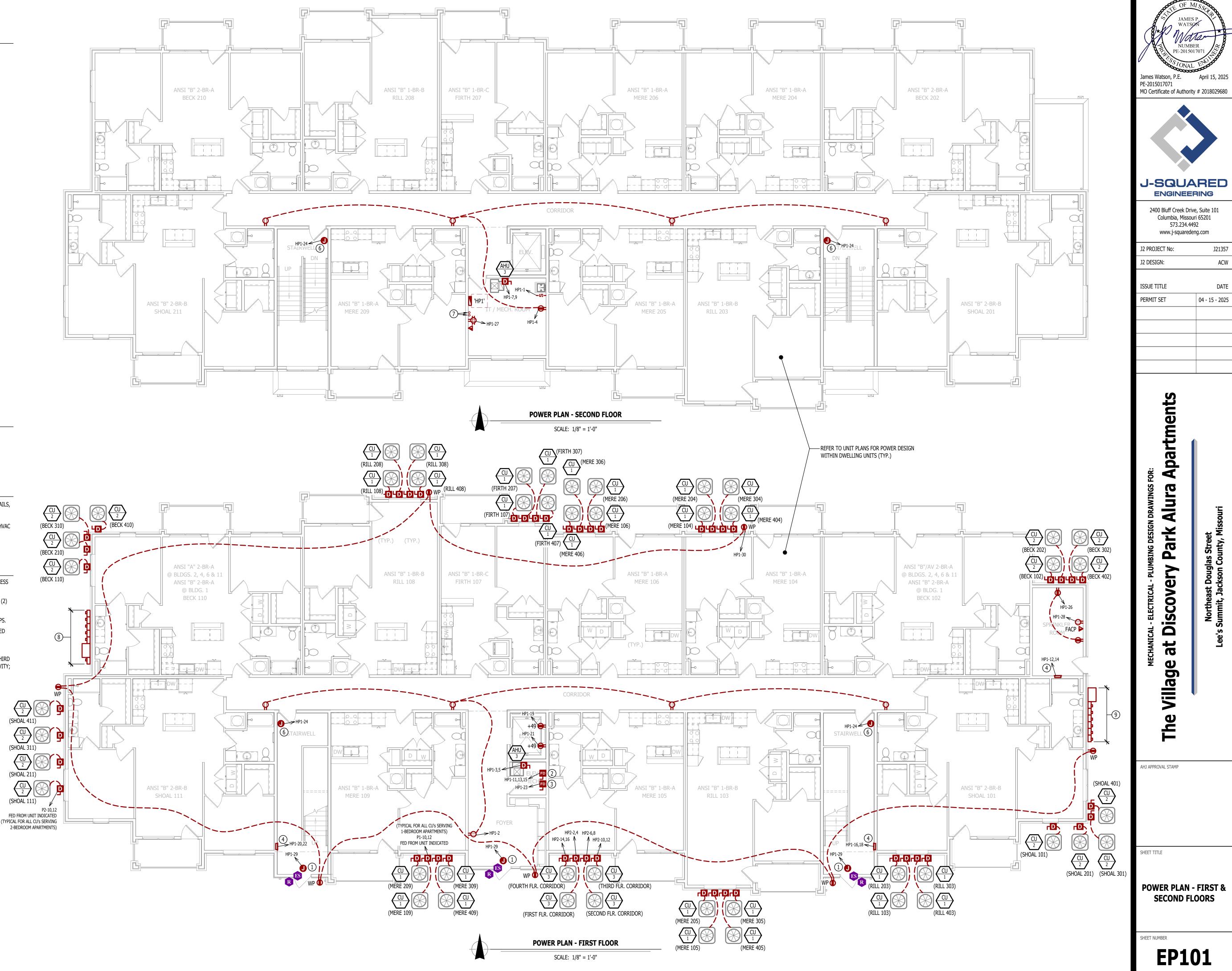
DOOR CONTACT

#### **POWER PLAN GENERAL NOTES:**

- 1. REFER TO E500 AND/OR E600 SERIES SHEETS FOR ADDITIONAL ELECTRICAL NOTES, DETAILS,
- REQUIREMENTS, AND SCHEDULES. 2. ELECTRICAL CONTRACTOR SHALL REVIEW ALL PROJECT DOCUMENTS AND COORDINATE LOCATION OF ALL ELECTRICAL EQUIPMENT, WIRING, HANGERS / SUPPORTS, ETC. WITH HVAC AND PLUMBING TRADES BEFORE INSTALLATION OF ANY MATERIAL. ADDITIONAL COSTS ASSOCIATED WITH LACK OF COORDINATION WILL NOT BE REIMBURSED.

#### **POWER PLAN KEY NOTES:**

- (1) J-BOX ABOVE CEILING FOR POWER TO ACCESS CONTROLS. COORDINATE LOCATION ACCESS CONTROLS INSTALLER.
- (2) 'DS1' 208V, 3-PH 60A FUSED DISCONNECT FOR ELEVATOR. FUSE AT 60 AMPS. PROVIDE (2) NORMALLY OPEN CONTACTS & (2) NORMALLY CLOSED CONTACTS.
- (3) 'DS2' 208V, 1-PH 30A FUSED DISCONNECT FOR ELEVATOR CAB LIGHTS. FUSE AT 15 AMPS.
- (4) RECESSED WALL HEATER (EQUAL TO MARLEY #VFK404FC) WITH BACK BOX FOR RECESSED INSTALL.
- (6) POWER FOR MAG HOLD. WIRE THRU FIRE ALARM.
- (7) (1) 3" CONDUIT TO I.T. CLOSET ON FIRST FLOOR, (1) 3" CONDUIT TO I.T. CLOSET ON THIRD FLOOR & (1) 3" CONDUIT TO I.T. CLOSET ON THE FOURTH FLOOR FOR INTERCONNECTIVITY; COORDINATE WITH G.C.
- (8) METER CENTER #1 (SEE POWER RISER FOR DETAILS)
- (9) METER CENTER #2 (SEE POWER RISER FOR DETAILS)



ACW

#### POWER PLAN SYMBOL LEGEND

	CIRCUIT WIRING
──> PX-XX	CIRCUIT TAG
J	JUNCTION BOX
XX +42	RECEPTACLE INDICATES MOUNTING HEIGHT TO BOTTOM OF BOX (STANDARD @ 18" AFF UNLESS NOTED OTHERWISE) "WP" = WEATHERPROOF OUTDOOR RECEPTACLE "AW" = ABOVE WINDOW RECEPTACLE "AC" = ABOVE CEILING RECEPTACLE "EX" = EXISTING RECEPTACLE TO REMAIN
P	GFCI DUPLEX CONVENIENCE RECEPTACLE
•	208V RECEPTACLE
#	QUADPLEX CONVENIENCE RECEPTACLE
Ŷ	USB OUTLET WITH USB-A & USB-C CHARGING PORT
V	DATA / PHONE JACK BOX WITH 1" CONDUIT & PULL STRING UP TO CEILING SPACE (STANDARD @ 18" AFF UNLESS NOTED OTHERWISE)
AP V	WIRELESS ACCESS POINT, CEILING MOUNTED
φ	FLOOR RECEPTACLE
	FLOOR DATA
Dh	DISCONNECT
FD	FUSED DISCONNECT
FS-	FUSED SWITCH
SD	STARTER / DISCONNECT
$\boldsymbol{\star}$	TIE INTO EXISTING



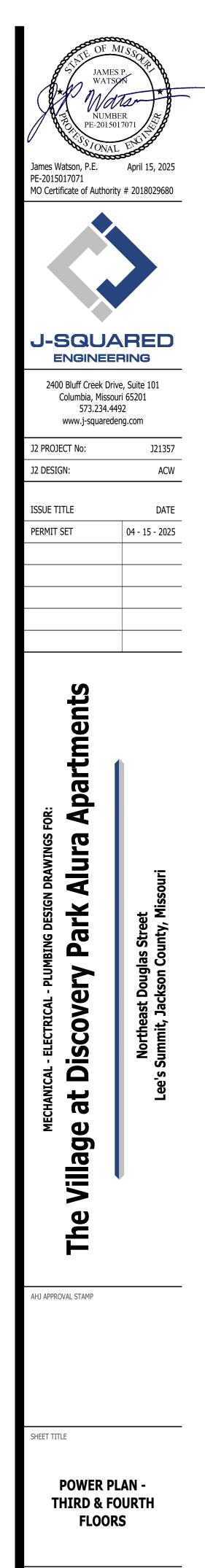
#### POWER PLAN GENERAL NOTES:

- 1. REFER TO E500 AND/OR E600 SERIES SHEETS FOR ADDITIONAL ELECTRICAL NOTES, DETAILS,
- REQUIREMENTS, AND SCHEDULES. 2. ELECTRICAL CONTRACTOR SHALL REVIEW ALL PROJECT DOCUMENTS AND COORDINATE LOCATION OF ALL ELECTRICAL EQUIPMENT, WIRING, HANGERS / SUPPORTS, ETC. WITH HVAC AND PLUMBING TRADES BEFORE INSTALLATION OF ANY MATERIAL. ADDITIONAL COSTS ASSOCIATED WITH LACK OF COORDINATION WILL NOT BE REIMBURSED.

#### **POWER PLAN KEY NOTES:**

- 1 RECESSED WALL HEATER (EQUAL TO MARLEY #VFK404FC) WITH BACK BOX FOR RECESSED INSTALL.
- (2) POWER FOR MAG HOLD. WIRE THRU FIRE ALARM.
- (3) ELEVATOR SERVICE DISCONNECTS. WIRE THRU 'DS1' & 'DS2' IN FIRST FLOOR ELEVATOR EQUIPMENT ROOM (SEE SHEET EP101) COORDINATE EXACT LOCATION & REQUIREMENTS WITH ELEVATOR SUPPLIER.

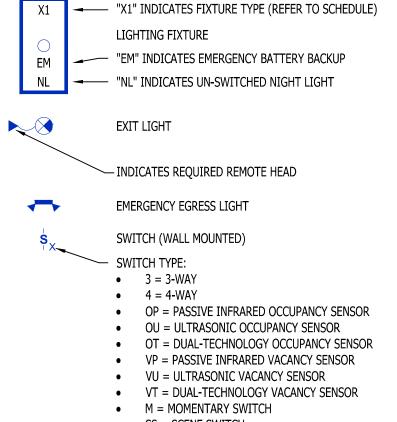




SHEET NUMBER

**EP102** 

#### LIGHTING PLAN SYMBOL LEGEND



• SS = SCENE SWITCH

DIMMER SWITCH (WALL MOUNTED) SWITCH TYPE:

#### • SEE "SWITCH (WALL MOUNTED)" FOR TYPE DESIGNATIONS

S SWITCH (CEILING MOUNTED)

#### SWITCH TYPE: SEE "SWITCH (WALL MOUNTED)" FOR TYPE DESIGNATIONS

#### OCCUPANCY SENSOR AUTO FULL-ON (OR 50% IF NOTED)

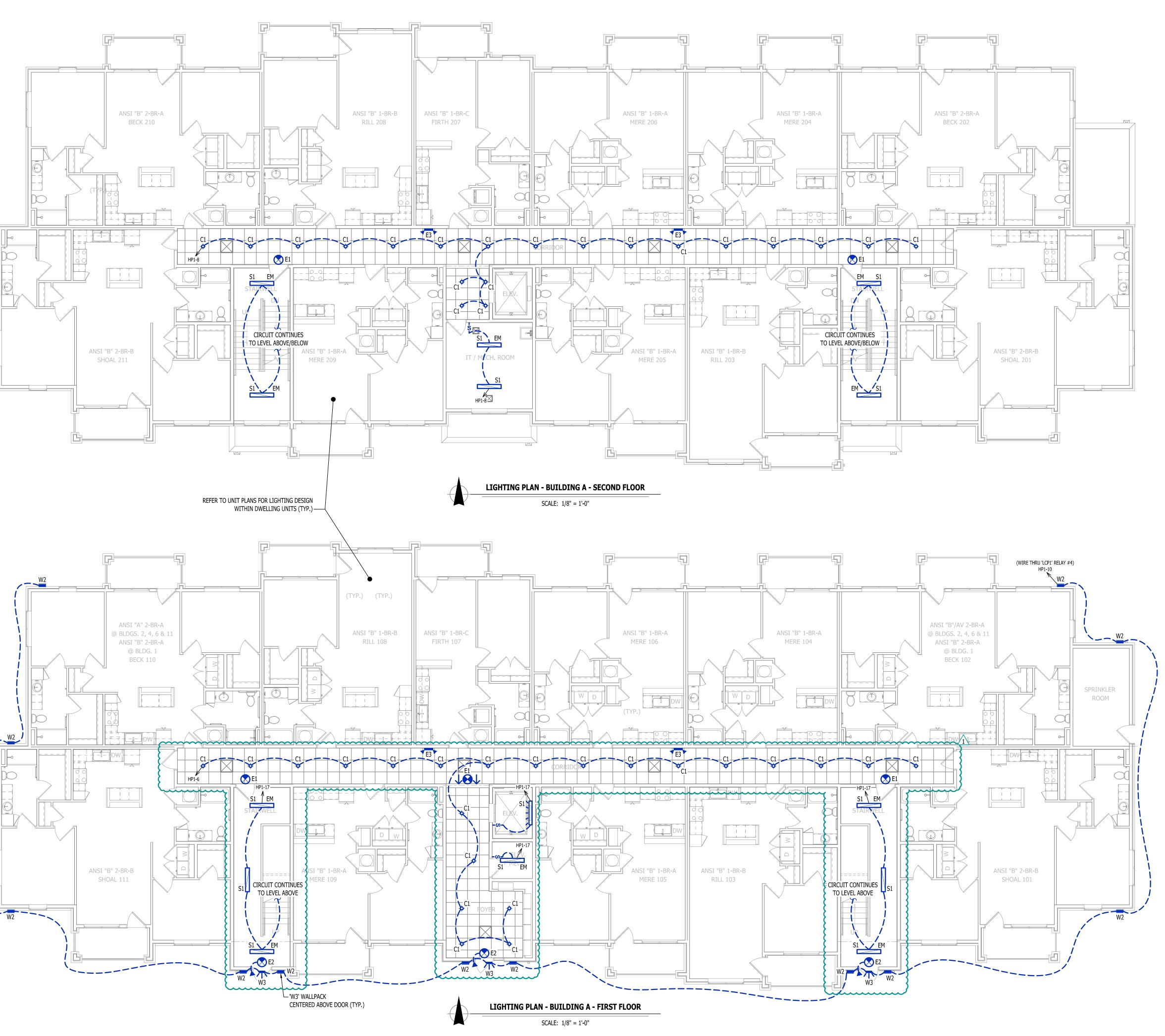
- AUTOMATICALLY TURN OFF LIGHTING AFTER 20 MINUTES WITHOUT OCCUPANT
- DETECTION WITH MANUAL OVERRIDE CONTROL (IF NOTED)

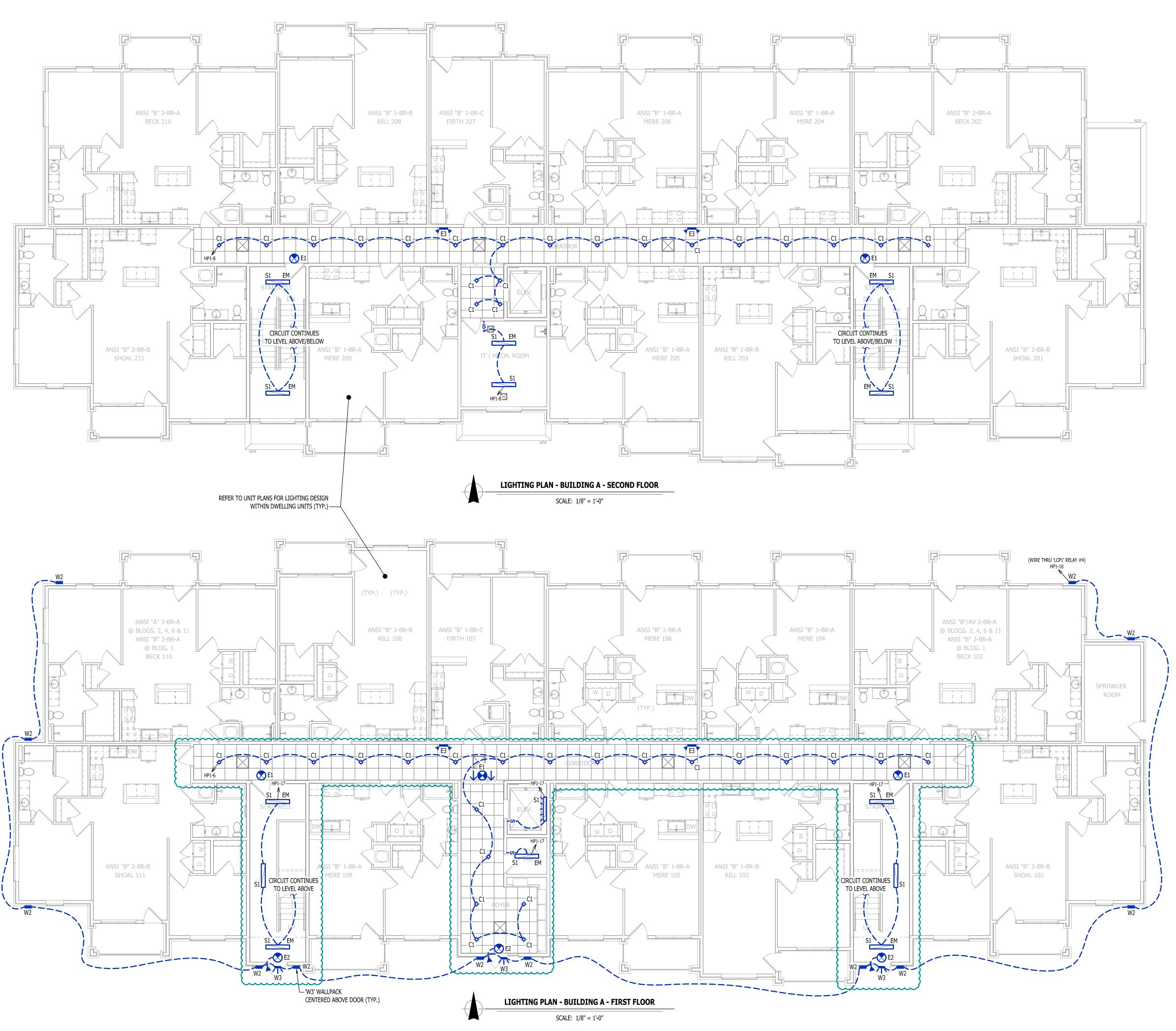
#### VACANCY SENSOR

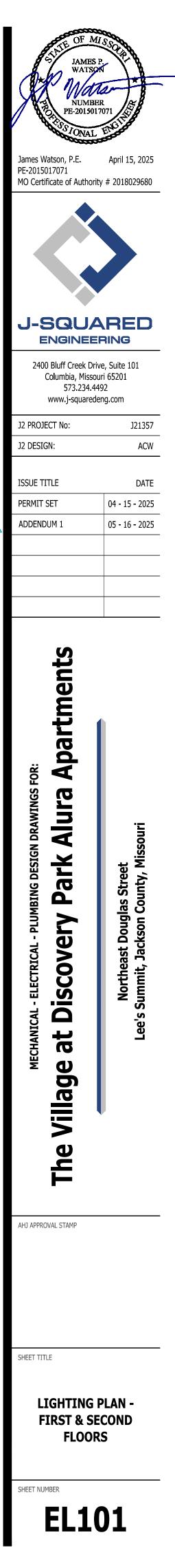
- MANUAL FULL-ON AUTOMATICALLY TURN OFF LIGHTING AFTER 20 MINUTES WITHOUT OCCUPANT
- DETECTION WITH MANUAL OVERRIDE CONTROL (IF NOTED)

#### LIGHTING PLAN GENERAL NOTES:

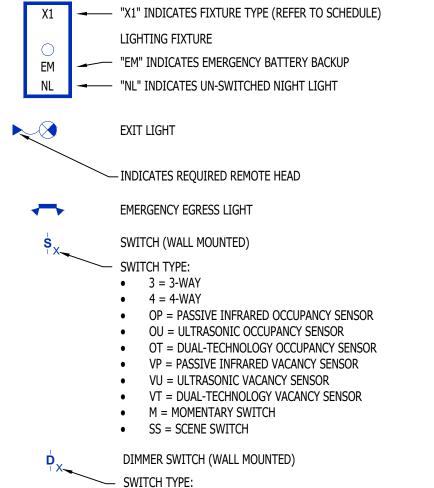
- 1. REFER TO E500 AND/OR E600 SERIES SHEETS FOR ADDITIONAL LIGHTING NOTES, DETAILS, REQUIREMENTS, AND SCHEDULES.
- 2. OCCUPANCY/VACANCY SENSOR QUANTITIES AND GENERAL LOCATIONS SHOWN FOR REFERENCE ONLY. CONTRACTOR TO PROVIDE & INSTALL SENSOR WITH SPACING PER MANUFACTURER'S SPECIFICATIONS AND INCLUDE ADDITIONAL SENSORS IF NECESSARY. CEILING-MOUNTED SENSORS SHALL BE INSTALLED WITHIN MANUFACTURER'S ACCEPTABLE MOUNTING HEIGHT RANGE.
- 3. ELECTRICAL CONTRACTOR SHALL REVIEW ALL PROJECT DOCUMENTS AND COORDINATE LOCATION OF ALL FIXTURES, WIRING, HANGERS / SUPPORTS, ETC. WITH HVAC AND PLUMBING TRADES BEFORE INSTALLATION OF ANY MATERIAL. ADDITIONAL COSTS ASSOCIATED WITH LACK OF COORDINATION WILL NOT BE REIMBURSED.







#### LIGHTING PLAN SYMBOL LEGEND



SEE "SWITCH (WALL MOUNTED)" FOR TYPE DESIGNATIONS

#### **S**<sub>x</sub> SWITCH (CEILING MOUNTED)

SWITCH TYPE: SEE "SWITCH (WALL MOUNTED)" FOR TYPE DESIGNATIONS

#### OCCUPANCY SENSOR AUTO FULL-ON (OR 50% IF NOTED)

- AUTOMATICALLY TURN OFF LIGHTING AFTER 20 MINUTES WITHOUT OCCUPANT
- DETECTION WITH MANUAL OVERRIDE CONTROL (IF NOTED)

#### VACANCY SENSOR

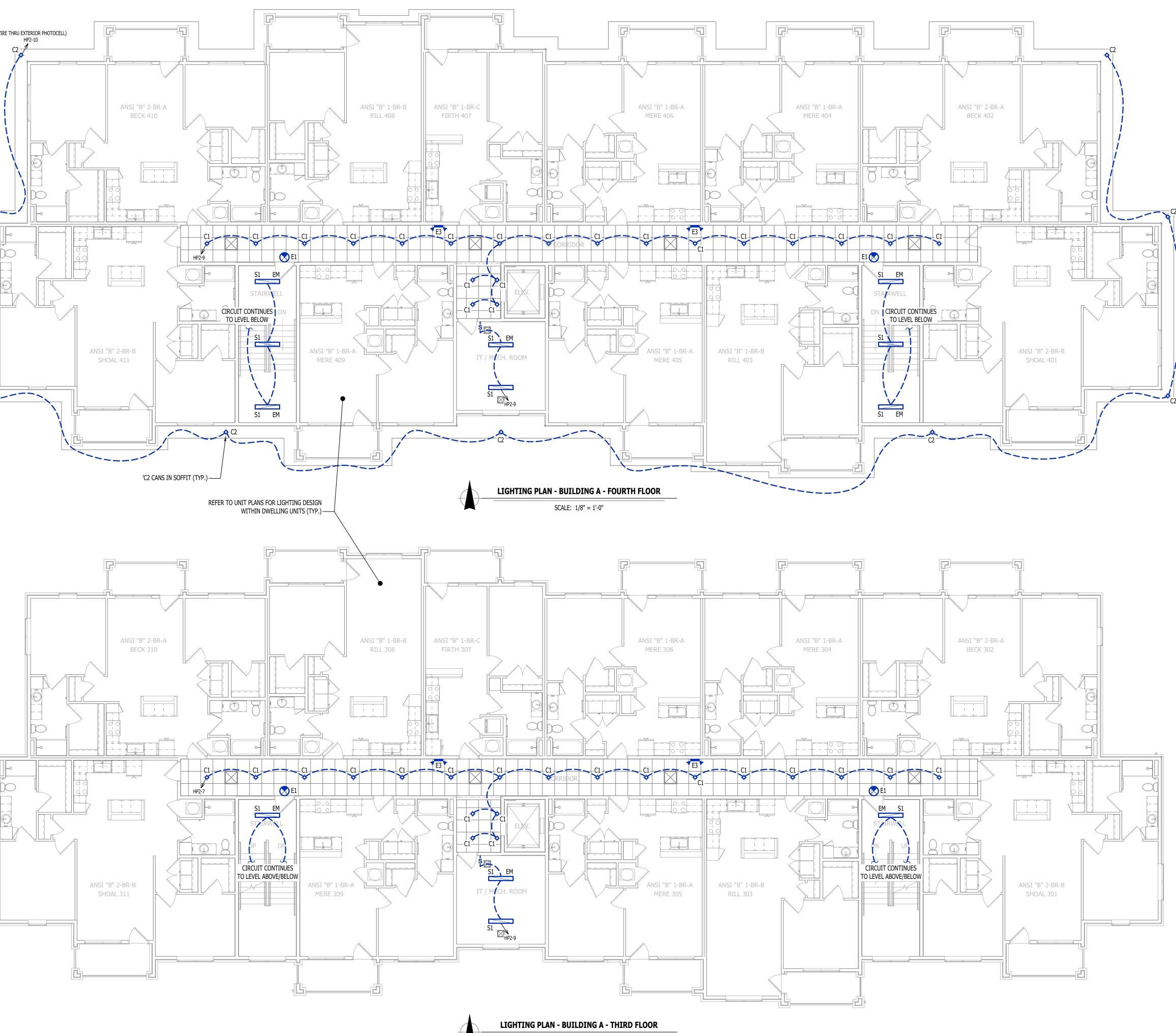
- MANUAL FULL-ON AUTOMATICALLY TURN OFF LIGHTING AFTER 20 MINUTES WITHOUT OCCUPANT
- DETECTION WITH MANUAL OVERRIDE CONTROL (IF NOTED)

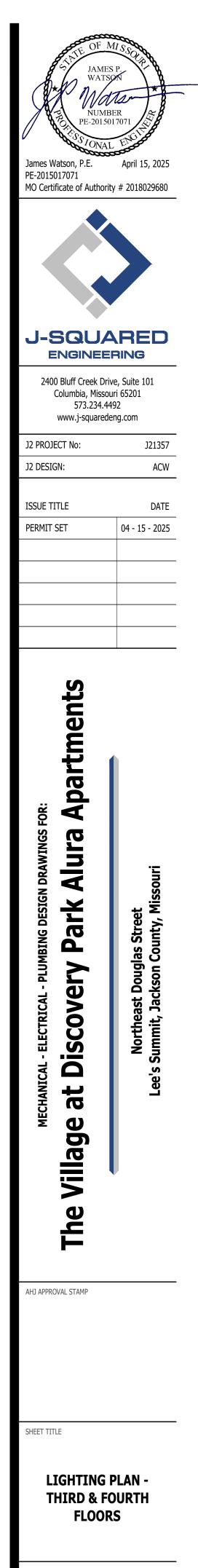
#### LIGHTING PLAN GENERAL NOTES:

- 1. REFER TO E500 AND/OR E600 SERIES SHEETS FOR ADDITIONAL LIGHTING NOTES, DETAILS, REQUIREMENTS, AND SCHEDULES.
- 2. OCCUPANCY/VACANCY SENSOR QUANTITIES AND GENERAL LOCATIONS SHOWN FOR REFERENCE ONLY. CONTRACTOR TO PROVIDE & INSTALL SENSOR WITH SPACING PER MANUFACTURER'S SPECIFICATIONS AND INCLUDE ADDITIONAL SENSORS IF NECESSARY. CEILING-MOUNTED SENSORS SHALL BE INSTALLED WITHIN MANUFACTURER'S ACCEPTABLE MOUNTING HEIGHT RANGE.
- 3. ELECTRICAL CONTRACTOR SHALL REVIEW ALL PROJECT DOCUMENTS AND COORDINATE LOCATION OF ALL FIXTURES, WIRING, HANGERS / SUPPORTS, ETC. WITH HVAC AND PLUMBING TRADES BEFORE INSTALLATION OF ANY MATERIAL. ADDITIONAL COSTS ASSOCIATED WITH LACK OF COORDINATION WILL NOT BE REIMBURSED.



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





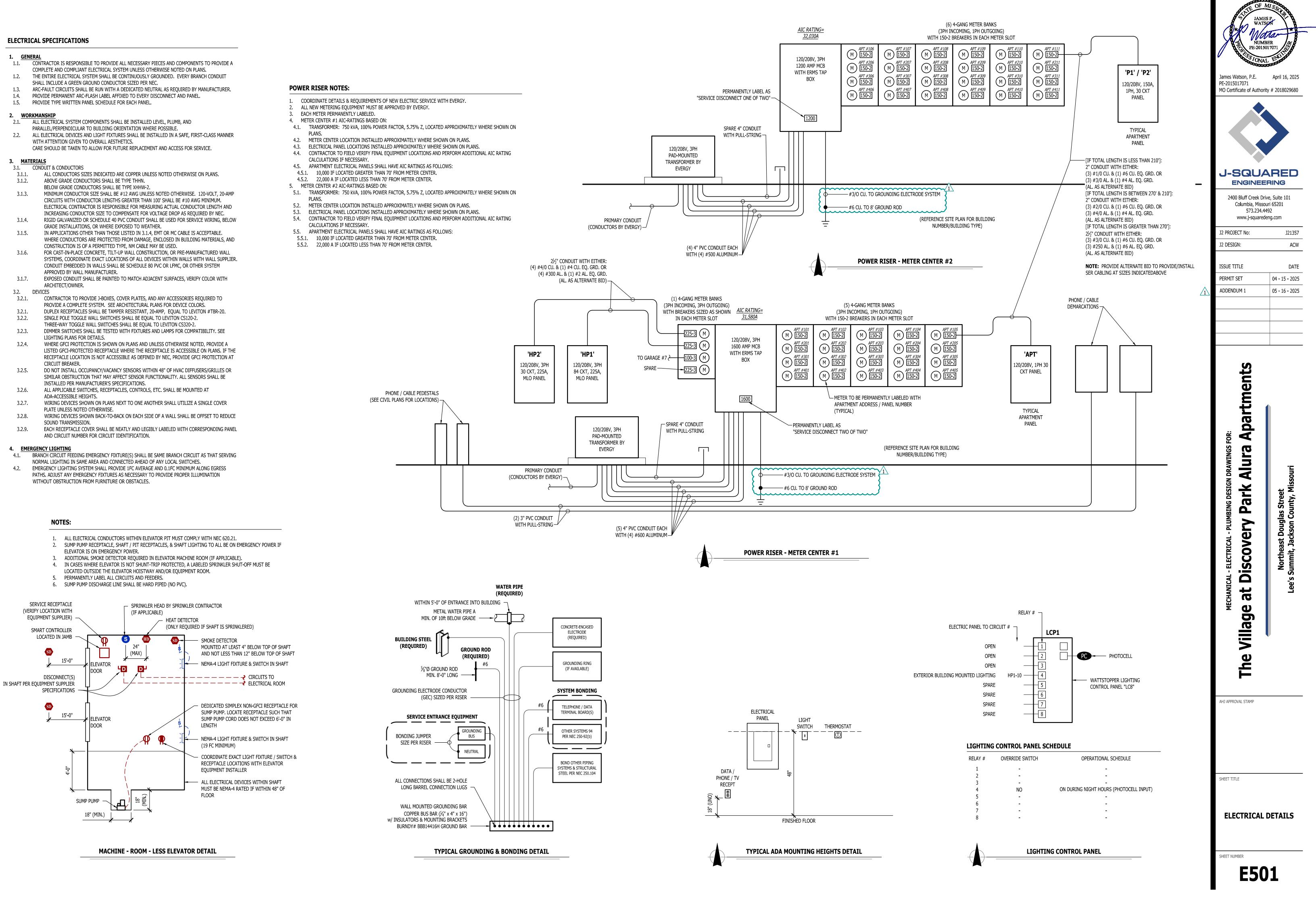
SHEET NUMBER

EL102

1. <u>GEN</u>	ERAL
1.1.	CONTRACTOR IS RESPONSIBLE TO PROVIDE ALL NECESSARY PIECES AND COMPONENTS TO PROVIDE A COMPLETE AND COMPLIANT ELECTRICAL SYSTEM UNLESS OTHERWISE NOTED ON PLANS.
1.2.	THE ENTIRE ELECTRICAL SYSTEM SHALL BE CONTINUOUSLY GROUNDED. EVERY BRANCH CONDUIT
1.3.	SHALL INCLUDE A GREEN GROUND CONDUCTOR SIZED PER NEC. ARC-FAULT CIRCUITS SHALL BE RUN WITH A DEDICATED NEUTRAL AS REQUIRED BY MANUFACTURER.
1.3. 1.4.	PROVIDE PERMANENT ARC-FLASH LABEL AFFIXED TO EVERY DISCONNECT AND PANEL.
1.5	PROVIDE TYPE WRITTEN PANEL SCHEDULE FOR EACH PANEL.
	REMANSHIP
2.1.	ALL ELECTRICAL SYSTEM COMPONENTS SHALL BE INSTALLED LEVEL, PLUMB, AND PARALLEL/PERPENDICULAR TO BUILDING ORIENTATION WHERE POSSIBLE.
2.2.	ALL ELECTRICAL DEVICES AND LIGHT FIXTURES SHALL BE INSTALLED IN A SAFE, FIRST-CLASS MANNER
	WITH ATTENTION GIVEN TO OVERALL AESTHETICS.
	CARE SHOULD BE TAKEN TO ALLOW FOR FUTURE REPLACEMENT AND ACCESS FOR SERVICE.
3. MAT	ERIALS
3.1.	CONDUIT & CONDUCTORS
3.1.1.	
3.1.2.	
	BELOW GRADE CONDUCTORS SHALL BE TYPE XHHW-2.
3.1.3.	MINIMUM CONDUCTOR SIZE SHALL BE #12 AWG UNLESS NOTED OTHERWISE. 120-VOLT, 20-AMP CIRCUITS WITH CONDUCTOR LENGTHS GREATER THAN 100' SHALL BE #10 AWG MINIMUM.
	ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR MEASURING ACTUAL CONDUCTOR LENGTH AND
	INCREASING CONDUCTOR SIZE TO COMPENSATE FOR VOLTAGE DROP AS REQUIRED BY NEC.
3.1.4.	RIGID GALVANIZED OR SCHEDULE 40 PVC CONDUIT SHALL BE USED FOR SERVICE WIRING, BELOW
	GRADE INSTALLATIONS, OR WHERE EXPOSED TO WEATHER.
3.1.5.	IN APPLICATIONS OTHER THAN THOSE LISTED IN 3.1.4, EMT OR MC CABLE IS ACCEPTABLE.
	WHERE CONDUCTORS ARE PROTECTED FROM DAMAGE, ENCLOSED IN BUILDING MATERIALS, AND CONSTRUCTION IS OF A PERMITTED TYPE, NM CABLE MAY BE USED.
3.1.6.	FOR CAST-IN-PLACE CONCRETE, TILT-UP WALL CONSTRUCTION, OR PRE-MANUFACTURED WALL
511101	SYSTEMS, COORDINATE EXACT LOCATIONS OF ALL DEVICES WITHIN WALLS WITH WALL SUPPLIER.
	CONDUIT EMBEDDED IN WALLS SHALL BE SCHEDULE 80 PVC OR LFMC, OR OTHER SYSTEM
o 4 <b>-</b>	APPROVED BY WALL MANUFACTURER.
3.1.7.	EXPOSED CONDUIT SHALL BE PAINTED TO MATCH ADJACENT SURFACES, VERIFY COLOR WITH ARCHITECT/OWNER.
3.2.	DEVICES
3.2.1	CONTRACTOR TO PROVIDE J-BOXES, COVER PLATES, AND ANY ACCESSORIES REQUIRED TO
	PROVIDE A COMPLETE SYSTEM. SEE ARCHITECTURAL PLANS FOR DEVICE COLORS.
3.2.1.	DUPLEX RECEPTACLES SHALL BE TAMPER RESISTANT, 20-AMP, EQUAL TO LEVITON #TBR-20.
3.2.2.	SINGLE POLE TOGGLE WALL SWITCHES SHALL BE EQUAL TO LEVITON CS120-2.
3.2.3.	THREE-WAY TOGGLE WALL SWITCHES SHALL BE EQUAL TO LEVITON CS320-2. DIMMER SWITCHES SHALL BE TESTED WITH FIXTURES AND LAMPS FOR COMPATIBILITY. SEE
512151	LIGHTING PLANS FOR DETAILS.
3.2.4.	WHERE GFCI PROTECTION IS SHOWN ON PLANS AND UNLESS OTHERWISE NOTED, PROVIDE A
	LISTED GFCI-PROTECTED RECEPTACLE WHERE THE RECEPTACLE IS ACCESSIBLE ON PLANS. IF THE
	RECEPTACLE LOCATION IS NOT ACCESSIBLE AS DEFINED BY NEC, PROVIDE GFCI PROTECTION AT
3.2.5.	CIRCUIT BREAKER. DO NOT INSTALL OCCUPANCY/VACANCY SENSORS WITHIN 48" OF HVAC DIFFUSERS/GRILLES OR
J.Z.J.	SIMILAR OBSTRUCTION THAT MAY AFFECT SENSOR FUNCTIONALITY. ALL SENSORS SHALL BE
	INSTALLED PER MANUFACTURER'S SPECIFICATIONS.
3.2.6.	ALL APPLICABLE SWITCHES, RECEPTACLES, CONTROLS, ETC. SHALL BE MOUNTED AT
	ADA-ACCESSIBLE HEIGHTS.
3.2.7.	WIRING DEVICES SHOWN ON PLANS NEXT TO ONE ANOTHER SHALL UTILIZE A SINGLE COVER PLATE UNLESS NOTED OTHERWISE.
3.2.8.	VIRING DEVICES SHOWN BACK-TO-BACK ON EACH SIDE OF A WALL SHALL BE OFFSET TO REDUCE
512101	SOUND TRANSMISSION.
3.2.9.	EACH RECEPTACLE COVER SHALL BE NEATLY AND LEGIBLY LABELED WITH CORRESPONDING PANEL

AND CIRCUIT NUMBER FOR CIRCUIT IDENTIFICATION.

- NORMAL LIGHTING IN SAME AREA AND CONNECTED AHEAD OF ANY LOCAL SWITCHES. EMERGENCY LIGHTING SYSTEM SHALL PROVIDE 1FC AVERAGE AND 0.1FC MINIMUM ALONG EGRESS
- WITHOUT OBSTRUCTION FROM FURNITURE OR OBSTACLES.



	LIGHT FIXTURE SCHEDULE									
TAG	MANUFACTURER (OR EQUAL)	MODEL NUMBER (OR EQUAL)	DESCRIPTION	MOUNTING	LUMEN OUTPUT	ССТ (°К)	CRI	VOLTS	WATTS	NOTES
C1	HALO	HLCE6129FS1E	6" LED SURFACE CAN	SURFACE / CEILING	1,200	3000	90	120	15	
E1	SURE LITES	APC7RG	INTERIOR EXIT LIGHT WITH HEADS	WALL / CEILING	-	-	-	120	1	WITH RED LETTERS
E2	SURE LITES	APCH7RG WITH APWR2	INTERIOR EXIT LIGHT WITH EXTERIOR REMOTE HEAD	CEILING	-	-	-	120	1	WITH RED LETTERS
E3	SURE LITES	SEL50	EMERGENCY EGRESS LIGHT	INTERIOR WALL	-	-	-	120	1	
F1	ROYAL PACIFIC	1057-BN-WT-L	CEILING FAN W/ LED LIGHT KIT	SURFACE/ CEILING	1,050	3000	80	120	14	WITH LIGHT KIT
P1	ROYAL PACIFIC	4430-BN	LED PENDANT	SURACE / CEILING	600	3000	80	120	8	
S1	METALUX	4SNX-SL3-LW-UNV-CC83-CD-1-FKO-U	4' LED STRIP	SURFACE / CEILING	4,511	4000	70	120	38	WITH 'EL14W' EMERGENCY BATTERY BACKUP WHERE INDICATED
V1	ROYAL PACIFIC	4904-BN-4	LED VANITY	SURFACE / WALL	2,110	3000	80	120	30	
W1	HALO	FE12S40FDB	LED PATIO SCONCE	EXTERIOR WALL	1,272	4000	83	120	11	
W2	TECH LIGHTING	7000WVEX9404ZUNV	UP / DOWN WALL SCONCE	EXTERIOR WALL	554	4000	90	120	19	
W3	LUMARK	XTOR4B-W	LED WALLPACK	EXTERIOR WALL	3,995	4000	70	120	38	
W4	LUMARK	AXCS1A-MSP/DIM-L12	LED WALLPACK	EXTERIOR WALL	1,806	4000	70	120	14	
		VIDED BY OWNER THRU NATIONAL ACCOU TIES TO BE VERIFIED BY ELECTRICAL CON	INT AND INSTALLED BY ELECTRICAL CONTF	RACTOR.						

3. CONTACT JUSTIN HATFIELD (573) 289-0880 (JHATFIELD@LAIWEB.NET) OR PAUL WARNER (314) 531-3500 (PWARNER@LAIWEB.NET) AT LIGHTING ASSOCIATES FOR NATIONAL ACCOUNT DETAILS. 4. CONTACT TRAVIS VOGT (417) 621-5210 (TVOGT@CED1135.COM) AT CED-PHILLIPS & COMPANY FOR NATIONAL ACCOUNT DETAILS.

			PAN	IEL 'H	IP1' S	CHE	DULE				
	PANEL SPECIFICA TIONS								TOTAL CONNECT	TED LO	AD
v	OLTAGE: 120/208V 3-PH	NEMA RATING:	1						PHASE "A" LOAD:	161	AMPS
AM	PACITY: 225A MLO	PANEL MOUNTING:	SURFACE						PHASE "B" LOAD:	197	' AMPS
AIC-	AIC-RATING: 22kA								PHASE "C" LOAD:	155	AMPS
CIRCUIT NUMBER	DESCRI	PTION	BREAKER SIZE	AMPS	PHA SE	AMPS	BREA KER SIZE	Γ	DESCRIPTION		CIRCUI NUMBER
1	WATER HEA	TER (WH2)	20-1	12.5	A	9	20-1	1st FLR (	CORRIDOR RECEPTS.		2
3	1st FLR CORRIDOR AIR H	ANDLING UNIT (AHU-3)	60-2	51	В	7.5	20-1	2nd FLR	CORRIDOR RECEPTS.		4
5	-		-	51	C	4	20-1	1st FLR	CORRIDOR LIGHTING		6
7	2nd FLR CORRIDOR AIR H	HANDLING UNIT (AHU-3)	60-2	51	A	3	20-1	2nd FLR	CORRIDOR LIGHTING		8
9	-		-	51	В	2	20-1	EXTERIO	R BUILDING LIGHTING		10
11	ELEVATO	R (DS1)	60-3	42	С	19	25-2	SPRINKLE	R ROOM WALL HEATER		12
13	-		-	42	A	19	-		-		14
15	-		-	42	В	19	25-2	STAIR	VELL WALL HEATER		16
17	STAIRWELL		20-1	5	С	19	-		-		18
19	ELEVATOR P	IT RECEPT.	20-1	1.5	A	19	25-2	STAIR	WELL WALL HEATER		20
21	ELEVATOR PIT	SUMP PUMP	20-1	1	В	19	-		-		22
23	ELEVATOR C	CAB LIGHTS	20-2	1	C	1	20-1		MAG HOLDS		24
25	-		-	1	A	3	20-1	SPRINKI	ER ROOM RECEPTS.		26
27	2nd FLR IT/MECH	ROOM RECEPT.	20-1	3	В	1.5	20-1	F	ACP RECEPT.		28
29	ACCESS CO	ONTROLS	20-1	1	C	12	20-1	EXT	ERIOR RECEPTS.		30
31	SPA	RE	20-1		A				OPEN		32
33	SPA	RE	20-1		В				OPEN		34
35	SPA	RE	20-1		С				OPEN		36
37	SPA	RE	20-1		A				OPEN		38
39	SPA	RE	20-1		В				OPEN		40
41	SPA	RE	20-1		С				OPEN		42

NOTES: A: PANEL SHALL BE EQUAL TO SQUARE D MODEL "QO"

B: ELECTRICIAN SHALL VERIFY EXACT EQUIPMENT OVERCURRENT PROTECTION REQUIREMENTS PRIOR TO PURCHASE & INSTALLATION OF EQUIPMENT.

C: AFTER COMPLETION OF WORK, ELECTRICAN SHALL PROVIDE A TYPE WRITTEN PANEL DIRECTORY IN NEW PANEL.

			PAN	IEL 'H	IP2' S	CHEE	DULE				
	PANEL SPECIFICA TIONS								TOTA L CONNECT	TED LO	AD
V	VOLTAGE: 120/208V 3-PH NEMA RATIN								PHA SE "A" LOA D:	150.5	AMPS
AM	PACITY: 225A MLO	PANEL MOUNTING:	SURFACE						PHA SE "B" LOA D:	128	AMPS
AIC-	Rating: 22ka								PHA SE "C" LOA D:	165.5	AMPS
CIRCUIT NUMBER	DESCRI	PTION	BREAKER SIZE	AMPS	PHASE	AMPS	BREAKER Size	DESCRIPTION			CIRCUIT NUMBER
1	SPA	RE	20-1		Α	17	25-2	1st FLR CORRIDC	or condensing unit (Cu	J-1)	2
3	3rd FLR IT/MECH	ROOM RECEPT.	20-1	3	В	17	-		-		4
5	4th FLR ∏/MECH	ROOM RECEPT.	20-1	3	C	17	25-2	2nd FLR CORRIDO	OR CONDENSING UNIT (C	U-2)	6
7	3rd FLR CORRIE	OR LIGHTING	20-1	3	A	17	-		-		8
9	4th FLR CORRIE	OR LIGHTING	20-1	3	В	17	25-2	3rd FLR CORRIDO	OR CONDENSING UNIT (C	U-3)	10
11	3rd FLR CORRIDOR AIR HANDLING UNIT (AHU-3)		60-2	51	C	17	-	-			12
13	-		-	51	A	17	25-2	4th FLR CORRIDC	OR CONDENSING UNIT (CU	J-4)	14
15	4th FLR CORRIDOR AIR H	ANDLING UNIT (AHU-3)	60-2	51	В	17	-		-		16
17	-		-	51	C	7.5	20-1	3rd FLR (	CORRIDOR RECEPTS.		18
19	STAIRWELL W	ALL HEATER	25-2	19	А	7.5	20-1	4th FLR (	CORRIDOR RECEPTS.		20
21	-		-	19	В	1	20-1		Mag Holds		22
23	STAIRWELL W	ALL HEATER	25-2	19	C		20-1		SPARE		24
25	-		-	19	A		20-1		SPARE		26
27	SPA	RE	20-1		В		20-1		SPARE		28
29	SPA	RE	20-1		C				OPEN		30
31	SPA	RE	20-1		А				OPEN		32
33	SPA	RE	20-1		В				OPEN		34
35	SPA	RE	20-1		C				OPEN		36
37	SPA	RE	20-1		A				OPEN		38
39	SPA	RE	20-1		В				OPEN		40
41	SPA	RE	20-1		C				OPEN		42

#### NOTES:

A: PANEL SHALL BE EQUAL TO SQUARE D MODEL "QO"

B: ELECTRICIAN SHALL VERIFY EXACT EQUIPMENT OVERCURRENT PROTECTION REQUIREMENTS PRIOR TO PURCHASE & INSTALLATION OF EQUIPMENT.

C: AFTER COMPLETION OF WORK, ELECTRICAN SHALL PROVIDE A TYPE WRITTEN PANEL DIRECTORY IN NEW PANEL.

	<b>VOLTAGE</b>	PANEL	SIZE	MOU	NTING	AIC RATING		
	120/208V 1-PH						PHASE "A" LOAD	167.5
	120/2007 1111	150A	MLO	RECE	SSED	SEE RISER	PHASE "B" LOAD	164.5
	NEMA RATING: 1							
CIRCUIT NUMBER	DESCRIPTION	BREA KER SIZE	AMPS	PHA SE	AMPS	BREAKER SIZE	DESCRIPTION	CIRCUI NUMBE
1	<b>REFRIGERATOR</b>	<u>20-1</u>	<u>8</u>	Α	44	45-2	AHU-1	2
3	STOVE	50-2	30	В	44	-	-	4
5	-	-	30	Α	22	30-2	WATER HEATER	6
7	RANGE HOOD / MICROWAVE	<u>20-1</u>	<u>8</u>	В	22	-	-	8
9	KITCHEN RECEPTS.	<u>20-1</u>	<u>4.5</u>	А	12	20-2	CU-1	10
11	<b>DISHWASHER</b>	<u>20-1</u>	<u>8</u>	В	12	-	-	12
13	KITCHEN RECEPTS.	<u>20-1</u>	<u>4.5</u>	A		20-1	SPARE	14
15	LIVING ROOM RECEPTS.	<u>15-1</u>	<u>12</u>	В	<u>6</u>	<u>15-1</u>	LIGHTING	16
17	BEDROOM RECEPTS.	<u>15-1</u>	<u>9</u>	A	<u>4</u>	<u>20-1</u>	DISPOSAL	<u>18</u>
19	BATHROOM RECEPT.	20-1	1.5	В			OPEN	20
21	<u>SPARE</u>	<u>15-1</u>		Α			OPEN	22
23	SPARE	20-1		В			OPEN	24
25	WASHING MACHINE	<u>20-1</u>	<u>8</u>	Α	1.5	20-1	MEDIA PANEL	26
27	DRYER	30-2	20	В	<u>1</u>	<u>15-1</u>	SMOKE DETECTORS	28
29	-	-	20	A			OPEN	30

A: PANEL SHALL BE EQUAL TO SQUARE D MODEL "HOMELINE"

B: ELECTRICIAN SHALL VERIFY BREAKER WITH EQUIPMENT PRIOR TO PURCHASE & INSTALL.

C: AFTER COMPLETION OF WORK, ELECTRICAN SHALL PROVIDE A TYPE WRITTEN PANEL DIRECTORY IN NEW PANEL.

D: CIRCUIT BREAKERS SHOWN ABOVE IN **BOLD UNDERLINED** TEXT SHALL BE ARC-FAULT CIRCUIT INTERRUPTER (AFCI) PER NEC 210.12.

E: TOTAL SIMULTANEOUS PHASE LOADS SHOWN MAY EXCEED PANEL AMPACITY AS SERVICE LOADS HAVE BEEN CALCULATED IN ACCORDANCE WITH NEC 220.82

	TYPIC	AL APA	RTME	NT PA	NEL 'I	P2' SCH	EDULE	
	VOLTAGE	PANEL SIZE		MOUNTING		AIC RATING		
	120/208V 1-PH						PHASE "A" LOAD	188.5
	120/2004 1-FT	150A	MLO	RECE	SSED	SEE RISER	PHASE "B" LOAD	178
	NEMA RATING: 1		-					
CIRCUIT NUMBER	DESCRIPTION	BREAKER SIZE	AMPS	PHASE	AMPS	BREAKER SIZE	DESCRIPTION	CIRCUI NUMBE
1	REFRIGERA TOR	<u>20-1</u>	<u>8</u>	Α	51	60-2	AHU-5	2
3	STOVE	50-2	30	В	51	-	_	4
5	-	-	30	Α	22	30-2	WATER HEATER	6
7	RANGE HOOD / MICROWAVE	<u>20-1</u>	<u>8</u>	В	22	-	-	8
9	KITCHEN RECEPTS.	<u>20-1</u>	<u>4.5</u>	Α	17	25-2	CU-5	10
11	<b>DISHWASHER</b>	<u>20-1</u>	<u>8</u>	В	17	-	-	12
13	KITCHEN RECEPTS.	<u>20-1</u>	<u>4.5</u>	Α		20-1	SPARE	14
15	LIVING ROOM RECEPTS.	<u>15-1</u>	<u>12</u>	В	<u>6</u>	<u>15-1</u>	LIGHTING	16
17	BEDROOM RECEPTS.	<u>15-1</u>	<u>9</u>	Α	<u>4</u>	<u>20-1</u>	<b>DISPOSAL</b>	<u>18</u>
19	BATHROOM RECEPT.	20-1	1.5	В			OPEN	20
21	BEDROOM RECEPTS.	<u>15-1</u>	<u>9</u>	Α			OPEN	22
23	BATHROOM RECEPT.	20-1	1.5	В			OPEN	24
25	WASHING MACHINE	<u>20-1</u>	<u>8</u>	A	1.5	20-1	MEDIA PANEL	26
27	DRYER	30-2	20	В	<u>1</u>	<u>15-1</u>	SMOKE DETECTORS	28
29	-	-	20	Α			OPEN	30

NOTES:

A: PANEL SHALL BE EQUAL TO SQUARE D MODEL "HOMELINE"

B: ELECTRICIAN SHALL VERIFY BREAKER WITH EQUIPMENT PRIOR TO PURCHASE & INSTALL.

C: AFTER COMPLETION OF WORK, ELECTRICAN SHALL PROVIDE A TYPE WRITTEN PANEL DIRECTORY IN NEW PANEL.

D: CIRCUIT BREAKERS SHOWN ABOVE IN **BOLD UNDERLINED** TEXT SHALL BE ARC-FAULT CIRCUIT INTERRUPTER (AFCI) PER NEC 210.12. E: TOTAL SIMULTANEOUS PHASE LOADS SHOWN MAY EXCEED PANEL AMPACITY AS SERVICE LOADS HAVE BEEN CALCULATED IN ACCORDANCE WITH NEC 220.82

BRANCH CIRCUIT CONDUCTOR SCHEDULE							
			MAXIMUM D	ISTANCE (FEET)			
AMPACITY	COPPER AWG	1	LØ	3	Ø	- MINIMUM - CONDUIT SIZE	
	5	120V	277V	208V	480V		
20	12	55'	130'	115'	260'	1/2"	
20	10	90'	205'	180'	415'	3/4"	
30	10	60'	135'	120'	275'	3/4"	
	8	95'	220'	190'	445'	1"	
35	8	80'	190'	165'	380'	1"	
	6	130'	300'	260'	605'	1"	
40	8	70'	165'	145'	330'	1"	
	6	110'	260'	225'	525'	1"	
45	6	100'	235'	200'	470'	1'	
-13	4	160'	370'	325'	750'	1-1/4"	
50	6	90'	210'	180'	420'	1-1/4"	
50	4	145'	335'	290'	675'	1-1/4"	
60	6	75'	175'	150'	350'	1-1/4"	
00	4	120'	280'	240'	560'	1-1/4"	
70	4	105'	240'	205'	480'	1-1/4"	
70	3	130'	300'	260'	605'	1-1/4"	
80	4	55'	210'	180'	420'	1-1/4"	
00	3	90'	260'	230'	530'	1-1/4"	
90	3	100'	235'	200'	470'	1-1/4"	
30	2	125'	295'	255'	595'	1-1/4"	
100	3	90'	210'	180'	420'	1-1/4"	
100	2	115'	265'	230'	535'	1-1/4"	

NOTES:

RACEWAY.

				EQUIPME	MINIMUM			
ΑΜΡΑΟΤΤΥ	# OF SETS	QUA NTIT	Y PER SET	AWO	G SIZE	AW	CONDUIT SIZE	
	# OF SETS	3Ø 'WYE'	10 OR 30	COPPER	ALUMINUM	COPPER	A LUMINUM	(PER SET)
30	1	4	3	10	8	10	8	3/4"
40	1	4	3	8	8	8	8	1"
45	1	4	3	8	6	8	8	1"
50	1	4	3	8	6	10	8	1"
60	1	4	3	6	4	10	6	1"
70	1	4	3	4	2	8	6	1-1/4"
80	1	4	3	4	2	8	6	1-1/4"
90	1	4	3	3	2	8	6	1-1/4"
100	1	4	3	3	1	8	6	1-1/4"
110	1	4	3	2	1/0	6	4	1-1/4"
125	1	4	3	1	2/0	6	4	2"
150	1	4	3	1/0	3/O	6	4	2"
175	1	4	3	2/0	4/O	6	4	2"
200	1	4	3	3/O	250	6	4	2-1/2"
225	1	4	3	4/0	300	4	2	2-1/2"
250	1	4	3	250	350	4	2	3"
300	1	4	3	350	500	4	2	4"
350	1	4	3	400	600	3	1	4"
400	1	4	3	500	750	3	1	4"
500	2	4	3	250	350	2	1/0	4"
600	2	4	3	350	500	1	2/0	4"
800	2	4	3	500	750	1/O	3/0	4"
1000	3	4	3	400	350	2/0	4/0	4"
1200	4	4	3	350	500	3/0	250	4"
1600	5	4	3	400	750	4/0	350	4"
2000	6	4	3	400	750	250	400	4"

1. ALLWIRE SIZES SHOWN ARE BASED ON CONDUCTOR TEMPERATURE RATING OF 75°C & AMBIENT TEMPERATURE RATING OF 30°C PER NEC. 2. MAXIMUM ALLOWABLE VOLTAGE DROP FOR FEEDER CONDUCTORS SHALL BE 2%. 3. ELECTRICAL CONTRACTOR TO ADJUST CONDUCTOR SIZES FOR LONG CIRCUIT LENGTHS & AMBIENT TEMPERATURES HIGHER THAN 30°C.

1. ALL BRANCH CIRCUIT CONDUCTORS SHALL BE COPPER. ALL WIRE SIZES SHOWN ARE BASED ON CONDUCTOR TEMPERATURE RATING OF 75°C & AMBIENT TEMPERATURE OF 30°C PER NEC.

2. DISTANCE SHOWN ABOVE IS LENGTH FROM OVERCURRENT PROTECTION TO DEVICE/EQUIPMENT.

3. REFER TO PLAN SHEETS FOR BRANCH CONDUCTOR SIZING LENGTHS GREATER THAN SHOWN ABOVE. 4. VOLTAGE DROP CALCULATIONS BASED ON 3% DROP, 80% CIRCUIT LOAD, THHN/THWN INSULATION, 100%

POWER FACTOR, BALANCED LOAD, NEGLIGIBLE REACTANCE, & SIX OR LESS CURRENT-CARRYING CONDUCTORS IN

ISSUE TITLE DATE PERMITT SET 04-15-2025 URCHARTICAL - FUMBING DESIGN DRAVINGS FOR: URCHARTAR DISCOVERY PARK AND ADARTARDAR URCHARTARDAR DISCOVERY PARK AND ADARTARDAR URCHARTARDAR DISCOVERY PARK AND ADARTARDAR Northeast Douglas Street Lee's Summit, Jackson Conrth, Missoni	J-SQUA ENGINEER 2400 Bluff Creek Drive Columbia, Missour 573.234.449 www.j-squareder J2 PROJECT No: J2 DESIGN:	April 15, 2025 # 2018029680 CRED April 15, 2025 # 2018029680 CRED April 15, 2025 # 2018029680 CRED April 15, 2025 # 2018029680
MECHANICAL - ELECTRICAL - PLUMBING DESIGN DRAWINGS FOR: The Village at Discovery Park Alura Apartments Northeast Douglas Street Lee's Summit, Jackson County, Missouri	J2 DESIGN:	ACW
MECHANICAL - ELECTRICAL - PLUMBING DESIGN DRAWINGS FOR: The Village at Discovery Park Alura Apartments Northeast Douglas Street Lee's Summit, Jackson County, Missouri	ISSUE TITLE	DATE
MECHANICAL - ELECTRICAL - PLUMBING DESIGN DRAWINGS FOR: The Village at Discovery Park Alura Apartn Northeast Douglas Street Lee's Summit, Jackson County, Missouri		
	MECHANICAL - ELECTRICAL - PLUMBING DESIGN DRAWINGS FOR: The Village at Discovery Park Alura Apartn	Northeast Douglas Street Lee's Summit, Jackson County, Missouri

ELECTRICAL

SCHEDULES

E601

#### DEFERRED SUBMITTAL NOTES

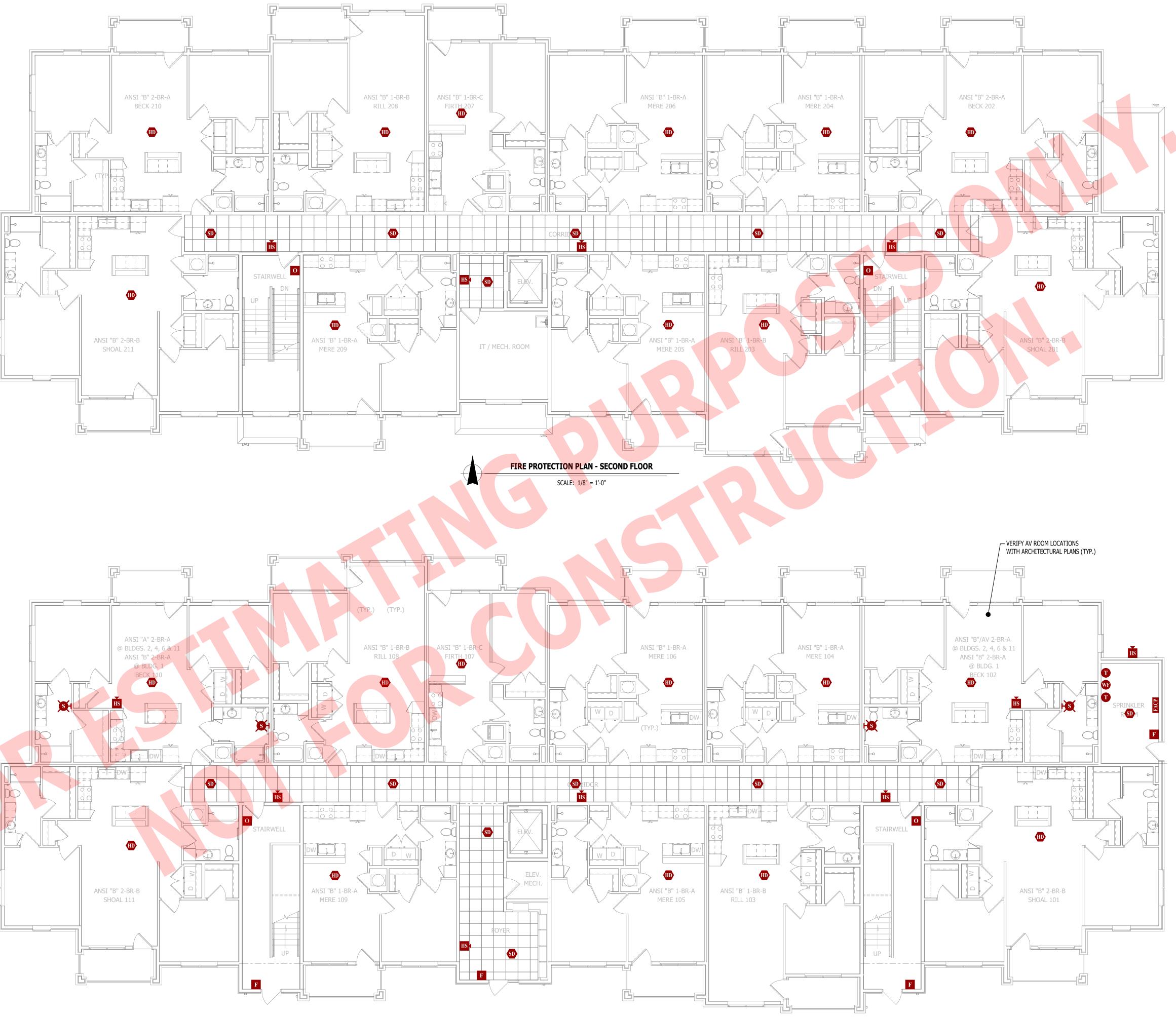
- 1. FIRE ALARM CONTRACTOR SHALL PROVIDE DEFERRED SUBMITTAL PACKAGE FOR FIRE ALARM SYSTEM. SUBMITTAL SHALL INCLUDE BATTERY CALCULATIONS, VOLTAGE DROP CALCULATIONS, EQUIPMENT SPECIFICATIONS FOR DEVICES AND PANELS, ETC. DESIGN SHALL BE SEALED BY A QUALIFIED DESIGN PROFESSIONAL LICENSED BY THE STATE.
- 2. FIRE ALARM SYSTEM COMPONENTS SHOWN (IF APPLICABLE) ARE GENERAL AND SCHEMATIC IN NATURE, SHOWN FOR APPROXIMATE ROUGH-IN LOCATIONS AND QUANTITIES ONLY. CONTRACTOR TO VERIFY EXACT DEVICE LOCATIONS AND REQUIREMENTS WITH FIRE ALARM SYSTEM DESIGNER OF RECORD PRIOR TO ROUGH-IN.

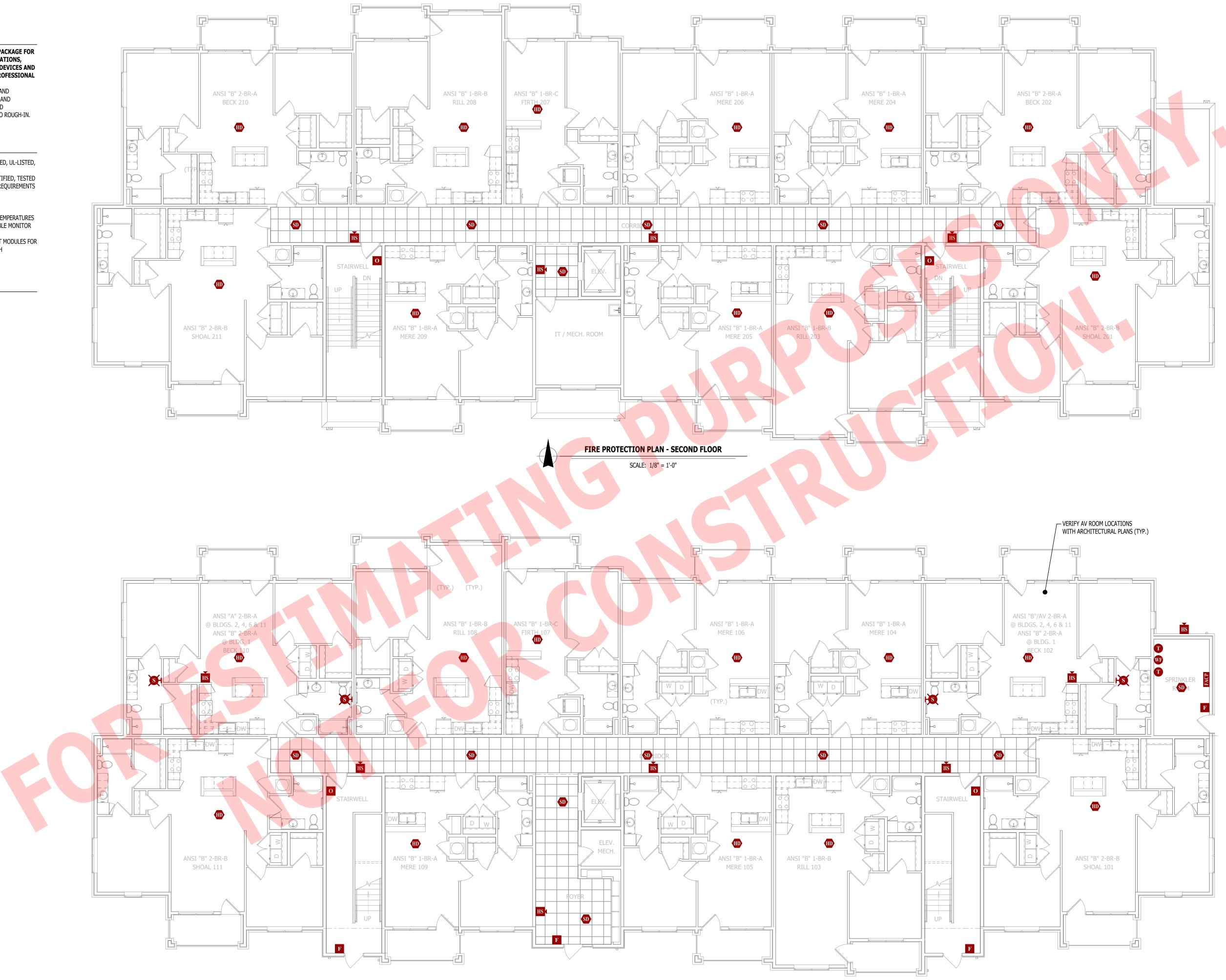
#### FIRE ALARM SYSTEM SPECIFICATIONS

- 1. FIRE ALARM SYSTEM SHALL BE AN ADDRESSABLE SYSTEM THAT IS NONCODED, UL-LISTED, WITH MULTIPLEX SIGNAL TRANSMISSION AND HORN/STROBE EVACUATION. 2. EVERY FIRE ALARM SYSTEM COMPONENT SHALL BE UL-LISTED AND UL-CERTIFIED, TESTED BY MANUFACTURERS AS A COMPLETE SYSTEM, AND MEET ALL APPLICABLE REQUIREMENTS
- of NFPA 72. 3. ALL FIRE ALARM WIRING TO BE PLENUM RATED. 4. ALL INITIATING DEVICES INSTALLED IN UNCONDITIONED SPACES SHALL BE CONVENTIONAL DEVICES SUITABLE FOR USE IN EXTREME HIGH AND LOW TEMPERATURES AND HIGH HUMIDITY. SUCH DEVICES SHALL BE SUPERVISED BY ADDRESSABLE MONITOR MODULES LOCATED IN CONDITIONED SPACES.
- 5. QUANTITIES, TYPES, AND LOCATIONS OF INITIATING DEVICES AND OUTPUT MODULES FOR INTERCONNECTION WITH FIRE SUPPRESSION MUST BE COORDINATED WITH CONTRACTORS THAT ARE RESPONSIBLE FOR THOSE SYSTEMS.

#### FIRE ALARM PLAN SYMBOL LEGEND

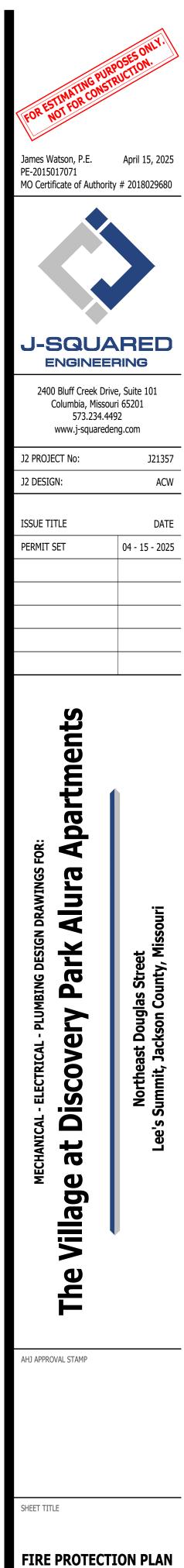
F	MANUAL PULL STATION
Μ	MODULE
0	OUTPUT MODULE
SD	SMOKE DETECTOR
	HEAT DETECTOR
<b>CO</b>	CARBON MONOXIDE DETECTOR
S	STROBE - CEILING MOUNT
<u>s</u>	STROBE - WALL MOUNT
HS	HORN STROBE - WALL MOUNT
ĬIS	HORN STROBE - CEILING MOUNT
SS	SPEAKER STROBE - WALL MOUNT
ŠŠ	SPEAKER STROBE - CEILING MOUNT
T	TAMPER SWITCH
WF	WATER FLOW SWITCH
FACP	FIRE ALARM CONTROL PANEL
ANN	FIRE ALARM ANNUNCIATOR





FIRE PROTECTION PLAN - FIRST FLOOR

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



- FIRST & SECOND FLOORS

FP101

#### DEFERRED SUBMITTAL NOTES

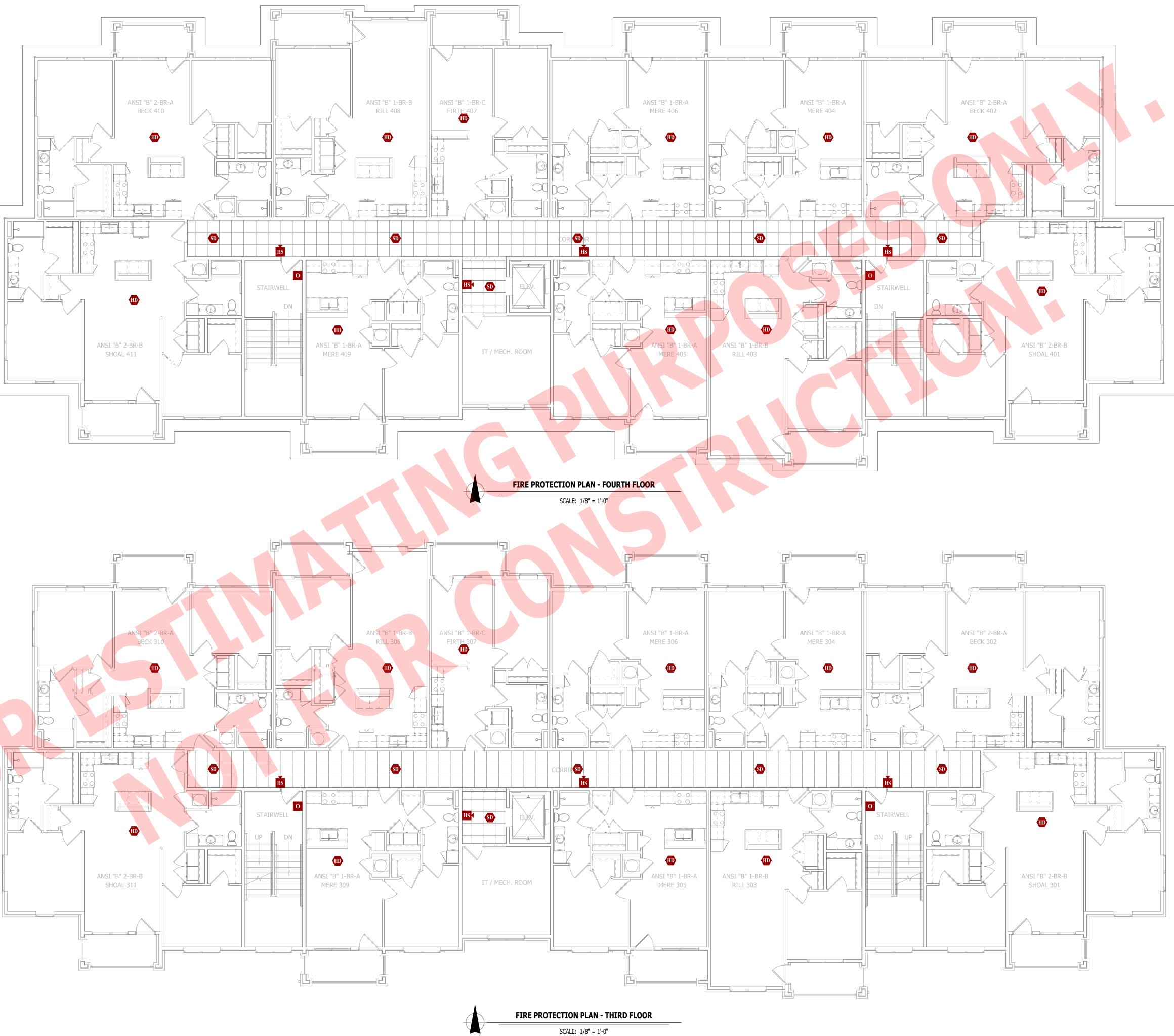
- FIRE ALARM CONTRACTOR SHALL PROVIDE DEFERRED SUBMITTAL PACKAGE FOR 1. FIRE ALARM SYSTEM. SUBMITTAL SHALL INCLUDE BATTERY CALCULATIONS, VOLTAGE DROP CALCULATIONS, EQUIPMENT SPECIFICATIONS FOR DEVICES AND PANELS, ETC. DESIGN SHALL BE SEALED BY A QUALIFIED DESIGN PROFESSIONAL LICENSED BY THE STATE.
- 2. FIRE ALARM SYSTEM COMPONENTS SHOWN (IF APPLICABLE) ARE GENERAL AND SCHEMATIC IN NATURE, SHOWN FOR APPROXIMATE ROUGH-IN LOCATIONS AND QUANTITIES ONLY. CONTRACTOR TO VERIFY EXACT DEVICE LOCATIONS AND REQUIREMENTS WITH FIRE ALARM SYSTEM DESIGNER OF RECORD PRIOR TO ROUGH-IN.

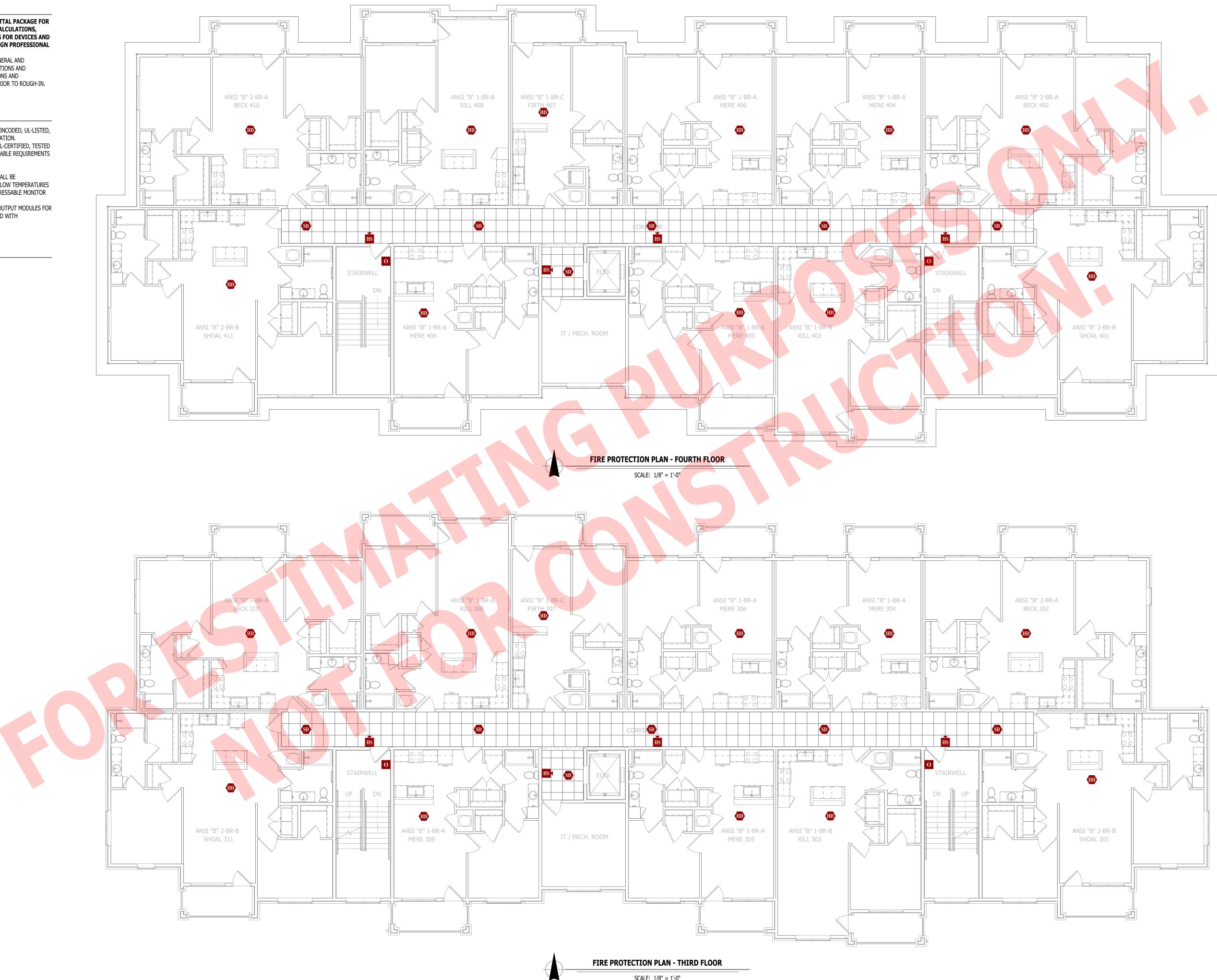
#### FIRE ALARM SYSTEM SPECIFICATIONS

- 1. FIRE ALARM SYSTEM SHALL BE AN ADDRESSABLE SYSTEM THAT IS NONCODED, UL-LISTED, WITH MULTIPLEX SIGNAL TRANSMISSION AND HORN/STROBE EVACUATION. 2. EVERY FIRE ALARM SYSTEM COMPONENT SHALL BE UL-LISTED AND UL-CERTIFIED, TESTED BY MANUFACTURERS AS A COMPLETE SYSTEM, AND MEET ALL APPLICABLE REQUIREMENTS
- of NFPA 72. 3. ALL FIRE ALARM WIRING TO BE PLENUM RATED. 4. ALL INITIATING DEVICES INSTALLED IN UNCONDITIONED SPACES SHALL BE CONVENTIONAL DEVICES SUITABLE FOR USE IN EXTREME HIGH AND LOW TEMPERATURES AND HIGH HUMIDITY. SUCH DEVICES SHALL BE SUPERVISED BY ADDRESSABLE MONITOR MODULES LOCATED IN CONDITIONED SPACES.
- 5. QUANTITIES, TYPES, AND LOCATIONS OF INITIATING DEVICES AND OUTPUT MODULES FOR INTERCONNECTION WITH FIRE SUPPRESSION MUST BE COORDINATED WITH CONTRACTORS THAT ARE RESPONSIBLE FOR THOSE SYSTEMS.

#### FIRE ALARM PLAN SYMBOL LEGEND

F	MANUAL PULL STATION
Μ	MODULE
0	OUTPUT MODULE
SD	SMOKE DETECTOR
HD	HEAT DETECTOR
<b>CO</b>	CARBON MONOXIDE DETECTOR
<u>s</u>	STROBE - CEILING MOUNT
<u>ð</u>	STROBE - WALL MOUNT
HS	HORN STROBE - WALL MOUNT
ŬŠ	HORN STROBE - CEILING MOUNT
SS	SPEAKER STROBE - WALL MOUNT
ŠŠ	SPEAKER STROBE - CEILING MOUNT
T	TAMPER SWITCH
WF	WATER FLOW SWITCH
FACP	FIRE ALARM CONTROL PANEL
ANN	FIRE ALARM ANNUNCIATOR







FLOORS

FP102

#### SANITARY SEWER PLAN SYMBOL LEGEND

	SANITARY SEWER PIPING
	VENT PIPING
o	PIPING TURNED DOWN / TURNED UP
$\left( \star \right)$	TIE INTO EXISTING

#### SANITARY SEWER PLAN GENERAL NOTES:

- 1. REFER TO P500 AND/OR P600 SERIES SHEETS FOR ADDITIONAL PLUMBING NOTES, DETAILS, REQUIREMENTS, AND SCHEDULES.
- 2. PLUMBING CONTRACTOR SHALL REVIEW ALL PROJECT DOCUMENTS AND COORDINATE LOCATION OF ALL EQUIPMENT, PIPING, HANGERS / SUPPORTS, ETC. WITH HVAC AND ELECTRICAL TRADES BEFORE INSTALLATION OF ANY MATERIAL. ADDITIONAL COSTS ASSOCIATED WITH LACK OF COORDINATION WILL NOT BE REIMBURSED.

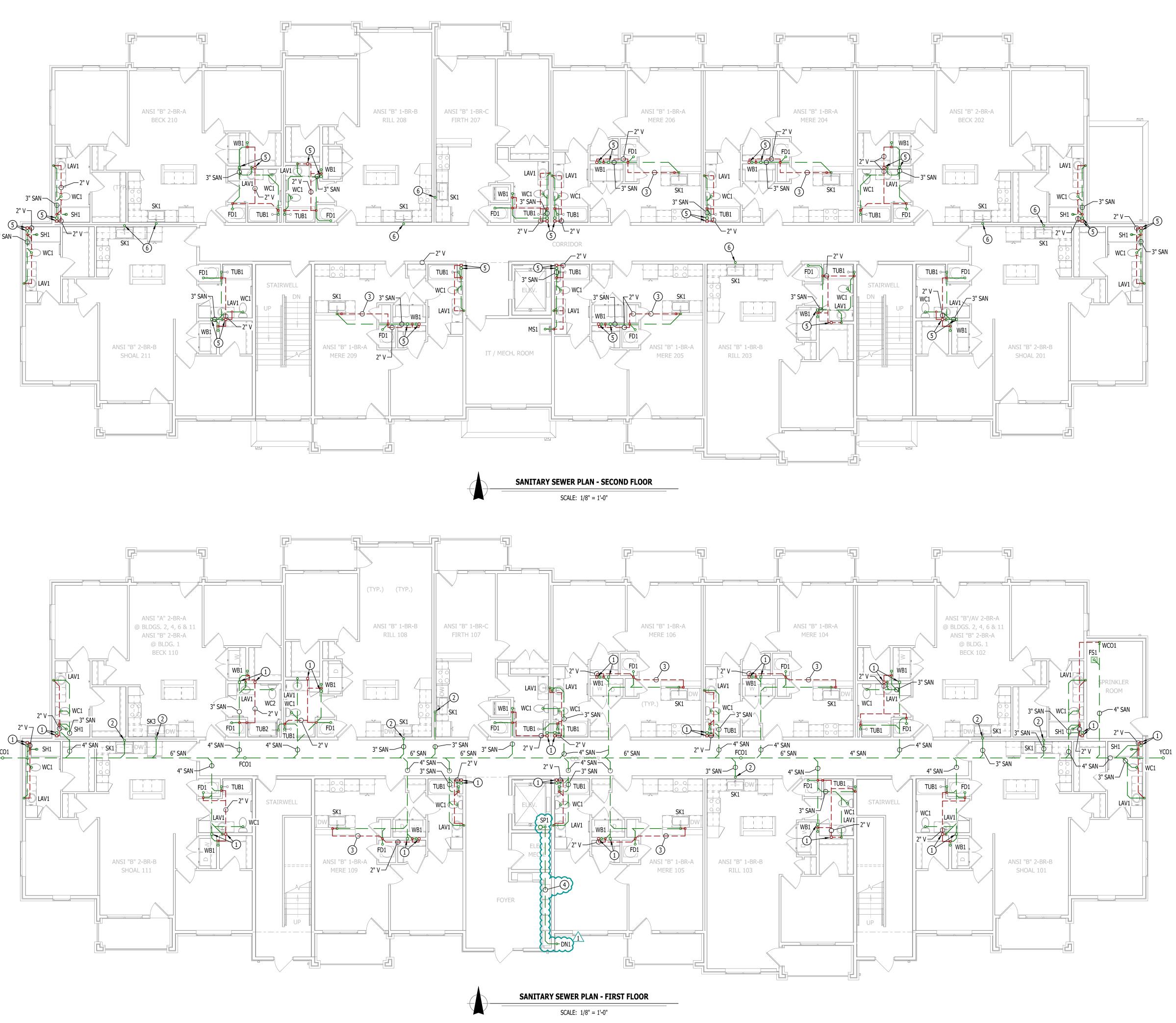
#### SANITARY SEWER PLAN KEY NOTES:

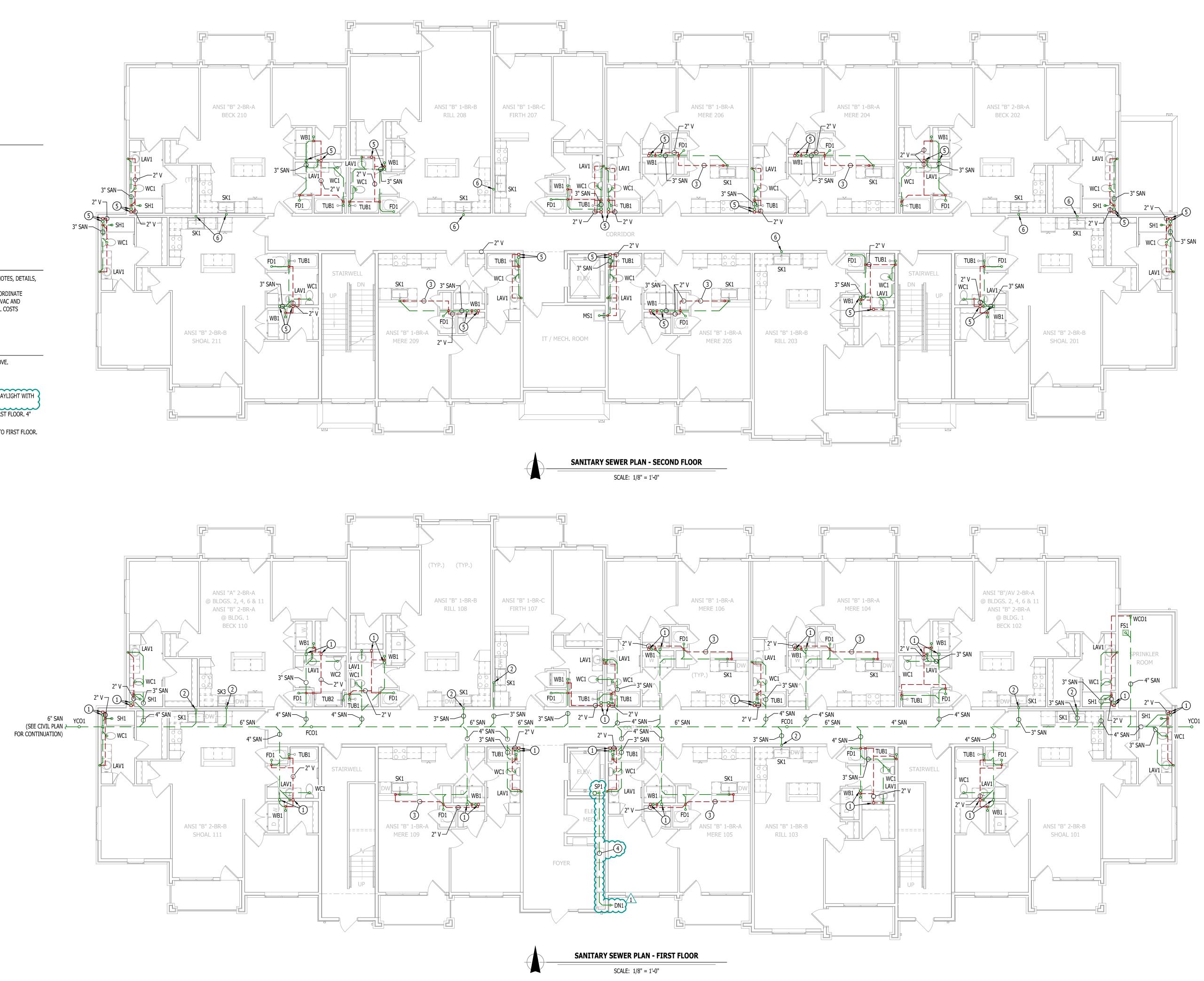
(1) 4" SANITARY STACK DOWN FROM LEVEL ABOVE / 4" VENT UP TO LEVEL ABOVE.

(2) 3" WASTE STACK VENT STACK DOWN FROM SECOND FLOOR.

(3) ISLAND SINK VENT BELOW FLOOR PER 2018 IPC SECTION 916.

- (4) 2" SUMP PUMP DISCHARGE PIPING ROUTED IN TRUSS SPACE & DOWN TO DAYLIGHT WITH  $\,$ DOWNSPOUT NOZZLE EQUAL TO ZURN #Z199. 5) 4" SANITARY STACK DOWN FROM THIRD FLOOR; CONTINUES DOWN TO FIRST FLOOR. 4" VENT UP FROM FIRST FLOOR; CONTINUES UP TO THIRD FLOOR.
- 6 3" WASTE STACK VENT DOWN FROM THIRD FLOOR; 3" CONTINUES DOWN TO FIRST FLOOR.





NUMBER PE-20150170 James Watson, P.E. April 15, 2025 PE-2015017071 MO Certificate of Authority # 2018029680 **J-SQUARED** ENGINEERING 2400 Bluff Creek Drive, Suite 101 Columbia, Missouri 65201 573.234.4492 www.j-squaredeng.com J2 PROJECT No: J21357 J2 DESIGN: ACW ISSUE TITLE DATE PERMIT SET 04 - 15 - 2025 ADDENDUM 1 05 - 16 - 2025 partments A EOR BOR Ū SB Ā Ë Park Discovery Č Dol ast Jac ELECT ۶ at Σ The Village AHJ APPROVAL STAMP

SANITARY SEWER PLAN -FIRST & SECOND

SHEET TITLE

SHEET NUMBER

**FLOORS** 

**PS101** 

#### SANITARY SEWER PLAN SYMBOL LEGEND

	SANITARY SEWER PIPING
	VENT PIPING
o	PIPING TURNED DOWN / TURNED UP
$\left( \right)$	TIE INTO EXISTING

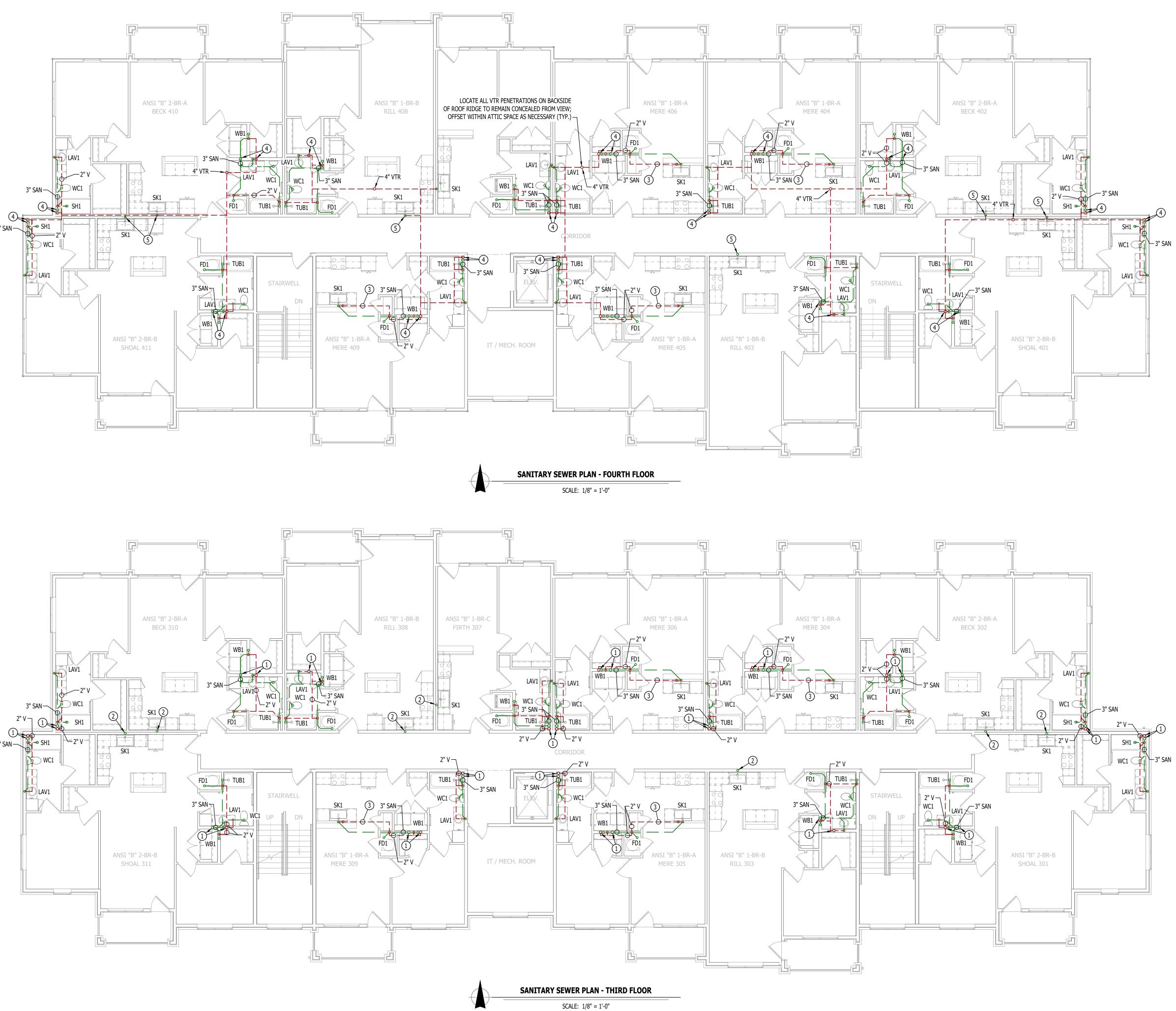
#### SANITARY SEWER PLAN GENERAL NOTES:

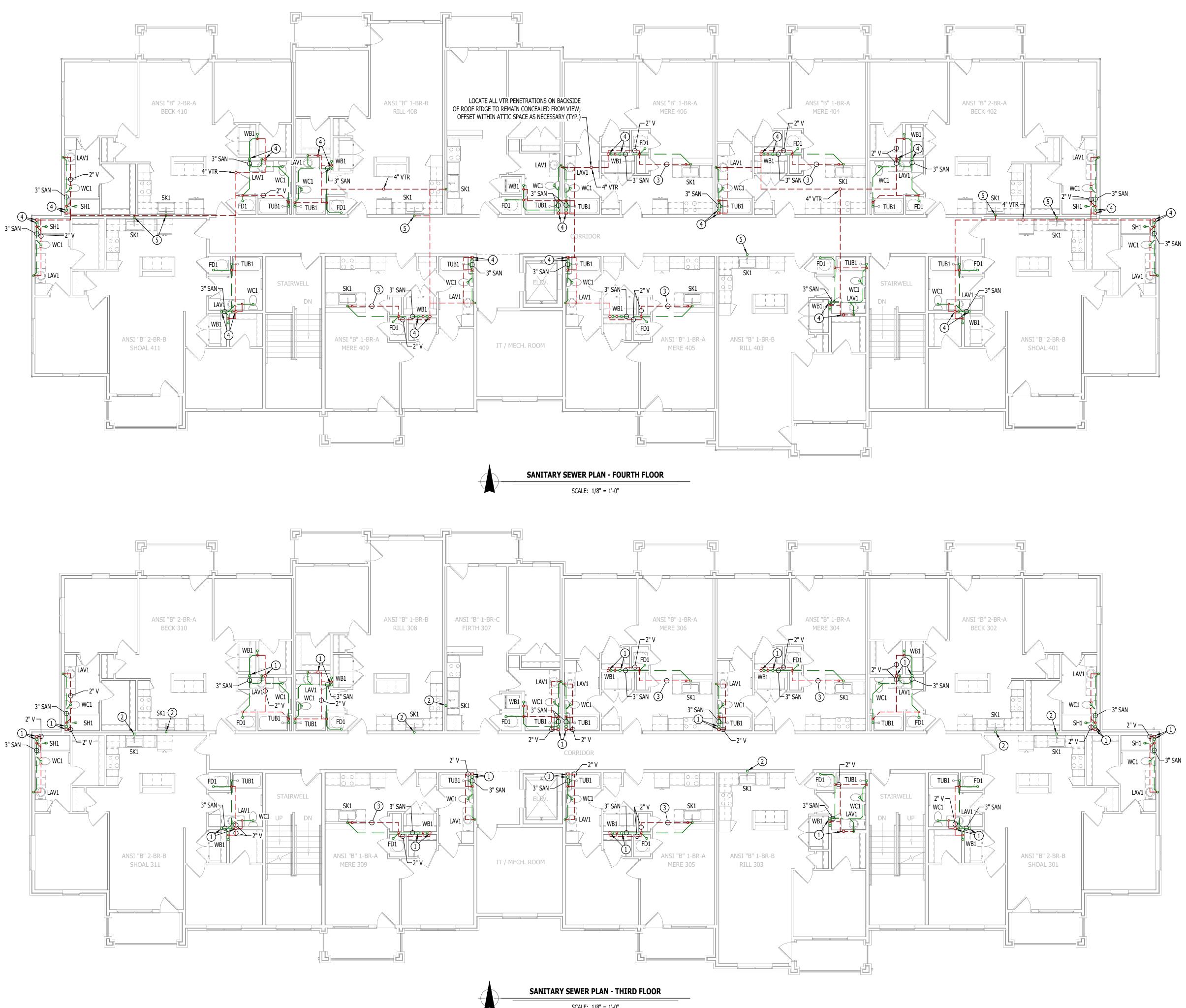
- 1. REFER TO P500 AND/OR P600 SERIES SHEETS FOR ADDITIONAL PLUMBING NOTES, DETAILS, REQUIREMENTS, AND SCHEDULES.
- 2. PLUMBING CONTRACTOR SHALL REVIEW ALL PROJECT DOCUMENTS AND COORDINATE LOCATION OF ALL EQUIPMENT, PIPING, HANGERS / SUPPORTS, ETC. WITH HVAC AND ELECTRICAL TRADES BEFORE INSTALLATION OF ANY MATERIAL. ADDITIONAL COSTS ASSOCIATED WITH LACK OF COORDINATION WILL NOT BE REIMBURSED.

#### SANITARY SEWER PLAN KEY NOTES:

(1) 4" SANITARY STACK DOWN FROM FOURTH FLOOR; CONTINUES DOWN TO FIRST FLOOR. 4" VENT UP FROM FIRST FLOOR; CONTINUES UP TO FOURTH FLOOR.

- (2) 3" WASTE STACK VENT DOWN FROM FOURTH FLOOR; 3" CONTINUES DOWN TO FIRST FLOOR.
- (3) ISLAND SINK VENT BELOW FLOOR PER 2018 IPC SECTION 916.
- (4) 4" SANITARY STACK DOWN / 4" VENT UP FROM BELOW TO VENT THRU ROOF.
- 5 3" WASTE STACK VENT DOWN / 3" VENT UP TO VENT THRU ROOF.





NUMBER  $F_{-2015017}$ James Watson, P.E. April 15, 2025 PE-2015017071 MO Certificate of Authority # 2018029680 **J-SQUARED** ENGINEERING 2400 Bluff Creek Drive, Suite 101 Columbia, Missouri 65201 573.234.4492 www.j-squaredeng.com J2 PROJECT No: J21357 J2 DESIGN: ACW ISSUE TITLE DATE PERMIT SET 04 - 15 - 2025 partments A EOR BOR Ŋ S A DR DESIGN Park Discovery ast Doug Jackson Δ ELECTRICAL rthe. .it, **N** D at MECHAN The Village AHJ APPROVAL STAMP SHEET TITLE

## SANITARY SEWER PLAN -THIRD & FOURTH FLOORS

**PS102** 

#### WATER & GAS PLAN SYMBOL LEGEND

	COLD WATER LINE		
	HOT WATER LINE		
M	WATER METER		
M	VALVE		
0	PUMP		
o	PIPING TURNED DOWN / TURNED UP		
$\left( \star \right)$	TIE INTO EXISTING		

#### WATER & GAS PLAN GENERAL NOTES:

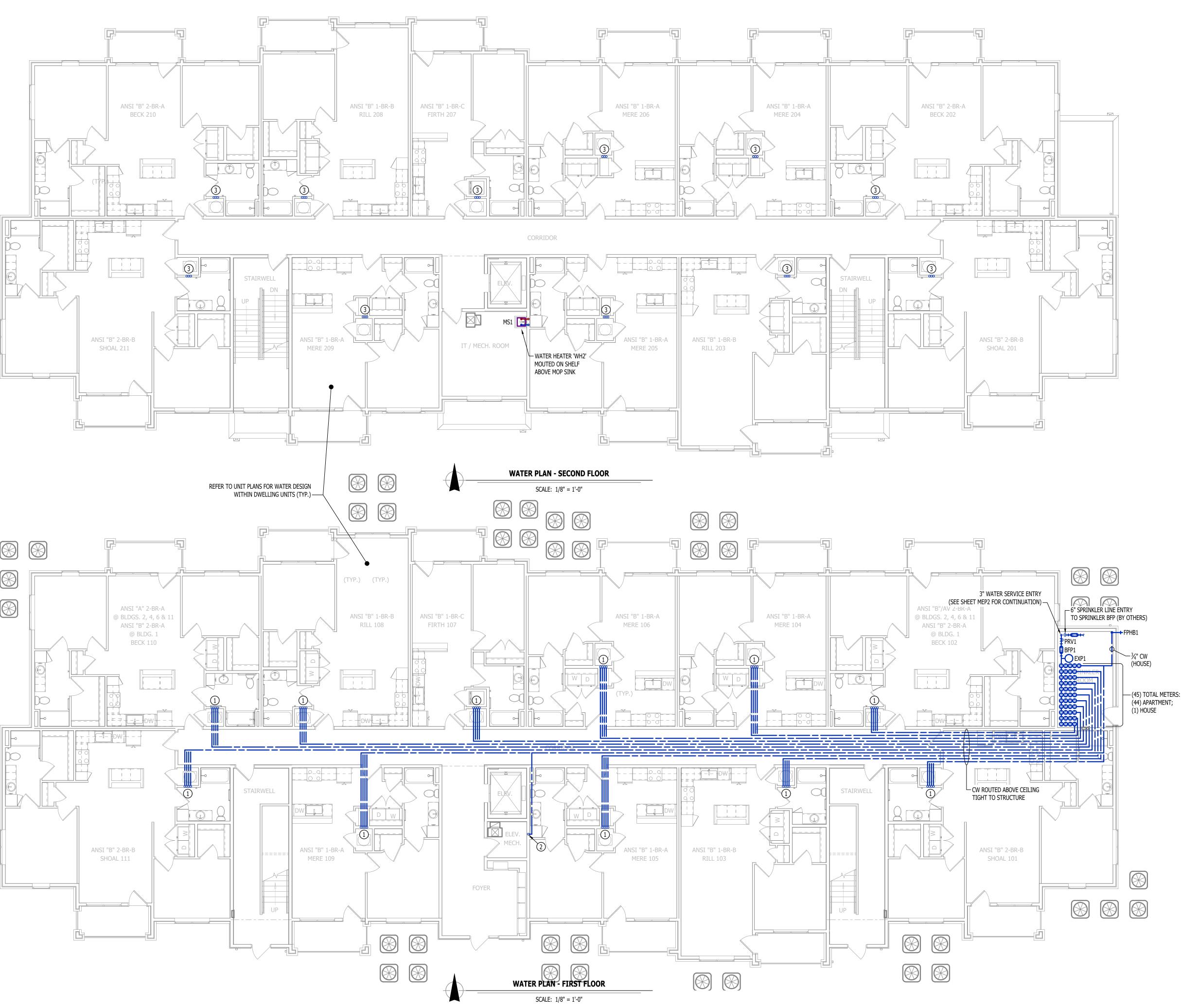
- 1. REFER TO P500 AND/OR P600 SERIES SHEETS FOR ADDITIONAL PLUMBING NOTES, DETAILS,
- REQUIREMENTS, AND SCHEDULES. 2. PLUMBING CONTRACTOR SHALL REVIEW ALL PROJECT DOCUMENTS AND COORDINATE LOCATION OF ALL EQUIPMENT, PIPING, HANGERS / SUPPORTS, ETC. WITH HVAC AND ELECTRICAL TRADES BEFORE INSTALLATION OF ANY MATERIAL. ADDITIONAL COSTS ASSOCIATED WITH LACK OF COORDINATION WILL NOT BE REIMBURSED.

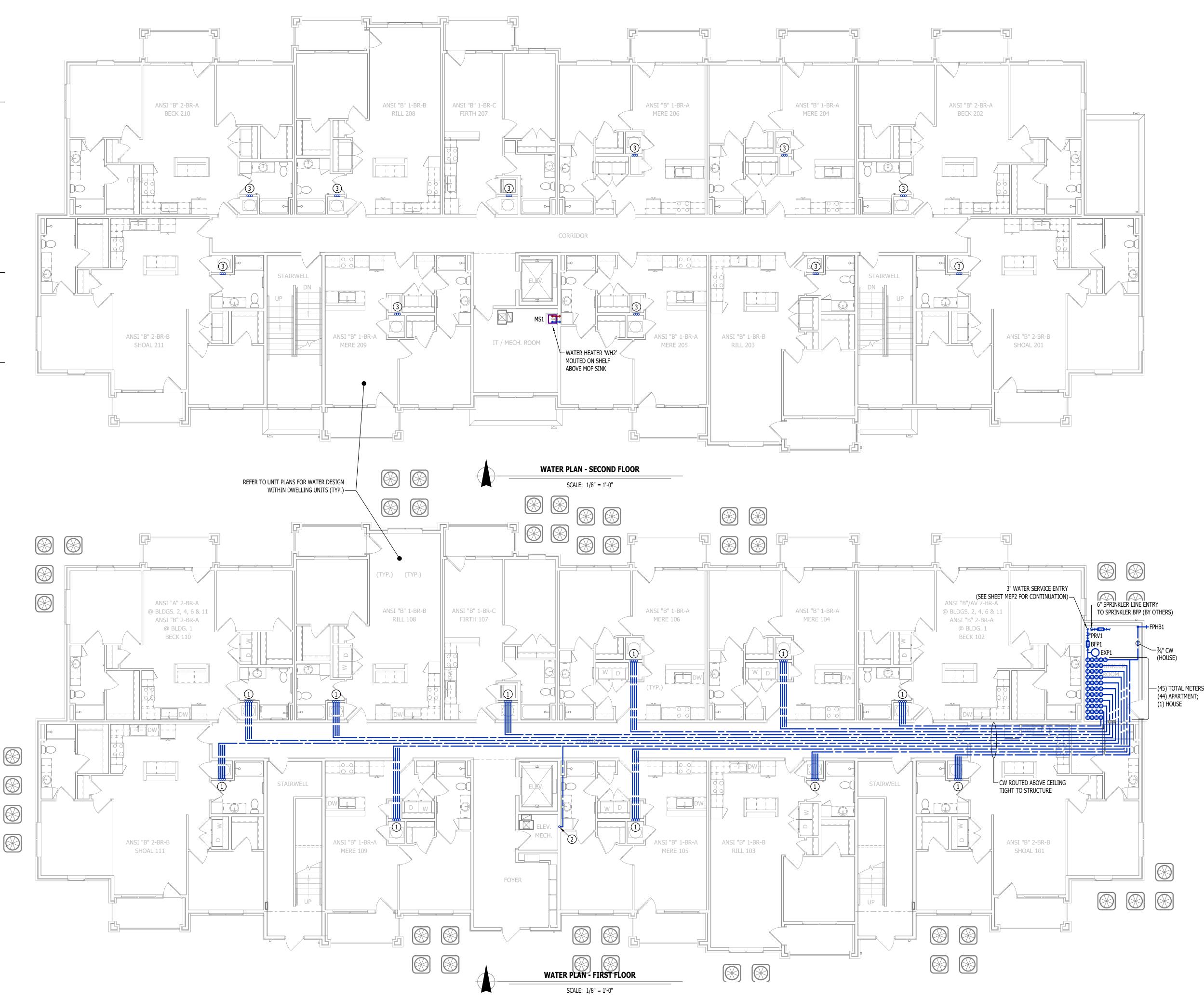
#### WATER & GAS PLAN KEY NOTES:

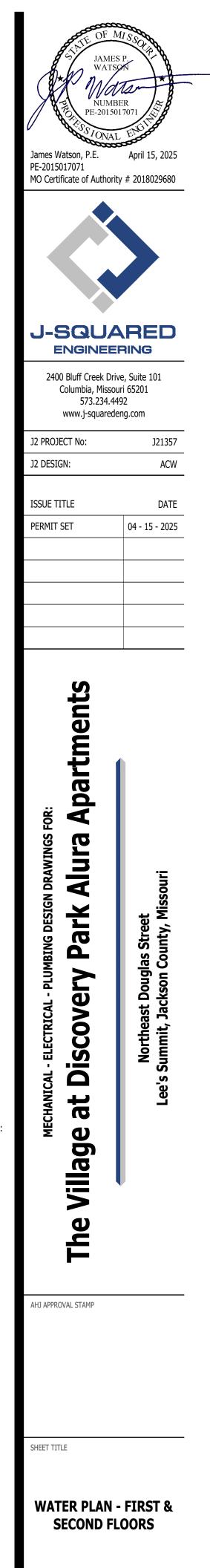
(1) (4) 1" CW - (1) 1" CW TO SERVE APARTMENT ON THIS FLOOR & (3) 1" CW CONTINUE UP TO SECOND FLOOR.

(2) 1" CW (HOUSE) UP TO MOP SINK ON SECOND FLOOR.

(3) (3) 1" CW UP IN WALL FROM FIRST FLOOR - (1) 1" CW TO SERVE APARTMENT ON THIS FLOOR & (2) 1" CW CONTINUE UP TO THIRD FLOOR.







SHEET NUMBER

PW101

#### WATER & GAS PLAN SYMBOL LEGEND

	COLD WATER LINE	
	HOT WATER LINE	
M	WATER METER	
M	VALVE	
0	PUMP	
o	PIPING TURNED DOWN / TURNED UP	
$\boldsymbol{\lambda}$	TIE INTO EXISTING	

#### WATER & GAS PLAN GENERAL NOTES:

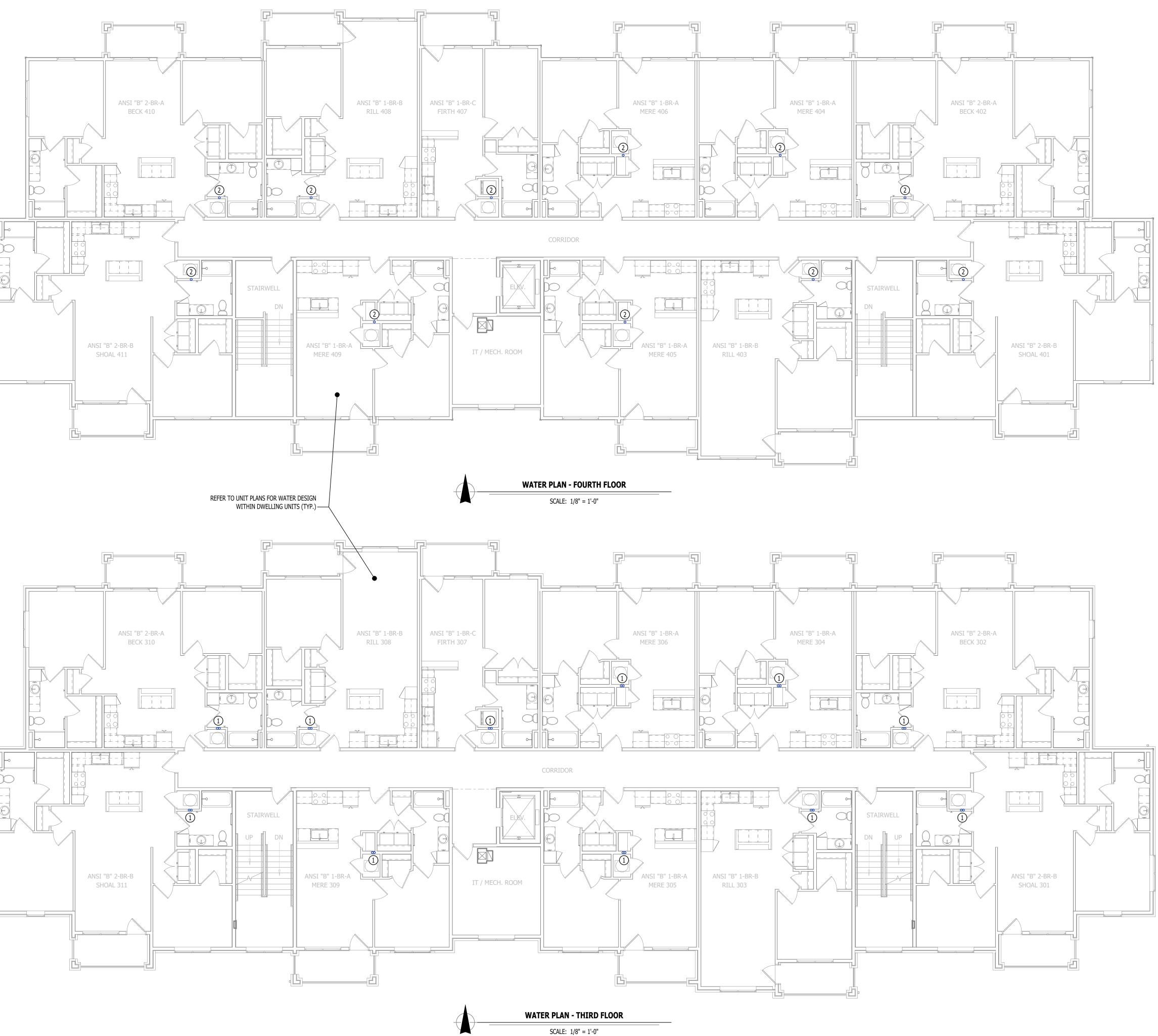
1. REFER TO P500 AND/OR P600 SERIES SHEETS FOR ADDITIONAL PLUMBING NOTES, DETAILS,

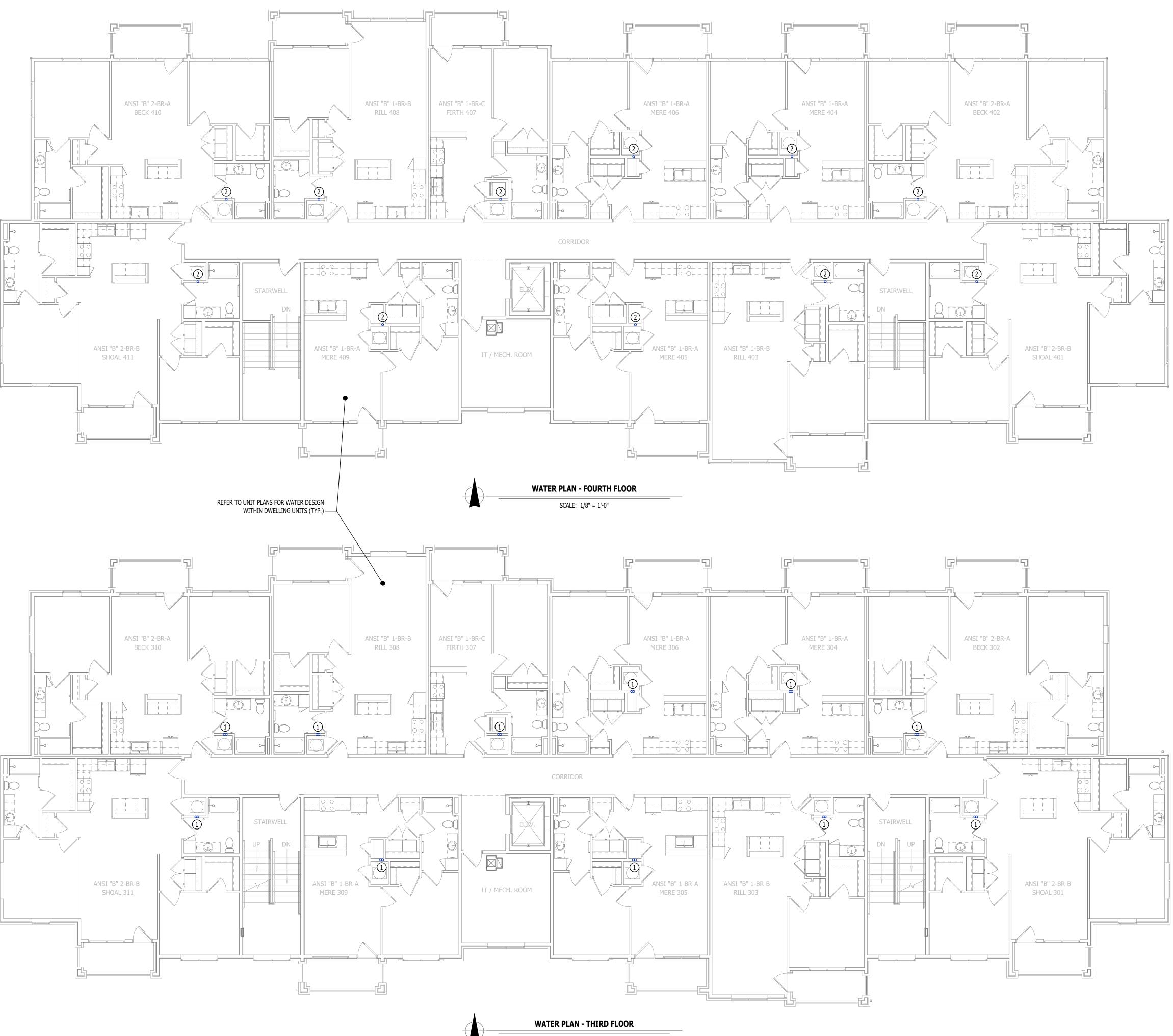
REQUIREMENTS, AND SCHEDULES. 2. PLUMBING CONTRACTOR SHALL REVIEW ALL PROJECT DOCUMENTS AND COORDINATE LOCATION OF ALL EQUIPMENT, PIPING, HANGERS / SUPPORTS, ETC. WITH HVAC AND ELECTRICAL TRADES BEFORE INSTALLATION OF ANY MATERIAL. ADDITIONAL COSTS ASSOCIATED WITH LACK OF COORDINATION WILL NOT BE REIMBURSED.

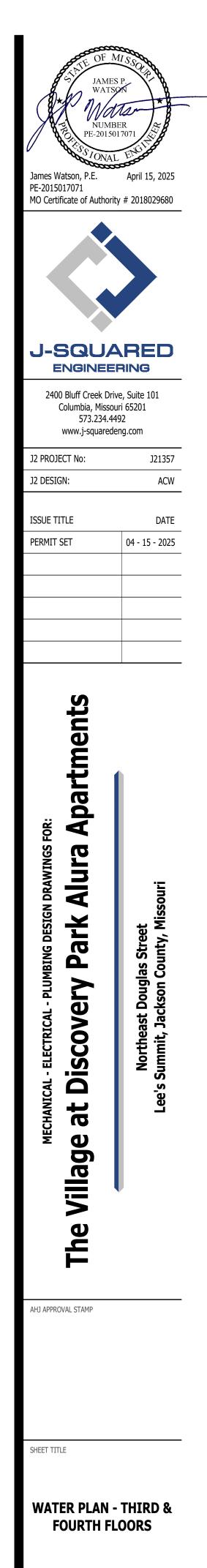
#### WATER & GAS PLAN KEY NOTES:

(1) (2) 1" CW UP FROM SECOND FLOOR - (1) TO SERVE APARTMENT ON THIRD AND (1) CONTINUES UP TO FOURTH FLOOR.

(1) 1" CW UP FROM THIRD FLOOR TO SERVE APARTMENT ON FOURTH FLOOR.







SHEET NUMBER

PW102

#### PLUMBING SPECIFICATIONS

1.	GENERAL
1.1.	PLUMBING CONTRACTOR IS RESPONSIBLE TO PROVIDE ALL ESCUTCHEONS, $1\!\!4$ TURN STOPS, P-TRAPS,
	AND SUPPLY LINES TO PROVIDE A COMPLETE SYSTEM AT EACH FIXTURE INDICATED ON PLANS UNLESS
	NOTED OTHERWISE.
1.2.	ALL PLUMBING SYSTEMS SHALL BE INSTALLED LEVEL, PLUMB, AND PARALLEL/PERPENDICULAR TO

- BUILDING ORIENTATION WHERE POSSIBLE. 1.3. COORDINATE ALL PIPING INSTALLATIONS WITH STRUCTURAL GRADE BEAMS, FOOTINGS, COLUMN PIERS, ETC. SLEEVE PIPING THRU STRUCTURAL ELEMENTS AS NECESSARY, VERIFY WITH STRUCTURAL ENGINEER.
- VERIFY ALL UTILITY CONNECTION POINTS WITH PROPOSED PLUMBING LAYOUTS PRIOR TO BEGINNING 1.4. WORK.
- CLEAN ALL PLUMBING FIXTURES AND CHANGE FAUCET AERATORS AND SINK STRAINERS AT PROJECT 1.5. COMPLETION PRIOR TO TURNING OVER TO OWNERSHIP.

#### 2. <u>EQUIPMENT / FIXTURES</u>

- 2.1. ALL EQUIPMENT AND/OR FIXTURES MUST MEET OR EXCEED THE PERFORMANCE, FUNCTIONAL INTENT, AND AESTHETICS AS MODELS SPECIFIED ON PLANS. WHERE SPECIFIC MANUFACTURERS AND/OR MODELS ARE INDICATED ON PLANS OR WITHIN SCHEDULES, CONTRACTOR TO PROVIDE MODEL INDICATED OR APPROVED EQUAL. VERIFY SUBSTITUTION APPROVAL PRIOR TO PURCHASE OR
- INSTALLATION OF EQUIPMENT. 2.2. CONTRACTOR TO SUPPLY SUBMITTALS FOR ALL EQUIPMENT FOR REVIEW BY ARCHITECT AND ENGINEER.
- FORMAL APPROVAL SHALL BE RECEIVED BY CONTRACTOR PRIOR TO EQUIPMENT PURCHASE. 2.3. CONTRACTOR TO SHARE APPROVED EQUIPMENT SUBMITTALS WITH ANY PERTINENT ELECTRICAL REQUIREMENTS WITH ELECTRICAL CONTRACTORS WITHIN TWO WEEKS OF RECEIVING APPROVED SUBMITTALS FROM ARCHITECT/ENGINEER.

#### 3. SANITARY

- 3.1. BELOW AND ABOVE GRADE WASTE AND VENT PIPING IN BUILDING TO BE SOLID CORE SCHEDULE 40 PVC LISTED FOR DWV APPLICATIONS.
- NO WASTE OR VENT PIPING INSTALLED BELOW GRADE SHALL BE SMALLER THAN 2". 3.2. 3.3. MINIMUM SLOPES FOR WASTE PIPING (UNLESS NOTED OTHERWISE ON PLANS):
- 3.3.1. 2 ½" OR LESS DIAMETER: ¼" PER FOOT
- 3.3.2. 3" TO 6" DIAMETER: ½" PER FOOT
- 3.3.3. 8" OR LARGER DIAMETER:  $\frac{1}{16}$ " PER FOOT
- 3.4. ACCESSIBLE FULL PIPE SIZE CLEANOUTS SHALL BE PROVIDED & INSTALLED ON BUILDING SANITARY LINES AT LOCATIONS SHOWN ON PLANS, AT INTERVALS OF NO MORE THAN 100', AT EVERY CHANGE IN DIRECTION GREATER THAN 45°, AND AT THE BASE OF EACH WASTE STACK. 3.5. WASTE AND VENT PIPING IN PLENUMS SHALL BE CAST IRON, PLENUM-RATED CPVC, OR PVC WITH AN
- INSULATION WRAP LISTED FOR USE AS SUCH AN ASSEMBLY. ALL VENT PIPE TERMINATIONS SHALL BE LOCATED EITHER 10' HORIZONTALLY OR 3' ABOVE MECHANICAL 3.6.
- AIR INTAKE LOCATIONS. TERMINATIONS SHALL NOT BE INSTALLED UNDER ANY OPERABLE BUILDING OPENING OR OPERABLE ADJACENT BUILDING OPENING. CONTRACTOR TO OFFSET VENT PIPING AS NECESSARY TO MEET THESE REQUIREMENTS.

#### 4. DOMESTIC WATER

ALL DOMESTIC WATER PIPING TO BE EITHER COPPER OR PEX, SHALL CONFORM TO NSF 61 AND BE 4.1. LISTED FOR USE IN POTABLE WATER SYSTEMS.

- 4.1.1. WHERE PEX PIPING IS USED, IT SHALL BE INCREASED ONE PIPE SIZE FROM WHAT IS INDICATED ON PLANS FOR ALL PORTIONS OF DISTRIBUTION SYSTEM. 4.1.2. PEX-A MAY BE INSTALLED AT SIZES INDICATED ON PLANS ONLY IF AN ENGINEERED PLAN IS
- SUBMITTED SHOWING ACCEPTABLE PRESSURE DROPS AND FLUID VELOCITIES, APPROVAL MUST BE GRANTED PRIOR TO PURCHASE AND INSTALLATION. 4.1.3. COPPER WATER PIPING BELOW GRADE SHALL BE TYPE "K". BELOW GRADE JOINTS SHALL BE
- SILVER SOLDERED. THERE SHALL BE NO JOINTS IN WATER PIPING LOCATED BENEATH BUILDING SLAB.
- 4.1.4. COPPER WATER PIPING ABOVE GRADE SHALL BE TYPE "L".
- 4.2. PROVIDE WATER HAMMER ARRESTORS AT ALL QUICK-CLOSE VALVES. FIXTURES REQUIRING WATER HAMMER ARRESTORS INCLUDE BUT ARE NOT LIMITED TO FLUSH VALVES, SENSOR FAUCETS, AND WASHING MACHINE BOXES. AIR CHAMBERS SHALL NOT BE PERMITTED.
- ALL DOMESTIC WATER PIPING SHALL BE ROUTED WITHIN BUILDING THERMAL ENVELOPE AND WITHIN 4.3. WALL CAVITIES, ABOVE FINISHED CEILINGS, OR BELOW SLAB TO REMAIN CONCEALED UNLESS OTHERWISE NOTED. NOTIFY ENGINEER OF ANY NECESSARY ADJUSTMENTS THAT REQUIRE PIPING TO BE EXPOSED.
- 4.4. DOMESTIC WATER PIPING INSULATION
- ALL HW PIPING, WHETHER COPPER OR PEX, SHALL BE INSULATED WITH PLENUM RATED CLOSED 4.4.1. CELL ELASTOMERIC INSULATION.
- 4.4.1.1. For PIPING LESS THAN  $1\frac{1}{2}$ ", insulation thickness to be 1".
- FOR PIPING  $1\frac{1}{2}$ " or greater, insulation thickness shall be  $1\frac{1}{2}$ ". 4.4.1.2. CW COPPER PIPING TO INSULATED WITH 1/2" PLENUM RATED CLOSED CELL ELASTOMERIC 4.4.2. INSULATION. CW PEX NEED NOT BE INSULATED UNLESS NOTED OTHERWISE ON PLANS.

#### 5. <u>GAS PIPING</u>

- GAS PIPING SHALL BE INSTALLED LEVEL, PLUMB, AND PARALLEL OR PERPENDICULAR TO BUILDING 5.1. ORIENTATION WHERE POSSIBLE.
- 5.2. QUARTER-TURN FULL-PORT SHUTOFF VALVES SHALL BE INCLUDED AT EACH APPLIANCE CONNECTION, AS WELL AS AN IN-LINE REGULATOR FROM DELIVERY PRESSURE TO APPLIANCE OPERATING PRESSURE IF REQUIRED. INCLUDE SEDIMENT TRAPS PER IFGC REQUIREMENTS.
- NATURAL GAS AND LIQUID PROPANE (LP) PIPING TO SHALL BE SCHEDULE 40 BLACK STEEL. 5.1. 5.2. PIPE JOINTS SHALL BE THREADED WITH CLASS 150 FITTINGS, OR WELDED. NOTIFY OWNER/GC OF ANY
- NECESSARY HOT-WORK ASSOCIATED WITH WELDED CONNECTIONS. WHERE PIPING IS EXPOSED ON EXTERIOR FACE OF BUILDING, PAINT TO MATCH BUILDING. PAINT 5.3.
- YELLOW IN ALL OTHER LOCATIONS.
- 5.4. ON ROOFTOPS, INSTALL GAS PIPE WITH "ROOFTOP BLOX" PER MANUFACTURER'S INSTRUCTION.

#### 6. STORM DRAIN PIPING

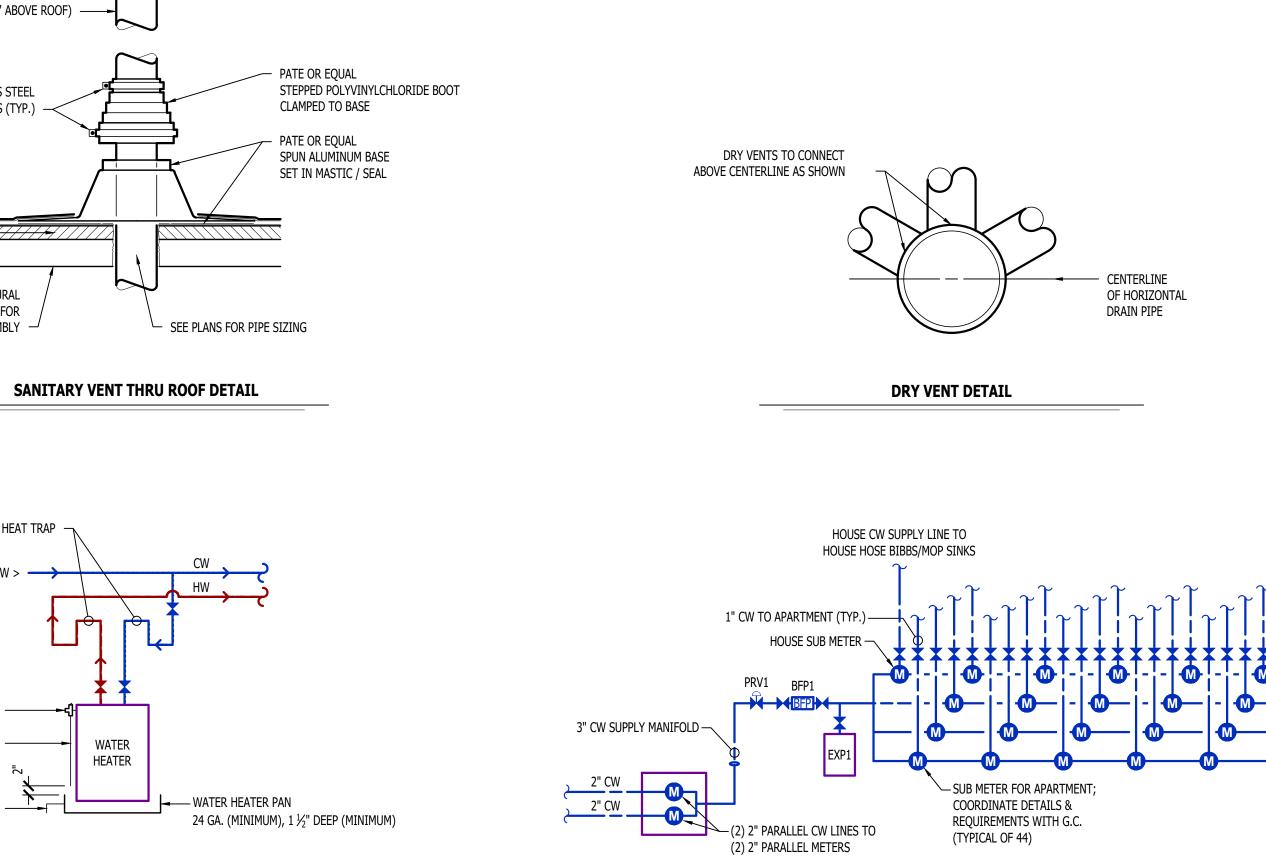
- 6.1. ABOVE AND BELOW GRADE STORM PIPING SHALL BE SOLID CORE SCHEDULE 40 PVC.
- ALL PRIMARY & SECONDARY STORM DRAIN PIPING & FITTINGS SHALL BE INSULATED WITH 6.2. 1/2" FIBERGLASS INSULATION WITH ASJ JACKET.
- STORM DRAIN PIPING IN PLENUMS SHALL BE CAST IRON, PLENUM-RATED CPVC, OR PVC WITH AN 6.3. INSULATION WRAP LISTED FOR USE AS SUCH AN ASSEMBLY.

PLUMBING FIXTURE SCHEDULE				
TAG	DESCRIPTION	MA NUFA CTURER (OR EQUAL)	MODEL (OR EQUAL)	NOTES
BFP1	BACKFLOW PREVENTER (APARTMENTS)	WILKINS	975XL2	RPZ - 2-1/2"
EXP1	EXPANSION TANK (APARTMENTS)	WATTS	DETA-100	
FCO1	FLOOR CLEAN OUT	ZURN	Z1400	
FD1	FLOOR DRAIN	ZURN	Z415-BZ	WITH Z1072 TRAP SEAL
FPHB1	FROST PROOF HOSE BIB	WOODFORD	MODEL 67	
FS1	FLOOR SINK	ZURN	FD2370	
HB1	HOSE BIB	JR SMITH	5670-H	INTEROR HOSE BIB WITH VACUUM BREAKER
LAV1	LAVATORY - INTEGRAL BOWL	-	-	WITH PFISTER #G142-8000 CHROME FAUCET
LAV2	LAVATORY (DROP-IN W/ MANUAL FAUCET)	AMERICAN STANDARD	0475.028	WITH ZURN Z81104-XL FAUCET, 1/4 TURN STOPS, BRAIDED STAINLESS STEEL SUPPLIES, & 'TMV1'
MS1	MOP SINK	FIAT	MSB2424	WITH ZURN Z843M1 FAUCET WITH WALL HOOK
PRV1	PRESSURE REDUCING VALVE	ZURN	500XL3	3" INLET / 3" OUTLET
REF1	REFRIGERATOR BOX	SIOUX CHIEF	696-G1000	
SK1	KITCHEN SINK	DAYTON	DSESR12722	WITH PFISTER #F-529-CRS FAUCET, ISE DISPOSAL #BADGER-1 & STS-00 AIR SWITCH
SK3	SINGLE COMPARTMENT ADA SINK	ELKAY	LRAD221965	WITH PFISTER #F-529-CRS FAUCET, ISE DISPOSAL #BADGER-1 & STS-00 AIR SWITCH
SP1	SUMP PUMP	ZOELLER	153-0002	120V, 1/2 HP WITH "OIL MINDER" CONTROLS
TUB1	TUB / SHOWER	AQUARIS	G6030TS	WITH PFISTER R89-0300 SHOWER TRIM KIT
TUB2	ADA TUB / SHOWER	AQUATIC	2603SMTE	WITH GRAB BARS & ADA HANDHELD SHOWER ASSEMBLY
WB1	WASHER BOX	SIOUX CHIEF	696-G2303	
WC1	WATER CLOSET - STANDARD HEIGHT - TANK	AMERICAN STANDARD	215CA.004	WITH CHURCH 7200SLEC SEAT AND COVER, STAINLESS BRAIDED SUPPLY, AND 1/4 TURN SHUT- OFF.
WC2	WATER CLOSET - ADA HEIGHT - TANK	AMERICAN STANDARD	215AA.004	WITH CHURCH 7200SLEC SEAT AND COVER, STAINLESS BRAIDED SUPPLY, AND 1/4 TURN SHUT- OFF.
WH1	WATER HEATER - ELECTRIC - LOWBOY	AO SMITH	ECLB-40	38 GALLON, 208V 1PH, 4500W; WITH 'EXP1'
WH2	WATER HEATER - ELECTRIC - POINT OF USE	AO SMITH	EGSP6	6 GALLON, 120V, 1500W WITH HOLDRITE #40-SWHP-W WALL HUNG PLATFORM; WITH 'EXP1'
YCO1	YARD CLEAN OUT	ZURN	Z1400	
YH1	YARD HYDRANT	WOODFORD	Y34	FREEZELESS
NOTES:	. VERIFY NECESSARY FIXTURES MEET ADA REQUII	REMENTS WITH ARCHITECT PR	IOR TO INSTALLATION	

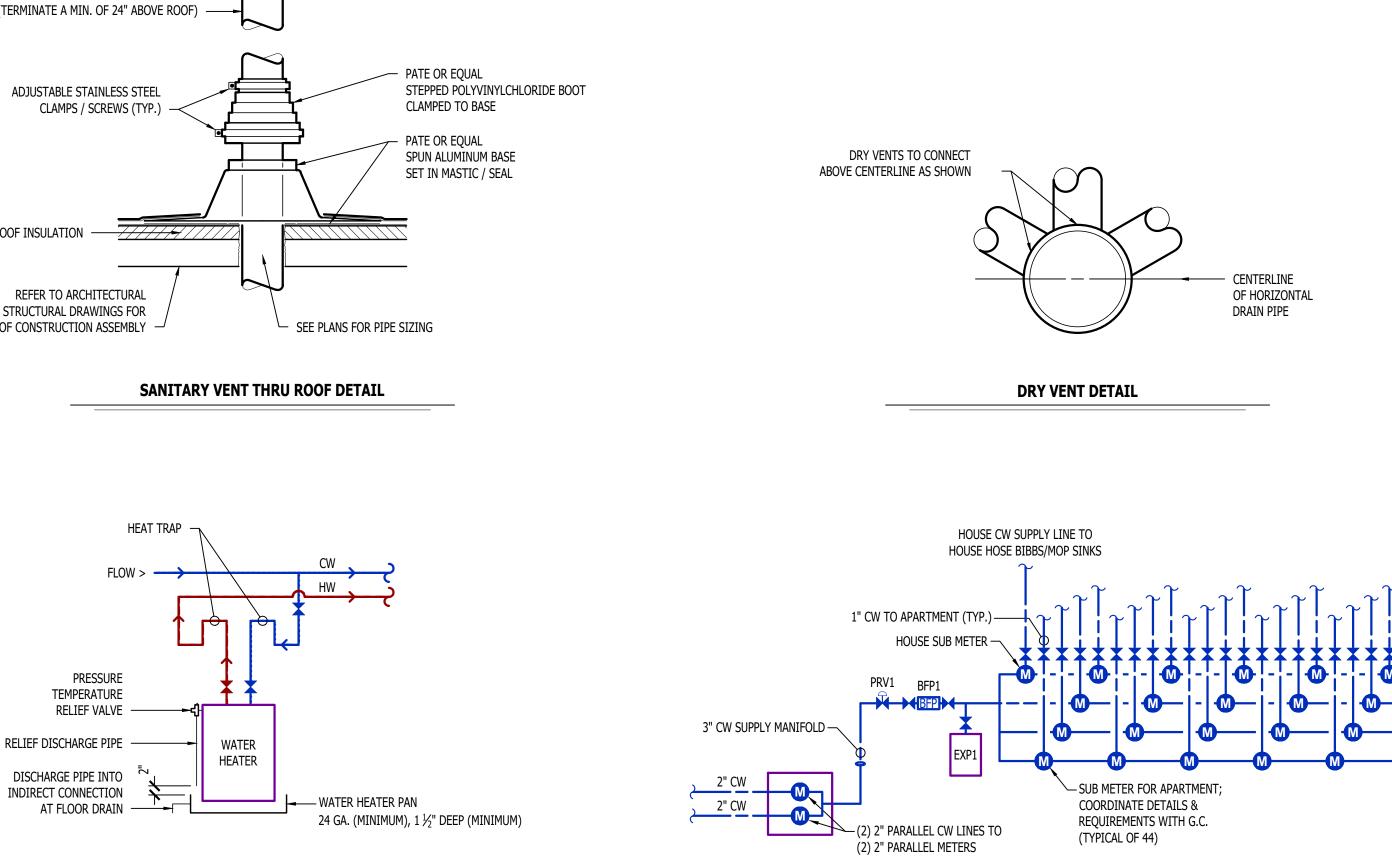
SANITARY VENT PIPING (TERMINATE A MIN. OF 24" ABOVE ROOF) —

ADJUSTABLE STAINLESS STEEL CLAMPS / SCREWS (TYP.)

ROOF INSULATION -



REFER TO ARCHITECTURAL / STRUCTURAL DRAWINGS FOR 



WATER HEATER DETAIL

1. VERIFY NECESSARY FIXTURES MEET ADA REQUIREMENTS WITH ARCHITECT PRIOR TO INSTALLATION

DRINKING FLOOF HAND / HOSE LAVA MOP ICE MAKER SHC

NOTES:

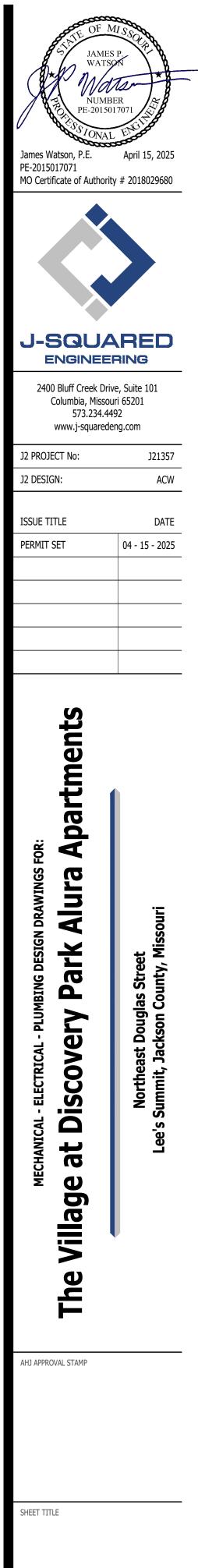
WATER CLOSE

WATER CLOSE

UF

PLUMBING CONNECTION SIZING SCHEDULE					
FIXTURE		SA NITA R	Y PIPING	SUPPLY PIPING	
YPE	TYPICAL ABBREVIATION	WASTE CONNECTION	VENT CONNECTION	COLD WATER CONNECTION	HOT WATER CONNECTION
G FOUNTAIN	DF	1-1/2"	1-1/4"	1/2"	-
r Drain	FD	3"	2"	-	-
HAIR SINK	HS / SK	2"	1-1/4"	1/2"	1/2"
SE BIBB	HB	-	-	3/4"	-
ATORY	LAV	1-1/2"	1-1/4"	1/2"	1/2"
P SINK	MS	3"	1-1/2"	1/2"	1/2"
OUTLET BOX	REF	-	-	1/2"	-
OWER	SH	3"	1-1/2"	1/2"	1/2"
RINAL	UR	2"	1-1/4"	3/4"	-
ET (FLUSH TANK)	WC	3"	2"	1/2"	-
T (FLUSH VALVE)	WC	3"	2"	1"	-
	-				

1. SIZES SHOWN ABOVE ARE TYPICAL UNLESS NOTED OTHERWISE ON PLANS



**PLUMBING DETAILS &** SCHEDULES

**P50**1

	EQUIPMENT TYPE (REFER TO EQUIPMENT SCHEDULE)
	EQUIPMENT REFERENCE NUMBER
$\overline{\mathbf{x}}$	DIFFUSER/GRILLE TYPE (REFER TO SCHEDULE)
#	CUBIC FEET PER MINUTE (CFM) / FACE SIZE
	SUPPLY DUCTWORK
	RETURN DUCTWORK
	EXHAUST DUCTWORK
~~~~~	FLEX DUCT
$\boxtimes$	SUPPLY DIFFUSER (HATCH INDICATES "NO FLOW ZONE")
	RETURN DIFFUSER
<b></b>	BALANCE DAMPER
Σ	MOTORIZED DAMPER
ပ <u> </u>	CEILING RADIATION DAMPER
۵	BACK DRAFT DAMPER
	THERMOSTAT

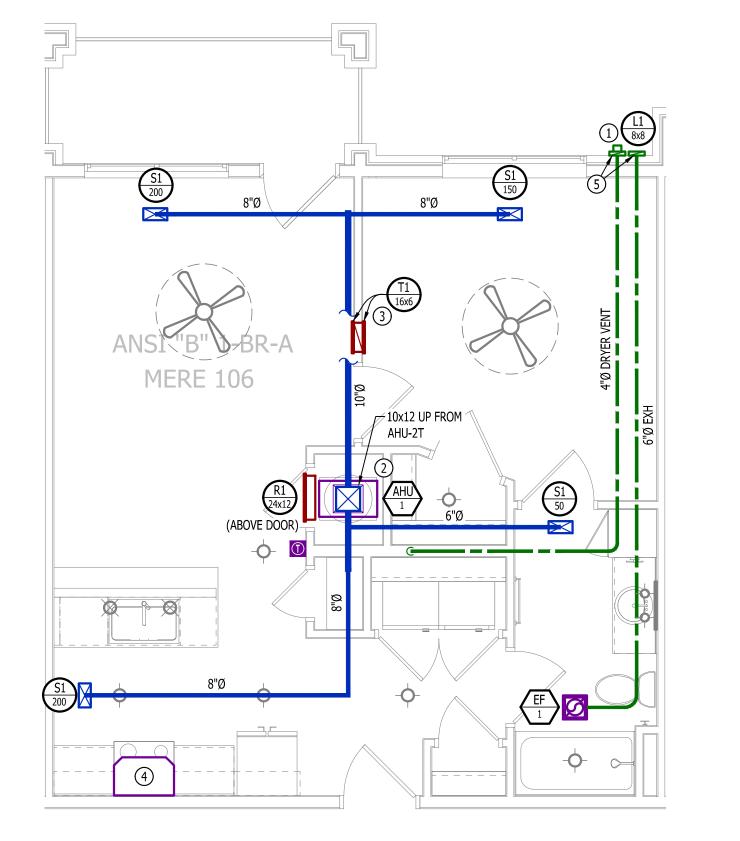
#### HVAC PLAN GENERAL NOTES:

- 1. SEE M500 & M600 SERIES SHEETS FOR HVAC SCHEDULES, DETAILS, REQUIREMENTS, ETC.
- 2. SEE M100 SERIES SHEETS FOR CONDENSING UNIT LOCATIONS. REFRIGERANT PIPING SHALL ROUTE IN SPACES ABOVE FINISHED CEILINGS AND WITHIN WALL CAVITIES TO REMAIN CONCEALED.
- 3. SUPPLY DUCTWORK FROM AHU AT FLOOR/CEILING PENETRATION SHALL BE PROTECTED BY A FIRE DAMPER. INSTALL PER MANUFACTURER'S SPECIFICATIONS. 4. WRAP ALL DRYER DUCTS WITH FIREMASTER (OR EQUAL) DUCT WRAP.
- 5. TOTAL DEVELOPED LENGTH OF EXHAUST DUCT SHALL BE INDICATED ON A PERMANENT LABEL WITHIN 6' OF DRYER VENT CONNECTION. DRYER DUCT ROUTING SHOWN IS FOR REFERENCE ONLY. OVERALL DUCT LENGTH SHALL BE CALCULATED BY HVAC CONTRACTOR PER 2018 IMC 504.8.4.
- 6. LOCATE ALL EXHAUST / DRYER VENT TERMINATIONS AT LEAST 36" FROM OPERABLE OPENINGS INTO APARTMENTS (WINDOWS, DOORS, ETC.).
- 7. ALL DUCTWORK SHOWN SHALL ROUTE IN SPACE BETWEEN / THRU TRUSSES UNLESS NOTED OTHERWISE. SEE STRUCTURAL DRAWINGS FOR DETAILS.

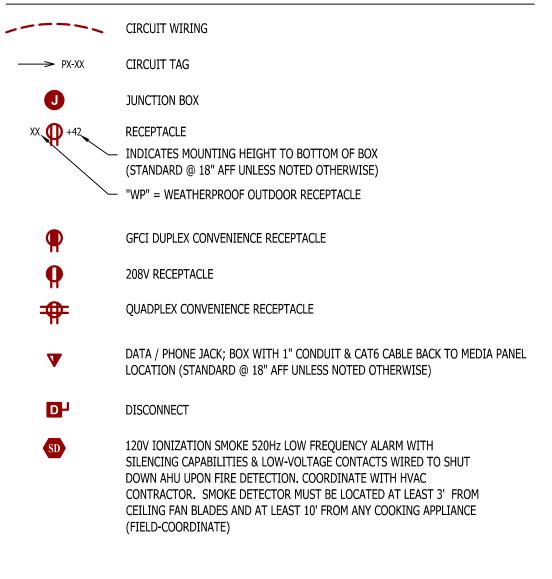
#### HVAC PLAN KEY NOTES:

(1) TERMINATE 4" DRYER EXHAUST WITH VENT EQUAL TO DRYER WALL VENT #DWV4.

- (2) AHU WALL MOUNTED ABOVE WATER HEATER, COORDINATE WITH PLUMBING CONTRACTOR. CONDENSATE TO DISCHARGE IN FLOOR DRAIN WITHIN CLOSET.
- (3) HI/LOW TRANSFER GRILLE (12" A.F.F. ON BEDROOM SIDE OF WALL; 84" A.F.F ON OPPOSITE SIDE OF WALL).
- (4) RESIDENTIAL RECIRCULATION HOOD TO BE SUPPLIED & INSTALLED BY GC.
- (5) ON FOURTH FLOOR ONLY, BATHROOM EXHAUST / DYER VENT TO TERMINATE AT LOUVER / VENT MOUNTED IN SOFFIT.

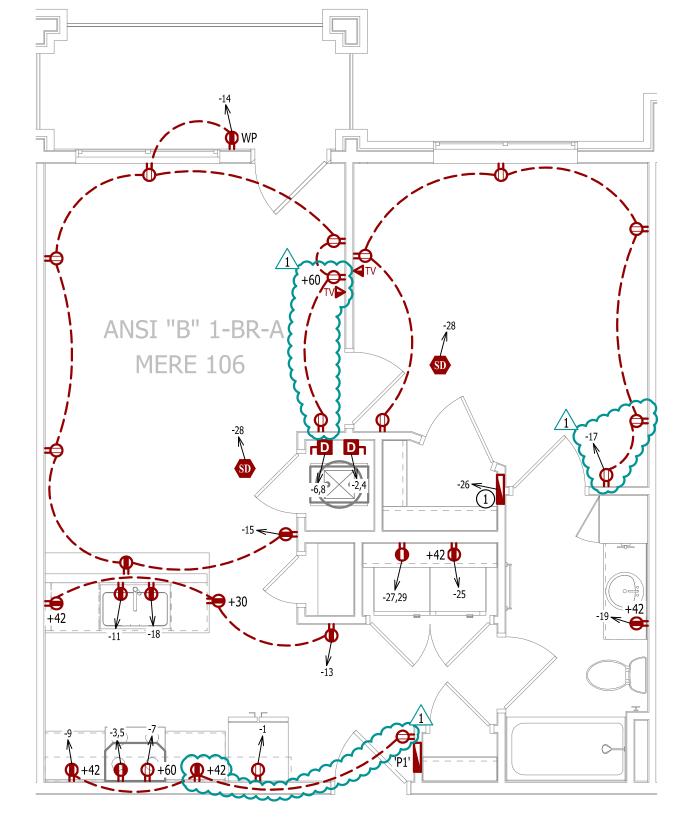


#### POWER PLAN SYMBOL LEGEND



#### **POWER PLAN GENERAL NOTES:**

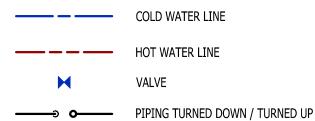
- SEE E500 & E600 SERIES SHEETS FOR POWER SCHEDULES, DETAILS, REQUIREMENTS, ETC.
- SEE M100 & EP100 SERIES SHEETS FOR CONDENSING UNIT LOCATIONS. VERIFY EACH DATA/RECEPTACLE LOCATION WITH OWNER PRIOR TO INSTALLATION.
- 3. 4. REFER TO "TYPICAL ADA MOUNTING HEIGHTS DETAIL", SHEET E501, FOR MOUNTING HEIGHTS OF DEVICES IN "ANSI A" UNITS.



#### **POWER PLAN KEY NOTES:**

(1) MEDIA PANEL LOCATION; DATA/TV WIRING TO TERMINATE AT THIS LOCATION. DETERMINE EXACT LOCATION & DETAILS WITH OWNER PRIOR TO INSTALLATION.





HVAC PLAN

SCALE: 1/4" = 1'-0"

**POWER PLAN** 

SCALE: 1/4" = 1'-0"

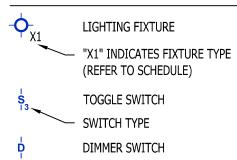
#### WATER PLAN GENERAL NOTES:

- 1. SEE P500 &/OR P600 SERIES SHEETS FOR ADDITIONAL PLUMBING NOTES, DETAILS, & SCHEDULES.
- 2. ALL PLUMBING LOCATED ON EXTERIOR WALLS SHALL ROUTE WITHIN INSULATION BARRIER. 3. ALL DOMESTIC SUPPLY LINES SERVING MORE THAN (1) FIXTURE SHALL BE  $\frac{3}{4}$ " UNLESS NOTED OTHERWISE.

#### WATER PLAN KEY NOTES:

(1) 1" CW PIPE UP FROM BELOW WITH SHUT-OFF VALVE IN ACCESSIBLE LOCATION. SEE OVERALL PLUMBING PLANS FOR DETAILS.

#### LIGHTING PLAN SYMBOL LEGEND

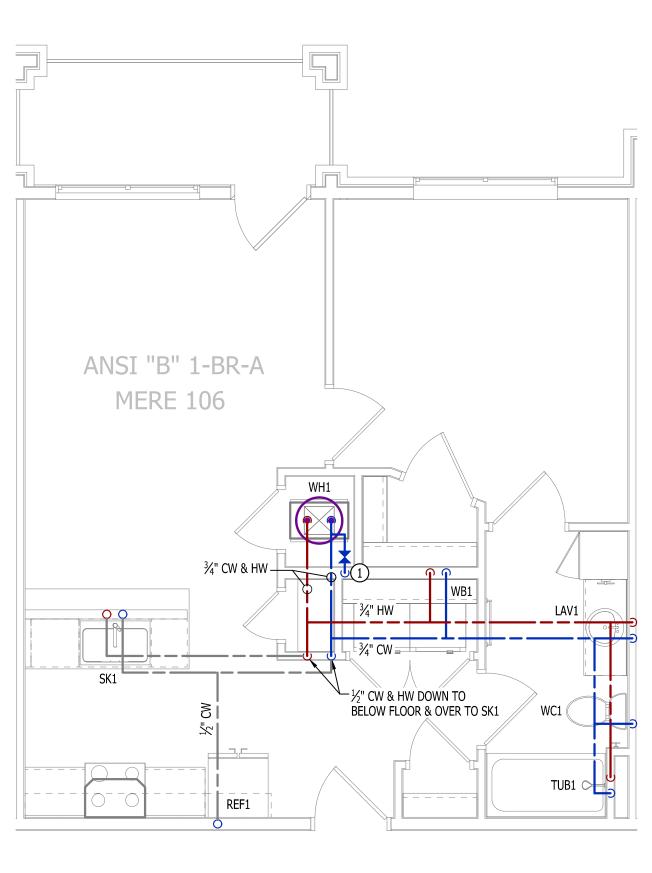


(REFER TO SCHEDULE) TOGGLE SWITCH SWITCH TYPE

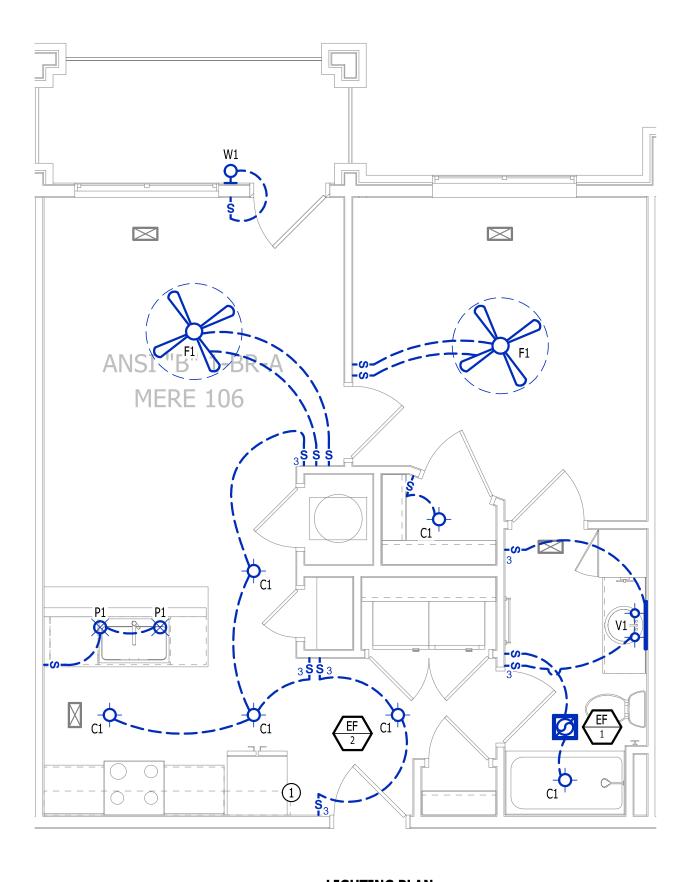
DIMMER SWITCH

#### LIGHTING PLAN GENERAL NOTES:

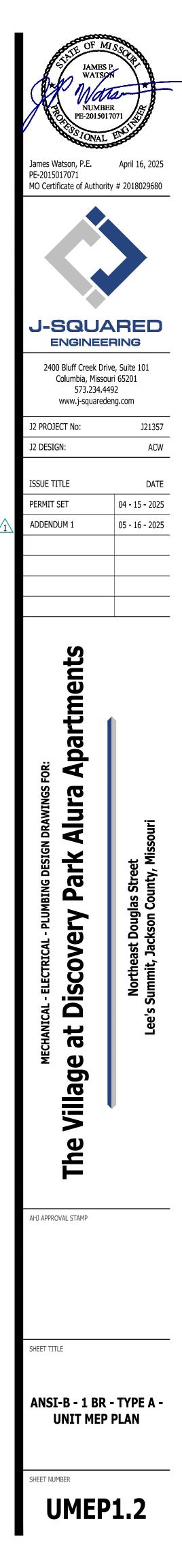
- SEE E500 & E600 SERIES SHEETS FOR ADDITIONAL ELECTRICAL NOTES, DETAILS, & SCHEDULES.
- 2. ALL LIGHTING SHOWN SHALL BE ON CIRCUIT -16 UNLESS NOTED OTHERWISE.



WATER PLAN SCALE: 1/4" = 1'-0"



LIGHTING PLAN SCALE: 1/4" = 1'-0"



	EQUIPMENT TYPE (REFER TO EQUIPMENT SCHEDULE) EQUIPMENT REFERENCE NUMBER DIFFUSER/GRILLE TYPE (REFER TO SCHEDULE) CUBIC FEET PER MINUTE (CFM) / FACE SIZE
	SUPPLY DUCTWORK
	RETURN DUCTWORK
	EXHAUST DUCTWORK
~~~~~	FLEX DUCT
$\boxtimes$	SUPPLY DIFFUSER (HATCH INDICATES "NO FLOW ZONE")
	RETURN DIFFUSER
<b></b>	BALANCE DAMPER
Σ	MOTORIZED DAMPER
0	CEILING RADIATION DAMPER
۵	BACK DRAFT DAMPER
	THERMOSTAT

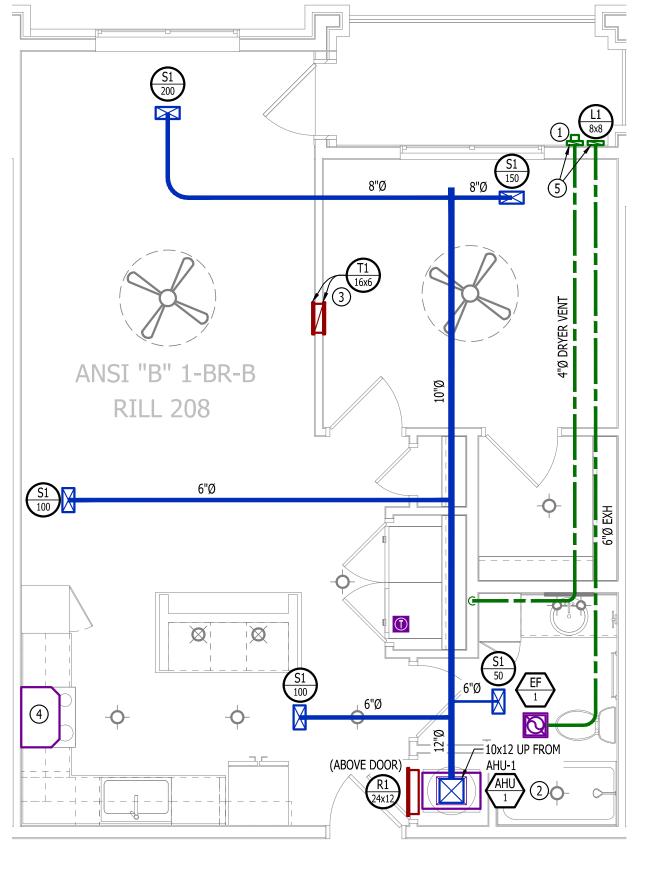
#### HVAC PLAN GENERAL NOTES:

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- 2. SEE M100 SERIES SHEETS FOR CONDENSING UNIT LOCATIONS. REFRIGERANT PIPING SHALL ROUTE IN SPACES ABOVE FINISHED CEILINGS AND WITHIN WALL CAVITIES TO REMAIN CONCEALED. 3. SUPPLY DUCTWORK FROM AHU AT FLOOR/CEILING PENETRATION SHALL BE PROTECTED BY A FIRE DAMPER.
- INSTALL PER MANUFACTURER'S SPECIFICATIONS.
- 4. WRAP ALL DRYER DUCTS WITH FIREMASTER (OR EQUAL) DUCT WRAP.
- 5. TOTAL DEVELOPED LENGTH OF EXHAUST DUCT SHALL BE INDICATED ON A PERMANENT LABEL WITHIN 6' OF DRYER VENT CONNECTION. DRYER DUCT ROUTING SHOWN IS FOR REFERENCE ONLY. OVERALL DUCT LENGTH SHALL BE CALCULATED BY HVAC CONTRACTOR PER 2018 IMC 504.8.4.
- 6. LOCATE ALL EXHAUST / DRYER VENT TERMINATIONS AT LEAST 36" FROM OPERABLE OPENINGS INTO APARTMENTS (WINDOWS, DOORS, ETC.).
- 7. ALL DUCTWORK SHOWN SHALL ROUTE IN SPACE BETWEEN / THRU TRUSSES UNLESS NOTED OTHERWISE. SEE STRUCTURAL DRAWINGS FOR DETAILS.

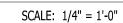
#### HVAC PLAN KEY NOTES:

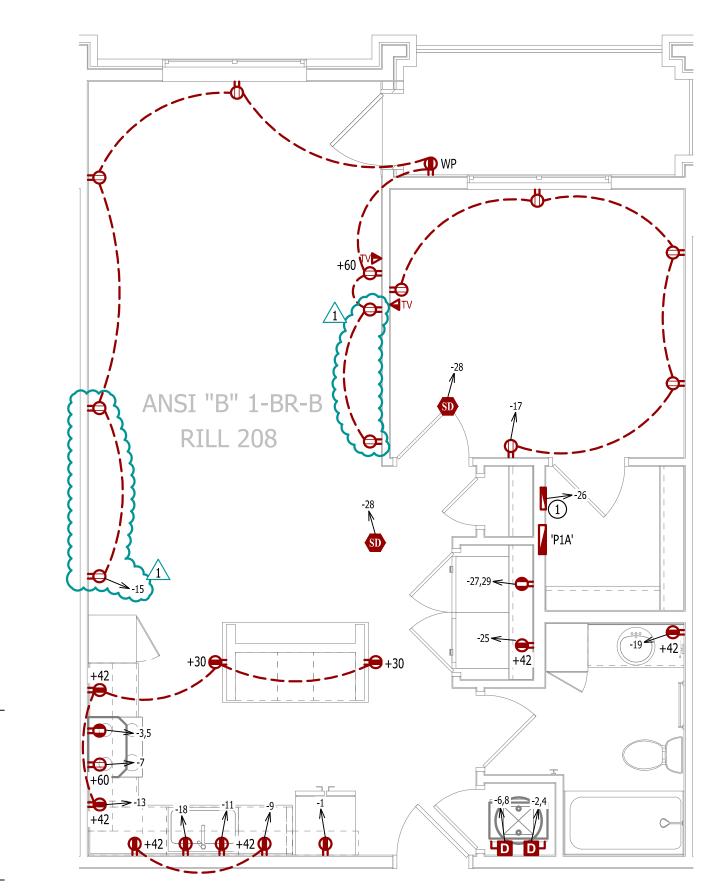
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- (2) AHU WALL MOUNTED ABOVE WATER HEATER, COORDINATE WITH PLUMBING CONTRACTOR. CONDENSATE TO DISCHARGE IN FLOOR DRAIN WITHIN CLOSET.
- (3) HI/LOW TRANSFER GRILLE (12" A.F.F. ON BEDROOM SIDE OF WALL; 84" A.F.F ON OPPOSITE SIDE OF WALL).
- (4) RESIDENTIAL RECIRCULATION HOOD TO BE SUPPLIED & INSTALLED BY GC.
- (5) ON FOURTH FLOOR ONLY, BATHROOM EXHAUST / DYER VENT TO TERMINATE AT LOUVER / VENT MOUNTED IN SOFFIT.

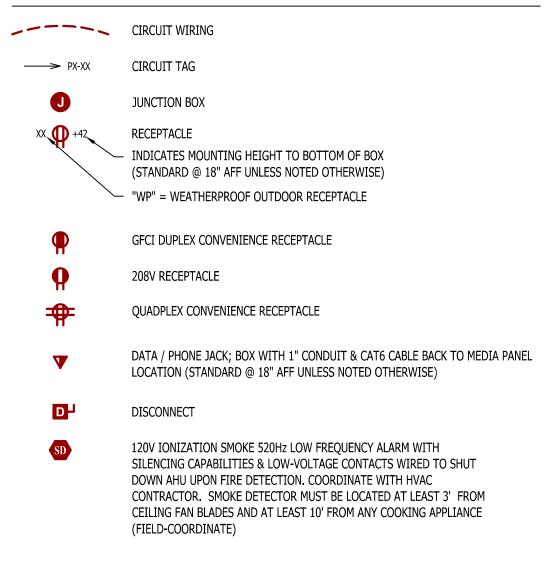


#### HVAC PLAN





#### POWER PLAN SYMBOL LEGEND



#### **POWER PLAN GENERAL NOTES:**

- SEE E500 & E600 SERIES SHEETS FOR POWER SCHEDULES, DETAILS, REQUIREMENTS, ETC.
- SEE M100 & EP100 SERIES SHEETS FOR CONDENSING UNIT LOCATIONS. VERIFY EACH DATA/RECEPTACLE LOCATION WITH OWNER PRIOR TO INSTALLATION.
- 4. REFER TO "TYPICAL ADA MOUNTING HEIGHTS DETAIL", SHEET E501, FOR MOUNTING HEIGHTS OF DEVICES IN "ANSI A" UNITS.

#### **POWER PLAN KEY NOTES:**

(1) MEDIA PANEL LOCATION; DATA/TV WIRING TO TERMINATE AT THIS LOCATION. DETERMINE EXACT LOCATION & DETAILS WITH OWNER PRIOR TO INSTALLATION.





PIPING TURNED DOWN / TURNED UP

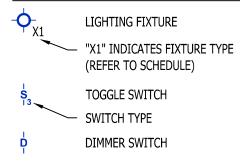
#### WATER PLAN GENERAL NOTES:

- 1. SEE P500 &/OR P600 SERIES SHEETS FOR ADDITIONAL PLUMBING NOTES, DETAILS, & SCHEDULES.
- 2. ALL PLUMBING LOCATED ON EXTERIOR WALLS SHALL ROUTE WITHIN INSULATION BARRIER. 3. ALL DOMESTIC SUPPLY LINES SERVING MORE THAN (1) FIXTURE SHALL BE  $\frac{3}{4}$ " UNLESS NOTED OTHERWISE.

#### WATER PLAN KEY NOTES:

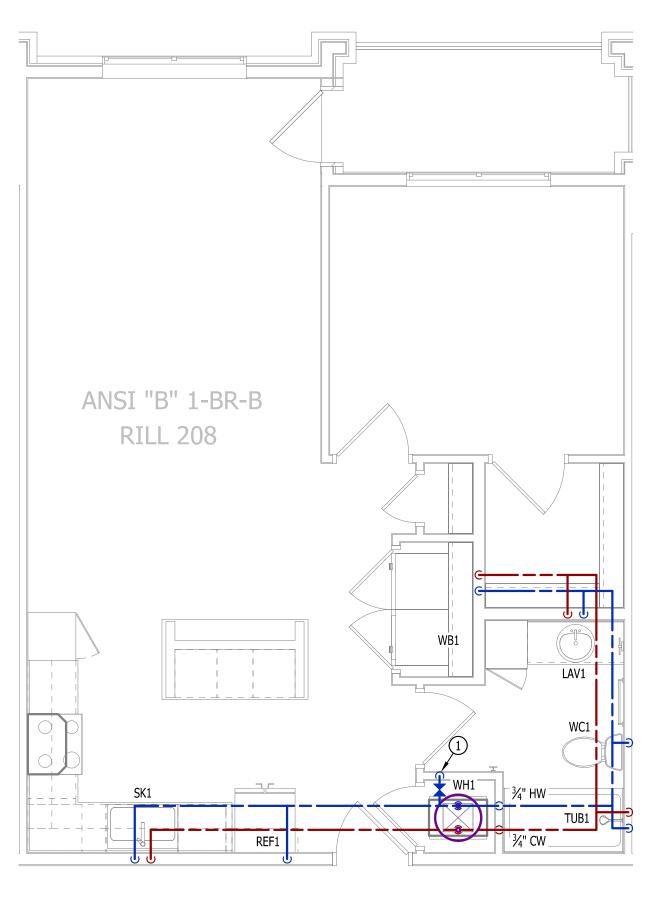
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#### LIGHTING PLAN SYMBOL LEGEND

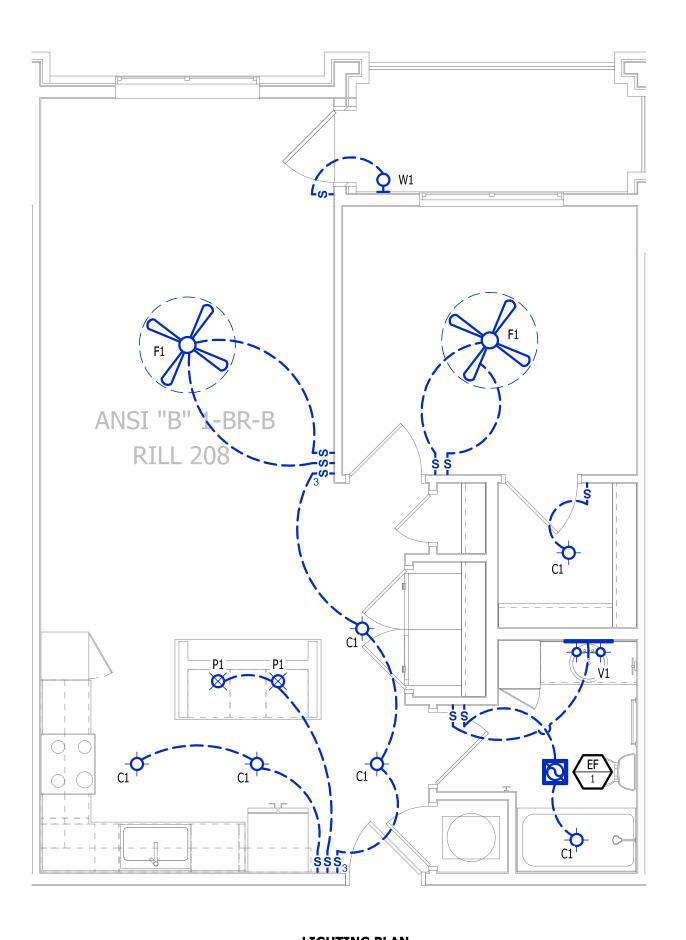


#### LIGHTING PLAN GENERAL NOTES:

- SEE E500 & E600 SERIES SHEETS FOR ADDITIONAL ELECTRICAL NOTES, DETAILS, & SCHEDULES.
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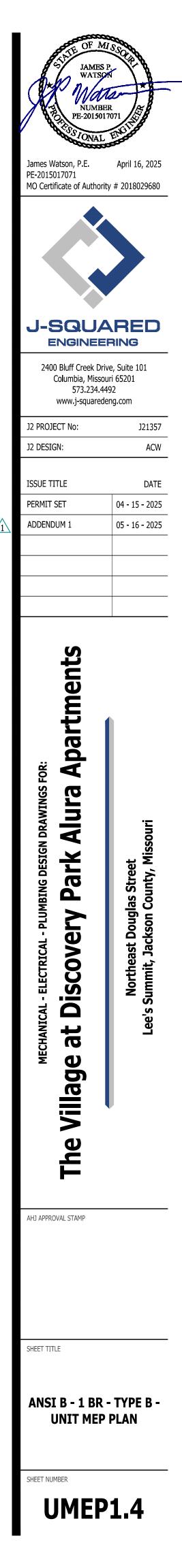


WATER PLAN SCALE: 1/4" = 1'-0"



LIGHTING PLAN

SCALE: 1/4" = 1'-0"



	EQUIPMENT TYPE (REFER TO EQUIPMENT SCHEDULE) EQUIPMENT REFERENCE NUMBER DIFFUSER/GRILLE TYPE (REFER TO SCHEDULE) CUBIC FEET PER MINUTE (CFM) / FACE SIZE
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	RETURN DUCTWORK
	EXHAUST DUCTWORK
~~~~~	FLEX DUCT
$\boxtimes$	SUPPLY DIFFUSER (HATCH INDICATES "NO FLOW ZONE")
	RETURN DIFFUSER
<b></b>	BALANCE DAMPER
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۵	BACK DRAFT DAMPER
	THERMOSTAT

#### HVAC PLAN GENERAL NOTES:

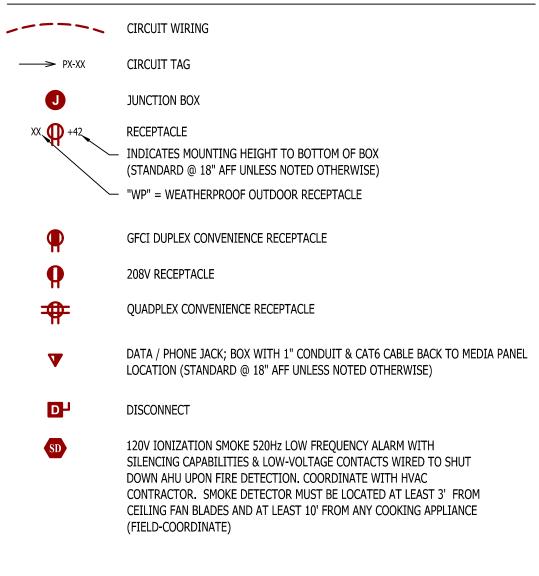
- 1. SEE M500 & M600 SERIES SHEETS FOR HVAC SCHEDULES, DETAILS, REQUIREMENTS, ETC.
- 2. SEE M100 SERIES SHEETS FOR CONDENSING UNIT LOCATIONS. REFRIGERANT PIPING SHALL ROUTE IN SPACES ABOVE FINISHED CEILINGS AND WITHIN WALL CAVITIES TO REMAIN CONCEALED.
- 3. SUPPLY DUCTWORK FROM AHU AT FLOOR/CEILING PENETRATION SHALL BE PROTECTED BY A FIRE DAMPER. INSTALL PER MANUFACTURER'S SPECIFICATIONS. 4. WRAP ALL DRYER DUCTS WITH FIREMASTER (OR EQUAL) DUCT WRAP.
- 5. TOTAL DEVELOPED LENGTH OF EXHAUST DUCT SHALL BE INDICATED ON A PERMANENT LABEL WITHIN 6' OF DRYER VENT CONNECTION. DRYER DUCT ROUTING SHOWN IS FOR REFERENCE ONLY. OVERALL DUCT LENGTH SHALL BE CALCULATED BY HVAC CONTRACTOR PER 2018 IMC 504.8.4.
- 6. LOCATE ALL EXHAUST / DRYER VENT TERMINATIONS AT LEAST 36" FROM OPERABLE OPENINGS INTO APARTMENTS (WINDOWS, DOORS, ETC.).
- 7. ALL DUCTWORK SHOWN SHALL ROUTE IN SPACE BETWEEN / THRU TRUSSES UNLESS NOTED OTHERWISE. SEE STRUCTURAL DRAWINGS FOR DETAILS.

#### HVAC PLAN KEY NOTES:

(1) TERMINATE 4" DRYER EXHAUST WITH VENT EQUAL TO DRYER WALL VENT #DWV4.

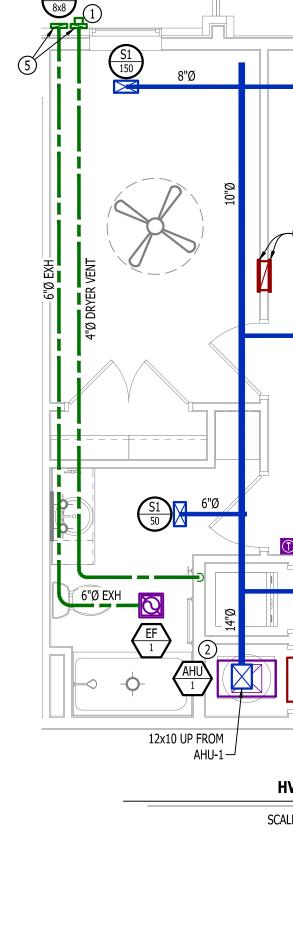
- (2) AHU WALL MOUNTED ABOVE WATER HEATER, COORDINATE WITH PLUMBING CONTRACTOR. CONDENSATE TO DISCHARGE IN FLOOR DRAIN WITHIN CLOSET.
- (3) HI/LOW TRANSFER GRILLE (12" A.F.F. ON BEDROOM SIDE OF WALL; 84" A.F.F ON OPPOSITE SIDE OF WALL).
- (4) RESIDENTIAL RECIRCULATION HOOD TO BE SUPPLIED & INSTALLED BY GC.
- (5) ON FOURTH FLOOR ONLY, BATHROOM EXHAUST / DYER VENT TO TERMINATE AT LOUVER / VENT MOUNTED IN SOFFIT.

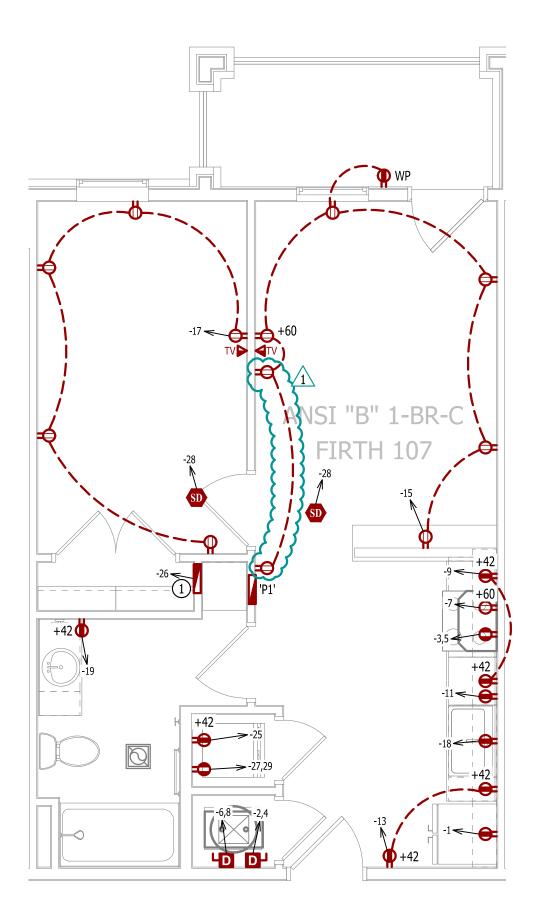




#### **POWER PLAN GENERAL NOTES:**

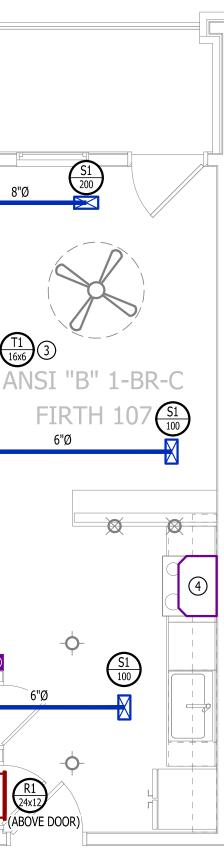
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- 4. REFER TO "TYPICAL ADA MOUNTING HEIGHTS DETAIL", SHEET E501, FOR MOUNTING HEIGHTS OF DEVICES IN "ANSI A" UNITS.





#### **POWER PLAN KEY NOTES:**

(1) MEDIA PANEL LOCATION; DATA/TV WIRING TO TERMINATE AT THIS LOCATION. DETERMINE EXACT LOCATION & DETAILS WITH OWNER PRIOR TO INSTALLATION.



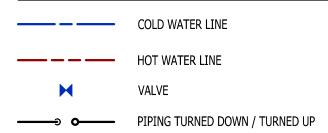
## HVAC PLAN

SCALE: 1/4" = 1'-0"

**POWER PLAN** 

SCALE: 1/4" = 1'-0"

#### PLUMBING PLAN SYMBOL LEGEND



#### WATER PLAN GENERAL NOTES:

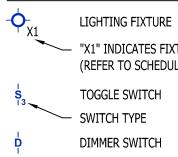
1. SEE P500 &/OR P600 SERIES SHEETS FOR ADDITIONAL PLUMBING NOTES, DETAILS, & SCHEDULES.

2. ALL PLUMBING LOCATED ON EXTERIOR WALLS SHALL ROUTE WITHIN INSULATION BARRIER. 3. ALL DOMESTIC SUPPLY LINES SERVING MORE THAN (1) FIXTURE SHALL BE <sup>3</sup>/<sub>4</sub>" UNLESS NOTED OTHERWISE.

#### WATER PLAN KEY NOTES:

(1) 1" CW PIPE UP FROM BELOW WITH SHUT-OFF VALVE IN ACCESSIBLE LOCATION. SEE OVERALL PLUMBING PLANS FOR DETAILS.

#### LIGHTING PLAN SYMBOL LEGEND

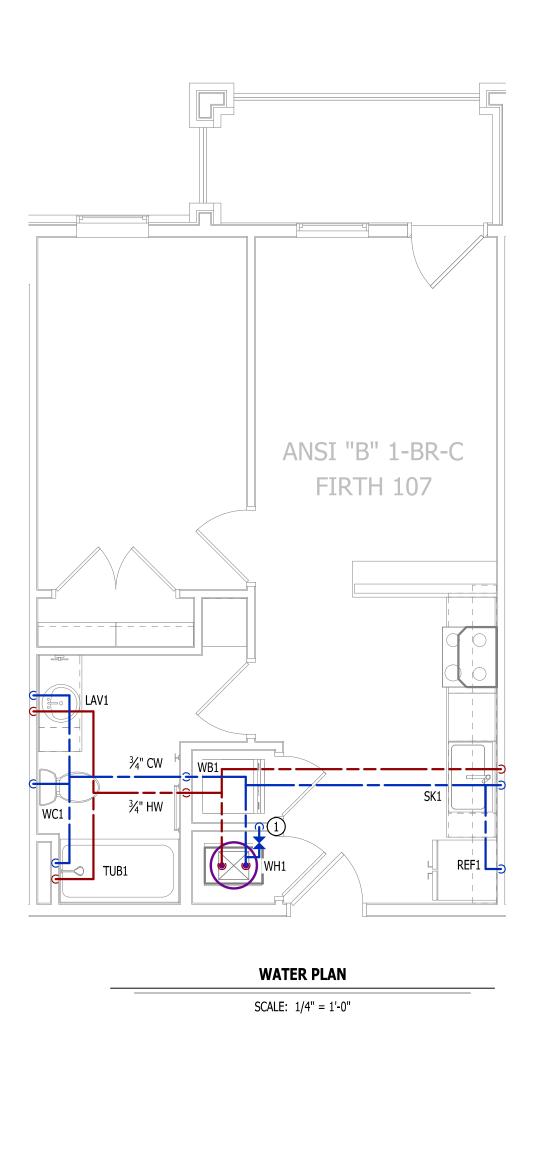


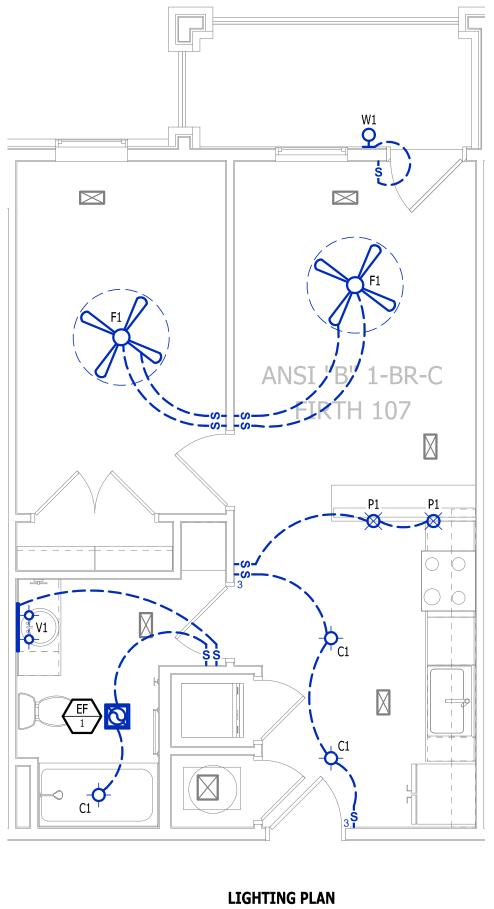
(REFER TO SCHEDULE) TOGGLE SWITCH SWITCH TYPE

DIMMER SWITCH

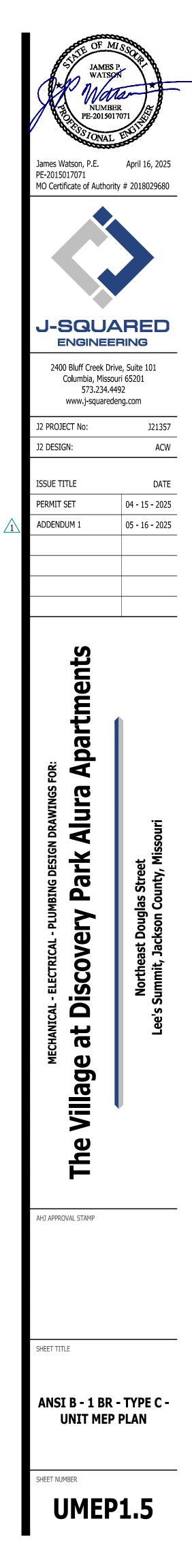
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- SEE E500 & E600 SERIES SHEETS FOR ADDITIONAL ELECTRICAL NOTES, DETAILS, & SCHEDULES.
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SCALE: 1/4" = 1'-0"



	EQUIPMENT TYPE (REFER TO EQUIPMENT SCHEDULE) EQUIPMENT REFERENCE NUMBER DIFFUSER/GRILLE TYPE (REFER TO SCHEDULE) CUBIC FEET PER MINUTE (CFM) / FACE SIZE
	SUPPLY DUCTWORK
	RETURN DUCTWORK
	EXHAUST DUCTWORK
~~~~~	FLEX DUCT
$\mathbf{X}$	SUPPLY DIFFUSER (HATCH INDICATES "NO FLOW ZONE")
$\square$	RETURN DIFFUSER
<b></b>	BALANCE DAMPER
8	MOTORIZED DAMPER
0	CEILING RADIATION DAMPER
Δ	BACK DRAFT DAMPER
	THERMOSTAT

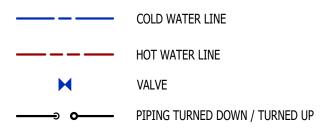
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- 1. SEE M500 & M600 SERIES SHEETS FOR HVAC SCHEDULES, DETAILS, REQUIREMENTS, ETC. 2. SEE M100 SERIES SHEETS FOR CONDENSING UNIT LOCATIONS. REFRIGERANT PIPING SHALL ROUTE IN SPACES
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#### PLUMBING PLAN SYMBOL LEGEND

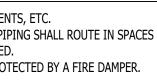


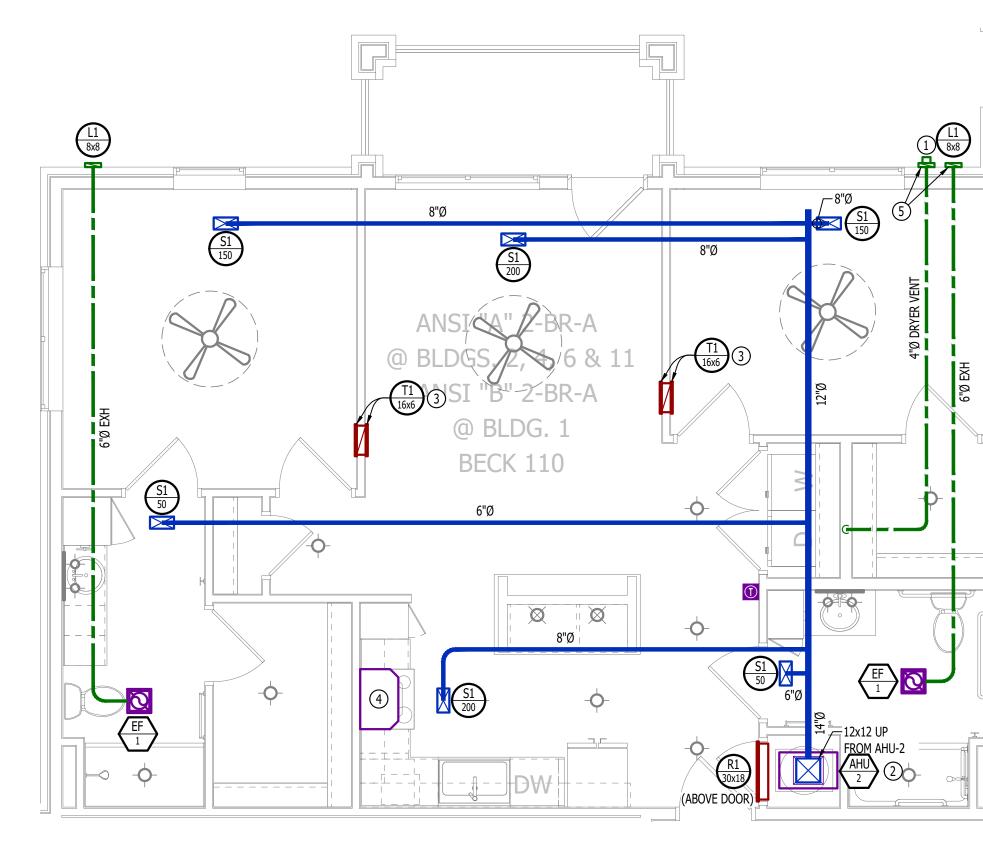
#### WATER PLAN GENERAL NOTES:

- SEE P500 &/OR P600 SERIES SHEETS FOR ADDITIONAL PLUMBING NOTES, DETAILS, & SCHEDULES.
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- 3. ALL DOMESTIC SUPPLY LINES SERVING MORE THAN (1) FIXTURE SHALL BE  $\frac{3}{4}$ " UNLESS NOTED OTHERWISE.

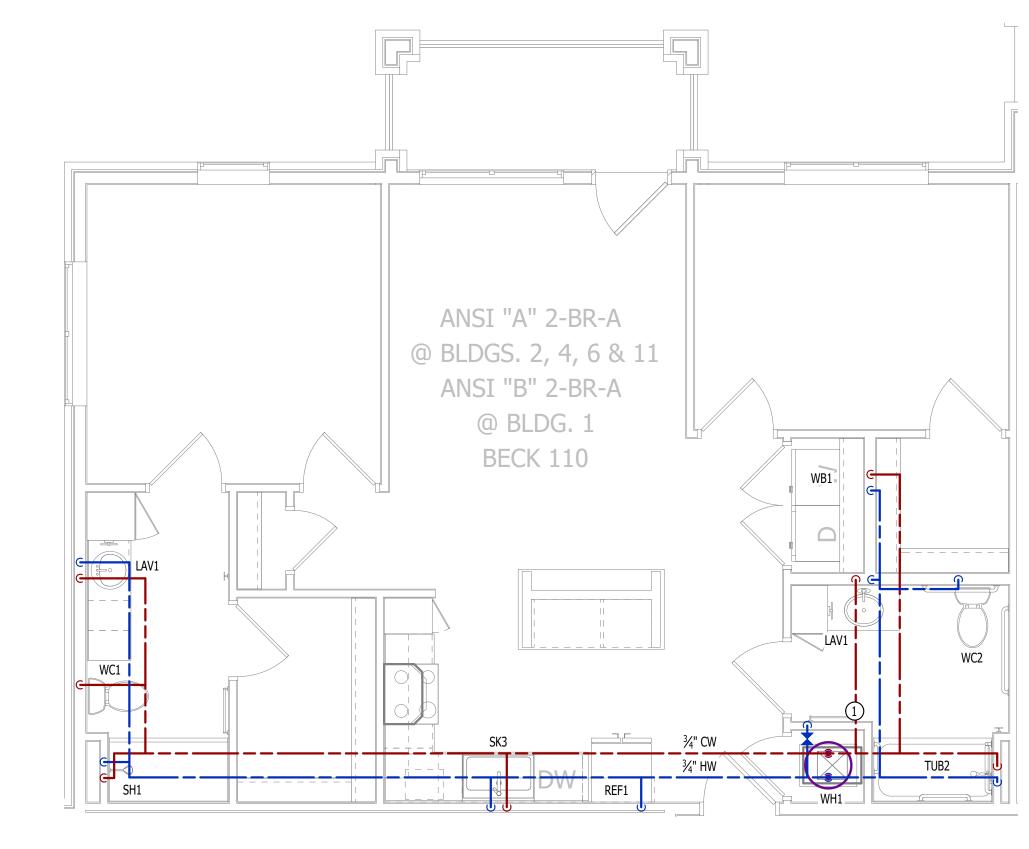
#### WATER PLAN KEY NOTES:

1" CW PIPE UP FROM BELOW WITH SHUT-OFF VALVE IN ACCESSIBLE LOCATION. SEE OVERALL PLUMBING PLANS FOR DETAILS.





HVAC PLAN SCALE: 1/4" = 1'-0"



WATER PLAN

SCALE: 1/4" = 1'-0"



# **UMEP2.1.1**

	CIRCUIT WIRING
──> PX-XX	CIRCUIT TAG
J	JUNCTION BOX
XX +42	RECEPTACLE INDICATES MOUNTING HEIGHT TO BOTTOM OF BOX (STANDARD @ 18" AFF UNLESS NOTED OTHERWISE "WP" = WEATHERPROOF OUTDOOR RECEPTACLE
P	GFCI DUPLEX CONVENIENCE RECEPTACLE
<b>P</b>	208V RECEPTACLE
#	QUADPLEX CONVENIENCE RECEPTACLE
V	DATA / PHONE JACK; BOX WITH 1" CONDUIT & CAT LOCATION (STANDARD @ 18" AFF UNLESS NOTED C
D	DISCONNECT
SD	120V IONIZATION SMOKE 520Hz LOW FREQUENCY A SILENCING CAPABILITIES & LOW-VOLTAGE CONTAC DOWN AHU UPON FIRE DETECTION. COORDINATE A CONTRACTOR. SMOKE DETECTOR MUST BE LOCATI CEILING FAN BLADES AND AT LEAST 10' FROM ANY (FIELD-COORDINATE)

#### POWER PLAN GENERAL NOTES:

1. SEE E500 & E600 SERIES SHEETS FOR POWER SCHEDULES, DETAILS, REQUIREMENTS, ETC. 2. SEE M100 & EP100 SERIES SHEETS FOR CONDENSING UNIT LOCATIONS. 3. VERIFY EACH DATA/RECEPTACLE LOCATION WITH OWNER PRIOR TO INSTALLATION. 4. REFER TO "TYPICAL ADA MOUNTING HEIGHTS DETAIL", SHEET E501, FOR MOUNTING HEIGHTS OF DEVICES IN "ANSI A" UNITS.

#### **POWER PLAN KEY NOTES:**

1 MEDIA PANEL LOCATION; DATA/TV WIRING TO TERMINATE AT THIS LOCATION. DETERMINE EXACT LOCATION & DETAILS WITH OWNER PRIOR TO INSTALLATION.

#### LIGHTING PLAN SYMBOL LEGEND

# LIGHTING FIXTURE -0-

— "X1" INDICATES FIXTURE TYPE (REFER TO SCHEDULE) TOGGLE SWITCH

SWITCH TYPE

DIMMER SWITCH

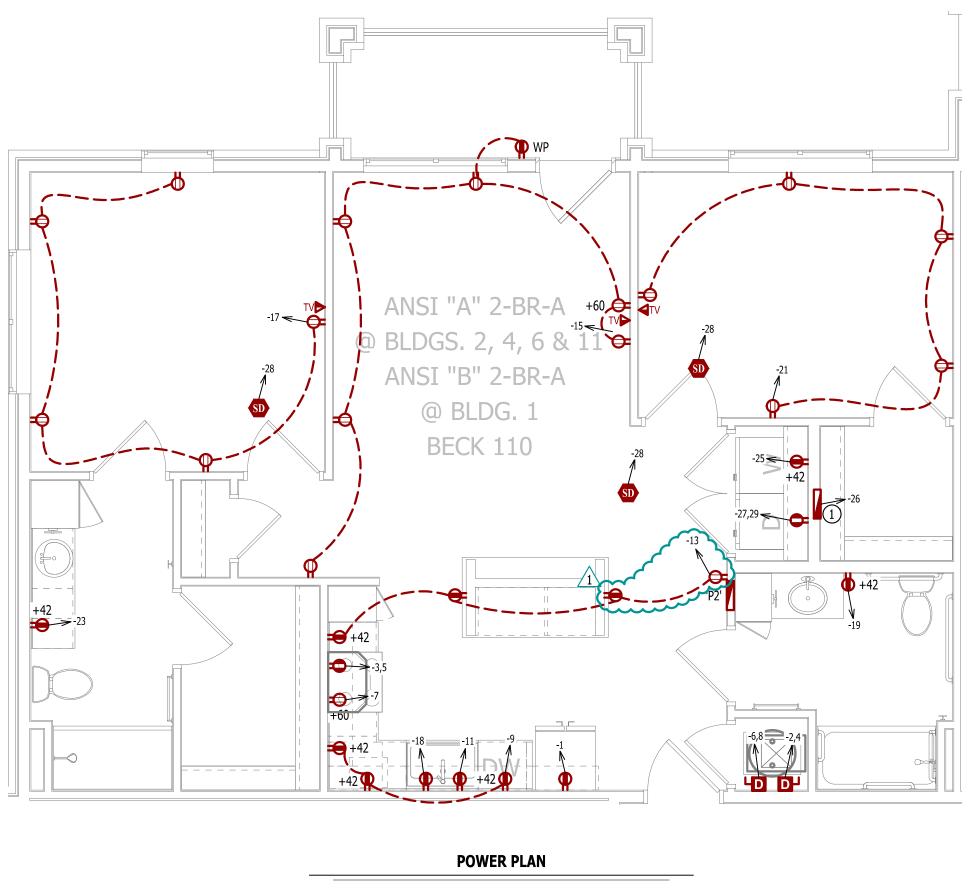
# LIGHTING PLAN GENERAL NOTES:

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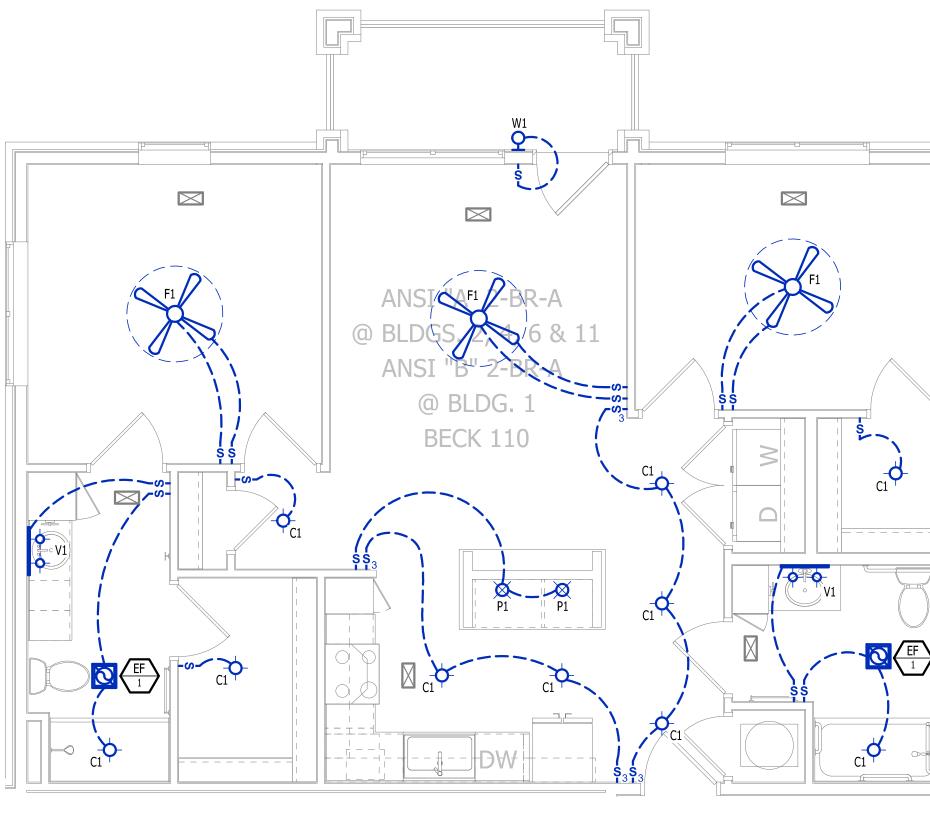


AT6 CABLE BACK TO MEDIA PANEL OTHERWISE)

' ALARM WITH ACTS WIRED TO SHUT WITH HVAC ATED AT LEAST 3' FROM Y COOKING APPLIANCE

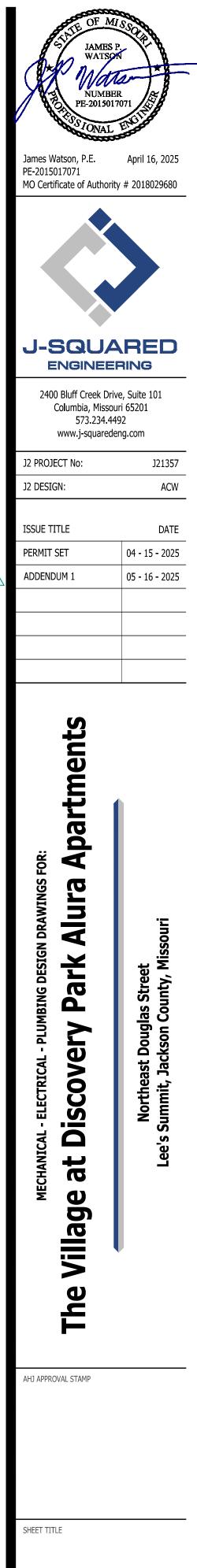


SCALE: 1/4" = 1'-0"



LIGHTING PLAN

SCALE: 1/4" = 1'-0"



ANSI A - 2 BR - TYPE A -**UNIT POWER & LIGHTING** PLAN



	EQUIPMENT TYPE (REFER TO EQUIPMENT SCHEDULE) EQUIPMENT REFERENCE NUMBER DIFFUSER/GRILLE TYPE (REFER TO SCHEDULE) CUBIC FEET PER MINUTE (CFM) / FACE SIZE
	SUPPLY DUCTWORK
	RETURN DUCTWORK
	EXHAUST DUCTWORK
~~~~~	FLEX DUCT
$\mathbf{X}$	SUPPLY DIFFUSER (HATCH INDICATES "NO FLOW ZONE")
$\square$	RETURN DIFFUSER
<b></b>	BALANCE DAMPER
8	MOTORIZED DAMPER
0	CEILING RADIATION DAMPER
Δ	BACK DRAFT DAMPER
	THERMOSTAT

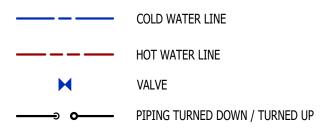
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- ABOVE FINISHED CEILINGS AND WITHIN WALL CAVITIES TO REMAIN CONCEALED. 3. SUPPLY DUCTWORK FROM AHU AT FLOOR/CEILING PENETRATION SHALL BE PROTECTED BY A FIRE DAMPER. INSTALL PER MANUFACTURER'S SPECIFICATIONS.
- 4. WRAP ALL DRYER DUCTS WITH FIREMASTER (OR EQUAL) DUCT WRAP. 5. TOTAL DEVELOPED LENGTH OF EXHAUST DUCT SHALL BE INDICATED ON A PERMANENT LABEL WITHIN 6' OF DRYER VENT CONNECTION. DRYER DUCT ROUTING SHOWN IS FOR REFERENCE ONLY. OVERALL DUCT LENGTH
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#### **HVAC PLAN KEY NOTES:**

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#### PLUMBING PLAN SYMBOL LEGEND

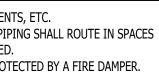


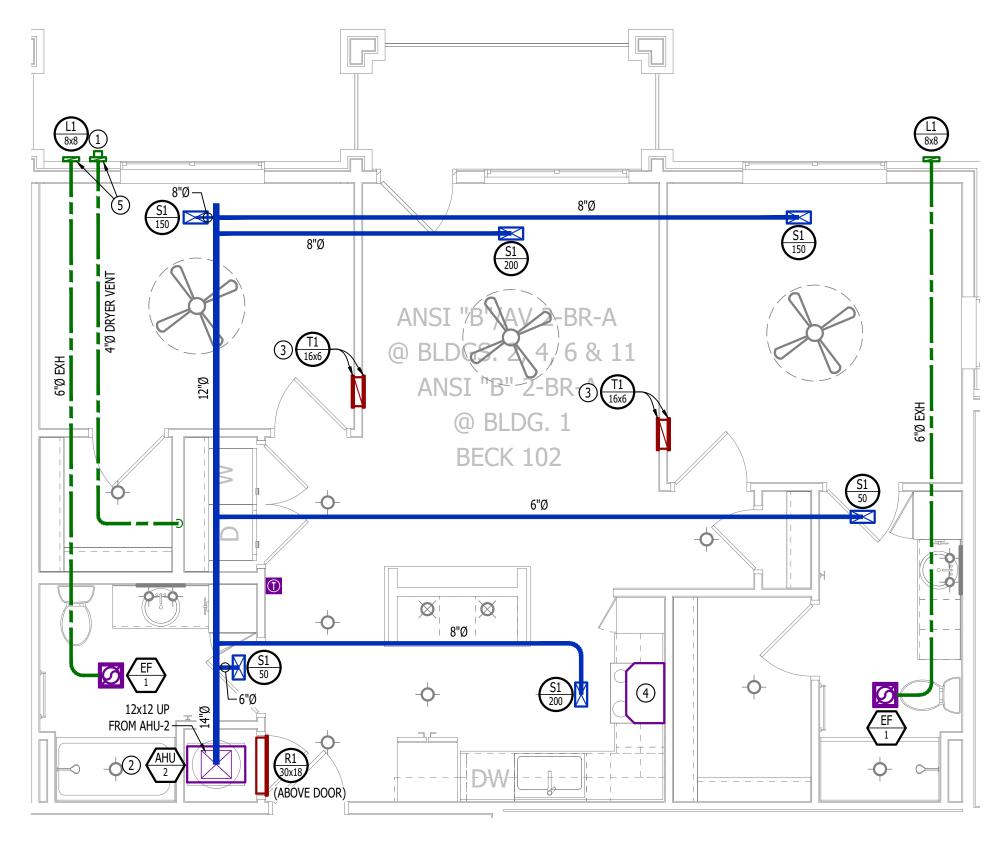
#### WATER PLAN GENERAL NOTES:

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#### WATER PLAN KEY NOTES:

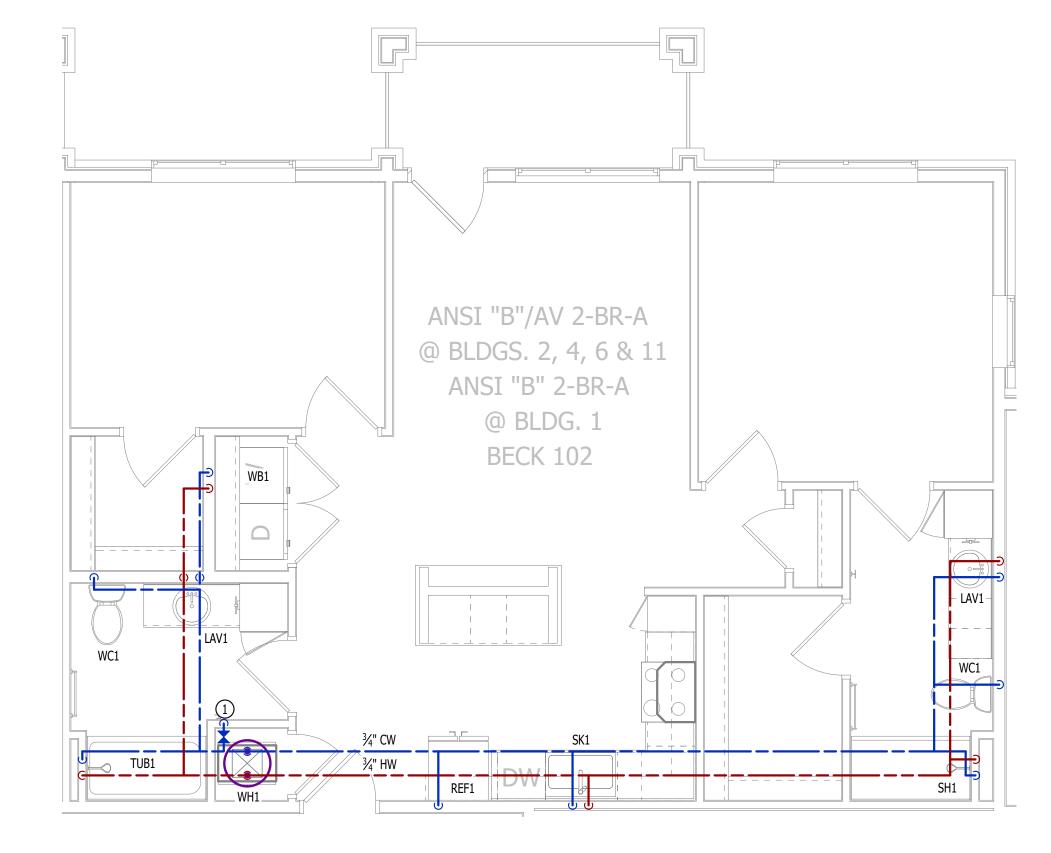
1" CW PIPE UP FROM BELOW WITH SHUT-OFF VALVE IN ACCESSIBLE LOCATION. SEE OVERALL PLUMBING PLANS FOR DETAILS.





HVAC PLAN

SCALE: 1/4" = 1'-0"



WATER PLAN

SCALE: 1/4" = 1'-0"

NUMBER E-20150170 James Watson, P.E. April 15, 2025 PE-2015017071 MO Certificate of Authority # 2018029680 **J-SQUARED** ENGINEERING 2400 Bluff Creek Drive, Suite 101 Columbia, Missouri 65201 573.234.4492 www.j-squaredeng.com J2 PROJECT No: J21357 J2 DESIGN: ACW ISSUE TITLE DATE PERMIT SET 04 - 15 - 2025

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AHJ APPROVAL STAMP

SHEET TITLE

ANSI B - AV - 2BR - TYPE A - HVAC & WATER PLAN



CIRCUIT WIRING
CIRCUIT TAG
JUNCTION BOX
RECEPTACLE
INDICATES MOUNTING HEIGHT TO BOTTOM OF BOX (STANDARD @ 18" AFF UNLESS NOTED OTHERWISE
"WP" = WEATHERPROOF OUTDOOR RECEPTACLE
GFCI DUPLEX CONVENIENCE RECEPTACLE
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DATA / PHONE JACK; BOX WITH 1" CONDUIT & CAT LOCATION (STANDARD @ 18" AFF UNLESS NOTED C
DISCONNECT
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### LIGHTING PLAN SYMBOL LEGEND

# LIGHTING FIXTURE -0-

— "X1" INDICATES FIXTURE TYPE (REFER TO SCHEDULE) TOGGLE SWITCH

SWITCH TYPE

DIMMER SWITCH

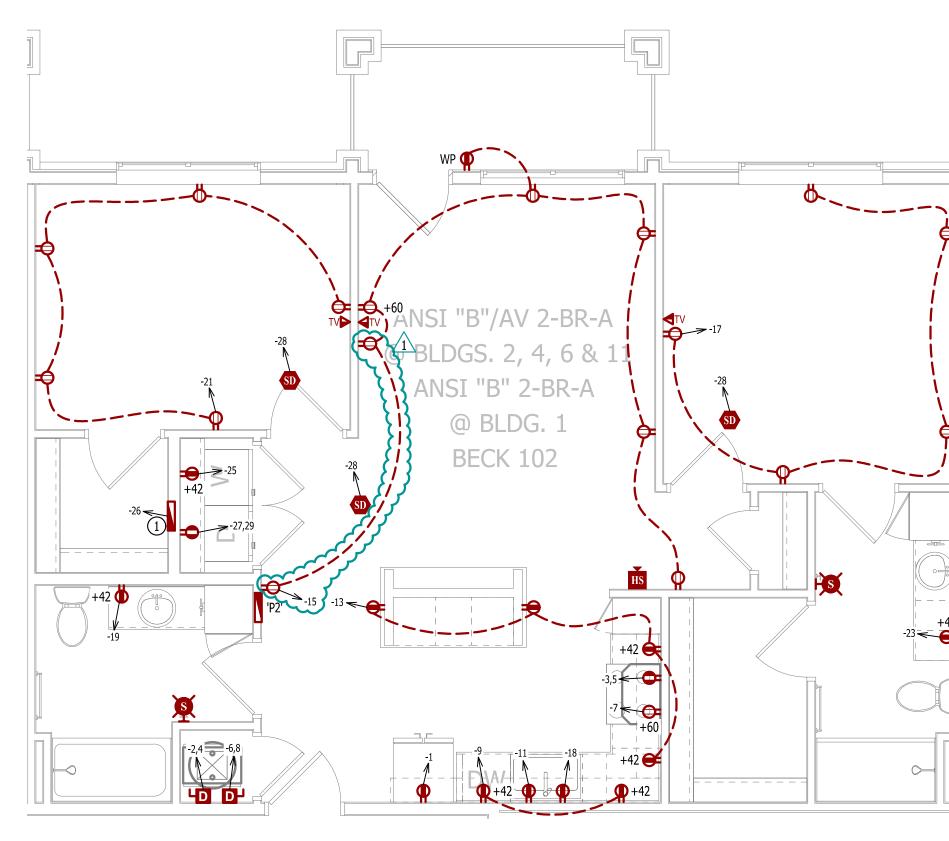
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# XOX

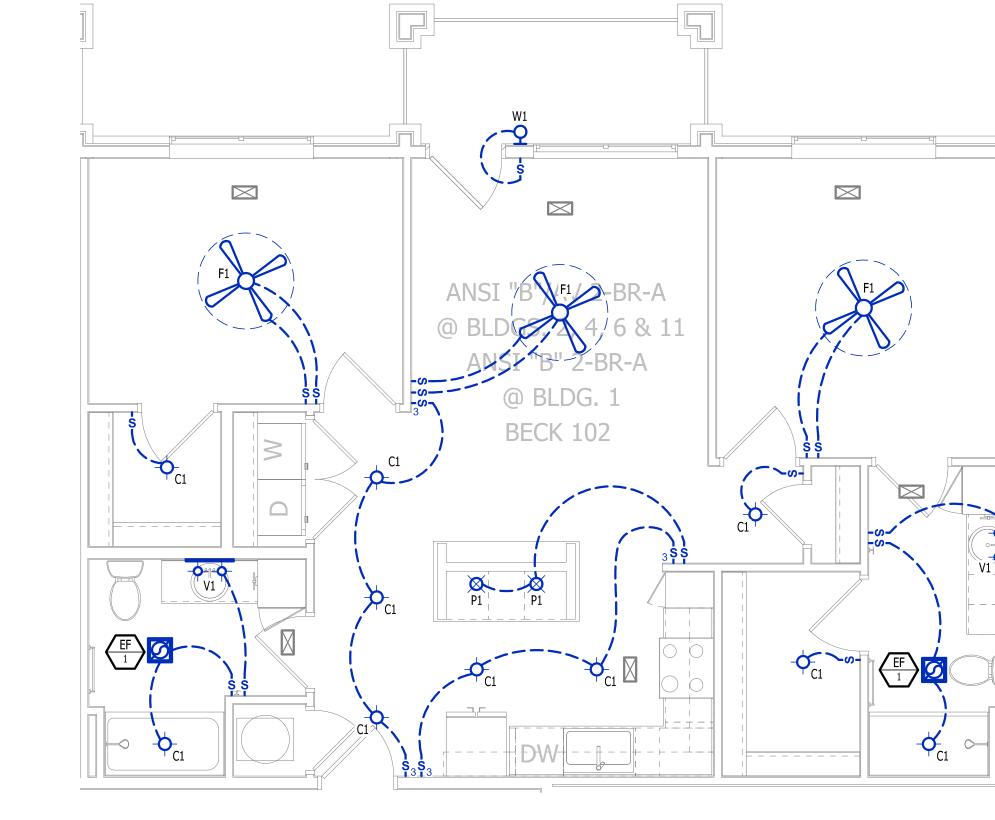
CAT6 CABLE BACK TO MEDIA PANEL OTHERWISE)

Y ALARM WITH ACTS WIRED TO SHUT E WITH HVAC ATED AT LEAST 3' FROM Y COOKING APPLIANCE



**POWER PLAN** 

SCALE: 1/4" = 1'-0"



LIGHTING PLAN

SCALE: 1/4" = 1'-0"

James Watson, P.E. April 16, 2 PE-2015017071 MO Certificate of Authority # 2018029	9680
2400 Bluff Creek Drive, Suite 101 Columbia, Missouri 65201 573.234.4492 www.j-squaredeng.comJ2 PROJECT No:J21J2 DESIGN:A	1357 ACW DATE 2025
In the standard data of the st	
SHEET TITLE ANSI B - AV - 2BR - TYPE POWER & LIGHTING PLAN SHEET NUMBER UMEP2.2.2	N

	EQUIPMENT TYPE (REFER TO EQUIPMENT SCHEDULE) EQUIPMENT REFERENCE NUMBER DIFFUSER/GRILLE TYPE (REFER TO SCHEDULE) CUBIC FEET PER MINUTE (CFM) / FACE SIZE
	SUPPLY DUCTWORK
	RETURN DUCTWORK
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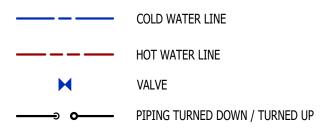
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#### PLUMBING PLAN SYMBOL LEGEND

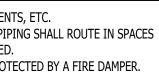


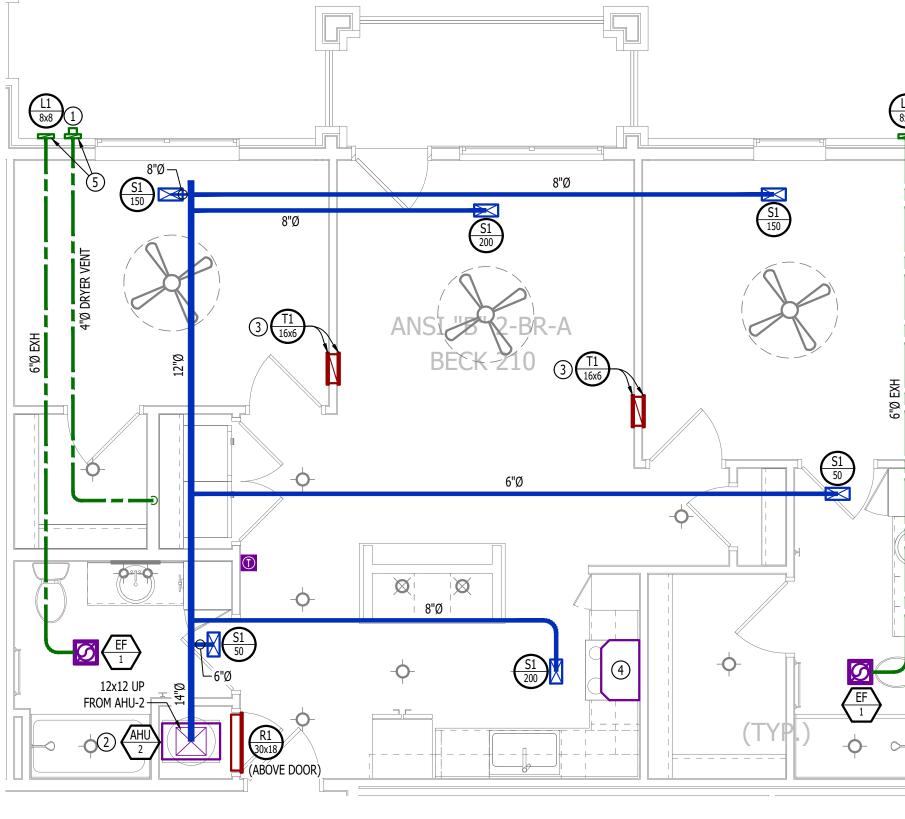
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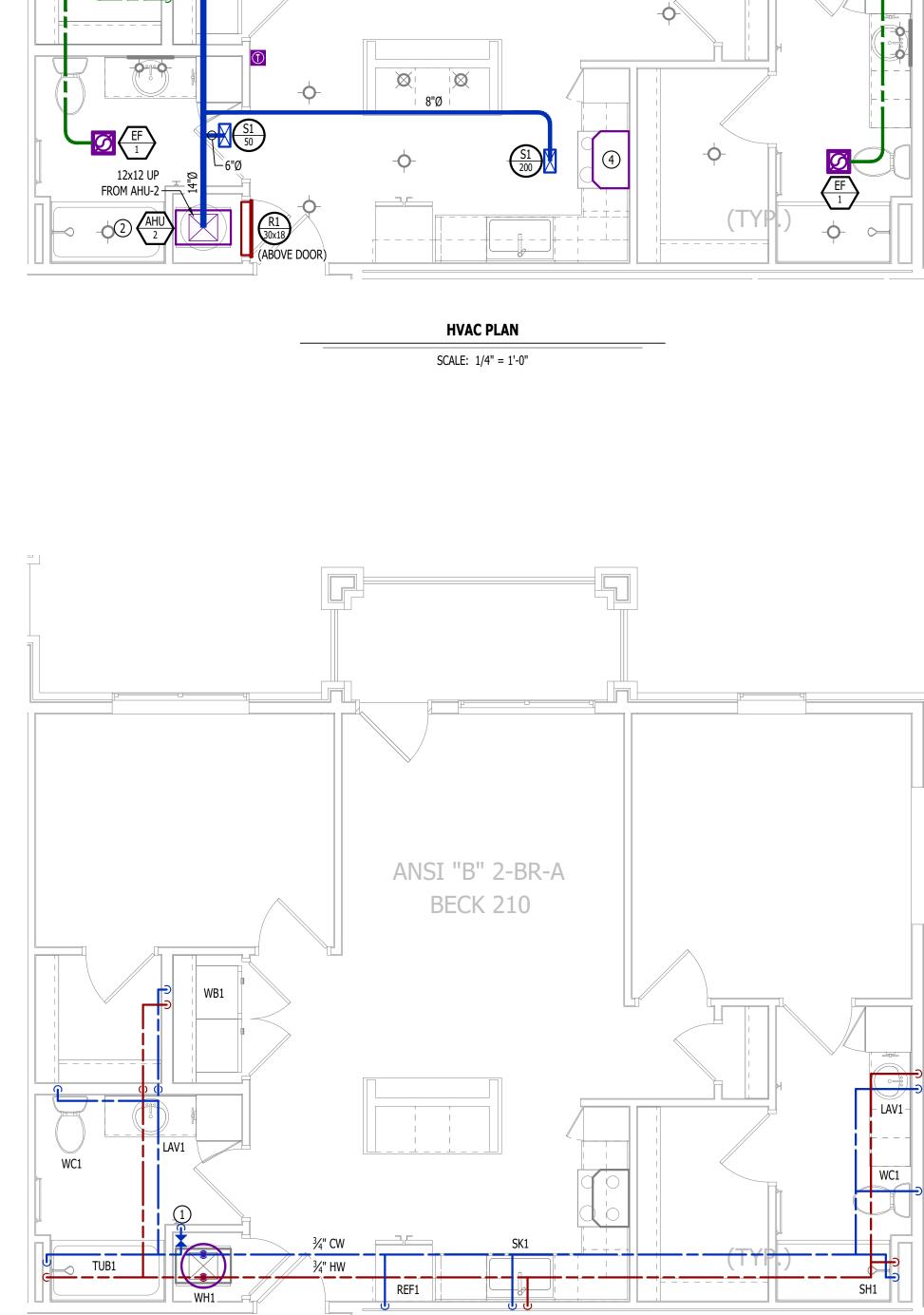
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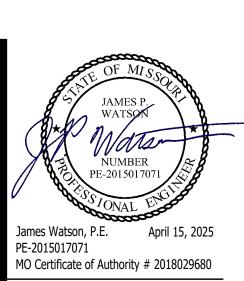




WATER PLAN

SCALE: 1/4" = 1'-0"

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**J-SQUARED** ENGINEERING

> 2400 Bluff Creek Drive, Suite 101 Columbia, Missouri 65201 573.234.4492 www.j-squaredeng.com

J2 PROJECT No: J2 DESIGN:

ISSUE TITLE PERMIT SET

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DATE 04 - 15 - 2025

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AHJ APPROVAL STAMP

SHEET TITLE

ANSI B - 2 BR - TYPE A -**UNIT HVAC & WATER PLAN** 



	CIRCUIT WIRING
──> PX-XX	CIRCUIT TAG
J	JUNCTION BOX
XX +42	RECEPTACLE INDICATES MOUNTING HEIGHT TO BOTTOM OF BOX (STANDARD @ 18" AFF UNLESS NOTED OTHERWISE "WP" = WEATHERPROOF OUTDOOR RECEPTACLE
P	GFCI DUPLEX CONVENIENCE RECEPTACLE
<b>P</b>	208V RECEPTACLE
#	QUADPLEX CONVENIENCE RECEPTACLE
V	DATA / PHONE JACK; BOX WITH 1" CONDUIT & CAT LOCATION (STANDARD @ 18" AFF UNLESS NOTED C
D	DISCONNECT
SD	120V IONIZATION SMOKE 520Hz LOW FREQUENCY A SILENCING CAPABILITIES & LOW-VOLTAGE CONTAC DOWN AHU UPON FIRE DETECTION. COORDINATE A CONTRACTOR. SMOKE DETECTOR MUST BE LOCATI CEILING FAN BLADES AND AT LEAST 10' FROM ANY (FIELD-COORDINATE)

#### POWER PLAN GENERAL NOTES:

1. SEE E500 & E600 SERIES SHEETS FOR POWER SCHEDULES, DETAILS, REQUIREMENTS, ETC. 2. SEE M100 & EP100 SERIES SHEETS FOR CONDENSING UNIT LOCATIONS. 3. VERIFY EACH DATA/RECEPTACLE LOCATION WITH OWNER PRIOR TO INSTALLATION. 4. REFER TO "TYPICAL ADA MOUNTING HEIGHTS DETAIL", SHEET E501, FOR MOUNTING HEIGHTS OF DEVICES IN "ANSI A" UNITS.

#### **POWER PLAN KEY NOTES:**

1 MEDIA PANEL LOCATION; DATA/TV WIRING TO TERMINATE AT THIS LOCATION. DETERMINE EXACT LOCATION & DETAILS WITH OWNER PRIOR TO INSTALLATION.

## LIGHTING PLAN SYMBOL LEGEND

# LIGHTING FIXTURE -0-

— "X1" INDICATES FIXTURE TYPE (REFER TO SCHEDULE) TOGGLE SWITCH

SWITCH TYPE

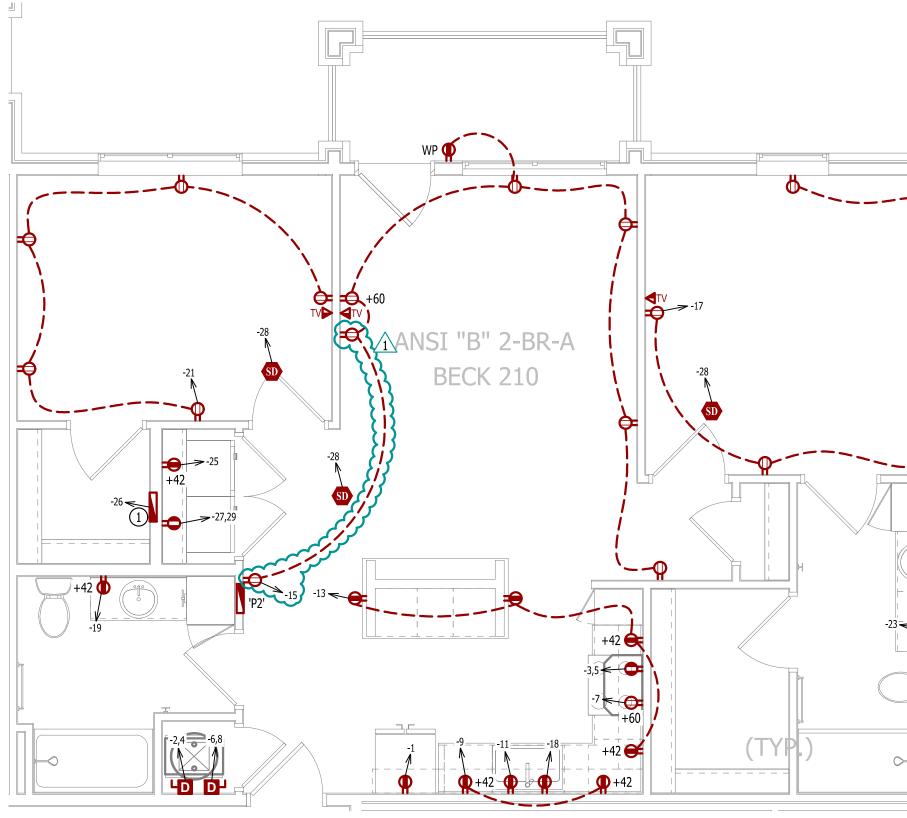
DIMMER SWITCH

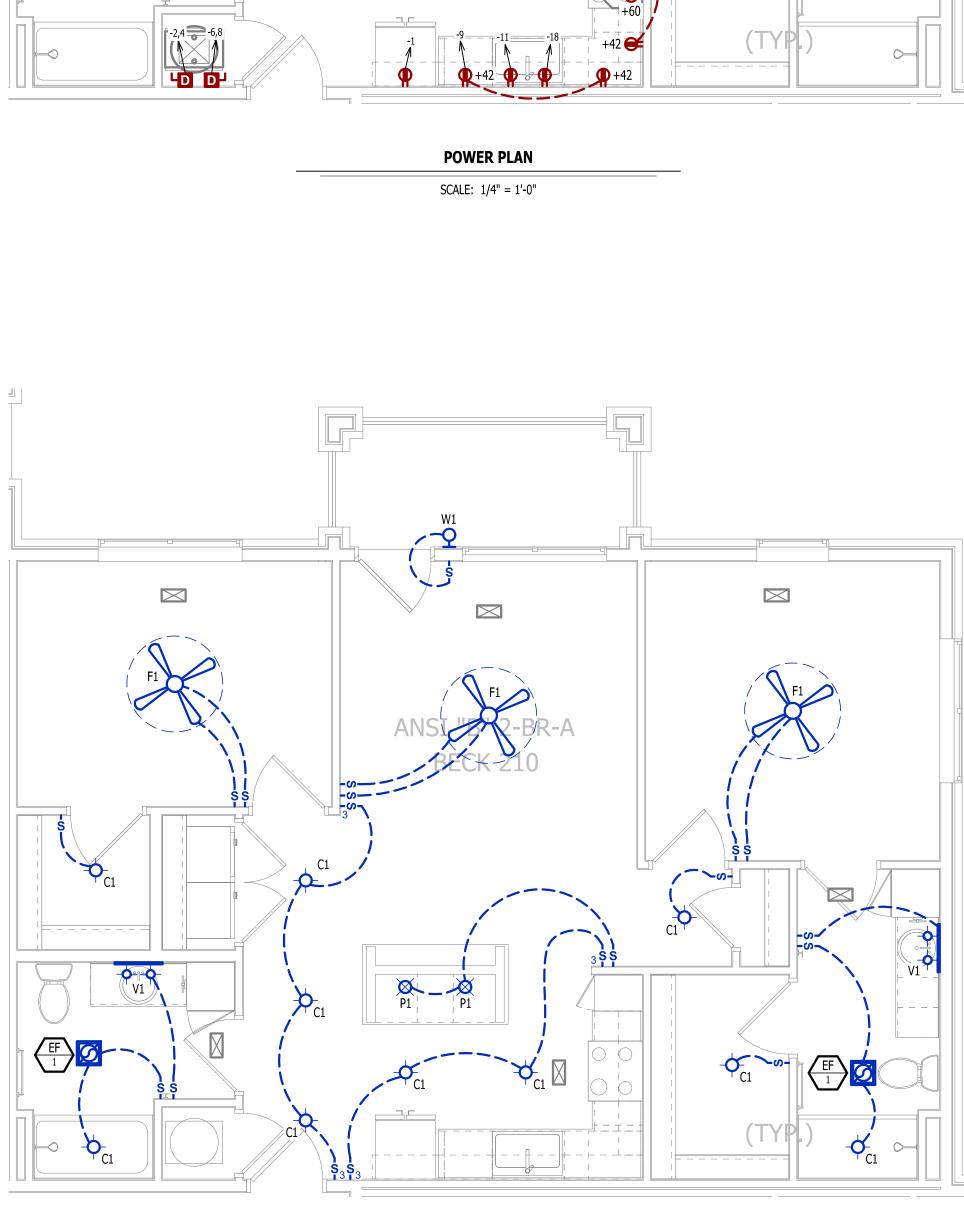
# LIGHTING PLAN GENERAL NOTES:

1. SEE E500 & E600 SERIES SHEETS FOR ADDITIONAL ELECTRICAL NOTES, DETAILS, & SCHEDULES. 2. ALL LIGHTING SHOWN SHALL BE ON CIRCUIT -16 UNLESS NOTED OTHERWISE.

AT6 CABLE BACK TO MEDIA PANEL OTHERWISE)

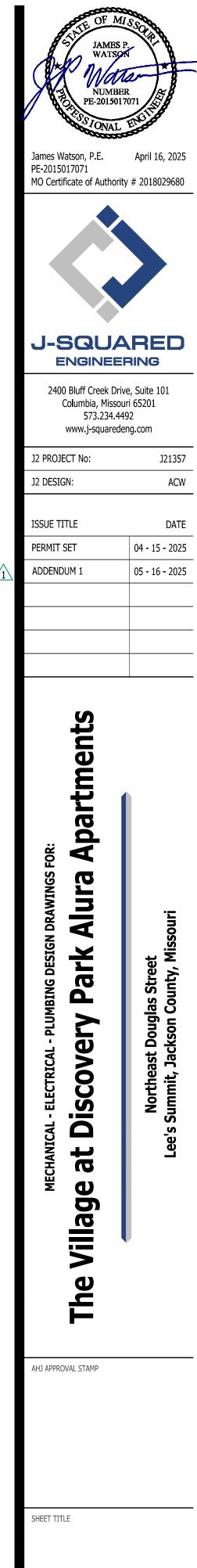
Y ALARM WITH ACTS WIRED TO SHUT WITH HVAC ATED AT LEAST 3' FROM Y COOKING APPLIANCE





LIGHTING PLAN

SCALE: 1/4" = 1'-0"



ASNI B - 2 BR - TYPE A -UNIT POWER & LIGHTING PLAN



<u> </u>	EQUIPMENT TYPE (REFER TO EQUIPMENT SCHEDULE)
	EQUIPMENT REFERENCE NUMBER
$\overline{X}$	DIFFUSER/GRILLE TYPE (REFER TO SCHEDULE)
#	CUBIC FEET PER MINUTE (CFM) / FACE SIZE
	SUPPLY DUCTWORK
	RETURN DUCTWORK
	EXHAUST DUCTWORK
~~~~~	FLEX DUCT
$\boxtimes$	SUPPLY DIFFUSER (HATCH INDICATES "NO FLOW ZONE")
$\square$	RETURN DIFFUSER
Γ	BALANCE DAMPER
Σ	MOTORIZED DAMPER
0	CEILING RADIATION DAMPER
Δ	BACK DRAFT DAMPER
	THERMOSTAT

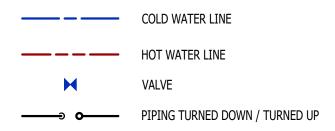
#### HVAC PLAN GENERAL NOTES:

- 1. SEE M500 & M600 SERIES SHEETS FOR HVAC SCHEDULES, DETAILS, REQUIREMENTS, ETC. 2. SEE M100 SERIES SHEETS FOR CONDENSING UNIT LOCATIONS. REFRIGERANT PIPING SHALL ROUTE IN SPACES
- ABOVE FINISHED CEILINGS AND WITHIN WALL CAVITIES TO REMAIN CONCEALED. 3. SUPPLY DUCTWORK FROM AHU AT FLOOR/CEILING PENETRATION SHALL BE PROTECTED BY A FIRE DAMPER.
- INSTALL PER MANUFACTURER'S SPECIFICATIONS. 4. WRAP ALL DRYER DUCTS WITH FIREMASTER (OR EQUAL) DUCT WRAP.
- 5. TOTAL DEVELOPED LENGTH OF EXHAUST DUCT SHALL BE INDICATED ON A PERMANENT LABEL WITHIN 6' OF DRYER VENT CONNECTION. DRYER DUCT ROUTING SHOWN IS FOR REFERENCE ONLY. OVERALL DUCT LENGTH SHALL BE CALCULATED BY HVAC CONTRACTOR PER 2018 IMC 504.8.4. 6. LOCATE ALL EXHAUST / DRYER VENT TERMINATIONS AT LEAST 36" FROM OPERABLE OPENINGS INTO APARTMENTS
- (WINDOWS, DOORS, ETC.). 7. ALL DUCTWORK SHOWN SHALL ROUTE IN SPACE BETWEEN / THRU TRUSSES UNLESS NOTED OTHERWISE. SEE
- STRUCTURAL DRAWINGS FOR DETAILS.

#### HVAC PLAN KEY NOTES:

- (1) TERMINATE 4" DRYER EXHAUST WITH VENT EQUAL TO DRYER WALL VENT #DWV4. (2) AHU WALL MOUNTED ABOVE WATER HEATER, COORDINATE WITH PLUMBING CONTRACTOR. CONDENSATE TO
- DISCHARGE IN FLOOR DRAIN WITHIN CLOSET.
- (3) HI/LOW TRANSFER GRILLE (12" A.F.F. ON BEDROOM SIDE OF WALL; 84" A.F.F ON OPPOSITE SIDE OF WALL).
- (4) RESIDENTIAL RECIRCULATION HOOD TO BE SUPPLIED & INSTALLED BY GC. (5) ON FOURTH FLOOR ONLY, BATHROOM EXHAUST / DYER VENT TO TERMINATE AT LOUVER / VENT MOUNTED IN SOFFIT.

#### PLUMBING PLAN SYMBOL LEGEND

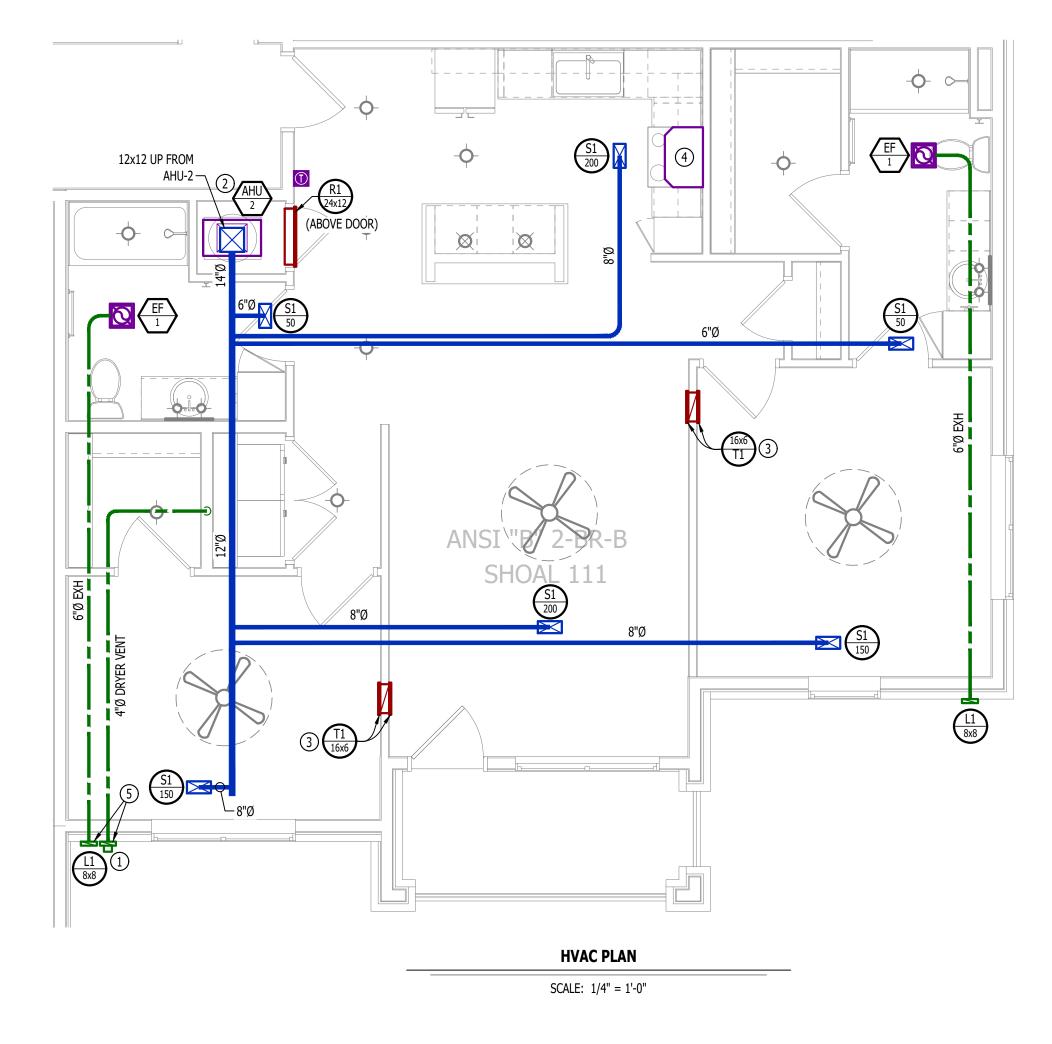


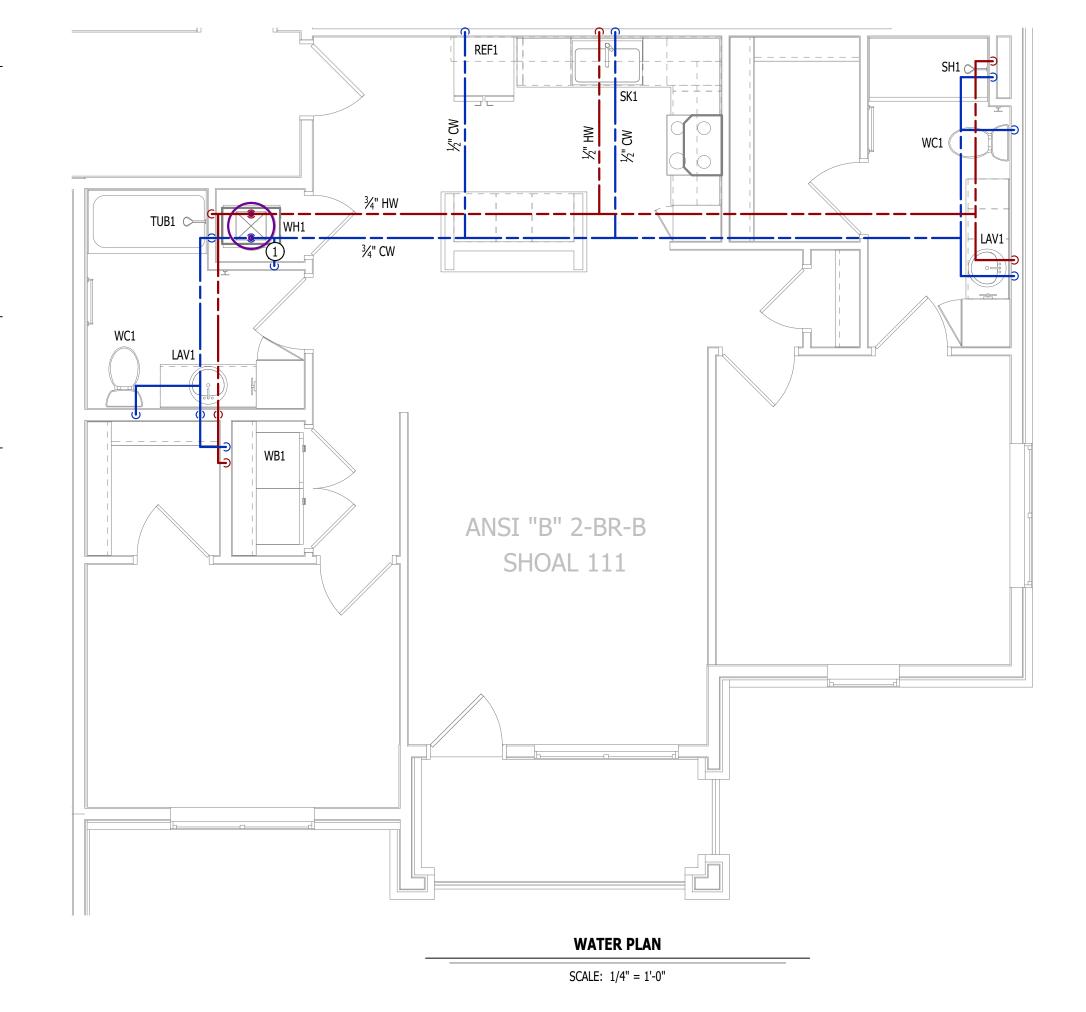
#### WATER PLAN GENERAL NOTES:

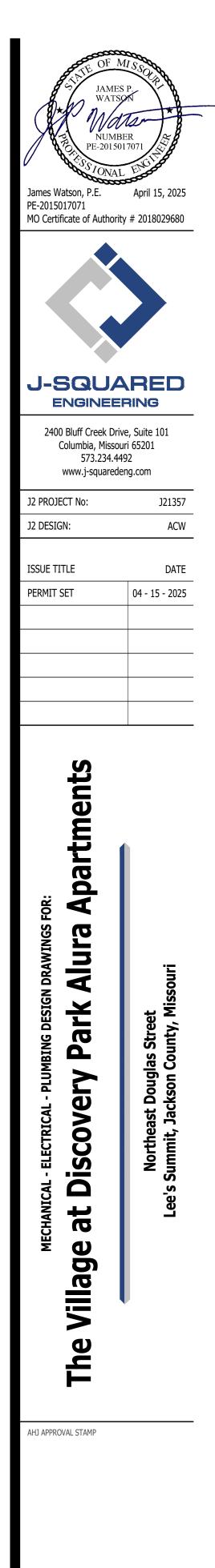
- SEE P500 &/OR P600 SERIES SHEETS FOR ADDITIONAL PLUMBING NOTES, DETAILS, & SCHEDULES.
- ALL PLUMBING LOCATED ON EXTERIOR WALLS SHALL ROUTE WITHIN INSULATION BARRIER.
- 3. ALL DOMESTIC SUPPLY LINES SERVING MORE THAN (1) FIXTURE SHALL BE <sup>3</sup>/<sub>4</sub>" UNLESS NOTED OTHERWISE.

#### WATER PLAN KEY NOTES:

1 1" CW PIPE UP FROM BELOW WITH SHUT-OFF VALVE IN ACCESSIBLE LOCATION. SEE OVERALL PLUMBING PLANS FOR DETAILS.







SHEET TITLE

ANSI B - 2 BR - TYPE B -**UNIT HVAC & WATER PLAN** 



	CIRCUIT WIRING
──> PX-XX	CIRCUIT TAG
J	JUNCTION BOX
XX +42	RECEPTACLE INDICATES MOUNTING HEIGHT TO BOTTOM OF BOX (STANDARD @ 18" AFF UNLESS NOTED OTHERWISE) "WP" = WEATHERPROOF OUTDOOR RECEPTACLE
P	GFCI DUPLEX CONVENIENCE RECEPTACLE
Ŷ	208V RECEPTACLE
#	QUADPLEX CONVENIENCE RECEPTACLE
V	DATA / PHONE JACK; BOX WITH 1" CONDUIT & CAT6 CABLE BACK TO MEDIA PANEL LOCATION (STANDARD @ 18" AFF UNLESS NOTED OTHERWISE)
Dh	DISCONNECT
SD	120V IONIZATION SMOKE 520Hz LOW FREQUENCY ALARM WITH SILENCING CAPABILITIES & LOW-VOLTAGE CONTACTS WIRED TO SHUT DOWN AHU UPON FIRE DETECTION. COORDINATE WITH HVAC CONTRACTOR. SMOKE DETECTOR MUST BE LOCATED AT LEAST 3' FROM CEILING FAN BLADES AND AT LEAST 10' FROM ANY COOKING APPLIANCE (FIELD-COORDINATE)

#### **POWER PLAN GENERAL NOTES:**

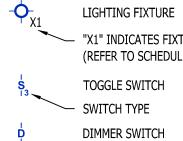
1. SEE E500 & E600 SERIES SHEETS FOR POWER SCHEDULES, DETAILS, REQUIREMENTS, ETC.

- 2. SEE M100 & EP100 SERIES SHEETS FOR CONDENSING UNIT LOCATIONS.
- VERIFY EACH DATA/RECEPTACLE LOCATION WITH OWNER PRIOR TO INSTALLATION.
   REFER TO "TYPICAL ADA MOUNTING HEIGHTS DETAIL", SHEET E501, FOR MOUNTING HEIGHTS OF DEVICES IN "ANSI A" UNITS.

#### **POWER PLAN KEY NOTES:**

MEDIA PANEL LOCATION; DATA/TV WIRING TO TERMINATE AT THIS LOCATION. DETERMINE EXACT LOCATION & DETAILS WITH OWNER PRIOR TO INSTALLATION.

#### LIGHTING PLAN SYMBOL LEGEND

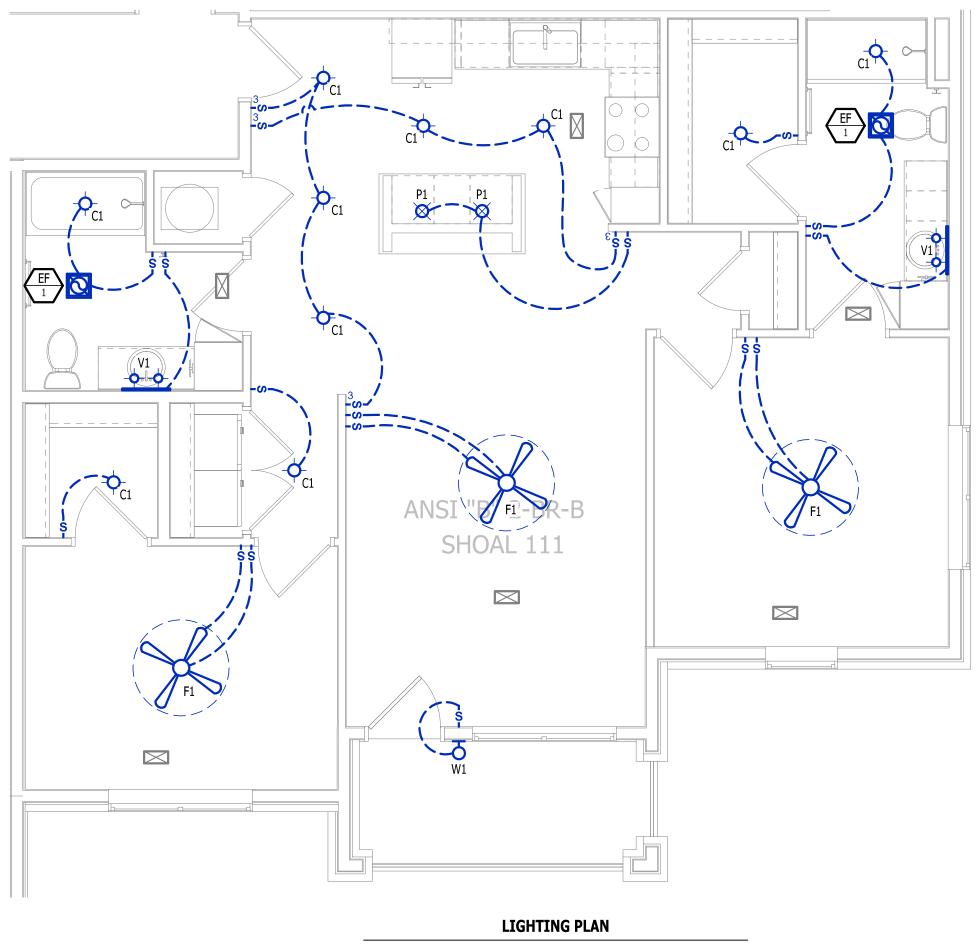


"X1" INDICATES FIXTURE TYPE (REFER TO SCHEDULE) TOGGLE SWITCH - SWITCH TYPE

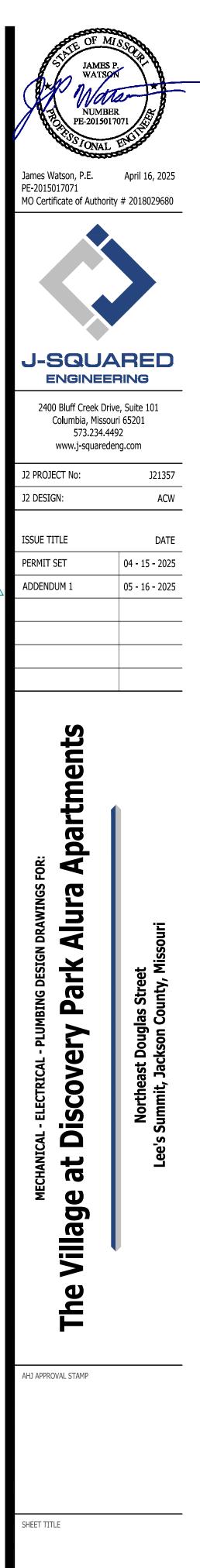
#### LIGHTING PLAN GENERAL NOTES:

1. SEE E500 & E600 SERIES SHEETS FOR ADDITIONAL ELECTRICAL NOTES, DETAILS, & SCHEDULES. 2. ALL LIGHTING SHOWN SHALL BE ON CIRCUIT -16 UNLESS NOTED OTHERWISE.





SCALE: 1/4" = 1'-0"



ANSI B - 2 BR - TYPE B -**UNIT POWER & LIGHTING** PLAN

