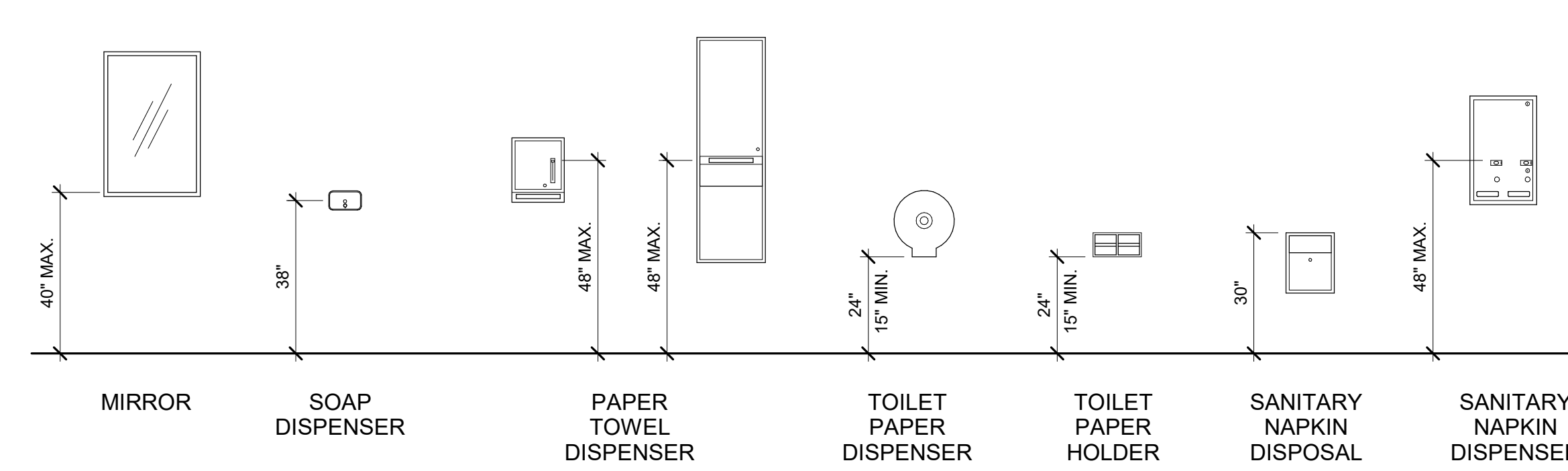
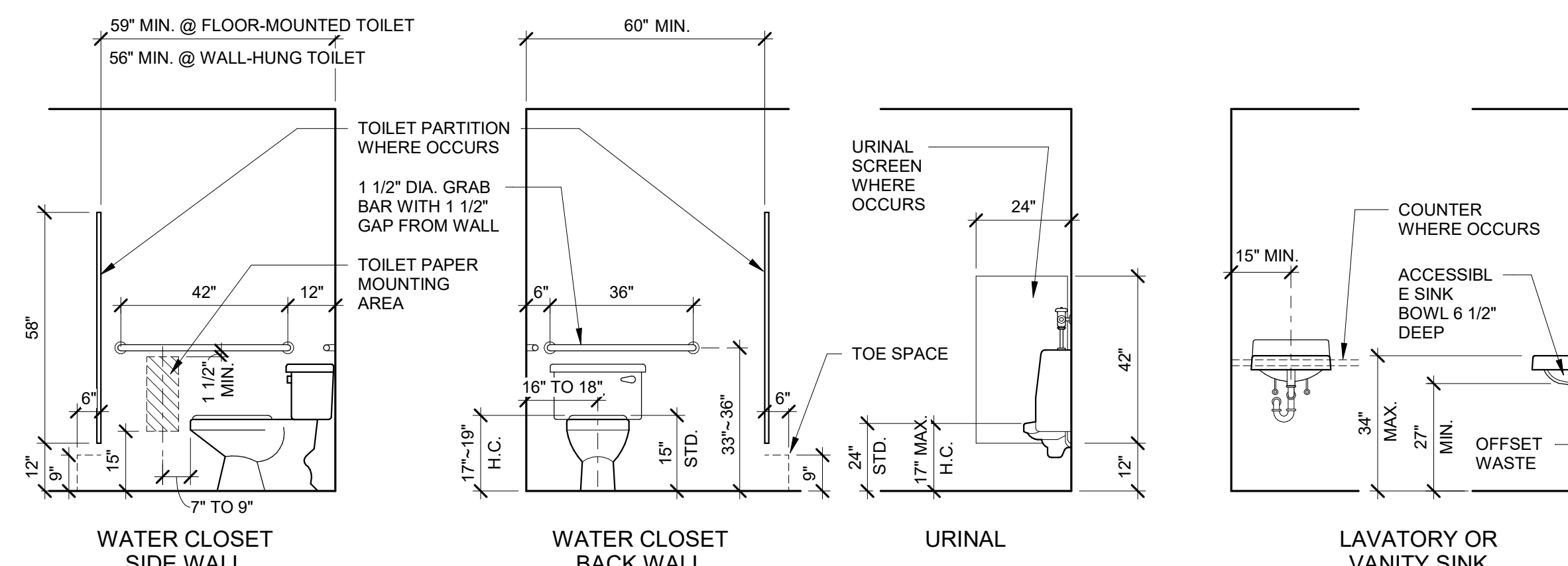


**WALL TYPE LEGEND**



**TYPICAL TOILET ACCESSORIES MOUNTING HEIGHTS**



**TYPICAL PLUMBING FIXTURES AND ACCESSORIES CONFIGURATIONS**

**CODE PLAN SYMBOLS**

	WALL-MOUNTED EXIT SIGN
	CEILING-MOUNTED EXIT SIGN W/ DIRECTIONAL ARROWS
	FIRE EXTINGUISHER CABINET W/ EXTINGUISHER RATING
	BUILDING EXIT W/ CLEAR WIDTH AND OCCUPANT CAPACITY
	ONE-HOUR FIRE RATED PARTITION (NOT USED)
	TWO-HOUR FIRE RATED PARTITION (NOT USED)

**CODE SUMMARY**

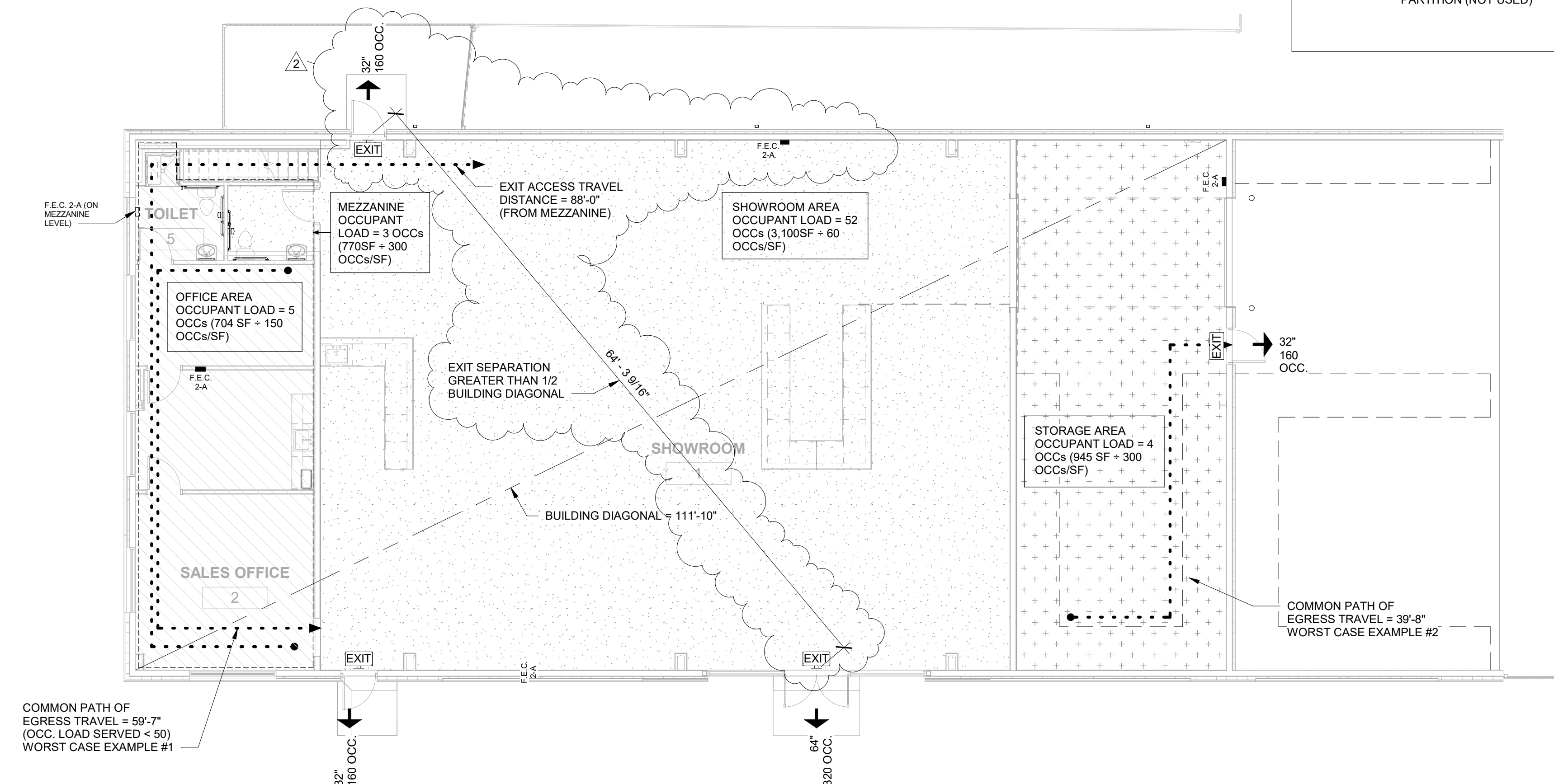
**APPLICABLE CODES (AS AMENDED BY THE AUTHORITY HAVING JURISDICTION)**

BUILDING CODE: 2018 INTERNATIONAL BUILDING CODE (IBC)  
 ELECTRICAL CODE: 2017 NATIONAL ELECTRICAL CODE (NEC)  
 MECHANICAL CODE: 2018 INTERNATIONAL MECHANICAL CODE (IMC)  
 PLUMBING CODE: 2018 INTERNATIONAL PLUMBING CODE (IPC)  
 ENERGY CODE: NOT APPLICABLE

ACCESSIBILITY STD: ICC/ANSI A117.1-2009

CONSTRUCTION TYPE: V-B  
 # OF STORIES: 1 TOTAL

IBC SECTION	DESCRIPTION	VALUE
302.1	Occupancy Classification	Showroom: M (Mercantile) Office Area: B (Business) Storeroom & Mezzanine Areas: S-1 (Storage)
504.3	Allowable Building Height Actual Building Height	40'-0" (based on V-B construction type, non-sprinklered) 21'-10"
504.4	Allowable # of Stories Actual # of Stories	2 (based on V-B construction type, non-sprinklered) 1
506.2	Tabular Area Factor (Table 506.2) Perimeter with Open Frontage (F) Building Perimeter (P) Frontage Width (W) Frontage Increase Factor (If) Allowable Area of Building Actual Area of Building	9,000 SF (B, M & S-1 occupancies are equally restrictive) 356' 356' > 30'-0" (Full length of perimeter) [356'/356' - 0.25] x (30'/30) = 0.75 9,000 SF + (9,000 SF x 0.75) = 15,750 SF 5,201 SF
1004.1	Occupant Load	65 (See Code Plan for occupant load of individual occupancies)
1006.2.1	Means of Egress	Common Path of Egress Travel: 75' for B occupancy Exits Required: 2 (due to common path of egress travel) Exits Provided: 3
1006.2.1	Exit Access Travel Distance	B, M & S-1 Occupancies: 200' maximum Maximum Actual Travel Distance: 85'-0"



**CODE PLAN & GENERAL INFORMATION**  
 1/8" = 1'-0"

#	Description	Date
2	PRECONSTRUCTION REVISIONS	03/21/23

Date: 11-07-2022  
 Drawn by: DO  
 Checked by: DO

**CODE PLAN & GENERAL INFORMATION**  
**G1.00**  
 Scale: As indicated

**THE WATER HOLE REBUILD**  
401 SE OLDHAM PARKWAY  
LEE'S SUMMIT, MO 64081  
**CONSTRUCTION SET**

#	Description	Date
1	CITY COMMENTS	12/02/22
2	PRECONSTRUCTION REVISIONS	03/21/23

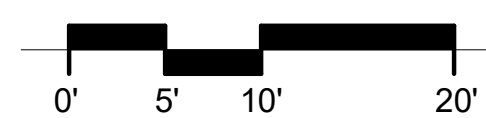
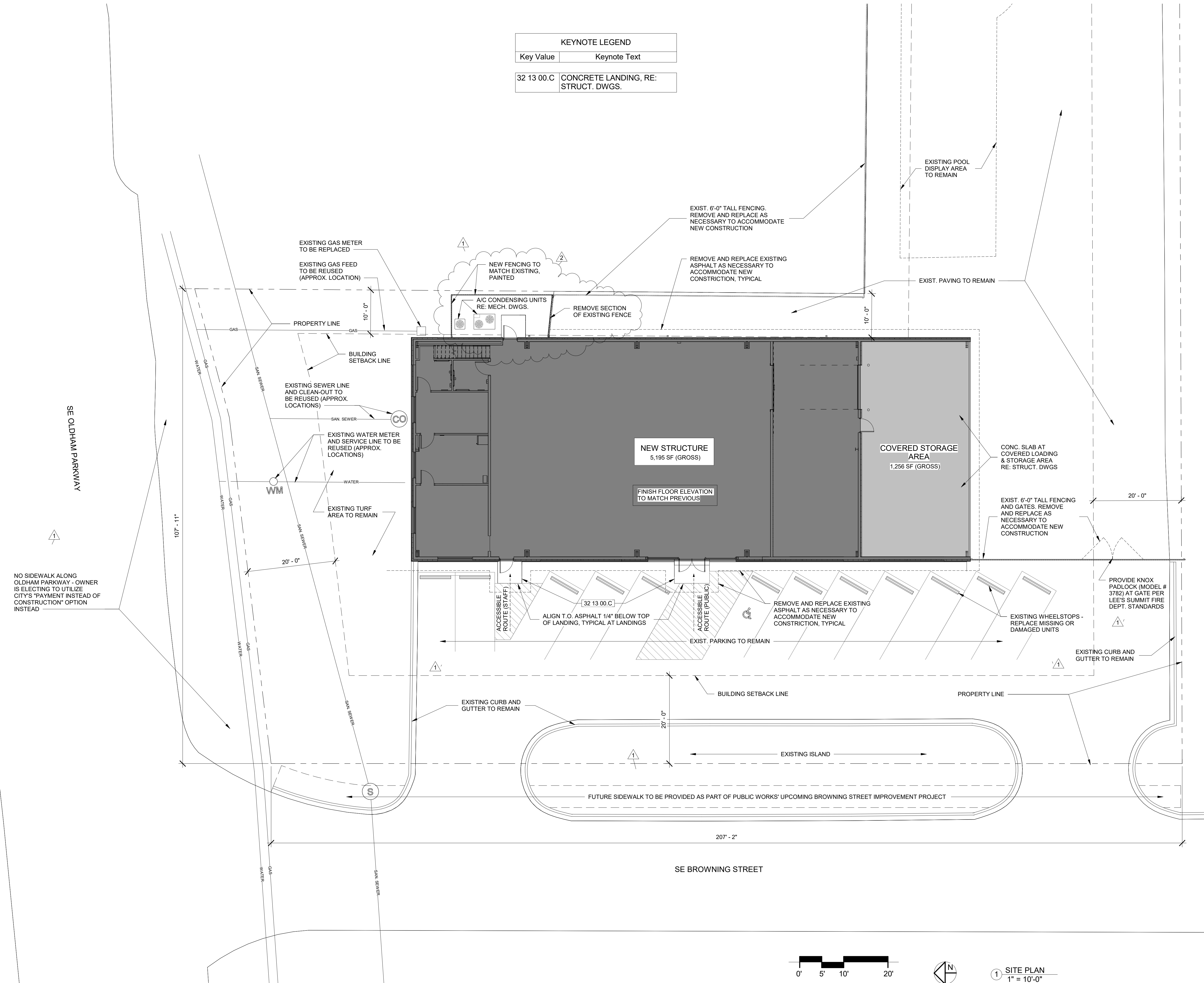
Date 11-07-2022  
Drawn by DO  
Checked by DO

**SITE PLAN**

**AS1.00**

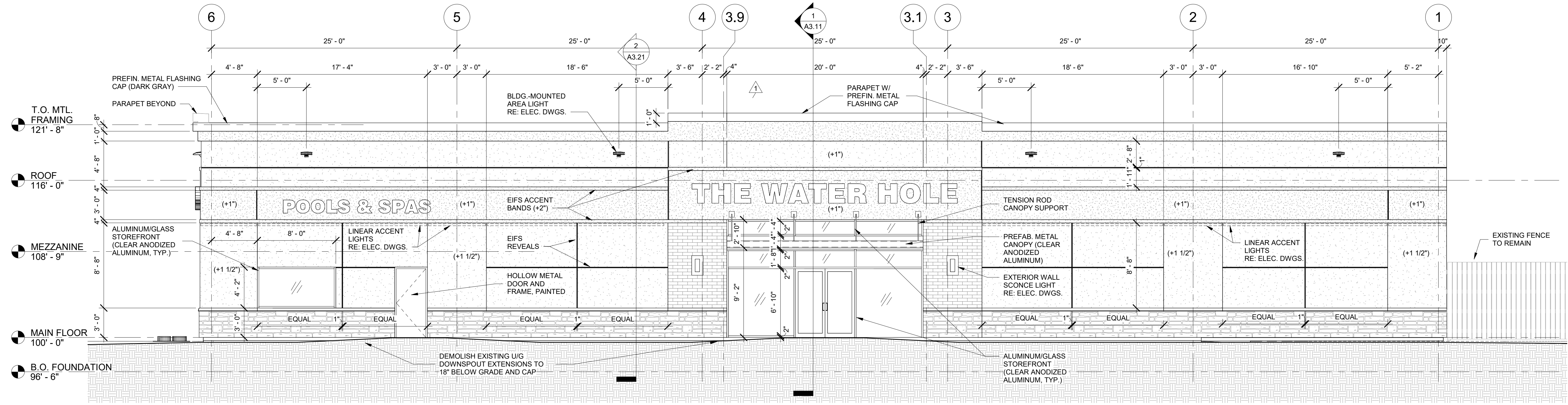
Scale 1" = 10'-0"

KEYNOTE LEGEND	
Key Value	Keynote Text
32 13 00.C	CONCRETE LANDING, RE: STRUCT. DWGS.



1 SITE PLAN  
1" = 10'-0"

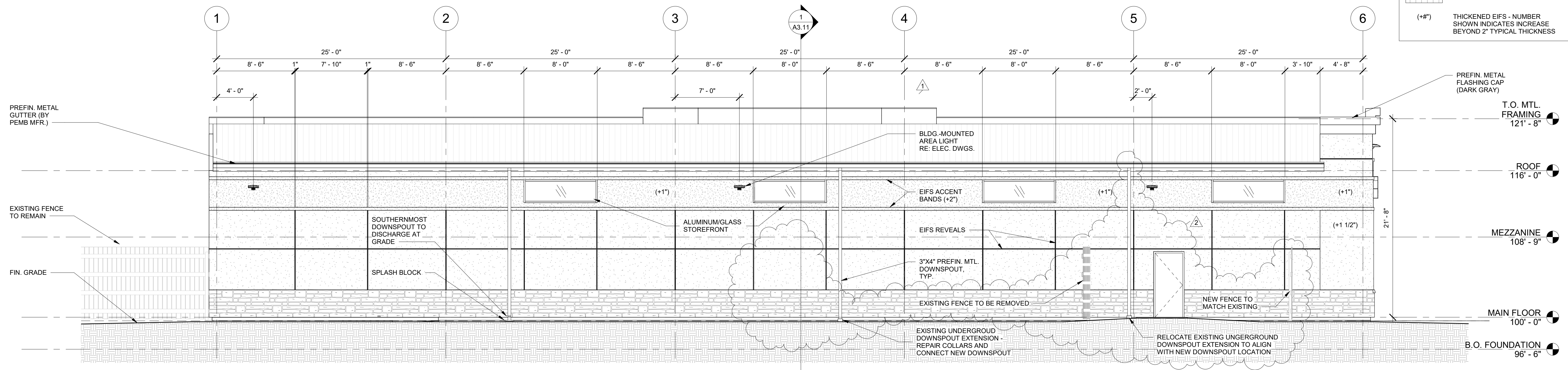




② WEST ELEVATION  
3/16" = 1'-0"

**EXTERIOR MATERIALS LEGEND**

	ADHERED MASONRY - CORONADO STONE, 6" SPLIT LIMESTONE, COLOR: SUMMIT GREY
	ADHERED MASONRY - CORONADO STONE, WIRECUT BRICK, COLOR: ICEBERG
	EXTERIOR INSULATION FINISH SYSTEM (EIFS) COLOR: MATCH SHERWIN WILLIAMS PURE WHITE (SW 7005)
	EXTERIOR INSULATION FINISH SYSTEM (EIFS) COLOR: MEDIUM GRAY
	STANDING SEAM METAL ROOFING
(+#)	THICKENED EIFS - NUMBER SHOWN INDICATES INCREASE BEYOND 2" TYPICAL THICKNESS



① EAST ELEVATION  
3/16" = 1'-0"

**THE WATER HOLE REBUILD**  
401 SE OLDHAM PARKWAY  
LEE'S SUMMIT, MO 64081  
**CONSTRUCTION SET**

#	Description	Date
1	CITY COMMENTS	12/02/22
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Date 11-07-2022  
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Checked by DO

EXTERIOR ELEVATIONS

A2.01

Scale As indicated

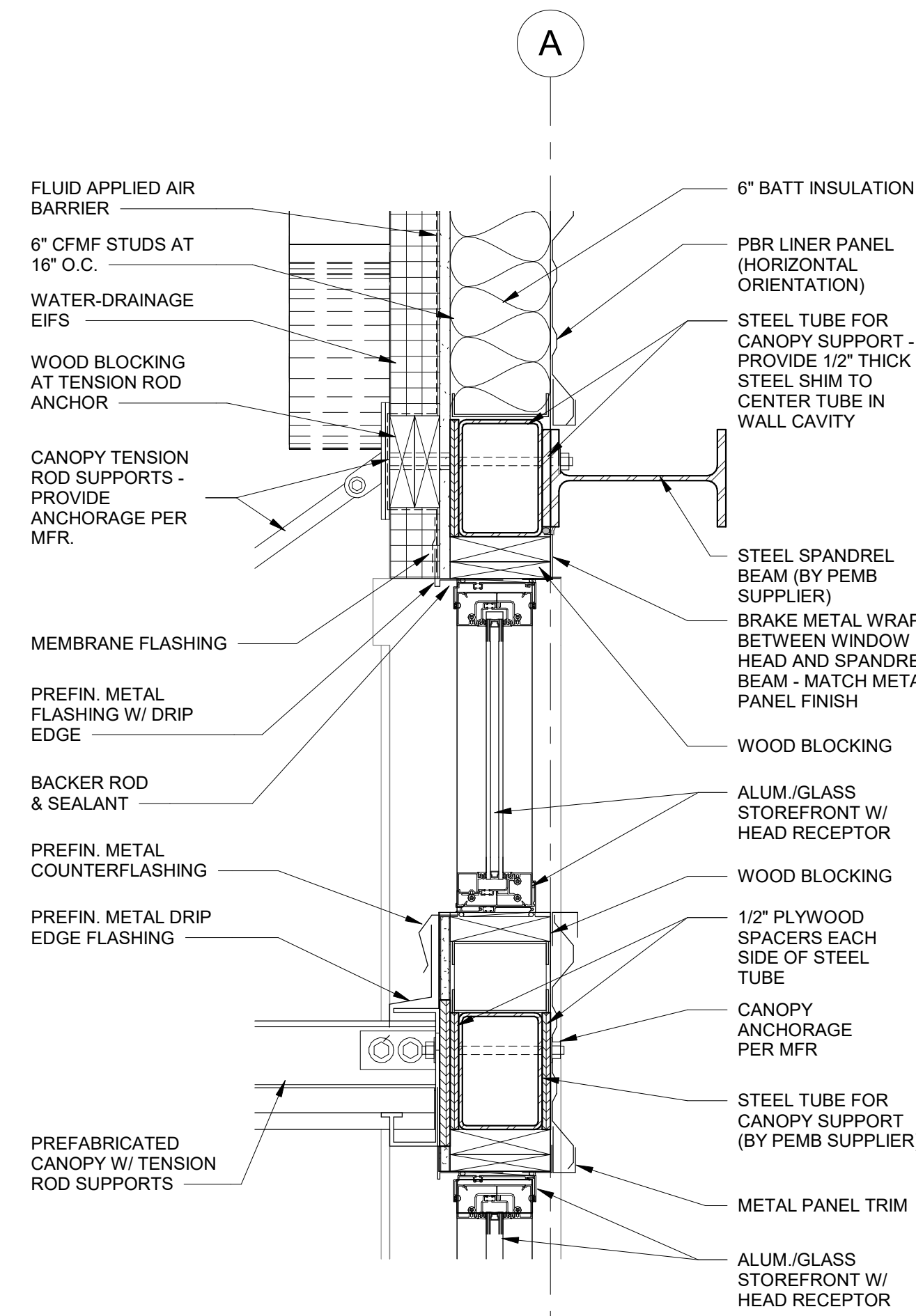
#	Description	Date
2	PRECONSTRUCTION REVISIONS	03/21/23

Date 11-07-2022  
Drawn by DO  
Checked by DO

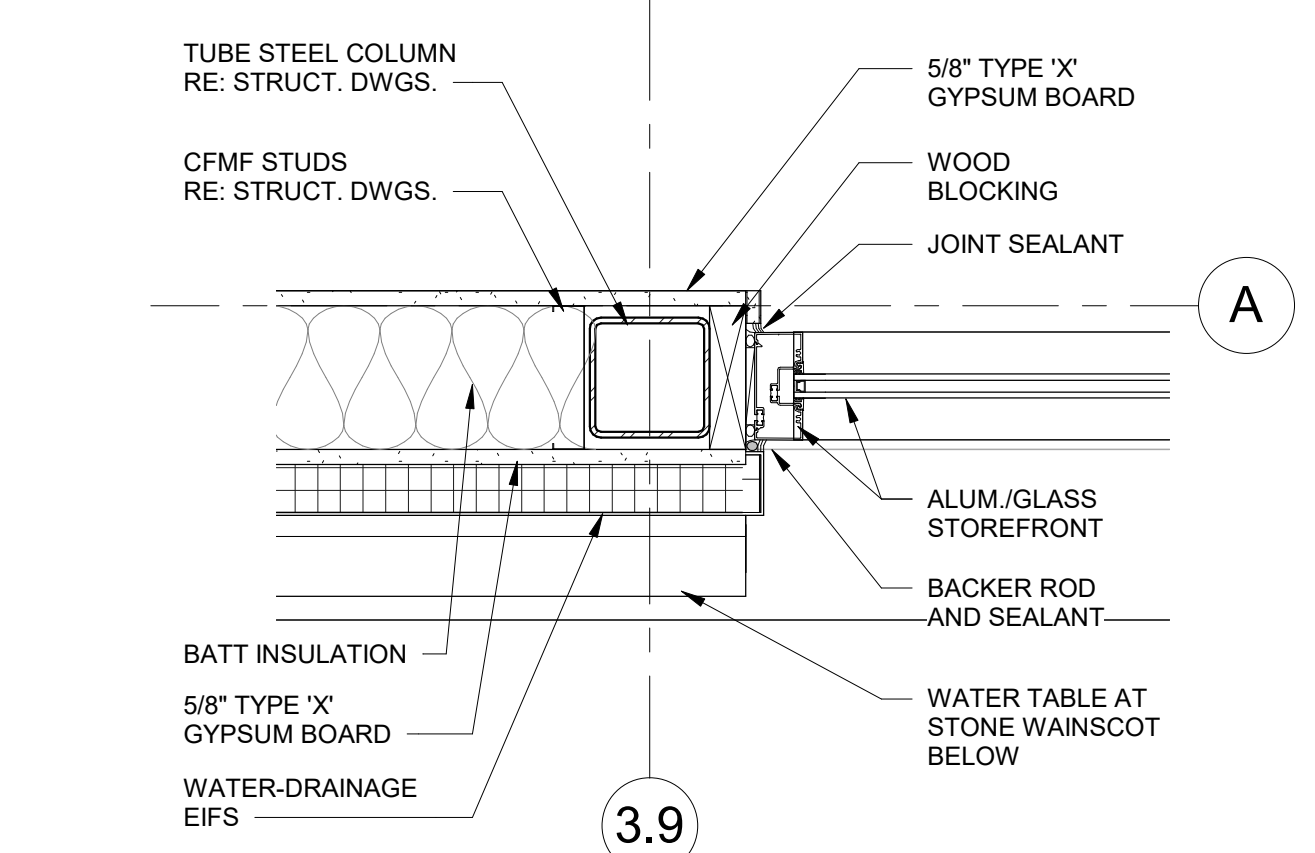
**WALL SECTIONS**

**A3.22**

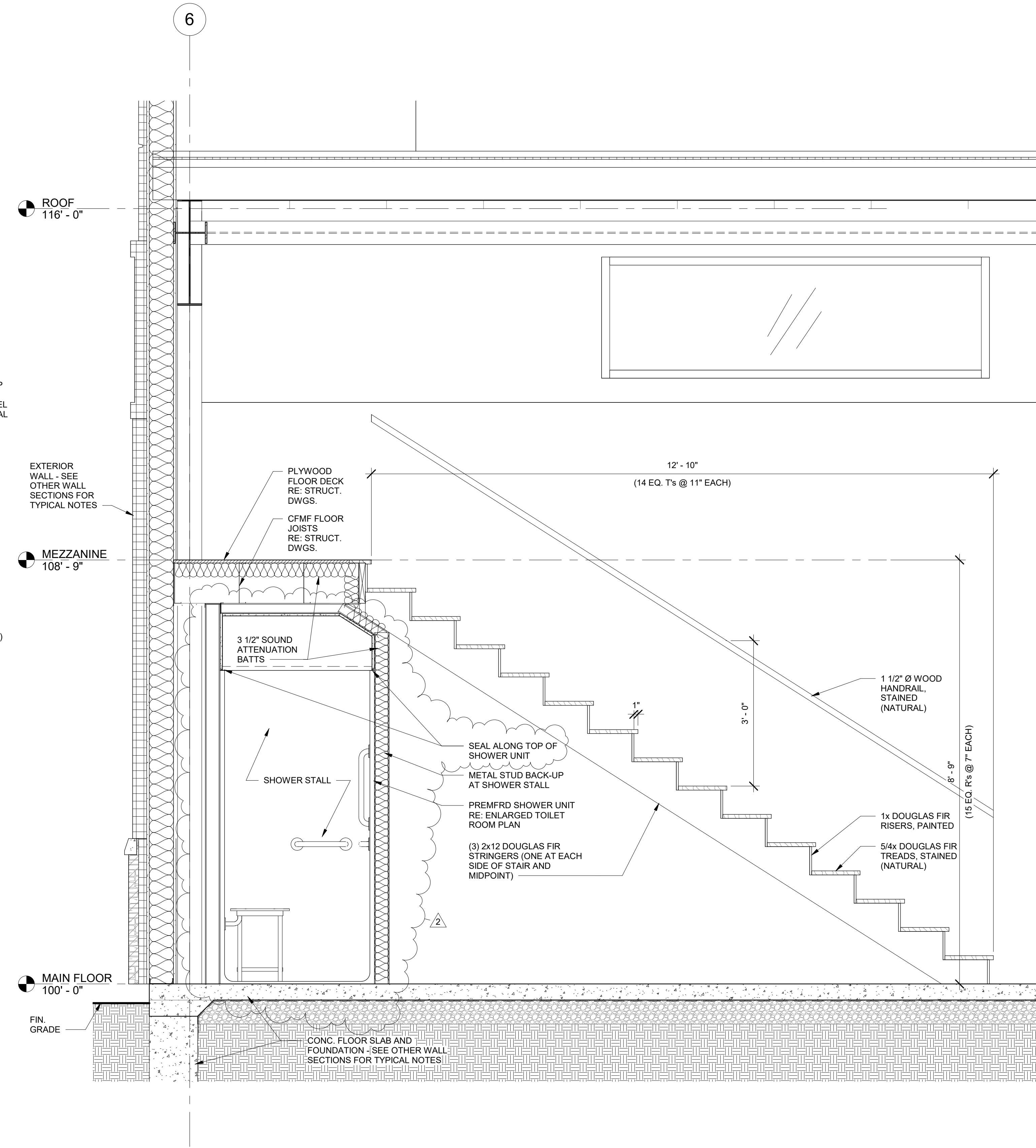
Scale As indicated



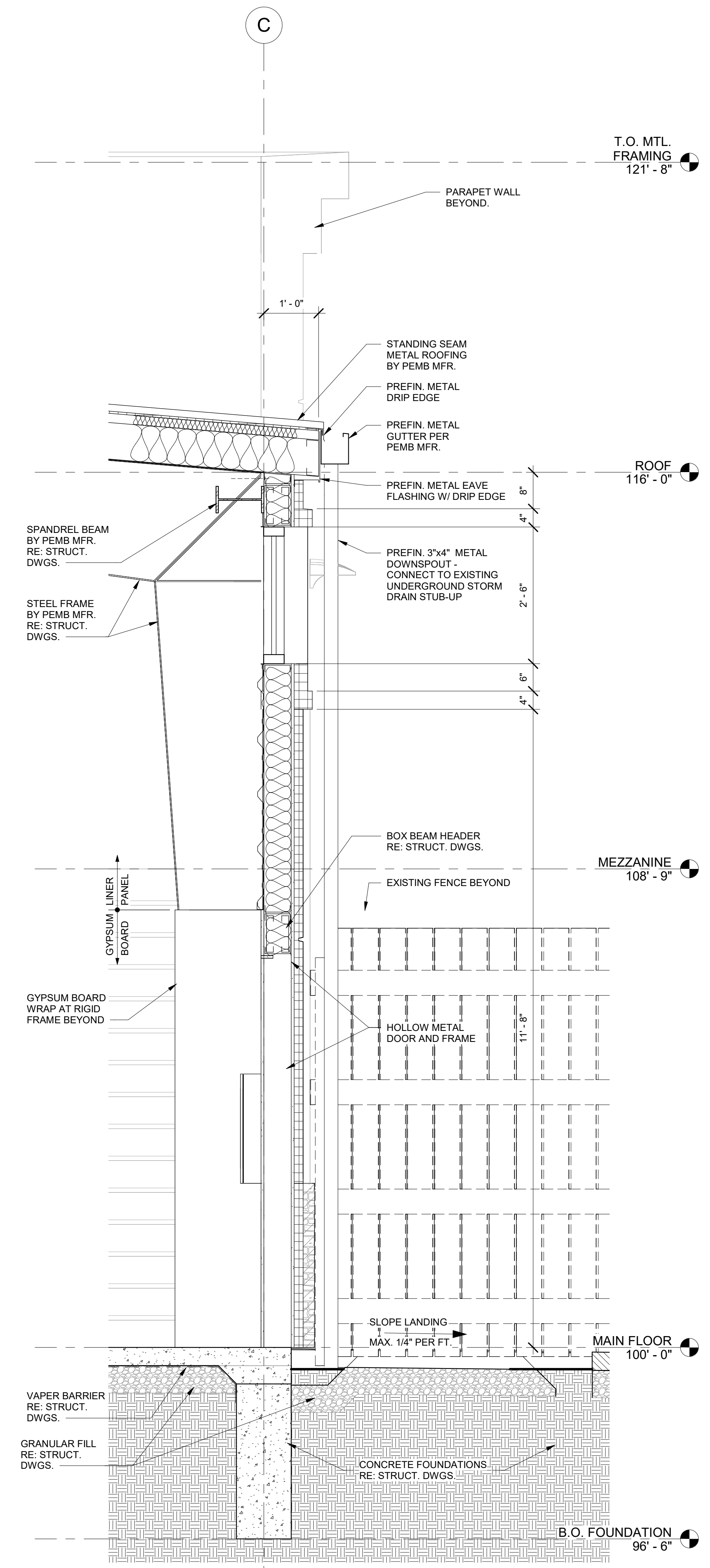
3 STOREFRONT HEAD AT CANOPY  
1 1/2" = 1'-0"



4 STOREFRONT JAMB AT STEEL COLUMN  
1 1/2" = 1'-0"



2 SECTION AT STAIR  
3/4" = 1'-0"



1 SECTION AT EAST WALL  
3/4" = 1'-0"

**INTERIOR FINISH MATERIAL LEGEND**

- FLOOR FINISH**
- EPR1 - EPOXY RESIN FLOORING  
MFR: ELITE CRETE SYSTEMS, INC.  
PRODUCT: REFLECTOR ENHANCER FLOORING SYSTEM (E100-VR1)  
COLOR: BLUE (PER OWNER SELECTION)
- VCT1 - VINYL COMPOSITION TILE  
MFR: ARMSTRONG  
PRODUCT: STANDARD EXCELON IMPERIAL TEXTURE  
COLOR: SHADOW BLUE
- WALL BASE**
- RB1 - RUBBER COVE BASE  
MFR: TARKETT, INC.  
PRODUCT: DURACOVE RUBBER (4")  
COLOR: IRONSTONE
- EPRB1 - EPOXY RESIN INTEGRAL COVE BASE  
MFR: ELITE CRETE SYSTEMS, INC.  
COLOR: AS SELECTED BY ARCHITECT
- WALL FINISH**
- P1 - LATEX PAINT  
MFR: SHERWIN WILLIAMS  
COLOR: WHITE (MATCH LPNL FINISH)
- EP1 - EPOXY PAINT  
MFR: SHERWIN WILLIAMS  
COLOR: WHITE (MATCH LPNL FINISH)
- LPNL - PREFINISHED METAL LINER PANEL  
MFR: METAL PANELS, INC.  
PRODUCT: PBR PANEL (24 GA.)  
COLOR: REGAL WHITE
- CEILING FINISH**
- P1 - SEE P1 WALL FINISH
- BL - BANDED LINER (ROOF INSULATION FACING)  
MFR: PER PEMB SUPPLIER  
COLOR: AS SELECTED BY ARCHITECT  
FROM MFR'S STANDARD COLORS
- CASEWORK FINISHES**
- PL1 - PLASTIC LAMINATE  
MFR: WILSONART  
COLOR: DESIGNER WHITE  
LOCATION: BASE & WALL CABINET EXTERIORS
- PL2 - PLASTIC LAMINATE  
MFR: PIONITE  
COLOR: ROYAL BLUE  
LOCATION: COUNTERTOPS
- PL3 - PLASTIC LAMINATE  
COLOR: WHITE MELAMINE  
LOCATION: BASE & WALL CABINET INTERIORS
- MISCELLANEOUS FINISHES**
- EP2 - EPOXY PAINT  
LOCATION: STAIR RISERS, MEZZANINE GUARD RAIL TOP CAP  
MFR: SHERWIN WILLIAMS  
COLOR: GRAY (AS SELECTED BY ARCHITECT)
- ST1 - WOOD STAIN WITH POLYURETHANE FINISH  
MFR: BONA (DRIFAST STAIN; TRAFFIC HD ANTI-SLIP FINISH)  
LOCATION: STAIR TREADS  
COLOR/SHEEN: Aged Pewter (Stain); Satin (Finish)  
COATS: 1 COAT STAIN, 2 COATS FINISH

**FINISH SCHEDULE**

ROOM #	ROOM NAME	FLOOR FINISH	WALL BASE FINISH	WALL FINISH	CEILING FINISH	CEILING HEIGHT	COMMENTS
1	SHOWROOM	EPR1	RB1	P1/LPNL	BL		1, 3, 4
2	SALES OFFICE	EPR1	RB1	P1	P1	7' - 8"	3
3	BREAK ROOM	EPR1	RB1	P1	P1	7' - 8"	4
4	OFFICE	EPR1	RB1	P1	P1	7' - 8"	
5	TOILET	EPR1	EPRB1	EP1/FGP	P1	7' - 8"	
6	TOILET	EPR1	EPRB1	EP1/FGP	P1	7' - 8"	
7	STOREROOM	EPR1	RB1	EP1	BL		2
8	MEZZANINE	VCT1	RB1	P1/LPNL	BL		5

**COMMENTS:**

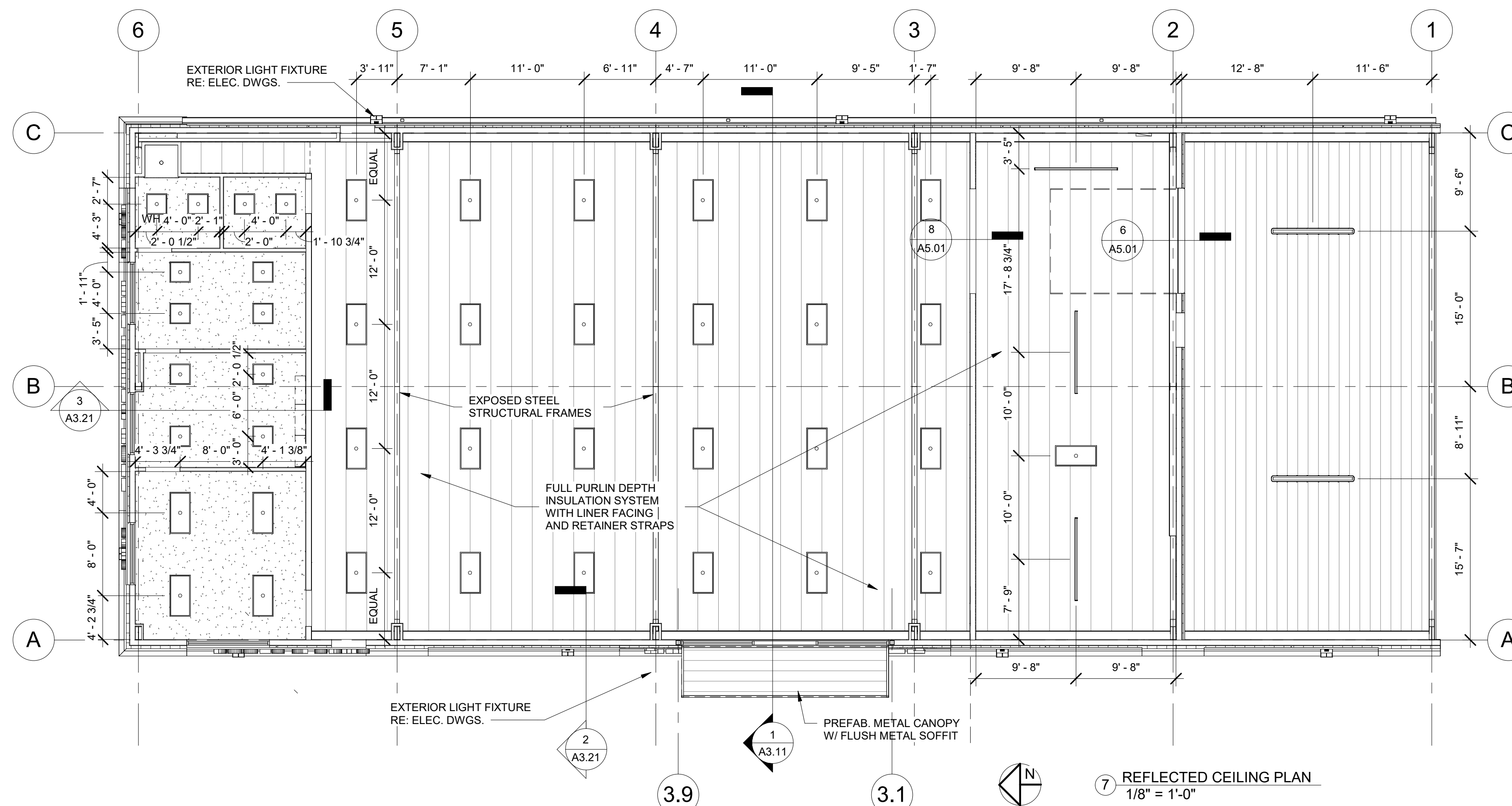
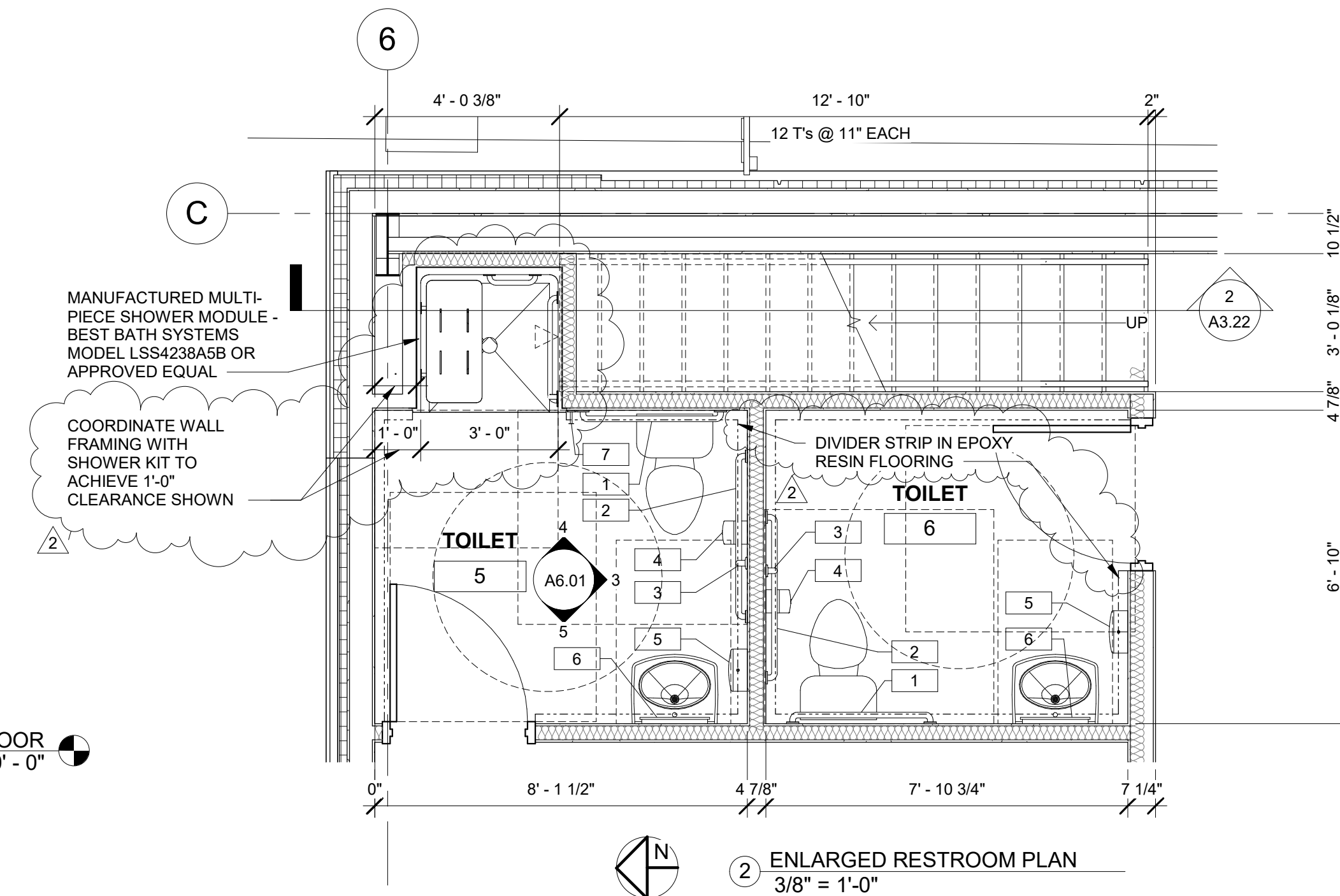
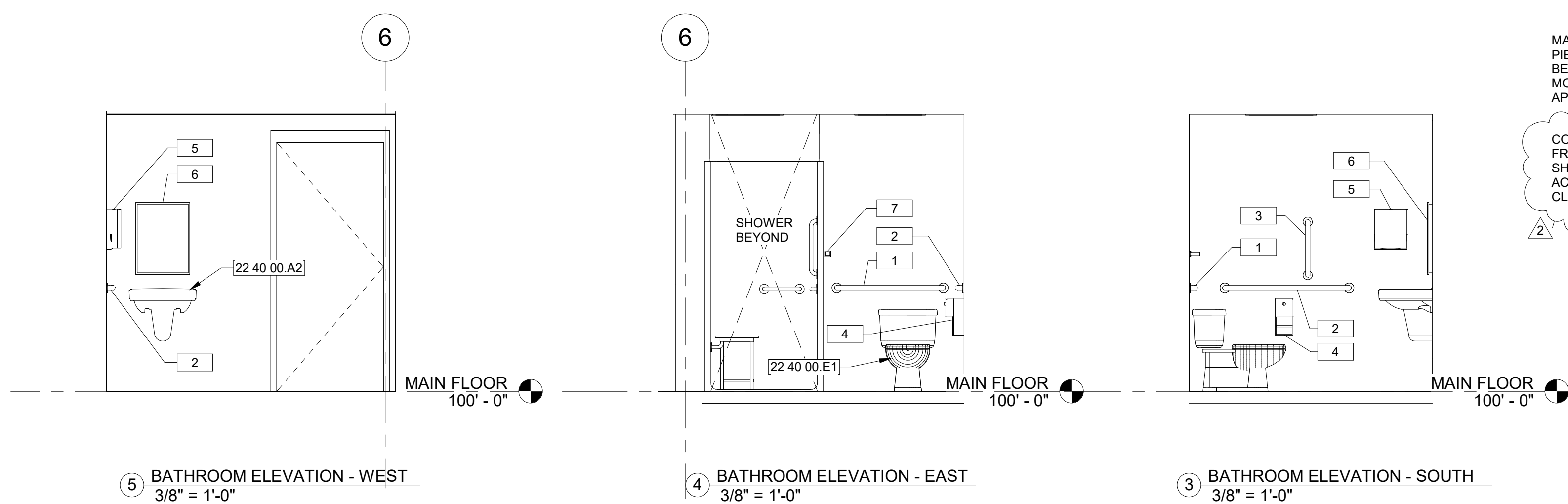
- AT INTERIOR SIDE OF EXTERIOR WALLS, PROVIDE GYPSUM BOARD TO 8'-0" A.F.F. AND PREFIN. METAL LINER PANEL FROM 8'-0" A.F.F. TO TOP OF WALL.
- PROVIDE B-C PLYWOOD TO 12'-0" A.F.F. AND PREFIN. METAL LINER PANEL FROM 12'-0" A.F.F. TO TOP OF WALL.
- PROVIDE PREFINISHED SLAT BOARD OVER GYPSUM BOARD FROM TOP OF WALL BASE TO 8'-0" A.F.F. AT LOCATIONS INDICATED ON FLOOR PLAN.
- SEE FINISH MATERIAL LEGEND FOR CASEWORK FINISHES FOR THIS SPACE.
- WITHHOLD WALL BASE ALONG WALLS WITH METAL LINER PANEL EXTENDING TO FLOOR LEVEL.

**GENERAL FINISH NOTES:**

- SEE WALL TYPES ON SHEET G1.00 FOR INTERIOR WALL SUBSTRATE.
- INSTALL FINISHES PER MANUFACTURER'S INSTRUCTIONS AND USING ADHESIVES, ACCESSORIES, ETC. AS PROVIDED BY OR APPROVED BY THE FINISH MANUFACTURER FOR THE PRODUCT INDICATED.

**TOILET ACCESSORY SCHEDULE**

TYPE MARK	DESCRIPTION	MANUFACTURER	MODEL	MATERIAL/ FINISH	COMMENTS
1	1 1/2" DIA. x 36" LONG HORIZONTAL GRAB BAR	AMERICAN SPECIALTIES, INC.	3801-36	STAINLESS STEEL - SATIN	
2	1 1/2" DIA. x 42" LONG HORIZONTAL GRAB BAR	AMERICAN SPECIALTIES, INC.	3801-42	STAINLESS STEEL - SATIN	
3	1 1/2" DIA. x 18" LONG VERTICAL GRAB BAR	AMERICAN SPECIALTIES, INC.	3801-18	STAINLESS STEEL - SATIN	
4	TOILET TISSUE DISPENSER - DOUBLE ROLL	AMERICAN SPECIALTIES, INC.	20030	STAINLESS STEEL - SATIN	
5	PAPER TOWEL DISPENSER	AMERICAN SPECIALTIES, INC.	20210	STAINLESS STEEL - SATIN	
6	MEDICINE CABINET - RECESSED	AMERICAN SPECIALTIES, INC.	8340	STAINLESS STEEL - SATIN	
7	TOWEL HOOK	AMERICAN SPECIALTIES, INC.	7301-B	STAINLESS STEEL - SATIN	



**CEILING LEGEND**

- BANDED INSULATION LINER  
RE: FINISH SCHEDULE
- GYP. BOARD CEILING ON METAL FRAMING (PAINTED)  
RE: FINISH SCHEDULE
- PREFINISHED METAL SOFFIT PANELS  
RE: FINISH SCHEDULE
- LED TROFFER LIGHT
- LED RECESSED CAN LIGHT
- LED STRIP - PENDANT MOUNT
- LED STRIP - SURFACE MOUNT, GASKETED
- SUPPLY AIR DIFFUSER
- RETURN AIR GRILLE
- EXHAUST FAN

#	Description	Date
2	PRECONSTRUCTION REVISIONS	03/21/23

Date 11-07-2022  
Drawn by DO  
Checked by DO

**CEILING PLAN & INTERIOR DETAILS**  
**A6.01**  
Scale As indicated

#	Description	Date
2	PRECONSTRUCTION REVISIONS	03/21/23

Date	11-07-2022
Drawn by	DO
Checked by	DO

**SPECIFICATIONS**

**A9.03**

Scale

**096519 RESILIENT TILE FLOORING**

- PROVIDE RESILIENT PRODUCTS INDICATED IN THE FINISH SCHEDULE OR AN APPROVED EQUAL. VINYL TILE SHALL COMPLY WITH ASTM F 1700 AND BE A CLASS III, TYPE A, PRINTED VINYL TILE WITH A SMOOTH SURFACE AND A NOMINAL THICKNESS OF 0.120". PROVIDE SIZE(S) AS INDICATED ON DRAWINGS OR 18" X 18", IF NO SIZE IS INDICATED.
- TROWELABLE LEVELING AND PATCHING COMPOUNDS: LATEX-MODIFIED, PORTLAND CEMENT BASED OR BLENDED HYDRAULIC-CEMENT-BASED FORMULATION PROVIDED OR APPROVED BY MANUFACTURER FOR APPLICATIONS INDICATED.
- ADHESIVES: WATER-RESISTANT TYPE RECOMMENDED BY FLOOR TILE AND ADHESIVE MANUFACTURERS TO SUIT FLOOR TILE AND SUBSTRATE CONDITIONS INDICATED.
- ADHESIVES SHALL MEET THE TESTING AND PRODUCT REQUIREMENTS OF THE CDPH STANDARD METHOD AND COMPLY WITH THE FOLLOWING LIMITS FOR VOC CONTENT:
  - VINYL FLOOR TILE ADHESIVES: 50 G/L OR LESS.
  - RUBBER FLOOR ADHESIVES: 60 G/L OR LESS.
- FLOOR POLISH: PROVIDE PROTECTIVE LIQUID FLOOR POLISH PRODUCTS AS RECOMMENDED BY MANUFACTURER.
- EXAMINE SUBSTRATES FOR COMPLIANCE WITH REQUIREMENTS FOR MAXIMUM MOISTURE CONTENT AND VERIFY THAT SUBSTRATES ARE FREE OF CRACKS, RIDGES, DEPRESSIONS, SCALE, AND FOREIGN DEPOSITS THAT MIGHT INTERFERE WITH ADHESION OF FLOOR TILE. PROCEED WITH INSTALLATION ONLY AFTER UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED.
- PREPARE SUBSTRATES ACCORDING TO MANUFACTURER'S WRITTEN INSTRUCTIONS TO ENSURE ADHESION OF RESILIENT PRODUCTS. PREPARE CONCRETE SUBSTRATES ACCORDING TO ASTM F 710. PERFORM ALKALINITY, ADHESION AND MOISTURE TESTING AS RECOMMENDED BY FLOORING MANUFACTURER.
- FILL CRACKS, HOLES, AND DEPRESSIONS IN SUBSTRATES WITH TROWELABLE LEVELING AND PATCHING COMPOUND AND REMOVE BUMPS AND RIDGES TO PRODUCE A UNIFORM AND SMOOTH SUBSTRATE. DO NOT INSTALL FLOOR TILES UNTIL THEY ARE SAME TEMPERATURE AS SPACE WHERE THEY ARE TO BE INSTALLED.
- ENGAGE AN INSTALLER WHO EMPLOYS WORKERS FOR THIS PROJECT WHO ARE TRAINED OR CERTIFIED BY MANUFACTURER FOR INSTALLATION TECHNIQUES REQUIRED. COMPLY WITH MANUFACTURER'S WRITTEN INSTRUCTIONS FOR INSTALLING FLOOR TILE. LAY OUT FLOOR TILES SO THAT TILES AT OPPOSITE EDGES OF ROOM ARE OF EQUAL WIDTH. ADJUST AS NECESSARY TO AVOID USING CUT WIDTHS THAT EQUAL LESS THAN ONE-HALF TILE AT PERIMETER.
- ADHERE FLOOR TILES TO FLOORING SUBSTRATES USING A FULL SPREAD OF ADHESIVE APPLIED TO SUBSTRATE TO PRODUCE A COMPLETED INSTALLATION WITHOUT OPEN CRACKS, VOIDS, RAISING AND PUCKERING AT JOINTS, TELEGRAPHING OF ADHESIVE SPREADER MARKS, AND OTHER SURFACE IMPERFECTIONS.
- COMPLY WITH MANUFACTURER'S WRITTEN INSTRUCTIONS FOR CLEANING AND PROTECTION OF FLOOR TILE. PROTECT FLOOR TILE PRODUCTS FROM DAMAGE FROM CONSTRUCTION OPERATIONS AND PLACEMENT OF EQUIPMENT AND FIXTURES DURING REMAINDER OF CONSTRUCTION PERIOD.
- FLOOR POLISH: REMOVE SOIL, VISIBLE ADHESIVE, AND SURFACE BLEMISHES FROM FLOOR TILE SURFACES AND APPLY TWO COAT(S) OF LIQUID FLOOR POLISH, USING PRODUCT RECOMMENDED BY THE FLOORING MANUFACTURER.
- SUBMITTAL(S) REQUIRED:** PRODUCT DATA FOR EACH TYPE OF PRODUCT INDICATED, INCLUDING DATA ON LOW VOC PROPERTIES.

**096723 RESINOUS FLOORING**

- PROVIDE ABRASION-, IMPACT-, CHEMICAL- AND UV RESISTANT, LOW VISCOSITY, TWO-COMPONENT, HIGH GLOSS EPOXY FLOOR SURFACING DESIGNED TO PRODUCE A SEAMLESS FLOOR, AS WELL AS AN INTEGRAL COVE BASE WHERE INDICATED. ELASTOMERIC EPOXY FLOOR MEMBRANE, BINDER AND ALL SUCCESSIVE GROUT AND PROTECTIVE TOP COATS SHALL BE 100% SOLIDS CLEAR/EPOXY RESIN. MANUFACTURER'S STANDARD AGGREGATE OR PIGMENTS ARE TO BE USED TO ACHIEVE ALL COLOR. **BASIS-OF-DESIGN MANUFACTURER AND PRODUCT:** ELITE CRETE SYSTEMS, INC.; REFLECTOR ENHANCER FLOORING SYSTEM (E100-VR1)
- PROVIDE LOW-VOC TWO-COAT FLOORING SYSTEM WITH 1/4" OVERALL THICKNESS AND ORANGE PEEL TEXTURE. PROVIDE COLOR, PATTERN AND AGGREGATES AS INDICATED ON FINISH SCHEDULE. PROVIDE EPOXY RESIN BODY COATS WITH 100 PERCENT SOLIDS, SUITABLE FOR A TROWELED OR SCREEDED APPLICATION. PROVIDE WATER BASED EPOXY RESIN TOPCOAT WITH FINISH AND SHEEN PER FINISH SCHEDULE. INTEGRAL COVE BASE, IF INDICATED BY FINISH SCHEDULE, SHALL BE 4" HIGH, TURNED UP COVE BASE WITH 1" RADIUS COVE AND TERMINATED ON TOP WITH INDUSTRY STANDARD ALUMINUM STRIP.
- PROVIDE RESINOUS FLOORING SYSTEM WITH THE FOLLOWING MINIMUM PHYSICAL PROPERTY REQUIREMENTS ACCORDING TO TEST METHODS INDICATED:
  - COMPRESSIVE STRENGTH: PER ASTM C 579.
  - TENSILE STRENGTH: PER ASTM C 307.
  - FLEXURAL MODULUS OF ELASTICITY: PER ASTM C 580.
  - IMPACT RESISTANCE: NO CHIPPING, CRACKING, OR DELAMINATION AND NOT MORE THAN 1/16-INCH PERMANENT INDENTATION PER MIL-D-3134.
  - ABRASION RESISTANCE: MAXIMUM WEIGHT LOSS PER ASTM D 4060.
  - FLAMMABILITY: SELF-EXTINGUISHING PER ASTM D 635.
  - CRITICAL RADIANT FLUX: 0.45 W/SQ. CM OR GREATER PER NFPA 253.
  - HARDNESS: SHORE D PER ASTM D 2240.
  - BOND STRENGTH: 100 PERCENT CONCRETE FAILURE PER ACI 503R.
  - COEFFICIENT OF FRICTION: 0.6 MINIMUM FOR LEVEL SURFACES, 0.8 MINIMUM FOR RAMP SURFACES
- PROVIDE PRIMER, WATERPROOFING MEMBRANE AND FLEXIBLE RESIN REINFORCING MEMBRANE OF TYPES RECOMMENDED BY MANUFACTURER FOR SUBSTRATE. PRIMER AND BODY COATS INDICATED AND THAT PREVENT SUBSTRATE CRACKS FROM REFLECTING THROUGH RESINOUS FLOORING. PATCHING AND FILL MATERIAL SHALL BE RESINOUS PRODUCT OF OR APPROVED BY RESINOUS FLOORING MANUFACTURER AND RECOMMENDED FOR APPLICATION INDICATED. JOINT SEALANT SHALL BE LOW-VOC TYPE RECOMMENDED OR PRODUCED BY RESINOUS FLOORING MANUFACTURER FOR TYPE OF SERVICE AND JOINT CONDITION INDICATED.
- ENGAGE AN INSTALLER WHO IS CERTIFIED IN WRITING BY THE MANUFACTURER, AS WELL AS TRAINED AND APPROVED, FOR THE INSTALLATION OF FLOORING SYSTEMS REQUIRED FOR THIS PROJECT.
- COMPLY WITH RESINOUS FLOORING MANUFACTURER'S WRITTEN INSTRUCTIONS FOR SUBSTRATE TEMPERATURE, AMBIENT TEMPERATURE, MOISTURE, VENTILATION, AND OTHER CONDITIONS AFFECTING RESINOUS FLOORING APPLICATION. MATERIAL TEMPERATURES SHALL BE A MINIMUM OF 55°F BEFORE USE. WORK ON SEAMLESS FLOORING SHALL NOT COMMENCE UNTIL THE BUILDING CAN BE MAINTAINED AT A MINIMUM TEMPERATURE OF 55°F FOR 48 HOURS BEFORE, DURING AND 48 HOURS AFTER APPLICATION. AREAS SHALL ALSO BE BROOM CLEAN, REASONABLY DUST FREE, WITH ADEQUATE VENTILATION AND LIGHT, UNIFORM LIGHTING. CLOSE SPACES TO TRAFFIC DURING RESINOUS FLOORING APPLICATION AND FOR 24 HOURS AFTER APPLICATION UNLESS MANUFACTURER RECOMMENDS A LONGER PERIOD.
- OBTAIN PRIMARY RESINOUS FLOORING MATERIALS FROM SINGLE SOURCE AND FROM SINGLE MANUFACTURER. PROVIDE SECONDARY MATERIALS, INCLUDING PATCHING AND FILL MATERIAL, JOINT SEALANT, AND REPAIR MATERIALS, OF TYPE AND FROM SOURCE RECOMMENDED BY MANUFACTURER OF PRIMARY MATERIALS.
- PREPARE AND CLEAN SUBSTRATES ACCORDING TO RESINOUS FLOORING MANUFACTURER'S WRITTEN INSTRUCTIONS FOR SUBSTRATE INDICATED. PROVIDE CLEAN, DRY SUBSTRATE FOR RESINOUS FLOORING APPLICATION. CONCRETE SURFACES SHALL BE FREE OF LATANDE, GLAZE, EFFLORESCENCE, CURING COMPOUNDS, FORM-RELEASE AGENTS, DUST, DIRT AND OTHER CONTAMINANTS INCOMPATIBLE WITH RESINOUS FLOORING. ROUGHEN CONCRETE FLOORING USING A SHOT BLAST METHOD TO COMPLY WITH ASTM C 811 REQUIREMENTS. VERIFY THAT CONCRETE SUBSTRATES ARE DRY AND THAT MOISTURE-VAPOR EMISSIONS AND pH VALUE ARE WITHIN AN ACCEPTABLE RANGE ACCORDING TO MANUFACTURER'S WRITTEN INSTRUCTIONS.
- ACCORDING TO RESINOUS FLOORING MANUFACTURER'S WRITTEN INSTRUCTIONS, PERFORM THE FOLLOWING: PREPARE AND MIX RESINOUS MATERIALS, USE PATCHING AND FILL MATERIAL TO FILL HOLES AND DEPRESSIONS IN SUBSTRATES. TREAT CONTROL JOINTS AND OTHER NONMOVING SUBSTRATE CRACKS TO PREVENT CRACKS FROM REFLECTING THROUGH RESINOUS FLOORING AND APPLY REINFORCING MEMBRANE TO ENTIRE SUBSTRATE SURFACE.
- APPLY COMPONENTS OF RESINOUS FLOORING SYSTEM ACCORDING TO MANUFACTURER'S WRITTEN INSTRUCTIONS TO PRODUCE A UNIFORM, MONOLITHIC WEARING SURFACE OF THICKNESS INDICATED. APPLY TROWELED OR SCREEDED SYSTEM TO 3/16" THICKNESS OVER EPOXY PRIMER. HAND OR POWER TROWEL AND GROUT TO FILL VOIDS. CURE RESINOUS FLOORING COMPONENTS AND APPLY GROUT COAT TO FILL VOIDS IN SURFACE OF FINAL BODY COAT AND TO PRODUCE WEARING SURFACE INDICATED. APPLY TOPCOATS IN NUMBER INDICATED FOR FLOORING SYSTEM AND AT SPREADING RATES RECOMMENDED IN WRITING BY MANUFACTURER.
- PROTECT RESINOUS FLOORING FROM DAMAGE AND WEAR DURING THE REMAINDER OF CONSTRUCTION PERIOD AS RECOMMENDED IN WRITING BY RESINOUS FLOORING MANUFACTURER.
- SUBMITTAL(S) REQUIRED:** PRODUCT DATA FOR EACH TYPE OF PRODUCT INDICATED, INCLUDING DATA ON LOW-VOC PROPERTIES; 6" SQUARE PHYSICAL SAMPLE FOR EACH TYPE OF RESINOUS FLOORING FINISH INDICATED.

**088000 GLAZING**

- PROVIDE GLAZING SYSTEMS OF THE TYPE AND SIZES INDICATED ON PLANS. GLAZING SHALL CARRY A MANUFACTURER'S STANDARD WARRANTY FOR A MINIMUM OF 10 YEARS, AGREEING TO REPLACE ANY GLASS LITES/UNITS THAT DETERIORATE.
- GLAZING SYSTEMS SHALL BE CAPABLE OF WITHSTANDING NORMAL THERMAL MOVEMENT AND WIND AND IMPACT LOADS (WHERE APPLICABLE) WITHOUT FAILURE. PROVIDE KIND FT (FULLY TEMPERED) GLASS LITES WHERE SAFETY GLASS IS INDICATED ON PLANS OR OTHERWISE REQUIRED TO MEET BUILDING CODE REQUIREMENTS.
- ANNEALED FLOAT GLASS: PROVIDE LITES MEETING ASTM C 1036, TYPE I (TRANSPARENT FLAT GLASS), QUALITY-Q3.
- LAMINATED GLASS: PROVIDE LITES MEETING ASTM C1172-19, TYPE II (LAMINATED SAFETY GLASS), PROVIDE 1/4" OVERALL THICKNESS WITH 0.060" PVB INTERLAYER.
- INSULATING-GLASS UNITS, GENERAL: PROVIDE NOMINAL 1" THICK, FACTORY-ASSEMBLED UNITS CONSISTING OF SEALED LITES OF GLASS SEPARATED BY A DEHYDRATED INTERSPACE, AND COMPLYING WITH ASTM E 774 FOR GLASS CBA UNITS AND WITH REQUIREMENTS SPECIFIED IN THIS ARTICLE AND IN PART 2 "INSULATING-GLASS UNITS" ARTICLE.
  - PROVIDE KIND HS (HEAT-STRENGTHENED) FLOAT GLASS IN PLACE OF ANNEALED GLASS WHERE NEEDED TO RESIST THERMAL STRESSES INDUCED BY DIFFERENTIAL SHADING OF INDIVIDUAL GLASS LITES
  - PROVIDE KIND FT (FULLY TEMPERED) GLASS LITES WHERE SAFETY GLASS IS INDICATED OR AS OTHERWISE REQUIRED BY CODE. PERMANENTLY MARK GLAZING WITH CERTIFICATION LABEL OF CERTIFICATION AGENCY ACCEPTABLE TO AUTHORITIES HAVING JURISDICTION.
  - PROVIDE DUAL SEAL, WITH MANUFACTURER'S STANDARD PRIMARY AND SECONDARY SEALANTS
  - PROVIDE MANUFACTURER'S STANDARD SPACER MATERIAL AND CONSTRUCTION.
- BASIS OF DESIGN PRODUCT(S):** AS INDICATED ON PLANS.
- FIRE RATED GLAZING: WHERE REQUIRED, PROVIDE MONOLITHIC CERAMIC GLAZING MATERIAL IN THE FORM OF CLEAR FLAT SHEETS OF THICKNESS REQUIRED TO ACHIEVE THE FIRE PROTECTION RATING INDICATED. RATED GLASS SHALL BE PERMANENTLY LABELED BY A TESTING AND INSPECTING AGENCY ACCEPTABLE TO AUTHORITIES HAVING JURISDICTION.
 **BASIS OF DESIGN PRODUCT:** "FIRELITE NT" (UNPOLISHED ON BOTH SURFACES) BY NIPPON ELECTRIC GLASS CO., LTD., AND DISTRIBUTED BY TECHNICAL GLASS PRODUCTS.
- PROVIDE ALL MISCELLANEOUS MATERIALS AND ACCESSORIES, INCLUDING, GLAZING GASKETS, TAPES, SEALANTS, CLEANERS, PRIMERS, SETTING BLOCKS, SPACERS, EDGE BLOCKS, ETC. REQUIRED TO PROVIDE A STRUCTURALLY SOUND AND WEATERTIGHT INSTALLATION AS RECOMMENDED BY GLASS AND STOREFRONT MANUFACTURERS FOR THE APPLICATIONS SHOWN.
- ENGAGE A QUALIFIED PROFESSIONAL ENGINEER TO DESIGN GLAZING TO MEET THE FOLLOWING PERFORMANCE REQUIREMENTS ACCORDING TO THE IBC AND ASTM E 1300:
  - DESIGN WIND PRESSURES: AS INDICATED ON DRAWINGS OR AS REQUIRED BY BUILDING CODE.
  - DESIGN WIND PRESSURES: DETERMINE DESIGN WIND PRESSURES APPLICABLE TO PROJECT ACCORDING TO ASCE/SEI 7, BASED ON HEIGHTS ABOVE GRADE INDICATED ON DRAWINGS.
  - MAXIMUM LATERAL DEFLECTION: FOR INSULATING GLASS, PROVIDE THICKNESS REQUIRED THAT LIMITS CENTER DEFLECTION AT DESIGN WIND PRESSURE TO 1/50 TIMES THE SHORT SIDE LENGTH OR 1 INCH, WHICHEVER IS LESS.
  - THERMAL MOVEMENTS: ALLOWS FOR THERMAL MOVEMENTS RESULTING FROM THE FOLLOWING MAXIMUM CHANGE (RANGE) IN AMBIENT AND SURFACE TEMPERATURES: 120 DEG F AMBIENT; 180 DEG F MATERIAL SURFACES.
  - THERMAL AND OPTICAL PERFORMANCE PROPERTIES: PROVIDE GLASS WITH THE PERFORMANCE PROPERTIES SPECIFIED AS DETERMINED ACCORDING TO THE FOLLOWING PROCEDURES FOR CENTER-OF-GLASS VALUES: NFRC 100 (U-FACTORS), NFRC 200 (SOLAR HEAT GAIN COEFFICIENT), NFRC 300 (SOLAR OPTICAL PROPERTIES).
- CLEAN GLAZING CHANNELS AND OTHER FRAMING MEMBERS RECEIVING GLASS IMMEDIATELY BEFORE GLAZING. REMOVE COATINGS NOT FIRMLY BONDED TO SUBSTRATES.
- INSTALLER SHALL BE AN EXPERIENCED INSTALLER WHO HAS COMPLETED GLAZING SIMILAR TO THAT INDICATED FOR THIS PROJECT; WHOSE WORK HAS A RECORD OF SUCCESSFUL IN-SERVICE PERFORMANCE. AND WHO EMPLOYS GLASS INSTALLERS FOR THIS PROJECT WHO ARE CERTIFIED UNDER THE NATIONAL GLASS ASSOCIATION GLAZIER CERTIFICATION PROGRAM AS LEVEL 2 (SENIOR GLAZIERS) OR LEVEL 3 (MASTER GLAZIERS).
- INSTALLATION SHALL COMPLY WITH COMBINED WRITTEN INSTRUCTIONS OF MANUFACTURERS OF GLASS, SEALANTS, GASKETS, AND OTHER GLAZING MATERIALS. DO NOT PROCEED WITH GLAZING WHEN AMBIENT AND SUBSTRATE TEMPERATURE CONDITIONS ARE OUTSIDE LIMITS PERMITTED BY GLAZING MATERIAL MANUFACTURERS AND WHEN GLAZING CHANNEL SUBSTRATES ARE WET FROM RAIN, FROST, CONDENSATION, OR OTHER CAUSES.
- PROTECT GLASS EDGES FROM DAMAGE DURING HANDLING AND INSTALLATION. REMOVE DAMAGED GLASS FROM PROJECT SITE AND LEGALLY DISPOSE OF OFF PROJECT SITE. PROTECT EXTERIOR GLASS FROM DAMAGE IMMEDIATELY AFTER INSTALLATION BY ATTACHING CROSSED STREAMERS TO FRAMING HELD AWAY FROM GLASS. REMOVE AND REPLACE GLASS THAT IS BROKEN, CHIPPED, CRACKED, OR ABRADED OR THAT IS DAMAGED FROM NATURAL CAUSES, ACCIDENTS, AND VANDALISM, DURING CONSTRUCTION PERIOD.
- WASH GLASS ON BOTH EXPOSED SURFACES IN EACH AREA OF PROJECT NOT MORE THAN FOUR DAYS BEFORE DATE SCHEDULED FOR INSPECTIONS THAT ESTABLISH DATE OF SUBSTANTIAL COMPLETION. WASH GLASS AS RECOMMENDED IN WRITING BY GLASS MANUFACTURER.
- SUBMITTAL(S):** PRODUCT DATA FOR EACH TYPE OF PRODUCT INDICATED, INCLUDING INDICATION OF LOW VOC CONTENT (SEALANTS, PRIMERS AND ADHESIVES); PHYSICAL SAMPLES (12" SQUARE) FOR EACH TYPE OF GLASS PRODUCT OTHER THAN CLEAR MONOLITHIC VISION GLASS; GLAZING SCHEDULE LISTING GLASS TYPES AND THICKNESSES FOR EACH SIZE OPENING AND LOCATION, USING SAME DESIGNATIONS INDICATED ON DRAWINGS.

**092000 GYPSUM BOARD & NON-STRUCTURAL METAL FRAMING**

- PROVIDE ALL GYPSUM DRYWALL MATERIALS THROUGHOUT THE WORK PRODUCED BY ONE MANUFACTURER. PROVIDE METAL STUDS AND FRAMING MEMBERS OF TYPES, GAUGES, SIZES AND CORROSIVE RESISTIVE TREATMENTS AS SHOWN. FOR STEEL PRODUCTS, PROVIDE PRODUCTS WITH RECYCLED CONTENT NOT LESS THAN 25%.
- FRAMING MEMBERS, GENERAL: PROVIDE PRODUCTS COMPLYING WITH ASTM C754 AND ASTM C 645, FABRICATED OF GALVANIZED STEEL PER ASTM A 653/A 653M
  - STUDS AND FRAMING: ROLL FORMED CHANNEL STUDS AND RUNNERS: PROVIDE PRODUCTS OF THE SIZES AND GAUGES SHOWN, WITH FLANGES NOT LESS THAN 1 1/2". PROVIDE SLOTTED TRACKS, DESIGNED TO ACCOMMODATE DEFLECTION, WHERE WALL FRAMING TERMINATES AT THE UNDERSIDE OF STRUCTURAL DECK OR FRAMING MEMBERS ABOVE.
  - METAL FURRING CHANNELS: HAT SHAPED, 7/8" HIGH (UNLESS NOTED OTHERWISE), 25 GAUGE GALVANIZED.
- BACKER PLATES: 20 GAUGE GALVANIZED.
- HANGER WIRE: GALVANIZED, SOFT TEMPER STEEL WIRE, SIZED IN ACCORDANCE WITH ASTM C-754. PROVIDE CONCRETE INSERTS, CLIPS, BOLTS, SCREWS AND OTHER DEVICES APPLICABLE TO THE INDICATED METHOD OF STRUCTURAL ANCHORAGE FOR CEILING HANGERS.
- FURRING ANCHORAGES: 16 GAUGE GALVANIZED WIRE TIES, MANUFACTURER'S STANDARD WIRE-TYPE CLIPS, BOLTS, NAILS OR SCREWS, IN ACCORDANCE WITH ASTM C-754.
- METAL-TO-METAL FASTENERS WITHIN THE DRYWALL SYSTEM: 3/8" TYPE "S" OR S-12, PAN HEAD, WHERE ADHESIVE IS REQUIRED, PROVIDE PRODUCTS AS RECOMMENDED BY THE GYPSUM BOARD MANUFACTURER WHICH ARE LOW VOC AND MEET REQUIREMENT OF SCAQMD, RULE 1168.
- GYPSUM BOARD, GENERAL: 5/8" THICK UNLESS NOTED OTHERWISE, ASTM C 1396/C 1396M, TAPERED EDGES. PROVIDE "TYPE X" (FIRE RATED) WHERE SHOWN AND AT DEMISING WALLS. PROVIDE PRODUCTS WITH RECYCLED CONTENT NOT LESS THAN 40%.
- PROVIDE MOISTURE AND MOLD RESISTANT "TYPE X" GYPSUM BOARD (GREENBOARD) FOR ALL INTERIOR WALLS, AS WELL AS INTERIOR FACE OF EXTERIOR WALLS, EXCEPT THOSE WALLS WHICH RECEIVE A CERAMIC TILE INSTALLATION.
 **BASIS OF DESIGN:** USG SHEETROCK MOLD TOUGH PANELS FIRECODE X, BY UNITED STATES GYPSUM COMPANY.
- PROVIDE GLASS-MAT FACED, WATER RESISTANT TILE BACKER BOARD BEHIND CERAMIC TILE INSTALLATIONS.
 **BASIS OF DESIGN:** USG DUROCK GLASS-MAT TILE BACKERBOARD, BY UNITED STATES GYPSUM COMPANY.
- PROVIDE TRIM ACCESSORIES OF THE SIZES REQUIRED FOR THE DRYWALL APPLICATIONS SHOWN SPECIFIED, FABRICATED FROM GALVANIZED STEEL, AND OF THE FOLLOWING TYPE:
  - PROVIDE DRYWALL MOULDING OF THE TYPE AND SIZE INDICATED. PROVIDE METAL CORNER BEAD AT EXTERNAL CORNERS WITH SMOOTH RIGID NOSE AND PERFORATED AND KNURLED FLANGES. CONCEAL FLANGES WITH AT LEAST TWO COATS OF JOINT COMPOUND FEATHERED OUT APPROXIMATELY 9" ON BOTH SIDES OF THE EXPOSED METAL.
  - WHERE DRYWALL ABUTS OR INTERSECTS DISSIMILAR CONSTRUCTION, PROVIDE SQUARE EDGE SEMI-FINISHING CASING BEAD (NO JOINT COMPOUND TREATMENT NECESSARY).
  - TAPE AND JOINT MATERIAL: PROVIDE PRODUCTS COMPLYING WITH ASTM C 475/C 475M AND WHICH HAVE A VOC CONTENT LESS THAN 20 GRAMS PER LITER WHEN CALCULATED ACCORDING TO 40 CFR 59, SUBPART D (EPA METHOD 24). PROVIDE ALL-PURPOSE COMPOUND ON INITIAL (EMBEDDING) COAT AND SANDABLE TOPPING COMPOUND FOR ALL SUCCESSIVE COATS. PROVIDE FINISH LEVELS PER ASTM C 840 ACCORDING TO THE FOLLOWING:
    - LEVEL 1: CONCEALED AREAS, AND WHERE INDICATED.
    - LEVEL 2: PANELS THAT ARE SUBSTRATE FOR TILE.
    - LEVEL 4: AT PANEL SURFACES THAT WILL BE EXPOSED TO VIEW, OTHER THAN THOSE INDICATED FOR LEVEL 5 FINISH BELOW OR AS OTHERWISE INDICATED.
    - LEVEL 5: FOR ALL PANEL SURFACES IN RECEPTION AREAS, CORRIDORS, WORK SPACES AND ASSEMBLY AREAS (BREAK ROOMS, CONFERENCE ROOMS, ETC.), AS WELL AS FOR ANY WALLS WITH GLASS MAT SHEATHING WHICH ARE TO RECEIVE PAINTED FINISH.
  - SOUND ATTENUATION BLANKETS: ASTM C 865, TYPE I (BLANKETS WITHOUT MEMBRANE FACING) CONTAINING MINERAL FIBERS MANUFACTURED FROM GLASS, SLAG WOOL OR ROCK WOOL. PROVIDE IN THICKNESSES AS INDICATED ON DRAWINGS (OR TO ACHIEVE THE STC RATINGS INDICATED), BUT NOT LESS THAN 3 1/2" FOR FIRE RATED ASSEMBLIES, COMPLY WITH MINERAL-FIBER REQUIREMENTS OF ASSEMBLY. PROVIDE LOW VOC AND FORMALDEHYDE FREE PRODUCTS.
 **BASIS-OF-DESIGN PRODUCT:** THERMAFIBER SAFB FF BATTS, BY THERMAFIBER, INC. (OWENS CORNING)
- INSTALL CONTROL JOINTS AT LOCATIONS INDICATED ON DRAWINGS AND AT VERTICAL EDGES OF DOOR FRAMES/JAMBS ACCORDING TO ASTM C 840 AND IN SPECIFIC LOCATIONS APPROVED BY ARCHITECT FOR VISUAL EFFECT.
- TREAT GYPSUM BOARD JOINTS, INTERIOR ANGLES, EDGE TRIM, CONTROL JOINTS, PENETRATIONS, FASTENER HEADS, SURFACE DEFECTS, AND ELSEWHERE AS REQUIRED TO PREPARE GYPSUM BOARD SURFACES FOR DECORATION. PROMPTLY REMOVE RESIDUAL JOINT COMPOUND FROM ADJACENT SURFACES. FINISH GLASS-MAT FACED PANELS ACCORDING TO MANUFACTURER'S WRITTEN INSTRUCTIONS.
- SUBMITTAL(S) REQUIRED:** PRODUCT DATA FOR EACH TYPE OF PRODUCT INDICATED, INCLUDING DATA FOR RECYCLED CONTENT AND LOW VOC PROPERTIES.

**084000 ALUMINUM ENTRANCES AND STOREFRONTS**

- PROVIDE THERMALLY BROKEN ENTRANCE AND STOREFRONT SYSTEMS CONSISTING OF MANUFACTURER'S STANDARD EXTRUDED-ALUMINUM FRAMING MEMBERS, PROVIDE ENTRANCE AND STOREFRONT SYSTEMS WHICH CARRY MANUFACTURER'S STANDARD WARRANTIES IN WHICH MANUFACTURER AGREES TO REPAIR OR REPLACE COMPONENTS THAT DO NOT COMPLY WITH REQUIREMENTS ACCORDING TO THE FOLLOWING: 5 YEARS (MATERIAL AND WORKMANSHIP, 20 YEARS (FINISHES). **BASIS OF DESIGN PRODUCT:** T14000 SERIES STOREFRONT BY TUBELITE, INC.
- ENTRANCE DOORS: MANUFACTURER'S STANDARD GLAZED ENTRANCE DOORS FOR MANUAL-SWING OPERATION, THERMALLY BROKEN, 1-3/4-INCH OVERALL THICKNESS, WITH MINIMUM 0.125-INCH, EXTRUDED-ALUMINUM TUBULAR RAIL AND STILE MEMBERS. PROVIDE NONREMOVABLE GLAZING STOPS ON OUTSIDE OF DOOR. PROVIDE 3 1/2" NOMINAL WIDTH MEDIUM STILE DOORS, UNLESS NOTED OTHERWISE.
- ENTRANCE DOOR HARDWARE: PROVIDE ENTRANCE DOOR HARDWARE AND ENTRANCE DOOR HARDWARE SETS INDICATED IN DOOR AND FRAME SCHEDULE FOR EACH ENTRANCE DOOR TO COMPLY WITH THE FOLLOWING REQUIREMENTS. PROVIDE HARDWARE SETS IN THE QUANTITY, ITEM, SIZE, FINISH OR COLOR INDICATED. PROVIDE BASIS-OF-DESIGN PRODUCTS INDICATED OR APPROVED EQUAL. PROVIDE ELECTRIFIED DOOR HARDWARE FUNCTION, SEQUENCE OF OPERATION, AND INTERFACE WITH OTHER BUILDING CONTROL SYSTEMS INDICATED. OPENING-FORCE REQUIREMENTS ARE AS FOLLOWS:
  - EGRESS DOORS: NOT MORE THAN 15 LBF TO RELEASE THE LATCH AND NOT MORE THAN 30 LBF TO SET THE DOOR IN MOTION AND NOT MORE THAN 15 LBF TO OPEN THE DOOR TO ITS MINIMUM REQUIRED WIDTH.
  - ACCESSIBLE INTERIOR DOORS: NOT MORE THAN 5 LBF TO FULLY OPEN DOOR.
- FACTORY INSTALL ENTRANCE DOOR HARDWARE TO THE GREATEST EXTENT POSSIBLE. CUT, DRILL, AND TAP FOR FACTORY-INSTALLED ENTRANCE DOOR HARDWARE BEFORE APPLYING FINISHES.
- MANUFACTURE ENTRANCES AND STOREFRONTS FROM ALUMINUM MATERIAL CONFORMING TO THE FOLLOWING STANDARDS: ASTM B 209, ASTM B 221, ASTM B 429, ASTM B 308/B 308M AND AYS A5 101A5 101M (WELDING RODS AND BARE ELECTRODES). STEEL REINFORCEMENT SHALL HAVE A ZINC-RICH CORROSION-RESISTANT PRIMER, COMPLYING WITH SSPC'S GUIDE NO. 12.00 AND CONFORM TO THE FOLLOWING STANDARDS: ASTM A 36/A 36M, ASTM A 1008/A 1008M, ASTM A 1011/A 1011M. FABRICATE COMPONENTS FOR ASSEMBLY USING THE SCREW SPLINE SYSTEM.
- SUPPLIER SHALL PROVIDE DESIGN FOR STRUCTURAL WIND LOAD PER LOCAL CODE, AS WELL AS SEISMIC LOAD PER LOCAL CODE, IF APPLICABLE. SUPPLIER TO DESIGN ALUMINUM-FRAMED SYSTEMS, INCLUDING COMPREHENSIVE ENGINEERING ANALYSIS BY A QUALIFIED PROFESSIONAL ENGINEER, USING PERFORMANCE REQUIREMENTS AND DESIGN CRITERIA INDICATED.
  - DESIGN DEFLECTION NORMAL TO GLAZING PLANE: LIMITED TO 1/175 OF SPAN OR AN AMOUNT THAT RESTRICTS EDGE DEFLECTION OF INDIVIDUAL GLAZING LITES TO 3/4 INCH, WHICHEVER IS LESS.
  - DESIGN DEFLECTION PARALLEL TO GLAZING PLANE: THE SMALLER OF L/360 OR 1/8 INCH.
  - STRUCTURAL TESTING: ASTM E 530
  - WINDBORNE-DEBRIS-IMPACT-RESISTANCE PERFORMANCE: PROVIDE ALUMINUM-FRAMED SYSTEMS THAT PASS MISSILE-IMPACT AND CYCLIC-PRESSURE TESTS WHEN TESTED ACCORDING TO ASTM E 1886 AND TESTING INFORMATION IN ASTM E 1996
  - STORY DRIFT: ACCOMMODATE DESIGN DISPLACEMENT, ACCORDING TO BUILDING TYPE, ACCORDING TO AAMA 501.4 AT DESIGN DISPLACEMENT AND 1.5 TIMES DESIGN DISPLACEMENT.
  - AIR INFILTRATION: ASTM E 283
  - WATER PENETRATION: NO LEAKAGE WHEN TESTED PER ASTM E 331 (STATIC PRESSURE) AND AAMA 501.1 (DYNAMIC PRESSURE).
  - DESIGN TEMPERATURE CHANGE (RANGE): ACCOMMODATE 120 DEG F AMBIENT & 180 DEG F MATERIAL SURFACES, WITH AN INTERIOR AMBIENT-AIR TEMPERATURE 75 DEG F.
  - DESIGN CONDENSATION RESISTANCE FACTOR (CRF): NOT LESS THAN 45 PER AAMA 1503.1.
  - AVERAGE DESIGN THERMAL CONDUCTANCE (U-VALUE): NOT MORE THAN 0.35 PER AAMA 1503.1.
- PROVIDE STANDARD ACCESSORIES, INCLUDING FLASHING, GASKETS AND SEALANTS, AS PRODUCED OR RECOMMENDED BY MANUFACTURER, AS REQUIRED TO PROVIDE A COMPLETE AND WEATERTIGHT INSTALLATION. SEALANTS SHALL BE LOW VOC TYPE. PROVIDE MANUFACTURER'S STANDARD CORROSION-RESISTANT, NONSTAINING, NONBLEEDING FASTENERS AND ACCESSORIES COMPATIBLE WITH ADJACENT MATERIALS.
- STOREFRONT SYSTEMS SHALL BE CENTER SET, OUTSIDE GLAZED, UNLESS NOTED OTHERWISE. REFER TO SECTION 088000 GLAZING FOR STOREFRONT GLAZING SPECIFICATIONS.
- STOREFRONT FINISH: UNLESS NOTED OTHERWISE, PROVIDE ONE OF THE FOLLOWING FINISHES, AS INDICATED ON PLANS.
  - CLASS I ANODIZE COATING WITH ECO-FRIENDLY ETCH (0.7 MILS THICK MINIMUM) COMPLYING WITH AAMA 611. COLOR AND GLOSS: MATCH ARCHITECT'S SAMPLE.
  - HIGH-PERFORMANCE ORGANIC FINISH CONSISTING OF 2-COAT FLUOROPOLYMER FINISH COMPLYING WITH AAMA 2605 AND CONTAINING NOT LESS THAN 50 PERCENT PVDF RESIN BY WEIGHT IN COLOR COAT. COLOR AND GLOSS: MATCH ARCHITECT'S SAMPLE.
- VERIFY ACTUAL LOCATIONS OF STRUCTURAL SUPPORTS FOR ALUMINUM-FRAMED SYSTEMS BY FIELD MEASUREMENTS BEFORE FABRICATION AND INDICATE MEASUREMENTS ON SHOP DRAWINGS.
- INSTALLATION:
  - INSTALLATION SHALL BE PER MANUFACTURER'S WRITTEN INSTRUCTIONS AND BY MANUFACTURER'S AUTHORIZED INSTALLER. INSTALL FRAMING COMPONENTS TRUE IN ALIGNMENT WITH ESTABLISHED LINES AND GRADES TO THE FOLLOWING TOLERANCES: LIMIT VARIATION FROM PLANE TO 1/8 INCH IN 12 FEET. ALIGNMENT SHALL BE FLUSH AND SMOOTH IN VERTICAL HORIZONTAL PLANES AND AT CORNERS.
  - INSTALL DOORS WITHOUT WARP OR RACK. ADJUST DOORS AND HARDWARE TO PROVIDE TIGHT FIT AT CONTACT POINTS AND SMOOTH OPERATION. ADJUST OPERATING ENTRANCE DOOR HARDWARE TO FUNCTION SMOOTHLY AS RECOMMENDED BY MANUFACTURER.
  - COMPONENTS SHALL ALLOW WATER PASSING THROUGH JOINTS AND CONDENSATION AND MOISTURE OCCURRING OR MIGRATING WITHIN THE SYSTEM TO DRAIN TO THE EXTERIOR.
  - INSTALL GLAZING TO COMPLY WITH GLAZING MANUFACTURER'S REQUIREMENTS.
  - INSTALL SECONDARY SEALANT (WEATHER-SEAL) TO PRODUCE WEATHERPROOF JOINTS. REMOVE EXCESS SEALANT BEFORE IT CURES.
  - ISOLATE STOREFRONT SURFACES FROM INCOMPATIBLE OR CORROSIVE MATERIALS, USING MATERIALS AS RECOMMENDED BY MANUFACTURER.
  - BEFORE INSTALLATION OF INTERIOR FINISHES HAS BEGUN, WATER-SPRAY TEST A MINIMUM AREA OF 75 FEET BY 1 STORY OF ALUMINUM-FRAMED SYSTEMS ACCORDING TO AAMA 501.2. REPAIR OR REMOVE WORK IF THERE IS EVIDENCE OF WATER PENETRATION.

**082000 STOREFRONT SYSTEMS**

- PROVIDE STANDARD ACCESSORIES, INCLUDING FLASHING, GASKETS AND SEALANTS, AS PRODUCED OR RECOMMENDED BY MANUFACTURER, AS REQUIRED TO PROVIDE A COMPLETE AND WEATERTIGHT INSTALLATION. SEALANTS SHALL BE LOW VOC TYPE. PROVIDE MANUFACTURER'S STANDARD CORROSION-RESISTANT, NONSTAINING, NONBLEEDING FASTENERS AND ACCESSORIES COMPATIBLE WITH ADJACENT MATERIALS.
- STOREFRONT SYSTEMS SHALL BE CENTER SET, OUTSIDE GLAZED, UNLESS NOTED OTHERWISE. REFER TO SECTION 088000 GLAZING FOR STOREFRONT GLAZING SPECIFICATIONS.
- STOREFRONT FINISH: UNLESS NOTED OTHERWISE, PROVIDE ONE OF THE FOLLOWING FINISHES, AS INDICATED ON PLANS.
  - CLASS I ANODIZE COATING WITH ECO-FRIENDLY ETCH (0.7 MILS THICK MINIMUM) COMPLYING WITH AAMA 611. COLOR AND GLOSS: MATCH ARCHITECT'S SAMPLE.
  - HIGH-PERFORMANCE ORGANIC FINISH CONSISTING OF 2-COAT FLUOROPOLYMER FINISH COMPLYING WITH AAMA 2605 AND CONTAINING NOT LESS THAN 50 PERCENT PVDF RESIN BY WEIGHT IN COLOR COAT. COLOR AND GLOSS: MATCH ARCHITECT'S SAMPLE.
- VERIFY ACTUAL LOCATIONS OF STRUCTURAL SUPPORTS FOR ALUMINUM-FRAMED SYSTEMS BY FIELD MEASUREMENTS BEFORE FABRICATION AND INDICATE MEASUREMENTS ON SHOP DRAWINGS.
- INSTALLATION:
  - INSTALLATION SHALL BE PER MANUFACTURER'S WRITTEN INSTRUCTIONS AND BY MANUFACTURER'S AUTHORIZED INSTALLER. INSTALL FRAMING COMPONENTS TRUE IN ALIGNMENT WITH ESTABLISHED LINES AND GRADES TO THE FOLLOWING TOLERANCES: LIMIT VARIATION FROM PLANE TO 1/8 INCH IN 12 FEET. ALIGNMENT SHALL BE FLUSH AND SMOOTH IN VERTICAL HORIZONTAL PLANES AND AT CORNERS.
  - INSTALL DOORS WITHOUT WARP OR RACK. ADJUST DOORS AND HARDWARE TO PROVIDE TIGHT FIT AT CONTACT POINTS AND SMOOTH OPERATION. ADJUST OPERATING ENTRANCE DOOR HARDWARE TO FUNCTION SMOOTHLY AS RECOMMENDED BY MANUFACTURER.
  - COMPONENTS SHALL ALLOW WATER PASSING THROUGH JOINTS AND CONDENSATION AND MOISTURE OCCURRING OR MIGRATING WITHIN THE SYSTEM TO DRAIN TO THE EXTERIOR.
  - INSTALL GLAZING TO COMPLY WITH GLAZING MANUFACTURER'S REQUIREMENTS.
  - INSTALL SECONDARY SEALANT (WEATHER-SEAL) TO PRODUCE WEATHERPROOF JOINTS. REMOVE EXCESS SEALANT BEFORE IT CURES.
  - ISOLATE STOREFRONT SURFACES FROM INCOMPATIBLE OR CORROSIVE MATERIALS, USING MATERIALS AS RECOMMENDED BY MANUFACTURER.
  - BEFORE INSTALLATION OF INTERIOR FINISHES HAS BEGUN, WATER-SPRAY TEST A MINIMUM AREA OF 75 FEET BY 1 STORY OF ALUMINUM-FRAMED SYSTEMS ACCORDING TO AAMA 501.2. REPAIR OR REMOVE WORK IF THERE IS EVIDENCE OF WATER PENETRATION.

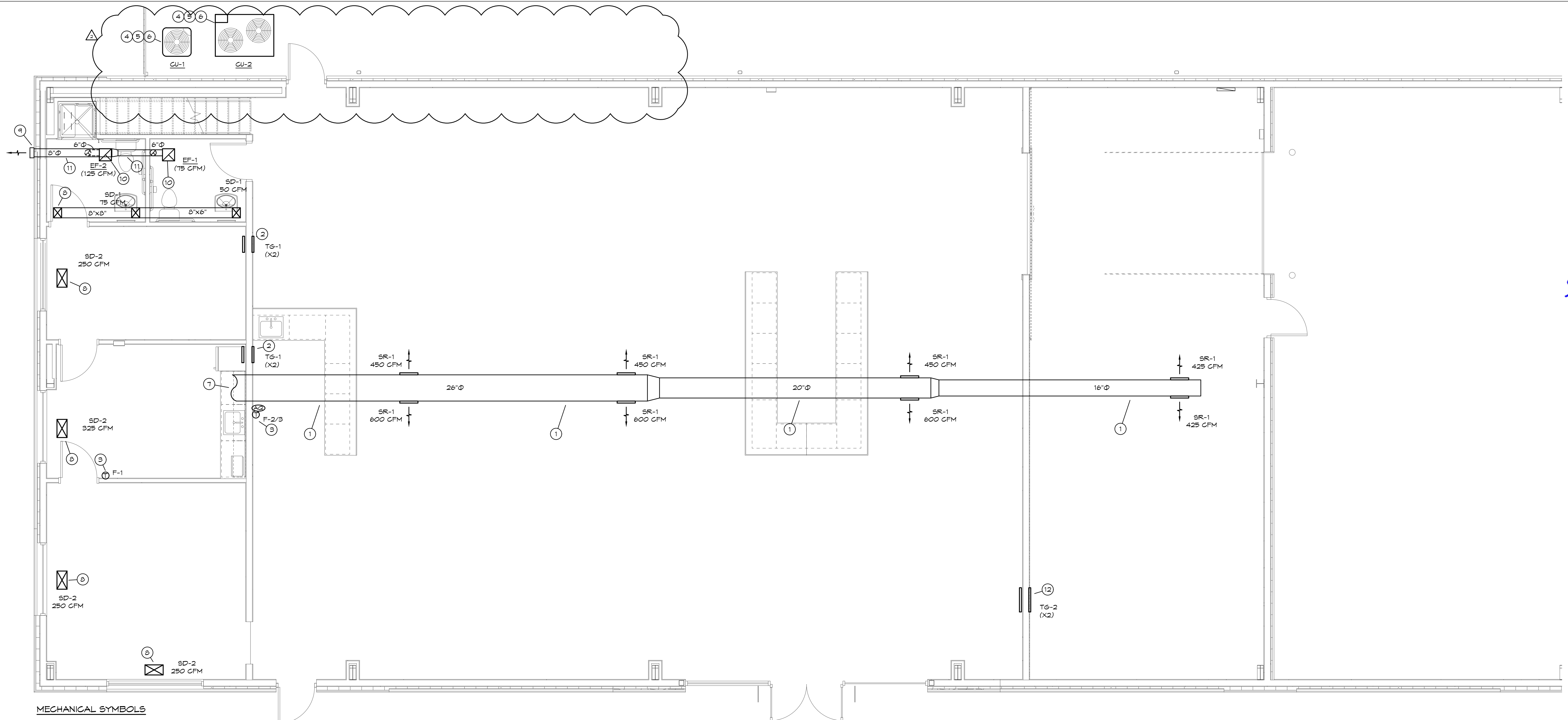
**12 SUBMITTAL(S) REQUIRED:** PRODUCT DATA FOR EACH TYPE OF PRODUCT INDICATED, INCLUDING CONSTRUCTION DETAILS, MATERIAL DESCRIPTIONS, DIMENSIONS, FINISHES AND INDICATION OF LOW VOC CONTENT (SEALANTS AND ADHESIVES), SHOP DRAWINGS INCLUDING PLANS, ELEVATIONS, SECTIONS, DETAILS, AND ATTACHMENTS TO OTHER WORK, AS WELL AS TYPES, FUNCTIONS, QUANTITIES, AND LOCATIONS OF DOOR HARDWARE; PHYSICAL SAMPLE (4"x 6") OF STOREFRONT FINISH.

**087100 HARDWARE**

- PROVIDE THE MATERIALS OR PRODUCTS INDICATED BELOW AND ON THE HARDWARE SCHEDULE. SUBSTITUTIONS WILL NOT BE PERMITTED WITHOUT PRIOR APPROVAL OF ARCHITECT. PROVIDE HARDWARE COMPLETE WITH ALL FASTENERS, ANCHORS, INSTRUCTIONS, LAYOUT TEMPLATES, AND ANY SPECIALIZED TOOLS AS REQUIRED FOR SATISFACTORY INSTALLATION AND ADJUSTMENT.
- IN RENOVATION PROJECTS, HARDWARE IS REQUIRED TO MATCH CONDITIONS OF ADJACENT DOORS, UNLESS NOTED OTHERWISE AND SHALL CONTAIN COMPONENTS LISTED IN THE HARDWARE SCHEDULE. REUSE OF HARDWARE FROM DEMOLISHED DOORS IS PERMITTED IF THE HARDWARE IS IN GOOD WORKING CONDITION.
- STANDARDS: COMPLY WITH THE REQUIREMENTS OF THE LATEST EDITION OF THE FOLLOWING STANDARDS, UNLESS INDICATED OTHERWISE:
  - AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI) PUBLICATIONS:
  - BUILDERS HARDWARE MANUFACTURERS ASSOCIATION (BHMA) PUBLICATIONS:
  - DOOR AND HARDWARE INSTITUTE (DHI) PUBLICATIONS:
  - NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) PUBLICATIONS:
  - INTERNATIONAL BUILDING CODE - APPLICABLE EDITION AS INDICATED ON PLANS.
  - AMERICANS WITH DISABILITIES ACT (ADA).
  - ANSI A117.1
- THE HARDWARE SUPPLIER WILL BE RESPONSIBLE TO FURNISH CORRECT HARDWARE ON LABELED DOORS TO SATISFY STATE AND LOCAL BUILDING CODES. PROVIDE HARDWARE FOR FIRE-RATED OPENINGS IN COMPLIANCE WITH NFPA STANDARD NO. 80, NO. 101 AND LOCAL BUILDING CODE REQUIREMENTS.
- SECURITY: COORDINATE INSTALLATION OF DOOR HARDWARE, KEYING, AND ACCESS CONTROL WITH OWNER'S SECURITY CONSULTANT. COORDINATE LAYOUT AND INSTALLATION OF ELECTRIFIED DOOR HARDWARE WITH CONNECTIONS TO POWER SUPPLIES AND BUILDING SAFETY AND SECURITY SYSTEMS.
- HARDWARE PRODUCTS:
  - HINGES: PROVIDE BALL BEARING HINGES IN THE FOLLOWING HINGE HEIGHTS: 4-1/2" FOR DOORS UP TO 36" WIDE; 5" FOR DOORS 36" TO 48" WIDE. PROVIDE NON-REMOVABLE PINS FOR ALL EXTERIOR DOORS AND ALL INTERIOR OUT-SWINGING CORRIDOR DOORS. MANUFACTURER: IVES.
  - LOCKSETS: ALL LOCKSETS TO BE GRADE 1 HEAVY DUTY CYLINDRICAL OR MORTISE AS SPECIFIED, WITH 17A LEVERS. MANUFACTURER: BALCON T SERIES/MA SERIES
  - CLOSERS: PROVIDE PARALLEL ARMS FOR ALL OVERHEAD CLOSERS. EXCEPT AS OTHERWISE INDICATED, IN UNIT SIZES RECOMMENDED BY MANUFACTURER BASED ON DOOR SIZE, WEATHER EXPOSURE AND USAGE. MANUFACTURER: LCN - 4050/1450 SERIES
  - DOOR TRIM: PROVIDE PULLS OF SOLID BAR STOCK, DIAMETER AND LENGTH AS SCHEDULED. PROVIDE PULL PLATES 4 INCHES (102 MM) WIDE BY 16 INCHES (406 MM) HIGH BY 0.050 INCH (1 MM) THICK, BEVELED 4 EDGES, AND PREPPED FOR PULL. MANUFACTURER: IVES.
  - PROTECTION PLATES: PROVIDE KICK PLATES, MOP PLATES, AND ARMOR PLATES MINIMUM OF 0.050 INCH (1 MM) THICK AS SCHEDULED. PLATES SHALL BE BEVELED 4 EDGES WITH COUNTERSUNK SCREWS. MANUFACTURER: IVES
  - OVERHEAD STOPS AND HOLDERS: PROVIDE HEAVY DUTY CONCEALED OR SURFACE MOUNTED OVERHEAD STOP OR HOLDER FOR INTERIOR DOORS AS SPECIFIED. MANUFACTURER: GLYNN-JOHNSON.
  - DOOR STOPS AND HOLDERS: PROVIDE WALL STOPS WHEREVER POSSIBLE. WHERE A WALL STOP CANNOT BE USED, PROVIDE OVERHEAD STOP. MANUFACTURER: IVES
  - THRESHOLDS, SEALS & GASKETING: PROVIDE SYSTEMS AS SPECIFIED. ALL RESILIENT OR FLEXIBLE SEAL STRIP SHALL BE EASILY REPLACEABLE AND READILY AVAILABLE. PROVIDE INTUMESCENT SEAL WHERE REQUIRED BY DOORFRAME MANUFACTURER. MANUFACTURER: ZERO.
  - SILENCERS: PROVIDE "PUSH-IN" TYPE SILENCERS FOR HOLLOW METAL OR WOOD FRAMES - ONE SILENCER PER 30 INCHES (762 MM) OF HEIGHT ON EACH SINGLE FRAME, AND TWO FOR EACH PAIR FRAME. OMIT WHERE GASKETING IS SPECIFIED. MANUFACTURER: IVES.

**7. HARDWARE SCHEDULE:** HARDWARE IS SPECIFIED IN THE HARDWARE SCHEDULE BY SET, TYPE, AND FUNCTIONS, WHICH HAVE BEEN SELECTED AS BEST MEETING THE APPLICATION REQUIREMENTS. NO SUBSTITUTIONS ALLOWED WITHOUT PRIOR APPROVAL OR ARCHITECT. **REFER TO DOOR HARDWARE SHEET IN PLANS FOR HARDWARE SCHEDULE.**

**8. KEYING:** CYLINDERS TO BE KEYED TO A MASTER KEY SYSTEM AS COORDINATED WITH OWNERTENANT. EXTERIOR DOORS TO INCORPORATE A HIGH SECURITY, PATENTED, RESTRICTED KEYWAY WITH SIDE BIT MILLING. INTERIOR DOORS TO HAVE STANDARD KEYWAY THAT IS COMPATIBLE WITH EXTERIOR LOCKS. PROVIDE 2 KEYS PER LOCK AND 6 MASTER KEYS (KEY SYSTEM). STAMP ALL (MASTER-TYPE) KEYS WITH THE FOLLOWING: "DO NOT DUPLICATE" KEY CHANGE NUMBER (ALL KEYS), PROVIDE KEY CONTROL SYSTEM IN STANDARD METAL WALL MOUNTED CABINET; MANUFACTURER



**MECHANICAL SYMBOLS**

- NEW SUPPLY DIFFUSER
- NEW RETURN AIR GRILLE
- EXHAUST GRILLE/FAN
- THERMOSTAT, MOUNTED AT 45° AFF
- DUCT-MOUNTED SMOKE DETECTOR
- NEW DUCTWORK
- 32"x14" SIZE OF RECTANGULAR DUCT
- 6" Ø SIZE OF ROUND DUCT
- FLEXIBLE DUCTWORK
- FLEXIBLE CONNECTION TO FAN
- FLOOR PLAN NOTE DESIGNATION
- S.A. SUPPLY AIR
- R.A. RETURN AIR
- EXH. EXHAUST AIR
- TRANSITION IN DUCT SIZE
- ELBOW WITH TURNING VANES
- MANUAL VOLUME DAMPER
- SUPPLY AIR DUCT UP/DOWN
- RETURN AIR DUCT UP/DOWN
- EXHAUST AIR DUCT UP/DOWN
- CHANGE IN ELEVATION UP (UP) DOWN (DN) IN DIRECTION OF FLOW
- SCHEDULED MECHANICAL EQUIPMENT
- AIR QUALITY SENSOR - CO2

**MECHANICAL PLAN NOTES:**

- ① ROUTE DUCTWORK AS HIGH AS POSSIBLE, COORDINATE LOCATION WITH LIGHT PRIOR TO INSTALLATION.
- ② HIGH/LOW RETURN AIR GRILLES - OFFICE SIDE GRILLE LOCATED AT 12" AFF. CENTRAL AREA SIDE LOCATED AT 8" AFF. TG-1, SEE DIFFUSER SCHEDULE.
- ③ PROVIDE 1-DAY PROGRAMMABLE AUTO/HEAT/COOL THERMOSTAT AT 45° AFF.
- ④ REFRIGERANT PIPING THROUGH EXTERIOR WALL AT 18" ABOVE GRADE. SEAL WALL PENETRATION WEATHERTIGHT. ROUTE PIPE UP INSIDE WALL TO AS HIGH AS POSSIBLE AND ROUTE TO UNITS.
- ⑤ CONNECT REFRIGERANT PIPING TO CONDENSING UNIT & COIL AS REQUIRED BY THE MANUFACTURER. PROVIDE AND INSTALL REFRIGERANT PIPING FOR CONDENSING UNIT AS REQUIRED BY MANUFACTURER.
- ⑥ PROVIDE PREFABRICATED PAD FOR CONDENSING UNITS.
- ⑦ SEE M2.00 FOR CONTINUATION OF DUCTWORK FROM TRAINED FURNACES ON MEZZANINE.
- ⑧ BRANCH DUCT DOWN FROM MEZZANINE FLOOR AND CONNECT TO REGISTER AS REQUIRED.
- ⑨ PROVIDE WALL VENT CAP WITH BACKDRAFT DAMPER FOR EXHAUST FAN. SEAL PENETRATIONS WEATHERTIGHT.
- ⑩ SUPPORT FAN FROM STRUCTURE AS REQUIRED BY THE MANUFACTURER.
- ⑪ ROUTE DUCT UP BETWEEN JOISTS AS REQUIRED.
- ⑫ INSTALL BOTTOM OF TRANSFER AIR GRILLES, TG-1, 8" AFF ON BOTH SIDES OF WALL.

NORTH  
**MECHANICAL PLAN**  
 SCALE: 1/4" = 1'-0"

**MECHANICAL GENERAL NOTES:**

1. COORDINATE ALL WORK WITH OTHER TRADES AND EXISTING CONDITIONS AS REQUIRED TO PROPERLY INSTALL ALL SYSTEMS AS INTENDED, WITHIN THE CONFINES OF THE SPACES AVAILABLE, AND WITHOUT INTERFERENCES.
2. THIS CONTRACTOR SHALL PERFORM ALL WORK INDICATED AND/OR AS REQUIRED FOR THE PROPER INSTALLATION AND OPERATION OF THE MECHANICAL SYSTEMS.
3. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR EXACT LOCATIONS OF DIFFUSERS.
4. INSTALL ALL DUCT, PIPE, ETC. AS HIGH AS POSSIBLE.
5. DUCT SIZES SHOWN ARE ACTUAL SHEET METAL SIZES AND INCLUDE AN ALLOWANCE FOR DUCT LINER WHERE APPLICABLE.
6. PROVIDE FLEXIBLE CONNECTION BETWEEN DUCTWORK AND ROOFTOP UNITS, EXHAUST FANS, AND OTHER MOTORIZED EQUIPMENT.
7. NO DUCT SHALL BE ROUTED OVER THE TOP OF ELECTRICAL PANELS.
8. ALL MECHANICAL SYSTEMS SHALL BE BALANCED BY A CERTIFIED BALANCING CONTRACTOR. REFER TO SPECIFICATIONS FOR DETAILS.

**ARCHITECT**  
 3/21/2023



**THE WATER HOLE REBUILD**  
 401 SE OLDHAM PARKWAY  
 LEE'S SUMMIT, MO 64081  
**CONSTRUCTION SET**

#	Description	Date
2	Preconstruction Revisions	3/21/23

Date	11-07-2022
Drawn by	SP/BH
Checked by	EK/DS

BC PROJECT #: 22360  
 MISSOURI PE COA #2009003629  
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**MECHANICAL PLAN**

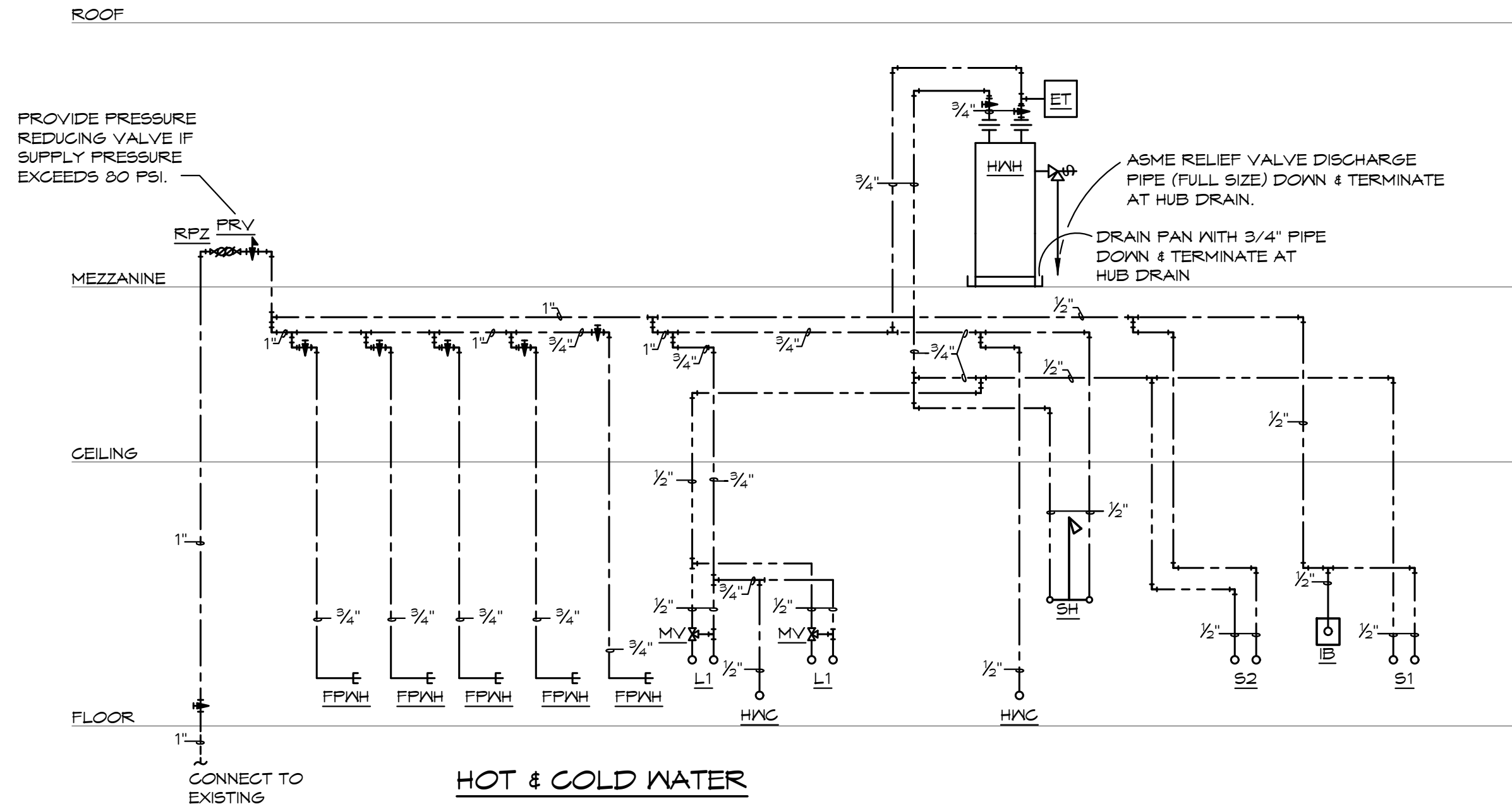
**M1.00**  
 Scale As indicated

PLUMBING FIXTURE BRANCH PIPING SCHEDULE				
FIXTURE	WASTE	VENT	CN	HN
WATER CLOSET (TANK TYPE)	3"	2"	1/2"	--
LAVATORY	1-1/4"	1-1/4"	1/2"	1/2"
SINK	1-1/2"	1-1/2"	1/2"	1/2"
FLOOR DRAIN	2"	2"	--	--

NOTE: INDIVIDUAL VENTS FOR FIXTURES ON PLANS AND RISER DIAGRAM HAVE BEEN INCREASED WHERE HORIZONTAL VENT LENGTH IS IN EXCESS OF THE MAXIMUM DISTANCE INDICATED BY THE CODE.

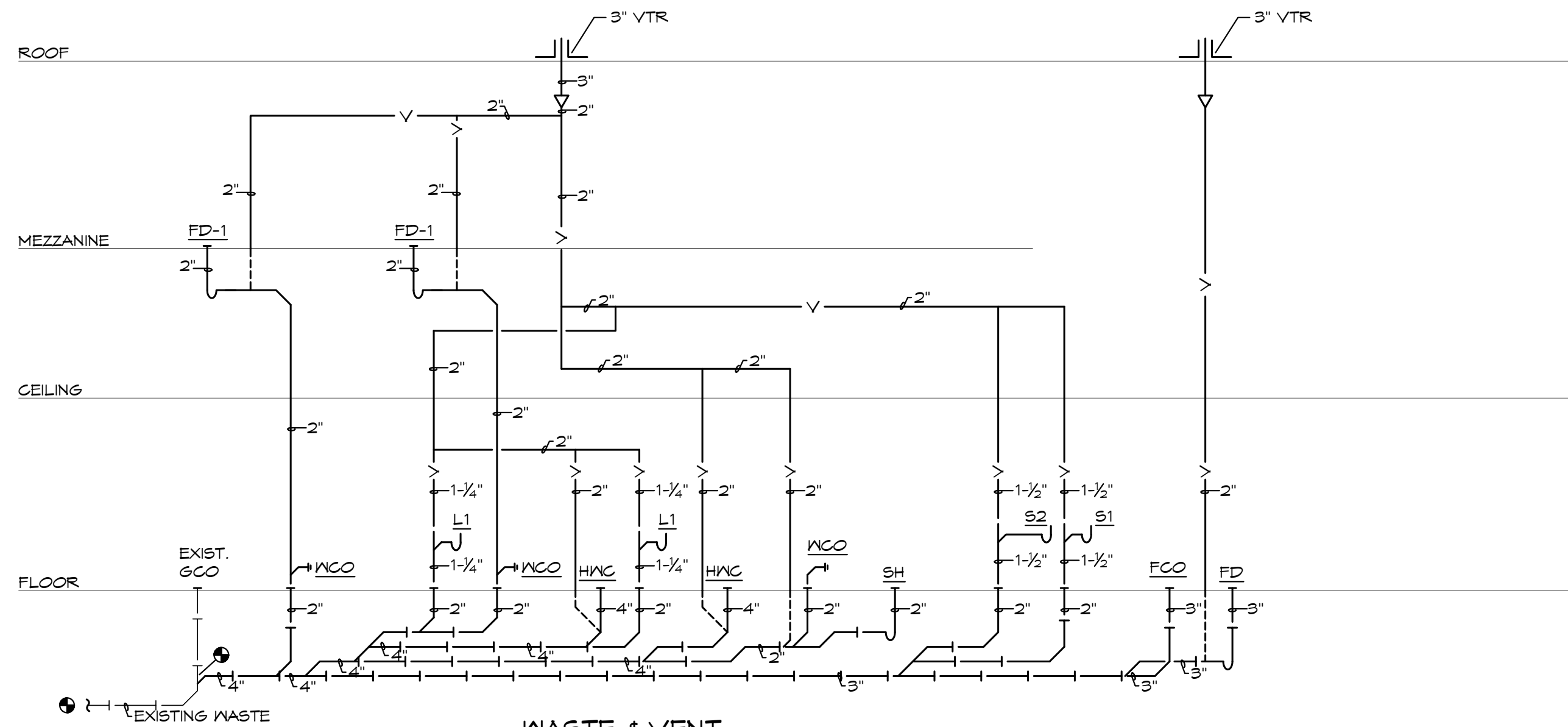
**PLUMBING FIXTURE SCHEDULE: (OR EQUAL)**

- HWC** HANDICAP WATER CLOSET: GERBER, #6VP21518, "VIPER" CLOSE COUPLED TOILET, 1.6 GALLON FLUSH, 17" HIGH ELONGATED BOWL- ADA HEIGHT, FLOOR MOUNTED, FLOOR OUTLET, TANK TYPE, VITREOUS CHINA, SIPHON-JET ACTION, OPEN FRONT SEAT WITH CHECK HINGE AND LENS COVER, CHROME PLATED ANGLE STOP AND RISER, HANDLE ON WIDE SIDE OF FIXTURE.
- L1** HANDICAP LAVATORY, WALL HUNG: GERBER, #60012384, "HAYES", 20" X 19", VITREOUS CHINA, FRONT OVERFLOW, #43-143 "MAXWELL" FAUCET, OFFSET GRID ELBOW DRAIN AND 1-1/4" TAILPIECE, CHROME PLATED CAST BRASS P-TRAP WITH CLEANOUT (MOUNTED PARALLEL WITH WALL), CHROME PLATED ANGLE STOPS AND RISERS, AND CONCEALED ARM FLOOR MOUNTED FIXTURE SUPPORT, INSULATE EXPOSED DRAIN, WATER SUPPLIES, AND VALVES WITH PROWRAP SEAMLESS MOLDED CLOSED CELL VINYL INSULATION.
- S1** SINK: ELKAY, #LRAD-2222, 19" X 16" X 6-1/2" DEEP BOWL, 21-3/8" X 21-3/8" CUT-OUT, ADA COMPLIANT, SINGLE COMPARTMENT, SELF-RIMMING STAINLESS STEEL SINK WITH SATIN FINISH AND SOUND DAMPENING UNDERCOATING, PEERLESS #P24957BLF FAUCET, SWING SPOUT, AERATOR, HAND SPRAY, CHROME PLATED CAST BRASS P-TRAP WITH CLEANOUT, CHROME PLATED ANGLE STOPS AND RISERS, IN-SINK-ERATOR #BADGER 5 DISPOSAL, 1/2 HP, 120 VOLT.
- S2** SINK: KOHLER, #K-19011-3, 25" X 22" X 13-5/8" DEEP BOWL, 20-3/4" X 19-1/8" CUT-OUT, SINGLE COMPARTMENT, SELF-RIMMING VITREOUS CHINA SINK WITH PEERLESS #P24957BLF FAUCET LESS SPRAY, SWING SPOUT, AERATOR, CHROME PLATED CAST BRASS P-TRAP WITH CLEANOUT, CHROME PLATED ANGLE STOPS AND RISERS.
- FPWH** FREEZEPROOF WALL HYDRANT: JR SMITH #5609, 3/4" SIZE, NICKEL-BRONZE FACE, KEY OPERATED, INTEGRAL VACUUM BREAKER.
- FD** FLOOR DRAIN: JR SMITH, #2005-A, CAST IRON FLOOR DRAIN WITH ADJUSTABLE TOP, 6" NIKALLOY STRAINER. PROVIDE WITH #2692 QUAD GLOBE TRAP SEAL DEVICE.
- FD-1** FLOOR DRAIN: JR SMITH, #2005-F37, CAST IRON FLOOR DRAIN WITH RECESSED 6" NIKALLOY STRAINER. PROVIDE WITH #2692 QUAD GLOBE TRAP SEAL DEVICE.
- HWH** HOT WATER HEATER: BRADFORD WHITE HRE38076, 50 GALLON STORAGE, 208 VOLT 1-PHASE, (2) 4500 WATT ELEMENT, NON-SIMULTANEOUS, ASME TEMPERATURE AND PRESSURE RELIEF VALVE, SET TO 140°F.
- ET** HOT WATER EXPANSION TANK: AMTROL, #ST-5, 2 GALLON EXPANSION TANK WITH DIAPHRAGM.
- MV** MIXING VALVE: WATTS, #LFUS6-B, THERMOSTATIC CONTROLLED MIXING VALVE, LEAD FREE BRONZE BODY, LOCKED TEMPERATURE ADJUSTMENT GAP (VANDAL RESISTANT), COPPER ENCAPSULATED THERMOSTAT ASSEMBLY WITH BRASS SHUTTLE, STAINLESSSTEEL SPRINGS, INTEGRAL CHECK VALVES ON HOT AND COLD INLETS. (SET TO 110°F). ASSE 1070 LISTED.
- RPZ** REDUCED ZONE PRESSURE BACKFLOW PREVENTOR: WATTS #LF009, LEAD FREE BRONZE BODY CONSTRUCTION, TPAO, IN-LINE INDEPENDENT CHECK VALVES, REPLACEABLE CHECK SEATS WITH AN INTERMEDIATE RELIEF VALVE, AND BALL VALVE TEST COCKS.
- FCO/NGO** VINYL TILE FLOOR: JR SMITH #4140, OR EQUAL.  
QUARRY TILE FLOOR: JR SMITH #4200, OR EQUAL.  
CARPETED FLOOR: JR SMITH #4202-Y, OR EQUAL.  
UNFINISHED FLOOR: JR SMITH #4020, OR EQUAL.  
WALL: JR SMITH #4472, OR EQUAL, 24" ABOVE THE FLOOR.
- IB** ICE BOX: GUY GRAY #AB-9100, ICE BOX WITH 1/2" CONNECTION AND 1/4-TURN SHUT OFF VALVE.
- HB** HOSE BIBB: WOODFORD, #24, 3/4" HOSE NOZZLE OUTLET, BRASS FINISH, HANDWHEEL OPERATED, INTEGRAL VACUUM BREAKER.
- SH** SHOWER: BEST BATH #L584238ASB ALCOVE SHOWER, ADA COMPLIANT 36" X 36" X 17 1/2", FOUR PIECE WHITE UNIT, BUILT-IN SEAT, SOAP DISH, 2" DRAIN, CHROME PLATED STRAINER, CURTAIN AND ROD, SINGLE LEVEL HANDLE, SEMI-PERMANENT THRESHOLD WITH WATER STOPPER, PRESSURE BALANCED VALVE AND 1.75 GPM FLOW RESTRICTOR, INTEGRAL CHECK STOPS, CAST WALL FLANGE AND LEVER HANDLE. MOUNT SHOWER HEAD 80" AFF.

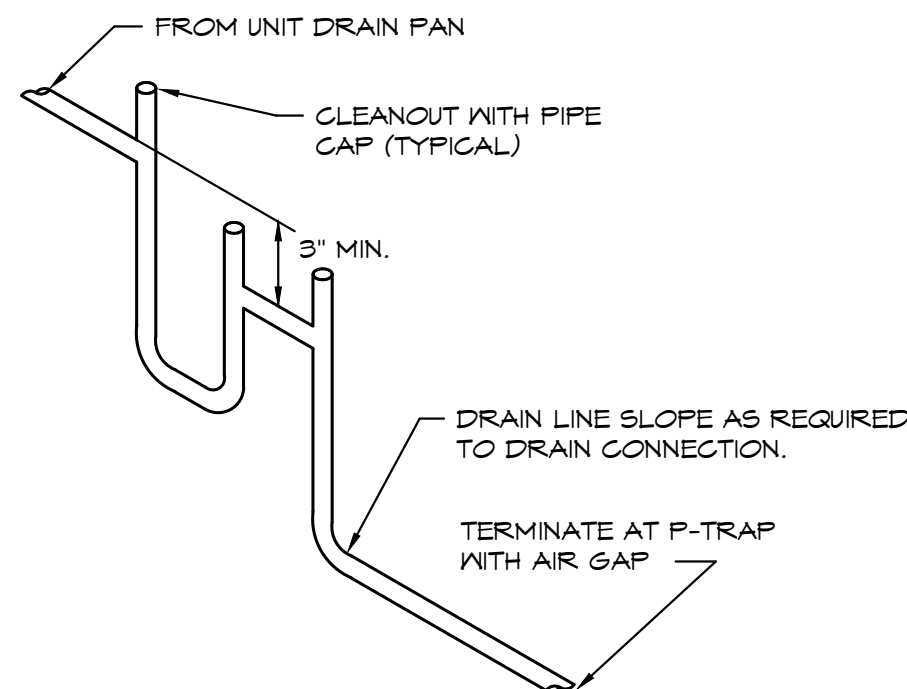


**HOT & COLD WATER**

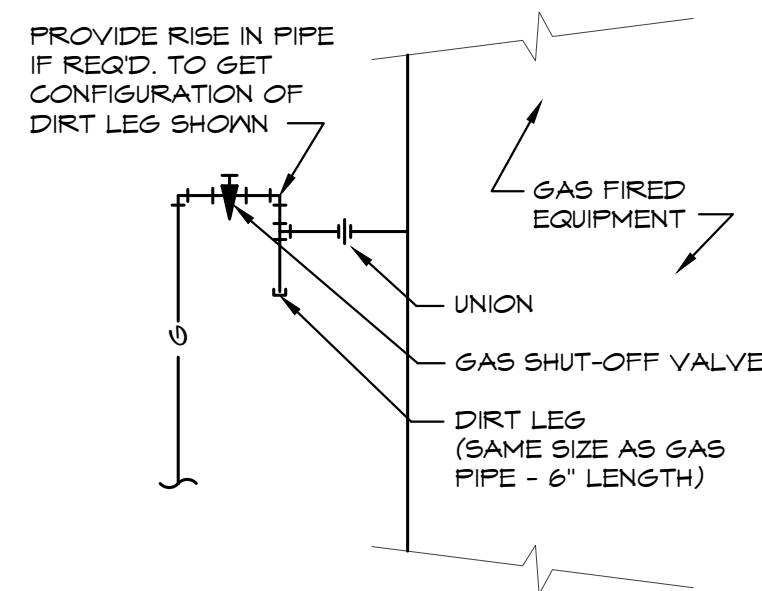
**HOT & COLD WATER**



**WASTE & VENT**  
**PLUMBING RISER DIAGRAMS**  
SCALE: NONE



**CONDENSATE DRAIN DETAIL**  
SCALE: NONE



**GAS CONNECTION DETAIL**  
SCALE: NONE

PLUMBING DRAINAGE CALCULATIONS			
FIXTURE	QUANTITY	FU	TOTAL FU
WATER CLOSETS	2	4	8
LAVATORIES	2	1	2
SINKS	2	2	4
FLOOR DRAIN	3	2	6
SHOWER	1	2	3
<b>TOTAL</b>			<b>23</b>

VENT MAINS - 2"  
WASTE MAIN - 4"

PLUMBING FIXTURE WATER COUNT						
FIXTURE	QUANTITY	CN FU	HN FU	TOTAL FU	COMBINED FU	COMBINED TOTAL FU
WATER CLOSETS	2	5	10	0	5	10
LAVATORIES	2	1.5	3	1.5	3	4
SINKS	2	2.25	4.5	2.25	3	6
SHOWER (PRIVATE)	1	1	1	1	1.4	1.4
				<b>10.5 FU</b>	<b>8.5 FU</b>	<b>21.4 FU</b>

COLD WATER MAIN - 1"  
HOT WATER MAIN - 3/4"

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**ARCHITECT**

3/21/2023

STATE OF MISSOURI  
STEVEN S. FOND  
REGISTERED PROFESSIONAL ARCHITECT  
NUMBER PE-200400007

**THE WATER HOLE REBUILD**  
401 SE OLDHAM PARKWAY  
LEE'S SUMMIT, MO 64081  
**CONSTRUCTION SET**

#	Description	Date
2	Preconstruction Revisions	3/21/23

Date 11-07-2022  
Drawn by SP/BH  
Checked by EK/DS

**PLUMBING DETAILS**

**P4.00**

Scale As indicated

8/17/2022 8:29:48 AM

#	Description	Date
2	Preconstruction Revisions	3/21/23

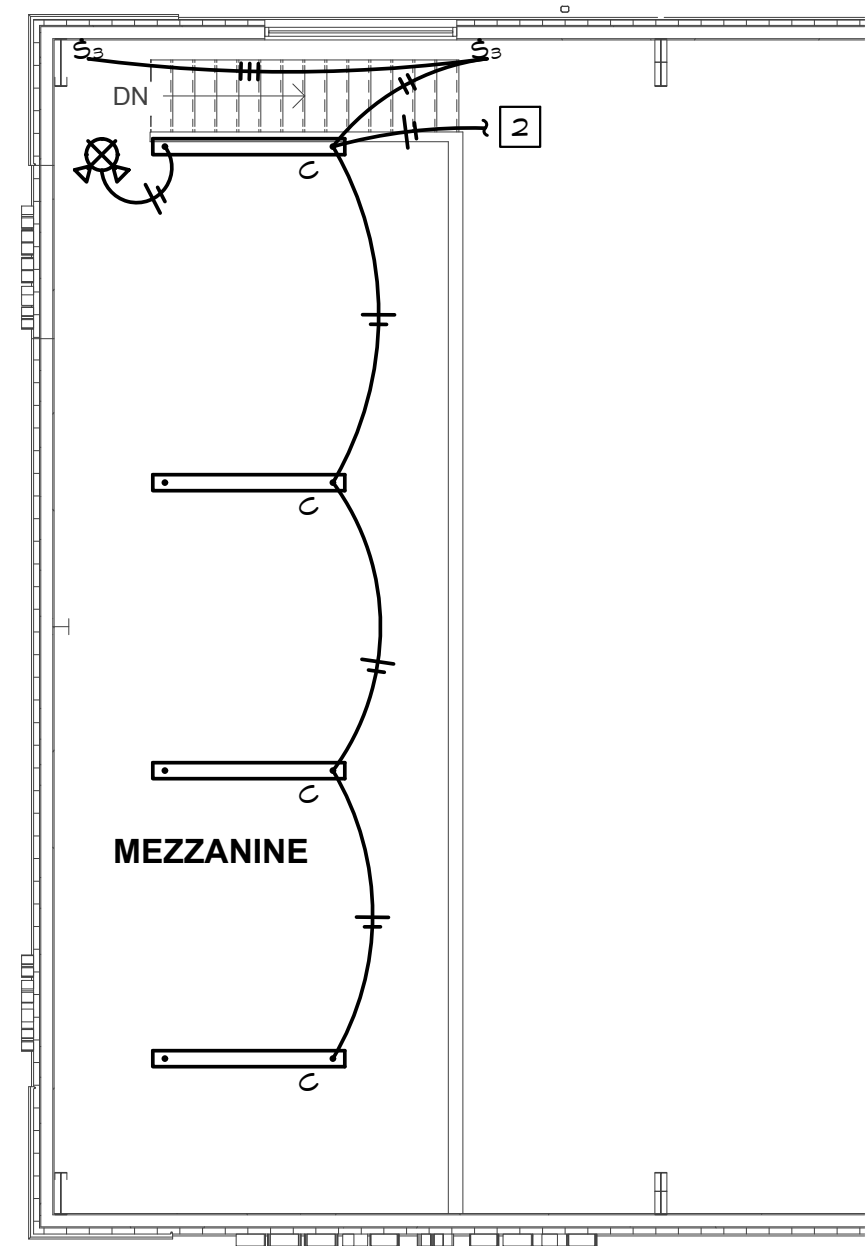
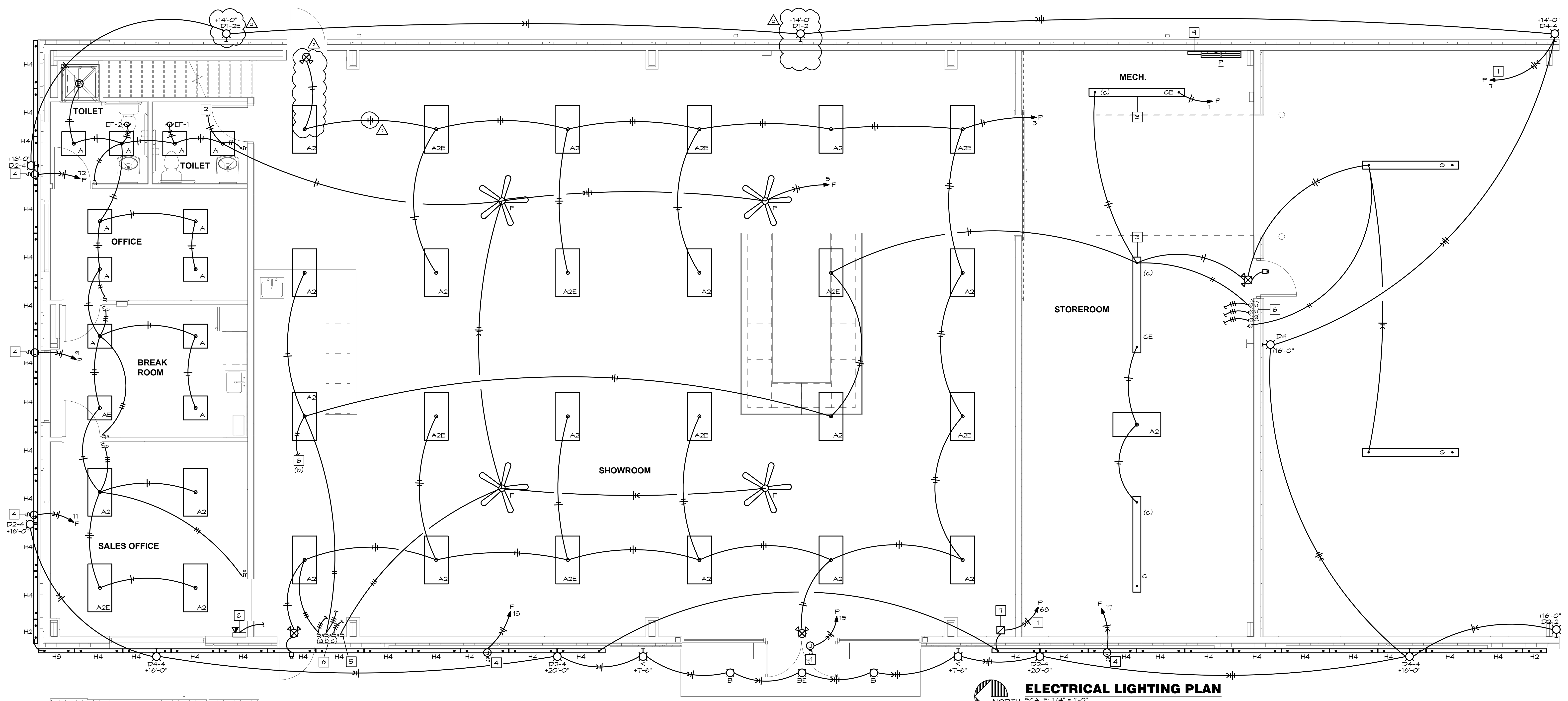
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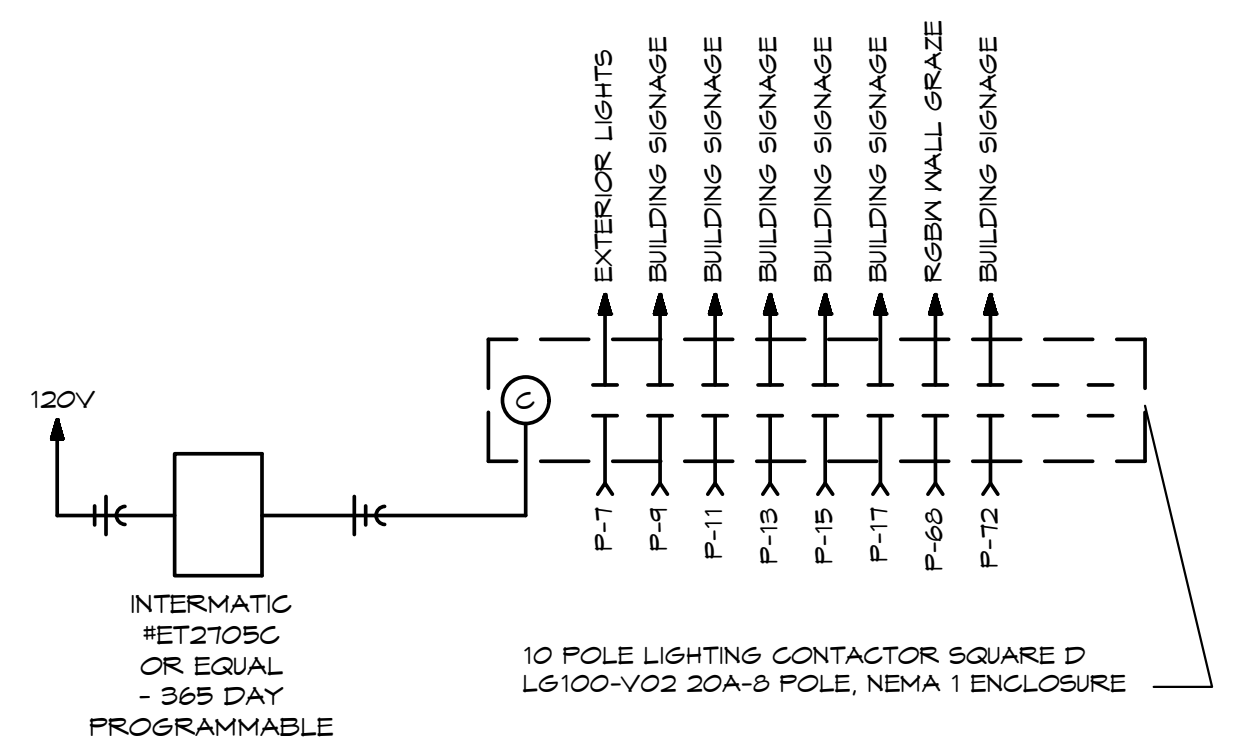
**ELECTRIAL LIGHTING PLAN**

**E1.00**

Scale As indicated



**ELECTRICAL LIGHTING PLAN - MEZZANINE**  
NORTH SCALE: 1/8" = 1'-0"



**SIGNAGE CONTROL DIAGRAM**  
SCALE: NONE

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

- LIGHTING PLAN NOTES:**
- 1 ROUTE CIRCUIT TO PANEL INDICATED VIA EXTERIOR LIGHTING CONTROLS. SEE DETAIL ON THIS SHEET FOR MORE INFORMATION. PROVIDE ADDITIONAL CONDUCTOR NOT ROUTED THROUGH LIGHTING CONTROLS FOR CONNECTION TO EMERGENCY LIGHTING IF INDICATED.
  - 2 MAKE CONNECTION BETWEEN LIGHT IN RESTROOM AND LIGHTS AT MEZZANINE.
  - 3 LIGHT FIXTURE TO BE MOUNTED CLEAR OF OVERHEAD DOOR ASSEMBLY.
  - 4 PROVIDE WEATHER PROOF JUNCTION BOX WITH DISCONNECTING MEANS FOR CONNECTION TO BUILDING MOUNTED SIGNAGE. MAKE FINAL CONNECTION TO SIGNAGE. REFER TO ARCHITECTURAL ELEVATIONS FOR EXACT LOCATION. ROUTE CIRCUIT TO PANEL INDICATED VIA EXTERIOR LIGHTING CONTROLS. SEE DETAIL ON THIS SHEET FOR MORE INFORMATION.
  - 5 PROVIDE COMBINATION DIMMER/FAN SPEED CONTROLLER COMPATIBLE WITH FAN.
  - 6 MAKE CONNECTION BETWEEN 3-WAY SWITCHES AND SWITCH AT SWITCH BANK PER MANUFACTURERS INSTRUCTIONS.
  - 7 PROVIDE LUMASCAPE POWERSYNC LINE VOLTAGE DATA INJECTOR LS6540-04-2D-1T FOR RGBW LIGHTING. MAKE CONNECTION TO FIXTURES (HX) AND TOUCH SCREEN CONTROLLER (PLAN NOTE 8, THIS SHEET) PER MANUFACTURERS INSTRUCTIONS. BOX TO BE IN CONCEALED ACCESSIBLE LOCATION. PROVIDE ALL NECESSARY COMPONENTS FOR COMPLETE SYSTEM.
  - 8 PROPOSED LOCATION OF PHAROS TPC-BN TOUCH SCREEN RGBW CONTROLLER. MAKE CONNECTION BETWEEN CONTROLLER AND POWER DATA WIRING BOXES (PLAN NOTE 7, THIS SHEET) PER MANUFACTURERS INSTRUCTION.
  - 9 PROPOSED LOCATION OF EXTERIOR LIGHTING CONTROLS. SEE DETAIL ON THIS SHEET FOR INFORMATION.

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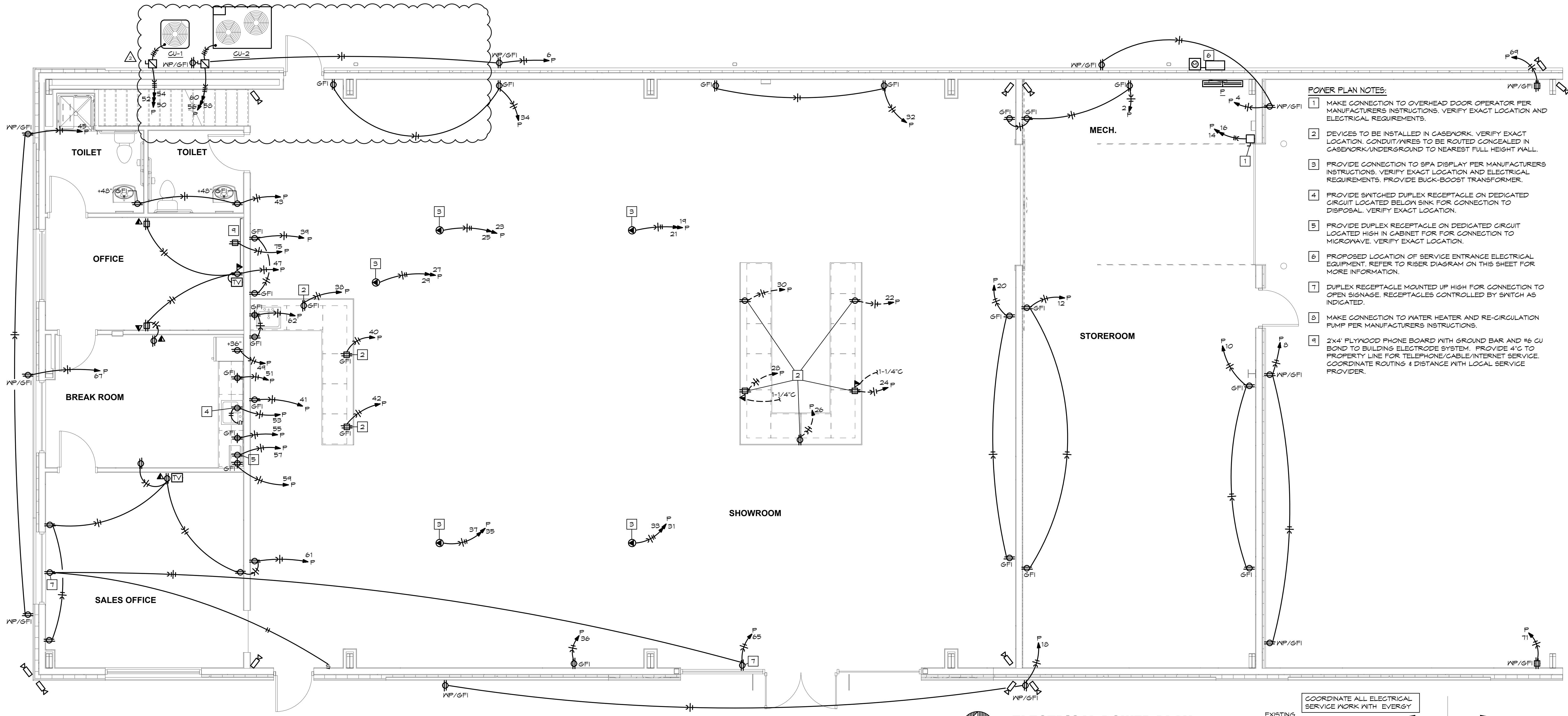
Date	11-07-2022
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**ELECTRIAL POWER PLAN**

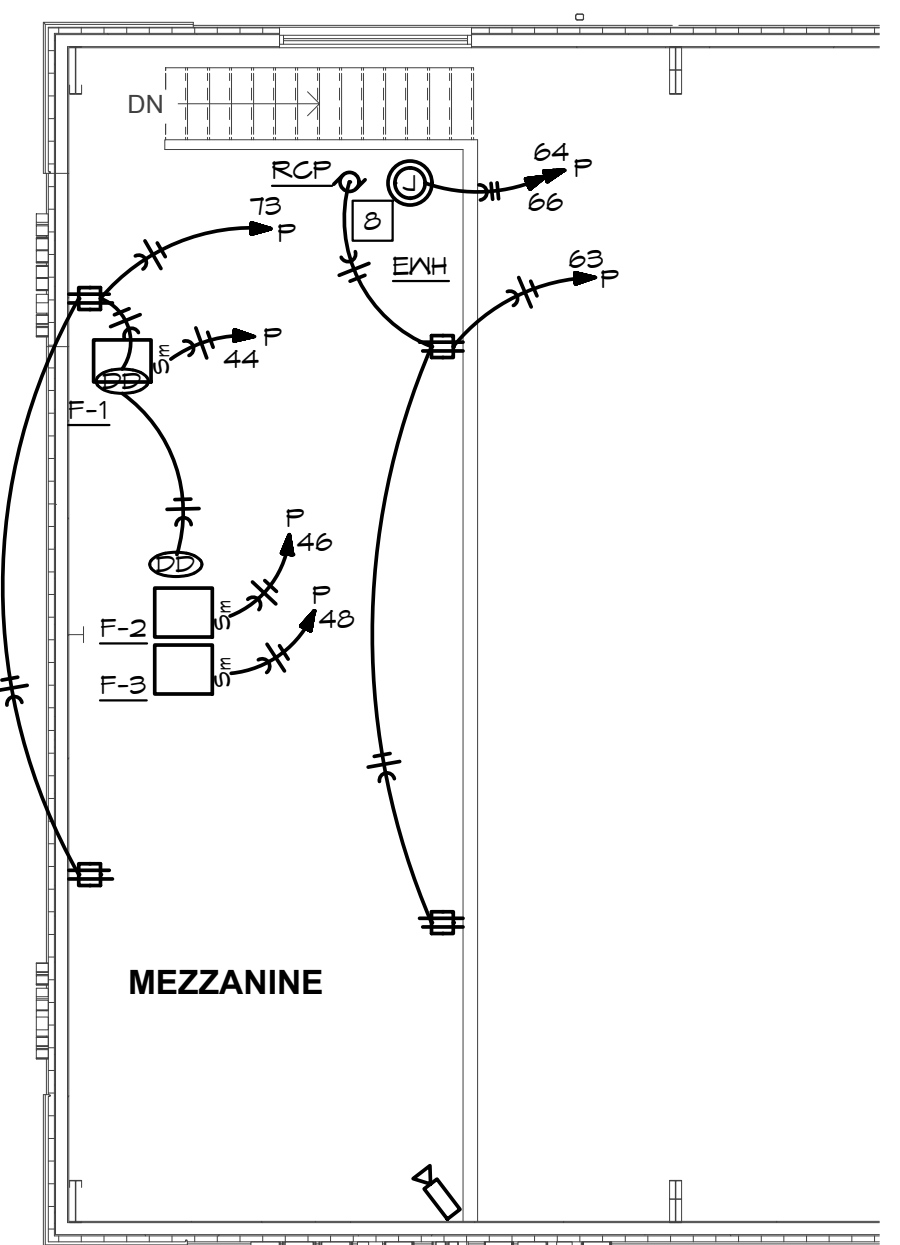
**E2.00**

Scale As indicated



- POWER PLAN NOTES:**
- 1 MAKE CONNECTION TO OVERHEAD DOOR OPERATOR PER MANUFACTURERS INSTRUCTIONS. VERIFY EXACT LOCATION AND ELECTRICAL REQUIREMENTS.
  - 2 DEVICES TO BE INSTALLED IN CASEWORK. VERIFY EXACT LOCATION. CONDUIT/WIRES TO BE ROUTED CONGEALED IN CASEWORK/UNDERGROUND TO NEAREST FULL HEIGHT WALL.
  - 3 PROVIDE CONNECTION TO SPA DISPLAY PER MANUFACTURERS INSTRUCTIONS. VERIFY EXACT LOCATION AND ELECTRICAL REQUIREMENTS. PROVIDE BUCK-BOOST TRANSFORMER.
  - 4 PROVIDE SWITCHED DUPLEX RECEPTACLE ON DEDICATED CIRCUIT LOCATED BELOW SINK FOR CONNECTION TO DISPOSAL. VERIFY EXACT LOCATION.
  - 5 PROVIDE DUPLEX RECEPTACLE ON DEDICATED CIRCUIT LOCATED HIGH IN CABINET FOR CONNECTION TO MICROWAVE. VERIFY EXACT LOCATION.
  - 6 PROPOSED LOCATION OF SERVICE ENTRANCE ELECTRICAL EQUIPMENT. REFER TO RISER DIAGRAM ON THIS SHEET FOR MORE INFORMATION.
  - 7 DUPLEX RECEPTACLE MOUNTED UP HIGH FOR CONNECTION TO OPEN SIGNAGE. RECEPTABLES CONTROLLED BY SWITCH AS INDICATED.
  - 8 MAKE CONNECTION TO WATER HEATER AND RE-CIRCULATION PUMP PER MANUFACTURERS INSTRUCTIONS.
  - 9 2x4' PLYWOOD PHONE BOARD WITH GROUND BAR AND #6 CU BOND TO BUILDING ELECTRODE SYSTEM. PROVIDE 4" TO PROPERTY LINE FOR TELEPHONE/CABLE/INTERNET SERVICE. COORDINATE ROUTING & DISTANCE WITH LOCAL SERVICE PROVIDER.

**ELECTRICAL POWER PLAN**  
SCALE: 1/4" = 1'-0"  
NORTH



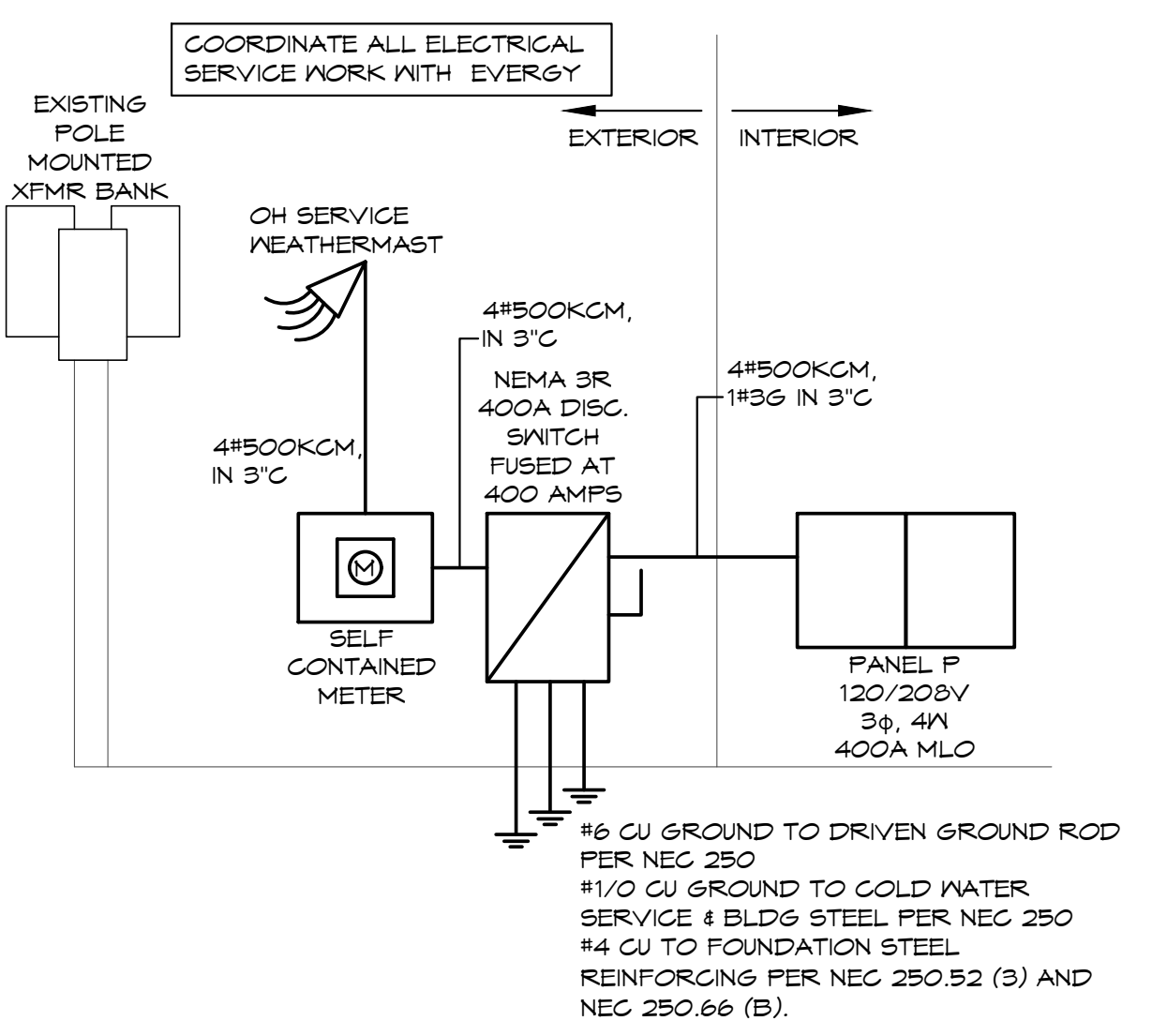
PANEL: F	VOLTS: 120/208V	PH: 3Ø	WIRE: 4W	LOCATION: MECH	MOUNTING: SURFACE											
BUS: 400A	MAIN: 400A MLO	IC: 22,000	RMS SYM AMPS	FEEDER: SEE RISER DIAGRAM												
CKT NO	DESCRIPTION	AMPS	POLE	WIRE	ØA	ØB	ØC	ØA	ØB	ØC	WIRE	POLE	AMPS	DESCRIPTION	CKT NO	
1	STORE/SPECIALTY LTS	20	1	12	964						500	12	1	20	MECH AREA REGS	2
3	SHOW ROOM LTS	20	1	12		1,000					500	12	1	20	EAST EXT REGS	4
5	OFF/BREAK/MEZZ LTS	20	1	12			1,388				500	12	1	20	EAST EXT REGS	6
7	EXT LTS	20	1	12	276						500	12	1	20	SOUTH EXT REGS	8
9	BUILDING SIGNAGE	20	1	12		1,200					500	12	1	20	SOUTH STORE ROOM REGS	10
11	BUILDING SIGNAGE	20	1	12			1,200				500	12	1	20	NORHT STORE ROOM REGS	12
13	BUILDING SIGNAGE	20	1	12	1,200						800	12	2	20	OVERHEAD DOOR	14
15	BUILDING SIGNAGE	20	1	12		1,200					800	12	2	20		16
17	BUILDING SIGNAGE	20	1	12			1,200				500	12	1	20	WEST EXT REGS	18
19	SPA DISPLAY (GF)	60	2	6	5,500						500	12	1	20	SOUTH SALES REGS	20
21	SPA DISPLAY (GF)	60	2	6		5,500					500	12	1	20	SHOWROOM MIDDLE CNT REG	22
23	SPA DISPLAY (GF)	60	2	6			5,500				500	12	1	20	SHOWROOM MIDDLE CNT REG	24
25	SPA DISPLAY (GF)	60	2	6	5,500						500	12	1	20	SHOWROOM MIDDLE CNT REG	26
27	SPA DISPLAY (GF)	60	2	6		5,500					500	12	1	20	SHOWROOM MIDDLE CNT REG	28
29	SPA DISPLAY (GF)	60	2	6			5,500				500	12	1	20	SHOWROOM MIDDLE CNT REG	30
31	SPA DISPLAY (GF)	60	2	6	5,500						500	12	1	20	EAST SHOWROOM REGS	32
33	SPA DISPLAY (GF)	60	2	6		5,500					500	12	1	20	EAST SHOWROOM REGS	34
35	SPA DISPLAY (GF)	60	2	6			5,500				250	12	1	20	WEST SHOWROOM REG	36
37	SPA DISPLAY (GF)	60	2	6	5,500						500	12	1	20	N SHOWROOM CNT REG	38
39	SPA DISPLAY (GF)	60	2	6		5,500					500	12	1	20	N SHOWROOM CNT REG	40
41	NORTH SHOWROOM REGS	20	1	12							500	12	1	20	N SHOWROOM CNT REG	42

SECTION 2															
43	RESTROOM REGS	20	1	12	500						1,250				44
45	NORTH EXT REGS	20	1	12							500				46
47	OFFICE/BRK REG	20	1	12							1,080				48
49	BRK REF (GF)	20	1	12	1,200						1,500				50
51	BRK CNT REG	20	1	12							500				52
53	BRK DISP (GF)	20	1	12							100				54
55	BRK CNT REG	20	1	12	500						4,000				56
57	BRK MICROWAVE (GF)	20	1	12							1,500				58
59	BRK CNT REG	20	1	12							500				60
61	SALES OFFICE/BRK REGS	20	1	12	1,080						500				62
63	MEZZANINE REGS	20	1	12							800				64
65	OPEN SIGNAGE	20	1	12							500				66
67	WATER FEATURE REG	20	1	12	1,000						1,200				68
69	EXT QUAD	20	1	12							500				70
71	EXT QUAD	20	1	12							500				72
73	MEZZANINE REGS	20	1	12	800										74
75	PHONE BOARD	20	1	12							500				76
77	SPARE	20	1												78
79	BUSSED SPACE														80
81	BUSSED SPACE														82
83	BUSSED SPACE														84

NOTES:  
(GF)-GFCI BRKR 30A, (HL)-HANDLE LOCK

29,520	24,700	23,815	12,250	12,600	19,450
41,770	37,500	31,265			

TOTAL CONNECTED LOAD: 116,535 VA  
NEC DEMAND LOAD: 111,646 VA  
DEMAND AMPS @ 208 VOLT / 3Ø: 310.04 A



**ELECTRICAL RISER DIAGRAM**  
SCALE: NONE

#6 CU GROUND TO DRIVEN GROUND ROD PER NEC 250  
#1/0 CU GROUND TO COLD WATER SERVICE & BLDG STEEL PER NEC 250  
#4 CU TO FOUNDATION STEEL REINFORCING PER NEC 250.52 (B) AND NEC 250.66 (B).

**BC ENGINEERS INCORPORATED**  
5720 Reeder Shawnee, KS 66203 (913)262-1772

**ELECTRICAL POWER PLAN - MEZZANINE**  
SCALE: 1/8" = 1'-0"  
NORTH