



a tenant finish for  
**Rocktops Stone and Granite**  
2888 NE Independence Avenue  
Lee's Summit, Missouri 64064

date: 04.20.2023  
drawn by: DAE  
checked by: DAE  
revisions:

sheet number:  
**A1**  
drawing type: permit  
project number: 23087

### Project Synopsis

project description: an tenant finish project for Rocktops Granite and Stone to create a showroom space and slab storage.

client: Rocktops Granite and Stone  
1140 S Enterprise Street  
Olathe, Kansas 66061  
p: 913.762.0802

architect: Justin Bridges  
Davidson Architecture & Engineering  
4301 Indian Creek Parkway  
Overland Park, Kansas 66207  
p: 913.451.9390

structural engineer: Mettemeyer Engineering  
1500 NW Vivion Road, Suite D  
Kansas City, Missouri 64118  
p: 816.587.0101

MEP engineer: BC Engineers  
5720 Reeder Street  
Shawnee, Kansas 66203  
p: 913.262.1772

general contractor: Doug Rothfuss  
Capital Construction Services  
2642 NE Hagan Road  
Lee's Summit, Missouri 64064  
p: 816.875.0018

### Code Synopsis

governing municipality: Lee's Summit, Missouri

governing code: 2018 International Building Code  
2018 International Plumbing Code  
2018 International Mechanical Code  
2018 International Fire Code  
2018 International Fuel Gas Code  
2017 NEC (w/ Part 8 Rules)

stories: one  
total building area: 71,571 s.f.  
tenant area: 6,977 s.f.  
construction type: Type II B  
fire suppression: yes, ESFR fire sprinkler system  
occupancy group: B (business) and S-1 (storage)

warehouse 1/500 s.f.: 5,260 / 500 = 11  
business 1/150 s.f.: 1,527 / 150 = 11  
Total: 22 occ.

plumbing fixture requirements (per table 403.1)  
total occupant load: 22 occupants

fixture	requirement	quantity provided	total fixtures
water closet	1 per 25 for first 50 = 1	1	1
lavatory	1 per 40 for first 80 = 1	1	1
drinking fountains	1 per 100 = 1	2 (1 high-low)	2
service sink	1 service sink	1	1

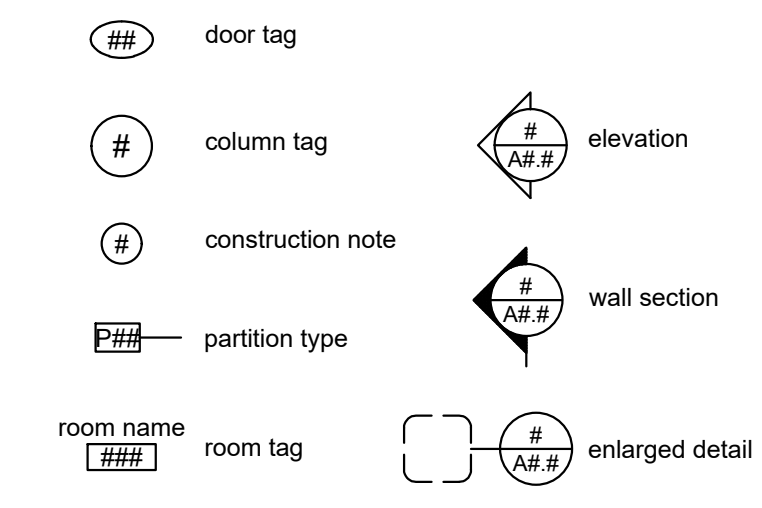
### General Notes

- Paint interior of all warehouse walls "flat white" full height. All warehouse walls to receive 6" standard cove vinyl wall base.
- Double keyed locks are not permitted on any required exit.
- All exit and emergency lighting are subject to an on-site inspection.
- Egress illumination shall be provided at an intensity of not less than 1 foot candle (fc) at floor level and at the exterior of the building.
- Mechanical roof top units (rtu's) shall have an accessible GFCI outlet(s) per code.
- Provide electrical outlets at 15" A.F.F. to the lowest outlet per ADA / ANSI.
- All electrical outlets within 6'-0" of any water source shall be GFCI protected.
- Building construction must comply with all requirements of ADA / ANSI accessibility guidelines.
- Provide 44" min. clear width in all exit passageways.
- Exit doors shall be openable from the inside without the use of key, any special knowledge, or effort.
- Furnish and install horns & strobes as required.
- Fully seal and caulk around all penetrations in exterior walls and roof.
- All construction shall conform to the standards and regulations adopted by Lee's Summit, Missouri.
- The general contractor shall contact all utility companies prior to the start of construction, and verify depth of utilities that may be encountered during such.
- The general contractor shall be responsible for obtaining all required permits, and otherwise complying with all applicable regulations governing the project.
- The general contractor shall field verify existing surface and subsurface ground conditions prior to the start of construction.
- Provide fire extinguishers and cabinets, where necessary. Coordinate quantity and location with fire marshal.
- All floor finish changes shall occur under centerline of door in closed position.
- All interior glazing shall be clear. Temper all interior glass.

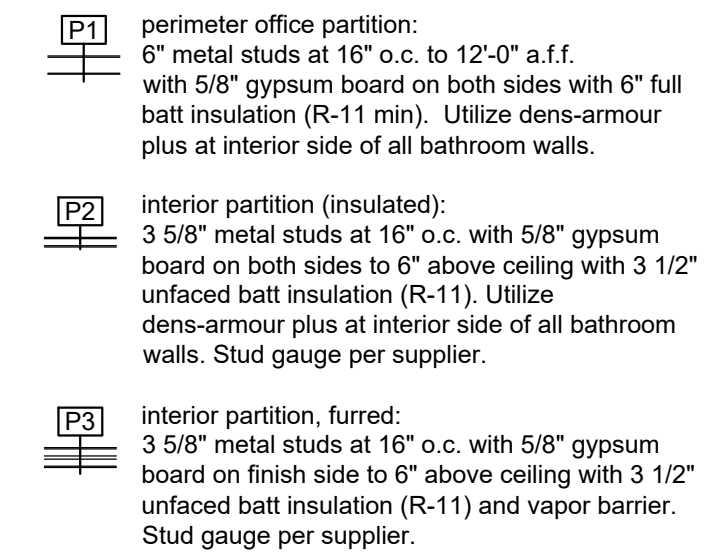
### General Ceiling Notes

- Refer to general construction notes and specifications for information.
- Refer to engineering drawings for HVAC, electrical fixtures, specifications and details.
- Refer to engineering drawings for emergency fixture locations and specifications.
- All ceilings to be 10'-0" A.F.F. unless noted otherwise.
- All headers to be painted white.
- Install R-19 sound attenuation ceiling batts above entire showroom area.

### Symbol Legend



### Partition Legend

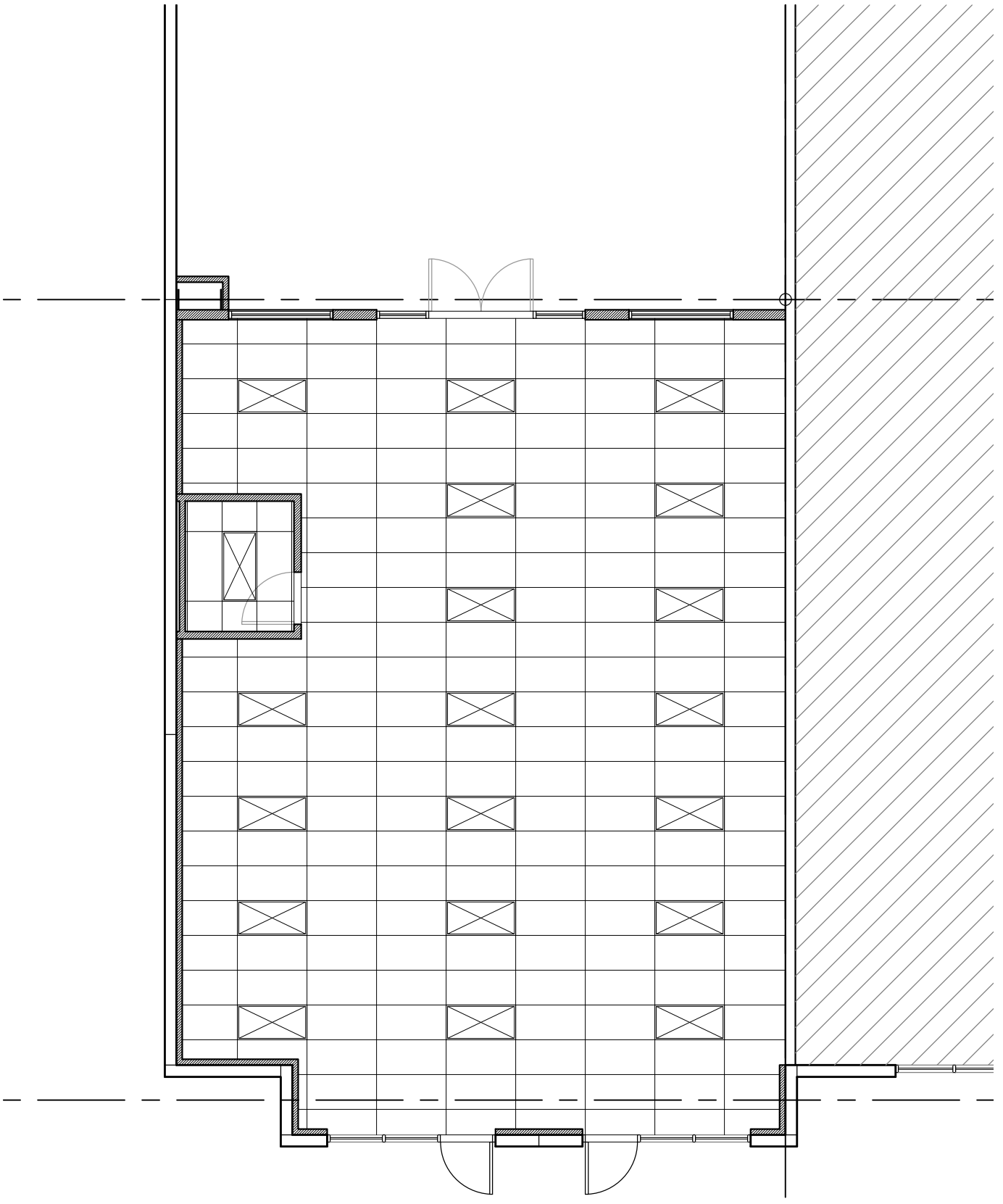


### Construction Notes

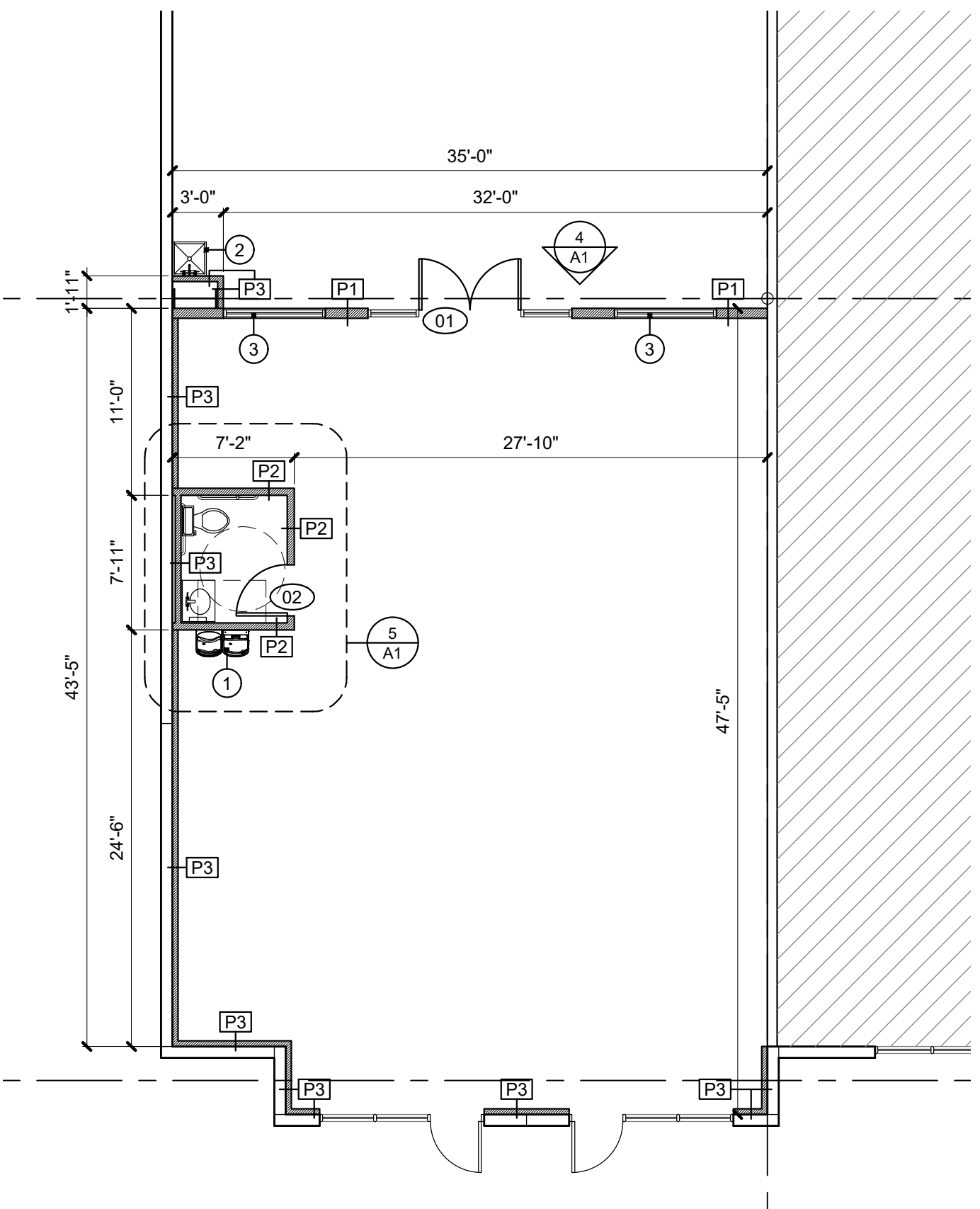
- Furnish and install high / low drinking fountain per MEP.
- Furnish and install 24" x 24" mop sink with FRP to 6'-0" a.f.f. behind and 24" past either side of basin.
- Furnish and install 3'-0" x 6'-0" window with hollow metal frame and 1/4" tempered glass. Mounted at 36" a.f.f. to bottom of frame.
- Furnish and install 3A-60BC fire extinguisher in semi-recessed cabinet - installation shall comply with ADA / ANSI.
- Furnish and install 9'-0" x 12'-0" overhead door. Increase size of opening to accommodate 12'-0" tall door.

### Door and Hardware Notes

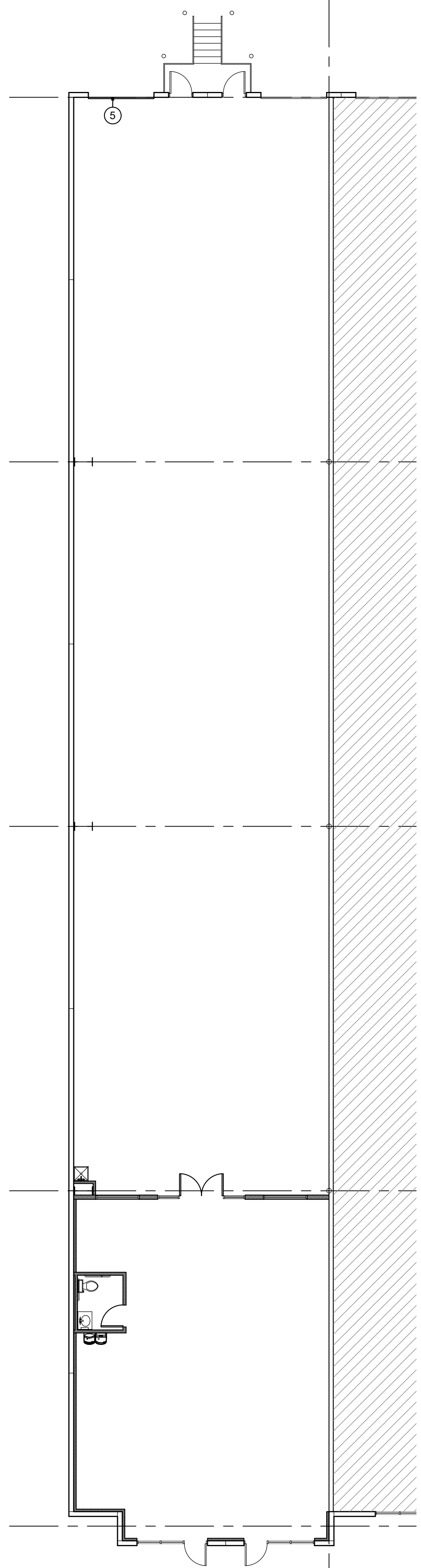
- Door 01:  
pair of two (2) 3'-0" x 7'-0" x 1-3/4" anodized aluminum doors with full height vision lite in anodized aluminum storefront wall system.  
Provide panic bar exit device, closer, and floor stop.
- Door 02:  
3'-0" x 7'-0" x 1-3/4" insulated hollow metal door, painted, in welded hollow metal frame, painted.  
Provide privacy lockset, closer, and wall stop.
- Thresholds shall coordinate with adjacent floor finish at either side.
  - Hardware shall be heavy-duty, commercial grade, level 1 w/ lever handle.
  - Finish hardware shall meet article III of the A.D.A.
  - Keying shall be coordinated with owner prior to order of hardware.



**3 Reflected Ceiling Plan**  
scale: 1/8" = 1'-0"  
north



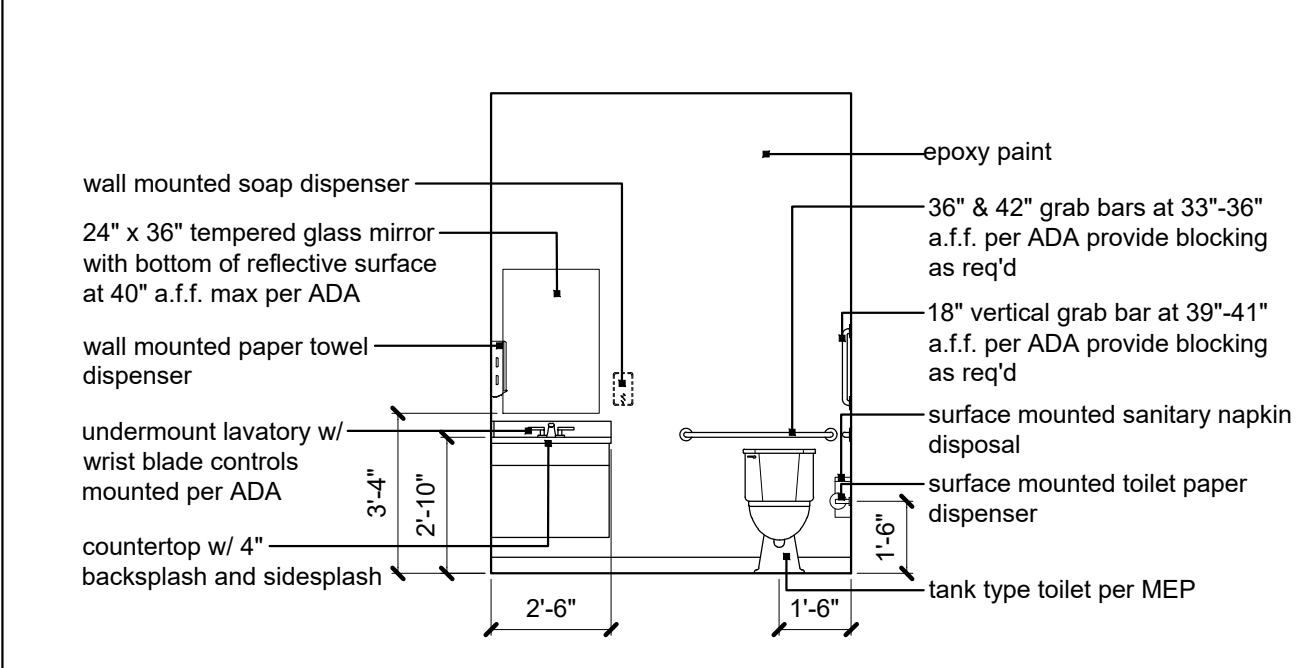
**2 Showroom Floor Plan**  
scale: 1/8" = 1'-0"  
north



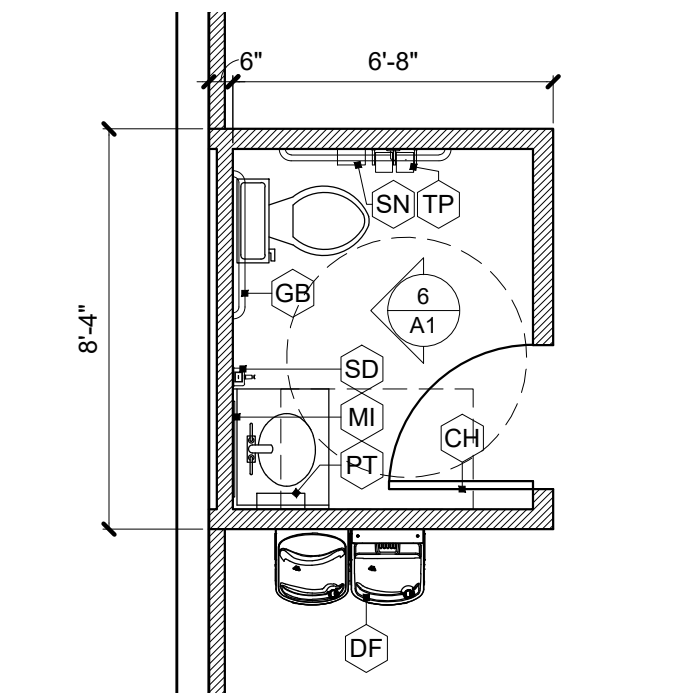
**1 Overall Floor Plan**  
scale: 3/32" = 1'-0"  
north

#### Toilet Accessory Schedule

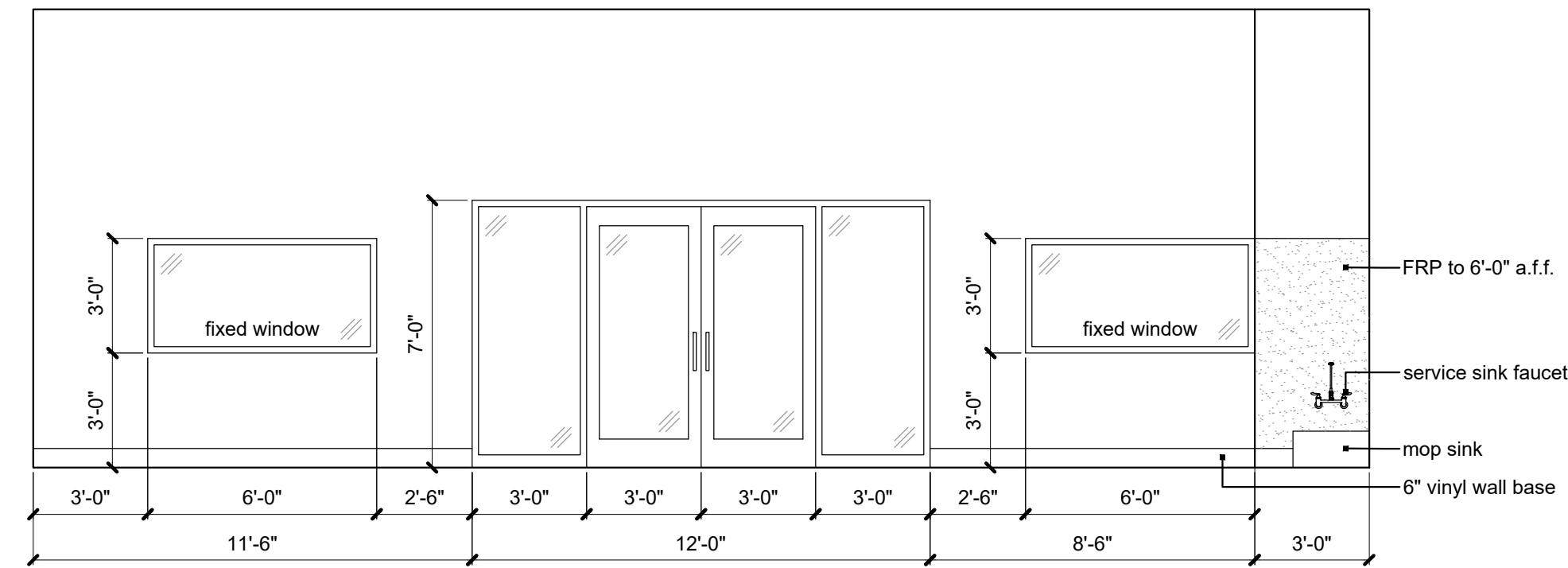
Item
Clothes Hook w/ bumper
18" Grab Bar
36" Grab Bar
42" Grab Bar
Mirror
Paper Towel
Sanitary Napkin Disposal
Soap Dispenser
Toilet Tissue Dispenser
High-Low Drinking Fountain w/ bottle filler



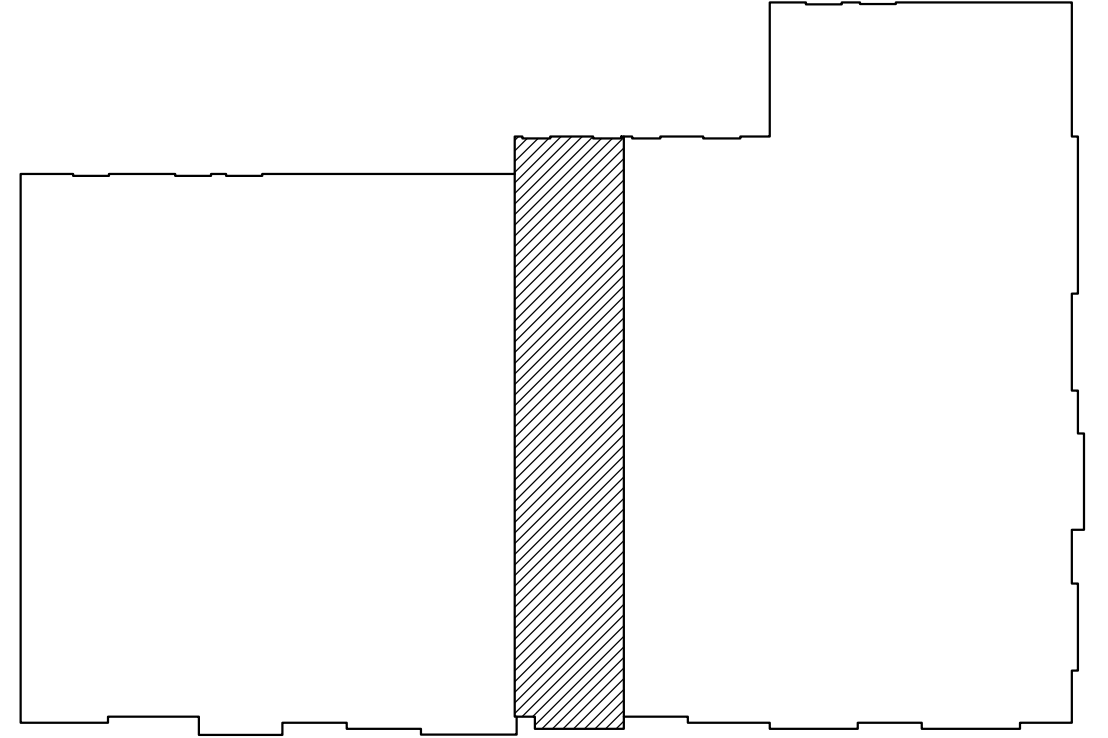
**6 Restroom Elevation**  
scale: 1/4" = 1'-0"



**5 Restroom Plan**  
scale: 1/4" = 1'-0"  
north



**4 Warehouse Entry Elevation**  
scale: 1/4" = 1'-0"



**Key Plan**  
scale: NTS



Earl V. Rollison, P.E.  
Missouri License No. E-22955

**GENERAL CONDITIONS**

- CONTRACTOR, BUILDER AND SUBCONTRACTORS INVOLVED IN ANY FORM OF CONSTRUCTION USING THESE CONTRACT DOCUMENTS SHALL BE INFORMED OF THE FOLLOWING RESPONSIBILITIES, PERFORMANCE CRITERIA, LIMITATIONS AND RISKS ASSOCIATED WITH CONSTRUCTION. IF THE OWNER, DEVELOPER OR CONTRACTOR IS NOT ABLE TO ACCEPT THE RESPONSIBILITIES OR PERFORMANCE CRITERIA AND LIMITATIONS, NOTIFY THE ENGINEER OF RECORD OR ARCHITECT PRIOR TO START OF CONSTRUCTION. IT SHALL BE EXPRESSLY UNDERSTOOD THAT THE ENGINEER IS NOT RESPONSIBLE OR LIABLE FOR THE LACK OF PERFORMANCE OF MATERIALS, SYSTEMS OR DESIGNS NOT BEING LIMITED TO ITEMS OUTLINED BELOW. CONTRACTORS AND SUBCONTRACTORS SHALL THOROUGHLY REVIEW ALL CONDITIONS AND RESPONSIBILITIES STATED IN THESE NOTES, PLANS, SECTIONS / DETAILS, AND SHALL NOTIFY THE ENGINEER AND OWNER IN WRITING PRIOR TO CONSTRUCTION OF ANY CONDITIONS OR RESPONSIBILITIES WHICH ARE NOT ACCEPTABLE OR NOT UNDERSTOOD.
- THESE DRAWINGS HAVE BEEN PREPARED USING STANDARDS OF PROFESSIONAL CARE AND COMPLETENESS NORMALLY EXERCISED UNDER SIMILAR CIRCUMSTANCES BY REPUTABLE STRUCTURAL ENGINEERS IN THIS OR SIMILAR LOCALITIES. THEY NECESSARILY ASSUME THAT THE WORK DEPICTED WILL BE PERFORMED BY AN EXPERIENCED CONTRACTOR, SUBCONTRACTOR AND/OR WORKPERSONS WHO HAVE A WORKING KNOWLEDGE OF THE APPLICABLE CODE STANDARDS AND REQUIREMENTS AND OF INDUSTRY ACCEPTED STANDARD GOOD PRACTICE. AS NOT EVERY CONDITION OR ELEMENT IS (OR CAN BE) EXPLICITLY SHOWN ON THESE DRAWINGS, IT IS UNDERSTOOD THAT THE CONTRACTOR WILL USE INDUSTRY ACCEPTED STANDARD GOOD PRACTICE FOR ALL WORK.
- THESE DRAWINGS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INDICATE THE MEANS AND METHODS OF CONSTRUCTION. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DESIGN AND PROVIDE ADEQUATE, SHORING, BRACING, FORMWORK, ETC. AS REQUIRED FOR PROTECTION OF LIFE AND PROPERTY DURING CONSTRUCTION.
- CONSTRUCTION MATERIALS SHALL BE UNIFORMLY SPREAD OUT SUCH THAT DESIGN LIVE LOAD PER SQUARE FOOT AS STATED HEREIN IS NOT EXCEEDED. VISITS TO THE SITE BY THE STRUCTURAL ENGINEER SHALL NOT INCLUDE INSPECTION OF THE ABOVE ITEMS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF ALL DIMENSIONS, CONDITIONS AND ELEVATIONS WITH OTHER DISCIPLINES DRAWINGS PRIOR TO START OF CONSTRUCTION. THE CONTRACTOR SHALL INFORM THE ARCHITECT AND ENGINEER OF RECORD IN WRITING OF ANY DISCREPANCIES OR OMISSIONS NOTED ON THE DRAWINGS. ANY SUCH DISCREPANCY, OMISSION OR VARIATION NOT REPORTED BEFORE THE START OF CONSTRUCTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- WHERE REFERENCE IS MADE TO VARIOUS TEST STANDARDS FOR MATERIALS, SUCH STANDARDS SHALL BE THE LATEST EDITION AND/OR ADDENDA.
- OPTIONS ARE FOR CONTRACTOR'S CONVENIENCE. IF AN OPTION IS USED, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL NECESSARY CHANGES AND SHALL COORDINATE ALL DETAILS.
- ALL OPENINGS ARE NOT SHOWN ON THESE DRAWINGS. ESTABLISH AND VERIFY ALL OPENINGS AND INSERTS FOR ARCHITECTURAL, MECHANICAL, PLUMBING AND ELECTRICAL WITH APPROPRIATE TRADES, DRAWINGS AND SUBCONTRACTORS PRIOR TO CONSTRUCTION. OPENINGS MAY REQUIRE ADDITIONAL REINFORCING OR SUPPORTS AS SHOWN ON TYPICAL DETAILS. IF TYPICAL DETAILS FOR ALL CONDITIONS ARE NOT INCLUDED HEREIN, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO REQUEST IN WRITING ADDITIONAL INFORMATION.
- ALL INSPECTIONS REQUIRED BY THE BUILDING CODES, LOCAL BUILDING OFFICIALS, OR BY THESE PLANS SHALL BE PROVIDED BY AN INDEPENDENT INSPECTION COMPANY OR THE BUILDING DEPARTMENT. SPECIAL INSPECTION REQUIREMENTS STATED HEREIN ARE PARTIAL. COMPLETE INSPECTION REQUIREMENTS SHALL BE AS DIRECTED BY THE LOCAL BUILDING DEPARTMENT. SITE VISITS BY THE ENGINEER DO NOT CONSTITUTE A SPECIAL INSPECTION, UNLESS SPECIFICALLY CONTRACTED FOR.

**CONFLICTING REQUIREMENTS**

- ANY AND ALL CONFLICTS WITHIN THE CONTRACT DOCUMENTS (PLANS, SPECIFICATIONS AND OTHER DOCUMENTS); OR BETWEEN THE DOCUMENTS AND EXISTING PROJECT CONDITIONS SHALL BE QUANTIFIED BY THE CONTRACTOR(S); AND ALL ASSOCIATED COSTS MUST BE INCLUDED IN THE CONTRACTOR(S) BASE BID. OR ANY AND/OR ALL COSTS SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR(S). IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR(S) TO BRING EACH CONFLICT TO THE ATTENTION OF THE ENGINEER OF RECORD. ALL CONFLICTS SHALL BE IDENTIFIED IN WRITTEN FORM AND SUBMITTED THROUGH THE "REQUEST FOR INFORMATION" (RFI) PROCESS DURING BIDDING. THE ENGINEER OF RECORD SHALL REVIEW ALL IDENTIFIED CONFLICTS AND RENDER TO THE CONTRACTOR(S) THEIR DECISION.
- IF THE CONTRACTOR(S) DO NOT SUBMIT AN RFI AND/OR DO NOT RECEIVE A DIRECTIVE OR CLARIFICATION IN WRITING FROM THE ENGINEER OF RECORD THROUGH NO FAULT OF THEIR OWN, CONTRACTOR SHALL BE REQUIRED TO COMPLY WITH THE MORE STRINGENT STANDARD, OR HIGHER LEVEL OF QUALITY AT NO ADDITIONAL COSTS TO THE OWNER.
- IF COMPLIANCE WITH TWO OR MORE STANDARDS IS SPECIFIED AND THE STANDARDS ESTABLISHES A DIFFERENT OR CONFLICTING REQUIREMENTS FOR MINIMUM QUANTITIES OR QUALITY LEVELS, COMPLY WITH THE MOST STRINGENT REQUIREMENT.

**ELECTRONIC FILES**

- ELECTRONIC FILES CREATED BY METTEMAYER ENGINEERING, LLC. WILL NOT BE MADE AVAILABLE FOR USE BY THE GENERAL CONTRACTOR, SUBCONTRACTORS, OR BUILDERS INVOLVED IN ANY FORM OF CONSTRUCTION. BIDS ON THE PROJECT SHALL BE MADE ACCORDINGLY.

**STRUCTURAL STEEL**

- STRUCTURAL STEEL MEMBERS SHALL CONFORM WITH THE FOLLOWING STANDARDS AND MATERIAL PROPERTIES UNLESS NOTED OTHERWISE
 

SHAPE	STANDARD	F <sub>y</sub>
CHANNELS	ASTM A36	36 KSI
- ALL STRUCTURAL AND MISCELLANEOUS STEEL SHALL BE FABRICATED AND ERECTED IN ACCORDANCE WITH AISC SPECIFICATIONS FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS, CODE REFERENCED EDITION.
- WELDING SHALL BE PERFORMED BY WELDERS HOLDING VALID CERTIFICATES AND HAVING CURRENT EXPERIENCE IN THE TYPE OF WELD SHOWN ON THE DRAWINGS. ALL WELDING SHALL USE E70 SERIES LOW HYDROGEN ELECTRODES UNLESS NOTED OTHERWISE. ALL WELDS INVOLVING REINFORCING BARS SHALL USE E90 SERIES ELECTRODES. ALL WELDING SHALL CONFORM TO THE LATEST AMERICAN WELDING SOCIETY (AWS) STANDARDS. WELDS ON DRAWINGS ARE SHOWN AS SHOP WELDS. CONTRACTOR MAY SHOP WELD OR FIELD WELD AT HIS DISCRETION. ALL FULL PENETRATION WELDS SHALL BE TESTED AND CERTIFIED BY AN INDEPENDENT TESTING LABORATORY.
- HEAVY LOADS THAT EXCEED 75% OF ALLOWABLE LIVE LOADS SHOWN ON THE PLANS, FOR TEMPORARY EQUIPMENT, CONSTRUCTION MATERIALS, OR OTHER LOADS NOT SHOWN IN THE CONTRACT DOCUMENTS, SHALL NOT BE PLACED OR SUPPORTED FROM ELEVATED STRUCTURE WITHOUT PRIOR WRITTEN APPROVAL OF THE STRUCTURAL ENGINEER.
- FIELD CUTTING, DRILLING OR OTHER MODIFICATION OF STRUCTURAL STEEL COMPONENTS IS NOT PERMITTED WITHOUT WRITTEN APPROVAL OF THE STRUCTURAL ENGINEER. WHERE BEAM PENETRATIONS CANNOT BE AVOIDED OR WHERE CUTTING IS REQUIRED, CONTRACTOR SHALL SUBMIT TO THE ENGINEER, ALL PERTINENT INFORMATION INCLUDING PENETRATION SHAPE, SIZE LOCATION AND METHOD OF CUTTING THE OPENING.

**POST-INSTALLED ANCHORS**

- POST-INSTALLED ANCHORS SHALL ONLY BE USED WHERE SPECIFIED ON THE CONSTRUCTION DOCUMENTS. SPECIAL INSPECTIONS ARE REQUIRED PER THE PROVISIONS SET FORTH IN BELOW REFERENCED IBC CODE REPORTS. ANCHORS ARE TO BE INSTALLED BY EXPERIENCED INSTALLERS OR CONTRACTOR TO CONTACT MANUFACTURER'S REPRESENTATIVE FOR PROPER PRODUCT INSTALLATION TRAINING ON INITIAL ANCHORS. SUBSTITUTION REQUESTS, FOR PRODUCTS OTHER THAN THOSE SPECIFIED BELOW, SHALL BE SUBMITTED BY THE CONTRACTOR TO THE ENGINEER OF RECORD ALONG WITH CALCULATIONS THAT ARE PREPARED AND SEALED BY A REGISTERED PROFESSIONAL ENGINEER. THE CALCULATIONS SHALL DEMONSTRATE THAT THE SUBSTITUTED PRODUCT IS CAPABLE OF ACHIEVING THE PERTINENT EQUIVALENT PERFORMANCE VALUES (MINIMUM) OF THE SPECIFIED PRODUCT USING THE APPROPRIATE DESIGN PROCEDURE AND/OR STANDARD(S) AS REQUIRED BY THE BUILDING CODE.
- CONCRETE ANCHORS
  - MECHANICAL ANCHORS FOR USE IN CRACKED AND UNCRACKED CONCRETE SHALL HAVE BEEN TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ACI 308.2 AND ICC-ES AC108. PRE-APPROVED MECHANICAL ANCHORS INCLUDE:
    - SIMPSON STRONG-TIE "TITEN-HD" (ICC-ES ESR-2713)
    - HILTI KWIK HUS-EZ "KH-EZ" (ICC-ES ESR-3027)
  - ADHESIVE ANCHORS FOR USE IN CRACKED AND UNCRACKED CONCRETE SHALL HAVE BEEN TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ICC-ES AC308. PRE-APPROVED ADHESIVE ANCHORS INCLUDE:
    - SIMPSON STRONG-TIE "SET-GT" (ICC-ES ESR-2508)
    - HILTI HIT-HY 200-R (ICC-ES ESR 3187)
  - ALL THREAD RODS SHALL BE ASTM F1554, F<sub>y</sub> = 36 KSI

**GENERAL NOTES**

**STATEMENT OF SPECIAL INSPECTIONS**

- SPECIAL INSPECTIONS ARE REQUIRED FOR THIS PRIMARY BUILDING FRAME / MAIN FORCE RESISTING SYSTEM PER THE LATEST EDITION OF THE IBC.
- REFER TO THE IBC FOR ADDITIONAL INFORMATION RELATED TO THESE TABLES.
- INSPECTIONS AND TESTING SHALL BE PROVIDED BY A QUALIFIED TESTING LABORATORY, RETAINED BY THE OWNER AND APPROVED BY THE ENGINEER OF RECORD.
- REPORTS SHALL INDICATE THAT WORK INSPECTED OR TESTED WAS OR WAS NOT COMPLETED IN CONFORMANCE TO APPROVED CONSTRUCTION DOCUMENTS. DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION. IF THEY ARE NOT CORRECT, THE DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE BUILDING OFFICIAL AND THE ENGINEER OF RECORD PRIOR TO THE COMPLETION OF THAT PHASE OF THE WORK.
- A LETTER OF SUBSTANTIAL COMPLETION SHALL BE SUBMITTED TO THE BUILDING DEPARTMENT BY THE SPECIAL INSPECTOR PRIOR TO THE FINAL INSPECTION.

**POST-INSTALLED ANCHORS**

IBC TABLE 1705.3

TYPE	CONTINUOUS SPECIAL INSPECTION	PERIODIC SPECIAL INSPECTION
1. INSPECT ANCHOR TYPE, DIAMETER, AND LENGTH.	-	X
2. INSPECT AND VERIFY PLACEMENT.	-	X
3. INSPECT ANCHORS IN HARDENED CONCRETE MEMBERS:		
A. ADHESIVE ANCHORS INSTALLED IN HORIZONTALLY OR UPWARDLY INCLINED ORIENTATIONS TO RESIST SUSTAINED TENSION LOADS.	-	-
B. MECHANICAL ANCHORS AND ADHESIVE ANCHORS NOT DEFINED IN 3.A.	-	X

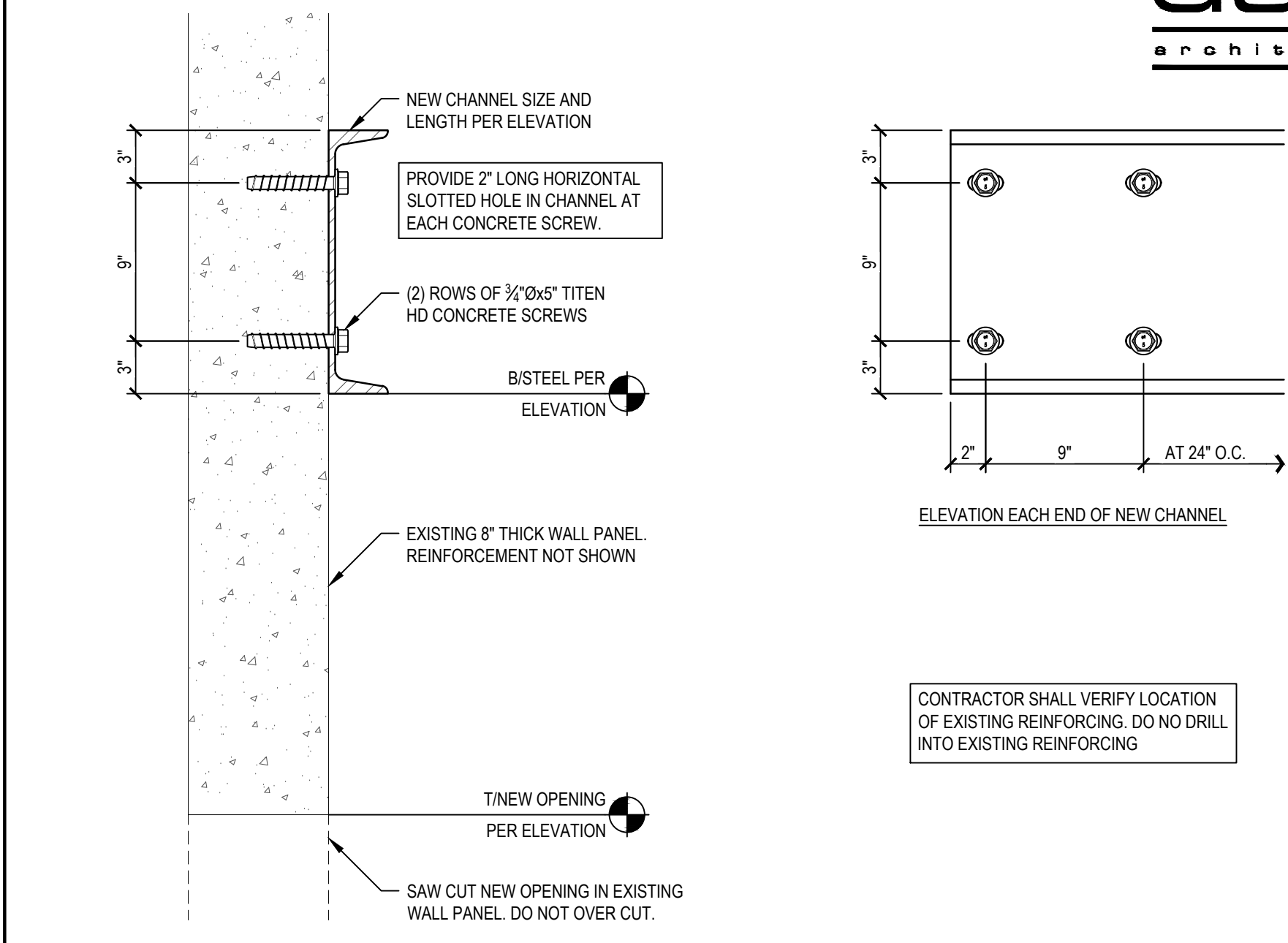
**SPECIAL INSPECTIONS**

- BUILDING CODE: 2018 IBC
- RISK CATEGORY II
- DEAD LOADS
  - ROOF 8 PSF + 10 PSF COLLATERAL
- LIVE LOADS
  - ROOF (NO REDUCTION) 20 PSF
  - GROUND SNOW, P<sub>g</sub> 20 PSF
  - FLAT ROOF SNOW LOAD, P<sub>f</sub> 14 PSF
  - MINIMUM ROOF SNOW LOAD, P<sub>m</sub> 20 PSF
  - EXPOSURE FACTOR, C<sub>e</sub> 1.0
  - IMPORTANCE FACTOR, I<sub>s</sub> 1.0
  - THERMAL FACTOR, C<sub>t</sub> 1.0
  - RAIN ON SNOW 5 PSF
- WIND LOAD
  - BASIC WIND SPEED (3-SECOND GUST)
    - ULTIMATE 109 MPH
    - SERVICE 84.4 MPH
  - IMPORTANCE FACTOR, I<sub>w</sub> 1.0
  - EXPOSURE C
  - INTERNAL PRESSURE COEFFICIENT +/- 0.18 (ENCLOSED BUILDINGS)

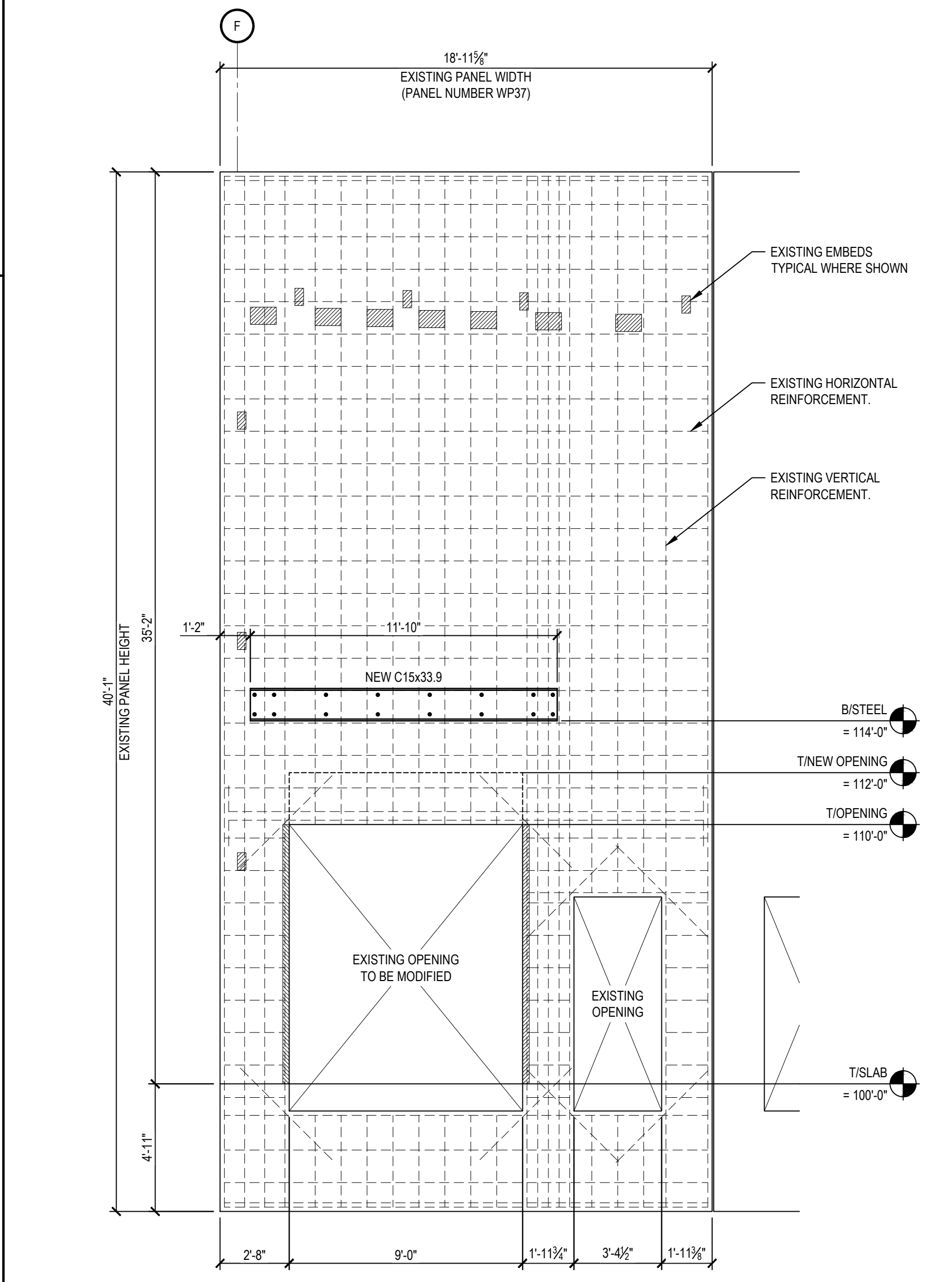
I HEREBY CERTIFY THAT THE DOCUMENTS INTENDED TO BE AUTHENTICATED BY MY SEAL ARE LIMITED TO S1.1. I HEREBY DISCLAIM RESPONSIBILITY FOR ALL OTHER PLANS, SPECIFICATIONS, ESTIMATES, REPORTS, AND OTHER DOCUMENTS OR INSTRUMENTS RELATING TO OR INTENDED TO BE USED FOR ANY PART OR PARTS OF THE ARCHITECTURAL OR ENGINEERING PROJECT.

*Earl V. Rollison*  
EARL V. ROLLISON, PE  
MISSOURI LICENSE NO. E-22955  
DATE: 4/21/2023

**BASIS FOR DESIGN**



**SECTION AT HEAD OF NEW OPENING**  
1 1/2" = 1'-0"



**PARTIAL ELEVATION ALONG GRID 1.9**  
1/4" = 1'-0"

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**S1.1**

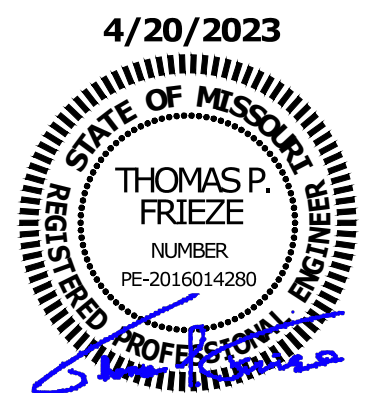
drawing type permit  
project number 23-0333





BC PROJECT #: 23249 PE COA #2009003629  
MISSOURI  
This drawing has been prepared by the Engineer under his supervision. The Engineer is not responsible for the accuracy of the information provided on this drawing. The Engineer is not responsible for the accuracy of the information provided on this drawing. The Engineer is not responsible for the accuracy of the information provided on this drawing. The Engineer is not responsible for the accuracy of the information provided on this drawing.

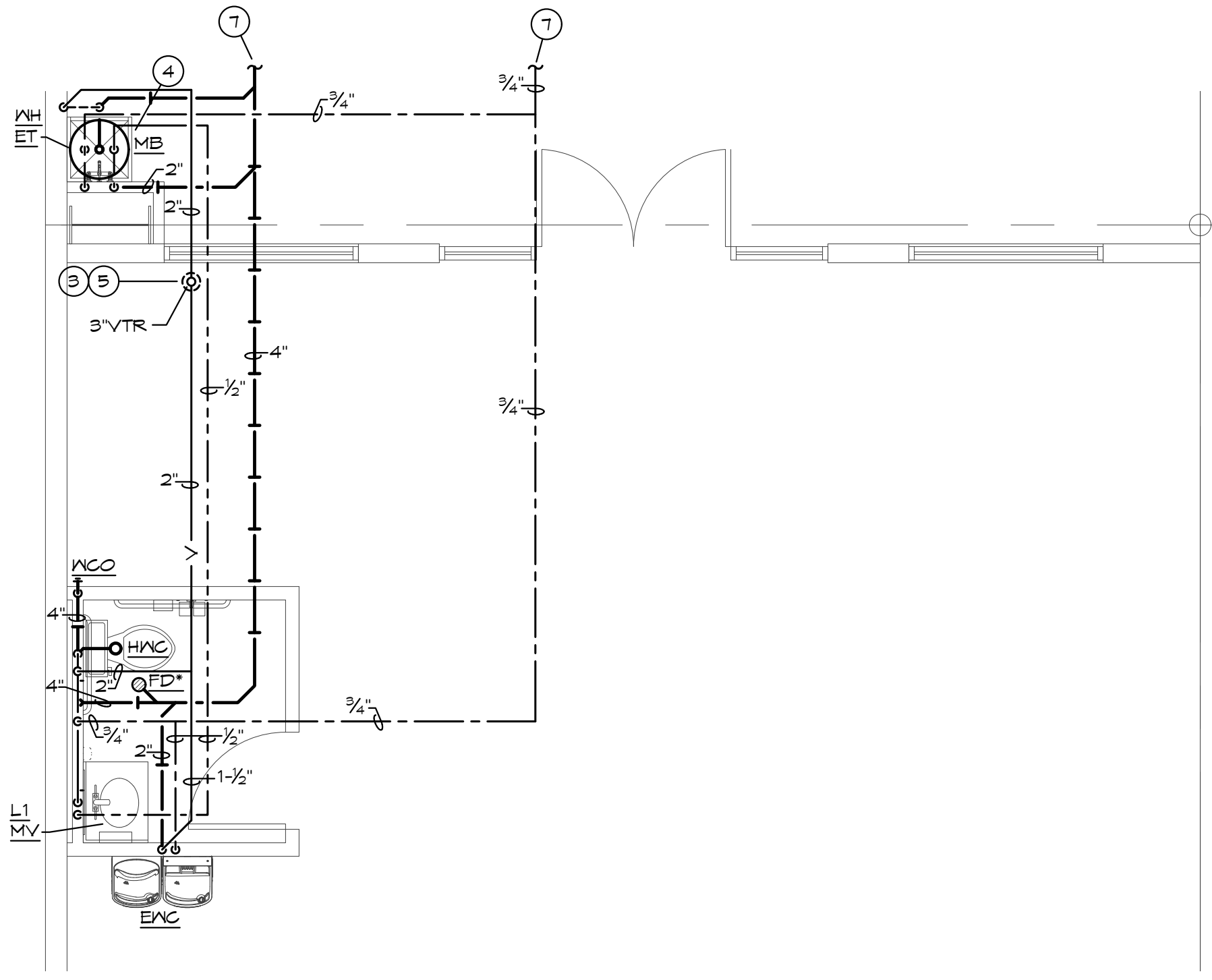
**BC ENGINEERS INCORPORATED**  
5720 Freeder Shanman, KS 66203 (913) 262-1772



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DATE  
4.20.23  
DRAWN BY  
TPF/BMH  
CHECKED BY  
EK/D/S  
REVISIONS

SHEET NUMBER  
**P1.0**  
DRAWING TYPE  
permit  
PROJECT NUMBER  
23087



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

**PLUMBING GENERAL NOTES:**

1. INSTALL ALL PIPE, ETC. AS HIGH AS POSSIBLE.
2. 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.
3. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS AND MOUNTING HEIGHTS OF FIXTURES.
4. REFER TO ARCHITECTURAL & STRUCTURAL DRAWINGS FOR REQUIREMENTS FOR SUPPORTING PIPING, EQUIPMENT, ETC. FROM THE STRUCTURE. PROVIDE ADDITIONAL STEEL AS REQUIRED TO PROPERLY SUPPORT SYSTEMS FROM THE STRUCTURE.
5. SAWCUT EXISTING FLOOR AS REQUIRED FOR INSTALLATION OF UNDERFLOOR PIPING. PATCH FLOOR TO MATCH EXISTING.
6. NO PIPING SHALL BE ROUTED OVER THE TOP OF ELECTRICAL PANELS.

**FIRE PROTECTION NOTES:**

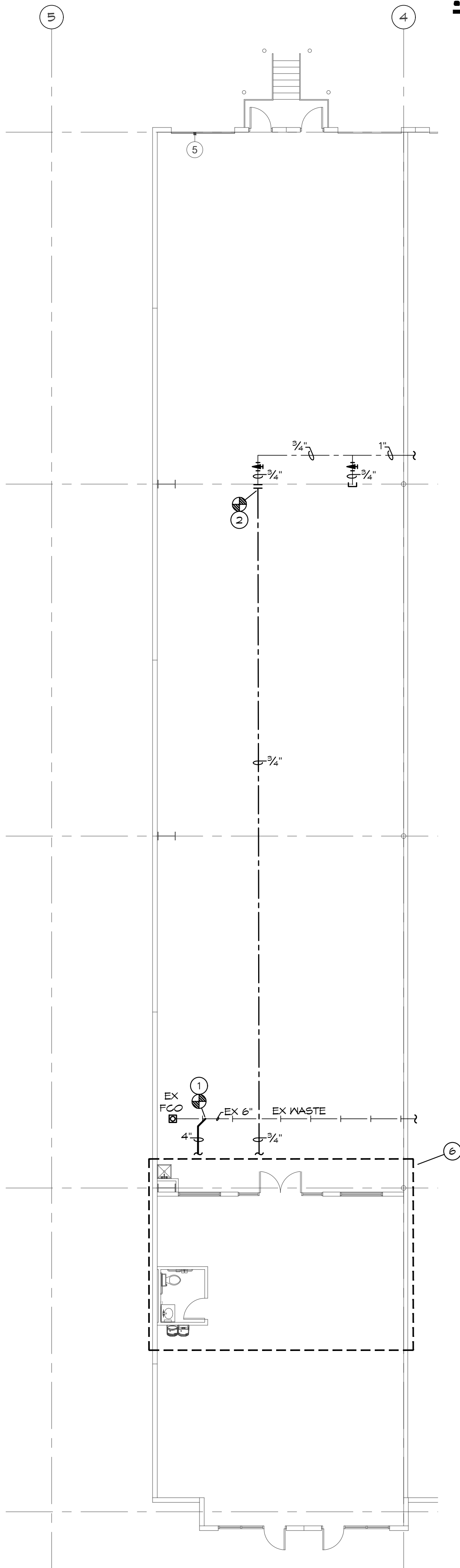
1. THE EXISTING SPACE IS PROTECTED WITH AN EXISTING WET PIPE SPRINKLER SYSTEM. RELOCATE AND PROVIDE ADDITIONAL SPRINKLER HEADS AND PIPING AS REQUIRED FOR THE NEW CONSTRUCTION. SPRINKLER HEADS IN FINISHED CEILINGS SHALL BE SEMI-RECESSED PENDENT TYPE (VERIFY FINISH). SPRINKLER HEADS IN ROOMS WITHOUT CEILINGS SHALL BE UPRIGHT BRASS TYPE HEADS.
2. SPRINKLER WORK SHALL BE PERFORMED BY A LICENSED SPRINKLER CONTRACTOR PRE-APPROVED BY THE OWNER/LANDLORD.
3. REFER TO THE ARCHITECTURAL DRAWINGS FOR NEW WALL CONSTRUCTION.
4. SPRINKLER PIPING SHALL MATCH EXISTING AND COMPLY WITH NFPA 13.
5. SPRINKLER SYSTEM (SHOP DRAWINGS) SHALL BE APPROVED BY THE LOCAL FIRE AUTHORITY AND OWNERS/LANDLORD'S INSURANCE CARRIER PRIOR TO START OF WORK.

**PLUMBING PLAN NOTES:**

1. CONNECT WASTE TO EXISTING SANITARY SEWER AS REQUIRED. VERIFY EXACT LOCATION AND ELEVATION PRIOR TO INSTALLATION OF ANY PIPING.
2. CONNECT CW TO EXISTING DOMESTIC CW AS REQUIRED. VERIFY EXACT LOCATION PRIOR TO INSTALLATION OF ANY PIPING.
3. LOCATION OF 3" VTR. VERIFY 10' CLEARANCE FROM ALL OUTDOOR AIR INTAKES. SEAL PENETRATION WEATHERTIGHT.
4. SUPPORT WATER HEATER ABOVE MOP BASIN FROM WALL OR ON SHELF AS REQUIRED BY MANUFACTURER'S INSTALLATION INSTRUCTIONS.
5. CUT EXISTING ROOF AND FLASH INTO ROOF AS REQUIRED. ALL ROOFING WORK SHALL BE PERFORMED BY BUILDING OWNER'S ROOFING CONTRACTOR (AT THIS CONTRACTOR'S EXPENSE) TO MAINTAIN EXISTING ROOF WARRANTY. VERIFY APPROVED ROOFING CONTRACTOR WITH BUILDING OWNER PRIOR TO PERFORMING WORK.
6. REFER TO ENLARGED PLUMBING PLAN ON THIS SHEET FOR CONTINUATION.
7. REFER TO PLUMBING PLAN ON THIS SHEET FOR CONTINUATION.

**PLUMBING SYMBOLS**

	SOIL AND WASTE PIPING BELOW FLOOR/GRADE
	SOIL AND WASTE PIPING ABOVE FLOOR/GRADE
	SANITARY VENT PIPING ABOVE GRADE
	SANITARY VENT PIPING BELOW GRADE
	DOMESTIC COLD WATER PIPING
	DOMESTIC HOT WATER PIPING
	PIPING TURNING DOWN
	PIPING TURNING UP
	TEE TOP CONNECTION
	UNION
	FLOOR DRAIN
	WALL CLEAN OUT
	VALVE
	CONNECT TO EXISTING
	TEMPERATURE AND PRESSURE RELIEF VALVE
	VACUUM RELIEF VALVE



**PLUMBING FLOOR PLAN**  
SCALE: 1" = 30'-0"

4301 Indian Creek Parkway  
Overland Park, KS 66207  
phone: 813.451.6360  
www.dauidsonae.com

BC PROJECT #: 23249  
MISSOURI PE COA #2009003629

This drawing has been prepared by the Engineer under his supervision. The Engineer is not responsible for the accuracy of the information provided to him by others. The Engineer is not responsible for the accuracy of the information provided to him by others. The Engineer is not responsible for the accuracy of the information provided to him by others.

**BC ENGINEERS INCORPORATED**  
5720 Freeder Sharnane, KS 66203 (813)262-1772

**PLUMBING FIXTURE SCHEDULE:**

- HWC** HANDICAP WATER CLOSET: TOTO, #C5T1446L, "DRAKE CLOSE COUPLED TOILET", 1.6 GALLON FLUSH, 16-1/2" HIGH ELONGATED BOWL, FLOOR MOUNTED, FLOOR OUTLET, TANK TYPE, VITREOUS CHINA, SIPHON-JET ACTION, #5C834 OPEN FRONT SEAT WITH CHECK HINGE AND LESS COVER, CHROME PLATED ANGLE STOP AND RISER, HANDLE ON WIDE SIDE OF FIXTURE.
- L1** HANDICAP LAVATORY, COUNTERTOP: TOTO, #LT501, VITREOUS CHINA, 20" X 11" OVAL BASIN, DELTA #501 FAUCET WITH SINGLE METAL LEVER HANDLE, OFFSET GRID DRAIN WITH 1-1/4" TAILPIECE, CHROME PLATED P-TRAP (MOUNTED PARALLEL WITH WALL), CHROME PLATED ANGLE STOPS AND RISERS, INSULATE EXPOSED DRAIN, WATER SUPPLIES, AND VALVES WITH PROWRAP SEAMLESS MOLDED CLOSED CELL VINYL INSULATION.
- MB** MOP BASIN: FIAT, #MSB-2424, MOLDED STONE MOP BASIN, 2" DRAIN, 24" X 24" BASIN, VINYL BUMPER GUARD, STERN WILLIAMS #T-10-VB FAUCET, SPRING CHECKS, VACUUM BREAKER, INTEGRAL STOPS, WALL BRACE & PAIL HOOK, WALL BRACKET WITH 30' HOSE.
- ENC** ELECTRIC WATER COOLER, OASIS, #PS8ACSL, BARRIER FREE TWO-STATION WATER COOLER, 8.0 GPH, 50 DEGREES F WATER WITH 90 DEGREES F AIR TEMPERATURE, 120 VOLT, COLOR TO BE SELECTED BY ARCHITECT AFTER AWARD OF CONTRACT, FRONT AND SIDE ANTIMICROBIAL PUSH PADS, ANTIMICROBIAL FLEX BUBBLERS, CHROME PLATED CAST BRASS P-TRAP WITH CLEANOUT, CHROME PLATED LOOSE KEY ANGLE STOP, FLOOR MOUNTED CARRIER AND CANE APRON.
- FD** FLOOR DRAIN: JR SMITH, #2005-A, CAST IRON FLOOR DRAIN WITH ADJUSTABLE TOP, 6" NIKALLOY STRAINER. PROVIDE WITH #2692 QUAD CLOSE TRAP SEAL DEVICE.
- NH** HOT WATER HEATER: AO SMITH #DEL-20, 20 GALLON STORAGE, 120 VOLT, 1500 WATT ELEMENT, ASME TEMPERATURE AND PRESSURE RELIEF VALVE, SET TO 120°F.
- ET** HOT WATER EXPANSION TANK: AMTROL, #ST-5, 2 GALLON EXPANSION TANK WITH DIAPHRAGM.
- MV** MIXING VALVE: WATTS, #LFV56-B, THERMOSTATIC CONTROLLED MIXING VALVE, LEAD FREE BRONZE BODY, LOCKED TEMPERATURE ADJUSTMENT CAP (VANDAL RESISTANT), COPPER ENCAPSULATED THERMOSTAT ASSEMBLY WITH BRASS SHUTTLE, STAINLESSSTEEL SPRINGS, INTEGRAL CHECK VALVES ON HOT AND COLD INLETS. (SET TO 110°F). ASSE 1010 LISTED.
- MCO** WALL: JR SMITH #4472, OR EQUAL, 24" ABOVE THE FLOOR.

**PLUMBING DRAINAGE CALCULATIONS**

FIXTURE	QUANTITY	FU	TOTAL FU
WATER CLOSETS	1	4	4
LAVATORIES	1	1	1
FLOOR DRAIN	1	2	2
ELECTRIC WATER COOLER	1	2	2
MOP SINK	1	2	2
<b>TOTAL</b>			<b>10 FU</b>

VENT MAINS - 3"  
WASTE MAIN - 4"

**PLUMBING FIXTURE WATER COUNT**

FIXTURE	QUANTITY	CU FU	CU TOTAL FU	HW FU	TOTAL FU	COMBINED FU	COMBINED TOTAL FU
WATER CLOSETS	1	5	5	0	0	5	5
LAVATORIES	1	1.5	1.5	0.5	1.5	2	2
ELECTRIC WATER COOLER	1	1	1	0	0	1	1
MOP SINK	1	2.25	2.25	2.25	2.25	3	3
			<b>9.75 FU</b>		<b>3.75 FU</b>		<b>11 FU</b>

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

**PLUMBING FIXTURE BRANCH PIPING SCHEDULE**

FIXTURE	WASTE	VENT	CU	HW
WATER CLOSET (TANK TYPE)	4"	2"	1/2"	--
LAVATORY	1-1/4"	1-1/4"	1/2"	1/2"
ELECTRIC WATER COOLER (BI-LEVEL)	1-1/2"	1-1/2"	1/2"	--
FLOOR DRAIN	2"	2"	--	--
MOP BASIN	2"	2"	1/2"	1/2"

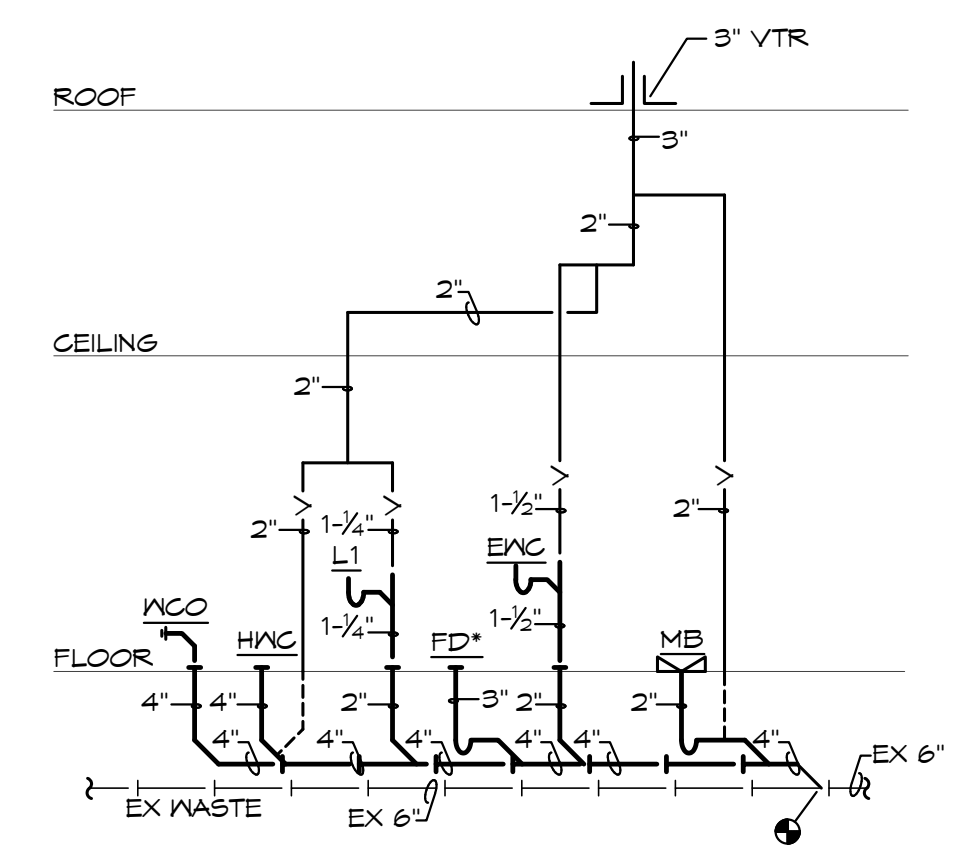
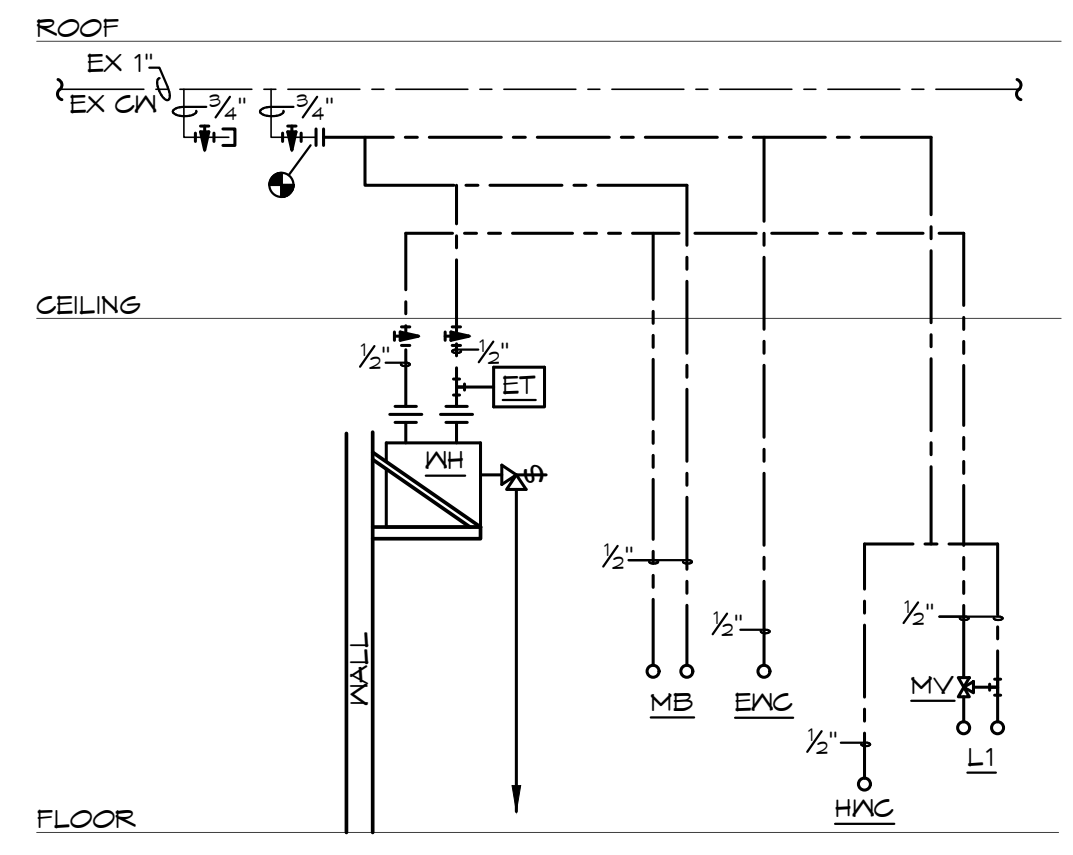
NOTE: INDIVIDUAL VENTS FOR FIXTURES ON PLANS AND RISER DIAGRAMS HAVE BEEN INCREASED WHERE HORIZONTAL VENT LENGTH IS IN EXCESS OF THE MAXIMUM DISTANCE INDICATED BY THE CODE.

**PIPE HANGER SCHEDULE**

PIPE MATERIAL	MAXIMUM HANGER SPACING	HANGER ROD DIAMETER
ABS (All sizes)	4'	3/8"
PVC (All Sizes)	4'	3/8"
CPVC, 1 inch and smaller	3'	1/2"
CPVC, 1-1/4 inches and larger	4'	1/2"
Cast Iron (All Sizes)	5'	5/8"
Cast Iron (All Sizes) with 10 foot length of pipe	10'	5/8"
Copper Tube, 1-1/4 inches and smaller	6'	1/2"
Copper Tube, 1-1/2 inches and larger	10'	1/2"
Steel, 3 inches and smaller	12'	1/2"
Steel, 4 inches and larger	12'	5/8"
Pex, 1" and below without support channel	32"	3/8"
Pex, 1-1/4" and above without support channel	48"	3/8"
Pex 3/4" and below with support channel	6'	3/8"
Pex 1" and above with support channel	8'	3/8"

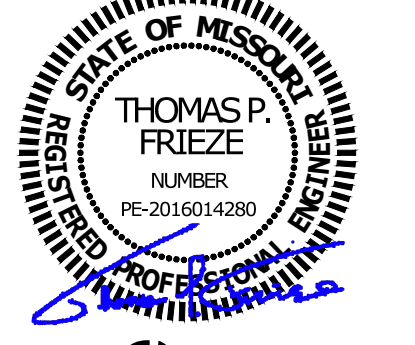
**PEX PIPING REQUIREMENTS**

PIPE SIZES GIVEN ON THE DRAWINGS ARE NOMINAL COPPER PIPE SIZE. IF PEX PIPING IS USED, INCREASE PEX PIPING ONE SIZE ABOVE LISTED SIZES AS REQUIRED TO EQUAL OR EXCEED COPPER PIPE INSIDE DIAMETER.



**PLUMBING RISER DIAGRAMS**  
SCALE: NONE

4/20/2023



a tenant finish for  
**Rocktops Stone and Granite**  
2888 NE Independence Avenue  
Lee's Summit, Missouri 64064

date 4.20.23  
drawn by TPF/BMH  
checked by EK/DS  
revisions


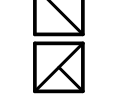

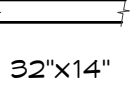

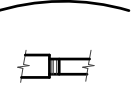
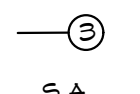


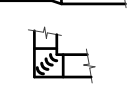
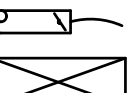


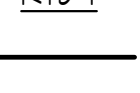









sheet number  
**P2.0**  
drawing type permit  
project number 23087

4301 Indian Creek Parkway  
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BC PROJECT #: 23249 PE COA #200903629  
MISSOURI

BC ENGINEERS INCORPORATED  
5720 Reeder Sharrone, KS 66203 (813)262-1772

**MECHANICAL SYMBOLS**

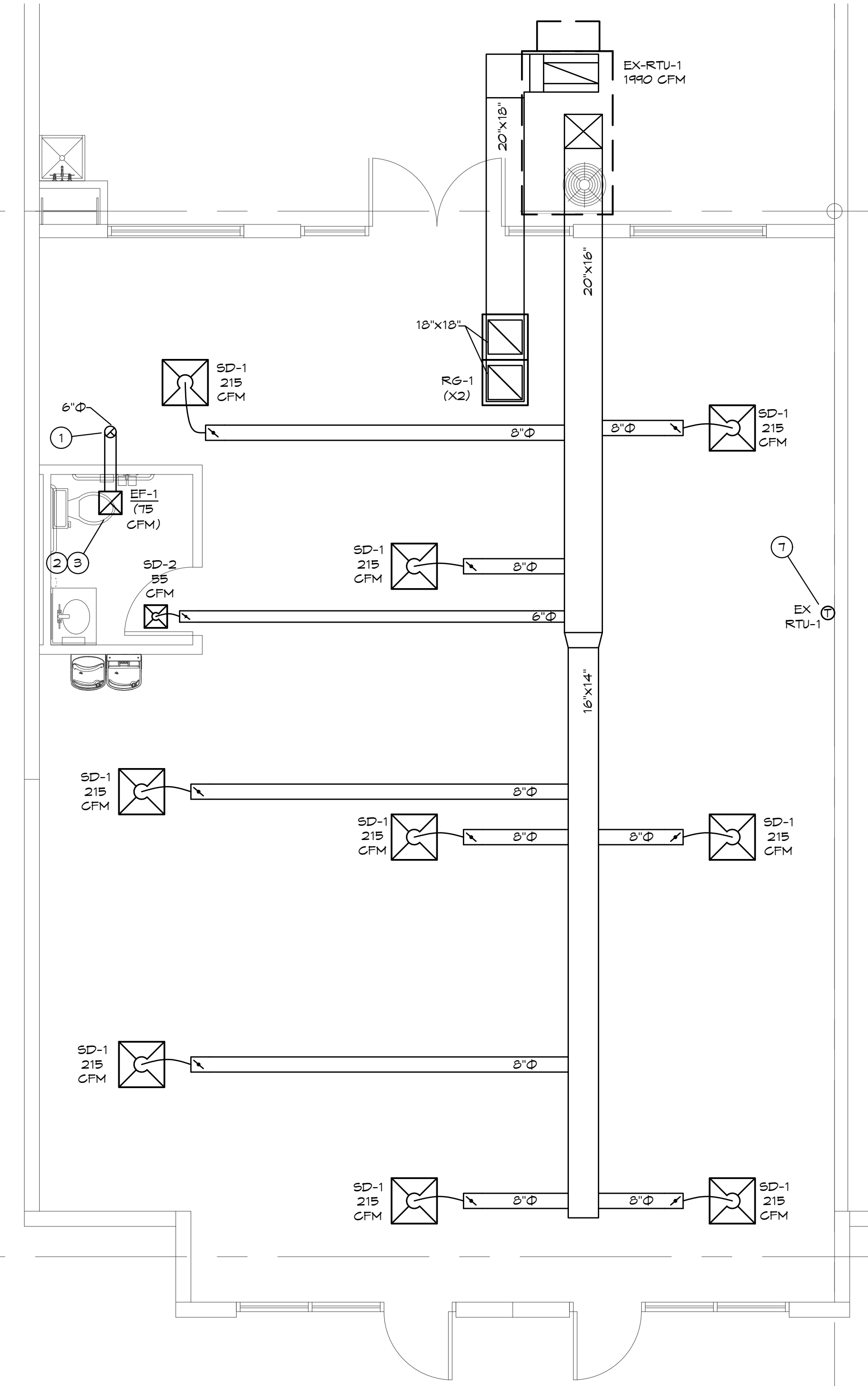
-  NEW SUPPLY DIFFUSER
-  NEW RETURN AIR GRILLE
-  EXHAUST GRILLE/FAN
-  THERMOSTAT, MOUNTED AT 48" AFF
-  NEW DUCTWORK
-  32"x14" SIZE OF RECTANGULAR DUCT
-  6"φ SIZE OF ROUND DUCT
-  FLEXIBLE DUCTWORK
-  FLEXIBLE CONNECTION TO FAN
-  FLOOR PLAN NOTE DESIGNATION
-  S.A. SUPPLY AIR
-  R.A. RETURN AIR
-  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
-  RTU-1 SCHEDULED MECHANICAL EQUIPMENT
-  EXISTG DUCT TO REMAIN
-  EXISTG DUCT TO BE REMOVED
-  EXISTING FLEXIBLE DUCTWORK

**MECHANICAL GENERAL NOTES:**

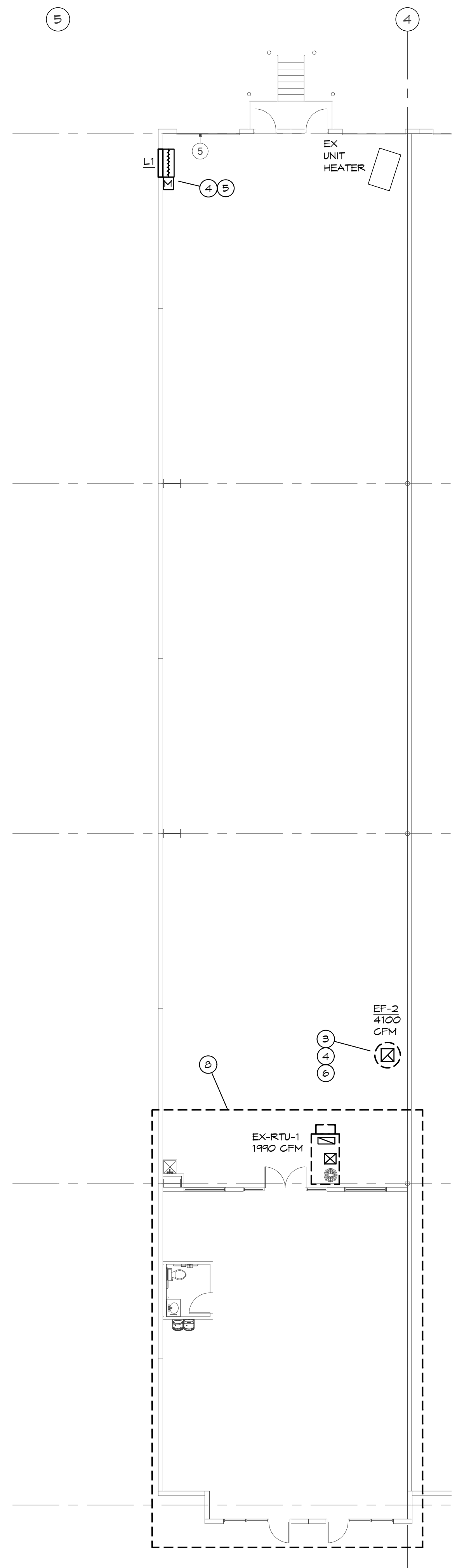
1. COORDINATE ALL WORK WITH OTHER TRADES AND EXISTING CONDITIONS AS REQUIRED TO PROPERLY INSTALL ALL SYSTEMS AS INTENDED, WITHIN THE CONFINES OF THE SPACES AVAILABLE, AND WITHOUT INTERFERENCES.
2. THIS CONTRACTOR SHALL PERFORM ALL WORK INDICATED AND/OR AS REQUIRED FOR THE PROPER INSTALLATION AND OPERATION 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.

**MECHANICAL PLAN NOTES:**

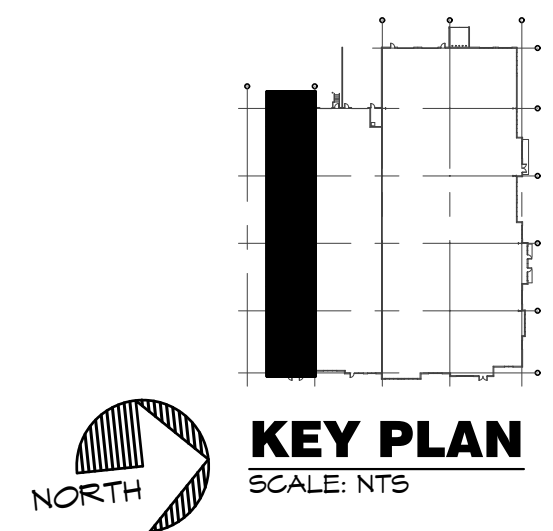
- ① PROVIDE WEATHER HEAD CAP WITH BACKDRAFT DAMPER FOR EXHAUST FAN. SEAL PENETRATIONS WEATHERTIGHT.
- ② SUPPORT FAN FROM STRUCTURE AS REQUIRED BY THE MANUFACTURER.
- ③ CUT EXISTING ROOF AND FLASH INTO ROOF AS REQUIRED. ALL ROOFING WORK SHALL BE PERFORMED BY BUILDING OWNER'S ROOFING CONTRACTOR (AT THIS CONTRACTOR'S EXPENSE) TO MAINTAIN EXISTING ROOF WARRANTY. VERIFY APPROVED ROOFING CONTRACTOR WITH BUILDING OWNER PRIOR TO PERFORMING WORK.
- ④ EF-2 & L-1, SHALL BE CONTROLLED TOGETHER. STARTER SHALL HAVE ON/OFF MODES.
- ⑤ NORMALLY CLOSED MOTORIZED DAMPER, TO OPEN WHEN EF-2 STARTS. COORDINATE WITH E.C.
- ⑥ MAINTAIN 10' CLEARANCE FROM ALL OUTDOOR AIR INTAKES.
- ⑦ RELOCATE EXISTING THERMOSTAT TO LOCATION SHOWN. MOUNT THERMOSTAT AT 48" AFF.
- ⑧ REFER TO ENLARGED MECHANICAL PLAN ON THIS SHEET FOR CONTINUATION.



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



**MECHANICAL FLOOR PLAN**  
SCALE: 3/32" = 1'-0"



**KEY PLAN**  
SCALE: NTS

4/20/2023

STATE OF MISSOURI  
REGISTERED PROFESSIONAL ENGINEER  
THOMAS P. FRIEZE  
LICENSE NUMBER: PE-2015014280

a tenant finish for  
**Rocktops Stone and Granite**  
2888 NE Independence Avenue  
Lee's Summit, Missouri 64064

date: 4.20.23  
drawn by: TPF/BMH  
checked by: EK/DS  
revisions: 

sheet number  
**M1.0**  
drawing type: permit  
project number: 23087

EXISTING ROOFTOP UNIT SCHEDULE																				
MARK	MFR	MODEL NO.	NOM. TONS	EVAP. CFM	EXT. STATIC P. IN. WG. (NOTE 2)	COOLING				HEATING (GAS)		ELECTRICAL			MINIMUM OUTDOOR AIR (CFM)	TOTAL WEIGHT (LBS)	SEER /EER	FREON	REMARKS	
						TOTAL BTUH	SENS. BTUH	AMB.	EVAP. EAT DB/WB	BTUH INPUT	BTUH OUTPUT	VOLT./Φ./HZ	BLOWER MOTOR	MIN. MCA (AMPS)						MIN. MOCF (AMPS)
EX RTU-1	LENNOX	K&B060S4B	5	1,990	1.0	59,200	44,400	105	80/67	150,000	120,000	480/3/60	1 HP	14	20	165	925	14.0/11.8	R-410a	1

NOTES: 1. VERIFY EXISTING UNIT IS IN PROPER WORKING CONDITION. REPAIR OR REPLACE AS REQUIRED. CONTRACTOR TO PERFORM PREVENTATIVE MAINTENANCE PER THE PREVENTATIVE MAINTENANCE CHECK-UP LIST.

OUTDOOR AIR CALCULATIONS										
UNIT	Area (sqft)	OCCUPANCY CLASSIFICATION	Occupant Density #/1000 sqft	People outdoor airflow rate in breathing zone, (Rp) cfm/person	Area outdoor airflow rate in breathing zone, (Ra) cfm/sqft	Exhaust airflow rate cfm/sqft	Breathing zone outdoor airflow (Vbz)	Zone air distribution effectiveness (Ez)	Zone outdoor airflow (cfm)	
EX RTU-1	1553	Office spaces	5	5	0.06		132	0.8	165	
	47	Toilet rooms public	0	0	0	50%	0	0.8	0	
									Total	165
WAREHOUSE	5265	Warehouses	0	0	0.06		316	0.8	395	
									Total	395

- ALL EXISTING HVAC UNITS SHOULD HAVE A PREVENTATIVE MAINTENANCE CHECK-UP TO INCLUDE THE FOLLOWING CRITERIA
- CHANGE ALL FILTERS.
  - CLEAN ALL CONDENSATE DRAIN PANS AND FLUSH ALL CONDENSATE DRAIN LINES.
  - CLEAN ALL EVAPORATOR AND CONDENSER COILS WITH A NON-ACID CLEANER.
  - CHECK REFRIGERANT CHARGE (GAUGES OR RETURN/SUPPLY TEMPERATURE VARIANCE).
  - PROVIDE COMPLETE LUBRICATION OF ALL SHAFTS AND BEARINGS THAT HAVE LUBRICATION ZERKS.
  - THE REPLACEMENT OF ALL BELTS, HOSES AND FABRIC/RUBBER COATED ITEMS THAT ARE SUBJECT TO WEAR.
  - CHECK AMPS OF THE INDOOR, OUTDOOR MOTORS, AND COMPRESSORS
  - TURN UNIT POWER OFF - TIGHTEN ALL ELECTRICAL CONNECTIONS, CONTACTORS, ETC.
  - EXAMINE AND REPAIR ALL ELECTRICAL WIRING, CONTROLS, STARTERS, RELAYS, CAPACITORS AND LIKE ITEMS THAT TEND TO DETERIORATE OVER TIME OR BECOME NON-OPERATIONAL. THIS INCLUDES SMOKE DETECTORS.
  - GREASE ALL FITTINGS
  - CHECK DUCTWORK CONNECTIONS AND REPAIR AS NEEDED.
  - NOTIFY GENERAL CONTRACTOR OF ANY REQUIRED PARTS OR REPAIRS NOT INCLUDED IN THIS LIST. ALL UNITS SHALL BE FUNCTIONING AND COOLING PROPERLY AT COMPLETION OF JOB.
  - CHECK THE ECONOMIZER (IF EQUIPPED) FOR PROPER FUNCTION AND CORRECT OPERATION OF THE SYSTEM WHEN A CALL FOR COOLING COMES FROM THE THERMOSTAT. REPAIR AND ADJUST AS NEEDED.
  - VERIFY ANY WORK REQUIRED BY THE LANDLORD PRIOR TO BID.
  - ALL FINDINGS AND VALUES TO BE NOTED AND PROVIDED TO TENANT'S CONSTRUCTION MANAGER & OR TENANT'S MAINTENANCE DIRECTOR.

EXHAUST FAN SCHEDULE										
MARK	MFR	MODEL	CFM	EXTERNAL STATIC P. IN. WG.	RPM	ELECTRICAL		FAN TYPE	CONTROLS	NOTES
						VOLT./Φ./HZ	PWR			
EF-1	COOK	6C-12B	75	0.1	750	120/1/60	29 W	CEILING EXH.	LIGHT SWITCH	1
EF-2	COOK	210 ACEB	4,100	0.2	772	120/1/60	0.75 HP	ROOF EXH.	SWITCH	2

- NOTES: 1. PROVIDE CEILING GRILLE, INTEGRAL BACK DRAFT DAMPER, VARI-SPEED CONTROLLER (NEAR FAN AND ABOVE CEILING), FACTORY MEANS OF DISCONNECT AND WEATHER HEAD.  
2. PROVIDE INSULATED 18" HIGH (AT LOWEST POINT) PREFABRICATED ROOF CURB, DISCONNECT SWITCH, BACKDRAFT DAMPER, BIRD SCREEN, UNIT MOUNTED VARIABLE SPEED CONTROLLER.

LOUVER SCHEDULE					
MARK	MFR	MODEL	FRAME	SIZE	NOTES
L-1	RUSKIN	ELF6375DX	STD	48"x36"	1,2,3

- NOTES: 1. PROVIDE WITH BIRD SCREEN.  
2. ARCHITECT TO SELECT COLOR.  
3. PROVIDE 120V, MOTORIZED DAMPER, NORMALLY CLOSED.

DIFFUSER SCHEDULE									
MARK	MFR	MODEL	BORDER TYPE	NECK SIZE	FACE SIZE	FINISH	DAMPER	ACCESSORIES	NOTES
SD-1	TITUS	TMS	3	8"Φ	24"x24"	WHITE	-	-	-
SD-2	TITUS	TMS	3	6"Φ	12"x12"	WHITE	-	-	-
RG-1	TITUS	PAR	3	18"x18"	24"x24"	WHITE	-	-	-

4301 Indian Creek Parkway  
Cheverly Park, KS 66517  
phone: 913.451.6360  
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BC PROJECT #: 23249  
MISSOURI PE COA #2009003629

5720 Freeder Shannone, KS 66603 (913)262-1772

**BC ENGINEERS INCORPORATED**



4/20/2023

a tenant finish for

**Rocktops Stone and Granite**

2888 NE Independence Avenue  
Lee's Summit, Missouri 64064

date 4.20.23  
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**M2.0**

drawing type permit  
project number 23087





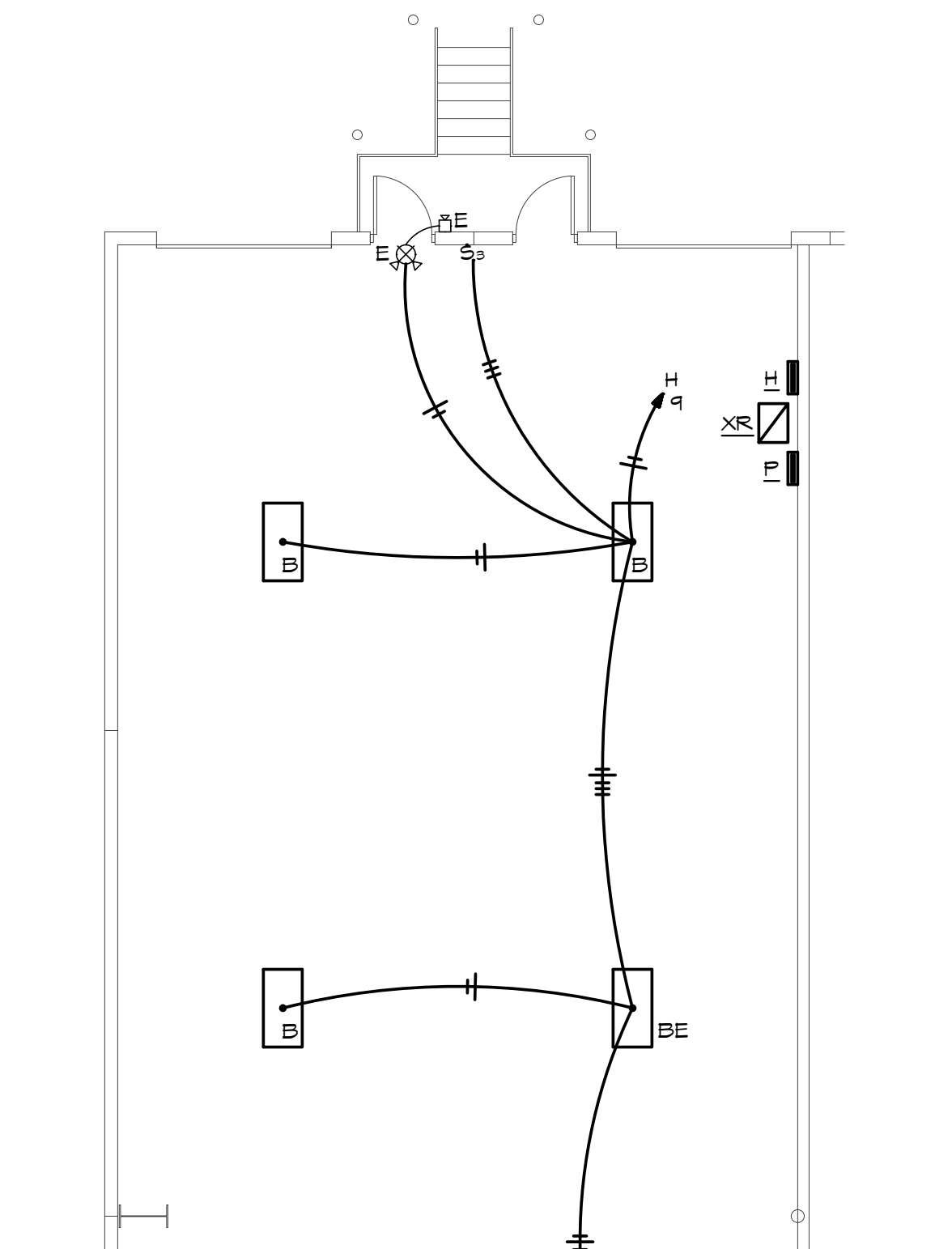
- PLAN NOTES:**
- JUNCTION BOX WITH TOGGLE DISCONNECT FOR POWER TO BUILDING SIGNAGE. VERIFY EXACT LOCATION AND REQUIREMENTS WITH SIGNAGE VENDOR. MAKE FINAL CONNECTION TO SIGNAGE. ROUTE CIRCUIT TO PANEL VIA INTERMATIC #ET2TSC OR EQUAL - 365 DAY PROGRAMMABLE TIMECLOCK. LOCATED TIME CLOCK ADJACENT TO PANEL.
  - MAKE CONNECTION TO WATER HEATER AND RE-CIRCULATION PUMP(S) AS REQUIRED) PER MANUFACTURERS INSTRUCTIONS.
  - MAKE CONNECTION TO OVERHEAD DOOR OPENERS PER MANUFACTURERS INSTRUCTIONS.
  - 2'X4'X3/4" PLYWOOD TELEPHONE BACKBOARD WITH SIEMENS RECBS-B GROUND BAR AND #6CU BOND TO BUILDING ELECTRODE SYSTEM. PROVIDE 2' TO EXISTING BUILDING DEMARCATION. VERIFY ROUTING 4 DISTANCE.

PANEL: H		VOLTS: 277/480V		PH: 3Ø		WIRE: 4W		LOCATION: NY1 CORNER WH			MOUNTING: SURFACE					
BUS: 100A		MAIN: 100A MLO		IG: 14,000		RMS SYM AMPS					FEEDER: SEE RISER DIAGRAM					
CKT	DESCRIPTION	AMPS	POLE	WIRE	ØA	ØB	ØC	ØA	ØB	ØC	WIRE	POLE	AMPS	DESCRIPTION	CKT NO	
1					3,750			3,400							2	
3	EX RTU-1	20	3	12				3,200				6	3	50	PANEL P VIA XFMR	4
5								3,450							6	
7	SHOWROOM LTS	20	1	12	Ø55								1	20	SPARE	8
9	WAREHOUSE LTS	20	1	12	1,000								1	20	SPARE	10
11	SPARE	20	1										1	20	SPARE	12
13	BUSSED SPACE														BUSSED SPACE	14
15	BUSSED SPACE														BUSSED SPACE	16
17	BUSSED SPACE														BUSSED SPACE	18
19	BUSSED SPACE														BUSSED SPACE	20
21	BUSSED SPACE														BUSSED SPACE	22
23	BUSSED SPACE														BUSSED SPACE	24
25	BUSSED SPACE														BUSSED SPACE	26
27	BUSSED SPACE														BUSSED SPACE	28
29	BUSSED SPACE														BUSSED SPACE	30

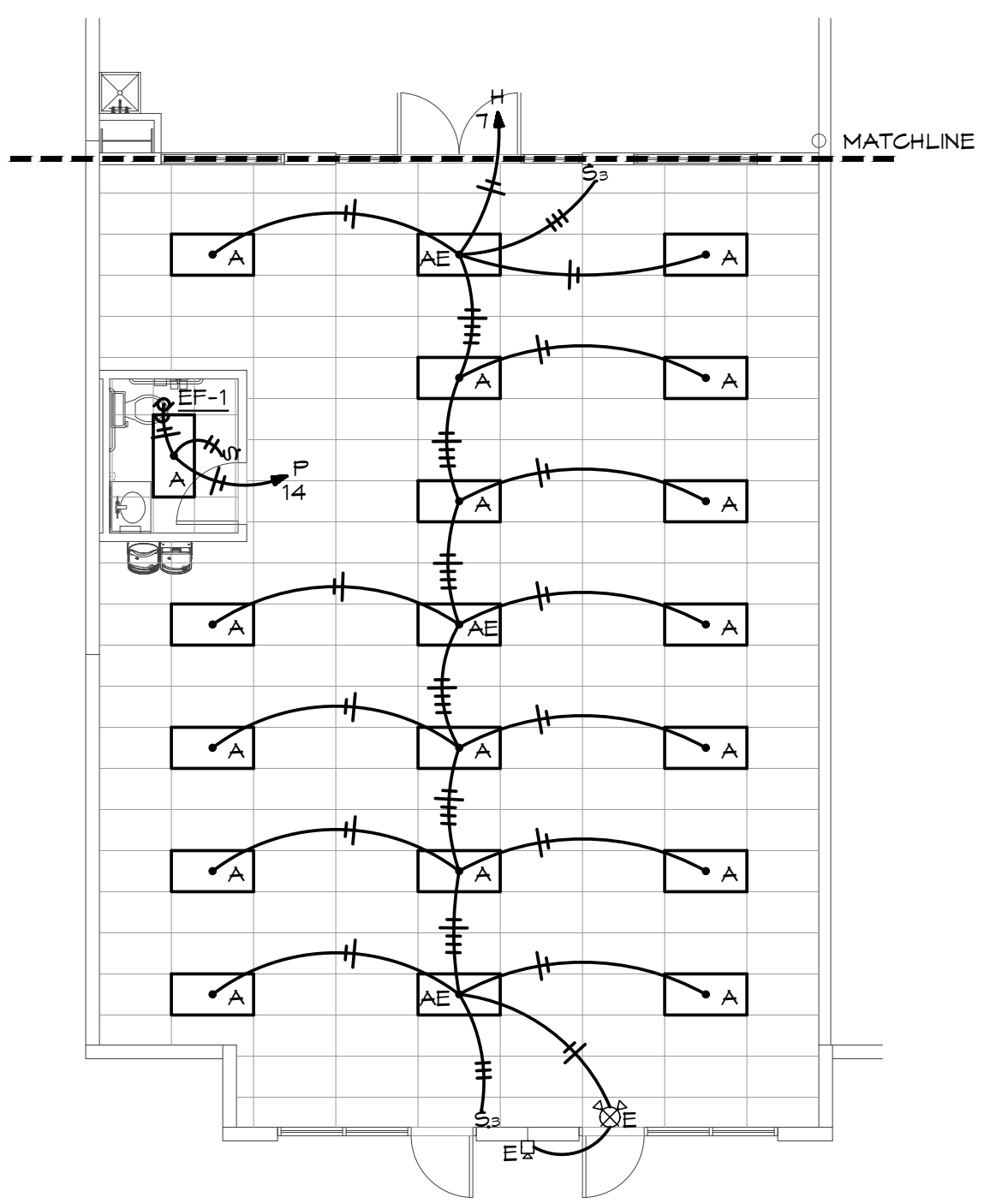
NOTES:  
4,805 5,150 3,450 3,400 3,200 3,456  
8,105 9,030 9,406  
TOTAL CONNECTED LOAD: 27,141 VA  
NEG DEMAND LOAD: 20,205 VA  
DEMAND AMPS @ 480 VOLT / 3Ø: 33.93 A

PANEL: F		VOLTS: 120/208V		PH: 3Ø		WIRE: 4W		LOCATION: NY1 CORNER WH			MOUNTING: SURFACE								
BUS: 125A		MAIN: 100A MCB		IG: 10,000		RMS SYM AMPS					FEEDER: SEE RISER DIAGRAM								
CKT	DESCRIPTION	AMPS	POLE	WIRE	ØA	ØB	ØC	ØA	ØB	ØC	WIRE	POLE	AMPS	DESCRIPTION	CKT NO				
1	BUILDING SIGNAGE	20	1	12	200			800				12	2	20	OVERHEAD DOOR OPERNER	2			
3	SHOW ROOM REGS	20	1	10				720								4			
5	SHOW ROOM REGS	20	1	10						720				20	OVERHEAD DOOR OPERNER	6			
7	RESTROOM/DF REGS	20	1	10	500			800								8			
9	WAREHOUSE REGS	20	1	10	1,000			180				12	1	20	ROOF REG	10			
11	WAREHOUSE REGS	20	1	8				1,000				6	1	25	EF-2	12			
13	WATER HEATER (HL)	20	1	6	1,500			100				12	1	20	RESTROOM LT/FAN	14			
15	PHONEBOARD	20	1	12				500								16			
17	SPARE	20	1											1,200	12	1	20	EX UNIT HEATER	18
19	SPARE	20	1													1	20	SPARE	20
21	SPARE	20	1													1	20	SPARE	22
23	SPARE	20	1													1	20	SPARE	24
25	SPARE	20	1													1	20	SPARE	26
27	SPARE	20	1													1	20	SPARE	28
29	SPARE	20	1													1	20	SPARE	30
31	BUSSED SPACE														BUSSED SPACE	32			
33	BUSSED SPACE														BUSSED SPACE	34			
35	BUSSED SPACE														BUSSED SPACE	36			
37	BUSSED SPACE														BUSSED SPACE	38			
39	BUSSED SPACE														BUSSED SPACE	40			
41	BUSSED SPACE														BUSSED SPACE	42			

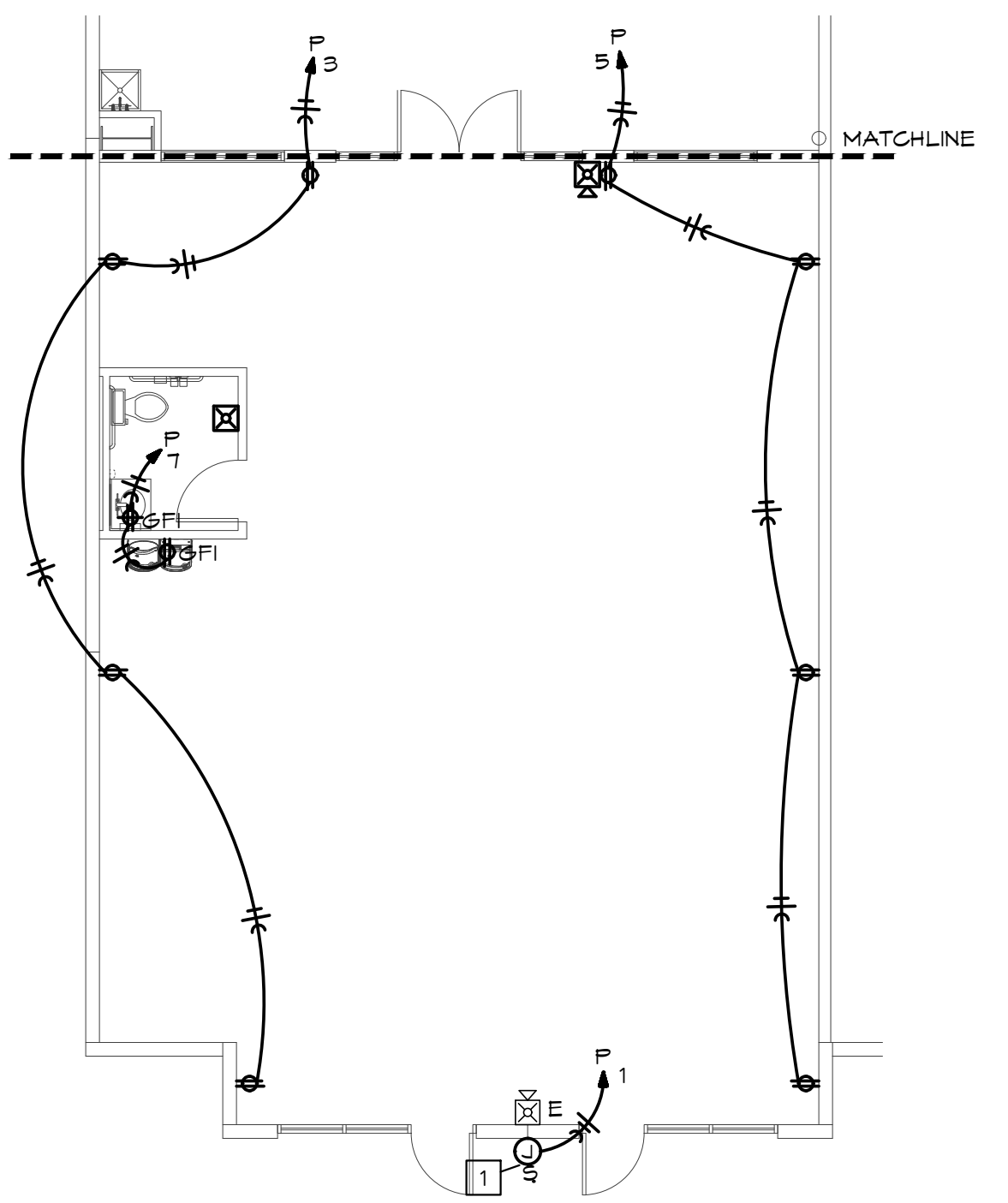
NOTES:  
2,200 2,300 1,800 1,100 900 3,656  
3,400 3,200 3,456  
TOTAL CONNECTED LOAD: 12,636 VA  
NEG DEMAND LOAD: 13,036 VA  
DEMAND AMPS @ 200 VOLT / 3Ø: 36.18 A



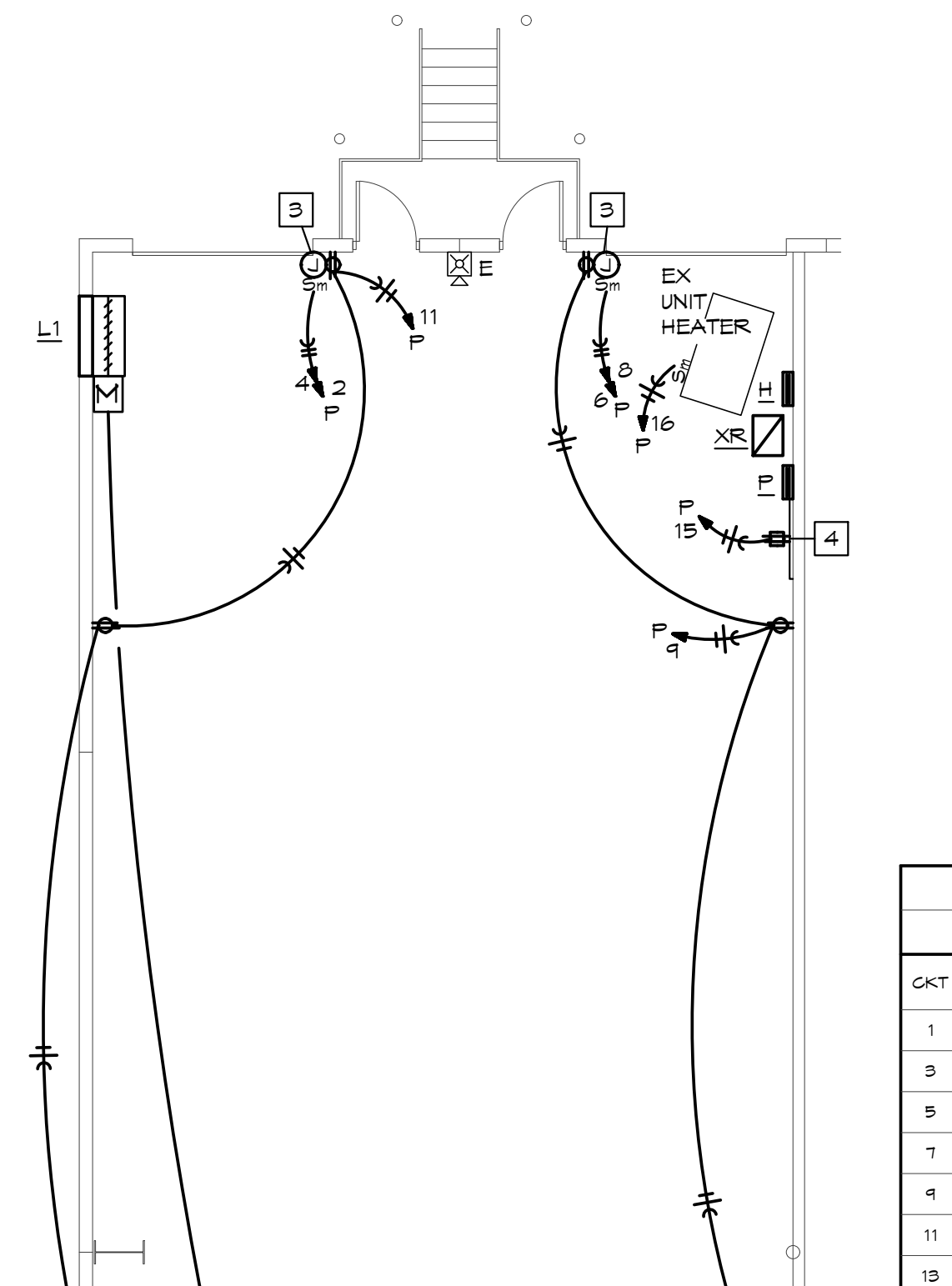
**PARTIAL ELECTRICAL LIGHTING PLAN - WAREHOUSE (WEST)**  
SCALE: 1/8" = 1'-0"



**PARTIAL ELECTRICAL LIGHTING PLAN - SHOWROOM (EAST)**  
SCALE: 1/8" = 1'-0"



**PARTIAL ELECTRICAL POWER PLAN - SHOWROOM (EAST)**  
SCALE: 1/8" = 1'-0"



**PARTIAL ELECTRICAL POWER PLAN - WAREHOUSE (WEST)**  
SCALE: 1/8" = 1'-0"