

MAIN STREET BUILDING IMPROVEMENTS

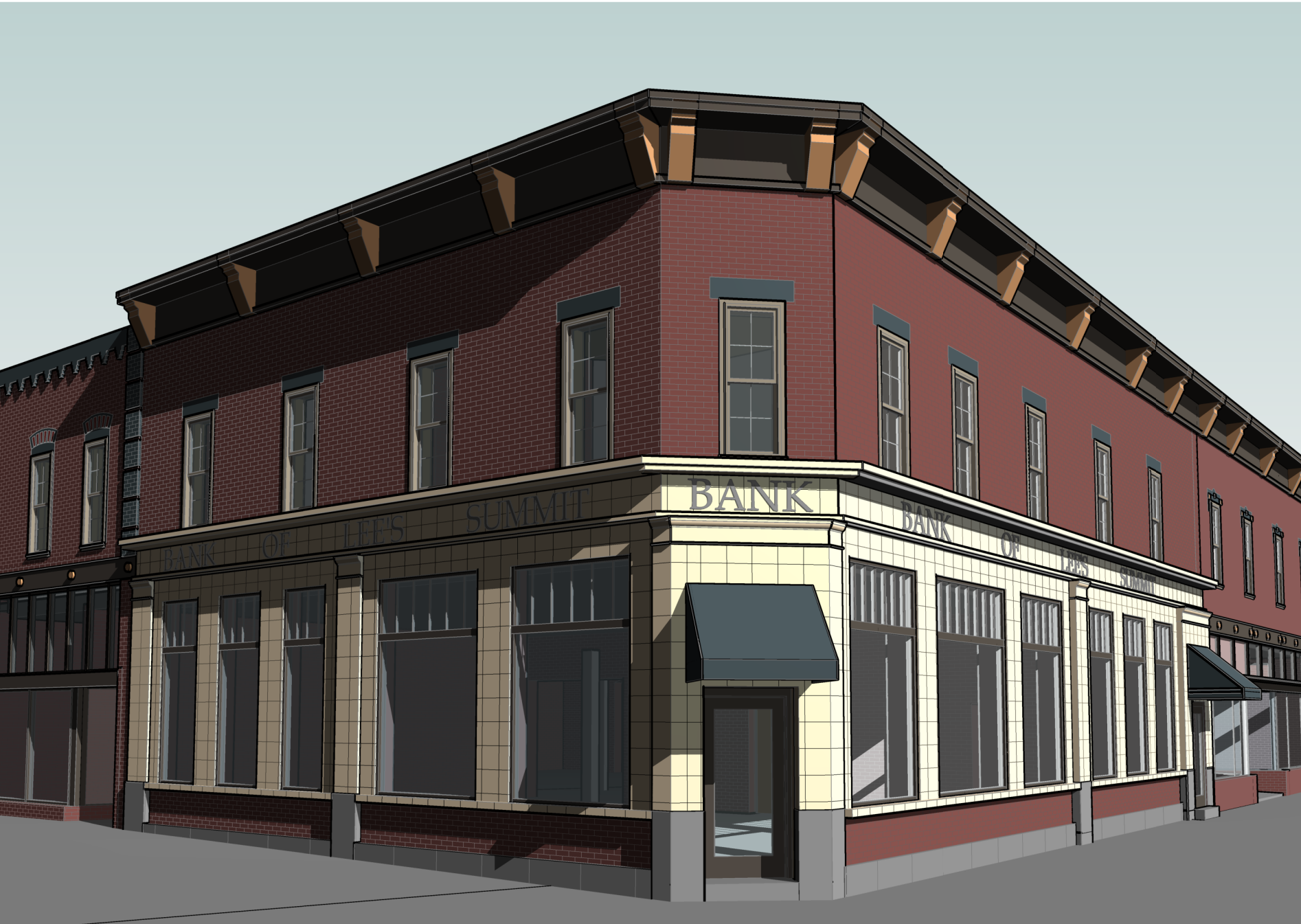
230 SW MAIN ST.
LEE'S SUMMIT, MO 64063

PERMIT DOCUMENTS

21 APRIL, 2022

COLLINS WEBB #: 21121

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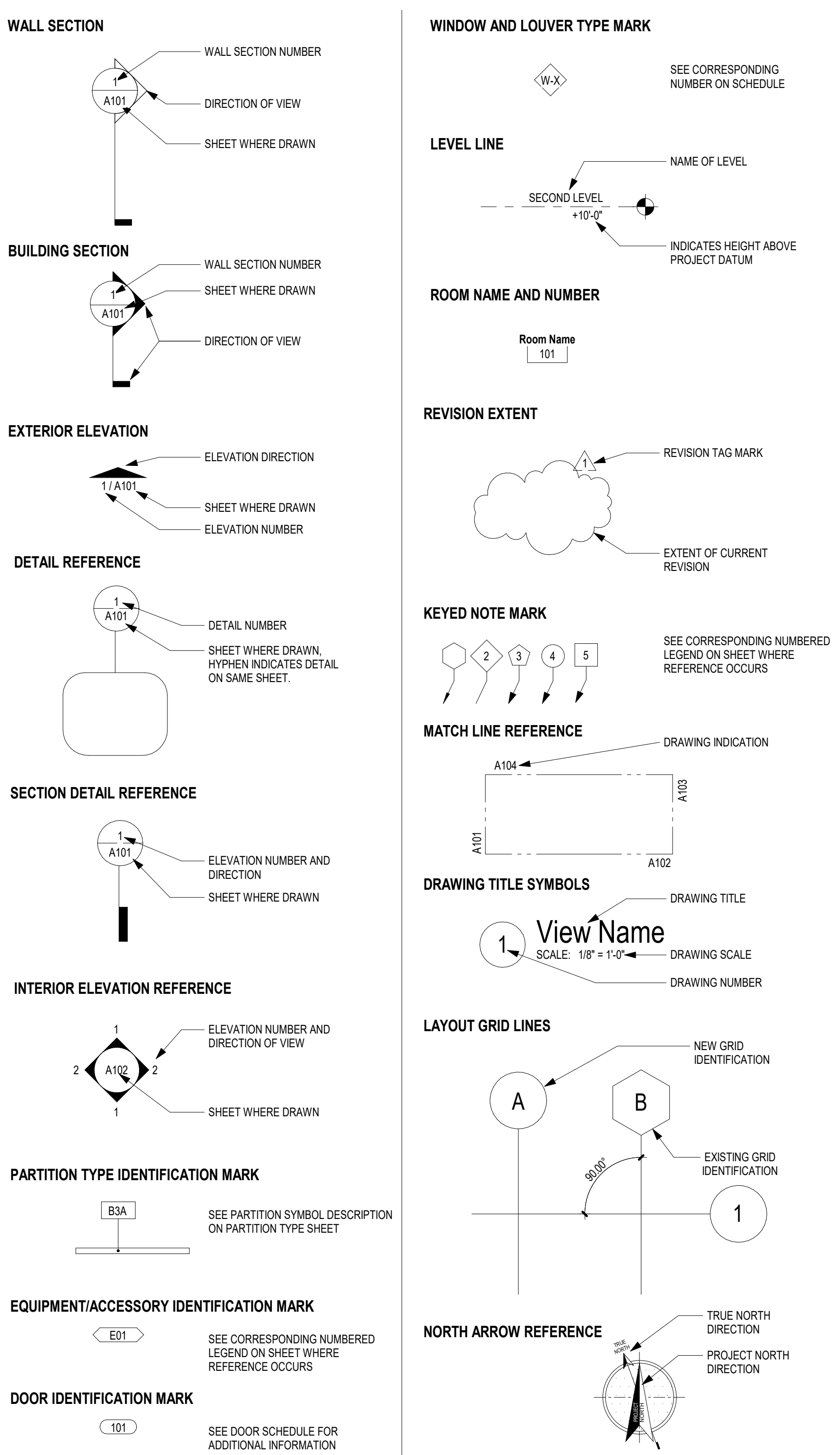
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ARCHITECTURAL ABBREVIATIONS

A		E		I		P		S	
AB	AND ANGLE	EA	EAST EACH	IN	INSIDE DIAMETER	PA	PART	SPKLR	SPRINKLER
AC	ANCHOR BOLT	EDR	EQUIPMENT DRAWING	INCH	INCH	PBD	PARTIAL	SPKR	SPEAKER
ACCU/ACS	ACOUSTICAL	EGJ	EDGE GUARD	INCL	INCLINASCENT	PBX	PARTICLEBOARD	SQ	SQUARE
ACT	ACOUSTICAL CEILING TIE	EJF	EXTERIOR INSULATION FINISH SYSTEM	INCLD	INCLUDING INFORMATION	PBY	PRIVATE TELEPHONE EXCHANGE	SS	SANITARY SEWER
ACP	ACCELERATING CEILING PANEL	EPJ	EXPANSION JOINT	INFC	INSULATION	PCF	POUNDS PER CUBIC FOOT	SSK	SERVICE SINK
ACS PNL	ACCESS PANEL	EPL	ELEVATION	INSUL	INSULATION	PCI	POUNDS PER CUBIC INCH	SST	STAINLESS STEEL
AD	AREA DRAWING	ELAST	ELASTOMER	INTR	INTERIOR	PERF	PERFORATED	ST	STREET
ADD	ADDITIONAL	ELEC	ELECTRICAL	INVT	INVERT	PERM	PERIMETER	STATION	STATION
ADH	ADHESIVE	ELEV	ELEVATOR	IVT	INTRAVENOUS TRACK	PERM	PERMANENT	STAG	STAGGERED
ADJ	ADJUSTABLE	EMER	EMERGENCY			PERP	PERPENDICULAR	STC	STANDARD TRANSMISSION COEFFICIENT
ADJACENT		ENCL	ENCLOSURE	J		P	POINT OF INTERSECTION	STL	STEEL
AF	ABOVE FINISH FLOOR	ENGR	ENGINEER			PL	PLASTIC LAMINATE	STOR	STORAGE
AFG	ABOVE FINISH GRADE	EOS	EDGE OF SLAB	JAN	JANITOR	PLAM	PLASTIC LAMINATE	STRUCT	STRUCTURAL
AFS	ABOVE FINISH SLAB	EPB	ELECTRICAL PANEL	JST	JOIST	PLB	PLUMBING	SEL-TAPPING STEEL	
AGGR	AGGREGATE	EPJ	ELECTRICAL PANEL BOARD	JOINT		PLF	POUNDS PER LINEAR FOOT	SUSP	SUSPENDED
ALUM, AL	ALUMINUM	EPOM	ETHYLENE PROPYLENE DIENE MONOMER	K		PLYWD	PLYWOOD	SUSP CLG	SUSPENDED CEILING
ALV	ALTERNATE	EQ	EQUAL			PNEU	PNEUMATIC	SVC	SERVICE
ANOD	ANODIZED	EQL SP	EQUALLY SPACED			PNL	PANEL	SWE	SOUTHWEST
APPROX	APPROXIMATE(LY)	EQUIV	EQUIVALENT	KG	KILOGRAM	PNL BD	PANEL BOARD	SYMM	SYMMETRICAL
ARCH	ARCHITECTURAL	ES	ESCALATOR	KITCHEN		PNT, P	PANT	SYST	SYSTEM
ASPH	ASPHALT	EST	ESTIMATE	KPL	KICK PLATE	PORT	PORTABLE	T	
AT	AVERAGE	EXC	ELECTRIC WATER COOLER	KS	KNEE SPACE	PP	PUSH PLATE	T	
AVG	AVERAGE	EXH	EXHAUST	L		PR	PARTS PER MILLION	T	
		EXT	EXISTING			PREP	PRECAST	TB	TREAD
		EXP	EXPANSION	L	LENGTH LONG	PREP	PREPARATION	T&G	TONGUE AND GROOVE
BB	BULLETIN BOARD	EXP JT	EXPANSION JOINT	LAB	LABORATORY	PREFAB	PREFABRICATED	TC	TOP OF CONCRETE, TOP OF CURB
BD	BOARD	EXT	EXTENSION	LAM	LAMINATE, LAMINATION	PRKG	PARKING	TD	TRENCH DRAIN
BTWN	BETWEEN	EX-BR	EXISTING BRICK	LAV	LAVATORY	PROJ	PROJECT	TEL	TELEPHONE
BTUM	BUTYMLIN			LB	LOAD	PROP	PROPERTY	TEMP	TEMPORARY
BLK / BLKG	BLOCK / BLOCKING			LED	LED LIGHT EMITTING DIODE	PSF	POUNDS PER SQUARE FOOT	THERM	THERMAL
BLDG	BUILDING	FF	FACE TO FACE	LF	LINEAR FOOT	PSI	POUNDS PER SQUARE INCH	TH	THICK, THICKNESS
BND	BOND	FA	FIRE ALARM	LN	LINEAR	PNT, PTD	PANT / PARTITION	THRES	THRESHOLD
BO	BOTTOM OF / BY OTHERS	FAS	FIRE ALARM STATION	LL	LEAD LINED	PTS	PNEUMATIC TIE STATION	THRU	THROUGH
BO	BOTTOM	FLAT BR	FLAT BAR	LP	LOW POINT	PVC	POLYVINYL CHLORIDE	TMPO GL	TEMPERED GLASS
BOS	BOTTOM OF STEEL	FUJ	FAN COIL UNIT	LT	LIGHT	PVG	PAVING	TOR	TOP OF RAILING
BRG	BEARING	FD	FLOOR DRAIN	LT WT	LIGHT WEIGHT	PVMT	PAVEMENT	TOT	TOTAL
BSMT	BASEMENT	FDC	FIRE DEPARTMENT CONNECTION	LVR	LOUVER	PWR	POWER	TOW	TOP OF STEEL
BUR	BUILT UP ROOFING SYSTEM	FDN	FOUNDATION					TP	TOP OF PAINTMENT
		FEC	FIRE EXTINGUISHER CABINET	M		Q		TPT	TOILET PAPER HOLDER
		FE	FIRE EXTINGUISHER			QT	QUARRY TILE	TRANS	TRANSPARENT
C		FF	FINISH FACE	M	METERS	QTR	QUARTER	TB	TELEPHONE TERMINAL BOARD
CAB	CABINET	FHC	FIRE HOSE CABINET	M	MACHINE	QTY	QUANTITY	TYP	TYPICAL
CAPT	CARPET	PHFEC	FIRE HOSE / FIRE EXTINGUISHER CABINET	MACH	MACHINE			TH	TOP OF WALL
CL	CAST IRON	FHM	FLAT HEAD MACHINE SCREW	MATL	MATERIAL			U	
CB	CATCH BASIN	FHS	FLAT HEAD WOOD SCREW	MATV	MASTER ANTENNA FEEDING SYSTEM			UC	UNDER COUNTER
CCR	CARD CONTROLLER	FHY	FIRE HYDRANT	MAX	MAXIMUM	R	RISER	UNF	UNFINISHED
CSWK	CIRCUIT	FW	FINISH FINISHED	MB	MACHINE BOLT	RA	RETURN AIR	UNJ	UNLESS OTHERWISE NOTED
CCTV	CUBICLE CURTAIN TRACK	FLAM	FLAMMABLE	MC	MEDICINE CABINET	RADJ	RADIUS	UNP	UNPUNCTURED
CCTV	CLOSED CIRCUIT TELEVISION	FLN	FLASHING	MDO	MEDIUM DENSITY OVERLAY	RB	RESILIENT BASE	UNP	UNPUNCTURED
CSP	CORNER GUARD	FLEX	FLEXIBLE	MECH	MECHANICAL	RCP	REFLECTED CEILING PLAN	WAS	WATER-RESISTANT POWER SUPPLY
CEM	CEMENT, CEMENTITIOUS	FLO	FLOOR	MED	MEDIUM	RECT	RECTANGLE	UR	URNAL
CE	CERAMIC	FLUR	FLUORESCENT	MET	METAL	RCT	RECTANGLE	UTIL	UTILITY
CT	CERAMIC TILE	FO	FACE OF	MFG	MANUFACTURE	RCT	RECTANGLE	V	
CL / CL	CENTER LINE	FRT	FIRE RETARDANT TREATMENT	MHS	MISCELLANEOUS	REF	REFERENCE	VAC	VACUUM
CLO	CEILING	FRZ	FREEZER	MH	MANIFOLD	REFR	REFRIGERATOR	VB	VALVE BOX
CLO	CLOSET	FSN	FOLDING SHOWER BENCH	MM	MINIMUM	REG	REGISTER	VCT	VINYL COMPOSITION TILE
CLO	CLOSET	FSTR	FASTENER	MIN	MINIMUM	RENF	REINFORCE (D) (ING) (MENT)	VERT	VERTICAL
CMU	CONCRETE MASONRY UNIT	FTG	FOOTING	MLD	MOLDING	REQD	REQUIRED	VIB	VIBRATION
CRS	COLD ROLLED SHEET CHANNEL	FURN	FURNITURE	MOD	MODULE, MODULAR	REQT	REQUIREMENT	VIT	VITREOUS
CW	COLD ROLLED SHEET CHANNEL	FXTR	FIXTURE	MOD	MODULE, MODULAR	RESIL	RESILIENT	VP	VENT PIPE
CW	COLD ROLLED SHEET CHANNEL			MTG	MOUNTING	RET	RETURN	VOL	VOLUME
CW	COLD ROLLED SHEET CHANNEL			MVB	MOVABLE	REVS	REVISION	VW	VINYL WALL COVERING
CW	COLD ROLLED SHEET CHANNEL			MULL	MULLION	RF	RESILIENT FLOORING	W	WEST
CW	COLD ROLLED SHEET CHANNEL					RH	RIGHT HAND	W	WEST
CW	COLD ROLLED SHEET CHANNEL					RHS	ROUND HEAD MACHINE SCREW	W	WEST
CW	COLD ROLLED SHEET CHANNEL					RHS	ROUND HEAD WOOD SCREW	W	WEST
CW	COLD ROLLED SHEET CHANNEL					RM	ROOM	W	WEST
CW	COLD ROLLED SHEET CHANNEL					RO	ROUND	W	WEST
CW	COLD ROLLED SHEET CHANNEL					RO	ROUND OPENING	W	WEST
CW	COLD ROLLED SHEET CHANNEL					ROW	ROUGH OF WAY	W	WEST
CW	COLD ROLLED SHEET CHANNEL					RWL	RAIN WATER LEADER	W	WEST
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CW	COLD ROLLED SHEET CHANNEL								

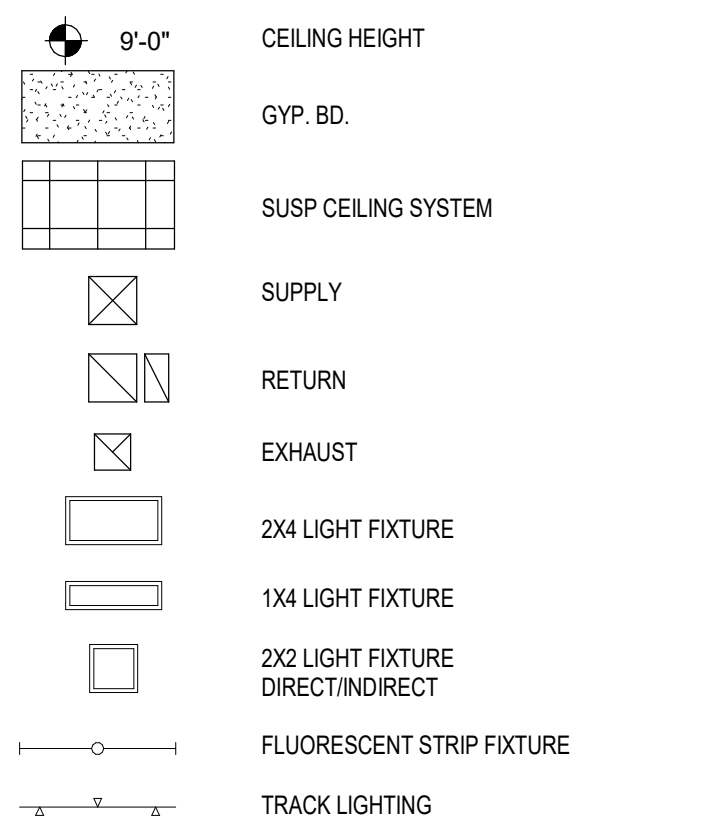
TYPICAL ARCHITECTURAL REFERENCE SYMBOLS



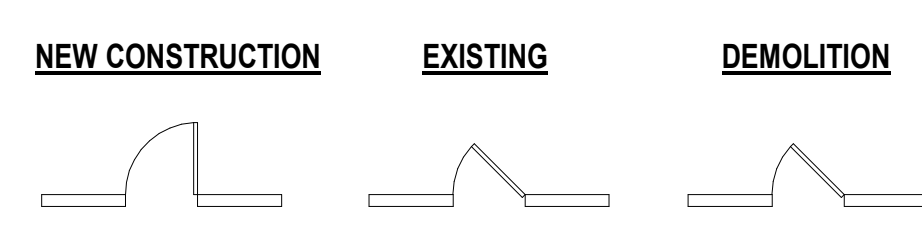
ARCHITECTURAL DIMENSIONING CONVENTIONS

- EXCEPT WHERE DIRECTED TO PLACE ITEMS OF THE ARCHITECTURAL DRAWING SHOWN, IT DOES NOT SCALE DRAWINGS FOR DIMENSIONAL INFORMATION.
2. ALL ELEMENTS OF THE DRAWINGS MAY NOT BE LOCATED TO EXACT SCALE. ALL DIMENSIONS REQUIRED ARE SHOWN (OR MAY BE DERIVED FROM THICKNESS AND/OR NOTED ON THE FLOOR PLANS, DETAIL PLANS, ELEVATIONS, SECTIONS, SCHEDULES, CONFIGURATION DETAILS, AND SPECIFICATION. SEE THE NOTES BELOW FOR DIMENSIONING CONVENTIONS USED ON THIS PROJECT.
3. EXCEPT WHERE SPECIFICALLY NOTED TO THE CONTRARY, ALL DIMENSIONS SHOWN ON THE ARCHITECTURAL DRAWINGS CONFORM TO THE FOLLOWING CONVENTIONS:
- A. DIMENSIONS UTILIZING THE "CENTERLINE" SYMBOL ARE MEASURED TO:
- STRUCTURAL OR DIMENSIONAL GRID LINES.
 - CENTELINE OF CONCRETE OR CONC. MASONRY UNIT WALLS [EXCLUSIVE OF FURNISH OR APPLIED FINISHES HAVING THICKNESS WHICH MAY BE ADDED TO SUCH WALLS] AT PARTITIONS FRAMED WITH METAL STUDS, REFER TO "PARTITION SCHEDULE" TO DETERMINE THE THICKNESS OF EACH PARTITION TYPE.
 - CENTELINE OF DOOR, WINDOW, OR LOUVER OPENING.
 - CENTELINE OF EQUIPMENT OR FURNITURE.
 - CENTELINE OF OTHER FEATURES AS INDICATED.
- B. REFER TO ABBREVIATIONS LEGEND FOR SYMBOL USED TO INDICATE CENTERLINE DIMENSION.
- C. DIMENSIONS UTILIZING THE "FACE OF" SYMBOL ARE MEASURED TO:
- FACE OF CONCRETE OR CONC. MASONRY UNIT WALL [EXCLUSIVE OF APPLIED FINISHES HAVING THICKNESS OR FURNISH WHICH MAY BE ADDED TO THE FACE OF SUCH WALLS].
 - FACE OF PARTITION ASSEMBLY [EXCLUSIVE OF ANY APPLIED FINISHES HAVING THICKNESS WHICH MAY BE ADDED TO SUCH WALLS] AS DETERMINED BY THE PARTITION SCHEDULE.
- UNLESS NOTED AS A "FACE OF FINISH" OR "CLEAR" DIMENSION (SEE NOTE E BELOW), DIMENSIONS ARE NOT MEASURED TO THE FACE OF APPLIED FINISH. REFER TO THE "PARTITION SCHEDULE" TO DETERMINE THE THICKNESS OF EACH PARTITION TYPE.
- INSIDE EDGE OF FINISHED DOOR OPENING. REFER TO THE DOOR SCHEDULE FOR ADDITIONAL DIMENSIONAL INFORMATION.
- D. DIMENSION OR WORK POINT AS INDICATED ON RELATED ARCH DETAIL PLANS, ELEVATION, LAYOUT OR CONFIGURATION DETAIL, OR CONSTRUCTION DETAIL.
- D. REFER TO ABBREVIATIONS LEGEND FOR SYMBOL USED TO INDICATE "FACE OF DIMENSION".
- E. WHERE "FACE OF FINISH" OR "CLEAR" DIMENSIONS ARE SPECIFICALLY NOTED, THE DIM IS MEASURED TO:
- FINISH FACES AT THE MOST NARROW OR CONSTRICTED PORTIONS OF SECTION OR DIMENSION IS SHOWN, WHEN THE DIMENSION OCCURS ACROSS AN OPEN SPACE. THIS CASE, A "FACE OF FINISH" DIMENSION IS EQUIVALENT TO A "CLEAR" DIMENSION.
 - FINISH FACES AT THE WIDEST OR MOST "EXPANSIVE" POINTS OF THE SECTION THE DIMENSION IS SHOWN WHEN THE DIMENSION OCCURS ACROSS AN OBJECT OR GROUP OF OBJECTS.
- F. WHERE "EDGE OF" DIMENSIONS ARE USED ON REFLECTED CEILING PLANS TO LOCATE CEILING GRID WORK POINTS, MEASURE DIMENSIONS TO:
- EDGE OF THE INDICATED CEILING AT THE FACE OF THE ADJACENT APPLIED FINISH MEASURED AT THE PLANE OF THE CEILING.
- NOTE 3 CONTINUED
- CAUTION: DUE TO THE POSSIBLE APPLICATION OF APPLIED FINISHES - THICKNESS OF WHICH MAY VARY - BETWEEN FLOOR AND CEILING AND IS NOT ACCOUNTED FOR (EXCEPT AS INDICATED BY "TOP" OR "CLEAR") BY THE DIMENSION SHOWN ON THE FLOOR PLANS - THE CONTRACTOR MUST ADJUST AS NECESSARY, THE FLOOR PLAN DIMENSIONS TO REFLECT THE ACTUAL DIMENSIONS FOUND AT PLANE OF CEILING.
- "EQUAL" DIM AT CEILING MEASURED AT GL PLANE
- TYPICAL DIM ON CEILING PLAN MEASURED TO FACE OF PTN
4. WHERE DIMENSIONS ARE NOT PROVIDED ON FLOOR PLANS TO LOCATE DOOR OPENINGS, APPLY THE FOLLOWING RULES, IN ORDER, TO DETERMINE THE LOCATION OF DOOR OPENINGS:
- A. DOOR OPENINGS MAY BE DIMENSIONED ON DRAWINGS OTHER THAN THE FLOOR PLANS. REFER TO THE SECTIONS, ELEVATIONS, DETAILS, AND DOOR SCHEDULE NOTES FOR ADDITIONAL DIMENSIONAL INFORMATION.
- B. WHERE THE HINGE-SIDE OF A DOOR IS SHOWN ADJACENT TO A WALL, LOCALS - PERPENDICULAR TO THE WALL IN WHICH THE DOOR OPENING OCCURS:
- AT DOORS OCCURRING IN METAL FRAMED GYPSUM BOARD PARTITIONS, LOCATE THE HINGE-SIDE OF THE DOOR FINISHED OPENING 4 INCHES FROM THE FACE [EXCLUSIVE OF APPLIED FINISHES] OF THE CLOSEST PERPENDICULAR WALL OR PARTITION ASSEMBLY.
- C. WHERE DOOR OCCURS NOT ADJACENT TO A PERPENDICULAR WALL AND EITHER "DM" OR "DM F" IN DIAGRAM BELOW 16'-0" OR LESS, LOCATE DOOR UTILIZING THE FOLLOWING MINIMUM DIMENSIONS:
- DIMENSION A = 18 INCHES MIN
 - DIMENSION B = 12 INCHES MIN
 - DIMENSION C = DOOR WIDTH + 2 INCHES MINIMUM
 - DIMENSION D = 4 INCHES MIN AT METAL FRAMED GYP BO PARTITIONS OR - EVEN MULTIPLE OF 12 CM MODULE PLUS 2 INCHES AT CONC MASONRY UNIT WALLS
 - DIMENSIONS E AND F AS SHOWN ON PLANS
 - DIMENSION H = 36 INCHES MIN
 - DIMENSION H = 60 INCHES MIN
- "IF" SPACE ALLOWS, CENTER DOOR IN WALL SHOWN ON THE DRAWINGS SO THAT EITHER "DM" EQUALS "DM C" OR "DM F" EQUALS "DM D".
- "IF" DM DIM IN DIAGRAMS BELOW IS LESS THAN THE SUM OF 2 TIMES THE DOOR WIDTH PLUS 20 INCHES, LOCATE DOOR SO THAT MINIMUMS STATED BY NOTE NO. 4C ABOVE FOR "DM A", "DM B", AND "DM D" ARE MET - MAXIMIZING "DM A" AND MINIMIZING "DM D" TO THE EXTENT POSSIBLE.
5. WHERE WALLS AND/OR PARTITIONS OF UNEQUAL THICKNESS ABUT, ALN POSED FACES, UNLESS OTHERWISE NOTED:
- AUGN
- DIMENSION, WHEN OCCURS

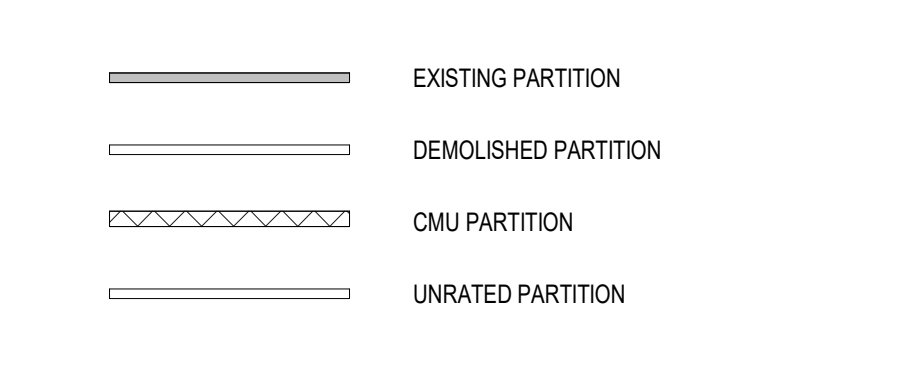
REFLECTED CEILING PLAN SYMBOLS:



TYP DOOR LEGEND



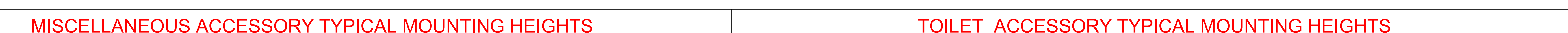
WALL TYPE LEGEND



GENERAL
INFORMATION NOTES:

- 1 ALL CONTRACTORS AND THEIR SUPERVISORY PERSONNEL SHALL REVIEW THE GENERAL AND SUPPLEMENTARY
2 SPECIFICATIONS TO THE CONTRACT DOCUMENTS.
3 ALL WORK SHALL CONFORM WITH APPLICABLE BUILDING CODES, REGULATIONS AND ORDINANCES.
4 THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAIN ALL REQUIRED BUILDING AND OCCUPANCY PERMITS.
5 CONTRACTOR SHALL BECOME FULLY ACQUAINTED WITH ALL APPLICABLE AND/OR ORDINANCES FROM ALL
6 AFFECTING JURISDICTIONS.
7 CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE MEANS, METHODS, AND SEQUENCES OF CONSTRUCTION
8 AND THE CONTENTS OF ALL CONSTRUCTION PERSONNEL AND VISITORS.
9 CONTRACTOR SHALL BE RESPONSIBLE FOR THE SETTING, NOTING AND RECORDING OF SHOP DRAWINGS. THESE
10 DRAWINGS SUBMITTED AS SHOP DRAWINGS WILL BE REVIEWED AND RETURNED TO THE CONTRACTOR.
11 EACH DRAWING MUST BE SUBMITTED WITHIN THE SPECIFIED CONDITIONS UNDER WHICH THE WORK WILL BE INSTALLED
12 AND REPORT TO THE CONTRACTOR IN WRITING ANY
13 DISCREPANCIES, OMISSIONS, OR CONFLICTS. THE CONTRACTOR SHALL NOT PROCEED UNTIL ALL INSTALLATIONS WORK, DO NOT
14 EXCEED UNTIL UNSATISFACTORY CONDITIONS ARE
15 CORRECTED IMMEDIATELY. THE CONTRACTOR SHALL NOT CONSTITUTE ACCEPTANCE OF THE SUBSTITUTE AND/OR
16 CONDITIONS.
17 THE CONTRACTOR SHALL FOLLOW WRITTEN DIMENSIONS AND NOTES. CONTACT ARCHITECT FOR CLARIFICATIONS, IF
18 REQUIRED.
19 DIMENSIONS SHOWN ON THE FLOOR PLAN ARE TO THE FACE OF GYR BOARD, WALL FACE, FACE OF MASONRY
20 OR CONCRETE, OR FACE OF METAL PANELS, UNLESS THE GRID LINES, UNLESS OTHERWISE NOTED, OR INDICATED
21 ALL NOTE WALL THICKNESSES ARE ACTUAL DIMENSIONS.
22 ALL NOTE WALL THICKNESSES ACTUAL DIMENSIONS
23 REFER TO WALL TYPES SHEET.
24 THE CONTRACTOR SHALL REVIEW THE DOCUMENTS, SHALL MEAN THAT THE CONDITION OR DIMENSION IS REPRESENTATIVE OF
25 OR THE SAME, FOR SIMILAR CONDITIONS.
26 IF THERE IS A DISCREPANCY BETWEEN SMALL SCALE AND LARGE SCALE DRAWINGS (PLAN, SECTION & DETAIL
27 DRAWINGS) - CONTACT ARCHITECT FOR CLARIFICATION. FOR BUILDING PRACTICES, THE MOST
28 EXPENSIVE AND/OR STRICTEST REQUIREMENTS SHALL GOVERN FOR CLARIFICATIONS DURING CONSTRUCTION.
29 THE MOST EXPENSIVE AND/OR STRICTEST REQUIREMENTS, AS INDICATED BY THE ARCHITECT, SHALL
30 GOVERN.
31 ANY DISCREPANCIES BETWEEN THE DRAWINGS AND SPECIFICATIONS - CONTACT ARCHITECT FOR
32 CLARIFICATION. FOR BUILDING PRACTICES, THE MOST EXPENSIVE AND/OR STRICTEST REQUIREMENTS SHALL
33 GOVERN FOR CLARIFICATIONS DURING CONSTRUCTION. THE MOST EXPENSIVE AND/OR STRICTEST
34 REQUIREMENTS, AS INDICATED BY THE ARCHITECT, SHALL GOVERN.
35 ANY DISCREPANCIES BETWEEN THE DRAWINGS AND ACTUAL CONDITIONS SHALL BE REPORTED TO THE
36 ARCHITECT IN WRITING FOR RESOLUTION, PRIOR TO
37 PROCEEDING WITH THE WORK. IN THESE SITUANCES, NO CHANGE ORDERS OR EXTENSIONS OF TIME WILL BE
38 GRANTED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE WORK WITHOUT THE ARCHITECT'S WRITTEN DIRECTION
39 AND APPROVAL. ALSO - CONTRACTOR MUST REPAIR
40 ALL DAMAGE TO ANY UNDERLYING WORK, AS INDICATED BY THE ARCHITECT, AT NO ADDITIONAL COST
41 TO THE OWNER.
42 ALL DISPERSED METAL MATERIALS SHALL BE ISOLATED WITH AN APPROVED NONMETAL ISOLATION MATERIAL.
43 OPERATOR JOINTS AROUND WINDOW AND DOOR
44 THRESHOLDS, FLASHINGS, AND PENETRATIONS THROUGH WALL PANELS, AND AT PENETRATIONS OF UTILITIES
45 THROUGH THE BUILDING ENVELOPE, ETC. - SHALL BE
46 PROTECTED, FLASHINGS, AND PENETRATIONS THROUGH WALL PANELS, AND AT PENETRATIONS OF UTILITIES
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A11 TYPICAL MOUNTING HEIGHTS

UL Product iQ™

BXUV.L511 - Fire-resistance Ratings - ANSI/UL 263

Design/System/Construction/Assembly Usage Disclaimer

- Authorities Having Jurisdiction should be consulted in all cases as to the particular requirements covering the installation and use of UL Certified products, equipment, system, devices, and materials.
- Authorities Having Jurisdiction should be consulted before construction.
- Fire resistance assemblies and products are developed by the design submitter and have been investigated by UL for compliance with applicable requirements. The published information cannot address every construction nuance encountered in the field.
- When field issues arise, it is recommended the first contact for assistance be the technical service staff provided by the product manufacturer noted for the design. Users of fire resistance assemblies are advised to consult the general Guide Information for each product category and each group of assemblies. The Guide Information includes specifics concerning alternate materials and alternate methods of construction.
- Only products which bear UL's Mark are considered Certified.

Fire-resistance Ratings - ANSI/UL 263

BXUV - Fire Resistance Ratings - ANSI/UL 263 Certified for United States
BXUV7 - Fire Resistance Ratings - CAN/ULC-S101 Certified for Canada

See General Information for Fire-resistance Ratings - ANSI/UL 263 Certified for United States
Design Criteria and Allowable Variances

See General Information for Fire Resistance Ratings - CAN/ULC-S101 Certified for Canada
Design Criteria and Allowable Variances

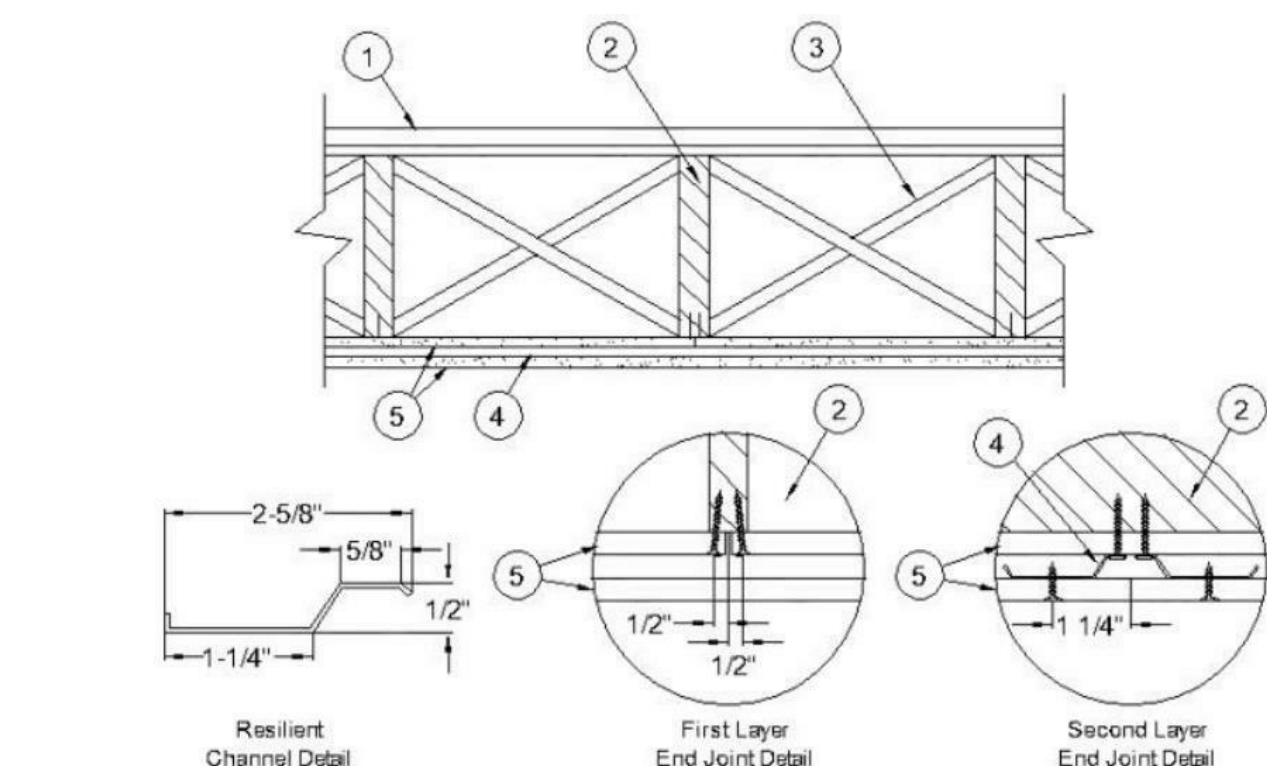
Design No. L511

February 14, 2022

Unrestrained Assembly Rating — 2 Hr.
Finish Rating — 71 Min.

This design was evaluated using a load design method other than the Limit States Design Method (e.g., Working Stress Design Method). For jurisdictions employing the Limit States Design Method, such as Canada, a load restriction factor shall be used — See Guide BXUV or BXUV7.

* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.



1. **Flooring Systems** — The flooring system shall consist of one of the following:

Subflooring — Min 1 by 6 in. T & G lumber fastened diagonally to joists.

Vapor Barrier — Nom 0.010 in. thick commercial resin-sized building paper.

Finish Flooring — Min 1 by 3 in. T & G and end matched, laid perpendicular to joists.

System No. 2

Subflooring — Min 15/32 in. thick wood structural panels, min grade "C-D" or "Sheathing". Face grain of plywood or strength axis of panels to be perpendicular to the joists with joints staggered.

Vapor Barrier — (Optional) — Nom 0.010 in. thick commercial asphalt saturated felt.

Finish Flooring - Floor Topping Mixture* — Min 3/4 in. thickness of floor topping mixture having a minimum compressive strength of 1800 psi. Refer to manufacturer's instructions accompanying the material for specific mix design.

UNITED STATES GYPSUM CO — Types LRL, HSLR, CSD

USG MEXICO S A DE CV — Types LRL, HSLR, CSD

Alternate Floor Mat Materials* — (Optional) — Floor mat material loose laid over the subfloor. Refer to manufacturer's instructions regarding the minimum thickness of floor topping over each floor mat material.

UNITED STATES GYPSUM CO — Types SAM, LEVERLOCK® Brand Sound Reduction Board, LEVERLOCK® Brand Floor Underlayment SRM-25

Alternate Floor Mat Materials* — (Optional) — Nom 3/8 in. thick floor mat material loose laid over the subfloor. Floor topping thickness shall be as specified under **Floor Topping Mixture***.

GRASSWORLD L L C — Type SC50

System No. 3

Subflooring — Min 15/32 in. thick wood structural panels, min grade "C-D" or "Sheathing". Face grain of plywood or strength axis of panels to be perpendicular to the joists with joints staggered.

Vapor Barrier — (Optional) — Nom 0.010 in. thick commercial resin-sized building paper.

Finish Flooring — Min 15/32 in. wood structural panels, min grade "Underlayment" or "Single Floor". Face grain of plywood or strength axis of panels to be perpendicular to joists with joints staggered.

System No. 4

Subflooring — Min 15/32 in. thick wood structural panels, min grade "C-D" or "Sheathing". Face grain of plywood or strength axis of panels to be perpendicular to the joists with joints staggered.

Vapor Barrier — (Optional) — Nom 0.010 in. thick commercial resin-sized building paper.

Finish Flooring - Floor Topping Mixture* — Min 1-1/2 in. thickness of floor topping mixture having a minimum compressive strength of 1000 psi and a cast density of 105 plus or minus 5 pcf. Foam concentrate mixed 40:1 by volume with water and expanded at 100 psi through nozzle. Mixture shall consist of 1-1/4 cu feet of preformed foam concentrate to 94 lbs Type I Portland cement, 300 lbs of sand with 5-1/2 gal of water.

ELASTIZELL CORP OF AMERICA — Type FF

System No. 5

Subflooring — Min 15/32 in. thick wood structural panels, min grade "C-D" or "Sheathing". Face grain of plywood or strength axis of panels to be perpendicular to the joists with joints staggered.

Vapor Barrier — (Optional) — Nom 0.010 in. thick commercial resin-sized building paper.

Floor Mat Materials* — (Optional) — Floor mat material nominal 5/16 in. (2mm) thick adhered to subfloor with Hucker Floor Primer. Primer to be applied to the surface of the mat prior to the placement of a min 1-1/4 in. (38mm) thick floor topping mixture.

HACKER INDUSTRIES INC — Type Hacker Sound-Mat.

Alternate Floor Mat Materials* — (Optional) — Floor mat material nominal 3/8 in. (10mm) thick loose laid over the subfloor. Floor topping thickness shall be a min of 1-1/4 in. (38mm).

HACKER INDUSTRIES INC — Type Hacker Sound-Mat II.

Alternate Floor Mat Materials* — (Optional) — Floor mat material nominal 1/8 in. (3mm) thick loose laid over the subfloor. Floor topping thickness shall be a min of 1 in. (25mm).

HACKER INDUSTRIES INC — Type Hacker Sound-Mat I.

Alternate Floor Mat Materials* — (Optional) — Floor mat material nominal 1/4 in. (6mm) thick loose laid over the subfloor. Floor topping thickness shall be a min of 1 in. (25mm).

HACKER INDUSTRIES INC — Type FHM-RL SCM 250, Quiet Quil 55/025

Alternate Floor Mat Materials* — (Optional) — Floor mat material nominal 3/8 in. (10mm) thick loose laid over the subfloor. Floor topping thickness shall be a min of 1-1/4 in. (38mm).

HACKER INDUSTRIES INC — Type FHM-RL SCM 400, Quiet Quil 60/040

Alternate Floor Mat Materials* — (Optional) — Floor mat material nominal 3/4 in. (19mm) thick loose laid over the subfloor. Floor topping thickness shall be a min of 1-1/2 in. (38mm).

HACKER INDUSTRIES INC — Type FHM-RL SCM 750, Quiet Quil 65/075

Alternate Floor Mat Materials* — (Optional) — Floor mat material nominal 1/2 in. (13mm) thick loose laid over the subfloor. Floor topping thickness shall be a min of 1-1/4 in. (38mm).

HACKER INDUSTRIES INC — Type FHM-RL SCM 250, Quiet Quil 55/025

Alternate Floor Mat Materials* — (Optional) — Floor mat material nominal 3/8 in. (10mm) thick loose laid over the subfloor. Floor topping thickness shall be a min of 1-1/4 in. (38mm).

HACKER INDUSTRIES INC — Type FHM-RL SCM 400, Quiet Quil 60/040

Alternate Floor Mat Materials* — (Optional) — Floor mat material nominal 3/4 in. (19mm) thick loose laid over the subfloor. Floor topping thickness shall be a min of 1-1/2 in. (38mm).

HACKER INDUSTRIES INC — Type FHM-RL SCM 750, Quiet Quil 65/075

Alternate Floor Mat Materials* — (Optional) — Floor mat material nominal 1/2 in. (13mm) thick loose laid over the subfloor. Floor topping thickness shall be a min of 1-1/4 in. (38mm).

HACKER INDUSTRIES INC — Type FHM-RL SCM 250, Quiet Quil 55/025

Alternate Floor Mat Materials* — (Optional) — Floor mat material nominal 3/8 in. (10mm) thick loose laid over the subfloor. Floor topping thickness shall be a min of 1-1/4 in. (38mm).

HACKER INDUSTRIES INC — Type FHM-RL SCM 400, Quiet Quil 60/040

Alternate Floor Mat Materials* — (Optional) — Floor mat material nominal 3/4 in. (19mm) thick loose laid over the subfloor. Floor topping thickness shall be a min of 1-1/2 in. (38mm).

HACKER INDUSTRIES INC — Type FHM-RL SCM 750, Quiet Quil 65/075

Alternate Floor Mat Materials* — (Optional) — Floor mat material nominal 1/2 in. (13mm) thick loose laid over the subfloor. Floor topping thickness shall be a min of 1-1/4 in. (38mm).

HACKER INDUSTRIES INC — Type FHM-RL SCM 250, Quiet Quil 55/025

Alternate Floor Mat Materials* — (Optional) — Floor mat material nominal 3/8 in. (10mm) thick loose laid over the subfloor. Floor topping thickness shall be a min of 1-1/4 in. (38mm).

HACKER INDUSTRIES INC — Type FHM-RL SCM 400, Quiet Quil 60/040

Alternate Floor Mat Materials* — (Optional) — Floor mat material nominal 3/4 in. (19mm) thick loose laid over the subfloor. Floor topping thickness shall be a min of 1-1/2 in. (38mm).

HACKER INDUSTRIES INC — Type FHM-RL SCM 750, Quiet Quil 65/075

Alternate Floor Mat Materials* — (Optional) — Floor mat material nominal 1/2 in. (13mm) thick loose laid over the subfloor. Floor topping thickness shall be a min of 1-1/4 in. (38mm).

HACKER INDUSTRIES INC — Type FHM-RL SCM 250, Quiet Quil 55/025

Alternate Floor Mat Materials* — (Optional) — Floor mat material nominal 3/8 in. (10mm) thick loose laid over the subfloor. Floor topping thickness shall be a min of 1-1/4 in. (38mm).

HACKER INDUSTRIES INC — Type FHM-RL SCM 400, Quiet Quil 60/040

Alternate Floor Mat Materials* — (Optional) — Floor mat material nominal 3/4 in. (19mm) thick loose laid over the subfloor. Floor topping thickness shall be a min of 1-1/2 in. (38mm).

HACKER INDUSTRIES INC — Type FHM-RL SCM 750, Quiet Quil 65/075

Alternate Floor Mat Materials* — (Optional) — Floor mat material nominal 1/2 in. (13mm) thick loose laid over the subfloor. Floor topping thickness shall be a min of 1-1/4 in. (38mm).

HACKER INDUSTRIES INC — Type FHM-RL SCM 250, Quiet Quil 55/025

Alternate Floor Mat Materials* — (Optional) — Floor mat material nominal 3/8 in. (10mm) thick loose laid over the subfloor. Floor topping thickness shall be a min of 1-1/4 in. (38mm).

HACKER INDUSTRIES INC — Type FHM-RL SCM 400, Quiet Quil 60/040

Alternate Floor Mat Materials* — (Optional) — Floor mat material nominal 3/4 in. (19mm) thick loose laid over the subfloor. Floor topping thickness shall be a min of 1-1/2 in. (38mm).

HACKER INDUSTRIES INC — Type FHM-RL SCM 750, Quiet Quil 65/075

Finish Flooring — Floor Topping Mixture* — Min 3/4 or 1 in. thickness of floor topping mixture for min 19/32 or min 15/32 in. thick wood structural panels respectively, having a min compressive strength of 1000 psi. Mixture shall consist of 5 to 8 gal of water to 80 lbs of floor topping mixture to 2.1 cu ft of sand.

ULTRA QUIET FLOORS — Types UQF-A, UQF-Super Blend, UQF-P&B 200

System No. 8

Subflooring — Min 15/32 in. thick wood structural panels, min grade "C-D" or "Sheathing". Face grain of plywood or strength axis of panels to be perpendicular to the joists with joints staggered.

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

Finish Flooring — Floor Topping Mixture* — Min 3/4 thickness of floor topping mixture having a minimum compressive strength of 1500 psi. Refer to manufacturer's instructions accompanying the material for specific mix design.

MAXXON CORP — Type Maxxon Standard and Maxxon High Strength

Floor Mat Materials* — (Optional) — Floor mat material loose laid over the subfloor. Refer to manufacturer's instructions regarding the minimum thickness of floor topping over each floor mat material.

MAXXON CORP — Type Encased and Sound Mat

Floor Mat Reinforcement — (Optional) — Refer to manufacturer's instructions regarding minimum thickness of floor topping for use with floor mat reinforcement.

Metal Lath — (Optional) — 3/8 in. expanded galvanized steel diamond mesh, 3-4 lbs/sq yd loose laid over the floor mat material.

Fiber Glass Reinforcement — (Optional, Not Shown) — 0.015 in. thick PVC coated non-woven fiberglass mesh, 0.368 lbs/sq yd loose laid over the floor mat material.

System No. 9

Subflooring — Min 15/32 in. thick wood structural panels, min grade C-D or Sheathing. Face grain of plywood or strength axis of panels to be perpendicular to the joists with joints staggered.

Vapor Barrier — (Optional) — Nom 0.010 in. thick commercial resin-sized building paper.

Finish Flooring — Floor Topping Mixture* — Min 3/4 floor topping mixture, having a min compressive strength of 1000 psi. Refer to manufacturer's instructions accompanying the material for specific mix design.

FORMULATED MATERIALS LLC — Types FR-25, FR-30, and SiteMix

Alternate Floor Mat Materials* — (Optional) — Floor mat material nominal 2 x 3-5 mm thick loose laid over the subfloor. Floor topping shall be a min of 3/4 in. or 1 in. thickness of floor topping mixture for 19/32 or 15/32 in. thick wood structural panels respectively.

FORMULATED MATERIALS LLC — Types M1, M2, M3, E8a, Dual, R1, and R2

System No. 10

Subflooring — Min 15/32 in. thick wood structural panels, min grade "C-D" or "Sheathing". Face grain of plywood or strength axis of panels to be perpendicular to the joists with joints staggered.

Finish Floor - Mineral and Fiber Board* — Min 1/2 in. thick, supplied in sizes ranging from 3 ft by 4 ft to 8 ft by 12 ft. All joints to be staggered a min of 12 in. with adjacent sub-floor joints.

HOMASOTE CO — Type 440-32 Mineral and Fiber Board

System No. 11

Subflooring — Min 15/32 in. thick wood structural panels, min grade "C-D" or "Sheathing". Face grain of plywood or strength axis of panels to be perpendicular to the joists with joints staggered.

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

Finish Flooring — Floor Topping Mixture* — Min 1-1/2 in. thickness of floor topping mixture having a min compressive strength of 1000 psi and a cast density of 105 plus or minus 5 pcf. Foam concentrate mixed 40:1 by volume with water and expanded at 100 psi through nozzle. Mixture shall consist of 1.2 cu feet of preformed foam concentrate to 94 lbs Type I Portland cement, and 300 lbs of sand with 5.5 gal of water.

AERIX INDUSTRIES — Floor Topping Mixture

System No. 12

Subflooring — Min 15/32 in. thick wood structural panels, min grade "C-D" or "Sheathing". Face grain of plywood or strength axis of panels to be perpendicular to the joists with joints staggered.

Vapor Barrier — (Optional) — Nom 0.010 in. thick commercial resin-sized building paper.

Finish Flooring — Floor Topping Mixture* — Min 3/4 floor topping mixture, having a min compressive strength of 1000 psi. Refer to manufacturer's instructions accompanying the material for specific mix design.

ARCOSA SPECIALTY MATERIALS — Types NexGen, Green, Prime and PreFloor, AccuAdhant®, AccuLevel® Types G40, G50 and S300

Alternate Floor Mat Materials* — (Optional) — Floor mat material nominal 2 x 3-5 mm thick loose laid over the subfloor. Floor topping shall be a min of 3/4 in. or 1 in. thickness of floor topping mixture for 19/32 or 15/32 in. thick wood structural panels respectively.

ARCOSA SPECIALTY MATERIALS — AccuQuat® Types D13, D-18, D-25, DX38, EM 125, EM 125S, EM 250, EM 250S, EM 375, EM 375S, EM 750, and EM 750S.

System No. 13

Subflooring — 15/32 or 19/32 in. thick wood structural panels, min grade "C-D" or "Sheathing". Face grain of plywood or strength axis of panels to be perpendicular to the joists with joints staggered.

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

Finish Flooring — Floor Topping Mixture* — Min 3/4 or 1 in. thickness of floor topping mixture for 19/32 or 15/32 in. thick wood structural panels respectively, having a min compressive strength of 2100 psi. Refer to manufacturer's instructions accompanying the material for specific mix design.

System No. 14

Subflooring — Min 15/32 in. thick wood structural panels, min grade "C-D" or "Sheathing". Face grain of plywood or strength axis of panels to be perpendicular to the joists with joints staggered.

Vapor Barrier — (Optional) — Commercial asphalt saturated felt, 0.030 in. thick.

Vapor Barrier — (Optional) — Nom 0.010 in. thick commercial resin-sized building paper.

Finish Flooring — Min 3/4 in. thickness of any floor Topping Mixture bearing the UL Classification Marking as to Fire Resistance. See Floor and Roof-Topping Mixtures (CCOI) category for names of Classified Companies. Refer to the manufacturer's instructions accompanying the material and/or contact the manufacturer's technical support for specific mix design and minimum thickness recommended for use with eligible floor mats.

Floor Mat Materials* — (Optional) — Nom. 1/4 in. thick loose laid over the subfloor. Floor topping thickness shall be a minimum of 3/4 in.

KEENE BUILDING PRODUCTS CO INC — Type Quiet Quil 55/025 and Quiet Quil 55/025 N

Alternate Floor Mat Materials* — (Optional) — Floor mat material Nom. 3/8 in. thick loose laid over the subfloor. Floor topping thickness shall be a minimum of 1 in.

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

Alternate Floor Mat Materials* — (Optional) — Floor mat material Nom. 3/4 in. thick loose laid over the subfloor. Floor topping thickness shall be a minimum of 1-1/2 in.

KEENE BUILDING PRODUCTS CO INC — Type Quiet Quil 65/075, Quiet Quil 65/075 N

Alternate Floor Mat Materials* — (Optional) — Floor mat material Nom. 1/8 in. thick loose laid over the subfloor. Floor topping thickness shall be a minimum of 3/4 in.

KEENE BUILDING PRODUCTS CO INC — Type Quiet Quil 52/013 and Quiet Quil 52/013 N

Alternate Floor Mat Materials* — (Optional) — Floor mat material Nom. 1/4 in. entangled net core with a compressible fabric attached to the bottom loose laid over the subfloor. Floor topping thickness shall be a minimum of 1 in.

KEENE BUILDING PRODUCTS CO INC — Quiet Quil 55/025 MT and Quiet Quil 55/025 N MT

System No. 15

Subflooring — Min 1 by 6 in. T & G lumber fastened diagonally to joists.

Vapor Barrier — Nom 0.010 in. thick commercial resin-sized building paper.

Finish Flooring - Floor Topping Mixture* — Min 3/4 in. thickness of floor topping mixture having a min compressive strength of 1000 psi. Refer to manufacturer's instructions accompanying the material for specific mix design.

ARCOSA SPECIALTY MATERIALS — AccuCrete® Types NexGen, Green, Prime and PreFloor, AccuAdhant®, AccuLevel® Types G40, G50 and S300

Floor Mat Materials* — (Optional) — Floor mat material nominal 2 x 3-5 mm thick loose laid over the subfloor. Floor topping shall be a min of 1 in.

ARCOSA SPECIALTY MATERIALS — AccuQuat® Types D13, D-18, D-25, DX38, EM 125, EM 125S, EM 250, EM 250S, EM 375, EM 375S, EM 750, and EM 750S

System No. 16

Subflooring — Min 15/32 in. thick wood structural panels, min grade "C-D" or "Sheathing". Face grain of plywood or strength axis of panels to be perpendicular to the joists with joints staggered.

Vapor Barrier — (Optional) — Nom 0.010 in. thick commercial resin-sized building paper.

Finish Flooring - Floor Topping Mixture* — Min 3/4 floor topping mixture, having a min compressive strength of 1000 psi. Refer to manufacturer's instructions accompanying the material for specific mix design.

DEFENDABLE LLC — GSI, M3A, GSI, K2A, GSI-CSD and GSI, RH

Floor Mat Materials* — (Optional) — Nom. 1/4 in. thick loose laid over the subfloor. Floor topping thickness shall be a minimum of 3/4 in.

KEENE BUILDING PRODUCTS CO INC — Type Quiet Quil 55/025 and Quiet Quil 55/025 N

Alternate Floor Mat Materials* — (Optional) — Floor mat material Nom. 3/8 in. thick loose laid over the subfloor. Floor topping thickness shall be a minimum of 1 in.

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

Alternate Floor Mat Materials* — (Optional) — Floor mat material Nom. 3/4 in. thick loose laid over the subfloor. Floor topping thickness shall be a minimum of 1-1/2 in.

KEENE BUILDING PRODUCTS CO INC — Type Quiet Quil 65/075, Quiet Quil 65/075 N

Alternate Floor Mat Materials* — (Optional) — Floor mat material Nom. 1/8 in. thick loose laid over the subfloor. Floor topping thickness shall be a minimum of 3/4 in.

KEENE BUILDING PRODUCTS CO INC — Type Quiet Quil 52/013 and Quiet Quil 52/013 N

Alternate Floor Mat Materials* — (Optional) — Floor mat material Nom. 1/4 in. entangled net core with a compressible fabric attached to the bottom loose laid over the subfloor. Floor topping thickness shall be a minimum of 1 in.

KEENE BUILDING PRODUCTS CO INC — Quiet Quil 55/025 MT and Quiet Quil 55/025 N MT

System No. 17

Subflooring — Min 15/32 in. thick wood structural panels, min grade "C-D" or "Sheathing". Face grain of plywood or strength axis of panels to be perpendicular to the joists with joints staggered.

Vapor Barrier — (Optional) — Commercial asphalt saturated felt, 0.030 in. thick.

Vapor Barrier — (Optional) — Nom 0.010 in. thick commercial resin-sized building paper.

Finish Flooring — Min 3/4 in. thickness of any floor Topping Mixture bearing the UL Classification Marking as to Fire Resistance. See Floor and Roof-Topping Mixtures (CCOI) category for names of Classified Companies.

Floor Mat Materials* — (Optional) — Nom 3/32 in. thick loose laid over the subfloor. Floor topping thickness shall be a minimum of 3/4 in.

PLITEQ INC — Type GenieMat RS302

Floor Mat Materials* — (Optional) — Nom 3/16 in. thick loose laid over the subfloor. Floor topping thickness shall be a minimum of 3/4 in.

PLITEQ INC — Type GenieMat FE20NP

Floor Mat Materials* — (Optional) — Nom 1/4 in. thick loose laid over the subfloor. Floor topping thickness shall be a minimum of 3/4 in.

PLITEQ INC — Type GenieMat F06

Floor Mat Materials* — (Optional) — Nom 3/8 in. thick loose laid over the subfloor. Floor topping thickness shall be a minimum of 1 in.

SPECIFICATIONS - PRODUCT & INSTALLATION GENERAL REQUIREMENTS

GENERAL REQUIREMENTS APPLICABLE TO ALL MATERIALS FOR THE PROJECT.

1. NO SUBSTITUTIONS OF MATERIALS WITHOUT COMPLETION OF A SUBSTITUTION REQUEST FORM & APPROVAL OF SUBSTITUTION BY PROJECT MANAGER. FORM CAN BE REQUESTED FROM ARCHITECT.
2. A CONDENSED SET OF SPECIFICATIONS ARE PROVIDED FOR THE PROJECT. STRICT ADHERANCE TO MANUFACTURER REQUIREMENTS AND INSTALLATION ARE REQUIRED TO BE FOLLOWED WITH SECTIONS PROVIDED WITHIN. IF REQUIRED THE ARCHITECT WILL ISSUE ADDITIONAL SECTIONS TO PROVIDE CLARITY TO PRODUCTS OR INSTALLATION REQUIREMENTS.

DIVISION 1 - GENERAL REQUIREMENTS

1. SEE ADMINISTRATIVE SPECIFICATION FOR GENERAL REQUIREMENTS RELATED TO ADMINISTRATION OF THIS CONTRACT.
- A. CONTRACTOR LICENSES**
1. THE CONTRACTOR AND ALL SUBCONTRACTORS INVOLVED IN THE PROJECT SHALL BE REQUIRED TO OBTAIN AND PAY FOR ALL NECESSARY LICENSES AS REQUIRED BY ANY LAW OR AGENCIES HAVING JURISDICTION (AHJ) OVER THE PROJECT.

B. BUILDING PERMITS

1. THE GENERAL CONTRACTOR WILL PAY FOR ALL PERMITS REQUIRED BY ANY AGENCY HAVING JURISDICTION (AHJ) OVER THE PROJECT FOR ALL WORK TO BE PERFORMED BY THE GENERAL CONTRACTOR.

C. UTILITY FEES

1. THE CONTRACTOR SHALL PAY THE NECESSARY FEES TO CONNECT TO EXISTING UTILITIES AT THE PROPERTY LINE OR IN ADJACENT STREETS AND RIGHT OF WAY AS SPECIFIED, NECESSARY AND/OR INCLUDED IN THE CONSTRUCTION DOCUMENTS. THE CONTRACTOR SHALL PAY ALL UTILITY COSTS (BILLS) DURING CONSTRUCTION UNTIL OWNER TAKES POSSESSION OF THE FACILITY OR THE FACILITY IS CERTIFIED AS SUBSTANTIALLY COMPLETE.

1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROTECT FINISHED SURFACES. PROTECTION FOR FINISHES SUCH AS DOORS, WALLS AND FLOORS SHOULD BE PROVIDED AS REQUIRED. ANY DAMAGES TO THESE AREAS WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO REPAIR OR REPLACE.

E. GENERAL CONDITIONS

1. ANY DISCREPANCY OR CONFLICT WITHIN OR BETWEEN DRAWINGS AND ANY DISCREPANCY OR CONFLICT BETWEEN ANY DRAWING AND ANY SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT. NOTWITHSTANDING, DISCREPANCIES OR CONFLICTS NOT BROUGHT TO THE ARCHITECT'S AND OWNERS ATTENTION AND CLARIFIED DURING THE BIDDING OF THE PROJECT WILL BE DEEMED TO HAVE BEEN OR PROPOSED IN THE MORE COSTLY OR DIFFICULT MANNER, AND THE BETTER QUALITY OR GREATER QUANTITY OF THE WORK SHALL BE PROVIDED BY THE CONTRACTOR IN ACCORDANCE WITH ARCHITECT'S INTERPRETATION.
2. THE GENERAL CONTRACTOR SHALL KEEP A COMPLETE PROTOTYPE SET OF DOCUMENTS ON THE PROJECT SITE AT ALL TIMES FOR REFERENCE DURING CONSTRUCTION.
3. THE GENERAL CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK, USING THE CONTRACTOR'S BEST SKILLS AND ATTENTION. THE GENERAL CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR HAVE AND CONTROL OVER CONSTRUCTION MEANS AND METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES AND FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THE CONTRACT.
4. THE GENERAL CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR HAVE AND HAVE CONTROL OVER ALL JOB SITE SAFETY PROCEDURES AND POLICES. THE GENERAL CONTRACTOR SHALL HAVE A SAFETY COORDINATOR AND BE RESPONSIBLE TO HOLD REGULARLY SCHEDULED SAFETY TRAINING WITH ALL JOB SITE PERSONNEL, INCLUDING ALL SUB CONTRACTOR PERSONNEL.
5. NEITHER THE ARCHITECTS OR THE OWNERS INSPECTION NOR FAILURE TO INSPECT SHALL RELIEVE THE CONTRACTOR OF ANY OBLIGATION HEREUNDER. IF ANY WORK FAILS TO CONFORM TO THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL PROMPTLY REMEDY AND/OR REPLACE THE SAME AT THE CONTRACTOR'S EXPENSE. NO ACCEPTANCE OR PAYMENT BY THE OWNER OR ARCHITECT SHALL CONSTITUTE A WAIVER OF THE FOREGOING AND NOTHING HEREIN SHALL EXCLUDE OR LIMIT ANY WARRANTIES IMPLIED BY LAW.
6. THE GENERAL CONTRACTOR SHALL NOT SO CONDUCT ITS OPERATIONS AS NOT TO UNREASONABLY INTERFERE WITH TRAFFIC ON PUBLIC THOROUGHFARES ADJACENT OR NEAR TO THE PROJECT SITE.
7. DO NOT SCALE DRAWINGS.

F. PROJECT REQUIREMENTS

1. THE GENERAL CONTRACTOR REPRESENTS THAT IT POSSESSES THE SKILLS REQUIRED FOR THE WORK, ASSUMES THE RESPONSIBILITIES OF AN EMPLOYER FOR PERFORMANCE OF THE WORK, AND ACTS AS AN EMPLOYER OF ONE OR MORE EMPLOYEES BY PAYING WAGES, DIRECTING ACTIVITIES AND PERFORMING OTHER SIMILAR FUNCTIONS. THE GENERAL CONTRACTOR IS AN INDEPENDENT CONTRACTOR, FREE TO DETERMINE THE MANNER IN WHICH THE WORK IS PERFORMED.
2. THE GENERAL CONTRACTOR SHALL PROVIDE, AND MAINTAIN IN GOOD WORKING ORDER, THE FOLLOWING ITEMS FOR USE BY THE PROJECT SUPERINTENDENT DAILY DURING THE ENTIRE DURATION OF THE PROJECT:
- A. LAPTOP WITH INTERNET ACCESS
 - B. DIGITAL CAMERA WITH DATE STAMP CAPABILITY AND WITH PROPER CABLES TO ATTACH TO LAPTOP.
 - C. EMAIL ACCESS THROUGH THE LAPTOP.
 - D. A PRINTER/SCANNER/MF MACHINE WITH PROPER CABLES TO ATTACH TO LAPTOP.
 - E. CELL PHONE.
3. THE GENERAL CONTRACTOR SHALL HAVE A CONSTRUCTION SUPERINTENDENT ASSIGNED TO THIS PROJECT, AND THIS SUPERINTENDENT SHALL HAVE THE NECESSARY CONSTRUCTION KNOWLEDGE AND SKILLS TO SUPERVISE THE WORK. THE SUPERINTENDENT SHALL BE REACHABLE BY PHONE DURING NORMAL BUSINESS HOURS, ONCE ASSIGNED, THE SUPERINTENDENT SHALL NOT BE REMOVED OR REPLACED WITHOUT WRITTEN APPROVAL FROM OWNER & ARCHITECT, UNLESS SPECIALLY REQUESTED TO BE REMOVED TO BE REPLACED BY ANOTHER SUPERINTENDENT.
4. THE SUPERINTENDENT WILL BE REQUIRED TO PROVIDE PHOTOGRAPHS (VIA EMAIL USING A DIGITAL CAMERA) TO THE OWNER & ARCHITECT EACH FRIDAY BY NOON CST, SHOWING THE PROGRESS OF CONSTRUCTION. THE GENERAL CONTRACTOR IS ENCOURAGED TO TAKE PHOTOS DURING CONSTRUCTION TO ASSIST IN THE PROGRESS OF CONSTRUCTION PROGRESS. RECORD UNCOVERED CONDITIONS, RECORD CONDITION AND AMOUNTS OF VENDOR GOODS UPON RECEIPT, AND RECORD CONSTRUCTION THAT VARIES FROM THE CDS (AS PART OF THE AS-BUILTS). ALL PHOTOS WILL HAVE A DATE STAMP.

G. INSPECTIONS/OBSERVATIONS

1. IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO OVERSEE CONSTRUCTION OF THE PROJECT, CONTINUALLY INSPECTING THE WORK, MATERIALS, AND WORKMANSHIP PROVIDED BY ALL OF HIS TRADESMEN, SUBCONTRACTORS, AND SUPPLIERS. EXCELLENCE IN QUALITY OF CONSTRUCTION CAN ONLY BE ACHIEVED IF THE CONTRACTOR EMPHOSIS HIGH STANDARDS OF ACCEPTABILITY. THE GENERAL CONTRACTOR CANNOT DELEGATE HIS RESPONSIBILITY TO THE SUBCONTRACTORS, BUT MUST CONTINUALLY MONITOR THE WORK OF EACH TRADE OR THE PROJECT.
2. IT IS THE CONTRACTOR'S RESPONSIBILITY TO REQUEST AND SCHEDULE ALL AGENCIES HAVING JURISDICTION (AHJ) INSPECTIONS NECESSARY TO OBTAIN THE CERTIFICATE OF OCCUPANCY (CERTIFICATE OF COMPLIANCE). PRIOR TO THE DATE OF THE AGENCY INSPECTION, THE GENERAL CONTRACTOR SHOULD INSPECT THE PROJECT TO INSURE THAT CONSTRUCTION COMES WITHIN THE REQUIREMENTS. SCHEDULING FINAL INSPECTIONS WITH AGENCY REPRESENTATIVES WHEN THE PROJECT IS NOT COMPLETE MUST BE AVOIDED. COPIES OF FINAL INSPECTIONS MUST BE PROVIDED TO OWNER & ARCHITECT AS THEY ARE AVAILABLE.
3. PRIOR TO REQUESTING THE AGENCY INSPECTION, IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONDUCT HIS OWN PRE-SUBSTANTIAL COMPLETION INSPECTION OF THE CONSTRUCTION FOR QUALITY OF CONSTRUCTION AND COMPLIANCE WITH THE CONSTRUCTION DOCUMENTS.
4. THE FOLLOWING PEOPLE SHOULD BE IN ATTENDANCE FOR THE SUBSTANTIAL COMPLETION INSPECTION:
- A. GENERAL CONTRACTOR
 - B. GENERAL CONTRACTOR SUPERINTENDENT
 - C. MECHANICAL CONTRACTOR
 - D. ELECTRICAL CONTRACTOR
 - E. PLUMBING CONTRACTOR
 - F. PAINTING CONTRACTOR
 - G. FLOORING CONTRACTOR
5. ITEMS TO BE SUBMITTED AS A PRE-REQUISITE TO THE REQUEST FOR THE CERTIFICATE OF SUBSTANTIAL COMPLETION AND OWNER ARCHITECTS MUST BE COMPLETED AND CORRECTED.
- A. GENERAL CONTRACTOR'S PUNCH LISTS
 - B. HVAC TEST AND BALANCE REPORT
 - C. SPRINKLER SYSTEM TEST AND BALANCE INSPECTION REPORT
 - D. COPY OF VIDEO OF COMPLETED SEWER SYSTEM
6. THE REVIEW TEAM SHOULD PROCEED IN AN ORGANIZED MANNER THROUGHOUT THE BUILDING INSPECTING EACH SPACE OR ROOM. THE PUNCH LIST GENERATED BY THE SUBSTANTIAL COMPLETION INSPECTION TOUR IS TO BE PREPARED BY THE CONTRACTOR, ALONG WITH THE PUNCH LIST, THE ARCHITECT SHALL PREPARE THE CERTIFICATE OF SUBSTANTIAL COMPLETION.
7. IMMEDIATELY AFTER RECEIPT OF THE PUNCH LIST, THE GENERAL CONTRACTOR AND SUBCONTRACTORS ARE EXPECTED TO BEGIN CORRECTION OF THE OUTSTANDING ITEMS AFTER COMPLETION OF PUNCHLIST. THE CONTRACTOR SHALL NOTIFY OWNER & ARCHITECT IN WRITING THAT FULL LIST OF ITEMS TO BE COMPLETED AND OR CORRECT IS FINALIZED.

H. RECORD CLOSE-OUT DOCUMENTS

1. THE OWNER REQUESTS THE GENERAL CONTRACTOR AND SUBCONTRACTORS TO MAINTAIN AN ACCURATE, CURRENT SET OF RECORD DOCUMENTS (AS-BUILTS) AS CONSTRUCTION PROGRESSES, ALL PERTINENT INFORMATION RELATING TO THE PROJECT MUST BE TIMELY MAINTAINED ON THE AS-BUILTS. THE AS-BUILTS MUST BE MAINTAINED ONSITE IN THE GENERAL CONTRACTOR'S OFFICE AND WILL NOT BE USED FOR ANY OTHER PURPOSE, SINCE THE OWNER WILL OWN AND OPERATE THE FACILITY, IT IS IMPERATIVE THAT ALL PARTIES MAINTAIN ACCURATE INFORMATION REGARDING THE ACTUAL CONSTRUCTION OF THE PROJECT.
2. ALL DEVIATIONS FROM THE CONTRACT SET OF DRAWINGS MUST BE NOTED ON THE AS-BUILTS IN RED WITH CLOUDS FOR CLEAR IDENTIFICATION. THE OWNER WILL REVIEW THE AS-BUILTS FOR ACCURACY AND COMPLETENESS MONTHLY DURING THE PAYMENT APPLICATION REVIEW PROCESS. FAILURE TO POST CHANGES TO THE PROJECT ON THE AS-BUILTS AS IDENTIFIED DURING THE ON-SITE MONTHLY REVIEW WILL BE CAUSE TO SUSPEND PAYMENT UNTIL RECTIFIED. IT IS THE GENERAL CONTRACTOR'S RESPONSIBILITY TO ENFORCE THE TIMELY POSTING OF AS-BUILT CHANGES WITH THE SUBCONTRACTORS.

I. FINAL CLOSE-OUT OF THE PROJECT

1. WITHIN THIRTY (30) CALENDAR DAYS AFTER THE FINAL PROJECT SUBSTANTIAL COMPLETION, THE GENERAL CONTRACTOR SHALL COMPLY WITH ALL CLOSE-OUT DOCUMENTS AND SUBMIT TO THE OWNER FOR REVIEW. IF THE CONTRACTOR FAILS TO COMPLETE ITS REQUIREMENTS WITHIN THIS TIMELINE ABOVE, THE CONTRACTOR MAY BE SUBJECT TO ADDITIONAL ADMINISTRATION FEES.

J. CLOSE-OUT DOCUMENTS

1. THE CATEGORIES LISTED BELOW SHOULD BE SUBMITTED AT THE SAME TIME.
- A. A DISK WITH ALL PHOTOS TAKEN DURING CONSTRUCTION
 - B. CHANGE ORDERS AND ALL ADDENDA ATTACHED AND POSTED TO THE AS-BUILT DRAWINGS
 - C. AS-BUILT DRAWINGS: ONE HARD COPY TO REMAIN ON SITE AND IN PLANT TUBE; ONE ELECTRONIC COPY TO BE SENT WITH CLOSE-OUT PAPERWORK
 - D. MATERIALS SELECTION DATA - PROVIDE ALL APPROVED SUBMITTALS
 - E. OPERATION AND MAINTENANCE MANUALS (OMM) - PROVIDE OMM MANUALS BOXED AND BOUND. THIS ITEM IS OF SIGNIFICANT IMPORTANCE TO MAINTURE MAINTENANCE ACTIVITIES
 - F. ALL HVAC TEST AND BALANCE REPORTS
 - G. RELEASE OF LIEN (AIA FORM 706A), PAYMENT OF DEBT (AIA FORM 706)
 - H. WARRANTIES, CERTIFICATES, AFFIDAVITS
 - I. ALL INFORMATION INCLUDED IN THIS CATEGORY WILL BE FURNISHED IN ONE (1) COPY AND BOUND IN A STURDY THREE-RING BINDER WITH A LABEL ON THE OUTSIDE READING "GENERAL CLOSE-OUT DOCUMENTS" TO INCLUDE AN INDEX OF THE CONTENTS. ALL AS-BUILT DOCUMENTS WILL BE ORIGINAL (WITH RED LETTERING ON THE BOTTOM OF THE FORM) AND NOTARIZED. IF THE ELECTRONIC VERSION IS USED A COPY WITH ORIGINAL SIGNATURES WILL BE SUBMITTED. THE GENERAL CONTRACTOR AND EACH SUBCONTRACTOR WILL HAVE SEPARATE TABS IDENTIFYING EACH BY NAME. THE GENERAL CONTRACTOR WILL LIST EACH SUBCONTRACTOR ALPHABETICALLY AND WILL CHECK TO INSURE THAT A "RELEASE OF LIEN" - AIA FORM 706A AND A "PAYMENT OF DEBT-AIA FORM 706B IS INCLUDED FOR EACH AND EVERY SUBCONTRACTOR. THE GENERAL CONTRACTOR WILL INCLUDE A "CONSENT OF SURETY" - AIA FORM 707, IN ADDITION. THE GENERAL CONTRACTOR WILL INCLUDE THE FOLLOWING INFORMATION:
 - A. A LIST OF NAMES, BUSINESS ADDRESSES, PHONE NUMBERS AND EMAIL ADDRESSES FOR THE GENERAL CONTRACTOR AND EACH SUBCONTRACTOR
 - B. AN ANNOTATED COPY OF THE SUBSTANTIAL COMPLETION PUNCH LIST INDICATING ACTION TAKEN ON EACH ITEM
 - C. WARRANTIES, CERTIFICATES AND AFFIDAVITS SHALL BE INCLUDED FOR ANY EQUIPMENT, MATERIALS OR SYSTEMS COMBINED WITH ALL OF THE ABOVE INFORMATION AND PLACED BEHIND THE TAB OF THE CONTRACTOR THAT ISSUED IT.

DIVISION 4 - MASONRY

04 0500 - MASONRY RESTORATION & TUCKPOINTING

A. REFERENCES

- 1. AMERICAN CONCRETE INSTITUTE (ACI).
- 2. ACI 503.1-02 - SPECIFICATION FOR MASONRY FOR MASONRY STRUCTURES.
- 3. ASTM INTERNATIONAL (ASTM):
 - A. ASTM C 144 - STANDARD SPECIFICATION FOR AGGREGATE FOR MASONRY MORTAR.
 - J. ASTM C 150 - STANDARD SPECIFICATION FOR PORTLAND CEMENT.
 - D. ASTM C 207 - STANDARD SPECIFICATION FOR HYDRATED LIME FOR MASONRY PURPOSES.
 - D. ASTM C 286 - STANDARD SPECIFICATION FOR AIR-ENTRANING ADMIXTURES FOR CONCRETE.
 - A. ASTM C 270 - STANDARD SPECIFICATION FOR PRE-BLENDED DRY MORTAR MIX FOR MASONRY.
 - F. ASTM C 595 - STANDARD SPECIFICATION FOR BLENDED HYDRAULIC CEMENTS.
 - G. ASTM C 780 - STANDARD TEST METHOD FOR PRECONSTRUCTION AND CONSTRUCTION EVALUATION OF MORTARS FOR PLAIN AND REINFORCED CONCRETE.
 - H. ASTM C 979 - STANDARD SPECIFICATION FOR PIGMENTS FOR INTEGRALLY COLORED CONCRETE.
 - I. ASTM C 1093 - STANDARD PRACTICE FOR ACCREDITATION OF TESTING AGENCIES FOR UNIT MASONRY.
 - J. ASTM C 1157 - STANDARD PERFORMANCE SPECIFICATION FOR HYDRAULIC CEMENT.
 - K. ASTM C 1314 - STANDARD TEST METHOD FOR COMPRESSIVE STRENGTH OF MASONRY PRISMS.
 - L. ASTM C 1598 - STANDARD GUIDE FOR QUALITY ASSURANCE OF MORTARS.
 - M. ASTM C 1714 - STANDARD SPECIFICATION FOR PRE-BLENDED DRY MORTAR MIX FOR UNIT MASONRY.
 - N. ASTM C 329 - SPECIFICATION FOR MINIMUM REQUIREMENTS FOR AGGREGATES ENGAGED IN THE TESTING AND INSPECTION OF MATERIALS USED IN CONSTRUCTION.
 - O. ATTACHMENT TO BUILDING CONSTRUCTION.
 - P. STRUCTURAL PERFORMANCE - RALINGS, INCLUDING ATTACHMENT TO BUILDING CONSTRUCTION, SHALL WITHSTAND THE EFFECTS OF GRAVITY LOADS AND THE FOLLOWING LOADS AND STRESSES WITHIN LIMITS AND UNDER CONDITIONS INDICATED.
 - 2. HANDRAILS AND TOP RAILS OF GUARDS:
 - A. UNIFORM LOAD OF 50 LBF/FT (0.75 KN/M) APPLIED IN ANY DIRECTION.
 - B. CONCENTRATED LOAD OF 200 LBF (0.88 KN) APPLIED IN ANY DIRECTION.
 - C. UNIFORM AND CONCENTRATED LOADS NEED NOT BE ASSUMED TO ACT CONCURRENTLY.
- 3. IMAC - INTERNATIONAL MASONRY INDUSTRY ALL-WEATHER COUNCIL (IMAC); RECOMMENDED PRACTICES AND GUIDE SPECIFICATIONS FOR COLD WEATHER MASONRY CONSTRUCTION.
- 4. IMIAC - INTERNATIONAL MASONRY INDUSTRY ALL-WEATHER COUNCIL (IMAC); RECOMMENDED PRACTICES AND GUIDE SPECIFICATIONS FOR HOT WEATHER MASONRY CONSTRUCTION.
- 5. THE BRICK INDUSTRY ASSOCIATION (BIA).
- 6. BIA TECHNICAL NOTE 20 - CLEANING BRICK.

B. SUBMITTALS

- 1. PRODUCT DATA: SUBMIT MANUFACTURER'S PRODUCT DATA.
- 2. QUALITY ASSURANCE/CONTROL, SUBMITTALS:
 - A. SUBMIT MANUFACTURER'S CERTIFICATE THAT PRODUCTS MEET OR EXCEED SPECIFIED REQUIREMENTS
 - B. SUBMIT TEST RESULTS PREPARED BY A QUALIFIED INDEPENDENT TESTING LABORATORY.
- 3. QUALITY ASSURANCE:
 - A. MANUFACTURER QUALIFICATIONS: FIRM SPECIALIZING IN MANUFACTURE OF MASONRY INSTALLATION MATERIALS, INCLUDING MATERIALS, WITH MINIMUM 10 YEARS EXPERIENCE.
 - B. SUPPORTING TEST RESULTS: TESTING, TEST REPORTS PREPARED BY A QUALIFIED INDEPENDENT LABORATORY INDICATING COMPLIANCE WITH THE FOLLOWING PERFORMANCE REQUIREMENTS.
 - C. PRE-INSTALLATION MEETING: AT LEAST ONE WEEKS PRIOR TO COMMENCING MASONRY WORK, CONDUCT A MEETING AT THE PROJECT SITE TO DISCUSS CONTRACT REQUIREMENTS AND JOB CONDITIONS, REQUIRE THE ATTENDANCE OF MASONRY CONTRACTOR, AND INSTALLERS OF RELATED MATERIALS, NOTIFY ARCHITECT IN ADVANCE OF MEETING REVIEW DETAILING AND SEQUENCE OF WORK TO BE PERFORMED.
 - D. THE BRICK INDUSTRY ASSOCIATION (BIA) TECHNICAL NOTE 20 - CLEANING BRICK, AND STORED OFF THE GROUND, UNDER COVER AND SHALL BE KEPT DRY IN ACCORDANCE WITH ASTM C1714.

D. PROJECT CONDITIONS

- 1. MAINTAIN ENVIRONMENTAL CONDITIONS AND PROTECT WORK DURING AND AFTER INSTALLATION TO COMPLY WITH REQUIREMENTS STANDARDS AND MANUFACTURER'S PRINTED RECOMMENDATIONS.
- 2. DO NOT BUILD OR APPLY MORTAR PRODUCTS ON FROZEN SUBSTRATES.
- 3. REMOVE AND REPLACE MORTAR DAMAGED BY FROST OR BY FREEZING CONDITIONS.
- 3. TEMPORARY HEATERS TO EXTERIOR TO PREVENT DAMAGE TO MASONRY WORK FROM CARBON DIOXIDE BUILD-UP.

E. PRODUCTS

- 1. BASIC OF DESIGN: SPEC MIX# 008, INC. WEB: WWW.SPECMIX.COM/WWW.SPECMIX.COM
- 2. REQUESTS FOR SUBSTITUTIONS WILL BE CONSIDERED IN ACCORDANCE WITH PROVISIONS OF SUBSTITUTION PROCEDURES.
- 3. OBTAIN PRODUCTS FROM A SINGLE MANUFACTURER.
- 4. DESIGN AND PERFORMANCE REQUIREMENTS: PROVIDE MORTAR MIXES THAT HAVE BEEN SELECTED, MANUFACTURED, MIXED AND INSTALLED TO COMPLY WITH THE FOLLOWING:
 - A. ASTM C 270
 - B. ASTM C 1714
 - C. MORTAR
 - D. ASTM C 270 FOR TUCKPOINT MORTAR, SPEC MIX TUCKPOINT MORTAR, APPLICABLE STANDARDS: ASTM C 144, ASTM C 150, ASTM C 207, ASTM C 270 FOR TUCKPOINT MORTAR, ASTM C 595, ASTM C 780, ASTM C 1093, ASTM C 1157, ASTM C 1314, ASTM C 1598, ASTM C 1714, ACI 503.1, IMAC.

F. EXECUTION

- EXAMINE SURFACES TO RECEIVE MASONRY WORK AND CONDITIONS UNDER WHICH MASONRY WILL BE INSTALLED. DO NOT PROCEED WITH MASONRY WORK UNTIL SURFACES AND CONDITIONS COMPLY WITH REQUIREMENTS INDICATED IN REFERENCED MASONRY INSTALLATION STANDARD AND MANUFACTURER'S PRINTED INSTRUCTIONS.

- 1. REMOVAL OF EXISTING MORTAR:
 - A. REMOVAL OF EXISTING MORTAR: CUT OUT EXISTING MORTAR JOINTS (BOTH BED AND HEAD JOINTS) AND REMOVE BY MEANS OF A TOOTHING CHISEL OR A SPECIAL POINTERS GRINDER, TO A UNIFORM DEPTH OF TO 3/4-INCH (19 MM), OR TO MATCH EXISTING MORTAR.
 - 1. TAKE CARE TO NOT DAMAGE EDGES OF EXISTING MASONRY UNITS TO REMAIN.
 - 2. REMOVE DUST AND DEBRIS FROM THE JOINTS BY BRUSHING, BLOWING WITH AIR OR RINSING WITH WATER, DO NOT RINSE WHEN TEMPERATURE IS BELOW FREEZING.
- 2. REPLACEMENT OF MASONRY UNITS:
 - A. REMOVE DAMAGED, SPALLED, LOOSE OR DETERIORATED MASONRY UNITS. CAREFULLY REMOVE ENTIRE UNITS FROM JOINT TO JOINT, WITHOUT DAMAGING SURROUNDING MASONRY, IN A MANNER THAT PERMITS REPLACEMENT WITH FULL SIZE UNITS.
 - B. SUPPORT AND PROTECT REMAINING MASONRY THAT SURROUNDS REMOVAL AREA, MAINTAIN FLASHING, REINFORCEMENT, LINTELS, AND ADJOINING CONSTRUCTION IN AN UNDAUNTED CONDITION.
 - C. CLEAN MASONRY UNITS SURROUNDING REMOVAL AREAS BY REMOVING MORTAR, DUST, AND LOOSE PARTICLES IN PREPARATION FOR REPLACEMENT.
 - D. REPLACE REMOVED UNITS WITH SALVAGED OR NEW UNITS THAT MATCH EXISTING SIZE AND TEXTURE. DO NOT USE BROKEN UNITS UNLESS THEY CAN BE CUT TO USABLE SIZE.
 - E. INSTALL REPLACEMENT UNITS INTO BONDING AND COURSING PATTERN OF EXISTING UNITS. IF CUTTING IS REQUIRED, USE A MOTOR-DRIVEN SAW DESIGNED TO CUT MASONRY WITH CLEAN, SHARP, UNCHIPPED EDGES. UNITS MUST BE TOOTHED IN OR COURSING SHALL MATCH SURROUNDING IN PLACE WORK.
 - F. MAINTAIN JOINT WIDTH FOR REPLACEMENT UNITS TO MATCH EXISTING JOINTS.
 - G. LAY REPLACEMENT UNITS WITH COMPLETELY FILLED BED, HEAD, AND COLLAR JOINTS. BUTTER ENDS WITH SUFFICIENT MORTAR TO FILL HEAD JOINTS AND SHOVE INTO PLACE.
 - H. AS RECOMMENDED BY MANUFACTURER.
 - I. RETEMPERING.
 - J. RETEMPER MORTAR AS RECOMMENDED BY MANUFACTURER

G. INSTALLATION OF TUCK POINTING MORTAR

- 1. INSTALL MORTAR IN ACCORDANCE WITH ADHESIVE 530-1.
- 2. IMMEDIATELY PRIOR TO APPLICATION OF MORTAR, DAMPEN JOINTS TO BE TUCK POINTED. PRIOR TO APPLICATION OF POINTING MORTAR, ALLOW MASONRY UNITS TO ABSORB SURFACE WATER.
- 3. THENTLY PACK MORTAR INTO JOINTS IN THIN LAYERS, APPROXIMATELY 1/4-INCH (6 MM) THICK MAXIMUM.
- 4. ALLOW LAYER TO BECOME "THUMBPRINT HARD" BEFORE APPLYING NEXT LAYER.
- 5. PACK FINAL LAYER FLUSH WITH SURFACES OF MASONRY UNITS, WHEN MORTAR BECOMES "THUMBPRINT HARD", TOOJ JOINTS.
- 6. MARLINE GRACKING WITHIN THE MORTAR OR MORTAR SEPARATION AT EDGE OF A JOINT IS UNACCEPTABLE. COMPLETELY REMOVE SUCH MORTAR AND REPOINT.
- 7. TOOL JOINTS IN PATCH WORK WITH A JOINTING TOOL, TO MATCH THE EXISTING SURROUNDING JOINTS.
- 8. CLEANING:
 - A. COMPLY WITH CLEANING PROCEDURES AND RECOMMENDATIONS OF THE MANUFACTURERS OF BOTH THE CLEANING SOLUTIONS AND THE UNIT MASONRY.
 - B. REMOVE EFFLORESCENCE FROM MASONRY WALL EXPOSED IN THE FINISHED WORK IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATION, NCM A TECHNICAL BULLETIN #8-3A AND/OR BIA TECHNICAL NOTE 20 - CLEANING BRICK.
 - C. REMOVE DIRT OR STAINS FROM MASONRY WALLS EXPOSED IN THE FINISHED WORK IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS, NCM A TECHNICAL BULLETIN #8-2A AND/OR BIA TECHNICAL NOTE 20 - CLEANING BRICK.
 - D. COMPLY WITH APPLICABLE ENVIRONMENTAL LAWS AND RESTRICTIONS.

- AFTER MORTAR HAS FULLY HARDENED, THOROUGHLY CLEAN EXPOSED MASONRY SURFACES OF EXCESS MORTAR AND FOREIGN MATTER. USE WOOD SCRAPERS, STIFF-NOON OR -FIBER BRUSHES, AND CLEAN WATER, SPRAY APPLIED AT LOW PRESSURE.
- 1. DO NOT USE METAL SCRAPERS OR BRUSHES.
- 2. DO NOT USE ACIDIC OR ALKALINE CLEANERS.

H. PROTECTION

- 1. PROTECTION: PROTECT NEWLY POINTED JOINTS FROM WEATHER AND ELEMENTS AS RECOMMENDED BY MANUFACTURER AND INDUSTRY STANDARDS, UNTIL POINTED JOINTS ARE SUFFICIENTLY HARD ENOUGH TO PREVENT DAMAGE.
- 2. PROTECT INSTALLED WORK FROM DAMAGE DUE TO SUBSEQUENT CONSTRUCTION ACTIVITY ON THE SITE.

DIVISION 5 - METALS

05 0215 - PIPE AND TUBE RAILINGS

- A. SUBMITTALS:
 - 1. PRODUCT DATA AND SHOP DRAWINGS WITH PLANS, ELEVATIONS AND SECTIONS INDICATING MEMBER SIZES AND LAYOUT, VERTICAL AND HORIZONTAL DIMENSIONS, EDGE CONDITIONS, AND CONNECTION DETAILS. INCLUDE DETAILS OF EQUIPMENT ASSEMBLY, MEMBER CONNECTIONS, INDICATE DIMENSIONS, WEIGHTS, LOADS, REQUIRED CLEARANCES, METHOD OF FIELD ASSEMBLY, COMPONENTS, AND LOCATION AND SIZE OF EACH FIELD CONNECTION. SAMPLES FOR INITIAL SELECTION FOR EACH TYPE OF EXPOSED FINISH.
 - 1. DEDICATED DESIGN SUBMITTAL FOR HANDRAIL AND GUARDRAIL SYSTEMS, INCLUDING ANALYSIS DATA SIGNED AND SEALED BY THE QUALIFIED PROFESSIONAL ENGINEER RESPONSIBLE FOR THEIR PREPARATION.

- B. DESIGN: METAL TUBE RAILINGS SHALL BE DESIGNED BY FABRICATOR TO SUPPORT CODE-REQUIRED LOADS AND TO MATCH THE CONFIGURATIONS INDICATED IN THE CONSTRUCTION DOCUMENTS. SEE DRAWINGS FOR REQUIRED RAILING ELEVATIONS.
- C. FIELD CONDITIONS:
 - 1. FIELD MEASUREMENTS: VERIFY ACTUAL LOCATIONS OF WALLS AND OTHER CONSTRUCTION CONTIGUOUS WITH METAL FABRICATIONS BY FIELD MEASUREMENTS BEFORE FABRICATION.

D. PERFORMANCE REQUIREMENTS

- 1. A DELEGATED DESIGN: ENGAGE A QUALIFIED PROFESSIONAL ENGINEER TO DESIGN RAILINGS, INCLUDING ATTACHMENT TO BUILDING CONSTRUCTION.
- 2. STRUCTURAL PERFORMANCE: RAILINGS, INCLUDING ATTACHMENT TO BUILDING CONSTRUCTION, SHALL WITHSTAND THE EFFECTS OF GRAVITY LOADS AND THE FOLLOWING LOADS AND STRESSES WITHIN LIMITS AND UNDER CONDITIONS INDICATED.
- 2. HANDRAILS AND TOP RAILS OF GUARDS:
 - A. UNIFORM LOAD OF 50 LBF/FT (0.75 KN/M) APPLIED IN ANY DIRECTION.
 - B. CONCENTRATED LOAD OF 200 LBF (0.88 KN) APPLIED IN ANY DIRECTION.
 - C. UNIFORM AND CONCENTRATED LOADS NEED NOT BE ASSUMED TO ACT CONCURRENTLY.

E. FASTENERS

- 1. FASTENERS FOR ANCHORING RAILINGS TO OTHER CONSTRUCTION: SELECT FASTENERS OF TYPE, GRADE, AND CLASS REQUIRED TO PRODUCE CONNECTIONS SUITABLE FOR ANCHORING RAILINGS TO OTHER TYPES OF CONSTRUCTION. VERIFY FASTENERS ARE AVAILABLE AND CAPABLE OF WITHSTANDING DESIGN LOADS.

F. MISCELLANEOUS MATERIALS

- A. METAL SURFACES: GENERAL: PROVIDE MATERIALS WITH SMOOTH SURFACES, WITHOUT SEAM MARKS, ROLLER MARKS, ROLLED TRADE NAMES, STAINS, DISCOLORATIONS, OR BLEMISHES.
- 2. BRACKETS, FLANGES, AND ANCHORS: CAST OR FORMED METAL OF SAME TYPE AND FINISH AS SUPPORTED RAILS UNLESS OTHERWISE INDICATED.
- 3. PIPE: ASTM A 53A 3.5M, TYPE F OR TYPE S, GRADE A, STANDARD WEIGHT [SCHEDULE 40], UNLESS ANOTHER GRADE AND WEIGHT ARE REQUIRED BY STRUCTURAL LOADS.

G. FABRICATION

- 1. GENERAL: FABRICATE RAILINGS TO COMPLY WITH REQUIREMENTS INDICATED FOR DESIGN, DIMENSIONS, MEMBER SIZES AND SPACING, JOINTS, FINISH, AND ANCHORS, BUT NOT LESS THAN THAT REQUIRED TO SUPPORT STRUCTURAL LOADS.
- 2. CUT, DRILL, AND PUNCH ALUMINUM CLEANLY AND ACCURATELY. REMOVE BURRS AND EASE EDGES TO A RADIUS OF APPROXIMATELY 1/16 INCH (1.6 MM), UNLESS OTHERWISE INDICATED. REMOVE SHARP OR ROUGH AREAS ON EXPOSED SURFACES.
- 3. FABRICATE CONNECTIONS THAT ARE EXPOSED TO WEATHER IN A MANNER THAT EXCLUDES WATER. PROVIDE WEEP HOLES WHERE WATER MAY ACCUMULATE.
- 4. WELDED CONNECTIONS: USE FULLY WELDED JOINTS FOR PERMANENTLY CONNECTING RAILING COMPONENTS. COMPLY WITH REQUIREMENTS FOR WELDED CONNECTIONS IN "FABRICATION" ARTICLE WHETHER WELDING IS PERFORMED IN THE SHOP OR IN THE FIELD.

H. FINISH

- 1. FOR NON-GALVANIZED STEEL RAILINGS: PROVIDE NON-GALVANIZED FERROUS METAL FITTINGS, BRACKETS, FASTENERS, AND SLEEVES; HOWEVER, GALVANIZE ANCHORS TO BE EMBEDDED IN CONCRETE OR MASONRY.
- 2. PREPARATION FOR SHOP PRIMING: PREPARE UNCOATED FERROUS/METAL SURFACES TO COMPLY WITH SSPC-SP 3 "POWER TOOL CLEANING."
- 3. PRIMER APPLICATION: APPLY SHOP PRIMER TO PREPARED SURFACES OF RAILINGS UNLESS OTHERWISE INDICATED. COMPLY WITH REQUIREMENTS IN SSPC-PA 1 "SHOP FIELD AND MAINTENANCE PAINTING OF STEEL" FOR SHOP PAINTING. PRIMER NEED NOT BE APPLIED TO SURFACES TO BE EMBEDDED IN CONCRETE OR MASONRY.

I. INSTALLATION

- 1. SUPPLY COMPONENTS REQUIRED FOR ANCHORAGE FABRICATED FROM SAME MATERIAL AND FINISH AS FABRICATION UNLESS NOTED OTHERWISE. SHIM AND LEVEL FABRICATIONS AS NECESSARY. COAT CONCEALED SURFACES OF FABRICATIONS IN CONTACT WITH CONCRETE, GROUT, MASONRY, WOOD, OR DISSIMILAR METALS WITH BITUMINOUS PAINT.
- 2. FIT EXPOSED CONNECTIONS TOGETHER TO FORM TIGHT, HAIRLINE JOINTS.
- 3. PERFORM CUTTING, DRILLING, AND FITTING REQUIRED FOR INSTALLING RAILINGS. SET RAILINGS ACCURATELY IN LOCATION, ALIGNMENT, AND ELEVATION, MEASURED FROM ESTABLISHED LINES AND LEVELS AND FREE OF RACK. DO NOT WELD, CUT, OR GRIND SURFACES OF RAILING COMPONENTS THAT ARE COATED OR FINISHED AFTER FABRICATION AND THAT ARE INTENDED FOR FIELD CONNECTION BY MECHANICAL OR OTHER MEANS WITHOUT FURTHER CUTTING OR FITTING.
- 4. SET POSTS FLUSH WITH A TOLERANCE OF 1/16 INCH IN 3 FEET.
- 5. CONTROL OF CORROSION: PREVENT GALVANIC ACTION AND OTHER FORMS OF CORROSION BY INSULATING METALS AND OTHER MATERIALS FROM DIRECT CONTACT WITH INCOMPATIBLE MATERIALS.
- 6. ADJUST RAILS BEFORE ANCHORING TO ENSURE MATCHING ALIGNMENT AT ABUTTING JOINTS.
- 6. FASTENING TO IN-PLACE CONSTRUCTION: USE ANCHORAGE DEVICES AND FASTENERS WHERE NECESSARY FOR SECURING RAILINGS AND FOR PROPERLY TRANSFERRING LOADS TO IN-PLACE CONSTRUCTION.
- 7. PROTECT FINISHES OF RAILINGS FROM DAMAGE DURING CONSTRUCTION PERIOD WITH TEMPORARY PROTECTIVE COVERINGS APPROVED BY RAILING MANUFACTURER. REMOVE PROTECTIVE COVERINGS AT END OF SUBSTANTIAL COMPLETION.

05 0600 - STRUCTURAL METAL STUDS AND TRACK

THIS SECTION IS A DELEGATED DESIGN SUBMITTAL. CONTRACTOR SHALL ENGAGE A STRUCTURAL ENGINEER LICENSED IN THE JURISDICTION WHERE THIS PROJECT IS LOCATED. ALL FEES SUBMITTED FOR THIS SERVICE WILL BE PART OF BASE CONTRACT.

A. SUBMITTALS: PRODUCT DATA: MANUFACTURER'S DATA SHEETS ON EACH PRODUCT TO BE USED, INCLUDING:

- 1. SHOWING PLANS, SECTIONS, ELEVATIONS, LAYOUTS, PROFILES AND PRODUCT COMPONENT LOCATIONS, INCLUDING ANCHORAGE, BRACING, FASTENERS, ACCESSORIES AND FINISHES.
 - 2. INDICATE COMPONENT DETAILS, FRAMED OPENINGS, BEARING, ANCHORAGE, LOADING, WELDS, TYPE AND LOCATION OF FASTENERS, AND ACCESSORIES.
 - 3. INDICATE METHOD FOR SECURING STUDS AND OTHER COMPONENTS TO TRACKS AND FOR FRAMING CONNECTIONS.
 - 4. SUBMIT CALCULATIONS FOR LOADINGS AND STRESSES UNDER PROFESSIONAL ENGINEER'S SEAL, REGISTERED IN THE STATE OF THE PROJECT.
- B. QUALITY STANDARD:
- 1. MANUFACTURER QUALIFICATIONS: COMPANY SPECIALIZING IN MANUFACTURING PRODUCTS SPECIFIED IN THIS SECTION WITH MINIMUM FIVE YEARS' DOCUMENTED EXPERIENCE.
 - 2. INSTALLER QUALIFICATIONS: COMPANY SPECIALIZING IN PERFORMING WORK OF THIS SECTION WITH MINIMUM 3 YEARS' DOCUMENTED EXPERIENCE.
 - 3. DESIGN STRUCTURAL ELEMENTS UNDER DIRECT SUPERVISION OF PROFESSIONAL ENGINEER EXPERIENCED IN DESIGN OF THIS WORK AND REGISTERED IN THE STATE OF THE PROJECT.

F. INSTALLATION

- 1. FOLLOW MANUFACTURER INSTALLATION GUIDELINES. INSTALLATION SHALL BE COMPLIANT WITH APPLICABLE BUILDING CODES.

DIVISION 6 - WOOD AND PLASTICS

06 1000 - ROUGH CARPENTRY

- 1. PROVIDE SUFFICIENT FIRE RETARDANT TREATED WOOD BLOCKING AT ALL STUDS FOR SECURING OF WALL & CEILING ITEMS, WHETHER FURNISHED BY OWNER OR CONTRACTOR.
- 2. CONCEALED WOOD IS TO BE FIRE RETARDANT TREATED UNLESS NOTED OTHERWISE.
- 3. PRESERVATIVE TREATED LUMBER IS REQUIRED FOR ALL ITEMS TO REMAIN IN CONTACT WITH CONCRETE OR MASONRY TO CONFORM TO AWPA STANDARD 5.
- 4. EXTERIOR WOOD SHALL BE CD GRADE SPRUCE OR YELLOW PINE, ALL PLY-WOOD TO BE FIRE RATED WHERE WALLS ARE INDICATED AS RATED CONSTRUCTION.
- 5. BLOCKING SHALL BE CLOSELY FITTED, ACCURATELY SET TO REQUIRED LEVELS & LEVELS, SECURELY CONNECTED & FIRMLY TIED IN PLACE. USING NAILS, SCREWS, &/OR BOLTS AS INDICATED OR REQUIRED BY GOOD PRACTICE AND MANUFACTURER'S RECOMMENDATIONS.

06 2000 - FINISH CARPENTRY

- A. SUBMITTALS: SAMPLES OF FINISH MATERIALS, CATALOG CUTS OF HARDWARE, AND SHOP DRAWINGS INCLUDING DIMENSIONED PLANS, ELEVATIONS, AND SECTIONS.

- B. QUALITY STANDARD: ARCHITECTURAL WOODWORK INSTITUTES' "ARCHITECTURAL WOODWORK QUALITY STANDARDS"

C. MATERIALS

- 1. SOFTWOOD LUMBER: MAXIMUM MOISTURE CONTENT OF 6 PERCENT; WITH VERTICAL GRAIN, OF QUALITY SUITABLE FOR SCHEDULED FINISH.
 - 2. HARDWOOD LUMBER: MAXIMUM MOISTURE CONTENT OF 6 PERCENT; WITH VERTICAL GRAIN, OF QUALITY SUITABLE FOR SCHEDULED FINISH.
 - 3. SHEET MATERIALS: SOFTWOOD PLYWOOD, EXPOSED TO VIEW: FACE SPECIES AS NOTICED, PLAN SAWN, MEDIUM DENSITY FIBERBOARD, CORE: 1/2 GRADE A3, GLUE TYPE AS RECOMMENDED FOR APPLICATION.
- D. INTERIOR WOODWORK:
- 1. COMPLETE FABRICATION BEFORE SHIPPING TO PROJECT SITE TO MAXIMUM EXTENT FEASIBLE. DISASSEMBLE ONLY AS NEEDED FOR SHIPPING AND INSTALLING, WHERE NECESSARY FOR FITTING AT PROJECT SITE, PROVIDE FOR SCABBING AND TRIMMING.
 - 2. BACKSOT AND GROOVE BACKS OF FLAT MEMBERS, KEF BACKS OF OTHER WIDE, FLAT MEMBERS, EXCEPT WHERE ENDS WILL BE EXPOSED IN FINISHED WORK.

F. INSTALLATION

- 1. DO NOT INSTALL INSULATION ADHESIVES WHEN TEMPERATURE OR WEATHER CONDITIONS ARE DETRIMENTAL TO SUCCESSFUL INSTALLATION.
- 2. INSTALL INSULATION IN AREAS AND IN THICKNESSES INDICATED OR REQUIRED TO PRODUCE R-VALUES WHERE INDICATED. CUT AND FIT TIGHTLY AROUND OBSTRUCTIONS AND FILL VOIDS WITH INSULATION.
- 3. INSTALL AN EXTERIOR WALL AND CEILING SPACES WITHOUT GAPS OR VOIDS. DO NOT COMPRESS INSULATION.
- 4. TRIM INSULATION NEATLY TO FIT SPACES. INSULATE MISCELLANEOUS GAPS AND VOIDS.
- 5. EXTEND VAPOR RETARDERS TO EXTREMITIES OF AREAS TO BE PROTECTED FROM VAPOR TRANSMISSION. SECURE IN PLACE WITH ADHESIVES OR OTHER ANCHORAGE AS RECOMMENDED BY MANUFACTURER. LOCATE SEAMS AT FLOORING JOINTS, OVERLAP WITH SEALANT, AND SEAL JOINTS. DO NOT PERMIT INSULATION TO BE DAMAGED PRIOR TO ITS CONSUMMATION.
- 6. DO NOT PERMIT INSULATION TO BE DAMAGED PRIOR TO ITS CONSUMMATION.
- 7. DO NOT PERMIT INSULATION TO BE DAMAGED PRIOR TO ITS CONSUMMATION.
- 8. DO NOT PERMIT INSULATION TO BE DAMAGED PRIOR TO ITS CONSUMMATION.
- 9. DO NOT PERMIT INSULATION TO BE DAMAGED PRIOR TO ITS CONSUMMATION.
- 10. DO NOT PERMIT INSULATION TO BE DAMAGED PRIOR TO ITS CONSUMMATION.
- 11. DO NOT PERMIT INSULATION TO BE DAMAGED PRIOR TO ITS CONSUMMATION.
- 12. DO NOT PERMIT INSULATION TO BE DAMAGED PRIOR TO ITS CONSUMMATION.

06 4000 - ARCHITECTURAL WOOD CASEWORK

- A. SUBMITTALS: SAMPLES OF FINISH MATERIALS, CATALOG CUTS OF HARDWARE, AND SHOP DRAWINGS INCLUDING DIMENSIONED PLANS, ELEVATIONS, AND SECTIONS. INDICATE COMPONENT PROFILES, FASTENING METHODS, JOINTS, METALS, AND ACCESSORIES.

- B. QUALITY STANDARD: ARCHITECTURAL WOODWORK INSTITUTES' "ARCHITECTURAL WOODWORK QUALITY STANDARDS"

C. QUALITY ASSURANCE

- 1. FABRICATOR QUALIFICATIONS: COMPANY SPECIALIZING IN FABRICATING THE PRODUCTS SPECIFIED IN THIS SECTION WITH MINIMUM FIVE YEARS OF DOCUMENTED EXPERIENCE.

D. CABINETS

- 1. QUALITY STANDARD: CUSTOM GRADE, IN ACCORDANCE WITH ANIA/MACWI (AWS) OR ANIA/MACWI (NAWS), UNFINISHED OR FINISHED, AS SPECIFIED OR AS RECOMMENDED BY MANUFACTURER.
- 2. WOOD VENEER FACED CABINET, CONCEALED SURFACES: MANUFACTURER'S OPTION.
- 3. PLASTIC LAMINATE FACED CABINETS: CUSTOM GRADE.

E. MATERIALS (ACCESSORIES) / HARDWARE

SPECIFICATIONS - PRODUCT & INSTALLATION GENERAL REQUIREMENTS

07 5423 - EPDM MEMBRANE ROOFING & ACCESSORIES

- A. SUBMITTALS: PRODUCT DATA AND SHOP DRAWINGS. INDICATE JOINT OR TERMINATION DETAIL CONDITIONS, CONDITIONS OF INTERFACE WITH OTHER MATERIALS, AND PAVEMENT OR WALKWAY PAD LAYOUT.
1. MANUFACTURER'S FIELD REPORTS: INDICATE PROCEDURES FOLLOWED, AMBIENT TEMPERATURES, HUMIDITY, WIND VELOCITY DURING APPLICATION, AND SUPPLEMENTARY INSTRUCTIONS GIVEN SUBMIT FINAL MANUFACTURER'S PUNCH LIST FIELD REPORT WHEN COMPLETE SYSTEM IS INSTALLED.
2. MANUFACTURER'S INSTALLATION INSTRUCTIONS: INDICATE MEMBRANE SEAMING PRECAUTIONS AND PERMITTER CONDITIONS REQUIRING SPECIAL ATTENTION.

B. WARRANTY:

1. MATERIAL WARRANTY: PROVIDE MEMBRANE MANUFACTURER'S WARRANTY AGREEING TO REPLACE MATERIAL THAT SHOWS MANUFACTURE DEFECTS WITHIN 10 YEARS AFTER INSTALLATION.
2. SYSTEM WARRANTY: PROVIDE MANUFACTURER'S SYSTEM WARRANTY AGREEING TO REPAIR OR REPLACE ROOFING THAT LEAKS OR IS DAMAGED DUE TO WIND OR OTHER NATURAL CAUSES. WARRANTY TERM: 20 YEARS.
- A. FOR REPAIR AND REPLACEMENT INCLUDING COSTS OF BOTH MATERIAL AND LABOR IN WARRANTY.
- B. INCLUDE ADJACENT PUNCTURES ACCORDING TO THE MANUFACTURER'S STANDARD WARRANTY TERMS.
- C. INCLUDE HAIL DAMAGE ACCORDING TO THE MANUFACTURER'S STANDARD WARRANTY TERMS.
- D. EXCEPTIONS NOT PERMITTED: DAMAGE DUE TO ROOF TRAFFIC, DAMAGE DUE TO WIND OF SPEED GREATER THAN 56 MPH BUT LESS THAN 90 MPH.

- C. BASIS OF DESIGN: FIRESTONE RUBBERGARD® EPDM MEMBRANE WWW.FIRESTONEBPO.COM
1. WIND UPLIFT DESIGNED TO WITHSTAND WIND UPLIFT FORCES CALCULATED WITH ASCE 7.
2. INSULATION THERMAL RESISTANCE (R-VALUE): 3 PER INCH, MINIMUM, PROVIDE INSULATION OF THICKNESS REQUIRED, MINIMUM R-20.

D. ROOFING MEMBRANE MATERIALS:

1. MATERIAL: RUBBERGARD EPDM
- A. B. THICKNESS: 60 MILS (0.060 INCH), MINIMUM.
- B. C. SHEET WIDTH: FACTORY FABRICATED INTO LARGEST SIZES POSSIBLE.
- C. D. PRODUCT: FULLY ADHERED.
2. SEAMING MATERIALS: AS RECOMMENDED BY MEMBRANE MANUFACTURER.
3. VAPOR RETARDER: MATERIAL APPROVED BY ROOF MANUFACTURER COMPLYING WITH REQUIREMENTS OF FIRE RATING CLASSIFICATION COMPATIBLE WITH ROOFING AND INSULATION MATERIALS. INSTALL WITH FIRE-RETARDANT ADHESIVE.
4. FLEXIBLE FLASHING MATERIAL: SAME MATERIAL AS MEMBRANE.
5. BASE FLASHING: PROVIDE WATERPROOF, FULLY ADHERED BASE FLASHING SYSTEM AT ALL PENETRATIONS, PLANE TRANSITIONS, AND TERMINATIONS.

E. DECK SHEATHING AND COVER BOARDS:

- IF SHEATHING OR COVER BOARD IS REFERENCED IN THE DRAWINGS, PROVIDE PRODUCTS COMPLYING WITH BELOW REQUIREMENTS.
1. DECK SHEATHING: 1/2" PSJULIUM SHEATHING, ASTM C1395C1399M, TYPE I SPECIAL FIRE RESISTANT TYPE.
2. COVERBOARD: CEMENT ROOF BOARD, COMPLYING WITH ASTM C1325.

F. INSULATION:

1. INSULATION COMPLYING WITH MANUFACTURER'S RECOMMENDATIONS.
2. CELLULOSE FIBER BOARD INSULATION: ASTM C208, TYPE II, NATURAL FINISH.
3. EXPANDED POLYSTYRENE (EPS) BOARD INSULATION: COMPLES WITH ASTM C578 WITH DRAINAGE CHANNELS ON ONE FACE.
4. TAPERED BOARD: POLYSTYRENE (XPS) BOARD INSULATION: COMPLES WITH ASTM C578 WITH NATURAL SKIN SURFACE, DRAINAGE CHANNELS ON ONE FACE.
5. EXTRUDED POLYSTYRENE (XPS) BOARD INSULATION: COMPLES WITH ASTM C578 WITH NATURAL SKIN SURFACE, DRAINAGE CHANNELS ON ONE FACE.

G. ACCESSORIES:

1. PROVIDE AND INSTALL ONLY ACCESSORIES WHICH COMPLY WITH MANUFACTURER'S RECOMMENDATIONS.
2. PROVIDE FIRESTONE PREFINISHED FLASHINGS AND CORNERS FOR ITEMS NOTED IN DRAWING DETAILS.

H. INSTALLATION:

1. VERIFY THAT SURFACES AND SITE CONDITIONS ARE READY TO RECEIVE WORK.
2. INCHES DECK IS SUPPORTED AND SECURE.
3. VERIFY DECK WITH SELF-SEALING STRIP FACE UP AT ROOF EDGE. INSTALL STARTER STRIP ALONG RAKE EDGE.
4. VERIFY DECK IS CLEAN AND SMOOTH. FLAT, FREE OF DEBRIS, WAVES, OR PROJECTIONS, PROPERLY SLOPED AND SUITABLE FOR INSTALLATION OF ROOF SYSTEM.
5. VERIFY DECK SURFACES ARE DRY AND FREE OF RAIN, SNOW OR ICE.
6. VERIFY THAT ROOF OPENINGS, CURBS, AND PENETRATIONS THROUGH ROOF ARE SOLIDLY SET, AND CANT STRIPS ARE IN PLACE.
7. CLEAN SUBSTRATE THOROUGHLY PRIOR TO ROOF APPLICATION.
8. DO NOT BEGIN WORK UNTIL OTHER WORK THAT REQUIRES FOOT OR EQUIPMENT TRAFFIC ON ROOF IS COMPLETE.
9. APPLY MANUFACTURER'S RECOMMENDED VAPOR RETARDER OR TEMPORARY ROOF BEFORE ROOF INSTALLATION.
10. PERFORM WORK IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS AND NRCA (RM) APPLICABLE REQUIREMENTS.
11. REMOVE WRAPPINGS, EMPTY CONTAINERS, PAPER, AND OTHER DEBRIS FROM THE ROOF DAILY. DISPOSE OF DEBRIS IN COMPLIANCE WITH LOCAL, STATE, AND FEDERAL REGULATIONS.
12. IN AREAS WHERE FINISHED SURFACES ARE SOLED BY WORK OF THIS SECTION, CONSULT MANUFACTURER OF SURFACES FOR CLEANING ADVICE AND CONFORM TO THEIR DOCUMENTED INSTRUCTIONS.
13. REPAIR OR REPLACE DEFACED OR DAMAGED FINISHES CAUSED BY WORK OF THIS SECTION.

I. PROTECTION:

1. PROTECT INSTALLED ROOFING AND FLASHINGS FROM CONSTRUCTION OPERATIONS.
2. WHERE TRAFFIC MUST CONTINUE OVER FINISHED ROOF MEMBRANE, PROTECT SURFACES USING DURABLE MATERIALS.

07 6200 - SHEET METAL FLASHING AND TRIM

- A. STANDARDS:
- FABRICATED SHEET METAL ITEMS, INCLUDING FLASHINGS, COUNTERFLASHINGS, AND OTHER ITEMS INDICATED IN SCHEDULE.
- AAMA 811 - VOLUNTARY SPECIFICATION FOR ANODIZED ARCHITECTURAL ALUMINUM 2014 (2015 ERRATA).
- ASTM C602 - STANDARD SPECIFICATION FOR ELASTOMERIC JOINT SEALANTS 2016.
- CDA A4050 - COPPER IN ARCHITECTURE - HANDBOOK CURRENT EDITION.
- SMCMAA (ASMA) - ARCHITECTURAL SHEET METAL MANUAL 2012.

B. SUBMITTALS:

1. SHOP DRAWINGS: INDICATE MATERIAL PROFILE, JOINTING PATTERN, JOINTING DETAILS, FASTENING METHODS, FLASHINGS, TERMINATIONS, AND INSTALLATION DETAILS.
- C. QUALITY ASSURANCE:
1. PERFORM WORK IN ACCORDANCE WITH SMCMAA (ASMA) AND CDA A4050 REQUIREMENTS AND STANDARD DETAILS, EXCEPT AS OTHERWISE INDICATED.

D. DELIVERY, STORAGE, AND HANDLING:

1. STACK MATERIAL TO PREVENT TWISTING, BENDING, AND ABRASION, AND TO PREVENT VENTILATION. SLOPE METAL SHEETS TO ENSURE DRAINAGE.
2. PREVENT CONTACT WITH MATERIALS THAT COULD CAUSE DISCOLORATION OR STAINING.

E. PRODUCTS:

- PREFINISHED ALUMINUM: ASTM B209 (ASTM B209M), 20 GAUGE, (0.032 INCH) THICK, PLAIN FINISH. SHOP PRE-COATED WITH MODIFIED SILICONE COATINGS.
1. FLUOROPOLYMER COATING: HIGH PERFORMANCE ORGANIC FINISH, AAMA 2604, MULTIPLE COAT, THERMALLY CURED FLUOROPOLYMER FINISH SYSTEM.
2. COLOR: AS SELECTED BY ARCHITECT FROM MANUFACTURER'S STANDARD COLORS.

F. FABRICATION:

1. FORM SECTIONS TRUE TO SHAPE, ACCURATE IN SIZE, SQUARE, AND FREE FROM DISTORTION OR DEFECTS.
2. FORM PIECES IN LONGEST POSSIBLE LENGTHS.
3. HEN EXPOSED EDGES ON UNDERSIDE: 1/2" INCH MATERIAL AND SEAM CORNERS.
4. FORM MATERIAL WITH FLAT LOCK SEAMS, EXCEPT WHERE OTHERWISE INDICATED; AT MOVING JOINTS, USE SEALED LAPPED, BAYONET-TYPE OR INTERLOCKING HOOKED SEAMS.
5. FABRICATE FLASHINGS TO ALLOW TCE TO EXTEND 2 INCHES OVER ROOFING GRAVEL, RETURN AND BRAKE EDGES.

G. ACCESSORIES:

1. FASTENERS: GALVANIZED STEEL, WITH SOFT NEOPRENE WASHERS.
2. PRIMER: ZINC CHROMATE TYPE.
3. CONCEALED SEALANTS: NON-CURING BUTYL SEALANT.
4. EXPOSED SEALANTS: ASTM C602, ELASTOMERIC SEALANT, WITH MINIMUM MOVEMENT CAPABILITY AS RECOMMENDED BY MANUFACTURER FOR SUBSTRATES TO BE SEALED; COLOR TO MATCH ADJACENT MATERIAL.

H. INSTALLATION:

1. SECURE FLASHINGS IN PLACE USING CONCEALED FASTENERS, AND USE EXPOSED FASTENERS ONLY WHERE PERMITTED.
2. APPLY PLASTIC CEMENT COMPOUND BETWEEN METAL FLASHINGS AND FELT FLASHINGS.
3. FIT FLASHINGS TIGHT IN PLACE, MAKE CORNERS SQUARE, FLASHINGS TRUE AND STRAIGHT IN PLANES, AND LINES ACCURATE TO PROFILES.
4. SEAL METAL JOINTS WATER-TIGHT.

07 8100 - APPLIED FIREPROOFING

- A. SUBMITTALS: PRODUCT DATA, PROVIDE DATA INDICATING PRODUCT CHARACTERISTICS.
1. TEST REPORTS: REPORTS FROM REPUTABLE, INDEPENDENT TESTING AGENCIES FOR PROPOSED PRODUCTS, INDICATING COMPLIANCE WITH SPECIFIED CRITERIA, CONDUCTED UNDER CONDITIONS SIMILAR TO THOSE ON PROJECT, AS FOLLOWS:
- A. BOND STRENGTH.
- B. BOND IMPACT.
- C. COMPRESSIVE STRENGTH.
- D. FIRE TESTS USING SUBSTRATE MATERIALS SIMILAR THOSE ON PROJECT.
2. MANUFACTURER'S INSTALLATION INSTRUCTIONS: INDICATE SPECIAL PROCEDURES.
3. MANUFACTURER'S QUALIFICATION STATEMENT.

I. FIELD CONDITIONS:

1. DO NOT APPLY FIREPROOFING WHEN TEMPERATURE OF SUBSTRATE MATERIAL AND SURROUNDING AIR IS BELOW -40 DEGREES F OR WHEN TEMPERATURE IS PRECIPITATED TO BE BELOW 34 TEMPERATURE FOR 24 HOURS AFTER APPLICATION.
2. PROVIDE VENTILATION IN AREAS TO RECEIVE FIREPROOFING DURING APPLICATION AND 24 HOURS AFTERWARD, TO DRY APPLIED MATERIAL.
3. PROVIDE TEMPORARY ENCLOSURE TO PREVENT SPRAY FROM CONTAMINATING AIR.

K. WARRANTY:

1. CORRECT DEFECTIVE WORK WITHIN A TWO YEAR PERIOD AFTER DATE OF SUBSTANTIAL COMPLETION.
- A. INCLUDE COVERAGE FOR FIREPROOFING TO REMAIN FREE FROM CRACKING, CHECKING, DUSTING, FLAKING, SPALLING, SEPARATION, AND BULSTERING.
- B. REINSTATE OR REPAIR FAILURES THAT OCCUR WITHIN WARRANTY PERIOD.

L. MANUFACTURERS:

1. GCP APPLIED TECHNOLOGIES: WWW.GCPAT.COM/FIREPROOFING
2. ISOLATEK INTERNATIONAL CORP.: WWW.ISOLATEK.COM
3. SOUTHWEST FIREPROOFING PRODUCTS COMPANY: WWW.SW.FP

M. MATERIALS:

1. PROVIDE ASSEMBLIES AS INDICATED ON DRAWING.
2. PROVIDE FIRE RESISTANCE RATINGS FOR FULL CODE.
- A. PRIMARY STRUCTURAL FRAME, INCL. WALLS, PARTITIONS, AND TRUSSES: [1 HOUR]
- B. BEARING WALLS, INTERIOR: [1 HOUR]
- C. NON-BEARING WALLS, INTERIOR: [1 HOUR]
- D. ROOF CONSTRUCTION, INCL. DECK, JOISTS, AND TRUSSES: [1 HOUR]

N. FINISHES:

1. MOUNT HARDWARE UNITS AT HEIGHTS INDICATED IN 'RECOMMENDED LOCATIONS FOR BUILDERS HARDWARE FOR STANDARD STYLE DOORS AND FRAMES' BY THE DOOR AND HARDWARE INSTITUTE, EXCEPT AS SPECIFICALLY INDICATED OR REQUIRED TO COMPLY WITH GOVERNING REGULATIONS, AND EXCEPT AS MAY BE OTHERWISE DIRECTED BY ARCHITECT. MOUNT HARDWARE IN UNITS DESIGNATED FOR USE BY THE HANDICAPPED AT HEIGHTS RECOMMENDED FOR USE BY THE HANDICAPPED.
2. INSTALL EACH HARDWARE ITEM IN COMPLIANCE WITH THE MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS, WHEREVER CUTTING AND FITTING IS REQUIRED TO INSTALL HARDWARE ONTO OR INTO SURFACES WHICH ARE LATER TO BE PAINTED OR FINISHED IN ANOTHER WAY, COORDINATE REMOVAL, STORAGE AND REINSTALLATION OR APPLICATION OF SURFACE PROTECTIONS WITH FINISHING WORK SPECIFIED IN THE DIVISION 9 SECTIONS. DO NOT INSTALL SURFACE MOUNTED UNITS UNTIL FINISHES HAVE BEEN COMPLETED ON THE SUBSTRATE.
3. SET UNITS LEVEL, PLUMB AND TRUE TO LINE AND LOCATION. ADJUST AND REINFORCE THE ATTACHMENT SUBSTRATE AS NECESSARY FOR PROPER INSTALLATION AND OPERATION.
4. DRILL AND COUNTERBANK UNITS WHICH ARE NOT FACTORY PREPARED FOR ANCHORAGE FASTENERS. SPACE FASTENERS AND ANCHORS IN ACCORDANCE WITH INDUSTRY STANDARDS.
5. METAL THRESHOLDS SHALL BE SET IN A SOLID BED OF NON STAINING THICK PUTTY, BASE CAULKING.
6. ADJUST AND CHECK EACH OPERATING ITEM OF HARDWARE AND EACH DOOR, TO ENSURE PROPER OPERATION OR FUNCTION OF EVERY UNIT. REPLACE UNITS WHICH CANNOT BE ADJUSTED TO OPERATE FREELY AND SMOOTHLY AS INTENDED FOR THE APPLICATION MADE.
7. FINAL ADJUSTMENT, WHEREVER HARDWARE INSTALLATION IS MADE MORE THAN ONE MONTH PRIOR TO ACCEPTANCE OR OCCUPANCY OF A SPACE OR AREA, RETURN TO THE WORK DURING THE WEEK PRIOR TO ACCEPTANCE OR OCCUPANCY, AND MAKE FINAL CHECK AND ADJUSTMENT OF ALL HARDWARE ITEMS IN SUCH SPACE OR AREA. CLEAN OPERATING ITEMS AS NECESSARY TO RESTORE PROPER FUNCTION AND FINISH OF HARDWARE AND DOORS. ADJUST DOOR CONTROL DEVICES TO COMPENSATE FOR FINAL OPERATION OF HEATING AND VENTILATING EQUIPMENT.

O. ACCESSORIES:

1. PRIMER ADHESIVE: OF TYPE RECOMMENDED BY APPLIED FIREPROOFING MANUFACTURER.
2. OVERCOAT: AS RECOMMENDED BY MANUFACTURER OF APPLIED FIREPROOFING MATERIAL.
3. METAL LATH: EXPANDED METAL LATH, MINIMUM WEIGHT OF 17 PSF, GALVANIZED FINISH.
4. WATER: CLEAN, POTABLE.

P. INSTALLATION:

1. VERIFY THAT SURFACES ARE READY TO RECEIVE FIREPROOFING.
2. VERIFY THAT DUCTS, PIPING, EQUIPMENT, OR OTHER ITEMS THAT WOULD INTERFERE WITH APPLICATION OF FIREPROOFING HAVE NOT BEEN INSTALLED.
3. VERIFY THAT VOIDS AND CRACKS IN SUBSTRATE HAVE BEEN FILLED.
4. VERIFY THAT PROJECTIONS HAVE BEEN REMOVED WHERE FIREPROOFING WILL BE EXPOSED TO VIEW AS A FINISH MATERIAL.
5. PERFORM TESTS AS RECOMMENDED BY FIREPROOFING MANUFACTURER IN APPLICATIONS WHERE ADHESION OF FIREPROOFING TO SUBSTRATE IS IN QUESTION.
6. REMOVE INCOMPATIBLE MATERIALS THAT COULD EFFECT BOND BY SCRAPING, BRUSHING, SCRUBBING, OR SANDBLASTING.
7. PREPARE SUBSTRATES TO RECEIVE FIREPROOFING IN STRICT ACCORDANCE WITH INSTRUCTIONS OF FIREPROOFING MANUFACTURER.
8. APPLY FIREPROOFING MANUFACTURER'S RECOMMENDED BONDING AGENT ON PRIME STEEL.
9. INSTALL METAL LATH OVER STRUCTURAL MEMBERS AS INDICATED OR AS REQUIRED BY UL ASSEMBLY DESIGN NUMBERS.
10. APPLY FIREPROOFING IN UNIFORM THICKNESS AND DENSITY AS NECESSARY TO ACHIEVE REQUIRED RATINGS.
11. INSPECT INSTALLED FIREPROOFING AFTER APPLICATION AND CURING FOR INTEGRITY, PRIOR TO ITS CONCEALMENT.
12. ENSURE THAT ACTUAL THICKNESSES, DENSITIES, AND BOND STRENGTHS MEET REQUIREMENTS FOR SPECIFIED RATINGS AND REQUIREMENTS OF AUTOMATICALLY RATED AND CURING FOR INTEGRITY, PRIOR TO ITS CONCEALMENT.
13. REMOVE EXCESS MATERIAL, OVERSPRAY, DROPPINGS, AND DEBRIS.
14. REMOVE FIREPROOFING FROM MATERIALS AND SURFACES NOT REQUIRED TO BE FIREPROOFED.

07 8400 - FIRESTOPPING

- A. SUBMITTALS: PRODUCT DATA: PROVIDE DATA ON PRODUCT CHARACTERISTICS, PERFORMANCE RATINGS, AND LIMITATIONS.

B. MANUFACTURERS:

1. 3M FIRE PROTECTION PRODUCTS: WWW.3M.COM/FIRESTOP.COM
2. HILT, INC.: WWW.US.HILT.COM

C. MATERIALS:

1. FIRESTOPPING MATERIALS: ANY MATERIALS MEETING REQUIREMENTS.
2. PRIMERS, SLEEVES, FORMS, INSULATION, PACKING, STUFFING, AND ACCESSORIES: PROVIDE TYPE OF MATERIALS AS REQUIRED FOR TESTED FIRESTOPPING APPLICATIONS.
3. FIRE RATINGS: REFER TO DRAWINGS FOR REQUIRED SYSTEMS AND RATINGS.

D. ASSEMBLY REQUIREMENTS:

1. HEAD-OF-WALL, JOINT SYSTEM FIRESTOPPING AT JOINTS BETWEEN FIRE-RATED WALL ASSEMBLIES AND NON-RATED HORIZONTAL ASSEMBLIES: USE SYSTEM THAT HAS BEEN TESTED ACCORDING TO ASTM E837 TO HAVE FIRE RESISTANCE F RATING EQUAL TO REQUIRED FIRE RATING OF FLOOR OR WALL, WHICHEVER IS GREATER.
2. FLOOR-TO-FLOOR, WALL-TO-WALL, AND WALL-TO-FLOOR JOINTS, EXCEPT PERIMETER, WHERE BOTH ARE FIRE-RATED: USE SYSTEM THAT HAS BEEN TESTED ACCORDING TO ASTM E1966 OR UL 2079 TO HAVE FIRE RESISTANCE.
3. FIRE RATING EQUAL TO REQUIRED FIRE RATING OF THE ASSEMBLY IN WHICH THE JOINT OCCURS.
4. THROUGH PENETRATION FIRESTOPPING: USE SYSTEM THAT HAS BEEN TESTED ACCORDING TO ASTM E814 TO HAVE FIRE RESISTANCE F-RATING EQUAL TO REQUIRED FIRE RATING OF PENETRATED ASSEMBLY.

E. INSTALLATION:

1. INSTALLATIONS SHALL CONFORM TO UL REQUIREMENTS OF THE ASSEMBLY WHICH FIRESTOPPING IS TO BECOME PART OF THE BUILT ASSEMBLY.

07 9200 - JOINT SEALANTS

- A. SUBMITTALS: PRODUCT DATA, AND SCHEDULE OF LOCATIONS FOR EACH TYPE JOINT SEALANT SUBMITTED.

- B. JOINT SEALANT SCHEDULE: INCLUDE THE FOLLOWING INFORMATION:
1. JOINT SEALANT APPLICATION, JOINT LOCATION, AND DESIGNATION.
2. JOINT SEALANT MANUFACTURER AND PRODUCT NAME.
3. JOINT SEALANT FORMULATION.
4. JOINT SEALANT COLOR.

- C. ENVIRONMENTAL LIMITATIONS: DO NOT PROCEED WITH INSTALLATION OF JOINT SEALANTS WHEN AMBIENT AND SUBSTRATE TEMPERATURE CONDITIONS ARE OUTSIDE LIMITS PERMITTED BY JOINT SEALANT MANUFACTURER OR ARE BELOW 40 deg F (4 deg C).

- D. COMPATIBILITY: PROVIDE JOINT SEALANTS, JOINT FILLERS, AND OTHER RELATED MATERIALS THAT ARE COMPATIBLE WITH ONE ANOTHER AND WITH JOINT SUBSTRATES UNDER SERVICE AND APPLICATION CONDITIONS.

E. JOINT SEALANTS:

1. COLORS OF EXPOSED JOINT SEALANTS: AS SELECTED BY ARCHITECT FROM MANUFACTURER'S FULL RANGE.
2. INTERIOR JOINTS IN CERAMIC TILE AND OTHER HARD SURFACES IN KITCHENS, TOILET ROOMS, AND AROUND PLUMBING FIXTURES: SINGLE COMPONENT, MILDEW-RESISTANT SILICONE SEALANT, ASTM C 620, TYPE S; GRADE NS, CLASS 25; USES AT, A, AND C, O. FORMULATED WITH FUNGICIDE.
3. INTERIOR JOINTS AROUND PERIMETERS OF DOORS AND FRAMES: LATEX SEALANT, SINGLE COMPONENT, NONSAL, MILDEW-RESISTANT, PAINTABLE, ACRYLIC EMULSION SEALANT COMPLYING WITH ASTM C 834.
4. ACUSTICAL SEALANT FOR EXPOSED INTERIOR JOINTS: NONSAG, PAINTABLE, NONSTAINING, LATEX SEALANT COMPLYING WITH ASTM C 834.
5. ACUSTICAL SEALANT FOR CONCEALED JOINTS: NONDRYING, NONHARDENING, NONSKINNING, NONSTAINING, QUINNABLE, SYNTHETIC RUBBER SEALANT RECOMMENDED FOR SEALING INTERIOR CONCEALED JOINTS TO REDUCE TRANSMISSION OF AERIOBIC SOUND.
6. EXTERIOR CONCRETE PANELS, NATURAL STONES, MASONRY, ALUMINUM CURTAIN WALLS, METAL PANELS AND WINDOW PERIMETERS.
- BASIS OF DESIGN PRODUCTS:
- A. TREMCO INCORPORATED: SPECTREM 1.
- B. DOW CORNING CORPORATION: 790.
- C. PECORA CORPORATION: BRONST.
7. EXTERIOR JOINTS IN HORIZONTAL TRAFFIC SURFACES.
8. ISOLATION AND CONTRACTION JOINTS IN CAST-IN-PLACE CONCRETE SLABS.
- URETHANE JOINT SEALANT: MULTICOMPONENT, NONSAG, GRADE 25.

F. JOINT SEALANT BACKING:

1. GENERAL: PROVIDE SEALANT BACKINGS OF MATERIAL THAT ARE NONSTAINING, ARE COMPATIBLE WITH JOINT SUBSTRATES, SEALANTS, PRIMERS, AND OTHER JOINT FILLERS, AND ARE APPROVED FOR APPLICATIONS INDICATED BY SEALANT MANUFACTURER BASED ON FIELD EXPERIENCE AND LABORATORY TESTING.
2. CYLINDRICAL SEALANT BACKINGS: ASTM C 1330, TYPE C (CLOSED-CELL MATERIAL WITH A SURFACE SKIN), AND OF SIZE AND DENSITY TO CONTROL SEALANT DEPTH AND OTHERWISE CONTRIBUTE TO PRODUCING OPTIMUM SEALANT PERFORMANCE.
3. BOND-BREAKER TAPE: POLYETHYLENE TAPE OR OTHER PLASTIC TAPE RECOMMENDED BY SEALANT MANUFACTURER FOR PREVENTING SEALANT FROM ADHERING TO RIGID, INFLEXIBLE JOINT-FILLER MATERIALS OR JOINT SURFACES AT BACK OF JOINT. PROVIDE SELF-ADHESIVE TAPE WHERE APPLICABLE.

G. MISCELLANEOUS MATERIALS:

1. PRIMER: MATERIAL RECOMMENDED BY JOINT SEALANT MANUFACTURER WHERE REQUIRED FOR ADHESION OF SEALANT TO JOINT SUBSTRATES INDICATED, AS DETERMINED FROM PRECONSTRUCTION JOINT SEALANT-SUBSTRATE TESTS AND FIELD TESTS.
2. CLEANERS FOR NONPOROUS SURFACES: CHEMICAL CLEANERS ACCEPTABLE TO MANUFACTURERS OF SEALANTS AND SEALANT BACKING MATERIALS, FREE OF OILY RESIDUES OR OTHER SUBSTANCES CAPABLE OF STAINING OR HARMING JOINT SUBSTRATES AND ADJACENT NONPOROUS SURFACES IN ANY WAY, AND FORMULATED TO PROMOTE OPTIMUM ADHESION OF SEALANTS TO JOINT SUBSTRATES.
3. BOND-BREAKER TAPE: POLYETHYLENE TAPE OR OTHER PLASTIC TAPE RECOMMENDED BY SEALANT MFR. FOR PREVENTING SEALANT FROM ADHERING TO RIGID, INFLEXIBLE JOINT-FILLER MATERIALS OR JOINT SURFACES AT BACK OF JOINT.
4. MASKING TAPE: NONSTAINING, NONABSORBENT MATERIAL COMPATIBLE WITH JOINT SEALANTS AND SURFACES ADJACENT TO JOINTS.
6. INSTALLATION: COMPLY WITH ASTM C 1193, ASTM C 919 FOR ACUSTICAL JOINTS, AND AS FOLLOWS:
1. REMOVE ALL LOOSE MATERIAL, CLEAN AND PRIME JOINTS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS, AND PROTECT ADJACENT SURFACES.
2. INSTALL BOND-BREAKER TAPE WHERE JOINT BACKINGS ARE NOT USED.
3. INSTALL SEALANT TOOLED CONCAVE, FREE OF AIR POCKETS, FOREIGN EMBEDDED MATTER, RIDGES, AND SAGS, AND PROTECT UNTIL FULLY CURED. SEALANT WITH DUST AND DEBRIS EMBEDDED IN SURFACE SHALL BE CAUSE FOR REJECTION.

DIVISION 8 - OPENINGS

08 0671 - DOOR HARDWARE

- A. SUBMITTALS: PRODUCT DATA AND SHOP DRAWINGS WITH DETAILS OF EACH OPENING, SHOWING ELEVATIONS, GLAZING, FRAME PROFILES, AND ANY INDICATED FINISH REQUIREMENTS.
- B. HOLLOW METAL DOOR AND FRAME MANUFACTURERS:
1. CEOO DOOR, AN ASSA ABLOY GROUP COMPANY: WWW.ASSAABLOYDOSS.COM
2. DE LA FONTAINE INC.: WWW.DELAFONTAINE.COM
3. REPLICRAFT, AN ALLEGION BRAND: WWW.REPLICRAFTDOOR.COM
4. STEELCRAFT, AN ALLEGION BRAND: WWW.ALLEGION.COM
- C. SOUND-RATED HOLLOW METAL DOORS AND FRAMES:
1. OVERLY DOOR COMPANY: WWW.OVERLY.COM

D. PRODUCTS: REFER TO HARDWARE SCHEDULE AND ARCHITECTURAL DRAWINGS.

1. STRIKES: PROVIDE MANUFACTURER'S STANDARD WROUGHT BOX STRIKE FOR EACH LATCH OR LOCK BOLT, WITH CURVED UP EXTENSION TO PROTECT FRAME. FINISH TO MATCH HARDWARE SET. PROVIDE STANDARD (OPEN) STRIKE PLATES FOR INTERIOR DOORS WHERE WOOD DOOR FRAMES ARE USED.
2. IN GENERAL, HARDWARE FINISH SHALL BE U155 (SATIN NICKEL) UNLESS SPECIFIED DIFFERENTLY ON HARDWARE SCHEDULE.
3. SUPPLY CAL ROVAL HOFFS FLEXIBLE DOOR STOPS IN THE APARTMENT DWELLING UNITS. USE 2 1/8"X-23 HINGE STOPS WHERE FLEXIBLE STOPS CANNOT BE USED.
4. SUPPLY CUT SWINGING EXTERIOR DOORS WITH NON REMOVABLE PINS.

C. INSTALLATION:

1. MOUNT HARDWARE UNITS AT HEIGHTS INDICATED IN 'RECOMMENDED LOCATIONS FOR BUILDERS HARDWARE FOR STANDARD STYLE DOORS AND FRAMES' BY THE DOOR AND HARDWARE INSTITUTE, EXCEPT AS SPECIFICALLY INDICATED OR REQUIRED TO COMPLY WITH GOVERNING REGULATIONS, AND EXCEPT AS MAY BE OTHERWISE DIRECTED BY ARCHITECT. MOUNT HARDWARE IN UNITS DESIGNATED FOR USE BY THE HANDICAPPED AT HEIGHTS RECOMMENDED FOR USE BY THE HANDICAPPED.
2. INSTALL EACH HARDWARE ITEM IN COMPLIANCE WITH THE MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS, WHEREVER CUTTING AND FITTING IS REQUIRED TO INSTALL HARDWARE ONTO OR INTO SURFACES WHICH ARE LATER TO BE PAINTED OR FINISHED IN ANOTHER WAY, COORDINATE REMOVAL, STORAGE AND REINSTALLATION OR APPLICATION OF SURFACE PROTECTIONS WITH FINISHING WORK SPECIFIED IN THE DIVISION 9 SECTIONS. DO NOT INSTALL SURFACE MOUNTED UNITS UNTIL FINISHES HAVE BEEN COMPLETED ON THE SUBSTRATE.
3. SET UNITS LEVEL, PLUMB AND TRUE TO LINE AND LOCATION. ADJUST AND REINFORCE THE ATTACHMENT SUBSTRATE AS NECESSARY FOR PROPER INSTALLATION AND OPERATION.
4. DRILL AND COUNTERBANK UNITS WHICH ARE NOT FACTORY PREPARED FOR ANCHORAGE FASTENERS. SPACE FASTENERS AND ANCHORS IN ACCORDANCE WITH INDUSTRY STANDARDS.
5. METAL THRESHOLDS SHALL BE SET IN A SOLID BED OF NON STAINING THICK PUTTY, BASE CAULKING.
6. ADJUST AND CHECK EACH OPERATING ITEM OF HARDWARE AND EACH DOOR, TO ENSURE PROPER OPERATION OR FUNCTION OF EVERY UNIT. REPLACE UNITS WHICH CANNOT BE ADJUSTED TO OPERATE FREELY AND SMOOTHLY AS INTENDED FOR THE APPLICATION MADE.
7. FINAL ADJUSTMENT, WHEREVER HARDWARE INSTALLATION IS MADE MORE THAN ONE MONTH PRIOR TO ACCEPTANCE OR OCCUPANCY OF A SPACE OR AREA, RETURN TO THE WORK DURING THE WEEK PRIOR TO ACCEPTANCE OR OCCUPANCY, AND MAKE FINAL CHECK AND ADJUSTMENT OF ALL HARDWARE ITEMS IN SUCH SPACE OR AREA. CLEAN OPERATING ITEMS AS NECESSARY TO RESTORE PROPER FUNCTION AND FINISH OF HARDWARE AND DOORS. ADJUST DOOR CONTROL DEVICES TO COMPENSATE FOR FINAL OPERATION OF HEATING AND VENTILATING EQUIPMENT.

HARDWARE SET: 1.0

FOR USE ON DOOR (S):

N-101, N-102

PROVIDE EACH SGL DOOR(S) WITH THE FOLLOWING:

QTY	DESCRIPTION	CATALOG NUMBER	FINISH	MFR
3 EA	HINGE	5881 4.5 X 4.5	BRUSHED NICKEL	IVE
1 EA	PRIVACY WDR B AND	L34989P 6GA L583-303	BRUSHED NICKEL	SCH
1 EA	SURFACE CLOSER	4040P REG	BRUSHED NICKEL	LCN
1 EA	KICK PLATE	8400 10" X 2" LDW B-CS	BRUSHED NICKEL	IVE
1 EA	WALL STOP	WS4640G7CVX	BRUSHED NICKEL	IVE
3 EA	SLENCER	S864	GRY	NE

HARDWARE SET: 2.0

FOR USE ON DOOR (S):

N-103

PROVIDE EACH SGL DOOR(S) WITH THE FOLLOWING:

QTY	DESCRIPTION	CATALOG NUMBER	FINISH	MFR
3 EA	HINGE	5881 4.5 X 4.5	BRUSHED NICKEL	IVE
1 EA	STOREROOM LOCK	L9089P 6GA	BRUSHED NICKEL	SCH
1 EA	HO STOP	905	BRUSHED NICKEL	GLY
3 EA	SLENCER	S864	GRY	IVE

HARDWARE SET: 3.0

FOR USE ON DOOR (S):

S-100C

PROVIDE EACH SGL DOOR(S) WITH THE FOLLOWING:

QTY	DESCRIPTION	CATALOG NUMBER	FINISH	MFR
3 EA	HINGE	5881HW 4.5 X 4.5 NRP	BRUSHED NICKEL	IVE
1 EA	STOREROOM LOCK	N080LD RHO	BRUSHED NICKEL	SCH
1 EA	FISC CORE	PERMANENT CORE	BRUSHED NICKEL	SCH
1 EA	KEYED CONST CORE	KEYED CONST CORE	BRUSHED NICKEL	SCH
1 EA	SURFACE CLOSER	4040P SHUSHS MC	BRUSHED NICKEL	LCN
1 EA	RAN DRIP	142	BRUSHED NICKEL	ZER
1 EA	GASKETING	328-S	BRUSHED NICKEL	ZER
1 EA	DOOR SWEEP	39	BRUSHED NICKEL	ZER
1 EA	THRESHOLD	555-223	BRUSHED NICKEL	ZER
1 EA	DOOR CONTACT	679-059H OR WD AS REQD	BRUSHED NICKEL	SCB

08 1113 - HOLLOW METAL DOORS AND FRAMES

- A. SUBMITTALS: PRODUCT DATA AND SHOP DRAWINGS WITH DETAILS OF EACH OPENING, SHOWING ELEVATIONS, GLAZING, FRAME PROFILES, AND ANY INDICATED FINISH REQUIREMENTS.

B. HOLLOW METAL DOOR AND FRAME MANUFACTURERS:

1. CEOO DOOR, AN ASSA ABLOY GROUP COMPANY: WWW.ASSAABLOYDOSS.COM
2. DE LA FONTAINE INC.: WWW.DELAFONTAINE.COM
3. REPLICRAFT, AN ALLEGION BRAND: WWW.REPLICRAFTDOOR.COM
4. STEELCRAFT, AN ALLEGION BRAND: WWW.ALLEGION.COM
- C. SOUND-RATED HOLLOW METAL DOORS AND FRAMES:
1. OVERLY DOOR COMPANY: WWW.OVERLY.COM

D. DESIGN CRITERIA:

1. STEEL USED FOR FABRICATION OF DOORS AND FRAMES SHALL COMPLY WITH ONE OR MORE OF THE FOLLOWING RECOMMENDATIONS: A. STEEL SHALL BE GALVANNEALIZED STEEL CONFORMING TO ASTM A593M/593. COLD-ROLLED STEEL CONFORMING TO ASTM A1008/A1008M, OR HOT-ROLLED PICKLED AND OILED (HPO) STEEL CONFORMING TO ASTM A1011/A1011M. COMMERCIAL STEEL (CS) TYPE B FOR EACH.
2. 2" TYPICAL DOOR FACE SHEETS: FLUSH.
3. GLAZED LIGHTS: NON-REMOVABLE STOPS ON NON-SECURE SIDE; SIZES AND CONFIGURATIONS AS INDICATED ON DRAWINGS. STYLE: MANUFACTURER'S STANDARD.
4. HOLLOW DOOR FACE SHEETS: FLUSH.
5. ZINC COATED: TYPICAL INTERIOR AND/OR EXTERIOR LOCATIONS: PROVIDE METAL COMPONENTS ZINC-COATED (GALVANNEAL) AND/OR ZINC-IRON ALLOY COATED (GALVANNEAL) BY THE HOT-DIP PROCESS IN ACCORDANCE WITH ASTM A653/A653M, WITH MANUFACTURER'S STANDARD COATING THICKNESS, UNLESS NOTED OTHERWISE FOR SPECIFIC HOLLOW METAL DOORS AND FRAMES.
6. HOLLOW METAL PANELS: SAME CONSTRUCTION, PERFORMANCE, AND FINISH AS DOORS.
7. COMBINED REQUIREMENTS: IF A PARTICULAR DOOR AND FRAME UNIT IS INDICATED TO COMPLY WITH MORE THAN ONE TYPE OF REQUIREMENT, COMPLY WITH THE SPECIFIED REQUIREMENTS FOR EACH TYPE, FOR AN INTERIOR DOOR THAT IS SO INDICATED AS BEING SOUND-RATED MUST COMPLY WITH THE REQUIREMENTS SPECIFIED FOR EXTERIOR DOORS AND FOR SOUND-RATED DOORS, WHERE TWO REQUIREMENTS COMPLY, COMPLY WITH THE MOST STRINGENT.

E. HOLLOW METAL DOOR:

1. EXTERIOR DOORS: THERMALLY INSULATED.

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SPECIFICATIONS - PRODUCT & INSTALLATION GENERAL REQUIREMENTS

- 08 8100 - MIRRORS**
- A. **SUBMITTALS:** FOR EACH TYPE OF PRODUCT INDICATED THE CONTRACTOR SHALL PREPARE, AND SUBMIT TO THE ARCHITECT FOR APPROVAL, COMPLETE SHOP DRAWINGS: INCLUDE MIRROR ELEVATIONS, EDGE DETAILS, MIRROR HARDWARE, AND ATTACHMENTS TO OTHER WORK. WARRANTY: SAMPLE OF SPECIAL WARRANTY.
- B. **QUALITY ASSURANCE:** VINYL CASEMENT WINDOWS-BASE OF DESIGN: M1 3500 VINYL SINGLE-HUNG WINDOWS
1. GLAZING PUBLICATIONS: COMPLY WITH GANAS "GLAZING MANUAL" AND "MIRRORS, HANDLE WITH EXTREME CARE: TIPS FOR THE ARCHITECT ON THE CARE AND HANDLING OF MIRRORS"
2. SAFETY GLAZING PRODUCTS: FOR MIRRORS, PROVIDE PRODUCTS COMPLYING WITH TESTING REQUIREMENTS IN 16 CFR 1201 FOR CATEGORY I MATERIALS.
3. PRECONSTRUCTION MIRROR MASTIC COMPATIBILITY TEST: SUBMIT MIRROR MASTIC PRODUCTS TO MIRROR MANUFACTURER FOR TESTING TO DETERMINE COMPATIBILITY OF MASTIC WITH MIRROR BACKING AND SUBSTRATES ON WHICH MIRRORS ARE INSTALLED.

- C. **WARRANTY:** SPECIAL WARRANTY: MANUFACTURERS STANDARD FORM IN WHICH MIRROR MANUFACTURER AGREES TO REPLACE MIRRORS THAT DEGRADE WITHIN SPECIFIED WARRANTY PERIOD. DETECTION OF MIRRORS IS DEFINED AS DEFECTS DEVELOPED FROM NORMAL USE THAT ARE NOT ATTRIBUTED TO MIRROR BREAKAGE OR TO MAINTAINING AND CLEANING MIRRORS CONTRARY TO MANUFACTURER'S WRITTEN INSTRUCTIONS. DEFECTS INCLUDE DISCOLORATION, BLACK SPOTS, AND CLOUDING OF THE SILVER FILM.
1. WARRANTY PERIOD: FIVE YEARS FROM DATE OF SUBSTANTIAL COMPLETION.

- D. **BASIS OF DESIGN:** SILVERED FLAT GLASS
1. GLASS MIRRORS: GENERAL ASTM C 155; MANUFACTURED USING COPPER FREE, LOW LEAD MIRROR COATING PROCESS.
2. CLEAR GLASS: MIRROR/GLAZING QUALITY: ULTRACLEAR (LOW IRON) FLAT GLASS WITH A MINIMUM 91 PERCENT VISIBLE LIGHT TRANSMISSION, NOMINAL THICKNESS: 1/4 INCH.
3. TEMPERED CLEAR GLASS: MIRROR GLAZING QUALITY, FOR BLEMISH REQUIREMENTS, AND COMPLY WITH ASTM C 1048 FOR FND FT. CONDITION A, TEMPERED FLAT GLASS BEFORE ELEVATION COATING IS APPLIED. NOMINAL THICKNESS: 1/4 INCH.
- E. **MIRROR HARDWARE:** TOP AND BOTTOM ALUMINUM CHANNELS, ALUMINUM EXTRUSIONS WITH A RETURN DEEP ENOUGH TO PRODUCE A GLAZING CHANNEL TO ACCOMMODATE MIRRORS OF THICKNESS INDICATED AND A LENGTHS REQUIRED TO COVER BOTTOM AND TOP EDGES OF EACH MIRROR IN A SINGLE PIECE. FINISH: CLEAR BRUSH ANODIZED.

1. TOP AND BOTTOM MIRROR MOUNTING CLIPS: #277 MIRROR CLIPS AS MANUFACTURED BY INAPPE & VOGT OR APPROVED EQUAL.
2. FASTENERS: FABRICATED OF SAME BASIC METAL AND ALLOY AS FASTENED METAL AND MATCHING IT IN FINISHED COLOR AND TEXTURE WHERE FASTENERS ARE EXPOSED.
- F. **INSTALLATION:** GENERAL: EXAMINE SUBSTRATES, OVER WHICH MIRRORS ARE TO BE MOUNTED, WITH INSTALLER PRESENT, FOR COMPLIANCE WITH INSTALLATION TOLERANCES, SUBSTRATE PREPARATION, AND OTHER CONDITIONS AFFECTING PERFORMANCE OF THE WORK.
- A. VERIFY COMPATIBILITY WITH AND SUITABILITY OF SUBSTRATES, INCLUDING COMPATIBILITY OF MIRROR MASTIC WITH EXISTING FINISHES OR PRIMERS.
- B. PROCEED WITH INSTALLATION ONLY AFTER UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED AND SURFACES ARE DRY.

1. INSTALL MIRRORS TO COMPLY WITH MIRROR MANUFACTURER'S WRITTEN INSTRUCTIONS AND WITH REFERENCED GANA PUBLICATIONS. MOUNT MIRRORS ACCURATELY IN PLACE IN A MANNER THAT AVOIDS DISTORTING REFLECTED IMAGES.
2. INSTALL WALL MOUNTED ANNEALED GLASS MIRRORS IN THE APARTMENT UNITS WITH MIRROR CLIPS. ATTACH MIRROR HARDWARE SECURELY TO MOUNTING SURFACES WITH MECHANICAL FASTENERS INSTALLED WITH 3 ANCHORS OR INSERTS AS APPLICABLE. INSTALL FASTENERS SO HEADS DO NOT IMPOSE POINT LOADS ON BACKS OF MIRRORS.
4. PROTECT MIRRORS FROM BREAKAGE AND CONTAMINATING SUBSTANCES RESULTING FROM CONSTRUCTION OPERATIONS.
5. MAINTAIN ENVIRONMENTAL CONDITIONS THAT WILL PREVENT MIRRORS FROM BEING EXPOSED TO MOISTURE FROM CONDENSATION OR OTHER SOURCES FOR CONTINUOUS PERIODS OF TIME.
6. WASH EXPOSED SURFACE OF MIRRORS NOT MORE THAN FOUR DAYS BEFORE DATE SCHEDULED FOR INSPECTIONS THAT ESTABLISH DATE OF SUBSTANTIAL COMPLETION. WASH MIRRORS AS RECOMMENDED IN WRITING BY MIRROR MANUFACTURER.

DIVISION 9 - FINISHES

- 09 2116 - GYPSUM BOARD ASSEMBLIES**
- A. **STEEL FRAMING MEMBERS:** COMPLY WITH ASTM C754 IN DEPTHS AND GAGES AS INDICATED IN THE CONSTRUCTION DRAWINGS AND AS FOLLOWS:
1. STEEL SHEET COMPONENTS: COMPLY WITH ASTM C845 WITH MANUFACTURER'S STANDARD CORROSION-RESISTANT ZINC COATING.
2. WIRE: ASTM A 641/A 641M CLASS 1 ZINC COATING, SOFT TEMPER, .0625" DIAMETER OR DOUBLE STRAND OF .0475" DIAMETER WIRE.
3. WIRE HANGERS: ASTM A 641/A 641M CLASS 1 ZINC COATING, SOFT TEMPER, .0102" DIAMETER.
- B. **PANEL PRODUCTS:** PROVIDE IN THICKNESS AND TYPE INDICATED IN THE CONSTRUCTION DRAWINGS IN MAXIMUM LENGTHS AVAILABLE TO MINIMIZE END-TO-END BUTT JOINTS AND AS FOLLOWS:
1. GYPSUM WALLBOARD: ASTM C 36, TYPE "X" WITH TAPERED EDGES, SAC-RESISTANT TYPE FOR CEILING SURFACES.
2. WATER-RESISTANT GYPSUM BACKING BOARD: ASTM C 830, TYPE "X" ON ALL TOILET ROOM AND SHOWER ROOM WALLS, BEHIND ALL PLUMBING FITTINGS, AND AS INDICATED.

- C. **ACCESSORIES:**
1. TRIM: ASTM 1347, FORMED FROM GALVANIZED OR ALUMINUM COATED STEEL SHEET, ROLLED ZINC, OR PLASTIC
- a. OUTSIDE CORNERS: PROVIDE CORNER BEAD UNLESS NOTED OTHERWISE.
- b. EXPOSED PANEL EDGES: PROVIDE CORNER BEAD UNLESS NOTED OTHERWISE; USE TEAR-AWAY BEAD WHERE GYP. BD. MEETS WINDOW FRAMES OR CEILING GRID.
- c. CONTROL JOINTS: PROVIDE WHERE INDICATED OR APPROXIMATELY 30" APART. CONTACT ARCHITECT FOR LOCATIONS IF NOT INDICATED.
2. SOUND-ATTENUATION BLANKETS: ASTM C 685, TYPE 1 (UNFADED).
3. ACOUSTICAL SEALANT: COMPLY WITH ASTM C 834, NONSAG, PAINTABLE, NONSTAINING LATEX.

- D. **INSTALLATION:**
1. FRAMING: COMPLY WITH ASTM C 754 AND ASTM C 840 AND WITH U.S. GYPSUM'S "GYPSUM CONSTRUCTION HANDBOOK" ISOLATE FRAMING FROM BUILDING STRUCTURE TO PREVENT TRANSFER OF LOADING IMPOSED BY STRUCTURAL MOVEMENT AND PROVIDE BRACING AS NECESSARY FOR PROPER SUPPORT WHETHER INDICATED OR NOT.
2. GYPSUM PANELS AND FINISH: COMPLY WITH ASTM C 840 AND GA-216. GYPSUM BOARD ASSEMBLIES FROM ABUTTING STRUCTURAL AND MASONRY WORK AND FINISH AS FOLLOWS:
- A. LEVEL 1 (EMBED TAPE AT JOINTS): AT CONCEALED AREAS UNLESS A HIGHER LEVEL IS INDICATED OR REQUIRED FOR PRE-RESISTANCE-RATED ASSEMBLY.
- B. LEVEL 2 (EMBED TAPE AND APPLY SEPARATE FIRST COAT OF JOINT COMPOUND TO TAPE, FASTENERS, AND TRIM FLANGES AND SAND SMOOTH AFTER EACH COAT): AT SUBSTRATES BEHIND TILE.
- C. LEVEL 4 (EMBED TAPE AND APPLY SEPARATE FIRST FILL, AND FINISH COATS OF JOINT COMPOUND TO TAPE, FASTENERS, AND TRIM FLANGES, AND SAND SMOOTH AFTER EACH COAT): AT ALL WALLS RECEIVING FLAT, EGGSHELL, OR SATIN SHEEN PAINT OR WALLCOVERING.
- D. LEVEL 5 (EMBED TAPE, APPLY SEPARATE FIRST FILL, AND FINISH COATS OF JOINT COMPOUND TO TAPE, FASTENERS, AND TRIM FLANGES, AND APPLY THIN SKIM COAT OF JOINT COMPOUND OVER ENTIRE SURFACE AND SAND SMOOTH AFTER EACH COAT): AT ALL WALLS RECEIVING SEMI-GLOSS OR GLOSS SHEEN PAINT, AND ALL GYPSUM BOARD CEILING).

- 09 2216 - NON-STRUCTURAL METAL FRAMING**
- A. **SUBMITTALS:** SHOP DRAWINGS: INDICATE PREFABRICATED WORK, COMPONENT DETAILS, STUD LAYOUT, FRAMED OPENINGS, ANCHORAGE TO STRUCTURE, ACOUSTIC DETAILS, TYPE AND LOCATION OF FASTENERS, ACCESSORIES, AND ITEMS OF OTHER RELATED WORK, DESCRIBING METHOD FOR SECURING STUDS TO TRACKS, SPLING, AND FOR BLOCKING AND REINFORCEMENT OF FRAMING CONNECTIONS.
1. PRODUCT DATA: PROVIDE MANUFACTURER'S DATA ON PARTITION HEAD TO STRUCTURE CONNECTORS, SHOWING COMPLIANCE WITH REQUIREMENTS FOR PRE-RESISTANCE-RATED ASSEMBLY.
2. MANUFACTURER'S INSTALLATION INSTRUCTIONS: INDICATE SPECIAL PROCEDURES AND PERIMETER CONDITIONS REQUIRING SPECIAL ATTENTION.

- B. **MANUFACTURERS:**
1. CLARKDIETRICH BUILDING SYSTEMS: WWW.CLARKDIETRICH.COM.
2. CENCO: WWW.CENCOSTEEL.COM.
3. JAMES INDUSTRIES: WWW.JAMESIND.COM.
4. STEEL CONSTRUCTION SYSTEMS: WWW.STEELCONSYSTEMS.COM.

- C. **FRAMING MATERIALS:**
1. FIRE-RATED ASSEMBLIES: COMPLY WITH APPLICABLE CODE AND AS FOLLOWS:
- A. TOP OF FIRE-RATED PARTITIONS: LISTED ASSEMBLY BY UL, NO. [ON DRAWINGS]; [1] AND 2 HOUR RATING.
- B. FIRE-RATED SHAFT WALL REQUIREMENTS: LISTED ASSEMBLY BY UL, NO. [ON DRAWINGS]; [1] HOUR RATING.
2. NON-LOADBEARING FRAMING SYSTEM COMPONENTS: ASTM C845; GALVANIZED SHEET STEEL, OF SIZE AND PROPERTIES NECESSARY TO COMPLY WITH ASTM C754 FOR THE SPACING INDICATED, WITH MAXIMUM DEFLECTION OF WALL FRAMING UNDER LOAD OF 10 LBS/FT.

- A. **TRACKS AND RUNNERS:** SAME MATERIAL AND THICKNESS AS STUDS, BENT LEG RETAINER NOTCHED TO RECEIVE STUDS WITH PROVISION FOR CRIMP LOCKING TO STUD. STUDS: C-SHAPED WITH FLAT OR FORMED WEBS WITH KNURLED FACES.
- B. **CEILING CHANNELS:** C-SHAPED.
- C. **FURRING:** SHAT-SHAPED SECTIONS, MINIMUM DEPTH OF 7/8 INCH.
- D. CONTRACTOR TO PROVIDE BRACING AS REQUIRED TO COMPLETE SYSTEM.
- F. WHERE INDICATED IN DRAWINGS, SHAFT WALL STUDS AND ACCESSORIES: ASTM C845, GALVANIZED SHEET STEEL, OF SIZE AND PROPERTIES NECESSARY TO COMPLY WITH ASTM C754 AND SPECIFIED PERFORMANCE REQUIREMENTS.
- G. **CEILING HANGERS:** TYPE AND SIZE AS SPECIFIED IN ASTM C754 FOR SPACING REQUIRED.
- H. PARTITION HEAD TO STRUCTURE CONNECTIONS: PROVIDE MECHANICAL ANCHORAGE DEVICES THAT ACCOMMODATE DEFLECTION USING SLOTTED HOLES, SCREWS AND ANTI-FRICTION BUSINESS, PREVENTING ROTATION OF STUDS WHILE MAINTAINING STRUCTURAL PERFORMANCE OF PARTITION.
- I. FIT, REINFORCE, AND BRACE FRAMING MEMBERS TO SUIT DESIGN REQUIREMENTS.

- D. **INSTALLATION:**
1. COMPLY WITH REQUIREMENTS OF ASTM C754.
2. VERIFY EXISTING CONDITIONS BEFORE STARTING WORK.
3. VERIFY THAT ROUGH-IN UTILITIES ARE IN PROPER LOCATION.
4. EXTEND PARTITION FRAMING TO STRUCTURE WHERE INDICATED AND TO CEILING IN OTHER LOCATIONS.
5. PARTITIONS TERMINATING AT CEILING: ATTACH CEILING RUNNER SECURELY TO CEILING TRACK IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
6. PARTITIONS TERMINATING AT STRUCTURE: ATTACH TOP RUNNER TO STRUCTURE, MAINTAIN CLEARANCE BETWEEN TOP OF STUDS AND STRUCTURE, AND CONNECT STUDS TO TRACK USING SPECIFIED MECHANICAL DEVICES IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. VERIFY FREE MOVEMENT OF TOP OF STUD CONNECTIONS; DO NOT LEAVE STUDS UNATTACHED TO TRACK.
7. FIT RUNNERS UNDER AND ABOVE OPENINGS; SECURE INTERMEDIATE STUDS TO SAME SPACING AS WALL STUDS.
8. ALIGN STUD WEB OPENINGS HORIZONTALLY.
9. SECURE STUDS TO TRACKS USING CRIMPING METHOD. DO NOT WELD.
10. STUD SPLING IS NOT PERMISSIBLE.
11. FABRICATE CORNERS USING A MINIMUM OF THREE STUDS.
12. DOUBLE STUD AT WALL OPENINGS, DOOR AND WINDOW JAMBS, NOT MORE THAN 2 INCHES FROM EACH SIDE OF OPENING.
13. BRACE STUD FRAMING SYSTEM RIGID.
14. COORDINATE ERECTION OF STUDS WITH REQUIREMENTS OF DOOR FRAMES; INSTALL SUPPORTS AND ATTACHMENTS.
15. COORDINATE INSTALLATION OF BUCKS, ANCHORS, AND BLOCKING WITH ELECTRICAL, MECHANICAL, AND OTHER WORK TO BE PLACED WITHIN OR BEHIND STUD FRAMING.
16. BLOCKING: USE WOOD BLOCKING SECURED TO STUDS. PROVIDE BLOCKING FOR SUPPORT OF PLUMBING FITTURES, WALL CABINETS, TOILET ACCESSORIES, HARDWARE, AND OPENING FRAMES.

- 09 6500 - RESILIENT FLOORING AND WALL BASE**
- A. **SUBMITTALS:** PRODUCT DATA AND (1) SAMPLES OF EACH TILE AND BASE SPECIFIED FOR VERIFICATION PURPOSES.

- B. **BASIS OF DESIGN:**
1. METROPOL/KONECTA PLANK, PROJECT 54012 OR APPROVED EQUAL.

- C. **ATTC STOCK:** FURNISH ONE (1) BOX FOR EACH 50 BOXES OR FRACTION THEREOF OF EACH TYPE OF FLOOR TILE AND 20' OF EACH COLOR AND TYPE OF WALL BASE PACKAGED WITH PROTECTIVE COVERINGS AND LABELED FOR STORAGE.

- D. **RESILIENT TILE PRODUCTS:** PROVIDE FLOOR TILE IN TYPE AND SIZES INDICATED IN THE CONSTRUCTION DOCUMENTS COMPLY WITH THE FOLLOWING:

- E. **RESILIENT WALL BASE, ASTM TYPE TS (RUBBER, VULCANIZED THERMOSET) 1/8" THICK, FURNISHED IN 20.5 IN STYLES AND SIZES INDICATED IN THE CONSTRUCTION DOCUMENTS WITH JOB-FORMED INSIDE AND OUTSIDE CORNERS.**

- F. **INSTALLATION ACCESSORIES:**
1. LEVELING AND PATCHING COMPOUNDS: LATEX/MODIFIED PORTLAND CEMENT, OR BLENDED HYDRAULIC CEMENT-BASE FORMULATION PROVIDED OR APPROVED BY FLOORING MANUFACTURER TO SUIT RESILIENT PRODUCTS AND SUBSTRATE CONDITIONS.
2. ADHESIVES: WATER-RESISTANT TYPE RECOMMENDED BY MANUFACTURER TO SUIT RESILIENT PRODUCTS AND SUBSTRATE CONDITIONS; SPREAD ONLY ENOUGH ADHESIVE TO PERMIT INSTALLATION OF MATERIALS BEFORE INITIAL SET.
3. MOLDINGS, TRANSITION AND EDGE STRIPS: SAME MATERIAL AS FLOORING.

- G. **INSTALLATION:**
1. PREPARE CONCRETE SUBSTRATES PER ASTM F 710. VERIFY THAT SUBSTRATES ARE DRY AND FREE OF CURING COMPOUNDS, SEALERS AND HARDENERS.
2. LAY OUT TILES SO WIDTHS AT OPPOSITE EDGES OF ROOM ARE EQUAL, AND NOT LESS THAN HALF-WIDTH.
3. LAY TILES IN PATTERNS INDICATED WITH GRAIN DIRECTION ALTERNATING IN ADJACENT TILES, UNLESS NOTED OTHERWISE.
4. CLEAN, SEAL, AND WAX RESILIENT FLOORING IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.

- H. **WALL BASE AND ACCESSORY INSTALLATION:**
1. CONFIRM THAT SOLID BACKING IS PROVIDED BEHIND ALL WALL BASE. AREAS WHERE GYPSUM BOARD IS HELD MORE THAN 1/2" ABOVE SUB SHALL BE FILLED IN PRIOR TO BASE INSTALLATION.
2. INSTALL WALL BASE WITH MANUFACTURER'S RECOMMENDED ADHESIVE IN MAXIMUM LENGTHS POSSIBLE. APPLY TO WALLS, COLUMNS, PLASTER, CASEWORK, AND OTHER PERMANENT FIXTURES.
3. INSTALL TRANSITION STRIPS WHERE FLOORING MATERIALS MEET OR WHERE EDGE OF TILE IS EXPOSED AS INDICATED IN THE FINISH SCHEDULE.

- 09 6913 - TILE CARPETING**
- A. **SUBMITTALS:** PRODUCT DATA AND SAMPLES OF EACH CARPET PRODUCT INDICATED; SUBMIT ACTUAL TILE SAMPLES OF EACH CARPET REQUIRED.

- B. **WARRANTY:** PROVIDE SPECIAL PROJECT WARRANTY, SIGNED BY CONTRACTOR, INSTALLER AND MANUFACTURER (CARPET MILL), AGREEING TO REPAIR OR REPLACE DEFECTIVE MATERIALS AND WORKSMANSHIP OF CARPETING WORK DURING 1-YEAR WARRANTY PERIOD FOLLOWING SUBSTANTIAL COMPLETION. ATTACH COPIES OF PRODUCT WARRANTIES.

- C. **ATTC STOCK:** FURNISH FULL-WIDTH CARPET EQUAL TO 5% OF EACH TYPE AND COLOR CARPET INSTALLED, PACKAGED WITH PROTECTIVE COVERING AND LABELED FOR STORAGE.

- D. **PRODUCTS:** PROVIDE CARPET IN PATTERNS AND COLORS WITH BACKINGS AS INDICATED IN THE CONSTRUCTION DOCUMENTS WITH CRITICAL RADIUS FLUX CLASSIFICATION CLASS 1, NOT LESS THAN 0.45 WIG, CM PER ASTM E 648. ORDER ALL MATERIALS FROM THE SAME FACTORY DYE LOT.

- E. **INSTALLATION ACCESSORIES:**
1. TROWELABLE LEVELING AND PATCHING COMPOUNDS: LATEX/MODIFIED HYDRAULIC-CEMENT-BASED FORMULATION PROVIDED OR RECOMMENDED BY CARPET MANUFACTURER.
2. ADHESIVES: WATER-RESISTANT, MILDEW-RESISTANT, NONSTAINING TYPE TO SUIT PRODUCTS AND SUBFLOOR CONDITIONS INDICATED, THAT COMPLIES WITH FLAMMABILITY REQUIREMENTS FOR INSTALLED CARPET AND IS RECOMMENDED OR PROVIDED BY CARPET MANUFACTURER.

- F. **INSTALLATION:** FOR CARPET TILE COMPLY WITH CR17 CARPET INSTALLATION STANDARD AND WITH CARPET MANUFACTURER'S WRITTEN INSTALLATION INSTRUCTIONS FOR PREPARING SUBSTRATES.
2. USE TROWELABLE LEVELING AND PATCHING COMPOUNDS, ACCORDING TO MANUFACTURER'S WRITTEN INSTRUCTIONS, TO FILL CRACKS, HOLES, DEPRESSIONS, AND PROTRUSIONS IN SUBSTRATES, FILL OR LEVEL CRACKS, HOLES AND DEPRESSIONS 1/8 INCH WIDE OR WIDER, AND PROTRUSIONS MORE THAN 1/32 INCH UNLESS MORE STRINGENT REQUIREMENTS ARE REQUIRED BY MANUFACTURER'S WRITTEN INSTRUCTIONS.
3. BROOM AND VACUUM CLEAN SUBSTRATES TO BE COVERED IMMEDIATELY BEFORE INSTALLING CARPET.
4. LAY CARPET TILE IN PATTERN AS INDICATED ON CONSTRUCTION DOCUMENTS AND SO WIDTHS AT OPPOSITE EDGES OF ROOM ARE EQUAL AND NOT LESS THAN HALF-WIDTH.
5. TRIM CARPET MEATLY AND TIGHT TO WALLS AND TIGHT TO VERTICAL SURFACES, PERMANENT FIXTURES, AND BUILT-IN FURNITURE INCLUDING CABINETS, PIPES, OUTLETS, EDGES, THRESHOLDS, AND NOSINGS; BIND OR SEAL CUT EDGES AS RECOMMENDED BY CARPET MANUFACTURER.
6. EXTEND CARPET INTO TOE SPACES, DOOR REVEALS, CLOSETS, OPEN-BOTTOMED OBSTRUCTIONS, REMOVABLE FLANGES, ALCOVES, AND SIMILAR OPENINGS.
10. MAINTAIN REFERENCE MARKERS, HOLES, AND OPENINGS THAT ARE IN PLACE OR MARKED FOR FUTURE CUTTING BY REPEATING ON CARPET AS MARKED ON SUBFLOOR, USE NO" N" NANT, NONSTAINING MARKING DEVICE.
11. PROTECT CARPET AGAINST DAMAGE FROM CONSTRUCTION OPERATIONS. USE EQUIPMENT AND FIXTURES DURING THE REMAINDER OF CONSTRUCTION PERIOD. USE PROTECTION METHODS RECOMMENDED IN WRITING BY CARPET MANUFACTURER.
12. INSTALL TRANSITION STRIPS AT CARPET TERMINATIONS. USE PROTECTION METHODS RECOMMENDED IN WRITING BY CARPET MANUFACTURER.

- 09 6916 - SHEET CARPETING**
- A. **SUBMITTALS:** PRODUCT DATA AND SAMPLES OF EACH CARPET PRODUCT INDICATED; SUBMIT 18" X 27" SAMPLES OF EACH CARPET REQUIRED.
- B. **WARRANTY:** PROVIDE SPECIAL PROJECT WARRANTY, SIGNED BY CONTRACTOR, INSTALLER AND MANUFACTURER (CARPET MILL), AGREEING TO REPAIR OR REPLACE DEFECTIVE MATERIALS AND WORKSMANSHIP OF CARPETING WORK DURING 1-YEAR WARRANTY PERIOD FOLLOWING SUBSTANTIAL COMPLETION. ATTACH COPIES OF PRODUCT WARRANTIES.
- C. **ATTC STOCK:** FULL-SIZE UNITS EQUAL TO 5 PERCENT OF AMOUNT INSTALLED FOR EACH TYPE INDICATED, BUT NOT LESS THAN 10 SQ. YD.
- D. **PRODUCTS:**
- A. APARTMENT UNIT CARPET SHALL BE SUPPLIED AND INSTALLED UNDER AN ALLOWANCES OF \$8.00/SQUARE YARD FOR THE PURCHASE AND DELIVERY OF THE CARPET MATERIAL ONLY.
1. COSTS FOR THE PAD ACCESSORIES, TAXES, LABOR, ETC., ARE NOT INCLUDED IN THE ALLOWANCES STATED ABOVE BUT SHALL BE INCLUDED IN THE BID PRICE FOR A COMPLETE INSTALLATION.
- B. CARPET PAD SHALL BE 1/2" - 5/8" DENSITY REBOND PAD AS REQUIRED FOR A COMPLETE INSTALLATION.

- E. **INSTALLATION ACCESSORIES:**
1. TROWELABLE LEVELING AND PATCHING COMPOUNDS: LATEX/MODIFIED HYDRAULIC-CEMENT-BASED FORMULATION PROVIDED OR RECOMMENDED BY CARPET MANUFACTURER.
2. ADHESIVES: WATER-RESISTANT, MILDEW-RESISTANT, NONSTAINING TYPE TO SUIT PRODUCTS AND SUBFLOOR CONDITIONS INDICATED, THAT COMPLIES WITH FLAMMABILITY REQUIREMENTS FOR INSTALLED CARPET AND IS RECOMMENDED OR PROVIDED BY CARPET MANUFACTURER.
3. SEAM ADHESIVE: HOT-MELT ADHESIVE TAPE OR SIMILAR PRODUCT RECOMMENDED BY CARPET MANUFACTURER FOR SEALING AND TAPING SEAMS AND BUTTING JOINT EDGES AT BACKING TO FORM SECURE SEAMS AND TO PREVENT PILE LOSS AT SEAMS.
4. TACKLESS CARPET STRIPPING: WATER RESISTANT PLYWOOD STRIPS, 3/8" THICK WITH ANGULAR PINS PROTRUDING FROM TOP DESIGNED TO GRIP AND HOLD STRIPPING CARPET AT THE BACKING. PROVIDE STRIPPING WITH 2 ROWS OF PINS.
5. CARPET EDGE GUARD: EXTRUDED ALUMINUM BEND DOWN TYPE EDGE GUARD, WITH CONCEALED GRIPPER TEETH AND MINIMUM 1-1/2" WIDE PUNCHED ANCHORAGE FLANGE AND MINIMUM 5/8" WIDE FACE.

- F. **INSTALLATION:**
1. GENERAL: COMPLY WITH CR17 "CARPET INSTALLATION STANDARD" AND WITH CARPET MANUFACTURER'S WRITTEN INSTALLATION INSTRUCTIONS FOR PREPARING SUBSTRATES.
2. USE TROWELABLE LEVELING AND PATCHING COMPOUNDS, ACCORDING TO MANUFACTURER'S WRITTEN INSTRUCTIONS, TO FILL CRACKS, HOLES, DEPRESSIONS, AND PROTRUSIONS IN SUBSTRATES, FILL OR LEVEL CRACKS, HOLES AND DEPRESSIONS 1/8 INCH WIDE OR WIDER, AND PROTRUSIONS MORE THAN 1/32 INCH UNLESS MORE STRINGENT REQUIREMENTS ARE REQUIRED BY MANUFACTURER'S WRITTEN INSTRUCTIONS.
3. BROOM AND VACUUM CLEAN SUBSTRATES TO BE COVERED IMMEDIATELY BEFORE INSTALLING CARPET.
4. UNIT INSTALLATION, STRETCH-IN INSTALLATION WITH PAD.
5. COMPLY WITH CARPET MANUFACTURER'S WRITTEN INSTRUCTIONS AND SHOP DRAWINGS FOR SEAM LOCATIONS AND DIRECTION OF CARPET. MAINTAIN UNIFORMITY OF CARPET DIRECTION AND LAY OF PILE AT DOORWAYS, CENTER SEAMS UNDER THE DOOR IN CLOSED POSITION.
6. INSTALL PATTERN PARALLEL TO WALLS AND BORDERS UNLESS OTHERWISE INDICATED.
7. DO NOT BRIDGE BUILDING EXPANSION JOINTS WITH CARPET.
8. CUT AND FIT CARPET TO BUTT TIGHTLY TO VERTICAL SURFACES, PERMANENT FIXTURES, AND BUILT-IN FURNITURE INCLUDING CABINETS, PIPES, OUTLETS, EDGES, THRESHOLDS, AND NOSINGS; BIND OR SEAL CUT EDGES AS RECOMMENDED BY CARPET MANUFACTURER.
9. EXTEND CARPET INTO TOE SPACES, DOOR REVEALS, CLOSETS, OPEN-BOTTOMED OBSTRUCTIONS, REMOVABLE FLANGES, ALCOVES, AND SIMILAR OPENINGS.
10. MAINTAIN REFERENCE MARKERS, HOLES, AND OPENINGS THAT ARE IN PLACE OR MARKED FOR FUTURE CUTTING BY REPEATING ON CARPET AS MARKED ON SUBFLOOR, USE NONPAINMENT, NONSTAINING MARKING DEVICE.
11. PROTECT CARPET AGAINST DAMAGE FROM CONSTRUCTION OPERATIONS AND PLACEMENT OF EQUIPMENT AND FIXTURES DURING THE REMAINDER OF CONSTRUCTION PERIOD. USE PROTECTION METHODS RECOMMENDED IN WRITING BY CARPET MANUFACTURER.

- 09 9000 - PAINTING AND COATING**
- A. **SUBMITTALS:** PRODUCT DATA AND THREE (3) DRAW-DOWN SAMPLES OF EACH COLOR AND SHEEN SPECIFIED.

- B. **ATTC STOCK:** FURNISH ONE (1) GALLON OF EACH PAINT COLOR AND SHEEN, IN CONTAINERS, PROPERLY LABELED AND SEALED.

- C. **PRODUCTS:** PROVIDE MANUFACTURER'S BEST QUALITY PAINTS OF COLOR AND SHEEN AS INDICATED IN THE CONSTRUCTION DOCUMENTS THAT ARE FORMULATED AND RECOMMENDED BY MANUFACTURER FOR APPLICATION INDICATED. PROVIDE MATERIALS THAT ARE COMPATIBLE WITH ONE ANOTHER AND WITH SUBSTRATES.

- D. **PAINT SYSTEMS:**
1. ALL PAINT, STAIN, AND VARNISH SHALL BE PRODUCTS OF DEVCO, KVAL, SHERWIN WILLIAMS, PPG INDUSTRIES, PRATT & LAMBERT OR APPROVED EQUAL.
2. ALL MATERIAL SHALL BE OF THE STANDARD RESIDENTIAL GRADE OF THE TYPES DESIGNATED.
3. ALL PAINT SHALL BE DELIVERED TO THE JOB SITE IN THE ORIGINAL, UNOPENED, LABELED CONTAINERS. COLORS NOT SPECIFICALLY CALLED FOR IN THE PAINT SCHEDULE WILL BE SELECTED BY THE ARCHITECT.

- E. **APPLICATION/INSTALLATION:**
1. EQUIPMENT: APPLY COATINGS BY BRUSH, ROLLER, SPRAY, OR OTHER APPLICATIONS ACCORDING TO COATING MANUFACTURER'S WRITTEN INSTRUCTIONS. WHEN SPRAYED, EXTERIOR COATINGS SHALL BE BACK-ROLLED FOLLOWING SPRAY APPLICATION. USE ROLLERS FOR FINISH COAT ON INTERIOR WALLS AND CEILINGS.
2. FINISHED: OPAQUE FINISHES: COMPLETELY COVER SURFACES TO PROVIDE A SMOOTH, OPAQUE SURFACE OF UNIFORM APPEARANCE. PROVIDE A FINISH FREE OF CLOUDINESS, SPOTTING, HOLIDAYS, LAPS, BRUSH MARKS, RUNS, SAGS, ROPINESS, OR OTHER SURFACE IMPERFECTIONS.
3. APPLY PRODUCTS PER MANUFACTURER RECOMMENDED GUIDELINES. PRODUCT COVERAGE MINIMUM ONE COAT OF PRIMER AND TWO FINAL COATS ON MATERIALS. APPLY PRODUCTS TO MATERIALS APPROVED BY MANUFACTURER. PRODUCT DATA SHEETS.

- A. **Exterior Work:**
1. ALL EXTERIOR GALVANIZED METAL FLASHINGS, CONNECTORS, ETC. ONE COAT COMMERCIAL METAL ETCH. ONE COAT EXTERIOR METAL PRIMER. TWO COATS EXTERIOR SEMI-GLOSS METAL PAINT.
2. ALL EXPOSED STEEL FRAMES, ANGLES, ETC. TWO COATS SEMI-GLOSS METAL PAINT. (PRIME COAT CHANNELS, POSTS, RAILINGS, BEAMS, ETC. SURFACES THAT ARE NOT PRIMED.)
3. ALL EXPOSED MISCL. FERROUS METAL ITEMS INCLUDING RAILS, PLATES, ANGLES, BOLTS, GRATES, CONDUITS, POSTS, PIPING, ETC. TWO COATS SEMI-GLOSS METAL PAINT. (PRIME COAT SURFACES THAT ARE NOT PRIMED.)
4. ALL UNPRIMED EXTERIOR MILLWORK, TRIM, SMOOTH WOOD MATERIALS, ETC. SEMI-GLOSS PAINT. PRIME AND BACK LATEX PRIMER. TWO COATS OF EXTERIOR LATEX SATIN OR SEMI-GLOSS PAINT.

5. PRIMED MILLWORK AND TRIM. TOUCH-UP PRIME. TWO COATS OF EXTERIOR 100% SATIN OR SEMI-GLOSS ACRYLIC LATEX PAINT.
6. ROUGH SAWN TRIM, BEAMS, COLUMNS, ETC. ONE COAT PRIMER. TWO COATS EXTERIOR HEAVY BODIED STAIN.

7. PRIMED METAL ENTRY DOORS, FRENCH DOORS AND METAL FRAMES, GARAGE DOORS. PATCH DENTS, TOUCH UP PRIMER. TWO COATS OF OIL BASE SEMI-GLOSS PAINT INSIDE AND OUTSIDE.

8. ANY OTHER PAINTING REQUIRED BY THE DRAWINGS. TWO COATS TO MATCH ADJACENT SURFACES.

- B. **INTERIOR WORK:**
1. GYPSUM BOARD WALLS EXCEPT IN KITCHENS, BATHROOMS, LAUNDRIES AND COMMON AREA CORRIDORS UNLESS SCHEDULED FOR WALLCOVERING. ONE COAT OF PRIME LATEX PAINT AND ONE FINISH COAT OF LATEX EGGSHELL WALL PAINT. (TWO COATS IF REQUIRED TO ACHIEVE FULL COVERAGE.)
2. GYPSUM BOARD WALLS IN KITCHENS, BATHROOMS AND LAUNDRIES UNLESS SCHEDULED FOR WALLCOVERING OR TILE. ONE COAT OF EPOXY COATABLE PRIMER PAINT AND ONE FINISH COAT OF EPOXY EGGSHELL WALL PAINT. (TWO COATS IF REQUIRED TO ACHIEVE FULL COVERAGE.)
3. GYPSUM BOARD WALLS IN COMMON AREA CORRIDORS. ONE COAT OF PRIME LATEX PAINT AND ONE FINISH COAT OF EPOXY EGGSHELL WALL PAINT. (TWO COATS IF REQUIRED TO ACHIEVE FULL COVERAGE.)

4. GYPSUM BOARD CEILINGS. TWO COATS OF LATEX FLAT PAINT. TWO COATS OF CLASS II VAPOR RETARDER PAINT AT CEILINGS ADJACENT TO ATTICS.

5. DOOR CASINGS, BASE, WOOD, MILL, WORK, ETC. (PRE-PRIMED). ONE PRIME COAT OF LATEX PAINT, ONE COAT OF LATEX PAINT AND ONE FINISH COAT OF LATEX SEMI-GLOSS PAINT.

6. PRIMED HARDWOOD DOORS. ONE COAT OF LATEX PAINT TO MATCH ADJACENT SURFACES UNLESS FACTORY PREFINISHED WHITE.

7. ALL MISCELLANEOUS FERROUS METAL, INCLUDING GRILLES, REGISTERS, ETC. TWO COATS METAL PAINT TO MATCH ADJACENT SURFACES UNLESS FACTORY PREFINISHED WHITE.

8. ANY OTHER PAINTING WORK REQUIRED BY THE DRAWINGS. FINISH TO MATCH SIMILAR CONDITIONS.

- 09 3000 - TILING**
- A. **SUBMITTALS:** PRODUCT DATA FOR SETTING AND GROUTING MATERIALS AND THREE (3) SAMPLES OF EACH TILE SPECIFIED FOR VERIFICATION PURPOSES.
- B. **ATTC STOCK:** FURNISH 2% OF EACH TYPE OF CERAMIC TILE PACKAGED WITH PROTECTIVE COVERING AND LABELED FOR STORAGE.

- C. **BASIS OF DESIGN:** SEE DRAWING SCHEDULES.
- D. **TILE:** COMPLY WITH STANDARD GRADE REQUIREMENTS IN ANSI A137.1 "SPECIFICATIONS FOR CERAMIC TILE" FOR PRODUCTS AND SIZES INDICATED IN THE CONSTRUCTION DOCUMENTS.

- E. **INSTALLATION MATERIALS:**
1. THIN-SET MORTAR.
- A. TYPICAL INTERIOR INSTALLATIONS: LATEX/POLYMER MODIFIED PORTLAND CEMENT COMPLYING WITH ANSI A108.5 AND ANSI 118.4.
2. GROUT: UNSAILED FOR JOINTS 1/16" WIDE OR LESS, SANDED FOR JOINTS GREATER THAN 1/16" IN COLOR INDICATED IN SCHEDULE OR TO BE SELECTED BY ARCHITECT AND OWNER.
- A. TYPICAL INTERIOR INSTALLATIONS: STANDARD CEMENT GROUT WITH INTEGRAL STAIN INHIBITORS (TEC ACCUCOLOR XT, OR EQUAL).
3. SETTING BED ACCESSORIES: ANSI A 108.1A.

- F. **INSTALLATION:**
1. GENERAL: COMPLY WITH CR17 "CARPET INSTALLATION STANDARD" AND WITH CARPET MANUFACTURER'S WRITTEN INSTALLATION INSTRUCTIONS FOR PREPARING SUBSTRATES.
2. USE TROWELABLE LEVELING AND PATCHING COMPOUNDS, ACCORDING TO MANUFACTURER'S WRITTEN INSTRUCTIONS, TO FILL CRACKS, HOLES, DEPRESSIONS, AND PROTRUSIONS IN SUBSTRATES, FILL OR LEVEL CRACKS, HOLES AND DEPRESSIONS 1/8 INCH WIDE OR WIDER, AND PROTRUSIONS MORE THAN 1/32 INCH UNLESS MORE STRINGENT REQUIREMENTS ARE REQUIRED BY MANUFACTURER'S WRITTEN INSTRUCTIONS.
3. BROOM AND VACUUM CLEAN SUBSTRATES TO BE COVERED IMMEDIATELY BEFORE INSTALLING CARPET.
4. UNIT INSTALLATION, STRETCH-IN INSTALLATION WITH PAD.
5. COMPLY WITH CARPET MANUFACTURER'S WRITTEN INSTRUCTIONS AND SHOP DRAWINGS FOR SEAM LOCATIONS AND DIRECTION OF CARPET. MAINTAIN UNIFORMITY OF CARPET DIRECTION AND LAY OF PILE AT DOORWAYS, CENTER SEAMS UNDER THE DOOR IN CLOSED POSITION.
6. INSTALL PATTERN PARALLEL TO WALLS AND BORDERS UNLESS OTHERWISE INDICATED.
7. DO NOT BRIDGE BUILDING EXPANSION JOINTS WITH CARPET.
8. CUT AND FIT CARPET TO BUTT TIGHTLY TO VERTICAL SURFACES, PERMANENT FIXTURES, AND BUILT-IN FURNITURE INCLUDING CABINETS, PIPES, OUTLETS, EDGES, THRESHOLDS, AND NOSINGS; BIND OR SEAL CUT EDGES AS RECOMMENDED BY CARPET MANUFACTURER.
9. EXTEND CARPET INTO TOE SPACES, DOOR REVEALS, CLOSETS, OPEN-BOTTOMED OBSTRUCTIONS, REMOVABLE FLANGES, ALCOVES, AND SIMILAR OPENINGS.
10. MAINTAIN REFERENCE MARKERS, HOLES, AND OPENINGS THAT ARE IN PLACE OR MARKED FOR FUTURE CUTTING BY REPEATING ON CARPET AS MARKED ON SUBFLOOR, USE NONPAINMENT, NONSTAINING MARKING DEVICE.
11. PROTECT CARPET AGAINST DAMAGE FROM CONSTRUCTION OPERATIONS AND PLACEMENT OF EQUIPMENT AND FIXTURES DURING THE REMAINDER OF CONSTRUCTION PERIOD. USE PROTECTION METHODS RECOMMENDED IN WRITING BY CARPET MANUFACTURER.

- 09 3000 - TILING**
- A. **SUBMITTALS:** PRODUCT DATA FOR SETTING AND GROUTING MATERIALS AND THREE (3) SAMPLES OF EACH TILE SPECIFIED FOR VERIFICATION PURPOSES.
- B. **ATTC STOCK:** FURNISH 2% OF EACH TYPE OF CERAMIC TILE PACKAGED WITH PROTECTIVE COVERING AND LABELED FOR STORAGE.

- C. **BASIS OF DESIGN:** SEE DRAWING SCHEDULES.
- D. **TILE:** COMPLY WITH STANDARD GRADE REQUIREMENTS IN ANSI A137.1 "SPECIFICATIONS FOR CERAMIC TILE" FOR PRODUCTS AND SIZES INDICATED IN THE CONSTRUCTION DOCUMENTS.

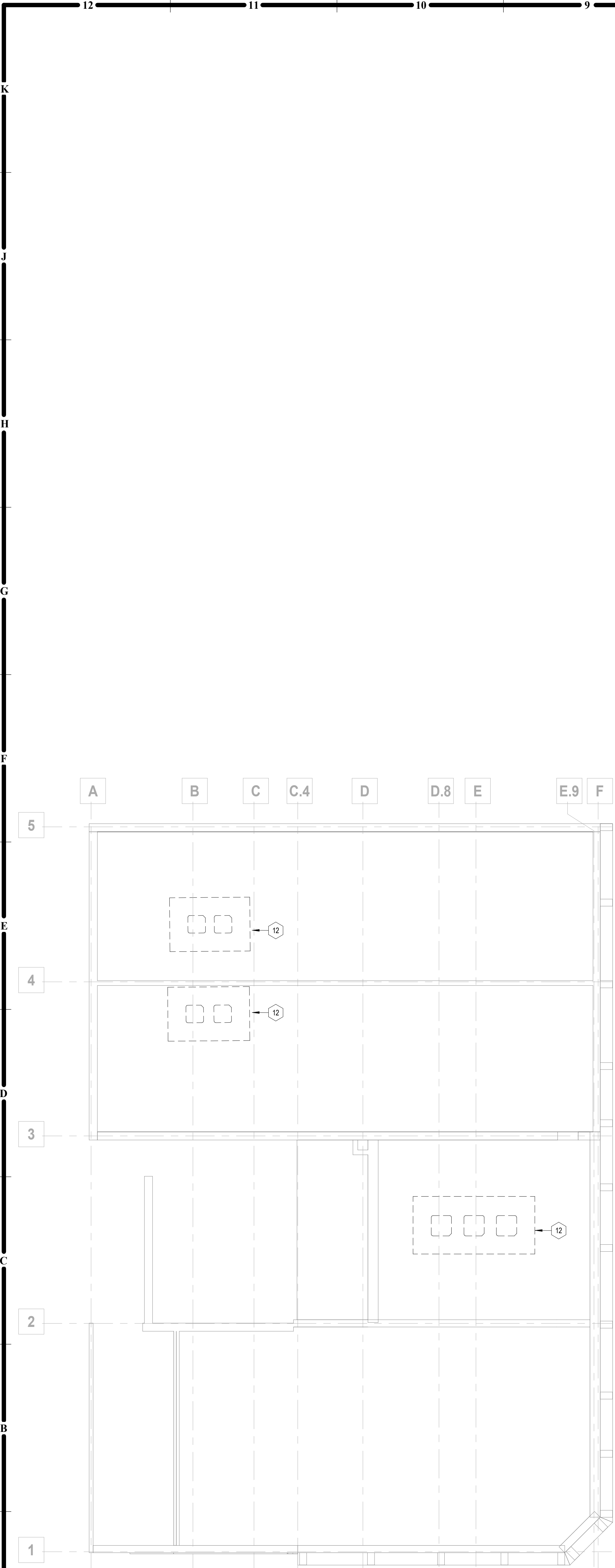
- E. **INSTALLATION MATERIALS:**
1. THIN-SET MORTAR.
- A. TYPICAL INTERIOR INSTALLATIONS: LATEX/POLYMER MODIFIED PORTLAND CEMENT COMPLYING WITH ANSI A108.5 AND ANSI 118.4.
2. GROUT: UNSAILED FOR JOINTS 1/16" WIDE OR LESS, SANDED FOR JOINTS GREATER THAN 1/16" IN COLOR INDICATED IN SCHEDULE OR TO BE SELECTED BY ARCHITECT AND OWNER.
- A. TYPICAL INTERIOR INSTALLATIONS: STANDARD CEMENT GROUT WITH INTEGRAL STAIN INHIBITORS (TEC ACCUCOLOR XT, OR EQUAL).
3. SETTING BED ACCESSORIES: ANSI A 108.1A.

- F. **INSTALLATION:**
1. GENERAL: COMPLY WITH CR17 "CARPET INSTALLATION STANDARD" AND WITH CARPET MANUFACTURER'S WRITTEN INSTALLATION INSTRUCTIONS FOR PREPARING SUBSTRATES.
2. USE TROWELABLE LEVELING AND PATCHING COMPOUNDS, ACCORDING TO MANUFACTURER'S WRITTEN INSTRUCTIONS, TO FILL CRACKS, HOLES, DEPRESSIONS, AND PROTRUSIONS IN SUBSTRATES, FILL OR LEVEL CRACKS, HOLES AND DEPRESSIONS 1/8 INCH WIDE OR WIDER, AND PROTRUSIONS MORE THAN 1/32 INCH UNLESS MORE STRINGENT REQUIREMENTS ARE REQUIRED BY MANUFACTURER'S WRITTEN INSTRUCTIONS.
3. BROOM AND VACUUM CLEAN SUBSTRATES TO BE COVERED IMMEDIATELY BEFORE INSTALLING CARPET.
4. UNIT INSTALLATION, STRETCH-IN INSTALLATION WITH PAD.
5. COMPLY WITH CARPET MANUFACTURER'S WRITTEN INSTRUCTIONS AND SHOP DRAWINGS FOR SEAM LOCATIONS AND DIRECTION OF CARPET. MAINTAIN UNIFORMITY OF CARPET DIRECTION AND LAY OF PILE AT DOORWAYS, CENTER SEAMS UNDER THE DOOR IN CLOSED POSITION.
6. INSTALL PATTERN PARALLEL TO WALLS AND BORDERS UNLESS OTHERWISE INDICATED.
7. DO NOT BRIDGE BUILDING EXPANSION JOINTS WITH CARPET.
8. CUT AND FIT CARPET TO BUTT TIGHTLY TO VERTICAL SURFACES, PERMANENT FIXTURES, AND BUILT-IN FURNITURE INCLUDING CABINETS, PIPES, OUTLETS, EDGES, THRESHOLDS, AND NOSINGS; BIND OR SEAL CUT EDGES AS RECOMMENDED BY CARPET MANUFACTURER.
9. EXTEND CARPET INTO TOE SPACES, DOOR REVEALS, CLOSETS, OPEN-BOTTOMED OBSTRUCTIONS, REMOVABLE FLANGES, ALCOVES, AND SIMILAR OPENINGS.
10. MAINTAIN REFERENCE MARKERS, HOLES, AND OPENINGS THAT ARE IN PLACE OR MARKED FOR FUTURE CUTTING BY REPEATING ON CARPET AS MARKED ON SUBFLOOR, USE NONPAINMENT, NONSTAINING MARKING DEVICE.
11. PROTECT CARPET AGAINST DAMAGE FROM CONSTRUCTION OPERATIONS AND PLACEMENT OF EQUIPMENT AND FIXTURES DURING THE REMAINDER OF CONSTRUCTION PERIOD. USE PROTECTION METHODS RECOMMENDED IN WRITING BY CARPET MANUFACTURER.

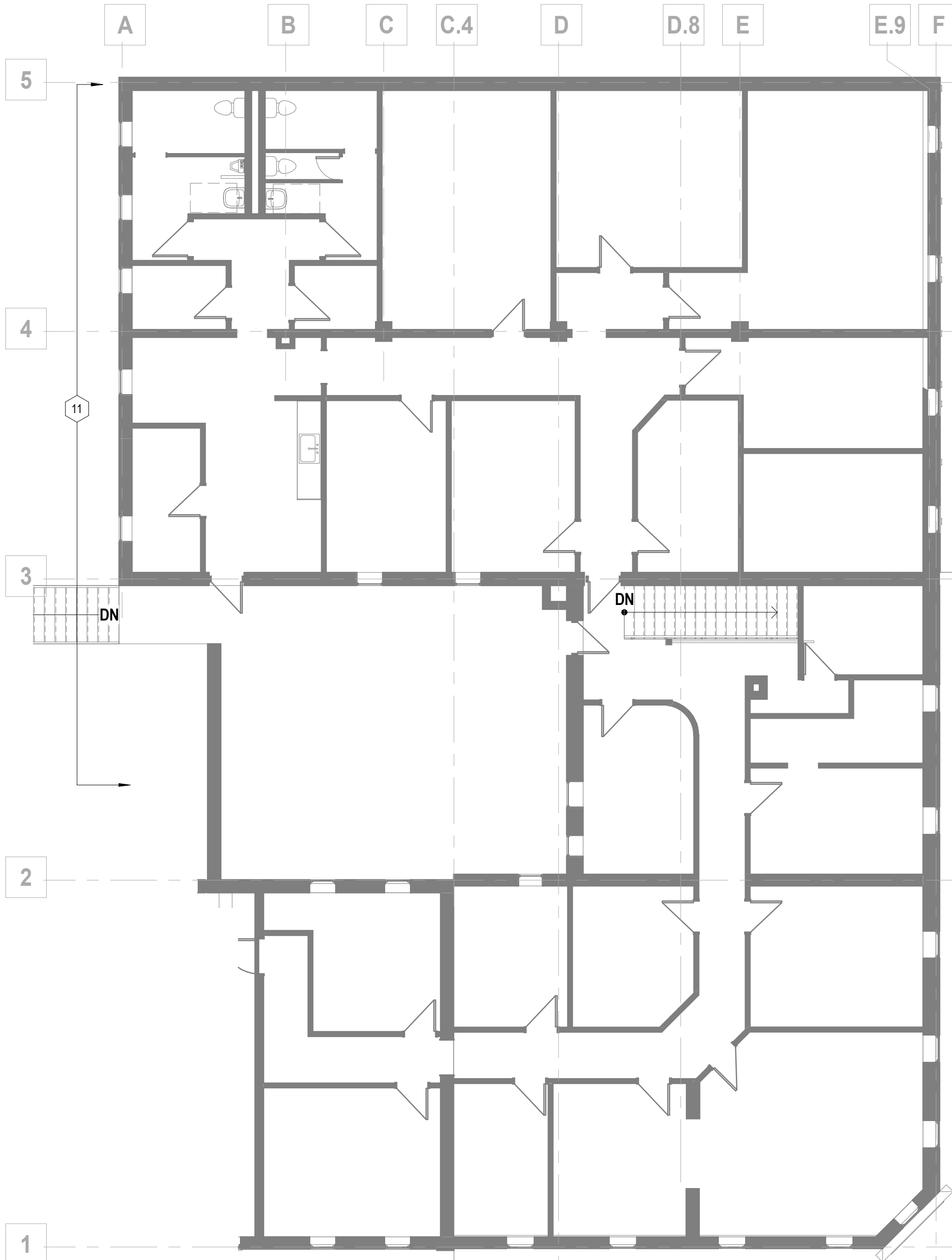
- G. **TERMINATIONS:**
1. WHERE OUT TILE IS SPECIFIED AS THE TOP COURSE ON WALL WAINSCOTING OR WALL BASE WITH AN EXPOSED TOP EDGE, THE FACTORY EDGE SHALL BE USED AS THE EXPOSED EDGE.
- H. **CONFLICTS:** IF NOT ADDRESSED ON DRAWINGS, WHERE ELECTRICAL DEVICES OR TOILET ACCESSORIES STRADDLE THE TRANSITION FROM THE TOP EDGE OF WAINSCOT WALL TILE TO GYPSUM BOARD SUBSTRATE, CONTACT ARCHITECT FOR RESOLUTION.

- I. **GROUT JOINTS:**
1. JOINT SIZE: SET TILE WITH THE SMALLEST GROUT JOINT ACHIEVABLE AND AS RECOMMENDED BY THE MFR. BASED ON THE TILE PRODUCT AND SUBSTRATE CONDITIONS, UNLESS NOTED OTHERWISE.
2. TILE PATTERN: LAY TILE IN PATTERNS AS INDICATED IN THE CONSTRUCTION DOCUMENTS. ALIGN JOINTS WHERE ADJOINING TILES ON FLOOR, BASE, WALLS, AND TRIM ARE THE SAME SIZE, UNLESS INDICATED OTHERWISE.
3. INSTALLATION: INSTALL GROUT PER MANUFACTURER'S INSTRUCTIONS. EXERCISING CARE TO AVOID REMOVAL OF GROUT COLOR BY USE OF EXCESS WATER DURING INSTALLATION. FADED OR CHALKY GROUT SHALL BE CAUSE FOR REJECTION.
4. SEALER: AFTER FULLY CURED, GROUT SHALL BE SEALED WITH TWO (2) COATS

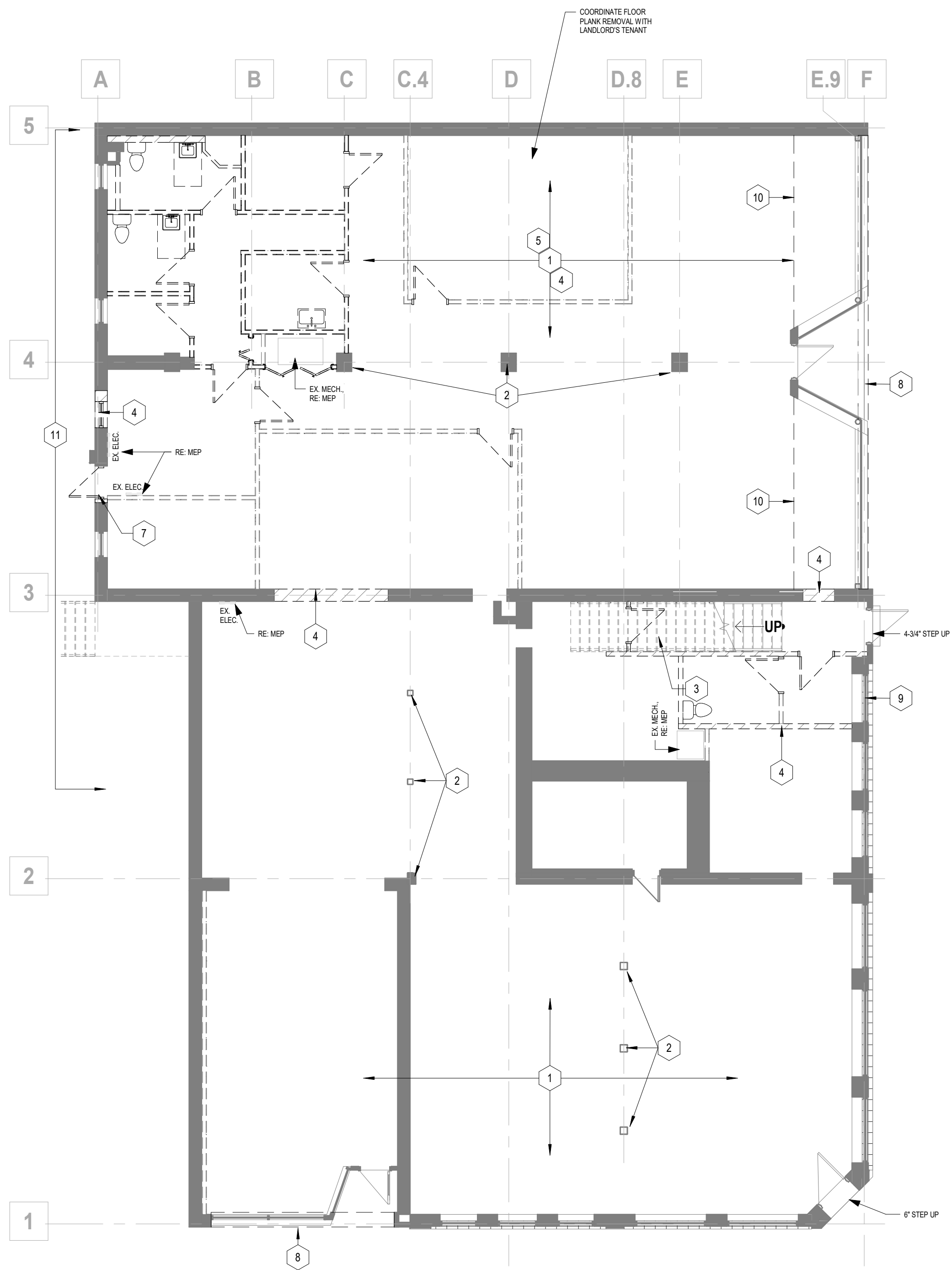
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A12 ROOF DEMO PLAN
1/8" = 1'-0"



A8 2ND FLOOR DEMO PLAN
1/8" = 1'-0"



A4 1ST FLOOR DEMO PLAN
1/8" = 1'-0"

GEN. DEMO NOTES

1. CONTRACTOR TO VISIT PROJECT SITE AND BUILDING, PRIOR TO BID.
2. BUILDING AND SITE TO REMAIN SECURE DURING DEMOLITION AND CONSTRUCTION.
3. PROTECT ALL ITEMS TO REMAIN (WALLS, PLUMBING FIXTURES, PIPING, HVAC UNITS, COLUMNS, ETC.).
4. CARE IS TO BE EXERCISED IN THE DEMOLITION OPERATIONS. EXISTING SURFACES TO REMAIN SHALL BE PROTECTED. ANY DAMAGE INCURRED AS A RESULT OF DEMOLITION SHALL BE THE CONTRACTOR'S RESPONSIBILITY. THE CONTRACTOR SHALL BEAR THE COST OF REPAIRING SUCH DAMAGE.
5. ALL OPENINGS IN WALLS AND ROOFS RESULTING FROM EQUIPMENT AND/OR PIPE REMOVAL SHALL BE SEALED WEATHERTIGHT. ALL CONDITIONS SHALL BE LEFT SAFE AND HAZARD FREE.
6. CONTRACTOR TO REPAIR ANY AREAS DAMAGED DURING DEMOLITION.
7. CONTRACTOR TO COORDINATE DEMOLITION OPENINGS WITH NEW PLANS AND ELEVATIONS.
8. ALL MEP SYSTEMS TO BE REMOVED TO BE FULLY COORDINATED WITH EXISTING CONDITIONS. ALL SYSTEMS TO BE REMOVED COMPLETELY THAT ARE NOT BEING RE-UTILIZED.
9. PROTECT EXISTING CONDITIONS AND MAINTAIN WEATHER TIGHTNESS FOR ALL OCCUPIED/UNOCCUPIED SPACES, BOTH VERTICALLY AND HORIZONTALLY FOR THE ENTIRE DURATION THAT THE BUILDING IS EXPOSED TO THE ELEMENTS. PATCH/REPAIR/REPLACE AS REQUIRED.

DEMO FLOOR PLAN KEYED NOTES

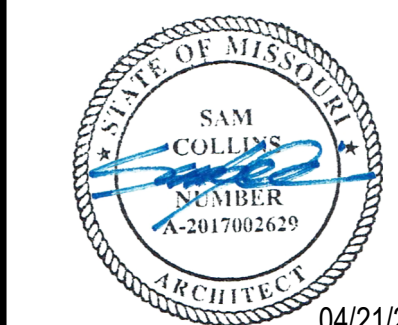
MARK	DESCRIPTION
1	REMOVE EXISTING FLOOR AND ALL ASSOCIATED CONSTRUCTION. PREPARE ENTIRE SUB-FLOOR FOR NEW DRAIN TILE AND CLEAN GRAVEL. EXTERIOR WALLS AND FOUNDATIONS TO BE PREPARED FOR NEW WATERPROOFING BELOW GRADE.
2	PROTECT COLUMNS AND BRACE AS NECESSARY TO PROVIDE FULL STABILITY DURING REWORK OF SUB-FLOOR AREA.
3	EXISTING MAIN STAIR TO 2ND LEVEL TO REMAIN. PROTECT STAIR AND BRACE AS REQUIRED TO MAINTAIN STRUCTURAL INTEGRITY WHILE SUB-FLOOR IS REMOVED. REFER TO STRUCTURAL FOR ADDITIONAL INFORMATION.
4	REMOVE EXISTING DOORS/FRAMES/WALLS AND ROUGH-INS FOR MEP SYSTEMS. REFER TO MEP FOR ADDITIONAL NOTES.
5	REMOVE EXISTING RESTROOM CORE AND ALL ASSOCIATED MEP SYSTEMS. REFER TO MEP FOR ADDITIONAL INFORMATION.
6	REMOVE WINDOW AND PREPARE OPENING FOR NEW EGRESS DOOR. REFER TO STRUCTURAL FOR ADDITIONAL INFORMATION.
7	REMOVE EXISTING WEATHERHOOD AND LOUVER ABOVE EXTERIOR DOOR. REMOVE DOOR AND ENLARGE OPENING FOR NEW EGRESS DOOR. REFER TO STRUCTURAL FOR ADDITIONAL INFORMATION.
8	REMOVE WINDOW SYSTEM AND ALL FAILED COMPONENTS. PREPARE OPENING FOR NEW WINDOW SYSTEM, FRAMING AND FLASHINGS.
9	REMOVE BROKEN GLASS. PREPARE FOR NEW GLASS INSTALL.
10	REMOVE PLATFORM AND ALL NON-STRUCTURAL FRAMING.
11	REMOVE ALL COMPONENTS THAT NO LONGER ARE ACTIVE, IN GOOD WORKING ORDER, OR ABANDONED. COORDINATE WITH MEP FOR ADDITIONAL ITEMS TO BE REMOVED.
12	PREPARE ROOF FOR NEW RTU CURBS AND OPENINGS. COORDINATE EXACT LOCATIONS WITH MEP/STRUCTURAL DOCUMENTS.

MAIN STREET BUILDING IMPROVEMENTS

230 SW MAIN ST.
LEE'S SUMMIT, MO 64063

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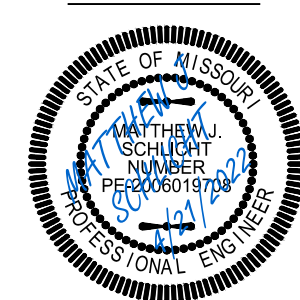
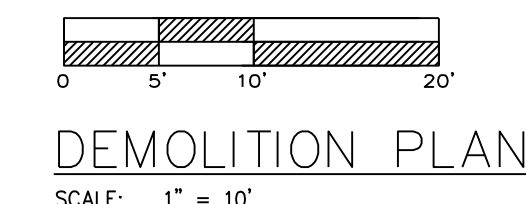
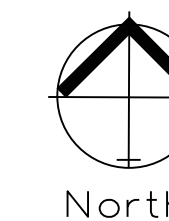
PROFESSIONAL SEAL

D101
ISSUE DATE: 21 APRIL, 2022
COLLINS WEBB #: 21121

DEMO PLANS



PERMIT DOCUMENTS



Matthew J. Schlicht
MO PE 2006015708
KS PE 19071
OK PE 23225
NE PE E-14335

REVISIONS

C.010

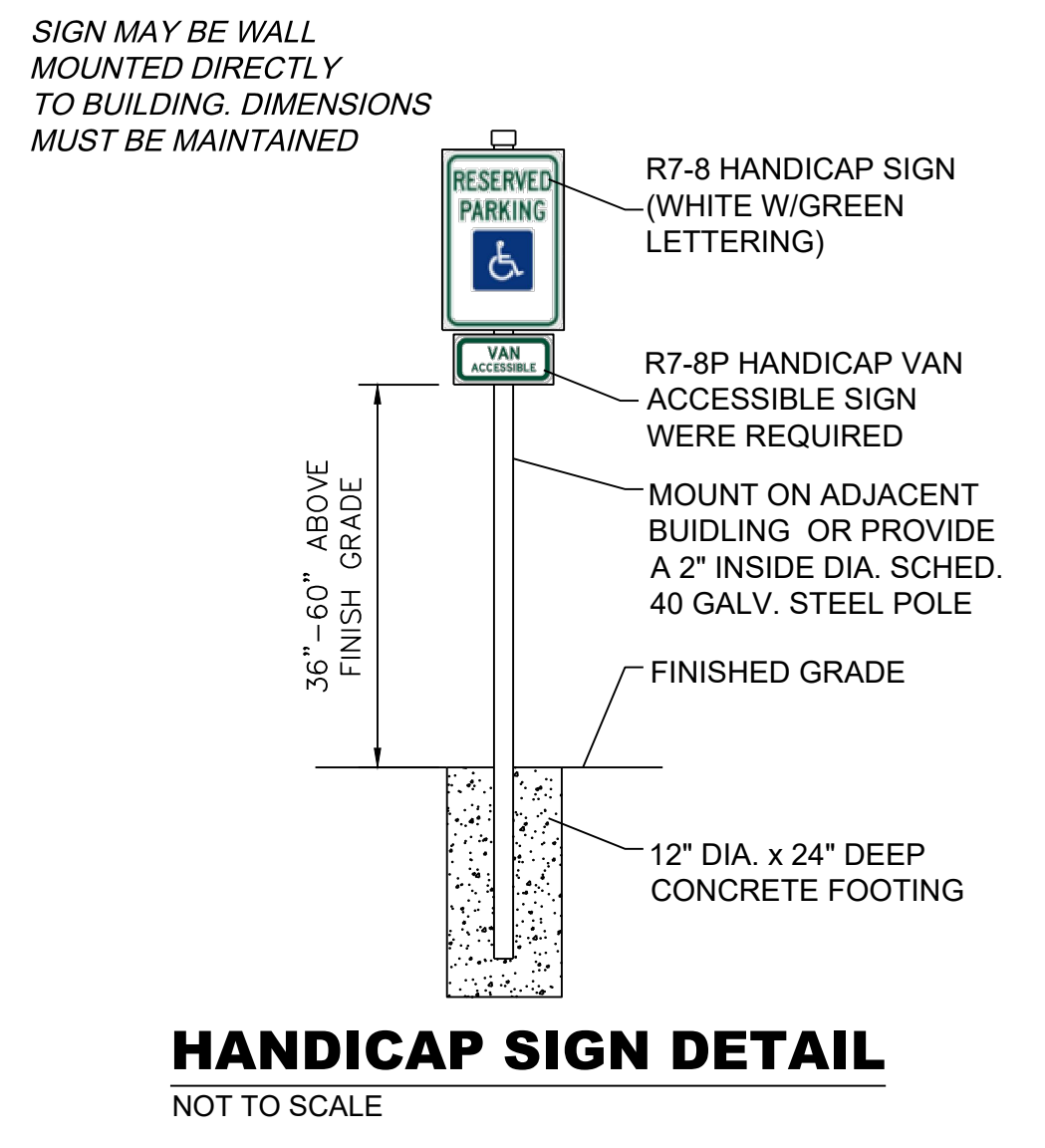
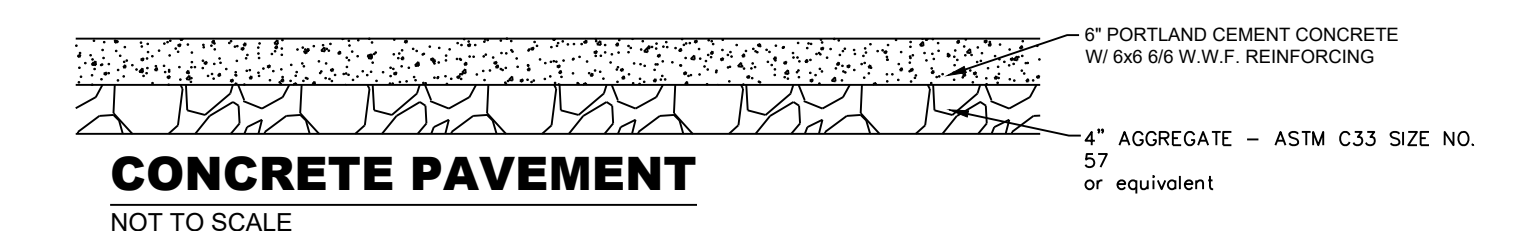
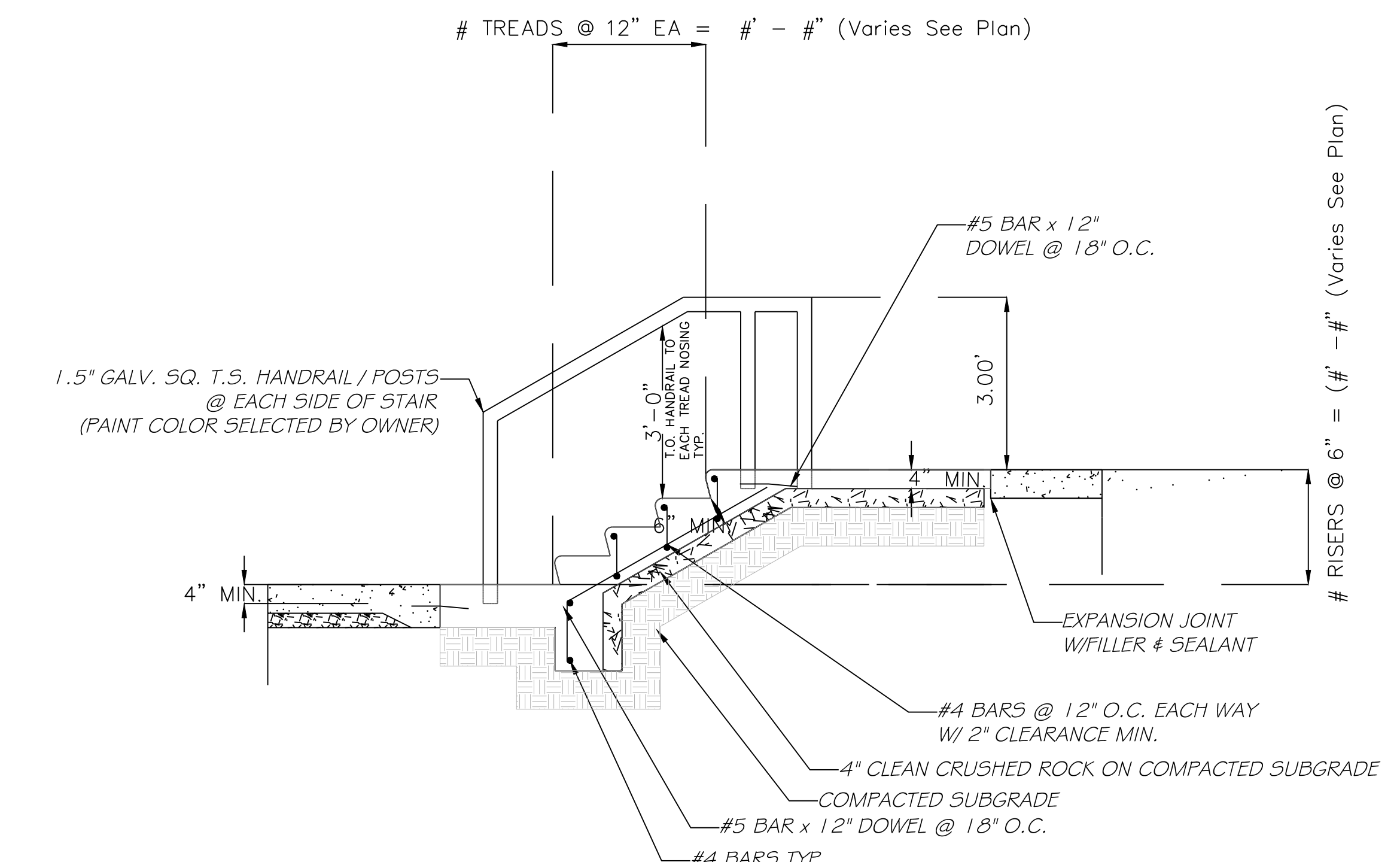
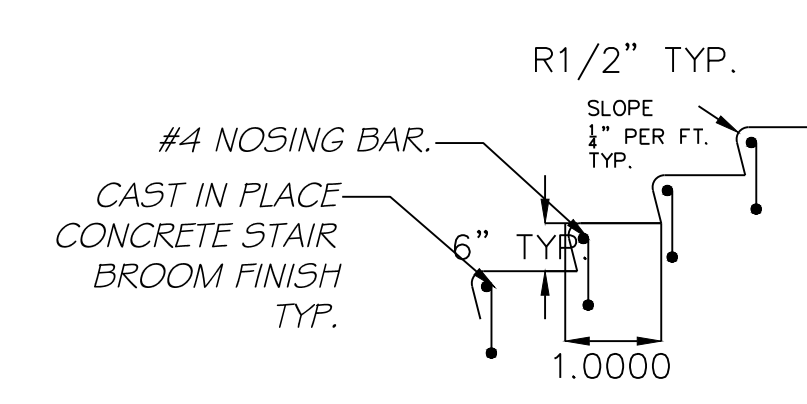
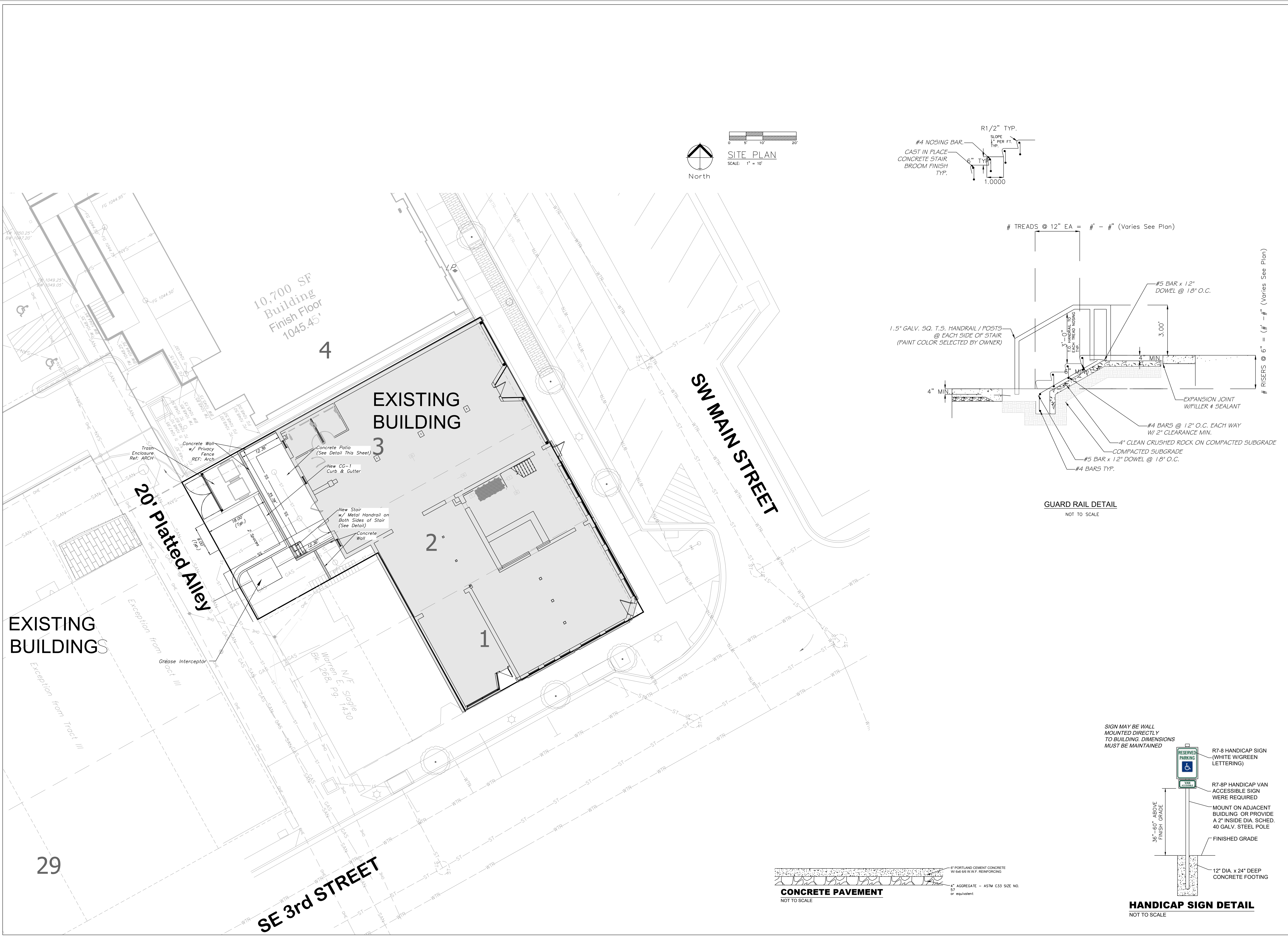
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Preliminary Development Plans
230 SW Main Street
Lee's Summit, Jackson County, Missouri

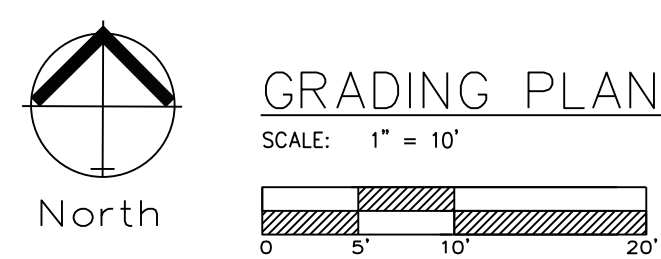
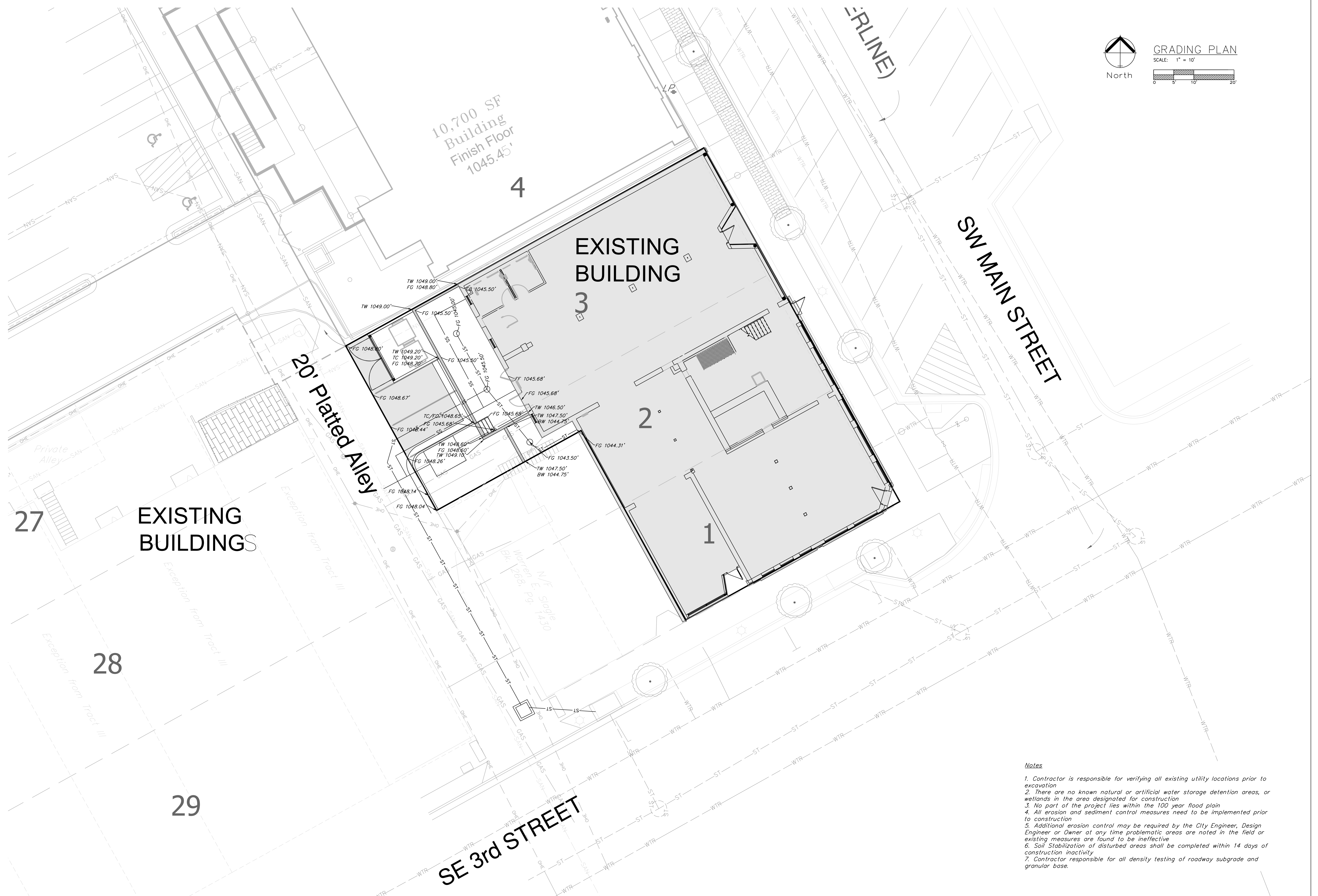
Project: 228 SW MAIN, L&NO
Issue Date:
April 21, 2022

Preliminary Development Plans
230 SW Main Street
Lee's Summit, Jackson County, Missouri

Professional Registration
Missouri
Engineering 2005002186-D
Surveying 2005000319-D
Kansas
Engineering E-1695
Surveying LS-218
Oklahoma
Engineering 6254
Nebraska
Engineering CA2821

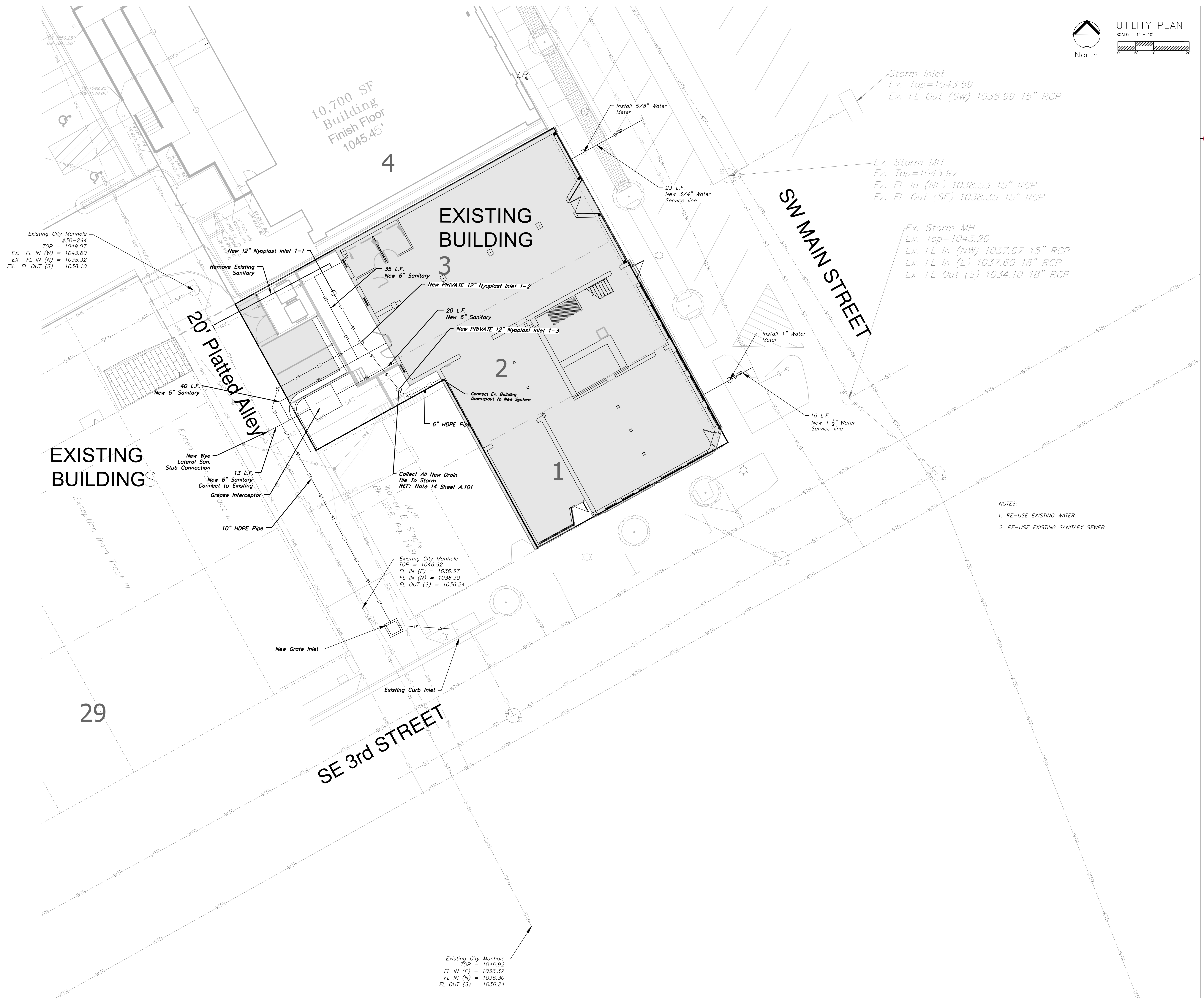
ENGINEERING
SOLUTIONS
5010 S. 10TH STREET
LEE'S SUMMIT, MO 64082
P: 816.623.9888 F: 816.623.9849





- Notes**
1. Contractor is responsible for verifying all existing utility locations prior to excavation.
 2. There are no known natural or artificial water storage detention areas, or wetlands in the area designated for construction.
 3. No part of the project lies within the 100 year flood plain.
 4. All erosion and sediment control measures need to be implemented prior to construction.
 5. Additional erosion control may be required by the City Engineer, Design Engineer or Owner at any time problematic areas are noted in the field or existing measures are found to be ineffective.
 6. Soil Stabilization of disturbed areas shall be completed within 14 days of construction inactivity.
 7. Contractor responsible for all density testing of roadway subgrade and granular base.

REVISIONS



UTILITY PLAN
SCALE: 1" = 10'
0 5 10 20

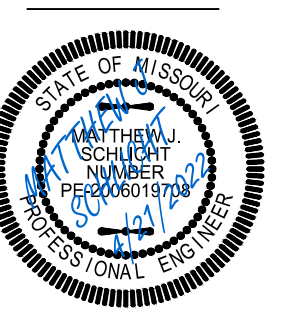
ENGINEERING SOLUTIONS
ENGINEERING & SURVEYING
230 SW MAIN STREET
LEE'S SUMMIT, MO 64082
P:816/623-9888 F:816/623-9849

Professional Registration
Missouri
Engineering 2005002186-D
Surveying 200500319-D
Kansas
Engineering E-1695
Surveying LS-218
Oklahoma
Engineering 6254
Nebraska
Engineering CA2821

Preliminary Development Plans
230 SW Main Street
Lee's Summit, Jackson County, Missouri

Project: 228 SW MAIN, L&NO
Issue Date: April 21, 2022

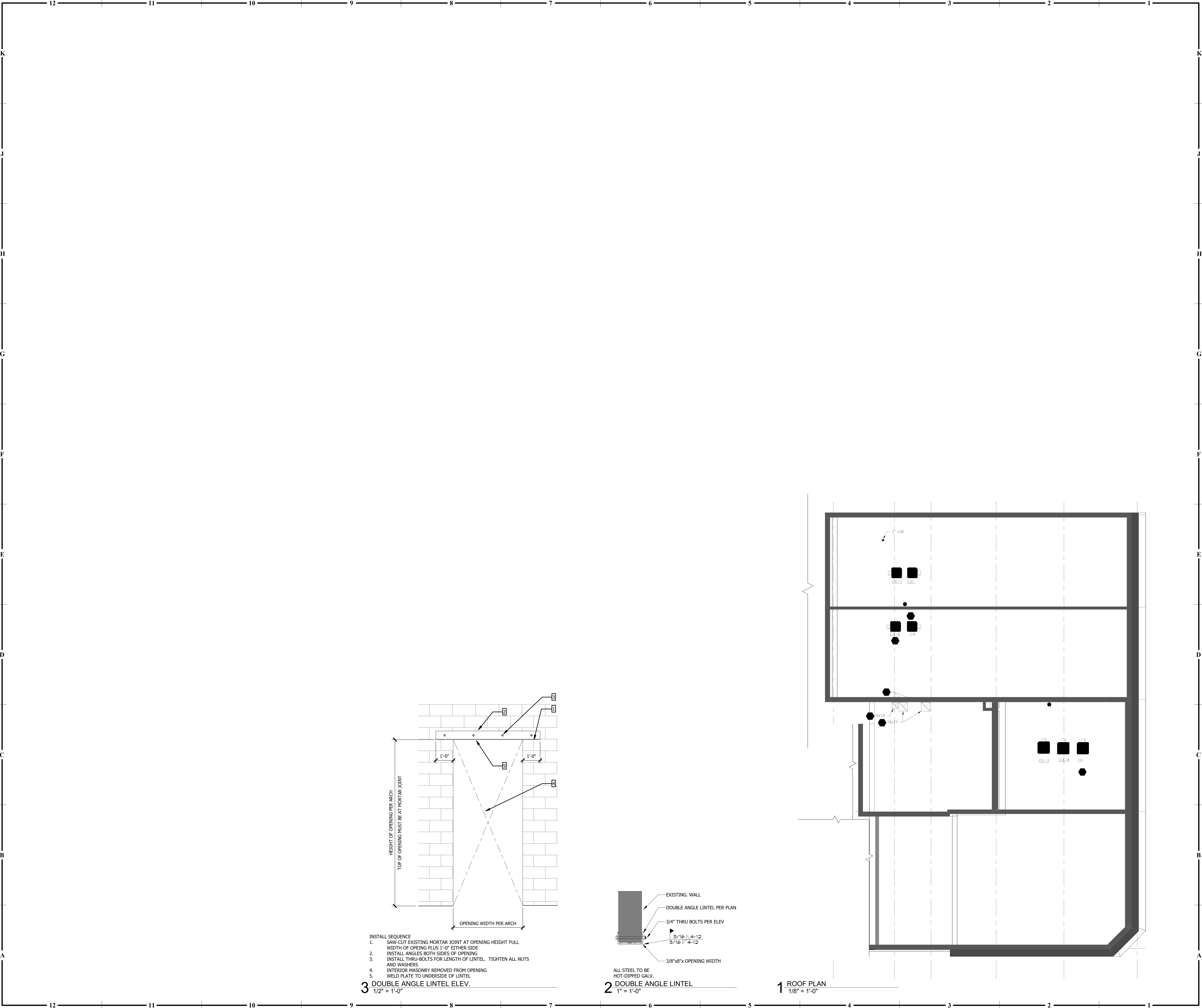
Utility Plan
Preliminary Development Plans
230 SW Main Street
Lee's Summit, Jackson County, Missouri



Matthew J. Schlicht
MO PE 2006019708
KS PE 19071
OK PE 23225
NE PE E-14335

REVISIONS	

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MAIN STREET LANDLORD IMPROVEMENTS

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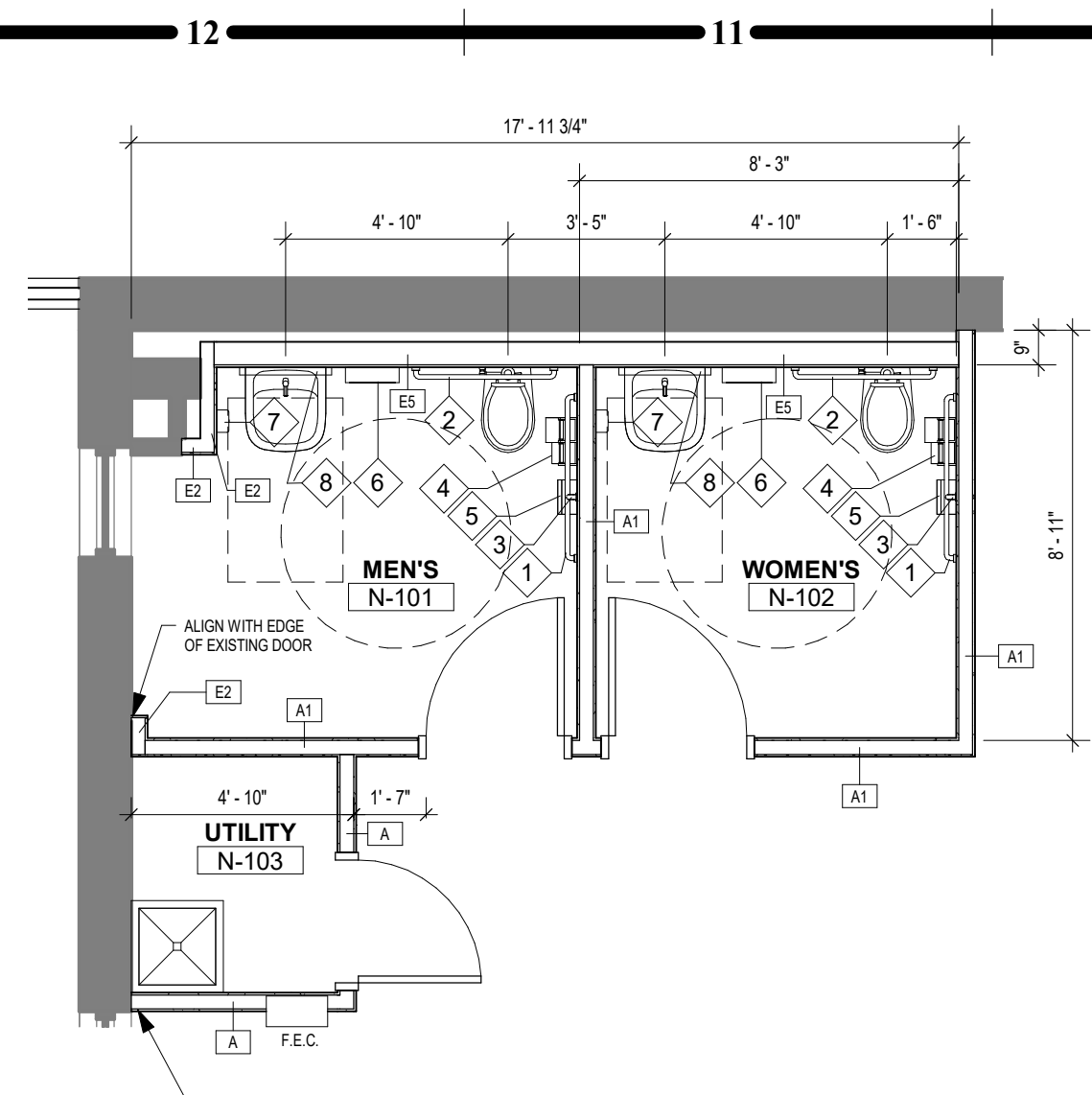
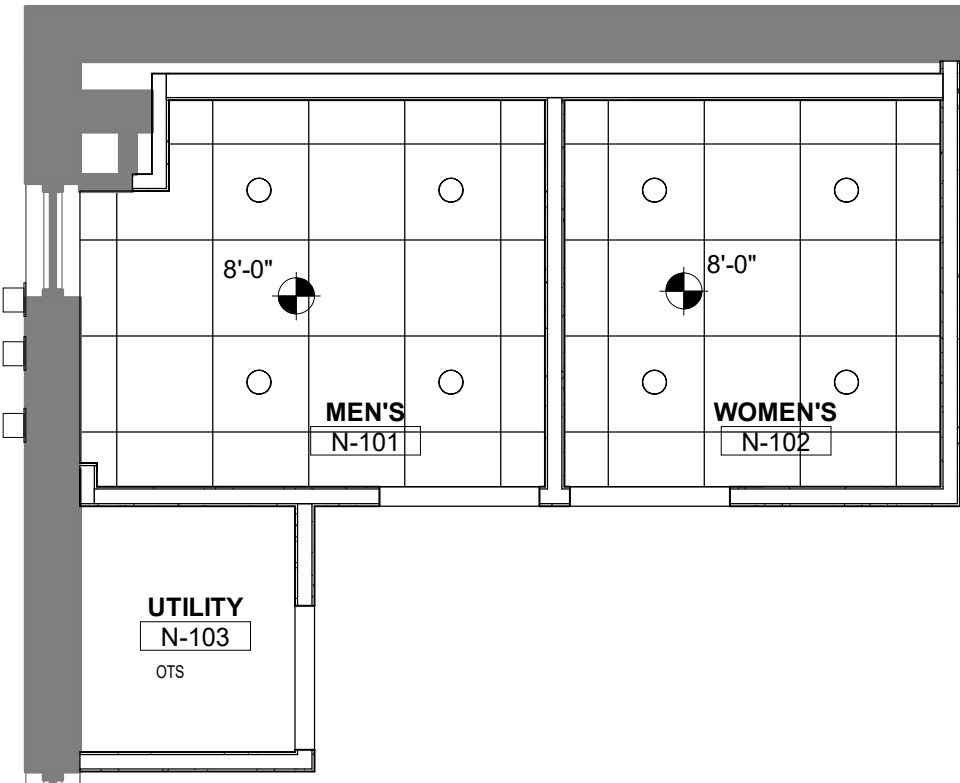
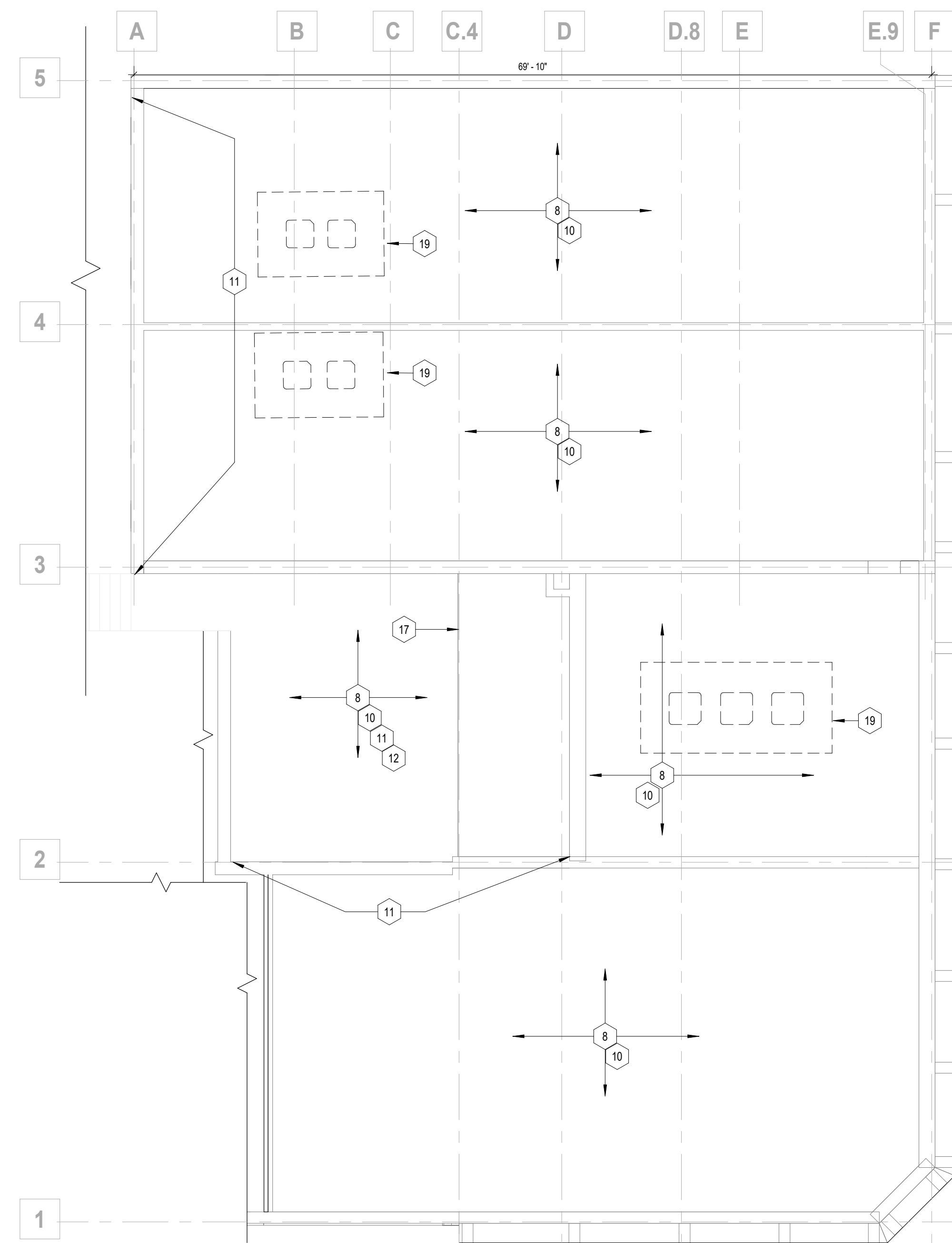
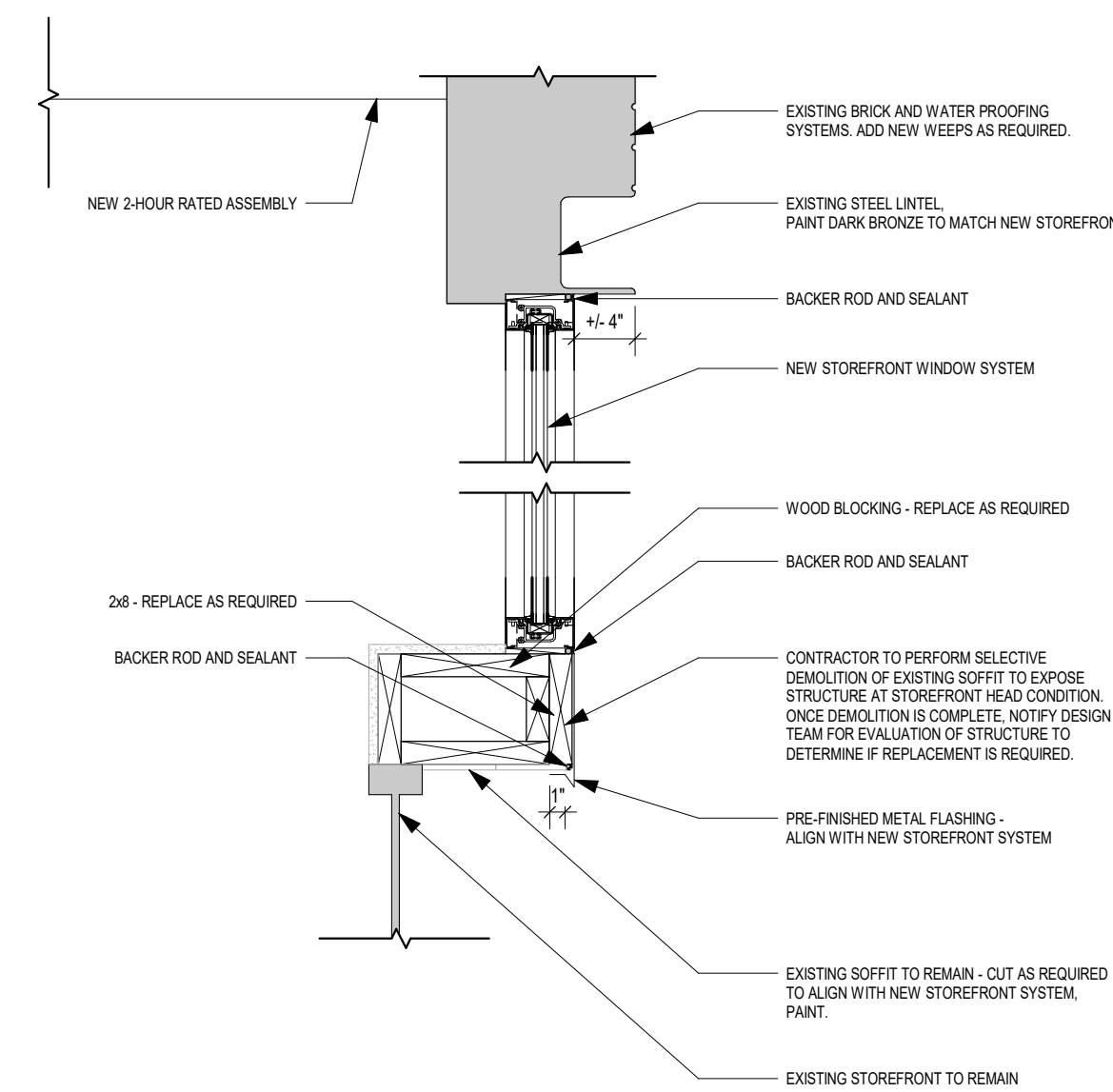
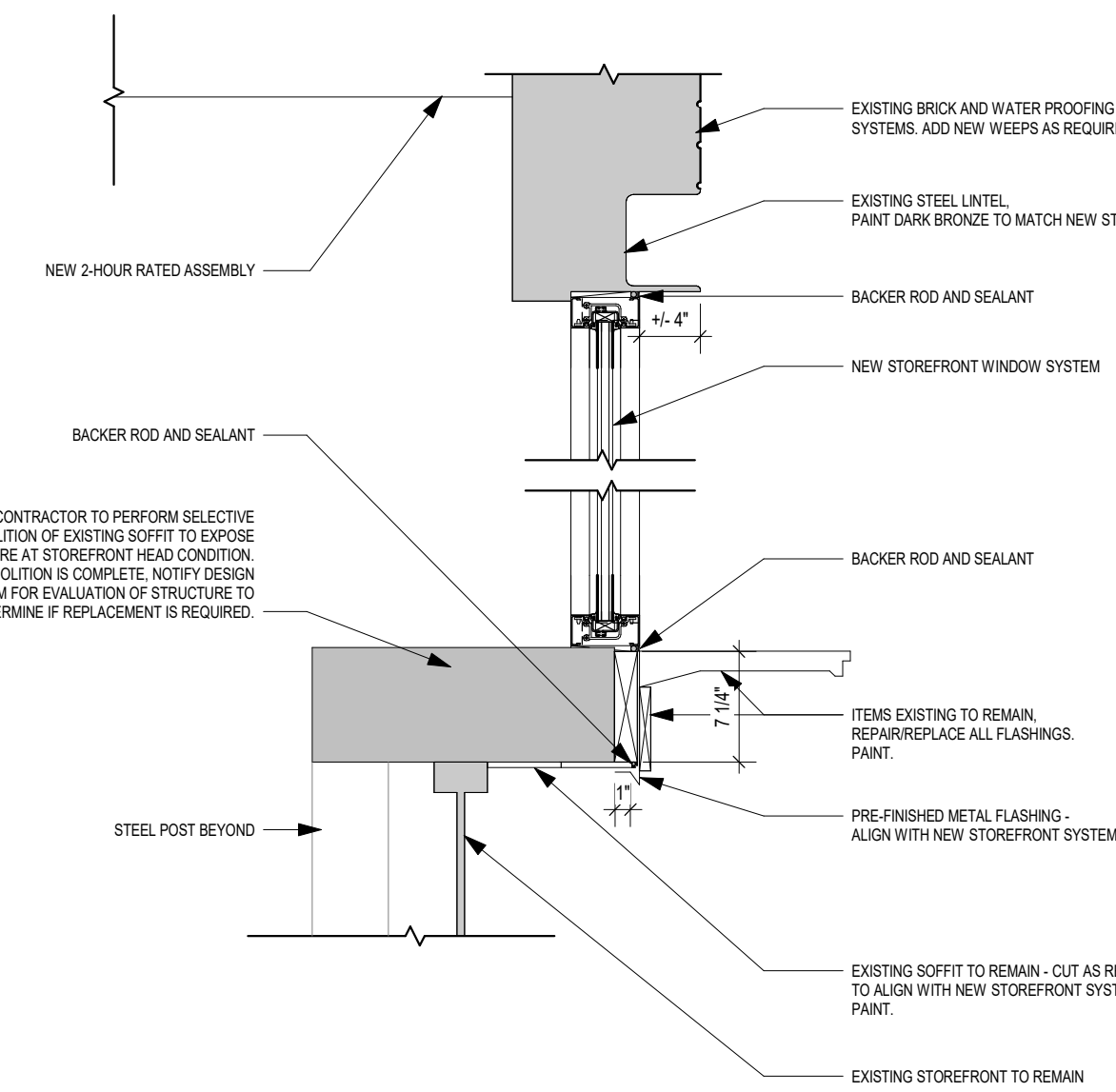
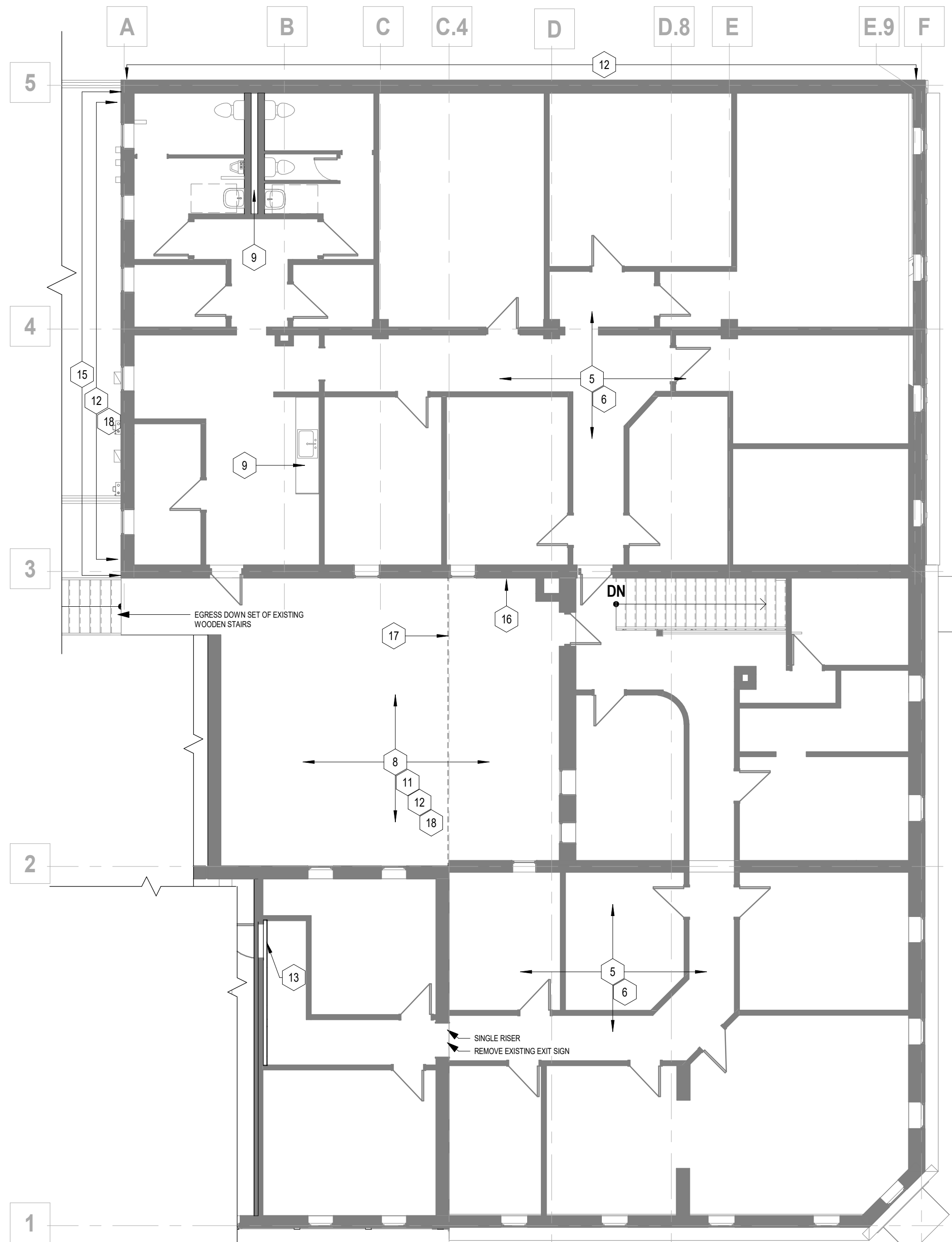
PROFESSIONAL SEAL

S102

ISSUE DATE: APRIL 21, 2022
COLLINS WEBB #: 21121

STRUCTURAL PLANS AND SECTIONS

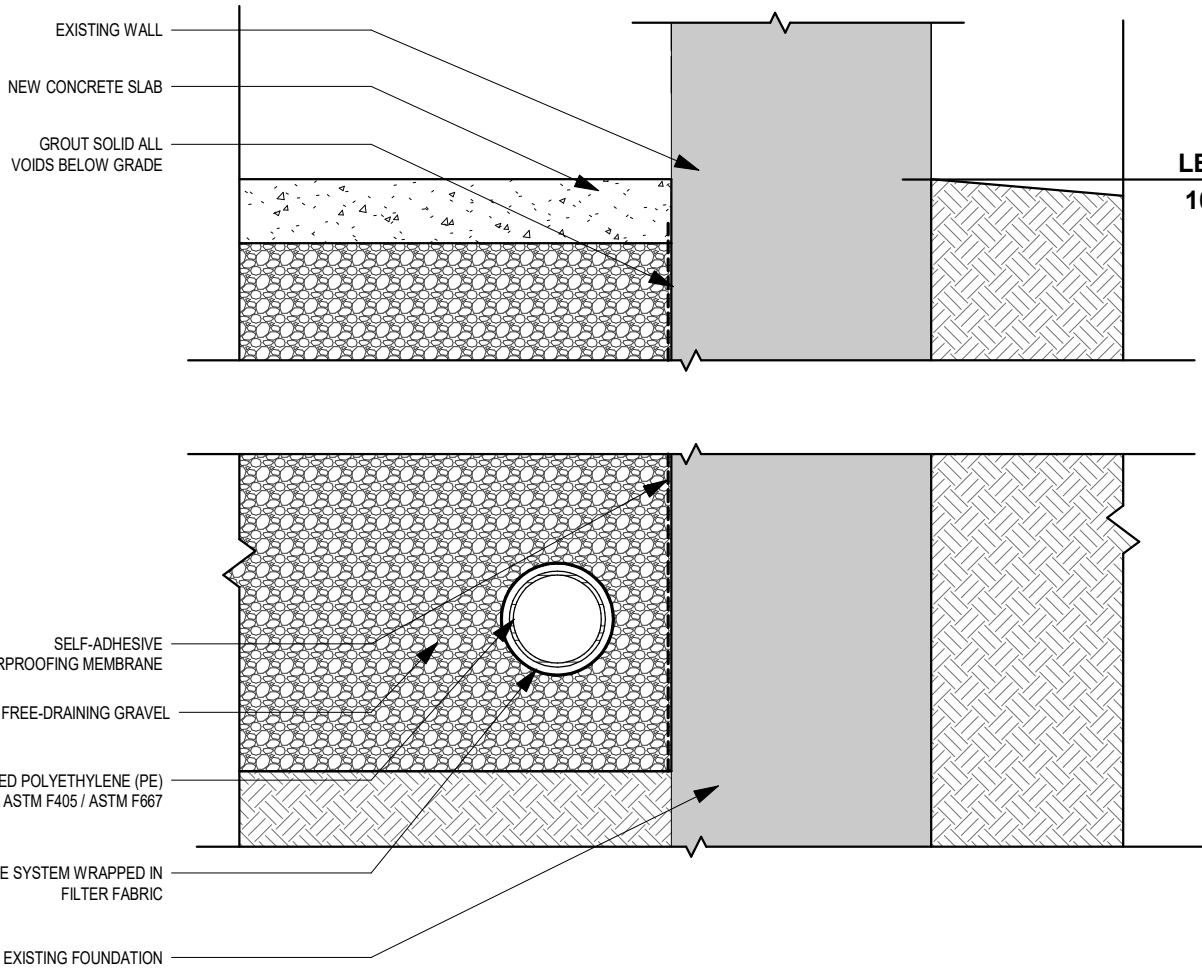
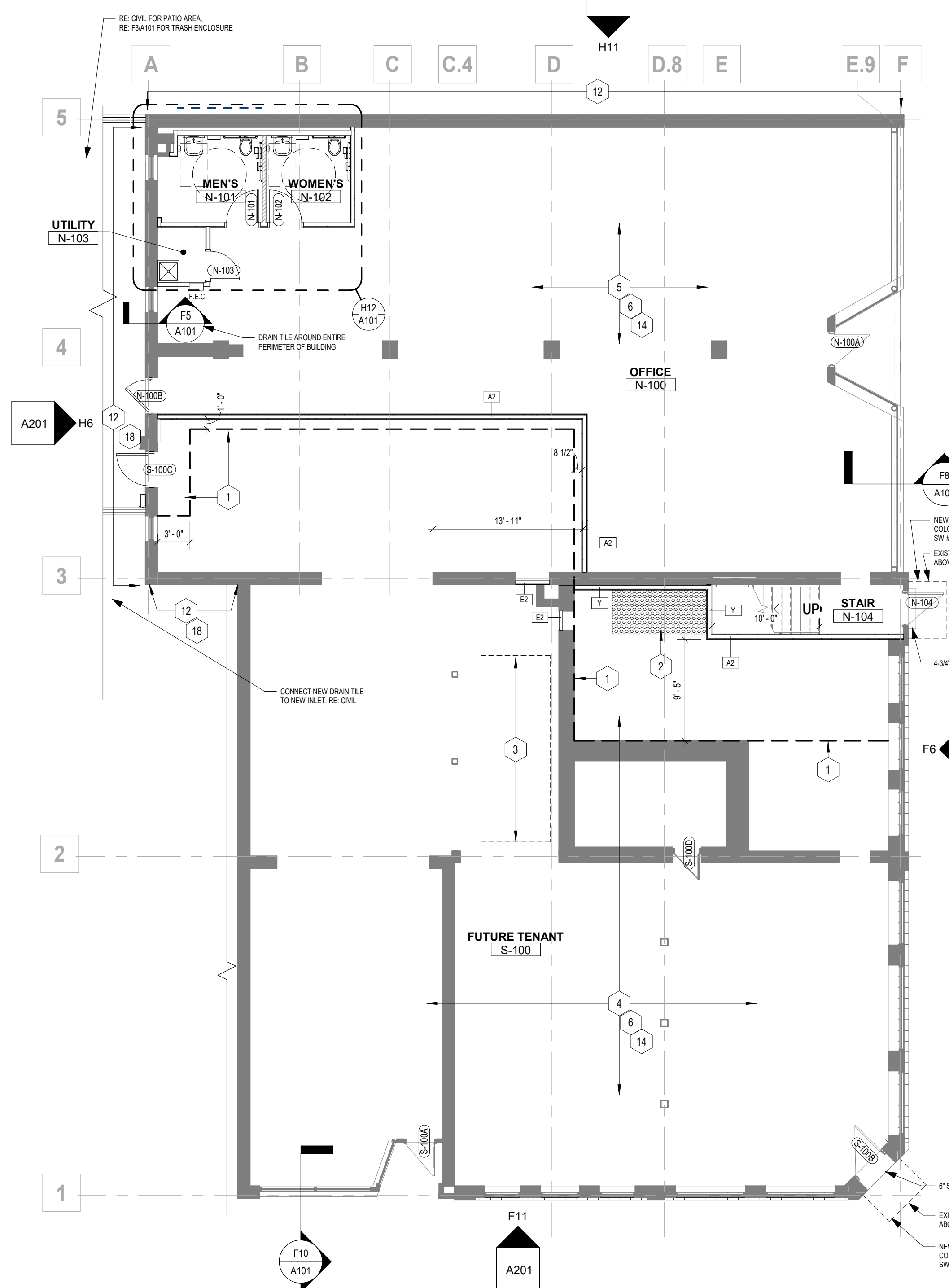
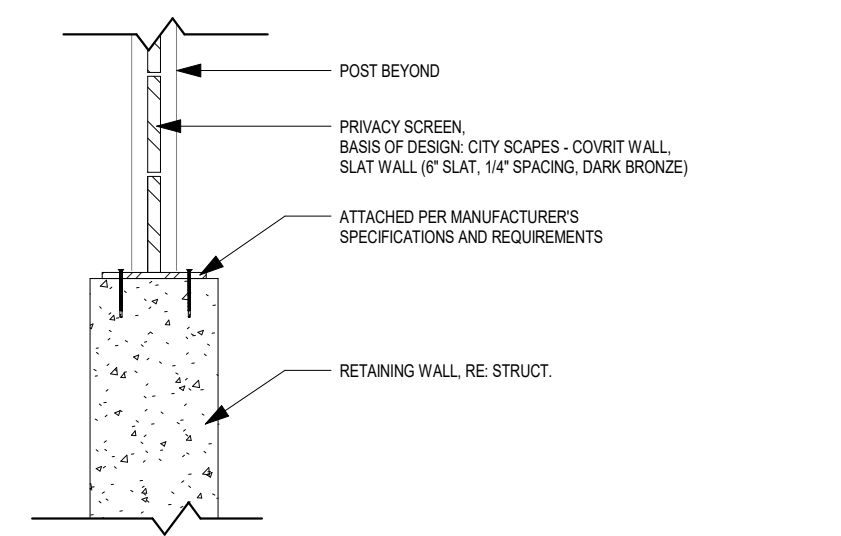
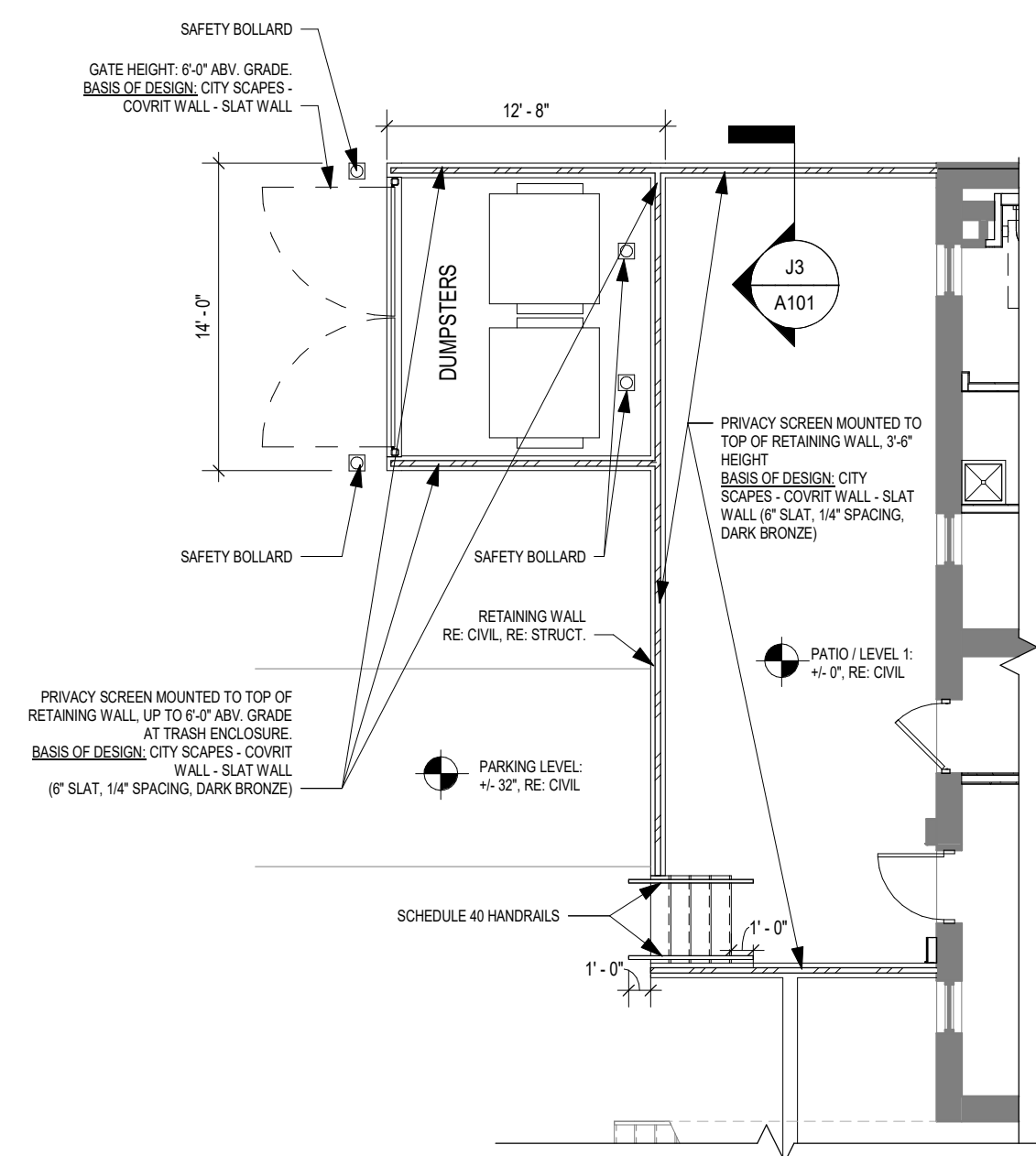
PERMIT SET

**H12** ENLARGED PLAN - 1ST FLOOR
1/4" = 1'-0"**F12** RCP - 1ST FLOOR
1/4" = 1'-0"**A12** ROOF PLAN
1/8" = 1'-0"**F10** SECTION DETAIL - NEW STOREFRONT - SOUTH
1" = 1'-0"**F8** SECTION DETAIL - NEW STOREFRONT - EAST
1" = 1'-0"**A8** 2ND FLOOR PLAN
1/8" = 1'-0"

ACCESSORY SCHEDULE						
TYPE MARK	MANUFACTURER	DESCRIPTION	MODEL	WxHxD	FINISH	COMMENTS
1	BOBRICK WASHROOM EQUIPMENT, INC.	GRAB BAR, 1-1/4" DIA., SS, 42"	B-5806-42	1-1/4" DIA x 42"	SATIN W/ PEENED GRIP	1
2	BOBRICK WASHROOM EQUIPMENT, INC.	GRAB BAR, 1-1/4" DIA., SS, 36"	B-5806-36	1-1/4" DIA x 36"	SATIN W/ PEENED GRIP	1
3	BOBRICK WASHROOM EQUIPMENT, INC.	VERTICAL GRAB BAR, 1-1/4" DIA., SS, 18"	B-5806-18	1-1/4" DIA x 18"	SATIN W/ PEENED GRIP	1
4	BOBRICK WASHROOM EQUIPMENT, INC.	CLASSIC SERIES MULTI-ROLL TOILET TISSUE DISPENSER	B-2888		SATIN	1
5	BOBRICK WASHROOM EQUIPMENT, INC.	TRIMLINE SERIES SANITARY NAPKIN DISPOSAL	B-35139		SATIN	1
6	BOBRICK WASHROOM EQUIPMENT, INC.	CONTURA SERIES PAPER TOWEL DISPENSER/WASTE RECEPTACLE	B-43349		SATIN	1
7	BOBRICK WASHROOM EQUIPMENT, INC.	AUTOMATIC SOAP DISPENSER	B-2013	4 1/4" x 10 17/32" x 4 7/32" 2" W x 4" H	SATIN	1
8	MIRROR - COORD. W/ OWNER					2

GENERAL NOTES:
A. ALL TOILET ACCESSORIES LOCATIONS BASED ON PLAN LAYOUT.
B. REFER TO GOOZ AND MANUFACTURERS SPECIFICATIONS FOR MOUNTING HEIGHTS.
C. COORDINATE ALL MOUNTING HEIGHTS W/ PLUMBING FIXTURES TO ALLOW PROPER OPERATION & INFORM ARCHITECT IN WRITING OF ANY CONFLICTS.
D. FOR ANY ITEM NOTED AS FF&E, G.C. TO COORDINATE DIRECTLY W/ OWNER FOR PREFERRED MOUNTING HEIGHTS, U.N.O.

REMARKS:
1. SURFACE-MOUNTED.
2. MIRRORS TO BE CENTERED AT SINKS, TYP.

**F5** SECTION DETAIL - DRAIN TILE SYSTEM
1" = 1'-0"**A4** 1ST FLOOR PLAN
1/8" = 1'-0"**J3** PRIVACY SCREEN ATTACHMENT
1" = 1'-0"**F3** ENLARGED PLAN - TRASH ENCLOSURE
1/8" = 1'-0"**GENERAL NOTES:**
FLOOR PLANS

1. RE: GENERAL ARCHITECTURAL SHEETS FOR ADDITIONAL NOTES AND DETAILS THAT ARE APPLICABLE.
2. ARCHITECTURAL ELEVATION 100'-0".
3. DIMENSIONS SHOWN ON THE FLOOR PLAN ARE TO THE FACE OF GYP. BOARD WALL (FGD), FACE OF MASONRY (FOM), FACE OF CONCRETE WALLS (FOC), AND COLUMN GRID LINES, UNLESS NOTED OR SHOWN OTHERWISE.
4. NOTE: WALL THICKNESSES ARE ACTUAL DIMENSIONS AND PER WALL TYPES SEE GENERAL SHEETS.
5. DOOR OPENINGS NOT LOCATED BY DIMENSION SHALL BE CENTERED IN WALL SHOWN OR LOCATED 4 INCHES FROM FINISH WALL TO HINGE SIDE OF THE DOOR, ALWAYS ALLOWING A MINIMUM OF 1" FROM THE HINGE SIDE (STRIKE SIDE) OF THE DOOR TO THE INTERSECTING WALL OR OTHER PROTRUDING OBJECTS.
6. ALL ALCOVES WITHOUT A SPACE IDENTIFICATION NUMBER SHALL HAVE THE SAME FINISHES AS THE ADJOINING SPACES.
7. PROVIDE FINISH LEVELS AS DESCRIBED:
LEVEL 4:
- ALL WALLS TO BE BROUGHT UP TO LEVEL 4 FINISH.
- AREAS FOR BACK OF HOUSE EMPLOYEE OPERATIONS WHERE ROOM SIDE WALLS AND/OR CEILING HAVE PAINTED SURFACES.
CONCESSION AND CIRCULATION CORRIDORS WHERE ROOM SIDE WALLS AND/OR CEILING HAVE PAINTED SURFACES.
8. RE: FINISH LEGEND, FINISH SCHEDULE AND SPECIFICATIONS FOR DOOR AND DOOR FRAME FINISHES.
9. STAIR ENCLOSURES, SHAFT WALLS, EXIT PASSAGEWAYS AND EXTERIOR WALLS TO BE COORDINATED FOR PHASE OF WORK PER MATRIX AND PROJECT SCOPING.
10. MAINTAIN AND PROTECT EXISTING EXPANSION JOINTS DURING CONSTRUCTION. PATCH/REPAIR TO MATCH EXISTING RATINGS AS REQUIRED ON THE SHELL PORTION OF PROJECT.
11. CONSTRUCTION TO BE IN STRICT ACCORDANCE WITH ALL APPLICABLE BUILDING CODES, LOCAL RULES, AND REGULATIONS, AND ALL OTHER CODES, REGULATIONS AND GOVERNING AGENCIES HAVING JURISDICTION WITH ALL APPLICABLE AMENDMENTS UNLESS ALTERED OR CHANGED THROUGH VARIANCES OF OTHER LEGAL PROCEDURES.
12. **DRAIN TILE DETAIL:** PER IRC 2018, PERFORATED POLYETHYLENE (PE) PLASTIC PIPE, ASTM F481 / ASTM F887, SMOOTH WALL, WRAPPED IN FILTER FABRIC.
13. **FLUID APPLIED BARRIER AT FOUNDATION:** BASIS OF DESIGN: W.R. MEADOW, SEALTIGHT - HYDRASTIC 835 SL #709-A. SUBMITTAL REQUIRED - SUBMIT TO ARCHITECT.
14. **GUARDRAILS:** GUARDRAILS SHALL BE DESIGNED TO RESIST A LINEAR LOAD OF 50 POUNDS PER LINEAR FOOT IN ACCORDANCE WITH SECTION 4.5.1.1 OF ASCE 7. GUARDRAILS SHALL BE DESIGNED TO RESIST A CONCENTRATED LOAD OF 200 POUNDS IN ACCORDANCE WITH SECTION 4.5.1.1 OF ASCE 7.

FLOOR PLAN KEYED NOTES

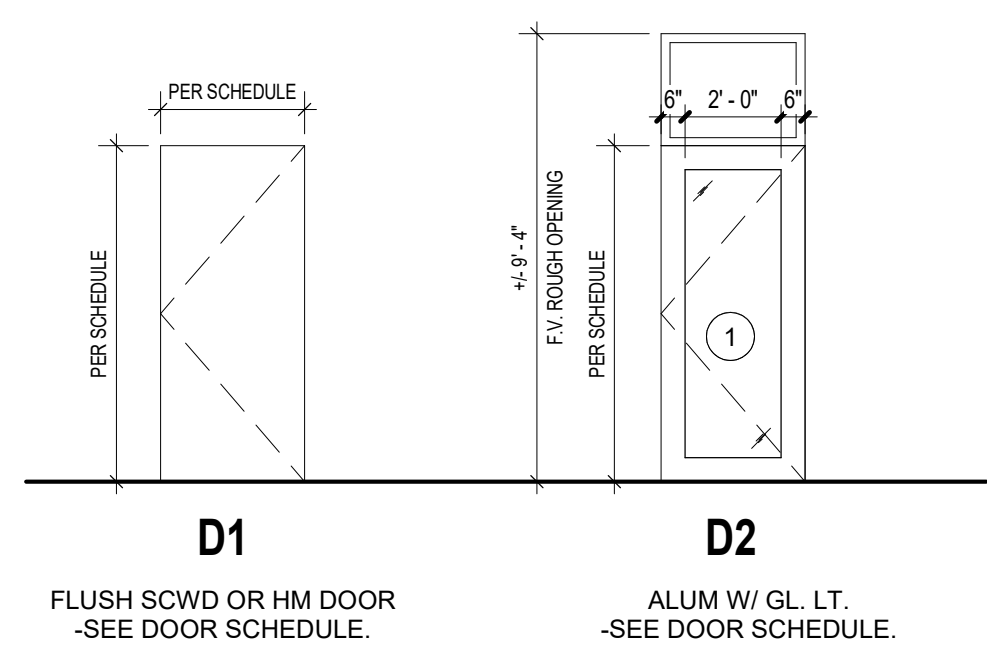
MARK	DESCRIPTION
1	EXTENTS OF NEW CONCRETE SLAB. REFER TO STRUCTURAL FOR ADDITIONAL INFORMATION.
2	UNDERSIDE OF STAIR TO RECEIVE 2-HR RATING ON UNDERSIDE OF STRINGER TO MAINTAIN CONTINUOUS RATING OF FLOOR/CEILING/WALL ASSEMBLY. MUST MAINTAIN THE 2-HOUR HORIZONTAL RATING OF THE CEILING PLANE.
3	FUTURE LOCATION OF RESTROOM CORE. REFER TO MEP DOCUMENTS FOR ADDITIONAL INFORMATION.
4	ENTIRE CEILING TO RECEIVE A 2-HOUR RATING TO SEPARATE FROM FLOOR ABOVE. REFER TO UL ASSEMBLY RL511 (G5006).
5	CEILING TO REMAIN. PATCH REPAIR AS REQUIRED.
6	ALL PLASTER OR GYPSUM BOARD WALLS TO BE PREPARED TO A LEVEL 4 FINISH.
7	REMOVE WINDOW AND PREPARE OPENING FOR NEW EGRESS DOOR. REFER TO STRUCTURAL FOR ADDITIONAL INFORMATION.
8	ANY ROOF MODIFICATIONS TO BE COMPLETED BY JR & CO. COORDINATE WITH BUILDING OWNER. ALL DEBRIS TO BE REMOVED AND ROOFING SYSTEM TO HAVE POSITIVE SLOPE AWAY FROM BUILDING TO GUTTER SYSTEM. ENTIRE ROOF TO BE REVIEWED FOR REPAIRS. PROVIDE COMPLETE ANALYSIS TO OWNER FOR REVIEW.
9	RECONNECT SANITARY AND WATER AS REQUIRED FOR FUNCTIONAL PLUMBING. REFER TO MEP DOCUMENTS FOR ADDITIONAL INFORMATION.
10	REMOVE ALL DEBRIS FROM EXISTING ROOF. REPAIR ROOF TO ELIMINATE ANY PONDING AND PROVIDE POSITIVE DRAINAGE.
11	REPAIR ALL GUTTER SYSTEMS AND CONFIRM TO BE IN GOOD WORKING ORDER AND FREE OF DEBRIS. CONFIRM ALL SEAMS ARE WATERTIGHT AND ALL FLASHINGS TO AND AROUND GUTTER SYSTEM ARE IN GOOD WORKING ORDER. ALL GUTTERS AND DOWNSPOUTS TO BE SECURE TO THE BUILDING AND HAVE POSITIVE SLOPE FOR PROPER DRAINAGE.
12	PATCH/REPAIR STUCCO SYSTEM AND MAKE READY FOR NEW EXTERIOR PAINT.
13	INFILL EXISTING OPENING. PATCH/REPAIR AS REQUIRED. PAINT TO MATCH ADJACENT FINISH.
14	DRAIN TILE - PROVIDE 6" PERFORATED, SLEEVED DRAIN TILE AROUND ENTIRE PERIMETER AND ALONG ALL FOUNDATION WALLS. COLLECT AND CONNECT INTO STORM SEWER. REFER TO CIVIL FOR ADDITIONAL INFORMATION.
15	INFILL OPEN STUD CAVITY WITH SIMILAR MATERIALS. PROVIDE SCRATCH AND FINISH COATS TO MATCH EXISTING. PREPARE FOR NEW PAINT FINISH.
16	INFILL OPENING IN MASONRY. MATCH EXISTING.
17	EXISTING OVERHANG TO REMAIN. PAINT SOFFIT SW 7007 CEILING BRIGHT WHITE.
18	STUCCO TO MATCH PRIMARY PAINT COLOR.
19	NEW RTU CURBS AND OPENINGS. COORDINATE EXACT LOCATIONS WITH MEP/STRUCTURAL DOCUMENTS.

FLOOR PLANS, ENLARGED PLANS, AND DETAILS

H11 NORTH ELEVATION
1/8" = 1'-0"



F11 SOUTH ELEVATION
1/8" = 1'-0"



GLASS TYPE LEGEND	
DESIGNATION NUMBER	DESCRIPTION
1	TEMPERED GLASS COLOR: CLEAR

NOTE:
1. DOORS TO BE 1 3/4" THICK, UNLESS NOTED OTHERWISE ON DOOR SCHEDULE.

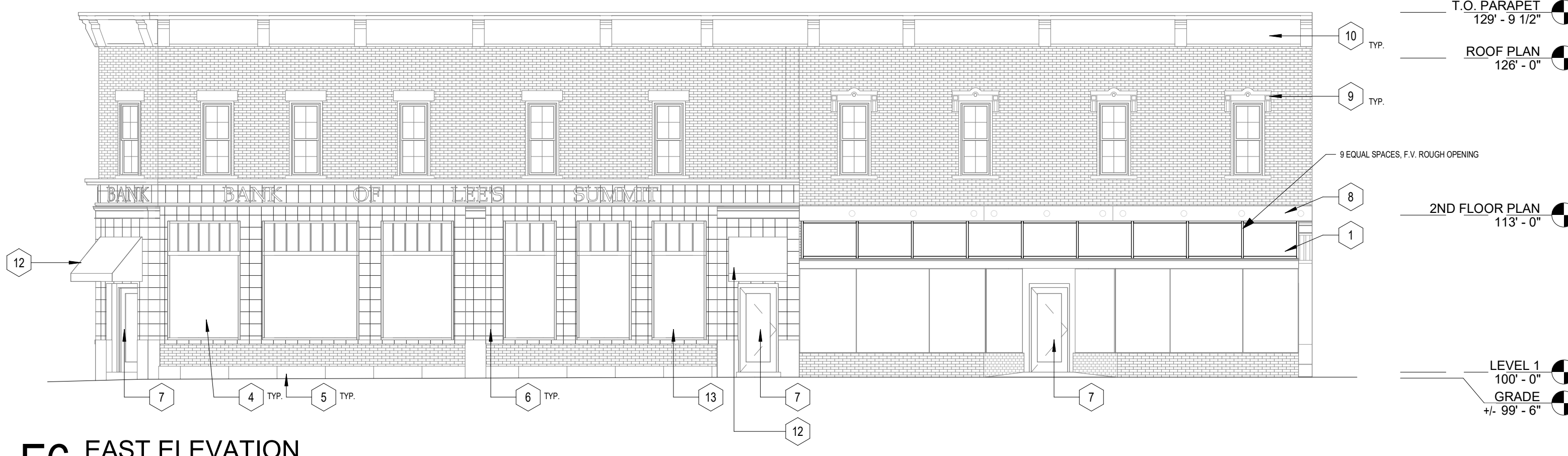
DOOR SCHEDULE										
DOOR #	WIDTH	HEIGHT	ROOM NAME	DOOR			FRAME		RTG	REMARKS
				TYPE	MATERIAL	FINISH	MATERIAL	FINISH		
N-100A	EXIST	EXIST	OFFICE	EXIST	EXIST	PAINT	EXIST	PAINT	N/A	1, 2, 3
N-100B	3'-0"	7'-0"	OFFICE	D2	ALUM/GLASS	ANODIZED	ALUM	ANODIZED	N/A	1, 3, 4, 5, 6, 7
N-101	3'-0"	7'-0"	MEN'S	D1	SCWD	PAINT	HM	PAINT	N/A	1, 3, 4, 6
N-102	3'-0"	7'-0"	WOMEN'S	D1	SCWD	PAINT	HM	PAINT	N/A	1, 3, 4, 6
N-103	2'-8"	7'-0"	UTILITY	D1	SCWD	PAINT	HM	PAINT	N/A	3, 4
N-104	EXIST	EXIST	STAIR	EXIST	EXIST	PAINT	EXIST	PAINT	N/A	1, 2, 3
S-100A	EXIST	EXIST	FUTURE TENANT	EXIST	EXIST	PAINT	EXIST	PAINT	N/A	1, 2, 3
S-100B	EXIST	EXIST	FUTURE TENANT	EXIST	EXIST	PAINT	EXIST	PAINT	N/A	1, 2, 3
S-100C	3'-0"	7'-0"	FUTURE TENANT	D1	HM	PAINT	HM	PAINT	N/A	1, 3, 4, 6
S-100D	EXIST	EXIST	FUTURE TENANT	EXIST	EXIST	EXIST	EXIST	EXIST	N/A	2, 3

DOOR SCHEDULE REMARKS:
1. MATCH EXISTING MASTER KEYING SYSTEM. COORDINATE WITH BUILDING OWNER.
2. MAINTAIN EXISTING HARDWARE.
3. PROTECT DOOR AND FRAME FROM DAMAGE THROUGHOUT CONSTRUCTION. ANY DAMAGE TO BE REPAIRED/REPLACED PER OWNER DISCRETION.
4. DOOR FRAME 2" OFF FINISHED FACE ON HINGE SIDE, U.N.O.
5. PROVIDE PANIC HARDWARE.
6. MANUALLY LOCKABLE FROM INSIDE OF ROOM. MASTER KEY LOCK ON OUTSIDE OF ROOM.
7. COORDINATE HARDWARE WITH MANUFACTURER.

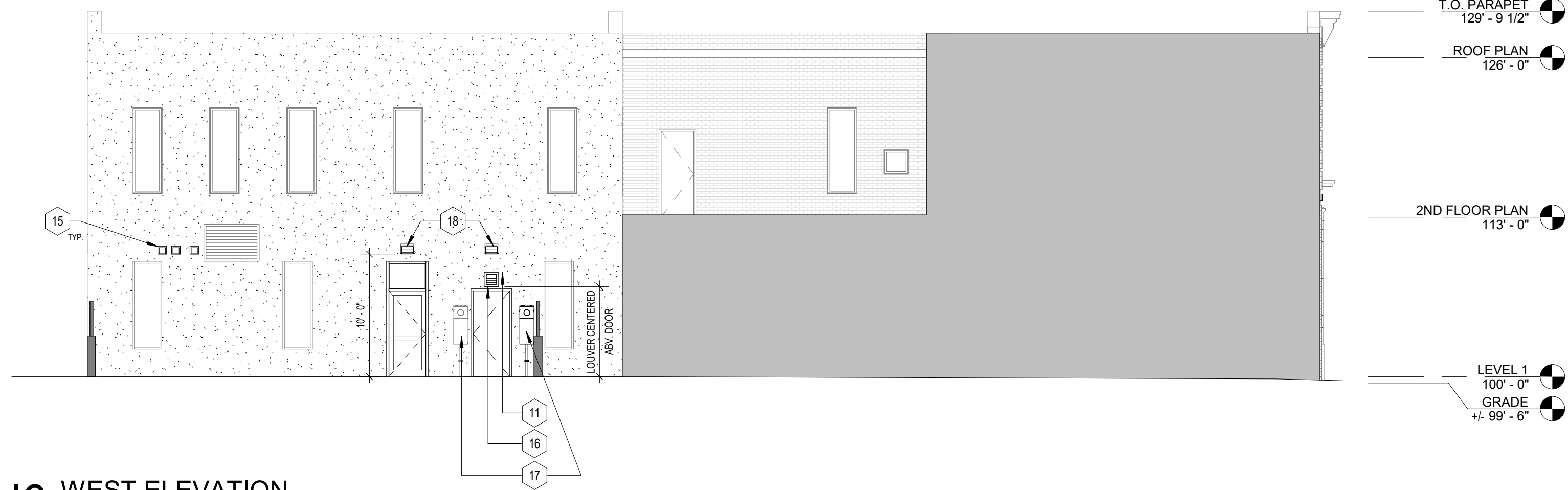
A8 EAST ELEVATION - COLOR
3/16" = 1'-0"



F6 EAST ELEVATION
1/8" = 1'-0"



H6 WEST ELEVATION
1/8" = 1'-0"



C6 SOUTH ELEVATION - COLOR
3/16" = 1'-0"



GENERAL NOTES EXTERIOR ELEVATIONS:

- RE: SHEET G0.01 FOR ADDITIONAL GENERAL NOTES THAT ARE APPLICABLE.
- DIMENSIONS SHOWN ON THE EXTERIOR ELEVATIONS ARE TO THE FACE OF MTL. STUD WALL, FACE OF MASONRY (FOM), FACE OF CONCRETE WALLS (FCO), AND COLUMN GRID LINES, UNLESS OTHERWISE NOTED OR INDICATED.
- RE: THE WINDOW TYPES SHEET FOR ALL EXTERIOR WINDOW TYPES AND GLASS TYPES.
- BRICK REPAIR** - REFER TO SPECIFICATIONS FOR BRICK REPAIR. ALL MASONRY CONTRACTOR TO REVIEW ALL ELEVATIONS FOR REPAIR/REPLACEMENT AS REQUIRED.
- JOINT SEALANTS** - REFER TO SPECIFICATIONS FOR JOINT SEALANT REPAIR. REMOVE/REPLACE REPAIR ALL JOINT SEALANTS ON THE BUILDING. PROVIDE 1/2" BACK ROD BEHIND SEALANTS BETWEEN ALL DISSIMILAR MATERIALS. COLOR TO MATCH ADJACENT MATERIALS.
- CONTRACTOR SHALL FOLLOW STUCCO REPAIR AS OUTLINED WITHIN STO RESTORATION DETAIL SERIES. DETAIL MANUAL, IF CONTRACTOR USES ALTERNATE OR SUBSTITUTED MANUFACTURER, A SUBMITTAL SHALL BE PROVIDED CONTAINING SIMILAR DETAIL INFORMATION FOR ARCHITECT'S APPROVAL.
- EXTERIOR BRICK, STEEL, AND WOOD PAINT** - BASIS OF DESIGN: SHERWIN WILLIAMS - PRO INDUSTRIAL - PRE-CATALYZED WATERBASED URETHANE B65-1100 SERIES.
NOTE FOR CONTRACTOR TO FOLLOW MANUFACTURER RECOMMENDATIONS AND PDS: PRODUCT DATA SHEET. PRIOR TO THE EXTERIOR URETHANE COATING APPLICATION ON BRICK, APPLY CONCRETE AND MASONRY PRIMER-SEALER (BASIS OF DESIGN: LOXON) PRODUCT AND COATS AS RECOMMENDED BY MANUFACTURER.

EXTERIOR ELEVATION KEYED NOTES

- | MARK | DESCRIPTION |
|------|--|
| 1 | STOREFRONT SYSTEM - BASIS OF DESIGN IS KAWNEER 450T FRAMING SYSTEM. GLAZING TO BE FRONT GLAZED. |
| 2 | REPLACE ALL SILL FLASHINGS. COLOR TO BE DARK BRONZE TO MATCH EXISTING. |
| 3 | BRICK - REPLACE ALL MISSING BRICK AND DAMAGED BRICK. COLOR TO MATCH EXISTING. TUCK POINT AS REQUIRED. PROVIDE BACKER ROD & SEALANT BETWEEN DISSIMILAR MATERIALS, TYP. RE: SPECIFICATIONS. |
| 4 | WOOD WINDOWS - REMOVE ALL LOOSE PAINT. PATCH/REPAIR/CAULK AS REQUIRED. PREPARE FOR NEW PAINT. |
| 5 | CAST STONE - TO BE RE-SET AND LEVELED. RE-GROUT AS REQUIRED. |
| 6 | GLAZED TILE - CLEAN AND TUCK-POINT. |
| 7 | WOOD DOOR - SAND AND REPAINT ENTRY DOOR AND FRAME. COLOR DARK BRONZE TO MATCH NEW WINDOW SYSTEM. |
| 8 | STEEL LINTEL - REMOVE ALL LOOSE MATERIAL AND REPAINT. |
| 9 | ALUMINUM WINDOWS / WINDOW HEAD DETAIL - ALUMINUM WINDOWS AT SECOND LEVEL EXISTING TO REMAIN. REMOVE ALL LOOSE MATERIAL. REPAIR CAST STONE HEADER AS REQUIRED AND REPAINT. |
| 10 | TOP OF WALL DETAIL - REMOVE ALL LOOSE MATERIAL AND REPAINT. REPAIR AS REQUIRED AND REFLASH TOP OF WALL AS NEEDED TO MAKE A WATER TIGHT SYSTEM. PREPARE FOR NEW FINISH. |
| 11 | REMOVE EXISTING WEATHERHOOD ABOVE EXTERIOR DOOR. 14"x14" OF EXISTING OPENING ABOVE DOOR TO REMAIN FOR NEW INTAKE LOUVER. INFILL REMAINDER OF EXISTING OPENING WITH SUB-FRAMING, SHEATHING, AND FINISH MATERIAL TO MATCH EXISTING. RE: MEP. REPLACE EXISTING DOOR WITH NEW HOLLOW METAL DOOR. |
| 12 | EXISTING AWNINGS - RE-ATTACH EXISTING AWNINGS TO BUILDING. NEW FABRIC ON AWNINGS TO MATCH SW #7625 MOUNT ETNA. |
| 13 | INSTALL NEW TEMPERED GLAZING AS REQUIRED. |
| 14 | REPLACE WOOD TRIM AT PERIMETER OF WINDOW WITH EXTERIOR/PAINT-GRADE LUMBER. MATCH EXISTING LUMBER SIZES. PAINT. |
| 15 | EXHAUST WALL CAPS. RE: MECH. PAINT TO MATCH WALL. |
| 16 | LOUVERS. RE: MECH. PAINT TO MATCH WALL. |
| 17 | ELEC. METER. RE: ELEC. |
| 18 | WALL PACK. RE: ELEC. |

EXTERIOR ELEVATION COLOR LEGEND

- | | |
|--|---|
| | PRIMARY COLOR:
SW #7594 CARRIAGE DOOR |
| | ACCENT COLOR 1:
SW #7625 MOUNT ETNA |
| | ACCENT COLOR 2:
SW #7675 SEALSKIN |
| | ACCENT COLOR 3:
SW #0009 EASTLAKE GOLD |
| | EXISTING GLAZED TILE TO REMAIN. RE: KEYNOTE #6 |

EXTERIOR ELEVATIONS AND DOOR SCHEDULE

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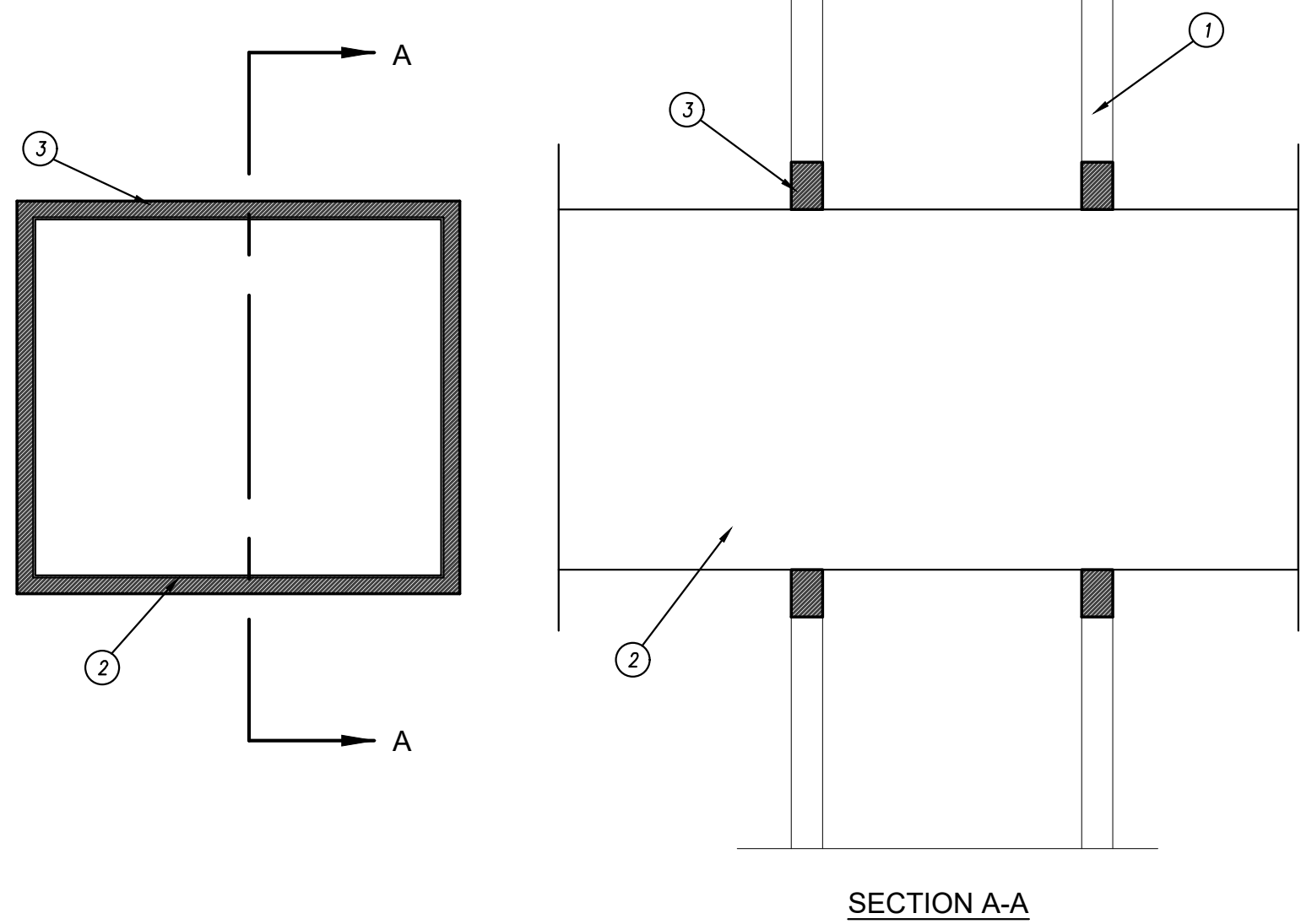
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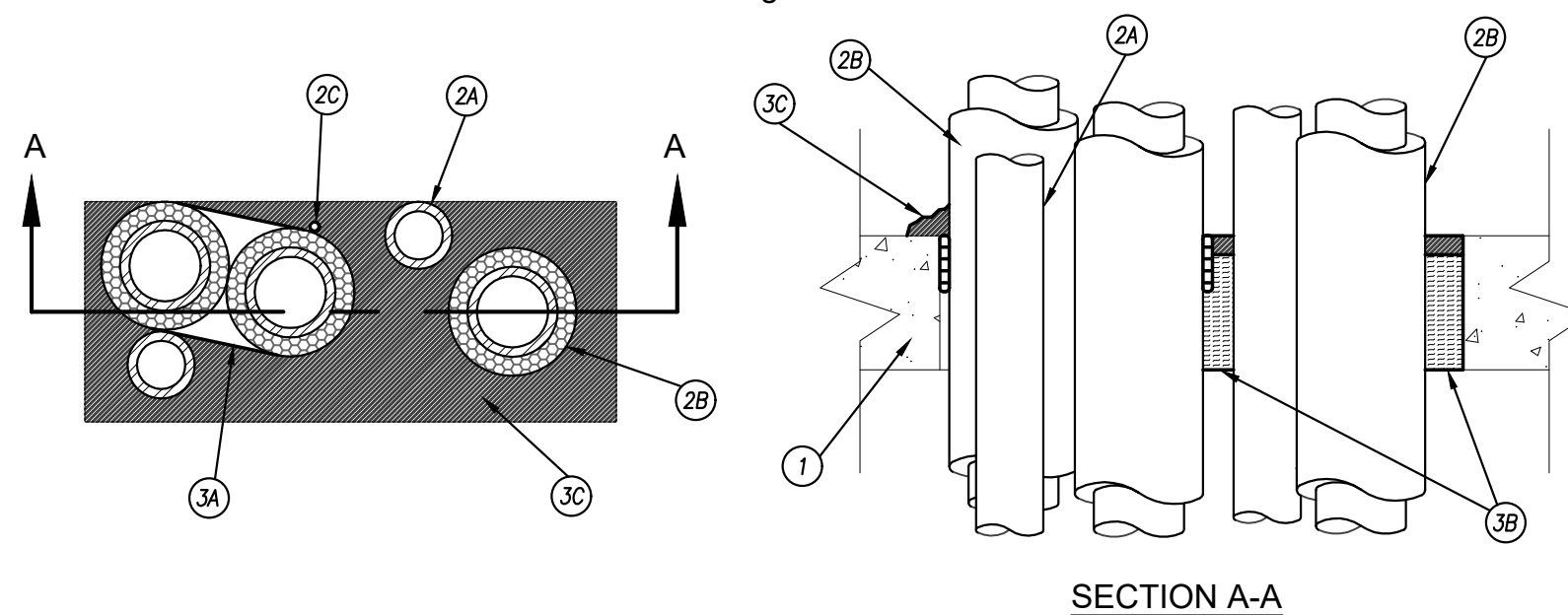


PERMIT DOCUMENTS



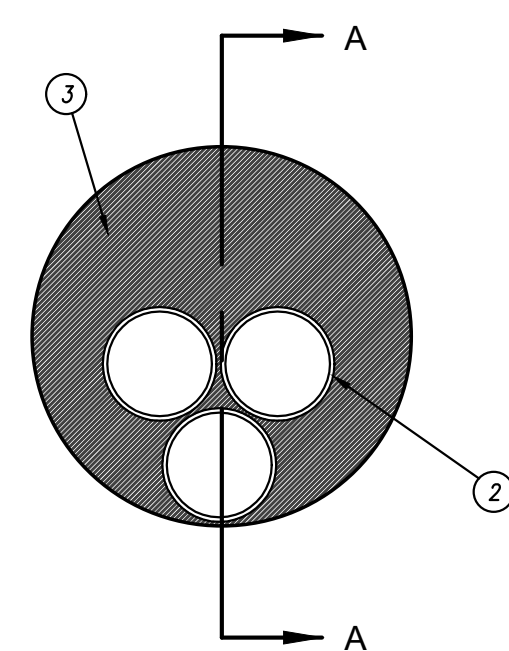
1. WALL ASSEMBLY: THE 1 HR FIRE RATED GYPSUM BOARD STUD WALL ASSEMBLY SHALL BE CONSTRUCTED OF THE MATERIALS AND IN THE MANNER SPECIFIED IN THE INDIVIDUAL U300, U400 OR U500 SERIES WALL AND PARTITION DESIGNS IN THE UL FIRE RESISTANCE DIRECTORY AND SHALL:
 - A. STUDS: WALL FRAMING MAY CONSIST OF EITHER WOOD STUDS OR STEEL STUDS. STUDS SHALL CONFORM TO ASTM 2 OR ASTM 3, 151 MM BY 151 MM BY 40 MM SPACING, OR 100 MM BY 100 MM BY 40 MM SPACING, OR 100 MM BY 100 MM BY 60 MM SPACING.
 - B. GYPSUM BOARD: THICKNESS, TYPE, NUMBER OF LAYERS AND FASTENERS AS REQUIRED IN THE INDIVIDUAL WALL AND PARTITION DESIGN, MAY VARY.
2. STEEL STUD: NOM 12 BY 12 IN. (205 MM BY 205 MM) (OR SMALLER) NO. 24 GAUGE (OR HEAVIER) GALV STEEL STUD TO BE CENTERED WITHIN OPENING WITH AN ANNUAL SPACING OF 1 IN. (25 MM). STUD TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF OPENING.
3. FILL VOID OR CAVITY MATERIAL: CAULK OR SEALANT - MIN 5/8 IN. (16 MM) THICKNESS OF CAULK APPLIED WITH ANNUULUS, FLUSH WITH BOTH SURFACES OF ASSEMBLY.
 - SM COMPANY: 30 2089K, IC 159W+ CAULK OR FR-300-300 (W/ KANE)

*BEARING THE UL CLASSIFICATION MARK



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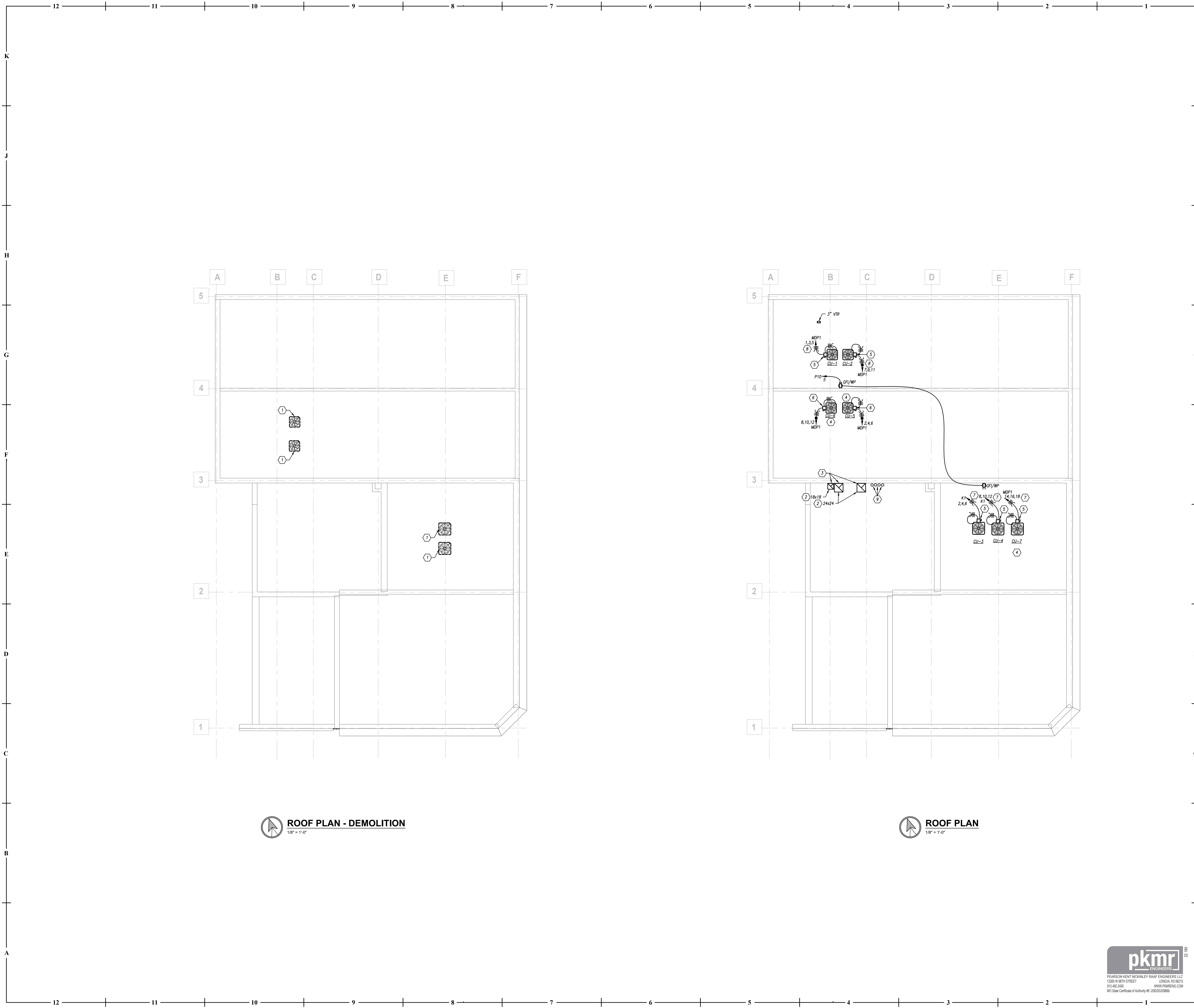
*BEARING THE UL CLASSIFICATION MARKING
+BEARING THE UL RECOGNIZED COMPONENT MARKING



1. WALL ASSEMBLY - THE 1" OR 2" HIGHER RATED GYPSUM BOARD WALL ASSEMBLY SHALL BE CONSTRUCTED OF THE MATERIALS AND IN THE MANNER DESCRIBED IN THE INDIVIDUAL U0, U400 OR U400 SERIES WALL AND PARTITION DESIGN IN THE UL FIRE RESISTANCE DIRECTORY AND SHALL INCLUDE THE FOLLOWING:
- A. STUDS - WALL FRAMING MAY CONSIST OF EITHER WOOD STUDS OR STEEL CHANNEL STUDS. WOOD STUDS TO CONSIST OF NO. 2 IN. BY 4 IN. (51 MM BY 102 MM) LUMBER SPACED 16 IN. (406 MM) O.C. STEEL STUDS TO BE MIN. 1-1/2 IN. (38 MM) WIDE TO CONSIST OF MAX 24 IN. (610 MM) O.C.
 - B. HOUR RATING - THE HOUR RATING OF THE WALL ASSEMBLY SHALL BE THE HOUR RATING OF THE INDIVIDUAL U0, U400 OR U400 SERIES WALL AND PARTITION DESIGN IN THE UL FIRE RESISTANCE DIRECTORY. MAX DAM OF OPENING IS 4 IN. (102 MM).
 - C. THE HOUR RATING OF THE FIRESTOP SYSTEM IS EQUAL TO THE HOUR RATING OF THE WALL ASSEMBLY IN WHICH IT IS INSTALLED.
2. THROUGH PENETRANTS - ONE OR MORE NONMOLDED PLUGS, CONCRETE OR TUBES OR OTHERS INSTALLED CONCENTRICALLY OR ECCENTRICALLY WITH OPENING. ANGULAR SPACE BETWEEN PENETRANTS AND PERIPHERY OF OPENING TO BE MIN 1 IN. (POINT CONTACT) TO MAX 1 IN. (10 MM) TO MAX 25 MM. SPACE BETWEEN PENETRANTS SHALL BE MIN 0 IN. (POINT CONTACT) TO MAX 1 IN. (10 MM) TO MAX 25 MM. PENETRANTS TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF WALL. FOLLOWING LISTED MATERIALS ARE ACCEPTABLE:
- A. POLYVINYL CHLORIDE (PVC) PIPE - NOM 1-1/2 IN. (38 MM) DAM (OR SMALLER) SCHEDULE 40 STD OR CELLULAR CORE PVC PIPE FOR USE IN CLOSED (PROCESS OF SUPPLY) OR VENTED (HARD, WASTE OR VENT) PIPING SYSTEMS.
 - B. POLYETHYLENE TEREPHTHALATE (PET) PIPE - NOM 1 IN. (25 MM) DAM (OR SMALLER) SCHEDULE 40 PVC CONDUIT INSTALLED IN ACCORDANCE WITH ARTICLE 347 OF THE NATIONAL ELECTRICAL CODE (NEPA NO. 30).
 - C. CHLORIDE POLYVINYL CHLORIDE (CPVC) PIPE - NOM 1-1/2 IN. (38 MM) DAM (OR SMALLER) SCHEDULE 40S CPVC PIPE FOR USE IN CLOSED (PROCESS OF SUPPLY) OR VENTED (HARD, WASTE OR VENT) PIPING SYSTEMS.
 - D. CROSULONED POLYETHYLENE (PEX) TUBING - NOM 1 IN. (25 MM) DAM (OR SMALLER) SDR 11.5 PEX PIPE FOR USE IN CLOSED (PROCESS OF SUPPLY) OR VENTED (HARD, WASTE OR VENT) PIPING SYSTEMS.
3. FILL WOOL OR Cavity MATERIAL - CALX OR SILT - NOM 5/8 IN. (16 MM) THICKNESS OF CALX APPLIED WITHIN ANNUAL FLUSH WITH BOTH SIDES OF WALL. FILL WITH CALX OR SILT AND DAM 1 IN. (25 MM) DAM (OR SMALLER) SCHEDULE 40S PENETRANT INTERFACE AT POINT CONTACT LOCATION ON BOTH SIDES OF WALL.
4. COMPANY - 1C 1589A, 0C 2506A AND 0C 29-3000 WILL SEALANT
(NOTE: OC 2506A NOT SUITABLE FOR USE WITH CPVC PIPES)

*BEARING THE UL CLASSIFICATION MARKING





GENERAL ROOF PLAN

NOTES

1. REFER TO GENERAL NOTES ON MEP COVER SHEET FOR ADDITIONAL REQUIREMENTS OF WORK.
2. MAINTAIN CODE-REQUIRED DISTANCES FOR ALL VENTS, EXHAUSTS, ETC. FROM MECHANICAL EQUIPMENT OUTSIDE AIR INTAKES.
3. ALL ELECTRICAL EQUIPMENT AND DEVICES SHALL BE MOUNTED A MINIMUM OF 36" ABOVE THE ROOF ON SUITABLE STEEL SUPPORTS UNLESS OTHERWISE NOTED.

ROOF PLAN KEYED NOTES

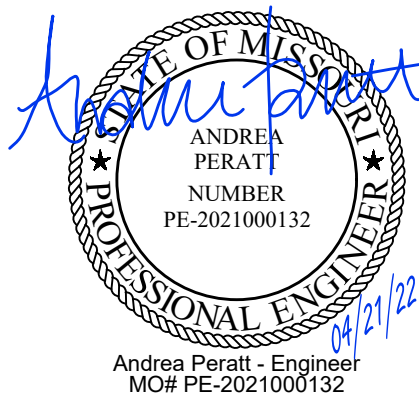
1. CONTRACTOR TO FIELD VERIFY LOCATION AND REMOVE EXISTING CONDENSING UNITS. REUSE EXISTING LOCATIONS. REFRIGERANT PIPE PENETRATIONS AND ACCESSORIES OF CONDENSING UNITS SERVING SECOND FLOOR. REFER TO NEW WORK PLAN.
2. DISHWASHER, GREASE AND MAKE-UP AIR DUCT FROM/ TO FIRST FLOOR TO/ FROM 2ND FLOOR ROOF.
3. CAP DUCTWORK ON ROOF FOR FUTURE USE.
4. CONDENSING UNIT SERVING 2ND FLOOR TO BE INSTALLED IN EXISTING LOCATION.
5. 60AMP, 3-POLE, NON-FUSED HEAVY-DUTY DISCONNECT SWITCH IN NEMA 3R ENCLOSURE.
6. 30AMP, 3-POLE, NON-FUSED HEAVY DUTY DISCONNECT SWITCH IN NEMA 3R ENCLOSURE.
7. (3) #6 WIRE AND (1) #10 GROUND IN 3/4" CONDUIT.
8. (3) #8 WIRE AND (1) #10 GROUND IN 3/4" CONDUIT.
9. CONDUIT PENETRATIONS FOR FUTURE MECHANICAL EQUIPMENT. REFER TO SHEET E111 FOR ADDITIONAL INFORMATION.

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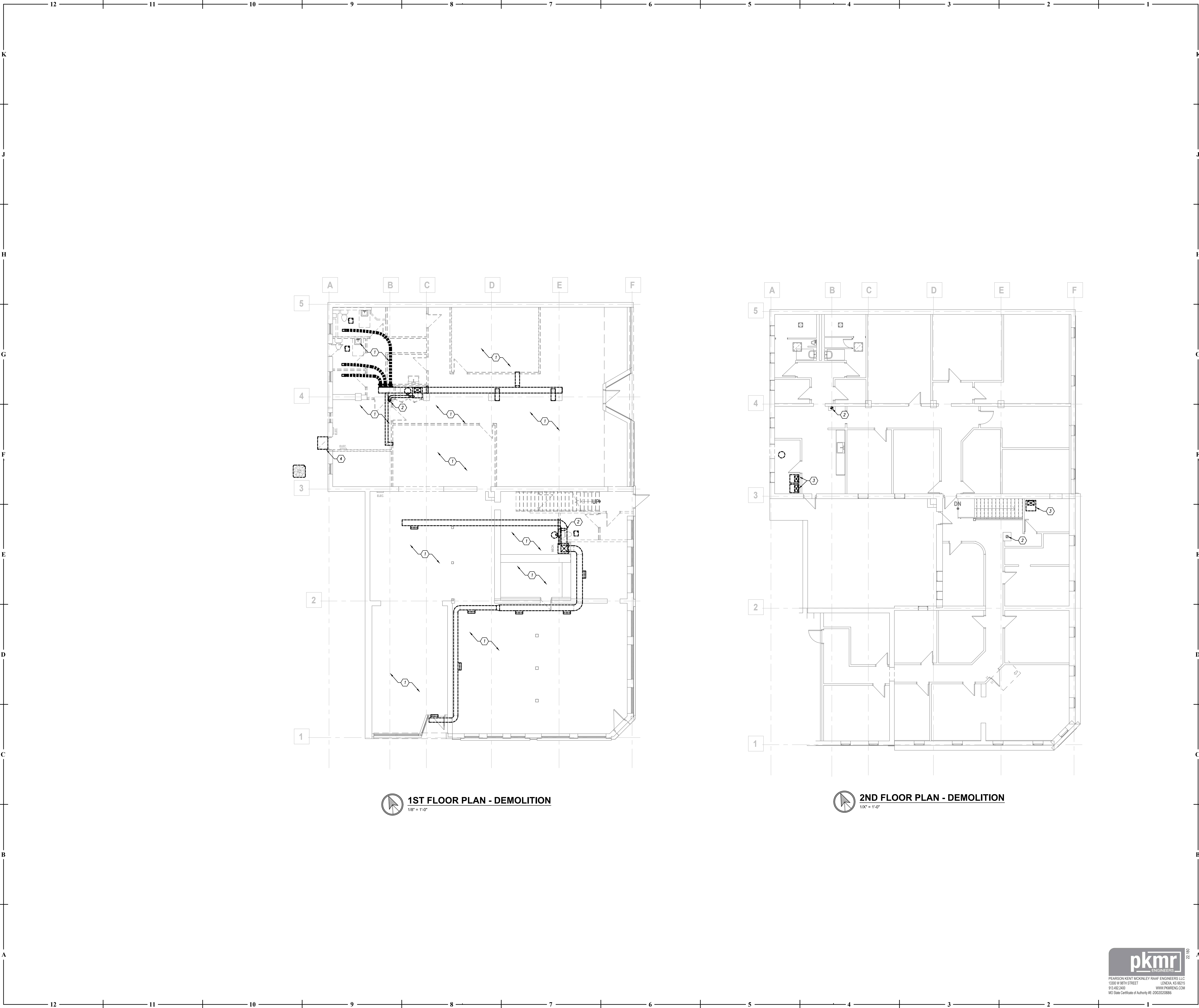
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MEP101

ISSUE DATE: APRIL 21, 2022
COLLINS WEBB #: 21121

ROOF PLAN





GENERAL DEMOLITION NOTES

1. REFER TO GENERAL DEMOLITION NOTES ON MEP COVER SHEET FOR ADDITIONAL REQUIREMENTS OF WORK.

DEMOLITION PLAN KEYED NOTES

1. REMOVE ALL DUCTWORK, DIFFUSERS AND EQUIPMENT IN THIS AREA. PATCH/ REPAIR WALL/ CEILING IF REQUIRED. REFER TO NEW WORK PLAN.
2. REMOVE VERTICAL FLUE DUCT GOING THROUGH SECOND FLOOR TO ROOF. REFER TO NEW WORK PLAN.
3. REMOVE EXISTING FURNACE. KEEP ALL DUCTWORK, FLUE AND ACCESSORIES. CLEAN RETURN PLENUM, GRILLE AND PROVIDE NEW FILTERS. PREPARE DUCTWORK FOR NEW FURNACE INSTALLATION. REFER TO NEW WORK PLAN.
4. REMOVE EXISTING WEATHER HOOD AND INTAKE OPENING. PATCH AND REPAIR OPENING WITH CONSTRUCTION MATERIALS TO MATCH EXISTING CONDITIONS. REFER TO ARCHITECT.

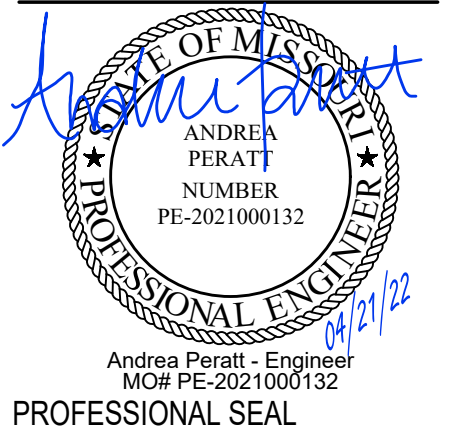


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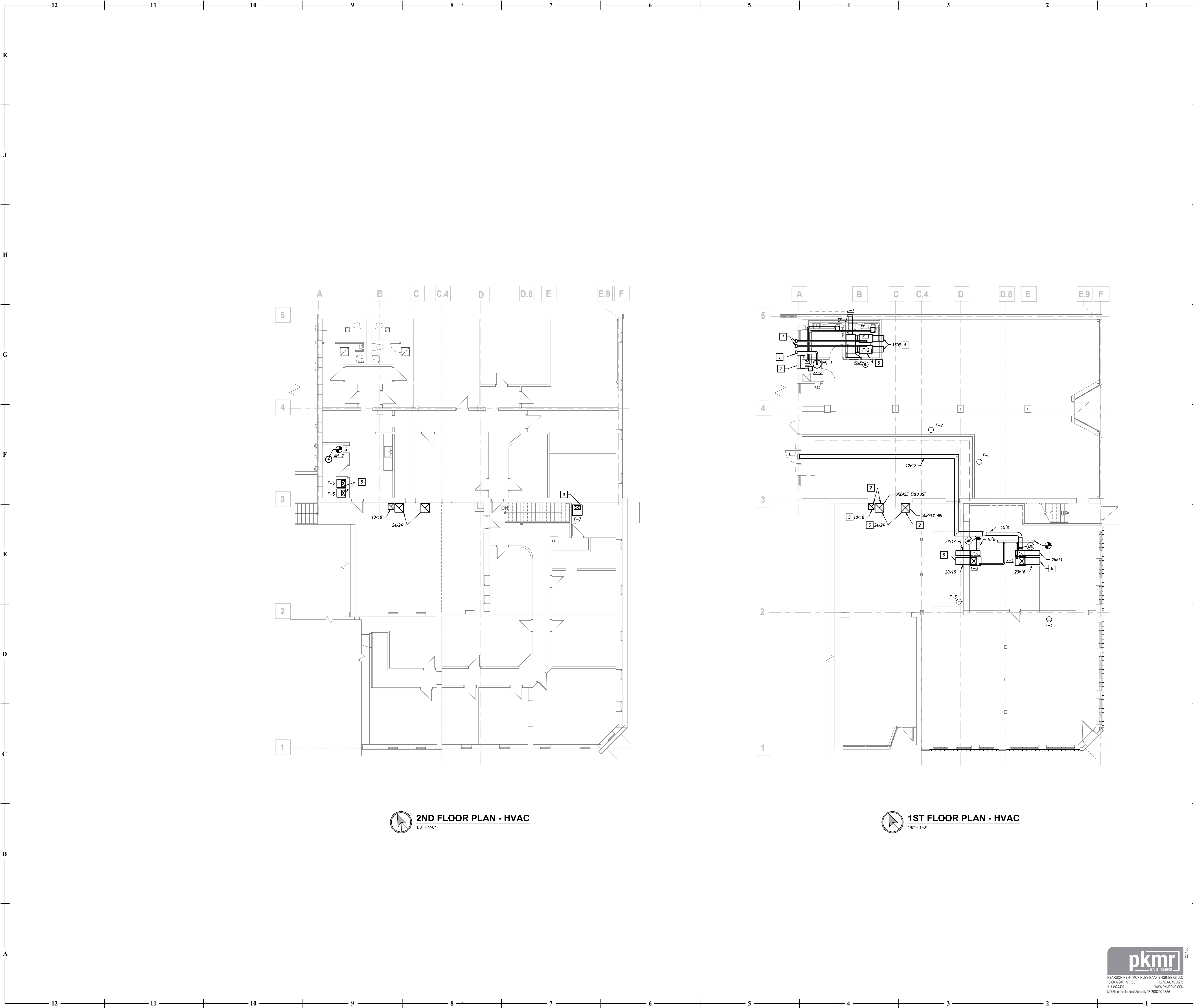


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ISSUE DATE: APRIL 21, 2022
COLLINS WEBB #: 21121



DEMOLITION - FLOOR PLANS

Permit Set



GENERAL HVAC NOTES

- 1. REFER TO GENERAL NOTES ON MEP COVER SHEET FOR ADDITIONAL REQUIREMENTS OF WORK.
- 2. ROUND BRANCH DUCT RUNOUTS AND FLEXIBLE DUCT SHALL BE THE SAME SIZE AS THE DIFFUSER NECK UNLESS NOTED OTHERWISE.
- 3. MAXIMUM FLEXIBLE DUCT LENGTH SHALL BE 5'-0".
- 4. ALL RUNOUTS TO TERMINAL BOXES SHALL BE ONE SIZE LARGER THAN BOX INLETS UNLESS NOTED OTHERWISE.
- 5. ALL AIR DISTRIBUTION DEVICES SHALL HAVE LOCKABLE VOLUME CONTROL DEVICES.
- 6. ALL 90 DEGREE TURNING ELBOWS SHALL BE SMOOTH ROUND OR SQUARE WITH TURNING VANES.
- 7. DUCT SIZES SHOWN ON PLANS ARE INSIDE FREE AREA.
- 8. PROVIDE ACCESS DOORS IN DUCTS AHEAD OF ALL AUTOMATIC FIRE AND SMOKE DAMPERS.
- 9. FOR BALANCING THE OUTSIDE AIRFLOW QUANTITIES, REFER TO HVAC SCHEDULES.

HVAC PLAN KEYED NOTES

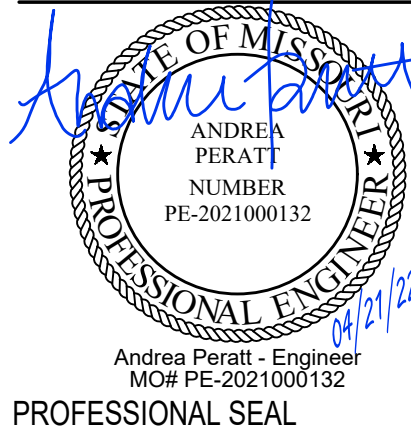
- 1. TERMINATE 4" FLUE/VENT WITH PRINTABLE WALL CAP. REFER TO DETAIL.
- 2. DISHWASHER, GREASE AND MAKE-UP AIR DUCT CAPPED IN SPACE FOR FUTURE USE.
- 3. DISHWASHER AND GREASE DUCT FROM FIRST FLOOR TO 2ND FLOOR ROOF. DUCT TO BE ROUTED ON EXTERIOR WALL AND CAPPED OVER 2ND FLOOR ROOF. REFER TO ROOF PLAN.
- 4. CAP SPIRAL DUCTWORK IN SPACE. ROUTE DUCTWORK RIGHT TO STRUCTURE.
- 5. FURNACES TO BE INSTALLED ABOVE TOILET. REFER TO DETAIL FOR INSTALLATION.
- 6. SUPPLY AND RETURN AIR DUCTWORK ROUTED THROUGH STRUCTURAL WALL. BOTTOM OF DUCT TO BE ROUTED AT 10'-0" A.F.F. COORDINATE PENETRATIONS WITH STRUCTURE.
- 7. ROUTE GENERAL EXHAUST TO PLENUM ON BACKSIDE OF EXISTING LOUVER. PLENUM TO MATCH EXISTING SIZE OF LOUVER. REFER TO DETAIL.
- 8. REPLACE EXISTING FURNACES, CONNECT TO EXISTING DUCTWORK, FLUES, ELECTRICAL AND CONDENSATE.
- 9. REPLACE EXISTING WATER HEATER TO CONNECT INTO EXISTING FLUES.

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MECHANICAL - FLOOR PLANS



Permit Set



EXHAUST FAN SCHEDULE

PLAN MARK	MANUFACTURER	MODEL NUMBER	TYPE	SERVICE	CFM	E.S.P. (IN)	BHP	HP	DRIVE	SONES	RPM	ELECTRICAL	CONTROL	REMARKS
EF-1	COOK	GC-146	CEILING CABINET	BATHROOM	90	0.250	----	36W	DIRECT	1.3	900	120V / 1PH	SWITCH	ALL
EF-2	COOK	GC-146	CEILING CABINET	BATHROOM	90	0.250	----	36W	DIRECT	1.3	900	120V / 1PH	SWITCH	ALL
EF-3	COOK	GC-146	CEILING CABINET	BATHROOM	90	0.250	----	36W	DIRECT	1.3	900	120V / 1PH	SWITCH	ALL

REMARKS:

- UNIT SHALL BE PROVIDED WITH SOLID STATE SPEED CONTROL MOUNTED AT FAN.
- PROVIDE WITH STARTER AND WIRE TO START SWITCH.

FURNACE SCHEDULE

PLAN MARK	MANUFACTURER	MODEL NUMBER	CFM	O.A. CFM	FAN DATA		HEATING			ELECTRICAL				REMARKS
					E.S.P. (IN)	HP	CAPACITY (MBH)	INPUT (MBH)	OUTPUT (MBH)	EFF.	VOLTS / PH	M.C.A.	M.O.C.P.	
F-1	LENNOX	SL297UH090V48B	1,400	210	0.5"	1/2	45.0	110.0	106.7	97.0%	120V / 1PH	12.0	20	2
F-2	LENNOX	SL297UH090V48B	1,400	210	0.5"	1/2	45.0	110.0	106.7	97.0%	120V / 1PH	12.0	20	2
F-3	LENNOX	SL280UH135V60D	1,990	299	0.5"	1	60.0	165.0	132.0	80.0%	120V / 1PH	12.0	20	1
F-4	LENNOX	SL280UH135V60D	1,990	299	0.5"	1	60.0	165.0	132.0	80.0%	120V / 1PH	12.0	20	1
F-5	LENNOX	SL280UH090V36B	1,200	180	0.5"	1/2	36.0	110.0	88.0	80.0%	120V / 1PH	12	15	1
F-6	LENNOX	SL280UH090V36B	1,200	180	0.5"	1/2	36.0	110.0	88.0	80.0%	120V / 1PH	12	15	1
F-7	LENNOX	SL280UH135V60D	1,990	299	0.5"	1	60.0	165.0	132.0	80.0%	120V / 1PH	12	20	1

REMARKS:

- STANDARD EFFICIENCY FURNACE.
- HIGH EFFICIENCY FURNACE. PROVIDE WITH MANUFACTURER'S VERTICAL DISCHARGE KIT. REFER TO DETAIL.

CONDENSING UNIT SCHEDULE

PLAN MARK	MANUFACTURER	MODEL NUMBER	CAPACITY (MBH)	MINIMUM SEER	AMBIENT TEMP. (°F)	ELECTRICAL			REMARKS
						VOLTS / PH	M.C.A.	M.O.C.P.	
CU-1	LENNOX	16ACX-048-230	45.0	15.0	105°	208V / 3PH	29.0	40	ALL
CU-2	LENNOX	16ACX-048-230	45.0	15.0	105°	208V / 3PH	29.0	40	ALL
CU-3	LENNOX	16ACX-060-230	60.0	15.5	105°	208V / 3PH	36.0	50	ALL
CU-4	LENNOX	16ACX-060-230	60.0	15.5	105°	208V / 3PH	36.0	50	ALL
CU-5	LENNOX	16ACX-036-230	36.0	16.0	105°	208V / 3PH	21.0	30	ALL
CU-6	LENNOX	16ACX-036-230	36.0	16.0	105°	208V / 3PH	21.0	30	ALL
CU-7	LENNOX	16ACX-060-230	60.0	15.5	105°	208V / 3PH	36.0	50	ALL

REMARKS:

- COOLING CAPACITY BASED ON A SUCTION TEMPERATURE OF 49°F.
- ENERGY-STAR COMPLIANT.
- PROVIDE WITH 3-1/2" CONCRETE PAD.

LOUVER SCHEDULE

PLAN MARK	QTY.	MANUFACTURER	MODEL NUMBER	STYLE	SERVICE	WIDTH (IN)	HEIGHT (IN)	APD (IN)	FREE AREA (SQ FT)	VELOCITY (FPM)	REMARKS
L-1	2	GREENECK	EDJ-401	STATIONARY	INTAKE	14	14	0.006	0.3	200	ALL

REMARKS:

- PROVIDE EXTENDED SILL AND MOUNTING FRAME TO MATCH CONSTRUCTION. COORDINATE EXACT LOUVER SIZE TO INSTALL WITHIN MASONRY DIMENSIONS.
- PROVIDE COLOR AS SELECTED BY ARCHITECT FROM MANUFACTURER'S STANDARD COLORS.

GRILLE, REGISTER & DIFFUSER SCHEDULE

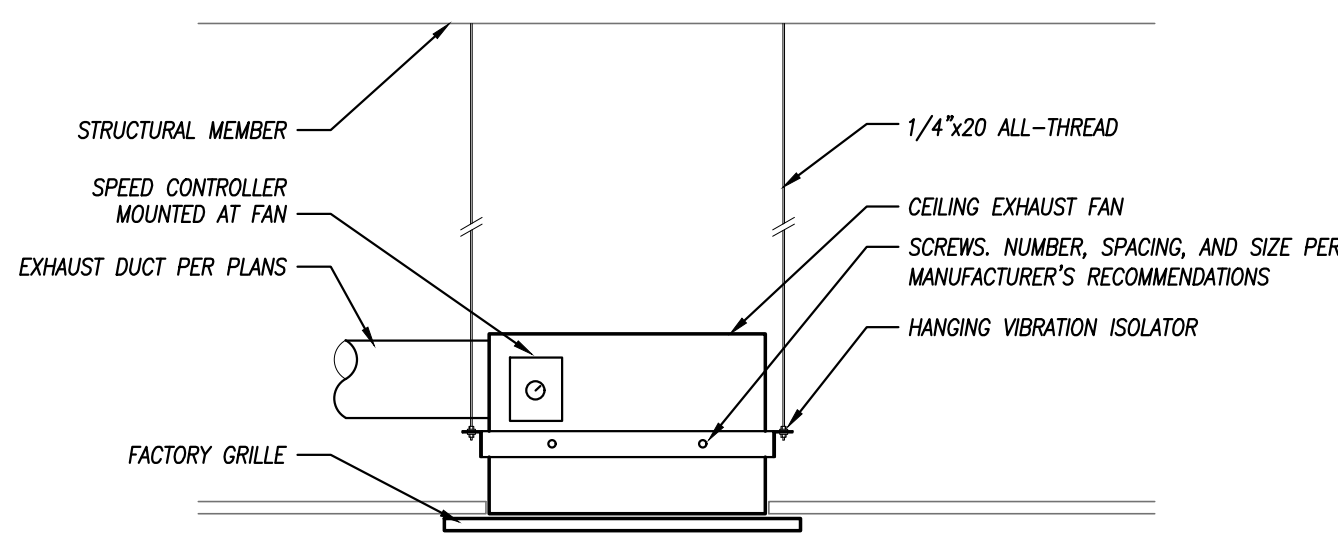
PLAN MARK	MANUFACTURER	MODEL NUMBER	MATERIAL	STYLE	DESCRIPTION	MOUNT TYPE	FACE SIZE (IN)	NECK SIZE (IN)	VOLUME DAMPER	MAX APD (IN. WG.)	MAX NC	FINISH COLOR	REMARKS
RT	TITUS	350FLF2	STEEL	SQUARE WALL	35 DEG SINGLE DEFLECTION AEROBLADE 3/4" SPACING	WALL	AS INDICATED	AS INDICATED	NO	0.08	25	WHITE	ALL

GENERAL REMARKS:

- PROVIDE ALL GRD WITH ALL NECESSARY MOUNTING HARDWARE.
- PROVIDE GRD WITHOUT SCREWS/SCREWS WHEN INSTALLED IN JAY-IN CEILINGS
- VERIFY CEILING CONFIGURATION, COLOR AND SPECIFICS WITH ARCHITECTURAL CEILING PLANS.

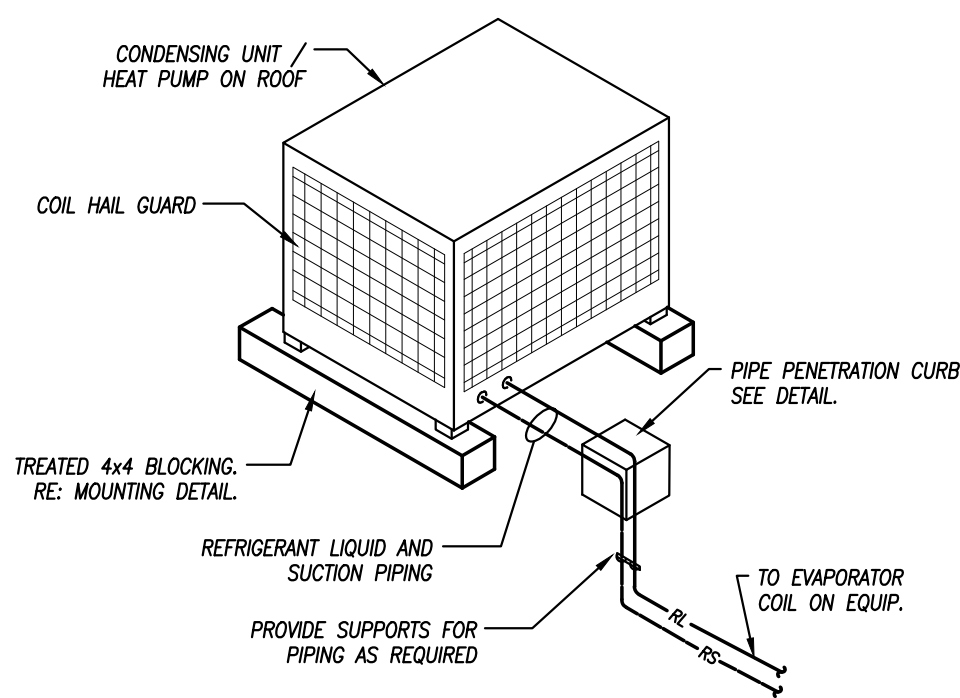
NOTES:

- PROVIDE WITH FILTERED GRILLE. PROVIDE WITH MERV 8 2" FILTER TO FIT WITHIN GRILLE ASSEMBLY



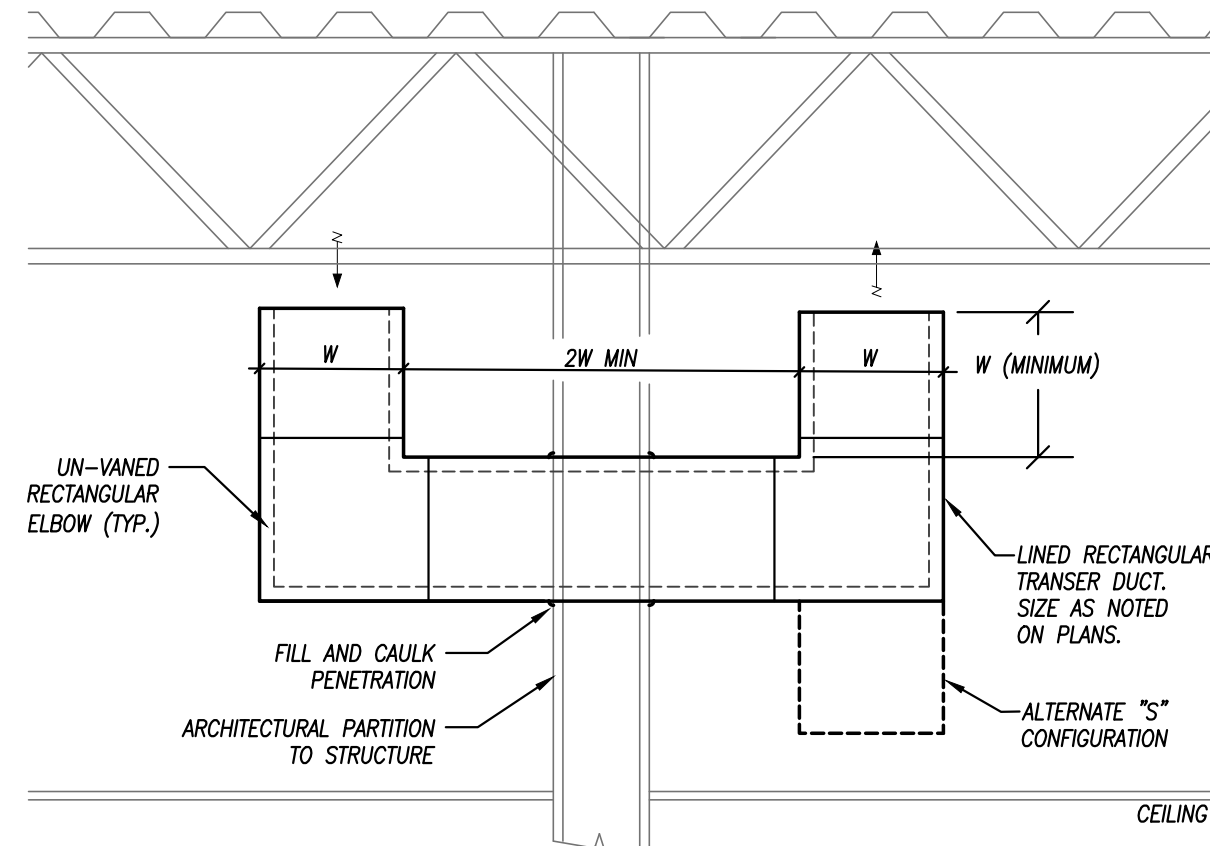
CABINET EXHAUST FAN MOUNTING DETAIL

NOT TO SCALE



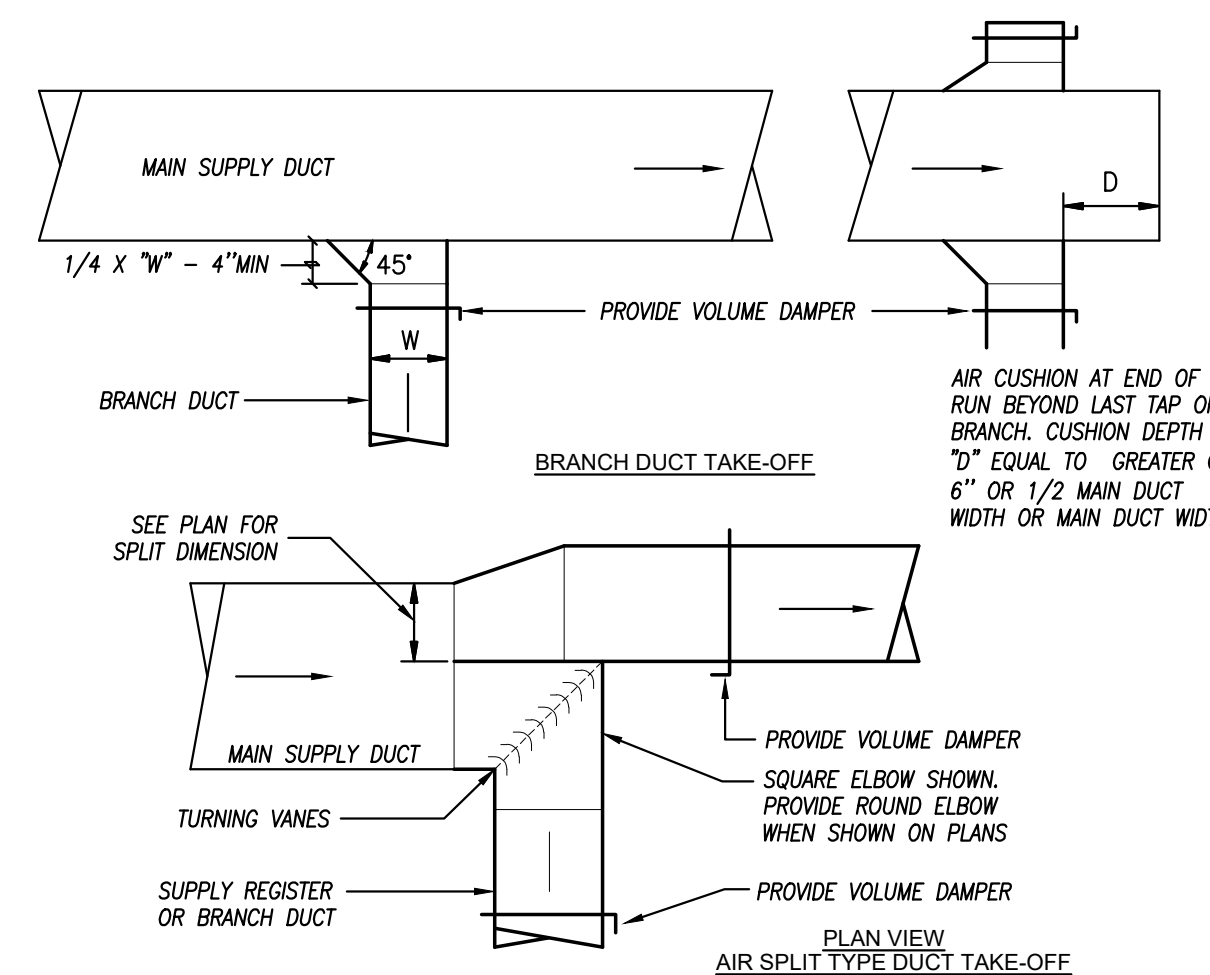
CONDENSING UNIT / HEAT PUMP DETAIL

NOT TO SCALE



TRANSFER BOOT DETAIL

NOT TO SCALE

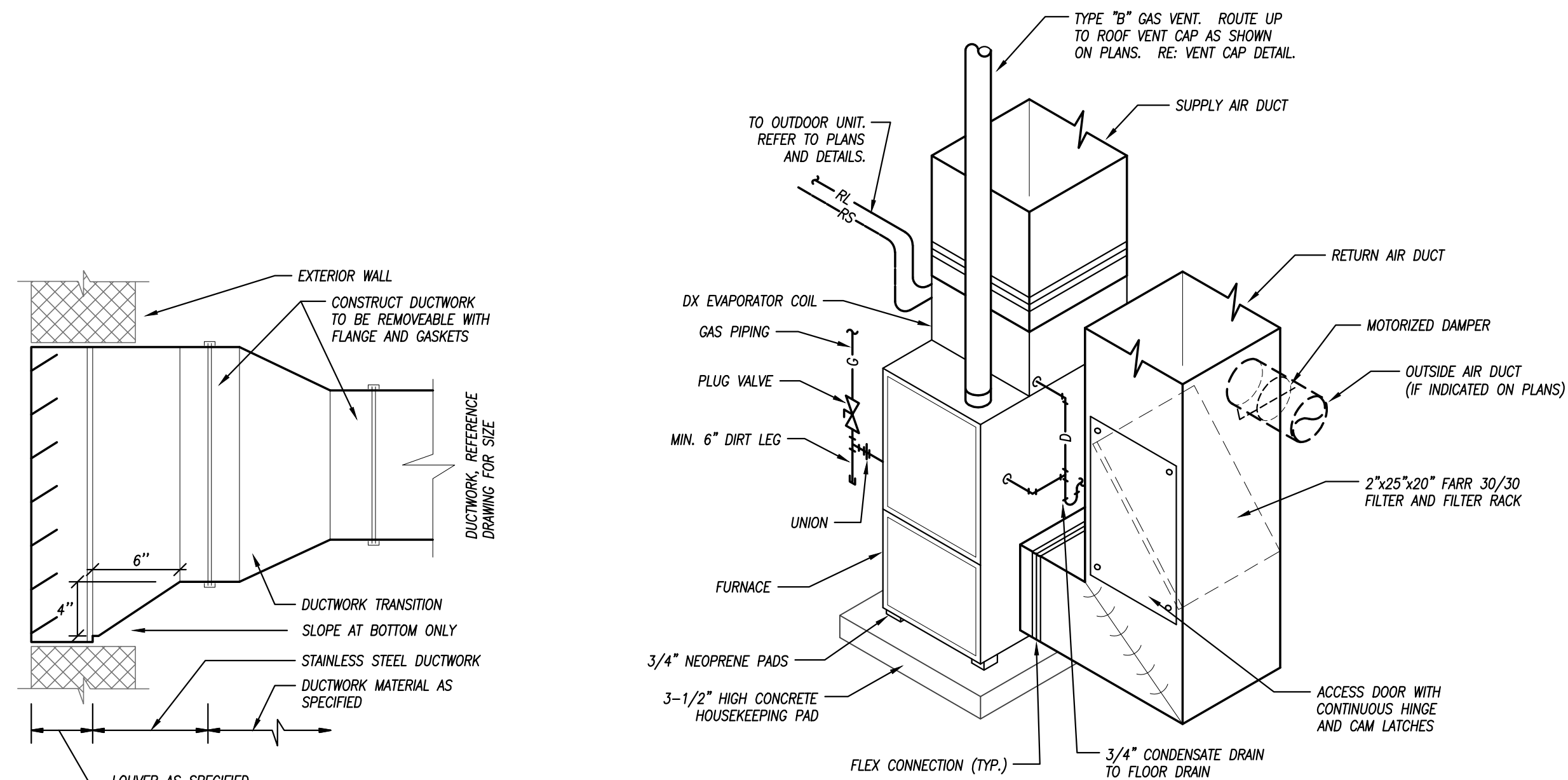


DUCTWORK TAKEOFFS

NOT TO SCALE

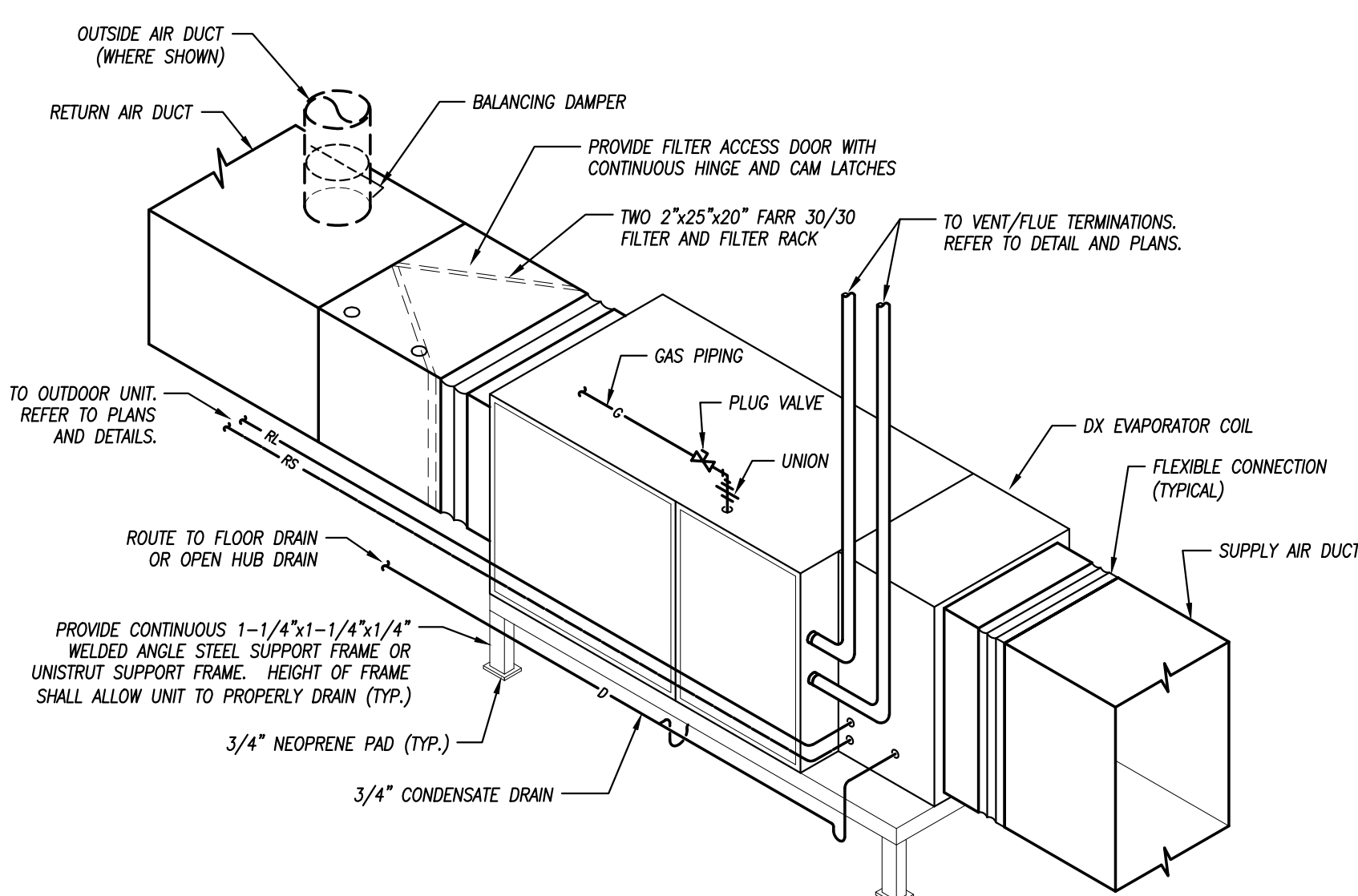
WALL VENT/COMBUSTION AIR DETAIL

NOT TO SCALE



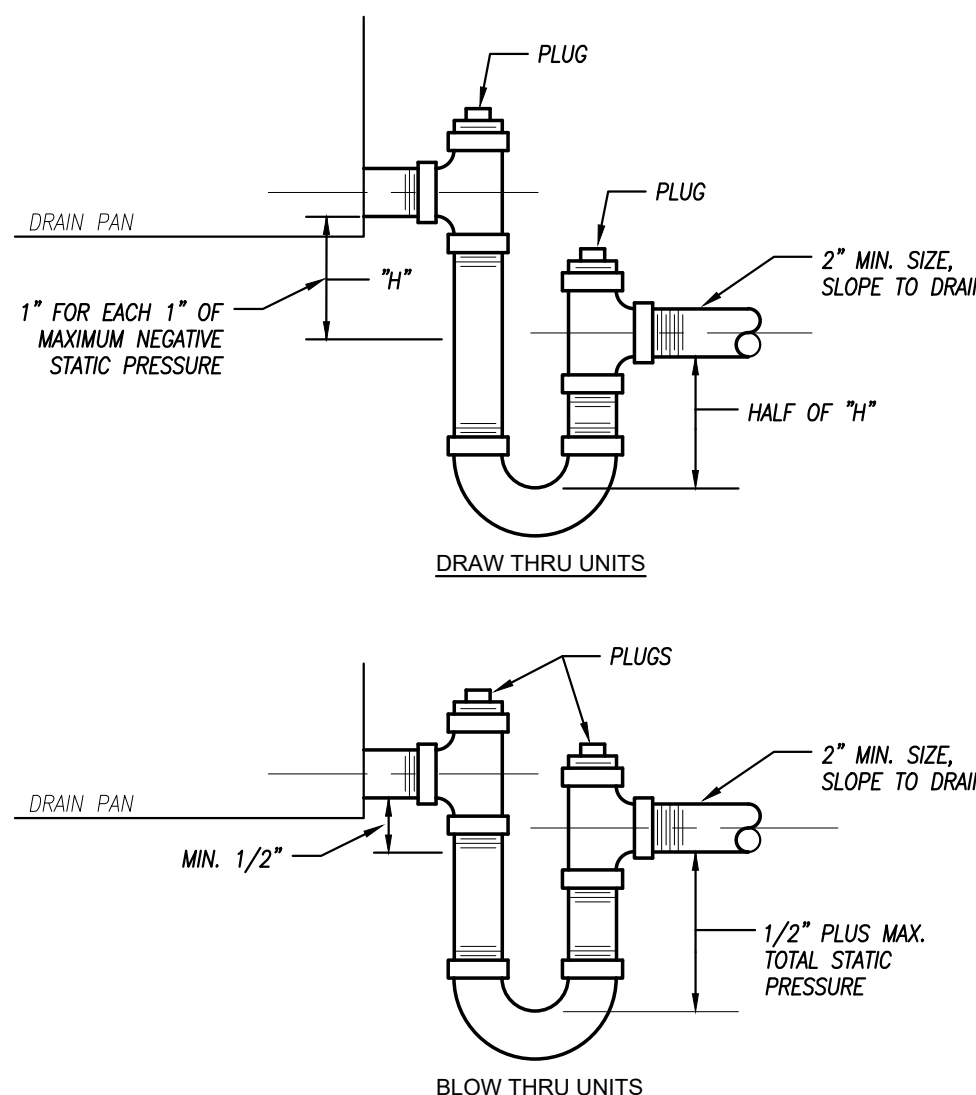
FURNACE DETAIL

NOT TO SCALE



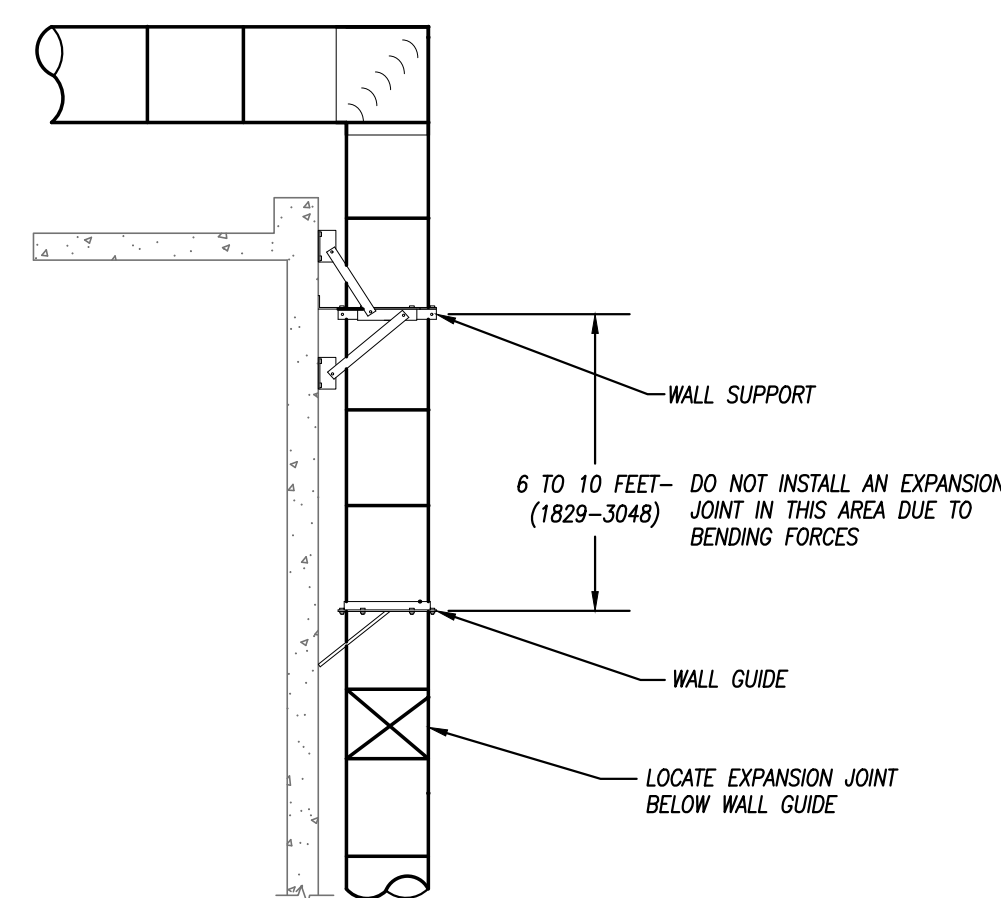
HORIZONTAL FURNACE DETAIL

NOT TO SCALE



CONDENSATE TRAP DETAIL

NOT TO SCALE



GREASE DUCT ON WALL DETAIL

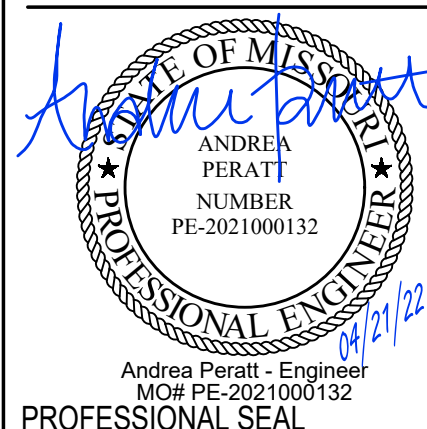
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MECHANICAL - SCHED. /DETAILS



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 **1ST FLOOR PLAN - DEMOLITION**
1/8" = 1'-0"

 **2ND FLOOR PLAN - DEMOLITION**
1/8" = 1'-0"

GENERAL DEMOLITION NOTES

1. REFER TO GENERAL DEMOLITION NOTES ON MEP COVER SHEET FOR ADDITIONAL REQUIREMENTS OF WORK.

DEMOLITION PLAN KEYED NOTES

- ① REMOVE ALL DOMESTIC COLD WATER, HOT WATER, SANITARY & VENT PIPE SERVING FIRST FLOOR FIXTURES AND EQUIPMENT. DO NOT DEMOLISH SANITARY PIPES FROM SECOND FLOOR. REFER TO NEW WORK PLAN.
- ② GAS PIPE SERVING FIRST FLOOR TO BE REMOVED.
- ③ EXISTING WATER HEATER TO BE REPLACED ON SAME LOCATION. REUSE ALL EXISTING PIPES AND ACCESSORIES. REFER TO NEW WORK PLAN.
- ④ EXISTING FURNACE TO BE REPLACED ON SAME LOCATION. RECONNECT EXISTING GAS AND PROVIDE NEW CONDENSATE DRAIN PIPE.

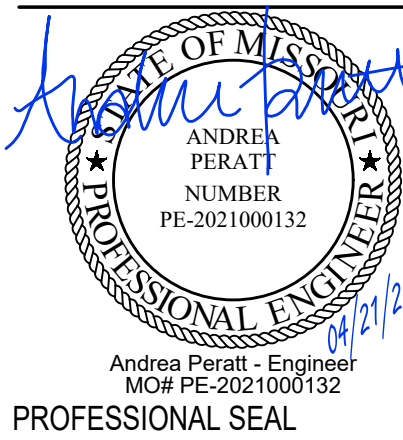


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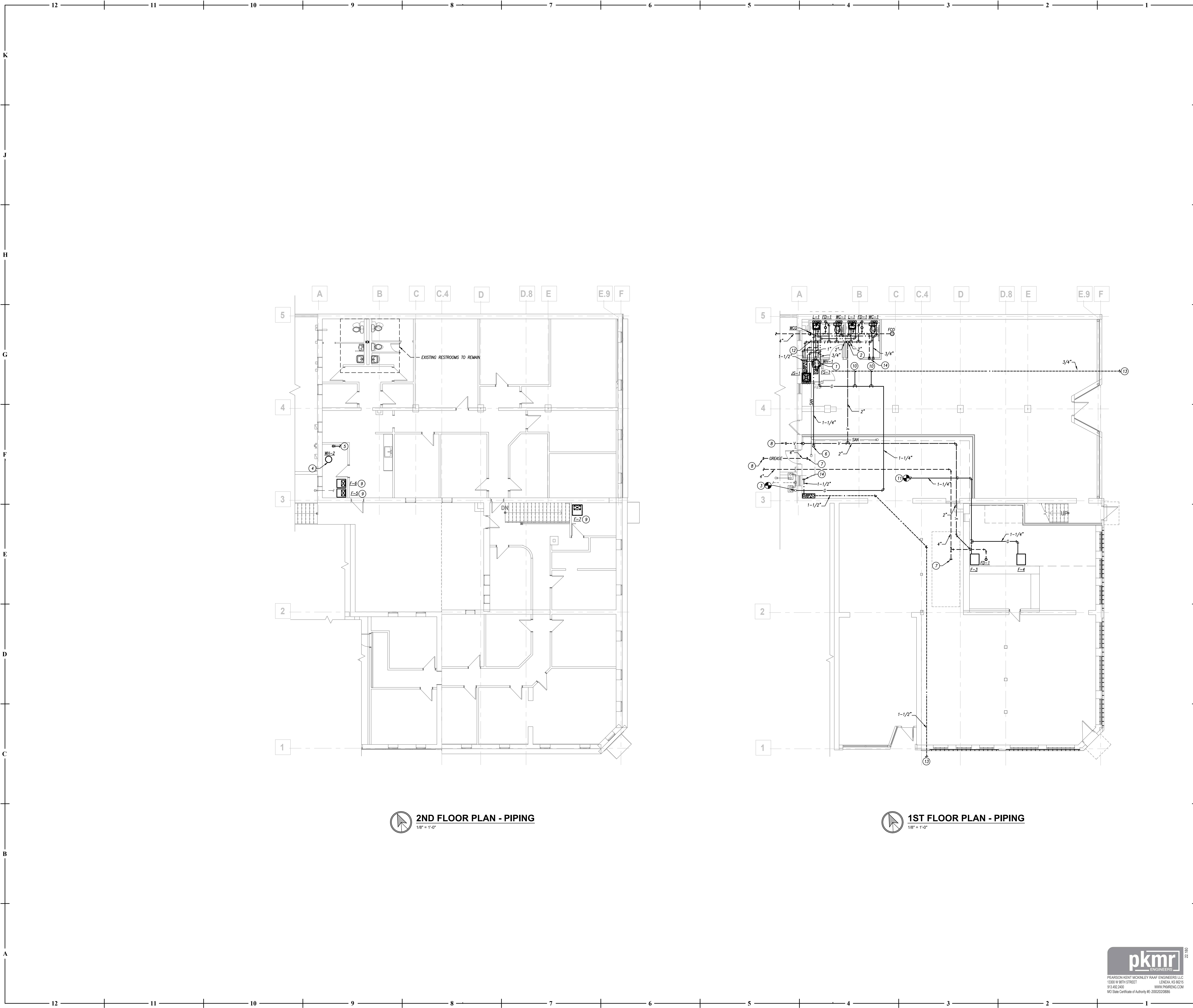
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DEMOLITION - FLOOR PLANS

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2ND FLOOR PLAN - PIPING
1/8" = 1'-0"

1ST FLOOR PLAN - PIPING
1/8" = 1'-0"

GENERAL PLUMBING NOTES

1. REFER TO GENERAL NOTES ON MEP COVER SHEET FOR ADDITIONAL REQUIREMENTS OF WORK.
2. REFER TO PLUMBING FIXTURE / DRAIN SCHEDULES FOR PIPING SIZES FOR INDIVIDUAL CONNECTIONS TO FIXTURES AND RISERS NOT SHOWN ON PLANS.
3. NO SANITARY OR VENT PIPING BELOW GRADE SHALL BE LESS THAN 2'.
4. NO DOMESTIC WATER PIPING SHALL BE SMALLER THAN 3/4" UNLESS NOTED OTHERWISE.
5. ALL VENT PIPING SHOWN IS DIAGRAMMATIC. USE APPROPRIATE FITTINGS FOR VENT PIPING BELOW FLOOD SIM OF FIXTURE.
6. NOT ALL INTERIOR CLEANOUTS ARE SHOWN FOR DRAWING CLARITY. CONTRACTOR SHALL INSTALL ALL CODE-REQUIRED CLEANOUTS (RE: GENERAL NOTES ON COVER SHEET). COORDINATE EXACT LOCATIONS OF CLEANOUTS WITH ARCHITECT.
7. ALL FLOOR DRAIN TRAPS SHALL BE PROTECTED BY ONE OF THE FOLLOWING METHODS, TO BE INSTALLED AT CONTRACTOR'S DISCRETION AND IN COMPLIANCE WITH ADOPTED VERSION OF PLUMBING CODE AND/OR ANI.
 - 7.1. PROVIDE TRAP SEALS LISTED FOR PROPOSED USE.
 - 7.2. PROVIDE TRAP PRIMERS. 1/2" TRAP PRIMER PIPING TO NEAREST TRAP PRIMER VALVE. PIPING SHALL BE TYPE "K" SOFT COPPER SEAMLESS WITH NO JOINTS FROM VALVE TO DRAIN.

PLUMBING PLAN KEYED NOTES

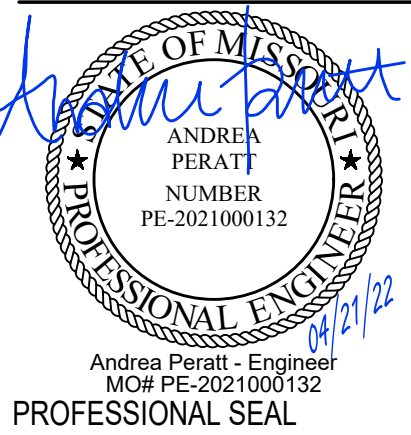
1. INSTALL WATER HEATER NEXT TO JANITOR'S SINK.
2. 3" VENT THROUGH CHASE ON 2ND FLOOR TO ROOF. TERMINATE VENT 10' CLEAR FROM ANY OUTSIDE AIR INTAKE.
3. CONNECT TO EXISTING GAS MAIN FOR NORTH/SECOND FLOOR TENANT. CONTRACTOR SHALL FIELD VERIFY GAS PIPE ROUTING AND SIZING PRIOR TO NEW SCOPE OF WORK.
4. NEW WATER HEATER. RECONNECT WATER HEATER TO EXISTING PLUMBING. PROVIDE NEW PIPE/ PIPE FITTING IF REQUIRED.
5. 3/4" DOMESTIC WATER PIPE UP FROM FLOOR BELOW. CONNECT TO EXISTING COLD WATER MAIN TO SERVE ALL 2ND FLOOR PLUMBING FIXTURES AND EQUIPMENT. CONTRACTOR TO VERIFY LOCATION OF EXISTING PIPE.
6. 3/4" COLD WATER PIPE TO 2ND FLOOR.
7. PIPE TO BE CAPPED FOR FUTURE TENANT USE. PIPING TO BE 36" BELOW FINISH GRADE FOR FUTURE TENANT USE.
8. UNDERGROUND GREASE AND VENT TO BE CAPPED OUTSIDE FOR FUTURE GREASE INTERCEPTOR.
9. RECONNECT EXISTING GAS TO FURNACES. PROVIDE NEW CONDENSATE DRAIN AND TERMINATE TO NEAREST FLOOR DRAIN.
10. GAS PIPE FOR FURNACE F-1 AND F-2 RESPECTIVELY. REFER TO DETAIL FOR CONNECTION.
11. CONNECT TO EXISTING GAS MAIN FOR SOUTH TENANT. CONTRACTOR SHALL FIELD VERIFY GAS PIPE ROUTING AND SIZING PRIOR TO NEW SCOPE OF WORK.
12. CONNECT EXISTING SANITARY LINE FROM SECOND FLOOR EXISTING PIPING TO REMAIN. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS PRIOR TO PERFORMING WORK.
13. REFER TO CIVIL FOR CONTINUATION.
14. CAP PLUMBING PIPING FOR FUTURE TENANT BUILD OUT.

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PLUMBING - FLOOR PLANS



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PIPING MATERIAL & INSULATION SCHEDULE

PIPING SYSTEM	SIZE	TYPE/SCHED	MATERIAL	ACCEPTABLE FITTINGS	FIELD TEST PRESSURE/TIME	ALLOWABLE IN PLENUMS	INSULATION TYPE	THICKNESS
DOMESTIC COLD WATER	1/2"-2"-1/2"	L	COPPER	SOLDER, PRO-PRESS	130 PSI - 1/2HR	YES	FIBERGLASS W/ ASJ	1/2"
DOMESTIC HOT WATER & HW RETURN	1/2"-1-1/4"	L	COPPER	SOLDER, PRO-PRESS	130 PSI - 1/2HR	YES	FIBERGLASS W/ ASJ	1"
DOMESTIC HOT WATER & HW RETURN	1/2"-2-1/2"	L	COPPER	SOLDER, PRO-PRESS	130 PSI - 1/2HR	YES	FIBERGLASS W/ ASJ	1-1/2"
NATURAL GAS - ABOVE GRADE	1/2"-2"	SCH. 40	STEEL - SEAMLESS	THREADED IRON OR WELDED	75 PSI - 1HR	YES	-----	----
SOIL & WASTE ABOVE GRADE	1-1/2"-6"	NO HUB / SERVICE WT.	CAST IRON	NO HUB	10 FT - 1/2HR	YES	-----	----
SOIL & WASTE ABOVE GRADE	2"-8"	SCH. 40	PVC	SOLVENT JOINED	10 FT - 1/2HR	NO	-----	----
SOIL & WASTE BELOW GRADE	2"-8"	SCH. 40	PVC	SOLVENT JOINED	10 FT - 1/2HR	NO	-----	----
RPTZ AND SIMILAR EXPOSED DRAIN LINES	ALL	ALL	COPPER	SOLDER, PRO-PRESS	10 FT - 1/2HR	YES	-----	----
CONDENSATE DRAIN ON ROOF	3/4"-3"	SCH. 40	PVC	SOLVENT JOINED	10 FT - 1/2HR	NO	-----	----
CONDENSATE DRAIN INTERIOR	3/4"-2"	SCH. 40	CPVC	SOLVENT JOINED	10 FT - 1/2HR	YES	FIBERGLASS W/ ASJ	1/2" (PLENUM ONLY)
CONDENSATE DRAIN INTERIOR	1/2"-2"	L	COPPER	SOLDER, PRO-PRESS	10 FT - 1/2HR	YES	FIBERGLASS W/ ASJ	1/2" (PLENUM ONLY)

- NOTES:
1. ALL PIPING AND MATERIALS IN PLENUMS MUST MEET ASTM E84 FLAME/SMOKE RATING OF 25/50.
2. ALL INSULATION THICKNESSES SHALL MEET ADOPTED EEC AND ASHRAE 90.1 - 2016 REQUIREMENTS AT A MINIMUM.
3. REFER TO SPECIFICATIONS FOR MORE DETAILED INFORMATION.
4. WELDED PIPING IS REQUIRED FOR GAS PIPING WHEN: A) PIPING IS AT OR OVER 2PSI; B) WHEN PIPING OF ANY PRESSURE IS ROUTED THROUGH CONCEALED SPACES.

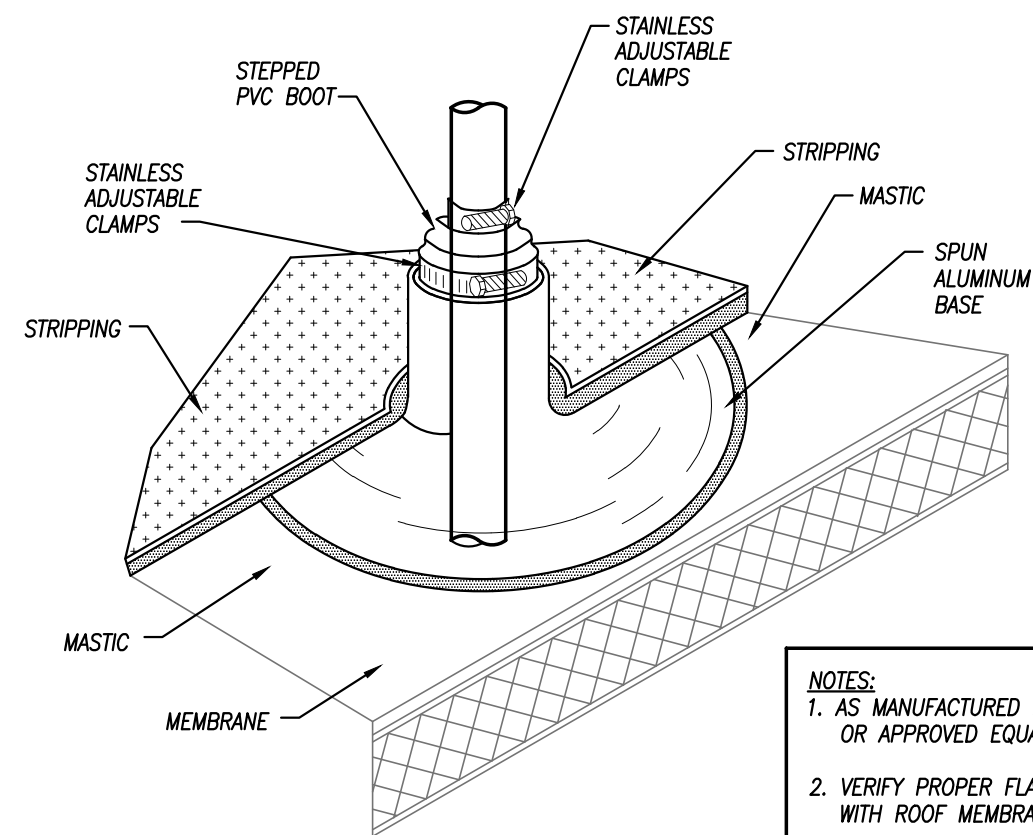
PLUMBING FIXTURE BRANCH CONNECTION SCHEDULE

FIXTURE TYPE	TRAP	WASTE	VENT	DCW	DHW
WATER CLOSET (FLUSH VALVE)	INTEGRAL	4"	2"	1"	----
URINAL (FLUSH VALVE)	INTEGRAL	2"	2"	3/4"	----
FLUSH TANK WATER CLOSET	INTEGRAL	4"	2"	1/2"	----
LAVATORY	PROVIDE TRAP	2"	1-1/2"	1/2"	1/2"
SINK	PROVIDE TRAP	2"	2"	1/2"	1/2"
MOP SINK	PROVIDE DEEP SEAL TRAP	3"	2"	1/2"	1/2"
FLOOR DRAIN	PROVIDE DEEP SEAL TRAP	AS SCHEDULED	1-1/2"	----	----
FLOOR SINK	PROVIDE TRAP	AS SCHEDULED	1-1/2"	----	----
DRINKING FOUNTAINS/ENC'S	PROVIDE TRAP	1-1/2"	1-1/2"	1/2"	----
SHOWERS/TUBS	PROVIDE TRAP	2"	1-1/2"	1/2"	1/2"
SHOWERS	PROVIDE TRAP	2"	1-1/2"	1/2"	1/2"
ICE MACHINE HOOKUP BOX	----	----	----	1/2"	----
WASHER HOOKUP BOXES	PROVIDE TRAP	2"	1-1/2"	1/2"	1/2"

FLOOR / ROOF DRAIN SCHEDULE

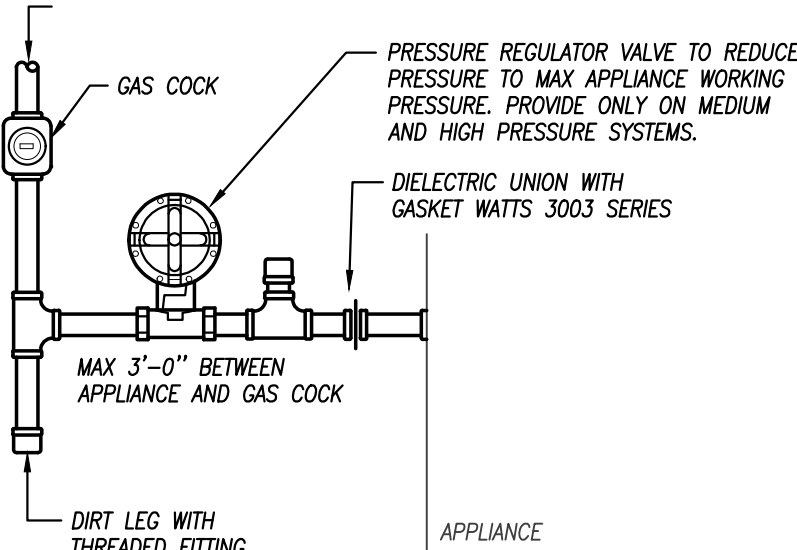
PLAN MARK	MANUFACTURER	MODEL NUMBER	SERVICE	TOP/GRADE SIZE	WASTE SIZE	REMARKS
FD-1	WADE	1100	FLOOR DRAIN	6"	2"	1
FS-1	WADE	9100	FLOOR SINK	12"x12"	4"	2

- REMARKS:
1. PROVIDE WITH NICKEL BRONZE TOP.
2. PROVIDE WITH 3/4" GRATE.



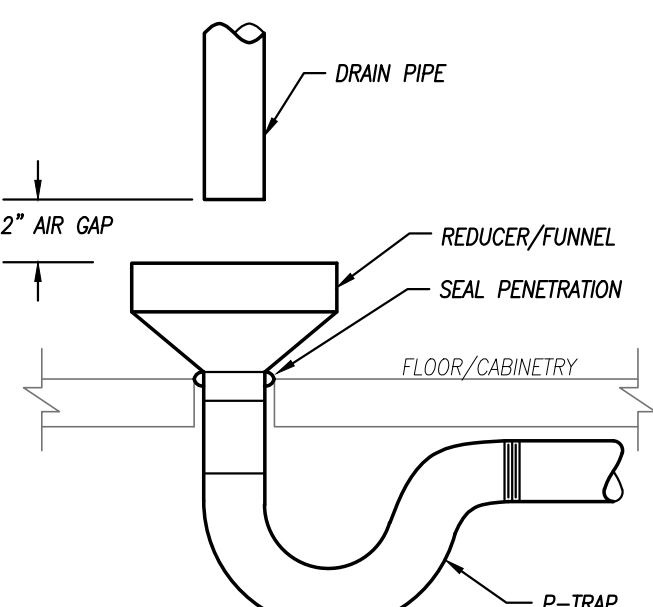
ROOF PLUMBING VENT

NOT TO SCALE



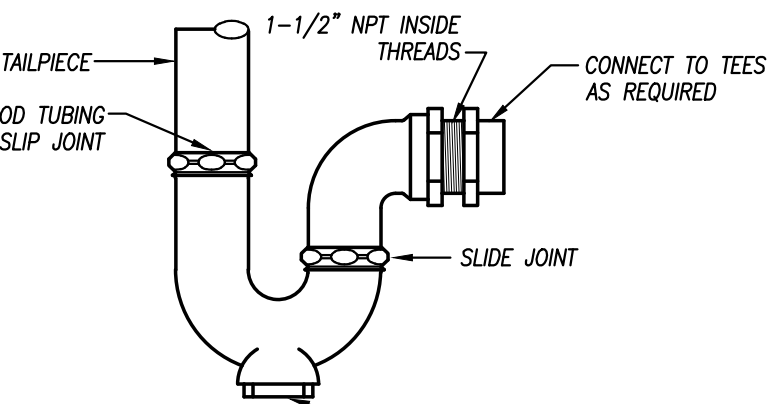
TYPICAL GAS CONNECTION

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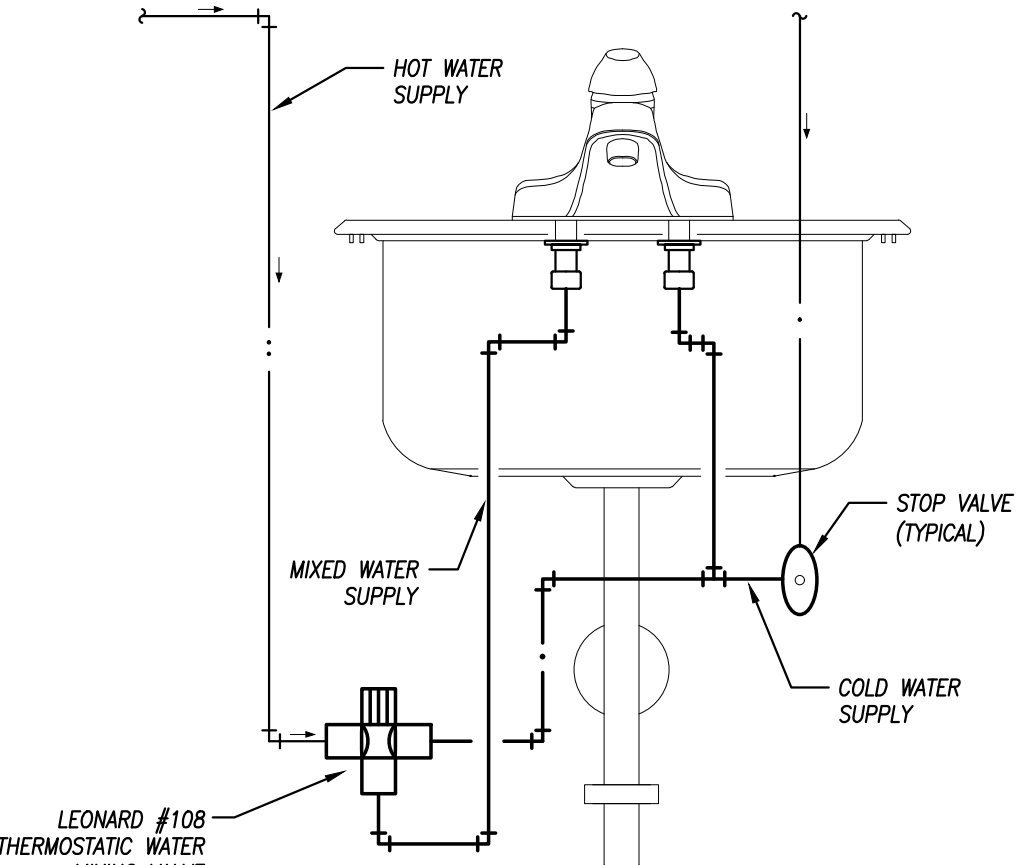
AIR GAP DETAIL

NOT TO SCALE



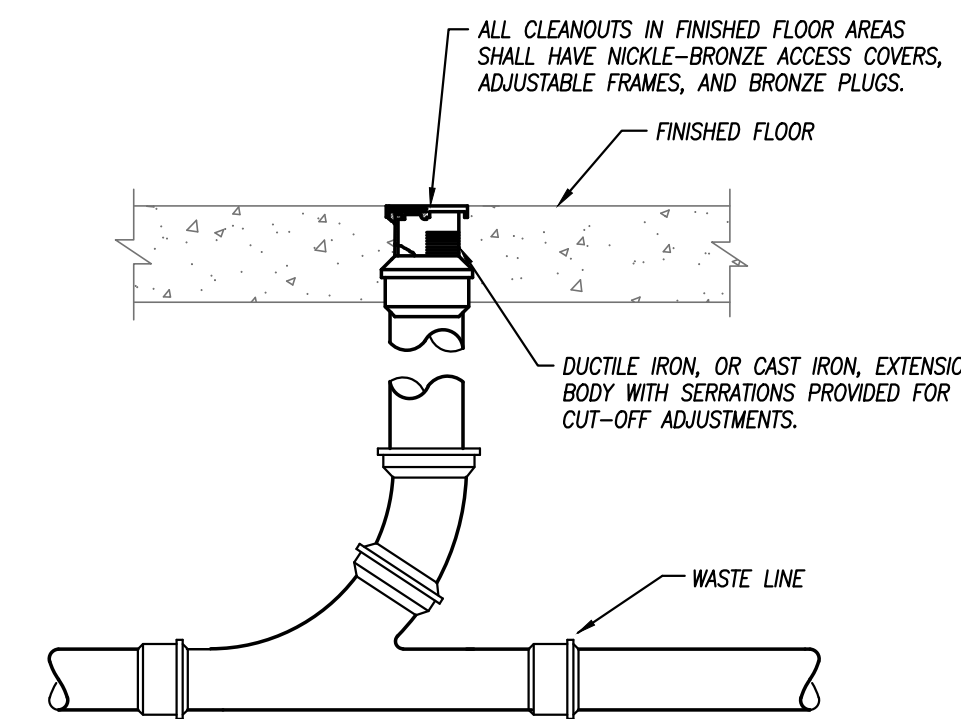
P-TRAP DETAIL

NOT TO SCALE



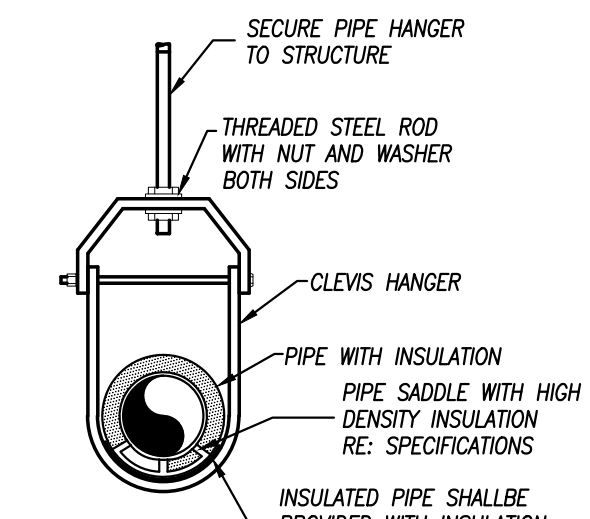
HAND WASHING SINK/LAVATORY TEMPERED WATER SCHEMATIC

NOT TO SCALE



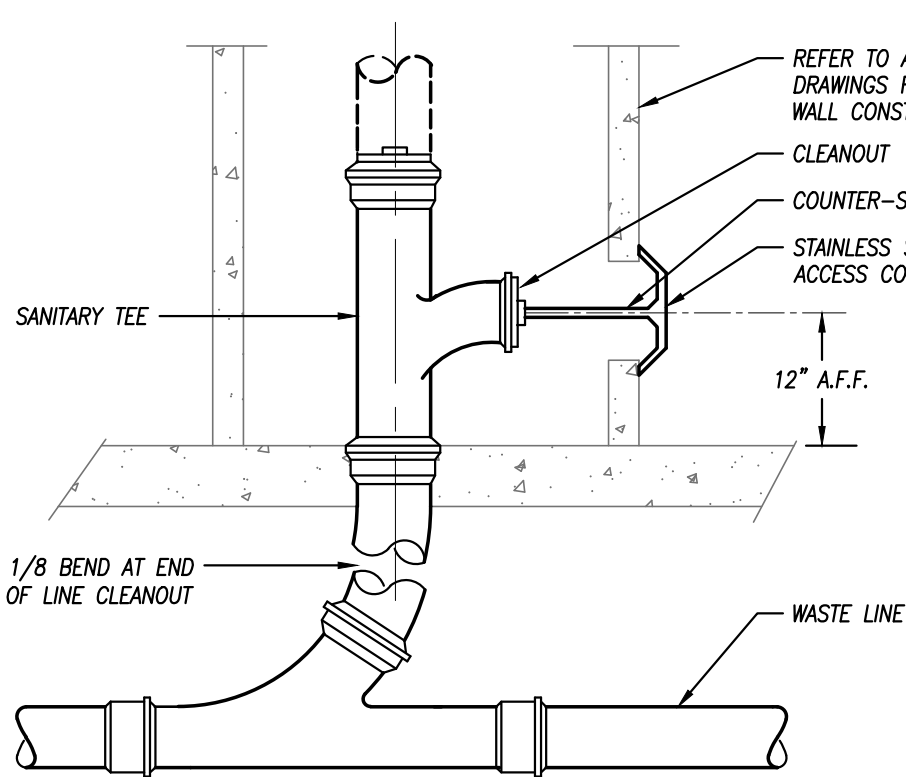
FLOOR CLEANOUT DETAIL

NOT TO SCALE



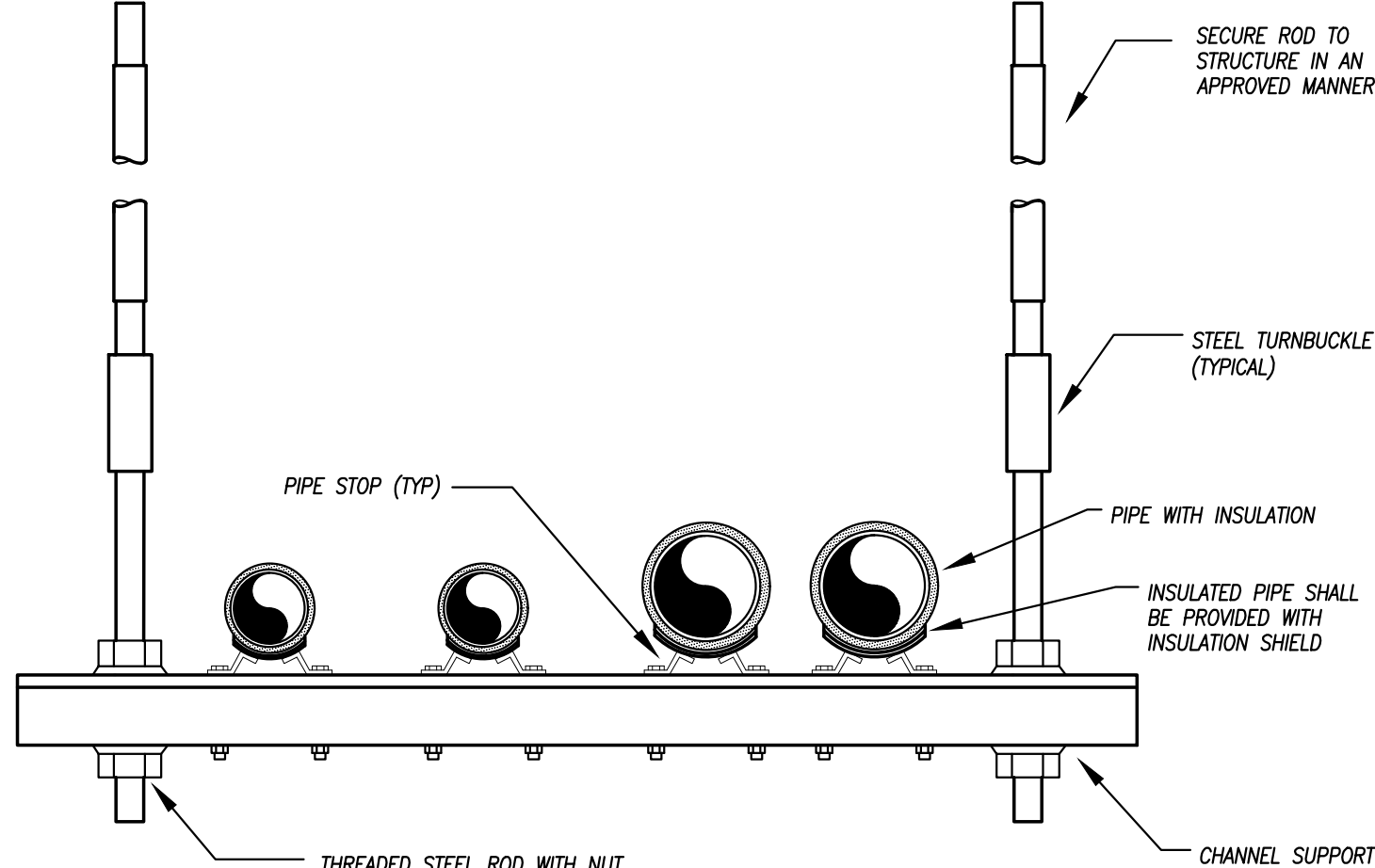
PIPE HANGER DETAIL

NOT TO SCALE



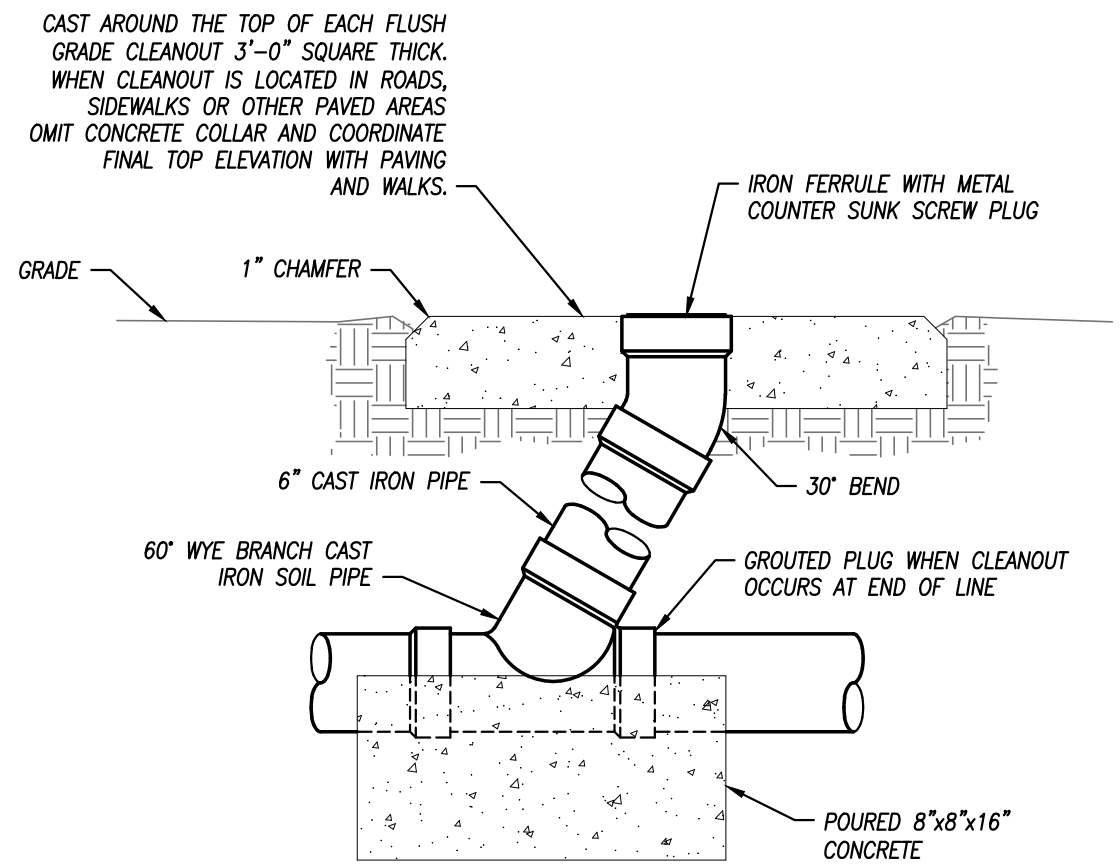
WALL CLEANOUT DETAIL

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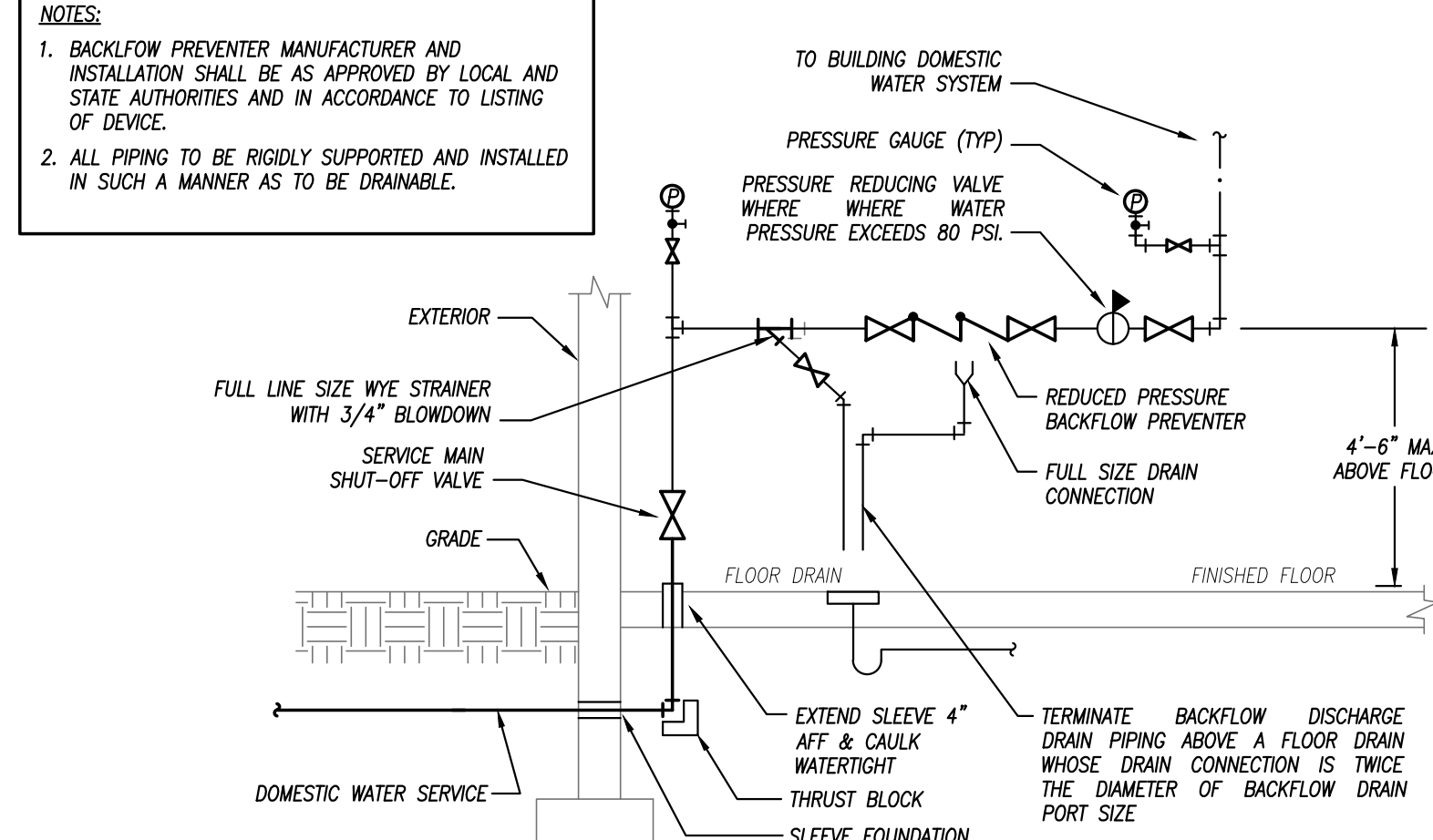
MULTIPLE PIPE TRAPEZE HANGER DETAIL

NOT TO SCALE



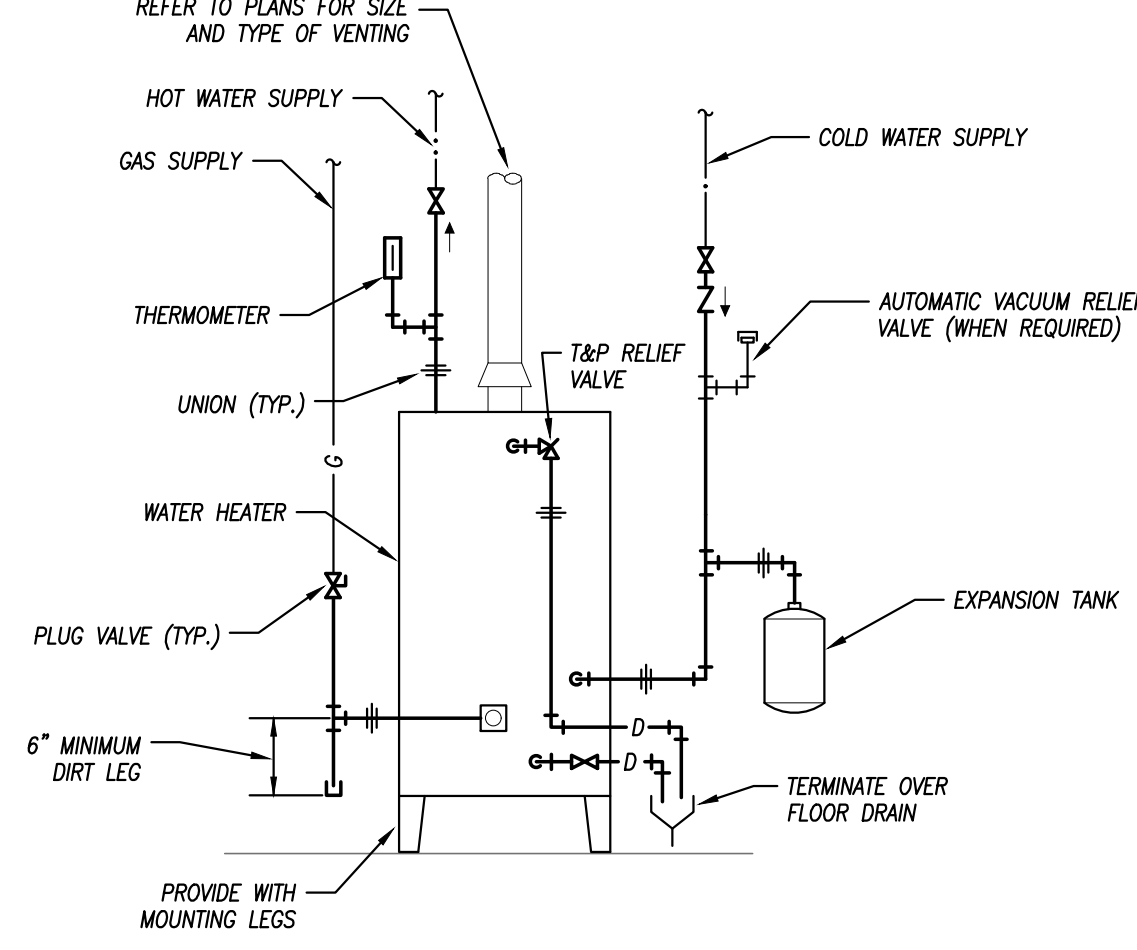
FLUSH GRADE CLEANOUT DETAIL

NOT TO SCALE



WATER SERVICE REDUCED PRESSURE BACKFLOW PREVENTER DETAIL

NOT TO SCALE



GAS WATER HEATER DETAIL

NOT TO SCALE



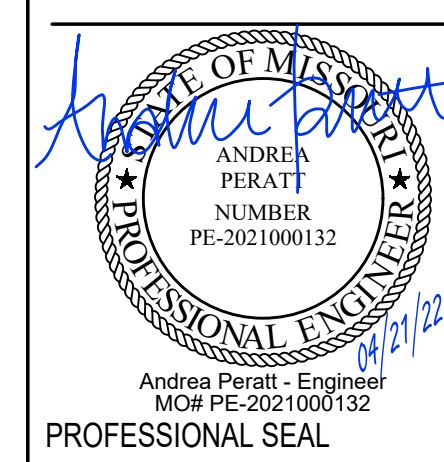
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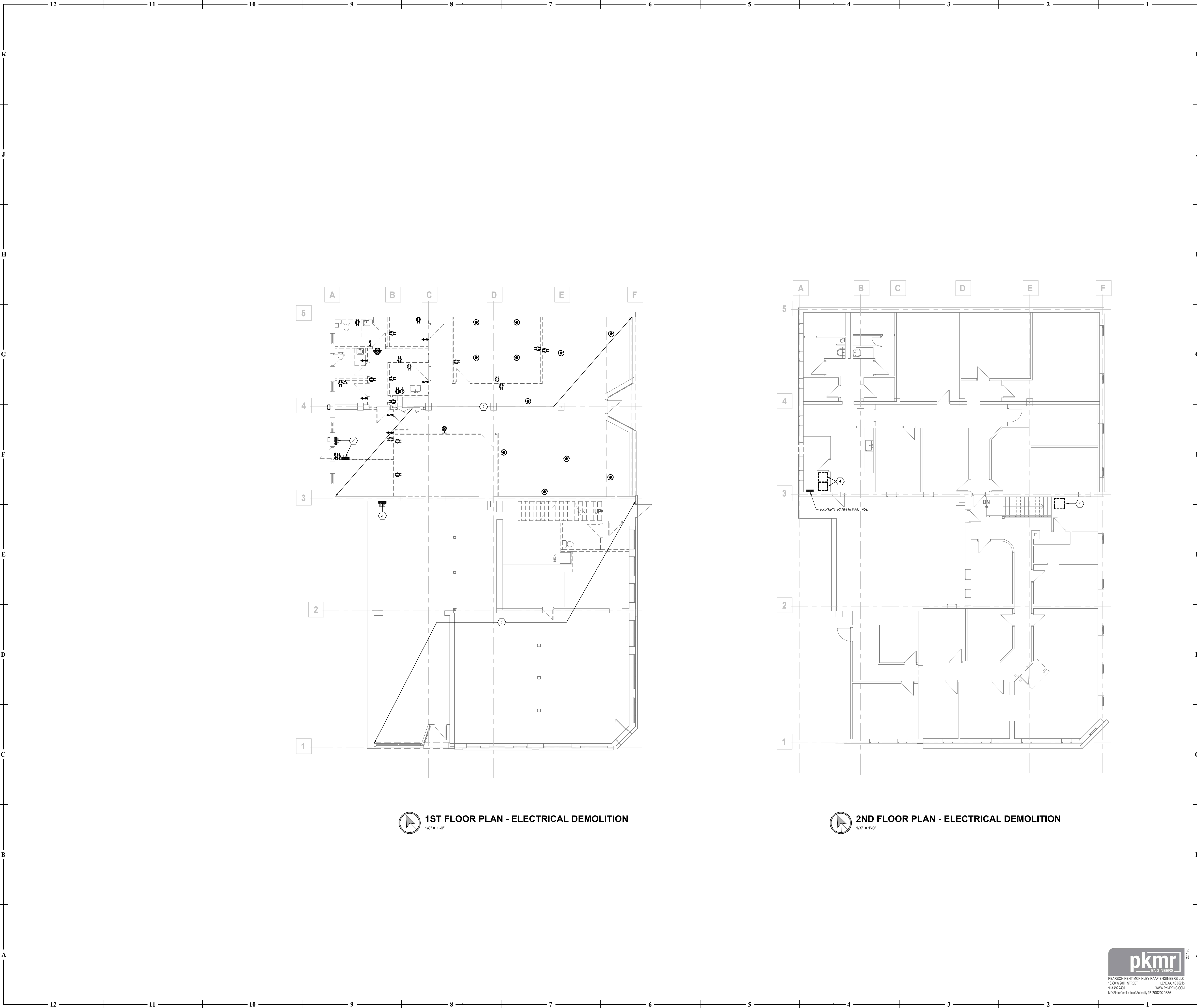


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PLUMBING - SCHED./DETAILS



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GENERAL DEMOLITION NOTES

1. REFER TO GENERAL DEMOLITION NOTES ON MEP COVER SHEET FOR ADDITIONAL REQUIREMENTS OF WORK.

DEMOLITION PLAN KEYED NOTES

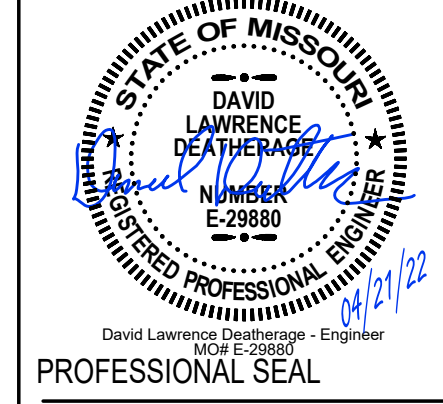
1. REMOVE ALL FIXTURES, EQUIPMENT, AND DEVICES THIS AREA. REMOVE ALL WIRING/CONDUIT AND PIPING TO SAME NOT REQUIRED TO REMAIN.
2. REMOVE PANELBOARD AND MAINTAIN EXISTING CIRCUITS TO REMAIN. INCEPT AND EXTEND EXISTING BRANCH CIRCUITS NEW PANELBOARD IN NEW LOCATION. REFER TO NEW WORK DRAWINGS FOR MORE INFORMATION.
3. REMOVE EXISTING PANELBOARD. REMOVE FEEDERS AND BRANCH CIRCUITS TO SAME.
4. EXISTING FURNACE TO BE REPLACED. MAINTAIN EXISTING WIRING/CONDUIT TO RECONNECT TO NEW FURNACE.

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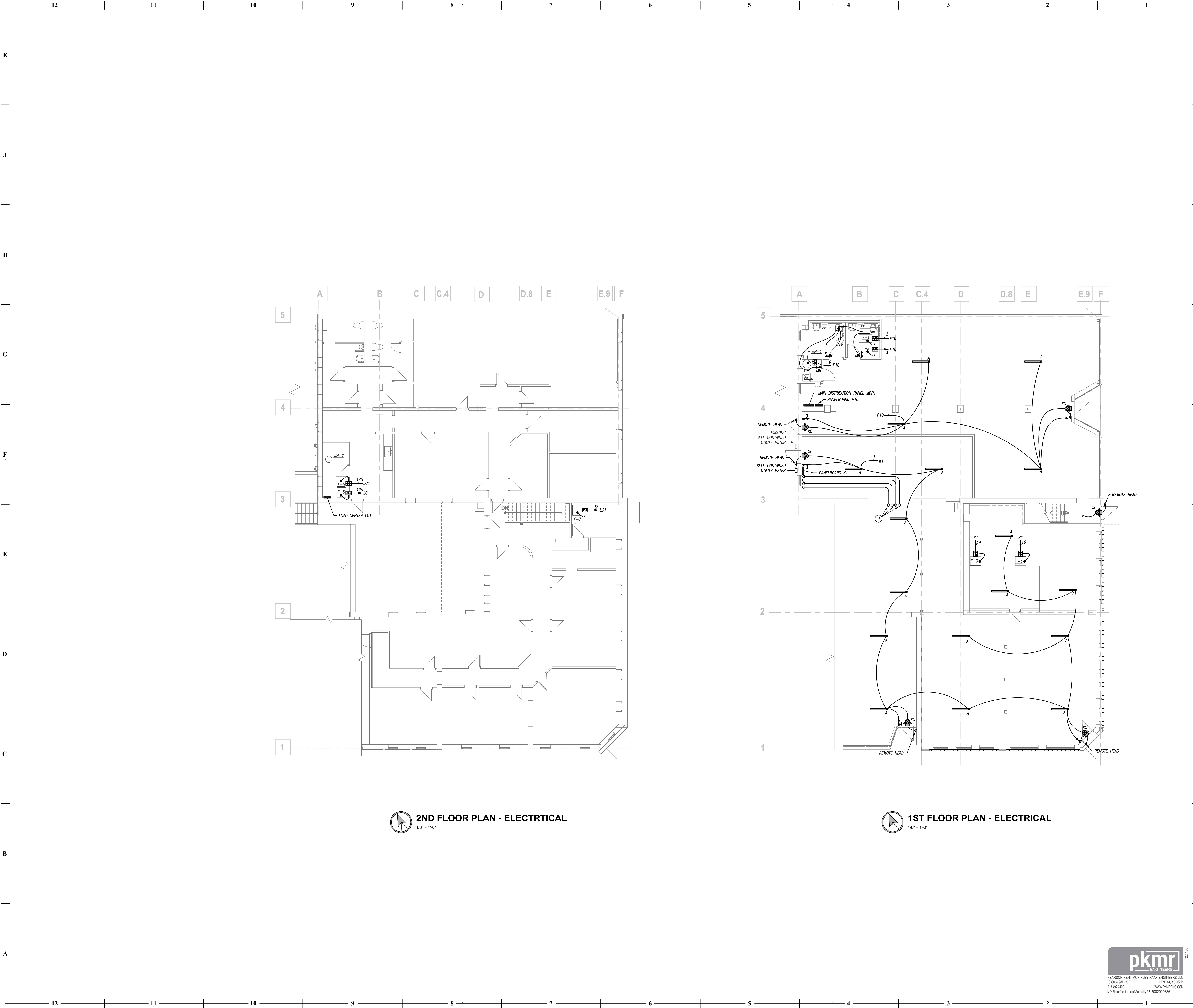
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ELECTRICAL DEMOLITION - FLOOR PLANS



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GENERAL LIGHTING NOTES

1. REFER TO GENERAL NOTES ON MEP COVER SHEET FOR ADDITIONAL REQUIREMENTS OF WORK.
2. LIGHT FIXTURES INDICATED AS EMERGENCY FIXTURES ARE TO FUNCTION AS NIGHT LIGHTS UNLESS SPECIFICALLY SHOWN SWITCHED.
3. ALL CIRCUITING SHOWN ON THIS PLAN IS DIAGRAMMATIC.
3.1. ALL FIXTURES SHALL BE FED FROM JUNCTION BOXES WITH LIGHT FIXTURE WIRING (<1). GASTY-CIRCUITING OF FIXTURES IS NOT ALLOWED.
3.2. SWITCH BOX LOCATIONS SHALL BE WIRED SO THAT A NEUTRAL WIRE IS AVAILABLE AT THE SWITCH BOX LOCATION, EITHER IN THE BOX OR AVAILABLE TO BE ADDED VIA RACEWAY OR AN ACCESSIBLE WALL CAVITY.
3.3. WALL SWITCHES FOR SEPARATE LOAD TYPES (CM/NORMAL, 120/277V, ETC.) SHALL NOT BE IN A SINGLE BOX.
3.4. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

ELECTRICAL PLAN KEYED NOTES

1. PROVIDE (3) 2" CONDUIT AND (1) 1" CONDUIT WITH PULL STINGS FOR FUTURE MECHANICAL EQUIPMENT. ROUTE CONDUIT TO TOP OF CEILING AND TURN UP THROUGH CEILING PATCH ALL PENETRATIONS WATERTIGHT. CAP CONDUIT AT BOTH ENDS FOR FUTURE USE.



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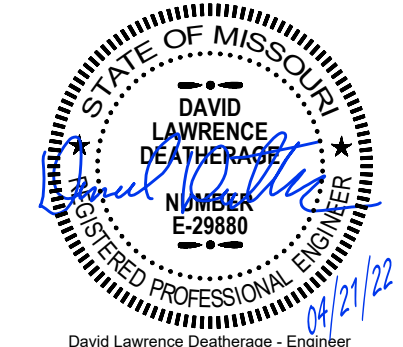
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ELECTRICAL - FLOOR PLANS

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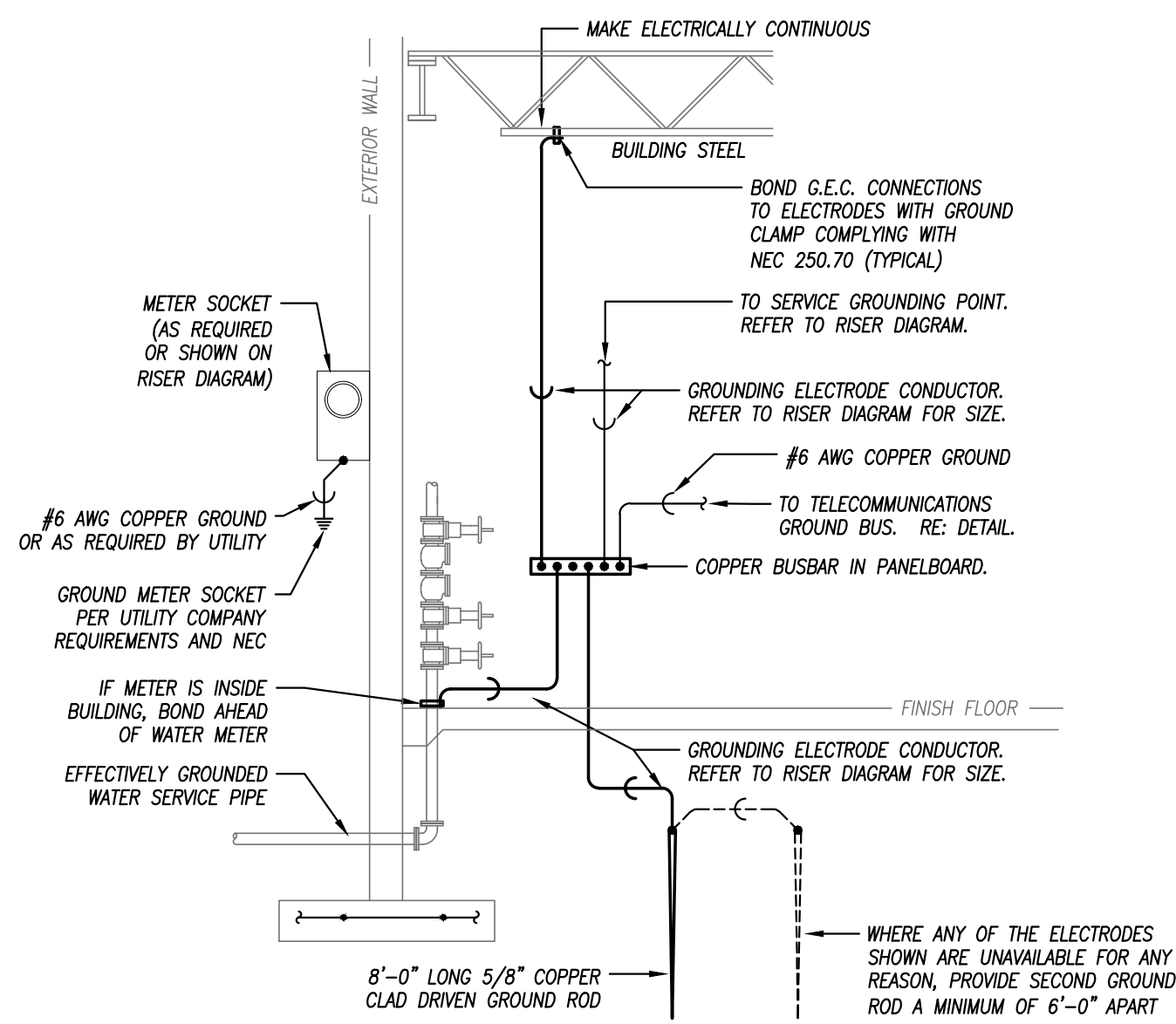
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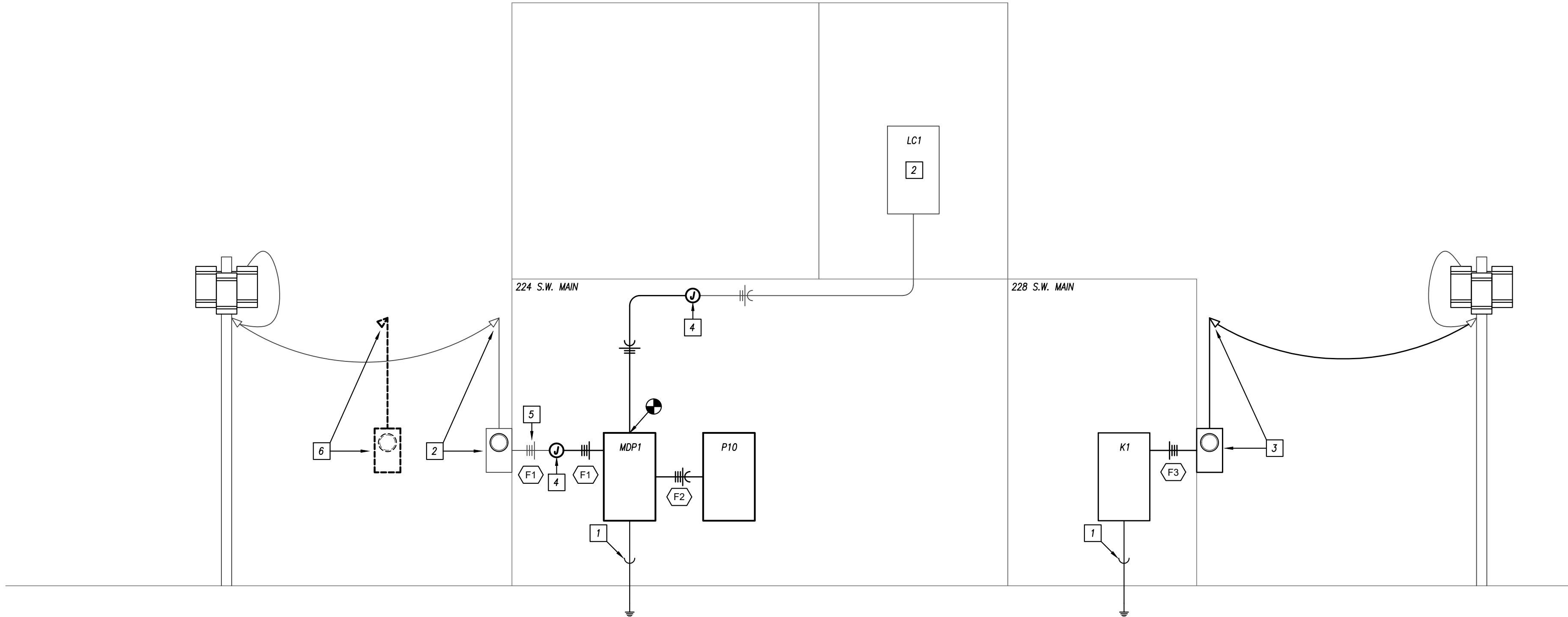
B

A



ELECTRICAL SERVICE GROUNDING DETAIL

NOT TO SCALE



ELECTRICAL RISER DIAGRAM

NOT TO SCALE

SINGLE-SECTION PANELBOARD SCHEDULE											
PANEL DESIGNATION: K1						MAIN LUG AMPS: 400 MAIN BREAKER: 400 VOLTAGE: 208/120 PHASE/WIRE: 3Ø, 4W					
MOUNTING: SURFACE LOCATION: FUTURE TENANT S-100						SCCR RATING (AIC): 22,000					
DESCRIPTION	PHASE			C/B	POLE	CIRCUIT #	C/B			DESCRIPTION	CIRCUIT #
	A	B	C				POLE	TRIP	A		
LTS: FUTURE TENANT S-100	546	-	-	20	1	1	20	1	3	4	3
SPARE	-	-	-	20	1	5	6	50	3459	3459	CONDENSING UNIT CU-3
SPARE	-	-	-	20	1	7	8	50	3459	3459	CONDENSING UNIT CU-4
SPARE	-	-	-	20	1	9	10	3	3459	3459	CONDENSING UNIT CU-5
SPARE	-	-	-	20	1	11	12	20	1920	1920	FURNACE F-3
SPARE	-	-	-	20	1	13	14	1	20	1920	FURNACE F-4
SPARE	-	-	-	20	1	15	16	1	20	-	SPARE
SPARE	-	-	-	20	1	17	18	1	20	-	SPARE
SPARE	-	-	-	20	1	19	20	1	20	-	SPARE
SPARE	-	-	-	20	1	21	22	1	20	-	SPARE
SPARE	-	-	-	20	1	23	24	1	20	-	SPARE
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SPARE	-	-	-	20	1	59	60	1	20	-	SPARE
SPARE	-	-	-	20	1	61	62	1	20	-	SPARE
SPARE	-	-	-	20	1	63	64	1	20	-	SPARE
SPARE	-	-	-	20	1	65	66	1	20	-	SPARE
LARGE SUB-FED BREAKER						67	68	3	-	-	-
TOTALS						546	0	0	8839	8839	8918

PANELBOARD SIZING LOAD			
LOAD DESCRIPTION	CONNECTED	DEMAND	CODE MIN. (VA)
LIGHTS	546	1.25	683
RECEPTACLES	0	10KVA + 50% REST	0
MOTORS	3,840	1.25 x LARGEST + SUM OF REST	4,320
AIR CONDITIONING	20,754	1.00	20,754
SPACE HEATING	0	0.00	0
HEAT PUMP	0	1.00	0
CONTINUOUS	0	1.25	0
NON-CONTINUOUS	0	1.00	0
MISC. LOADS 1	0	1.00	0
SIZING LOAD:		25,757	
SIZING LOAD (AMPS):		71	

CONNECTED PHASE LOADS			
PHASE	VA	AMPS	
A	9,384	78.1	
B	6,836	73.6	
C	6,918	57.6	
TOTALS	25,140	69.8	

REMARKS:
1. EATON POW-R-LINE 1X OR EQUAL.
2. SERVICE ENTRANCE RATED.

EQUIPMENT FAULT CURRENT RATING SCHEDULE				
EQUIPMENT	SCA **	SCCR	NOTES	
DISTRIBUTION PANELBOARD MDP1	11,046	22,000	1,2	
PANELBOARD P10	10,664	22,000	1,2	
PANELBOARD K1	9,924	22,000	1,2	

NOTES:
1. RATING BASED ON AN ASSUMED FAULT AT UTILITY CO. TRANSFORMER OF 38,914A.
2. EQUIPMENT MAY BE SERIES RATED.
** CALCULATIONS PERFORMED USING BUSSMANN POINT-TO-POINT METHOD.

EQUIPMENT FEEDER SCHEDULE							
FEEDER NO.	EQUIPMENT	LOAD (AMPS)	SETS	# OF WIRES	FEEDER SIZE	GROUND	CONDUIT SIZE
F1	DISTRIBUTION PANELBOARD MDP1	174.3	2	4	#3/0	-	2"
F2	PANELBOARD P10	10.0	1	4	#3/0	#6	2"
F3	PANELBOARD K1	71.5	1	4	500 MCM	-	3-1/2"

DISTRIBUTION PANELBOARD SCHEDULE											
PANEL DESIGNATION: MDP1						MAIN LUG AMPS: 400 MAIN BREAKER: 400 VOLTAGE: 208/120 PHASE/WIRE: 3Ø, 4W					
MOUNTING: SURFACE LOCATION: OFFICE N-100						SCCR RATING (AIC): 22,000					
DESCRIPTION	PHASE			C/B	POLE	CIRCUIT #	C/B			DESCRIPTION	CIRCUIT #
	A	B	C				POLE	TRIP	A		
CONDENSING UNIT CU-1	2786	-	-	40	3	1	2	30	2018	2018	CONDENSING UNIT CU-5
CONDENSING UNIT CU-2	2786	-	-	40	3	3	4	30	2018	2018	CONDENSING UNIT CU-6
SPACE	-	-	-	-	1	5	6	30	2018	2018	CONDENSING UNIT CU-7
SPACE	-	-	-	-	1	7	8	30	2018	2018	CONDENSING UNIT CU-8
SPACE	-	-	-	-	1	9	10	3	3459	3459	CONDENSING UNIT CU-9
SPACE	-	-	-	-	1	11	12	3	3459	3459	CONDENSING UNIT CU-10
SPACE	-	-	-	-	1	13	14	3	3459	3459	CONDENSING UNIT CU-11
SPACE	-	-	-	-	1	15	16	3	3459	3459	CONDENSING UNIT CU-12
SPACE	-	-	-	-	1	17	18	3	3459	3459	CONDENSING UNIT CU-13
SPACE	-	-	-	-	1	19	20	1	20	-	SPARE
SPACE	-	-	-	-	1	21	22	1	20	-	SPARE
SPACE	-	-	-	-	1	23	24	1	20	-	SPARE
SPACE	-	-	-	-	1	25	26	1	20	-	SPARE
SPACE	-	-	-	-	1	27	28	1	20	-	SPARE
SPACE	-	-	-	-	1	29	30	1	20	-	SPARE
SPACE	-	-	-	-	1	31	32	1	20	-	SPARE
SPACE	-	-	-	-	1	33	34	1	20	-	SPARE
SPACE	-	-	-	-	1	35	36	1	20	-	SPARE
SPACE	-	-	-	-	1	37	38	1	20	-	SPARE
SPACE	-	-	-	-	1	39	40	1	20	-	SPARE
SPACE	-	-	-	-	1	41	42	2	200	10000	LOAD CENTER LC1
SPACE	-	-	-	-	1	43	44	2	200	10000	LOAD CENTER LC1
LARGE SUB-FED BREAKER						45	46	3	200	1344	PANELBOARD P10
TOTALS						5572	5572	5572	8839	18785	17995

PANELBOARD SIZING LOAD			
LOAD DESCRIPTION	CONNECTED	DEMAND	CODE MIN. (VA)
LIGHTS	168	1.25	210
RECEPTACLES	0	10KVA + 50% REST	0
MOTORS	2,466	1.25 x LARGEST + SUM OF REST	2,760
AIR CONDITIONING	39,201	1.00	39,201
SPACE HEATING	0	0.00	0
HEAT PUMP	0	1.00	0
CONTINUOUS	500	1.25	625
NON-CONTINUOUS	0	1.00	0
MISC. LOADS 1	0	1.00	0
SIZING LOAD:		62,796	
SIZING LOAD (AMPS):		174	

CONNECTED PHASE LOADS			
PHASE	VA	AMPS	
A	14,411	120.0	
B	24,357	202.8	
C	23,567	196.2	
TOTALS	62,335	173.0	

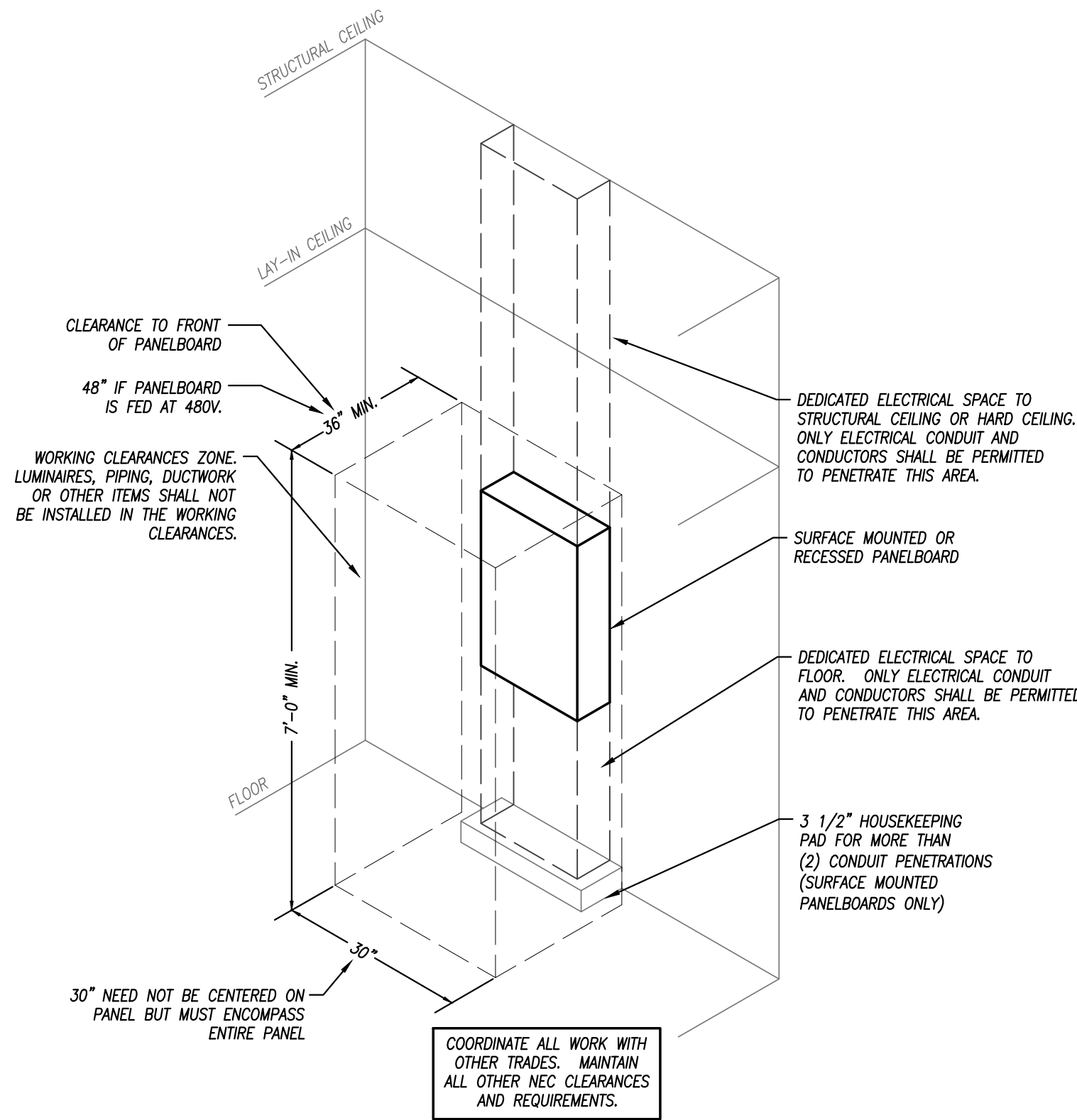
REMARKS:
1. EATON POW-R-LINE 3X OR EQUAL.
2. SERVICE ENTRANCE RATED.

SINGLE-SECTION PANELBOARD SCHEDULE												
PANEL DESIGNATION: P10						MAIN LUG AMPS: 225 MAIN BREAKER: M.L.O. VOLTAGE: 208/120 PHASE/WIRE: 3Ø, 4W						
MOUNTING: SURFACE LOCATION: OFFICE N-100						SCCR RATING (AIC): 22,000						
DESCRIPTION	PHASE			C/B		CIRCUIT #	C/B		PHASE		DESCRIPTION	
	A	B	C	TRIP	POLE		POLE	TRIP	A	B		C
LTS: OFFICE N-100	168			20	1	1	2	1	1176		FURNACE F-1	
EXHAUST FANS	114			20	1	3	4	1	20		FURNACE F-2	
RECEPT: ROOF			360	20	1	5	6	1	15	500	WATER HEATER WH-1	
SPARE				20	1	7	8	1	20		SPARE	
SPARE				20	1	9	10	1	20		SPARE	
SPARE				20	1	11	12	1	20		SPARE	
SPARE				20	1	13	14	1	20		SPARE	
SPARE				20	1	15	16	1	20		SPARE	
SPARE				20	1	17	18	1	20		SPARE	
SPARE				20	1	19	20	1	20		SPARE	
SPARE				20	1	21	22	1	20		SPARE	
SPARE				20	1	23	24	1	20		SPARE	
SPARE				20	1	25	26	1	20		SPARE	
SPARE				20	1	27	28	1	20		SPARE	
SPARE				20	1	29	30	1	20		SPARE	
SPARE				20	1	31	32	1	20		SPARE	
SPARE				20	1	33	34	1	20		SPARE	
SPARE				20	1	35	36	1	20		SPARE	
SPARE				20	1	37	38	1	20		SPARE	
SPARE				20	1	39	40	1	20		SPARE	
SPARE				20	1	41	42	1	20		SPARE	
TOTALS				168	114	360			1176	1176	500	TOTALS

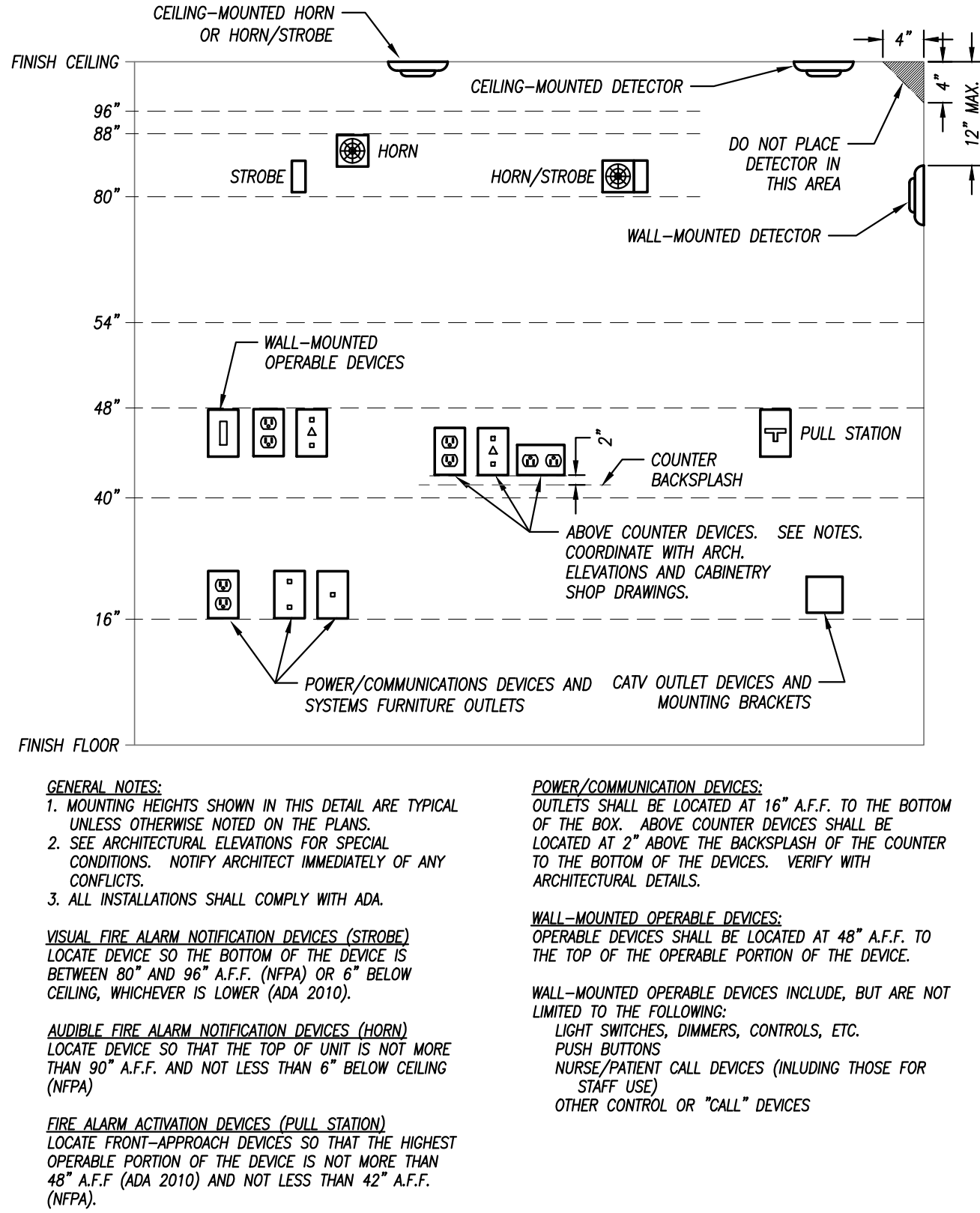
PANELBOARD SIZING LOAD			
LOAD DESCRIPTION	CONNECTED	DEMAND	CODE MIN. (VA)
LIGHTS	168	1.25	210
RECEPTACLES	360	10KVA + 50% REST	360
MOTORS	2,466	1.25 x LARGEST + SUM OF REST	2,760
AIR CONDITIONING	0	1.00	0
SPACE HEATING	0	0.00	0
HEAT PUMP	0	1.00	0
CONTINUOUS	500	1.25	625
NON-CONTINUOUS	0	1.00	0
MISC. LOADS 1	0	1.00	0
SIZING LOAD (AMPS):			3,955

CONNECTED PHASE LOADS		
PHASE	VA	AMPS
A	1,344	11.2
B	1,290	10.7
C	860	7.2
TOTALS	3,494	9.7

REMARKS:
1. EATON POW-R-LINE 1X OR EQUAL.



TYPICAL PANELBOARD INSTALLATION DETAIL
NOT TO SCALE



MOUNTING HEIGHTS FOR WALL-MOUNTED DEVICES
NOT TO SCALE

LIGHT FIXTURE SCHEDULE

FIXTURE TYPE	MANUFACTURER	CATALOG NUMBER	DESCRIPTION	LED MODULE / DRIVER							REMARKS
				ID	WATTS	LUMENS	CRI	CCT	DIMMING	VOLTAGE	
A	WILLIAMS	SERIES 75S	4'-0" LONG COMMERCIAL-GRADE STRIP FIXTURE WITH SQUARE LENS. SURFACE MOUNT. WHITE FINISH.	L8S	42	6500	80	3500K	NO	277/120	1
XC	DUAL-LITE	EVO SERIES	COMBINATION EMERGENCY LIGHTING UNIT / EXIT LIGHT. UV-STABLE THERMOPLASTIC HOUSING, FINISH WHITE. ADJUSTABLE EYEBALL STYLE LIGHTING HEADS WITH GLASS LENS FOR EMERGENCY LIGHT. EXIT SIGN TO HAVE RED LETTERS WITH DIRECTIONAL ARROWS AS INDICATED ON THE PLANS. MAINTENANCE-FREE LITHIUM ION PHOSPHATE BATTERY FOR 90 MINUTE OPERATION OF LAMPS AND EXIT SIGN. FURNISH WITH CAPACITY FOR REMOTE HEAD. FULLY AUTOMATIC, SOLID-STATE CHARGER WITH TEST SWITCH AND AC-ON LIGHT.	TOTAL POWER CONSUMPTION =							1
				EMERGENCY FOUR (4) HIGH-OUTPUT							
				EXIT: FOUR (4) HIGH-OUTPUT LEADS.							
		EVO	OUTDOOR REMOTE WITH 2 HEADS. BLACK FINISH.								
REMARKS:											
1. FURNISH WITH AND INSTALL ALL NECESSARY HARDWARE AND MOUNTING BRACKETS.											
GENERAL NOTES (APPLICABLE TO ALL FIXTURES):											
1) EQUALS ARE ACCEPTABLE ON ALL LIGHT FIXTURES UNLESS SPECIFICALLY NOTED OTHERWISE. REFER TO SPECIFICATIONS FOR APPROVED EQUAL FIXTURE MANUFACTURERS.											
2) ALL DRIVERS ARE INTEGRAL TO FIXTURE UNLESS NOTED OTHERWISE. REFER TO SPECIFICATIONS FOR ADDITIONAL FIXTURE/DRIVER/BALLAST REQUIREMENTS.											
3) ALL FIXTURES WITH PAINTED METAL PARTS SHALL BE PAINTED AFTER FABRICATION.											
4) LUMENS LISTED FOR LED FIXTURES ARE GENERALLY DELIVERED LUMENS UNLESS NOTED OTHERWISE.											



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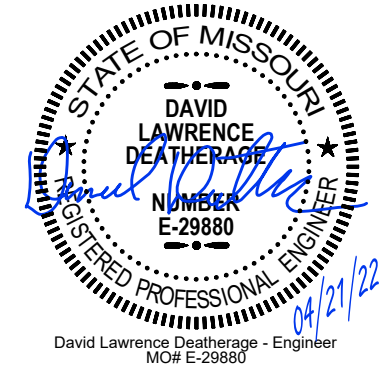
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ELECTRICAL - PANELBOARD
SCHEDULES