

# MAIN STREET BUILDING IMPROVEMENTS

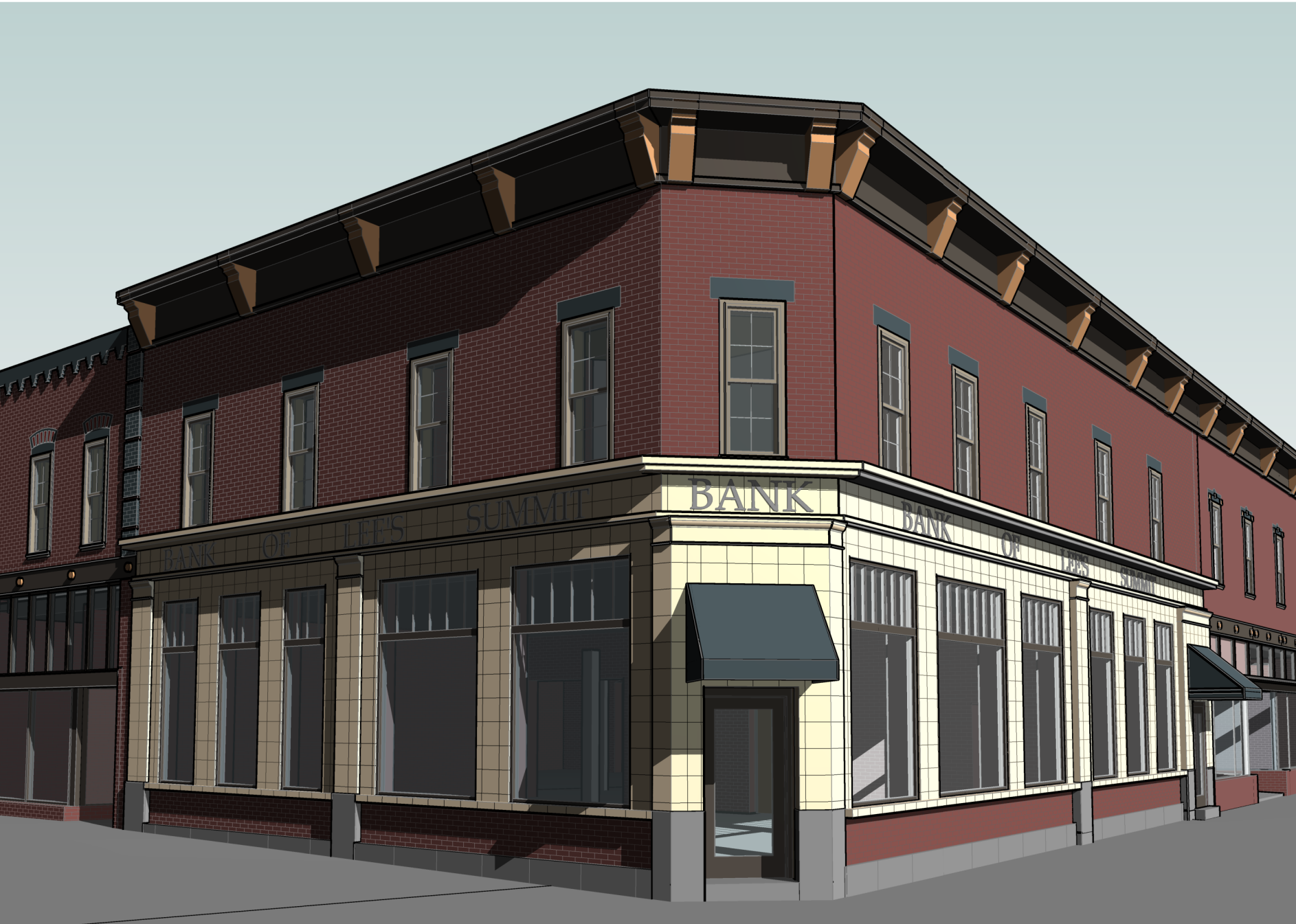
230 SW MAIN ST.  
LEE'S SUMMIT, MO 64063

## PERMIT DOCUMENTS

21 APRIL, 2022

COLLINS WEBB #: 21121

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### OWNER

DRAKE DEVELOPMENT LLC  
7200 W 132ND ST, SUITE 150,  
OVERLAND PARK, KS 66213  
P: 913.662.2630  
www.drakekc.com

### ARCHITECT

COLLINS WEBB ARCHITECTURE  
307B SW MARKET ST.  
LEE'S SUMMIT, MISSOURI 64063  
P: 816.249.2270  
www.collinsandwebb.com

### CIVIL ENGINEER

ENGINEERING SOLUTIONS  
50 SE 30TH ST,  
LEE'S SUMMIT, MO 64082  
P: 816.623.9888  
www.es-kc.com

### STRUCTURAL ENGINEER

LEIGH & O'KANE  
250 NE MULBERRY SUITE 201  
LEE'S SUMMIT, MO 64086  
P: 816.444.3144  
www.leok.com

### MEP ENGINEER

PKMR ENGINEERS  
13300 W 98TH ST  
LENEXA, KS 66215  
P: 913.492.2400  
www.pkmreng.com





WALL PRIORITY LEGEND

NOTE: THIS LEGEND IS FOR GRAPHIC REPRESENTATION ONLY.

FOUR HOUR FIRE WALL (4FW)  
THREE HOUR FIRE WALL (3FW)  
TWO HOUR FIRE WALL (2FW)  
FOUR HOUR FIRE BARRIER (4FB)  
THREE HOUR FIRE BARRIER (3FB)  
  
TWO HOUR FIRE BARRIER (2FB) (INCLUDES THE FOLLOWING)  
• TWO HOUR SHAFT ENCLOSURE (2SE)  
  
ONE HOUR FIRE BARRIER (1FB) (INCLUDES THE FOLLOWING)  
• ONE HOUR SHAFT ENCLOSURE (1SE)

SMOKE TIGHT PARTITION (X) (INCLUDES THE FOLLOWING)  
• SMOKE TIGHT PARTITION TO SMOKE TIGHT CEILING (XC)  
• SMOKE TIGHT PARTITION WITHIN PLENUM ABOVE CEILING (XP)  
• SMOKE TIGHT PARTITION SEPARATION OF INTERSTITIAL SPACES (XI)

DETAIL ABUTMENT OF DISSIMILAR WALL  
  
INTERSECTION OF RATED WALLS

LOWER PRIORITY WALL  
HIGHER PRIORITY WALLS SHALL PASS THROUGH A LOWER PRIORITY WALL

TAPE & JOINT COMPOUND (TYP)  
HIGHER PRIORITY WALL  
HIGHER PRIORITY WALL  
TAPE & JOINT COMPOUND (TYP)  
HIGHER PRIORITY WALL

LOWER PRIORITY WALL  
HIGHER PRIORITY WALL  
TAPE & JOINT COMPOUND (TYP)  
HIGHER PRIORITY WALL  
CONTINUOUS TAPE & SEAL OF HIGHER PRIORITY WALL (TYP)

LOWER PRIORITY WALL  
HIGHER PRIORITY WALL  
TAPE & JOINT COMPOUND (TYP)  
HIGHER PRIORITY WALL

NOTES:  
1. REFER TO WALL TYPES ON SHEET G121-T1 FOR WALL COMPONENTS, NUMBER OF GYPSUM BOARD LAYERS, TYPE OF GYPSUM BOARD, AND OTHER SIMILAR INFO.  
2. THE HIGHER PRIORITY WALL SHALL PASS THROUGH THE LOWER PRIORITY WALL.  
3. TAPING AND SEALING OF HIGHER PRIORITY WALLS SHALL BE CONTINUOUS.  
4. ALTERNATE LAYERS OF GYPSUM BOARD SHALL OVERLAP AT CORNER INTERSECTIONS OF MULTI-LAYERED RATED GYPSUM BOARD PARTITIONS.

FIRE & SMOKE RESISTIVE LEGEND DEFINITIONS

FIRE WALLS (FW)

DEFINITION  
A FIRE RATED WALL THAT IS CONTINUOUS VERTICALLY FROM FOUNDATION TO ROOF TO SEPARATE CONSTRUCTION INTO SEPARATE BUILDINGS.  
  
USE  
FIRE WALLS SERVE TO CREATE SEPARATE BUILDINGS FOR THE FOLLOWING REASONS:  
• CONSTRUCTION TYPE VARIES FROM ONE BUILDING TO ANOTHER.  
• COMPLIANCE WITH MAXIMUM ALLOWABLE AREA REQUIREMENTS.  
• TO SEPARATE BUILDINGS WITH DIFFERENT LEVELS OF FIRE PROTECTION.  
• TO ADDRESS A PROPERTY LINE DEFINING DIFFERENT OWNERSHIP.  
  
SPECIAL CONSIDERATIONS  
• THE FIRE WALL REQUIRES SUFFICIENT STRUCTURAL STABILITY UNDER FIRE CONDITIONS TO ALLOW THE COLLAPSE OF CONSTRUCTION ON EITHER SIDE WITHOUT COLLAPSE OF THE WALL.  
• OPENINGS ARE REQUIRED TO BE PROTECTED.  
• EXTENDING THE FIRE WALL THROUGH THE ROOF WITH A PARAPET IS REQUIRED FOR SOME CONSTRUCTION CLASSIFICATIONS.  
• THE REQUIRED FIRE RATING OF A FIRE WALL IS BASED ON OCCUPANCY GROUPS AND CLASS OF CONSTRUCTION.  
• HARDWARE FOR SWING DOORS SHALL INCLUDE A LATCH AND CLOSER.

FIRE BARRIERS (FB)

DEFINITION  
A FIRE RATED WALL CONSTRUCTED TO RESTRICT THE SPREAD OF FIRE CONTINUITY SHALL BE MAINTAINED FROM TOP OF FLOOR TO UNDERSIDE OF THE FLOOR OR ROOF DECK ABOVE.  
  
USE  
FIRE BARRIERS HAVE THE FOLLOWING APPLICATIONS:  
• TO SEPARATE HORIZONTAL EXITS.  
• TO SEPARATE EXIT PASSAGEWAYS.  
• OCCUPANCY SEPARATIONS.  
• TO SEPARATE INCIDENTAL USE AREAS.  
• ISOLATION OF HAZARDOUS.  
• TO SEPARATE ROOMS WITH DIFFERENT LEVELS OF FIRE PROTECTION.  
• SMOKE BARRIERS AND SHAFT ENCLOSURES ARE FIRE BARRIERS. SEE ADDITIONAL REQUIREMENTS.  
  
SPECIAL CONSIDERATIONS  
• WITHIN SOME CONSTRUCTION CLASSIFICATIONS, CONSTRUCTION THAT PROVIDES STRUCTURAL SUPPORT OF A FIRE BARRIER IS REQUIRED TO BE OF THE SAME HOURLY FIRE RATING AS THE FIRE BARRIER, OR BETTER.  
• OPENINGS ARE REQUIRED TO BE PROTECTED.  
• HARDWARE FOR SWING DOORS SHALL INCLUDE A LATCH AND CLOSER.

SHAFT ENCLOSURES (SE)

DEFINITION  
A SHAFT ENCLOSURE IS A FIRE BARRIER FORMING THE BOUNDARY OF A VERTICAL SHAFT.  
  
USE  
PROTECT OPENINGS IN FIRE RATED FLOOR/CEILING ASSEMBLIES.  
  
SPECIAL CONSIDERATIONS  
• PENETRATIONS IN SHAFT ENCLOSURES ARE PROHIBITED UNLESS NECESSARY FOR THE FUNCTION OF THE SHAFT. WHERE ALLOWED, OPENINGS ARE REQUIRED TO BE PROTECTED.  
• DUCT PENETRATIONS REQUIRE COMBINATION SMOKE AND FIRE DAMPERS EXCEPT FOR EXISTING CONDITIONS THAT ARE GRANDFATHERED.  
• HARDWARE FOR SWING DOORS SHALL INCLUDE A LATCH, CLOSER, AND PERIMETER SMOKE SEALS.

FIRE PARTITIONS (FP)

DEFINITION  
A FIRE RATED PARTITION THAT IS USED FOR THE APPLICATIONS LISTED BELOW. IT SHALL BE CONTINUOUS FROM TOP OF FLOOR TO UNDERSIDE OF A FIRE-RATED FLOOR/CEILING OR ROOF/CEILING ASSEMBLY. WHERE ALLOWED BY CODE EXCEPTION, A FIRE PARTITION SHALL BE ALLOWED TO TERMINATE AT THE UPPER MEMBRANE OF A FIRE RATED CEILING.  
  
USE  
FIRE PARTITIONS ARE USED IN CERTAIN OCCUPANCIES TO DO THE FOLLOWING:  
• SEPARATE DWELLING UNITS  
• SEPARATE SLEEPING SPACES  
• SEPARATE EXTINGUISHER CABINETS (FEC), ELECTRICAL, WATER COOLERS (EWC), ELECTRICAL PANELS, ETC. UNLESS NOTED OTHERWISE.  
• PROVIDE AND INSTALL ALL STIFFENERS, BRACING, BACK-UP PLATES AND SUPPORTING BRACKETS REQUIRED FOR THE INSTALLATION OF ALL CASEWORK AND OF ALL FLOOR MOUNTED OR SUSPENDED MECHANICAL, ELECTRICAL OR LABORATORY EQUIPMENT.  
• WHERE HVAC OR OTHER MECHANICAL, ELECTRICAL AND PLUMBING ITEMS PENETRATE PARTITIONS: STUDS SHALL BE BRACED AND FRAMED TO STRUCTURE AS REQUIRED TO PROVIDE ADEQUATE SUPPORT. ALL PENETRATIONS THROUGH ACoustICAL AND FIRE RATED WALLS SHALL BE SEALED TO PROVIDE FIRE, SMOKE, AND/OR ACoustICAL ISOLATION OF SPACES WITH APPROPRIATE ACoustICAL/FIRESTOP MATERIAL.  
• THERE SHALL BE NO BACK-TO-BACK ELECTRICAL, TELEPHONE, OR OTHER OUTLETS, EXCEPT WHERE SPECIFICALLY SHOWN.  
• WALL BASE IS NOT SHOWN ON ALL WALL TYPES FOR CLARITY. REFER TO FINISH SCHEDULE.  
• PROVIDE GLASS-MAT, WATER RESISTANT BACKING BOARD AT ALL WET LOCATIONS.  
• EXCEPT AT FIRE-RATED PARTITIONS, ALL WALL AND COLUMN GYPSUM BOARD FACING SHALL BE HELD AT 5/8 INCH BELOW STRUCTURE, UNLESS NOTED OR SHOWN OTHERWISE.  
• PROVIDE AND INSTALL BLOCKING REQUIRED FOR ALL A.V. EQUIPMENT. G.C. TO COORDINATE WITH TI CONSULTANT FOR FINAL LOCATIONS AND SIZE REQUIREMENTS.  
• COMPRESSIBLE FILLER - ACCEPTABLE MATERIALS WOULD BE FIBERGLASS INSULATION OR FIRESTOPPING VOIDS TO BE COMPLETELY FILLED AND A FIRESTOP SEALANT OVER ANY ENDS. THIS IS TYPICAL FOR ALL ACoustICAL WALL ASSEMBLIES WHERE "COMPRESSIBLE FILLER" IS CALLED FOR. THERE CAN BE NO VOIDS IN THE INSTALLATION.  
• PROVIDE A MIN. MSG-12 STUD FOR ALL VERTICAL LONG SPAN WALL TYPES.

BEARING WALLS (BW)

DEFINITION  
AN INTERIOR OR EXTERIOR WALL DESIGNED TO SUPPORT FLOOR OR ROOF LOADS. A BEARING WALL IS FIRE-RATED ONLY TO MAINTAIN THE INTEGRITY OF ITSELF AS A FIRE RATED STRUCTURAL ELEMENT. THE WALL DOES NOT SERVE AS A FIRE SEPARATION FROM ONE SIDE TO THE OTHER SIDE.  
  
USE  
A VERTICAL LOAD BEARING STRUCTURAL ELEMENT.  
  
SPECIAL CONSIDERATIONS  
• DOORS AND WINDOWS ARE NOT REQUIRED TO BE FIRE RATED.  
• HVAC DUCT PENETRATIONS ARE NOT REQUIRED TO BE FIRE-DAMPENED.  
• PLUMBING, ELECTRICAL, SPRINKLER SYSTEM, AND CABLE PENETRATIONS ARE REQUIRED TO BE FIRE STOPPED WITH FIRE SEALANT AT BOTH SIDES, FOR WALLS CONSTRUCTED OF HOLLOW CMU OR STUD FRAMING.

ACTIVE FIRE PROTECTION SYSTEMS:

- AUTOMATIC SPRINKLER SYSTEM - PROVIDED THROUGHOUT (803.2.1)
- STANDPIPE SYSTEM - PROVIDED IN STAIRS THROUGHOUT (805)
- ESCALATOR OPNG PROTECTED IN ACCORDANCE WITH IBC 712.13.1, DRAFT CURTAIN AND CLOSELY SPACED SPRINKLERS.

GENERAL NOTES

- THE FOLLOWING INFORMATION SERVES TO PROVIDE BUILDING OWNERS WITH CONCISE DEFINITIONS OF WALL TYPES RELATED TO LIFE SAFETY ISSUES. THIS INFORMATION IS NOT MEANT TO BE A SUBSTITUTE FOR APPLICABLE BUILDING CODES.
- WHEN A WALL HAS MORE THAN ONE CLASSIFICATION, THE MOST RESTRICTIVE REQUIREMENTS FOR EACH CLASSIFICATION SHALL APPLY.
- FOR NEW CONSTRUCTION, PERIMETER SMOKE-SEALS MAY BE REQUIRED AT FIRE-RATED DOORS IN CERTAIN OCCUPANCIES.

GENERAL DESCRIPTION

PROJECT NAME: MAIN STREET LANDLORD IMPROVEMENTS  
PROJECT LOCATION: 230 SW MAIN ST., LEE'S SUMMIT, MO 64063  
COUNTY: JACKSON  
  
COLLINS WEBB ARCHITECTURE  
307B SW MARKET STREET  
LEES SUMMIT, MISSOURI 64063  
  
APPLICABLE CODES:  
INTERNATIONAL BUILDING CODE - 2018 ED.  
INTERNATIONAL PLUMBING CODE - 2018 ED.  
INTERNATIONAL MECHANICAL CODE - 2018 ED.  
INTERNATIONAL FUEL GAS CODE - 2018 ED.  
NATIONAL ELECTRICAL CODE - 2017 ED.  
INTERNATIONAL FIRE CODE - 2015 ED.  
ADA STANDARDS FOR ACCESSIBLE DESIGN - 2010 ED.  
ICC/ANSI A117.1: ACCESSIBLE AND USABLE BUILDINGS AND FACILITIES - 2009 ED.

CODE INFORMATION

BUILDING/PROJECT USE:  
CONSTRUCTION TYPE

OFFICE, RESTAURANT  
(PIPE VIA NON-SPRINKLERED)

SECTION 309  
TABLE 601  
SECTION 309

OCCUPANCY CLASSIFICATION  
SEPARATED MIXED-USE APPROACH

NORTH FUTURE TENANT: GROUP "B",  
SOUTH FUTURE TENANT: GROUP A-2  
NON-SEPARATED BUILDING, FULLY SPRINKLERED

TABLE 506.2

BASE ALLOWABLE AREA

B: 9,000 SQ. FT.

FIRST LEVEL

B: 2,440 SQ. FT.  
SOUTH TENANT - UNKNOWN: 4,000 SQ. FT.

SECOND LEVEL

B: 5,720 SQ. FT.

ALLOWABLE STORIES  
ACTUAL NUMBER OF STORIES

2 STORIES - EXISTING  
2 STORIES

TABLE 504.4  
TABLE 504.3

ALLOWABLE HEIGHT  
ACTUAL HEIGHT IN FEET

40'-0" - EXISTING  
29'-10"

FIRE RESISTIVE REQUIREMENTS

PRIMARY FRAME  
NON-BEARING WALLS  
BEARING WALLS INT / EXT.  
FLOOR CONSTRUCTION (SEPARATING OCCUPANCIES)  
CEILING/ROOF  
CORRIDORS  
SEPARATION BETWEEN 1ST FL. FUTURE T.I. AND 2ND FL. "B"

0 HRS  
0 HRS  
0 HRS  
0 HRS  
0 HRS  
2 HRS

TABLE 601  
TABLE 601  
TABLE 601  
TABLE 601  
TABLE 1018.1

FIRE EXTINGUISHERS

1. PROVIDE PORTABLE FIRE EXTINGUISHERS IN OCCUPANCIES AND LOCATIONS AS REQUIRED BY THE WISCONSIN FIRE PREVENTION CODE. SEE PLANS FOR SUGGESTED LOCATIONS. NOTIFY ARCHITECT OF ANY PROPOSED RELOCATION OR IF A CONFLICT IS ENCOUNTERED.  
2. PORTABLE FIRE EXTINGUISHERS SHALL BE INSTALLED, INSPECTED, AND MAINTAINED IN ACCORDANCE WITH NFPA 10, STANDARD FOR PORTABLE FIRE EXTINGUISHERS.

CEILING HEIGHT NOTES: (IBC 1208)  
  
1. ALL MEANS OF EGRESS TO HAVE A MINIMUM CEILING HEIGHT OF 7'-6" A.F.F., NOR SHALL HAVE ANY PROJECTION FROM THE CEILING BE LESS THAN 6'-8" A.F.F.  
2. OCCUPIED SPACES, HABITABLE SPACES AND CORRIDORS SHALL HAVE A CEILING HEIGHT OF NOT LESS THAN 7'-6" A.F.F.  
3. BATHROOMS, TOILET ROOMS, KITCHENS, STORAGE ROOMS AND LAUNDRY ROOMS SHALL HAVE A CEILING HEIGHT OF NOT LESS THAN 7'-0" A.F.F.

INTERIOR FINISHES

GROUP A  
EXIT ENCLOSURES

MAX. FLAME SPREAD  
CLASS A (0-25)

803.13

LOBBIES & CORRIDORS

CLASS B (26-75)

803.13

ALL OTHER SPACES

CLASS C (76-200)

803.13

TEXTILES

CLASS A (0-25)

805

SMOKE DEVELOPED

0-450

TABLE/SECTION/REFERENCE

NOTE:  
Decorative Materials and Trim (including plastics) must comply with IBC Section 906.

GENERAL EXITING REQUIREMENTS

EXIT TRAVEL DISTANCE  
DEAD END CORRIDOR  
COMMON PATH OF TRAVEL  
MIN. CORRIDOR WIDTH

200 FEET  
20 FEET  
75' FEET, OR 100' IF OCC. < 50  
44", OR 36" IF OCC. < 50

TABLE 1017.2  
SECTION 1020.4  
SECTION 1006.2.1  
SECTION 1020.2

POSTING OF OCCUPANT LOAD

EVERY ROOM OR SPACE THAT IS AN ASSEMBLY OCCUPANCY SHALL HAVE THE OCCUPANT LOAD OF THE ROOM OR SPACE POSTED IN A CONSPICUOUS PLACE NEAR THE MAIN EXIT OR EXIT ACCESS DOORWAY FROM THE ROOM OR SPACE. POSTED SIGNS SHALL BE OF AN APPROVED LEGIBLE PERMANENT DESIGN AND SHALL BE MAINTAINED BY THE OWNER OR AUTHORIZED AGENT.

EXIT REQUIREMENTS

A. REQUIRED CAPACITY  
1. STAIRS - 0.3" / PERSON  
2. OTHER COMPONENTS - 0.2" / PERSON  
  
B. MINIMUM NUMBER  
1. OCCUPANT LOAD OF 1-500 PERSONS - 2 EXITS PER STORY  
2. OCCUPANT LOAD OF 501-1000 PERSONS - 3 EXITS PER STORY  
3. OCCUPANT LOAD OF MORE THAN 1000 PERSONS - 4 EXITS PER STORY

TABLE/SECTION/REFERENCE  
1005.1  
1005.1  
  
1006.3.1

SIGNAGE

1. PROVIDE SIGNAGE "IN FIRE EMERGENCY DO NOT USE ELEVATOR, USE EXIT STAIRS" IN ACCORDANCE WITH IBC (3002.3)

OCCUPANT LOAD PER LEVEL

OCCUPANT LOAD - FIRST LEVEL

NORTH: OFFICE SQ. FOOTAGE (2205 SF)  
SOUTH: FUTURE TENANT UNKNOWN

16 OCC  
FUTURE T.I.  
15 OCCUPANTS

150 SF/OCC

EXITS REQUIRED THIS LEVEL:  
EXITS PROVIDED THIS LEVEL:

NORTH: 2 EXITS  
SOUTH: FUTURE T.I.  
NORTH: 2 EXITS  
SOUTH: 1 EXIT - EXISTING

1006.3.1

OCCUPANT LOAD - SECOND LEVEL

B: OFFICE SQUARE FOOTAGE (4032 SF)

27 OCCUPANTS

150 SF/OCC

EXITS PROVIDED THIS LEVEL:

2 EXIT - EXISTING

1006.3.1

TOTAL OCCUPANT LOAD

TOTAL OCCUPANT LOAD FOR BUILDING (BUSINESS ONLY): 42 OCCUPANTS

PLUMBING FIXTURE REQUIREMENTS

B OCC WATER CLOSETS  
B OCC LAVATORIES  
B OCC DRINKING FOUNTAIN  
B OCC SERVICE SINK

= 1/25 PER FIRST 50, 1/50 FOR 50+ BOTH MALE/ FEMALE  
= 1/40 FOR FIRST 80, 1/80 FOR 80+ BOTH MALE/FEMALE  
= 1/100  
= 1

REQUIRED:  
LEVEL  
OCCUPANCY  
WATER CLOSETS  
LAVATORIES  
DRINKING FOUNTAINS  
SERVICE SINKS

1ST FLOOR  
BUSINESS  
M 8/25 = 32  
F 8/25 = 32  
TOTAL: 1

SOUTH TENANT  
FUTURE  
1

2ND FLOOR  
BUSINESS  
M 14/25 = 56  
F 14/25 = 56  
TOTAL: 2

1  
2  
1  
1

1 REQ  
1 REQ

PROVIDED:  
LEVEL  
WATER CLOSETS  
LAVATORIES  
DRINKING FOUNTAINS  
SERVICE SINKS

1ST FLOOR  
2  
2  
1  
1

2ND FLOOR  
4  
2  
1  
1

BOTTLED WATER PROVIDED  
BOTTLED WATER PROVIDED

WALL TYPE A

INSTALL FIRESAFING INSULATION TO SEAL TOP OF WALL (RATED WALLS ONLY)

BOTTOM OF DECK  
RE: STRUCTURAL

DEEP LEG DEFLECTION/ SLIP TRACK

CEILING HT.  
RE: RCP (WHERE REQ'D)

5/8" GYP. BD. EACH SIDE

3 5/8" METAL STUD @ 16" O.C. WITH HORIZ. BRACING, AS REQUIRED.

3 1/2" SOUND BATT INSULATION (WHERE REQ'D)

METAL RUNNERS TOP AND BOTTOM

FLOOR

WALL TYPE E

BOTTOM OF DECK  
RE: STRUCTURAL

AS REQUIRED PER WALL TYPE EXISTING WALL

CEILING HT.  
RE: RCP (WHERE REQ'D)

5/8" GYP. BD. ON ROOM SIDE

METAL STUD / HAT CHANNEL @ 16" O.C.  
SOUND BATT INSULATION (WHERE REQ'D)

METAL RUNNERS TOP AND BOTTOM

ROOM SIDE

FLOOR

WALL TYPE Y

INSTALL FIRESAFING INSULATION TO SEAL TOP OF WALL (RATED WALLS ONLY)

BOTTOM OF DECK  
RE: STRUCTURAL

CEILING HT.  
RE: RCP (WHERE REQ'D)

LAYERS 5/8" GYP. BD. PER WALL TYPE  
CH STUD @ 16" O.C.

1" SHAFT LINER

SOUND BATT INSULATION (SEE TYPE FOR SIZE)

METAL J TRACK TOP AND BOTTOM

FLOOR

WALL TYPE A

TYPE	WALL DESCRIPTION
A	• 3 5/8" METAL STUD @ 16" O.C. TO DECK ABOVE • 5/8" TYPE "X" GYP. BD. EACH SIDE TO DECK ABOVE • NO SOUND BATT INSUL. • NON RATED
A1	• 3 5/8" METAL STUD @ 16" O.C. TO DECK ABOVE • 5/8" TYPE "X" GYP. BD. EACH SIDE TO DECK ABOVE • 3 1/2" SOUND BATT INSUL. TO FULL HEIGHT OF WALL • ACoustICAL SEALANT AT FLOOR, DECK, & ALL PENETRATIONS • NON RATED
A2	• 3 5/8" METAL STUD @ 16" O.C. TO DECK ABOVE • 2 LAYERS - 5/8" TYPE "X" GYP. BD. EACH SIDE TO DECK ABOVE • 3 1/2" THICK GLASS FIBER BATT INSUL. TO FULL HEIGHT OF WALL • FIRE-RATED SEALANT AT FLOOR, DECK, & ALL PENETRATIONS • 2-HR RATED RE: UL # U419

WALL TYPE E

TYPE	WALL DESCRIPTION
E2	• 3 5/8" METAL STUD @ 16" O.C. TO DECK ABOVE • 5/8" TYPE "X" GYP. BD. ONE SIDE TO DECK ABOVE • NO SOUND BATT INSUL. • NON RATED
E5	• 6" METAL STUD @ 16" O.C. TO DECK ABOVE • 5/8" TYPE "X" GYP. BD. ONE SIDE • NO SOUND BATT INSUL. • NON RATED

WALL TYPE Y

TYPE	WALL DESCRIPTION
Y	• 4" C-H METAL STUDS @ 24" O.C. TO DECK ABOVE • 2 LAYER 5/8" TYPE "X" GYP. BD. ONE SIDE TO DECK ABOVE • 1" SHAFT LINER ON SHAFT SIDE TO DECK ABOVE • 3" SOUND BATT INSUL. - FULL HEIGHT OF WALL • FIRE-RATED SEALANT AT FLOOR, DECK, & ALL PENETRATIONS • 2-HR RATED RE: UL DESIGN # U415 (WHERE REQ'D)

FIRE RESISTIVE LEGEND

FIRE WALLS  
3FW 3FW 2FW 2FW 2FW 2FW  
3 HOUR FIRE WALL  
2 HOUR FIRE WALL

FIRE BARRIERS  
2FB 2FB 2FB 2FB 1FB 1FB 1FB 1FB  
2 HOUR FIRE BARRIER  
1 HOUR FIRE BARRIER

SHAFT ENCLOSURES  
2S 2S 2S 2S 1SE 1SE 1SE 1SE  
2 HOUR SHAFT ENCLOSURE  
1 HOUR SHAFT ENCLOSURE

FIRE PARTITIONS  
1FP 1FP 1FP 1FP 0.5FP 0.5FP 0.5FP 0.5FP  
1 HOUR FIRE PARTITION  
0.5 HOUR FIRE PARTITION  
0.5 HOUR CORRIDOR PARTITION

SMOKE BARRIER  
SB SB SB SB  
1 HOUR SMOKE BARRIER

BEARING WALLS  
2BW 2BW 1BW 1BW 1BW 1BW  
2 HOUR BEARING WALL  
1 HOUR BEARING WALL

DESCRIPT.

NUMBER OF OCCUPANTS EXITING  
EXIT WIDTH PROVIDED (IN.)  
200  
40"  
60"

NUMBER OF OCCUPANTS EXITING  
CALCULATED EXIT WIDTH REQ'D (IN.)  
200  
40" 32"  
68"

MIN. WIDTH OF MEANS OF EGRESS COMPONENT (IN.)

EXIT WIDTH PROVIDED (IN.)  
X" FROM ROOM OR LEVEL  
X" CLEAR WIDTH OF OPENING IN INCHES

F.E.C. FIRE RISER CABINET  
F.A.C.P. FIRE ALARM CONTROL PANEL  
F.D.C. FIRE DEPARTMENT CONNECTION  
K.B. KNOX BOX  
AR AREA OF RESCUE ASSISTANCE  
ACCESSIBLE EGRESS COMPONENT  
EGRESS PATH  
FE-1 INDICATES FIRE EXTINGUISHER CABINET(FE) LOCATION WITH 75'-0" RADIUS COVERAGE AREA. SEE SPECIFICATIONS FOR FE TYPE.  
FE-2K INDICATES KITCHEN BAR FIRE EXTINGUISHER (FE) LOCATION WITH 75'-0" RADIUS COVERAGE AREA. SEE SPECIFICATIONS FOR FE TYPE.  
FE-3 INDICATES TEMPORARY WALL HUNG FIRE EXTINGUISHER (FE) LOCATION WITH 75'-0" RADIUS COVERAGE AREA. SEE SPECIFICATIONS FOR FE TYPE.  
DOOR RATING LEGEND (REFER TO DOOR SCHEDULE)  
20 MIN. DOOR  
45 MIN. DOOR  
90 MIN. DOOR

GENERAL DESCRIPTION

PROJECT NAME: MAIN STREET LANDLORD IMPROVEMENTS  
PROJECT LOCATION: 230 SW MAIN ST., LEE'S SUMMIT, MO 64063  
COUNTY: JACKSON  
  
COLLINS WEBB ARCHITECTURE  
307B SW MARKET STREET  
LEES SUMMIT, MISSOURI 64063  
  
APPLICABLE CODES:  
INTERNATIONAL BUILDING CODE - 2018 ED.  
INTERNATIONAL PLUMBING CODE - 2018 ED.  
INTERNATIONAL MECHANICAL CODE - 2018 ED.  
INTERNATIONAL FUEL GAS CODE - 2018 ED.  
NATIONAL ELECTRICAL CODE - 2017 ED.  
INTERNATIONAL FIRE CODE - 2015 ED.  
ADA STANDARDS FOR ACCESSIBLE DESIGN - 2010 ED.  
ICC/ANSI A117.1: ACCESSIBLE AND USABLE BUILDINGS AND FACILITIES - 2009 ED.

CODE INFORMATION

BUILDING/PROJECT USE:  
CONSTRUCTION TYPE

OFFICE, RESTAURANT  
(PIPE VIA NON-SPRINKLERED)

SECTION 309  
TABLE 601  
SECTION 309

OCCUPANCY CLASSIFICATION  
SEPARATED MIXED-USE APPROACH

NORTH FUTURE TENANT: GROUP "B",  
SOUTH FUTURE TENANT: GROUP A-2  
NON-SEPARATED BUILDING, FULLY SPRINKLERED

TABLE 506.2

BASE ALLOWABLE AREA

B: 9,000 SQ. FT.

FIRST LEVEL

B: 2,440 SQ. FT.  
SOUTH TENANT - UNKNOWN: 4,000 SQ. FT.

SECOND LEVEL

B: 5,720 SQ. FT.

ALLOWABLE STORIES  
ACTUAL NUMBER OF STORIES

2 STORIES - EXISTING  
2 STORIES

TABLE 504.4  
TABLE 504.3

ALLOWABLE HEIGHT  
ACTUAL HEIGHT IN FEET

40'-0" - EXISTING  
29'-10"

FIRE RESISTIVE REQUIREMENTS

PRIMARY FRAME  
NON-BEARING WALLS  
BEARING WALLS INT / EXT.  
FLOOR CONSTRUCTION (SEPARATING OCCUPANCIES)  
CEILING/ROOF  
CORRIDORS  
SEPARATION BETWEEN 1ST FL. FUTURE T.I. AND 2ND FL. "B"

0 HRS  
0 HRS  
0 HRS  
0 HRS  
0 HRS  
2 HRS

TABLE 601  
TABLE 601  
TABLE 601  
TABLE 601  
TABLE 1018.1

FIRE EXTINGUISHERS

1. PROVIDE PORTABLE FIRE EXTINGUISHERS IN OCCUPANCIES AND LOCATIONS AS REQUIRED BY THE WISCONSIN FIRE PREVENTION CODE. SEE PLANS FOR SUGGESTED LOCATIONS. NOTIFY ARCHITECT OF ANY PROPOSED RELOCATION OR IF A CONFLICT IS ENCOUNTERED.  
2. PORTABLE FIRE EXTINGUISHERS SHALL BE INSTALLED, INSPECTED, AND MAINTAINED IN ACCORDANCE WITH NFPA 10, STANDARD FOR PORTABLE FIRE EXTINGUISHERS.

CEILING HEIGHT NOTES: (IBC 1208)  
  
1. ALL MEANS OF EGRESS TO HAVE A MINIMUM CEILING HEIGHT OF 7'-6" A.F.F., NOR SHALL HAVE ANY PROJECTION FROM THE CEILING BE LESS THAN 6'-8" A.F.F.  
2. OCCUPIED SPACES, HABITABLE SPACES AND CORRIDORS SHALL HAVE A CEILING HEIGHT OF NOT LESS THAN 7'-6" A.F.F.  
3. BATHROOMS, TOILET ROOMS, KITCHENS, STORAGE ROOMS AND LAUNDRY ROOMS SHALL HAVE A CEILING HEIGHT OF NOT LESS THAN 7'-0" A.F.F.

INTERIOR FINISHES

GROUP A  
EXIT ENCLOSURES

MAX. FLAME SPREAD  
CLASS A (0-25)

803.13

LOBBIES & CORRIDORS

CLASS B (26-75)

803.13

ALL OTHER SPACES

CLASS C (76-200)

803.13

TEXTILES

CLASS A (0-25)

805

SMOKE DEVELOPED

0-450

TABLE/SECTION/REFERENCE

NOTE:  
Decorative Materials and Trim (including plastics) must comply with IBC Section 906.

GENERAL EXITING REQUIREMENTS

EXIT TRAVEL DISTANCE  
DEAD END CORRIDOR  
COMMON PATH OF TRAVEL  
MIN. CORRIDOR WIDTH

200 FEET  
20 FEET  
75' FEET, OR 100' IF OCC. < 50  
44", OR 36" IF OCC. < 50

TABLE 1017.2  
SECTION 1020.4  
SECTION 1006.2.1  
SECTION 1020.2

POSTING OF OCCUPANT LOAD

EVERY ROOM OR SPACE THAT IS AN ASSEMBLY OCCUPANCY SHALL HAVE THE OCCUPANT LOAD OF THE ROOM OR SPACE POSTED IN A CONSPICUOUS PLACE NEAR THE MAIN EXIT OR EXIT ACCESS DOORWAY FROM THE ROOM OR SPACE. POSTED SIGNS SHALL BE OF AN APPROVED LEGIBLE PERMANENT DESIGN AND SHALL BE MAINTAINED BY THE OWNER OR AUTHORIZED AGENT.

EXIT REQUIREMENTS

A. REQUIRED CAPACITY  
1. STAIRS - 0.3" / PERSON  
2. OTHER COMPONENTS - 0.2" / PERSON  
  
B. MINIMUM NUMBER  
1. OCCUPANT LOAD OF 1-500 PERSONS - 2 EXITS PER STORY  
2. OCCUPANT LOAD OF 501-1000 PERSONS - 3 EXITS PER STORY  
3. OCCUPANT LOAD OF MORE THAN 1000 PERSONS - 4 EXITS PER STORY

TABLE/SECTION/REFERENCE  
1005.1  
1005.1  
  
1006.3.1

SIGNAGE

1. PROVIDE SIGNAGE "IN FIRE EMERGENCY DO NOT USE ELEVATOR, USE EXIT STAIRS" IN ACCORDANCE WITH IBC (3002.3)

OCCUPANT LOAD PER LEVEL

OCCUPANT LOAD - FIRST LEVEL

NORTH: OFFICE SQ. FOOTAGE (2205 SF)  
SOUTH: FUTURE TENANT UNKNOWN

16 OCC  
FUTURE T.I.  
15 OCCUPANTS

150 SF/OCC

EXITS REQUIRED THIS LEVEL:  
EXITS PROVIDED THIS LEVEL:

NORTH: 2 EXITS  
SOUTH: FUTURE T.I.  
NORTH: 2 EXITS  
SOUTH: 1 EXIT - EXISTING

1006.3.1

OCCUPANT LOAD - SECOND LEVEL

B: OFFICE SQUARE FOOTAGE (4032 SF)

27 OCCUPANTS

150 SF/OCC

EXITS PROVIDED THIS LEVEL:

2 EXIT - EXISTING

1006.3.1

TOTAL OCCUPANT LOAD

TOTAL OCCUPANT LOAD FOR BUILDING (BUSINESS ONLY): 42 OCCUPANTS

PLUMBING FIXTURE REQUIREMENTS

B OCC WATER CLOSETS  
B OCC LAVATORIES  
B OCC DRINKING FOUNTAIN  
B OCC SERVICE SINK

= 1/25 PER FIRST 50, 1/50 FOR 50+ BOTH MALE/ FEMALE  
= 1/40 FOR FIRST 80, 1/80 FOR 80+ BOTH MALE/FEMALE  
= 1/100  
= 1

REQUIRED:  
LEVEL  
OCCUPANCY  
WATER CLOSETS  
LAVATORIES  
DRINKING FOUNTAINS  
SERVICE SINKS

1ST FLOOR  
BUSINESS  
M 8/25 = 32  
F 8/25 = 32  
TOTAL: 1

SOUTH TENANT  
FUTURE  
1

2ND FLOOR  
BUSINESS  
M 14/25 = 56  
F 14/25 = 56  
TOTAL: 2

1  
2  
1  
1

1 REQ  
1 REQ

PROVIDED:  
LEVEL  
WATER CLOSETS  
LAVATORIES  
DRINKING FOUNTAINS  
SERVICE SINKS

1ST FLOOR  
2  
2  
1  
1

2ND FLOOR  
4  
2  
1  
1

BOTTLED WATER PROVIDED  
BOTTLED WATER PROVIDED

WALL TYPE A

INSTALL FIRESAFING INSULATION TO SEAL TOP OF WALL (RATED WALLS ONLY)

BOTTOM OF DECK  
RE: STRUCTURAL

DEEP LEG DEFLECTION/ SLIP TRACK

CEILING HT.  
RE: RCP (WHERE REQ'D)

5/8" GYP. BD. EACH SIDE

3 5/8" METAL STUD @ 16" O.C. WITH HORIZ. BRACING, AS REQUIRED.

3 1/2" SOUND BATT INSULATION (WHERE REQ'D)

METAL RUNNERS TOP AND BOTTOM

FLOOR

WALL TYPE E

BOTTOM OF DECK  
RE: STRUCTURAL

AS REQUIRED PER WALL TYPE EXISTING WALL

CEILING HT.  
RE: RCP (WHERE REQ'D)

5/8" GYP. BD. ON ROOM SIDE

METAL STUD / HAT CHANNEL @ 16" O.C.  
SOUND BATT INSULATION (WHERE REQ'D)

METAL RUNNERS TOP AND BOTTOM

ROOM SIDE

FLOOR

WALL TYPE Y

INSTALL FIRESAFING INSULATION TO SEAL TOP OF WALL (RATED WALLS ONLY)

BOTTOM OF DECK  
RE: STRUCTURAL

CEILING HT.  
RE: RCP (WHERE REQ'D)

LAYERS 5/8" GYP. BD. PER WALL TYPE  
CH STUD @ 16" O.C.

1" SHAFT LINER

SOUND BATT INSULATION (SEE TYPE FOR SIZE)

METAL J TRACK TOP AND BOTTOM

FLOOR

WALL TYPE A

TYPE	WALL DESCRIPTION
A	• 3 5/8" METAL STUD @ 16" O.C. TO DECK ABOVE • 5/8" TYPE "X" GYP. BD. EACH SIDE TO DECK ABOVE • NO SOUND BATT INSUL. • NON RATED
A1	• 3 5/8" METAL STUD @ 16" O.C. TO DECK ABOVE • 5/8" TYPE "X" GYP. BD. EACH SIDE TO DECK ABOVE • 3 1/2" SOUND BATT INSUL. TO FULL HEIGHT OF WALL • ACoustICAL SEALANT AT FLOOR, DECK, & ALL PENETRATIONS • NON RATED
A2	• 3 5/8" METAL STUD @ 16" O.C. TO DECK ABOVE • 2 LAYERS - 5/8" TYPE "X" GYP. BD. EACH SIDE TO DECK ABOVE • 3 1/2" THICK GLASS FIBER BATT INSUL. TO FULL HEIGHT OF WALL • FIRE-RATED SEALANT AT FLOOR, DECK, & ALL PENETRATIONS • 2-HR RATED RE: UL # U419

WALL TYPE E

TYPE	WALL DESCRIPTION
E2	• 3 5/8" METAL STUD @ 16" O.C. TO DECK ABOVE • 5/8" TYPE "X" GYP. BD. ONE SIDE TO DECK ABOVE • NO SOUND BATT INSUL. • NON RATED
E5	• 6" METAL STUD @ 16" O.C. TO DECK ABOVE • 5/8" TYPE "X" GYP. BD. ONE SIDE • NO SOUND BATT INSUL. • NON RATED

WALL TYPE Y

TYPE	WALL DESCRIPTION
Y	• 4" C-H METAL STUDS @ 24" O.C. TO DECK ABOVE • 2 LAYER 5/8" TYPE "X" GYP. BD. ONE SIDE TO DECK ABOVE • 1" SHAFT LINER ON SHAFT SIDE TO DECK ABOVE • 3" SOUND BATT INSUL. - FULL HEIGHT OF WALL • FIRE-RATED SEALANT AT FLOOR, DECK, & ALL PENETRATIONS • 2-HR RATED RE: UL DESIGN # U415 (WHERE REQ'D)

GENERAL DESCRIPTION

PROJECT NAME: MAIN STREET LANDLORD IMPROVEMENTS  
PROJECT LOCATION: 230 SW MAIN ST., LEE'S SUMMIT, MO 64063  
COUNTY: JACKSON  
  
COLLINS WEBB ARCHITECTURE  
307B SW MARKET STREET  
LEES SUMMIT, MISSOURI 64063  
  
APPLICABLE CODES:  
INTERNATIONAL BUILDING CODE - 2018 ED.  
INTERNATIONAL PLUMBING CODE - 2018 ED.  
INTERNATIONAL MECHANICAL CODE - 2018 ED.  
INTERNATIONAL FUEL GAS CODE - 2018 ED.  
NATIONAL ELECTRICAL CODE - 2017 ED.  
INTERNATIONAL FIRE CODE - 2015 ED.  
ADA STANDARDS FOR ACCESSIBLE DESIGN - 2010 ED.  
ICC/ANSI A117.1: ACCESSIBLE AND USABLE BUILDINGS AND FACILITIES - 2009 ED.

CODE INFORMATION

BUILDING/PROJECT USE:  
CONSTRUCTION TYPE

OFFICE, RESTAURANT  
(PIPE VIA NON-SPRINKLERED)

SECTION 309  
TABLE 601  
SECTION 309

OCCUPANCY CLASSIFICATION  
SEPARATED MIXED-USE APPROACH

NORTH FUTURE TENANT: GROUP "B",  
SOUTH FUTURE TENANT: GROUP A-2  
NON-SEPARATED BUILDING, FULLY SPRINKLERED

TABLE 506.2

BASE ALLOWABLE AREA

B: 9,000 SQ. FT.

FIRST LEVEL

B: 2,440 SQ. FT.  
SOUTH TENANT - UNKNOWN: 4,000 SQ. FT.

SECOND LEVEL

B: 5,720 SQ. FT.

ALLOWABLE STORIES  
ACTUAL NUMBER OF STORIES

2 STORIES - EXISTING  
2 STORIES

TABLE 504.4  
TABLE 504.3

ALLOWABLE HEIGHT  
ACTUAL HEIGHT IN FEET

40'-0" - EXISTING  
29'-10"

FIRE RESISTIVE REQUIREMENTS

PRIMARY FRAME  
NON-BEARING WALLS  
BEARING WALLS INT / EXT.  
FLOOR CONSTRUCTION (SEPARATING OCCUPANCIES)  
CEILING/ROOF  
CORRIDORS  
SEPARATION BETWEEN 1ST FL. FUTURE T.I. AND 2ND FL. "B"

0 HRS  
0 HRS  
0 HRS  
0 HRS  
0 HRS  
2 HRS

TABLE 601  
TABLE 601  
TABLE 601  
TABLE 601  
TABLE 1018.1

FIRE EXTINGUISHERS

1. PROVIDE PORTABLE FIRE EXTINGUISHERS IN OCCUPANCIES AND LOCATIONS AS REQUIRED BY THE WISCONSIN FIRE PREVENTION CODE. SEE PLANS FOR SUGGESTED LOCATIONS. NOTIFY ARCHITECT OF ANY PROPOSED RELOCATION OR IF A CONFLICT IS ENCOUNTERED.  
2. PORTABLE FIRE EXTINGUISHERS SHALL BE INSTALLED, INSPECTED, AND MAINTAINED IN ACCORDANCE WITH NFPA 10, STANDARD FOR PORTABLE FIRE EXTINGUISHERS.

CEILING HEIGHT NOTES: (IBC 1208)  
  
1. ALL MEANS OF EGRESS TO HAVE A MINIMUM CEILING HEIGHT OF 7'-6" A.F.F., NOR SHALL HAVE ANY PROJECTION FROM THE CEILING BE LESS THAN 6'-8" A.F.F.  
2. OCCUPIED SPACES, HABITABLE SPACES AND CORRIDORS SHALL HAVE A CEILING HEIGHT OF NOT LESS THAN 7'-6" A.F.F.  
3. BATHROOMS, TOILET ROOMS, KITCHENS, STORAGE ROOMS AND LAUNDRY ROOMS SHALL HAVE A CEILING HEIGHT OF NOT LESS THAN 7'-0" A.F.F.

INTERIOR FINISHES

GROUP A  
EXIT ENCLOSURES

MAX. FLAME SPREAD  
CLASS A (0-25)

803.13

LOBBIES & CORRIDORS

CLASS B (26-75)

803.13

ALL OTHER SPACES

CLASS C (76-200)

803.13

TEXTILES

CLASS A (0-25)

805

SMOKE DEVELOPED

0-450

TABLE/SECTION/REFERENCE

NOTE:  
Decorative Materials and Trim (including plastics) must comply with IBC Section 906.

GENERAL EXITING REQUIREMENTS

EXIT TRAVEL DISTANCE  
DEAD END CORRIDOR  
COMMON PATH OF TRAVEL  
MIN. CORRIDOR WIDTH

200 FEET  
20 FEET  
75' FEET, OR 100' IF OCC. < 50  
44", OR 36" IF OCC. < 50

TABLE 1017.2  
SECTION 1020.4  
SECTION 1006.2.1  
SECTION 1020.2

POSTING OF OCCUPANT LOAD

EVERY ROOM OR SPACE THAT IS AN ASSEMBLY OCCUPANCY SHALL HAVE THE OCCUPANT LOAD OF THE ROOM OR SPACE POSTED IN A CONSPICUOUS PLACE NEAR THE MAIN EXIT OR EXIT ACCESS DOORWAY FROM THE ROOM OR SPACE. POSTED SIGNS SHALL BE OF AN APPROVED LEGIBLE PERMANENT DESIGN AND SHALL BE MAINTAINED BY THE OWNER OR AUTHORIZED AGENT.

EXIT REQUIREMENTS

A. REQUIRED CAPACITY  
1. STAIRS - 0.3" / PERSON  
2. OTHER COMPONENTS - 0.2" / PERSON  
  
B. MINIMUM NUMBER  
1. OCCUPANT LOAD OF 1-500





UL Product iQ™

BXUVU419

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 always 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 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.

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 Variance

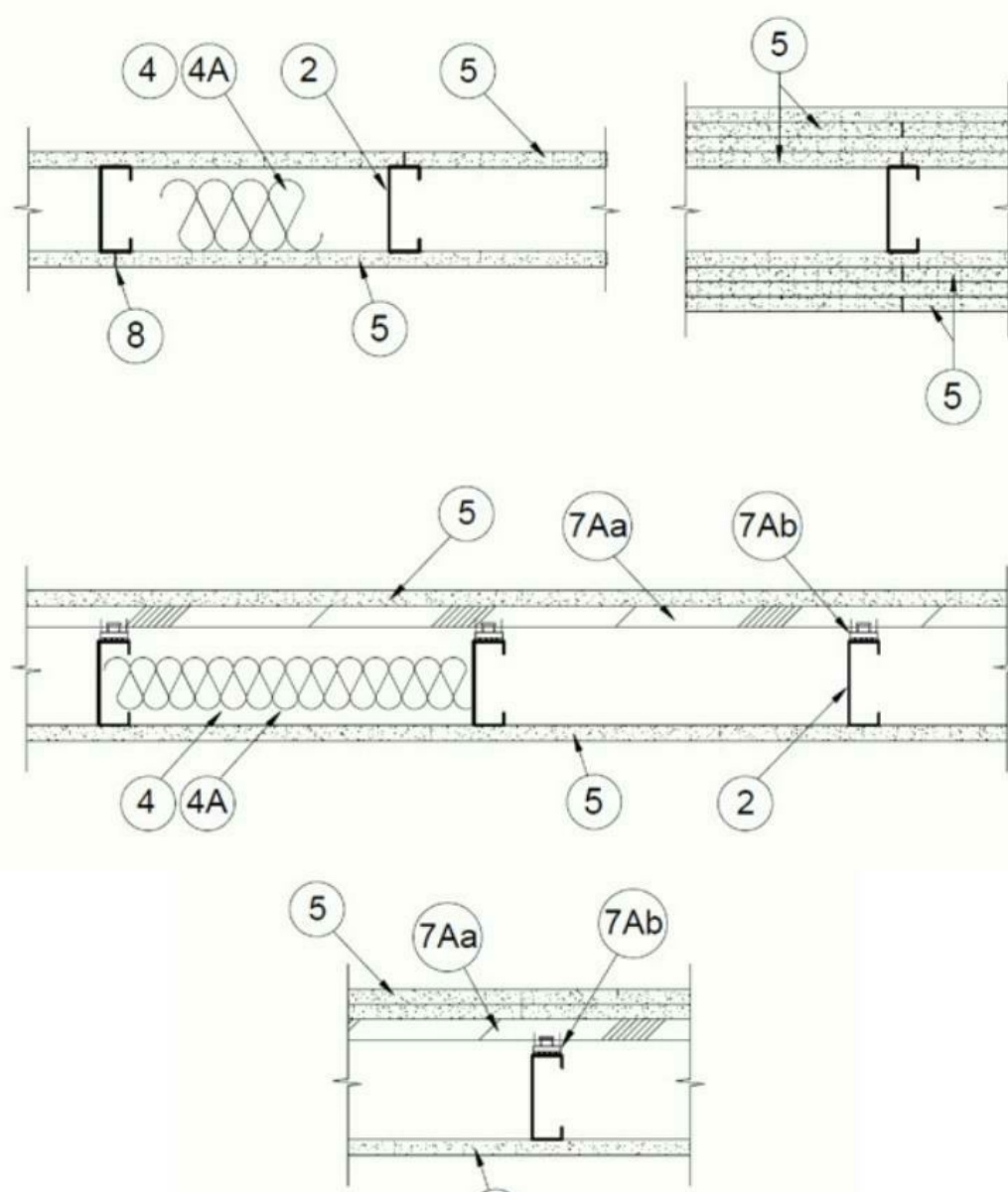
See General Information for Fire Resistance Ratings - CAN/ULC-S101 Certified for Canada  
Design Criteria and Allowable Variance

Design No. U419

July 31, 2021

Nonbearing Wall Ratings - 1, 2, 3 or 4 Hr (See Items 4 & 5 through 5J)

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



1. Floor and Ceiling Runners - (Not Shown) - For use with Item 2 - Channel shaped, fabricated from min 25 MSG corrosion-protected steel, min depth to accommodate stud size, with min 1-1/4 in. long legs, attached to floor and ceiling with fasteners 24 in. OC max.

1A. Framing Members\* - Floor and Ceiling Runner - (Not Shown) - In lieu of Item 1 - For use with Item 2B, proprietary channel shaped runners, 3-5/8 in. deep, attached to floor and ceiling with fasteners 24 in. OC max.  
CALIFORNIA EXPANDED METAL PRODUCTS CO - Viper25® Track

CRACO MFG INC - SmartTrack25®

MARINO/WARE, DIV OF WARE INDUSTRIES INC - Viper20™ Track

FUSION BUILDING PRODUCTS - Viper25™ Track

IMPERIAL MANUFACTURING GROUP INC - Viper25™ Track

1B. Framing Members\* - Floor and Ceiling Runner - (Not Shown) - In lieu of Item 1 - For use with Item 2C, proprietary channel shaped runners, 1-1/4 in. wide by 3-5/8 in. deep, fabricated from min 0.018 in. thick galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.  
CALIFORNIA EXPANDED METAL PRODUCTS CO - Viper20™ Track

MARINO/WARE, DIV OF WARE INDUSTRIES INC - Viper20™ Track

FUSION BUILDING PRODUCTS - Viper20™ Track

IMPERIAL MANUFACTURING GROUP INC - Viper20™ Track

1C. Framing Members\* - Floor and Ceiling Runners - (Not Shown) - In lieu of Item 1 - Channel shaped, attached to floor and ceiling with fasteners 24 in. OC max.  
ALSTEL & GYPSUM PRODUCTS INC - Type SUPREME D24/30EQD and Type SUPREME D20

CONSOLIDATED FABRICATORS CORP BUILDING PRODUCTS DIV - Type SUPREME D24/30EQD and Type SUPREME D20

QUAIL RUN BUILDING MATERIALS INC - Type SUPREME D24/30EQD and Type SUPREME D20

SCAFCO STEEL STUD MANUFACTURING CO - Type SUPREME D24/30EQD and Type SUPREME D20

STEEL CONSTRUCTION SYSTEMS INC - Type SUPREME D24/30EQD and Type SUPREME D20

TELLING INDUSTRIES L L C - Type SUPREME D24/30EQD and Type SUPREME D20

UNITED METAL PRODUCTS INC - Type SUPREME D24/30EQD and Type SUPREME D20

1D. Floor and Ceiling Runners - (Not Shown) - For use with Item 2A - Channel shaped, fabricated from min 20 MSG corrosion-protected or galv steel, min depth to accommodate stud size, with min 1 in. long legs, attached to floor and ceiling with fasteners spaced 24 in. OC.

1E. Framing Members\* - Floor and Ceiling Runners - (Not Shown, As an alternate to Item 1) - For use with Items 2E, 5F or 5G or 5I only, channel shaped, fabricated from min. 0.015 in. (min bare metal thickness) galvanized steel, attached to floor and ceiling with fasteners 24 in. OC max.  
CLARKDIERICH BUILDING SYSTEMS - CD ProTRAK

DMFCWB5 L L C - ProTRAK

MBA METAL FRAMING - ProTRAK

RAM SALES L L C - Ram ProTRAK

STEEL STRUCTURAL PRODUCTS L L C - Tri-S ProTRAK

1F. Framing Members\* - Floor and Ceiling Runner - (Not Shown) - In lieu of Item 1 - For use with Item 2F, proprietary channel shaped runners, minimum width to accommodate stud size, with 1-1/8 in. long legs fabricated from min 0.015 in. (min bare metal thickness) galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.  
SUPER STUD BUILDING PRODUCTS - The Edge

1G. Framing Members\* - Floor and Ceiling Runner - For use with Item 2G, proprietary channel shaped runners, minimum width to accommodate stud size, attached to floor and ceiling with fasteners 24 in. OC max.  
STUCCO BUILDING SYSTEMS - CROCS1UD Track

1H. Floor and Ceiling Runners - (Not Shown) - Channel shaped, fabricated from min 0.02 in. galv steel, min width to accommodate stud size, with min 1 in. long legs, for use with studs specified below and fabricated from min 0.018 in. galv steel or thicker, attached to floor and ceiling with fasteners spaced max 24 in. OC.  
MARINO/WARE, DIV OF WARE INDUSTRIES INC - Viper20™ Track V100

FUSION BUILDING PRODUCTS - Viper20™ Track V100

IMPERIAL MANUFACTURING GROUP INC - Viper20™ Track V100

1I. Framing Members\* - Floor and Ceiling Runners - (Not Shown, As an alternate to Item 1) - For use with Item 2H, channel shaped, fabricated from min. 0.015 in. (min bare metal thickness) galvanized steel, attached to floor and ceiling with fasteners 24 in. OC max.  
TELLING INDUSTRIES L L C - TRUE-TRAC™

1J. Framing Members\* - Floor and Ceiling Runner - (Not Shown) - In lieu of Item 1 - For use with Item 2J, proprietary channel shaped runners, 1-1/4 in. wide by 3-5/8 in. deep, fabricated from min 0.018 in. thick galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.

1K. Framing Members\* - Floor and Ceiling Runner - (Not Shown) - In lieu of Item 1 - For use with Item 2J, proprietary channel shaped runners, 1-1/4 in. wide by 3-5/8 in. deep, fabricated from min 0.018 in. thick galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.

1L. Framing Members\* - Floor and Ceiling Runner - (Not Shown) - In lieu of Item 1 - For use with Item 2N, proprietary channel shaped runners, 1-1/4 in. wide by min. 3-1/2 in. deep, fabricated from min 0.018 in. thick galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.  
RESCUE METAL FRAMING, L L C - AlphaSTAK

1M. Framing Members\* - Floor and Ceiling Runners - (Not Shown) - As an alternate to Item 1 - For use with Item 2O, proprietary channel shaped runners, min width to accommodate stud size, galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.  
RONDO BUILDING SERVICES PTY LTD - Rondo Wall Track

1N. Framing Members\* - Floor and Ceiling Runners - (Not Shown) - As an alternate to Item 1 - For use with Item 2P, proprietary channel shaped runners, min width to accommodate stud size, galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.  
OEG BUILDING MATERIALS - OEG Track

1O. Framing Members\* - Floor and Ceiling Runner - (Not Shown) - In lieu of Item 1 - For use with Item 2Q, proprietary channel shaped runners, min width to accommodate stud size, fabricated from min. 25 MSG 0.018 in. (min. bare metal thickness), attached to floor and ceiling with fasteners spaced 24 in. OC max.  
CALIFORNIA EXPANDED METAL PRODUCTS CO - Viper X Track

2. Steel Studs - Channel shaped, fabricated from min 25 MSG corrosion-protected steel, min depth as indicated under Item 5, spaced a max of 24 in. OC. Studs to be cut 3/8 to 3/4 in. less than assembly height.

2A. Steel Studs - (As an alternate to Item 2, for use with Items 5B, 5E, 5I, 5J or Type ULXU) - Channel shaped, fabricated from min 20 MSG corrosion-protected or galv steel, 3-1/2 in. min depth, spaced a max of 16 in. OC. Studs friction-fit into floor and ceiling

runners. Studs to be cut 5/8 to 3/4 in. less than assembly height.

2B. Framing Members\* - Steel Studs - (As an alternate to Item 2, for use with Items SC, SI or Type ULXU) - Proprietary channel shaped studs, 3-5/8 in. deep, spaced a max of 24 in. OC. Studs to be cut 3/4 in. less than the assembly height and installed with a 1/2 in. gap between the end of the stud and track at the bottom of the wall. For direct attachment to framing channels or gypsum board only.

CALIFORNIA EXPANDED METAL PRODUCTS CO - Viper25®

CRACO MFG INC - SmartTrack25®

MARINO/WARE, DIV OF WARE INDUSTRIES INC - Viper25®

FUSION BUILDING PRODUCTS - Viper25®

IMPERIAL MANUFACTURING GROUP INC - Viper25®

2C. Framing Members\* - Steel Studs - (Not Shown, As an alternate to Item 2) - For use with Item 2 - Proprietary channel shaped steel studs, min depth as indicated under Item 5, spaced a max of 24 in. OC, fabricated from min 0.018 in. thick galv steel. Studs cut 3/8 in. to 3/4 in. less in lengths than assembly heights.

CALIFORNIA EXPANDED METAL PRODUCTS CO - Viper20™ Track

MARINO/WARE, DIV OF WARE INDUSTRIES INC - Viper20™ Track

FUSION BUILDING PRODUCTS - Viper20™ Track

IMPERIAL MANUFACTURING GROUP INC - Viper20™ Track

2E. Framing Members\* - Steel Studs - (As an alternate to Item 2) - Channel shaped studs, min depth as indicated under Item 5, spaced a max of 24 in. OC. Studs to be cut 3/4 in. less than assembly height.

ALSTEL & GYPSUM PRODUCTS INC - Type SUPREME D24/30EQD and Type SUPREME D20

CONSOLIDATED FABRICATORS CORP BUILDING PRODUCTS DIV - Type SUPREME D24/30EQD and Type SUPREME D20

QUAIL RUN BUILDING MATERIALS INC - Type SUPREME D24/30EQD and Type SUPREME D20

SCAFCO STEEL STUD MANUFACTURING CO - Type SUPREME D24/30EQD and Type SUPREME D20

STEEL CONSTRUCTION SYSTEMS INC - Type SUPREME D24/30EQD and Type SUPREME D20

TELLING INDUSTRIES L L C - Type SUPREME D24/30EQD and Type SUPREME D20

UNITED METAL PRODUCTS INC - Type SUPREME D24/30EQD and Type SUPREME D20

2F. Framing Members\* - Steel Studs - (Not Shown, As an alternate to Item 2) - For use with Items 5F or 5G or 5I or Type ULXU only, channel shaped studs, min depth as indicated under Item 5F, 5G or 5I, fabricated from min. 0.015 in. (min bare metal thickness) galvanized steel, spaced a max of 24 in. OC. Studs to be cut 3/4 in. less than assembly height.

CLARKDIERICH BUILDING SYSTEMS - CD ProSTUD

DMFCWB5 L L C - ProSTUD

MBA METAL FRAMING - ProSTUD

RAM SALES L L C - Ram ProSTUD

STEEL STRUCTURAL PRODUCTS L L C - Tri-S ProSTUD

2G. Framing Members\* - Steel Studs - (Not Shown) - In lieu of Item 2 - Proprietary channel shaped steel studs, minimum width as indicated under Item 5, Studs to be cut 3/8 to 3/4 in. less than the assembly height.

STUCCO BUILDING SYSTEMS - CROCS1UD

2H. Framing Members\* - Steel Studs - (Not Shown, As an alternate to Item 2) - Fabricated from min. 0.015 in. (min bare metal thickness) galvanized steel, spaced a max of 24 in. OC. Studs to be cut 3/4 in. less than assembly height.

TELLING INDUSTRIES L L C - TRUE-TRAC™

2I. Framing Members\* - Steel Studs -

2J. Framing Members\* - Metal Studs - (Not Shown) - In lieu of Item 2 - Proprietary channel shaped steel studs, min depth as indicated under Item 5, spaced a max of 24 in. OC, fabricated from min 0.018 in. thick galv steel. Studs cut 3/8 in. to 3/4 in. less in lengths than assembly heights.

2K. Framing Members\* - Steel Studs - (As an alternate to Item 2 - For use with Item 1, channel shaped studs, fabricated from min 25 MSG corrosion-protected steel, min depth as indicated under Item 5, spaced a max of 24 in. OC. Studs to be cut 3/8 to 3/4 in. less than assembly height.

IMPERIAL MANUFACTURING GROUP INC - Viper25®

2L. Framing Members\* - Steel Studs - (As an alternate to Item 2) - Proprietary channel shaped steel studs, min depth as indicated under Item 5, spaced a max of 24 in. OC, fabricated from min 0.018 in. thick galv steel. Studs cut 3/8 in. to 3/4 in. less in lengths than assembly height.

ALSTEL & GYPSUM PRODUCTS INC - Type SUPREME D24/30EQD and Type SUPREME D20

2M. Framing Members\* - Steel Studs - (As an alternate to Item 2) - For use with Item 1, channel shaped studs, fabricated from min 25 MSG corrosion-protected steel, min depth as indicated under Item 5, spaced a max of 24 in. OC. Studs to be cut 3/8 to 3/4 in. less than assembly height.

MARINO/WARE, DIV OF WARE INDUSTRIES INC - Viper20™ Track

2N. Framing Members\* - Steel Studs - (As an alternate to Item 2) - Proprietary channel shaped steel studs, min depth as indicated under Item 5, spaced a max of 24 in. OC, fabricated from min 0.018 in. thick galv steel. Studs cut 3/8 in. to 3/4 in. less in lengths than assembly height.

RESCUE METAL FRAMING, L L C - AlphaSTUD

2O. Framing Members\* - Steel Studs - (As an alternate to Item 2) - Proprietary channel shaped steel studs, min width as indicated under Item 5, galv steel. Studs to be cut 3/8 to 3/4 in. less in lengths than assembly height. Spaced 24 in. OC max.  
RONDO BUILDING SERVICES PTY LTD - Rondo Lipged Wall Stud

2P. Framing Members\* - Steel Studs - (As an alternate to Item 2) - Proprietary channel shaped steel studs, min width as indicated under Item 5, min 25 MSG galv steel. Studs to be cut 3/8 to 3/4 in. less in lengths than assembly height. Spaced 24 in. OC max.  
OEG BUILDING MATERIALS - OEG Stud

2Q. Framing Members\* - Steel Studs - (Not Shown) - In lieu of Item 2 - For use with Item 1O, proprietary channel shaped steel studs, min depth as indicated under Item 5, spaced a max of 24 in. OC, fabricated from min 25 MSG 0.018 in. (min. bare metal thickness) galvanized steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.

thickness. Studs cut 3/8 in. to 3/4 in. less in lengths than assembly heights.

CALIFORNIA EXPANDED METAL PRODUCTS CO - Viper X

3. Wood Structural Panel Sheathing - (Optional, For use with Item 5 Only) - (Not Shown) - 4 ft wide, 7/16 in. thick oriented strand board (OSB) or 15/32 in. thick structural 1 sheathing (plywood complying with DOC P51 or P52, or APA Standard PWP-108, manufactured with exterior grade, applied horizontally or vertically to the steel studs. Vertical joints centered on studs, and staggered one stud space from wallboard joints. Attached to studs with flat-head self-drilling tapping screws with a min. head diam. of 0.232 in. at maximum 6 in. OC in the perimeter and 12 in. OC in the field. When used, gypsum panels attached over OSB or plywood panels and fastener lengths for gypsum panels increased by min. 1/2 in.

4. Batts and Blankets\* - (Required as indicated under Item 5) - Mineral wool batts, friction fitted between studs and runners. Min min thickness as indicated under Item 5.

See Batts and Blankets (BIB) or R22/C Categories for names of Classified companies.

4A. Batts and Blankets\* - (Optional) - Placed in stud cavities, any glass fiber or mineral wool insulation bearing the UL Classification Marking as to Surface Burning Characteristics and/or Fire Resistance.

See Batts and Blankets (BIB) or R22/C Categories for names of Classified companies.

4B. Fiber, Sprayeds\* - (Optional, for use with Type ULXU Where Information is required) - Spray applied granulated mineral fiber material. The fiber is applied with adhesive at a minimum density of 4.0 pcf to completely fill the wall cavity in accordance with the application instructions supplied with the product. See Fiber, Sprayeds (CCA2).

AMERICAN ROCKWOOL MANUFACTURING, LLC - Type Rockwool Premium Plus

4C. Foamed Plastic\* - (Where Batts and Blankets) Item 4, or optional, for use with Item 5D) - Spray applied, foamed plastic insulation, at any thickness from partial fill to completely filling stud cavity, for 1 hour rated assemblies only. When foamed plastic is used, minimum stud depth shall be 3-1/2 in.

CARLEBE SPAN FROAM INSULATION - Type Span SealPro Pro Closed Cell (CC), SealPro Pro Open Cell (OC), SealPro Pro No Trim (NT), SealPro Pro One Trim (OT), SealPro Pro Two Trim (TT), SealPro Pro Three Trim (TTT), SealPro Pro Four Trim (TTT), SealPro Pro Five Trim (TTT), SealPro Pro Six Trim (TTT), SealPro Pro Seven Trim (TTT), SealPro Pro Eight Trim (TTT), SealPro Pro Nine Trim (TTT), SealPro Pro Ten Trim (TTT), SealPro Pro Eleven Trim (TTT), SealPro Pro Twelve Trim (TTT), SealPro Pro Thirteen Trim (TTT), SealPro Pro Fourteen Trim (TTT), SealPro Pro Fifteen Trim (TTT), SealPro Pro Sixteen Trim (TTT), SealPro Pro Seventeen Trim (TTT), SealPro Pro Eighteen Trim (TTT), SealPro Pro Nineteen Trim (TTT), SealPro Pro Twenty Trim (TTT), SealPro Pro Twenty One Trim (TTT), SealPro Pro Twenty Two Trim (TTT), SealPro Pro Twenty Three Trim (TTT), SealPro Pro Twenty Four Trim (TTT), SealPro Pro Twenty Five Trim (TTT), SealPro Pro Twenty Six Trim (TTT), SealPro Pro Twenty Seven Trim (TTT), SealPro Pro 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Twenty Six Trim (TTT), SealPro Pro Three Hundred Twenty Seven Trim (TTT), SealPro Pro Three Hundred Twenty Eight Trim

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

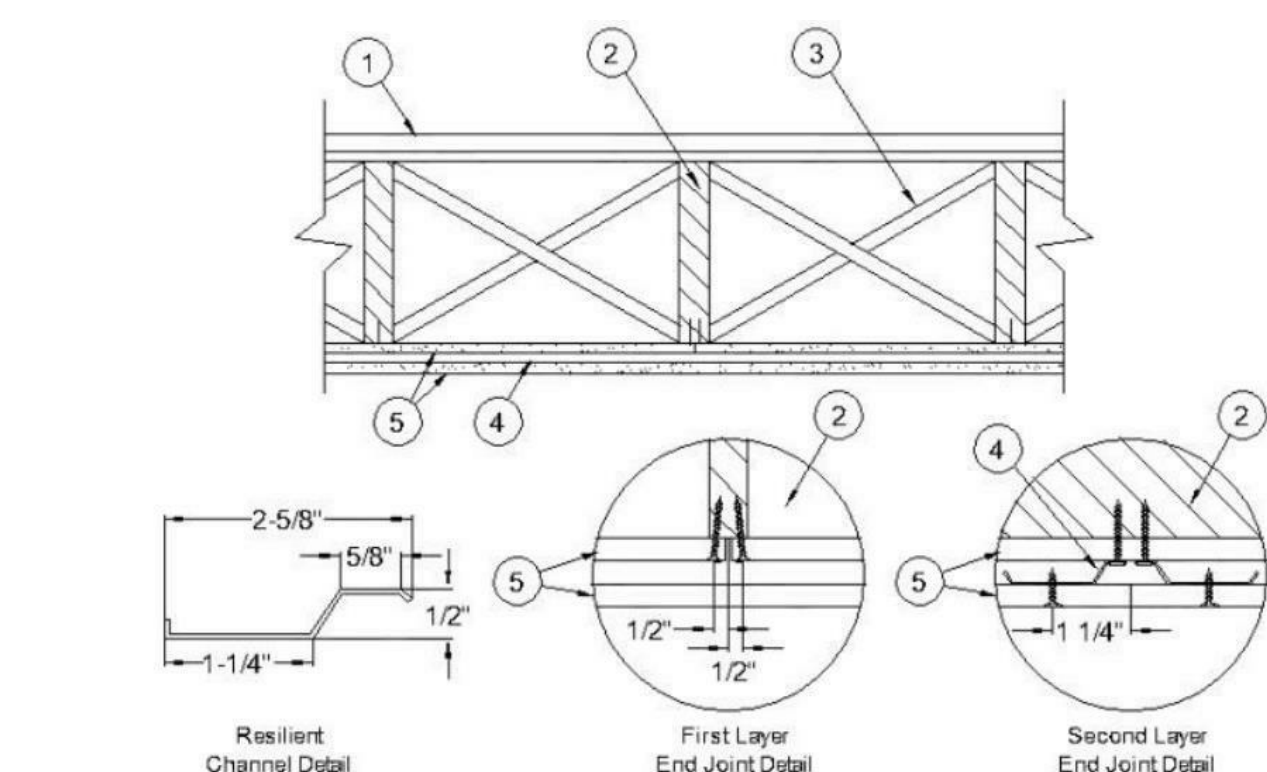
February 14, 2022

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** - Type LRC, HSLRC, CSD

**USG MEXICO S A DE CV** - Type LRC, HSLRC, CSD

**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 LLC** - 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 Nom 5/64 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. of floor-topping mixture.

**HACKER INDUSTRIES INC** - Type Hacker Sound-Mat.

**Alternate Floor Mat Materials** - (Optional) - Floor mat material Nom 3/8 in. (6mm) 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. (32mm) of floor-topping mixture.

**HACKER INDUSTRIES INC** - Type Hacker Sound-Mat II.

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

**HACKER INDUSTRIES INC** - FRM-RLL SCM 125

**Alternate Floor Mat Materials** - (Optional) - Floor mat material Nom 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 FRM-RLL SCM 250, Quiet Quil 55/025

**Alternate Floor Mat Materials** - (Optional) - Floor mat material Nom 3/8 in. (10mm) thick loose laid over the subfloor. Floor topping thickness shall be a min of 1-1/4 in. (32mm)

**HACKER INDUSTRIES INC** - FRM-RLL SCM 400, Quiet Quil 60/040

**Alternate Floor Mat Materials** - (Optional) - Floor mat material Nom 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 FRM-RLL SCM 750, Quiet Quil 65/075

**Metal Lath** - (Optional) - For use with 3/8 in. (10mm) floor mat materials, 3/8 in. expanded steel diamond mesh, 3/4 lbs/sq yd placed over the floor mat material. Hucker Floor Primer to be applied prior to the placement of the metal lath. When metal lath is used, floor topping thickness is a min 1-1/4 in. over the floor mat.

**Finish Flooring - Floor Topping Mixture** - Min 3/4 in. 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 1100 psi. Mixture shall consist of 6.8 gal of water to 80 lbs of floor topping mixture to 1.9 cu ft of sand.

**HACKER INDUSTRIES INC** - Firm-FH Gypsum Concrete, Firm-FH 2010, Firm-FH 4010, Firm-FH High Strength, Gyp-Span Radiant, Firm-FH 3310

System No. 6

**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 Retarder** - (Optional) - Nom 0.030 in. thick commercial asphalt saturated felt.

System No. 7

**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 Retarder** - (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 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-PH 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 9.5 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 CORP** - 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 9.5 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, D25, 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 60/040 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 50/013 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 9.5 mm thick loose laid over the subfloor. Floor topping shall be a min of 1 in.

**ARCOSA SPECIALTY MATERIALS** - AccuQuat® Types D13, D-18, D25, 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 50/013 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 FR20NP

**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 FR06

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

**PLITEQ INC** - Type GenieMat FF10

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

**PLITEQ INC** - Type GenieMat FF17

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

**PLITEQ INC** - Type GenieMat FF25

System No. 18

**Subflooring - Structural Cement-Fiber Units** - Nominal 19 mm (3/4 in.) thick tongue and groove structural cement-fiber units. Long dimension of panels to be perpendicular to joists with end joints staggered. Panels fastened to the joists with #10 self-drilling, self-tapping cement board screws 1-1/4 in. long. Screws shall be spaced 8 in. OC along the perimeter of each sheet and 12 in. OC in the field of each sheet. Screws shall be spaced 1/2 in. from end joints and 1 in. from side joints.

**ECTEK INTERNATIONAL INC** - Armoform Panel

**Subflooring (Alternate) - Building Units** - Nom 3/4 in. thick, tongue and groove boards. Long dimension of boards to be perpendicular to joists with end joints staggered a min of 4 ft. and centered over the joists. Boards secured to joists with 1-1/4 in. long self-drilling, self-tapping screws or 2 in. x 0.113 in. long Shank nails spaced a max of 12 in. OC in the field with screws/nails located 1 in. from long edge, and max 8 in. OC along the end joints with screws/nails located 1/2 in. from end joint.

**ECTEK INTERNATIONAL INC** - Type Megaboard

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

**Finish Flooring** - Min 1 by 3 in. T & G and end matched.

System No. 19</





3075 SW Market Street, Lee's Summit, Mo, 64063 P 816 249 2270  
(www.collinswebb.com)

# MAIN STREET BUILDING IMPROVEMENTS

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

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REVISION DATES:



PROFESSIONAL SEAL

4/21/2022  
**G501**  
ISSUE DATE: 21 APRIL, 2022  
COLLINS WEBB #: 21121

## GENERAL PROJECT SPECIFICATIONS

### 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 EXISTING 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 INCLUDE 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 SHEETS 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" PSJM SHEATHING, ASTM C1395C1399M, TYPE V 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: POLYURETHANE (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. VERIFY DECK IS SUPPORTED AND SECURE.
3. INCHES WIDE 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 C920 - STANDARD SPECIFICATION FOR ELASTOMERIC JOINT SEALANTS 2016.
- CDA A4050 - COPPER IN ARCHITECTURE - HANDBOOK CURRENT EDITION.
- SMOACNA (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 SMOACNA (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 METER 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 C920, 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. PREVENT 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, DISINTEGRATION, SPALLING, SEPARATION, AND SLUTTERING.
- B. REINSTATE OR REPAIR FAILURES THAT OCCUR WITHIN WARRANTY PERIOD.
- L. **MANUFACTURERS:**
1. GOVT APPLIED TECHNOLOGIES: WWW.GOPAT.COM/FIREPROOFING
2. ISOLATEK INTERNATIONAL CORP.: WWW.ISOLATEK.COM
3. SOUTHWEST FIREPROOFING PRODUCTS COMPANY: WWW.SF3.COM
- M. **EQUIPMENT:**
1. PROVIDE ASSEMBLIES AS INDICATED ON DRAWING.
2. PROVIDE FIRE RESISTANCE RATINGS FOR FULL CODE.
- A. PRIMARY STRUCTURAL FRAME, INCL: [ ] WALLS AND TRUSSES [1 HOUR]
- B. BEARING WALLS, INTERIOR: [1 HOUR]
- C. FLOOR CONSTRUCTION, INCL: [ ] SLABS AND JOISTS [1 HOUR]
- D. ROOF CONSTRUCTION, INCL: [ ] SLABS AND JOISTS [1 HOUR]
- N. **MATERIALS:**
- F. MATERIALS: APPLIED FIREPROOFING FOR INTERIOR APPLICATIONS, CONCEALED. MANUFACTURER'S STANDARD FACTORY MIXED MORTAR, WHICH WHEN COMBINED WITH WATER IS CAPABLE OF PROVIDING INCREASED FIRE RESISTANCE. EQUIPMENT OR OTHER ITEMS THAT WOULD INTERFERE WITH APPLICATION OF FIREPROOFING HAVE NOT BEEN INSTALLED.
1. COMPOSITION: GYPSUM-BASED, NOT MINERAL-FIBER-BASED.
2. BOND STRENGTH: 150 POUNDS PER SQUARE FOOT, MINIMUM, WHEN TESTED IN ACCORDANCE WITH ASTM E709/20M WHEN SET AND DRY.
3. DRY DENSITY: AS REQUIRED BY FIRE RESISTANCE DESIGN.
4. COMPRESSIVE STRENGTH: 8.3 POUNDS PER SQUARE INCH, MINIMUM.
5. EFFECT OF IMPACT ON SURFACES: NO CRACKING, SPALLING OR DELAMINATION, WHEN TESTED IN ACCORDANCE WITH ASTM E760/26M.
6. CORROSION: NO EVIDENCE OF CORROSION, WHEN TESTED IN ACCORDANCE WITH ASTM E837/2637M.
7. SURFACE BURNING CHARACTERISTICS: MAXIMUM FLAME SPREAD INDEX OF 0 (ZERO) AND MAXIMUM SMOKE DEVELOPED INDEX OF 0 (ZERO), WHEN TESTED IN ACCORDANCE WITH ASTM E84.
- 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 1.7 PSF, GALVANIZED FINISH.
4. WATER: CLEAN, POTABLE.

#### 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 ASSEMBLY.
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.
- F. RATING EQUAL TO REQUIRED FIRE RATING OF THE ASSEMBLY IN WHICH THE JOINT OCCURS.
3. 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 OF 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 O, FORMULATED WITH FUNGICIDE.
3. INTERIOR JOINTS AROUND PERIMETERS OF DOORS AND FRAMES: LATEX SEALANT, SINGLE COMPONENT, NONSAG, 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, FARTY GRADE, CLASS 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.
- F. **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 HARDWARE SCHEDULE INDICATING HARDWARE ITEM, FINISH, AND QUANTITY LOCATED ON EACH DOOR WITH DOOR AND HARDWARE SET NUMBERING CORRESPONDING TO THOSE USED IN CONSTRUCTION DOCUMENTS. REFER TO ARCHITECTURAL PLANS AND HARDWARE SCHEDULES PROVIDED.
1. HARDWARE SUPPLIER SHALL SUBMIT FOUR COPIES OF FINAL HARDWARE SCHEDULE AT EARLIEST POSSIBLE DATE PARTICULARLY WHERE ACCEPTANCE OF HARDWARE SCHEDULE MUST PRECEDE FABRICATION OF OTHER WORK WHICH IS CRITICAL IN THE PROJECT CONSTRUCTION SCHEDULE. INCLUDE WITH SCHEDULE SHOP DRAWINGS OF OTHER WORK SUBMITTED BY BUILDERS HARDWARE, AND OTHER INFORMATION ESSENTIAL TO THE COORDINATE REVIEW OF HARDWARE SCHEDULE.
2. KEYING SCHEDULE: SUBMIT SEPARATE DETAILED SCHEDULE INDICATING CLEARLY HOW THE OWNER'S FINAL INSTRUCTIONS ON KEYING OF LOCKS HAS BEEN FULFILLED. ALL KEYING SHALL BE COORDINATED WITH THE OWNER.
- B. **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 U15 (SATIN NICKEL) UNLESS SPECIFIED DIFFERENTLY ON HARDWARE SCHEDULE.
3. SUPPLY CAL ROVAL HOES FLEXIBLE DOOR STOPS IN THE APARTMENT DWELLING UNITS. USE 2 1/4" HP-23 HINGE STOPS WHERE FLEXIBLE STOPS CANNOT BE USED.
4. SUPPLY OUT 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 ITEMS 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 COAT BASE CAULKING.
6. ADJUST TO CHECK PROPER 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 OF EACH 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

3EA HINGE 5881 4.5 X 4.5 BRUSHED NICKEL IVE

1EA PRIVACY WDR 8 IND L5496RP 6GA L583-303 BRUSHED NICKEL SCH

1EA SURFACE CLOSER 4040P REG BRUSHED NICKEL SCH

1EA KICK PLATE 8400 10" X 2" LDW 8-CS BRUSHED NICKEL IVE

1EA WALL STOP W54604G7CVX BRUSHED NICKEL IVE

3EA SLICENER S864 GRAY 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

3EA HINGE 5881 4.5 X 4.5 BRUSHED NICKEL IVE

1EA STOREROOM LOCK L5089RP 6GA BRUSHED NICKEL SCH

1EA OH STOP 905 BRUSHED NICKEL GLY

3EA SLICENER S864 GRAY 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

3EA HINGE 5881HW 4.5 X 4.5 NRP BRUSHED NICKEL IVE

1EA STOREROOM LOCK N08LD RHO BRUSHED NICKEL SCH

1EA FISC CORE PERMANENT CORE BRUSHED NICKEL SCH

1EA KEYS CONST CORE KEYS CONST CORE BRUSHED NICKEL SCH

1EA SURFACE CLOSER 4040P 5HUSHS MC BRUSHED NICKEL LCN

1EA RAIN DRIP 142 BRUSHED NICKEL ZER

1EA GASKETING 328-S BRUSHED NICKEL ZER

1EA DOOR SWEEP 38 BRUSHED NICKEL ZER

1EA THRESHOLD 255-223 BRUSHED NICKEL ZER

1EA DOOR CONTACT 679-05HM OR WD AS REQD BRUSHED NICKEL SCE

##### 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. REPUBLIC DOORS, AN ALLEGION BRAND: WWW.REPUBLICDOOR.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 RECOMMENDED SPECIFICATIONS: GALVANNELED STEEL CONFORMING TO ASTM A593M/593, COLD-ROLLED STEEL CONFORMING TO ASTM A1008/A1098M, OR HOT-ROLLED PICKLED AND OILED (HPO) STEEL CONFORMING TO ASTM A1011/A1011M. COMMERCIAL STEEL (CS) TYPE B FOR EACH.
2. 2" THICK 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 PREPARED, SELECTIONS AND LOCATIONS: COMPLY WITH NAAMM HMM-830 AND NAAMM HMM-831 OR BMA A156-115 AND ANSISDI A250.8 (SDI-100) IN ACCORDANCE WITH SPECIFIED REQUIREMENTS.
5. ZINC COATED TYPE 115, INTERIOR AND/OR EXTERIOR LOCATIONS: PROVIDE METAL COMPONENTS ZINC-COATED (GALVANNELED) AND/OR ZINC-IRON ALLOY COATED (GALVANNELED) 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.
- A. BASED ON SDI STANDARDS: ANSISDI A250.8 (SDI-100).
- B. LEVEL: 1 - STANDARD-UTD.
- C. PHYSICAL PERFORMANCE LEVEL: 250,000 CYCLES, IN ACCORDANCE WITH ANSISDI A250.4.
- D. MODEL: 1 - FULL FLUSH.
- E. DOOR FACE METAL THICKNESS: 20 GAUGE, 0.032 INCH, MINIMUM.
- F. DOOR FACE MATERIAL: MANUFACTURER'S STANDARD CORE MATERIAL/CONSTRUCTION AND IN COMPLIANCE WITH OWNERS NAME AND REQUIREMENTS.
- G. DOOR THICKNESS: 1-3/4 INCH, NOMINAL.
- H. TOP CLOSURES FOR OUTSWINGING DOORS: FLUSH WITH TOP OF FACES AND EDGES.
- I. WEATHERSTRIPPING: REFER TO SECTION 08120 FOR PROVIDE PROVISION FOR REPLACEMENT OF FADED UNITS.
- J. DOOR FINISH: FACTORY PRIMED AND FIELD FINISHED.

##### INTERIOR DOORS: NON-FIRE RATED:

- A. BASED ON SDI STANDARDS: ANSISDI A250.8 (SDI-100).
- B. LEVEL: 1 - STANDARD-UTD.
- C. PHYSICAL PERFORMANCE LEVEL: 250,000 CYCLES, IN ACCORDANCE WITH ANSISDI A250.4.
- D. MODEL: 1 - FULL FLUSH.
- E. DOOR FACE METAL THICKNESS: 20 GAUGE, 0.032 INCH, MINIMUM.
- F. DOOR THICKNESS: 1-3/4 INCH, NOMINAL.
- G. DOOR FINISH: FACTORY PRIMED AND FIELD FINISHED.

##### 3. FIRE-RATED DOORS:

- A. BASED ON SDI STANDARDS: ANSISDI A250.8 (SDI-100).
- B. LEVEL: 1 - STANDARD-UTD.
- C. PHYSICAL PERFORMANCE LEVEL: 250,000 CYCLES, IN ACCORDANCE WITH ANSISDI A250.4.
- D. MODEL: 1 - FULL FLUSH.
- E. DOOR FACE METAL THICKNESS: 20 GAUGE, 0.032 INCH, MINIMUM.
- F. DOOR THICKNESS: 1-3/4 INCH, NOMINAL.
- G. DOOR FINISH: FACTORY PRIMED AND FIELD FINISHED.

##### 1. SMOKE AND DRAFT CONTACT DOORS (INDICATED WITH LETTER "S" ON DRAWINGS AND/OR DOOR SCHEDULE):

- SELF-CLOSING OR AUTOMATIC CLOSING DOORS IN ACCORDANCE WITH NFPA 80 AND NFPA 105, WITH FIRE-RESISTANCE RATED WALL CONSTRUCTION RATED THE SAME OR GREATER THAN THE FIRE-RATED DOORS, AND THE FOLLOWING:
1. MAXIMUM AIR LEAKAGE: 3.0 CFM/50 FT OF DOOR OPENING AT 0.1 INCH W.G. PRESSURE, WHEN TESTED IN ACCORDANCE WITH UL 1784 AT BOTH AMBIENT AND ELEVATED TEMPERATURES.
2. GASKETING: PROVIDE GASKETING OR EDGE SEALING AS NECESSARY TO ACHIEVE LEAKAGE LIMIT.
3. LABEL: INCLUDE THE "S" LABEL ON FIRE-RATING LABEL OF DOOR.
- J. DOOR MATERIAL: MANUFACTURER'S STANDARD CORE MATERIAL/CONSTRUCTION IN COMPLIANCE WITH OWNERS NAME AND REQUIREMENTS.
- K. DOOR THICKNESS: 1-3/4 INCH, NOMINAL.
- L. DOOR FINISH: FACTORY PRIMED AND FIELD FINISHED.

##### F. HOLLOW METAL FRAMES:

1. COMPLY WITH STANDARDS AND/OR CUSTOM GUIDELINES AS INDICATED FOR CORRESPONDING DOOR IN ACCORDANCE WITH APPLICABLE DOOR FRAME REQUIREMENTS.
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LEE'S SUMMIT, MO 64063

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PROFESSIONAL SEAL

G502

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COLLINS WEBB #: 21121

GENERAL PROJECT  
SPECIFICATIONS

## 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.

- QUALITY ASSURANCE: VINYL CASEMENT WINDOWS-BASE OF DESIGN: M1 3500 VINYL SINGLE-HUNG WINDOWS
- GLAZING PUBLICATIONS: COMPLY WITH GANAS "GLAZING MANUAL" AND "MIRRORS, HANDLE WITH EXTREME CARE: TIPS FOR THE CARE AND HANDLING OF MIRRORS"
- SAFETY GLAZING PRODUCTS: FOR MIRRORS, PROVIDE PRODUCTS COMPLYING WITH TESTING REQUIREMENTS IN 16 CFR 1201 FOR CATEGORY I MATERIALS.
- 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 MIRRORS

- GLASS MIRRORS: GENERAL ASTM C 155; MANUFACTURED USING COPPER FREE, LOW LEAD MIRROR COATING PROCESS
- CLEAR GLASS: MIRROR GLAZING QUALITY: ULTRACLEAR (LOW IRON) FLAT GLASS WITH A MINIMUM 91 PERCENT VISIBLE LIGHT TRANSMISSION, NOMINAL THICKNESS: 1/4 INCH
- TEMPERED CLEAR GLASS: MIRROR GLAZING QUALITY, FOR BLEMISH REQUIREMENTS, AND COMPLY WITH ASTM C 1048 FOR FND FT. CONDITION A, TEMPERED FLAT GLASS BEFORE EXPOSURE COATING IS APPLIED. NOMINAL THICKNESS: 1/4 INCH

E. MIRROR HARDWARE: TOP AND BOTTOM ALUMINUM CHANNELS, ALUMINUM EXTRUSIONS WITH A RETURN DEEP ENOUGH TO PROVIDE A GLAZING CHANNEL TO ACCOMMODATE MIRRORS OF THICKNESS INDICATED AND 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:

- 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, .0162" 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:

- GYPSUM WALLBOARD: ASTM C 36, TYPE "X" WITH TAPERED EDGES, SAC-RESISTANT TYPE FOR WALL COVERS.
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:

- 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 JOINTS.

a. 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:

- 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.

E. LEVEL 6 (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.

F. LEVEL 7 (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.

G. LEVEL 8 (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.

H. LEVEL 9 (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.

I. LEVEL 10 (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.

J. LEVEL 11 (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.

K. LEVEL 12 (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.

L. LEVEL 13 (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.

M. LEVEL 14 (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.

N. LEVEL 15 (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.

O. LEVEL 16 (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.

P. LEVEL 17 (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.

Q. LEVEL 18 (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.

R. LEVEL 19 (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.

S. LEVEL 20 (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.

T. LEVEL 21 (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.

U. LEVEL 22 (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.

V. LEVEL 23 (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.

W. LEVEL 24 (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.

X. LEVEL 25 (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.

Y. LEVEL 26 (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.

Z. LEVEL 27 (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.

AA. LEVEL 28 (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.

AB. LEVEL 29 (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.

AC. LEVEL 30 (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.

AD. LEVEL 31 (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.

AE. LEVEL 32 (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.

AF. LEVEL 33 (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.

AG. LEVEL 34 (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.

AH. LEVEL 35 (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.

AI. LEVEL 36 (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.

AJ. LEVEL 37 (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.

AK. LEVEL 38 (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.

AL. LEVEL 39 (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.

AM. LEVEL 40 (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.

AN. LEVEL 41 (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.

AO. LEVEL 42 (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.

AP. LEVEL 43 (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.

AQ. LEVEL 44 (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.

AR. LEVEL 45 (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.

AS. LEVEL 46 (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.

AT. LEVEL 47 (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.

AU. LEVEL 48 (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.

AV. LEVEL 49 (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.

AW. LEVEL 50 (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.

AX. LEVEL 51 (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.

AY. LEVEL 52 (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.

AZ. LEVEL 53 (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 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. METROPOLITAN KNOCK PLAN, 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 FOR APPLICATION AND STORAGE.

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

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

E. RESILIENT WALL BASE, ASTM TYPE TS (RUBBER, VULCANIZED THERMOSET) 1/8" THICK, FURNISHED IN 20'S SIZES AND SIZES INDICATED IN THE CONSTRUCTION DOCUMENTS WITH JOE-FORMED INSIDE AND OUTSIDE CORNERS.

F. INSTALLATION ACCESSORIES:

- 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.
- 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:

- PREPARE CONCRETE SUBSTRATES PER ASTM F 710. VERIFY THAT SUBSTRATES ARE DRY AND FREE OF CURING COMPOUNDS, SEALERS AND HARDENERS.
- 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:

- CONFIRM THAT SOLID BACKING IS PROVIDED BEHIND ALL WALL BASE. AREAS WHERE GYPSUM BOARD IS HELD MORE THAN 1/2" ABOVE SLAB SHALL BE FILLED IN PRIOR TO BASE INSTALLATION.
- 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.

I. FINISH SCHEDULE:

1. FLOORING: RESILIENT FLOORING AND WALL BASE

2. FLOORING: RESILIENT FLOORING AND WALL BASE

3. FLOORING: RESILIENT FLOORING AND WALL BASE

4. FLOORING: RESILIENT FLOORING AND WALL BASE

5. FLOORING: RESILIENT FLOORING AND WALL BASE

6. FLOORING: RESILIENT FLOORING AND WALL BASE

7. FLOORING: RESILIENT FLOORING AND WALL BASE

8. FLOORING: RESILIENT FLOORING AND WALL BASE

9. FLOORING: RESILIENT FLOORING AND WALL BASE

10. FLOORING: RESILIENT FLOORING AND WALL BASE

11. FLOORING: RESILIENT FLOORING AND WALL BASE

12. FLOORING: RESILIENT FLOORING AND WALL BASE

13. FLOORING: RESILIENT FLOORING AND WALL BASE

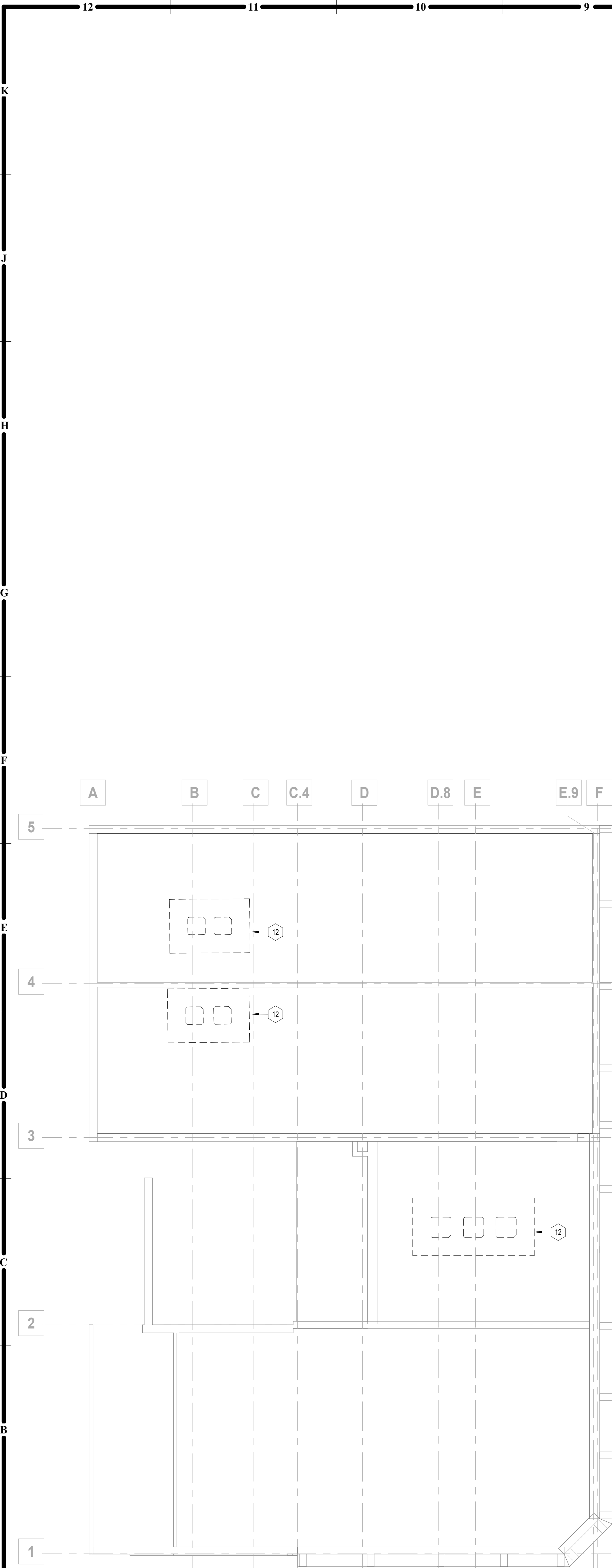
14. FLOORING: RESILIENT FLOORING AND WALL BASE

15. FLOORING: RESILIENT FLOORING AND WALL BASE

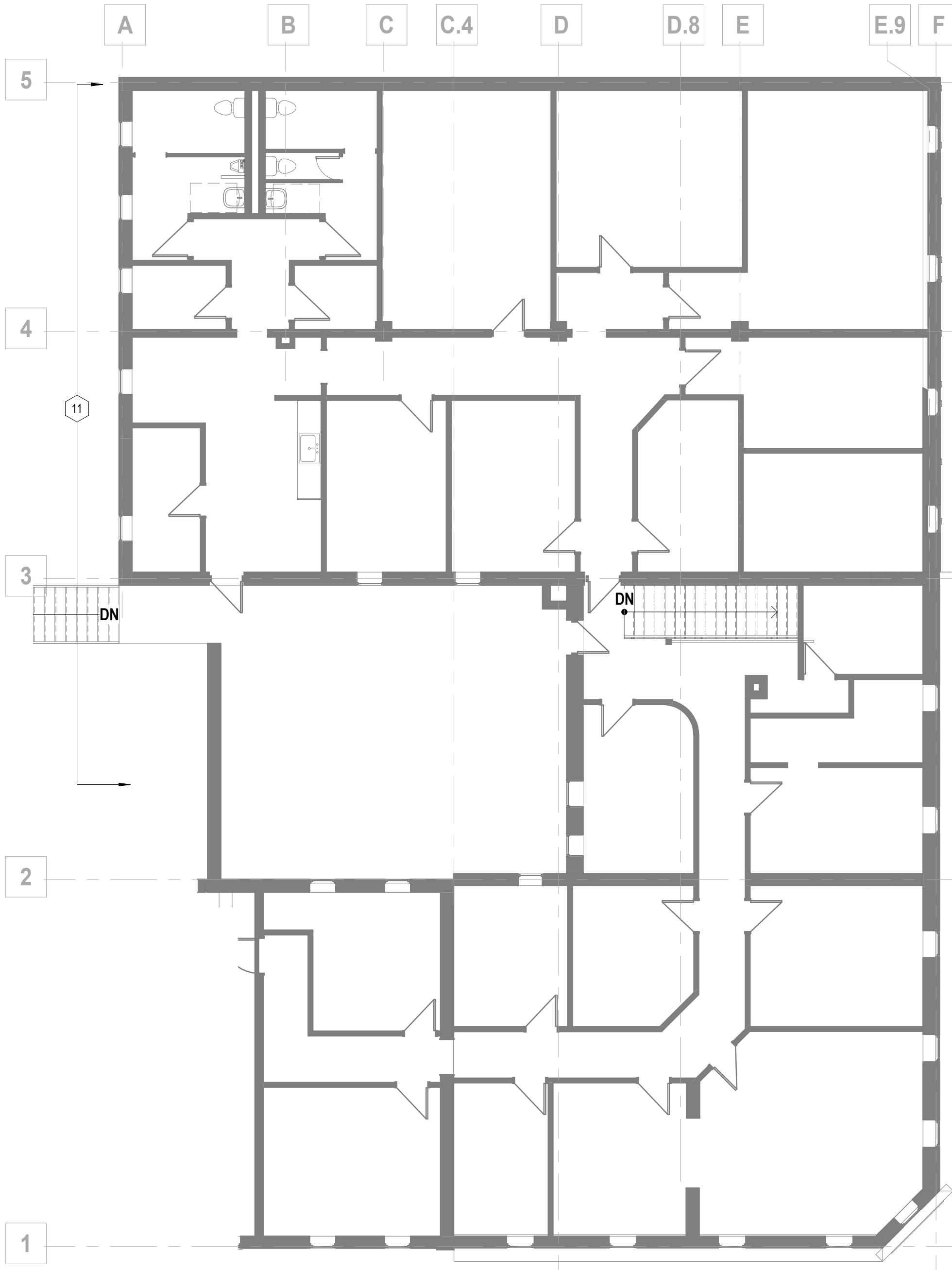
16. FLOORING: RESILIENT FLOORING AND WALL BASE

17. FLOORING: RESIL

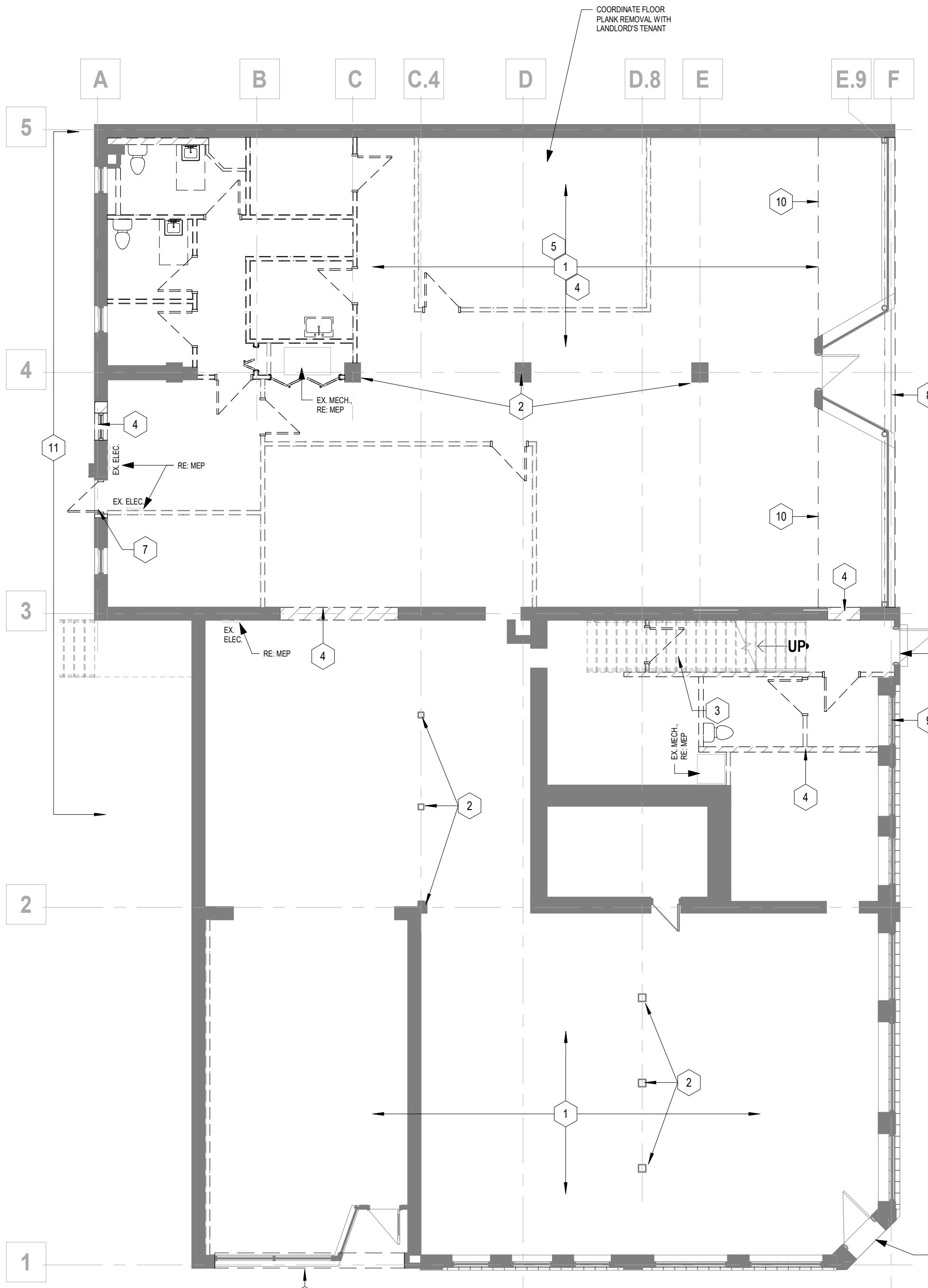
4/21/2022 9:38:41 AM



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

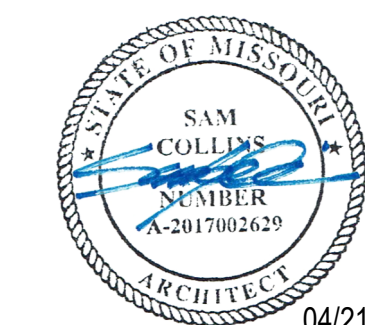
MARK	DESCRIPTION
1	REMOVE EXISTING FLOOR AND ALL ASSOCIATED CONSTRUCTION. PREPARE ENTIRE SUB-FLOOR FOR NEW DRAIN TILE AND CLEAN GRAVEL. EXTERIOR WALLS AND FOUNDATIONS TO BE PREPARED FOR NEW WATERPROOFING BELOW GRADE.
2	PROTECT COLUMNS AND BRACE AS NECESSARY TO PROVIDE FULL STABILITY DURING REWORK OF 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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REVISION DATES:



PROFESSIONAL SEAL

D101

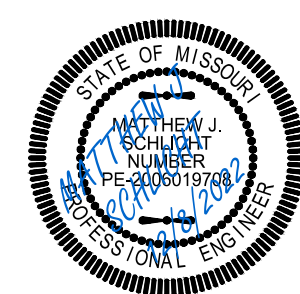
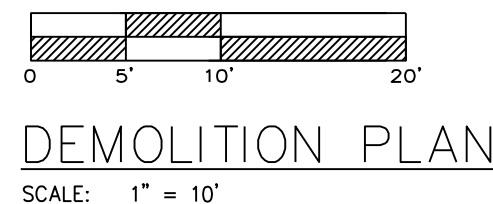
ISSUE DATE: 21 APRIL, 2022  
COLLINS WEBB #: 21121

DEMO PLANS

PERMIT DOCUMENTS



RELEASED FOR  
CONSTRUCTION  
As Noted on Plans Review  
Development Services Department  
Lee's Summit, Missouri  
10/12/2022



Matthew J. Schlicht  
MO PE 2006015708  
KS PE 19071  
OK PE 23226  
NE PE E-14335

REVISIONS	
City Comments 5/17/2022	
Patia Revision 9/23/2022	
Revision 12/8/2022	

C.010

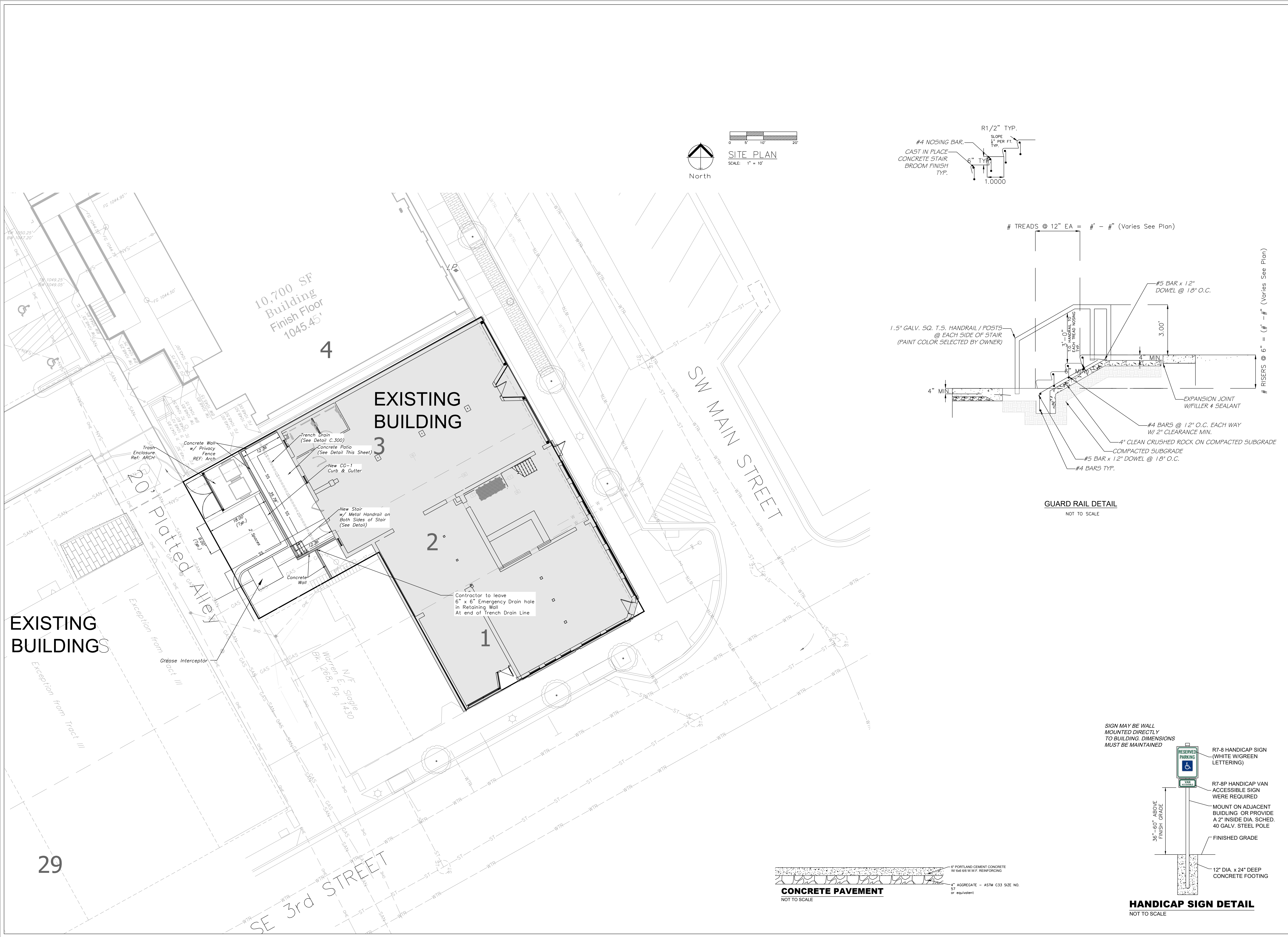
Demolition Plan  
Preliminary Development Plans  
230 SW Main Street  
Lee's Summit, Jackson County, Missouri

Project: 228 SW MAIN, L&M  
Issue Date: April 21, 2022

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

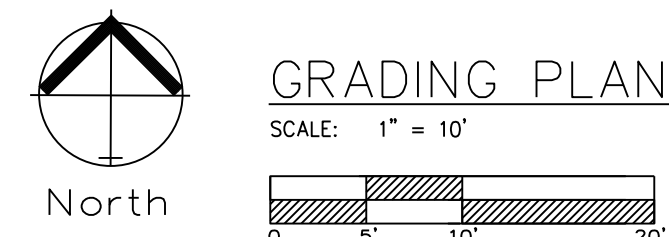
ENGINEERING & SURVEYING  
SOLUTIONS  
5010 S. 116TH STREET  
LEE'S SUMMIT, MO 64082  
P: 816.623.9888 F: 816.623.9849

Professional Registration  
Missouri  
Engineering 2005002186-D  
Surveying 2005000319-D  
Kansas  
Engineering E-1695  
Surveying LS-218  
Oklahoma  
Engineering E254  
Nebraska  
Engineering CA2821



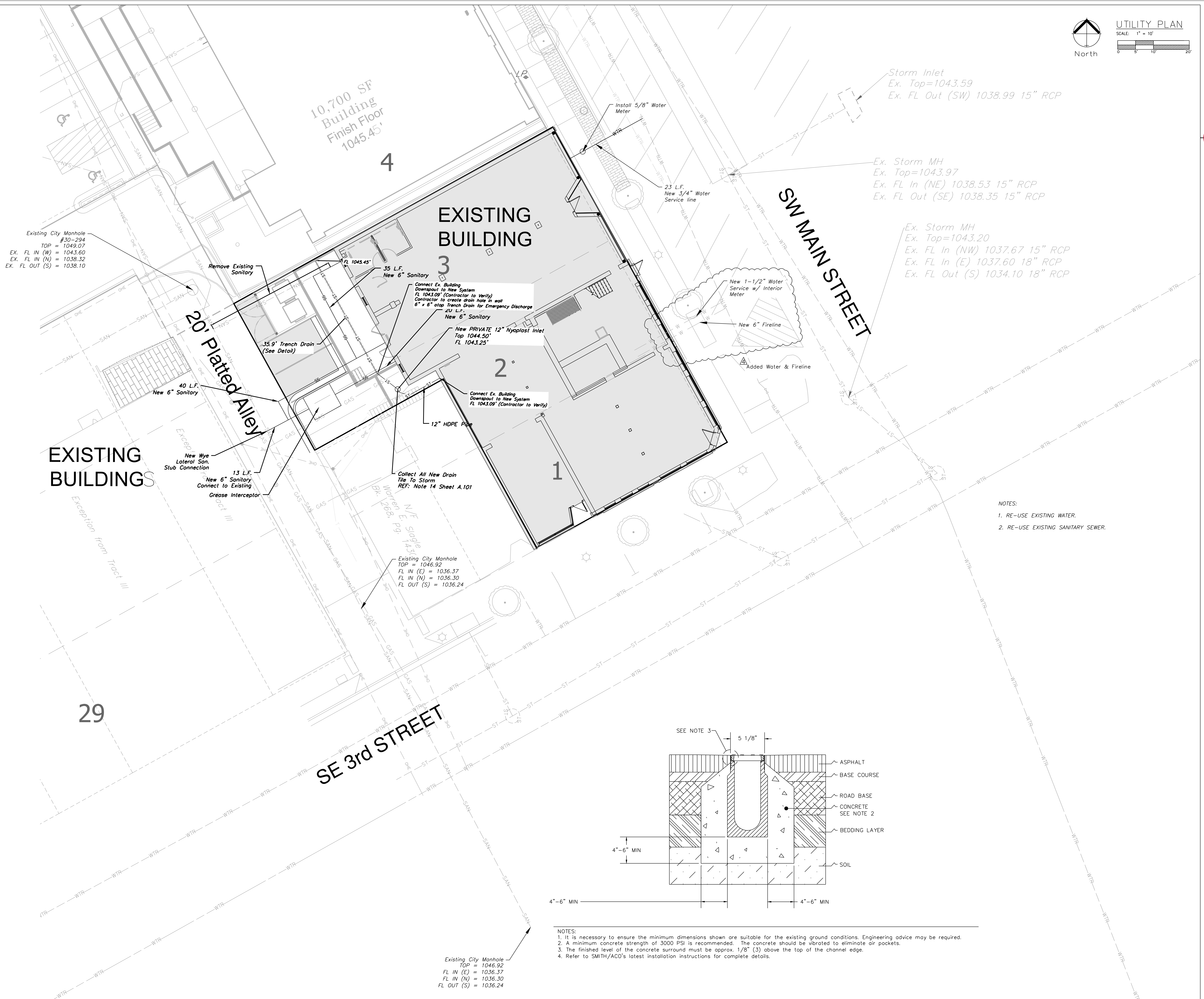


- Notes**
1. Contractor is responsible for verifying all existing utility locations prior to excavation
  2. There are no known natural or artificial water storage detention areas, or wetlands in the area designated for construction
  3. No part of the project lies within the 100 year flood plain
  4. 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.



Matthew J. Schlicht  
MO PE 2006019708  
KS PE 19071  
OK PE 25225  
NE PE E-14335

REVISIONS	
City Comments	5/17/2022
Patric Revision	9/23/2022
Revision	12/8/2022



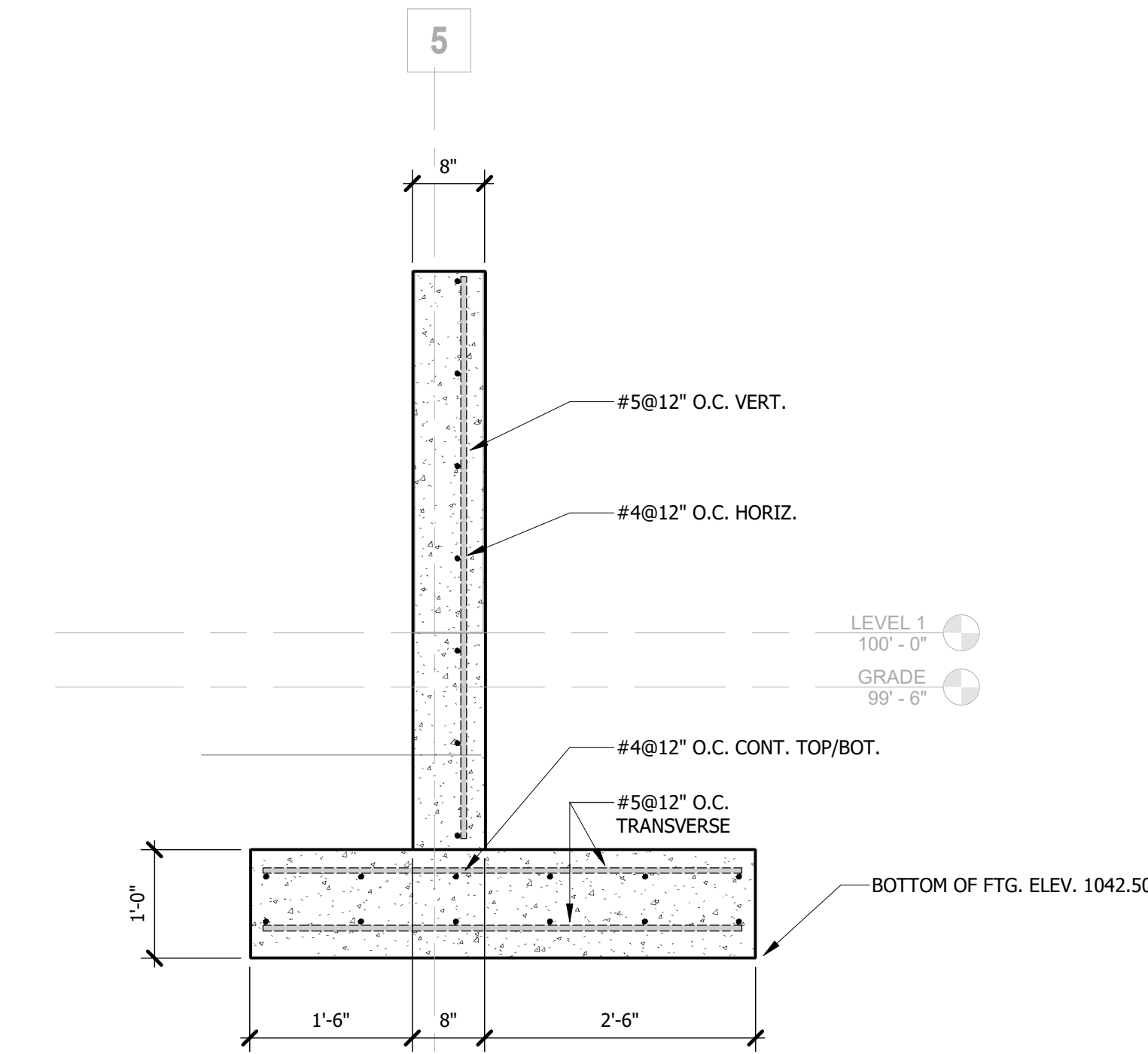
1. ALL WORK SHALL CONFORM TO 2018 INTERNATIONAL BUILDING CODE AS ADOPTED AND AMENDED BY THE CITY OF LEE'S SUMMIT, MISSOURI.
2. DESIGN LOADS
- A. OVERALL BUILDING CLASSIFICATIONS
1. RISK CATEGORY II
2. SNOW IMPORTANCE FACTOR,  $I_s$  1.00
3. ICE IMPORTANCE FACTOR - WIND,  $I_w$  1.00
4. SEISMIC IMPORTANCE FACTOR,  $I_e$  1.00
- B. SLAB ON GRADE FLOOR LOADS
1. LIVE LOAD 100 PSF
2. CONCENTRATED LOAD 3000 LB ACTING ON AN AREA 4.5 IN. BY 4.5 IN.
- C. ROOF DEAD AND LIVE LOADS
1. DEAD LOAD TOP CHORD 20 PSF
2. DEAD LOAD BOT. CHORD 5 PSF
3. LIVE LOAD TOP CHORD 20 PSF
4. LIVE LOAD BOT. CHORD 0 PSF (U.N.O.)
- D. ROOF SNOW LOADS
1. GROUND SNOW LOAD,  $P_g$  15 PSF
2. FLAT ROOF SNOW LOAD,  $P_f$  11.34 PSF
3. SNOW EXPOSURE FACTOR,  $C_e$  0.9
4. THERMAL FACTOR,  $C_t$  1.2
5. SLOPE FACTOR,  $C_s$  0.6
6. DRIFTING PER CODE
- E. WIND LOADS
1. BASIC WIND SPEED (3 SECOND GUST) 107 MPH
2. EXPOSURE CATEGORY C
3. INTERNAL PRESSURE COEFFICIENT,  $C_{pi}$  +/- 0.18
4. COMPONENTS AND CLADDING PER ASCE 7-16, REFER TO XX/XXXX.
- F. SEISMIC LOADS
1.  $S_s$  0.189
2.  $S_1$  0.105
3. SITE CLASS C
4.  $S_{ms}$  0.164
5.  $S_{m1}$  0.105
6. SEISMIC DESIGN CATEGORY B
7. SEISMIC FORCE RESISTING SYSTEM WOOD WALLS SHEATHED WITH WOOD STRUCTURAL PANELS RATED FOR SHEAR
8. DESIGN BASE SHEAR  $C_w$  0.025
9. DESIGN RESPONSE COEFFICIENT,  $C_s$  6.5
10. RESPONSE MODIFICATION COEFFICIENT, R EQUIVALENT LATERAL FORCE (ELF) PROCEDURE
11. ANALYSIS PROCEDURE USED
- G. ROOF RAIN LOADS
1. 60-MIN DURATION/100 YEAR RAIN INTENSITY,  $I$  3.20 IN
2. 15-MIN DURATION/100 YEAR RAIN INTENSITY,  $I$  1.61 IN

3. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING DIMENSIONS PRIOR TO FABRICATION. IF DISCREPANCIES EXIST BETWEEN CONTRACT DRAWINGS, AND/OR SHOP DRAWINGS NOTIFY THE ENGINEER OF RECORD.
4. THE CONTRACTOR SHALL REVIEW DRAWINGS FROM ALL OTHER DISCIPLINES FOR PERTINENT MISC. ITEMS OR INFORMATION RELATED TO THE STRUCTURAL WORK AND COORDINATE AS REQUIRED.
5. THE BUILDING IS NOT STRUCTURALLY STABLE UNTIL ALL CONNECTIONS, FRAMING, SHEAR WALLS, PERMANENT BRACING, AND EXTERIOR LOAD-BEARING WALLS ARE COMPLETE AND HAVE ACHIEVED THEIR RESPECTIVE DESIGN STRENGTHS. CONTRACTOR IS SOLELY RESPONSIBLE FOR MAINTAINING STRUCTURAL STABILITY DURING ERECTION AND CONSTRUCTION. TEMPORARY BRACING SYSTEMS ARE NOT TO BE REMOVED UNTIL STRUCTURAL WORK IS COMPLETE.
6. PROVIDE ADEQUATE SHORING DURING CONSTRUCTION TO RESIST FORCES SUCH AS WIND AND UNBALANCED LOADS DUE TO CONSTRUCTION. DO NOT BACKFILL UNTIL CONCRETE HAS CURED 14 DAYS.

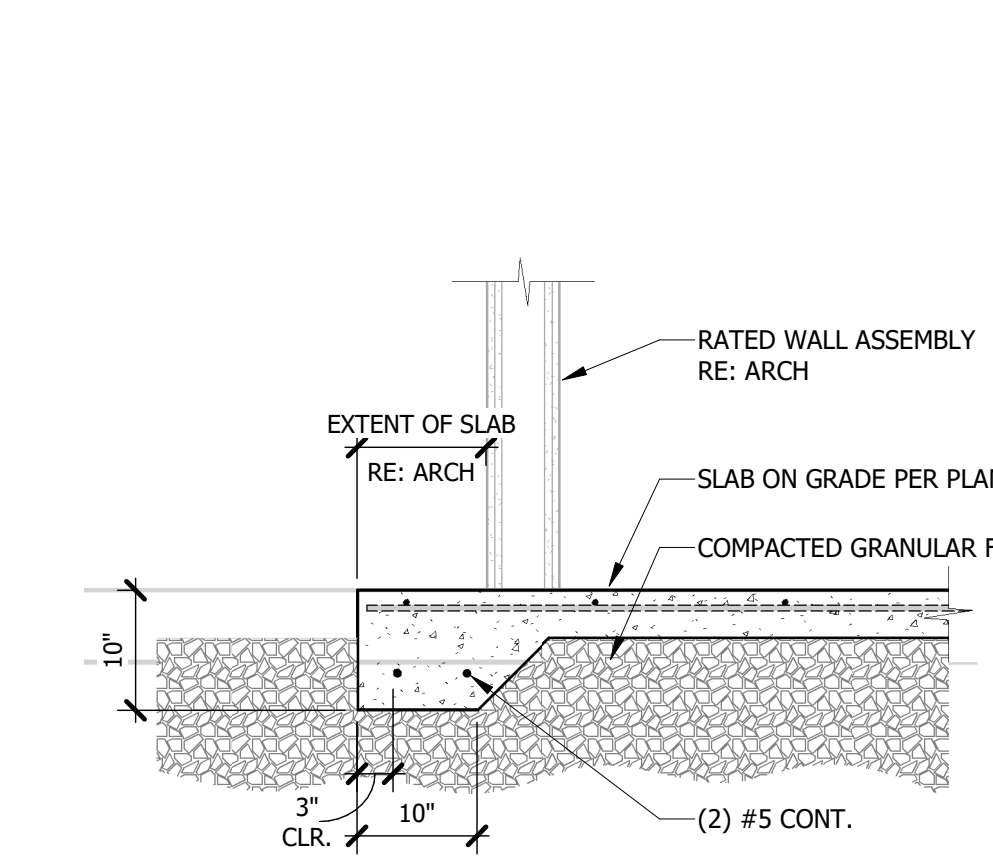
9. CONCRETE
- A. CAST-IN-PLACE CONCRETE CONSTRUCTION SHALL CONFORM TO LATEST APPLICABLE AMERICAN CONCRETE INSTITUTE DOCUMENTS, ACI-301, 305, 306, 315, 318, AND 347 UNLESS NOTED OTHERWISE IN THESE CONTRACT DOCUMENTS.
- B. ALL CONCRETE, UNLESS NOTED OTHERWISE, SHALL DEVELOP A 28 DAY COMPRESSIVE STRENGTH AND HAVE MAXIMUM WATER/CEMENT RATIOS AS FOLLOWS:
1. FOOTINGS, GRADE BEAMS, WALLS, BEAMS, COLUMNS: 4000 PSI (w/c MAX 0.45)
2. SLAB ON GRADE: 4000 PSI (w/c MAX 0.42)
3. REFER TO THE SPECIFICATION FOR AIR-ENTRAINED CONCRETE.
- C. SLABS-ON-GRADE SHALL DEVELOP A 90 DAY COMPRESSIVE STRENGTH. IT IS THE INTENT OF THESE CONCRETE SPECIFICATIONS THAT THE CONTRACTOR SUPPLY CONCRETE MIXES WITH A MINIMUM AMOUNT OF WATER IN ORDER TO LIMIT PLASTIC SHRINKAGE CRACKING IN FRESHLY PLACED CONCRETE. IT IS EXPECTED THAT PRODUCING WORKABILITY FOR CONCRETE MIXES WILL REQUIRE THE ADDITION OF WATER-REDUCING CHEMICAL ADMIXTURES.
- D. CONCRETE MIX DESIGNS SHALL INCLUDE ALL APPLICABLE ADMIXTURES.
- E. CONCRETE SLUMP SHALL BE A MAXIMUM OF 4" +/- 1" (ASTM C-145) AS DELIVERED IN THE FIELD. CONTRACTOR MAY USE CHEMICAL ADMIXTURES TO ATTAIN A MAXIMUM SLUMP OF 8" FOR WORKABILITY IF ADMIXTURE IS TO BE ADDED IN THE FIELD IS SHALL BE ADDED THROUGH THE USE OF AN EXTERNAL MEASURING DEVICE (I.E. 5 GALLON BUCKET).
- F. CONCRETE EXPOSED TO WEATHER, PARKED VEHICLES, AND/OR DEICING CHEMICAL SHALL CONTAIN 6% (+/- 1%) ENTRAINED AIR BY VOLUME.
- G. CHAMFER ALL EXPOSED CORNERS OF CONCRETE WALLS, 3/4" UNLESS NOTED OTHERWISE.
- H. ALL CONTROL JOINTS IN CONCRETE SLABS-ON-GRADE SHALL BE CUT TO 1/3 OF DEPTH WHEN USING WET-CUTTING PROCESS AND 1/4 OF DEPTH WHEN USING EARLY-ENTRY DRY-CUT PROCESS. CUT JOINTS AS SOON AS APPLICABLE PER PROCESS USED AFTER CONCRETE HAS BEEN PLACED WITHOUT DISLORGING AGGREGATE, OR USE A KEYED COLD JOINT.
- I. CUT SLABS-ON-GRADE INTO AREAS OF APPROXIMATELY 225 SQUARE FEET MAINTAINING AS CLOSE TO SQUARE AREAS AS POSSIBLE. LENGTH TO WIDTH RATIOS OF JOINTED PANELS SHALL NOT EXCEED 1.5:1. COORDINATE LOCATIONS OF CONTROL JOINTS WITH ARCHITECT.
- J. CONTROL JOINTS IN WALLS SHALL BE PLACED AT 20'-0" O.C. MAXIMUM UNLESS NOTED OTHERWISE. LOCATE JOINTS BESIDE PIERS INTEGRAL WITH WALLS, NEAR CORNERS, AND IN CONCEALED LOCATIONS WHERE POSSIBLE. CONSTRUCTION JOINTS MAY BE PLACED IN LIEU OF CONTROL JOINTS AT CONTRACTOR'S DISCRETION. COORDINATE LOCATION OF CONTROL JOINTS WITH ARCHITECT.
- K. PRIOR TO PLACING CONCRETE IN ANY LOCATION, IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO HAVE THOROUGHLY CHECKED AND COORDINATED ALL DIMENSIONS, ELEVATIONS, OPENINGS, RECESS, AND BLOCKOUTS AS SHOWN ON ANY CONTRACT DRAWINGS. IN THE EVENT ERRORS, CONFLICTS, OR OMISSIONS EXIST, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CONTACT THE ARCHITECT OR ENGINEER FOR NECESSARY CORRECTIVE ACTION.
- L. EMBEDDED ITEMS ARE TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR PRIOR TO PLACING CONCRETE.
- M. ANCHOR RODS AND ANCHOR BOLTS SHALL BE HELD IN PLACE WITH A RIGID TEMPLATE.
- N. HORIZONTAL JOINTS BEYOND THOSE SHOWN IN THE CONTRACT DOCUMENTS SHALL NOT BE CONSTRUCTED WITHOUT THE APPROVAL OF THE ARCHITECT AND ENGINEER.

12. MASONRY
- A. MASONRY UNIT COMPRESSIVE STRENGTH ( $f'_m$ ) = 1500 PSI. MORTAR - TYPE S.
- B. LINTELS SHALL BE STEEL BEAMS OR MASONRY BOND BEAMS AS SHOWN ON THE PLANS. OPENINGS LESS THAN 4'-0" WIDE SHALL BE A BOND BEAM WITH (2) #5 CONTINUOUS EXTENDING PAST OPENINGS A MIN. OF 2'-0".
- C. GROUT ALL REINFORCED CELLS AND CELLS BELOW GRADE SOLID.
- D. PLACE A BOND BEAM WITH (2) #5 CONTINUOUS AT THE TOP OF WALLS & 8'-0" O.C. VERTICALLY.
- E. REINFORCE 8" CMU WALLS WITH #5 @ 32" O.C. VERT. AND 12" CMU WALLS WITH #5 @ 24" O.C. VERT. UNLESS NOTED OTHERWISE. IN ADDITION, REINFORCE WALL CORNERS AND JAMBS OF WINDOWS AND DOORS WITH (2) #5 EXTENDING PAST OPENINGS A MIN. OF 2'-0".
- F. BRACE THE TOPS OF PARTITION WALLS TO THE UNDERSIDE OF DECK.
13. ROUGH CARPENTRY
- A. HEADERS, JOISTS, AND RAFTERS SHALL MEET OR EXCEED THE FOLLOWING MINIMUM REQUIREMENTS. (EXAMPLE SPECIES: #2 SPRUCE-PINE-FIR)
1.  $F_b$  875 PSI
2.  $F_v$  135 PSI
3.  $F_c$  1150 PSI
4. E 1400 KSI
- B. TIMBER FRAMING MEMBERS SHALL MEET OR EXCEED THE FOLLOWING MINIMUM REQUIREMENTS. (EXAMPLE SPECIES: #2 SPRUCE-PINE-FIR)
1.  $F_b$  875 PSI
2.  $F_v$  135 PSI
3.  $F_c$  1150 PSI
4. E 1400 KSI
- C. ALL LVL MEMBERS SHALL BE 2.0E MICROLAM OR APPROVED EQUAL.
- D. ALL WOOD FRAMING MEMBERS INDICATED ARE NOMINAL SIZES. PROVIDE ACTUAL DRESSED SIZES, KILN-DRIED, WITH MAXIMUM IN-PLACE MOISTURE CONTENT OF 19%.
- E. ALL BOLTS ARE A36 OR A307, GRADE 1, AND ALL NAILS ARE COMMON WIRE NAILS UNLESS NOTED OTHERWISE.
- F. LAY ALL STRUCTURAL PANELS WITH FACE GRAIN PERPENDICULAR TO SUPPORTING MEMBERS AND OFFSET END JOINTS 4'-0". PANELS TO BE APA RATED AND STAMPED FOR THE LOADING SHOWN IN SECTION 2 "DESIGN" AND SHOULD MATCH THE SUPPORT SPACING SHOWN ON THE PLANS.
- G. ROOF DECKING SHALL BE 3/4" THICK APA RATED EXTERIOR GRADE SHEATHING FASTENED WITH 10d NAILS AT 6" O.C. ON EDGES AND 12" O.C. IN FIELD UNLESS NOTED OTHERWISE. FASTENER QUALITY, QUANTITY, SIZE, AND SPACING SHALL COMPLY WITH IRC FASTENING SCHEDULE (TABLE 2304.9) UNLESS NOTED OTHERWISE.
- H. ALL WOOD IN CONTACT WITH CONCRETE OR EXPOSED TO WEATHER SHALL BE PRESERVATIVE TREATED.

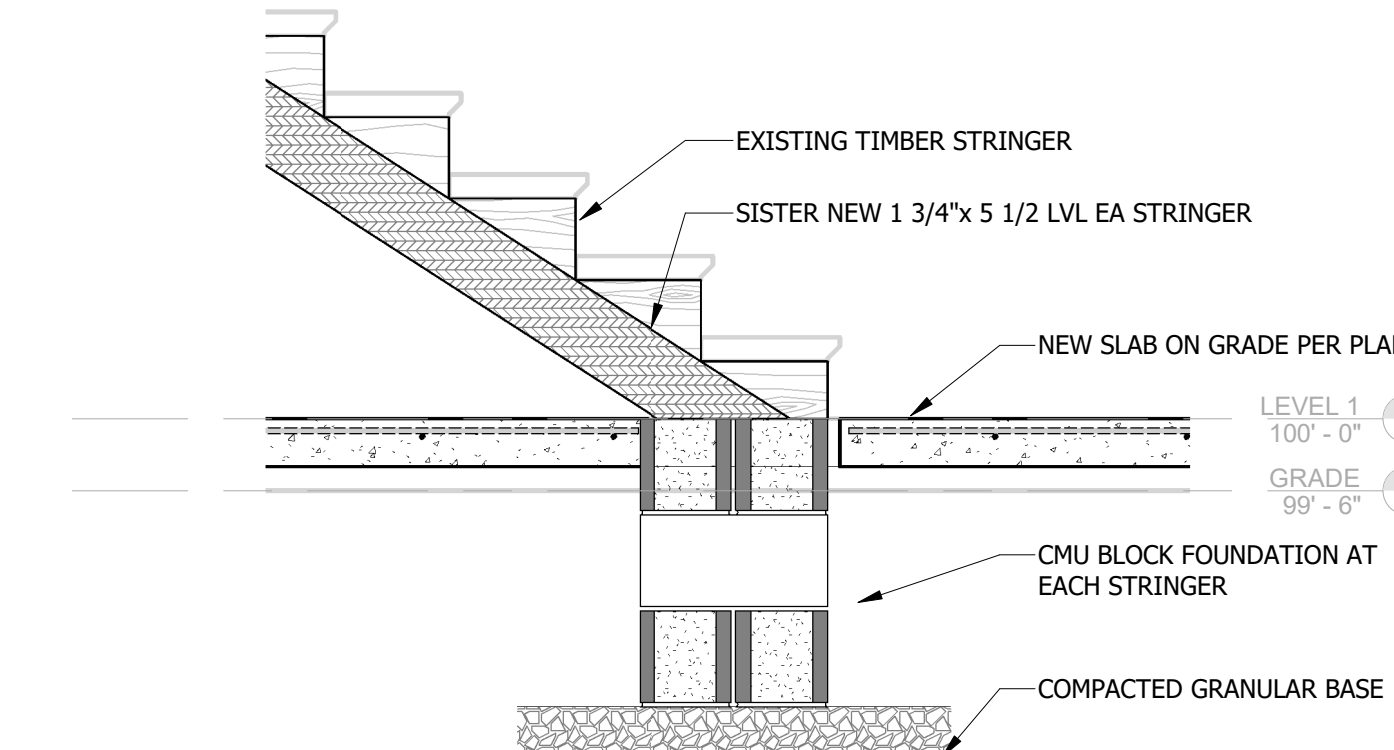
14. STRUCTURAL STEEL
- A. ALL STRUCTURAL STEEL SHALL BE DETAILED, FABRICATED, AND ERECTED IN ACCORDANCE WITH AISC SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS, LATEST APPLICABLE EDITION AND AISC CODE OF STANDARD PRACTICE.
- B. ALL STRUCTURAL STEEL FOR WIDE FLANGE SHALL BE A992 GRADE 50 UNLESS NOTED OTHERWISE. ALL ANGLES, PLATES AND CHANNELS SHALL BE ASTM A36 UNLESS NOTED OTHERWISE. ALL RECTANGULAR AND ROUND HSS SHAPES SHALL BE ASTM A500, GRADE B.
- C. ALL BOLTS SHALL BE 3/4" Ø A-325 BOLTS WITH HEAVY HEX HEADS UNLESS NOTED OTHERWISE. ALL CONNECTIONS SHALL HAVE A MINIMUM OF (2) 3/4" Ø BOLTS, BEARING TYPE CONNECTIONS ONLY.
- D. ALL STRUCTURAL STEEL WELDS IN THE SHOP OR IN THE FIELD SHALL BE PERFORMED BY A QUALIFIED WELDER AND SHALL CONFORM TO THE CURRENT REQUIREMENTS OF A.W.S.
- E. SHOP WELDED AND FIELD BOLTED CONNECTIONS ARE PREFERRED UNLESS NOTED OTHERWISE.
- F. THE CONTRACTOR SHALL PROVIDE SHELF ANGLES, GLASS SUPPORTS, LINTELS, AND OTHER MISC. STEEL AS SHOWN ON THESE DRAWINGS AS REQUIRED TO PROVIDE SUPPORT (STABILIZATION) AROUND AND THROUGHOUT THE BUILDING. SEE ARCHITECTURAL DRAWINGS FOR ADDITIONAL MISC. STEEL DETAILS.



8 RETAINING WALL  
3/4" = 1'-0"



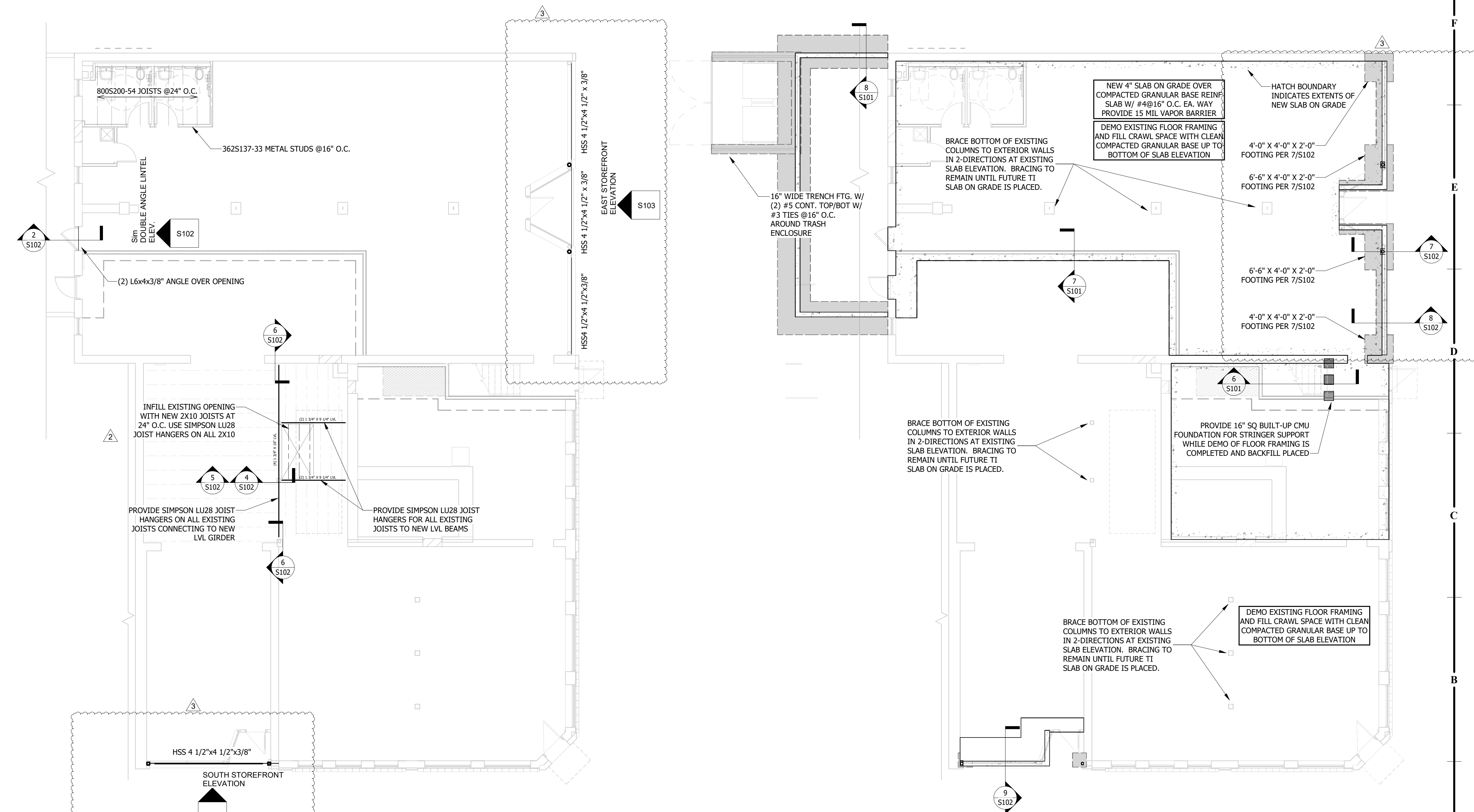
7 SLAB EDGE  
3/4" = 1'-0"



6 EGRESS STAIR FRAMING  
3/4" = 1'-0"

FOUNDATION PLAN NOTES:

- TOP OF CONCRETE SLAB ELEVATION = 90'-0".
- 4" SLAB ON GRADE REINFORCED WITH 6x6 W2.9xW2.9 OVER 4" GRANULAR FILL AND 10 MIL VAPOR BARRIER, UNLESS NOTED OTHERWISE.
- SLAB CONTROL AND CONSTRUCTION JOINTS PER DETAIL A5/S301. CONSTRUCTION JOINTS MAY BE SUBSTITUTED FOR CONTROL JOINTS AT THE CONTRACTOR'S DISCRETION.
- ISOLATION JOINTS PER DETAIL A12/S301.
- FOOTING STEPS PER DETAIL E1/S301.
- #4x5'-0" LONG AT ALL RE-ENTRY CORNERS.
- CONTRACTOR TO COORDINATE ALL FLOOR AND SLAB PENETRATIONS WITH ALL OTHER DISCIPLINES.
- DURING INSTALLATION OF ALL POST CONSTRUCTION ANCHORS, CARE MUST BE TAKEN TO AVOID ALL REINFORCING.
- REFER TO ARCHITECTURAL FOR NON-LOAD BEARING WALL LOCATIONS.
- REFER TO ARCHITECTURAL FOR ALL DIMENSIONS NOT SHOWN ON THESE DRAWINGS.
- ALL JACK STUDS TO BE CARRIED DOWN TO FOUNDATION LEVEL.
- SHEAR WALL HOLDOWN PER DETAIL K16/S201.
- REFER TO SHEET S201 FOR SHEAR WALL INFORMATION.
- ALL SILL ANCHORS TO BE 1/2" DIA. SIMPSON TITEN HD @32" WITH 3 1/2" EMBEDMENT.

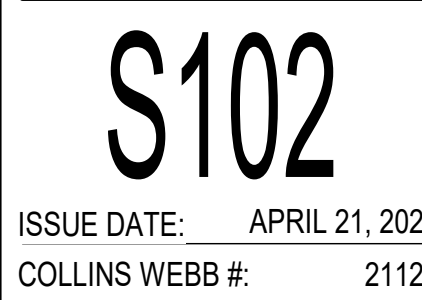


9 2ND FLOOR PLAN  
1/8" = 1'-0"

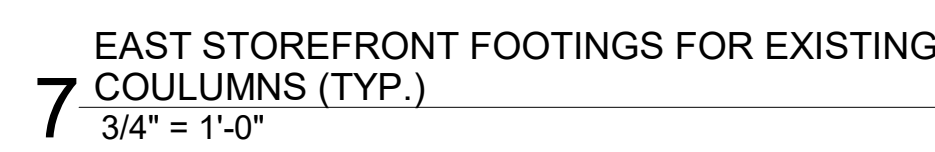
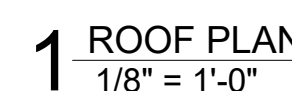
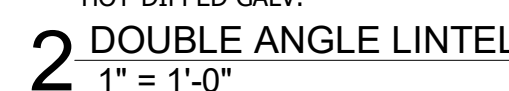
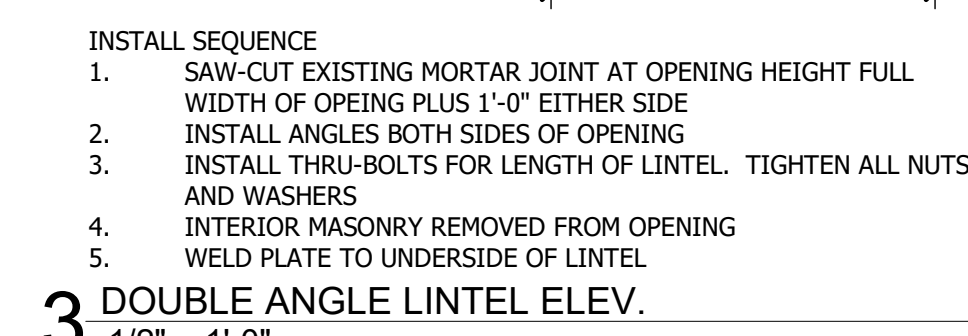
1 LEVEL 1 FLOOR PLAN  
1/8" = 1'-0"

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

REVISION DATES:		
1	City Comments	5/17/22
2	Revision 2	8/12/22
3	Owner	9/12/22
	Revisions	



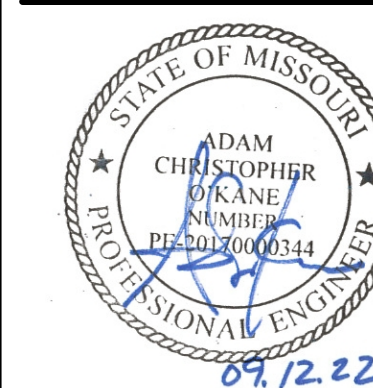
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230 SW MAIN ST.  
LEE'S SUMMIT, MO 64063

REVISION DATES

3	Owner Revisions	9/12/22
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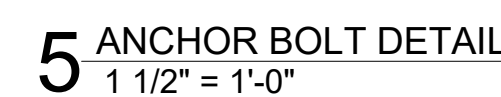
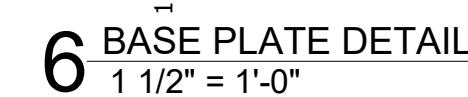


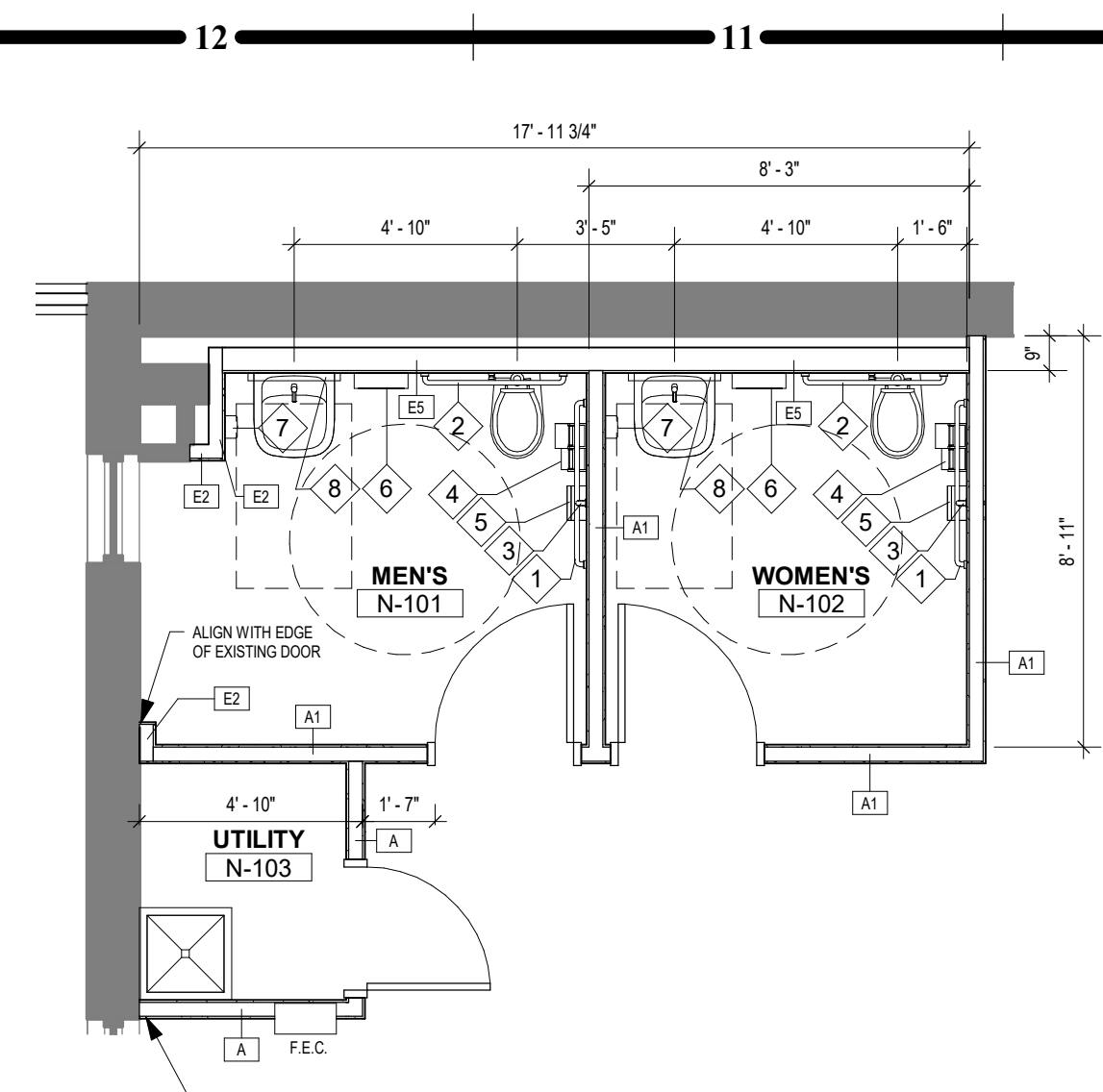
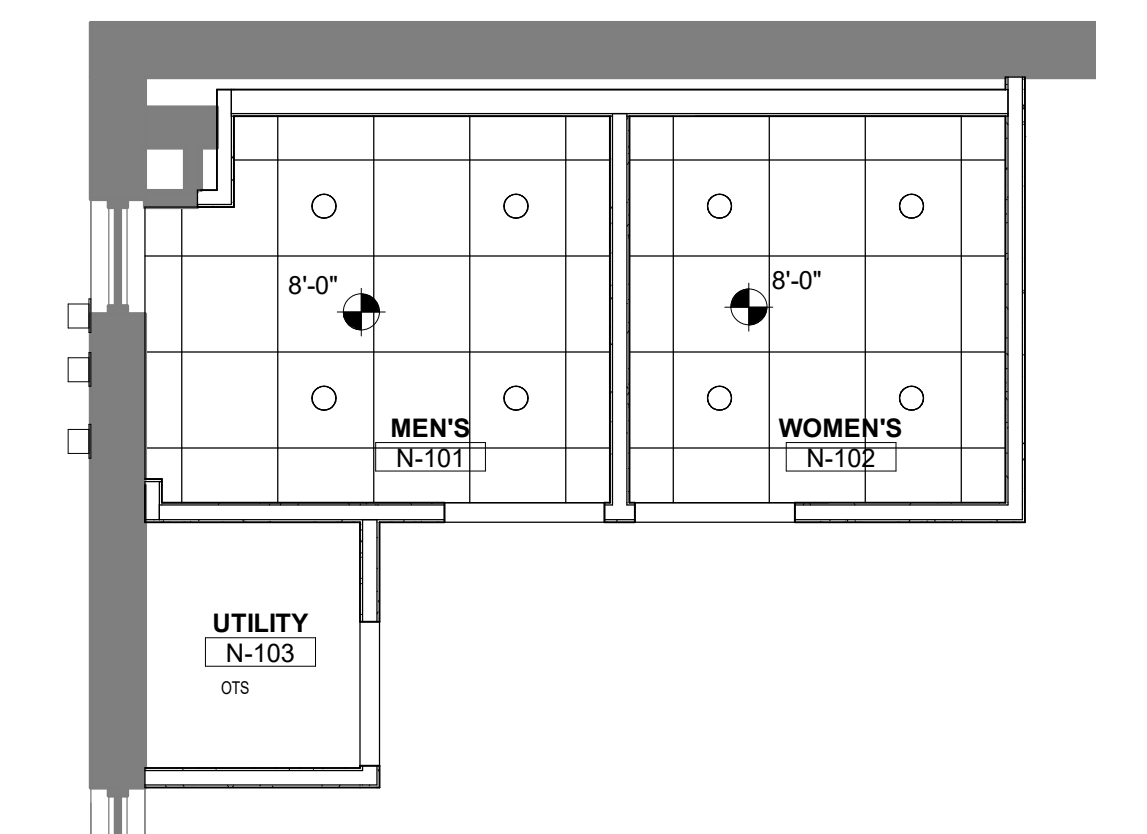
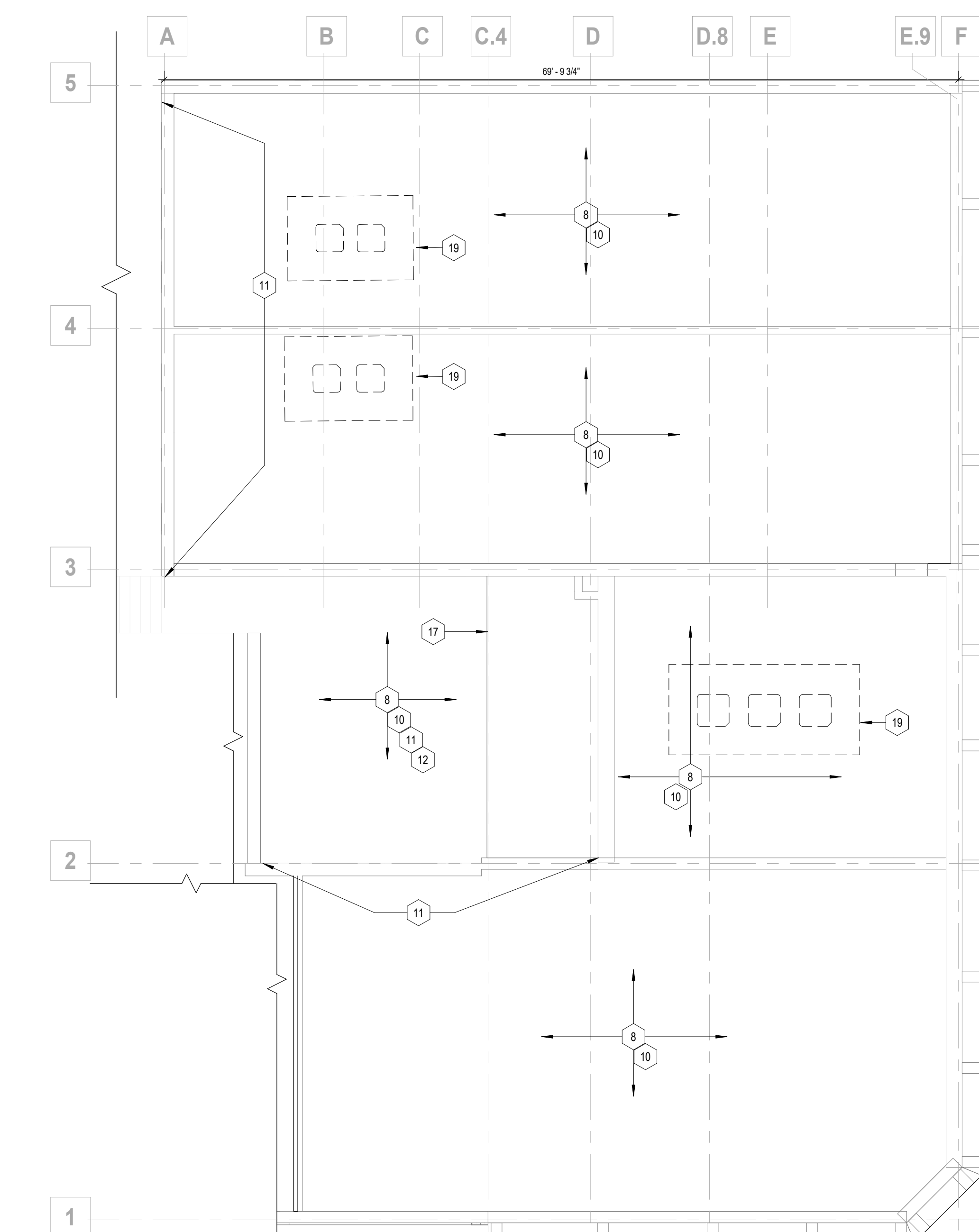
PROFESSIONAL SEAL

S103

ISSUE DATE: APRIL 21, 2022  
COLLINS WEBB #: 2112

## STRUCTURAL ELEVATIONS AND SECTIONS

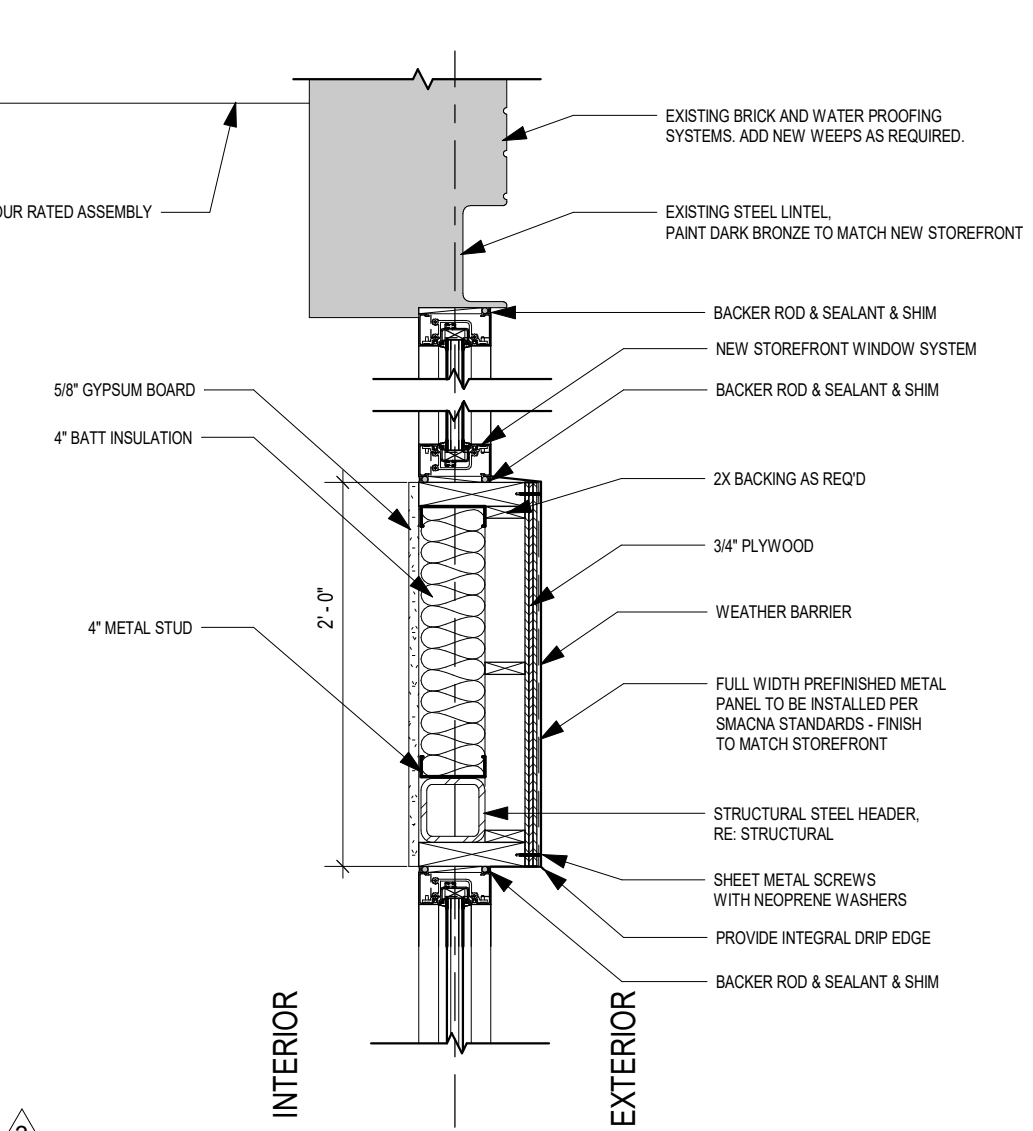
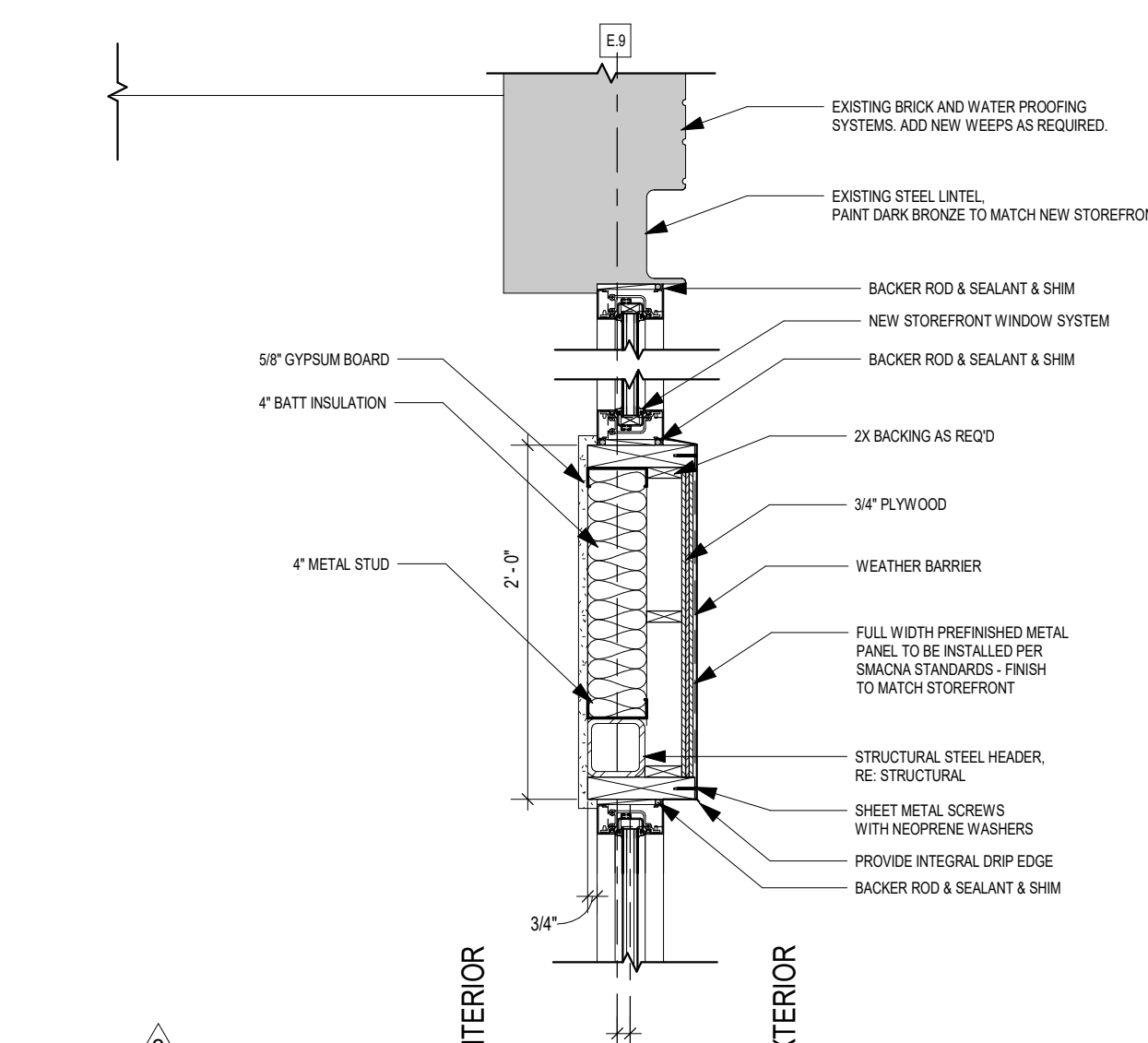
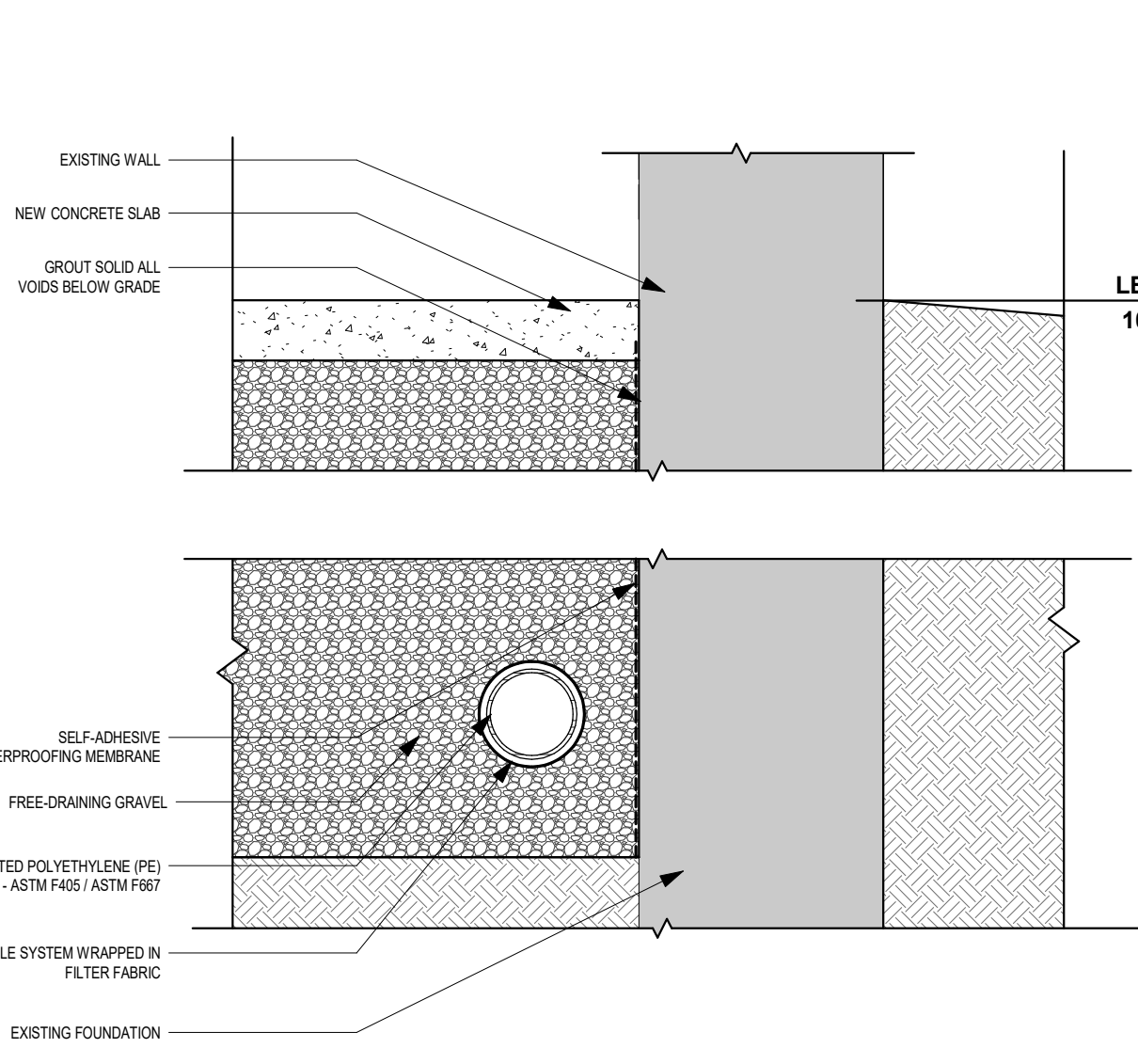
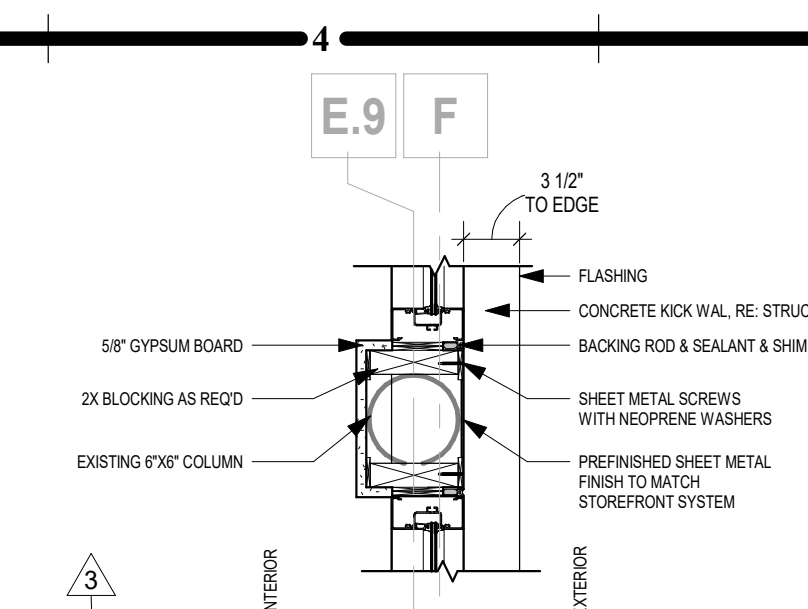
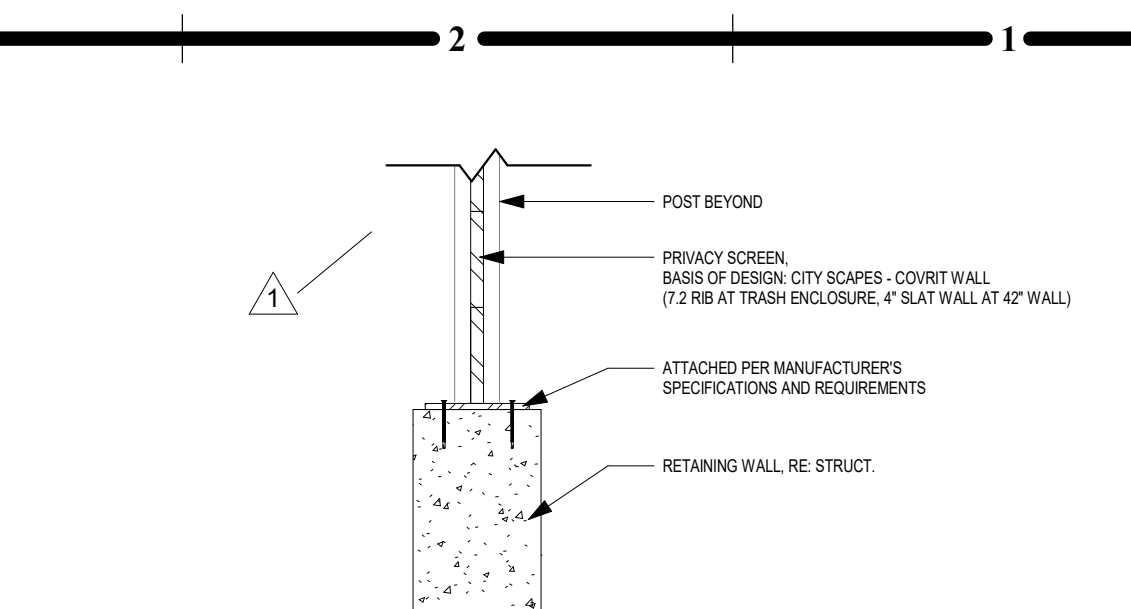
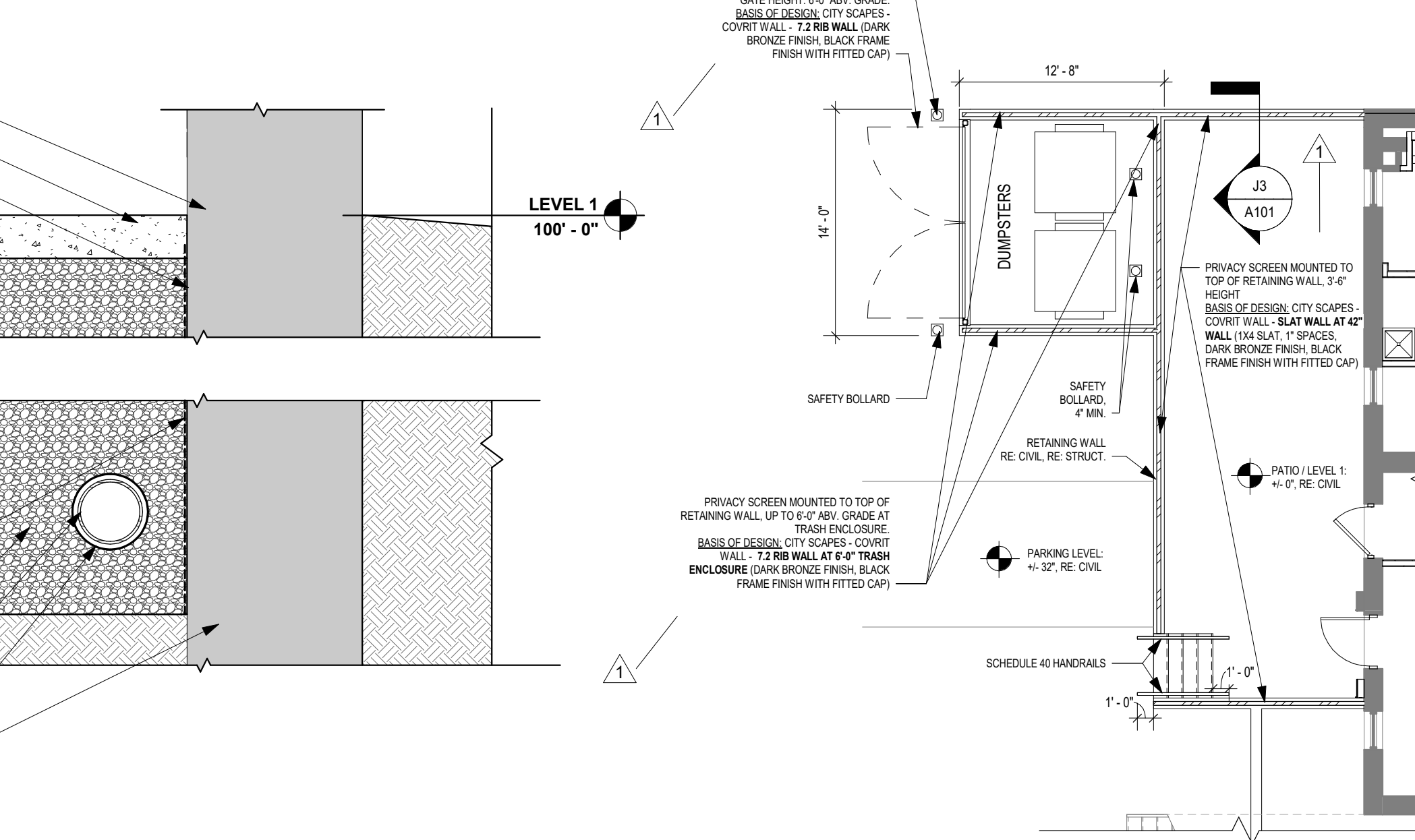
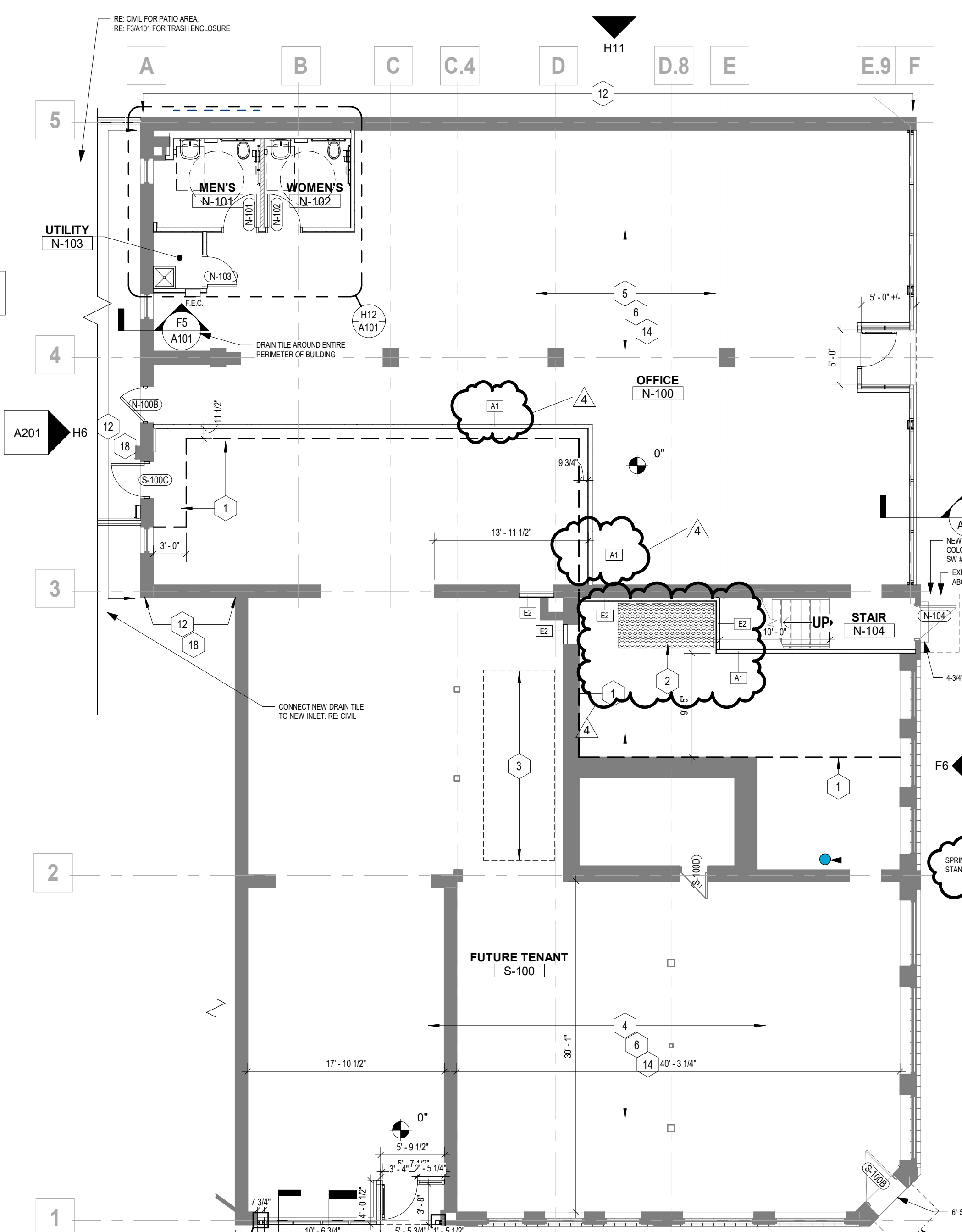
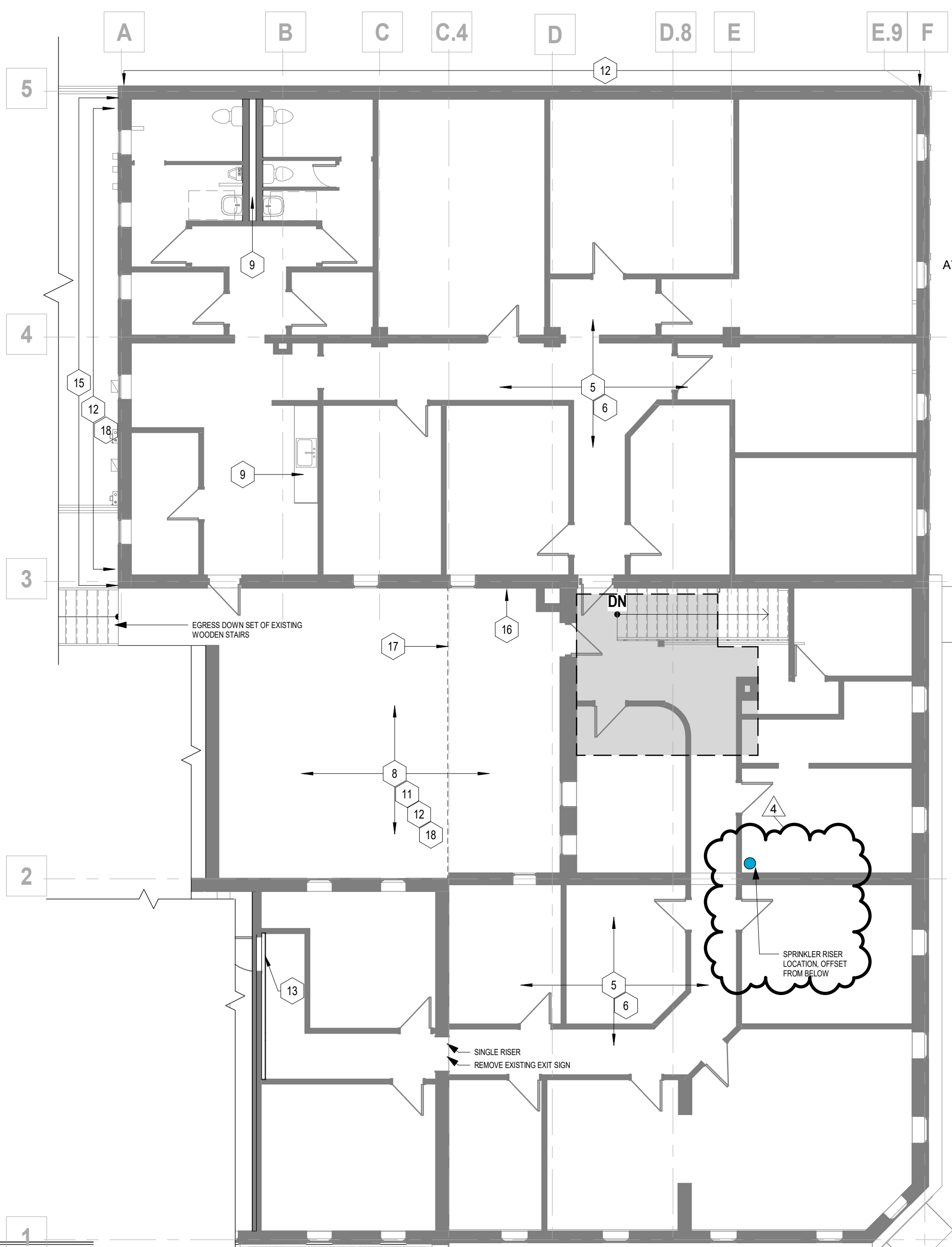


**H12** ENLARGED PLAN - 1ST FLOOR  
1/4" = 1'-0"**F12** RCP - 1ST FLOOR  
1/4" = 1'-0"**A12** ROOF PLAN  
1/8" = 1'-0"

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-43949		SATIN	1
7	BOBRICK WASHROOM EQUIPMENT, INC.	AUTOMATIC SOAP DISPENSER	B-2013	4 1/4" x 10 17/32" x 4 7/32"	SATIN	1
8	MIRROR - COORD. W/ OWNER			2' W x 4' H		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.

**F10** SECTION DETAIL - NEW STOREFRONT - SOUTH  
1" = 1'-0"**F8** SECTION DETAIL - NEW STOREFRONT - EAST  
1" = 1'-0"**F5** SECTION DETAIL - DRAIN TILE SYSTEM  
1" = 1'-0"**J4** PLAN DETAIL - NEW STOREFRONT - COLUMN - EAST  
1" = 1'-0"**J3** PRIVACY SCREEN ATTACHMENT  
1" = 1'-0"**F3** ENLARGED PLAN - TRASH ENCLOSURE  
1/8" = 1'-0"**A4** 1ST FLOOR PLAN  
1/8" = 1'-0"**A8** 2ND FLOOR PLAN  
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 (FOD), FACE OF MASONRY (FOM), FACE OF CONCRETE WALLS (FOCL) 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 18" FROM FULL 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:  
LEVELS:  
- ALL WALLS TO BE BROUGHT UP TO LEVEL 4 FINISH.  
- AREAS FOR BACK OF HOUSE EMPLOYEE OPERATIONS WHERE ROOM SIDE WALLS AND/OR CEILINGS HAVE PAINTED SURFACES.  
CONCESSION AND CIRCULATION CORRIDORS WHERE ROOM SIDE WALLS AND/OR CEILINGS 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 AS REQUIRED 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, SMOOTH WALL, WRAPPED IN FILTER FABRIC.
13. FLUID APPLIED BARRIER AT FOUNDATION:  
BASIS OF DESIGN: W.R. MEADOW, SEALTIGHT - HYDRAULIC 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 1-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    | REMOVE LOCATION OF RESTROOM CORRIDOR. 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 (G506).   |
| 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****MAIN STREET BUILDING IMPROVEMENTS**230 SW MAIN ST.  
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REVISION DATES:

- |   |                 |          |
|---|-----------------|----------|
| 1 | City Comments   | 5/17/22  |
| 3 | Owner Revisions | 9/12/22  |
| 4 | Owner Revisions | 12/08/22 |



PROFESSIONAL SEAL

**A101**ISSUE DATE: 21 APRIL, 2022  
COLLINS WEBB #: 21121

PERMIT DOCUMENTS

3075 SW Market Street, Lee's Summit, Mo. 64063 P. 816.249.2270  
(www.collinswebb.com)

## GENERAL NOTES EXTERIOR ELEVATIONS:

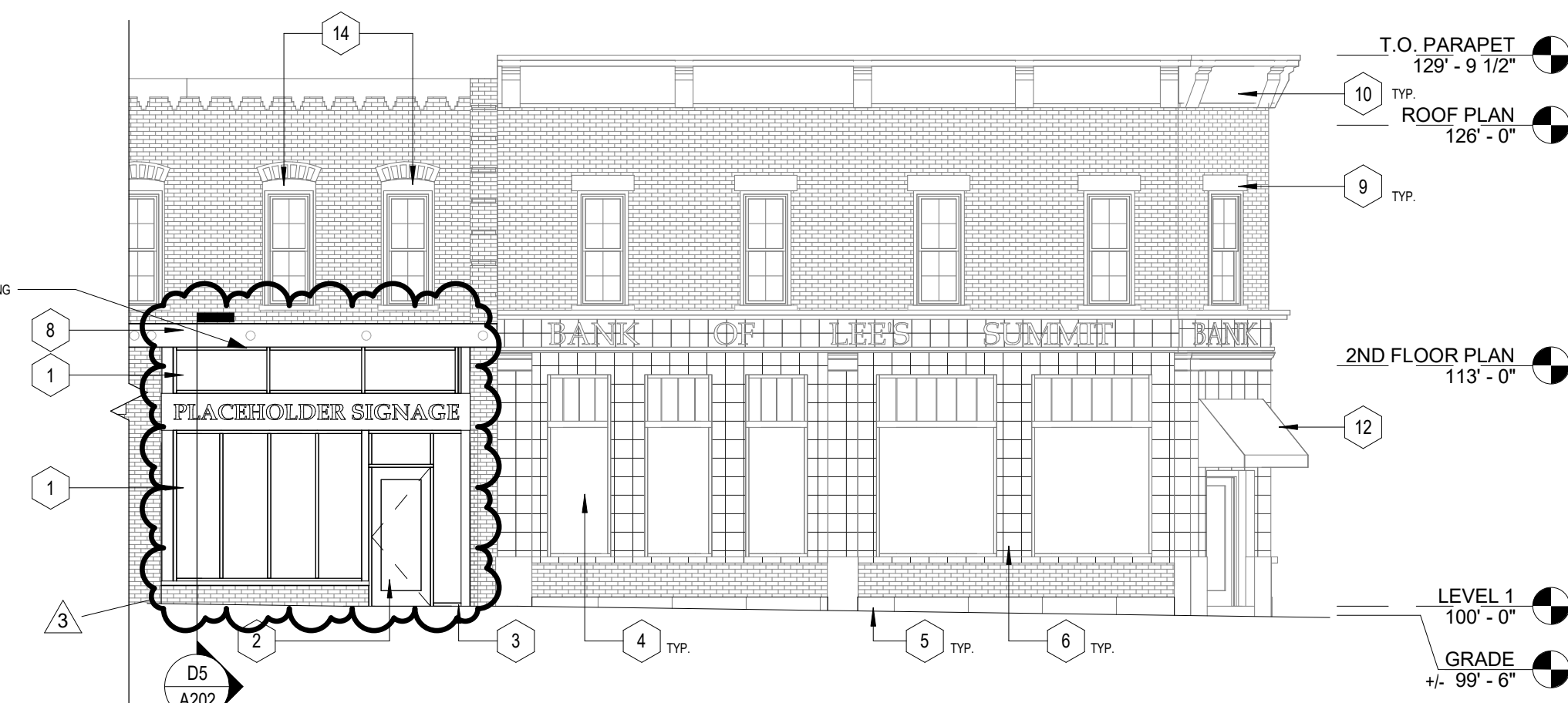
1. RE. SHEET G0.01 FOR ADDITIONAL GENERAL NOTES THAT ARE APPLICABLE.
  2. DIMENSIONS SHOWN ON THE EXTERIOR ELEVATIONS ARE TO THE FACE OF MTL. STUD WALL, FACE OF MASONRY (FOM), FACE OF CONCRETE WALLS (FCO), AND COLUMN GRID LINES, UNLESS OTHERWISE NOTED OR INDICATED.
  3. RE. THE WINDOW TYPES SHEET FOR ALL EXTERIOR WINDOW TYPES AND GLASS TYPES.
  4. **BRICK REPAIR** - REFER TO SPECIFICATIONS FOR BRICK REPAIR. ALL MASONRY CONTRACTOR TO REVIEW ALL ELEVATIONS FOR REPAIR/REPLACEMENT AS REQUIRED.
  5. **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.
  6. 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.
  7. **EXTERIOR BRICK, STEEL, AND WOOD PAINT** - BASIS OF DESIGN: SHERWIN WILLIAMS - PRO INDUSTRIAL - PRE-CATALYZED WATERBASED URETHANE 865-1100 SERIES.
  8. ALL OPENINGS TO BE FIELD VERIFIED PRIOR TO SHOP DRAWINGS BEING SUBMITTED FOR REVIEW AND APPROVAL.
- 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    | <b>STOREFRONT SYSTEM</b> - BASIS OF DESIGN IS KAWNEER 450T FRAMING SYSTEM. GLAZING TO BE FRONT GLAZED.  |
| 2    | <b>SILL FLASHINGS</b> - COLOR TO BE DARK ALUMINUM TO MATCH STOREFRONT.  |
| 3    | <b>BRICK</b> - 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    | <b>WOOD WINDOWS</b> - REMOVE ALL LOOSE PAINT. PATCH/REPAIR/CAULK AS REQUIRED. PREPARE FOR NEW PAINT.  |
| 5    | <b>CAST STONE</b> - TO BE RE-SET AND LEVELED. RE-GROUT AS REQUIRED.   |
| 6    | <b>GLAZED TILE</b> - CLEAN AND TUCK-POINT.  |
| 7    | <b>WOOD DOOR</b> - SAND AND REPAINT ENTRY DOOR AND FRAME. COLOR DARK BRONZE TO MATCH NEW WINDOW SYSTEM.   |
| 8    | <b>STEEL LINTEL</b> - REMOVE ALL LOOSE MATERIAL AND REPAINT.  |
| 9    | <b>ALUMINUM WINDOWS / WINDOW HEAD DETAIL</b> - ALUMINUM WINDOWS AT SECOND LEVEL EXISTING TO REMAIN. REMOVE ALL LOOSE MATERIAL. REPAIR CAST STONE HEADER AS REQUIRED AND REPAINT.  |
| 10   | <b>TOP OF WALL DETAIL</b> - 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   | <b>EXISTING AWNINGS</b> - 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.  |

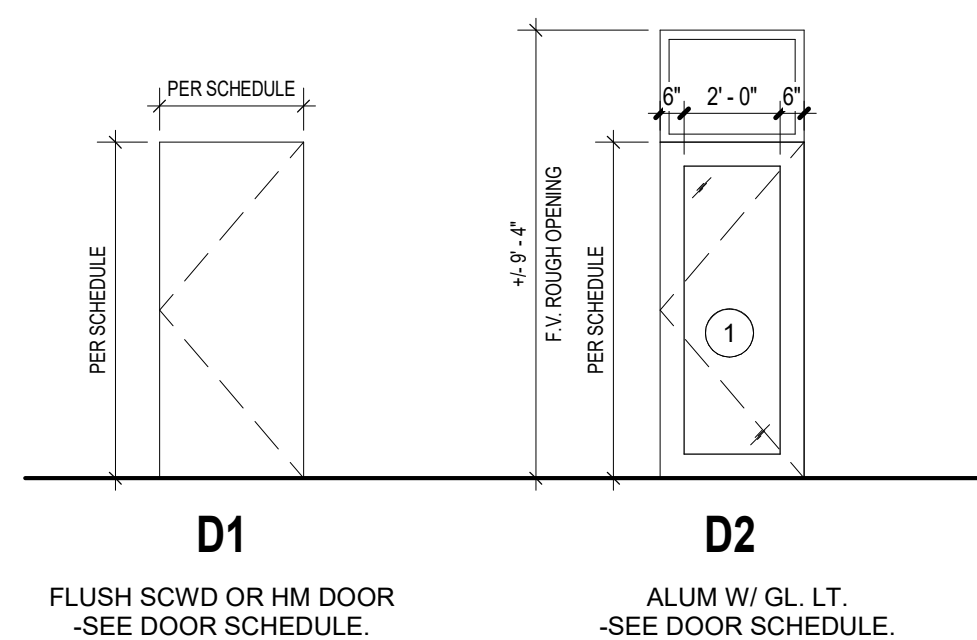
## EXTERIOR ELEVATION COLOR LEGEND

- 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**

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

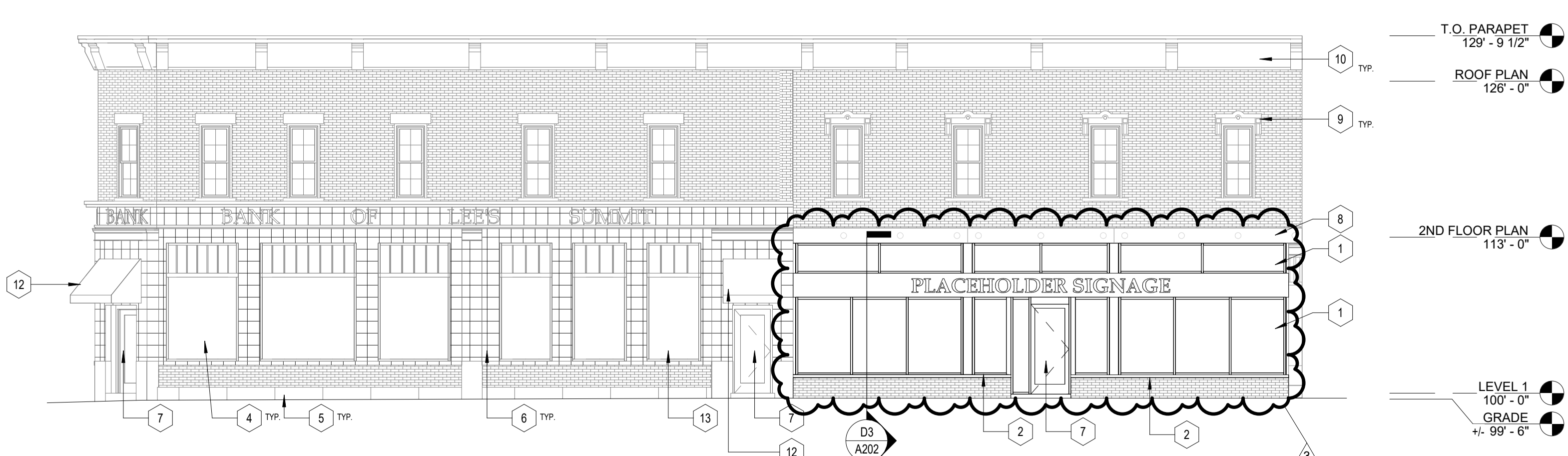
**NOTE:**  
1. DOORS TO BE 1 3/4" THICK, UNLESS NOTED OTHERWISE ON DOOR SCHEDULE.

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

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



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



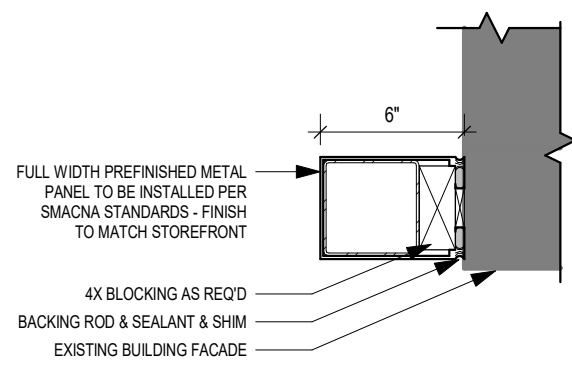
C6 SOUTH ELEVATION - COLOR  
3/16" = 1'-0"

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

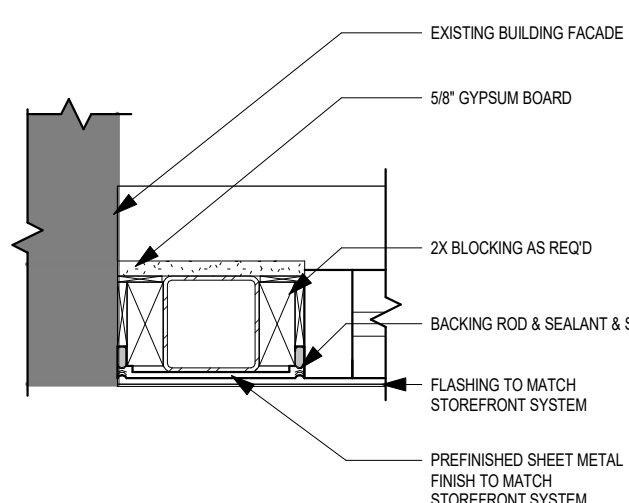


**GENERAL NOTES  
EXTERIOR ELEVATIONS:**

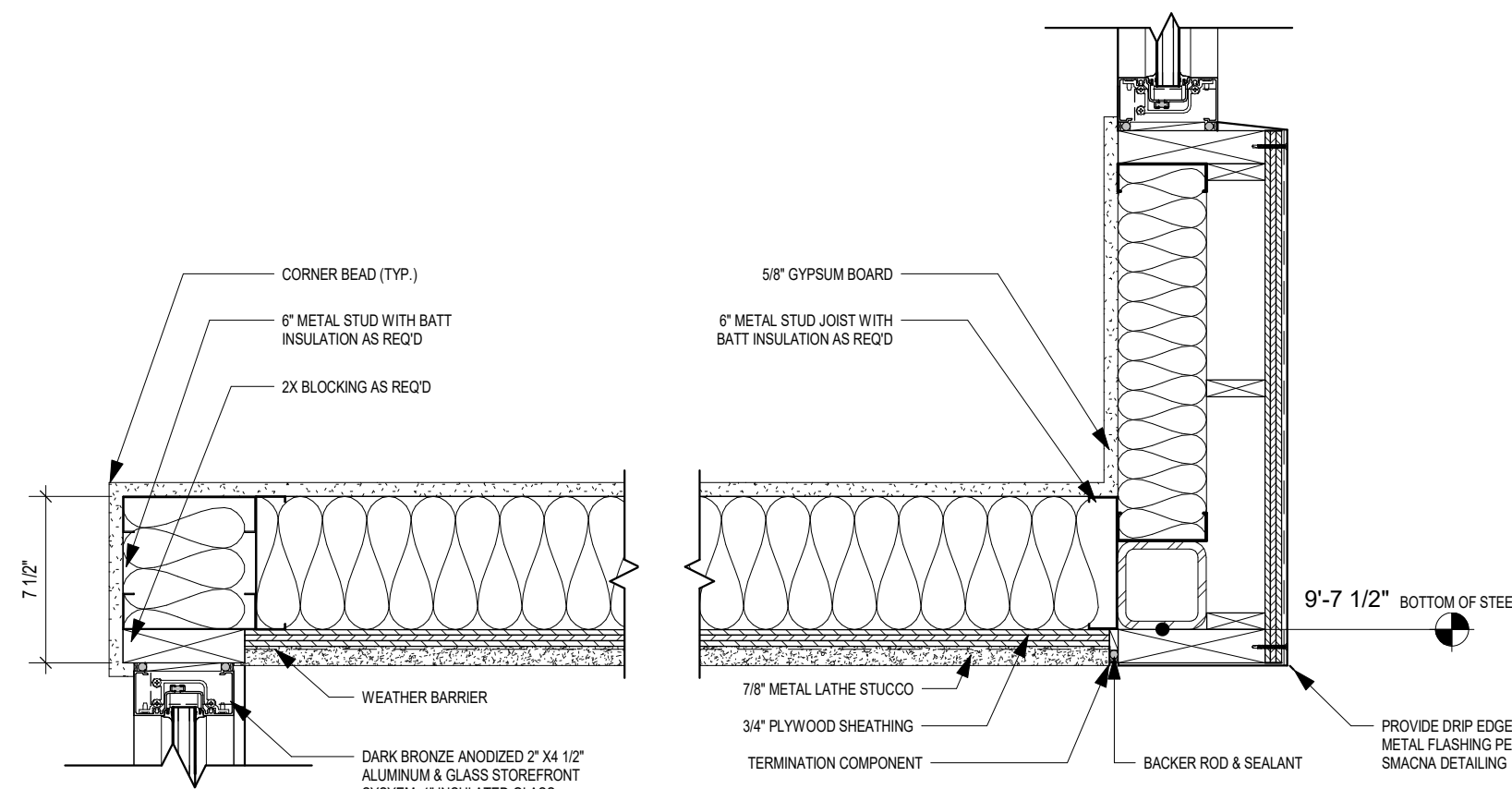
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  4. **BRICK REPAIR** - REFER TO SPECIFICATIONS FOR BRICK REPAIR. ALL MASONRY CONTRACTOR TO REVIEW ALL ELEVATIONS FOR REPAIR/REPLACEMENT AS REQUIRED.
  5. **JOINT SEALANTS** - REFER TO SPECIFICATIONS FOR JOINT SEALANT REPAIR. REMOVE/REPLACE/REPAIR ALL JOINT SEALANTS ON THE BUILDING. PROVIDE 1/2" BACK ROD BEHIND SEALANTS BETWEEN ALL DISSIMILAR MATERIALS. COLOR TO MATCH ADJACENT MATERIALS.
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  7. **EXTERIOR BRICK, STEEL, AND WOOD PAINT** - BASIS OF DESIGN: SHERWIN WILLIAMS - PRO INDUSTRIAL - PRE-CATALYZED WATERBASED URETHANE B05-1100 SERIES.
  8. ALL OPENINGS TO BE FIELD VERIFIED PRIOR TO SHOP DRAWINGS BEING SUBMITTED FOR REVIEW AND APPROVAL.
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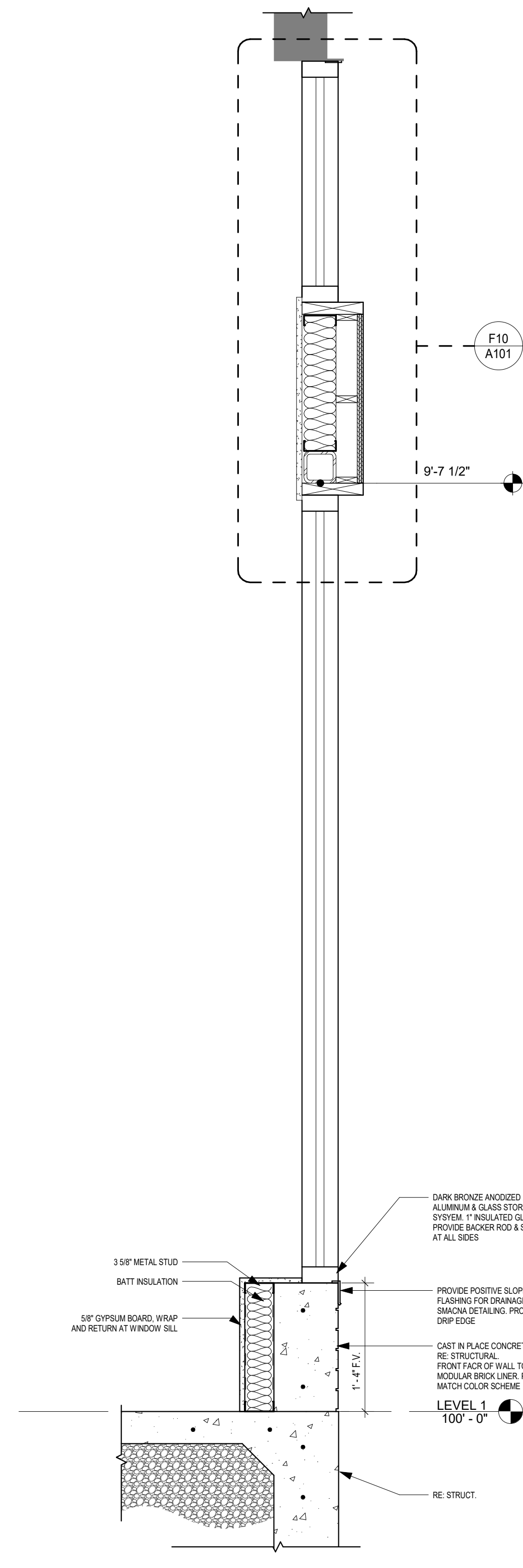
**F11 PLAN DETAIL - NEW STOREFRONT - COLUMN - SOUTH 2**  
1 1/2" = 1'-0"



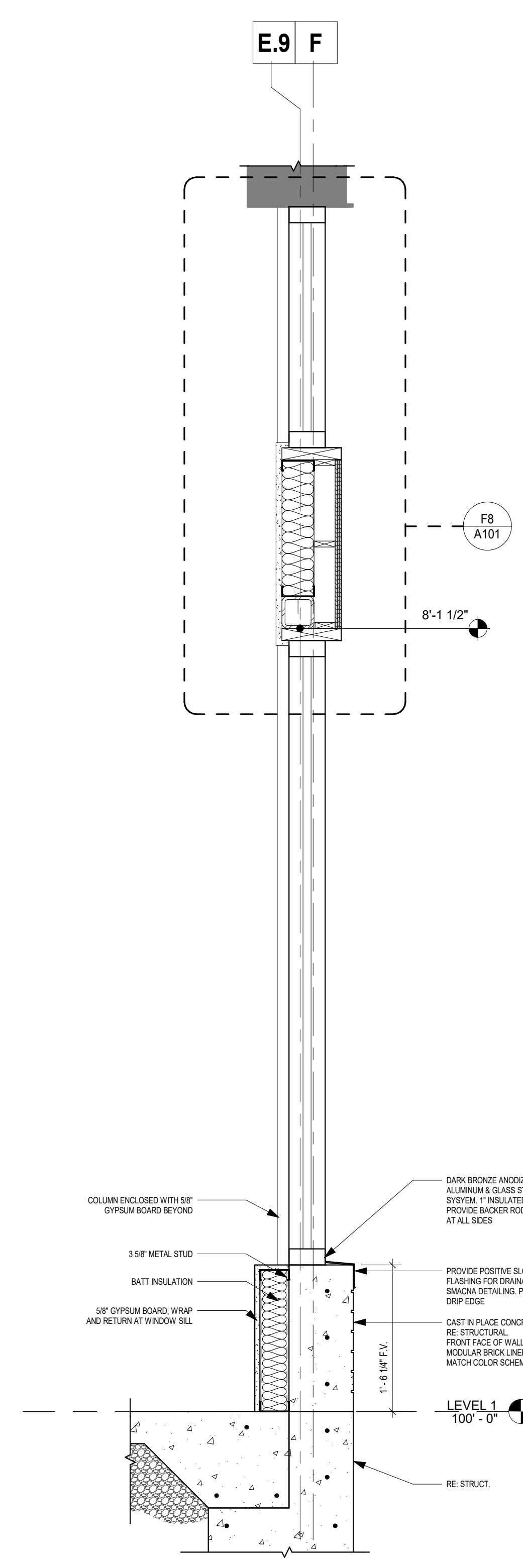
**D11 PLAN DETAIL - NEW STOREFRONT - COLUMN - SOUTH 1**  
1 1/2" = 1'-0"



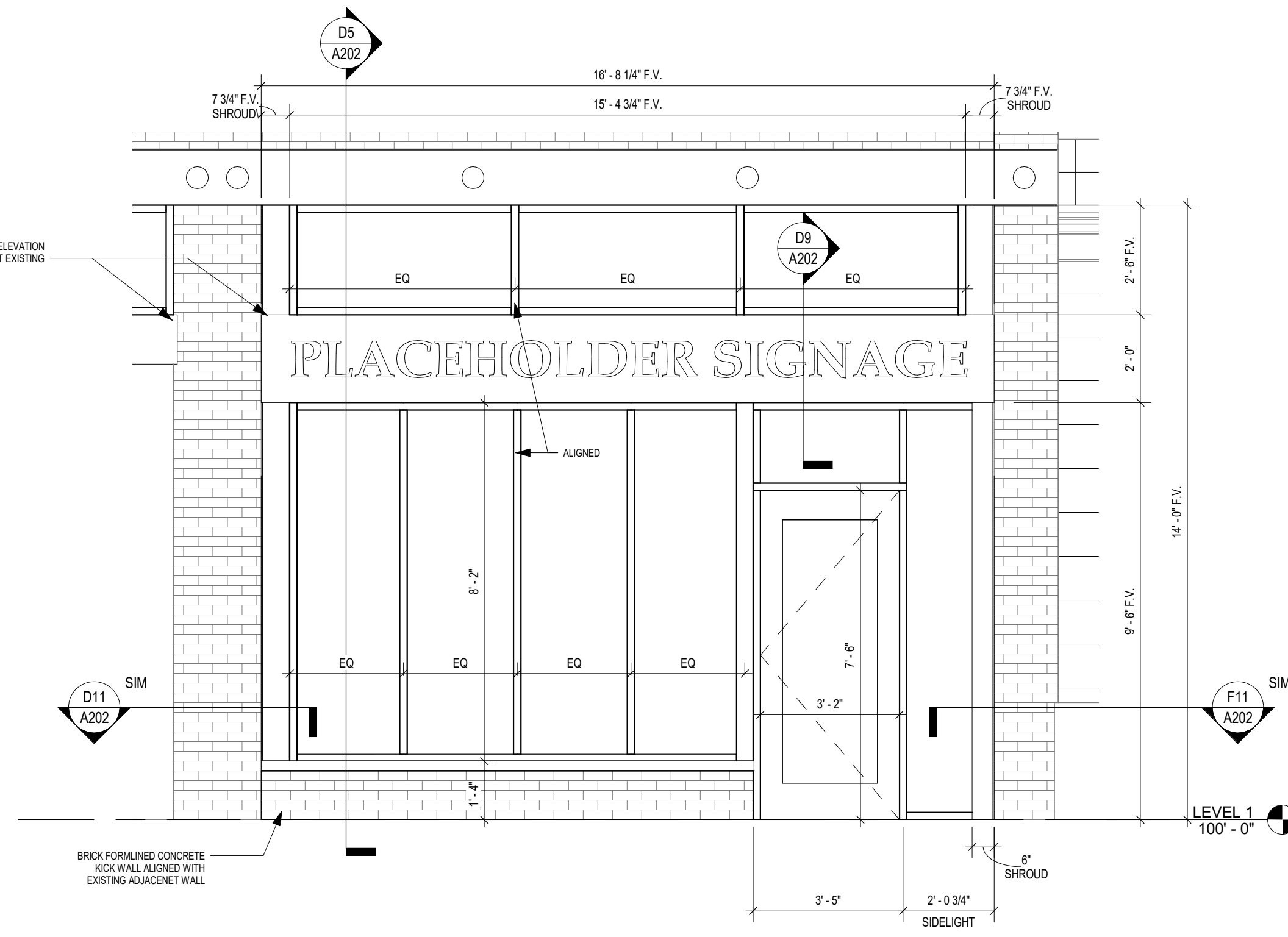
**D9 DETAIL - NEW STOREFRONT - SOFFIT**  
1 1/2" = 1'-0"



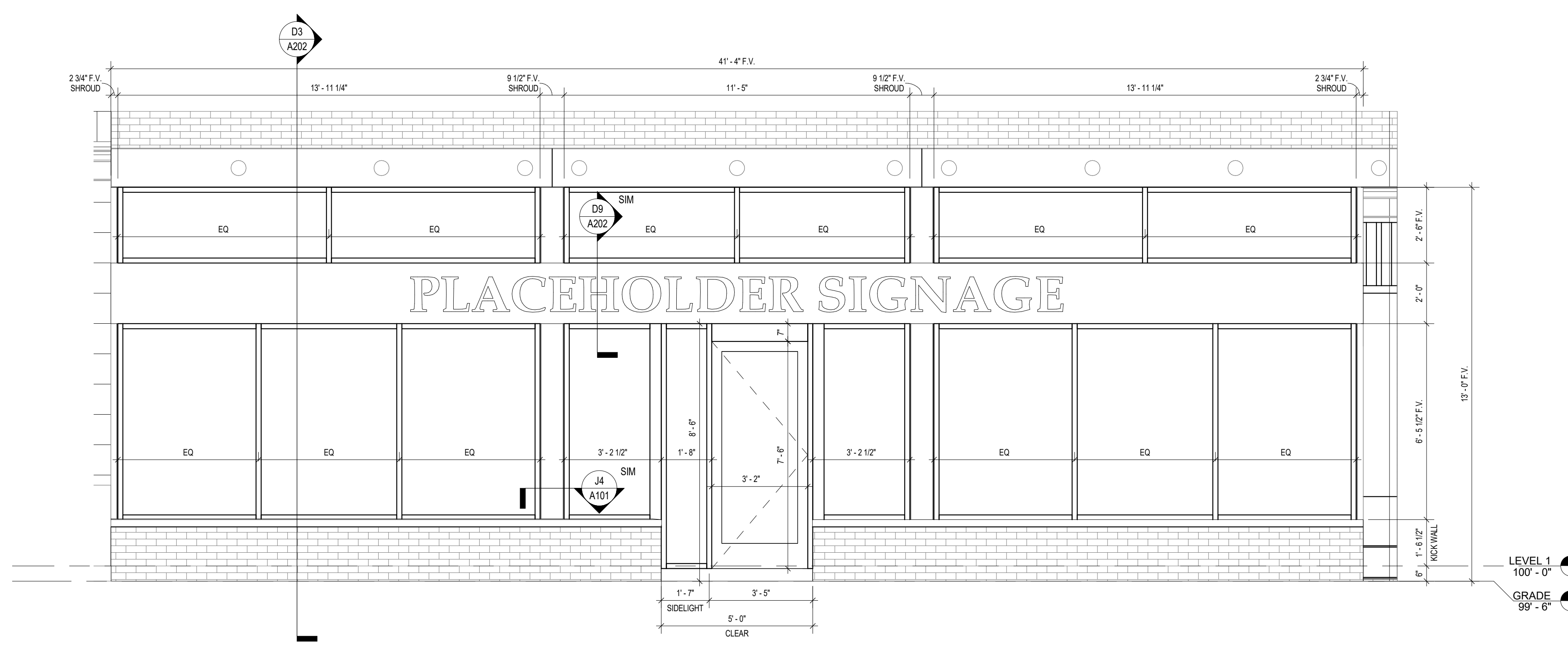
**D5 SECTION - STOREFRONT SOUTH**  
1" = 1'-0"



**D3 SECTION - STOREFRONT EAST**  
1" = 1'-0"



**A11 SOUTH ELEVATION - NEW STOREFRONT**  
3/8" = 1'-0"



**A7 EAST ELEVATION - NEW STOREFRONT**  
3/8" = 1'-0"

ENLARGED ELEVATIONS AND DETAILS



MAIN STREET LANDLORD IMPROVEMENTS

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

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REVISION DATES:



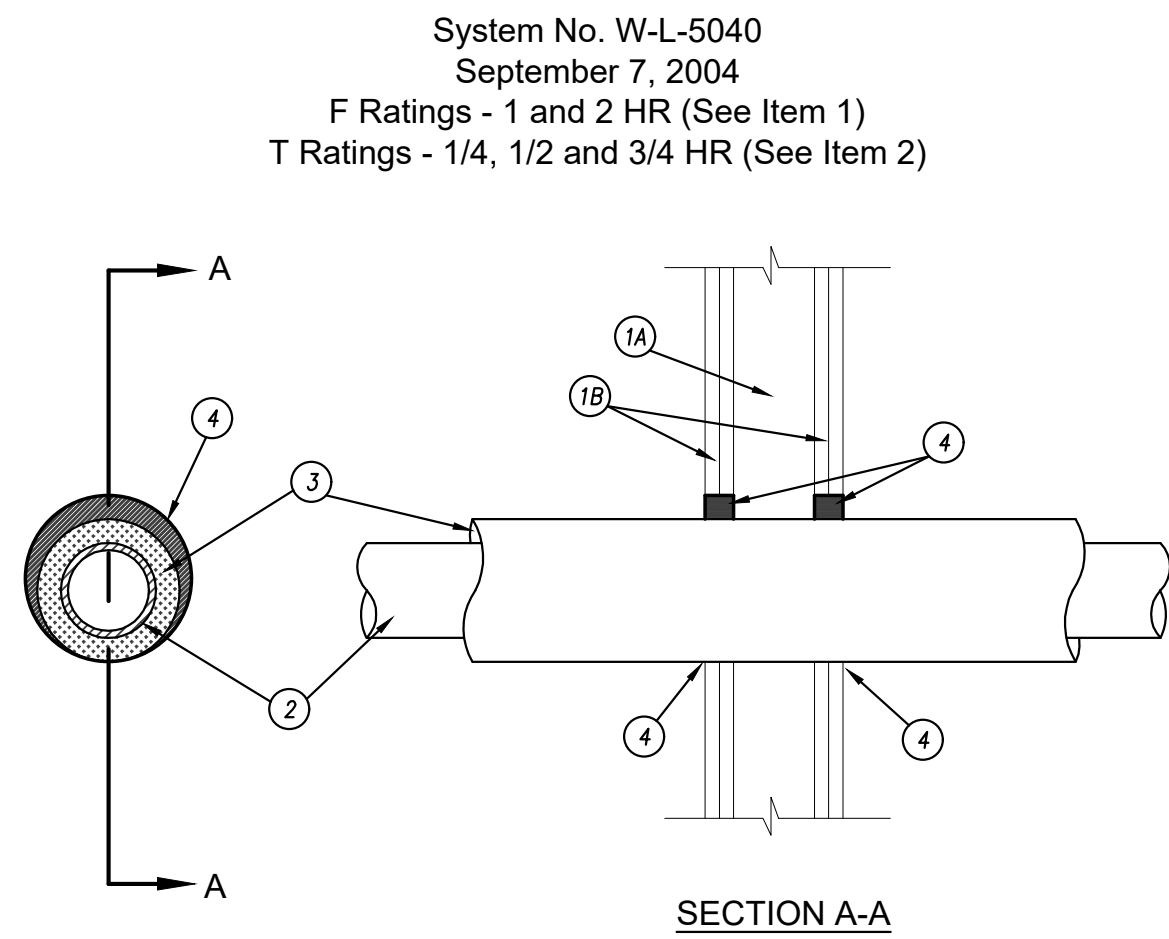
David L. Leathers - Engineer  
MOS E-26887  
10/12/22

PROFESSIONAL SEAL

MEP002

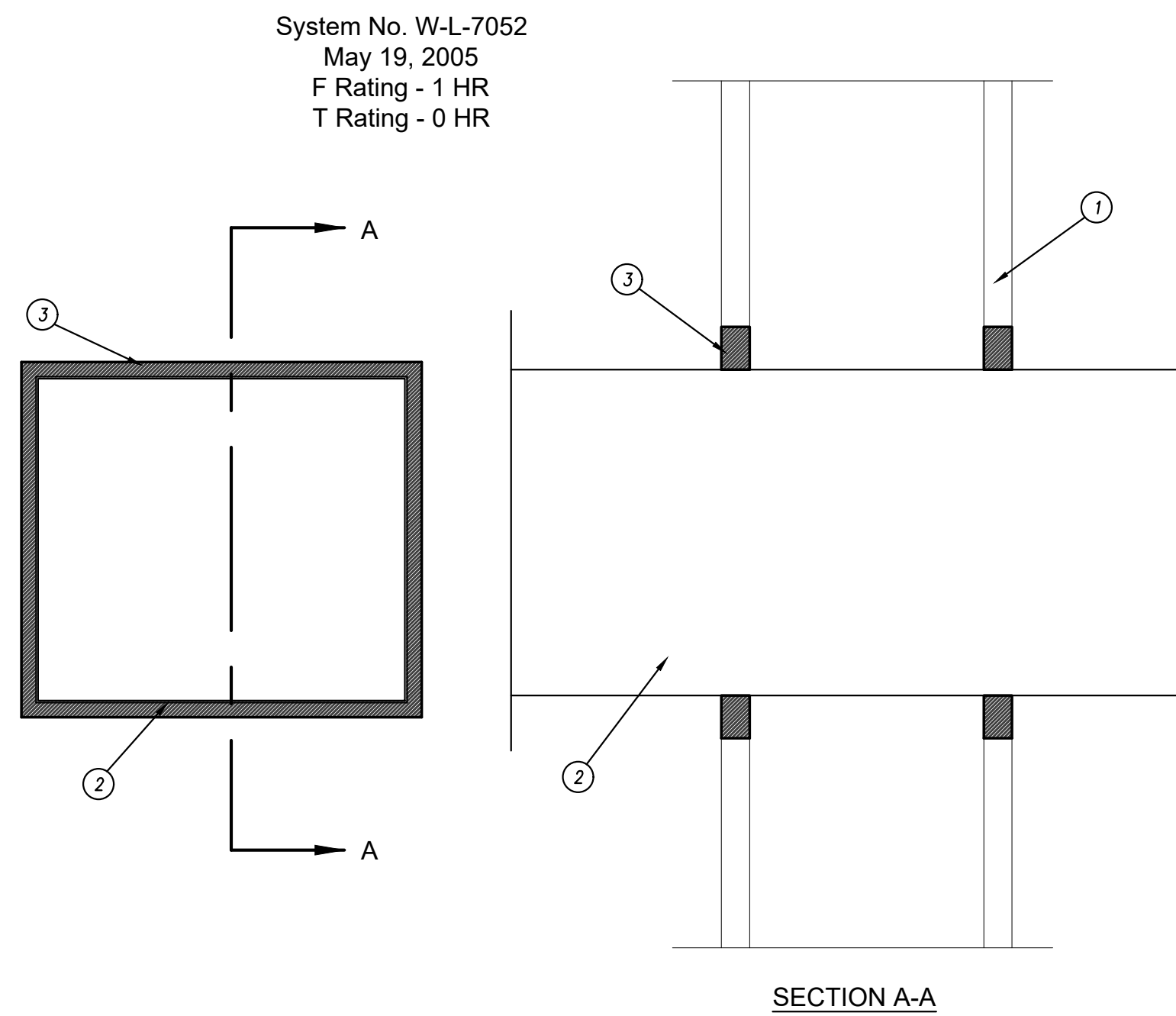
ISSUE DATE: APRIL 21, 2022  
COLLINS WEBB #: 21121

THROUGH PENETRATION DETAILS



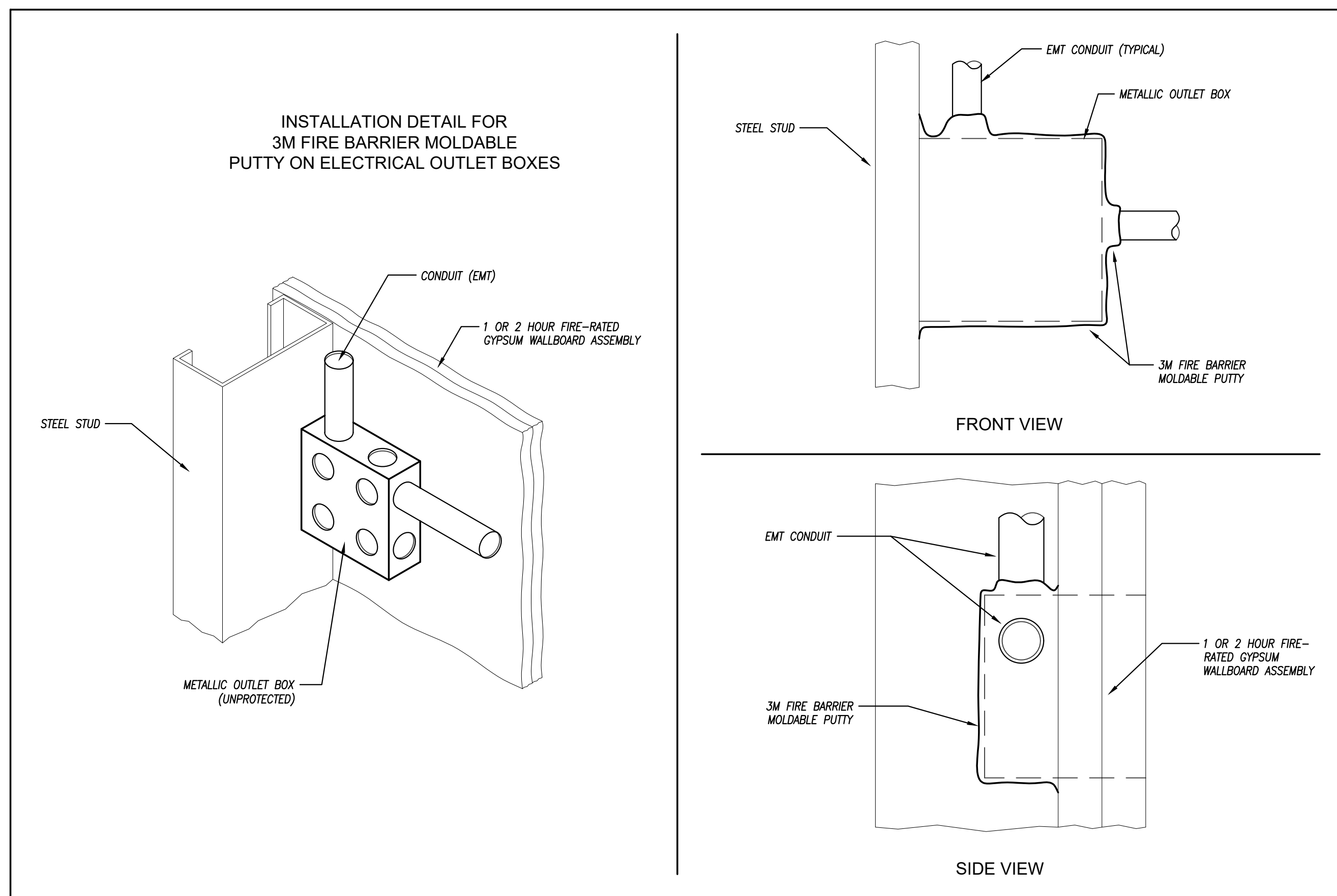
1. WALL ASSEMBLY - THE 1 OR 2 HR FIRE-RATED GYPSUM WALLBOARD/STUD WALL ASSEMBLY SHALL BE CONSTRUCTED OF THE MATERIALS AND IN THE MANNER SPECIFIED IN THE INDIVIDUAL U300, U400 OR U400 SERIES WALL OR PARTITION DESIGNS IN THE UL FIRE RESISTANCE DIRECTORY AND SHALL INCLUDE THE FOLLOWING CONSTRUCTION FEATURES:
- A. STUDS - WALL FRAMING MAY CONSIST OF EITHER WOOD STUDS OR STEEL CHANNEL STUDS. WOOD STUDS TO CONSIST OF NOM 2 BY 4 IN. LUMBER SPACED 16 IN. OC. STEEL STUDS TO BE MIN 3-5/8 IN. WIDE AND SPACED MAX 24 IN. OC.
- B. GYPSUM BOARD - NOM 5/8 IN. THICK, 4 FT WIDE WITH SQUARE OR TAPERED EDGES. THE GYPSUM WALLBOARD TYPE, NUMBER OF LAYERS, FASTENER TYPE AND SHEET ORIENTATION SHALL BE AS SPECIFIED IN THE INDIVIDUAL WALL AND PARTITION DESIGN. MAX DIM OF OPENING IN WALLBOARD LAYERS IS 7 IN. THE HOURLY F RATING OF THE FIRESTOP SYSTEM IS 1 HR WHEN INSTALLED IN A 1 HR FIRE RATED WALL AND 2 HR WHEN INSTALLED IN A 2 HR FIRE RATED WALL.
2. THROUGH PENETRANTS - ONE METALLIC PIPE OR TUBING TO BE INSTALLED EITHER CONCENTRICALLY OR ECCENTRICALLY WITHIN THE FIRESTOP SYSTEM. PIPE OR TUBING TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF WALL ASSEMBLY. THE FOLLOWING TYPES AND SIZES OF METALLIC PIPES OR TUBING MAY BE USED:
- A. STEEL PIPE - NOM 4 IN. DIA (OR SMALLER) SCHEDULE 10 (OR HEAVIER) STEEL PIPE. WHEN STEEL PIPE IS USED, T RATING IS 3/4 HR.
- B. COPPER TUBING - NOM 4 IN. DIA (OR SMALLER) TYPE L (OR HEAVIER) COPPER TUBING. T RATING IS 3/4 HR FOR COPPER TUBING OF NOM 2 IN. DIA AND SMALLER. FOR COPPER TUBING GREATER THAN NOM 2 IN. DIA, T RATING IS 1/4 AND 1/2 HR WHEN INSTALLED IN 1 AND 2 HR RATED WALLS, RESPECTIVELY.
- C. COPPER PIPE - NOM 4 IN. DIA (OR SMALLER) REGULAR (OR HEAVIER) COPPER PIPE. T RATING IS 3/4 HR FOR COPPER PIPE OF NOM 2 IN. DIA AND SMALLER. FOR COPPER PIPE GREATER THAN NOM 2 IN. DIA, T RATING IS 1/4 AND 1/2 HR WHEN INSTALLED IN 1 AND 2 HR RATED WALLS, RESPECTIVELY.
3. PIPE INSULATION - PLASTICS+ - NOM 3/4 IN. THICK ACRYLONITRILE BUTADIENE/POLYVINYL CHLORIDE (AB/PVC) FLEXIBLE FOAM FURNISHED IN THE FORM OF TUBING. THE ANNULAR SPACE BETWEEN THE INSULATED PIPE AND THE EDGE OF THE THROUGH OPENING SHALL BE MIN ZERO IN. (POINT CONTACT) TO MAX 1-1/4 IN. SEE PLASTICS+ (IMP22) CATEGORY IN THE RECOGNIZED COMPONENT DIRECTORY FOR NAMES OF MANUFACTURERS. ANY RECOGNIZED COMPONENT TUBE INSULATION MATERIAL MEETING THE ABOVE SPECIFICATIONS AND HAVING A UL94 FLAMMABILITY CLASSIFICATION OF 94-SHA MAY BE USED.
4. FILL VOID OR CAVITY MATERIALS\* - CAULK OR SEALANT - MIN 5/8 IN. THICKNESS OF CAULK APPLIED WITHIN THE ANNULAR SPACE, FLUSH WITH EACH SURFACE OF WALL. A MIN 1/2 IN. DIA BEAD OF CAULK SHALL BE APPLIED TO THE PIPE INSULATION/ WALLBOARD INTERFACE AT THE POINT CONTACT LOCATION ON BOTH SIDES OF WALL.
- 5M COMPANY - CP 25WB+ CAULK OR FB-3000 WT SEALANT

\*BEARING THE UL CLASSIFICATION MARKING

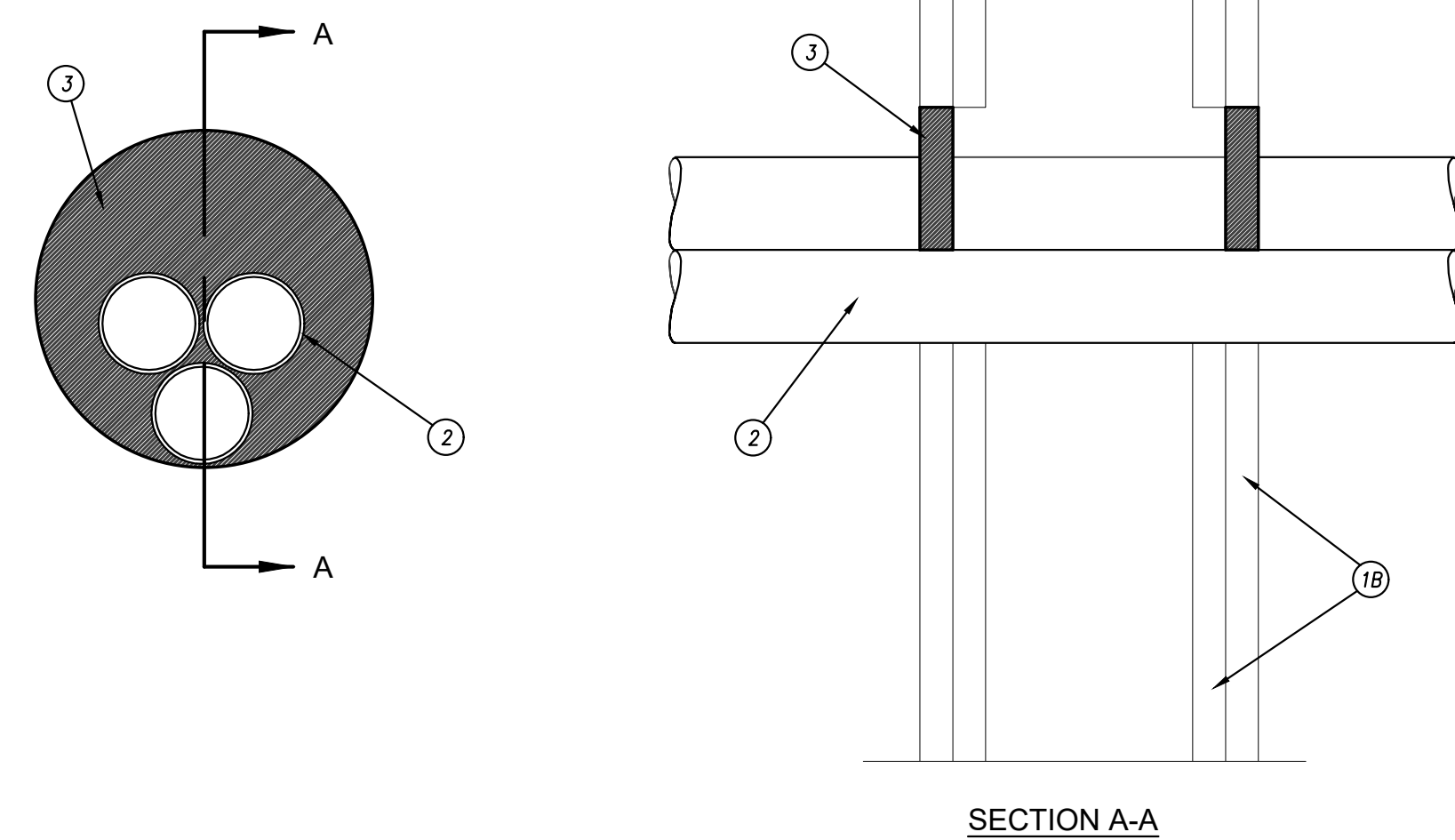


1. WALL ASSEMBLY - THE 1 HR FIRE RATED GYPSUM BOARD/STUD WALL ASSEMBLY SHALL BE CONSTRUCTED OF THE MATERIALS AND IN THE MANNER SPECIFIED IN THE INDIVIDUAL U300, U400 OR U400 SERIES WALL AND PARTITION DESIGNS IN THE UL FIRE RESISTANCE DIRECTORY AND SHALL INCLUDE THE FOLLOWING CONSTRUCTION FEATURES:
- A. STUDS - WALL FRAMING MAY CONSIST OF EITHER WOOD STUDS OR STEEL STUDS. WOOD STUDS TO CONSIST OF NOM 2 BY 4 IN. (51 MM BY 102 MM) LUMBER SPACED 16 IN. (406 MM) OC. STEEL STUDS TO BE MIN 3-1/2 IN. (89 MM) WIDE AND SPACED MAX 24 IN. (610 MM) OC.
- B. GYPSUM BOARD - THICKNESS, TYPE, NUMBER OF LAYERS AND FASTENERS AS REQUIRED IN THE INDIVIDUAL WALL AND PARTITION DESIGN. MAX SIZE OF OPENING IS 14 BY 14 IN. (356 MM BY 356 MM) SQUARE.
2. STEEL DUCT - NOM 12 BY 12 IN. (305 MM BY 305 MM) (OR SMALLER) NO. 24 GAUGE (OR HEAVIER) GALV STEEL DUCT TO BE CENTERED WITHIN OPENING WITH A NOM ANNULAR SPACE OF 1 IN. (25 MM). DUCT 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 WITHIN ANNULUS, FLUSH WITH BOTH SURFACES OF WALL ASSEMBLY.
- 5M COMPANY - CP 25WB+ IC 15WB+ CAULK OR FB-3000 WT SEALANT

\*BEARING THE UL CLASSIFICATION MARK



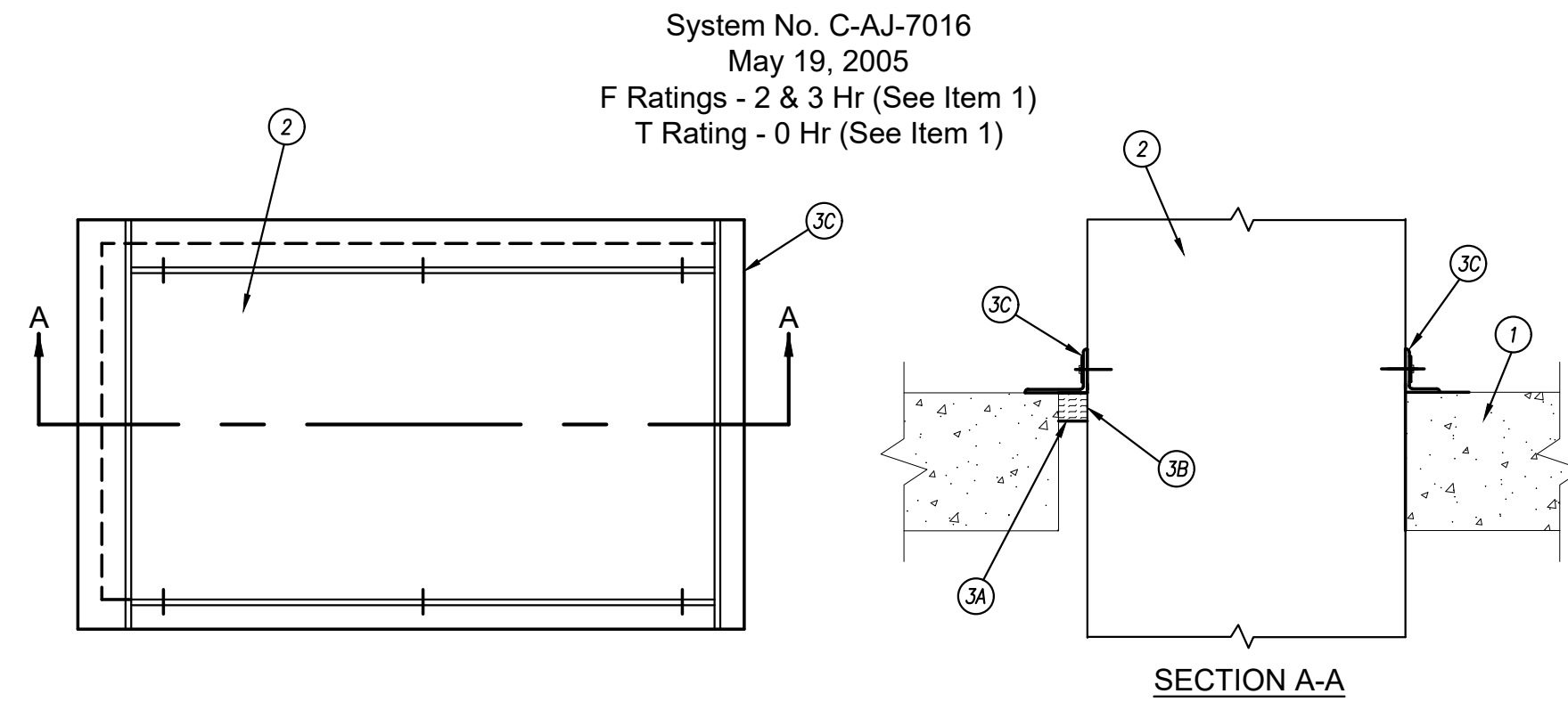
System No. W-L-2300  
May 19, 2005  
F Ratings - 1 & 2 Hr (See Item 1)  
T Ratings - 0 & 1/2 Hr (See Item 1)



1. FLOOR OR WALL ASSEMBLY - MIN 4-1/2 IN. THICK REINFORCED LIGHTWEIGHT OR NORMAL WEIGHT (100-150 PCF) CONCRETE. WALL MAY ALSO BE CONSTRUCTED OF ANY UL CLASSIFIED CONCRETE BLOCKS. MAX AREA OF OPENING IS 144 SQ IN. WITH A MAX DIMENSION OF 18 IN. SEE CONCRETE BLOCKS (CA27) CATEGORY IN THE FIRE RESISTANCE DIRECTORY FOR NAMES OF MANUFACTURERS.
2. THROUGH PENETRANTS - METALLIC PIPES, TUBING OR CABLE TO BE INSTALLED EITHER CONCENTRICALLY OR ECCENTRICALLY WITHIN THE FIRESTOP SYSTEM. PENETRANTS TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF FLOOR ASSEMBLY. THE FOLLOWING TYPES AND SIZES OF PENETRANTS MAY BE USED:
- A. METALLIC PIPES - MAX FIVE METALLIC PIPES OR TUBING. THE ANNULAR SPACE BETWEEN UNINSULATED PENETRANT AND PERIPHERY OF OPENING SHALL BE MIN 0 IN. (POINT CONTACT) TO MAX 2-3/4 IN. IN THE FOLLOWING TYPES AND SIZES OF METALLIC PIPES OR TUBING MAY BE USED:
- A1. COPPER TUBING - NOM 3 IN. DIA (OR SMALLER) TYPE M (OR HEAVIER) COPPER TUBE.
- A2. COPPER PIPE - NOM 3 IN. DIA (OR SMALLER) REGULAR (OR HEAVIER) COPPER PIPE.
- B. TUBE INSULATION - PLASTICS+ - NOM 1 IN. THICK ACRYLONITRILE BUTADIENE/POLYVINYL CHLORIDE (AB/PVC) FLEXIBLE FOAM FURNISHED IN THE FORM OF TUBING. THE TUBE INSULATION SHALL BE INSTALLED ON ALL TUBING GREATER THAN NOM 2 IN. DIA. THE ANNULAR SPACE BETWEEN THE INSULATED PENETRATING ITEM AND UNINSULATED METALLIC PIPES, CONDUIT OR TUBING SHALL BE MIN 0 IN. (POINT CONTACT) TO MAX 1-1/4 IN. THE ANNULAR SPACE BETWEEN THE INSULATED PENETRATING ITEM AND THE PERIPHERY OF THE OPENING SHALL BE MIN 0 IN. (POINT CONTACT) TO MAX 2-3/4 IN. SEE PLASTICS+ (IMP22) CATEGORY IN THE RECOGNIZED COMPONENT DIRECTORY FOR NAMES OF MANUFACTURERS. ANY RECOGNIZED COMPONENT TUBE INSULATION MATERIAL MEETING THE ABOVE SPECIFICATIONS AND HAVING A UL 94 FLAMMABILITY CLASSIFICATION OF 94-SHA MAY BE USED.
- C. CABLES - MAX ONE 2/C NO. 18 AWG (OR SMALLER) THERMOSTAT WIRE SPACED MIN 0 IN. (POINT CONTACT) FROM TUBE INSULATION OR MIN 1/2 IN. FROM OTHER PENETRANTS. THE ANNULAR SPACE BETWEEN CABLE AND PERIPHERY OF OPENING IS MIN 0 IN. (POINT CONTACT) TO MAX 2-3/4 IN. CABLE TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF FLOOR OR WALL ASSEMBLY.
3. FIRESTOP SYSTEM - THE DETAILS OF THE FIRESTOP SYSTEM SHALL BE AS FOLLOWS:
- A. FILL/VOID OR CAVITY MATERIALS\* - WRAP STRIP - NOM 1/8 IN. THICK INTUMESCENT MATERIAL SUPPLIED IN 2 IN. WIDE STRIPS. MIN ONE LAYER OF WRAP STRIP WRAPPED AROUND PENETRANTS AND PIPE INSULATION AND SECURED IN PLACE WITH STEEL WIRE OR ALUMINUM FOIL TAPE AND RECESSED WITHIN THE OPENING NOT MORE THAN 2 IN. ABOVE THE BOTTOM OF THE FLOOR. WRAP STRIP REQUIRED AROUND INSULATED PENETRANTS WHICH MAY BE TIGHTLY BUNDLED TOGETHER. WRAP STRIP ALSO REQUIRED TO BE INSTALLED AROUND INSULATED PENETRANTS WHEN INSTALLED LESS THAN 1/2 IN. FROM UNINSULATED TUBES OR CABLES. IN SUCH CASES WHERE INSULATED PENETRANT IS AT POINT CONTACT WITH UNINSULATED TUBES OR CABLES, WRAP STRIP TO BE RECESSED BETWEEN INSULATION AND UNINSULATED TUBE OR CABLE BY COMpressing INSULATION. WRAP STRIP NOT REQUIRED AROUND INSULATED TUBES INSTALLED 1/2 IN. OR GREATER FROM OTHER PENETRANTS.
- 5M COMPANY - ULTRA GS
- B. PACKING MATERIAL - MIN 3 IN. THICKNESS OF MIN 4 PCF MINERAL WOOL BATT INSULATION FIRMLY PACKED INTO OPENING AS A PERMANENT FORM. PACKING MATERIAL TO BE RECESSED FROM TOP SURFACE OF FLOOR TO ACCOMMODATE THE REQUIRED THICKNESS OF FILL MATERIAL.
- C. FILL/VOID OR CAVITY MATERIALS\* - CAULK, SEALANT OR PUTTY - MIN 1/2 IN. THICKNESS OF FILL MATERIAL APPLIED WITHIN THE ANNULUS, FLUSH WITH TOP SURFACE OF FLOOR. MIN 1/2 IN. DIA BEAD OF FILL MATERIAL APPLIED TO THE PENETRANT/CONCRETE INTERFACE AT THE POINT CONTACT LOCATION ON THE TOP SURFACE OF FLOOR.
- 5M COMPANY - MP+ STD PUTTY, CP 25WB+ CAULK OR FB-3000 WT SEALANT.

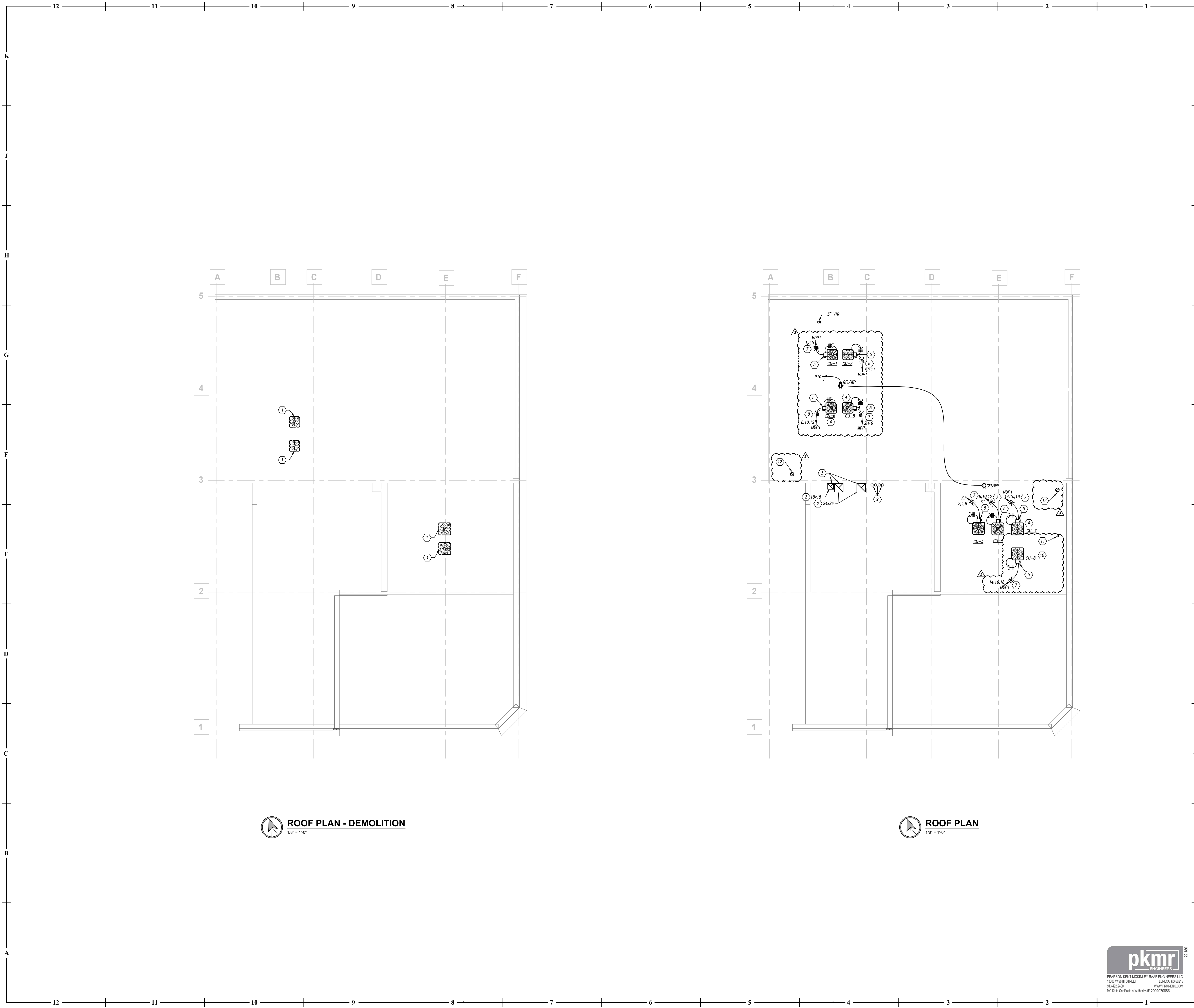
\*BEARING THE UL CLASSIFICATION MARKING  
\*BEARING THE UL RECOGNIZED COMPONENT MARKING

\*BEARING THE UL CLASSIFICATION MARKING



1. FLOOR OR WALL ASSEMBLY - MIN 2-1/2 IN. (64 MM) THICK OR MIN 4-1/2 IN. (114 MM) THICK LIGHTWEIGHT OR NORMAL WEIGHT (100-150 PCF OR 1600-2400 KG/M3) CONCRETE. WALL MAY ALSO BE CONSTRUCTED OF ANY UL CLASSIFIED CONCRETE BLOCKS.
- THE F RATING IS 2 HR AND 3 HR FOR MIN 2-1/2 IN. (64 MM) OR MIN 4-1/2 IN. (114 MM) THICK ASSEMBLIES.
- MAX AREA OF OPENING IS 576 SQ IN. (3716 C/M2) WITH MAX DIMENSION OF 36 IN. (914 MM) FOR 2 HR ASSEMBLIES AND 544 SQ IN. (3510 C/M2) WITH MAX DIMENSION OF 34 IN. (864 MM) FOR 3 HR ASSEMBLIES.
- SEE CONCRETE BLOCKS (CA27) CATEGORY IN THE FIRE RESISTANCE DIRECTORY FOR NAMES OF MANUFACTURERS.
2. THROUGH PENETRANTS - ONE STEEL DUCT TO BE INSTALLED EITHER CONCENTRICALLY OR ECCENTRICALLY WITHIN THE FIRESTOP SYSTEM. AN ANNULAR SPACE OF MIN 0 IN. (POINT CONTACT) TO MAX 4 IN. (10 MM TO MAX 102 MM) IS REQUIRED WITHIN THE FIRESTOP SYSTEM FOR 2 HR ASSEMBLIES AND MIN 0 IN. (POINT CONTACT) TO MAX 2 IN. IS REQUIRED WITHIN THE FIRESTOP SYSTEM FOR 3 HR ASSEMBLIES. STEEL DUCT TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF FLOOR OR WALL ASSEMBLY. THE FOLLOWING SIZES OF STEEL DUCTS MAY BE USED:
- A. STEEL DUCT - NOM 32 IN. BY 14 IN. (813 MM BY 356 MM) (OR SMALLER) NO. 22 GAUGE (OR HEAVIER) GALV STEEL DUCT.
- B. STEEL DUCT - NOM 30 IN. BY 12 IN. (762 MM BY 305 MM) (OR SMALLER) NO. 24 GAUGE (OR HEAVIER) GALV STEEL DUCT.
3. FIRESTOP SYSTEM - THE FIRESTOP SYSTEM SHALL CONSIST OF THE FOLLOWING:
- A. PACKING MATERIAL - NOM 1 IN. (25 MM) THICKNESS OF TIGHTLY PACKED MINERAL WOOL BATT INSULATION FIRMLY PACKED INTO OPENING AS A PERMANENT FORM. PACKING MATERIAL TO BE RECESSED FROM TOP SURFACE OF FLOOR OR FROM BOTH SURFACES OF WALL AS REQUIRED TO ACCOMMODATE THE REQUIRED THICKNESS OF CAULK FILL MATERIAL.
- B. FILL/VOID OR CAVITY MATERIAL\* - CAULK OR SEALANT - MIN 1 IN. (25 MM) THICKNESS OF FILL MATERIAL APPLIED WITHIN ANNULUS, FLUSH WITH TOP SURFACE OF FLOOR OR BOTH SURFACES OF WALL ASSEMBLY. AT THE POINT CONTACT LOCATION BETWEEN DUCT AND CONCRETE, A MIN 1/4 IN. (6 MM) DIA BEAD OF SEALANT SHALL BE APPLIED TO THE CONCRETE/DUCT INTERFACE ON THE TOP SURFACE OF FLOOR AND ON BOTH SURFACES OF WALL ASSEMBLY.
- 5M COMPANY - CP 25WB+ IC 15WB+ CAULK OR FB-3000 WT SEALANT.
- C. RETAINING ANGLES - MIN 16 GAUGE GALV STEEL ANGLES SIZED TO LAP DUCT A MIN OF 2 IN. (51 MM) IN. AND LAP TOP SURFACE OF FLOOR OR BOTH SURFACES OF WALL A MIN OF 1 IN. (25 MM). ANGLES ATTACHED TO DUCT WITH MIN 1/2 IN. (13 MM) LONG, NO. 10 (OR LARGER) SHEET METAL SCREWS SPACED A MAX OF 1 IN. (25 MM) FROM EACH END OF DUCT AND SPACED A MAX OF 6 IN. (152 MM) OC.

\*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

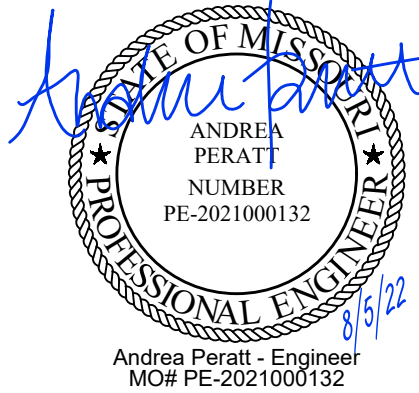
- (1) CONTRACTOR TO FIELD VERIFY LOCATION AND REMOVE EXISTING CONDENSING UNITS. REUSE EXISTING LOCATIONS. REFRIGERANT PIPE PENETRATIONS AND ACCESSORIES OF CONDENSING UNITS SERVING SECOND FLOOR. REFER TO NEW WORK PLAN.
- (2) DISHWASHER, GREASE AND MAKE-UP AIR DUCT FROM/ TO FIRST FLOOR TO/ FROM 2ND FLOOR 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.
- (10) NEW CONDENSING UNIT SHALL BE INSTALLED ON A NEW EQUIPMENT CURB OR ROOF SUPPORT.
- (11) NEW CONCENTRIC VENT THROUGH ROOF. VENT TERMINATION SHALL NOT BE WITHIN 10' OF FRESH AIR INTAKE.
- (12) FRESH AIR INTAKE VENT.

MAIN STREET LANDLORD IMPROVEMENTS

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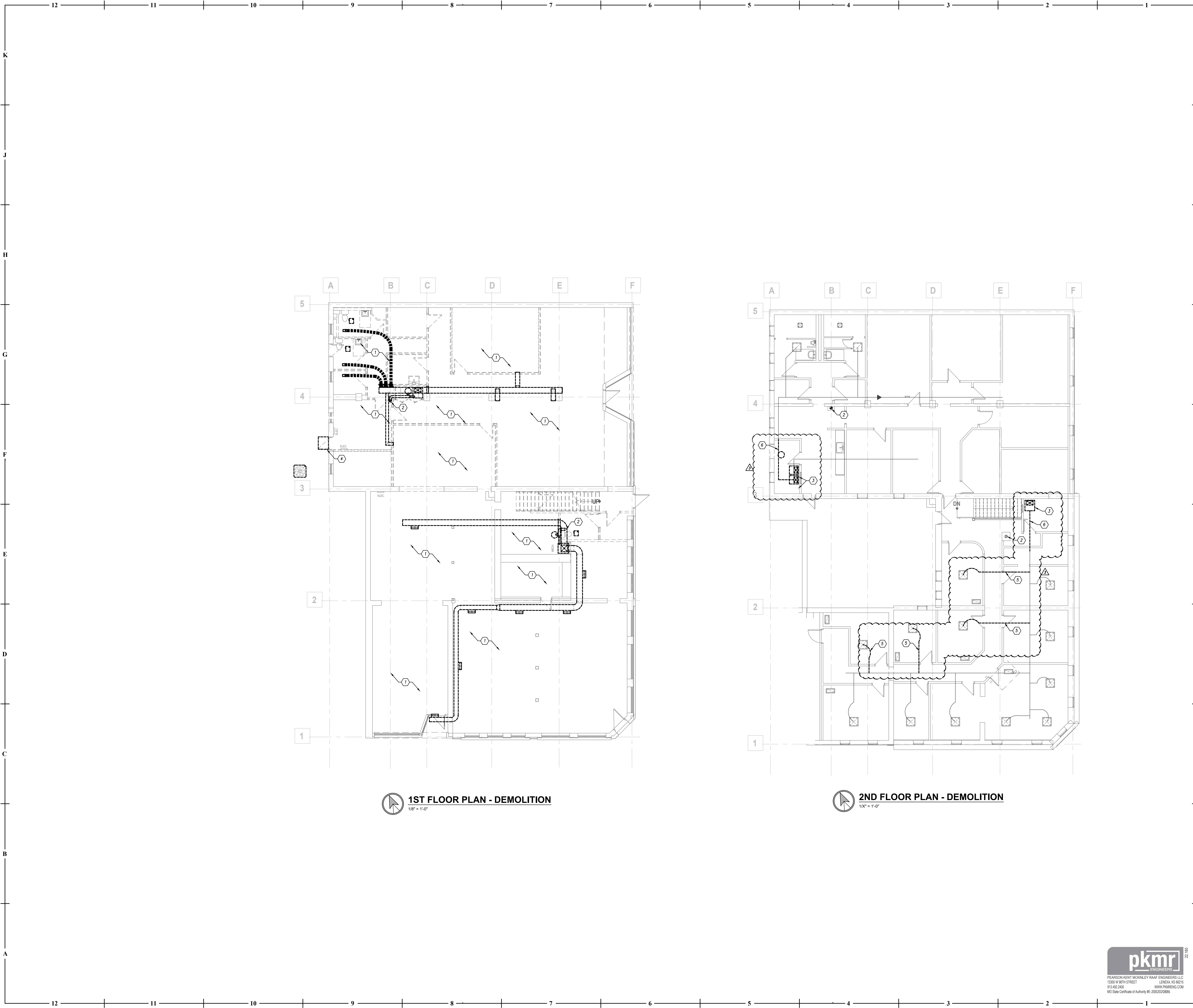
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ROOF PLAN



Permit Set





**GENERAL DEMOLITION NOTES**

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

**DEMOLITION PLAN KEYED NOTES**

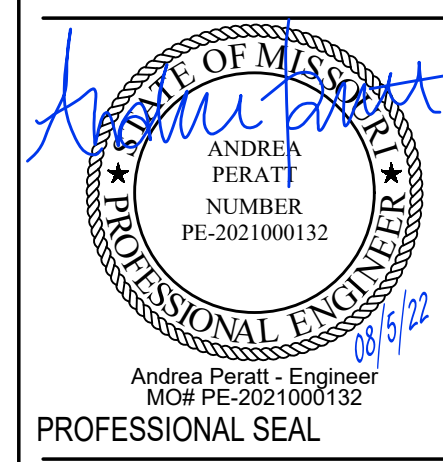
- 1 REMOVE ALL DUCTWORK, DIFFUSERS AND EQUIPMENT IN THIS AREA. PATCH/ REPAIR WALL/ CEILING IF REQUIRED. REFER TO NEW WORK PLAN.
- 2 REMOVE VERTICAL FLUE DUCT GOING THROUGH SECOND FLOOR TO ROOF. REFER TO NEW WORK PLAN.
- 3 REMOVE EXISTING FURNACE. KEEP ALL DUCTWORK, FLUE AND ACCESSORIES. CLEAN RETURN 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.
- 5 REMOVE EXISTING DUCTWORK AND CAP BACK AT MAIN.
- 6 REMOVE SUPPLY DUCT AND CONNECTION AT FURNACE TO PREPARE FOR A NEW SUPPLY CONNECTION.

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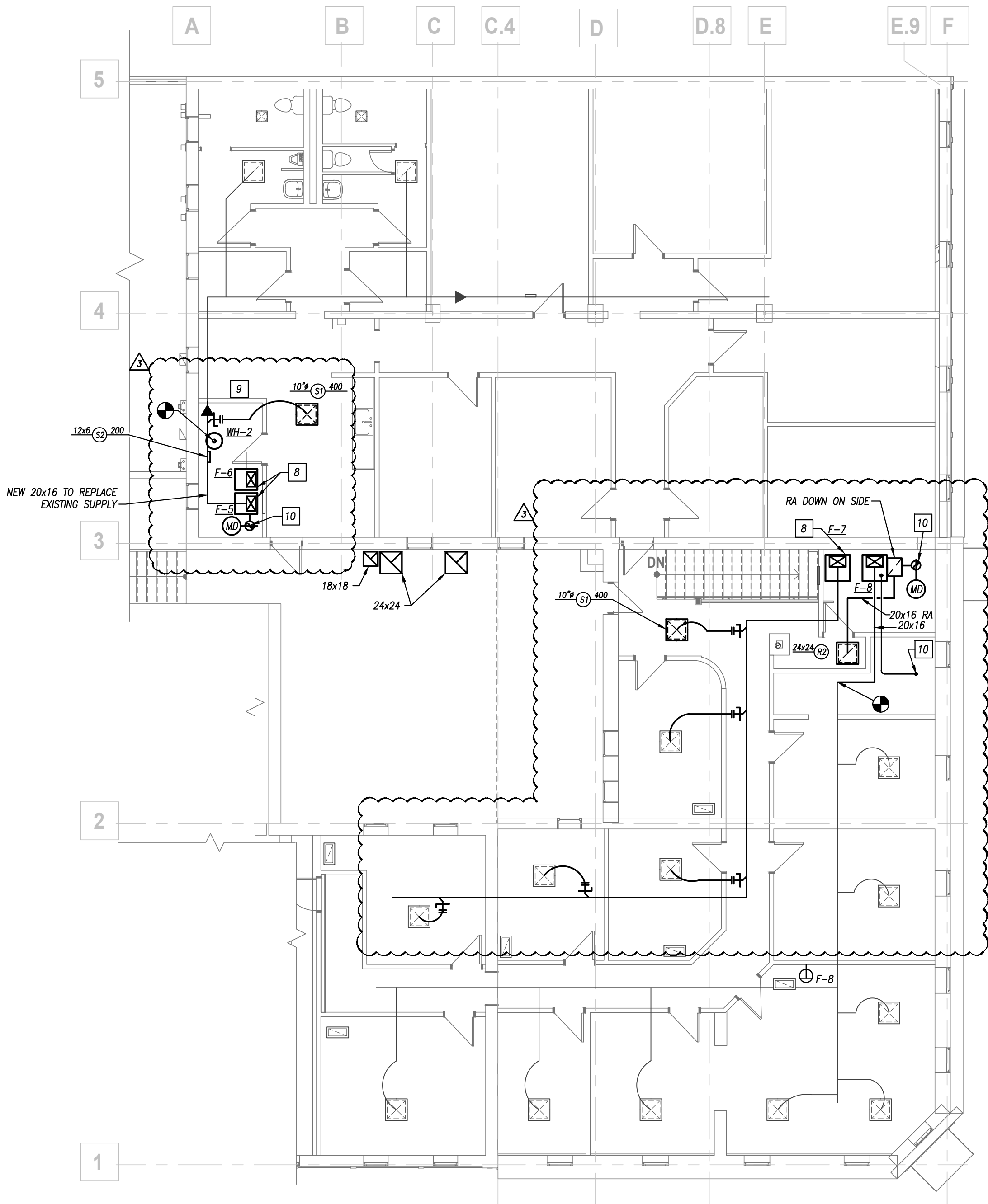
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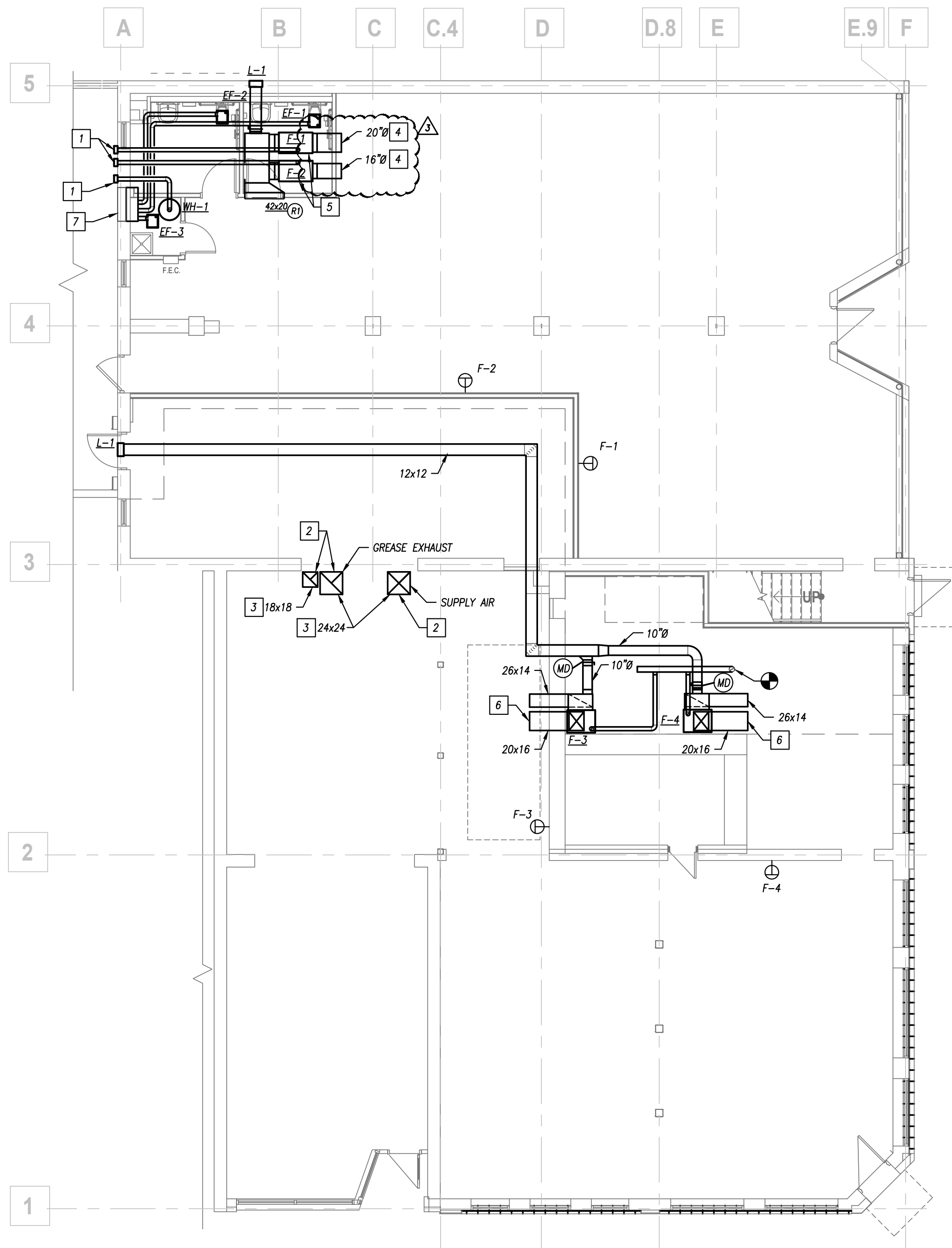
**DEMOLITION - FLOOR PLANS**



Permit Set



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



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

### 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.
10. 10" OUTDOOR AIR DUCT UP TO ROOF INTAKE. PROVIDE MOTORIZED AND BALANCING DAMPER IN RISER. INTAKE ON ROOF SHALL BE COOK PR-12 OR EQUIVALENT.
11. TERMINATE FLUE AND INTAKE UP TO CONCENTRIC VENT. TERMINATION SHALL NOT BE WITHIN 10' OF FRESH AIR INTAKE.



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

## MECHANICAL - FLOOR PLANS



## EXHAUST FAN SCHEDULE

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

## HVAC PIPING MATERIAL SCHEDULE

SYSTEM	SIZE	TYPE/SCHED	MATERIAL	ACCEPTABLE FITTINGS	FIELD TEST PRESSURE/TIME	ALLOWABLE IN PLENUMS	INSULATION
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)
REFRIGERANT LINES	1/2" - 2"	ACR	COPPER	BRAZED		YES	ELASTOMERIC 3/4"

### NOTES:

- ALL PIPING AND MATERIALS IN PLENUMS MUST MEET ASTM E84 FLAME/SMOKE RATING OF 25/50.
- ALL INSULATION THICKNESSES SHALL MEET ASHRAE 90.1 - 2007 REQUIREMENTS AT A MINIMUM.
- REFER TO SPECIFICATIONS FOR MORE DETAILED INFORMATION.

## FURNACE SCHEDULE

PLAN MARK	MANUFACTURER	MODEL NUMBER	CFM	O.A. CFM	FAN DATA	HEATING	ELECTRICAL	REMARKS
F-1	LENNOX	SL297UH090608	1,900	210	0.5" 1/2	60.0 100.0 106.7 96.0%	120V / 1PH 14.0 20 2	2
F-2	LENNOX	SL297UH090488	1,400	210	0.5" 1/2	45.0 110.0 106.7 97.0%	120V / 1PH 12.0 20 2	2
F-3	LENNOX	SL280UH135W00	1,990	299	0.5" 1	60.0 165.0 132.0 80.0%	120V / 1PH 12.0 20 1	1
F-4	LENNOX	SL280UH135W00	1,990	299	0.5" 1	60.0 165.0 132.0 80.0%	120V / 1PH 12.0 20 1	1
F-5	LENNOX	SL280UH090488	1,400	180	0.5" 1/2	45.0 110.0 88.0 80.0%	120V / 1PH 12 15 1	1
F-6	LENNOX	SL280UH090488	1,400	180	0.5" 1	60.0 110.0 88.0 80.0%	120V / 1PH 12 15 1	1
F-7	LENNOX	SL280UH135W00	1,990	299	0.5" 1	60.0 165.0 132.0 80.0%	120V / 1PH 12 20 1	1
F-8	LENNOX	SL297UH090608	1,900	210	0.5" 1	60.0 100.0 96.0 96.0%	120V / 1PH 14.0 20 2	2

### 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
CU-1	LENNOX	16ACX-060-230	60.0	15.5	105°	208V / 3PH 36.0 50 ALL	ALL
CU-2	LENNOX	16ACX-048-230	45.0	15.0	105°	208V / 3PH 28.0 40 ALL	ALL
CU-3	LENNOX	16ACX-060-230	60.0	15.5	105°	208V / 3PH 36.0 50 ALL	ALL
CU-4	LENNOX	16ACX-060-230	60.0	15.5	105°	208V / 3PH 36.0 50 ALL	ALL
CU-5	LENNOX	16ACX-060-230	60.0	15.5	105°	208V / 3PH 36.0 50 ALL	ALL
CU-6	LENNOX	16ACX-048-230	45.0	15.0	105°	208V / 3PH 28.0 40 ALL	ALL
CU-7	LENNOX	16ACX-060-230	60.0	15.5	105°	208V / 3PH 36.0 50 ALL	ALL
CU-8	LENNOX	16ACX-060-230	60.0	15.5	105°	208V / 3PH 36.0 50 ALL	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 (SF)	VELOCITY (FPM)	REMARKS
L-1	2	GREENHECK	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

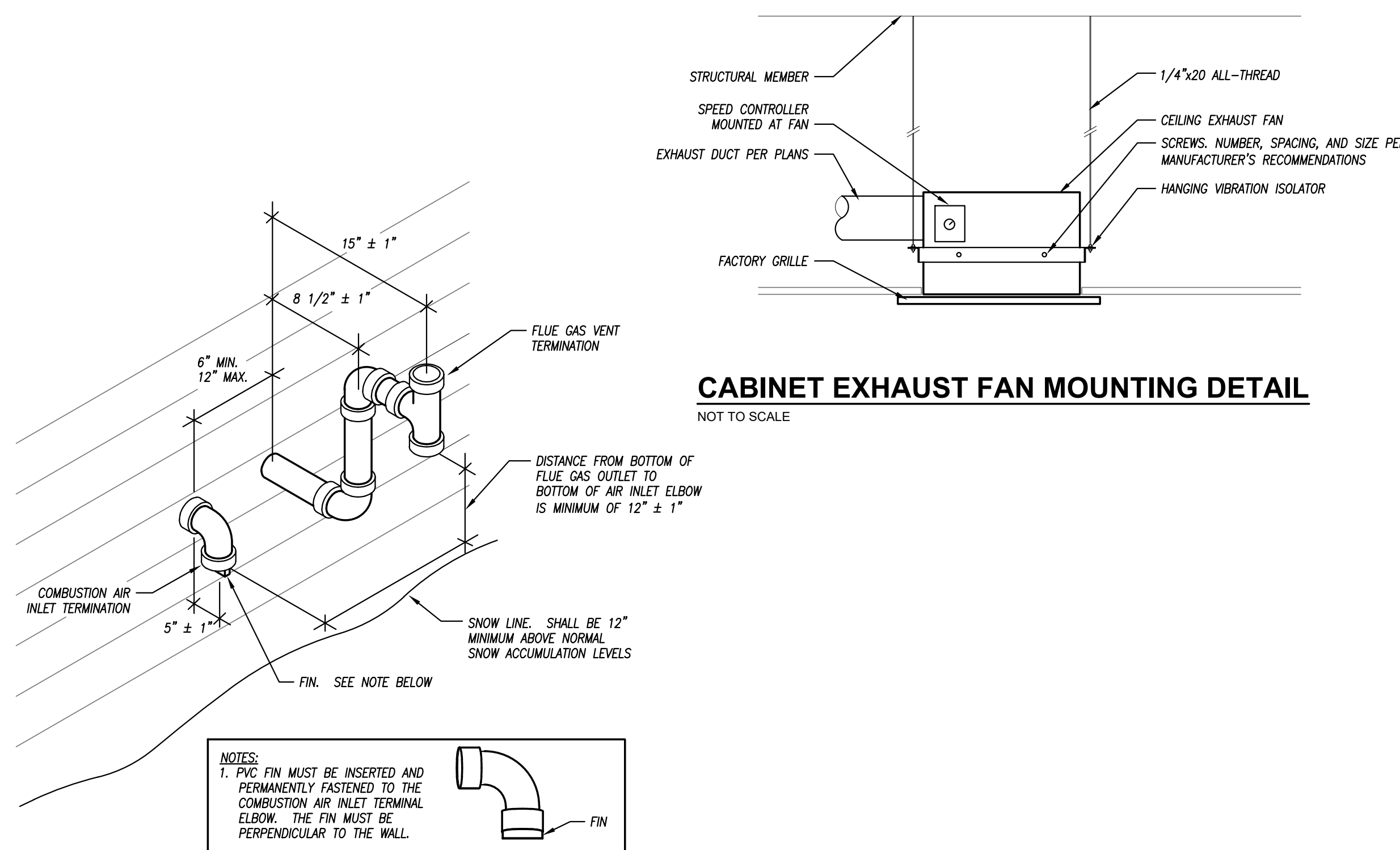
PLAN MARK	MANUFACTURER	MODEL NUMBER	MATERIAL	STYLE	DESCRIPTION	MOUNT TYPE	FACE SIZE (IN)	NECK SIZE (IN)	VOLUME DAMPER	MAX. APD (IN. WG.)	MAX. NC	FINISH COLOR	REMARKS
S1	TITUS	PAS	STEEL	CEILING DIFFUSER	PERFORATED FACE	LAY - IN	24x24	AS INDICATED	NO	0.08	25	WHITE	
S2	TITUS	300RS	STEEL	SIDEWALL DIFFUSER	RECTANGULAR DOUBLE DEFLECTION AEROBLADE	DUCT	AS INDICATED	AS INDICATED	YES - O.B.	0.07	30	PAINTABLE	2
R1	TITUS	350FL2	STEEL	SQUARE WALL	35 DEG SINGLE DEFLECTION AEROBLADE 3/4" SPACING	WALL	AS INDICATED	AS INDICATED	NO	0.08	25	WHITE	1
R2	TITUS	PAR	STEEL	CEILING DIFFUSER	PERFORATED FACE	LAY - IN	AS INDICATED	AS INDICATED	NO	0.08	25	WHITE	

### GENERAL NOTES:

- PROVIDE ALL GRD WITH ALL NECESSARY MOUNTING HARDWARE.
- PROVIDE GRD WITHOUT SCREWHOLE WHEN INSTALLED IN LAY-IN CEILING.
- VERIFY CEILING CONFIGURATION, COLOR AND SPECIFICS WITH ARCHITECTURAL CEILING PLANS.

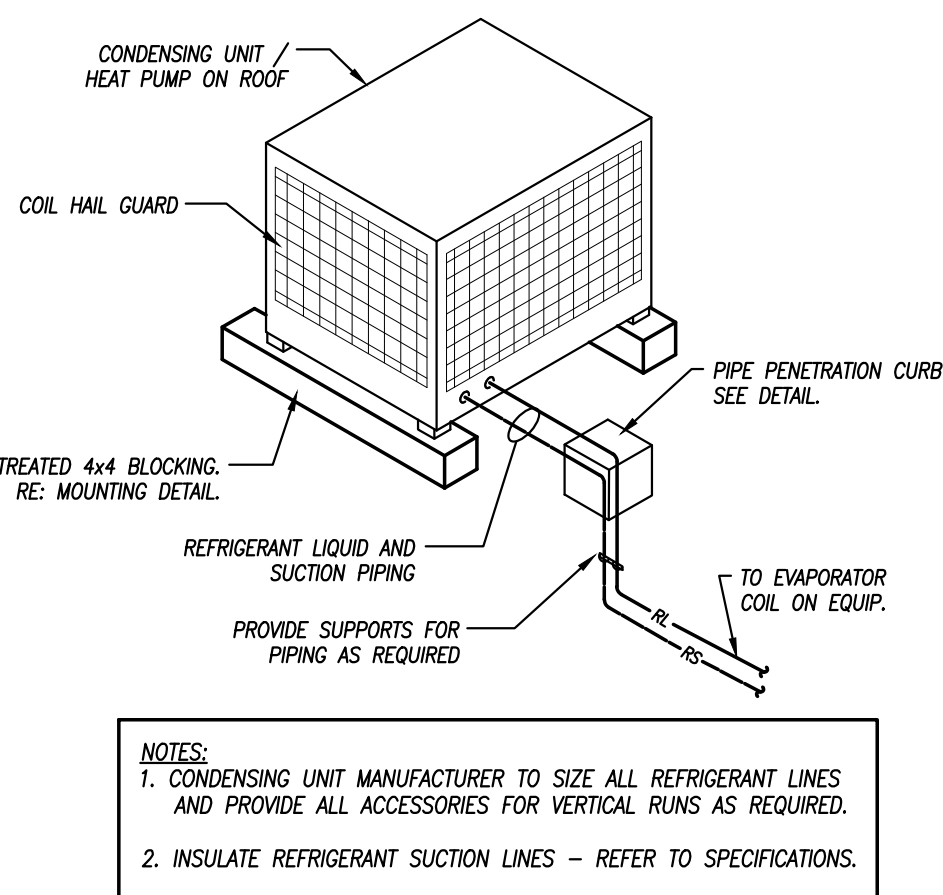
### REMARKS:

- PROVIDE WITH FILTERED GRILLE. PROVIDE WITH MERV 8 2" FILTER TO FIT WITHIN GRILLE ASSEMBLY.
- PROVIDE WALL FINISH, AND PAINT AS DIRECTED BY OWNER/ARCHITECT.



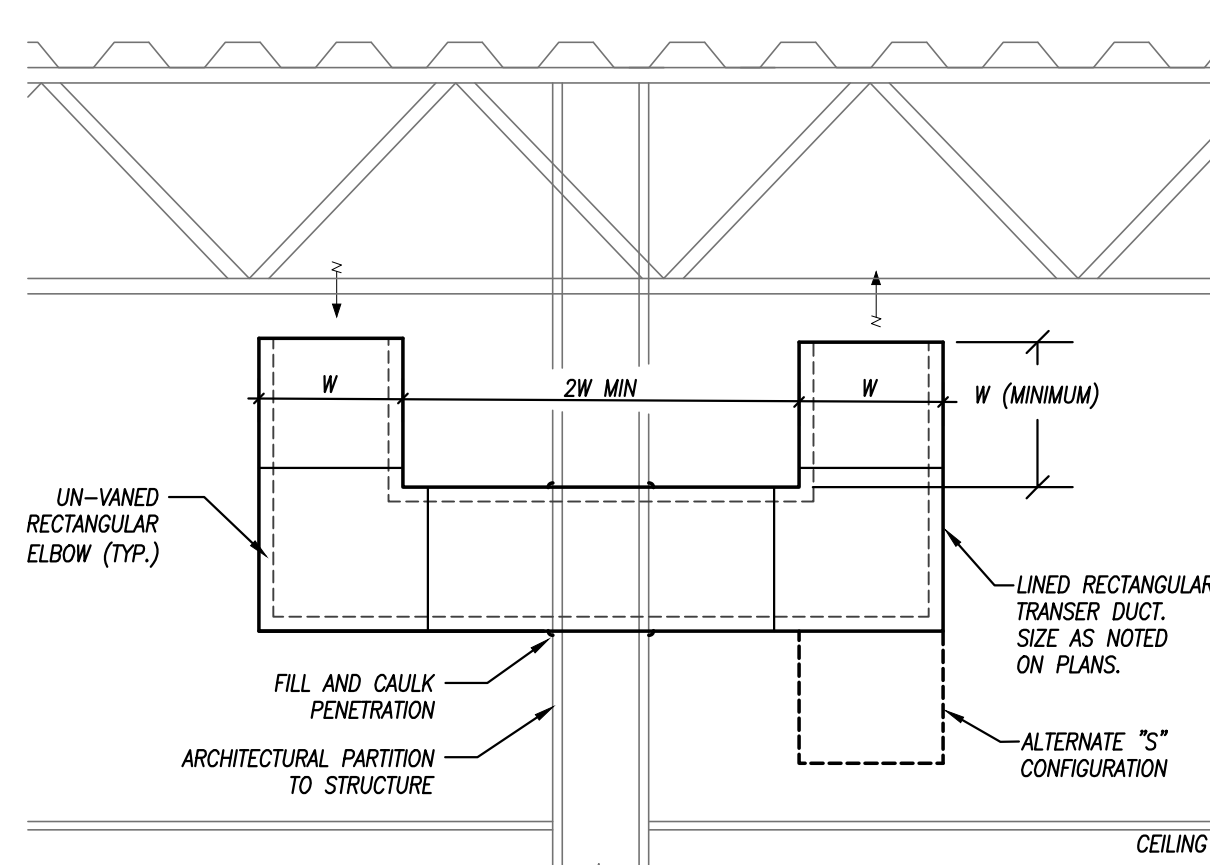
## CABINET EXHAUST FAN MOUNTING DETAIL

NOT TO SCALE



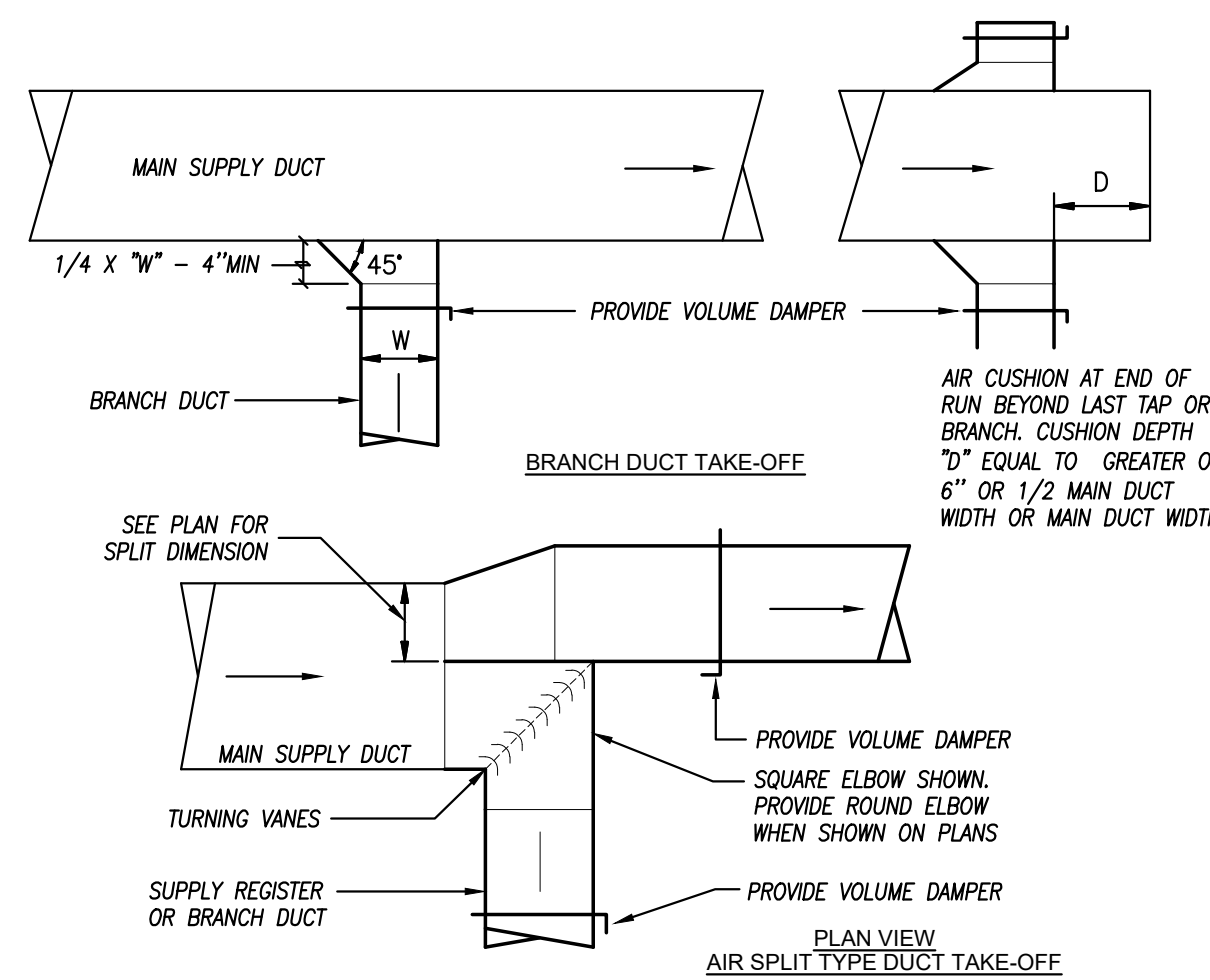
## CONDENSING UNIT / HEAT PUMP DETAIL

NOT TO SCALE



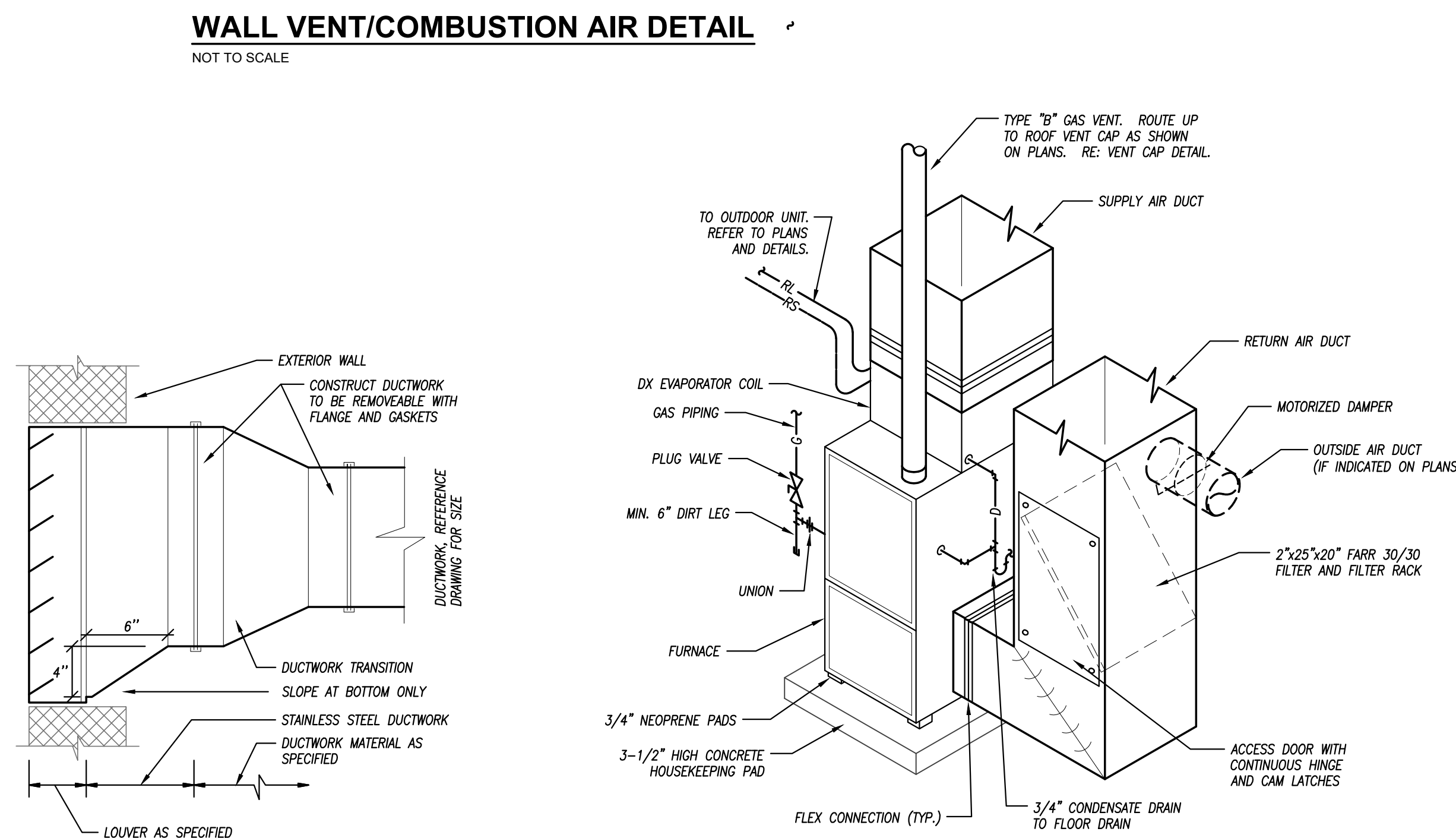
## TRANSFER BOOT DETAIL

NOT TO SCALE



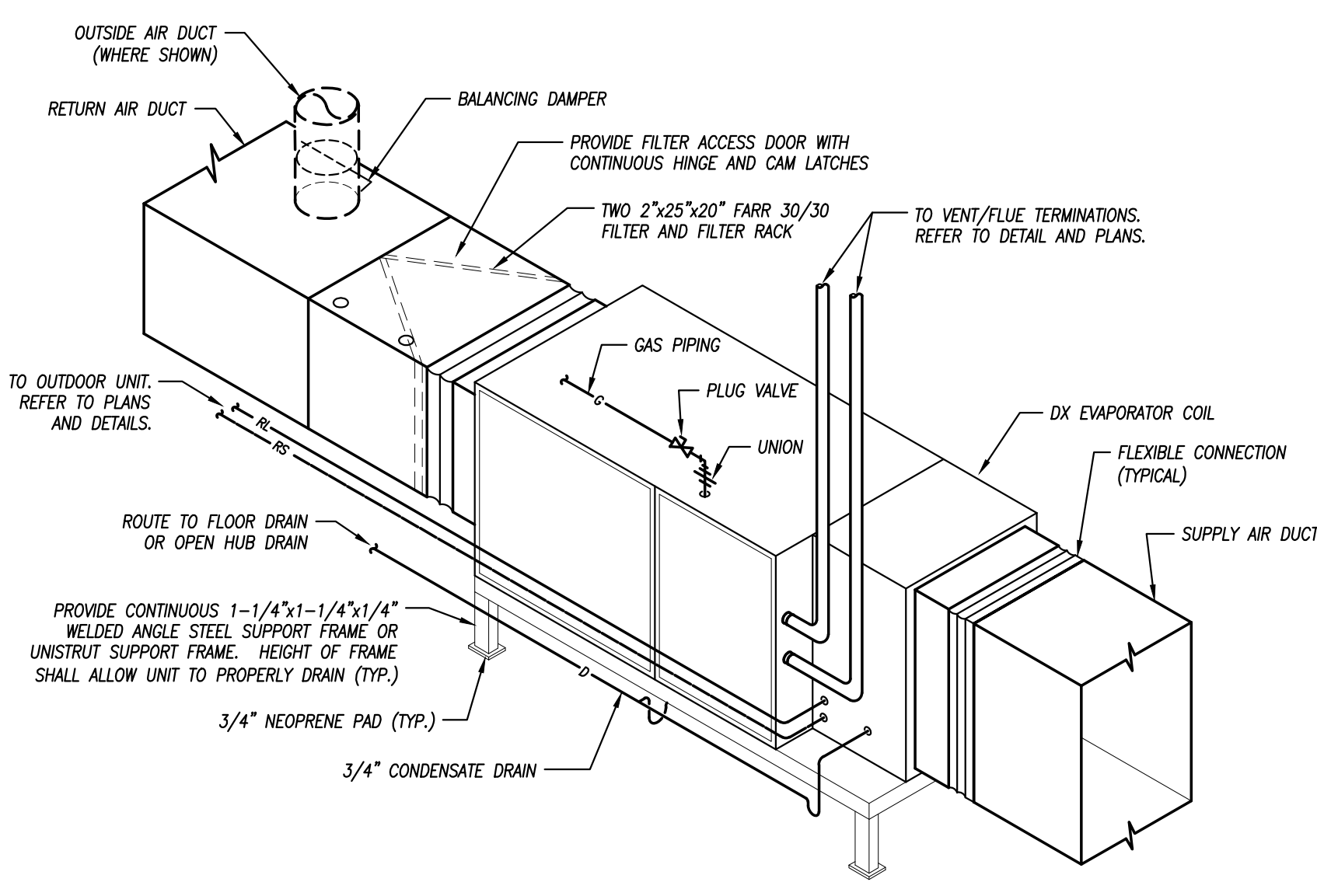
## DUCTWORK TAKEOFFS

NOT TO SCALE



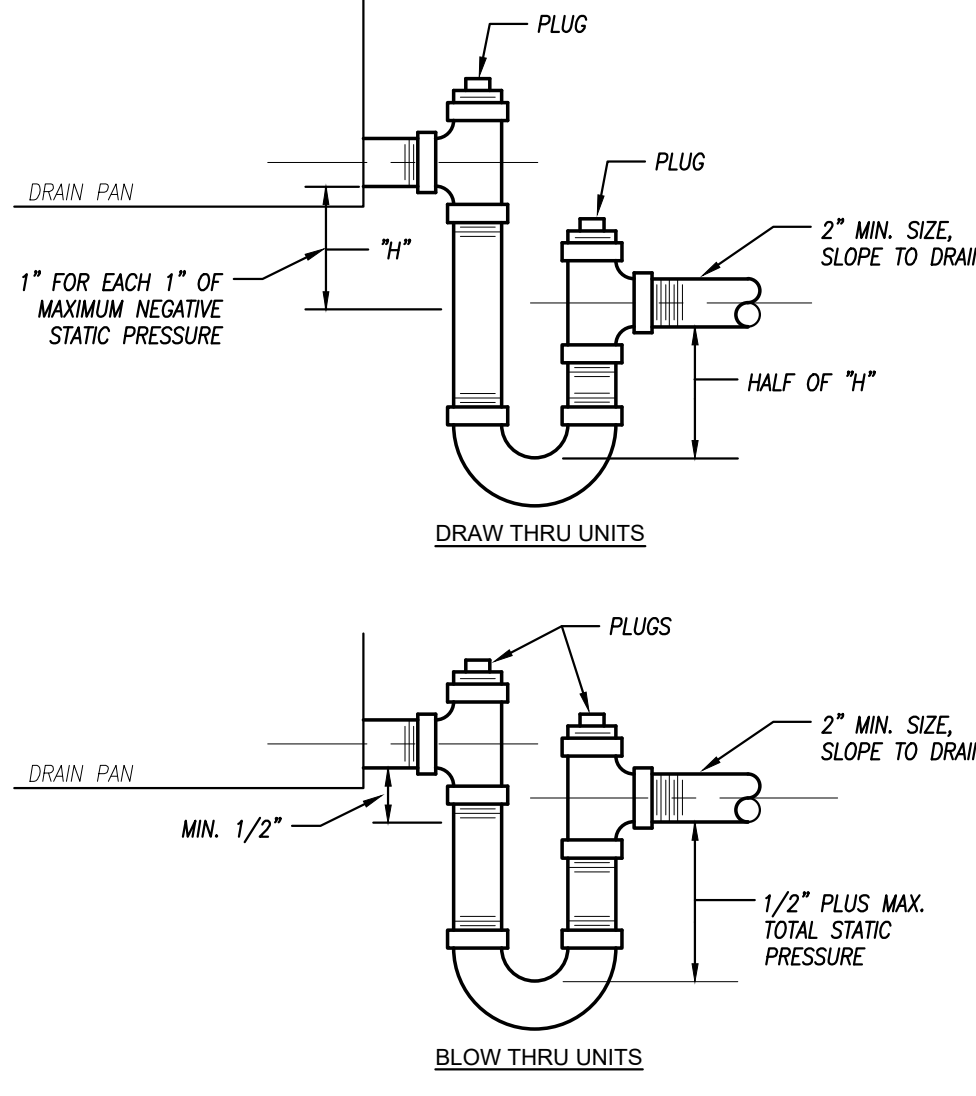
## FURNACE DETAIL

NOT TO SCALE



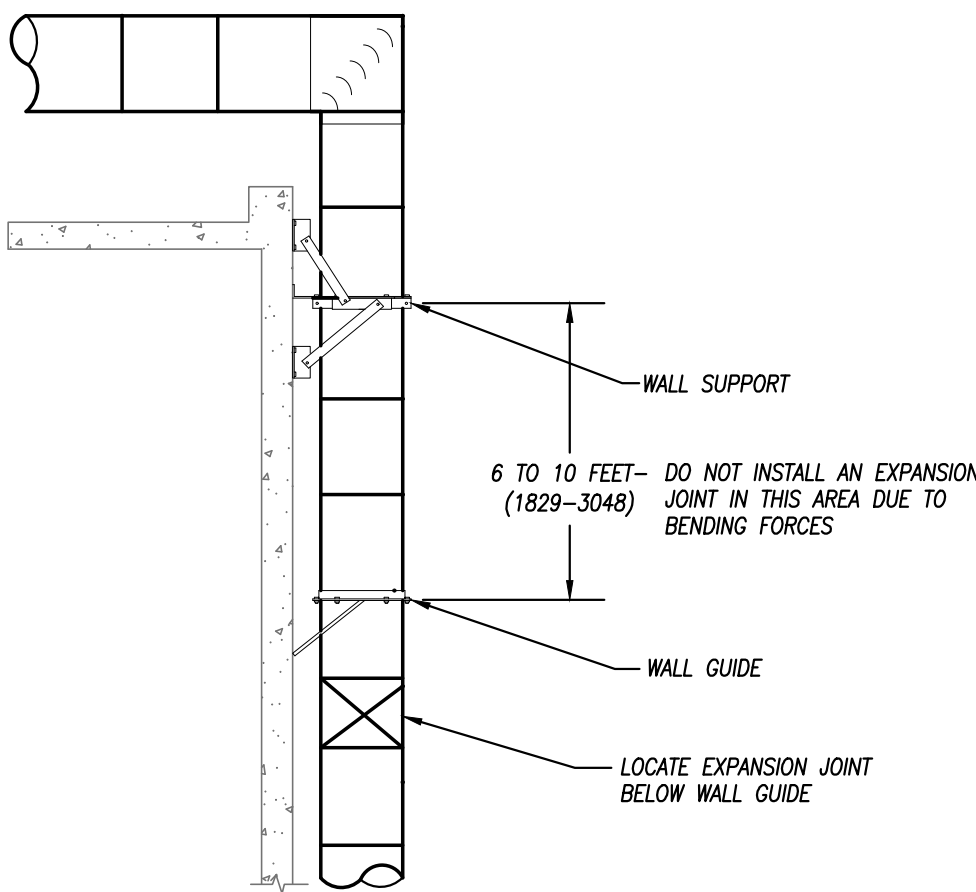
## HORIZONTAL FURNACE DETAIL

NOT TO SCALE



## CONDENSATE TRAP DETAIL

NOT TO SCALE



## GREASE DUCT ON WALL DETAIL

NOT TO SCALE

## DUCTWORK AT LOUVER

NOT TO SCALE



# MAIN STREET LANDLORD IMPROVEMENTS

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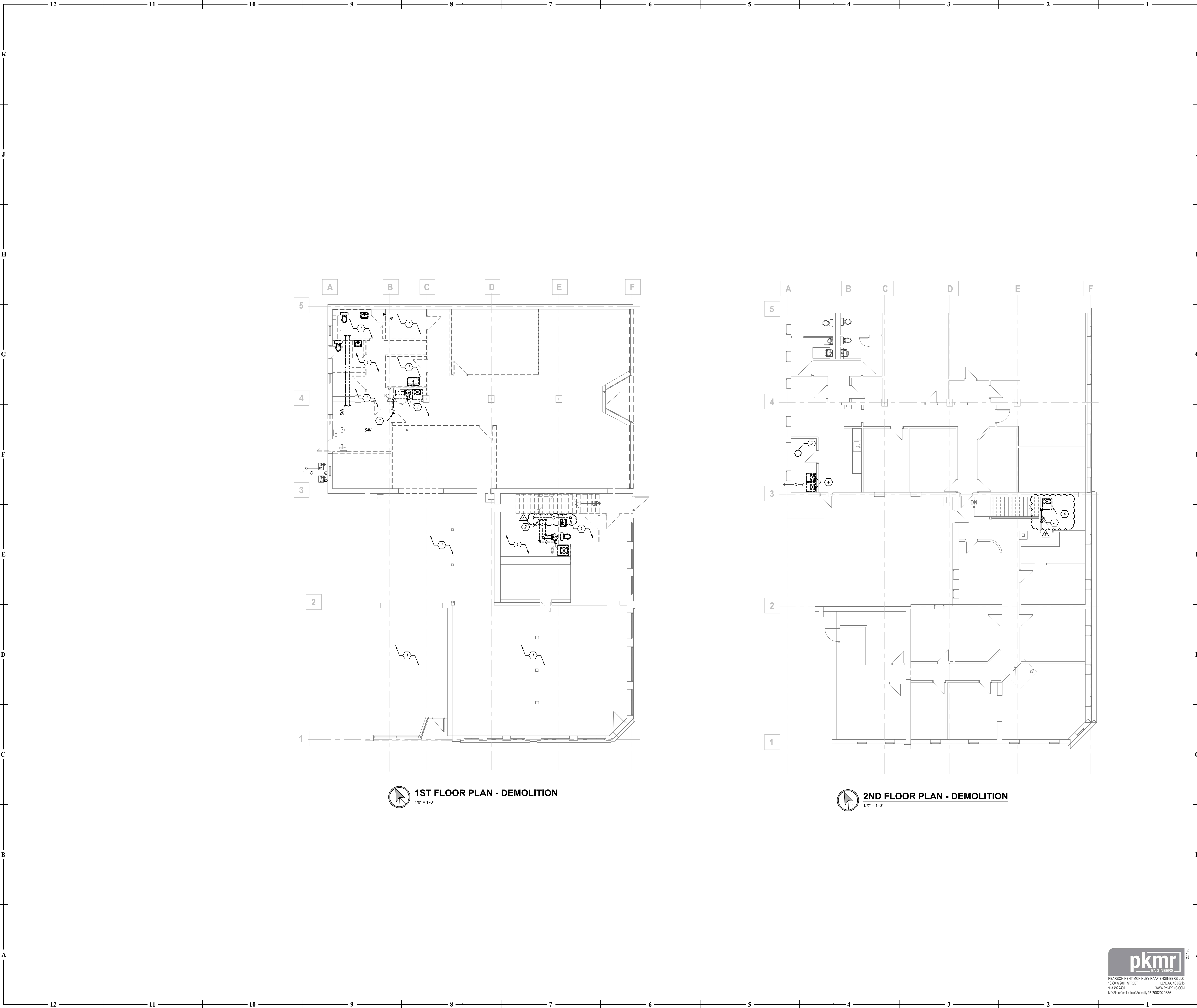


**M201**  
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## MECHANICAL - SCHED. /DETAILS

Permit Set



## 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. REMOVE EXISTING GAS CONNECTION AND PROVIDE NEW CONDENSATE DRAIN PIPE.
5. REMOVE EXISTING GAS PIPING BACK TO MAIN. CONTRACTOR SHALL FIELD VERIFY EXISTING ROUTING.



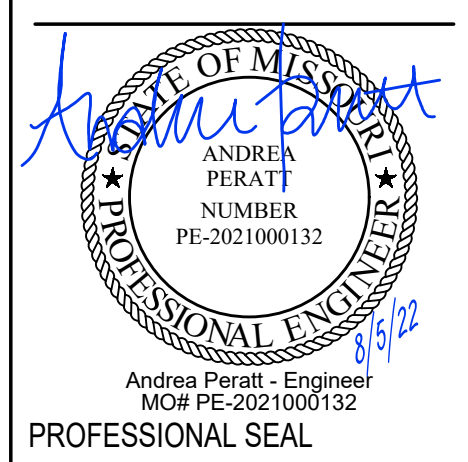
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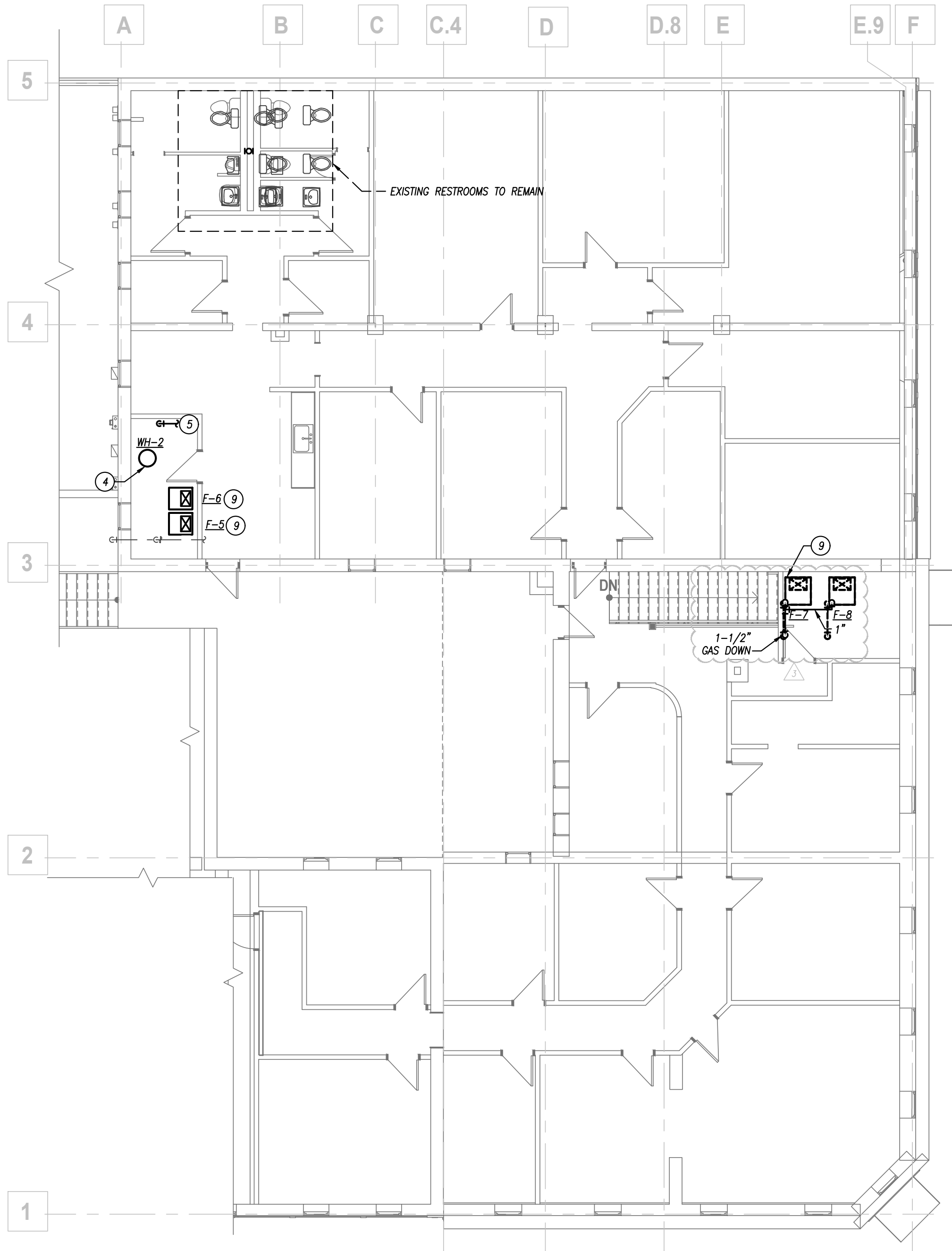
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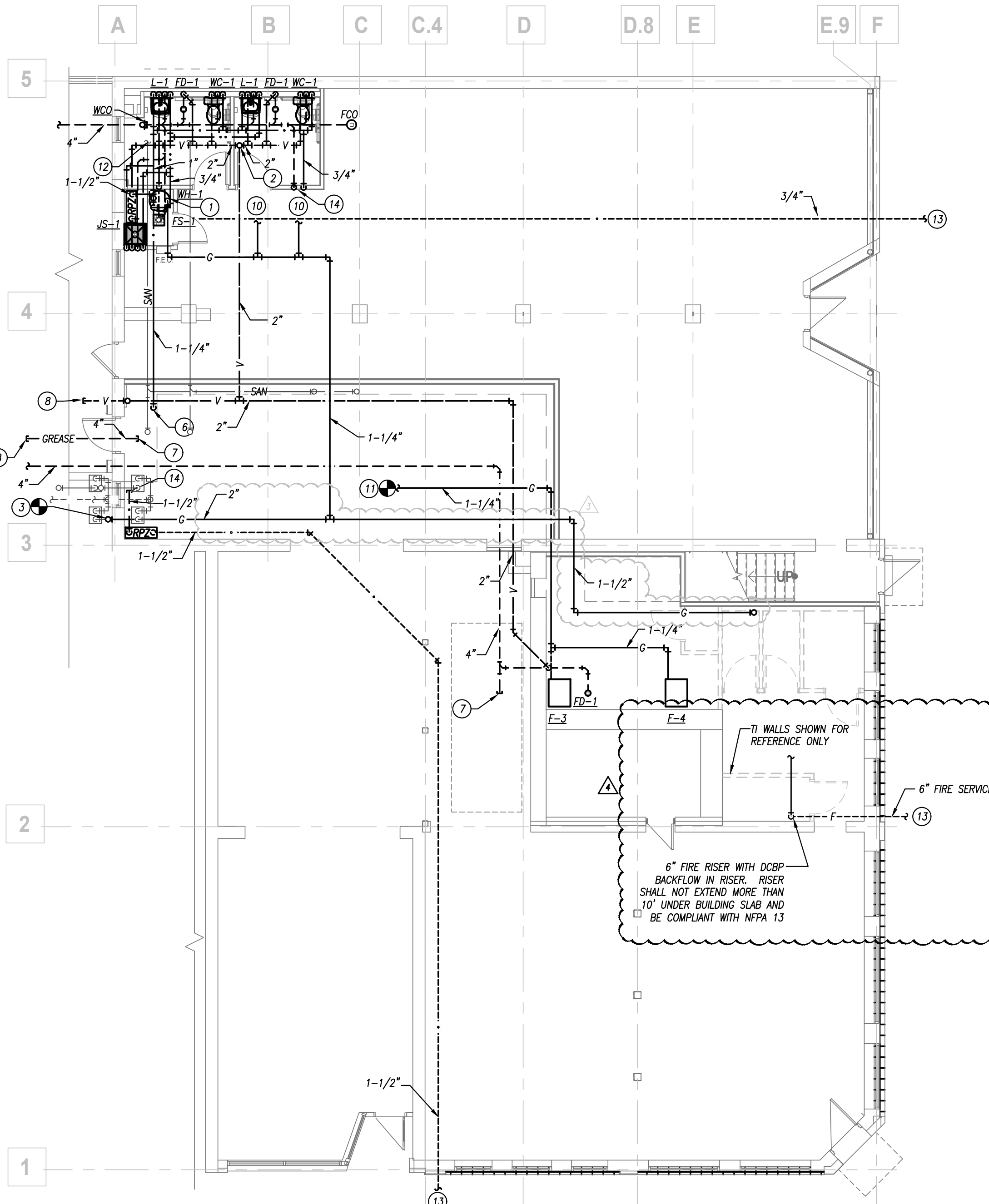
**P011**  
ISSUE DATE: APRIL 21, 2022  
COLLINS WEBB #: 21121



DEMOLITION - FLOOR PLANS



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



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

**SCOPE OF FIRE SUPPRESSION**

CONTRACTOR SHALL INSTALL NEW NFPA-13 FIRE SUPPRESSION SYSTEM FOR BUILDING. REFER TO SPECIFICATIONS FOR REQUIREMENTS, PRODUCT SPECIFICS AND INSTALLATION PROCEDURES. SPRINKLER SYSTEM SHALL BE MONITORED BY THE FIRE ALARM SYSTEM OR A MONITORING SYSTEM WITH DIALER WHEN NO FIRE SPRINKLER IS PRESENT. CONTRACTOR SHALL PROVIDE NECESSARY TAMPER FLOW SWITCH, CONTROLS, AND MONITORING AS REQUIRED. SYSTEM SHALL BE QUICK RESPONSE TYPE FOR APPROPRIATE HAZARD CLASSIFICATION. COORDINATE WITH APPROVED ARCHITECTURAL PLANS FOR CONSTRUCTION TYPES, CLASSIFICATIONS AND HAZARDS.

CONTRACTOR SHALL COORDINATE WITH OTHER TRADES AND ARCHITECTURAL PLANS FOR ROUTING OF PIPING AND PLACEMENT OF SPRINKLER HEADS. COORDINATE ATTIC LAYOUT WITH ARCHITECTURAL PLANS AND ANY DRAFTSTOPS OR FIRE BARRIER LOCATIONS. PROVIDE SHOP DRAWINGS FOR APPROVAL PRIOR TO INSTALLATION SHOWING COORDINATION OF SPRINKLER PIPING AND SPRINKLER HEADS WITH OTHER TRADES.

WHERE BUILDING REMAINS UNFINISHED THE SPRINKLER SYSTEM SHALL BE DESIGNED FOR CAPACITY TO EXTEND THE SYSTEM WITHOUT RETURNING TO THE RISER LOCATION FOR FUTURE COVERAGE OF ADDITIONAL SPACES IN BUILDING.

**FIRE SPRINKLER DESIGN CRITERIA**

ENGINEERING DOCUMENTS SHALL BE BASED UPON THE FOLLOWING CODES AND STANDARDS (AND LIST THEM ON THE LAYOUT DOCUMENTS):

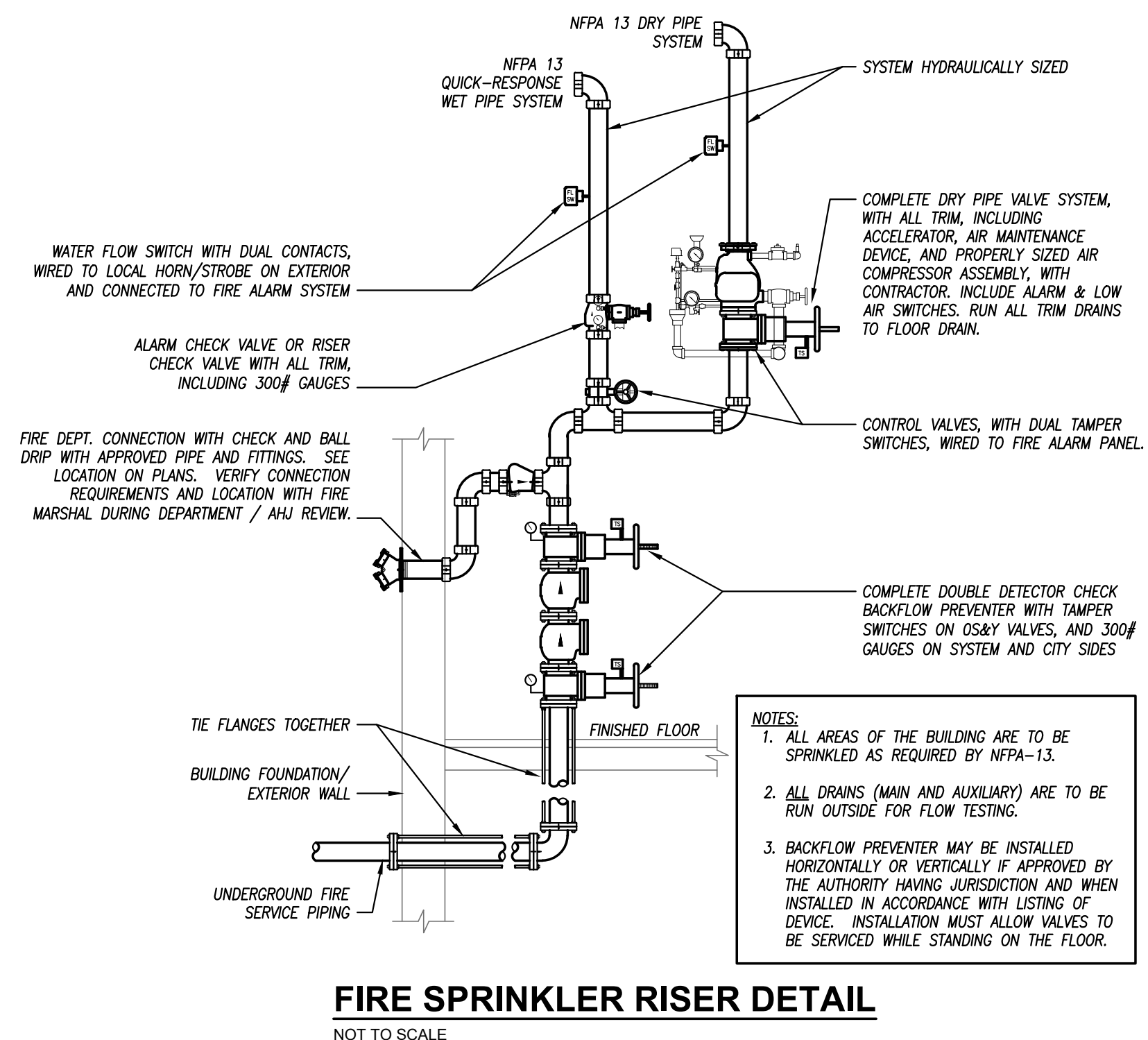
1. NFPA 13 - CURRENT EDITION

FIRE PROTECTION DOCUMENTS SHALL ALSO LIST AND/OR SHOW THE FOLLOWING (UTILIZE CODE APPROVED CODE PLANS AND COORDINATE ALL AREAS OF THE BUILDING AND VARIOUS REQUIREMENTS AS MAY BE NECESSARY. GENERALLY, THE BUILDING SPACES SHALL BE AS FOLLOWS, BUT MAY DIFFER IN SPECIFIC AREAS OF MULTIPLE OCCUPANCIES):

1. OCCUPANCY TYPE - AS LISTED ON ARCHITECTURAL CODE PLANS
2. CONSTRUCTION TYPE - AS LISTED ON ARCHITECTURAL CODE PLANS
3. DESIGN APPROACH (STATE THE FOLLOWING: RESPONSE TYPE, DENSITY, HEAD SPACING.)
4. INTERIOR OCCUPIED SPACES SYSTEM
- 4.1. SYSTEM TYPE - WET
- 4.2. HAZARD CLASSIFICATION - LIGHT
- 4.2.1. SYSTEM RESPONSE TYPE - QUICK
- 4.2.2. DENSITIES - 0.10 GPM/SF FOR 1,500 SF
- 4.2.3. MAXIMUM HEAD SPACING - 225 SF
- 4.3. HAZARD CLASSIFICATION - ORDINARY GROUP 1
- 4.3.1. SYSTEM RESPONSE TYPE - QUICK
- 4.3.2. DENSITIES - 0.15 GPM/SF FOR 1,500 SF
- 4.3.3. MAXIMUM HEAD SPACING - 130 SF
5. ATTIC AND OTHER AREAS SUBJECT TO FREEZING TEMPERATURES
- 5.1. SYSTEM TYPE - DRY
- 5.2. HAZARD CLASSIFICATION - LIGHT
- 5.2.1. SYSTEM RESPONSE TYPE - QUICK
- 5.2.2. DENSITIES - 0.10 GPM/SF FOR 1,500 SF
- 5.2.3. MAXIMUM HEAD SPACING - 120 SF
6. CHARACTERISTICS OF WATER SUPPLY TO BE USED, INCLUDING MAIN SIZE AND LOCATION, STATIC AND RESIDUAL PRESSURES AND FLOW RATES
7. THE POINT OF SERVICE FOR THE FIRE PROTECTION WATER SUPPLY
8. SYSTEM VALVING AND ALARM REQUIREMENTS
- 8.1. SYSTEM SHALL BE MONITORED BY THE FIRE ALARM SYSTEM OR A SEPARATE MONITORING SYSTEM PANEL, DIALER AND ANNUNCIATION ACCESSORIES AS REQUIRED BY LOCAL ADOPTED CODES.
- 8.2. ALL CONTROL VALVES SHALL BE EQUIPPED WITH TAMPER AND FLOW SWITCHES WIRED TO THE MONITORING SOURCE PANEL.
9. PROVIDE ALL ADDITIONAL SYSTEM COMPONENTS FOR DRY SYSTEM INCLUDING AIR COMPRESSOR AND OTHER VALVES MONITORING

ACCEPTANCE TESTING OF FIRE PROTECTION SYSTEM SHALL BE IN ACCORDANCE WITH THE FOLLOWING CODES AND STANDARDS:

1. NFPA 25 - CURRENT EDITION



- GENERAL PLUMBING NOTES**
1. REFER TO GENERAL NOTES ON MEP COVER SHEET FOR ADDITIONAL REQUIREMENTS OF WORK.
  2. REFER TO PLUMBING FUTURE / 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 FLOOR 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 ANS. 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 "X" 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 2-1/2" GAS LINE TO EXISTING GAS MAIN FOR NORTH/SOUTH 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.

**MAIN STREET LANDLORD IMPROVEMENTS**

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ASH-01	08/05/22
Owner Revision	12/08/22

Professional Engineer Seal for Andrew Peratt, License No. PE-2021000132, State of Missouri.

**P111**  
ISSUE DATE: APRIL 21, 2022  
COLLINS WEBB #: 21121

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ANDREW PERATT  
PROFESSIONAL ENGINEER  
NUMBER  
PE-2021000132  
Andrew Peratt - Engineer  
MOW PE-2021000132  
PROFESSIONAL SEAL

P201

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

PLUMBING - SCHED./DETAILS

## 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	1-1/2"-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.

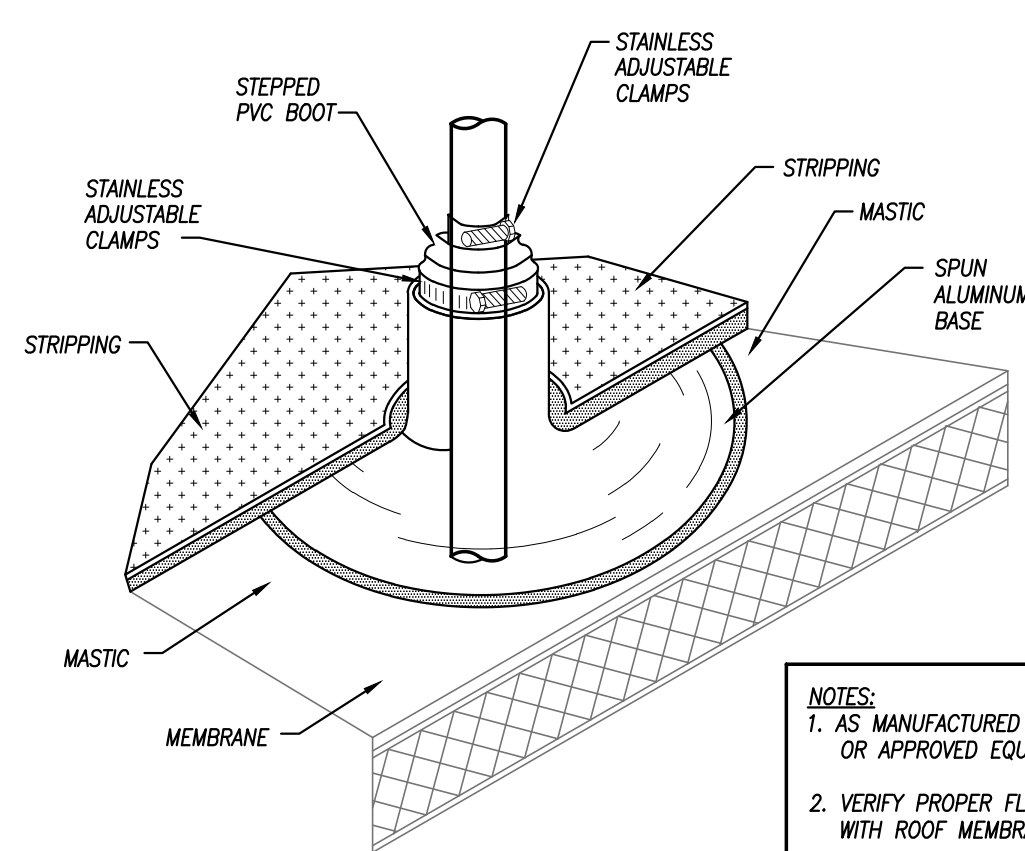
## PLUMBING FIXTURE BRANCH CONNECTION SCHEDULE

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/FWC'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"

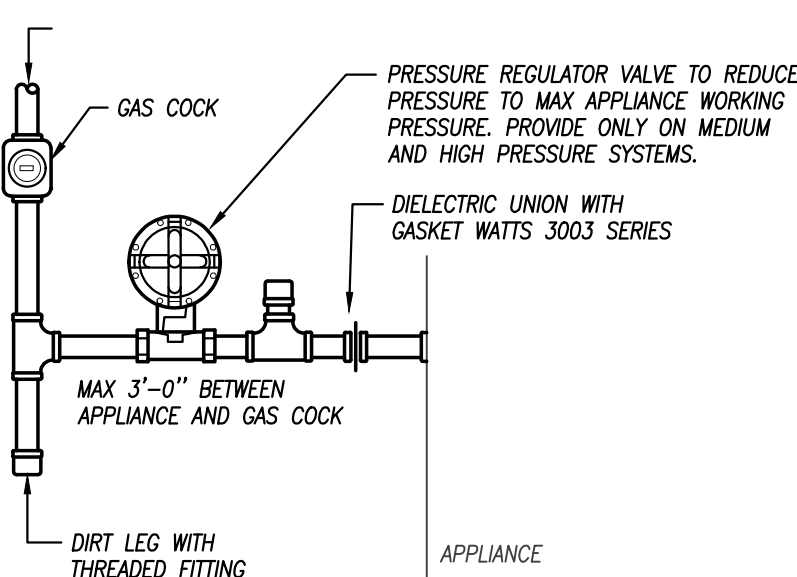
## FLOOR / ROOF DRAIN SCHEDULE

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

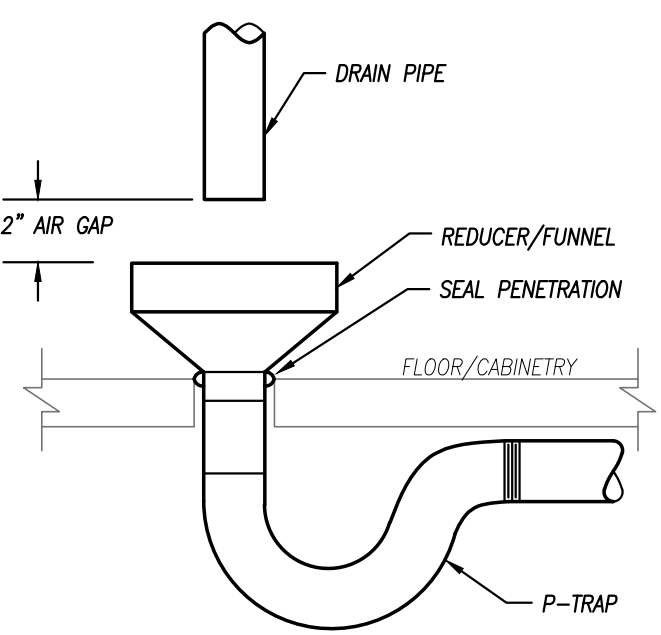
- REMARKS:  
1. PROVIDE WITH NICKEL BRONZE TOP.  
2. PROVIDE WITH 3/4" GRATE.



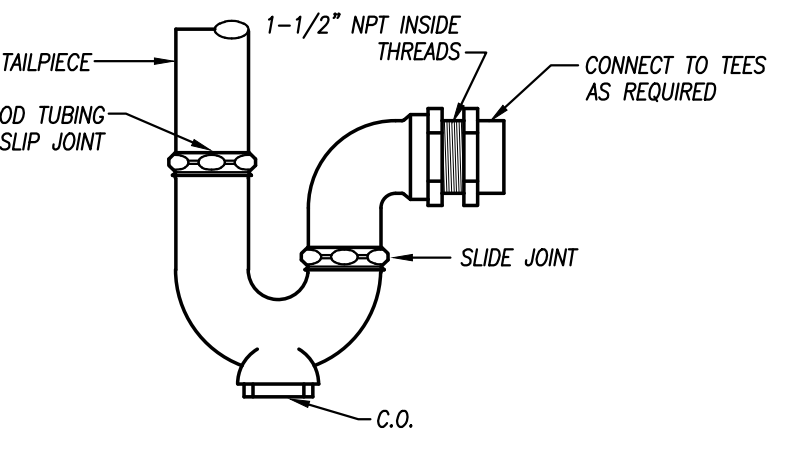
ROOF PLUMBING VENT  
NOT TO SCALE



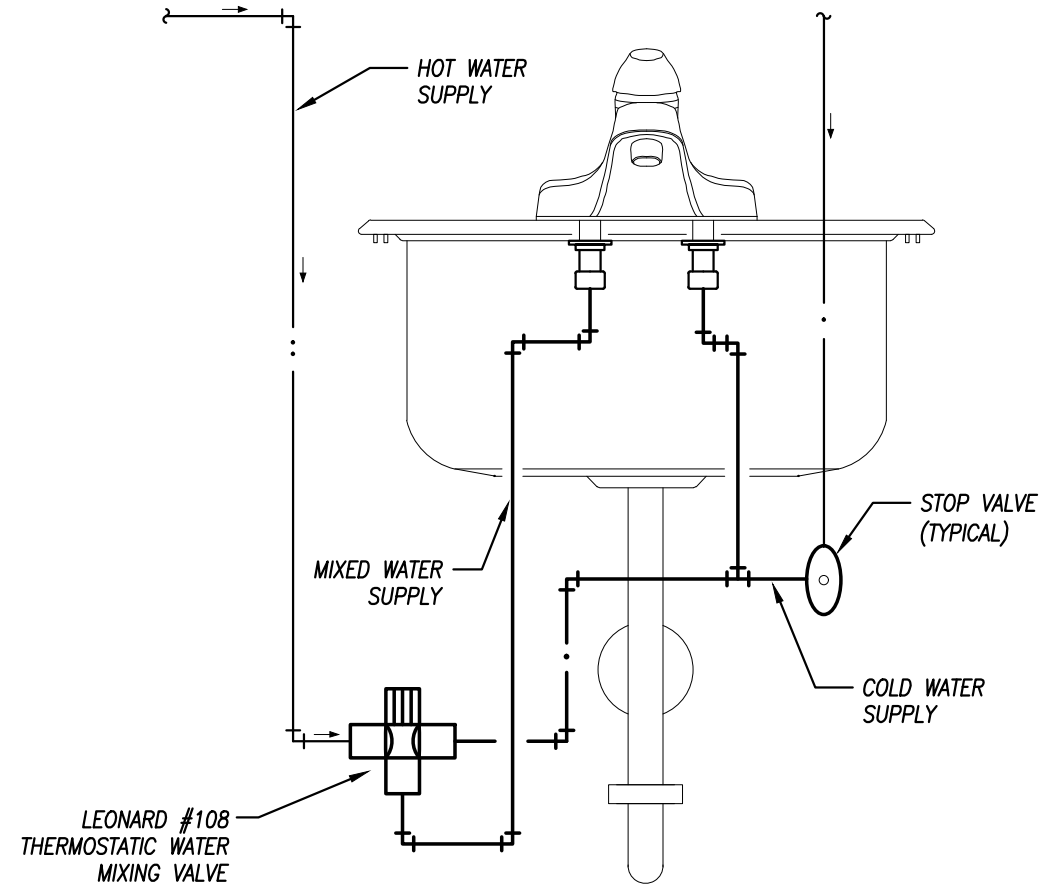
TYPICAL GAS CONNECTION  
NOT TO SCALE



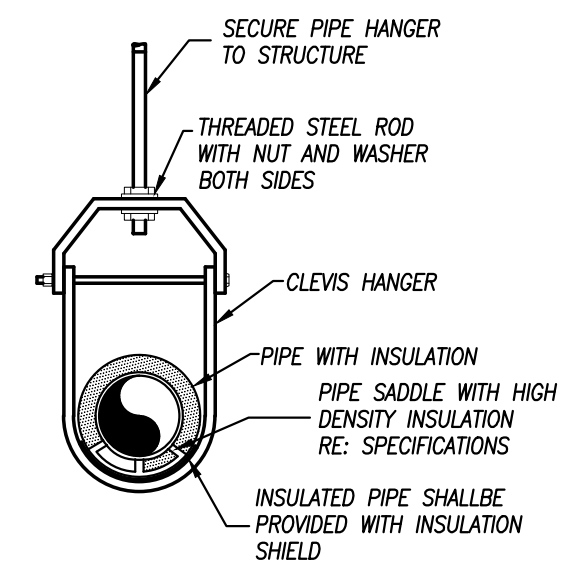
AIR GAP DETAIL  
NOT TO SCALE



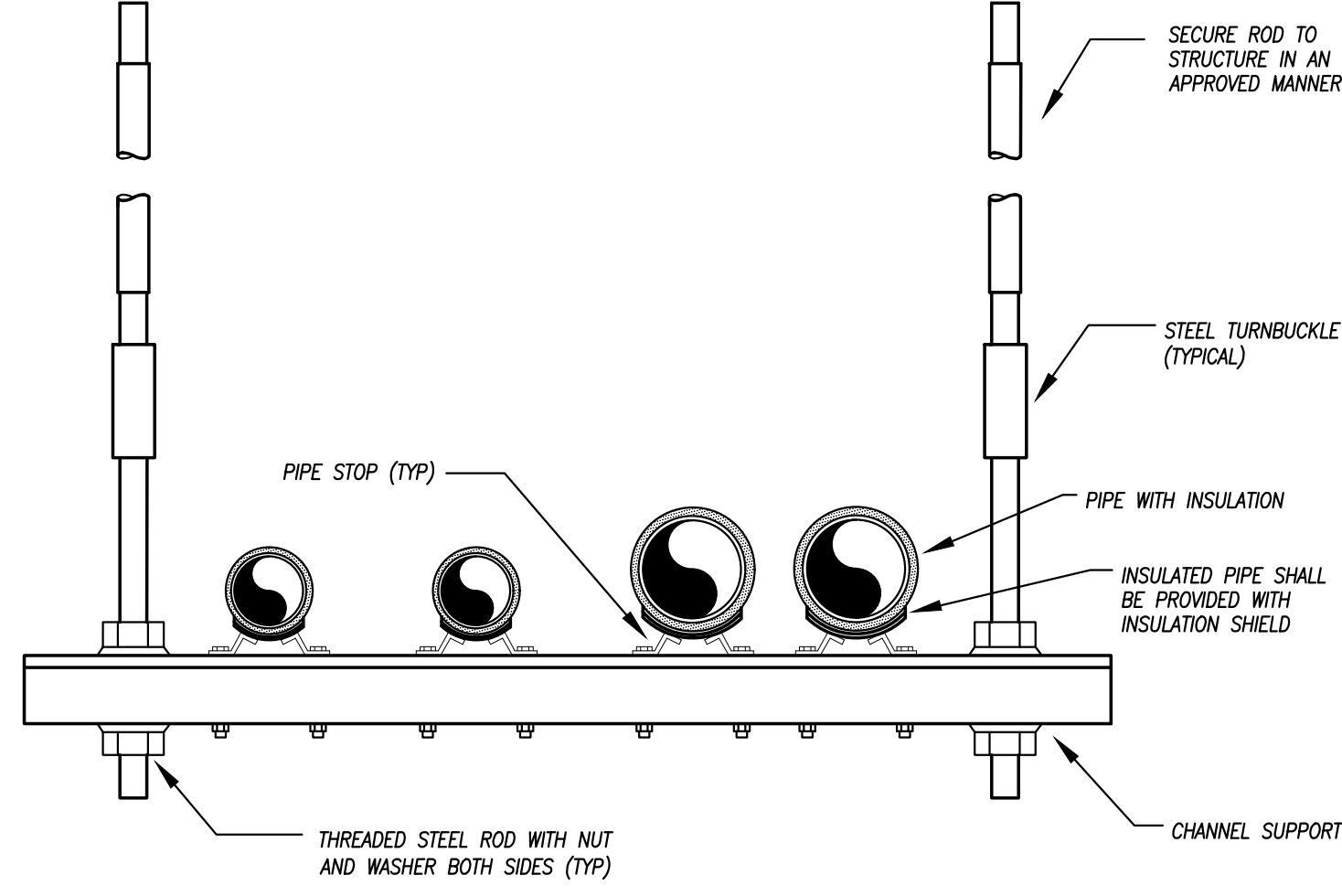
P-TRAP DETAIL  
NOT TO SCALE



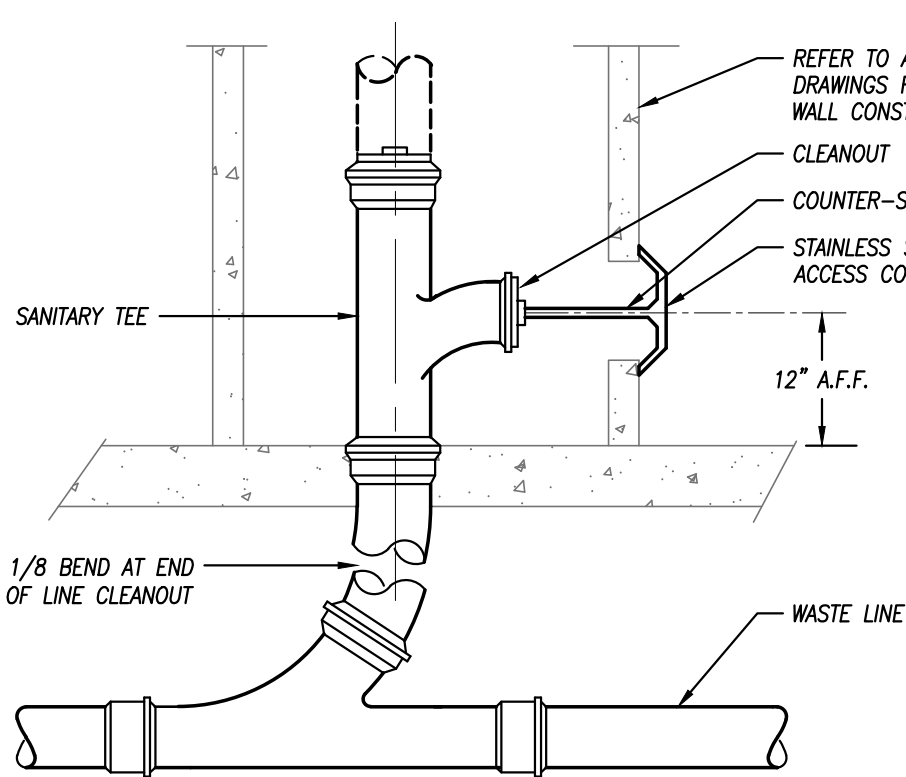
HAND WASHING SINK/LAVATORY  
TEMPERED WATER SCHEMATIC  
NOT TO SCALE



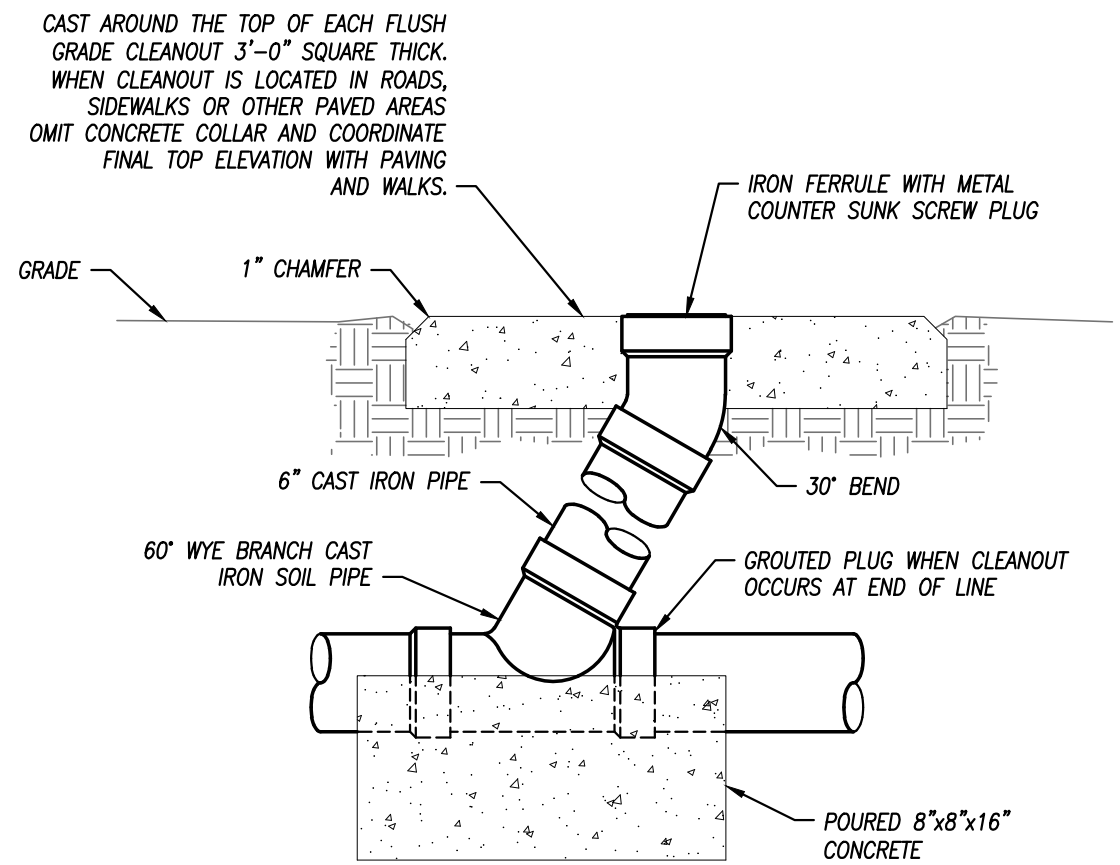
PIPE HANGER DETAIL  
NOT TO SCALE



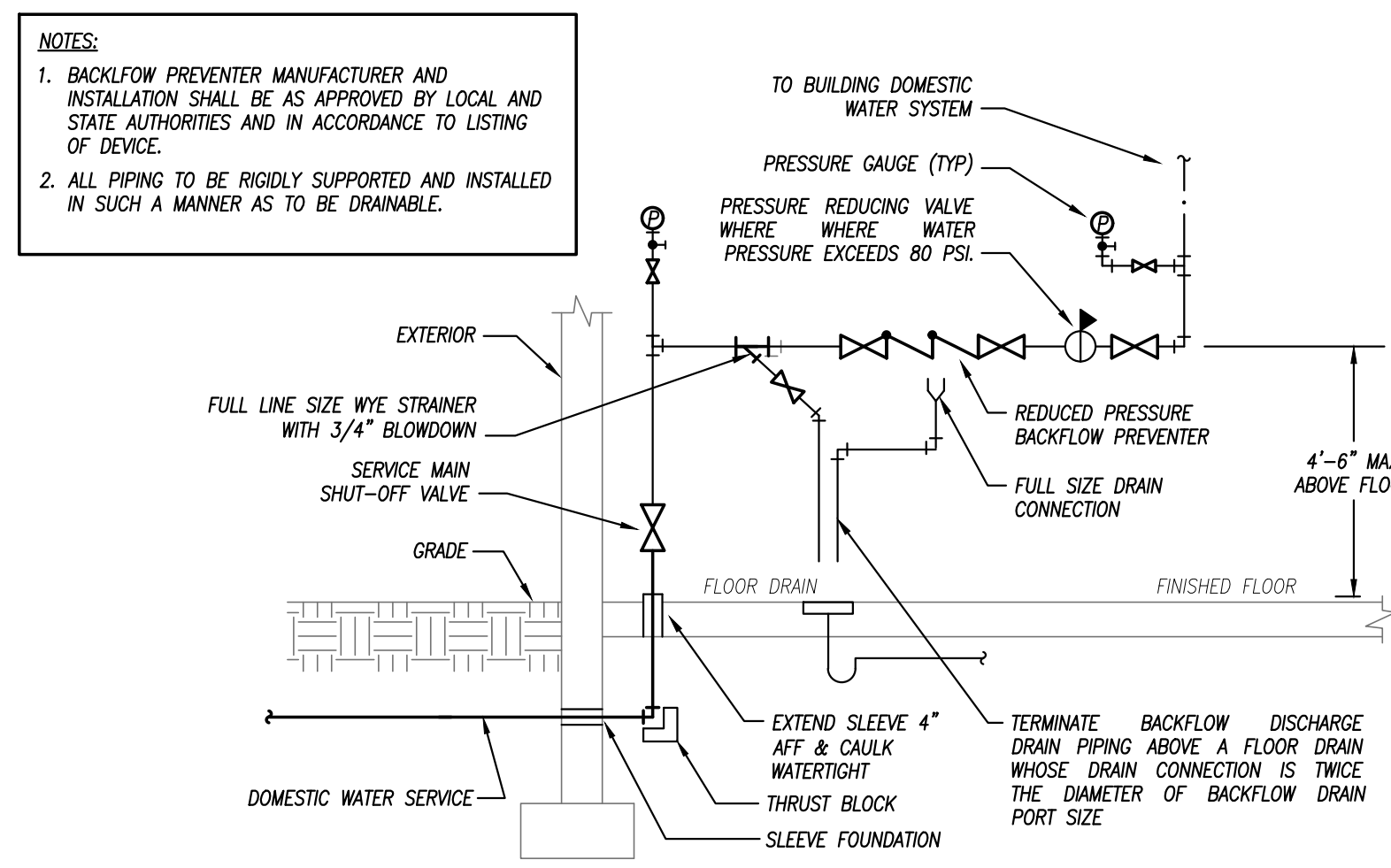
MULTIPLE PIPE TRAPEZE HANGER DETAIL  
NOT TO SCALE



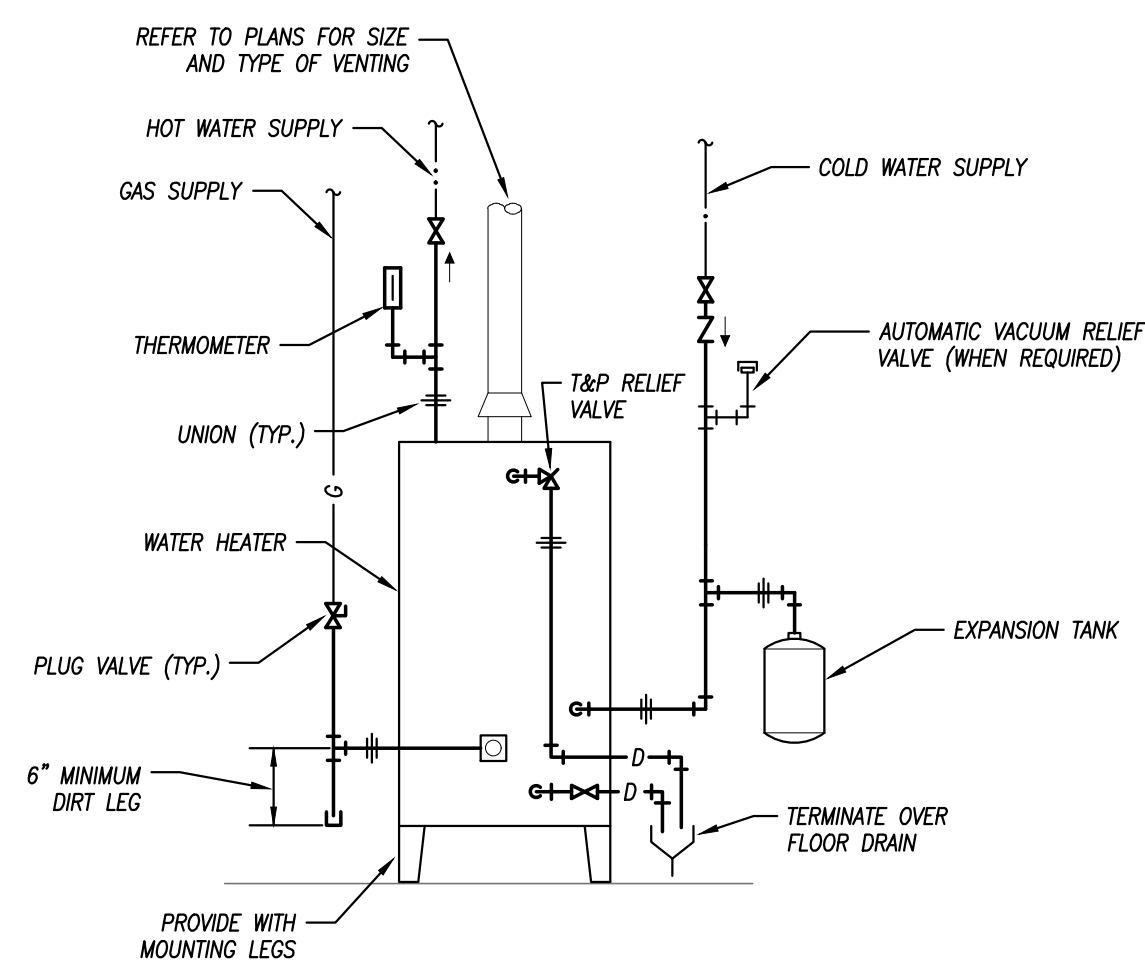
WALL CLEANOUT DETAIL  
NOT TO SCALE



FLUSH GRADE CLEANOUT DETAIL  
NOT TO SCALE

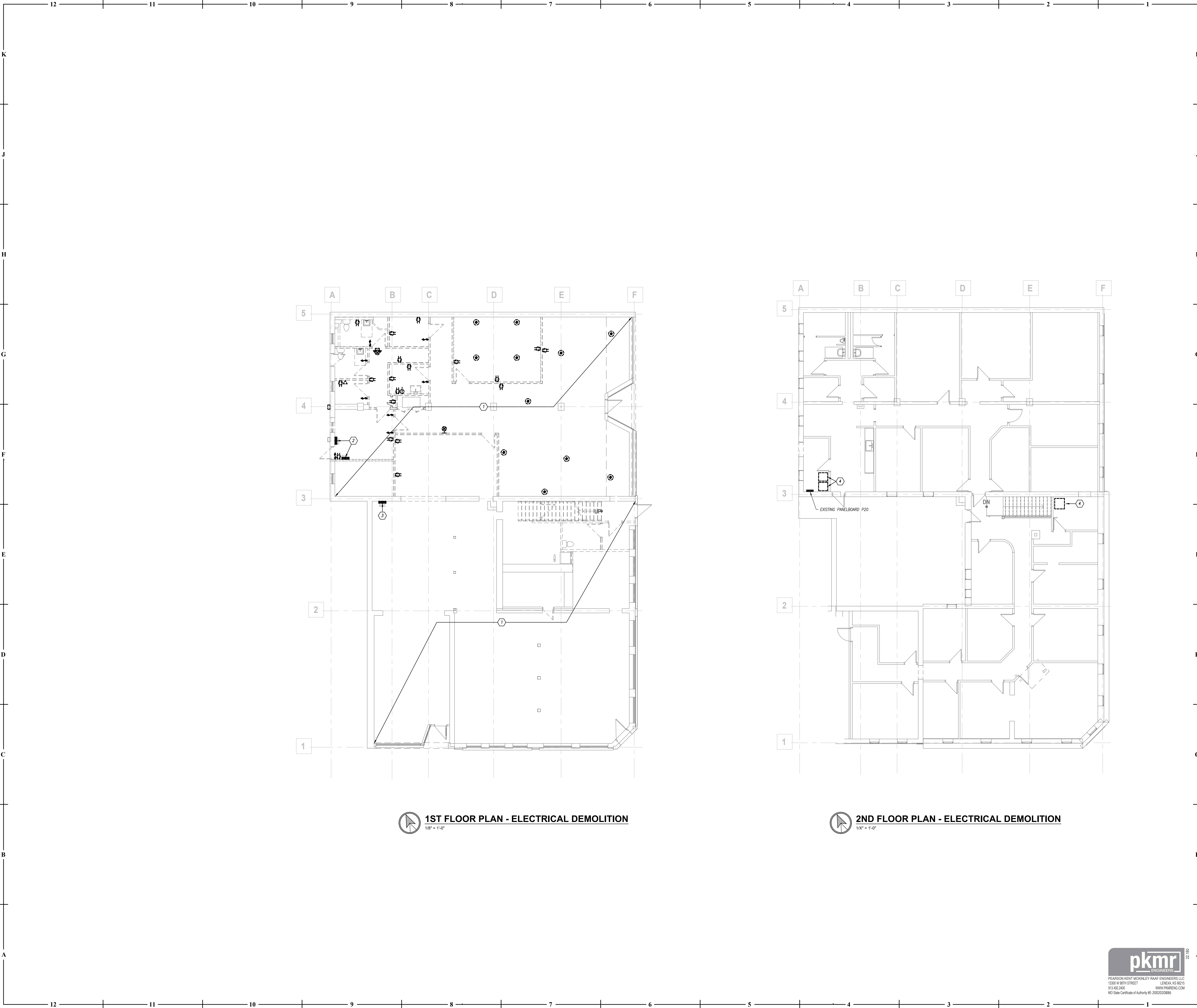


WATER SERVICE  
REDUCED PRESSURE BACKFLOW PREVENTER DETAIL  
NOT TO SCALE



GAS WATER HEATER DETAIL  
NOT TO SCALE

pkmr  
ENGINEERS  
PLANNING KENT MCKINLEY RAAP ENGINEERS, LLC  
1300 W 96TH STREET  
913.482.2400  
WWW.PKMRNG.COM  
MO State Certificate of Authority #E-0000020866



**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.

**MAIN STREET LANDLORD IMPROVEMENTS**

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

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REVISION DATES:



**E011**

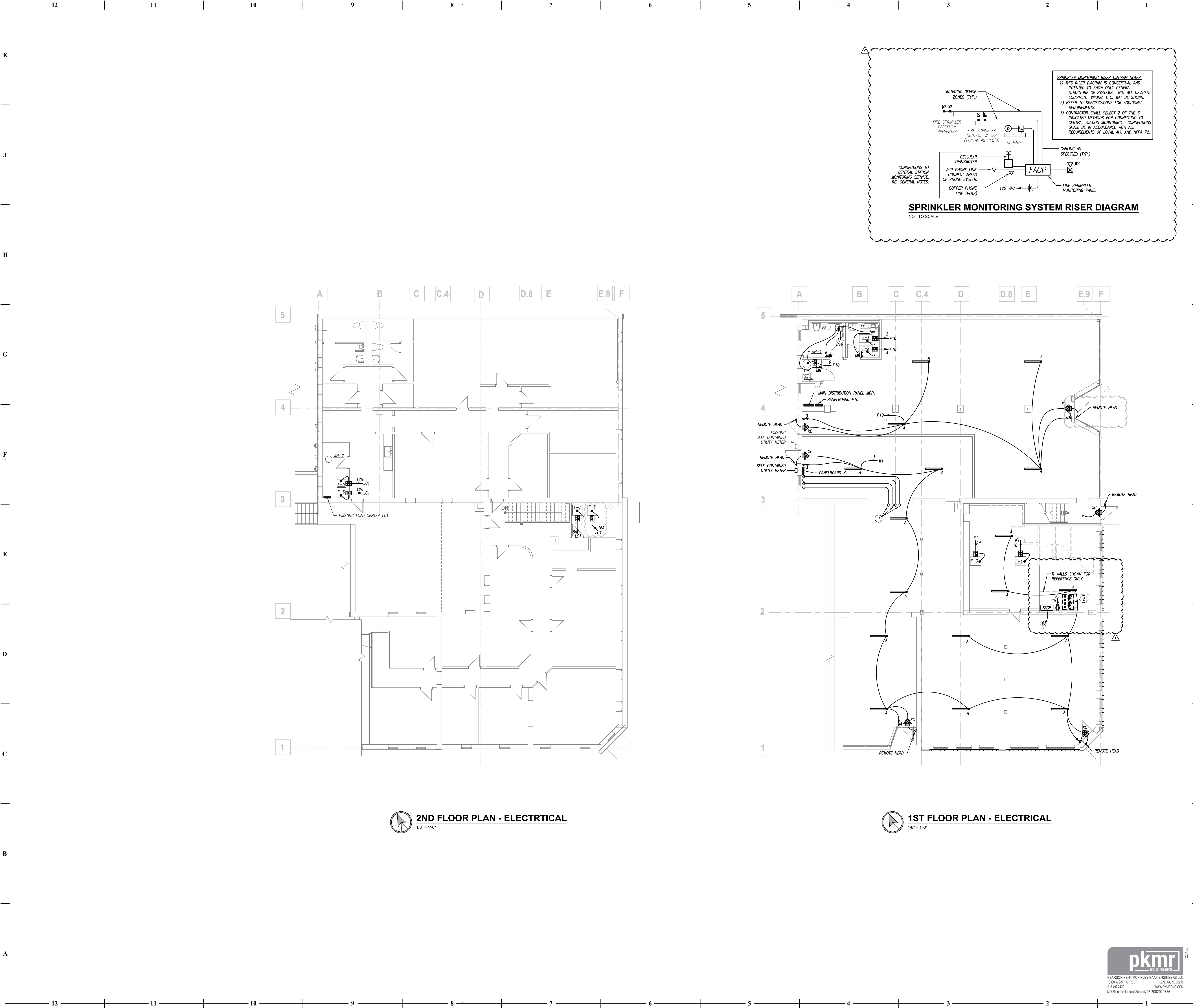
ISSUE DATE: APRIL 21, 2022  
COLLINS WEBB #: 21121

**ELECTRICAL DEMOLITION - FLOOR PLANS**



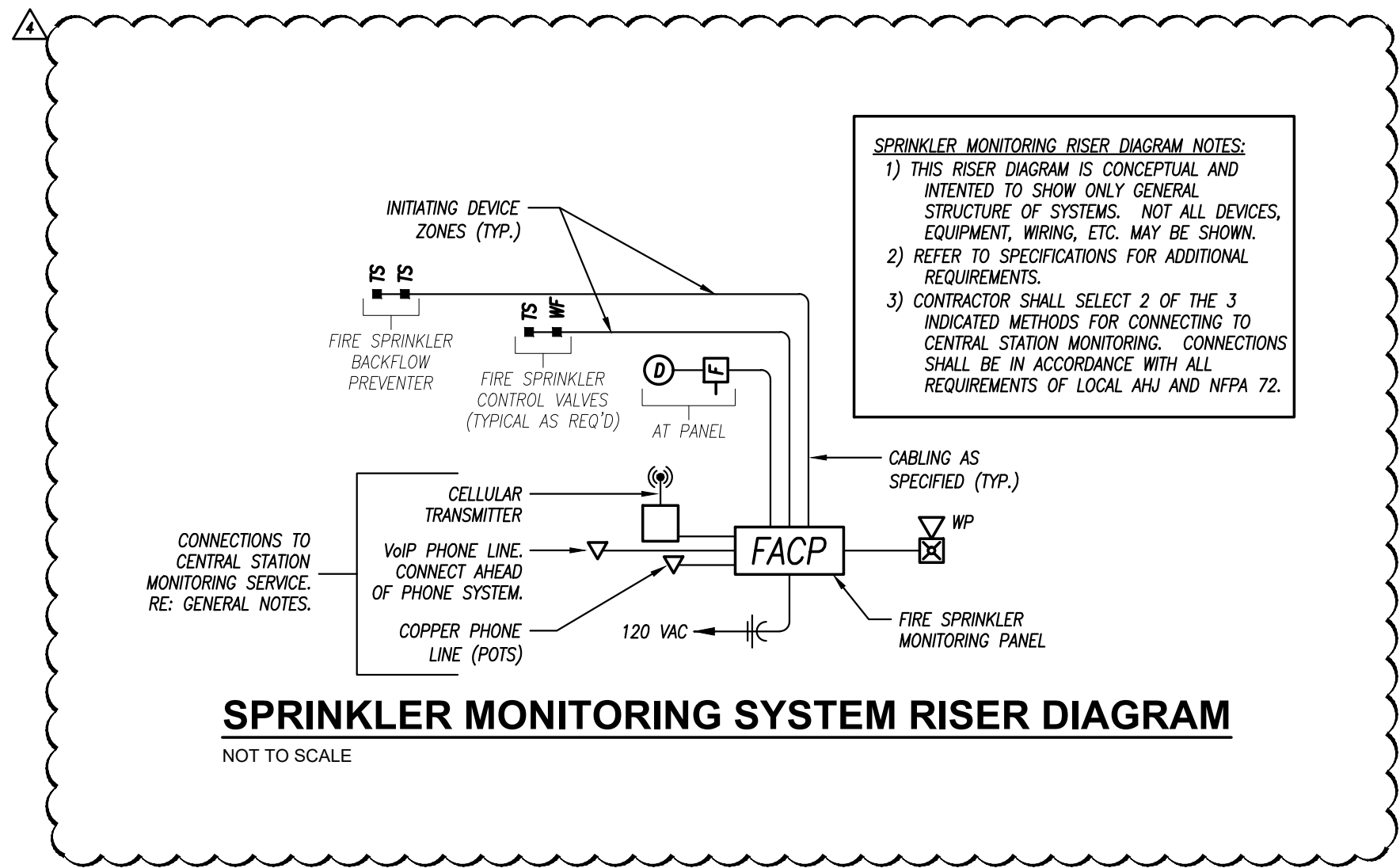
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**2ND FLOOR PLAN - ELECTRICAL**  
1/8" = 1'-0"

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



**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 (<41). DASH-DRAWING 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**

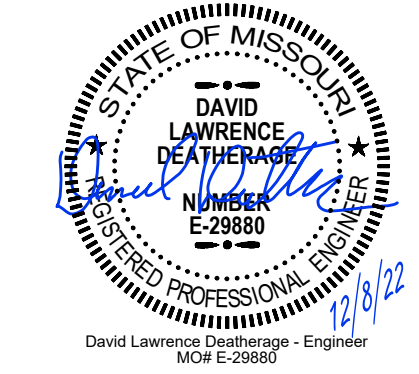
1. PROVIDE (3) 2" CONDUIT AND (1) 1" CONDUIT WITH PULL STINGS FOR FUTURE MECHANICAL EQUIPMENT. ROUTE CONDUIT TO TOP OF CEILING AND TURN UP THROUGH CEILING PATCH ALL PENETRATIONS WATERTIGHT. CAP CONDUIT AT BOTH ENDS FOR FUTURE USE.
2. COORDINATE EXACT NUMBER AND LOCATION OF TAMPER AND FLOW SWITCHES REQUIRED WITH FIRE SPRINKLER CONTRACTOR. WIRE SAME TO FIRE ALARM SYSTEM.

**MAIN STREET LANDLORD IMPROVEMENTS**

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REVISION DATES:	
City Comments	05/17/22
ASH-01	08/05/22
Owner Revision	12/08/22



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**E111**  
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**ELECTRICAL - FLOOR PLANS**

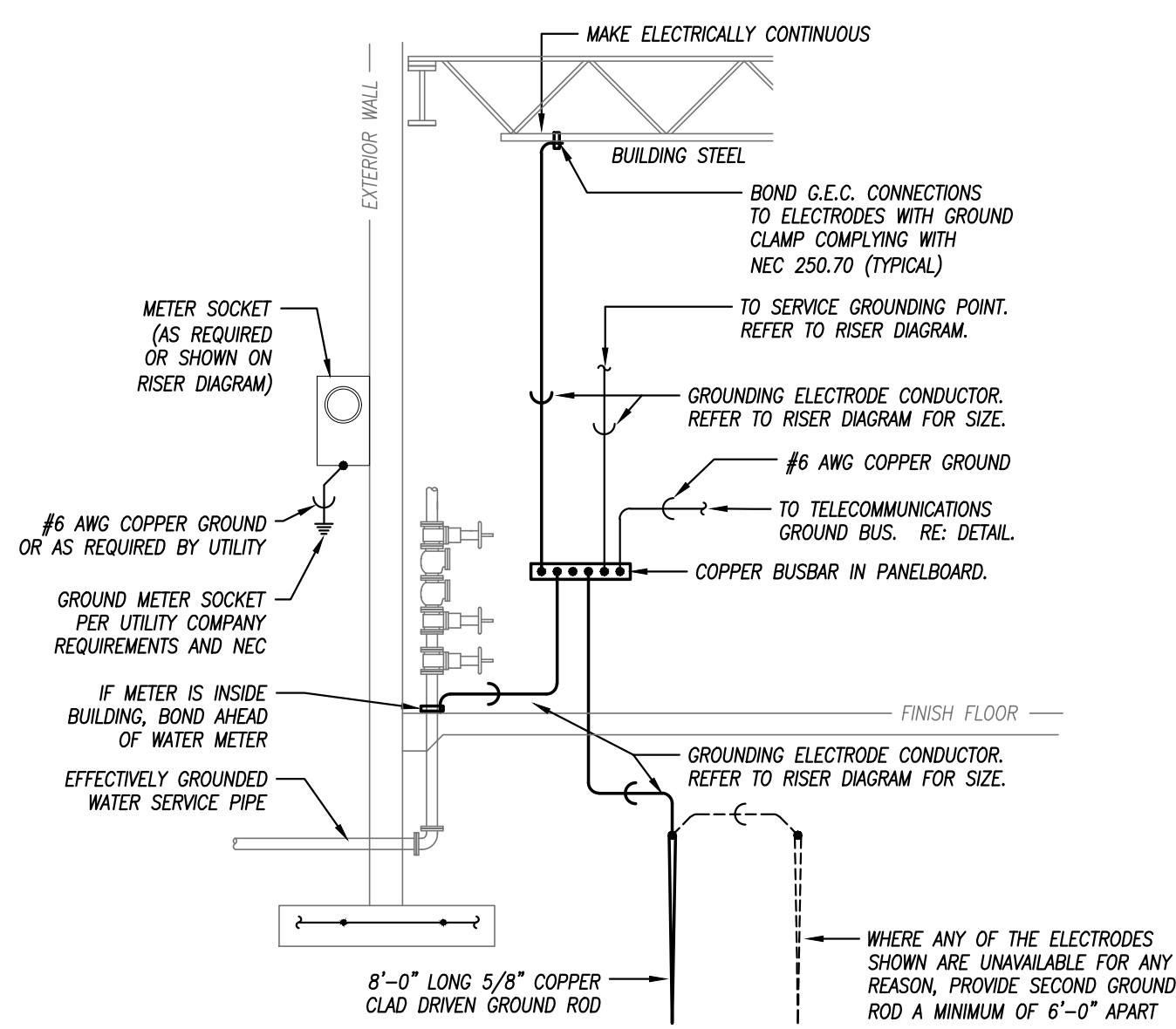


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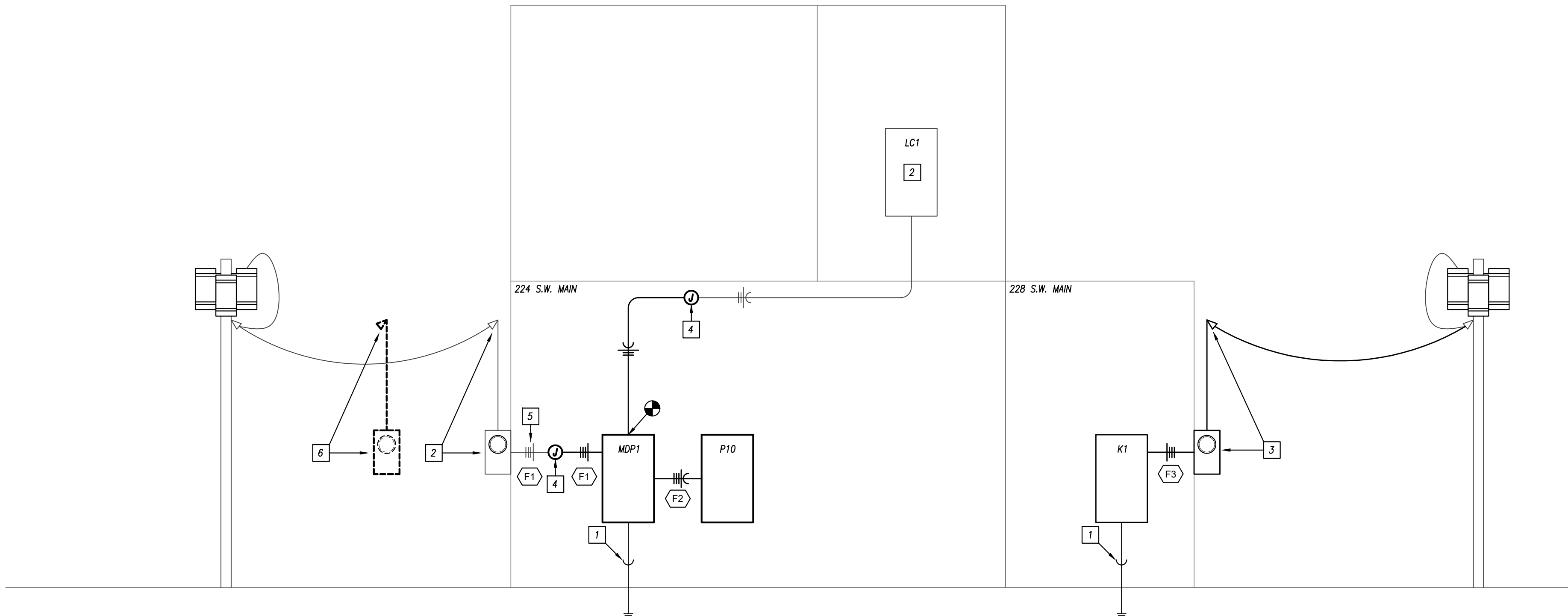


12 11 10 9 8 7 6 5 4 3 2 1

K  
J  
H  
G  
F  
E  
D  
C  
B  
A



ELECTRICAL SERVICE GROUNDING DETAIL  
NOT TO SCALE



ELECTRICAL RISER DIAGRAM  
NOT TO SCALE

RISER DIAGRAM KEYED NOTES

- 1 #1/0 GROUNDING ELECTRODE IN 1" CONDUIT.
- 2 EXISTING TO REMAIN.
- 3 PROVIDE METER AND WEATHERHEAD PER EVERY STANDARD.
- 4 INTERCEPT AND EXTEND FEEDER TO NEW MDP LOCATION.
- 5 FIELD VERIFY FEEDER SIZE.
- 6 REMOVE EXISTING ELECTRICAL SERVICE.

SINGLE-SECTION PANELBOARD SCHEDULE											
PANEL DESIGNATION: K1						MAIN LUG AMPS: 400 MAIN BREAKER: 400 VOLTAGE: 208/120 PHASE/WIRE: 3Ø, 4W				SCCR RATING (AIC): 22,000	
MOUNTING: SURFACE LOCATION: FUTURE TENANT S-100											
DESCRIPTION	PHASE			C/B		CIRCUIT #	PHASE			C/B	POLE
	A	B	C	TRIP	POLE		POLE	TRIP	A		
LTS: FUTURE TENANT S-100	546	-	-	20	1	1	2	-	-	-	-
SPARE	-	-	-	20	1	3	4	50	3459	3459	-
SPARE	-	-	-	20	1	5	6	-	-	3459	-
SPARE	-	-	-	20	1	7	8	3	3459	3459	-
SPARE	-	-	-	20	1	9	10	3	50	3459	-
SPARE	-	-	-	20	1	11	12	-	-	3459	-
SPARE	-	-	-	20	1	13	14	1	1920	1920	-
SPARE	-	-	-	20	1	15	16	1	20	1920	-
SPARE	-	-	-	20	1	17	18	1	20	-	-
SPARE	-	-	-	20	1	19	20	1	20	-	-
SPARE	-	-	-	20	1	21	22	1	20	-	-
SPARE	-	-	-	20	1	23	24	1	20	-	-
SPARE	-	-	-	20	1	25	26	1	20	-	-
SPARE	-	-	-	20	1	27	28	1	20	-	-
SPARE	-	-	-	20	1	29	30	1	20	-	-
SPARE	-	-	-	20	1	31	32	1	20	-	-
SPARE	-	-	-	20	1	33	34	1	20	-	-
SPARE	-	-	-	20	1	35	36	1	20	-	-
SPARE	-	-	-	20	1	37	38	1	20	-	-
SPARE	-	-	-	20	1	39	40	1	20	-	-
SPARE	-	-	-	20	1	41	42	1	20	-	-
SPARE	-	-	-	20	1	43	44	1	20	-	-
SPARE	-	-	-	20	1	45	46	1	20	-	-
SPARE	-	-	-	20	1	47	48	1	20	-	-
SPARE	-	-	-	20	1	49	50	1	20	-	-
SPARE	-	-	-	20	1	51	52	1	20	-	-
SPARE	-	-	-	20	1	53	54	1	20	-	-
SPARE	-	-	-	20	1	55	56	1	20	-	-
SPARE	-	-	-	20	1	57	58	1	20	-	-
SPARE	-	-	-	20	1	59	60	1	20	-	-
LARGE SUB-FED BREAKER						64	3	-	-	-	-
TOTALS						546	0	0	8838	8838	6918
TOTALS						546	0	0	8838	8838	6918

PANELBOARD SIZING LOAD			
LOAD DESCRIPTION	CONNECTED	DEMAND	CODE MIN. (VA)
LIGHTS	546	1.25	683
RECEPTACLES	0	10KW + 50% REST	0
MOTORS	3,640	1.25 x LARGEST + 25% 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	9,394	78.1
B	8,618	73.6
C	6,918	57.6
TOTALS	25,140	69.8

REMARKS:

1. EATON POW-R-LINE 1X OR EQUIV.
2. SERVICE ENTRANCE RATED.



307B SW Market Street, Lee's Summit, Mo. 64083 P: 816.249.2270  
(www.collinswebb.com)

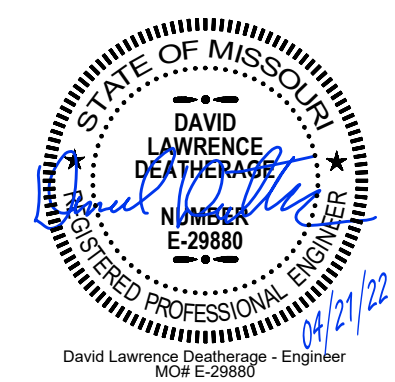
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# MAIN STREET LANDLORD IMPROVEMENTS

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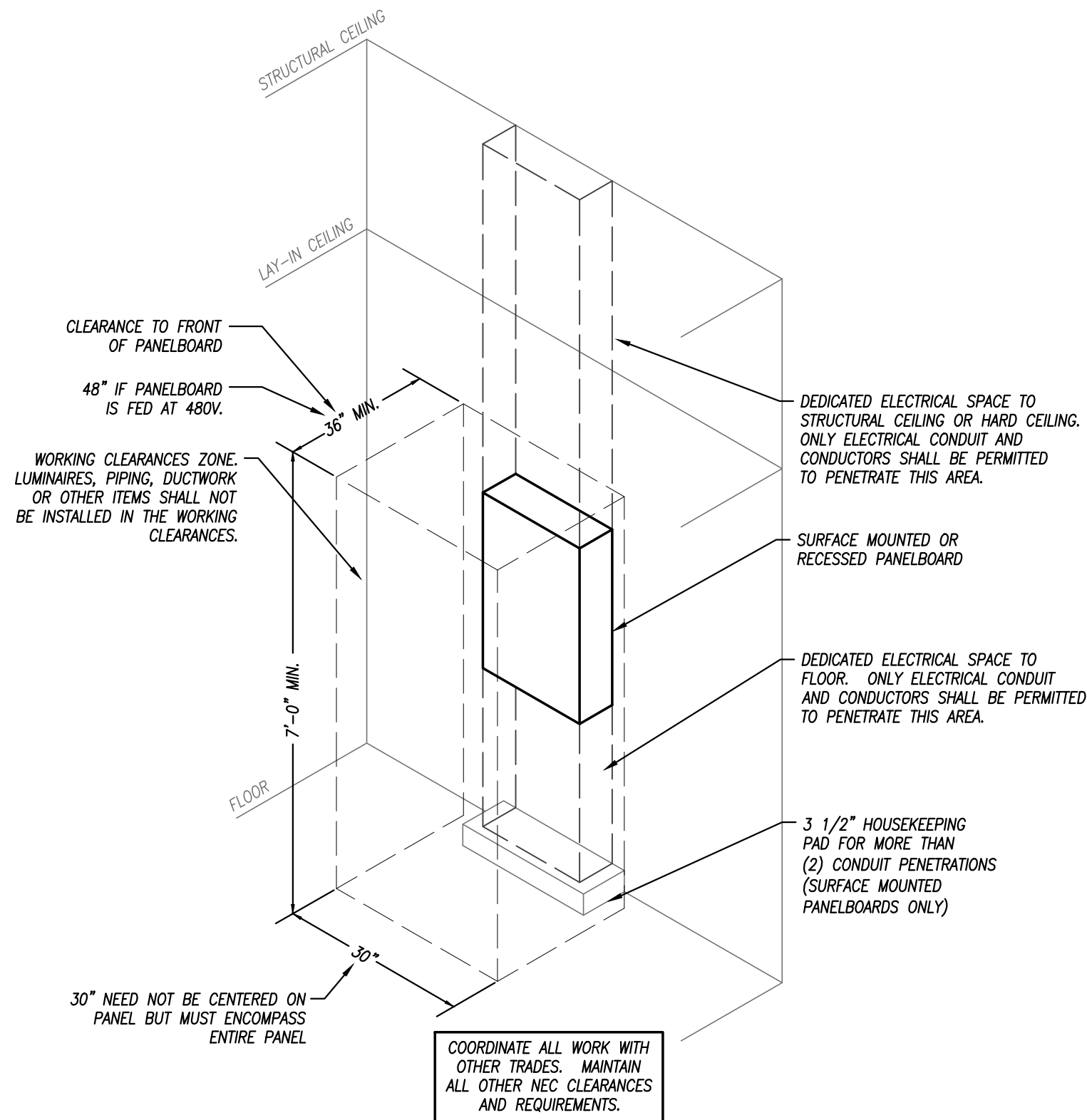
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## E202

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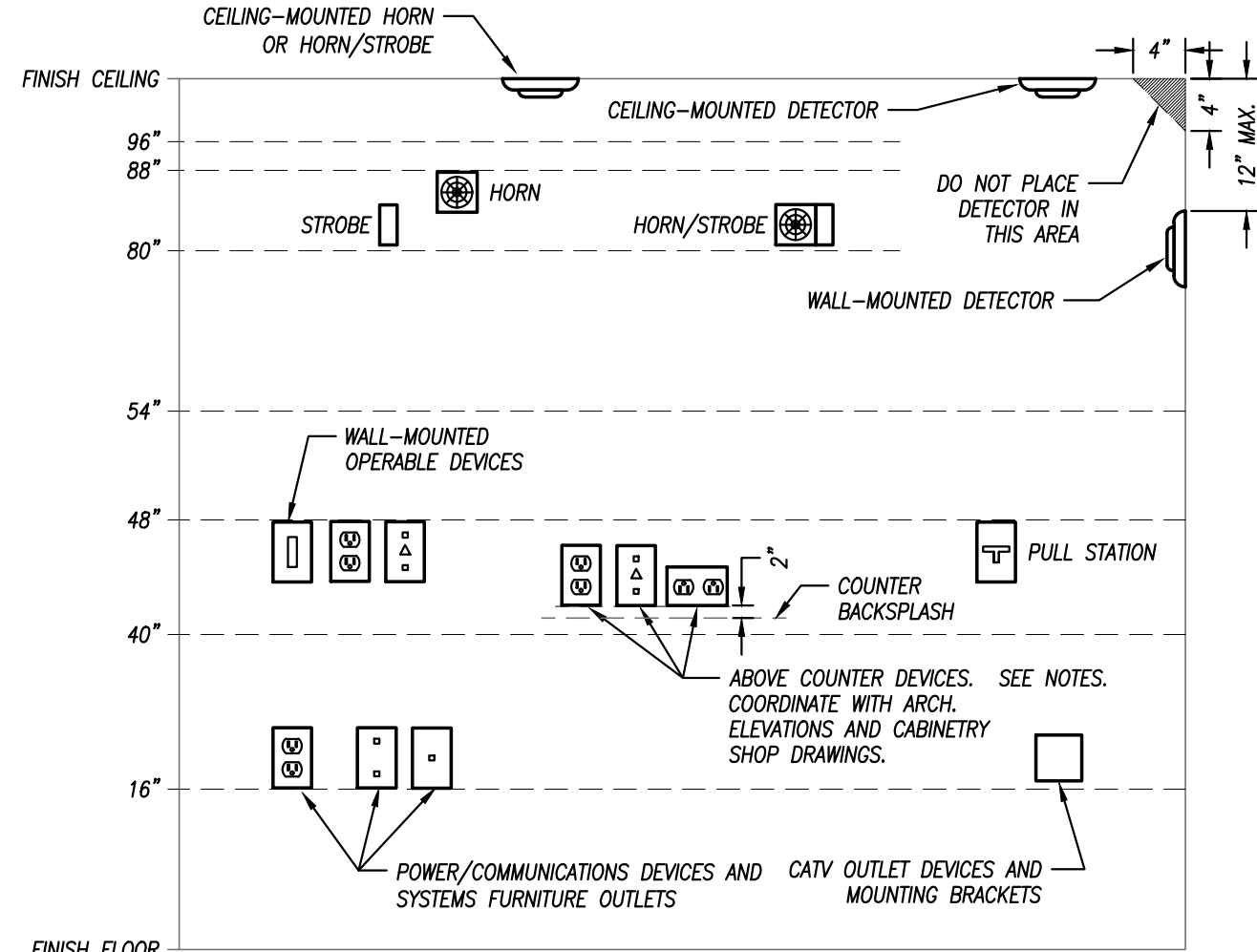


PRANSON KENT MCKINLEY RAAP ENGINEERS, LLC  
1300 W 96TH STREET  
LENDIA, KS 66219  
913.482.2403 WWW.PRANRENO.COM  
MO State Certificate of Authority #E-0002020886



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.	L85	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):

- EQUALS ARE ACCEPTABLE ON ALL LIGHT FIXTURES UNLESS SPECIFICALLY NOTED OTHERWISE. REFER TO SPECIFICATIONS FOR APPROVED EQUAL FIXTURE MANUFACTURERS.
- ALL DRIVERS ARE INTEGRAL TO FIXTURE UNLESS NOTED OTHERWISE. REFER TO SPECIFICATIONS FOR ADDITIONAL FIXTURE/DRIVER/BALLAST REQUIREMENTS.
- ALL FIXTURES WITH PAINTED METAL PARTS SHALL BE PAINTED AFTER FABRICATION.
- LUMENS LISTED FOR LED FIXTURES ARE GENERALLY DELIVERED LUMENS UNLESS NOTED OTHERWISE.