



# TOWN OF MONTAGUE

## NEW DPW FACILITY



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OWNER:  
TOWN OF MONTAGUE  
ONE AVENUE A  
TURNERS FALLS, MA 01376

ARCHITECT:  
 **HELENE • KARL**  
Architects, Inc.  
61 Skyfields Drive, Groton, Massachusetts 01450

CIVIL ENGINEER:  
SYMMES, MAINI & McKEE ASSOCIATES  
1000 MASSACHUSETTS AVENUE  
CAMBRIDGE, MA 02138

STRUCTURAL ENGINEER:  
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MECHANICAL ENGINEER:  
SEAMAN ENGINEERING CORP.  
22 WEST STREET, UNIT C  
MILLBURY, MA 01527

ELECTRICAL ENGINEER:  
JOHN J. MURPHY, JR., ELECTRICAL  
CONSTRUCTION AND ENGINEERING, INC.  
379 LIBERTY STREET  
ROCKLAND, MA 02370

#### LOCUS MAP:



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C-101	EXISTING CONDITIONS PLAN	P-100	FIRST FLOOR BELOW GRADE PLUMBING PLAN
C-111	SITE PREPARATION PLAN	P-101	FIRST FLOOR ABOVE GRADE PLUMBING PLAN
C-121	LAYOUT, MATERIALS & PLANTING PLAN	P-102	MEZZANINE FLOOR PLUMBING PLAN
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C-504	DETAILS IV	H-202	MEZZANINE HVAC PIPING PLAN BASE BID
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A-002	PARTITION TYPES	H-301	RADIANT HEAT PIPING PLAN
A-003	PARTITION DETAILS	H-302	RADIANT HEAT DETAILS AND SCHEDULES
A-004	HANDICAP ACCESSIBILITY DIMENSION REFERENCES	H-401	HVAC DETAILS
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A-104	ENLARGED FIRST FLOOR PLAN	E-102	ELECTRICAL MEZZANINE FLOOR POWER PLAN
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S-301	FOUNDATION SECTIONS AND DETAILS		

STAMP

REV	DATE	DESCRIPTION
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DATE	5/15/19
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SCALE	NONE
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DRAWN BY	MTV
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CHECKED BY	GKY
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PROJECT NO.	19001
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BUILDING:

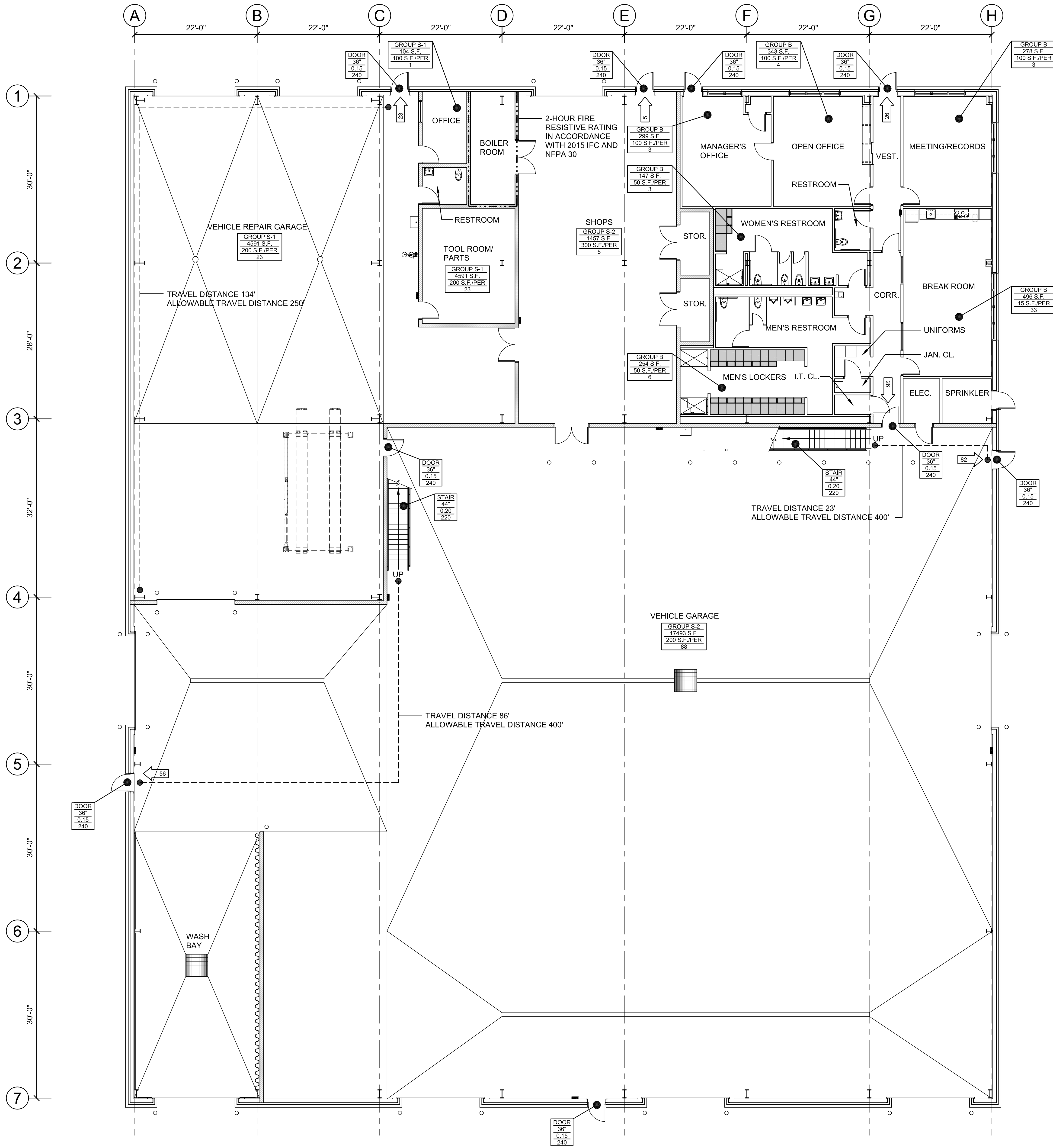
SHEET TITLE:

TITLE SHEET

DRAWING NO.

TS-001





1 FIRST FLOOR CODE PLAN  
SCALE: 1/8"=1'-0"

### BUILDING CODE DATA:

**BUILDING CODE:** 780 CMR 9TH EDITION, INCLUDES 2015 INTERNATIONAL BUILDING CODE WITH MASSACHUSETTS AMENDMENTS.

**EXISTING BUILDING CODE:** 780 CMR 9TH EDITION, INCLUDES 2015 INTERNATIONAL EXISTING BUILDING CODE WITH MASSACHUSETTS AMENDMENTS.

**HANDICAP ACCESSIBILITY CODE:** 521 CMR AND ADA STANDARDS FOR ACCESSIBLE DESIGN.

**ENERGY CODE:** 780 CMR 9TH EDITION, INCLUDES 2015 INTERNATIONAL BUILDING CODE AND 2015 INTERNATIONAL ENERGY CONSERVATION CODE.

**GAS AND FOSSIL FUEL BURNING APPLIANCES:** 780 CMR 9TH EDITION AND 248 CMR.

**MECHANICAL CODE:** 780 CMR 9TH EDITION, 2015 INTERNATIONAL MECHANICAL CODE AND 271 CMR.

**PLUMBING AND GAS CODE:** 780 CMR 9TH EDITION AND 248 CMR.

**FIRE PREVENTION CODE:** 780 CMR 9TH EDITION, 2015 INTERNATIONAL FIRE CODE AND 527 CMR.

**ELEVATOR CODE:** 780 CMR 9TH EDITION AND 524 CMR.

**ELECTRICAL CODE:** 780 CMR 9TH EDITION AND 527 CMR.

### OCCUPANCY:

MIXED USE, NON-SEPARATED OCCUPANCIES - SECTION 508.3.1

BUSINESS GROUP B - SECTION 304.1  
STORAGE GROUP S-1 - SECTION 311.2  
STORAGE GROUP S-2 - SECTION 311.3

### TYPE OF CONSTRUCTION:

TYPE IIB - SECTION 602.2

FIRE-RESISTANCE RATING FOR BUILDING ELEMENTS  
TABLE 601:

PRIMARY STRUCTURAL FRAME: 0 HOUR  
EXTERIOR BEARING WALLS: 0 HOUR  
INTERIOR BEARING WALLS: 0 HOUR  
EXTERIOR NON-BEARING WALLS: 0 HOUR  
INTERIOR NON-BEARING WALLS: 0 HOUR  
FLOOR CONSTRUCTION: 0 HOUR  
ROOF CONSTRUCTION: 0 HOUR

### ALLOWABLE BUILDING HEIGHT:

ALLOWABLE BUILDING HEIGHT BASED ON MOST RESTRICTIVE USE GROUP, S-1 - SECTION 508.3.2

ALLOWABLE BUILDING HEIGHT IN FEET ABOVE GRADE PLANE, TABLE 504.3: 75 FEET.

ACTUAL BUILDING HEIGHT IN FEET ABOVE GRADE PLANE: 38 FEET.

ALLOWABLE NUMBER OF STORIES ABOVE GRADE PLANE, TABLE 504.4: 3 STORIES.

ACTUAL NUMBER OF STORIES ABOVE GRADE PLANE: 1 STORY.

### ALLOWABLE BUILDING AREA

ALLOWABLE BUILDING AREA BASED ON MOST RESTRICTIVE USE GROUP, S-1 - SECTION 508.3.2

ALLOWABLE BUILDING AREA - SECTION 506.

$A_a = A_t + (NS \times If)$

$A_t = 70,000 \text{ S.F. PER TABLE 506.2}$   
 $NS = 17,500 \text{ S.F. PER TABLE 506.2}$   
 $If = [681 / 681 - 0.25] 20 / 30$

$A_a = 70,000 + (17,500 \times .50)$

ALLOWABLE FLOOR AREA = 78,750 S.F.

**ACTUAL FLOOR AREA:**

BUILDING AREA: 28,844 S.F.

### BUILDING EGRESS:

NUMBER OF EXITS: NUMBER OF EXITS PER FLOOR - 2 (TABLE 1006.3.1).

ACCESSIBLE MEANS OF EGRESS:

REQUIRED PER SECTION 1007.1

EXIT ACCESS TRAVEL DISTANCE IS NOT TO EXCEED 250 AND 400 FEET AS REQUIRED IN SECTION 1017 AND TABLE 1017.2.

### PORTABLE FIRE EXTINGUISHERS:

FIRE CLASSIFICATIONS A, B AND C - 906.3.

MODERATE HAZARD, 3,000 S.F. PER EXTINGUISHER, MAX. TRAVEL DISTANCE 75 FEET - TABLE 906.3(1).

FIRE EXTINGUISHERS SHALL BE INSTALLED ON BRACKETS OR IN CABINETS - 906.7 AND 906.8.

FIRE EXTINGUISHERS SHALL BE IDENTIFIED WITH SIGNAGE - 906.6.



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STAMP

REV	DATE	DESCRIPTION

DATE: 5/15/19  
SCALE: 1/8" = 1'-0"  
DRAWN BY: MTV  
CHECKED BY: GKY  
PROJECT NO.: 19001

BUILDING:

SHEET TITLE:

FIRST FLOOR  
CODE PLAN

DRAWING NO.

R-101

### LEGEND

#### EGRESS COMPONENT SYMBOL

X — EGRESS COMPONENT  
0 — CLEAR WIDTH  
0 — EGRESS CAPACITY FACTOR  
0 — EGRESS CAPACITY

#### OCCUPANCY COMPONENT SYMBOL

X — USE GROUP  
0 — AREA S.F.  
0 — OCCUPANT LOAD FACTOR  
0 — OCCUPANT LOAD

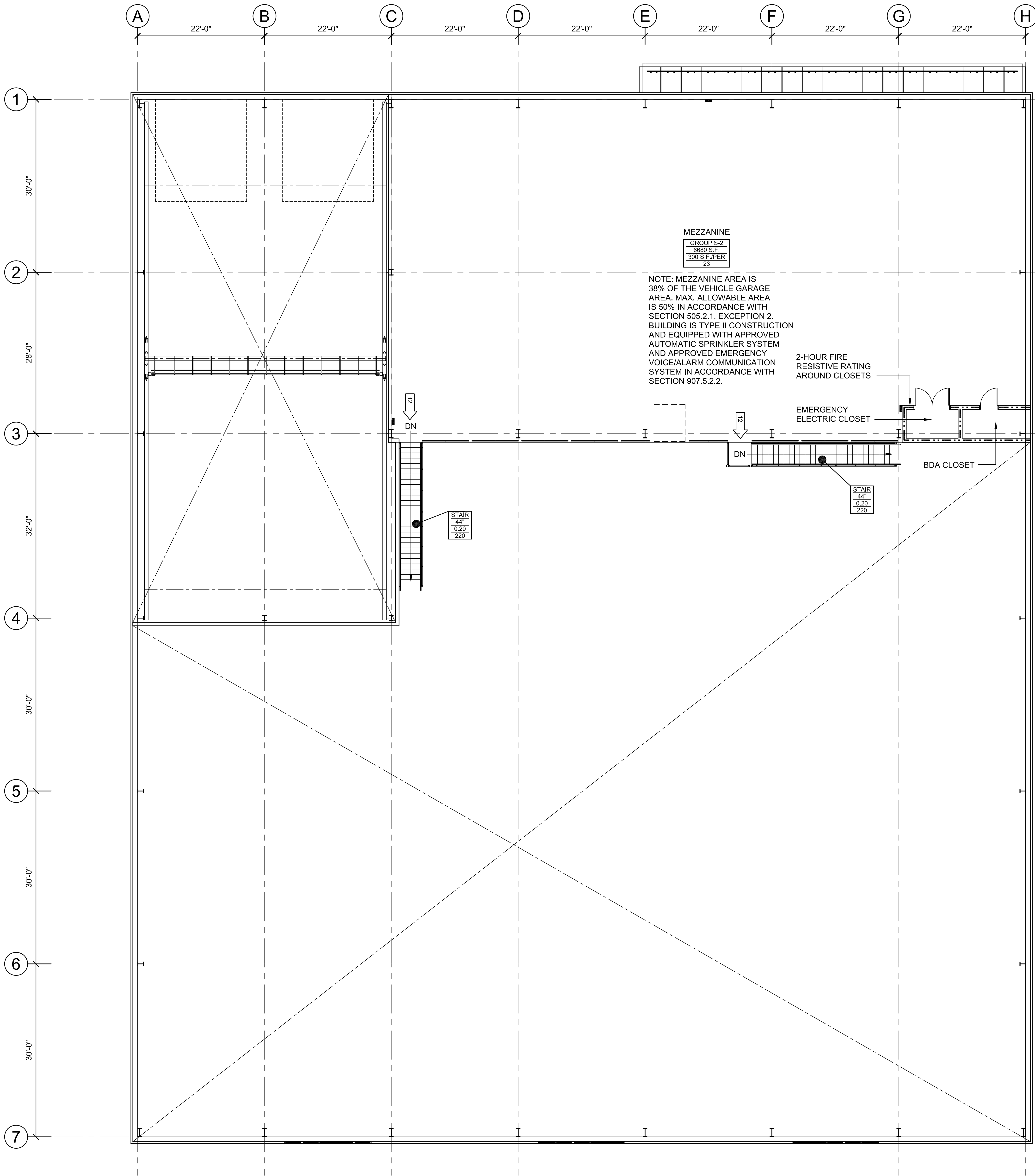
● — EGRESS TRAVEL DISTANCE

← 00 — OCCUPANT FLOW AND NUMBER

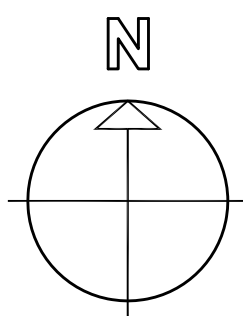
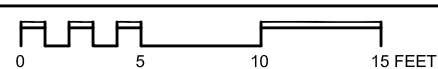
— — — — — 1-HOUR FIRE RATING

— · — · — · — 2-HOUR FIRE RATING





1 MEZZANINE CODE PLAN  
SCALE: 1/8"=1'-0"



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FLOOR CONSTRUCTION:	0 HOUR
ROOF CONSTRUCTION:	0 HOUR

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STAMP

REV	DATE	DESCRIPTION

DATE	5/15/19
SCALE	1/8" = 1'-0"
DRAWN BY	MTV
CHECKED BY	GKY
PROJECT NO.	19001

BUILDING:

SHEET TITLE:

**MEZZANINE  
CODE PLAN**

DRAWING NO.

**R-102**

**LEGEND**

**EGRESS COMPONENT SYMBOL**

X	EGRESS COMPONENT
0	CLEAR WIDTH
0	EGRESS CAPACITY FACTOR
0	EGRESS CAPACITY

**OCCUPANCY COMPONENT SYMBOL**

X	USE GROUP
0	AREA S.F.
0	OCCUPANT LOAD FACTOR
0	OCCUPANT LOAD

● - - - - - EGRESS TRAVEL DISTANCE

← 00 OCCUPANT FLOW AND NUMBER

- - - - - 1-HOUR FIRE RATING

- . - . - . 2-HOUR FIRE RATING





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STAMP

REV	DATE	DESCRIPTION
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DATE	5/15/19
SCALE	1"=30'
DRAWN BY	CJR
CHECKED BY	PSG
PROJECT NO.	19001

BUILDING:

SHEET TITLE:  
**EXISTING  
CONDITIONS  
PLAN**

DRAWING NO.

# C-101







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REV	DATE	DESCRIPTION
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DATE 5/15/19

SCALE 1"=30'

DRAWN BY C.JR

CHECKED BY PSG

PROJECT NO. 19001

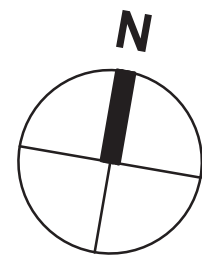
BUILDING:

SHEET TITLE:

SITE PREPARATION  
PLAN

DRAWING NO.

C-111



EROSION CONTROL NOTES - GENERAL:

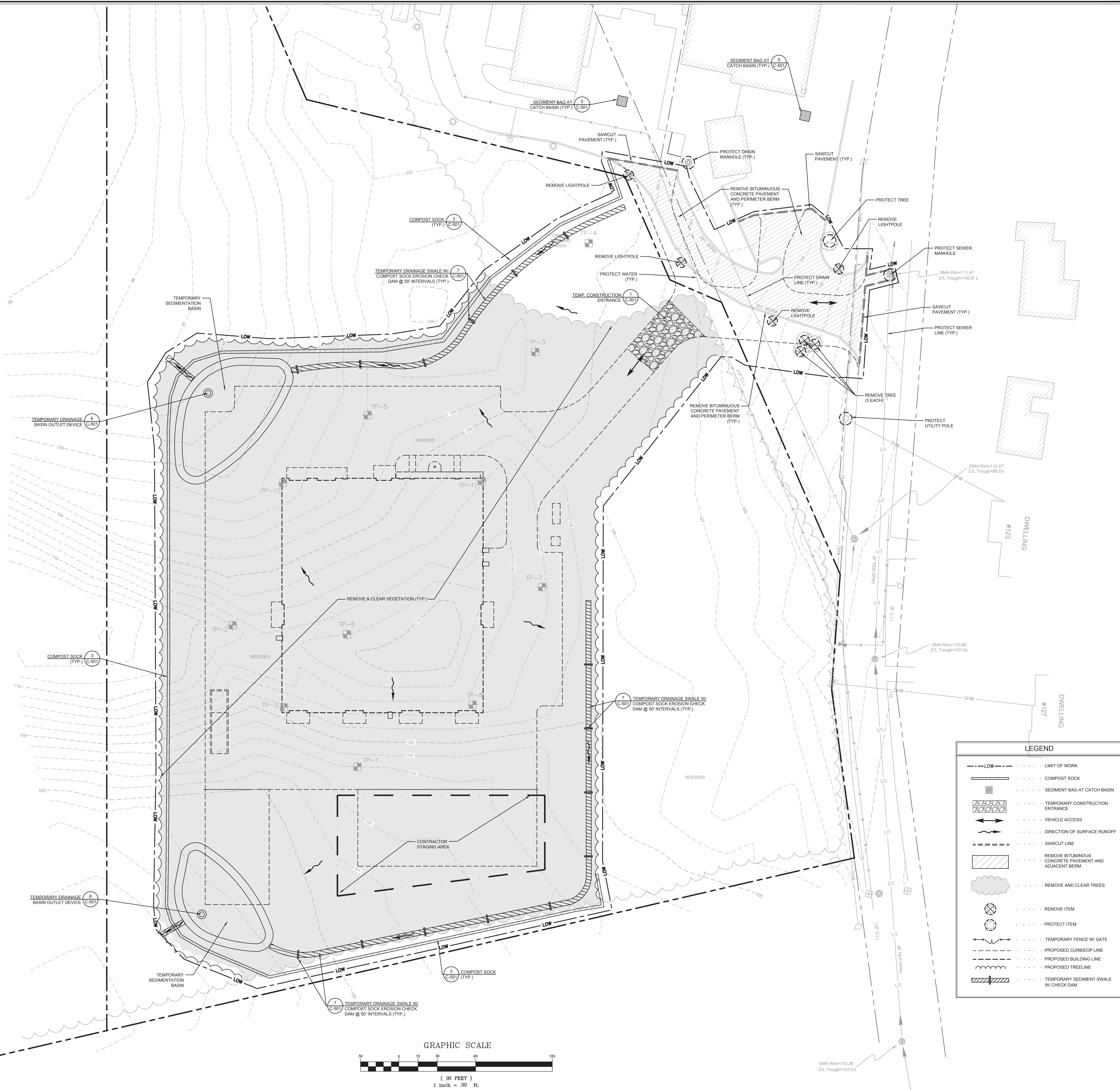
- CONFORM TO ANY CONDITIONS LISTED IN THE SITE PLAN REVIEW APPROVAL ISSUED FOR THIS PROJECT. A COPY OF THE CONDITIONS IS TO BE KEPT ON-SITE.
- CONFORM TO CONDITIONS OF THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) AND THE NPDES GENERAL PERMIT. A COPY OF THE SWPPP IS TO BE KEPT ON-SITE.
- INSTALL EROSION AND SEDIMENTATION CONTROL MEASURES AT LEAST 48 HOURS PRIOR TO THE COMMENCEMENT OF ANY SITEWORK OR EARTHWORK OPERATIONS, OR AS REQUIRED BY THE ORDER OF CONDITIONS (WHICHEVER IS GREATER) AND MAINTAIN THROUGHOUT CONSTRUCTION. MEASURES ARE TO REMAIN IN PLACE UNTIL SITEWORK IS COMPLETE AND GROUND COVER IS ESTABLISHED, AS DETERMINED BY THE ARCHITECT.
- SUBMIT A NPDES APPLICATION TO THE EPA AT LEAST 14 DAYS PRIOR TO THE COMMENCEMENT OF ANY SITEWORK OR EARTHWORK OPERATIONS. SUBMIT PROOF OF APPLICATION FOR A NPDES GENERAL PERMIT TO THE ARCHITECT AND OWNER PRIOR TO THE COMMENCEMENT OF ANY SITEWORK.
- INSTALL TEMPORARY CONSTRUCTION ENTRANCES PER DETAIL AT LOCATIONS INDICATED. RELOCATE AND MAINTAIN AS NECESSARY DURING CONSTRUCTION.
- SURROUND SOIL STOCKPILES ON THEIR PERIMETERS WITH STAKED COMPOST SOCKS AND SILT FENCES TO CONTROL EROSION. MAINTAIN THROUGHOUT CONSTRUCTION.
- STABILIZE SOIL STOCKPILES AND EXPOSED SOIL AREAS WHERE CONSTRUCTION ACTIVITIES WILL CEASE FOR 14 DAYS OR MORE, IN ACCORDANCE WITH THE NPDES GENERAL PERMIT.
- PERFORM EARTHWORK ACTIVITY ON THE SITE IN A MANNER SUCH THAT RUNOFF IS DIRECTED TO TEMPORARY DRAINAGE SWALES AND TEMPORARY SEDIMENTATION BASINS. TEMPORARY DRAINAGE FEATURES ARE TO BE ADJUSTED AND RELOCATED AS NECESSARY THROUGHOUT CONSTRUCTION.
- CONSTRUCT TEMPORARY SEDIMENTATION BASINS TO CONTAIN A VOLUME OF RUNOFF EQUAL TO THE RESULTANT VOLUME OF RUNOFF FROM A 2-YEAR, 24-HOUR STORM EVENT FOR THE AREA THAT IS TRIBUTARY TO THE BASIN.
- CONSTRUCT THE DRAINAGE SYSTEM DURING THE INITIAL PHASE OF THE PROJECT (TO THE EXTENT PRACTICAL) SO IT IS FUNCTIONAL DURING CONSTRUCTION. KEEP STRUCTURES FREE OF SILT AND DEBRIS TO ENSURE THEIR PROPER OPERATION.
- INSTALL SILT SACKS AT EXISTING AND PROPOSED CATCH BASIN GRATES AND USE SUPPLEMENTAL STAKED COMPOST SOCKS AT CATCH BASINS IN EXPOSED SOIL AREAS, AND AS INDICATED ON THE PLAN. PROTECT CULVERT AND PIPE INLETS AND OUTFALLS WITH COMPOST SOCKS. MAINTAIN THESE MEASURES UNTIL DISTURBED AREAS ARE PERMANENTLY STABILIZED.
- DEWATERING REQUIRED DURING CONSTRUCTION IS TO BE DISCHARGED INTO A TEMPORARY SEDIMENTATION BASIN. DO NOT DISCHARGE DIRECTLY INTO THE PIPED STORM DRAIN SYSTEM OR RESOURCE AREA.
- KEEP ON SITE AT ALL TIMES: 50LF RESERVE OF COMPOST SOCK (MINIMUM), 50 LF RESERVE OF SILT FENCE WITH STAKES (MINIMUM), ADDITIONAL EROSION CONTROL BLANKETS, STONE RIP-RAP, AND OTHER EROSION CONTROL DEVICES USED DURING CONSTRUCTION. THESE ARE TO BE INSTALLED AS NEEDED AND AT THE DIRECTION OF THE ARCHITECT OR THE OWNER, TO MITIGATE AN EMERGENCY CONDITION. PROVIDE ADDITIONAL QUANTITIES IF REQUIRED BY THE APPROVAL CONDITIONS.

EROSION CONTROL NOTES - MAINTENANCE:

- DURING THE PERIOD OF CONSTRUCTION AND UNTIL LONG TERM VEGETATION IS ESTABLISHED:
- INSPECT EROSION AND SEDIMENT CONTROL MEASURES, INCLUDING SEDIMENTATION BASINS AND SWALES, AT LEAST ONCE EVERY 7 CALENDAR DAYS AND WITHIN 24 HOURS OF A 0.25-INCH OR GREATER STORM EVENT.
  - REPLACE OR REPAIR EROSION AND SEDIMENT CONTROL MEASURES AS NEEDED. REMOVE SEDIMENT WHEN IT HAS ACCUMULATED TO 1/2 THE DESIGN HEIGHT OR CAPACITY OF THE MEASURE. REFER TO THE SWPPP FOR ADDITIONAL INFORMATION.
  - MAINTAIN THE ENTRANCES AND EXITS FROM THE SITE IN A CONDITION THAT PREVENTS TRACKING OR FLOWING OF SEDIMENT INTO THE PRIVATE OR PUBLIC WAY. SEDIMENT THAT IS TRACKED, SPILLED, OR WASHED INTO THESE WAYS, IS TO BE REMOVED BY THE CONTRACTOR IMMEDIATELY.
  - CATCH BASINS, OUTLET CONTROL STRUCTURES, AND WATER QUALITY UNITS ARE TO BE INSPECTED AT LEAST EIGHT TIMES PER YEAR, DURING CONSTRUCTION, AND CLEANED OF SEDIMENT IF OVER SIX INCHES DEEP. ADDITIONALLY, CLEAN THESE STRUCTURES AT THE END OF CONSTRUCTION.

UTILITIES AND DEMOLITION NOTES:

- PRIOR TO CONSTRUCTION, VERIFY EXISTING UTILITY LOCATIONS AS SHOWN ON THE DRAWINGS. REPORT DISCREPANCIES TO THE ARCHITECT.
- CONTACT THE APPROPRIATE UTILITY COMPANY AND "DIGSAFE" AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION WORK TO REQUEST EXACT FIELD LOCATIONS OF UTILITIES. NOTIFY THE ARCHITECT OF ANY UTILITIES INTERFERING WITH THE PROPOSED CONSTRUCTION.
- PROTECT NEW AND EXISTING UTILITIES DURING CONSTRUCTION. ONLY REMOVE EXISTING UTILITIES THAT ARE SPECIFICALLY DESIGNATED ON THIS PLAN TO BE REMOVED.
- MAINTAIN FUNCTIONING UTILITIES AND NOTIFY THE OWNER AND ARCHITECT A MINIMUM OF 5 DAYS PRIOR TO ANY UTILITY SERVICE INTERRUPTION. OBTAIN APPROVAL TO PROCEED PRIOR TO INTERRUPTION.
- IF UNDOCUMENTED UTILITIES ARE ENCOUNTERED DURING CONSTRUCTION, CONTACT THE ARCHITECT FOR DIRECTION, PRIOR TO ALTERING THE UTILITY IN ANY WAY.
- PROTECT EXISTING SITE FEATURES DURING CONSTRUCTION, EXCEPT FOR THOSE ITEMS OR AREAS SPECIFICALLY DESIGNATED ON THIS PLAN TO BE REMOVED.
- PROTECT EXISTING TREES AND VEGETATION DURING CONSTRUCTION, EXCEPT FOR THOSE ITEMS OR AREAS SPECIFICALLY DESIGNATED ON THIS PLAN TO BE REMOVED. INSTALL TREE PROTECTION PER DETAIL AT LOCATIONS INDICATED. REPLACE OR PROVIDE COMPENSATION FOR TREES DAMAGED OR DECEASED THAT WERE DESIGNATED TO BE PROTECTED, AS A RESULT OF CONSTRUCTION ACTIVITIES.
- REMOVE DEMOLISHED MATERIALS NOT DESIGNATED FOR SALVAGE OR STOCKPILE, OFF THE SITE AND DISPOSE OF IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL CODES AND REGULATIONS.
- ADJUST TEMPORARY FENCING AS REQUIRED THROUGHOUT CONSTRUCTION.
- THE CONTRACTOR IS RESPONSIBLE FOR ESTABLISHING AND MAINTAINING CONTROL POINTS AND BENCH MARKS NECESSARY FOR THE CONSTRUCTION OF THE PROJECT.







# TOWN OF MONTAGUE

## NEW DPW FACILITY

OWNER:  
TOWN OF MONTAGUE  
ONE AVENUE  
TURNERS FALLS, MA 01376

ARCHITECT:  
**HELENE • KARL**  
Architects, Inc.  
61 Skyfields Drive, Groton, Massachusetts 01450

CIVIL ENGINEER:  
SYMMES, MAINI & McKEE ASSOCIATES  
1000 MASSACHUSETTS AVENUE  
CAMBRIDGE, MA 02138

STRUCTURAL ENGINEER:  
SYMMES, MAINI & McKEE ASSOCIATES  
1000 MASSACHUSETTS AVENUE  
CAMBRIDGE, MA 02138

MECHANICAL ENGINEER:  
SEAMAN ENGINEERING CORP.  
22 WEST STREET, UNIT C  
MILLBURY, MA 01527

ELECTRICAL ENGINEER:  
JOHN J. MURPHY, JR., ELECTRICAL  
CONSTRUCTION AND ENGINEERING, INC.  
379 LIBERTY STREET  
ROCKLAND, MA 02370

STAMP

REV	DATE	DESCRIPTION
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DATE	5/15/19
SCALE	1"=30'
DRAWN BY	CJR
CHECKED BY	PSG
PROJECT NO.	19001

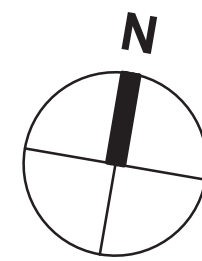
BUILDING:

SHEET TITLE:

### LAYOUT, MATERIALS, & PLANTING PLAN

DRAWING NO.

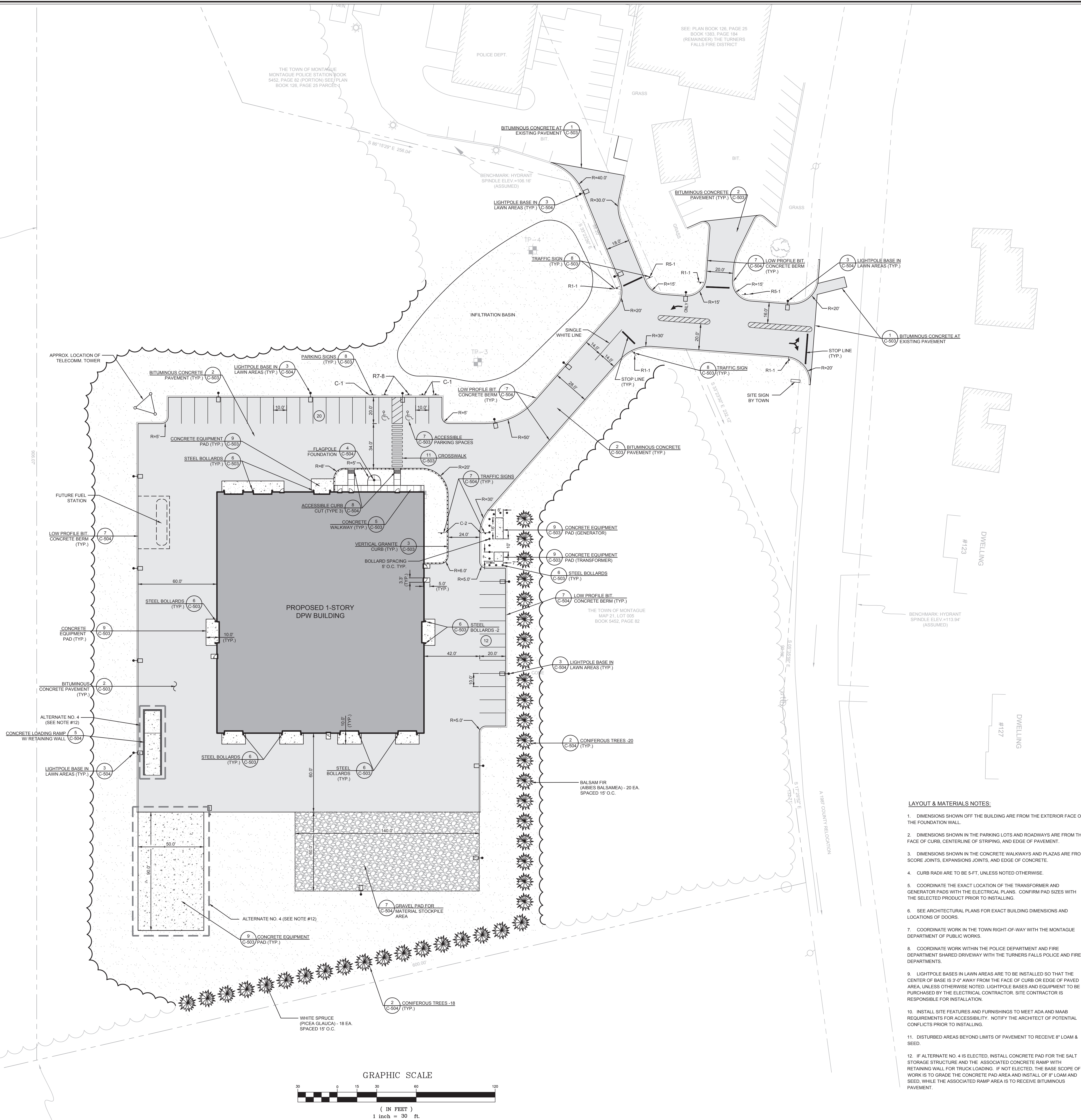
# C-121



LEGEND	
	BOLLARD
	SIGN
	LIGHTPOLE BASE
	VERTICAL GRANITE CURB
	LOW PROFILE BITUMINOUS BERM
	ACCESSIBLE CURB CUT W/ TRANSITION CURB
	HANDICAP PARKING
	CONCRETE WALK W/ SCORE JOINTS
	PARKING COUNTS
	HEAVY-DUTY BITUMINOUS PAVEMENT
	CONCRETE PAD
	BUILDING
	8" LOAM & SEED
	WOOD GUARDRAIL
	TREE LINE
	TREE PLANTING

## PARKING AND TRAFFIC SIGNS

SIGN	SIGN NUMBER	SIZE OF SIGN		DESCRIPTION	MOUNT HEIGHT (TO BOTTOM)	MOUNT TYPE	QUANTITY
		WIDTH	HEIGHT				
	R7-8	12"	18"	BLUE & GREEN ON WHITE	5'-9"	SQUARE POST	2
	R7-8A	18"	9"	GREEN ON WHITE	5'-0"	SQUARE POST	1
	C-1	12"	18"	BLACK ON WHITE	5'-6"	SQUARE POST	3
	C-2	18"	18"	BLACK ON WHITE	5'-6"	SQUARE POST	2
	R1-1	30"	30"	WHITE ON RED	7'-0"	CHANNEL	4
	R5-1	30"	30"	WHITE ON RED	7'-0"	CHANNEL	2



### LAYOUT & MATERIALS NOTES:

- DIMENSIONS SHOWN OFF THE BUILDING ARE FROM THE EXTERIOR FACE OF THE FOUNDATION WALL.
- DIMENSIONS SHOWN IN THE PARKING LOTS AND ROADWAYS ARE FROM THE FACE OF CURB, CENTERLINE OF STRIPING, AND EDGE OF PAVEMENT.
- DIMENSIONS SHOWN IN THE CONCRETE WALKWAYS AND PLAZAS ARE FROM SCORE JOINTS, EXPANSION JOINTS, AND EDGE OF CONCRETE.
- CURB RADII ARE TO BE 5-FT. UNLESS NOTED OTHERWISE.
- COORDINATE THE EXACT LOCATION OF THE TRANSFORMER AND GENERATOR PADS WITH THE ELECTRICAL PLANS. CONFIRM PAD SIZES WITH THE SELECTED PRODUCT PRIOR TO INSTALLING.
- SEE ARCHITECTURAL PLANS FOR EXACT BUILDING DIMENSIONS AND LOCATIONS OF DOORS.
- COORDINATE WORK IN THE TOWN RIGHT-OF-WAY WITH THE MONTAGUE DEPARTMENT OF PUBLIC WORKS.
- COORDINATE WORK WITHIN THE POLICE DEPARTMENT AND FIRE DEPARTMENT SHARED DRIVEWAY WITH THE TURNERS FALLS POLICE AND FIRE DEPARTMENTS.
- LIGHTPOLE BASES IN LAWN AREAS ARE TO BE INSTALLED SO THAT THE CENTER OF BASE IS 3'-0" AWAY FROM THE FACE OF CURB OR EDGE OF PAVED AREA, UNLESS OTHERWISE NOTED. LIGHTPOLE BASES AND EQUIPMENT TO BE PURCHASED BY THE ELECTRICAL CONTRACTOR. SITE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION.
- INSTALL SITE FEATURES AND FURNISHINGS TO MEET ADA AND MAAB REQUIREMENTS FOR ACCESSIBILITY. NOTIFY THE ARCHITECT OF POTENTIAL CONFLICTS PRIOR TO INSTALLING.
- DISTURBED AREAS BEYOND LIMITS OF PAVEMENT TO RECEIVE 8" LOAM & SEED.
- IF ALTERNATE NO. 4 IS ELECTED, INSTALL CONCRETE PAD FOR THE SALT STORAGE STRUCTURE AND THE ASSOCIATED CONCRETE RAMP WITH RETAINING WALL FOR TRUCK LOADING. IF NOT ELECTED, THE BASE SCOPE OF WORK IS TO GRADE THE CONCRETE PAD AREA AND INSTALL OF 8" LOAM AND SEED, WHILE THE ASSOCIATED RAMP AREA IS TO RECEIVE BITUMINOUS PAVEMENT.





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MECHANICAL ENGINEER:  
SEAMAN ENGINEERING CORP.  
22 WEST STREET, UNIT C  
MILLBURY, MA 01527

ELECTRICAL ENGINEER:  
JOHN J. MURPHY, JR. ELECTRICAL  
CONSTRUCTION AND ENGINEERING, INC.  
379 LIBERTY STREET  
ROCKLAND, MA 02370

STAMP

REV	DATE	DESCRIPTION
-----	------	-------------

DATE	5/15/19
SCALE	1"=30'
DRAWN BY	CJR
CHECKED BY	PSG
PROJECT NO.	19001

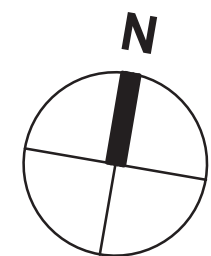
BUILDING:

SHEET TITLE:

**GRADING & UTILITIES PLAN**

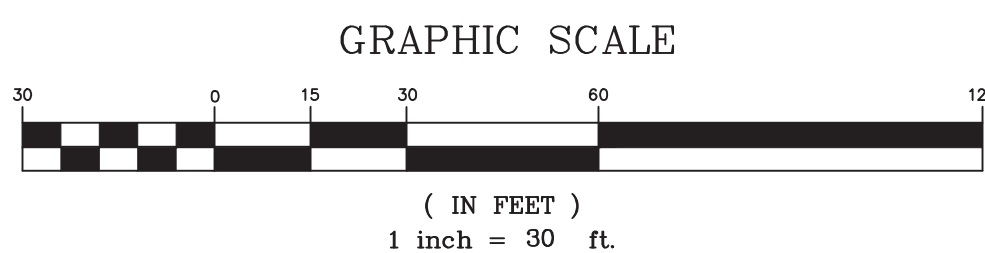
DRAWING NO.

# C-131



LEGEND	
◄ FES	FLARED END SECTION
◄	WATER GATE
● SMH	SEWER MANHOLE
● DMH	DRAIN MANHOLE
● TMH	TELEPHONE MANHOLE
● EMH	ELECTRIC MANHOLE
■ CB	CATCH BASIN
⊕ UP	UTILITY POLE
⊕ CO	CLEAN OUT
⊕ PIV	POST INDICATOR VALVE
⊕	GUY WIRE
⊕	RIPRAP
⊕	SPOT GRADE
1	1' CONTOUR
5	5' CONTOUR
W	WATER LINE
D	DRAIN LINE
UD	PERFORATED DRAIN LINE
S	SEWER LINE
UGE	UNDERGROUND ELECTRIC LINE
TC / TW	TOP OF CURB / TOP OF WALL
BC / BW	BOTTOM OF CURB / BOTTOM OF WALL
FFE	FINISH FLOOR ELEVATION
R=	RIM ELEVATION
I=	INVERT ELEVATION
TS&V	TAPPING SLEEVE & VALVE
PVC	POLYVINYL CHLORIDE PIPE
RCP	REINFORCED CONCRETE PIPE
CPE	CORRUGATED POLYETHYLENE PIPE
PCPE	PERFORATED CORRUGATED POLYETHYLENE PIPE
CLDI	CEMENT LINE DUCTILE IRON PIPE
CI	CAST IRON

- GRADING & UTILITY NOTES:**
- PRIOR TO CONSTRUCTION, VERIFY EXISTING UTILITY LOCATIONS AS SHOWN ON THE DRAWINGS. REPORT DISCREPANCIES TO THE ARCHITECT.
  - FILE AND PAY FOR APPLICABLE PERMITS AND FEES (UNLESS OTHERWISE NOTED).
  - PIPE MATERIALS (UNLESS OTHERWISE SPECIFIED):  
STORM DRAIN: CORRUGATED POLYETHYLENE PIPE (CPE)  
WATER: CLASS 52 CEMENT LINED DUCTILE IRON (CLDI)  
SEWER: POLYVINYL CHLORIDE PIPE (PVC)
  - PROVIDE ADEQUATE BRACING AND SHORING OF ALL EXCAVATIONS IN ACCORDANCE WITH ALL GOVERNING CODES AND REGULATIONS.
  - PROTECT NEW AND EXISTING UTILITIES TO REMAIN, DURING CONSTRUCTION.
  - COORDINATE WORK WITH APPROPRIATE UTILITY COMPANIES.
  - CONTACT THE APPROPRIATE UTILITY COMPANY AND "DIG SAFE" AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION WORK TO REQUEST EXACT FIELD LOCATIONS OF EXISTING UTILITIES. NOTIFY THE ARCHITECT OF ANY UTILITIES INTERFERING WITH THE PROPOSED CONSTRUCTION.
  - NOTIFY THE ARCHITECT A MINIMUM OF 5 DAYS PRIOR TO PERFORMING ANY WORK THAT INVOLVES CONFLICTS BETWEEN PROPOSED UTILITIES AND EXISTING UTILITIES TO REMAIN.
  - IF UNDOCUMENTED UTILITIES ARE ENCOUNTERED DURING CONSTRUCTION, CONTACT THE ARCHITECT FOR DIRECTION, PRIOR TO ALTERING THE UTILITY IN ANY WAY.
  - THE ELECTRIC AND TELEPHONE SERVICES SHOWN ARE APPROXIMATE. COORDINATE ACTUAL LOCATIONS WITH THE APPROPRIATE SUBCONTRACTOR AND UTILITY COMPANY.
  - REFER TO SL1 PLAN FOR INFORMATION REGARDING THE SITE LIGHTING FIXTURES.
  - VERIFY EXISTING SEWER INVERTS WHERE NEW UTILITY CONNECTIONS ARE PROPOSED. REPORT DISCREPANCIES FROM EXISTING OR PROPOSED CONNECTING INVERTS SHOWN TO THE ARCHITECT, PRIOR TO PERFORMING ANY SEWER WORK TRIBUTARY TO THE CONNECTION POINT.
  - RESET RIMS OF EXISTING UTILITY FRAMES, COVERS, AND GRATES WITH NEW BRICK AND MORTAR RISER COURSE TO MATCH PROPOSED FINISH GRADE WITHIN THE LIMIT OF WORK. NOTIFY ARCHITECT IF EXISTING STRUCTURES NEED ADDITIONAL REPAIR OR REPLACEMENT DUE TO CONDITION.
  - INSTALL BITUMINOUS PAVEMENT AND CEMENT CONCRETE TO HAVE 1% MINIMUM SLOPE FOR DRAINAGE, AND IN ACCORDANCE WITH THE PROPOSED GRADES SHOWN. REPORT ANY AREAS OF DISCREPANCY WITH THE GRADING INDICATED TO THE ARCHITECT PRIOR TO GRADING BASE MATERIAL.
  - PROVIDE CONCRETE THRUST BLOCKS AT ALL BENDS 22° AND GREATER IN NEW WATER LINES.
  - CONFIRM NEW HYDRANTS, VALVES, AND FITTINGS MEET THE REQUIREMENTS OF THE TURNERS FALLS FIRE DEPARTMENT AND WATER DEPARTMENT.
  - ESTABLISH AND MAINTAIN CONTROL POINTS AND BENCH MARKS NECESSARY FOR THE CONSTRUCTION OF THE PROJECT.
  - CLEAN UTILITY STRUCTURES PRIOR TO PROJECT CLOSE-OUT.
  - UNDERDRAN PIPING AND INFILTRATION BASIN ARE TO BE INSTALLED ONLY IF ALTERNATE NO. 4 IS ELECTED. SCOPE IS ELIMINATED IF ALTERNATE NO. 4 IS NOT TAKEN.











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MECHANICAL ENGINEER:  
SEAMAN ENGINEERING CORP.  
22 WEST STREET, UNIT C  
MILLBURY, MA 01527

ELECTRICAL ENGINEER:  
JOHN J. MURPHY, JR. ELECTRICAL  
CONSTRUCTION AND ENGINEERING, INC.  
379 LIBERTY STREET  
ROCKLAND, MA 02370

STAMP

REV	DATE	DESCRIPTION
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DATE 5/15/19

SCALE NTS

DRAWN BY CJR

CHECKED BY PSG

PROJECT NO. 19001

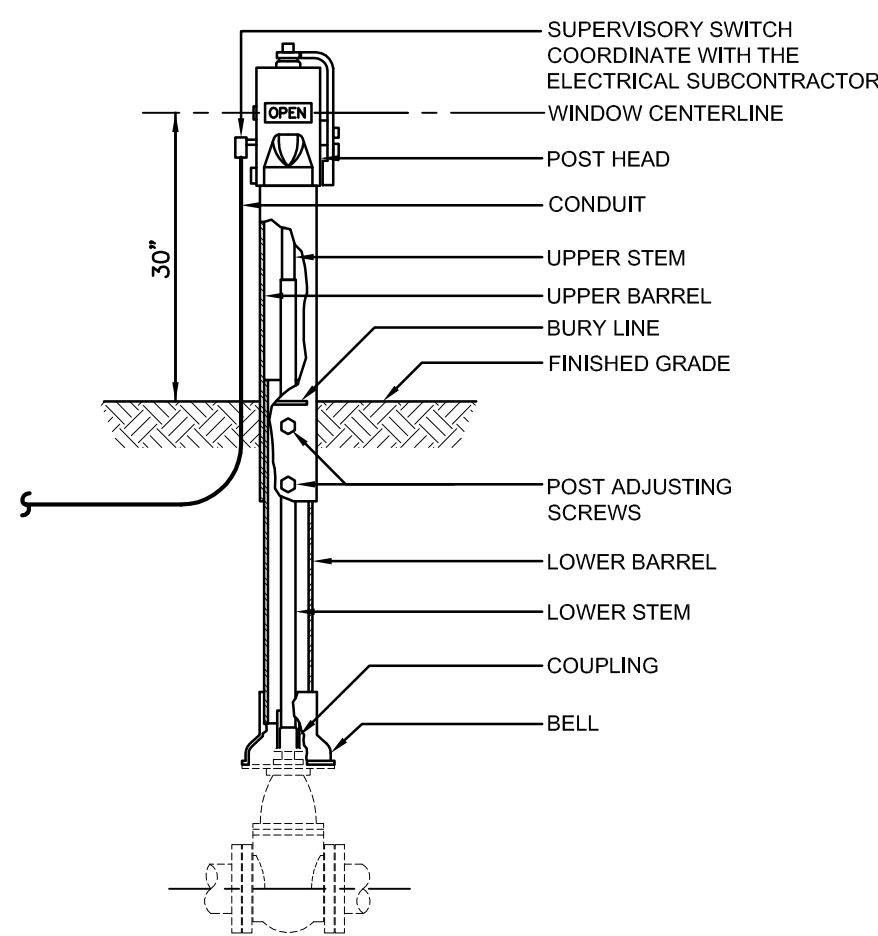
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SHEET TITLE:

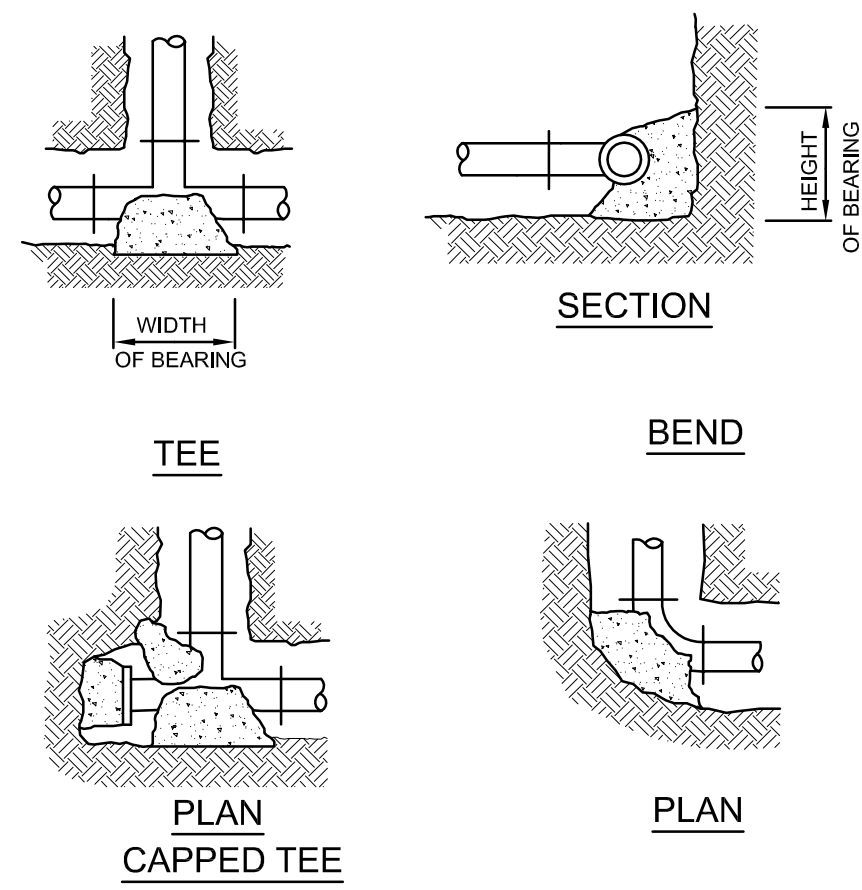
DETAILS II

DRAWING NO.

C-502



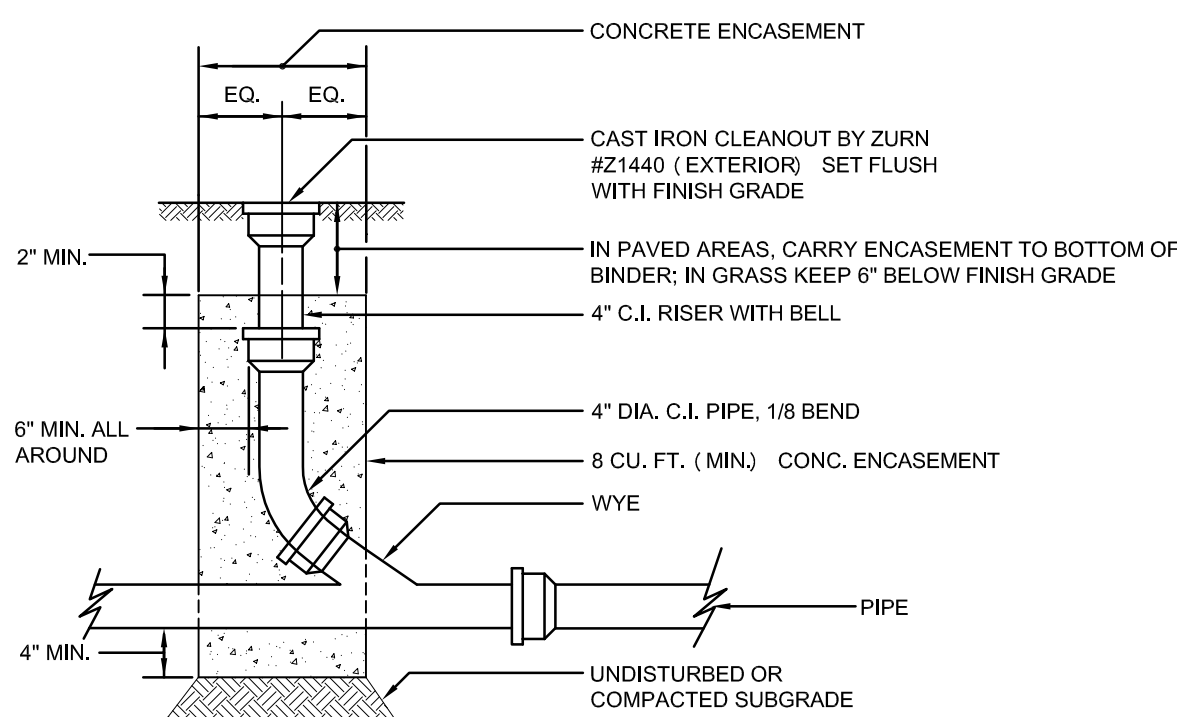
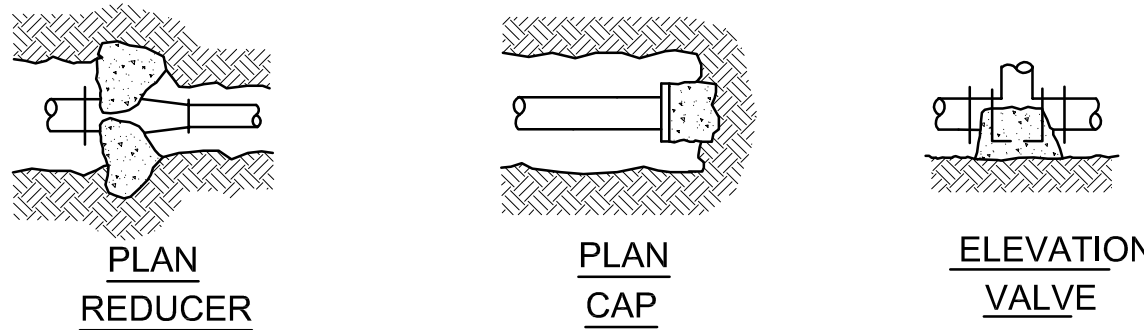
8 POST INDICATOR VALVE  
N.T.S.



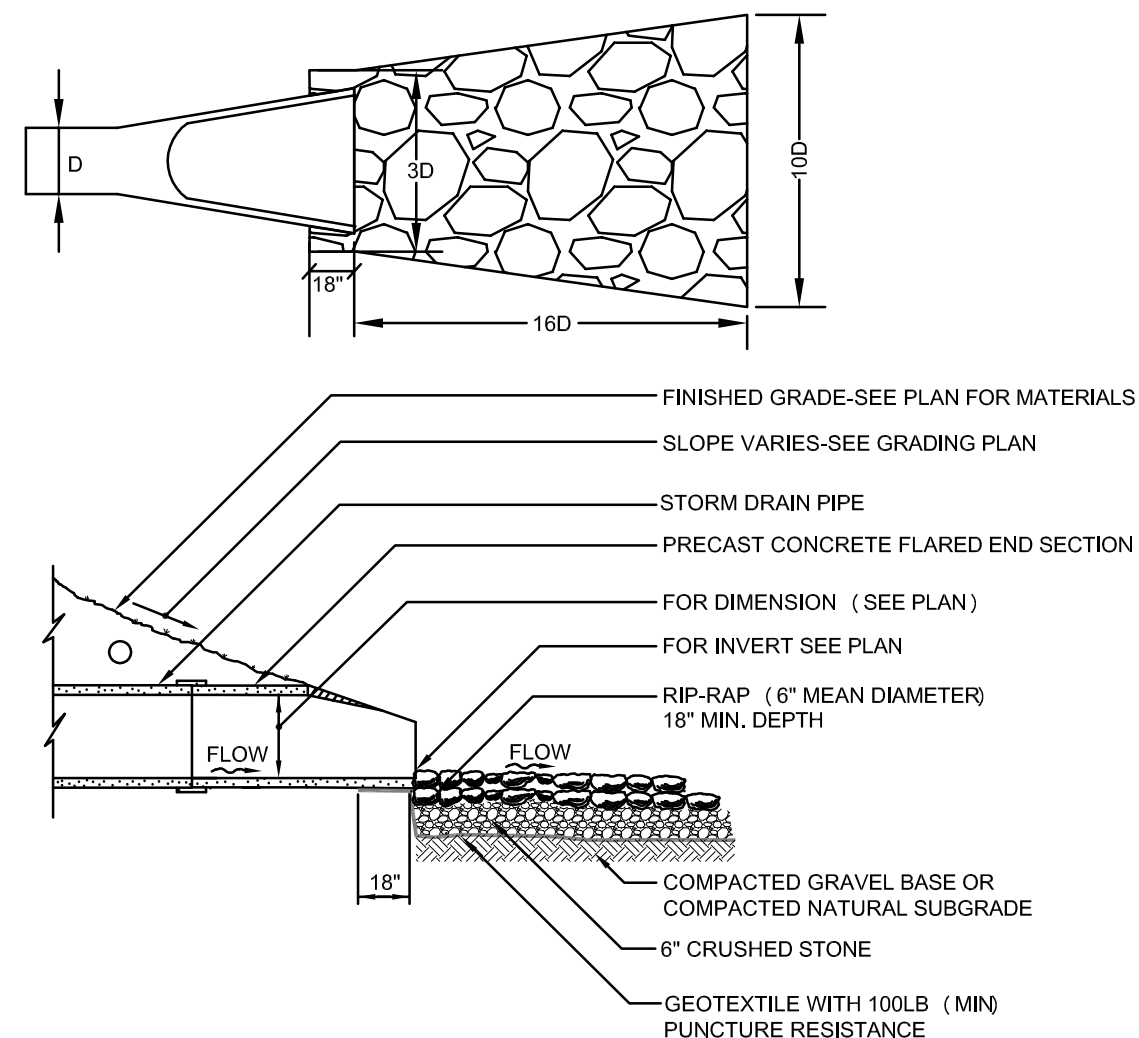
9 THRUST BLOCKS - FORCE MAIN  
N.T.S.

FITTINGS PIPE SZ.	MINIMUM BEARING AREA ( SQUARE FEET)					CAPS & TEES	VALVES	REDUC.
	90 °	45 °	22-1/2°	11-1/4°	BENDS			
6"	4	2	2	2	2	3	3	3
8"	6	3	3	3	3	5	5	5
10"	9	4	4	4	4	6	6	6
12"	12	7	4	3	3	9	9	9

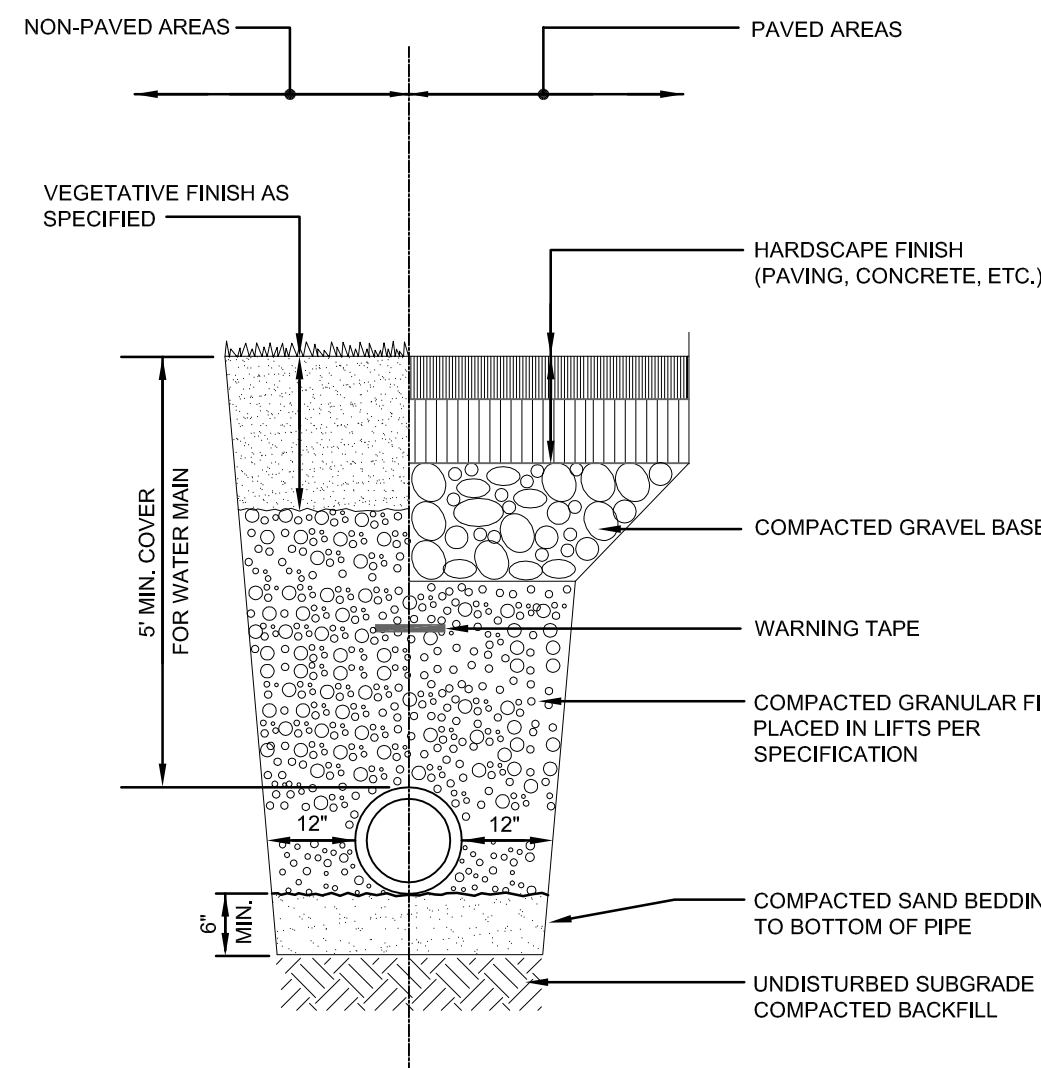
NOTE:  
1. WIDTH & HEIGHT OF BEARING AREAS SHALL BE APPROX. THE SAME.  
2. BEARING SHALL BE ON UNDISTURBED SOIL.



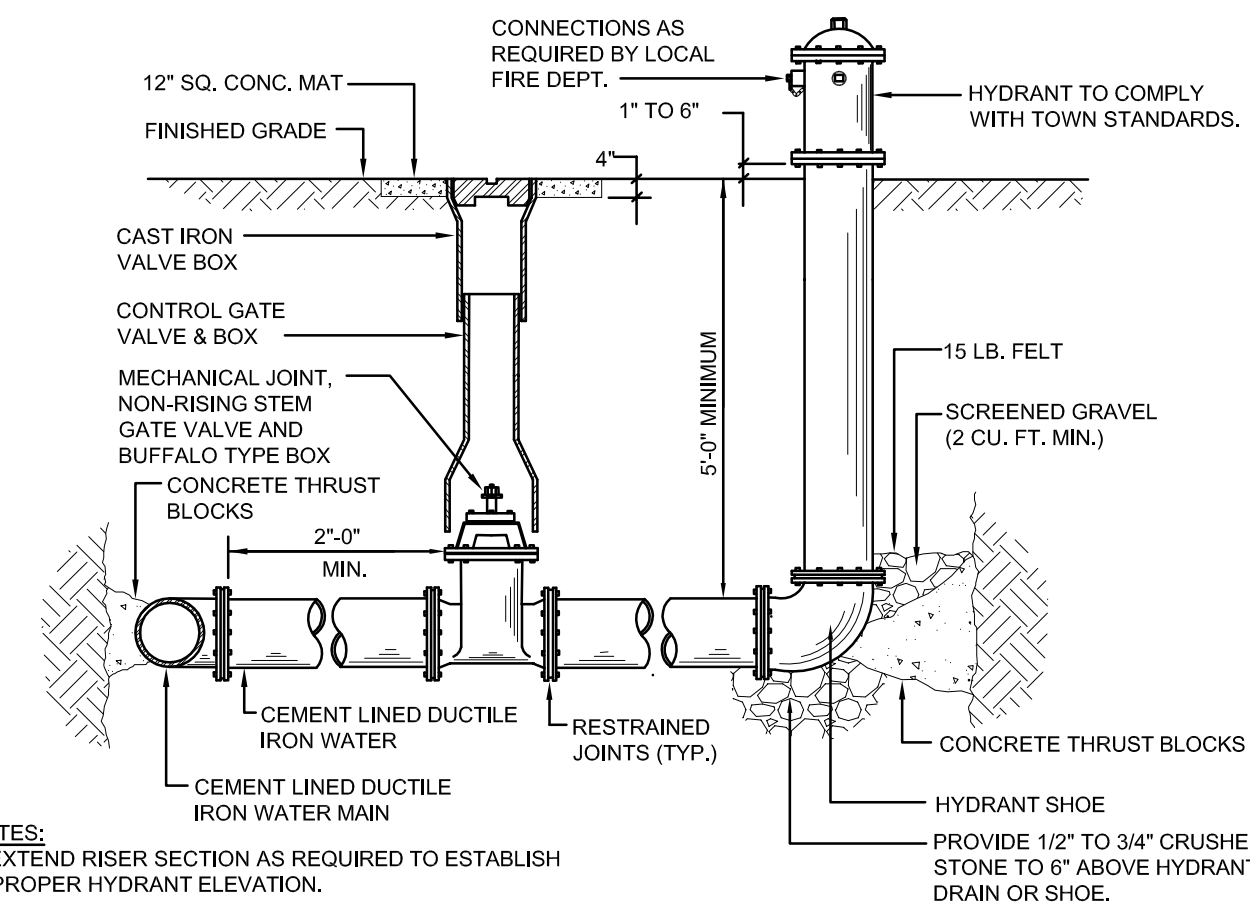
4 CLEANOUT  
N.T.S.



5 FLARED END  
N.T.S.

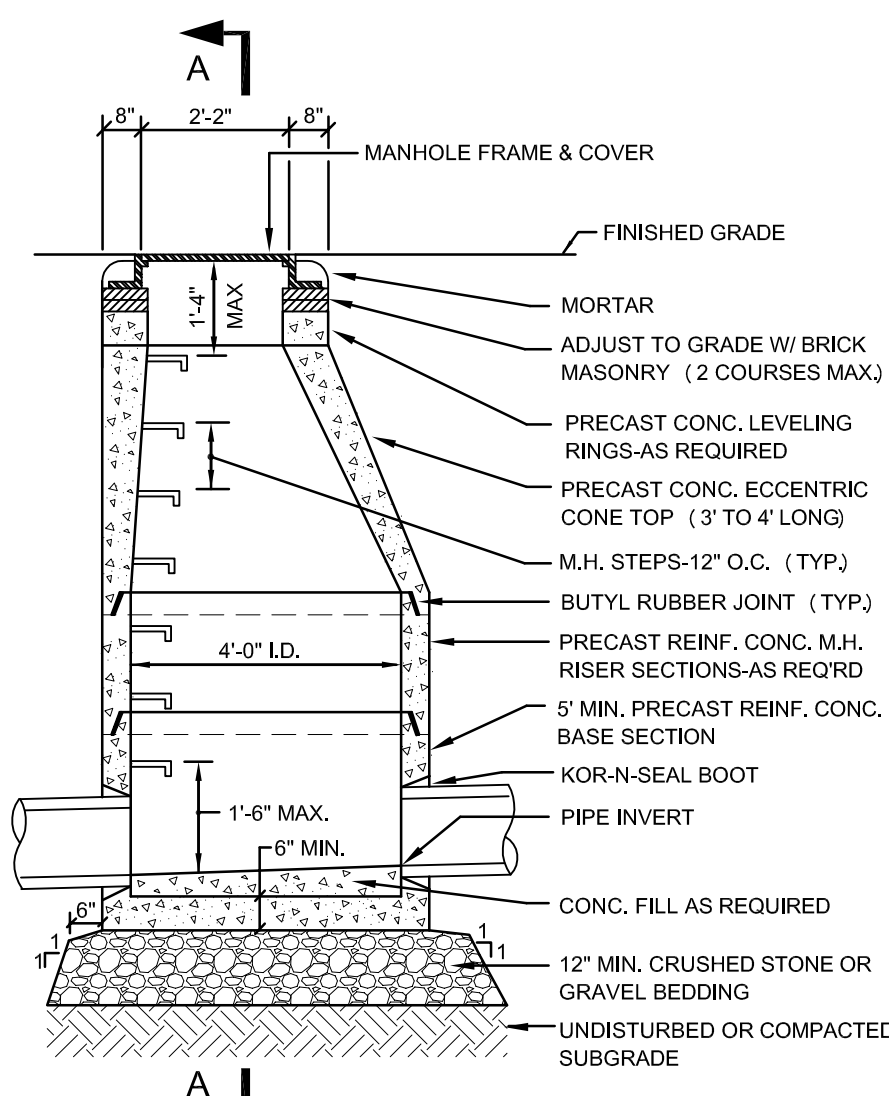


6 TRENCH SECTION - WATER & ELEC / TELECOM  
N.T.S.

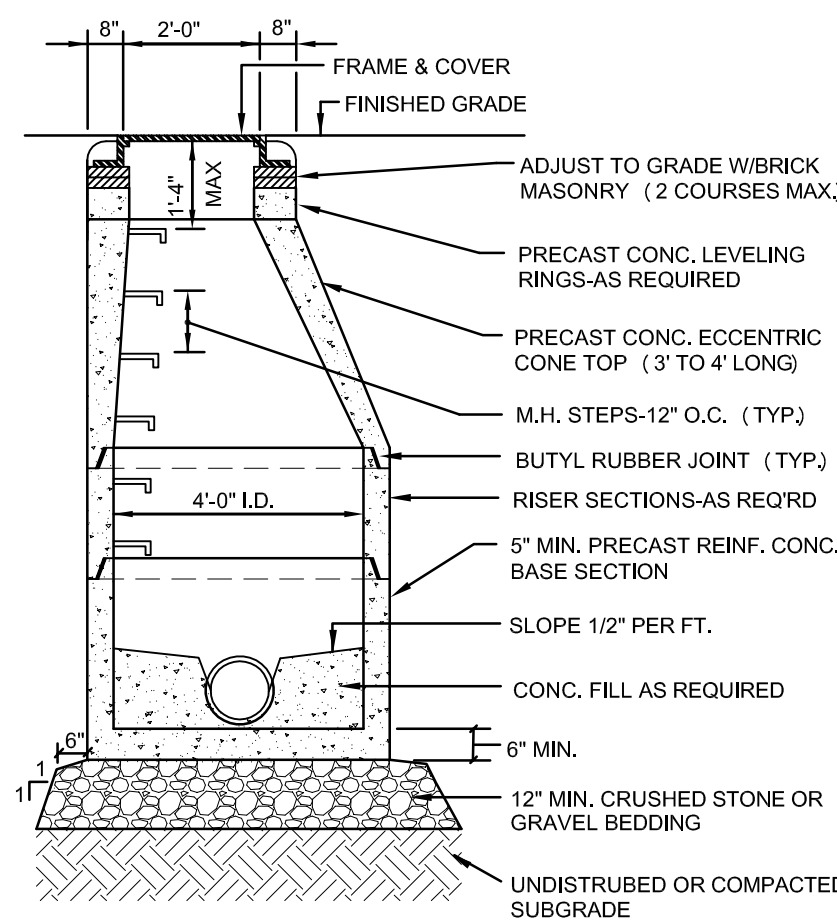


NOTES:  
1. EXTEND RISER SECTION AS REQUIRED TO ESTABLISH PROPER HYDRANT ELEVATION.  
2. SEE THRUST BLOCK DETAIL FOR CONCRETE THRUST BLOCK REQUIREMENTS.

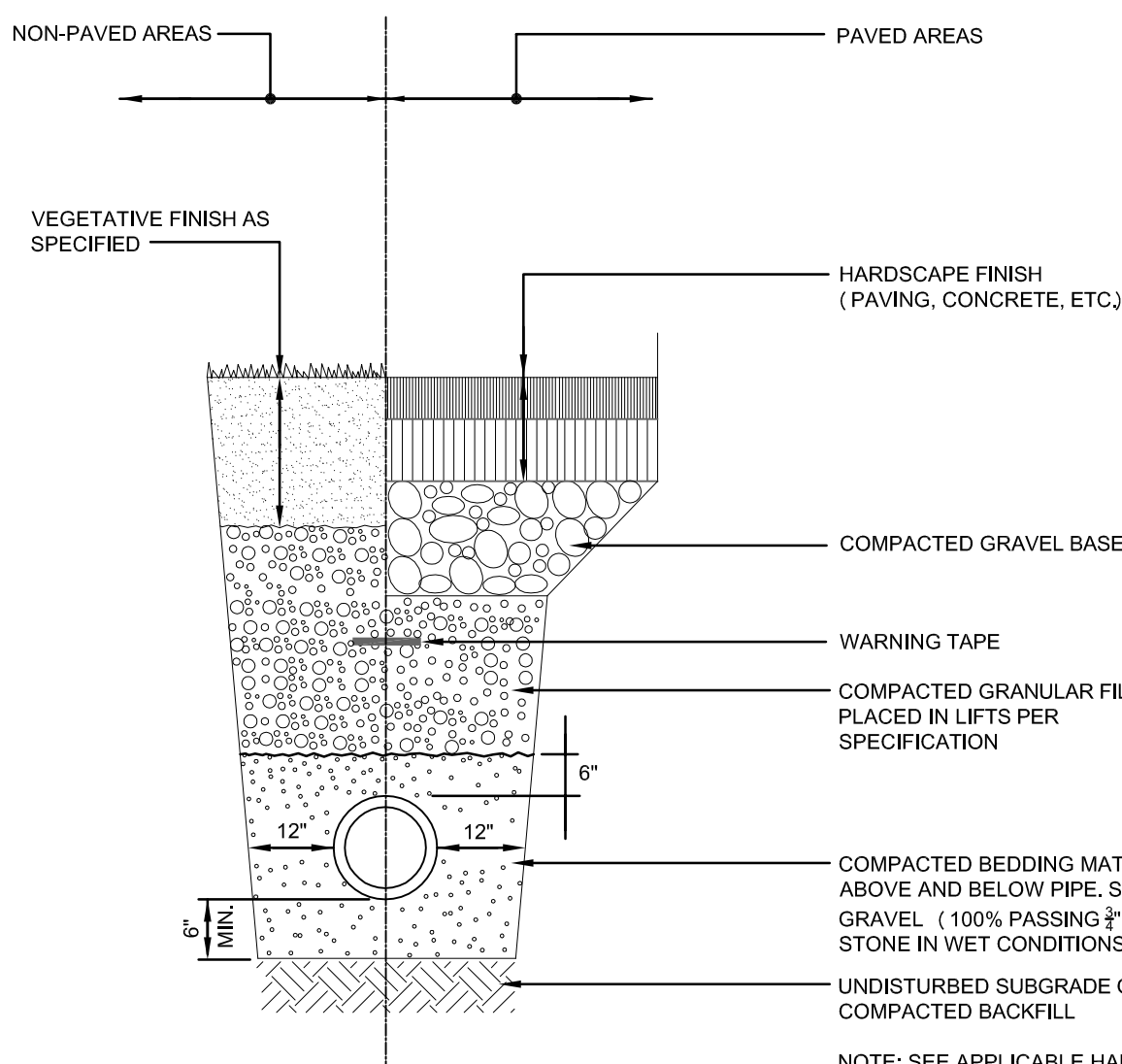
7 HYDRANT  
N.T.S.



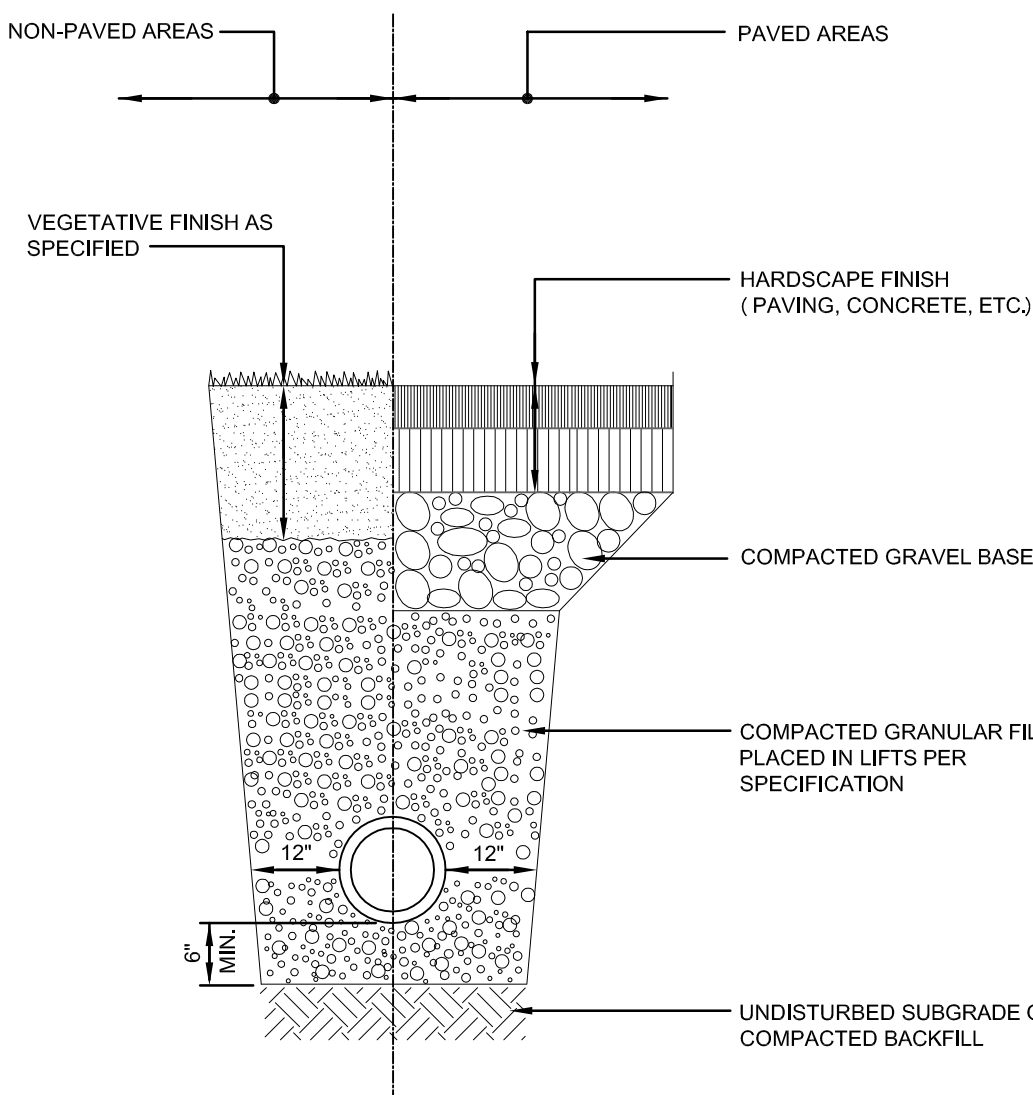
1 STANDARD SEWER MANHOLE  
N.T.S.



2 TRENCH SECTION - SEWER PIPE  
N.T.S.



NOTE: SEE APPLICABLE HARDSCAPE DETAIL FOR THICKNESS OF HARDSCAPE MATERIAL AND GRAVEL BASE COURSE.



NOTE: SEE APPLICABLE HARDSCAPE DETAIL FOR THICKNESS OF HARDSCAPE MATERIAL AND GRAVEL BASE COURSE.

3/C-502

3 TRENCH SECTION - CPE DRAINS  
N.T.S.





OWNER:  
TOWN OF MONTAGUE  
ONE AVENUE A  
TURNERS FALLS, MA 01376

ARCHITECT:

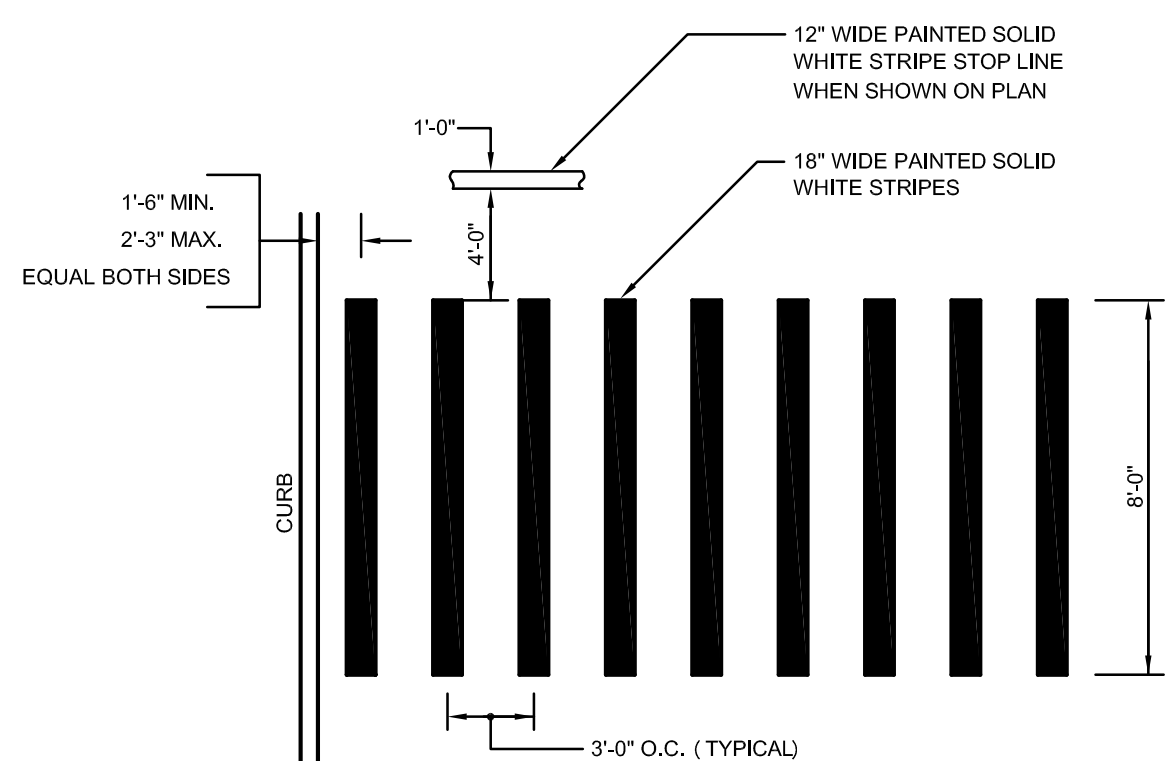
 **HELENE • KARL**  
Architects, Inc.  
61 Skyfield Drive, Groton, Massachusetts 01450

**CIVIL ENGINEER:**  
 SYMMES, MAINI & McKEE ASSOCIATES  
 1000 MASSACHUSETTS AVENUE  
 CAMBRIDGE, MA 02138

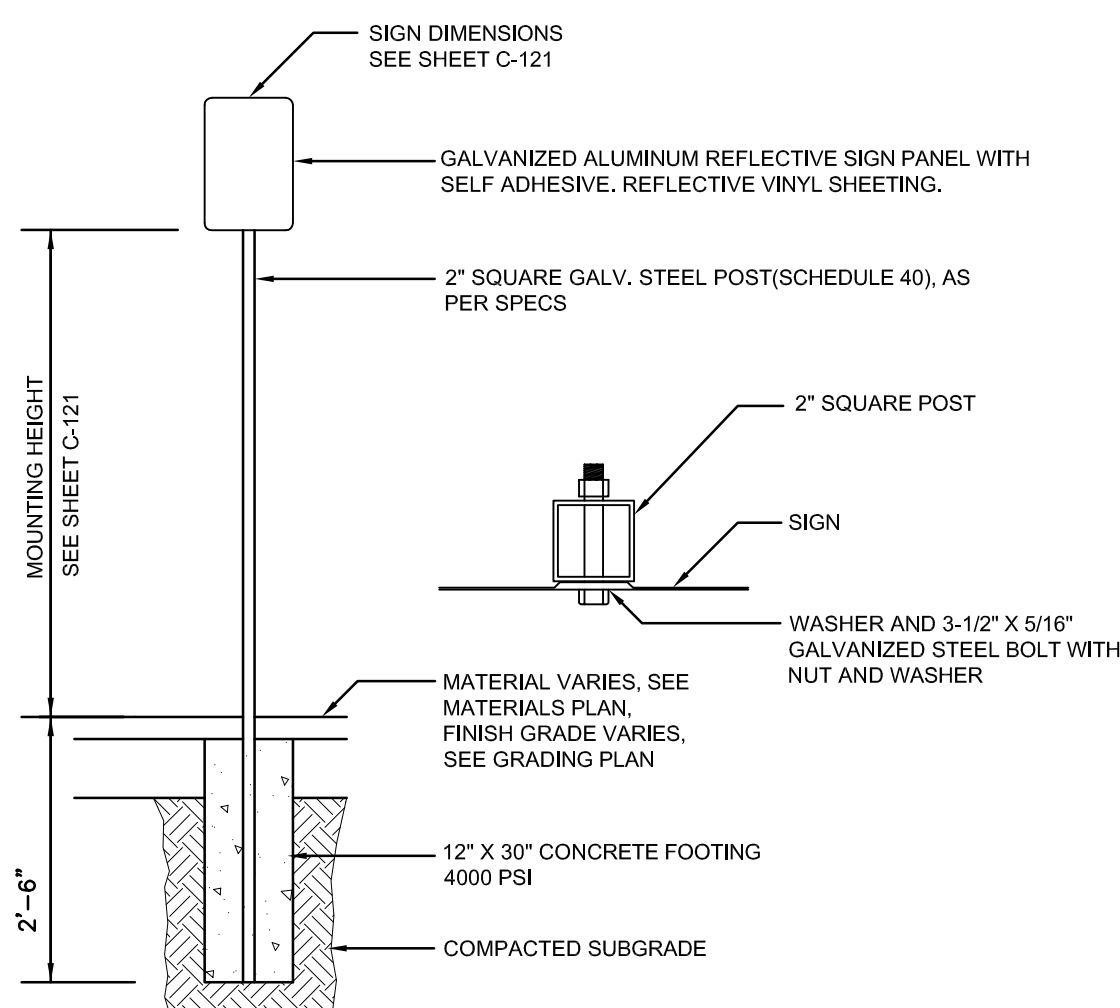
**STRUCTURAL ENGINEER:**  
 SYMMES, MAINI & MCKEE ASSOCIATES  
 1000 MASSACHUSETTS AVENUE  
 CAMBRIDGE, MA 02138

MECHANICAL ENGINEER:  
SEAMAN ENGINEERING CORP.  
22 WEST STREET, UNIT C  
MILLBURY, MA 01527

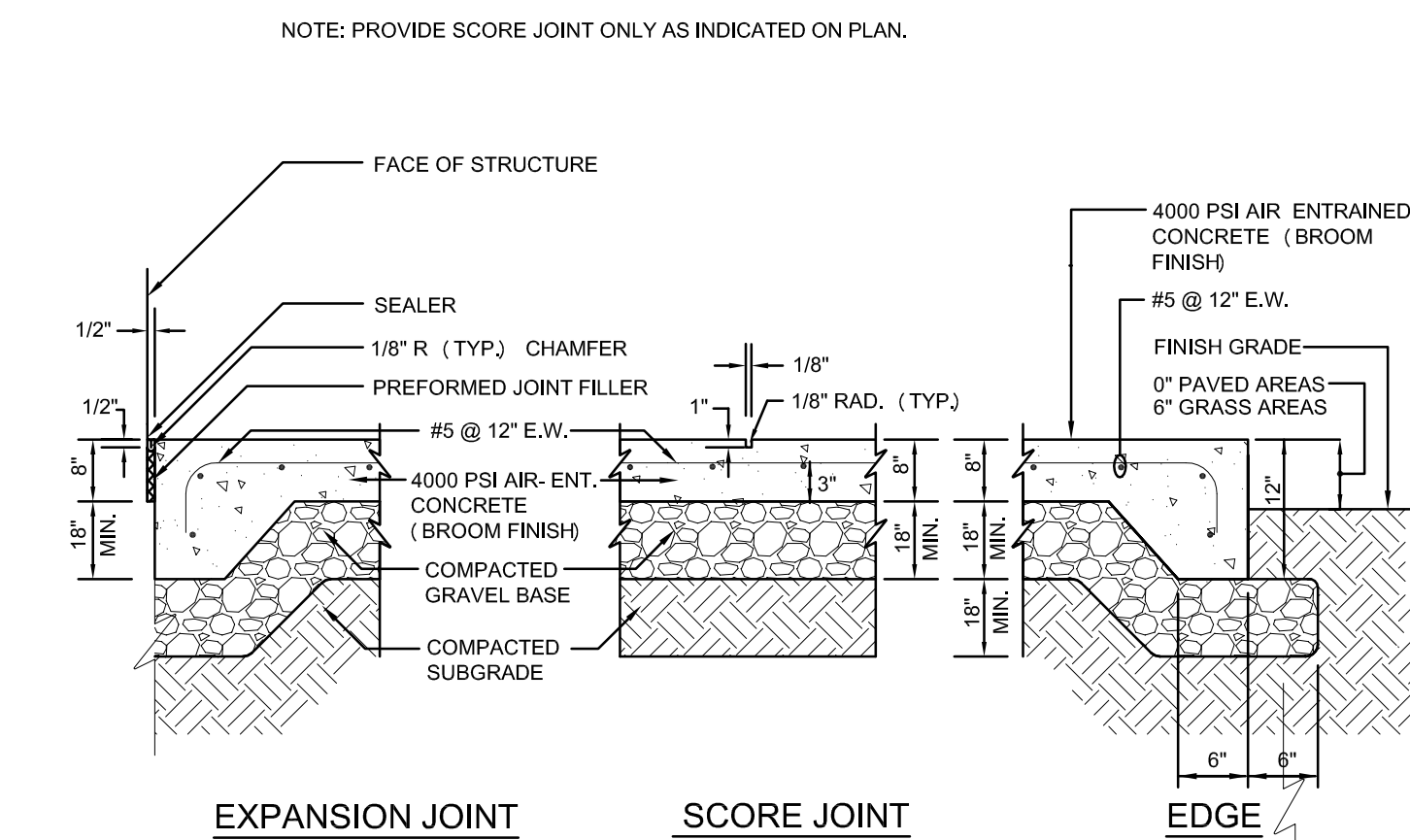
**ELECTRICAL ENGINEER:**  
JOHN J. MURPHY, JR. ELECTRICAL  
CONSTRUCTION AND ENGINEERING, II  
379 LIBERTY STREET  
ROCKLAND, MA 02370



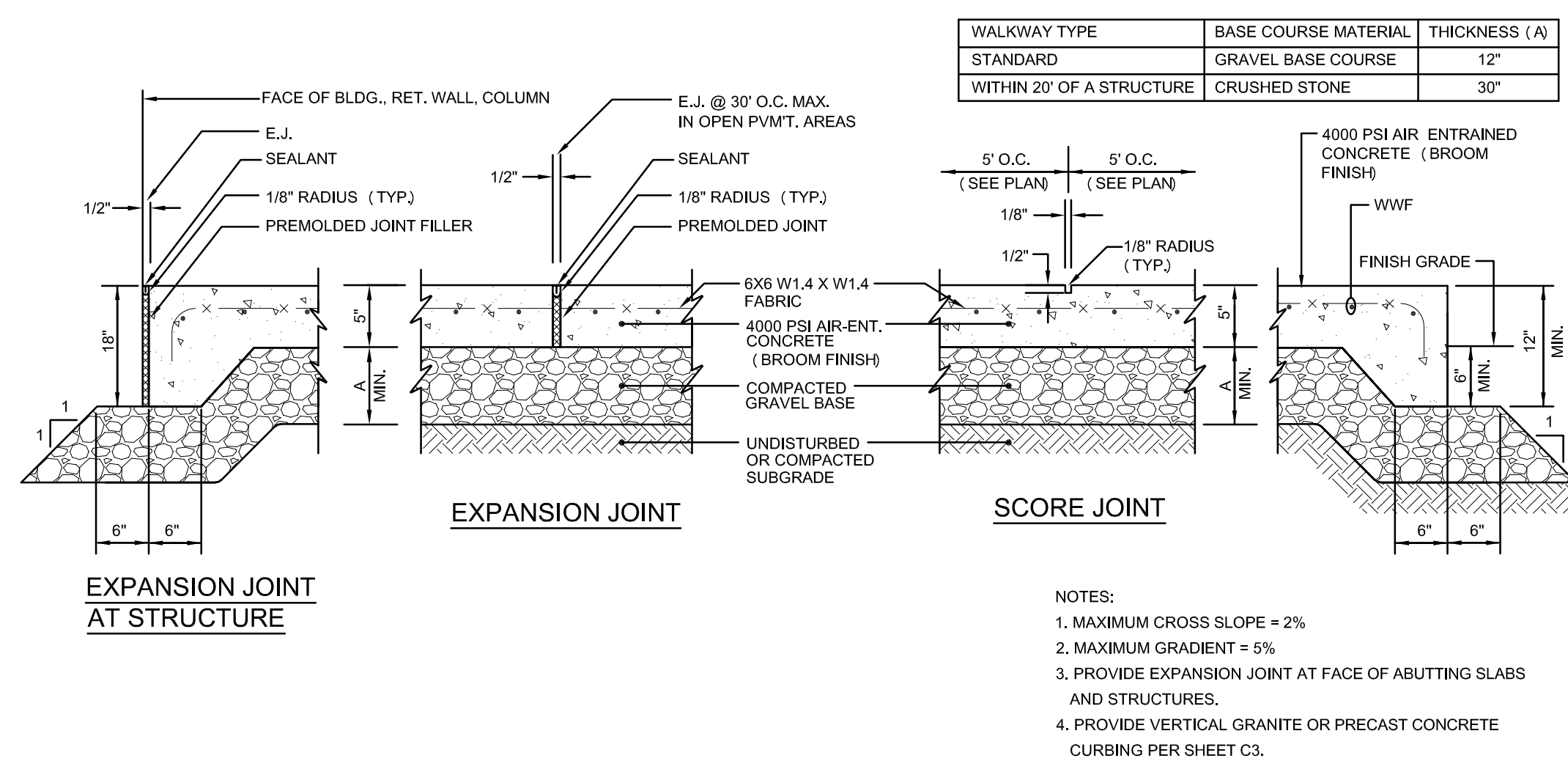
**11** **CROSSWALK**  
N.T.S.



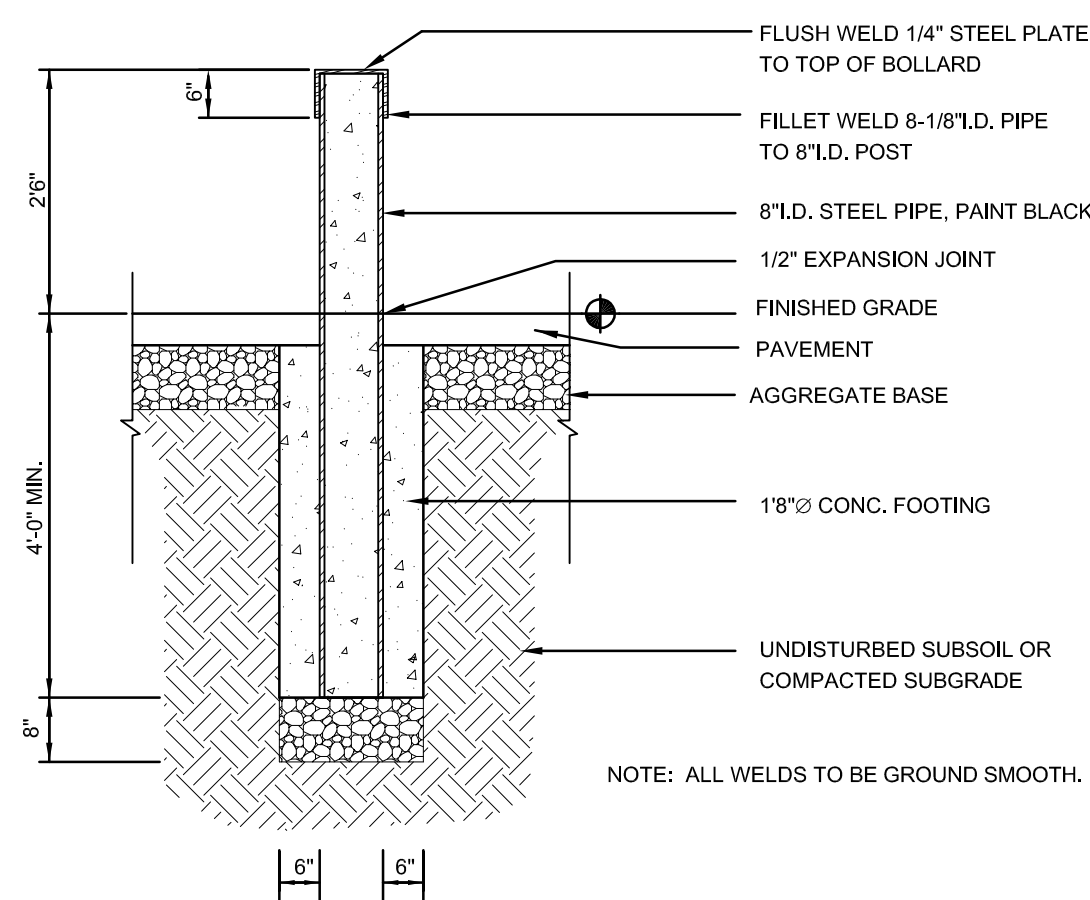
**8** **PARKING / TRAFFIC SIGN**  
N.T.S.



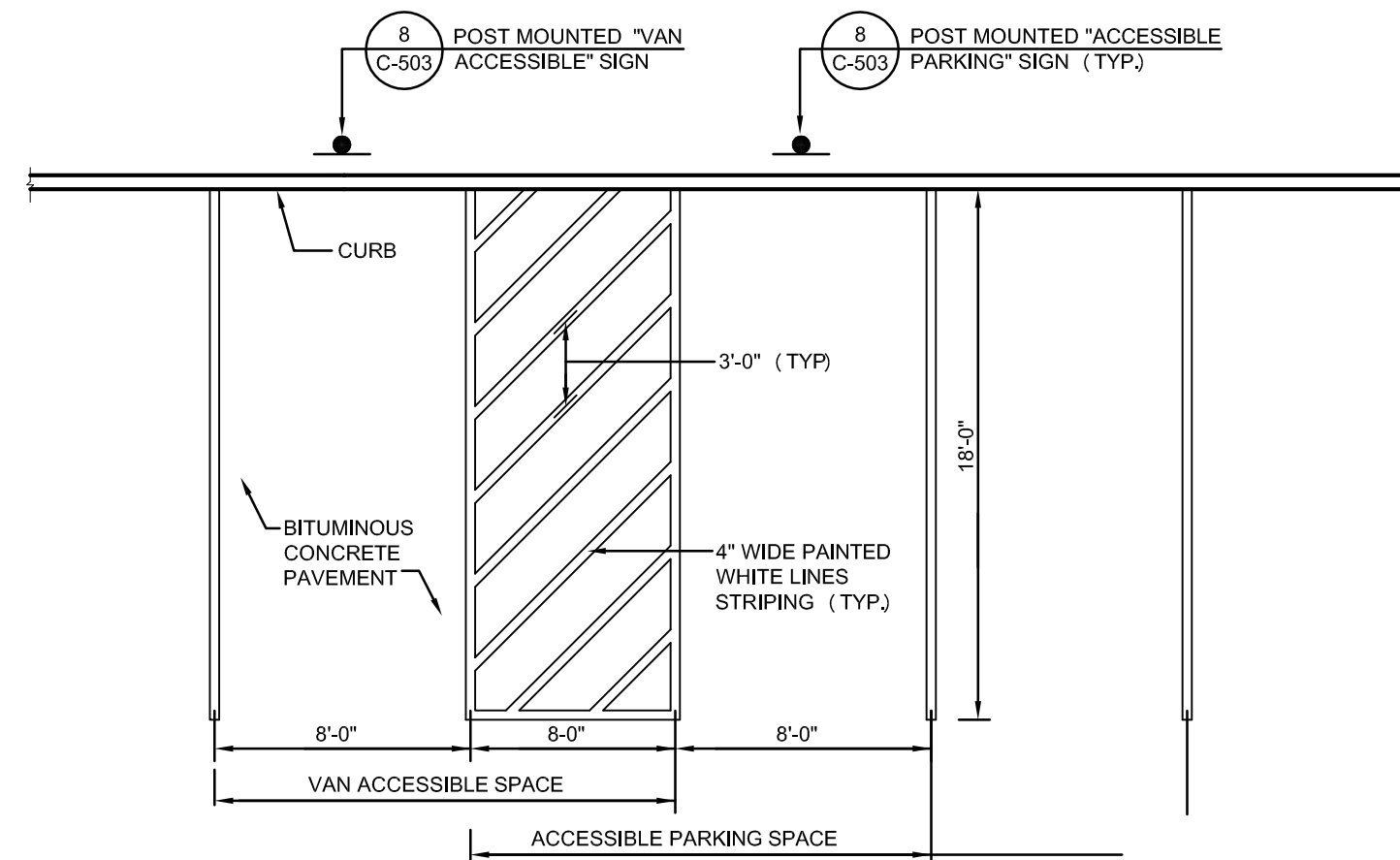
9 CONCRETE EQUIPMENT PAD  
N.T.S.



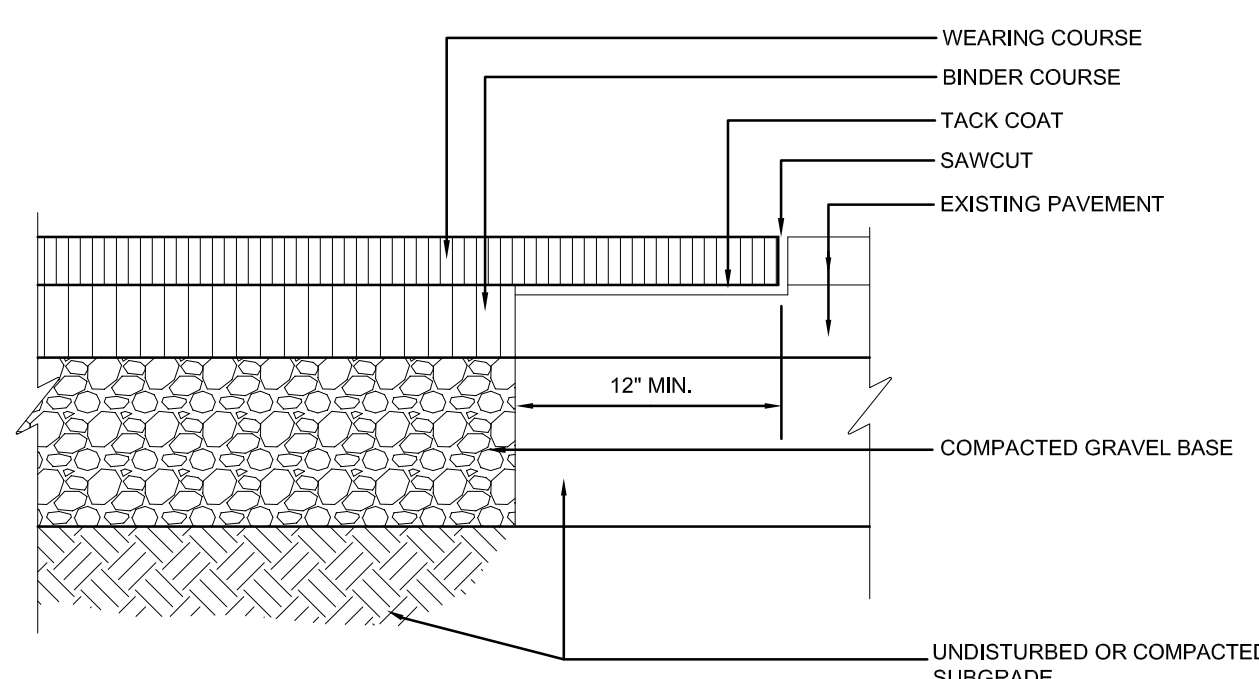
**5 CONCRETE WALKWAY**  
N.T.S.



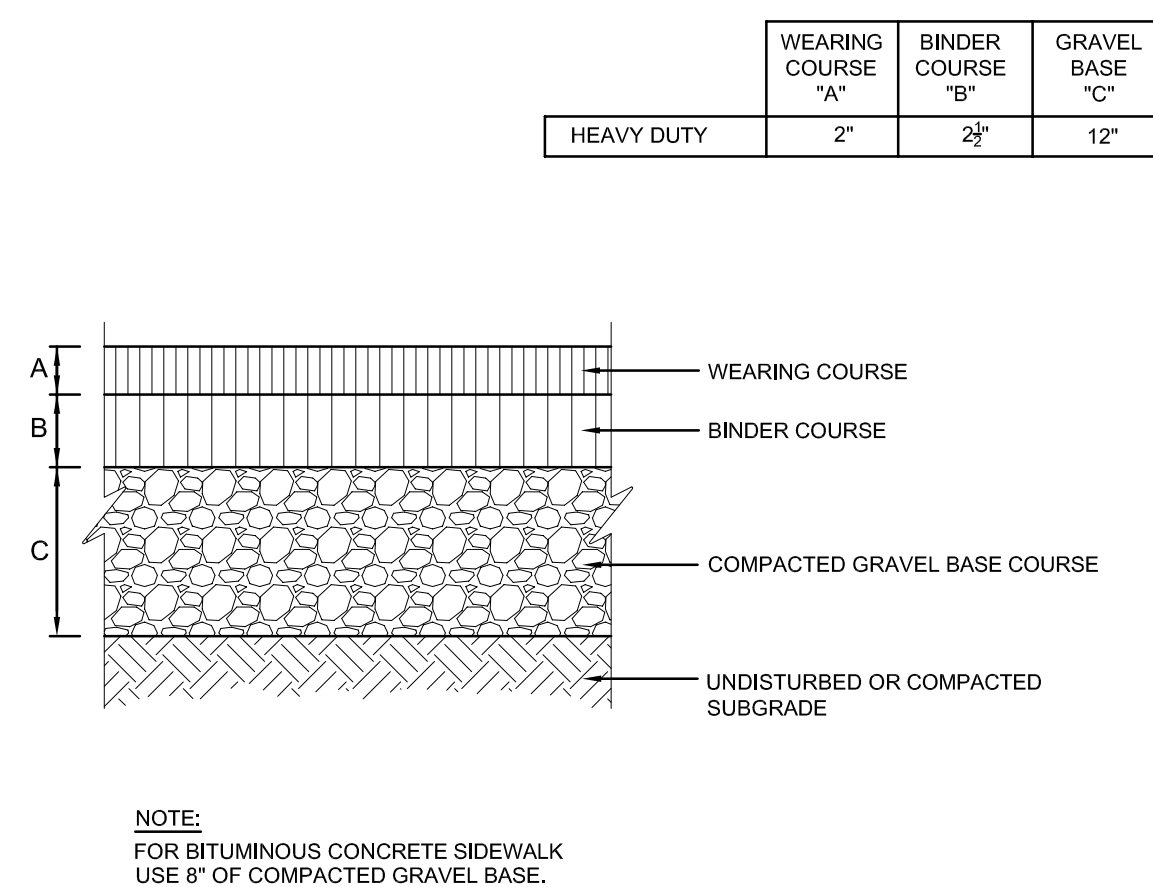
**6 STEEL BOLLARD**  
N.T.S.



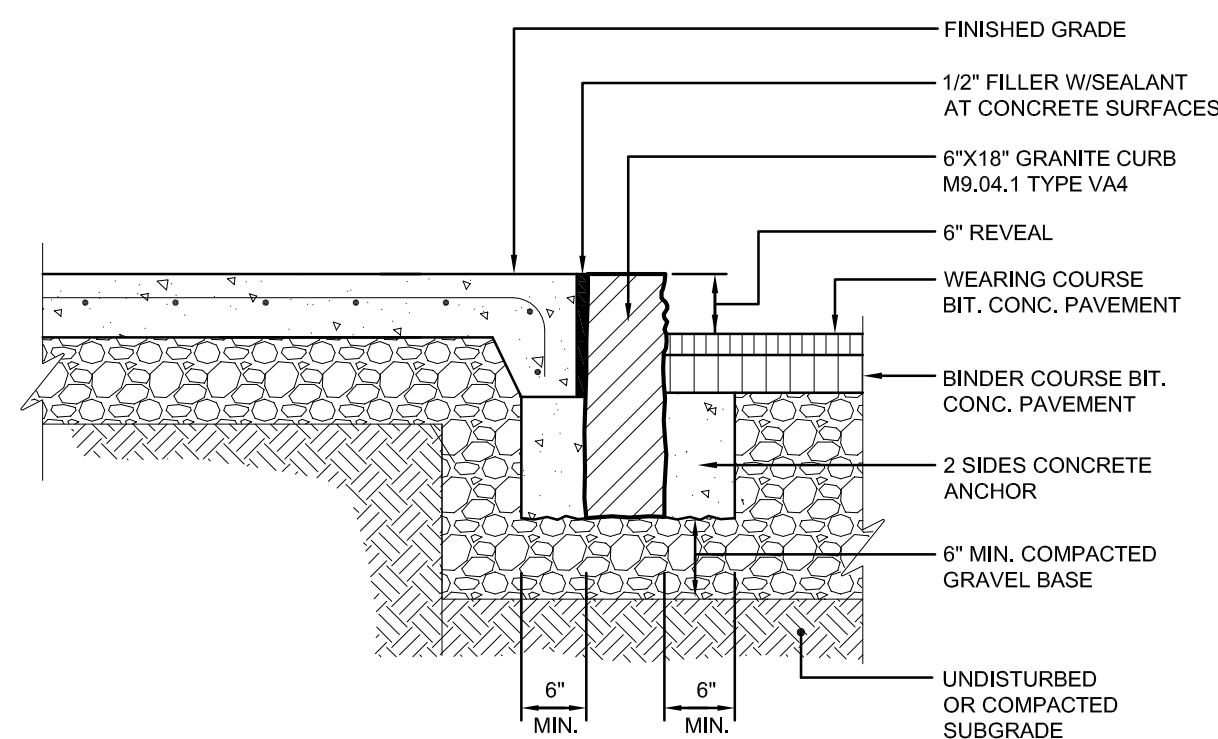
**7 ACCESSIBLE PARKING SPACES**  
N.T.S.



1 BITUMINOUS CONCRETE AT EXISTING PAVEMENT  
N.T.S.



**2 BITUMINOUS CONCRETE PAVEMENT**  
N.T.S.



**3 VERTICAL GRANITE CURB**  
N.T.S.

REV	DATE	DESCRIPTION

DATE	5/15/19
SCALE	NTS
DRAWN BY	CJR
CHECKED BY	PSG
PROJECT NO.	19001

BUILDING:

SHEET TITLE:

### DETAILS III

DRAWING NO.

C-503





TOWN OF  
MONTAGUE

NEW DPW FACILITY

OWNER:  
TOWN OF MONTAGUE  
ONE AVENUE A  
TURNERS FALLS, MA 01376

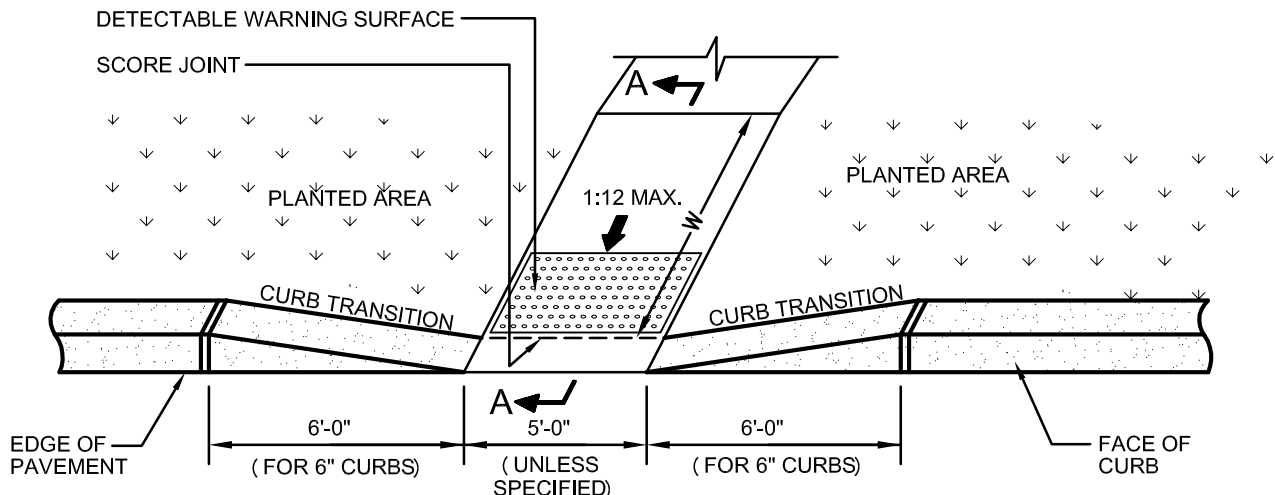
ARCHITECT:  
**HELENE • KARL**  
Architects, Inc.  
61 Skyfields Drive, Groton, Massachusetts 01450

CIVIL ENGINEER:  
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1000 MASSACHUSETTS AVENUE  
CAMBRIDGE, MA 02138

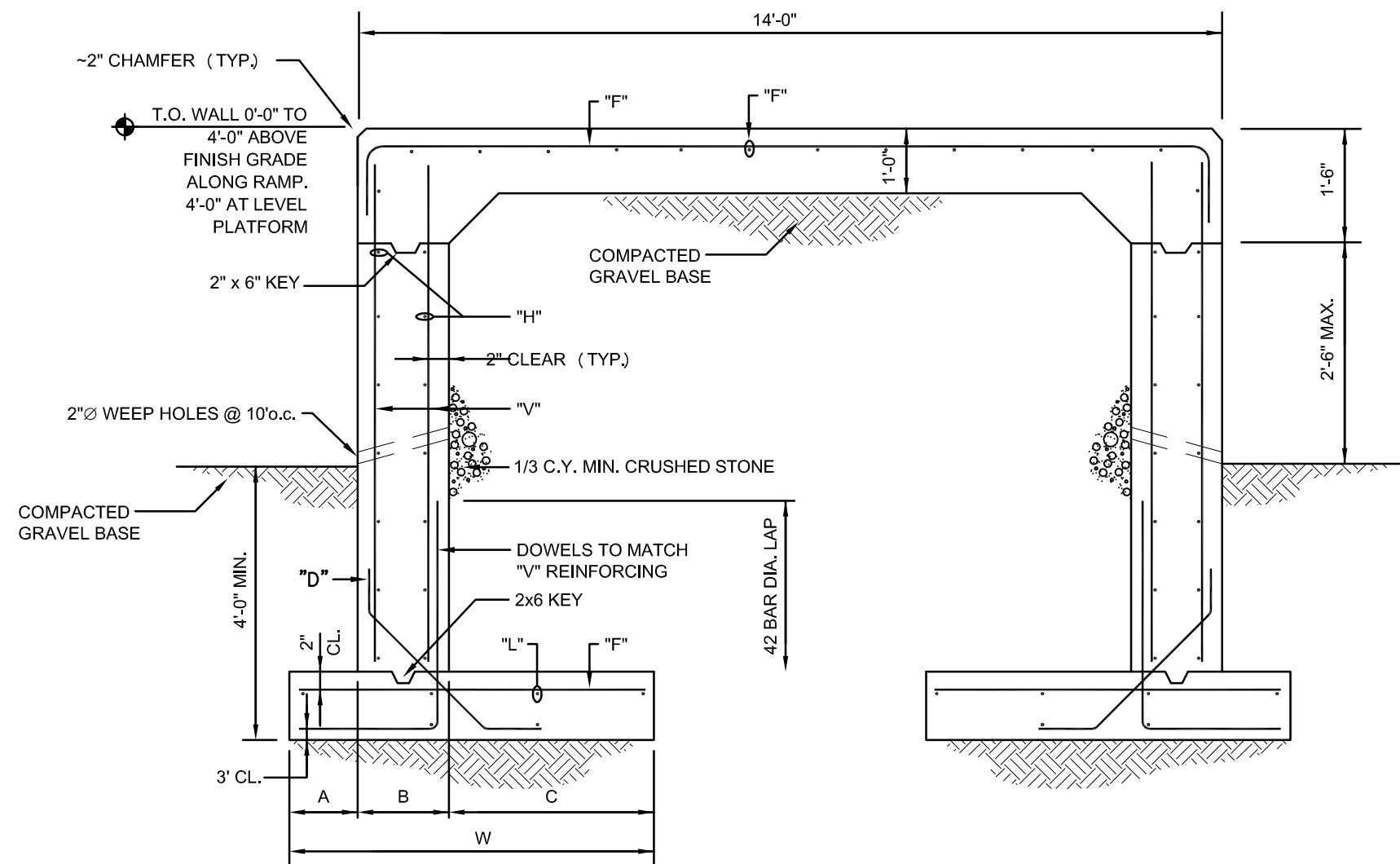
STRUCTURAL ENGINEER:  
SYMMES, MAINI & McKEE ASSOCIATES  
1000 MASSACHUSETTS AVENUE  
CAMBRIDGE, MA 02138

MECHANICAL ENGINEER:  
SEAMAN ENGINEERING CORP.  
22 WEST STREET, UNIT C  
MILLBURY, MA 01527

ELECTRICAL ENGINEER:  
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CONSTRUCTION AND ENGINEERING, INC.  
379 LIBERTY STREET  
ROCKLAND, MA 02370



8 ACCESSIBLE CURB CUT (TYPE 3)  
N.T.S.

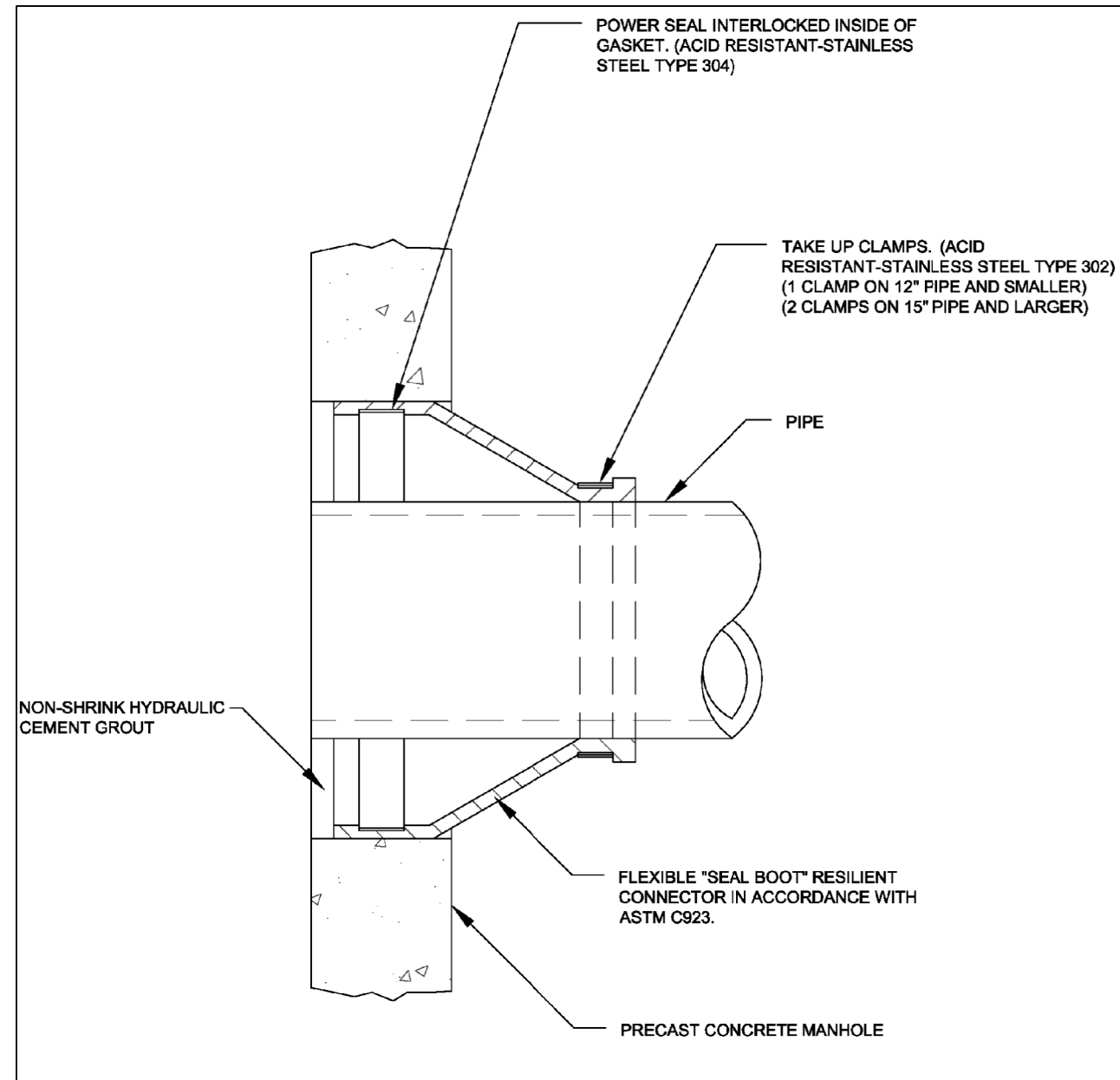


NOTE: 4000 PSI CONCRETE

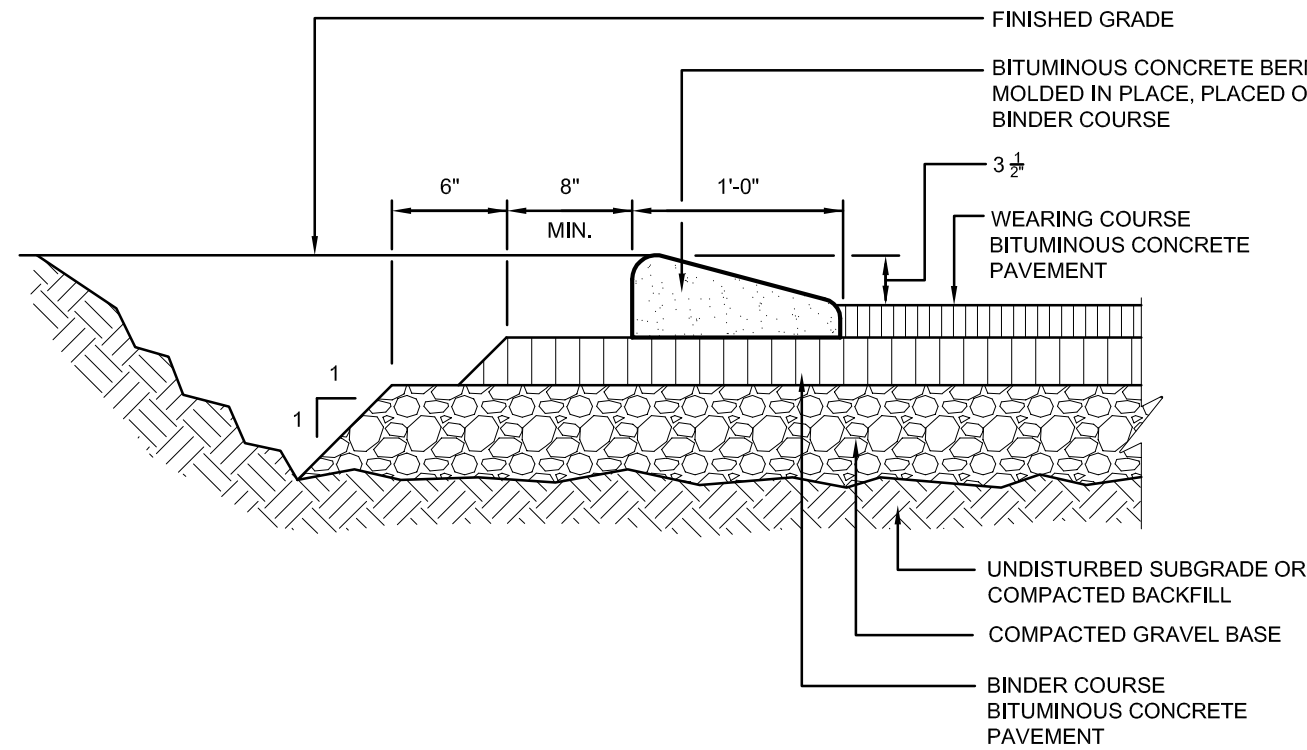
NOTE:  
INSTALLATION OF RAMP ONLY APPLIES IF  
ALTERNATE NO.4 IS ELECTED.

RETAINING WALL TYPE "A"									
DIMENSIONS					REINFORCING				
A	B	C	W	I	V	H	F	L	D
1'-9"	1'-3"	5'-5"	8'-5"	1'-3"	#6@8"	#6@12"	#5@8"	9-#5	#4@8"

NOTE: IN-BETWEEN DIMENSIONS MUST ALWAYS BE ROUNDED UP.

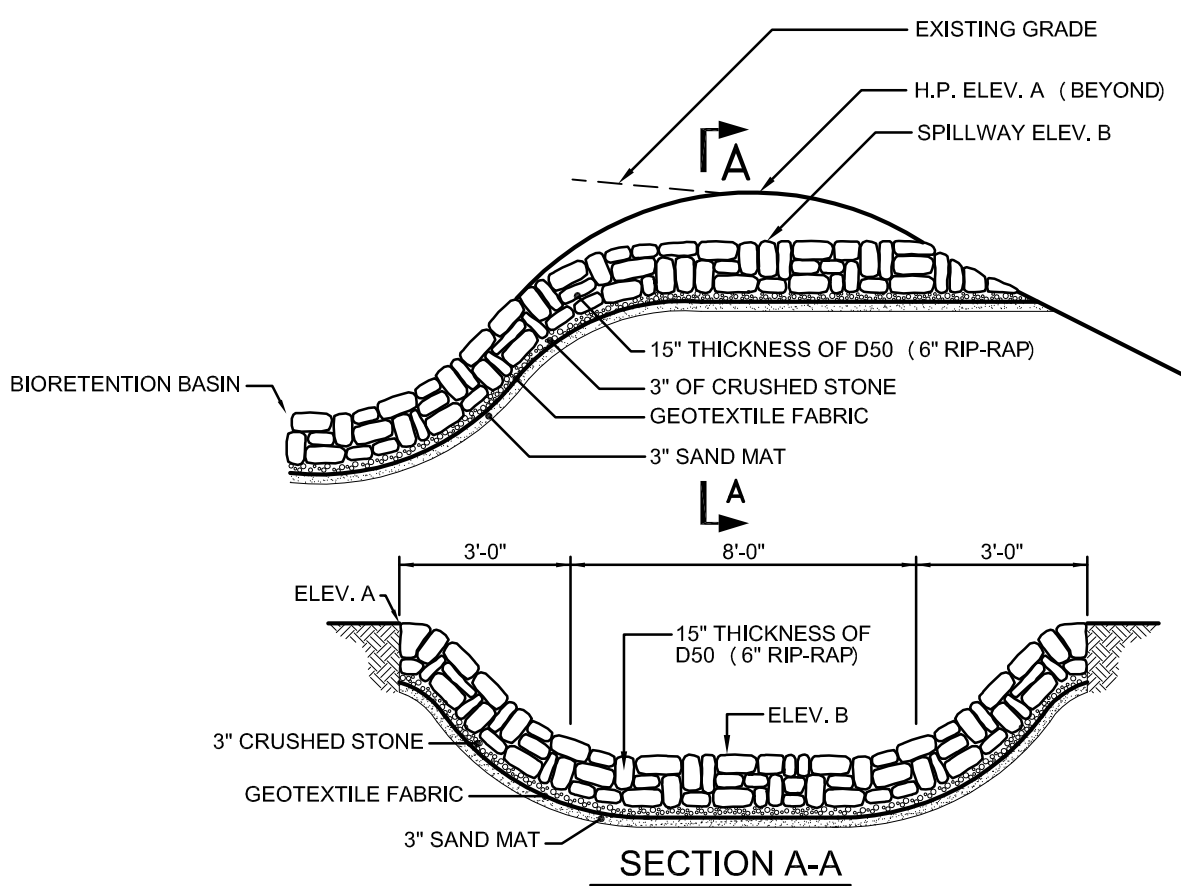


6 MANHOLE SEAL  
N.T.S.

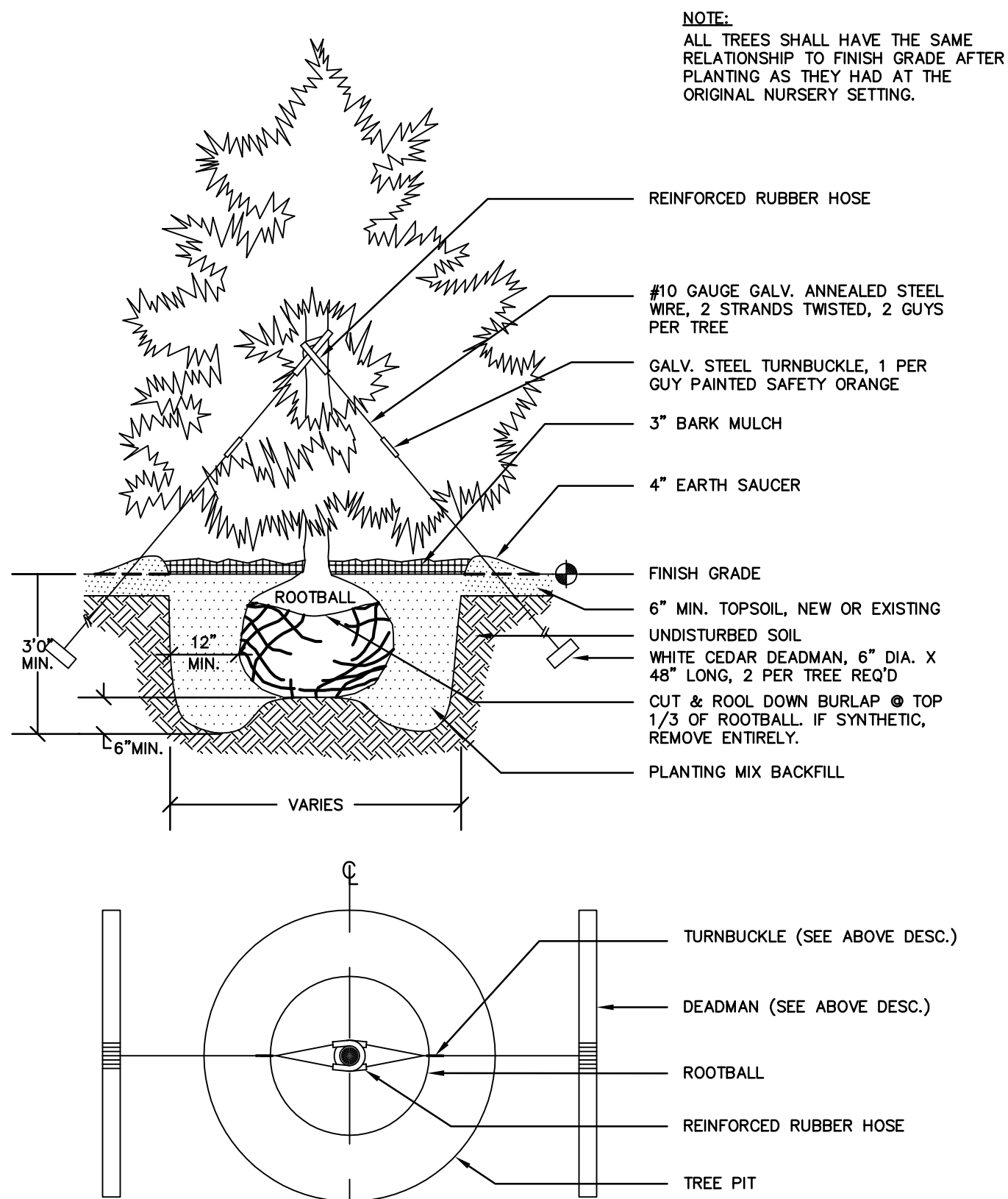


7 LOW PROFILE BITUMINOUS CONCRETE BERM  
N.T.S.

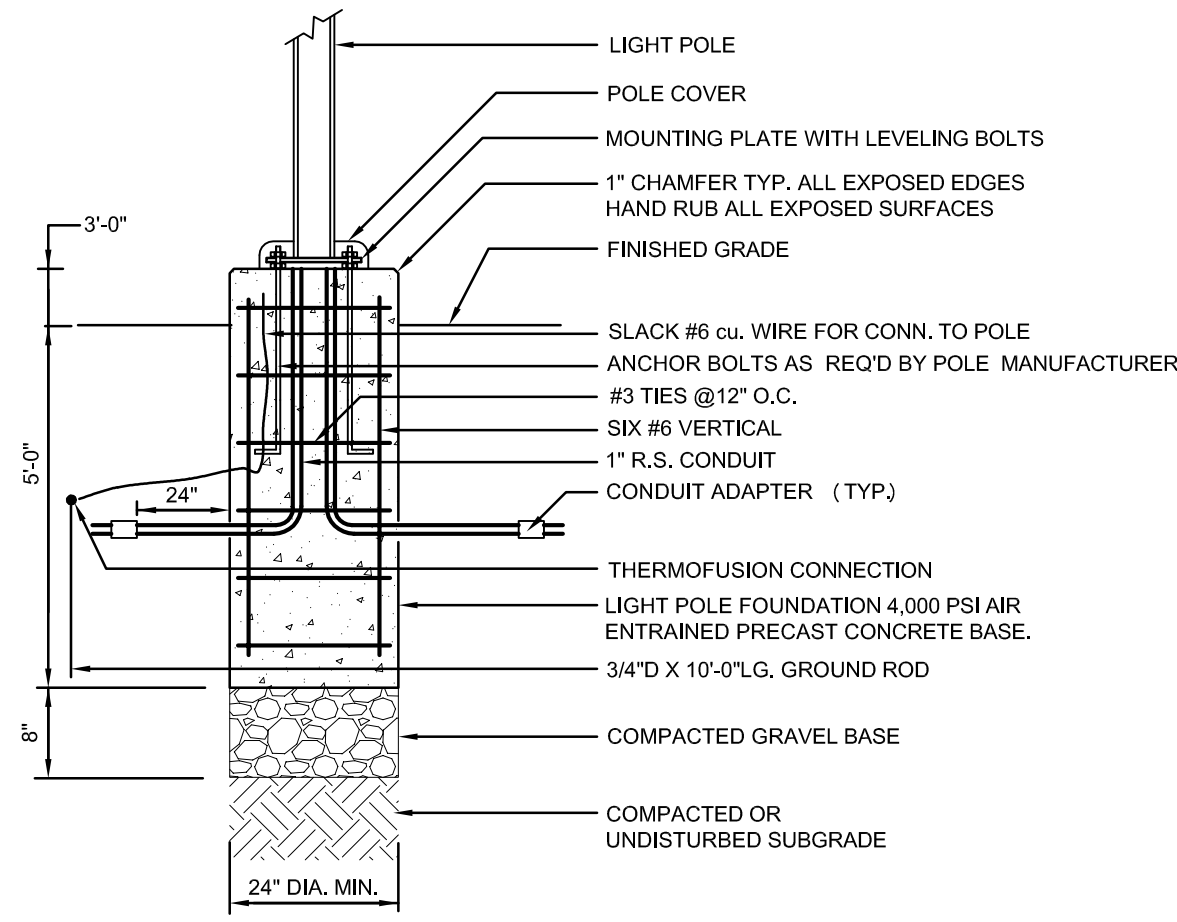
BASIN	TOP OF BASIN (ELEV. A)	BOTTOM OF SPILLWAY (ELEV. B)
INFILTRATION BASIN	XXXX.XX	XXXX.XX - 1'



1 INFILTRATION BASIN SPILLWAY OUTLET  
N.T.S.

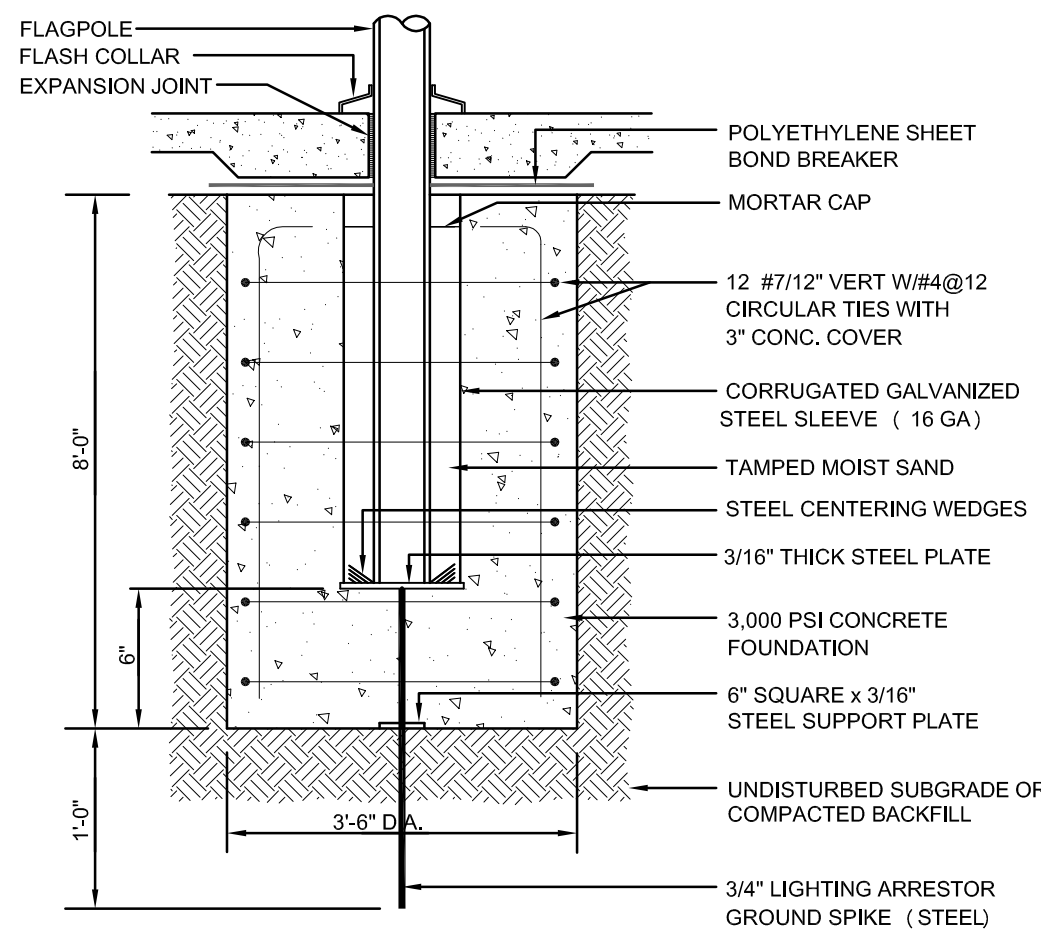


2 CONIFEROUS TREE  
N.T.S.



NOTE:  
LIGHTPOLE BASE AND ASSOCIATED  
EQUIPMENT TO BE PURCHASED BY THE  
ELECTRICAL CONTRACTOR. INSTALLATION OF  
BASE TO BE BY THE SITE CONTRACTOR.

3 LIGHTPOLE BASE IN LAWN AREAS  
N.T.S.



4 FLAGPOLE FOUNDATION  
N.T.S.



GENERAL NOTES:

1. CONSTRUCTION SHALL COMPLY WITH THE MASSACHUSETTS STATE BUILDING CODE (780 CMR 9TH EDITION), STATE AND LOCAL BUILDING REGULATIONS AND THE MASSACHUSETTS ARCHITECTURAL ACCESS BARRIERS REGULATIONS (521 CMR) AND THE AMERICANS WITH DISABILITIES ACT (ADA).
2. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND NOTIFY THE ARCHITECT IMMEDIATELY OF ANY DISCREPANCIES IN THE CONTRACT DOCUMENTS.
3. USE OF THE OWNER'S DUMPSTERS IS STRICTLY PROHIBITED.
4. CONTRACTOR SHALL DISPOSE OF ALL DEMOLISHED MATERIALS OFF-SITE AND IN ACCORDANCE WITH THE COMMONWEALTH OF MASSACHUSETTS REGULATIONS.
5. ALL UTILITY SHUTDOWNS SHALL BE COORDINATED IN ADVANCE WITH THE OWNER AND ARCHITECT.
6. CONTRACTOR SHALL FIELD CUT ALL NEW PENETRATIONS THROUGH FLOOR AND CEILING AS CLOSE AS PRACTICALLY POSSIBLE TO EXISTING WALLS AND ADJACENT PENETRATIONS. CORED HOLES AND PENETRATIONS SHALL BE NO MORE THAN 1" DIAMETER GREATER THAN THE PIPE OR CONDUIT THAT IS TO PASS THROUGH THE HOLE. CORES 2" AND LESS SHALL BE DONE BY THE SUBCONTRACTORS. CORES GREATER THAN 2" SHALL BE DONE BY THE CONTRACTOR.
7. THE CONTRACTOR SHALL BROOM CLEAN THE PROJECT AREA AT THE END OF EACH WORK DAY AND MAINTAIN AREAS ADJACENT TO THE PROJECT IN A CLEAN AND UNOBSTRUCTED MANNER.
8. CONTRACTOR IS RESPONSIBLE FOR SECURITY IN THE PROJECT AREA.
9. MECHANICAL AND ELECTRICAL CONTRACTORS ARE RESPONSIBLE FOR CUTTING, CAPPING AND/OR VALVING OF THE RESPECTIVE SERVICES TO MAKE THE PROJECT AREA SAFE DURING DEMOLITION. ALL TEMPORARY SHUTDOWNS FOR ESTABLISHING THE NECESSARY CROSS CONNECTIONS OR TIE-INS SHALL BE FULLY COORDINATED WITH THE OWNER AND ARCHITECT IN ADVANCE. SEE MECHANICAL, PLUMBING AND ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION.
10. ALL WORK IS "NEW" UNLESS OTHERWISE NOTED.
11. DIMENSIONS ARE SHOWN FROM FACE OF FINISH UNLESS OTHERWISE NOTED.
12. ALL WORK IS TO BE INSTALLED IN ACCORDANCE WITH THE DRAWINGS AND SPECIFICATIONS INDICATED. OTHERWISE, WORK IS TO BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS OR GENERALLY ACCEPTED INDUSTRY STANDARDS, METHODS AND PROCEDURES.
13. ALL WOOD IN CONTACT WITH CONCRETE OR MASONRY SHALL BE PRESSURE TREATED.
14. CONTRACTOR SHALL COORDINATE ALL FLOOR PENETRATIONS WITH RADIANT HEAT SYSTEM. PENETRATIONS SHALL INCLUDE BUT NOT BE LIMITED TO REBAR, ANCHOR BOLTS, PLUMBING, FIRE PROTECTION, ELECTRICAL CONDUIT, AND FASTENERS FOR EQUIPMENT. CONTRACTOR SHALL ENSURE THAT ANY PENETRATIONS DO NOT DAMAGE THE RADIANT HEAT SYSTEM.
15. ALL WORK INDICATED TO BE PAINTED SHALL BE DONE BY SECTION 09 90 10. ALL SPRINKLER PIPING TO BE PAINTED, REFER TO SECTIONS 09 90 10 AND 21 00 01.
16. ALL SEALANTS AND CAULKING SHALL BE DONE BY SECTION 07 90 00.

ABBREVIATION LIST

ACT	ACOUSTICAL CEILING TILE
ACOUST.	ACOUSTICAL
AFF	ABOVE FINISH FLOOR
APPROX.	APPROXIMATELY
C.J.	CONTROL JOINT
CLG.	CEILING
CMU	CONCRETE MASONRY BLOCK
COL.	COLUMN
CONC.	CONCRETE
CONT.	CONTINUOUS
DEMO	DEMOLITION
DIM.	DIMENSION
DWG	DRAWING
EA.	EACH
ELEC.	ELECTRICAL
EQ.	EQUAL
EQUIP.	EQUIPMENT
EXIST.	EXISTING
EXP.	EXPANSION
FIN.	FINISH
FLR	FLOOR
GA.	GAUGE
GALV.	GALVANIZED
GWB	GYPSUM WALL BOARD
HM.	HOLLOW METAL
HT.	HEIGHT
HVAC	HEATING/VENTILATING/AIR CONDITIONING
INSUL.	INSULATED
JT.	JOINT
LAM.	LAMINATE
MAX.	MAXIMUM
MDO	MEDIUM DENSITY OVERLAY
MECH.	MECHANICAL
MIN.	MINIMUM
MTL.	METAL
N.I.C.	NOT IN CONTRACT
N.T.S.	NOT TO SCALE
O.C.	ON CENTER
PLY.	PLYWOOD
P.T.	PRESSURE TREATED
PTD.	PAINTED
REF.	REFERENCE
R.L.	RAIN LEADER
REQ.	REQUIRED
R.O.	ROUGH OPENING
SCH	SCHEDULE
SEC.	SECTION
SHT.	SHEET
SIM.	SIMILAR
SPEC.	SPECIFICATION
STD	STANDARD
STL.	STEEL
STRUCT.	STRUCTURAL
SUSP.	SUSPENDED
T.O.C.	TOP OF CURB
TYP.	TYPICAL
VAT	VINYL ASBESTOS TILE
VCT	VINYL COMPOSITION TILE
VERT.	VERTICAL
V.I.F.	VERIFY IN FIELD
WD	WOOD
WDW	WINDOW
W/	WITH

NOTE: NOTIFY THE ARCHITECT IMMEDIATELY IF CLARIFICATION IS NEEDED WITH AN ABBREVIATION NOT LISTED ABOVE (TYP.)

SYMBOL LEGEND

	DOOR TYPE
	CURTAINWALL/STOREFRONT TYPE
	ROOM NUMBER
	INTERIOR ELEVATION REFERENCE
	WALL TYPE
	DETAIL REFERENCE
	SECTION REFERENCE
	ELEVATION REFERENCE



TOWN OF MONTAGUE

NEW DPW FACILITY

OWNER:  
TOWN OF MONTAGUE  
ONE AVENUE A  
TURNERS FALLS, MA 01376

ARCHITECT:  
 **HELENE • KARL**  
Architects, Inc.  
61 Skyfields Drive, Groton, Massachusetts 01450

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22 WEST STREET, UNIT C  
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ELECTRICAL ENGINEER:  
JOHN J. MURPHY, JR. ELECTRICAL  
CONSTRUCTION AND ENGINEERING, INC.  
379 LIBERTY STREET  
ROCKLAND, MA 02370

STAMP

REV	DATE	DESCRIPTION

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SCALE	NONE
DRAWN BY	MTV
CHECKED BY	GKY
PROJECT NO.	19001

BUILDING:

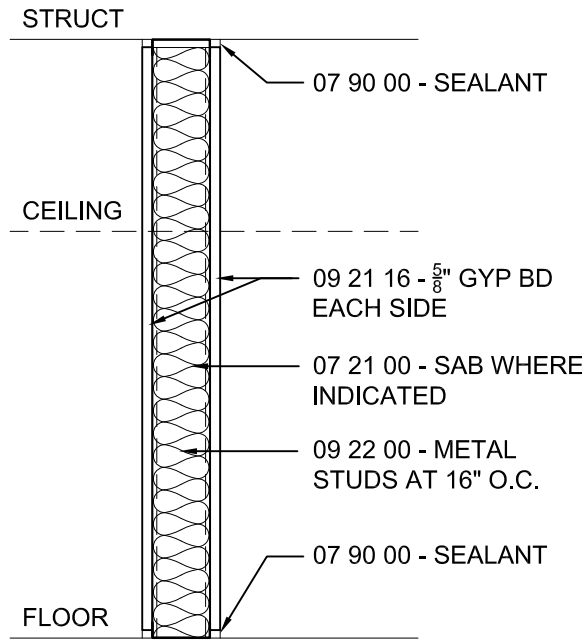
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GENERAL NOTES,  
ABBREVIATIONS AND  
SYMBOLS LIST

DRAWING NO.

A-001



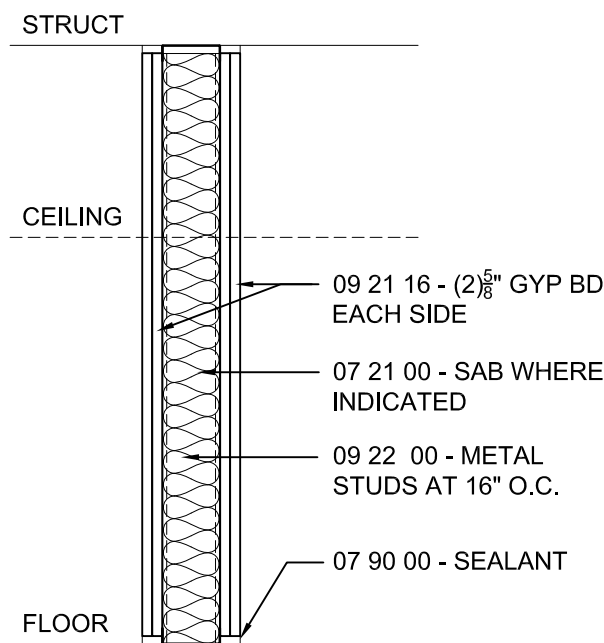
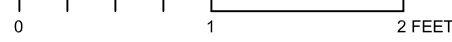


NON-RATED

NON-RATED  
STC 36 (46 W/ 3\"/>

SUFFIX	STUD SIZE	TOTAL WIDTH
1	1 5/8"	2 7/8"
2	2 1/2"	3 3/4"
3	3 5/8"	4 7/8"
4	4"	5 1/4"
6	6"	7 1/4"
8	8"	9 1/4"

1 PARTITION TYPE 1  
SCALE: 1"=1'-0"

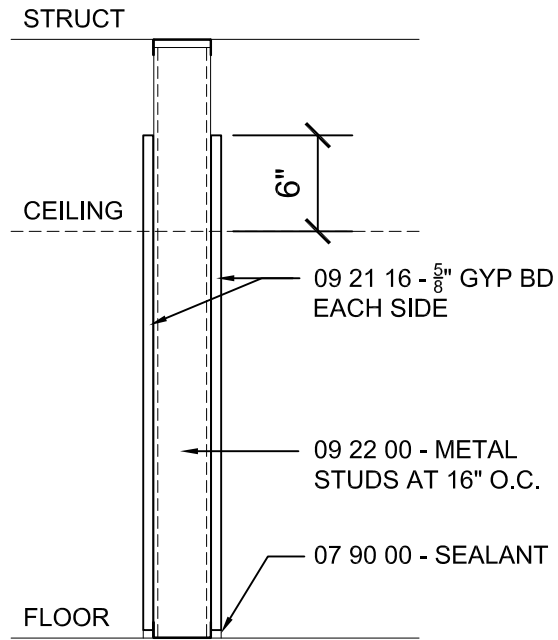
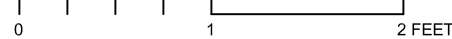


2HR FIRE RATED

2 HOUR FIRE RATED  
UL DESIGN U411  
STC 36 (46 W/ 3\"/>

SUFFIX	STUD SIZE	TOTAL WIDTH
3	3 5/8"	6 1/8"
4	4"	6 1/2"
6	6"	8 1/2"
8	8"	10 1/2"

7 PARTITION TYPE 7  
SCALE: 1"=1'-0"

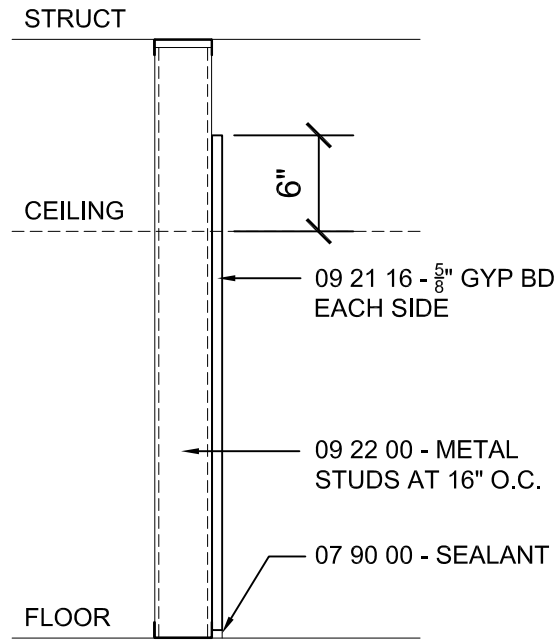
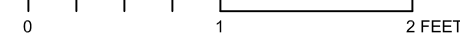


NON-RATED

NON-RATED

SUFFIX	STUD SIZE	TOTAL WIDTH
1	1 5/8"	2 7/8"
2	2 1/2"	3 3/4"
3	3 5/8"	4 7/8"
4	4"	5 1/4"
6	6"	7 1/4"
8	8"	9 1/4"

2 PARTITION TYPE 2  
SCALE: 1"=1'-0"

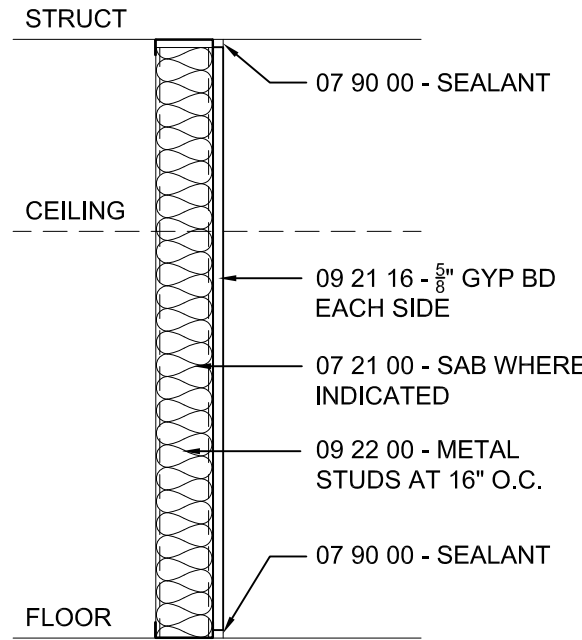
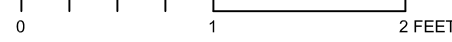


NON-RATED

NON-RATED

SUFFIX	STUD SIZE	TOTAL WIDTH
1	1 5/8"	2 1/4"
2	2 1/2"	3 1/8"
3	3 5/8"	4 1/4"
4	4"	4 5/8"
6	6"	6 5/8"
8	8"	8 5/8"

3 PARTITION TYPE 3  
SCALE: 1"=1'-0"

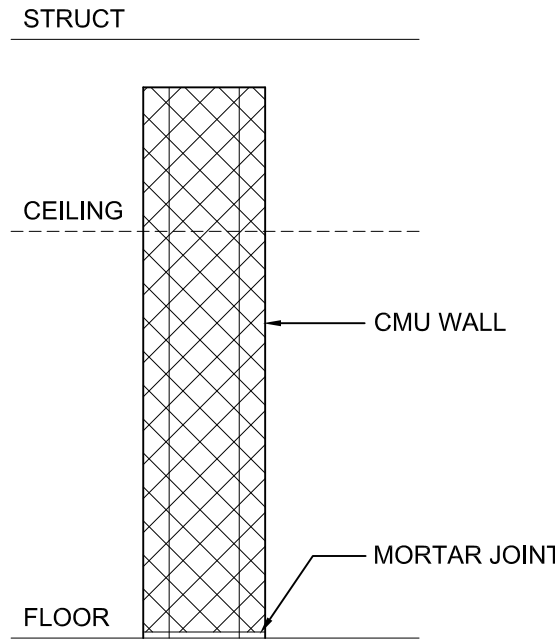
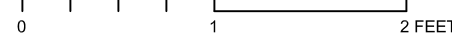


NON-RATED

NON-RATED

SUFFIX	STUD SIZE	TOTAL WIDTH
1	1 5/8"	2 1/4"
2	2 1/2"	3 1/8"
3	3 5/8"	4 1/4"
4	4"	4 5/8"
6	6"	6 5/8"
8	8"	8 5/8"

4 PARTITION TYPE 4  
SCALE: 1"=1'-0"

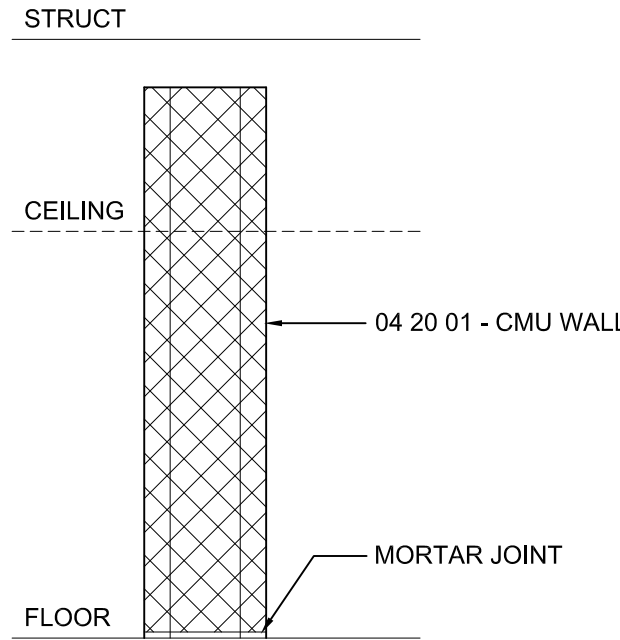
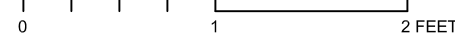


CMU NONRATED

NONRATED

SUFFIX	NOMINAL WIDTH	ACTUAL WIDTH
4	4"	3 5/8"
6	6"	5 5/8"
8	8"	7 5/8"
10	10"	9 5/8"
12	12"	11 5/8"

5 PARTITION TYPE 5  
SCALE: 1"=1'-0"

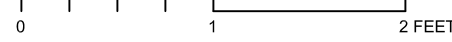


2HR FIRE RATED CMU

2 HOUR FIRE RATED  
UL DESIGN U905

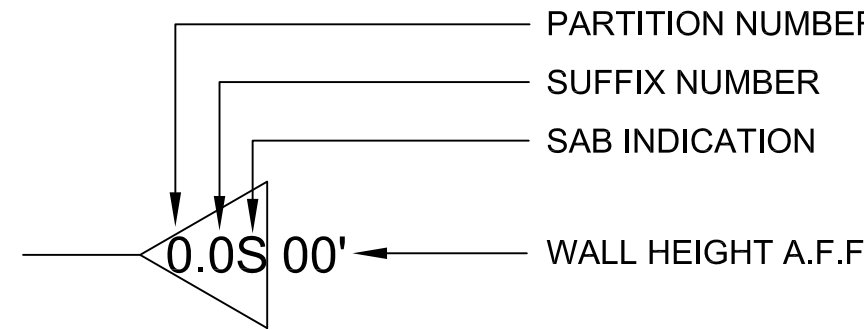
SUFFIX	NOMINAL WIDTH	ACTUAL WIDTH
4	4"	3 5/8"
6	6"	5 5/8"
8	8"	7 5/8"
10	10"	9 5/8"
12	12"	11 5/8"

6 PARTITION TYPE 6  
SCALE: 1"=1'-0"



PARTITION NOTES:

1. U.L. DESIGN NUMBERS REFER TO THE UNDERWRITERS LABORATORIES FIRE RESISTANCE DIRECTORY - LATEST EDITION (TYP.)
2. FIRE RATED PARTITIONS SHALL HAVE FIRESTOP SEALANTS AT HEAD, SILL, THROUGH PENETRATIONS, OPENINGS AND JUNCTURES WITH DISSIMILAR MATERIALS (TYP.)
3. NON-RATED PARTITIONS SHALL HAVE SEALANTS AT THE HEAD, SILL, THROUGH PENETRATIONS, OPENINGS AND JUNCTURES WITH DISSIMILAR MATERIALS (TYP.)
4. SUBSTITUTE 5/8" MOLD RESISTANT GYPSUM BOARD FOR 5/8" GYPSUM BOARD IN SHOWERS (TYP.)
5. SUBSTITUTE 5/8" ABUSE RESISTANT GYPSUM BOARD FOR 5/8" GYPSUM BOARD IN GARAGE SPACES, SHOPS, ETC. (TYP.)
6. LINE OF "STRUCTURE" SHOWN ON PARTITION TYPES IS DIAGRAMMATIC ONLY AND DOES NOT INDICATE EXACT CONSTRUCTION CONDITIONS. OFFSET PARTITION CONSTRUCTION AS NECESSARY TO EXTEND WALL TO DECK ABOVE AND SEAL AS SHOWN (TYP.)
7. PROVIDE DEFLECTION TRACKS OR CLIPS FOR ALL PARTITIONS ABUTTING STRUCTURE ABOVE (TYP.)
8. ALL GYPSUM BOARD SHALL BE PREPED, PRIMED AND PAINTED IN ACCORDANCE WITH SECTION 09 90 10 (TYP.)
9. REFER TO DRAWING A-003 FOR PARTITION DETAILS (TYP.)



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CONSTRUCTION AND ENGINEERING, INC.  
379 LIBERTY STREET  
ROCKLAND, MA 02370

STAMP

REV	DATE	DESCRIPTION

DATE 5/15/19  
SCALE AS NOTED  
DRAWN BY MTV  
CHECKED BY GKY  
PROJECT NO. 19001

BUILDING:

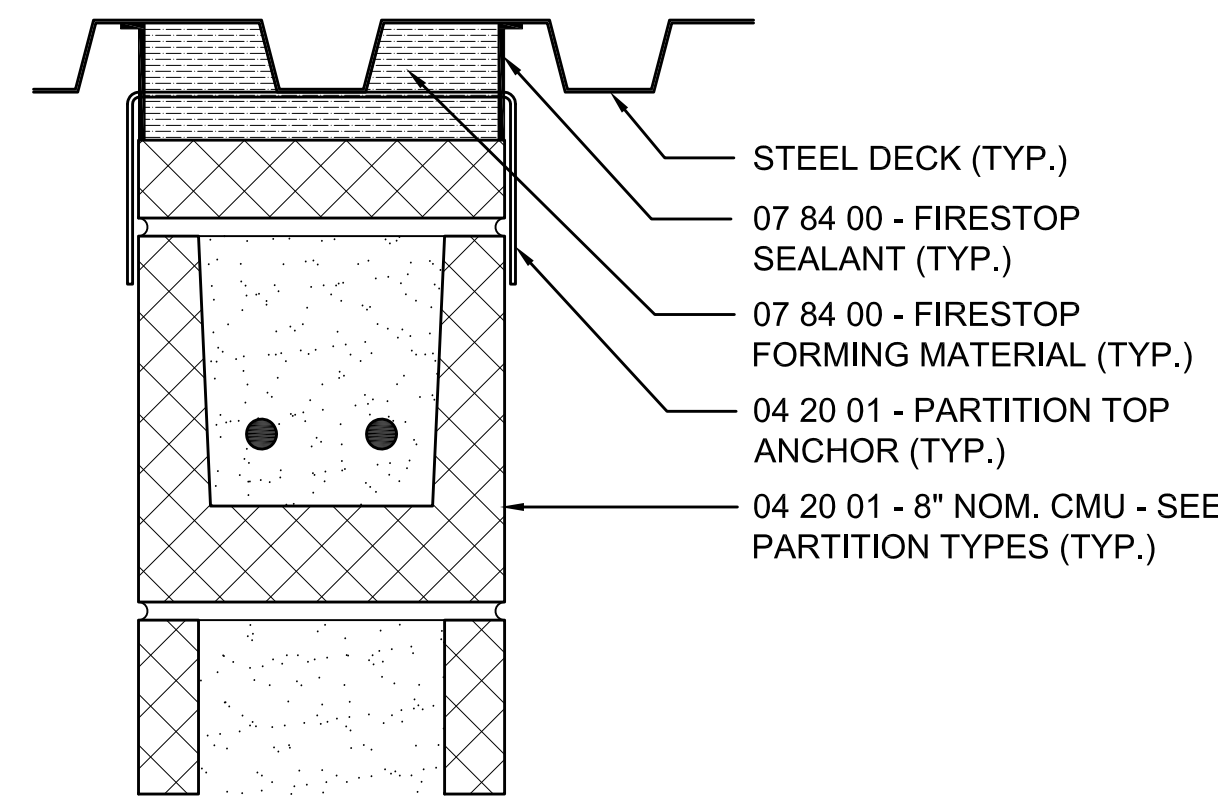
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PARTITION TYPES

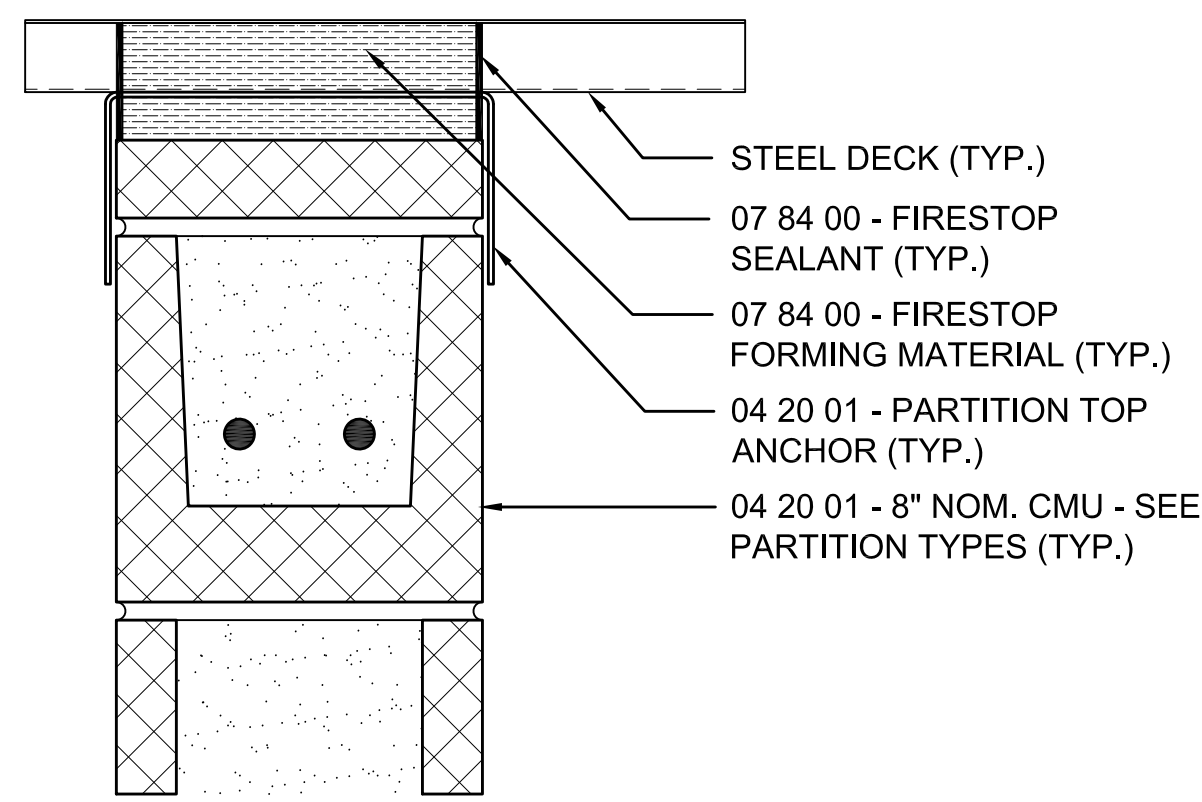
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A-002

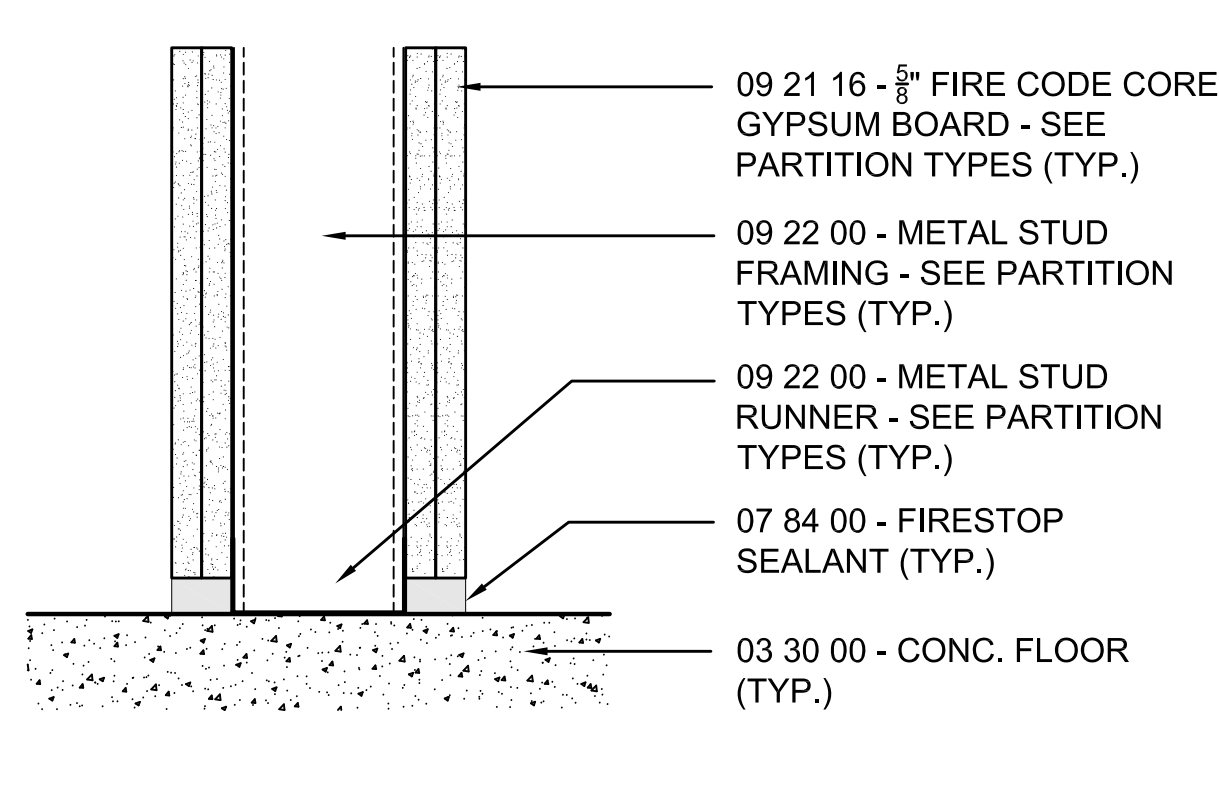




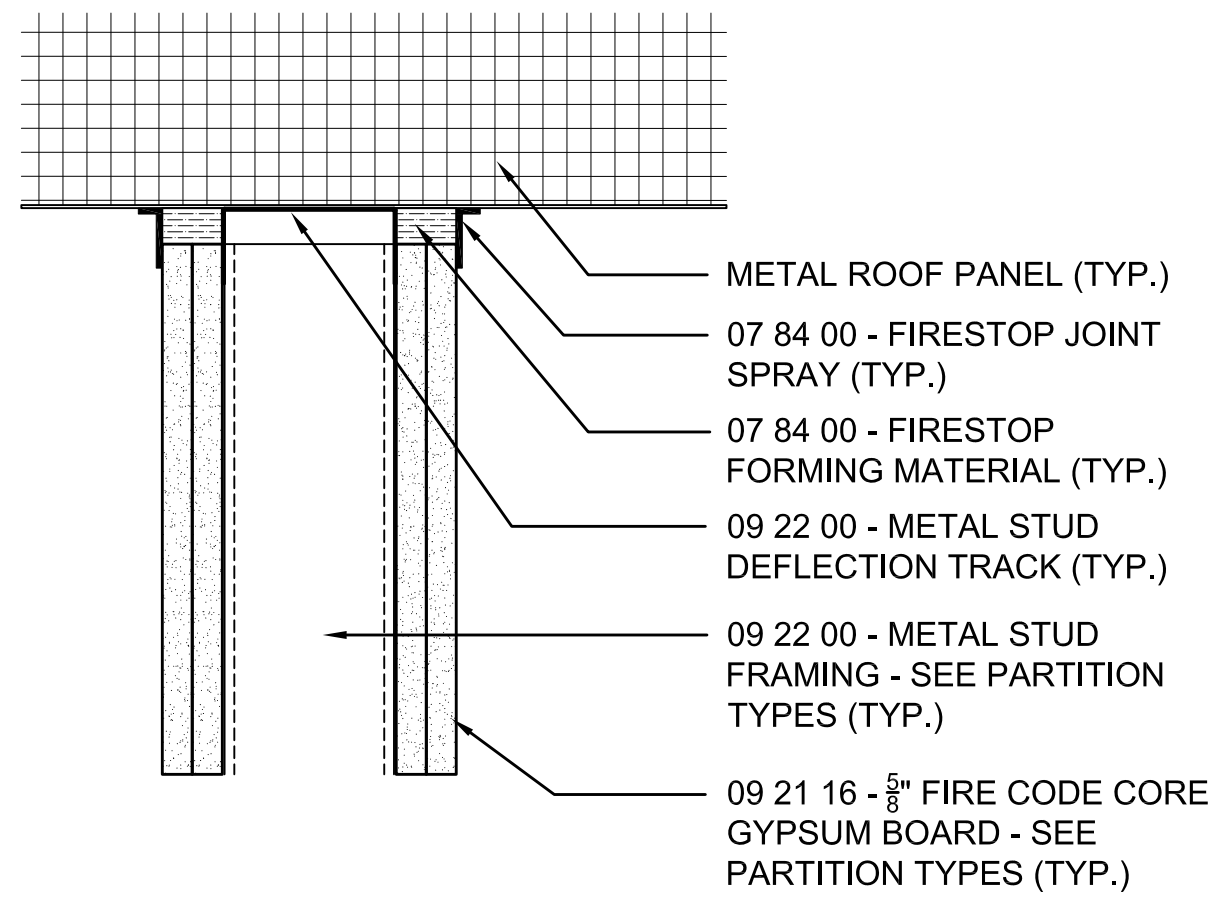
UL ASSEMBLY HW-D-0181 PARALLEL TO DECK  
**FIRE RATED TOP OF CMU WALL**  
 SCALE: 3"=1'-0"



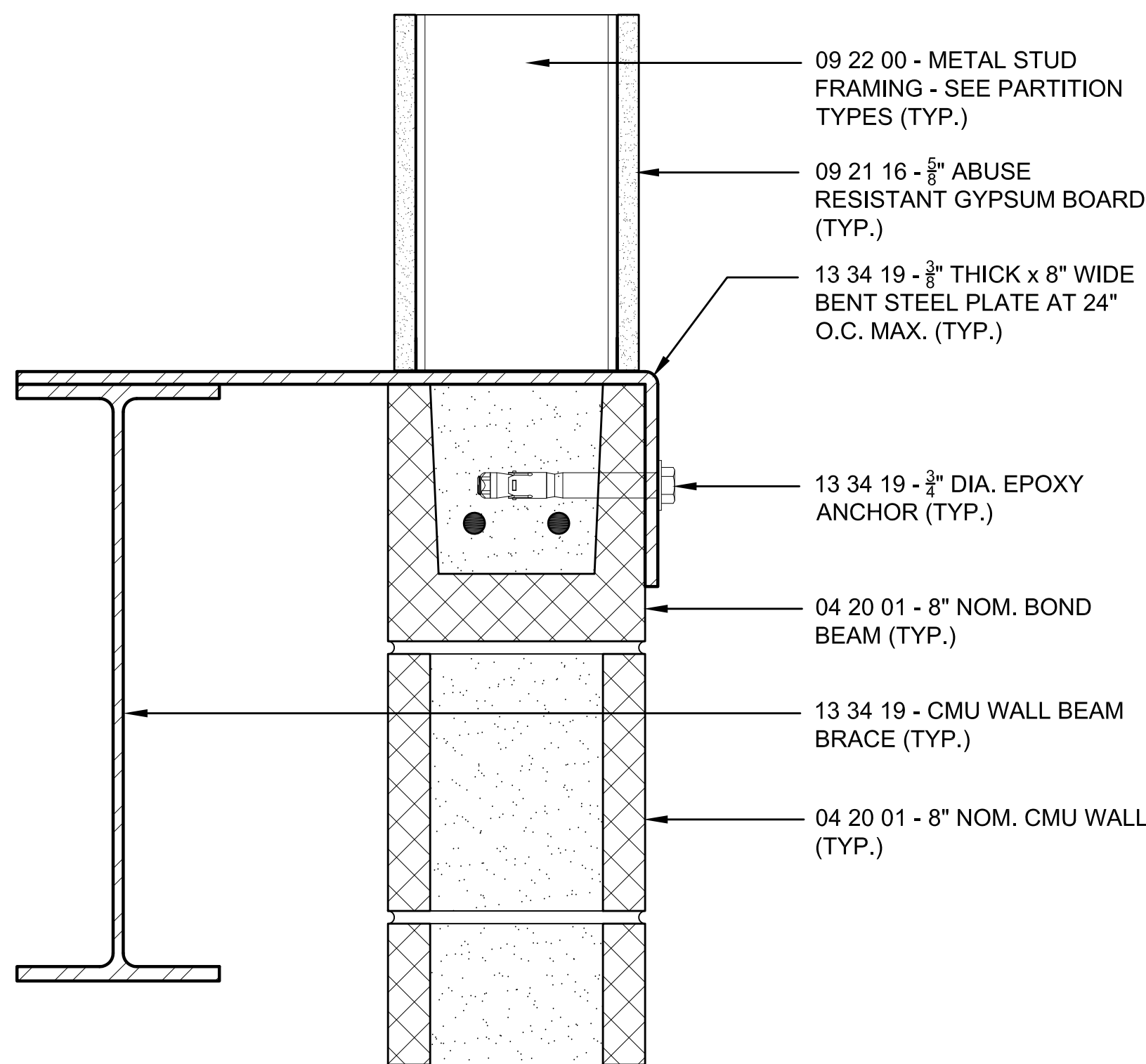
UL ASSEMBLY HW-D-0155 PERPENDICULAR TO DECK  
**FIRE RATED TOP OF CMU WALL**  
 SCALE: 3"=1'-0"



UL ASSEMBLY BW-S-0001  
**FIRE RATED BOTTOM OF WALL**  
 SCALE: 3"=1'-0"



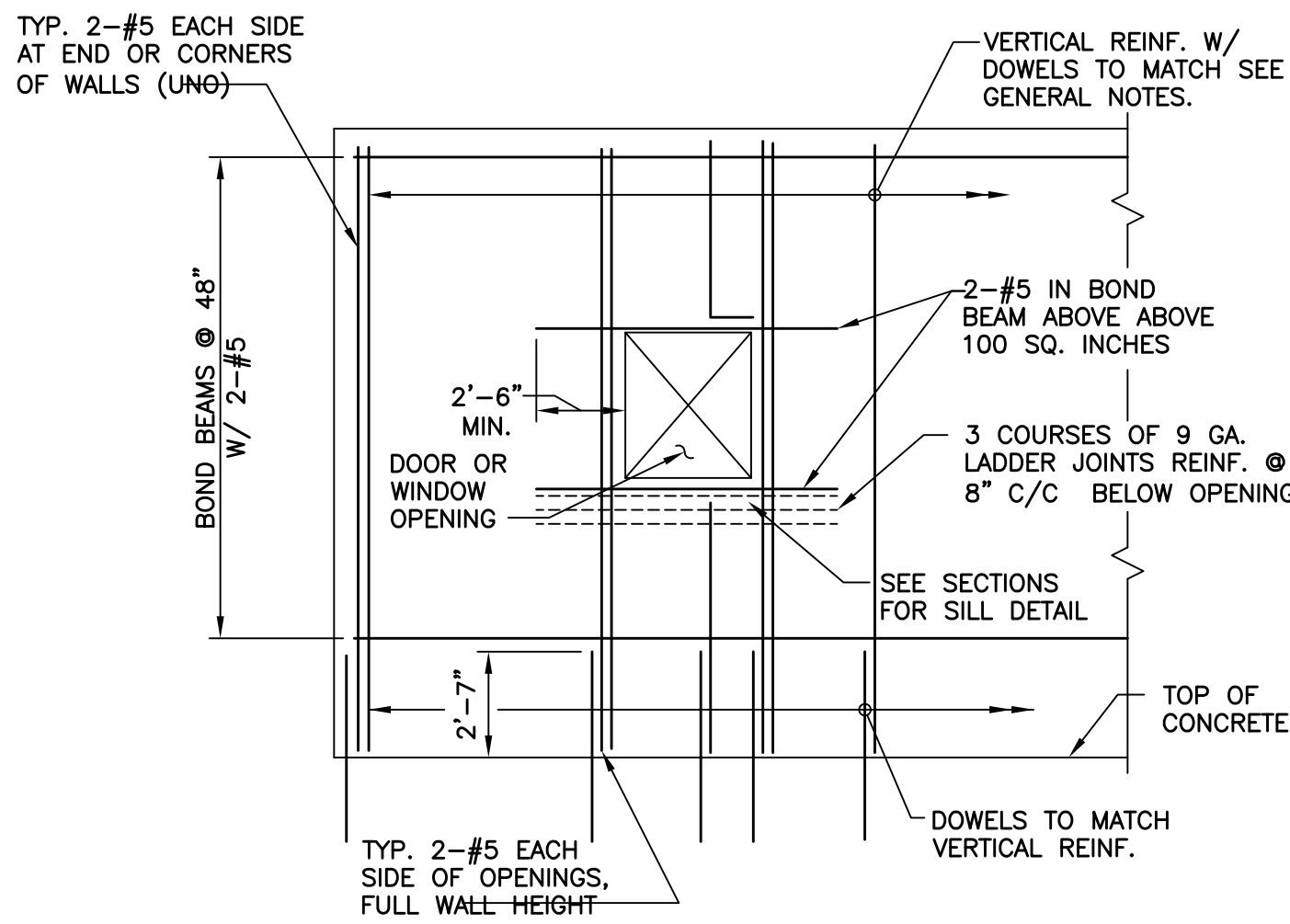
UL ASSEMBLY HW-D-0264 PARALLEL TO DECK  
**FIRE RATED TOP OF GYP. WALL**  
 SCALE: 3"=1'-0"



TYPICAL TOP OF CMU WALL ALONG GRID LINES 3 AND G  
**TOP CMU WALL BRACE DETAIL**  
 SCALE: 3"=1'-0"

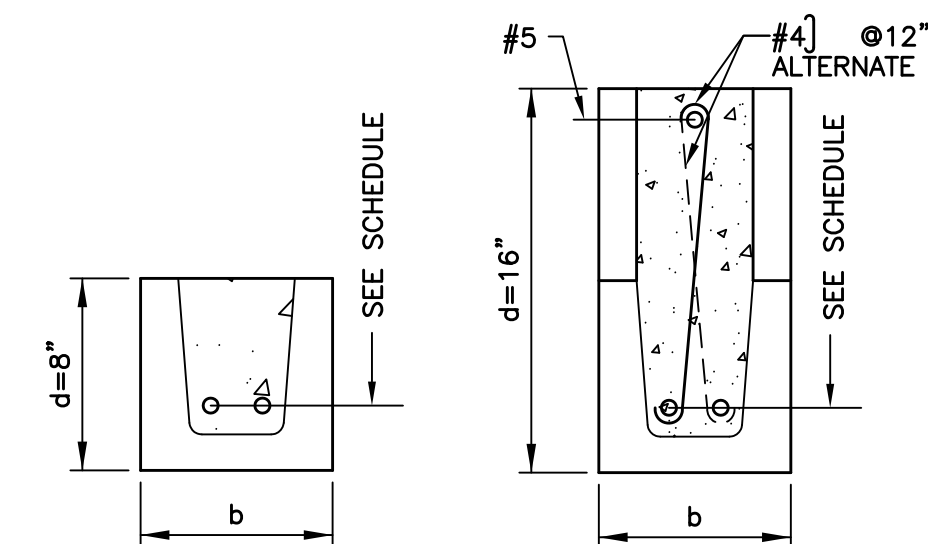
REINFORCING IN LINTELS				
CLEAR SPAN b	≤ 4'-0"		> 4'-0"	
	d	BARS	d	BARS
8" BLOCK	8"	2-#5	16"	2-#5

**CMU LINTELS SCHEDULE**  
 SCALE: NOT TO SCALE



- NOTES:
- ADDITIONAL REINFORCING BARS ARE NOT REQUIRED FOR OPENINGS LESS THAN 100 SQ. INCHES & LESS THAN 12" IN ANY DIRECTION.
  - OPENINGS GREATER THAN 100 SQ. INCHES SHALL BE REINFORCED AS SHOWN.
  - PROVIDE TYP. CONT. BOND BEAMS AT THE TOP & BOTTOM OF WALL.

**ELEVATION CMU WALL**  
 SCALE: NOT TO SCALE



- NOTES:
- LINTELS SHALL HAVE A MINIMUM END BEARING OF 8".
  - SEE CMU LINTELS SCHEDULE ABOVE FOR DIMENSION AND REINFORCING.

**REINFORCED CMU LINTELS FOR MASONRY WALLS**  
 SCALE: NOT TO SCALE

#### REINFORCED MASONRY

- CONCRETE MASONRY CONSTRUCTION SHALL CONFORM TO THE 'BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES (ACI 530)' AND THE 'SPECIFICATIONS FOR MASONRY STRUCTURES (ACI 530.1)'.
- MASONRY BLOCK WALLS ON THIS PROJECT SHALL BE GROUTED AND REINFORCED AS FOLLOWS, UNLESS NOTED OTHERWISE: ALL 8" WALLS #5@24" VERTICAL, 9GA. LADDER TYPE @ 16" HORIZ. AND W/ GROUTED BOND BEAMS AS SHOWN W/ 2-#5 CONT.
- REINFORCING BARS SHALL CONFORM TO ASTM A615, GRADE 60.
- REINF. BAR LAP SHALL BE 31" FOR #5. LAP FOR HORIZONTAL LADDER TYPE REINF. SHALL BE 12".
- PROVIDE DOWELS TO MATCH VERT. REINF.
- MASONRY BLOCK SHALL BE TYPE N1 AND HAVE A NET COMPRESSIVE STRENGTH OF 2500 PSI.
- MORTAR SHALL BE TYPE S WITH 28 DAY COMPRESSIVE STRENGTH OF 1800 PSF.
- GROUT SHALL HAVE A 28 DAY COMPRESSIVE STRENGTH OF 2500 PSF.
- PROVIDE 2#5 ADDITIONAL VERTICAL BARS AT CORNER OF WALLS AND AT OPENINGS, UNLESS NOTED OTHERWISE.
- MASONRY ERECTION SHALL HAVE FULL INSPECTION.
- CONTROL JOINT SHALL BE PROVIDED AT ALL INTERIOR MASONRY PARTITION AND BEARING/EXTERIOR WALL INTERSECTION, INTERRUPT HORIZONTAL REINFORCING AT CONTROL JOINT.
- PROVIDE TOP AND BOTTOM ANCHORAGE FOR INTERIOR NON-LOAD BEARING MASONRY WALLS.
- FOR MASONRY WALL TYPES AND LOCATIONS SEE ARCHITECTURAL DRAWINGS.

NOTE: SEE STRUCTURAL DRAWINGS FOR BASE OF WALL DETAILS AND CONNECTIONS (TYP.)



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 ROCKLAND, MA 02370

STAMP

REV DATE DESCRIPTION

DATE 5/15/19  
 SCALE AS NOTED  
 DRAWN BY MTV  
 CHECKED BY GKY  
 PROJECT NO. 19001

BUILDING:

SHEET TITLE:

PARTITION DETAILS

DRAWING NO.

A-003





TOWN OF  
MONTAGUE

NEW DPW FACILITY

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STAMP

REV	DATE	DESCRIPTION
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DATE	5/15/19
SCALE	AS NOTED
DRAWN BY	MTV
CHECKED BY	GKY
PROJECT NO.	19001

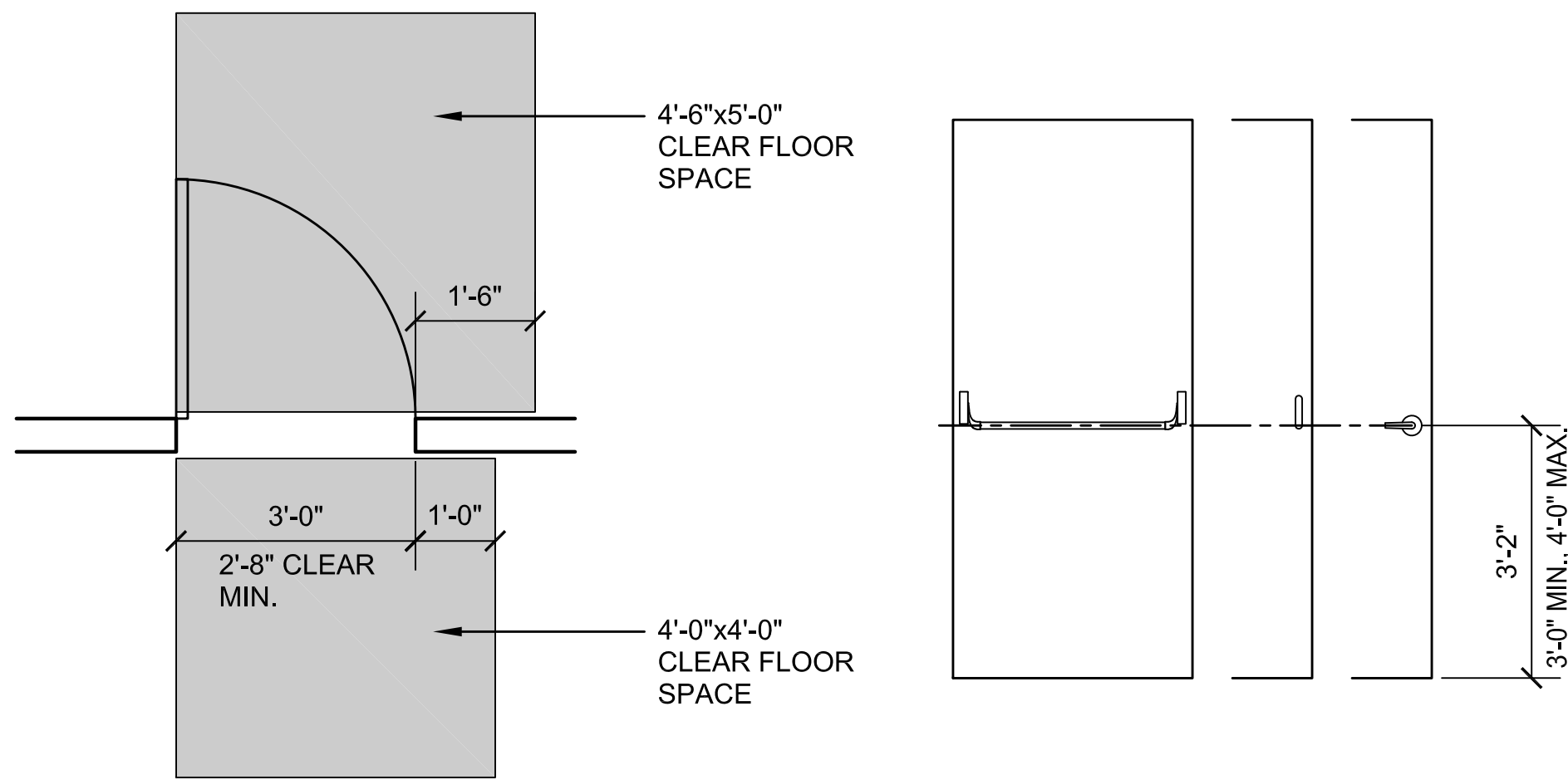
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SHEET TITLE:

HANDICAP  
ACCESSIBILITY  
DIMENSION  
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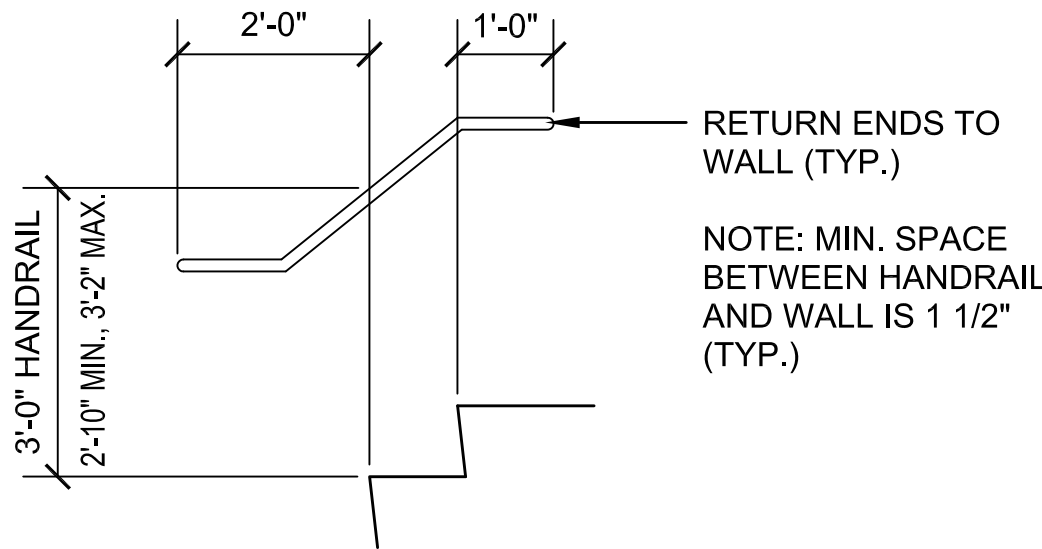
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A-004



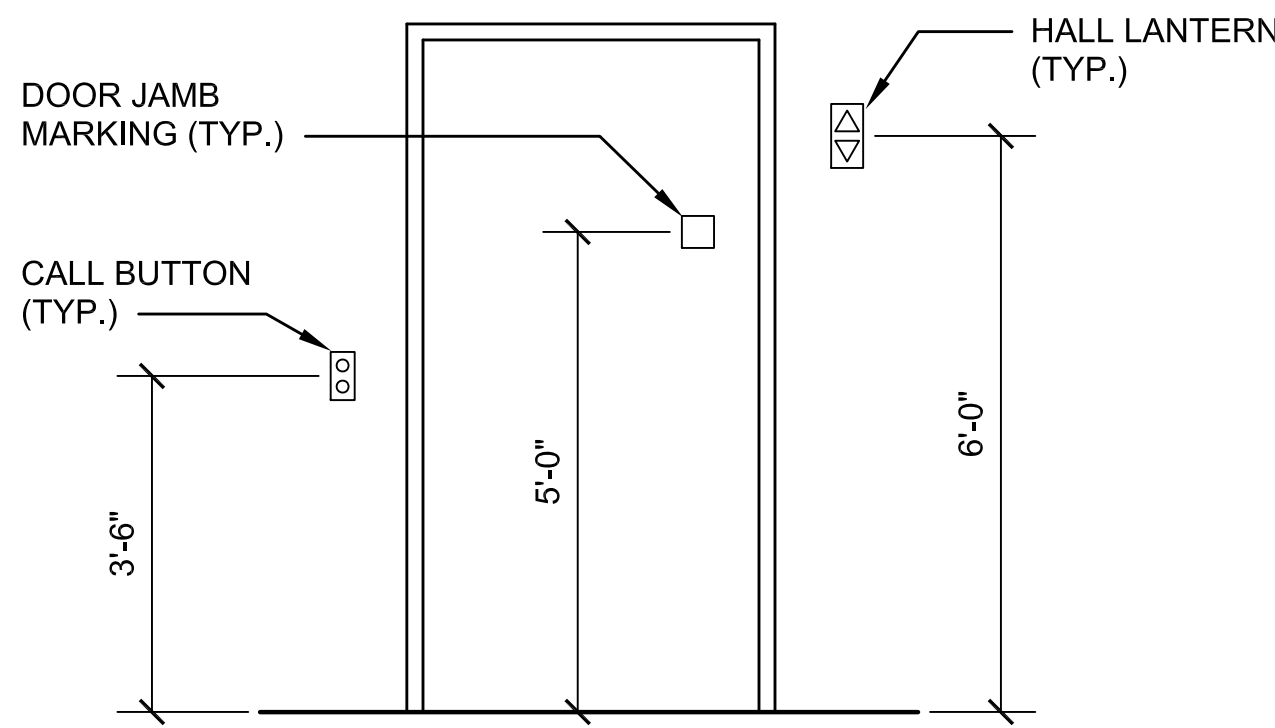
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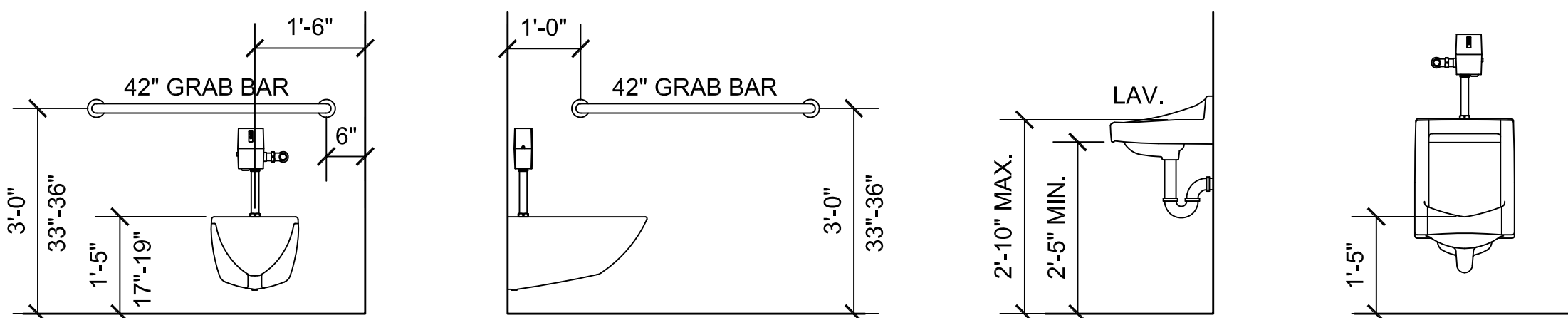
2 STAIR ACCESSIBILITY

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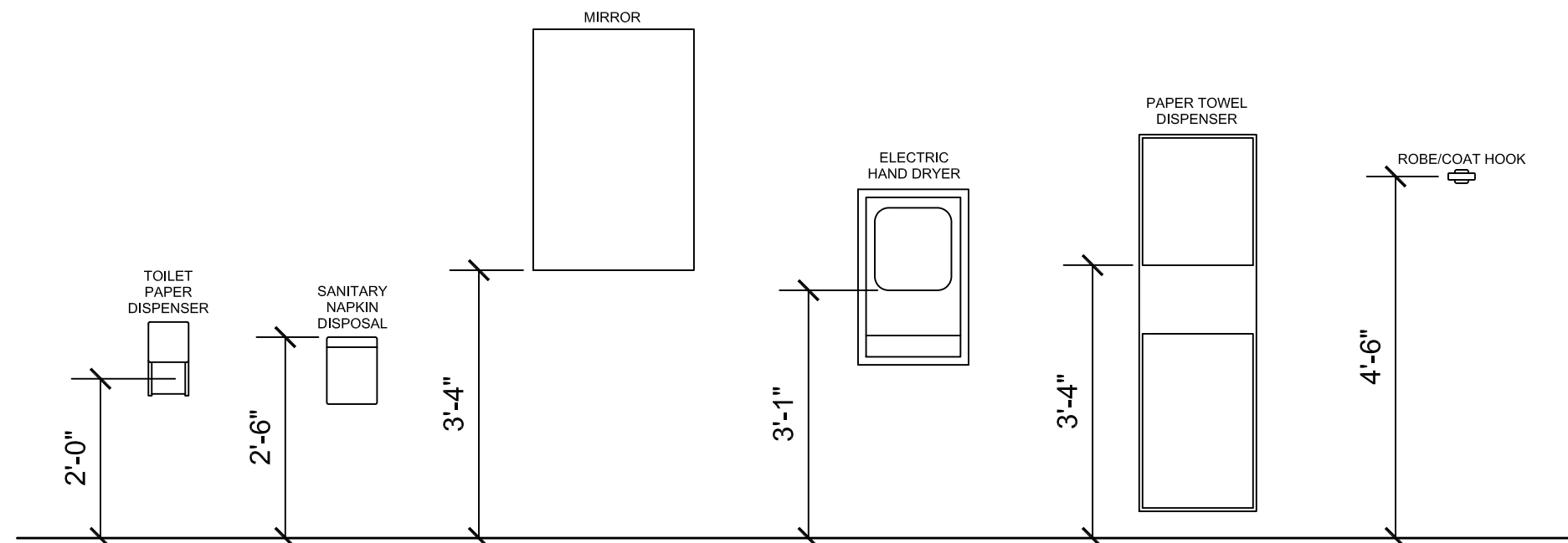
3 ELEVATOR ACCESSIBILITY

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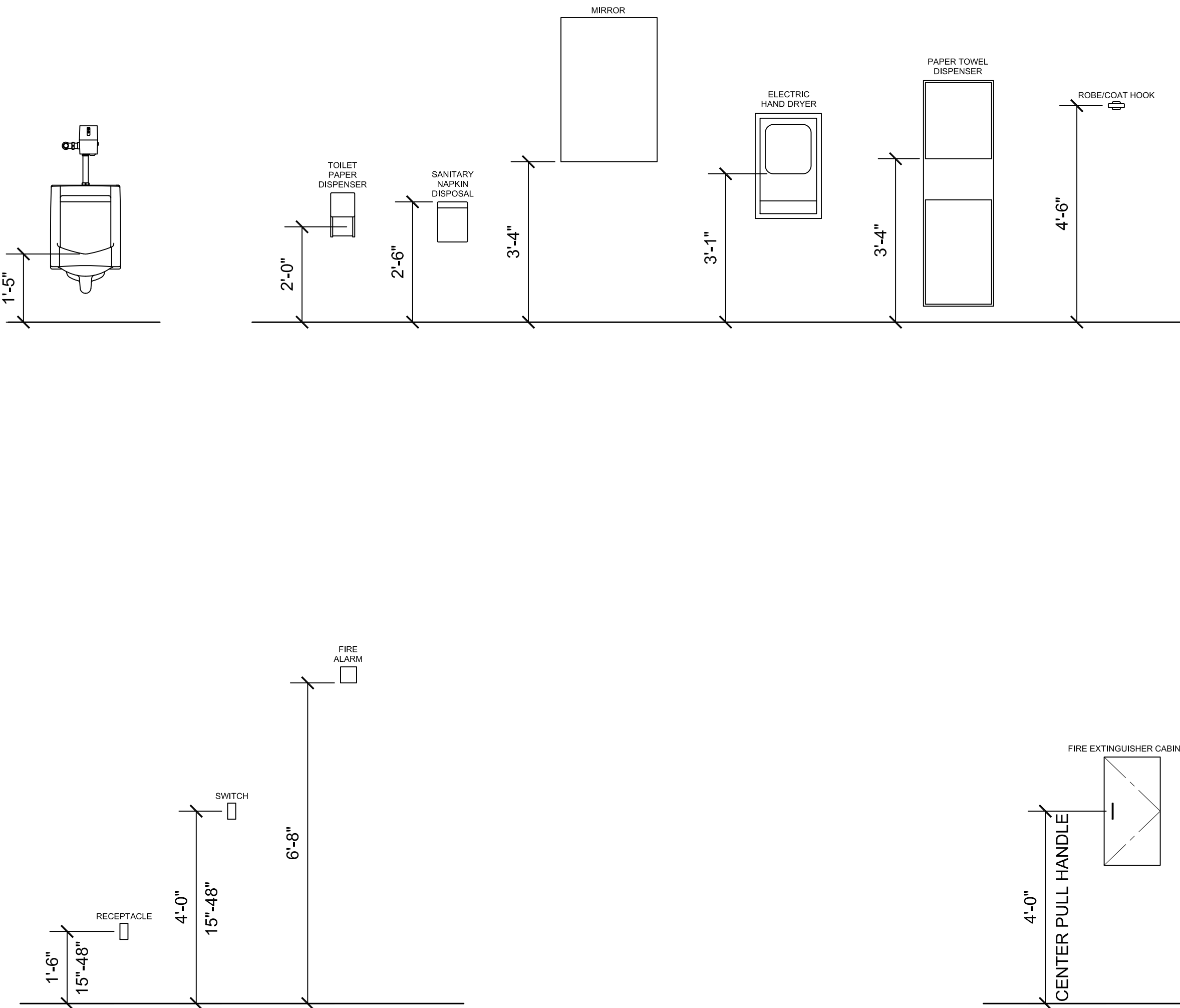
4 RESTROOM ACCESSIBILITY

SCALE: 1/2"=1'-0"



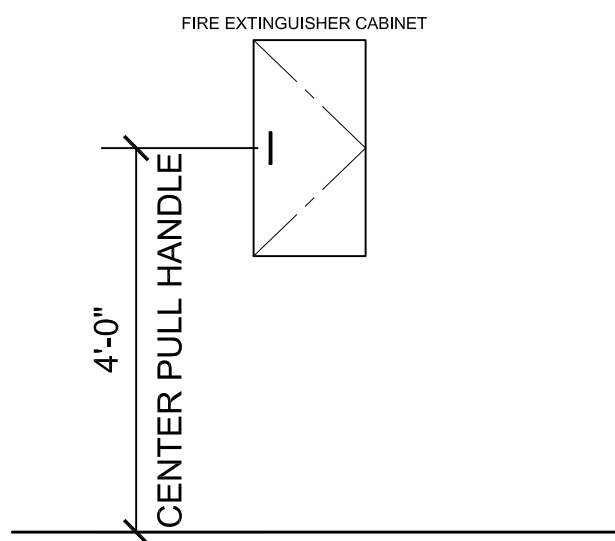
5 DRINKING FOUNTAIN ACCESSIBILITY

SCALE: 1/2"=1'-0"



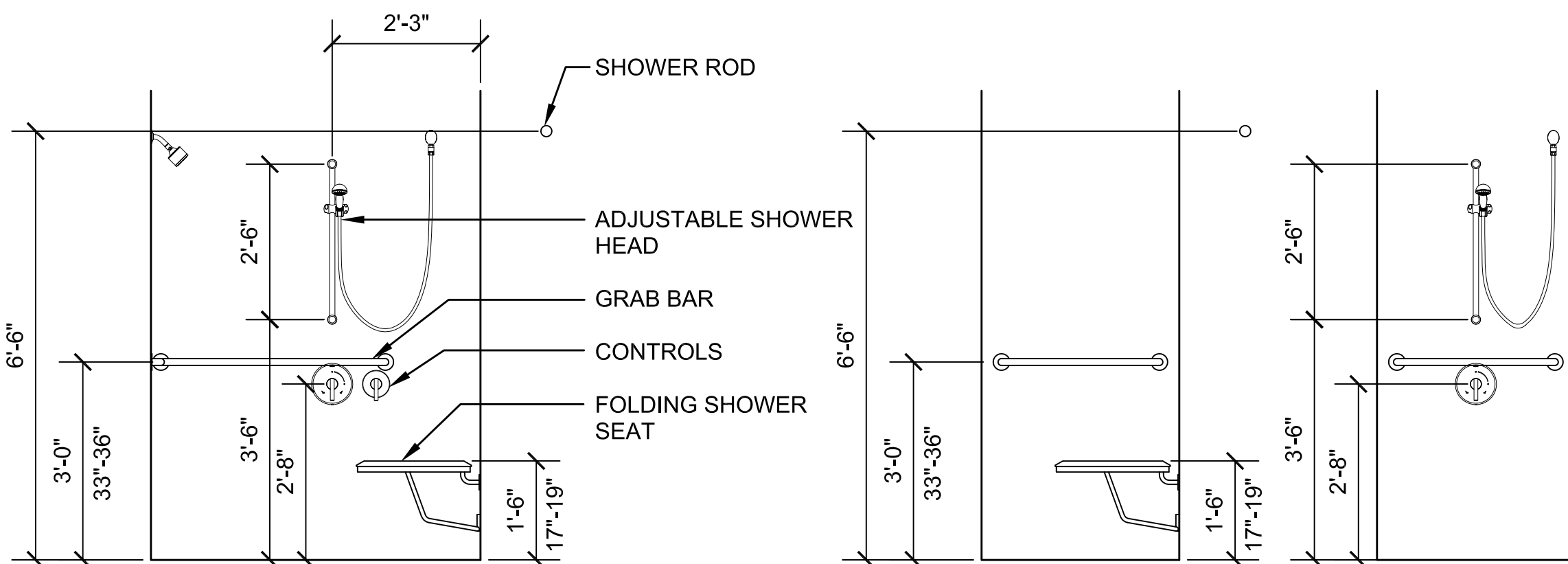
6 DEVICES ACCESSIBILITY

SCALE: 1/2"=1'-0"



7 FIRE EXTINGUISHER ACCESSIBILITY

SCALE: 1/2"=1'-0"







# TOWN OF MONTAGUE

## NEW DPW FACILITY

OWNER:  
TOWN OF MONTAGUE  
ONE AVENUE A  
TURNERS FALLS, MA 01376

ARCHITECT:  
**HELENE • KARL**  
Architects, Inc.  
61 Skyfields Drive, Groton, Massachusetts 01450

CIVIL ENGINEER:  
SYMMES, MAINI & McKEE ASSOCIATES  
1000 MASSACHUSETTS AVENUE  
CAMBRIDGE, MA 02138

STRUCTURAL ENGINEER:  
SYMMES, MAINI & McKEE ASSOCIATES  
1000 MASSACHUSETTS AVENUE  
CAMBRIDGE, MA 02138

MECHANICAL ENGINEER:  
SEAMAN ENGINEERING CORP.  
22 WEST STREET, UNIT C  
MILLBURY, MA 01527

ELECTRICAL ENGINEER:  
JOHN J. MURPHY, JR. ELECTRICAL  
CONSTRUCTION AND ENGINEERING, INC.  
379 LIBERTY STREET  
ROCKLAND, MA 02370

STAMP

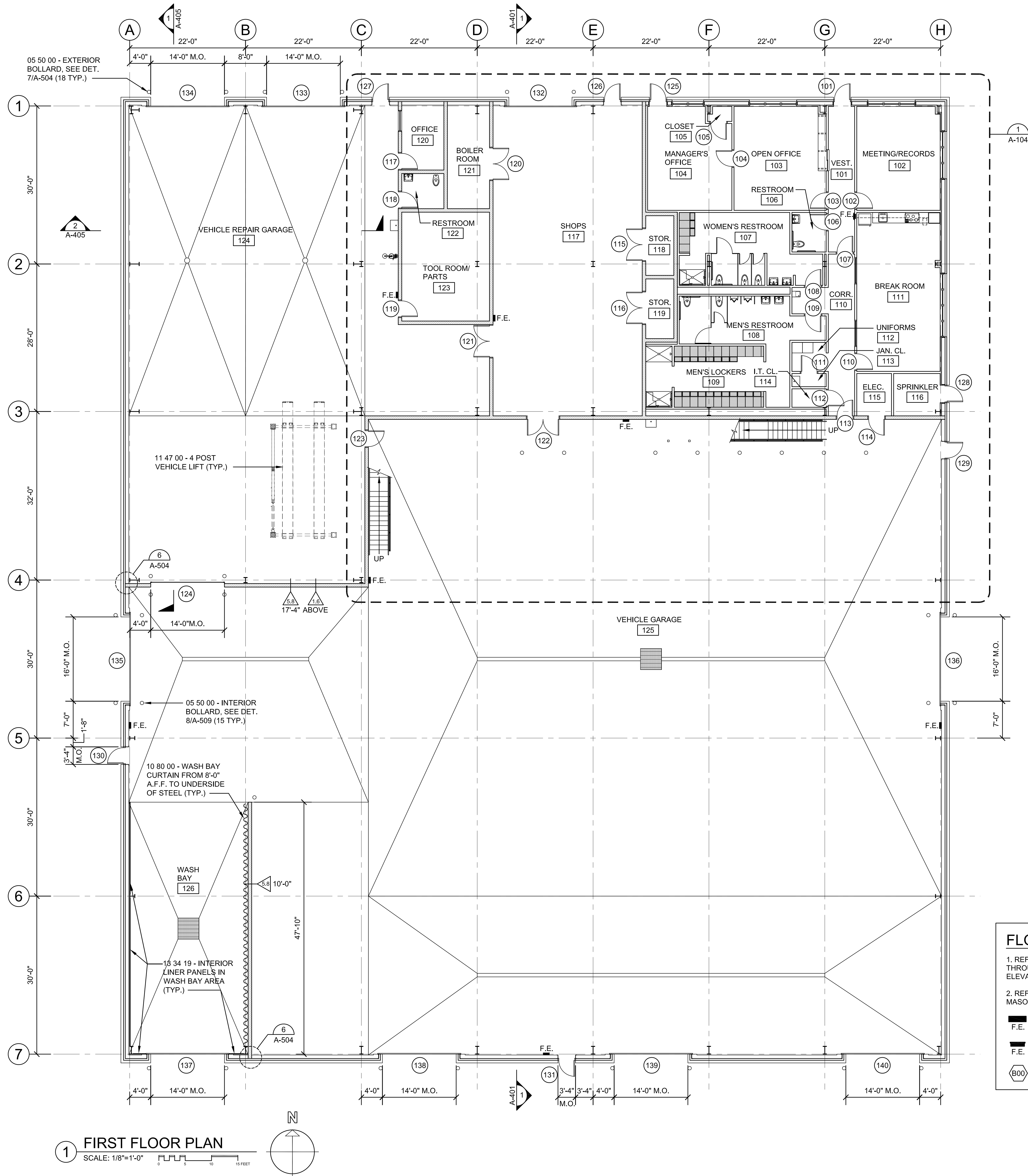

REV	DATE	DESCRIPTION

BUILDING:  
SHEET TITLE:

FIRST FLOOR PLAN

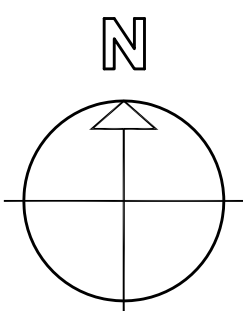
DRAWING NO.

A-101



1 FIRST FLOOR PLAN  
SCALE: 1/8"=1'-0"

0 5 10 FEET



### FLOOR PLAN GENERAL NOTES:

- REFER TO DRAWINGS A-602 THROUGH A-605 FOR INTERIOR ELEVATIONS (TYP.)
  - REFER TO DRAWING A-003 AND S-001 FOR MASONRY WALL DETAILS (TYP.)
- C.P. INDICATES LOCATION OF METAL CORNER PROTECTOR - SEE DETAIL 5/A-509 (TYP.)
- REFER TO DRAWING A-002 FOR INTERIOR WALL TYPES (TYP.)
- SURFACE MOUNTED FIRE EXTINGUISHER CABINET (TYP.)
- RECESSED FIRE EXTINGUISHER CABINET (TYP.)
- ⬡ BORROWED LITE TYPES





OWNER:  
TOWN OF MONTAGUE  
ONE AVENUE A  
TURNERS FALLS, MA 01376

ARCHITECT:

 **HELENE • KARL**

---

Architects, Inc.

CIVIL ENGINEER:  
SYMMES, MAINI & MCKEE ASSOCIATES  
1000 MASSACHUSETTS AVENUE  
CAMBRIDGE, MA 02138

STRUCTURAL ENGINEER:  
SYMMES, MAINI & MCKEE ASSOCIATES  
1000 MASSACHUSETTS AVENUE  
CAMBRIDGE, MA 02138

MECHANICAL ENGINEER:  
SEAMAN ENGINEERING CORP.  
22 WEST STREET, UNIT C  
MILLBURY, MA 01527

**ELECTRICAL ENGINEER:**  
JOHN J. MURPHY, JR. ELECTRICAL  
CONSTRUCTION AND ENGINEERING, INC.  
379 LIBERTY STREET  
ROCKLAND, MA 02370

TAMP


REV	DATE	DESCRIPTION
DATE	5/15/19	
SCALE	1/8" = 1'-0"	
DRAWN BY	MTV	
CHECKED BY	GKY	
PROJECT NO.	19001	

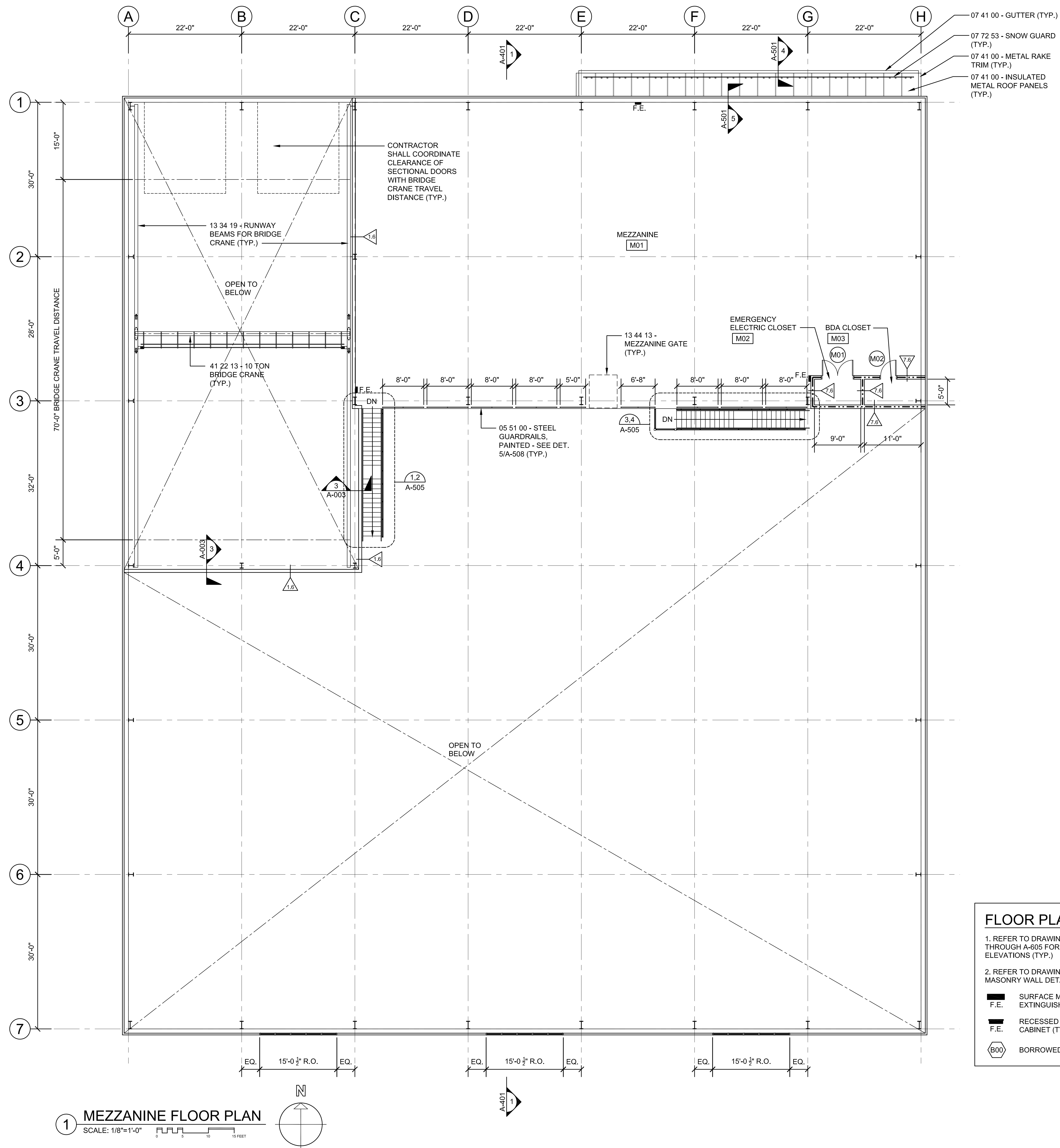
BUILDING: \_\_\_\_\_

SHEET TITLE:

## MEZZANINE FLOOR PLAN

DRAWING NO.

A-102



FLOOR PLAN GENERAL NOTES:

- |   |   |
|---|---|
| 1. REFER TO DRAWINGS A-602 THROUGH A-605 FOR INTERIOR ELEVATIONS (TYP.) | C.P. INDICATES LOCATION OF METAL CORNER PROTECTOR - SEE DETAIL 5/A-509 (TYP.) |
|---|---|

C.P. INDICATES LOCATION OF METAL  
CORNER PROTECTOR - SEE  
DETAIL 5/A-509 (TYP.)

2. REFER TO DRAWING A-003 AND S-001 FOR  
MASONRY WALL DETAILS (TYP.)

REFER TO DRAWING A-002 FOR  
INTERIOR WALL TYPES (TYP.)

-  SURFACE MOUNTED FIRE  
F.E. EXTINGUISHER CABINET (TYP.)

REFER TO DRAWING A-002 FOR  
INTERIOR WALL TYPES (TYP.)

- F.E.** RECESSED FIRE EXTINGUISHER  
CABINET (TYP.)

REFER TO DRAWING A-002 FOR  
INTERIOR WALL TYPES (TYP.)

-  BORROWED LITE TYPES

REFER TO DRAWING A-002 FOR  
INTERIOR WALL TYPES (TYP.)

01 23 00 - ALTERNATE #1  
BRIDGE CRANE





# TOWN OF MONTAGUE

## NEW DPW FACILITY

OWNER:  
TOWN OF MONTAGUE  
ONE AVENUE A  
TURNERS FALLS, MA 01376

ARCHITECT:  
**HELENE • KARL**  
Architects, Inc.  
61 Skyfields Drive, Groton, Massachusetts 01450

CIVIL ENGINEER:  
SYMMES, MAINI & McKEE ASSOCIATES  
1000 MASSACHUSETTS AVENUE  
CAMBRIDGE, MA 02138

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SYMMES, MAINI & McKEE ASSOCIATES  
1000 MASSACHUSETTS AVENUE  
CAMBRIDGE, MA 02138

MECHANICAL ENGINEER:  
SEAMAN ENGINEERING CORP.  
22 WEST STREET, UNIT C  
MILLBURY, MA 01527

ELECTRICAL ENGINEER:  
JOHN J. MURPHY, JR., ELECTRICAL  
CONSTRUCTION AND ENGINEERING, INC.  
379 LIBERTY STREET  
ROCKLAND, MA 02370

STAMP


REV	DATE	DESCRIPTION

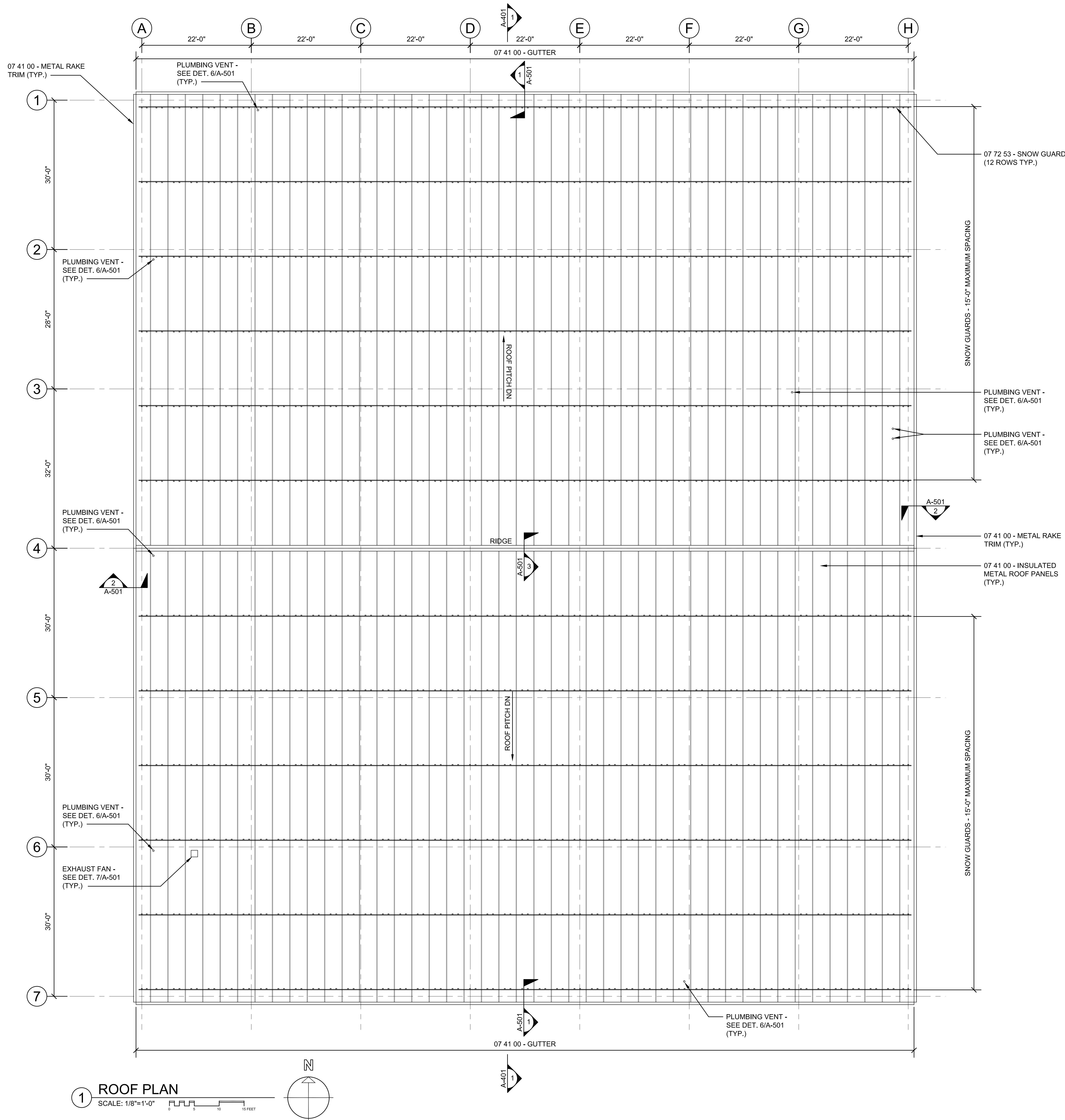
BUILDING:

SHEET TITLE:

ROOF PLAN

DRAWING NO.

A-103







# TOWN OF MONTAGUE

## NEW DPW FACILITY

OWNER:  
TOWN OF MONTAGUE  
ONE AVENUE A  
TURNERS FALLS, MA 01376

ARCHITECT:  
**HELENE · KARL**  
Architects, Inc.  
61 Skyfields Drive, Groton, Massachusetts 01450

CIVIL ENGINEER:  
SYMMES, MAINI & McKEE ASSOCIATES  
1000 MASSACHUSETTS AVENUE  
CAMBRIDGE, MA 02138

STRUCTURAL ENGINEER:  
SYMMES, MAINI & McKEE ASSOCIATES  
1000 MASSACHUSETTS AVENUE  
CAMBRIDGE, MA 02138

MECHANICAL ENGINEER:  
SEAMAN ENGINEERING CORP.  
22 WEST STREET, UNIT C  
MILLBURY, MA 01527

ELECTRICAL ENGINEER:  
JOHN J. MURPHY, JR. ELECTRICAL  
CONSTRUCTION AND ENGINEERING, INC.  
379 LIBERTY STREET  
ROCKLAND, MA 02370

STAMP

REV	DATE	DESCRIPTION
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DATE	5/15/19
SCALE	1/4" = 1'-0"
DRAWN BY	MTV
CHECKED BY	GKY
PROJECT NO.	19001

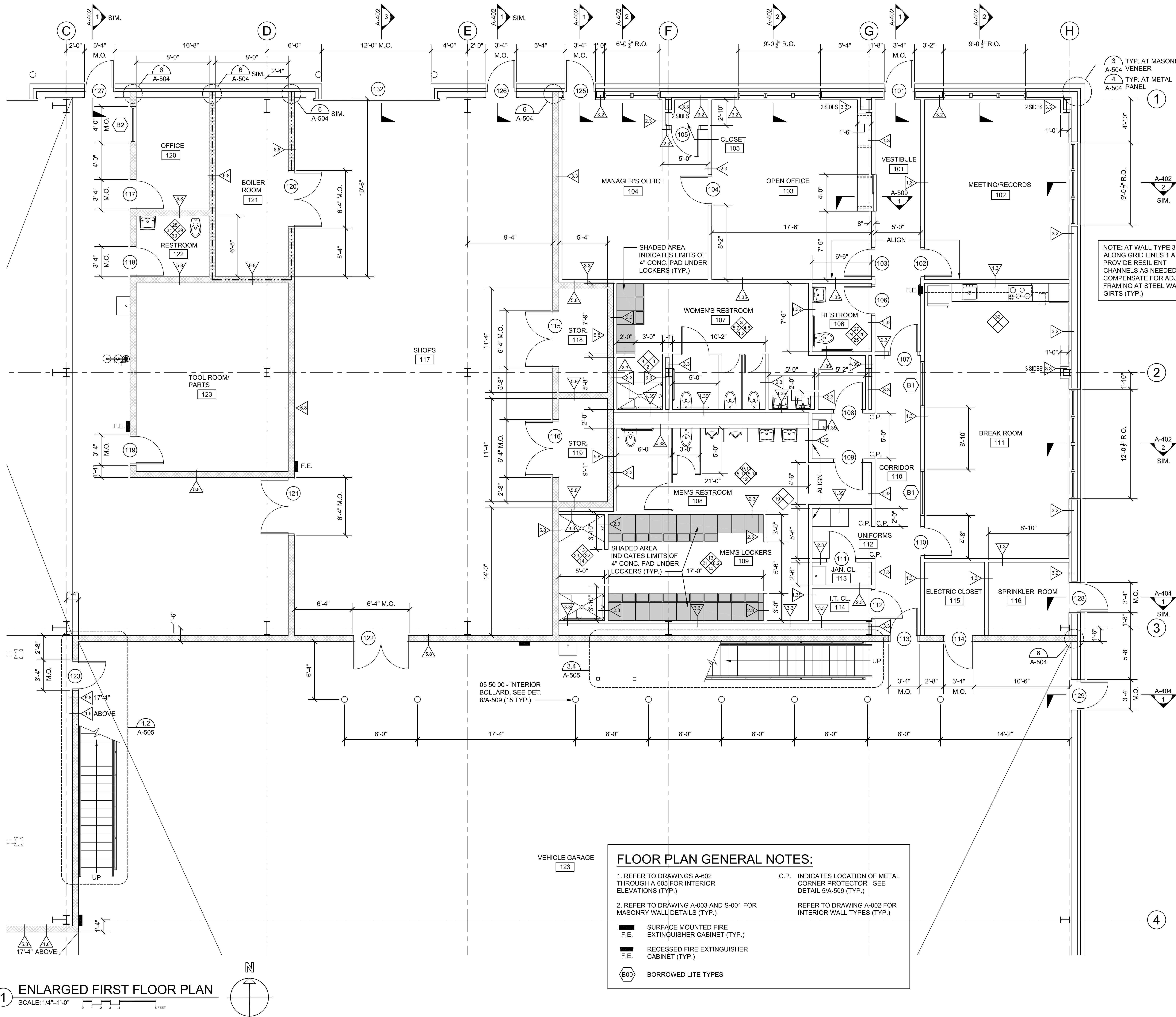
BUILDING:

SHEET TITLE:

ENLARGED FIRST FLOOR PLAN

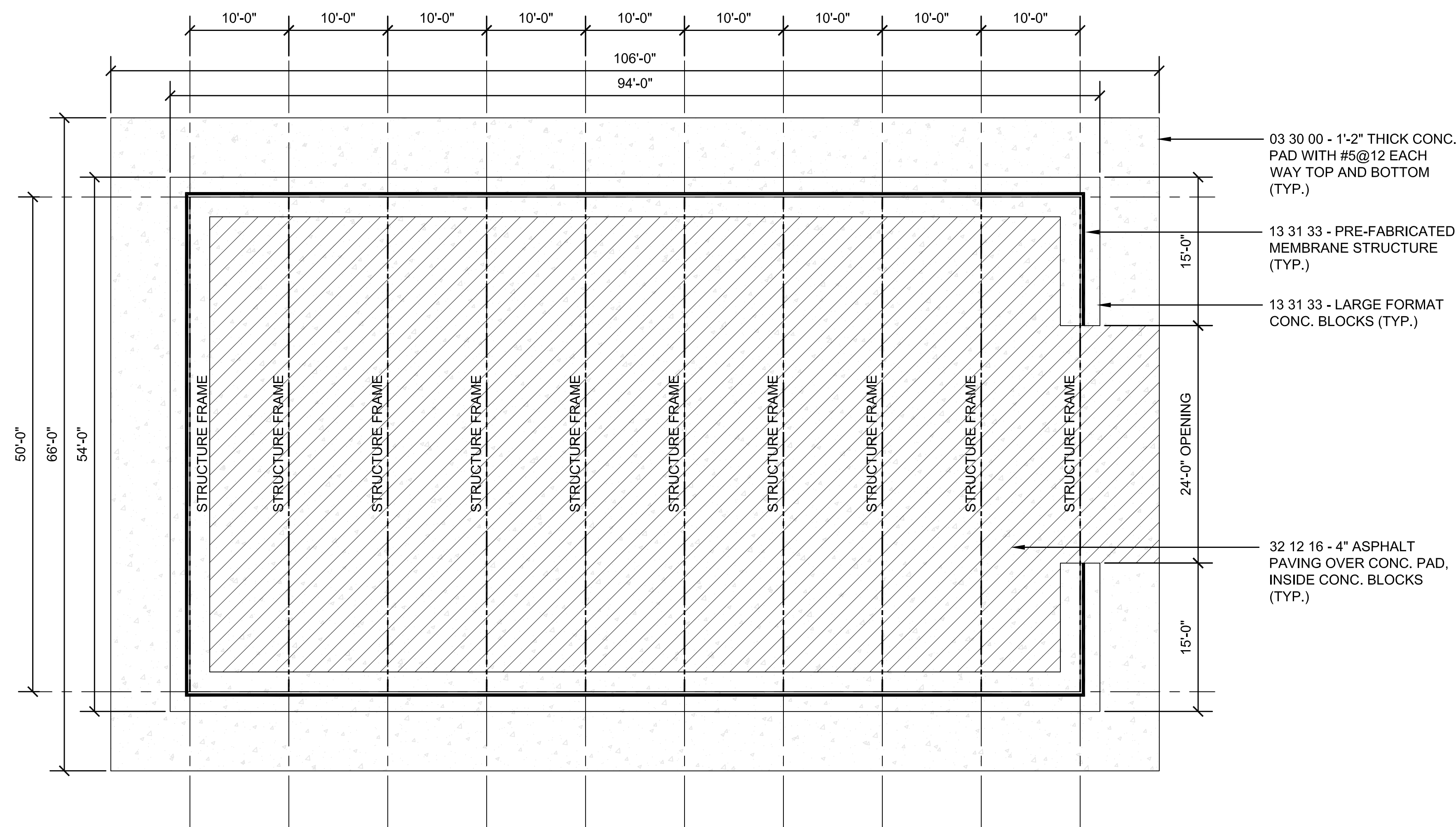
DRAWING NO.

A-104

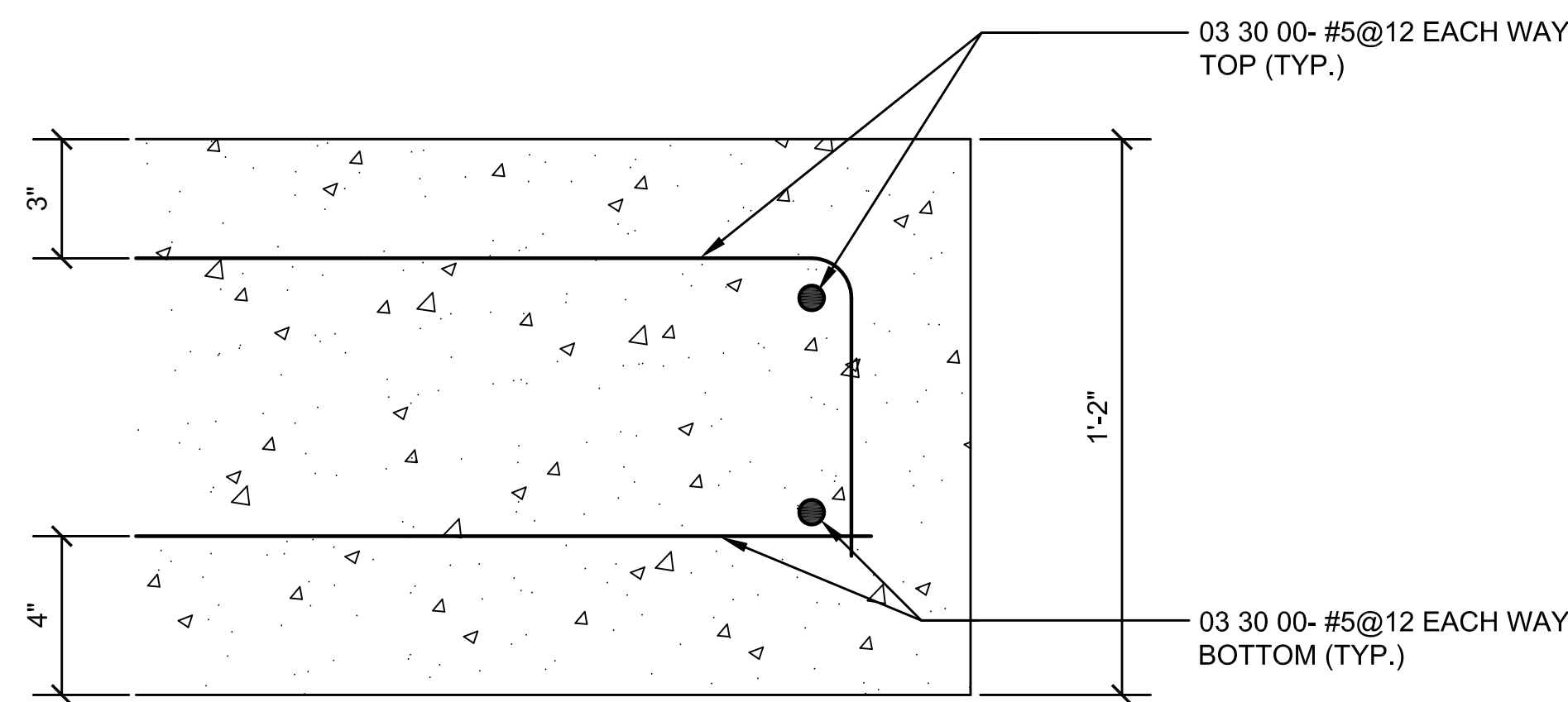


1 ENLARGED FIRST FLOOR PLAN  
SCALE: 1/4"=1'-0"

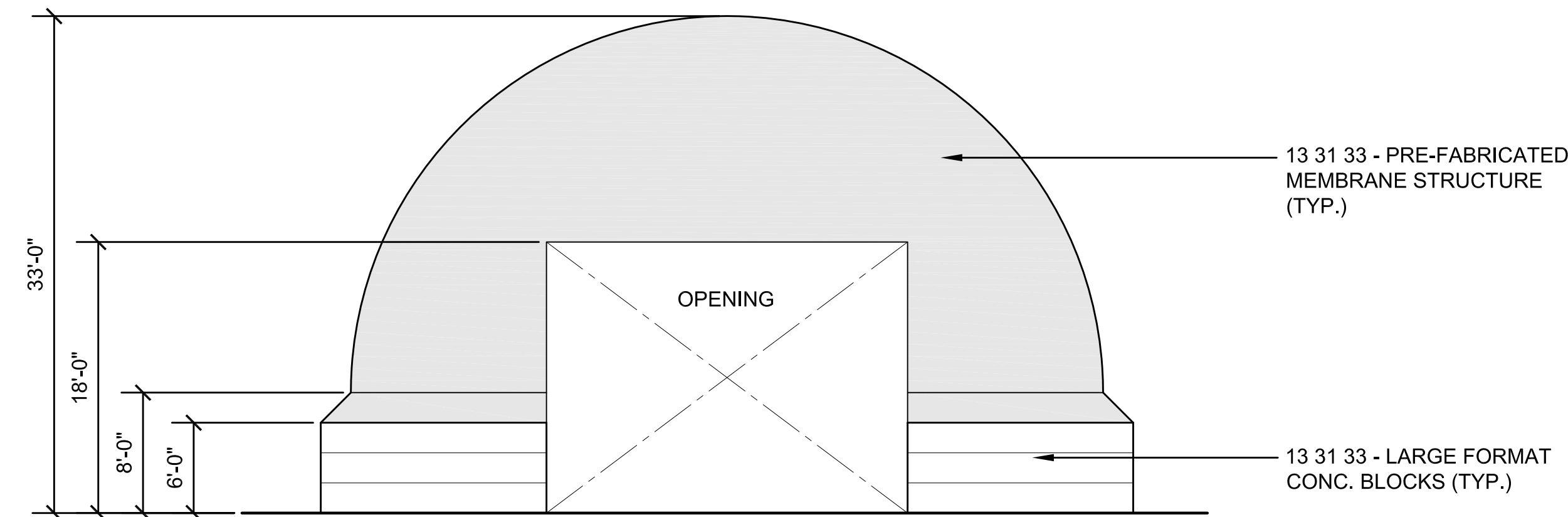




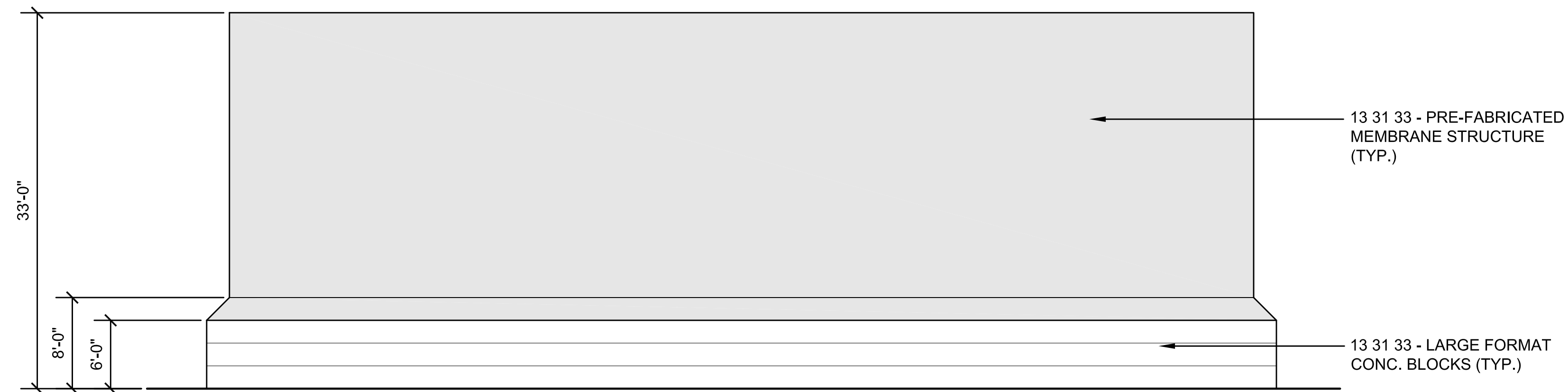
1 SALT STORAGE FLOOR PLAN  
SCALE: 1/8"=1'-0"



4 CONC. PAD DETAIL  
SCALE: 3"=1'-0"



2 SALT STORAGE NORTH ELEVATION  
SCALE: 1/8"=1'-0"



3 SALT STORAGE EAST AND WEST ELEVATIONS  
SCALE: 1/8"=1'-0"



## TOWN OF MONTAGUE

### NEW DPW FACILITY

OWNER:  
TOWN OF MONTAGUE  
ONE AVENUE A  
TURNERS FALLS, MA 01376

ARCHITECT:  
**HELENE • KARL**  
Architects, Inc.  
61 Skyfields Drive, Groton, Massachusetts 01450

CIVIL ENGINEER:  
SYMME, MAINI & McKEE ASSOCIATES  
1000 MASSACHUSETTS AVENUE  
CAMBRIDGE, MA 02138

STRUCTURAL ENGINEER:  
SYMME, MAINI & McKEE ASSOCIATES  
1000 MASSACHUSETTS AVENUE  
CAMBRIDGE, MA 02138

MECHANICAL ENGINEER:  
SEAMAN ENGINEERING CORP.  
22 WEST STREET, UNIT C  
MILLBURY, MA 01527

ELECTRICAL ENGINEER:  
JOHN J. MURPHY, JR. ELECTRICAL  
CONSTRUCTION AND ENGINEERING, INC.  
379 LIBERTY STREET  
ROCKLAND, MA 02370

STAMP

REV	DATE	DESCRIPTION
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DATE	5/15/19
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SCALE	1/8" = 1'-0"
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DRAWN BY	MTV
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CHECKED BY	GKY
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PROJECT NO.	19001
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BUILDING:

SHEET TITLE:

SALT STORAGE  
STRUCTURE

DRAWING NO.

A-105

01 23 00 - ALTERNATE #4  
SALT STORAGE  
STRUCTURE





## NEW DPW FACILITY

OWNER:  
TOWN OF MONTAGUE  
ONE AVENUE A  
TURNERS FALLS, MA 01376

ARCHITECT:  HELENE • KARI

CIVIL ENGINEER:  
SYMMES, MAINI & McKEE ASSOCIATES  
1000 MASSACHUSETTS AVENUE  
CAMBRIDGE, MA 02138

STRUCTURAL ENGINEER:  
SYMMES, MAINI & McKEE ASSOCIATES  
100 MASSACHUSETTS AVENUE  
CAMBRIDGE, MA 02138

MECHANICAL ENGINEER:  
SEAMAN ENGINEERING CORP.  
22 WEST STREET, UNIT C  
MILLBURY, MA 01527

**ELECTRICAL ENGINEER:**  
JOHN J. MURPHY, JR. ELECTRICAL  
CONSTRUCTION AND ENGINEERING, INC.  
379 LIBERTY STREET  
ROCKLAND, MA 02370

TAMP

EV	DATE	DESCRIPTION
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DATE	5/15/19
SCALE	1/8" = 1'-0"
DRAWN BY	MTV
CHECKED BY	GKY
PROJECT NO.	19001

BUILDING: \_\_\_\_\_

SHEET TITLE:

FIRST FLOOR  
REFLECTED CEILING  
PLAN

DRAWING NO.

# A-201







TOWN OF  
MONTAGUE

NEW DPW FACILITY

OWNER:  
TOWN OF MONTAGUE  
ONE AVENUE A  
TURNERS FALLS, MA 01376

ARCHITECT:  
 **HELENE • KARL**  
Architects, Inc.  
61 Skyfields Drive, Groton, Massachusetts 01450

CIVIL ENGINEER:  
SYMMES, MAINI & McKEE ASSOCIATES  
1000 MASSACHUSETTS AVENUE  
CAMBRIDGE, MA 02138

STRUCTURAL ENGINEER:  
SYMMES, MAINI & McKEE ASSOCIATES  
1000 MASSACHUSETTS AVENUE  
CAMBRIDGE, MA 02138

MECHANICAL ENGINEER:  
SEAMAN ENGINEERING CORP.  
22 WEST STREET, UNIT C  
MILLBURY, MA 01527

ELECTRICAL ENGINEER:  
JOHN J. MURPHY, JR. ELECTRICAL  
CONSTRUCTION AND ENGINEERING, INC.  
379 LIBERTY STREET  
ROCKLAND, MA 02370

STAMP

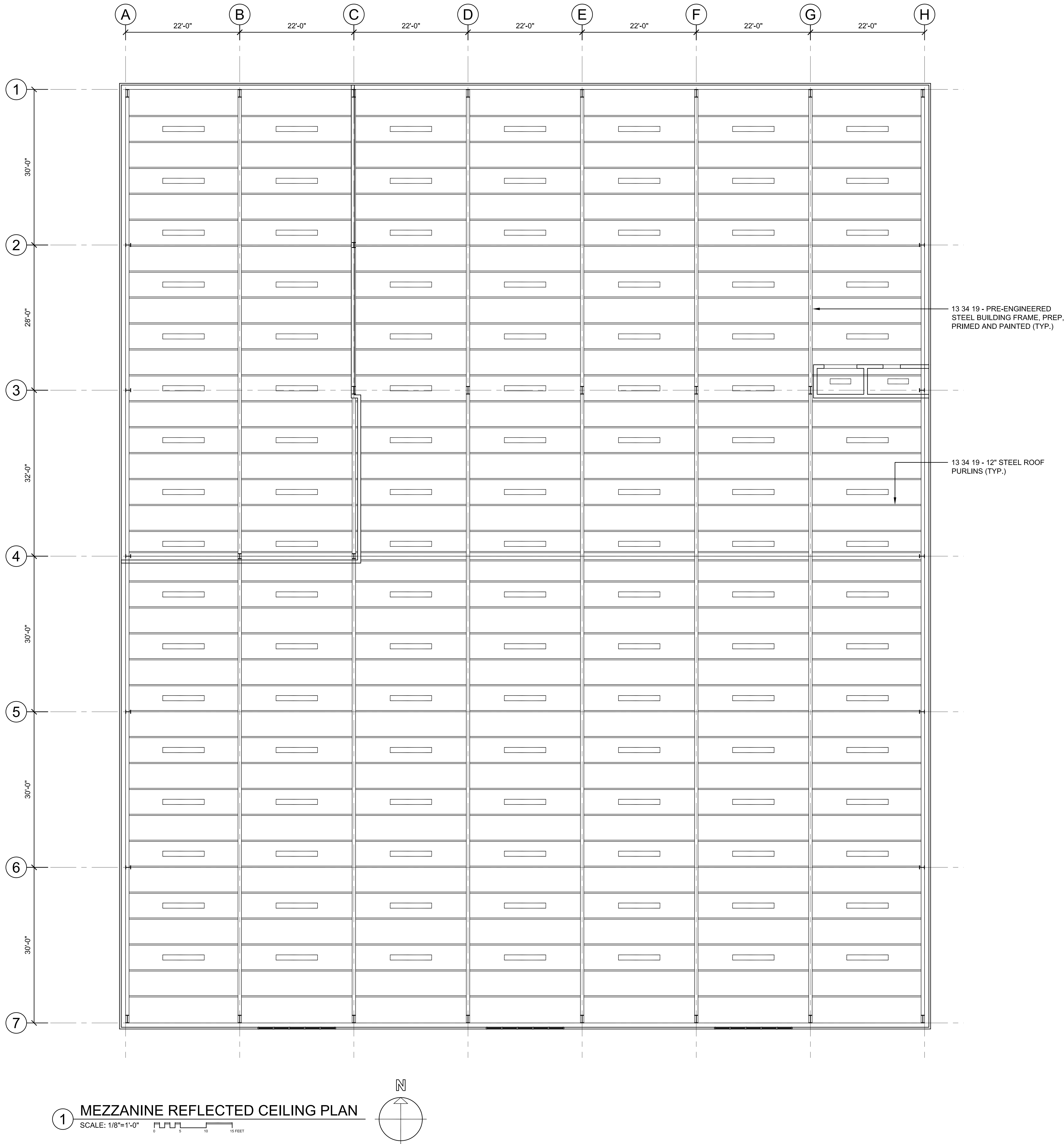

REV	DATE	DESCRIPTION

BUILDING:	
SHEET TITLE:	

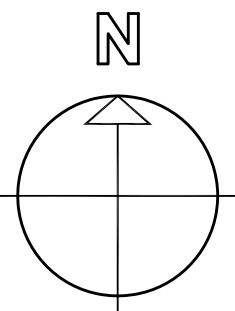
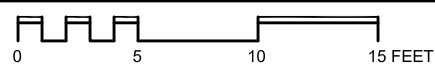
MEZZANINE REFLECTED  
CEILING PLAN

DRAWING NO.

A-202



1 MEZZANINE REFLECTED CEILING PLAN  
SCALE: 1/8"=1'-0"







## TOWN OF MONTAGUE

### NEW DPW FACILITY

OWNER:  
TOWN OF MONTAGUE  
ONE AVENUE A  
TURNERS FALLS, MA 01376

ARCHITECT:  
**HELENE • KARL**  
Architects, Inc.  
61 Skyfields Drive, Groton, Massachusetts 01450

CIVIL ENGINEER:  
SYMMES, MAINI & McKEE ASSOCIATES  
1000 MASSACHUSETTS AVENUE  
CAMBRIDGE, MA 02138

STRUCTURAL ENGINEER:  
SYMMES, MAINI & McKEE ASSOCIATES  
1000 MASSACHUSETTS AVENUE  
CAMBRIDGE, MA 02138

MECHANICAL ENGINEER:  
SEAMAN ENGINEERING CORP.  
22 WEST STREET, UNIT C  
MILLBURY, MA 01527

ELECTRICAL ENGINEER:  
JOHN J. MURPHY, JR. ELECTRICAL  
CONSTRUCTION AND ENGINEERING, INC.  
379 LIBERTY STREET  
ROCKLAND, MA 02370

STAMP

REV	DATE	DESCRIPTION
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DATE	5/15/19
SCALE	1/8" = 1'-0"
DRAWN BY	MTV
CHECKED BY	GKY
PROJECT NO.	19001

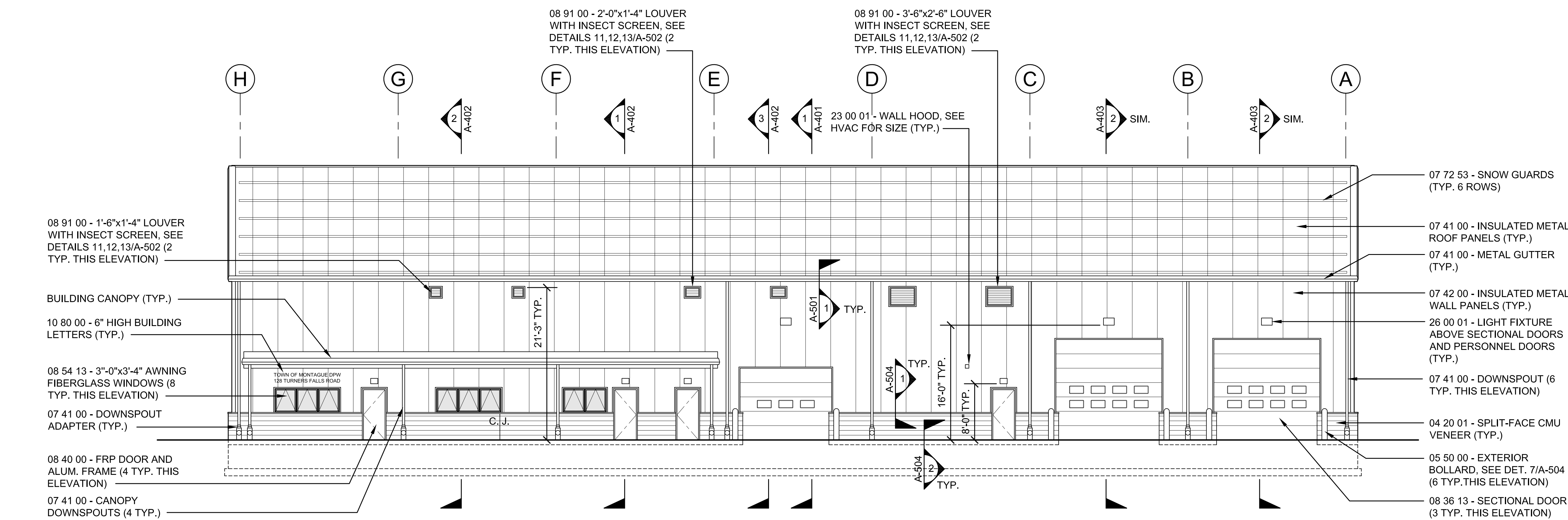
BUILDING:

SHEET TITLE:

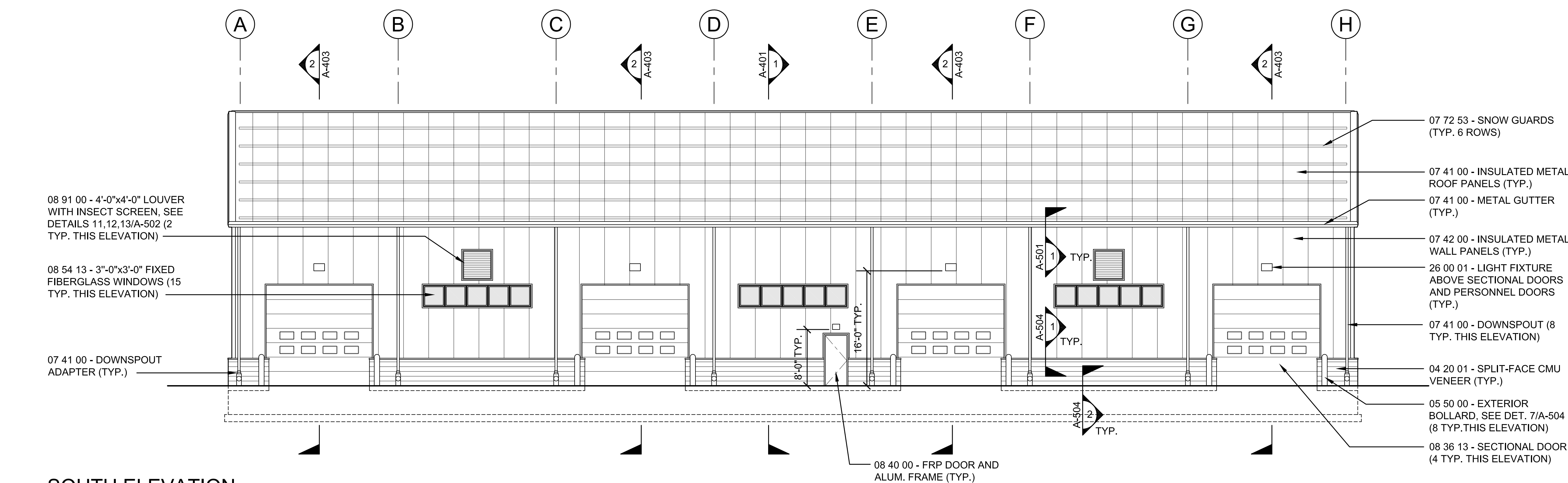
EXTERIOR ELEVATIONS  
SHEET 1

DRAWING NO.

A-301



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



2 SOUTH ELEVATION  
SCALE: 1/8"=1'-0"





TOWN OF  
MONTAGUE

NEW DPW FACILITY

OWNER:  
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ONE AVENUE A  
TURNERS FALLS, MA 01376

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1000 MASSACHUSETTS AVENUE  
CAMBRIDGE, MA 02138

STRUCTURAL ENGINEER:  
SYMMES, MAINI & MCKEE ASSOCIATES  
1000 MASSACHUSETTS AVENUE  
CAMBRIDGE, MA 02138

MECHANICAL ENGINEER:  
SEAMAN ENGINEERING CORP.  
22 WEST STREET, UNIT C  
MILLBURY, MA 01527

ELECTRICAL ENGINEER:  
JOHN J. MURPHY, JR., ELECTRICAL  
CONSTRUCTION AND ENGINEERING, INC.  
379 LIBERTY STREET  
ROCKLAND, MA 02370

STAMP

REV	DATE	DESCRIPTION
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DATE	5/15/19
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SCALE	1/8" = 1'-0"
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DRAWN BY	MTV
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CHECKED BY	GKY
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PROJECT NO.	19001
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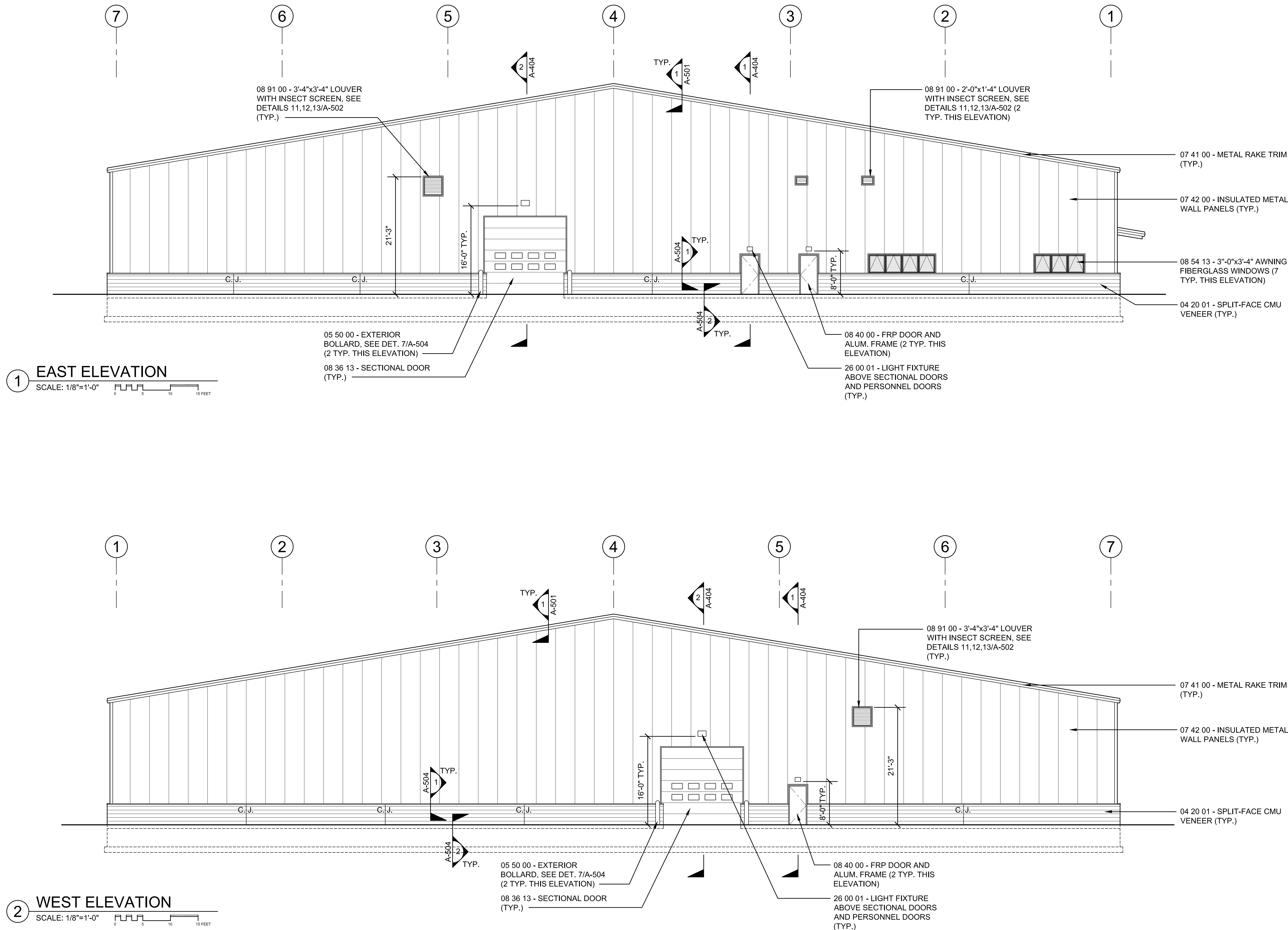
BUILDING:

SHEET TITLE:

EXTERIOR ELEVATIONS  
SHEET 2

DRAWING NO.

A-302







TOWN OF  
MONTAGUE

NEW DPW FACILITY

OWNER:  
TOWN OF MONTAGUE  
ONE AVENUE A  
TURNERS FALLS, MA 01376

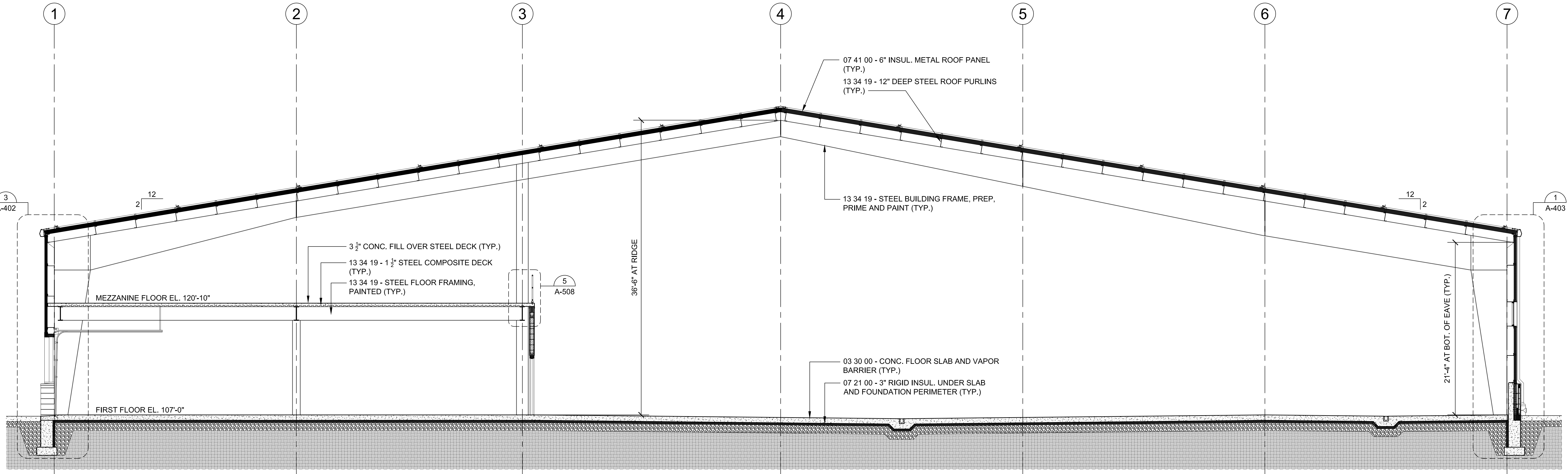
ARCHITECT:  
**HELENE • KARL**  
Architects, Inc.  
61 Skyfields Drive, Groton, Massachusetts 01450

CIVIL ENGINEER:  
SYMMES, MAINI & McKEE ASSOCIATES  
1000 MASSACHUSETTS AVENUE  
CAMBRIDGE, MA 02138

STRUCTURAL ENGINEER:  
SYMMES, MAINI & McKEE ASSOCIATES  
1000 MASSACHUSETTS AVENUE  
CAMBRIDGE, MA 02138

MECHANICAL ENGINEER:  
SEAMAN ENGINEERING CORP.  
22 WEST STREET, UNIT C  
MILLBURY, MA 01527

ELECTRICAL ENGINEER:  
JOHN J. MURPHY, JR. ELECTRICAL  
CONSTRUCTION AND ENGINEERING, INC.  
379 LIBERTY STREET  
ROCKLAND, MA 02370



**1 BUILDING SECTION**  
SCALE: 3/16"=1'-0"  
0 5 10 15 FEET

STAMP

REV	DATE	DESCRIPTION

DATE	5/15/19
SCALE	3/16" = 1'-0"
DRAWN BY	MTV
CHECKED BY	GKY
PROJECT NO.	19001

BUILDING:

SHEET TITLE:

BUILDING SECTION

DRAWING NO.

A-401





TOWN OF  
MONTAGUE

NEW DPW FACILITY

OWNER:  
TOWN OF MONTAGUE  
ONE AVENUE A  
TURNERS FALLS, MA 01376

ARCHITECT:  
**HELENE • KARL**  
Architects, Inc.

61 Skyfields Drive, Groton, Massachusetts 01450

CIVIL ENGINEER:  
SYMMES, MAINI & McKEE ASSOCIATES  
1000 MASSACHUSETTS AVENUE  
CAMBRIDGE, MA 02138

STRUCTURAL ENGINEER:  
SYMMES, MAINI & McKEE ASSOCIATES  
1000 MASSACHUSETTS AVENUE  
CAMBRIDGE, MA 02138

MECHANICAL ENGINEER:  
SEAMAN ENGINEERING CORP.  
22 WEST STREET, UNIT C  
MILLBURY, MA 01527

ELECTRICAL ENGINEER:  
JOHN J. MURPHY, JR. ELECTRICAL  
CONSTRUCTION AND ENGINEERING, INC.  
379 LIBERTY STREET  
ROCKLAND, MA 02370

STAMP

REV	DATE	DESCRIPTION
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DATE	5/15/19
SCALE	1/2" = 1'-0"
DRAWN BY	MTV
CHECKED BY	GKY
PROJECT NO.	19001

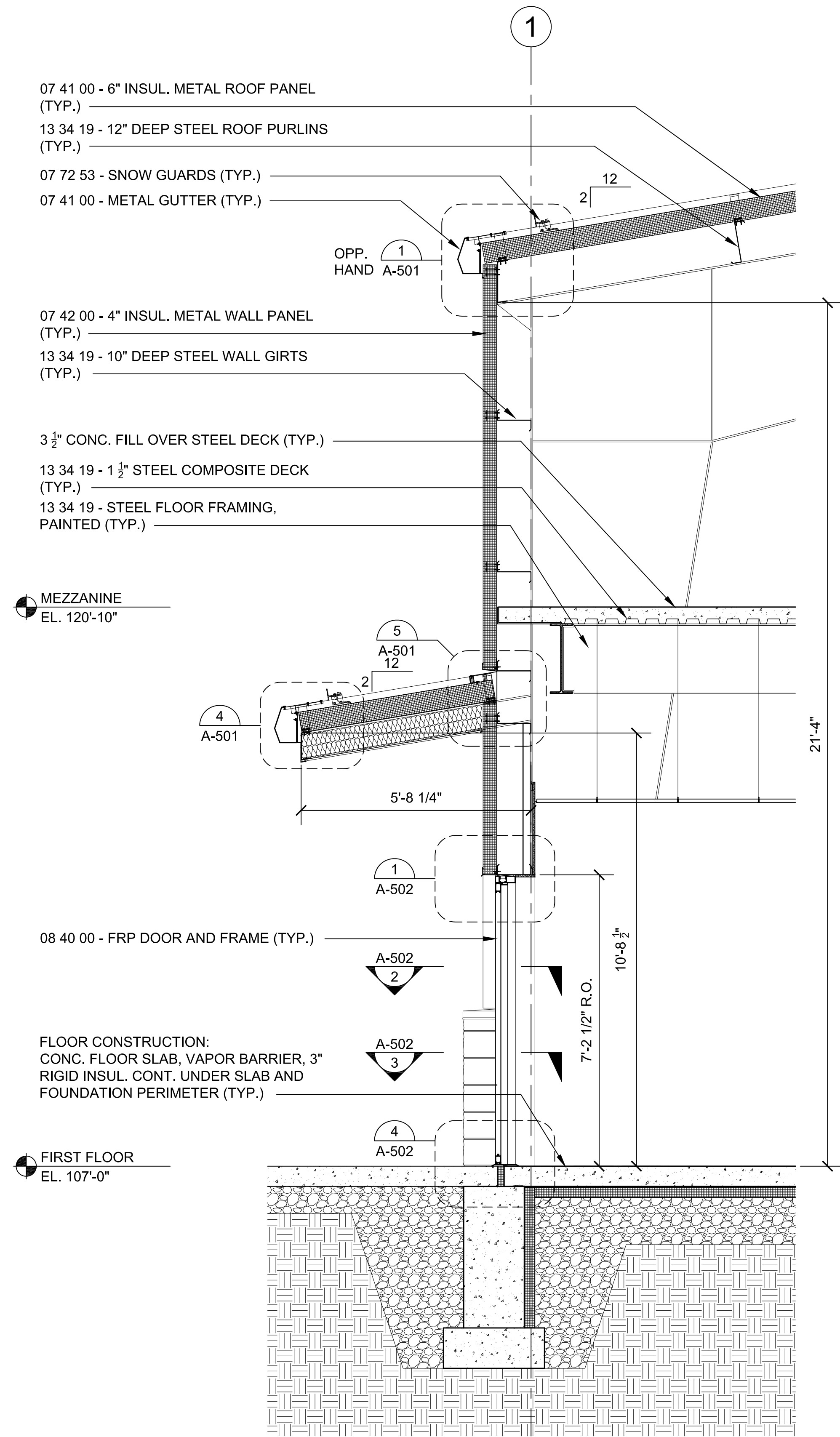
BUILDING:

SHEET TITLE:

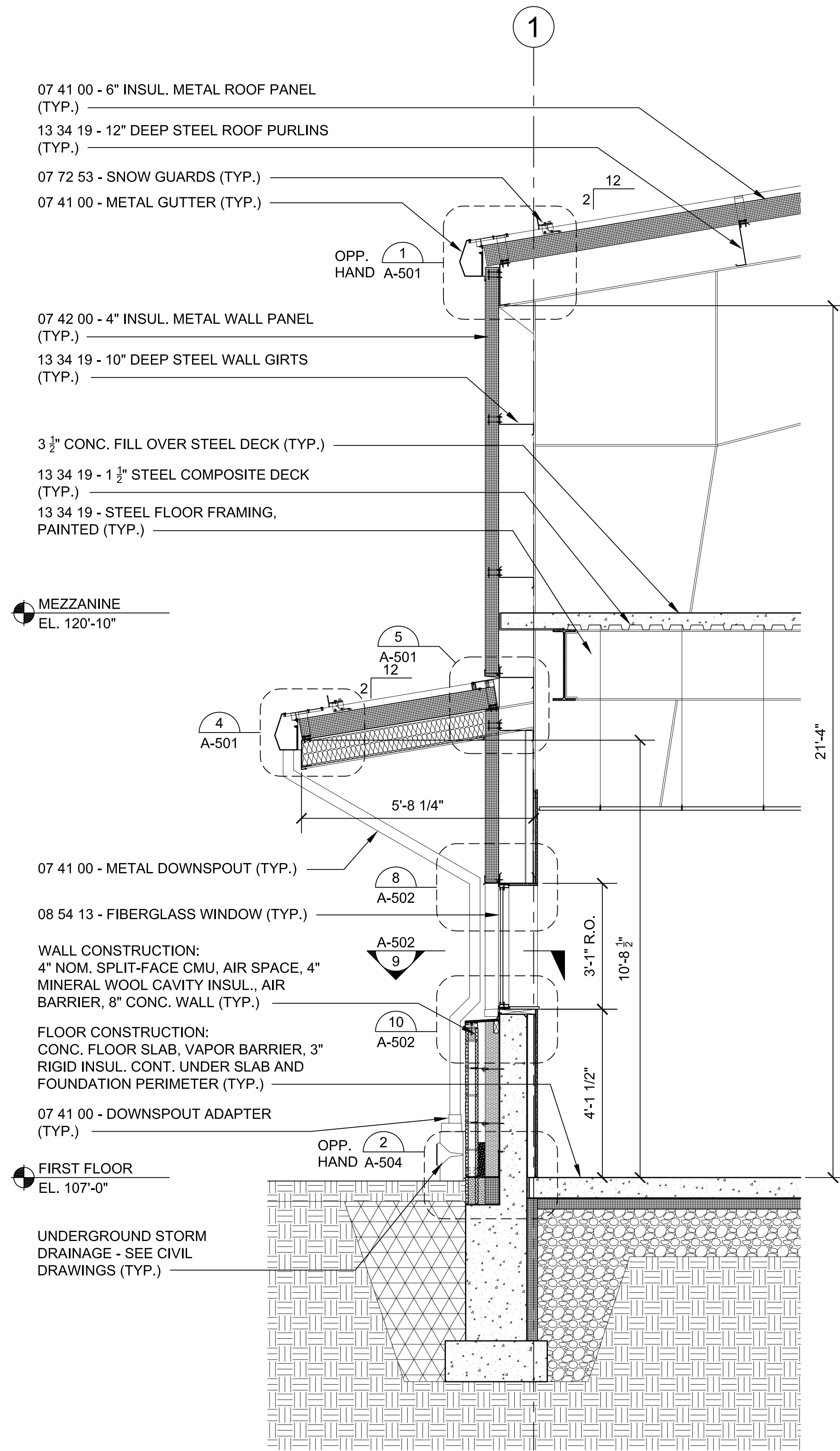
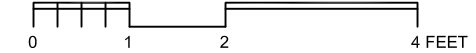
WALL SECTIONS  
SHEET 1

DRAWING NO.

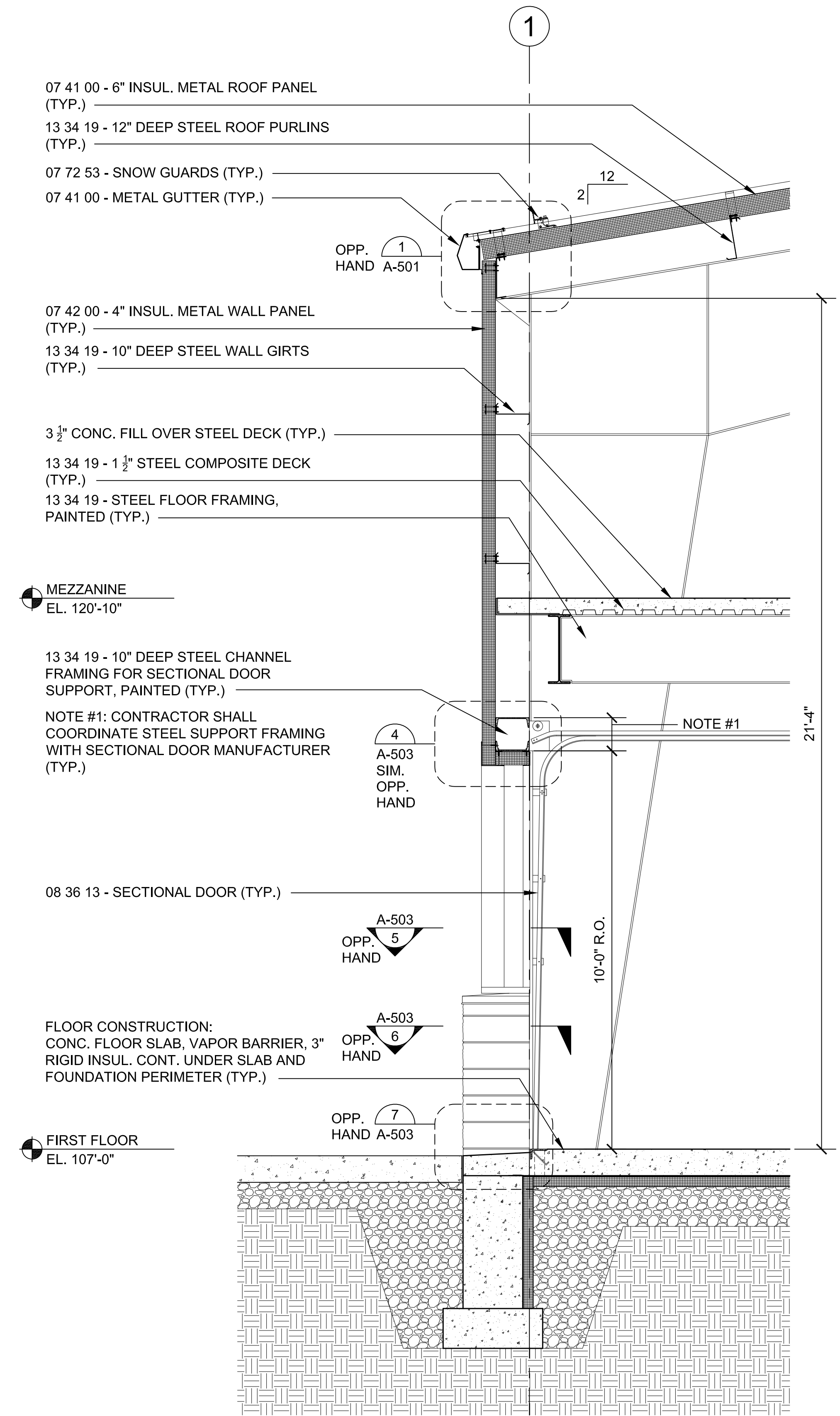
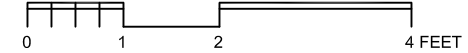
A-402



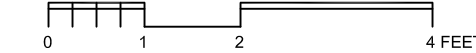
1 WALL SECTION 1  
SCALE: 1/2"=1'-0"



2 WALL SECTION 2  
SCALE: 1/2"=1'-0"



3 WALL SECTION 3  
SCALE: 1/2"=1'-0"



NOTE: REFER TO STRUCTURAL  
DRAWINGS FOR FOUNDATION  
WALL AND FLOOR SLAB SIZE AND  
CONFIGURATION (TYP.)





# TOWN OF MONTAGUE

## NEW DPW FACILITY

OWNER:  
TOWN OF MONTAGUE  
ONE AVENUE A  
TURNERS FALLS, MA 01376

ARCHITECT:  
**HELENE • KARL**  
Architects, Inc.  
61 Skyfields Drive, Groton, Massachusetts 01450

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SEAMAN ENGINEERING CORP.  
22 WEST STREET, UNIT C  
MILLBURY, MA 01527

ELECTRICAL ENGINEER:  
JOHN J. MURPHY, JR., ELECTRICAL  
CONSTRUCTION AND ENGINEERING, INC.  
379 LIBERTY STREET  
ROCKLAND, MA 02370

STAMP


REV	DATE	DESCRIPTION

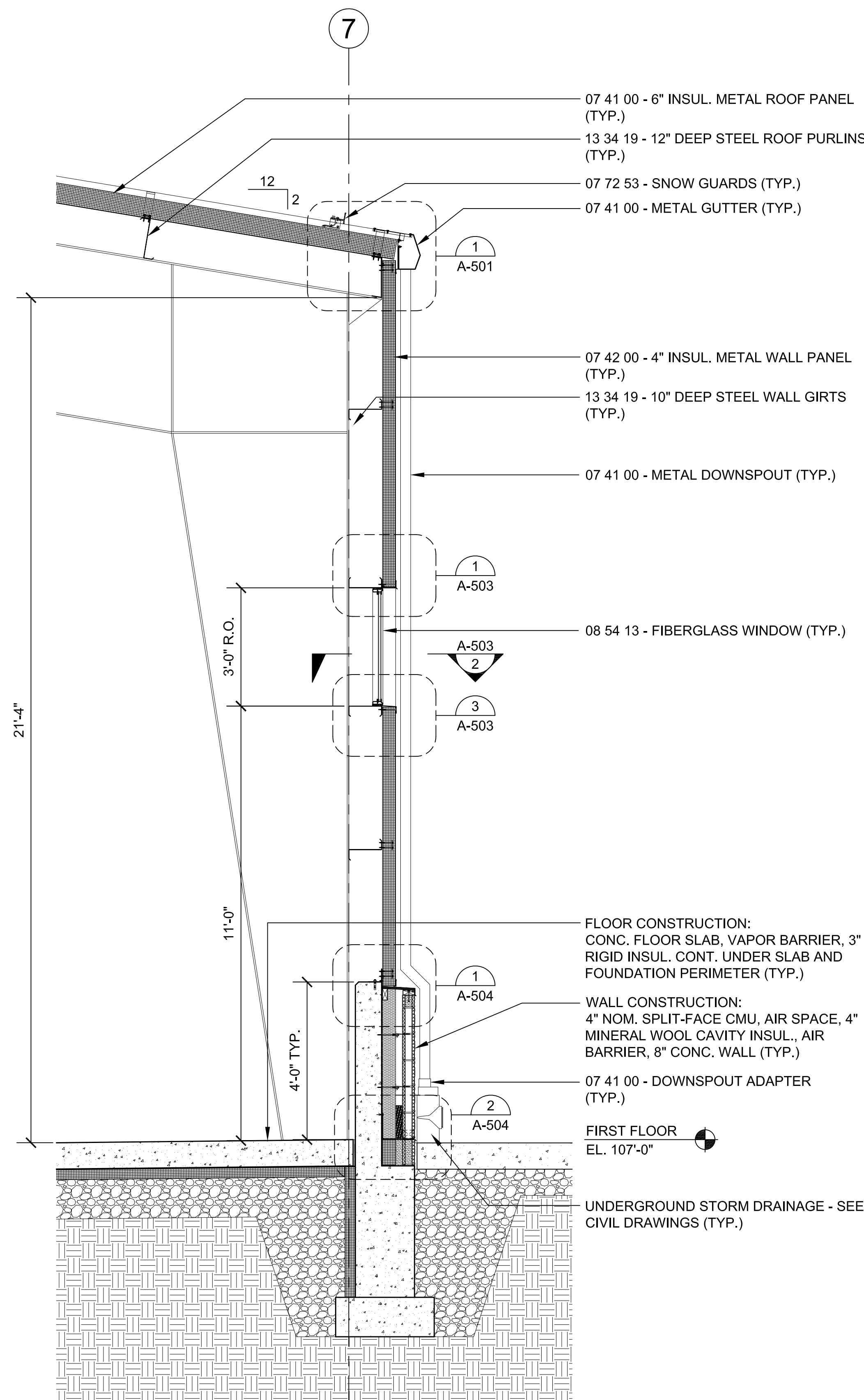
BUILDING:

SHEET TITLE:

### WALL SECTIONS SHEET 2

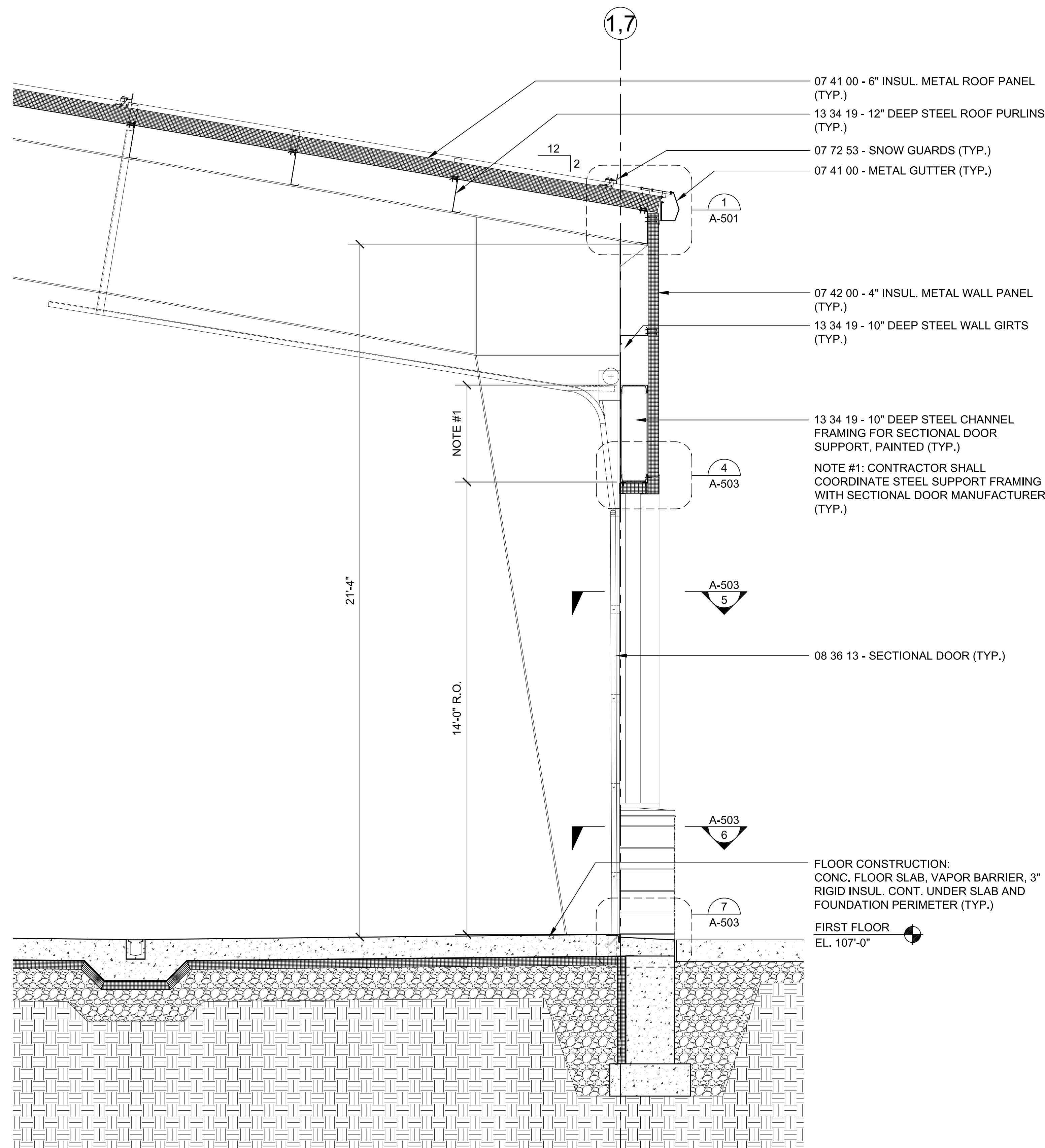
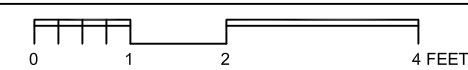
DRAWING NO.

A-403



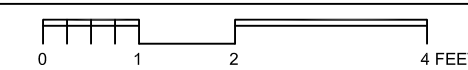
1 WALL SECTION 4

SCALE: 1/2"=1'-0"



2 WALL SECTION 5

SCALE: 1/2"=1'-0"



NOTE: REFER TO STRUCTURAL  
DRAWINGS FOR FOUNDATION  
WALL AND FLOOR SLAB SIZE AND  
CONFIGURATION (TYP.)





TOWN OF  
MONTAGUE

NEW DPW FACILITY

OWNER:  
TOWN OF MONTAGUE  
ONE AVENUE A  
TURNERS FALLS, MA 01376

ARCHITECT:  
**HELENE • KARL**  
Architects, Inc.  
61 Skyfields Drive, Groton, Massachusetts 01450

CIVIL ENGINEER:  
SYMMES, MAINI & McKEE ASSOCIATES  
1000 MASSACHUSETTS AVENUE  
CAMBRIDGE, MA 02138

STRUCTURAL ENGINEER:  
SYMMES, MAINI & McKEE ASSOCIATES  
1000 MASSACHUSETTS AVENUE  
CAMBRIDGE, MA 02138

MECHANICAL ENGINEER:  
SEAMAN ENGINEERING CORP.  
22 WEST STREET, UNIT C  
MILLBURY, MA 01527

ELECTRICAL ENGINEER:  
JOHN J. MURPHY, JR. ELECTRICAL  
CONSTRUCTION AND ENGINEERING, INC.  
379 LIBERTY STREET  
ROCKLAND, MA 02370

STAMP

REV	DATE	DESCRIPTION
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CHECKED BY	GKY
PROJECT NO.	19001

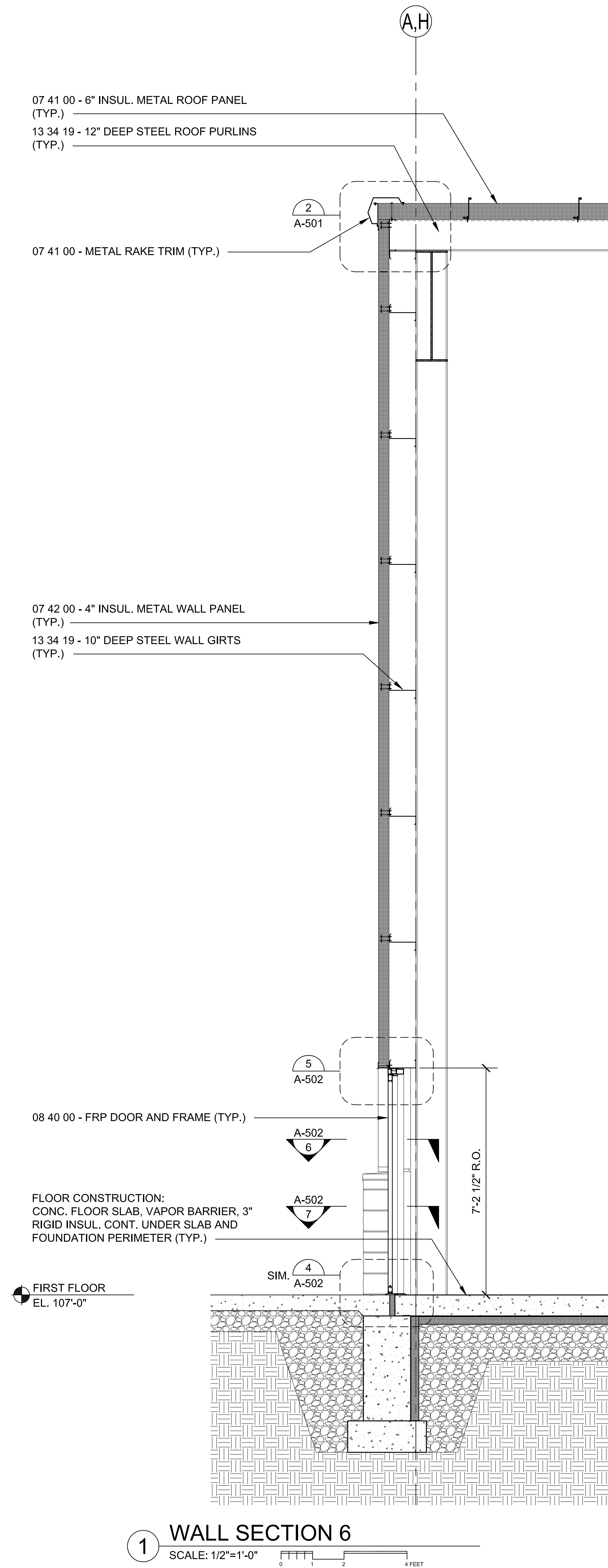
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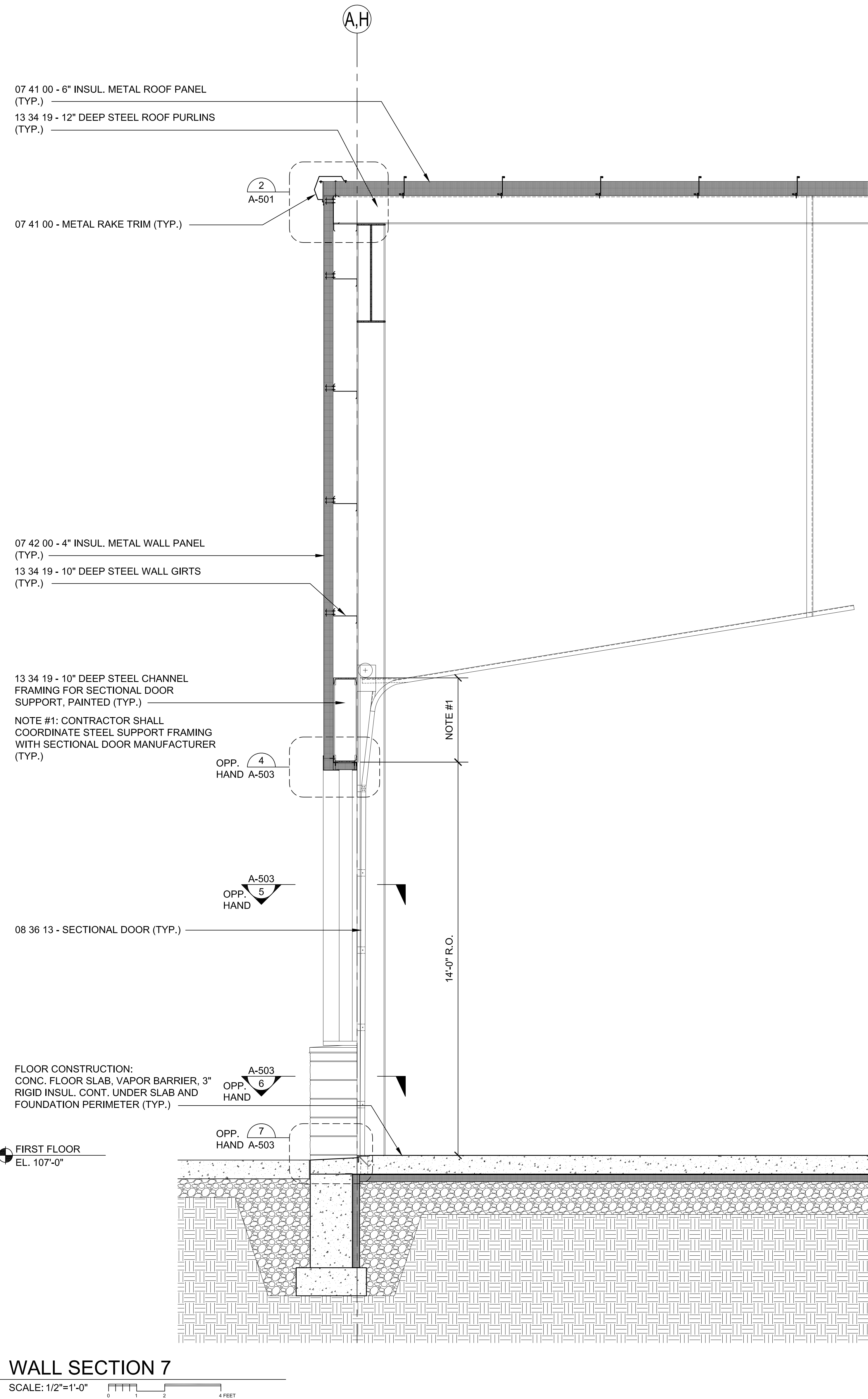
WALL SECTIONS  
SHEET 3

DRAWING NO.

A-404



1 WALL SECTION 6  
SCALE: 1/2"=1'-0"



2 WALL SECTION 7  
SCALE: 1/2"=1'-0"

NOTE: REFER TO STRUCTURAL  
DRAWINGS FOR FOUNDATION  
WALL AND FLOOR SLAB SIZE AND  
CONFIGURATION (TYP.)





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CHECKED BY	GKY
PROJECT NO.	19001

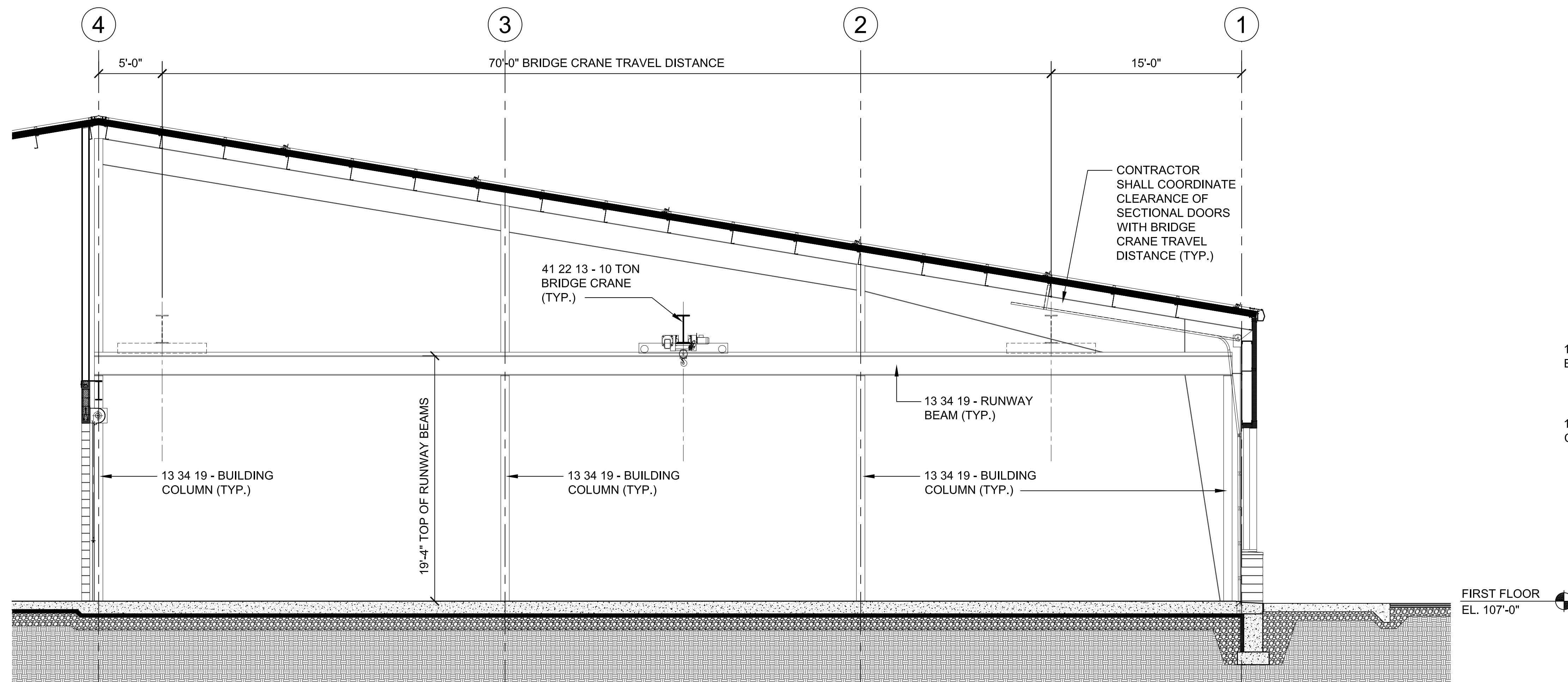
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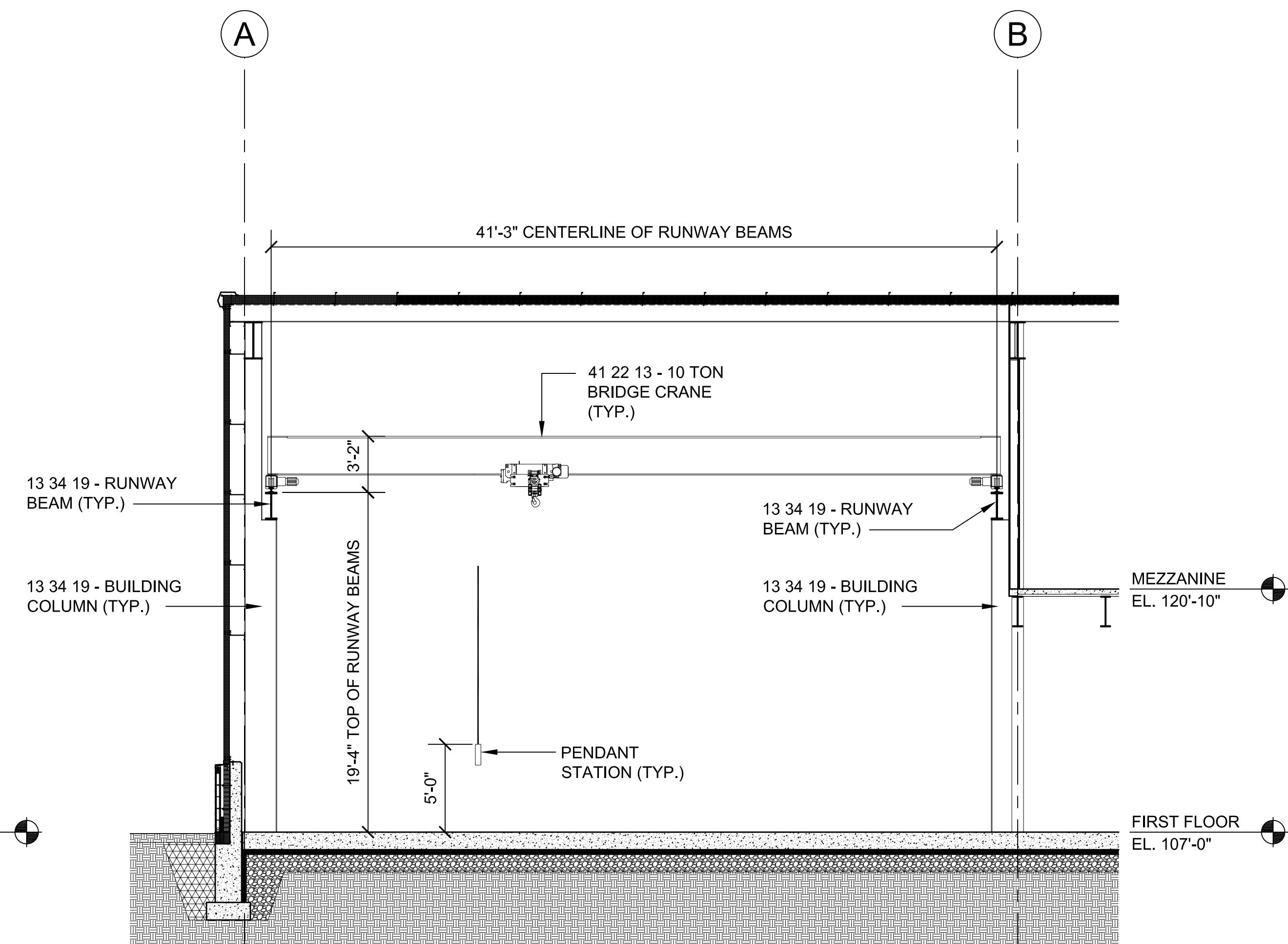
BRIDGE CRANE  
SECTIONS

DRAWING NO.

A-405



1 BRIDGE CRANE SECTION 1  
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0 5 10 15 FEET

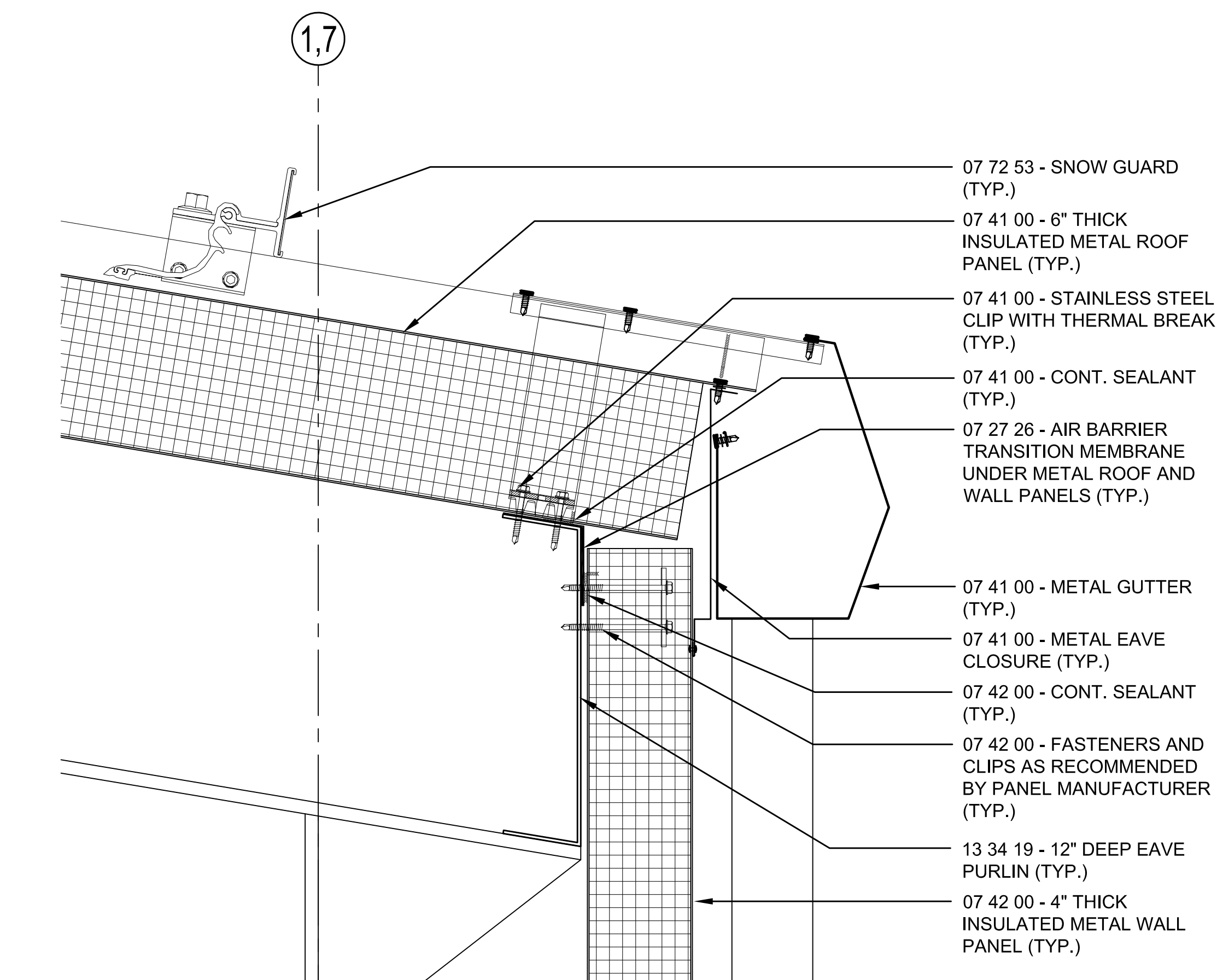


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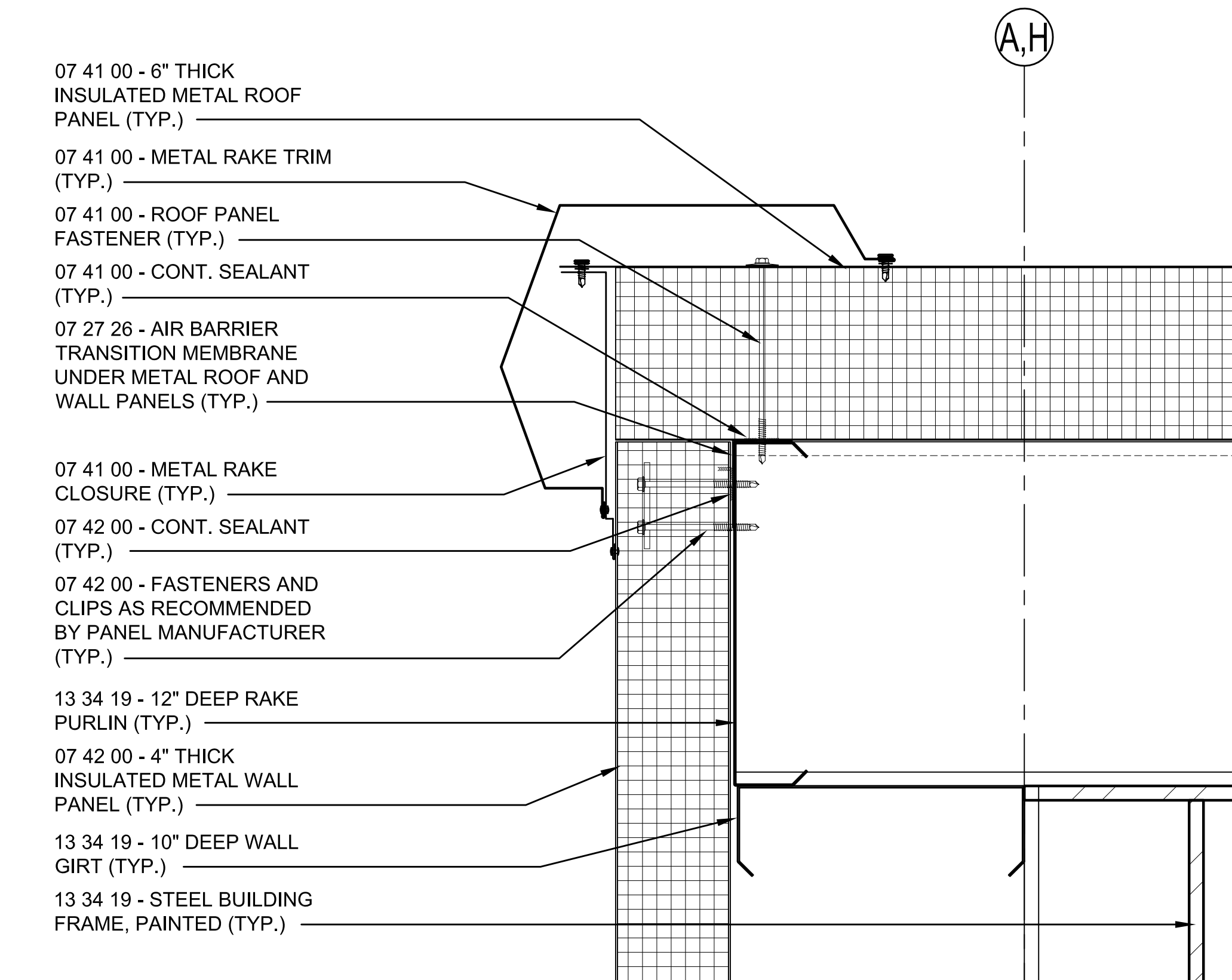
NOTE: REFER TO STRUCTURAL  
DRAWINGS FOR FOUNDATION  
WALL AND FLOOR SLAB SIZE AND  
CONFIGURATION (TYP.)

01 23 00 - ALTERNATE #1  
BRIDGE CRANE

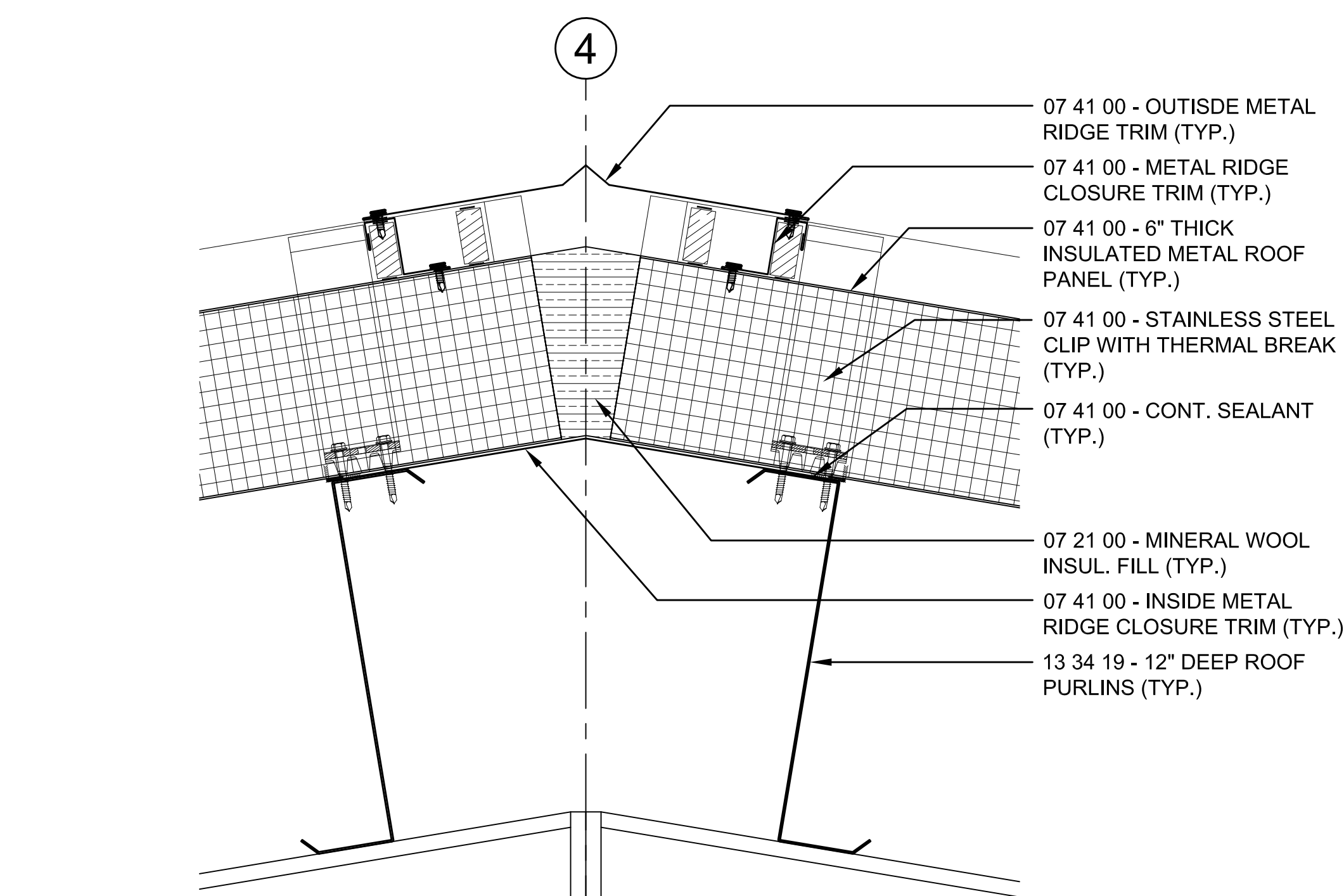




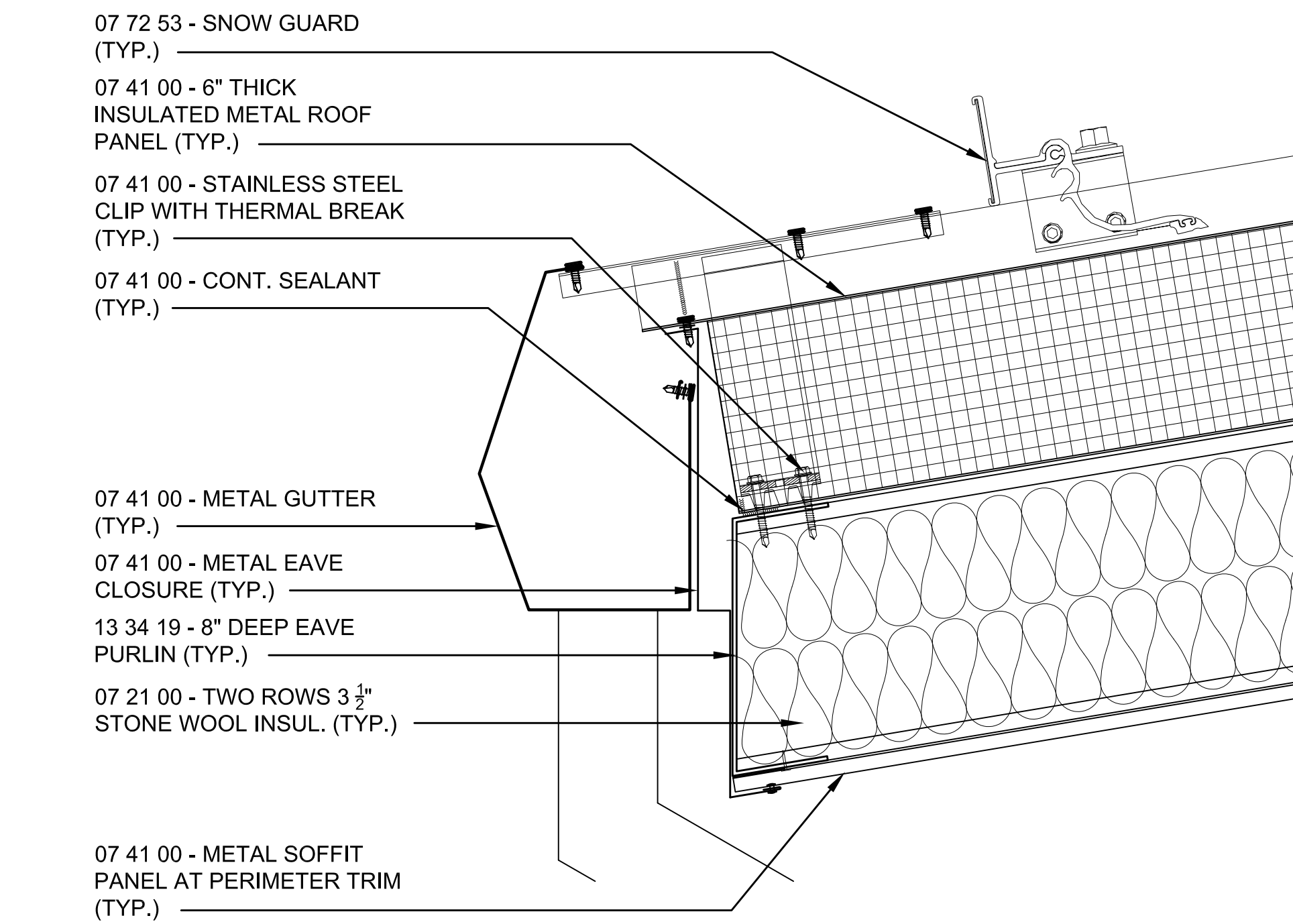
1 ROOF EAVE DETAIL  
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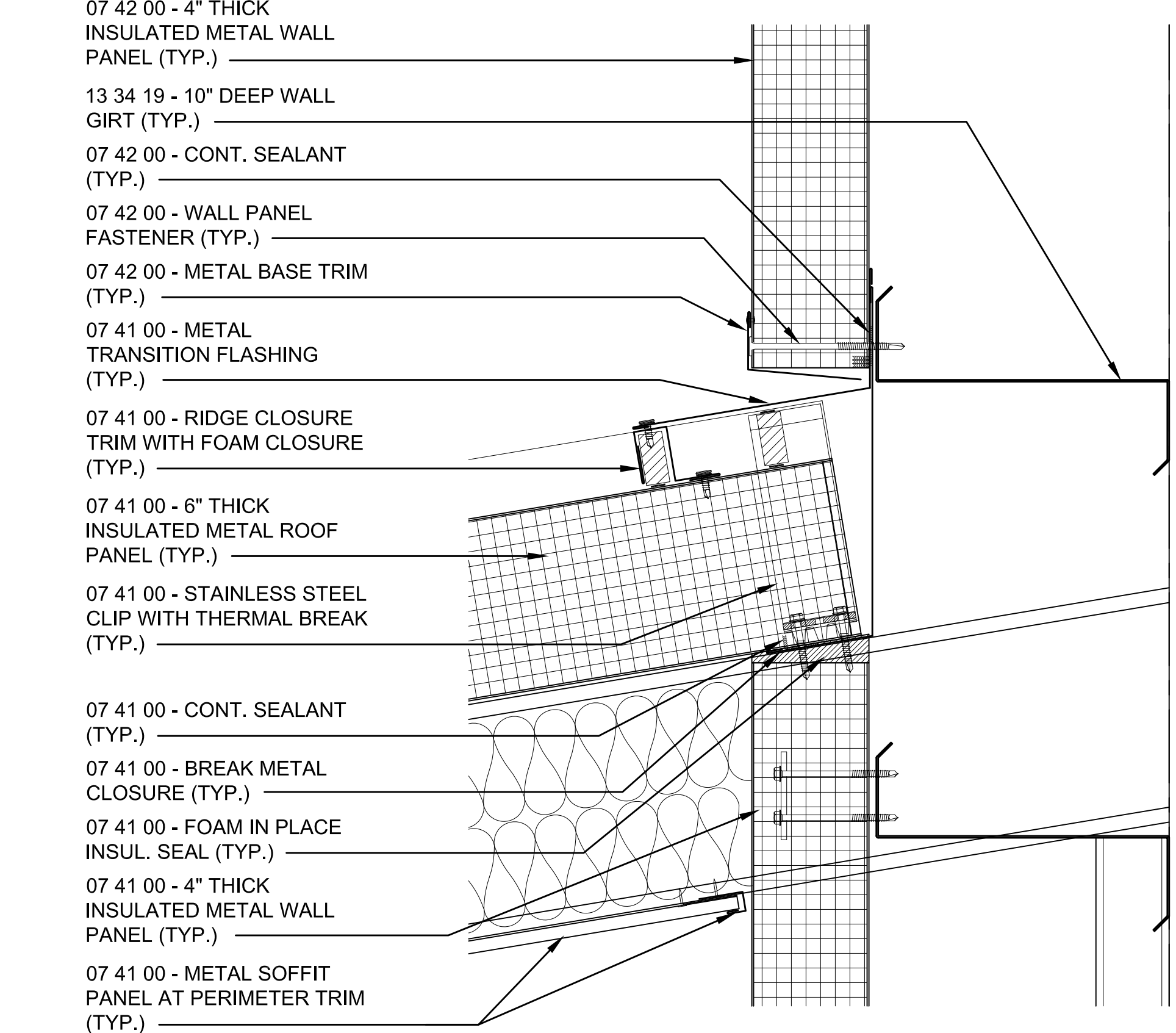
2 ROOF RAKE DETAIL  
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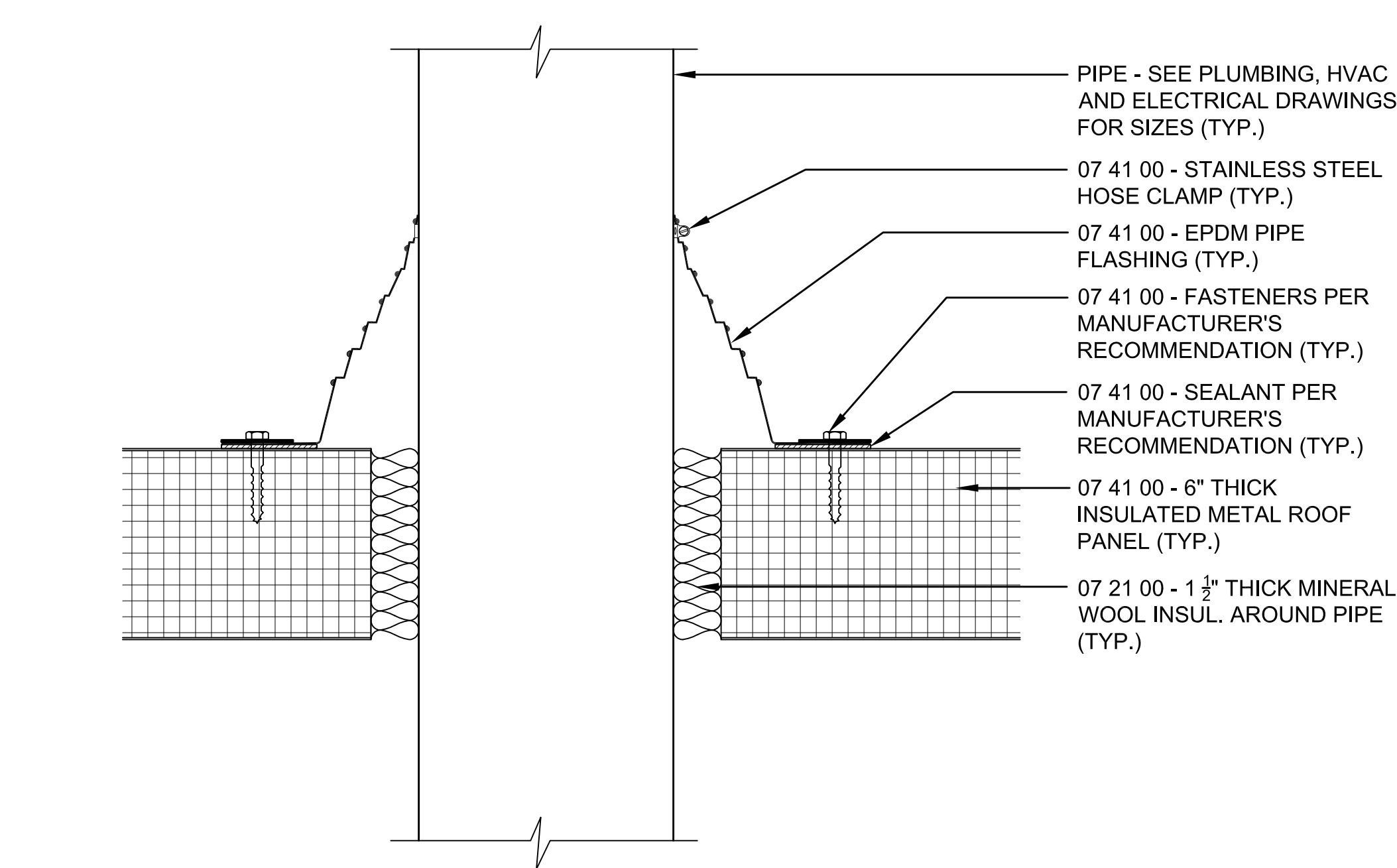
3 ROOF RIDGE DETAIL  
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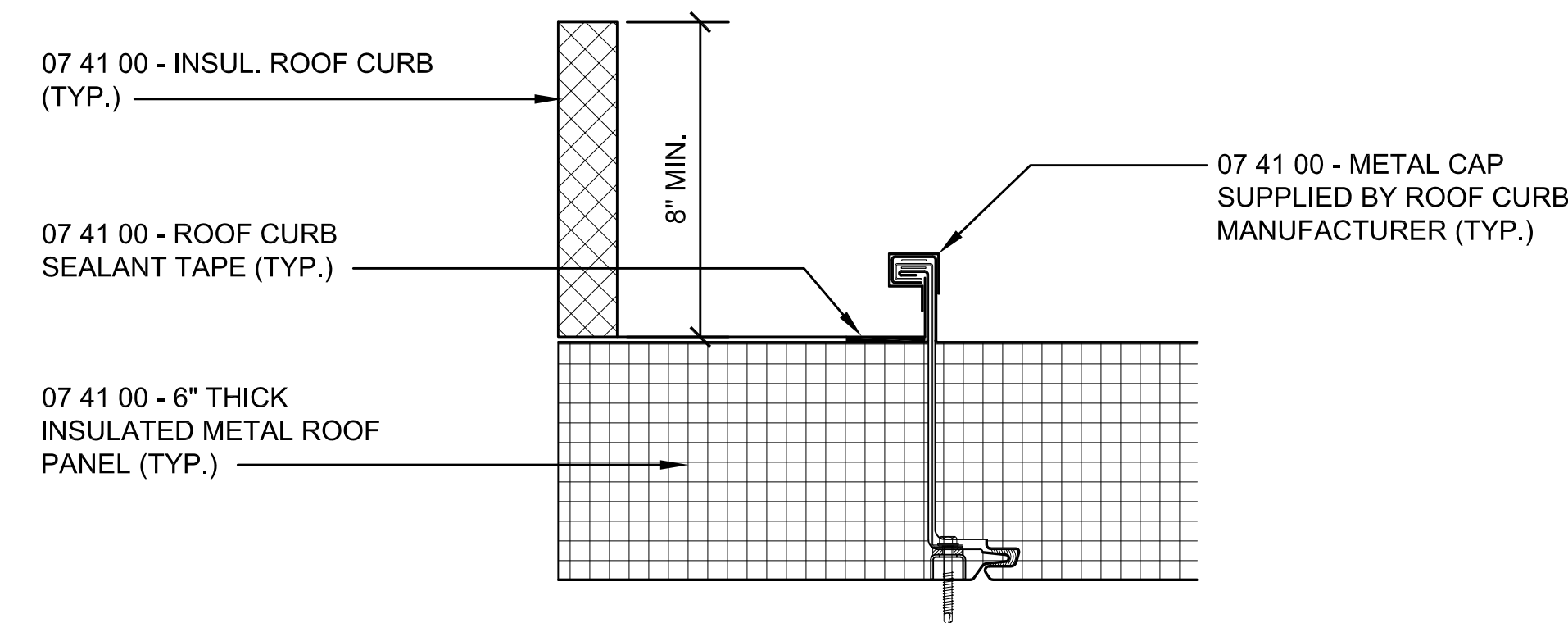
4 CANOPY EAVE DETAIL  
SCALE: 3"=1'-0"



5 CANOPY AT WALL DETAIL  
SCALE: 3"=1'-0"



6 TYPICAL PIPE FLASHING DETAIL  
SCALE: 3"=1'-0"



7 ROOF CURB DETAIL  
SCALE: 3"=1'-0"



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379 LIBERTY STREET  
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DATE	5/15/19
SCALE	3" = 1'-0"
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PROJECT NO.	19001

BUILDING:

SHEET TITLE:

ROOF DETAILS

DRAWING NO.

A-501





# TOWN OF MONTAGUE

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OWNER:  
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ONE AVENUE A  
TURNERS FALLS, MA 01376

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379 LIBERTY STREET  
ROCKLAND, MA 02370

STAMP

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DATE 5/15/19

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DRAWN BY MTV

CHECKED BY GKY

PROJECT NO. 19001

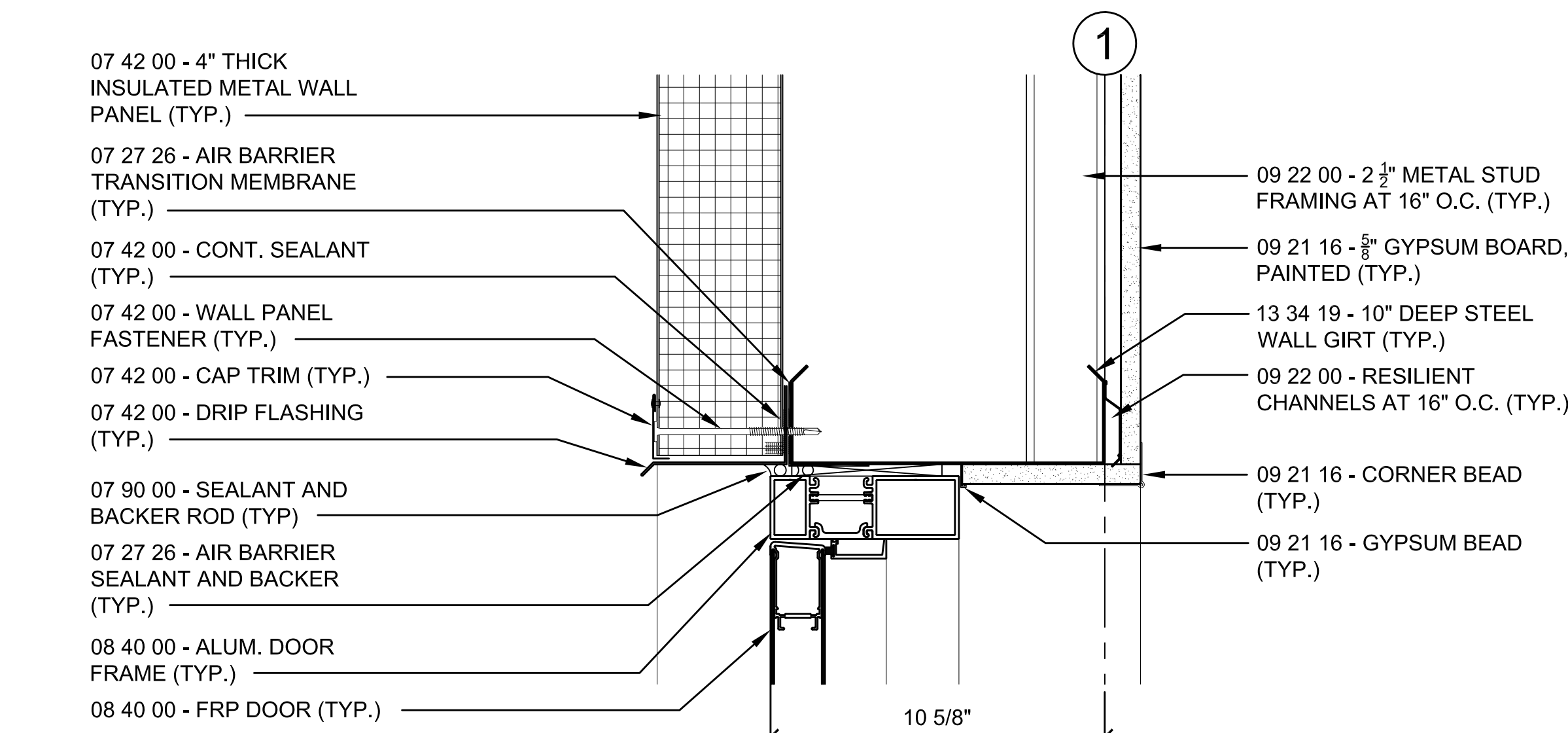
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SHEET TITLE:

DOOR AND WINDOW  
DETAILS SHEET 1

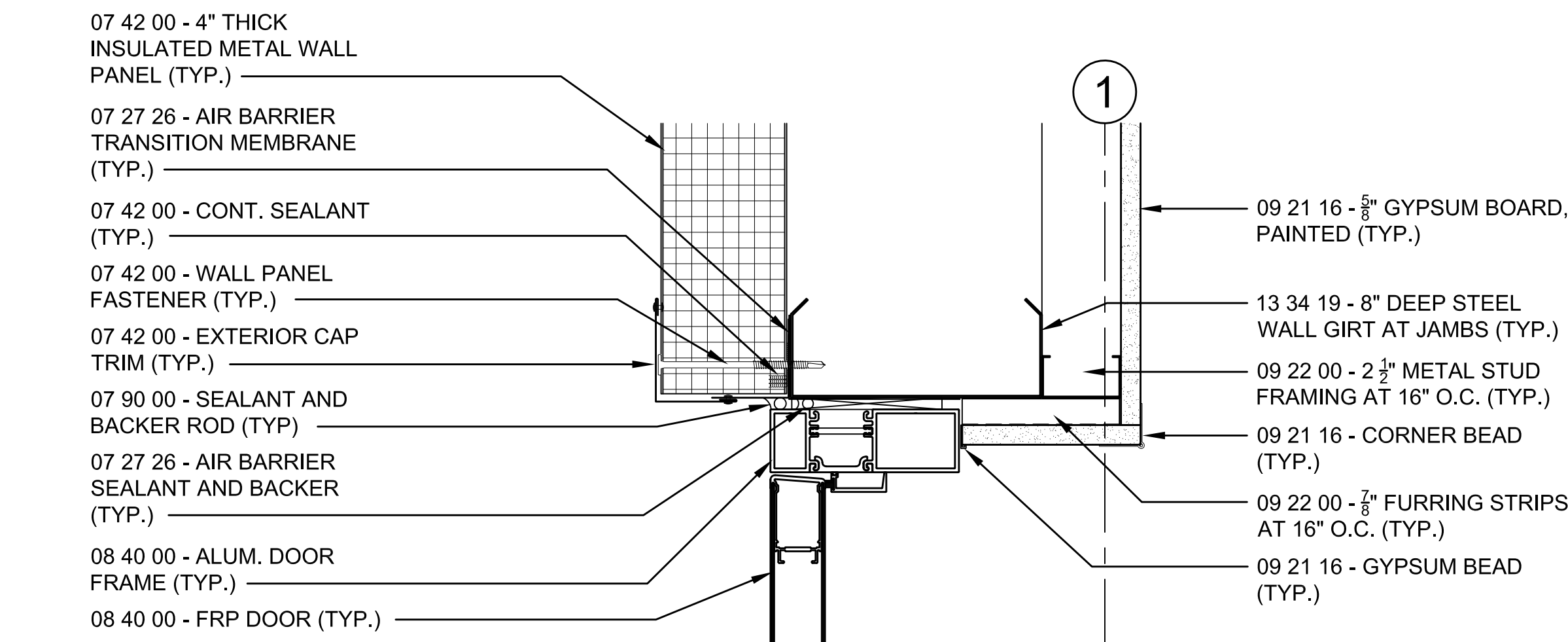
DRAWING NO.

A-502



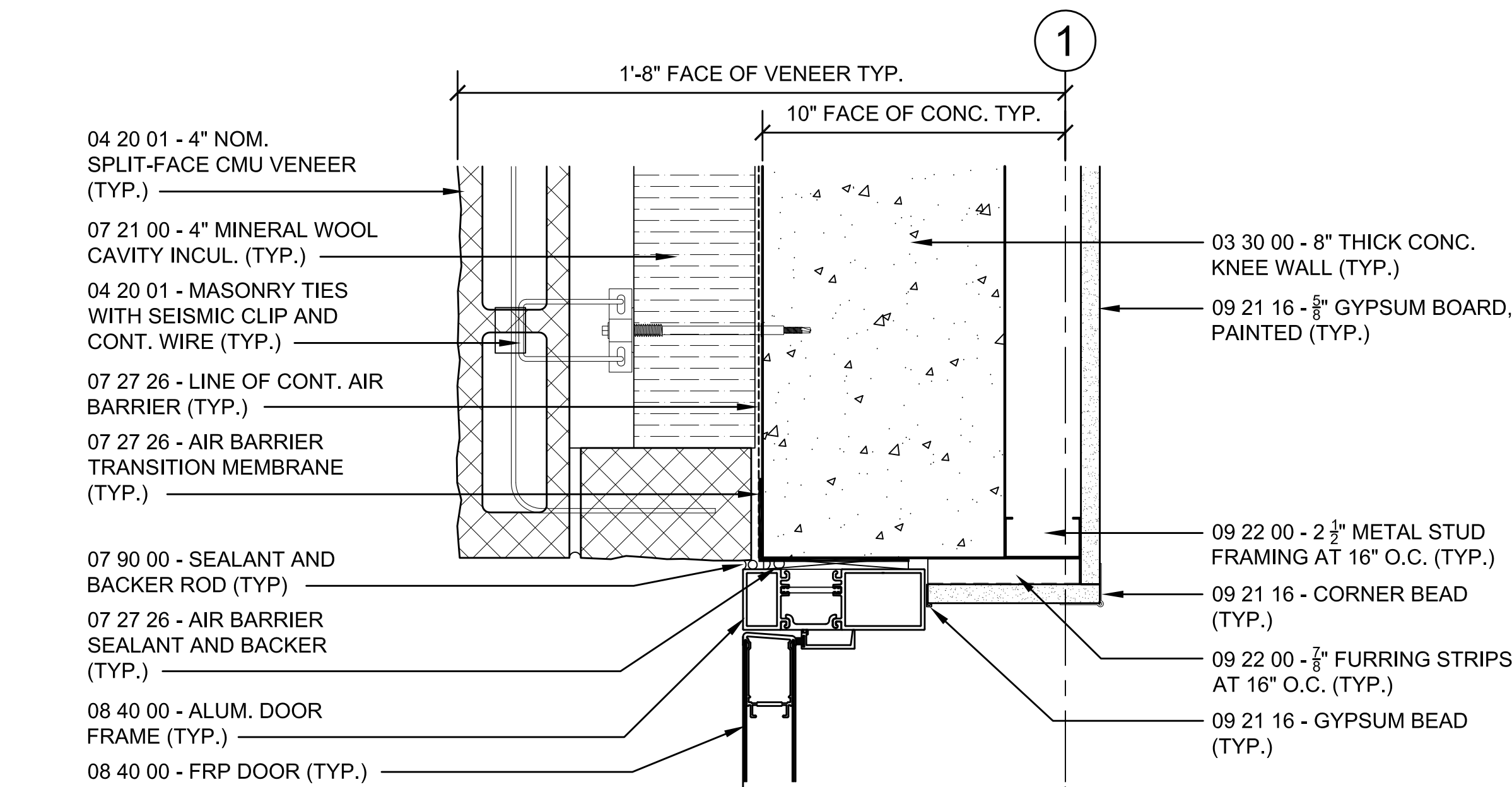
1 DOOR HEAD DETAIL

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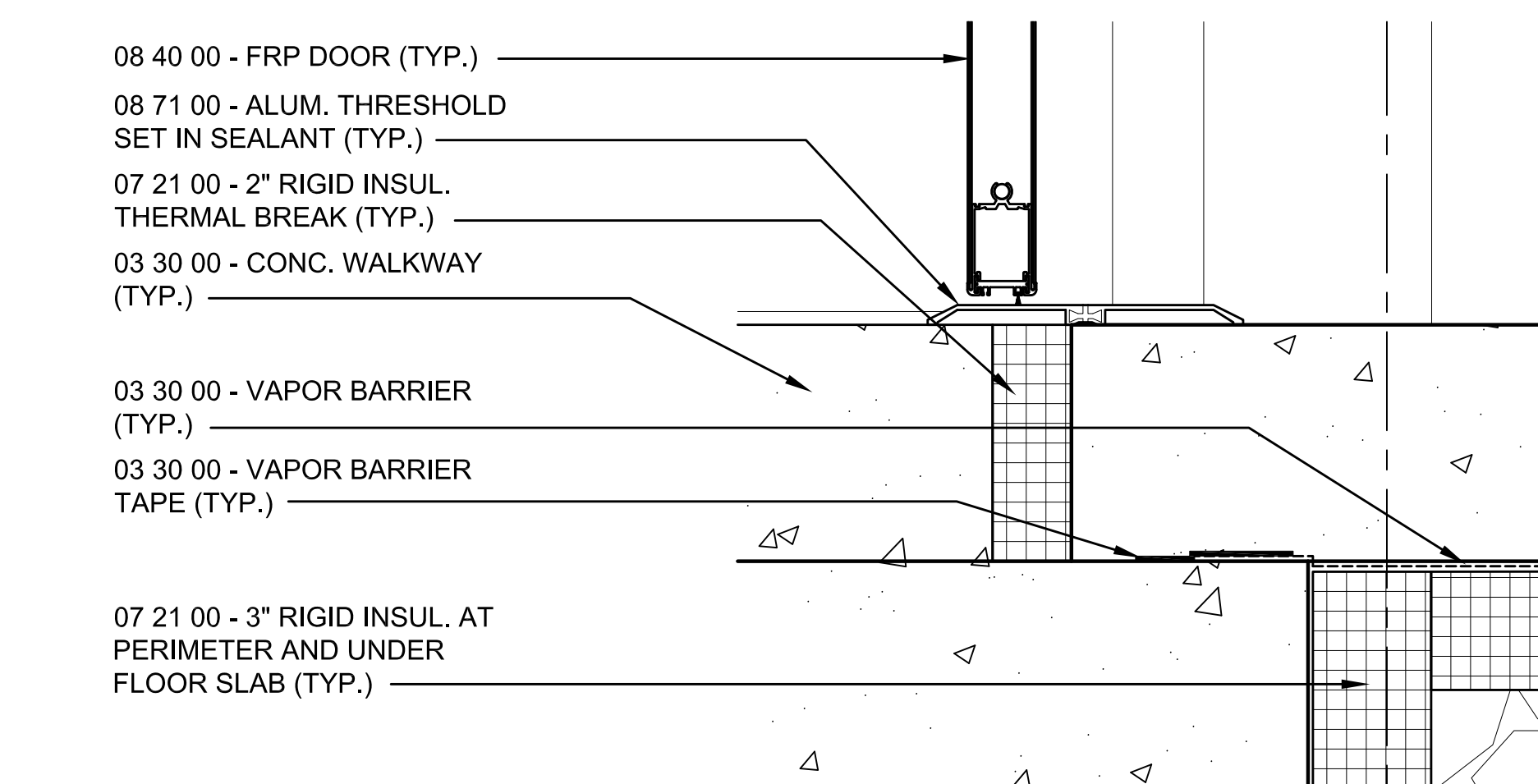
2 DOOR JAMB DETAIL

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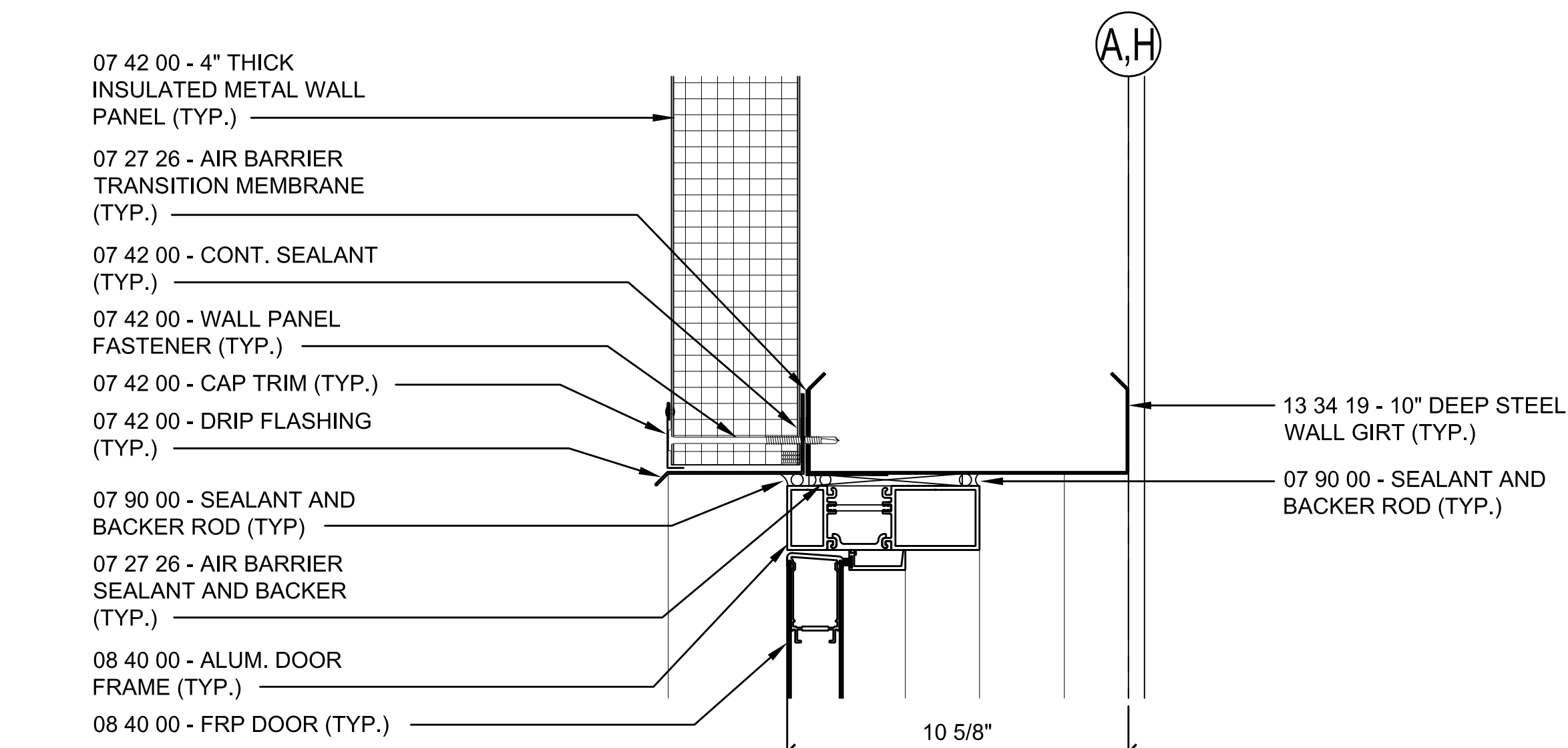
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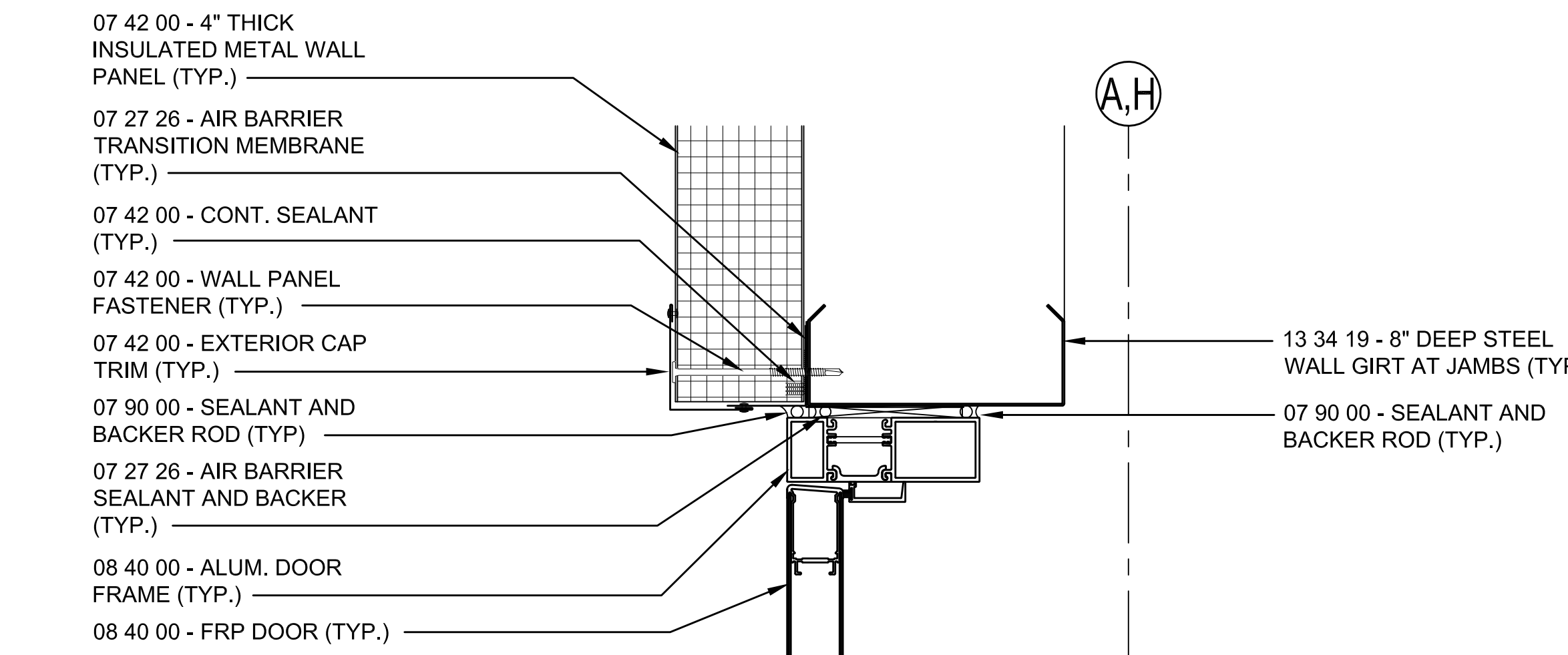
4 DOOR THRESHOLD DETAIL

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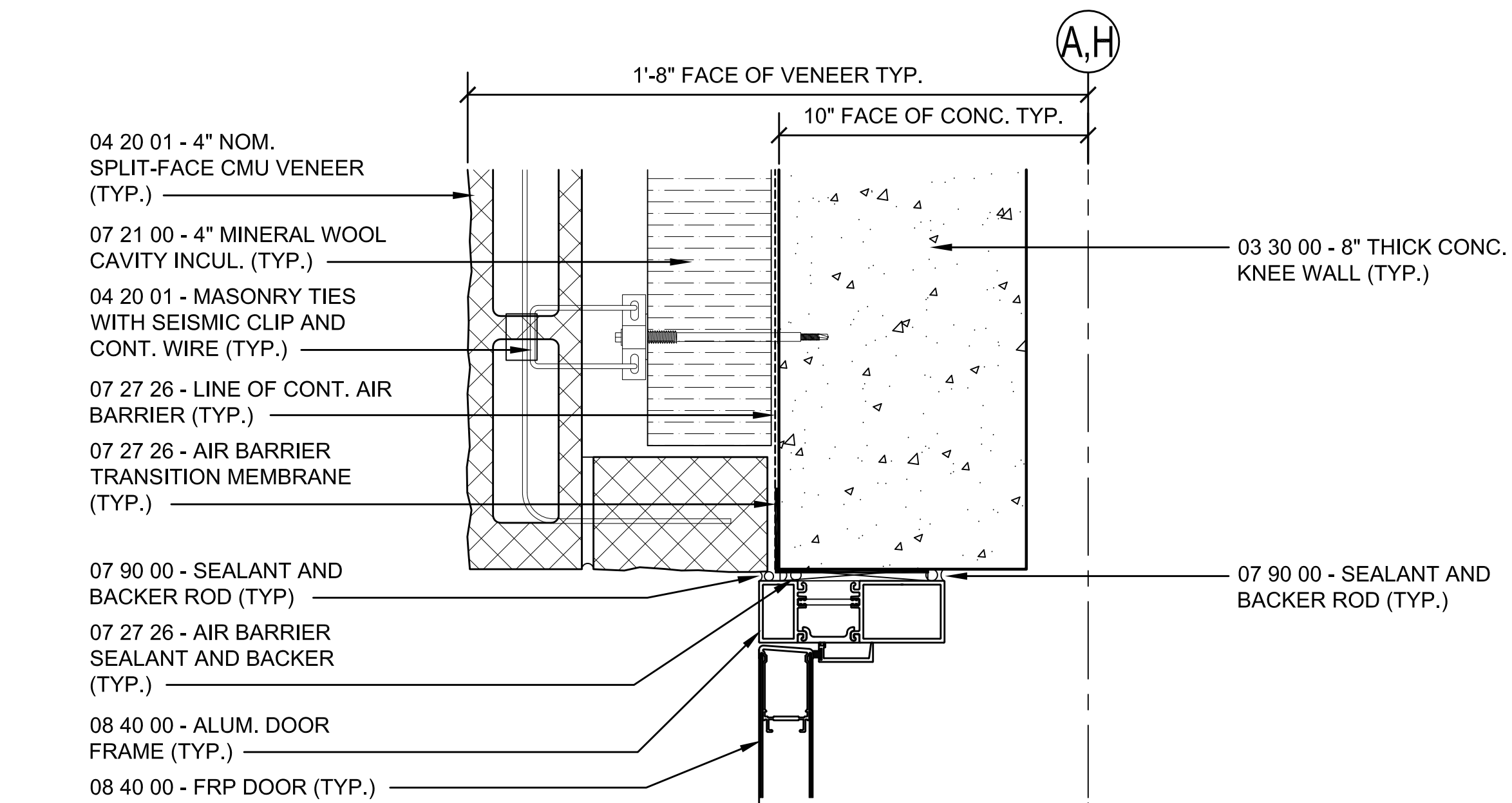
5 DOOR HEAD DETAIL

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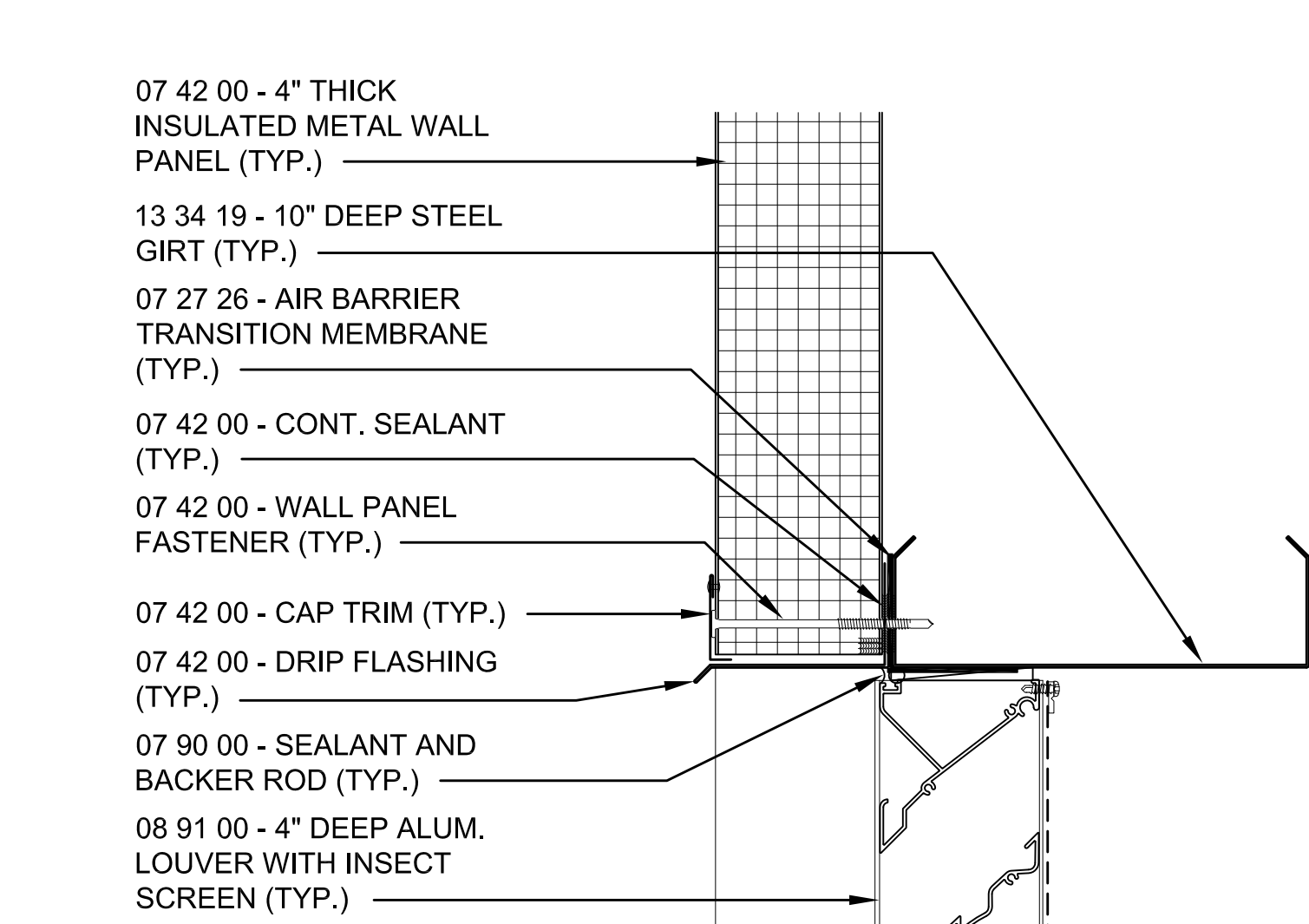
6 DOOR JAMB DETAIL

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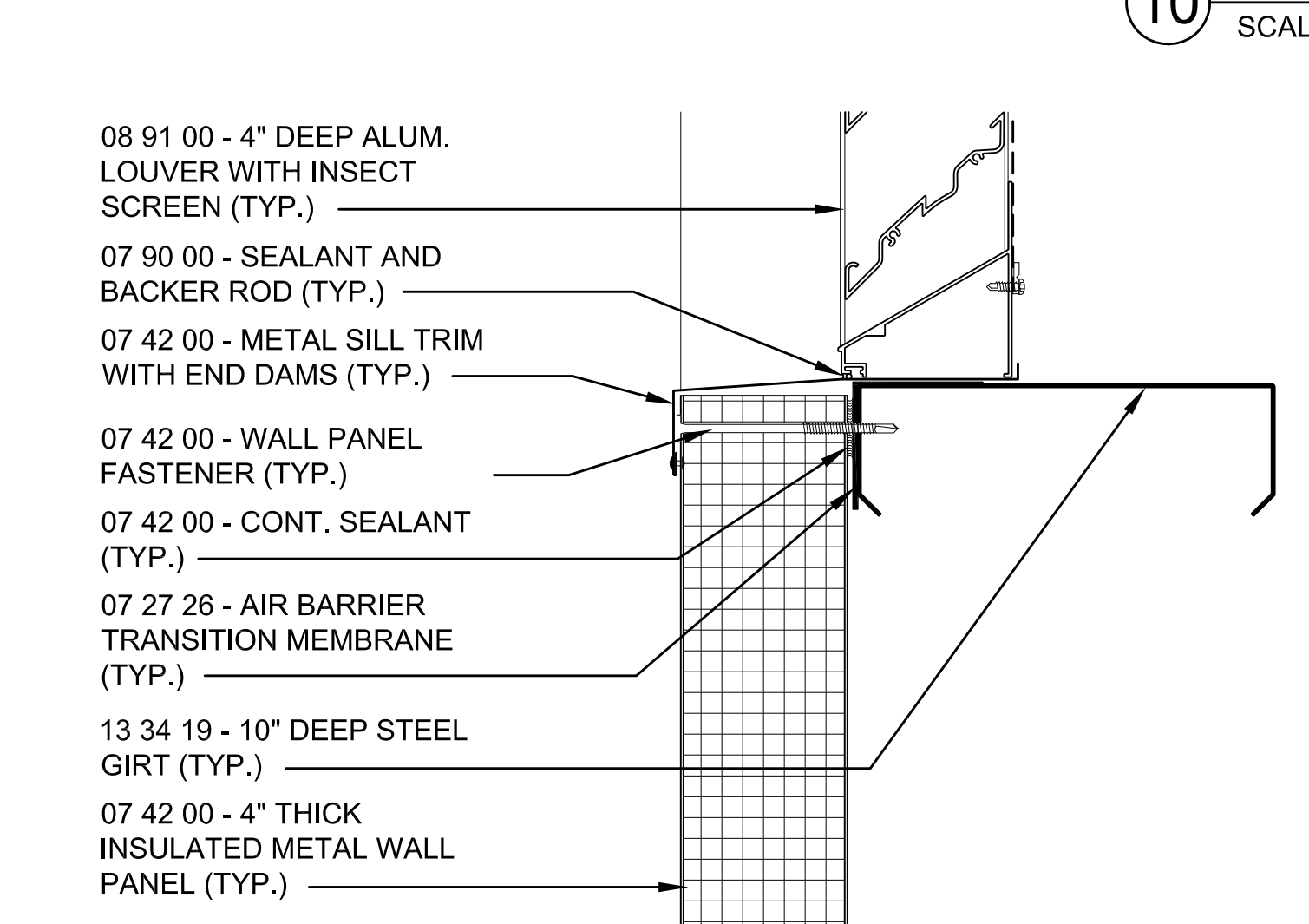
7 DOOR JAMB DETAIL

SCALE: 3"=1'-0"



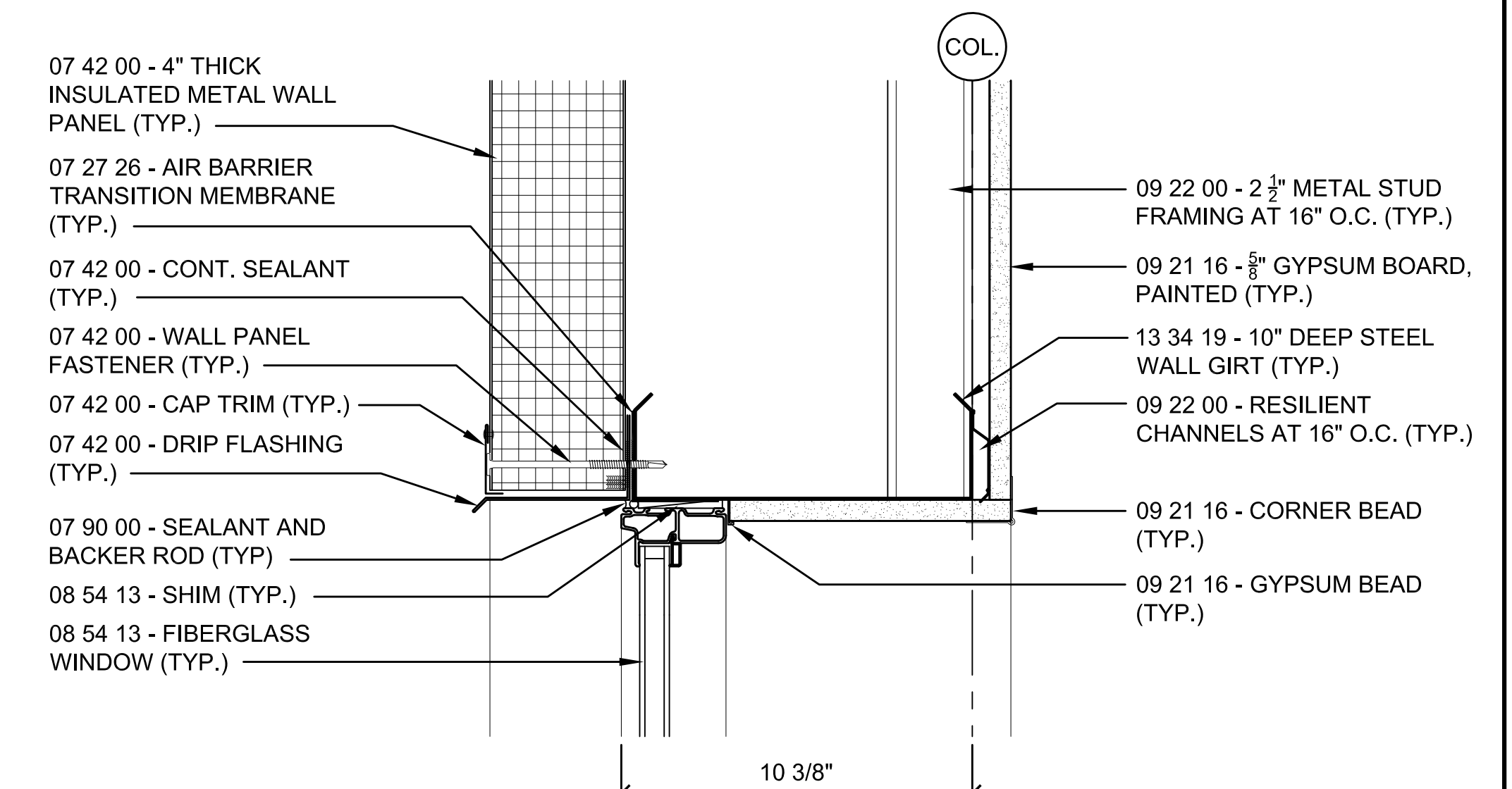
11 LOUVER HEAD DETAIL

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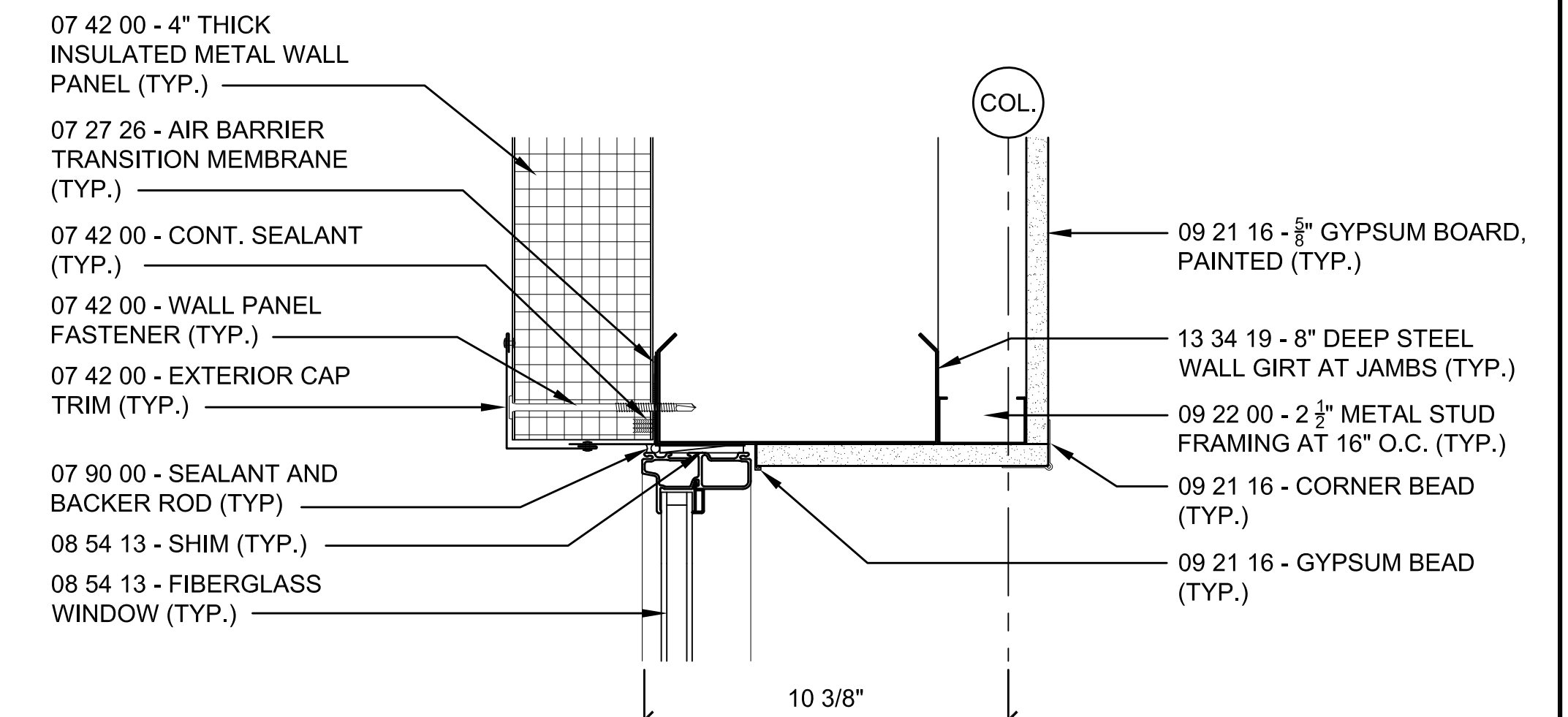
12 LOUVER SILL DETAIL

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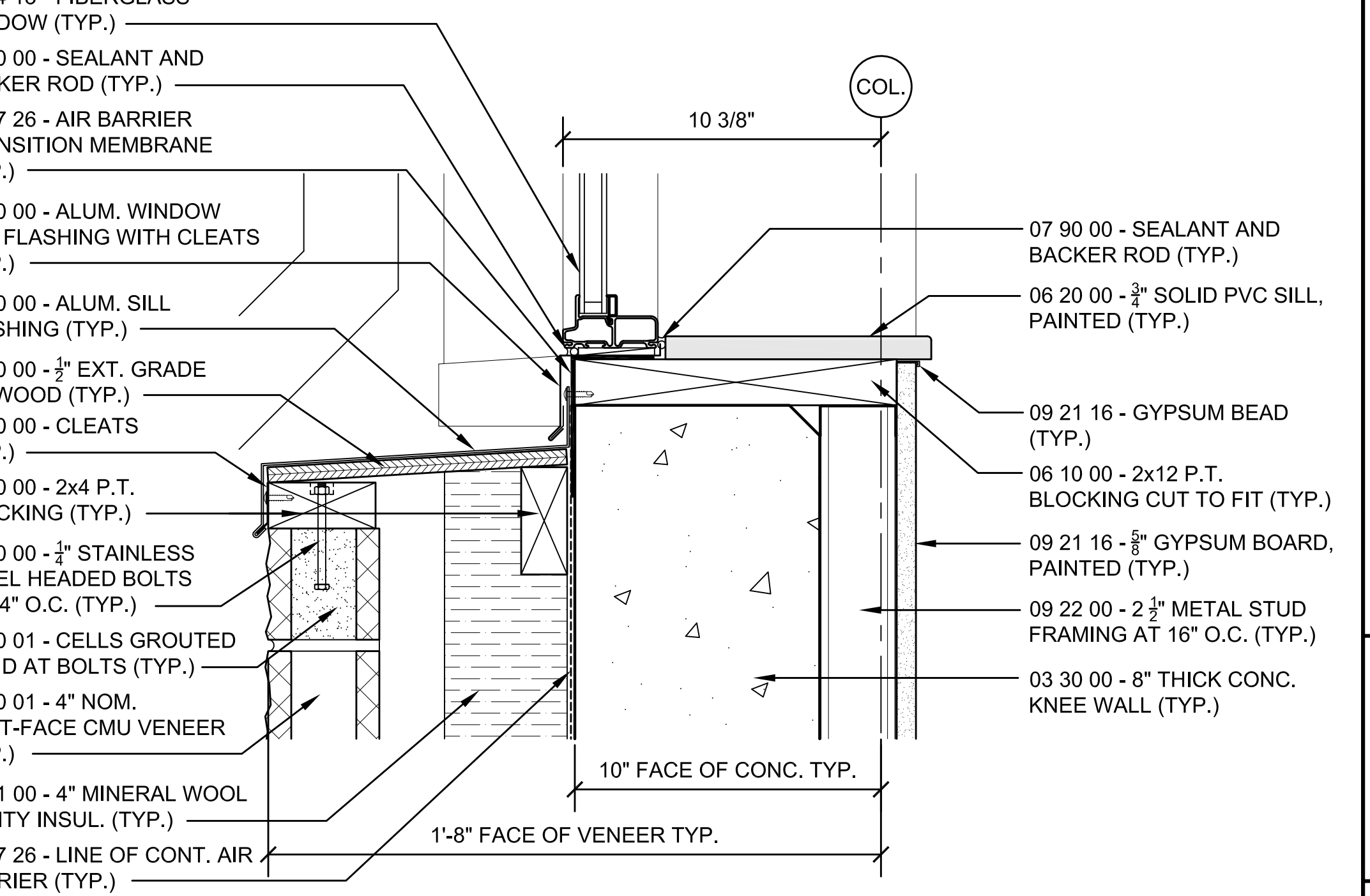
8 WINDOW HEAD DETAIL

SCALE: 3"=1'-0"



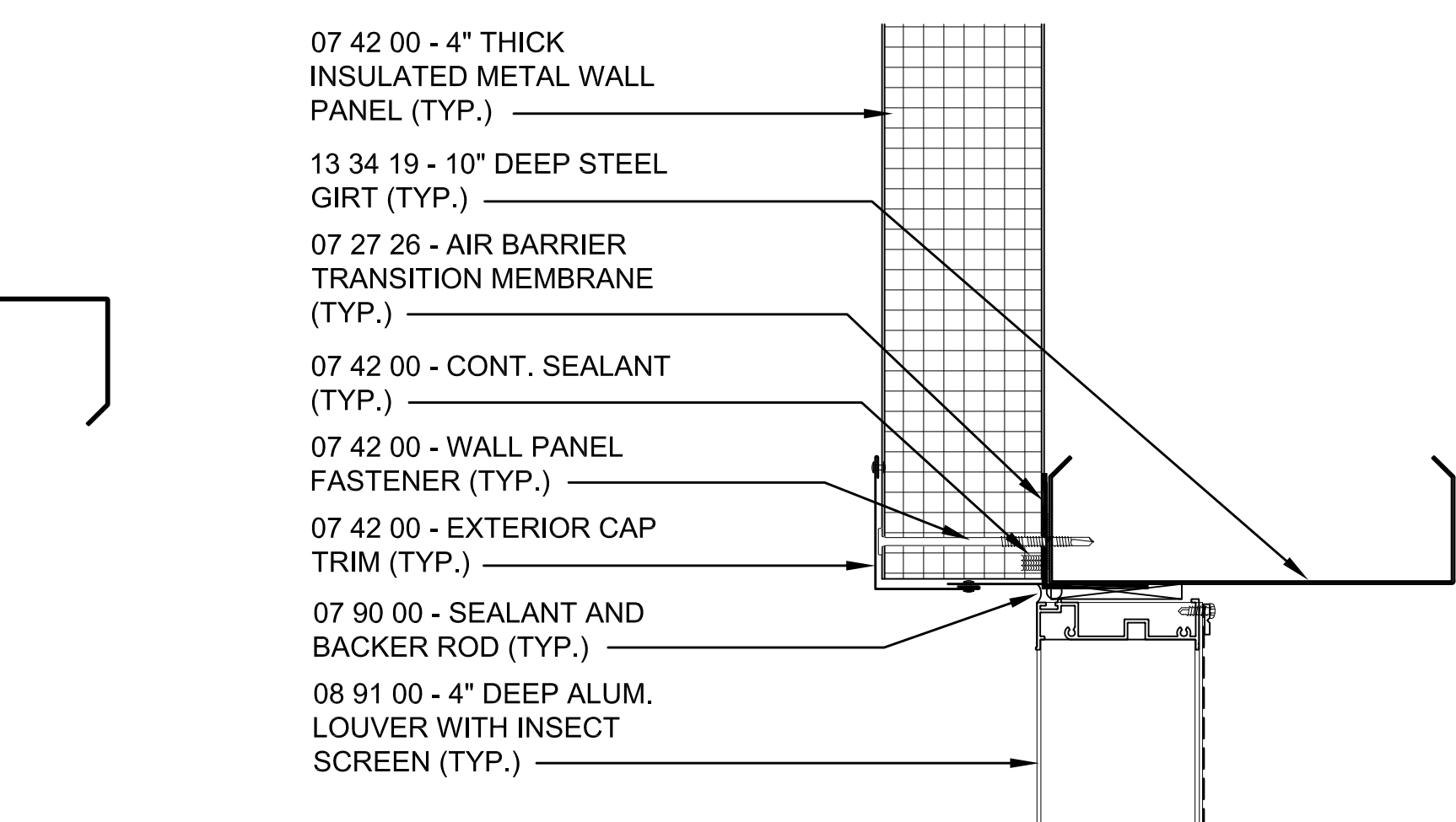
9 WINDOW JAMB DETAIL

SCALE: 3"=1'-0"



10 WINDOW SILL DETAIL

SCALE: 3"=1'-0"



13 LOUVER JAMB DETAIL

SCALE: 3"=1'-0"





## TOWN OF MONTAGUE

### NEW DPW FACILITY

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TURNERS FALLS, MA 01376

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CONSTRUCTION AND ENGINEERING, INC.  
379 LIBERTY STREET  
ROCKLAND, MA 02370

STAMP

REV	DATE	DESCRIPTION

DATE 5/15/19

SCALE 3" = 1'-0"

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CHECKED BY GKY

PROJECT NO. 19001

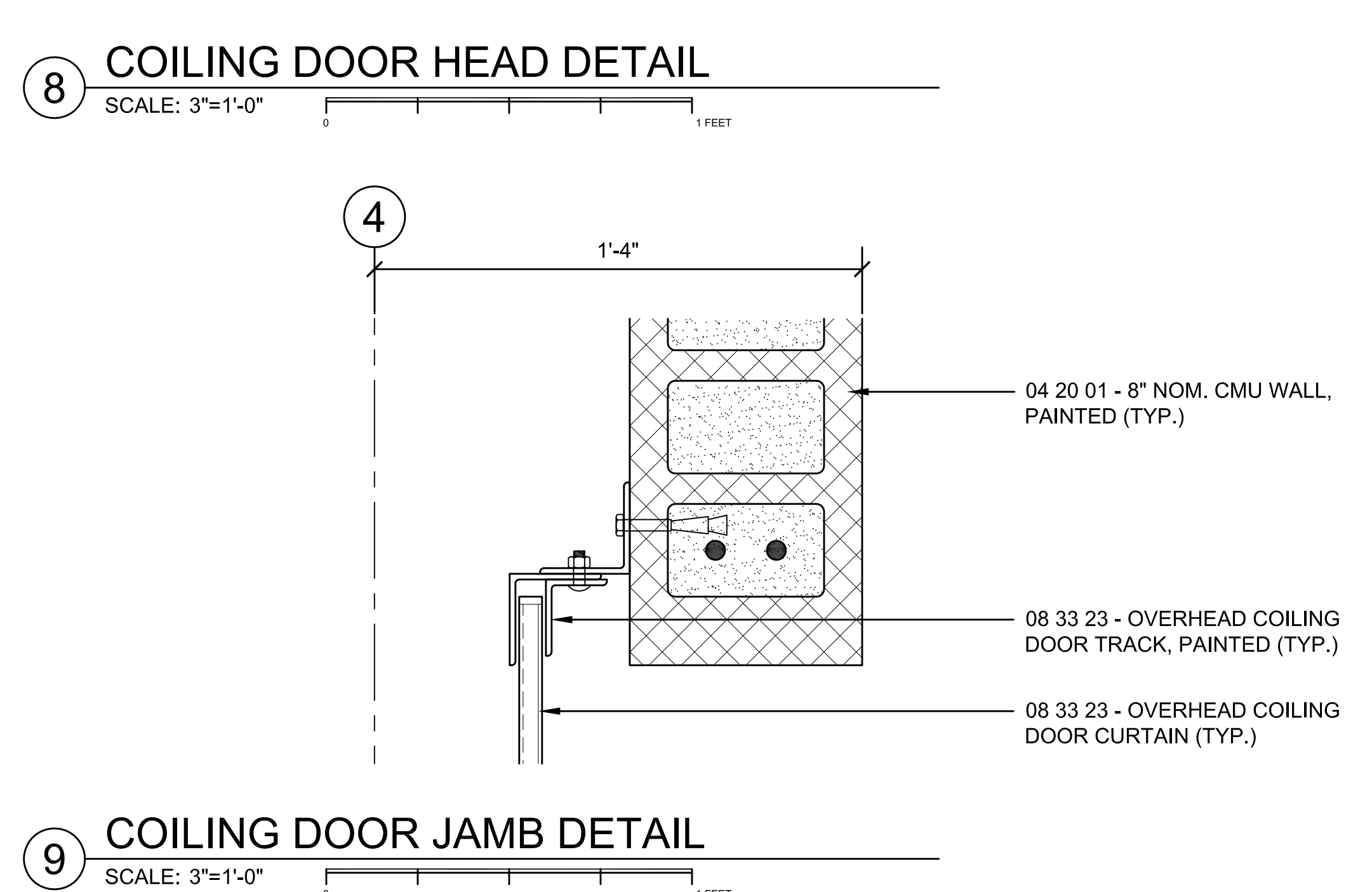
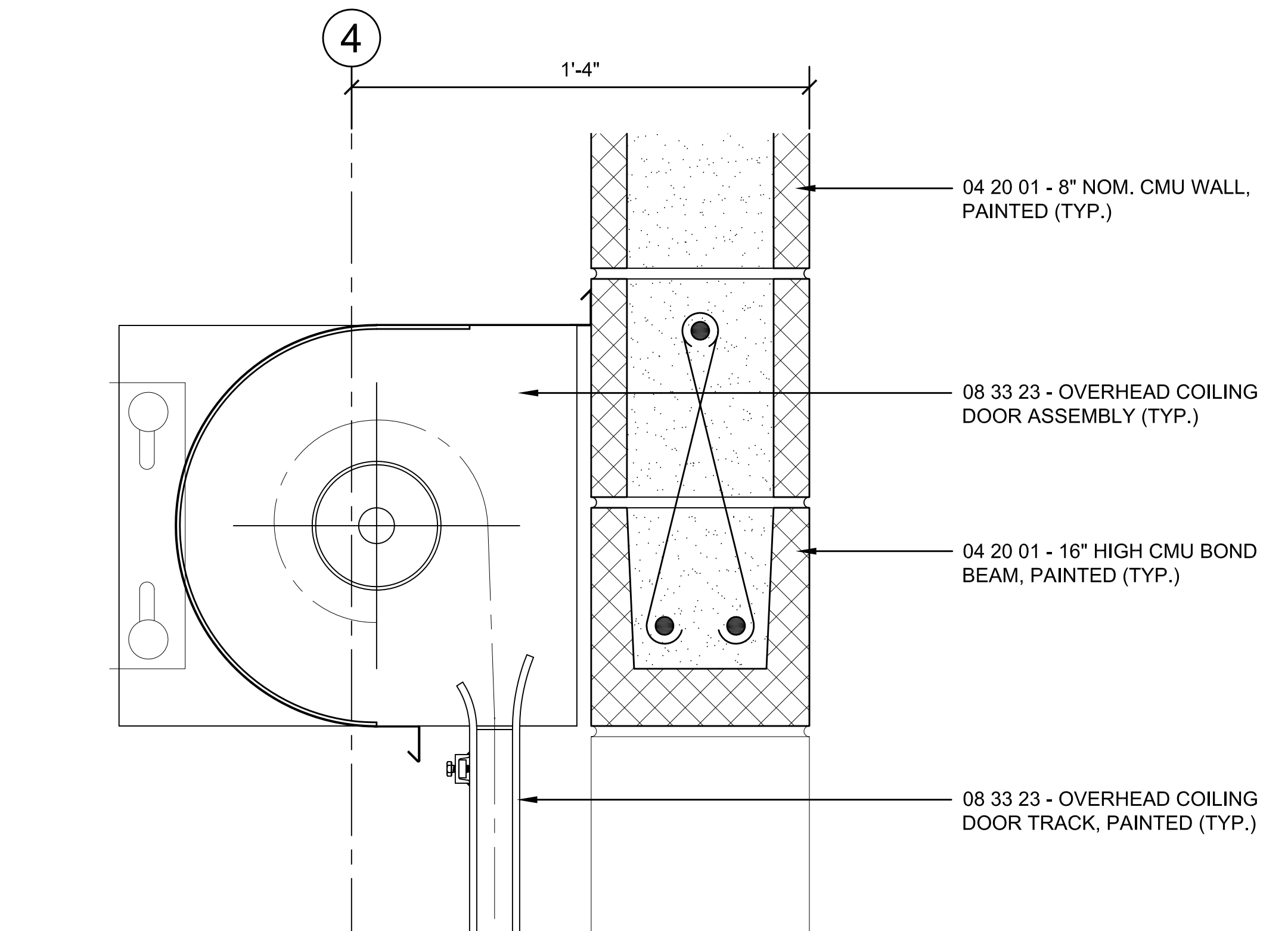
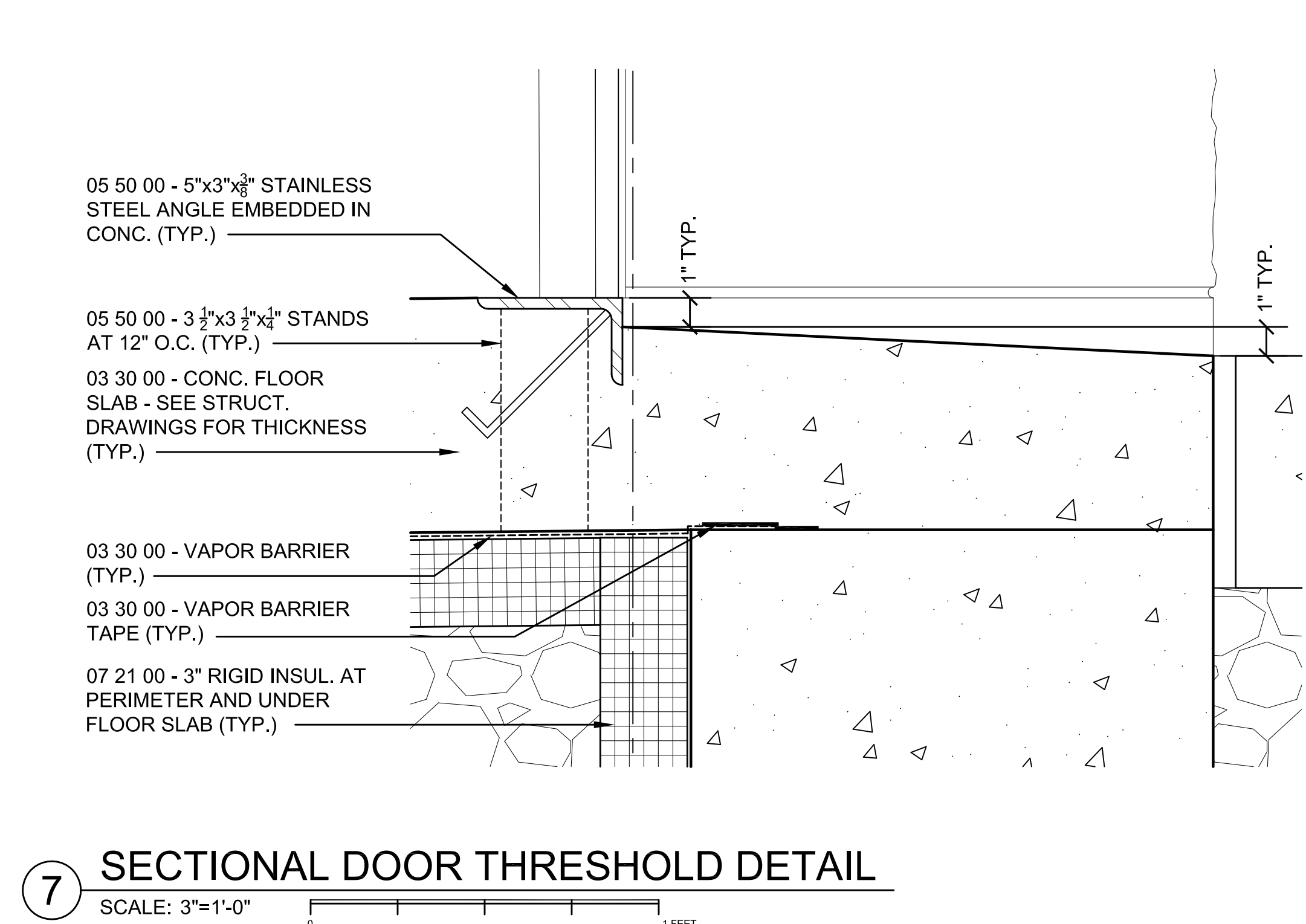
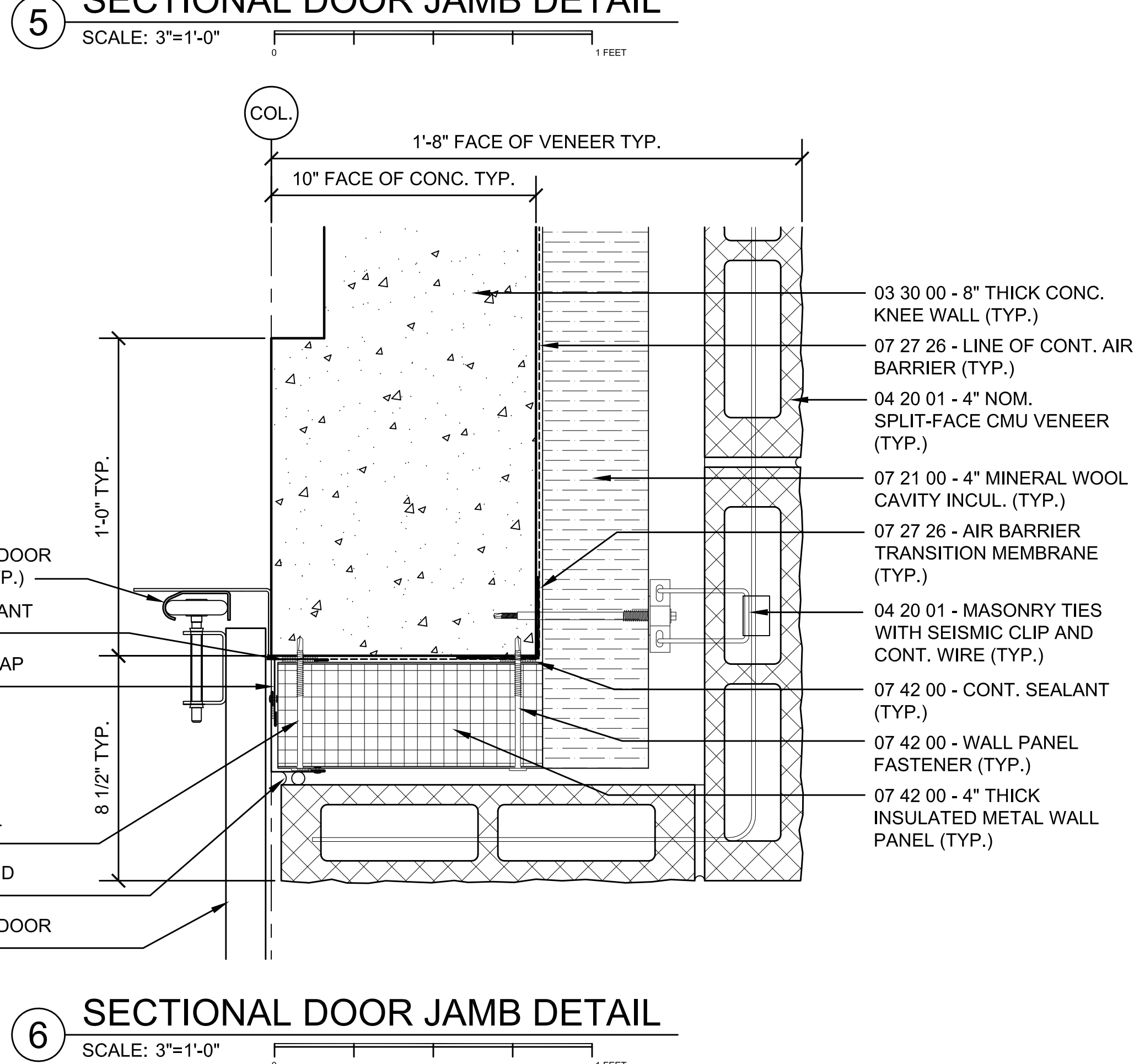
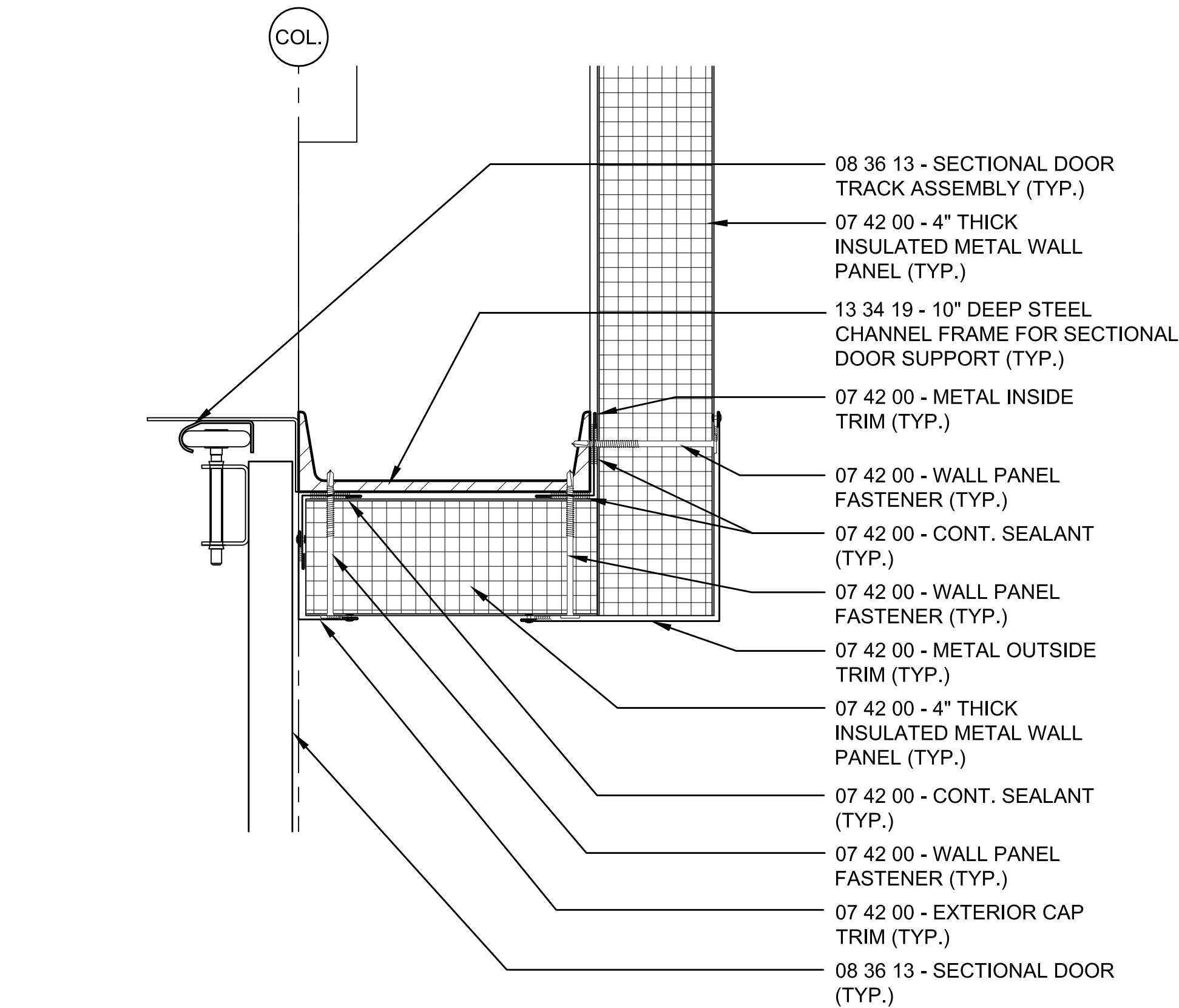
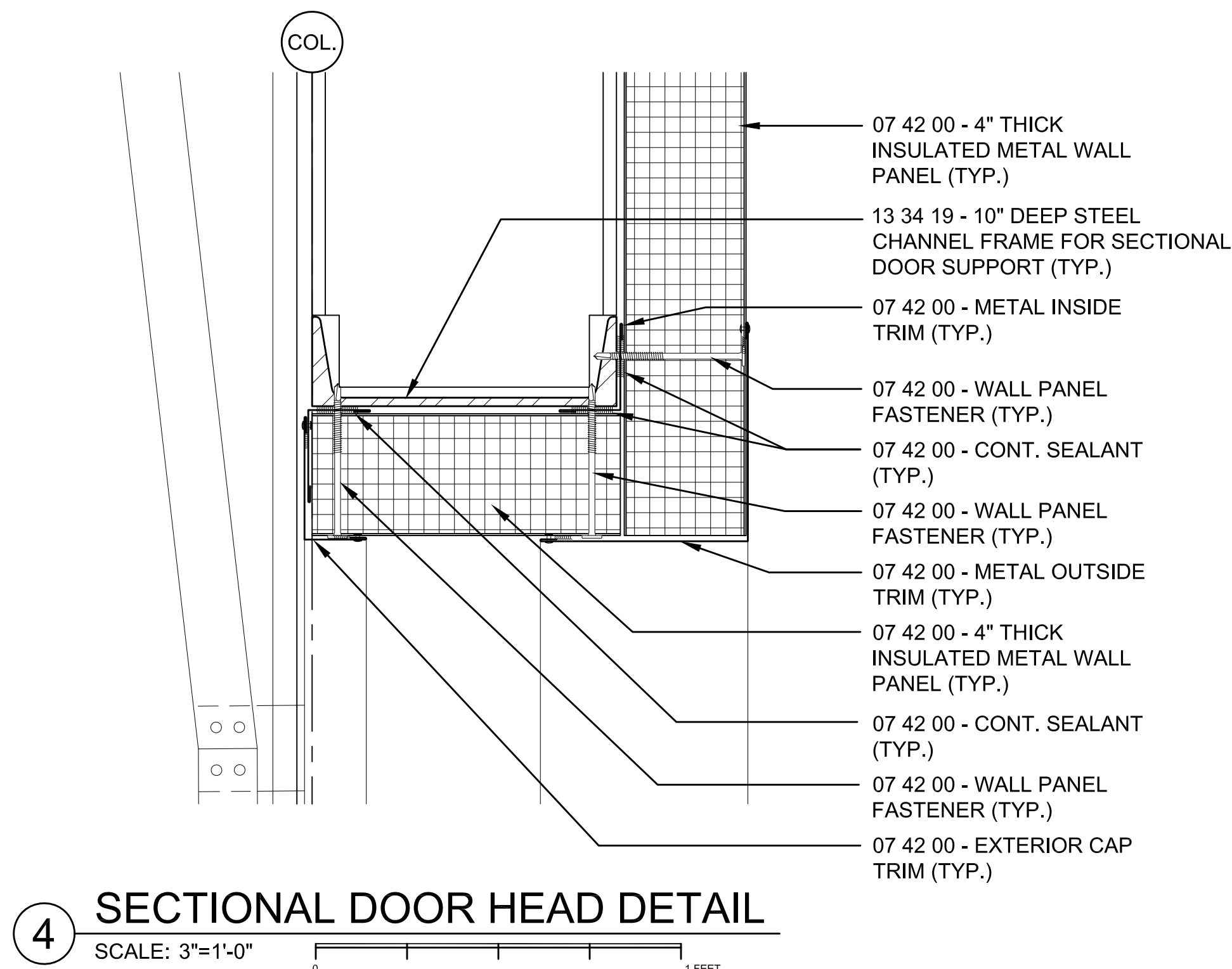
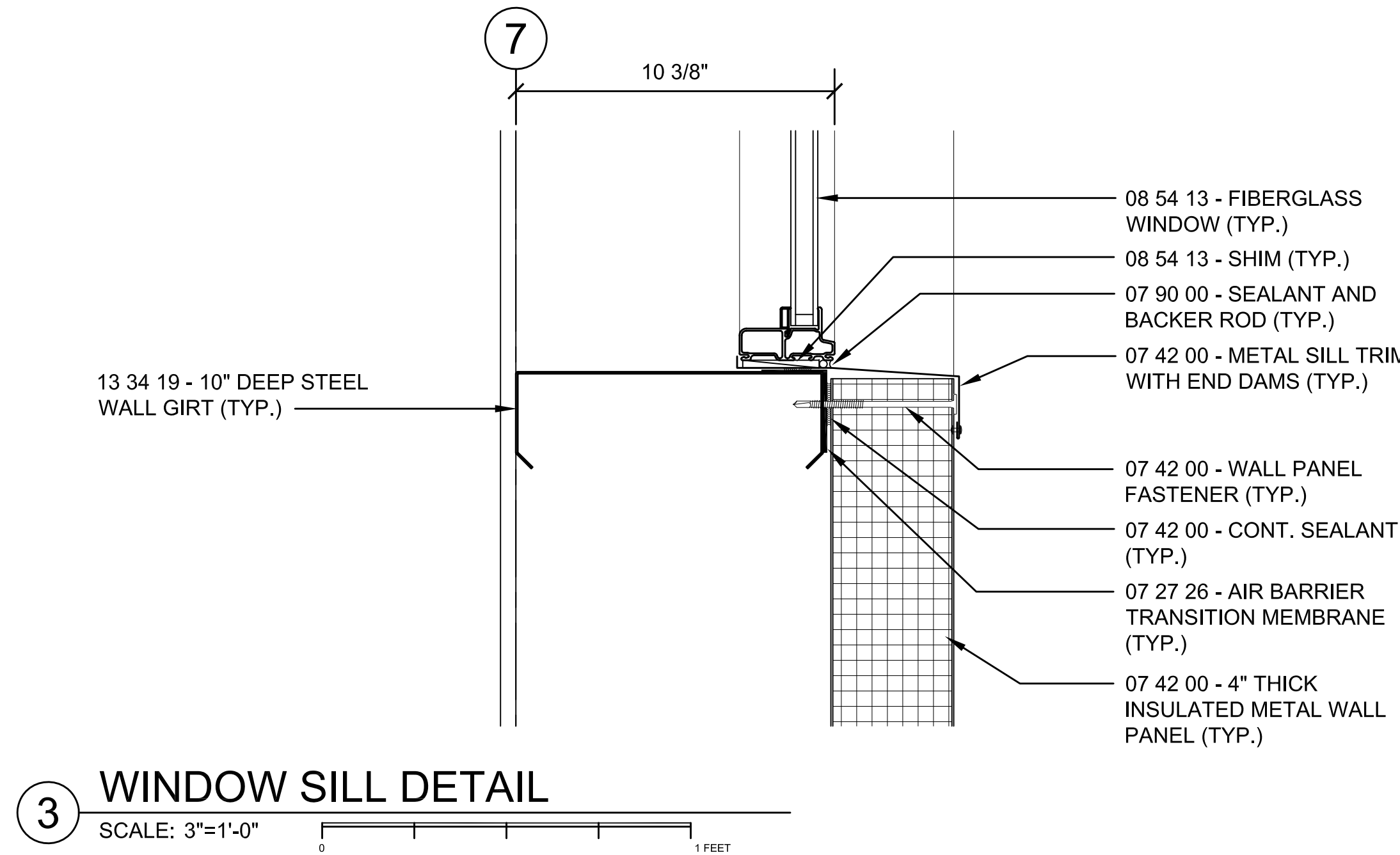
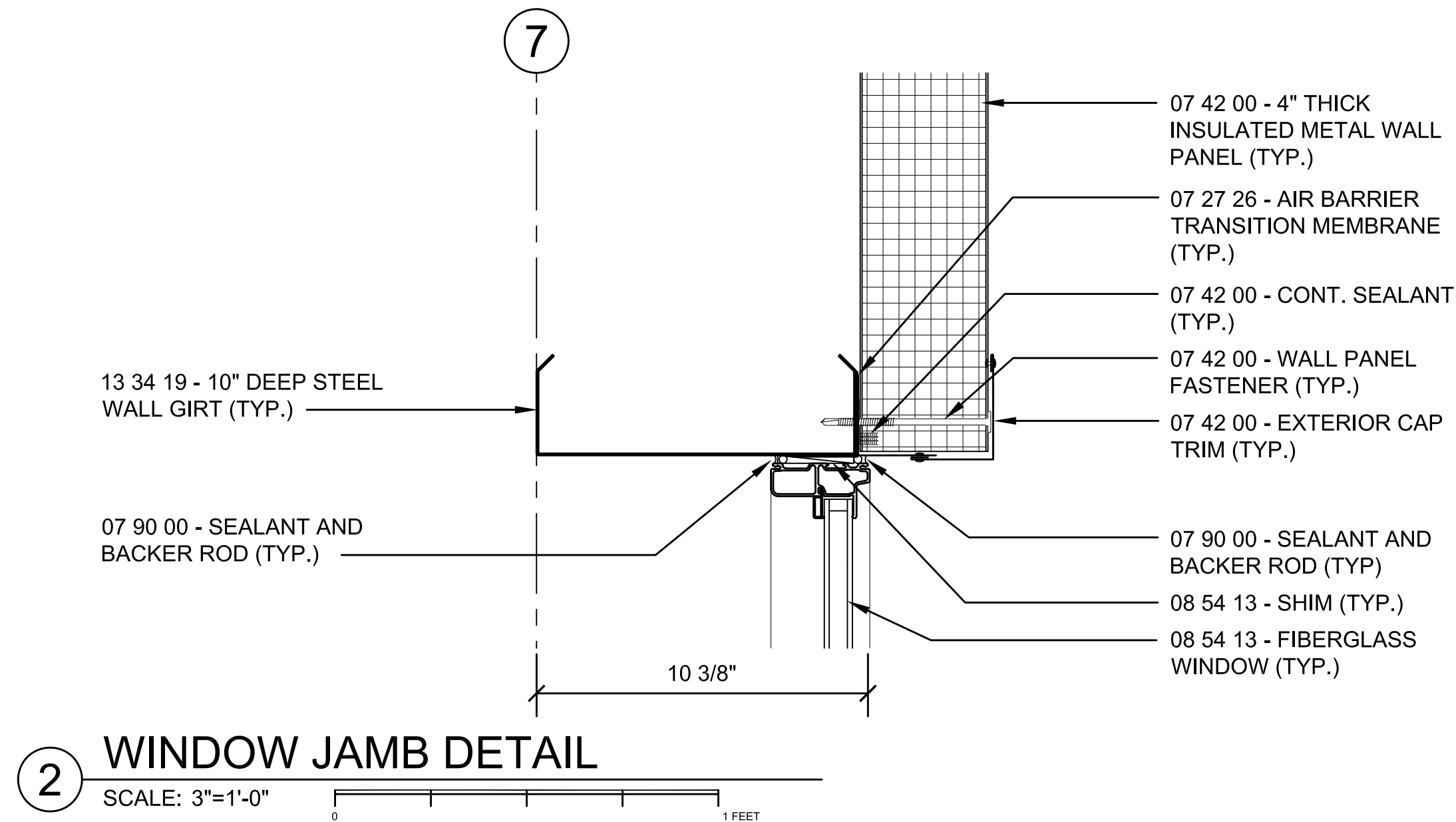
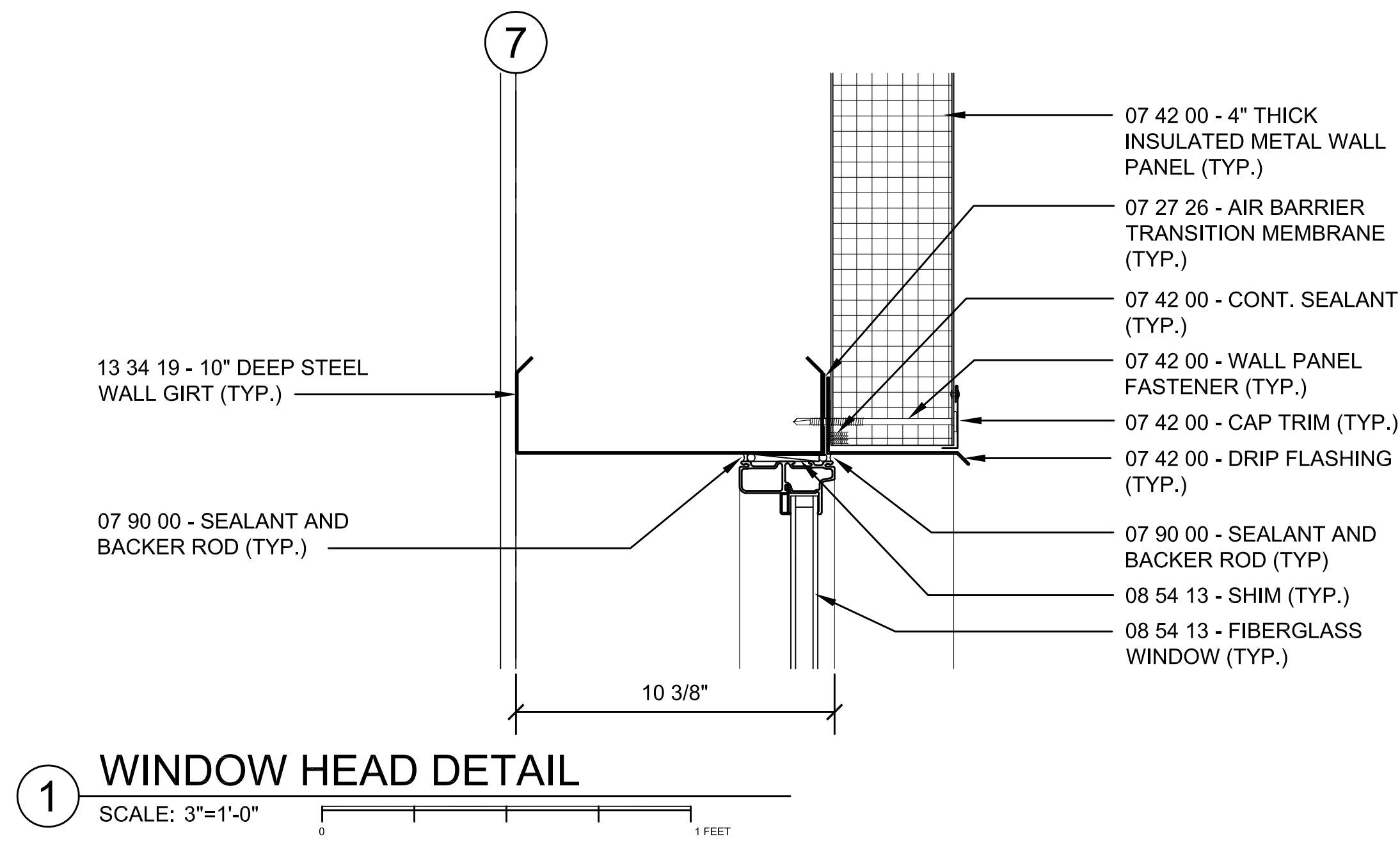
BUILDING:

SHEET TITLE:

DOOR AND WINDOW  
DETAILS SHEET 2

DRAWING NO.

A-503







## TOWN OF MONTAGUE

### NEW DPW FACILITY

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ONE AVENUE A  
TURNERS FALLS, MA 01376

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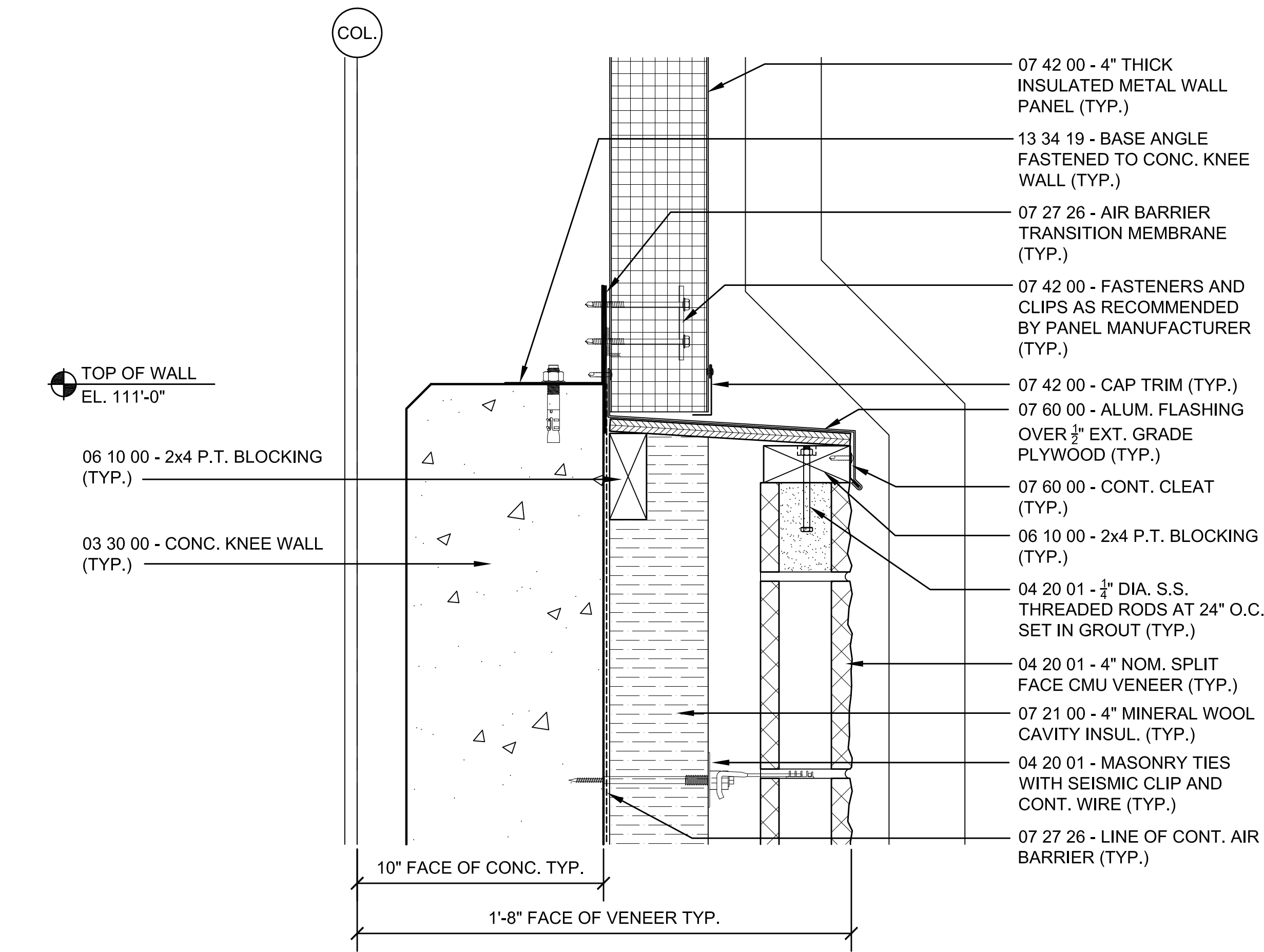
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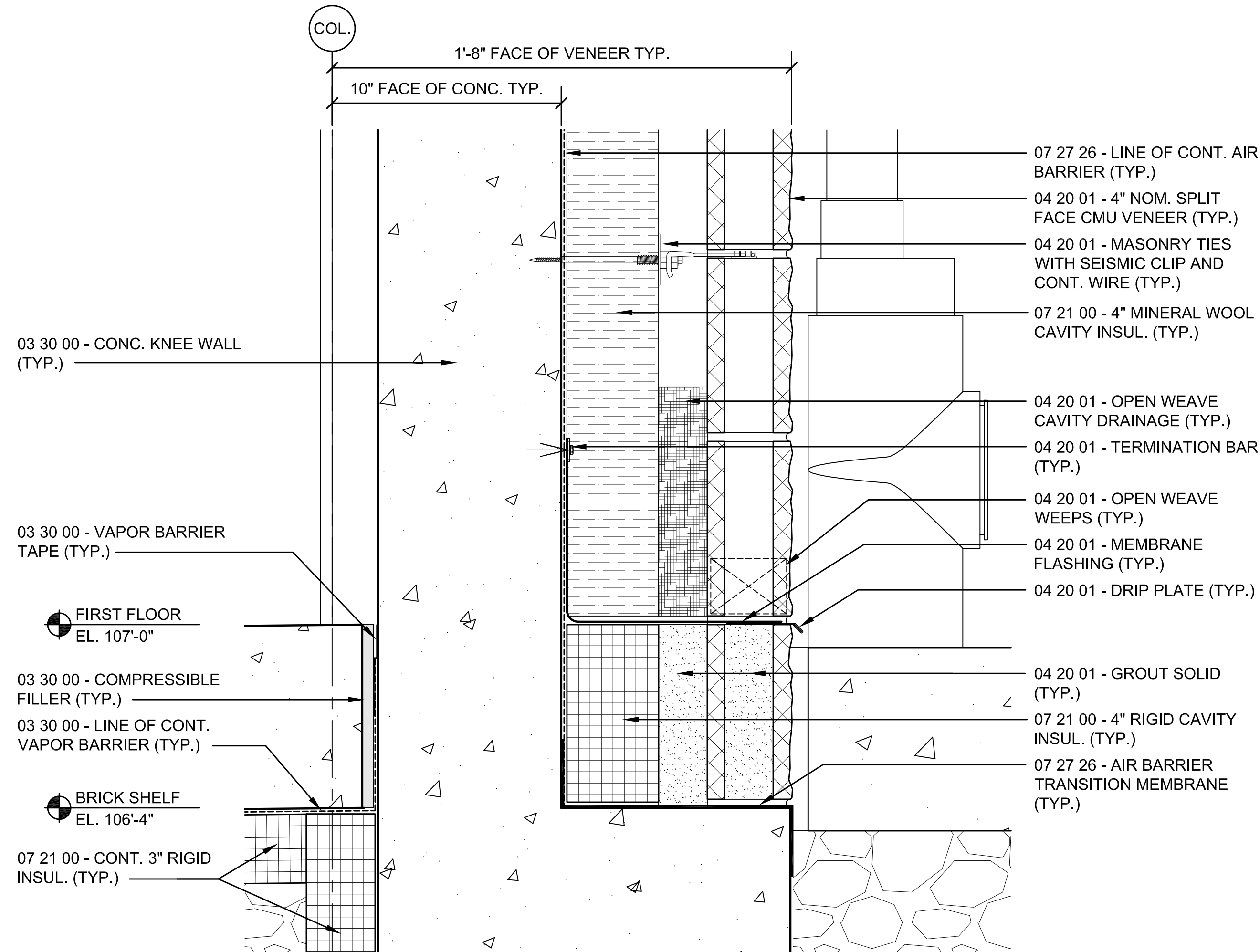
EXTERIOR DETAILS

DRAWING NO.

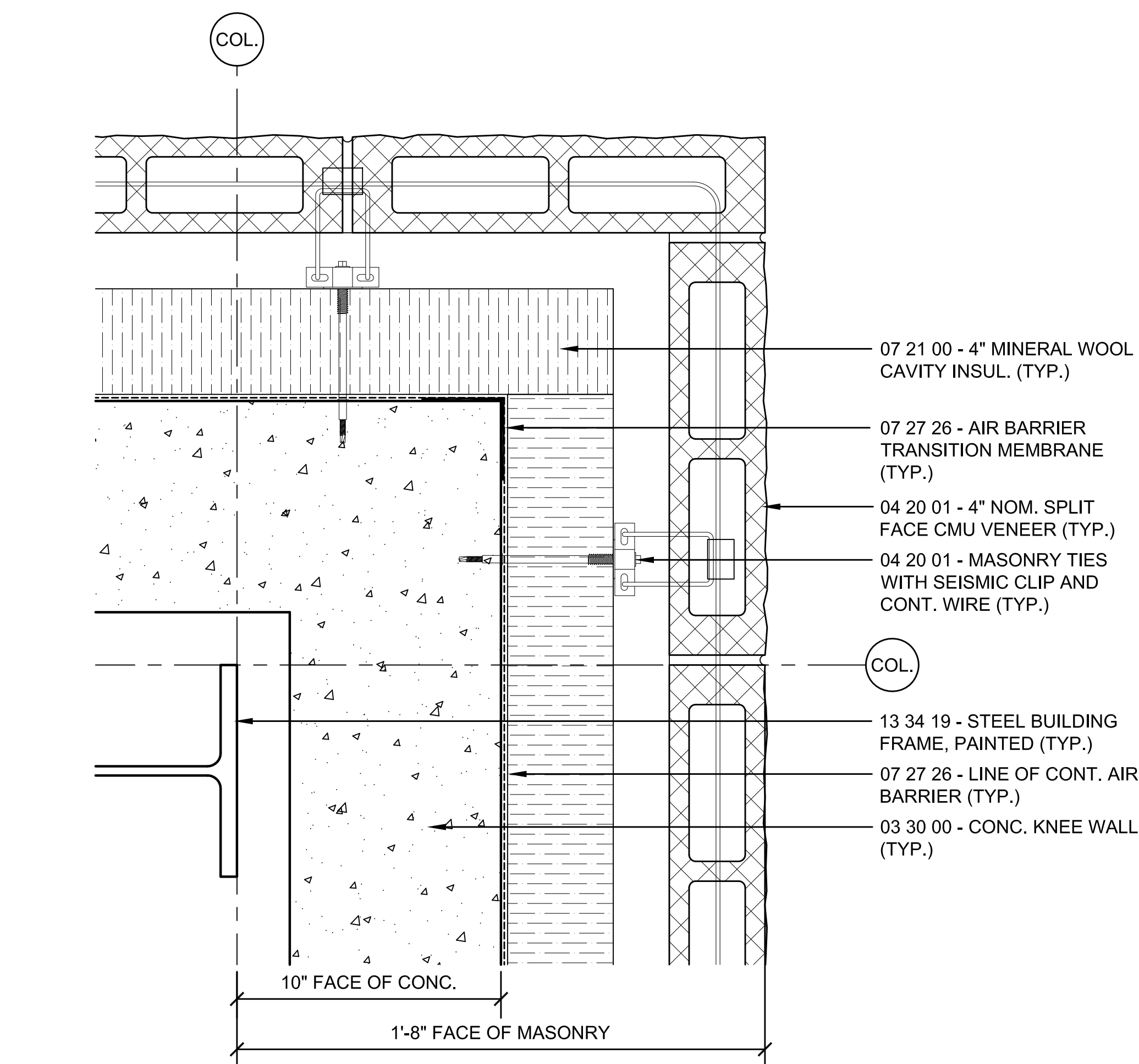
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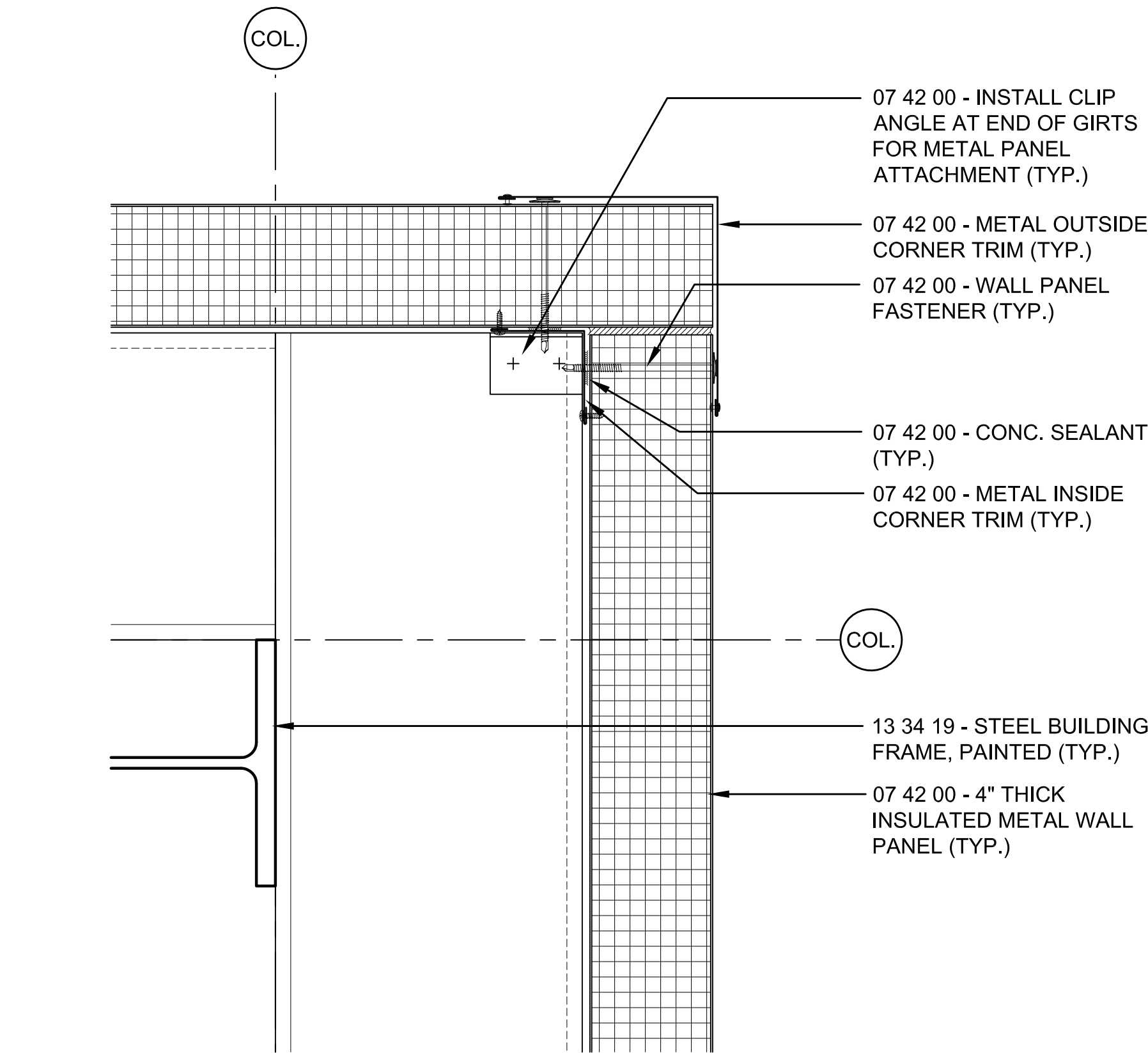
1 TYPICAL KNEE WALL DETAIL  
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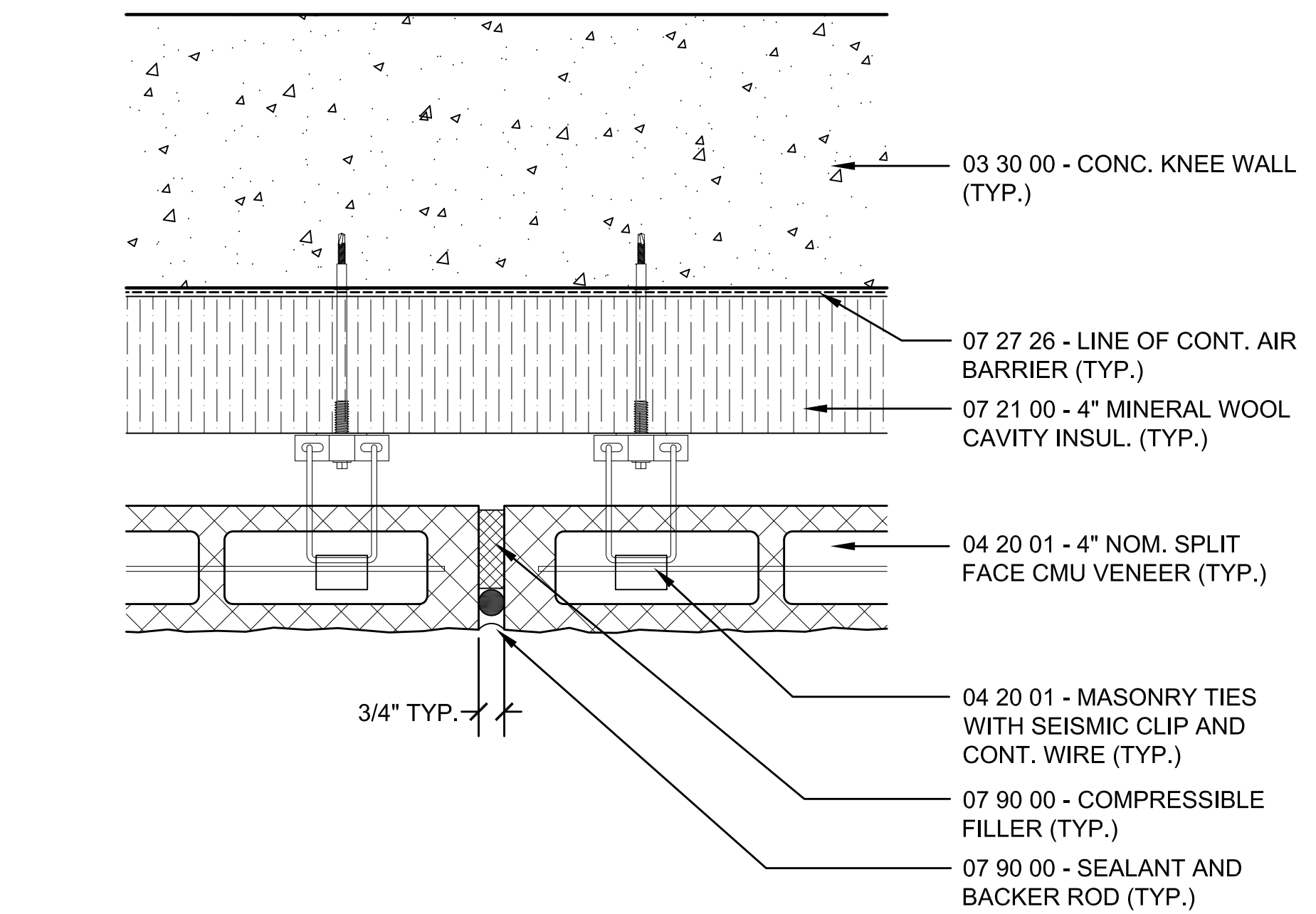
2 TYPICAL KNEE WALL DETAIL  
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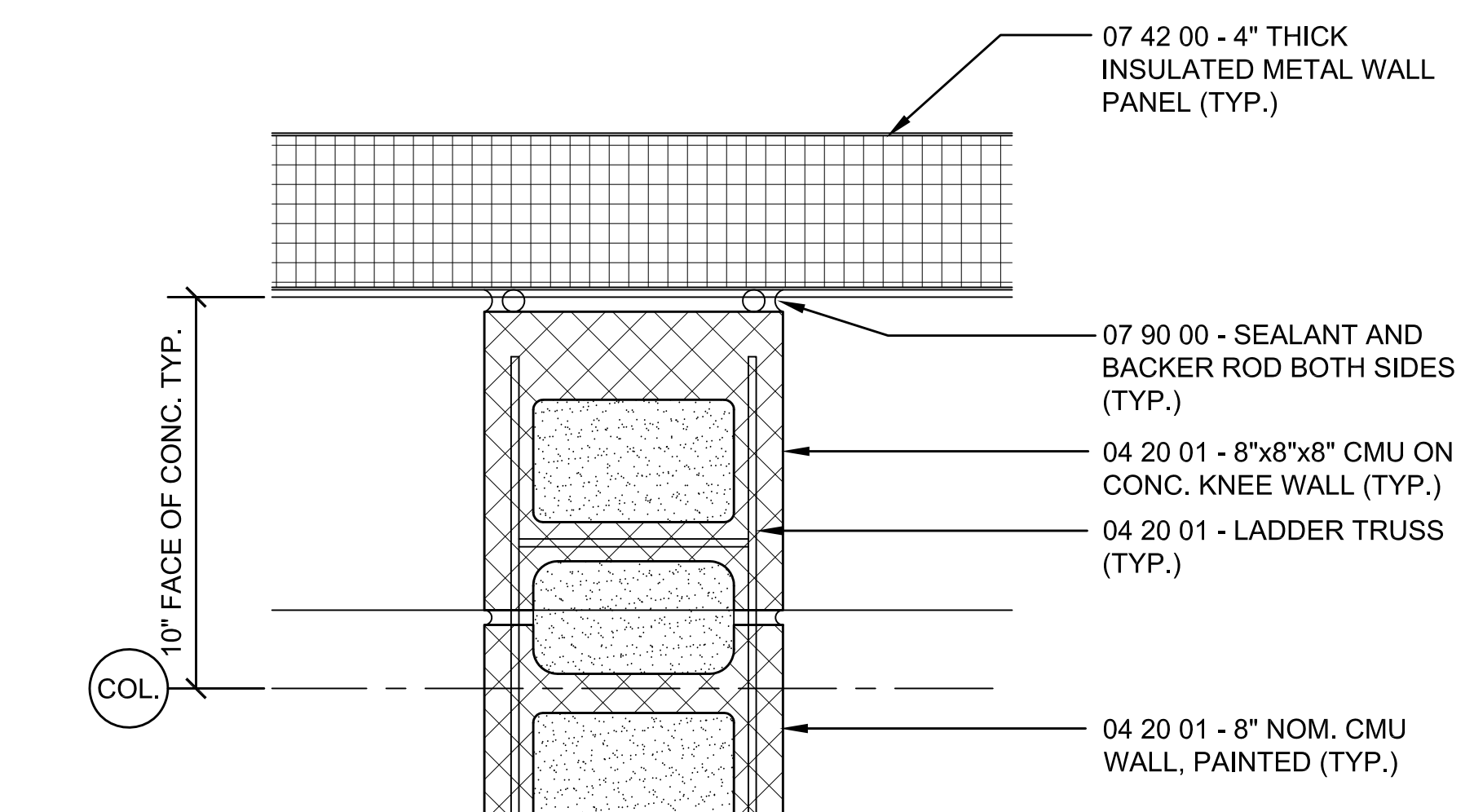
3 MASONRY VENEER CORNER DETAIL  
SCALE: 3"=1'-0"



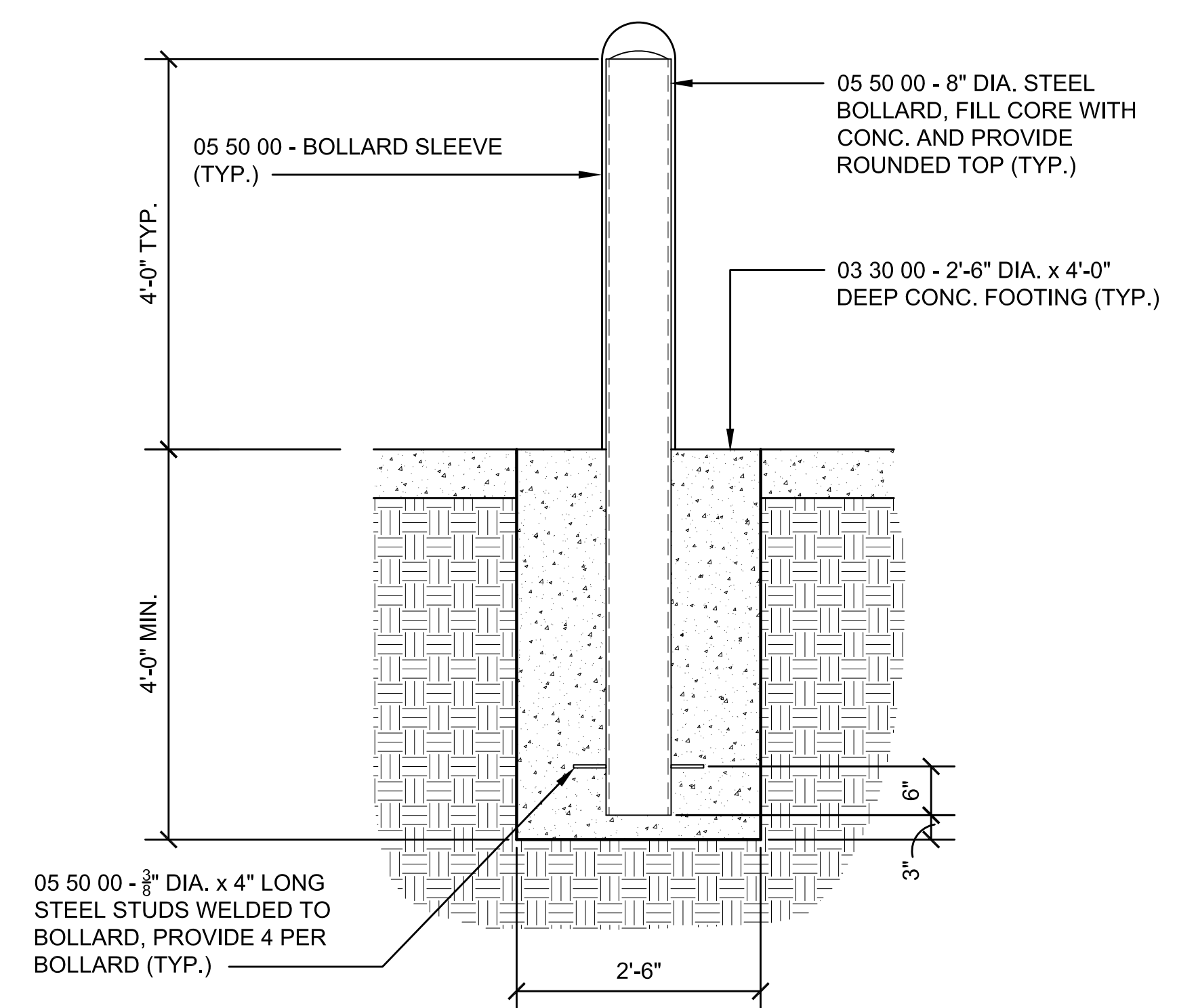
4 METAL PANEL CORNER DETAIL  
SCALE: 3"=1'-0"



5 TYP. MASONRY CONTROL JOINT DETAIL  
SCALE: 3"=1'-0"



6 TYP. CMU AT EXTERIOR WALL DETAIL  
SCALE: 3"=1'-0"



7 TYPICAL EXTERIOR BOLLARD DETAIL  
SCALE: 3/4"=1'-0"





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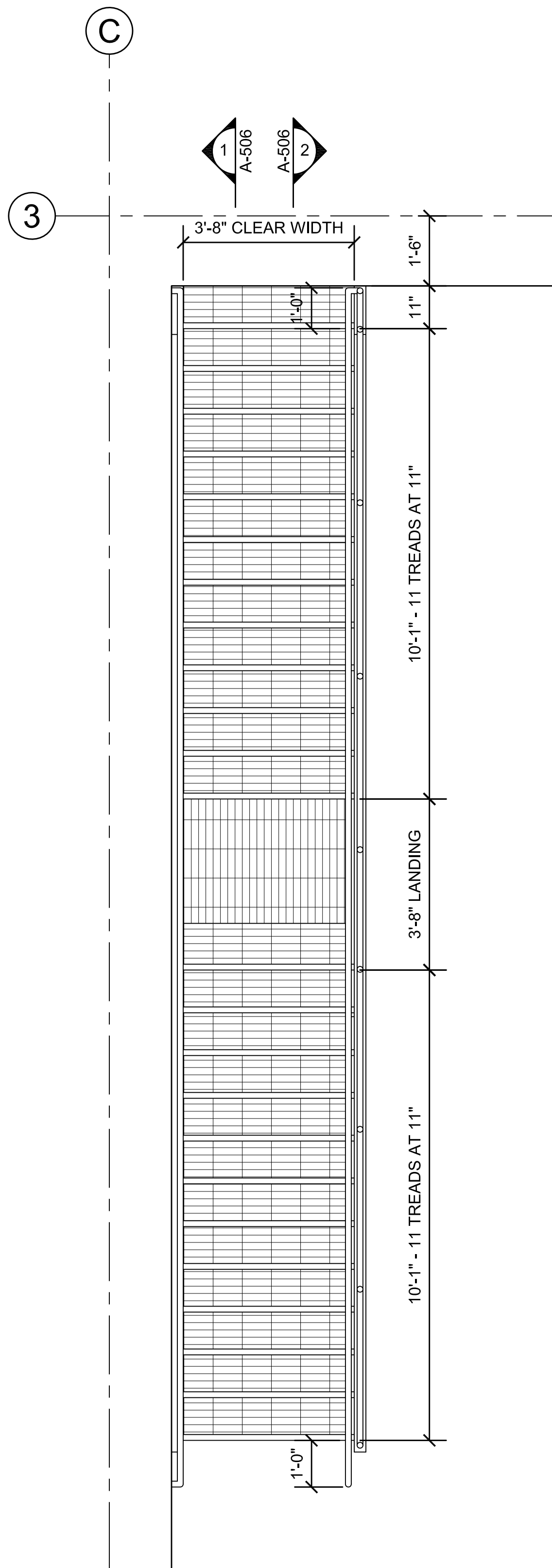
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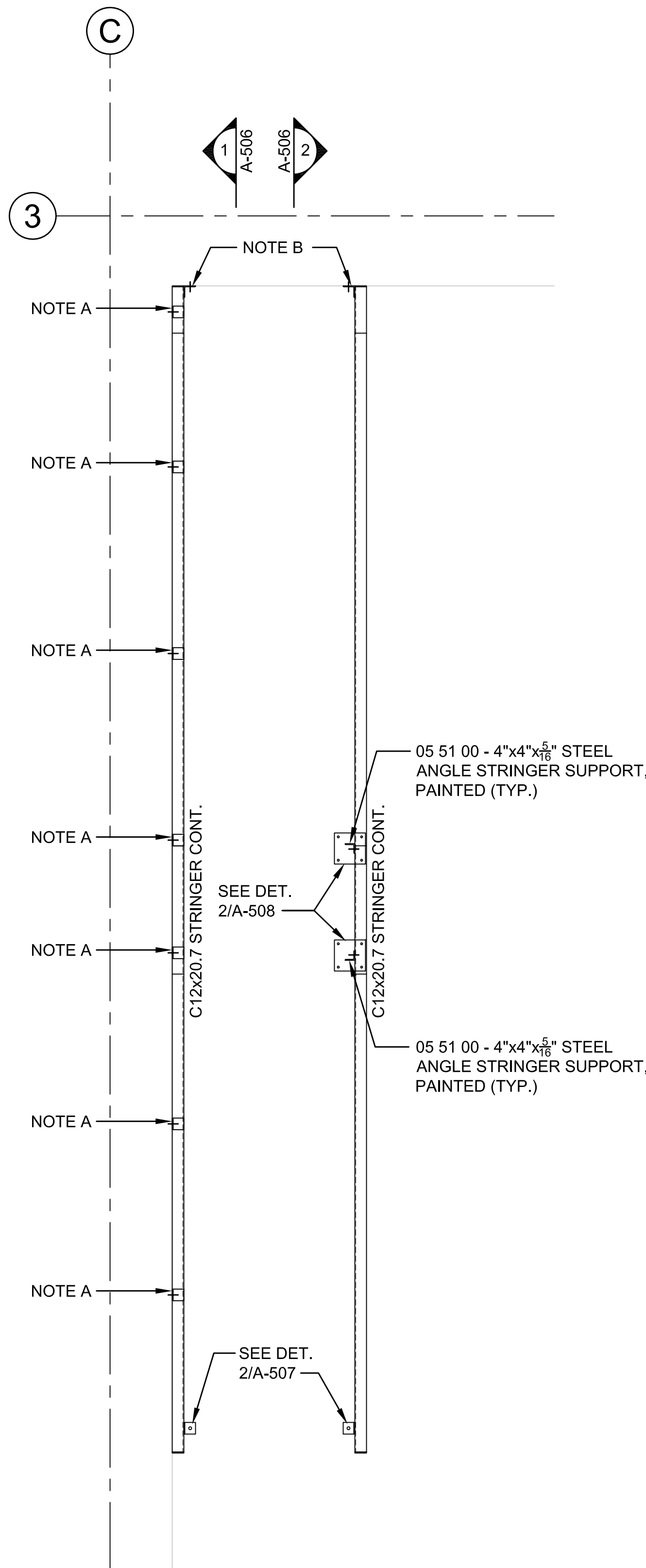
## ENLARGED STAIR PLANS AND FRAMING PLANS

DRAWING NO.

A-505

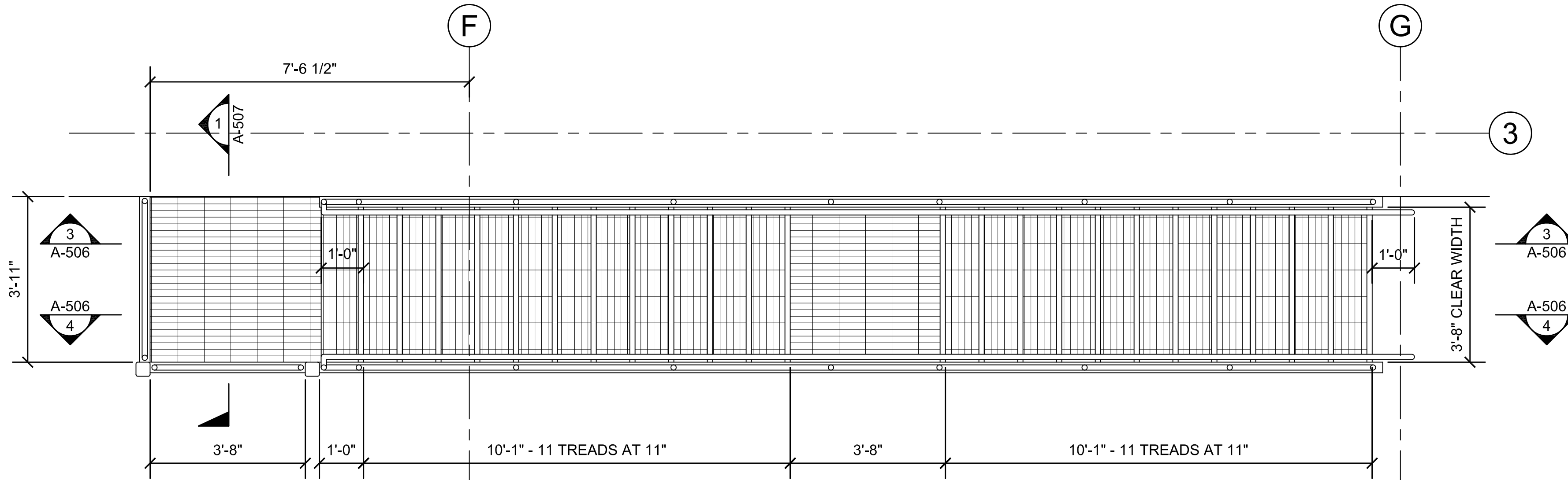


1 STAIR #1 PLAN  
SCALE: 1/2"=1'-0"

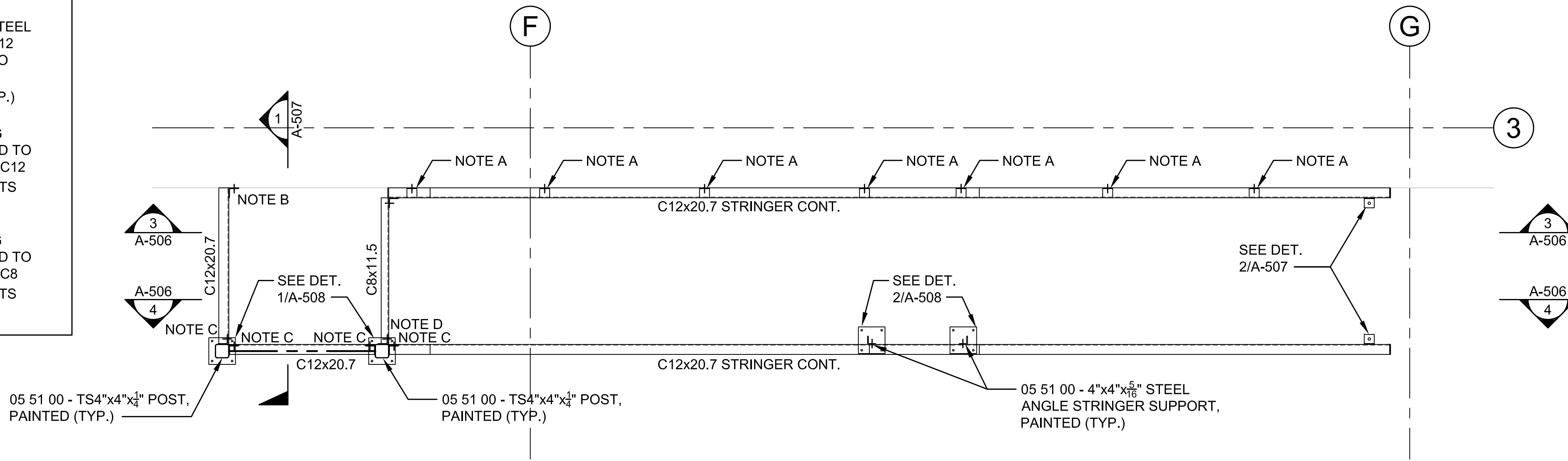


2 STAIR #1 FRAMING PLAN  
SCALE: 1/2"=1'-0"

- CONNECTION NOTES:
- A. 3"x3"x $\frac{5}{8}$ "x4" LONG STEEL ANGLE WELDED TO BOTTOM OF C12 STRINGER, ATTACH TO WALL WITH  $\frac{3}{4}$ " DIA. EXPANSION BOLT (TYP.)
- B. 4"x4"x $\frac{5}{8}$ "x6" LONG STEEL ANGLE WELDED TO C12 STRINGER, ATTACH TO WALL WITH  $\frac{3}{4}$ " DIA. EXPANSION BOLT (TYP.)
- C. 3  $\frac{1}{2}$ "x3  $\frac{1}{2}$ "x $\frac{5}{8}$ "x8" LONG STEEL ANGLE WELDED TO TS POST, ATTACH TO C12 WITH TWO  $\frac{3}{4}$ " DIA. BOLTS (TYP.)
- D. 3  $\frac{1}{2}$ "x3  $\frac{1}{2}$ "x $\frac{5}{8}$ "x6" LONG STEEL ANGLE WELDED TO TS POST, ATTACH TO C8 WITH TWO  $\frac{3}{4}$ " DIA. BOLTS (TYP.)



3 STAIR #2 PLAN  
SCALE: 1/2"=1'-0"



4 STAIR #2 FRAMING PLAN  
SCALE: 1/2"=1'-0"

- STAIR NOTES:
1. ALL STEEL, CONNECTORS, FASTENERS, PAN, ETC. FOR STAIRS ARE PART OF SECTION 05 51 00 (TYP.)
2. ALL HANDRAILS AND GUARDRAILS AND WALL BRACKETS FOR STAIRS ARE PART OF SECTION 05 51 00 (TYP.)
3. ALL STEEL SHALL RECEIVE 1 COAT OF PRIMER IN SHOP AND FIELD PAINTED AS PART OF SECTION 09 90 01 (TYP.)
4. "CONT." INDICATES STRINGERS TO HAVE SLOPED AND LEVEL PIECES WELDED TOGETHER TO CREATE ONE CONTINUOUS STRINGER (TYP.)





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SCALE	1/2" = 1'-0"
DRAWN BY	MTV
CHECKED BY	GKY
PROJECT NO.	19001

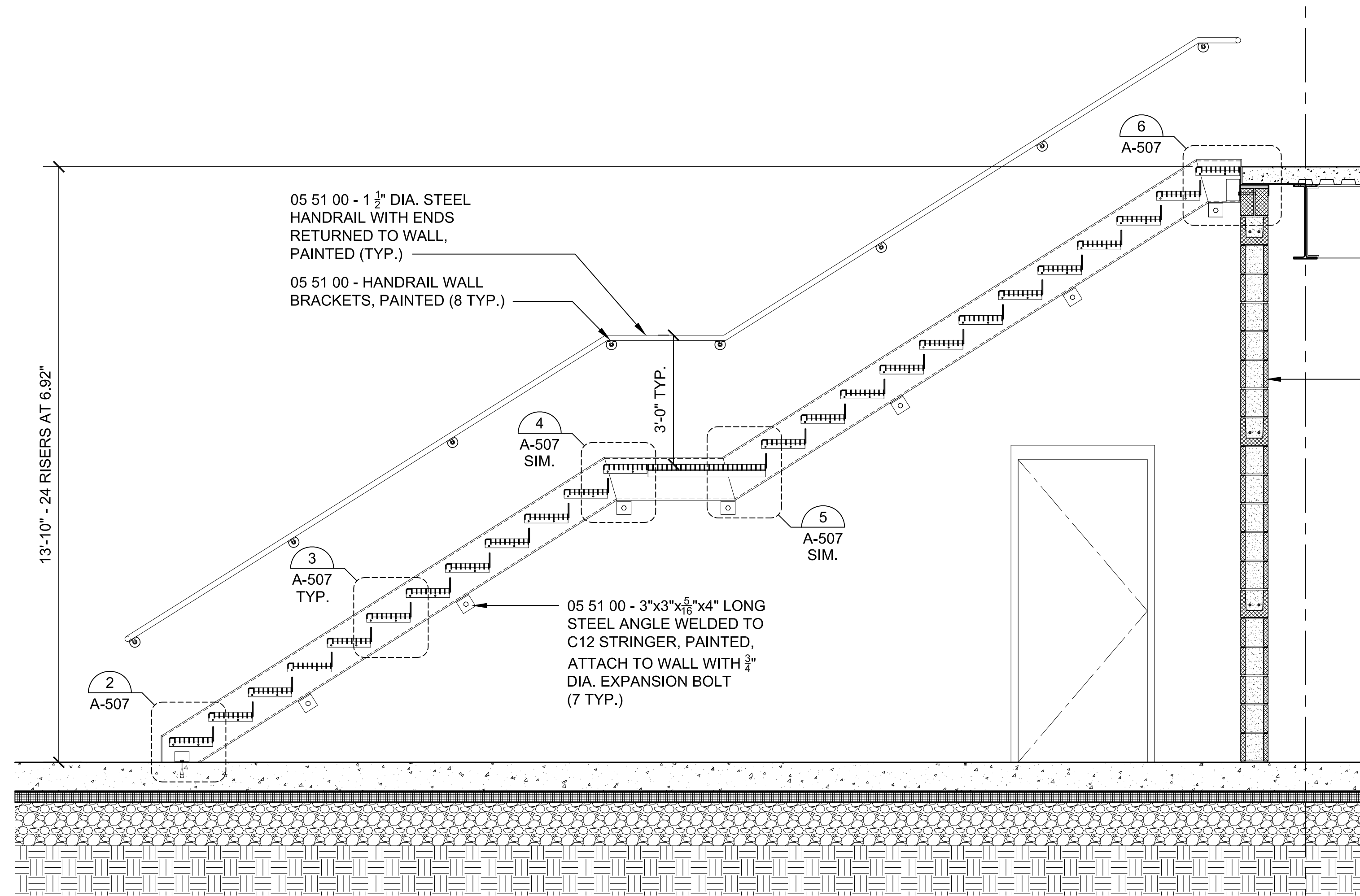
BUILDING:

SHEET TITLE:

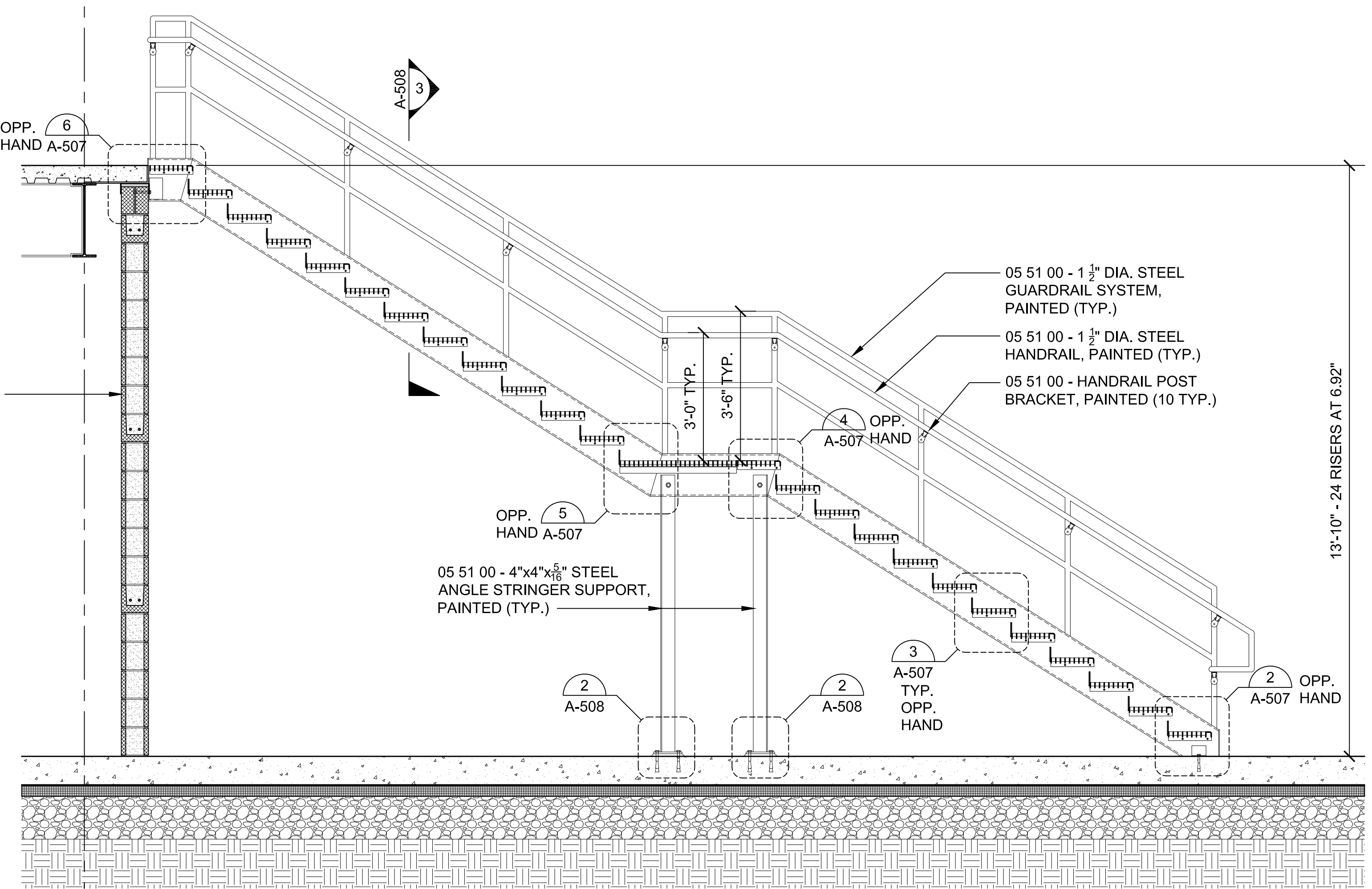
STAIR SECTIONS

DRAWING NO.

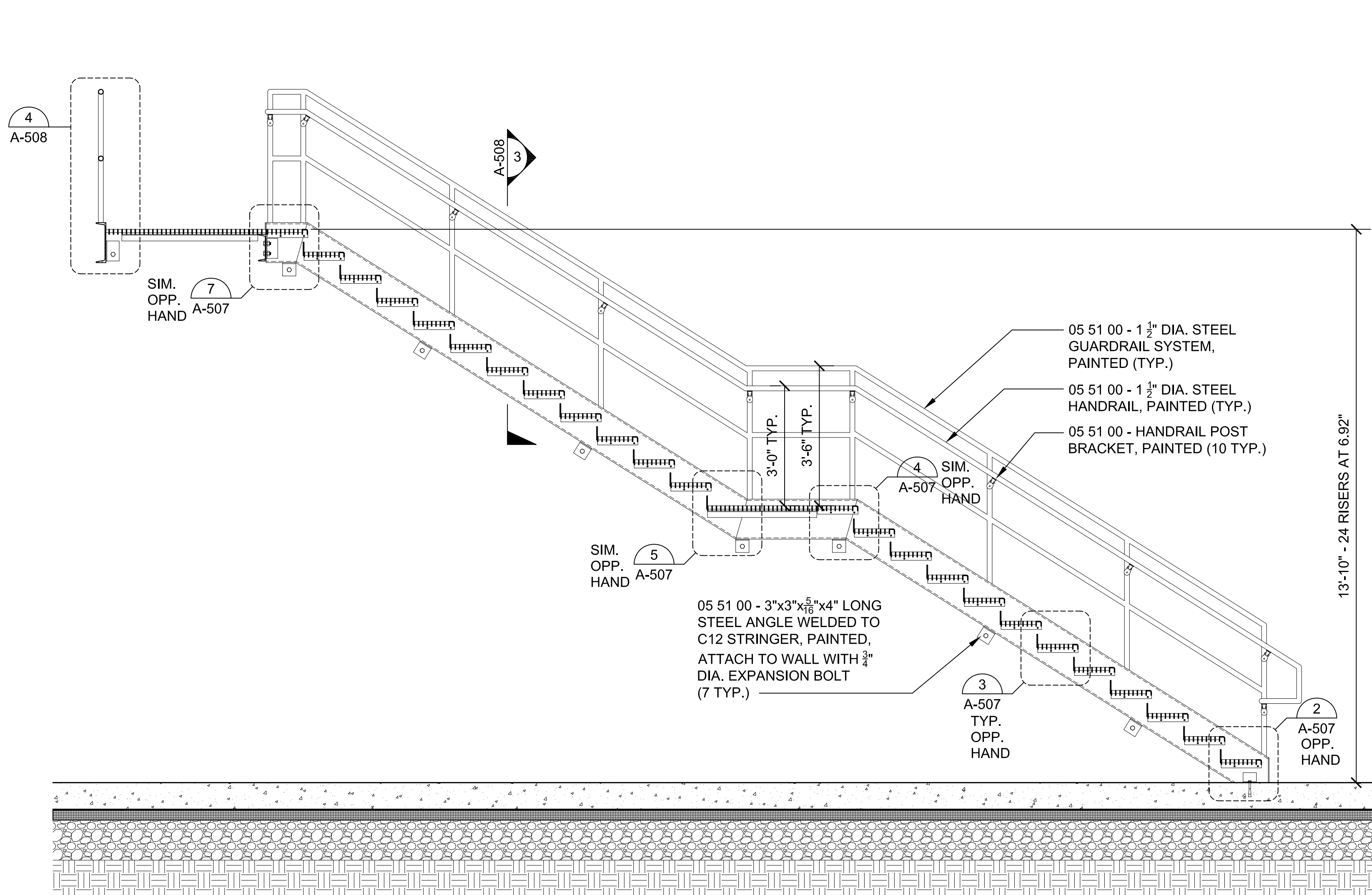
A-506



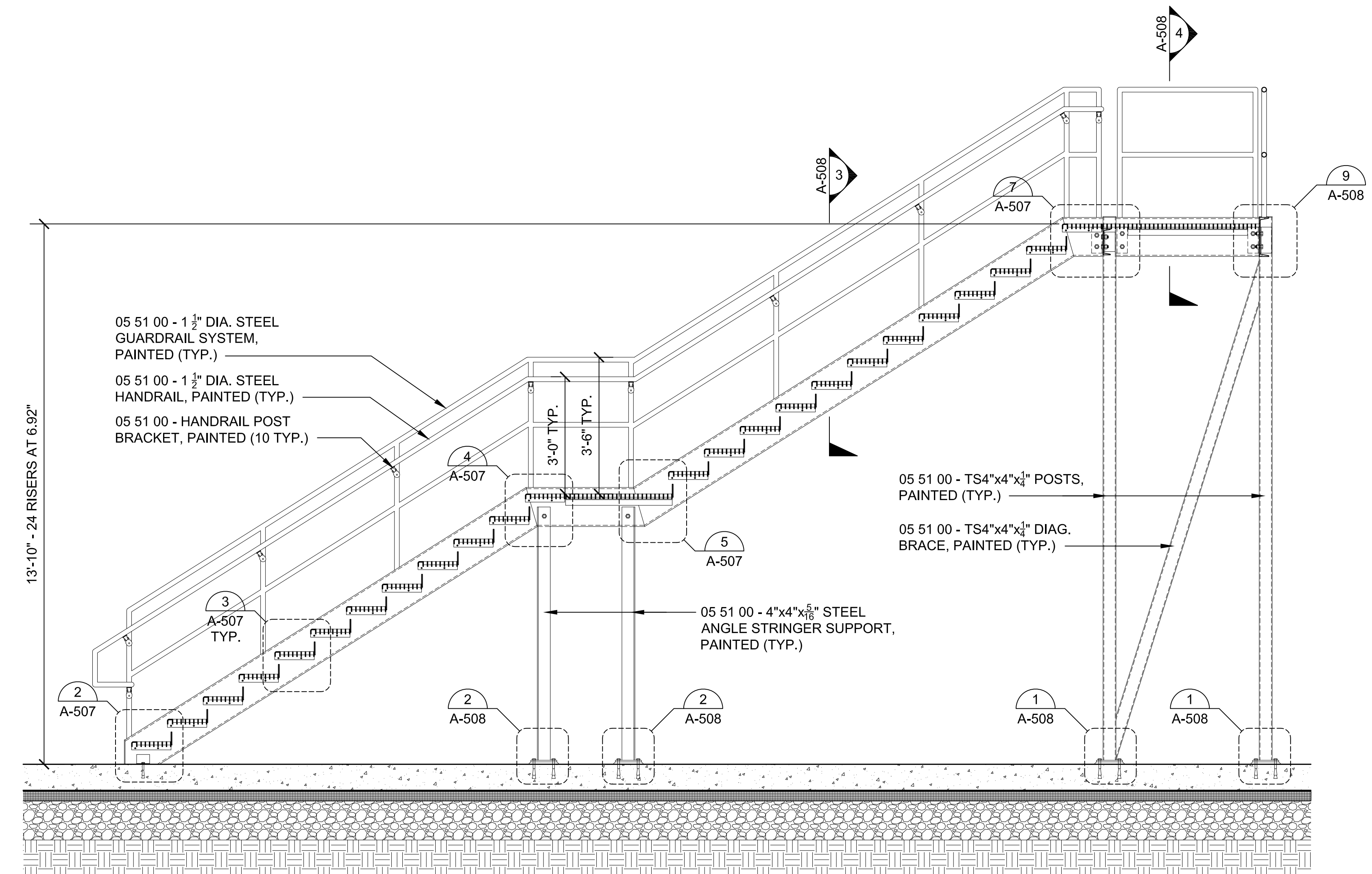
1 STAIR #1 SECTION  
SCALE: 1/2"=1'-0"



2 STAIR #1 SECTION  
SCALE: 1/2"=1'-0"



3 STAIR #2 SECTION  
SCALE: 1/2"=1'-0"



4 STAIR #2 SECTION  
SCALE: 1/2"=1'-0"

### STAIR NOTES:

1. ALL STEEL, CONNECTORS, FASTENERS, PAN, ETC. FOR STAIRS ARE PART OF SECTION 05 51 00 (TYP.)
2. ALL HANDRAILS AND GUARDRAILS AND WALL BRACKETS FOR STAIRS ARE PART OF SECTION 05 51 00 (TYP.)
3. ALL STEEL SHALL RECEIVE 1 COAT OF PRIMER IN SHOP AND FIELD PAINTED AS PART OF SECTION 09 90 01 (TYP.)
4. "CONT." INDICATES STRINGERS TO HAVE SLOPED AND LEVEL PIECES WELDED TOGETHER TO CREATE ONE CONTINUOUS STRINGER (TYP.)





## TOWN OF MONTAGUE

### NEW DPW FACILITY

OWNER:  
TOWN OF MONTAGUE  
ONE AVENUE A  
TURNERS FALLS, MA 01376

ARCHITECT:  
**HELENE • KARL**  
Architects, Inc.  
61 Skyfields Drive, Groton, Massachusetts 01450

CIVIL ENGINEER:  
SYMMES, MAINI & McKEE ASSOCIATES  
1000 MASSACHUSETTS AVENUE  
CAMBRIDGE, MA 02138

STRUCTURAL ENGINEER:  
SYMMES, MAINI & McKEE ASSOCIATES  
1000 MASSACHUSETTS AVENUE  
CAMBRIDGE, MA 02138

MECHANICAL ENGINEER:  
SEAMAN ENGINEERING CORP.  
22 WEST STREET, UNIT C  
MILLBURY, MA 01527

ELECTRICAL ENGINEER:  
JOHN J. MURPHY, JR., ELECTRICAL  
CONSTRUCTION AND ENGINEERING, INC.  
379 LIBERTY STREET  
ROCKLAND, MA 02370

STAMP

REV	DATE	DESCRIPTION
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DATE	5/15/19
SCALE	AS NOTED
DRAWN BY	MTV
CHECKED BY	GKY
PROJECT NO.	19001

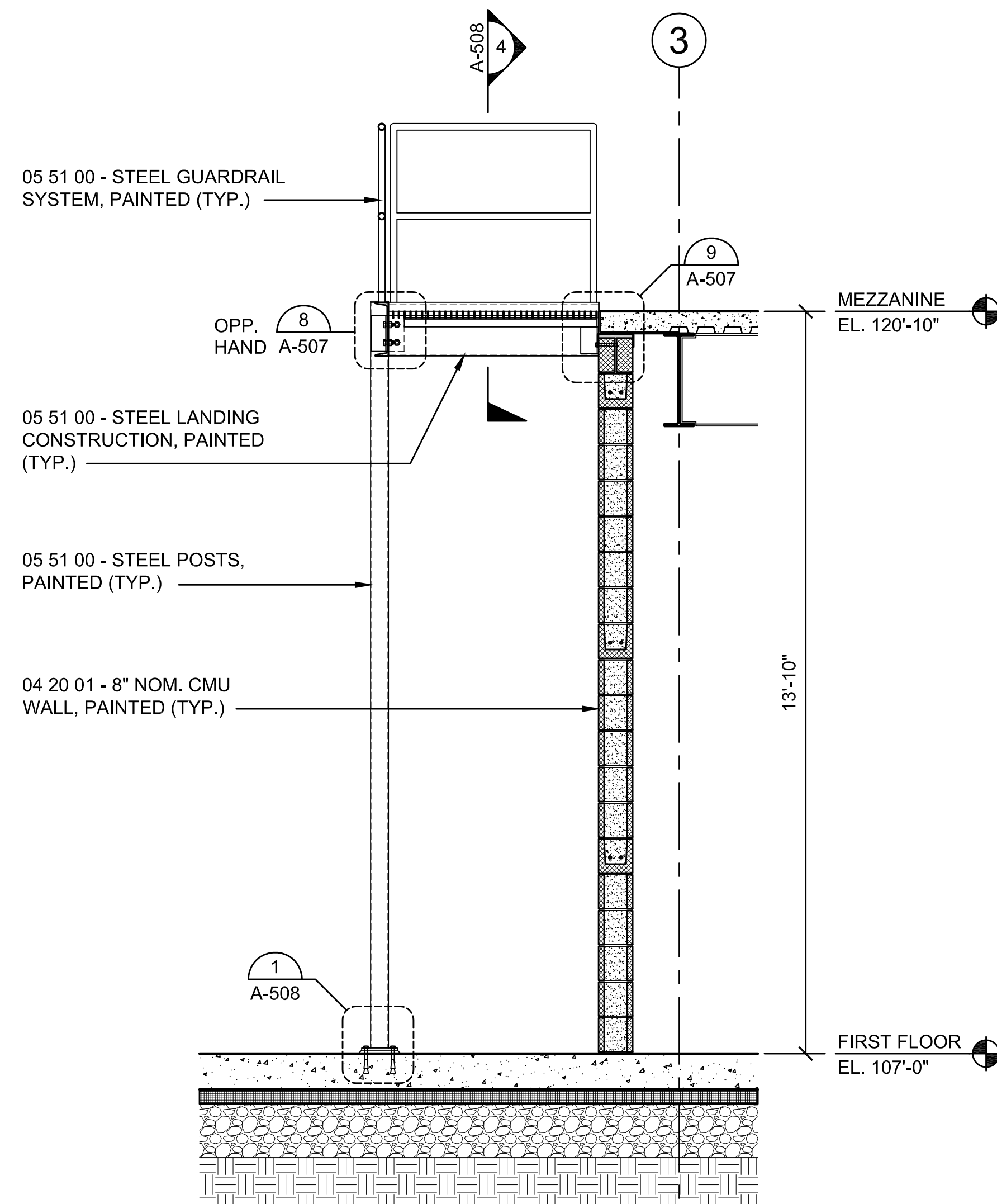
BUILDING:

SHEET TITLE:

### STAIR SECTION AND DETAILS

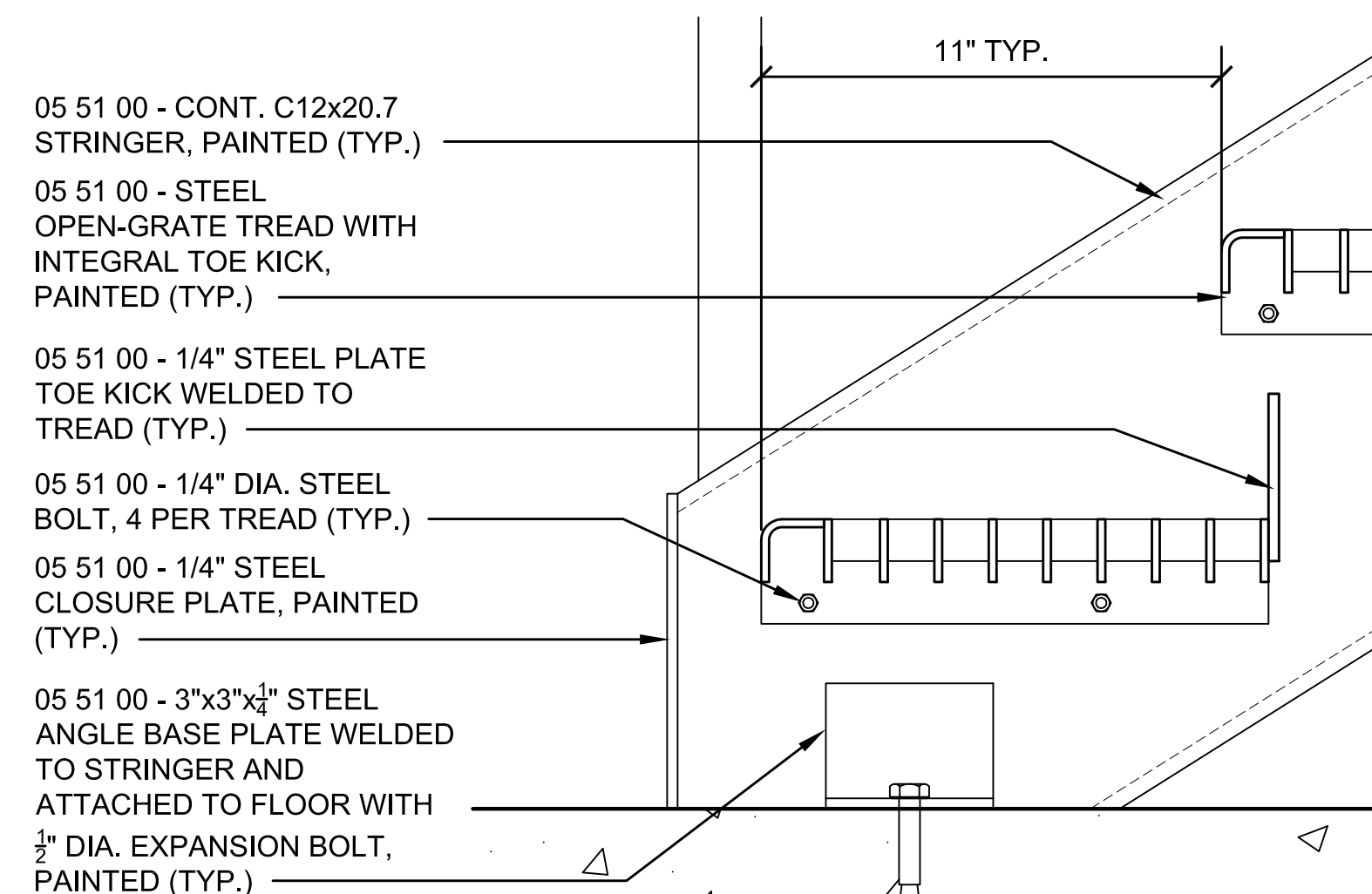
DRAWING NO.

A-507



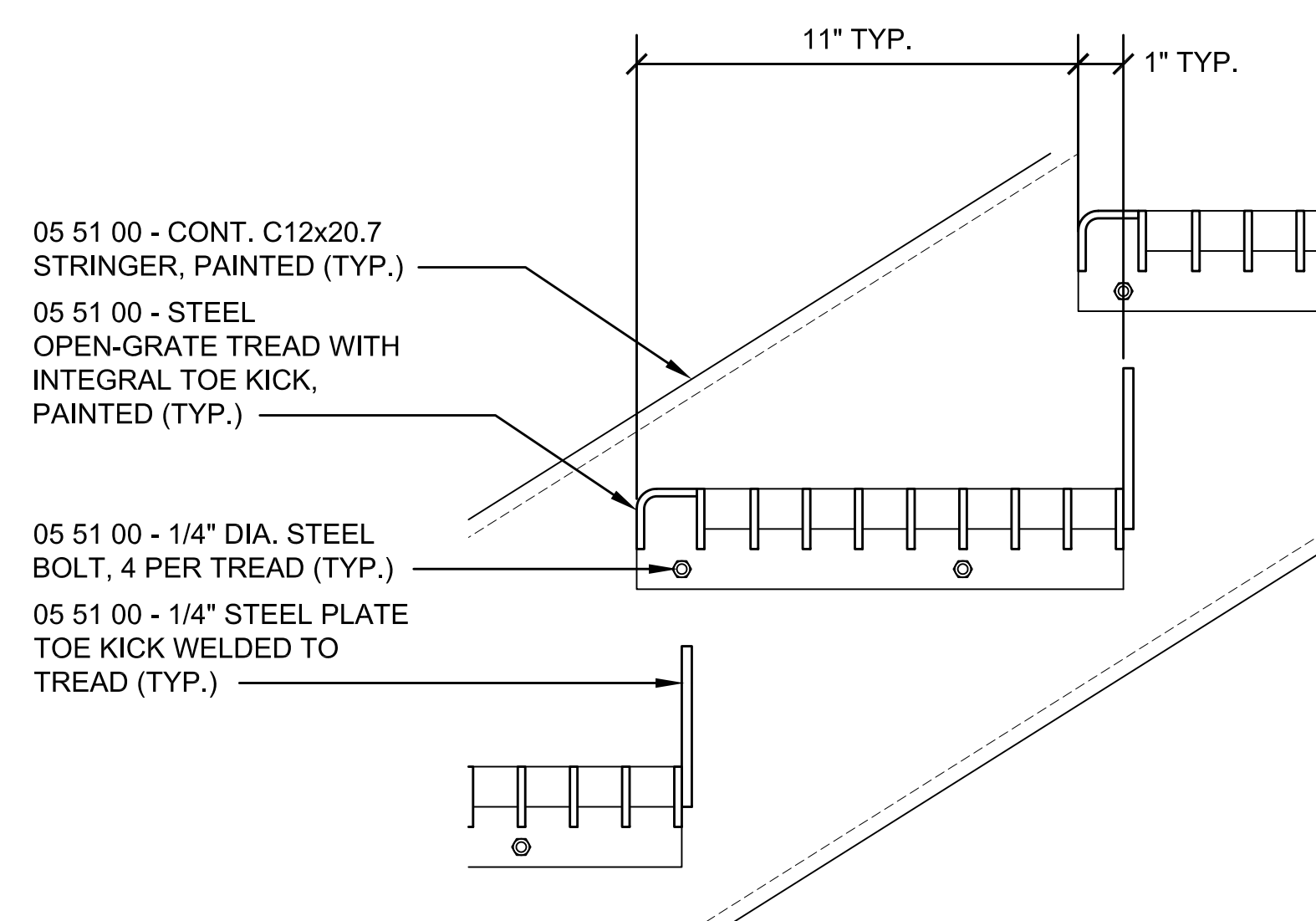
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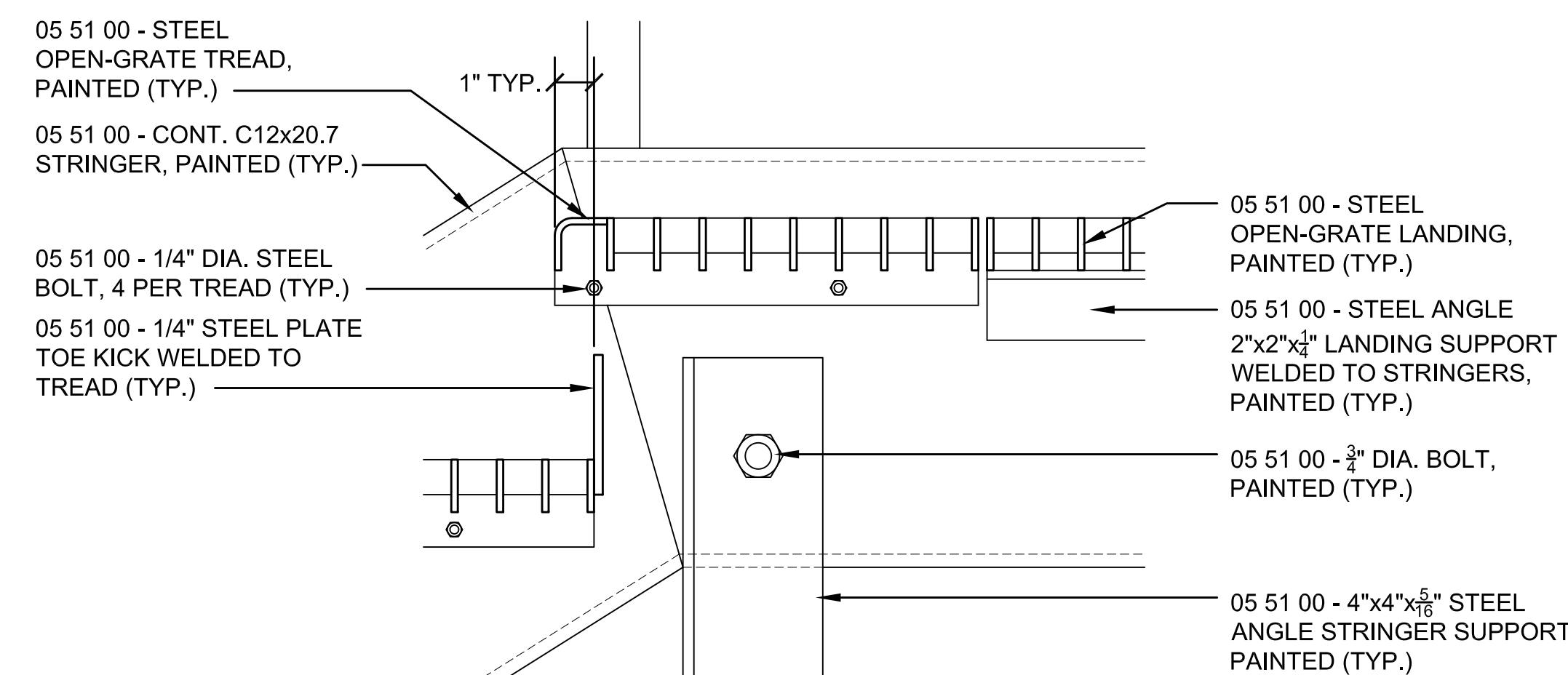
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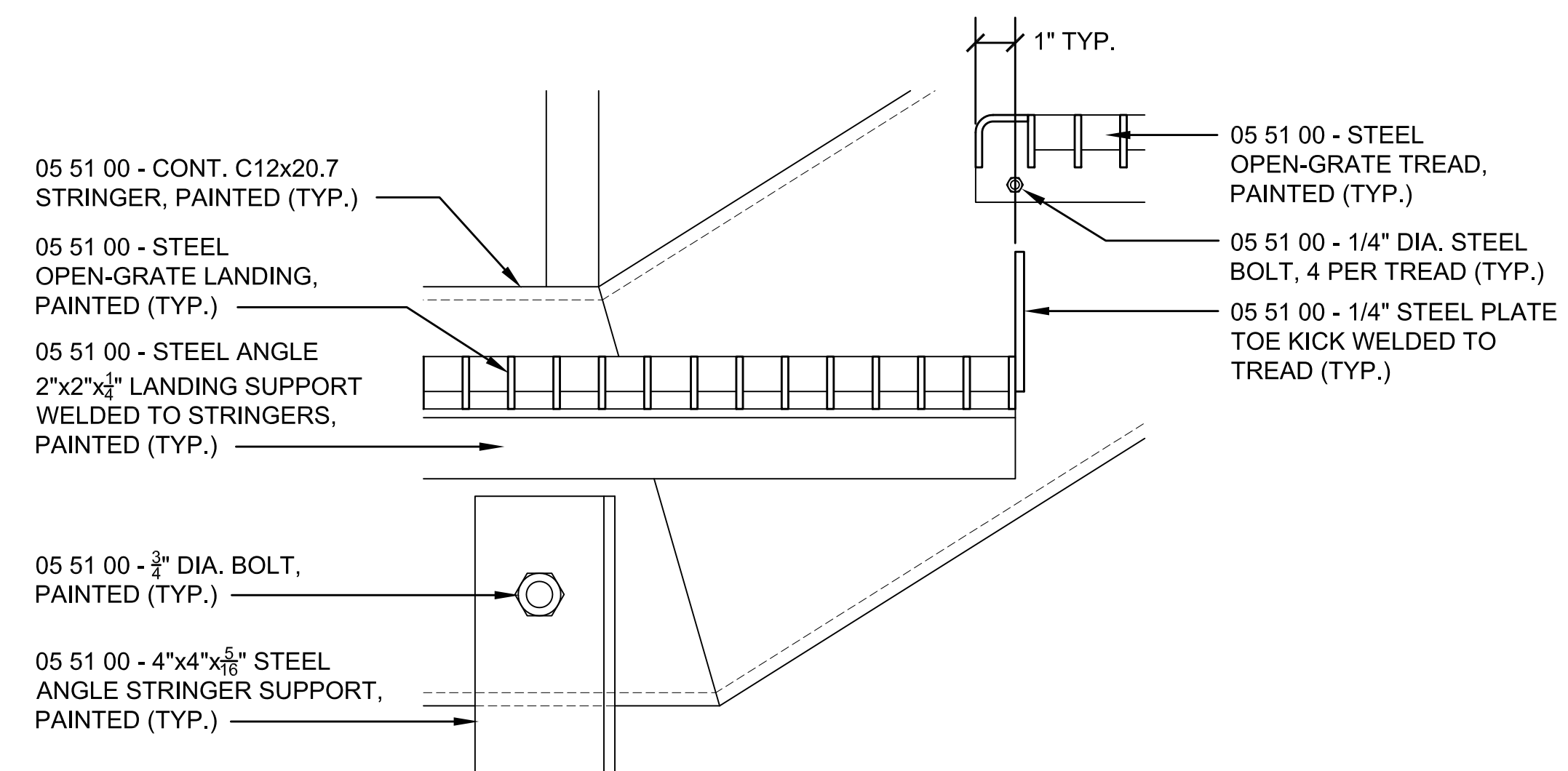
#### 3 STAIR DETAIL

SCALE: 3/4"=1'-0"



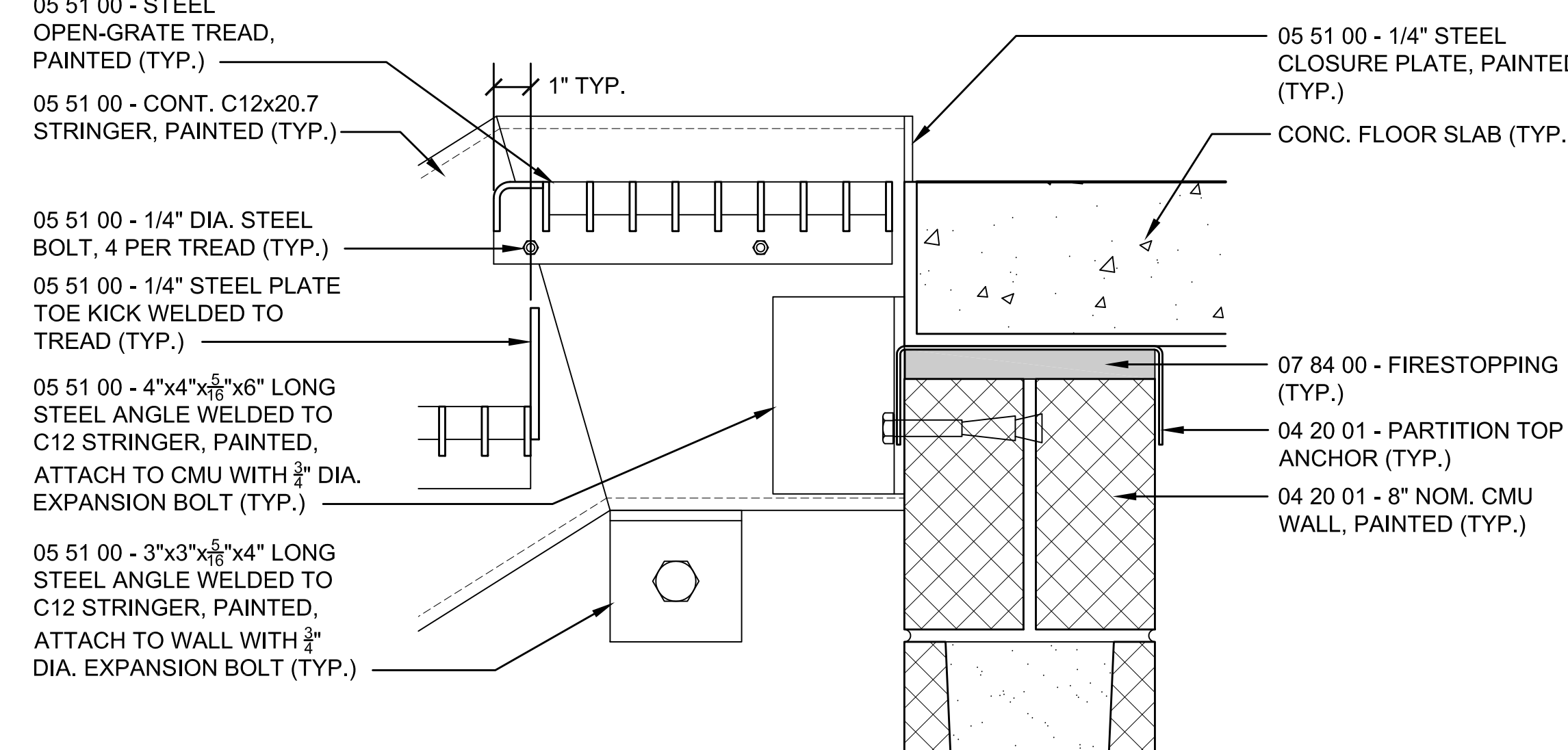
#### 4 STAIR DETAIL

SCALE: 3/4"=1'-0"



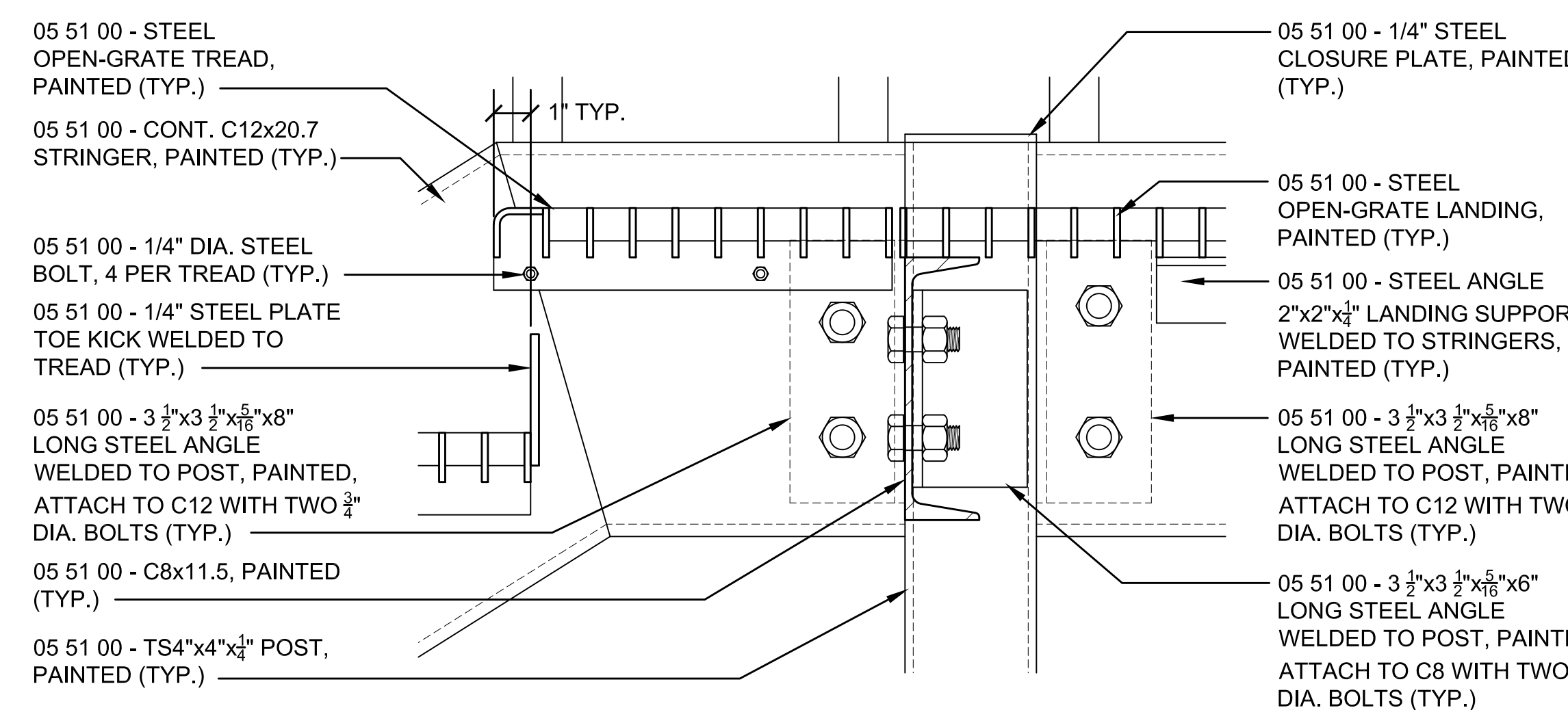
#### 5 STAIR DETAIL

SCALE: 3/4"=1'-0"



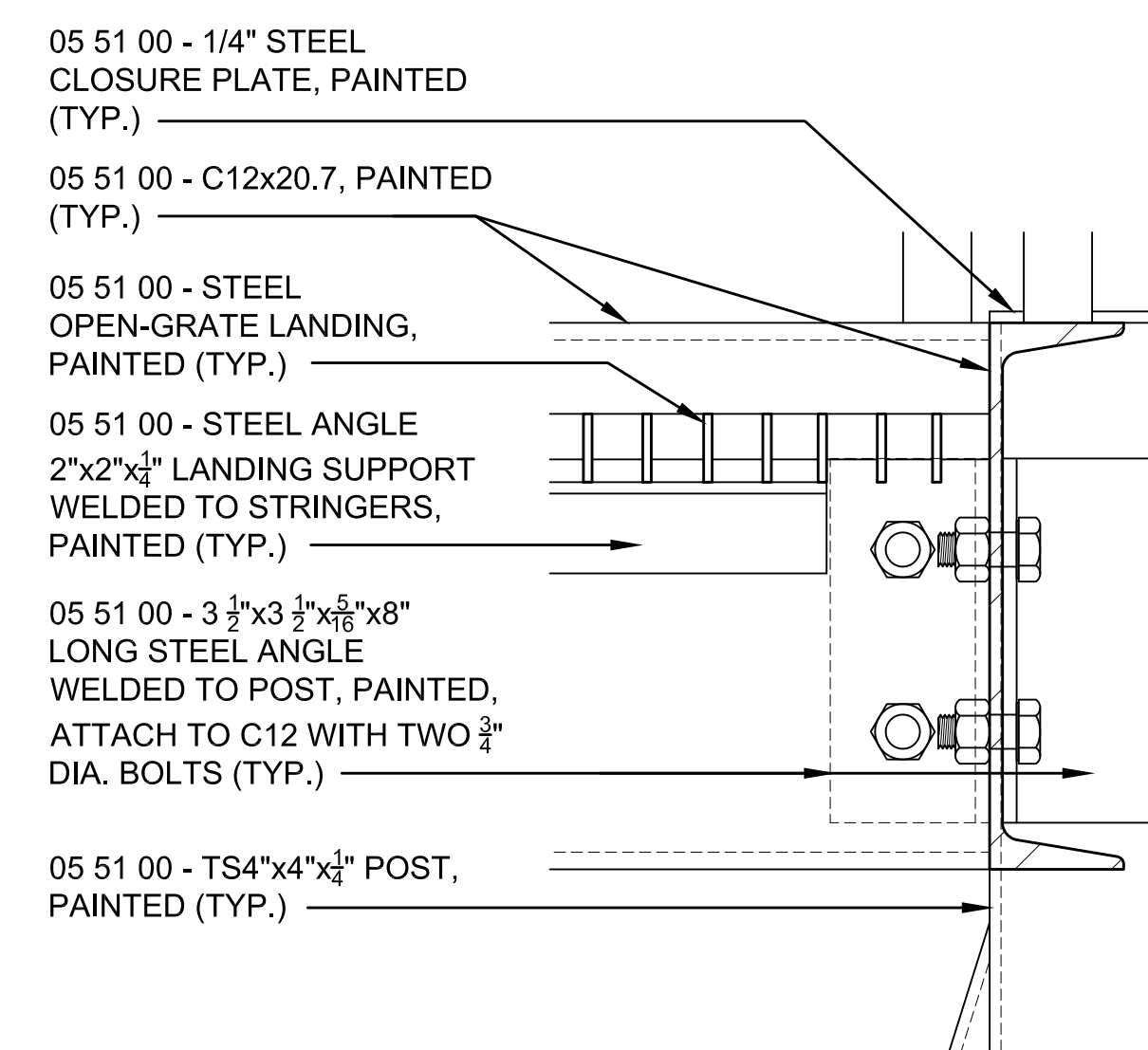
#### 6 STAIR DETAIL

SCALE: 3/4"=1'-0"



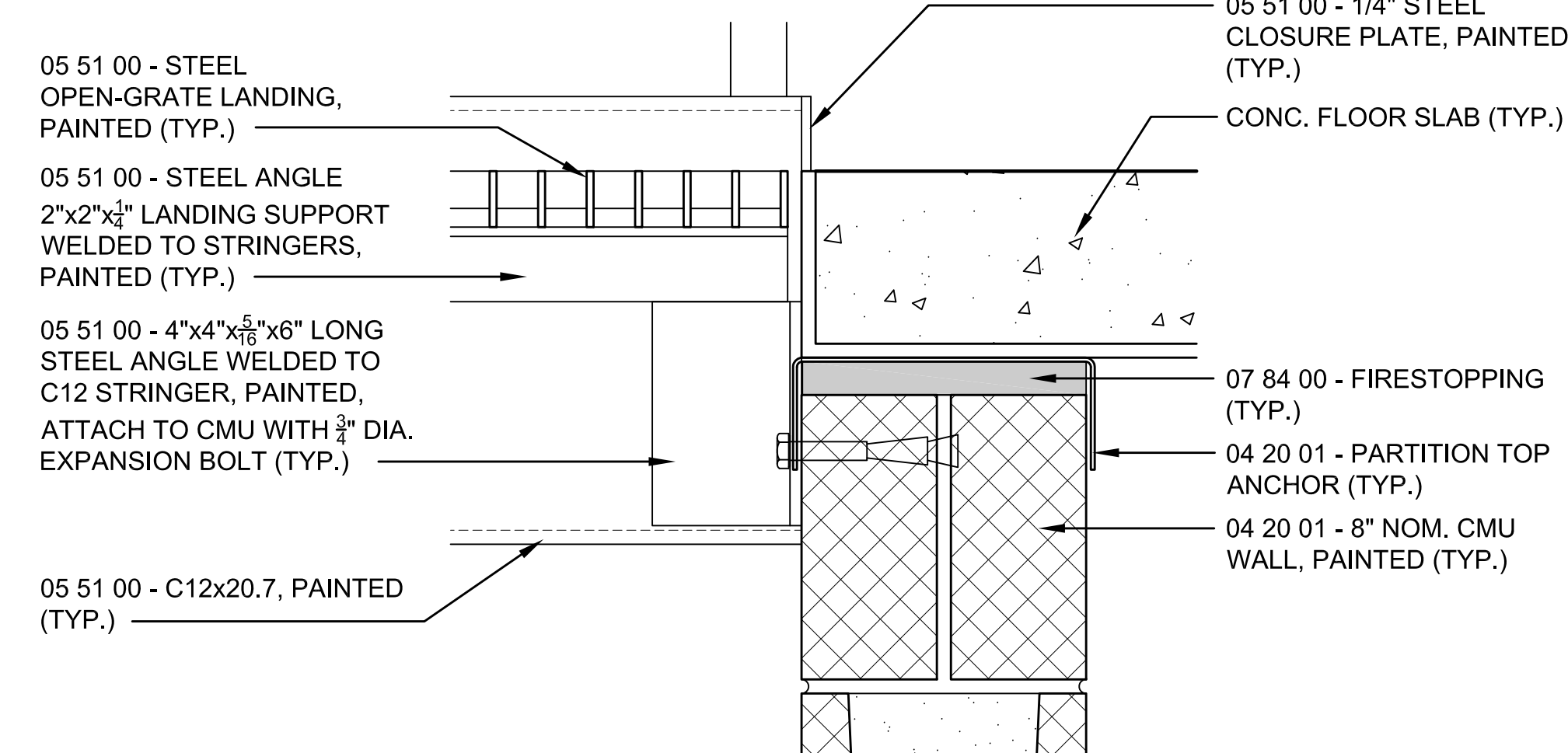
#### 7 STAIR DETAIL

SCALE: 3/4"=1'-0"



#### 8 STAIR DETAIL

SCALE: 3/4"=1'-0"



#### 9 STAIR DETAIL

SCALE: 3/4"=1'-0"

#### STAIR NOTES:

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2. ALL HANDRAILS AND GUARDRAILS AND WALL BRACKETS FOR STAIRS ARE PART OF SECTION 05 51 00 (TYP.)

3. ALL STEEL SHALL RECEIVE 1 COAT OF PRIMER IN SHOP AND FIELD PAINTED AS PART OF SECTION 09 90 01 (TYP.)

4. "CONT." INDICATES STRINGERS TO HAVE SLOPED AND LEVEL PIECES WELDED TOGETHER TO CREATE ONE CONTINUOUS STRINGER (TYP.)





OWNER:  
TOWN OF MONTAGUE  
ONE AVENUE A  
TURNERS FALLS, MA 01376

CIVIL ENGINEER:  
SYMMES, MAINI & McKEE ASSOCIATES  
1000 MASSACHUSETTS AVENUE  
CAMBRIDGE, MA 02138

STRUCTURAL ENGINEER:  
SYMMES, MAINI & MCKEE ASSOCIATES  
1000 MASSACHUSETTS AVENUE  
CAMBRIDGE, MA 02138

MECHANICAL ENGINEER:  
SEAMAN ENGINEERING CORP.  
22 WEST STREET, UNIT C  
MILLBURY, MA 01527

**ELECTRICAL ENGINEER:**  
JOHN J. MURPHY, JR. ELECTRICAL  
CONSTRUCTION AND ENGINEERING, INC.  
379 LIBERTY STREET  
ROCKLAND, MA 02370

TAMP

DATE	5/15/19
SCALE	AS NOTED
DRAWN BY	MTV
CHECKED BY	GKY
PROJECT NO.	19001

BUILDING:

SHEET TITLE:

## STAIR DETAILS

DRAWING NO.

# A-508

STAIR NOTES:

1. ALL STEEL, CONNECTORS, FASTENERS, PAN, ETC. FOR STAIRS ARE PART OF SECTION 05 51 00 (TYP.)
2. ALL HANDRAILS AND GUARDRAILS AND WALL BRACKETS FOR STAIRS ARE PART OF SECTION 05 51 00 (TYP.)
3. ALL STEEL SHALL RECEIVE 1 COAT OF PRIMER IN SHOP AND FIELD PAINTED AS PART OF SECTION 09 00 01 (TYP.)
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OF MONTAGUE  
AVENUE A  
S FALLS, MA 01376

Architects, Inc.  
Fields Drive, Groton, Massachusetts 01450

ENGINEER:  
J. MAINI & McKEE ASSOCIATES  
MASSACHUSETTS AVENUE  
DORCHESTER, MA 02138

**CIVIL ENGINEER:**  
J. MAINI & McKEE ASSOCIATES  
100 MASSACHUSETTS AVENUE  
CAMBRIDGE, MA 02138

MECHANICAL ENGINEER:  
ENGINEERING CORP.  
ST STREET, UNIT C  
RY, MA 01527

ICAL ENGINEER:  
J. MURPHY, JR. ELECTRICAL  
CONSTRUCTION AND ENGINEERING, INC.  
100 BERRY STREET  
AND, MA 02370



REV	DATE	DESCRIPTION

DATE	5/15/19
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CHECKED BY	GKY
PROJECT NO.	19001

BUILDING: \_\_\_\_\_

SHEET TITLE:

## TERIOR DETAILS

DRAWING NO.





TOWN OF  
MONTAGUE

NEW DPW FACILITY

OWNER:  
TOWN OF MONTAGUE  
ONE AVENUE A  
TURNERS FALLS, MA 01376

ARCHITECT:  
 **HELENE • KARL**  
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1000 MASSACHUSETTS AVENUE  
CAMBRIDGE, MA 02138

STRUCTURAL ENGINEER:  
SYMMES, MAINI & McKEE ASSOCIATES  
1000 MASSACHUSETTS AVENUE  
CAMBRIDGE, MA 02138

MECHANICAL ENGINEER:  
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MILLBURY, MA 01527

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CONSTRUCTION AND ENGINEERING, INC.  
379 LIBERTY STREET  
ROCKLAND, MA 02370

STAMP


REV	DATE	DESCRIPTION
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DATE	5/15/19
SCALE	NONE
DRAWN BY	MTV
CHECKED BY	GKY
PROJECT NO.	19001

BUILDING:

SHEET TITLE:

ROOM FINISH  
SCHEDULE

DRAWING NO.

A-601

FIRST FLOOR FINISH SCHEDULE

ROOM NO.	ROOM NAME	FLOORS		BASE		WALLS		CEILING		HEIGHT	COMMENTS
		MATERIAL	FINISH	MATERIAL	FINISH	MATERIAL	FINISH	MATERIAL	FINISH		
101	VESTIBULE	CONC.	EPOXY	GYP.	EPOXY	GYP.	PAINT	ACT		9'-0"	4" EPOXY BASE
102	MEETING/RECORDS	CONC.	EPOXY	GYP.	EPOXY	GYP.	PAINT	ACT		9'-0"	4" EPOXY BASE
103	OPEN OFFICE	CONC.	EPOXY	GYP.	EPOXY	GYP.	PAINT	ACT		9'-0"	4" EPOXY BASE
104	MANAGER'S OFFICE	CONC.	EPOXY	GYP.	EPOXY	GYP.	PAINT	ACT		9'-0"	4" EPOXY BASE
105	CLOSET	CONC.	EPOXY	GYP.	EPOXY	GYP.	PAINT	ACT		9'-0"	4" EPOXY BASE
106	RESTROOM	CONC.	EPOXY	GYP.	EPOXY	GYP.	PAINT/C.T.	ACT		9'-0"	4" EPOXY BASE
107	WOMEN'S RESTROOM	CONC.	EPOXY	GYP.	EPOXY	GYP.	C.T.	ACT		9'-4"	4" EPOXY BASE
108	MEN'S RESTROOM	CONC.	EPOXY	GYP.	EPOXY	GYP.	C.T.	ACT		9'-4"	4" EPOXY BASE
109	MEN'S LOCKERS	CONC.	EPOXY	GYP.	EPOXY	GYP.	C.T.	ACT		9'-4"	4" EPOXY BASE
110	CORRIDOR	CONC.	EPOXY	GYP.	EPOXY	GYP.	PAINT	ACT		9'-0"	4" EPOXY BASE
111	BREAK ROOM	CONC.	EPOXY	GYP.	EPOXY	GYP.	PAINT	ACT		9'-0"	4" EPOXY BASE
112	UNIFORMS	CONC.	EPOXY	GYP.	EPOXY	GYP.	PAINT	ACT		9'-0"	4" EPOXY BASE
113	JANITOR'S CLOSET	CONC.	EPOXY	GYP.	EPOXY	GYP.	FRP	ACT		9'-0"	4" EPOXY BASE
114	I.T. CLOSET	CONC.	EPOXY	GYP.	EPOXY	GYP.	PAINT	ACT		9'-0"	4" EPOXY BASE
115	ELECTRIC CLOSET	CONC.	SEALED	GYP./CMU	PAINT	GYP./CMU	PAINT	STEEL	PAINT		
116	SPRINKLER CLOSET	CONC.	SEALED	GYP./CMU	PAINT	GYP./CMU	PAINT	STEEL	PAINT		
117	SHOPS	CONC.	SEALED	CMU	PAINT	CMU	PAINT	STEEL	PAINT		
118	STORAGE	CONC.	SEALED	CMU	PAINT	CMU	PAINT	STEEL	PAINT		
119	STORAGE	CONC.	SEALED	CMU	PAINT	CMU	PAINT	STEEL	PAINT		
120	OFFICE	CONC.	SEALED	CMU	PAINT	CMU	PAINT	ACT		9'-0"	
121	BOILER ROOM	CONC.	SEALED	CMU	PAINT	CMU	PAINT	STEEL	PAINT		
122	RESTROOM	CONC.	EPOXY	CMU	EPOXY	CMU	PAINT	ACT		9'-0"	4" EPOXY BASE
123	TOOL ROOM/PARTS	CONC.	SEALED	CMU	PAINT	CMU	PAINT	STEEL	PAINT		
124	VEHICLE REPAIR GARAGE	CONC.	SEALED	CMU	PAINT	CMU	PAINT	STEEL	PAINT		
125	VEHICLE GARAGE	CONC.	SEALED	CMU	PAINT	CMU	PAINT	STEEL	PAINT		
126	WASH BAY	CONC.	SEALED	CMU	PAINT	CMU	PAINT	STEEL	PAINT		

1. ALL AREAS DESIGNATED TO BE PAINT SHALL MEAN WALLS, CEILINGS, DOORS, WINDOWS, TRIM, RAILINGS, ETC. UNLESS OTHERWISE NOTED.

MEZZANINE FINISH SCHEDULE

ROOM NO.	ROOM NAME	FLOORS		BASE		WALLS		CEILING		HEIGHT	COMMENTS
		MATERIAL	FINISH	MATERIAL	FINISH	MATERIAL	FINISH	MATERIAL	FINISH		
M01	MEZZANINE	CONC.	SEALED	METAL PANEL		METAL PANEL		STEEL	PAINT		
M02	EMER. ELEC. CL.	CONC.	SEALED	GYP.	PAINT	GYP.	PAINT	STEEL	PAINT		
M03	BDA CLOSET	CONC.	SEALED	GYP.	PAINT	GYP.	PAINT	STEEL	PAINT		

1. ALL AREAS DESIGNATED TO BE PAINT SHALL MEAN WALLS, CEILINGS, DOORS, WINDOWS, TRIM, RAILINGS, ETC. UNLESS OTHERWISE NOTED.





# TOWN OF MONTAGUE

## NEW DPW FACILITY

OWNER:  
TOWN OF MONTAGUE  
ONE AVENUE A  
TURNERS FALLS, MA 01376

ARCHITECT:  
**HELENE • KARL**  
Architects, Inc.  
61 Skyfields Drive, Groton, Massachusetts 01450

CIVIL ENGINEER:  
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CAMBRIDGE, MA 02138

STRUCTURAL ENGINEER:  
SYMMES, MAINI & McKEE ASSOCIATES  
1000 MASSACHUSETTS AVENUE  
CAMBRIDGE, MA 02138

MECHANICAL ENGINEER:  
SEAMAN ENGINEERING CORP.  
22 WEST STREET, UNIT C  
MILLBURY, MA 01527

ELECTRICAL ENGINEER:  
JOHN J. MURPHY, JR. ELECTRICAL  
CONSTRUCTION AND ENGINEERING, INC.  
379 LIBERTY STREET  
ROCKLAND, MA 02370

STAMP

REV	DATE	DESCRIPTION
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DATE	5/15/19
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SCALE	1/2" = 1'-0"
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PROJECT NO.	19001
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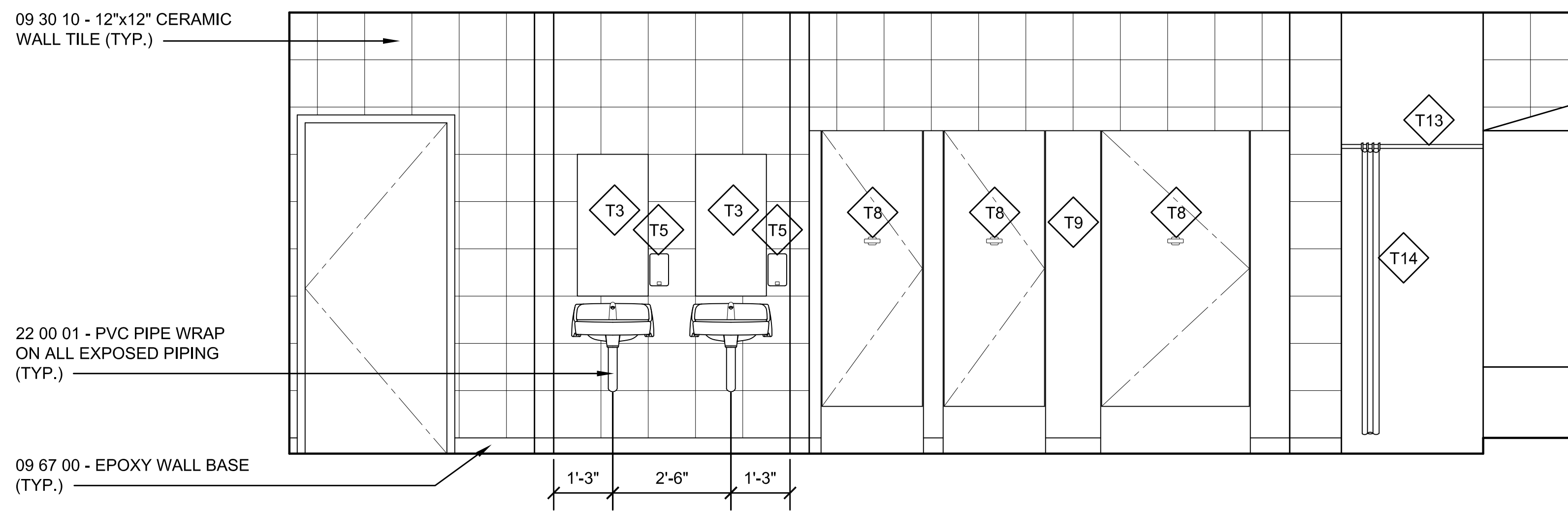
BUILDING:

SHEET TITLE:

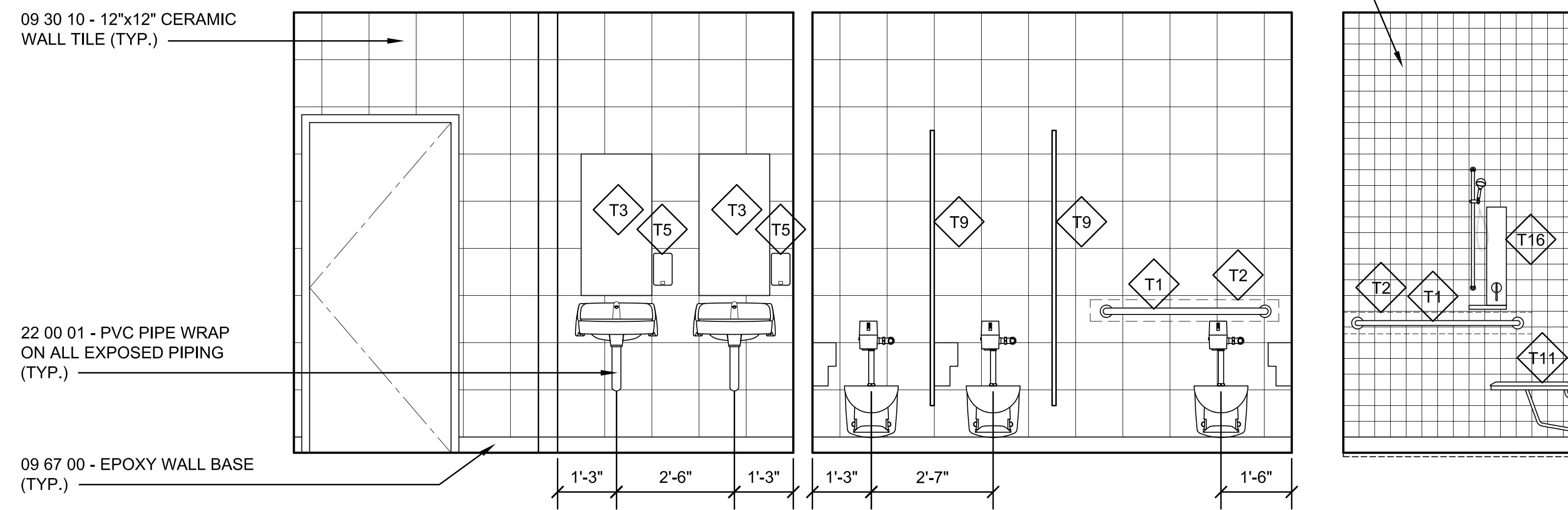
INTERIOR ELEVATIONS  
SHEET 1

DRAWING NO.

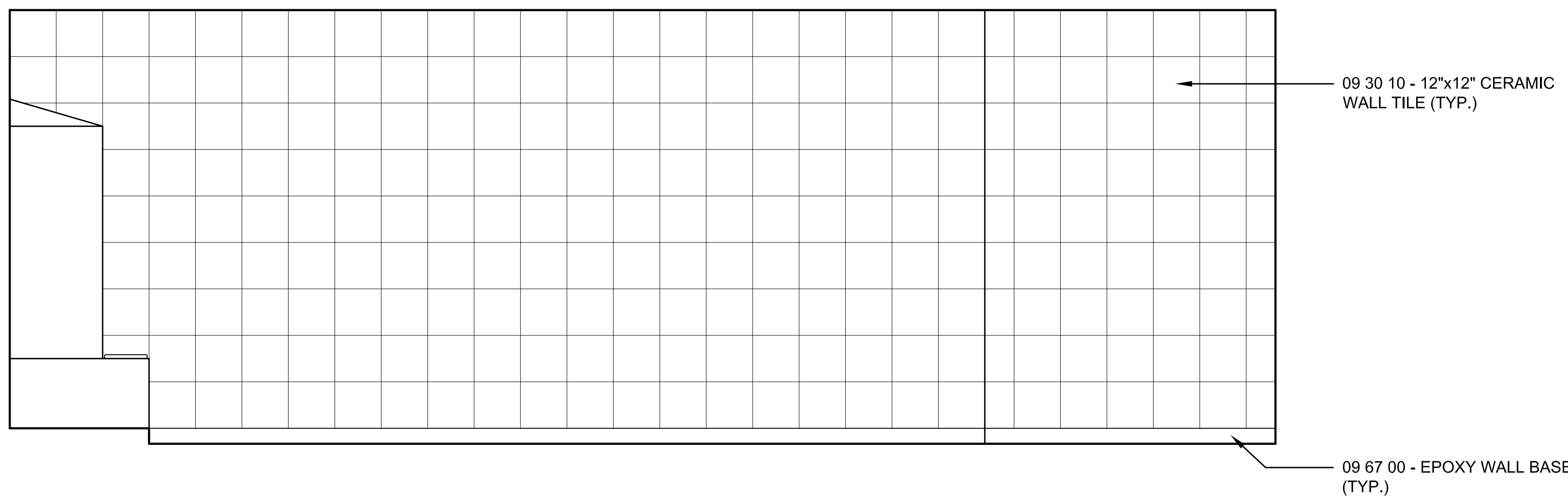
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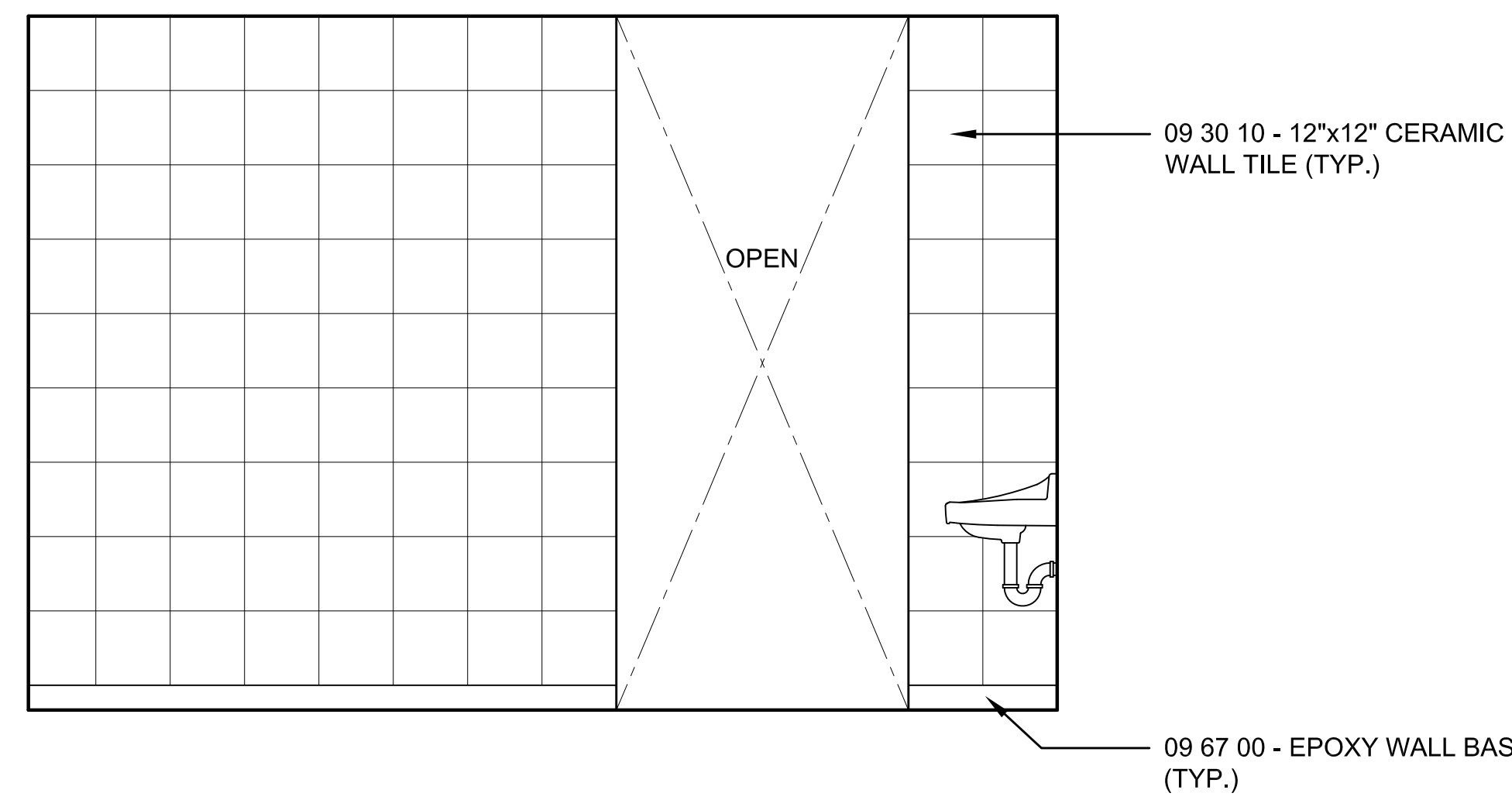
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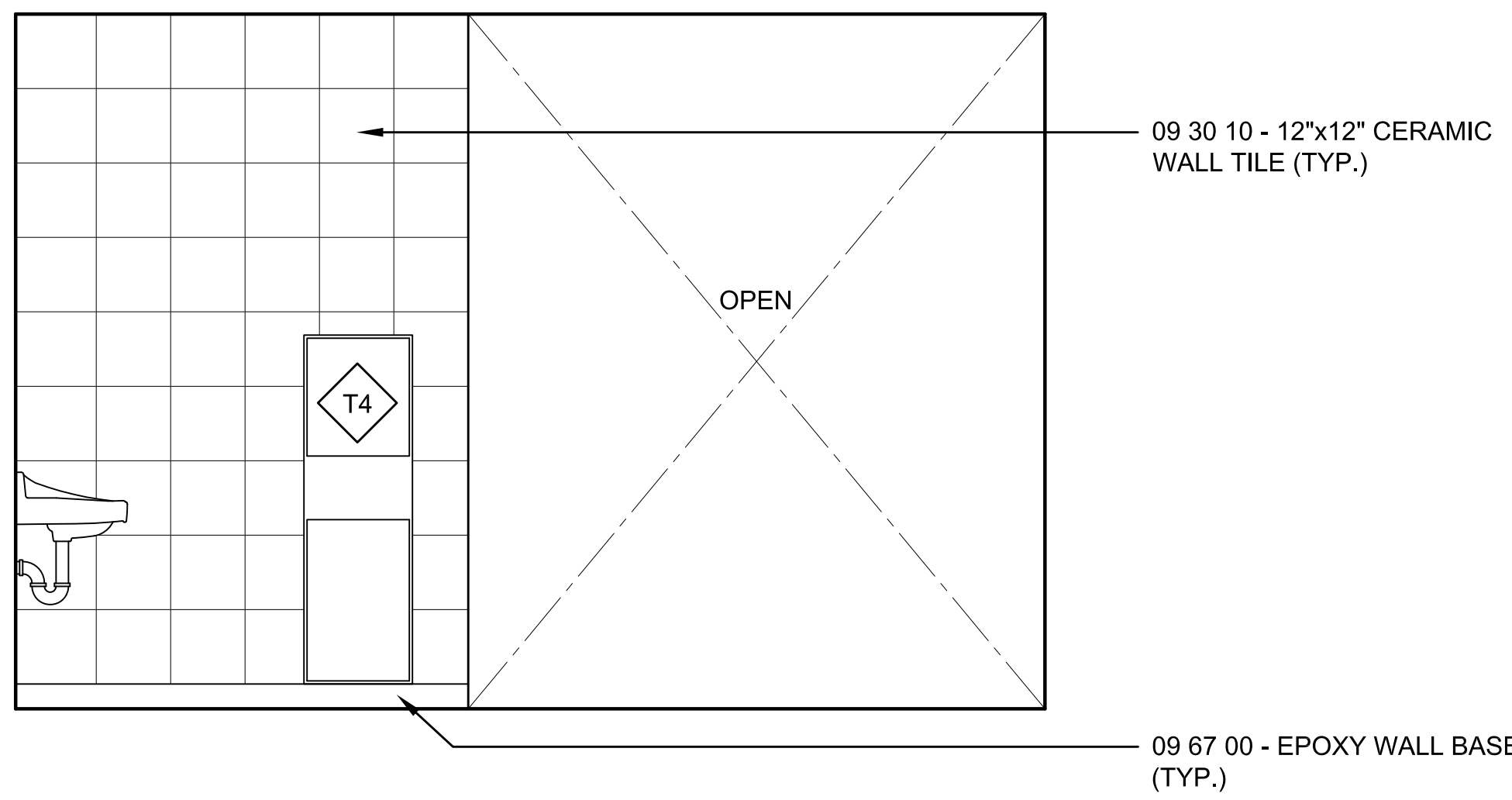
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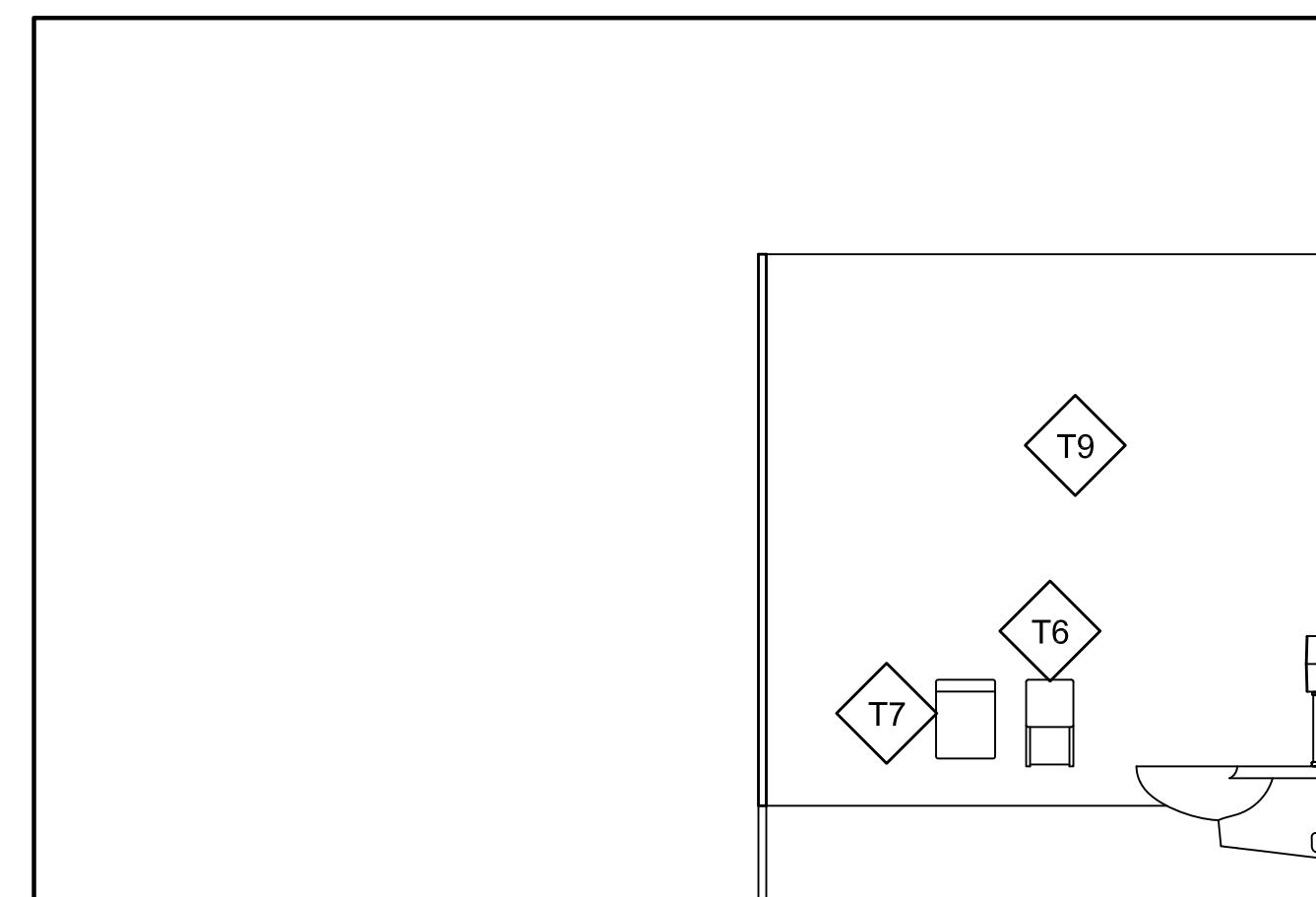
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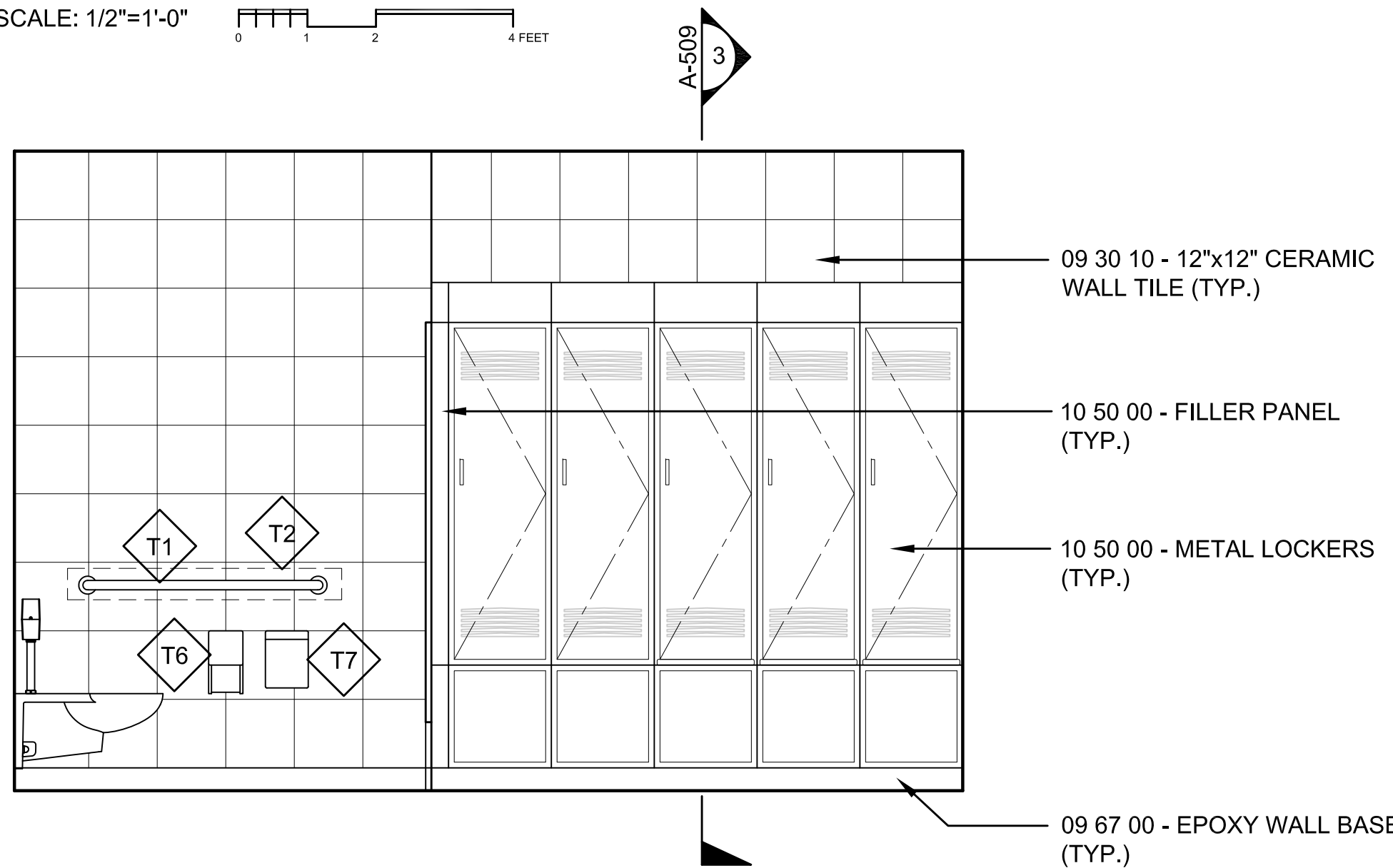
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SCALE: 1/2"=1'-0"



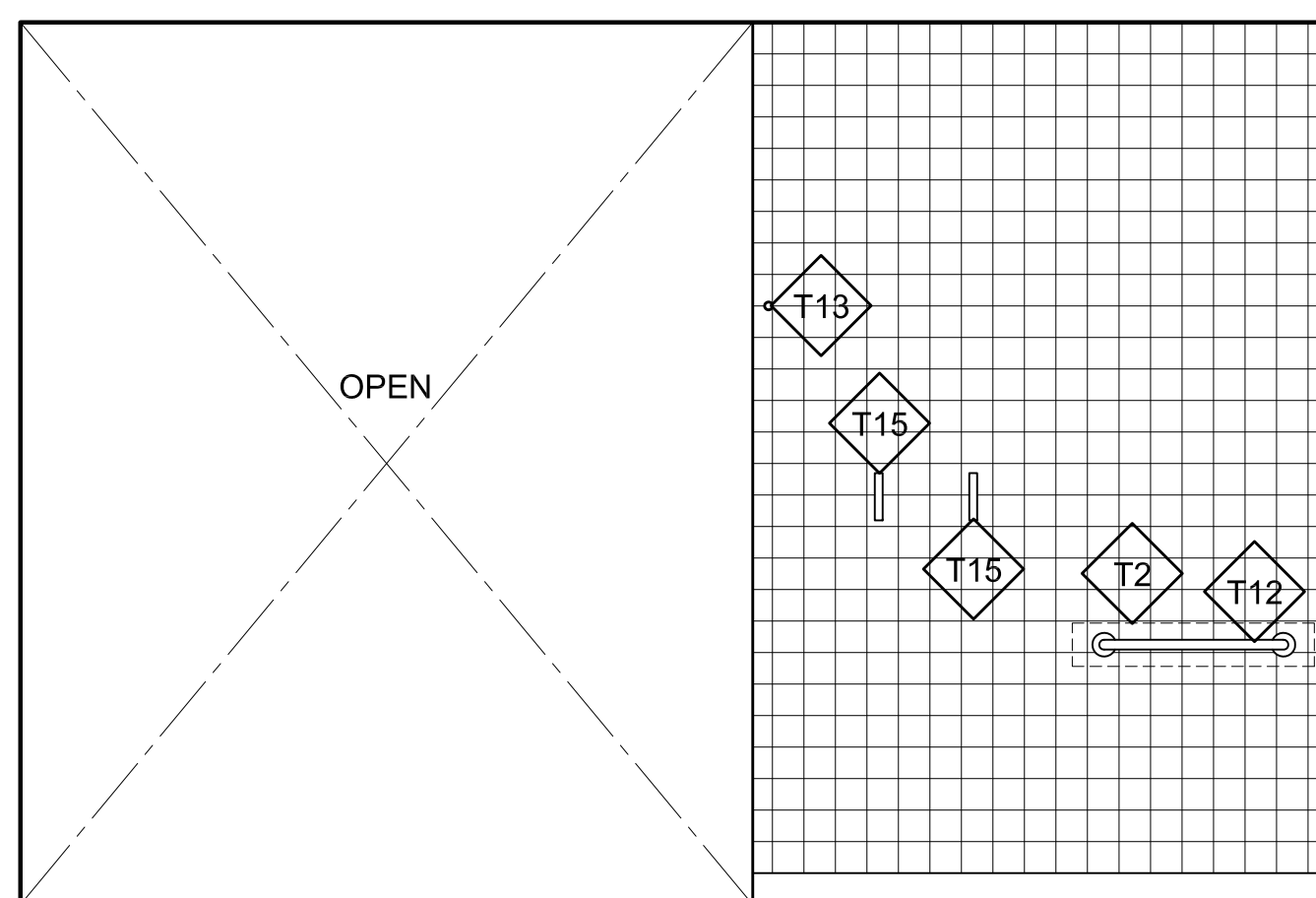
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SCALE: 1/2"=1'-0"



6 INTERIOR ELEVATION 6  
SCALE: 1/2"=1'-0"



7 INTERIOR ELEVATION 7  
SCALE: 1/2"=1'-0"



8 INTERIOR ELEVATION 8  
SCALE: 1/2"=1'-0"

### TOILET ACCESSORIES:

- |     |                                |     |                          |
|-----|--------------------------------|-----|--------------------------|
| T1  | 42" GRAB BAR                   | T11 | SHOWER SEAT              |
| T2  | GRAB BAR CONCEALED BLOCKING    | T12 | 30" GRAB BAR             |
| T3  | MIRROR                         | T13 | SHOWER CURTAIN ROD       |
| T4  | PAPER TOWEL DISPENSER/DISPOSAL | T14 | SHOWER CURTAIN AND HOOKS |
| T5  | WALL MOUNTED SOAP DISPENSER    | T15 | ROBE HOOK                |
| T6  | TOILET PAPER DISPENSER         | T16 | SHOWER ASSEMBLY          |
| T7  | SANITARY NAPKIN DISPOSAL       |     |                          |
| T8  | COAT HOOK                      |     |                          |
| T9  | TOILET PARTITIONS              |     |                          |
| T10 | URINAL SCREEN                  |     |                          |





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CONSTRUCTION AND ENGINEERING, INC.  
379 LIBERTY STREET  
ROCKLAND, MA 02370

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REV	DATE	DESCRIPTION

DATE	5/15/19
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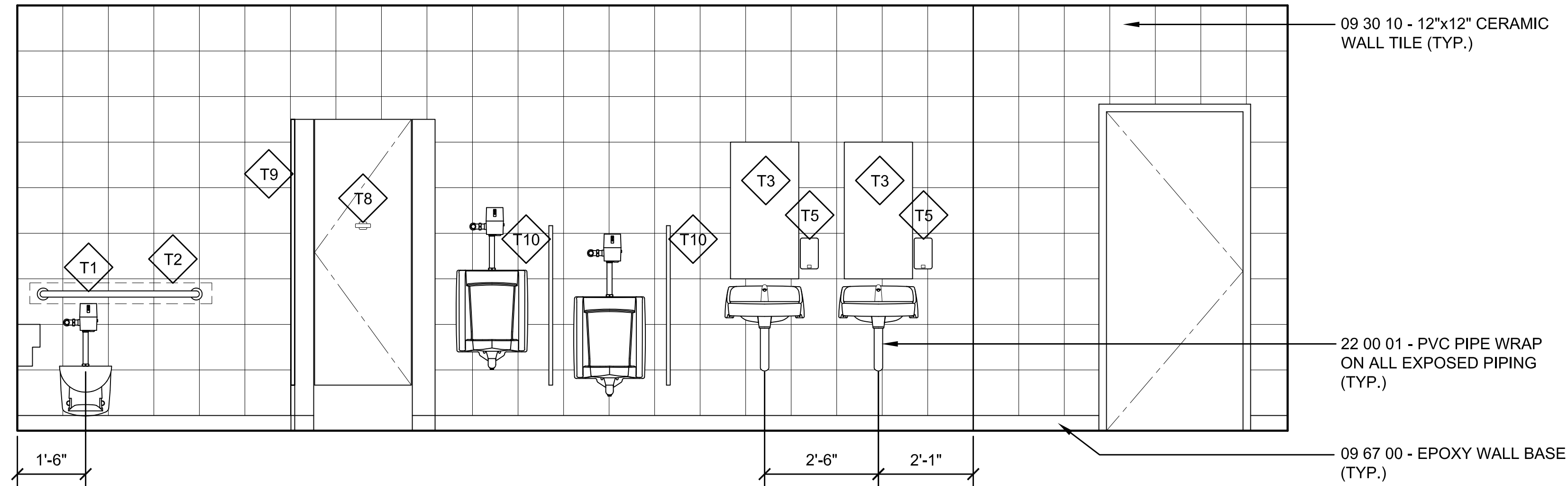
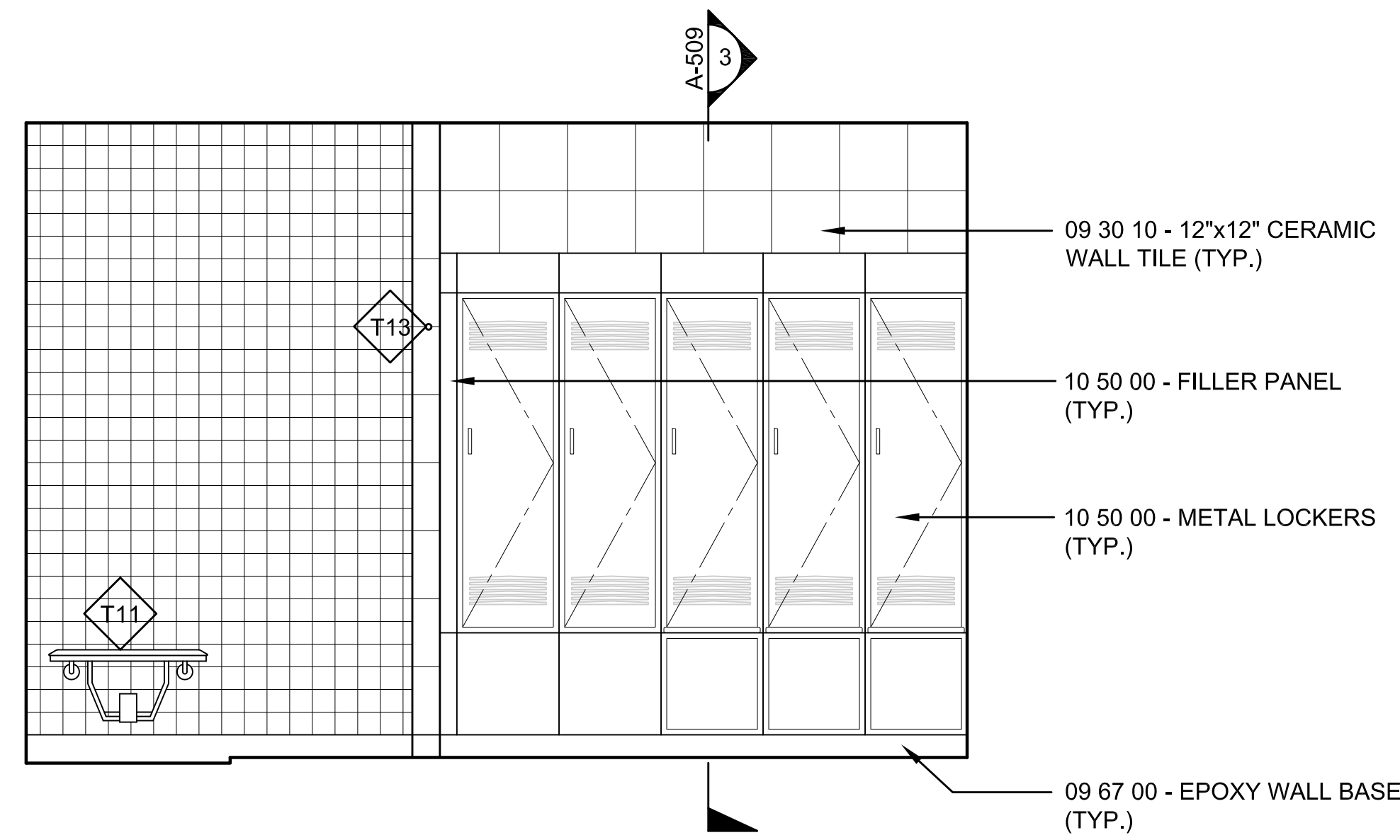
BUILDING:

SHEET TITLE:

INTERIOR ELEVATIONS  
SHEET 2

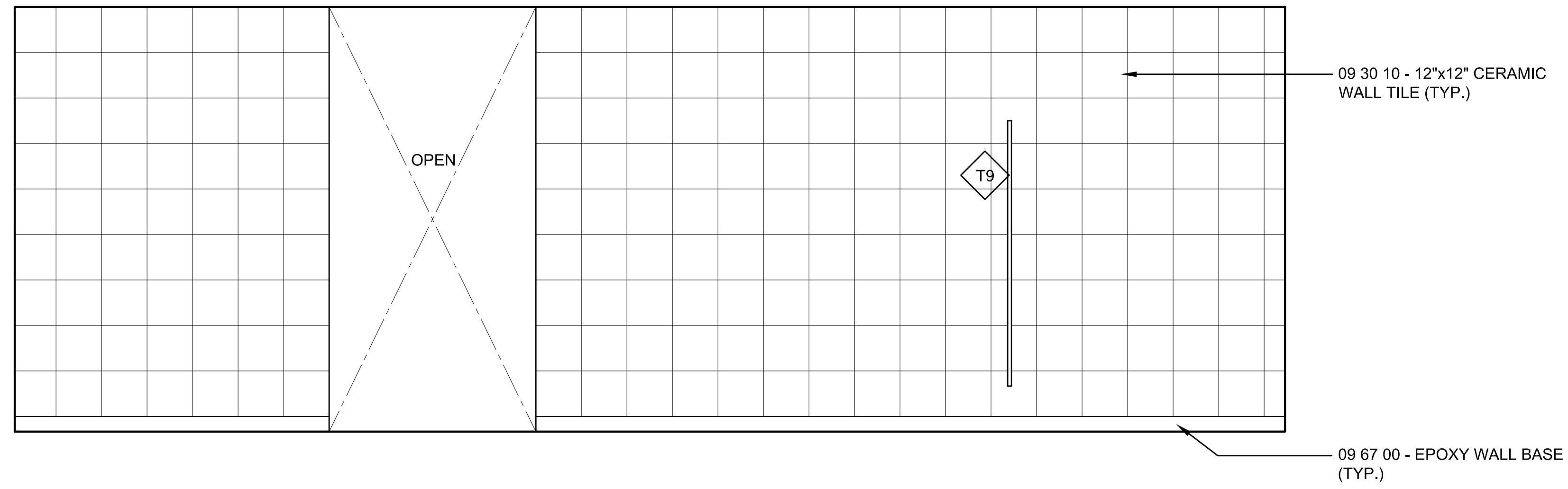
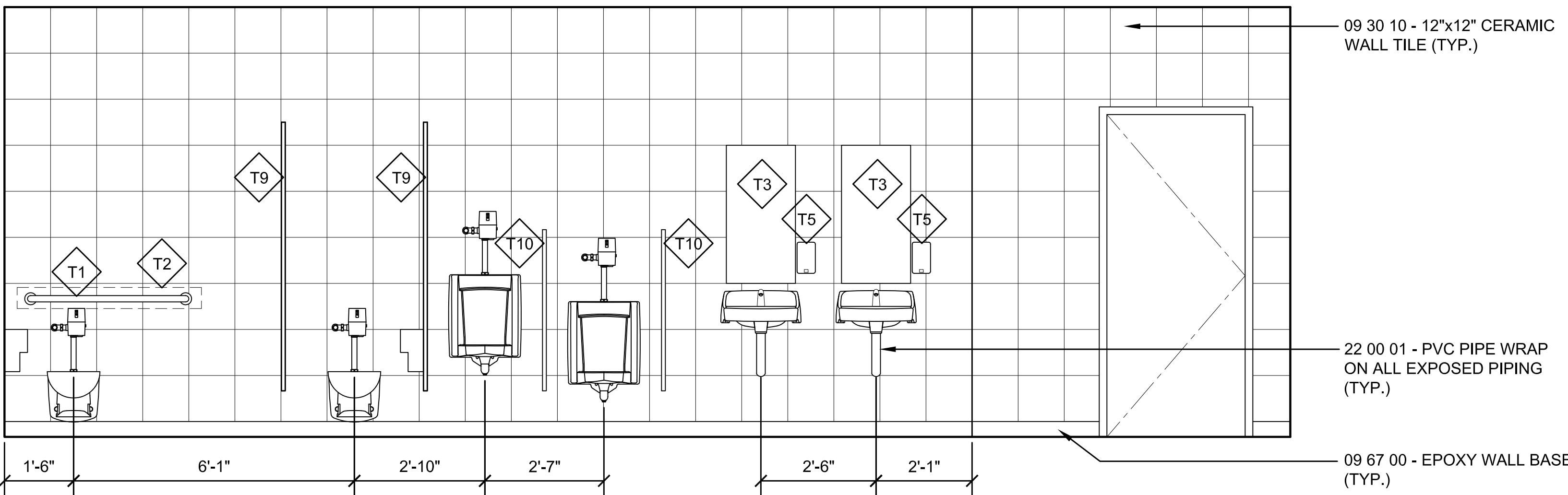
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A-603



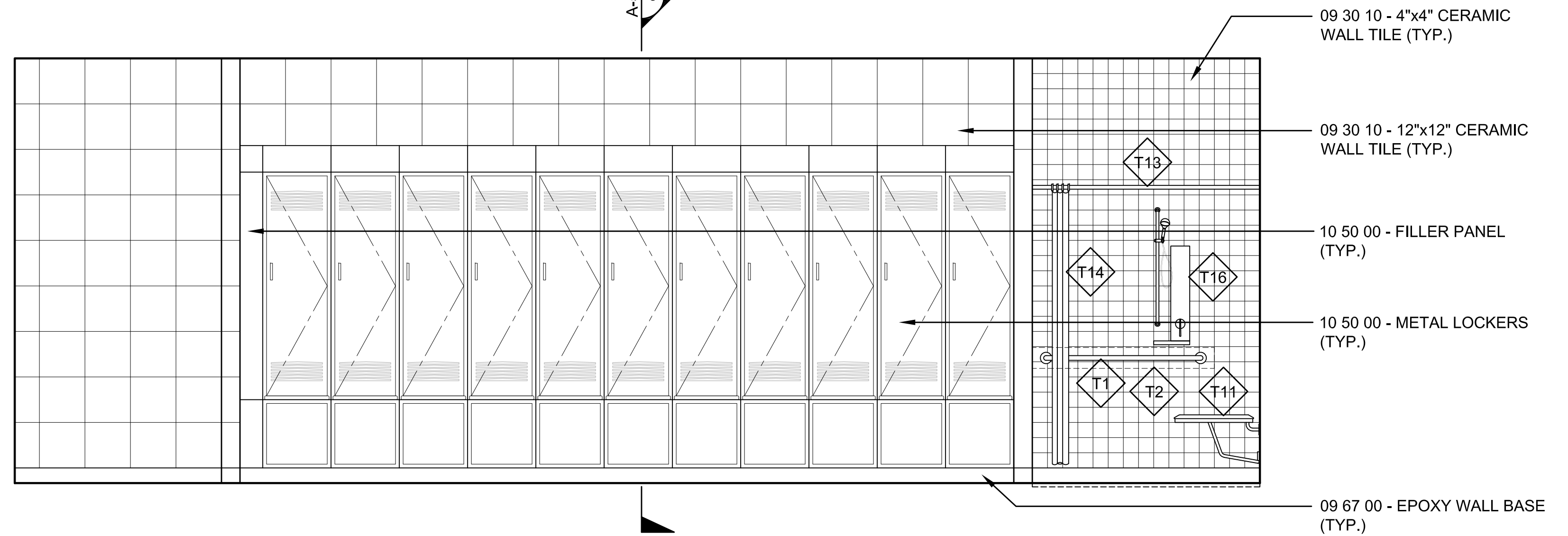
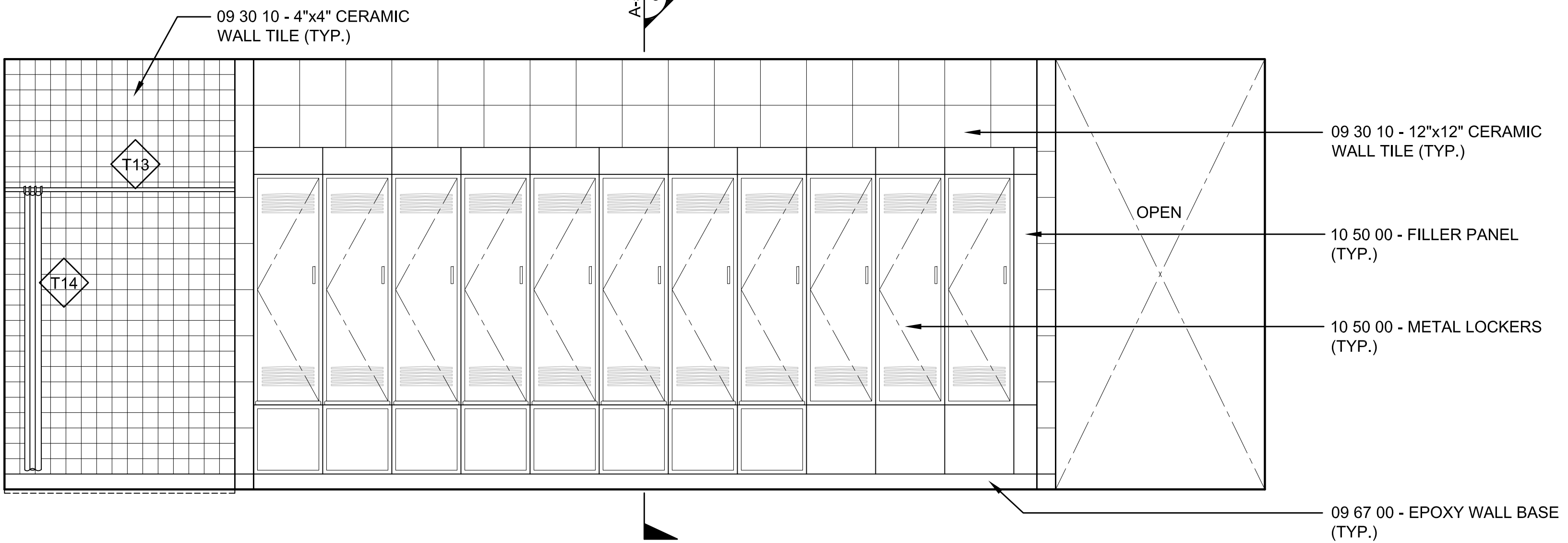
1 INTERIOR ELEVATION 9  
SCALE: 1/2"=1'-0"

2 INTERIOR ELEVATION 10  
SCALE: 1/2"=1'-0"



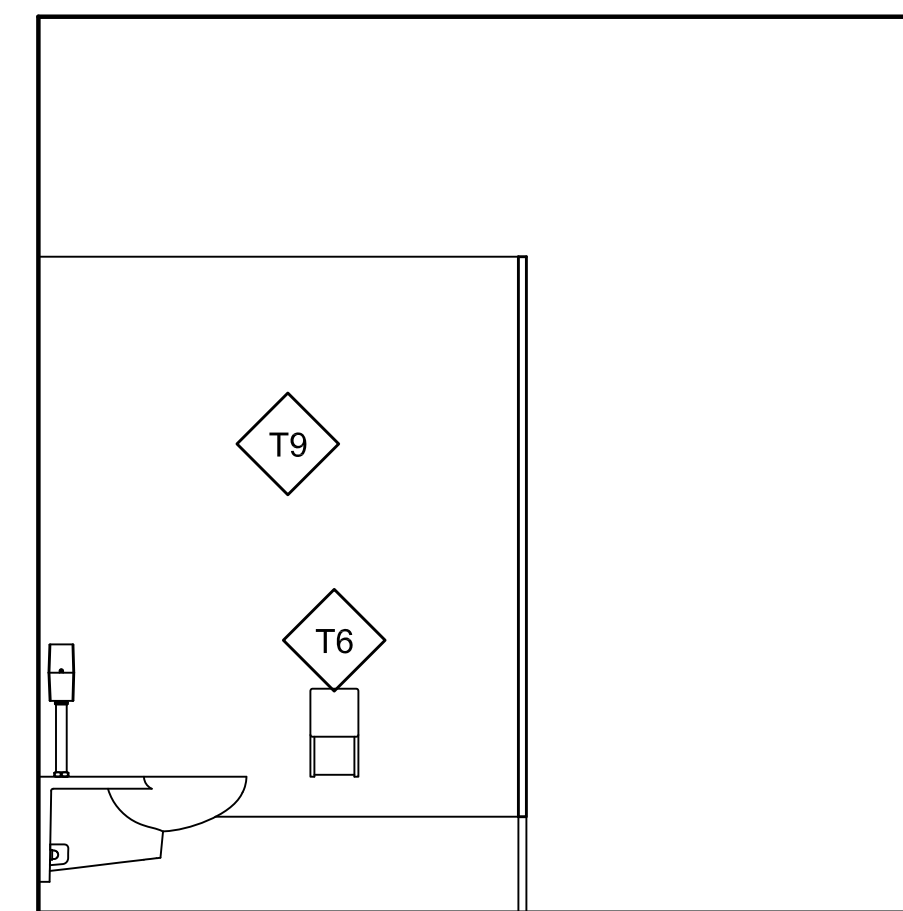
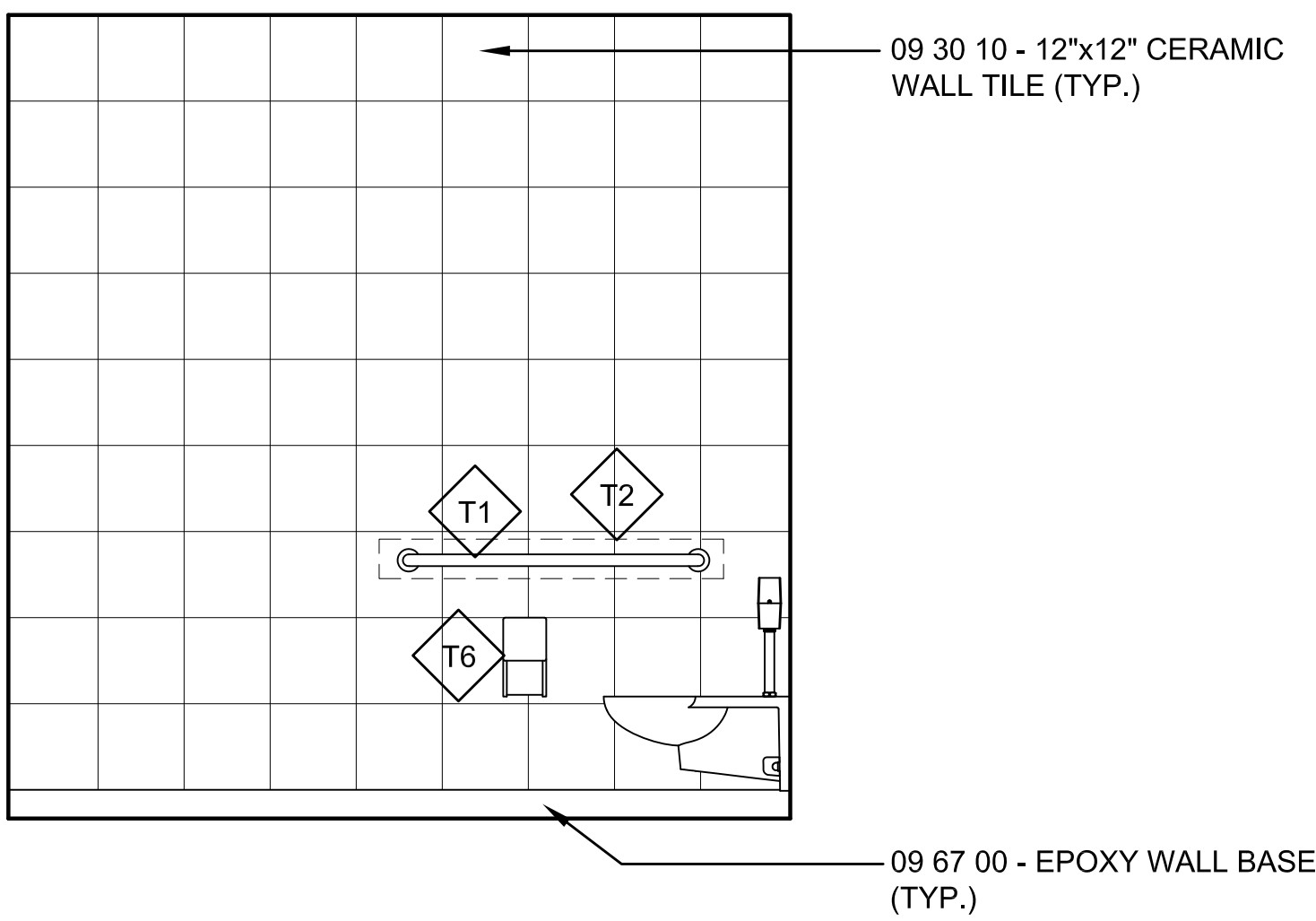
3 INTERIOR ELEVATION 11  
SCALE: 1/2"=1'-0"

4 INTERIOR ELEVATION 12  
SCALE: 1/2"=1'-0"



5 INTERIOR ELEVATION 13  
SCALE: 1/2"=1'-0"

6 INTERIOR ELEVATION 14  
SCALE: 1/2"=1'-0"



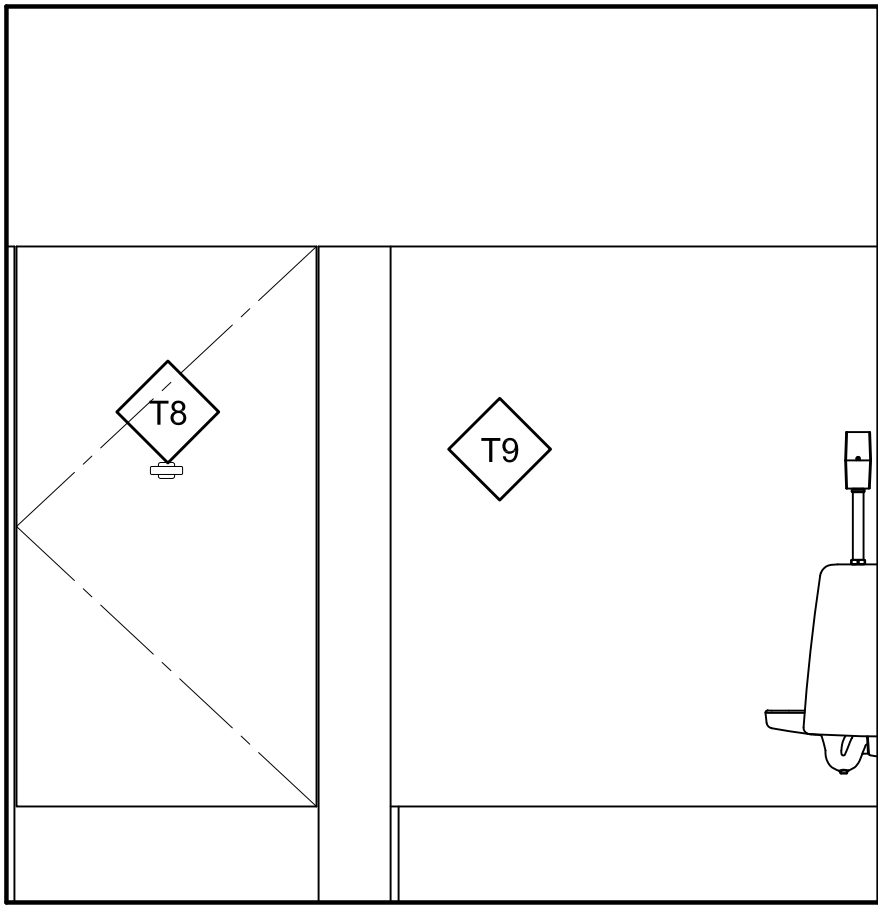
7 INTERIOR ELEVATION 15  
SCALE: 1/2"=1'-0"

8 INTERIOR ELEVATION 16  
SCALE: 1/2"=1'-0"

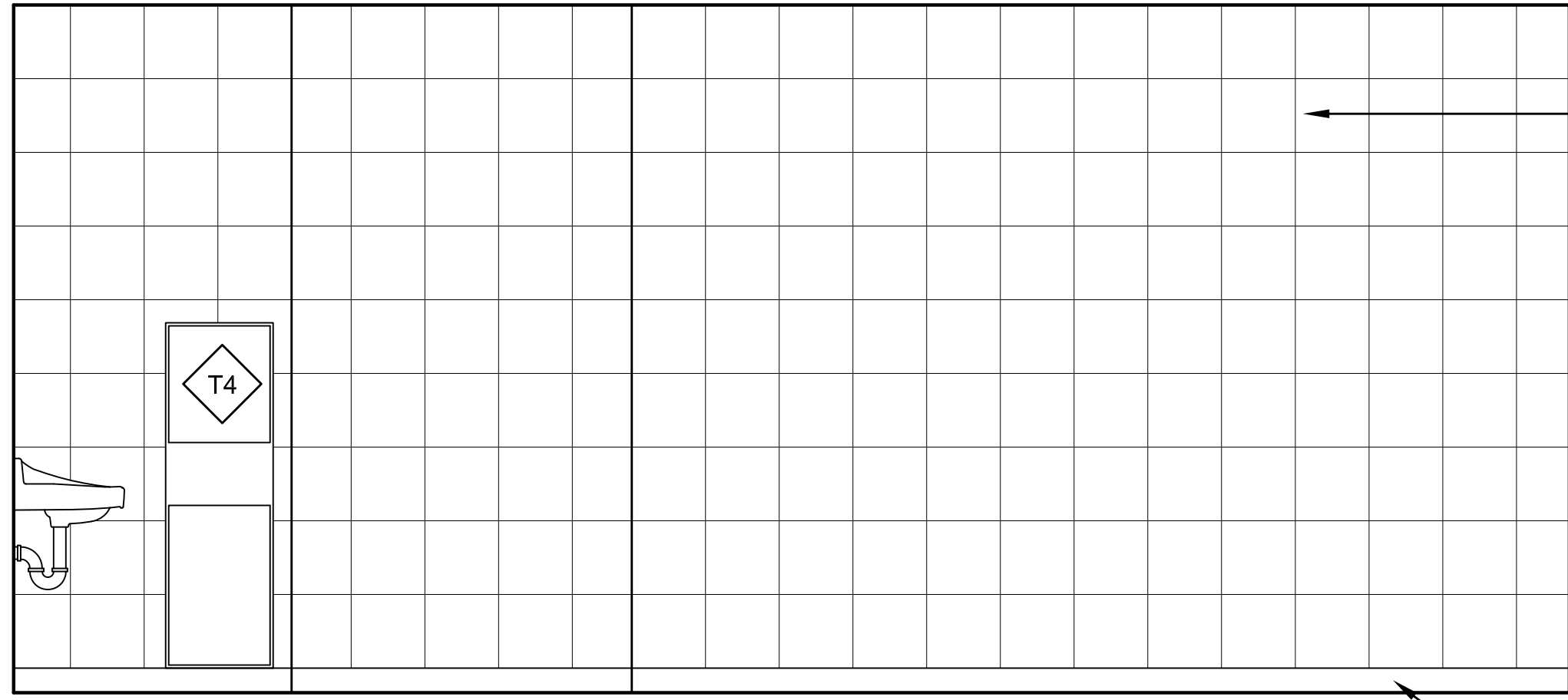
TOILET ACCESSORIES:

T1	42" GRAB BAR	T11	SHOWER SEAT
T2	GRAB BAR CONCEALED BLOCKING	T12	30" GRAB BAR
T3	MIRROR	T13	SHOWER CURTAIN ROD
T4	PAPER TOWEL DISPENSER/DISPOSAL	T14	SHOWER CURTAIN AND HOOKS
T5	WALL MOUNTED SOAP DISPENSER	T15	ROBE HOOK
T6	TOILET PAPER DISPENSER	T16	SHOWER ASSEMBLY
T7	SANITARY NAPKIN DISPOSAL		
T8	COAT HOOK		
T9	TOILET PARTITIONS		
T10	URINAL SCREEN		

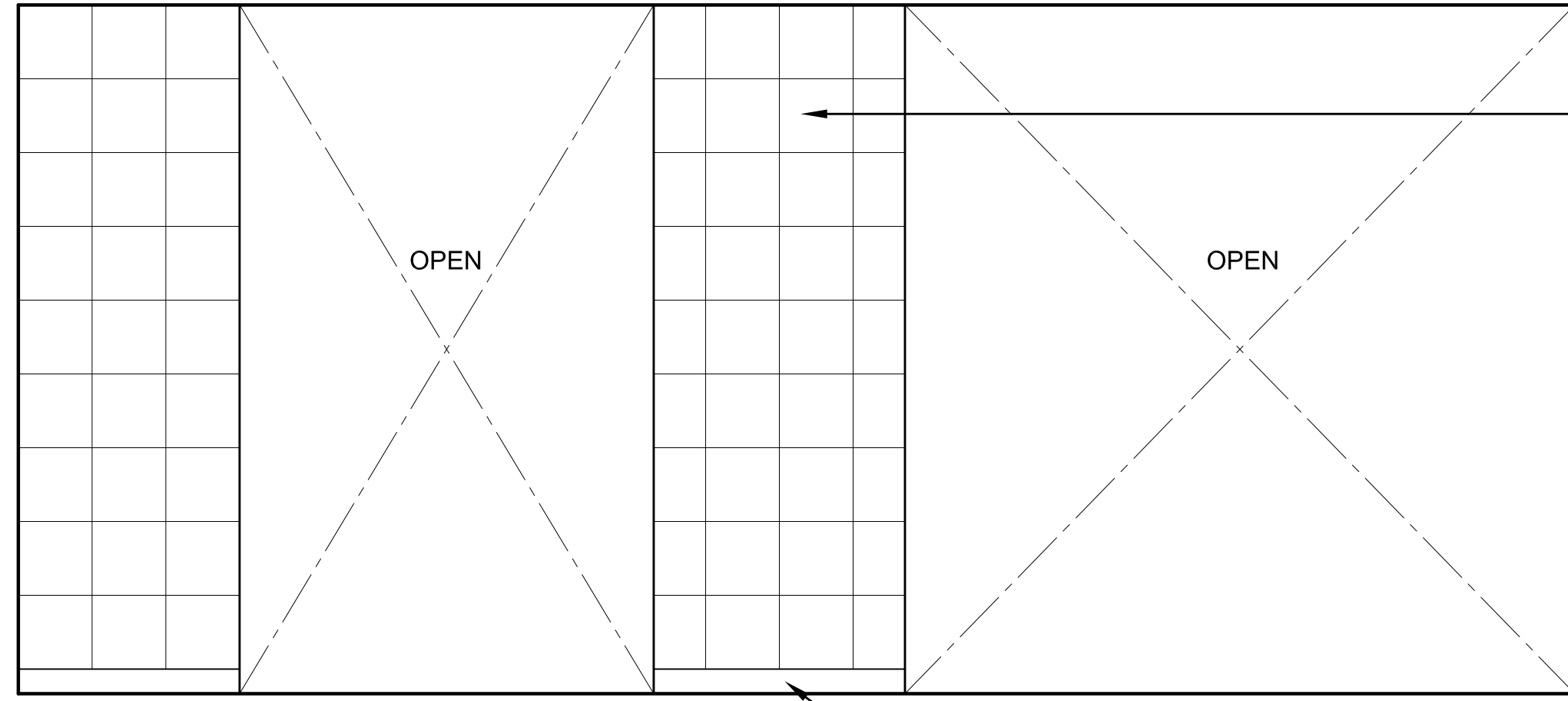




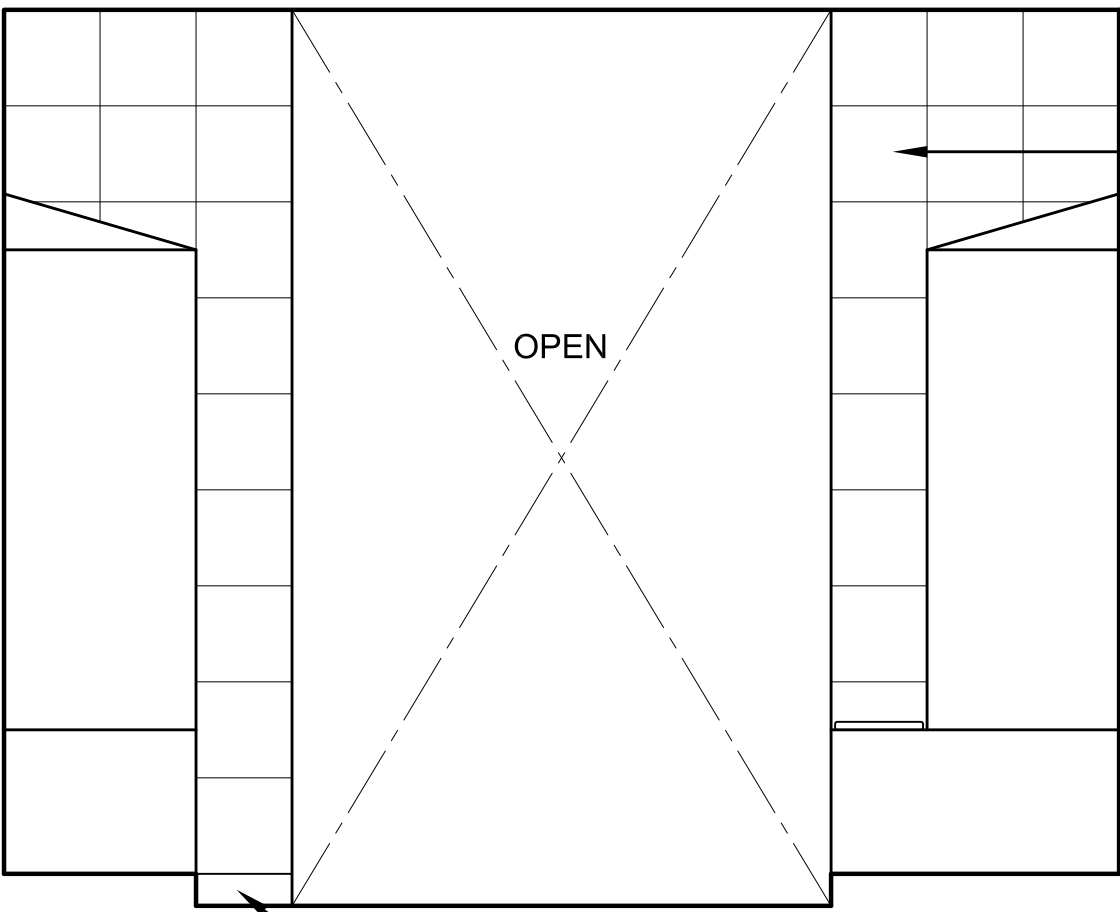
1 INTERIOR ELEVATION 17  
SCALE: 1/2"=1'-0"



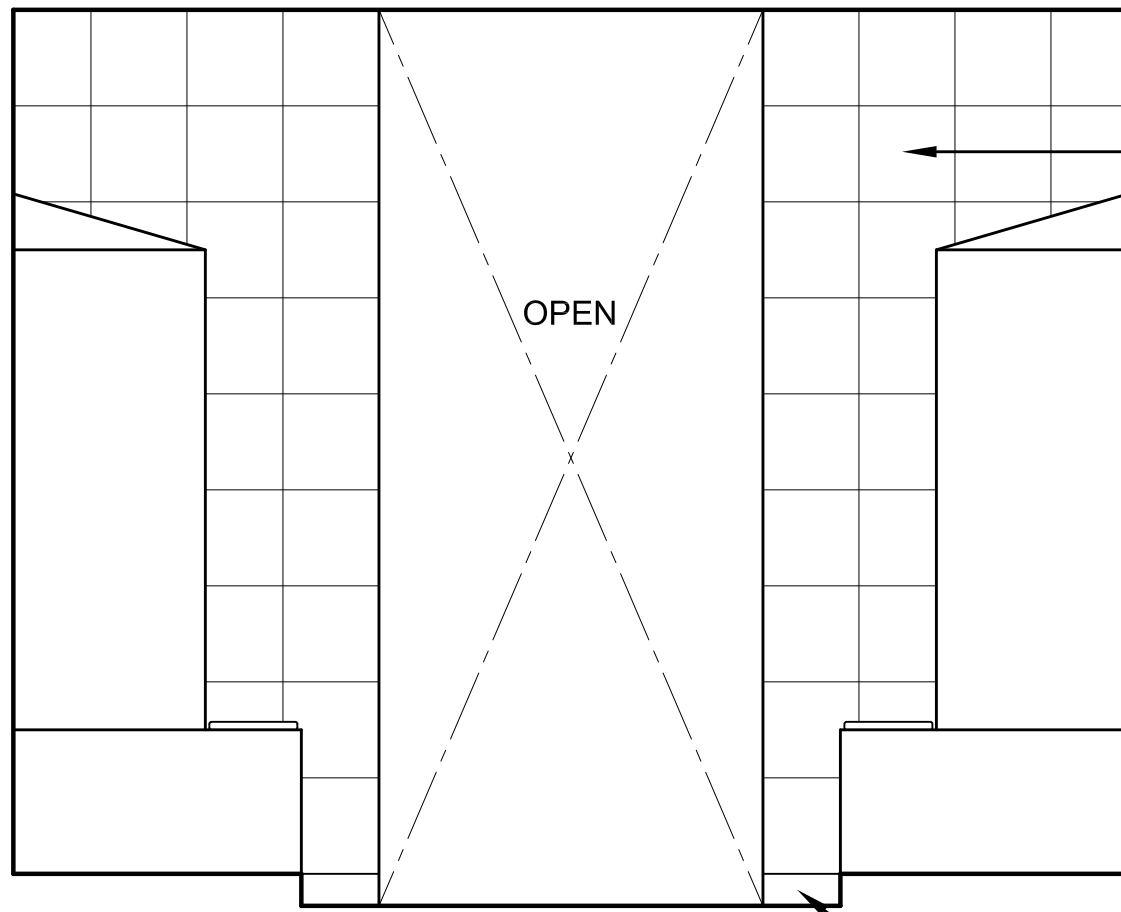
2 INTERIOR ELEVATION 18  
SCALE: 1/2"=1'-0"



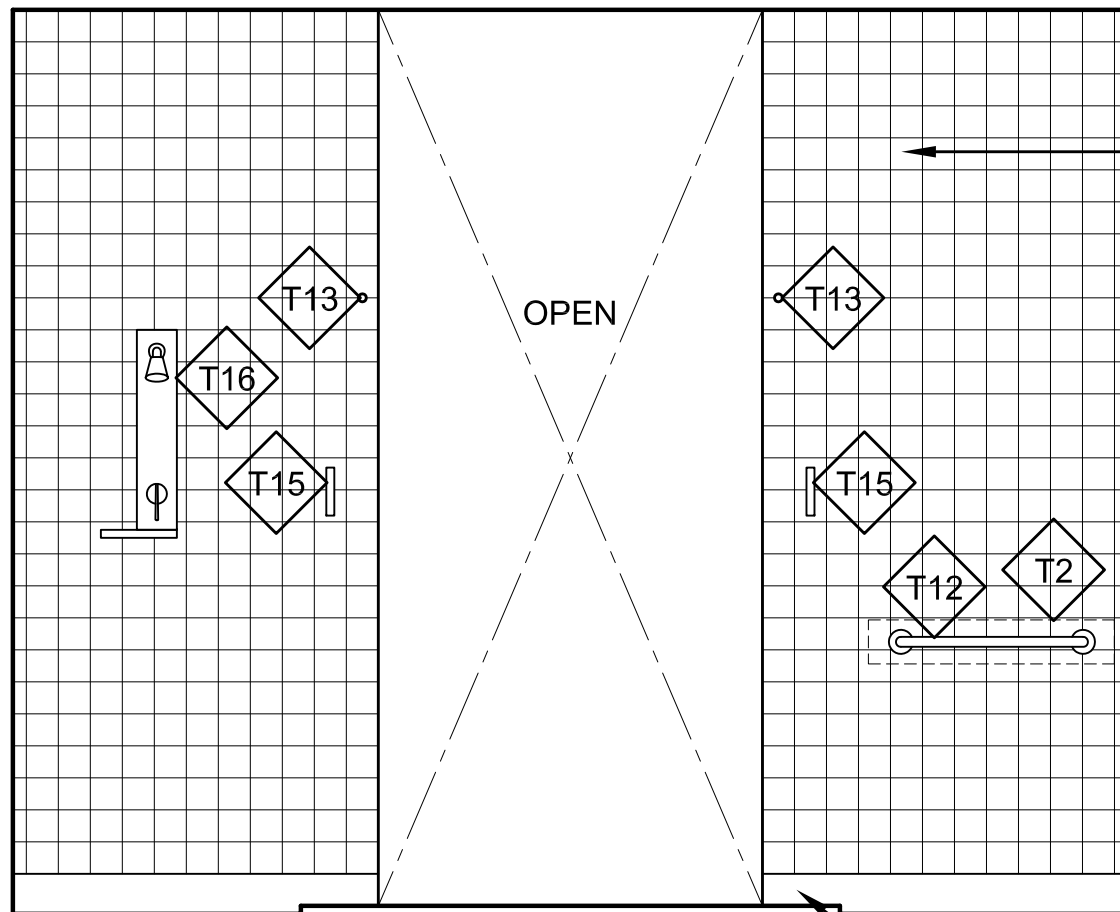
3 INTERIOR ELEVATION 19  
SCALE: 1/2"=1'-0"



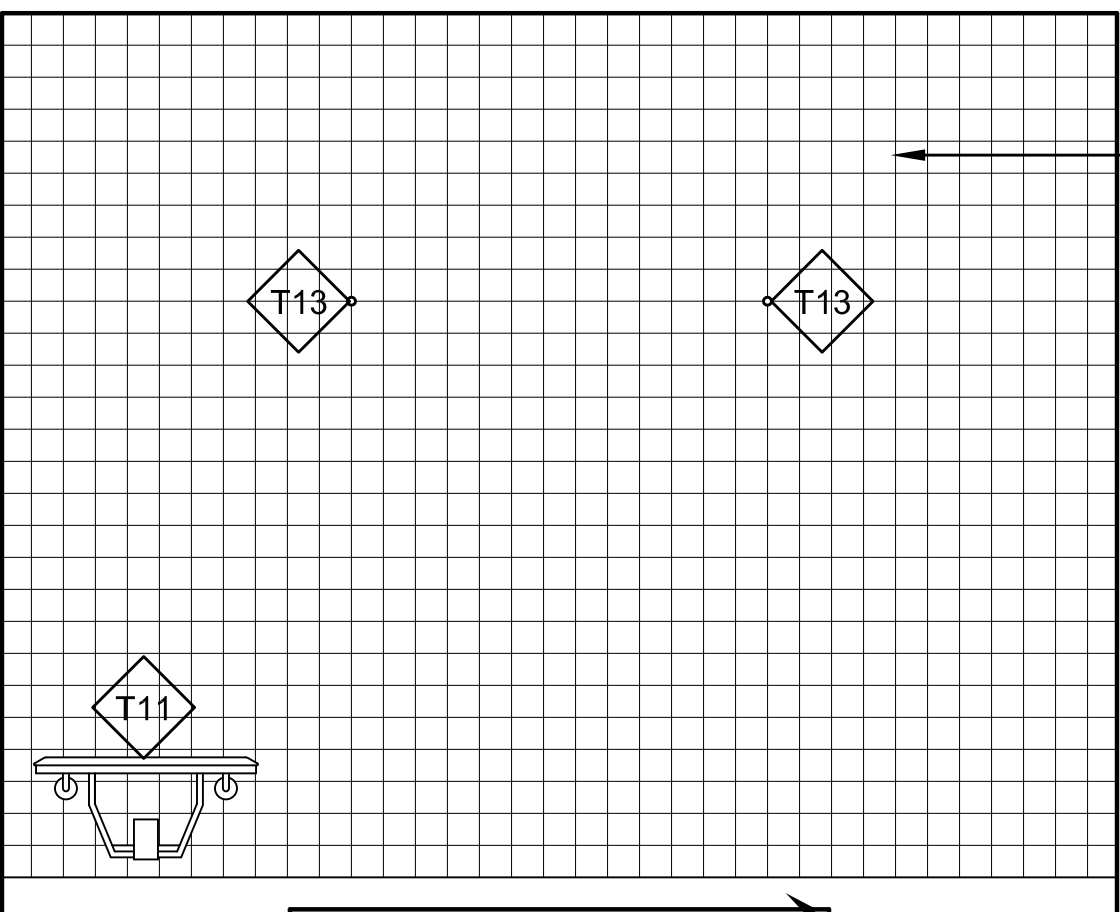
4 INTERIOR ELEVATION 20  
SCALE: 1/2"=1'-0"



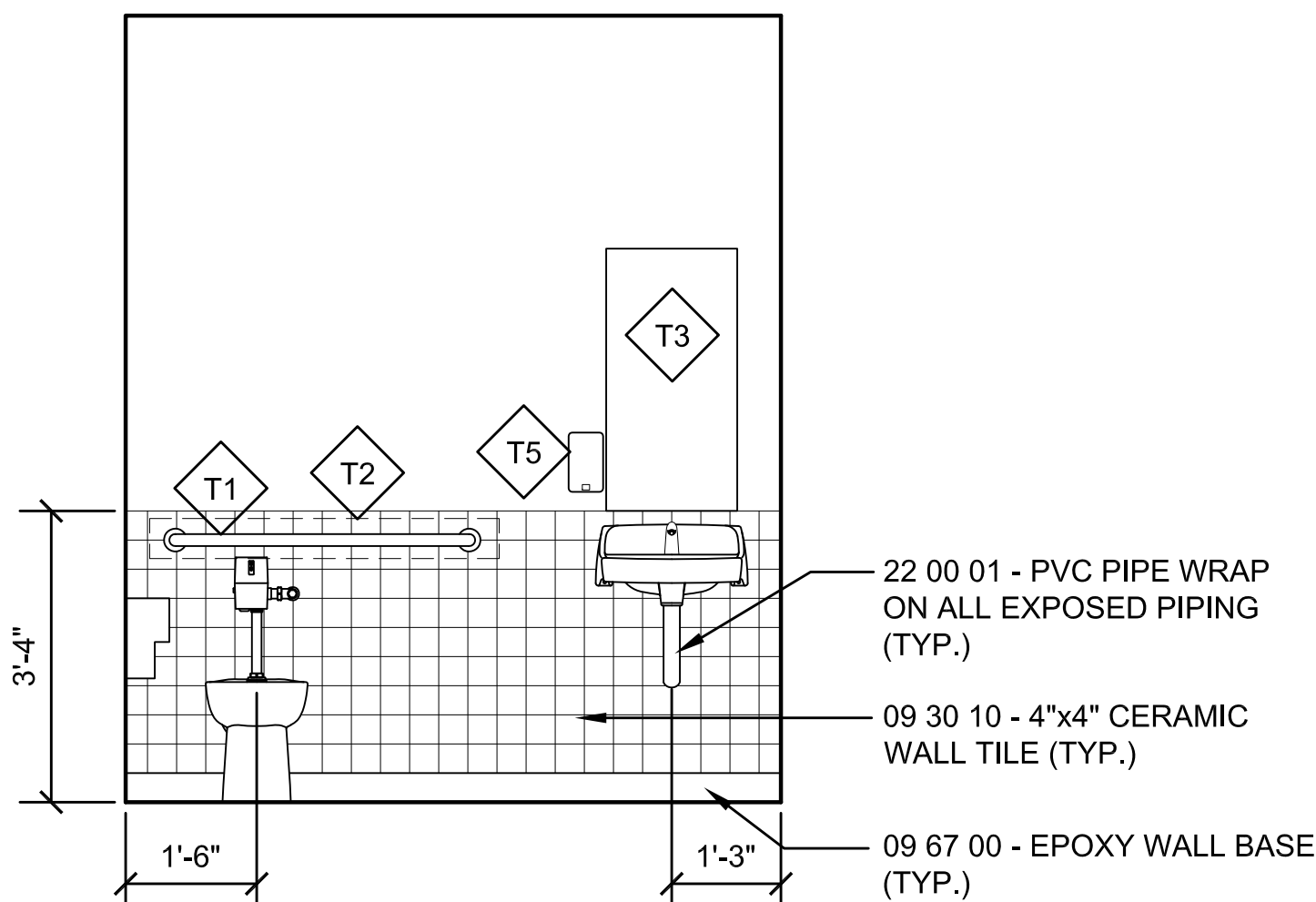
5 INTERIOR ELEVATION 21  
SCALE: 1/2"=1'-0"



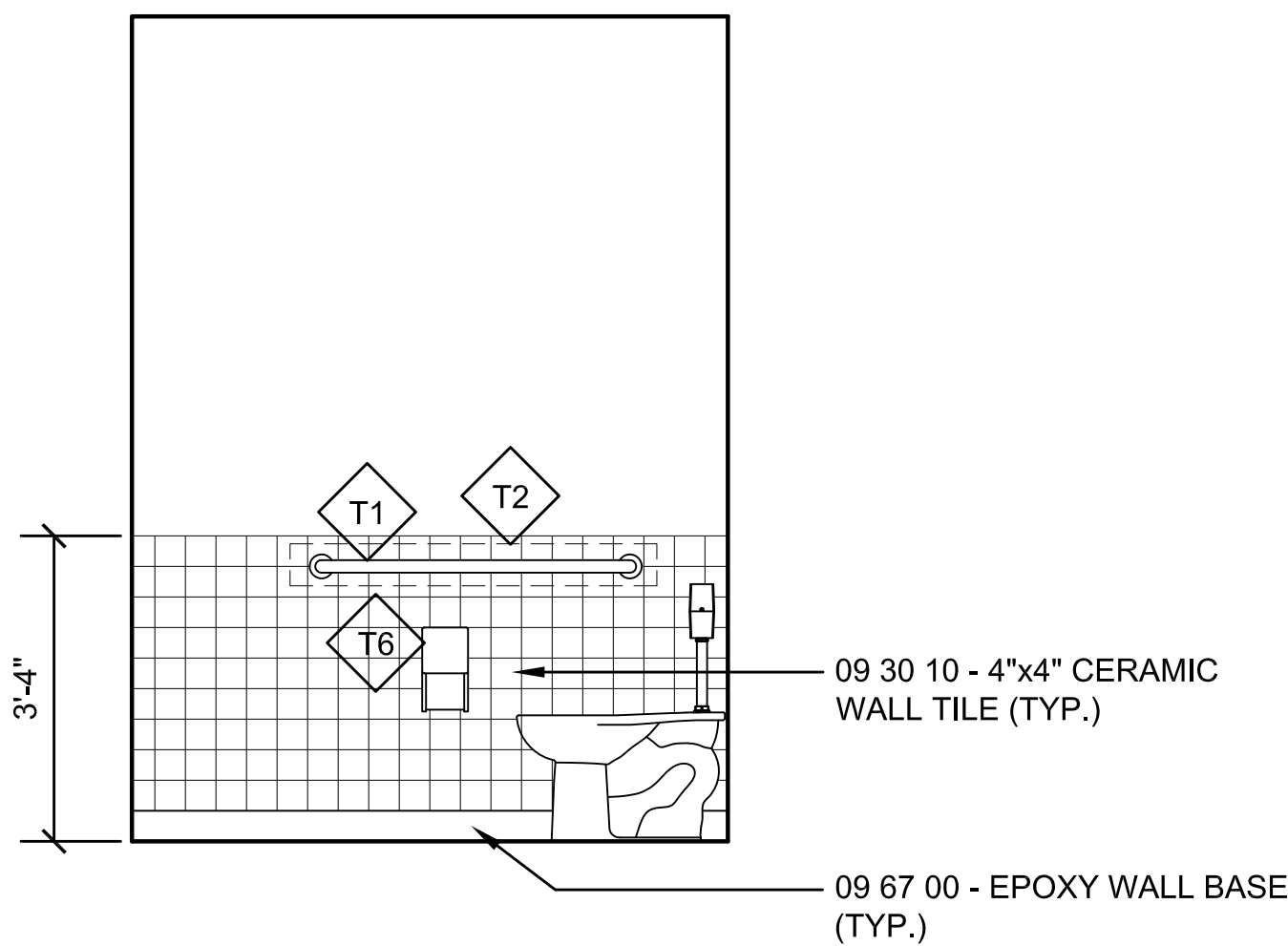
6 INTERIOR ELEVATION 22  
SCALE: 1/2"=1'-0"



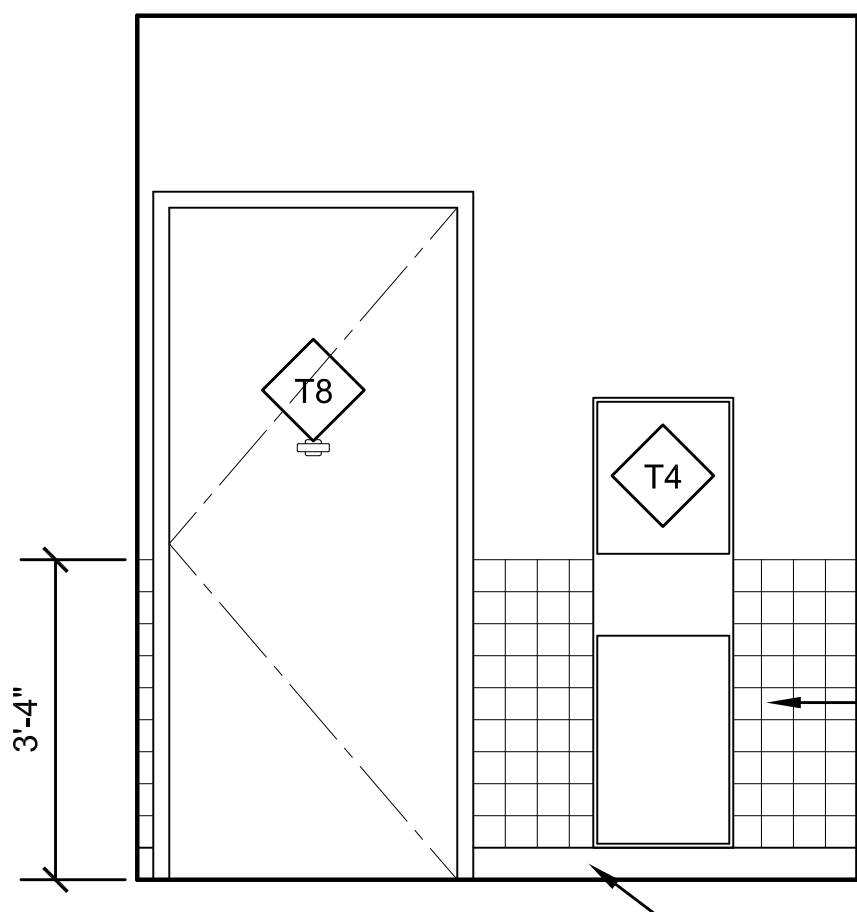
7 INTERIOR ELEVATION 23  
SCALE: 1/2"=1'-0"



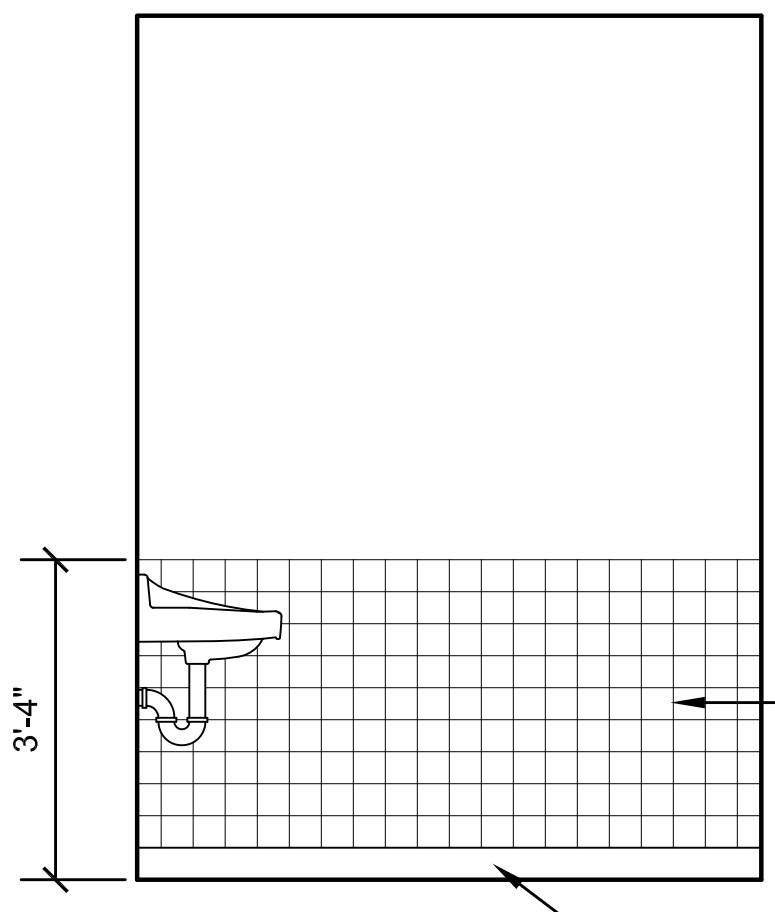
8 INTERIOR ELEVATION 24  
SCALE: 1/2"=1'-0"



9 INTERIOR ELEVATION 25  
SCALE: 1/2"=1'-0"



10 INTERIOR ELEVATION 26  
SCALE: 1/2"=1'-0"



11 INTERIOR ELEVATION 27  
SCALE: 1/2"=1'-0"

### TOILET ACCESSORIES:

- |     |                                |     |                          |
|-----|--------------------------------|-----|--------------------------|
| T1  | 42" GRAB BAR                   | T11 | SHOWER SEAT              |
| T2  | GRAB BAR CONCEALED BLOCKING    | T12 | 30" GRAB BAR             |
| T3  | MIRROR                         | T13 | SHOWER CURTAIN ROD       |
| T4  | PAPER TOWEL DISPENSER/DISPOSAL | T14 | SHOWER CURTAIN AND HOOKS |
| T5  | WALL MOUNTED SOAP DISPENSER    | T15 | ROBE HOOK                |
| T6  | TOILET PAPER DISPENSER         | T16 | SHOWER ASSEMBLY          |
| T7  | SANITARY NAPKIN DISPOSAL       |     |                          |
| T8  | COAT HOOK                      |     |                          |
| T9  | TOILET PARTITIONS              |     |                          |
| T10 | URINAL SCREEN                  |     |                          |



## TOWN OF MONTAGUE

### NEW DPW FACILITY

OWNER:  
TOWN OF MONTAGUE  
ONE AVENUE A  
TURNERS FALLS, MA 01376

ARCHITECT:  
**HELENE • KARL**  
Architects, Inc.  
61 Skyfields Drive, Groton, Massachusetts 01450

CIVIL ENGINEER:  
SYMMES, MAINI & McKEE ASSOCIATES  
1000 MASSACHUSETTS AVENUE  
CAMBRIDGE, MA 02138

STRUCTURAL ENGINEER:  
SYMMES, MAINI & McKEE ASSOCIATES  
1000 MASSACHUSETTS AVENUE  
CAMBRIDGE, MA 02138

MECHANICAL ENGINEER:  
SEAMAN ENGINEERING CORP.  
22 WEST STREET, UNIT C  
MILLBURY, MA 01527

ELECTRICAL ENGINEER:  
JOHN J. MURPHY, JR., ELECTRICAL  
CONSTRUCTION AND ENGINEERING, INC.  
379 LIBERTY STREET  
ROCKLAND, MA 02370

STAMP

REV	DATE	DESCRIPTION

DATE	5/15/19
SCALE	1/2" = 1'-0"
DRAWN BY	MTV
CHECKED BY	GKY
PROJECT NO.	19001

BUILDING:

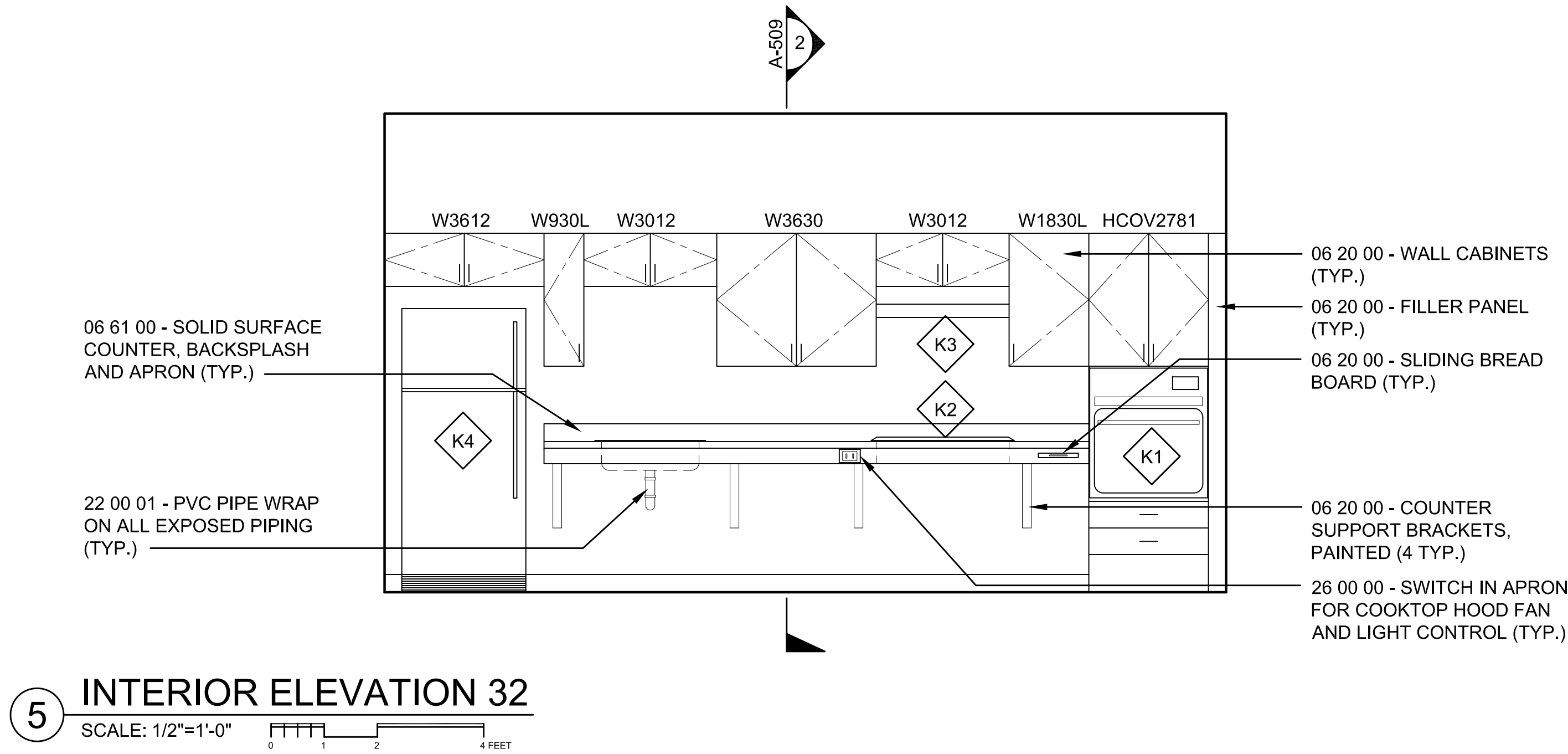
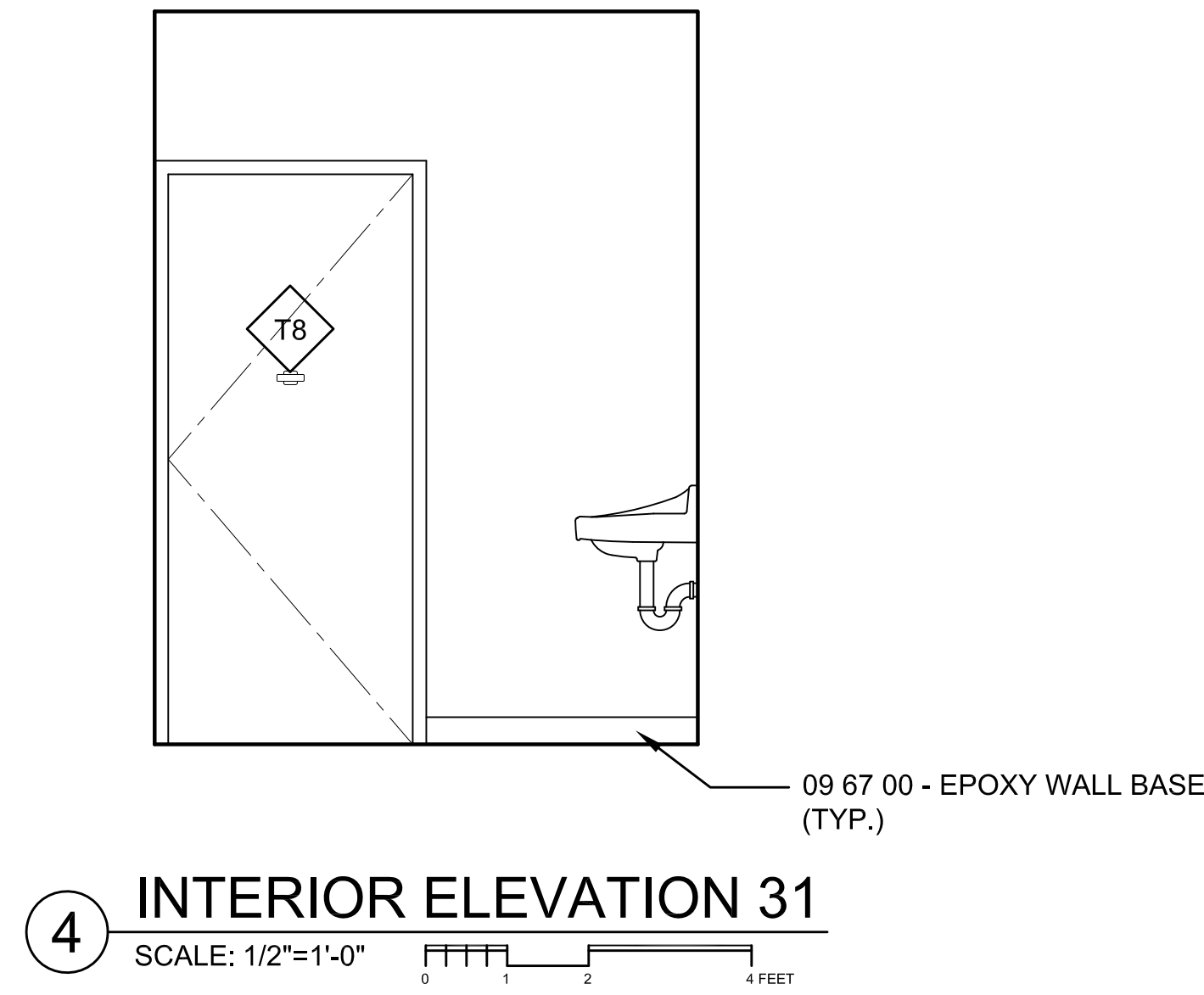
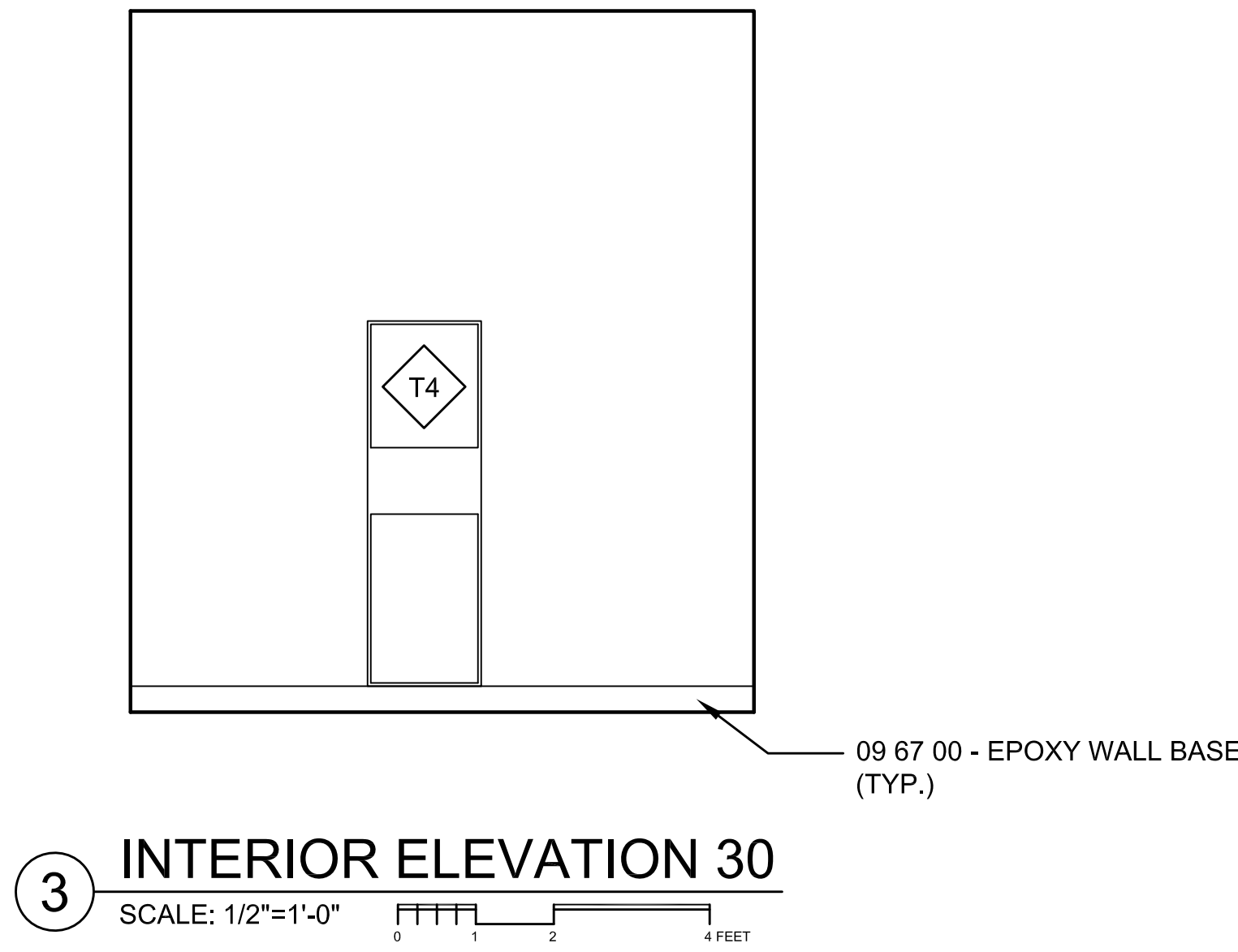
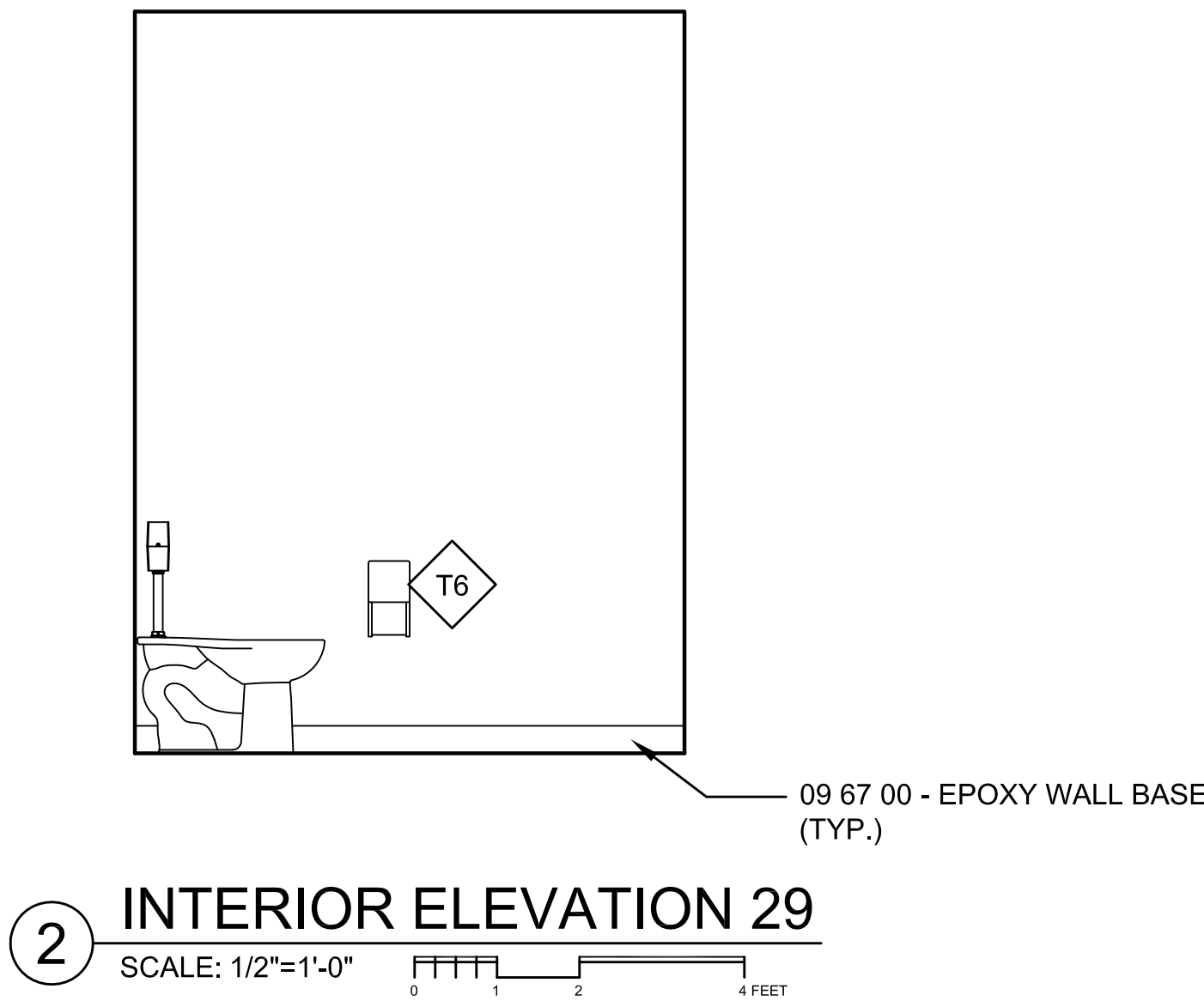
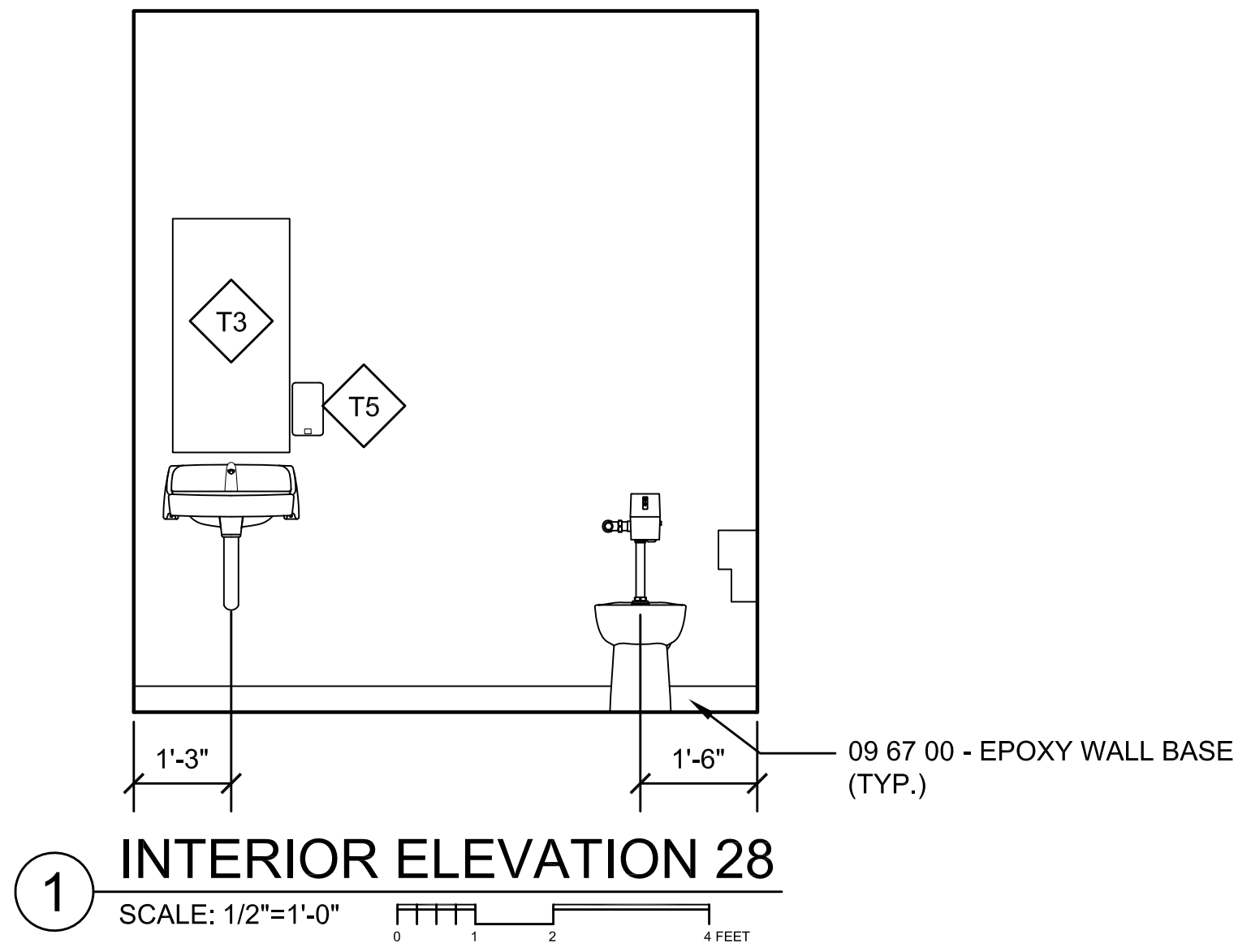
SHEET TITLE:

INTERIOR ELEVATIONS  
SHEET 3

DRAWING NO.

A-604





KITCHEN APPLIANCES:

- K1 WALL OVEN
- K2 COOKTOP
- K3 COOKTOP HOOD
- K4 REFRIGERATOR

TOILET ACCESSORIES:

- T1 42" GRAB BAR
- T2 GRAB BAR CONCEALED BLOCKING
- T3 MIRROR
- T4 PAPER TOWEL DISPENSER/DISPOSAL
- T5 WALL MOUNTED SOAP DISPENSER
- T6 TOILET PAPER DISPENSER
- T7 SANITARY NAPKIN DISPOSAL
- T8 COAT HOOK
- T9 TOILET PARTITIONS
- T10 URINAL SCREEN
- T11 SHOWER SEAT
- T12 30" GRAB BAR
- T13 SHOWER CURTAIN ROD
- T14 SHOWER CURTAIN AND HOOKS
- T15 ROBE HOOK
- T16 SHOWER ASSEMBLY



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379 LIBERTY STREET  
ROCKLAND, MA 02370

STAMP

REV	DATE	DESCRIPTION

DATE	5/15/19
SCALE	1/2" = 1'-0"
DRAWN BY	MTV
CHECKED BY	GKY
PROJECT NO.	19001

BUILDING:

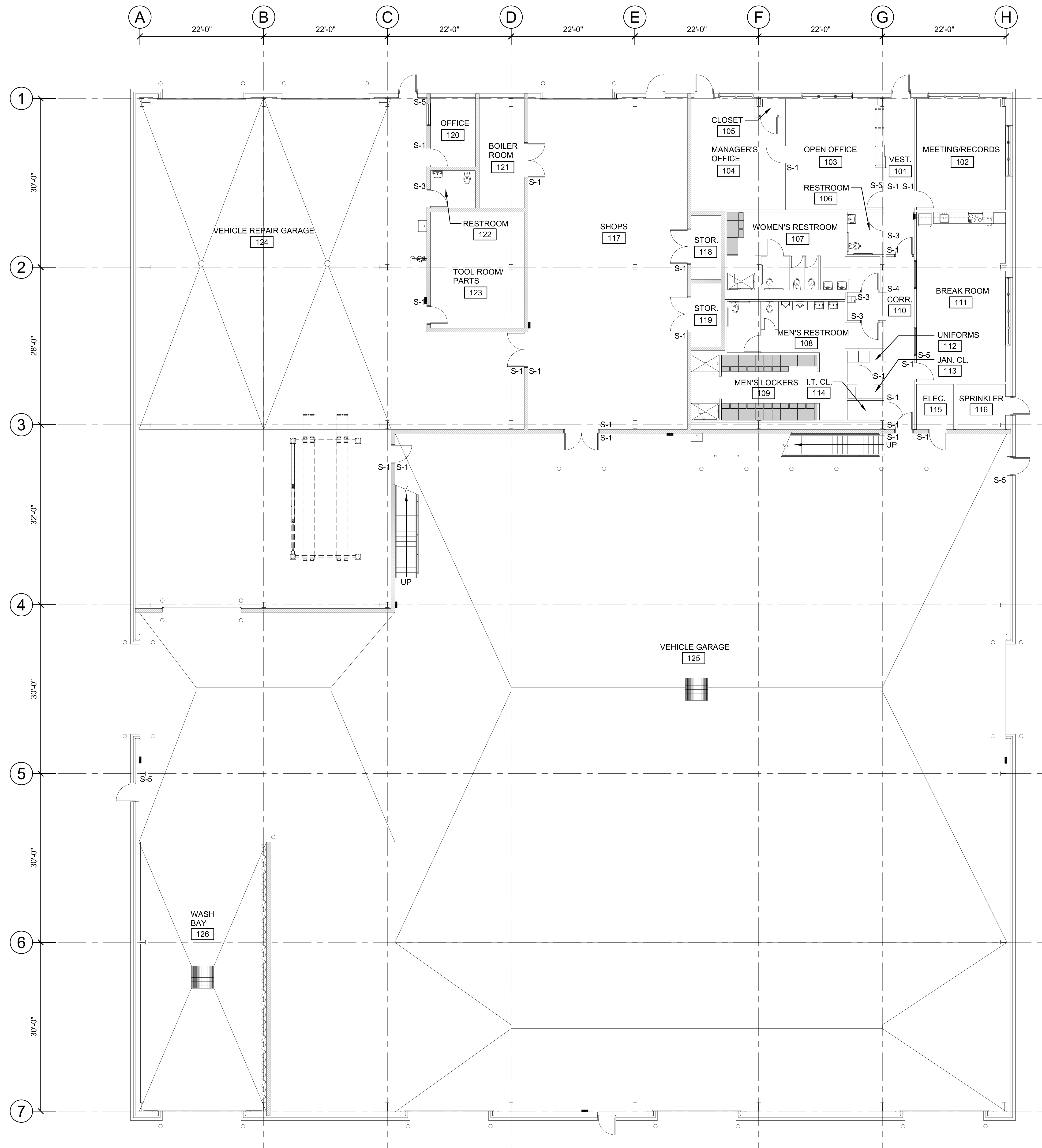
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INTERIOR ELEVATIONS  
SHEET 4

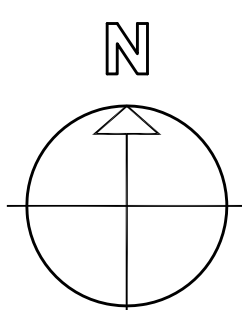
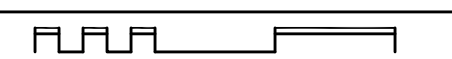
DRAWING NO.

A-605





1 FIRST FLOOR PLAN  
SCALE: 1/8"=1'-0"



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TURNERS FALLS, MA 01376

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ROCKLAND, MA 02370

STAMP

REV	DATE	DESCRIPTION

DATE	5/15/19
SCALE	1/8" = 1'-0"
DRAWN BY	MTV
CHECKED BY	GKY
PROJECT NO.	19001

BUILDING:

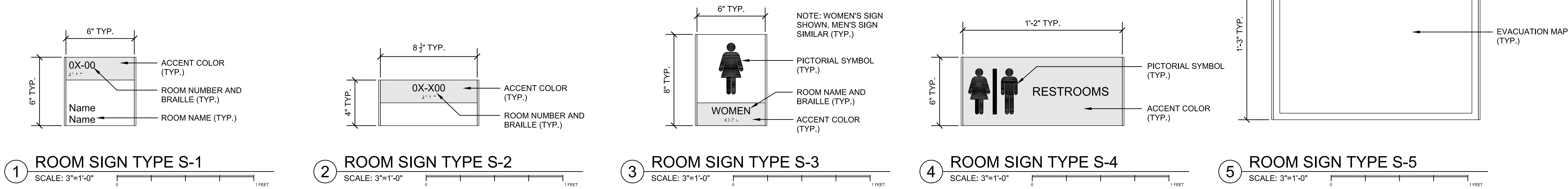
SHEET TITLE:

FIRST FLOOR  
SIGNAGE PLAN

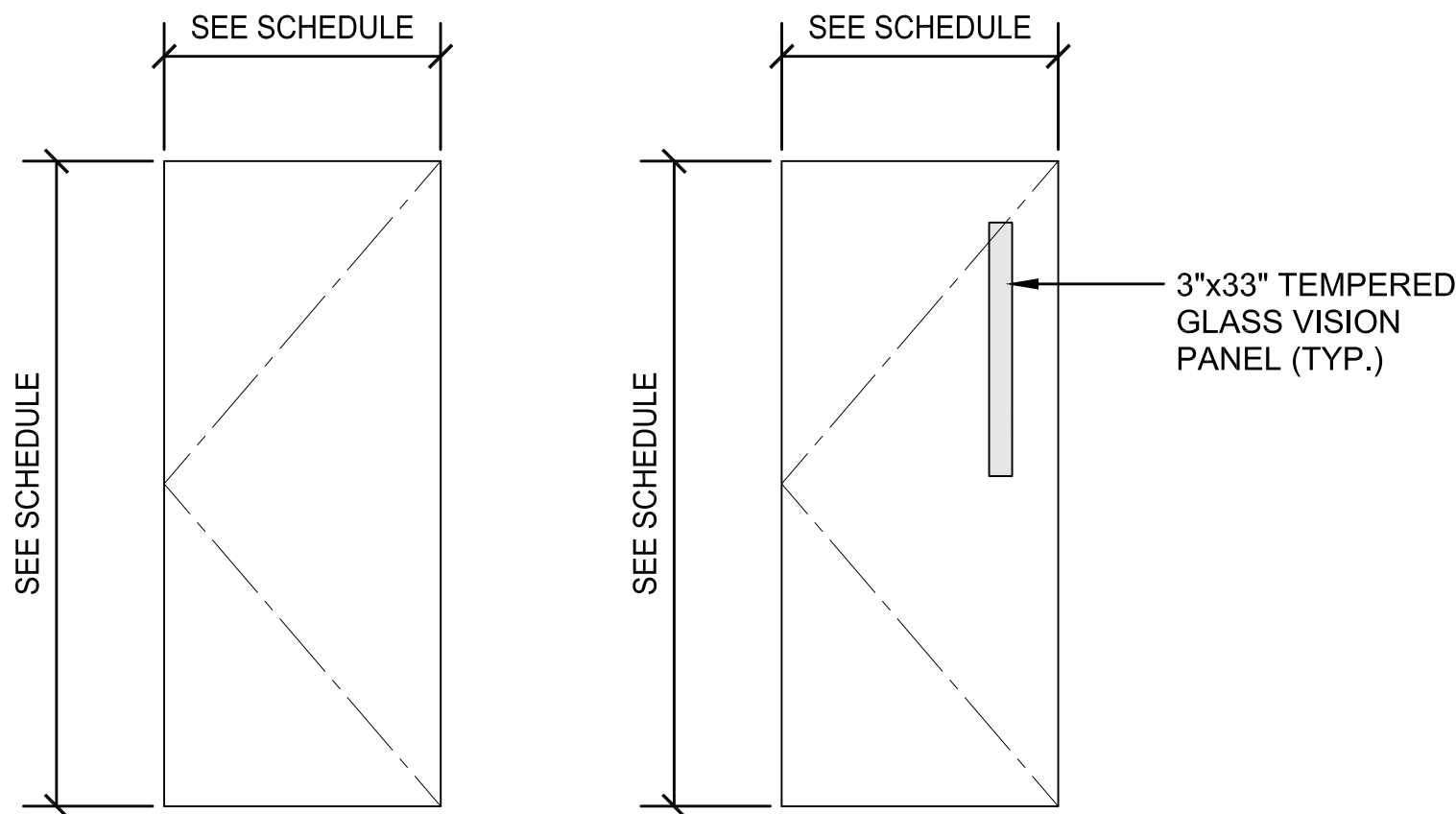
DRAWING NO.

A-606



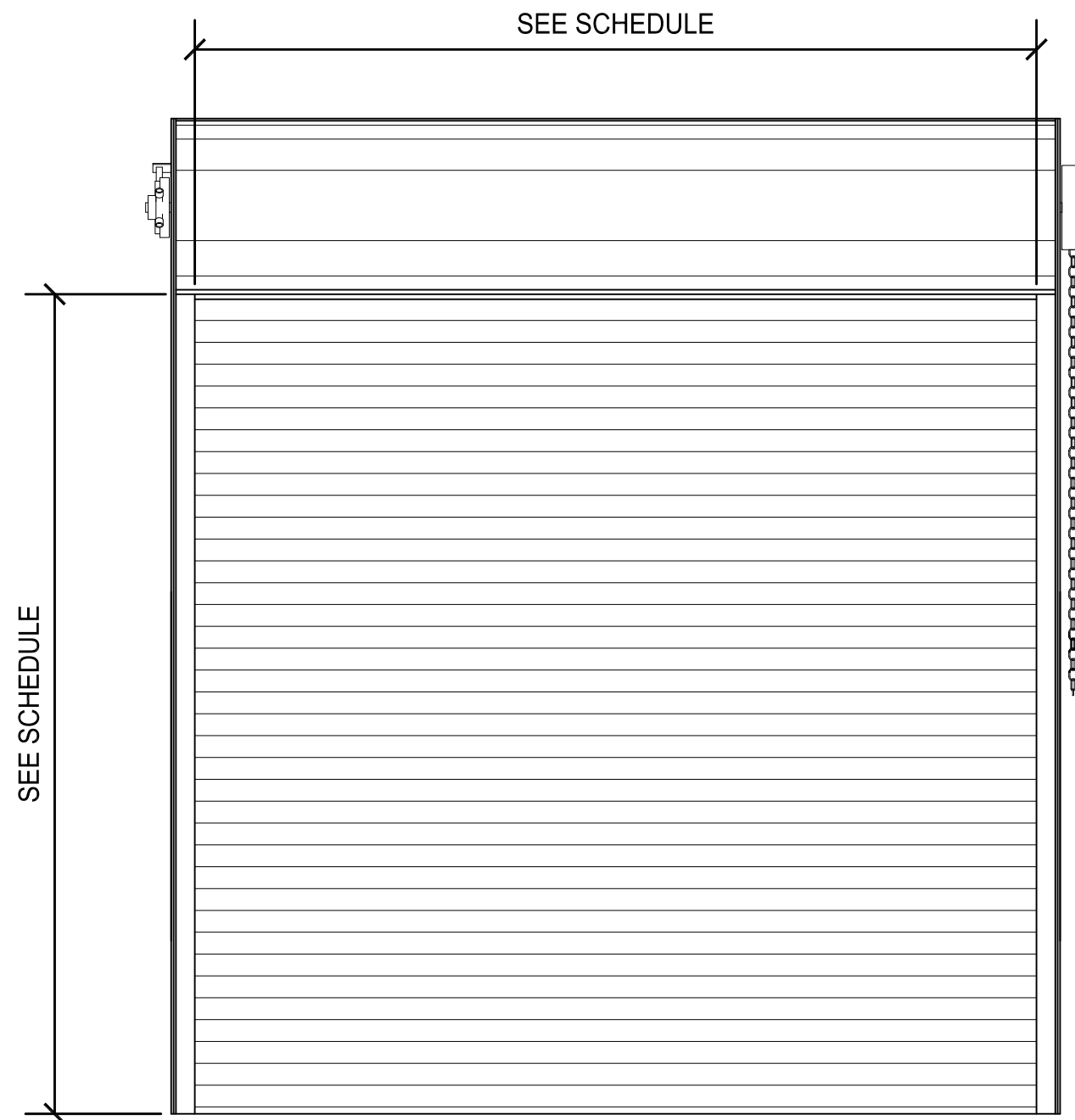




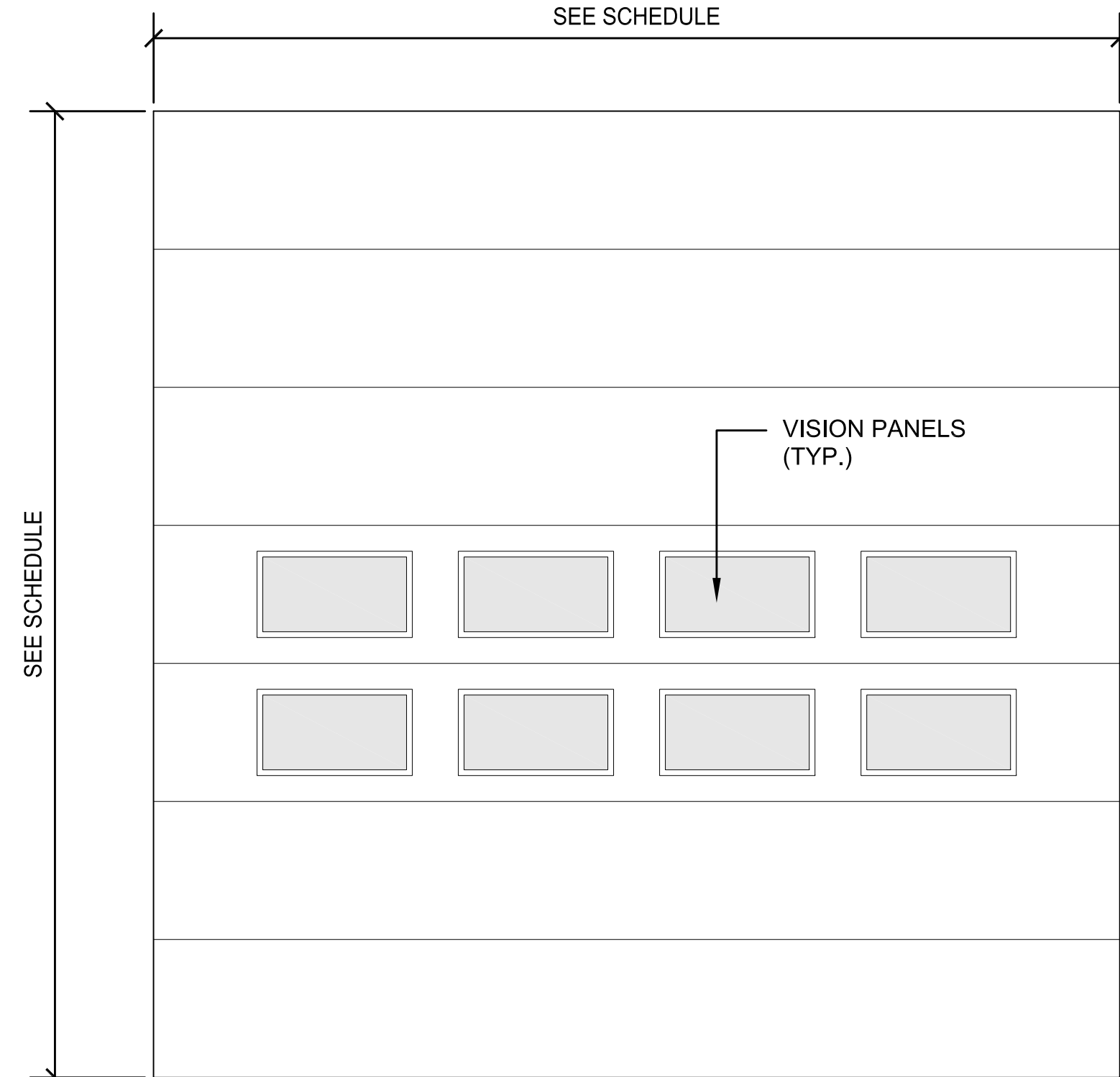


DOOR TYPE A

DOOR TYPE B



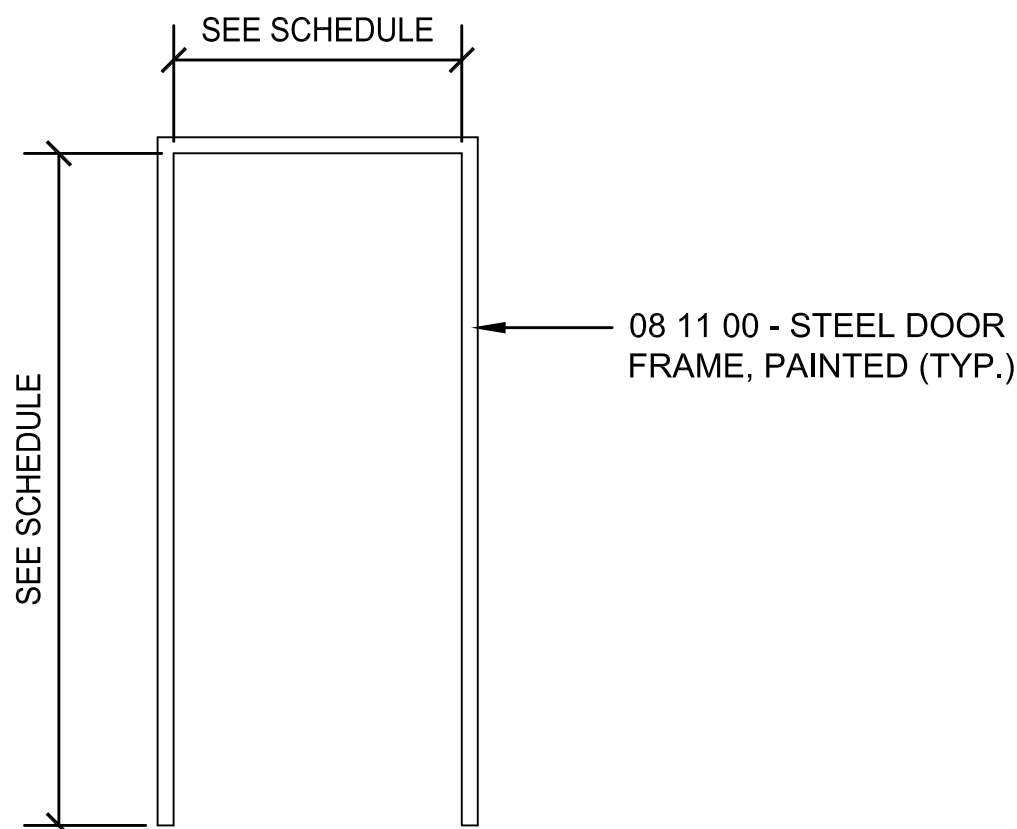
DOOR TYPE C



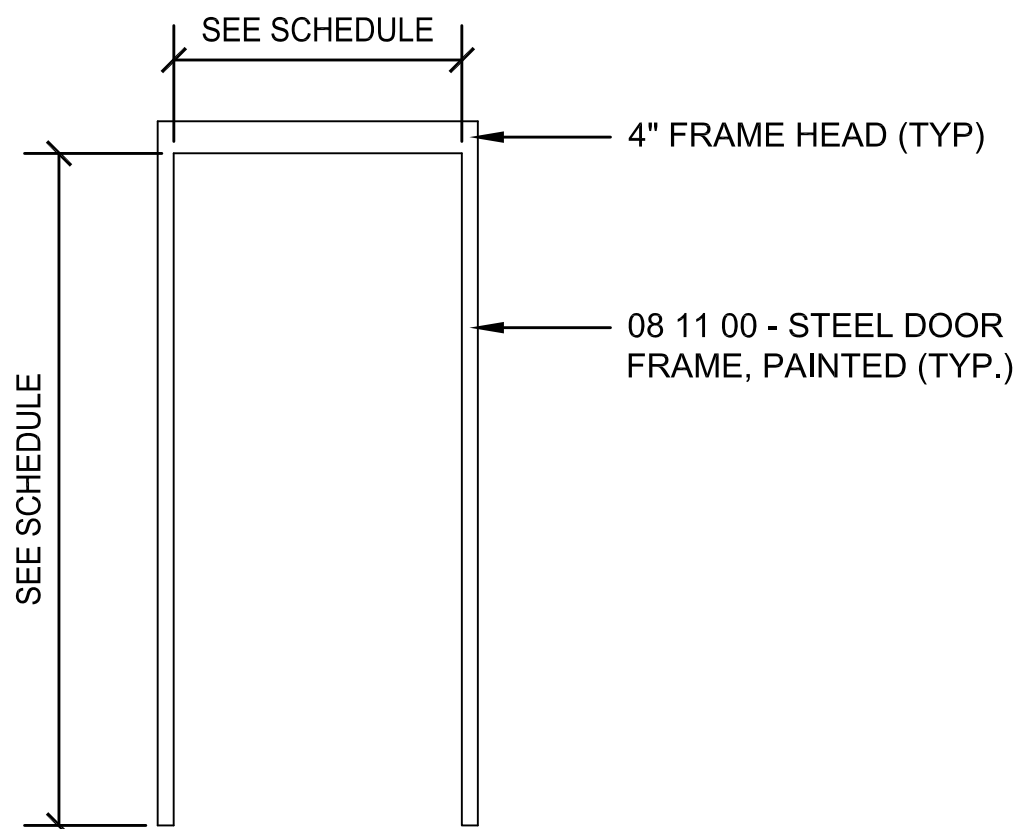
DOOR TYPE D

### 1 DOOR TYPES

SCALE: 1/2"=1'-0"



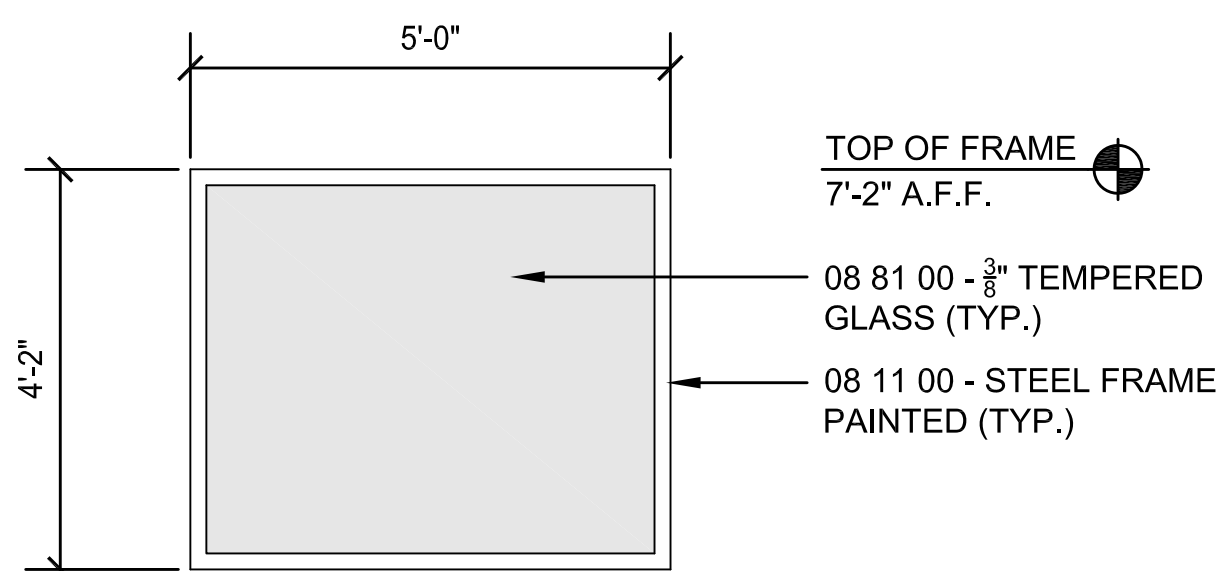
FRAME TYPE 1



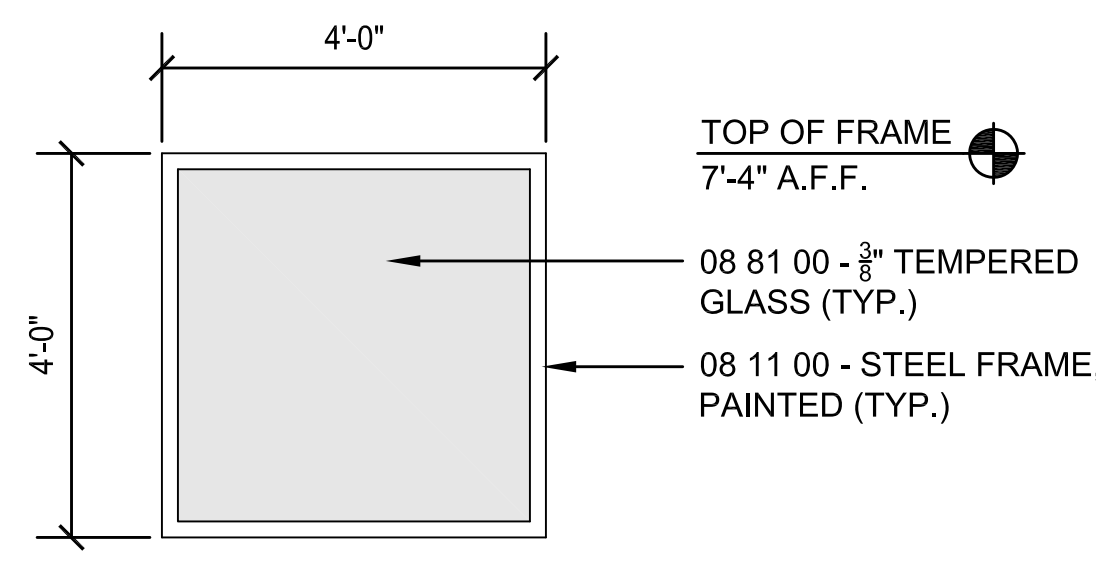
FRAME TYPE 2

### 2 FRAME TYPES

SCALE: 1/2"=1'-0"



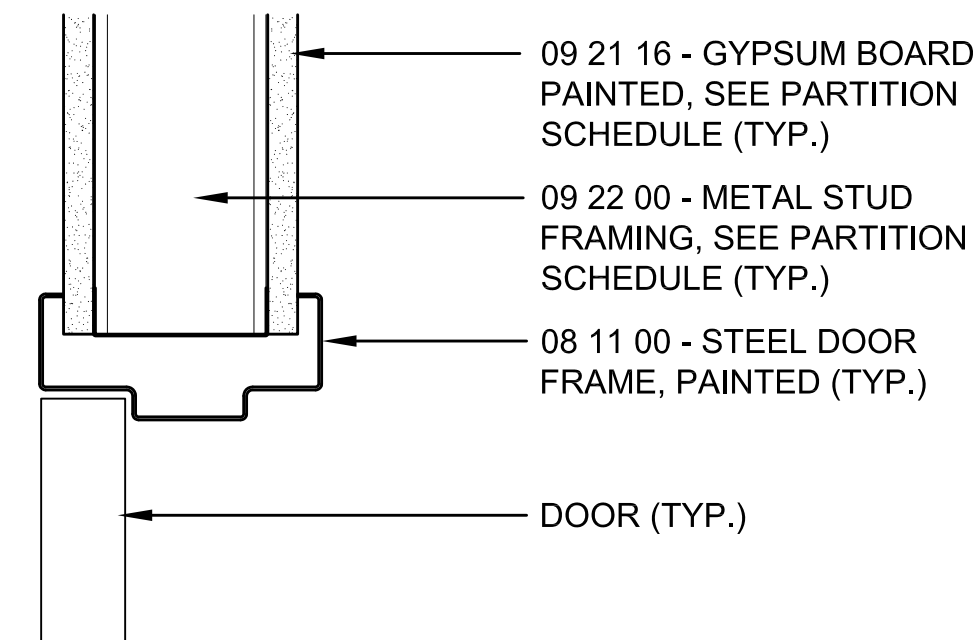
TYPE B1



TYPE B2

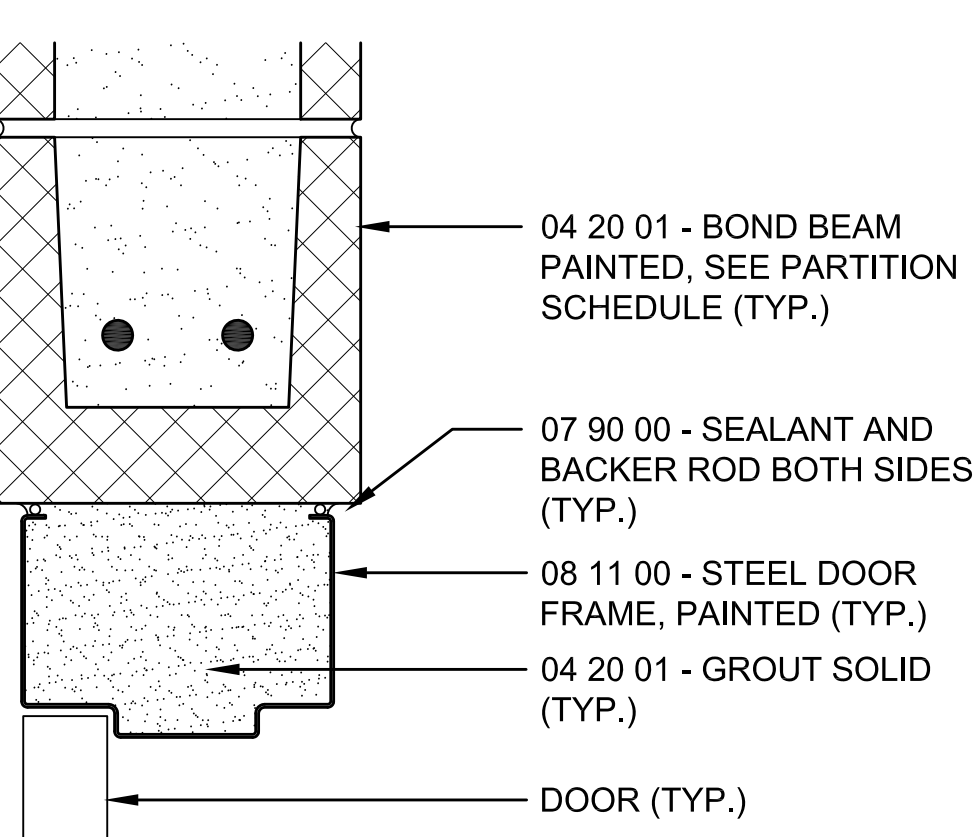
### 3 BORROWED LITE TYPES

SCALE: 1/2"=1'-0"



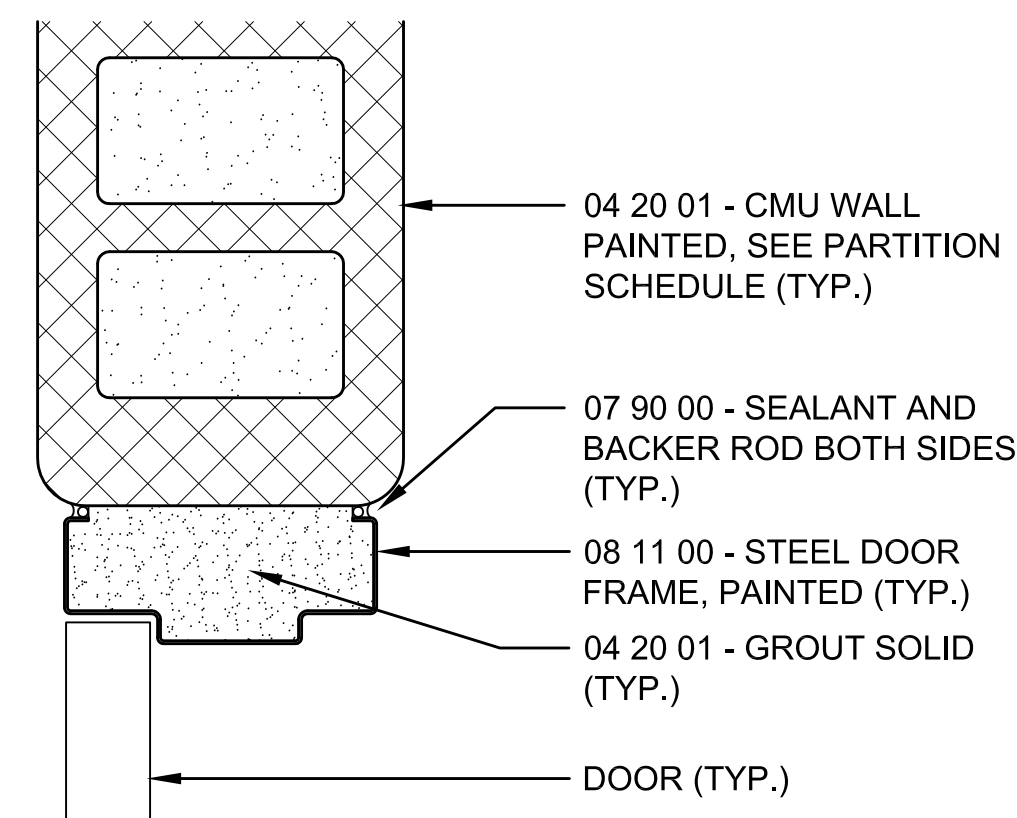
### 4 DOOR HEAD/JAMB GYPSUM BOARD WALL

SCALE: 3"=1'-0"



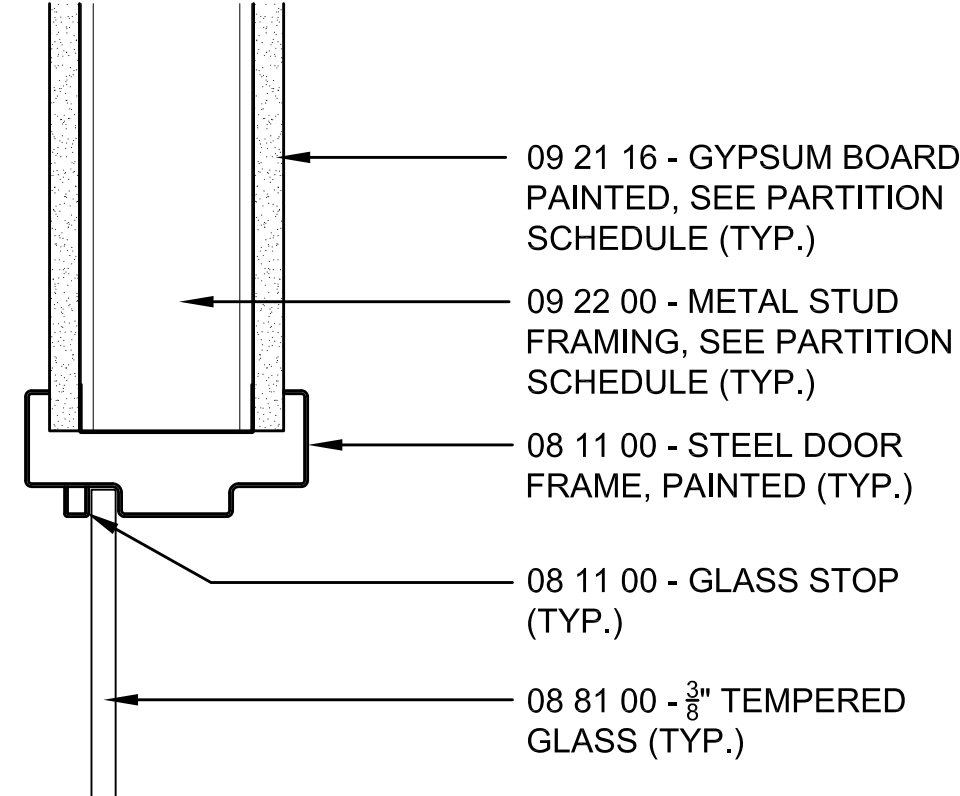
### 5 DOOR HEAD CMU WALL

SCALE: 3"=1'-0"



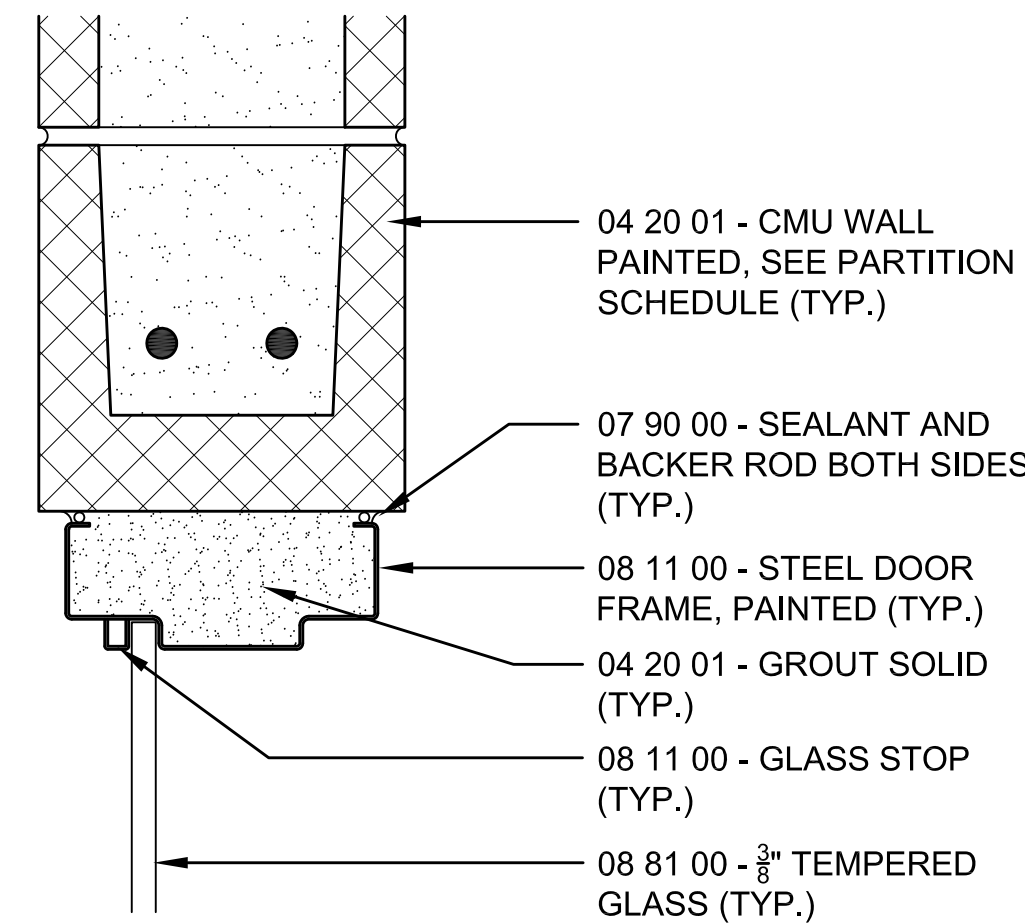
### 6 DOOR JAMB CMU WALL

SCALE: 3"=1'-0"



### 7 BORROWED LIGHT HEAD/JAMB GYPSUM WALL

SCALE: 3"=1'-0"



### 8 BORROWED LIGHT HEAD/JAMB CMU WALL

SCALE: 3"=1'-0"

DOOR SCHEDULE																
DOOR NO.	DOOR/CASED OPENING				FRAME			DETAILS			LABEL	HDWR SET	REMARKS	DOOR NO.		
	TYPE	MATERIAL	SIZE	THICKNESS	FINISH	TYPE	MATERIAL	FINISH	HEAD	JAMB					SILL	
101	B	FRP	3'-0"x7'-0"	1 3/4"	KYNAR	1	ALUM.	KYNAR	1/A-502	2,3/A-502	4/A-502		HW-1		101	
102	B	STEEL	3'-0"x7'-0"	1 3/4"	PAINT	1	STEEL	PAINT	4/A-701	4/A-701			HW-2		102	
103	B	STEEL	3'-0"x7'-0"	1 3/4"	PAINT	1	STEEL	PAINT	4/A-701	4/A-701			HW-2		103	
104	B	STEEL	3'-0"x7'-0"	1 3/4"	PAINT	1	STEEL	PAINT	4/A-701	4/A-701			HW-3		104	
105	A	STEEL	3'-0"x7'-0"	1 3/4"	PAINT	1	STEEL	PAINT	4/A-701	4/A-701			HW-4		105	
106	A	STEEL	3'-0"x7'-0"	1 3/4"	PAINT	1	STEEL	PAINT	4/A-701	4/A-701			HW-5		106	
107	B	STEEL	3'-0"x7'-0"	1 3/4"	PAINT	1	STEEL	PAINT	4/A-701	4/A-701			HW-6		107	
108	A	STEEL	3'-0"x7'-0"	1 3/4"	PAINT	1	STEEL	PAINT	4/A-701	4/A-701			HW-6		108	
109	A	STEEL	3'-0"x7'-0"	1 3/4"	PAINT	1	STEEL	PAINT	4/A-701	4/A-701			HW-6		109	
110	B	STEEL	3'-0"x7'-0"	1 3/4"	PAINT	1	STEEL	PAINT	4/A-701	4/A-701			HW-6		110	
111	A	STEEL	3'-0"x7'-0"	1 3/4"	PAINT	1	STEEL	PAINT	4/A-701	4/A-701			HW-7		111	
112	A	STEEL	3'-0"x7'-0"	1 3/4"	PAINT	1	STEEL	PAINT	4/A-701	4/A-701			HW-7		112	
113	B	STEEL	3'-0"x7'-0"	1 3/4"	PAINT	2	STEEL	PAINT	5/A-701	6/A-701			HW-6		113	
114	A	STEEL	3'-0"x7'-0"	1 3/4"	PAINT	2	STEEL	PAINT	5/A-701	6/A-701			HW-7		114	
115	A	STEEL	(2)3'-0"x7'-0"	1 3/4"	PAINT	2	STEEL	PAINT	5/A-701	6/A-701			HW-8		115	
116	A	STEEL	(2)3'-0"x7'-0"	1 3/4"	PAINT	2	STEEL	PAINT	5/A-701	6/A-701			HW-8		116	
117	B	STEEL	3'-0"x7'-0"	1 3/4"	PAINT	2	STEEL	PAINT	5/A-701	6/A-701			HW-3		117	
118	A	STEEL	3'-0"x7'-0"	1 3/4"	PAINT	2	STEEL	PAINT	5/A-701	6/A-701			HW-5		118	
119	B	STEEL	3'-0"x7'-0"	1 3/4"	PAINT	2	STEEL	PAINT	5/A-701	6/A-701			HW-6		119	
120	A	STEEL	(2)3'-0"x7'-0"	1 3/4"	PAINT	2	STEEL	PAINT	5/A-701	6/A-701		B	HW-9		120	
121	B	STEEL	(2)3'-0"x7'-0"	1 3/4"	PAINT	2	STEEL	PAINT	5/A-701	6/A-701			HW-10		121	
122	B	STEEL	(2)3'-0"x7'-0"	1 3/4"	PAINT	2	STEEL	PAINT	5/A-701	6/A-701			HW-10		122	
123	B	STEEL	3'-0"x7'-0"	1 3/4"	PAINT	2	STEEL	PAINT	5/A-701	6/A-701			HW-6		123	
124	C	STEEL	14'-0"x14'-0"				STEEL	PAINT	8/A-503	9/A-503				OVERHEAD COILING DOOR	124	
125	B	FRP	3'-0"x7'-0"	1 3/4"	KYNAR	1	ALUM.	KYNAR	1/A-502	2,3/A-502	4/A-502		HW-1		125	
126	B	FRP	3'-0"x7'-0"	1 3/4"	KYNAR	1	ALUM.	KYNAR	5/A-502	6,73/A-502	4/A-502		HW-1		126	
127	B	FRP	3'-0"x7'-0"	1 3/4"	KYNAR	1	ALUM.	KYNAR	5/A-502	6,73/A-502	4/A-502		HW-1		127	
128	A	FRP	3'-0"x7'-0"	1 3/4"	KYNAR	1	ALUM.	KYNAR	5/A-502	6,73/A-502	4/A-502		HW-1		128	
129	B	FRP	3'-0"x7'-0"	1 3/4"	KYNAR	1	ALUM.	KYNAR	5/A-502	6,73/A-502	4/A-502		HW-1		129	
130	B	FRP	3'-0"x7'-0"	1 3/4"	KYNAR	1	ALUM.	KYNAR	5/A-502	6,73/A-502	4/A-502		HW-1		130	
131	B	FRP	3'-0"x7'-0"	1 3/4"	KYNAR	1	ALUM.	KYNAR	5/A-502	6,73/A-502	4/A-502		HW-1		131	
132	D	STEEL	13'-5"x10'-0"				STEEL	PAINT	4/A-503	5,6/A-503	7/A-503			OVERHEAD SECTIONAL DOOR	132	
133	D	STEEL	15'-5"x14'-0"				STEEL	PAINT	4/A-503	5,6/A-503	7/A-503			OVERHEAD SECTIONAL DOOR	133	
134	D	STEEL	15'-5"x14'-0"				STEEL	PAINT	4/A-503	5,6/A-503	7/A-503			OVERHEAD SECTIONAL DOOR	134	
135	D	STEEL	17'-5"x14'-0"				STEEL	PAINT	4/A-503	5,6/A-503	7/A-503			OVERHEAD SECTIONAL DOOR	135	
136	D	STEEL	17'-5"x14'-0"				STEEL	PAINT	4/A-503	5,6/A-503	7/A-503			OVERHEAD SECTIONAL DOOR	136	
137	D	STEEL	15'-5"x14'-0"				STEEL	PAINT	4/A-503	5,6/A-503	7/A-503			OVERHEAD SECTIONAL DOOR	137	
138	D	STEEL	15'-5"x14'-0"				STEEL	PAINT	4/A-503	5,6/A-503	7/A-503			OVERHEAD SECTIONAL DOOR	138	
139	D	STEEL	15'-5"x14'-0"				STEEL	PAINT	4/A-503	5,6/A-503	7/A-503			OVERHEAD SECTIONAL DOOR	139	
140	D	STEEL	15'-5"x14'-0"				STEEL	PAINT	4/A-503	5,6/A-503	7/A-503			OVERHEAD SECTIONAL DOOR	140	
M01	A	STEEL	(2)3'-0"x7'-0"	1 3/4"	PAINT	1	STEEL	PAINT	4/A-701	4/A-701		B	HW-9		M01	
M02	A	STEEL	3'-0"x7'-0"	1 3/4"	PAINT	1	STEEL	PAINT	4/A-701	4/A-701		B	HW-11		M02	



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STAMP

REV DATE DESCRIPTION

DATE 5/15/19  
SCALE AS NOTED  
DRAWN BY MTW  
CHECKED BY GKY  
PROJECT NO. 19001

BUILDING:

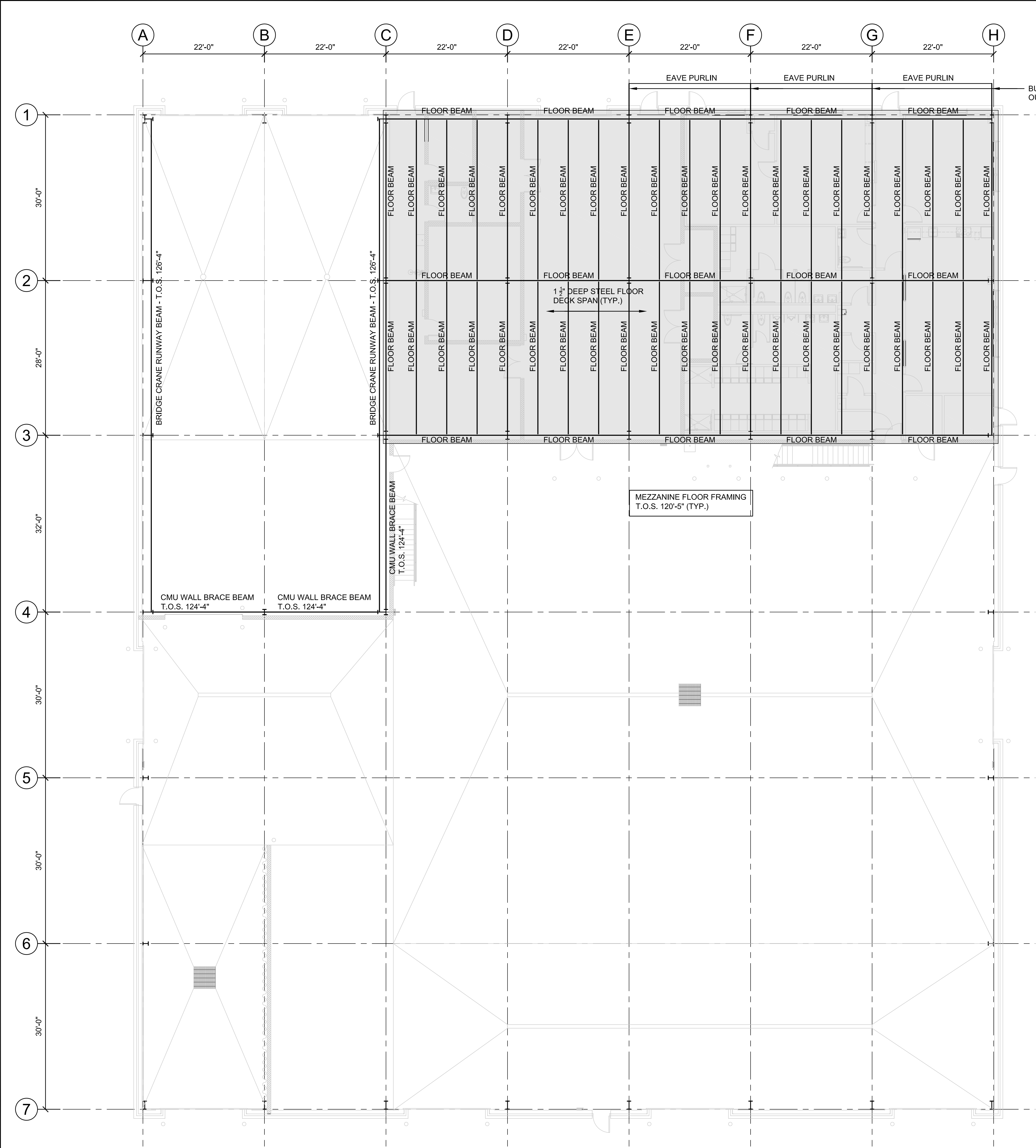
SHEET TITLE:

### DOOR SCHEDULE, TYPES, FRAMES AND DETAILS

DRAWING NO.

A-701





1 MEZZANINE FRAMING PLAN  
SCALE: 1/8"=1'-0"

- PRE-ENGINEERED METAL BUILDING SYSTEM:**
- METAL BUILDING FRAMING SYSTEM TO BE DESIGNED AND FURNISHED BY METAL BUILDING MANUFACTURER.
  - PROVIDE COMPLETE FRAMING SYSTEM, MEZZANINE FLOOR FRAMING & SLAB, BRIDGE CRANE RUNWAY BEAMS, PORTAL FRAMES, SECONDARY FRAMING FOR EXTERIOR ENVELOPE & PENETRATIONS, BRACING AND OTHER NECESSARY FRAMING AS REQUIRED BY THE PROJECT & DESIGN. THE SYSTEM SHALL BE FULL SELF SUFFICIENT, TRANSFERRING ALL LOADS TO THE FOUNDATION.
  - PROVIDE ROOF FRAMING SYSTEM, SUPPORT, AND OPENINGS FOR ALL ROOFTOP EQUIPMENT.
  - PROVIDE TEMPORARY BRACING AS REQUIRED DURING CONSTRUCTION TO PREVENT DAMAGE TO THE FOUNDATION.
  - THE METAL BUILDING SYSTEM CONTRACTOR SHALL FIELD VERIFY THAT ALL FOUNDATION AND ANCHOR BOLT LOCATIONS AND ELEVATIONS ARE CORRECT PRIOR TO THE START OF METAL BUILDING ERECTION. NOTIFY THE ARCHITECT IMMEDIATELY OF ANY DISCREPANCIES OR DEVIATIONS.
  - FINAL SIZES & DETAILS OF PIERS, EXTERIOR WALLS, AND FOOTINGS ARE TO BE VERIFIED AND COORDINATED AGAINST THE APPROVED METAL BUILDING SHOP DRAWINGS. THE METAL BUILDING MANUFACTURER SHALL SUBMIT SHOP DRAWINGS SO AS NOT TO DELAY CONSTRUCTION.



**TOWN OF  
MONTAGUE**

**NEW DPW FACILITY**

OWNER:  
TOWN OF MONTAGUE  
ONE AVENUE A  
TURNERS FALLS, MA 01376

ARCHITECT:  
**HELENE • KARL**  
Architects, Inc.  
61 Skyfields Drive, Groton, Massachusetts 01450

CIVIL ENGINEER:  
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1000 MASSACHUSETTS AVENUE  
CAMBRIDGE, MA 02138

STRUCTURAL ENGINEER:  
SYMMES, MAINI & McKEE ASSOCIATES  
1000 MASSACHUSETTS AVENUE  
CAMBRIDGE, MA 02138

MECHANICAL ENGINEER:  
SEAMAN ENGINEERING CORP.  
22 WEST STREET, UNIT C  
MILLBURY, MA 01527

ELECTRICAL ENGINEER:  
JOHN J. MURPHY, JR., ELECTRICAL  
CONSTRUCTION AND ENGINEERING, INC.  
379 LIBERTY STREET  
ROCKLAND, MA 02370

STAMP

REV	DATE	DESCRIPTION

DATE	5/15/19
SCALE	1/8" = 1'-0"
DRAWN BY	MTV
CHECKED BY	GKY
PROJECT NO.	19001

BUILDING:  
SHEET TITLE:

**MEZZANINE FRAMING  
PLAN**

DRAWING NO.  
**A-801**





TOWN OF  
MONTAGUE

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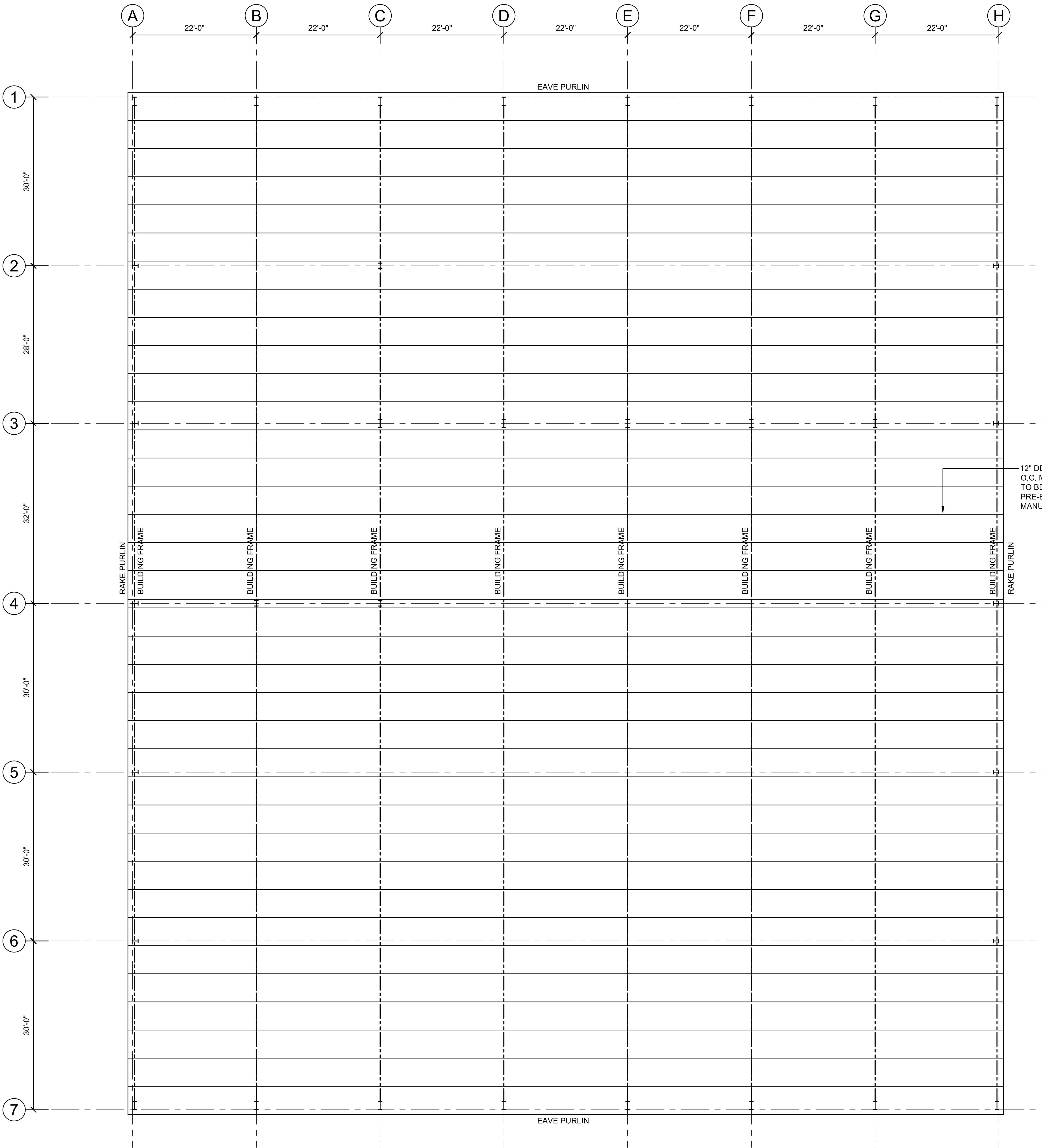
BUILDING:

SHEET TITLE:

ROOF FRAMING  
PLAN

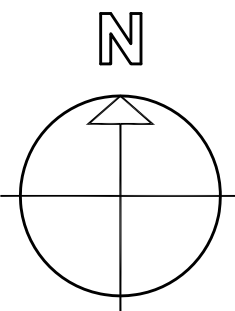
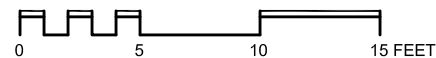
DRAWING NO.

A-802



1 ROOF FRAMING PLAN

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

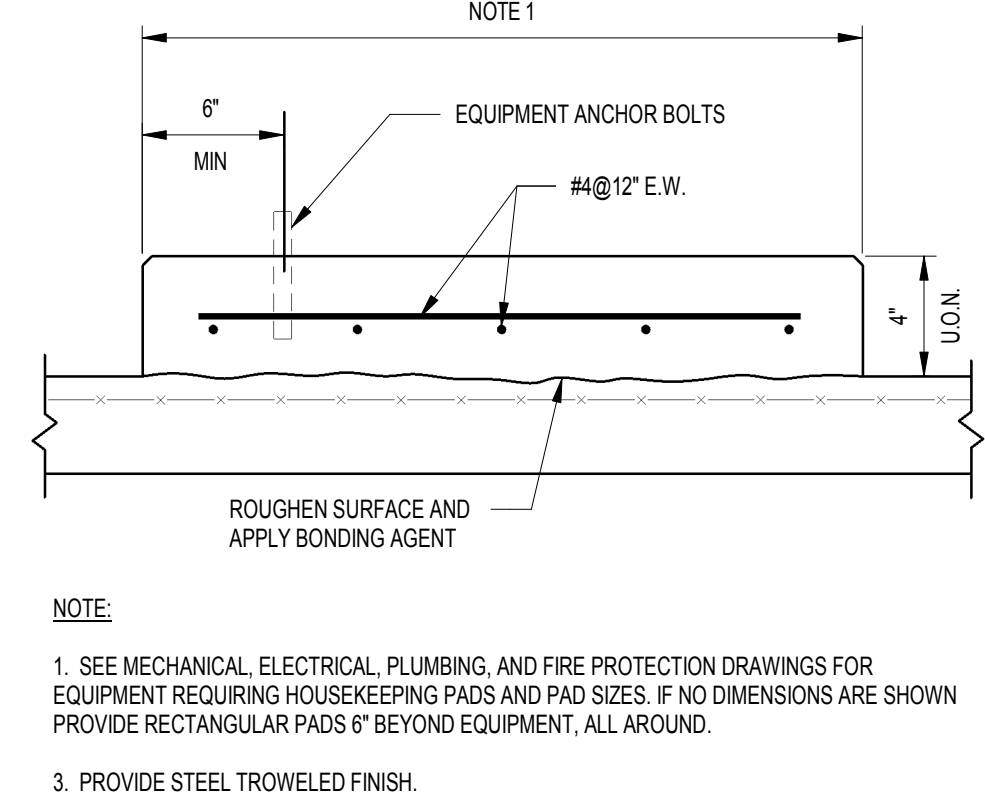
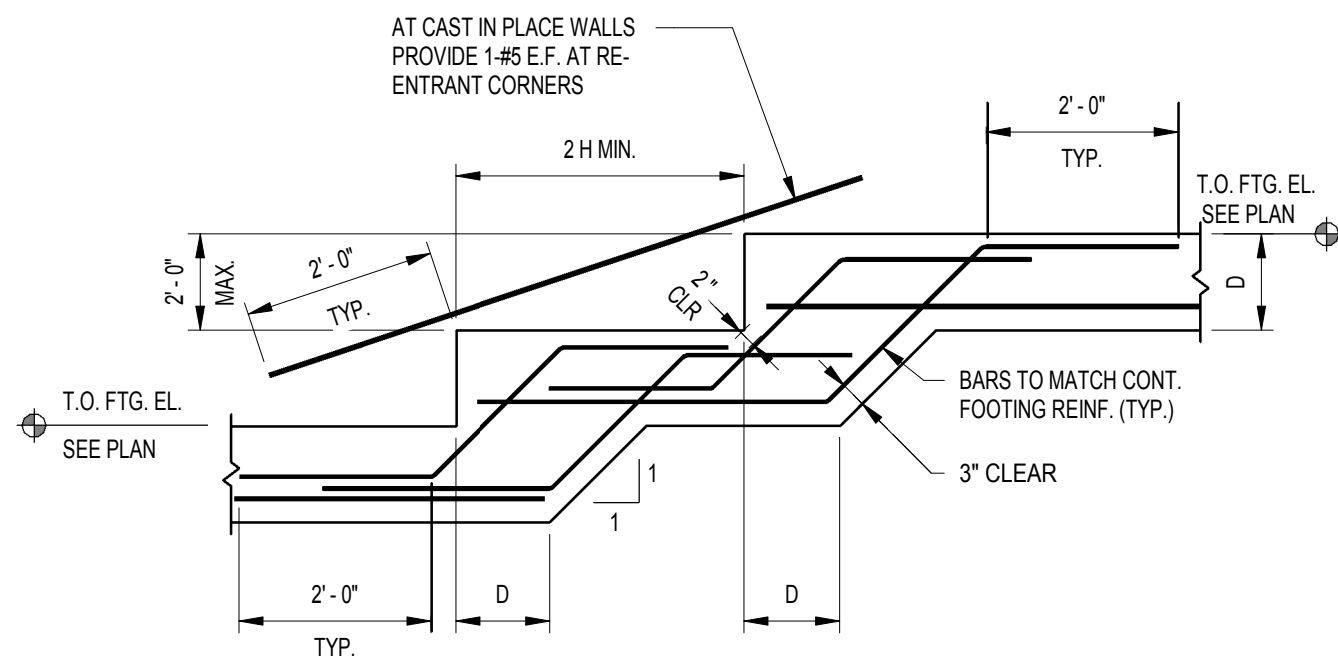


PRE-ENGINEERED METAL BUILDING SYSTEM:

- METAL BUILDING FRAMING SYSTEM TO BE DESIGNED AND FURNISHED BY METAL BUILDING MANUFACTURER.
- PROVIDE COMPLETE FRAMING SYSTEM, MEZZANINE FLOOR FRAMING & SLAB, BRIDGE CRANE RUNWAY BEAMS, PORTAL FRAMES, SECONDARY FRAMING FOR EXTERIOR ENVELOPE & PENETRATIONS, BRACING AND OTHER NECESSARY FRAMING AS REQUIRED BY THE PROJECT & DESIGN. THE SYSTEM SHALL BE FULL SELF SUFFICIENT, TRANSFERRING ALL LOADS TO THE FOUNDATION.
- PROVIDE ROOF FRAMING SYSTEM, SUPPORT, AND OPENINGS FOR ALL ROOFTOP EQUIPMENT.
- PROVIDE TEMPORARY BRACING AS REQUIRED DURING CONSTRUCTION TO PREVENT DAMAGE TO THE FOUNDATION.
- THE METAL BUILDING SYSTEM CONTRACTOR SHALL FIELD VERIFY THAT ALL FOUNDATION AND ANCHOR BOLT LOCATIONS AND ELEVATIONS ARE CORRECT PRIOR TO THE START OF METAL BUILDING ERECTION. NOTIFY THE ARCHITECT IMMEDIATELY OF ANY DISCREPANCIES OR DEVIATIONS.
- FINAL SIZES & DETAILS OF PIERS, EXTERIOR WALLS, AND FOOTINGS ARE TO BE VERIFIED AND COORDINATED AGAINST THE APPROVED METAL BUILDING SHOP DRAWINGS. THE METAL BUILDING MANUFACTURER SHALL SUBMIT SHOP DRAWINGS SO AS NOT TO DELAY CONSTRUCTION.



MINIMUM SPLICE AND DEVELOPMENT LENGTH SCHEDULE																						
(UNLESS SHOWN OTHERWISE ON DRAWINGS)																						
CLASS B TENSION SPLICE						F <sub>y</sub> =60,000 PSI UNCOATED BARS																
f <sub>c</sub> = 3000 PSI, NORMAL WEIGHT CONCRETE						f <sub>c</sub> = 4000 PSI, NORMAL WEIGHT CONCRETE																
BAR SIZE	TOP BARS					OTHER BARS					BAR SIZE	TOP BARS					OTHER BARS					
	CATEGORY					CATEGORY						CATEGORY					CATEGORY					
	1	2	3	4	5	6	1	2	3	4		5	6	1	2	3	4	5	6			
#3	21"	21"	21"	21"	21"	21"	16"	16"	16"	16"	16"	16"	#3	18"	18"	18"	18"	18"	16"	16"	16"	16"
#4	30"	28"	28"	28"	28"	28"	23"	22"	22"	22"	22"	22"	#4	26"	24"	24"	24"	24"	20"	19"	19"	19"
#5	46"	37"	35"	35"	35"	35"	36"	29"	27"	27"	27"	27"	#5	40"	32"	30"	30"	30"	31"	25"	23"	23"
#6	65"	52"	46"	42"	42"	42"	50"	40"	35"	32"	32"	32"	#6	57"	45"	40"	36"	36"	36"	44"	35"	31"
#7	89"	71"	63"	50"	49"	49"	69"	55"	48"	39"	38"	38"	#7	77"	62"	54"	43"	42"	58"	48"	42"	33"
#8	117"	94"	82"	66"	59"	56"	90"	72"	63"	51"	45"	43"	#8	102"	81"	71"	57"	51"	48"	78"	63"	55"
#9	148"	119"	104"	83"	74"	63"	114"	91"	80"	64"	57"	48"	#9	129"	103"	90"	72"	64"	65"	99"	79"	69"
#10	188"	151"	132"	106"	94"	76"	145"	116"	102"	81"	73"	58"	#10	163"	131"	114"	92"	82"	65"	126"	101"	88"
#11	231"	185"	162"	130"	116"	93"	178"	142"	125"	100"	89"	71"	#11	200"	160"	140"	112"	100"	80"	154"	123"	108"



CATEGORY					
STRUCTURAL ELEMENT	CONCRETE COVER	CATEGORY ACCORDING TO CENTER-TO-CENTER BAR SPACING			
		$\leq 4d_s$	$> 4d_s$ $< 6d_s$	$\geq 6d_s$ $< 8d_s$	$\geq 6d_s$
BEAMS, COLUMNS AND INNER LAYER OF WALLS OR SLABS	$\leq 4d_s$	1	1	1	2
	$> 4d_s$	1	3	5	6
ALL OTHERS	$\leq 4d_s$	1	1	1	2
	$> 4d_s$ $< 2d_s$	1	3	3	4
	$\geq 2d_s$	1	3	5	6

TYPICAL ABBREVIATIONS	
$d_s$ = NOMINAL BAR DIAMETER	$<$ = LESS THAN
$>$ = GREATER THAN	$\leq$ = EQUAL TO OR LESS THAN
$\geq$ = EQUAL TO OR GREATER THAN	

EPOXY COATED BARS		
INCREASE SPLICE LENGTHS GIVEN IN SCHEDULE ABOVE BY THE FOLLOWING FACTORS:		
BAR COVER AND SPACING		
COVER < 3d OR CL TO CL < 6d		
COVER ≥ 3d OR CL TO CL > 6d		

NOTES:

1. AVOID SPLICES IN REGIONS OF MAXIMUM MOMENT. IF THIS IS NOT POSSIBLE STAGGER SPLICES SO THAT NO MORE THAN 50% OF THE BARS ARE SPLICED WITHIN A REQUIRED SPLICE LENGTH, OTHERWISE INCREASE SPLICE LENGTH BY 30%.
2. TOP BARS ARE DEFINED AS HORIZONTAL BARS WITH MORE THAN 12" OF CONCRETE CAST IN THE MEMBER BELOW THE REINFORCEMENT. WALL REINF. IS CLASSIFIED AS OTHER BARS.

1 TYPICAL STEP IN WALL FOOTING  
SCALE: 1/2" = 1'-0"

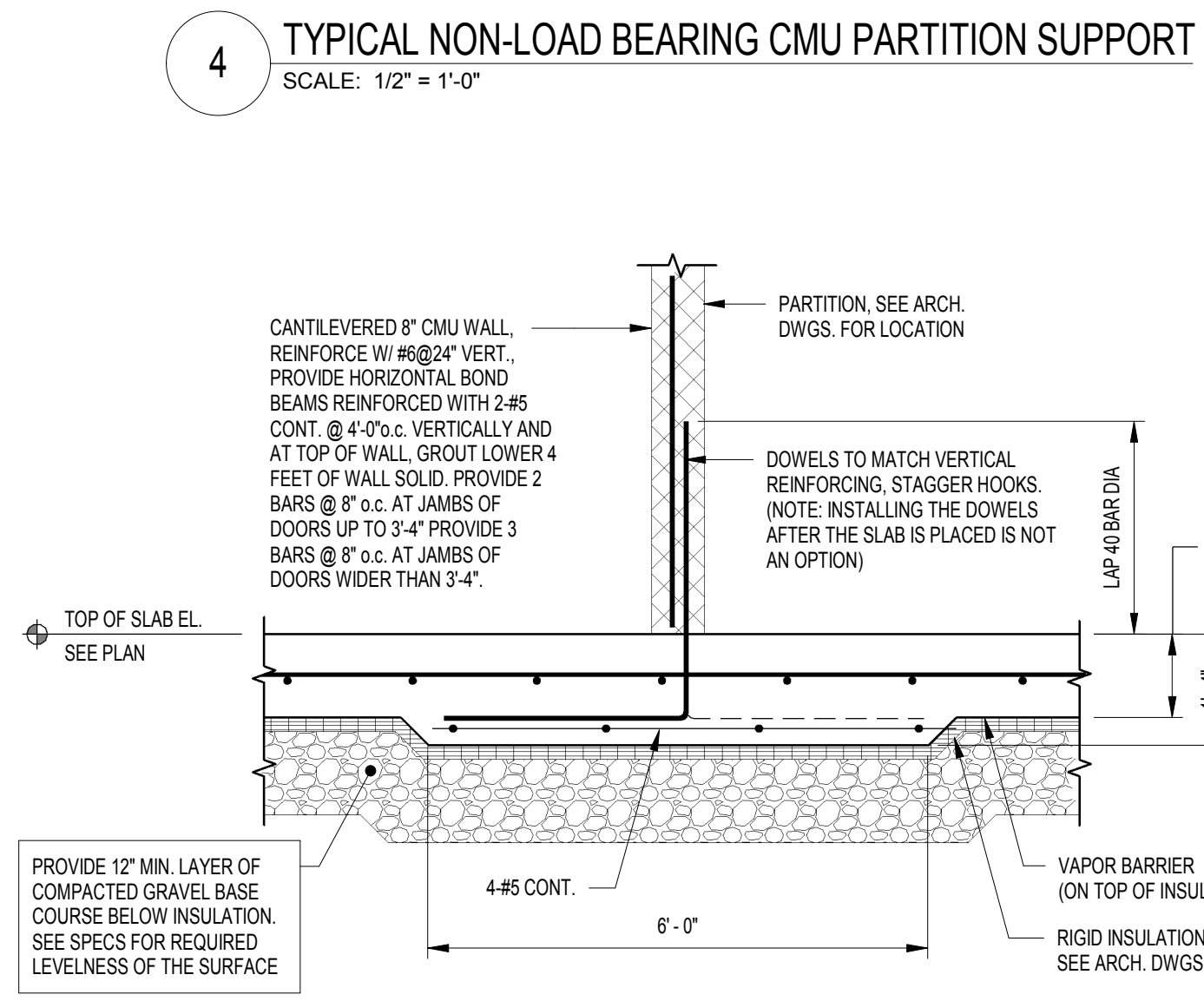
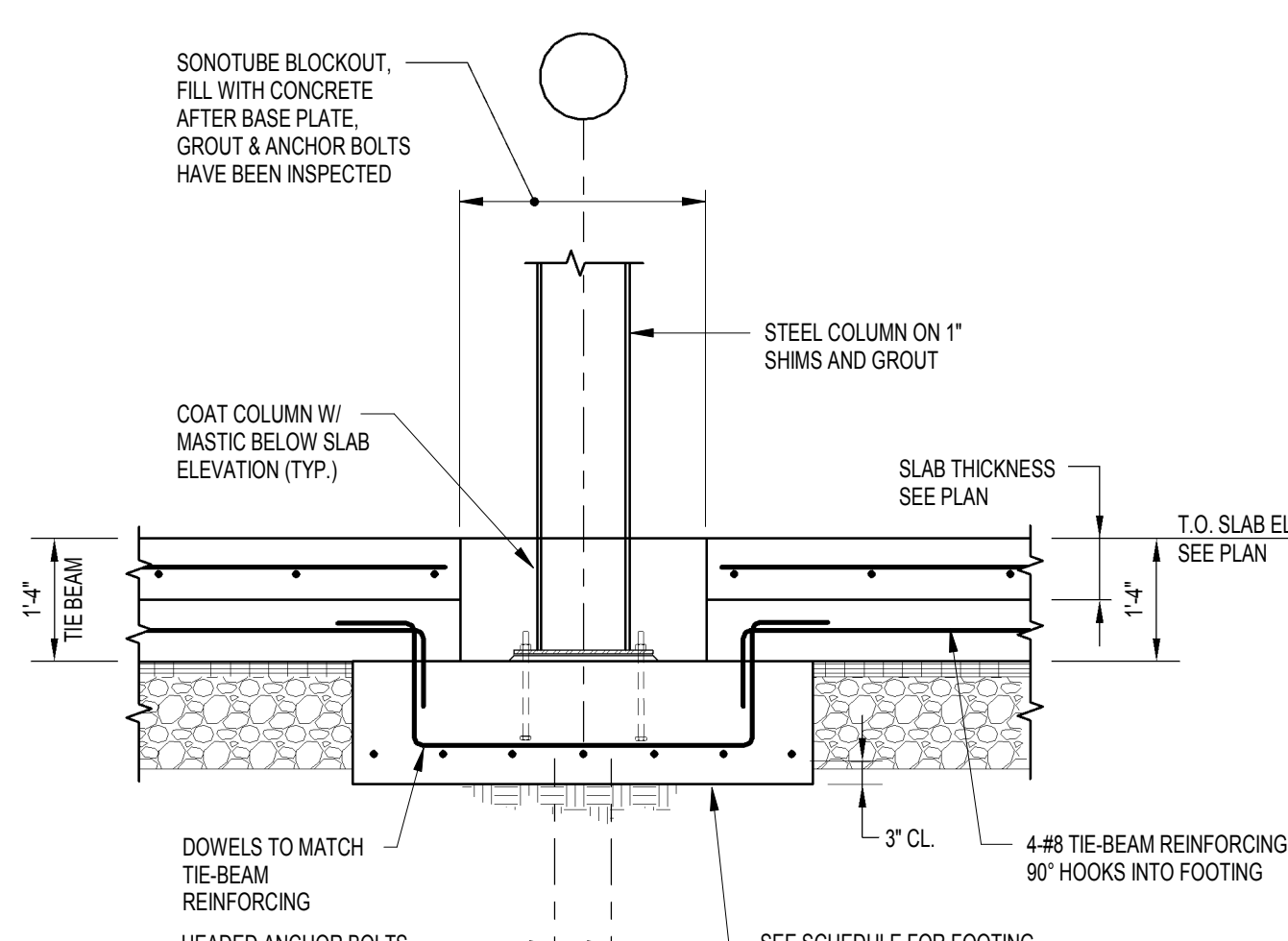
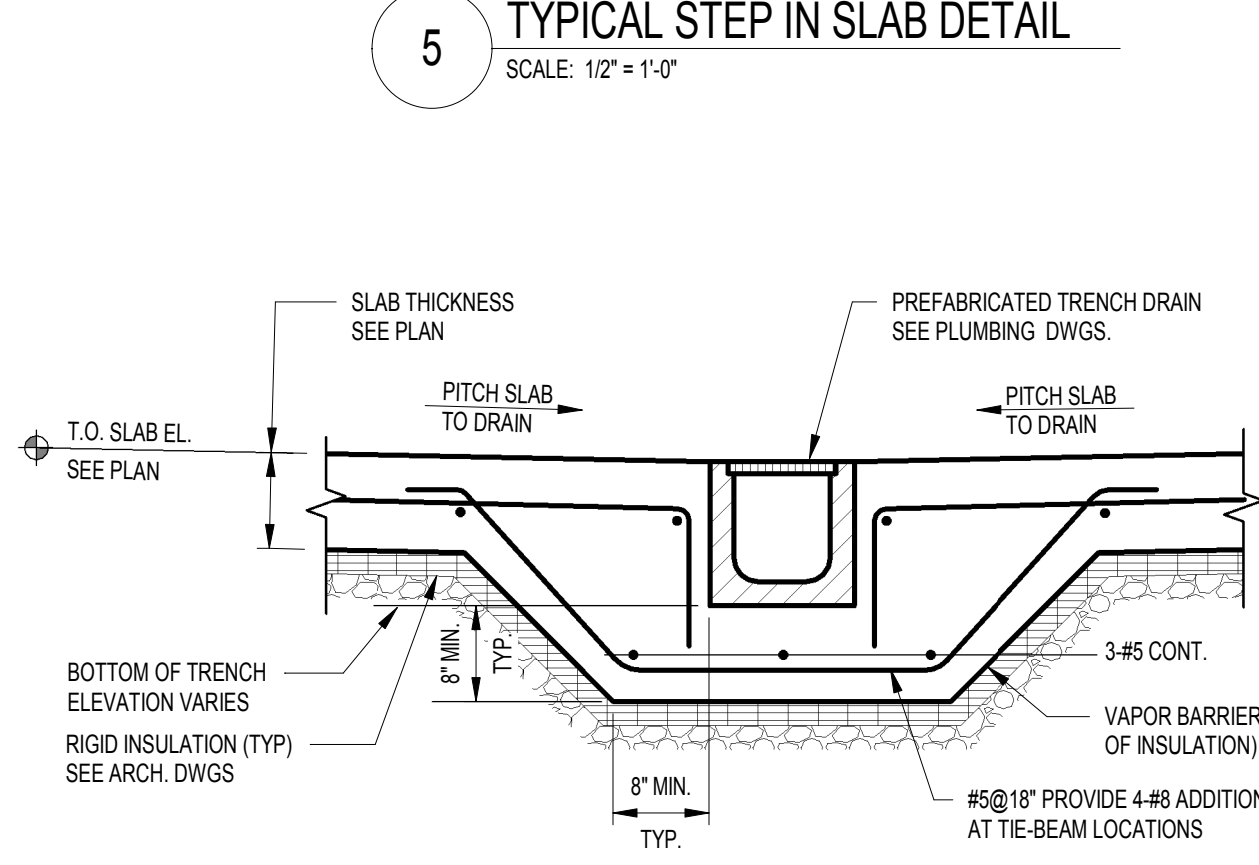
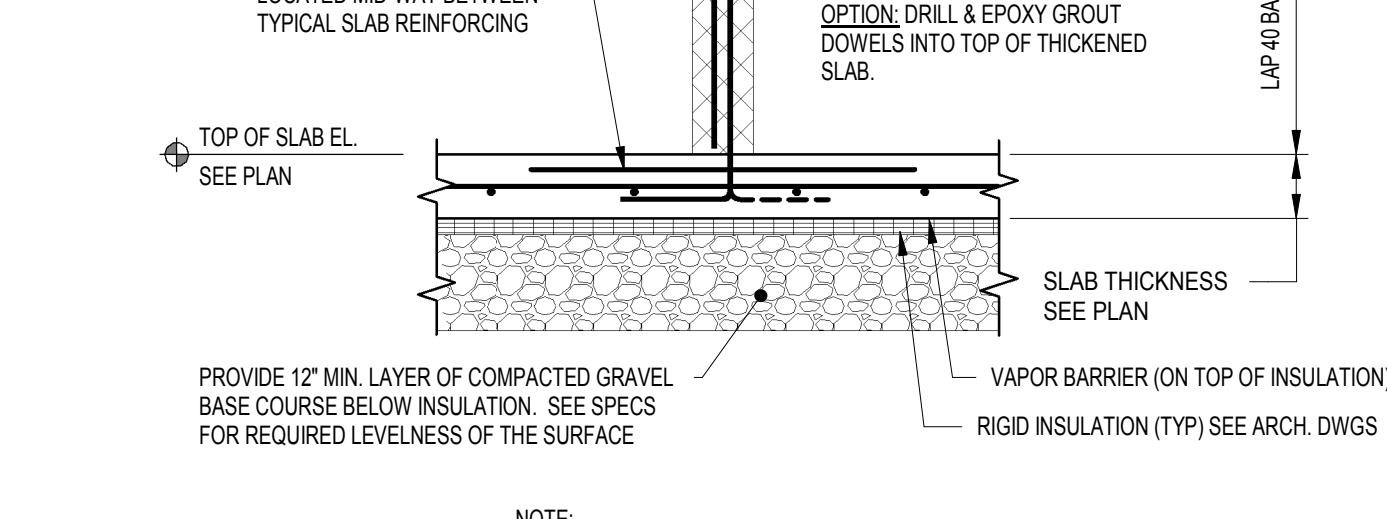
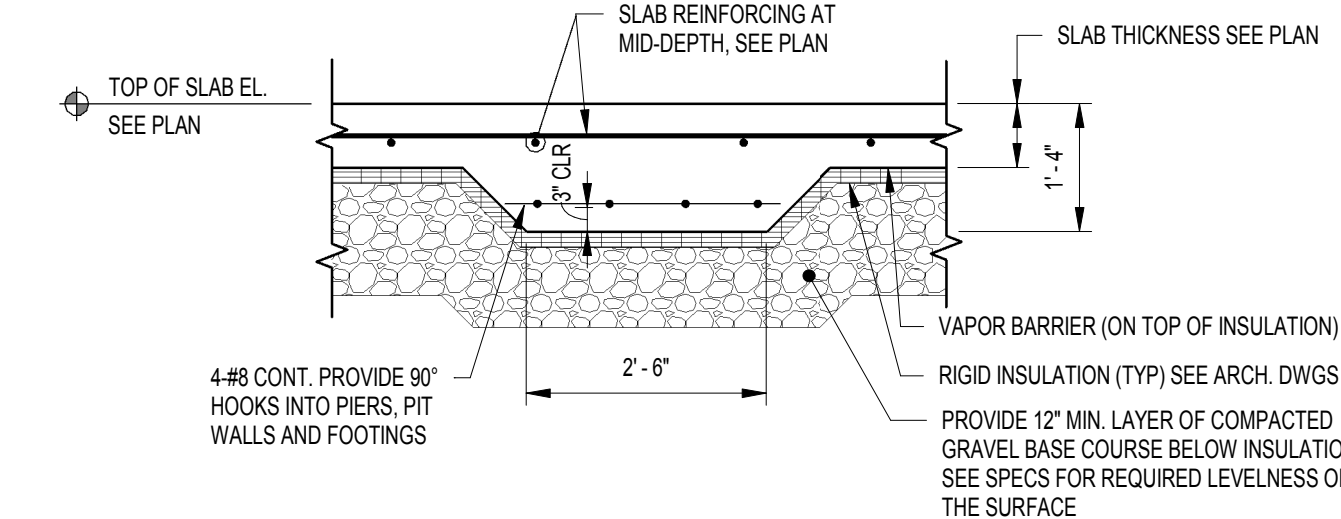
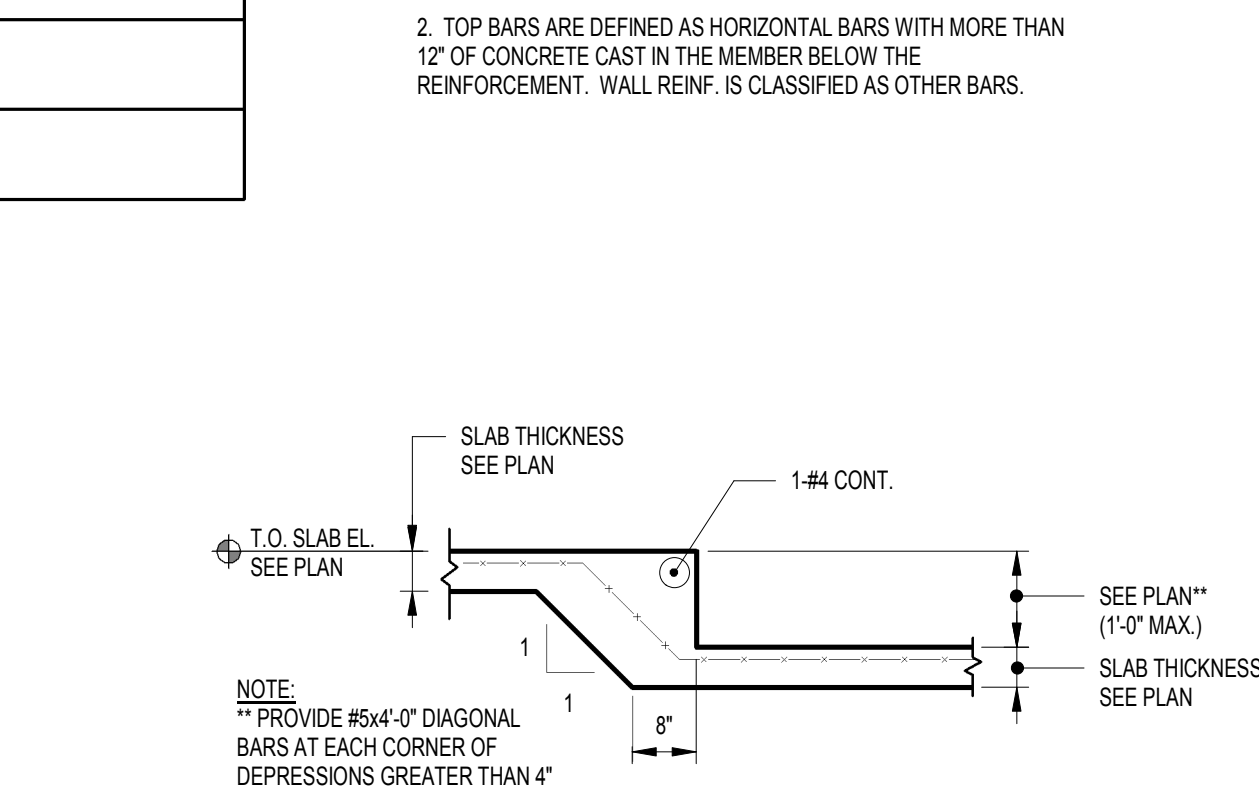
2 TYPICAL HOUSEKEEPING PAD DETAIL  
SCALE: 3/4" = 1'-0"

MINIMUM (CONCRETE) WALL REINFORCEMENT (M.W.R.) (UNLESS OTHERWISE NOTED ON PLANS & SECTIONS)			
WALL THICKNESS	NO. OF ROWS EACH WAY	HORIZONTAL REINFORCING	VERTICAL REINFORCING
< 8"	1	#4 @ 12"	#4 @ 18"
> 8" TO < 12"	2	#4 @ 16"	#4 @ 18"
> 12" TO < 16"	2	#4 @ 12"	#4 @ 18"
> 16" TO < 20"	2	#4 @ 10"	#4 @ 18"
> 20" TO < 24"	2	#5 @ 12"	#4 @ 12"
> 24" TO < 30"	2	#5 @ 10"	#5 @ 18"

NOTES:

1. WALLS OF FRACTIONAL THICKNESS SHALL BE REINFORCED AS A WALL OF THE NEXT HIGHEST THICKNESS.
2. WALL THICKNESS NOT SHOWN SHALL BE A MULTIPLE OF THOSE INDICATED.
3. PLACE HORIZONTAL BARS WITHIN 3" OF TOP OF WALL & WITHIN 3" OF BOTTOM OF WALL. AT WALLS WITH ONE LAYER OF REINFORCING, PROVIDE 2 HORIZ. BARS ALONG TOP AND BOTTOM OF WALL.

FOOTING SCHEDULE (4000 PSF ALLOWABLE BEARING)			
MARK	SIZE	REINFORCING	CAPACITY
F6	6'-0"x8'-0"x16" DP.	8-#5 BOT. EACH WAY	144K
F8	8'-0"x8'-0"x22" DP.	9-#6 BOT. EACH WAY	256K
F9-5	9'-0"x8'-0"x26" DP.	11-#6 TAB LONG WAY 11-#6 TAB SHORT WAY	100K
F11-7	11'-0"x7'-0"x30" DP.	10-#8 TAB LONG WAY 10-#8 TAB SHORT WAY	196K



GENERAL

STRUCTURAL FOUNDATION DRAWINGS SHALL BE USED IN CONJUNCTION WITH THE ARCHITECTURAL, STRUCTURAL DRAWINGS FOR THE PRE-ENGINEERED METAL BUILDING SUPERSTRUCTURE (INCLUDING THE MEZZANINE, SLAB AND FRAMING), MECHANICAL, ELECTRICAL, PLUMBING AND SHOP DRAWINGS AND SPECIFICATIONS.

ALL DIMENSIONS AND CONDITIONS MUST BE VERIFIED IN THE FIELD, AND ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT BEFORE PROCEEDING WITH THE AFFECTED PORTION OF THE WORK.

SHOP DRAWINGS FOR REINFORCING STEEL (INCLUDING ACCESSORIES) SHALL BE SUBMITTED TO THE ARCHITECT, AND A STAMPED APPROVAL RECEIVED BEFORE FABRICATION CAN PROCEED. ERECTION SHALL BE EXECUTED FROM APPROVED SHOP DRAWINGS ONLY.

A COMPLETE CONCRETE PLACEMENT SCHEDULE INCLUDING SLAB CONSTRUCTION JOINTS SHALL BE SUBMITTED TO THE ARCHITECT AND A STAMPED ACCEPTANCE RECEIVED BEFORE ANY CONCRETE PLACEMENT CAN BE MADE.

UNLESS OTHERWISE NOTED, DETAILS SHOWN ON ANY DRAWINGS ARE TO BE CONSIDERED TYPICAL FOR ALL SIMILAR CONDITIONS.

MASSACHUSETTS STATE BUILDING CODE

DESIGN LOADS

LIVE LOADS

GROUND FLOOR SLAB ON GRADE: 250 PSF

MEZZANINE: SEE STRUCTURAL DRAWINGS FOR THE PRE-ENGINEERED METAL BUILDING SUPERSTRUCTURE

SNOW, WIND AND SEISMIC LOADS: SEE STRUCTURAL DRAWINGS FOR THE PRE-ENGINEERED METAL BUILDING SUPERSTRUCTURE

FOUNDATIONS

FOUNDATIONS CONSIST OF CONTINUOUS AND SPREAD FOOTINGS BEARING ON UNDISTURBED NATURAL SOIL OR COMPACTED STRUCTURAL FILL, HAVING AN ALLOWABLE BEARING PRESSURE OF 2 TONS PER SQUARE FOOT. REFER TO THE GEOTECHNICAL REPORT BY GEOTECHNICAL CONSULTANTS, INC. DATED APRIL 18, 2019 FOR ADDITIONAL SUBSURFACE INFORMATION AND RECOMMENDATIONS.

UNLESS OTHERWISE NOTED, FOUNDATIONS SHALL BE CENTERED UNDER SUPPORTED MEMBERS.

THE BOTTOM PERIMETER FOUNDATIONS SHALL BE AT LEAST 4'-0" BELOW FINISHED GRADE.

THE BOTTOM 3 INCHES OF FOOTING EXCAVATIONS SHALL BE FINISHED BY HAND SHOVEL.

BOTTOM OF EXCAVATIONS SHALL BE INSPECTED BY THE OWNER'S SPECIAL INSPECTION AGENCY PRIOR TO THE PLACEMENT OF CONCRETE.

PLACE BACK-FILL SIMULTANEOUSLY ON BOTH SIDES OF WALLS TO THE GRADES INDICATED.

FOR LOCATION OF PIPES AND UNDERSLAB CONDUIT, SEE SITE, PLUMBING, MECHANICAL, AND ELECTRICAL DRAWINGS. PROVIDE CAULDED STEEL SLEEVES FOR ALL PIPE PENETRATIONS AT THE FOUNDATION WALL.

PROVIDE FORMWORK FOR ALL FOOTINGS, WALLS, AND PIERS. EARTH FORMED FOUNDATIONS ARE NOT ALLOWED.

CONCRETE

CONCRETE SHALL BE A MIX DESIGNED FOR ULTIMATE STRENGTH CONCRETE IN ACCORDANCE WITH ACI 211.1 TO ACHIEVE THE FOLLOWING 28-DAY COMPRESSIVE STRENGTHS:

FOUNDATION WALLS AND FOOTINGS: 4000 PSI, NORMAL WEIGHT.

RETAINING WALLS (INCLUDING FOOTINGS): 4000 PSI, NORMAL WEIGHT.

SLAB ON GRADE: 4000 PSI, NORMAL WEIGHT.

OUTDOOR LANDING SLABS: 4000 PSI, NORMAL WEIGHT.

HOUSEKEEPING PADS: 4000 PSI, NORMAL WEIGHT.

SEE PRE-ENGINEERED METAL BUILDING SUPERSTRUCTURE DRAWINGS FOR ELEVATED CONCRETE SLABS AND ASSOCIATED REINFORCING.

CONCRETE SHALL NOT BE CAST IN WATER OR ON FROZEN GROUND.

TOP OF FOUNDATION WALLS SHALL BE SMOOTH AND LEVEL.

NO PIPE SHALL PASS THROUGH CONCRETE WITHOUT PERMISSION OF THE ARCHITECT. STEEL PIPE SLEEVES SHALL BE PROVIDED AND SPACED A MINIMUM OF THREE DIAMETERS APART.

KEYS SHALL BE 2" X 4", WITH BEVELED SIDES, UNLESS OTHERWISE NOTED.

HORIZONTAL CONSTRUCTION JOINTS SHALL BE AS INDICATED ON THE DRAWINGS. VERTICAL CONSTRUCTION JOINTS SHALL BE APPROVED BY THE ARCHITECT. CONSTRUCTION JOINTS SHALL BE FORMED WITH A KEY, AND REINFORCING SHALL BE LAPPED TO DEVELOP THE FULL TENSION CAPACITY OF THE (SMALLER) BAR.

CONCRETE WALLS SHALL HAVE CONTRACTION OR CONSTRUCTION JOINTS SPACED NO MORE THAN 60'-0" ON CENTER. FOUNDATION WALL CONTRACTION JOINTS SHALL LINE UP WITH MASONRY WALL CONTROL JOINTS. SEE ARCHITECTURAL DRAWINGS.

COLUMN AND PIER DOWELS SHALL BE SET BY TEMPLATE.

EXPOSED CONCRETE SHALL BE RUBBED IMMEDIATELY AFTER REMOVAL OF FORMS.

OPENINGS IN CONCRETE WALLS SHALL BE LOCATED, SIZED AND REINFORCED (WITH THE EXCEPTION OF SMALL OPENINGS AND/OR SLEEVES OF A SIZE THAT WILL NOT DISPLACE OR INTERRUPT THE CONTINUITY OF THE REINFORCING) AS SHOWN ON RESPECTIVE DETAILS. ANY ALTERATIONS REQUIRE APPROVAL OF THE ARCHITECT.

REINFORCING STEEL

REINFORCING STEEL SHALL BE DEFORMED BARS, FREE FROM LOOSE RUST AND SCALE, AND CONFORMING TO ASTM A615, GRADE 60.

WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185. LAP TWO SQUARES AT JOINTS AND TIE AT 3'-0" O.C. FURNISH WWF IN FLAT SHEETS.

CLEAR CONCRETE COVER OVER BARS SHALL BE AS FOLLOWS (SEE ACI 318 FOR CONDITIONS NOT NOTED):

FOOTINGS: 3 INCHES (BOTTOM), 2 INCHES (TOP AND SIDE)

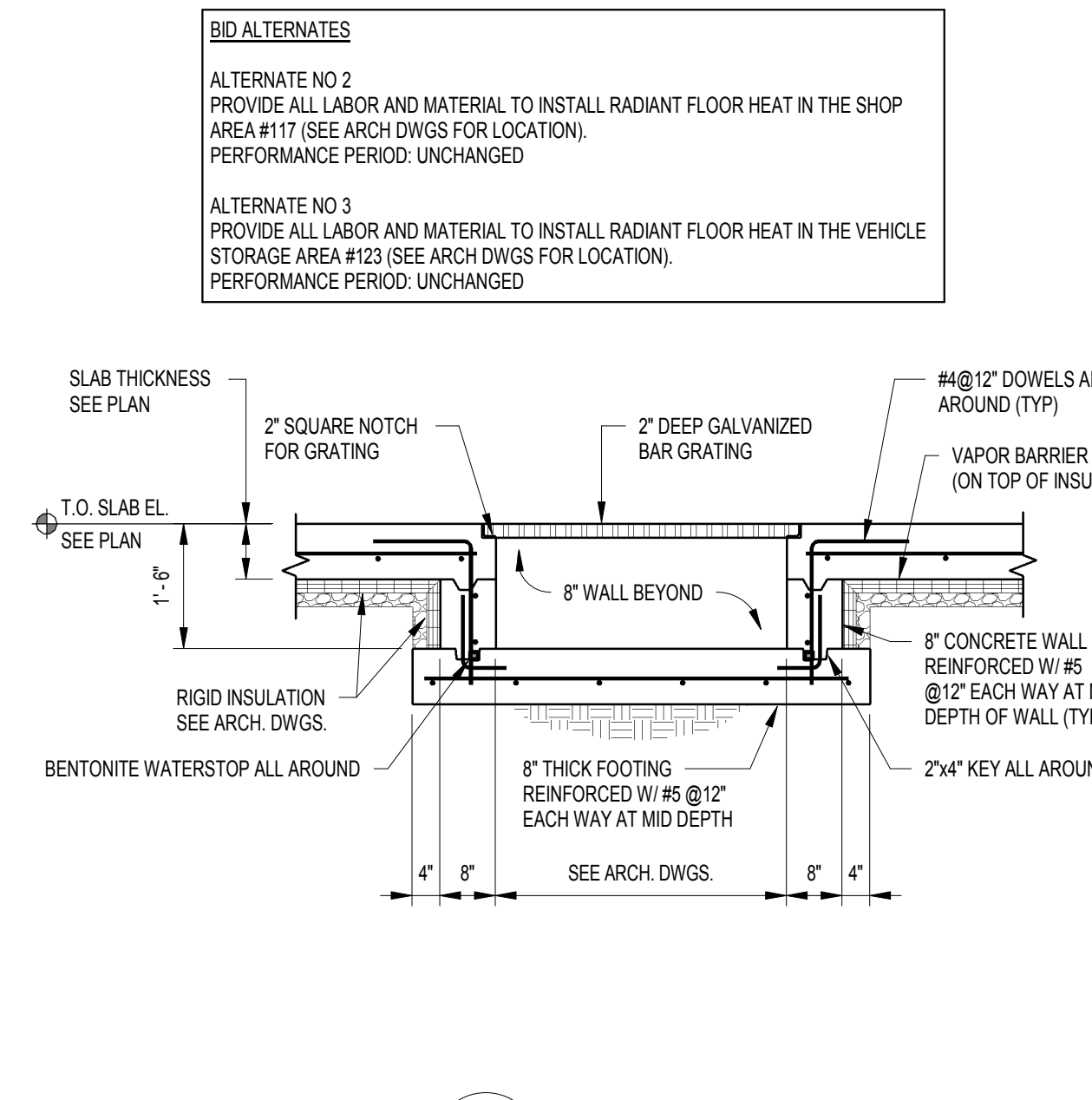
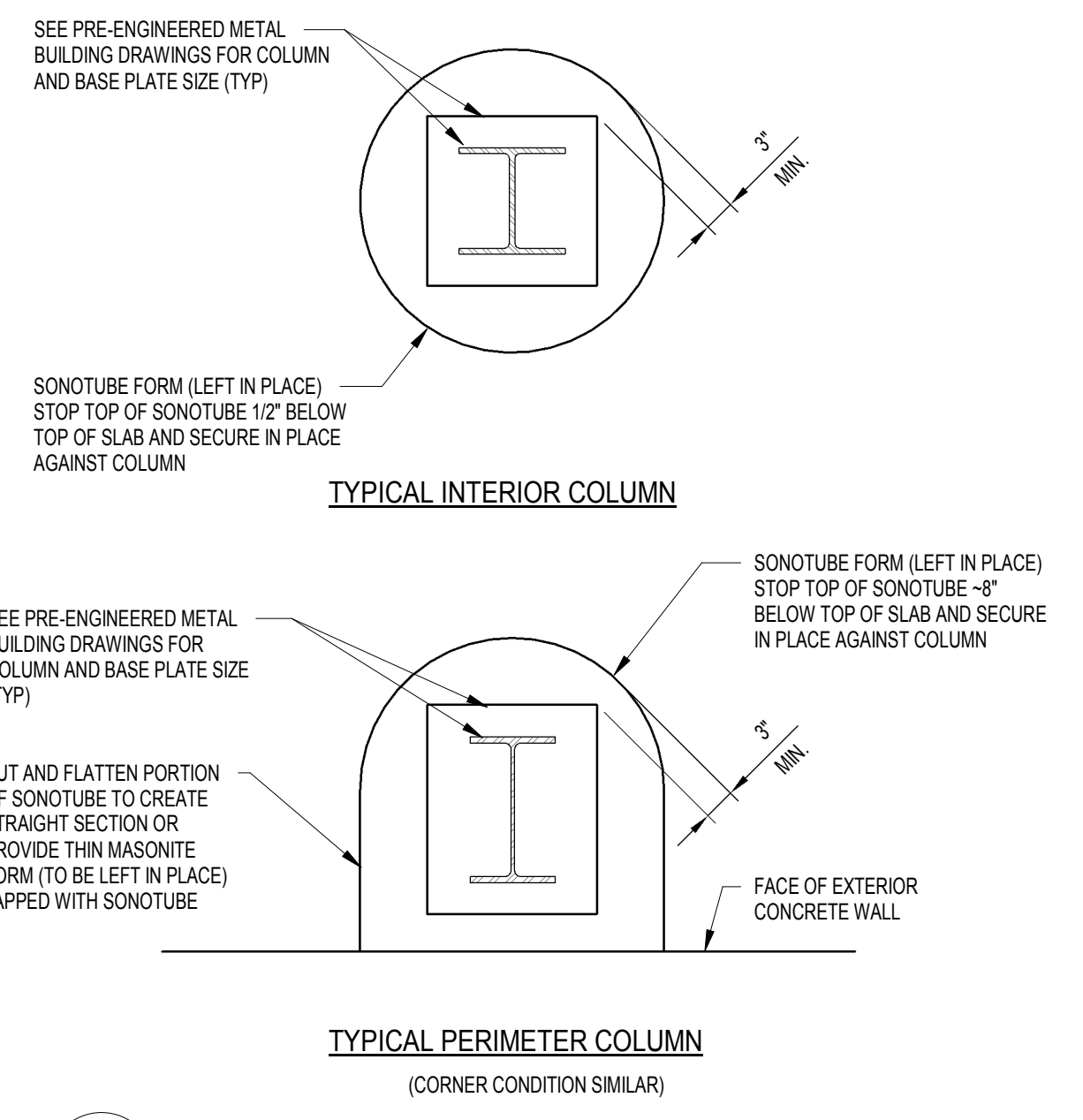
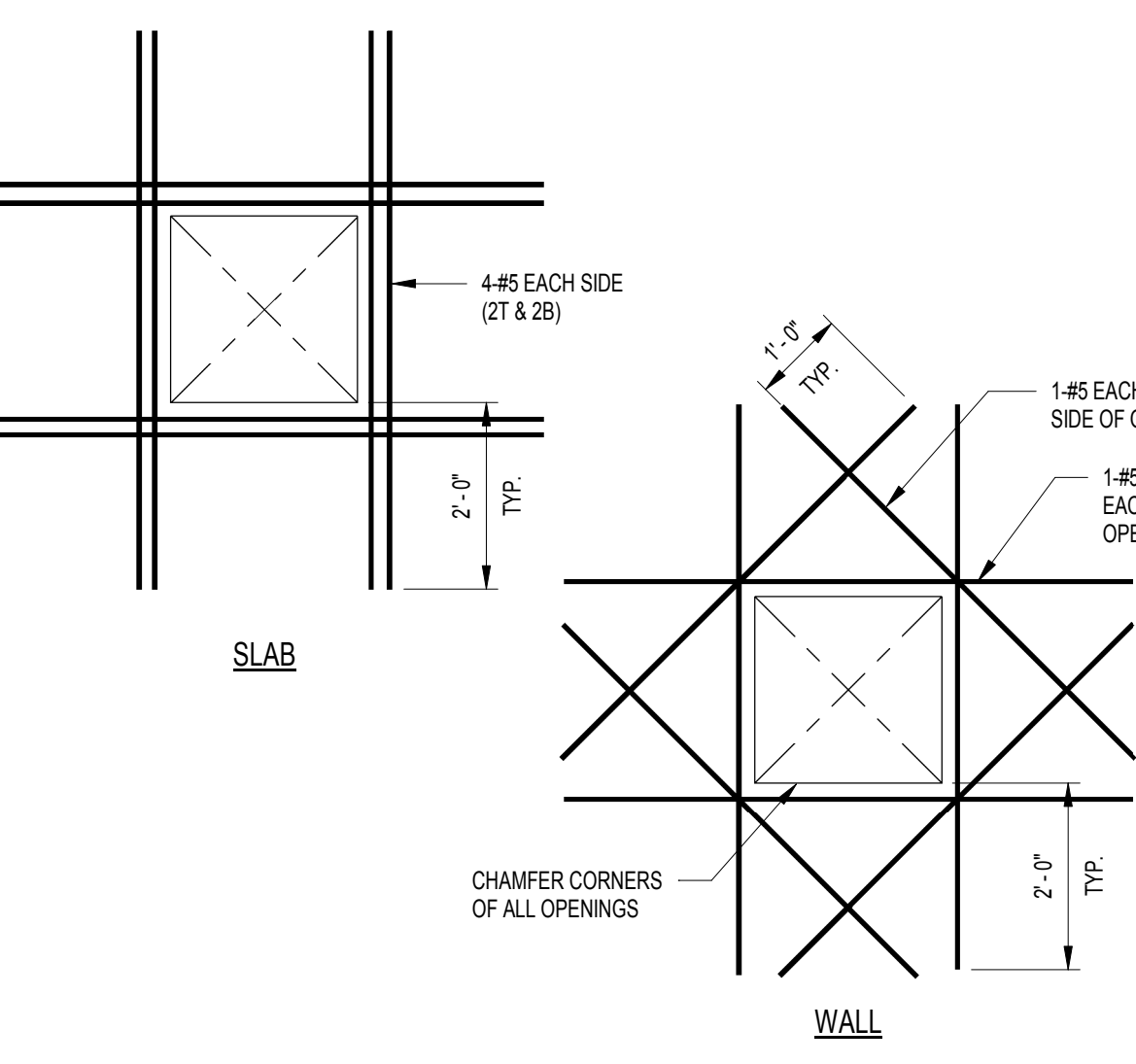
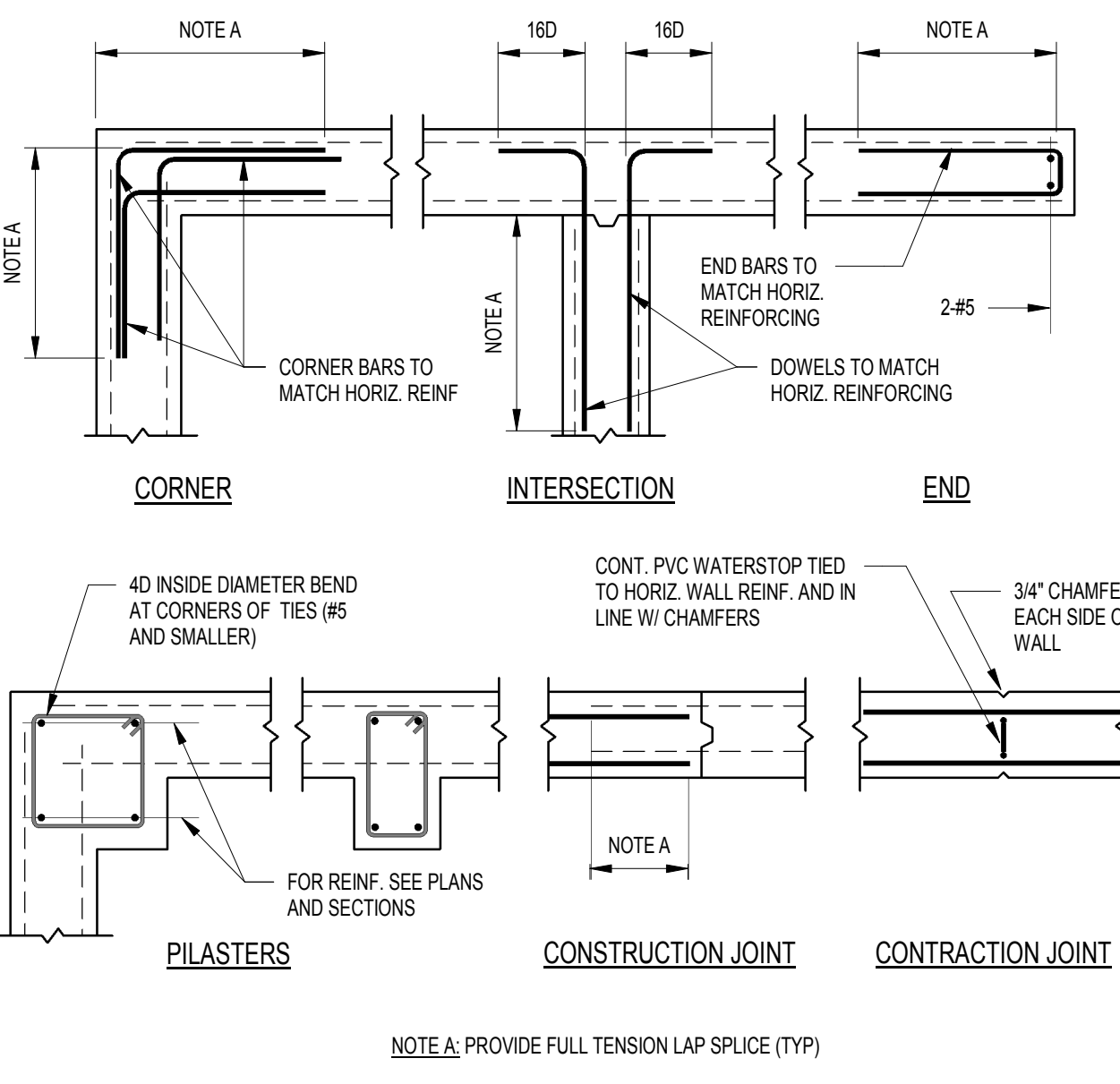
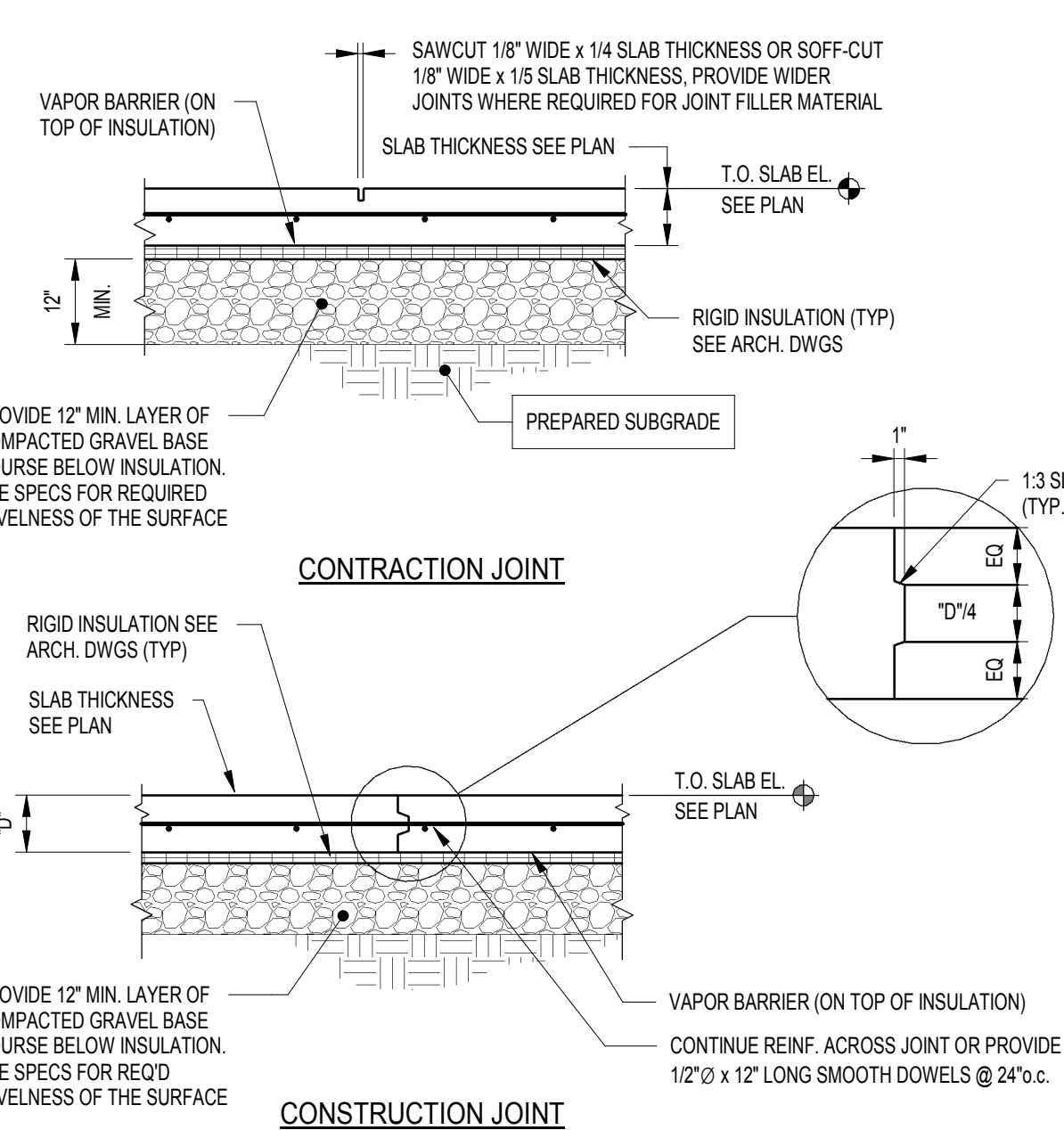
SLAB ON GRADE: 2 INCHES (TOP), 3" (BOTTOM) U.O.C.

WALLS: 2 INCHES (SIDE)

ACCESSORIES SHALL HAVE UPTURNED LEGS AND BE PLASTIC-DIPPED AFTER FABRICATION. ACCESSORIES FOR REINFORCING SHALL BE IN ACCORDANCE WITH ACI CURRENT EDITION.

LAP REINFORCING TO DEVELOP THE FULL TENSION CAPACITY OF THE (SMALLER) BAR.

NO BARS SHALL BE CUT OR OMITTED IN THE FIELD BECAUSE OF SLEEVES, DUCT OPENINGS OR RECESSES. BARS MAY BE MOVED ASIDE WITHOUT CHANGE IN LEVEL WITH THE PRIOR APPROVAL OF THE ARCHITECT.



## TOWN OF MONTAGUE

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FOUNDATION STRUCTURAL ENGINEER:  
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STAMP

5/15/19 100% SUBMISSION

DATE 5/15/2019  
SCALE As indicated  
DRAWN BY JP  
CHECKED BY RMC  
PROJECT NO. 19029

BUILDING:

SHEET TITLE:  
**GENERAL NOTES AND DETAILS**

DRAWING NO.

S-001





TOWN OF  
MONTAGUE

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PROJECT NO.	19029

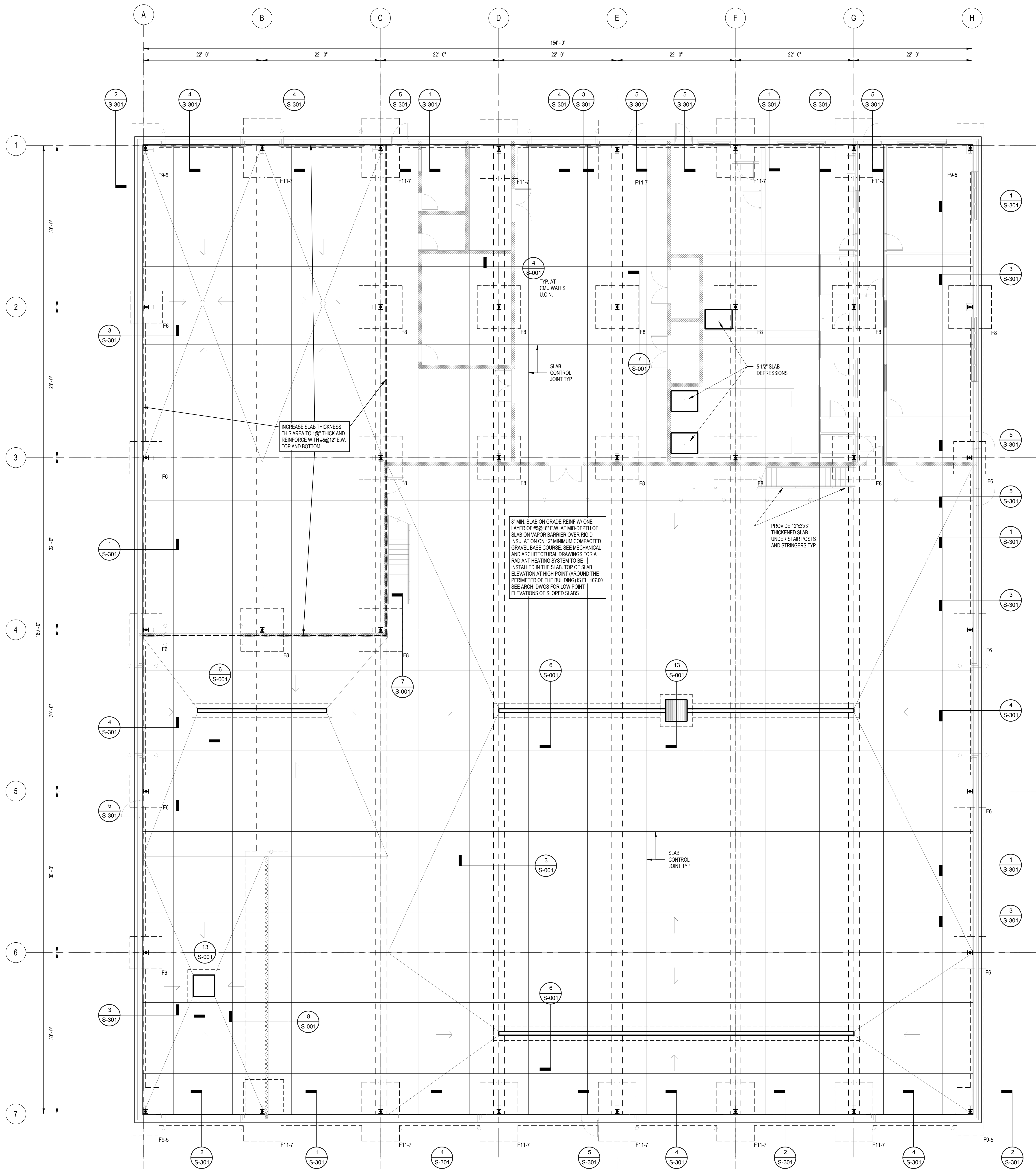
BUILDING:

SHEET TITLE:

FOUNDATION  
PLAN

DRAWING NO.

S-101



NOTES:

1. '00'-0" INDICATES TOP OF FOOTING ELEVATION
2. 'F4' INDICATES FOOTING SIZES. SEE SCHEDULE ON S-001.
3. BOTTOM OF NEW PERIMETER FOUNDATIONS TO BE 4'-0" MIN. BELOW EXISTING GRADE.
4. SEE FOUNDATION NOTES ON DRAWING S-001 FOR ADDITIONAL FOUNDATION REQUIREMENTS.
5. PIER SIZES TO BE COORDINATED AND APPROVED WITH PRE-ENGINEERED METAL BUILDING MANUFACTURER. ADJUST AS NECESSARY
6. FASTEN BOLLARDS TO FOOTINGS WHERE APPLICABLE
7. REFER TO CIVIL AND ARCHITECTURAL DRAWINGS FOR CONCRETE LANDINGS AND APRONS.
8. S — S INDICATES LOCATION OF STEPPED FOOTING. SEE 1/S-001 FOR TIP DETAIL.



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FOUNDATION  
STRUCTURAL ENGINEER:  
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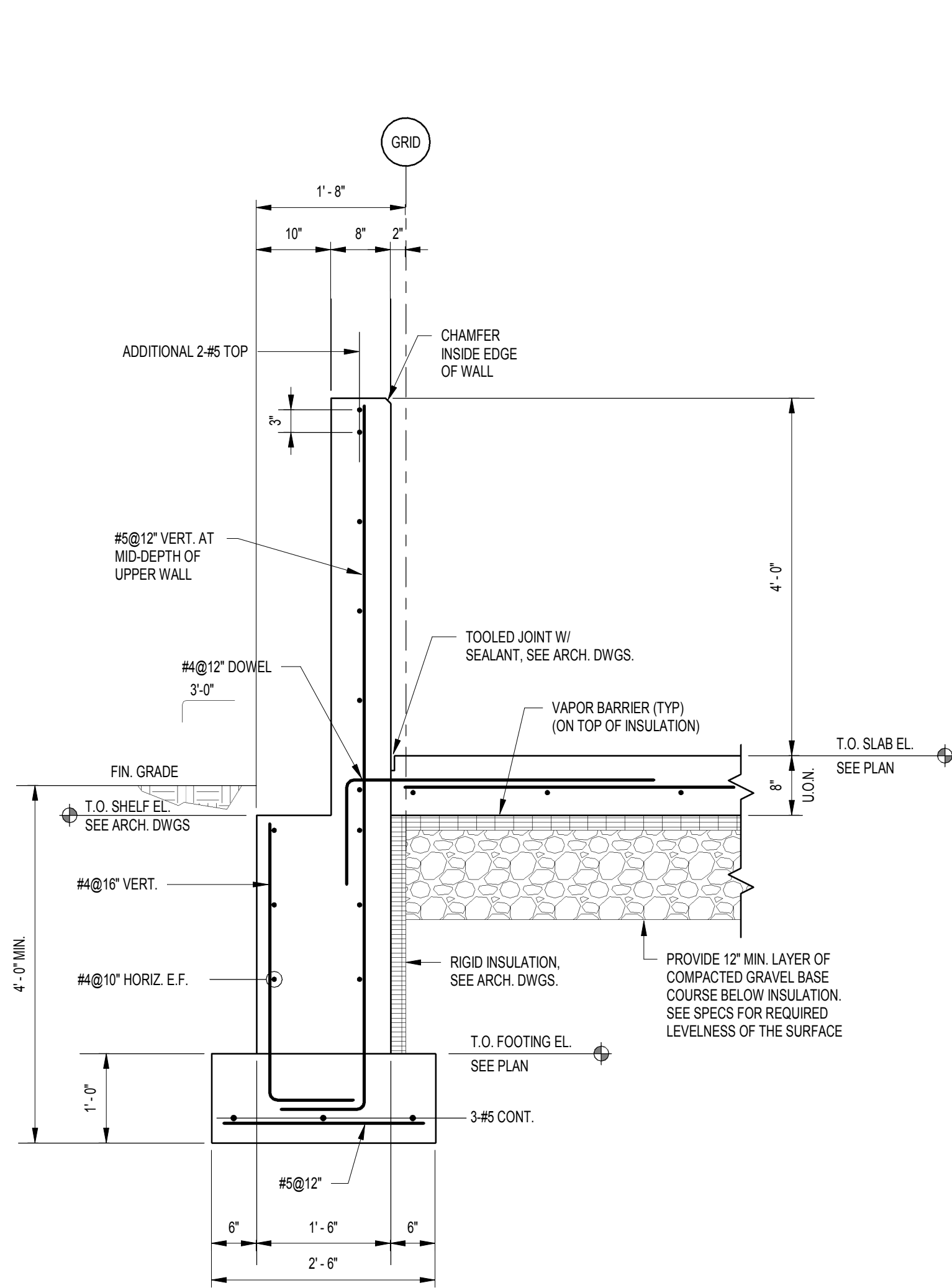
### BUILDING:

HEET TITLE:

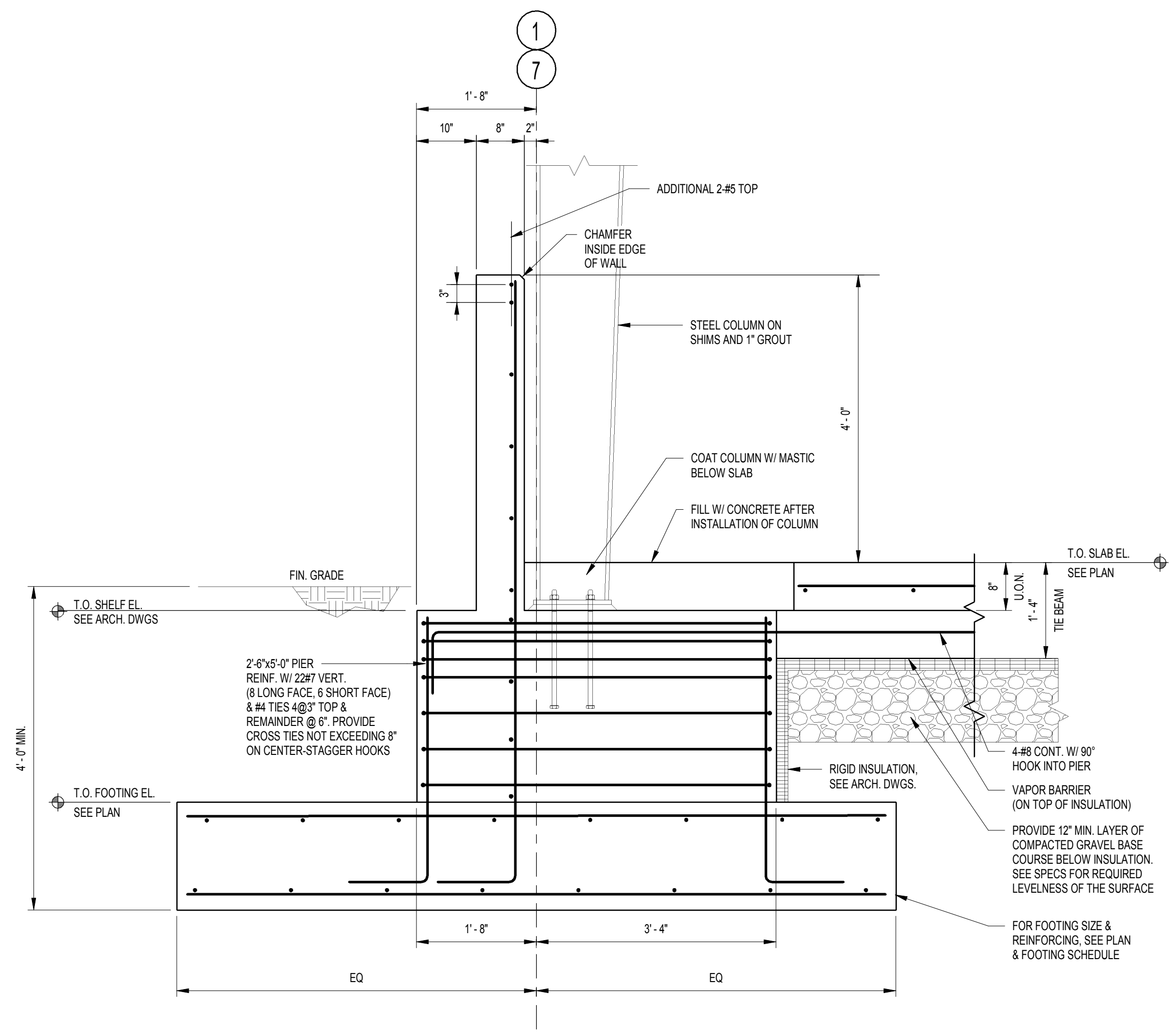
## FOUNDATION SECTIONS AND DETAILS

DRAWING NO.

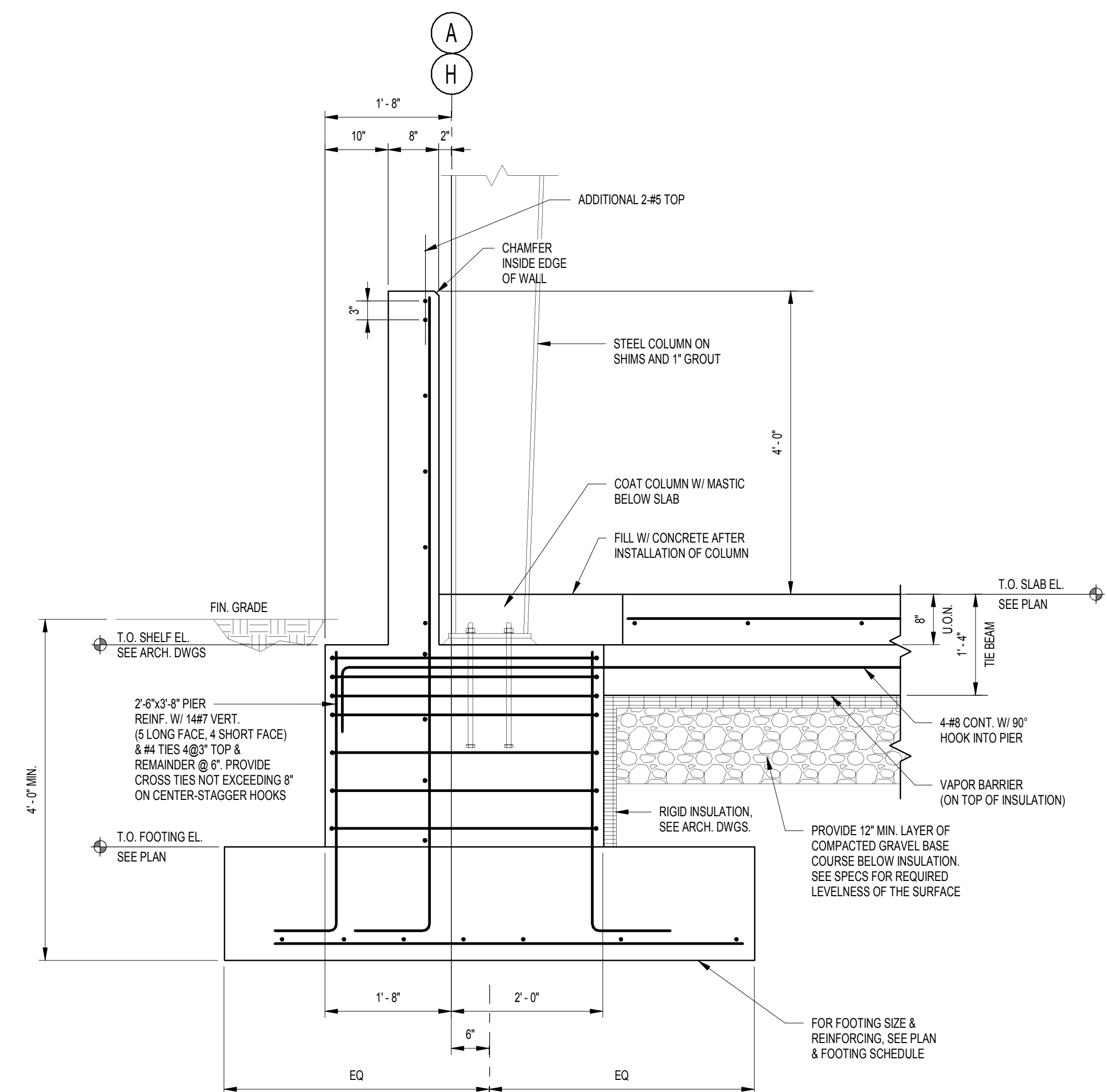
6-301



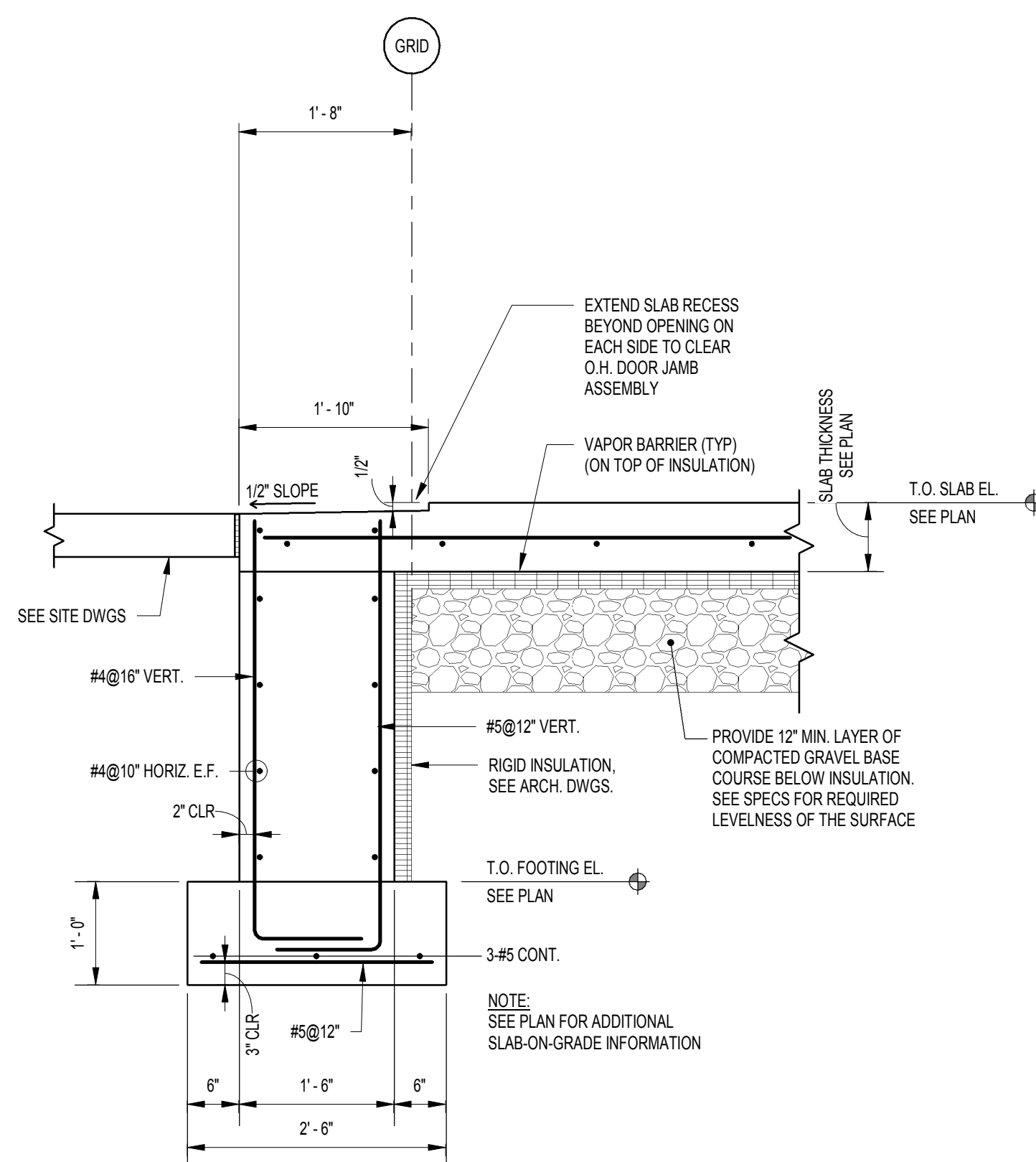
1 TYPICAL FOUNDATION WALL SECTION  
SCALE: 3/4" = 1'-0"



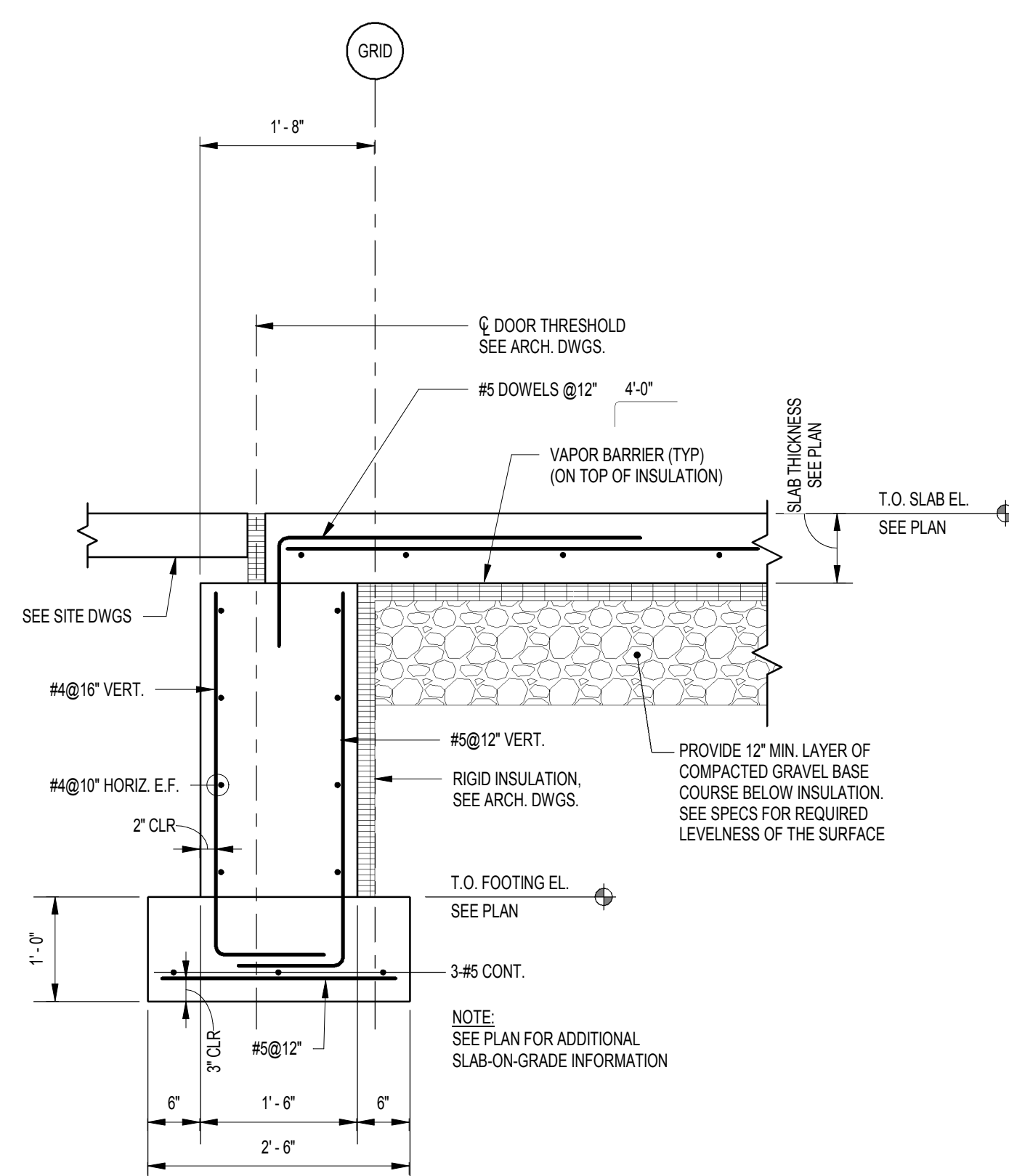
2 TYPICAL FOUNDATION WALL SECTION AT MAIN BENT  
SCALE: 3/4" = 1'-0"



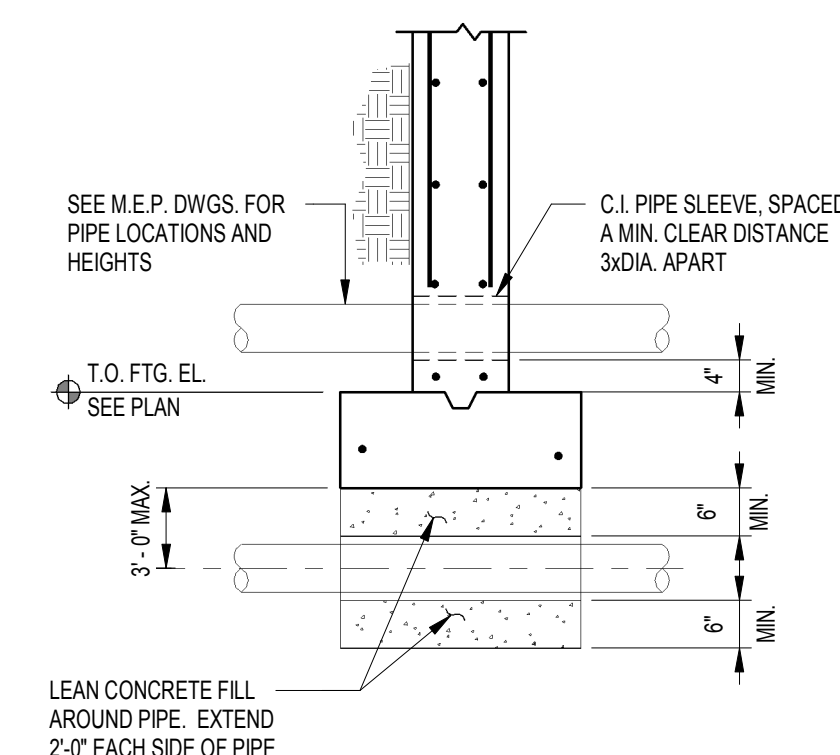
3 TYPICAL FOUNDATION WALL SECTION AT SIDE BENT  
SCALE: 3/4" = 1'-0"



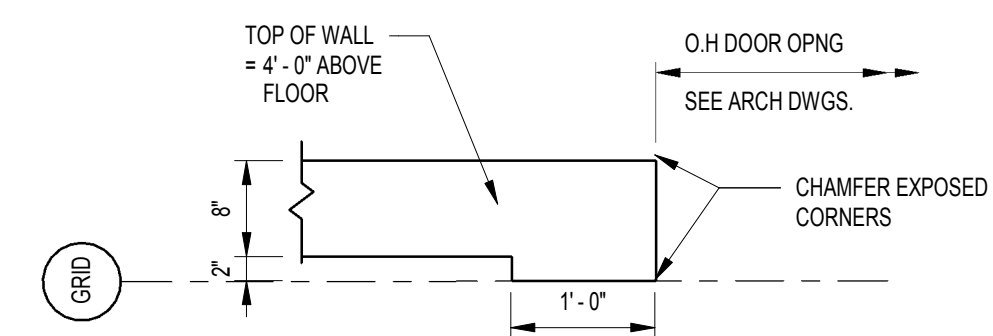
4 FOUNDATION SECTION AT OVERHEAD DOOR  
SCALE: 3/4" = 1'-0"



5 FOUNDATION SECTION AT OVERHEAD DOOR  
SCALE: 3/4" = 1'-0"



6 PIPE SLEEVE AT FOUNDATION WALL DETAIL  
SCALE: 1/2" = 1'-0"



7 PLAN VIEW - KNEE WALL RETURN AT O.H. DOORS  
SCALE: 3/4" = 1'-0"





## NEW DPW FACILITY

OWNER:  
TOWN OF MONTAGUE  
ONE AVENUE A  
TURNERS FALLS, MA 01376

ARCHITECT:  **HELENE • KARL**  
Architects, Inc.

CIVIL ENGINEER:  
SYMMES, MAINI & McKEE ASSOCIATES  
1000 MASSACHUSETTS AVENUE  
CAMBRIDGE, MA 02138

STRUCTURAL ENGINEER:  
SYMMES, MAINI & McKEE ASSOCIATES  
100 MASSACHUSETTS AVENUE  
CAMBRIDGE, MA 02138

**MECHANICAL ENGINEER:**  
SEAMAN ENGINEERING CORP.  
22 WEST STREET, UNIT C  
MILLBURY, MA 01527

**ELECTRICAL ENGINEER:**  
JOHN J. MURPHY, JR. ELECTRICAL  
CONSTRUCTION AND ENGINEERING, INC.  
379 LIBERTY STREET  
ROCKLAND, MA 02370

TAMP


REV	DATE	DESCRIPTION
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SCALE	1/8" = 1'-0"	
DRAWN BY	CDR	
CHECKED BY	KRS	
PROJECT NO.	19001	

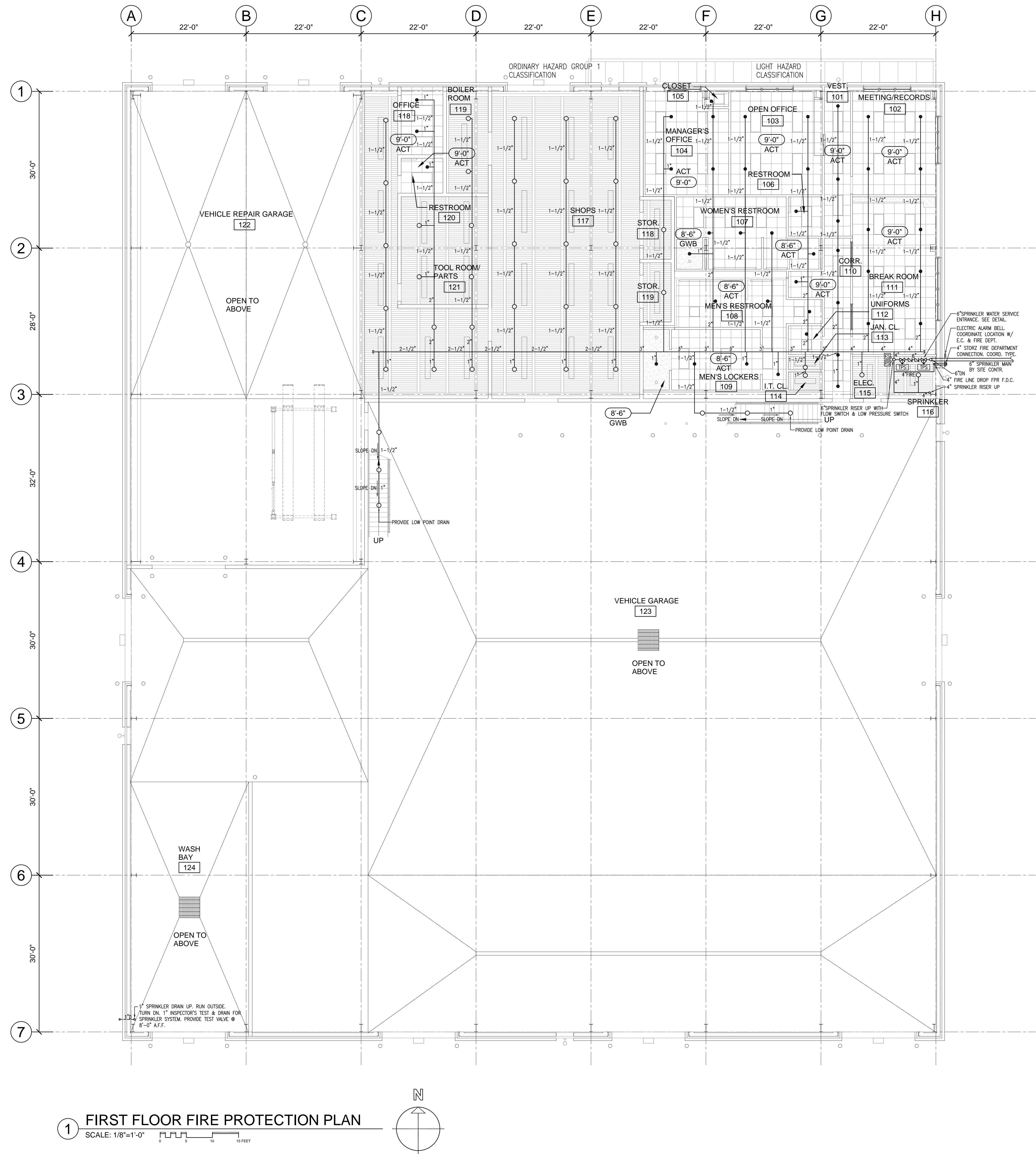
BUILDING:

SHEET TITLE:

# FIRST FLOOR FIRE PROTECTION PLAN

DRAWING NO.

FP-101







OF MONTAGUE  
VENUE A  
S FALLS, MA 01376

ENGINEER:  
J. MAINI & McKEE ASSOCIATES  
MASSACHUSETTS AVENUE  
DORCHESTER, MA 02138

**CIVIL ENGINEER:**  
J. MAINI & McKEE ASSOCIATES  
MASSACHUSETTS AVENUE  
DORCHESTER, MA 02138

MECHANICAL ENGINEER:  
ENGINEERING CORP.  
ST STREET, UNIT C  
RY, MA 01527

**MECHANICAL ENGINEER:**  
J. MURPHY, JR. ELECTRICAL  
CONSTRUCTION AND ENGINEERING, INC.  
100 BERTY STREET  
AND, MA 02370

DATE	DESCRIPTION
	5/15/19
	1/8" = 1'-0"
BY	CDR
BY	KRS
NO.	19001

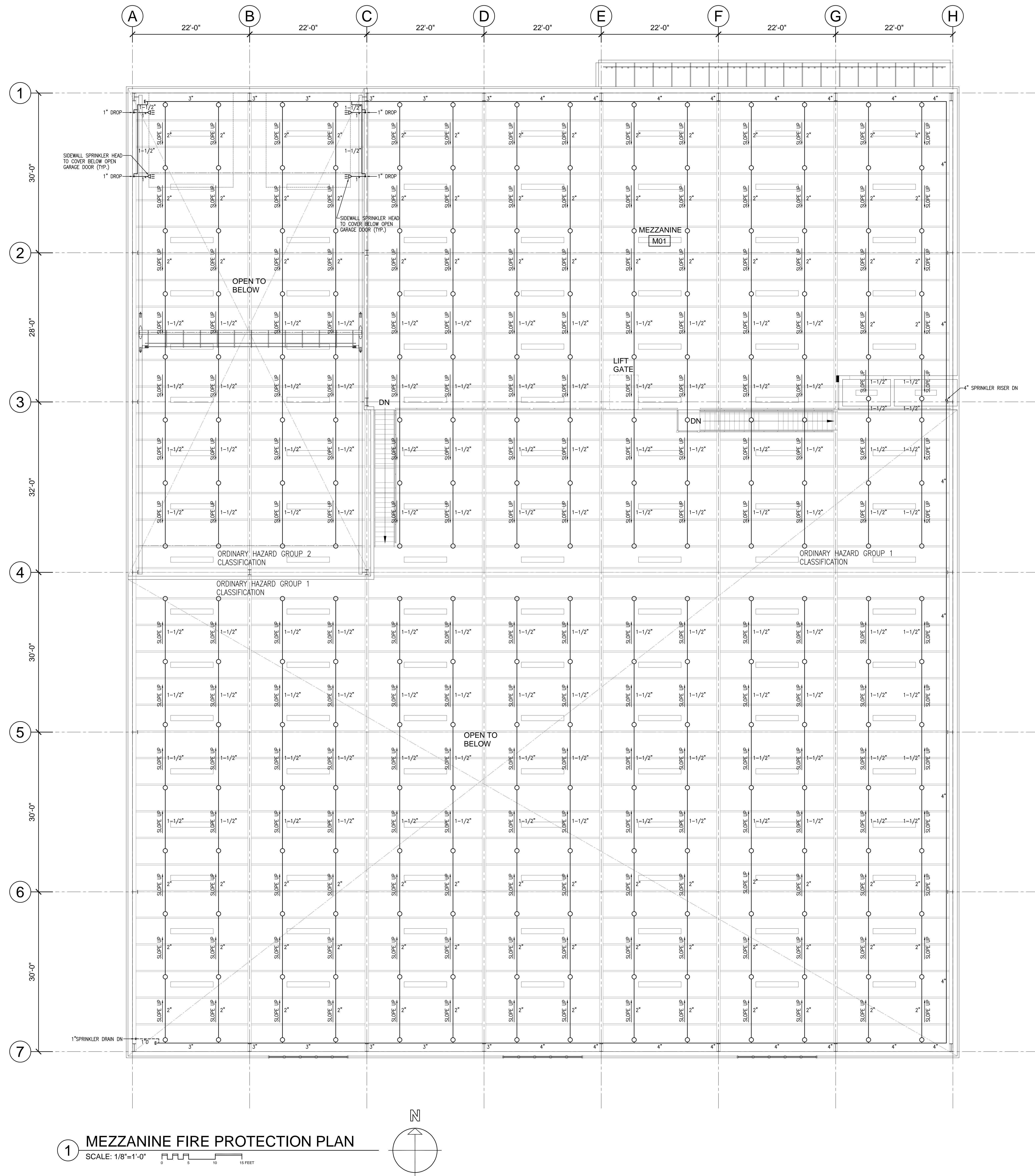
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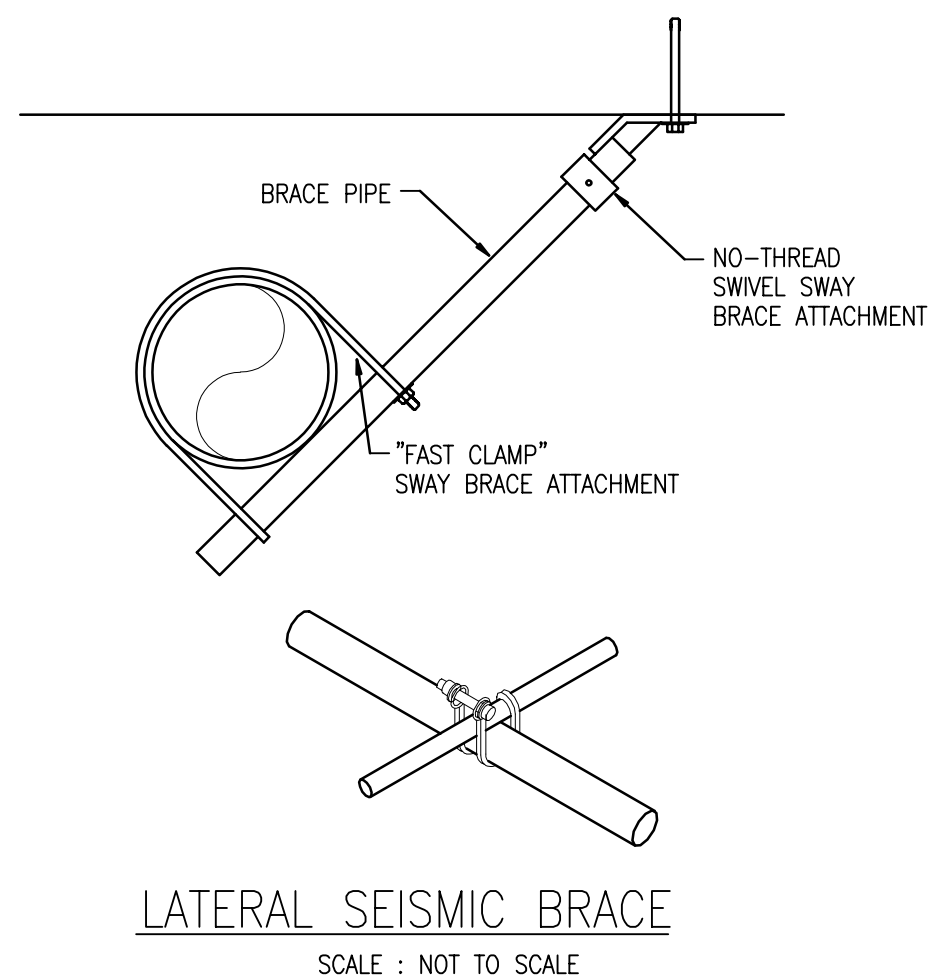
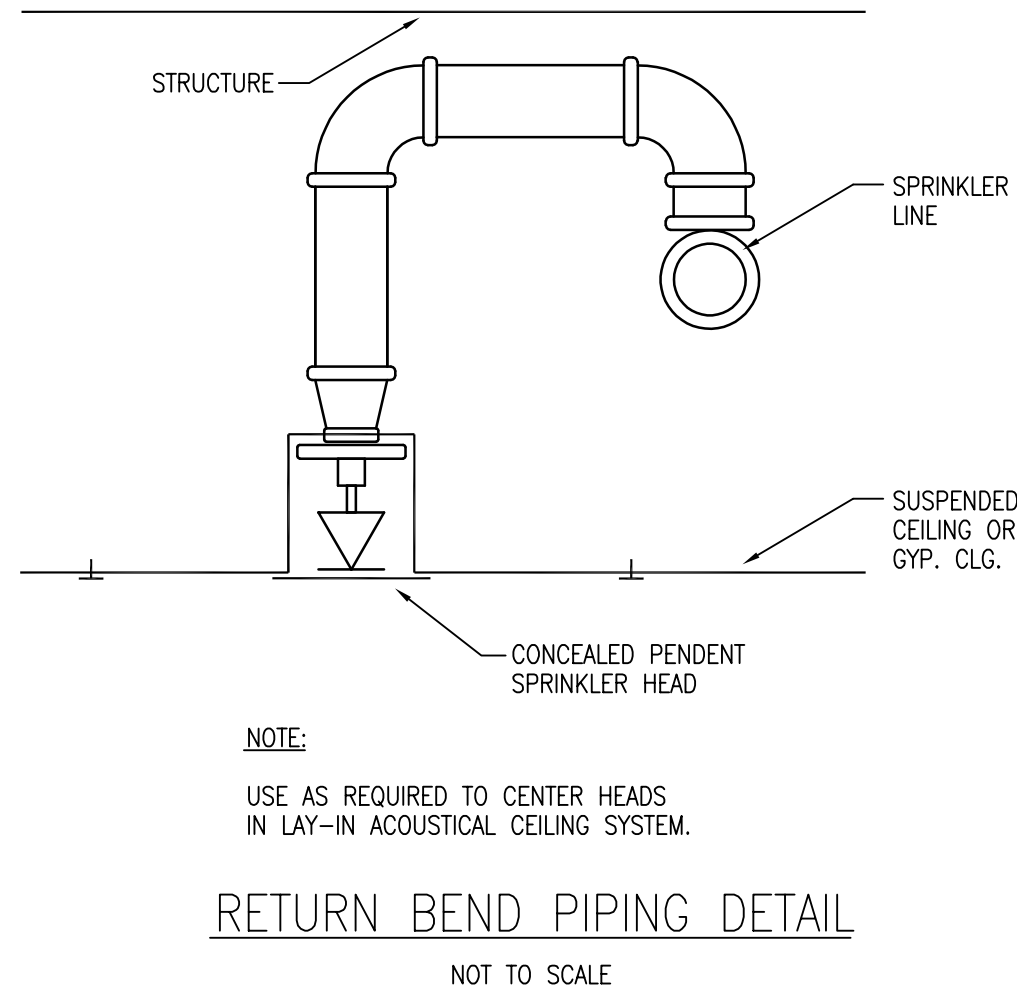
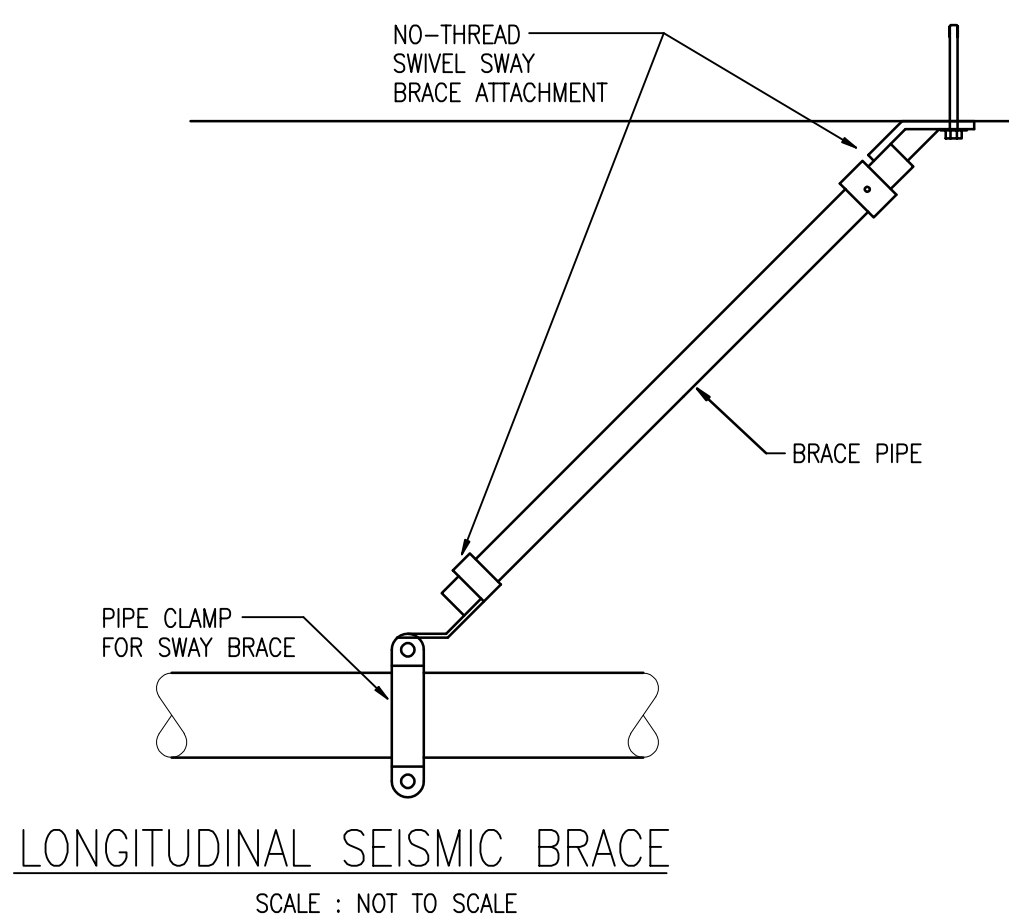
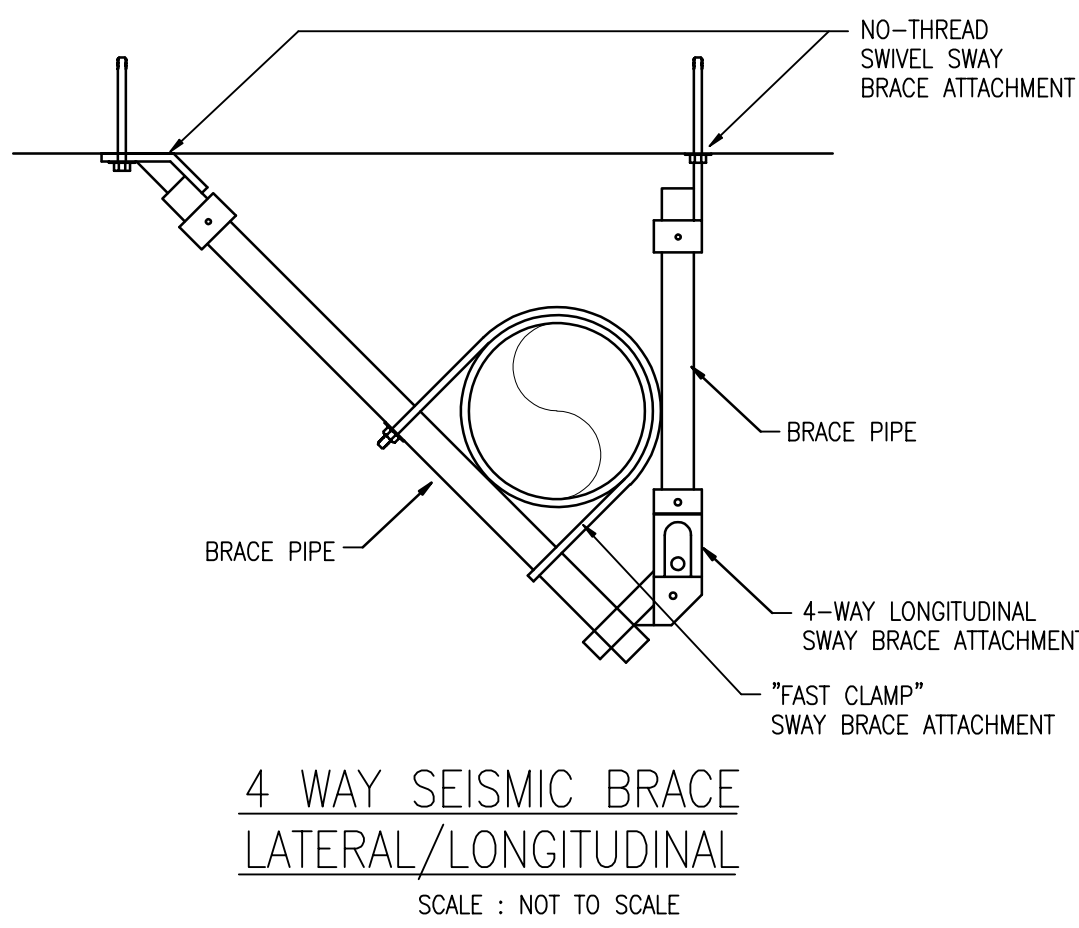
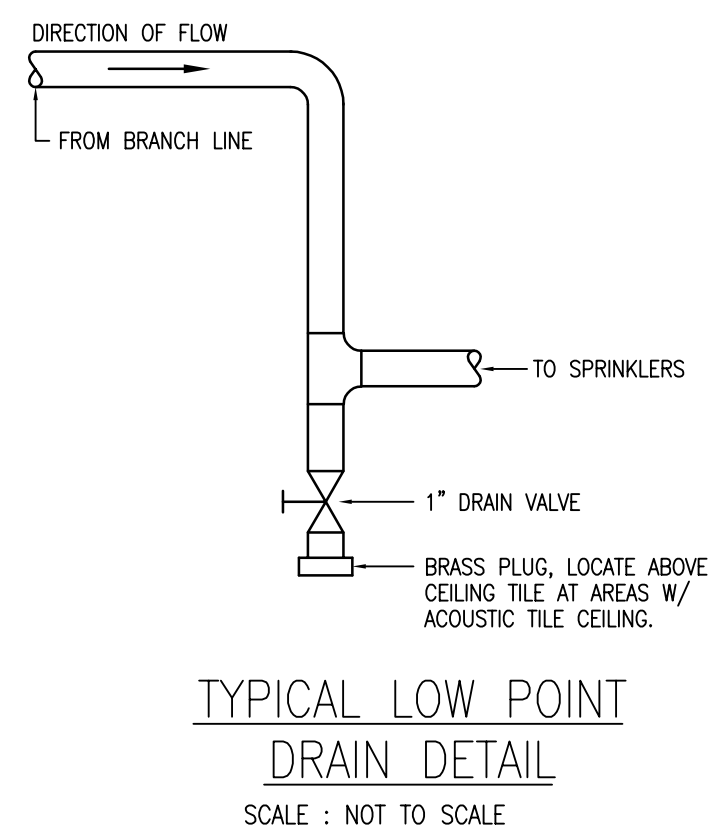
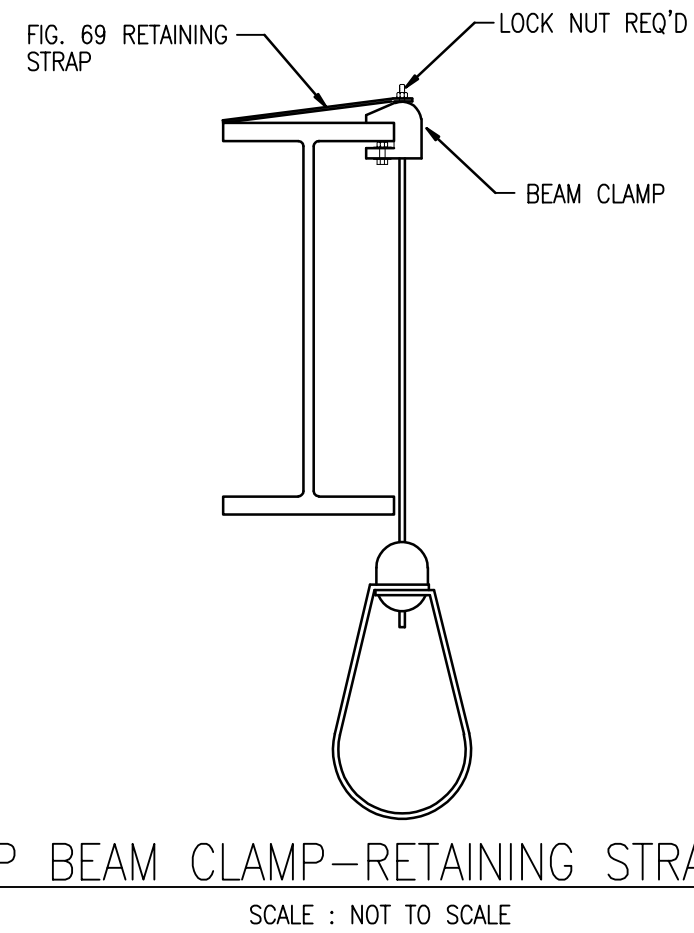
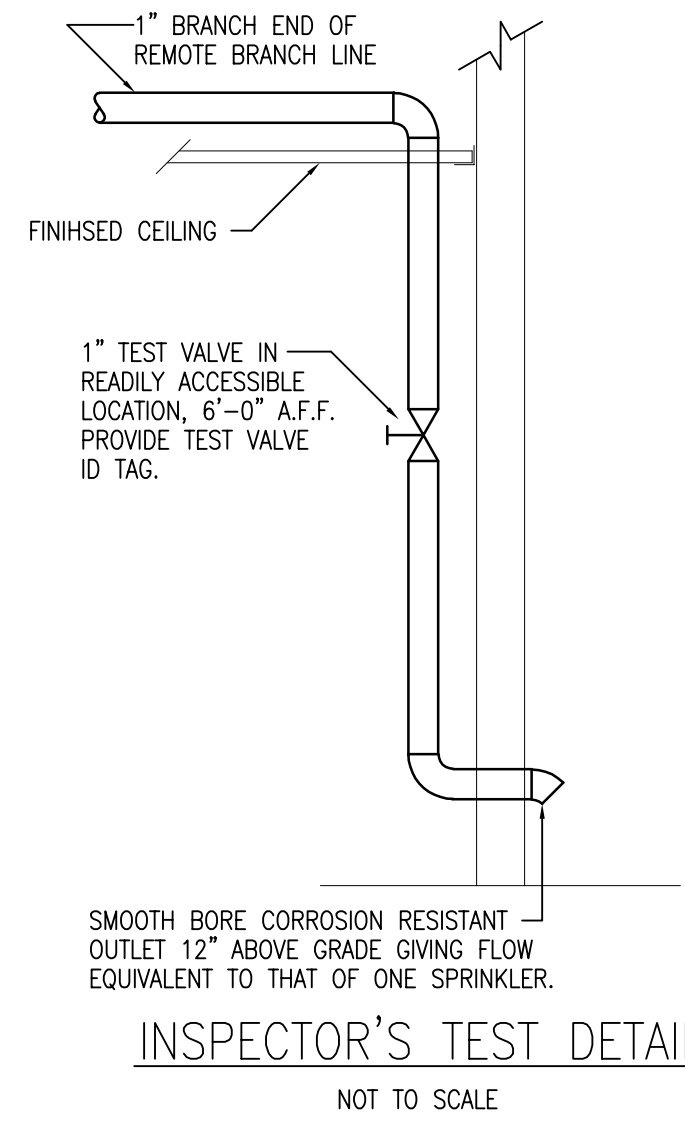
## MEZZANINE FIRE PROTECTION PLAN

NO. \_\_\_\_\_

FP-102

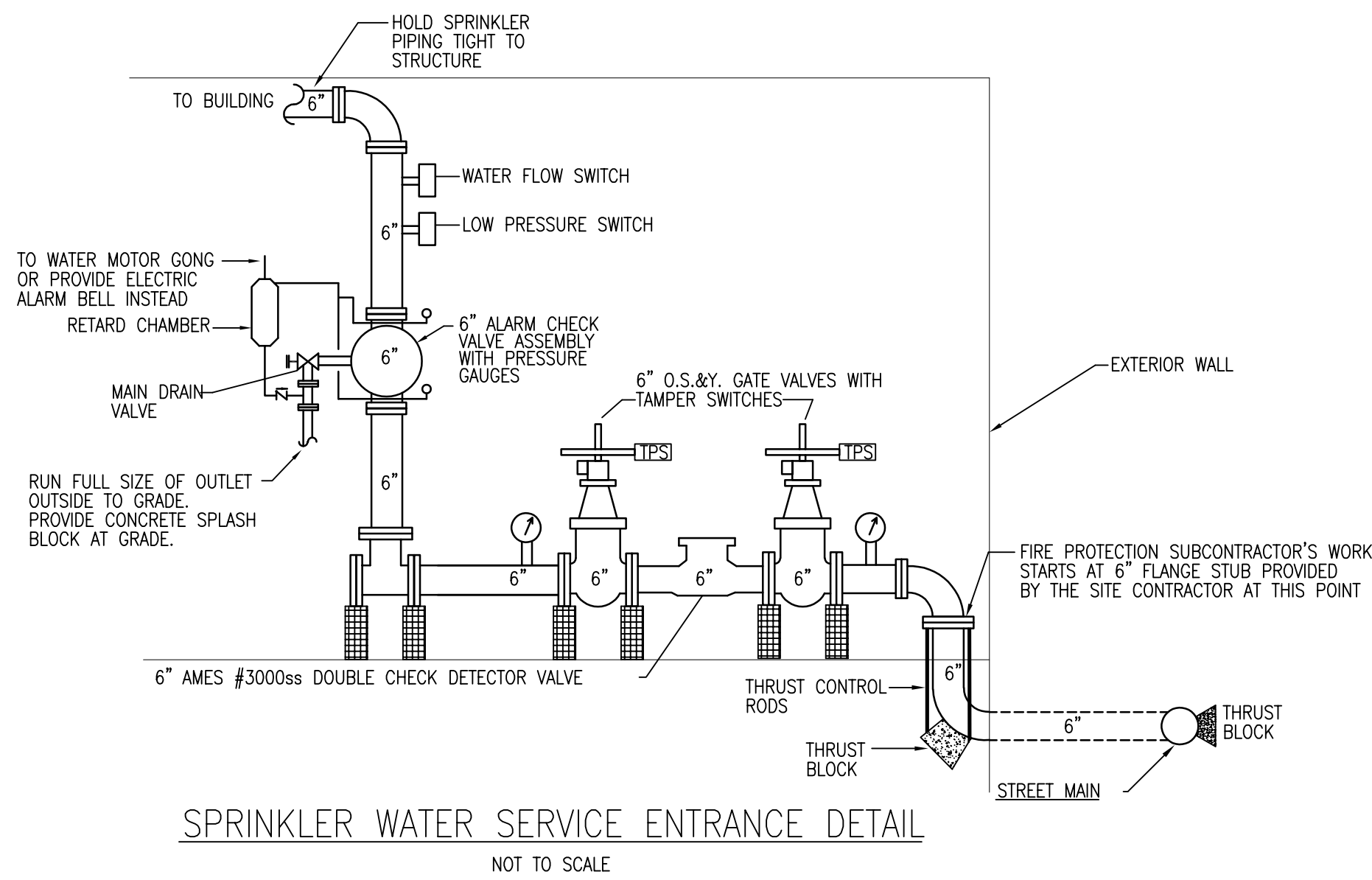






#### LEGEND

- PROPOSED WET SPRINKLER SYSTEM PIPING
- PROPOSED FIRE SPRINKLER PIPING FOR F.D.C.
- SPRINKLER DRAIN PIPING
- SPRINKLER PIPING RISE UP
- SPRINKLER PIPING DROP DN
- TPS TAMPER SWITCH
- FS FLOW SWITCH
- PS LOW PRESSURE SWITCH
- OSAY GATE VALVE
- SWING CHECK VALVE
- UPRIGHT SPRINKLER HEAD
- CONCEALED PENDENT SPRINKLER HEAD
- HORIZONTAL SIDEWALL SPRINKLER HEAD
- V.I.F. VERIFY IN FIELD
- L.O.W. LIMIT OF WORK
- A.F.F. ABOVE FINISHED FLOOR
- A.F.G. ABOVE FINISHED GRADE
- A.H. AUTHORITY HAVING JURISDICTION
- RN RISER NIPPLE
- E.C. ELECTRICAL CONTRACTOR
- F.D.C. FIRE DEPARTMENT CONNECTION



#### FIRE PROTECTION GENERAL NOTES:

- CONTRACTOR RESPONSIBLE FOR PROVIDING ALL MATERIAL, LABOR, SUPERVISION AND TRANSPORTATION REQUIRED TO COMPLETE THE WORK DESCRIBED ON THESE DRAWINGS UNLESS STATED OTHERWISE.
- CONTRACTOR TO VERIFY ALL DIMENSIONS AND LOCATION IN FIELD.
- CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS. A PERMIT IS REQUIRED FOR THE BACKFLOW DEVICE.
- ALL PIPING TO BE INSTALLED PER LOCAL, STATE AND FEDERAL CODES.
- CONTRACTOR RESPONSIBLE FOR ALL OFFSETS & MODIFICATIONS AS REQUIRED TO CLEAR BUILDING STRUCTURES.
- THE SPRINKLER WORK SHALL CONSIST OF THE INSTALLATION OF A COMPLETE WET-TYPE SPRINKLER SYSTEM AS INDICATED ON THIS DRAWING, INCLUDING PIPING, HEADS, ESCUTCHEONS, HANGERS, ETC., CONNECTING TO EXISTING WATER SERVICE. ALL WORK SHALL BE IN COMPLIANCE WITH MA BUILDING CODE 9TH EDITION, NFPA #13 AND THE TOWN OF MONTAGUE BUILDING AND FIRE DEPARTMENT REQUIREMENTS.
- THE SPRINKLER LAYOUT SHOWN ON THIS DRAWING IS CONCEPTUAL IN DESIGN ONLY. THE USE OF STANDARD AND EXTENDED COVERAGE SPRINKLER HEADS IS THE RESPONSIBILITY OF THE DESIGN ENGINEER. PLAN DOES NOT INDICATE ANY INTERFERENCES. PIPING SHALL BE LOCATED TO AVOID ALL LIGHTS, DIFFUSERS, SPEAKERS, DUCTS, ETC...
- PREPARE FULLY DESIGNED INSTALLATION DRAWINGS AND HYDRAULIC CALCULATIONS WITH ALL REQUIRED INFORMATION FOR SUBMITTAL TO THE TOWN OF MONTAGUE FIRE DEPARTMENT AND THE OWNER'S FIRE UNDERWRITER. THE OCCUPANCY CLASSIFICATION SHALL BE DETERMINED AS PER NFPA #13. OBTAIN ALL APPROVALS. THE DESIGN SHALL COMPLY WITH ALL STATE AND LOCAL CODES AND NFPA #13.
- PIPING 1-1/2" AND LARGER MAY BE SCHEDULE 10 WITH ROLLED GROOVE FITTINGS. PIPING SMALLER THAN 1-1/2" SHALL BE SCHEDULE 40 THREADED BLACK STEEL WITH 175# CAST IRON FITTINGS. PIPING AT THE WATER SERVICE ENTRANCE UP TO THE ALARM VALVE SHALL BE SCHEDULE 40.
- SPRINKLER HEADS IN SUSPENDED CEILINGS SHALL BE CONCEALED PENDENT TYPE W/ WHITE COVER, 165°F, 1/2" ORIFICE. SPRINKLER HEADS ON EXPOSED PIPING TO BE UPRIGHT, BRASS, 165°F, AND 1/2" ORIFICE, UNLESS OTHERWISE NOTED. SPRINKLER HEADS SHALL BE CENTERED IN CEILING TILES.
- ALL PIPING SHALL BE SUPPORTED IN CONFORMANCE WITH NFPA #13. ALL PIPING SHALL BE SODISMICALLY SUPPORTED AS REQUIRED BY MA CODE AND IN ACCORDANCE WITH NFPA.
- PIPING WORK SHALL BE TESTED IN ACCORDANCE WITH NFPA #13. REPAIR ALL LEAKS AND RETEST UNTIL TIGHT. NOTIFY THE TOWN OF MONTAGUE FIRE DEPARTMENT AND THE OWNER'S UNDERWRITER PRIOR TO TESTING OF SYSTEM.
- PREPARE CUTS OF ALL EQUIPMENT AND SUBMIT TO THE ARCHITECT FOR APPROVAL. ALL EQUIPMENT SHALL BEAR THE SEAL OF A NATIONALLY RECOGNIZED TESTING AGENCY.
- ALL LOW POINTS AND TRAPPED SECTIONS OF PIPE SHALL BE EQUIPPED WITH PLUGGED DRAIN VALVES.
- THERE IS NO CURRENT FLOW TEST DATA. THE CONTRACTOR WILL NEED TO SCHEDULE A FLOW TEST WITH THE MONTAGUE DFW.
- WHEN REFERRING TO CONTRACTOR IN THESE NOTES, THIS MEAN FIRE PROTECTION CONTRACTOR.



## TOWN OF MONTAGUE

### NEW DPW FACILITY

#### OWNER:

TOWN OF MONTAGUE  
ONE AVENUE  
TURNERS FALLS, MA 01376

#### ARCHITECT:

**HELENE • KARL**  
Architects, Inc.  
61 Skyfields Drive, Groton, Massachusetts 01450

#### CIVIL ENGINEER:

SYMMES, MAINI & McKEE ASSOCIATES  
1000 MASSACHUSETTS AVENUE  
CAMBRIDGE, MA 02138

#### STRUCTURAL ENGINEER:

SYMMES, MAINI & McKEE ASSOCIATES  
1000 MASSACHUSETTS AVENUE  
CAMBRIDGE, MA 02138

#### MECHANICAL ENGINEER:

SEAMAN ENGINEERING CORP.  
22 WEST STREET, UNIT C  
MILLBURY, MA 01527

#### ELECTRICAL ENGINEER:

JOHN J. MURPHY, JR. ELECTRICAL  
CONSTRUCTION AND ENGINEERING, INC.  
379 LIBERTY STREET  
ROCKLAND, MA 02370

#### STAMP

REV	DATE	DESCRIPTION

DATE	5/15/19
SCALE	NO SCALE
DRAWN BY	CDR
CHECKED BY	KRS
PROJECT NO.	19001

#### BUILDING:

#### SHEET TITLE:

### FIRE PROTECTION NOTES & DETAILS

#### DRAWING NO.

FP-201





# TOWN OF MONTAGUE

## NEW DPW FACILITY

OWNER:  
TOWN OF MONTAGUE  
ONE AVENUE A  
TURNERS FALLS, MA 01376

ARCHITECT:  
**HELENE • KARL**  
Architects, Inc.  
61 Skyfields Drive, Groton, Massachusetts 01450

CIVIL ENGINEER:  
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1000 MASSACHUSETTS AVENUE  
CAMBRIDGE, MA 02138

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1000 MASSACHUSETTS AVENUE  
CAMBRIDGE, MA 02138

MECHANICAL ENGINEER:  
SEAMAN ENGINEERING CORP.  
22 WEST STREET, UNIT C  
MILLBURY, MA 01527

ELECTRICAL ENGINEER:  
JOHN J. MURPHY, JR. ELECTRICAL  
CONSTRUCTION AND ENGINEERING, INC.  
379 LIBERTY STREET  
ROCKLAND, MA 02370

STAMP

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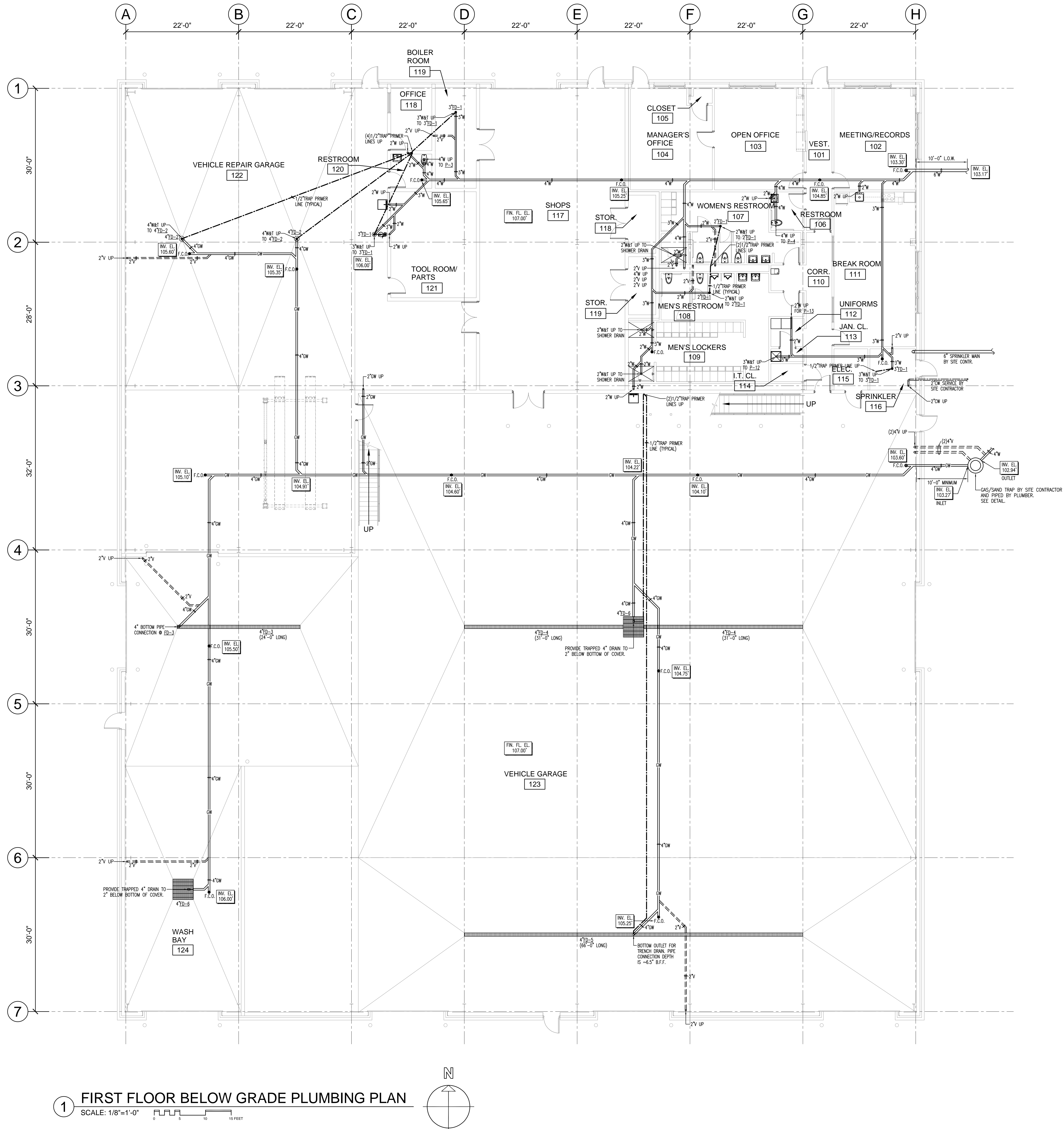
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CHECKED BY	KRS
PROJECT NO.	19001

BUILDING:  
SHEET TITLE:

FIRST FLOOR BELOW  
GRADE PLUMBING PLAN

DRAWING NO.

P-100



1 FIRST FLOOR BELOW GRADE PLUMBING PLAN  
SCALE: 1/8"=1'-0"





# TOWN OF MONTAGUE

## NEW DPW FACILITY

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TOWN OF MONTAGUE  
ONE AVENUE A  
TURNERS FALLS, MA 01376

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22 WEST STREET, UNIT C  
MILLBURY, MA 01527

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CONSTRUCTION AND ENGINEERING, INC.  
379 LIBERTY STREET  
ROCKLAND, MA 02370

STAMP

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PROJECT NO.	19001

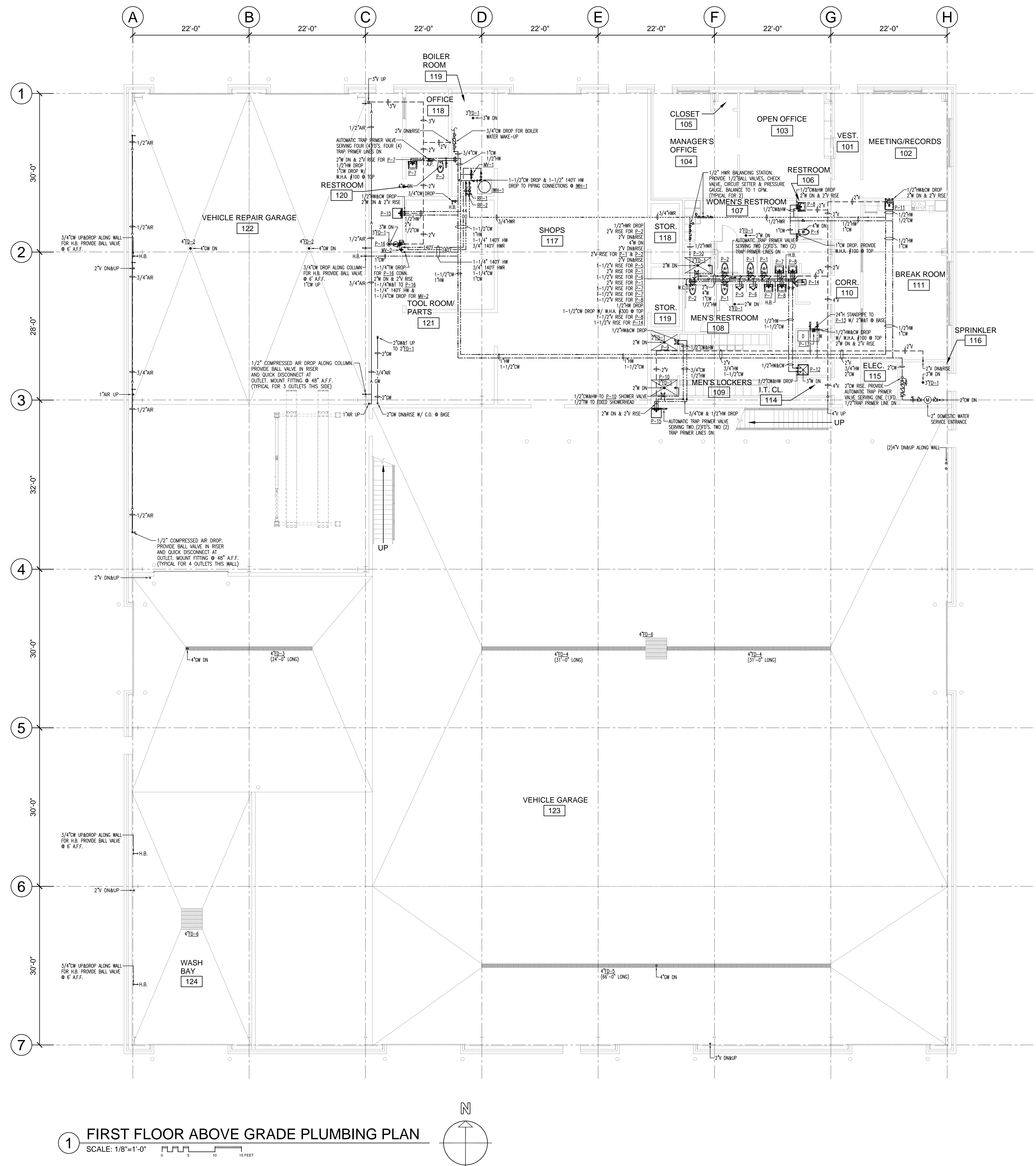
BUILDING:

SHEET TITLE:

FIRST FLOOR ABOVE  
GRADE PLUMBING PLAN

DRAWING NO.

P-101



1 FIRST FLOOR ABOVE GRADE PLUMBING PLAN  
SCALE: 1/8"=1'-0"





## NEW DPW FACILITY

OWNER:  
TOWN OF MONTAGUE  
ONE AVENUE A  
TURNERS FALLS, MA 01376

ARCHITECT:  **HELENE • KARL**  
Architects, Inc.

CIVIL ENGINEER:  
SYMMES, MAINI & McKEE ASSOCIATES  
1000 MASSACHUSETTS AVENUE  
CAMBRIDGE, MA 02138

**STRUCTURAL ENGINEER:**  
SYMMES, MAINI & MCKEE ASSOCIATES  
1000 MASSACHUSETTS AVENUE  
CAMBRIDGE, MA 02138

**MECHANICAL ENGINEER:**  
SEAMAN ENGINEERING CORP.  
22 WEST STREET, UNIT C  
MILLBURY, MA 01527

**ELECTRICAL ENGINEER:**  
JOHN J. MURPHY, JR. ELECTRICAL  
CONSTRUCTION AND ENGINEERING, INC.  
379 LIBERTY STREET  
ROCKLAND, MA 02370

TAMP


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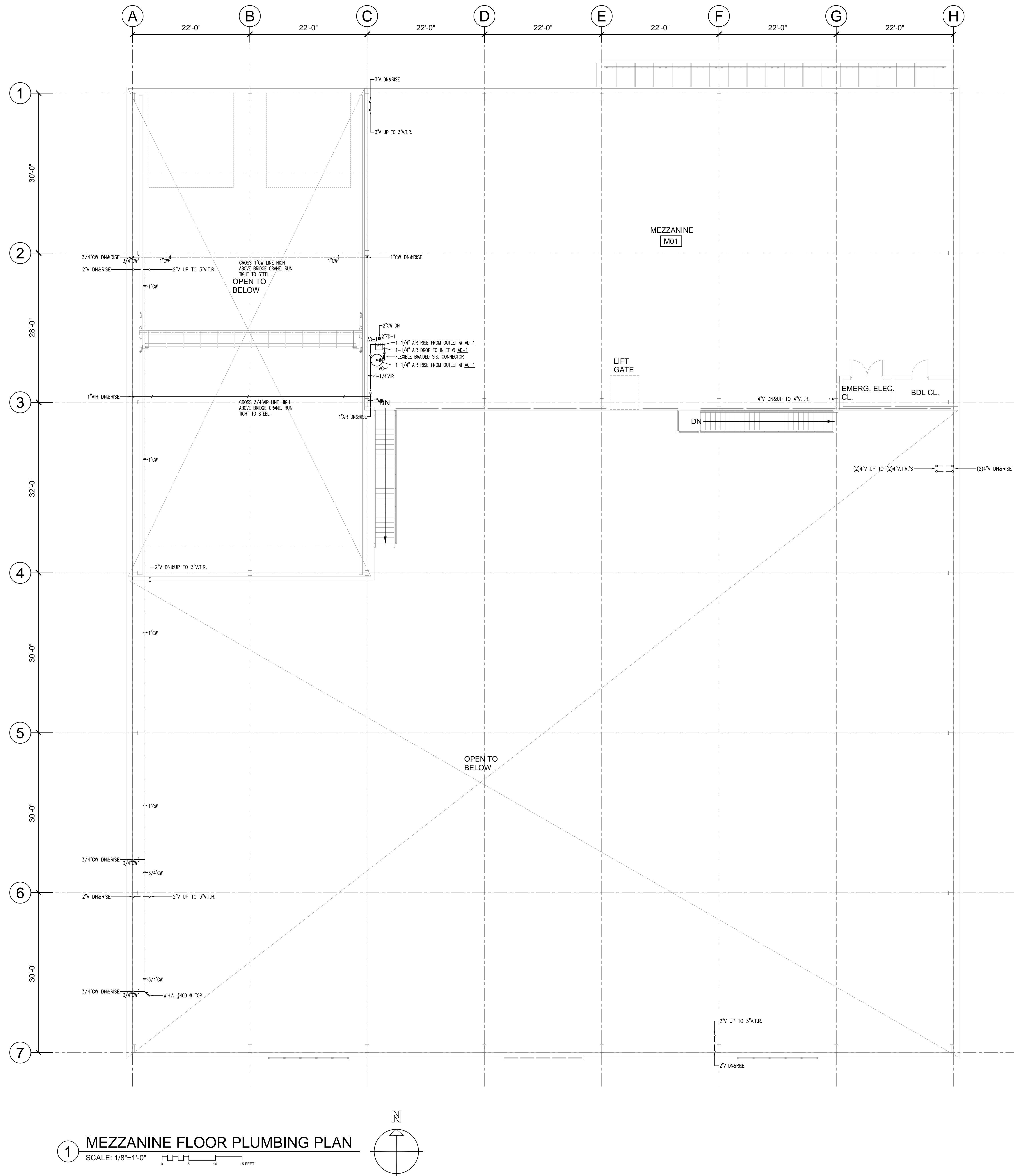
BUILDING:

SHEET TITLE:

MEZZANINE FLOOR  
PLUMBING PLAN

DRAWING NO.

P-102





NOTES:

1. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.
2. ALL DIMENSIONS ARE AS IS UNLESS NOTED OTHERWISE ON DRAWINGS.
3. VERIFY ALL MOUNTING HEIGHTS WITH ARCHITECTURAL PLANS AND ALL APPLICABLE CODES BEFORE INSTALLATION.
4. PROVIDE WHEELCHAIR LAVATORY STRAINERS ON ALL HANDICAP LAVATOIRES. INSTALL PVC COATED INSULATION ON ALL PIPING BELOW HANDICAP LAVATOIRES UNLESS PIPING IS ENCLOSED.
5. PIPE INSULATION UNDER FIXTURES P-2 AND P-4 SHALL BE TRUEBURF LAV GUARD MODEL #103, IF NOT ENCLOSED BY ARCHITECTURAL SHROUD.
6. UTILITY SINKS ARE FOR HAND WASHING ONLY. NO VEHICLE FLUIDS WILL BE POURED DOWN THE DRAIN.

REFRIGERATED AIR DRYER SCHEDULE															
KEY	MANUFACTURER	MODEL #	REFRIG.	MAX. AIR INLET TEMP	SCFM	AIR PRESSURE DROP	OUTLET SIZE	ELECTRICAL DATA					REMARKS		
				(PSIG)				VOLTS	PH	HZ	KW	HP	MCA/MCOP		
AD-1	INGERSOLL RAND NIRVANA REFR. DRYER	D41EC	R-134a	200	100	24.2	1.22 PSI	1/2" FPT	115	1	60	0.45	1/5	5.77/7.50	①
①	PROVIDE REFRIGERATED AIR DRYER CAPABLE OF REDUCING 50 SCFM OF MOISTURE SATURATED AIR AT 100 PSIG WITH AN AIR INLET TEMPERATURE OF 100°F TO A NPA CLASS 1 PRESSURE DEWPOINT WHEN OPERATING IN A 110°F AMBIENT TEMPERATURE, AND REMOVING THE CONDENSED LIQUIDS WITH AN INTEGRAL CENTRIFUGAL MOISTURE SEPARATOR AND SELF ACTUATING DRAIN VALVE.														

- PUMP IS STAINLESS STEEL FOR DOMESTIC HOT WATER USE.
- EQUAL MFR'S ARE ARMSTRONG, GRUNDFOS AND PACO PUMPS
- PROVIDE TWO PUMPS WITH ONE AS A SPARE TO BE DELIVERED TO THE OWNER

- ① PROVIDE INLET CHECK VALVES SIMILAR TO SPARCO AQUAMIN MODEL #AMCV 100, 1" NOMINAL SIZE
- ② UNION NPT (FEMALE) CONNECTION SPECIFIED. ALTERNATE CONNECTION IS UNION SWEAT.

- TWO COIL CONNECTIONS @ FRONT OF WATER HEATER
- ASME RATED PER MA PLUMBING PRODUCT APPROVAL
- ALTERNATE MFR'S INCLUDE TURBOMAX BY THERMO 2000 INC., LOCKINVAR, BOCK OR BRADFORD WHITE.



STEEL OFFSET WALL BRACKET

INSERTS

U-BOLTS

3/8" ROD - THREAD ENDS ONLY

ANGLE

CINCH ANCHORS

U-BOLT

WELDED STEEL WALL BRACKET

ANGLE

WOOD JOIST

I-BEAM CLAMPS

EYE BOLTS

TURNBUCKLE

U-BOLTS

THRU-BOLT

ADJUSTABLE PIPE STAND

CINCH ANCHORS

ELECTRO GALVANIZED CARBON STEEL SW RING STRAP HANGER

CLIPS HANGER OR ELECTRO GALVANIZED CARBON STEEL SW RING STRAP HANGER

TYPICAL PIPE SUPPORT DETAIL

NO SCALE



1. OBTAIN PROPER SIZE AND TYPE WATER METERS FROM WATER DEPARTMENT. VERIFY WATER SERVICE CONFIGURATION WITH LOCAL WATER DEPARTMENT PRIOR TO INSTALLATION.
2. SECURELY SUPPORT SERVICES WITH COPPER CLAD HANGERS AND SUPPORTS.
3. PROVIDE PRESSURE GAUGES AT EACH SIDE OF PRESSURE REDUCING VALVE ASSEMBLY.
4. VERIFY STATIC PRESSURE AT SITE. IF UNDER 80 PSI, THEN PRESSURE REDUCING VALVE ASSEMBLY NOT REQUIRED.



## NEW DPW FACILITY

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TOWN OF MONTAGUE  
ONE AVENUE A  
TURNERS FALLS, MA 01376

ARCHITECT:

 **HELENE • KARL**  
Architects, Inc.  
61 Skyfields Drive, Groton, Massachusetts 01450

**CIVIL ENGINEER:**  
 SYMMES, MAINI & McKEE ASSOCIATES  
 1000 MASSACHUSETTS AVENUE  
 CAMBRIDGE, MA 02138

**MECHANICAL ENGINEER:**  
SEAMAN ENGINEERING CORP.  
22 WEST STREET, UNIT C  
MILLBURY, MA 01527

**ELECTRICAL ENGINEER:**  
JOHN J. MURPHY, JR. ELECTRICAL  
CONSTRUCTION AND ENGINEERING, INC.  
379 LIBERTY STREET  
ROCKLAND, MA 02370

STAMP

[illegible]

DATE	5/15/19
SCALE	AS NOTED
DRAWN BY	CDR
CHECKED BY	KRS
PROJECT NO.	19001

BUILDING:

SHEET TITLE:

## PLUMBING DETAILS, NOTES & SCHEDULES

DRAWING NO.





# TOWN OF MONTAGUE

## NEW DPW FACILITY

OWNER:  
TOWN OF MONTAGUE  
ONE AVENUE A  
TURNERS FALLS, MA 01376

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379 LIBERTY STREET  
ROCKLAND, MA 01527

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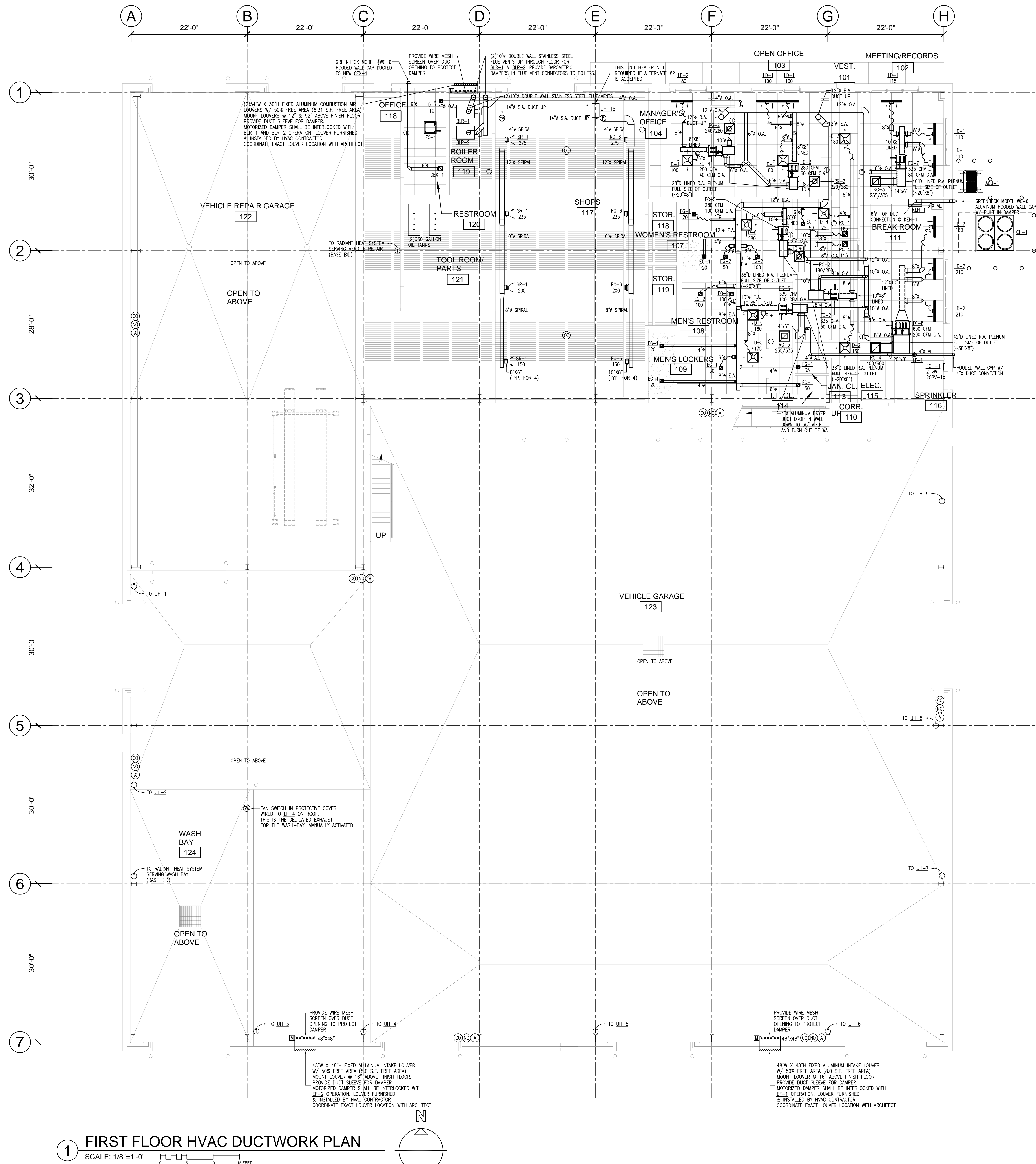
BUILDING:

SHEET TITLE:

FIRST FLOOR  
HVAC DUCTWORK PLAN

DRAWING NO.

H-101







# TOWN OF MONTAGUE

## NEW DPW FACILITY

OWNER:  
TOWN OF MONTAGUE  
ONE AVENUE A  
TURNERS FALLS, MA 01376

ARCHITECT:  
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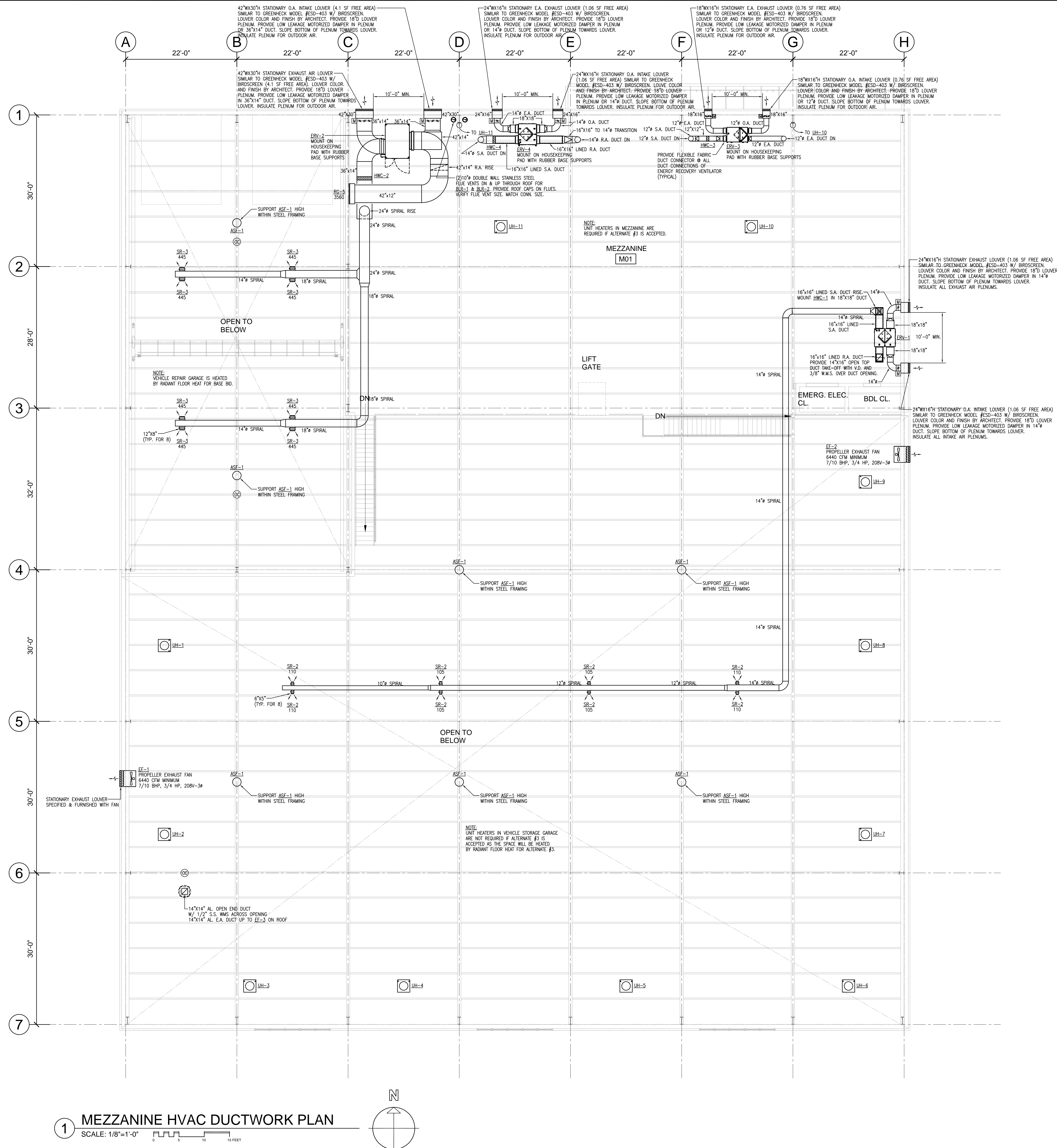
BUILDING:

SHEET TITLE:

MEZZANINE HVAC  
DUCTWORK PLAN

DRAWING NO.

H-102







# TOWN OF MONTAGUE

## NEW DPW FACILITY

OWNER:  
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ONE AVENUE A  
TURNERS FALLS, MA 01376

ARCHITECT:  
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ELECTRICAL ENGINEER:  
JOHN J. MURPHY, JR., ELECTRICAL  
CONSTRUCTION AND ENGINEERING, INC.  
379 LIBERTY STREET  
ROCKLAND, MA 02370

STAMP

REV	DATE	DESCRIPTION
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CHECKED BY	KRS
PROJECT NO.	19001

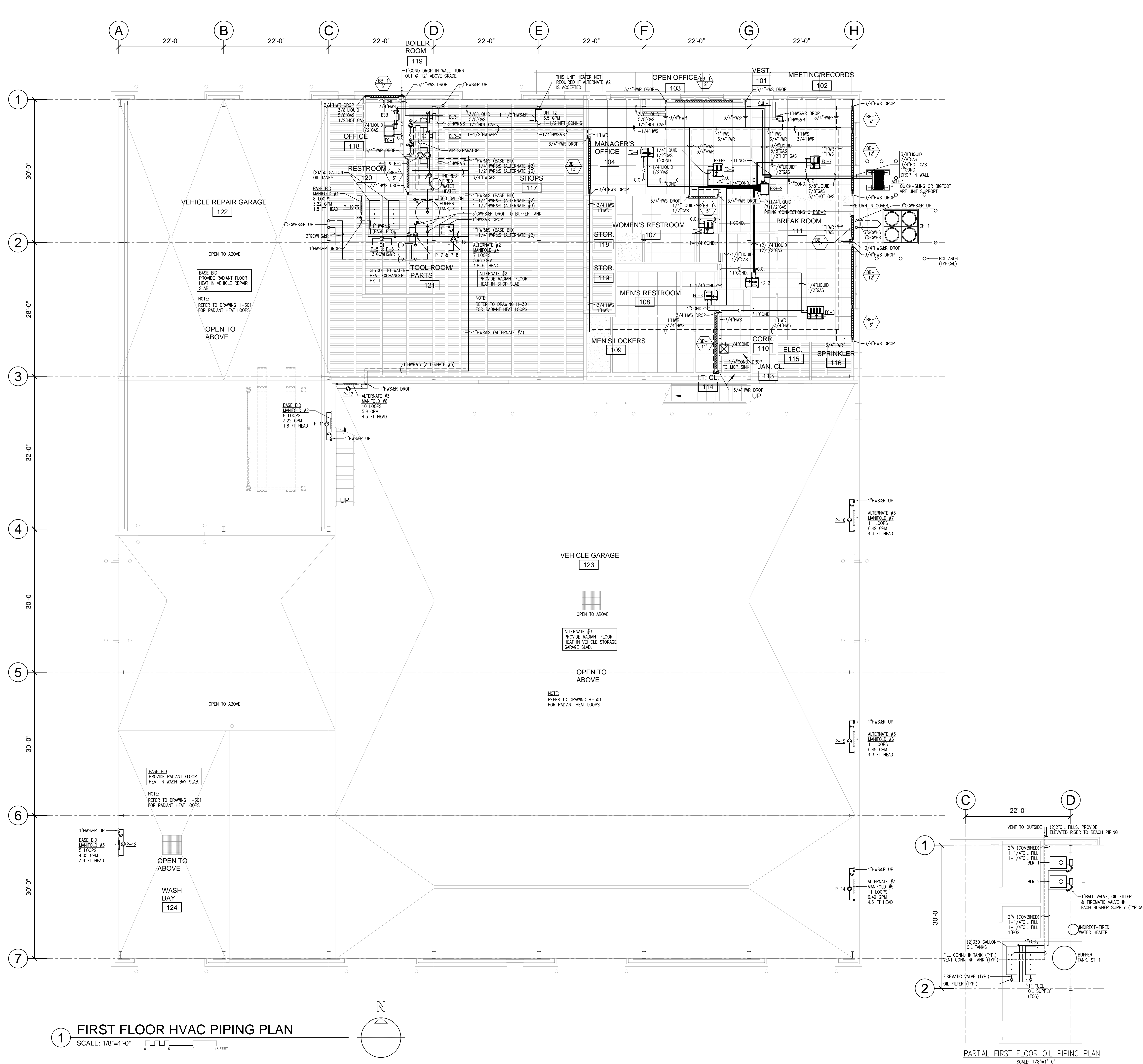
BUILDING:

SHEET TITLE:

FIRST FLOOR  
HVAC PIPING PLAN

DRAWING NO.

H-201







TOWN OF  
MONTAGUE

NEW DPW FACILITY

OWNER:  
TOWN OF MONTAGUE  
ONE AVENUE A  
TURNERS FALLS, MA 01376

ARCHITECT:  
**HELENE • KARL**  
Architects, Inc.  
61 Skyfields Drive, Groton, Massachusetts 01450

CIVIL ENGINEER:  
SYMMES, MAINI & McKEE ASSOCIATES  
1000 MASSACHUSETTS AVENUE  
CAMBRIDGE, MA 02138

STRUCTURAL ENGINEER:  
SYMMES, MAINI & McKEE ASSOCIATES  
1000 MASSACHUSETTS AVENUE  
CAMBRIDGE, MA 02138

MECHANICAL ENGINEER:  
SEAMAN ENGINEERING CORP.  
22 WEST STREET, UNIT C  
MILLBURY, MA 01527

ELECTRICAL ENGINEER:  
JOHN J. MURPHY, JR. ELECTRICAL  
CONSTRUCTION AND ENGINEERING, INC.  
379 LIBERTY STREET  
ROCKLAND, MA 02370

STAMP


REV	DATE	DESCRIPTION

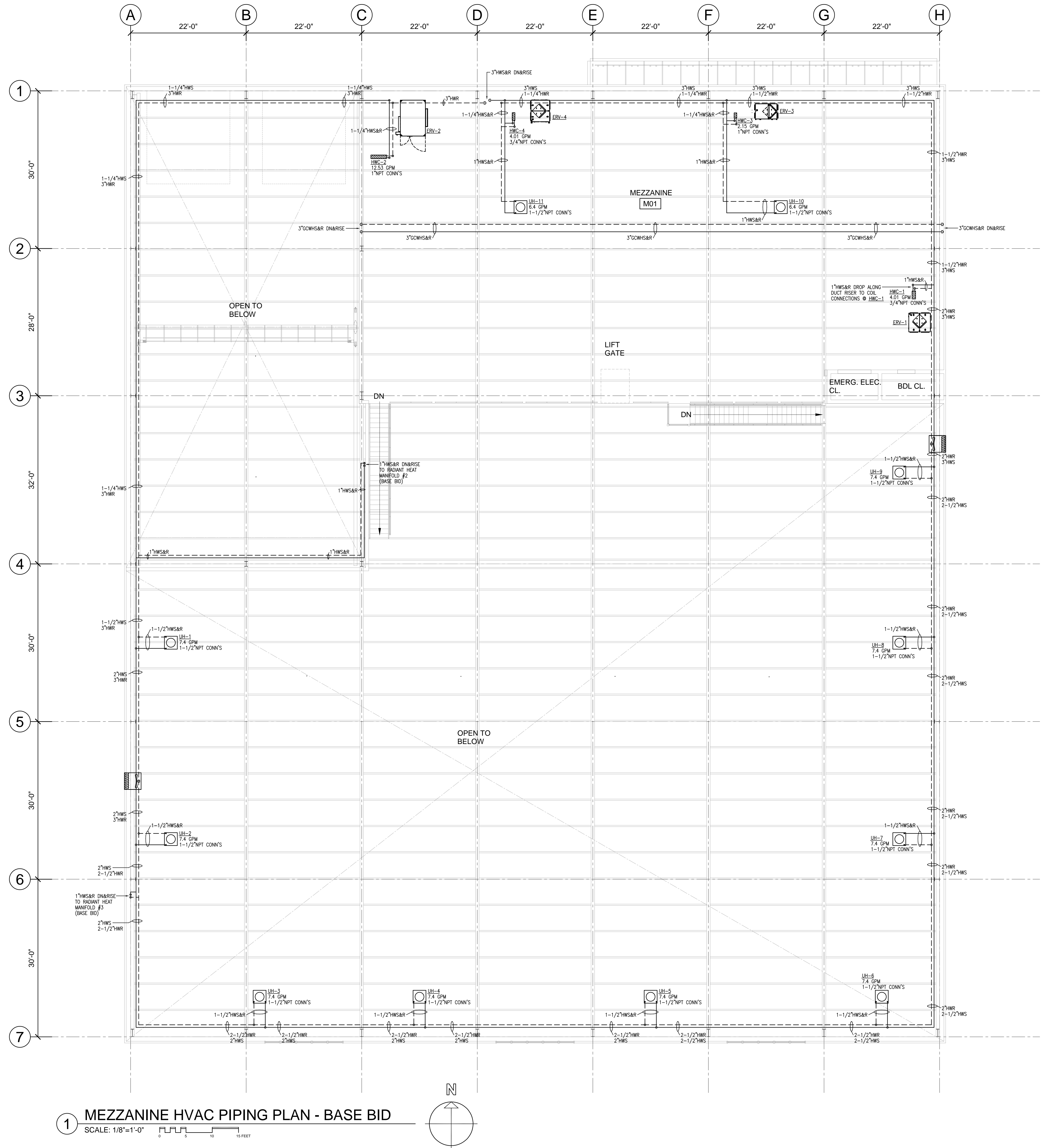
BUILDING:

SHEET TITLE:

MEZZANINE HVAC  
PIPING PLAN  
BASE BID

DRAWING NO.

H-202







## NEW DPW FACILITY

OWNER:  
TOWN OF MONTAGUE  
ONE AVENUE A  
TURNERS FALLS, MA 01376

ARCHITECT:  **HELENE • KARI**  
Architects, Inc.

CIVIL ENGINEER:  
SYMMES, MAINI & MCKEE ASSOCIATES  
1000 MASSACHUSETTS AVENUE  
CAMBRIDGE, MA 02138

STRUCTURAL ENGINEER:  
SYMMES, MAINI & McKEE ASSOCIATES  
1000 MASSACHUSETTS AVENUE  
CAMBRIDGE, MA 02138

**MECHANICAL ENGINEER:**  
SEAMAN ENGINEERING CORP.  
22 WEST STREET, UNIT C  
MILLBURY, MA 01527

**ELECTRICAL ENGINEER:**  
JOHN J. MURPHY, JR. ELECTRICAL  
CONSTRUCTION AND ENGINEERING, INC.  
379 LIBERTY STREET  
ROCKLAND, MA 02370

TAMP


REV	DATE	DESCRIPTION
DATE	5/15/19	
SCALE	1/8" = 1'-0"	
DRAWN BY	CDR	
CHECKED BY	KRS	
PROJECT NO.	19001	

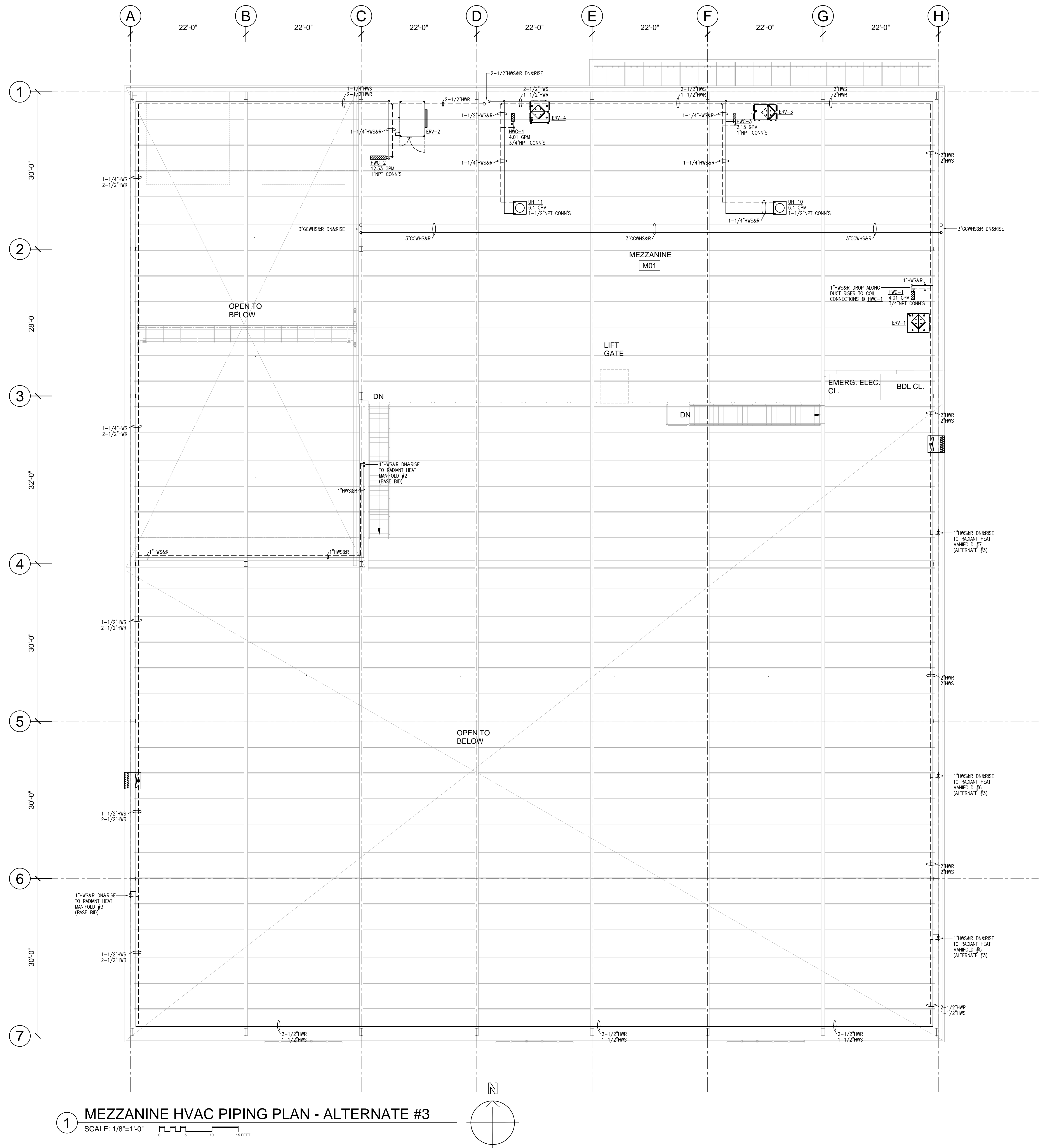
BUILDING:

SHEET TITLE:

MEZZANINE HVAC  
PIPING PLAN  
ALTERNATE #3

DRAWING NO.

4-203







# TOWN OF MONTAGUE

## NEW DPW FACILITY

OWNER:  
TOWN OF MONTAGUE  
ONE AVENUE A  
TURNERS FALLS, MA 01376

ARCHITECT:  
**HELENE • KARL**  
Architects, Inc.  
61 Skyfields Drive, Groton, Massachusetts 01450

CIVIL ENGINEER:  
SYMMES, MAINI & McKEE ASSOCIATES  
1000 MASSACHUSETTS AVENUE  
CAMBRIDGE, MA 02138

STRUCTURAL ENGINEER:  
SYMMES, MAINI & McKEE ASSOCIATES  
1000 MASSACHUSETTS AVENUE  
CAMBRIDGE, MA 02138

MECHANICAL ENGINEER:  
SEAMAN ENGINEERING CORP.  
22 WEST STREET, UNIT C  
MILLBURY, MA 01527

ELECTRICAL ENGINEER:  
JOHN J. MURPHY, JR., ELECTRICAL  
CONSTRUCTION AND ENGINEERING, INC.  
379 LIBERTY STREET  
ROCKLAND, MA 02370

STAMP

REV	DATE	DESCRIPTION
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DATE	5/15/19
SCALE	1/8" = 1'-0"
DRAWN BY	CDR
CHECKED BY	KRS
PROJECT NO.	19001

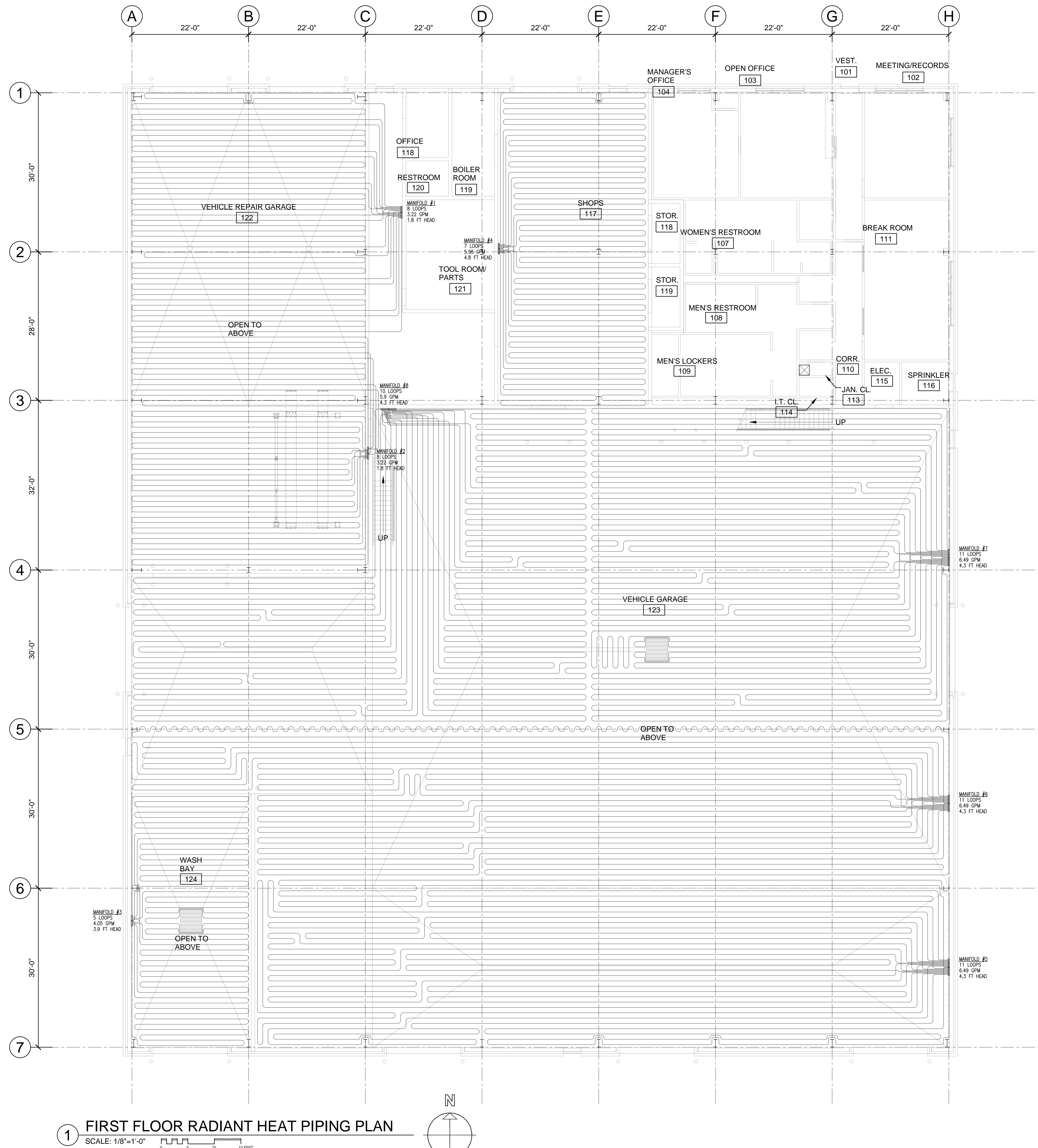
BUILDING:

SHEET TITLE:

RADIANT HEAT  
PIPING PLAN

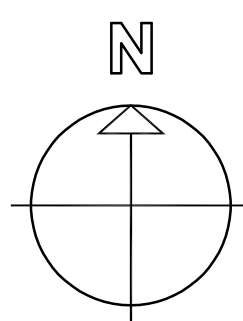
DRAWING NO.

H-301



1 FIRST FLOOR RADIANT HEAT PIPING PLAN

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





MANIFOLD #1 & #2 SUMMARY ①										
MANIFOLD #	CIRCUIT #	ROOM SERVED	TOTAL LENGTH (FT)	TUBE SPACING	AREA COVERED SF	TUBING	FLOW RATE (GPM)	HEAD LOSS (FT)	DESIGN TEMP. (°F)	LOAD ② (BTUH)
1	B-1	VEHICLE REPAIR 122	295	12"	255	hePEX 5/8"	0.40	1.1	20	3,054
1	B-2	VEHICLE REPAIR 122	295	12"	255	hePEX 5/8"	0.40	1.1	20	3,054
1	B-3	VEHICLE REPAIR 122	295	12"	255	hePEX 5/8"	0.40	1.1	20	3,054
1	B-4	VEHICLE REPAIR 122	295	12"	255	hePEX 5/8"	0.40	1.1	20	3,054
1	B-5	VEHICLE REPAIR 122	295	12"	255	hePEX 5/8"	0.40	1.1	20	3,054
1	B-6	VEHICLE REPAIR 122	295	12"	255	hePEX 5/8"	0.40	1.1	20	3,054
1	B-7	VEHICLE REPAIR 122	295	12"	255	hePEX 5/8"	0.40	1.1	20	3,054
1	B-8	VEHICLE REPAIR 122	295	12"	255	hePEX 5/8"	0.40	1.1	20	3,054
2	B-9	VEHICLE REPAIR 122	295	12"	255	hePEX 5/8"	0.40	1.1	20	3,054
2	B-10	VEHICLE REPAIR 122	295	12"	255	hePEX 5/8"	0.40	1.1	20	3,054
2	B-11	VEHICLE REPAIR 122	295	12"	255	hePEX 5/8"	0.40	1.1	20	3,054
2	B-12	VEHICLE REPAIR 122	295	12"	255	hePEX 5/8"	0.40	1.1	20	3,054
2	B-13	VEHICLE REPAIR 122	295	12"	255	hePEX 5/8"	0.40	1.1	20	3,054
2	B-14	VEHICLE REPAIR 122	295	12"	255	hePEX 5/8"	0.40	1.1	20	3,054
2	B-15	VEHICLE REPAIR 122	295	12"	255	hePEX 5/8"	0.40	1.1	20	3,054
2	B-16	VEHICLE REPAIR 122	295	12"	255	hePEX 5/8"	0.40	1.1	20	3,054
TOTAL			4,712		4,072	hePEX 5/8"	6.44	1.1		48,864

- ① HEAD LOSS FOR CIRCUIT TUBING ONLY  
 ② LOAD INCLUDES PANEL BACK LOSSES  
 ③ 90°F, STAINLESS STEEL, 1-1/4" WH FLOW METER, B&I, BALL VALVE, 16 CIRCUITS

MANIFOLD #3 SUMMARY ①										
CIRCUIT #	ROOM SERVED	TOTAL LENGTH (FT)	TUBE SPACING	AREA COVERED SF	TUBING	FLOW RATE (GPM)	HEAD LOSS (FT)	DESIGN TEMP. (°F)	LOAD ② (BTUH)	ACTUATOR
B-17	WASH BAY 124	264	12"	224	hePEX 5/8"	0.81	2.9	20	8,064	NO
B-18	WASH BAY 124	264	12"	224	hePEX 5/8"	0.81	2.9	20	8,064	NO
B-19	WASH BAY 124	264	12"	224	hePEX 5/8"	0.81	2.9	20	8,064	NO
B-20	WASH BAY 124	264	12"	224	hePEX 5/8"	0.81	2.9	20	8,064	NO
B-21	WASH BAY 124	264	12"	224	hePEX 5/8"	0.81	2.9	20	8,064	NO
TOTAL			1,320		1,120	hePEX 5/8"	4.05	2.9	40,320	

- ① HEAD LOSS FOR CIRCUIT TUBING ONLY  
 ② LOAD INCLUDES PANEL BACK LOSSES  
 ③ 121°F, STAINLESS STEEL, 1-1/4" WH FLOW METER, B&I, BALL VALVE, 5 CIRCUITS

MANIFOLD #4 SUMMARY ①										
CIRCUIT #	ROOM SERVED	TOTAL LENGTH (FT)	TUBE SPACING	AREA COVERED SF	TUBING	FLOW RATE (GPM)	HEAD LOSS (FT)	DESIGN TEMP. (°F)	LOAD ② (BTUH)	ACTUATOR
B-22	SHOPS 117	276	12"	236	hePEX 5/8"	0.85	3.3	20	8,486	NO
B-23	SHOPS 117	276	12"	236	hePEX 5/8"	0.85	3.3	20	8,486	NO
B-24	SHOPS 117	276	12"	236	hePEX 5/8"	0.85	3.3	20	8,486	NO
B-25	SHOPS 117	276	12"	236	hePEX 5/8"	0.85	3.3	20	8,486	NO
B-26	SHOPS 117	276	12"	236	hePEX 5/8"	0.85	3.3	20	8,486	NO
B-27	SHOPS 117	276	12"	236	hePEX 5/8"	0.85	3.3	20	8,486	NO
B-28	SHOPS 117	276	12"	236	hePEX 5/8"	0.85	3.3	20	8,486	NO
TOTAL			1,830		1,650	hePEX 5/8"	5.96	3.3	59,400	

- ① HEAD LOSS FOR CIRCUIT TUBING ONLY  
 ② LOAD INCLUDES PANEL BACK LOSSES  
 ③ 121°F, STAINLESS STEEL, 1-1/4" WH FLOW METER, B&I, BALL VALVE, 7 CIRCUITS

MANIFOLD #5, #6, #7 & #9 SUMMARY ①										
MANIFOLD #	CIRCUIT #	ROOM SERVED	TOTAL LENGTH (FT)	TUBE SPACING	AREA COVERED SF	TUBING	FLOW RATE (GPM)	HEAD LOSS (FT)	DESIGN TEMP. (°F)	LOAD ② (BTUH)
5	B-29	VEHICLE GARAGE 123	393	12"	373	hePEX 5/8"	0.59	2.8	20	4,480
5	B-30	VEHICLE GARAGE 123	393	12"	373	hePEX 5/8"	0.59	2.8	20	4,480
5	B-31	VEHICLE GARAGE 123	393	12"	373	hePEX 5/8"	0.59	2.8	20	4,480
5	B-32	VEHICLE GARAGE 123	393	12"	373	hePEX 5/8"	0.59	2.8	20	4,480
5	B-33	VEHICLE GARAGE 123	393	12"	373	hePEX 5/8"	0.59	2.8	20	4,480
5	B-34	VEHICLE GARAGE 123	393	12"	373	hePEX 5/8"	0.59	2.8	20	4,480
5	B-35	VEHICLE GARAGE 123	393	12"	373	hePEX 5/8"	0.59	2.8	20	4,480
5	B-36	VEHICLE GARAGE 123	393	12"	373	hePEX 5/8"	0.59	2.8	20	4,480
5	B-37	VEHICLE GARAGE 123	393	12"	373	hePEX 5/8"	0.59	2.8	20	4,480
5	B-38	VEHICLE GARAGE 123	393	12"	373	hePEX 5/8"	0.59	2.8	20	4,480
5	B-39	VEHICLE GARAGE 123	393	12"	373	hePEX 5/8"	0.59	2.8	20	4,480
6	B-40	VEHICLE GARAGE 123	393	12"	373	hePEX 5/8"	0.59	2.8	20	4,480
6	B-41	VEHICLE GARAGE 123	393	12"	373	hePEX 5/8"	0.59	2.8	20	4,480
6	B-42	VEHICLE GARAGE 123	393	12"	373	hePEX 5/8"	0.59	2.8	20	4,480
6	B-43	VEHICLE GARAGE 123	393	12"	373	hePEX 5/8"	0.59	2.8	20	4,480
6	B-44	VEHICLE GARAGE 123	393	12"	373	hePEX 5/8"	0.59	2.8	20	4,480
6	B-45	VEHICLE GARAGE 123	393	12"	373	hePEX 5/8"	0.59	2.8	20	4,480
6	B-46	VEHICLE GARAGE 123	393	12"	373	hePEX 5/8"	0.59	2.8	20	4,480
6	B-47	VEHICLE GARAGE 123	393	12"	373	hePEX 5/8"	0.59	2.8	20	4,480
6	B-48	VEHICLE GARAGE 123	393	12"	373	hePEX 5/8"	0.59	2.8	20	4,480
6	B-49	VEHICLE GARAGE 123	393	12"	373	hePEX 5/8"	0.59	2.8	20	4,480
6	B-50	VEHICLE GARAGE 123	393	12"	373	hePEX 5/8"	0.59	2.8	20	4,480
7	B-51	VEHICLE GARAGE 123	393	12"	373	hePEX 5/8"	0.59	2.8	20	4,480
7	B-52	VEHICLE GARAGE 123	393	12"	373	hePEX 5/8"	0.59	2.8	20	4,480
7	B-53	VEHICLE GARAGE 123	393	12"	373	hePEX 5/8"	0.59	2.8	20	4,480
7	B-54	VEHICLE GARAGE 123	393	12"	373	hePEX 5/8"	0.59	2.8	20	4,480
7	B-55	VEHICLE GARAGE 123	393	12"	373	hePEX 5/8"	0.59	2.8	20	4,480
7	B-56	VEHICLE GARAGE 123	393	12"	373	hePEX 5/8"	0.59	2.8	20	4,480
7	B-57	VEHICLE GARAGE 123	393	12"	373	hePEX 5/8"	0.59	2.8	20	4,480
7	B-58	VEHICLE GARAGE 123	393	12"	373	hePEX 5/8"	0.59	2.8	20	4,480
7	B-59	VEHICLE GARAGE 123	393	12"	373	hePEX 5/8"	0.59	2.8	20	4,480
7	B-60	VEHICLE GARAGE 123	393	12"	373	hePEX 5/8"	0.59	2.8	20	4,480
7	B-61	VEHICLE GARAGE 123	393	12"	373	hePEX 5/8"	0.59	2.8	20	4,480
8	B-62	VEHICLE GARAGE 123	393	12"	373	hePEX 5/8"	0.59	2.8	20	4,480
8	B-63	VEHICLE GARAGE 123	393	12"	373	hePEX 5/8"	0.59	2.8	20	4,480
8	B-64	VEHICLE GARAGE 123	393	12"	373	hePEX 5/8"	0.59	2.8	20	4,480
8	B-65	VEHICLE GARAGE 123	393	12"	373	hePEX 5/8"	0.59	2.8	20	4,480
8	B-66	VEHICLE GARAGE 123	393	12"	373	hePEX 5/8"	0.59	2.8	20	4,480
8	B-67	VEHICLE GARAGE 123	393	12"	373	hePEX 5/8"	0.59	2.8	20	4,480
8	B-68	VEHICLE GARAGE 123	393	12"	373	hePEX 5/8"	0.59	2.8	20	4,480
8	B-69	VEHICLE GARAGE 123	393	12"	373	hePEX 5/8"	0.59	2.8	20	4,480
8	B-70	VEHICLE GARAGE 123	393	12"	373	hePEX 5/8"	0.59	2.8	20	4,480
8	B-71	VEHICLE GARAGE 123	393	12"	373	hePEX 5/8"	0.59	2.8	20	4,480
TOTAL			16,914		16,054	hePEX 5/8"	25.44	2.8		192,648

- ① HEAD LOSS FOR CIRCUIT TUBING ONLY  
 ② LOAD INCLUDES PANEL BACK LOSSES  
 ③ 90°F, STAINLESS STEEL, 1-1/4" WH FLOW METER, B&I, BALL VALVE, 43 CIRCUITS

RADIANT HEAT ZONE HEATING SUMMARY										
ZONE #	CROSS AREA, SF	CONSTRUCTION	HEATING TYPES	RH ① CIRCUITS	TOTAL TUBING, FT	MANIFOLDS	FLOW RATE (GPM)	HEAD LOSS (FT)	LOAD, BTUH	RH ②
1 (BASE BID)	4,072	EMBEDDED SLAB	RH	16	4,712	(2) 8-LOOP	6.45	1.1	48,864	
2 (BASE BID)	1,120	EMBEDDED SLAB	RH	5	1,320	(1) 5-LOOP	4.05	2.9	40,320	
3 (ALTERNATE #2)	1,650	EMBEDDED SLAB	RH	7	1,930	(1) 7-LOOP	5.96	3.3	59,400	
4 (ALTERNATE #3)	16,054	EMBEDDED SLAB	RH	43	16,914	(4) 12-LOOP	25.44	2.8	192,648	

- ① COMPLETE CIRCUITS ASSIGNED TO THIS ZONE  
 ② TOTAL RADIANT HEATING LOAD FOR ROOMS IN ZONE, INCLUDING ALL PANEL BACK LOSS

ROOM HEATING SUMMARY										
ZONE #	ROOM NAME	HEATING TYPES	FLOOR AREA, SF	MANIFOLD #	TUBE SIZE	RH ① CIRCUITS	TOTAL SPACING	REQUIRED (°F)	LOAD, BTUH	RH ②
1	VEHICLE REPAIR (BASE BID)	RH	4,072	MANIFOLD 1,2	5/8"	16	12"	90	48,864	
2	WASH BAY (BASE BID)	RH	1,120	MANIFOLD 3	5/8"	5	12"	121	40,320	
3	SHOPS (ALTERNATE #2)	RH	1,650	MANIFOLD 4	5/8"	7	12"	121	59,400	
4	VEHICLE GARAGE (ALTERNATE #3)	RH	16,054	MANIFOLD 5-8	5/8"	43	12"	90	192,648	

- ① COMPLETE CIRCUITS ASSIGNED TO THIS ZONE  
 ② TOTAL RADIANT HEATING LOAD FOR ROOMS IN ZONE, INCLUDING ALL PANEL BACK LOSS

MANIFOLD SUMMARY										
MANIFOLD #	# ZONES	# OF RH CIRCUITS	TOTAL FLOW (GPM)	HEAD ① (FT)	REQUIRED (°F)	SUPPLY (°F)	TEMP. DROP (°F)	MANIFOLD TYPE	CONTROL TYPE	
MANIFOLD 1 (BASE BID)	1	8	3.22	1.8	90	90	20	②	MANIFOLD	
MANIFOLD 2 (BASE BID)	1	8	3.22	1.8	90	90	20	②	MANIFOLD	
MANIFOLD 3 (BASE BID)	1	5	4.05	3.9	121	121	20	②	MANIFOLD	
MANIFOLD 4 (ALTERNATE #2)	1	7	5.96	4.8	121	121	20	②	MANIFOLD	
MANIFOLD 5 (ALTERNATE #3)	1	11	6.49	4.3	90	90	20	②	MANIFOLD	
MANIFOLD 6 (ALTERNATE #3)	1	11	6.49	4.3	90	90	20	②	MANIFOLD	
MANIFOLD 7 (ALTERNATE #3)	1	11	6.49	4.3	90	90	20	②	MANIFOLD	
MANIFOLD 8 (ALTERNATE #3)	1	10	5.9	4.3	90	90	20	②	MANIFOLD	
TOTAL			71	41.90	4.8	121	-	-	-	

- ① TOTAL HEAD LOSS INCLUDES MANIFOLD, CIRCUITS AND SUPPLY/RETURN PIPING IF SPECIFIED.  
 ② STAINLESS STEEL, 1-1/4" FLOW METER, B&I, BALL VALVE

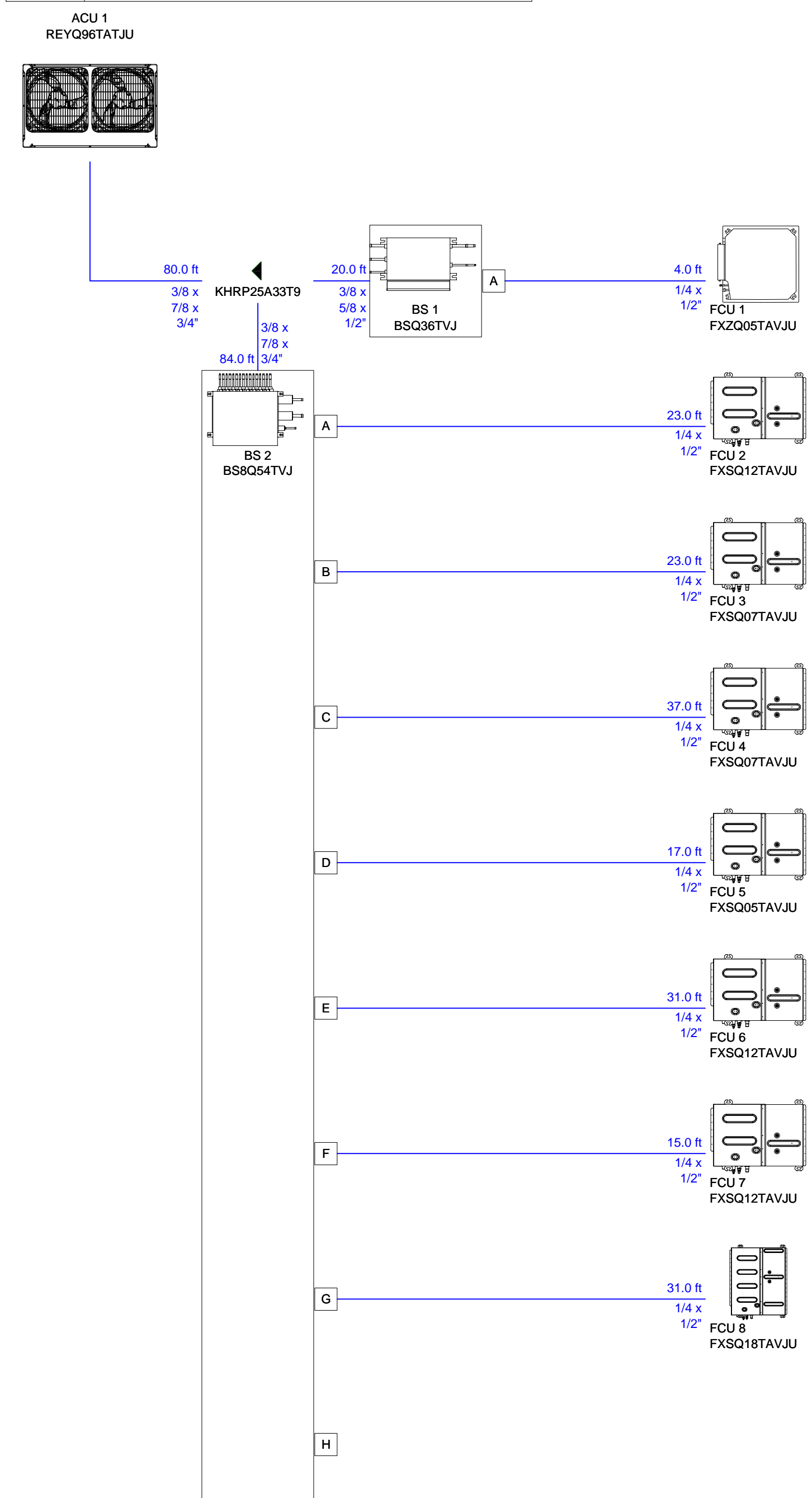
#### SCOPE OF WORK

- THE SCOPE OF WORK FOR THE MECHANICAL CONTRACTOR INCLUDES BUT IS NOT LIMITED TO :
- PROVISION AND INSTALLATION OF NEW MECHANICAL EQUIPMENT AS SCHEDULED. THE SCOPE OF WORK INCLUDES RECEIVING, HANDLING UNITS, INSTALLATION, OR SUPPORTS FOR CEILING MOUNTING AND CONNECTIONS FOR PIPING, DUCTWORK, AND CONTROL SYSTEM WORK WHERE INDICATED. PROVIDE START-UP, TESTING, AND ADJUSTMENT OF ALL NEW EQUIPMENT BY A QUALIFIED REPRESENTATIVE OF THE MANUFACTURER.
  - FABRICATION AND INSTALLATION OF ALL SUPPLY AND RETURN AIR DUCTWORK AND NECESSARY SUPPORTS AS SHOWN ON DRAWINGS, AS WELL AS PURCHASE AND INSTALLATION OF DAMPERS, DIFFUSERS, ACCESS DOORS, REGISTERS AND GRILLES, FIRE DAMPERS, AND AS REQUIRED FOR COMPLETE SATISFACTION OF OPERATION OF HVAC SYSTEMS AS SHOWN. ALL EQUIPMENT DATA SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO INSTALLATION OF ANY SYSTEMS AS A WHOLE OR IN PART.
  - INSTALLATION OF EQUIPMENT AND DUCTWORK AS SPECIFIED HEREIN FOR SYSTEMS SHOWN ON MECHANICAL DRAWINGS AND IN ACCORDANCE WITH MASSACHUSETTS ENERGY CONSERVATION CODE CHAPTER 13 OF 780 CMR-EIGHTH EDITION OR IECC CURRENT EDITION).
  - CLEANING, FLUSHING, SANITATION, AND PRESSURE TESTING OF PIPING SYSTEMS, AND CHARGING OF SAME SYSTEMS AS SPECIFIED HEREIN.
  - START UP OF EQUIPMENT AND CONTROL SYSTEMS AND GENERAL COMMISSIONING AS SPECIFIED HEREIN SHALL BE COMPLETED BY THE MECHANICAL CONTRACTOR. TESTING, ADJUSTING, AND BALANCING OF AIR AND WATER SYSTEMS, SHALL BE COMPLETED BY AN INDEPENDENT THIRD PARTY UNDER THE MECHANICAL CONTRACT.
  - PROVISIONS OF SHOP DRAWINGS, EQUIPMENT SUBMITTALS, AND AS BUILT DRAWINGS FOR THE PROJECT.

MECHANICAL— ABBREVIATIONS			
AC	AIR CONDITIONING	KW	KILOWATT
AFT	ABOVE FINISHED FLOOR	LAT	LEAVING AIR TEMPERATURE
AMB	AMBIENT	LB	POUNDS
AMP	AMPERE	LDB	LEAVING DRY BULB AIR TEMPERATURE
AUTO	AUTOMATIC	LDBA	LEAVING DRY BULB AIR TEMPERATURE
AVG	AVERAGE	LWB	LEAVING WET BULB TEMPERATURE
BWP	BRAKE WATER PUMP	MAX	MAXIMUM
BTU	BTU'S DMMETER	MHR	MINIMUM
BSF	BRASS BRISTLE WHEEL	MIC	MICROMETER CONTROLLER
CC	CARTRIDGE RELIEF HOOD	MID	MIDPOINT DAMPER
BTU	BRITISH THERMAL UNIT	MFR	MANUFACTURER
BTUH	BTU PER HOUR	MIN	MINIMUM
CBM	CUBIC FEET PER MINUTE	MIX	MIX
CD	CEILING DIFFUSER	NO	NOT NORMALLY CLOSED
CFM	CUBIC FEET / MINUTES	NOT IN CONTRACT	
DEG	DEGREE	NO	NUMBER / NORMALLY OPEN
DA	DAMETER	NTS	NOT TO SCALE
DM	DIMENSION	OUT	OUTSIDE AIR
DOWN	DOWN	OPD	OPPOSED BLADE DAMPER
EAT	ENTERING AIR TEMPERATURE	OUTSIDE DIAMETER	
EET	ENTERING DRY BULB TEMPERATURE	PP	PRESSURE DROP OR DIFFERENCE
EPF	ELECTRIC HEATING COIL	PH	PHASE (ELECTRICAL)
ESC	EXITING	PSI	POUNDS PER SQUARE INCH
EX	EXHAUST REGISTER	PSIG	POUNDS PER SQUARE INCH GAUGE
EXT	EXTERNAL STATIC PRESSURE	RET	RETURN AIR
END	ENTERING WET BULB	RR	RETURN REGISTER
EWB	ENTERING WET TEMPERATURE	RPM	REVOLUTION PER MINUTE
EXH	EXHAUST	ROOF TOP UNIT	
EXIST	EXISTING	STAT	STATIC PRESSURE (IN W.G.)
F	FAHRENHEIT	T	THROW AWAY
FAN	FAN	T	TRANSFER DUCT
FIN	FINAL AIR TEMPERATURE	TEMP	TEMPERATURE
FL	FIRE DAMPER	TON	12,000 BTU'S COOLING CAPACITY
FLR	FLOOR	TSP	TOTAL STATIC PRESSURE (IN W.G.)
LL	LL LIT LBS	TSTAT	TEMPERATURE STAT
FD	FIRE FLOOR	TY	TYPE (ELECTRICAL)
FEET	FEET PER MINUTE	V	VOLT (ELECTRICAL)
FT	FEET	VAV	VARIABLE AIR VOLUME
GA	GAGE	VAV	VARIABLE MANUAL DAMPER
G.C.	GENERAL CONTRACTOR	VEL	VELOCITY
GEN	GENERAL	W	WATT
HOT	HEAT	WET	WET BULB
HP	HORSE POWER/HEAT PUMP	WMS	WIRE MESH SCREEN
HZ	FREQUENCY (CYCLES PER SECOND)	ZD	ZONE DAMPER
IN	INCHES		

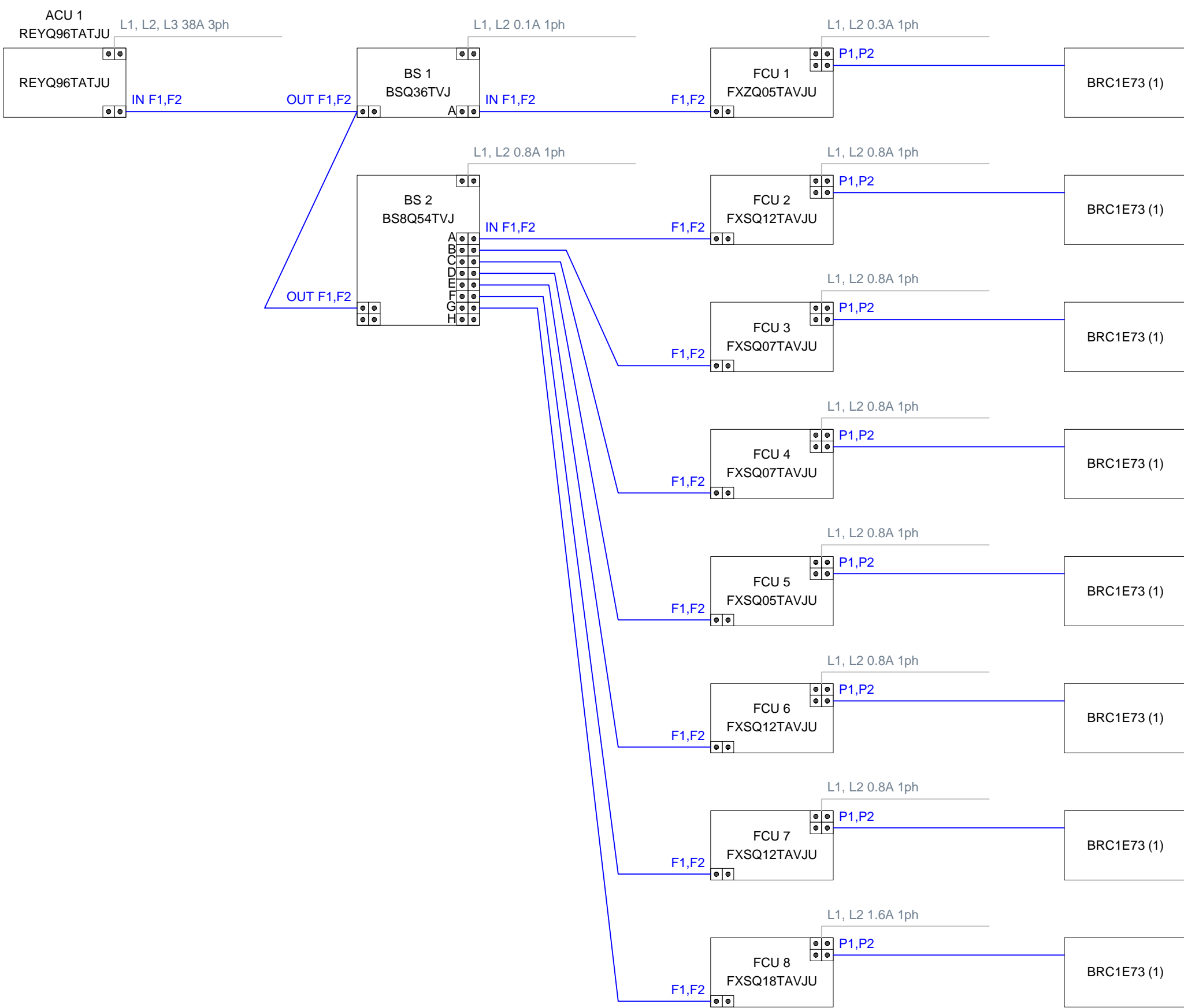


Client	USA
Project	Montague DPW
Title	Piping schematics ACU 1 Air cooled heat recovery VRV-VU TA REYQ96TATJU
Date	4/24/2019
Drawing No	



VRF SYSTEM ACU-1  
PIPING SCHEMATICS  
NO SCALE

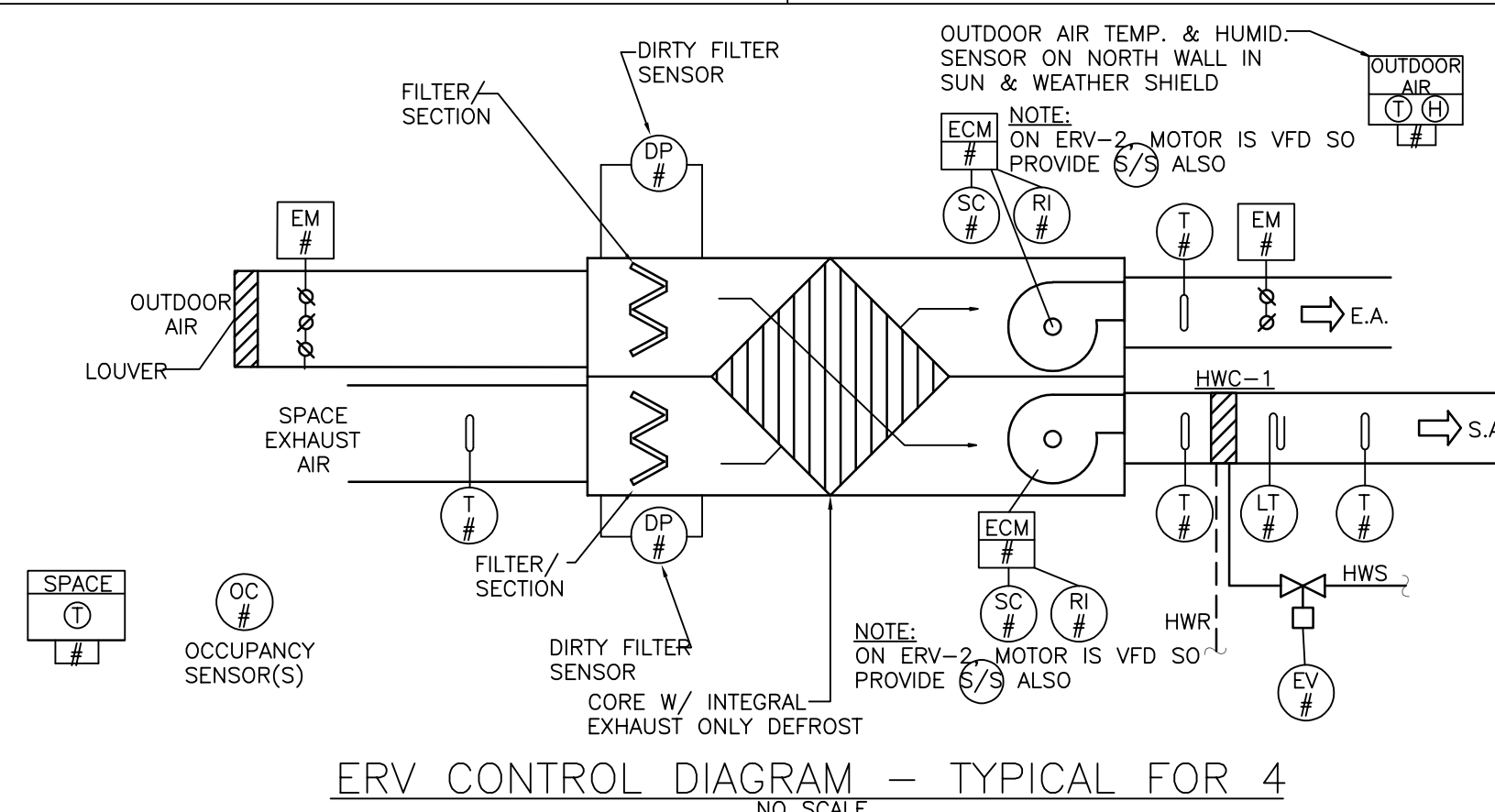
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Project	Montague DPW
Title	Wiring schematics ACU 1 Air cooled heat recovery VRV-VU TA REYQ96TATJU
Date	4/24/2019
Drawing No	



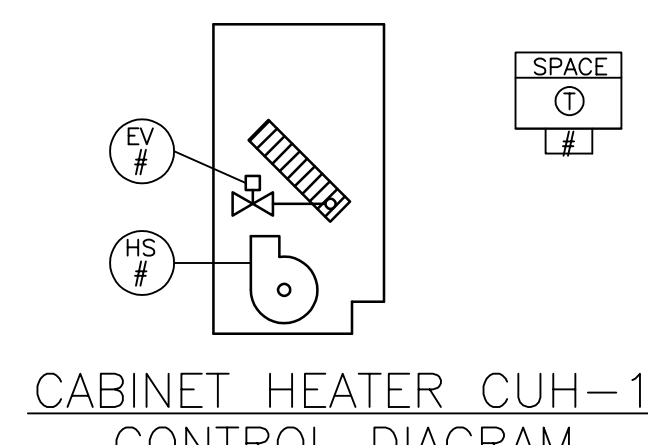
VRF SYSTEM ACU-1  
WIRING SCHEMATICS  
NO SCALE

Client	USA
Project	Montague DPW
Title	Controller wiring schematics Control Group
Date	4/24/2019
Drawing No	

VRF SYSTEMS CONTROL WIRING SCHEMATICS  
SCALE: NONE



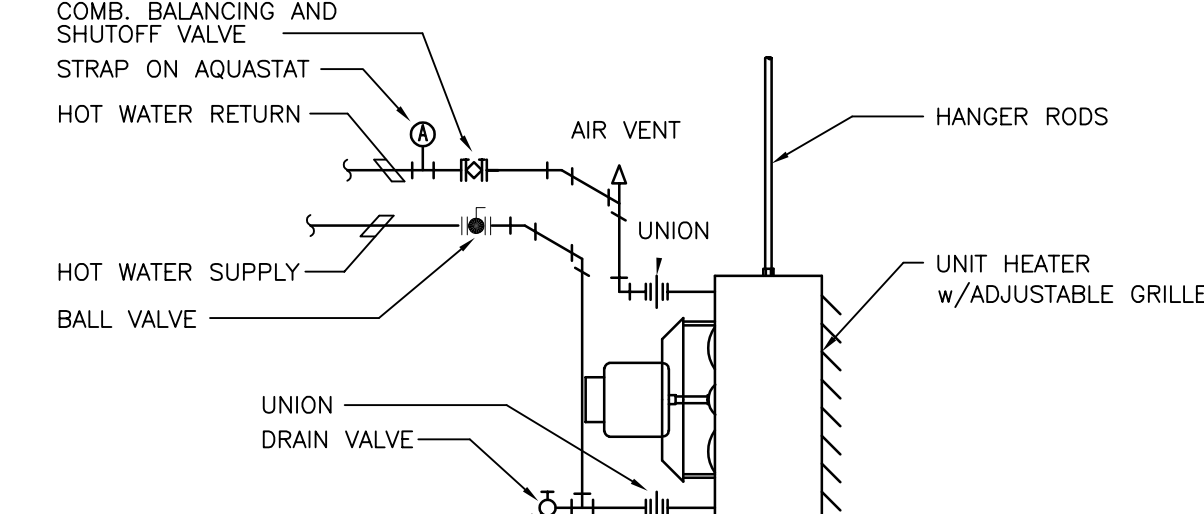
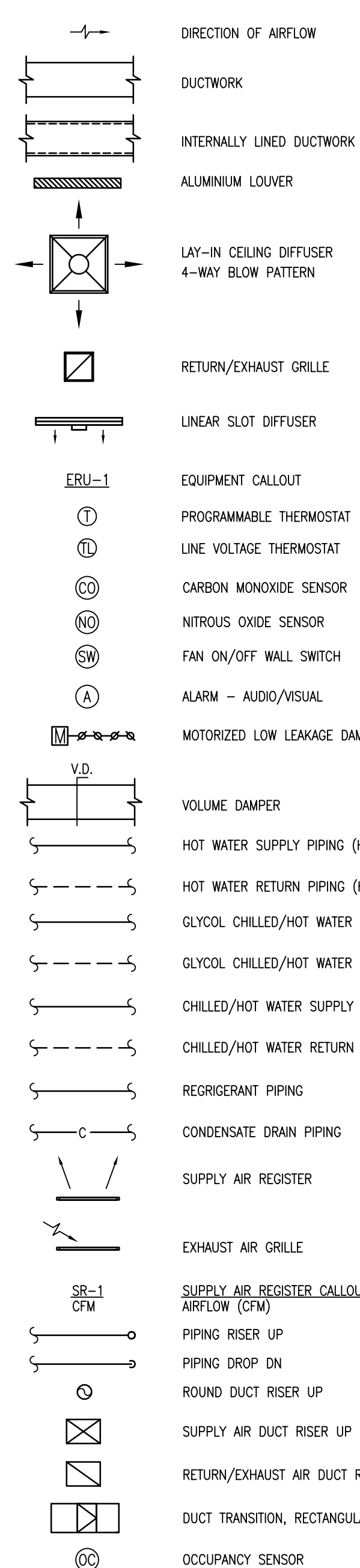
ERV CONTROL DIAGRAM - TYPICAL FOR 4  
NO SCALE



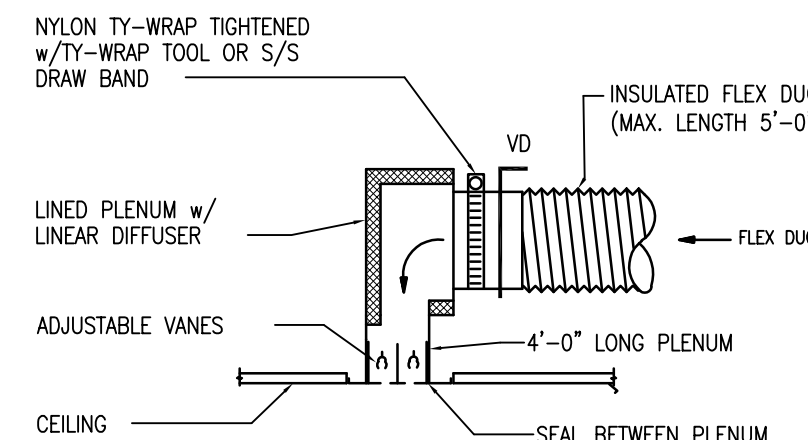
UNIT HEATER, UH-#  
CONTROL DIAGRAM - TYP.

BASEBOARD HEAT  
CONTROL DIAGRAM - TYP.

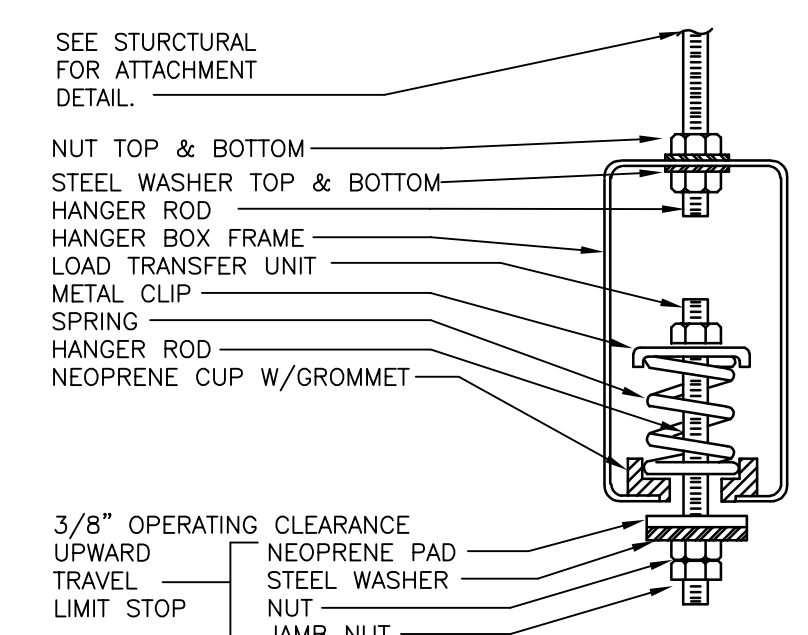
## SYMBOLS LEGEND



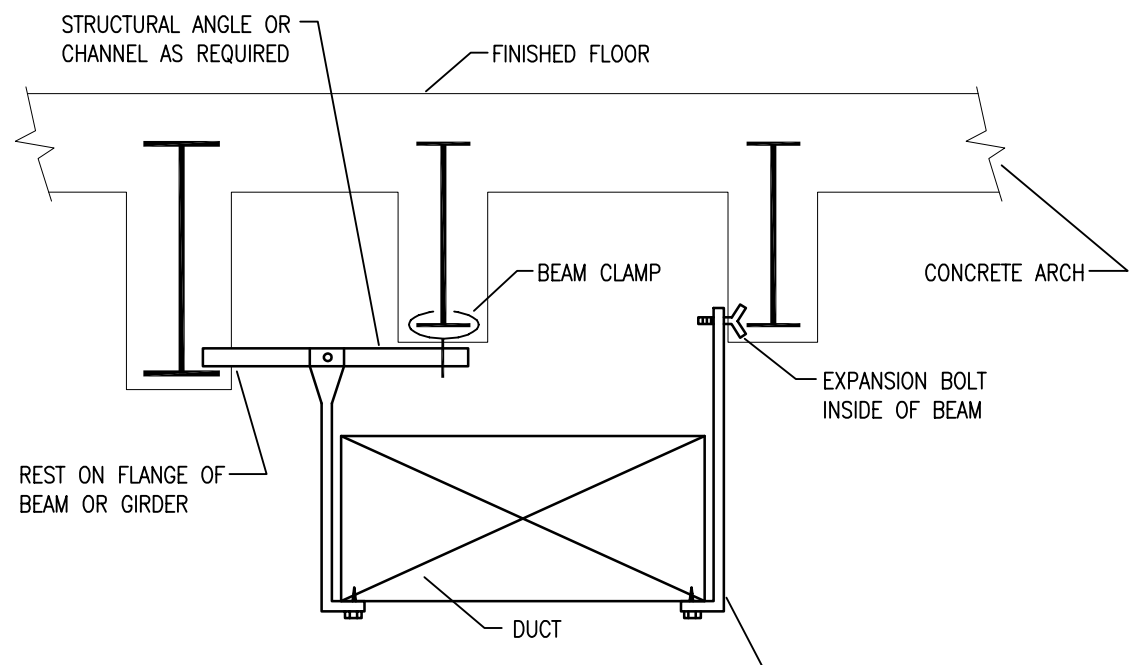
TYPICAL HOT WATER UNIT HEATER (UH) DETAIL  
NO SCALE



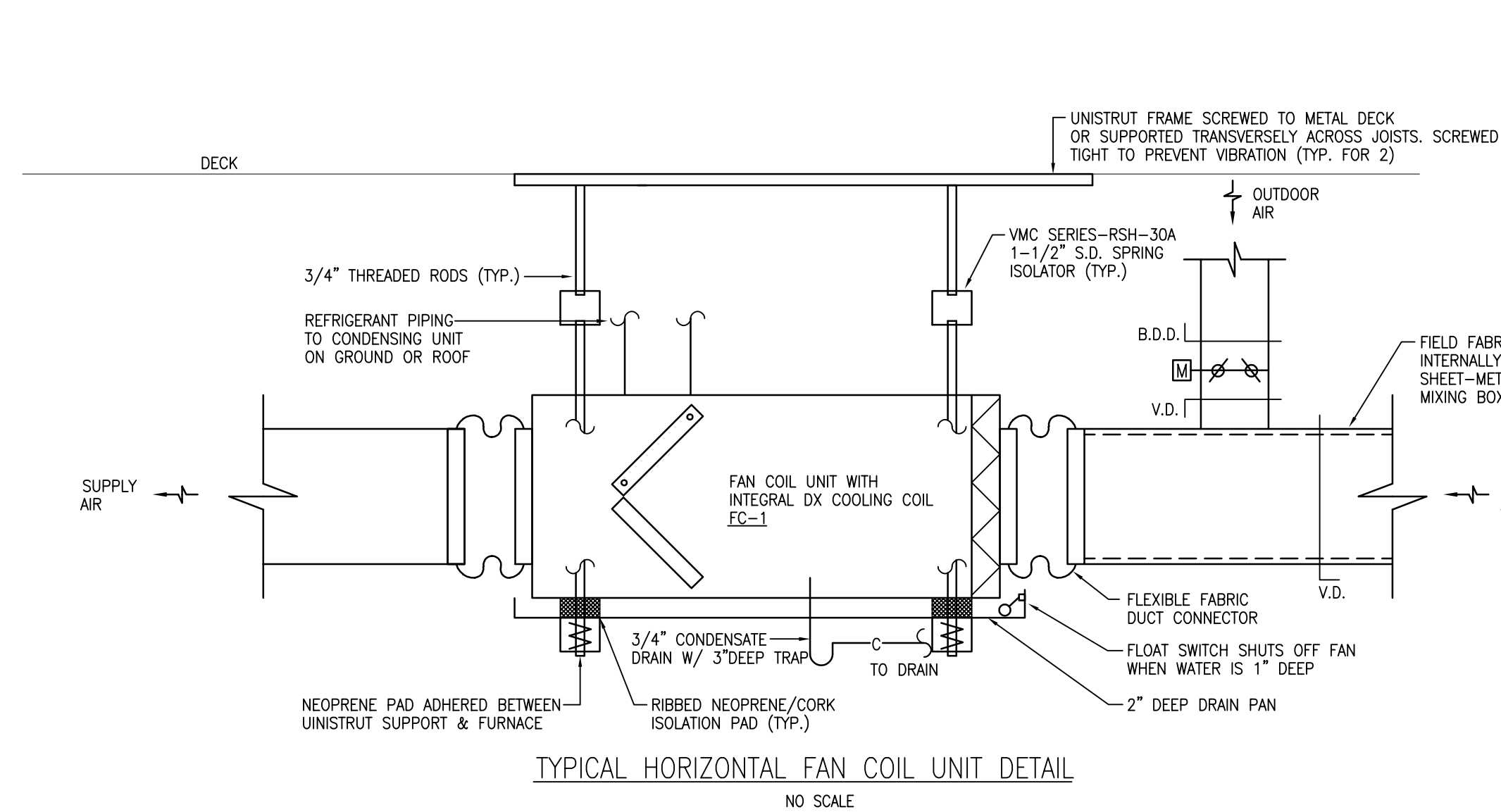
LINEAR DIFFUSER CONNECTION  
NO SCALE



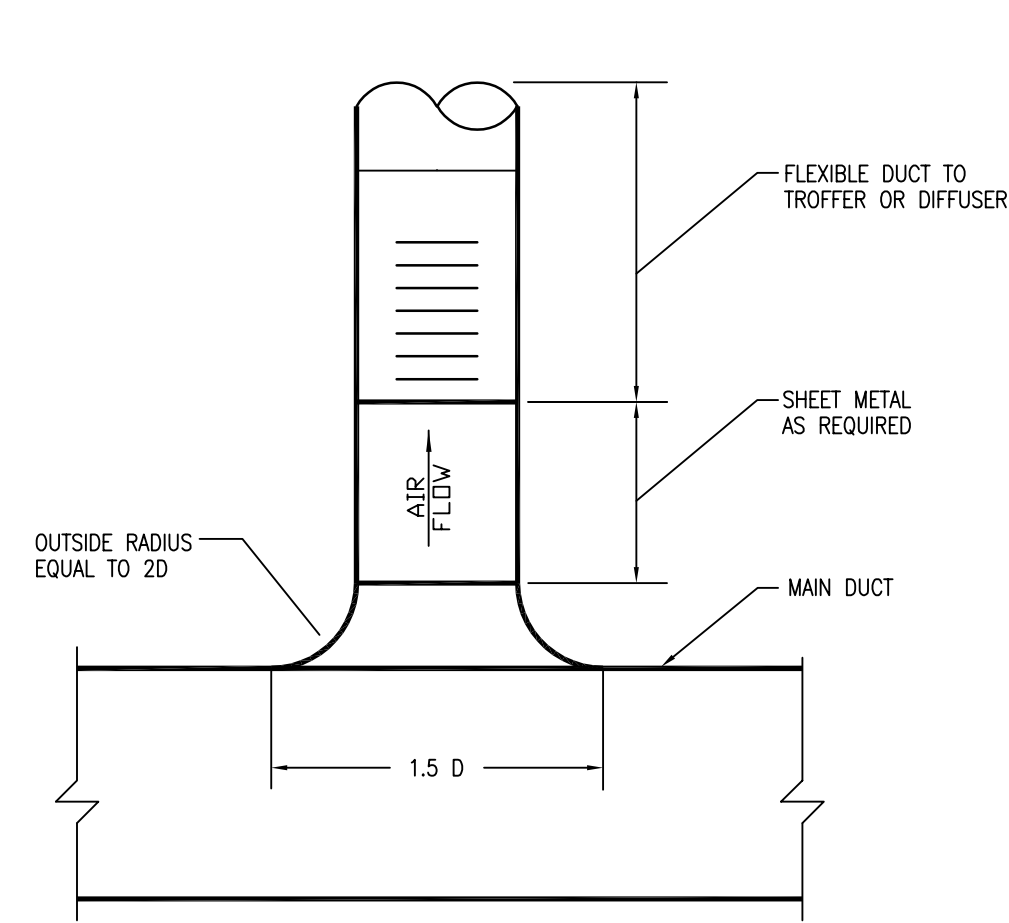
VIBRATION ISOLATOR DETAIL  
NO SCALE



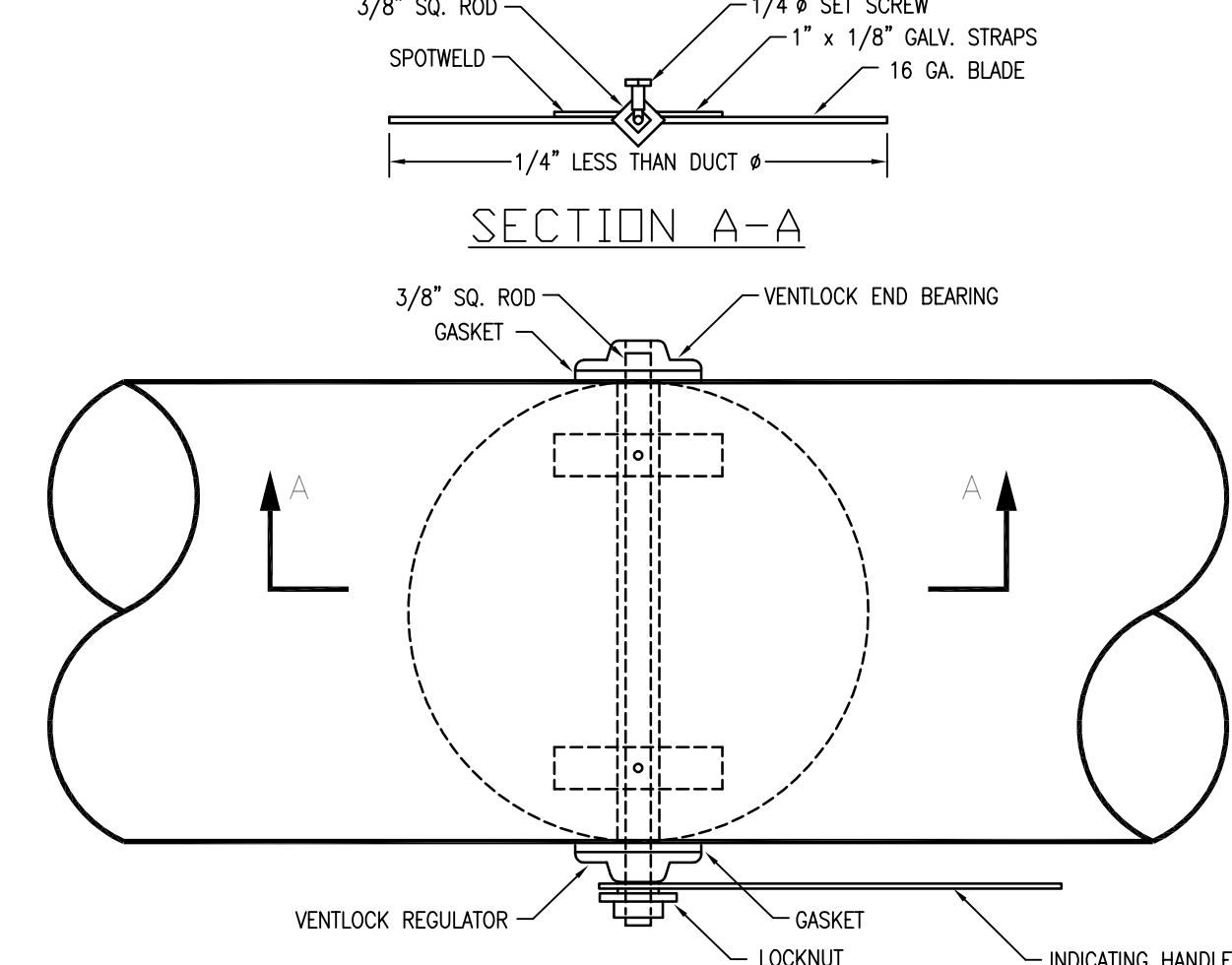
DUCT SUPPORT FROM BEAMS  
NO SCALE



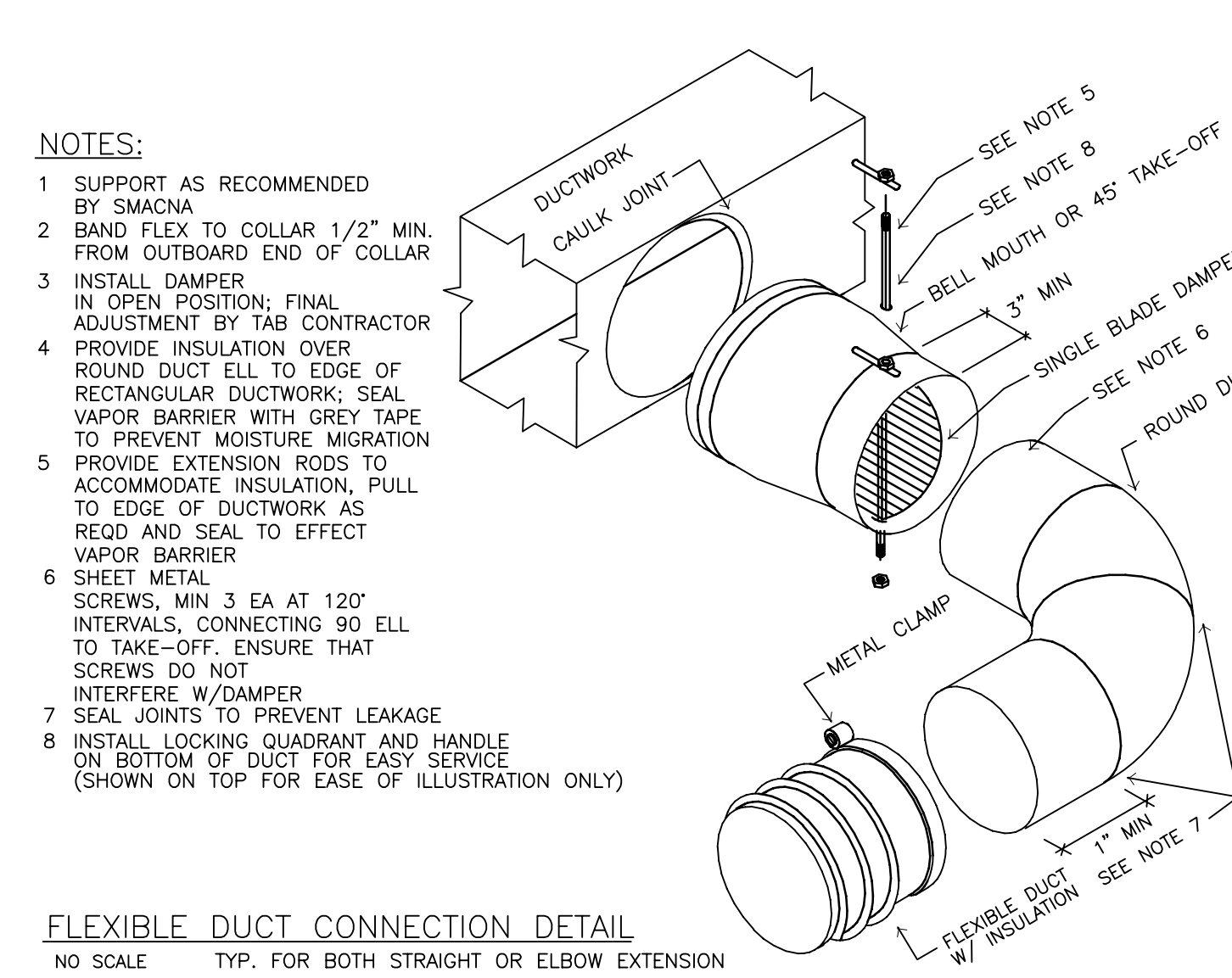
TYPICAL HORIZONTAL FAN COIL UNIT DETAIL  
NO SCALE



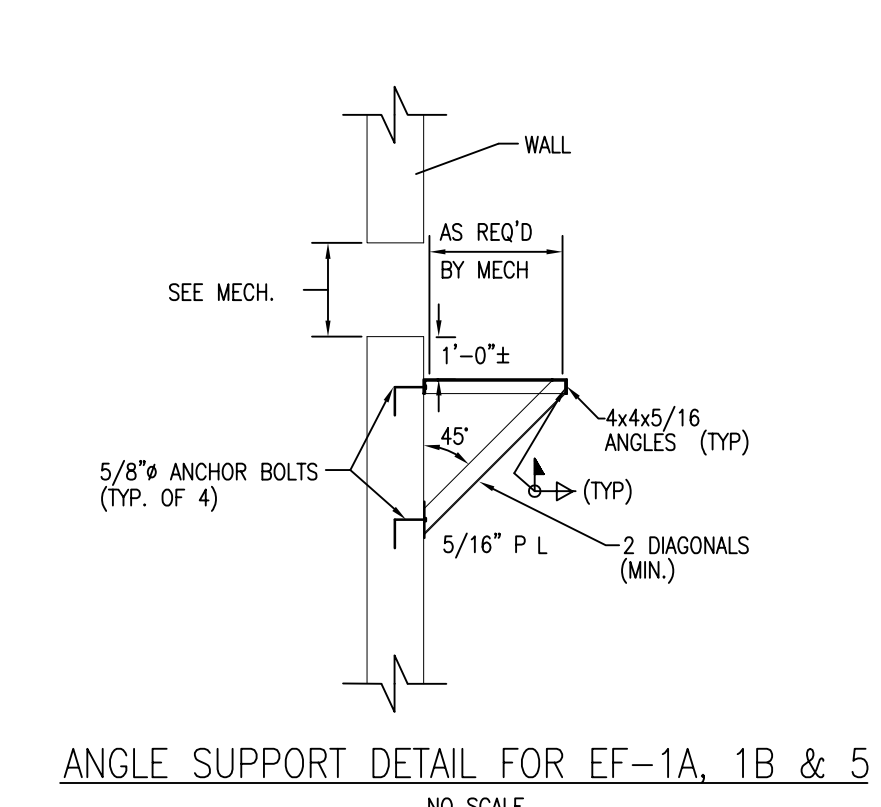
CIRCULAR BRANCH CONNECTION TO SINGLE OUTLET  
NO SCALE



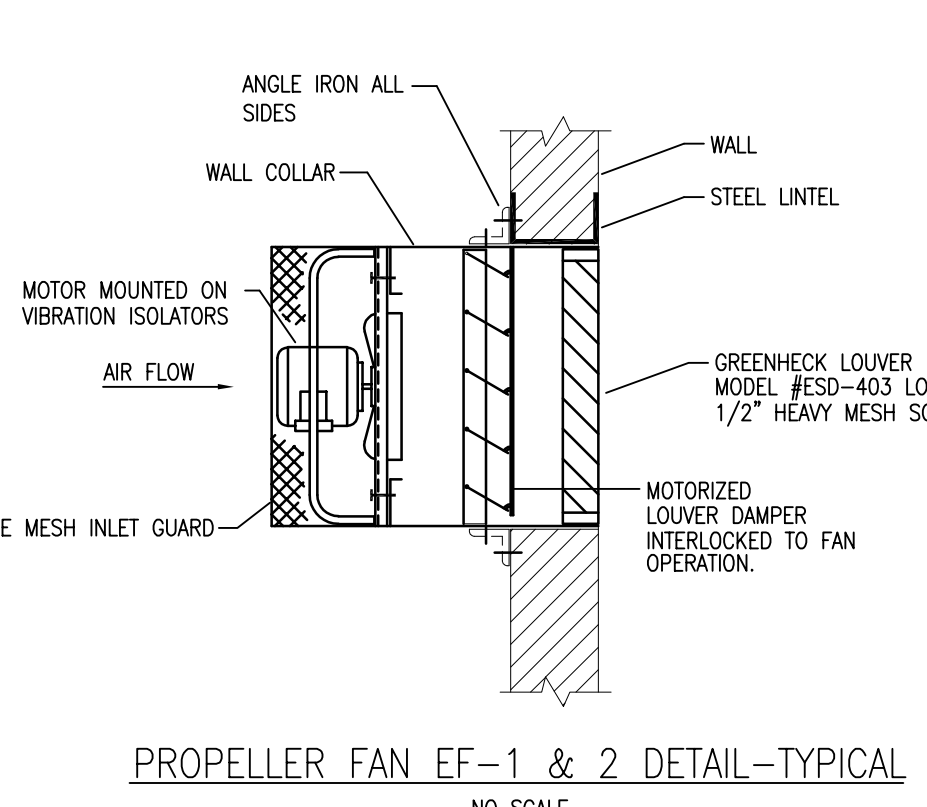
ROUND VOLUME DAMPER - UP TO 14" DIAMETER, LOW PRESSURE  
NO SCALE



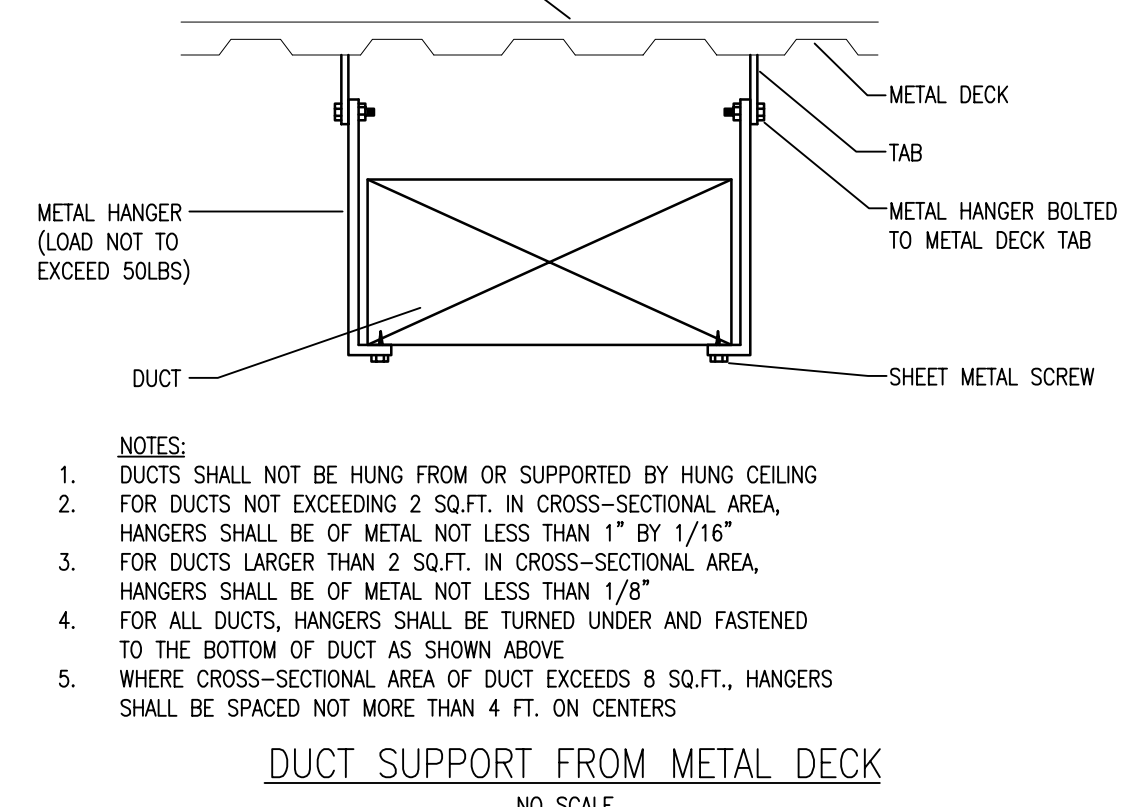
FLEXIBLE DUCT CONNECTION DETAIL  
NO SCALE



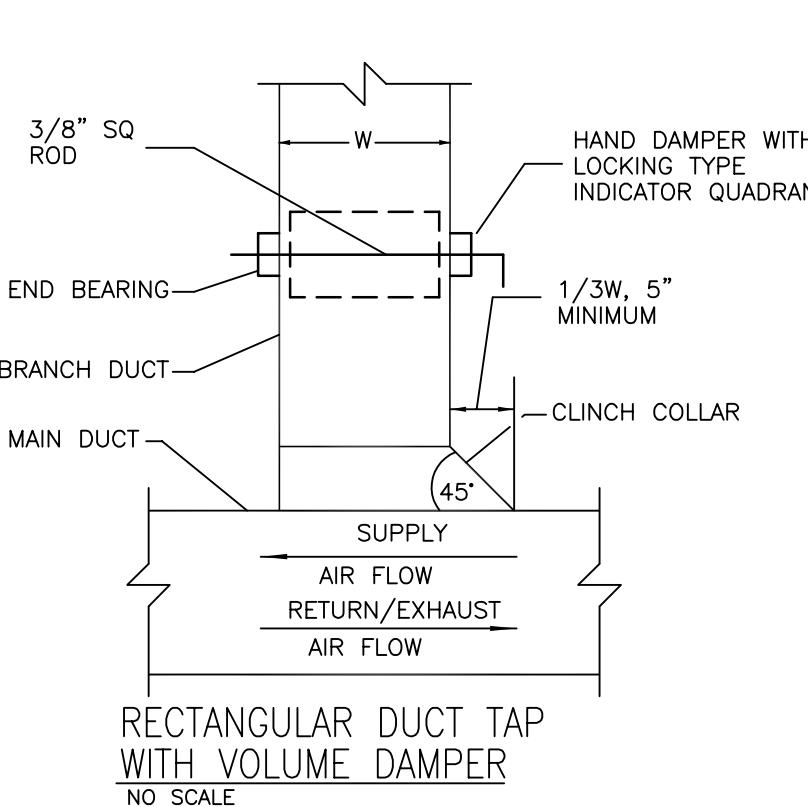
ANGLE SUPPORT DETAIL FOR EF-1A, 1B & 5  
NO SCALE



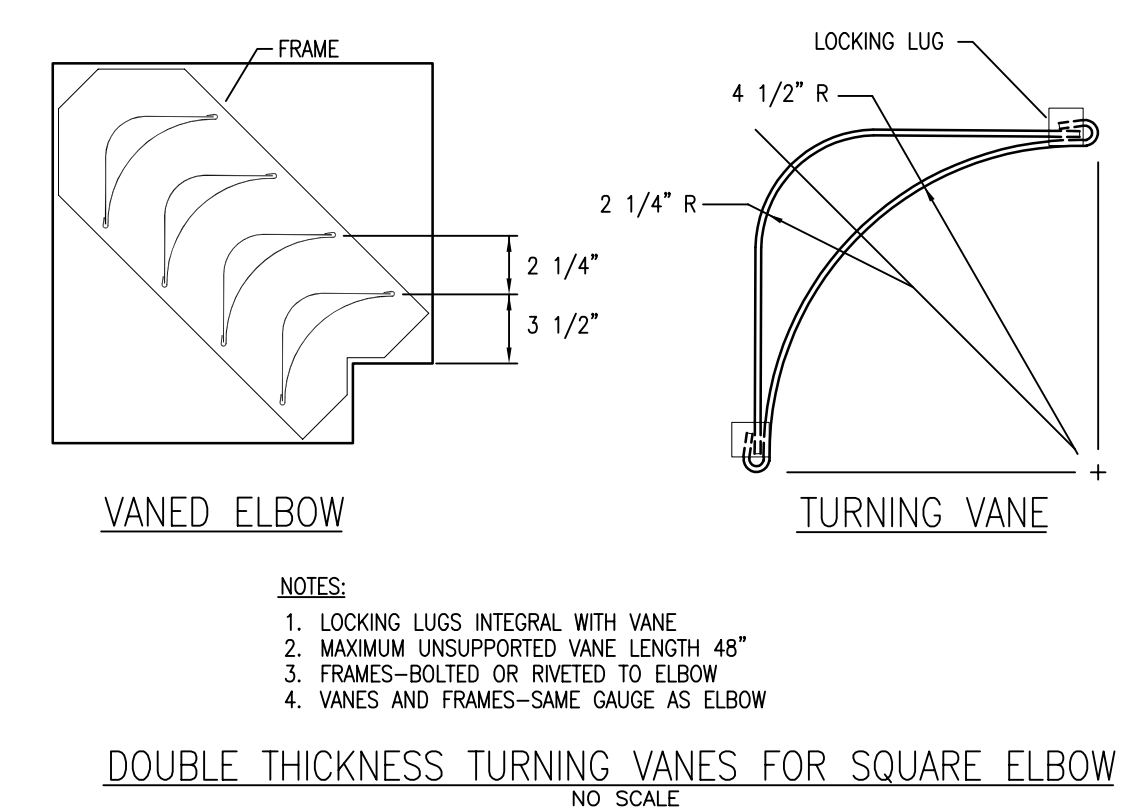
PROPELLER FAN EF-1 & 2 DETAIL-TYPICAL  
NO SCALE



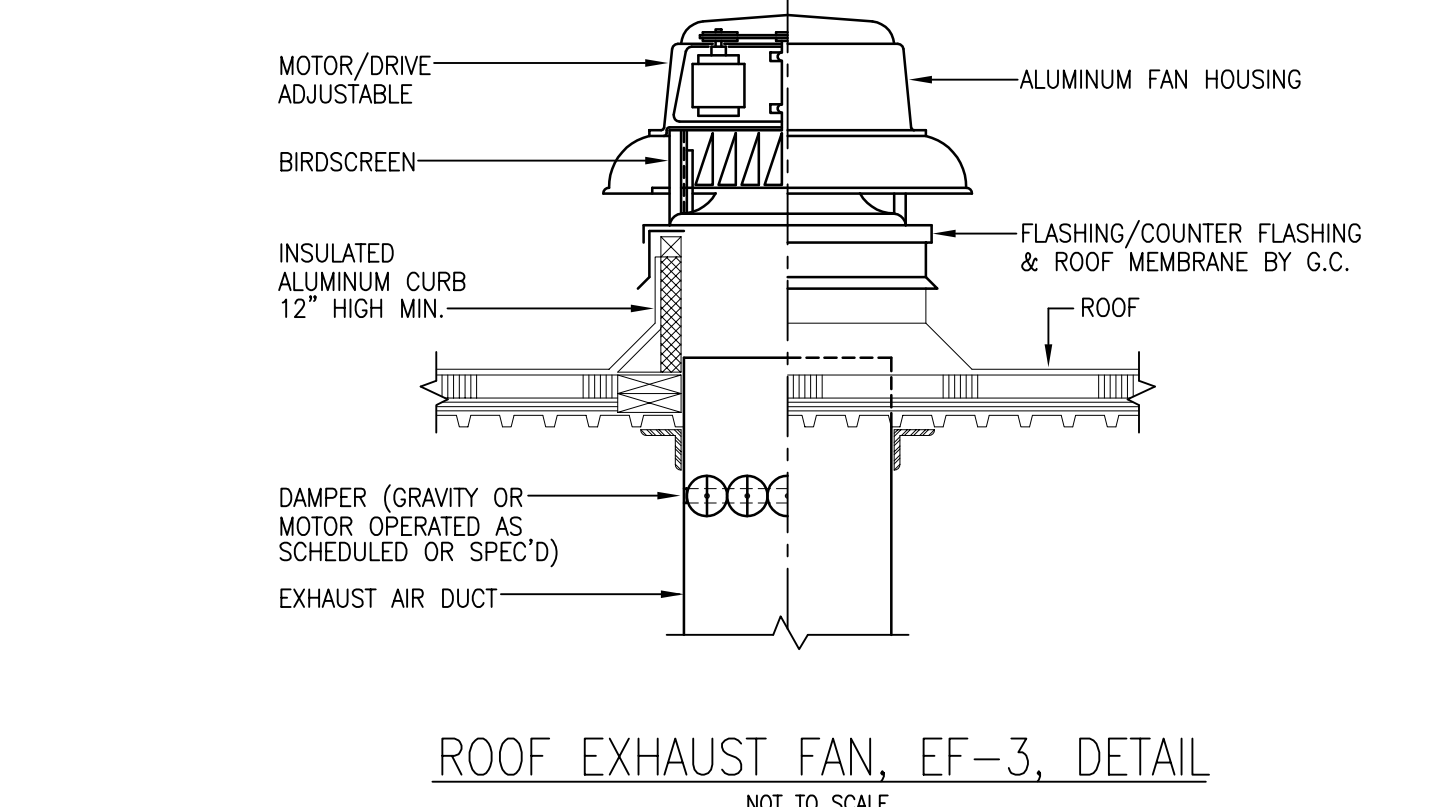
DUCT SUPPORT FROM METAL DECK  
NO SCALE



RECTANGULAR DUCT TAP WITH VOLUME DAMPER  
NO SCALE



DOUBLE THICKNESS TURNING VANES FOR SQUARE ELBOW  
NO SCALE



ROOF EXHAUST FAN, EF-3, DETAIL  
NOT TO SCALE



## TOWN OF MONTAGUE

### NEW DPW FACILITY

OWNER:  
TOWN OF MONTAGUE  
ONE AVENUE A  
TURNERS FALLS, MA 01376

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ELECTRICAL ENGINEER:  
JOHN J. MURPHY, JR. ELECTRICAL  
CONSTRUCTION AND ENGINEERING, INC.  
379 LIBERTY STREET  
ROCKLAND, MA 02370

## STAMP

REV	DATE	DESCRIPTION

DATE	5/15/19
SCALE	NO SCALE
DRAWN BY	CDR
CHECKED BY	KRS
PROJECT NO.	19001

BUILDING:

SHEET TITLE:

## HVAC DETAILS

DRAWING NO.

H-401













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ROCKLAND, MA 02370

STAMP

REV	DATE	DESCRIPTION
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DATE	5/15/19
SCALE	1/8" = 1'-0"
DRAWN BY	MTG
CHECKED BY	JJM
PROJECT NO.	19001

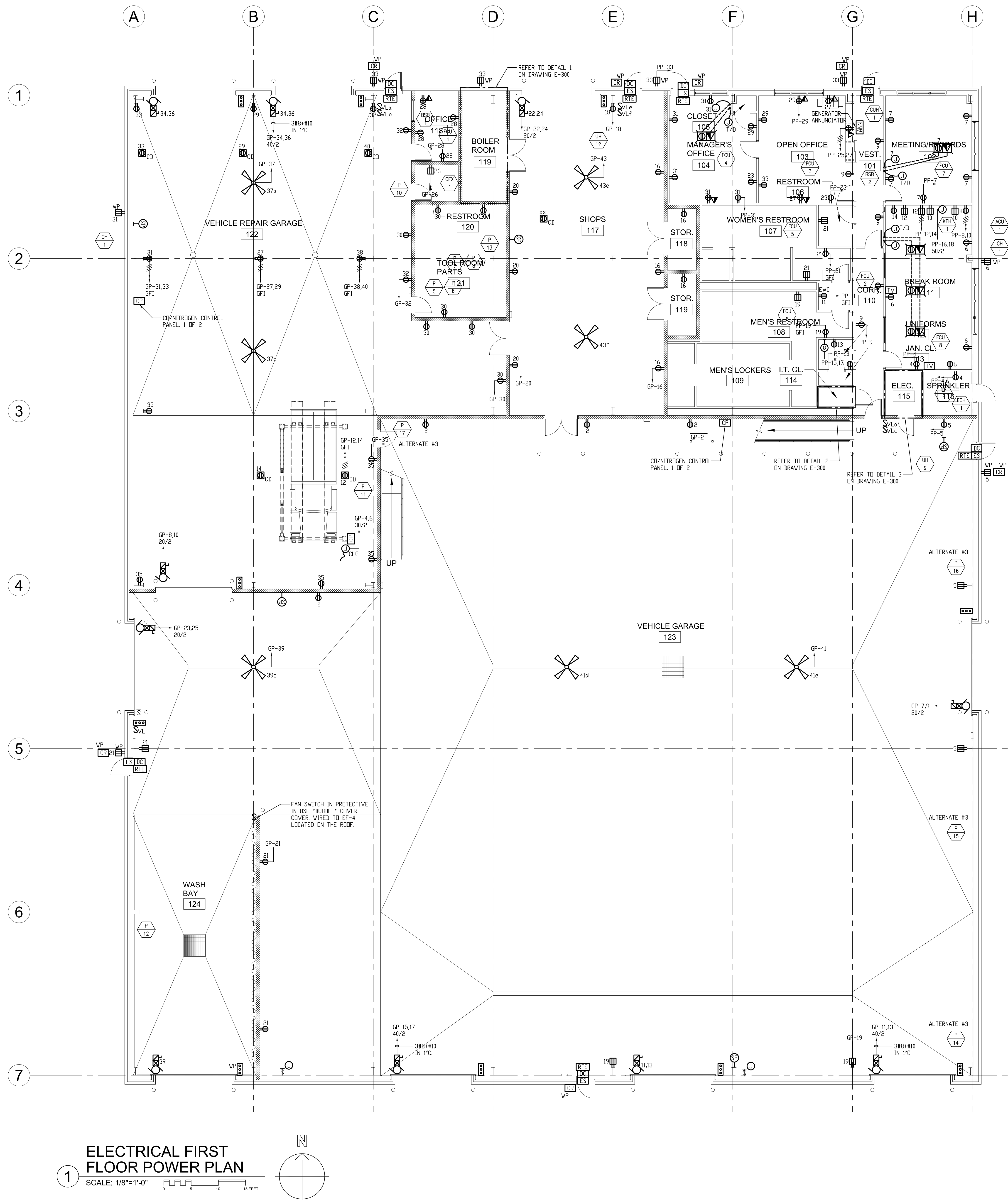
BUILDING:

SHEET TITLE:

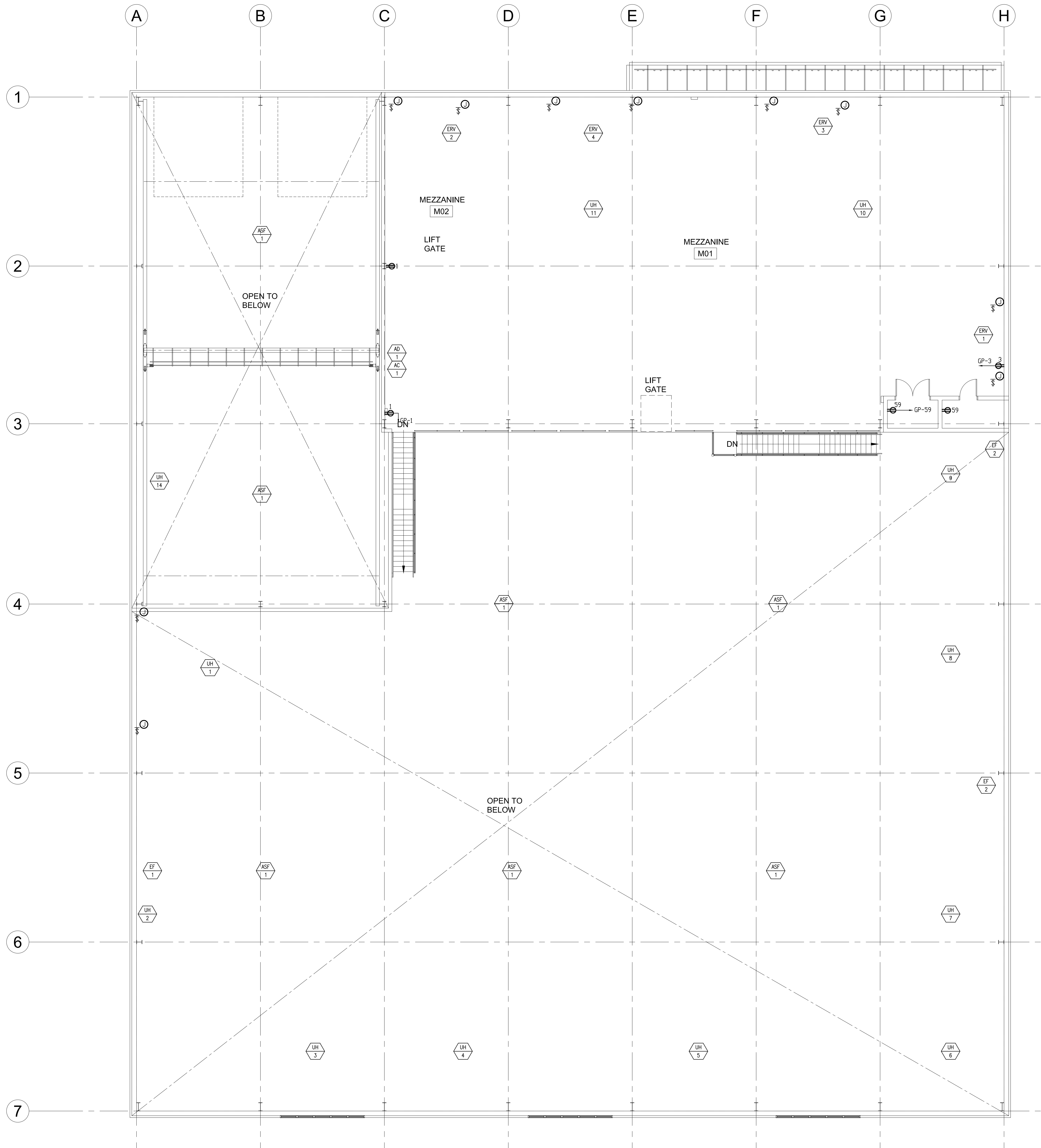
ELECTRICAL FIRST  
FLOOR POWER  
PLAN

DRAWING NO.

E-101







- GENERAL NOTES
1. ALL BRANCH CIRCUIT CONDUCTORS SHALL BE TYPE MC 90% CONDUCTIVITY, COPPER MINIMUM #10 AWG SIZE THINWALL INSULATION, 600 VOLTS RATED UNLESS OTHERWISE NOTED. (OFFICE AREAS ONLY)
  2. COORDINATE EXACT LOCATION OF ALL DEVICES AND EQUIPMENT W/ARCHITECT PRIOR TO INSTALLATION.
  3. WIRING IS SHOWN ON DRAWINGS ONLY FOR SPECIFIC ROUTES OR SPECIAL CONDITIONS.
  4. WIRING AND CONDUIT SHALL BE REQUIRED BETWEEN ALL OUTLETS INDICATED WITH CIRCUIT NUMBERS AND PANEL DESIGNATIONS WITHIN THE GARAGE AREA.
  5. ALTHOUGH ALL BRANCH CIRCUIT WIRE AND CONDUIT IS NOT SHOWN, IT IS THE INTENT OF THESE DOCUMENTS THAT A COMPLETE BRANCH CIRCUIT WIRING SYSTEM BE INSTALLED. ALL WIRING WITHIN GARAGE AREA TO BE INSTALLED IN CONDUIT.
  6. ALL OUTLETS WITHIN GARAGE AREA/ MEZZANINE ARE TO BE GROUND FAULT TYPE. CONNECT CIRCUIT TO GFCI CIRCUIT BREAKER.
  7. REFER TO MECHANICAL SCHEDULE ON DRAWING E-301 FOR WIRING REQUIREMENTS.
  8. E.C. SHALL COORDINATE PANEL BOARD CLEARANCES WITH HVAC AND PLUMBING CONTRACTOR FOR ALL ELECTRICAL PANELS.
  9. PROVIDE STOPPER II COVERS OVER ALL PULL STATIONS WITHIN THE VEHICLE STORAGE, SHOPS, AND GARAGE AREAS.

**ELECTRICAL MEZZANINE POWER PLAN**  
SCALE: 1/8"=1'-0"  
0 5 10 15 FEET



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STAMP

REV	DATE	DESCRIPTION

DATE	5/15/19
SCALE	1/8" = 1'-0"
DRAWN BY	MTG
CHECKED BY	JJM
PROJECT NO.	19001

BUILDING:

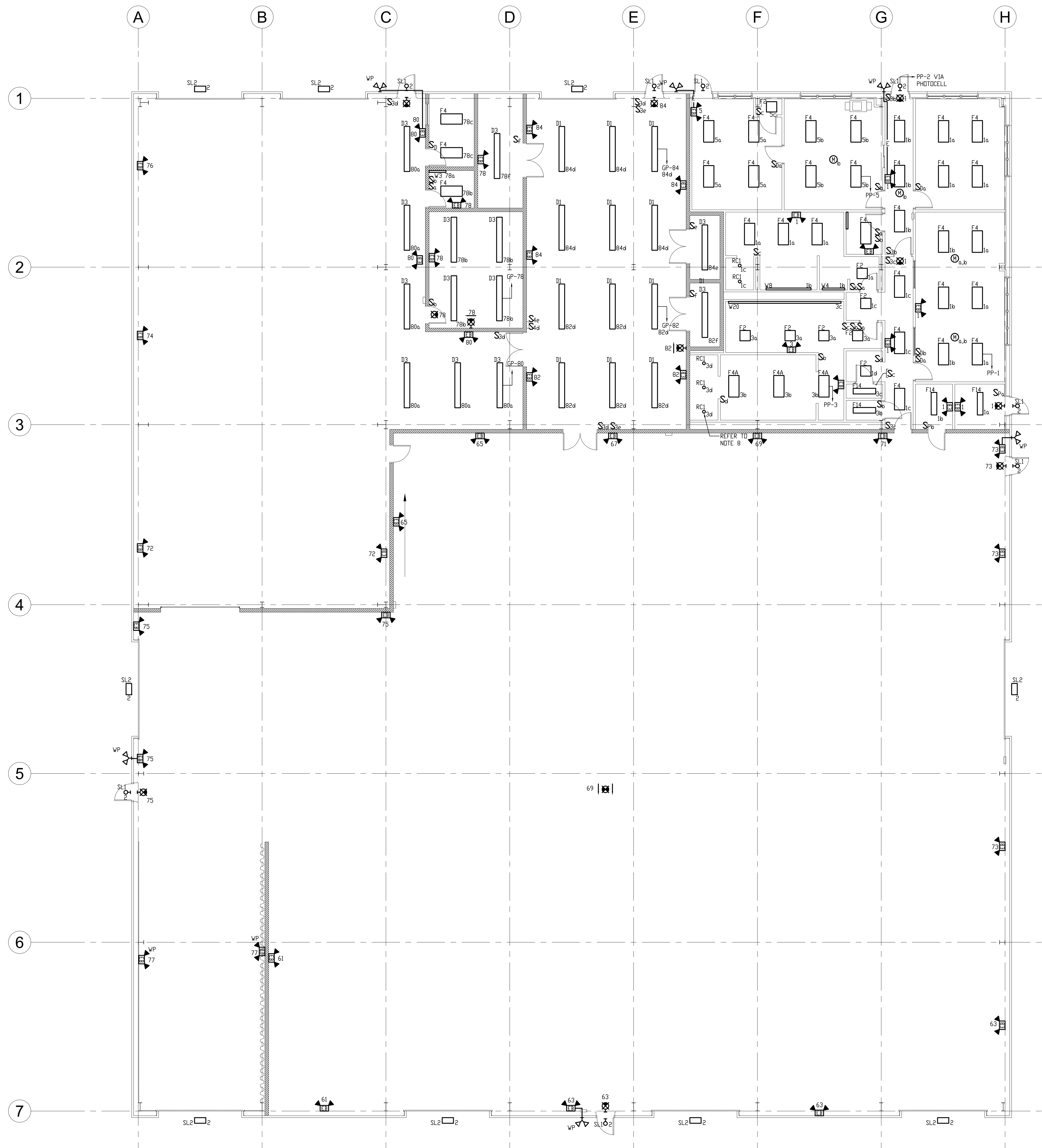
SHEET TITLE:

**ELECTRICAL MEZZANINE FLOOR POWER PLAN**

DRAWING NO.

**E-102**





- LIGHTING NOTES**
1. INSTALL ALL LIGHTING FIXTURES IN ACCORDANCE WITH ARCHITECT'S REFLECTED CEILING PLANS.
  2. ALL BRANCH CIRCUIT CONDUCTORS SHALL BE IN EMT WITH COPPER WIRING MINIMUM #10 AWG SIZE, THWN/THHN INSULATION, 600 VOLTS RATED UNLESS OTHERWISE NOTED.
  3. WIRING IS SHOWN ON DRAWINGS ONLY FOR SPECIFIC ROUTES OR SPECIAL CONDITIONS.
  4. WIRING AND CONDUIT SHALL BE REQUIRED BETWEEN ALL FIXTURES INDICATED WITH CIRCUIT NUMBERS AND PANEL DESIGNATIONS.
  5. ALTHOUGH ALL BRANCH CIRCUIT WIRE AND CONDUIT IS NOT SHOWN, IT IS THE INTENT OF THESE DOCUMENTS THAT A COMPLETE BRANCH CIRCUIT WIRING SYSTEM BE INSTALLED.
  6. CONNECT ALL EMERGENCY BATTERY UNITS (EB) AND EXIT SIGNS TO CIRCUIT NUMBERS AS SHOWN ON DRAWING. CONNECT ALL EB'S AND EXIT SIGNS TO NON-SWITCHED CIRCUIT (CONSTANT ON).
  7. SL1 AND SL2 LIGHT FIXTURES ARE TO BE CONTROLLED VIA PHOTOCELL.
  8. CONNECT RC1 SHOWER LIGHT FIXTURES TO BATHROOM GFI OUTLET.



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ROCKLAND, MA 02370

STAMP


REV	DATE	DESCRIPTION

DATE	5/15/19
SCALE	1/8" = 1'-0"
DRAWN BY	MTG
CHECKED BY	JJM
PROJECT NO.	19001

**BUILDING:**

**SHEET TITLE:**

ELECTRICAL FIRST  
FLOOR LIGHTING  
PLAN

**DRAWING NO.**

E-201





TOWN OF  
MONTAGUE

NEW DPW FACILITY

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STAMP


REV	DATE	DESCRIPTION

BUILDING:

SHEET TITLE:

ELECTRICAL  
MEZZANINE FLOOR  
LIGHTING PLAN

DRAWING NO.

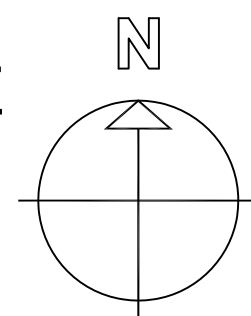
E-202



ELECTRICAL MEZZANINE  
LIGHTING PLAN

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

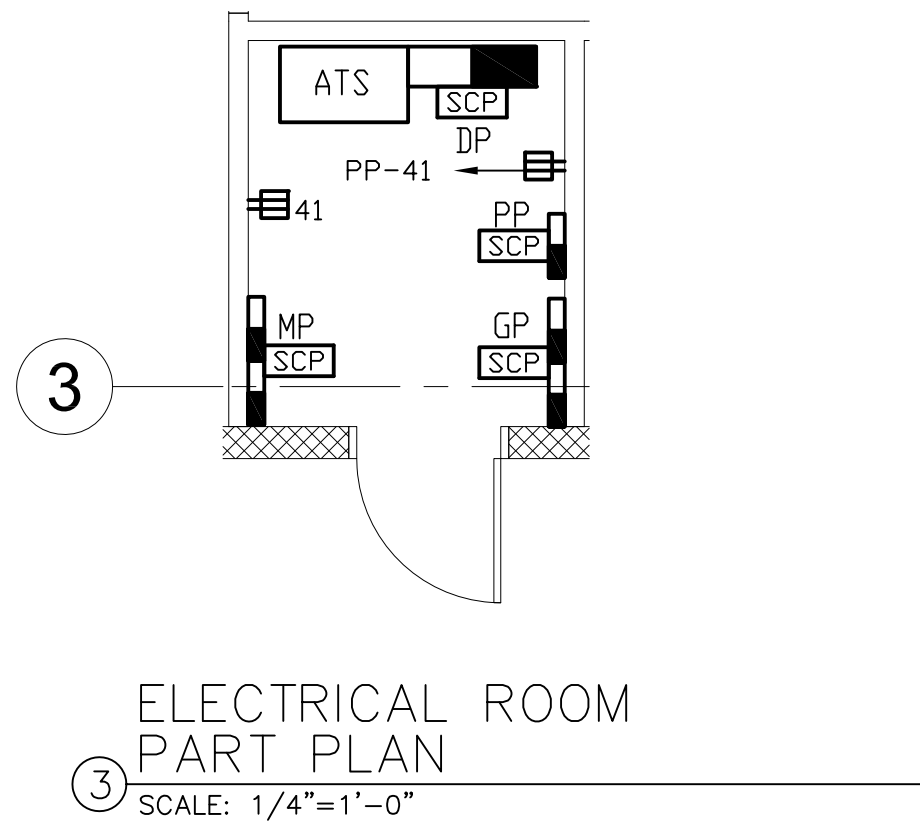
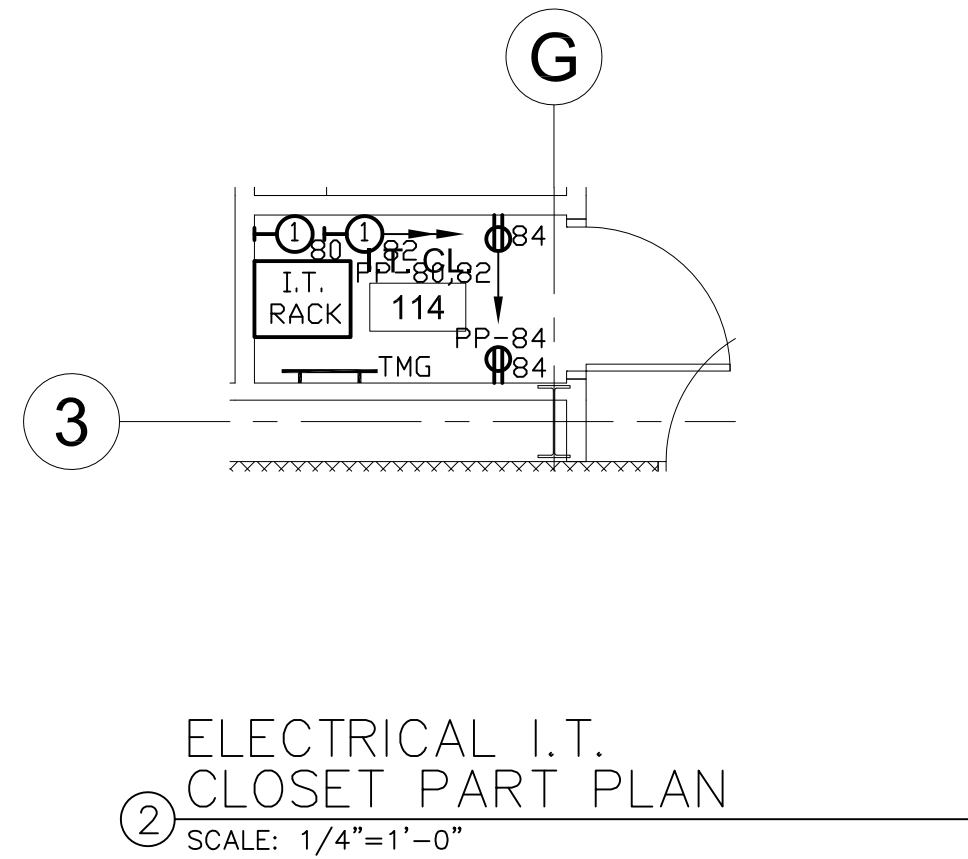
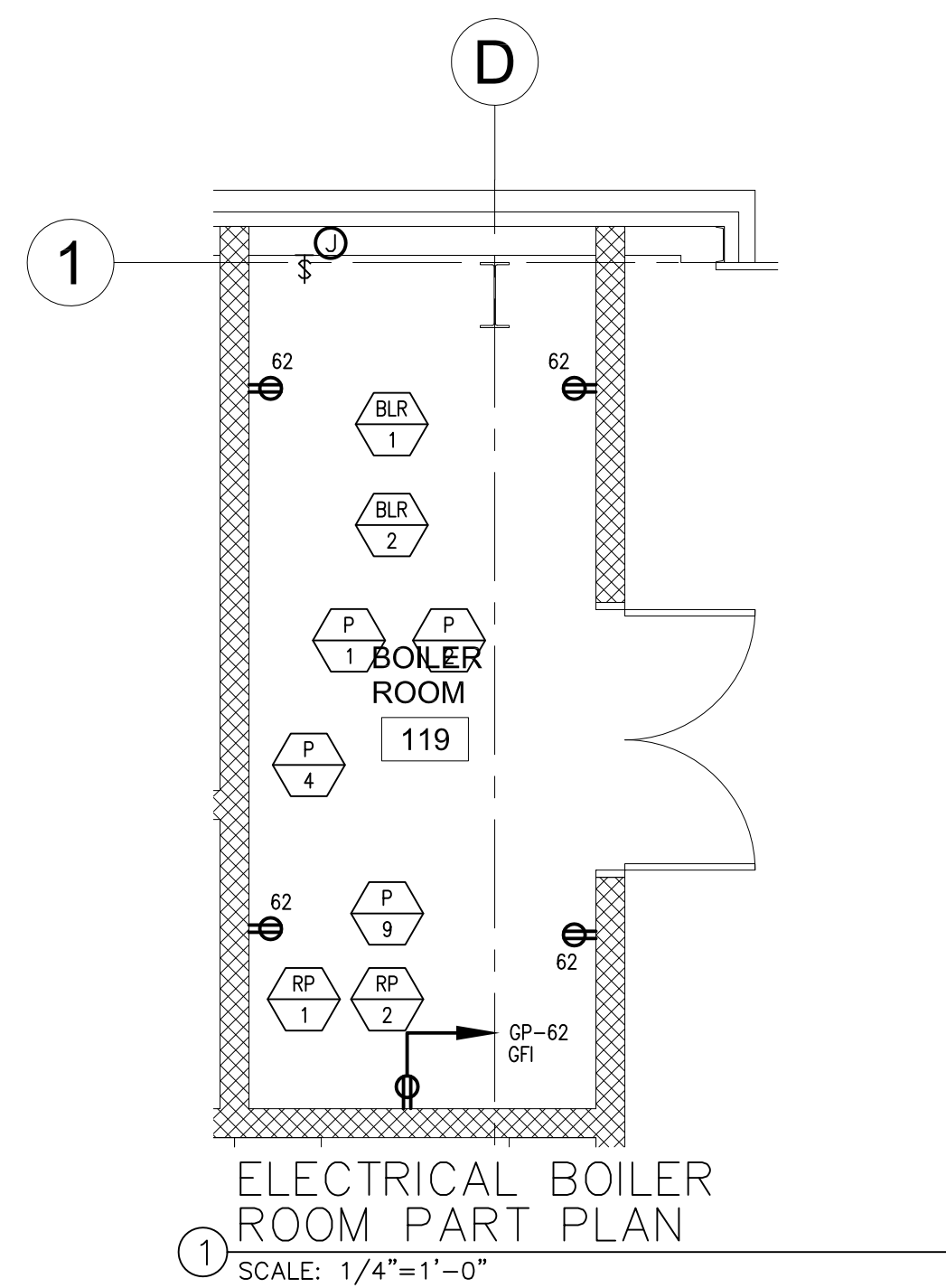
0 5 10 15 FEET



LIGHTING NOTES

1. INSTALL ALL LIGHTING FIXTURES IN ACCORDANCE WITH ARCHITECT'S REFLECTED CEILING PLANS.
2. ALL BRANCH CIRCUIT CONDUCTORS SHALL BE IN EMT WITH COPPER WIRING MINIMUM #10 AWG SIZE, THWN/THHN INSULATION, 600 VOLTS RATED UNLESS OTHERWISE NOTED.
3. WIRING IS SHOWN ON DRAWINGS ONLY FOR SPECIFIC ROUTES OR SPECIAL CONDITIONS.
4. WIRING AND CONDUIT SHALL BE REQUIRED BETWEEN ALL FIXTURES INDICATED WITH CIRCUIT NUMBERS AND PANEL DESIGNATIONS.
5. ALTHOUGH ALL BRANCH CIRCUIT WIRE AND CONDUIT IS NOT SHOWN, IT IS THE INTENT OF THESE DOCUMENTS THAT A COMPLETE BRANCH CIRCUIT WIRING SYSTEM BE INSTALLED.
6. CONNECT ALL EMERGENCY BATTERY UNITS (EB) AND EXIT SIGNS TO CIRCUIT NUMBERS AS SHOWN ON DRAWING. CONNECT ALL EB'S AND EXIT SIGNS TO NON-SWITCHED CIRCUIT (CONSTANT ON).
7. OWNER IS GOING FOR NET ZERO. ALL WIRING SHALL BE #10 UNLESS OTHERWISE STATED.
8. SL1, SL2 AND SL3 LIGHT FIXTURES ARE TO BE CONTROLLED VIA PHOTOCELL.
9. CONNECT RC2 SHOWER LIGHT FIXTURES TO BATHROOM GFI OUTLET.
10. CONNECT W8 LIGHT FIXTURES WITH EMT WITH RAIN TIGHT COMPRESSION CONNECTION AND LIQUID TIGHT FLEXIBLE CONDUIT.





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379 LIBERTY STREET  
ROCKLAND, MA 02370

STAMP


REV	DATE	DESCRIPTION

BUILDING:

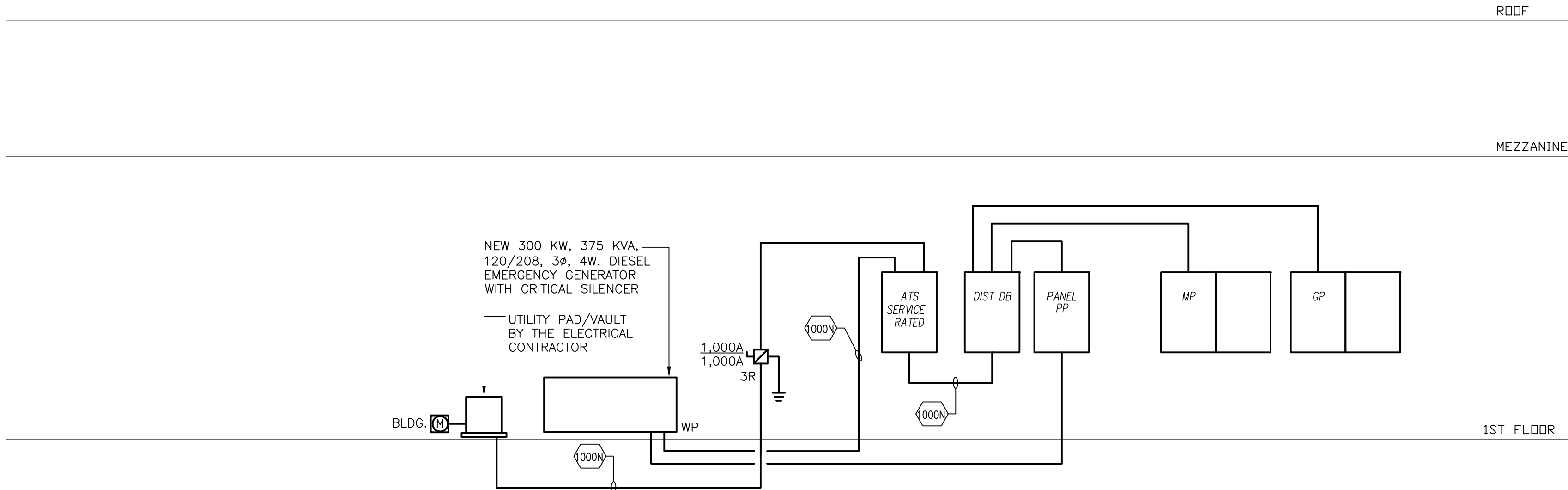
SHEET TITLE:  
  
ELECTRICAL  
PART PLANS

DRAWING NO.  
  
E-300



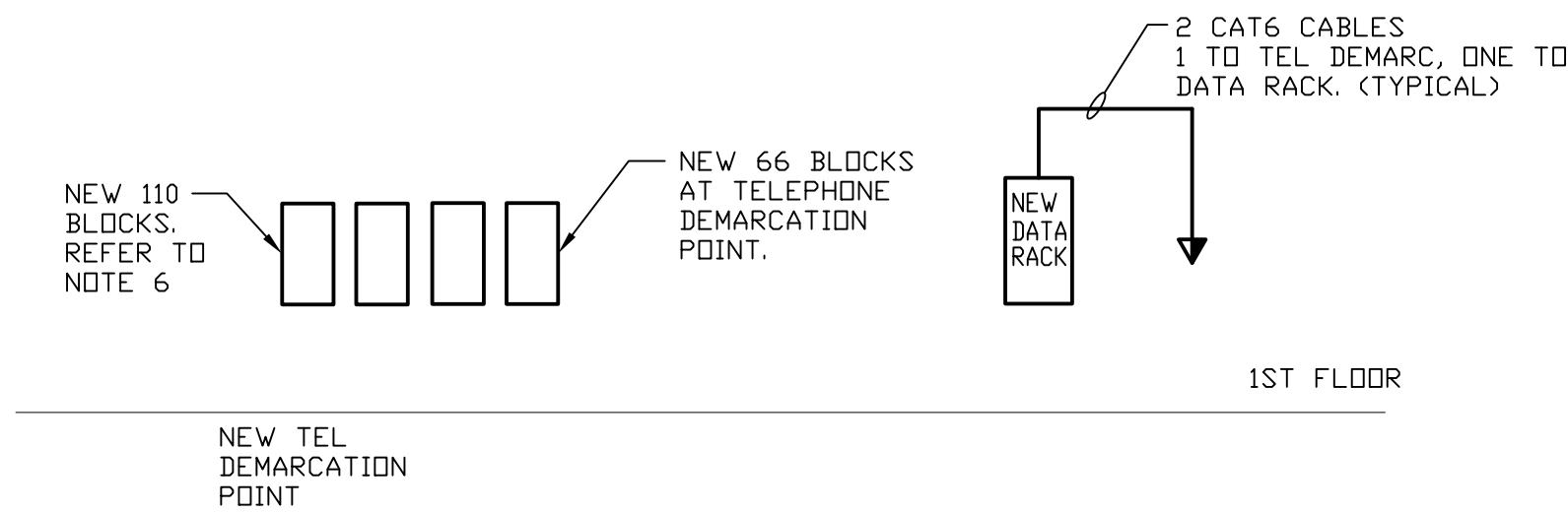






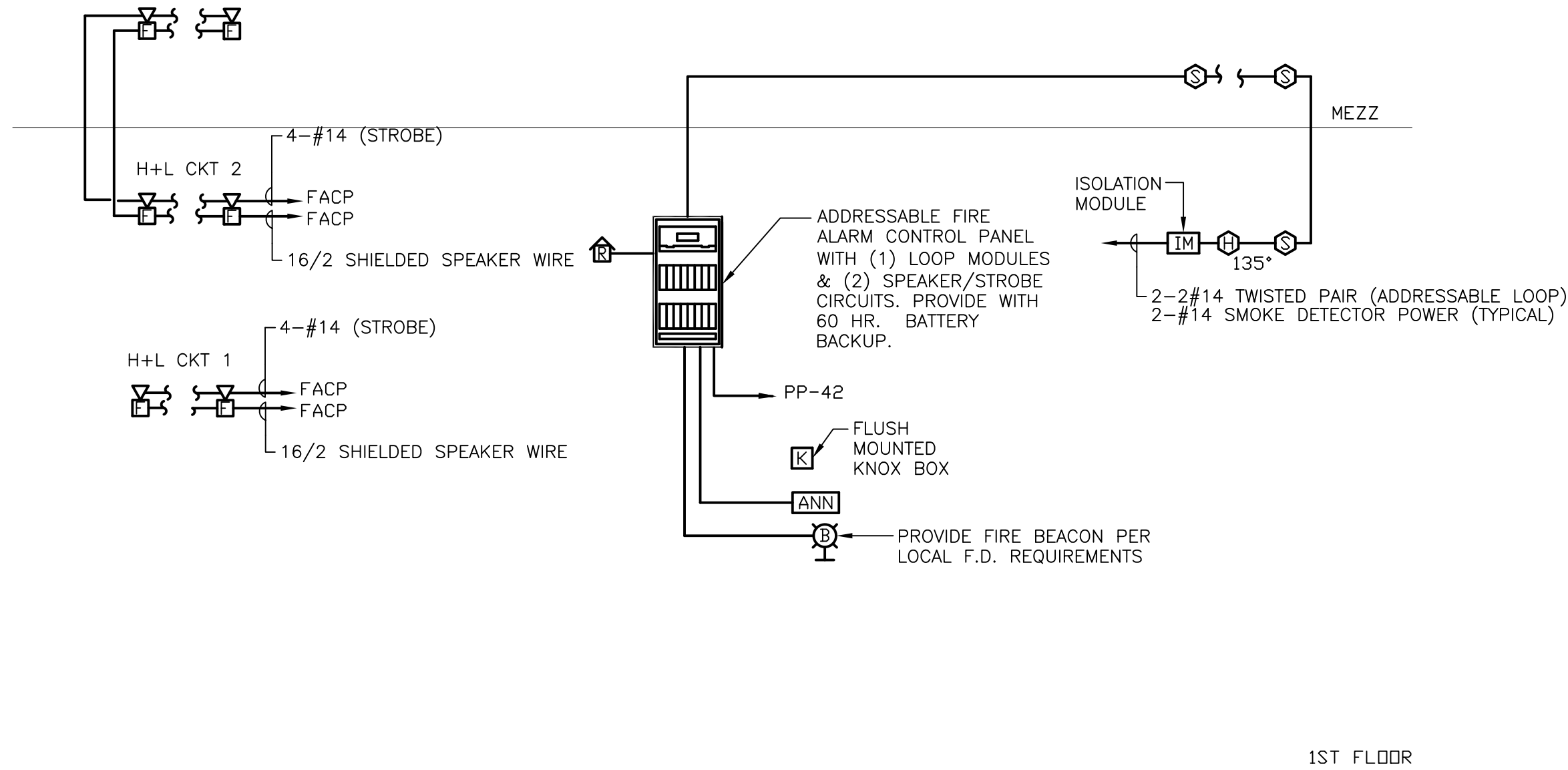
1 RISER DIAGRAM  
SCALE: NTS

- NOTES:
- E.C. TO PROVIDE ARC FLASH LABEL IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE (NEC) SECTION 110.16
  - COORDINATE SHORT CIRCUIT RATING OF ELECTRICAL EQUIPMENT WITH LOCAL UTILITY.
  - PROVIDE LABEL ON ELECTRICAL SERVICE PANEL OF AVAILABLE FAULT CURRENT, PER ARTICLE 110.24 IN THE 2017 NATIONAL ELECTRICAL CODE. COORDINATE THIS WITH LOCAL UTILITY COMPANY.
  - PROVIDE SURGE SUPPRESSORS FOR ALL ELECTRIC PANELS. WIRE PER MANUFACTURERS RECOMMENDATIONS.
  - E.C. IS TO VERIFY HOT OR COLD METER SEQUENCE WITH THE UTILITY.
  - NOT SHOWN IS POWER CONNECTION TO GENERATOR BATTERY CHARGER, BLOCK HEATER AND BATTERY HEATER. INSTALL 8#10 & #10 G IN 3/4" SCHEDULE 40 PVC CONDUIT FROM PANEL MP 67, 69 (20/2) AND MP-71 (BATTERY CHARGER TO GENERATOR ENCLOSURE.
  - E.C. IS TO INSTALL TWO (2) 3/4" X 10 FOOT GROUND RODS, CONNECT TO BUS BAR IN MAIN ELECTRICAL ROOM. CONNECT WITH #6 COPPER WIRE.
  - PROVIDE GROUND ROD NEAR GENERATOR PAD. CONNECT TO GENERATOR PER MANUFACTURES RECOMMENDATIONS.
  - LOCATE EMERGENCY POWER OFF BUTTON ON THE GENERATOR ENCLOSURE.
  - INSTALL A 1,000/3 (100% RATED) CIRCUIT BREAKER IN THE GENERATOR ENCLOSURE AND PROVIDE 1,000 AMP SERVICE RATED TRANSFER SWITCH.
  - REFER TO DISTRIBUTION SCHEDULE ON DRAWING E-301 FOR WIRE AND CONDUIT SIZES.
  - NOT SHOWN IS THE START CONTACTS FROM THE ATS TO THE GENERATOR PAD. INSTALL IN 1/2" SCH. 40 VC CONDUIT FROM THE ATS TO THE GENERATOR ENCLOSURE.



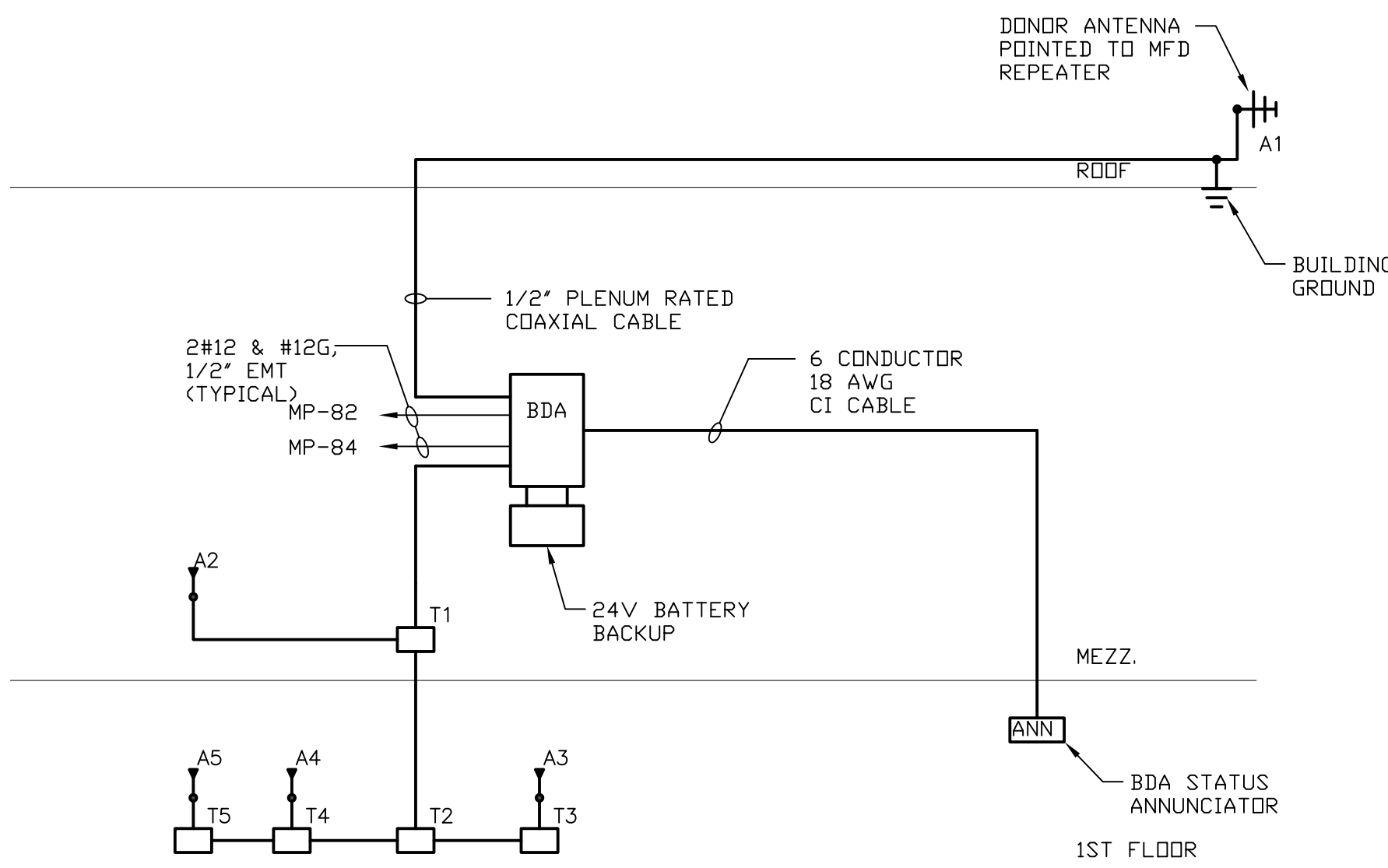
2 PARTIAL TELEPHONE/ DATA RISER DIAGRAM  
SCALE: NTS

- NOTES:
- E.C. SHALL INSTALL CAT 6 CABLE FOR ALL TELEPHONE AND DATA CABELING. WIRING TO CONFORM TO LATEST EIA/TIA-568
  - PROVIDE CROSS CONNECT WIRING FOR TELEPHONE CABLES. COORDINATE WITH OWNER.
  - CONNECT (1) 4 PAIR CAT 3 CABLE TO P.A. SYSTEM AMPLIFIER.
  - E.C. IS TO BOND IT RACK WITH #6 COPPER IN 3/4" EMT TO GROUND BAR WITHIN TEL/DATA ROOM.



3 FIRE ALARM RISER DIAGRAM  
SCALE: NTS

- NOTES:
- E.C. SHALL REFER TO SPECIFICATIONS AND DRAWINGS FOR QUANTITY OF DEVICES, SPARE CAPACITY, PARTS, ETC. RISER DEPICTS BASIC SYSTEM ONLY.
  - E.C. SHALL REFER TO HVAC DRAWINGS FOR EXACT LOCATION OF UNITS AND FOR LOCATIONS OF DUCT MOUNTED SMOKE DETECTORS. DUCT DETECTORS FURNISHED AND WIRED BY E.C., INSTALLED BY HVAC.
  - TYPICALLY FIRE ALARM SYSTEM CONDUCTORS SHALL BE #14 AWG, TYPE THHN SOLID. ALL WIRING SHALL BE INSTALLED IN CONDUIT.
  - TYPICALLY ALL HORN/STROBE UNITS SHALL BE WIRED IN A FASHION THAT THE HORN CAN BE SILENCED AND THE STROBE SHALL REMAIN FLASHING.
  - ALL SPEAKER/STROBE WIRING SHALL BE CIRCUIT INTEGRITY (CI) CABLES FROM FACP TO THE FIRST HORN/STROBE DEVICE.
  - E.C. IS TO PROVIDE A CIRCUIT BREAKER LOCK, EQUAL TO SPACE AGE ELOCK-FA.
  - E.C. IS TO HIRE A TESTING COMPANY TO SEE IF A BI-DIRECTIONAL AMPLIFIER IS REQUIRED FOR THE PROJECT. FORWARD SAID REPORT TO ENGINEER OF RECORD.
  - E.C. IS TO INTERFACE FACP WITH CARD ACCESS SYSTEM.
  - PROVIDE AN ISOLATION MODULE FOR EVERY 20 INITIATING DEVICES.
  - WIRING FROM FACP TO THE ANNUNCIATOR SHALL BE CIRCUIT INTEGRITY (CI) CABLE.
  - THE SYSTEM MUST BE A VOICE EVACUATION FACP, PER THE MGL



4 BDA RISER DIAGRAM  
SCALE: NTS

- NOTES:
- PROVIDE #6 GROUND WIRE TO BDA ANTENNA. CONNECT TO ELECTRIC SERVICE GROUND.
  - ALL EMT FITTINGS WITHIN THE BDA ROOM SHALL BE RAIN TIGHT RATED. NO SET SCREW TYPE CONNECTORS WILL BE ALLOWED.
  - PROVIDE AN UNIT PRICE FOR THE INSTALLATION OF THE BDA PANEL, WIRING AND TESTING.
  - AS A MIN. THE E.C. IS TO INSTALL THE BDA WIRING (I.E. ANTENNA WIRING, BRANCH CIRCUITS, DONOR ANTENNA WIRING, AND THE BONDING CONDUCTOR.



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TOWN OF MONTAGUE  
ONE AVENUE A  
TURNERS FALLS, MA 01376

ARCHITECT:  
**HELENE · KARL**  
Architects, Inc.  
61 Skyfields Drive, Groton, Massachusetts 01450

CIVIL ENGINEER:  
SYMMES, MAINI & McKEE ASSOCIATES  
1000 MASSACHUSETTS AVENUE  
CAMBRIDGE, MA 02138

STRUCTURAL ENGINEER:  
SYMMES, MAINI & McKEE ASSOCIATES  
1000 MASSACHUSETTS AVENUE  
CAMBRIDGE, MA 02138

MECHANICAL ENGINEER:  
SEAMAN ENGINEERING CORP.  
22 WEST STREET, UNIT C  
MILLBURY, MA 01527

ELECTRICAL ENGINEER:  
JOHN J. MURPHY, JR. ELECTRICAL  
CONSTRUCTION AND ENGINEERING, INC.  
379 LIBERTY STREET  
ROCKLAND, MA 02370

STAMP

REV	DATE	DESCRIPTION
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DATE	5/15/19
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SCALE	NTS
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DRAWN BY	MTG
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CHECKED BY	JJM
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PROJECT NO.	19001
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BUILDING:

SHEET TITLE:

ELECTRICAL  
RISER DIAGRAMS

DRAWING NO.

E-302





- NOTES:**
1. ALL GROUNDING, BONDING AND JUMPERS TO BE COPPER.
  2. ALL GROUNDING CABLES TO BE COPPER SIZED PER ARTICLE 250-81.
  3. ALL CONCEALED CONNECTIONS TO BE CAD WELDED.
  4. ALL CONNECTIONS AT SWITCHBOARD GROUND BUS ARE TO BE BOLTED.
  5. NOT ALL WIRES ARE SHOWN.
  6. E.C. IS TO BOND NEW BUILDING WITH #6 TO THE BUILDING STEEL, PP2 AND #6 TWO GROUND RODS



OUTLET(▼) DETAIL

**NOTES:**  
1. THIS INDUSTRY STANDARD DETAIL IS A GUIDE. CONTRACTOR SHALL VERIFY EXACT LABELING STANDARD WITH OWNER AND SUBMIT LABELING SCHEME FOR APPROVAL. LABELING SHALL BE IN ACCORDANCE WITH ANSI/EIA/TIA-606 STANDARD.



- NOTES:
1. SHALL BE EQUAL TO ERICO MODEL #EGBA14424GG (4"x24").
  2. INSTALL #6(CU) WIRE FROM TGB TO MAIN SERVICE.



- NOTES:
1. PROVIDE (1) TELEPHONE PAGING AMPLIFIER EQUAL TO BOGEN TPU-250 (250 WATT). CONNECT AMPLIFIER TO TELEPHONE BACKBOARD.
  2. E.C. IS TO ADJUST TO VOLUME AT EACH SPEAKER FOR PROPER AVAILABLE LEVELS. COORDINATE WITH ARCHITECT AND OWNER.
  3. WALL SPEAKERS ARE TO BE EQUAL TO BOGEN MODEL SFLD330T (W/VOLUME KNOB). GARAGE AREAS TO BE EQUAL TO BOGEN KUG130T.



DOOR WIRING NOTES:

- DUPLICATE WIRING NOTES:
1. COORDINATE BOX TYPE, SIZES, AND LOCATION WITH GENERAL CONTRACTOR, ARCHITECT AND OWNERS VENDOR.
  2. E.C. OWNS ALL CONDUITS FOR TYPICAL CARD ACCESS LOCATIONS. PROVIDE THE CONDUITS AS SHOWN AND COORDINATE INSTALLATION WITH THE TOWNS INSTALLER. ALL CONDUIT ARE TO HAVE PULL STRINGS IN EACH OF THE CONDUITS SHOWN.

TOWN OF  
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NEW DPW FACILITY

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DATE	5/15/19	
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PROJECT NO.	19001	

BUILDING:

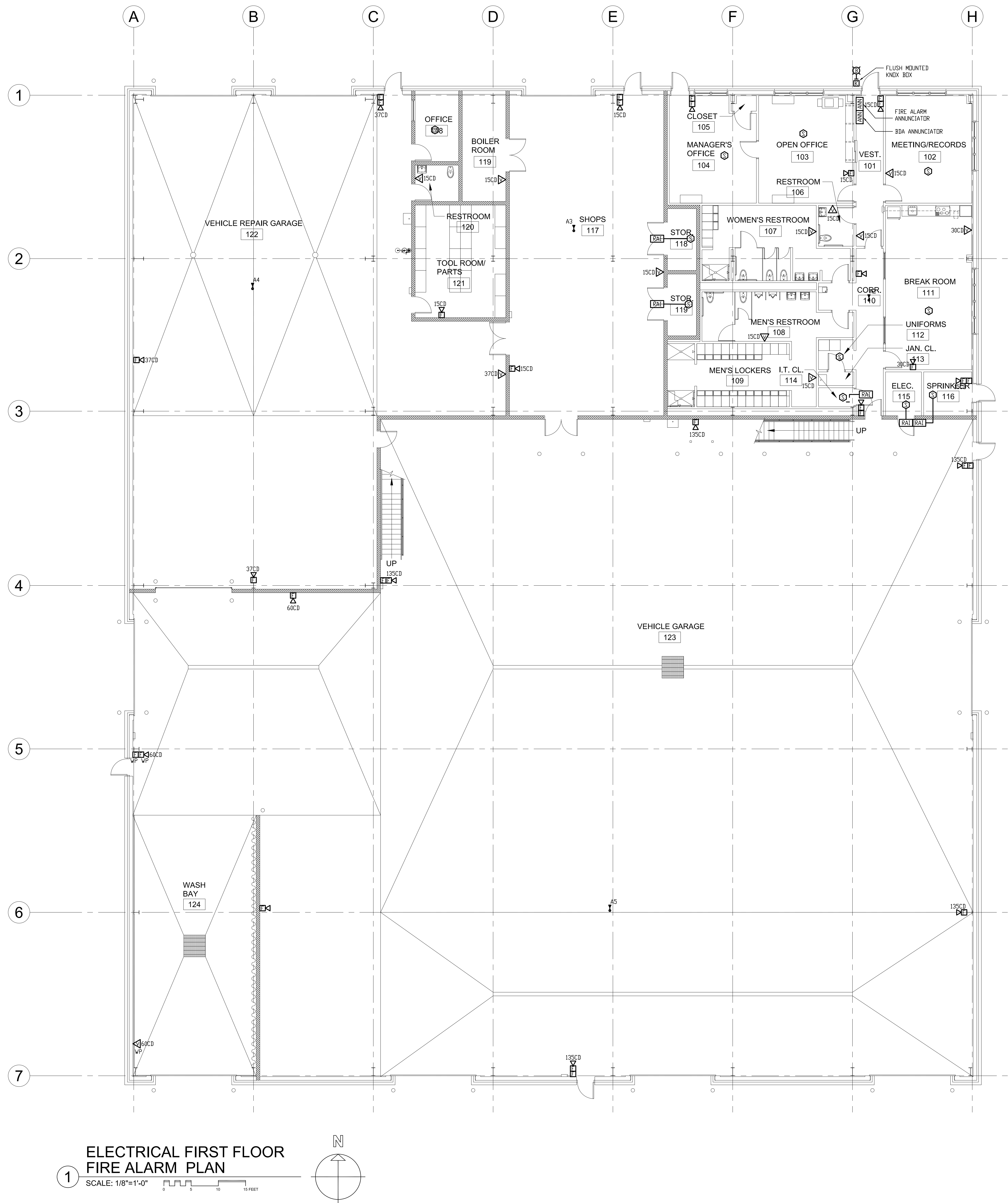
SHEET TITLE:

## ELECTRICAL DETAILS

DRAWING NO

E-303





FIRE ALARM NOTES

- E.C. SHALL REFER TO SPECIFICATIONS AND DRAWINGS FOR QUANTITY OF DEVICES, SPARE CAPACITY, PARTS, ETC.
- E.C. SHALL REFER TO HVAC DRAWINGS FOR EXACT LOCATION OF UNITS AND FOR LOCATIONS OF DUCT MOUNTED SMOKE DETECTORS, DUCT DETECTORS FURNISHED AND WIRED BY E.C. INSTALLED BY HVAC.
- PROVIDE EACH FIRE ALARM TERMINAL CABINET AND FIRE ALARM CONTROL PANEL WITH AN ADA POWER SUPPLY TO SERVE ALL HORN/STROBE UNITS ON RESPECTIVE FLOORS.
- TYPICALLY FIRE ALARM SYSTEM CONDUCTORS SHALL BE #14 AWG. ALL WIRING SHALL BE INSTALLED IN CONDUIT.
- TYPICALLY ALL HORN/STROBE UNITS SHALL BE WIRED IN A FASHION THAT THE HORN CAN BE SILENCED AND THE STROBE SHALL REMAIN FLASHING.
- PROVIDE WIRE GUARDS OVER EACH HORN/STROBE UNIT WITHIN THE GARAGE AREA.
- PROVIDE STOPPER II COVERS OVER ALL PULL STATIONS WITHIN THE GARAGE AND VEHICLE REPAIR AREAS.



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BUILDING:

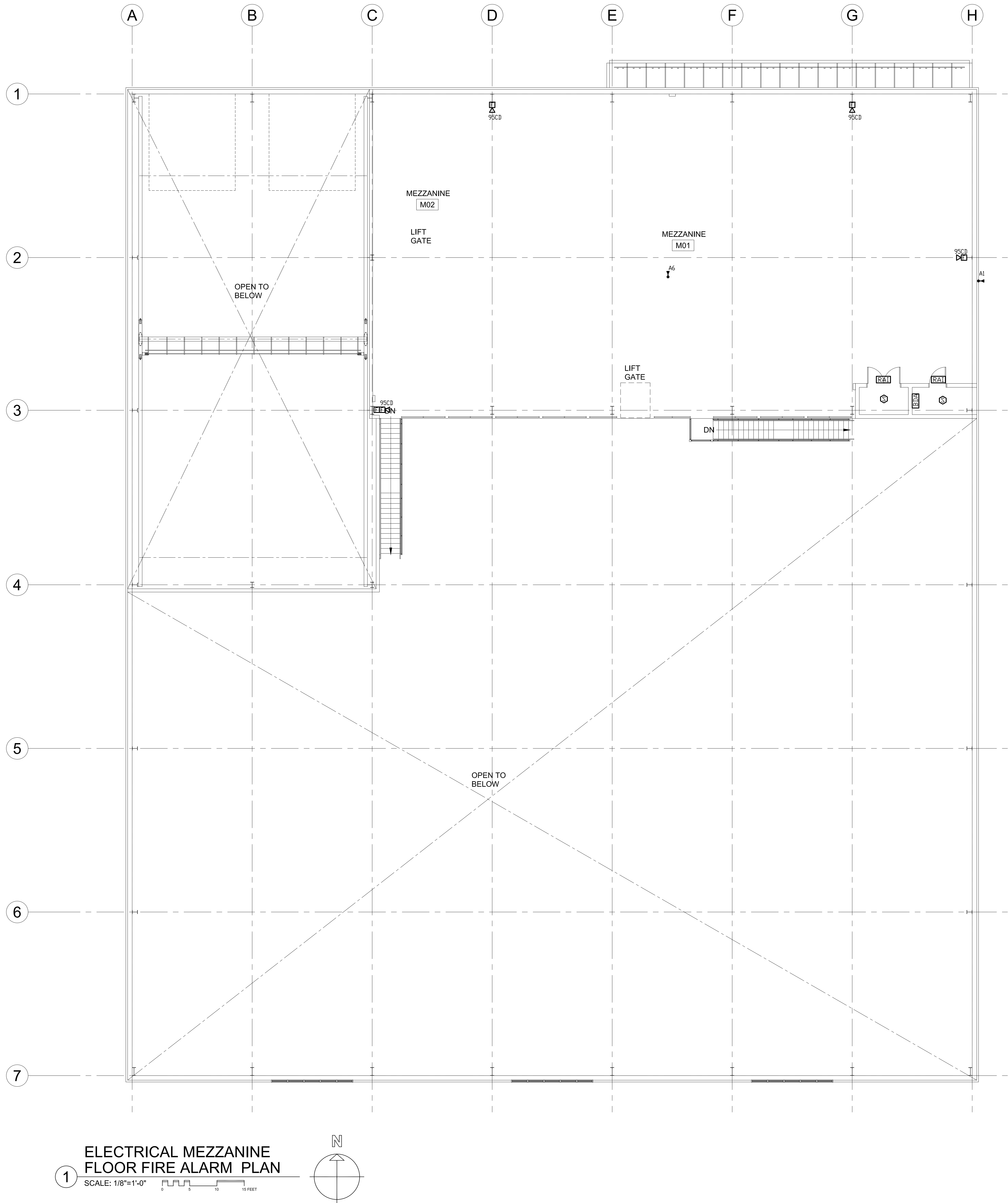
SHEET TITLE:

ELECTRICAL FIRST  
FLOOR FIRE  
ALARM PLAN

DRAWING NO.

FA-101





- FIRE ALARM NOTES**
1. E.C. SHALL REFER TO SPECIFICATIONS AND DRAWINGS FOR QUANTITY OF DEVICES, SPARE CAPACITY, PARTS, ETC.
  2. E.C. SHALL REFER TO HVAC DRAWINGS FOR EXACT LOCATION OF UNITS AND FOR LOCATIONS OF DUCT MOUNTED SMOKE DETECTORS, DUCT DETECTORS FURNISHED AND WIRED BY E.C., INSTALLED BY HVAC.
  3. PROVIDE EACH FIRE ALARM TERMINAL CABINET AND FIRE ALARM CONTROL PANEL WITH AN ADA POWER SUPPLY TO SERVE ALL HORN/STROBE UNITS ON RESPECTIVE FLOORS.
  4. TYPICALLY FIRE ALARM SYSTEM CONDUCTORS SHALL BE #14 AWG. ALL WIRING SHALL BE INSTALLED IN CONDUIT.
  5. TYPICALLY ALL HORN/STROBE UNITS SHALL BE WIRED IN A FASHION THAT THE HORN CAN BE SILENCED AND THE STROBE SHALL REMAIN FLASHING.
  6. PROVIDE WIRE GUARDS OVER EACH HORN/STROBE UNIT WITHIN THE GARAGE AREA.
  7. PROVIDE STOPPER II COVERS OVER ALL PULL STATIONS WITHIN THE GARAGE AND VEHICLE REPAIR AREAS.



## TOWN OF MONTAGUE

### NEW DPW FACILITY

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DATE	5/15/19
SCALE	1/8" = 1'-0"
DRAWN BY	MTG
CHECKED BY	JJM
PROJECT NO.	19001

BUILDING:

SHEET TITLE:

ELECTRICAL  
MEZZANINE FLOOR  
FIRE ALARM PLAN

DRAWING NO.

FA-102





OWNER:  
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TURNERS FALLS, MA 01376

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ROCKLAND, MA 02370

**TAMP**


REV	DATE	DESCRIPTION
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DRAWN BY	MTG	
CHECKED BY	JJM	
PROJECT NO.	19001	

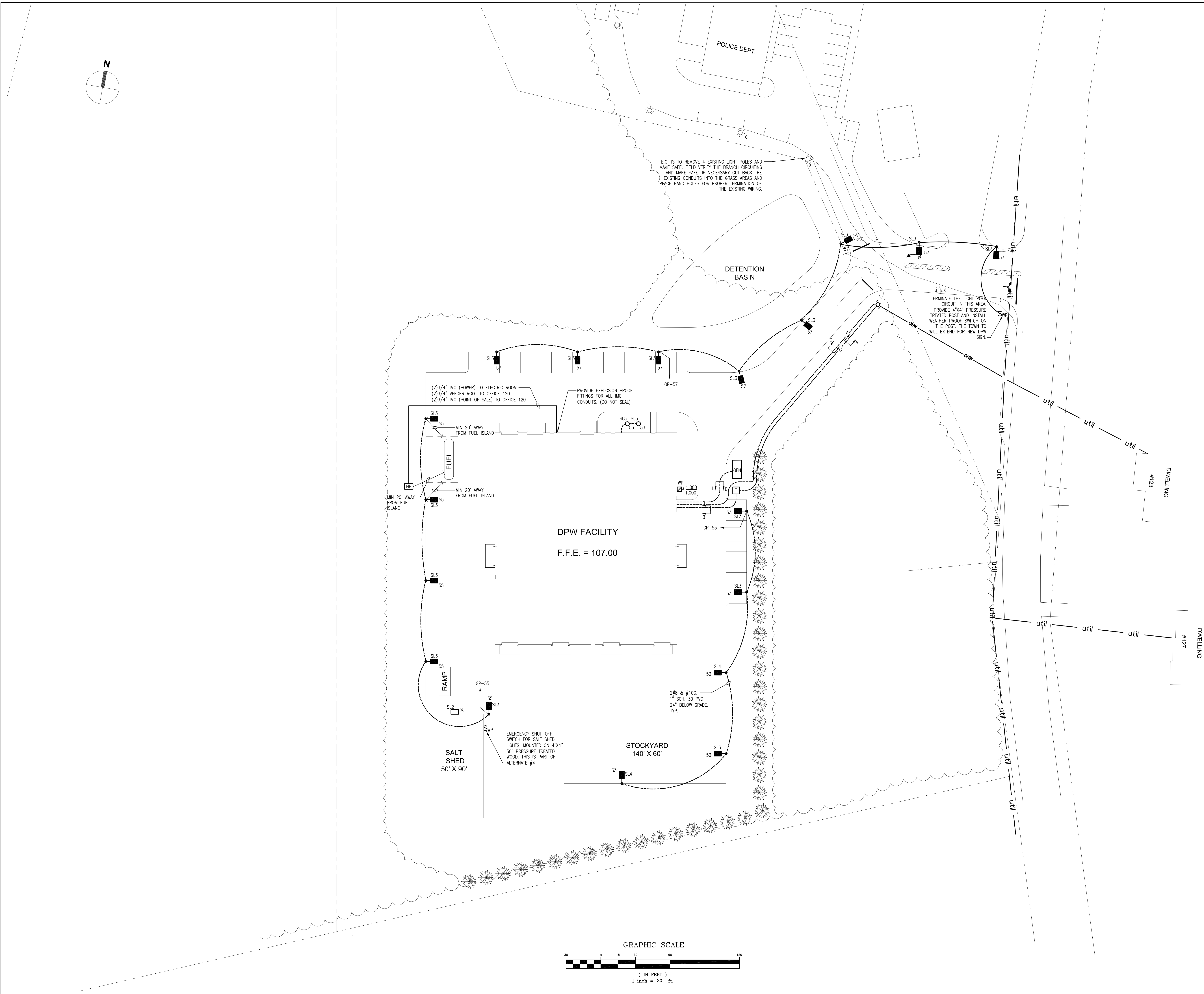
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**SHEET TITLE:**

ELECTRICAL  
SITE PLAN

DRAWING NO.

ES-101







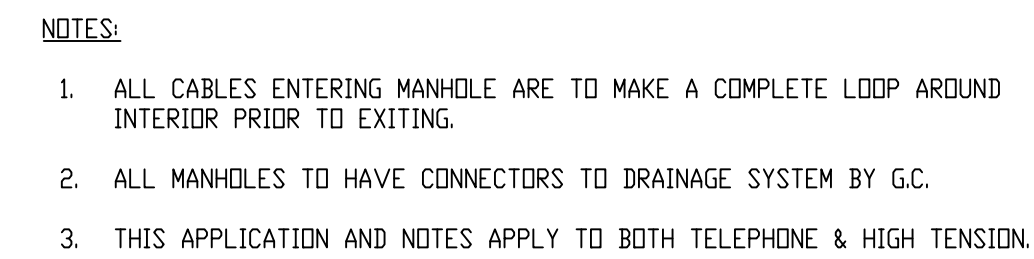
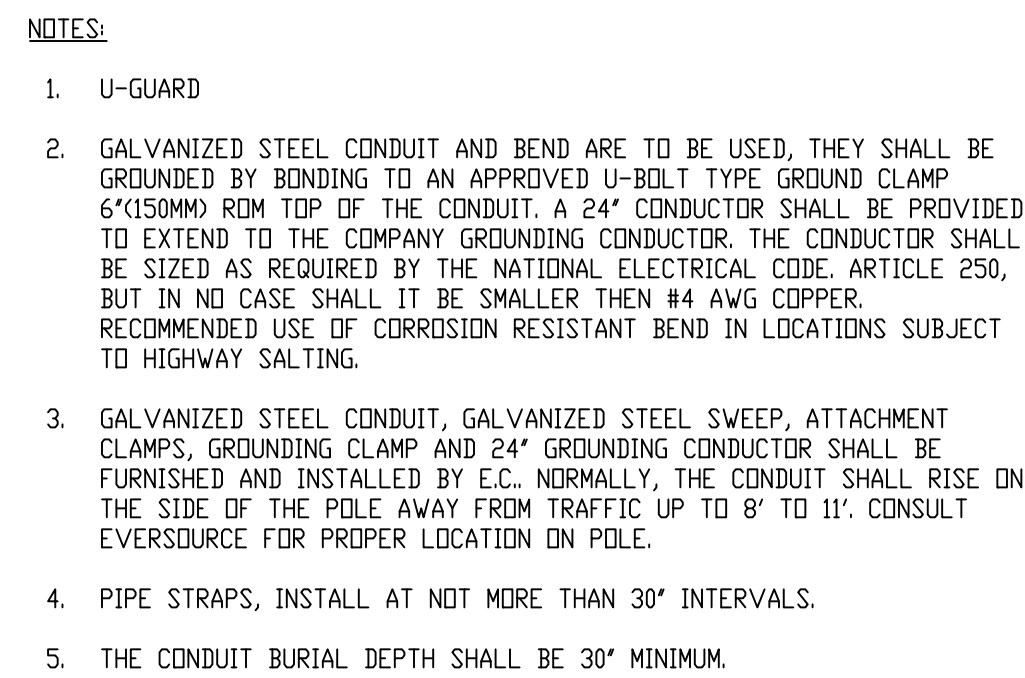
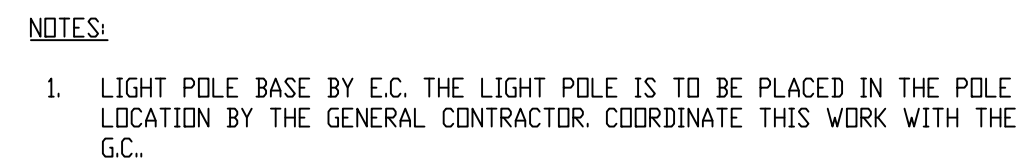
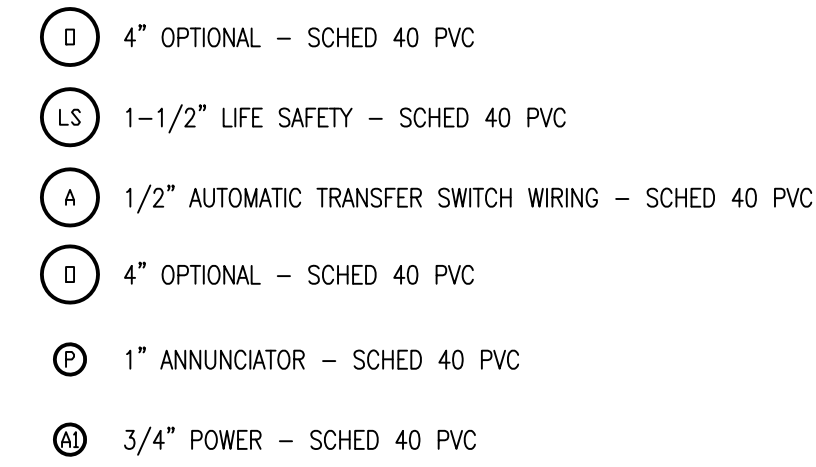
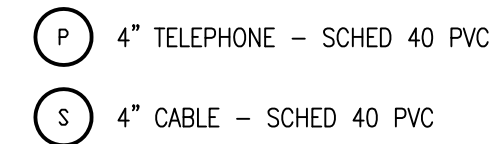
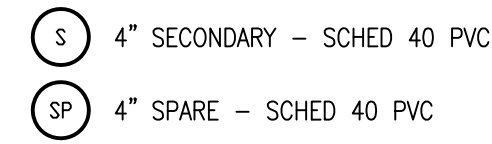
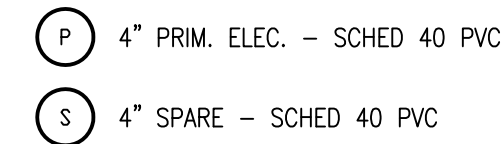
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ES-102