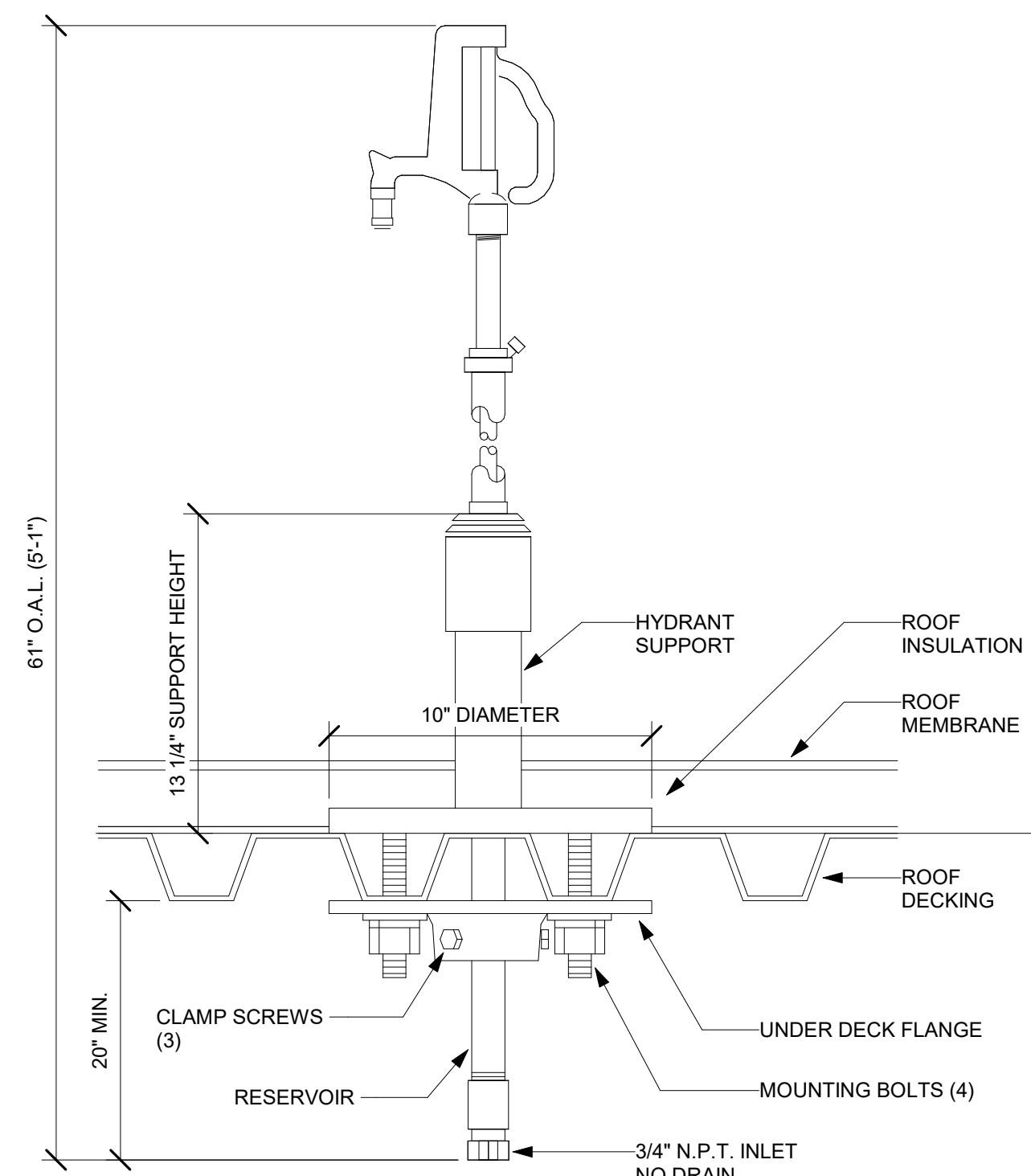
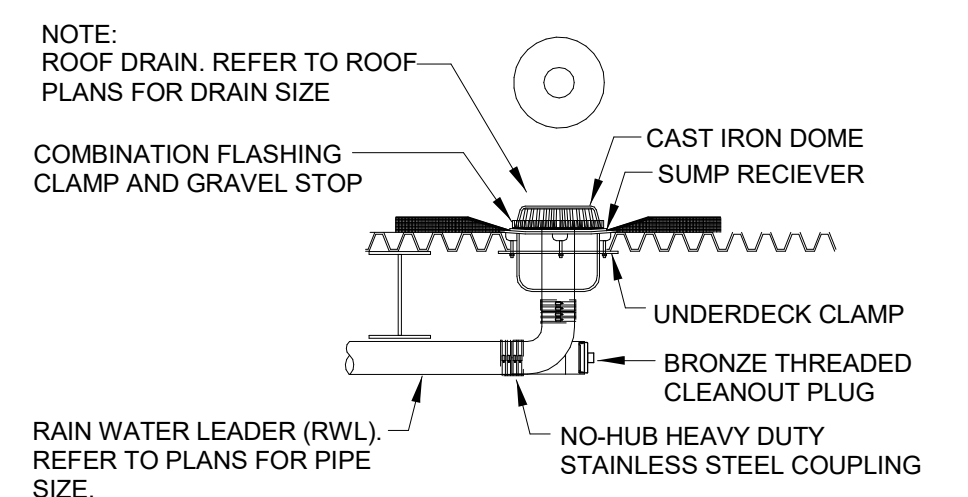


- NOTES:**
- LINK SEAL PIPE SLEEVE SHALL BE STEEL USE MODEL FS OR APPROVED EQUAL WITH THE ROD FOR BOTH SEALS.
  - WHEN ONLY ONE SIDE OF OPENING IS ACCESSIBLE, USE MODEL FD WHEN BOTH SIDES OF OPENING IS ACCESSIBLE.

**SLEEVE SEAL PIPE SLEEVE DETAIL**  
NOT TO SCALE

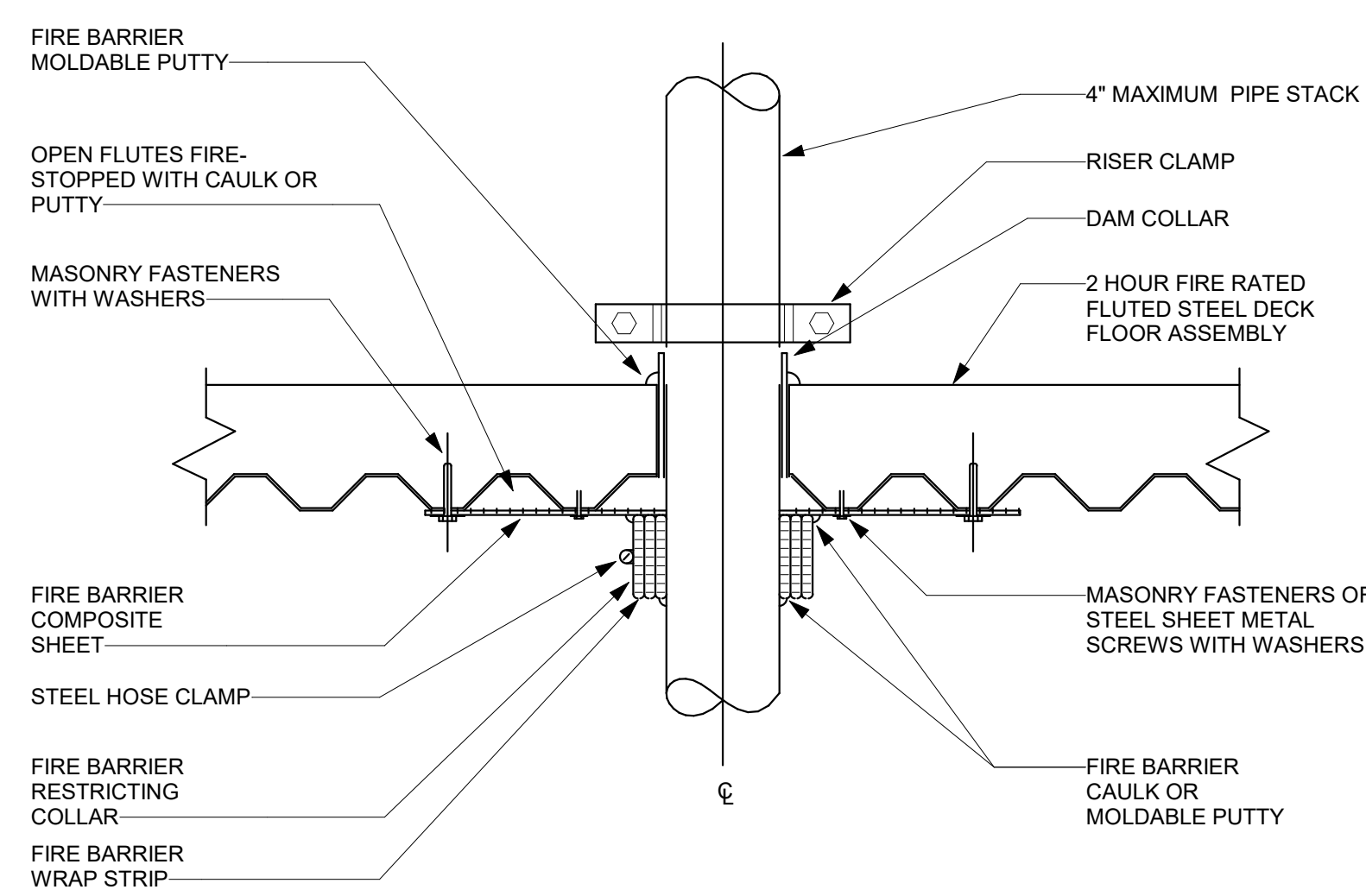


**FREEZELESS SANITARY ROOFTOP UNIT HYDRANT DETAIL**  
NO SCALE



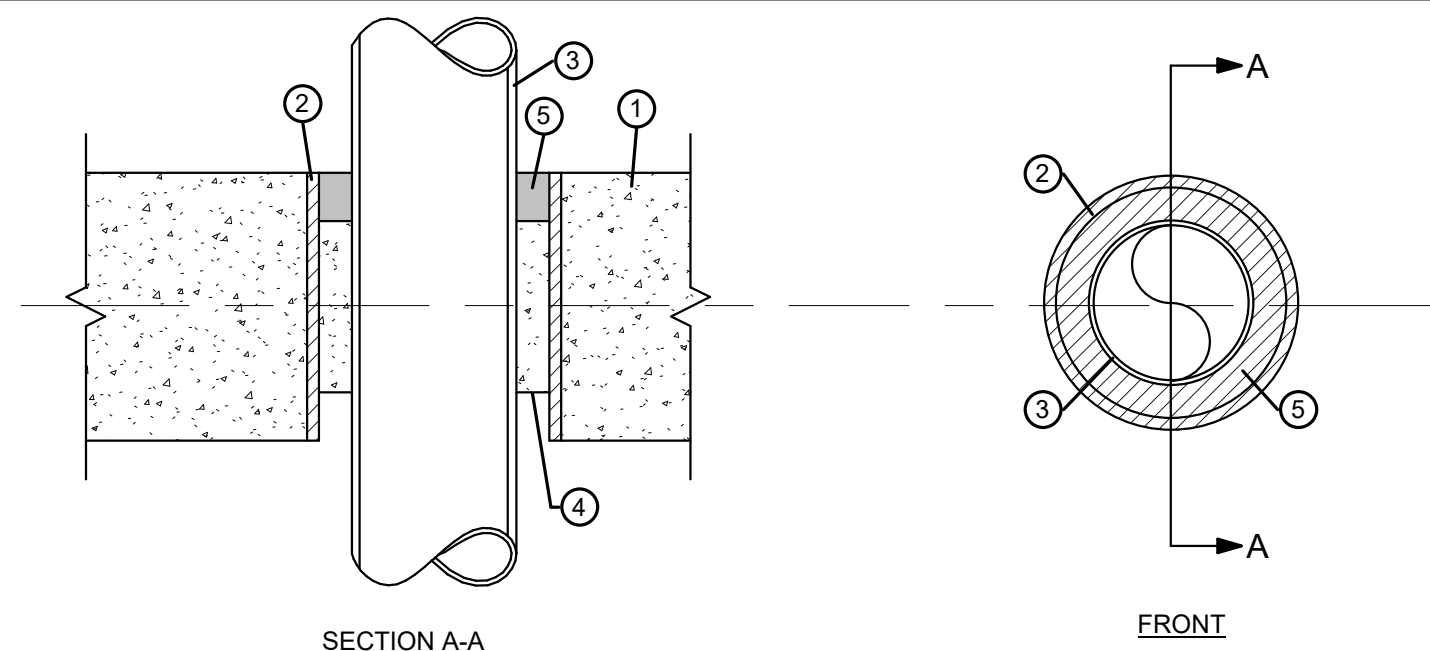
- NOTE:**
- INSULATE ROOF DRAIN SUMP BODY, RAIN WATER LEADER AND OVERFLOW RAIN WATER LEADER PER SPECIFICATION.
  - REFER TO STRUCTURAL AND ARCHITECTURAL DOCUMENTS FOR ROOF DECK CONSTRUCTION AND ROOF BUILD-UP (INSULATION, FLASHING MEMBRANE VAPOR BARRIER, ETC.)
  - REFER TO MANUFACTURER OF THE ROOF DRAIN FOR RECOMMENDED ROOF DECK OPENINGS BASED ON THE SIZE OF THE DRAIN.

**TYPICAL ROOF DRAIN DETAIL**  
NOT TO SCALE



- NOTE:**
- FIRE STOP SEALANTS AND PIPING PENETRATIONS THROUGH FIRE RATED ASSEMBLIES SHALL COMPLY WITH THE UL FIRE RESISTANCE DIRECTORY.

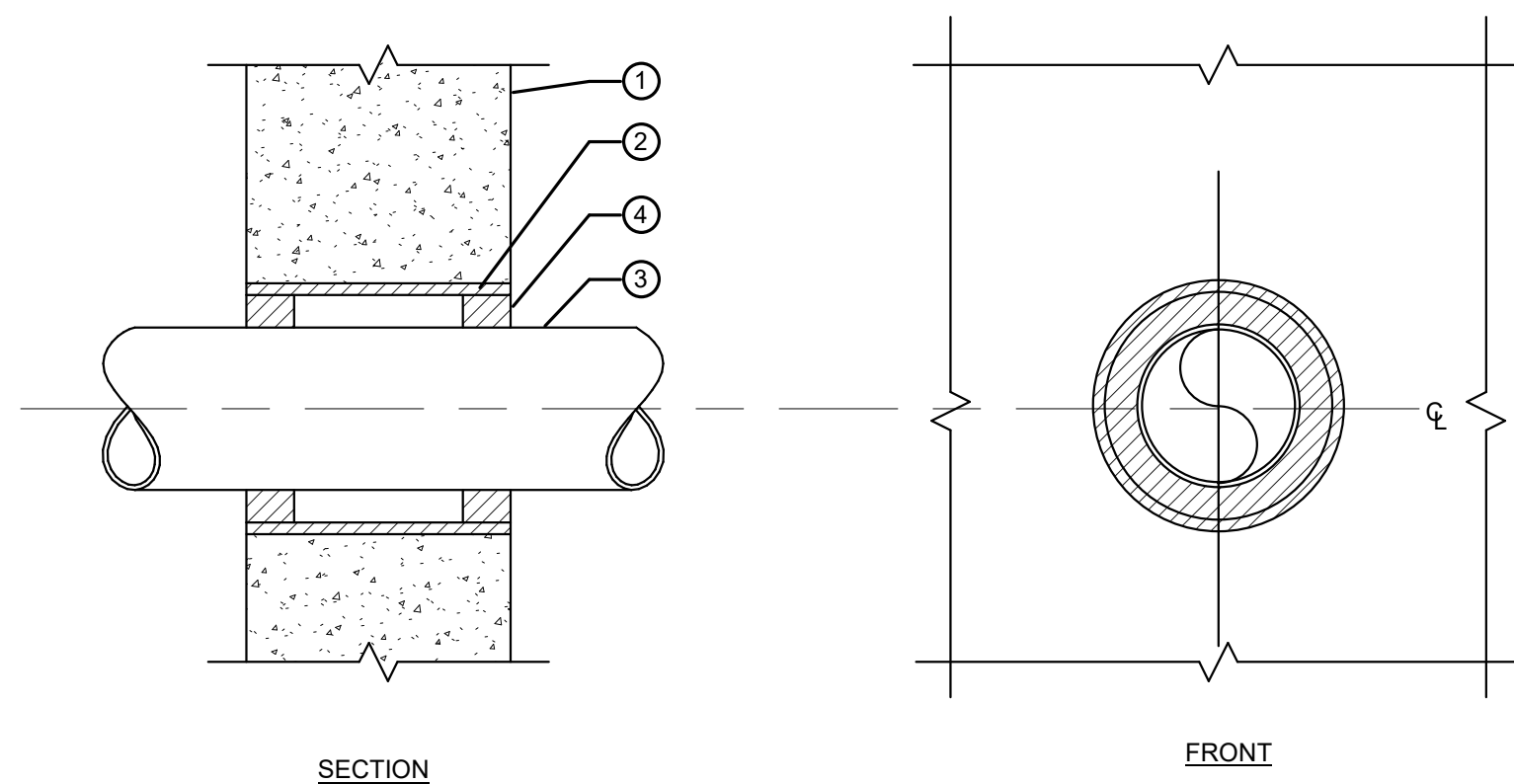
**PIPE SLAB PENETRATION AND RISER SUPPORT SLEEVE DETAIL**  
NOT TO SCALE



- NOTES:**
- FLOOR OR WALL ASSEMBLY — MIN 5 IN. THICK REINFORCED NORMAL WEIGHT CONCRETE. WALL MAY ALSO BE CONSTRUCTED OF ANY UL CLASSIFIED CONCRETE BLOCKS. MAX DIAM OF OPENING IS 6 IN.
  - METALLIC SLEEVE — NOM 6 IN. DIAM (OR SMALLER) ELECTRICAL METALLIC TUBING, STEEL CONDUIT OR CAST IRON PIPE CAST OR GROUTED INTO FLOOR OR WALL ASSEMBLY, FLUSH WITH FLOOR OR WALL SURFACES.
  - THROUGH PENETRANTS — ONE METALLIC PIPE OR CONDUIT TO BE CENTERED WITHIN THE FIRESTOP SYSTEM. A NOM ANNULAR SPACE OF 3/4 IN. IS REQUIRED WITHIN THE FIRESTOP SYSTEM. PIPE OR CONDUIT TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF FLOOR OR WALL ASSEMBLY. THE FOLLOWING TYPES AND SIZES OF METALLIC PIPES OR CONDUITS MAY BE USED:  
A. STEEL PIPE — NOM 4 IN DIAM (OR SMALLER) SCHEDULE 5 (OR HEAVIER) STEEL PIPE  
B. CONDUIT — NOM 4 IN. DIAM (OR SMALLER) STEEL ELECTRICAL METALLIC TUBING OR STEEL CONDUIT.
  - PACKING MATERIAL — MIN 3 IN. THICKNESS OF MIN 4 PCF MINERAL WOOL BATT INSULATION FIRMLY PACKED INTO OPENING AS A PERMANENT FORM. PACKING MATERIAL TO BE RECESSED FROM TOP SURFACE OF FLOOR AS REQUIRED TO ACCOMMODATE THE REQUIRED THICKNESS OF FILL MATERIAL. PACKING MATERIAL TO BE CENTERED IN WALLS MID DEPTH AND RECESSED TO ALLOW FOR INSTALLATION OF FILL MATERIAL.
  - FILL, VOID OR CAVITY MATERIAL — SEALANT — MIN 1/2 IN. THICKNESS OF FILL MATERIAL APPLIED WITHIN THE ANNULUS, FLUSH WITH TOP SURFACE OF FLOOR. IN WALLS, FILL MATERIAL TO BE APPLIED ON EACH SIDE OF PACKING MATERIAL.

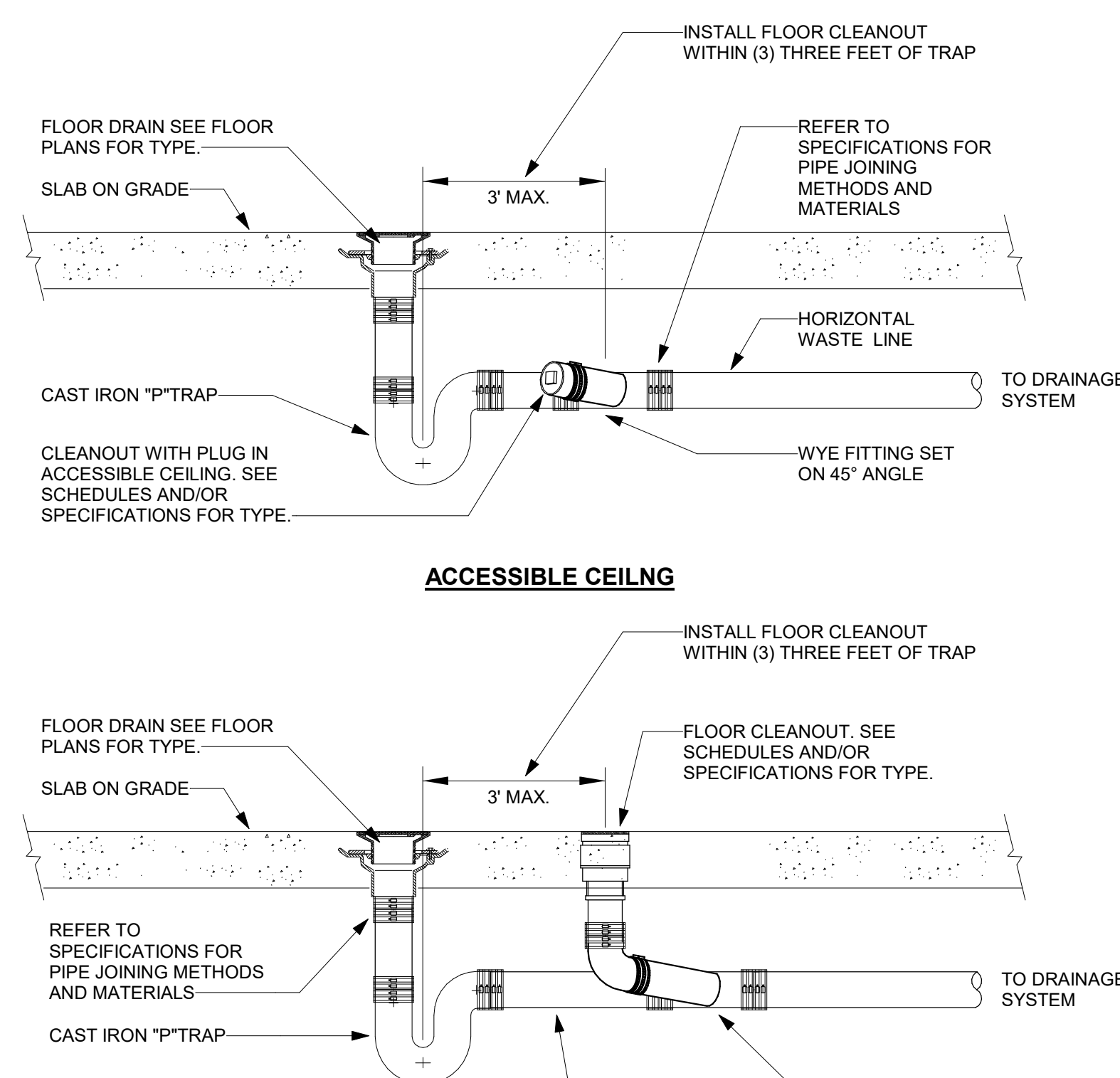
- GENERAL NOTES:**
- THE ABOVE DETAIL IS BEING PROVIDED FOR REFERENCE PURPOSES ONLY AND IS REPRESENTATIVE TO ONLY ONE TYPE OF PIPE PENETRATION / FIRE PROOFING ASSEMBLY.
  - REFER TO THE ARCHITECTURAL SPECIFICATION DIVISION 7-PENETRATION FIRE STOPPING FOR COMPLETE FIRE PROOFING DETAILS AND REQUIREMENTS.

**METAL PIPE THRU CONCRETE FLOOR ASSEMBLY**  
NOT TO SCALE

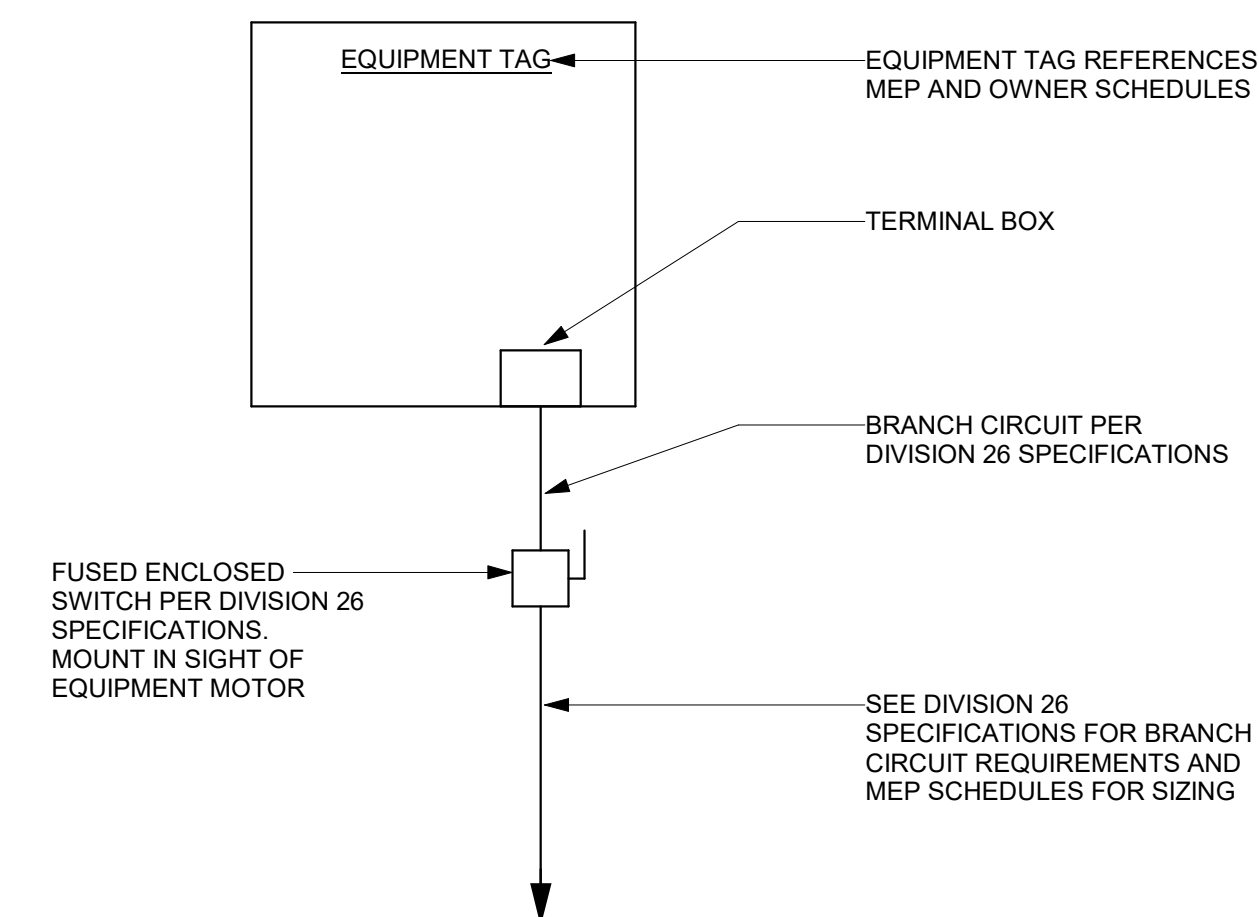


- NOTES:**
- CONCRETE WALL ASSEMBLY 2-HR FIRE RATING.  
A. LIGHTWEIGHT OR NORMAL WEIGHT CONCRETE WALL (MINIMUM 7-1/2\"/>
  - FOR SEISMIC CLEARANCES SLEEVE SHALL BE 1 NOMINAL SIZE LARGER THAN THE PENETRATING PIPE PER NFPA-13, 2002.
  - PENETRATING ITEM TO BE ONE OF THE FOLLOWING:  
A. MAXIMUM 6\"/>
  - MINIMUM 1/2\"/>
- GENERAL NOTES:**
- THE ABOVE DETAIL IS BEING PROVIDED FOR REFERENCE PURPOSES ONLY AND IS REPRESENTATIVE TO ONLY ONE TYPE OF PIPE PENETRATION / FIRE PROOFING ASSEMBLY.
  - REFER TO THE ARCHITECTURAL SPECIFICATION DIVISION 7-PENETRATION FIRE STOPPING FOR COMPLETE FIRE PROOFING DETAILS AND REQUIREMENTS.

**METAL PIPE THRU 2-HOUR CONCRETE OR BLOCK WALL ASSEMBLY**  
NOT TO SCALE

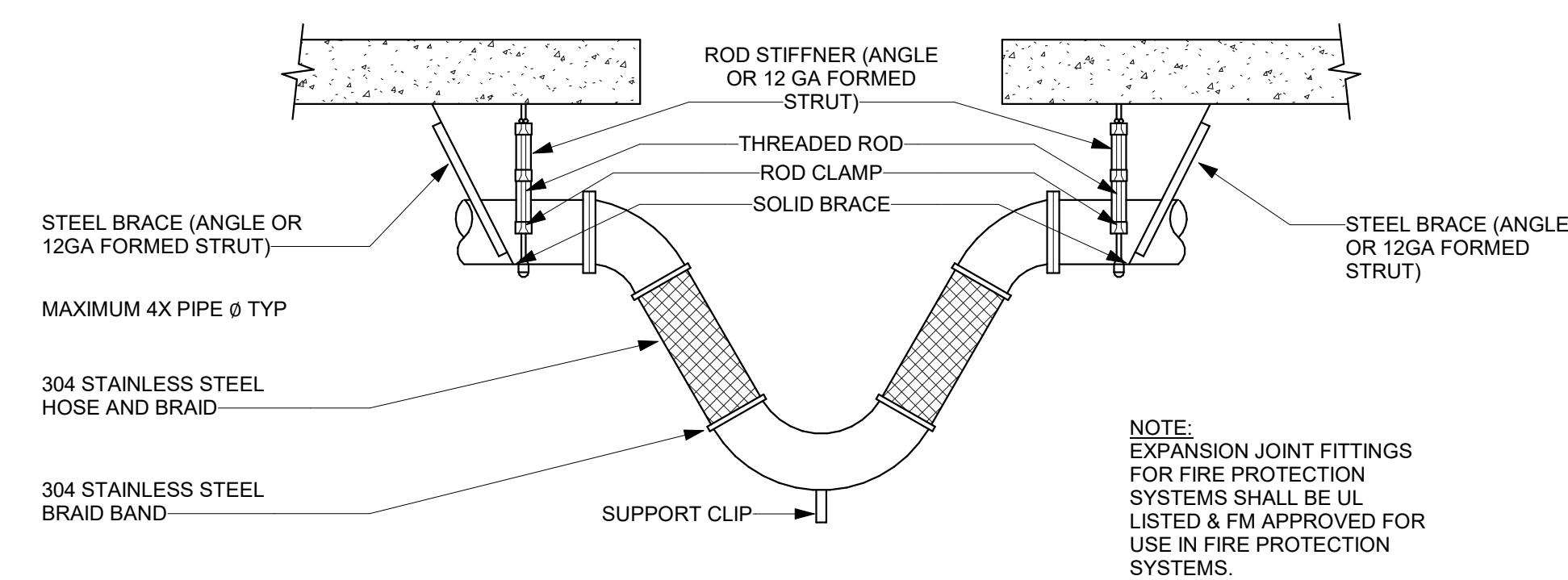
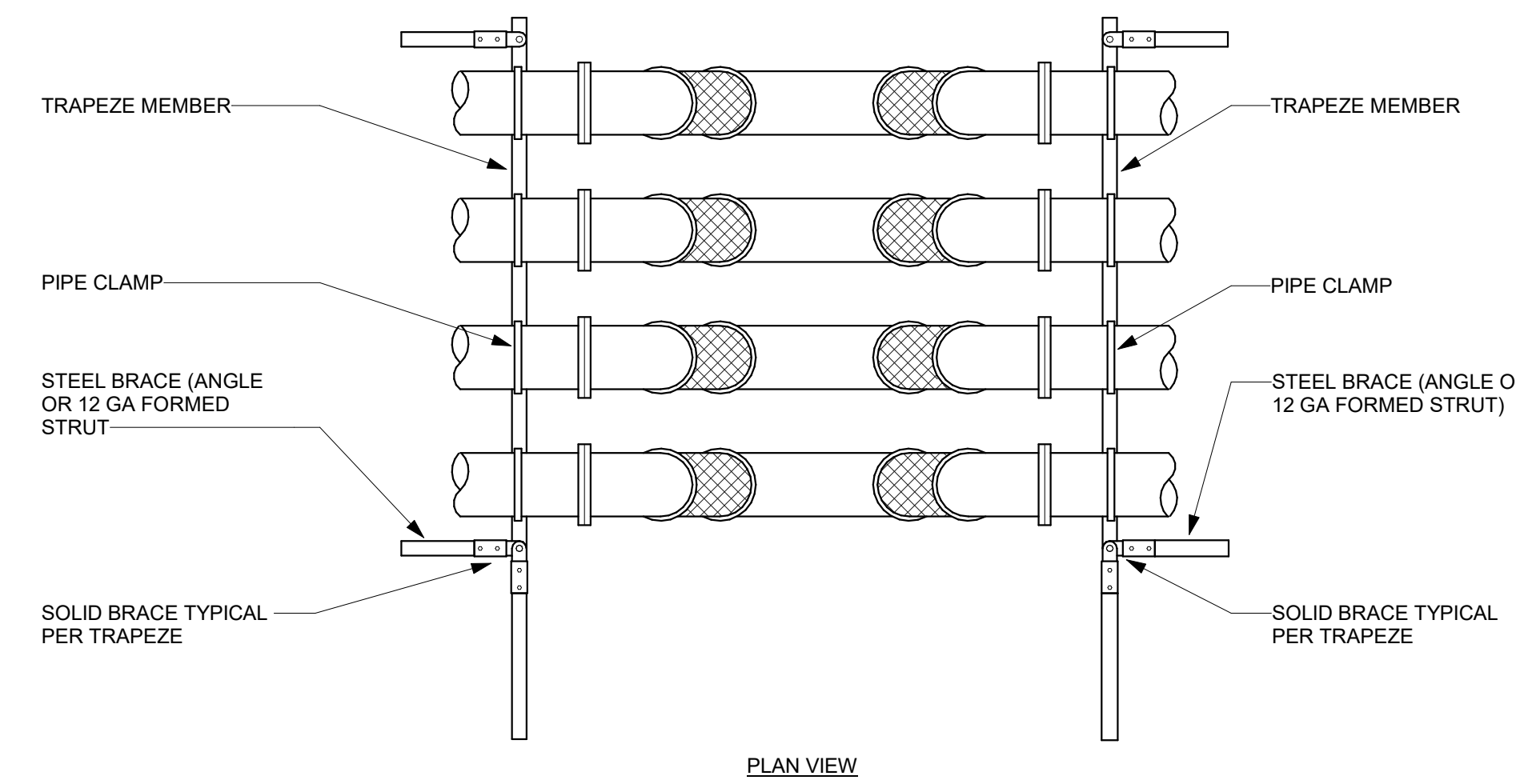


**TYPICAL ABOVE SLAB ON GRADE FLOOR DRAIN DETAILS**  
NOT TO SCALE



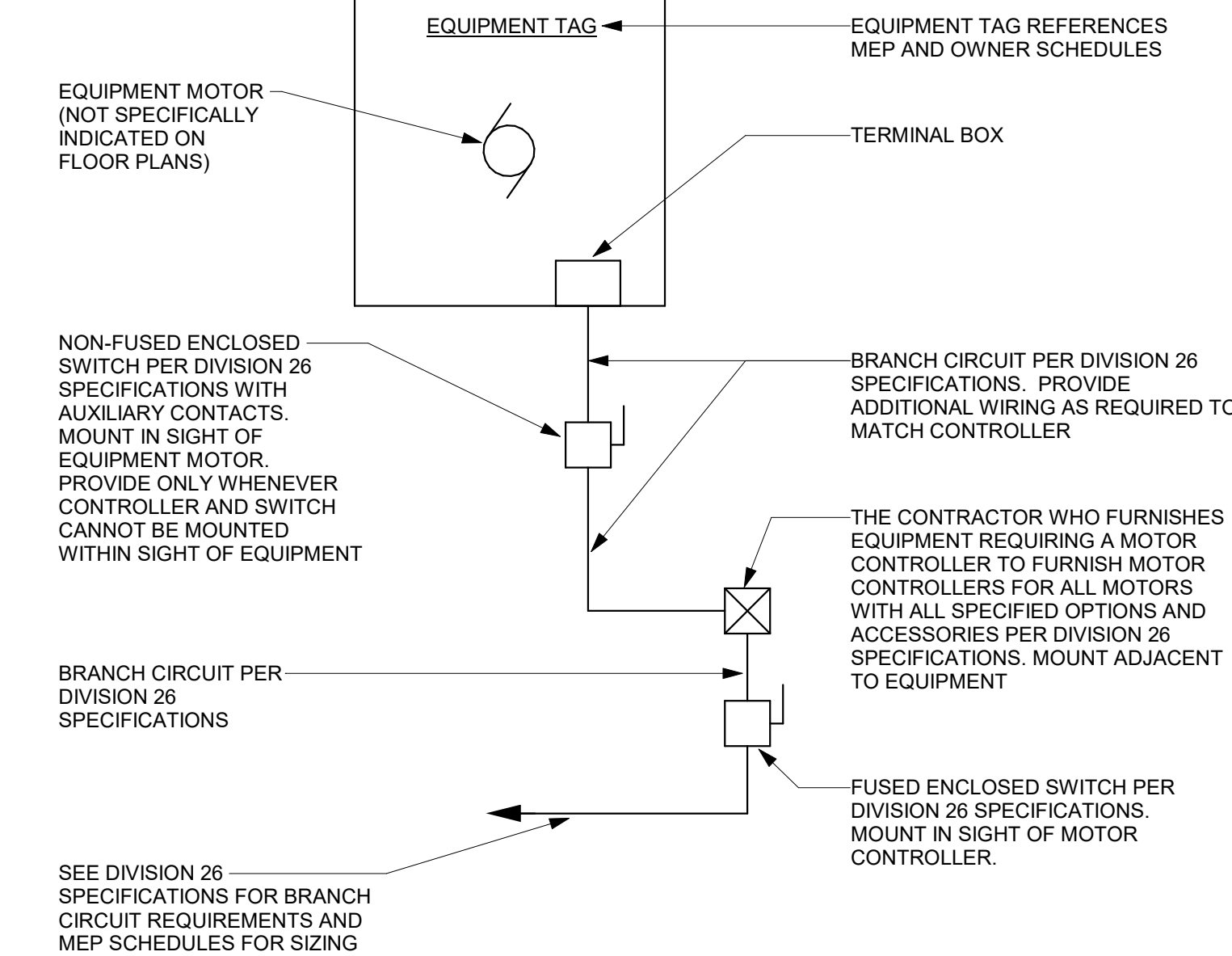
- NOTE:**
- THIS DETAIL IS FOR ALL EQUIPMENT WHERE EQUIPMENT REQUIRES POWER AND WHERE THERE ARE NO MOTORS INVOLVED OR WHERE SPECIFICATIONS OR SCHEDULES FOR MULTIPLE MOTOR EQUIPMENT SPECIFICALLY INDICATE ONE POINT POWER CONNECTION. CONTRACTOR TO PROVIDE WIRING BETWEEN REMOTE DISCONNECTS, STARTERS AND MOTORS. SEE EQUIPMENT SCHEDULES AND SPECIFICATIONS.

**TYPICAL EQUIPMENT CONNECTION DETAIL**  
NOT TO SCALE



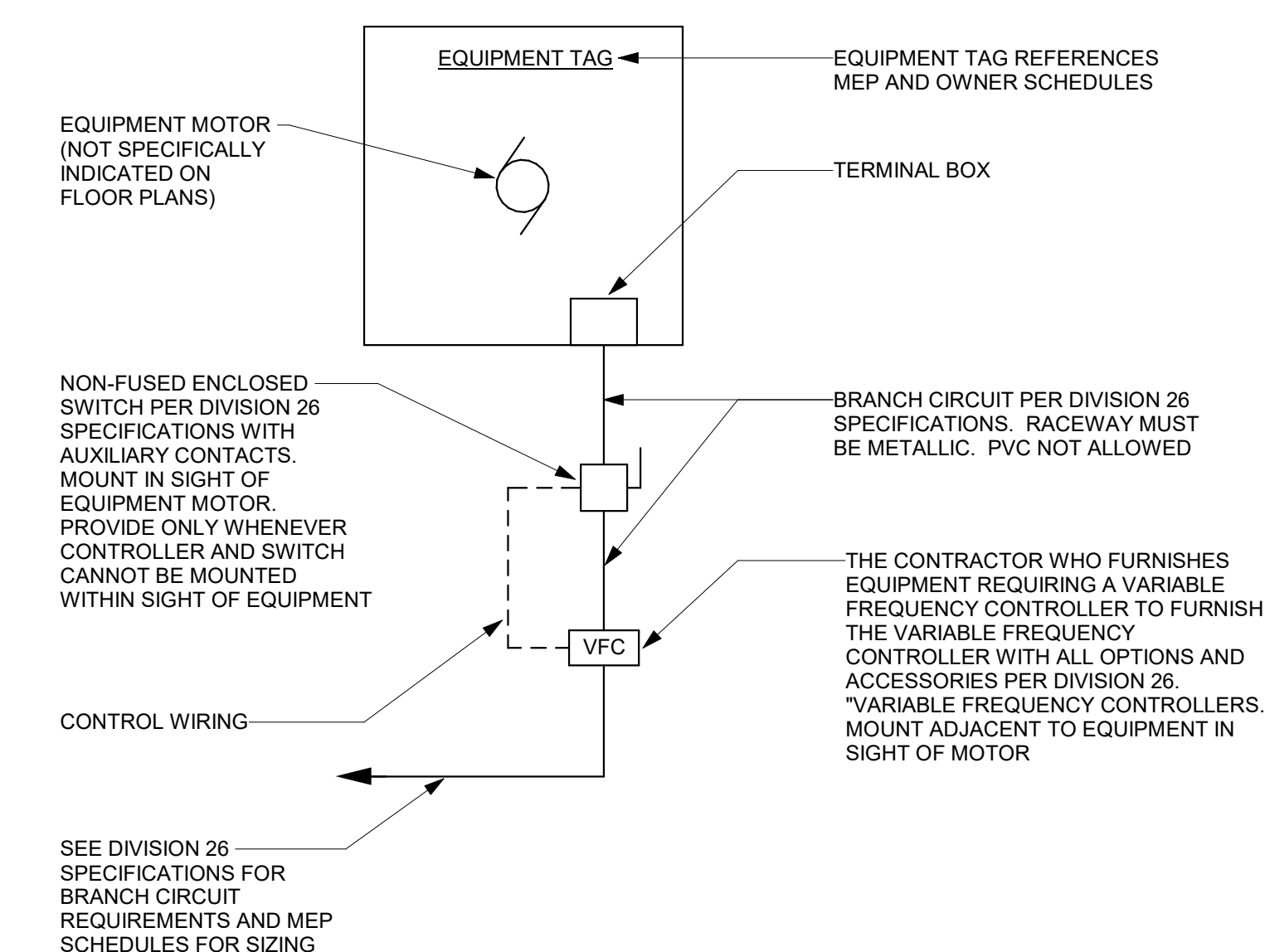
- NOTES:**
- NOT ALL COMPONENTS MAY BE SHOWN ON THIS DETAIL. REFER TO SPECIFICATION FOR ALL SUNDRIES NECESSARY TO PROVIDE A FULLY FUNCTIONAL SYSTEM.
  - EXTEND ALL DRAINS TO NEAREST FLOOR DRAIN. DRAINS SHALL HAVE AN AIR GAP EQUAL TO OR GREATER THAN 3X THE DIAMETER OF THE INDIRECT WASTE DRAIN.
  - PROVIDE HOUSEKEEPING PADS BENEATH EACH PIECE OF EQUIPMENT.

**DUPLIX VACUUM SYSTEM**



- NOTE:**
- THIS DETAIL IS FOR ALL EQUIPMENT MOTORS. CONTRACTOR TO PROVIDE WIRING BETWEEN REMOTE DISCONNECTS, STARTERS AND MOTORS. SEE EQUIPMENT SCHEDULES AND SPECIFICATIONS. IF NOT NOTED OTHERWISE IN EQUIPMENT SCHEDULES, CONTRACTOR SHALL PROVIDE A COMBINATION MOTOR CONTROLLER/DISC. SWITCH.

**TYPICAL MOTOR, SWITCH AND CONTROLLER DETAIL**  
NOT TO SCALE



- NOTE:**
- THIS DETAIL IS FOR ALL EQUIPMENT SPECIFIED WITH VARIABLE FREQUENCY CONTROLLERS. CONTRACTOR TO PROVIDE WIRING BETWEEN REMOTE DISCONNECTS, STARTERS AND MOTORS. SEE EQUIPMENT SCHEDULES AND SPECIFICATIONS.

**TYPICAL MOTOR CONTROLLER AND VFC DETAIL**  
NOT TO SCALE

drawing title		REVISIONS		drawing prepared by		date	
PLUMBING DETAILS		mark	date	BVH INTEGRATED SERVICES		08/16/2019	
professional seal		1	08/16/19	206 WEST NEWBERRY ROAD BLOOMFIELD, CT. 06002		scale As indicated	
project		project		501 CRESCENT STREET NEW HAVEN, CT 06050		drawn by MT	
CAO no.		project no.		BI-RS-329		approved by JSC	
						drawing no. P401	

STATE OF CONNECTICUT  
DEPARTMENT OF ADMINISTRATIVE SERVICES