

### ANCHOR RODS

PIPING NOMINAL SIZE (IN.)	CLAMP SIZE (IN.)	BOLT SIZE (IN.)	WASHERS (IN.)	NUMBER OF RODS AND ROD SIZE (IN.) FOR ROD AND CLAMP ANCHORAGE							
				MECHANICAL JOINT				PUSH ON JOINT			
				CAST IRON	STEEL	90° 1/4 BEND	45° 1/8 BEND	TEE HYDRANT CAP, PLUG	90° 1/4 BEND	45° 1/8 BEND	TEE HYDRANT CAP, PLUG
≤ 4	1/2x2	5/8	5/8x3	1/2x3	2 3/4	2 3/4	2 3/4	2 3/4	2 3/4	2 3/4	2 3/4

- NOTES:
- AFTER INSTALLATION, PROTECT THE RODS, BOLTS, NUTS, WASHERS AND CLAMPS AGAINST CORROSION WITH A HEAVY COAT OF ASPHALT MATERIAL.
  - THE LENGTH OF THE ROD REQUIRED WILL VARY WITH THE PIPE FITTING, AND MUST BE DETERMINED BY FIELD MEASUREMENT. IF THE DISTANCE BETWEEN THE JOINTS IS LESS THAN 12 FEET, EXTEND THE ANCHORAGE TO THE SECOND BELL.

### THRUST BLOCKS

PIPING NOMINAL SIZE, IN.	MIN. SQ. FT. AREA OF BEARING FACE OF CONCRETE THRUST BLOCKS			
	CAST IRON AND DUCTILE IRON			
	1/4 BEND	1/8 BEND	TEES, PLUGS, CAPS, HYDRANTS	
≤ 4	3	2	3	

BASIS: 2,000 LB./SQ.FT. SOIL RESISTANCE.  
250 PSI WATER PRESSURE.  
CORRECTION FACTORS FOR OTHER SOILS:  
SOFT CLAY.....4  
SAND.....2  
SAND&GRAVEL.....1.33  
SHALE.....0.4

## 1 UNDERGROUND WATER MAIN ANCHORING DETAIL

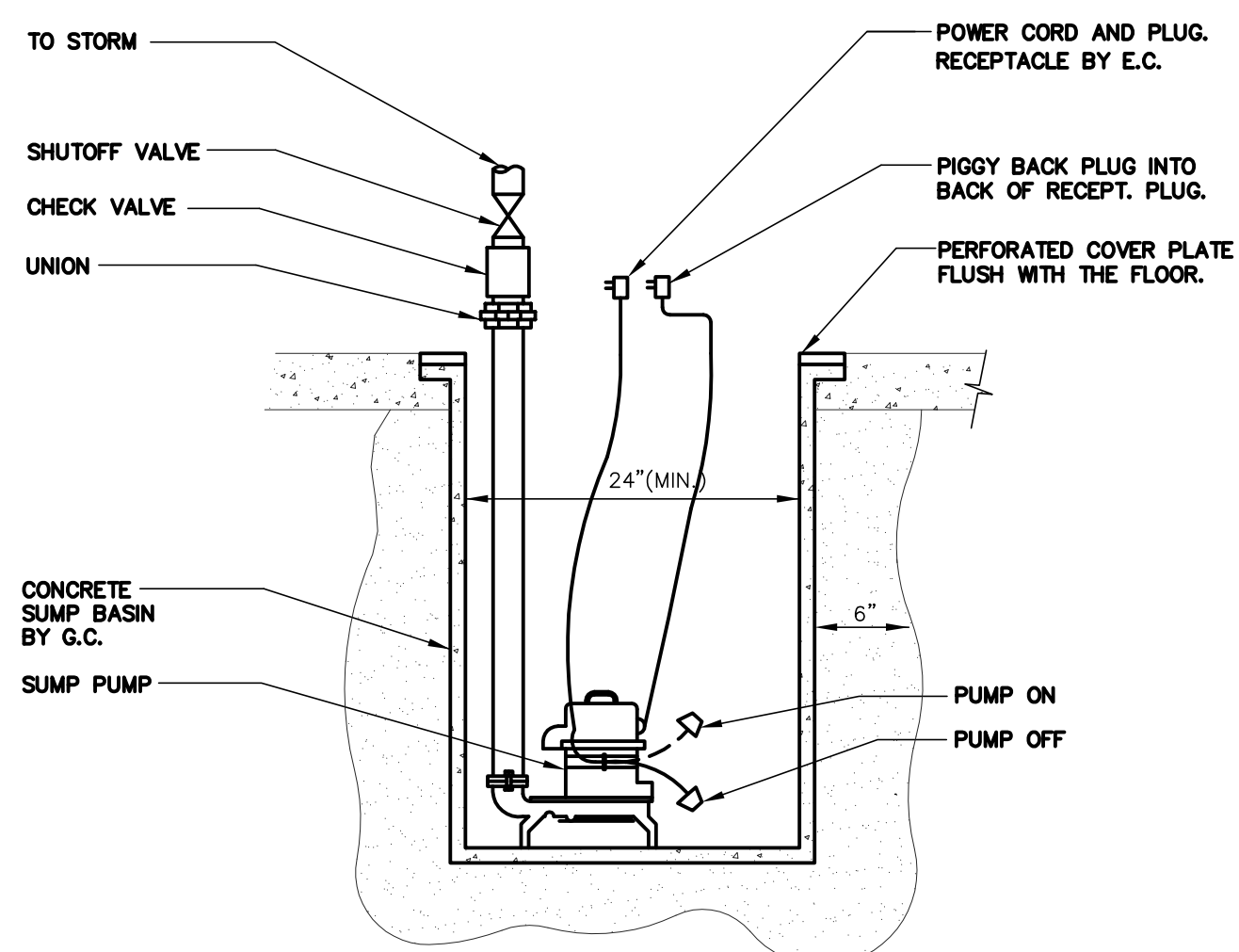
- NO SCALE
- NOTES:
- BOTH THRUST BLOCKING AND ANCHOR RODS ARE REQUIRED.
  - REFER TO THE GOVERNING CODE AND NFPA 24 FOR ADDITIONAL REQUIREMENTS.

## 2 NOT USED

NO SCALE

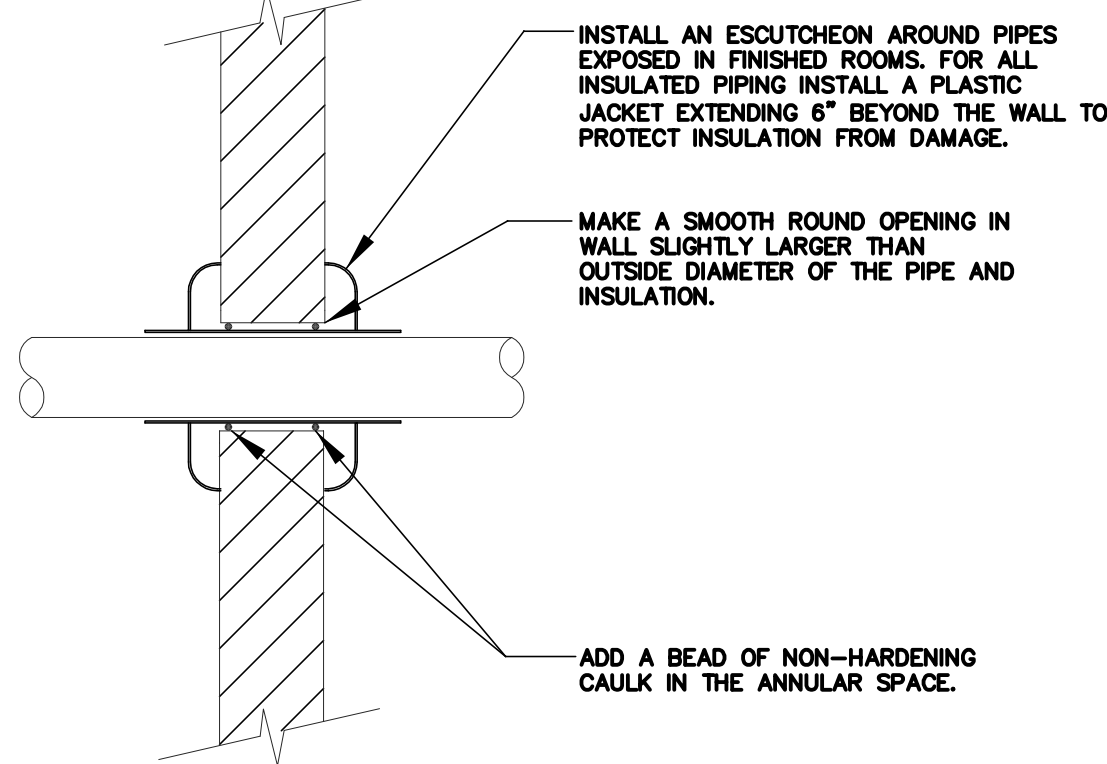
## 3 NOT USED

NO SCALE



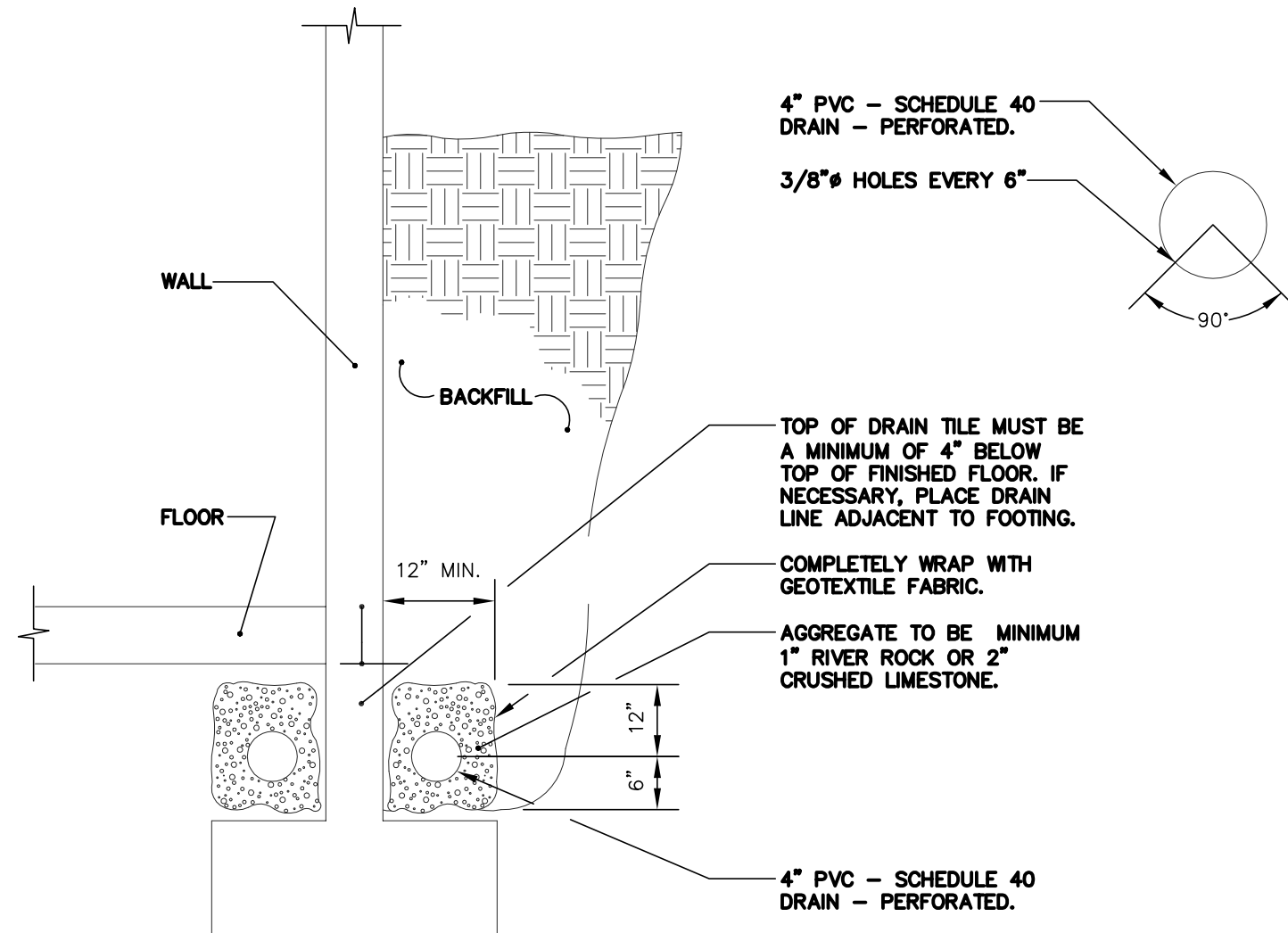
## 4 ELEVATOR SUMP PUMP DETAIL

NO SCALE



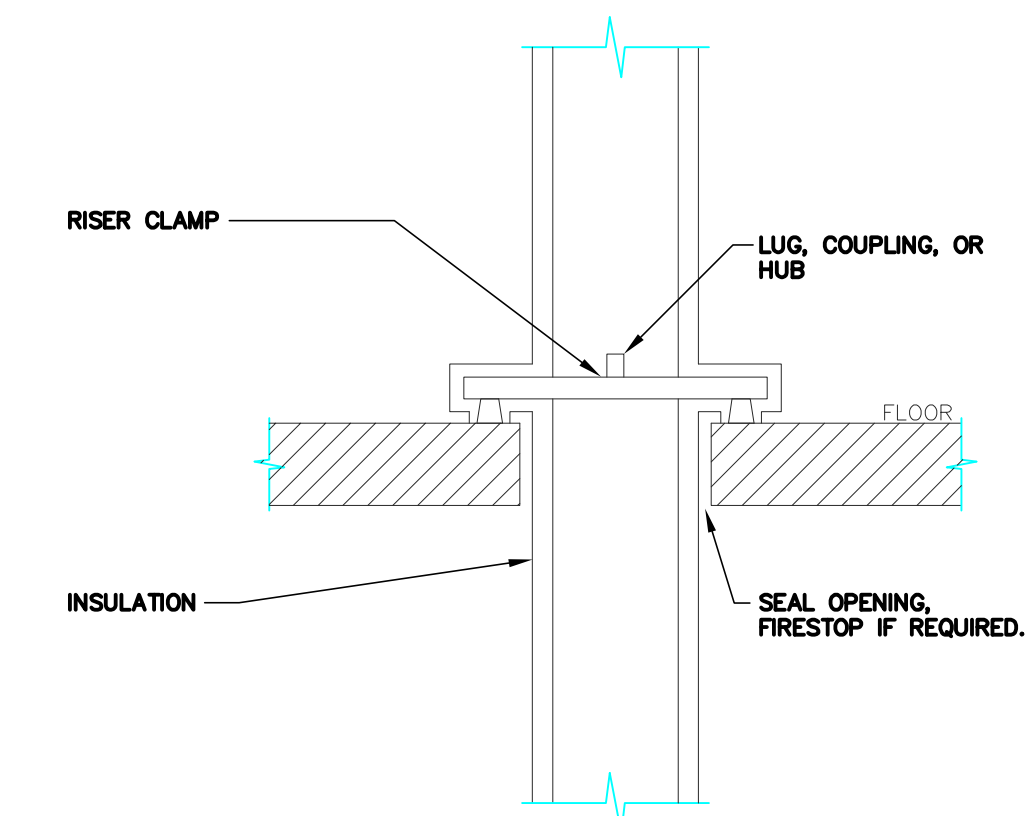
## 5 PIPE THROUGH NON-FIRE RATED WALL

- NO SCALE
- NOTES:
- THIS DETAIL APPLIES TO ALL PIPES. THE INTENTION IS TO CONTINUE THE INSULATION AND VAPOR BARRIER THROUGH ALL PENETRATIONS, PERMIT THERMAL EXPANSION WITHOUT DAMAGING INSULATION, AND TO SEAL AIRTIGHT AROUND INSULATED AND UNINSULATED PIPES FOR NOISE TRANSMISSION CONTROL.

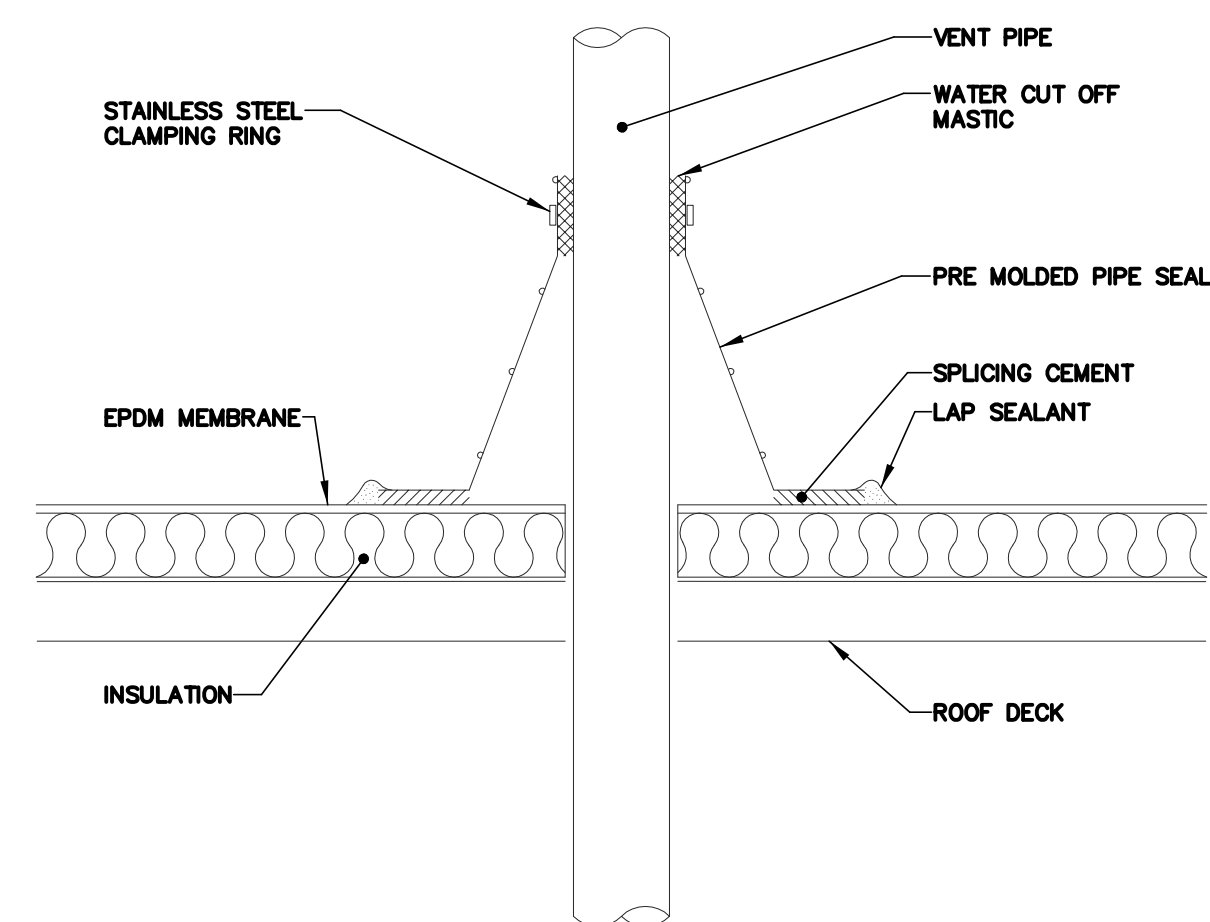


## 7 DRAIN TILE DETAIL

NO SCALE

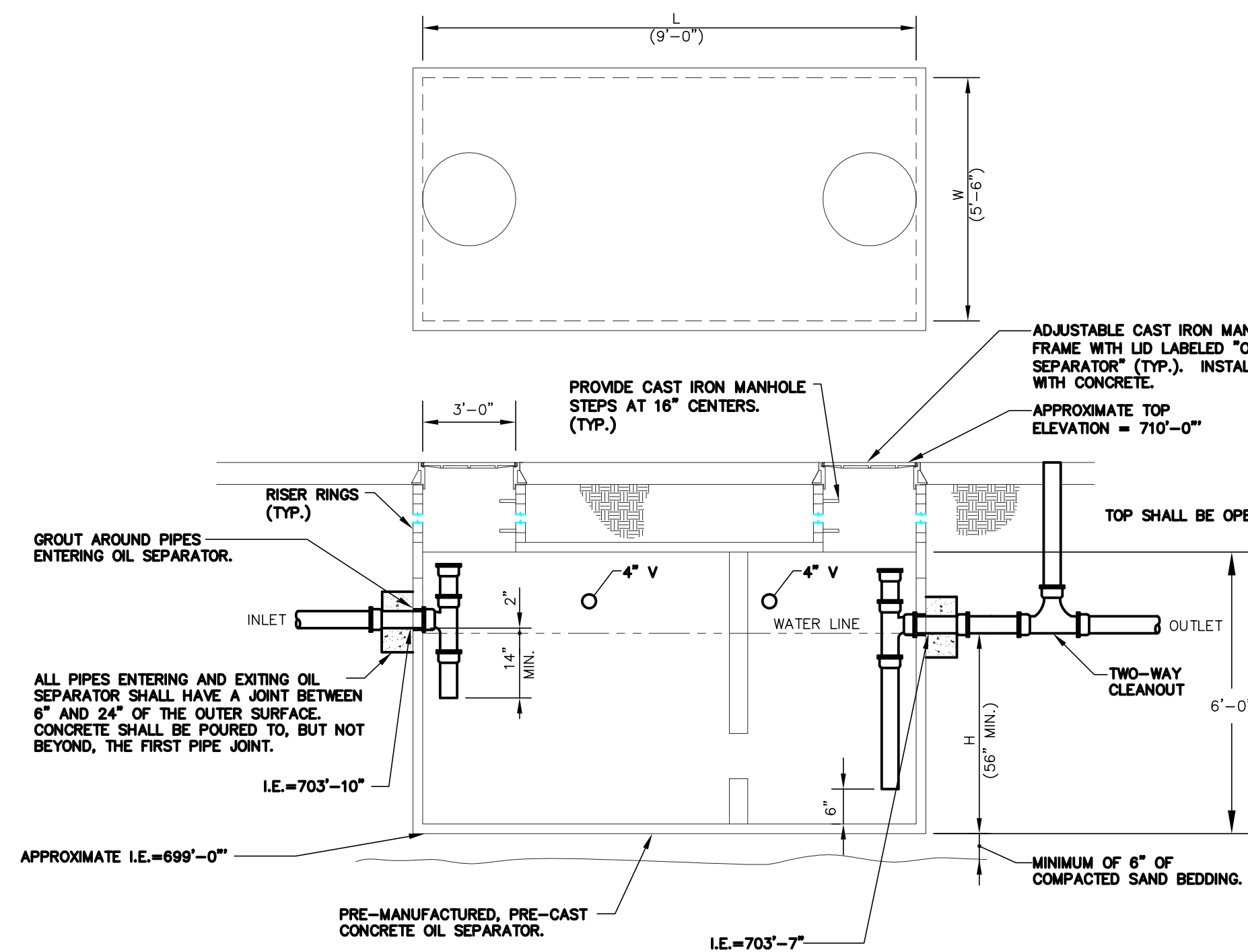


## VERTICAL PIPE SUPPORT



## 8 VENT PIPE FLASHING

NO SCALE



## 9 CONCRETE OIL SEPARATOR DETAIL

NO SCALE

- NOTES:
- OIL SEPARATOR BASED ON A MAXIMUM FLOW RATE OF 300 GPM. SEPARATOR SHALL BE SIZED FOR NOT LESS THAN 1,000 GALLONS AND HAVE AN OIL STORAGE CAPACITY NOT LESS THAN 400 GALLONS.
  - OIL SEPARATOR DIMENSIONS MAY VARY BY MANUFACTURER. CONTRACTOR SHALL VERIFY AND COORDINATE EXACT DIMENSIONS AND INVERT ELEVATIONS.

Revisions:	Date
FINAL CONSTRUCTION DOCUMENTS	06/10/11
100% REVIEW SUBMISSION (NOT FOR CONSTRUCTION)	04/11/11
75% REVIEW SUBMISSION (NOT FOR CONSTRUCTION)	02/03/11
75% REVIEW SUBMISSION (NOT FOR CONSTRUCTION) - COST ESTIMATE	01/19/11
35% REVIEW SUBMISSION (NOT FOR CONSTRUCTION)	11/22/10

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Drawing Title	DETAILS & MATERIAL LIST - PLUMBING
Approved: Project Director	
Iowa City VA Healthcare System Department of Veterans Affairs Medical Center	

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Project Number	636-402
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Checked	MATMEA
Drawn	JOSHEA
Dwg. 131 of 152	

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