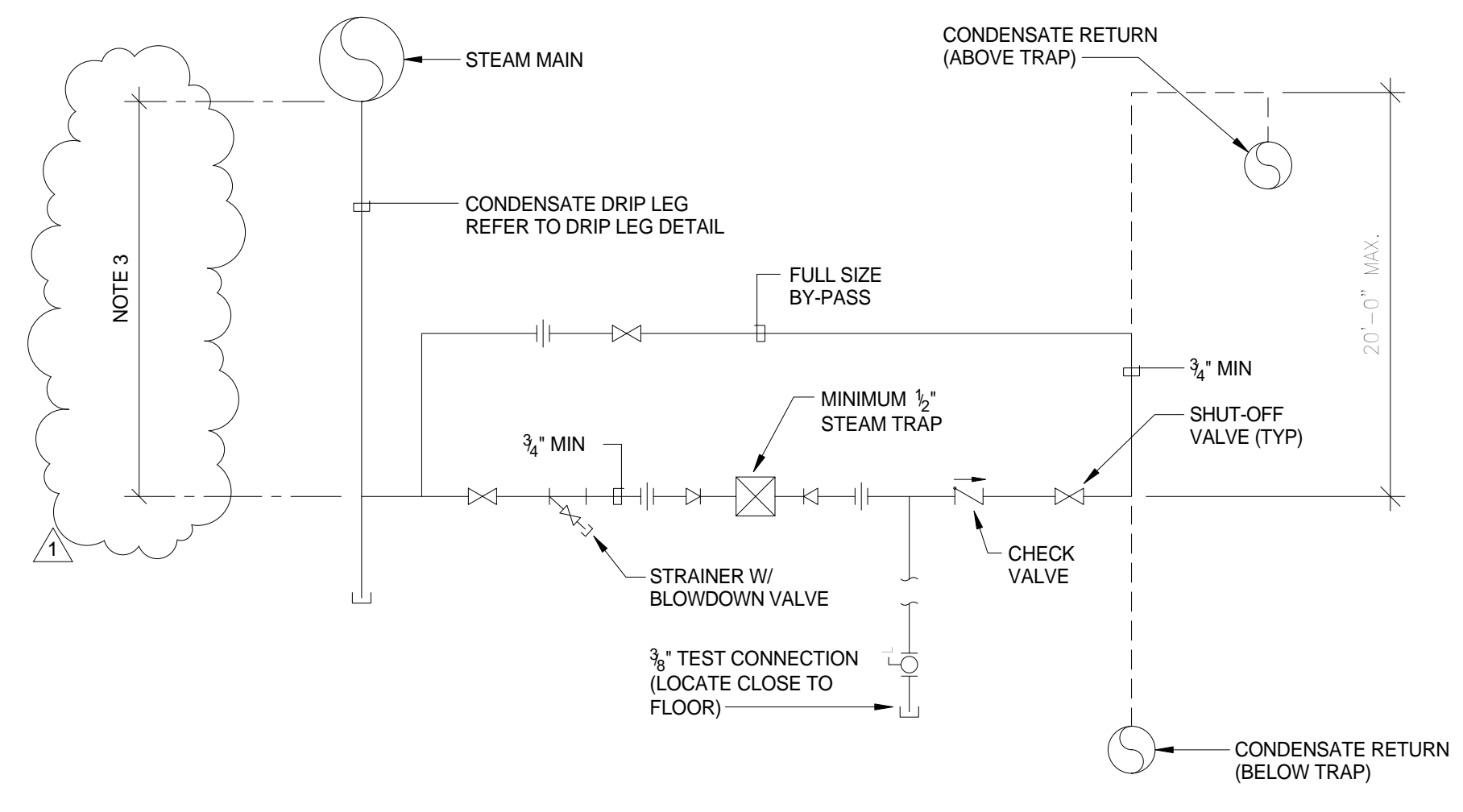
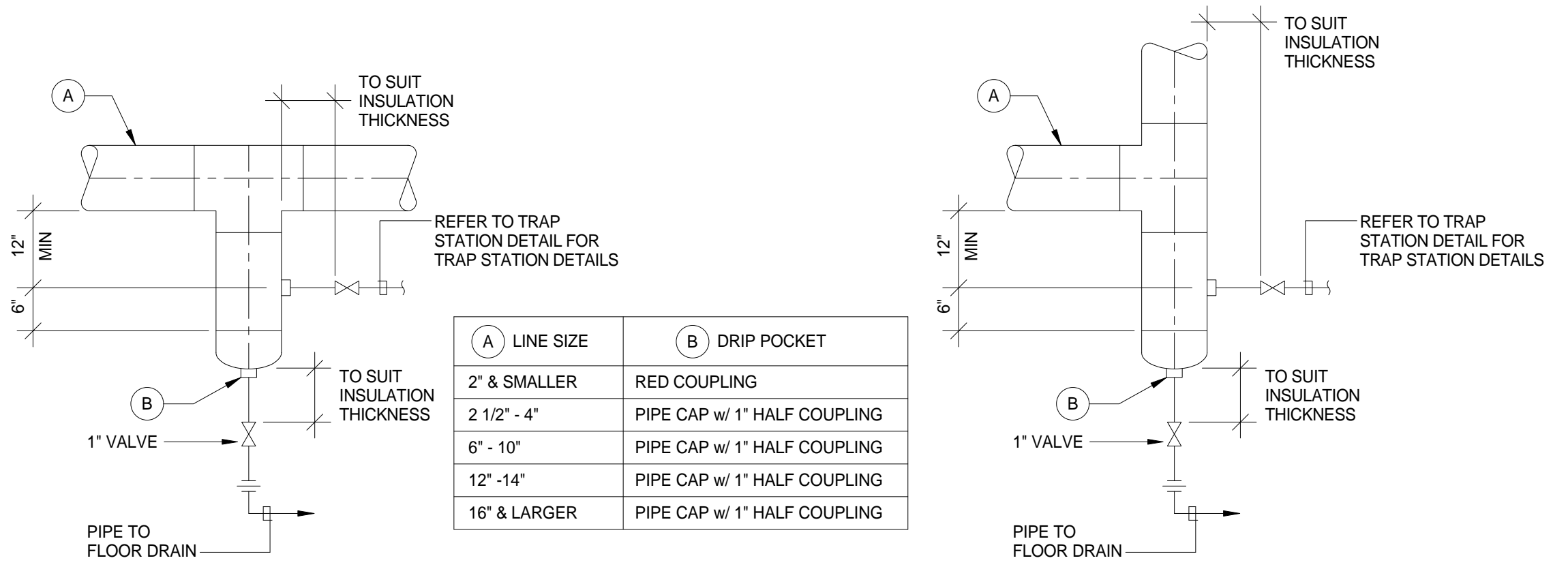


three inches = one foot  
 one and one half inches = one foot  
 one inch = one foot  
 three quarters inch = one foot  
 one half inch = one foot  
 three eighths inch = one foot  
 one quarter inch = one foot  
 one eighth inch = one foot



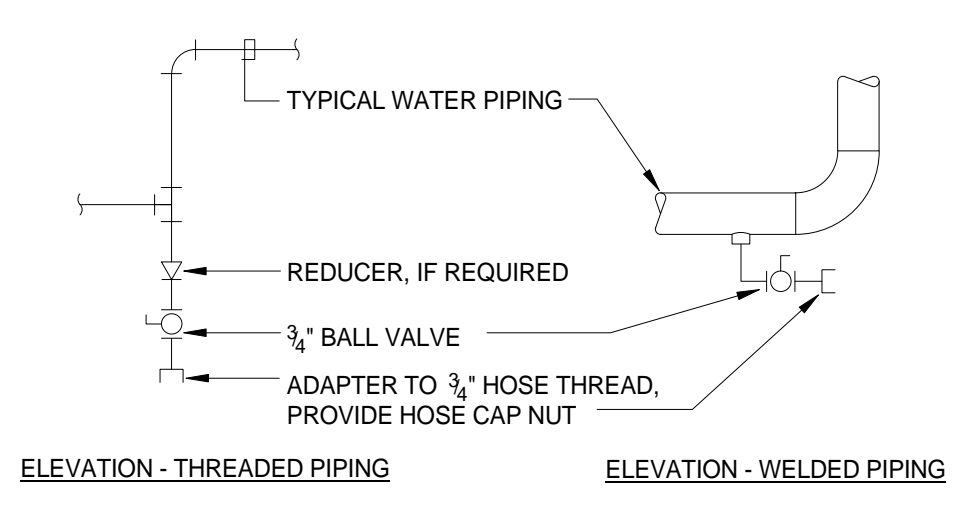
**DETAIL - STEAM TRAP ASSEMBLY**  
SCALE: NONE

- NOTES:**
- FULL SIZE DRIP LEG REQUIRED FOR PIPE SIZES.
  - PROVIDE STEAM TRAP ASSEMBLY AT ALL STEAM UTILIZING EQUIPMENT. LOW POINTS IN THE PIPING SYSTEM AND UPSTREAM OF STEAM ISOLATION VALVES.
  - MINIMUM 12", 18" IF SPACE PERMITS.



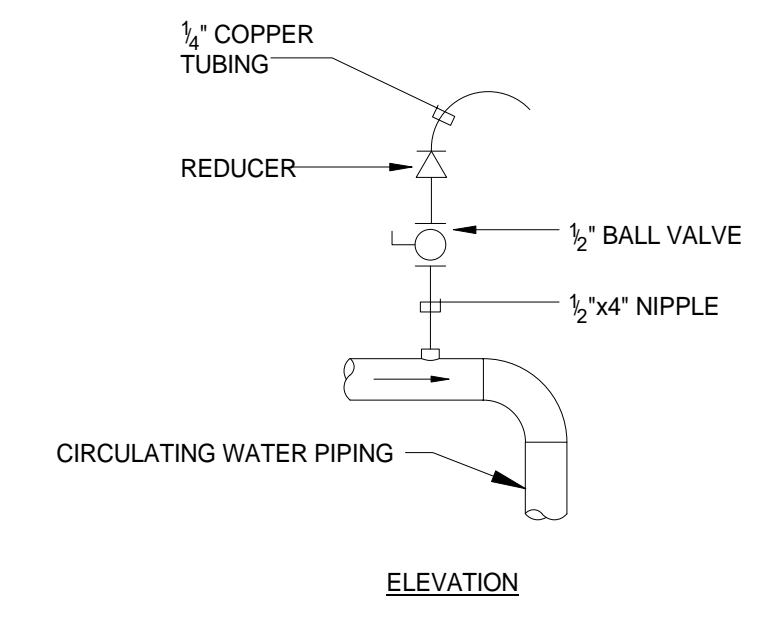
**DETAIL - DRIP LEG**  
SCALE: NONE

**NOTE:** ALL PIPING AND VALVE COMPONENTS SHOWN SHALL MATCH SPECIFICATIONS FOR THE SPECIFIC STEAM PIPING SYSTEM.



**TYPICAL DRAIN VALVE CONNECTIONS**  
SCALE: NONE

- NOTES:**
- DRAIN ALL LOW POINTS AS INDICATED ABOVE.
  - WHERE SCALE POCKETS ARE SHOWN ON PIPE RISER DIAGRAMS AND/OR PLANS, LOCATE DRAIN AT BOTTOM OF SCALE POCKET.

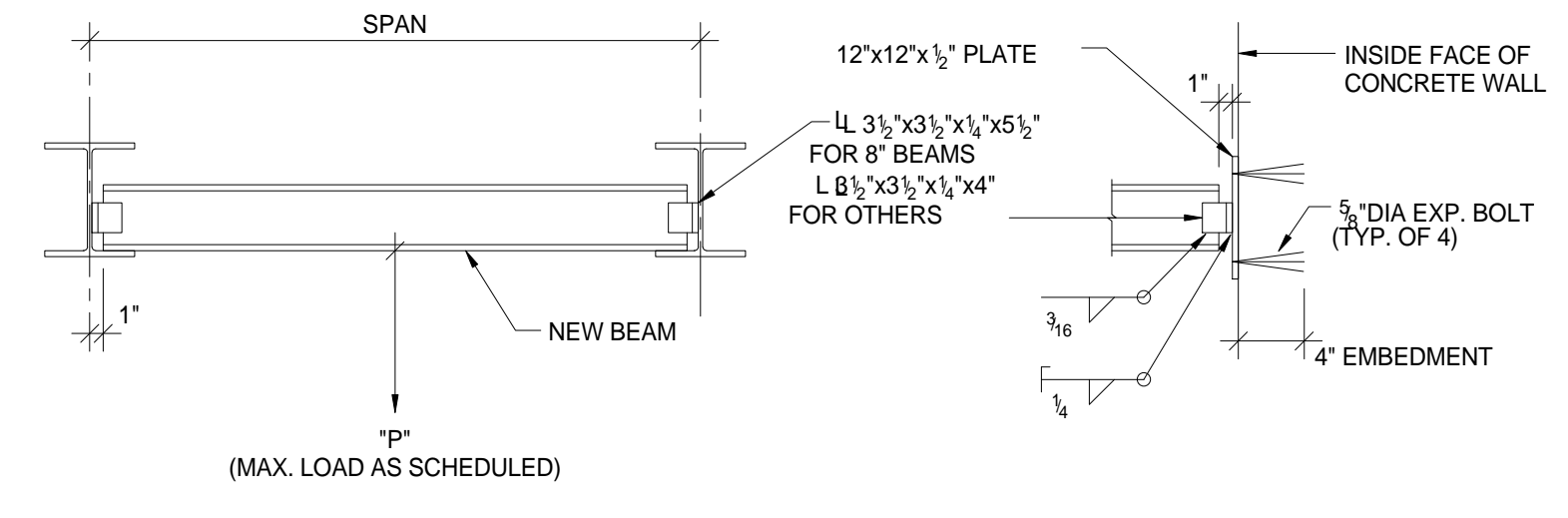


**TYPICAL AIR VENT**  
SCALE: NONE

- NOTES:**
- VENT ALL HIGH POINTS AS INDICATED ABOVE.
  - IF AUTOMATIC AIR VENTS ARE USED, PIPE DISCHARGE TO DRAIN.

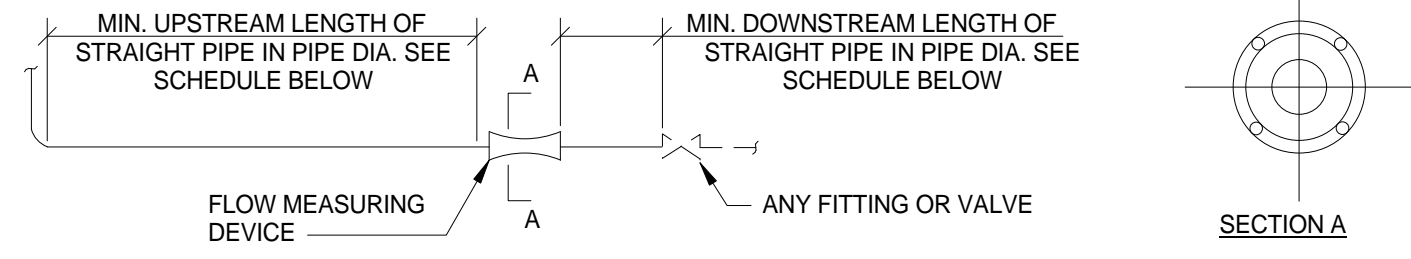
**MAX. LOAD "P" (LBS)**

SPAN RANGE	W4x13	W6x9	W6x12	W8x10	W8x15
0' > L ≤ 4'	10,800	11,000	14,600	15,500	23,500
4' > L ≤ 6'	6,600	6,600	8,600	8,300	14,300
6' > L ≤ 8'	5,000	4,000	6,500	5,000	9,500
8' > L ≤ 10'	3,000	2,600	4,400	3,000	6,000
10' > L ≤ 12'	--	1,800	3,000	--	4,200
12' > L ≤ 14'	--	--	2,200	--	3,100



- NOTES:**
- THIS INFORMATION IS PROVIDED TO GIVE THE MINIMUM BEAM SIZE REQUIRED TO SUPPORT A LOAD FOR PIPE SUPPORTS.
  - MAXIMUM LOAD "P" SHALL BE THE HIGHEST OF THE HYDROSTATIC AND OPERATING LOADS.

**MISCELLANEOUS STEEL SUPPORT GUIDE**  
SCALE: NONE

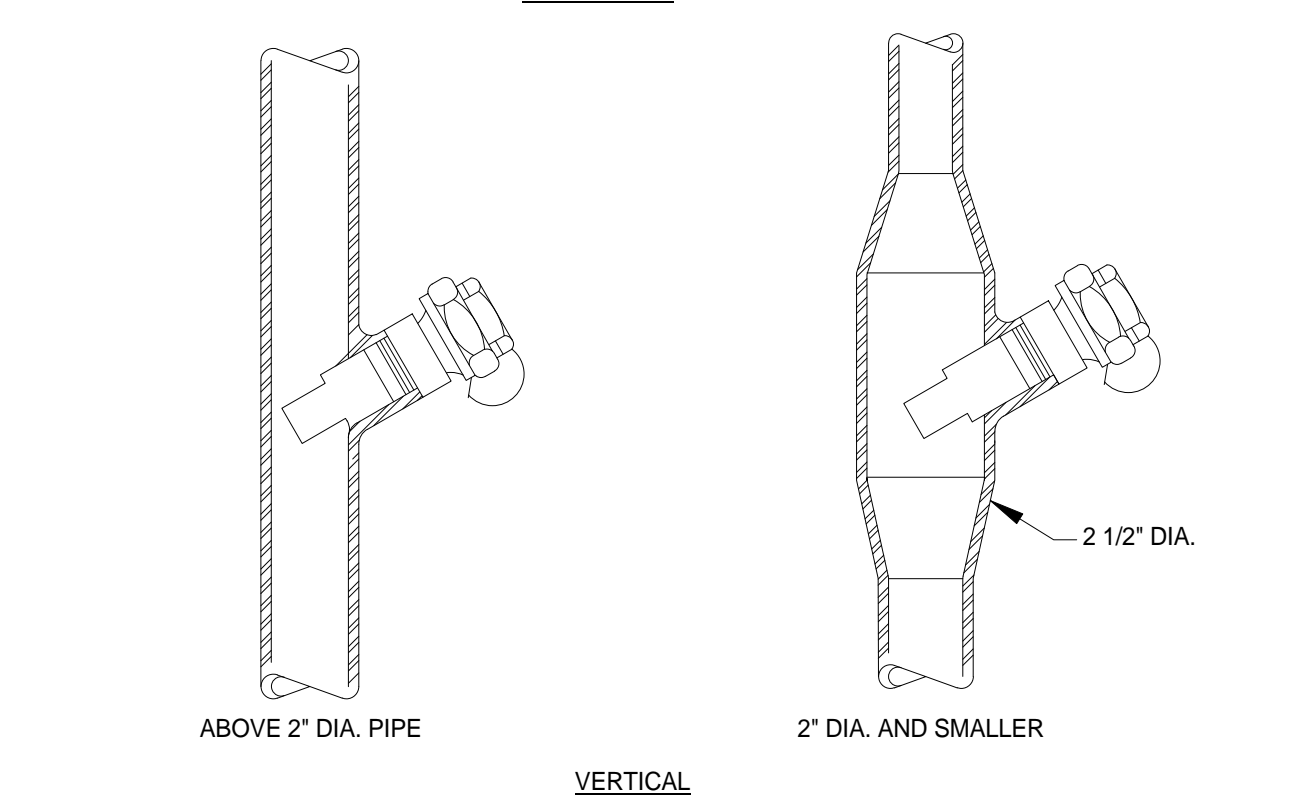
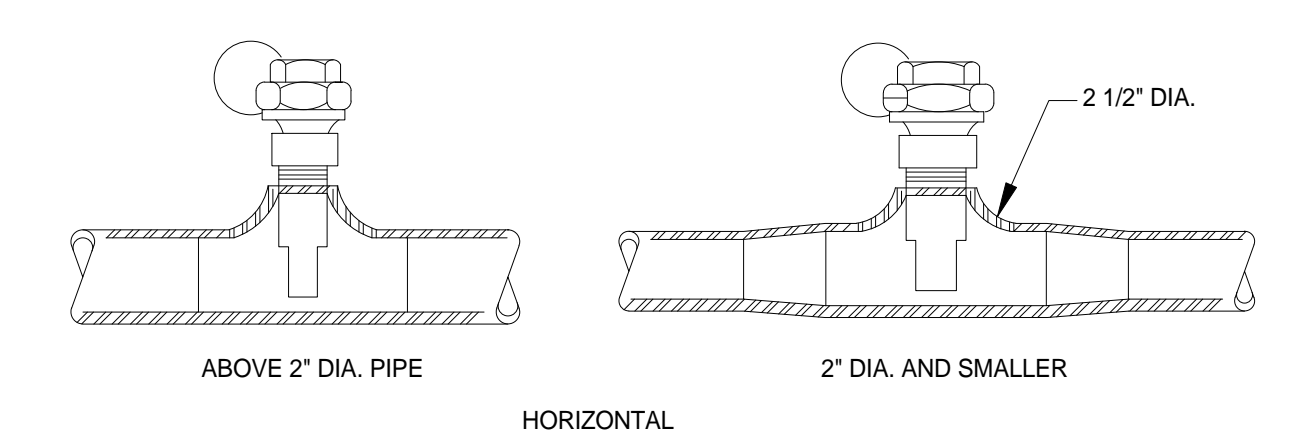


**FLOW MEASURING DEVICE INSTALLATION SCHEDULE**

TYPE	MINIMUM UPSTREAM LENGTH OF STRAIGHT PIPE IN PIPE DIAMETER		MINIMUM DOWNSTREAM LENGTH OF STRAIGHT PIPE IN PIPE DIAMETERS
	FOR SIDE TEE	FOR VALVE OR OTHER FITTING	
REFER TO CONTRACT DOCUMENTS AND SPECIFICATIONS	20	10	5

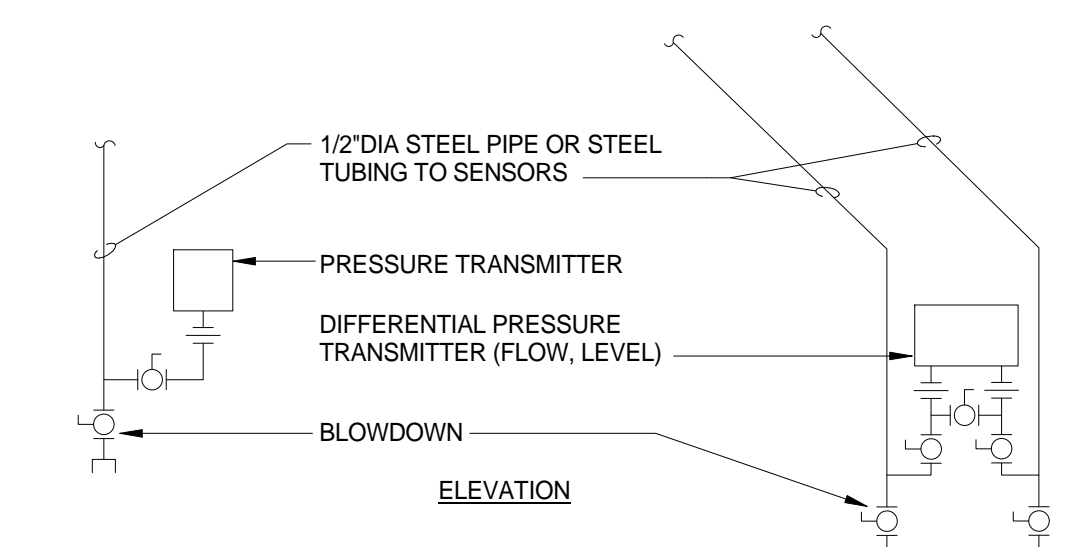
- NOTES:**
- DIMENSIONS SHOWN IN SCHEDULE ARE GENERAL MINIMUM REQUIREMENTS. IF MANUFACTURER OF FURNISHED FLOW MEASURING DEVICE RECOMMENDS A GREATER OR LESSER DIMENSION, USE THOSE DIMENSIONS.
  - INSTALL THE FLOW MEASURING DEVICE SO THE FLOW ARROW ON THE DEVICE IS IN THE SAME DIRECTION AS THE FLOW.
  - THE FLOW MEASURING DEVICE MAY BE INSTALLED IN EITHER HORIZONTAL OR VERTICAL PIPE. UNITS REQUIRING REMOTE METERS SHALL HAVE THE METER CONNECTIONS LOCATED ON OR NEAR THE SIDE WHEN INSTALLED IN HORIZONTAL PIPE. SEE SECTION A. THE METER CONNECTIONS CAN BE INSTALLED IN ANY POSITION WHEN INSTALLED IN VERTICAL PIPE.

**FLOW MEASURING DEVICE INSTALLATION  
DETAIL AND INSTALLATION SCHEDULE**  
SCALE: NONE



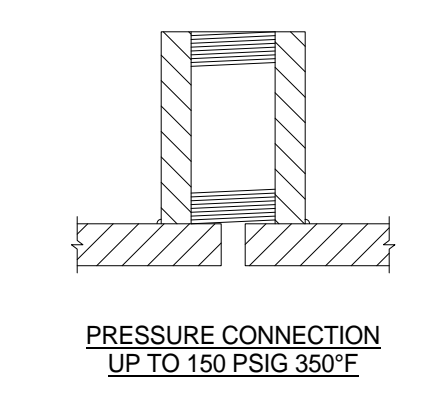
- NOTES:**
- PROVIDE 6" EXTENDED NECK WELLS ON INSULATED PIPE.

**INSTALLATION OF THERMOMETER WELLS**  
SCALE: NONE



- NOTES:**
- INSTALLATION OF SENSORS AND TRANSMITTERS SHALL CONFORM TO RECOMMENDATIONS OF MANUFACTURER OF TRANSMITTERS.

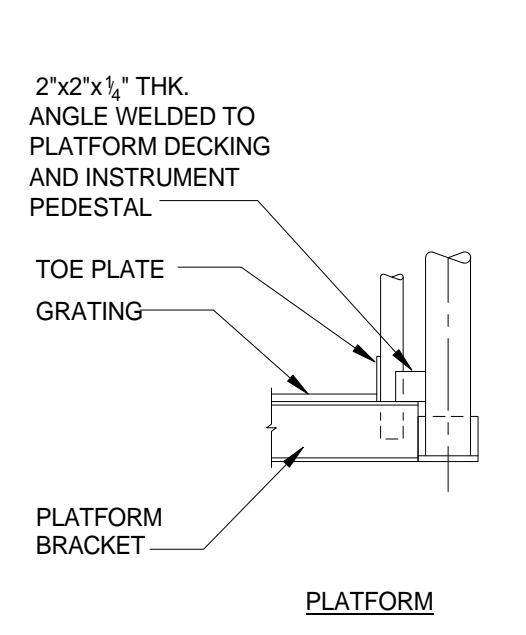
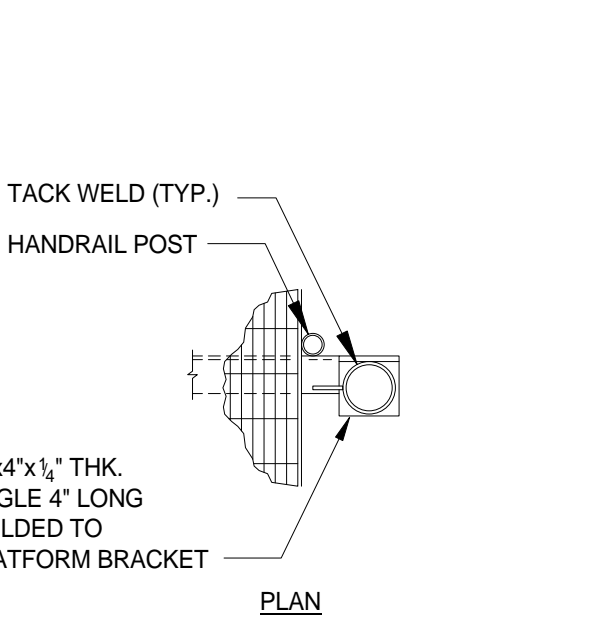
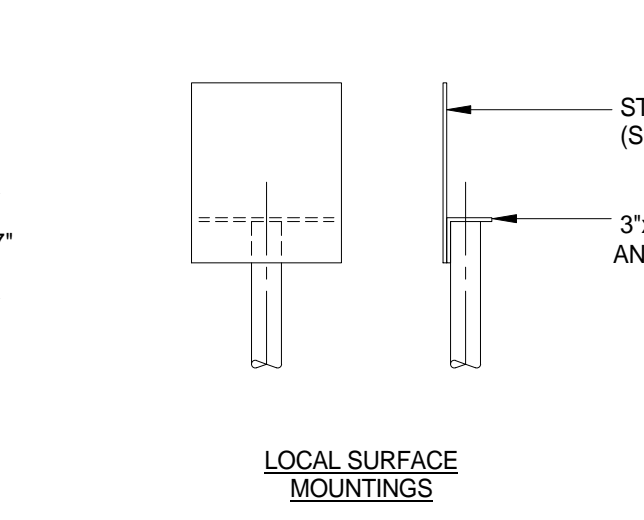
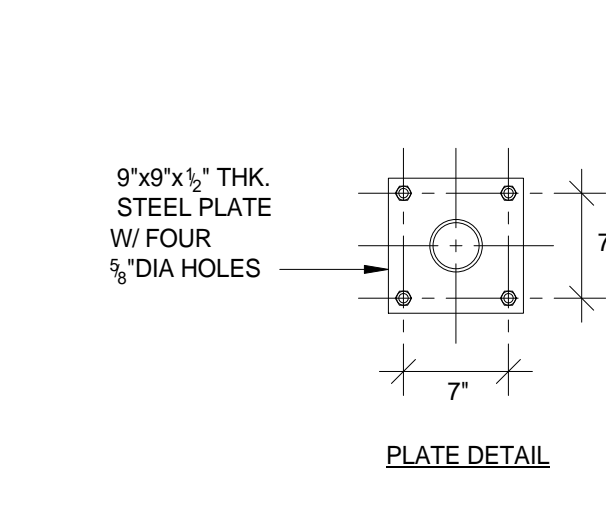
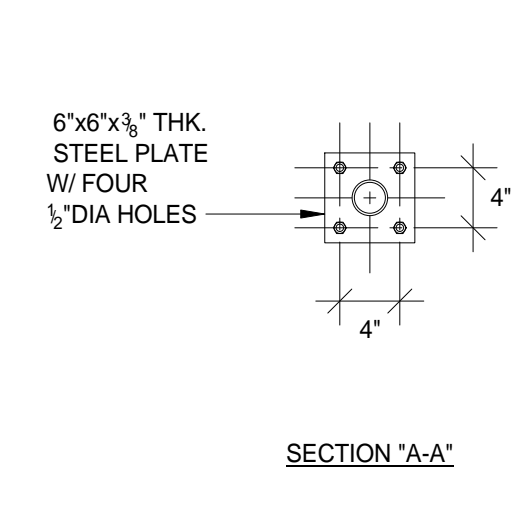
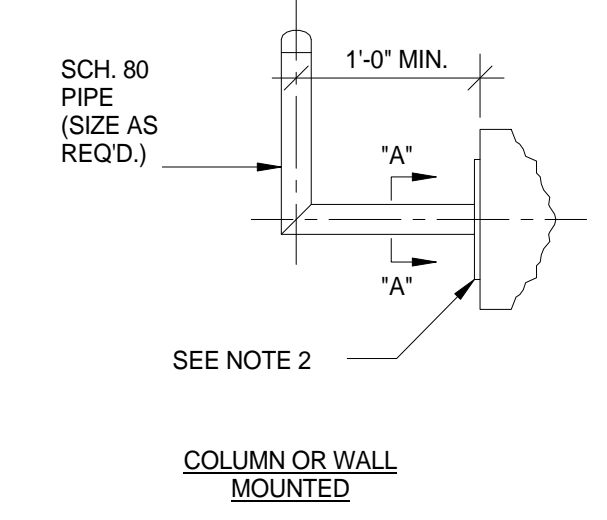
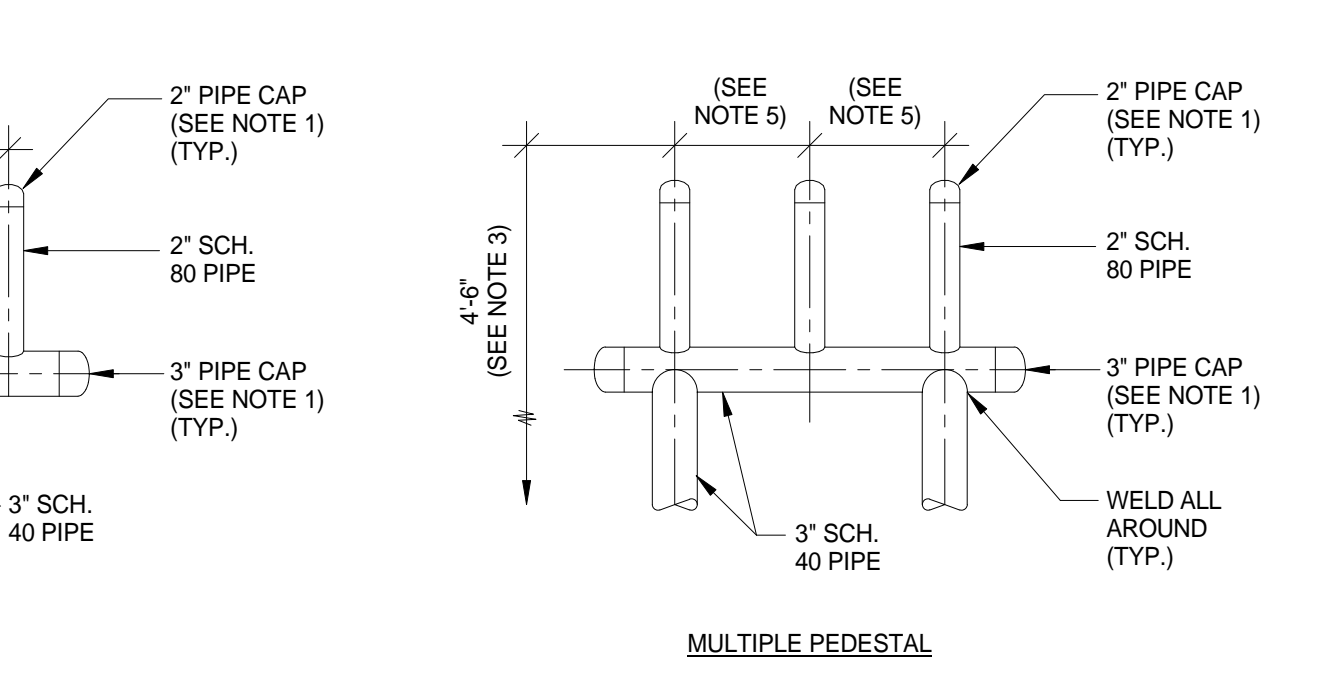
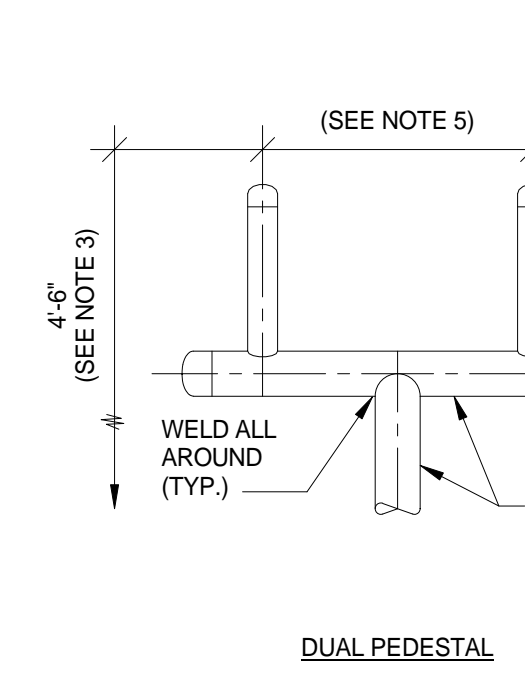
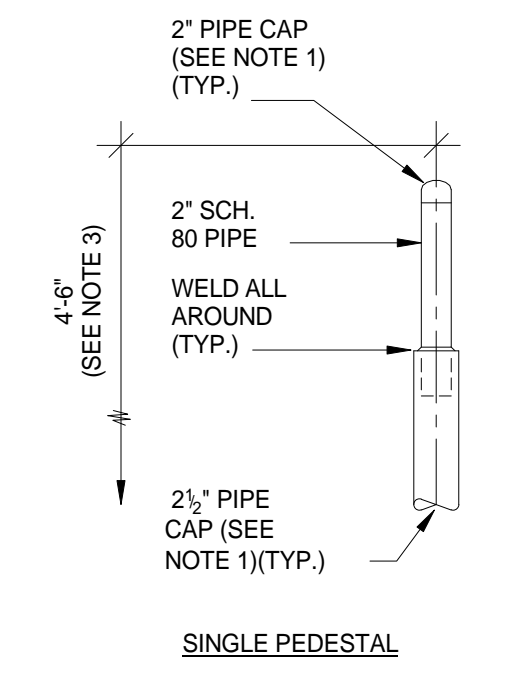
**PRESSURE TRANSMITTER INSTALLATION**  
SCALE: NONE



**MAXIMUM DIAMETER OF PRESSURE TAP HOLE**

PIPE SIZE	MAX. DIA.
UNDER 2"	1/8"
2" TO 3"	3/16"
4" TO 8"	1/4"
10" & OVER	3/8"

**DETAIL - PRESSURE CONNECTIONS**  
SCALE: NONE



- NOTES:**
- ALL OPEN ENDS OF PIPE TO BE CLOSED WITH A PIPE CAP OR STEEL PLATE.
  - USE 3/8" DIA x 2 3/4" L HILTI KWIK BOLTS TO ATTACH STEEL PLATE TO CONCRETE WALL OR COLUMN. WHEN SUPPORTING FROM STEEL COLUMN, OMIT STEEL PLATE AND BOLTS AND WELD TO COLUMN.
  - HEIGHT OF ALL VERTICAL SUPPORTS TO BE AS REQUIRED TO PLACE THE CENTERLINE OF THE INSTRUMENT 54" ABOVE FINISHED FLOOR OR PLATFORM. CENTERLINE OF THE INSTRUMENT TO BE DEFINED AS THE CENTER LINE OF THE INDICATING INSTRUMENT DISPLAY OR THE CENTERLINE OF THE INSTRUMENTS BODY IF IT IS NON-INDICATING.
  - FIELD TO SIZE STEEL PLATE AS REQUIRED FOR SUPPORT OF INSTRUMENTS NOT FURNISHED WITH A MOUNTING YOKE.
  - 1'-3" CENTERLINE TO CENTERLINE FOR SMALL CASE INSTRUMENTS AND 1'-8" CENTERLINE TO CENTERLINE FOR LARGE CASE INSTRUMENTS.

**DETAIL - CONTROL INSTRUMENT INSTALLATIONS**  
SCALE: NONE

FINAL DESIGN  
APPROVED FOR CONSTRUCTION

<p><b>CONSULTANTS:</b></p> <p><b>AEI</b> Affiliated Engineers                  Affiliated Engineers SE, Inc.                  Tioga Town Center                  12921 SW 1st Road Ste 205                  Gainesville, Florida 32669                  Tel 352.376.5500 Fax 352.375.3479                  CA-5140</p>		<p><b>ENGINEER-OF-RECORD:</b> FL P.E. NO. 42678                  JACK STEWART NEALE</p>		<p><b>ARCHITECT/ENGINEERS:</b></p> <p><b>AKEA</b> INC.                  3603 NW 98th Street, Suite B                  Gainesville, FL 32606                  Phone: (352) 474-6124                  Fax: (352) 553-4437                  COA: FL #26693                  AKEA Project No. 083-14</p>		<p>Drawing Title <b>MECHANICAL DETAILS</b></p> <p>Approved: Project Director</p>		<p>Project Title <b>REPLACE BOILERS - FCA D, ENERGY AT THE MALCOM RANDALL VAMC</b></p> <p>Location <b>GAINESVILLE, FLORIDA</b></p> <p>Date <b>JULY 8, 2016</b></p> <p>Checked <b>JSN</b></p> <p>Drawn <b>RWD</b></p>		<p>Project Number <b>573-14-600</b></p> <p>Building Number</p> <p>Drawing Number <b>MP501</b></p>		<p>Office of Construction and Facilities Management</p>	
<p>1 - Addendum #3 <b>Revisions:</b></p>		<p>09/08/17 <b>Date</b></p>											