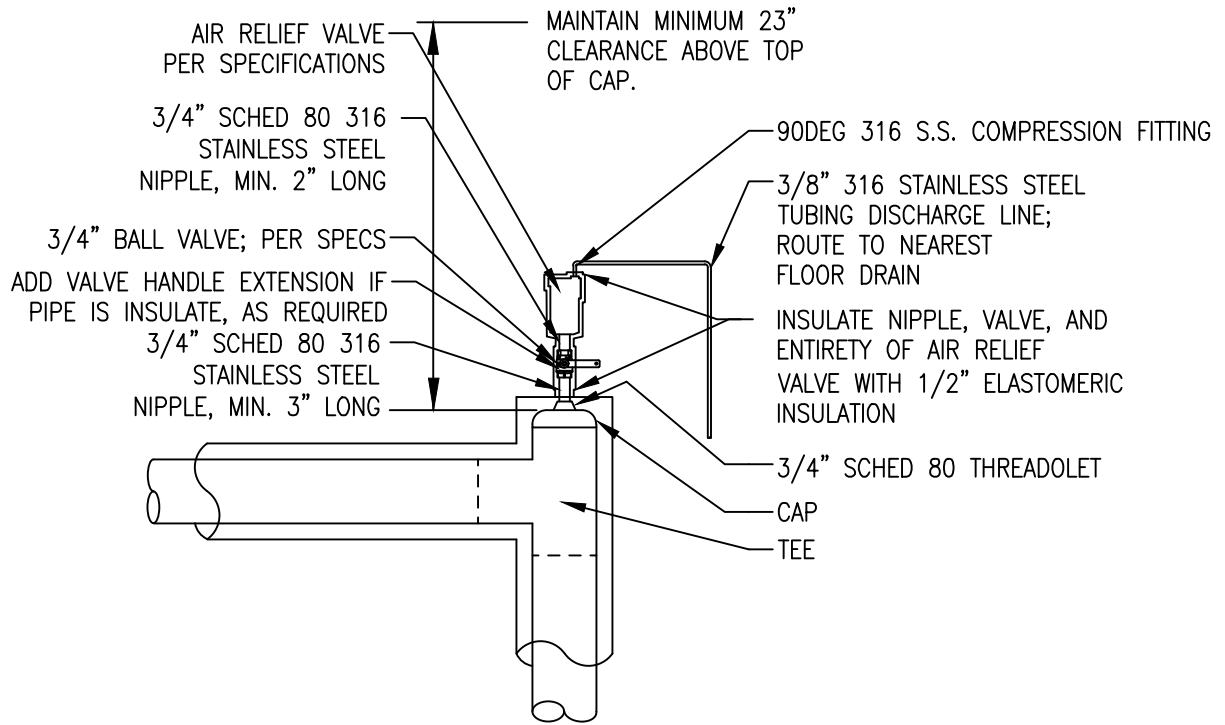
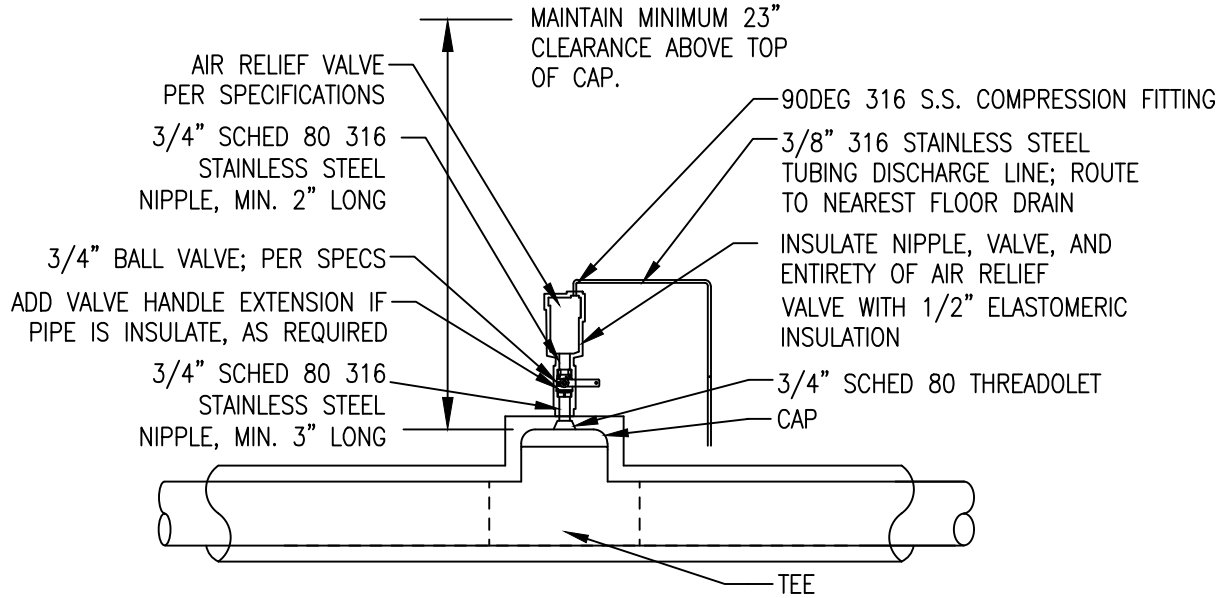


# Appendix 5



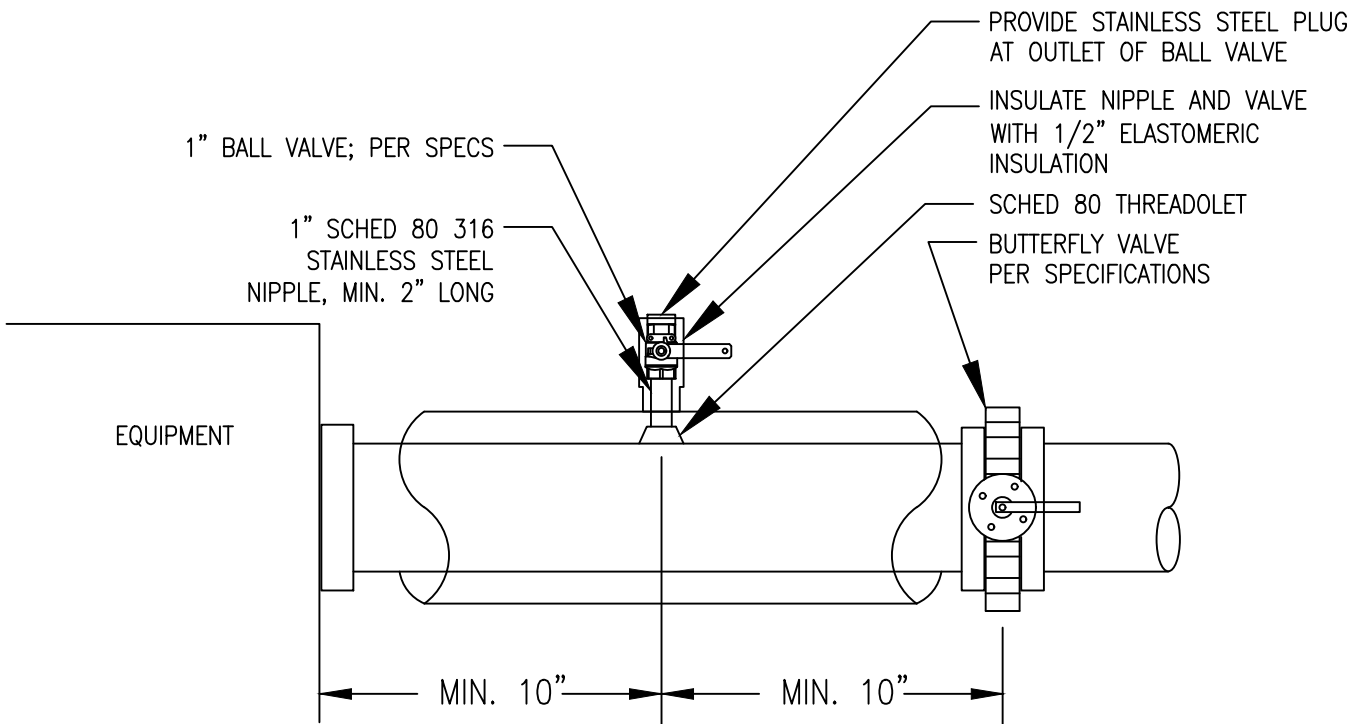
AT TOP OF VERTICAL RISER



IN SECTION OF HORIZONTAL PIPE

## AUTOMATIC AIR VENT

M16



INSTALL VENT BETWEEN EQUIPMENT AND EQUIPMENT ISOLATION VALVE

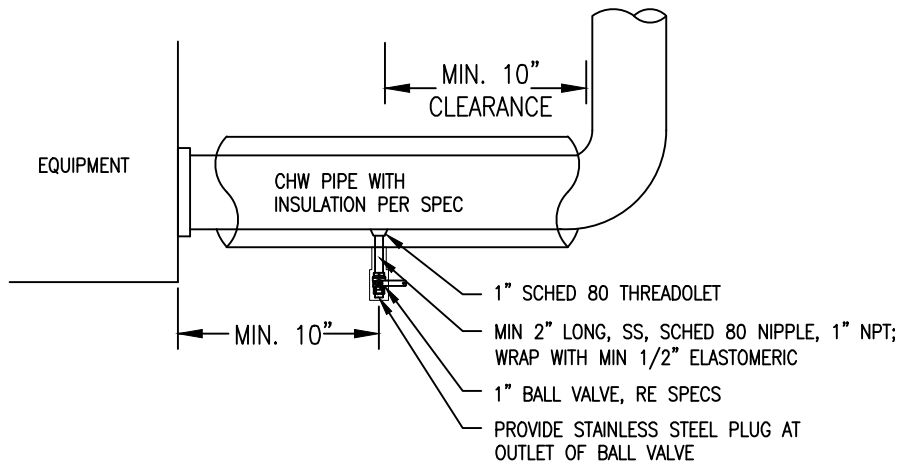
# MANUAL AIR VENT

12/9/2020

SCALE:

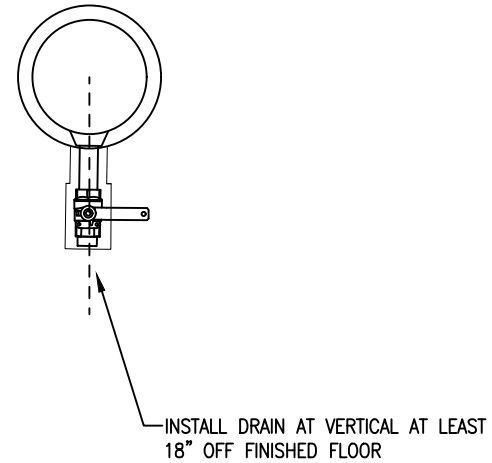
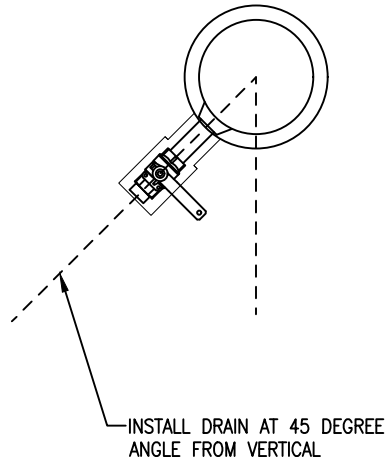
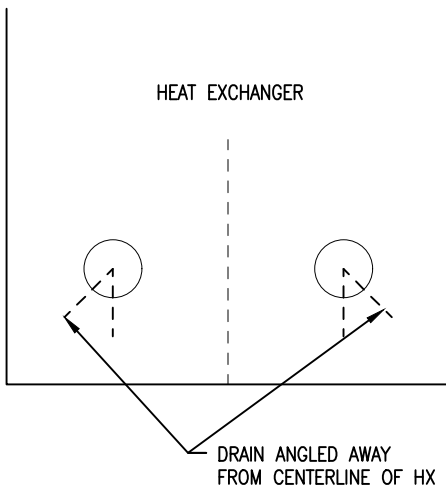
M17

N.T.S.



FOR HEAT EXCHANGER APPLICATIONS OR  
IF PIPING IS LESS THAN 24" AFF.

FOR ALL OTHER APPLICATIONS  
IF PIPING IS MORE THAN 24" AFF.



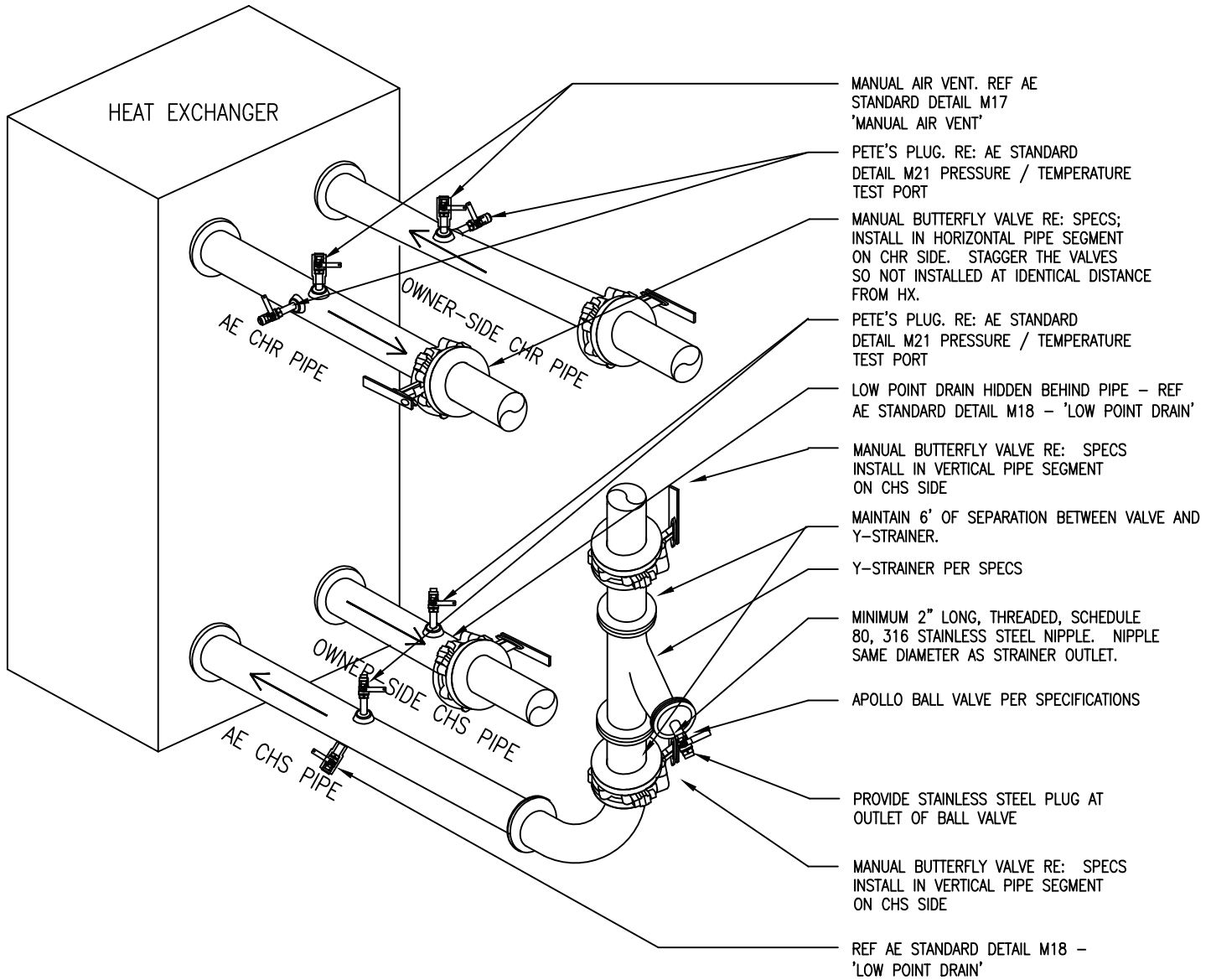
# LOW POINT DRAIN

12/9/2020

SCALE:

M18

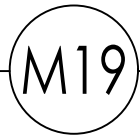
N.T.S.



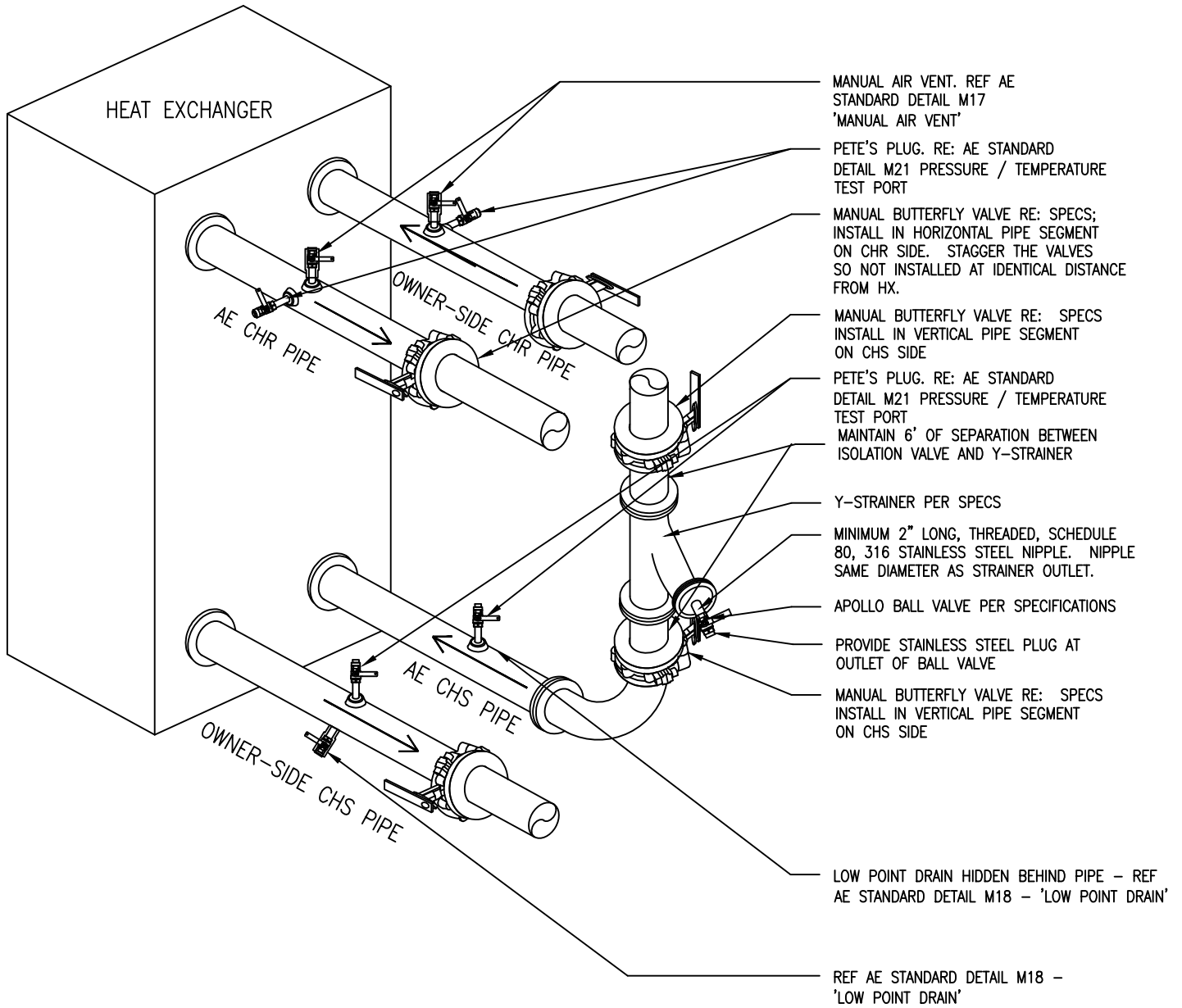
# PARALLEL CONNECT HEAT EXCHANGER PIPING

12/9/2020

SCALE:



N.T.S.



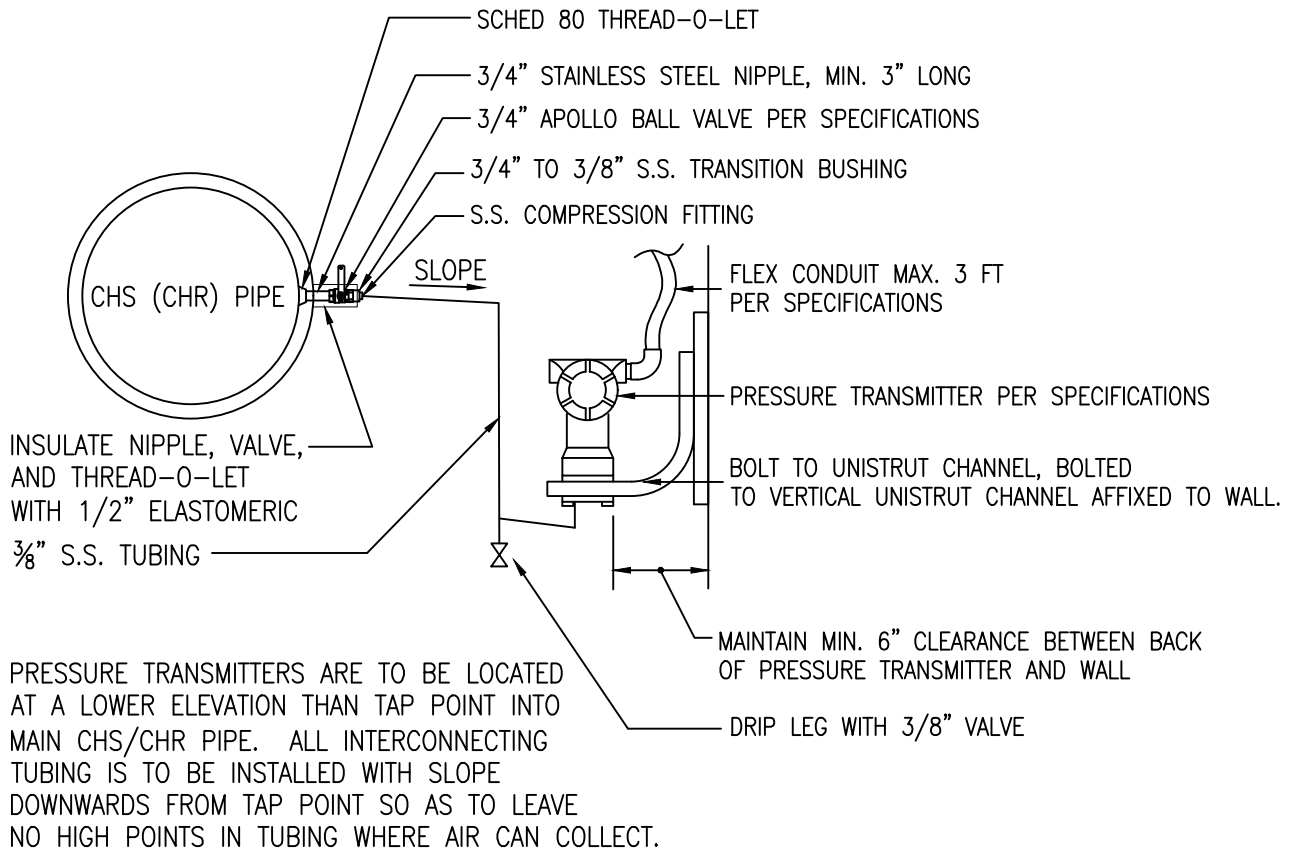
# CROSS CONNECT HEAT EXCHANGER PIPING

12/9/2020

SCALE:

M19A

N.T.S.



DO NOT INSTALL PRESSURE TRANSMITTERS OVER FIBEROPTIC PANELS, OR ELECTRICAL OR OTHER EQUIPMENT WHICH CAN BE DAMAGED BY WATER.

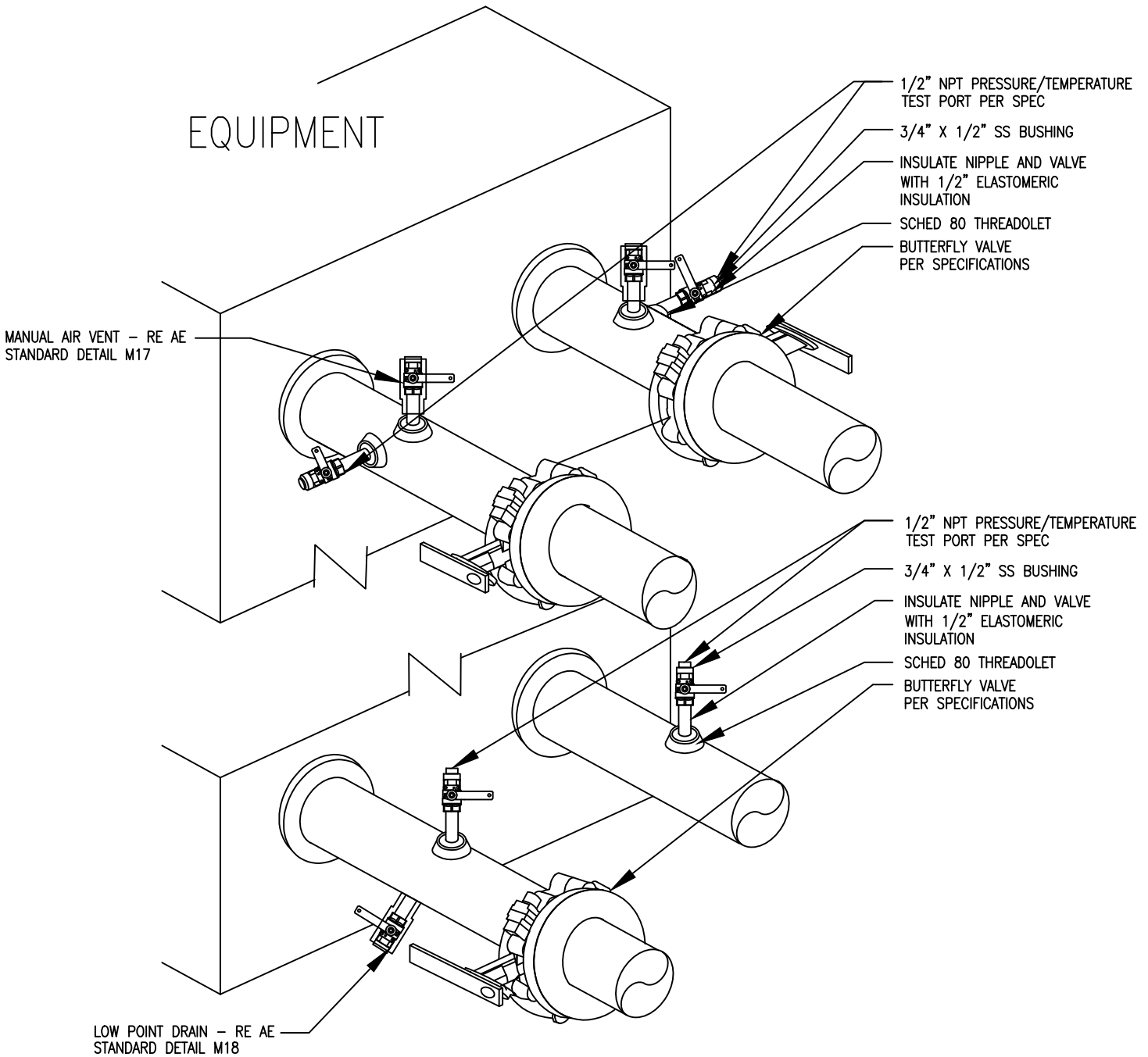
# PRESSURE TRANSMITTER

12/9/2020

SCALE:



N.T.S.



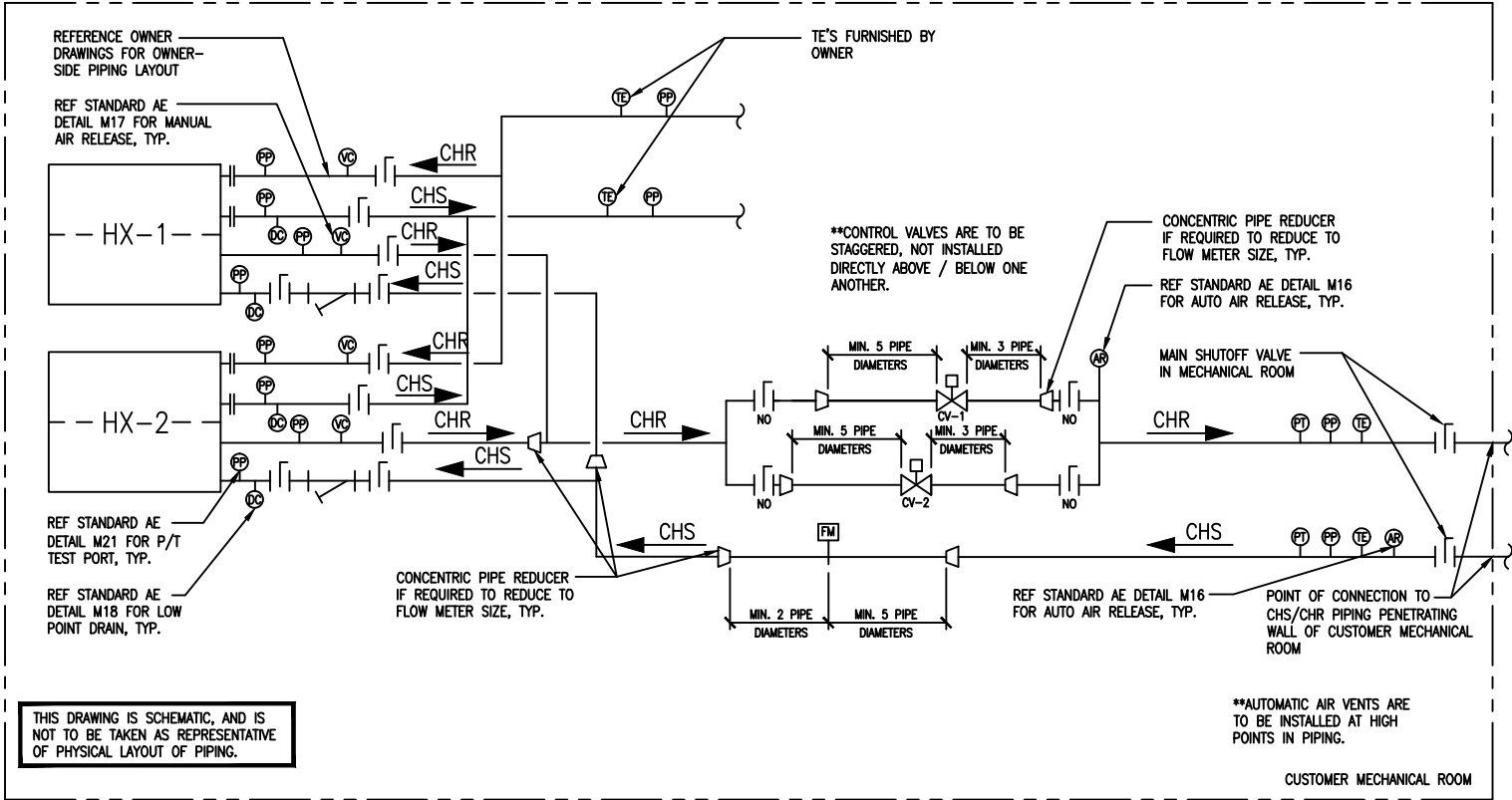
# PRESSURE / TEMPERATURE (P/T) TEST PORT ISOMETRIC

12/9/2020

SCALE:

M21

SHEET 1  
N.T.S.



LEGEND	
	BUTTERFLY VALVE
	CONTROL VALVE
	PIPE REDUCER

AUSTIN ENERGY INSTRUMENT AND CONTROLS SCHEDULE		
SYMBOL	FUNCTION	PIPING REQUIREMENTS
AR	AUTO AIR RELEASE	REFERENCE AE STANDARD DETAIL #16
CV	CONTROL VALVE	SEE VALVE SCHEDULE AND SPECIFICATIONS
DC	DRAIN CONNECTION	REFERENCE AE STANDARD DETAIL #18
FT	FLOW TRANSMITTER	IN-LINE, FLANGED; REFERENCE DRAWINGS FOR SIZE
PP	PRESSURE/TEMPERATURE TEST PORT (PETE'S PLUG)	REFERENCE AE STANDARD DETAIL #21
PT	PRESSURE TRANSMITTER	REFERENCE AE STANDARD DETAIL #20
TE	TEMPERATURE ELEMENT	3/4" NPT WELD-O-LET, THERMOWELL
VC	VENT CONNECTION / MANUAL AIR RELEASE	REFERENCE AE STANDARD DETAIL #17

REFER TO DESIGN DRAWINGS AND SPECIFICATIONS FOR PRECISE MANUFACTURER AND MODEL NUMBERS

# CHILLED WATER PIPING SCHEMATIC

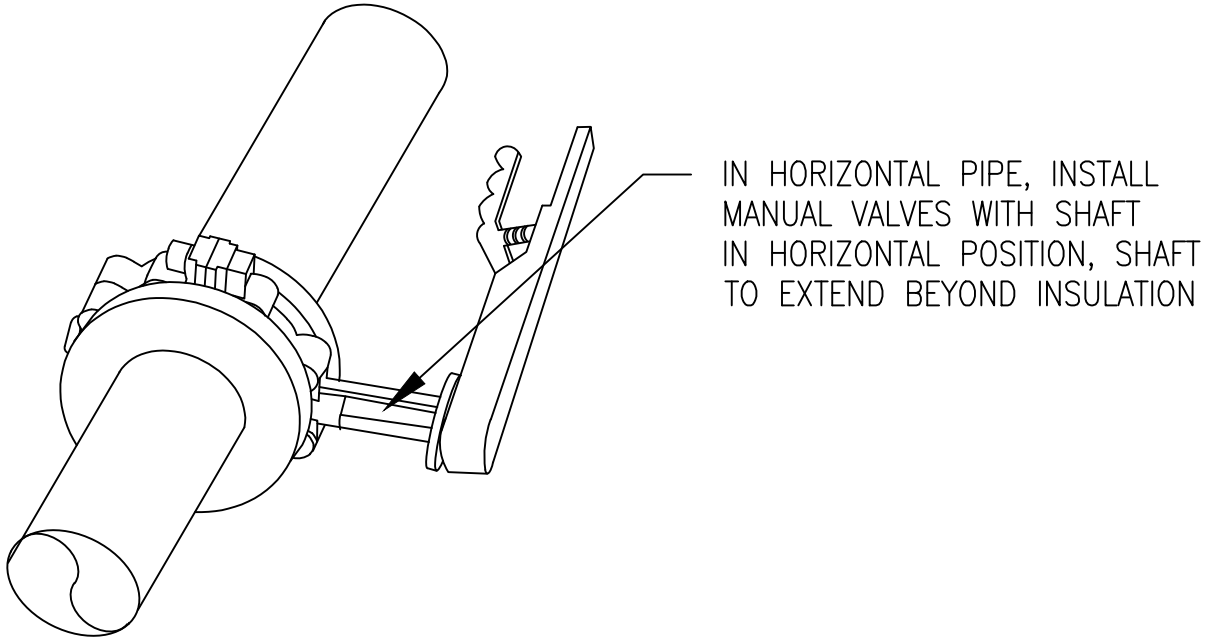
08/11/14

SCALE:

M22

N.T.S.





NOTE:  
MANUAL VALVE HANDLES SHALL OPEN  
SUCH THAT BOTTOM OF DISC OPENS  
IN DIRECTION OF FLOW.

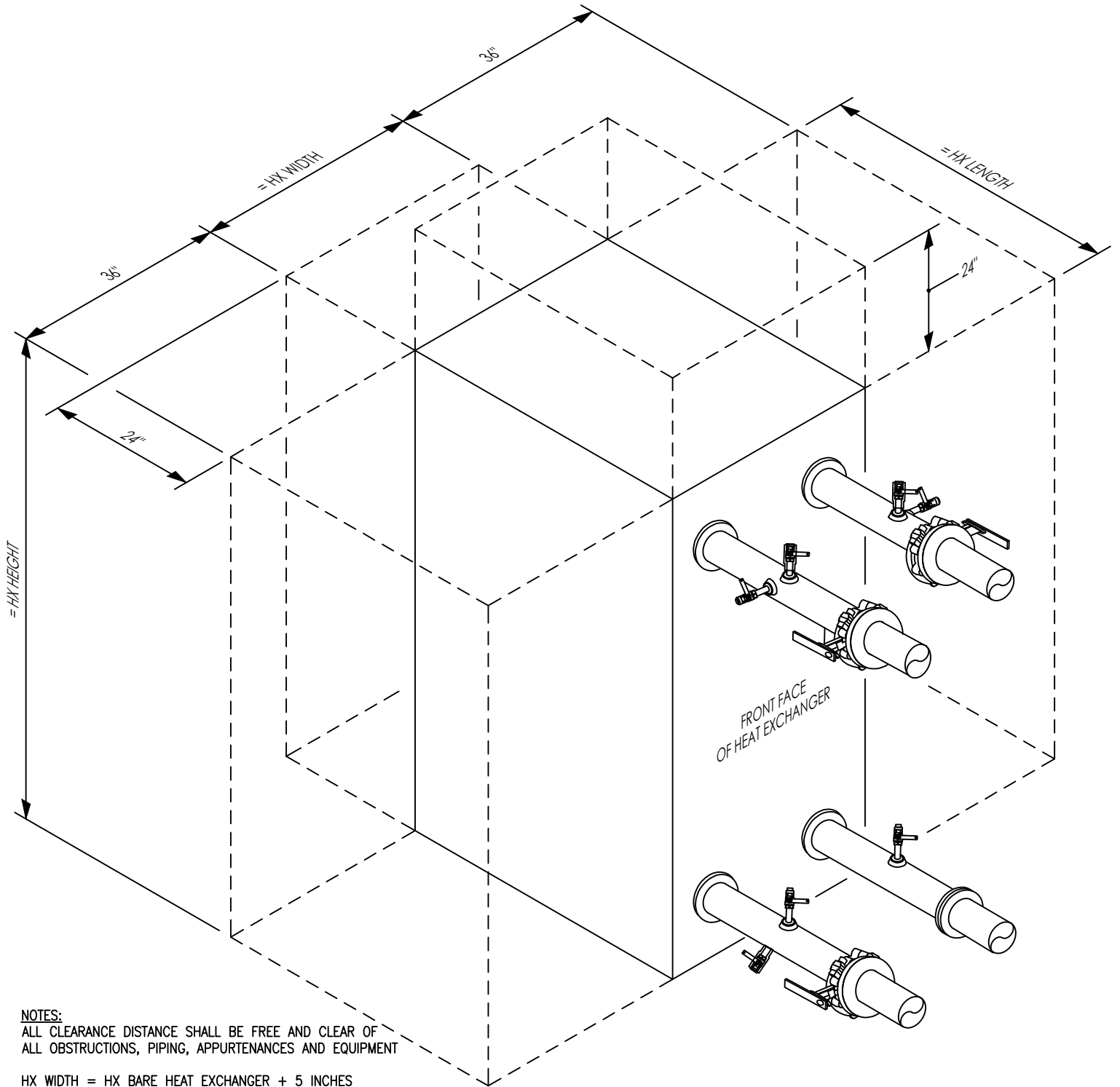
## VALVE ORIENTATION DETAIL

08/11/14

SCALE:

M24

N.T.S.



**NOTES:**  
 ALL CLEARANCE DISTANCE SHALL BE FREE AND CLEAR OF ALL OBSTRUCTIONS, PIPING, APPURTENANCES AND EQUIPMENT

HX WIDTH = HX BARE HEAT EXCHANGER + 5 INCHES INSULATION JACKET

HX HEIGHT = HX FLOOR TO UPPER BEAM  
 HX LENGTH = HX REAR HORIZONTAL BEAM + FRONT 2.5 INCHES INSULATION JACKET

# HEAT EXCHANGER CLEARANCES

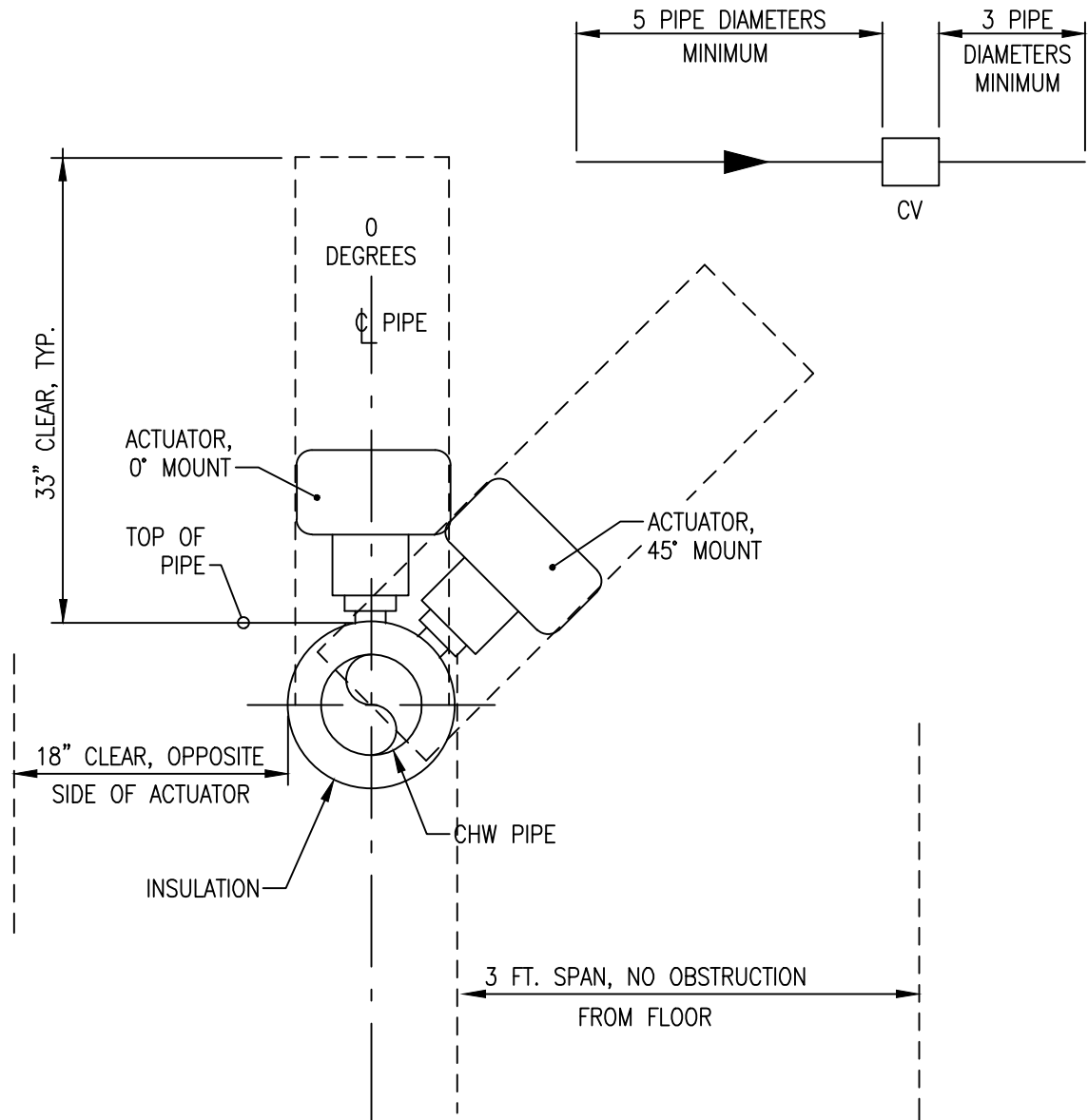
12/9/2020

SCALE:

M26

N.T.S.

NOTE:  
 CONTROL VALVE REQUIRES STRAIGHT RUN  
 OF PIPE UPSTREAM AND DOWNSTREAM.  
 SEE FIGURE BELOW.

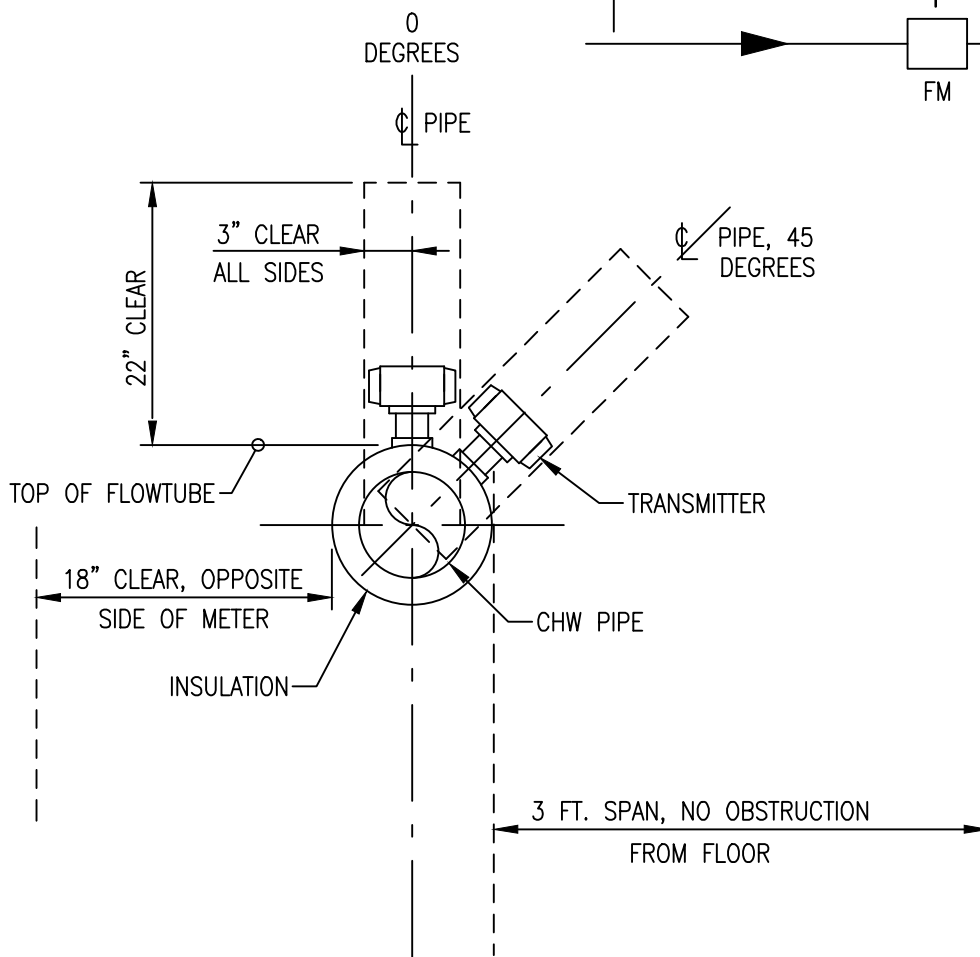
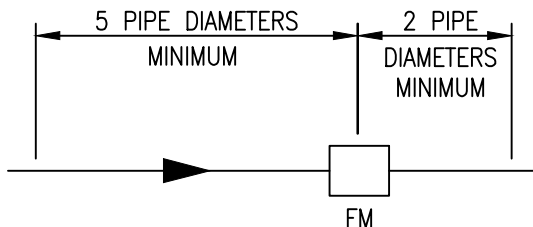


NOTE:  
 ORIENTATION IS 0 DEGREES  
 TO 45 DEGREES.

ELEVATION VIEW – HORIZONTAL ORIENTATION

# CONTROL VALVE ACCESS CLEARANCE

NOTE:  
 FLOW METER REQUIRES STRAIGHT RUN  
 OF PIPE UPSTREAM AND DOWNSTREAM.  
 SEE FIGURE BELOW.

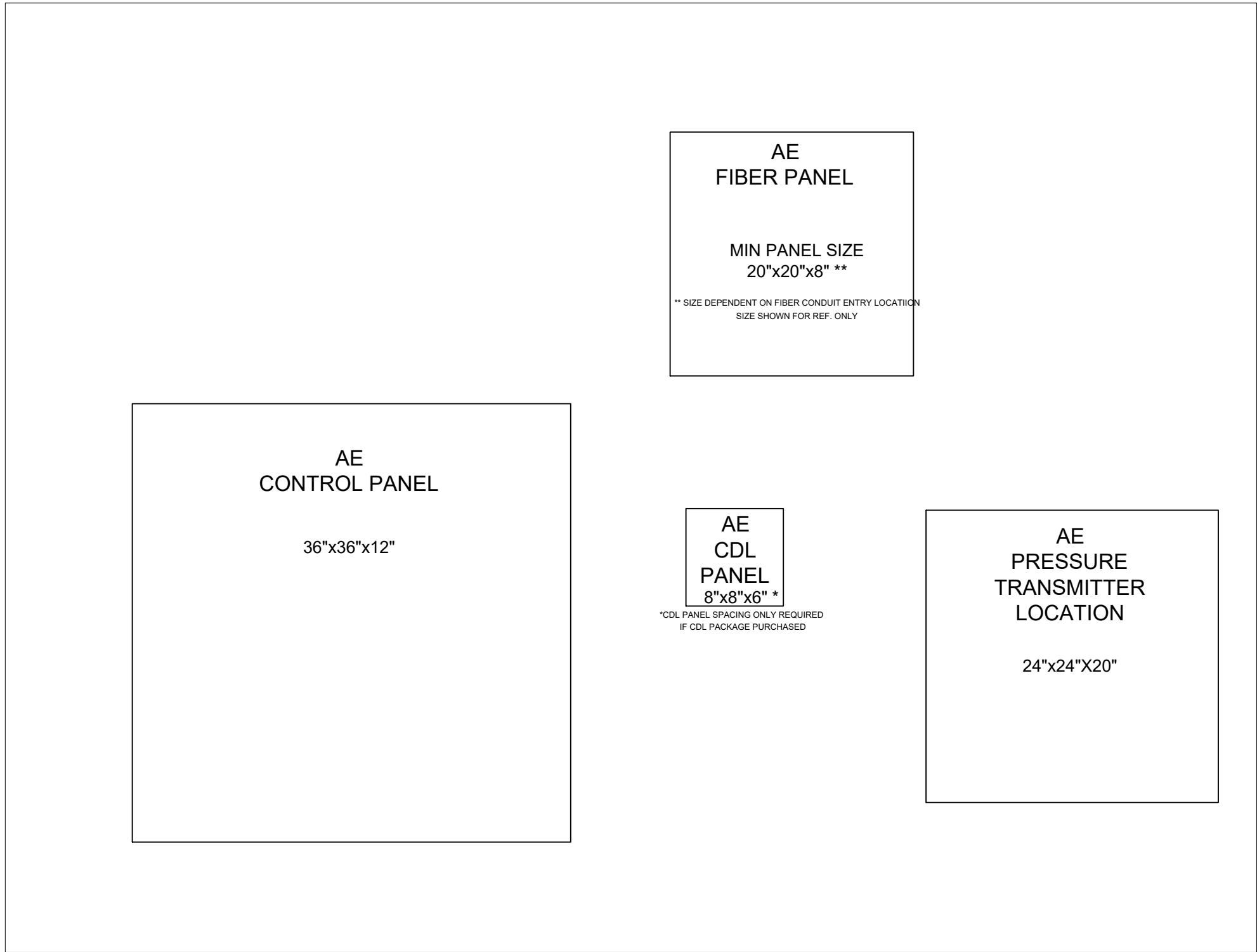


NOTE:

1. ORIENTATION IS 0 DEGREES TO 45 DEGREES.
2. INSTALL GROUNDING STRAPS. ONCE FLOW METER IS INSTALLED, GROUNDING STRIPS SHALL BE INSTALLED BEFORE WELDING IS DONE ON PIPE.

ELEVATION VIEW – HORIZONTAL ORIENTATION

# FLOW METER ACCESS CLEARANCE



**NOTES:**

1. ALL PANELS AND TRANSMITTERS MOUNTED ON THE WALL SHALL HAVE AT LEAST A MINIMUM OF 12" OF CLEARANCE AROUND ALL 4 SIDES OF PANEL/TRANSMITTER LOCATION.
2. THE CONTROL PANEL SHALL HAVE A MINIMUM OF 54" CLEARANCE IN FRONT OF THE CONTROL PANEL INCLUDING THE 12" CLEARANCE ON EITHER SIDE.
3. ALL OTHER PANELS AND TRANSMITTER LOCATION SHALL HAVE A MINIMUM OF 24" CLEARANCE IN FRONT OF PANEL/TRAMITTER LOCATION INCLUDING THE CLEARANCE ON EITHER SIDE.
4. NO PANEL SHALL BE DESIGNED TO BE MOUNTED BEHIND OR IN FRONT OF HEAT EXCHANGERS OR ANY OTHER PIECE OF EQUIPMENT UNLESS EQUIPMENT IS AT LEAST 54" FROM FRONT PANEL OR TRANSMITTER LOCATION..
5. ALL PANELS SHALL BE MOUNTED ON VERTICAL UNI-STRUCT CONNECTED TO THE WALL. SEE SPECIFICATION AE SS230900
6. NO CUSTOMER PIPING OR CONDUITS SHALL RUN IN BETWEEN OR WITHIN 12" ON ALL 4 SIDES OF THE PANELS.
7. PANEL AND TRANSMITTER LAYOUT IS FOR REFERENCE OF SIZE ONLY AND DOES NOT INDICATE ACTUAL LOCATION OF PANELS OR TRANSMITTERS. ACTUAL PANEL LAYOUT WILL BE DEPENDENT ON A PER CUSTOMER BASIS.
8. DURING CONSTRUCTION CONTROL PANEL SHALL BE PROTECTED TO PREVENT DUST AND PARTICLES FRIOM ENTERING CONTROL AND PROTECTED FROM ANY OTHER PHYSICAL DAMAGE OCCURRING TO THE CONTROL PANEL.

<b>AUSTIN ENERGY</b> ON-SITE ENERGY RESOURCES		<b>CONTROL PANEL &amp; TRANSMITTER CLEARANCES</b>	
RECORD COPY SIGNED BY <b>MICHELE BRYANT</b>		12/9/2020	STANDARD NO. <b>M-29</b>
			THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.