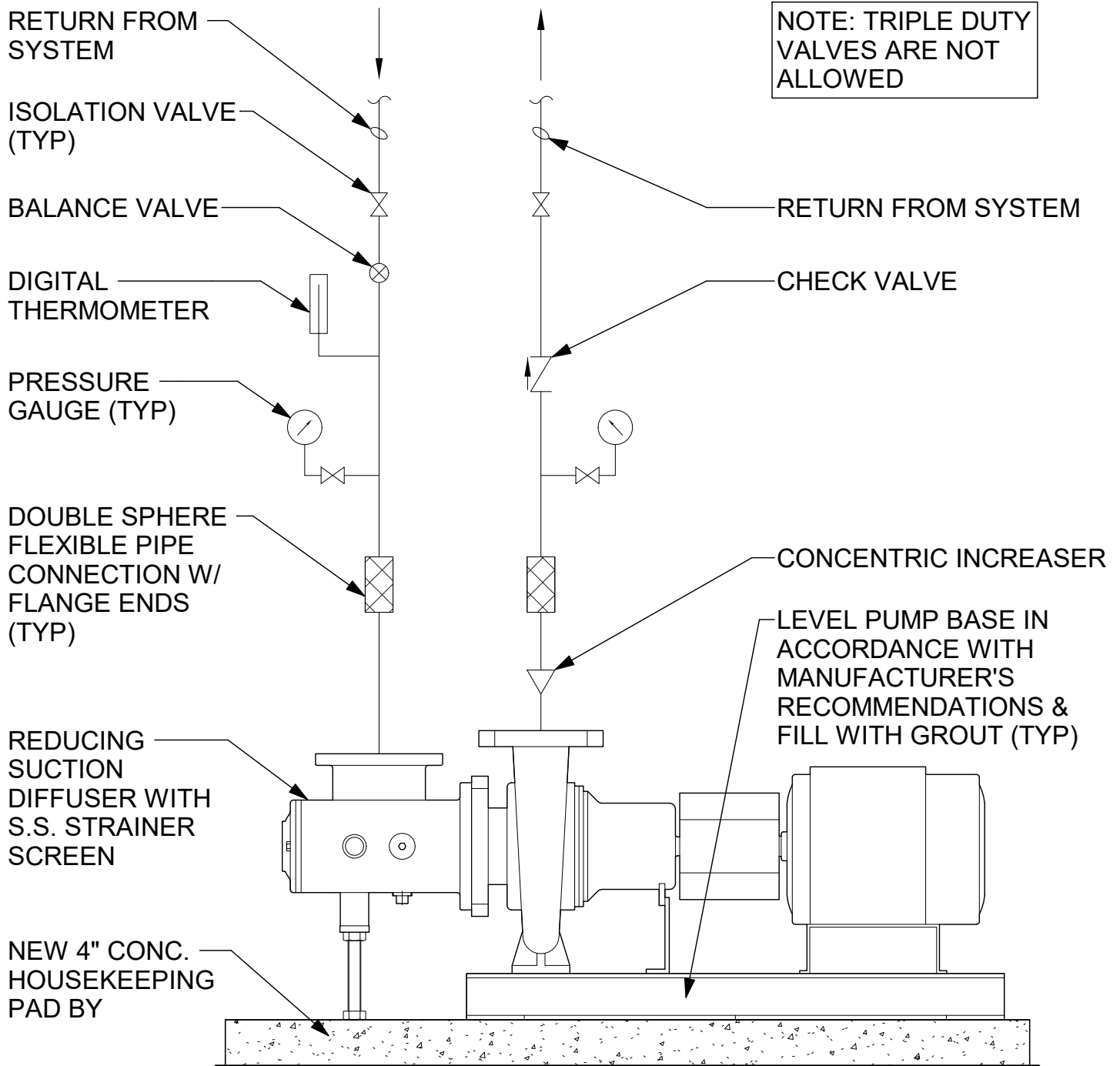




ILLINOIS STATE UNIVERSITY
EXHIBIT FS-23.2: MECHANICAL DETAILS
Effective February 1, 2022

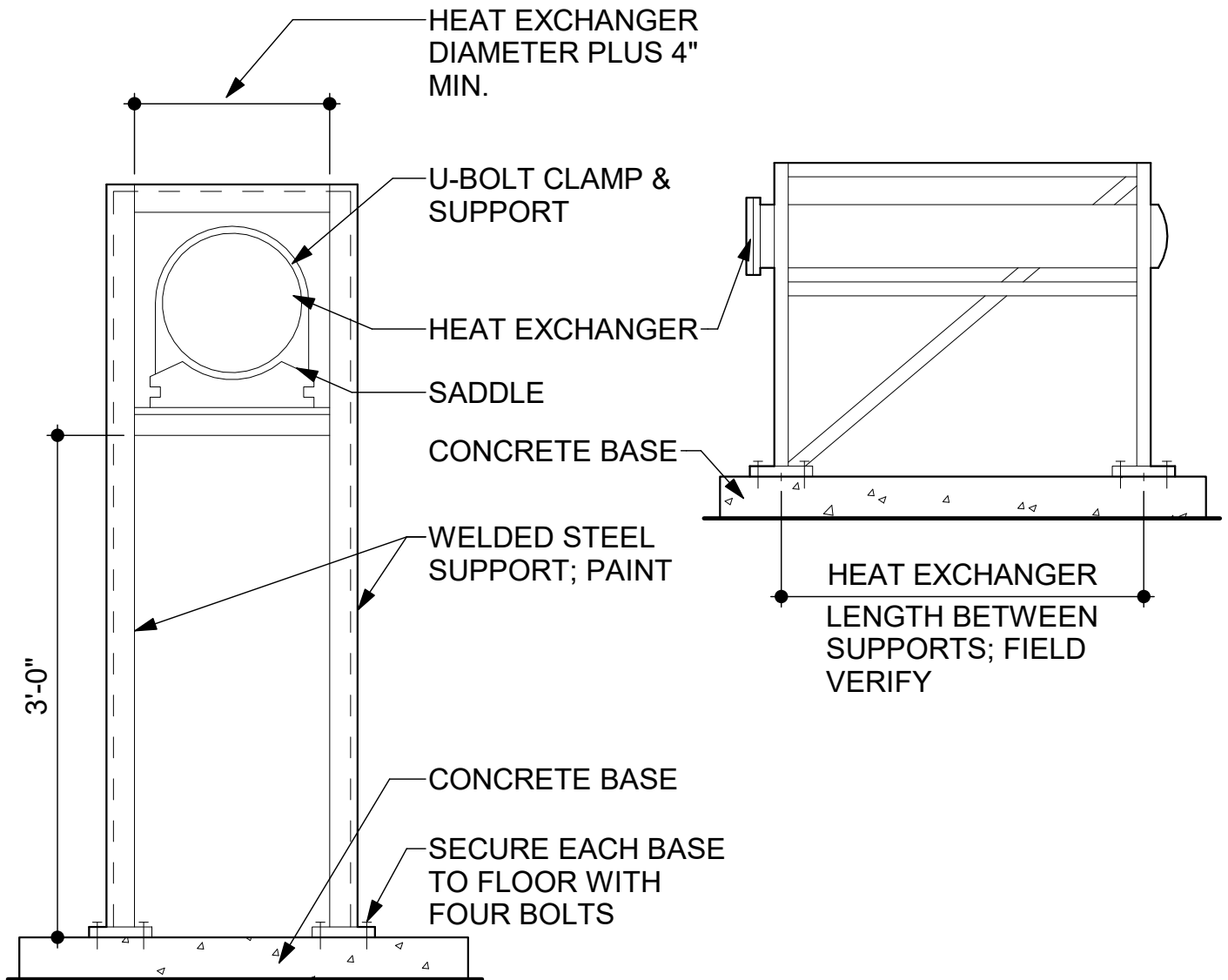
I. DETAILS

- A. See the *Illinois State University Design Guidelines* and the *Illinois State University Facilities Standards* for additional information.
- B. The following mechanical details have been included:
1. Detail 1/M1: End Suction Centrifugal Pump Piping Detail
 2. Detail 1/M2: Heat Exchanger Support Detail
 3. Detail 1/M3: Steam to Hot Water Heat Exchanger Piping Dtl.
 4. Detail 1/M4: Hot Water Reheat Coil Piping Detail (2-Way)
 5. Detail 1/M5: Chilled Water Cooling Coil Piping Detail (AHU)
 6. Detail 1/M6: Make-Up Water / Expansion Tank Detail
 7. Detail 1/M7: Condensate Drain Piping Detail (AHU)
 8. Detail 1/M8: Pot Feeder / Side Stream Filter Piping Detail




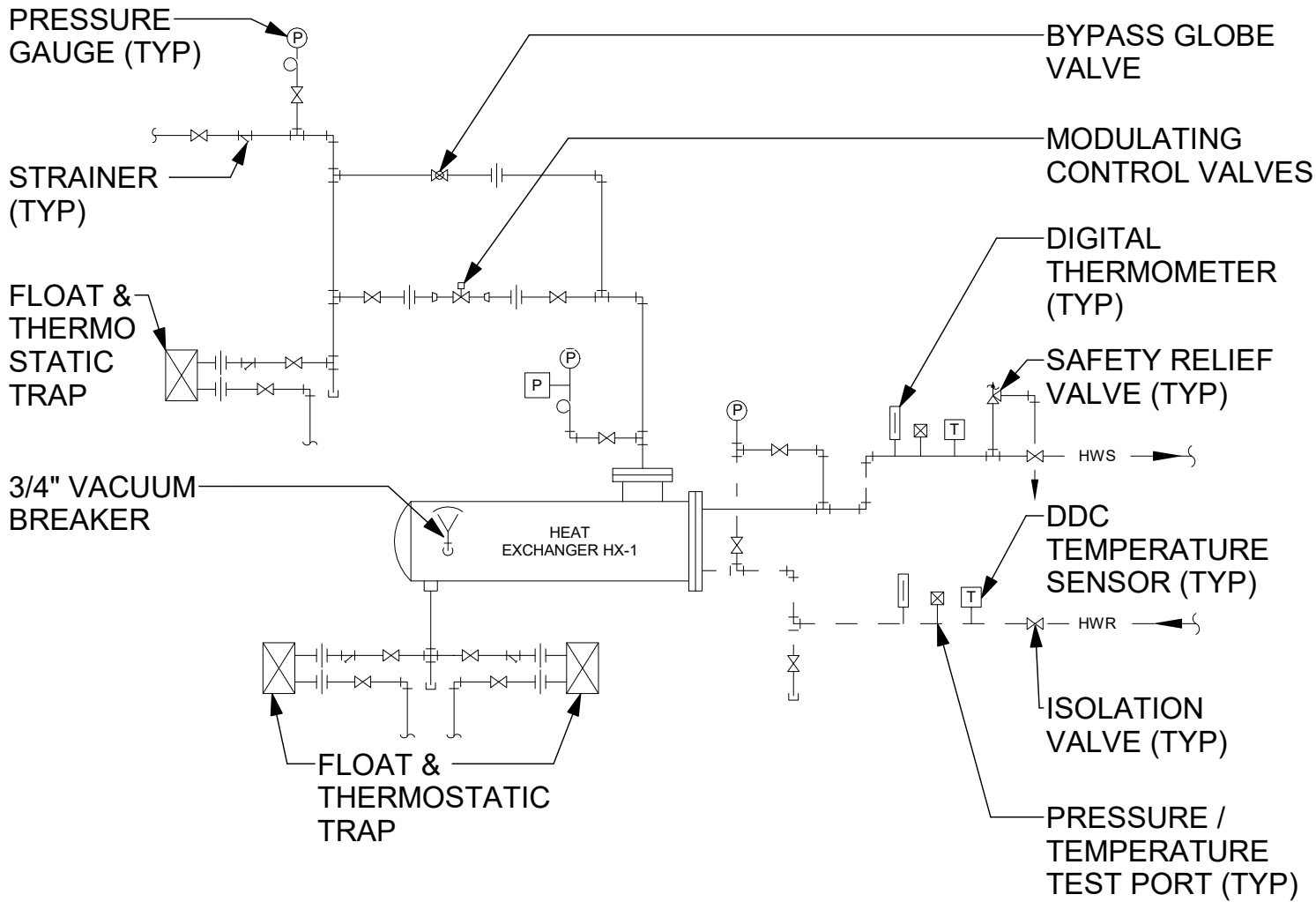
1 END SUCTION CENTRIFUGAL PUMP PIPING DETAIL
M1 NOT TO SCALE

 FACILITIES PLANNING AND CONSTRUCTION Illinois State University 100 South Fell, Suite 102 • Normal, IL 61790-3390 • (309) 438-8606	END SUCTION CENTRIFUGAL PUMP PIPING DETAIL ISU FACILITIES STANDARDS Normal, IL 61761	PROJECT NO.	DATE
		Exhibit FS-23.2	
		SHEET	M1

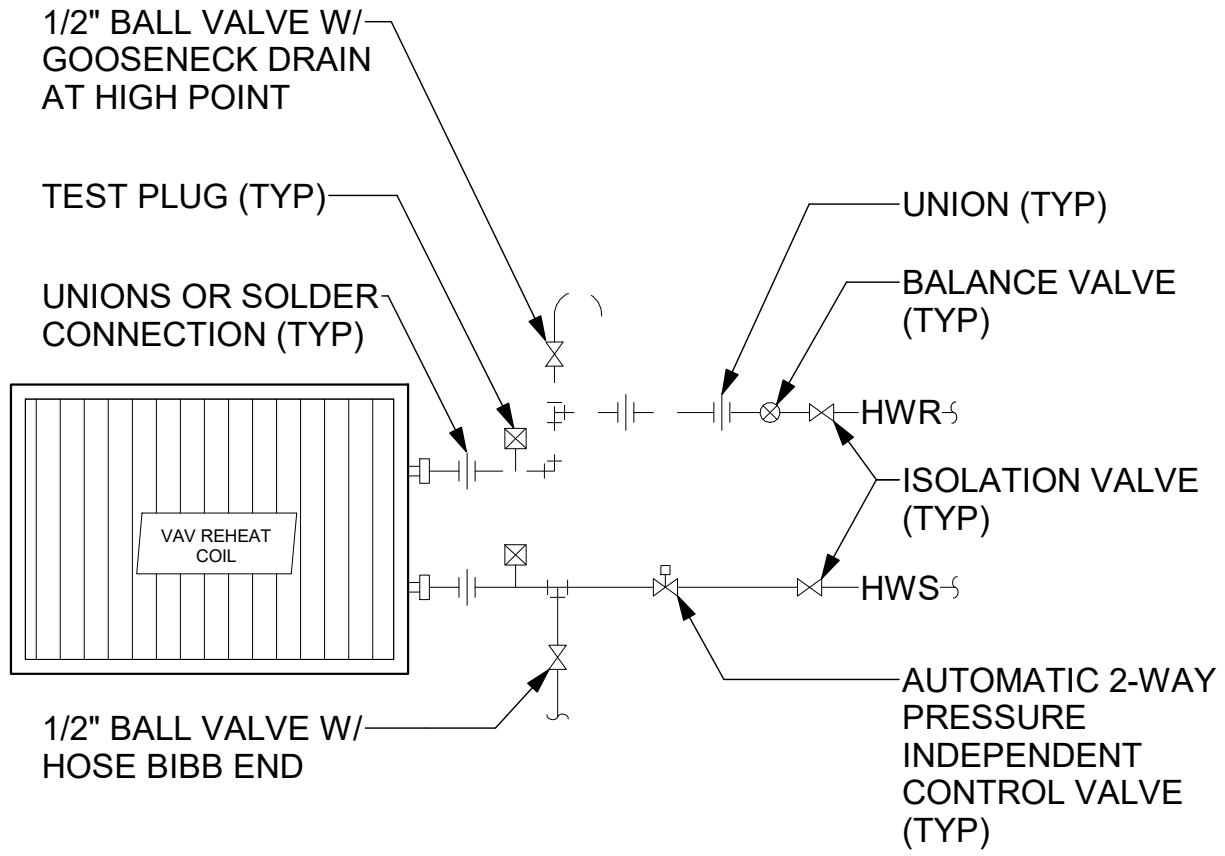


1 HEAT EXCHANGER SUPPORT DETAIL
 M2 NOT TO SCALE


 FACILITIES PLANNING AND CONSTRUCTION Illinois State University <small>100 South Fell, Suite 102 • Normal, IL 61790-3390 • (309) 438-8606</small>	HEAT EXCHANGER SUPPORT DETAIL ISU FACILITIES STANDARDS Normal, IL 61761	PROJECT NO.	DATE
		Exhibit FS-23.2	
		SHEET	M2

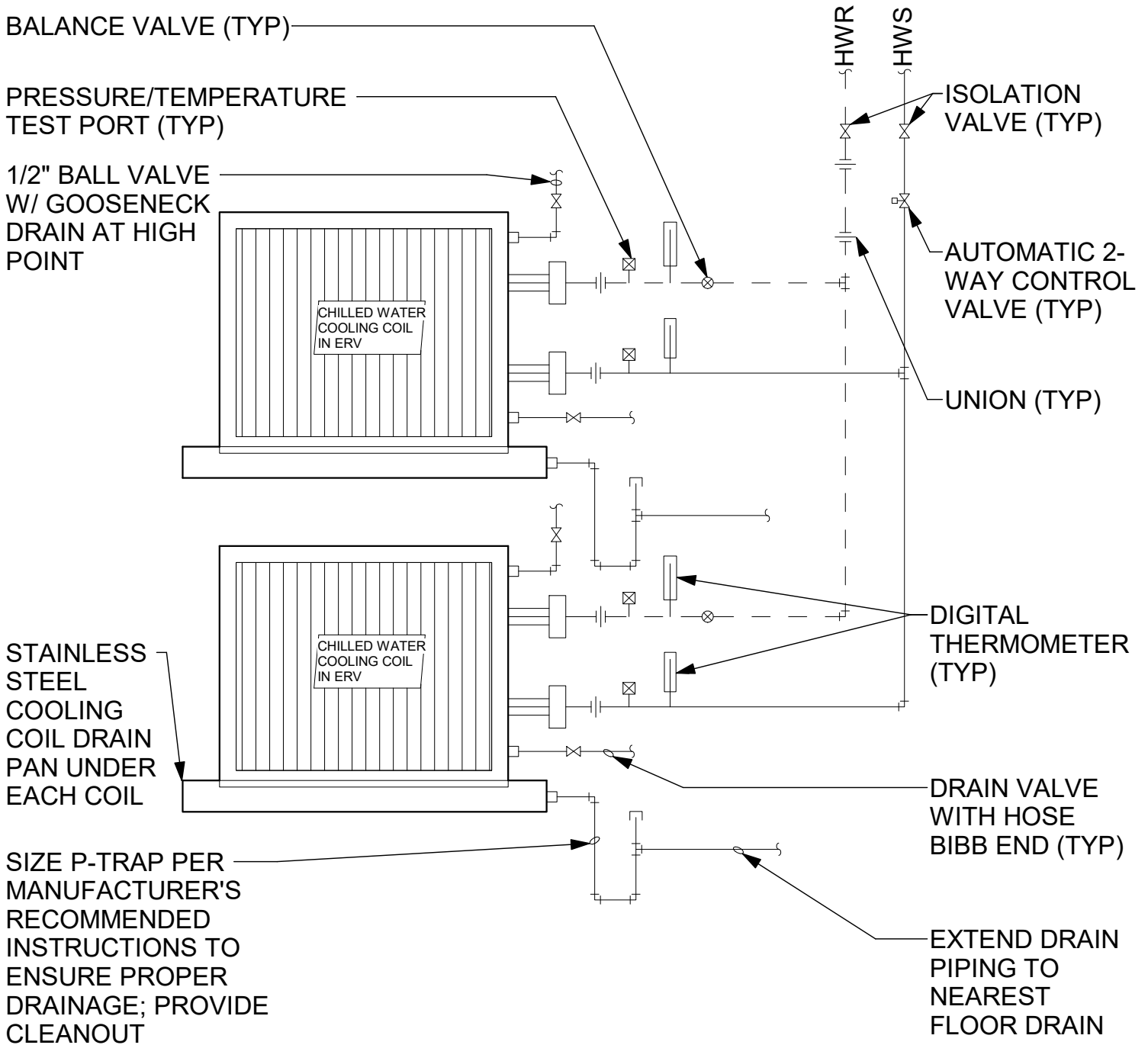


1 STEAM TO HOT WATER HEAT EXCHANGER PIPING DTL.
M3 NOT TO SCALE




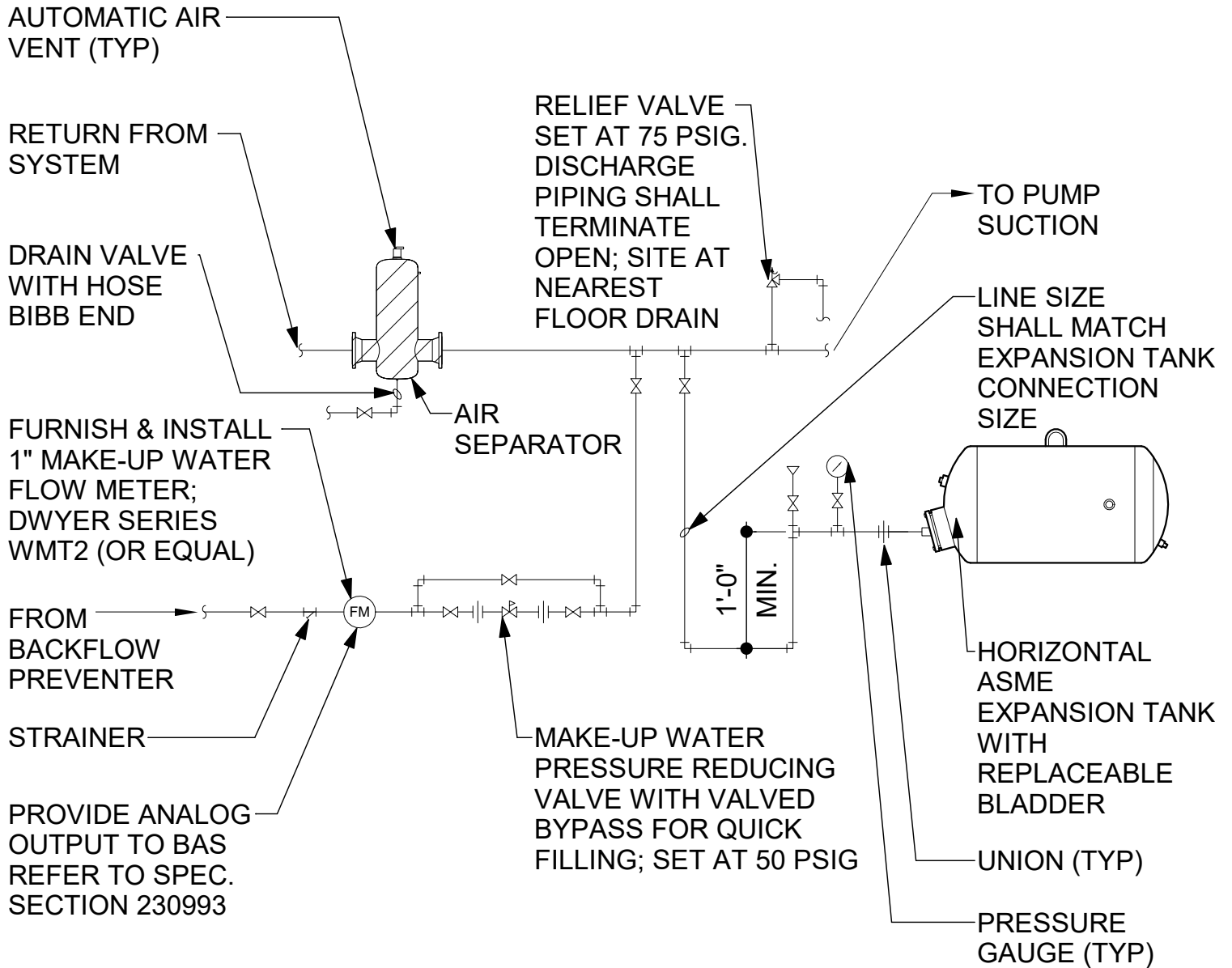
1 **HOT WATER REHEAT COIL PIPING DETAIL (2-WAY)**
M4 NOT TO SCALE

 FACILITIES PLANNING AND CONSTRUCTION Illinois State University 100 South Fell, Suite 102 • Normal, IL 61790-3390 • (309) 438-8606	HOT WATER REHEAT COIL PIPING DETAIL (2-WAY) ISU FACILITIES STANDARDS Normal, IL 61761	PROJECT NO.	DATE
		Exhibit FS-23.2	
		SHEET	M4



1 CHILLED WATER COOLING COIL PIPING DETAIL (AHU)
M5 NOT TO SCALE

 <p>FACILITIES PLANNING AND CONSTRUCTION <i>Illinois State University</i> 100 South Fell, Suite 102 • Normal, IL 61790-3390 • (309) 438-8606</p>	<p>CHILLED WATER COOLING COIL PIPING DETAIL (AHU)</p> <p>ISU FACILITIES STANDARDS Normal, IL 61761</p>	PROJECT NO.	DATE
		<p>Exhibit FS-23.2</p> <p>SHEET</p> <p style="text-align: center; font-size: 2em;">M5</p>	



1 MAKE-UP WATER / EXPANSION TANK DETAIL
 M6 NOT TO SCALE

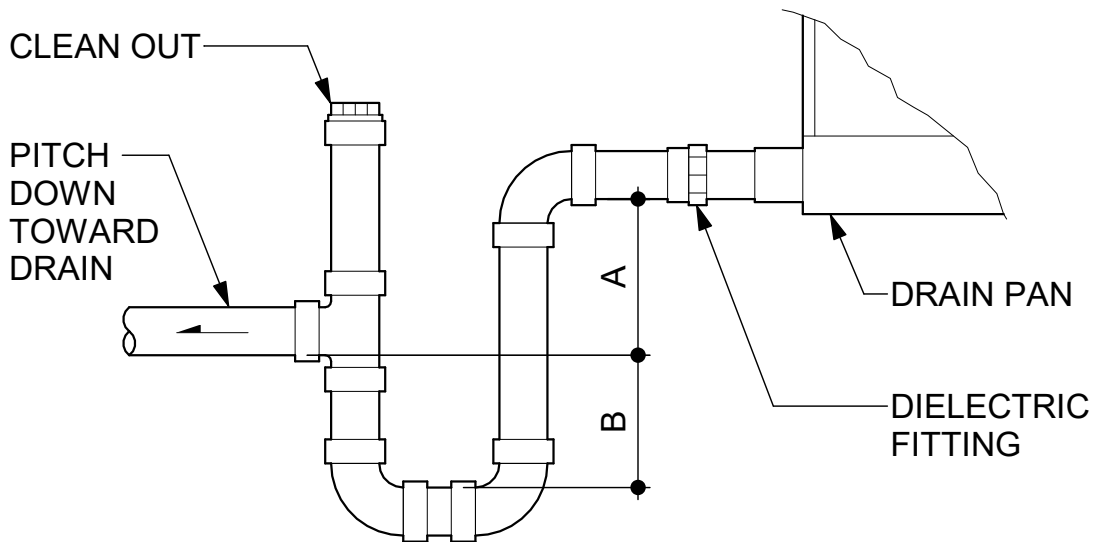
 <p>FACILITIES PLANNING AND CONSTRUCTION Illinois State University 100 South Fell, Suite 102 • Normal, IL 61790-3390 • (309) 438-8606</p>	<p>MAKE-UP WATER / EXPANSION TANK DETAIL</p> <p>ISU FACILITIES STANDARDS Normal, IL 61761</p>	PROJECT NO.	DATE
		<p>Exhibit FS-23.2</p> <p>SHEET</p>	<p>M6</p>

NOTE:

1. DRAIN LINE SIZING SHALL BE AT LEAST THE SAME SIZE AS THE NPPLE ON THE DRAIN PAN. PIPING SHALL BE RIGID COPPER TYPE "L" OR "M" UNLESS NOTED OTHERWISE.
2. DIELECTRIC FITTING TO BE USED WHEN TWO DIFFERENT METALS ARE TO BE CONNECTED.
3. PROVIDE 1" AIR GAP AND FLOOR DRAIN OR FLOOR SINK.

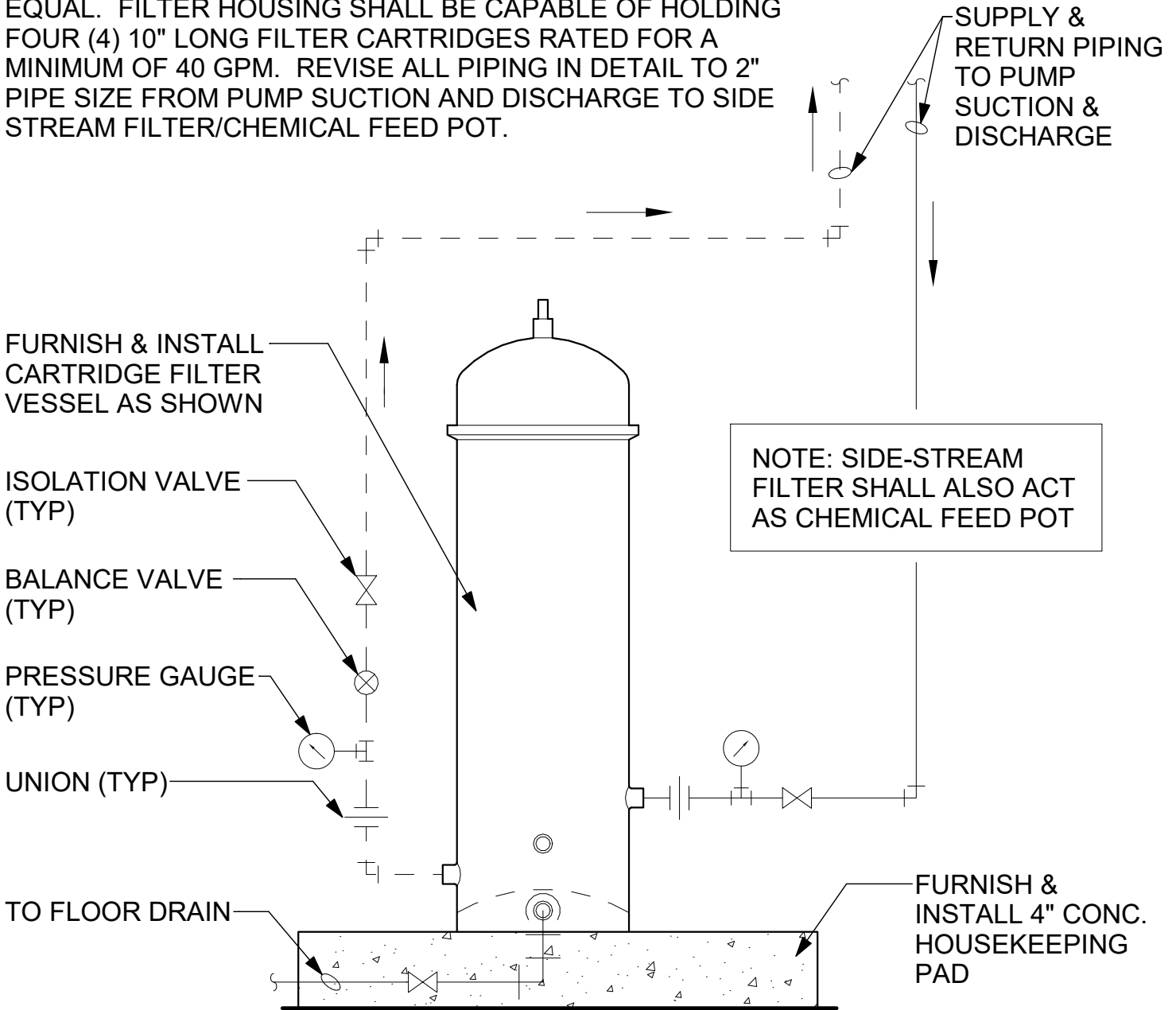
UNIT TYPE	A	B
DRAW THRU	2" PLUS X	X
BLOW THRU	1" MINIMUM	2X

WHERE X = STATIC PRESSURE IN PAN




1 CONDENSATE DRAIN PIPING DETAIL (AHU)
M7 NOT TO SCALE

CHILLED AND HEATING HOT WATER SYSTEM -
 PROVIDE SIDE STREAM FILTER MODEL SHELCO 4FOS1 OR
 EQUAL. FILTER HOUSING SHALL BE CAPABLE OF HOLDING
 FOUR (4) 10" LONG FILTER CARTRIDGES RATED FOR A
 MINIMUM OF 40 GPM. REVISE ALL PIPING IN DETAIL TO 2"
 PIPE SIZE FROM PUMP SUCTION AND DISCHARGE TO SIDE
 STREAM FILTER/CHEMICAL FEED POT.



1 POT FEEDER / SIDE STREAM FILTER PIPING DETAIL
 M8 NOT TO SCALE

 <p>FACILITIES PLANNING AND CONSTRUCTION Illinois State University 100 South Fell, Suite 102 • Normal, IL 61790-3390 • (309) 438-8606</p>	<p>POT FEEDER / SIDE STREAM FILTER PIPING DETAIL</p> <p>ISU FACILITIES STANDARDS Normal, IL 61761</p>	PROJECT NO.	DATE
		Exhibit FS-23.2	
		SHEET	
		M8	