

CHILLED WATER SYSTEM INPUT / OUTPUT SUMMARY

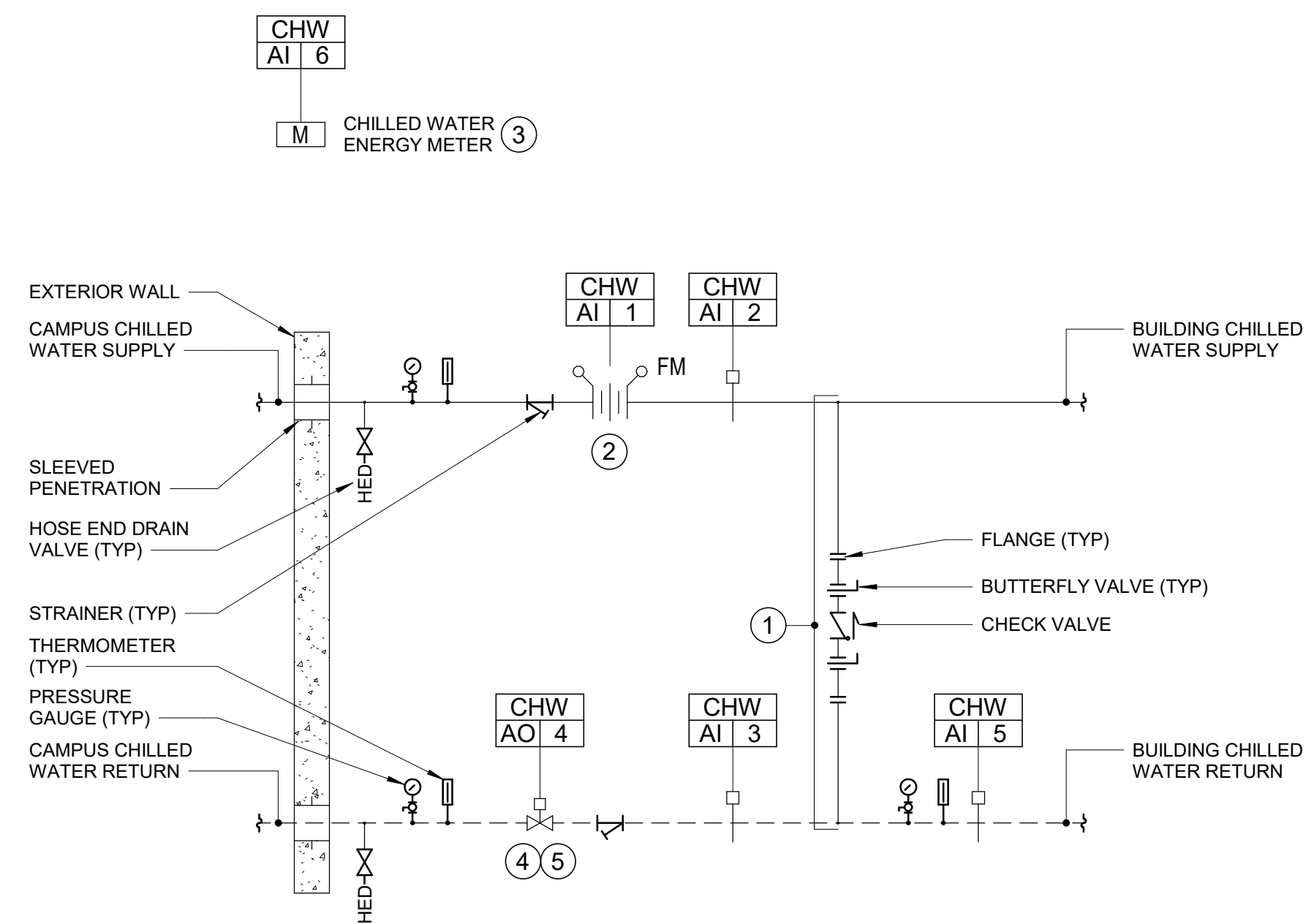
POINT NO.	IO SYSTEM TYPE	IO POINT DESCRIPTION	INPUTS									OUTPUTS		SPECIAL FEATURES										
			ANALOG			CALC.			BINARY			BINARY	ANALOG	ALARMS			PROGRAMS	COLOR GRAPHICS						
			TEMPERATURE	VELOCITY PRESSURE	STATIC PRESSURE	DIFFERENTIAL PRESSURE	GPM	BTU/HR	RUN TIME	TONS	STATUS (DIFF. PRESS)	STATUS (AMPS)	END SWITCH	VALVE POSITION	VALVE POSITION	LOW TEMP LIMIT	HIGH TEMP LIMIT		LOW DIFF. PRESSURE	HIGH DIFF. PRESSURE	PROOF	FAILURE	TIME SCHEDULING	TEMPERATURE RESET
1	FLOW METER	BUILDING CHILLED WATER FLOW METER				X																		X
2	TEMPERATURE SENSOR	BUILDING CHILLED WATER SUPPLY TEMPERATURE SENSOR	X											X	X								X	
3	TEMPERATURE SENSOR	CAMPUS CHILLED WATER RETURN TEMPERATURE SENSOR	X											X	X								X	
4	CONTROL VALVE	CAMPUS CHILLED WATER RETURN VALVE											X	X									X	
5	TEMPERATURE SENSOR	BUILDING CHILLED WATER RETURN TEMPERATURE SENSOR	X											X	X								X	
6	CHILLED WATER ENERGY METER	CHILLED WATER ENERGY METER					X	X															X	

SEQUENCE OF OPERATIONS

- A. SEE SCHEMATIC FOR LOCATIONS OF ALL TEMPERATURE TRANSMITTERS, PANELS, VALVES, AND EQUIPMENT; WHERE SUCH DEVICES ARE NOT INDICATED, HOWEVER REQUIRED BY THE SEQUENCE, SHALL BE PROVIDED BY THE CONTRACTOR.
- B. A FULL COMMUNICATIONS INTERFACE AND COMPLETE INTEROPERABILITY WITH THE EXISTING CAMPUS JCI DDC AUTOMATIC TEMPERATURE CONTROL SYSTEM SHALL BE PROVIDED TO PERFORM THE FUNCTIONS HEREIN DESCRIBED.
- C. CHILLED WATER TEMPERATURE CONTROL
 - 1. CAMPUS CHILLED WATER RETURN VALVE, V-1, SHALL BE NORMALLY CLOSED.
 - 2. CAMPUS CHILLED WATER RETURN VALVE, V-1, SHALL BE MODULATED TO MAINTAIN CHILLED WATER RETURN TEMPERATURE SETPOINT AS SEEN BY TS-CHS-2.
- D. ALARMS & FAILURE MODES
 - 1. CAMPUS CHILLED WATER RETURN VALVE, V-1, SHALL FAIL CLOSED.

DRAWING NOTES

- 1 BRIDGE/DECOUPLER PIPING SHALL HAVE A MINIMUM LENGTH OF 18 INCHES (AS MEASURED FROM THE CENTERLINES OF THE CHILLED WATER SUPPLY AND RETURN PIPING) WITH A PRESSURE DROP OF LESS THAN 1.5 FT AT THE BUILDING FULL LOAD CHILLED WATER FLOW.
- 2 PROVE THE MANUFACTURER'S REQUIRED STRAIGHT LENGTH OF PIPING UPSTREAM AND DOWNSTREAM OF THE CHILLED WATER FLOW METER
- 3 CONNECT THE BUILDING DIGITAL ENERGY METER TO THE CHILLED WATER FLOW METER, FM-1; AND THE TEMPERATURE SENSORS, T-CHS-1 AND T-CHR-1.
- 4 CONTROL VALVE SHALL BE FLO-TITE SENTINEL SERIES, SEGMENTED V-BALL, CONTROL VALVE. VALVE SHALL HAVE A STAINLESS STEEL BALL AND STEM WITH FLANGED CONNECTIONS. CLOSE OFF PRESSURE SHALL BE 250 PSI. VALVE SHALL BE PROVIDED WITH AN INDUSTRIAL PRATT ELECTRIC ACTUATOR.
- 5 VALVE SHALL BE SIZED FOR THE FULL BUILDING CHILLED WATER LOAD.



CHILLED WATER BRIDGE DETAIL
SCALE: N.T.S.