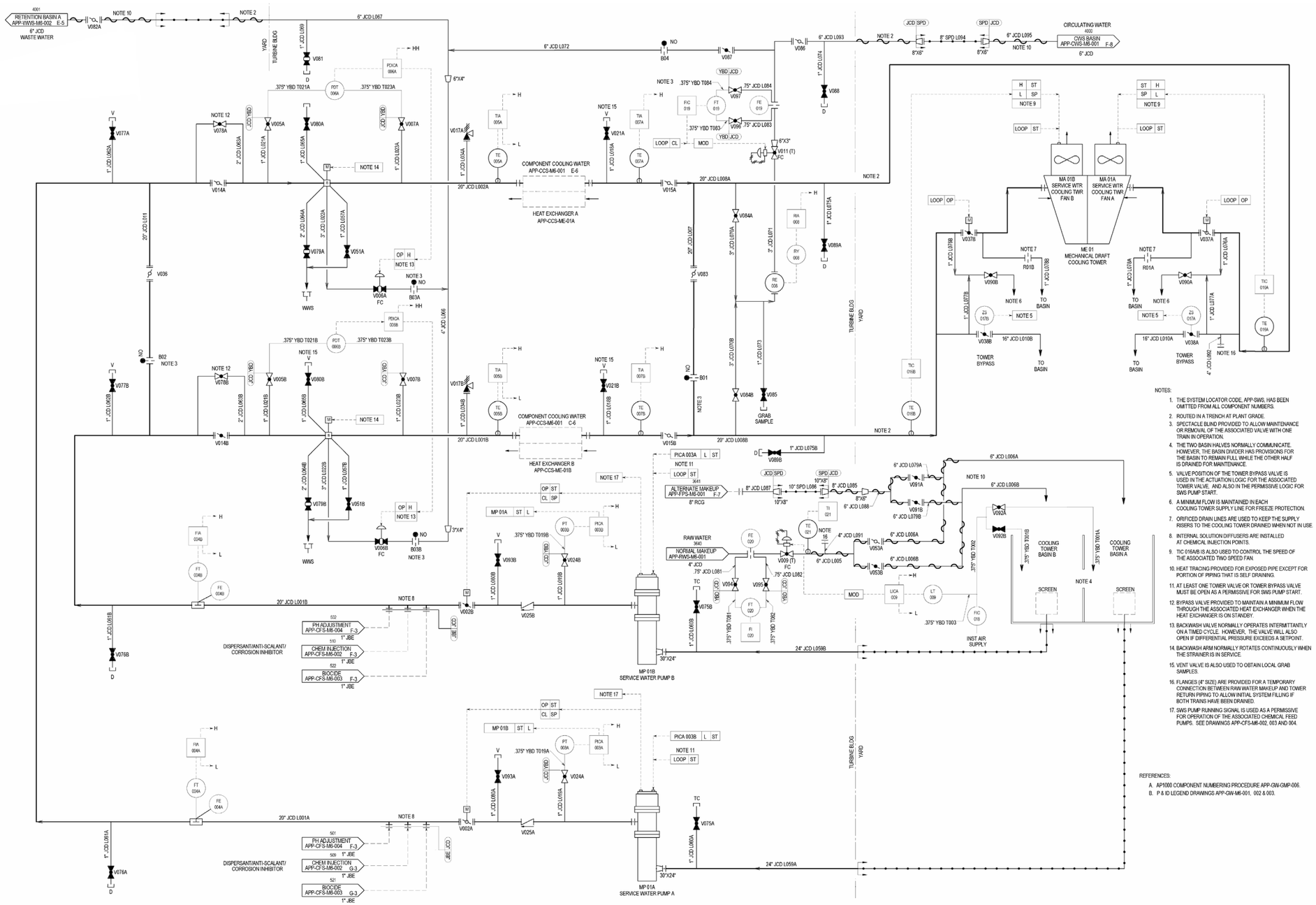

NOTES:

1. THE SYSTEM LOCATOR CODE, APP-SWS, HAS BEEN OMITTED FROM ALL COMPONENT NUMBERS.
2. ROUTED IN A TRENCH AT PLANT GRADE.
3. SPECTACLE BLIND PROVIDED TO ALLOW MAINTENANCE OR REMOVAL OF THE ASSOCIATED VALVE WITH ONE TRAIN IN OPERATION.
4. THE TWO BASIN HALVES NORMALLY COMMUNICATE. HOWEVER, THE BASIN DIVIDER HAS PROVISIONS FOR THE BASIN TO REMAIN FULL WHILE THE OTHER HALF IS DRAINED FOR MAINTENANCE.
5. VALVE POSITION OF THE TOWER BYPASS VALVE IS USED IN THE ACTUATION LOGIC FOR THE ASSOCIATED TOWER VALVE. AND ALSO IN THE PERMISSIVE LOGIC FOR SWS PUMP START.
6. A MINIMUM FLOW IS MAINTAINED IN EACH COOLING TOWER SUPPLY LINE FOR FREEZE PROTECTION.
7. ORIFICED DRAIN LINES ARE USED TO KEEP THE SUPPLY RISERS TO THE COOLING TOWER DRAINED WHEN NOT IN USE.
8. INTERNAL SOLUTION DIFFUSERS ARE INSTALLED AT CHEMICAL INJECTION POINTS.
9. TIC 016AB IS ALSO USED TO CONTROL THE SPEED OF THE ASSOCIATED TWO SPEED FAN.
10. HEAT TRACING PROVIDED FOR EXPOSED PIPE EXCEPT FOR PORTION OF PIPING THAT IS SELF DRAINING.
11. AT LEAST ONE TOWER VALVE OR TOWER BYPASS VALVE MUST BE OPEN AS A PERMISSIVE FOR SWS PUMP START.
12. BYPASS VALVE PROVIDED TO MAINTAIN A MINIMUM FLOW THROUGH THE ASSOCIATED HEAT EXCHANGER WHEN THE HEAT EXCHANGER IS ON STANDBY.
13. BACKWASH VALVE NORMALLY OPERATES INTERMITTANTLY ON A TIMED CYCLE. HOWEVER, THE VALVE WILL ALSO OPEN IF DIFFERENTIAL PRISSIURE EXCEEDS A SETPOINT.
14. BACKWASH ARM NORMALLY ROTATES CONTINUOUSLY WHEN THE STRAINER IS IN SERVICE.
15. VENT VALVE IS ALSO USED TO OBTAIN LOCAL GRAB SAMPLES.
16. FLANGES (4" SIZE) ARE PROVIDED FOR A TEMPORARY CONNECTION BETWEEN RAW WATER MAKEUP AND TOWER RETURN PIPING TO ALLOW INITIAL SYSTEM FILLING IF BOTH TRAINS HAVE BEEN DRAINED.
17. SWS PUMP RUNNING SIGNAL IS USED AS A PERMISSIVE FOR OPERATION OF THE ASSOCIATED CHEMICAL FEED PUMPS. SEE DRAWINGS APP-CFS-M6-002, 003 AND 004.

REFERENCES:

A. AP1000 COMPONENT NUMBERING PROCEDURE APP-GW-GMP-006.
B. P & ID LEGEND DRAWINGS APP-GW-M6-001, 002 & 003.

FIGURE 9.2-202
Service Water System Piping and Instrumentation Diagram