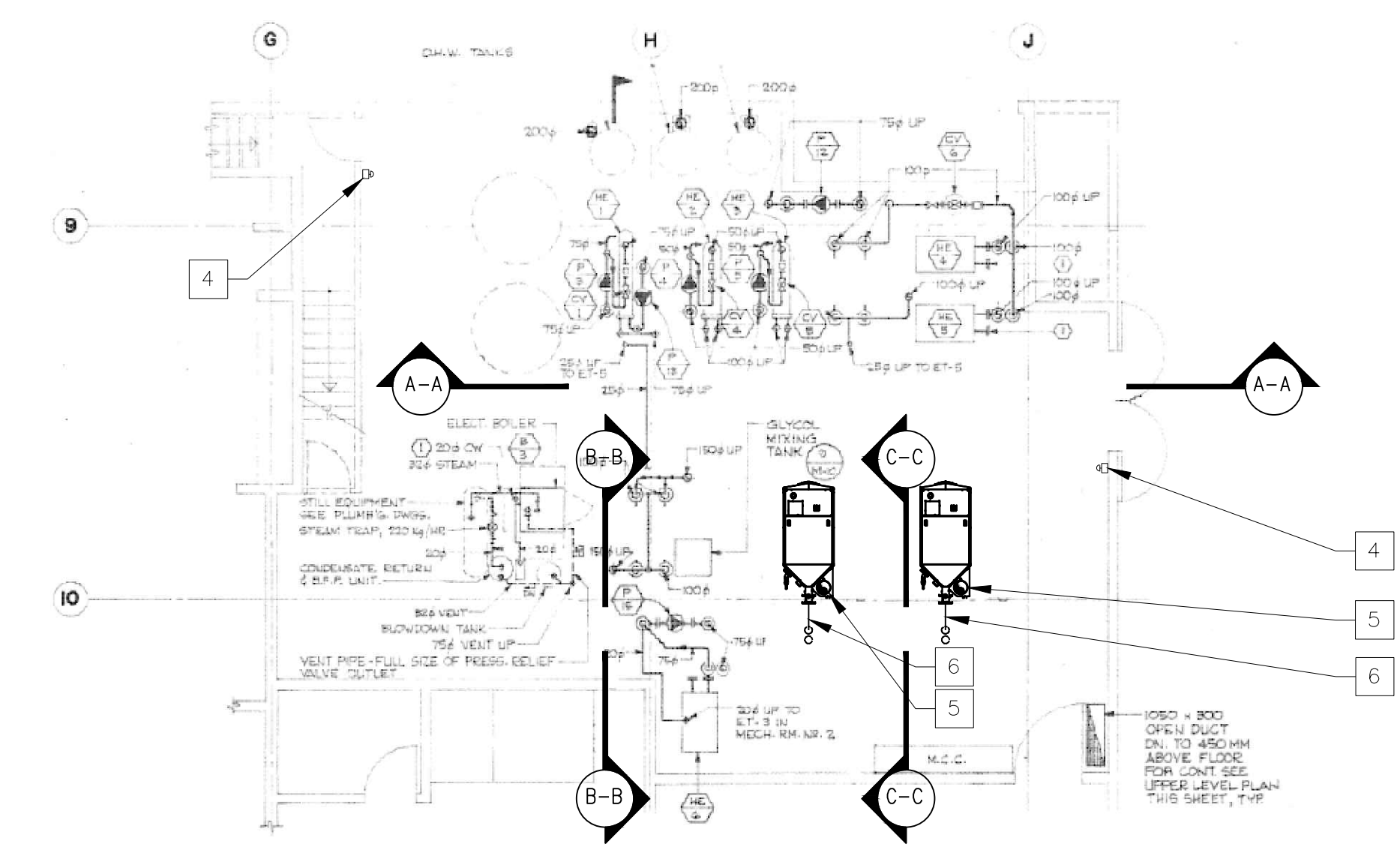


MECHANICAL ROOM NO.1 HIGH LEVEL PLAN
SCALE: 1:100



MECHANICAL ROOM NO.1 LOWER LEVEL PLAN
SCALE: 1:100

GENERAL NOTES:

1. THE CONTRACTOR WILL SHUT DOWN THE EXISTING EQUIPMENT BEFORE WORKS COMMENCE WITH THE BUILDING FMO STAFF IN ATTENDANCE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DRAINING OF THE SYSTEMS.
2. THE CONTRACTOR SHALL PROVIDE THE DEPARTMENTAL REPRESENTATIVE WITH AT LEAST 72 HOURS WRITTEN NOTICE OF ANY FURTHER SHUTDOWNS THAT MAY BE REQUIRED.
3. THE CONTRACTOR SHALL PROVIDE THE DEPARTMENTAL REPRESENTATIVE WITH AT LEAST 72 HOURS WRITTEN NOTICE OF ANY EQUIPMENT START-UP.
4. ALL NEW AND EXISTING HEATING SERVICES PIPING SHALL BE THERMALLY INSULATED AS PER THE SPECIFICATION.
5. ALL NEW AND EXISTING OPENINGS AROUND PIPING, CONDUITS, FLUES/BREACHING, ARE TO BE FIRE STOPPED WHERE THEY PENETRATE THE BOILER ROOM WALLS.
6. THE CONTRACTOR SHALL REVIEW THE PROPOSED MECHANICAL PIPING LAYOUT ON SITE WITH THE CONSULTANT PRIOR TO COMMENCING THE INSTALLATION OR PRE-FABRICATION. THE CONTRACTOR SHALL NOT FABRICATE ANY PIPING UNTIL THE FINAL PIPING LAYOUT HAS BEEN APPROVED BY THE CONSULTANT.
7. ALL NEW PUMPS AND VALVES SHALL BE MOUNTED AND INSTALLED IN ACCESSIBLE POSITIONS THAT ALLOW EASY MAINTENANCE. IT IS EXPECTED THAT THEY WILL BE INSTALLED WITHIN 5 FEET OF THE FINISHED FLOOR LEVEL. ANY DEVIATION FROM THIS MUST BE APPROVED BY THE DEPARTMENTAL REPRESENTATIVE. RELOCATION OF IMPROPERLY LOCATED PUMPS AND VALVES WILL BE AT THE CONTRACTORS EXPENSE.
8. ALL TEMPERATURE AND PRESSURE GAUGES SHALL BE INSTALLED SO THAT THEY ARE EASILY READABLE TO THE MAINTENANCE STAFF. ANY DEVIATION FROM THIS MUST BE APPROVED BY THE DEPARTMENTAL REPRESENTATIVE. RELOCATION OF IMPROPERLY LOCATED GAUGES WILL BE AT THE CONTRACTORS EXPENSE.
9. THE CONTRACTOR SHALL PROVIDE ALL PERMITS AND CERTIFICATION AS REQUIRED BY CODE AND THE LOCAL JURISDICTION.
10. ALL CONDENSATE PIPING SHALL BE RUN THROUGH THE SPECIFIED CONDENSATE NEUTRALIZER TO A FLOOR DRAIN.
11. ALL NEW AND EXISTING BACKFLOW PREVENTORS SHALL BE TESTED AND CERTIFIED. A NEW BACKFLOW PREVENTION DEVICE SHALL BE INSTALLED ON THE HEATING SYSTEM COLD FEED.
12. ALL ROOFING WORKS ASSOCIATED WITH THE NEW FLUES SHALL BE UNDERTAKEN BY THE CONTRACTOR IN ACCORDANCE WITH THE LATEST EDITION OF THE ROOFING CONTRACTORS ASSOCIATION OF BRITISH COLUMBIA'S ROOFING PRACTICES MANUAL. IMPROPER ROOFING WORKS SHALL BE RECTIFIED AT THE CONTRACTORS EXPENSE.
13. ALL NEW BOILER COMBUSTION VENTING SHALL BE SEPARATELY VENTED AND BE STAINLESS STEEL (AS REQUIRED BY CODE). IT IS THE INTENTION TO FOLLOW THE SAME ROUTE AS THE EXISTING FLUES AND TERMINATE AT ROOF LEVEL COMPLETE WITH NEW WATERPROOF FLASHING. ALL COMBUSTION VENT TERMINALS SHALL MEET THE CURRENT GAS CODE REQUIREMENTS.
14. THE NEW BOILER EQUIPMENT SHALL BE LISTED ON THE APPROVED FORTISBC ELIGIBLE BOILER LIST FOR THE EFFICIENT BOILER PROGRAM.

KEYED NOTES:

- 1 PROVIDE NEW LINE SIZE (100#) CONTROL VALVE (120VAC) ACTUATOR COUPLED WITH BUTTERFLY VALVE. (TYP OF 2)
- 2 REMOVABLE RAILING TO ALLOW EGRESS OF EQUIPMENT IN AND OUT OF THE BOILER ROOM
- 3 SEPARATE TEMPERATURE AND PRESSURE GAUGES ON BOILER SUPPLY AND RETURN CONNECTIONS
- 4 NEW EMERGENCY "KNOCK-OFF" BUTTON (TYP AT EACH EXIT) - SUPPLIED AND INSTALLED BY ESC AND CONNECTED TO THE DDC
- 5 406# 'COMMON' BOILER STAINLESS STEEL BOILER VENTING SHALL BE COMPATIBLE WITH THE NEW BOILER EQUIPMENT AND SHALL FOLLOW THE SAME ROUTE AS EXISTING (REMOVED) BOILER VENTING. THE BOILER VENT TO TERMINATE ABOVE ROOF LEVEL IN ACCORDANCE WITH GAS CODE.
- 6 PROVIDE NEW PIPING SECTIONS AND FITTINGS AS SHOWN
- 7 PROVIDE NEW ISOLATION VALVES (TYP)
- 8 PROVIDE NEW CHECK VALVES (TYP)
- 9 PROVIDE NEW Y TYPE STRAINER (TYP)
- 10 PROVIDE NEW SAFETY VALVES (TYP)
- 11 MODIFY THE EXISTING CONCRETE PAD AS REQUIRED TO MOUNT THE NEW EQUIPMENT (TYP)
- 12 NEW INLINE VARIABLE SPEED PUMP (P-13) SHALL BE LOCATED IN THE RISER TO HEAT EXCHANGER (HE-1) AND SHALL BE INSTALLED COMPLETE WITH NEW ISOLATION VALVES, CHECK VALVE AND STRAINER AS PER THE SPECIFICATIONS.

MECHANICAL NOTES:

1. THE NEW COMBUSTION VENTING SHALL CONFORM TO CURRENT CODE REQUIREMENTS AND THOSE OF THE BOILER MANUFACTURER REQUIREMENTS FOR APPROVED STAINLESS STEEL VENT MANUFACTURERS.
2. UTILIZE MANUFACTURERS RECOMMENDED SUPPORT TYPES (WALL SUPPORT, ANCHOR PLACE, ROOF SUPPORT, FLOOR SUPPORT, SUSPENSION BAND) TO FULLY SUPPORT VENTS TO STRUCTURE.
3. TERMINATE VENTS A MINIMUM 03 METERS FROM ANY MECHANICAL VENTS OR BUILDING OPENINGS.
4. SEAL CURB AND INSTALL AS PER RCBC STANDARDS.
5. NEW STAINLESS STEEL SHEET METAL CAP FLASHING (20 GAUGE) SHALL BE PROVIDED AT TOP OF EXISTING CHIMNEY, WHERE NEW COMBUSTION VENTING (FLUES) PENETRATE THE STRUCTURE. SEAL OPENINGS WITH INSULATION MASTIC.
6. EXTEND NEW COMBUSTION VENTS TO A MINIMUM 600MM ABOVE ANY ROOF WITHIN 3.5 METERS OF VENTING.

DWG. NO.	DRAWING REFERENCES	NOTES	NO.	DATE	REVISIONS	DESIGNED SM DRAWN SA CHECKED RECOMMENDED APPROVED	<p>9<F'; 8'E<8F''4'A7''B'6'8'4'AF''6'4'A'4'7'4 E84?''CEBC8EGL''4'A7''F498GL''4'A7''F86HE<GL</p> <p>WEST VANCOUVER LABORATORY HEATING SYSTEM UPGRADE BOILER ROOM PLAN AND SECTIONS</p>	SCALE AS NOTED DATE 2016-MAR-31 DRAWING NUMBER M302
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