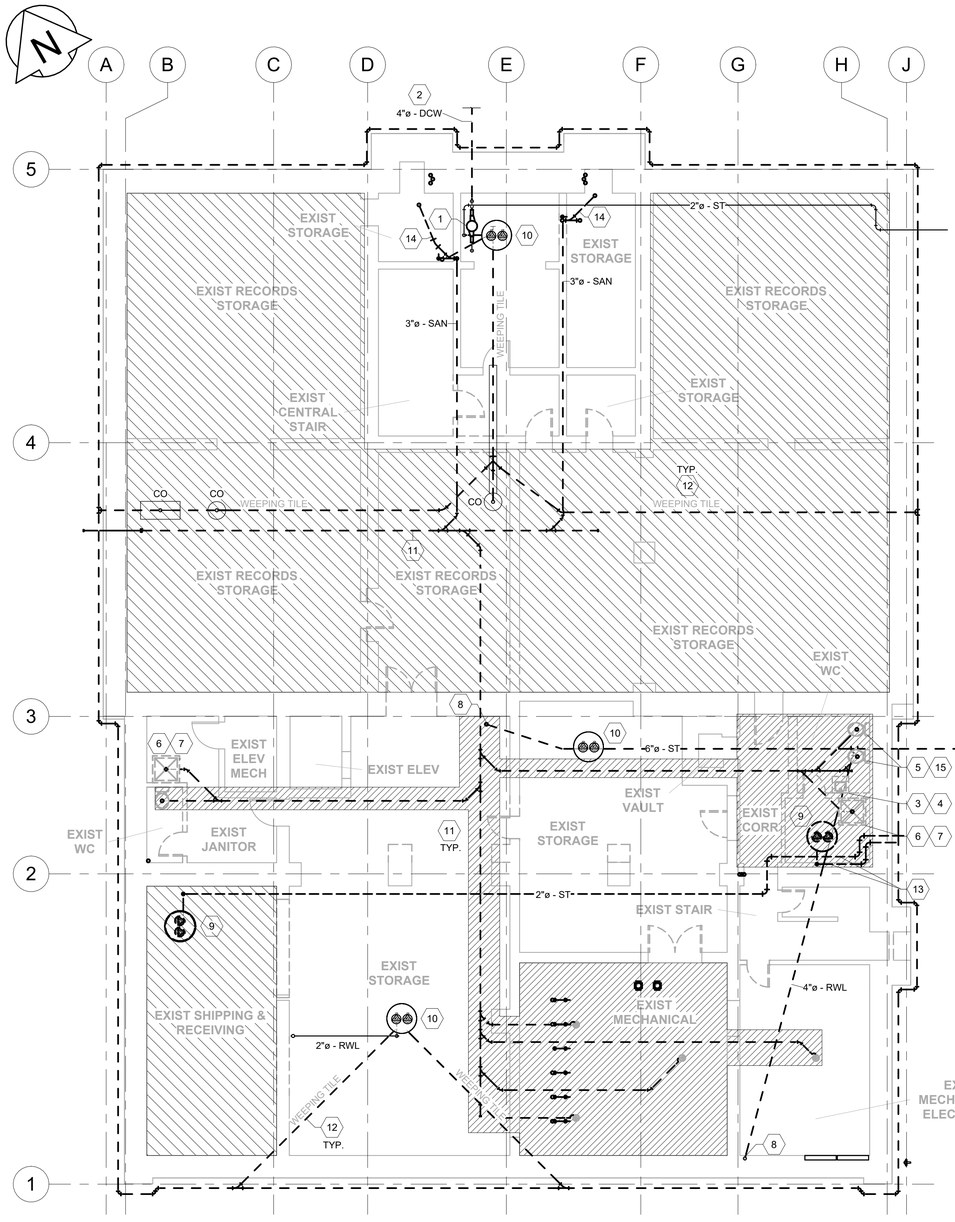

1 / - BASEMENT PLUMBING EXISTING CONDITIONS
SCALE: 1/8" = 1'-0" 24"x36" SHEET

GENERAL NOTES

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3. ALL DEMOLISHED MATERIAL AND EQUIPMENT TO BE TRANSPORTED OFF SITE TO AN APPROPRIATE FACILITY.
4. COORDINATE WORKS WITH OTHER SUB-TRADES.
5. PERFORM ALL WORKS IN ACCORDANCE WITH NATIONAL BUILDING CODE, TO SMACNA AND ASHRAE STANDARDS, ALL LOCAL CODES, BY-LAWS AND STANDARDS.
6. INVESTIGATE SITE PRIOR TO CONSTRUCTION TO CONFIRM ALL DIMENSIONS AND INSTALLATION REQUIREMENTS. ANY DISCREPANCIES OR QUESTIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO BID DATE.
7. PERFORM ALL CUTTING AND PATCHING NECESSARY FOR ANY REQUIRED OPENINGS.
8. MAKE GOOD ANY WALL, FLOOR, AND CEILING SURFACES AFFECTED BY DEMOLITION WORKS UNLESS OTHERWISE INDICATED.
9. COORDINATE WORKS WITH ABATEMENT CONTRACTOR, REFER TO HAZARDOUS MATERIALS ABATEMENT SPECIFICATIONS AND HAZARDOUS MATERIALS SURVEY FOR DETAILS.

KEYNOTES

1. EXISTING WATER METER, COORDINATE WITH CITY OF WINNIPEG TO REMOVE AND TURN OVER METER.
2. EXISTING CITY DOMESTIC WATER SERVICE ENTRY TO THE BUILDING TO BE REMOVED AND DECOMMISSIONED, REFER TO CIVIL DRAWING C101 FOR ALL SITE WORK EXTERIOR TO THE BUILDING.
3. EXISTING LAVATORY TO BE REMOVED AND DEMOLISHED.
4. EXISTING DOMESTIC COLD WATER SUPPLY, DOMESTIC HOT WATER SUPPLY, AND SANITARY LINE PIPING RUN THROUGH THE BASEMENT TO EXISTING LAVATORY, TO BE REMOVED AND DEMOLISHED. CONTRACTOR TO REMOVE PLUMBING PIPING AT APPROPRIATE LOCATION WITHIN THE BASEMENT AND TO REMOVE ASSOCIATED PLUMBING VENT PIPING.
5. EXISTING WATER CLOSET TO BE REMOVED AND DEMOLISHED.
6. EXISTING SHOWER TO BE REMOVED AND DEMOLISHED.
7. EXISTING DOMESTIC COLD WATER SUPPLY, DOMESTIC HOT WATER SUPPLY, AND SANITARY LINE PIPING RUN THROUGH THE BASEMENT TO EXISTING SHOWER, TO BE REMOVED AND DEMOLISHED. CONTRACTOR TO REMOVE PLUMBING PIPING AT APPROPRIATE LOCATION WITHIN BASEMENT AND TO REMOVE ASSOCIATED PLUMBING VENT PIPING. CONTRACTOR SHALL DEMOLISH EXISTING FLOOR TO EXTENT REQUIRED TO REMOVE AND REPLACE EXISTING BURIED SANITARY PIPING, REFER TO ARCHITECTURAL AND STRUCTURAL FOR ADDITIONAL SCOPE OF WORK.
8. EXISTING RAIN WATER LEADER MAIN RUN VERTICALLY TO REMAIN.
9. EXISTING SUMP PIT TO BE REMOVED AND REPLACED, REFER TO MECHANICAL NEW CONDITION DRAWINGS, SCHEDULES AND SPECIFICATIONS FOR DETAILS. COORDINATE WITH ELECTRICAL, REFER TO ELECTRICAL FOR RELATED ELECTRICAL SCOPE OF WORK.
10. EXISTING SUMP PIT AND CONTROL PANEL TO REMAIN IN SERVICE.
11. EXISTING BURIED SANITARY PIPE TO BE REPLACED, DEMOLISH CONCRETE SLAB BETWEEN GRIDLINES 3-5 AND A-J (EXCEPT AREA BETWEEN 4-5 AND D-F) TO ACCOMMODATE BURIED SANITARY PIPE REPLACEMENT. CONTRACTOR TO PAY AND ARRANGE FOR LOCATING EXISTING BURIED SANITARY PIPING AND SELECTIVE DEMOLITION OF CONCRETE FLOOR BETWEEN GRIDLINES 1-3 AND A-J TO REMOVE AND REPLACE BURIED SANITARY PIPING ON DRAWING M2.1.
12. EXISTING WEEPING TILE TO REMAIN IN USE, PROECT DURING DEMOLITION WORK, COORDINATE WITH G.C.
13. RE-ROUTE EXISTING SUMP PIT DISCHAGRE PIPING TO ACCOMMODATE BASEMENT RENO WORK IN WASHROOMS, REFER TO M2 DRAWINGS AND ARCHITECTURAL DRAWINGS FOR DETAILS.
14. EXISTING SANITARY FROM MAIN FLOOR WASHROOMS TO BE PARTIALLY DEMOLISHED, ABANDONED AND CAPPED, TIE-IN TO EXISTING SANITARY PIPES HIGH IN BASEMENT CEILING SPACE AND ROUTE NEW SANITARY PIPING AS SHOWN IN M2 DRAWING
15. EXISTING DOMESTIC COLD WATER SUPPLY, AND SANITARY LINE PIPING RUN THROUGH THE BASEMENT TO EXISTING WATER CLOSET, TO BE REMOVED AND DEMOLISHED. CONTRACTOR TO REMOVE PLUMBING PIPING AT APPROPRIATE LOCATION WITHIN THE BASEMENT AND TO REMOVE ASSOCIATED PLUMBING VENT PIPING . CONTRACTOR SHALL DEMOLISH EXISTING FLOOR TO EXTENT REQUIRED TO REMOVE AND REPLACE EXISTING BURIED SANITARY PIPING, REFER TO ARCHITECTURAL AND STRUCTURAL FOR ADDITIONAL SCOPE OF WORK.

ISSUED FOR CONSTRUCTION

ENGINEERS GEOSCIENTISTS MANITOBA
Certificate of Authorization
Alliance Engineering Services Inc.
No.2906

Alliance ENGINEERING SERVICES INC

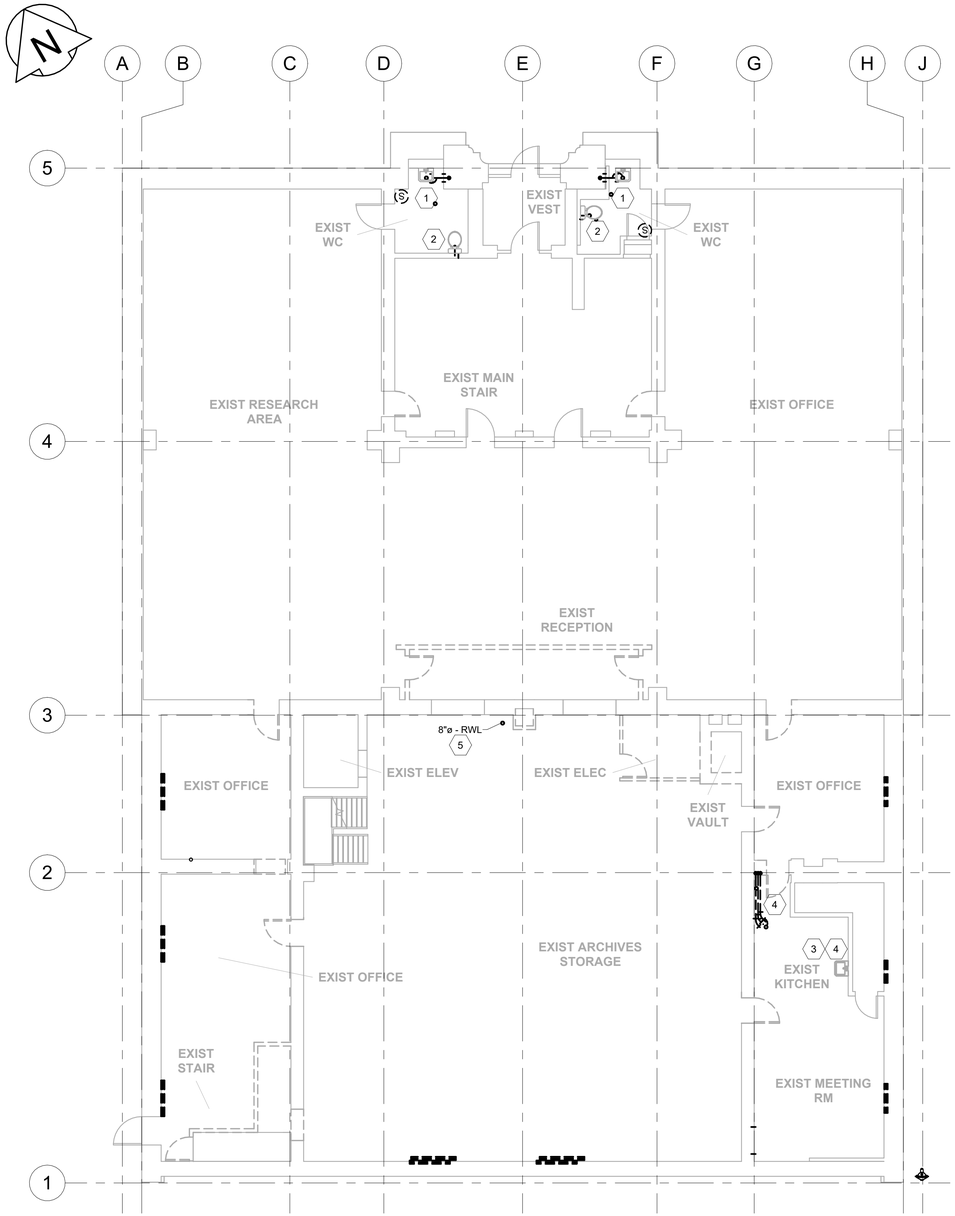
PROVINCE OF MANITOBA
T. A. URQUHART
Member
33109
2025-01-30
REGISTERED PROFESSIONAL ENGINEER

drawn by: LM
approved by: IU
date: 31 JAN 2025

mcm architects inc.
141 ST.ANNE'S ROAD, WINNIPEG, MANITOBA, R2M 2Z3
260-8th STREET, BRANDON, MANITOBA, R7A 3X3

CITY ARCHIVES BUILDING REDEVELOPMENT
380 WILLIAM AVENUE, WINNIPEG, MANITOBA

project: 2624
sheet no.: **M1.1**



1 - MAIN FLOOR PLUMBING EXISTING CONDITIONS
SCALE: 1/8" = 1'-0" 24"x36" SHEET

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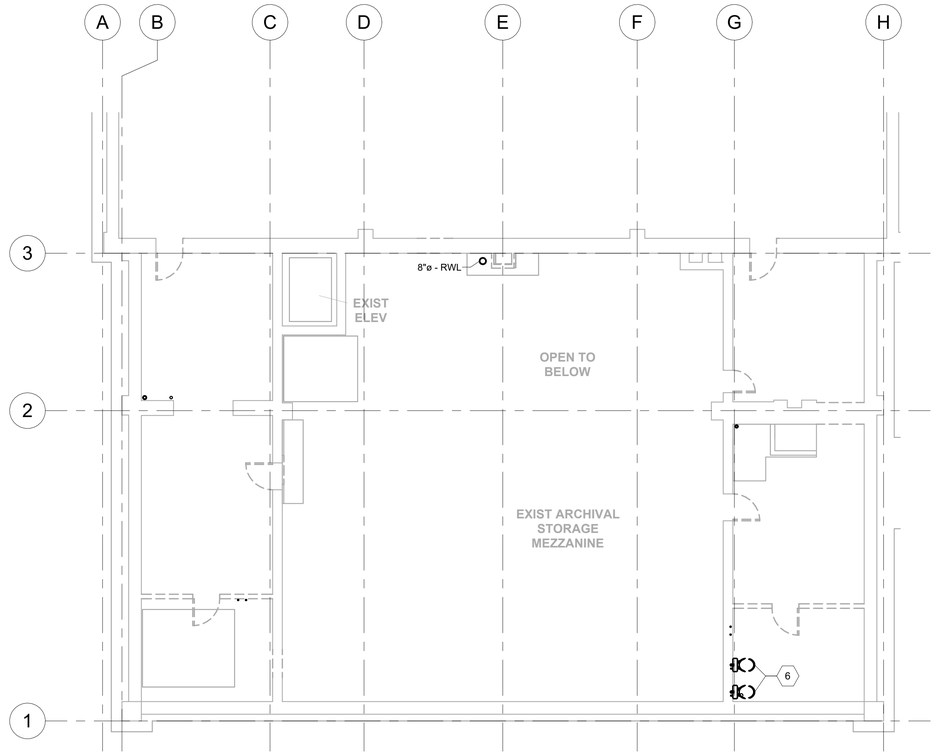
KEYNOTES

1 EXISTING LAVATORY AND ALL ASSOCIATED PIPING CONNECTIONS TO REMAIN IN USE. REPLACE DOMESTIC WATER AND SANITARY PIPING CONNECTIONS TO FROM MAIN PIPE IN BASEMENT.
2 EXISTING WATER CLOSET AND ALL ASSOCIATED PIPING CONNECTIONS TO REMAIN IN USE. REPLACE DOMESTIC WATER AND SANITARY PIPING CONNECTIONS TO FROM MAIN PIPE IN BASEMENT.
3 EXISTING KITCHEN SINK TO BE REMOVED AND DEMOLISHED.
4 EXISTING DOMESTIC COLD WATER SUPPLY, DOMESTIC HOT WATER SUPPLY, AND SANITARY LINE PIPING RUN THROUGH THE BASEMENT BELOW THE EXISTING SINK, TO BE REMOVED AND DEMOLISHED. CONTRACTOR TO REMOVE ASSOCIATED PLUMBING PIPING AND VENT PIPE.
5 EXISTING RAIN WATER LEADER MAIN RUN VERTICALLY TO REMAIN IN SERVICE.
6 EXISTING WATER CLOSET TO BE REMOVED AND DEMOLISHED.



2 - MAIN FLOOR MEZZANINE PLUMBING EXISTING CONDITIONS
SCALE: 1/8" = 1'-0" 24"x36" SHEET

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Certificate of Authorization
Alliance Engineering Services Inc.
No.2906

Alliance ENGINEERING SERVICES INC

PROVINCE OF MANITOBA
P.A. URQUHART
Member
33109
2025-01-30
REGISTERED PROFESSIONAL ENGINEER

drawn by: LM
approved by: IU
date: 31 JAN 2025

mcm architects inc.
141 ST.ANNE'S ROAD, WINNIPEG, MANITOBA, R2M 2Z3
260-8th STREET, BRANDON, MANITOBA, R7A 3X3

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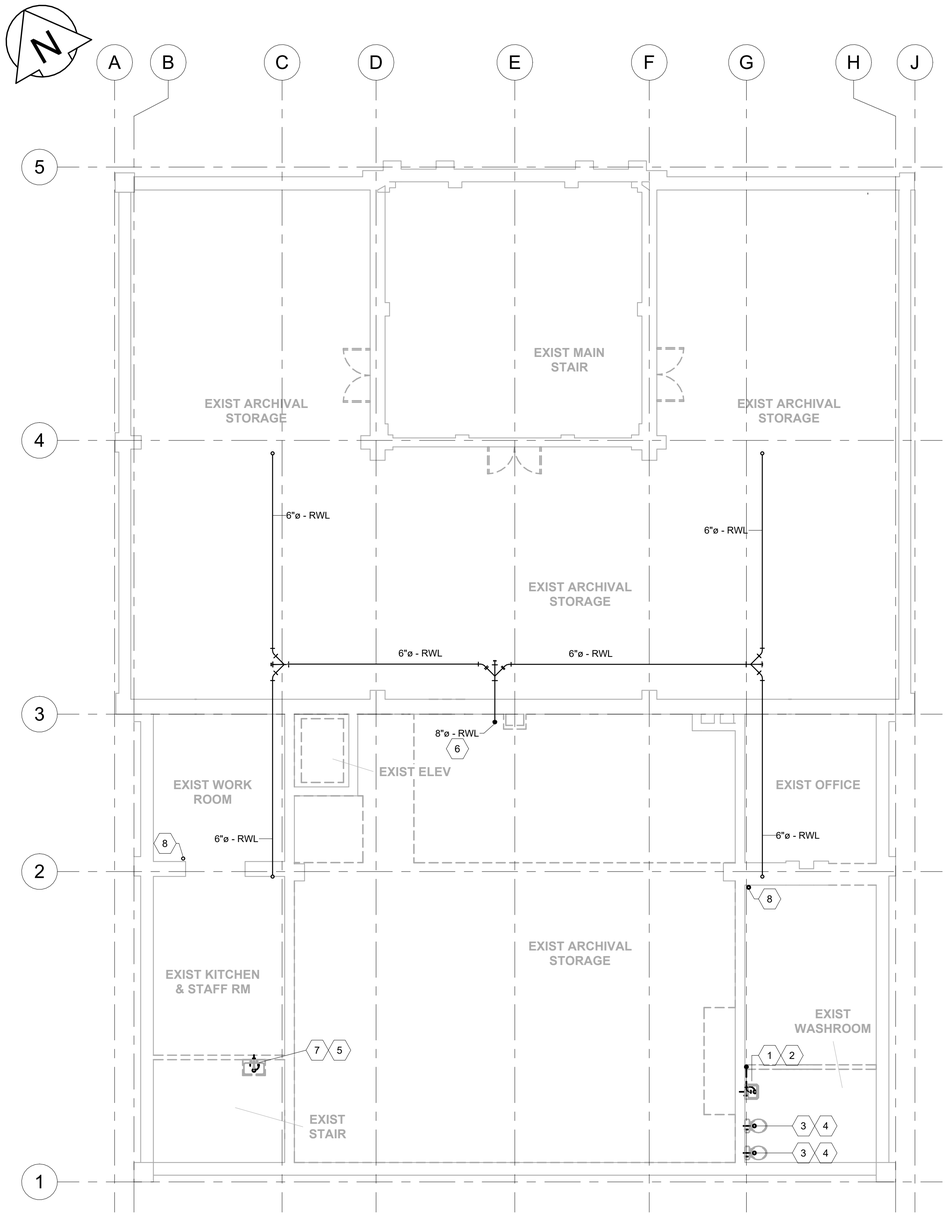
380 WILLIAM AVENUE, WINNIPEG, MANITOBA

project: 2624
sheet no.: **M1.2**



1 SECOND FLOOR PLUMBING EXISTING CONDITIONS
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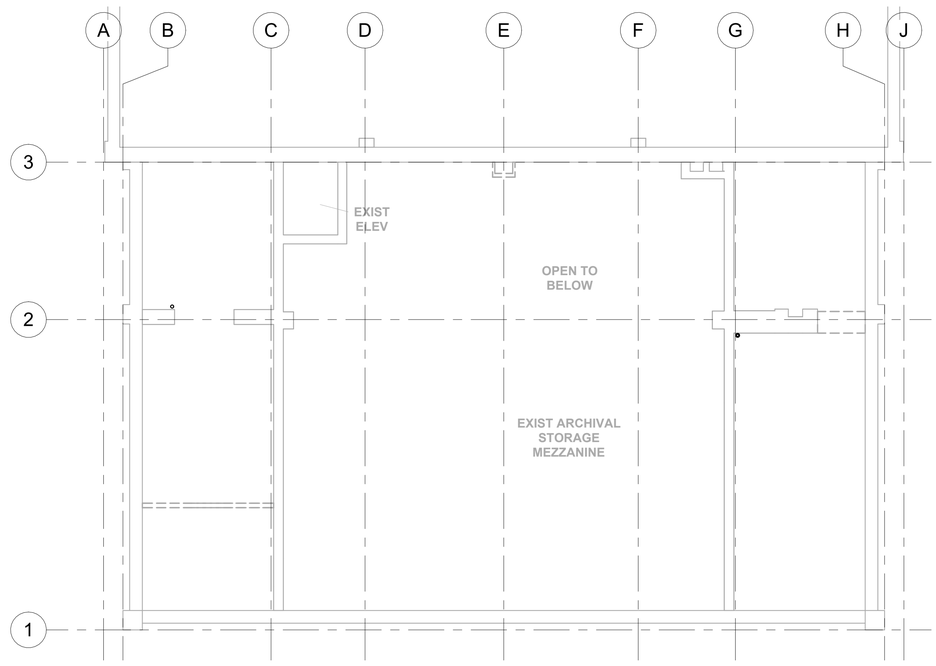
KEYNOTES

1 EXISTING LAVATORY TO BE REMOVED AND DEMOLISHED.
2 EXISTING DOMESTIC COLD WATER SUPPLY, DOMESTIC HOT WATER SUPPLY, AND SANITARY LINE PIPING RUN THROUGH THE MAIN FLOOR MEZZANINE CEILING SPACE, TO EXISTING LAVATORY, TO BE REMOVED AND DEMOLISHED. CONTRACTOR TO REMOVE PLUMBING PIPING AND REMOVE ASSOCIATED PLUMBING VENT PIPING .
3 EXISTING WATER CLOSET TO BE REMOVED AND DEMOLISHED.
4 EXISTING DOMESTIC COLD WATER SUPPLY, AND SANITARY LINE PIPING RUN THROUGH THE MAIN FLOOR MEZZANINE CEILING SPACE, TO EXISTING WATER CLOSET, TO BE REMOVED AND DEMOLISHED. CONTRACTOR TO REMOVE PLUMBING PIPING AND REMOVE ASSOCIATED PLUMBING VENT PIPING .
5 EXISTING DOMESTIC COLD WATER SUPPLY, DOMESTIC HOT WATER SUPPLY, AND SANITARY LINE PIPING RUN THROUGH THE MAIN FLOOR MEZZANINE CEILING SPACE, TO EXISTING SINK, TO BE REMOVED AND DEMOLISHED AND REMOVE ASSOCIATED PLUMBING VENT PIPING.
6 EXISTING RAIN WATER LEADER MAIN RUN VERTICALLY.
7 EXISTING SINK TO BE REMOVED AND DEMOLISHED.
8 EXISTING PLUMBING VENT PIPING TO BE REMOVED, NEW PLUMBING VENTS SHOULD BE ROUTED TO UTILIZE EXISTING ROOF PENETRATION LOCATIONS WHEN POSSIBLE. REFER TO ARCHITECTURAL FOR PATCHING DETAILS.



2 SECOND FLOOR MEZZANINE PLUMBING EXISTING CONDITIONS
SCALE: 1/8" = 1'-0" 24"x36" SHEET

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P.A. URQUHART
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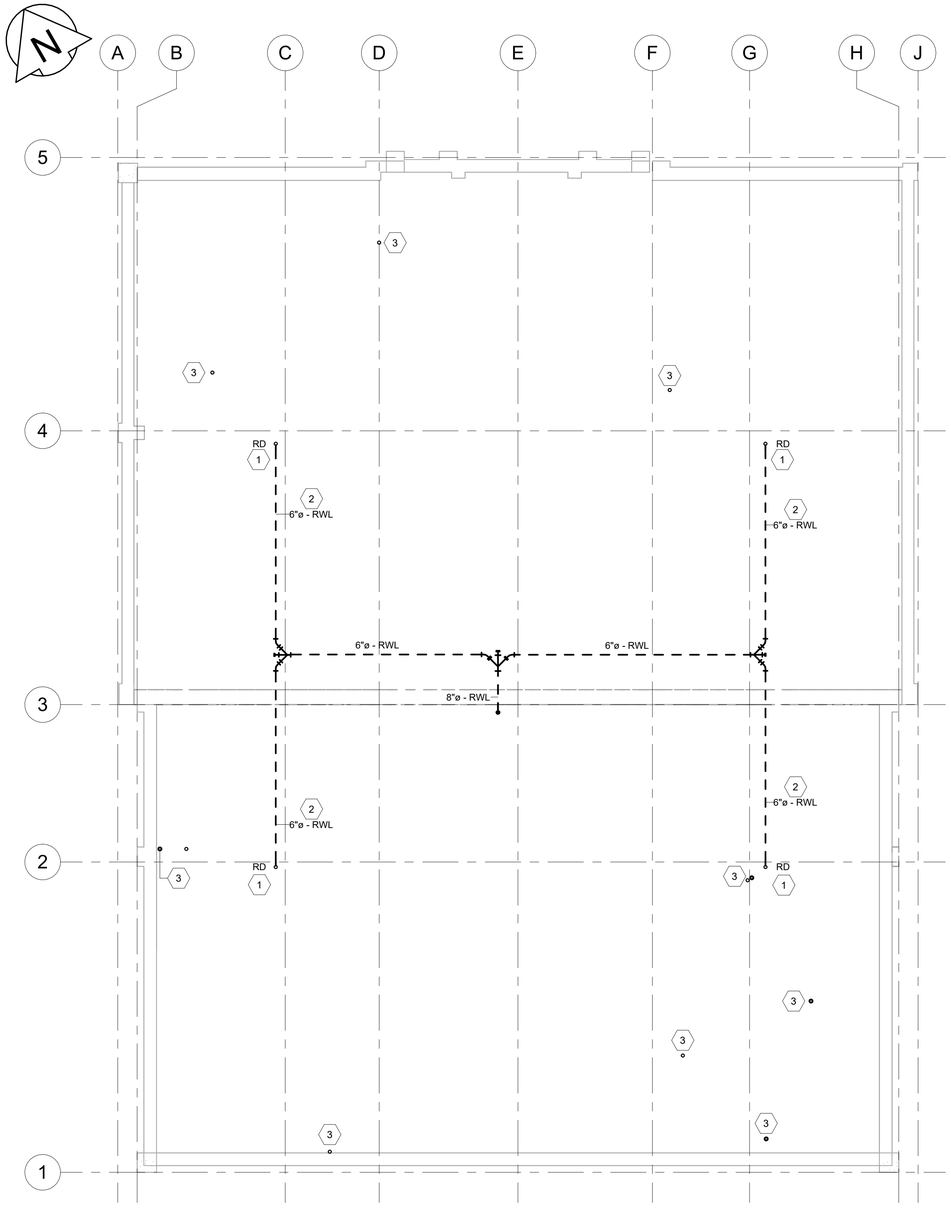
drawn by
LM
approved by
IU
date
31 JAN 2025

mcm architects inc.
141 ST.ANNE'S ROAD, WINNIPEG, MANITOBA, R2M 2Z3
260-8th STREET, BRANDON, MANITOBA, R7A 3X3

CITY ARCHIVES BUILDING REDEVELOPMENT
380 WILLIAM AVENUE, WINNIPEG, MANITOBA

project
2624
sheet no.
M1.3



1 ROOF LEVEL PLUMBING EXISTING CONDITIONS
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KEYNOTES

1 EXISTING ROOF DRAIN TO REMAIN.
2 EXISTING RAIN WATER LEADER TO REMAIN.
3 EXISTING PLUMBING VENT TO BE REMOVED, NEW PLUMBING VENTS SIZED TO SUIT NEW PLUMBING ARRANGEMENT.

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mcm architects inc.
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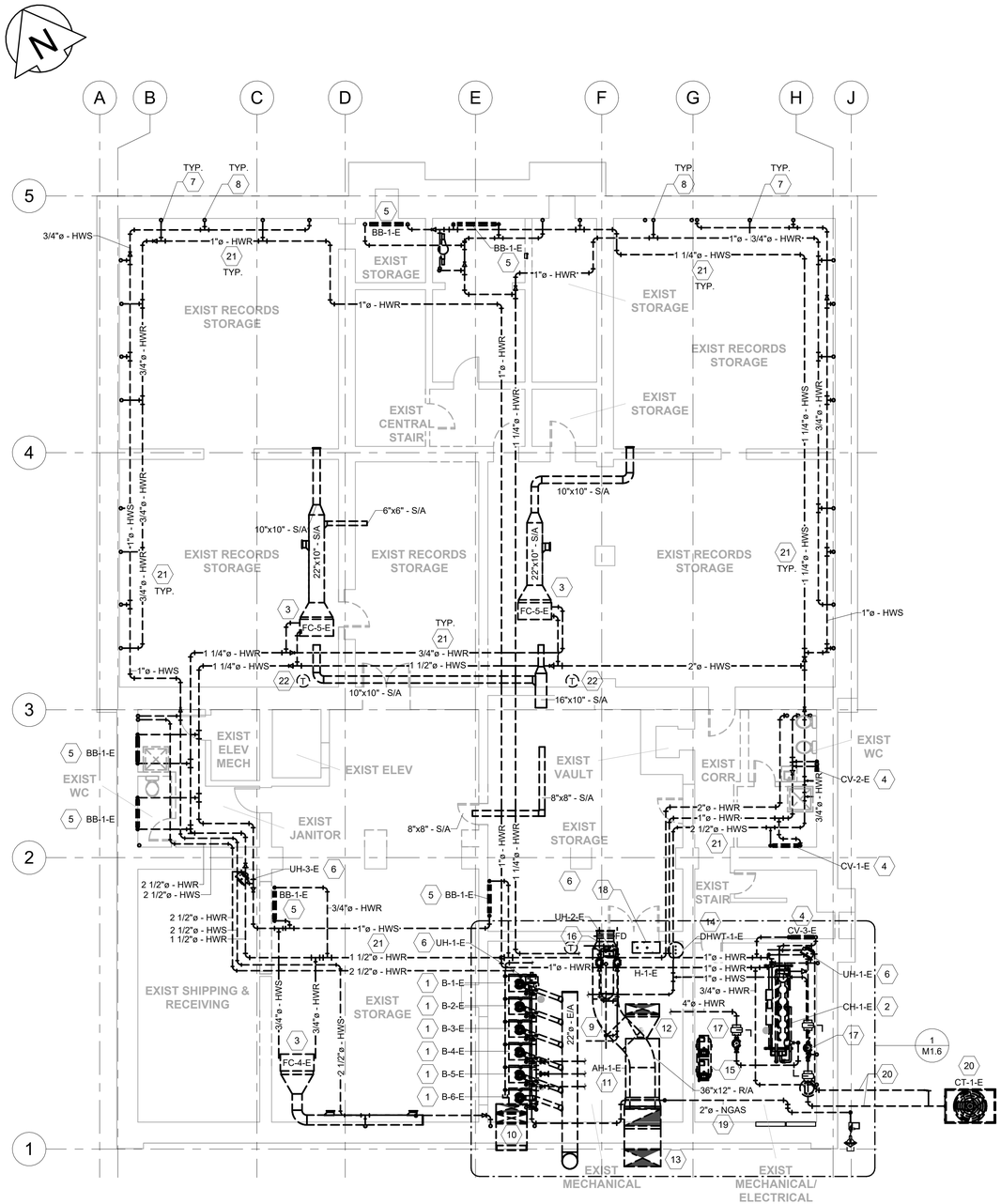

1 / - BASEMENT HVAC EXISTING CONDITIONS
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KEYNOTES

1 EXISTING BOILER AND ASSOCIATED PIPES AND ALL ANCILLARIES TO BE REMOVED AND DEMOLISHED.
2 EXISTING CHILLER AND ASSOCIATED PIPES AND ALL ANCILLARIES TO BE REMOVED AND DEMOLISHED.
3 EXISTING FAN COIL AND ALL ASSCOCIATED HYDRONIC PIPES, DUCTWORKS AND ANCILLARIES TO BE REMOVED AND DEMOLISHED.
4 EXISTING CONVECTION HEATER AND ALL ASSCOCIATED HYDRONIC PIPES, AND ANCILLARIES TO BE REMOVED AND DEMOLISHED.
5 EXISTING BASEBOARD HEATER AND ALL ASSCOCIATED HYDRONIC PIPES, AND ANCILLARIES TO BE REMOVED AND DEMOLISHED.
6 EXISTING UNIT HEATER AND ALL ASSCOCIATED HYDRONIC PIPES, AND ANCILLARIES TO BE REMOVED AND DEMOLISHED.
7 EXISTING HYDRONIC PIPING TO/FROM EXISTING HEATING EQUIPMENT AND ANCILLARIES TO BE REMOVED. CONTRACTOR TO DEMOLISH AND REMOVE EXISTING PIPING, FITTINGS, INSULATION, AND SUPPORTS.
8 EXISTING PIPING FLOOR PENETRATIONS TO HEATING EQUIPMENT AT MAIN FLOOR AND SECOND FLOOR LEVEL; FIELD CHECK LOCATION AND MAINTAIN OPENINGS SUITABLE FOR NEW HYDRONIC EQUIPMENT INSTALLATION, FILL AND FIRESTOP WALL/FLOOR OPENINGS NOT USED TO MATCH WALL/FLOOR FIRE RATING.
9 EXISTING BOILER'S EXHAUST VENT TO BE REMOVED AND DEMOLISHED. EXISTING WALL OPENING TO BE REUSED. MODIFY WALL OPENING TO BE SUITABLE FOR NEW BOILER VENT. REFER TO STRUCTURAL AND ARCHITECTURAL FOR ADDITIONAL SCOPE OF WORK.
10 EXISTING COMBUSTION AIR INTAKE HOOD AND ASSOCIATED LOUVRE TO BE REMOVED AND DEMOLISHED. MODIFY WALL OPENING TO BE SUITABLE FOR NEW BOILER VENT. REFER TO STRUCTURAL AND ARCHITECTURAL FOR ADDITIONAL SCOPE OF WORK.
11 EXISTING AIR HANDLING UNIT ALONG WITH ASSOCIATED SUPPORTS, DUCTWORK, HEATING COIL AND HYDRONIC PIPING TO BE REMOVED AND DEMOLISHED.
12 EXISTING AHU SUPPLY/RETURN AIR DUCTWORKS AND ALL ASSOCIATED ANCILLARIES TO BE REMOVED AND DEMOLISHED.
13 EXISTING OUTSIDE AIR DUCTWORKS AND ALL ASSOCIATED ANCILLARIES TO BE REMOVED AND DEMOLISHED. MODIFY WALL OPENING TO BE SUITABLE FOR NEW BOILER VENT. REFER TO STRUCTURAL AND ARCHITECTURAL FOR ADDITIONAL SCOPE OF WORK.
14 EXISTING HOT WATER TANK TO BE REMOVED AND DEMOLISHED.
15 EXISTING COMPRESSOR TO BE REMOVED FROM SITE ALONG WITH ALL EXISTING COMPRESSED AIR SYSTEM PIPING AND RELATED SYSTEM COMPONENTS, SUPPORTS AND AUXILIARY EQUIPMENT.
16 EXISTING ABANDONED CONDENSATE TANK TO BE REMOVED FROM SITE.
17 EXISTING PUMP TO BE REMOVED AND DEMOLISHED.
18 EXISTING HUMIDIFIER TO BE REMOVED.
19 EXISTING NATURAL GAS PIPING AND GAS REGULATOR TO BE REMOVED WITHIN ROOM AS SHOWN ; REMOVE PIPING BACK TO GAS METER OUTSIDE AND TEMPORARY CAP.
20 EXISTING COOLING TOWER AND ASSOCIATED PIPING AND ANCILLARIES TO BE REMOVED AND DEMOLISHED.
21 EXISTING SUPPLY AND RETURN HYDRONIC PIPING WITHIN THE BASEMENT. CONTRACTOR TO DEMO AND REMOVE ALL EXISTING HYDRONIC PIPING, FITTINGS & SUPPORTS RELATED TO THE EXISTING HEATING SYSTEM.
22 EXISTING WALL MOUNTED PNEUMATIC THERMOSTAT FOR HEATING EQUIPMENT CONTROL VALVE TO BE REMOVED AND REPLACED. PROVIDE NEW CONTROL WIRING TO NEW CONTROL VALVE. SEE SPECIFICATIONS FOR DETAILS. REMOVE EXISTING PNEUMATIC TUBING AND CONDUIT, PATCH AND PAINT WALL AS SPECIFIED BY ARCHITECTURAL.

ISSUED FOR CONSTRUCTION

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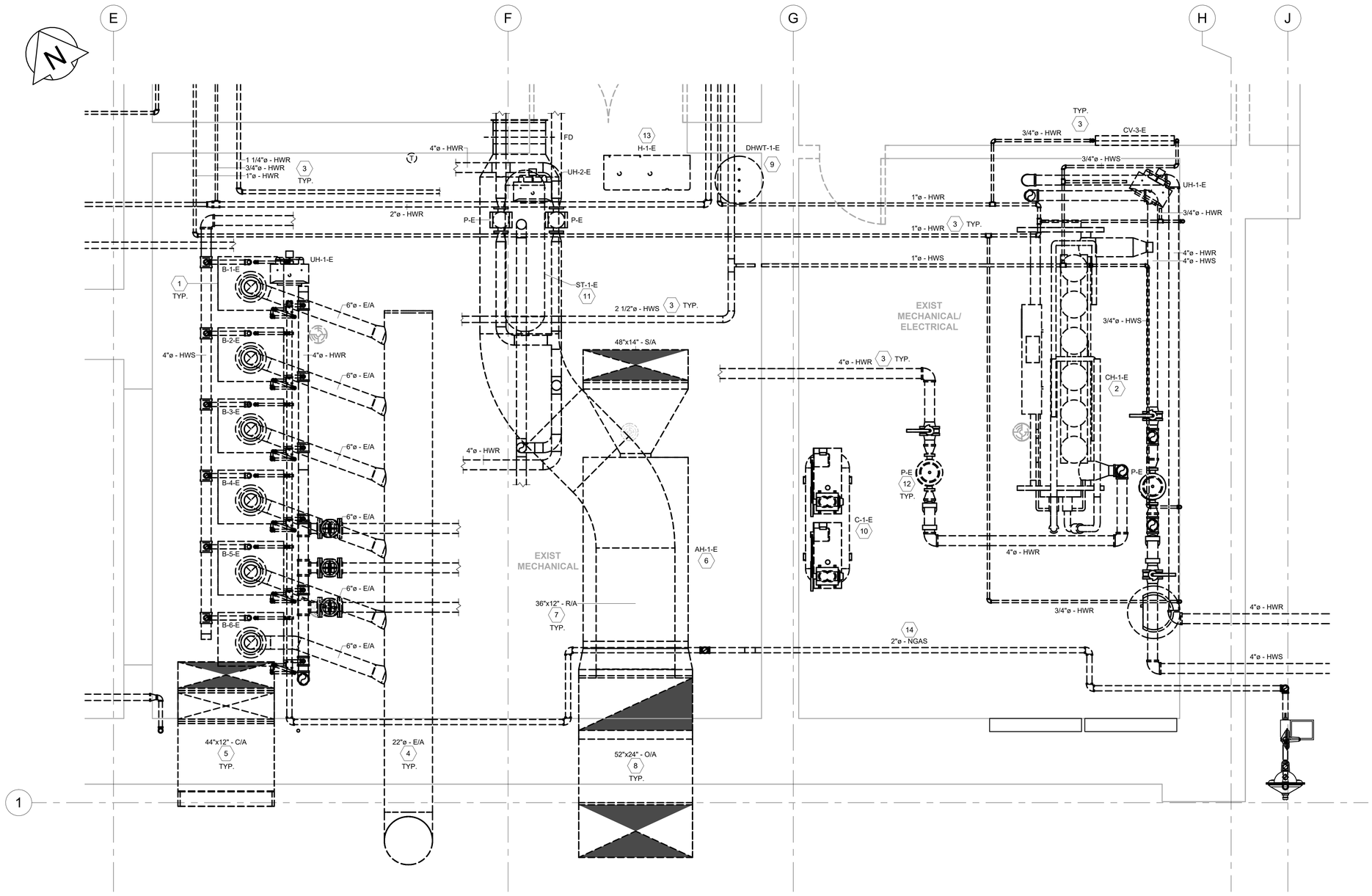
project 2624
sheet no. **M1.5**



1 / M1.5 BASEMENT PART PLAN HVAC EXISTING CONDITIONS

SCALE: 1/2" = 1'-0" 24"x36" SHEET

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KEYNOTES

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3. EXISTING HYDRONIC PIPING TO/FROM EXISTING HEATING EQUIPMENT AND ANCILLARIES TO BE REMOVED. CONTRACTOR TO DEMOLISH AND REMOVE EXISTING PIPING, FITTINGS, INSULATION, AND SUPPORTS.
4. EXISTING BOILER'S EXHAUST VENT TO BE REMOVED AND DEMOLISHED. EXISTING WALL OPENING TO BE REUSED. MODIFY WALL OPENING TO BE SUITABLE FOR NEW BOILER VENT. REFER TO STRUCTURAL AND ARCHITECTURAL FOR ADDITIONAL SCOPE OF WORK.
5. EXISTING COMBUSTION AIR INTAKE HOOD AND ASSOCIATED LOUVRE TO BE REMOVED AND DEMOLISHED. MODIFY WALL OPENING TO BE SUITABLE FOR NEW BOILER VENT. REFER TO STRUCTURAL AND ARCHITECTURAL FOR ADDITIONAL SCOPE OF WORK.
6. EXISTING AIR HANDLING UNIT ALONG WITH ASSOCIATED SUPPORTS, DUCTWORK, HEATING COIL AND HYDRONIC PIPING TO BE REMOVED AND DEMOLISHED.
7. EXISTING AHU SUPPLY/RETURN AIR DUCTWORKS AND ALL ASSOCIATED ANCILLARIES TO BE REMOVED AND DEMOLISHED.
8. EXISTING OUTSIDE AIR DUCTWORKS AND ALL ASSOCIATED ANCILLARIES TO BE REMOVED AND DEMOLISHED. MODIFY WALL OPENING TO BE SUITABLE FOR NEW BOILER VENT. REFER TO STRUCTURAL AND ARCHITECTURAL FOR ADDITIONAL SCOPE OF WORK.
9. EXISTING HOT WATER TANK TO BE REMOVED AND DEMOLISHED.
10. EXISTING COMPRESSOR TO BE REMOVED FROM SITE ALONG WITH ALL EXISTING COMPRESSED AIR SYSTEM PIPING AND RELATED SYSTEM COMPONENTS, SUPPORTS AND AUXILIARY EQUIPMENT.
11. EXISTING ABANDONED CONDENSATE TANK TO BE REMOVED FROM SITE.
12. EXISTING PUMP TO BE REMOVED AND DEMOLISHED.
13. EXISTING HUMIDIFIER.
14. EXISTING NATURAL GAS PIPING AND GAS REGULATOR TO BE REMOVED WITHIN ROOM AS SHOWN ; REMOVE PIPING BACK TO GAS METER OUTSIDE AND TEMPORARY CAP.

ISSUED FOR CONSTRUCTION

ENGINEERS GEOSCIENTISTS MANITOBA
Certificate of Authorization
Alliance Engineering Services Inc.
No.2906

Alliance ENGINEERING SERVICES INC

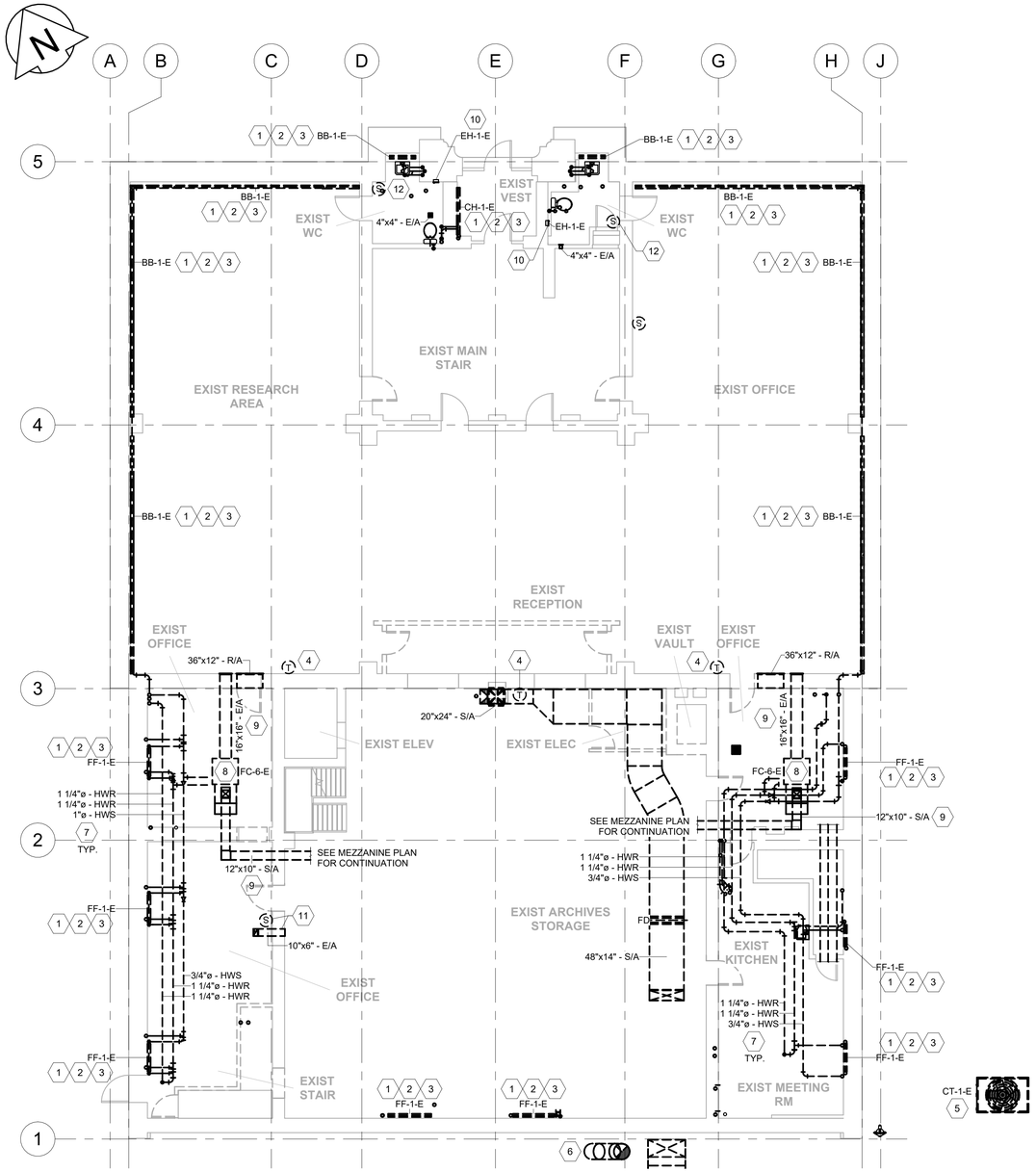
PROVINCE OF MANITOBA
T. A. URQUHART
Member
33109
2025-01-30
REGISTERED PROFESSIONAL ENGINEER

drawn by: LM
approved by: IU
date: 31 JAN 2025

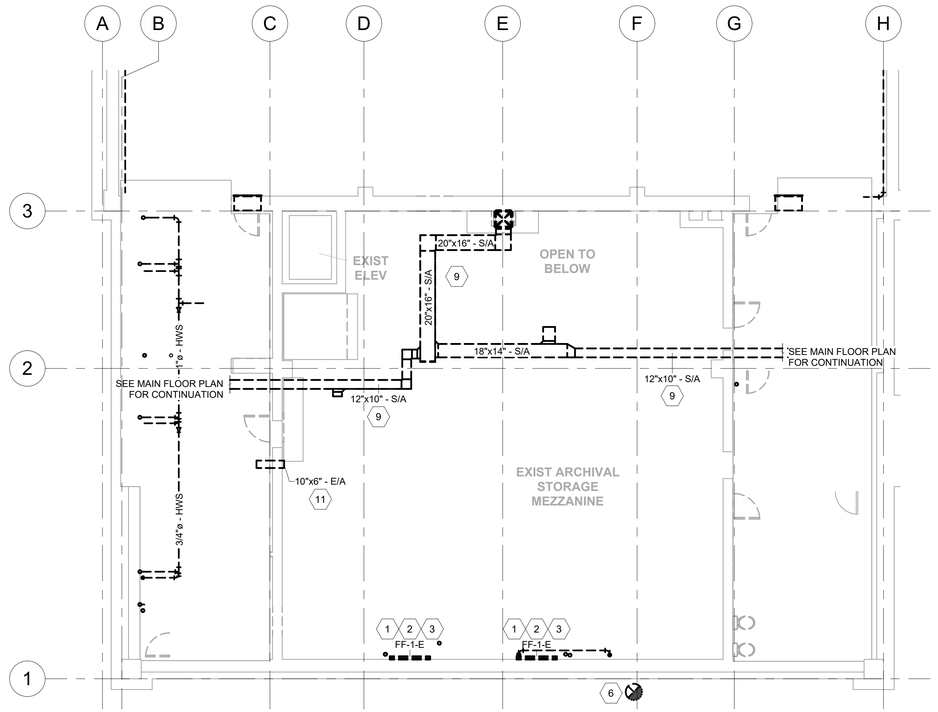
mcm architects inc.
141 ST.ANNE'S ROAD, WINNIPEG, MANITOBA, R2M 2Z3
260-8th STREET, BRANDON, MANITOBA, R7A 3X3

CITY ARCHIVES BUILDING REDEVELOPMENT
380 WILLIAM AVENUE, WINNIPEG, MANITOBA

project: 2624
sheet no.: **M1.6**



1 - MAIN FLOOR HVAC EXISTING CONDITIONS
SCALE: 1/8" = 1'-0" 24"x36" SHEET



2 - MAIN FLOOR MEZZANINE HVAC EXISTING CONDITIONS
SCALE: 1/8" = 1'-0" 24"x36" SHEET

GENERAL NOTES

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY WORK NOT EXPLICITLY SET OUT IN THE CONTRACT DOCUMENTS BUT WHICH MAY BE REASONABLY IMPLIED FOR THE PROPER COMPLETION OF THE WORK.
2. THESE PLANS ARE SCHEMATIC IN NATURE AND INDICATE THE APPROXIMATE AND GENERAL LOCATION OF WORK. CONTRACTOR SHALL INSTALL WORK THROUGH COORDINATION WITH OTHER TRADES AND TO SUIT FIELD CONDITIONS.
3. ALL DEMOLISHED MATERIAL AND EQUIPMENT TO BE TRANSPORTED OFF SITE TO AN APPROPRIATE FACILITY.
4. COORDINATE WORKS WITH OTHER SUB-TRADES.
5. PERFORM ALL WORKS IN ACCORDANCE WITH NATIONAL BUILDING CODE, TO SMACNA AND ASHRAE STANDARDS, ALL LOCAL CODES, BY-LAWS AND STANDARDS.
6. INVESTIGATE SITE PRIOR TO CONSTRUCTION TO CONFIRM ALL DIMENSIONS AND INSTALLATION REQUIREMENTS. ANY DISCREPANCIES OR QUESTIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO BID DATE.
7. PERFORM ALL CUTTING AND PATCHING NECESSARY FOR ANY REQUIRED OPENINGS.
8. MAKE GOOD ANY WALL, FLOOR, AND CEILING SURFACES AFFECTED BY DEMOLITION WORKS UNLESS OTHERWISE INDICATED.
9. COORDINATE WORKS WITH ABATEMENT CONTRACTOR, REFER TO HAZARDOUS MATERIALS ABATEMENT SPECIFICATIONS AND HAZARDOUS MATERIALS SURVEY FOR DETAILS.

KEYNOTES

1. EXISTING HEATING EQUIPMENT, SUPPORTS AND ANCILLARIES TO BE REMOVED.
2. EXISTING HYDRONIC PIPING TO/FROM EXISTING HEATING EQUIPMENT AND ANCILLARIES TO BE REMOVED. CONTRACTOR TO DEMO AND REMOVE EXISTING PIPING, FITTINGS, AND SUPPORTS.
3. EXISTING PIPING FLOOR PENETRATIONS TO HEATING EQUIPMENT AT FIRST FLOOR LEVEL; FIELD CHECK LOCATION AND MAINTAIN OPENINGS SUITABLE FOR NEW HYDRONIC EQUIPMENT INSTALLATION, FILL OPENINGS NOT USED TO MATCH FLOOR FIRE RATING.
4. EXISTING WALL MOUNTED PNEUMATIC THERMOSTAT FOR HEATING EQUIPMENT CONTROL VALVE TO BE REMOVED AND REPLACED. PROVIDE NEW CONTROL WIRING TO NEW CONTROL VALVE. SEE SPECIFICATIONS FOR DETAILS. REMOVE EXISTING PNEUMATIC TUBING AND CONDUIT, PATCH AND PAINT WALL AS SPECIFIED BY ARCHITECTURAL.
5. EXISTING COOLING TOWER AND ASSOCIATED PIPING AND ANCILLARIES TO BE REMOVED AND DEMOLISHED.
6. EXISTING BOILER'S EXHAUST VENT TO BE REMOVED AND DEMOLISHED. EXISTING WALL OPENING TO BE REUSED. MODIFY WALL OPENING TO BE SUITABLE FOR NEW BOILER VENT. REFER TO STRUCTURAL AND ARCHITECTURAL FOR ADDITIONAL SCOPE OF WORK.
7. EXISTING SUPPLY AND RETURN HYDRONIC PIPING WITHIN THE SPACE. CONTRACTOR TO DEMO AND REMOVE ALL EXISTING HYDRONIC PIPING, FITTINGS & SUPPORTS RELATED TO THE EXISTING HEATING SYSTEM.
8. EXISTING FAN COIL AND ALL ASSCOCIATED HYDRONIC PIPES, DUCTWORKS AND ANCILLARIES TO BE REMOVED AND DEMOLISHED.
9. EXISTING SUPPLY/RETURN AIR DUCTWORKS AND ALL ASSOCIATED ANCILLARIES TO BE REMOVED AND DEMOLISHED.
10. EXISTING ELECTRIC FORCE FLOW HEATER TO REMAIN IN SERVICE.
11. EXISTING EXHAUST FAN, RELATED DUCTWORK AND FAN SWITCH TO BE REMOVED, REFER TO ELECTRICAL FOR ADDITIONAL SCOPE OF WORK.
12. EXISTING WASHROOM EXHAUST FOR WASHROOM TO REMAIN, WASHROOM EXHAUST FAN RUN OFF OCCUPANCY SENSOR IN ROOM.

ISSUED FOR CONSTRUCTION

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Certificate of Authorization
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No.2906

Alliance ENGINEERING SERVICES INC

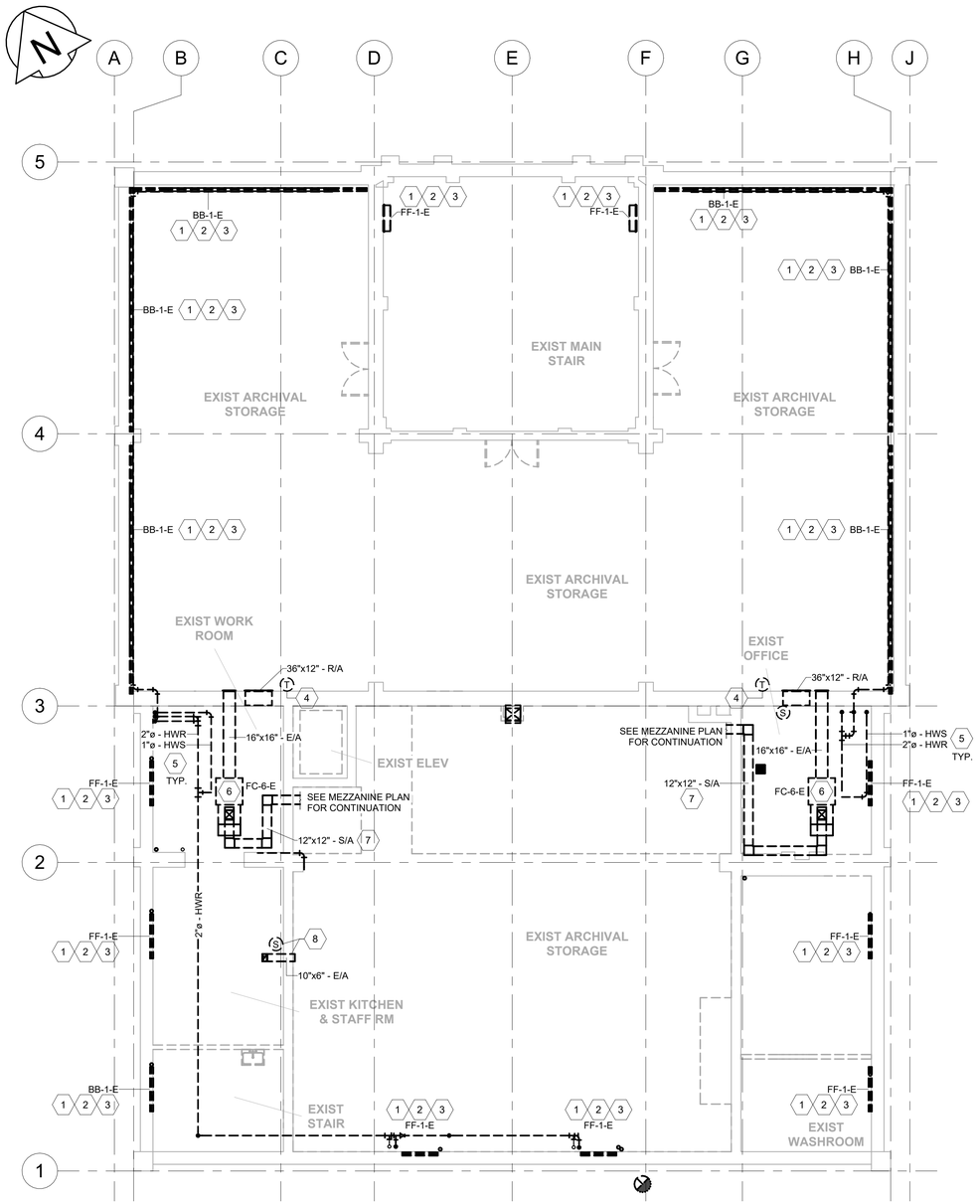
PROVINCE OF MANITOBA
T.A. URQUHART
Member
33109
2025-01-30
REGISTERED PROFESSIONAL ENGINEER

drawn by: LM
approved by: IU
date: 31 JAN 2025

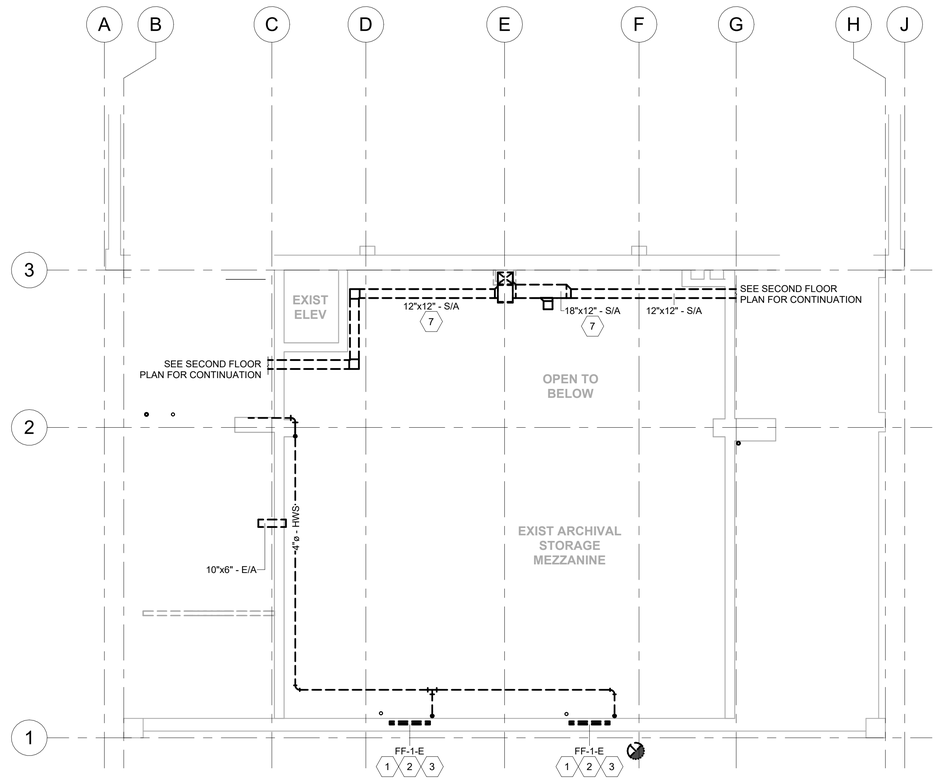
mcm architects inc.
141 ST.ANNE'S ROAD, WINNIPEG, MANITOBA, R2M 2Z3
260-8th STREET, BRANDON, MANITOBA, R7A 3X3

CITY ARCHIVES BUILDING REDEVELOPMENT
380 WILLIAM AVENUE, WINNIPEG, MANITOBA

project: 2624
sheet no.: **M1.7**



1 - SECOND FLOOR HVAC EXISTING CONDITIONS
SCALE: 1/8" = 1'-0" 24"x36" SHEET



2 - SECOND FLOOR MEZZANINE HVAC EXISTING CONDITIONS
SCALE: 1/8" = 1'-0" 24"x36" SHEET

GENERAL NOTES

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY WORK NOT EXPLICITLY SET OUT IN THE CONTRACT DOCUMENTS BUT WHICH MAY BE REASONABLY IMPLIED FOR THE PROPER COMPLETION OF THE WORK.
2. THESE PLANS ARE SCHEMATIC IN NATURE AND INDICATE THE APPROXIMATE AND GENERAL LOCATION OF WORK. CONTRACTOR SHALL INSTALL WORK THROUGH COORDINATION WITH OTHER TRADES AND TO SUIT FIELD CONDITIONS.
3. ALL DEMOLISHED MATERIAL AND EQUIPMENT TO BE TRANSPORTED OFF SITE TO AN APPROPRIATE FACILITY.
4. COORDINATE WORKS WITH OTHER SUB-TRADES.
5. PERFORM ALL WORKS IN ACCORDANCE WITH NATIONAL BUILDING CODE, TO SMACNA AND ASHRAE STANDARDS, ALL LOCAL CODES, BY-LAWS AND STANDARDS.
6. INVESTIGATE SITE PRIOR TO CONSTRUCTION TO CONFIRM ALL DIMENSIONS AND INSTALLATION REQUIREMENTS. ANY DISCREPANCIES OR QUESTIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO BID DATE.
7. PERFORM ALL CUTTING AND PATCHING NECESSARY FOR ANY REQUIRED OPENINGS.
8. MAKE GOOD ANY WALL, FLOOR, AND CEILING SURFACES AFFECTED BY DEMOLITION WORKS UNLESS OTHERWISE INDICATED.
9. COORDINATE WORKS WITH ABATEMENT CONTRACTOR, REFER TO HAZARDOUS MATERIALS ABATEMENT SPECIFICATIONS AND HAZARDOUS MATERIALS SURVEY FOR DETAILS.

KEYNOTES

1. EXISTING HEATING EQUIPMENT, SUPPORTS AND ANCILLARIES TO BE REMOVED.
2. EXISTING HYDRONIC PIPING TO/FROM EXISTING HEATING EQUIPMENT AND ANCILLARIES TO BE REMOVED. CONTRACTOR TO DEMO AND REMOVE EXISTING PIPING, FITTINGS, AND SUPPORTS.
3. EXISTING PIPING FLOOR PENETRATIONS TO HEATING EQUIPMENT; FIELD CHECK LOCATION AND MAINTAIN OPENINGS SUITABLE FOR NEW HYDRONIC EQUIPMENT INSTALLATION, FILL OPENINGS NOT USED TO MATCH FLOOR FIRE RATING.
4. EXISTING WALL MOUNTED PNEUMATIC THERMOSTAT FOR HEATING EQUIPMENT CONTROL VALVE TO BE REMOVED AND REPLACED. PROVIDE NEW CONTROL WIRING TO NEW CONTROL VALVE. SEE SPECIFICATIONS FOR DETAILS. REMOVE EXISTING PNEUMATIC TUBING AND CONDUIT, PATCH AND PAINT WALL AS SPECIFIED BY ARCHITECTURAL.
5. EXISTING SUPPLY AND RETURN HYDRONIC PIPING WITHIN THE SPACE. CONTRACTOR TO DEMO AND REMOVE ALL EXISTING HYDRONIC PIPING, FITTINGS & SUPPORTS RELATED TO THE EXISTING HEATING SYSTEM.
6. EXISTING FAN COIL AND ALL ASSCOCIATED HYDRONIC PIPES, DUCTWORKS AND ANCILLARIES TO BE REMOVED AND DEMOLISHED.
7. EXISTING SUPPLY/RETURN AIR DUCTWORKS AND ALL ASSOCIATED ANCILLARIES TO BE REMOVED AND DEMOLISHED.
8. EXISTING EXHAUST FAN, RELATED DUCTWORK AND FAN SWITCH TO BE REMOVED, REFER TO ELECTRICAL FOR ADDITIONAL SCOPE OF WORK.

ISSUED FOR CONSTRUCTION

ENGINEERS GEOSCIENTISTS MANITOBA
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PROVINCE OF MANITOBA
L.A. URQUHART
Member
33109
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REGISTERED PROFESSIONAL ENGINEER

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mcm architects inc.
141 ST.ANNE'S ROAD, WINNIPEG, MANITOBA, R2M 2Z3
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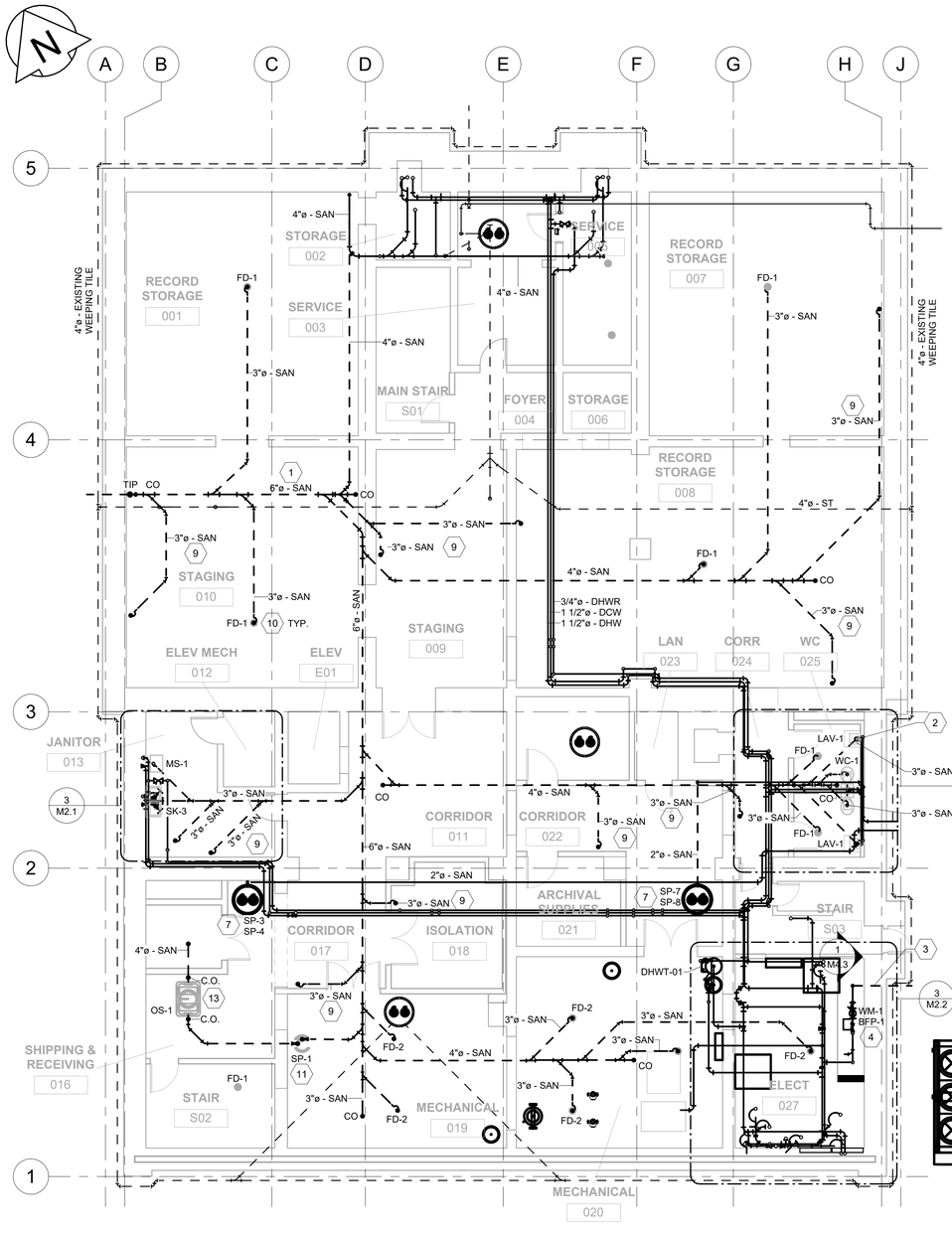
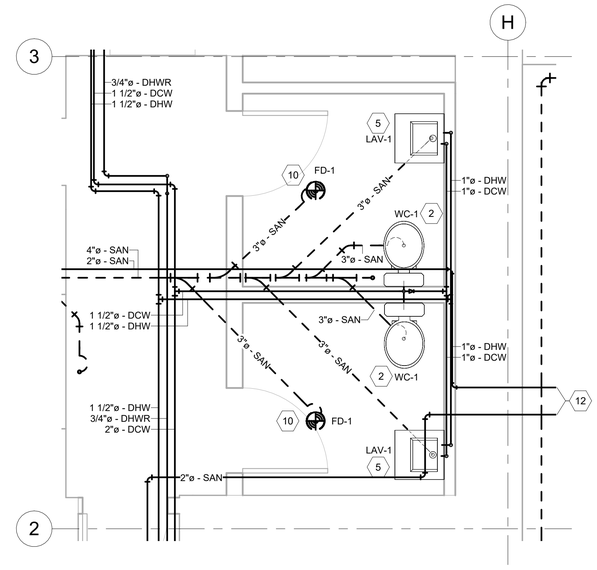
CITY ARCHIVES BUILDING REDEVELOPMENT
380 WILLIAM AVENUE, WINNIPEG, MANITOBA

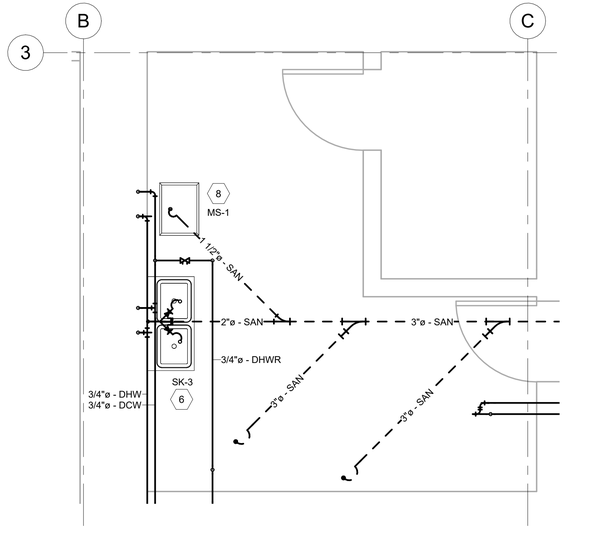
project: 2624
sheet no.: **M1.8**



1 / - BASEMENT PLUMBING NEW CONDITIONS
SCALE: 1/8" = 1'-0" 24"x36" SHEET



2 / - BASEMENT PLUMBING NEW CONDITIONS - WASHROOMS
SCALE: 3/8" = 1'-0" 24"x36" SHEET



3 / - BASEMENT PLUMBING NEW CONDITIONS - ROOM 013
SCALE: 3/8" = 1'-0" 24"x36" SHEET

GENERAL NOTES

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY WORK NOT EXPLICITLY SET OUT IN THE CONTRACT DOCUMENTS BUT WHICH MAY BE REASONABLY IMPLIED FOR THE PROPER COMPLETION OF THE WORK.
2. IN SUBMISSION OF EQUIVALENTS TO PRODUCTS SPECIFIED, BIDDERS SHALL INCLUDE IN THEIR BID, ANY CHANGES REQUIRED IN THE WORK TO ACCOMMODATE SUCH PRODUCTS. A LATER CLAIM BY THE BIDDER FOR AN ADDITION TO THE CONTRACT PRICE BECAUSE OF CHANGES IN WORK NECESSITATED BY USE OF AN EQUIVALENT PRODUCT SHALL NOT BE CONSIDERED.
3. THESE PLANS ARE SCHEMATIC IN NATURE AND INDICATE THE APPROXIMATE AND GENERAL LOCATION OF THE WORK. CONTRACTOR SHALL INSTALL WORK THROUGH COORDINATION WITH OTHER TRADES AND TO SUIT FIELD CONDITIONS.
4. GENERAL CONTRACTOR SHALL COORDINATE WITH SUB-CONTRACTORS TO ENSURE ANY MULTI DISCIPLINE NOTES OR DETAILS ARE REVIEWED BY ALL SUB-CONTRACTORS PRIOR TO BID SUBMISSION, A LATER CLAIM SUBMITTED BY THE BIDDER FOR AN ADDITION TO THE CONTRACT PRICE BECAUSE OF CHANGES IN WORK NECESSITATED DUE TO A LACK OF COORDINATION WILL NOT BE ACCEPTED.
5. COORDINATE WORKS WITH OTHER SUB-TRADES. REFER TO NEW BUILDING LAYOUT DRAWINGS FOR CUTTING AND SEALING PENETRATIONS THROUGH OPENINGS & FIRE SEPARATIONS.
6. REFER TO SCHEDULES, SPECIFICATIONS & MANUFACTURE LITERATURE FOR EQUIPMENT AND MATERIAL SPECIFICATIONS AND INSTALLATION REQUIREMENTS.
7. PERFORM WORKS IN ACCORDANCE WITH PLUMBING CODE AND ALL LOCAL APPLICABLE CODES AND REGULATIONS. OBTAIN & PAY FOR ALL APPLICABLE PERMITS & INSPECTIONS. OBTAIN PLUMBING INSPECTIONS BEFORE CONCRETE FLOOR IS INSTALLED.
8. RUN SANITARY PIPING BELOW GRADE, INVERTS TO BE CONFIRMED, RUN VENT PIPING IN CEILING SPACE. CO-ORDINATE WITH SITE SERVICES SUB-TRADE.
9. REFER TO ARCHITECTURAL DRAWINGS. PROVIDE FIRE STOP PIPE PENETRATION TO MATCH WALL RATING, TYP.
10. SLOPE SANITARY MAIN 4" PIPE AT MIN. 1:100, SLOPE ALL 3" AND UNDER SANITARY AT MIN. 1:50. FIELD CHECK TO ENSURE SUFFICIENT SLOPE HEIGHT. HANG PIPE FROM STRUCTURAL ABOVE.
11. VENT SANITARY PIPING AS REQUIRED BY PLUMBING CODE. VENT PIPING SHALL BE RUN CONCEALED UP THROUGH WALLS UNLESS OTHERWISE INSTRUCTED OR SPECIFIED. PLUMBING VENT TERMINATIONS SHALL BE AT LEAST 11'-6" AWAY FROM OUTDOOR AIR INTAKES.COORDINATE TERMINATIONS WITH NEW AND EXISTING EQUIPMENT LOCATIONS.
12. PROVIDE CLEANOUTS TO ACCOMMODATE PLUMBING CODE REQUIRED MINIMUM SPACING OF 25 FEET FOR SANITARY PIPE UNDER 3"Ø AND 50 FEET FOR 3"Ø AND 4"Ø SANITARY PIPE.
13. REFER TO ARCHITECTURAL DRAWINGS FOR DETAILS RELATED TO MECHANICAL WORK.
14. DEMO EXISTING SLAB ON GRADE FLOOR WHERE REQUIRED TO RUN NEW SANITARY DWV PIPING, RESTORE CONCRETE FLOOR.
15. PRESSURE TEST BURIED SYSTEMS BEFORE BACKFILLING AND HYDRAULICALLY TEST TO VERIFY GRADES AND FREEDOM FROM OBSTRUCTIONS.
16. DEMO EXISTING SLAB ON GRADE CONCRETE FLOOR TO ACCOMMODATE SANITARY PLUMBING TRENCH AS REQUIRED; RESTORE CONCRETE TO MATCH EXISTING.
17. INSULATE ALL PLUMBING PIPING.
18. INVESTIGATE SITE PRIOR TO CONSTRUCTION TO CONFIRM ALL DIMENSIONS AND INSTALLATION REQUIREMENTS. ANY DISCREPANCIES OR QUESTIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO BID DATE.
19. DIELECTRIC CONNECTIONS SHALL BE USED AT ALL DISSIMILAR MATERIAL PIPING JOINTS AND WHERE PIPE GOES THROUGH CONCRETE FLOOR SLAB ON GRADE.

KEYNOTES

1. NEW BELOW SLAB SANITARY PIPE TO REPLACE DRAINAGE PIPING AT APPROXIMATE LOCATION, COORDINATE EXACT ROUTING WITH GENERAL CONTRACTOR TO ENSURE ALL FOOTINGS ARE AVOIDED. CONTRACTOR TO PAY AND ARRANGE FOR LOCATING EXISTING BURIED SANITARY PIPING AND SELECTIVE DEMOLITION OF CONCRETE FLOOR AS SHOWN/INDICATED BY ARCHITECT.
2. PROVIDE AND INSTALL NEW 1" DCW AND 3" SANITARY LINE PIPING RUN BURIED, TO THE NEW WATER CLOSET. WATER CLOSET C/W HARD WIRED FLUSH VALVES, INSULATE AND SUPPORT DCW PIPING AND SANITARY AS SPECIFIED. SEE SPECIFICATIONS FOR DETAILS.
3. NEW COMBINED WATER SERVICE FROM DAGMAR AVE, REFER TO CIVIL DRAWINGS FOR SITE SERVICE WORK.
4. NEW REDUCED PRESSURE ZONE ASSEMBLY BACKFLOW PREVENTERS FOR ZONE PROTECTION, SEE SPECIFICATIONS FOR BFP DETAILS. PROVIDE VERTICAL OFFSET TO FACILITATE BACKFLOW PREVENTER INSTALLATION AT ACCESSIBLE LOW ELEVATION (C/L 4' ABOVE FLOOR) MAINTAIN 1' BETWEEN THE BOTTOM OF THE RELIEF VALVE AND FLOOR AND PROVIDE OTHER CLEARANCES REQUIRED LISTED IN CSA B64.10 TABLE 4. FIELD RUN DRAIN PIPING FROM BFP WITH A MANUFACTURER'S DRAIN CONNECTION FITTING AND FIELD RUN TO TERMINATE WITH AN INDIRECT DRAIN CONNECTION, INSTALL DRAIN PIPING TO BFP MANUFACTURER'S INSTALLATION INSTRUCTIONS. CONTRACTOR TO PROVIDE AND INSTALL A UNISTRUT FRAME WITH NECESSARY PIPE CLAMPS TO SUPPORT THE BACKFLOW PREVENTER AND PREVENT LATERAL MOVEMENT. THE BACKFLOW PREVENTER SHALL BE SUPPORTED IN A MANNER THAT WILL NOT OBSTRUCT ACCESS TO THE DEVICE FOR TESTING AND MAINTENANCE OR INTERFERE WITH THE OPERATION OF THE RELIEF VALVE. CLEARLY IDENTIFY ZONE PROTECTION PIPING AS SPECIFIED. PROVIDE ISOLATION BALL VALVES UPSTREAM/DOWNSTREAM OF BFP'S.
5. PROVIDE AND INSTALL NEW LAVATORY AND 1/2" DCW/DHW INSULATED BRANCH PIPING WITHIN WALL CONNECTING TO NEW LAVATORY. ALL BRANCHES TO LAVATORIES C/W ISOLATION VALVE & WALL ESCUTCHEON PLATE & FIXTURE STOP; SEE SPECIFICATIONS FOR DETAILS; LAVATORY C/W NECESSARY TRIM. LAVATORY COMPLETE WITH AUTOMATIC ELECTRONIC ACTIVATION, HARD WIRED FAUCETS. PROVIDE AND INSTALL NEW 1-1/2" SANITARY LINE FROM NEW LAVATORY, AS SHOWN, PIPE SIZE TYPICAL FOR ALL LAVATORIES; PROVIDE P-TRAP UNDER DRAIN CONNECTION & CLEANOUT ABOVE FLOOD RIM OF LAVATORY C/W CHROME ESCUTCHEON PLATE.
6. PROVIDE AND INSTALL NEW SINK AND 1/2" DCW/DHW INSULATED BRANCH PIPING WITHIN WALL CONNECTING TO NEW SINK. ALL BRANCHES TO SINKS C/W ISOLATION VALVE & WALL ESCUTCHEON PLATE & FIXTURE STOP; SEE SPECIFICATIONS FOR DETAILS; SINK C/W NECESSARY TRIM. SINK COMPLETE WITH AUTOMATIC ELECTRONIC ACTIVATION, HARD WIRED FAUCETS. PROVIDE AND INSTALL NEW 2" SANITARY LINE FROM NEW SINK, AS SHOWN, PIPE SIZE TYPICAL FOR ALL SINKS; PROVIDE P-TRAP UNDER DRAIN CONNECTION & CLEANOUT ABOVE FLOOD RIM OF SINK C/W CHROME ESCUTCHEON PLATE. SELECTIVELY DEMO PORTION OF FLOOR TO ACCOMODATE BURIED SANITARY PIPE.
7. PROVIDE & INSTALL NEW SANITARY DUPLEX PACKAGE SUMP PUMP IN CRAWLSPACE; SEE SPECIFICATIONS AND SUMP PUMP SCHEDULE FOR DETAILS. PROVIDE & FIELD RUN NEW VENT PIPE UP THROUGH FLOORS ABOVE. FIELD RUN FORCE SANITARY DRAIN UP TO EXTERIOR WALL AS SHOWN. PROVIDE AND INSTALL ISOLATION BALL VALVE AND CHECK VALVE ON PUMP DISCHARGE PIPE. PROVIDE TIE-IN FROM EXISTING WEEPING TILE WATER PIPE TO NEW SUMP PIT. PROVIDE GFI RECEPTACLE FOR PUMP, REFER TO ELECTRICAL.
8. PROVIDE AND INSTALL NEW 3/4" DCW, 3/4" DHW AND 3" SANITARY LINE PIPING RUN BURIED BELOW SLAB, TO THE NEW JANITOR SINK. DCW & DWH PIPE IS RUN TO FIXTURE IN CEILING SPACE INSULATED AND SUPPORTED AS SPECIFIED. C/W ISOLATION VALVE AND WALL/FLOOR ESCUTHEON PLATE AND FIXTURE STOP. SEE SPECIFICATIONS FOR DETAILS. SELECTIVELY DEMO PORTION OF FLOOR TO ACCOMODATE BURIED SANITARY PIPE.
9. SUPPLY AND INSTALL DRAIN CONNECTION ADJACENT TO WALL TO COLLECT CONDENSATE FROM FAN COIL CONDENSATE DRAINS. PROVIDE CONDENSATE FROM EACH FAN COIL LOCATION, OR PAIR OF FAN COILS. PIPING TO OFFSET WHEN CROSSING FLOORS AND BEAMS. PROVIDE INDIRECT CONNECTION TO SANITARY PIPING IN BASEMENT, WITH TRAP PRIMER ON SANITARY PIPING TRAP. FOR PIPES SHOWN BETWEEN GRIDLINES 1-3 SELECTIVELY DEMO FLOOR TO ACCOMODATE BURIED SANITARY PIPE. CONDENSATE PIPING TO BE INSULATED AND SUPPORTED AS SPECIFIED.
10. NEW 3" FLOOR DRAIN, REFER TO SPECIFICATIONS FOR DETAILS. PROVIDE AND INSTALL NEW BUIRED SANITARY LINE PIPING RUN TO THE NEW FLOOR DRAIN C/W TRAP SEAL PRIMER. TRAP SEAL PRIMER TO INCLUDE INTEGRAL PVB BACKFLOW PREVENTER
11. ELEVATOR SUMP PIT & PUMP, SEE SPECIFICATIONS FOR DETAILS, REFER TO ARCHITECTURAL DRAWINGS FOR LOCATION AND ELEVATION OF NEW SUMP PIT ALONG WITH GRADING DETAILS. THE SYSTEM IS TO BE GFCI PROTECTED. CONTRACTOR TO PROVIDE 2" DISCHARGE UNION, CHECK VALVE AND SHUT-OFF BALL VALVE. PROVIDE 2"-1" TRANSITION AND RUN DISCHARGE PIPING BURIED AT INVERT ELEVATION REQUIRED TO TIE-IN TO NEW BURIED SANITARY PIPE. PROVIDE AND INSTALL VENT FOR SUMP PIT IN ACCORDANCE WITH LOCAL CODE.
12. SUMP PUMP DISCHARGE THROUGH WALL TO SPLASHPAD OUTSIDE. CORE HOLE THROUGH WALL TO LINE UP WITH SPLASHPAD AND SEAL AROUND PIPE PENETRATION WATERTIGHT, REFER TO ARCHITECTURAL FOR CUTTING AND PATCHING DETAILS.
13. PROVIDE & INSTALL NEW OIL SEPARATOR IN CRAWLSPACE TO COLLECT DRAINAGE FROM ELEVATOR PIT SUMP; FIELD CONFIRM INTAKE INVERT BEFORE SETTING THE OIL INTERCEPTOR ELEVATION. OIL INTERCEPTOR C/W TELEGLIDE RISER, SR24+LR, QTY 2. SEE SPECIFICATIONS FOR DETAILS.

ISSUED FOR CONSTRUCTION

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T. A. URQUHART
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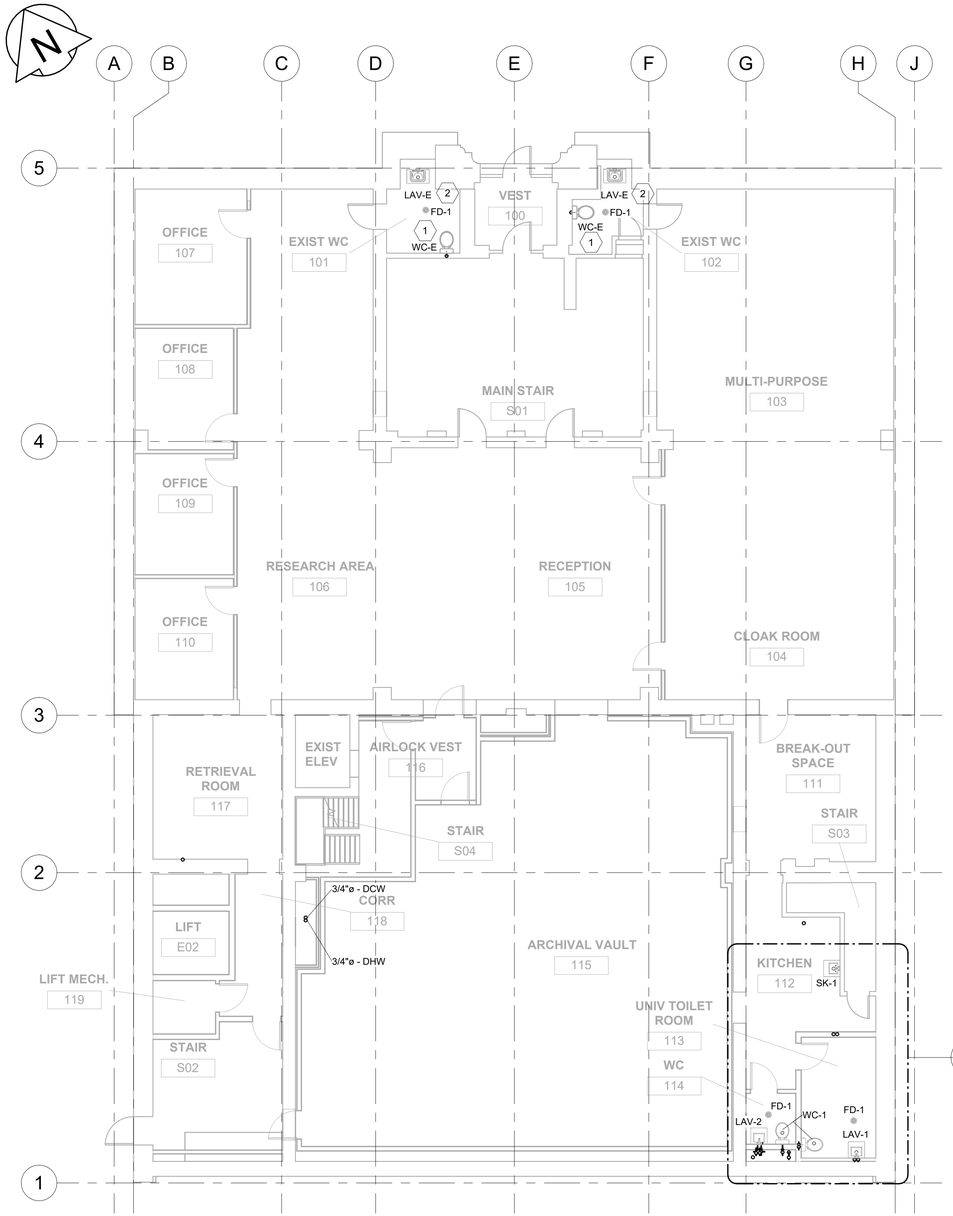
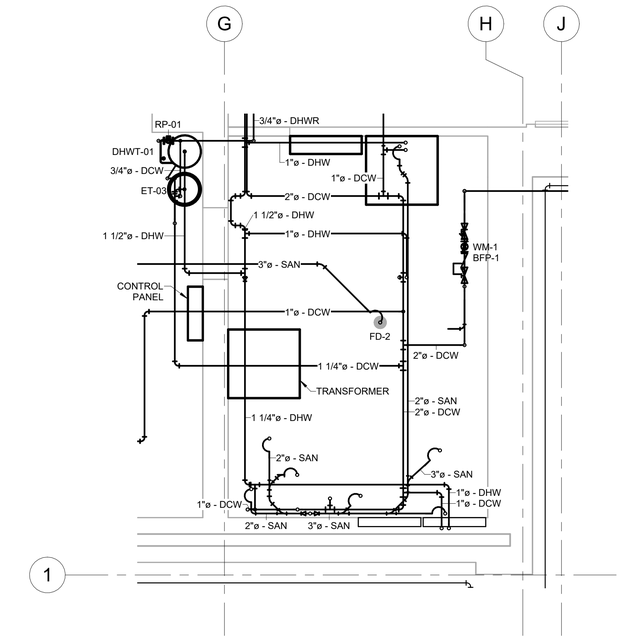


1 / - MAIN FLOOR PLUMBING NEW CONDITIONS
SCALE: 1/8" = 1'-0" 24"x36" SHEET



3 / M2.1 BASEMENT PLUMBING NEW CONDITIONS - ELECT 027
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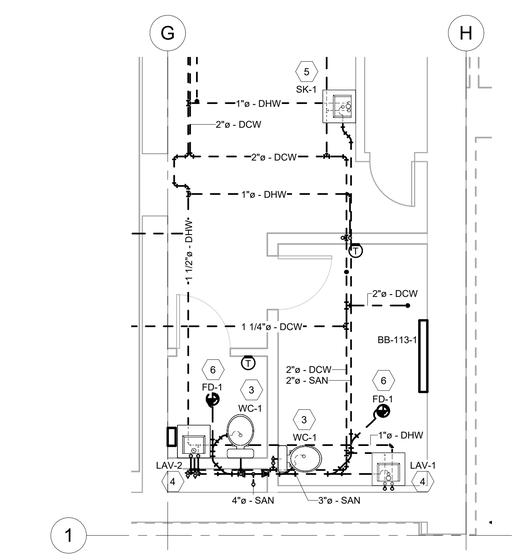

2 / - MAIN FLOOR PLUMBING NEW CONDITIONS - KITCHEN 112 & WASHROOMS
SCALE: 1/4" = 1'-0" 24"x36" SHEET

GENERAL NOTES

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY WORK NOT EXPLICITLY SET OUT IN THE CONTRACT DOCUMENTS BUT WHICH MAY BE REASONABLY IMPLIED FOR THE PROPER COMPLETION OF THE WORK.
2. IN SUBMISSION OF EQUIVALENTS TO PRODUCTS SPECIFIED, BIDDERS SHALL INCLUDE IN THEIR BID, ANY CHANGES REQUIRED IN THE WORK TO ACCOMMODATE SUCH PRODUCTS. A LATER CLAIM BY THE BIDDER FOR AN ADDITION TO THE CONTRACT PRICE BECAUSE OF CHANGES IN WORK NECESSITATED BY USE OF AN EQUIVALENT PRODUCT SHALL NOT BE CONSIDERED.
3. THESE PLANS ARE SCHEMATIC IN NATURE AND INDICATE THE APPROXIMATE AND GENERAL LOCATION OF THE WORK. CONTRACTOR SHALL INSTALL WORK THROUGH COORDINATION WITH OTHER TRADES AND TO SUIT FIELD CONDITIONS.
4. GENERAL CONTRACTOR SHALL COORDINATE WITH SUB-CONTRACTORS TO ENSURE ANY MULTI DISCIPLINE NOTES OR DETAILS ARE REVIEWED BY ALL SUB-CONTRACTORS PRIOR TO BID SUBMISSION. A LATER CLAIM SUBMITTED BY THE BIDDER FOR AN ADDITION TO THE CONTRACT PRICE BECAUSE OF CHANGES IN WORK NECESSITATED DUE TO A LACK OF COORDINATION WILL NOT BE ACCEPTED.
5. COORDINATE WORKS WITH OTHER SUB-TRADES. REFER TO NEW BUILDING LAYOUT DRAWINGS FOR CUTTING AND SEALING PENETRATIONS THROUGH OPENINGS & FIRE SEPARATIONS.
6. REFER TO SCHEDULES, SPECIFICATIONS & MANUFACTURE LITERATURE FOR EQUIPMENT AND MATERIAL SPECIFICATIONS AND INSTALLATION REQUIREMENTS.
7. PERFORM WORKS IN ACCORDANCE WITH PLUMBING CODE AND ALL LOCAL APPLICABLE CODES AND REGULATIONS. OBTAIN & PAY FOR ALL APPLICABLE PERMITS & INSPECTIONS. OBTAIN PLUMBING INSPECTIONS BEFORE CONCRETE FLOOR IS INSTALLED.
8. RUN SANITARY PIPING BELOW GRADE, INVERTS TO BE CONFIRMED, RUN VENT PIPING IN CEILING SPACE. CO-ORDINATE WITH SITE SERVICES SUB-TRADE.
9. REFER TO ARCHITECTURAL DRAWINGS. PROVIDE FIRE STOP PIPE PENETRATION TO MATCH WALL RATING, TYP.
10. SLOPE SANITARY MAIN 4" PIPE AT MIN. 1:100, SLOPE ALL 3" AND UNDER SANITARY AT MIN. 1:50. FIELD CHECK TO ENSURE SUFFICIENT SLOPE HEIGHT. HANG PIPE FROM STRUCTURAL ABOVE.
11. VENT SANITARY PIPING AS REQUIRED BY PLUMBING CODE. VENT PIPING SHALL BE RUN CONCEALED UP THROUGH WALLS UNLESS OTHERWISE INSTRUCTED OR SPECIFIED. PLUMBING VENT TERMINATIONS SHALL BE AT LEAST 11'-6" AWAY FROM OUTDOOR AIR INTAKES.COORDINATE TERMINATIONS WITH NEW AND EXISTING EQUIPMENT LOCATIONS.
12. PROVIDE CLEANOUTS TO ACCOMMODATE PLUMBING CODE REQUIRED MINIMUM SPACING OF 25 FEET FOR SANITARY PIPE UNDER 3"Ø AND 50 FEET FOR 3"Ø AND 4"Ø SANITARY PIPE.
13. REFER TO ARCHITECTURAL DRAWINGS FOR DETAILS RELATED TO MECHANICAL WORK.
14. DEMO EXISTING SLAB ON GRADE FLOOR WHERE REQUIRED TO RUN NEW SANITARY DWV PIPING, RESTORE CONCRETE FLOOR.
15. PRESSURE TEST BURIED SYSTEMS BEFORE BACKFILLING AND HYDRAULICALLY TEST TO VERIFY GRADES AND FREEDOM FROM OBSTRUCTIONS.
16. DEMO EXISTING SLAB ON GRADE CONCRETE FLOOR TO ACCOMMODATE SANITARY PLUMBING TRENCH AS REQUIRED; RESTORE CONCRETE TO MATCH EXISTING.
17. INSULATE ALL PLUMBING PIPING.
18. INVESTIGATE SITE PRIOR TO CONSTRUCTION TO CONFIRM ALL DIMENSIONS AND INSTALLATION REQUIREMENTS. ANY DISCREPANCIES OR QUESTIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO BID DATE.
19. DIELECTRIC CONNECTIONS SHALL BE USED AT ALL DISSIMILAR MATERIAL PIPING JOINTS AND WHERE PIPE GOES THROUGH CONCRETE FLOOR SLAB ON GRADE.

KEYNOTES

1. EXISTING WATER CLOSET TO REMAIN IN USE.
2. EXISTING LAVATORY TO REMAIN IN USE.
3. PROVIDE AND INSTALL NEW 1" DCW AND 3" SANITARY LINE PIPING RUN IN BASEMENT CEILING SPACE TO THE NEW WATER CLOSET. WATER CLOSET C/W HARD WIRED FLUSH VALVES, INSULATE AND SUPPORT DCW PIPING AND SANITARY AS SPECIFIED. SEE SPECIFICATIONS FOR DETAILS.
4. PROVIDE AND INSTALL NEW LAVATORY AND 1/2" DCW/DHW INSULATED BRANCH PIPING WITHIN WALL CONNECTING TO NEW LAVATORY. ALL BRANCHES TO LAVATORIES C/W ISOLATION VALVE & WALL ESCUTCHEON PLATE & FIXTURE STOP; SEE SPECIFICATIONS FOR DETAILS; LAVATORY C/W NECESSARY TRIM. LAVATORY COMPLETE WITH AUTOMATIC ELECTRONIC ACTIVATION, HARD WIRED FAUCETS. PROVIDE AND INSTALL NEW 1-1/2" SANITARY LINE FROM NEW LAVATORY, AS SHOWN, PIPE SIZE TYPICAL FOR ALL LAVATORIES; PROVIDE P-TRAP UNDER DRAIN CONNECTION & CLEANOUT ABOVE FLOOD RIM OF LAVATORY C/W CHROME ESCUTCHEON PLATE.
5. PROVIDE AND INSTALL NEW SINK AND 1/2" DCW/DHW INSULATED BRANCH PIPING WITHIN WALL CONNECTING TO NEW SINK. ALL BRANCHES TO SINKS C/W ISOLATION VALVE & WALL ESCUTCHEON PLATE & FIXTURE STOP; SEE SPECIFICATIONS FOR DETAILS; SINK C/W NECESSARY TRIM. SINK COMPLETE WITH AUTOMATIC ELECTRONIC ACTIVATION, HARD WIRED FAUCETS. PROVIDE AND INSTALL NEW 2" SANITARY LINE FROM NEW SINK, AS SHOWN, PIPE SIZE TYPICAL FOR ALL SINKS; PROVIDE P-TRAP UNDER DRAIN CONNECTION & CLEANOUT ABOVE FLOOD RIM OF SINK C/W CHROME ESCUTCHEON PLATE. SELECTIVELY DEMO PORTION OF FLOOR TO ACCOMODATE BURIED SANITARY PIPE.
6. NEW 3" FLOOR DRAIN. REFER TO SPECIFICATIONS FOR DETAILS. PROVIDE AND INSTALL NEW SANITARY LINE PIPING RUN IN BASEMENT CEILING SPACE TO THE NEW FLOOR DRAIN C/W TRAP SEAL PRIMER. TRAP SEAL PRIMER TO INCLUDE INTEGRAL PVB BACKFLOW PREVENTER

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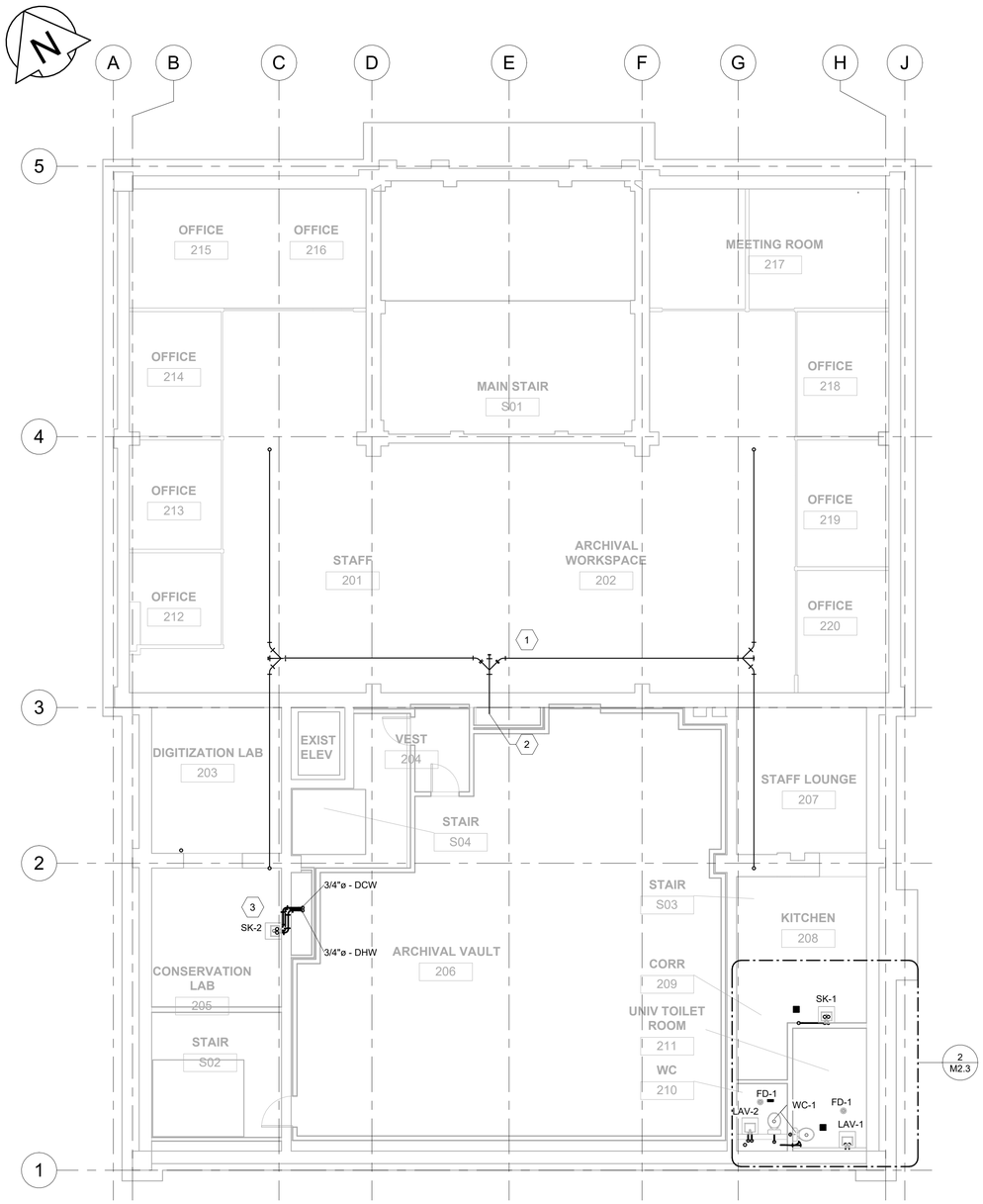
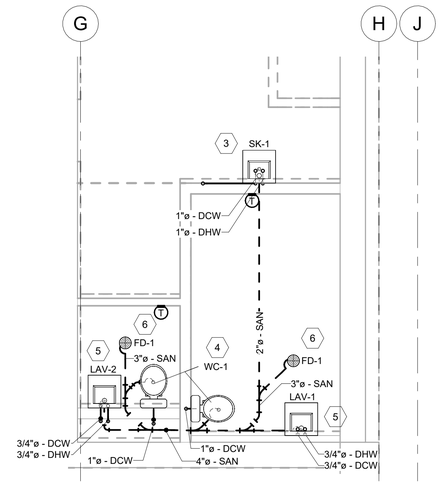
project
2624

sheet no.
M2.2



1 SECOND FLOOR PLUMBING NEW CONDITIONS
SCALE: 1/8" = 1'-0" 24"x36" SHEET



2 SECOND FLOOR PLUMBING NEW CONDITIONS - WASHROOMS
SCALE: 1/4" = 1'-0" 24"x36" SHEET

GENERAL NOTES

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY WORK NOT EXPLICITLY SET OUT IN THE CONTRACT DOCUMENTS BUT WHICH MAY BE REASONABLY IMPLIED FOR THE PROPER COMPLETION OF THE WORK.
2. IN SUBMISSION OF EQUIVALENTS TO PRODUCTS SPECIFIED, BIDDERS SHALL INCLUDE IN THEIR BID, ANY CHANGES REQUIRED IN THE WORK TO ACCOMMODATE SUCH PRODUCTS. A LATER CLAIM BY THE BIDDER FOR AN ADDITION TO THE CONTRACT PRICE BECAUSE OF CHANGES IN WORK NECESSITATED BY USE OF AN EQUIVALENT PRODUCT SHALL NOT BE CONSIDERED.
3. THESE PLANS ARE SCHEMATIC IN NATURE AND INDICATE THE APPROXIMATE AND GENERAL LOCATION OF THE WORK. CONTRACTOR SHALL INSTALL WORK THROUGH COORDINATION WITH OTHER TRADES AND TO SUIT FIELD CONDITIONS.
4. GENERAL CONTRACTOR SHALL COORDINATE WITH SUB-CONTRACTORS TO ENSURE ANY MULTI DISCIPLINE NOTES OR DETAILS ARE REVIEWED BY ALL SUB-CONTRACTORS PRIOR TO BID SUBMISSION. A LATER CLAIM SUBMITTED BY THE BIDDER FOR AN ADDITION TO THE CONTRACT PRICE BECAUSE OF CHANGES IN WORK NECESSITATED DUE TO A LACK OF COORDINATION WILL NOT BE ACCEPTED.
5. COORDINATE WORKS WITH OTHER SUB-TRADES. REFER TO NEW BUILDING LAYOUT DRAWINGS FOR CUTTING AND SEALING PENETRATIONS THROUGH OPENINGS & FIRE SEPARATIONS.
6. REFER TO SCHEDULES, SPECIFICATIONS & MANUFACTURE LITERATURE FOR EQUIPMENT AND MATERIAL SPECIFICATIONS AND INSTALLATION REQUIREMENTS.
7. PERFORM WORKS IN ACCORDANCE WITH PLUMBING CODE AND ALL LOCAL APPLICABLE CODES AND REGULATIONS. OBTAIN & PAY FOR ALL APPLICABLE PERMITS & INSPECTIONS. OBTAIN PLUMBING INSPECTIONS BEFORE CONCRETE FLOOR IS INSTALLED.
8. RUN SANITARY PIPING BELOW GRADE, INVERTS TO BE CONFIRMED, RUN VENT PIPING IN CEILING SPACE. CO-ORDINATE WITH SITE SERVICES SUB-TRADE.
9. REFER TO ARCHITECTURAL DRAWINGS. PROVIDE FIRE STOP PIPE PENETRATION TO MATCH WALL RATING, TYP.
10. SLOPE SANITARY MAIN 4" PIPE AT MIN. 1:100, SLOPE ALL 3" AND UNDER SANITARY AT MIN. 1:50. FIELD CHECK TO ENSURE SUFFICIENT SLOPE HEIGHT. HANG PIPE FROM STRUCTURAL ABOVE.
11. VENT SANITARY PIPING AS REQUIRED BY PLUMBING CODE. VENT PIPING SHALL BE RUN CONCEALED UP THROUGH WALLS UNLESS OTHERWISE INSTRUCTED OR SPECIFIED. PLUMBING VENT TERMINATIONS SHALL BE AT LEAST 11'-6" AWAY FROM OUTDOOR AIR INTAKES.COORDINATE TERMINATIONS WITH NEW AND EXISTING EQUIPMENT LOCATIONS.
12. PROVIDE CLEANOUTS TO ACCOMMODATE PLUMBING CODE REQUIRED MINIMUM SPACING OF 25 FEET FOR SANITARY PIPE UNDER 3"Ø AND 50 FEET FOR 3"Ø AND 4"Ø SANITARY PIPE.
13. REFER TO ARCHITECTURAL DRAWINGS FOR DETAILS RELATED TO MECHANICAL WORK.
14. DEMO EXISTING SLAB ON GRADE FLOOR WHERE REQUIRED TO RUN NEW SANITARY DWV PIPING, RESTORE CONCRETE FLOOR.
15. PRESSURE TEST BURIED SYSTEMS BEFORE BACKFILLING AND HYDRAULICALLY TEST TO VERIFY GRADES AND FREEDOM FROM OBSTRUCTIONS.
16. DEMO EXISTING SLAB ON GRADE CONCRETE FLOOR TO ACCOMMODATE SANITARY PLUMBING TRENCH AS REQUIRED; RESTORE CONCRETE TO MATCH EXISTING.
17. INSULATE ALL PLUMBING PIPING.
18. INVESTIGATE SITE PRIOR TO CONSTRUCTION TO CONFIRM ALL DIMENSIONS AND INSTALLATION REQUIREMENTS. ANY DISCREPANCIES OR QUESTIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO BID DATE.
19. DIELECTRIC CONNECTIONS SHALL BE USED AT ALL DISSIMILAR MATERIAL PIPING JOINTS AND WHERE PIPE GOES THROUGH CONCRETE FLOOR SLAB ON GRADE.

KEYNOTES

1. EXISTING RWL PIPING IN CEILING SPACE TO REMAIN IN USE.
2. EXISTING RWL MAIN RUN VERTICALLY TO REMAIN IN USE.
3. PROVIDE AND INSTALL NEW SINK AND 1/2" DCW/DHW INSULATED BRANCH PIPING WITHIN WALL CONNECTING TO NEW SINK. ALL BRANCHES TO SINKS C/W ISOLATION VALVE & WALL ESCUTCHEON PLATE & FIXTURE STOP; SEE SPECIFICATIONS FOR DETAILS; SINK C/W NECESSARY TRIM. SINK COMPLETE WITH AUTOMATIC ELECTRONIC ACTIVATION, HARD WIRED FAUCETS. PROVIDE AND INSTALL NEW 1-1/2" SANITARY LINE FROM NEW SINK, AS SHOWN, PIPE SIZE TYPICAL FOR ALL SINKS; PROVIDE P-TRAP UNDER DRAIN CONNECTION & CLEANOUT ABOVE FLOOD RIM OF SINK C/W CHROME ESCUTCHEON PLATE.
4. PROVIDE AND INSTALL NEW 1" DCW AND 3" SANITARY LINE PIPING RUN IN MAIN FLOOR CEILING SPACE TO THE NEW WATER CLOSET. WATER CLOSET C/W HARD WIRED FLUSH VALVES, INSULATE AND SUPPORT DCW PIPING AND SANITARY AS SPECIFIED. SEE SPECIFICATIONS FOR DETAILS.
5. PROVIDE AND INSTALL NEW LAVATORY AND 1/2" DCW/DHW INSULATED BRANCH PIPING WITHIN WALL CONNECTING TO NEW LAVATORY. ALL BRANCHES TO LAVATORIES C/W ISOLATION VALVE & WALL ESCUTCHEON PLATE & FIXTURE STOP; SEE SPECIFICATIONS FOR DETAILS; LAVATORY C/W NECESSARY TRIM. LAVATORY COMPLETE WITH AUTOMATIC ELECTRONIC ACTIVATION, HARD WIRED FAUCETS. PROVIDE AND INSTALL NEW 1-1/2" SANITARY LINE FROM NEW LAVATORY, AS SHOWN, PIPE SIZE TYPICAL FOR ALL LAVATORIES; PROVIDE P-TRAP UNDER DRAIN CONNECTION & CLEANOUT ABOVE FLOOD RIM OF LAVATORY C/W CHROME ESCUTCHEON PLATE.
6. NEW 3" FLOOR DRAIN, REFER TO SPECIFICATIONS FOR DETAILS. PROVIDE AND INSTALL NEW SANITARY LINE PIPING RUN HIGH IN MAIN FLOOR CEILING SPACE TO THE NEW FLOOR DRAIN C/W TRAP SEAL PRIMER. TRAP SEAL PRIMER TO INCLUDE INTEGRAL PVB BACKFLOW PREVENTER

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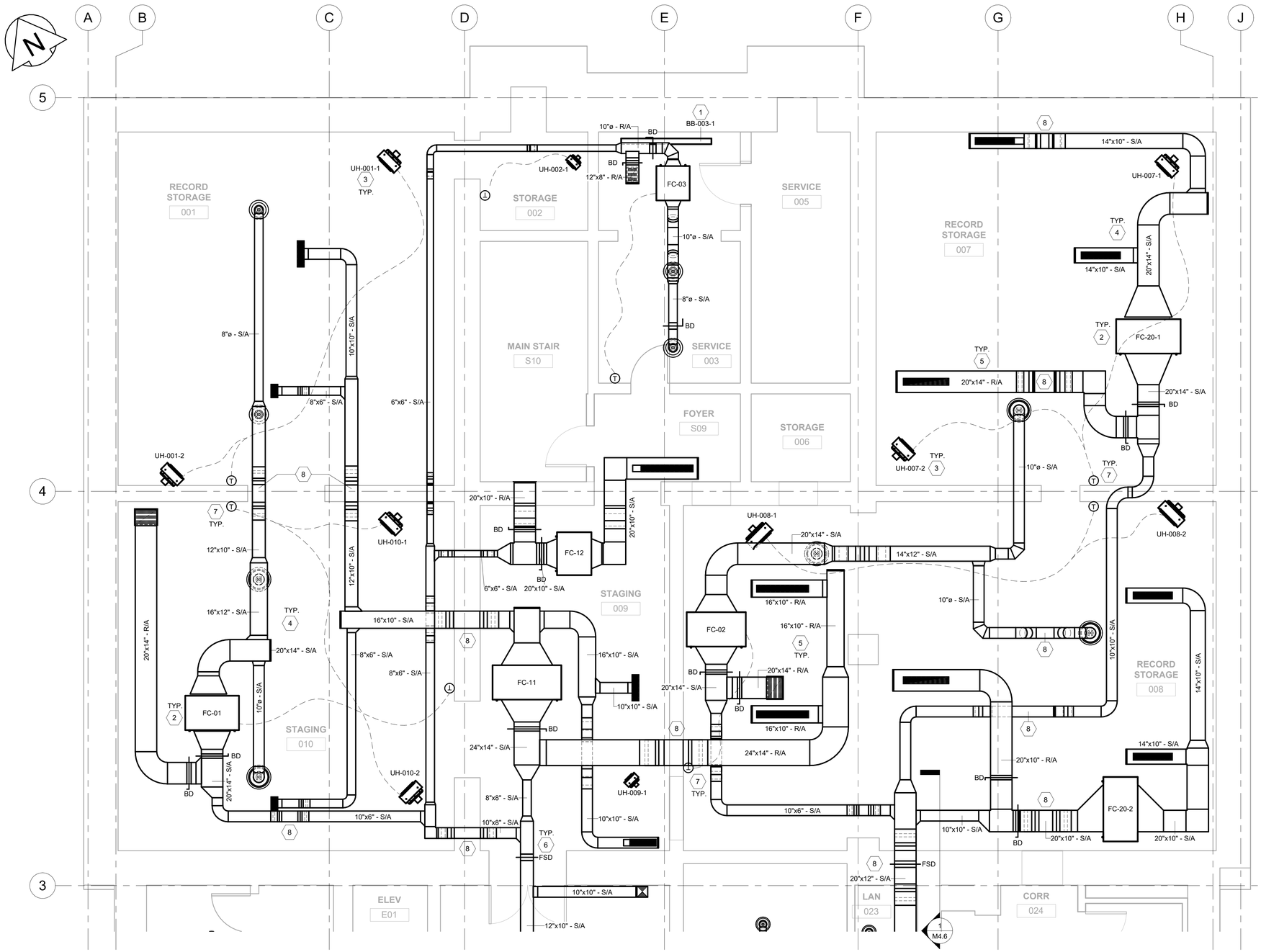

1 BASEMENT HVAC NEW CONDITIONS - A
SCALE: 1/4" = 1'-0" 24"x36" SHEET

GENERAL NOTES

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY WORK NOT EXPLICITLY SET OUT IN THE CONTRACT DOCUMENTS BUT WHICH MAY BE REASONABLY IMPLIED FOR THE PROPER COMPLETION OF THE WORK.
2. IN SUBMISSION OF EQUIVALENTS TO PRODUCTS SPECIFIED, BIDDERS SHALL INCLUDE IN THEIR BID, ANY CHANGES REQUIRED IN THE WORK TO ACCOMMODATE SUCH PRODUCTS. A LATER CLAIM BY THE BIDDER FOR AN ADDITION TO THE CONTRACT PRICE BECAUSE OF CHANGES IN WORK NECESSITATED BY USE OF AN EQUIVALENT PRODUCT SHALL NOT BE CONSIDERED
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4. GENERAL CONTRACTOR SHALL COORDINATE WITH SUB-CONTRACTORS TO ENSURE ANY MULTI DISCIPLINE NOTES OR DETAILS ARE REVIEWED BY ALL SUB-CONTRACTORS PRIOR TO BID SUBMISSION. A LATER CLAIM SUBMITTED BY THE BIDDER FOR AN ADDITION TO THE CONTRACT PRICE BECAUSE OF CHANGES IN WORK NECESSITATED DUE TO A LACK OF COORDINATION WILL NOT BE ACCEPTED.
5. COORDINATE WORKS WITH OTHER SUB-TRADES. REFER TO SPECIFIC DETAILS FOR CUTTING AND SEALING PENETRATIONS THROUGH OPENINGS & FIRE SEPARATIONS
6. REFER TO TECHNICAL SPECIFICATIONS FOR EQUIPMENT AND MATERIAL SPECIFICATIONS AND INSTALLATION REQUIREMENTS
7. INSULATE DUCTWORK WHERE INDICATED AND SPECIFIED.
8. PERFORM ALL WORKS IN ACCORDANCE WITH NATIONAL BUILDING CODE, TO SMACNA & ASHRAE STANDARDS, ALL LOCAL CODES, BYLAWS & STANDARDS, AND THE REQUIREMENTS OF THE AUTHORITY HAVING JURISDICTION.
9. SUPPORT ALL DUCTWORK TO MEET CODE REQUIREMENTS & ESTABLISHED INDUSTRY TRADE PRACTICES, (SMACNA, ASHRAE).
10. PROVIDE BALANCE DAMPERS AT ALL GRILLES, REGISTERS AND DIFFUSERS FOR AIR BALANCING.
11. INVESTIGATE SITE PRIOR TO CONSTRUCTION TO CONFIRM ALL DIMENSIONS AND INSTALLATION REQUIREMENTS. ANY DISCREPANCIES OR QUESTIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO BID CLOSING.
12. PROVIDE TAB TO ENSURE AIR DISTRIBUTION TO VOLUMES INDICATED AND HYDRONIC SYSTEM FLOWS TO VALUES INDICATED.
13. CO-ORDINATE WORK WITH ASBESTOS ABATEMENT CONTRACTOR
14. CONTRACTOR TO PAY FOR AND OBTAIN ALL NECESSARY BUILDING, MECHANICAL AND ELECTRICAL PERMITS/INSPECTIONS REQUIRED BY AUTHORITIES HAVING JURISDICTION.

KEYNOTES

1. PROVIDE AND INSTALL NEW HYDRONIC BASEBOARD HEATER. BB, C/W ANCILLARIES AS INDICATED IN SPECIFICATIONS; PROVIDE ISOLATION BALL VALVES; FOR PIPING DETAILS SEE PROCESS FLOW SCHEMATIC AND DETAIL.
2. PROVIDE AND INSTALL NEW FAN COIL C/W HOT WATER HEATING COIL AND CHILLED WATER COOLING COIL C/W DRAIN PAN IN CEILING SPACE; SEE SPECIFICATIONS FOR DETAILS. INSTALL TO MEET MANUFACTURER INSTALLATION REQUIREMENTS. PROVIDE 3/4" CONDENSATE DRAIN FROM FAN COIL TO DRAIN; EITHER PROVIDE INDIRECT TRAPPED CONNECTION IN SANITARY DRAIN TO ACCOMMODATE CONDENSATE OR FIELD RUN TO NEAREST FLOOR DRAIN. CONDENSATE DRAIN PIPING INSULATED AND SUPPORTED AS SPECIFIED. PROVIDE AND INSTALL CONDENSATE PUMP AS SHOWN IN SCHEDULE. FAN COIL TO BE LOCATED AT HIGH LEVEL IN CEILING SPACE COMPLETE WITH VIBRATION ISOLATION. REFER TO SCHEDULE AND SPECIFICATIONS. PROVIDE AND INSTALL BALANCING DAMPER ON FAN COIL MAIN RETURN DUCT AND FAN COIL OUTDOOR AIR DUCT TO FACILITATE BALANCING OUTDOOR AND RETURN AIR FLOW RATES ON INLET SIDE OF FAN COIL.
3. PROVIDE AND INSTALL NEW HYDRONIC, CEILING MOUNTED UNIT HEATER, UH, C/W ANCILLARIES AS INDICATED IN SPECIFICATIONS; PROVIDE ISOLATION BALL VALVES WITHIN CEILING SPACE; FOR PIPING DETAILS SEE PROCESS FLOW SCHEMATIC AND DETAIL.
4. NEW INSULATED FAN COIL SUPPLY DUCTWORK RUN THROUGH CEILING SPACE, SUPPORT AND INSULATE DUCTWORK AS SPECIFIED.
5. NEW FAN COIL RETURN DUCTWORK RUN THROUGH CEILING SPACE, SUPPORT AS SPECIFIED. PROVIDE BALANCING DAMPERS ON RETURN AIR BRANCHES AS SHOWN.
6. PROVIDE AND INSTALL NEW FIRE/SMOKE DAMPER, REFER TO DETAIL AND SPECIFICATIONS. REFER TO ARCHITECTURAL DRAWINGS FOR FIRE SEPARATIONS AND ELECTRICAL DRAWINGS FOR RELATED FIRE ALARM REQUIREMENTS.
7. PROVIDE AND INSTALL NEW WALL MOUNT THERMOSTAT AND CONTROL WIRING, CONCEAL CONTROL WIRING IN NEW WALLS. REFER TO SPECIFICATIONS FOR DETAILS.
8. PROVIDE AND INSTALL DUCT OFFSET TO AVOID INTERFERENCE WITH STRUCTURAL MEMBERS AND/OR MECHANICAL OR ELECTRICAL SERVICES.

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I. A. URQUHART
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drawn by: LM
approved by: IU
date: 31 JAN 2025

mcm architects inc.
141 ST.ANNE'S ROAD, WINNIPEG, MANITOBA, R2M 2Z3
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CITY ARCHIVES BUILDING REDEVELOPMENT
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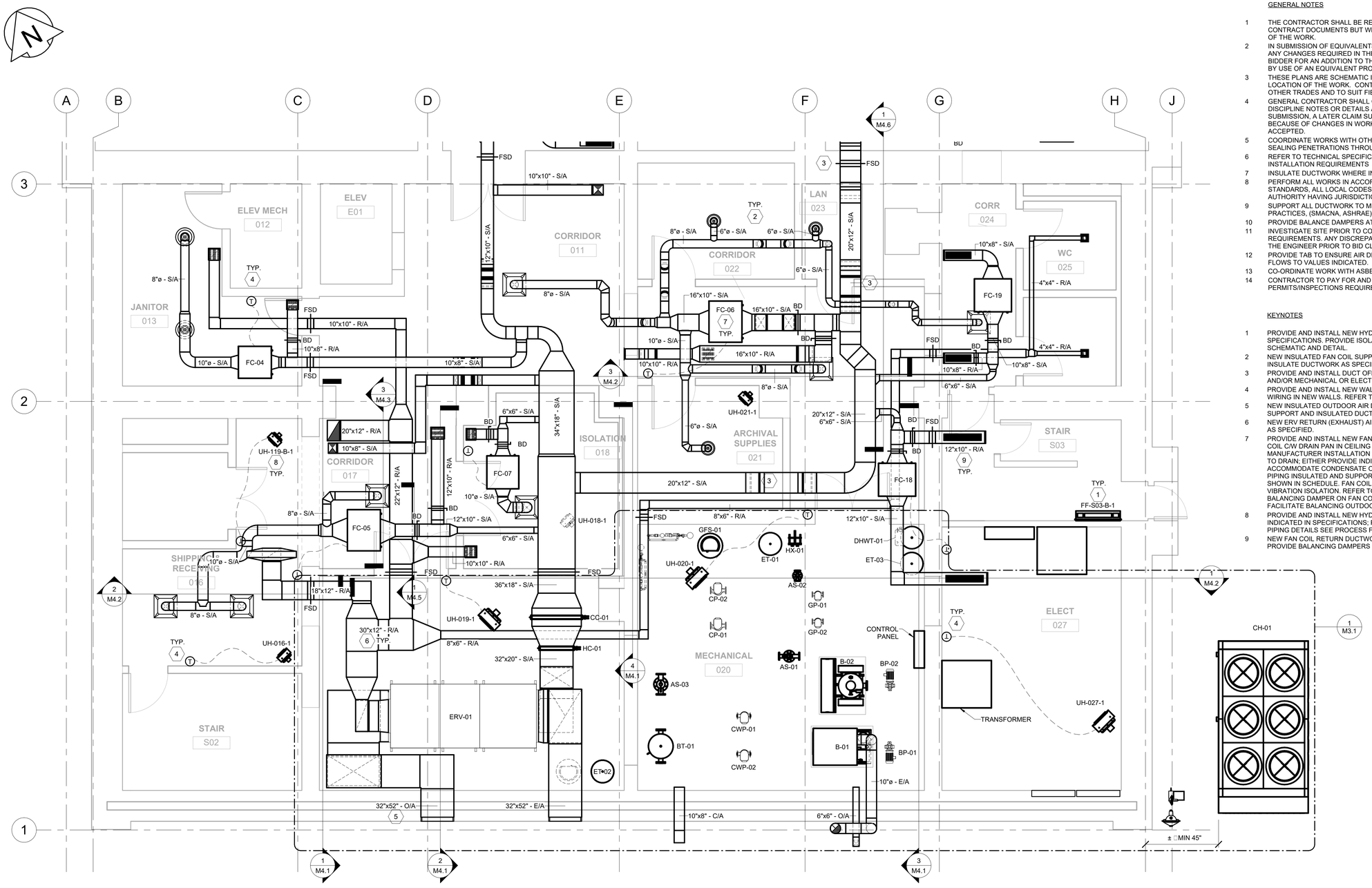
project: 2624
sheet no.: **M2.4A**



1 BASEMENT HVAC NEW CONDITIONS - B
- SCALE: 1/4" = 1'-0" 24"x36" SHEET

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4. GENERAL CONTRACTOR SHALL COORDINATE WITH SUB-CONTRACTORS TO ENSURE ANY MULTI DISCIPLINE NOTES OR DETAILS ARE REVIEWED BY ALL SUB-CONTRACTORS PRIOR TO BID SUBMISSION. A LATER CLAIM SUBMITTED BY THE BIDDER FOR AN ADDITION TO THE CONTRACT PRICE BECAUSE OF CHANGES IN WORK NECESSITATED DUE TO A LACK OF COORDINATION WILL NOT BE ACCEPTED.
5. COORDINATE WORKS WITH OTHER SUB-TRADES. REFER TO SPECIFIC DETAILS FOR CUTTING AND SEALING PENETRATIONS THROUGH OPENINGS & FIRE SEPARATIONS
6. REFER TO TECHNICAL SPECIFICATIONS FOR EQUIPMENT AND MATERIAL SPECIFICATIONS AND INSTALLATION REQUIREMENTS
7. INSULATE DUCTWORK WHERE INDICATED AND SPECIFIED.
8. PERFORM ALL WORKS IN ACCORDANCE WITH NATIONAL BUILDING CODE, TO SMACNA & ASHRAE STANDARDS, ALL LOCAL CODES, BYLAWS & STANDARDS, AND THE REQUIREMENTS OF THE AUTHORITY HAVING JURISDICTION.
9. SUPPORT ALL DUCTWORK TO MEET CODE REQUIREMENTS & ESTABLISHED INDUSTRY TRADE PRACTICES, (SMACNA, ASHRAE).
10. PROVIDE BALANCE DAMPERS AT ALL GRILLES, REGISTERS AND DIFFUSERS FOR AIR BALANCING.
11. INVESTIGATE SITE PRIOR TO CONSTRUCTION TO CONFIRM ALL DIMENSIONS AND INSTALLATION REQUIREMENTS. ANY DISCREPANCIES OR QUESTIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO BID CLOSING.
12. PROVIDE TAB TO ENSURE AIR DISTRIBUTION TO VOLUMES INDICATED AND HYDRONIC SYSTEM FLOWS TO VALUES INDICATED.
13. CO-ORDINATE WORK WITH ASBESTOS ABATEMENT CONTRACTOR
14. CONTRACTOR TO PAY FOR AND OBTAIN ALL NECESSARY BUILDING, MECHANICAL AND ELECTRICAL PERMITS/INSPECTIONS REQUIRED BY AUTHORITIES HAVING JURISDICTION.

KEYNOTES

1. PROVIDE AND INSTALL NEW HYDRONIC FORCE FLOW HEATER, FF, C/W ANCILLARIES AS INDICATED IN SPECIFICATIONS. PROVIDE ISOLATION BALL VALVES, FOR PIPING DETAILS SEE PROCESS FLOW SCHEMATIC AND DETAIL.
2. NEW INSULATED FAN COIL SUPPLY DUCTWORK RUN THROUGH CEILING SPACE, SUPPORT AND INSULATE DUCTWORK AS SPECIFIED.
3. PROVIDE AND INSTALL DUCT OFFSET TO AVOID INTERFERENCE WITH STRUCTURAL MEMBERS AND/OR MECHANICAL OR ELECTRICAL SERVICES.
4. PROVIDE AND INSTALL NEW WALL MOUNT THERMOSTAT AND CONTROL WIRING, CONCEAL CONTROL WIRING IN NEW WALLS. REFER TO SPECIFICATIONS FOR DETAILS.
5. NEW INSULATED OUTDOOR AIR DUCTWORK RUN FROM NEW ERV THROUGH CEILING SPACE, SUPPORT AND INSULATED DUCTWORK AS SPECIFIED.
6. NEW ERV RETURN (EXHAUST) AIR DUCTWORK RUN THROUGH CEILING SPACE, SUPPORT DUCTWORK AS SPECIFIED.
7. PROVIDE AND INSTALL NEW FAN COIL C/W HOT WATER HEATING COIL AND CHILLED WATER COOLING COIL C/W DRAIN PAN IN CEILING SPACE; SEE SPECIFICATIONS FOR DETAILS. INSTALL TO MEET MANUFACTURER INSTALLATION REQUIREMENTS. PROVIDE 3/4" CONDENSATE DRAIN FROM FAN COIL TO DRAIN; EITHER PROVIDE INDIRECT TRAPPED CONNECTION IN SANITARY DRAIN TO ACCOMMODATE CONDENSATE OR FIELD RUN TO NEAREST FLOOR DRAIN. CONDENSATE DRAIN PIPING INSULATED AND SUPPORTED AS SPECIFIED. PROVIDE AND INSTALL CONDENSATE PUMP AS SHOWN IN SCHEDULE. FAN COIL TO BE LOCATED AT HIGH LEVEL IN CEILING SPACE COMPLETE WITH VIBRATION ISOLATION. REFER TO SCHEDULE AND SPECIFICATIONS. PROVIDE AND INSTALL BALANCING DAMPER ON FAN COIL MAIN RETURN DUCT AND FAN COIL OUTDOOR AIR DUCT TO FACILITATE BALANCING OUTDOOR AND RETURN AIR FLOW RATES ON INLET SIDE OF FAN COIL.
8. PROVIDE AND INSTALL NEW HYDRONIC, CEILING MOUNTED UNIT HEATER, UH, C/W ANCILLARIES AS INDICATED IN SPECIFICATIONS; PROVIDE ISOLATION BALL VALVES WITHIN CEILING SPACE; FOR PIPING DETAILS SEE PROCESS FLOW SCHEMATIC AND DETAIL.
9. NEW FAN COIL RETURN DUCTWORK RUN THROUGH CEILING SPACE, SUPPORT AS SPECIFIED. PROVIDE BALANCING DAMPERS ON RETURN AIR BRANCHES AS SHOWN.

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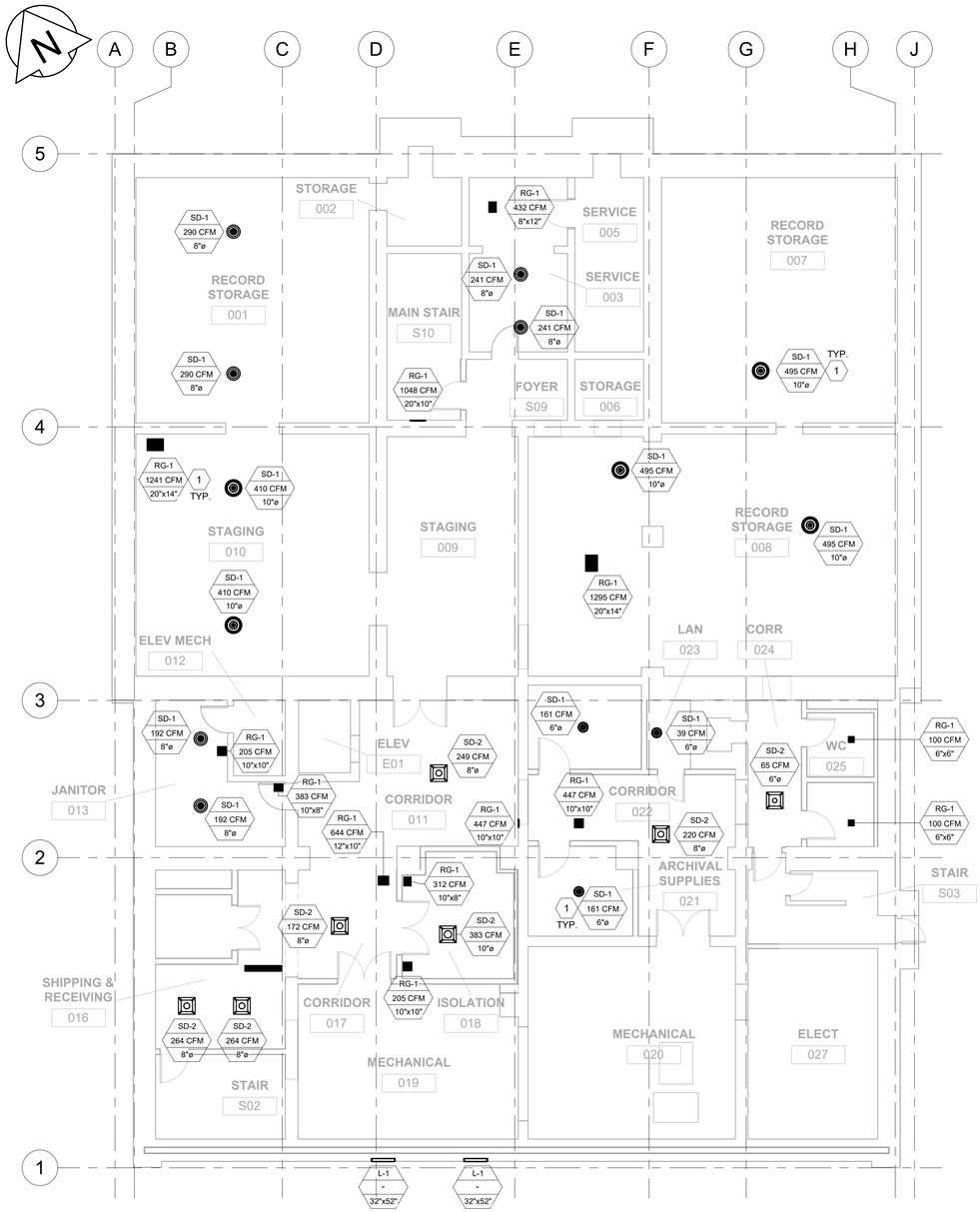
260-8th STREET, BRANDON, MANITOBA, R7A 3X3

CITY ARCHIVES BUILDING REDEVELOPMENT
380 WILLIAM AVENUE, WINNIPEG, MANITOBA

project: 2624
sheet no.: **M2.4B**



1 / - BASEMENT HVAC - GRILLES/DIFFUSERS NEW CONDITIONS
SCALE: 1/8" = 1'-0" 24"x36" SHEET

GENERAL NOTES

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY WORK NOT EXPLICITLY SET OUT IN THE CONTRACT DOCUMENTS BUT WHICH MAY BE REASONABLY IMPLIED FOR THE PROPER COMPLETION OF THE WORK.
2. IN SUBMISSION OF EQUIVALENTS TO PRODUCTS SPECIFIED, BIDDERS SHALL INCLUDE IN THEIR BID, ANY CHANGES REQUIRED IN THE WORK TO ACCOMMODATE SUCH PRODUCTS. A LATER CLAIM BY THE BIDDER FOR AN ADDITION TO THE CONTRACT PRICE BECAUSE OF CHANGES IN WORK NECESSITATED BY USE OF AN EQUIVALENT PRODUCT SHALL NOT BE CONSIDERED
3. THESE PLANS ARE SCHEMATIC IN NATURE AND INDICATE THE APPROXIMATE AND GENERAL LOCATION OF THE WORK. CONTRACTOR SHALL INSTALL WORK THROUGH COORDINATION WITH OTHER TRADES AND TO SUIT FIELD CONDITIONS.
4. GENERAL CONTRACTOR SHALL COORDINATE WITH SUB-CONTRACTORS TO ENSURE ANY MULTI DISCIPLINE NOTES OR DETAILS ARE REVIEWED BY ALL SUB-CONTRACTORS PRIOR TO BID SUBMISSION, A LATER CLAIM SUBMITTED BY THE BIDDER FOR AN ADDITION TO THE CONTRACT PRICE BECAUSE OF CHANGES IN WORK NECESSITATED DUE TO A LACK OF COORDINATION WILL NOT BE ACCEPTED.
5. COORDINATE WORKS WITH OTHER SUB-TRADES. REFER TO SPECIFIC DETAILS FOR CUTTING AND SEALING PENETRATIONS THROUGH OPENINGS & FIRE SEPARATIONS
6. REFER TO TECHNICAL SPECIFICATIONS FOR EQUIPMENT AND MATERIAL SPECIFICATIONS AND INSTALLATION REQUIREMENTS
7. INSULATE DUCTWORK WHERE INDICATED AND SPECIFIED.
8. PERFORM ALL WORKS IN ACCORDANCE WITH NATIONAL BUILDING CODE, TO SMACNA & ASHRAE STANDARDS, ALL LOCAL CODES, BYLAWS & STANDARDS, AND THE REQUIREMENTS OF THE AUTHORITY HAVING JURISDICTION.
9. SUPPORT ALL DUCTWORK TO MEET CODE REQUIREMENTS & ESTABLISHED INDUSTRY TRADE PRACTICES, (SMACNA, ASHRAE).
10. PROVIDE BALANCE DAMPERS AT ALL GRILLES, REGISTERS AND DIFFUSERS FOR AIR BALANCING.
11. INVESTIGATE SITE PRIOR TO CONSTRUCTION TO CONFIRM ALL DIMENSIONS AND INSTALLATION REQUIREMENTS. ANY DISCREPANCIES OR QUESTIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO BID CLOSING.
12. PROVIDE TAB TO ENSURE AIR DISTRIBUTION TO VOLUMES INDICATED AND HYDRONIC SYSTEM FLOWS TO VALUES INDICATED.
13. CO-ORDINATE WORK WITH ASBESTOS ABATEMENT CONTRACTOR
14. CONTRACTOR TO PAY FOR AND OBTAIN ALL NECESSARY BUILDING, MECHANICAL AND ELECTRICAL PERMITS/INSPECTIONS REQUIRED BY AUTHORITIES HAVING JURISDICTION.

KEYNOTES

1. PROVIDE AND INSTALL NEW AIR TERMINAL DEVICE, SEE SPECIFICATIONS FOR DETAILS. COORDINATE DIFFUSER AND GRILLE LOCATION WITH GENERAL CONTRACTOR AND REFER TO ARCHITECTURAL DRAWINGS FOR CEILING LAYOUT. PROVIDE AND INSTALL BALANCING DAMPERS FOR EACH DUCT BRANCH; REFER TO SCHEDULE.

GRILLE AND DIFFUSER SCHEDULE

TAG	MODEL NO.	Manufacturer	COMMENTS
EG-1	<varies>	Price Industries	<varies>
RG-1	<varies>	Price Industries	<varies>
RG-2	<varies>	Price Industries	<varies>
RG-3	530/F/L/A/B12	Price Industries	SIZE AS INDICATED
SD-1	RCD/B12	Price Industries	SIZE AS INDICATED
SD-2	24"x24"/SCD/3C/B12	Price Industries	SIZE AS INDICATED
SD-3	530/F/L/A/B12	Price Industries	SIZE AS INDICATED
SG-1	LBPH25C/750/B12	Price Industries	SIZE AS INDICATED
SG-2	510/F/L/A/B12	Price Industries	SIZE AS INDICATED

LOUVRE SCHEDULE

TAG	MODEL NO.	Manufacturer	COMMENTS
L-1	DE635	Price Industries	SIZE AS INDICATED

ISSUED FOR CONSTRUCTION

ENGINEERS GEOSCIENTISTS MANITOBA
Certificate of Authorization
Alliance Engineering Services Inc.
No.2906

Alliance ENGINEERING SERVICES INC

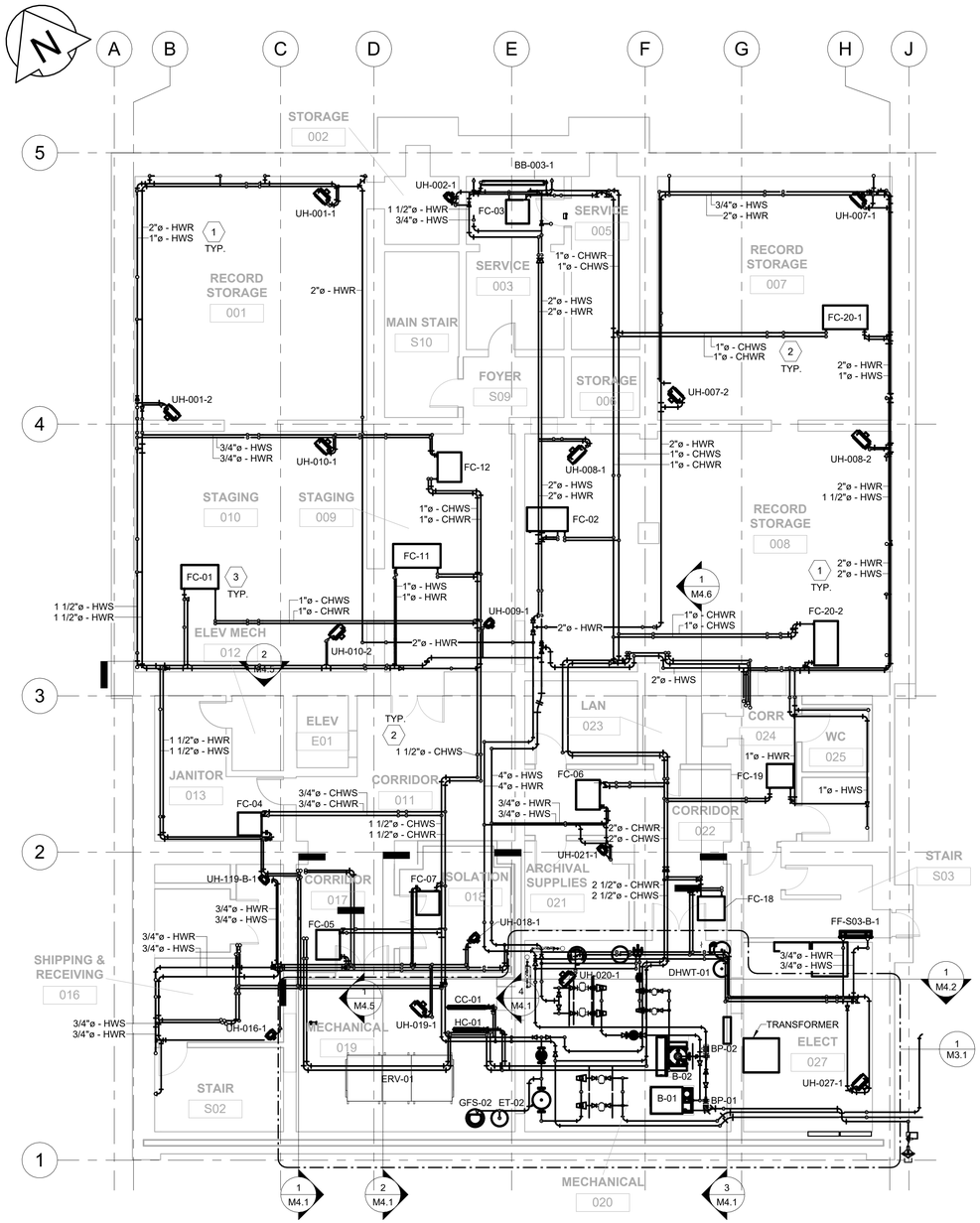
PROVINCE OF MANITOBA
I. A. URQUHART
Member
33109
2025-01-30
REGISTERED PROFESSIONAL ENGINEER

drawn by: LM
approved by: IU
date: 31 JAN 2025

mcm architects inc.
141 ST.ANNE'S ROAD, WINNIPEG, MANITOBA, R2M 2Z3
260-8th STREET, BRANDON, MANITOBA, R7A 3X3

CITY ARCHIVES BUILDING REDEVELOPMENT
380 WILLIAM AVENUE, WINNIPEG, MANITOBA

project: 2624
sheet no.: **M2.5**



1 BASEMENT HVAC - HYDRONICS NEW CONDITIONS
SCALE: 1/8" = 1'-0" 24"x36" SHEET

GENERAL NOTES

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9 SUPPORT ALL DUCTWORK TO MEET CODE REQUIREMENTS & ESTABLISHED INDUSTRY TRADE PRACTICES, (SMACNA, ASHRAE).
10 PROVIDE BALANCE DAMPERS AT ALL GRILLES, REGISTERS AND DIFFUSERS FOR AIR BALANCING.
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12 PROVIDE TAB TO ENSURE AIR DISTRIBUTION TO VOLUMES INDICATED AND HYDRONIC SYSTEM FLOWS TO VALUES INDICATED.
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KEYNOTES

1 PROVIDE AND INSTALL NEW INSULATED HOT WATER SUPPLY AND RETURN PIPING RUN HIGH IN CEILING SPACE, INSULATE AND SUPPORT PIPING AS SPECIFIED. REFER TO PFD'S FOR VALVE, INSTRUMENTATION AND CONTROL VALVE REQUIREMENTS.
2 PROVIDE AND INSTALL INSULATED CHILLED GLYCOL PIPING (SUPPLY AND RETURN) FROM CHILLER THROUGH CEILING SPACE TO FAN COILS. SUPPORT AND INSULATE PIPING AS SPECIFIED. REFER TO PFD'S FOR VALVE, INSTRUMENTATION AND CONTROL VALVE REQUIREMENTS. INSULATE AND SUPPORT PIPING AS SPECIFIED.
3 NEW FAN COIL PROVIDE 3/4" CONDENSATE DRAIN PIPING FROM FAN COIL TO DRAIN; EITHER PROVIDE INDIRECT TRAPPED CONNECTION IN SANITARY DRAIN TO ACCOMMODATE CONDENSATE OR FIELD RUN TO NEAREST FLOOR DRAIN. PROVIDE AND INSTALL CONDENSATE PUMP AS SHOWN IN SCHEDULE. REFER TO DETAIL AND FAN COIL SCHEMATIC FOR DETAILS.

ISSUED FOR CONSTRUCTION

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PROVINCE OF MANITOBA
T. A. URQUHART
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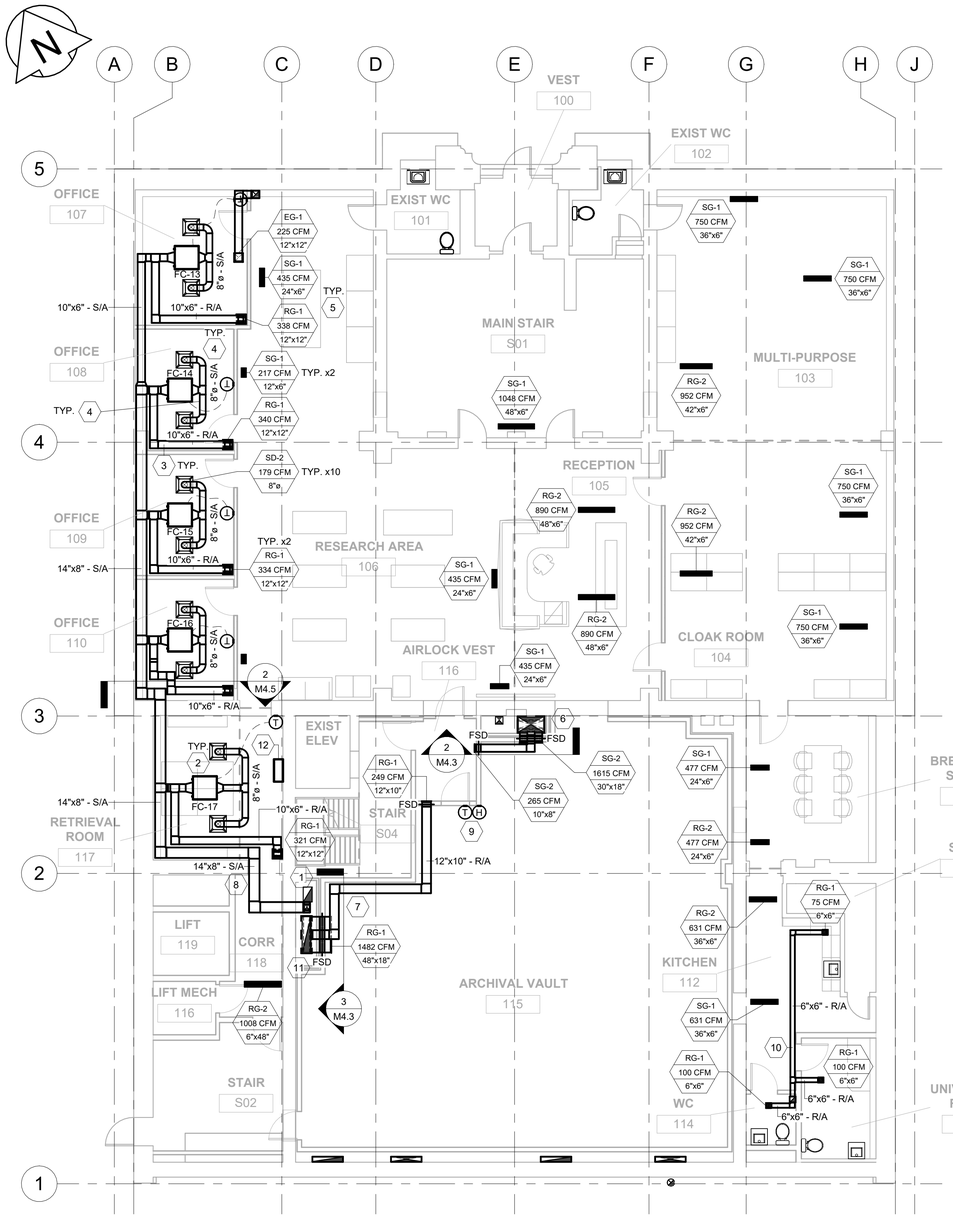
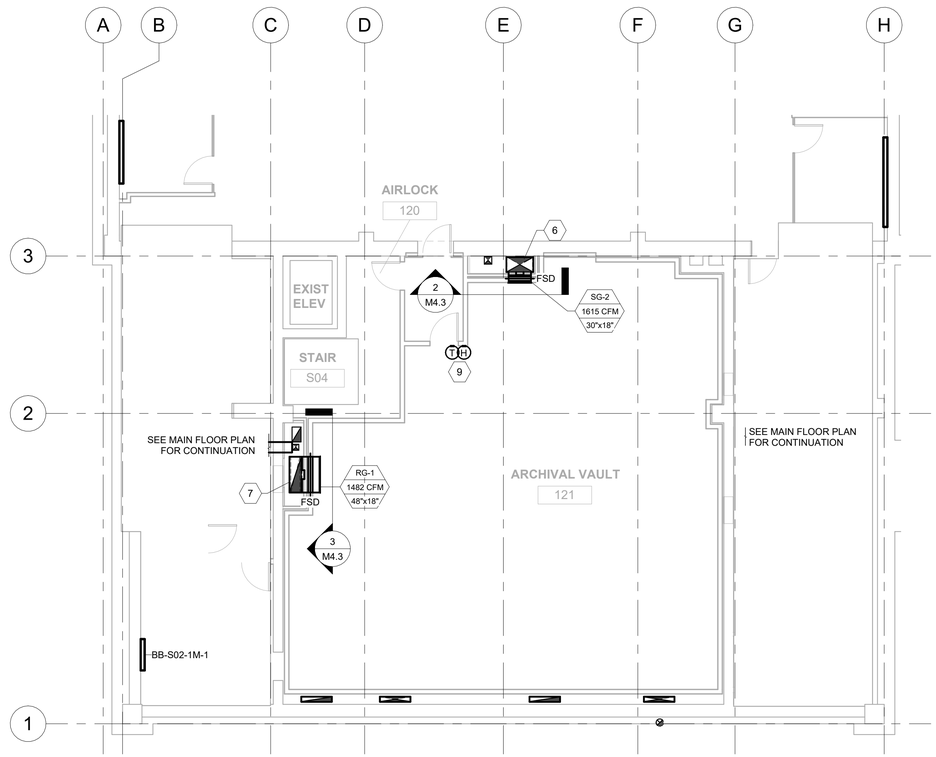
CITY ARCHIVES BUILDING REDEVELOPMENT
380 WILLIAM AVENUE, WINNIPEG, MANITOBA

project 2624
sheet no. **M2.6**



1 - MAIN FLOOR HVAC - DUCTWORK NEW CONDITIONS
SCALE: 1/8" = 1'-0" 24"x36" SHEET



2 - MAIN FLOOR MEZZANINE HVAC - DUCTWORK NEW CONDITIONS
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GENERAL NOTES

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9. SUPPORT ALL DUCTWORK TO MEET CODE REQUIREMENTS & ESTABLISHED INDUSTRY TRADE PRACTICES, (SMACNA, ASHRAE).
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12. PROVIDE TAB TO ENSURE AIR DISTRIBUTION TO VOLUMES INDICATED AND HYDRONIC SYSTEM FLOWS TO VALUES INDICATED.
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14. CONTRACTOR TO PAY FOR AND OBTAIN ALL NECESSARY BUILDING, MECHANICAL AND ELECTRICAL PERMITS/INSPECTIONS REQUIRED BY AUTHORITIES HAVING JURISDICTION.

KEYNOTES

1. NEW DUCTWORK RUN UP THROUGH FIRE RATED CHASE, INSULATE AND SUPPORT DUCTWORK AS SPECIFIED.
2. PROVIDE AND INSTALL NEW FAN COIL C/W HOT WATER HEATING COIL AND CHILLED WATER COOLING COIL C/W DRAIN PAN IN CEILING SPACE; SEE SPECIFICATIONS FOR DETAILS. INSTALL TO MEET MANUFACTURER INSTALLATION REQUIREMENTS. PROVIDE 3/4" CONDENSATE DRAIN FROM FAN COIL TO DRAIN; FIELD RUN CONDENSATE PIPING TO COMMON CONDENSATE DRAIN WITHIN CEILING SPACE AND RUN DOWN THROUGH RETRIEVAL ROOM 117 TO CONDENSATE DRAIN IN BASEMENT BELOW, FIRE STOP PIPE FLOOR PENETRATION. SUPPORT AND INSULATE CONDENSATE DRAIN. PROVIDE INDIRECT TRAPPED CONNECTION IN SANITARY DRAIN TO ACCOMMODATE CONDENSATE. PROVIDE AND INSTALL CONDENSATE PUMP AS SHOWN IN SCHEDULE. REFER TO DETAIL AND FAN COIL SCHEMATIC FOR DETAILS. FAN COIL TO BE LOCATED AT HIGH LEVEL IN CEILING SPACE COMPLETE WITH VIBRATION ISOLATION. REFER TO SCHEDULE AND SPECIFICATIONS. PROVIDE AND INSTALL BALANCING DAMPER ON FAN COIL MAIN RETURN DUCT AND FAN COIL OUTDOOR AIR DUCT TO FACILITATE BALANCING OUTDOOR AND RETURN AIR FLOW RATES ON INLET SIDE OF FAN COIL.
3. NEW FAN COIL RETURN DUCTWORK RUN THROUGH CEILING SPACE, SUPPORT AS SPECIFIED. PROVIDE BALANCING DAMPERS ON RETURN AIR BRANCHES AS SHOWN.
4. NEW INSULATED FAN COIL SUPPLY DUCTWORK RUN THROUGH CEILING SPACE, SUPPORT AND INSULATE DUCTWORK AS SPECIFIED.
5. PROVIDE AND INSTALL NEW AIR TERMINAL DEVICE, SEE SPECIFICATIONS FOR DETAILS. COORDINATE DIFFUSER AND GRILLE LOCATION WITH GENERAL CONTRACTOR AND REFER TO ARCHITECTURAL DRAWINGS FOR CEILING LAYOUT. PROVIDE AND INSTALL BALANCING DAMPERS FOR EACH DUCT BRANCH; REFER TO SCHEDULE.
6. NEW AHU INSULATED SUPPLY AIR DUCTWORK FROM ROOF MOUNTED AHU TO CONDITIONED VAULT SPACES AND VAULT VESTIBULES, INSULATE AND SUPPORT DUCTWORK AS SPECIFIED.
7. NEW AHU INSULATED RETURN AIR DUCTWORK FROM CONDITIONED VAULT SPACES AND VAULT VESTIBULES BACK TO ROOF MOUNTED AHU. INSULATE AND SUPPORT DUCTWORK AS SPECIFIED.
8. NEW INSULATED OUTDOOR AIR DUCTWORK RUN FROM NEW ERV THROUGH CEILING SPACE, SUPPORT AND INSULATED DUCTWORK AS SPECIFIED.
9. PROVIDE AND INSTALL NEW WALL MOUNT HUMIDISTAT AND CONTROL WIRING, CONCEAL CONTROL WIRING IN NEW WALLS. REFER TO SPECIFICATIONS FOR DETAILS.
10. NEW ERV RETURN (EXHAUST) AIR DUCTWORK RUN THROUGH CEILING SPACE, SUPPORT DUCTWORK AS SPECIFIED.
11. PROVIDE AND INSTALL NEW FIRE/SMOKE DAMPER, REFER TO DETAIL AND SPECIFICATIONS. REFER TO ARCHITECTURAL DRAWINGS FOR FIRE SEPARATIONS AND ELECTRICAL DRAWINGS FOR RELATED FIRE ALARM REQUIREMENTS.
12. CONTROLS CONTRACTOR TO PROVIDE AND INSTALL NEW CONTROL PANEL, ELECTRICAL TO PROVIDE 120V POWER TO PANEL, COORDINATE WITH ELECTRICAL.

ISSUED FOR CONSTRUCTION

ENGINEERS GEOSCIENTISTS MANITOBA
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project
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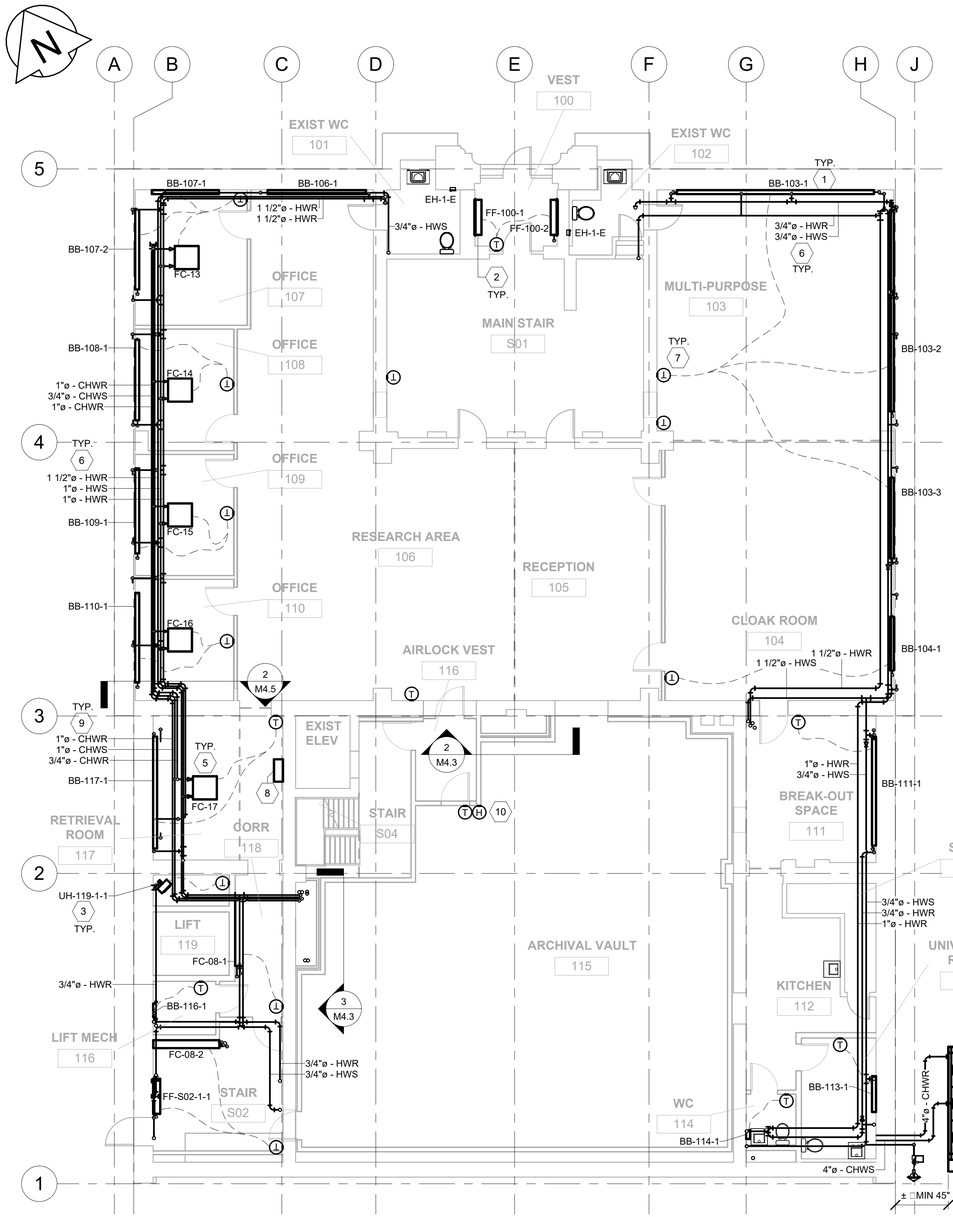
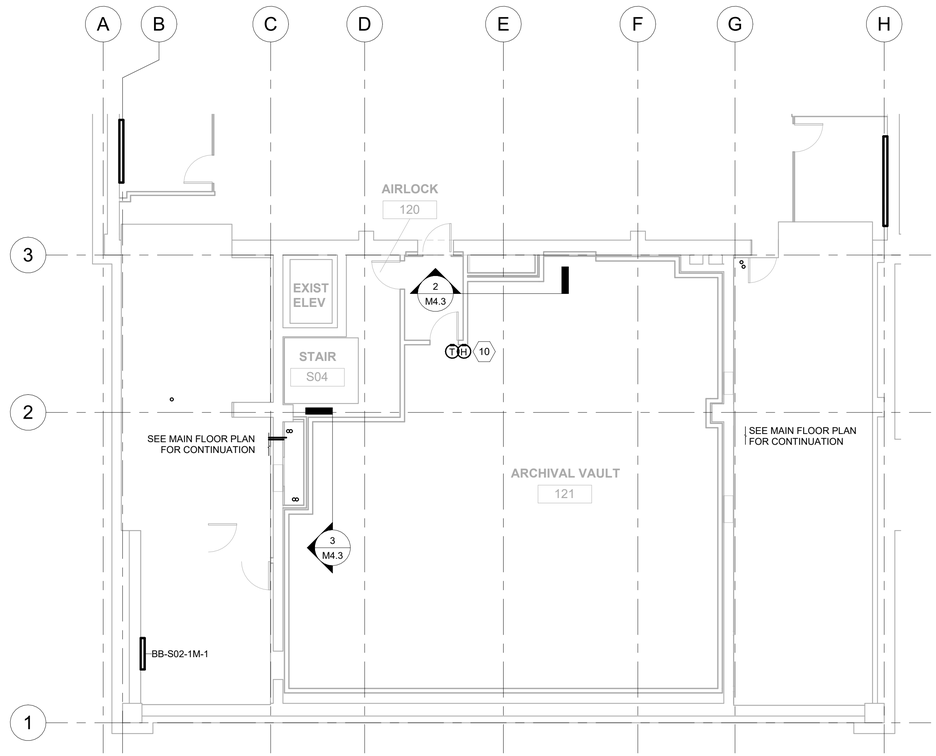


1 - MAIN FLOOR HVAC - HYDRONICS NEW CONDITIONS
SCALE: 1/8" = 1'-0" 24"x36" SHEET



2 - MAIN FLOOR MEZZANINE HVAC - HYDRONICS NEW CONDITIONS
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KEYNOTES

1. PROVIDE AND INSTALL NEW HYDRONIC BASEBOARD HEATER, BB, C/W ANCILLARIES AS INDICATED IN SPECIFICATIONS; PROVIDE ISOLATION BALL VALVES; FOR PIPING DETAILS SEE PROCESS FLOW SCHEMATIC AND DETAIL.
2. PROVIDE AND INSTALL NEW HYDRONIC FORCE FLOW HEATER, FF, C/W ANCILLARIES AS INDICATED IN SPECIFICATIONS. PROVIDE ISOLATION BALL VALVES, FOR PIPING DETAILS SEE PROCESS FLOW SCHEMATIC AND DETAIL.
3. PROVIDE AND INSTALL NEW HYDRONIC, CEILING MOUNTED UNIT HEATER, UH, C/W ANCILLARIES AS INDICATED IN SPECIFICATIONS; PROVIDE ISOLATION BALL VALVES WITHIN CEILING SPACE; FOR PIPING DETAILS SEE PROCESS FLOW SCHEMATIC AND DETAIL.
4. NEW OUTDOOR AIR COOLED CHILLER ON NEW CONCRETE HOUSEKEEPING PAD, REFER TO ARCHITECTURAL AND STRUCTURAL FOR ADDITIONAL SCOPE OF WORK DETAILS. REFER TO EQUIPMENT SCHEDULE AND SPECIFICATIONS FOR DETAILS. NEW CHILLED WATER PUMPS AND BUFFER TANK LOCATED IN BASEMENT MECHANCIAL ROOM.
5. PROVIDE AND INSTALL NEW FAN COIL C/W HOT WATER HEATING COIL AND CHILLED WATER COOLING COIL C/W DRAIN PAN IN CEILING SPACE; SEE SPECIFICATIONS FOR DETAILS. INSTALL TO MEET MANUFACTURER INSTALLATION REQUIREMENTS. PROVIDE 3/4" CONDENSATE DRAIN FROM FAN COIL TO DRAIN; FIELD RUN CONDENSATE PIPING TO COMMON CONDENSATE DRAIN WITHIN CEILING SPACE AND RUN DOWN THROUGH RETRIEVAL ROOM 117 TO CONDENSATE DRAIN IN BASEMENT BELOW. FIRE STOP PIPE FLOOR PENETRATION. SUPPORT AND INSULATE CONDENSATE DRAIN. PROVIDE INDIRECT TRAPPED CONNECTION IN SANITARY DRAIN TO ACCOMMODATE CONDENSATE. PROVIDE AND INSTALL CONDENSATE PUMP AS SHOWN IN SCHEDULE. REFER TO DETAIL AND FAN COIL SCHEMATIC FOR DETAILS. FAN COIL TO BE LOCATED AT HIGH LEVEL IN CEILING SPACE COMPLETE WITH VIBRATION ISOLATION. REFER TO SCHEDULE AND SPECIFICATIONS. PROVIDE AND INSTALL BALANCING DAMPER ON FAN COIL MAIN RETURN DUCT AND FAN COIL OUTDOOR AIR DUCT TO FACILITATE BALANCING OUTDOOR AND RETURN AIR FLOW RATES ON INLET SIDE OF FAN COIL.
6. PROVIDE AND INSTALL NEW INSULATED HOT WATER SUPPLY AND RETURN PIPING RUN HIGH IN CEILING SPACE, INSULATE AND SUPPORT PIPING AS SPECIFIED.
7. PROVIDE AND INSTALL NEW WALL MOUNT THERMOSTAT AND CONTROL WIRING, CONCEAL CONTROL WIRING IN NEW WALLS. REFER TO SPECIFICATIONS FOR DETAILS.
8. CONTROLS CONTRACTOR TO PROVIDE AND INSTALL NEW CONTROL PANEL, ELECTRICAL TO PROVIDE 120V POWER TO PANEL, COORDINATE WITH ELECTRICAL.
9. PROVIDE AND INSTALL NEW INSULATED CHILLED GLYCOL PIPING (SUPPLY AND RETURN) FROM CHILLER THROUGH CEILING SPACE TO FAN COILS. SUPPORT AND INSULATE PIPING AS SPECIFIED. REFER TO PFD'S FOR VALVE, INSTRUMENTATION AND CONTROL VALVE REQUIREMENTS. INSULATE AND SUPPORT PIPING AS SPECIFIED.
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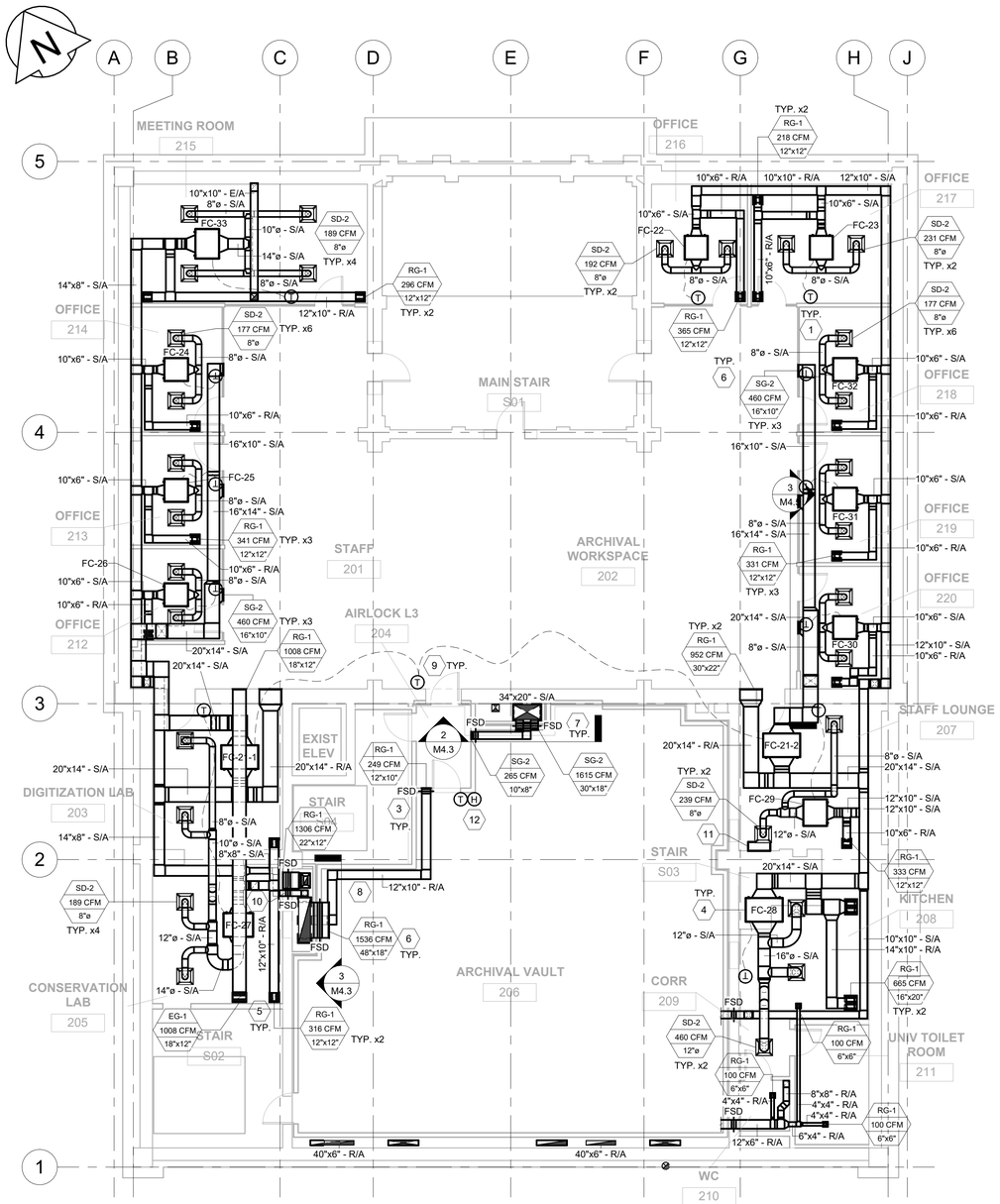
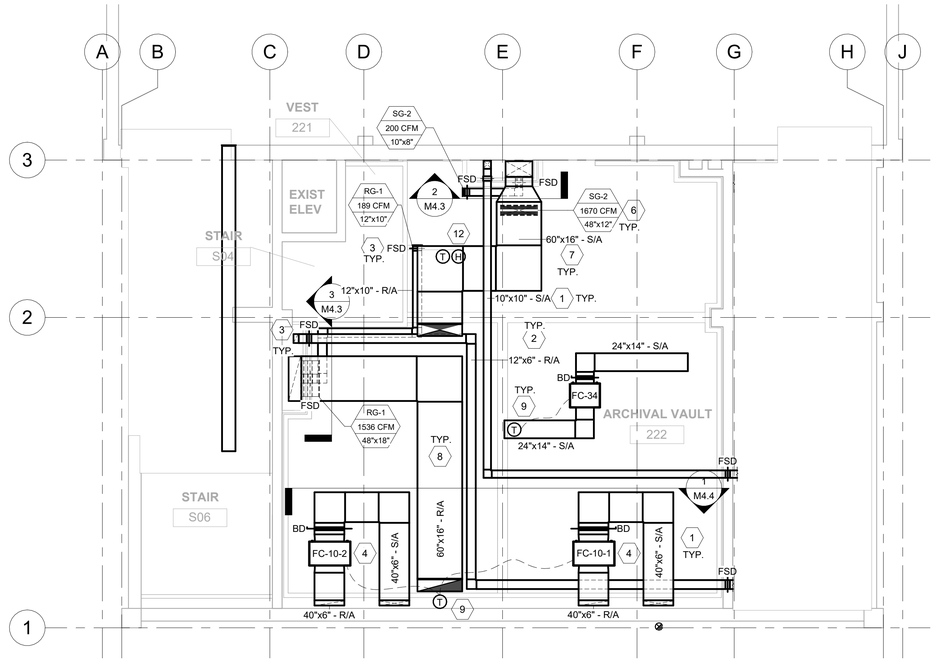


1 SECOND FLOOR HVAC - DUCTWORK NEW CONDITIONS
SCALE: 1/8" = 1'-0" 24"x36" SHEET



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GENERAL NOTES

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY WORK NOT EXPLICITLY SET OUT IN THE CONTRACT DOCUMENTS BUT WHICH MAY BE REASONABLY IMPLIED FOR THE PROPER COMPLETION OF THE WORK.
2. IN SUBMISSION OF EQUIVALENTS TO PRODUCTS SPECIFIED, BIDDERS SHALL INCLUDE IN THEIR BID, ANY CHANGES REQUIRED IN THE WORK TO ACCOMMODATE SUCH PRODUCTS. A LATER CLAIM BY THE BIDDER FOR AN ADDITION TO THE CONTRACT PRICE BECAUSE OF CHANGES IN WORK NECESSITATED BY USE OF AN EQUIVALENT PRODUCT SHALL NOT BE CONSIDERED
3. THESE PLANS ARE SCHEMATIC IN NATURE AND INDICATE THE APPROXIMATE AND GENERAL LOCATION OF THE WORK. CONTRACTOR SHALL INSTALL WORK THROUGH COORDINATION WITH OTHER TRADES AND TO SUIT FIELD CONDITIONS.
4. GENERAL CONTRACTOR SHALL COORDINATE WITH SUB-CONTRACTORS TO ENSURE ANY MULTI DISCIPLINE NOTES OR DETAILS ARE REVIEWED BY ALL SUB-CONTRACTORS PRIOR TO BID SUBMISSION, A LATER CLAIM SUBMITTED BY THE BIDDER FOR AN ADDITION TO THE CONTRACT PRICE BECAUSE OF CHANGES IN WORK NECESSITATED DUE TO A LACK OF COORDINATION WILL NOT BE ACCEPTED.
5. COORDINATE WORKS WITH OTHER SUB-TRADES. REFER TO SPECIFIC DETAILS FOR CUTTING AND SEALING PENETRATIONS THROUGH OPENINGS & FIRE SEPARATIONS
6. REFER TO TECHNICAL SPECIFICATIONS FOR EQUIPMENT AND MATERIAL SPECIFICATIONS AND INSTALLATION REQUIREMENTS
7. INSULATE DUCTWORK WHERE INDICATED AND SPECIFIED.
8. PERFORM ALL WORKS IN ACCORDANCE WITH NATIONAL BUILDING CODE, TO SMACNA & ASHRAE STANDARDS, ALL LOCAL CODES, BYLAWS & STANDARDS, AND THE REQUIREMENTS OF THE AUTHORITY HAVING JURISDICTION.
9. SUPPORT ALL DUCTWORK TO MEET CODE REQUIREMENTS & ESTABLISHED INDUSTRY TRADE PRACTICES, (SMACNA, ASHRAE).
10. PROVIDE BALANCE DAMPERS AT ALL GRILLES, REGISTERS AND DIFFUSERS FOR AIR BALANCING.
11. INVESTIGATE SITE PRIOR TO CONSTRUCTION TO CONFIRM ALL DIMENSIONS AND INSTALLATION REQUIREMENTS. ANY DISCREPANCIES OR QUESTIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO BID CLOSING.
12. PROVIDE TAB TO ENSURE AIR DISTRIBUTION TO VOLUMES INDICATED AND HYDRONIC SYSTEM FLOWS TO VALUES INDICATED.
13. CO-ORDINATE WORK WITH ASBESTOS ABATEMENT CONTRACTOR
14. CONTRACTOR TO PAY FOR AND OBTAIN ALL NECESSARY BUILDING, MECHANICAL AND ELECTRICAL PERMITS/INSPECTIONS REQUIRED BY AUTHORITIES HAVING JURISDICTION.

KEYNOTES

1. NEW INSULATED FAN COIL SUPPLY DUCTWORK RUN THROUGH CEILING SPACE, SUPPORT AND INSULATE DUCTWORK AS SPECIFIED.
2. NEW ERV RETURN (EXHAUST) AIR DUCTWORK RUN THROUGH CEILING SPACE, SUPPORT DUCTWORK AS SPECIFIED. FIRE WRAP DUCTWORK IN ATTIC SPACE, SEE SPECIFICATIONS FOR DETAILS.
3. PROVIDE AND INSTALL NEW FIRE/SMOKE DAMPER, REFER TO DETAIL AND SPECIFICATIONS. REFER TO ARCHITECTURAL DRAWINGS FOR FIRE SEPARATIONS AND ELECTRICAL DRAWINGS FOR RELATED FIRE ALARM REQUIREMENTS.
4. PROVIDE AND INSTALL NEW FAN COIL C/W HOT WATER HEATING COIL AND CHILLED WATER COOLING COIL C/W DRAIN PAN IN CEILING SPACE; SEE SPECIFICATIONS FOR DETAILS. INSTALL TO MEET MANUFACTURER INSTALLATION REQUIREMENTS. PROVIDE 3/4" CONDENSATE DRAIN FROM FAN COIL TO DRAIN; FIELD RUN CONDENSATE PIPING TO COMMON CONDENSATE DRAIN WITHIN CEILING SPACE AND RUN DOWN THROUGH DIGITIZATION LAB 203 DOWN TO TIE-IN TO CONDENSATE DRAIN IN RETRIEVAL ROOM 117 CEILING SPACE BELOW AND DOWN THROUGH STAFF LOUNGE 207 TO BREAK-OUT SPACE 111 THEN DOWN THROUGH 111 TO BASEMENT CONDENSATE DRAIN. FIRE STOP PIPE FLOOR PENETRATION. SUPPORT AND INSULATE CONDENSATE DRAIN. PROVIDE INDIRECT TRAPPED CONNECTION IN SANITARY DRAIN TO ACCOMMODATE CONDENSATE. PROVIDE AND INSTALL CONDENSATE PUMP AS SHOWN IN SCHEDULE. REFER TO DETAIL AND FAN COIL SCHEMATIC FOR DETAILS. FAN COIL TO BE LOCATED AT HIGH LEVEL IN CEILING SPACE COMPLETE WITH VIBRATION ISOLATION. REFER TO SCHEDULE AND SPECIFICATIONS. PROVIDE AND INSTALL BALANCING DAMPER ON FAN COIL MAIN RETURN DUCT AND FAN COIL OUTDOOR AIR DUCT TO FACILITATE BALANCING OUTDOOR AND RETURN AIR FLOW RATES ON INLET SIDE OF FAN COIL.
5. NEW FAN COIL RETURN DUCTWORK RUN THROUGH CEILING SPACE, SUPPORT AS SPECIFIED. PROVIDE BALANCING DAMPERS ON RETURN AIR BRANCHES AS SHOWN.
6. PROVIDE AND INSTALL NEW AIR TERMINAL DEVICE, SEE SPECIFICATIONS FOR DETAILS. COORDINATE DIFFUSER AND GRILLE LOCATION WITH GENERAL CONTRACTOR AND REFER TO ARCHITECTURAL DRAWINGS FOR CEILING LAYOUT. PROVIDE AND INSTALL BALANCING DAMPERS FOR EACH DUCT BRANCH; REFER TO SCHEDULE.
7. NEW AHU INSULATED SUPPLY AIR DUCTWORK FROM ROOF MOUNTED AHU TO CONDITIONED VAULT SPACES AND VAULT VESTIBULES, INSULATE AND SUPPORT DUCTWORK AS SPECIFIED.
8. NEW AHU INSULATED RETURN AIR DUCTWORK FROM CONDITIONED VAULT SPACES AND VAULT VESTIBULES BACK TO ROOF MOUNTED AHU. INSULATE AND SUPPORT DUCTWORK AS SPECIFIED.
9. PROVIDE AND INSTALL NEW WALL MOUNT THERMOSTAT AND CONTROL WIRING, CONCEAL CONTROL WIRING IN NEW WALLS. REFER TO SPECIFICATIONS FOR DETAILS.
10. NEW INSULATED OUTDOOR AIR DUCTWORK RUN FROM NEW ERV THROUGH CEILING SPACE, SUPPORT AND INSULATED DUCTWORK AS SPECIFIED. FIRE WRAP DUCTWORK IN ATTIC SPACE; SEE SPECIFICATIONS FOR DETAILS.
11. CONTROLS CONTRACTOR TO PROVIDE AND INSTALL NEW CONTROL PANEL, ELECTRICAL TO PROVIDE 120V POWER TO PANEL, COORDINATE WITH ELECTRICAL.
12. PROVIDE AND INSTALL NEW WALL MOUNT HUMIDISTAT AND CONTROL WIRING, CONCEAL CONTROL WIRING IN NEW WALLS. REFER TO SPECIFICATIONS FOR DETAILS.

ISSUED FOR CONSTRUCTION

ENGINEERS GEOSCIENTISTS MANITOBA
Certificate of Authorization
Alliance Engineering Services Inc.
No.2906

Alliance ENGINEERING SERVICES INC

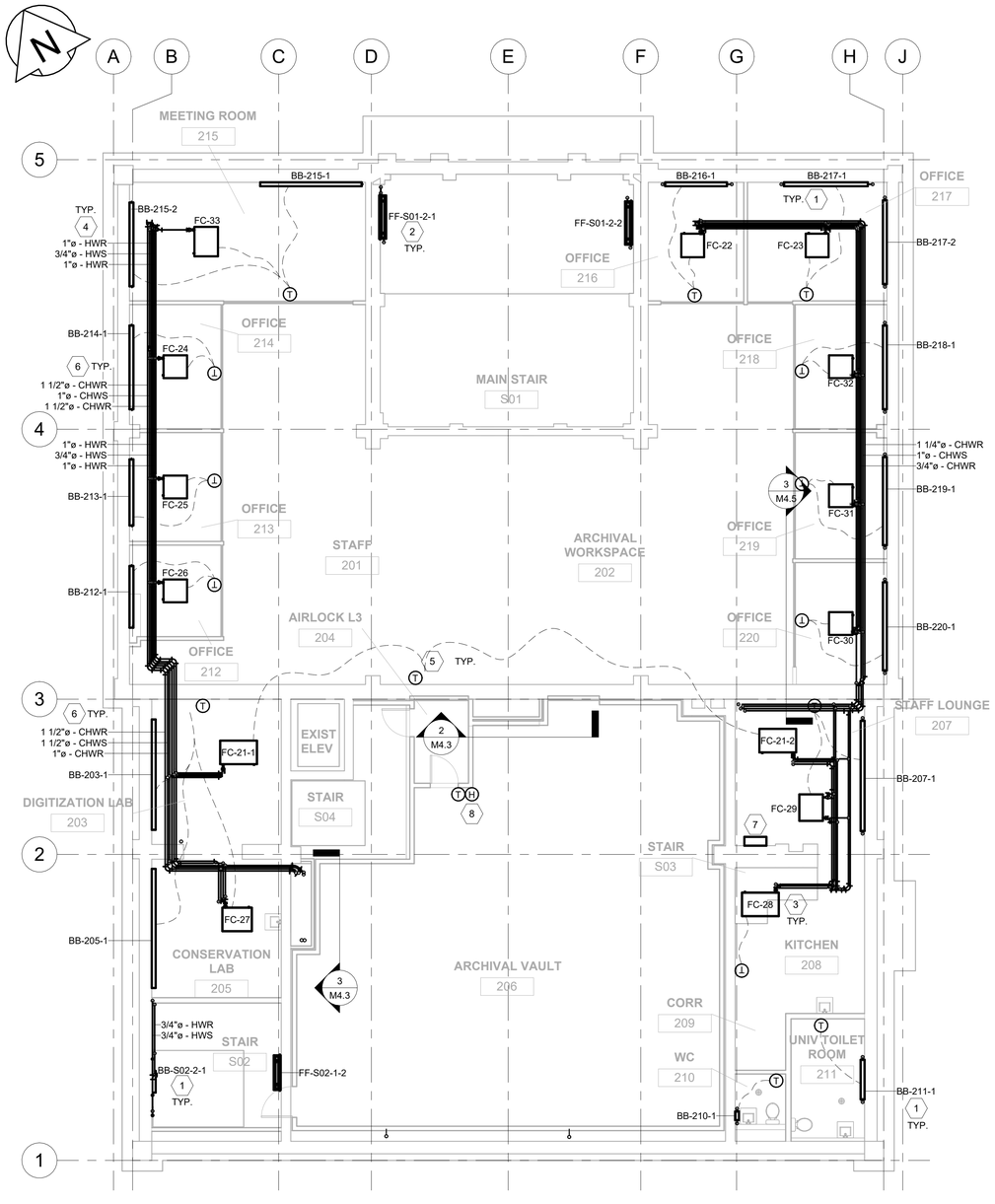
PROVINCE OF MANITOBA
A. A. URQUHART
Member
33109
2025-01-30
REGISTERED PROFESSIONAL ENGINEER

drawn by
LM
approved by
IU
date
31 JAN 2025

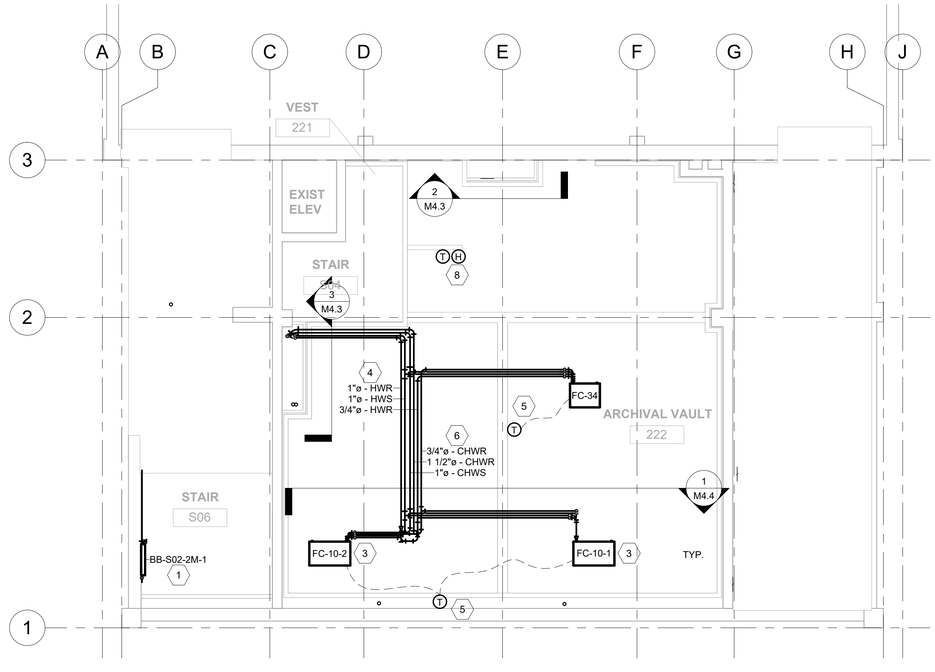
mcm architects inc.
141 ST.ANNE'S ROAD, WINNIPEG, MANITOBA, R2M 2Z3
260-8th STREET, BRANDON, MANITOBA, R7A 3X3

CITY ARCHIVES BUILDING REDEVELOPMENT
380 WILLIAM AVENUE, WINNIPEG, MANITOBA

project
2624
sheet no.
M2.9



1 SECOND FLOOR HVAC - HYDRONICS NEW CONDITIONS
SCALE: 1/8" = 1'-0" 24"x36" SHEET



2 SECOND FLOOR MEZZANINE HVAC - HYDRONICS NEW CONDITIONS
SCALE: 1/8" = 1'-0" 24"x36" SHEET

GENERAL NOTES

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY WORK NOT EXPLICITLY SET OUT IN THE CONTRACT DOCUMENTS BUT WHICH MAY BE REASONABLY IMPLIED FOR THE PROPER COMPLETION OF THE WORK.
2. IN SUBMISSION OF EQUIVALENTS TO PRODUCTS SPECIFIED, BIDDERS SHALL INCLUDE IN THEIR BID, ANY CHANGES REQUIRED IN THE WORK TO ACCOMMODATE SUCH PRODUCTS. A LATER CLAIM BY THE BIDDER FOR AN ADDITION TO THE CONTRACT PRICE BECAUSE OF CHANGES IN WORK NECESSITATED BY USE OF AN EQUIVALENT PRODUCT SHALL NOT BE CONSIDERED
3. THESE PLANS ARE SCHEMATIC IN NATURE AND INDICATE THE APPROXIMATE AND GENERAL LOCATION OF THE WORK. CONTRACTOR SHALL INSTALL WORK THROUGH COORDINATION WITH OTHER TRADES AND TO SUIT FIELD CONDITIONS.
4. GENERAL CONTRACTOR SHALL COORDINATE WITH SUB-CONTRACTORS TO ENSURE ANY MULTI DISCIPLINE NOTES OR DETAILS ARE REVIEWED BY ALL SUB-CONTRACTORS PRIOR TO BID SUBMISSION, A LATER CLAIM SUBMITTED BY THE BIDDER FOR AN ADDITION TO THE CONTRACT PRICE BECAUSE OF CHANGES IN WORK NECESSITATED DUE TO A LACK OF COORDINATION WILL NOT BE ACCEPTED.
5. COORDINATE WORKS WITH OTHER SUB-TRADES. REFER TO SPECIFIC DETAILS FOR CUTTING AND SEALING PENETRATIONS THROUGH OPENINGS & FIRE SEPARATIONS
6. REFER TO TECHNICAL SPECIFICATIONS FOR EQUIPMENT AND MATERIAL SPECIFICATIONS AND INSTALLATION REQUIREMENTS
7. INSULATE DUCTWORK WHERE INDICATED AND SPECIFIED.
8. PERFORM ALL WORKS IN ACCORDANCE WITH NATIONAL BUILDING CODE, TO SMACNA & ASHRAE STANDARDS, ALL LOCAL CODES, BYLAWS & STANDARDS, AND THE REQUIREMENTS OF THE AUTHORITY HAVING JURISDICTION.
9. SUPPORT ALL DUCTWORK TO MEET CODE REQUIREMENTS & ESTABLISHED INDUSTRY TRADE PRACTICES, (SMACNA, ASHRAE).
10. PROVIDE BALANCE DAMPERS AT ALL GRILLES, REGISTERS AND DIFFUSERS FOR AIR BALANCING.
11. INVESTIGATE SITE PRIOR TO CONSTRUCTION TO CONFIRM ALL DIMENSIONS AND INSTALLATION REQUIREMENTS. ANY DISCREPANCIES OR QUESTIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO BID CLOSING.
12. PROVIDE TAB TO ENSURE AIR DISTRIBUTION TO VOLUMES INDICATED AND HYDRONIC SYSTEM FLOWS TO VALUES INDICATED.
13. CO-ORDINATE WORK WITH ASBESTOS ABATEMENT CONTRACTOR
14. CONTRACTOR TO PAY FOR AND OBTAIN ALL NECESSARY BUILDING, MECHANICAL AND ELECTRICAL PERMITS/INSPECTIONS REQUIRED BY AUTHORITIES HAVING JURISDICTION.

KEYNOTES

1. PROVIDE AND INSTALL NEW HYDRONIC BASEBOARD HEATER, BB, C/W ANCILLARIES AS INDICATED IN SPECIFICATIONS; PROVIDE ISOLATION BALL VALVES; FOR PIPING DETAILS SEE PROCESS FLOW SCHEMATIC AND DETAIL.
2. PROVIDE AND INSTALL NEW HYDRONIC FORCE FLOW HEATER, FF, C/W ANCILLARIES AS INDICATED IN SPECIFICATIONS. PROVIDE ISOLATION BALL VALVES, FOR PIPING DETAILS SEE PROCESS FLOW SCHEMATIC AND DETAIL.
3. PROVIDE AND INSTALL NEW FAN COIL C/W HOT WATER HEATING COIL AND CHILLED WATER COOLING COIL C/W DRAIN PAN IN CEILING SPACE; SEE SPECIFICATIONS FOR DETAILS. INSTALL TO MEET MANUFACTURER INSTALLATION REQUIREMENTS. PROVIDE 3/4" CONDENSATE DRAIN FROM FAN COIL TO DRAIN. FIELD RUN CONDENSATE PIPING TO COMMON CONDENSATE DRAIN WITHIN CEILING SPACE AND RUN DOWN THROUGH DIGITIZATION LAB 203 DOWN TO TIE-IN TO CONDENSATE DRAIN IN RETRIEVAL ROOM 117 CEILING SPACE BELOW AND DOWN THROUGH STAFF LOUNGE 207 TO BREAK-OUT SPACE 111 THEN DOWN THROUGH 111 TO BASEMENT CONDENSATE DRAIN. FIRE STOP PIPE FLOOR PENETRATION. SUPPORT AND INSULATE CONDENSATE DRAIN. PROVIDE INDIRECT TRAPPED CONNECTION IN SANITARY DRAIN TO ACCOMMODATE CONDENSATE. PROVIDE AND INSTALL CONDENSATE PUMP AS SHOWN IN SCHEDULE. REFER TO DETAIL AND FAN COIL SCHEMATIC FOR DETAILS. FAN COIL TO BE LOCATED AT HIGH LEVEL IN CEILING SPACE COMPLETE WITH VIBRATION ISOLATION. REFER TO SCHEDULE AND SPECIFICATIONS. PROVIDE AND INSTALL BALANCING DAMPER ON FAN COIL MAIN RETURN DUCT AND FAN COIL OUTDOOR AIR DUCT TO FACILITATE BALANCING OUTDOOR AND RETURN AIR FLOW RATES ON INLET SIDE OF FAN COIL.
4. PROVIDE AND INSTALL NEW INSULATED HOT WATER SUPPLY AND RETURN PIPING RUN HIGH IN CEILING SPACE, INSULATE AND SUPPORT PIPING AS SPECIFIED.
5. PROVIDE AND INSTALL NEW WALL MOUNT THERMOSTAT AND CONTROL WIRING, CONCEAL CONTROL WIRING IN NEW WALLS. REFER TO SPECIFICATIONS FOR DETAILS.
6. PROVIDE AND INSTALL NEW INSULATED CHILLED GLYCOL PIPING (SUPPLY AND RETURN) FROM CHILLER THROUGH CEILING SPACE TO FAN COILS. SUPPORT AND INSULATE PIPING AS SPECIFIED. REFER TO PFD'S FOR VALVE, INSTRUMENTATION AND CONTROL VALVE REQUIREMENTS. INSULATE AND SUPPORT PIPING AS SPECIFIED.
7. CONTROLS CONTRACTOR TO PROVIDE AND INSTALL NEW CONTROL PANEL, ELECTRICAL TO PROVIDE 120V POWER TO PANEL. COORDINATE WITH ELECTRICAL.
8. PROVIDE AND INSTALL NEW WALL MOUNT HUMIDISTAT AND CONTROL WIRING, CONCEAL CONTROL WIRING IN NEW WALLS. REFER TO SPECIFICATIONS FOR DETAILS.

ISSUED FOR CONSTRUCTION

ENGINEERS GEOSCIENTISTS MANITOBA
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T.A. URQUHART
Member
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drawn by: LM
approved by: IU
date: 31 JAN 2025

mcm architects inc.
141 ST.ANNE'S ROAD, WINNIPEG, MANITOBA, R2M 2Z3
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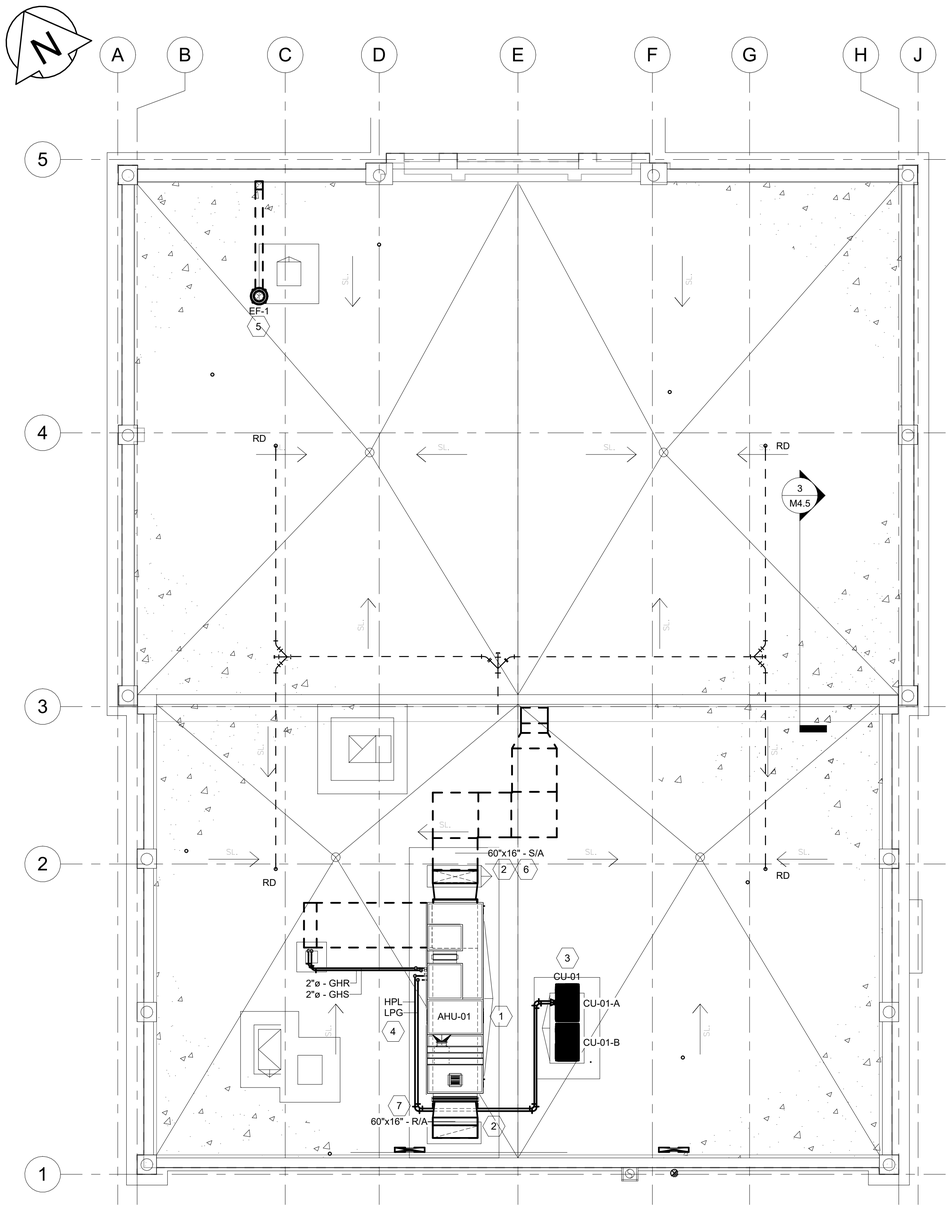
CITY ARCHIVES BUILDING REDEVELOPMENT
380 WILLIAM AVENUE, WINNIPEG, MANITOBA

project: 2624
sheet no.: **M2.10**



1 ROOF LEVEL HVAC NEW CONDITIONS
SCALE: 1/8" = 1'-0" 24"x36" SHEET

GENERAL NOTES

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2 IN SUBMISSION OF EQUIVALENTS TO PRODUCTS SPECIFIED, BIDDERS SHALL INCLUDE IN THEIR BID, ANY CHANGES REQUIRED IN THE WORK TO ACCOMMODATE SUCH PRODUCTS. A LATER CLAIM BY THE BIDDER FOR AN ADDITION TO THE CONTRACT PRICE BECAUSE OF CHANGES IN WORK NECESSITATED BY USE OF AN EQUIVALENT PRODUCT SHALL NOT BE CONSIDERED.
3 THESE PLANS ARE SCHEMATIC IN NATURE AND INDICATE THE APPROXIMATE AND GENERAL LOCATION OF THE WORK. CONTRACTOR SHALL INSTALL WORK THROUGH COORDINATION WITH OTHER TRADES AND TO SUIT FIELD CONDITIONS.
4 GENERAL CONTRACTOR SHALL COORDINATE WITH SUB-CONTRACTORS TO ENSURE ANY MULTI DISCIPLINE NOTES OR DETAILS ARE REVIEWED BY ALL SUB-CONTRACTORS PRIOR TO BID SUBMISSION, A LATER CLAIM SUBMITTED BY THE BIDDER FOR AN ADDITION TO THE CONTRACT PRICE BECAUSE OF CHANGES IN WORK NECESSITATED DUE TO A LACK OF COORDINATION WILL NOT BE ACCEPTED.
5 COORDINATE WORKS WITH OTHER SUB-TRADES. REFER TO NEW BUILDING LAYOUT DRAWINGS FOR CUTTING AND SEALING PENETRATIONS THROUGH OPENINGS & FIRE SEPARATIONS.
6 REFER TO SCHEDULES, SPECIFICATIONS & MANUFACTURE LITERATURE FOR EQUIPMENT AND MATERIAL SPECIFICATIONS AND INSTALLATION REQUIREMENTS.
7 PERFORM WORKS IN ACCORDANCE WITH PLUMBING CODE AND ALL LOCAL APPLICABLE CODES AND REGULATIONS. OBTAIN & PAY FOR ALL APPLICABLE PERMITS & INSPECTIONS. OBTAIN PLUMBING INSPECTIONS BEFORE CONCRETE FLOOR IS INSTALLED.
8 RUN SANITARY PIPING BELOW GRADE, INVERTS TO BE CONFIRMED, RUN VENT PIPING IN CEILING SPACE. CO-ORDINATE WITH SITE SERVICES SUB-TRADE.
9 REFER TO ARCHITECTURAL DRAWINGS. PROVIDE FIRE STOP PIPE PENETRATION TO MATCH WALL RATING, TYP.
10 SLOPE SANITARY MAIN 4" PIPE AT MIN. 1:100, SLOPE ALL 3" AND UNDER SANITARY AT MIN. 1:50. FIELD CHECK TO ENSURE SUFFICIENT SLOPE HEIGHT. HANG PIPE FROM STRUCTURAL ABOVE.
11 VENT SANITARY PIPING AS REQUIRED BY PLUMBING CODE. VENT PIPING SHALL BE RUN CONCEALED UP THROUGH WALLS UNLESS OTHERWISE INSTRUCTED OR SPECIFIED. PLUMBING VENT TERMINATIONS SHALL BE AT LEAST 11'-6" AWAY FROM OUTDOOR AIR INTAKES.COORDINATE TERMINATIONS WITH NEW AND EXISTING EQUIPMENT LOCATIONS.
12 PROVIDE CLEANOUTS TO ACCOMMODATE PLUMBING CODE REQUIRED MINIMUM SPACING OF 25 FEET FOR SANITARY PIPE UNDER 3"Ø AND 50 FEET FOR 3"Ø AND 4"Ø SANITARY PIPE.
13 REFER TO ARCHITECTURAL DRAWINGS FOR DETAILS RELATED TO MECHANICAL WORK.
14 DEMO EXISTING SLAB ON GRADE FLOOR WHERE REQUIRED TO RUN NEW SANITARY DWV PIPING, RESTORE CONCRETE FLOOR.
15 PRESSURE TEST BURIED SYSTEMS BEFORE BACKFILLING AND HYDRAULICALLY TEST TO VERIFY GRADES AND FREEDOM FROM OBSTRUCTIONS.
16 DEMO EXISTING SLAB ON GRADE CONCRETE FLOOR TO ACCOMMODATE SANITARY PLUMBING TRENCH AS REQUIRED; RESTORE CONCRETE TO MATCH EXISTING.
17 INSULATE ALL PLUMBING PIPING.
18 INVESTIGATE SITE PRIOR TO CONSTRUCTION TO CONFIRM ALL DIMENSIONS AND INSTALLATION REQUIREMENTS. ANY DISCREPANCIES OR QUESTIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO BID DATE.
19 DIELECTRIC CONNECTIONS SHALL BE USED AT ALL DISSIMILAR MATERIAL PIPING JOINTS AND WHERE PIPE GOES THROUGH CONCRETE FLOOR SLAB ON GRADE.

KEYNOTES

1 PROVIDE AND INSTALL NEW OUTDOOR RATED AIR HANDLING UNIT WITH DESICCANT WHEELS, FILTERS, HYDRONIC HEATING COIL, DX COOLING COIL; SEE SPECIFICATIONS FOR DETAILS. INSTALL TO MEET MANUFACTURER INSTALLATION REQUIREMENTS. FIELD RUN INSULATED REFRIGERANT PIPING BETWEEN DX COIL AND OUTDOOR CONDENSING UNIT. CONTRACTOR TO SIZE AND INSTALL REFRIGERANT PIPING BETWEEN DX COOLING COIL AND CONDENSING UNIT TO MEET EQUIPMENT MANUFACTURER'S INSTALLATION REQUIREMENTS. CONTROLS CONTRACTOR TO INSTALL TEMPERATURE CONTROL THERMOSTAT, WIRING AND RELATED SYSTEM ANCILLARIES. PROVIDE 3/4" CONDENSATE DRAIN FROM AHU TO DRAIN, PIPE CONDENSATE DOWN THROUGH ROOF AND PROVIDE EITHER INSULATED INDIRECT TRAPPED CONNECTION IN SANITARY DRAIN OR FIELD RUN INSULATED CONDENSATE PIPE TO NEAREST DRAIN TO ACCOMMODATE CONDENSATE. REFER TO SCHEDULE AND SPECIFICATIONS. REFER TO ARCHITECTURAL AND STRUCTURAL FOR ROOF DUCT AND PIPE PENETRATION DETAILS. AHU DUCTWORK SHALL BE INSULATED AND SUPPORTED AS SPECIFIED. CONDENSATE PIPING TO BE HEAT TRACED, REFER TO SPECIFICATIONS FOR DETAILS.
2 NEW ROOF MOUNTED 16 GAUGE DUCTWORK C/W STIFFENERS AT 2' SPACING, RUN OVER ROOF, INSULATE AND JACKET AS SPECIFIED, SUPPORT DUCT AS SHOWN ON RELATED DETAIL AT MAXIMUM 8FT SPACING AND EVERY CHANGE IN DIRECTION.
3 PROVIDE AND INSTALL NEW VRF HEAT PUMP. PROVIDE SUPPORTS AND VIBRATION ISOLATORS. REFER TO ARCHITECTURAL FOR ROOF CURB DETAILS. REFER TO SPECIFICATIONS FOR DETAILS.
4 NEW INSULATED REFRIGERANT PIPING COMPLETE WITH ALUMINUM JACKET. MOUNT ON ROOF PIPE SUPPORTS. PROVIDE ALL PIPING CONNECTIONS TO NEW VRF HEAT PUMP.
5 NEW ROOF MOUNTED FAN COMPLETE WITH MOTORIZED DAMPER; REFER TO ARCHITECTURAL DRAWINGS FOR ROOF CURB DETAILS. REFER TO SCHEDULES AND SPECIFICATIONS FOR FAN DETAILS. PROVIDE ROOF PENETRATION TO ACCOMMODATE NEW DUCT PENETRATION.
6 AHU OUTDOOR AIR DUCTWORK TO CONNECT TO UNIT, DUCT INSULATED AS SPECIFIED.
7 AHU REACTIVATION AIR DUCTWORK TO CONNECT TO UNIT, DUCT INSULATED AS SPECIFIED.

ISSUED FOR CONSTRUCTION

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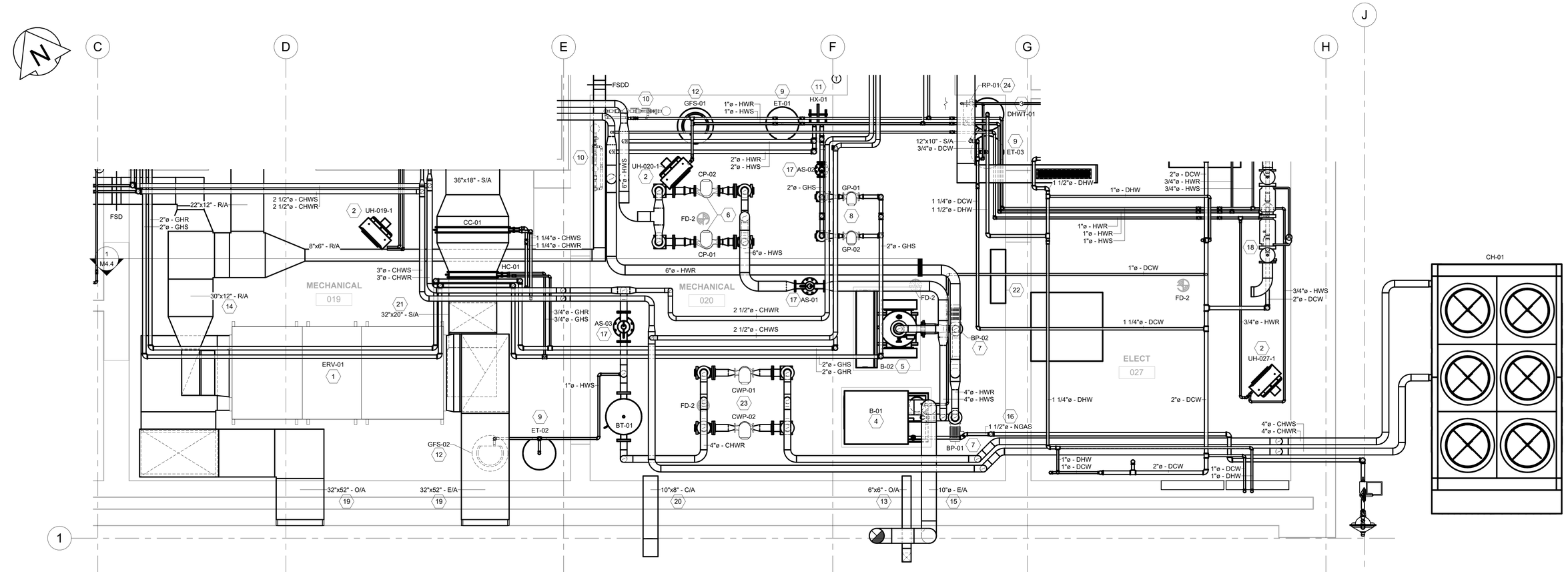

1 / M2.4A ENLARGED PLAN - MECHANICAL & ELECTRICAL ROOM

SCALE: 3/8" = 1'-0" 24"x36" SHEET

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4. GENERAL CONTRACTOR SHALL COORDINATE WITH SUB-CONTRACTORS TO ENSURE ANY MULTI DISCIPLINE NOTES OR DETAILS ARE REVIEWED BY ALL SUB-CONTRACTORS PRIOR TO BID SUBMISSION, A LATER CLAIM SUBMITTED BY THE BIDDER FOR AN ADDITION TO THE CONTRACT PRICE BECAUSE OF CHANGES IN WORK NECESSITATED DUE TO A LACK OF COORDINATION WILL NOT BE ACCEPTED.
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12. PROVIDE TAB TO ENSURE AIR DISTRIBUTION TO VOLUMES INDICATED AND HYDRONIC SYSTEM FLOWS TO VALUES INDICATED.
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14. CONTRACTOR TO PAY FOR AND OBTAIN ALL NECESSARY BUILDING, MECHANICAL AND ELECTRICAL PERMITS/INSPECTIONS REQUIRED BY AUTHORITIES HAVING JURISDICTION.

KEYNOTES

1. PROVIDE AND INSTALL NEW HEAT RECOVERY VENTILATOR, SEE SPECIFICATION FOR DETAILS. INSTALL UNIT WITH VIBRATION ISOLATION. SEE MANUFACTURER'S RECOMMENDED INSTALLATION. PROVIDE NEW CONDENSATE PUMP AND PIPING. FIELD RUN NEW CONDENSATE PIPING TO TIE INTO NEW SANITARY DRAIN PIPING IN UTILIDOR C/W TRAP. PROVIDE ECCENTRIC TRANSITIONS TO AVOID INTERFERENCE BETWEEN HRV SUPPLY DUCT, EXHAUST/OUTDOOR AIR DUCTS. SUPPLY, RETURN, AND EXHAUST DUCTS SUPPORTED AS SPECIFIED.
2. PROVIDE AND INSTALL NEW HYDRONIC, CEILING MOUNTED UNIT HEATER, UH, C/W ANCILLARIES AS INDICATED IN SPECIFICATIONS; PROVIDE ISOLATION BALL VALVES WITHIN CEILING SPACE; FOR PIPING DETAILS SEE PROCESS FLOW SCHEMATIC AND DETAIL.
3. PROVIDE AND INSTALL NEW DOMESTIC HOT WATER TANK, SEE EQUIPMENT SCHEDULE AND SPECIFICATIONS FOR DETAILS. PROVIDE AND INSTALL DOMESTIC WATER PIPING FOR TANK, INSULATE AND SUPPORT PIPING AS SPECIFIED. REFER TO DETAIL, SCHEDULE AND SPECIFICATIONS.
4. PROVIDE AND INSTALL NEW HIGH EFFICIENCY GAS FIRED HOT WATER BOILER ON NEW CONC. HOUSE KEEPING PAD. PIPE DRAINS TO FLOOR DRAIN AND MAKE ALL PIPING CONNECTIONS. INSTALL GAS FIRED HOT WATER BOILER AS PER MANUFACTURER'S INSTALLATION INSTRUCTIONS. SEE SPECIFICATIONS FOR ADDITIONAL DETAILS. INSTALL MANUFACTURER SUPPLIED CONDENSATE TRAP AND PROVIDE AND INSTALL CONDENSATE NEUTRALIZER AS PER MANUFACTURER'S INSTALLATION INSTRUCTIONS. PROVIDE FLOOR SUPPORTS FOR EQUIPMENT AS REQUIRED BY MANUFACTURER. FIELD RUN CONDENSATE DRAIN PIPING TO NEAREST FLOOR DRAIN.
5. PROVIDE AND INSTALL NEW ELECTRIC HOT WATER BOILER ON NEW HOUSE KEEPING PAD. PROVIDE HWS AND HWR PIPING TO BOILER CONNECTIONS. INSTALL ELECTRIC BOILER AS PER MANUFACTURER'S INSTALLATION INSTRUCTIONS. SEE SPECIFICATIONS FOR ADDITIONAL DETAILS.
6. PROVIDE AND INSTALL NEW HOT WATER SYSTEM DISTRIBUTION PUMPS. INSTALL AND SUPPORT PUMP AS PER MANUFACTURER'S INSTALLATION INSTRUCTIONS. SEE SPECIFICATIONS FOR DETAILS.
7. PROVIDE AND INSTALL NEW BOILER CIRCULATOR PUMPS. INSTALL BOILER CIRCULATOR PUMP AS PER MANUFACTURER'S INSTALLATION INSTRUCTIONS. SEE SPECIFICATIONS FOR DETAILS.
8. PROVIDE AND INSTALL NEW GLYCOL SYSTEM DISTRIBUTION PUMPS. INSTALL AND SUPPORT PUMP AS PER MANUFACTURER'S INSTALLATION INSTRUCTIONS. SEE SPECIFICATIONS FOR DETAILS.
9. PROVIDE AND INSTALL NEW EXPANSION TANK, SEE SPECIFICATIONS FOR DETAILS.
10. PROVIDE AND INSTALL NEW CHEMICAL POT FEEDER AND SIDE STREAM FILTER; WALL MOUNT. INSTALL AS PER MANUFACTURER'S LITERATURE.
11. PROVIDE AND INSTALL NEW HEAT EXCHANGER, INSULATE AS SPECIFIED. REFER TO SPECIFICATIONS FOR DETAILS.
12. PROVIDE AND INSTALL NEW GLYCOL FILL STATION C/W ALARM, REFER TO SPECIFICATIONS FOR DETAILS.
13. PROVIDE AND INSTALL INSULATED VENTILATION AIR DUCTWORK IN BOILER ROOM THROUGH EXTERIOR WALL TO LOUVER, SIZE AS SHOWN.

KEYNOTES

14. PROVIDE AND INSTALL RETURN DUCT FROM FROM AREAS REQUIRING EXHAUST AIR BACK TO HRV, RUN RETURN DUCT AS SHOWN AT HIGHEST ELEVATION POSSIBLE, SUPPORT DUCTWORK AS SPECIFIED.
15. PROVIDE AND INSTALL 8"DIA. CAT. IV & CAT. II BOILER VENTING, TO SUIT NEW BOILER CONNECTIONS. VENTING TO BE ROUTED THROUGH MECHANICAL ROOM AS SHOWN; MAINTAIN MINIMUM CLEARANCE TO COMBUSTIBLE MATERIALS AS REQUIRED BY NFPA AND LOCAL CODES. SLOPE HORIZONTAL VENT AND PROVIDE BASE TEES, SLOPE VENT BACK TO BOILER, SEE BOILER MANUFACTURER INSTALLATION INSTRUCTIONS AND SPECIFICATIONS FOR DETAILS. PROVIDE AND INSTALL CAPPED TEE ON VENT TO ACCOMMODATE MAINTENANCE & INSPECTION POINT. VENT TO RUN THROUGH EXTERIOR WALL, HORIZONTALLY OFFSET OUTSIDE BUILDING WITHIN INSULATED CHASE AND THEN RUN VERTICAL ADJACENT TO BUILDING BETWEEN WINDOWS WITHIN INSULATED CHASE TO 3 FEET ABOVE ROOF PARAPET.
16. PROVIDE AND INSTALL NEW N.GAS PIPING FROM NEW HYDRO REGULATOR TO NEW GAS FIRED BOILER, PROVIDE AND INSTALL NEW GAS REGULATOR AT BOILER. REFER TO SPECIFICATIONS FOR DETAILS. COORDINATE WITH HYDRO TO HAVE FOR METER INSTALLATION.
17. PROVIDE AND INSTALL NEW AIR SEPARATOR. INSTALL AS PER MANUFACTURER'S LITERATURE. REFER TO SPECIFICATIONS FOR DETAILS.
18. PROVIDE AND INSTALL NEW DOMESTIC COLD WATER MAKE-UP WATER PIPING C/W BACKFLOW PREVENTER AND LEAK DETECTION SYSTEM AS SHOWN ON DRAWINGS AND PROCESS FLOW DIAGRAM. CONNECT PIPING TO EXISTING PIPING WHERE SHOWN ON DRAWINGS. INSULATE AND SUPPORT PIPING AND ENSURE ALL VALVES AND ACCESSORIES REMAIN ACCESSIBLE.
19. NEW HRV OUTDOOR/EXHAUST DUCTWORK. PROVIDE DUCT CONNECTION FROM NEW HRV TO RUN DUCT THROUGH EXTERIOR WALL, REFER TO ARCHITECTURAL AND STRUCTURAL FOR WALL PENETRATION DETAILS,. PROVIDE HORIZONTAL OFFSETS AS REQUIRED TO AVOID INTERFERENCES. PROVIDE TRANSITIONS TO LOUVERS, LOUVERS TO BE INSTALLED IN EXISTING WINDOW WELLS. INSULATE AND SUPPORT DUCTWORK AS SPECIFIED.
20. PROVIDE AND INSTALL INSULATED COMBUSTION AIR DUCTWORK IN BOILER ROOM THROUGH EXTERIOR WALL TO LOUVER, SIZE AS SHOWN.
21. PROVIDE AND INSTALL HRV SUPPLY AIR DUCTWORK, INSULATE AND SUPPORT DUCT AS SPECIFIED. RUN SUPPLY DUCT AS SHOWN AT HIGHEST ELEVATION POSSIBLE.
22. CONTROLS CONTRACTOR TO PROVIDE AND INSTALL NEW CONTROL PANEL, ELECTRICAL TO PROVIDE 120V POWER TO PANEL, COORDINATE WITH ELECTRICAL.
23. PROVIDE AND INSTALL NEW CHILLED WATER SYSTEM DISTRIBUTION PUMPS. INSTALL AND SUPPORT PUMP AS PER MANUFACTURER'S INSTALLATION INSTRUCTIONS. SEE SPECIFICATIONS FOR DETAILS.
24. PROVIDE AND INSTALL NEW HOT WATER RECIRCULATION PUMP, CHECK VALVE, AIR PURGE VALVE AND ISOLATION VALVES, REFER TO DETAIL, SCHEDULE AND SPECIFICATIONS. TIE-IN NEW 3/4" DOMESTIC HOT WATER RECIRCULATION PIPE FROM NEW DHW PIPE AT APPROXIMATE LOCATION SHOWN.

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L.A. URQUHART
Member
33109
2025-01-30
REGISTERED PROFESSIONAL ENGINEER

drawn by: LM
approved by: IU
date: 31 JAN 2025

mcm architects inc.
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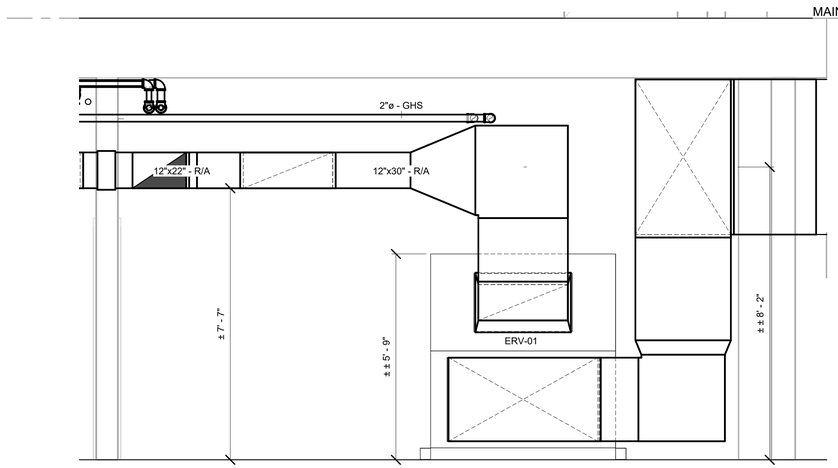
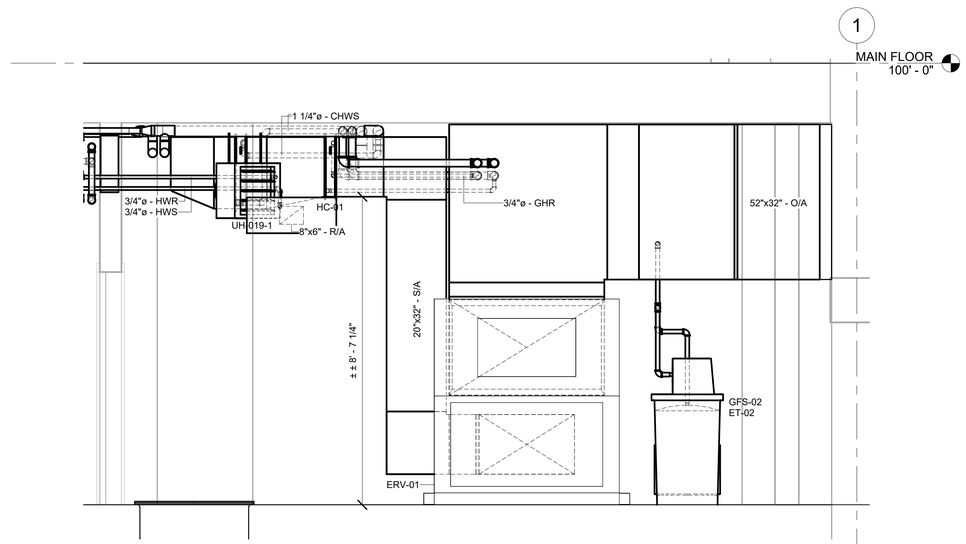
260-8th STREET, BRANDON, MANITOBA, R7A 3X3

CITY ARCHIVES BUILDING REDEVELOPMENT
380 WILLIAM AVENUE, WINNIPEG, MANITOBA

project: 2624
sheet no.: **M3.1**



1 M2.4B MECH. ROOM NEW CONDITIONS - SECTION 1
SCALE: 1/2" = 1'-0" 24"x36" SHEET



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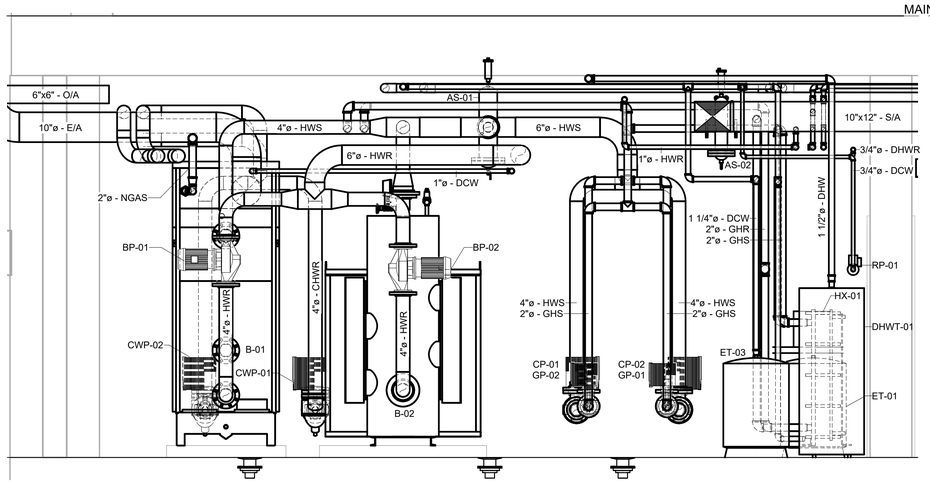

3 M2.4B MECH. ROOM NEW CONDITIONS - SECTION 3
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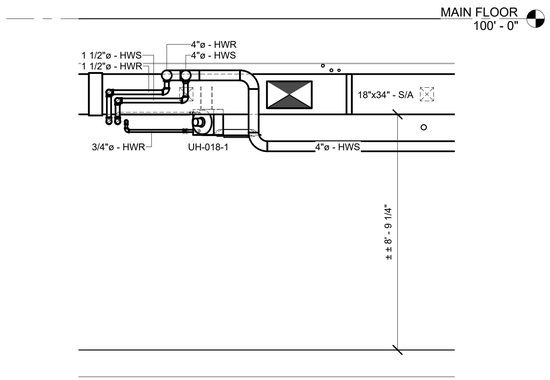

4 M2.4B MECH. ROOM NEW CONDITIONS - SECTION 4
SCALE: 3/8" = 1'-0" 24"x36" SHEET

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PROVINCE OF MANITOBA
P.A. URQUHART
Member
33109
2025-01-30
REGISTERED PROFESSIONAL ENGINEER

drawn by
LM

approved by
IU

date
31 JAN 2025

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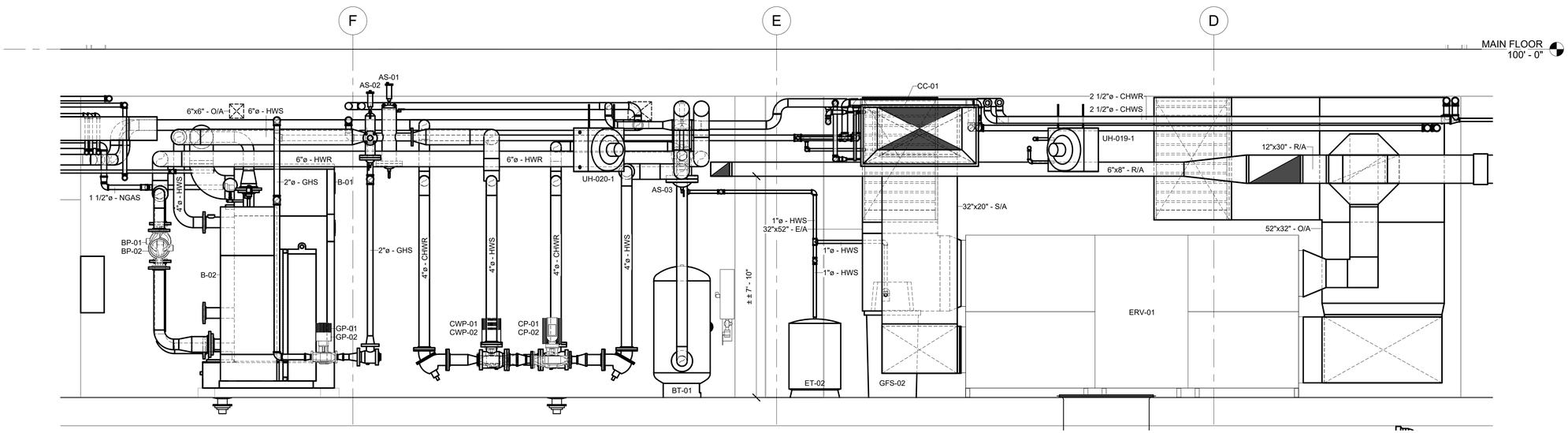

1 M2.4B MECH. ROOM NEW CONDITIONS
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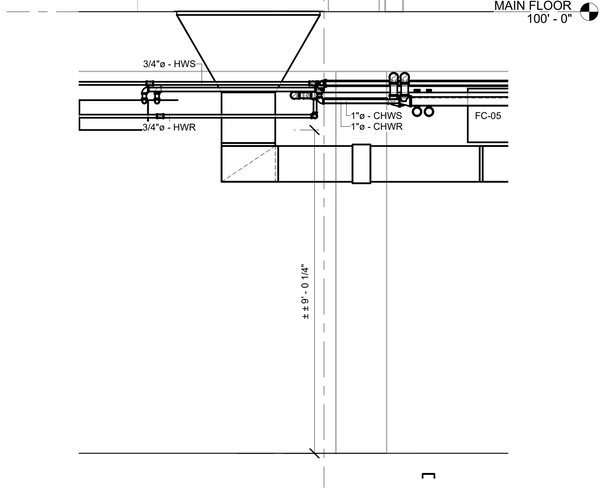

2 M2.4B CORRIDOR NEW CONDITIONS - SECTION 1
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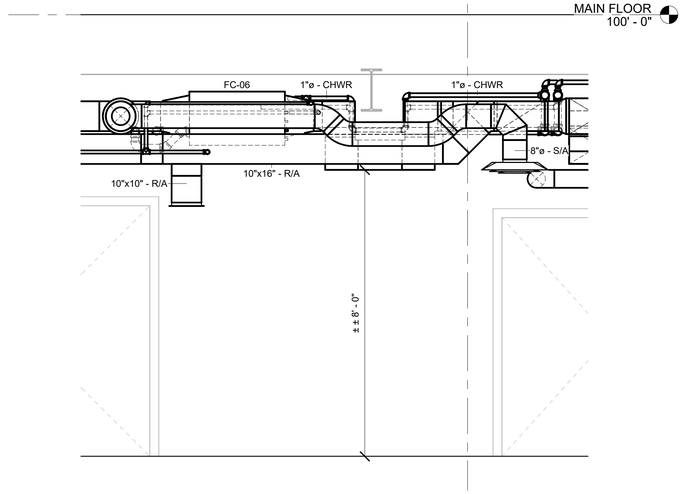

3 M2.4B CORRIDOR NEW CONDITIONS - SECTION 2
SCALE: 1/2" = 1'-0" 24"x36" SHEET

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No.2906

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PROVINCE OF MANITOBA
T. A. URQUHART
Member
33109
2025-01-30
REGISTERED PROFESSIONAL ENGINEER

drawn by
LM
approved by
IU
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mcm architects inc.
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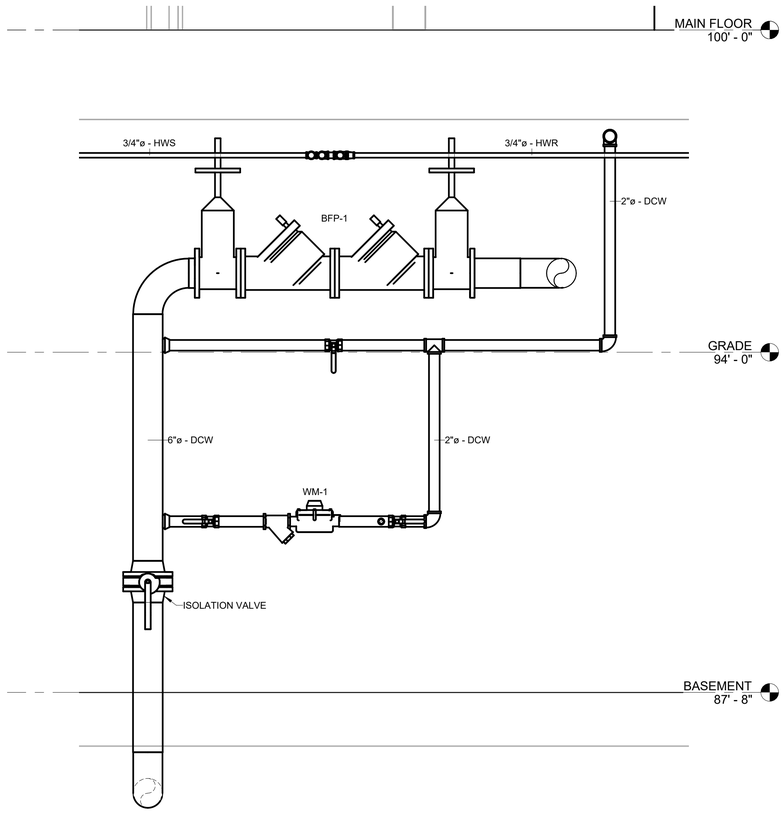

1 M2.1 WATER SERVICE ENTRY - SECTION
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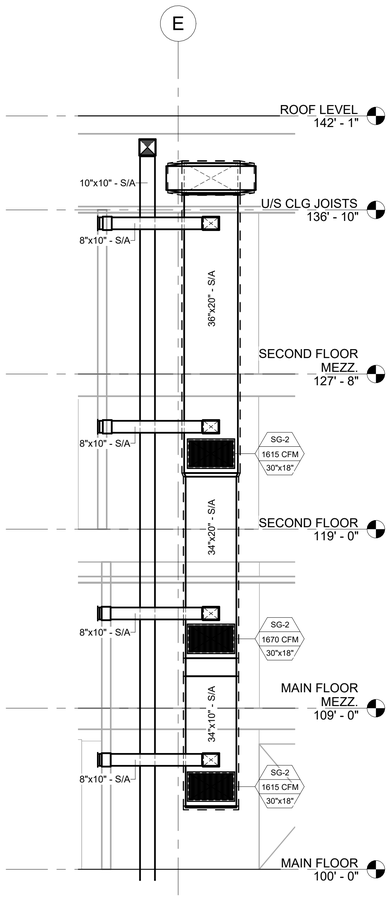

2 M2.7 NORTH DUCT CHASE - SECTION
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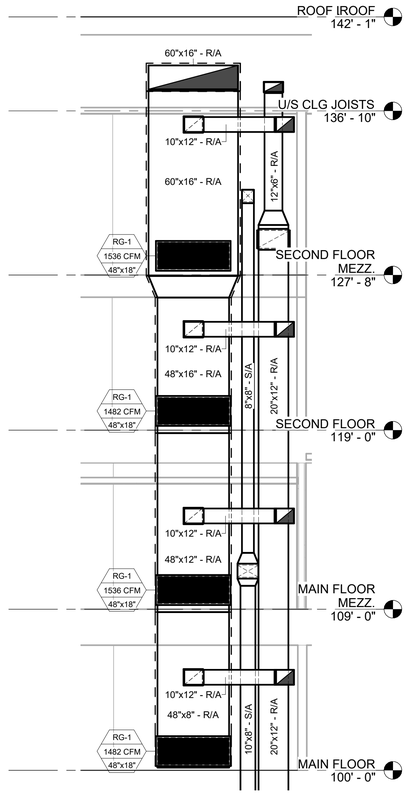

3 M2.4B WEST DUCT CHASE - SECTION
SCALE: 1/4" = 1'-0" 24"x36" SHEET

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PROVINCE OF MANITOBA
I. A. URQUHART
Member
33109
2025-01-30
REGISTERED PROFESSIONAL ENGINEER

drawn by
LM

approved by
IU

date
31 JAN 2025

mcm architects inc.
141 ST.ANNE'S ROAD, WINNIPEG, MANITOBA, R2M 2Z3
260-8th STREET, BRANDON, MANITOBA, R7A 3X3

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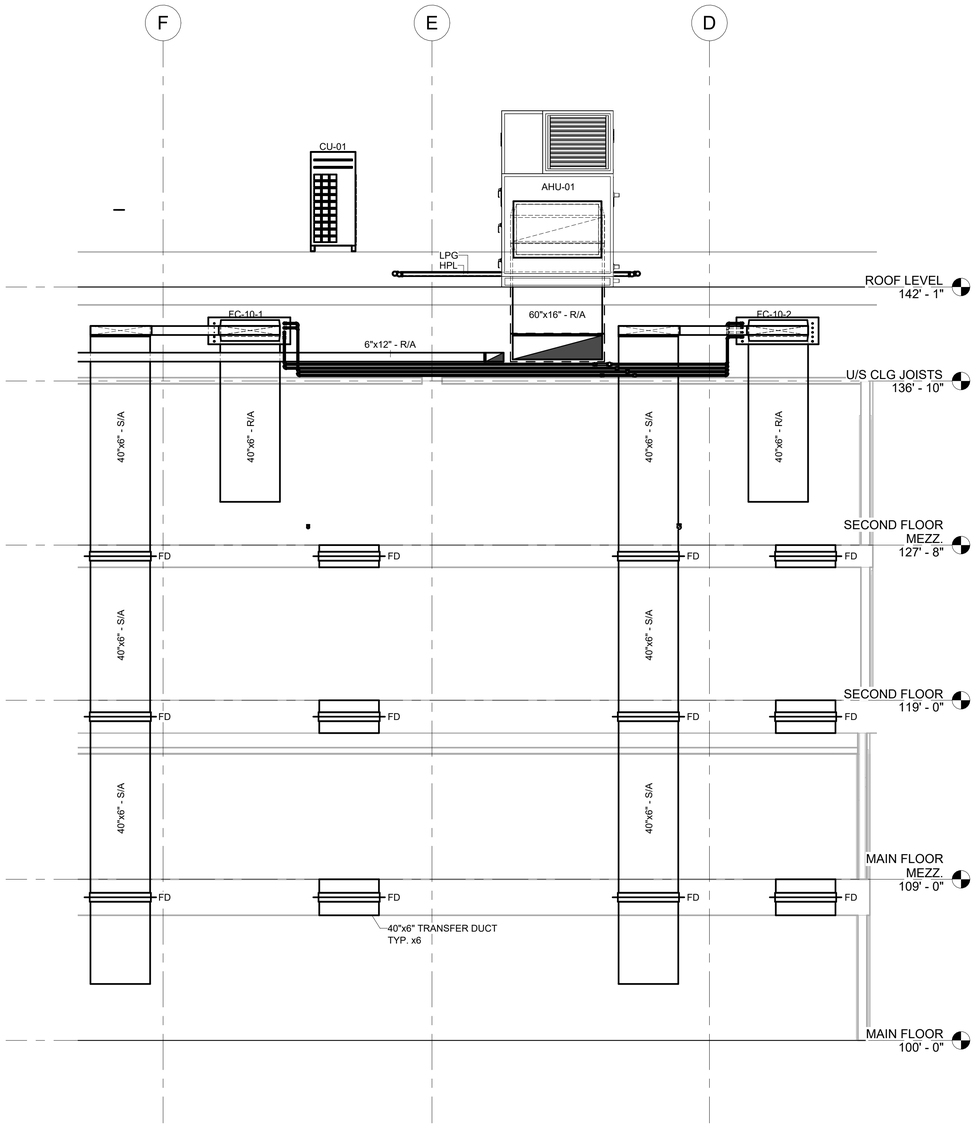

1 / M2.9 NORTH WALL VAULT DUCTWORK - SECTION
SCALE: 1/4" = 1'-0" 24"x36" SHEET

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PROVINCE OF MANITOBA
I. A. URQUHART
Member
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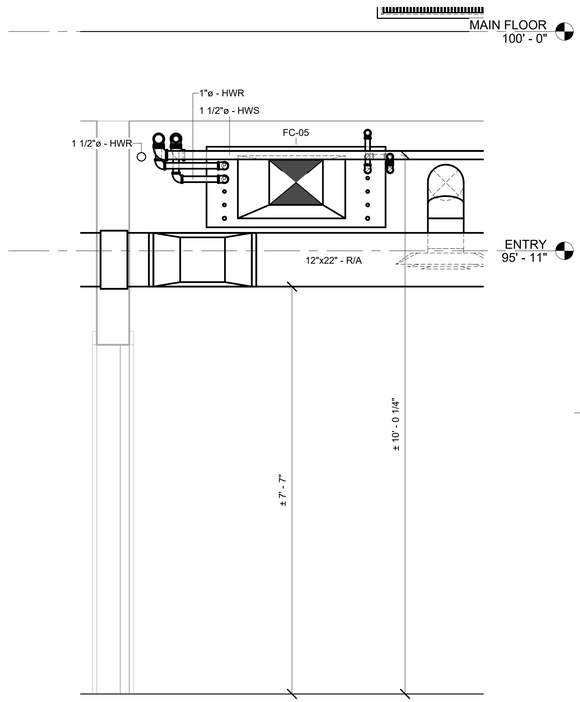

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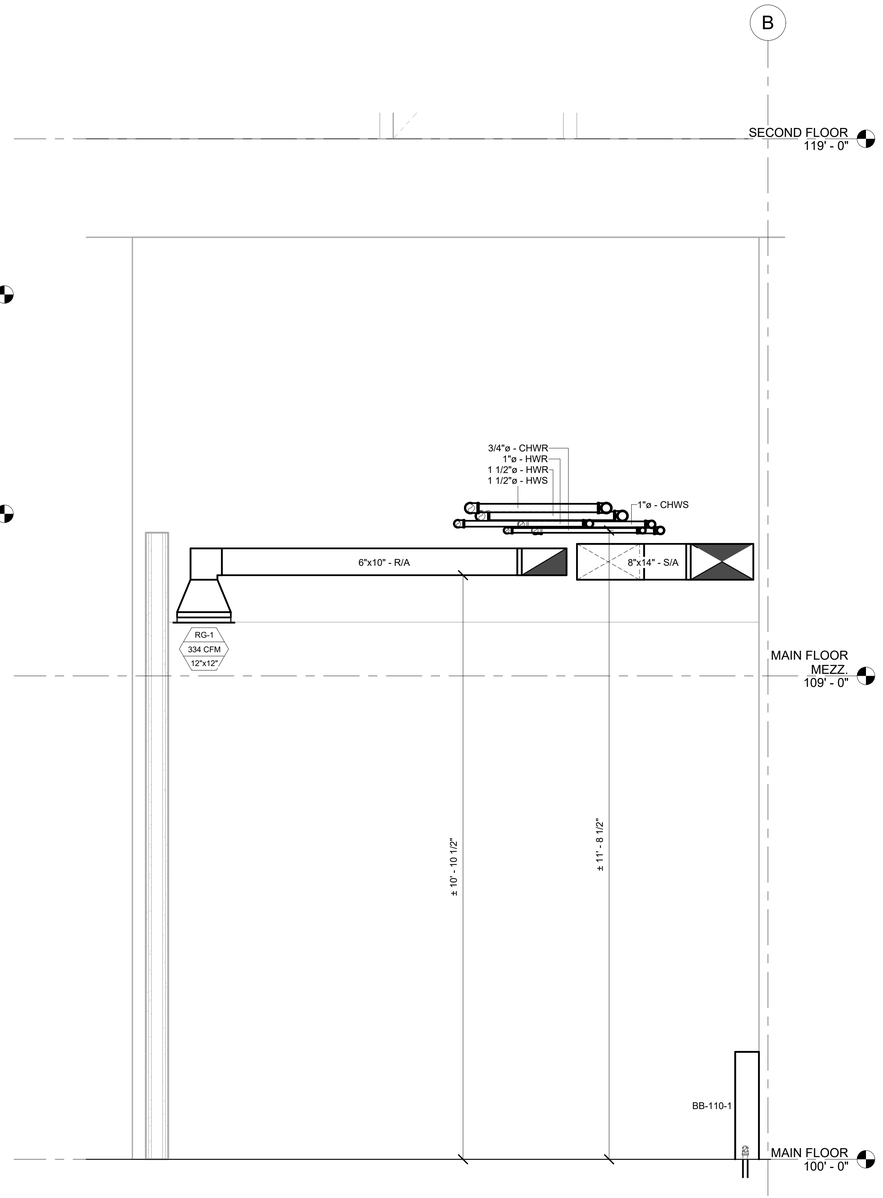

2 M2.6 OFFICE CEILING NEW CONDITIONS - SECTION
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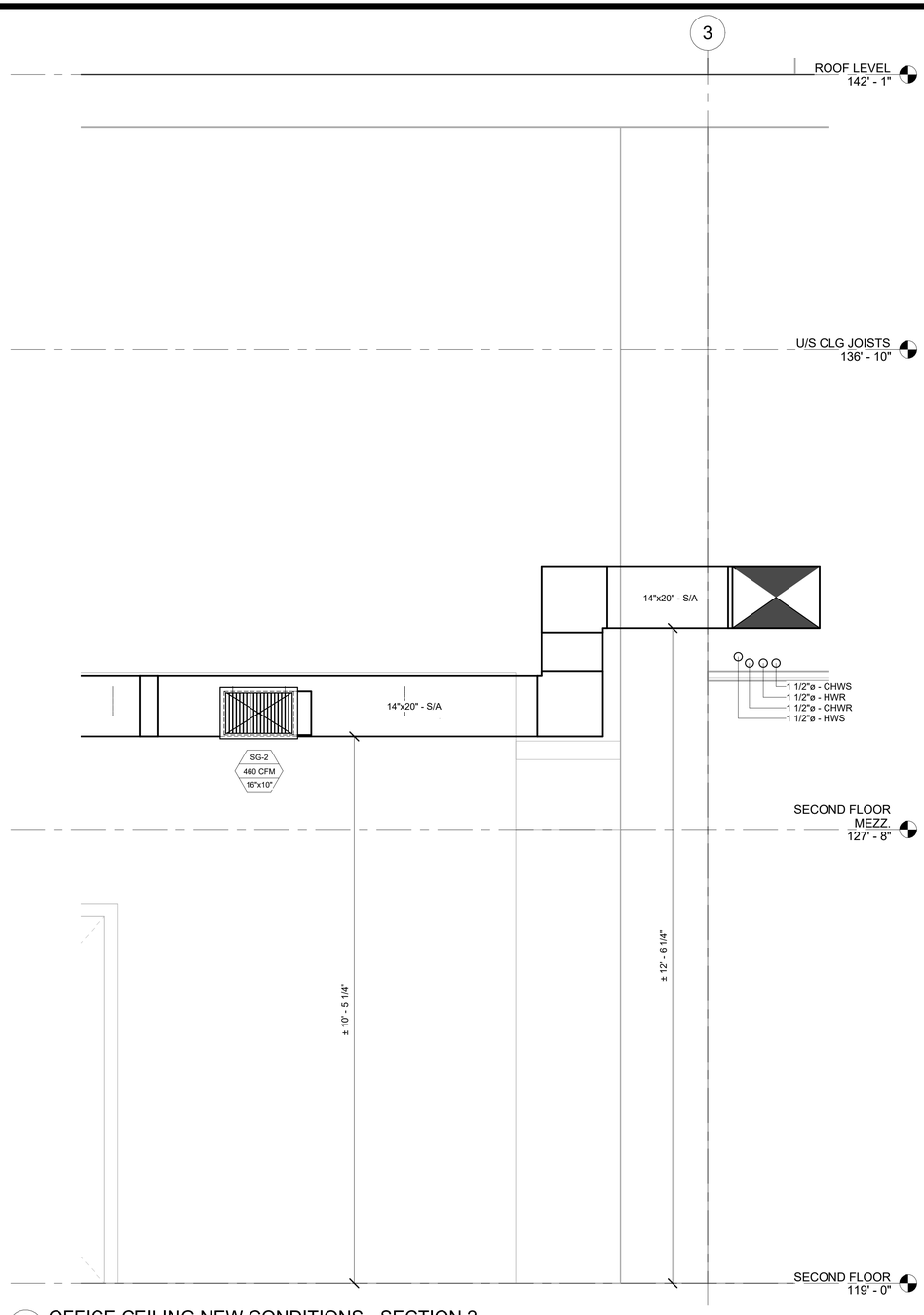

3 M2.9 OFFICE CEILING NEW CONDITIONS - SECTION 2
SCALE: 3/4" = 1'-0" 24"x36" SHEET

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PROVINCE OF MANITOBA
I. A. URQUHART
Member
33109
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REGISTERED PROFESSIONAL ENGINEER

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LM

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IU

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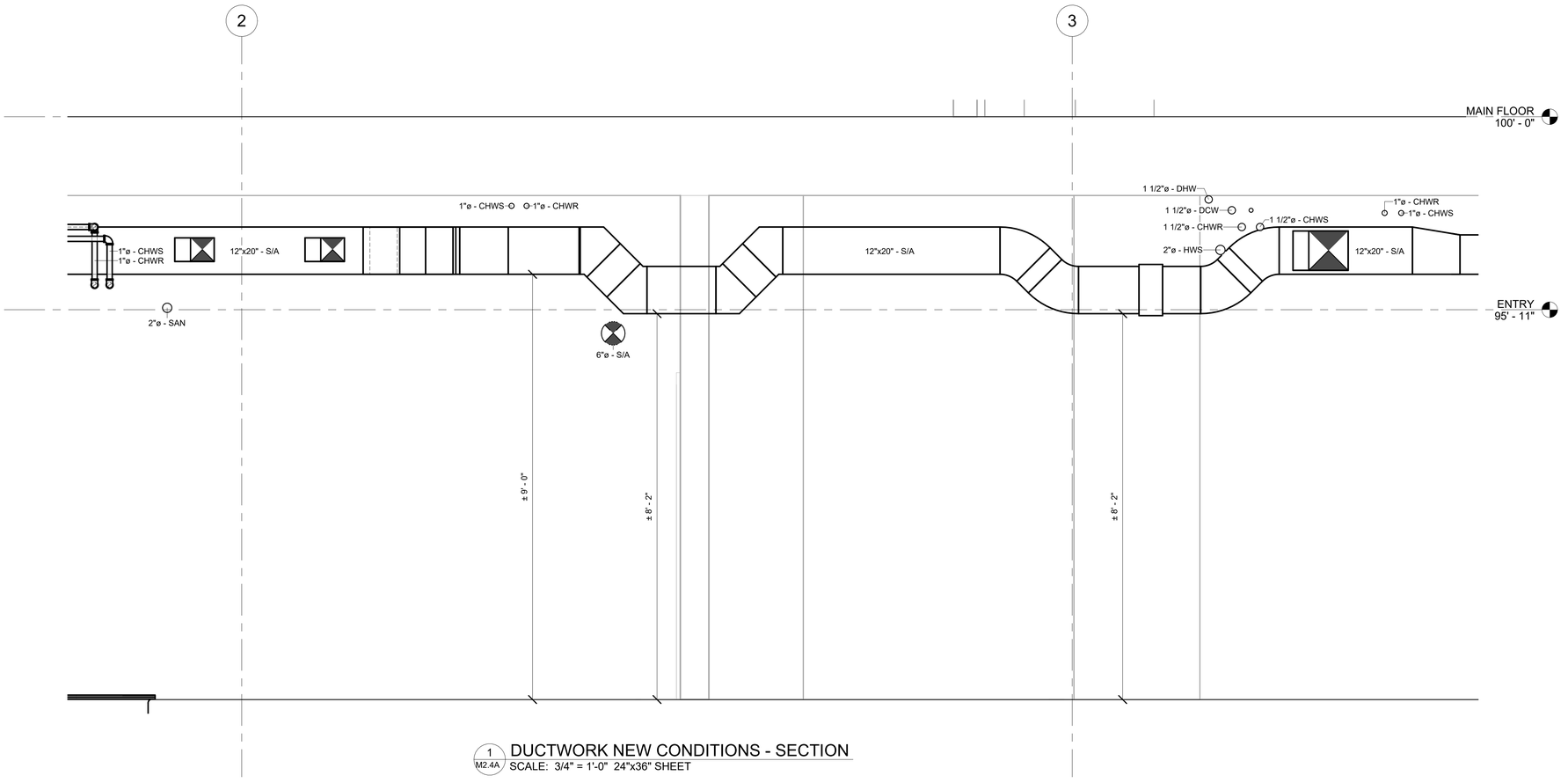

1 M2.4A DUCTWORK NEW CONDITIONS - SECTION
SCALE: 3/4" = 1'-0" 24"x36" SHEET

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I. A. URQUHART
Member
33109
2025-01-30
REGISTERED PROFESSIONAL ENGINEER

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LM

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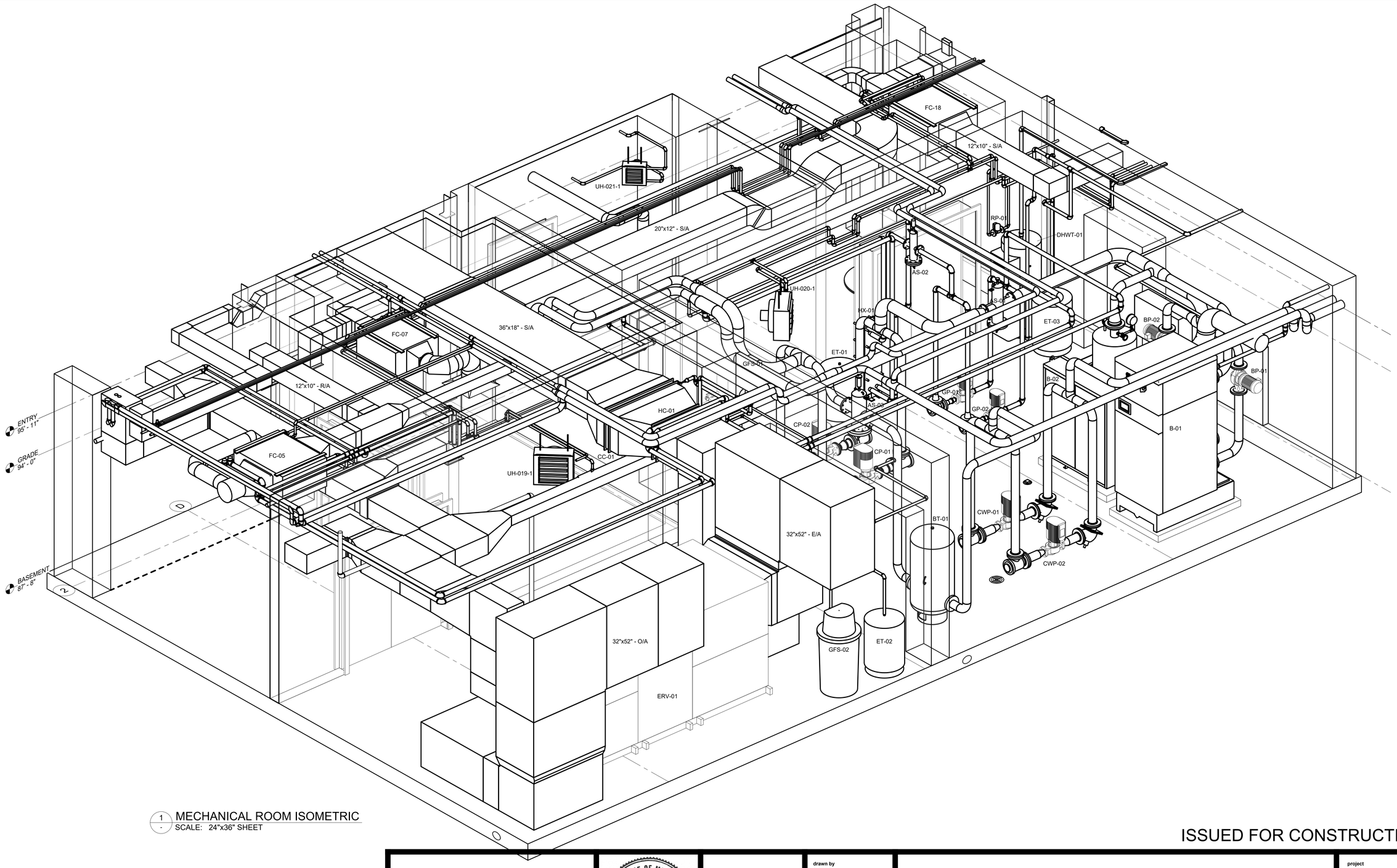

1 MECHANICAL ROOM ISOMETRIC
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T.A. URQUHART
Member
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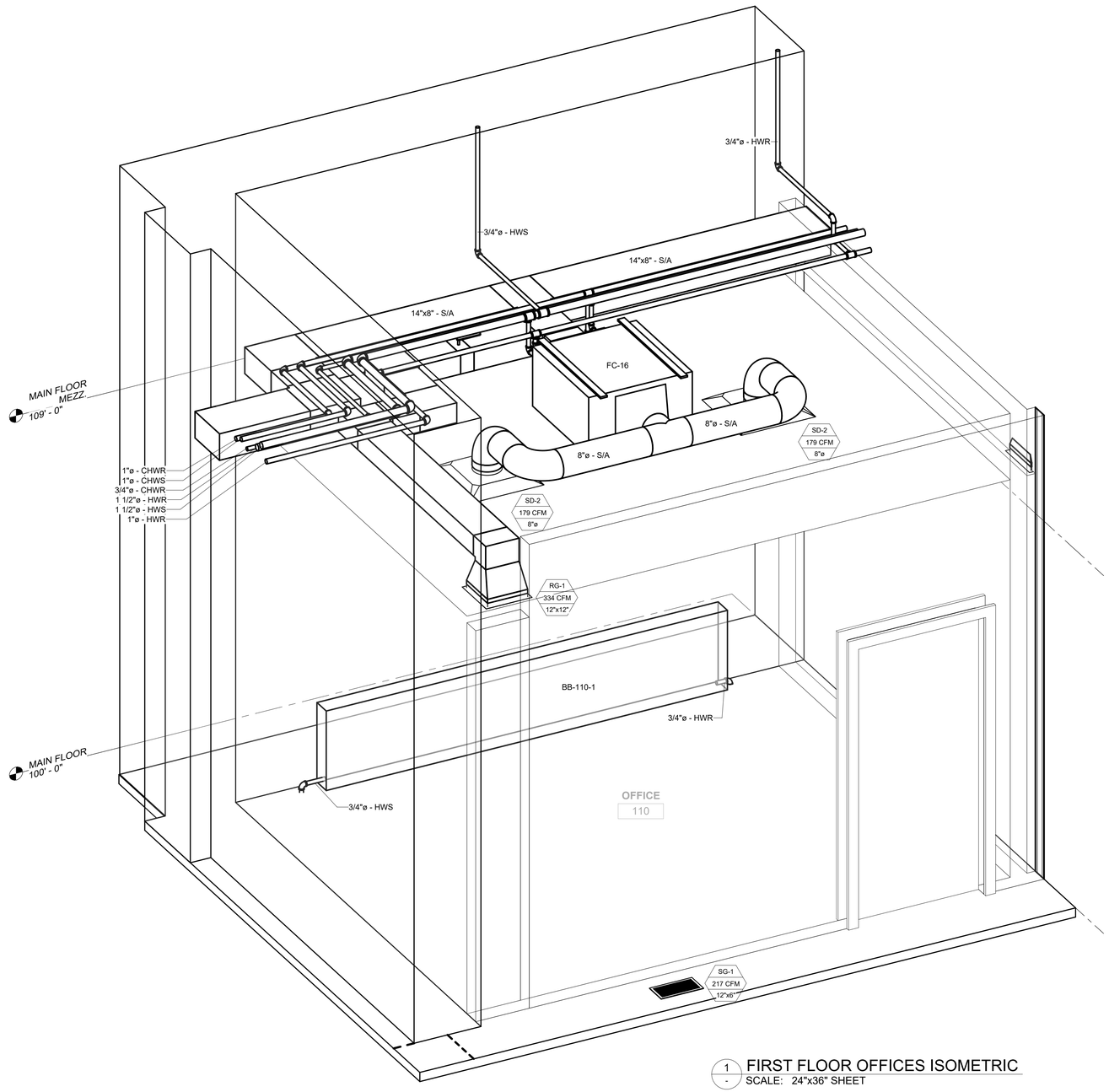

1 - FIRST FLOOR OFFICES ISOMETRIC
SCALE: 24"x36" SHEET

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T. A. URQUHART
Member
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sheet no.
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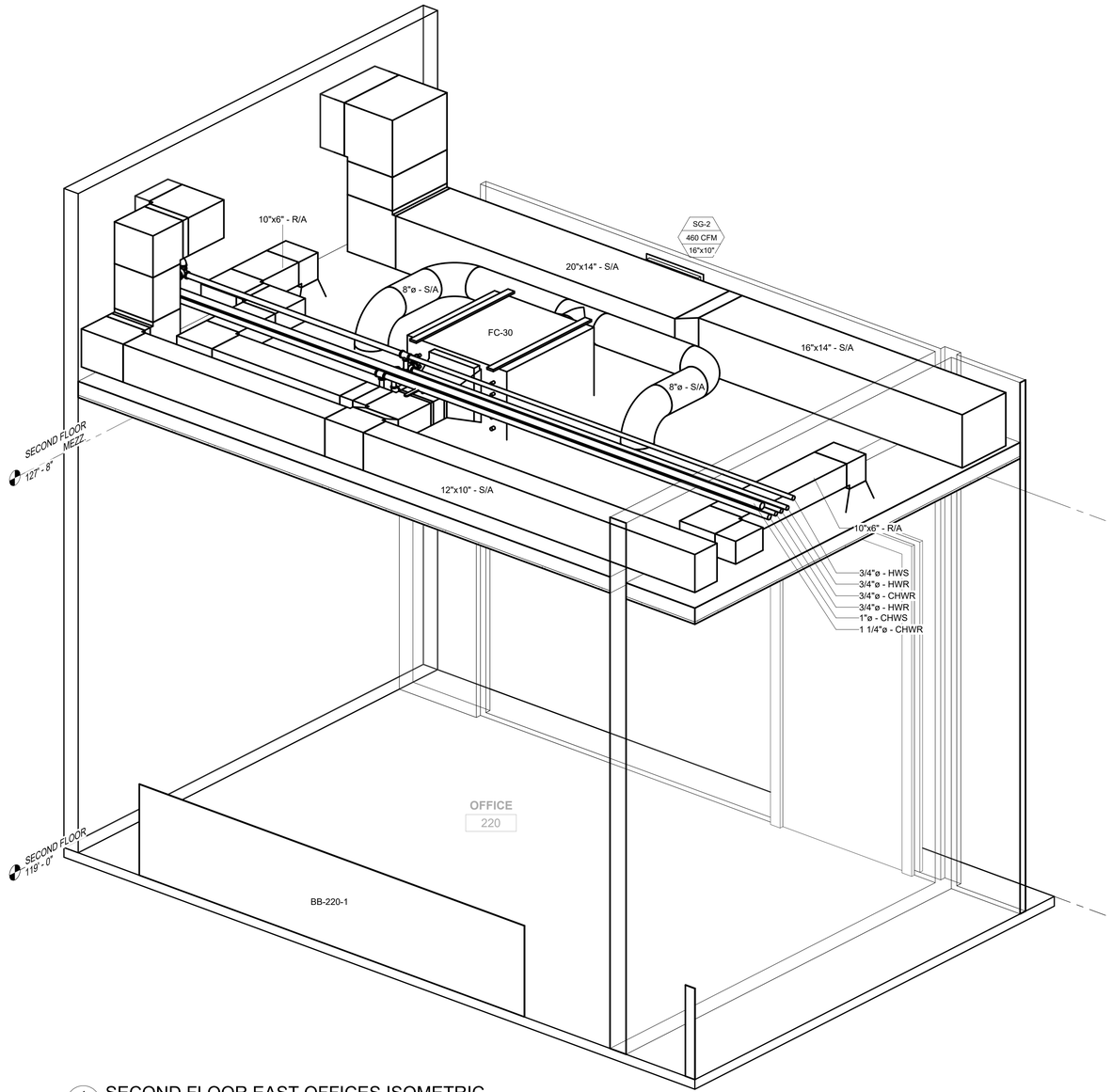

1 - SECOND FLOOR EAST OFFICES ISOMETRIC
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PROVINCE OF MANITOBA
I. A. URQUHART
Member
33109
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141 ST.ANNE'S ROAD, WINNIPEG, MANITOBA, R2M 2Z3
260-8th STREET, BRANDON, MANITOBA, R7A 3X3

CITY ARCHIVES BUILDING REDEVELOPMENT
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project
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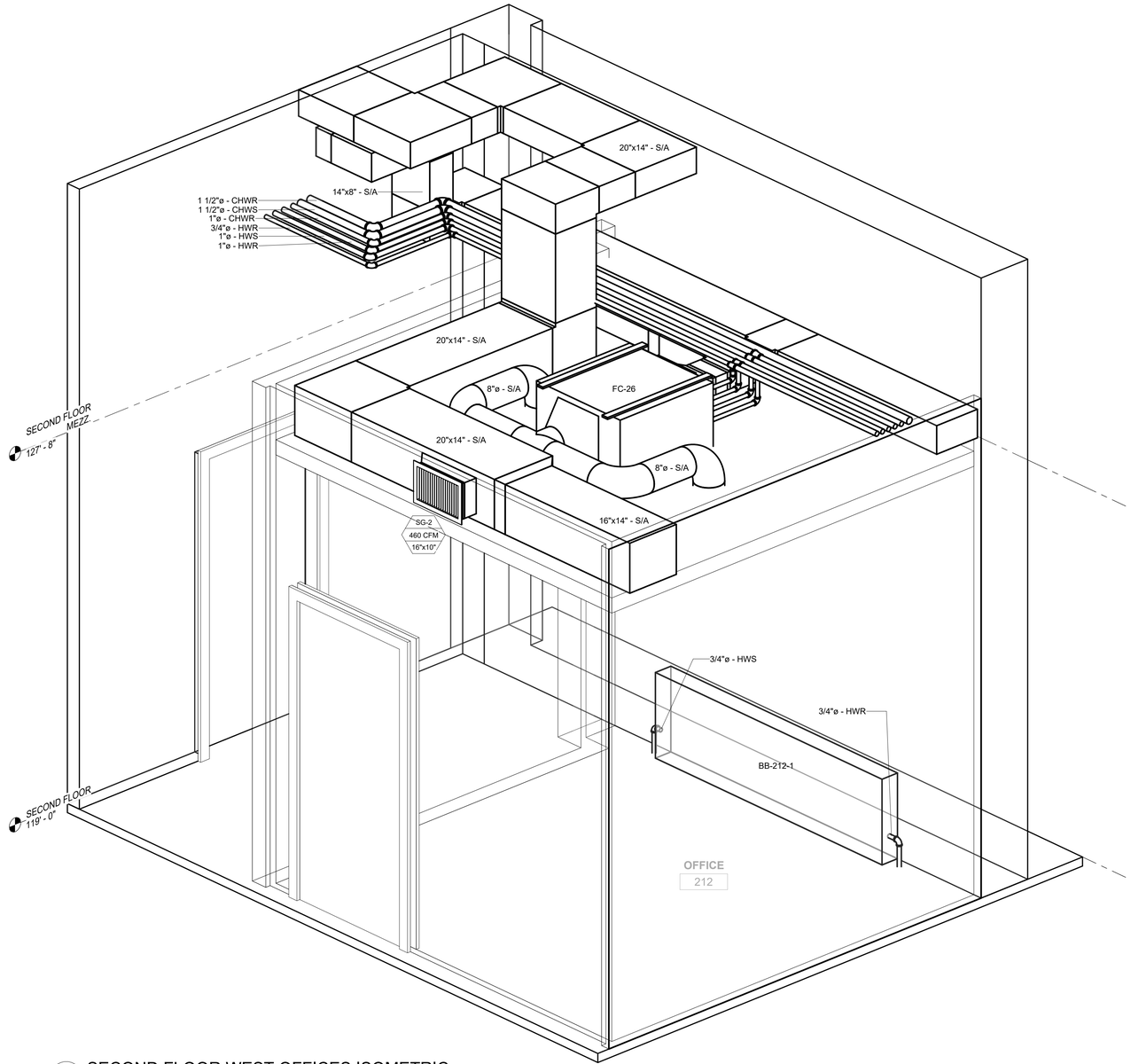
sheet no.
M4.9



1 / - SECOND FLOOR WEST OFFICES ISOMETRIC
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K.A. URQUHART
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M4.10

FAN COIL SCHEDULE

TAG	SERVICE	AREAS SERVED	FAN PERFORMANCE							FILTER TYPE	HEATING COIL PERFORMANCE											ROWS
			AIRFLOW		E.S.P.		FAN SPEED	SOUND POWER DATA, DBA			FLUID TYPE	CAPACITY		FLOW		ΔP		EWT		LWT		
			CFM	L/S	IN.W.C.	PA		DISCHARGE	RADIATED			MBH	KW	USGPM	L/S	FT	KPA	°F	°C	°F	°C	
FC-01	4-PIPE HYDRONIC DUCTED FAN COIL	001 - Record Storage, 002 - Storage, S09 - Foyer, 009 - Staging, 010 - Staging	1444	681	0.5	124	HIGH	58	62	MERV 13	WATER	43.05	12.62	2.90	0.18	11.8	35.3	160	71.1	130	54.4	1
FC-02	4-PIPE HYDRONIC DUCTED FAN COIL	006 - Storage, 007 - Record Storage, 008 - Record Storage	1487	702	0.5	124	HIGH	58	61	MERV 13	WATER	46.64	13.67	3.10	0.20	14.8	44.2	160	71.1	130	54.4	1
FC-03	4-PIPE HYDRONIC DUCTED FAN COIL	003 - Service	482	227	0.5	124	HIGH	56	58	MERV 13	WATER	14.96	4.38	1.00	0.06	1.4	4.2	160	71.1	130	54.4	1
FC-04	4-PIPE HYDRONIC DUCTED FAN COIL	013 - Janitor	383	181	0.34	85	MED	51	54	MERV 13	WATER	12.97	3.80	0.90	0.06	1.1	3.3	160	71.1	130	54.4	1
FC-05	4-PIPE HYDRONIC DUCTED FAN COIL	016 - Shipping & Receiving, 017 - Corridor	699	330	0.5	124	HIGH	58	61	MERV 13	WATER	23.59	6.91	1.60	0.10	3.7	11.1	160	71.1	130	54.4	1
FC-06	4-PIPE HYDRONIC DUCTED FAN COIL	011 - Corridor, 017- Corridor, 021 - Archival Supplies, 022 - Corridor, 023 -LAN, 024 - Corridor, 025 - WC	699	330	0.5	124	HIGH	58	61	MERV 13	WATER	23.59	6.91	1.60	0.10	3.7	11.1	160	71.1	130	54.4	1
FC-07	4-PIPE HYDRONIC DUCTED FAN COIL	018 - Isolation	383	181	0.34	85	MED	51	54	MERV 13	WATER	12.97	3.80	0.90	0.06	1.1	3.3	160	71.1	130	54.4	1
FC-08-1	4-PIPE HYDRONIC WALL MOUNTED FAN COIL	116 - Lift Mechanical, 118 - Corridor	962	454	-	-	8V	-	-	MERV 13	WATER	36.29	10.63	2.42	0.15	6.9	20.6	160	71.1	130	54.4	1
FC-08-2	4-PIPE HYDRONIC WALL MOUNTED FAN COIL	0	962	454	-	-	8V	-	-	MERV 13	WATER	36.29	10.63	2.42	0.15	6.9	20.6	160	71.1	130	54.4	1
FC-09	4-PIPE HYDRONIC DUCTED FAN COIL	026 - Vestibule	620	293	0.5	124	HIGH	61	58	MERV 13	WATER	35.91	10.52	2.40	0.15	2.4	7.2	160	71.1	130	54.4	2
FC-10-1	4-PIPE HYDRONIC DUCTED FAN COIL	North Wall Vault Air Gap (1st Floor & 1st Mezz), North Wall Vault Air Gap (2nd Floor & 2nd Mezz)	1353	639	0.5	124	HIGH	61	58	MERV 13	WATER	73.74	21.61	5.00	0.32	10.2	30.5	160	71.1	130	54.4	2
FC-10-2	4-PIPE HYDRONIC DUCTED FAN COIL	North Wall Vault Air Gap (1st Floor & 1st Mezz), North Wall Vault Air Gap (2nd Floor & 2nd Mezz)	1353	639	0.5	124	HIGH	61	58	MERV 13	WATER	73.74	21.61	5.00	0.32	10.2	30.5	161	71.7	131	55.0	2
FC-11	4-PIPE HYDRONIC DUCTED FAN COIL	101 - Exist WC, 105 - Reception, 106 - Research Area	1743	823	0.5	124	HIGH	62	65	MERV 13	WATER	94.50	27.69	6.40	0.40	17.6	52.6	160	71.1	130	54.4	2
FC-12	4-PIPE HYDRONIC DUCTED FAN COIL	S01 - Main Stair	1048	495	0.5	124	HIGH	54	61	MERV 13	WATER	32.99	9.67	2.20	0.14	7.0	20.9	160	71.1	130	54.4	1
FC-13	4-PIPE HYDRONIC DUCTED FAN COIL	107 - Office	357	168	0.34	85	MED	51	54	MERV 13	WATER	12.41	3.64	0.80	0.05	1.0	3.0	160	71.1	130	54.4	1
FC-14	4-PIPE HYDRONIC DUCTED FAN COIL	108 - Office	357	168	0.34	85	MED	51	54	MERV 13	WATER	12.41	3.64	0.80	0.05	1.0	3.0	160	71.1	130	54.4	1
FC-15	4-PIPE HYDRONIC DUCTED FAN COIL	109 - Office	357	168	0.34	85	MED	51	54	MERV 13	WATER	12.41	3.64	0.80	0.05	1.0	3.0	160	71.1	130	54.4	1
FC-16	4-PIPE HYDRONIC DUCTED FAN COIL	110 - Office	357	168	0.34	85	MED	51	54	MERV 13	WATER	12.41	3.64	0.80	0.05	1.0	3.0	160	71.1	130	54.4	1
FC-17	4-PIPE HYDRONIC DUCTED FAN COIL	117 - Retrieval Room	357	168	0.34	85	MED	51	54	MERV 13	WATER	12.41	3.64	0.80	0.05	1.0	3.0	160	71.1	130	54.4	1
FC-18	4-PIPE HYDRONIC DUCTED FAN COIL	112 - Kitchen, 113 - Universal Toilet, 114 - WC	631	298	0.5	124	HIGH	54	58	MERV 13	WATER	33.91	9.94	2.30	0.14	2.0	6.0	160	71.1	130	54.4	2
FC-19	4-PIPE HYDRONIC DUCTED FAN COIL	111 - MPR Breakout	477	225	0.34	85	MED	49	53	MERV 13	WATER	17.07	5.00	1.20	0.08	2.0	6.0	160	71.1	130	54.4	1
FC-20-1	4-PIPE HYDRONIC DUCTED FAN COIL	102 - WC, 103 - Multi-Purpose, 104 - Cloak Room	1500	708	0.5	124	HIGH	62	65	MERV 13	WATER	49.44	14.49	3.30	0.21	17.7	52.9	160	71.1	130	54.4	1
FC-20-2	4-PIPE HYDRONIC DUCTED FAN COIL	102 - WC, 103 - Multi-Purpose, 104 - Cloak Room	1500	708	0.5	124	HIGH	62	65	MERV 13	WATER	49.44	14.49	3.30	0.21	17.7	52.9	160	71.1	130	54.4	1
FC-21-1	4-PIPE HYDRONIC DUCTED FAN COIL	201 - Staff, 202 - Archival Workspace	1380	651	0.5	124	HIGH	58	62	MERV 13	WATER	70.97	20.80	4.80	0.30	8.7	26.0	160	71.1	130	54.4	2
FC-21-2	4-PIPE HYDRONIC DUCTED FAN COIL	201 - Staff, 202 - Archival Workspace	1380	651	0.5	124	HIGH	58	62	MERV 13	WATER	70.97	20.80	4.80	0.30	8.7	26.0	160	71.1	130	54.4	2
FC-22	4-PIPE HYDRONIC DUCTED FAN COIL	216 - Office	383	181	0.34	85	MED	51	54	MERV 13	WATER	12.97	3.80	0.90	0.06	1.1	3.3	160	71.1	130	54.4	1
FC-23	4-PIPE HYDRONIC DUCTED FAN COIL	217 - Office	461	218	0.5	124	HIGH	56	58	MERV 13	WATER	24.27	7.11	1.60	0.10	1.0	3.0	160	71.1	130	54.4	2
FC-24	4-PIPE HYDRONIC DUCTED FAN COIL	214 - Office	357	168	0.34	85	MED	51	54	MERV 13	WATER	12.41	3.64	0.80	0.05	1.0	3.0	160	71.1	130	54.4	1
FC-25	4-PIPE HYDRONIC DUCTED FAN COIL	213 - Office	357	168	0.34	85	MED	51	54	MERV 13	WATER	12.41	3.64	0.80	0.05	1.0	3.0	160	71.1	130	54.4	1
FC-26	4-PIPE HYDRONIC DUCTED FAN COIL	212 - Office	357	168	0.34	85	MED	51	54	MERV 13	WATER	12.41	3.64	0.80	0.05	1.0	3.0	160	71.1	130	54.4	1
FC-27	4-PIPE HYDRONIC DUCTED FAN COIL	203 - Digitization Lab, 205 - Conservation Lab	756	357	0.3	75	MED	50	56	MERV 13	WATER	44.22	12.96	3.00	0.19	3.7	11.1	160	71.1	130	54.4	2
FC-28	4-PIPE HYDRONIC DUCTED FAN COIL	208 - Kitchen, 209 - Corridor, 210 - WC, 211 - Universal Toilet Room	1380	651	0.5	124	HIGH	58	62	MERV 13	WATER	70.97	20.80	4.80	0.30	8.7	26.0	160	71.1	130	54.4	2
FC-29	4-PIPE HYDRONIC DUCTED FAN COIL	207 - Staff Lounge	477	225	0.33	82	MED	49	53	MERV 13	WATER	17.07	5.00	1.20	0.08	2.0	6.0	160	71.1	130	54.4	1
FC-30	4-PIPE HYDRONIC DUCTED FAN COIL	220 - Office	353	167	0.33	82	MED	51	54	MERV 13	WATER	20.14	5.90	1.40	0.09	0.7	2.1	160	71.1	130	54.4	2
FC-31	4-PIPE HYDRONIC DUCTED FAN COIL	219 - Office	353	167	0.33	82	MED	51	54	MERV 13	WATER	20.14	5.90	1.40	0.09	0.7	2.1	160	71.1	130	54.4	2
FC-32	4-PIPE HYDRONIC DUCTED FAN COIL	218 - Office	353	167	0.33	82	MED	51	54	MERV 13	WATER	20.14	5.90	1.40	0.09	0.7	2.1	160	71.1	130	54.4	2
FC-33	4-PIPE HYDRONIC DUCTED FAN COIL	215 - Meeting Room	756	357	0.3	75	MED	50	56	MERV 13	WATER	26.95	7.90	1.80	0.11	5.1	15.2	160	71.1	130	54.4	1
FC-34	4-PIPE HYDRONIC DUCTED FAN COIL	CEILING PLENUM	1137	537	0.5	124	HIGH	-	64	MERV 13	WATER	45.82	13.43	3.30	0.21	5.3	15.8	160	71.1	130	54.4	2

FAN COIL SCHEDULE (CONTINUED)

TAG	COOLING COIL PERFORMANCE												ROWS	MOTOR					MAKE	MODEL	ACCESSORIES
	FLUID TYPE	TOTAL CAPACITY		SENSIBLE CAPACITY		FLOW		ΔP		EWT		LWT			TYPE	DRIVE	VOLT/PH	FLA	MCA			
		BTU/HR	KW	BTU/HR	KW	USGPM	L/S	FT	KPA	°F	°C	°F	°C									
FC-01	35% P.Glycol	30,538	8.95	25,802	7.56	6.5	0.41	4.2	12.5	44	6.7	54	12.2	3	ECM	DIRECT	208/1	5	5	CARRIER	42DEA14CRJY6CYER	
FC-02	35% P.Glycol	33,891	9.93	27,678	8.11	7.2	0.45	5.1	15.2	44	6.7	54	12.2	3	ECM	DIRECT	208/1	6	7	CARRIER	42DEA16CRJY6CYER	
FC-03	35% P.Glycol	10,818	3.17	9,372	2.75	2.3	0.14	1.2	3.6	44	6.7	54	12.2	4	ECM	DIRECT	208/1	2	2	CARRIER	42DEA06GRJY6CYER	
FC-04	35% P.Glycol	9,171	2.69	7,462	2.19	2.0	0.13	3.1	9.3	44	6.7	54	12.2	3	ECM	DIRECT	208/1	2	2	CARRIER	42DEA06CRJY6CYER	
FC-05	35% P.Glycol	16,400	4.81	13,392	3.92	3.5	0.22	3.2	9.6	44	6.7	54	12.2	3	ECM	DIRECT	208/1	3	4	CARRIER	42DEA10CRJY6CYER	
FC-06	35% P.Glycol	16,400	4.81	13,392	3.92	3.5	0.22	3.2	9.6	44	6.7	54	12.2	3	ECM	DIRECT	208/1	3	4	CARRIER	42DEA10CRJY6CYER	
FC-07	35% P.Glycol	9,171	2.69	7,462	2.19	2.0	0.13	3.1	9.3	44	6.7	54	12.2	3	ECM	DIRECT	208/1	2	2	CARRIER	42DEA06CRJY6CYER	
FC-08-1	35% P.Glycol	26,872	7.88	20,244	5.93	5.4	0.34	4.7	14.0	44	6.7	54	12.2	4	ECM	DIRECT	115/1	0	4	JAGA	BAMW- 06219022/FF/40	
FC-08-2	35% P.Glycol	26,872	7.88	20,244	5.93	5.4	0.34	4.7	14.0	44	6.7	54	12.2	4	ECM	DIRECT	115/1	0	4	JAGA	BAMW- 06219022/FF/40	
FC-09	35% P.Glycol	23,863	6.99	16,670	4.89	5.1	0.32	5.2	15.5	44	6.7	54	12.2	6	ECM	DIRECT	208/1	3	4	CARRIER	42DEA10RRJY6CYER	
FC-10-1	35% P.Glycol	49,777	14.59	35,311	10.35	10.6	0.67	6.6	19.7	44	6.7	54	12.2	6	ECM	DIRECT	208/1	6	7	CARRIER	42DEA16RRJY6CYER	
FC-10-2	35% P.Glycol	49,777	14.59	35,311	10.35	10.6	0.67	6.6	19.7	44	6.7	54	12.2	6	ECM	DIRECT	208/1	6	7	CARRIER	42DEA16RRJY6CYER	
FC-11	35% P.Glycol	42,599	12.48	33,637	9.86	9.1	0.57	12.3	36.8	44	6.7	54	12.2	3	ECM	DIRECT	208/1	7	7	CARRIER	42DEA20ERJY6CYER	
FC-12	35% P.Glycol	24,252	7.11	19,707	5.78	5.2	0.33	5.3	15.8	44	6.7	54	12.2	3	ECM	DIRECT	208/1	4	4	CARRIER	42DEA12CRJY6CYER	
FC-13	35% P.Glycol	12,413	3.64	9,062	2.66	2.7	0.17	2.1	6.3	44	6.7	54	12.2	6	ECM	DIRECT	208/1	2	2	CARRIER	42DEA06MRJY6CYER	
FC-14	35% P.Glycol	12,413	3.64	9,062	2.66	2.7	0.17	2.1	6.3	44	6.7	54	12.2	6	ECM	DIRECT	208/1	2	2	CARRIER	42DEA06MRJY6CYER	
FC-15	35% P.Glycol	12,413	3.64	9,062	2.66	2.7	0.17	2.1	6.3	44	6.7	54	12.2	6	ECM	DIRECT	208/1	2	2	CARRIER	42DEA06MRJY6CYER	
FC-16	35% P.Glycol	12,413	3.64	9,062	2.66	2.7	0.17	2.1	6.3	44	6.7	54	12.2	6	ECM	DIRECT	208/1	2	2	CARRIER	42DEA06MRJY6CYER	
FC-17	35% P.Glycol	12,413	3.64	9,062	2.66	2.7	0.17	2.1	6.3	44	6.7	54	12.2	6	ECM	DIRECT	208/1	2	2	CARRIER	42DEA06MRJY6CYER	
FC-18	35% P.Glycol	22,322	6.54	16,126	4.73	4.8	0.30	4.4	13.1	44	6.7	54	12.2	6	ECM	DIRECT	208/1	3	3	CARRIER	42DEA08RRJY6CYER	
FC-19	35% P.Glycol	17,902	5.25	12,644	3.71	3.8	0.24	3.5	10.5	44	6.7	54	12.2	6	ECM	DIRECT	208/1	3	3	CARRIER	42DEA08MRJY6CYER	
FC-20-1	35% P.Glycol	56,734	16.63	39,791	11.66	12.1	0.76	10.0	29.9	44	6.7	54	12.2	6	ECM	DIRECT	208/1	6	7	CARRIER	42DEA18MRJY6CYER	
FC-20-2	35% P.Glycol	56,734	16.63	39,791	11.66	12.1	0.76	10.0	29.9	44	6.7	54	12.2	6	ECM	DIRECT	208/1	6	7	CARRIER	42DEA18MRJY6CYER	
FC-21-1	35% P.Glycol	29,682	8.70	24,896	7.30	6.3	0.40	4.0	12.0	44	6.7	54	12.2	3	ECM	DIRECT	208/1	5	5	CARRIER	42DEA14ERJY6CYER	
FC-21-2	35% P.Glycol	29,682	8.70	24,896	7.30	6.3	0.40	4.0	12.0	44	6.7	54	12.2	3	ECM	DIRECT	208/1	5	5	CARRIER	42DEA14ERJY6CYER	
FC-22	35% P.Glycol	9,171	2.69	7,462	2.19	2.0	0.13	3.1	9.3	44	6.7	54	12.2	3	ECM	DIRECT	208/1	2	2	CARRIER	42DEA06CRJY6CYER	
FC-23	35% P.Glycol	15,164	4.44	11,321	3.32	3.2	0.20	2.5	7.5	44	6.7	54	12.2	6	ECM	DIRECT	208/1	2	2	CARRIER	42DEA06RRJY6CYER	
FC-24	35% P.Glycol	12,413	3.64	9,062	2.66	2.7	0.17	2.1	6.3	44	6.7	54	12.2	6	ECM	DIRECT	208/1	2	2	CARRIER	42DEA06MRJY6CYER	
FC-25	35% P.Glycol	12,413	3.64	9,062	2.66	2.7	0.17	2.1	6.3	44	6.7	54	12.2	6	ECM	DIRECT	208/1	2	2	CARRIER	42DEA06MRJY6CYER	
FC-26	35% P.Glycol	12,413	3.64	9,062	2.66	2.7	0.17	2.1	6.3	44	6.7	54	12.2	6	ECM	DIRECT	208/1	2	2	CARRIER	42DEA06MRJY6CYER	
FC-27	35% P.Glycol	30,151	8.84	20,763	6.09	6.4	0.40	7.4	22.1	44	6.7	54	12.2	6	ECM	DIRECT	208/1	4	4	CARRIER	42DEA12RRJY6CYER	
FC-28	35% P.Glycol	29,628	8.68	24,896	7.30	6.3	0.40	4.0	12.0	44	6.7	54	12.2	3	ECM	DIRECT	208/1	5	5	CARRIER	42DEA14ERJY6CYER	
FC-29	35% P.Glycol	17,902	5.25	12,644	3.71	3.8	0.24	3.5	10.5	44	6.7	54	12.2	6	ECM	DIRECT	208/1	3	3	CARRIER	42DEA08MRJY6CYER	
FC-30	35% P.Glycol	12,303	3.61	8,973	2.63	2.6	0.16	2.1	6.3	44	6.7	54	12.2	6	ECM	DIRECT	208/1	2	2	CARRIER	42DEA06RRJY6CYER	
FC-31	35% P.Glycol	12,303	3.61	8,973	2.63	2.6	0.16	2.1	6.3	44	6.7	54	12.2	6	ECM	DIRECT	208/1	2	2	CARRIER	42DEA06RRJY6CYER	
FC-32	35% P.Glycol	12,303	3.61	8,973	2.63	2.6	0.16	2.1	6.3	44	6.7	54	12.2	6	ECM	DIRECT	208/1	2	2	CARRIER	42DEA06RRJY6CYER	
FC-33	35% P.Glycol	30,151	8.84	20,763	6.09	6.4	0.40	7.4	22.1	44	6.7	54	12.2	6	ECM	DIRECT	208/1	4	4	CARRIER	42DEA12MRJY6CYER	
FC-34	35% P.Glycol	41,601	12.19	29,535	8.66	8.9	0.56	16.2	48.4	44	6.7	54	12.2	6	ECM	DIRECT	208/1	3	3	CARRIER	42DFA12RRJY6CYER	

AIR HANDLING UNIT SCHEDULE

TAG	SERVICE	PROCESS AIR FAN PERFORMANCE				REACTIVATION AIR FAN PERFORMANCE				FILTER TYPE	HEATING COIL PERFORMANCE										
		AIRFLOW		E.S.P.		AIRFLOW		E.S.P.			FLUID TYPE	CAPACITY		FLOW		ΔP		EWT		LWT	
		CFM	L/S	IN.W.C.	PA	CFM	L/S	IN.W.C.	PA			MBH	KW	USGPM	L/S	FT	KPA	°F	°C	°F	°C
AHU-1	VAULT	7,500	3,539	1	250	2,119	1,000	1	250	MERV 8	35% P. GLYCOL	620	181.6	47.20	2.98	1.94	5.8	150	65.6	120	48.9

AIR HANDLING UNIT SCHEDULE (CONTINUED)

TAG	COOLING PERFORMANCE				ELECTRICAL				MAKE/MODEL	OPTIONS	COMMENTS
	TYPE	CAPACITY			FLA	MCA	MOCP	VOLT/PH			
		MBH	TONS	REFRIGERANT							
AHU-1	DX	315	26.3	R-410A	158.26 A	197.83 A	200 A	575/3/60	FISAIR DFLEX 1700E		MINIMUM VENTILATION: 600 CFM OUTSIDE AIR

ISSUED FOR CONSTRUCTION

ENGINEERS GEOSCIENTISTS MANITOBA
Certificate of Authorization
Alliance Engineering Services Inc.
No.2906

Alliance ENGINEERING SERVICES INC

PROVINCE OF MANITOBA
T.A. URQUHART
Member
33109
2025-01-30
REGISTERED PROFESSIONAL ENGINEER

drawn by
LM
approved by
IU
date
31 JAN 2025

mcm architects inc.
141 ST.ANNE'S ROAD, WINNIPEG, MANITOBA, R2M 2Z3
260-8th STREET, BRANDON, MANITOBA, R7A 3X3

CITY ARCHIVES BUILDING REDEVELOPMENT
380 WILLIAM AVENUE, WINNIPEG, MANITOBA

project
2624
sheet no.
M5.1

HYDRONIC BASEBOARD HEATERS

TAG	AREA SERVED	FAN COIL	CAPACITY		FLOW RATE		AWT		ΔP		WORKING	ELEMENT LENGTH		ELEMENT				ENCLOSURE			MIN ENCLOSURE LENGTH		MAKE	ENCLOSURE MODEL	ELEMENT MODEL	COMMENTS
			BTU/HR	KW	USGPM	L/S	(°F)	(°C)	FT	KPA	FLUID	FT	mm	FIN SIZE	TUBE DIAMETER	FIN SPACING	ROWS	TYPE	DEPTH	HEIGHT	FT	mm				
BB-003-1	003	FC-03	9,051	2.7	2.0	0.13	145	62.8	0.08	0.2	HOT WATER	7	2133.6	4-1/4" x 4-1/4"	3/4"	50	3	BARE FIN	-	-	-	-	VULCAN	-	VC3/4-45	
BB-103-1	103	FC-20-1, FC-20-2	28,446	8.3	2.0	0.13	145	62.8	0.24	0.7	HOT WATER	22	6705.6	4-1/4" x 4-1/4"	3/4"	50	3	BARE FIN	-	-	-	-	VULCAN	-	VC3/4-45	
BB-103-2	103	FC-20-1, FC-20-2	29,093	8.5	2.0	0.13	145	62.8	0.25	0.7	HOT WATER	22.5	6858	4-1/4" x 4-1/4"	3/4"	50	3	BARE FIN	-	-	-	-	VULCAN	-	VC3/4-45	
BB-103-3	103	FC-20-1, FC-20-2	11,637	3.4	2.0	0.13	145	62.8	0.10	0.3	HOT WATER	9	2743.2	4-1/4" x 4-1/4"	3/4"	50	3	BARE FIN	-	-	-	-	VULCAN	-	VC3/4-45	
BB-104-1	104	FC-20-1, FC-20-2	7,758	2.3	2.0	0.13	145	62.8	0.07	0.2	HOT WATER	6	1828.8	4-1/4" x 4-1/4"	3/4"	50	3	BARE FIN	-	-	-	-	VULCAN	-	VC3/4-45	
BB-106-1	106	FC-11	14,223	4.2	2.0	0.13	145	62.8	0.12	0.4	HOT WATER	11	3352.8	4-1/4" x 4-1/4"	3/4"	50	3	BARE FIN	-	-	-	-	VULCAN	-	VC3/4-45	
BB-107-1	107	FC-13	9,698	2.8	2.0	0.13	145	62.8	0.08	0.2	HOT WATER	7.5	2286	4-1/4" x 4-1/4"	3/4"	50	3	BARE FIN	-	-	-	-	VULCAN	-	VC3/4-45	
BB-107-2	107	FC-13	11,637	3.4	2.0	0.13	145	62.8	0.10	0.3	HOT WATER	9	2743.2	4-1/4" x 4-1/4"	3/4"	50	3	BARE FIN	-	-	-	-	VULCAN	-	VC3/4-45	
BB-108-1	108	FC-14	10,344	3.0	2.0	0.13	145	62.8	0.09	0.3	HOT WATER	8	2438.4	4-1/4" x 4-1/4"	3/4"	50	3	BARE FIN	-	-	-	-	VULCAN	-	VC3/4-45	
BB-109-1	109	FC-15	12,284	3.6	2.0	0.13	145	62.8	0.10	0.3	HOT WATER	9.5	2895.6	4-1/4" x 4-1/4"	3/4"	50	3	BARE FIN	-	-	-	-	VULCAN	-	VC3/4-45	
BB-110-1	110	FC-16	12,930	3.8	2.0	0.13	145	62.8	0.11	0.3	HOT WATER	10	3048	4-1/4" x 4-1/4"	3/4"	50	3	BARE FIN	-	-	-	-	VULCAN	-	VC3/4-45	
BB-111-1	111	FC-19	16,163	4.7	2.0	0.13	145	62.8	0.14	0.4	HOT WATER	12.5	3810	4-1/4" x 4-1/4"	3/4"	50	3	BARE FIN	-	-	-	-	VULCAN	-	VC3/4-45	
BB-113-1	113	FC-18	5,172	1.5	2.0	0.13	145	62.8	0.04	0.1	HOT WATER	4	1219.2	4-1/4" x 4-1/4"	3/4"	50	3	Front & Top Outlet	5-5/16"	24"	8	2438.4	VULCAN	LV4-FT24	VC3/4-45	
BB-114-1	114	FC-18	1,293	0.4	2.0	0.13	145	62.8	0.01	0.0	HOT WATER	1	304.8	4-1/4" x 4-1/4"	3/4"	50	3	BARE FIN	-	-	-	-	VULCAN	-	VC3/4-45	
BB-116-1	116	FC-08	1,940	0.6	2.0	0.13	145	62.8	0.02	0.0	HOT WATER	1.5	457.2	4-1/4" x 4-1/4"	3/4"	50	3	Front & Top Outlet	5-5/16"	24"	5.5	1676.4	VULCAN	LV4-FT24	VC3/4-45	
BB-117-1	117	FC-17	13,577	4.0	2.0	0.13	145	62.8	0.11	0.3	HOT WATER	10.5	3200.4	4-1/4" x 4-1/4"	3/4"	50	3	BARE FIN	-	-	-	-	VULCAN	-	VC3/4-45	
BB-203-1	203	FC-27	16,163	4.7	2.0	0.13	145	62.8	0.14	0.4	HOT WATER	12.5	3810	4-1/4" x 4-1/4"	3/4"	50	3	BARE FIN	-	-	-	-	VULCAN	-	VC3/4-45	
BB-205-1	205	FC-27	17,456	5.1	2.0	0.13	145	62.8	0.15	0.4	HOT WATER	13.5	4114.8	4-1/4" x 4-1/4"	3/4"	50	3	BARE FIN	-	-	-	-	VULCAN	-	VC3/4-45	
BB-207-1	207	FC-29	16,163	4.7	2.0	0.13	145	62.8	0.14	0.4	HOT WATER	12.5	3810	4-1/4" x 4-1/4"	3/4"	50	3	BARE FIN	-	-	-	-	VULCAN	-	VC3/4-45	
BB-210-1	210	FC-28	1,293	0.4	2.0	0.13	145	62.8	0.01	0.0	HOT WATER	1	304.8	4-1/4" x 4-1/4"	3/4"	50	3	BARE FIN	-	-	-	-	VULCAN	-	VC3/4-45	
BB-211-1	211	FC-28	5,819	1.7	2.0	0.13	145	62.8	0.05	0.1	HOT WATER	4.5	1371.6	4-1/4" x 4-1/4"	3/4"	50	3	Front & Top Outlet	5-5/16"	24"	8.5	2590.8	VULCAN	LV4-FT24	VC3/4-45	
BB-212-1	212	FC-26	9,051	2.7	2.0	0.13	145	62.8	0.08	0.2	HOT WATER	7	2133.6	4-1/4" x 4-1/4"	3/4"	50	3	BARE FIN	-	-	-	-	VULCAN	-	VC3/4-45	
BB-213-1	213	FC-25	9,698	2.8	2.0	0.13	145	62.8	0.08	0.2	HOT WATER	7.5	2286	4-1/4" x 4-1/4"	3/4"	50	3	BARE FIN	-	-	-	-	VULCAN	-	VC3/4-45	
BB-214-1	214	FC-24	12,284	3.6	2.0	0.13	145	62.8	0.10	0.3	HOT WATER	9.5	2895.6	4-1/4" x 4-1/4"	3/4"	50	3	BARE FIN	-	-	-	-	VULCAN	-	VC3/4-45	
BB-215-1	215	FC-33	14,870	4.4	2.0	0.13	145	62.8	0.13	0.4	HOT WATER	11.5	3505.2	4-1/4" x 4-1/4"	3/4"	50	3	BARE FIN	-	-	-	-	VULCAN	-	VC3/4-45	
BB-215-2	215	FC-33	12,284	3.6	2.0	0.13	145	62.8	0.10	0.3	HOT WATER	9.5	2895.6	4-1/4" x 4-1/4"	3/4"	50	3	BARE FIN	-	-	-	-	VULCAN	-	VC3/4-45	
BB-216-1	216	FC-22	9,051	2.7	2.0	0.13	145	62.8	0.08	0.2	HOT WATER	7	2133.6	4-1/4" x 4-1/4"	3/4"	50	3	BARE FIN	-	-	-	-	VULCAN	-	VC3/4-45	
BB-217-1	217	FC-23	12,284	3.6	2.0	0.13	145	62.8	0.10	0.3	HOT WATER	9.5	2895.6	4-1/4" x 4-1/4"	3/4"	50	3	BARE FIN	-	-	-	-	VULCAN	-	VC3/4-45	
BB-217-2	217	FC-23	12,284	3.6	2.0	0.13	145	62.8	0.10	0.3	HOT WATER	9.5	2895.6	4-1/4" x 4-1/4"	3/4"	50	3	BARE FIN	-	-	-	-	VULCAN	-	VC3/4-45	
BB-218-1	218	FC-32	12,284	3.6	2.0	0.13	145	62.8	0.10	0.3	HOT WATER	9.5	2895.6	4-1/4" x 4-1/4"	3/4"	50	3	BARE FIN	-	-	-	-	VULCAN	-	VC3/4-45	
BB-219-1	219	FC-31	12,930	3.8	2.0	0.13	145	62.8	0.11	0.3	HOT WATER	10	3048	4-1/4" x 4-1/4"	3/4"	50	3	BARE FIN	-	-	-	-	VULCAN	-	VC3/4-45	
BB-220-1	220	FC-30	12,930	3.8	2.0	0.13	145	62.8	0.11	0.3	HOT WATER	10	3048	4-1/4" x 4-1/4"	3/4"	50	3	BARE FIN	-	-	-	-	VULCAN	-	VC3/4-45	
BB-S02-1M-1	S02-1M	FC-08	4,526	1.3	2.0	0.13	145	62.8	0.04	0.1	HOT WATER	3.5	1066.8	4-1/4" x 4-1/4"	3/4"	50	3	Front & Top Outlet	5-5/16"	24"	7.5	2286	VULCAN	LV4-FT24	VC3/4-45	
BB-S02-2-1	S02-2	FC-08	4,526	1.3	2.0	0.13	145	62.8	0.04	0.1	HOT WATER	3.5	1066.8	4-1/4" x 4-1/4"	3/4"	50	3	Front & Top Outlet	5-5/16"	24"	7.5	2286	VULCAN	LV4-FT24	VC3/4-45	
BB-S02-2M-1	S02-2M	FC-08	4,526	1.3	2.0	0.13	145	62.8	0.04	0.1	HOT WATER	3.5	1066.8	4-1/4" x 4-1/4"	3/4"	50	3	Front & Top Outlet	5-5/16"	24"	7.5	2286	VULCAN	LV4-FT24	VC3/4-45	

HYDRONIC FORCE FLOW SCHEDULE

TAG	AREA SERVED	MODEL STYLE	HEATING PERFORMANCE													FAN PERFORMANCE			MOTOR			DIMENSIONS	ACCESSORIES	MAKE/MODEL	COMMENTS
			FLUID TYPE	REQ'D CAPACITY		CAPACITY		FLOW		ΔP		EWT		LWT		NO. OF	AIRFLOW		FAN	SIZE		VOLT/PH				
				MBH	KW	MBH	KW	USGPM	L/S	FT	KPA	°F	°C	°F	°C	ROWS	CFM	L/S	SETTING	HP	W					
FF-100-1	100	SLOPED TOP FLOOR MOUNT HYDRONIC FORCE FLOW	HOT WATER	23.17	6.8	26.50	7.8	1.7	0.11	0.12	0.4	160	71.1	130	54.4	2	420	198	HIGH	1/10	74.6	115/1/60	47" x 25" x 9.5"	LOUVERED INLET GRILLE, 14 GA PANEL	VULCAN / FS-1005-04	
FF-100-2	100	SLOPED TOP FLOOR MOUNT HYDRONIC FORCE FLOW	HOT WATER	23.17	6.8	26.50	7.8	1.7	0.11	0.12	0.4	160	71.1	130	54.4	2	420	198	HIGH	1/10	74.6	115/1/60	47" x 25" x 9.5"	LOUVERED INLET GRILLE, 14 GA PANEL	VULCAN / FS-1005-04	
FF-S02-1-1	S02-1	SLOPED TOP FLOOR MOUNT HYDRONIC FORCE FLOW	HOT WATER	21.77	6.4	26.50	7.8	1.7	0.11	0.12	0.4	160	71.1	130	54.4	2	420	198	HIGH	1/10	74.6	115/1/60	47" x 25" x 9.5"	LOUVERED INLET GRILLE, 14 GA PANEL	VULCAN / FS-1005-04	
FF-S02-1-2	S02-1	SLOPED TOP FLOOR MOUNT HYDRONIC FORCE FLOW	HOT WATER	21.77	6.4	26.50	7.8	1.7	0.11	0.12	0.4	160	71.1	130	54.4	2	420	198	HIGH	1/10	74.6	115/1/60	47" x 25" x 9.5"	LOUVERED INLET GRILLE, 14 GA PANEL	VULCAN / FS-1005-04	
FF-S03-B-1	S03-B	SLOPED TOP FLOOR MOUNT HYDRONIC FORCE FLOW	HOT WATER	14.73	4.3	20.26	5.9	1.3	0.08	0.06	0.2	160	71.1	130	54.4	2	330	156	HIGH	1/15	49.7	115/1/60	43" x 25" x 9.5"	LOUVERED INLET GRILLE, 14 GA PANEL	VULCAN / FS-1005-03	
FF-S01-2-1	S01-2	SLOPED TOP FLOOR MOUNT HYDRONIC FORCE FLOW	HOT WATER	33.40	9.8	35.49	10.4	2.6	0.17	0.30	0.9	160	71.1	130	54.4	2	505	238	LOW	1/10	74.6	115/1/60	59" x 25" x 9.5"	LOUVERED INLET GRILLE, 14 GA PANEL	VULCAN / FS-1005-06	
FF-S01-2-1	S01-2	SLOPED TOP FLOOR MOUNT HYDRONIC FORCE FLOW	HOT WATER	33.40	9.8	35.49	10.4	2.6	0.17	0.30	0.9	160	71.1	130	54.4	2	505	238	LOW	1/10	74.6	115/1/60	59" x 25" x 9.5"	LOUVERED INLET GRILLE, 14 GA PANEL	VULCAN / FS-1005-06	

AIR-COOLED CHILLER SCHEDULE

TAG	DESCRIPTION	DESIGN CAPACITY	WORKING	LWT		EWT		FLOW RATE		ΔP (COOLING)		ΔP (FREE COOLING)		COMPRESSORS		REFRIGERANT	SOUND POWER	ELECTRICAL				EMPTY WEIGHT		MAKE/MODEL	OPTIONS/ACCESSORIES
		TONS	FLUID	°F	°C	°F	°C	USGPM	L/S	FT	KPA	FT	KPA	TYPE	QTY		LEVEL	VOLTS/PH	LRA	MCA	MOP	LBS	KG		
CH-01	AIR COOLED CHILLER W/ FREE COOLING	81.79	35% P. Glycol	44	6.7	54	12.2	211.2	13.32	22.70	67.9	43.30	129.4	SCROLL	4	R454B	90.1 dB(A)	575/3	330	175	175	7,231	3,286.9	AERMEC NYG1000XF**J800"	ANTI-VIBRATION SUPPORTS, ANTI-INTRUSION GRILLE

ERV SCHEDULE

TAG	DESCRIPTION	LOCATION	SUPPLY & EXHAUST FAN						SENSIBLE EFFECTIVENESS		VOLTAGE	MANUFACTURER	MODEL	COMMENTS
			AIRFLOW		E.S.P.		MOTOR							
			CFM	L/S	IN.W.C.	PA	HP	KW	WINTER	SUMMER	V/HZ/PH			
ERV-01	DUAL CORE ENERGY RECOVERY VENTILATOR	MECHANICAL ROOM	3,500	1,652	1.5	373.3	3 (x2)	2.2	89%	61%	575/60/3	SOLUTION AIR	PRC3500	

ELECTRIC BOILER SCHEDULE

TAG	CAPACITY		LWT		ΔT		FLOW RATE		ΔP		WORKING	FLA	CONTROL STEPS	VOLT/PH	MAKE/MODEL	COMMENTS
	MBH	KW	(°F)	(°C)	(°F)	(°C)	USGPM	L/S	FT	KPA	FLUID					
B-01	2,252	660	160	71.1	30	-1.1	150	9.46	2.31	6.9	WATER	636.0	2 @ 30, 10 @ 60	575V/3PH/60Hz	CLEAVER BROOKS WB-241-660KW	PROVIDE BOILER PLANT CONTROLLER, REFER TO SPECIFICATION

CONDENSING GAS BOILER SCHEDULE

TAG	TYPE	FUEL	INPUT		OUTPUT		LWT		ΔT		FLOW RATE		ΔP		TURNDOWN	VOLT/PH	MAKE/MODEL	COMMENTS
			MBH	KW	MBH	KW	°F	°C	°F	°C	USGPM	L/S	FT	KPA				
B-02	CONDENSING N.GAS FIRED BOILER	NATURAL GAS	2,500	733	2,350	689	160	71.1	30	16.6	150	9.47	2.31	6.9	5:1	115V/1PH/60HZ	CLEAVER BROOKS CFC-E-2500	PROVIDE BOILER PLANT CONTROLLER, REFER TO SPECIFICATION

ISSUED FOR CONSTRUCTION

ENGINEERS GEOSCIENTISTS MANITOBA
Certificate of Authorization
Alliance Engineering Services Inc.
No.2906

Alliance ENGINEERING SERVICES INC

PROVINCE OF MANITOBA
I. A. URQUHART
Member
33109
2025-01-30
REGISTERED PROFESSIONAL ENGINEER

drawn by
LM

approved by
IU

date
31 JAN 2025

mcm architects inc.
141 ST.ANNE'S ROAD, WINNIPEG, MANITOBA, R2M 2Z3
260-8th STREET, BRANDON, MANITOBA, R7A 3X3

CITY ARCHIVES BUILDING REDEVELOPMENT
380 WILLIAM AVENUE, WINNIPEG, MANITOBA

project
2624

sheet no.
M5.2

DUCT MOUNTED COILS SCHEDULE

TAG	SERVICE	AIRSIDE												COIL PERFORMANCE										MANUFACTURER	MODEL	COMMENTS
		AIRFLOW		EAT (DB)		EAT (WB)		LAT (DB)		LAT (WB)		ΔP		FLUID TYPE	CAPACITY		FLOW		ΔP		EWT		LWT				
		CFM	L/S	°F	°C	°F	°C	°F	°C	°F	°C	IN	KPA		MBH	KW	USGPM	L/S	FT	KPA	°F	°C	°F	°C			
CC-01	ERV-01 GLYCOL COOLING COIL	3,500	1,652	79.7	26.5	71	21.7	54.9	12.7	54.7	12.6	0.89	0.2	35% P. GLYCOL	191.5	56.1	38.2	2.41	11.3	33.8	44	6.7	54	12.2	GREENHECK	CW58S06H09-30x34	PROVIDE SS CONDENSATE PAN PIPED TO NEAREST FLOOR DRAIN
HC-01	ERV-01 GLYCOL HEATING COIL	3,500	1,652	55	12.8	-	-	74.3	23.5	-	-	0.1	0.0	35% P. GLYCOL	73	21.4	5.2	0.33	4.6	13.7	150	65.6	120	48.9	GREENHECK	HW58S01B09-30x34	

HYDRONIC UNIT HEATER SCHEDULE

TAG	DESCRIPTION	SERVICE	FAN COIL	FAN PERFORMANCE			HEATING COIL PERFORMANCE										MOTOR				MAKE/ MODEL	COMMENTS
				AIRFLOW		FAN	FLUID TYPE	REQ'D CAP	CAPACITY		FLOW		ΔP		EWT		LWT		SIZE		ELECTRICAL			
				CFM	L/S	SPEED		MBH	MBH	KW	USGPM	L/S	FT	KPA	°F	°C	°F	°C	HP	KW	VOLTAGE	FLA		
UH-001-1	HORIZONTAL HYDRONIC UNIT HEATER	001	FC-01	750	354	LOW	HOT WATER	18.10	18.5	5.42	1.2	0.08	1.20	3.6	160	71.1	130	54.4	1/20	0.04	115/60/1	1.4	VULCAN HV-136A	
UH-001-2	HORIZONTAL HYDRONIC UNIT HEATER	001	FC-01	750	354	LOW	HOT WATER	18.10	18.5	5.42	1.2	0.08	1.20	3.6	160	71.1	130	54.4	1/20	0.04	115/60/1	1.4	VULCAN HV-136A	
UH-002-1	HORIZONTAL HYDRONIC UNIT HEATER	002	FC-01	420	198	LOW	HOT WATER	5.30	9.0	2.63	0.6	0.04	0.88	2.6	160	71.1	130	54.4	2/93	0.02	115/60/1	0.8	VULCAN HV-118A	
UH-005-1	HORIZONTAL HYDRONIC UNIT HEATER	005	FC-03	420	198	LOW	HOT WATER	8.80	9.0	2.63	0.6	0.04	0.88	2.6	160	71.1	130	54.4	2/93	0.02	115/60/1	0.8	VULCAN HV-118A	
UH-007-1	HORIZONTAL HYDRONIC UNIT HEATER	007	FC-02	700	330	LOW	HOT WATER	19.15	22.4	6.58	1.5	0.09	0.07	0.2	160	71.1	130	54.4	1/20	0.04	115/60/1	1.4	VULCAN HV-60	
UH-007-2	HORIZONTAL HYDRONIC UNIT HEATER	007	FC-02	700	330	LOW	HOT WATER	19.15	22.4	6.58	1.5	0.09	0.07	0.2	160	71.1	130	54.4	1/20	0.04	115/60/1	1.4	VULCAN HV-60	
UH-008-1	HORIZONTAL HYDRONIC UNIT HEATER	008	FC-02	700	330	LOW	HOT WATER	21.70	22.4	6.58	1.5	0.09	0.07	0.2	160	71.1	130	54.4	1/20	0.04	115/60/1	1.4	VULCAN HV-60	
UH-008-2	HORIZONTAL HYDRONIC UNIT HEATER	008	FC-02	700	330	LOW	HOT WATER	21.70	22.4	6.58	1.5	0.09	0.07	0.2	160	71.1	130	54.4	1/20	0.04	115/60/1	1.4	VULCAN HV-60	
UH-009-1	HORIZONTAL HYDRONIC UNIT HEATER	009	FC-01	210	99	LOW	HOT WATER	0.80	3.9	1.14	0.3	0.02	0.32	1.0	160	71.1	130	54.4	2/93	0.02	115/60/1	0.8	VULCAN HV-108A	
UH-010-1	HORIZONTAL HYDRONIC UNIT HEATER	010	FC-01	750	354	LOW	HOT WATER	15.45	18.5	5.42	1.2	0.08	1.20	3.6	160	71.1	130	54.4	1/20	0.04	115/60/1	1.4	VULCAN HV-136A	
UH-010-2	HORIZONTAL HYDRONIC UNIT HEATER	010	FC-01	750	354	LOW	HOT WATER	15.45	18.5	5.42	1.2	0.08	1.20	3.6	160	71.1	130	54.4	1/20	0.04	115/60/1	1.4	VULCAN HV-136A	
UH-016-1	HORIZONTAL HYDRONIC UNIT HEATER	016	FC-05	460	217	LOW	HOT WATER	9.60	12.2	3.56	0.8	0.05	0.88	2.6	160	71.1	130	54.4	1/30	0.03	115/60/1	1.2	VULCAN HV-125A	
UH-018-1	HORIZONTAL HYDRONIC UNIT HEATER	018	FC-07	210	99	LOW	HOT WATER	0.70	3.9	1.14	0.3	0.02	0.32	1.0	160	71.1	130	54.4	2/93	0.02	115/60/1	0.8	VULCAN HV-108A	
UH-019-1	HORIZONTAL HYDRONIC UNIT HEATER	019	MECH/ELEC	700	330	LOW	HOT WATER	20.80	22.4	6.58	1.5	0.09	0.07	0.2	160	71.1	130	54.4	1/20	0.04	115/60/1	1.4	VULCAN HV-60	
UH-020-1	HORIZONTAL HYDRONIC UNIT HEATER	020	MECH/ELEC	950	448	LOW	HOT WATER	24.70	26.9	7.88	1.8	0.11	0.09	0.3	160	71.1	130	54.4	1/20	0.04	115/60/1	1.4	VULCAN HV-72	
UH-021-1	HORIZONTAL HYDRONIC UNIT HEATER	021	FC-06	210	99	LOW	HOT WATER	0.80	3.9	1.14	0.3	0.02	0.32	1.0	160	71.1	130	54.4	2/93	0.02	115/60/1	0.8	VULCAN HV-108A	
UH-027-1	HORIZONTAL HYDRONIC UNIT HEATER	027	MECH/ELEC	750	354	LOW	HOT WATER	17.70	18.5	5.42	1.2	0.08	1.20	3.6	160	71.1	130	54.4	1/20	0.04	115/60/1	1.4	VULCAN HV-136A	
UH-119-1-1	HORIZONTAL HYDRONIC UNIT HEATER	119-1	FC-05	210	99	LOW	HOT WATER	10.80	3.9	1.14	0.3	0.02	0.32	1.0	160	71.1	130	54.4	2/93	0.02	115/60/1	0.8	VULCAN HV-108A	
UH-119-B-1	HORIZONTAL HYDRONIC UNIT HEATER	119-B	FC-05	210	99	LOW	HOT WATER	6.40	3.9	1.14	0.3	0.02	0.32	1.0	160	71.1	130	54.4	2/93	0.02	115/60/1	0.8	VULCAN HV-108A	

ELECTRIC DHWT SCHEDULE

TAG	VOLUME		INPUT	RECOVERY RATE		ELECTRICAL		MAKE/MODEL	COMMENTS
	USGAL	L	KW	USGAL/HR	L/HR	VOLTS/PH	AMPS		
DHWT-01	80	303	9	37	140	575/3	9	AO SMITH DRE-80-9	

FAN SCHEDULE

TAG	DESCRIPTION	SERVICE	PERFORMANCE									MOTOR						ACCESSORIES	MAKE/MODEL	COMMENTS
			AIRFLOW		E.S.P.		FAN	BHP		SONES	SIZE	TYPE	ENCLOSURE	RPM	DRIVE	VOLT/PH	FLA			
			CFM	L/S	IN.W.C.	PA	RPM	HP	KW	INLET	HP	KW								
EF-1	ROOFTOP UPBLAST EXHAUST FAN	SMUDGING VENTILATION	225	106	0.7	175	1,410	0.07	0.05	6.1	1/4	0.19	EC	TENV	1725	DIRECT	115/60/1	2.85	24" MIN RAISED CANTED ROOF CURB, TIMER IN OCCUPIED SPACE (REFER TO CONTROLS SPECIFICATION)	GREENHECK CUE-100HP-VG	

HEAT EXCHANGER SCHEDULE

TAG	SERVICE	TYPE	PLATE CONSTRUCTION		PRIMARY FLUID								SECONDARY FLUID								EXCESS SURFACE	MAKE/MODEL	ACCESSORIES
					FLUID	FLOW		ΔP		EWT		LWT		FLUID TYPE	FLOW		ΔP		EWT		LWT				
			MATERIAL	THICKNESS	TYPE	USGPM	L/S	PSI	KPA	°F	°C	°F	°C		USGPM	L/S	PSI	KPA	°F	°C	°F	°C			
HX-01	HYDRONIC HEATING	PLATE & FRAME HEAT EXCHANGER	316 SS	0.50 mm	WATER	52.33	3.30	0.88	6.1	160	71.1	130	54.4	35% P.GLYCOL	55	3.47	1.05	7.2	120	48.9	150	65.6	0.18%	BELL & GOSSETT GPX AP19	REMOVABLE INSULATION BLANKET CONSTRUCTION SHALL BE A DOUBLE SEWN LOCK STITCH WITH A MINIMUM OF 4 STITCHES PER INCH. ALL JACKET EDGES WILL HAVE A TRI-FOLD SILICON OR PTFE TEFLON FIBERGLASS CLOTH BINDING. NO RAW CUT OUT JACKET EDGE WILL BE EXPOSED. STITCHING WILL BE DONE WITH TEFLON COATED FIBERGLASS THREAD. FASTENERS TO BE WIRE TIE OR VELCRO FLAPS. 1 " THICK INSULATION WITH AN R-VALUE OF 4.75 @ 75F.

EXPANSION TANK SCHEDULE

TAG	LOCATION	SYSTEM SERVED	TYPE	DIAMETER		HEIGHT		TANK VOLUME	ACCEPTANCE VOLUME		WORKING FLUID	MAKE/MODEL	COMMENTS
				IN.	mm	IN.	mm	USGAL	L	USGAL	L			
ET-01	MECHANICAL ROOM	HYDRONIC HEATING (WATER)	FULL ACCEPTANCE BLADDER	24	609.6	52	1320.8	80	303	52.00	197	HOT WATER	AMTROL EXTROL 300-L	
ET-02	MECHANICAL ROOM	HYDRONIC HEATING (GLYCOL)	FULL ACCEPTANCE BLADDER	24	609.6	38	965.2	53	201	34.50	131	35% P.GLYCOL	AMTROL EXTROL 200-L	
ET-03	MECHANICAL ROOM	HYDRONIC COOLING	FULL ACCEPTANCE BLADDER	24	609.6	38	965.2	53	201	34.50	131	35% P.GLYCOL	AMTROL EXTROL 200-L	
BT-01	MECHANICAL ROOM	HYDRONIC COOLING	CHILLED WATER BUFFER TANK	24	609.6	55.25	1403.35	120	454	-	-	35% P.GLYCOL	AMTROL CWBT 120-4	

PUMP SCHEDULE

TAG	SERVICE	WORKING FLUID	PERFORMANCE							MOTOR					MAKE	MODEL	OPTIONS	COMMENTS
			FLOW		HEAD		POWER		EFF.	SIZE		SPEED	VOLTS/ PH	TYPE				
			USGPM	L/S	FT	KPA	HP	KW	%	HP	KW	RPM						
HYDRONIC																		
BP-01	ELECTRIC BOILER CIRCULATION PUMP	WATER	150	56.2	15	45	0.79	0.6	71.74	1	0.7	1760	575/3/60	TEFC	ARMSTRONG	4380 3x3x6-4p-1 hp		
BP-02	N. GAS BOILER CIRCULATION PUMP	WATER	150	56.2	15	45	0.79	0.6	72.17	1	0.7	1760	575/3/60	TEFC	ARMSTRONG	4380 3x3x6-4p-1 hp-PD	PUMP MANUFACTURER SUPPLIED VFD	
CP-01	HYDRONIC CIRCULATION PUMP - HEATING	WATER	250	93.7	70	209	5.68	4.2	79.44	7.5	5.6	3960	575/3/60	TEFC	ARMSTRONG	4380 2505-007.5		
CP-02	HYDRONIC CIRCULATION PUMP - HEATING	WATER	250	93.7	70	209	5.68	4.2	79.44	7.5	5.6	3960	575/3/60	TEFC	ARMSTRONG	4380 2505-007.5		
GP-01	GLYCOL CIRCULATION PUMP - HEATING	35% P. GLYCOL	55	20.6	45	135	0.96	0.7	63.51	1.5	1.1	3960	575/3/60	TEFC	ARMSTRONG	4380 1205-001.5		
GP-02	GLYCOL CIRCULATION PUMP - HEATING	35% P. GLYCOL	55	20.6	45	135	0.96	0.7	63.51	1.5	1.1	3960	575/3/60	TEFC	ARMSTRONG	4380 1205-001.5		
CWP-01	HYDRONIC CIRCULATION PUMP - COOLING	35% P. GLYCOL	215	80.6	110	329	7.68	5.7	78.68	10	7.5	3960	575/3/60	TEFC	ARMSTRONG	4380 0205-010.0		
CWP-02	HYDRONIC CIRCULATION PUMP - COOLING	35% P. GLYCOL	215	80.6	110	329	7.68	5.7	78.68	10	7.5	3960	575/3/60	TEFC	ARMSTRONG	4380 0205-010.0		
PLUMBING																		
RP-01	DOMESTIC HOT WATER RECIRCULATING PUMP	WATER	10	3.7	10	30		0.0		1/25	0.03		115/1/60		TACO	008-IQSF6-IFC		
CON-01	FC-01 CONDENSATE PUMP	CONDENSATE	1	0.4	10	30		0.0		1/30	0.02		115/1/60		LITTLE GIANT	VCMA-20ULS-C-PRO		
CON-02	FC-02 CONDENSATE PUMP	CONDENSATE	1	0.4	10	30		0.0		1/30	0.02		115/1/60		LITTLE GIANT	VCMA-20ULS-C-PRO		
CON-03	FC-03 CONDENSATE PUMP	CONDENSATE	1	0.4	10	30		0.0		1/30	0.02		115/1/60		LITTLE GIANT	VCMA-20ULS-C-PRO		
CON-04	FC-04 CONDENSATE PUMP	CONDENSATE	1	0.4	10	30		0.0		1/30	0.02		115/1/60		LITTLE GIANT	VCMA-20ULS-C-PRO		
CON-05	FC-05 CONDENSATE PUMP	CONDENSATE	1	0.4	10	30		0.0		1/30	0.02		115/1/60		LITTLE GIANT	VCMA-20ULS-C-PRO		
CON-06	FC-06 CONDENSATE PUMP	CONDENSATE	1	0.4	10	30		0.0		1/30	0.02		115/1/60		LITTLE GIANT	VCMA-20ULS-C-PRO		
CON-07	FC-07 CONDENSATE PUMP	CONDENSATE	1	0.4	10	30		0.0		1/30	0.02		115/1/60		LITTLE GIANT	VCMA-20ULS-C-PRO		
CON-08-1	FC-08-1 CONDENSATE PUMP	CONDENSATE	1	0.4	10	30		0.0		1/30	0.02		115/1/60		LITTLE GIANT	VCMA-20ULS-C-PRO		
CON-08-2	FC-08-2 CONDENSATE PUMP	CONDENSATE	1	0.4	10	30		0.0		1/30	0.02		115/1/60		LITTLE GIANT	VCMA-20ULS-C-PRO		
CON-09	FC-09 CONDENSATE PUMP	CONDENSATE	1	0.4	10	30		0.0		1/30	0.02		115/1/60		LITTLE GIANT	VCMA-20ULS-C-PRO		
CON-10-1	FC-10-1 CONDENSATE PUMP	CONDENSATE	1	0.4	10	30		0.0		1/30	0.02		115/1/60		LITTLE GIANT	VCMA-20ULS-C-PRO		
CON-10-2	FC-10-2 CONDENSATE PUMP	CONDENSATE	1	0.4	10	30		0.0		1/30	0.02		115/1/60		LITTLE GIANT	VCMA-20ULS-C-PRO		
CON-11	FC-11 CONDENSATE PUMP	CONDENSATE	1	0.4	10	30		0.0		1/30	0.02		115/1/60		LITTLE GIANT	VCMA-20ULS-C-PRO		
CON-12	FC-12 CONDENSATE PUMP	CONDENSATE	1	0.4	10	30		0.0		1/30	0.02		115/1/60		LITTLE GIANT	VCMA-20ULS-C-PRO		
CON-13	FC-13 CONDENSATE PUMP	CONDENSATE	1	0.4	10	30		0.0		1/30	0.02		115/1/60		LITTLE GIANT	VCMA-20ULS-C-PRO		
CON-14	FC-14 CONDENSATE PUMP	CONDENSATE	1	0.4	10	30		0.0		1/30	0.02		115/1/60		LITTLE GIANT	VCMA-20ULS-C-PRO		
CON-15	FC-15 CONDENSATE PUMP	CONDENSATE	1	0.4	10	30		0.0		1/30	0.02		115/1/60		LITTLE GIANT	VCMA-20ULS-C-PRO		
CON-16	FC-16 CONDENSATE PUMP	CONDENSATE	1	0.4	10	30		0.0		1/30	0.02		115/1/60		LITTLE GIANT	VCMA-20ULS-C-PRO		
CON-17	FC-17 CONDENSATE PUMP	CONDENSATE	1	0.4	10	30		0.0		1/30	0.02		115/1/60		LITTLE GIANT	VCMA-20ULS-C-PRO		
CON-18	FC-18 CONDENSATE PUMP	CONDENSATE	1	0.4	10	30		0.0		1/30	0.02		115/1/60		LITTLE GIANT	VCMA-20ULS-C-PRO		
CON-19	FC-19 CONDENSATE PUMP	CONDENSATE	1	0.4	10	30		0.0		1/30	0.02		115/1/60		LITTLE GIANT	VCMA-20ULS-C-PRO		
CON-20-1	FC-20-1 CONDENSATE PUMP	CONDENSATE	1	0.4	10	30		0.0		1/30	0.02		115/1/60		LITTLE GIANT	VCMA-20ULS-C-PRO		
CON-20-2	FC-20-2 CONDENSATE PUMP	CONDENSATE	1	0.4	10	30		0.0		1/30	0.02		115/1/60		LITTLE GIANT	VCMA-20ULS-C-PRO		
CON-21-1	FC-21-1 CONDENSATE PUMP	CONDENSATE	1	0.4	10	30		0.0		1/30	0.02		115/1/60		LITTLE GIANT	VCMA-20ULS-C-PRO		
CON-21-2	FC-21-2 CONDENSATE PUMP	CONDENSATE	1	0.4	10	30		0.0		1/30	0.02		115/1/60		LITTLE GIANT	VCMA-20ULS-C-PRO		
CON-22	FC-22 CONDENSATE PUMP	CONDENSATE	1	0.4	10	30		0.0		1/30	0.02		115/1/60		LITTLE GIANT	VCMA-20ULS-C-PRO		
CON-23	FC-23 CONDENSATE PUMP	CONDENSATE	1	0.4	10	30		0.0		1/30	0.02		115/1/60		LITTLE GIANT	VCMA-20ULS-C-PRO		
CON-24	FC-24 CONDENSATE PUMP	CONDENSATE	1	0.4	10	30		0.0		1/30	0.02		115/1/60		LITTLE GIANT	VCMA-20ULS-C-PRO		
CON-25	FC-25 CONDENSATE PUMP	CONDENSATE	1	0.4	10	30		0.0		1/30	0.02		115/1/60		LITTLE GIANT	VCMA-20ULS-C-PRO		
CON-26	FC-26 CONDENSATE PUMP	CONDENSATE	1	0.4	10	30		0.0		1/30	0.02		115/1/60		LITTLE GIANT	VCMA-20ULS-C-PRO		
CON-27	FC-27 CONDENSATE PUMP	CONDENSATE	1	0.4	10	30		0.0		1/30	0.02		115/1/60		LITTLE GIANT	VCMA-20ULS-C-PRO		
CON-28	FC-28 CONDENSATE PUMP	CONDENSATE	1	0.4	10	30		0.0		1/30	0.02		115/1/60		LITTLE GIANT	VCMA-20ULS-C-PRO		
CON-29	FC-29 CONDENSATE PUMP	CONDENSATE	1	0.4	10	30		0.0		1/30	0.02		115/1/60		LITTLE GIANT	VCMA-20ULS-C-PRO		
CON-30	FC-30 CONDENSATE PUMP	CONDENSATE	1	0.4	10	30		0.0		1/30	0.02		115/1/60		LITTLE GIANT	VCMA-20ULS-C-PRO		
CON-31	FC-31 CONDENSATE PUMP	CONDENSATE	1	0.4	10	30		0.0		1/30	0.02		115/1/60		LITTLE GIANT	VCMA-20ULS-C-PRO		
CON-32	FC-32 CONDENSATE PUMP	CONDENSATE	1	0.4	10	30		0.0		1/30	0.02		115/1/60		LITTLE GIANT	VCMA-20ULS-C-PRO		
CON-33	FC-33 CONDENSATE PUMP	CONDENSATE	1	0.4	10	30		0.0		1/30	0.02		115/1/60		LITTLE GIANT	VCMA-20ULS-C-PRO		
CON-34	FC-34 CONDENSATE PUMP	CONDENSATE	1	0.4	10	30		0.0		1/30	0.02		115/1/60		LITTLE GIANT	VCMA-20ULS-C-PRO		
SP-01	SUMP PUMP	WEEPING TILE WATER	40	15.0	20	60		0.0		2/5	0.30		115/1/60		ZOELLER	947 DUPLEX WITH N152 PUMPS		
SP-02	SUMP PUMP	WEEPING TILE WATER	40	15.0	20	60		0.0		2/5	0.30		115/1/60		ZOELLER	947 DUPLEX WITH N152 PUMPS		
SP-03	SUMP PUMP	WEEPING TILE WATER	40	15.0	20	60		0.0		2/5	0.30		115/1/60		ZOELLER	947 DUPLEX WITH N152 PUMPS		
SP-04	SUMP PUMP	WEEPING TILE WATER	40	15.0	20	60		0.0		2/5	0.30		115/1/60		ZOELLER	947 DUPLEX WITH N152 PUMPS		
SP-07	LIFT SUMP PUMP	WATER	38	14.2	10	30		0.0		1/3	0.25		115/1/60		LIBERTY	ELV-SERIES ELV250		
SP-08	LIFT SUMP PUMP	WATER	38	14.2	10	30		0.0		1/3	0.25		115/1/60		LIBERTY	ELV-SERIES ELV250		

ISSUED FOR CONSTRUCTION

ENGINEERS GEOSCIENTISTS MANITOBA
Certificate of Authorization
Alliance Engineering Services Inc.
No.2906

Alliance ENGINEERING SERVICES INC

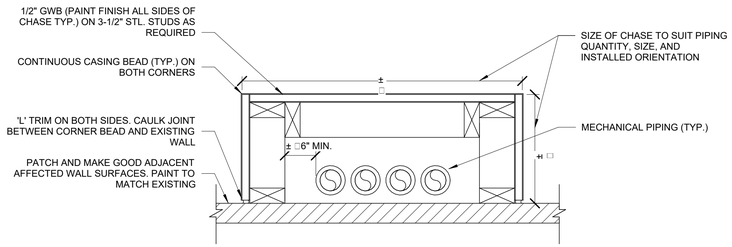
PROVINCE OF MANITOBA
T. A. URQUHART
Member
33109
2025-01-30
REGISTERED PROFESSIONAL ENGINEER

drawn by: LM
approved by: IU
date: 31 JAN 2025

mcm architects inc.
141 ST.ANNE'S ROAD, WINNIPEG, MANITOBA, R2M 2Z3
260-8th STREET, BRANDON, MANITOBA, R7A 3X3

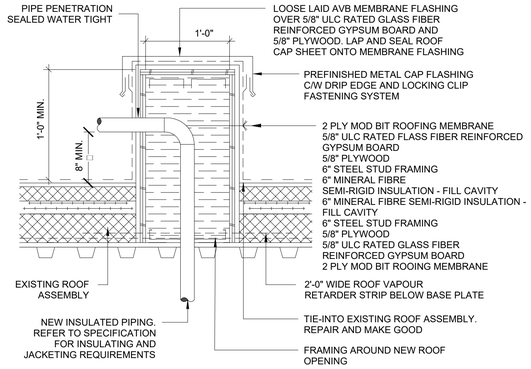
CITY ARCHIVES BUILDING REDEVELOPMENT
380 WILLIAM AVENUE, WINNIPEG, MANITOBA

project: 2624
sheet no.: **M5.3**

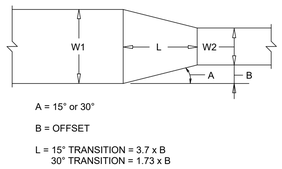


NOTES:
1. RISER ENCLOSURES SHALL BE FROM FLOOR TO CEILING OR UNDERSIDE OF DECK.
2. DRYWALL TO BE ASBUSE RESISTANT TYPE.
3. PIPING IN CHASE IS DIAGRAMATIC ONLY. CONTRACTOR TO VERIFY PIPING ORIENTATION AND BUILD CHASE TO SUIT.

1 - CHASE VERTICAL GWB - DETAIL
SCALE: NTS



2 - PITCH POCKET - DETAIL
SCALE: NTS

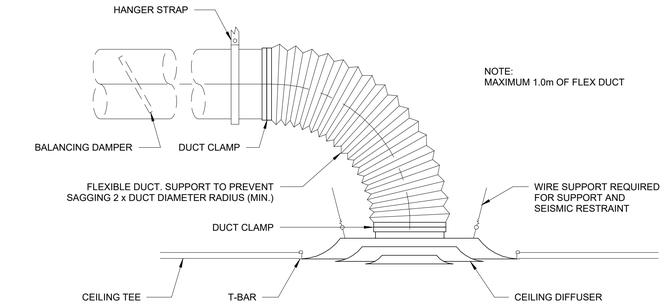


A = 15° or 30°

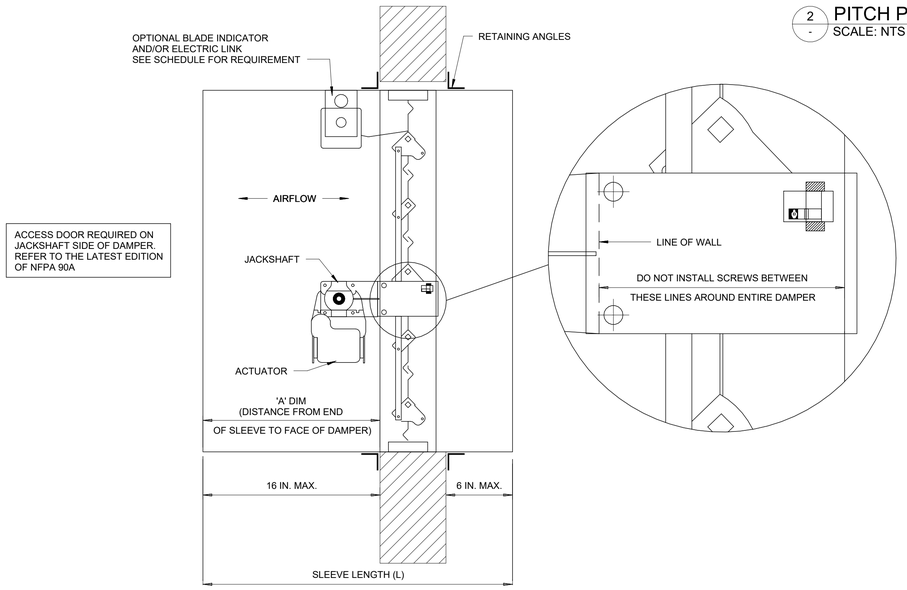
B = OFFSET

L = 15° TRANSITION = 3.7 x B
30° TRANSITION = 1.73 x B

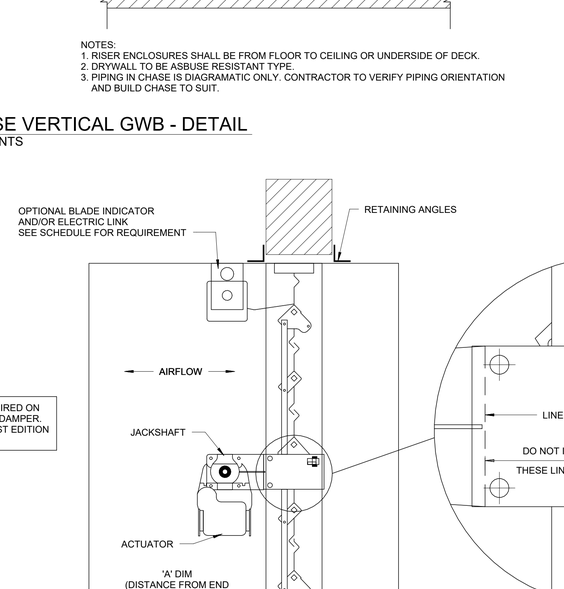
6 - TRANSITIONS - DETAIL
SCALE: NTS



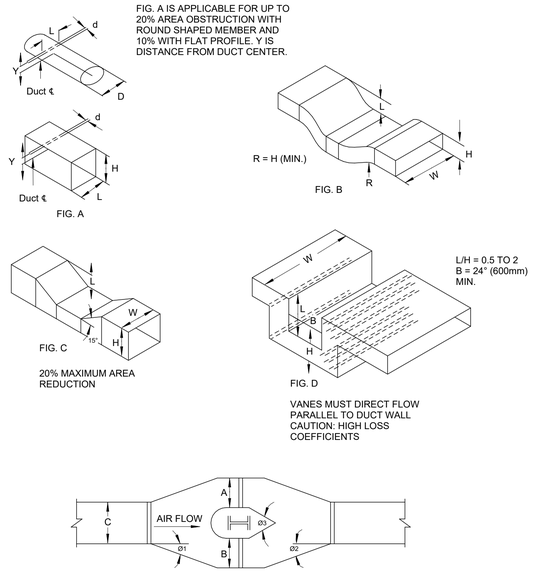
8 - SUPPLY AIR DIFFUSER INSTALLATION - DETAIL
SCALE: NTS



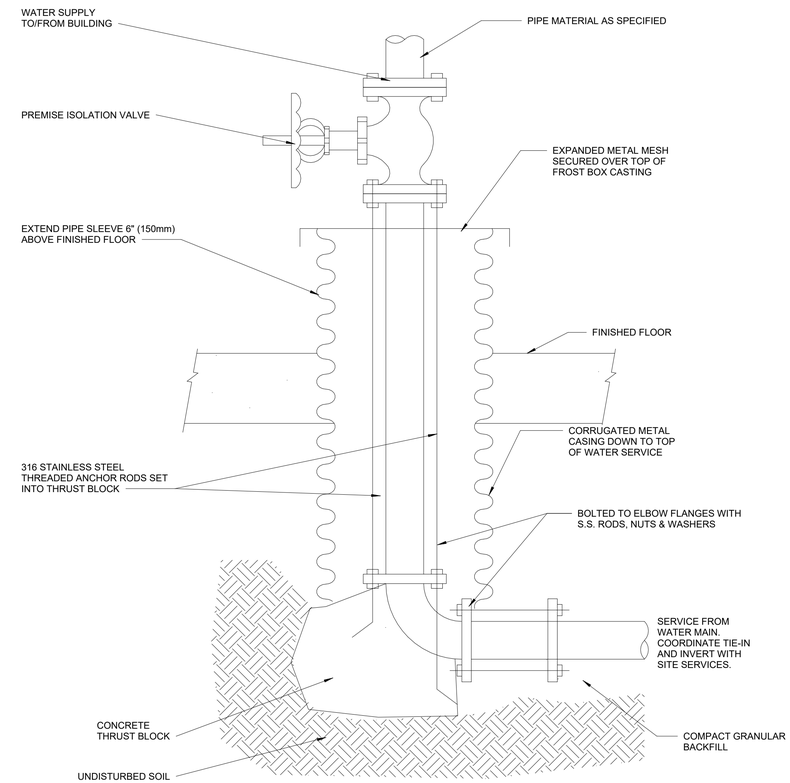
4 - FIRE AND SMOKE DAMPER - DETAIL
SCALE: NTS



3 - DETAIL - BURIED PIPING
SCALE: NTS



5 - DUCT FITTING OBSTRUCTION - DETAIL
SCALE: NTS



7 - SERVICE ENTRANCE DOMESTIC WATER FROST BOX - DETAIL
SCALE: NTS

ISSUED FOR CONSTRUCTION

ENGINEERS GEOSCIENTISTS MANITOBA
Certificate of Authorization
Alliance Engineering Services Inc.
No.2906

Alliance ENGINEERING SERVICES INC

PROVINCE OF MANITOBA
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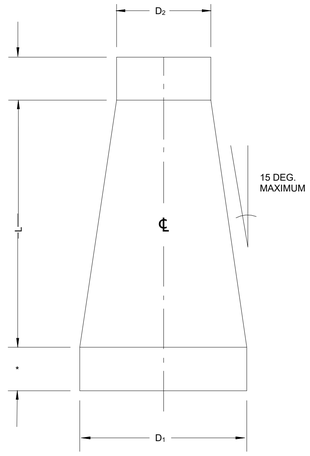
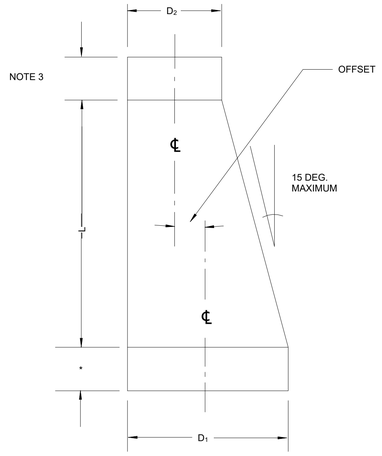
CITY ARCHIVES BUILDING REDEVELOPMENT
380 WILLIAM AVENUE, WINNIPEG, MANITOBA

project: 2624
sheet no.: **M6.1**

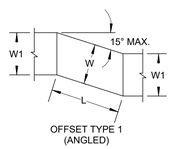


CENTERLINE REDUCER
(TAPER)

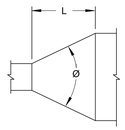


(ECCENTRIC) REDUCER
(TAPER)

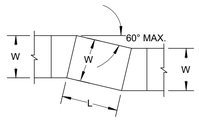
OFFSETS 2 AND 3 AND TRANSITIONS MAY HAVE EQUAL ON UNEQUAL INLET AND OUTLET AREAS; TRANSITIONS MAY CONVERT DUCT PROFILE TO ANY COMBINATION FOR RECTANGULAR, ROUND OR FLAT OVAL SHAPES.



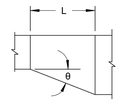
OFFSET TYPE 1
(ANGLED)



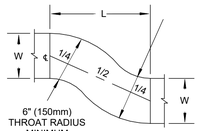
CONCENTRIC TRANSITION
θ MAX. 45° DIVERGING, 60° CONVERGING



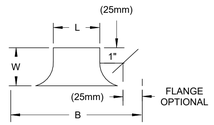
OFFSET TYPE 2
(MITERED)



ECCENTRIC TRANSITION
θ MAX.30°
(EXCEPT 45° IS PERMITTED
AT AROUND TO FLAR OVAL)

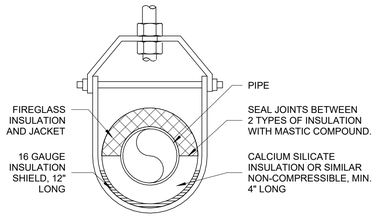


OFFSET TYPE 3
(RADIUSSED
OR OGEE)

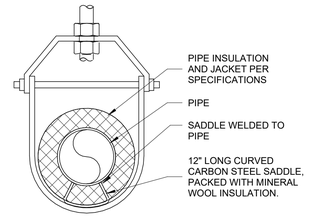


STANDARD BELLMOUTH
ON SHORT PATTERN BELL
C = 3" (78mm)
B = A + 4" (102mm)

2 DUCT FITTING OFFSETS AND TRANSITIONS - DETAIL
SCALE: NTS

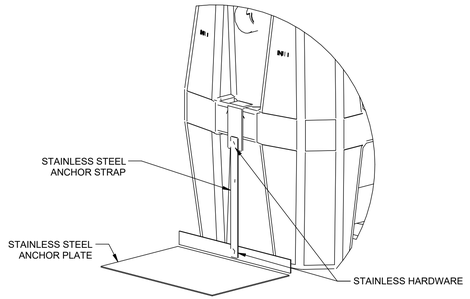


3 HANGER, COLD WATER - DETAIL
SCALE: NTS



4 HANGER, HOT WATER - DETAIL
SCALE: NTS

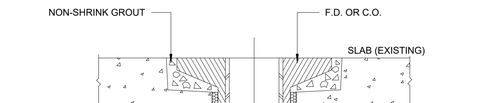
ANCHOR KIT INSTALLATION DETAIL



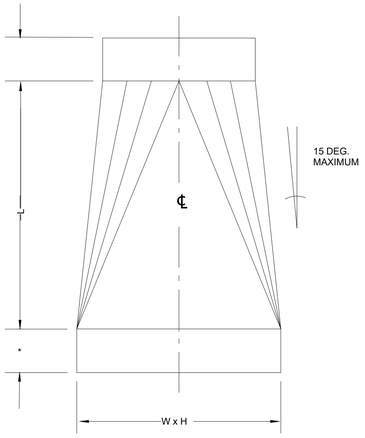
ANCHOR KIT INSTALLATION STEPS

1. SLIDE "ANCHOR STRAP" OVER TIE DOWN POINT ON END WALL AND BOLT TOGETHER USING PROVIDED HARDWARE.
2. BOLT "ANCHOR STRAP" TO "ANCHOR PLATE" USING PROVIDED HARDWARE
3. HOLD DOWN FORCE ACHIEVED BY BACKFILL WEIGHT ACTING ON ANCHOR PLATE.
4. ANCHOR PLATE MAY BE BOLTED TO CONCRETE SLAB, IF REQUIRED, BY USING HOLES PROVIDED IN ANCHOR PLATE.

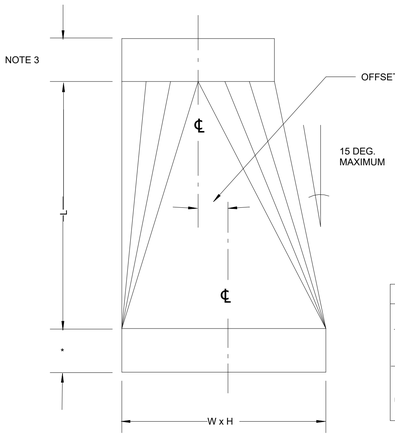
8 ELEVATOR OIL INTERCEPTOR ANCHOR KIT - DETAIL
SCALE: NTS



7 PIPE PENETRATION FLOOR CAULKING - DETAIL
SCALE: NTS



CENTERLINE SQUARE - TO ROUND
(TRANSITION)

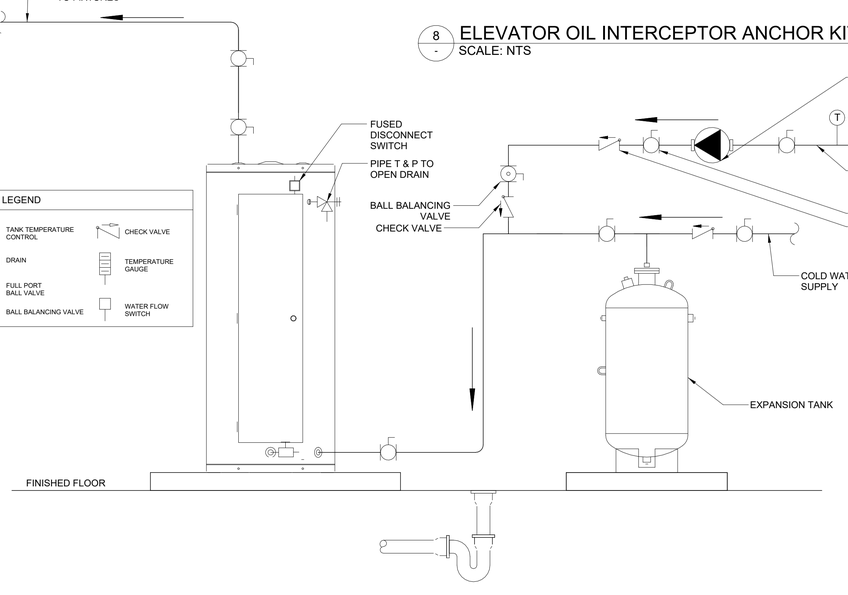


(ECCENTRIC) SQUARE - TO - ROUND
(TRANSITION)

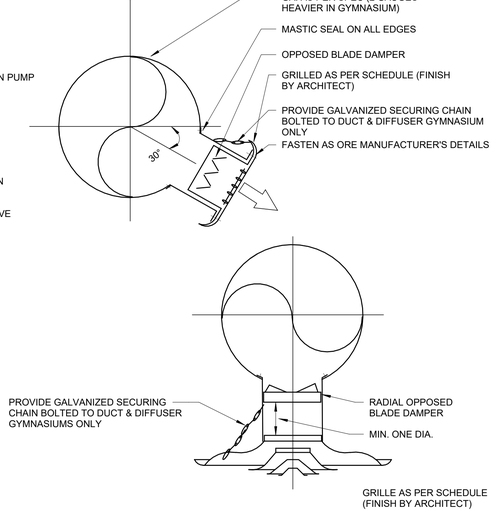
NOTES:

1. FOR FITTING MINIMUM GAGE REQUIREMENTS SEE SECTION 15.4.1
2. TEXT IN PARENTHESIS REPRESENT ALTERNATIVE TERMINOLOGY.
3. NORMAL LENGTH 3" (75 mm) OR LONGER TO SUIT ANGLE RING, COLLARS MAY BE OMITTED WHEN NOT INSTALLING RINGS.

1 DUCT FITTING REDUCERS AND SQUARE TO ROUNDS - DETAIL
SCALE: NTS



5 DOMESTIC HOT WATER TANK MANIFOLD - DETAIL
SCALE: NTS



6 EXPOSED DUCT DIFFUSER INSTALLATION - DETAIL
SCALE: NTS

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Alliance ENGINEERING SERVICES INC

PROVINCE OF MANITOBA
L.A. URQUHART
Member
33109
2025-01-30
REGISTERED PROFESSIONAL ENGINEER

drawn by
LM

approved by
IU

date
31 JAN 2025

mcm architects inc.
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260-8th STREET, BRANDON, MANITOBA, R7A 3X3

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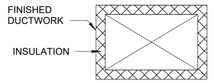
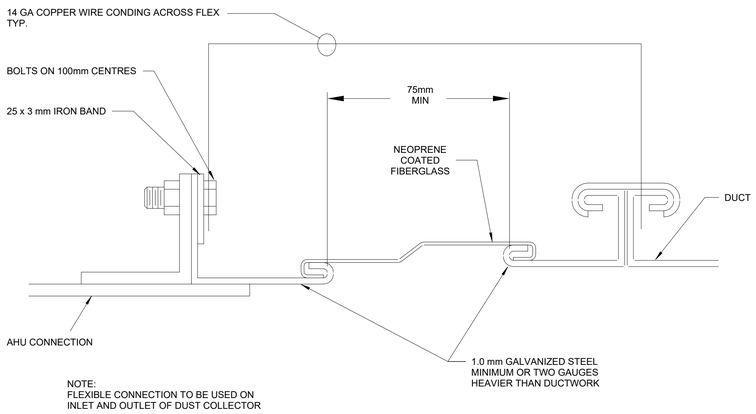
project
2624

sheet no.
M6.2

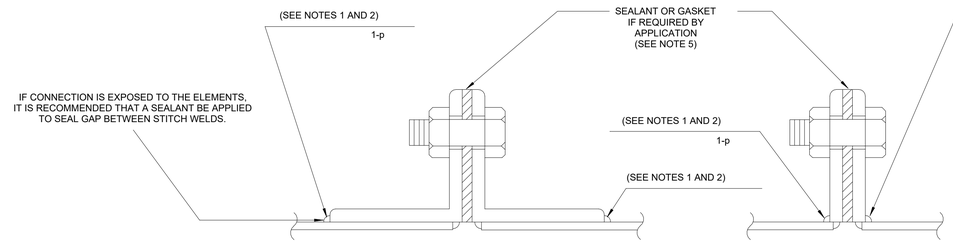


1 - INTERNAL, RECTANGULAR DETAIL
SCALE: NTS



NOTE:
FLEXIBLE CONNECTION TO BE USED ON INLET AND OUTLET OF DUST COLLECTOR

3 - FLEX CONNECTOR DETAIL
SCALE: NTS

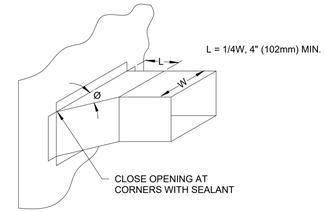


SEE NOTES 1 AND 2 FOR WELD REQUIREMENTS

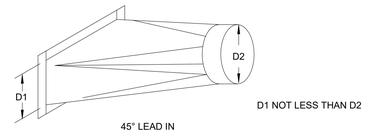
NOTES:

1. IN ADDITION TO A CONTINUOUS WELD ON THE INSIDE, IT IS GENERALLY RECOMMENDED THAT A 1" (25.4mm) LONG STITCH WELD BE APPLIED TO THE REINFORCEMENT AT A POINT APPROXIMATELY IN LINE WITH EACH BOLT LOCATION THE PITCH (p) ON THE STITCH WELDS EQUAL THE BOLTS SPACING OF THE FLANGE SET. SEE TABLES 12-7 THROUGH 12-14 FOR FLANGE DETAILS AND NUMBER OF BOLTS. IF ACTUAL NUMBER OF BOLTS USED EXCEED THE MINIMUM REQUIRED BY THIS STANDARD, THE NUMBER OF STITCH WELDS APPLIED NEED NOT EXCEED THE REQUIRED MINIMUM NUMBER OF BOLTS.
2. WHILE A CONTINUOUS WELD ON THE INSIDE IS REQUIRED ON CLASS 5 CONSTRUCTION, FOR ALL OTHER CLASSES THE LOCATION OF THE CONTINUOUS AND STITCH WELDS MAY BE REVERSED.
3. THE USED OF DISSIMILAR DUCT AND FLANGE MATERIALS IS ACCEPTABLE BUT SURFACE PREPARATION MAY BE REQUIRED.
4. BOLT HOLE ORIENTATION (SEE FIGURE 12-3):
   A. ON ANGLE AND BAR FLANGE, LOCATE A BOLT HOLE AT TOP DEAD CENTER. (ONE HOLE)
   B. ON ANSI STYLE FLANGES, LET BOLT HOLES STRADDLE PIPE CENTERLINE. (TWO-HOLE)
5. GASKET OR SEALANT MATERIALS MAY BE REQUIRED TO CREATE AN AIR TIGHT JOINT DEPENDING ON THE APPLICATION, THEIR SELECTION MUST CONSIDER THE TEMPERATURE AND THE TYPE OF MATERIAL BEING CONVEYED (SEE SECTION 12.5).
6. ABOVE DETAILS ARE VALID FOR ALL DUCT CLASSES.

4 - DUCT JOINT FLANGE TYPICAL - DETAIL
SCALE: NTS



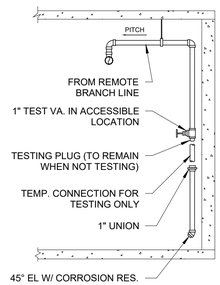
45° ENTRY Ø 45°



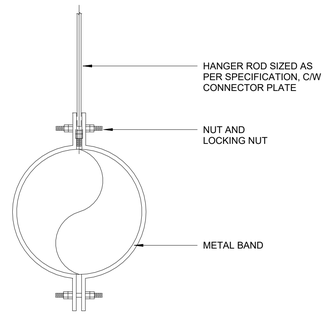
DO NOT USE CONNECTIONS WITH SCOOPS.

2 - TAP ROUND AND RECTANGULAR - DETAIL
SCALE: NTS

DRY PIPE SYSTEM TEST CONNECTION

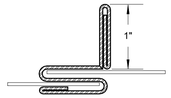


5 - DRY PIPE SYSTEM TEST CONNECTION - DETAIL
SCALE: NTS

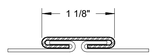


ROUND DUCT HANGER

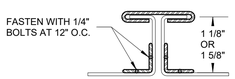
8 - HANGER SINGLE DUCT - DETAIL
SCALE: NTS



REINFORCED 'S' STRIP (BAR SLIP)



DRIVE SLIP JOINT



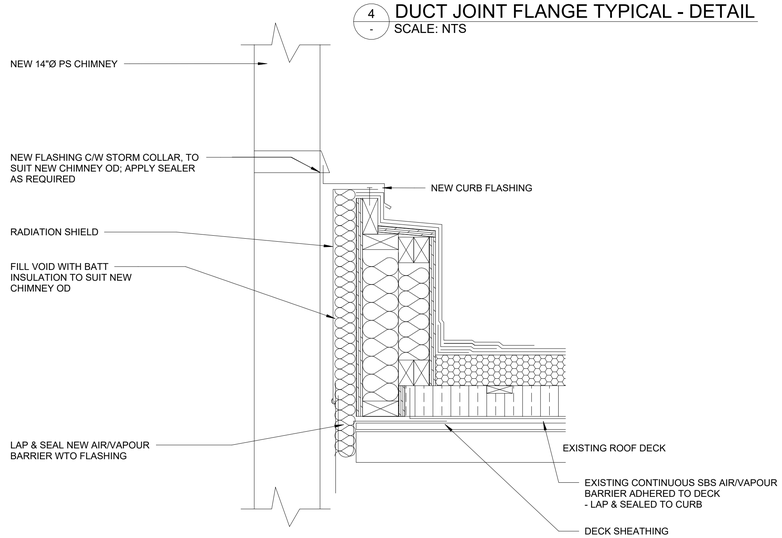
- 1 1/2" x 1 1/2" x 1/8 ANGLE ONE SIDE ON 61" TO 90"
- 1 1/2" x 1 1/2" x 1/8 ANGLE BOTH SIDES ON 91" AND WIDER

'T' JOINT

LOW PRESSURE DUCT

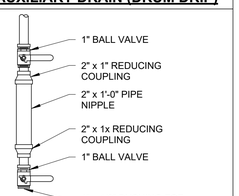
MAX. SIDE "	GAUGE	MAX. LENGTH	TRANSVERSE JOINT	BRACING ANGLE
UP TO 12"	26	94"	REINF. 'S' & DRIVE SLIP	NONE
13" TO 24"	24	94"	REINF. 'S' & DRIVE SLIP	NONE
25" TO 30"	24	45"	1 1/8" 'T'	NONE
31" TO 40"	22	45"	1 1/8" 'T'	NONE
41" TO 60"	22	44"	1 5/8" 'T'	NONE
61" TO 90"	20	44"	1 5/8" 'T'	1 1/2" x 1 1/2" x 1/8"
91" & WIDER	18	44"	1 5/8" 'T'	1 1/2" x 1 1/2" x 1/8"

6 - LOW PRESSURE DUCT GAUGE SCHEDULE - DETAIL
SCALE: NTS

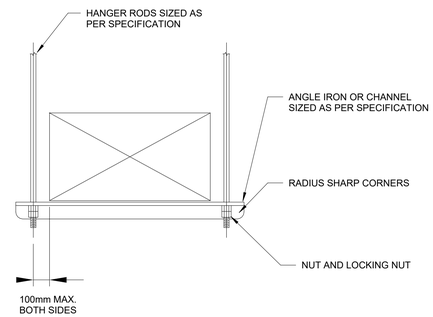


7 - DUCT PENETRATION ROOF TYPICAL - DETAIL
SCALE: NTS

DRY SYSTEM AUXILIARY DRAIN (DRUM DRIP)



10 - DRY SYSTEM AUXILIARY DRAIN (DRUM DRIP)
SCALE: NTS



SQUARE / RECTANGULAR DUCT HANGER

9 - TRAPEZE RECTANGULAR DETAIL
SCALE: NTS

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PROVINCE OF MANITOBA
L.A. URQUHART
Member
33109
2025-01-30
REGISTERED PROFESSIONAL ENGINEER

drawn by: LM
approved by: IU
date: 31 JAN 2025

mcm architects inc.
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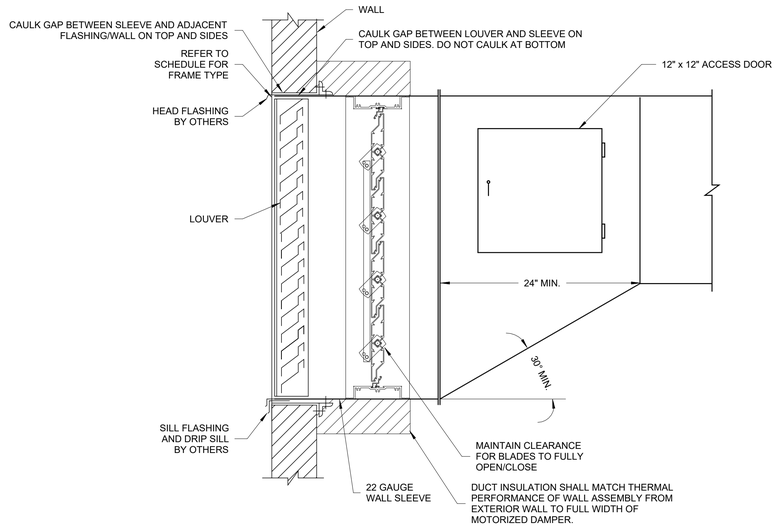
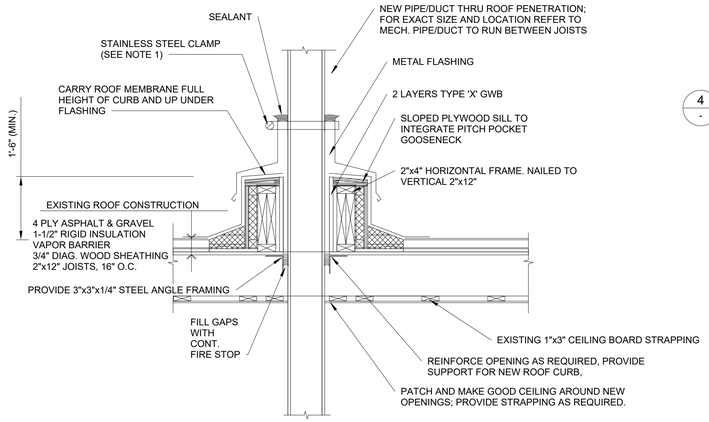
project: 2624
sheet no.: **M6.3**



NOTES:

1. DO NOT ATTACH DUCT TO TOP OF LOWER LOUVER BLADE AS TYPICAL. THIS CREATES SEALING PROBLEMS AT MULLIONS AND OTHER VERTICAL MEMBERS.
2. SEAL ALL JOINTS WATER TIGHT AT BOTTOM OF DUCT AND SLEEVE.
3. INSULATE DUCT AND SLEEVE AS SPECIFIED.

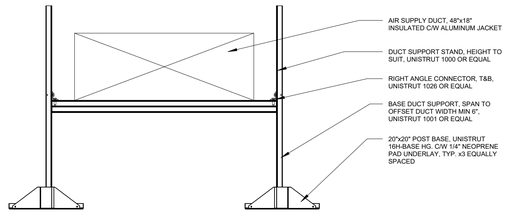
1 - DUCT PENETRATION LOUVER - DETAIL
SCALE: NTS



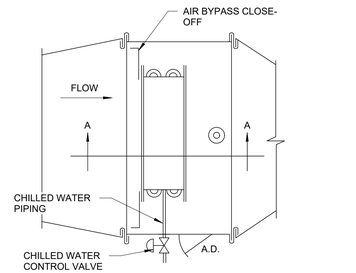
NOTES:

1. STAINLESS STEEL CLAMP/COLLAR FOR PIPE AND ROUND DUCT ONLY; 2-PIECE FLASHING ASSEMBLY TO BE USED FOR RECTANGULAR DUCT.

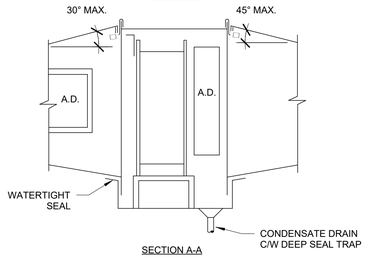
2 - DUCT PENETRATION VENT ROOF - DETAIL
SCALE: NTS



3 - DUCT SUPPORT TRAPEZE ROOF - DETAIL
SCALE: NTS

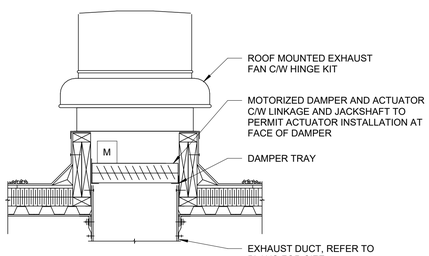


PLAN VIEW

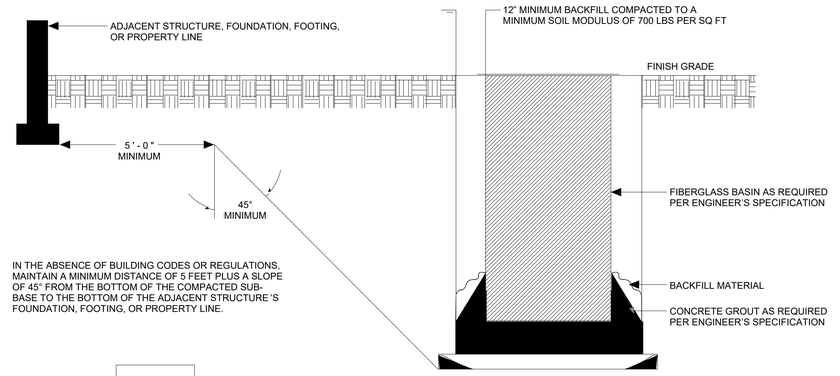


SECTION A-A

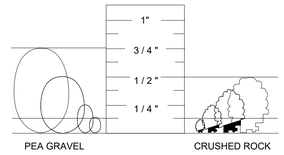
4 - COOLING COIL DUCT MOUNTED HYDRONIC COIL DETAIL
SCALE: NTS



6 - EXHAUST FAN ROOF MOUNTED DETAIL W/ HINGE KIT & DAMPER TRAY - DETAIL
SCALE: NTS



IN THE ABSENCE OF BUILDING CODES OR REGULATIONS, MAINTAIN A MINIMUM DISTANCE OF 5 FEET PLUS A SLOPE OF 45° FROM THE BOTTOM OF THE COMPACTED SUB-BASE TO THE BOTTOM OF THE ADJACENT STRUCTURE 'S FOUNDATION, FOOTING, OR PROPERTY LINE.



BACKFILL MATERIAL REQUIREMENTS

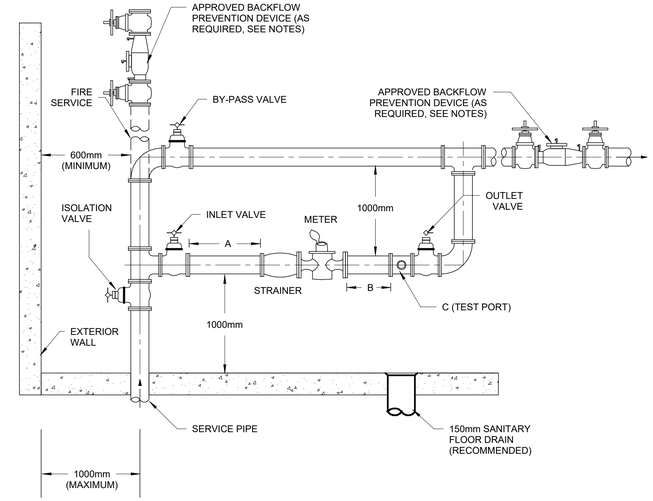
NOTE: THE INTENT OF THESE INSTALLATION INSTRUCTIONS AND ILLUSTRATIONS IS TO ENSURE THAT DAMAGE OR PREMATURE FAILURE TO THE BASIN WILL NOT OCCUR. THESE INSTALLATION INSTRUCTIONS AND ILLUSTRATIONS ARE NOT INTENDED TO PRECLUDE NORMAL SAFETY PROCEDURES WHICH SHOULD BE FOLLOWED TO PREVENT INJURY TO PERSONNEL.

SAFE INSTALLATION PROCEDURES SHALL BE ENTIRELY THE RESPONSIBILITY OF THE INSTALLER.

5 - ELEVATOR SUMP PUMP BASIN INSTALLATION - DETAIL
SCALE: NTS

A - 5x STRAIGHT PIPE DIAMETER
B - 4x STRAIGHT PIPE DIAMETER
C - TEST PORT

C - TEST PORT FLOOR



7 - WATER SERVICE ENTRACE COW STANDARD (3" - 8") - DETAIL
SCALE: NTS

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drawn by: LM
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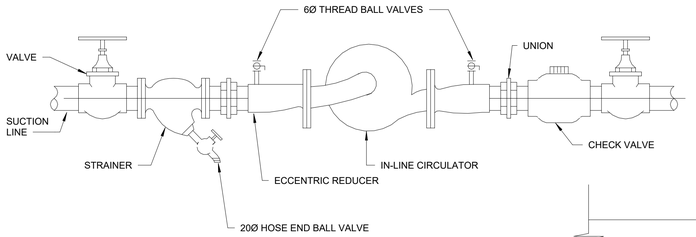
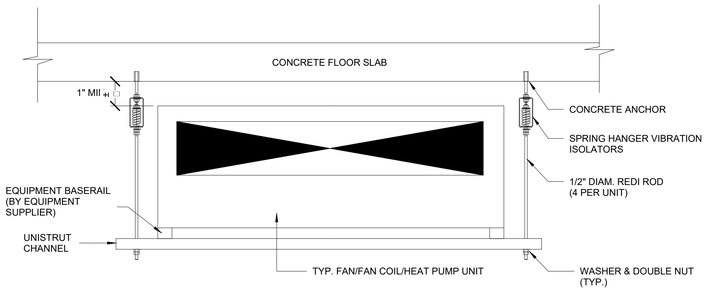
project: 2624
sheet no.: **M6.4**



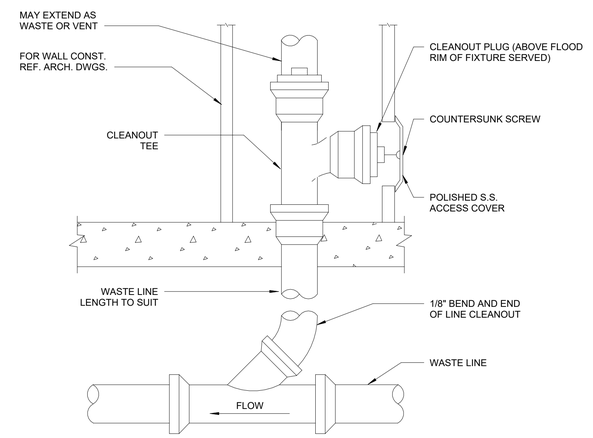
NOTE:

1. VALVES AND STRAINER TO BE PIPE LINE AS INDICATED ON SCHEMATIC.
2. THE PREFERRED POSITION OF THE PUMP, IS TO MOUNT IN A VERTICAL SECTION OF PIPE. FOLLOW MFR'S DATA FOR HORIZONTAL POSITIONING.

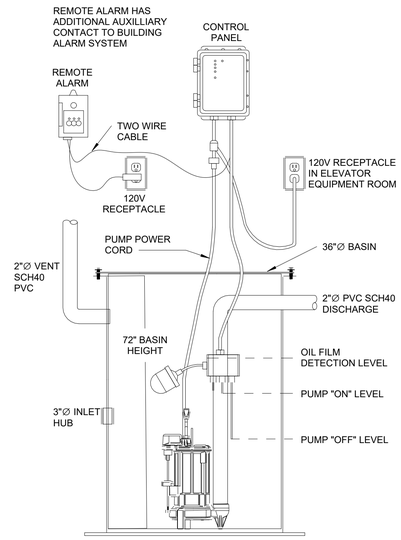
1 / - INLINE CIRCULATOR PUMP - DETAIL
SCALE: NTS



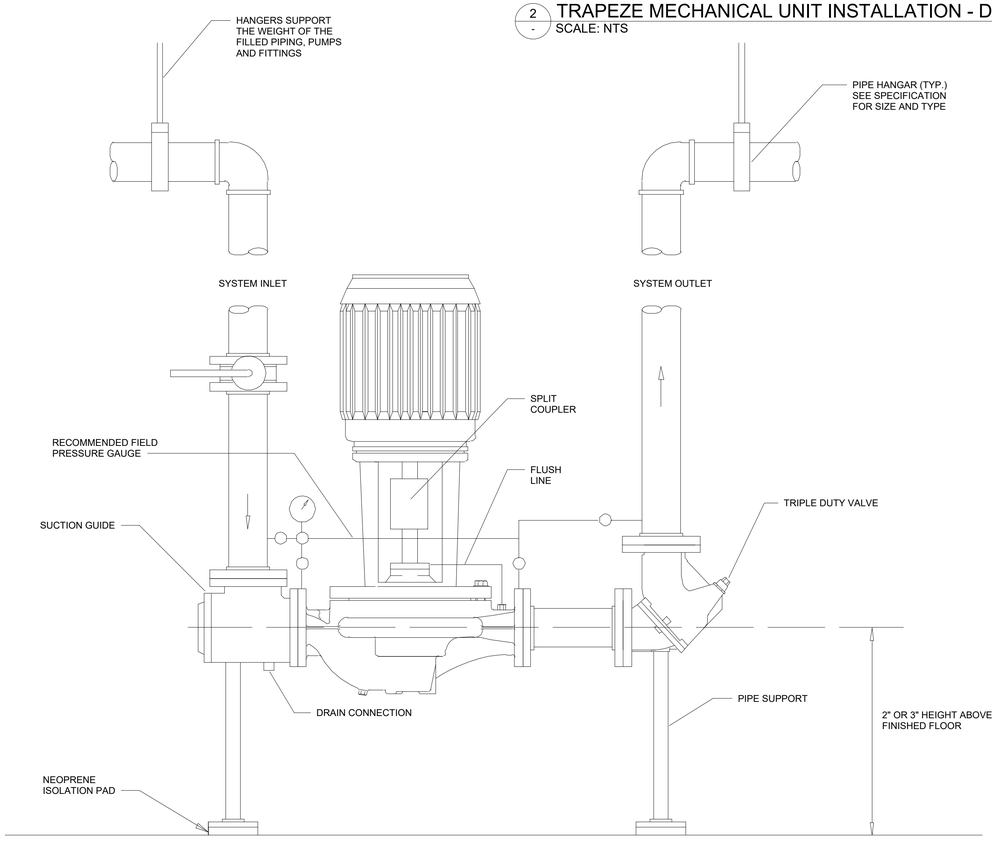
2 / - TRAPEZE MECHANICAL UNIT INSTALLATION - DETAIL
SCALE: NTS



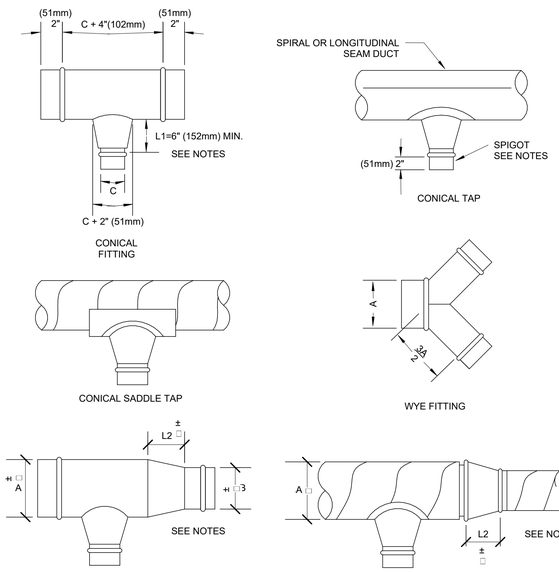
7 / - CLEANOUT FINISHED ROOM, WALL - DETAIL
SCALE: NTS



4 / - ELEVATOR SUMP PIT - DETAIL
SCALE: NTS

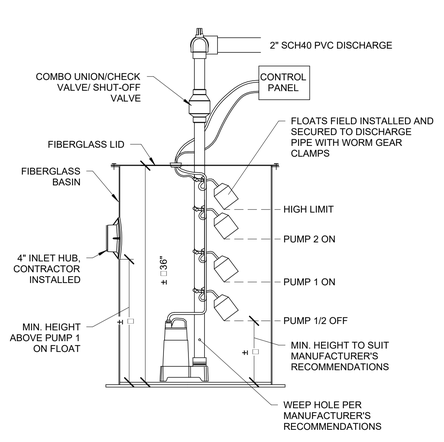


5 / - PUMP FLOOR - DETAIL
SCALE: NTS



NOTES FOR ALL FITTINGS:
1. STITCH WELD ON 4" (102mm) CENTRES
2. SPOT WELD ON 2" (51mm) CENTRES
3. SCREW ON 4" (102 MM) CENTRES
4. TACK WELD ON 4" (102mm) CENTRES AND SEAL

6 / - TEES CONICAL - DETAIL
SCALE: NTS



3 / - SUMP PUMP CRAWLSPACE WEEPING TILE - DETAIL
SCALE: NTS

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No.2906

Alliance ENGINEERING SERVICES INC

PROVINCE OF MANITOBA
I. A. URQUHART
Member
33109
2025-01-30
REGISTERED PROFESSIONAL ENGINEER

drawn by: LM
approved by: IU
date: 31 JAN 2025

mcm architects inc.
141 ST.ANNE'S ROAD, WINNIPEG, MANITOBA, R2M 2Z3
260-8th STREET, BRANDON, MANITOBA, R7A 3X3

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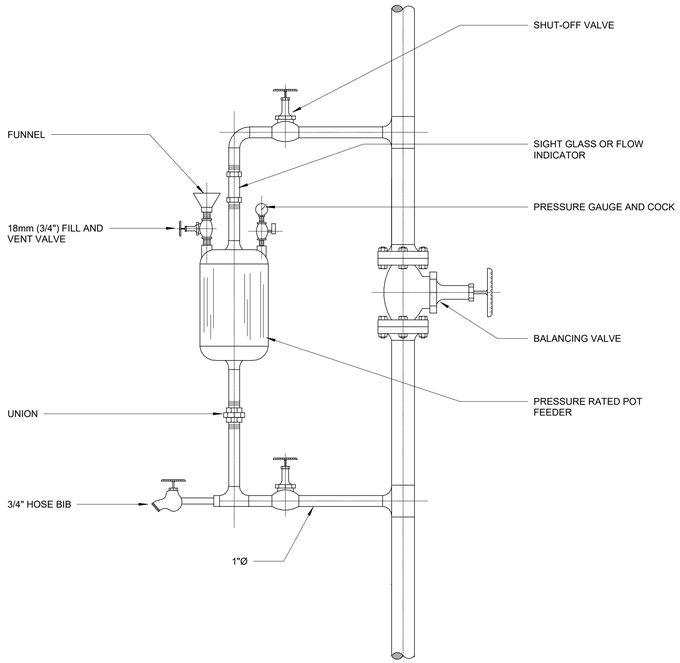
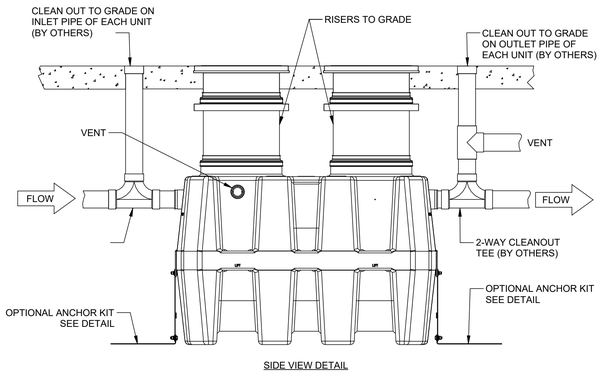
380 WILLIAM AVENUE, WINNIPEG, MANITOBA

project: 2624
sheet no.: **M6.5**



1 - CHEMICAL POT FEEDER - DETAIL
SCALE: NTS



SIDE VIEW DETAIL

FOR UNIT DETAILS SEE SPECIFICATION SHEET FOR SELECTED UNIT (CONNECTING PIPE AND FITTINGS BY OTHERS)

NOTES:
STRIEM OIL SEPARATORS ARE RATED AND MANUFACTURED WITH AN INTERNAL FLOW CONTROL SYSTEM ALREADY IN THEY DO NOT REQUIRE AN EXTERNAL FLOW CONTROL SYSTEM OR AIR INTAKE VENT.

STRIEM OIL SEPARATORS ARE NOT TO BE INSTALLED IN ANY OTHER MANNER EXCEPT AS SHOWN. CONSULT LOCAL CODES FOR SEPARATE TRAPPING REQUIREMENTS, CLEANOUT LOCATIONS AND ADDITIONAL INSTALLATION INSTRUCTIONS.

2 - ELEVATOR OIL INTERCEPTOR - DETAIL
SCALE: NTS

BELOW GRADE INSTALLATION INSTRUCTIONS

EXCAVATION

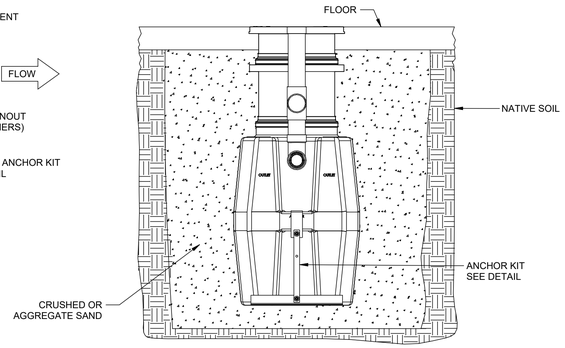
1. REFER TO SPECIFICATIONS

BACKFILLING & FINISHED FLOOR

1. REFER TO SPECIFICATIONS

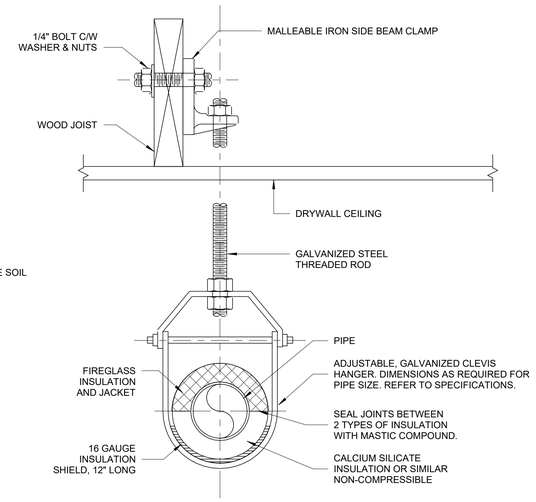
CONNECTIONS

CONNECT WASTE PIPING TO THE UNIT. CONNECT VENT PIPING TO VENT CONNECTION ON SIDEWALL OF TANK PER LOCAL CODE.



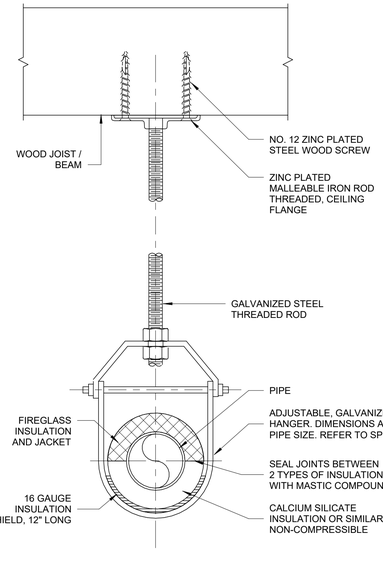
EXCAVATION AND BACKFILL DETAIL (INTERIOR OR EXTERIOR)

5 - ELEVATOR OIL INTERCEPTOR - DETAIL 2
SCALE: NTS



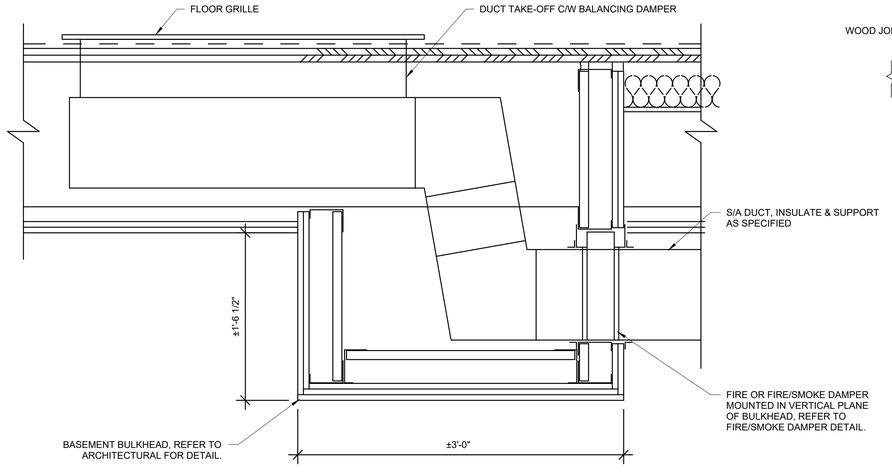
EXISTING DRYWALL CEILING TO BE REMOVED AS REQUIRED TO ACCOMMODATE HANGER INSTALLATION; RESTORE CEILING - EXISTING CEILING FINISH TO BE MAINTAINED, IF DISTURBED RESTORE TO MATCH ORIGINAL CONDITION AND FIRE RESISTANCE, TYP.

4 - HANGER CLEVIS & BLOCK FROM WOOD JOIST SIDE BEAM -DETAIL
SCALE: NTS

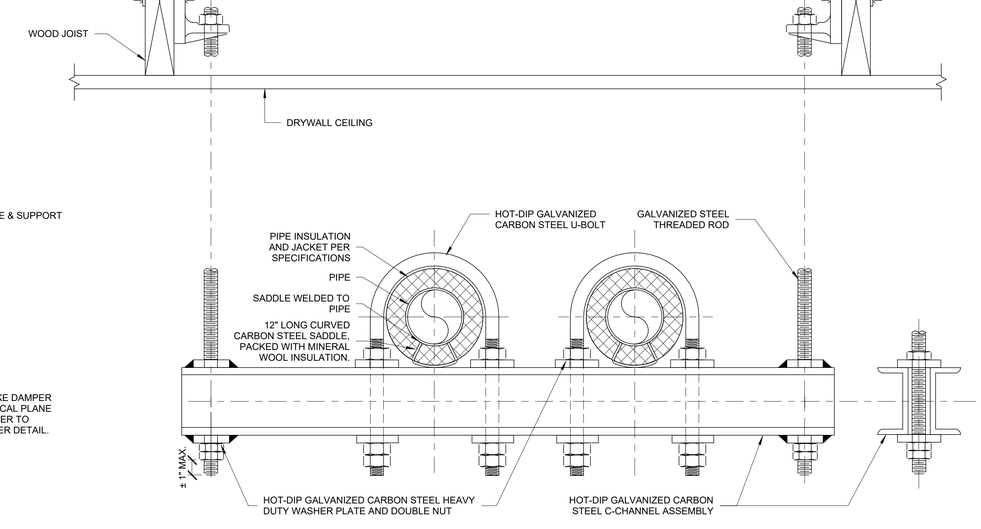


EXISTING DRYWALL CEILING TO BE REMOVED AS REQUIRED TO ACCOMMODATE HANGER INSTALLATION; RESTORE CEILING - EXISTING CEILING FINISH TO BE MAINTAINED, IF DISTURBED RESTORE TO MATCH ORIGINAL CONDITION AND FIRE RESISTANCE, TYP.

3 - HANGER CLEVIS & BLOCK FROM WOOD JOIST FLANGE - DETAIL
SCALE: NTS



7 - FIRE-RATED BULKHEAD IN BASEMENT - DETAIL
SCALE: NTS



6 - TRAPEZE U-BOLT AND SADDLE FROM WOOD JOIST - DETAIL
SCALE: NTS

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I. A. URQUHART
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mcm architects inc.
141 ST.ANNE'S ROAD, WINNIPEG, MANITOBA, R2M 2Z3
260-8th STREET, BRANDON, MANITOBA, R7A 3X3

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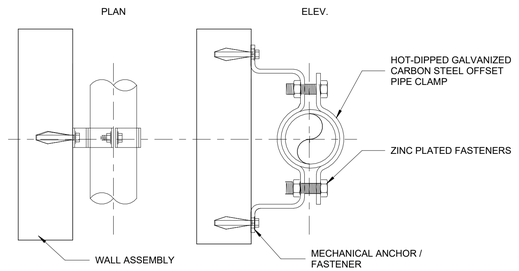
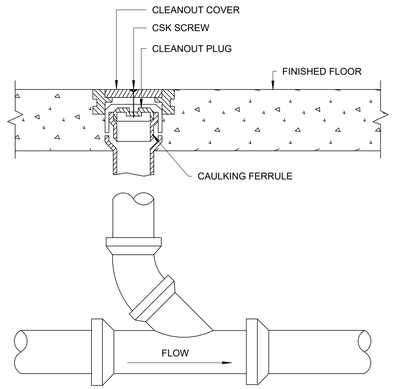
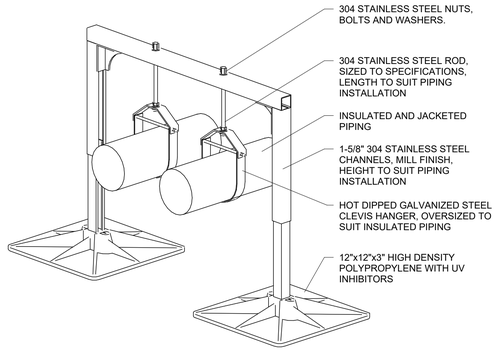
project: 2624
sheet no.: **M6.6**



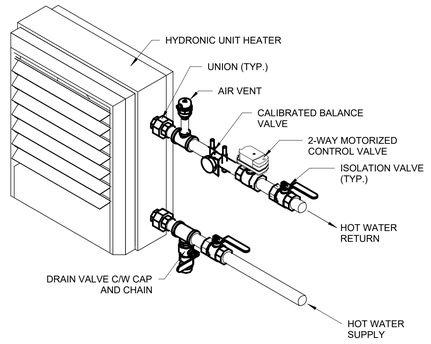
1 - WALL MOUNTED OFFSET PIPE CLAMP - DETAIL
SCALE: NTS



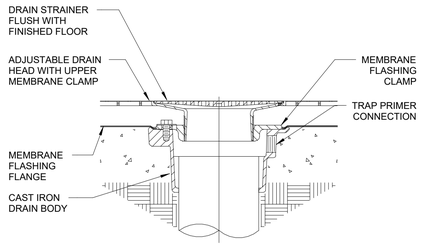
2 - CLEANOUT FINISHED ROOM, FLOOR - DETAIL
SCALE: NTS



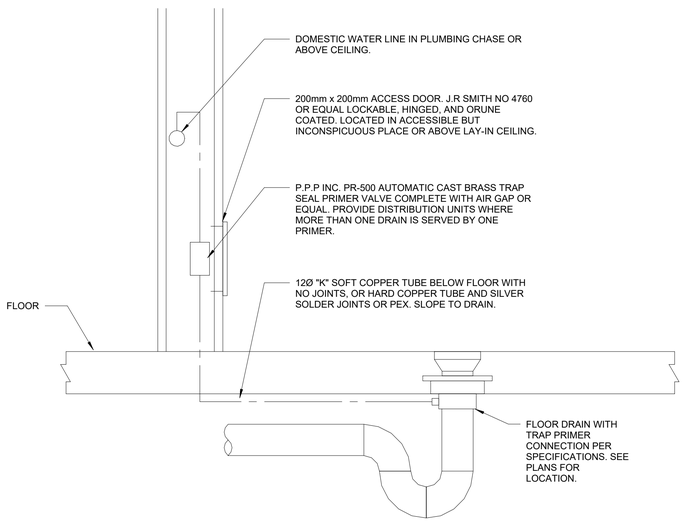
3 - ROOFTOP C-PORT WITH CLEVIS HANGERS - DETAIL
SCALE: NTS



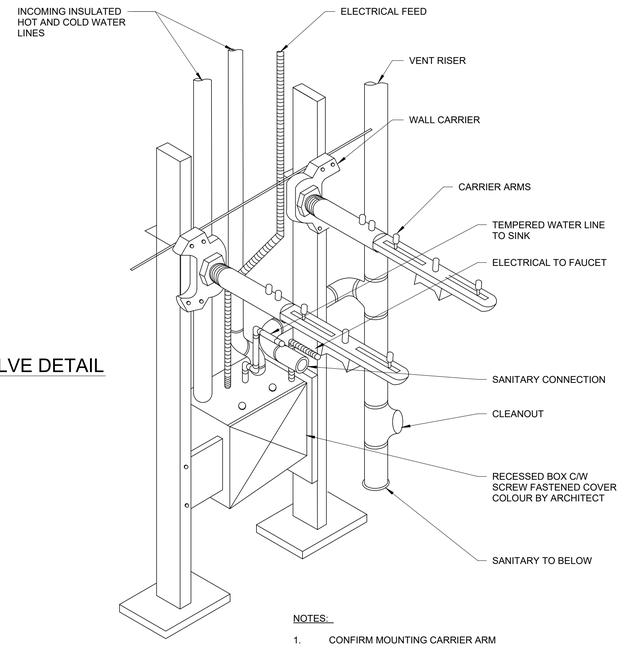
4 - UNIT HEATER HYDRONIC HORIZONTAL 2-WAY VALVE DETAIL
SCALE: NTS



5 - FLOOR DRAIN TYPICAL - DETAIL
SCALE: NTS



7 - TRAP PRIMER TYPICAL DETAIL
SCALE: NTS

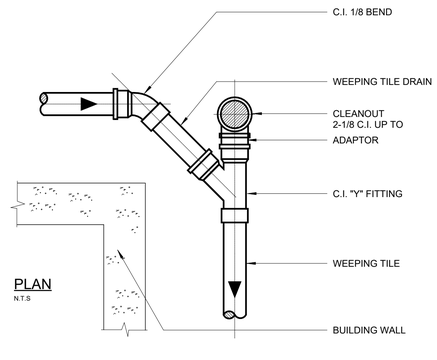


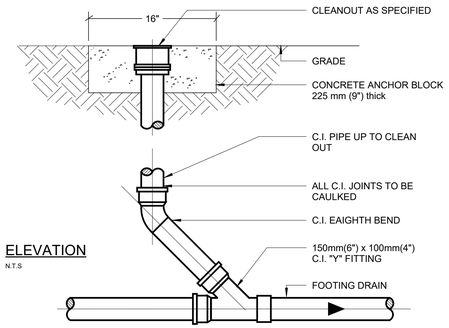
NOTES:

1. CONFIRM MOUNTING CARRIER ARM AND RECESSED BOX HEIGHTS WITH ARCHITECTURAL DRAWINGS.

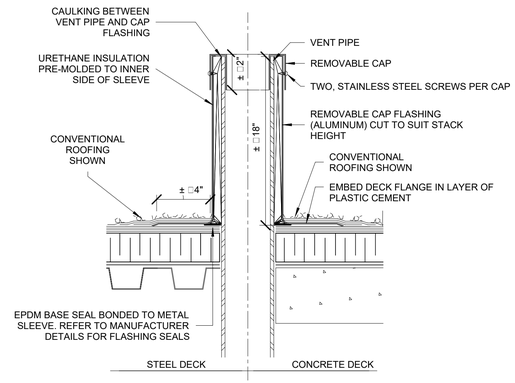
2. ELECTRICAL CONNECTIONS, TRANSFORMER, AND MIXING VALVE TO BE IN RECESSED BOX.

6 - ROUGH-IN WALL HUNG SINK - DETAIL
SCALE: NTS

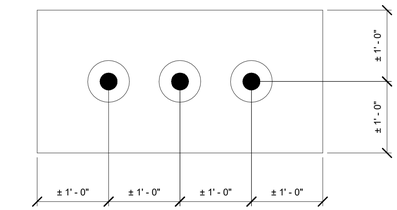




8 - WEEPING TILE DRAIN CLEANOUT DETAIL
SCALE: NTS



9 - ROOF PLUMBING VENT DETAIL
SCALE: NTS



NOTE: ACCEPTABLE LOCATIONS FOR SPRINKLERS IN 2'X4' CEILING TILES

10 - SPRINKLER ACCEPTABLE LOCATIONS IN CEILING TILE - DETAIL
SCALE: NTS

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No.2906

Alliance ENGINEERING SERVICES INC

PROVINCE OF MANITOBA
T. A. URQUHART
Member
33109
2025-01-30
REGISTERED PROFESSIONAL ENGINEER

drawn by
LM

approved by
IU

date
31 JAN 2025

mcm architects inc.
141 ST.ANNE'S ROAD, WINNIPEG, MANITOBA, R2M 2Z3
260-8th STREET, BRANDON, MANITOBA, R7A 3X3

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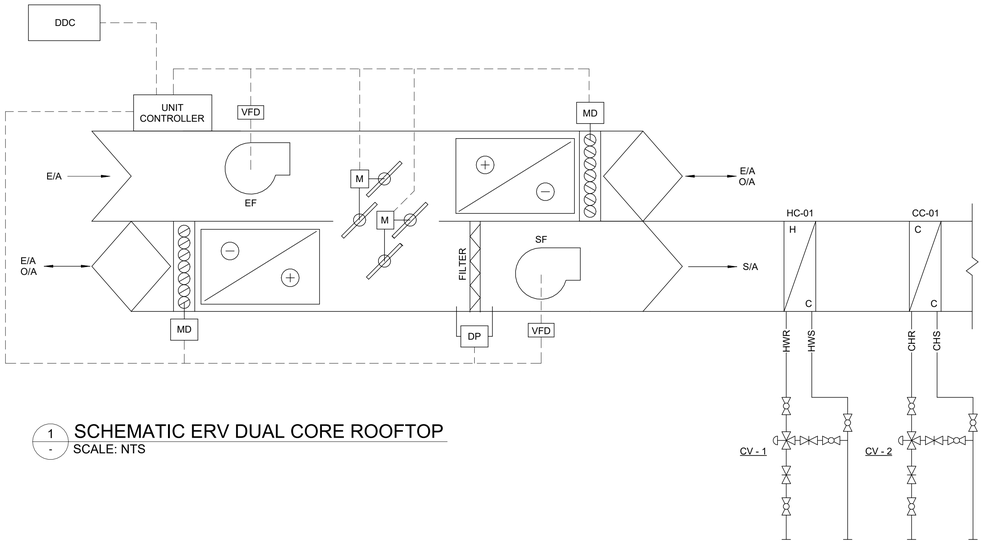
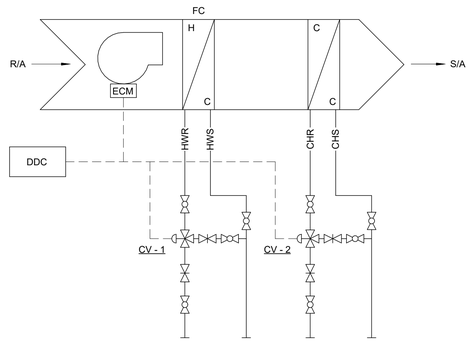
380 WILLIAM AVENUE, WINNIPEG, MANITOBA

project
2624

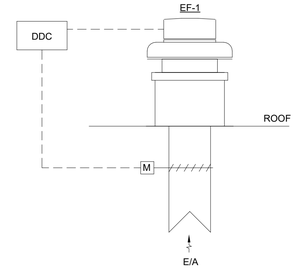
sheet no.
M6.7



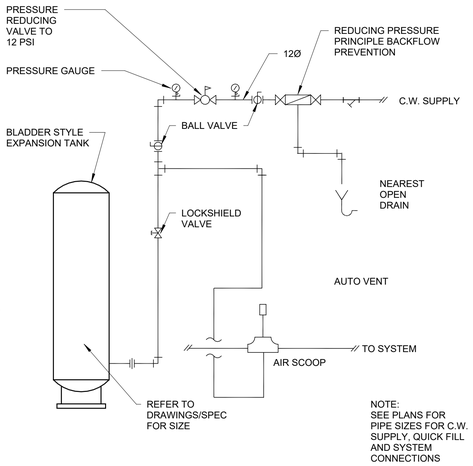
1 - SCHEMATIC ERV DUAL CORE ROOFTOP
SCALE: NTS



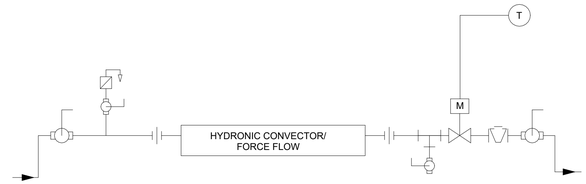
3 - SCHEMATIC FAN COIL H-HYDRONIC C-HYDRONIC
SCALE: NTS



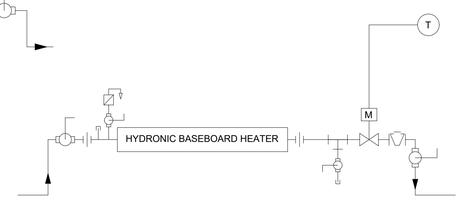
2 - SCHEMATIC EXHAUST FAN ROOF
SCALE: NTS



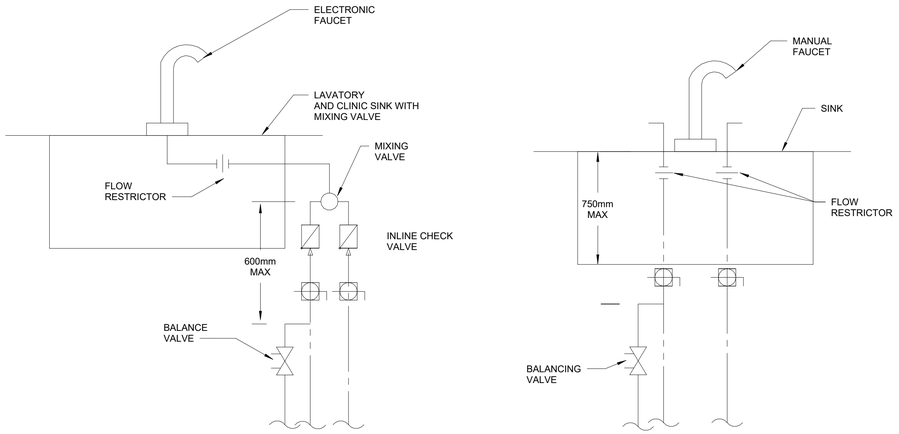
4 - SCHEMATIC PIPING EXPANSION TANK DETAIL
SCALE: NTS



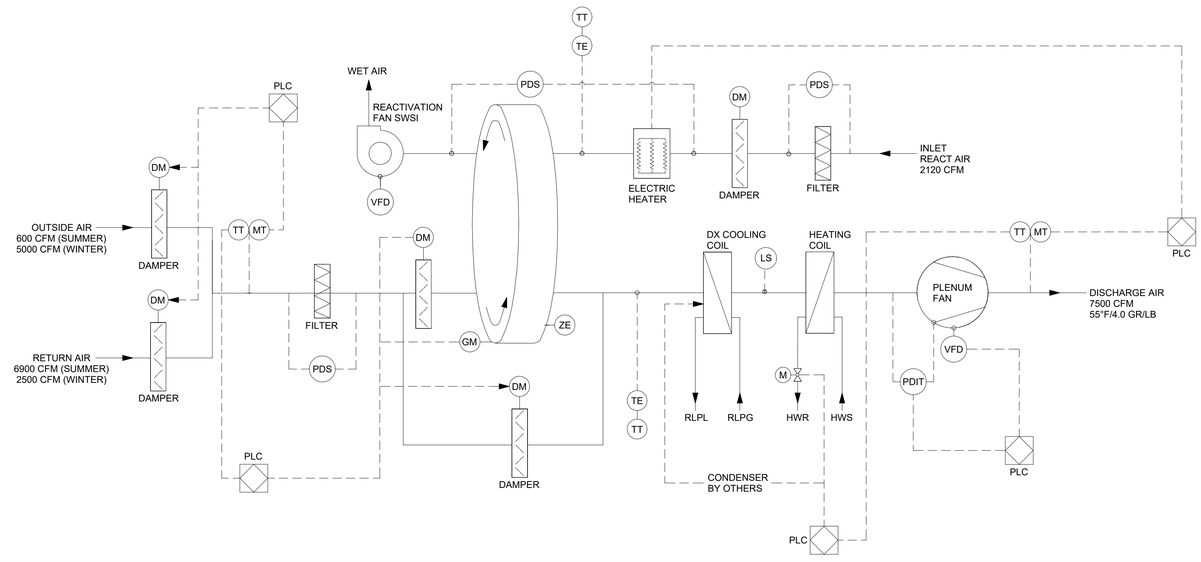
5 - SCHEMATIC PIPING HYDRONIC FORCE FLOW HEATER
SCALE: NTS



6 - SCHEMATIC PIPING HYDRONIC HEATING BASEBOARD DETAIL
SCALE: NTS



7 - SCHEMATIC PIPING TYPICAL DOMESTIC WATER TO FIXTURE DETAIL
SCALE: NTS



GENERAL INSTRUMENTATION

TEMT XXX — TEMPERATURE & HUMIDITY TRANSMITTER	TT XXX RTD — TEMPERATURE TRANSMITTER RTD TYPE	DM XXX — DAMPER ACTUATOR	POSITION LIMIT SWITCH
DT XXX — DEW POINT TRANSMITTER	TE XXX RTD — TEMPERATURE SENSOR RTD TYPE	GM XXX — GEARMOTOR	LIGHT
PDIT XXX — DIFFERENTIAL PRESSURE INDICATOR TRANSMITTER	TTC XXX — THERMAL PROTECTION	VFD XXX — FREQUENCY INVERTER	
PDT XXX — DIFFERENTIAL PRESSURE TRANSMITTER	LS XXX — LEVEL SENSOR	M XXX — MOTOR	
PDS XXX — DIFFERENTIAL PRESSURE SWITCH	ZE XXX — INDUCTIVE SENSOR	M VFD — EC MOTOR ABB TITANIUM	

GENERAL EQUIPMENT SYMBOLS

DIRECT BURNER	TWO WAY CONTROL VALVE	PLENUM/ PLUG FAN	PARALLEL BLADES DAMPER
INDIRECT AIR HEATER	PLEATED FILTER	HEATING COIL	OPPOSED BLADES DAMPER
ELECTRIC HEATERS	BOX FILTER	COOLING COIL	MIST ELIMINATOR
SWSI FAN	HEPA FILTER	THREE WAY CONTROL VALVE	

8 - AHU SCHEMATIC
SCALE: NTS

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141 ST.ANNE'S ROAD, WINNIPEG, MANITOBA, R2M 2Z3
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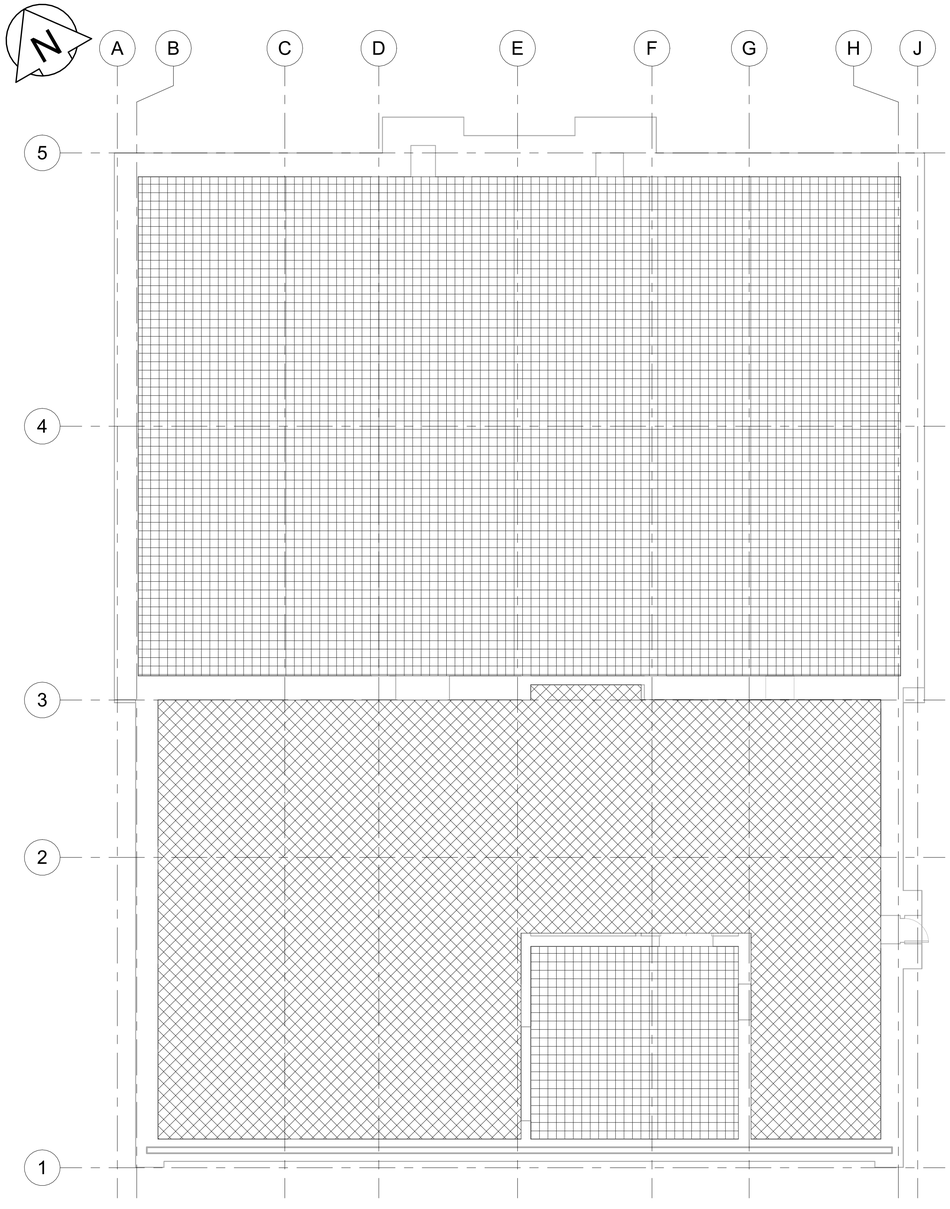
CITY ARCHIVES BUILDING REDEVELOPMENT
380 WILLIAM AVENUE, WINNIPEG, MANITOBA

project: 2624
sheet no.: **M6.8**



1 - BASEMENT FIRE PROTECTION PLAN
SCALE: 1/8" = 1'-0" 24"x36" SHEET

NOTE: CONTRACTOR TO PROVIDE SPRINKLER SYSTEM DRAINAGE PORTS C/W THREADED HOSE CONNECTION AT SUITABLE LOCATIONS TO ALLOW FOR FULL DRAINAGE OF SPRINKLER SYSTEM

AREA SUMMARY

DESCRIPTION	AREA (SQ.FT.)	CLASSIFICATION
BASEMENT	5300	ORDINARY HAZARD GROUP 2
BASEMENT	3700	ORDINARY HAZARD GROUP 1

GENERAL NOTES

1. CONFORM TO LATEST REVISION OF ALL APPLICABLE CODES, REQUIREMENTS OF OWNER'S UNDERWRITER AND AUTHORITY HAVING JURISDICTION.
2. SUBMIT SHOP DRAWINGS AND HYDRAULIC LOAD CALCULATIONS BEARING ENGINEER'S SEAL TO ENGINEER, AUTHORITY HAVING JURISDICTION AND UNDERWRITER.
3. GENERAL DESIGN CRITERIA:

GENERAL:	ANSI/NFPA 13, INSTALLATION OF SPRINKLER SYSTEMS ANSI/NFPA 10, STANDARD FOR PORTABLE FIRE EXTINGUISHERS NRC-CNRC, NATIONAL FIRE CODE OF CANADA
PIPE SIZE AND LAYOUT: WATER SUPPLY:	SPRINKLER HEAD LAYOUT, TO ANSI/NFPA 13 AND AS DIRECTED BY AUTHORITIES HAVING JURISDICTION. CONDUCT FLOW AND PRESSURE TEST OF WATER SUPPLY IN VICINITY OF THE FACILITY IN ACCORDANCE WITH ANSI/NFPA 13 OR ALTERNATELY PROVIDE INFORMATION ON PREVIOUS TEST. THE AUTHORITY HAVING JURISDICTION SHALL BE PERMITTED TO REQUIRE AN ADJUSTMENT TO WATER FLOW TEST DATA.
OBSTRUCTION THAT PREVENT SPRINKLER DISCHARGE FROM REACHING HAZARD:	SPRINKLERS SHALL BE INSTALLED UNDER FIXED OBSTRUCTION OVER 4 FT. WIDE SUCH AS DUCTS, DECKS, OPEN GRATE FLOORS. SPRINKLERS INSTALLED UNDER OPEN GRATINGS SHALL BE OF THE INTERMEDIATE LEVEL/RACK STORAGE TYPE OF OTHERWISE SHIELDED FROM THE DISCHARGE OVERHEAD SPRINKLERS.

4. PORTABLE FIRE EXTINGUISHERS TO NFPA 10.
5. ALL FOUR LEVELS OF VAULT & ATTIC SPACE SHALL BE DRY PIPE PRE-ACTION SYSTEM

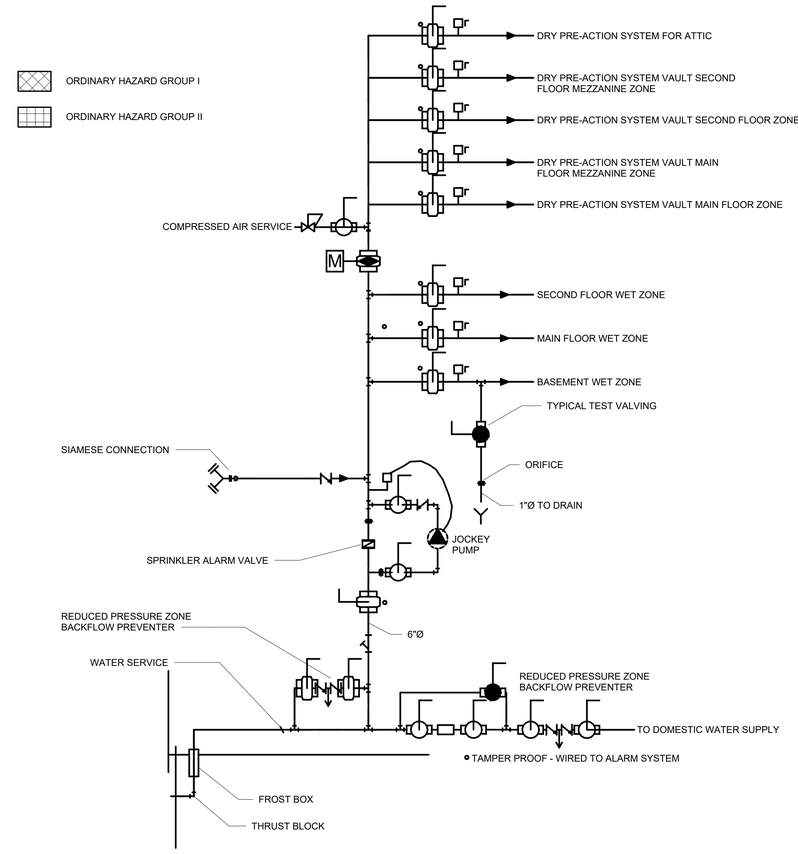
HYDRAULIC CALCULATION SUMMARY

HAZARD: ORDINARY HAZARD OCCUPANCY (GROUP 2)
INSIDE HOSE ALLOWANCE: 100 GPM
TOTAL COMBINED INSIDE & OUTSIDE HOSE ALLOWANCE: 250 GPM
MINIMUM RESIDUAL PRESSURE: 20 PSI

NOTE:

CONTRACTOR TO PROVIDE SPRINKLER SYSTEM DRAINAGE PORTS C/W THREADED HOSE CONNECTION AT SUITABLE LOCATIONS TO ALLOW FOR FULL DRAINAGE OF SPRINKLER SYSTEM.

SPRINKLER PIPING AND SPRINKLER HEADS EXPOSED OTHER THAN IN OFFICES AND BASEMENT AREAS WITH CEILINGS, REFER TO ARCHITECTURAL RCP FOR DETAILS. UPRIGHT SPRINKLER HEADS SHALL BE USED IN EXPOSED AREAS WHILE CONCEALED PENDANTS SHALL BE USED IN AREAS WITH CEILINGS.



2 - SPRINKLER ZONE MANIFOLD ASSEMBLY
SCALE: NTS

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T.A. URQUHART
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mcm architects inc.
141 ST.ANNE'S ROAD, WINNIPEG, MANITOBA, R2M 2Z3
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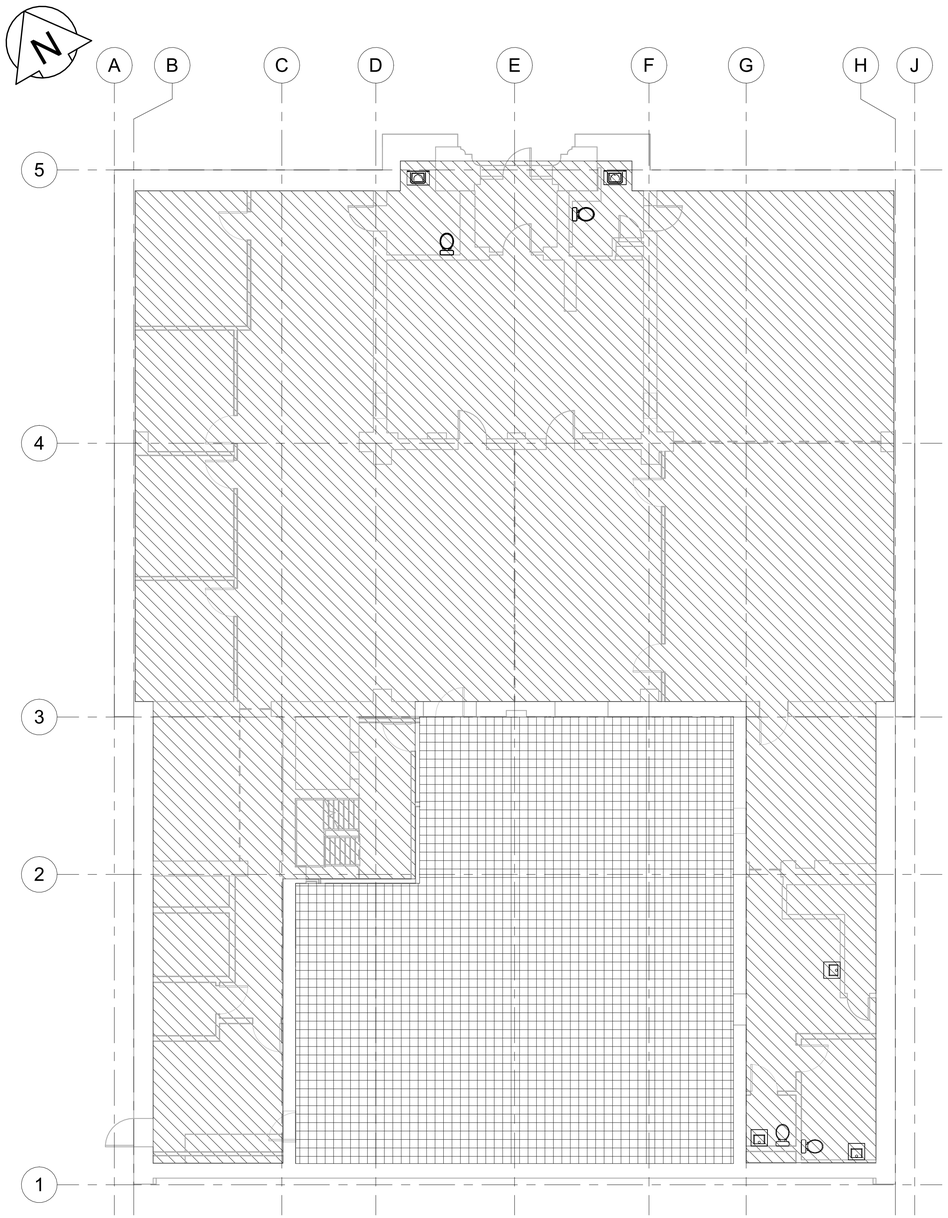
380 WILLIAM AVENUE, WINNIPEG, MANITOBA

project: 2624
sheet no.: **FP1.1**



1 / - MAIN FLOOR FIRE PROTECTION PLAN
SCALE: 1/8" = 1'-0" 24"x36" SHEET

NOTE: CONTRACTOR TO PROVIDE SPRINKLER SYSTEM DRAINAGE PORTS C/W THREADED HOSE CONNECTION AT SUITABLE LOCATIONS TO ALLOW FOR FULL DRAINAGE OF SPRINKLER SYSTEM

AREA SUMMARY

DESCRIPTION	AREA (SQ.FT.)	CLASSIFICATION
MAIN FLOOR VAULT	2200	ORDINARY HAZARD GROUP 2 DRY SYSTEM
MAIN FLOOR MEZZANINE VAULT	2200	ORDINARY HAZARD GROUP 2 DRY SYSTEM
MAIN FLOOR	6800	LIGHT HAZARD OCCUPANCY

GENERAL NOTES

1. CONFORM TO LATEST REVISION OF ALL APPLICABLE CODES, REQUIREMENTS OF OWNER'S UNDERWRITER AND AUTHORITY HAVING JURISDICTION.
2. SUBMIT SHOP DRAWINGS AND HYDRAULIC LOAD CALCULATIONS BEARING ENGINEER'S SEAL TO ENGINEER, AUTHORITY HAVING JURISDICTION AND UNDERWRITER.
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GENERAL:	ANSI/NFPA 13, INSTALLATION OF SPRINKLER SYSTEMS ANSI/NFPA 10, STANDARD FOR PORTABLE FIRE EXTINGUISHERS NRC-CNRC, NATIONAL FIRE CODE OF CANADA
PIPE SIZE AND LAYOUT: WATER SUPPLY:	SPRINKLER HEAD LAYOUT, TO ANSI/NFPA 13 AND AS DIRECTED BY AUTHORITIES HAVING JURISDICTION. CONDUCT FLOW AND PRESSURE TEST OF WATER SUPPLY IN VICINITY OF THE FACILITY IN ACCORDANCE WITH ANSI/NFPA 13 OR ALTERNATELY PROVIDE INFORMATION ON PREVIOUS TEST. THE AUTHORITY HAVING JURISDICTION SHALL BE PERMITTED TO REQUIRE AN ADJUSTMENT TO WATER FLOW TEST DATA.
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4. PORTABLE FIRE EXTINGUISHERS TO NFPA 10,
5. ALL FOUR LEVELS OF VAULT & ATTIC SPACE SHALL BE DRY PIPE PRE-ACTION SYSTEM

HYDRAULIC CALCULATION SUMMARY

HAZARD: ORDINARY HAZARD OCCUPANCY (GROUP 2)
INSIDE HOSE ALLOWANCE: 100 GPM
TOTAL COMBINED INSIDE & OUTSIDE HOSE ALLOWANCE: 250 GPM
MINIMUM RESIDUAL PRESSURE: 20 PSI

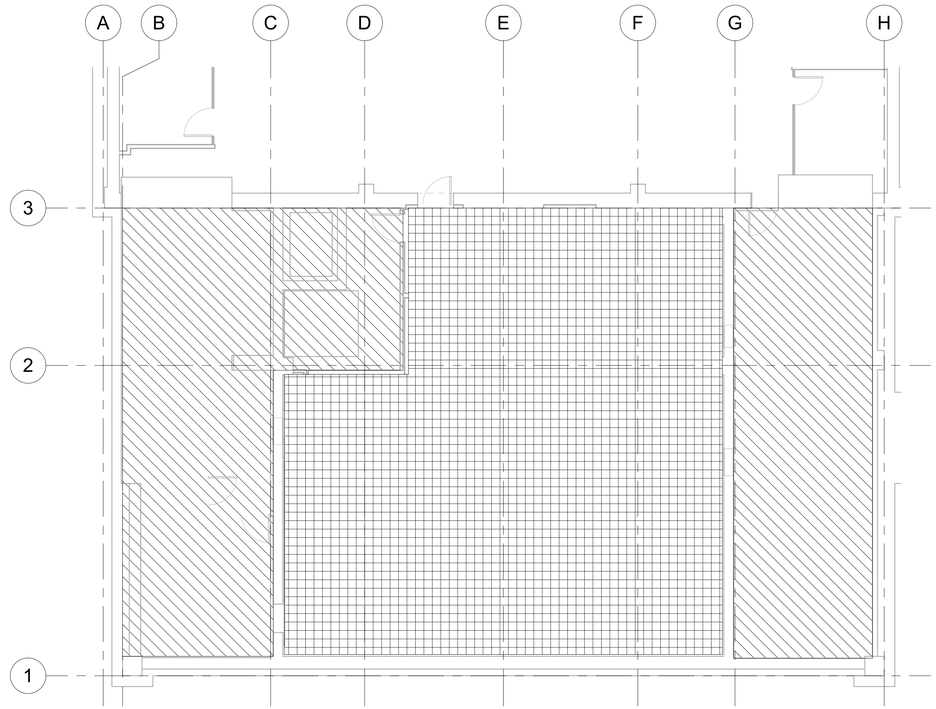
NOTE:

CONTRACTOR TO PROVIDE SPRINKLER SYSTEM DRAINAGE PORTS C/W THREADED HOSE CONNECTION AT SUITABLE LOCATIONS TO ALLOW FOR FULL DRAINAGE OF SPRINKLER SYSTEM.

SPRINKLER PIPING AND SPRINKLER HEADS EXPOSED OTHER THAN IN OFFICES AND BASEMENT AREAS WITH CEILINGS, REFER TO ARCHITECTURAL RCP FOR DETAILS. UPRIGHT SPRINKLER HEADS SHALL BE USED IN EXPOSED AREAS WHILE CONCEALED PENDANTS SHALL BE USED IN AREAS WITH CEILINGS.

LIGHT HAZARD

ORDINARY HAZARD GROUP II



2 / - MAIN FLOOR MEZZANINE FIRE PROTECTION PLAN
SCALE: 1/8" = 1'-0" 24"x36" SHEET

ISSUED FOR CONSTRUCTION

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Certificate of Authorization
Alliance Engineering Services Inc.
No.2906

Alliance ENGINEERING SERVICES INC

PROVINCE OF MANITOBA
I.A. URQUHART
Member
33109
2025-01-30
REGISTERED PROFESSIONAL ENGINEER

drawn by
LM

approved by
IU

date
31 JAN 2025

mcm architects inc.
141 ST.ANNE'S ROAD, WINNIPEG, MANITOBA, R2M 2Z3
260-8th STREET, BRANDON, MANITOBA, R7A 3X3

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project
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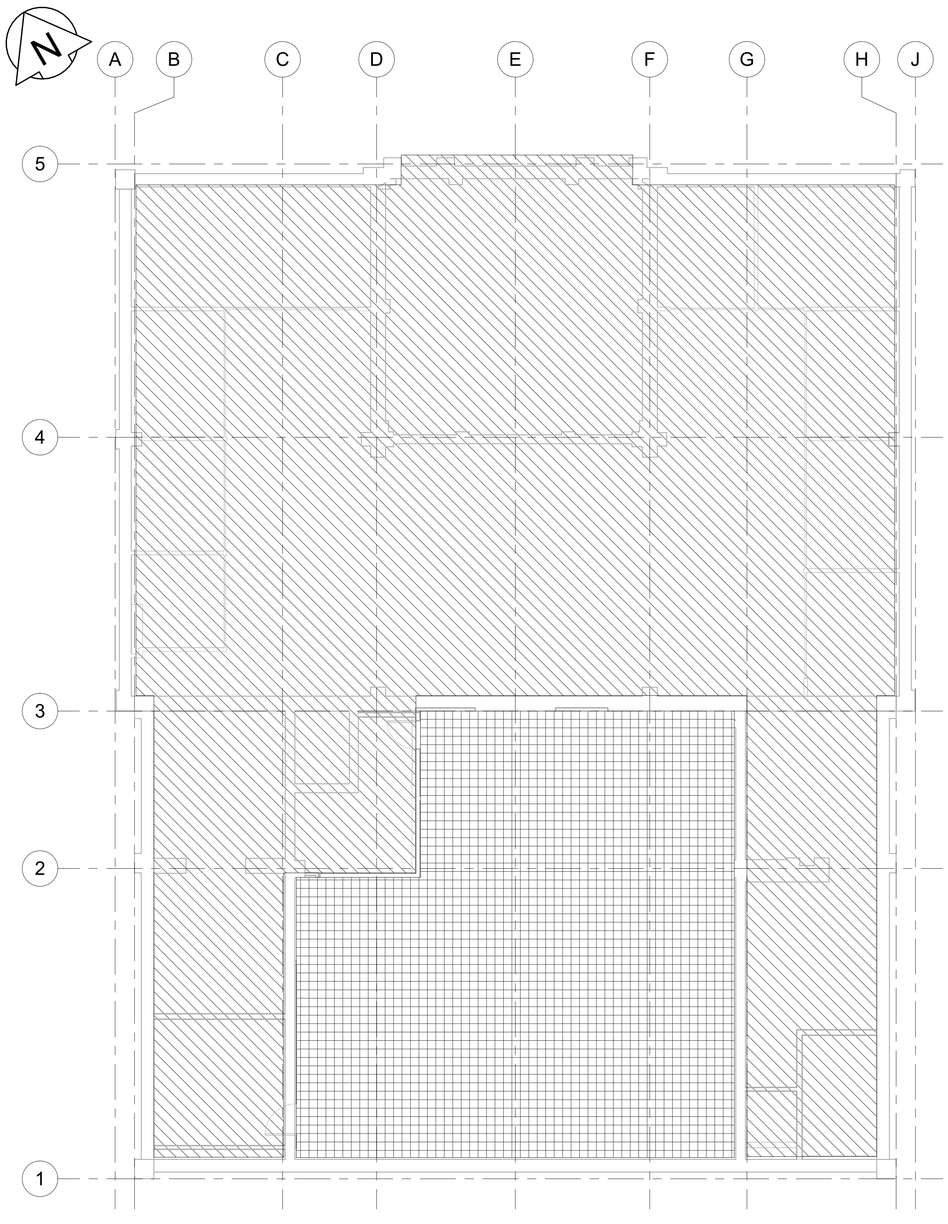

1 - SECOND FLOOR FIRE PROTECTION PLAN
SCALE: 1/8" = 1'-0" 24"x36" SHEET

NOTE: CONTRACTOR TO PROVIDE SPRINKLER SYSTEM DRAINAGE PORTS C/W THREADED HOSE CONNECTION AT SUITABLE LOCATIONS TO ALLOW FOR FULL DRAINAGE OF SPRINKLER SYSTEM

AREA SUMMARY

DESCRIPTION	AREA (SQ.FT.)	CLASSIFICATION
SECOND FLOOR VAULT	2200	ORDINARY HAZARD GROUP 2 DRY SYSTEM
SECOND FLOOR MEZZANINE VAULT	2200	ORDINARY HAZARD GROUP 2 DRY SYSTEM
SECOND FLOOR	6800	LIGHT HAZARD OCCUPANCY

GENERAL NOTES

1. CONFORM TO LATEST REVISION OF ALL APPLICABLE CODES, REQUIREMENTS OF OWNER'S UNDERWRITER AND AUTHORITY HAVING JURISDICTION.
2. SUBMIT SHOP DRAWINGS AND HYDRAULIC LOAD CALCULATIONS BEARING ENGINEER'S SEAL TO ENGINEER, AUTHORITY HAVING JURISDICTION AND UNDERWRITER.
3. GENERAL DESIGN CRITERIA:

GENERAL:	ANSI/NFPA 13, INSTALLATION OF SPRINKLER SYSTEMS ANSI/NFPA 10, STANDARD FOR PORTABLE FIRE EXTINGUISHERS NRC-CNRC, NATIONAL FIRE CODE OF CANADA
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4. PORTABLE FIRE EXTINGUISHERS TO NFPA 10,
5. ALL FOUR LEVELS OF VAULT & ATTIC SPACE SHALL BE DRY PIPE PRE-ACTION SYSTEM

HYDRAULIC CALCULATION SUMMARY

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TOTAL COMBINED INSIDE & OUTSIDE HOSE ALLOWANCE: 250 GPM
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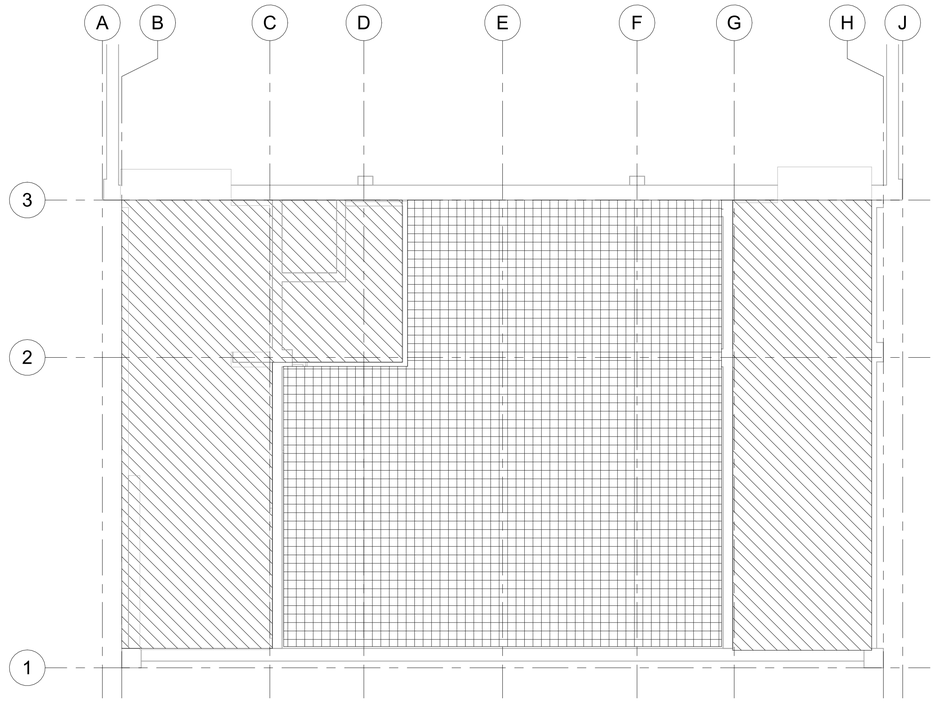
LIGHT HAZARD

ORDINARY HAZARD GROUP II



2 - SECOND FLOOR MEZZANINE FIRE PROTECTION PLAN
SCALE: 1/8" = 1'-0" 24"x36" SHEET

ISSUED FOR CONSTRUCTION

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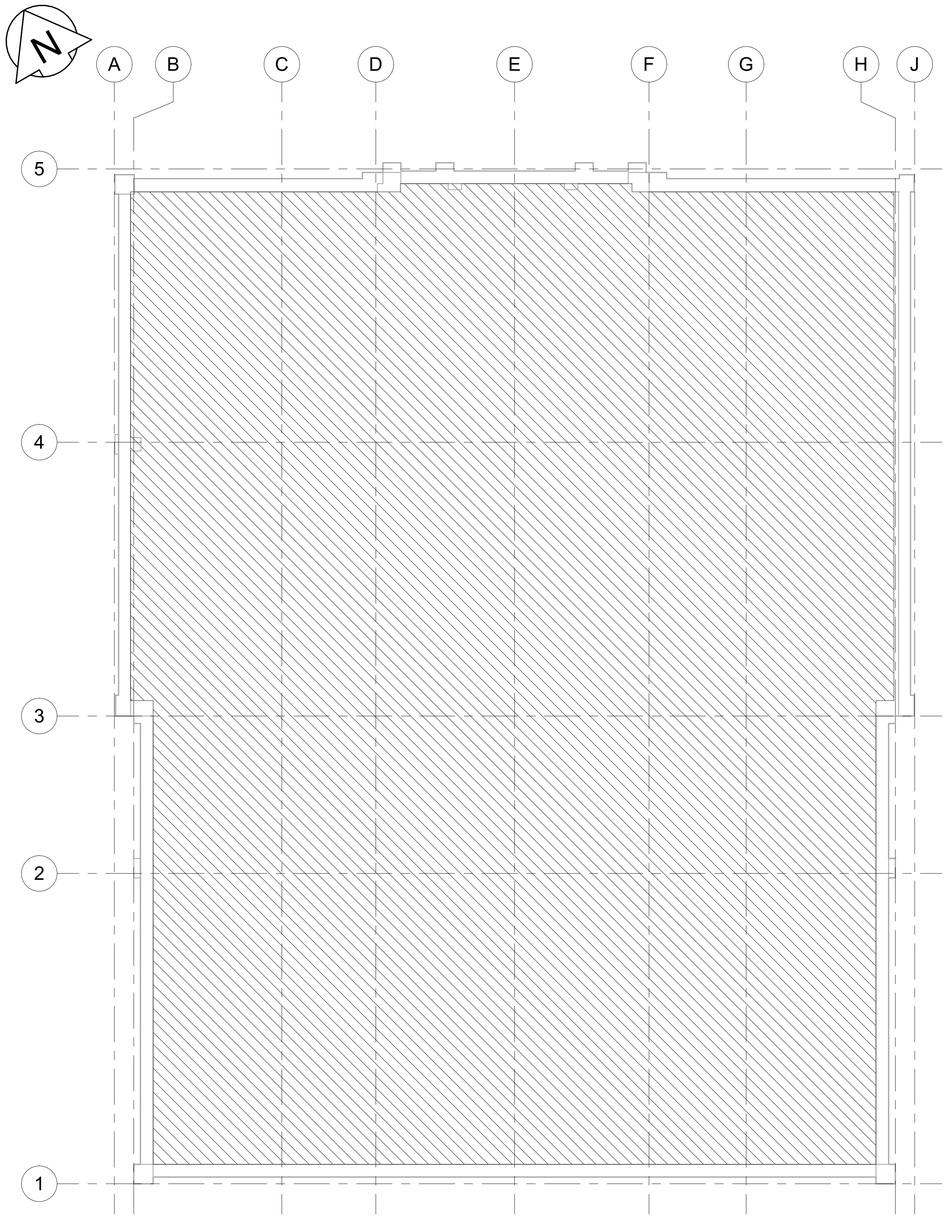

1 / - ATTIC SPACE FIRE PROTECTION PLAN
SCALE: 1/8" = 1'-0" 24"x36" SHEET

NOTE: CONTRACTOR TO PROVIDE SPRINKLER SYSTEM DRAINAGE PORTS C/W THREADED HOSE CONNECTION AT SUITABLE LOCATIONS TO ALLOW FOR FULL DRAINAGE OF SPRINKLER SYSTEM

AREA SUMMARY

DESCRIPTION	AREA (SQ.FT.)	CLASSIFICATION
ATTIC SPACE	9000	LIGHT HAZARD OCCUPANCY DRY SYSTEM

GENERAL NOTES

1. CONFORM TO LATEST REVISION OF ALL APPLICABLE CODES, REQUIREMENTS OF OWNER'S UNDERWRITER AND AUTHORITY HAVING JURISDICTION.
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HYDRAULIC CALCULATION SUMMARY

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LIGHT HAZARD

ORDINARY HAZARD GROUP II

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PIPING IDENTIFICATION

SYMBOL	DESCRIPTION
—— - —— - ——	COLD WATER SUPPLY
—— - —— - ——	HOT WATER SUPPLY
—— - - - ——	HOT WATER RECIRC.
——SAN——	SANITARY LINE (ABOVE FLOOR/GRADE)
------SAN------	SANITARY LINE (BELOW FLOOR/GRADE)
------- V -------	SANITARY VENT
——— ST ———	STORM DRAIN (ABOVE FLOOR/GRADE)
------- ST -------	STORM DRAIN (BELOW FLOOR/GRADE)
——— FW ———	FLUSHING WATER
——— SA ———	SERVICE AIR
——— PW ———	POTABLE WATER
——— GHS ———	GLYCOL HEATING SUPPLY
——— GHR ———	GLYCOL HEATING RETURN
———CHGS———	CHILLED GLYCOL SUPPLY
———CHGR———	CHILLED GLYCOL RETURN
——— NG ———	NATURAL GAS
———HWS———	HOT WATER SUPPLY
———HWR———	HOT WATER RETURN
———CHWS———	CHILLED WATER SUPPLY
———CHWR———	CHILLED WATER RETURN
———LPG———	LOW PRESSURE GAS REFRIGERANT
———HPL———	HIGH PRESSURE LIQUID REFRIGERANT
——— V———	AIR RELIEF (VENT)

VALVES

CHECK VALVE	
BUTTERFLY VALVE – LEVER (NORMALLY OPEN)	
BUTTERFLY VALVE – LEVER (NORMALLY CLOSED)	
BALL VALVE – LEVER (NORMALLY OPEN)	
BALL VALVE – LEVER (NORMALLY CLOSED)	
PLUG VALVE (NORMALLY OPEN)	
GATE VALVE (NORMALLY OPEN)	
GATE VALVE (NORMALLY CLOSED)	
GLOBE VALVE (NORMALLY CLOSED)	
GLOBE VALVE (NORMALLY CLOSED)	
PNEUMATIC 2 WAY CONTROL VALVE	
SOLENOID 2 WAY CONTROL VALVE	
MOTORIZED 2 WAY CONTROL VALVE	
3 WAY VALVE	
3 WAY SOLENOID CONTROL VALVE	
3 WAY PNEUMATIC CONTROL VALVE	
3 WAY MOTORIZED CONTROL VALVE	
TRIPLE DUTY VALVE	TDV
BALANCING VALVE	
SELF REGULATING PRESSURE VALVE	PRV
SAFETY RELIEF VALVE	SRV

HYDRONIC SPECIALTIES

AIR VENT ASSEMBLY (WITH BALL VALVE)	AV
SUCTION DIFFUSER	SD
WYE STRAINER	
LOW WATER CUT OFF	LWCO
STEAM TRAP, FLOAT & THERMOSTATIC	FT T2701
STEAM TRAP, THERMODYNAMIC	TD T2702
REDUCED PRESSURE ZONE BACK FLOW PREVENTER	RPZ-BFP

EQUIPMENT

PUMP	
BASKET STRAINER	TAG-#
SHELL & TUBE HEAT EXCHANGER	
PLATE & FRAME HEAT EXCHANGER	
CHEMICAL POT FEEDER	CPF
SIDE STREAM FILTER	SSF
MOTORIZED DAMPER	M
FIRE DAMPER	FD
FIRE/SMOKE DAMPER	FSD
BALANCING DAMPER	BD
FAN	
FLEX CONNECTOR	

PIPE FITTINGS

CONCENTRIC REDUCER/INCREASER A – INLET DIA. B – OUTLET DIA.	AxB
ECCENTRIC REDUCER/INCREASER A – INLET DIA. B – OUTLET DIA.	AxB
BLIND FLANGE	BF
UNION	
CLEANOUT	CO
END CAP	
FLEXIBLE CONNECTION	

INSTRUMENTATION

TEMPERATURE INDICATOR	
PRESSURE INDICATOR ASSEMBLY (WITH BALL VALVE)	P1
FLOW INDICATOR	F-1
SENSOR AND/OR TRANSMITTER XX – INDICATES TYPE OF DEVICE. SEE OPTIONS LISTED BELOW. FS – FLOW SENSOR FT – FLOW TRANS. TS – TEMP. SENSOR TT – TEMP. TRANS. PS – PRES. SENSOR PT – PRES. TRANS.	XX-# XX
OUTSIDE AIR TEMPERATURE SENSOR	OATS

SYSTEM SYMBOLS

FLOW ARROW	
TIE-IN POINT	TIP-#
SUPPLY AIR	
RETURN/EXHAUST AIR	

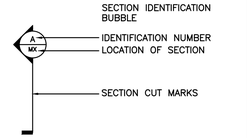
TAGS

PIPING	SYSTEM–SIZE–PIPE SPECIFICATION
EQUIPMENT	692–ROOM NUMBER–EQUIPMENT TYPE–#

HVAC

SYMBOL	DESCRIPTION
TYPE / SIZE / FLOW / #	GRILLE OR DIFFUSER DESIGNATION
T	THERMOSTAT
H	HUMIDISTAT
SP	STATIC PRESSURE SENSOR
DP	DIFFERENTIAL PRESSURE SENSOR
CSR	CURRENT SENSING RELAY
	EXISTING DUCT
	DEMO DUCT
	NEW DUCT
FD	FIRE DAMPER
FSD	FIRE/SMOKE DAMPER
M	MOTORIZED DAMPER
	BALANCING DAMPER

SECTION CUT MARK



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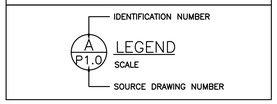

PLUMBING & DRAINAGE

SYMBOL	DESCRIPTION
FD-#	FLOOR DRAIN (TYPE)
TD	TRENCH DRAIN
RD	ROOF DRAIN
HB	HOSE BIBB
NFHB	NON-FREEZE HOSE BIBB
CO	CLEANOUT
	P-TRAP

A — PROCESS FLOW DIAGRAM LEGEND
N.T.S.

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No.2906

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1035 LOGAN AVENUE, WINNIPEG, MANITOBA R3E 1P6

PROVINCE OF MANITOBA — R.A. URQUHART — Member 33109 — 2025.01.30 — REGISTERED PROFESSIONAL ENGINEER

seal

drawn by: JO
approved by: IU
date: 31-JAN-2025

mcm architects inc.
141 ST. ANNE'S ROAD, WINNIPEG, MANITOBA R2M 2Z3
260 - 8th STREET, BRANDON, MANITOBA R7A 3X3

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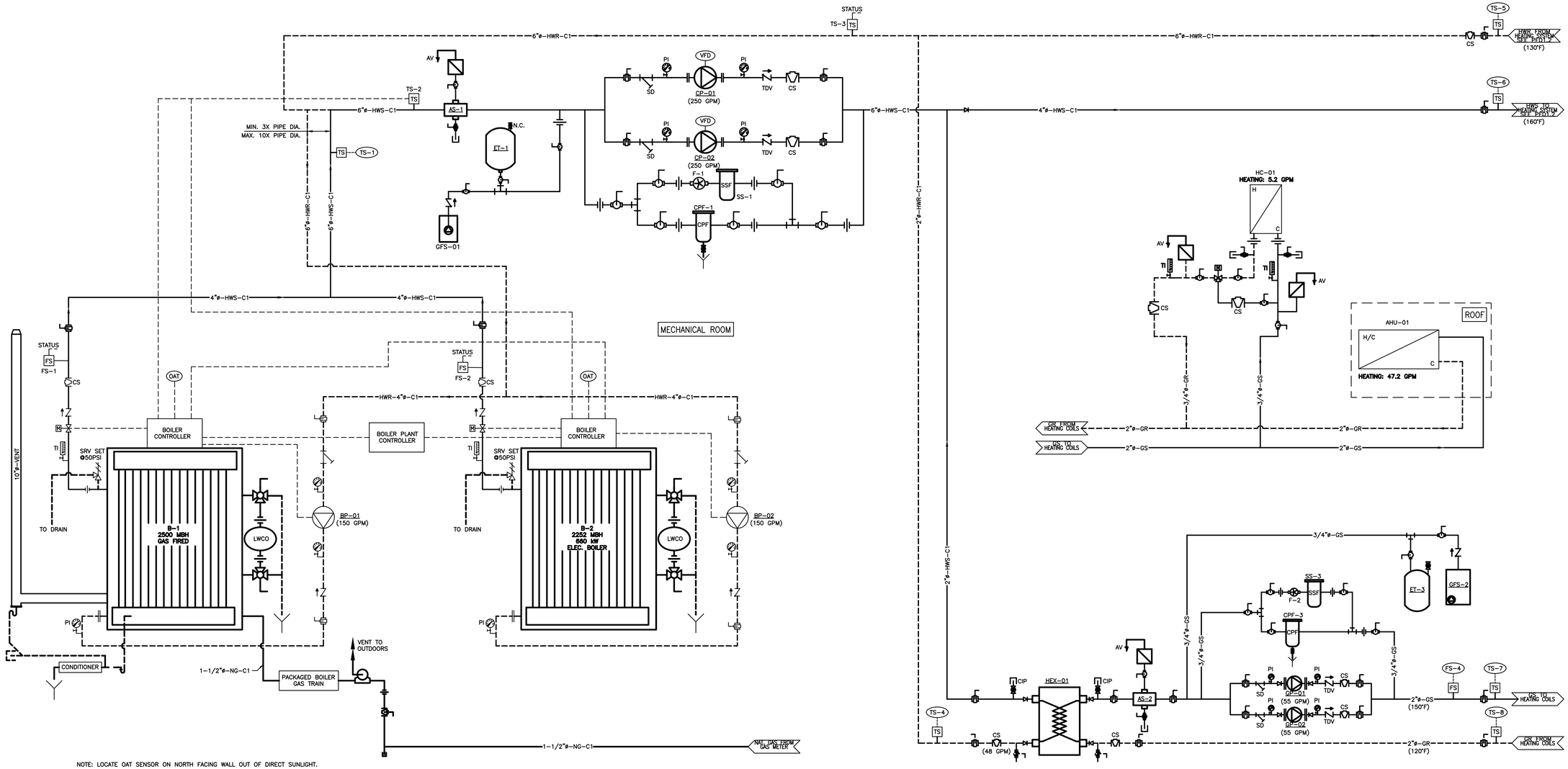
project: 2624
sheet no.: **PFD1.0**



NOTE: LOCATE OAT SENSOR ON NORTH FACING WALL OUT OF DIRECT SUNLIGHT.

A
HYDRONIC HEATING SYSTEM PROCESS FLOW DIAGRAM 1 OF 3
N.T.S.

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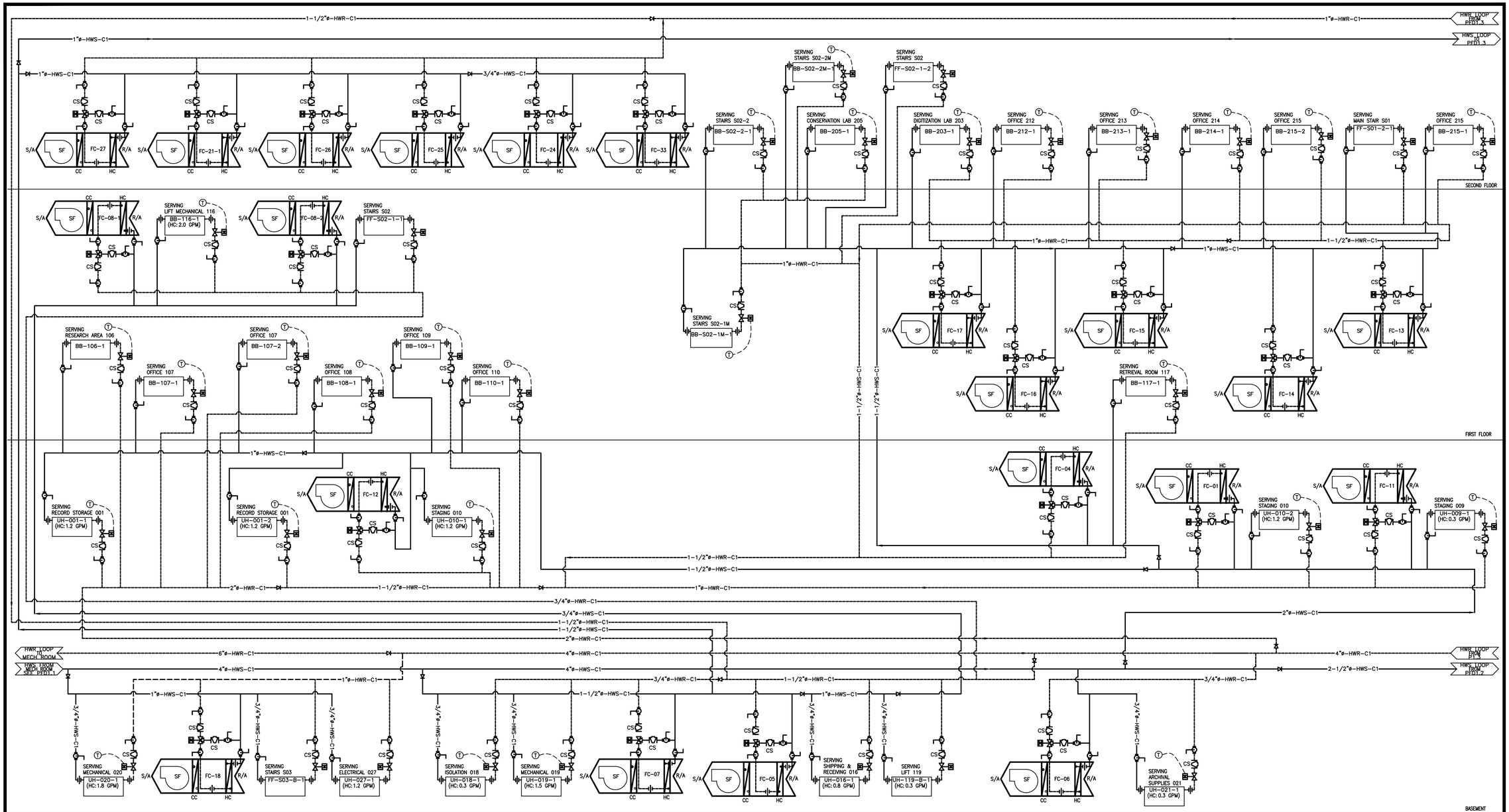
sheet no. **PFD1.1**



A HYDRONIC HEATING SYSTEM PROCESS FLOW DIAGRAM 2 OF 3

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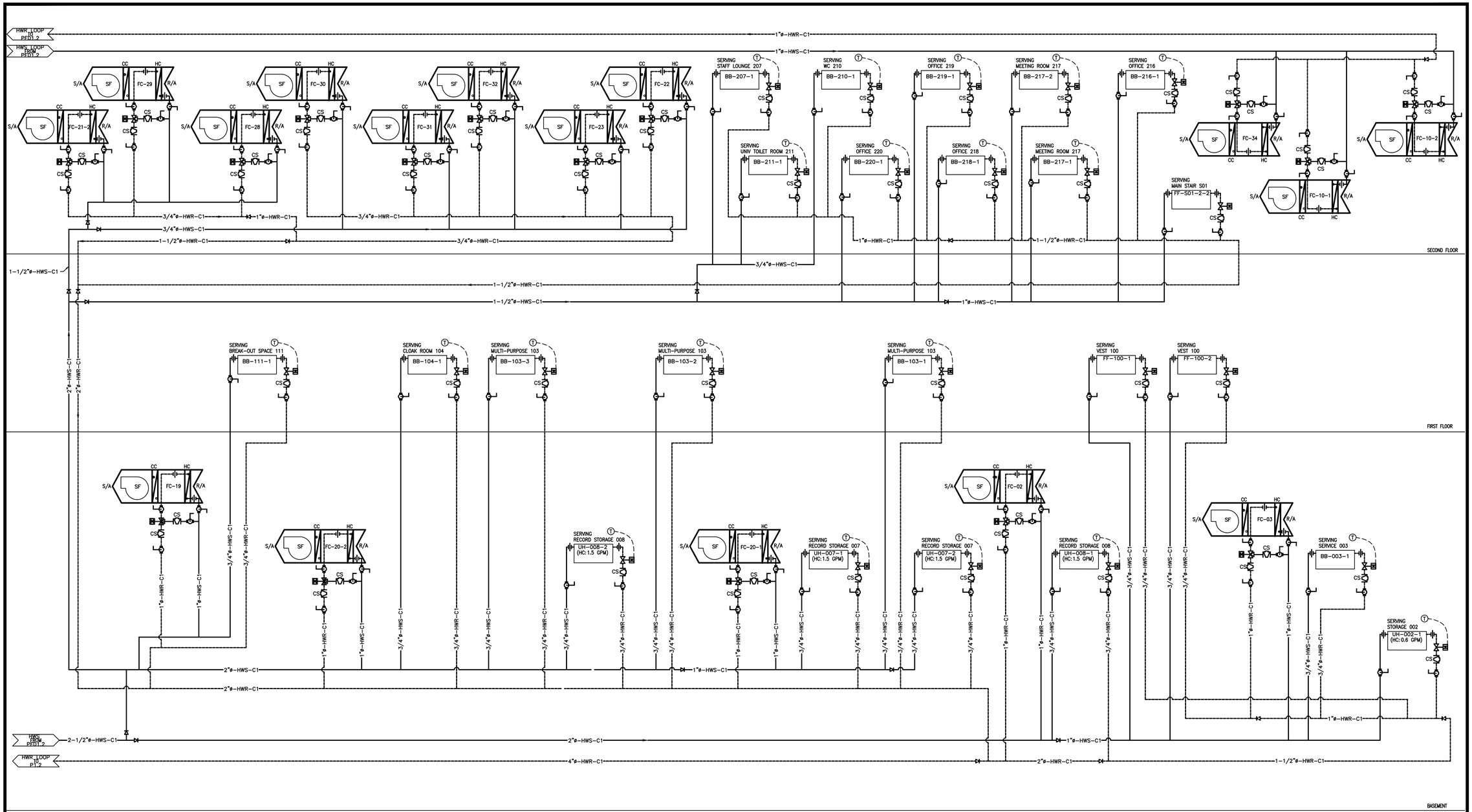

A — HYDRONIC HEATING SYSTEM PROCESS FLOW DIAGRAM 3 OF 3

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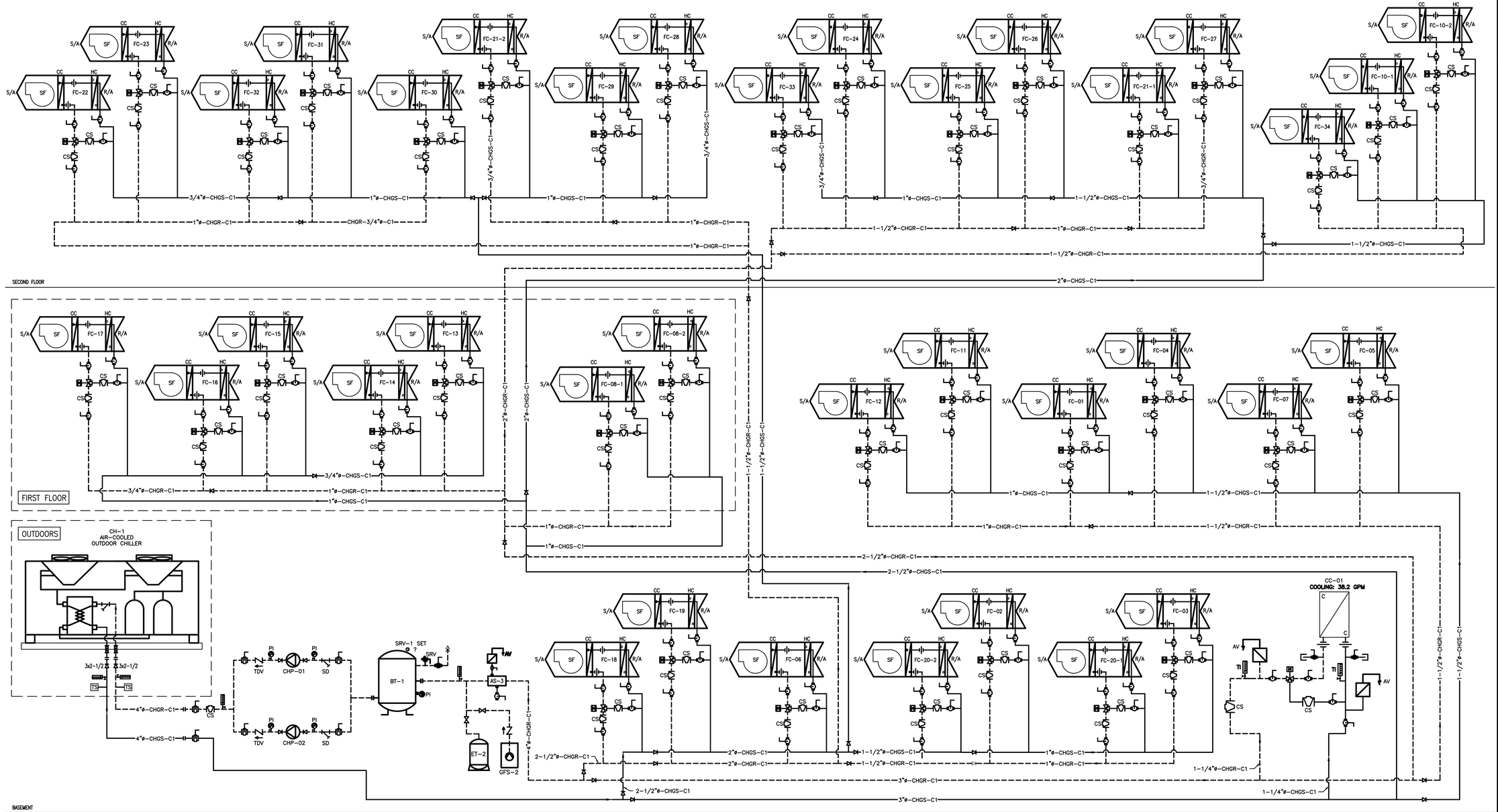
project: 2624
sheet no.: **PFD1.3**



A — CHILLED GLYCOL SYSTEM PROCESS FLOW DIAGRAM
N.T.S.

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sheet no.
PFD1.4