



**1** BASEMENT – HVAC RENOVATION LAYOUT  
M4.1 SCALE: 1:50

### GENERAL NOTES

- THIS DRAWING IS DIAGRAMMATIC ONLY. DO NOT SCALE.
- THE MECHANICAL SYSTEMS SHOWN ARE APPROXIMATE IN LOCATION ONLY. CONTRACTOR TO VERIFY EXACT LOCATION OF SYSTEMS BEING MODIFIED ON SITE PRIOR TO COMMENCEMENT OF WORK.
- ALL WORK SHALL COMPLY WITH THE MOST CURRENT VERSION OF ALL APPLICABLE CODES AND STANDARDS, WHICH SHALL BE CONSIDERED PART OF THESE CONTRACT DOCUMENTS. IN THE CASE OF CONFLICTING REQUIREMENTS, THE MOST STRINGENT REGULATION SHALL PREVAIL.
- CONTRACTOR TO MAINTAIN CURRENT AND READILY REVIEWABLE AS-BUILT DRAWINGS ACCURATELY REFLECTING SITE INSTALLATIONS.
- CONTRACTOR TO ENSURE ALL MATERIALS MODIFIED OR INSTALLED IN AN AIR PLENUM ARE RATED FOR SUCH USE.
- CONTRACTOR TO MAINTAIN DIGITAL PHOTOGRAPHIC RECORDS OF ALL INSTALLATIONS PRIOR TO CONCEALMENT BY SUPPORTING TRADES.
- EXISTING MECHANICAL BEING RE-INSTALLED TO BE TURNED OVER TO INSTALLING CONTRACTOR IN GOOD CONDITION.
- CONTRACTOR SHALL ALLOW FOR ADDITIONAL OFFSETS AND TRANSITIONS FOR PIPING AND DUCTWORK TO SUIT NEW AND EXISTING SITE CONDITIONS.
- COORDINATE WITH GENERAL CONTRACTOR PRIOR TO TENDER FOR ALL LOCATIONS WHERE LINTELS ARE REQUIRED FOR DUCTWORK PENETRATING A LOAD BEARING WALL.

### DRAWING NOTES:

- NEW FLOOR PENETRATION TO GRILLE ON MAIN FLOOR. FIELD CONSTRUCTION SUPPLY PLENUM BENEATH. COORDINATE FLOOR PENETRATIONS WITH ARCHITECTURAL AND STRUCTURAL.
- NEW TEMPERATURE SENSOR IN ON WALL. TIED INTO NEW DDC SYSTEM.
- NEW SHEET METAL PLENUM BOX TO LINEAR BAR GRILLE ON MAIN FLOOR. CONSTRUCT FOUR SHEET METAL PLENUMS TO FIT BETWEEN JOISTS AND BALANCE TO AIRFLOW NOTED. SEAL UNUSED SECTIONS SO ALL AIR IS DIRECTED TO MAIN FLOOR.
- FAN COIL TO BE SUSPENDED FROM STRUCTURE COMPLETE WITH SPRING VIBRATION ISOLATORS.
- HRV TO BE MOUNTED ON NEW 100MM HOUSEKEEPING PAD.
- NEW ELECTRIC BASEBOARD WITH BUILT IN THERMOSTAT BY ELECTRICAL.
- NEW ACOUSTIC TRANSFER AIR ELBOW CONNECTION TO FLOOR GRILLE ABOVE.
- SUSPEND SELECTOR BOX FROM STRUCTURE COMPLETE WITH SPRING VIBRATION ISOLATORS.
- NEW OUTDOOR UNIT INSTALLED ON EXISTING CONCRETE PAD.
- NEW TRANSFER AIR GRILLE AND ACOUSTIC ELBOW SIZED TO MATCH GRILLE FACE.
- NEW LITTLE GIANT CONDENSATE PUMP INSTALLED IN CEILING/AT HIGH LEVEL TO DRAIN ALL NEARBY FAN COILS.
- LITTLE GIANT CONDENSATE PUMP, VCM-200LS, FOR HRV. PUMP TO DISCHARGE INTO MCP SINK.
- REFRIGERANT LINES FROM OUTDOOR UNIT INTO BUILDING WITHIN CEILING SPACE OF MULTIPURPOSE PROGRAM ROOM.
- NEW CONDENSATE PIPE DOWN IN CORNER OF ROOM. CONNECT BACK INTO ORIGINAL CONNECTION AT NEW FLOOR LEVEL. PIPE INSULATION TO HAVE PVC COVER.
- NEW JOHNSON DDC PANEL MOUNTED ON WALL.
- NEW 85# STEAM PIPING AND 50# CONDENSATE PIPING INSTALLED AT HIGH LEVEL AROUND RENOVATED MULTIPURPOSE AND MEETING ROOMS. PIPING TO MATCH SIZE AND MATERIAL OF EXISTING PIPING. CONFIRM SIZE ON SITE. INSULATE NEW PIPING AS PER SPECIFICATION. MAKE RECONNECTIONS BACK TO RADIATORS ON MAIN FLOOR. REINSTALL ALL SYSTEM ACCESSORIES AND RESTORE STEAM SYSTEM BACK TO ORIGINAL WORKING ORDER.
- NEW RETURN GRILLE TO PENETRATE WALL BELOW GWB BULKHEAD.
- PROVIDE EXTERIOR LOUVER OVER PATCHED WALL. LOUVER SIZE TO MATCH OPENING SIZE. CONFIRM DIMENSIONS ON SITE PRIOR TO ORDERING. OPENING IS APPROXIMATELY 900X600. LOUVER IS FOR DECORATIVE PURPOSES.
- PROVIDE 600X400 TRANSFER AIR OPENING ABOVE CEILING.
- LOUVER TO BE INSTALLED BELOW STAIRS. COORDINATE LOCATION WITH ARCHITECTURAL AND STRUCTURAL.
- DUCTS AND PIPES TO BE INSTALLED WITHIN NEW BULKHEAD. COORDINATE REQUIRED WIDTHS OF BULKHEAD WITH GENERAL CONTRACTOR AND ARCHITECT.
- GRAVITY DRAIN CONDENSATE TO NEAREST DRAIN IN MECHANICAL ROOM 003.
- AIR CURTAIN REMOTELY MOUNTED CONTROL BOX. NOTE: AIR CURTAIN SHALL BE CONTROLLED BY DDC SYSTEM.

### ASHRAE 62.1-2013 COMPLIANCE SCHEDULE

UNIT DESIGNATION	OCCUPANCY CATEGORY	PEOPLE OUTSIDE AIR RATE (CFM/OCCUPANT)	NUMBER OF OCCUPANTS	ZONE AIR DISTRIBUTION EFFECTIVENESS FACTOR	AREA OF SPACE (FT²)	AREA OUTSIDE AIR RATE (CFM/FT²)	**COMBINED OUTSIDE AIR VOLUME W/ EFFECTIVENESS (CFM)
FC 0-1	MEETING ROOM	5 CFM / OCCUPANT	8	0.8	260	0.06 CFM / FT²	70
FC 0-2	MEETING ROOM	5 CFM / OCCUPANT	8	0.8	505	0.06 CFM / FT²	88
FC 0-3	BREAK ROOM	5 CFM / OCCUPANT	2	0.8	140	0.06 CFM / FT²	23
FC 0-4	MULTIPURPOSE ROOM	7.5 CFM / OCCUPANT	6	0.8	410	0.06 CFM / FT²	87
FC 1-1	LIBRARIES	5 CFM / OCCUPANT	8	0.8	425	0.12 CFM / FT²	114
FC 1-2, FC 1-3, FC 1-4	LIBRARIES	5 CFM / OCCUPANT	15	0.8	2600	0.12 CFM / FT²	FC 1-2: 140 FC 1-3: 170 FC 1-4: 170
TOTALS							865



This drawing must not be scaled. The contractors shall verify all dimensions and other data on site prior to commencement of work. Discrepancies, errors, and omissions are to be reported to the Architect prior to proceeding with the Work.

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Project  
**St. John's Library Renovation**

Drawing  
**BASEMENT - HVAC RENOVATION LAYOUT**

Drawn By  
JDG

Scale  
1:50

Reviewed By  
ATS

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**M4.1**

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