

ALL DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF THE CONSULTANT AND NO REPRODUCTIONS MAY BE MADE WITHOUT THE CONSENT OF THE CONSULTANT AND ALL REPRODUCTIONS MUST BEAR THE NAME OF THE CONSULTANT.
 THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, DATUMS AND LEVELS NOTED ON THIS DRAWING AND REPORT ANY ERRORS OR OMISSIONS TO THE ENGINEER FOR ADJUSTMENTS.
 THIS DRAWING SHALL NOT BE SCALED

DRAWING NOTES - HVAC

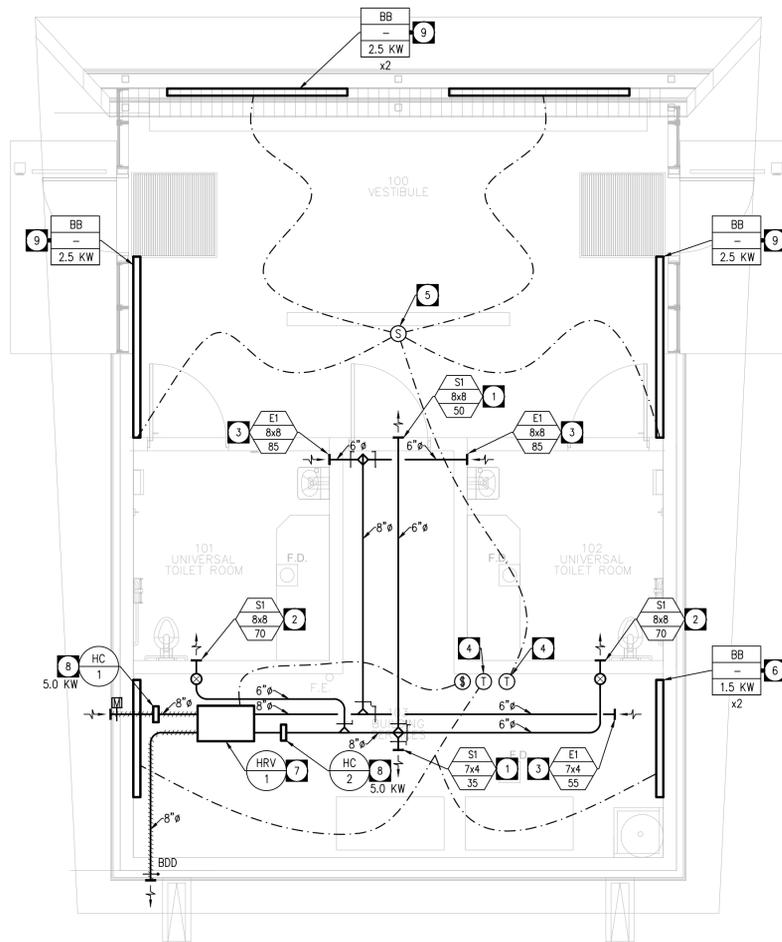
- SUPPLY GRILLE TO BE LOCATED APPROXIMATELY AS SHOWN AT HIGH LEVEL. COORDINATE EXACT PLACEMENT ON SITE. REFER TO GRILLES, DIFFUSERS AND LOUVRES SCHEDULE.
- SUPPLY GRILLE TO BE LOCATED APPROXIMATELY AS SHOWN AT LOW LEVEL. COORDINATE EXACT PLACEMENT WITH ARCHITECTURAL. REFER TO GRILLES, DIFFUSERS AND LOUVRES SCHEDULE.
- EXHAUST GRILLE TO BE LOCATED APPROXIMATELY AS SHOWN AT HIGH LEVEL. COORDINATE EXACT PLACEMENT WITH ARCHITECTURAL. REFER TO GRILLES, DIFFUSERS AND LOUVRES SCHEDULE.
- SUPPLY AND INSTALL (LOW VOLTAGE) THERMOSTAT AT APPROXIMATE LOCATION SHOWN. MOUNT TOP OF THERMOSTAT AT 3'-11" (1200 MM) AFF. COORDINATE EXACT LOCATION ON SITE.
- SUPPLY AND INSTALL (LOW VOLTAGE) REMOTE SENSOR IN APPROXIMATE LOCATION SHOWN. WIRE BACK TO ASSOCIATED THERMOSTAT IN MECHANICAL ROOM. WIRING TO RUN IN WALL. MOUNT TOP OF SENSOR AT 4'-6" (1400 MM) AFF. PROVIDE WITH LOCKING COVER. COORDINATE EXACT LOCATION ON SITE.
- APPROXIMATE ELECTRIC BASE BOARD HEATER LOCATION C/W WALL MOUNTED THERMOSTAT. TO BE SUPPLIED, WIRED AND INSTALLED BY ELECTRICAL SUB CONTRACTOR. HEATING VALUE INDICATES OUTPUT CAPACITY. COORDINATE WITH ELECTRICAL SUB CONTRACTOR. UNIT TO BE INSTALLED TO ACCOMMODATE MANUFACTURER'S RECOMMENDED SERVICE AND INSTALLATION CLEARANCE REQUIREMENTS.
- SUPPLY AND INSTALL HRV SUSPENDED FROM STRUCTURE C/W SPRING ISOLATORS ON SUSPENSION RODS SUPPORTED FROM STRUCTURE. CONFIRM EXACT LOCATION ON SITE. INSULATE EXHAUST AND INTAKE DUCTS OVER ENTIRE RUN. EXHAUST DUCT THROUGH SIDEWALL TO STEEL WALL CAP TERMINATION C/W BIRD SCREEN AND BACKDRAFT DAMPER AT WALL LINE. INTAKE DUCT THROUGH SIDEWALL WITH STEEL WALL CAP TERMINATION C/W BIRD SCREEN. RUN CONDENSATE DRAIN TO CLOSEST STACK IN AREA. WIRE HRV TO WALL MOUNTED CONTROLLER. UNIT TO BE INSTALLED TO ACCOMMODATE MANUFACTURER'S RECOMMENDED SERVICE AND INSTALLATION CLEARANCE REQUIREMENTS. REFER TO MECHANICAL UNIT SCHEDULE.
- PROVIDE AND MOUNT SCR-TYPE ELECTRIC HEATING COILS IN DUCTWORK C/W ACCESS DOORS TO FACILITATE INSPECTION/SERVICE. PROVIDE COMPLETE WITH DUCT MOUNTED THERMOSTAT. TRANSITION TO COIL DUCT CONNECTIONS AS REQUIRED. SUPPLIED AND INSTALLED BY MECHANICAL SUB CONTRACTOR, AND WIRED BY ELECTRICAL SUB CONTRACTOR. REFER TO MECHANICAL EQUIPMENT SCHEDULE. HEATING VALUE INDICATES OUTPUT CAPACITY. COORDINATE WITH ELECTRICAL SUB CONTRACTOR TO ENSURE OUTPUT IS ATTAINABLE WITH AVAILABLE VOLTAGE. UNIT TO BE INSTALLED TO ACCOMMODATE MANUFACTURER'S RECOMMENDED SERVICE AND INSTALLATION CLEARANCE REQUIREMENTS.
- APPROXIMATE ELECTRIC BASE BOARD HEATER LOCATION C/W WALL MOUNTED REMOTE SENSOR. TO BE SUPPLIED, WIRED AND INSTALLED BY ELECTRICAL SUB CONTRACTOR. WIRING FOR BASEBOARD TO COME DOWN IN MASONRY WALL. HEATING VALUE INDICATES OUTPUT CAPACITY. COORDINATE WITH ELECTRICAL SUB CONTRACTOR. UNIT TO BE INSTALLED TO ACCOMMODATE MANUFACTURER'S RECOMMENDED SERVICE AND INSTALLATION CLEARANCE REQUIREMENTS.

GENERAL NOTES - HVAC

- MECHANICAL SUB CONTRACTOR SHALL VERIFY EXACT LOCATIONS, SIZES, ETC. PRIOR TO COMMENCEMENT OF WORK. VERIFY ALL CONNECTION POINTS ON SITE.
- MECHANICAL SUB CONTRACTOR SHALL ALLOW IN HIS BID QUOTATION FOR ALL REQUIRED MODIFICATIONS TO EXISTING HVAC SYSTEMS AND EQUIPMENT (I.E.) RE-ROUTING AND RE-BALANCING OF EXISTING DUCTWORK AS DEEMED NECESSARY DUE TO RENOVATION WORK.
- REFER TO ARCHITECTURAL, ELECTRICAL & STRUCTURAL DRAWINGS FOR COORDINATION PURPOSES.
- MECHANICAL SUB CONTRACTOR SHALL CAREFULLY REMOVE & RELOCATE EXISTING EQUIPMENT AS PER CITY'S REQUIREMENTS.
- ALL CUTTING & PATCHING OF FLOOR SLABS, WALLS ETC. TO BE PERFORMED BY GENERAL CONTRACTOR.
- COORDINATE THE EXACT LOCATION OF THE GRILLES AND DIFFUSERS ON SITE WITH THE ELECTRICAL SUB CONTRACTOR, GENERAL CONTRACTOR, ARCHITECTURAL CEILING PLAN, LIGHTING LAYOUT, ETC. TO ENSURE THAT THERE ARE NOT ANY CONFLICTS DURING INSTALLATION.
- PROVIDE BALANCE DAMPER FOR EACH SUPPLY/EXHAUST AIR GRILLE OR DIFFUSER TO ALLOW FOR THE PROPER BALANCING OF THE SYSTEM. PROVIDE OPPOSED BLADE DAMPERS WITH THE DIFFUSER AND ADJUSTABLE FROM THE DIFFUSER FACE WHEN A DUCT MOUNTED BALANCE DAMPER WOULD NOT BE ACCESSIBLE.
- ALL DUCT DIMENSIONS DENOTE INTERNAL "OPEN" AREA OF THE DUCT.
- ALL DUCTWORK PENETRATING THE BUILDING THERMAL ENVELOPE SHALL BE INSULATED A MINIMUM 10'-0" BACK FROM THE BUILDING PENETRATION.
- REFER TO ARCHITECTURAL DRAWINGS AND PROVIDE FIRE DAMPERS IN ALL WALLS DENOTED AS FIRE SEPARATIONS. FIRE DAMPER RATING TO BE EQUAL TO OR EXCEED WALL ASSEMBLY RATING. PROVIDE ACCESS DOORS AT ALL FIRE DAMPERS TO ALLOW FOR INSPECTION/TESTING.
- COORDINATE THE EXACT LOCATIONS OF EQUIPMENT, DUCT OPENINGS, AND DUCT LOCATIONS WITH STRUCTURAL.
- ALL WORK SHALL COMPLY IN EVERY RESPECT WITH ALL NATIONAL, PROVINCIAL AND LOCAL CODES AND BY-LAWS, WHICH SHALL BE CONSIDERED PART OF THE SPECIFICATION. IN THE CASE OF CONFLICTING REQUIREMENTS, BE GOVERNED BY THE MOST STRINGENT REGULATIONS.
- THE MECHANICAL SUB CONTRACTOR SHALL INSTALL HEATING, VENTILATION, AND AIR CONDITIONING SYSTEMS IN COMPLETE ACCORDANCE WITH THE RECOMMENDATIONS OF THE NATIONAL/PROVINCIAL BUILDING CODE, ASHRAE, SMAGNA LATEST EDITION DUCT STANDARDS, MANITOBA ENERGY CODE FOR BUILDINGS REQUIREMENTS AND MANITOBA OFFICE OF THE FIRE COMMISSIONER.
- ALL INSULATING MATERIALS, METHODS, SIZES AND TYPES OF INSULATION FOR ALL DUCT WORK SHALL BE INSTALLED TO THE REQUIREMENTS OF THE ASHRAE STANDARDS 90.1-2010 "ENERGY STANDARD FOR BUILDING EXCEPT LOW-RISE RESIDENTIAL BUILDING", STANDARD 90.2 "ENERGY EFFICIENT DESIGN OF LOW-RISE RESIDENTIAL BUILDINGS", THERMAL INSULATION ASSOCIATION OF CANADA (TIAC) STANDARDS AND MANITOBA ENERGY CODE FOR BUILDINGS REQUIREMENTS.
- VENTILATION CONTRACTOR SHALL ENSURE THAT ALL DUCTWORK THAT MAY CONVEY OUTSIDE AIR BE LOCATED A MINIMUM OF 6" (150 MM) AWAY FROM ANY SPRINKLER PIPING. DUCTWORK IN SUCH LOCATIONS SHALL BE PROTECTED WITH A MINIMUM OF 2" (50MM) RIGID DUCT INSULATION WITH VAPOR RETARDING FOIL FINISH. ALTER LOCATION OF DUCTWORK TO SUIT.
- FOR STRUCTURES REQUIRING NEW OR CONTAINING EXISTING FIRE PROTECTION/SPRINKLER SYSTEMS, THE CITY, PROPERTY MANAGER, TENANT AND/OR GENERAL CONTRACTOR SHALL RETAIN THE SERVICES OF A SPRINKLER CONTRACTOR/ENGINEER TO PROVIDE COMPLETE SPRINKLER SYSTEM DESIGN (HYDRAULIC LOAD CALCULATIONS, LAYOUTS, HEAD TYPES AND LOCATIONS, ETC). DESIGN TO INCLUDE PROVISIONS FOR FREEZE PROTECTION IN ALL MECHANICAL AND SERVICE ROOMS UTILIZING DRY AND/OR GLYCOL SYSTEMS.
- ALL CONTROL / ELECTRICAL WIRING TO MEET OR EXCEED FLAME SPREAD RATING OF 25 AND DEVELOPED SMOKE RATING OF 50 AND BE SUITABLE FOR INSTALLATION IN AIR PLENUMS.
- PROVIDE MINIMUM 4" (100MM) FLEXIBLE NEOPRENE CONNECTION ON DISCHARGE AND INTAKE DUCT CONNECTIONS.
- ALL CONTROL WIRING BY MECHANICAL SUB CONTRACTOR UNLESS OTHERWISE SPECIFIED.

LEGEND - HVAC

	SUPPLY AIR DIFFUSER
	RETURN AIR GRILLE
	EXHAUST AIR GRILLE
	DOOR GRILLE
	THERMOSTAT
	HUMIDISTAT
	CARBON DIOXIDE DETECTOR
	ON / OFF SWITCH (BY ELECTRICAL)
	DUCTWORK LOCATED IN FLOOR
	BALANCING DAMPER
	FIRE DAMPER
	BACK DRAFT DAMPER
	MOTORIZED DAMPER
	FLEXIBLE DUCT CONNECTION
	THERMAL INSULATION
	ACOUSTIC INSULATION
	GRILLE / DIFFUSER TAG
	EQUIPMENT TAG
	ALTERNATE EQUIPMENT TAG
	DRAWING NOTE TAG



HVAC
SCALE: 1:50

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Revisions

Date	Revision
May 31, 2017	Issued for Construction

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Certificate of Authorization
 Nova 3 Engineering Ltd.
 No.962 Date: 2017/05/31

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Project
 La Barriere Park
 Washroom Replacement
 La Barriere Park, Manitoba

drawing title	MECHANICAL - HVAC		
scale	as noted	designed by	kbb
date	May, 2017	drawn by	hc
project no.	337-2017	reviewed by	hc
reference no.	16.235	sheet	M2.0 REV.

ISSUED FOR CONSTRUCTION

GRILLES, DIFFUSERS, AND LOUVRES SCHEDULE

TAG	MANUFACTURER	MODEL	TYPE	NOTES
S1	NAILOR	51DH	LOUVERED GRILLE	FACE SIZES ON DRAWING
E1	NAILOR	6145H	EXHAUST GRILLE	FACE SIZES ON DRAWING

MECHANICAL EQUIPMENT SCHEDULE

TAG	LOCATION	QUANTITY	MANUFACTURER	MODEL	AIRFLOW	COOLING	HEATING	EFFICIENCY	VOLT/PH	NOTES
HRV-1	BUILDING SERVICES	1	NU-AIR	NU305	225 CFM 0.40" ESP	-	-	65% RECOVERY	170 W 120V/1PH	HRV C/W DUAL LOW-SPEED CONTROL W/ LOW CONTINUOUS VENTILATION CONTROL, CONTROLS TRANSFORMER, INTAKE DISCHARGE WEATHER HOODS, CONDENSATE DRAIN, ELECTRIC PRE-HEAT & REHEAT COIL & SPRING ISOLATORS ON SUSPENSION RODS SUPPORTED FROM STRUCTURE
HC-1	BUILDING SERVICES	1	THERMOLEC	-	-	-	5.0 KW	-	5.0 KW 208V/1PH	PREHEAT COIL C/W AIR PROVING SWITCH, CONTROLS TRANSFORMER, HIGH-LIMIT CUT-OFF, CONTROL TRANSFORMER, PROTECTIVE SCREEN GUARDS, INLINE DUCT MOUNTED/REMOTE WALL-MOUNT THERMOSTAT & SCR CONTROL SILENT MAG CONTACTORS.
HC-2	BUILDING SERVICES	1	THERMOLEC	-	-	-	5.0 KW	-	5.0 KW 208V/1PH	REHEAT COIL C/W AIR PROVING SWITCH, CONTROLS TRANSFORMER, HIGH-LIMIT CUT-OFF, CONTROL TRANSFORMER, PROTECTIVE SCREEN GUARDS, INLINE DUCT MOUNTED/REMOTE WALL-MOUNT THERMOSTAT & SCR CONTROL SILENT MAG CONTACTORS.