

Equipment Schedule					
		Locations	Model	Capacity	Options
FURNACE	F1	MECHANICAL ROOM 202	LENNOX: G61MPV-60D-111 (UPFLOW)	110,000Btu/h	RAB-D RETURN AIR BASE
	F2	MECHANICAL ROOM 202	LENNOX: G61MPV-60D-111 (UPFLOW)	110,000Btu/h	RAB-D RETURN AIR BASE
	F3	MECHANICAL ROOM 202	LENNOX: G61MPV-60D-111 (UPFLOW)	110,000Btu/h	RAB-D RETURN AIR BASE
	F4	MECHANICAL ROOM 202	LENNOX: G61MPV-60D-111 (UPFLOW)	110,000Btu/h	RAB-D RETURN AIR BASE
	F5	MECHANICAL ROOM 202	LENNOX: G61MPV-60D-071 (UPFLOW)	66,000Btu/h	-
	F6	MECHANICAL ROOM 202	LENNOX: G61MPV-60D-111 (DOWNFLOW)	110,000Btu/h	-
	F7	MECHANICAL ROOM 202	LENNOX: G61MPV-60D-071 (DOWNFLOW)	66,000Btu/h	-
	F8	MECHANICAL ROOM 202	LENNOX: G61MPV-60D-091 (DOWNFLOW)	88,000Btu/h	-
TYPICAL FOR F7 & F8. PROVIDE A STRUCTURAL SUPPORT FRAME MADE FROM L-BRACKETS OF SIZES 38mmx38mmx4.76mm. TO SUPPORT FURNACE FROM 406mm ABOVE FLOOR. SUPPORT IS TO BE BOLTED TO THE FLOOR AND SUPPORTS THE FURNACE ALONG THE COMPLETE PERIMETER OF THE FURNACE HOUSING (FOLLOW MANUFACTURER'S RECOMMENDATIONS).					
PROVIDE OPENING IN THE SUPPLY DUCT WITH A MIN. OF 305mm X (FULL WIDTH OF THE DUCT). THE ACCESS HATCH SHALL BE GASKETED AND SEALED CLOSED WITH CAM LOCKS.					
FILTERS	F1 TO F8		CAMFILFARR 102mm PLEATED 40% EFFICIENCY, RIGA-FLO XL		
	ERV-1 & ERV-2 INTAKES		CAMFILFARR 51mm PLEATED 30% EFFICIENCY, RIGA-FLO XL		
CONDENSER	C1	LOWER ROOF BESIDE NORTH GYM WALL	LENNOX: SSB060H4541	5 TON LOW AMBIENT KIT	C/W FREEZESTATS, SIGHT GLASS, HIGH & LOW PRESSURE SWITCHES. PROVIDE A GALVANIZED STEEL COVER FOR ALL REFRIGERANT PIPING ON ROOF. GALVANIZED STEEL COVER IS TO PROTECT ALL EXPOSED REFRIGERANT PIPING ON ROOF. SECURE PROTECTION COVER WITH STAINLESS STEEL BOLTS AND EXPANSION SHIELDS. FOR PROTECTION COVER ON WALL, TOP PORTION OF COVER SHALL BE INSTALLED IN A STEEP ANGLE.
	C2	LOWER ROOF BESIDE NORTH GYM WALL	LENNOX: SSB060H4541	5 TON LOW AMBIENT KIT	
	C3	LOWER ROOF BESIDE NORTH GYM WALL	LENNOX: SSB060H4541	5 TON LOW AMBIENT KIT	
	C4	LOWER ROOF BESIDE NORTH GYM WALL	LENNOX: SSB060H4541	5 TON LOW AMBIENT KIT	
	C5	LOWER ROOF BESIDE NORTH GYM WALL	LENNOX: SSB060H4541	5 TON	
	C6	LOWER ROOF BESIDE NORTH GYM WALL	LENNOX: SSB048H4541	4 TON	
	C7	LOWER ROOF BESIDE NORTH GYM WALL	LENNOX: SSB036H4541	3 TON	
	C8	LOWER ROOF BESIDE NORTH GYM WALL	LENNOX: SSB060H4541	5 TON	
	C9	LOWER ROOF BESIDE NORTH GYM WALL	LENNOX: SSB060H4541	5 TON	
	C10	LOWER ROOF BESIDE NORTH GYM WALL	LENNOX: SSB060H4541	5 TON (SEPARATE PRICE)	
ERV	ERV1	MECHANICAL ROOM 202	LENNOX: ERV-1500	(654)708 L/s, 81-88%	1.5 hp (INTAKE AND EXHAUST), C/W LD-1 AT INTAKE AND EXHAUST DIRTY FILTER PRESSURE DIFFERENTIAL SWITCH, EXHAUST ONLY FROST CONTROL, COMAG402ZH CARBON DIOXIDE SENSOR.
	ERV2	MECHANICAL ROOM 202	LENNOX: ERV-3000	(750) 1700 L/s, 81-83%	3hp (EXHAUST) C/W LD-2, 3HP (INTAKE) C/W LD-2, DIRTY FILTER PRESSURE DIFFERENTIAL SWITCH, EXHAUST ONLY FROST CONTROL, COMAG402ZH CARBON DIOXIDE SENSOR.
BASE BOARD HEATER	BBH-1	GRAND HALL 101 AREA BY WINDOWS	OUELLET: ODAI-BAI-1756-2393	1750WATT 600V 3ph	C/W BUILT-IN THERMOSTAT
	BBH-2	GRAND HALL 101 AREA BY WINDOWS	OUELLET: ODAI-BAI-1756-2393	1750WATT 600V 3ph	C/W BUILT-IN THERMOSTAT
	BBH-3	GRAND HALL 101 AREA BY WINDOWS	OUELLET: ODAI-BAI-2006-2625	2000WATT 600V 3ph	C/W BUILT-IN THERMOSTAT
	BBH-4	CHANGE ROOM 105	OUELLET: ODAI-BAI-1506-2168	1500WATT 600V 3ph	C/W BUILT-IN THERMOSTAT. PROVIDE MIN. 16 GA METAL MESH IN FRONT OF BASE BOARD HEATERS IN THE CHANGEROOMS. THESE ARE TO EXTEND AND BE SECURED FROM FLOOR TO UNDERSIDE OF BENCH.
	BBH-5	CHANGE ROOM 106	OUELLET: ODAI-BAI-1506-2168	1500WATT 600V 3ph	
	BBH-6	CHANGE ROOM 107	OUELLET: ODAI-BAI-1506-2168	1500WATT 600V 3ph	
	BBH-7	CHANGE ROOM 108	OUELLET: ODAI-BAI-1506-2168	1500WATT 600V 3ph	
	BBH-8	MEETING ROOM 116	OUELLET: ODAI-BAI-1006-1487 c/w ODAI-31-470 AND JOIN BBH-9	1000WATT 600V 3ph	C/W A SEPARATE WALL MOUNT THERMOSTAT THAT CONTROLS BBH-8 & BBH-9, LOCKABLE COVER
	BBH-9	MEETING ROOM 116	OUELLET: ODAI-BAI-1006-1487	1000WATT 600V 3ph	
	BBH-10	STORAGE 115	OUELLET: ODAI-BAI-756-1246	750WATT 600V 3ph	C/W BUILT-IN THERMOSTAT
CEILING FAN	CF-1	GYM 102			PROTECTO GUARD P660E, 105FR REVERSING FAN SPEED CONTROL SPARE MOTOR CAPACITOR FOR EACH FAN, J-HOOK BOLT FOR MOUNTING ON STRUCTURE.
	CF-2	GYM 102	NORTHWEST ENVIROFAN COLDLINE 160C REVERSIBLE.		
	CF-3	GYM 102			
	CF-4	GYM 102			
INSTANT ANEQUEOUS WATER HEATER	WH-1	STORAGE/BAR 113	STIEBEL ELTRON: TEMPRA 24	208V, 2 x 60A, 18kW	PROVIDE STAINLESS VANDAL-RESISTANT COVER
	WH-2	MEN'S WC 112	STIEBEL ELTRON: TEMPRA 12	208V, 60A	PROVIDE STAINLESS VANDAL-RESISTANT COVER, ADJUST OUTPUT TEMPERATURE TO 25°C.
	WH-3	FEMALE WC 117	STIEBEL ELTRON: TEMPRA 12	208V, 60A	PROVIDE STAINLESS VANDAL-RESISTANT COVER, ADJUST OUTPUT TEMPERATURE TO 25°C.
	WH-4	EXISTING MECH 206	STIEBEL ELTRON: TEMPRA 24	208V, 2 x 60A, 18kW	PROVIDE STAINLESS VANDAL-RESISTANT COVER
	WH-5	JANITOR 134	STIEBEL ELTRON: TEMPRA 24	208V, 2 x 60A, 18kW	PROVIDE STAINLESS VANDAL-RESISTANT COVER
FORCED FLOW HEATER	FFH-1	VESTIBULE 100	OAC03006 C/W OAC-B51	600V, 3000Watt, 5A	INSTALL FFH-1 406mm FROM EXTERIOR WALL
	FFH-2	VESTIBULE 100	OAC03006 C/W OAC-B51	600V, 3000Watt, 5A	INSTALL FFH-2 406mm FROM EXTERIOR WALL
	FFH-3	VESTIBULE 104	OAC04006 C/W OAC-B51	600V, 4000Watt, 5A	
	FFH-4	STAIRS ST4	OAC02006 C/W OAC-B51	600V, 2000Watt, 5A	
SUMP PUMP	SP-1	STORAGE 114	LITTLE GIANT ESP50AM	65 GPM@10 HEAD	C/W AN EXTRA PIGGY-BACK STYLE FLOAT THAT IS LINKED TO A BLUE STROBE TYPE ENUNCIATOR LOCATED IN FACILITY MANAGER OFFICE
A					PRICE HEAVY DUTY GYM REGISTERS W/ STEEL DAMPER MODEL 96D/L/A/B12
B					Price SCD/31(T-bar)/3C/B12
C					Price SDG/F/A/B12
REHEAT COIL	RRH-1,2,3 & 4	TYPICAL FOR ALL FOUR(4) CHANGE ROOMS. PROVIDE A THERMOLEC REHEAT COIL TO THE DUCT TRANSITION FROM GYM TO CHANGE ROOM. REHEAT COIL SHALL BE 2kW, 600V, 3ø. NOMINAL 375cfm. DUCT SIZE 280mmx254mm. PROVIDE AIR FLOW SENSOR, SCR CONTROLLER. CONTROLLER IS TO BE ACCESSIBLE FROM MECHANICAL ROOM 202. INSTALL TEMPERATURE SENSOR IN EXHAUST DUCTS. SET TEMPERATURE TO 20°C (ADJUSTABLE)			
LOUVRES & DAMPERS	LD-1 & 2	610mmx510mm WESTVENT XTF-635V & MOTORIZED DAMPER INX-6C6-LI C/W A 51mm FILTER HOUSING			DAMPER AND FILTER HOUSING ARE INSTALLED AND ACCESSIBLE WITHIN THE ROOM

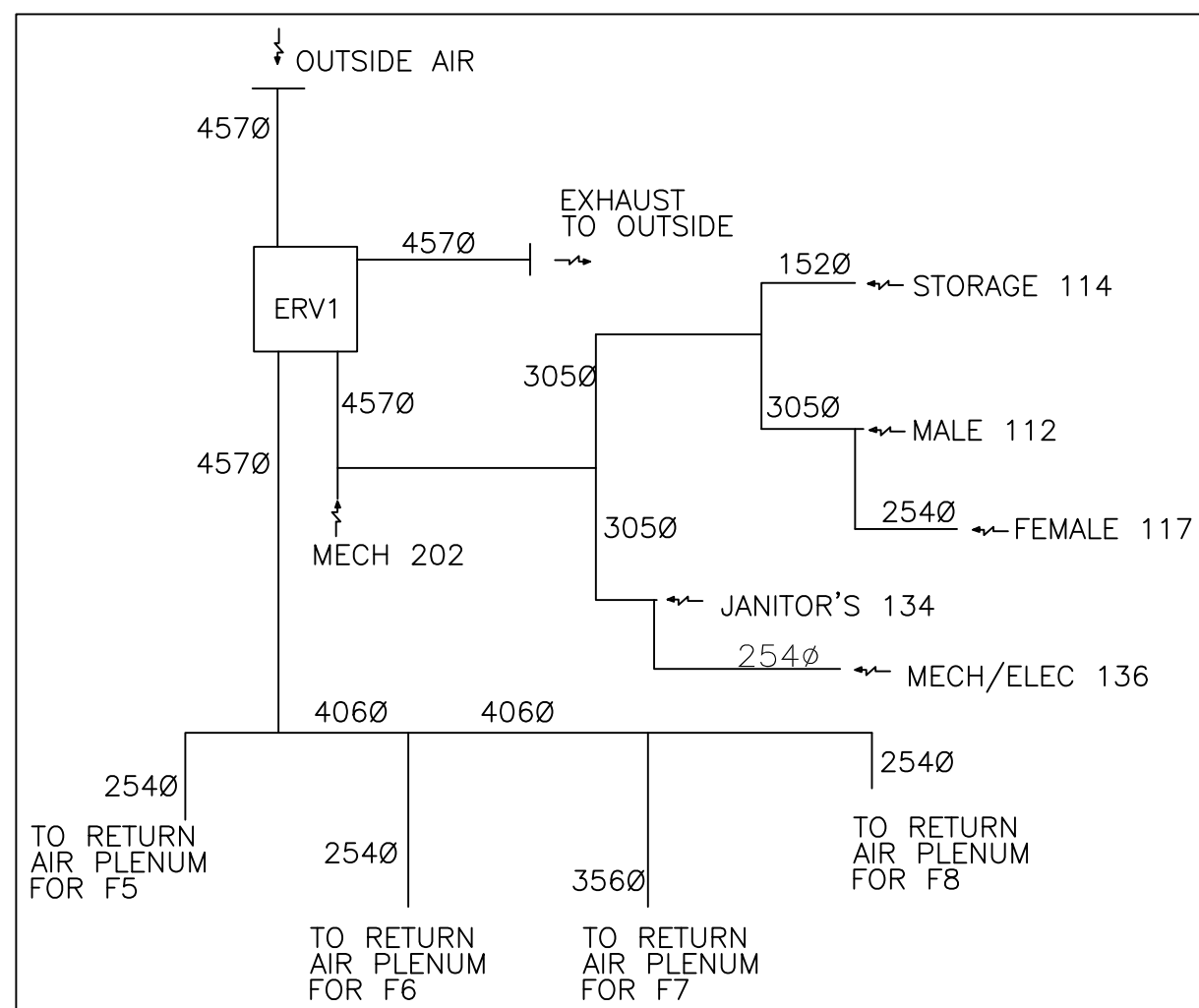
THERMOSTAT SCHEDULE					
THERMOSTAT	ASSOCIATED FURNACE	FUNCTIONS (WHITE RODGERS THERMOSTATS OR EQUAL)	THERMOSTAT	ASSOCIATED FURNACE	FUNCTIONS (WHITE RODGERS THERMOSTATS OR EQUAL)
T1	F-1, F-2, F-3, F-4	MULTI-STAGED, 7 DAYS PROGRAMMABLE WITH A REMOTE SENSOR	T4	F-7	MULTI-STAGED, 7 DAYS PROGRAMMABLE
T2	F-5	MULTI-STAGED, 7 DAYS PROGRAMMABLE	T5	F-8	MULTI-STAGED, 7 DAYS PROGRAMMABLE WITH A REMOTE SENSOR
T3	F-6	MULTI-STAGED, 7 DAYS PROGRAMMABLE	T6	BBH-7 & BBH-8	WALL MOUNT THERMOSTAT

DIFFUSER	SUPPLY AIR
A	PRICE HEAVY DUTY GYM REGISTERS W/ STEEL DAMPER MODEL 96D/L/A/B12
B	Price SCD/31(T-bar)/3C/B12
C	Price SDG/F/A/B12
GRILLES	RETURN AIR
R-1	PRICE HEAVY DUTY GYM GRILLES MODEL 96/L/A/B12
R-2	NOT USED
R-3	PRICE HEAVY DUTY GYM GRILLES MODEL 90/L/A/B12
R-4	PRICE 80 SERIES (FLANGE) F MODEL 80/F/A/B12
R-5	PRICE 80 SERIES T-BAR (TSF) MODEL 80/TSF/A/B12
R-6	PRICE 80 SERIES SURFACE MOUNT (SF) MODEL 80/SF/A/B12

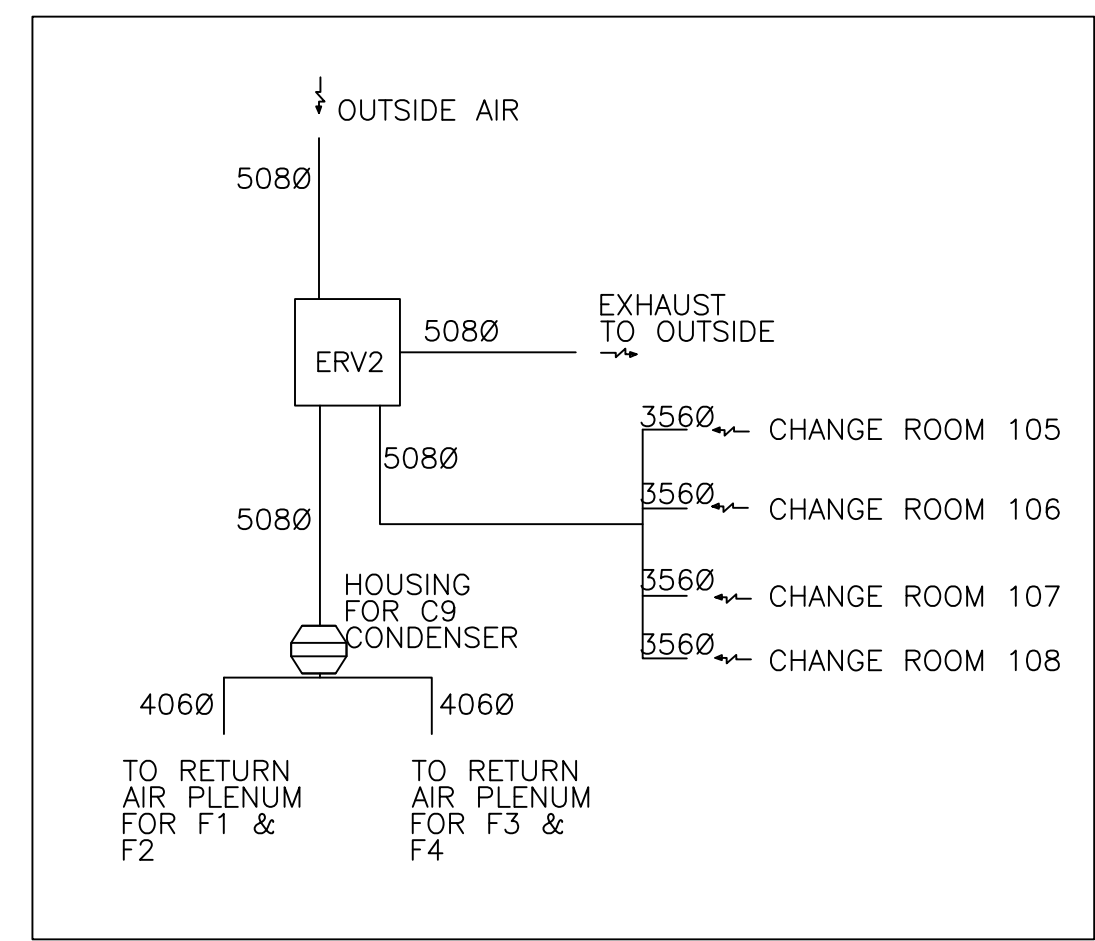
ERV AIR ALLOCATION							
ERV	OUTSIDE AIR	F1 & F2	F3 & F4	F5	F6	F7	F8
ERV-1	854 L/s	-	-	100	100	160	294
ERV-2	750 L/s	375	375	-	-	-	-

CONTROL SEQUENCE:

- GYMNASIUM VENTILATION SYSTEM (F1, F2, F3, F4, C1, C2, C3, C4)
  - F1 & F2 SHALL BE "TWINNED" USING MANUFACTURER SUPPLIED ACCESSORY. F3 & F4 SHALL BE "TWINNED" USING MANUFACTURER SUPPLIED ACCESSORY. THE 4 FURNACES ARE CONTROLLED BY ONE THERMOSTAT (T1).
  - TEMPERATURE IS MONITORED BY A REMOTE SENSOR IN GYM.
  - THE SYSTEM WILL OPERATE ON AN OCCUPIED/UNOCCUPIED SCHEDULE AS PROGRAMMED AT THE THERMOSTAT.
  - SETPOINT SHALL BE ADJUSTABLE.
  - OCCUPIED MODE:
    - FANS OF FURNACES WILL OPERATE CONTINUOUSLY.
    - HEATING:
      - THE THERMOSTAT WILL ENERGIZE THE FIRST STAGE OF HEAT ON F1 AND F3 TO MAINTAIN THE SET TEMPERATURE.
      - IF SETPOINT IS NOT ACHIEVED WITHIN 5 MINUTES (ADJUSTABLE), THE THERMOSTAT SHALL ENERGIZE THE FIRST STAGE OF HEAT ON F2 AND F4 TO MAINTAIN THE SET TEMPERATURE.
      - IF SETPOINT IS NOT ACHIEVED WITHIN 5 MINUTES (ADJUSTABLE), THE THERMOSTAT SHALL ENERGIZE THE SECOND STAGE OF HEAT ON F1 AND F3 TO MAINTAIN THE SET TEMPERATURE.
      - IF SETPOINT IS NOT ACHIEVED WITHIN 5 MINUTES (ADJUSTABLE), THE THERMOSTAT SHALL ENERGIZE THE SECOND STAGE OF HEAT ON F2 AND F4.
      - IF SETPOINT IS ACHIEVED, THERMOSTAT SHALL DE-ENERGIZE ALL STAGES OF HEAT.
    - COOLING:
      - THE THERMOSTAT WILL ENERGIZE THE FIRST STAGE OF COOLING ON C1 AND C3 TO MAINTAIN THE SET TEMPERATURE.
      - IF SETPOINT IS NOT ACHIEVED WITHIN 5 MINUTES (ADJUSTABLE), THE THERMOSTAT SHALL ENERGIZE THE FIRST STAGE OF HEAT ON C2 AND C4 TO MAINTAIN THE SET TEMPERATURE.
      - IF SETPOINT IS NOT ACHIEVED WITHIN 5 MINUTES (ADJUSTABLE), THE THERMOSTAT SHALL ENERGIZE THE SECOND STAGE OF HEAT ON C1 AND C3 TO MAINTAIN THE SET TEMPERATURE.
      - IF SETPOINT IS NOT ACHIEVED WITHIN 5 MINUTES (ADJUSTABLE), THE THERMOSTAT SHALL ENERGIZE THE SECOND STAGE OF HEAT ON C2 AND C4.
      - IF SETPOINT IS ACHIEVED, THERMOSTAT SHALL DE-ENERGIZE ALL STAGES OF COOLING.
  - UNOCCUPIED MODE:
    - FURNACES WILL CYCLE WITH THE OUTSIDE AIR DAMPERS FULLY CLOSED AND RETURN AIR DAMPER FULLY OPEN TO MAINTAIN A SETBACK TEMPERATURE.
    - A TEMPORARY OVERRIDE BUTTON AT THE THERMOSTAT SHALL PUT THE SYSTEM TO THE OCCUPIED MODE FOR AN ADJUSTABLE PERIOD OF TIME WHEN ACTIVATED.
- MEETING ROOM 116 (F5 AND C5)
  - THE SYSTEM WILL OPERATE ON AN OCCUPIED/UNOCCUPIED SCHEDULE AS PROGRAMMED AT THE THERMOSTAT.
  - SETPOINT SHALL BE ADJUSTABLE.
  - OCCUPIED MODE:
    - FAN OF FURNACE WILL OPERATE CONTINUOUSLY.
    - HEATING:
      - THE THERMOSTAT WILL ENERGIZE THE FIRST STAGE OF HEAT ON F5 TO MAINTAIN THE SET TEMPERATURE.
      - IF SETPOINT IS NOT ACHIEVED WITHIN 5 MINUTES (ADJUSTABLE), THE THERMOSTAT SHALL ENERGIZE THE SECOND STAGE OF HEAT ON F5.
      - IF SETPOINT IS ACHIEVED, THERMOSTAT SHALL DE-ENERGIZE ALL STAGES OF HEAT.
    - COOLING:
      - THE THERMOSTAT WILL ENERGIZE THE FIRST STAGE OF COOLING ON C5 TO MAINTAIN THE SET TEMPERATURE.
      - IF SETPOINT IS NOT ACHIEVED WITHIN 5 MINUTES (ADJUSTABLE), THE THERMOSTAT SHALL ENERGIZE THE SECOND STAGE OF HEAT ON C5.
      - IF SETPOINT IS ACHIEVED, THERMOSTAT SHALL DE-ENERGIZE ALL STAGES OF COOLING.
  - UNOCCUPIED MODE:
    - FAN OF FURNACE WILL CYCLE ON AND OFF WITH THE OUTSIDE AIR DAMPERS FULLY CLOSED AND RETURN AIR DAMPER FULLY OPEN TO MAINTAIN A SETBACK TEMPERATURE.
    - A TEMPORARY OVERRIDE BUTTON AT THE THERMOSTAT SHALL PUT THE SYSTEM TO THE OCCUPIED MODE FOR AN ADJUSTABLE PERIOD OF TIME WHEN ACTIVATED.
- MECHANICAL ROOM 202 (F6 AND C6)
  - THE SYSTEM WILL OPERATE ON A SETBACK SCHEDULE AS PROGRAMMED AT THE THERMOSTAT.
  - SETPOINT SHALL BE ADJUSTABLE.
  - SETBACK MODE:
    - FURNACE WILL CYCLE ON AND OFF TO MAINTAIN THE SET TEMPERATURE.
    - HEATING:
      - THE THERMOSTAT WILL ENERGIZE THE FIRST STAGE OF HEAT ON F6 TO MAINTAIN THE SET TEMPERATURE.
      - IF SETPOINT IS NOT ACHIEVED WITHIN 5 MINUTES (ADJUSTABLE), THE THERMOSTAT SHALL ENERGIZE THE SECOND STAGE OF HEAT ON F6.
      - IF SETPOINT IS ACHIEVED, THERMOSTAT SHALL DE-ENERGIZE ALL STAGES OF HEAT.
    - COOLING:
      - THE THERMOSTAT WILL ENERGIZE THE FIRST STAGE OF COOLING ON C6 TO MAINTAIN THE SET TEMPERATURE.
      - IF SETPOINT IS NOT ACHIEVED WITHIN 10 MINUTES (ADJUSTABLE), THE THERMOSTAT SHALL ENERGIZE THE SECOND STAGE OF HEAT ON C6.
      - IF SETPOINT IS ACHIEVED, THERMOSTAT SHALL DE-ENERGIZE ALL STAGES OF COOLING.



1 ERV-1 LINE SCHEMATIC  
M-4.1 SCALE: NTS



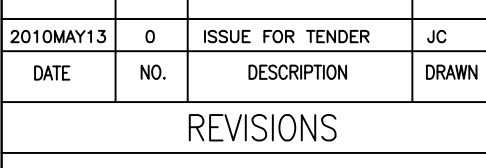
1 ERV-2 LINE SCHEMATIC  
M-4.1 SCALE: NTS



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This drawing is not intended to be an as-built or record drawing. The contractor is responsible for verifying the accuracy of the information on-site. If there is any information that is in error, the contractor shall record the discrepancy and contact the Engineer immediately with his findings.

2010MAY13	0	ISSUE FOR TENDER	JC
DATE	NO.	DESCRIPTION	DRAWN BY
REVISIONS			



PHARMENG Technology  
A Division of PL Pharma Inc.

JOB TITLE:  
ADDITION & RENOVATION OF WINAKWA COMMUNITY CENTRE

980 WINAKWA ROAD WINNIPEG, MB

DRAWING TITLE:  
EQUIPMENT SCHEDULE

SCALE:	DATE:	DRAWING NO.:
-	2010 MAY 13	
DRAWN BY: JC	DESIGN BY: JC	CHECKED BY: BH
FILE NO: N/A	PROJECT NO: 339-2010	M-4.1