

FILE NAME: DATE: SHEET TITLE: PROJECT NO: ADDRESS:

VARIABLE REFRIGERANT FLOW (VRF) FAN COILS - (MITSUBISHI CITY MULTI - R2 SERIES)

Table with columns: TAG, SERVES, MODEL, SUPPLY AIR (CFM), VENTILATION AIR (CFM), EVAP FAN E.S.P. (IN WG), HEATING (HEATING CAPACITY (MBH), TOTAL COOLING (MBH), SENSIBLE COOLING (MBH), EFFICIENCY (SEER/EER/COP)), ELECTRICAL (MCA, MOCP, VOLTAGE), COMMENTS/OPTIONS

1) SPACE MOUNT TEMPERATURE SENSOR, PROGRAMMABLE CONTROLLER FOR OPERATION OF INTEGRAL REFRIGERANT HEATING/COOLING AND DUCT MOUNTED MODULATING ELECTRIC HEATING COIL (SCR), OCCUPIED/UNOCCUPIED SCHEDULES. 2) MERV 8 INLET FILTER SECTION, 3) ACOUSTIC LINED INLET UPTURN ELBOW, ACOUSTIC LINED SUPPLY PLENUM, FLEXIBLE DUCT CONNECTIONS. 4) INTEGRAL CONDENSATE PUMP 5) VIBRATION ISOLATION WHERE SUSPENDED FROM STRUCTURE, INSULATED CONDENSATE DRAIN.

ELECTRIC HEATING COILS (BASED ON THERMOLEC)

Table with columns: TAG, LOCATION, SERVICE, DIMENSIONS (WXH), CAPACITY (KW), VOLTAGE, AIR FLOW (CFM), COMMENTS

1) INLET AND OUTLET SCREENS. 2) SCR MODULATION. 3) DISCHARGE AIR TEMPERATURE CONTROL. 4) DUCT MOUNTED (FLANGED CONNECTIONS). 5) DUCT MOUNT ACCESS DOOR UPSTREAM 6) OPEN COIL HEATER, MANUAL AND AUTO RESET THERMAL CUTOFF, AIRFLOW SENSOR, TERMINAL BLOCK, BUILT IN TEMPERATURE CONTROLLER. 7) OPEN COIL HEATER, MANUAL AND AUTO RESET THERMAL CUTOFF, AIRFLOW SENSOR, TERMINAL BLOCK, SUITABLE FOR REMOTE THERMOSTAT CONTROL (THERMOSTAT PROVIDED BY VRF EQUIPMENT SUPPLIER, SUITABLE FOR CONTROL OF HEATING COIL SCR).

NOTES:

VARIABLE REFRIGERANT FLOW (VRF) OUTDOOR MOUNTED HEAT PUMPS - (MITSUBISHI CITY MULTI - R2 SERIES)

Table with columns: TAG, MODEL NUMBER (MITSUBISHI), SIZE, SERVICE, COOLING CAPACITY (TOTAL) (MBH), HEATING CAPACITY (OUTPUT) (MBH), ELECTRICAL (V/PHASE, MCA), REFRIGERANT, COMMENTS

1) VRF (HEAT RECOVERY) HEAT PUMPS MOUNTED ON STAND AFFIXED TO ROOF (MIN. 600MM ABOVE ROOF LEVEL). 2) ROUTE INSULATED/ALUMINUM JACKETED REFRIGERANT PIPING DOWN THRU ROOF VIA PITCH BOX AND EXTEND TO RESPECTIVE MAIN BRANCH CIRCUIT CONTROLLER IN CEILING SPACE. 3) COOLING CAPACITIES BASED ON 95F DB (35C DB) OUTDOOR AIR TEMPERATURE. HEATING OUTPUT CAPACITIES BASED ON -13F (-25C) OUTDOOR TEMPERATURE. 4) UNITS C/W SIDE SNOW GUARDS.5) ELECTRIC BASE DRAIN PAN HEATER.

OUTDOOR FIXED PLATE HEAT RECOVERY VENTILATOR SCHEDULE

Table with columns: TAG, SERVICE, MANUFACTURER MODEL #, DRIVE, AIR FLOW (CFM), E.S.P. (IN WG), MOTOR POWER (HP), ELECTRICAL, COMMENTS/OPTIONS

1) SPRING TYPE VIBRATION ISOLATORS. 2) FLEXIBLE DUCT CONNECTIONS. 3) HRV CONTROL VIA EMCS, REFER TO SEQUENCE OF OPERATIONS 4) INTERLOCK WITH ASSOCIATED MOTORIZED DAMPER ACTUATORS. 5) INSULATED 24" FULL PERIMETER CUSTOM CURB, BOTTOM RETURN INLET, HORIZONTAL SUPPLY/EXHAUST/INTAKE, EXHAUST/INTAKE HOODS WITH BIRDSCREEN, MERV 8 FILTERS, 30KW ELECTRIC FROST-CONTROL COIL, LOCKING CAMLOCK ACCESS DOOR HANDLES, SUITABLE FOR CONNECTION TO EMCS, FAN MOTOR EQUIPPED WITH VFD.

INDOOR FIXED PLATE HEAT RECOVERY VENTILATOR SCHEDULE

Table with columns: TAG, SERVICE, MANUFACTURER MODEL #, DRIVE, AIR FLOW (CFM), E.S.P. (IN WG), MOTOR POWER (HP), ELECTRICAL, COMMENTS/OPTIONS

1) SPRING TYPE VIBRATION ISOLATORS. 2) FLEXIBLE DUCT CONNECTIONS. 3) HRV CONTROL VIA PROGRAMMABLE TIME CLOCK FOR OCCUPIED/UNOCCUPIED SCHEDULED OPERATION AND MANUAL OVERRIDE TIMER IN LOCAL WASHROOM. 4) INTERLOCK WITH ASSOCIATED MOTORIZED DAMPER ACTUATORS. 5) EXTEND INSULATED DUCTS TO EXTERIOR LOUVERS WITH BIRDSCREEN. 6) HRV CONTROL VIA EMCS (DDC) SYSTEM FOR OCCUPIED/UNOCCUPIED SCHEDULED OPERATION, AND MANUAL TIMER SWITCH IN MPR 136 AND OFFICE 135. FAN COIL FC-1 SHALL BE INTERLOCKED AND ENERGIZE WITH HRV-3 IN OCCUPIED MODE. 6) HRV CONTROL VIA EMCS FOR OCCUPIED/UNOCCUPIED SCHEDULED OPERATION, AND MANUAL TIMER SWITCH IN STORAGE 137. 7) FAN COIL FC-2 SHALL BE INTERLOCKED AND ENERGIZE WITH HRV-4 IN OCCUPIED MODE. 8) MERV 8 FILTERS.

FAN SCHEDULE

Table with columns: TAG, SERVICE, MODEL #, DRIVE, AIR FLOW (CFM), E.S.P. (IN WG), MOTOR POWER (HP), ELECTRICAL, COMMENTS/OPTIONS

1) SPRING TYPE VIBRATION ISOLATORS. 2) FLEXIBLE DUCT CONNECTIONS. 3) FAN OPERATION VIA GAS DETECTION SYSTEM, HUMIDITY CONTROL SYSTEM, AND MANUAL CONTROL. 4) INTERLOCKED WITH ASSOCIATED MOTORIZED EXHAUST AND INLET DAMPER ACTUATORS, MAKEUP AIR UNIT. 5) INLINE FAN. 6) SIDEWALL DISCHARGE. 7) VARIABLE SPEED ON/OFF CONTROL SWITCH, ONE EACH FAN, 36"DOWNROD. 8) INTERLOCK FOR STAGED OPERATION OF INTEGRAL VFD VIA BUILDING PRESSURE CONTROLLER. 9) PROVIDE WITH VARIABLE SPEED CONTROLLER FOR TAB SETUP. 10)INTERLOCK WITH LIGHT SWITCH. 11) FAN C/W WIRE GUARD. 12) PROVIDE WITH STEEL HOODED WALL CAP WITH BIRDSCREEN AND BACKDRAFT DAMPER. PRIME COATED AND FIELD PAINTED TO MATCH ADJACENT EXTERIOR SIDING. 13) MANUAL SWITCH CONTROL BY ELECTRICAL.

AIR COOLED CONDENSING UNITS

Table with columns: TAG, LOCATION, SERVICE, MODEL, COOLING CAPACITY (MBH), COMPRESSORS, EER/SEER, REFRIGERANT, VOLTAGE/PHASE, MCA, MOP (AMPS), SUCTION TEMP, AMBIENT TEMPERATURE, COMMENTS/ACCESSORIES

REVERSE-FLOW HEAT RECOVERY VENTILATOR (BASED ON TEMPEFF OR APPROVED EQUAL)

Table with columns: TAG, LOCATION, MODEL, SUPPLY AIR (CFM), E.S.P. (IN WG), SUPPLY AIR MOTOR HP, SUPPLY VFD, EXHAUST AIR (CFM), E.S.P. (IN WG), EXHAUST AIR MOTOR HP, EXHAUST VFD, WINTER SENSIBLE EFFICIENCY, SUMMER SENSIBLE EFFICIENCY, RE-HEAT SECTION, RE-HEAT SECTION CAPACITY, TOTAL COOLING SECTION CAPACITY (MBH), LAT (HEATING) (F), LAT (COOLING) (F), ELECTRICAL (VOLTAGE, MCA, MOCP), WEIGHT

1) 2" FOAM INJECTION; HINGED ACCESS DOORS W/LOCKING HANDLES; S.S. DRAIN PANS UNDER HEAT EXCHANGERS CORES W/1" NPT CONNECTIONS; BASE FOR MOUNTING ON HOUSEKEEPING PAD, ABB VFD DRIVES (SUPPLY AND EXHAUST); RIS ISOLATION; MERV 13A FILTERS; SINGLE POINT POWER CONNECTION; REVERSE-FLOW DUAL CORE. FLANGED FOR DUCTED VERTICAL INLET/OUTLET, RETURN AND SUPPLY AIR CONNECTIONS. INTEGRAL DX COOLING COIL (R410), ELECTRIC HEATING COIL, SINGLE POINT POWER CONNECTION, LOW LIMIT.



Table with columns: No., ISSUED FOR CONSTRUCTION, REVISION/DESCRIPTION, JSD BY, DATE



Table with columns: CT/JSD DRAWN, JSD CHECKED, JSD DESIGNED, JSD APPROVED

THE CITY OF WINNIPEG ASSETS and PROJECT MANAGEMENT DEPARTMENT MUNICIPAL ACCOMMODATIONS DIVISION PROJECT 3-65 GARRY STREET, R3C 4K4 REDEVELOPMENT OF THE OLD EXHIBITION ARENA ISSUED FOR CONSTRUCTION

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SCHEDULES

Table with columns: SCALE, PROJECT No., SHEET No.

DRAWING SHEET SIZE: A1 (841mm x 594mm) PLOT 1:1