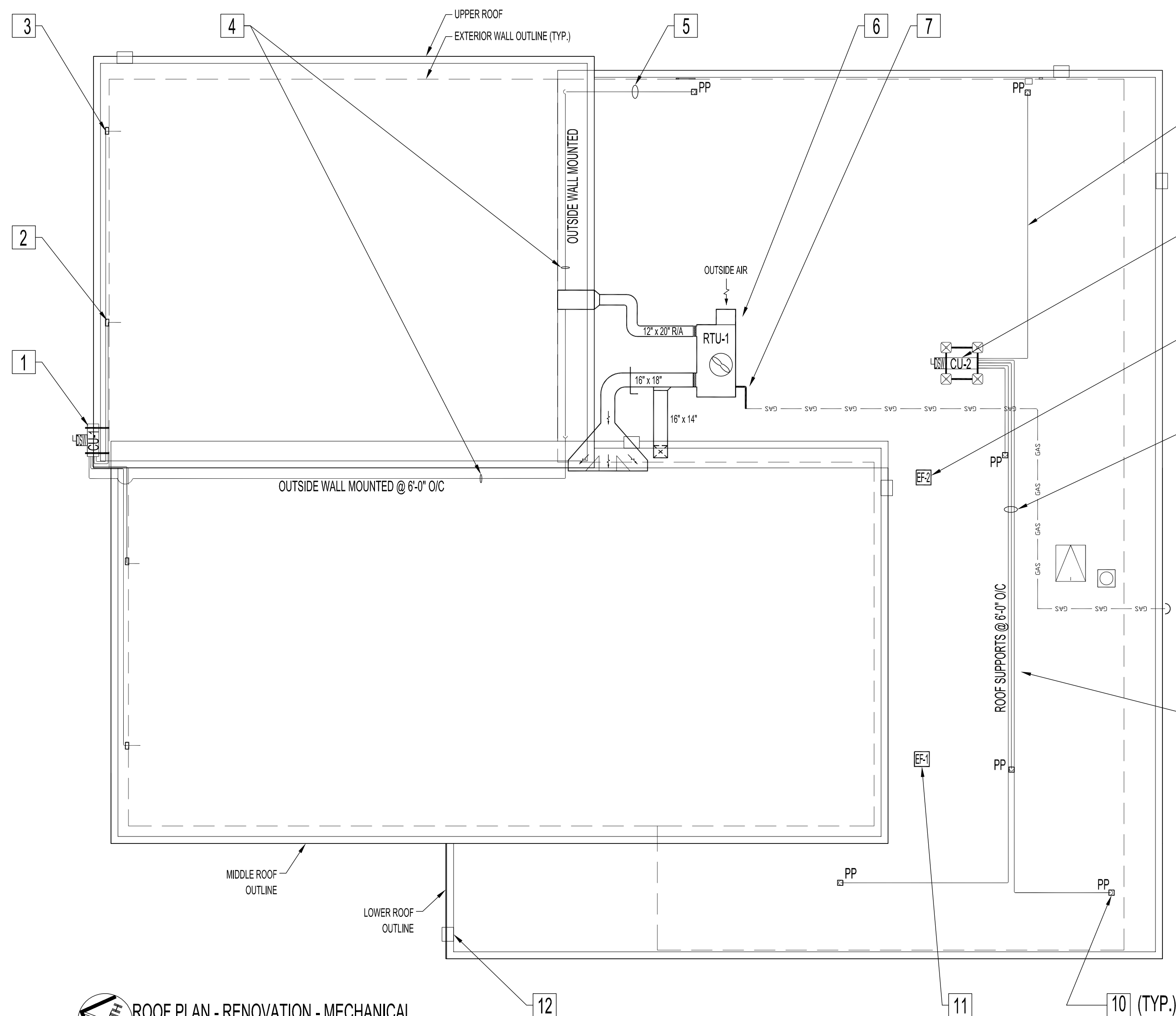


DETAIL- (RTU-1) RETURN & SUPPLY AIR DUCT  
SCALE: N.T.S



ROOF PLAN - RENOVATION - MECHANICAL  
SCALE: 1/8"=1'-0"

**RENOVATION NOTES - MECHANICAL**

SUPPLY & INSTALL NEW AS NOTED

- 1 SUPPLY & INSTALL HEAT PUMP SYSTEM, ANCHORED TO PAINTED CANTILEVER SUPPORTS FOR CU-1. MOUNT 12'-0" ABOVE GRADE AT LOCATION SHOWN. SECURE UNIT AS PER MANUFACTURERS INSTRUCTIONS. SEE HEAT PUMP SYSTEM SCHEDULE.
- 2 EXISTING RELOCATED, MODIFIED & PAINTED SHROUDS FOR EVAP1-A & AVAP3-A.
- 3 NEW EXTERIOR SHROUDS TO HOUSE NEW CONDUITS, REFRIGERATION & CONDENSATE DRAIN LINES FOR EVAP2-A & EVAP4-A. PAINT TO MATCH.
- 4 SURFACE RUN REFRIGERATION LINES SUPPORTED AND ANCHORED TO BIGFOOT OR EQUIVALENT UNI-STRUT SYSTEM. (SUPPLY & INSTALL) @ 6' ABOVE FINISHED ROOF AT EVERY 6'-0". PROVIDE GALVANIZED METAL SHROUD TO COVER ALL REFRIGERANT PIPING.
- 5 REFRIGERATION LINES & CONTROL WIRING IN 1/2" EMT RUNS. MOUNT TO BRICK WALL AND SUPPORTED AND ANCHORED TO BIGFOOT OR EQUIVALENT UNI-STRUT SYSTEM. (SUPPLY & INSTALL) @ 6' ABOVE FINISHED ROOF AT EVERY 6'-0".
- 6 NEW HORIZONTAL ROOF TOP UNIT (RTU-1), GAS FIRED, AIR COOLED CONDENSING UNIT WITH ECONOMIZER. MOUNT UNIT ON ROOF CURBS PROVIDED BY MANUFACTURER. INTER-LOCK TO BASEMENT GAS ROOF TOP UNIT FIRE ALARM SHUT DOWN SWITCH. SEE ELECTRICAL DWG.
- 7 NEW SECTION OF NATURAL GAS PIPING. CONNECT TO NEW ROOF TOP UNIT (RTU-1). SUPPLY & INSTALL BIGFOOT OR EQUIVALENT UNI-STRUT SYSTEM @ 6' ABOVE FINISHED ROOF AT EVERY 6'-0". FIELD CONFIRM SIZE AND CAPACITY.
- 8 HEAT PUMP SYSTEM CONDENSING UNIT (CU-2). MOUNT & ANCHOR UNIT TO BIGFOOT SUPPORT FRAME WORK OR EQUIVALENT, AS PER MANUFACTURERS INSTRUCTIONS.
- 9 UNISEX WASHROOMS ( RM.109 & 110 ) EXHAUST FAN (EF-2) C/W INSULATED MOTORIZED DAMPER & CURB. (SUPPLY & INSTALL).
- 10 ROOF PENETRATIONS & PITCH PANS FOR REFRIGERATION, ELECTRICAL CONDUIT & WIRING PASS THROUGH TO MAIN FLOOR EVAPORATOR LOCATIONS. SUPPLY & INSTALL.
- 11 STAFF WASHROOM/JANITOR ROOM EXHAUST FAN (EF-1) C/W INSULATED MOTORIZED DAMPER & CURB. (SUPPLY & INSTALL).
- 12 NEW ROOF SCUPPER & RAINWATER LEADER. SEE SPECIFICATIONS SECTION 'E'.

| HEAT PUMP SYSTEM SCHEDULE |          |  |     |                  |          |               |           |       |                           |       |   |
|---------------------------|----------|--|-----|------------------|----------|---------------|-----------|-------|---------------------------|-------|---|
| TAG                       | NO. RECD | SERVICES                                       | BRK | COMPRESSOR MOTOR |          |               | CONDENSER |       | MANUFACTURER MODEL NUMBER | NOTES |   |
|                           |          |  |     | NO.              | OUTPUT @ | VOLTS/HERTZ @ | VOLTS     | HERTZ |                           |       |   |
| CU-1                      | 1        | (4) MAIN FLOOR & (1) MEZANNE FLOOR EVAPORATORS | 30A | 1                | 2.4KW    | 1 208         | 60        | 1     | 208-230V                  | 60Hz  | MITSUBISHI CITY PUMP-P4BNHMU MULTI SPLIT-TYPE HEAT PUMP SYSTEM, VARIABLE REFRIGERANT FLOW, INVERTER DRIVEN (VARIABLE SPEED) COMPRESSOR, R410A REFRIGERANT COOLING: 48,000 Btu/h HEATING: 54,000 Btu/h |
| CU-2                      | 1        | (5) MAIN FLOOR EVAPORATORS                     | 30A | 1                | 2.4KW    | 1 208         | 60        | 1     | 208-230V                  | 60Hz  | MITSUBISHI CITY PUMP-P4BNHMU MULTI SPLIT-TYPE HEAT PUMP SYSTEM, VARIABLE REFRIGERANT FLOW, INVERTER DRIVEN (VARIABLE SPEED) COMPRESSOR, R410A REFRIGERANT COOLING: 48,000 Btu/h HEATING: 54,000 Btu/h |
| EVAPX-A                   | 9        | ROOMS: 103, 104, 105, 106, 111, 115, M01       |     |                  |          |               |           |       |                           |       | MITSUBISHI MODEL # PKFY-P12NHMU-E 12,000 Btu. WALL MOUNTED EVAPORATORS  |
| EVAPX-B                   | 1        | ROOM: 118                                      |     |                  |          |               |           |       |                           |       | MITSUBISHI MODEL # PKFY-P08NHMU-E 8000 Btu. WALL MOUNTED EVAPORATOR   |

X DENOTES EVAPORATOR TAG NUMBER  
A/B DENOTES EVAPORATOR COOLING OUTPUT

| HVAC SCHEDULE |  |  |
|---------------|--|--|
| TAG           | DESCRIPTION  | REMARKS  |
| RTU-1         | AAON MODEL # RQ-005-8-H-EA09-379-A000-R00-QJD-040-NID000E-00-0040H00EB. DIRECT DRIVE VARIABLE SPEED FAN, VARIABLE CAPACITY SCROLL COMPRESSOR MODULATING BURNER CONTROL, MODULATING ECONOMIZER W/ CO2 OVERRIDE, DISCHARGE AIR CONTROLLER, HORIZONTAL SUPPLY AND RETURN OPENINGS, SS HEAT EXCHANGER.<br>OPTIONS:<br>ENTHALPY ECONOMIZER HUMIDITY SENSOR FOR OUTSIDE AIR REFRIGERANT CIRCUIT SIGHT GLASS UNIT.<br>DISCONNECT SWITCH.<br>FACTORY INSTALL CONVENIENCE 120V OUTLET.<br>14" HIGH ROOF CURB.<br>EXTERNAL STATIC PRESSURE: 1.05 IN. WG.<br>SUPPLY CFM/OUTDOOR AIR CFM: 2000 / 1100.<br>COOLING:<br>COOLING CAPACITY (MBH): 61.0<br>HEATING:<br>TOTAL HEATING CAPACITY: 126.6 MBH<br>LEAVING AIR TEMP: 118.5 °F DB / 73.7 °F WB<br>INPUT: 160.0 MBH<br>ELECTRICAL:<br>RATING: 208 / 3 / 60<br>UNIT FLA: 27 | ROOF TOP UNIT WITH SLEEPERS TO RAISE 12" TO CLEAR FIA HOOD |
| CC-1          | MITSUBISHI HEAT & COOL 24VDC, CENTRALIZED DIGITAL CONTROLLER, MODEL # AG-150.  |  |
| DC-1          | MITSUBISHI WALL MOUNTED CONTROLLER FOR EVAPORATORS. REMOTE TEMPERATURE SENSOR. MODEL # PAR-30MAU-J.  |  |
| PS            | MITSUBISHI 1p/100/24-0VOLT POWER SUPPLY, MODEL # PAC-SC51KUA FOR AG-150-A.   |  |
| EF-1          | ROOF UPBLAST, 150 CFM AT 0.25" WG ESP, CENTRIFUGAL BLOWER, 1/2 HP DIRECT DRIVE MOTOR, VOLTAGE TO SUIT, SPEED CONTROLLER, WALL SWITCH. ACCEPTABLE PRODUCT: GREENHECK MODEL 070-G OR SIMILAR.  | ALSO SHOWN ON ELECTRICAL DWG. E2                           |
| EF-2          | ROOF UPBLAST, 150 CFM AT 0.25" WG ESP, CENTRIFUGAL BLOWER, 1/2 HP DIRECT DRIVE MOTOR, VOLTAGE TO SUIT, SPEED CONTROLLER, WALL SWITCH. ACCEPTABLE PRODUCT: GREENHECK MODEL 070-G OR SIMILAR.  |  |
| RT-1          | AAON MINI CONTROLLER, NETWORKABLE THERMOSTAT & CONTROLLER WITH BUILT-IN TEMPERATURE SENSOR, ECONOMIZER CONTROL MULTIPLE ANALOG CONTROL INPUTS FOR CO2. BAGNET CAPABLE.   |  |
| MD            | 2 POSITION, OPPOSED BLADE CONSTRUCTION, THERMALLY INSULATED, SIZE TO SUIT, DUCT TRANSITION, MOTORIZED OPERATOR, VOLTAGE TO SUIT. ACCEPTABLE PRODUCT: TAMCO SERIES 9000 OR SIMILAR.   |  |

| GRILLE & DIFFUSER SCHEDULE |   |              |
|----------------------------|---|--------------|
| TYPE                       | DESCRIPTION   | MANUFACTURER |
| A                          | SUPPLY GRILLE: ALUMINUM, 620 F / S / A / DOUBLE DEFLECTION, 3/4" BLADE SPACING, FRONT BLADES PARALLEL TO SHORT DIMENSION. | PRICE        |
| B                          | EGG GRATE GRILLE: ALUMINUM, 1/2" X 1/2" GRID, MILL FINISH.  | PRICE        |
| C                          | TRANSFER GRILLE: ALUMINUM, LBPH LINEAR BAR GRILLE, PENCIL PROOF SPACING, 0° DEFLECTION.                                   | PRICE        |
| D                          | RETURN GRILLE: SIZE TO SUIT OPENING: 635 F / A / MILL, ALUMINUM.  | PRICE        |
| E                          | DOOR GRILLE: 18" X 12" / ATG1 / BF / B15.   | PRICE        |
| F                          | SUPPLY GRILLE: ALUMINUM, SCGE SPIRAL DUCT GRILLE, DOUBLE DEFLECTION, 3/4" BLADE SPACING, 45° DEFLECTION, CW AIR SCOOP.    | PRICE        |

**NOTES:**

ALSO SEE ARCHITECTURAL, ROOF & ELECTRICAL DWGS & NOTES.

| 1   | RE-ISSUED FOR TENDER | AI | 2012.09.28 |
|-----|----------------------|----|------------|
| No. | REVISION/DESCRIPTION | BY | DATE       |



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|       |            |               |     |          |     |          |
|-------|------------|---------------|-----|----------|-----|----------|
| DRAWN | RCP        | CHECKED       | DTA | DESIGNED | DTA | APPROVED |
| DATE  | 2012.08.17 | USER APPROVAL |     |          |     |          |

THE CITY OF WINNIPEG  
PLANNING, PROPERTY AND  
DEVELOPMENT DEPARTMENT  
MUNICIPAL ACCOMMODATIONS DIVISION  
3-65 GARRY STREET, R3C 4K4

PROJECT  
FORT GARRY LIBRARY  
INTERIOR & EXTERIOR REFURBISHING

1360 PEMBINA HWY

SHEET TITLE  
ROOF PLAN & SCHEDULES  
RENOVATION  
MECHANICAL

|          |             |           |
|----------|-------------|-----------|
| SCALE    | PROJECT No: | SHEET No: |
| AS SHOWN | 2011-096    | M-2 R-1   |

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