

BUILDING KEY PLAN

LEGEND

- (N) NEW  
(E) EXISTING  
— NEW EQUIPMENT  
— EXISTING EQUIPMENT  
— EXISTING PIPE

| REV | Description       | Date        |
|-----|-------------------|-------------|
| 0   | ISSUED FOR TENDER | 20-JUN-2017 |

|   |  |     |
|---|--|-----|
| A | A detail no.<br>no. du detail            | A   |
| B | B location drawing no.<br>sur dessin no. | B C |
| C | C drawing no.<br>dessin no.              |     |

project  
**MECHANICAL UPGRADE  
115 PERIMETER ROAD  
SASKATOON, SK**  
ENVIRONMENT CANADA  
335 River Rd  
Ottawa ON, K1V 1C7

drawing  
**MECHANICAL  
HVAC SYSTEM  
MAIN FLOOR PLAN**

|             |          |              |  |
|-------------|----------|--------------|--|
| Designed By | GDK      | Conçu par    |  |
| Date        | 17/05/11 | (yyyy/mm/dd) |  |
| Drawn By    | ADR      | Dessiné par  |  |
| Date        | 17/05/11 | (yyyy/mm/dd) |  |
| Reviewed By | AMB      | Examiné par  |  |
| Date        | 17/06/23 | (yyyy/mm/dd) |  |
| Approved By | AMB      | Approuvé par |  |
| Date        | 17/06/23 | (yyyy/mm/dd) |  |
| Tender      |          | Soumission   |  |

|                  |                           |
|------------------|---------------------------|
| Project Manager  | Administrateur de projets |
| EC PMDI Proj no. | Consultant Proj no.       |
|                  | <b>17-0006-001</b>        |
| Drawing no.      | No. du dessin             |
|                  | <b>M103</b>               |

GENERAL NOTES:

- REFER TO DRAWINGS M01 AND M02 FOR ALL SPECIFICATIONS

SCOPE OF WORK:

- PROVIDE AND INSTALL HYDRONIC CABINET UNIT HEATERS AS INDICATED.
- PROVIDE AND INSTALL NEW HYDRONIC BASEBOARDS, SUPPLY AND RETURN PIPING, AND ANCILLARIES AS INDICATED.
- PROVIDE AND INSTALL ALL NEW CONTINUOUS CONVECTOR COVERS AS INDICATED c/w ASSOCIATED END CAPS AT NEW DRYWALL PIPE CHASES, BULKHEADS, ETC. PROVIDE AND INSTALL END CAPS, ACCESS DOORS, AND JOINT COVERS AS REQUIRED.
- PROVIDE AND INSTALL CEILING MOUNTED UNIT HEATER c/w WALL BRACKETS AND ANCILLARIES.
- PERFORM TESTING AND COMMISSIONING OF HEATING SYSTEM AND CONTROLS OPERATOR. PROVIDE SIGN-OFF SHEETS CERTIFYING CORRECT AND PROPER INSTALLATION FOR ALL EQUIPMENT, BOILER ADJUSTING AND COMMISSIONING SHALL BE PERFORMED AS PER MANUFACTURER'S INSTRUCTIONS.
- REMOVE AND REPLACE EXISTING ANIMAL AUTOPSY AHU HEATING COIL WITH COIL SIZED FOR EQUAL BTU/Hr OUTPUT WITH 54.4°C EWT AND 22.2°C ΔT. COIL MODEL: DAIKIN 5WQ1206A
- BASE BOARD CONVECTOR HEATERS AND UNIT HEATERS HAVE PIPING INSULATION CONTAINING ASBESTOS. ENSURE PROPER PROCEDURES ARE FOLLOWED TO AVOID CONTAMINATION.

ALTERNATES

EQUIPMENT AND DESIGN ARE BASED ON THE MANUFACTURERS AND PRODUCTS NOTED IN THE EQUIPMENT SCHEDULES. ALTERNATES OF EQUAL OR SUPERIOR PERFORMANCE WILL BE CONSIDERED. HOWEVER, THE RESPONSIBILITY LIES WITH THE CONTRACTOR TO IMPLEMENT ALL NECESSARY & RESULTANT DESIGN AND FIELD MODIFICATIONS AT NO ADDITIONAL COST TO THE OWNER.

EQUIPMENT SCHEDULE

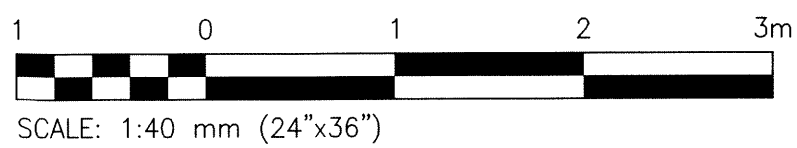
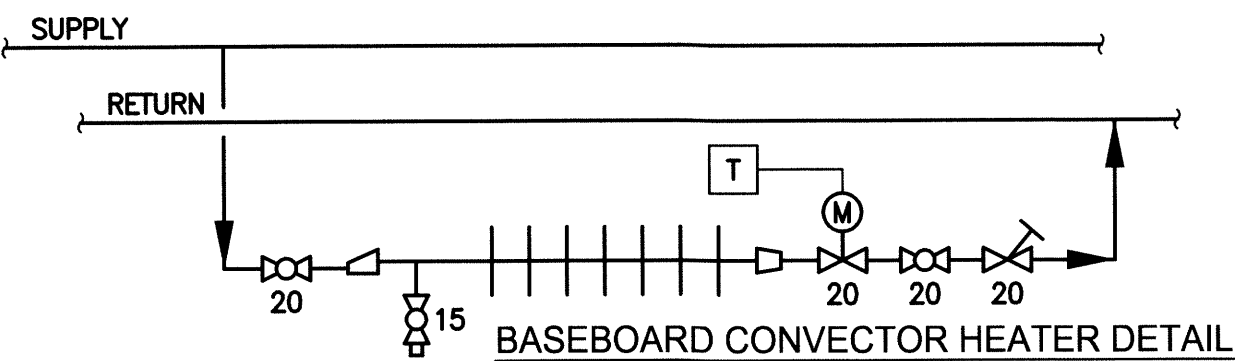
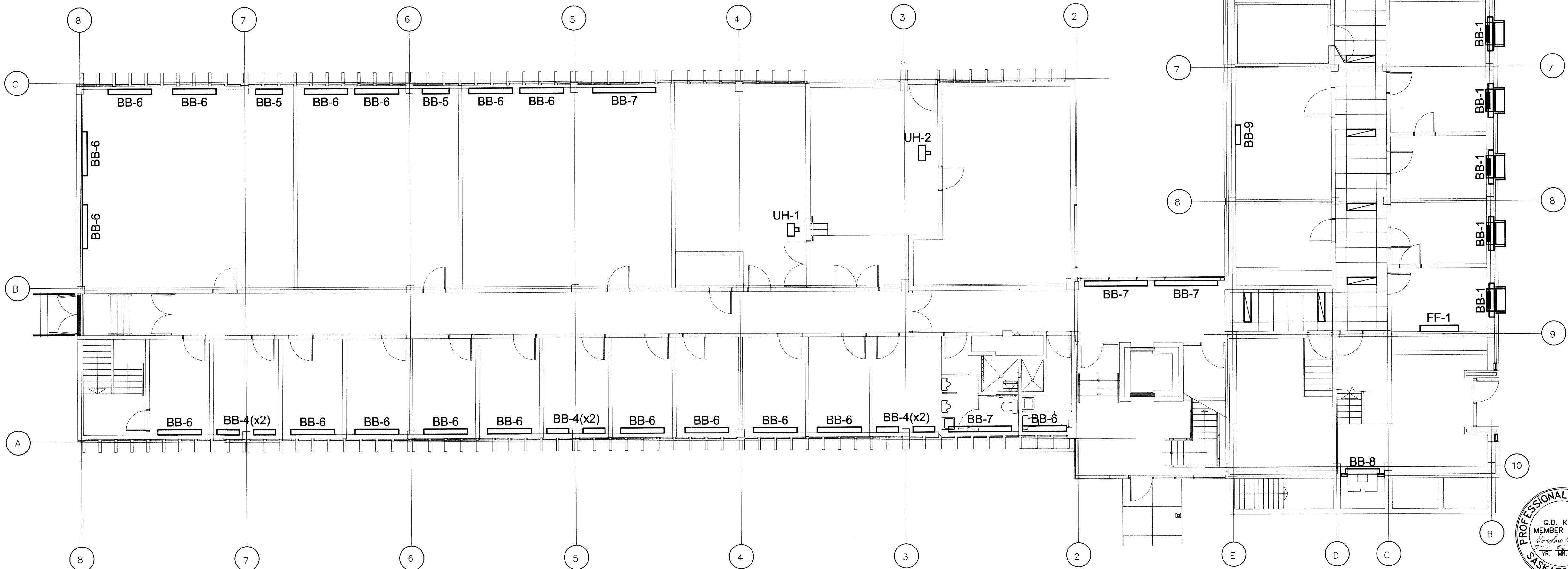
|               |   |
|---------------|---|
| BB-1 to BB-11 | <b>BASEBOARD HEATERS</b><br>UNIT TO PROVIDE CONVECTIVE HEATING IN ACCORDANCE WITH THE BASE BOARD SCHEDULE. UNIT SHALL BE EQUIPPED WITH MULTI PASS FIN-TUBE HEATING ELEMENTS. BRASS COLLECTORS WITH 1/2" NPTF CONNECTIONS @ 55 FPF, DUST PROOF COATING, FLAT TOP ENCLOSURE. HEATING MEDIUM IS WATER.<br>ACCEPTABLE PRODUCT: JAGA TEMPO WALL MOUNTED. |
| FF-1          | <b>FORCE FLOW HEATER</b><br>FAN FORCED CABINET HEATER 35.5 MBH OUTPUT @ 54.4°C EWT, 12°C TEMPERATURE RISE. FLOW RATE: 0.112 L/s, 16°C EAT, ELECTRICAL 1/7 HP, 1.7A, 120V/1Ø/60Hz.<br>ACCEPTABLE PRODUCT: RITTLING RW280   |
| UH-1 to UH-3  | <b>UNIT HEATERS</b><br>COMMERCIAL UNIT HEATER IN ACCORDANCE WITH UNIT HEATER SCHEDULE SUPPORT BRACKETS AND BUILT IN THERMOSTAT COLOUR: WHITE.<br>ACCEPTABLE PRODUCT: REZNOR 'WS' SERIES.  |

BASE BOARD SCHEDULE

| TAG   | DESCRIPTION                 | CAPACITY<br>BTU/Hr | FIN<br>TYPE | EWT<br>°C | FLOW<br>L/s | FIN<br>LENGTH | UNIT<br>HEIGHT | QUANTITY |
|-------|-----------------------------|--------------------|-------------|-----------|-------------|---------------|----------------|----------|
| BB-1  | BASE BOARD CONVECTOR HEATER | 4411               | 21          | 54.44     | 0.014       | 1397          | 597            | 13       |
| BB-2  | BASE BOARD CONVECTOR HEATER | 5869               | 21          | 54.44     | 0.018       | 1600          | 902            | 0        |
| BB-3  | BASE BOARD CONVECTOR HEATER | 8130               | 21          | 54.44     | 0.026       | 1994          | 902            | 0        |
| BB-4  | BASE BOARD CONVECTOR HEATER | 2557               | 21          | 54.44     | 0.008       | 902           | 495            | 6        |
| BB-5  | BASE BOARD CONVECTOR HEATER | 3124               | 21          | 54.44     | 0.010       | 1105          | 495            | 2        |
| BB-6  | BASE BOARD CONVECTOR HEATER | 5113               | 21          | 54.44     | 0.017       | 1804          | 495            | 18       |
| BB-7  | BASE BOARD CONVECTOR HEATER | 7385               | 21          | 54.44     | 0.0233      | 2604          | 495            | 4        |
| BB-8  | BASE BOARD CONVECTOR HEATER | 5661               | 21          | 54.44     | 0.018       | 1397          | 902            | 1        |
| BB-9  | BASE BOARD CONVECTOR HEATER | 2273               | 21          | 54.44     | 0.007       | 800           | 495            | 1        |
| BB-10 | BASE BOARD CONVECTOR HEATER | 6301               | 21          | 54.44     | 0.020       | 1994          | 597            | 1        |
| BB-11 | BASE BOARD CONVECTOR HEATER | 4100               | 21          | 54.44     | 0.013       | 902           | 902            | 0        |

UNIT HEATER SCHEDULE

| TAG  | CAPACITY<br>BTU/Hr | TYPE       | EWT<br>°C | FLOW<br>L/s | FLA | HP   |
|------|--------------------|------------|-----------|-------------|-----|------|
| UH-1 | 23                 | WS 60/85   | 54.44     | 0.163       | 1.9 | 0.15 |
| UH-2 | 40.2               | WS 96/120  | 54.44     | 0.585       | 1.8 | 0.09 |
| UH-3 | 78                 | WS 190/238 | 54.44     | 0.966       | 3.4 | 0.25 |



Association of Professional Engineers & Geoscientists  
of Saskatchewan  
**CERTIFICATE OF AUTHORIZATION**  
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