



ROOF POWER PLAN
SCALE: 1:100

NOTES:

- GREY ITEMS DENOTES EXISTING EQUIPMENT, BOLD ITEMS DENOTES NEW EQUIPMENT.
- PROVIDE AND INSTALL NEW 60A LOCAL DISCONNECT SWITCHES DS-AHU-1 AND DS-AHU-2 FOR EXISTING AIR HANDLING UNITS AHU-1 AND AHU-2 RESPECTIVELY. LOCATION OF DISCONNECT SWITCHES SHALL NOT CAUSE INTERFERENCE WITH THE ROOF RENOVATION WORKS. THE NEW LOCAL DISCONNECT SWITCHES DS-AHU-1 AND DS-AHU-2 SHALL BE ENCLOSED IN NEMA 4 RATED ENCLOSURES. ENSURE THAT THE EXISTING AIR HANDLING UNITS AHU-1 AND AHU-2 HAVE BEEN DISCONNECTED FROM THEIR RESPECTIVE CIRCUITS PRIOR TO TEMPORARY REMOVAL FOR ROOF RENOVATION WORKS.
- UTILIZE THE EXISTING WIRING TO CONNECT THE NEW LOCAL DISCONNECT SWITCHES DS-AHU-1 AND DS-AHU-2 TO THE EXISTING MOTOR CONTROL CENTERS MCC-1 AND MCC-2 RESPECTIVELY. SUPPLY AND INSTALL NEW CABLES FROM THE NEW LOCAL DISCONNECT SWITCHES DS-AHU-1 AND DS-AHU-2 TO THE EXISTING AIR HANDLING UNITS AHU-1 AND AHU-2 RESPECTIVELY. SEE DRAWING 1-0650M-E0003-001.
- POINT TO POINT COMMUNICATION DEVICE TO BE DISCONNECTED, REMOVED AND TURNED OVER TO THE CITY DURING ROOF RENOVATION WORKS.
- EQUIPMENT TO REMAIN IN SERVICE FOR THE ENTIRE DURATION OF THE CONSTRUCTION.
- COORDINATE THE DISCONNECTION OF THE EXISTING ROOF FANS EF-M1, EF-M2, AND EF-M3 WITH THE MECHANICAL DISCIPLINE.
- SUPPLY AND INSTALL NEW 30A WEATHERPROOF, LOCKABLE, TOGGLE DISCONNECTS DS-EF-M1, DS-EF-M2, AND DS-EF-M3 MOUNTED ON THE ROOF CURB. THE NEW DISCONNECTS SHALL BE ENCLOSED IN NEMA 4 RATED ENCLOSURES. UTILIZE THE EXISTING WIRING TO CONNECT THE NEW DISCONNECTS DS-EF-M1, DS-EF-M2, AND DS-EF-M3 TO THE EXISTING MOTOR STARTERS MS-EF-M1, MS-EF-M2, AND MS-EF-M3 RESPECTIVELY. SUPPLY AND INSTALL NEW CABLES FROM THE NEW DISCONNECTS DS-EF-M1, DS-EF-M2, AND DS-EF-M3 TO THE EXISTING ROOF FANS EF-M1, EF-M2, AND EF-M3, RESPECTIVELY. SEE DRAWING 1-0650M-E0018-001.
- SUPPLY AND INSTALL FOUR NEW DUPLEX CLASS A GFCI RECEPTACLES MOUNTED NOT LESS THAN 750MM ABOVE THE FINISHED ROOF. EACH RECEPTACLE SHALL BE FED FROM A SEPARATE CIRCUIT IN EXISTING PANEL PNL-A. UPDATE EXISTING PANEL PNL-A SCHEDULE ACCORDINGLY.
- THE EXISTING ROOF FANS EF-M1, EF-M2, AND EF-M3 ARE CONNECTED TO THE EXISTING GAS DETECTION SYSTEM AND THEREFORE OPERATIONAL DOWNTIME MUST BE MINIMIZED. EF-M1, EF-M2, AND EF-M3 TO REMAIN OPERATIONAL THROUGHOUT PHASE 1 OF THE ROOF WORK. REMOVAL AND REINSTALLATION OF EF-M1, EF-M2, AND EF-M3 TO TAKE PLACE DURING PHASE 2 OF ROOF WORK AND TO BE COMPLETED EXPEDITIOUSLY.
- COORDINATE THE DISCONNECTION OF THE EXISTING CONDENSING UNIT CU-1 (FED FROM PANEL PNL-E) WITH THE MECHANICAL DISCIPLINE. SUPPLY AND INSTALL NEW 20A WEATHERPROOF, LOCKABLE, TOGGLE DISCONNECT DS-CU-1 MOUNTED ON THE ROOF CURB. THE NEW DISCONNECT SHALL BE ENCLOSED IN A NEMA 4 RATED ENCLOSURE. RE-USE EXISTING CABLES FOR CONNECTION OF DS-CU-1. SUPPLY AND INSTALL NEW CABLES FROM DISCONNECT DS-CU-1 TO CONDENSING UNIT CU-1.
- SUPPLY AND INSTALL NEW 20A WEATHERPROOF, LOCKABLE, TOGGLE DISCONNECT DS-FAN-1 MOUNTED ON THE ROOF CURB. THE NEW DISCONNECT SHALL BE ENCLOSED IN A NEMA 4 RATED ENCLOSURE. SUPPLY AND INSTALL NEW CABLE FROM CONTROL PANEL CP-C800 TO THE NEW DISCONNECT DS-FAN-1 AND FROM DS-FAN-1 TO THE EXISTING ROOF FAN FAN-1. REFER TO DRAWING 1-0650C-E0003-001 FOR WIRING DETAILS.
- SUPPLY AND INSTALL NEW 20A WEATHERPROOF, LOCKABLE, TOGGLE DISCONNECT DS-EEF-1 MOUNTED ON THE ROOF CURB. THE NEW DISCONNECT SHALL BE ENCLOSED IN A NEMA 4 RATED ENCLOSURE. SUPPLY AND INSTALL NEW CABLES FROM NEW MOTOR STARTER MS-EEF-1 TO THE NEW DISCONNECT DS-EEF-1. SUPPLY AND INSTALL NEW CABLES FROM NEW DISCONNECT DS-EEF-1 TO EXISTING EXHAUST FAN EEF-1. REFER TO DRAWING 1-0650M-E0018-001 FOR WIRING DETAILS.
- CONTRACTOR TO CONFIRM KA RATING OF BREAKER WITHIN MOTOR STARTER AND PROVIDE FUSES IF ABOVE 10KA.

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| 10 | - | - |
| 9 | - | - |
| 8 | - | - |
| 7 | - | - |
| 6 | 1-0650M-E0023-001 | ELECTRICAL - PUMP STATION MAIN AND PUMP LEVEL - POWER PLAN |
| 5 | 1-0650M-E0018-001 | ELECTRICAL - SINGLE LINE DIAGRAM - PNL-EE |
| 4 | 1-0650M-E0003-001 | ELECTRICAL - PUMP STATION - SINGLE LINE DIAGRAM |
| 3 | 1-0650C-E0004-001 | ELECTRICAL - PUMP STATION - MS-EEF-1 SCHEMATIC AND CONNECTION DIAGRAM |
| 2 | 1-0650C-E0003-001 | ELECTRICAL - PUMP STATION - CP-C800 SCHEMATIC AND CONNECTION DIAGRAM |
| 1 | 1-0650A-D0001-001 | COVER SHEET |
| NO. | DRAWING NUMBER | REFERENCE DRAWING TITLE |
| REFERENCE DRAWINGS | | |



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| B.M. | - |
| ELEV. | - |
| NO. | REVISIONS |
| 0 | ISSUED FOR CONSTRUCTION |
| DATE | 2020/06/18 |
| DESIGN | |
| CHECK | |

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| KGS GROUP | |
| DESIGNED BY: I. BECK | CHECKED BY: J. BOUCHARD |
| DRAWN BY: J. deLEON | APPROVED BY: J. BOUCHARD |
| SCALE: AS NOTED | ISSUED FOR CONSTRUCTION BY: DATE: 2020-06-18 |
| DATE: 2020-06-18 | DATE: |
| CONSULTANT NO.: 19-0107-005_E05 | |

ENGINEER'S SEAL

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| <p>THE CITY OF WINNIPEG WATER AND WASTE DEPARTMENT</p> | |
| <p>HURST PUMPING STATION STRUCTURAL REPAIRS AND DRAINAGE BUILDING UPGRADES ELECTRICAL PUMP STATION ROOF POWER PLAN</p> | |
| CITY DRAWING NUMBER | SHEET |
| 1-0650M-E0024 | 001 |
| REV. | SIZE |
| 0 | A1 |