

**NEW CHILLER LAYOUT
EXISTING MECHANICAL ROOM**

1
E101
SCALE: 1:50

CONSTRUCTION NOTES:

ELECTRICAL CONNECTIONS:

1. INSTALL NEW BREAKER FOR CHILLER CH-1A ON MDP. BREAKER SIZE TO BE 250A/3P. NEW SUPPLY CONDUCTOR SIZE TO BE 4#250MCM Cu + BOND - TECK90. INSTALL NEW DISCONNECT FOR CHILLER CH-1A. COORDINATE WITH APPROVED SHOP DRAWINGS.
2. INSTALL NEW BREAKER FOR CHILLER CH-1B ON MDP. BREAKER SIZE TO BE 250A/3P. NEW SUPPLY CONDUCTOR SIZE TO BE 4#250MCM Cu + BOND - TECK90. INSTALL NEW DISCONNECT FOR CHILLER CH-1B. COORDINATE WITH APPROVED SHOP DRAWINGS.
3. INSTALL NEW SUPPLY CONDUCTOR FROM EXISTING BREAKERS ON MCC-A TO NEW VFD PUMPS P-3, P-4, P-5, AND P-6. CONDUCTOR SIZE TO BE 3#12 + 1#14 RW90 IN EXISTING CONDUIT.
4. INSTALL NEW CHEMICAL FEEDER CONTROL PANEL. EXISTING M100-23 15A/1P BREAKER AND 2#12AWG RW90 WIRING TO BE RE-USED.
5. FINAL CONNECTIONS TO PUMPS TO BE IN LIQUID-TIGHT FLEXIBLE CONDUIT.

LEGEND

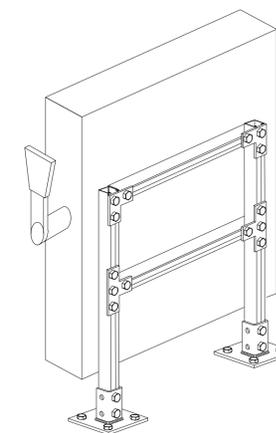
| ITEM | SYMBOL | REMARKS |
|-------------------------------|--------|---------|
| MOTOR EQUIPMENT | | |
| DISCONNECT SWITCH | | |
| PUMP | | |
| VARIABLE FREQUENCY DRIVE | | |
| DISTRIBUTION PANEL | | |
| CHEMICAL FEEDER CONTROL PANEL | | |
| TRANSFORMER | | |

EQUIPMENT LEGEND

| ITEM | SYMBOL | REMARKS |
|---------|--------|---------|
| BOILER | | |
| CHILLER | | |
| PUMP | | |

| Existing | | | New | | |
|-----------------|----------|--------|-----------------|----------|--------|
| Equipment | Power kW | Load % | Equipment | Power kW | Load % |
| Chiller CH-1 | 209 | 100 | Chiller CH-1A | 112.2 | 95 |
| Pump P-3 | 11.2 | 100 | Chiller CH-1B | 112.2 | 95 |
| Pump P-4 | 11.2 | 100 | Pump P-3 | 11.2 | 90 |
| Pump P-5 | 11.2 | 100 | Pump P-4 | 11.2 | 90 |
| Pump P-6 | 11.2 | 100 | Pump P-5 | 11.2 | 90 |
| Chemical System | 1.8 | 100 | Pump P-6 | 11.2 | 90 |
| Total | | | Chemical System | 1.8 | 30 |
| | | | Total | | |
| | | | | | 254.04 |

ELECTRICAL LOAD CHANGE



**TYP DISCONNECT &
VFD MOUNTING DETAIL**



SEAL



| | | |
|---|-------------------|------------|
| 5 | | |
| 4 | | |
| 3 | | |
| 2 | | |
| 1 | | |
| 0 | ISSUED FOR TENDER | 2021-08-20 |

| Revision | Description | Date |
|----------|-------------|--------|
| Client | | client |

**PUBLIC WORKS &
GOVERNMENT SERVICES**

269 MAIN STREET SUITE 310
WINNIPEG, MB. R3C 1B3

Project title / Projet

MORDEN, MB. R6M 1Y5
101 RTE 100 #100
MORDEN RESEARCH & DEVELOPMENT CENTRE

**AAFC MRDC: CHILLER
& BOILER UPGRADE
(CHILLER SCOPE ONLY)**

Designed by / Conçu par

KAS

Drawn by / Dessiné par

RTD

Approved by / Approuvé par

JKN

IPWSSC Project Manager / Administrateur de Projets IPWSSC

OWEN VAN WALLEGHEM

Drawing title / Titre du dessin

**ELECTRICAL PLAN
MAIN FLOOR
MECHANICAL ROOM**

Project no./No. du projet Drawing no./No. du dessin Revision no.

R.111908 E101 00