

PLAN ABOVE ELEVATION 233.020

SCALE: 1 : 75

CONSTRUCTION NOTES:

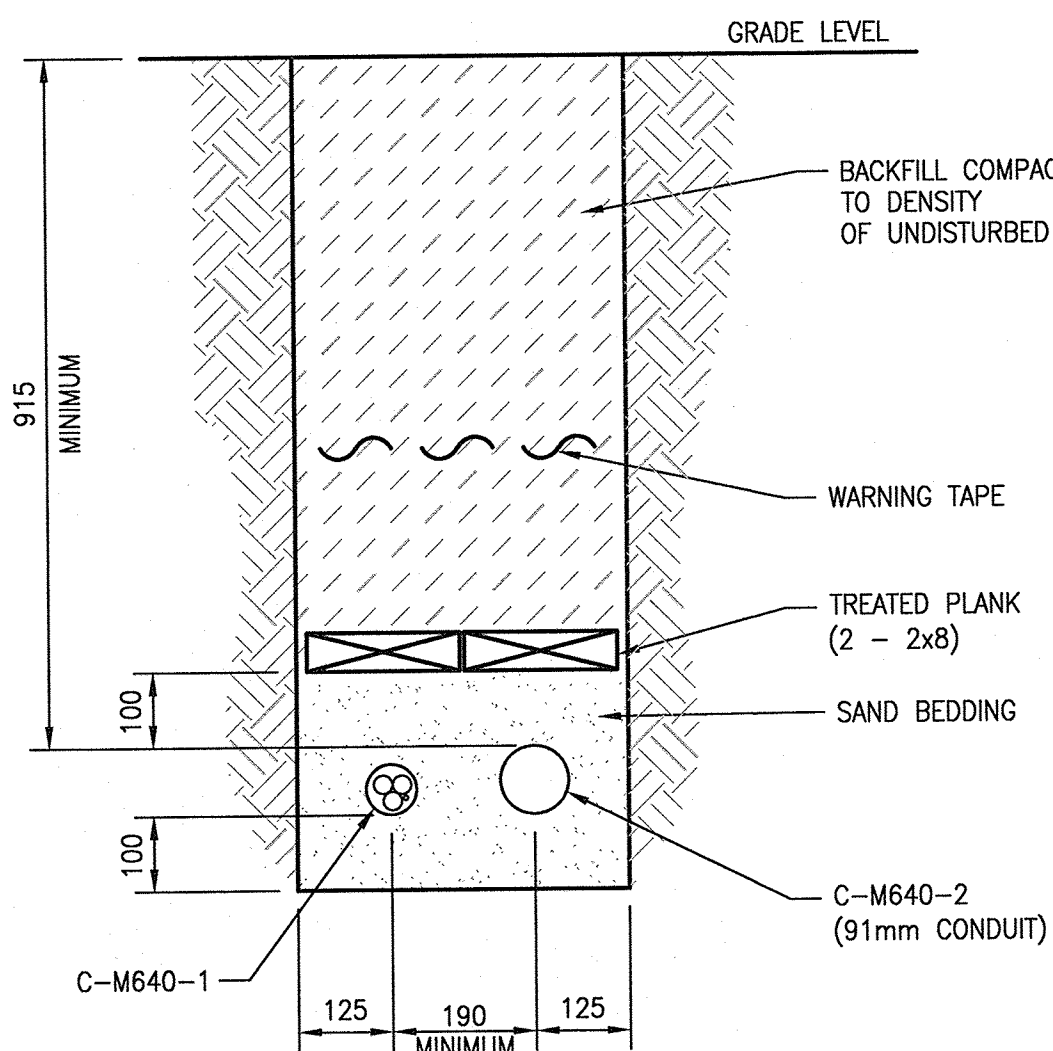
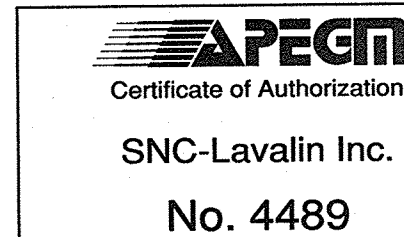
- 1 PROVIDE HVAC PLC PANEL, CP-M826.
- 2 PROVIDE NEW 30A, NON-FUSIBLE DISCONNECT SWITCHES FOR EXISTING SUPPLY FANS.
- 3 PROVIDE NEW OUTDOOR TRANSFORMER XFMR-M640 FOR CHILLER/CONDENSER SYSTEM. TRANSFORMER TO BE PROVIDED BY ELECTRICAL CONTRACTOR.
- 4 PROVIDE NEW 120/208V PANEL BOARD, PNL-M721. PROVIDE ALL REQUIRED MOUNTING ACCESSORIES AND SUPPORTS.
- 5 PROVIDE NEW CONDENSER CDR-M640 LOCATED OUTSIDE. CONDENSER TO BE FED FROM DP-M640. PROVIDE COMMUNICATION CABLING CA-M6401 BETWEEN CHILLER CHLR-M640 AND CONDENSER CDR-M640 AS PER MANUFACTURERS REQUIREMENTS. NEW CONDENSER TO BE PROVIDED BY MECHANICAL CONTRACTOR
- 6 REPLACE EXISTING FUSIBLE DISCONNECT DS-CRANE WITH NEW 60A RATED NON-FUSIBLE DISCONNECT SWITCH.
- 7 REPLACE PANEL INTERIOR FOR LP-A AND LP-B. RECONNECT ALL EXISTING LOADS.
- 8 PROVIDE NEW 250A RATED, NON-FUSIBLE, WEATHERPROOF DISCONNECT SWITCH DS-M640-2 FOR NEW CONDENSER CDR-M640.
- 9 PROVIDE NEW FIRE ALARM PANEL, FACP-M922. PROVIDE 120 VAC POWER FROM PNL-M22U, CCT.38. REFER TO DRAWINGS 1-0640M-E0053 TO 1-0640M-E0057 FOR DETAILS.
- 10 CONTRACTOR TO ENSURE AREA IS SUITABLE FOR UNDERGROUND CABLE ROUTING. MODIFY IF NECESSARY.
- 11 SCAN THE WALL PRIOR TO CORE DRILLING OR CUTTING. CORE DRILL HOLES TO SUIT CABLE/CONDUIT SIZE. PROVIDE WEATHERPROOF SEAL FOR CABLE OR CONDUIT EXITING/ENTERING THE BUILDING.
- 12 PROVIDE NEW DUCT HEATER HCE-M601 AND ALL ASSOCIATED EQUIPMENT FOR COMPLETE SYSTEM. DUCT HEATER TO BE PROVIDED BY MECHANICAL CONTRACTOR.
- 13 MAINTAIN A MINIMUM SPACING OF 1200mm BETWEEN XFMR-M640 AND CDR-M640. REFER TO DWG. 1-0640A-S0001 FOR PAD DETAILS.
- 14 MODIFY EXISTING FIBRE OPTIC FEEDER AND 600V FEEDER TO ACCOMMODATE NEW CHILLER (IF REQUIRED).
- 15 PROVIDE NEW EMERGENCY STOP SWITCH FOR FANS FN1, FN2, AND FN3. PROVIDE NEW CABLING AND CONDUIT. REFER TO FAN MOTOR SCHEMATIC DRAWINGS 1-0640M-E0074, 0075, AND 0076.

METRIC

WHOLE NUMBERS INDICATE MILLIMETRES  
DECIMALIZED NUMBERS INDICATE METRES

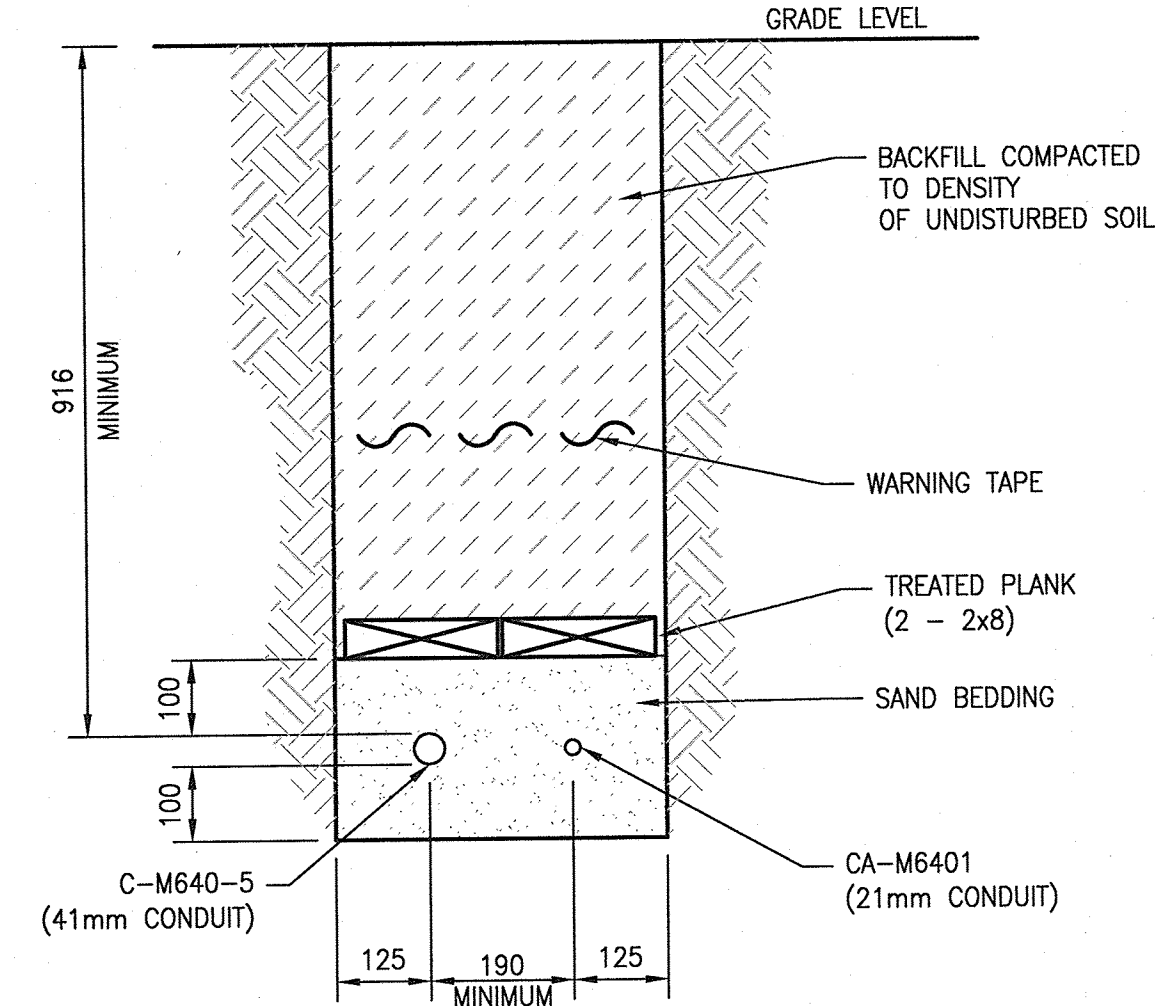
0.0 0.75 1.5 3.0 4.5

1:75



DETAIL 1: TRENCH LAYOUT

SCALE: NTS



DETAIL 2: TRENCH LAYOUT

SCALE: NTS

LEGEND:

- EXISTING
- NEW WORK
- - - DEMOLISH

DEMOLITION NOTES:

- A DEMOLISH EXISTING HVAC CONTROL PANEL AND ALL ASSOCIATED CABLING/CONDUIT. REFER TO INSTRUMENTATION DRAWINGS 1-0640M-A0048 AND 1-0640M-A0049 FOR DETAILS ON ASSOCIATED DEVICES AND SENSORS.
- B DEMOLISH EXISTING FIRE ALARM SYSTEM. REFER TO DRAWING 1-0640M-E0052 FOR DEMOLITION WORK.
- C DEMOLISH EXISTING COMBUSTIBLE GAS ANALYZER. REFER TO INSTRUMENTATION DRAWINGS 1-0640M-A0048 AND 1-0640M-A0049 FOR DETAILS.
- D DEMOLISH EXISTING LOCAL STOP BUTTON FOR FANS FN1, FN2, AND FN3. DEMOLISH ALL ASSOCIATED CABLING/CONDUIT.
- E DEMOLISH EXISTING COOLING TOWER FANS 1 & 2, HTR-M60, AND ASSOCIATED CABLING/CONDUIT.

GENERAL NOTES:

- 1. ALL EQUIPMENT IS NEW UNLESS SPECIFICALLY NOTED OTHERWISE AND SHALL BE PROVIDED BY THE CONTRACTOR
- 2. FOR CABLE TRENCH INSTALLATION, ARRANGE FOR INSPECTION BY THE CONTRACT ADMINISTRATOR PRIOR TO COVERING CABLES. INSPECTION TO OCCUR WITH BASE SAND AND CABLES INSTALLED AND 1M OF TRENCH COVERED WITH SAND AND BOARD IN PLACE, BUT NOT BACKFILLED.
- 3. THE CABLE ROUTING DETAIL IS NOT EXACTLY TO SCALE. SITE CONFIRM ALL MEASUREMENTS.
- 4. PROVIDE UNISTRUT AS NEEDED WHEN ROUTING TECK90 CABLES.
- 5. REFER TO ASBESTOS REPORTS IN APPENDIX B. ASBESTOS IS PRESENT IN AND/OR PRESUMED TO BE PRESENT IN (BUT NOT LIMITED TO) THE FOLLOWING:

PIPING : RAIN WATER LEADER (SWEAT WRAP PIPE INSULATION & PARING OVER FIBREGLASS)  
HEATING WATER SUPPLY/RETURN (PARING OVER FIBREGLASS)

FLOOR : PLASTER (CERAMIC TILES)  
ADHESIVE/MASTIC (CERAMIC TILES)

WALL : VERMICULITE INSULATION (MASONRY)  
PLASTER (PREFORMED BLOCK & CERAMIC TILES)  
ADHESIVE/MASTIC (CERAMIC TILES)

DRAWING NUMBER	REFERENCE DRAWINGS
1-0640A-S0001	CDR-M640 EQUIPMENT PAD, PLAN, SECTION AND GENERAL NOTES
1-0640M-A0049	INSTRUMENTATION PLAN, LOWER LEVEL
1-0640M-A0048	INSTRUMENTATION PLAN, MEZZANINE LEVEL
1-0640M-E0057	ELECTRICAL FIRE ALARM, LEGEND AND DETAILS
1-0640M-E0056	ELECTRICAL FIRE ALARM PLAN, RISER DIAGRAM NOTIFICATION CIRCUITS
1-0640M-E0055	ELECTRICAL FIRE ALARM PLAN, RISER DIAGRAM DETECTION CIRCUITS
1-0640M-E0054	ELECTRICAL FIRE ALARM PLAN, PUMPHOUSE MEZZANINE LEVEL
1-0640M-E0053	ELECTRICAL FIRE ALARM PLAN, PUMPHOUSE LOWER LEVEL
1-0640M-E0052	ELECTRICAL FIRE ALARM PLAN, PUMPHOUSE MEZZANINE LEVEL DEMO
1-0640M-E0051	ELECTRICAL FIRE ALARM PAN PLAN, PUMPHOUSE LOWER LEVEL DEMO

NO.	REVISIONS	DATE	DESIGN	CHECK
01	ISSUED FOR ADDENDUM 3	2020/01/06	VE	VE
00	ISSUED FOR TENDER AND CONSTRUCTION	2019/10/18	SB	KS

**SNC-LAVALIN**

DESIGNED BY: S. BOGHOSIAN  
CHECKED BY: K. SAPIAK  
DRAWN BY: S. BOGHOSIAN  
APPROVED BY: D. BECKER  
SCALE: AS SHOWN  
DATE: 2018/12/21  
ISSUED FOR CONSTRUCTION BY: A. WEISS  
DATE: 2019/10/18

ENGINEER'S SEAL

PROVINCE OF MANITOBA  
REGISTERED PROFESSIONAL ENGINEER  
Member 34836  
Jan. 2020

**THE CITY OF WINNIPEG**  
WATER AND WASTE DEPARTMENT

MCPHILLIPS PUMPING STATION  
ELECTRICAL AND HVAC UPGRADES, MCC REPLACEMENT  
ELECTRICAL EQUIPMENT PLAN  
MEZZANINE LEVEL

CITY DRAWING NUMBER: 1-0640M-E0040  
SHEET: 001  
REV: 01  
SIZE: A1