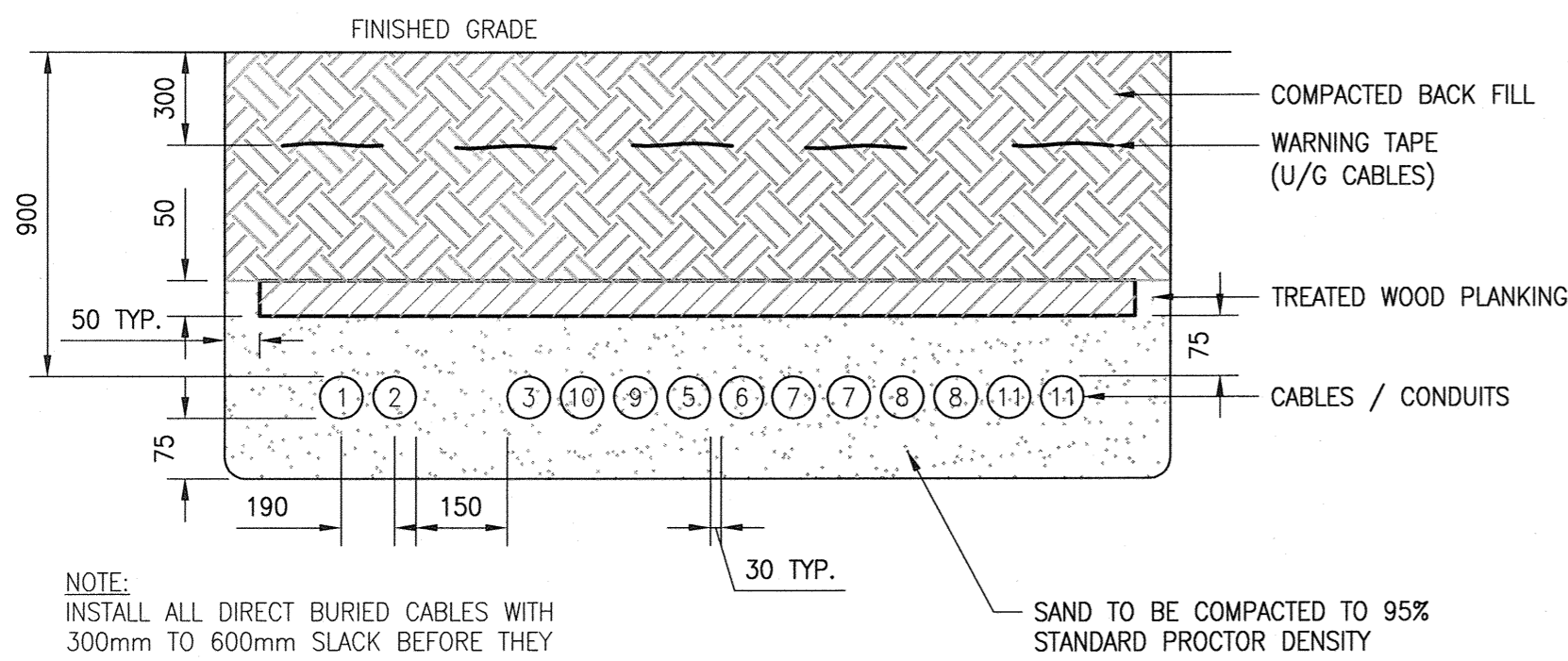
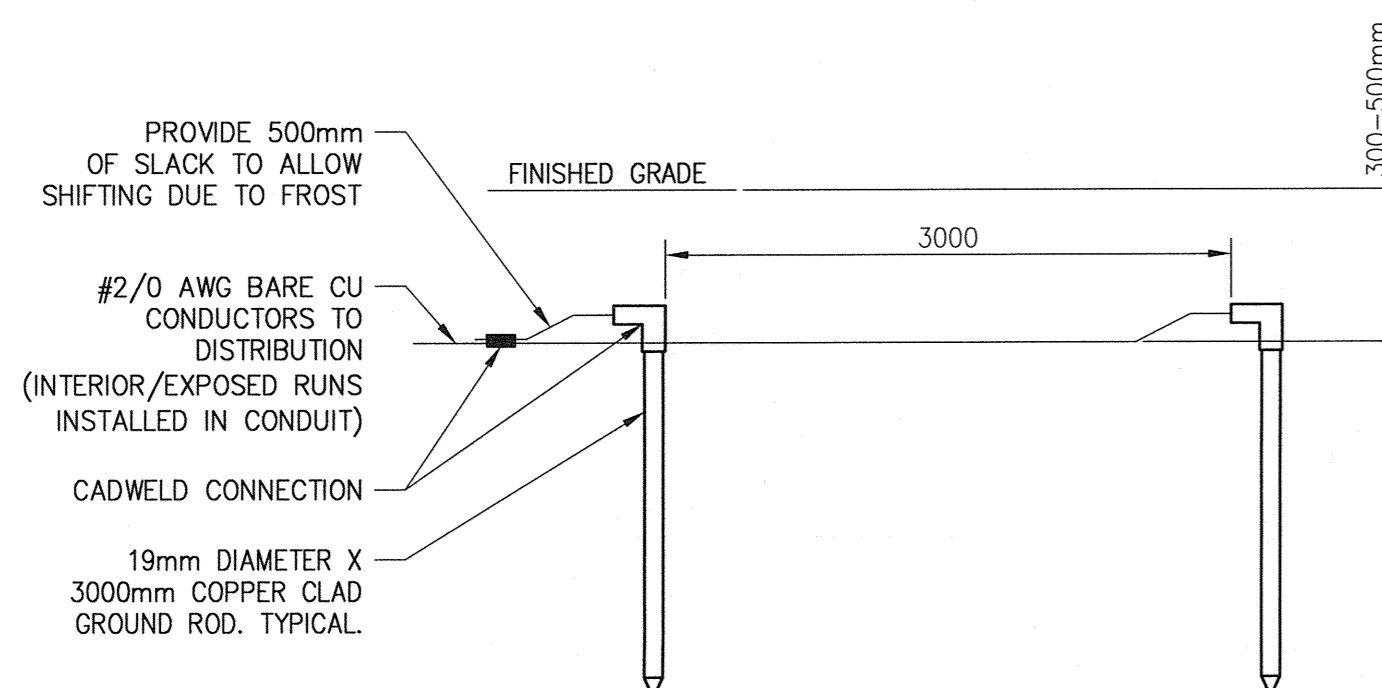


CABLE SCHEDULE REFER TO INSTALLATION NOTE AND TRENCH DETAIL	
CABLE / CONDUITS	MATERIAL
(1) (2)	3C, 350 MCM TECK CABLE - 600V, POWER TOTAL RUN: TO: 600V CDP PANEL IN THE NEW UV FACILITY FROM: 600V MCC IN THE EXISTING SEWPCC ELECTRICAL ROOM
(3)	2C, 16 AWG FAS90 CABLE THROUGH 53mm RIGID PVC CONDUIT USE WITH NEW FIRE ALARM SYSTEM. TOTAL RUN: TO: BPS-U01 IN UV BUILDING FROM: FACP-2 SLC-204
(5)	25 PAIR, 16 AWG ARMURED INSTRUMENTATION CABLE WITH NUMBERED TWISTED PAIRS. TOTAL RUN: TO: CONTROL JUNCTION BOX IN THE NEW FACILITY FROM: BAILEY CONTROL FIELD DEVICE PANEL FDP-S IN THE SEWPCC
(6)	12 PAIR, 16 AWG ARMURED INSTRUMENTATION CABLE WITH INDIVIDUALLY SHIELDED NUMBERED, AND TWISTED PAIRS. TOTAL RUN: TO: CONTROL JUNCTION BOX IN THE NEW FACILITY FROM: BAILEY CONTROL FIELD DEVICE PANEL FDP-S IN THE SEWPCC
(7)	CATEGORY 5E CABLE - 4 PAIRS, TWISTED, 2 SETS ARMURED OF CABLES, TOTAL RUN: TO: CONTROL JUNCTION BOX IN THE NEW FACILITY FROM: BAILEY CONTROL FIELD DEVICE PANEL FDP-S IN THE SEWPCC
(8)	RG 6 AND RG62 COAX CABLE - 1 SET EACH OF ARMURED CABLES TOTAL RUN: TO: CONTROL JUNCTION BOX IN THE NEW FACILITY FROM: BAILEY CONTROL FIELD DEVICE PANEL FDP-S IN THE SEWPCC
(9)	12 PAIRS ARMURED TELEPHONE CABLE TOTAL RUN: TO: THE NEW TELEPHONE BOARD IN THE NEW FACILITY FROM: THE EXISTING MAIN TELEPHONE ROOM IN THE BASEMENT OF THE ADMIN. BUILDING
(10)	8 PAIR, 12 AWG SHIELDED ARMURED CONTROL CABLE FOR THE EXISTING PA SYSTEM EXTENSION, TO THE NEW FACILITY. TOTAL RUN: TO: THE NEW FACILITIES SPEAKERS FROM: THE EXISTING SEWPCC PA SYSTEM
(11)	2-BELDEN 9841 ARMURED CABLES FOR MODBUS PLUS COMMUNICATION TOTAL RUN: TO: THE NEW UV SYSTEM CONTROL PANEL IN THE ELECTRICAL ROOM. FROM: THE EXISTING BAILEY SYSTEM



1 SECTION: DIRECT CABLE BURIAL U.G INSTALLATION
SCALE: NTS



2 DETAIL: GROUND ELECTRODE
SCALE: NTS

SEWPCC ELECTRICAL SITE PLAN

SCALE: 1 : 350

GENERAL NOTES

- MAINTAIN MIN. 150mm / HORIZONTAL SEPARATION BETWEEN POWER CABLES AND ANY COMMUNICATION CABLES THROUGHOUT RUN BOTH ABOVE AND UNDERGROUND. IN THE TRENCH, MAINTAIN MIN. 190mm HORIZONTAL SEPARATION BETWEEN 2 POWER CABLES, AND MAINTAIN MIN. 30mm HORIZONTAL SEPARATION AMONG CONTROL COMMUNICATION AND INSTRUMENTATION CABLES.
- DO NOT SPLICE POWER, CONTROL, COMMUNICATION, AND INSTRUMENTATION CABLES. THEY SHALL BE ONE LENGTH, AND BE TERMINATED IN THE PANELS AND/OR JUNCTION BOXES ON BOTH ENDS.
- MAKE ALL CONNECTIONS AS PER OTHER DRAWINGS AND SPECIFICATION FOR A COMPLETE WORKING SYSTEM, FOR THE FOLLOWING CABLES: (1) (2) (3) (5) (6) (9) (10) (11)
- LEAVE MIN. 5M CABLE LENGTH COILED IN PULL BOXES, FOR THE FOLLOWING CABLES: (7) (8)
- ALL CABLES SHALL BE SUITABLE FOR DIRECT BURIAL.
- SITE CONFIRM, RECORD, AND PHOTO GRAPH EXISTING CABLE/WIRE TERMINATIONS. TERMINATE NEW WIRES AT SAME LOCATION AS EXISTING.
- TEST/COMMISSION FIRE ALARM SYSTEM AFTER MODIFICATION. PROVIDE FIRE ALARM V.I. REPORT.
- DEVICES AND LOCATIONS SHOWN ON THIS PLAN ARE APPROXIMATE ONLY THE CONTRACTOR MUST REFER TO THE APPROVED SITE SURVEY PLAN FOR EXACT LOCATIONS.

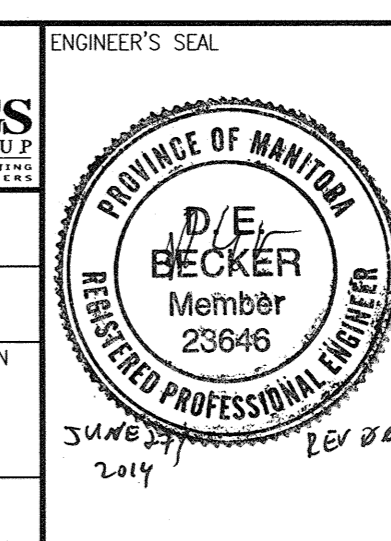
SPECIFIC NOTES

- NEW TRENCH ROUTING IS SHOWN AT ITS APPROXIMATE LOCATION. CONTRACTOR SHALL DETERMINE FINAL ROUTING ON SITE AND IN COORDINATION WITH THE EXCAVATION WORKS UNDER THIS CONTRACT. ALSO VERIFY EXISTING UNDERGROUND SERVICES LOCATIONS PRIOR TO EXCAVATION. RUN NEW TRENCH SOUTH OF PROPOSED NEW GALLERY AND EXISTING SECONDARY EFFLUENT CHANNEL. COORDINATE CABLE INSTALLATION WITH OTHER EXCAVATIONS TO AVOID ANY OVERLAP BETWEEN THE PROPOSED CABLE TRENCH AND THE EXCAVATION WORKS.
- (NOT USED)
- TRANSFORMER TO REMAIN. SUPPORT & PROTECT AS REQUIRED.
- EXISTING GROUND ELECTRODES TO BE REMOVED AND REPLACED. PRIOR TO EXCAVATION, PROVIDE TWO NEW GROUND ELECTRODES, CONNECTED TO EXISTING MAIN DISTRIBUTION DP-A (LOCATED IN ELECTRICAL ROOM). REFER TO DETAIL 2.
- PROVIDE 914mm WIDE TRAY THROUGH FACILITY TO THE ELECTRICAL ROOM. PROVIDE A TRAY BARRIER TO SEPARATE POWER CABLING FROM CONTROLS. PROVIDE STRUCTURAL SUPPORTS AS REQUIRED. CONFIRM AND ADJUST EXACT TRAY ROUTE TO AVOID INTERFERENCES WITH OTHER SYSTEMS.
- RUN CABLING OUT OF TRENCH, UP TO EXTERIOR WALL OF THE FACILITY TO THE INTERIOR TRAY ELEVATION. REFER TO DRAWING 1-0102-EGAD-U001-001.
- MARK, PROTECT, MAKE SAFE AND MAINTAIN THE EXISTING UNDERGROUND SYSTEMS (FIBER OPTIC CABLING AND POWER CABLING) RUNNING FROM THE U.V. BUILDING TO THE OUTFALL BUILDING.
- PROVIDE NEW GROUND ELECTRODE. ELECTRODE TO CONSIST OF TWO 19mm DIAMETER COPPER CLAD, 3000mm LONG GROUND RODS, CONNECTED TOGETHER (CADWELD CONNECTION) AND RUN TO THE EXISTING CDP-A. ALL SURFACE RUN / EXPOSED GROUND CABLE IS TO BE RUN IN RIGID PVC CONDUIT. ENSURE THAT THE NEW ELECTRODES ARE LOCATED OUTSIDE OF THE EXCAVATION AREA.



00	ISSUED FOR TENDER	06/2014	DB	ER
NO.	REVISIONS	DATE	DESIGN	CHECK

CH2MHILL.
SNC-Lavalin
DESIGNED BY: K. OOI
CHECKED BY: E. RYCKOWSKI
DRAWN BY: M.J. PERSSON
APPROVED BY: E. RYCKOWSKI
SCALE: AS SHOWN
ISSUED FOR CONSTRUCTION BY: E. RYCKOWSKI
DATE: 2014/06/27
CONSULTANT NO.: 474248



THE CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT
SOUTH END WATER POLLUTION CONTROL CENTRE
SEWPCC UPGRADING/EXPANSION PROJECT
CABLE ROUTING PLAN
SECONDARY CLARIFIER
TEMPORARY UV FEEDERS
CITY DRAWING NUMBER: 1-0102-ECRT-S001
SHEET: 001
REV: 00
SIZE: A1