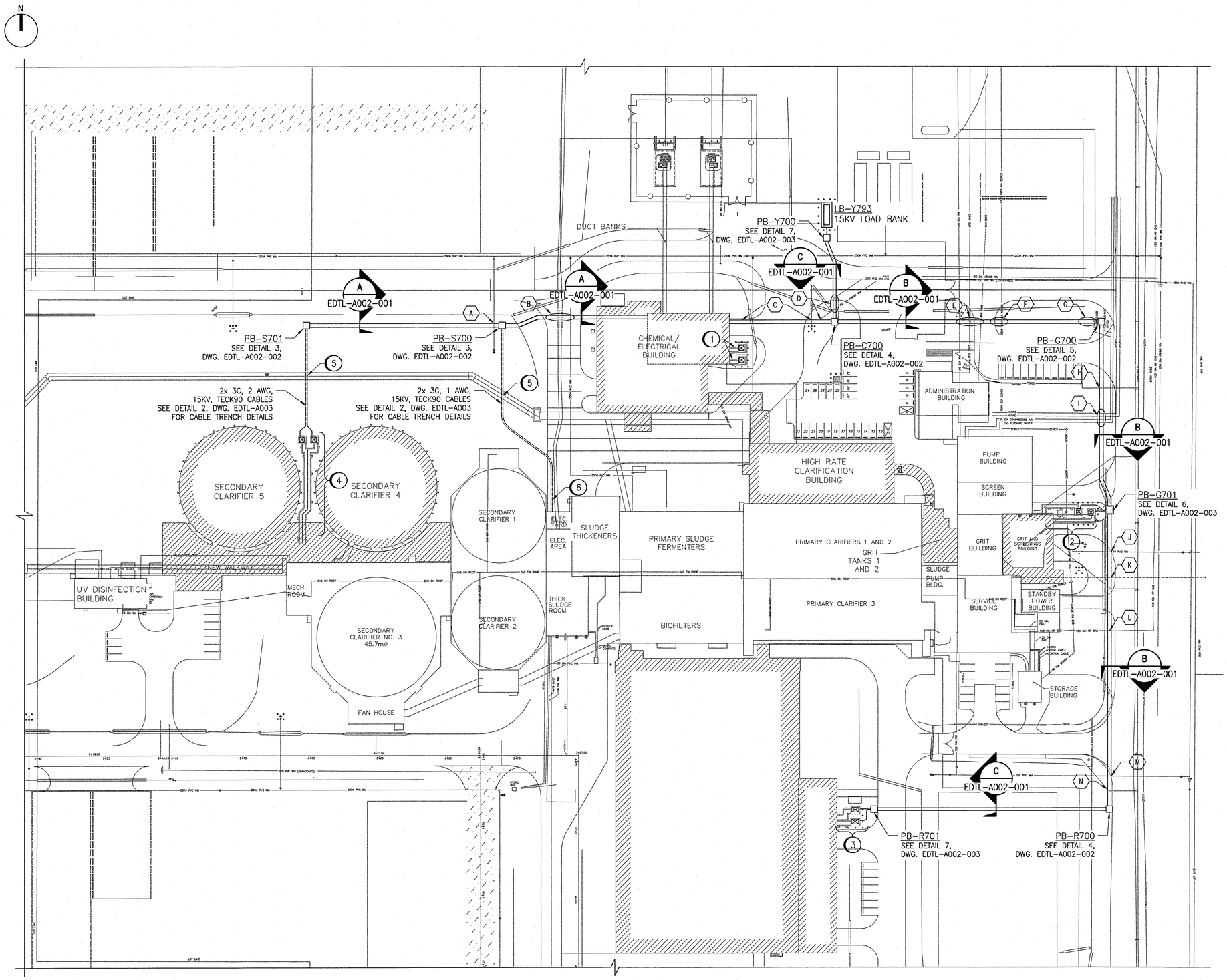
A1 SIZE – 594mm x 841mm



GENERAL NOTES:

1. THE CONTRACTOR SHALL PROVIDE A NEW CONCRETE ENCASED DUCT BANK SYSTEM AROUND THE FACILITY AS SHOWN. THIS DRAWING INDICATES CONCRETE DUCT BANK ROUTING, ALONG WITH PULLBOXES (MANHOLES). THERE ARE EXISTING CABLES / CONDUITS OR OTHER SYSTEMS WHICH WILL CROSS THE NEW DUCT BANK. IT IS THE CONTRACTOR'S RESPONSIBILITY TO WORK AROUND EXISTING SYSTEMS, OR WHERE THIS IS NOT POSSIBLE, TO DISCONNECT, RE-WIRE / RE-CABLE / RE-CONNECT EXISTING SYSTEMS. WHERE CABLE OR CONDUITS NEED TO BE CUT, PROVIDE TWO NEMA 4X BOXES LOCATED ABOVE GRADE FOR WIRE CONNECTIONS POINTS. PROVIDE CABLE AND CONDUIT EXTENSIONS BETWEEN BOXES AS REQUIRED TO RECONNECT THE SYSTEMS. UNDERGROUND BURIED SPLICES ARE NOT ACCEPTABLE.
2. DUCT BANK PULL BOXES TO HAVE SUFFICIENTLY LARGE DIAMETER TO ALLOW FOR MINIMUM CABLE BEND RADIUSES, REFER TO DWG. EDTL-A002-002 & -003.
3. ALL LOCATIONS OF BURIED CABLES AND SERVICES ARE APPROXIMATE. EXACT LOCATIONS TO BE CONFIRMED ON SITE BY THE CONTRACTOR.
4. UTILIZE SOFT DIG EXCAVATION METHODS TO AVOID DAMAGE TO EXISTING SYSTEMS. CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGES AT NO ADDITIONAL COST.
5. CONTRACTOR TO PROVIDE CABLE PULL TENSION CALCULATION AND CABLE PULLING PLAN TO CONTRACT ADMINISTRATOR FOR PULLING OF CABLES INTO THE DUCT BANK SYSTEM, PRIOR TO PERFORMING THE WORK.

SPECIFIC NOTES:

1. REFER TO DRAWING 1-0102-ECRT-C001.
2. REFER TO DRAWING 1-0102-ECRT-G001.
3. REFER TO DRAWING 1-0102-ECRT-R001.
4. REFER TO DRAWING 1-0102-ECRT-S002.
5. CONTRACTOR TO PROVIDE SLACK ON CABLES ABOVE THE UNDERGROUND CHANNELS. THIS WILL PREVENT DAMAGE TO CABLES DUE TO FROST HEAVING ABOVE THE UNDERGROUND CHANNELS.
6. PERFORM POWER SUPPLY SERVICE CHANGE OVER IN ACCORDANCE WITH SPECIFICATION SECTION 26 05 01 3.17.

LEGEND

- ⊠ NEW TRANSFORMER
- ═══ NEW CONCRETE ENCASED DUCT BANK
- ——— NEW DIRECT BURIED CONDUIT OR CABLE
- □ NEW DUCT BANK MANHOLE / PULLBOX (TAGGED PB-G700 OR SIMILAR)

SCHEDULE FOR EXISTING U.G. SERVICES CROSSING THE NEW ELECTRICAL DUCT BANK

LOCATION	DESCRIPTION		NOTES
A	– WATER MAIN PIPE		
B	– 2x 3C, 4/0 AL, TRXLPE, CNJ, 25kV POWER CABLES; – 250ø PVC WATER MAIN PIPE		
C	– WATER MAIN PIPE		
D	– ABANDONED 250ø & 150ø PVC WATER MAIN PIPE; – DITCH		
E	– 100ø PVC WATER MAIN PIPE; – MTS DUCT; – 103mmø RIGID PVC/HDPE CONDUIT FOR COMMUNICATION CABLE TO TRAILERS; – WAN (NETWORK) FIBRE CABLE		
F	– 1950ø SEWER; – 1x 3C, 500MCM POWER CABLE TO TRAILERS; – 1x 2C, 10 AWG TECK90 CABLE TO TRAILERS PARKING LOT LIGHT		
G	CONDUIT 1	– 1x 4 PAIR, 24 AWG CAT 5E – 2x RG59S COAXIAL CABLES	CONDUITS AND CABLES TO LIQUID WASTE DISPOSAL FACILITY
	CONDUIT 2	– 1x SUPERIOR ESSEX 2x 19BDWA 017216 N2002 (2 PAIR, 19 AWG, O.A SHIELDED), – 3x CAT 5E, – 2x RG6 18 AWG, DUAL SHIELDED, FT4, 75'C	
	CONDUIT 3	– 7x 2C, 16 AWG PAIRS (7x 1C RED, 7x 1C BLK) – 1x RG59 COAXIAL – 2x 1 PAIR, 16 AWG TWISTED SHIELDED – 1C, 12 AWG RW90 – 1 PAIR, 22 AWG TWISTED SHIELDED – 2C, 18 AWG, UTP, CIC	
	CABLE 1	– 3C, 2 AWG RWU90 & 6 AWG GREEN INS. GROUND	
	CABLE 2	– 6 PAIR, 16 AWG, TWISTED, SHIELDED, PAIR	
	CABLE 3	– 10 PAIR, 16 AWG, TWISTED, SHIELDED, PAIR	
H	– 2x 2C, 10 AWG TECK90 CABLES FOR ROAD LIGHTING		
I	– 25ø COMPRESSED AIR; – 150ø FLUSHING WATER; – 2x U.G. HYDRO		
J	– 150ø PVC WATER MAIN PIPE		
K	– 4C, 6 AWG TECK90 POWER CABLE TO SNOW DUMP DISTRIBUTION		
L	– 100ø HP GAS LINE		
M	– 250ø PVC WATER MAIN PIPE		
N	– 2C, 10 AWG TECK90 CABLES FOR ROAD LIGHTING		

* NOT ALL BURIED SYSTEMS ARE LISTED. CONFIRM ON SITE WITH MOST CURRENT SURVEY PLAN AND THE CONTRACT ADMINISTRATOR PRIOR TO EXCAVATIONS.

REFERENCE DRAWINGS	DESCRIPTION
1-0102-EDTL-A003	DIRECT BURIED CABLES AND CONDUIT DETAILS
1-0102-EDTL-A002	SECTION AND DETAILS, DUCT BANK AND PULLBOXES
1-0102-SGAD-A001	GENERAL ARRANGEMENT, DUCT BANK FOUNDATION LAYOUT

APEGM Certificate of Authorization
SNC-Lavalin Inc.
No. 4489

NO.	REVISIONS	DATE	DESIGN	CHECK
00	ISSUED FOR CONSTRUCTION – 976-2016	2017/04/05	KO	DEB

CH2MHILL. SNC·LAVALIN KGS GROUP

DESIGNED BY: K. OOI	CHECKED BY: E. RYCZKOWSKI
DRAWN BY: MJ. PERSSON	APPROVED BY: D. BECKER
SCALE: 1:750	ISSUED FOR CONSTRUCTION BY: J. SHUMKA
DATE: 2013/12/13	DATE: 2017/04/05
CONSULTANT NO.: 474248	

ENGINEER'S SEAL
PROVINCE OF MANITOBA
D.E. BECKER
Member
23646
REGISTERED PROFESSIONAL ENGINEER
April 5/ 2017

Winnipeg
THE CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT

SOUTH END WATER POLLUTION CONTROL CENTRE
SEWPCC UPGRADING/EXPANSION PROJECT
ELECTRICAL
GENERAL ARRANGEMENT
DUCT BANK LAYOUT

CITY DRAWING NUMBER	SHEET	REV.	SIZE
1-0102-EGAD-A001	001	00	A1

PLOT DATE: Mar 24, 2017 – 1:36pm
FILE NAME: 1-0102-EGAD-A001.dwg

LAST SAVE: 2017/03/24 – 1:36pm
PATH: C:\Users\persm2\DWG\1-0102-EGAD-A001.dwg