

GENERAL NOTES

1. THE CONTRACTOR SHALL BE RESPONSIBLE TO PREPARE AND SUBMIT ALL NECESSARY PERMITS AND SERVICE ENTRANCE REQUESTS TO HYDRO OTTAWA. THE CONTRACTOR MUST OBTAIN THE APPROVAL AND CONFIRMATION OF THE CONNECTION POINT PRIOR TO THE SERVICE ENTRANCE WORKS.
2. INSTALL COMPLETE PERMANENT, CONTINUOUS, SYSTEM AND CIRCUIT GROUNDING SYSTEMS, INCLUDING ELECTRODES, CONDUCTORS, CONNECTORS AND ACCESSORIES AS INDICATED, TO CONFORM TO REQUIREMENTS OF ENGINEER AND LOCAL AUTHORITY HAVING JURISDICTION OVER INSTALLATION.
3. THE CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE ALL INSTALLATION REQUIREMENTS FOR THE NEW COMMUNICATIONS SERVICE ENTRANCE WITH THE COMMUNICATIONS COMPANY.
4. PROVIDE AN ALLOCATION FOR AN ADDITIONAL LENGTH OF 100M. FOR BELL AND CABLE.
5. ALL ELECTRICAL EQUIPMENT INSTALLED IN THE PUMPING STATION MUST BE EXPLOSION PROOF. USE "GEX GUARD" TYPE CONDUITS, THREADED RIGID STEEL WITH 15" CONDUIT FOR ALL WORK.
6. UNLESS OTHERWISE STATED, ALL EQUIPMENT ENCLOSURES IN THE CABINET, WILL BE NEMA 3P TYPE.
7. ANY EMPTY CONDUIT WILL BE PROVIDED WITH A PULL STRING.
8. USE RIGID PVC, CSA CONDUITS INSIDE THE CABINET.
9. THE CONTRACTOR MUST COORDINATE THE DIMENSIONS OF THE DISTRIBUTION (ACCORDING TO THE DIMENSIONS OF THE CONTROL PANEL AND OTHER EQUIPMENT TO BE INSERTED INSIDE).
10. ALL EXTERIOR LIGHTING TO BE CONNECTED USING #AWG WIRING

- ## ELECTRICAL INSTRUCTIONS
1. ALL ELECTRICAL CONDUITS CAST INTO CONCRETE SLABS MUST BE APPROVED BY THE STRUCTURAL ENGINEER.
 2. MINIMUM SPACING BETWEEN DUCTS MUST BE 150mm, PREFERABLY 300mm WHERE POSSIBLE.
 3. MINIMIZE DUCT CROSSING.
 4. THE CROSSING OF DUCTWORK MUST BE MADE AT A RIGHT ANGLE (90° CROSSINGS), MINIMUM 300mm SPACING BETWEEN CROSSINGS, PREFERABLY 600mm WHERE POSSIBLE.
 5. DO NOT RUN DIRECTLY ALONG A REBAR. INSTALL CONDUITS BETWEEN ADJACENT BARS.
 6. NO CONDUIT SHOULD BE LAUNCHED INSIDE CONCRETE COLUMNS AND WALLS.
 7. NO CONDUIT SHOULD BE LAUNCHED ABOVE THE COLUMNS OR LESS THAN 900mm (SLABS WITHOUT CHARTS) FROM THE EXTERNAL FACES OF THE COLUMNS.
 8. ALL OPENINGS AND SLEEVES (IN SLABS AND WALLS) MUST BE APPROVED BY THE STRUCTURAL ENGINEER.
 9. NO SLEEVE (THE FACE) WILL BE AUTHORIZED WITHIN 300mm (SLABS WITHOUT CHARTS) FROM THE EXTERNAL FACES OF THE COLUMNS.
 10. PROVIDE A SPACING OF THE SLEEVES TO MAINTAIN A FREE SPACE OF 100mm MINIMUM FACE TO FACE OF THE SLEEVES.
 11. SLEEVES MUST BE LOCATED WITHIN 1 QUADRANT MAXIMUM NEAR THE COLUMNS.
 12. PLAN TO PROVIDE AN ARRANGEMENT PLAN 14 DAYS BEFORE ANY POUR FOR REVIEW BY THE ENGINEER.
 13. ALL OPENINGS AND SLEEVES MUST BE INSTALLED BEFORE ANY CASTING.

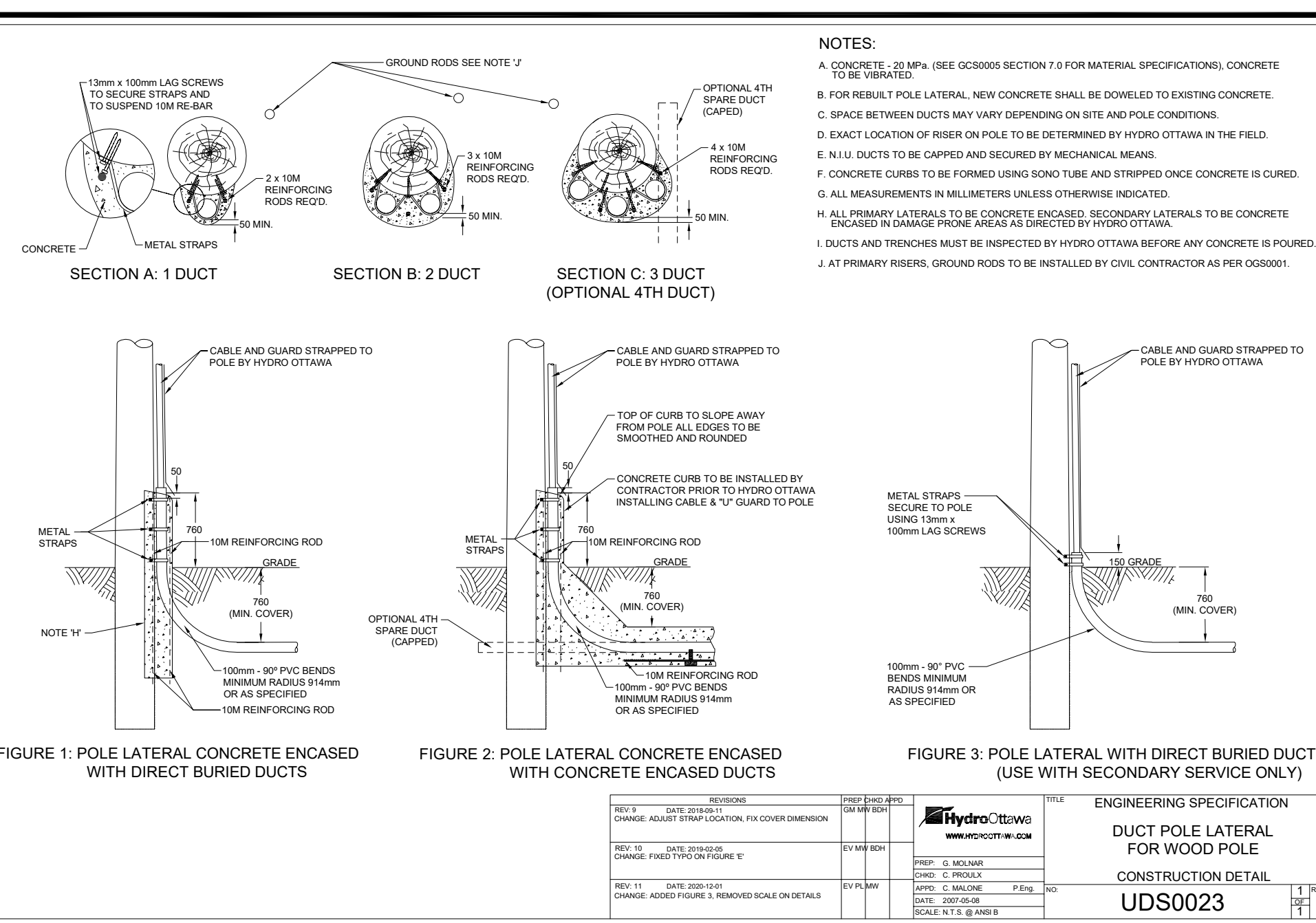
CONDITIONS			CONDUIT OR CABLE TYPE
CONCRETE COATED EXTERIOR UNDERGROUND			PVC RIGID ACCORDING TO QUOTATION
EXTERIOR UNDERGROUND NOT COATED WITH CONCRETE			PVC RIGID
EXTERIOR NOT UNDERGROUND AND LOWER THAN 2.4 METERS EX: ON POLE OR WALL			THREADED RIGID STEEL
OTHER EXTERIOR CONDUITS			PVC RIGID
IN OR UNDER SLAB ON EARTH AND FOUNDATION WALL			THREADED RIGID STEEL OR RIGID PVC
EMBEDDED IN CONCRETE OR MASONRY (BLOCK, TERRA-COTTA) AND CROSSED WITH INTERIOR CONCRETE SLAB			RIGID CPV OR FLEXIBLE CPV DUCT (CORLINE)
MAIN ELECTRICAL DISTRIBUTION AND CONDUITS FOR INTERIOR AUXILIARY SYSTEMS.			E.M.T. AC90/90 CABLE FOR CONNECTING DWELLINGS
COMMON SERVICE AREAS AND ENGINE CONNECTIONS			E.M.T. ARMORED CABLE BX TYPE AC-90 TEAK-90 CABLE IN WET AND DAMP LOCATIONS
ACCOMMODATION AREAS	PLENUM	AC-90 ARMORED CABLE	
	FUEL CONSTRUCTION	NMD OR ARMY AC-90 CABLE	
	NON-COMBUSTIBLE CONSTRUCTION	IN CEILINGS - AC-90 ARMORED CABLE IN WALLS - NMD CABLE	

NOTES:


1. IN CPV CONDUIT, ADD A GROUND CONTINUITY CONDUCTOR REQUIRED BY CODE EVEN IF NOT EXPLICITLY STATED.
2. COORDINATE WITH THE VENTILATION CONTRACTOR PLENUM CEILINGS.

CONSTRUCTION NOTES (SITE PLAN)

- 1 MAIN DISCONNECT SWITCH OF BUILDING TO BE INSTALLED IN ELECTRICAL ROOM. REFER TO SINGLE LINE DIAGRAM ON E101.
- 2 ROGERS PLYWOOD TO BE INSTALLED IN ELECTRICAL ROOM.
- 3 TWO (2) EMPTV PVC CONDUITS CSA RIGID CW PULL CORD EMBEDDED AT 960mm C/W INDICATOR FLAG AT 380mm ON ALL LENGTH. ONE (1) 100mmØ CONDUIT DEDICATED FOR ROGERS AND ONE (1) 100mmØ SPAKE CONDUIT UP TO CONSTRUCTION LOT LIMIT. EXACT LOCATION TO BE COORDINATED WITH CIVIL DRAWINGS.
- 4 (2) 100mmØ CONDUITS CSA RIGID EMBEDDED AT 960mm CW INDICATOR FLAG AT 380mm ON ALL LENGTH. ONE EMPTV CONDUIT CW PULL CORD AND ONE CONDUIT CW 4860mmCW GROUNDING - 100mmØ FOR ELECTRICAL. MAIN FEED OF BUILDING UP TO CONSTRUCTION LOT LIMIT. EXACT LOCATION TO BE COORDINATED WITH CIVIL DRAWINGS.

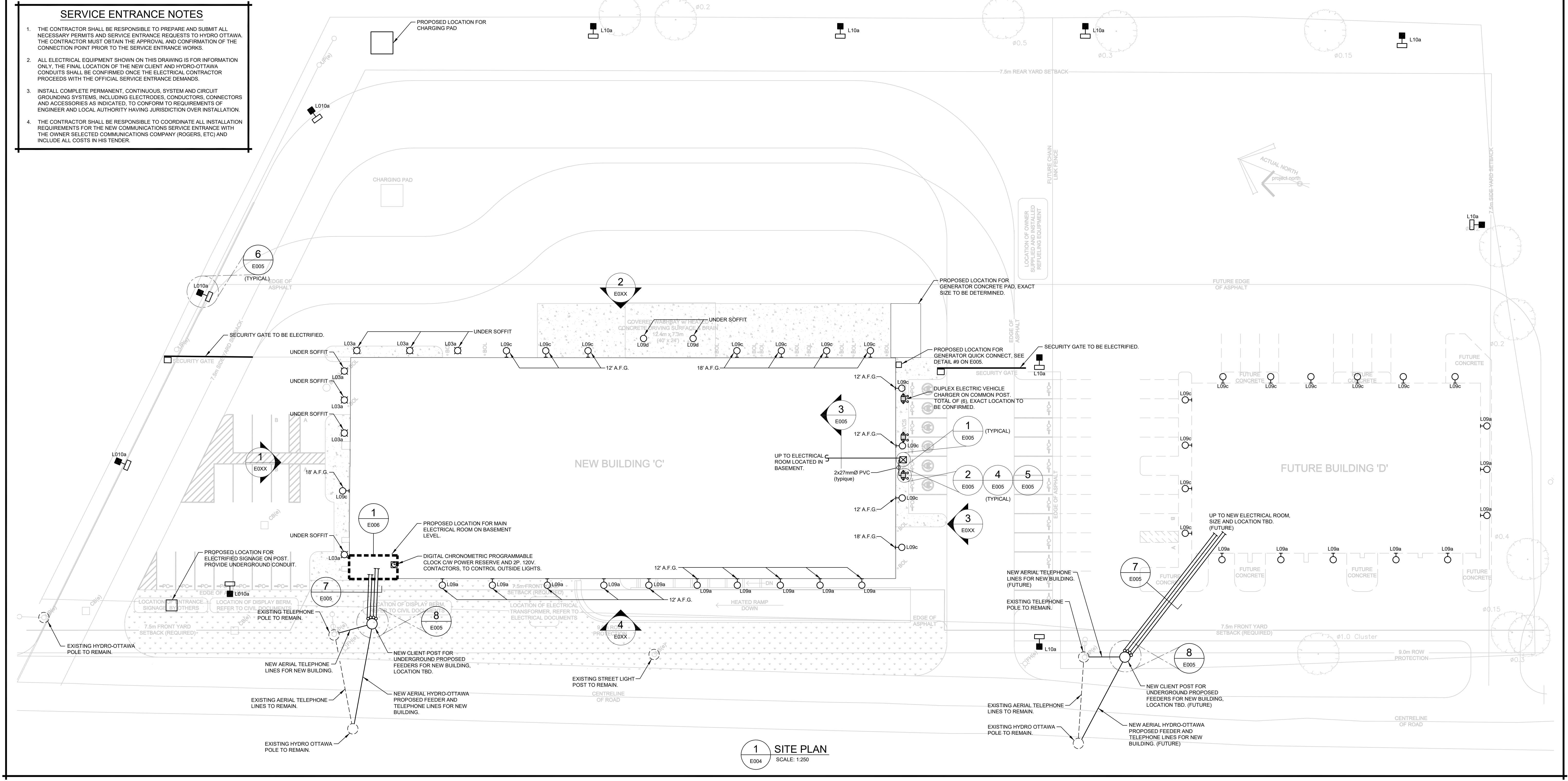


2 AERIAL TO UNDERGROUND CONNECTION
E004 SCALE: N.T.S

 <small>PROFESSIONAL ELECTRICAL CONTRACTORS</small> <small>BRINGING LIFE, LIGHT AND POWER TO LIFE</small>				
Project: MCS5-01 (DOWNE MOORE RENTALS HEADQUARTERS) 1747 Lagan Way, Ontario, Canada Prepared by: M. Durand Verified by: F. Bernard, P. ENG. Last update: 26 October 2023 - Main Entrance Building C				
1.0 Base loads (Units)	Quantity	Watts	Heating (Watt)	% Calculated Watts
			100	0
			65	0
			40	0
			25	0
			10	0
				0
				0
				0
				0
				0
	0		0 TOTAL	0
1.1 Base loads (Commercial and office levels)				
		m2	(W/m2)	% Calculated Watts
Building C - Commercial		4500	25	112500
Building C - Office		650	50	32500
			TOTAL	145000
2.0 Electrical heating			Watts	% Calculated Watts
Units (Heating at 75% or at 100% if other loads represent less than 25%)			10000	100
Other (Heating at 75% or at 100% if other loads represent less than 25%)			75000	75
			TOTAL	85000
3.0 Motor loads			Watts	% Calculated Watts
Elevator		25000	75	18750
Mechanical equipment		225000	75	168750
		0	75	0
		0	75	0
		0	TOTAL	187500
4.0 Others			Watts	% Calculated Watts
Car chargers		42000	100	42000
Exterior lighting		2000	75	1500
				0
				0
			TOTAL	43500
TOTAL				Calculated Watts
1.0 Base loads				145000
1.1 Base loads (Commercial and office levels)				145000
2.0 Electrical heating				85000
3.0 Motor loads				187500
4.0 Others				43500
			TOTAL	461000
Entrance Voltage :		347 / 600V	volts	
Marked equipment for a continuous service at 100% Connection conductor ampacity :		443.70	amps	
Tolerance (1% at per 5-1000.1) :		421.52	amps	
Entrance protection :		500	A	

SERVICE ENTRANCE NOTES

1. THE CONTRACTOR SHALL BE RESPONSIBLE TO PREPARE AND SUBMIT ALL NECESSARY PERMITS AND SERVICE ENTRANCE REQUESTS TO HYDRO-OTTAWA. THE CONTRACTOR MUST OBTAIN THE APPROVAL AND CONFIRMATION OF THE CONNECTION POINT PRIOR TO THE SERVICE ENTRANCE WORKS.
2. ALL ELECTRICAL EQUIPMENT SHOWN ON THIS DRAWING IS FOR INFORMATION ONLY. THE FINAL LOCATION OF THE NEW CLIENT AND HYDRO-OTTAWA CONDUITS SHALL BE CONFIRMED ONCE THE ELECTRICAL CONTRACTOR PROCEEDS WITH THE OFFICIAL SERVICE ENTRANCE DEMANDS.
3. INSTALL COMPLETE PERMANENT, CONTINUOUS, SYSTEM AND CIRCUIT GROUNDING SYSTEMS, INCLUDING ELECTRODES, CONDUCTORS, CONNECTORS AND ACCESSORIES AS INDICATED. OBTAIN ALL REQUIREMENTS OF ENGINEER AND LOCAL AUTHORITY BEFORE JURISDICTION OVER-INSTALLATION.
4. THE CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE ALL INSTALLATION REQUIREMENTS FOR THE NEW COMMUNICATIONS SERVICE ENTRANCE WITH THE OWNER SELECTED COMMUNICATIONS COMPANY (ROGERS, ETC) AND INCLUDE ALL COSTS IN HIS TENDER.



1 SITE PLAN
E004 SCALE: 1:250

