

CONDUIT AND CABLE SCHEDULE							
ITEM	FUNCTION	CABLE	FROM	TO	CONDUIT *	INSTALLATION	NOTES
1	SERVICE CENTRE ENTRANCE	3#30 RW90	SERVICE POLE	UTILITY METER	53mm RIGID PVC/CRSC	U/G IN CONCRETE	
1A	SERVICE CENTRE GROUND	#3	UTILITY METER	GROUND RODS	16mm PVC/CRSC	U/G IN CONCRETE	
2	SERVICE CENTRE 200A FUSED DISCONNECT	3#30 + 1#6 BOND	UTILITY METER	SERVICE 200A FUSED DISCONNECT	53mm CRSC	AT METER SERVICE CENTRE	
3	PANEL 'A'	3#30 + 1#6 BOND	SERVICE 200A FUSED DISCONNECT	PANEL 'A'	53mm CRSC	AT METER SERVICE CENTRE	
4	PHOTO-ELECTRIC CONTROLLER	2#10 + 1#12 BOND	PANEL 'A' COT #1	LIGHTING CONTACTOR	21mm CRSC	AT METER SERVICE CENTRE	
5	SERVICE CENTRE RECEPTACLE	2#12 + 1#12 BOND	PANEL 'A' COT #3	SERVICE CENTRE RECEPTACLE	21mm CRSC	AT METER SERVICE CENTRE	
6	POLE #1 LIGHTING COT A-1	2#6 + 1#10 BOND	LIGHTING CONTACTOR	POLE #1 LIGHTING	21mm RIGID PVC/CRSC	EMBEDDED IN CONCRETE DECK	
7	POLE #2 LIGHTING COT A-1	2#6 + 1#10 BOND	POLE #1 LIGHTING	POLE #2 LIGHTING	21mm RIGID PVC	EMBEDDED IN CONCRETE DECK	
8	POLE #3 LIGHTING COT A-1	2#6 + 1#10 BOND	POLE #2 LIGHTING	POLE #3 LIGHTING	21mm RIGID PVC	EMBEDDED IN CONCRETE DECK	
9	POLE #1 RECEPTACLES	3#10 + 1#12 BOND	PANEL 'A' COTS #2,4	POLE #1 RECEPTACLES	21mm RIGID PVC/CRSC	EMBEDDED IN CONCRETE DECK	
10	POLE #2 RECEPTACLES	3#6 + 1#10 BOND	PANEL 'A' COTS #5,8	POLE #2 RECEPTACLES	21mm RIGID PVC/CRSC	EMBEDDED IN CONCRETE DECK	
11	POLE #3 RECEPTACLES	3#6 + 1#6 BOND	PANEL 'A' COTS #10,12	POLE #3 RECEPTACLES	27mm RIGID PVC/CRSC	EMBEDDED IN CONCRETE DECK	
12	60A WINCH / WELDER OUTLET #1	2#6 + 1#6 BOND	PANEL 'A' COTS #17,19	60A WINCH / WELDER OUTLET #1	35mm RIGID PVC/CRSC	EMBEDDED IN CONCRETE DECK	
13	60A WINCH / WELDER OUTLET #2	2#6 + 1#6 BOND	PANEL 'A' COTS #21,23	60A WINCH / WELDER OUTLET #2	35mm RIGID PVC/CRSC	EMBEDDED IN CONCRETE DECK	
14	60A WINCH / WELDER OUTLET #3	2#4 + 1#6 BOND	PANEL 'A' COTS #25,27	60A WINCH / WELDER OUTLET #3	35mm RIGID PVC/CRSC	EMBEDDED IN CONCRETE DECK	

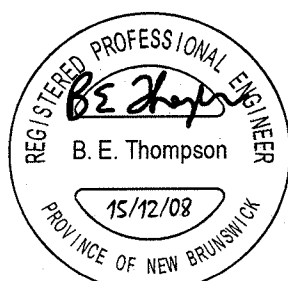
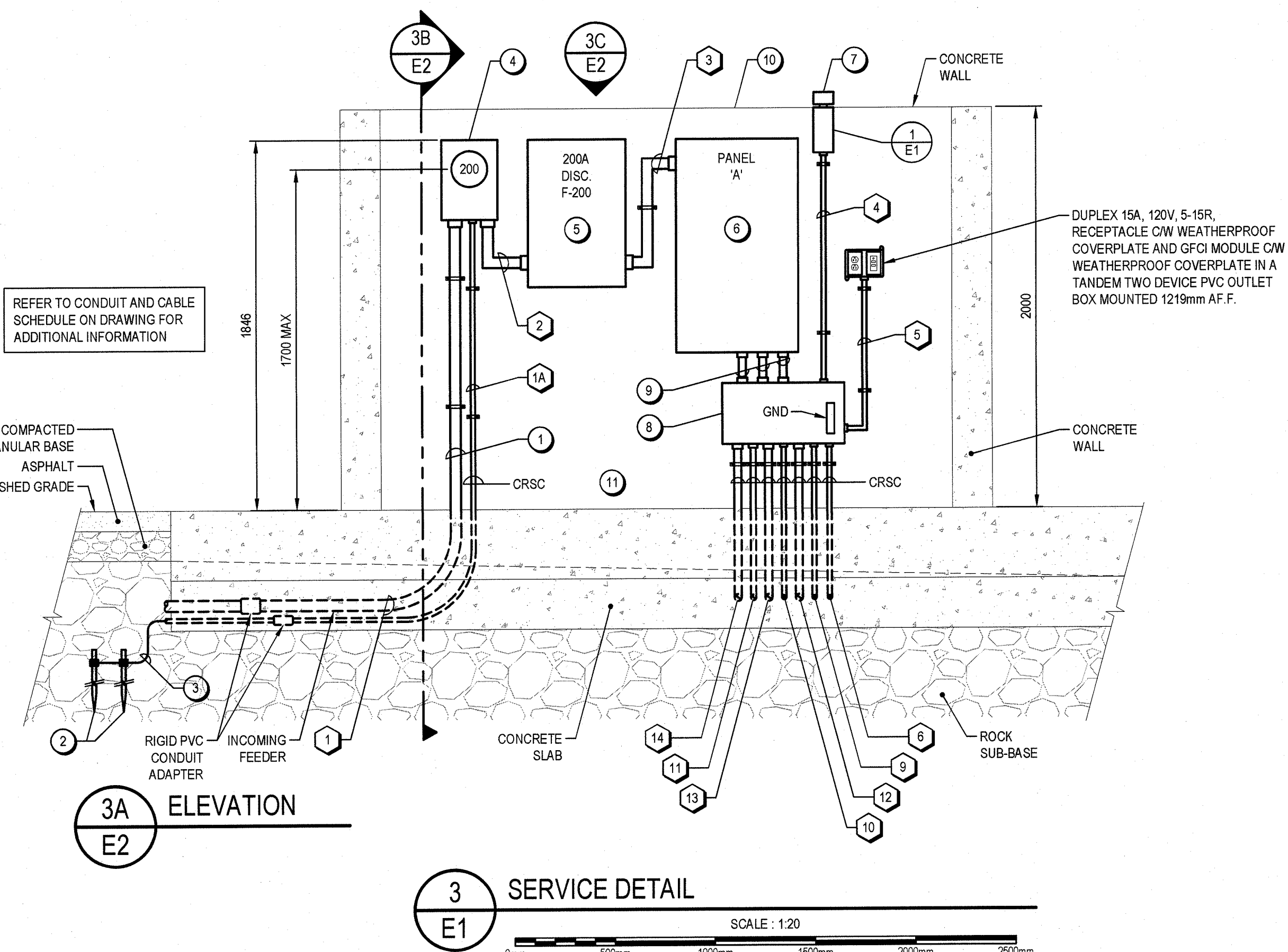
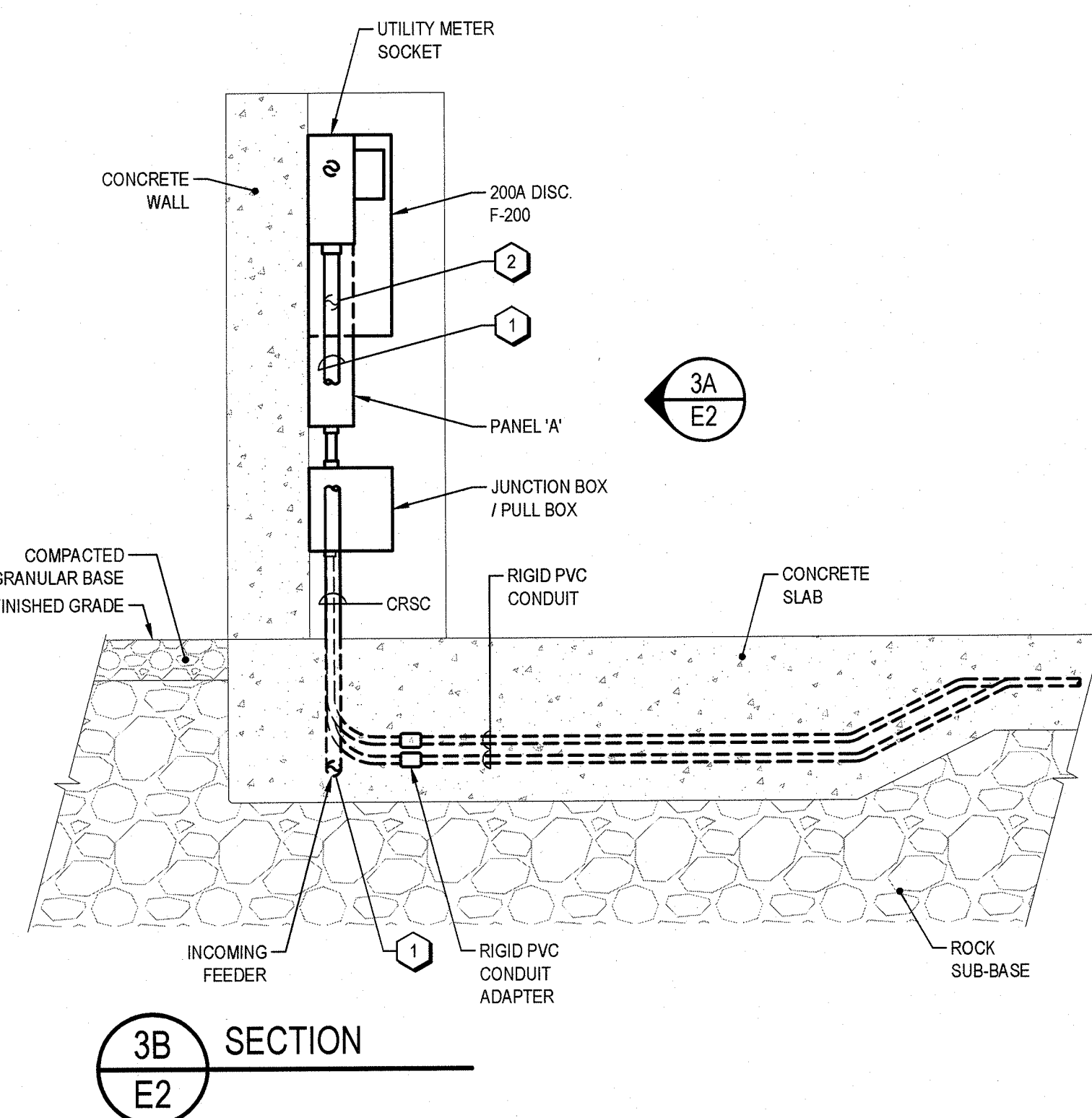
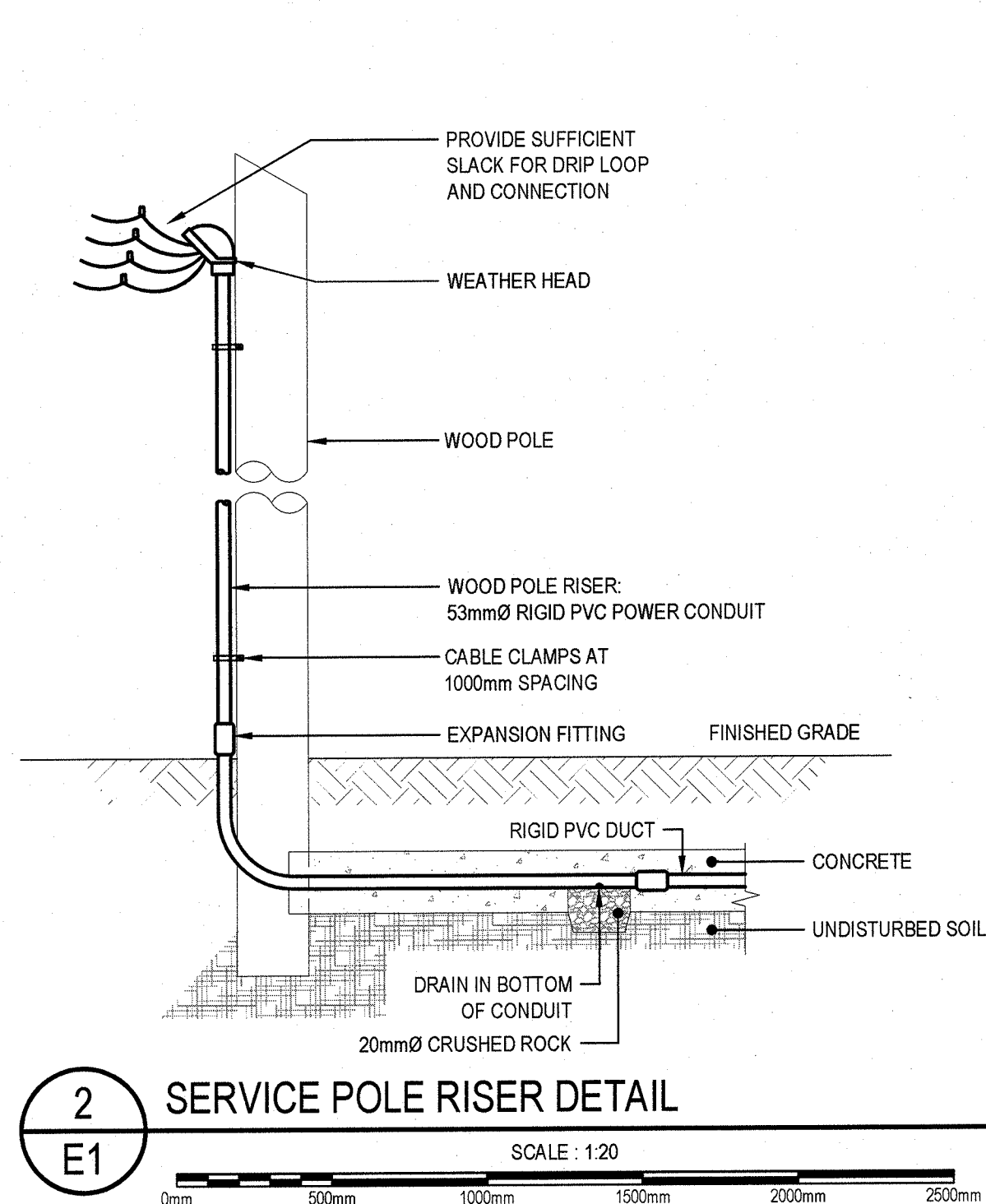
* USE CRSC FOR ALL SURFACE AND EXPOSED CONDUIT. CONVERT TO RIGID PVC WITHIN THE CONCRETE DECK.
 * USE MECHANICAL COMPRESSION CABLE REDUCING SPLICES FOR #4 AWG AND LARGER WHERE REQUIRED.

VOLTAGE DROP/WIRE SIZE CALCULATIONS							
LOAD	RATING	VOLTS	CIRCUIT	RATED CURRENT	DISTANCE (METERS)	VOLTAGE DROP	WIRE SIZE
POLE 1 RECEPT 1,2	20A	120V	A-2,4	16A	25	2.58%	3#10
POLE 2 RECEPT 3,4	20A	120V	A-6,8	16A	45	2.92%	3#8
POLE 3 RECEPT 5,6	20A	120V	A-10,12	16A	65	2.66%	3#6
WINCH/WELDER #1	50A	240V	A-17,19	40A	35	1.79%	2#6
WINCH/WELDER #1	50A	240V	A-21,23	40A	55	2.60%	2#6
WINCH/WELDER #1	50A	240V	A-25,27	40A	75	2.40%	2#4
LTS 1,2,3.	4A	120V	A-1	3A	65	<3%	2#8
PANEL A TOTAL	200A	240V		160A	40	<2%	3#30

PANEL A FEEDER LOAD DIVERSITY
 RECEPT TOTAL WATTS: 4x20x 120V x100% 9600
 2x20x 120V x65% 3120
 1x15x 120Vx65%2 1170
 WINCH/WELDER 3x40x240x50% 14400
 LIGHTS TOTAL WATTS: 3x105W 315

TOTAL Watts = 28905
 TOTAL AMPS @ 240V = 119A

PANEL 'A'									
DESCRIPTION					WATTAGE				
					A	B	P	A	B
LIGHTING POLES 1-3					315			1920	
SERVICE CENTRE RECEPTACLE						120		1920	
SPARE								1920	
SPARE								1920	
SPARE								1920	
SPARE								1920	
60A WINCH / WELDER OUTLET #1					4800	4800			
60A WINCH / WELDER OUTLET #2					4800	4800			
60A WINCH / WELDER OUTLET #3					4800	4800			
PHASE LOADS:					14715	14520		5760	5760
TOTAL LOAD:					40755				
TOTAL PHASE LOADS					20475	20280			
CURRENT (A) @ 240V:					170				



NOTES

- SERVICE FEEDER: 3#30 RW90 IN 53mm CRSC CONDUIT. PROVIDE HUB ADAPTOR AT METER.
- 19mmØ x 3m COPPERWELD GROUND RODS, DRIVEN 3m APART TO BE INSTALLED 300mm BELOW GRADE, THERMOWELD CONNECTIONS.
- SERVICE GROUND: 1#3 COPPER TO GROUND RODS.
- 200A, 250V, 4 JAW METER SOCKET.
- 250V, 2 POLE FUSED DISCONNECT SWITCH SUITABLE FOR SERVICE ENTRANCE USE SIZED AS INDICATED IN STAINLESS STEEL CSA 4X ENCLOSURE.
- PANEL 'A' - 30 COT, IN STAINLESS STEEL 4X ENCLOSURE, 1066mmH x 606mmW x 165mmD.
- LIGHTING CONTACTOR CW BUILT-IN PHOTO-ELECTRIC CONTROLLER.
- 300mmH x 600mmW x 300mmD CSA 4X FERALLOY IRON JUNCTION BOX / PULL BOX CW BACKPLANE. SUPPLY AND INSTALL REDUCING TERMINAL BLOCKS AND GROUND BAR.
- INSTALL 35mm CONDUIT SLEEVES BETWEEN JUNCTION BOX AND PANEL 'A' AS REQUIRED.
- SERVICE CENTRE CONCRETE WALL. PROVIDE STAINLESS STEEL ANCHORING AND MOUNTING HARDWARE FOR ALL COMPONENTS AS REQUIRED.
- CONVERT FROM RIGID PVC TO CRSC CONDUIT FOR ALL SURFACE WORK. CRSC CONDUIT TO EXTEND MINIMUM OF 1m IN CONCRETE DECK.

0	ISSUED FOR TENDER	DEC.08 2015
revisions		date

project
HARBOUR IMPROVEMENTS

BACK BAY

CHARLOTTE CO., NB

drawing
ELECTRICAL SERVICE DETAILS AND SCHEDULES

designed	RMB	conçu	
date	DECEMBER 2015		
drawn	DD	dessiné	
date	DECEMBER 2015		
approved	BET	approuvé	
date	DECEMBER 2015		

Tender
PWGSC Project Manager
Administrateur de projets TPSGC

R.076185.001

drawing no.
E2 of 3