

DATE: July 18, 2017
PROJECT No. ITT No. 2017-02
PROJECT NAME: Metchosin Road Improvement
Page 1

Civil Addendum

1. This Addendum shall be read in conjunction with and considered as an integral part of the Contract Documents; revisions supercede the information contained in the original drawings, specifications or previously issued Addendum.
2. Tender Price submitted shall include all items of this Addendum.
3. No consideration will be allowed for any extras due to any bidder not being familiar with the contents of this Addendum.

1.0 Document Revisions:

1.1 Refer to Section IT – Part 1, “Instructions to Tenderers Part 1”, item 3.1.

Replace “Tender Closing Date: July 20, 2017” with,

“Tender Closing Date: **July 27, 2017**”

Please note the Tender Closing time of **2:00 PM local time**, shall remain the same.

1.2 Reference Section IT – Part 1, Instructions to Tenderers Part 1:

Reference Item 3.3 FACSIMILE

Replace “(250) 478-7516” with (250) 391-8593”

1.3 Reference Section Supplementary Conditions

Delete Section 26 56 01 Roadway Lighting, Item 1.9

2.0 Drawings:

Reference AES drawings, E1, Rev 3, E2.0 Rev 4 and E 2.1 Rev 3 attached. These drawings shall replace the drawings AES drawings, E1, Rev 2, E2.0 Rev 2 and E 2.1 Rev 2 as issued with the tender documents.

PANELBOARD SCHEDULE

JOB NO./NAME	1-16-223					
PANEL	2A					
SYSTEM	120/240V, 1PH, 3W					
TYPE	LOAD CENTRE					
LOCATION	SURFACE					
MOUNTING	12					
NO. CIRCUITS	12					
BUS SIZE	100A					
SYM. FAULT RATING	10KAIC					
DESCRIPTION	BRK	POLE	CCT	POLE	BRK	DESCRIPTION
** LIGHTING	15	1	01	02	1	RECEPTACLE
** LIGHTING	15	1	03	04	1	RECEPTACLE
			05	06	1	SPARE
			07	08	1	SPARE
			09	10	1	SPARE
			11	12	1	SPARE

* GFCI Breaker
** Photocell / Contactor Controlled

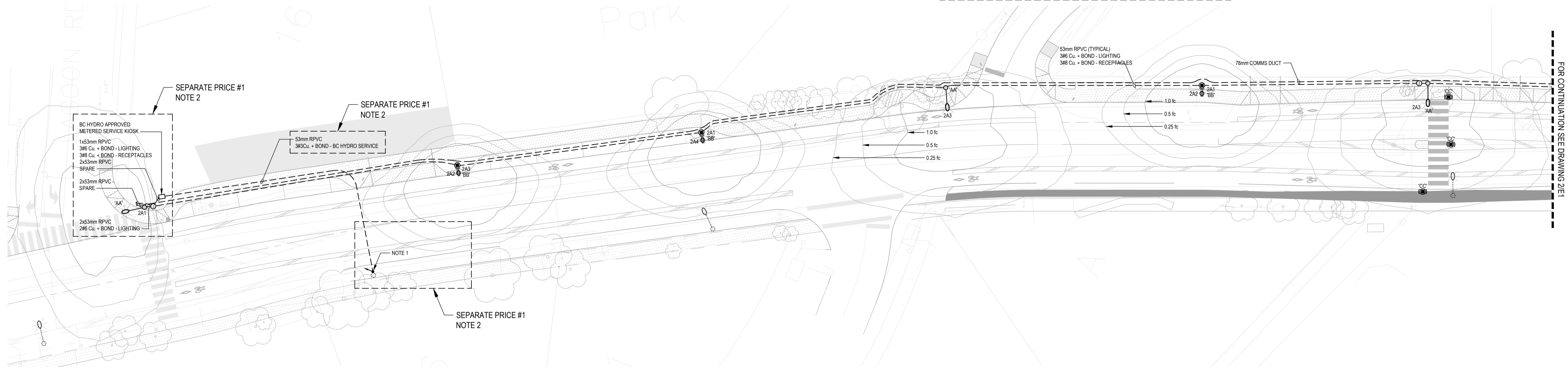
ELECTRICAL SYMBOL LEGEND

NOTE	EQUIPMENT SHOWN DOTTED IS EXISTING AND TO REMAIN UNLESS INDICATED OTHERWISE
	POLE LUMINAIRE
	DAVIT ARM MOUNTED LUMINAIRE
	JUNCTION BOX
CCT-#	DENOTES CIRCUIT

PHOTOMETRIC LIGHTING CALCULATIONS

Description	Avg	Max	Min	Avg/Min
Metchosin Rd	1.1 fc	4.6 fc	0.0 fc	N/A
Recommended (Collector/Medium)	0.9 fc			4.0:1

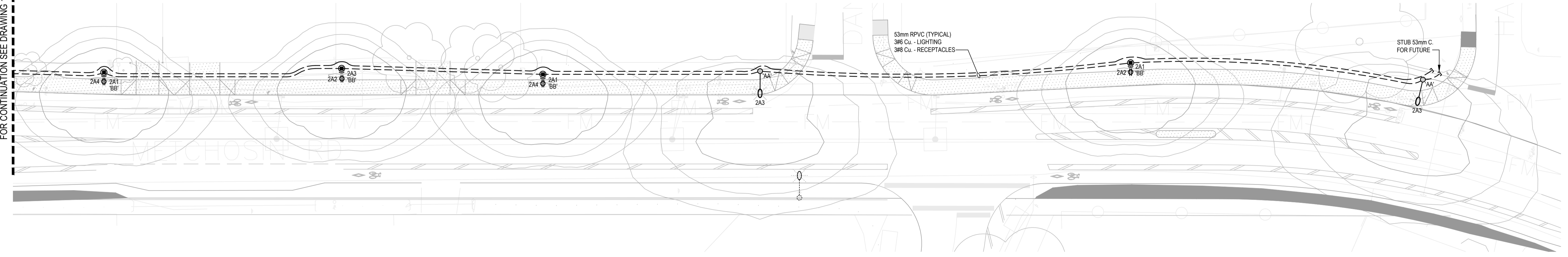
SEPARATE PRICE #1



1 PARITAL SITE PLAN
E1

- NOTES:
- PROVIDE 3/8" x BOND IN 53mm RIGID STEEL CONDUIT UP POLE TO ABOVE SECONDARY CONDUCTORS WITH WEATHERHEAD FOR CONNECTION TO OVERHEAD BC HYDRO SERVICE. RIGID CONDUIT IS TO INCLUDE THE 90° BEND BELOW GRADE.
 - REFER TO SPECIFICATION SECTION 16028 FOR FURTHER DETAILS ON SCOPE OF WORK TO BE COVERED BY SEPARATE PRICE #1

FOR CONTINUATION SEE DRAWING 1/E1



2 PARITAL SITE PLAN
E1

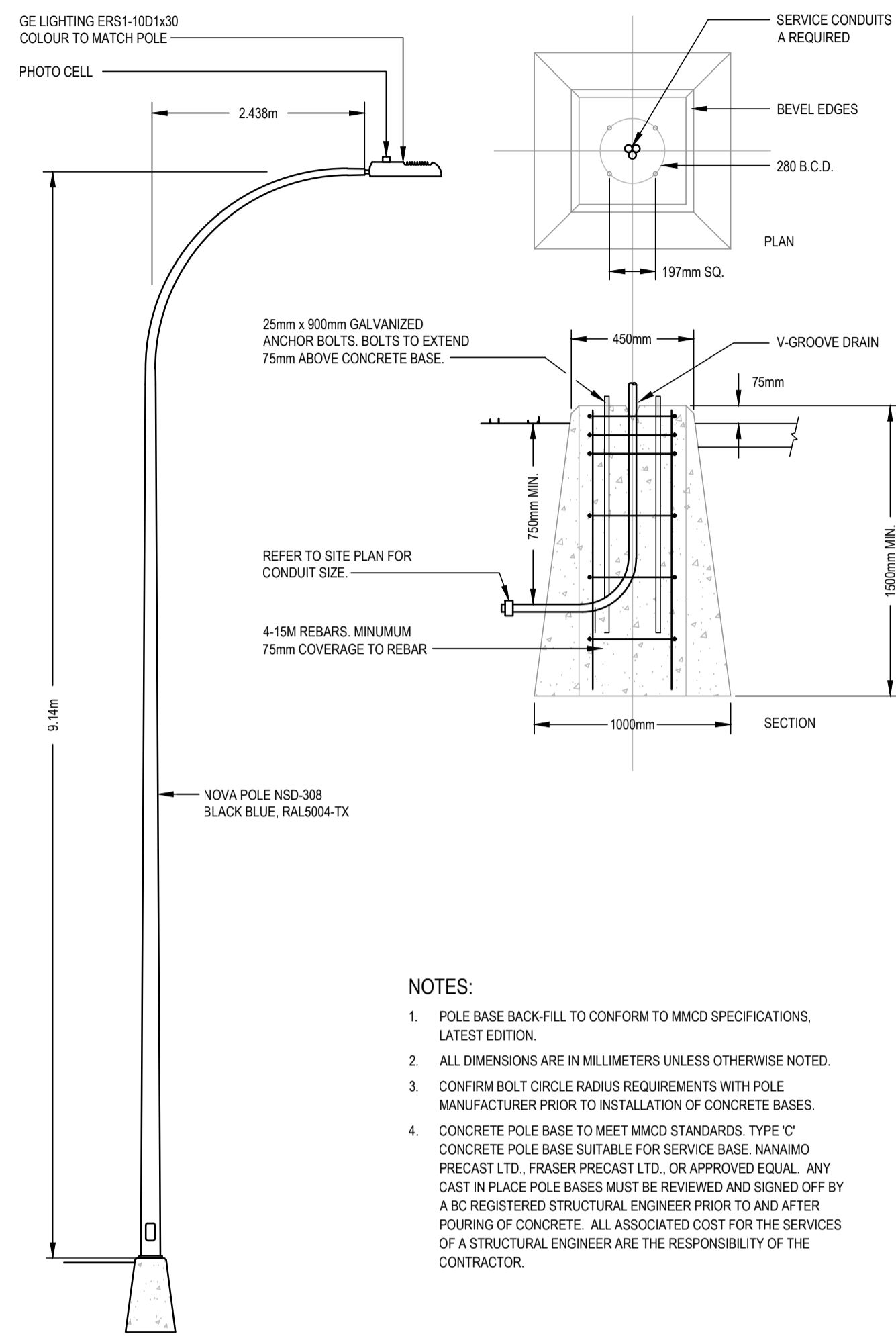
REVISIONS				DESIGNED	JH/SS
No.	DESCRIPTION	DATE	SIGN	DRAWN	SS
4.	ISSUED FOR TENDER	2017/07/17	JH	CHECKED	IAB
3.	ISSUED FOR 100% REVIEW	2016/11/30	JH	DATE	JULY 17, 2017
2.	ISSUED FOR 90% REVIEW	2016/11/17	JH	B.M.	ELEV.
1.	ISSUED FOR COSTING	2016/09/16	JH	SCALE	Horz.
					Vert.

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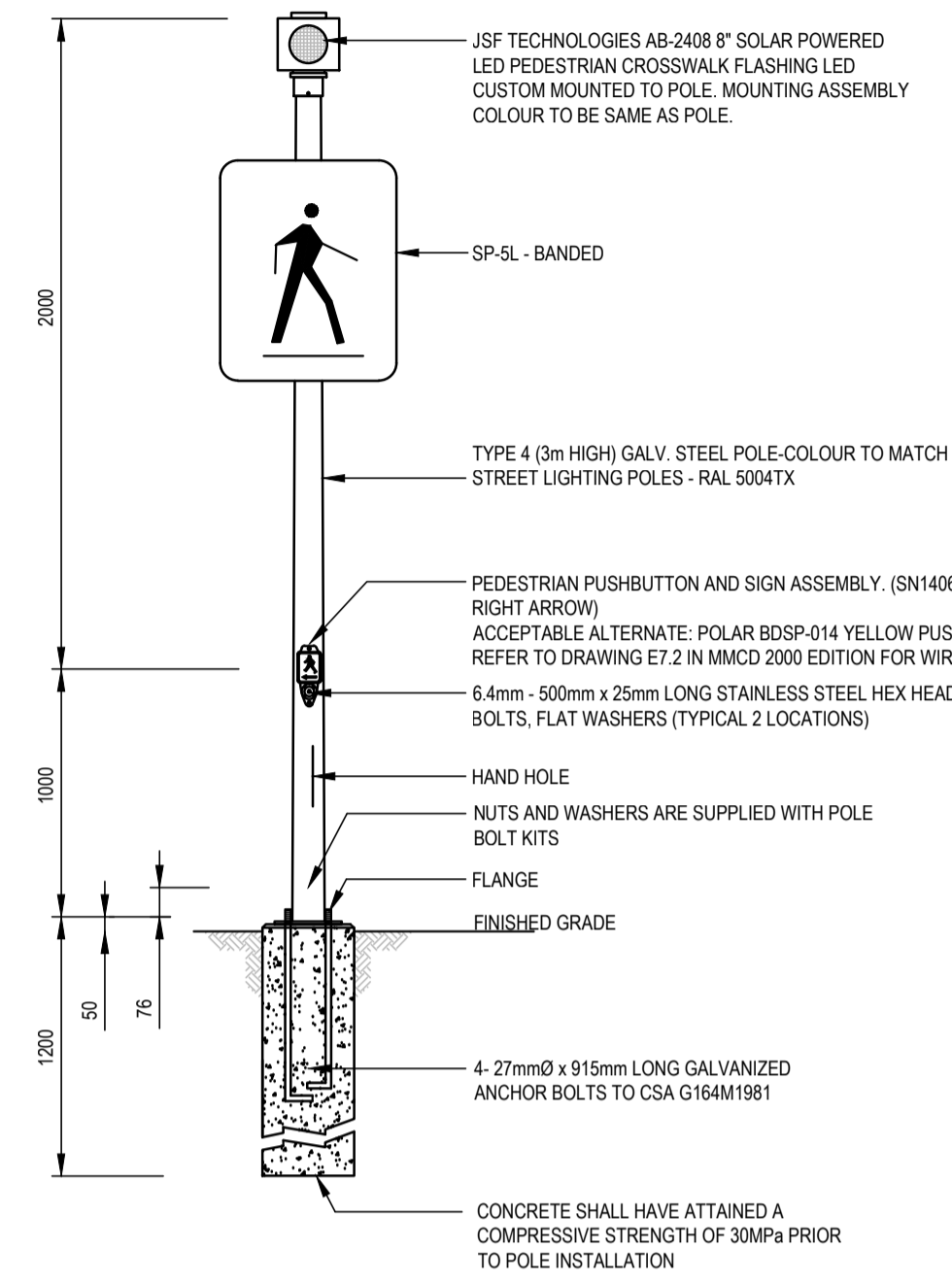
#115 - 866 Goldstream Ave., Victoria, BC V9B 0J3
Telephone: 250-391-8592 Facsimile: 250-391-8593

PROJECT
**METCHOSIN ROAD
SIDEWALK IMPROVEMENTS**

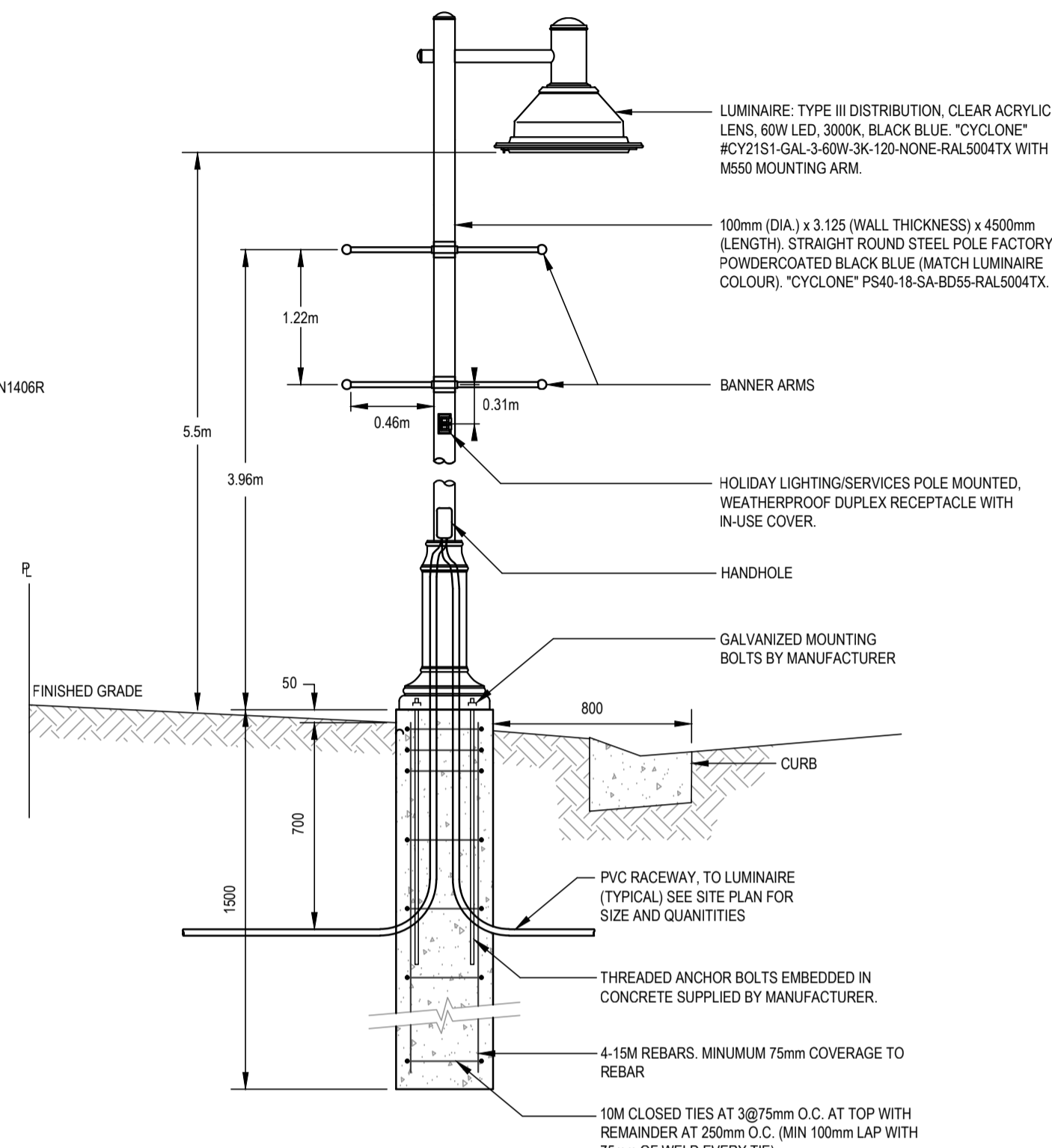
AES PROJECT No. 1-16-223	
GOVERNING AUTHORITY FILE No.	
SHEET 1	OF 3
REV. REV.	
AES DRAWING No. E1	



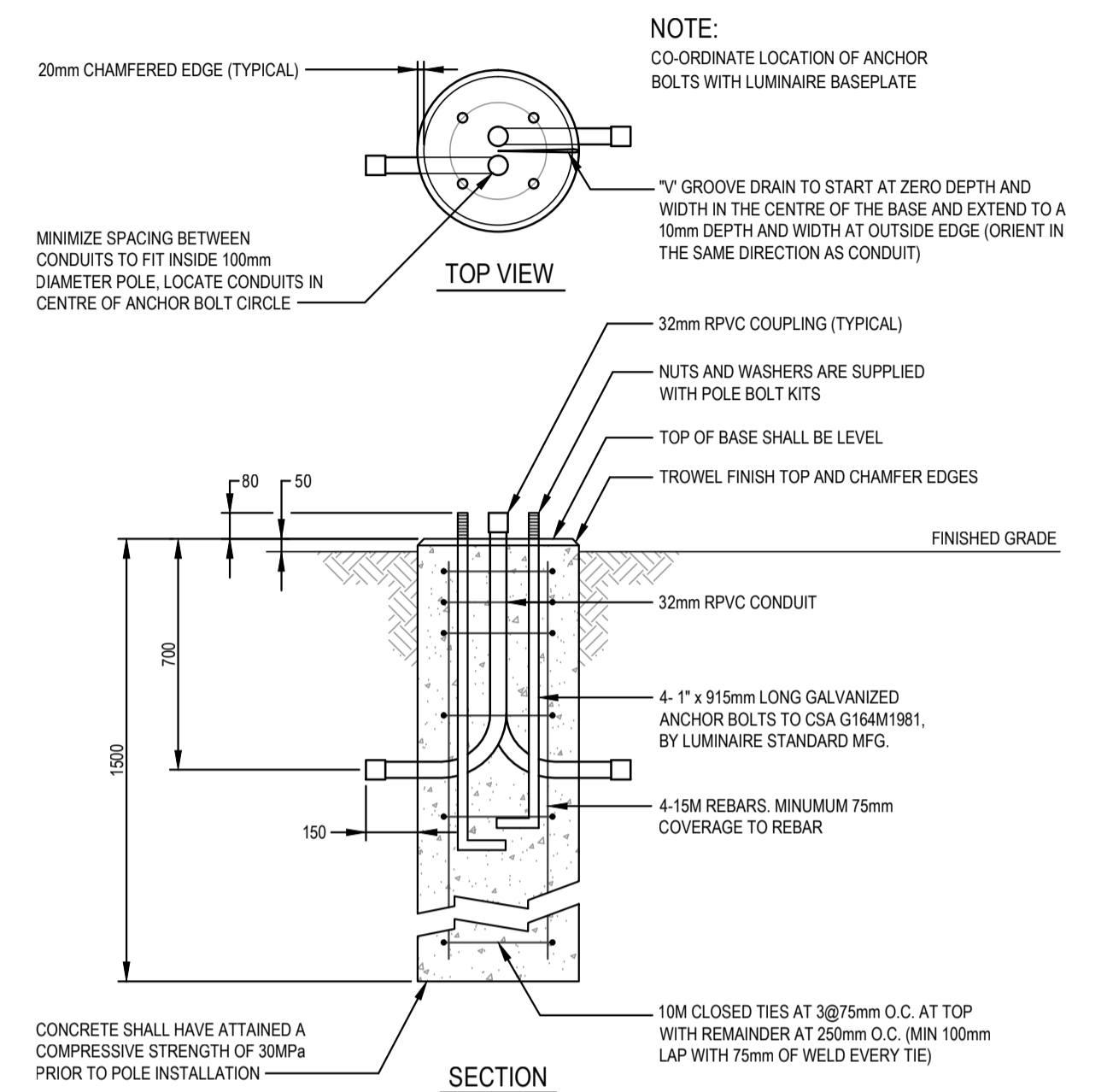
1 TYPE 'AA' LUMINAIRE DETAIL
E2.0 NOT TO SCALE



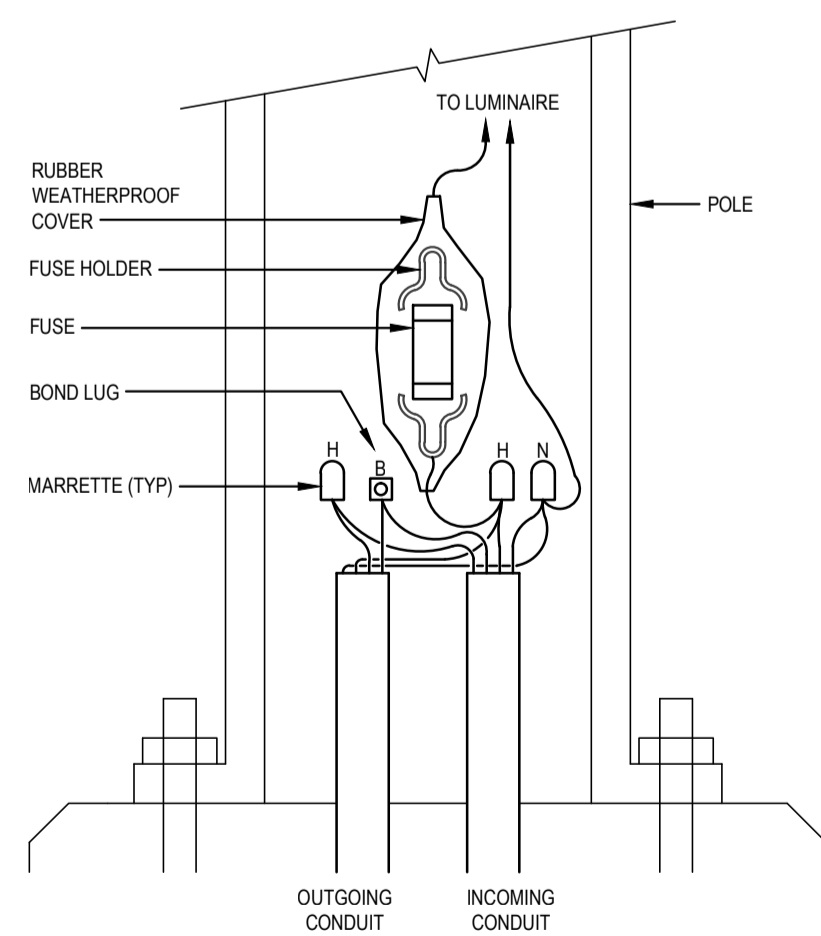
2 TYPE 'CC' LUMINAIRE DETAIL
E2.0 NOT TO SCALE



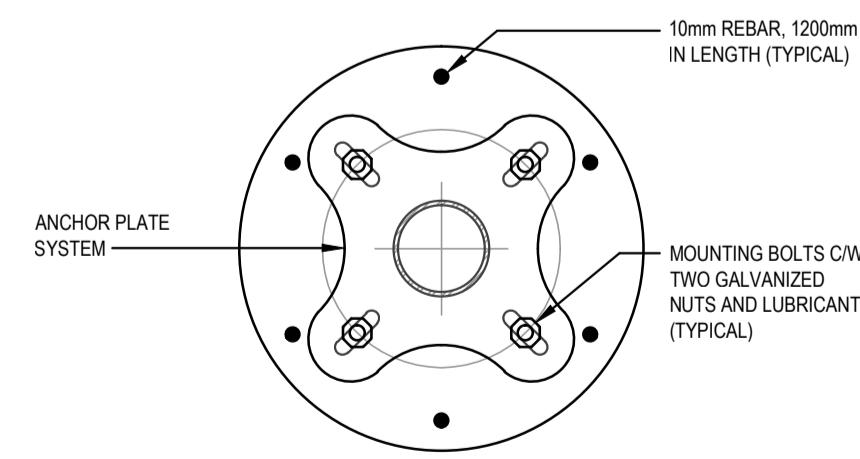
3 TYPE 'BB' LUMINAIRE DETAIL
E2.0 NOT TO SCALE



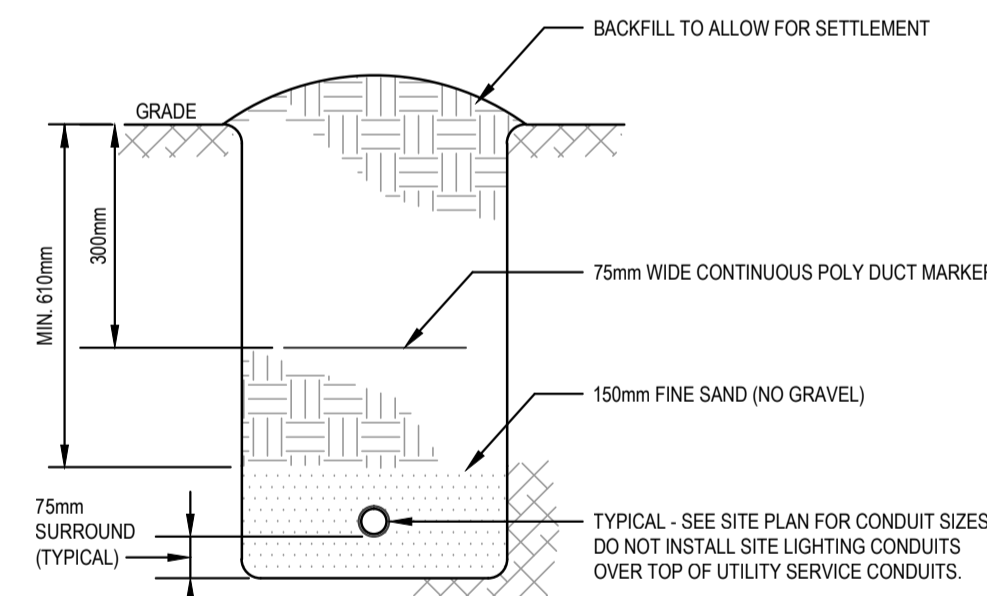
4 TYPE 'BB' LUMINAIRE DETAIL
E2.0 NOT TO SCALE



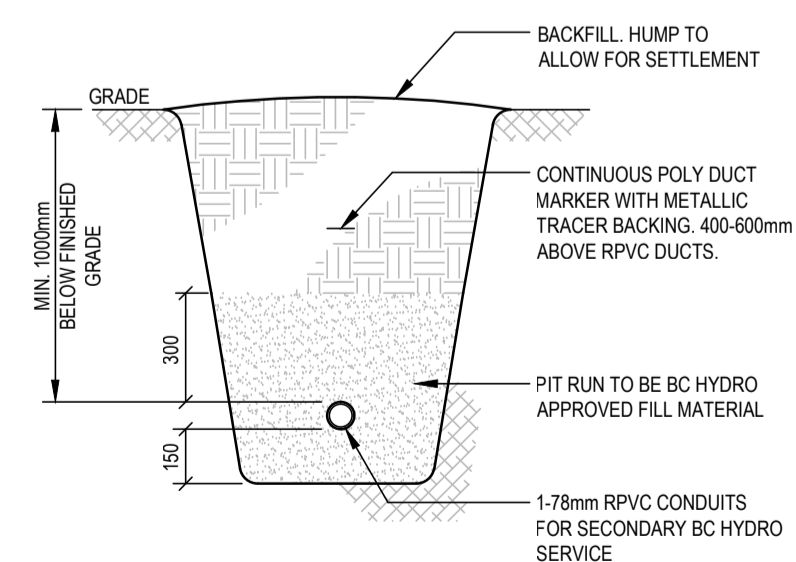
5 POLE WIRING DIAGRAM
E2.0 NOT TO SCALE



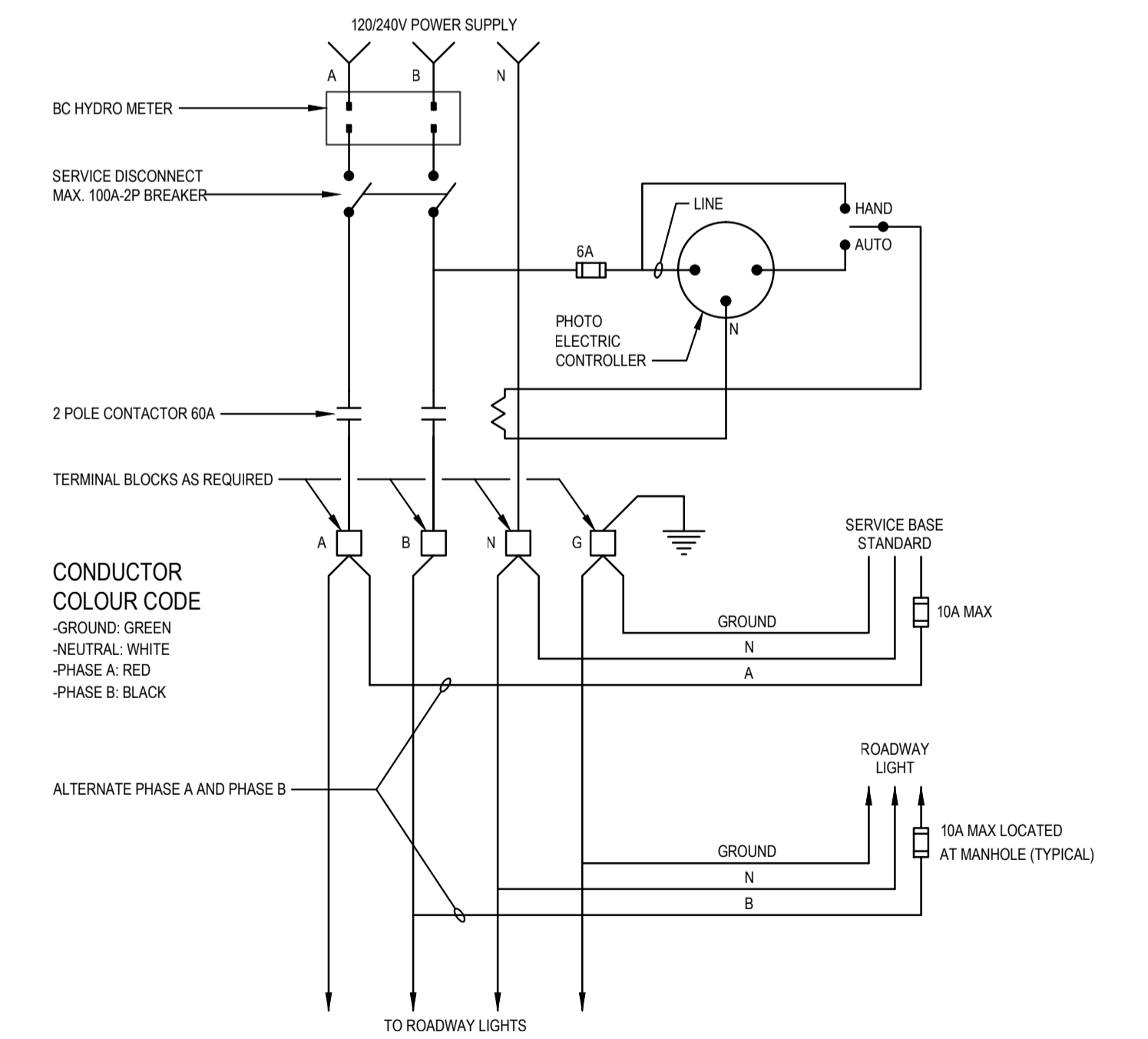
6 BASE PLATE DETAIL
E2.0 NOT TO SCALE



7 TYPICAL TRENCH SECTION
E2.0 NOT TO SCALE



8 TYPICAL TRENCH SECTION
E2.0 NOT TO SCALE



9 SCHEMATIC WIRING DIAGRAM
E2.0 NOT TO SCALE

REVISIONS				DESIGNED	JH/SS
No.	DESCRIPTION	DATE	SIGN	Drawn	Ver.
4.	ISSUED FOR TENDER	2017/07/17	JH	DATE	JULY 17, 2017
3.	ISSUED FOR 100% REVIEW	2016/11/30	JH	B.M.	
2.	ISSUED FOR 90% REVIEW	2016/11/17	JH	ELEV.	
1.	ISSUED FOR COSTING	2016/09/16	JH	SCALE	Horz.



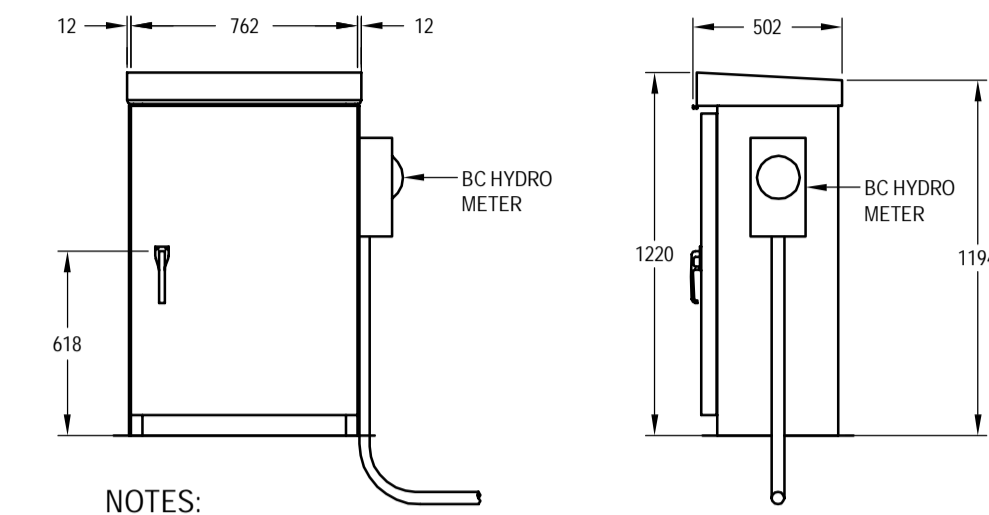
#115 - 866 Goldstream Ave., Victoria, BC V9B 0J3
Telephone: 250-391-8592 Facsimile: 250-391-8593

PROJECT		AES PROJECT No.	
METCHOSIN ROAD SIDEWALK IMPROVEMENTS		1-16-223	
		GOVERNING AUTHORITY FILE No.	
SHEET	OF	REV.	
2	3		
		AES DRAWING No.	
		E2.0	

ELECTRICAL SPECIFICATIONS

- 16010 - SCOPE**
1. Provide all items, material, equipment and labour required to complete the work or operations mentioned herein or indicated on the drawings.
 2. Pay for all associated fees such as electrical permits, and inspection services by the Provincial Inspection Branch.
- 16011 - DISCREPANCY**
1. Carefully examine all plans and specifications pertaining to this contract and visit site to determine all factors affecting costs and include in contract sum. Notify engineer of discrepancies or conflicting information before submitting price. Failing such notification, this contractor shall meet all such requirements without extra cost to the owner.
- 16012 - COORDINATION**
1. Consult with all other trades to confirm locations of equipment, underground utilities and BC Hydro pad mount transformers, and cooperate with all trades to ensure progress of installation without conflict. In case of difference of opinion, refer the matter to the Engineer for final decision.
- 16013 - CODES AND PERMITS**
1. All work shall be in accordance with the current edition of the Canadian Electrical Code as amended and adapted by the Province of British Columbia. Obtain all necessary permits and licenses and pay all fees in connection with the work.
- 16014 - WORKMANSHIP**
1. Carry out all work in a neat and workmanlike manner to the engineer's satisfaction.
- 16015 - C.S.A.**
1. All electrical material, equipment and fittings must bear evidence of C.S.A. approval or special certifications acceptable to the Chief Electrical Inspector. Unapproved items shall be immediately returned to the supplier in exchange for approved items.
- 16016 - EQUIPMENT/DEVICES**
1. All equipment shall be installed as shown on plans and details.
 2. Street lighting system shall consist of a complete operating system, including but not necessarily limited to: luminaires, lamps, poles, concrete bases, anchor bolts, conduit, wire, in-line fuses, and all other equipment shown on plans.
- 16017 - INTERRUPTIONS**
1. Ensure that existing services of any kind are not unduly disturbed and/or interrupted by this installation. Coordinate service interruptions with the Engineer.
- 16018 - EXTRAS**
1. Obtain an official written work order before the start of extra work. No claim shall be raised without such written work order.
 2. No extra will be allowed on this contract due to lack of proper survey of existing conditions by this contractor.
- 16019 - AS-BUILT DRAWINGS**
1. Keep a set of white prints and make all changes in red. Make this set of prints available to the engineer at any time. Submit the set of as-built drawings to the electrical engineer at the time of the final inspection.
- 16020 - TESTING**
1. Carry out tests of installation as it progresses. Repair any faulty installation at own expense.
- 16021 - CONDUIT AND BOXES**
1. All conduit to be RPVC as indicated. All connectors and coupling shall be installed as per manufactures instructions.
 2. Whenever possible, street lighting duct shall be in common trench with B.C Hydro and Telus. Other wire ducts shall be routed parallel or perpendicular to the roadway and run directly between adjacent poles. Junctions shall be made at a pole base or in a junction box located adjacent to a pole base. Use of junction boxes must be approved by the Engineer. All bends to be large radius type. Minimum depth of bury below finished grade shall be:
 - 0.6m - areas not subject to vehicular traffic
 - 0.9m - subject to vehicular traffic
 3. Exposed conduit shall be hot-dip galvanized rigid steel. Conduit clamps and fittings shall be hot dip galvanized malleable iron. Buried conduit shall be rigid PVC. Couplings shall be threadless type, approved for cement welding. Minimum size shall be 32mmØ.
 4. BC Hydro service entrance conduit shall be 75mm. Conduit stub beyond project boundaries shall be 50mm.
- 16022 - GROUNDING**
1. The combined ground resistance shall not exceed 10 ohms, by connection to artificial grounding electrodes. Grounding connections, if exposed, shall be located in the service base. Grounding shall be achieved by the use of a single 19mm x 3000mm ground rod, plate electrode, or other method approved by the municipal engineer to achieve the required resistance.
- 16023 - CONDUCTORS**
1. Shall be sized to not exceed a voltage drop of 5% over the length of the run.
 2. Shall be standard copper, with RW-90 (x-link) insulation. Minimum sizes to be as follows:
 - #6 AWG - for feeder runs
 - #12 AWG - on pole
 - #14 AWG - for control
 - #10 AWG - irrigation and tree receptacles
 Conductors shall be sized in accordance with ballast start and running loads, voltage drop of line, and anticipated future extension of circuit loads.
- 16024 - FUSES**
1. Each luminaire shall be protected by a 10 amp HRC fuse with HEB waterproof fuse holders located inside the hand hold of each pole. Conductors shall allow for the fuse holder to be removed from the pole base for maintenance.
- 16025 - JUNCTION BOXES**
1. Underground junction boxes shall only be used with special approval of the Municipal Engineer and where authorized by the Provincial Electrical Inspector. If approved, junction boxes shall be plastic or precast concrete with a bolt locking device and marked "ELECTRICAL" with permanent lettering.
- 16026 - PHOTO-ELECTRIC CONTROLLER**
1. Photo-electric controllers shall be cadmium sulphide type (120V) with twist lock base. Operation shall be delayed action with externally adjustable sensitivity.
- 16027 - SERVICE PANEL**
1. Shall be in a CEMA 3 enclosure. The service panel shall contain a service breaker, lighting contactor, selector switch (HOA). The service enclosure shall have only those openings necessary to accommodate conduits at the time of installation. Service conduits shall enter or leave enclosure through threaded hubs.
- 16028 - SEPARATE PRICES**
1. Separate Price #1:
 - 1.1. Provide BC Hydro dip service and new electrical kiosk as detailed on the drawings.
 - 1.2. Provide and connect type "AA" luminaire pole and base at intersection as shown.
 - 1.3. Provide and install new in ground junction box and connect conduit and conductors to kiosk and type "AA" luminaire (Item 1.2 above) as shown. Clarify base price is to include conduit from junction box and conductors from kiosk for all remaining luminaires and receptacles.
 - 1.4.

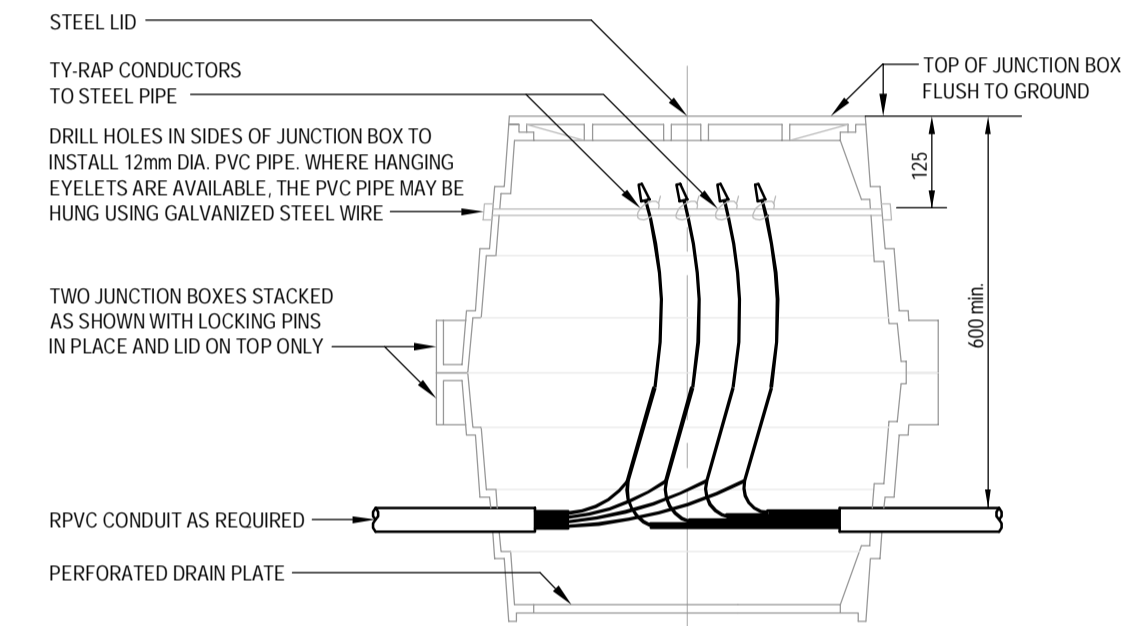
SEPARATE PRICE #1



NOTES:

1. VALID MANUFACTURING #KSD48-24-16 LOCKABLE KIOSK WITH 100A-120240V 1PH, 3W 12 CIRCUIT PANELBOARD, 4 POLE CONTACTOR, TIMELOCK (PARAGON EC715T) AND PHOTOCELL PANELBOARD CW 100A-2P MAIN BREAKER AND 6-15A-1P GFI SUB FEED BREAKERS AND 30A-2P BREAKER FOR SIGNAL CONTROLLER.
2. PROVIDE KIOSK INTERIOR MOUNTED DUPLEX RECEPTACLE, 100W CERAMIC HEATER WITH THERMOSTAT, LUMINAIRE AND SWITCH, LUMINAIRE TO BE LITHONIA RAZ 241N 35K
3. POWDER COAT BLACK BLUE RAL9004-TX TO MATCH LUMINAIRE POLES.

1 KIOSK DETAIL
E2.1 NOT TO SCALE



2 JUNCTION BOX DETAIL
E2.1 NOT TO SCALE

REVISIONS				DESIGNED	JH/SS
				DRAWN	SS
				CHECKED	IAB
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PROJECT
**METCHOSIN ROAD
 SIDEWALK IMPROVEMENTS**

AES PROJECT No. 1-16-223		
GOVERNING AUTHORITY FILE No.		
SHEET	OF	REV.
3	3	
AES DRAWING No. E2.1		