



## ELECTRICAL DIAGRAM

① CONNECTION TO ELECTRIC POWER UTILITY COMPANY

② 3/2 AWG RWU90 CONDUCTORS, SR (FOR DIRECT SUN EXPOSURE), TO BE IDENTIFIED ACCORDING TO PHASE (BLACK, RED OR WHITE) WITH ADHESIVE TAPE OR APPROPRIATELY COLOURED HEAT-SHRINKABLE SLEEVE

③ 60A 120/240V SINGLE-PHASE METER SOCKET WITH CIRCUIT-BREAKER COMBINATION, CO1 SERIES (CO1-60HI), SUPPLIED WITH 60A 22KA DOUBLE-POLE SIEMENS CIRCUIT-BREAKER

④ 60A 22KA DOUBLE-POLE MAIN CIRCUIT BREAKER, SUPPLIED WITH METER SOCKET

⑤ 6 AWG BARE CONDUCTOR, TO GROUND ROD

⑥ IN THE SERVICE BOX, NEUTRAL CONDUCTOR, GROUND WIRE ENDS AND GROUND ROD ARE CONNECTED TO EACH OTHER WITH A CONTINUOUS LENGTH OF 6 AWG BARE CONDUCTOR.

⑦ GREEN RWU90 6 AWG CONDUCTOR, TO POLE BONDING CONDUCTORS

⑧ 6 AWG RWU90 COPPER DISTRIBUTION CONDUCTOR (RED, BLACK AND WHITE)

⑨ NEUTRAL CONDUCTOR TERMINAL

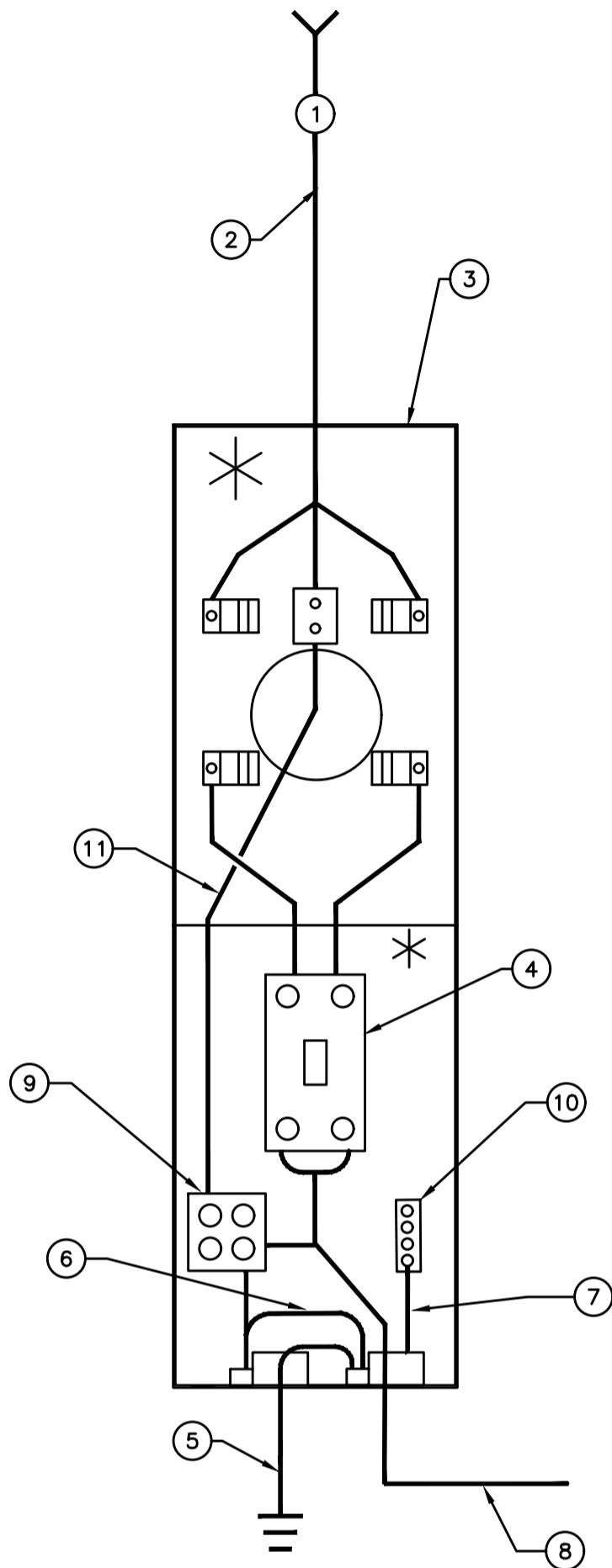
⑩ BONDING CONDUCTOR TERMINAL

⑪ FACTORY-INSTALLED NEUTRAL CONDUCTOR

## NOTES:

- METAL CONDUIT IS FITTED WITH A GROUNDING BUSHING AND CONNECTED TO THE BONDING CONDUCTORS WITH A CONTINUOUS LENGTH OF 6 AWG BARE CONDUCTOR

\* CONTRACTOR RESPONSIBLE FOR CONNECTING AND IDENTIFYING CIRCUITS



## POWER SUPPLY AND DISTRIBUTION

① INSULATOR WITH FASTENERS AND BRACKETS

② SERVICE HEAD: PROVIDE 2 EXTRA METRES OF CABLE FOR HQ CONNECTION.

③ CONNECTION AND CONNECTORS SUPPLIED AND INSTALLED BY THE ELECTRIC POWER UTILITY COMPANY

④ PHOTOELECTRIC CELL (TO POINT NORTH)

⑤ 41 mm ALUMINUM CONDUIT, INCLUDING CONDULETS, WITH TYPE 316 STAINLESS STEEL LOOPS AND STRAPS, 3/4" WIDE AND 0.03" THICK, OF APPROPRIATE LENGTH TO INSTALL EVERY METRE.

⑥ HEIGHT DETERMINED BY ELECTRIC POWER UTILITY COMPANY

⑦ 12.192 m WOODEN POLE (SEE GENERAL NOTES)

⑧ 27 mm ALUMINUM CONDUIT, INCLUDING CONDULETS, WITH TYPE 316 STAINLESS STEEL LOOPS AND STRAPS, 3/4" WIDE AND 0.03" THICK, OF APPROPRIATE LENGTH TO INSTALL EVERY METRE.

⑨ CO1-60HI SERIES METER SOCKET WITH CIRCUIT-BREAKER COMBINATION

⑩ ARM BRACKET

⑪ COMPRESSION FITTING OR CLICK CONNECTORS WITH POLYPROPYLENE SLEEVE, INSULATED TO 600 V, COMPATIBLE WITH THE CONNECTOR

⑫ SURFACE TREATMENT (IF REQUIRED)

⑬ 21 mm ALUMINUM CONDUIT WITH TYPE 316 STAINLESS STEEL LOOPS AND STRAPS, 3/4" WIDE AND 0.03" THICK, OF APPROPRIATE LENGTH TO INSTALL EVERY METRE AND 6 AWG BARE CONDUCTOR FOR GROUNDING. CONDUIT MUST END AT MINIMUM DEPTH OF 100 mm IN THE GROUND

⑭ ELASTIMOLD 65U SINGLE FUSEHOLDER FOR 6A FUSE

⑮ ARM FOR WOODEN POLE

⑯ PROFILED LIGHTING UNIT

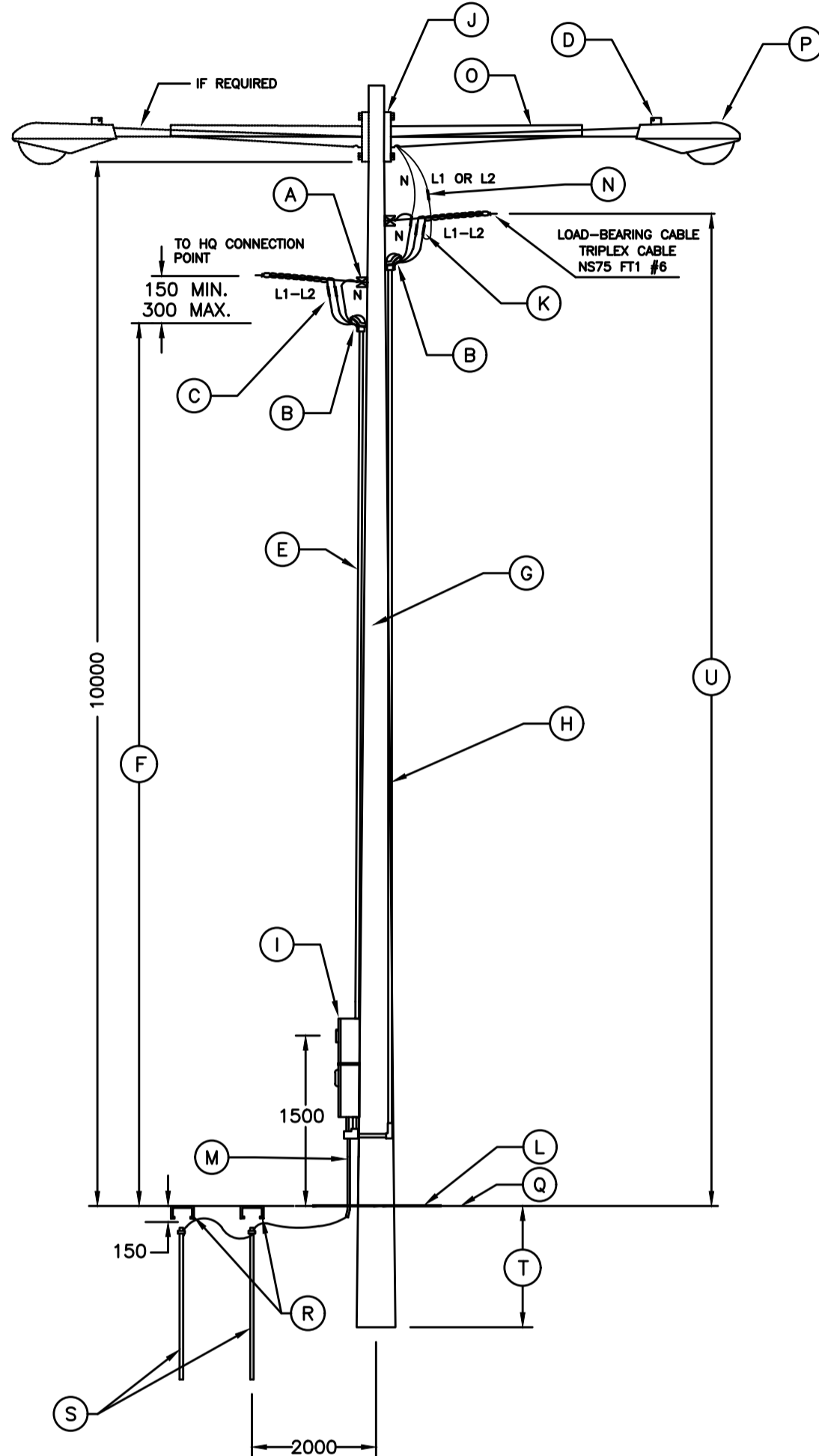
⑰ FINISHED GRADE

⑱ ACCESS BOXES FOR GROUNDING RODS

⑲ 19 mm COPPER-BONDED GROUND ROD (MINIMUM OF TWO), 3 m LONG WITH COMPRESSION-TYPE OR EXOTHERMIC-WELDED GROUNDING COLLAR

⑳ MIN. POLE DEPTH TO BE DETERMINED BY CONTRACTORS STRUCTURAL ENGINEER

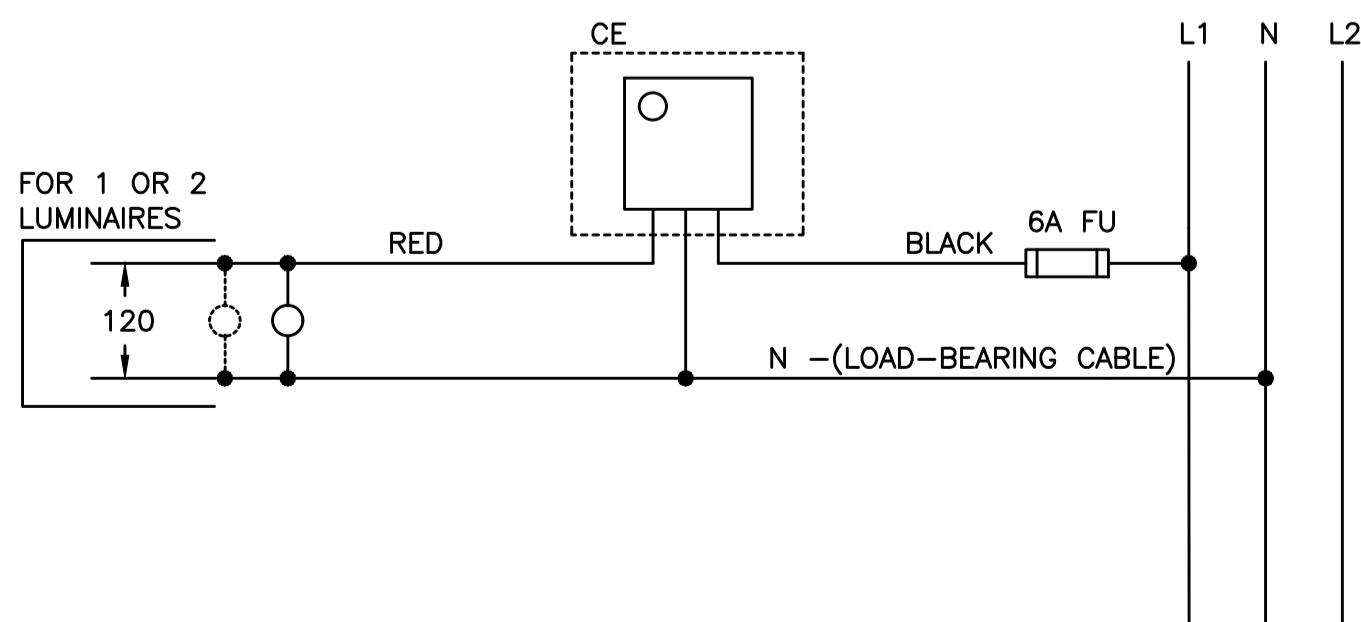
㉑ HEIGHT DETERMINED BY CONTRACTOR



## DIAGRAM OF CONNECTION TYPE

FU: D65U ELASTIMOLD FUSEHOLDER OR EQUIVALENT, WITH 6A HRC FUSES AND 100,000 A RMS BREAKING CAPACITY.

CE: TWIST LOCK PHOTOELECTRIC CELL WITH 1000 W MINIMUM RATED CAPACITY AT 120 V, WITH MINIMUM SERVICE LIFE OF 5000 START/STOP CYCLES, DX120-12A/DTL OR EQUIVALENT.

DIAGRAM OF CONNECTION TYPE  
120 V – LAMPPOSTS, ALTERNATING L1 AND L2

NOT TO SCALE

LIGHTING UNITS ON L1: 1, 3, 5, 7 AND 9

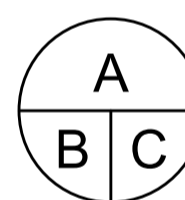
LIGHTING UNITS ON L2: 2, 4, 6 and 8

## LOAD TABLE

SERVICE BOX	EL-082974			
LINE	L1	L2	X	X
CIRCUIT #	1			
LOAD (W)	756	648		
CURRENT (A)	6.3	5.4		
	TOTAL			
LOAD (W)	756	648		
CURRENT (A)	6.3	5.4		

LOAD (W) = POWER INPUT (W) = (LIGHTING UNIT POWER + LOSS IN BALLAST)

CURRENT (A) = LINE CURRENT (A), INCLUDING POWER FACTOR (PF)



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0	FOR BIDS	29-03-2021
C	FOR APPROVAL – 100%	05-03-2021
B	FOR APPROVAL – 99%	12-02-2021
A	PRELIMINARY – 75%	18-01-2021

révisions revisions	description	date
A	A no. du détail detail no.	
B	B no de la feuille où détail exigé sheet no. where detail required	
C	C no. de la feuille où détaillé sheet no. where detailed	

Projet  
PUBLIC SERVICES AND PROCUREMENT CANADA  
Quebec areaTEMPORARY PARKING LOT  
NEW GOVERNMENT OF CANADA BUILDING  
4895 BOULEVARD DE SHAWINIGAN-SUD, SHAWINIGAN-SUD, MAURICIE, G9P 5H9Dessin  
ELECTRICAL  
Drawing120/240 V POWER SUPPLY AND  
120 V DISTRIBUTION  
WITH METERConçu par  
FRANCOIS BOUCHER, P.ENG.  
dateDesigned by  
18/01/2021  
(dd/mm/yyyy)Dessiné par  
MOHAMMED WAZIZ, Tech.  
dateDrawn by  
18/01/2021  
(dd/mm/yyyy)Approuvé par  
Dany Aubut, P.Eng.  
dateApproved by  
18/01/2021  
(dd/mm/yyyy)Soumission  
Pier-Frédéric Brillant, P.Eng.

Tender

Project Administrator

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