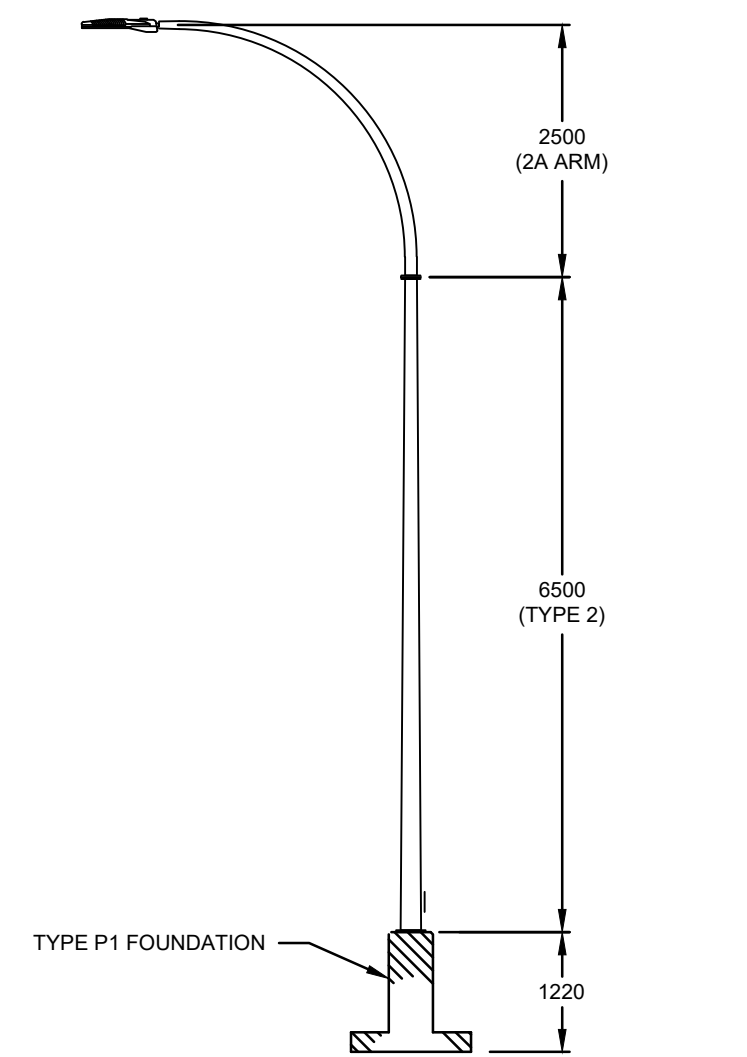


CUSTOM POLE BASES MAY BE REQUIRED TO MITIGATE UTILITY CONFLICTS

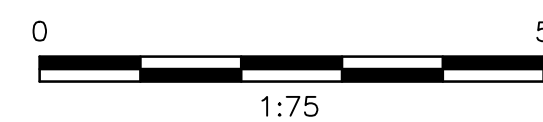
EQUIPMENT LOCATIONS APPROXIMATE. TO BE ADJUSTED DURING 100% DESIGN

LIGHTING DESIGN TABLE A		
ITEM	DESCRIPTION	
LIGHTING PROGRAM	AGI32	
STREET NAME(S)	PORTSIDE ROAD	
LAND USE	INDUSTRIAL	
ROADWAY CLASSIFICATION	COLLECTOR	
PEDESTRIAN CONFLICT AREA	MEDIUM	
LAMP WATTAGE & LIGHT SOURCE	113W LED (4000K) - LRI NXT-80M-600mA-3LB-4000K	
LIGHT LOSS FACTOR	0.8	
LUMINAIRE DISTRIBUTION TYPE	TYPE 3	
LUMINAIRE BUG RATING	B3-U0-G3	
POLE SPACING (MAX)	45m (ONE SIDED)	
ILLUMINANCE DESIGN CRITERIA - ROADWAY		
ITEM	RECOMMENDED VALUES	ACHIEVED VALUES
ILLUMINATION LEVEL (Eavg) IN LUX	9.0	13.4
UNIFORMITY RATIO (Eavg/Emin)	4.0:1	2.6:1
LUMINANCE DESIGN CRITERIA - ROADWAY		
ITEM	RECOMMENDED VALUES	ACHIEVED VALUES
LUMINANCE LEVEL (Lavg) IN cd/m ²	0.6	0.6
UNIFORMITY RATIO (Lavg/Lmin)	3.5:1	1.8:1
UNIFORMITY RATIO (Lmax/Lmin)	6.0:1	2.8:1
VEILING LUMINANCE RATIO (Lmax/Lavg)	0.4:1	0.2:1
ILLUMINANCE DESIGN CRITERIA - MUP		
ITEM	RECOMMENDED VALUES	ACHIEVED VALUES
ILLUMINATION LEVEL (Eavg) IN LUX	5.0	6.2
UNIFORMITY RATIO (Eavg/Emin)	5.0:1	1.3:1

ISOLINE ILLUMINATION LEVELS	
ISOLINE COLOUR	LUMINAIRE TYPE
(Pink)	113W LED
(Orange)	30 LUX
(Yellow)	25 LUX
(Light Green)	20 LUX
(Green)	15 LUX
(Light Blue)	10 LUX
(Blue)	5 LUX



TYPICAL ROADWAY LUMINAIRE POLE



- PROPOSED DAVIT STREETLIGHT POLE (9.0m - LED LUMINAIRE, WATTAGE AS PER LIGHTING TABLE) CW SERVICE PANEL & METER ON A CITY OF RICHMOND TYPE P1 CONCRETE BASE CW WORKING PAD (1000mm (L) X 100mm (D) X 600mm (HG)) () INDICATES TYPE E1 SPREAD FOOTING BASE AS PER MINISTRY STANDARD SPEC SP63J-1.1.4
- EXISTING DAVIT STREETLIGHT POLE (9.0m CW LED LUMINAIRE), REMOVE EXISTING LUMINAIRE AND INSTALL NEW AS PER LIGHTING TABLE.
- PROPOSED PLASTIC JUNCTION BOX (NOVA POLE P28-JB-800-01 BOX SECTION WITH P28-CO-ST-800-01 GALV. STEEL LID)
- EXISTING ELECTRICAL KIOSK
- EXISTING JUNCTION BOX
- PROPOSED 2 No. 6 RW90 LTG. AND 1 No. 8 BOND IN 1-35mm RPVC
- PROPOSED 3 No. 6 RW90 LTG. AND 1 No. 8 BOND IN 1-35mm RPVC
- PROPOSED 53mm RPVC STUB OUT (CAP AND MARK LOCATION)
- EXISTING CONDUIT AND CONDUCTORS

347/600V

PERMIT TO PRACTICE NUMBER: 1000771 ENGINEERS AND GEOSCIENTISTS BRITISH COLUMBIA

NOT FOR CONSTRUCTION 2022-08-09

EXISTING STREET LIGHTING SHALL REMAIN IN OPERATION THROUGHOUT CONSTRUCTION.

No.	DATE	BY	CHK'D	REVISION
-	2022-09-08	DSM	DSM	ISSUED FOR IDR
A	2022-11-11	DSM	DSM	INDICATIVE DESIGN SUBMISSION

PROJECT No. 7476b-22-01 of 05		DWG No. 356-135-EL-101	REVISION A
-------------------------------	--	------------------------	------------

DMD
DMD & Associates
Electrical Consultants Ltd.
 #12-17358 104A Avenue
 Surrey, BC, Canada V4N 5M3
 604/589-9010
 office@dmdeng.com Fax 604/589-9012

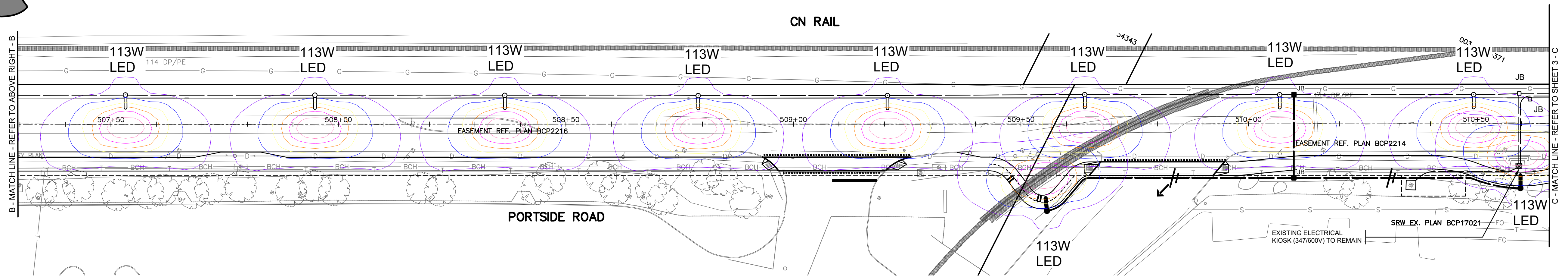
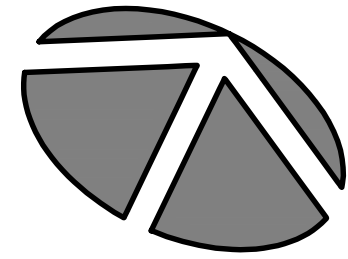
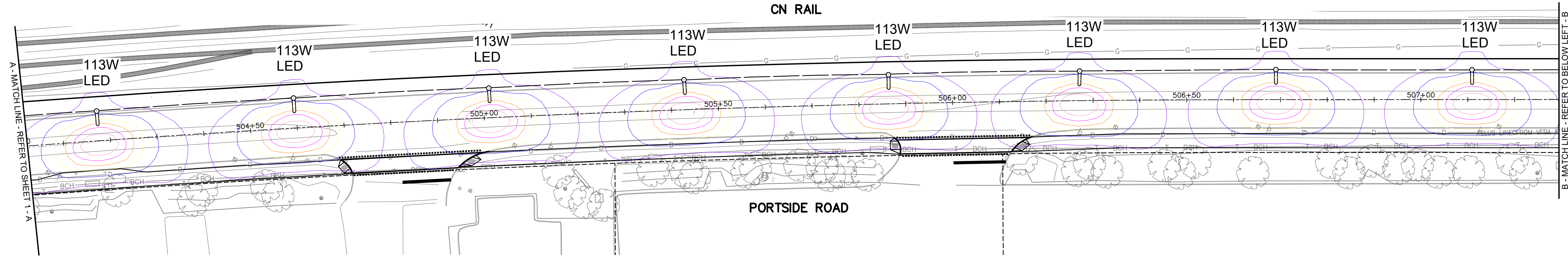
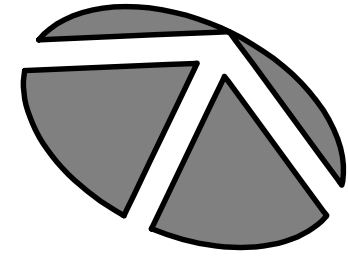
DESIGNED	DON MCLEAN
DRAWN	CRYSTA ANDREWS
CHECKED	DON MCLEAN
E.O.R.	DON MCLEAN
DATE	SEPTEMBER 07, 2022
SCALE:	1:500

OVERHEAD POWER LINE CONFLICTS
 CONTRACTOR SHALL CONFIRM ON SITE PRIOR TO CONSTRUCTION THAT POLES & EQUIPMENT WILL MEET WorkSafeBC CLEARANCE REQUIREMENTS FOR OVERHEAD PRIMARY AND SECONDARY LINES. CONTRACTOR TO REPORT ANY CONFLICTS OR DISCREPANCIES TO DMD & ASSOCIATES PRIOR TO ORDERING POLES AND INSTALLING CONCRETE BASES.

CHECK BEFORE YOU DIG
 CONTRACTOR SHALL REFER TO MUNICIPAL RECORD / CIVIL DESIGN DRAWINGS FOR ALL OTHER UTILITIES, SERVICE LOCATIONS, AND DETAILS. THE EXACT LOCATION OF THESE UTILITIES SHALL BE DETERMINED ON SITE BY THE CONTRACTOR. CONTRACTOR TO REPORT ANY CONFLICTS OR DISCREPANCIES TO DMD & ASSOCIATES PRIOR TO ORDERING BASES.

LOCATING EQUIPMENT
 FOR CLARITY CONDUITS, JUNCTION BOXES AND STREETLIGHT POLES MAY NOT BE SHOWN AT DESIGN OFFSETS. CONTRACTOR SHALL LOCATE ALL EQUIPMENT BASED ON STATIONS AND/OR OFFSETS AS NOTED AND SHALL NOT RELY ON COORDINATES OBTAINED FROM DMD DIGITAL DRAWINGS. CONTRACTOR TO REPORT ANY CONFLICTS OR DISCREPANCIES TO DMD & ASSOCIATES PRIOR TO ORDERING EQUIPMENT.

CAUTION! EXCAVATION NEAR OVERHEAD UTILITY POLE
 ANY UNDERGROUND EXCAVATION WITHIN SOIL FOUNDATION INTERACTION AREA REQUIRES TEMPORARY UTILITY POLE SUPPORT. REFER TO ES55 E3-04 GUIDE FOR CIVIL EXCAVATION NEAR DISTRIBUTION POLES FOR DETAILS. REFER TO BC HYDRO WORK ON WOOD POLES MANUAL (ON SAFEHUB) AND BC HYDRO 2017-1-F POLE HOLDING REQUIREMENTS FOR APPROVED TEMPORARY POLE SUPPORT METHODS. FOR MORE INFORMATION CONTACT workmethods@bchydro.com



CUSTOM POLE BASES MAY BE REQUIRED TO MITIGATE UTILITY CONFLICTS



EXISTING SERVICE KIOSK
N.T.S.

LIGHTING DESIGN TABLE A		
ITEM	DESCRIPTION	
LIGHTING PROGRAM	AGI32	
STREET NAME(S)	PORTSIDE ROAD	
LAND USE	INDUSTRIAL	
ROADWAY CLASSIFICATION	COLLECTOR	
PEDESTRIAN CONFLICT AREA	MEDIUM	
LAMP WATTAGE & LIGHT SOURCE	113W LED (4000K) - LRL NXT-60M-600mA-3LB-4000K	
LIGHT LOSS FACTOR	0.8	
LUMINAIRE DISTRIBUTION TYPE	TYPE 3	
LUMINAIRE BUG RATING	B3-U0-G3	
POLE SPACING (MAX)	45m (ONE SIDED)	
ILLUMINANCE DESIGN CRITERIA - ROADWAY		
ITEM	RECOMMENDED VALUES	ACHIEVED VALUES
ILLUMINATION LEVEL (Eavg) IN LUX	9.0	13.4
UNIFORMITY RATIO (Eavg/Emin)	4.0:1	2.6:1
LUMINANCE DESIGN CRITERIA - ROADWAY		
ITEM	RECOMMENDED VALUES	ACHIEVED VALUES
LUMINANCE LEVEL (Lavg) IN cd/m ²	0.6	0.6
UNIFORMITY RATIO (Lavg/Lmin)	3.5:1	1.8:1
UNIFORMITY RATIO (Lmax/Lmin)	6.0:1	2.8:1
VEILING LUMINANCE RATIO (LVmax/Lavg)	0.4:1	0.2:1
ILLUMINANCE DESIGN CRITERIA - MUP		
ITEM	RECOMMENDED VALUES	ACHIEVED VALUES
ILLUMINATION LEVEL (Eavg) IN LUX	5.0	6.2
UNIFORMITY RATIO (Eavg/Emin)	5.0:1	1.3:1

ISOLINE ILLUMINATION LEVELS	
ISOLINE COLOUR	LUMINAIRE TYPE
30 LUX	113W LED
25 LUX	
20 LUX	
15 LUX	
10 LUX	
5 LUX	

** ROADWAY LIGHTING CONTRIBUTING TO PATHWAY LIGHTING LEVELS.

OVERHEAD POWER LINE CONFLICTS
CONTRACTOR SHALL CONFIRM ON SITE PRIOR TO CONSTRUCTION THAT POLES & EQUIPMENT WILL MEET WorkSafeBC CLEARANCE REQUIREMENTS FOR OVERHEAD PRIMARY AND SECONDARY LINES. CONTRACTOR TO REPORT ANY CONFLICTS OR DISCREPANCIES TO DMD & ASSOCIATES PRIOR TO ORDERING POLES AND INSTALLING CONCRETE BASES.

CHECK BEFORE YOU DIG
CONTRACTOR SHALL REFER TO MUNICIPAL RECORD / CIVIL DESIGN DRAWINGS FOR ALL OTHER UTILITIES, SERVICE LOCATIONS, AND DETAILS. THE EXACT LOCATION OF THESE UTILITIES SHALL BE DETERMINED ON SITE BY THE CONTRACTOR. CONTRACTOR TO REPORT ANY CONFLICTS OR DISCREPANCIES TO DMD & ASSOCIATES PRIOR TO ORDERING BASES.

LOCATING EQUIPMENT
FOR CLARITY CONDUITS, JUNCTION BOXES AND STREETLIGHT POLES MAY NOT BE SHOWN AT DESIGN OFFSETS. CONTRACTOR SHALL LOCATE ALL EQUIPMENT BASED ON STATIONS AND/OR OFFSETS AS NOTED AND SHALL NOT RELY ON COORDINATES OBTAINED FROM DMD DIGITAL DRAWINGS. CONTRACTOR TO REPORT ANY CONFLICTS OR DISCREPANCIES TO DMD & ASSOCIATES PRIOR TO ORDERING EQUIPMENT.

CAUTION!
EXCAVATION NEAR OVERHEAD UTILITY POLE
ANY UNDERGROUND EXCAVATION WITHIN SOIL FOUNDATION INTERACTION AREA REQUIRES TEMPORARY UTILITY POLE SUPPORT. REFER TO ES55 E3-04 GUIDE FOR CIVIL EXCAVATION NEAR DISTRIBUTION POLES FOR DETAILS. REFER TO BC HYDRO WORK ON WOOD POLES MANUAL (ON SAFEHUB) AND BC HYDRO 2017-1-F POLE HOLDING REQUIREMENTS FOR APPROVED TEMPORARY POLE SUPPORT METHODS. FOR MORE INFORMATION CONTACT workmethods@bchydro.com

EXISTING STREET LIGHTING SHALL REMAIN IN OPERATION THROUGHOUT CONSTRUCTION.

347/600V

PERMIT TO PRACTICE
NUMBER: 1000771
ENGINEERS AND GEOSCIENTISTS BRITISH COLUMBIA

NOT FOR CONSTRUCTION
2022-08-09

DMD
DMD & Associates
Electrical Consultants Ltd.
#12-17358 104A Avenue
Surrey, BC, Canada V4N 5M3
604/589-9010
office@dmdeng.com Fax 604/589-9012

DESIGNED	DON MCLEAN
DRAWN	CRYSTA ANDREWS
CHECKED	DON MCLEAN
E.O.R.	DON MCLEAN
DATE	SEPTEMBER 07, 2022
SCALE:	1:500

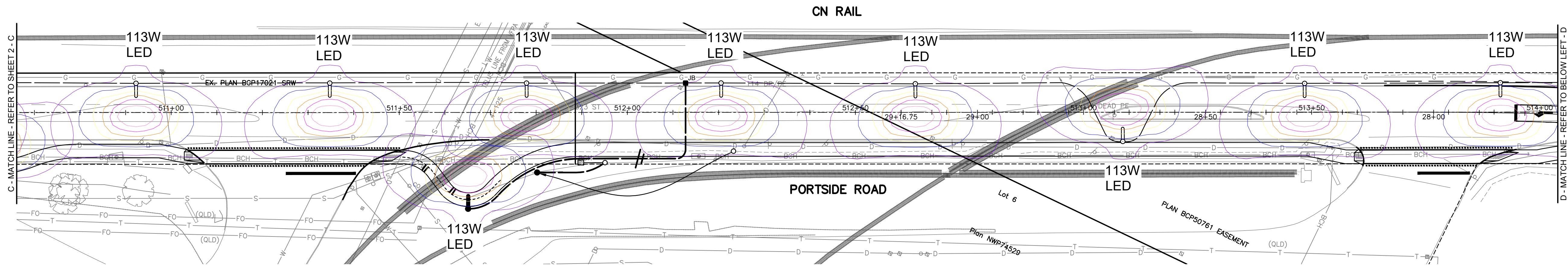
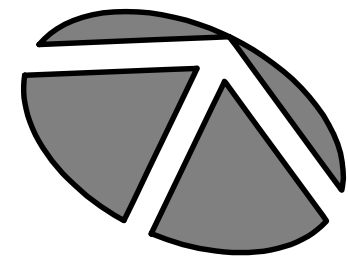
SEAL

No.	DATE	BY	CHK'D	REVISION
-	2022-09-08	DSM	DSM	ISSUED FOR IDR
A	2022-11-11	DSM	DSM	INDICATIVE DESIGN SUBMISSION

McElhanney Ltd
Suite 2300 Central City Tower 13450 - 102 Avenue Surrey, BC V3T 5X3 Tel: (604)596-0391

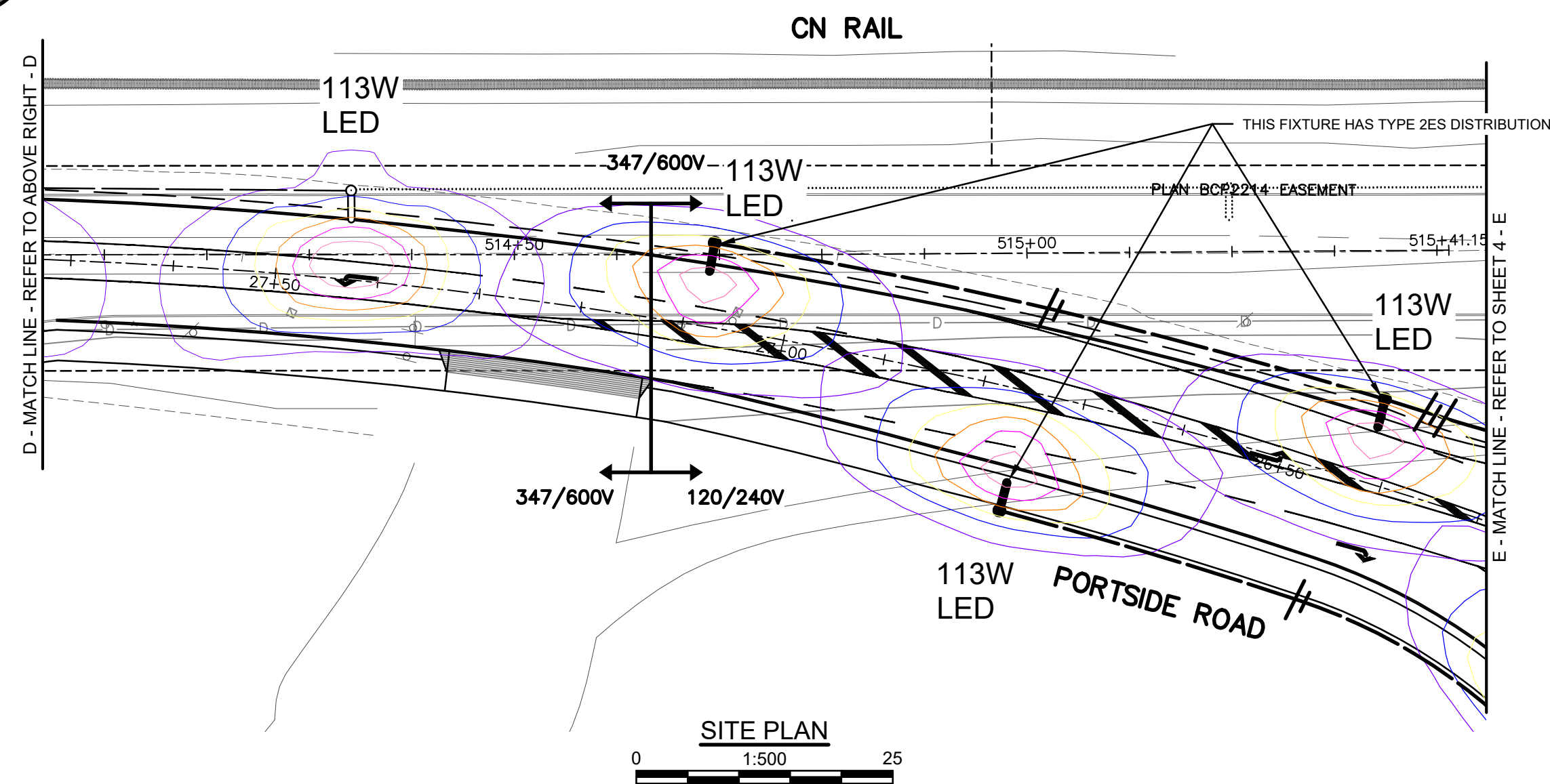
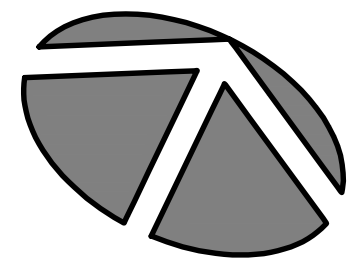
STREET LIGHTING
PORTSIDE ROAD
TO BLUNDELL ROAD
RICHMOND, BC

PROJECT No.	DWG No.	REVISION
7476b-22-02 of 05	356-135-EL-102	A



CUSTOM POLE BASES MAY BE REQUIRED TO MITIGATE UTILITY CONFLICTS

ISOLINE ILLUMINATION LEVELS	
ISOLINE COLOUR	LUMINAIRE TYPE
Red	113W LED
Orange	30 LUX
Yellow	25 LUX
Green	20 LUX
Blue	15 LUX
Purple	10 LUX
Pink	5 LUX



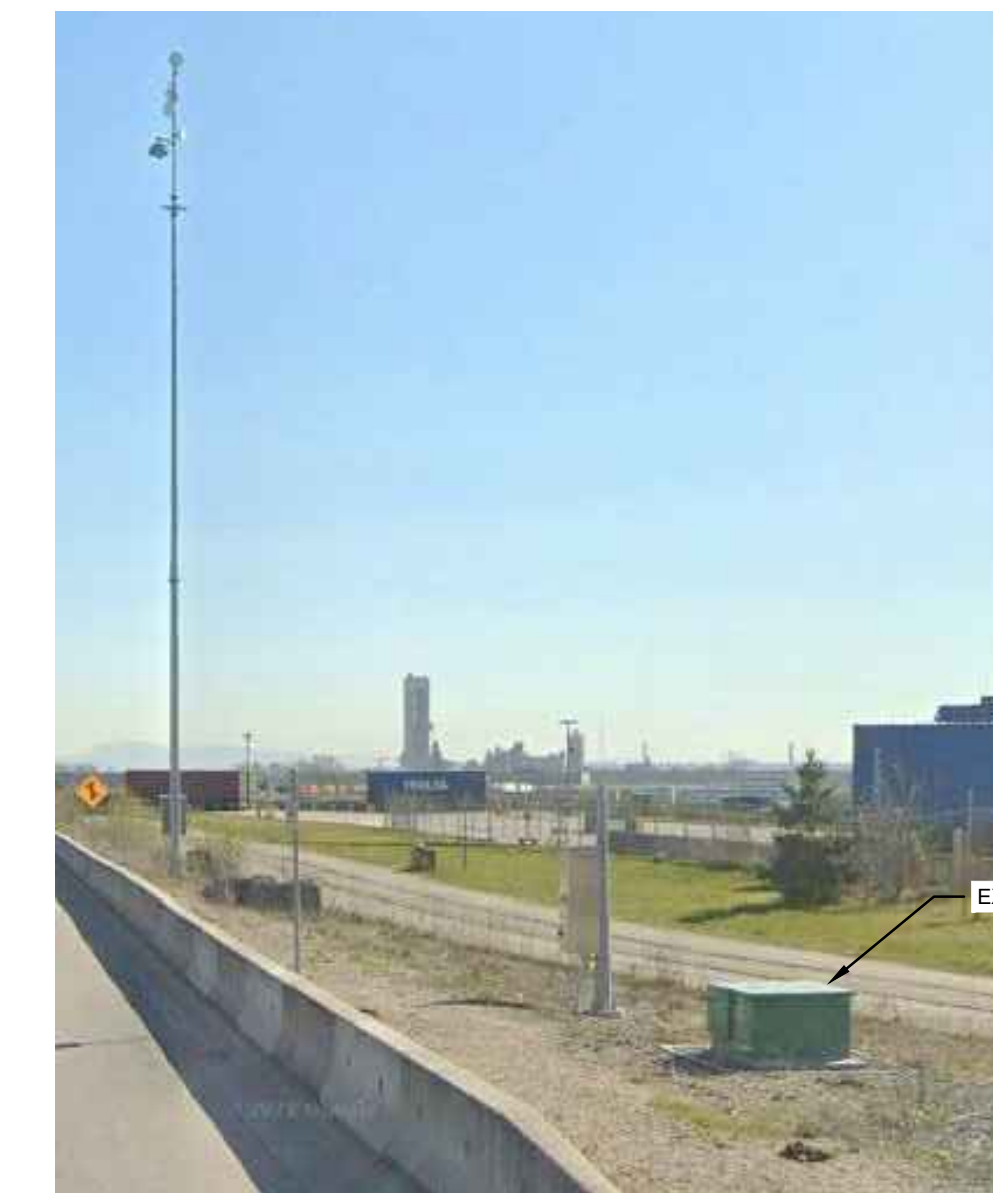
LIGHTING DESIGN TABLE A	
ITEM	DESCRIPTION
LIGHTING PROGRAM	AGI32
STREET NAME(S)	PORTSIDE ROAD
LAND USE	INDUSTRIAL
ROADWAY CLASSIFICATION	COLLECTOR
PEDESTRIAN CONFLICT AREA	MEDIUM
LAMP WATTAGE & LIGHT SOURCE	113W LED (4000K) - LRL NXT-60M-600mA-3LB-4000K
LIGHT LOSS FACTOR	0.8
LUMINAIRE DISTRIBUTION TYPE	TYPE 3
LUMINAIRE BUG RATING	B3-U0-G3
POLE SPACING (MAX)	45m (ONE SIDED)

ILLUMINANCE DESIGN CRITERIA - ROADWAY		
ITEM	RECOMMENDED VALUES	ACHIEVED VALUES
ILLUMINATION LEVEL (Eavg) IN LUX	9.0	13.4
UNIFORMITY RATIO (Eavg/Emin)	4.0:1	2.6:1

LUMINANCE DESIGN CRITERIA - ROADWAY		
ITEM	RECOMMENDED VALUES	ACHIEVED VALUES
LUMINANCE LEVEL (Lavg) IN cd/m ²	0.6	0.6
UNIFORMITY RATIO (Lavg/Lmin)	3.5:1	1.8:1
UNIFORMITY RATIO (Lmax/Lavg)	6.0:1	2.8:1
VEILING LUMINANCE RATIO (Lmin/Lavg)	0.4:1	0.2:1

ILLUMINANCE DESIGN CRITERIA - MUP		
ITEM	RECOMMENDED VALUES	ACHIEVED VALUES
ILLUMINATION LEVEL (Eavg) IN LUX	5.0	6.2
UNIFORMITY RATIO (Eavg/Emin)	5.0:1	1.3:1

** ROADWAY LIGHTING CONTRIBUTING TO PATHWAY LIGHTING LEVELS.



PORTSIDE ITS POLE AND SERVICE
N.T.S.

EXISTING BCH TRANSFORMER

DMD & Associates
Electrical Consultants Ltd.
#12-17358 104A Avenue
Surrey, BC, Canada V4N 5M3
604/589-9010
www.dmdeng.com
office@dmdeng.com Fax 604/589-9012

DESIGNED	DON MCLEAN
DRAWN	CRYSTA ANDREWS
CHECKED	DON MCLEAN
E.O.R.	DON MCLEAN
DATE	SEPTEMBER 07, 2022
SCALE:	AS NOTED
SEAL	

PERMIT TO PRACTICE
NUMBER: 1000771
ENGINEERS AND GEOSCIENTISTS BRITISH COLUMBIA

NOT FOR CONSTRUCTION
2022-08-09

EXISTING STREET LIGHTING SHALL REMAIN IN OPERATION THROUGHOUT CONSTRUCTION.

OVERHEAD POWER LINE CONFLICTS
CONTRACTOR SHALL CONFIRM ON SITE PRIOR TO CONSTRUCTION THAT POLES & EQUIPMENT WILL MEET WorkSafeBC CLEARANCE REQUIREMENTS FOR OVERHEAD PRIMARY AND SECONDARY LINES. CONTRACTOR TO REPORT ANY CONFLICTS OR DISCREPANCIES TO DMD & ASSOCIATES PRIOR TO ORDERING POLES AND INSTALLING CONCRETE BASES.

CHECK BEFORE YOU DIG
CONTRACTOR SHALL REFER TO MUNICIPAL RECORD / CIVIL DESIGN DRAWINGS FOR ALL OTHER UTILITIES, SERVICE LOCATIONS, AND DETAILS. THE EXACT LOCATION OF THESE UTILITIES SHALL BE DETERMINED ON SITE BY THE CONTRACTOR. CONTRACTOR TO REPORT ANY CONFLICTS OR DISCREPANCIES TO DMD & ASSOCIATES PRIOR TO ORDERING BASES.

LOCATING EQUIPMENT
FOR CLARITY CONDUITS, JUNCTION BOXES AND STREETLIGHT POLES MAY NOT BE SHOWN AT DESIGN OFFSETS. CONTRACTOR SHALL LOCATE ALL EQUIPMENT BASED ON STATIONS AND/OR OFFSETS AS NOTED AND SHALL NOT RELY ON COORDINATES OBTAINED FROM DMD DIGITAL DRAWINGS. CONTRACTOR TO REPORT ANY CONFLICTS OR DISCREPANCIES TO DMD & ASSOCIATES PRIOR TO ORDERING EQUIPMENT.

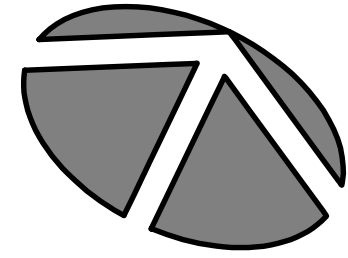
CAUTION!
EXCAVATION NEAR OVERHEAD UTILITY POLE
ANY UNDERGROUND EXCAVATION WITHIN SOIL FOUNDATION INTERACTION AREA REQUIRES TEMPORARY UTILITY POLE SUPPORT. REFER TO ES55 E3-04 GUIDE FOR CIVIL EXCAVATION NEAR DISTRIBUTION POLES FOR DETAILS. REFER TO BC HYDRO WORK ON WOOD POLES MANUAL (ON SAFEHUB) AND BC HYDRO 2017-1-F POLE HOLDING REQUIREMENTS FOR APPROVED TEMPORARY POLE SUPPORT METHODS. FOR MORE INFORMATION CONTACT workmethods@bchydro.com

No.	DATE	BY	CHK'D	REVISION
-	2022-09-08	DSM	DSM	ISSUED FOR IDR
A	2022-11-11	DSM	DSM	INDICATIVE DESIGN SUBMISSION

McElhanney Ltd
Suite 2300 Central City Tower 13450 - 102 Avenue Surrey, BC V3T 5X3 Tel: (604)596-0391

STREET LIGHTING
PORTSIDE ROAD
TO BLUNDELL ROAD
RICHMOND, BC

PROJECT No.	DWG No.	REVISION
7476b-22-03 of 05	356-135-EL-103	A



LIGHTING DESIGN TABLE B		
ITEM	DESCRIPTION	
LIGHTING PROGRAM	AGI32	
STREET NAME(S)	PORTSIDE ROAD OVERPASS	
LAND USE	INDUSTRIAL	
ROADWAY CLASSIFICATION	COLLECTOR	
PEDESTRIAN CONFLICT AREA	MEDIUM	
LAMP WATTAGE & LIGHT SOURCE	113W LED (4000K) - LRL NXT-60M-600mA-ZES-4000K	
LIGHT LOSS FACTOR	0.8	
LUMINAIRE DISTRIBUTION TYPE	TYPE II	
LUMINAIRE BUG RATING	B3-U0-G3	
POLE SPACING (MAX)	88m (STAGGERED)	
ILLUMINANCE DESIGN CRITERIA - ROADWAY		
ITEM	RECOMMENDED VALUES	ACHIEVED VALUES
ILLUMINATION LEVEL (Eavg) IN LUX	9.0	14.9
UNIFORMITY RATIO (Eavg/Emin)	4.0:1	1.9:1
LUMINANCE DESIGN CRITERIA - ROADWAY		
ITEM	RECOMMENDED VALUES	ACHIEVED VALUES
LUMINANCE LEVEL (Lavg) IN cd/m ²	0.6	1.1
UNIFORMITY RATIO (Lmax/Lmin)	3.5:1	1.4:1
UNIFORMITY RATIO (Lmax/Lavg)	6.0:1	2.1:1
VEILING LUMINANCE RATIO (L _{max} /L _{avg})	0.4:1	0.2:1
ILLUMINANCE DESIGN CRITERIA - SIDEWALK		
ITEM	RECOMMENDED VALUES	ACHIEVED VALUES
ILLUMINATION LEVEL (Eavg) IN LUX	5.0	9.9
UNIFORMITY RATIO (Eavg/Emin)	5.0:1	2.3:1

** ROADWAY LIGHTING CONTRIBUTING TO PATHWAY LIGHTING LEVELS.

CAUTION!
EXCAVATION NEAR OVERHEAD UTILITY POLE
 ANY UNDERGROUND EXCAVATION WITHIN SOIL FOUNDATION INTERACTION AREA REQUIRES TEMPORARY UTILITY POLE SUPPORT. REFER TO ES55 E3-04 GUIDE FOR CIVIL EXCAVATION NEAR DISTRIBUTION POLES FOR DETAILS. REFER TO BC HYDRO WORK ON WOOD POLES MANUAL (ON SAFEHUB) AND BC HYDRO 2017-1-F POLE HOLDING REQUIREMENTS FOR APPROVED TEMPORARY POLE SUPPORT METHODS. FOR MORE INFORMATION CONTACT workmethods@bchydro.com

LOCATING EQUIPMENT
 FOR CLARITY CONDUITS, JUNCTION BOXES AND STREETLIGHT POLES MAY NOT BE SHOWN AT DESIGN OFFSETS. CONTRACTOR SHALL LOCATE ALL EQUIPMENT BASED ON STATIONS AND/OR OFFSETS AS NOTED AND SHALL NOT RELY ON COORDINATES OBTAINED FROM DMD DIGITAL DRAWINGS. CONTRACTOR TO REPORT ANY CONFLICTS OR DISCREPANCIES TO DMD & ASSOCIATES PRIOR TO ORDERING EQUIPMENT.

CHECK BEFORE YOU DIG
 CONTRACTOR SHALL REFER TO MUNICIPAL RECORD / CIVIL DESIGN DRAWINGS FOR ALL OTHER UTILITIES, SERVICE LOCATIONS, AND DETAILS. THE EXACT LOCATION OF THESE UTILITIES SHALL BE DETERMINED ON SITE BY THE CONTRACTOR. CONTRACTOR TO REPORT ANY CONFLICTS OR DISCREPANCIES TO DMD & ASSOCIATES PRIOR TO ORDERING BASES.

OVERHEAD POWER LINE CONFLICTS
 CONTRACTOR SHALL CONFIRM ON SITE PRIOR TO CONSTRUCTION THAT POLES & EQUIPMENT WILL MEET WorkSafeBC CLEARANCE REQUIREMENTS FOR OVERHEAD PRIMARY AND SECONDARY LINES. CONTRACTOR TO REPORT ANY CONFLICTS OR DISCREPANCIES TO DMD & ASSOCIATES PRIOR TO ORDERING POLES AND INSTALLING CONCRETE BASES.

REFER TO CITY OF RICHMOND DRAWING No. TC-XXXX-09 & TC-XXXX-10 FOR PROPOSED TRAFFIC SIGNAL DETAILS AT BLUNDELL ROAD AND PORTSIDE ROAD OVERPASS

ISOLINE ILLUMINATION LEVELS	
ISOLINE COLOUR	LUMINAIRE TYPE
(Purple)	113W LED
(Blue)	30 LUX
(Green)	25 LUX
(Yellow)	20 LUX
(Orange)	15 LUX
(Red)	10 LUX
(Pink)	5 LUX

REMOVE: EXISTING STREETLIGHT POLE C/W LED LUMINAIRE AND RETURN TO CITY WORKS YARD. REMOVE AND DISCARD CONCRETE BASE OFF SITE (TYPICAL)

REMOVE & REPLACE: EXISTING LUMINAIRE (TYPICAL FOR 5)

REFER TO CITY OF RICHMOND DRAWING No. XXXXX-XX-XX FOR PROPOSED TRAFFIC SIGNAL DETAILS AT BLUNDELL ROAD AND No. 8 ROAD

REFER TO CITY OF RICHMOND DRAWING No. XXXXX-XX-XX FOR PROPOSED STREET LIGHTING DETAILS ON BLUNDELL ROAD

DMD
DMD & Associates
Electrical Consultants Ltd.
 #12-17358 104A Avenue
 Surrey, BC, Canada V4N 5M3
 www.dmdeng.com office@dmdeng.com
 604/589-9010 Fax 604/589-9012

DESIGNED	DON MCLEAN
DRAWN	CRYSTA ANDREWS
CHECKED	DON MCLEAN
E.O.R.	DON MCLEAN
DATE	SEPTEMBER 07, 2022
SCALE:	1:500
SEAL	

120/240V

PERMIT TO PRACTICE NUMBER: 1000771
 ENGINEERS AND GEOSCIENTISTS BRITISH COLUMBIA

NOT FOR CONSTRUCTION
 2022-08-09

EXISTING STREET LIGHTING SHALL REMAIN IN OPERATION THROUGHOUT CONSTRUCTION.

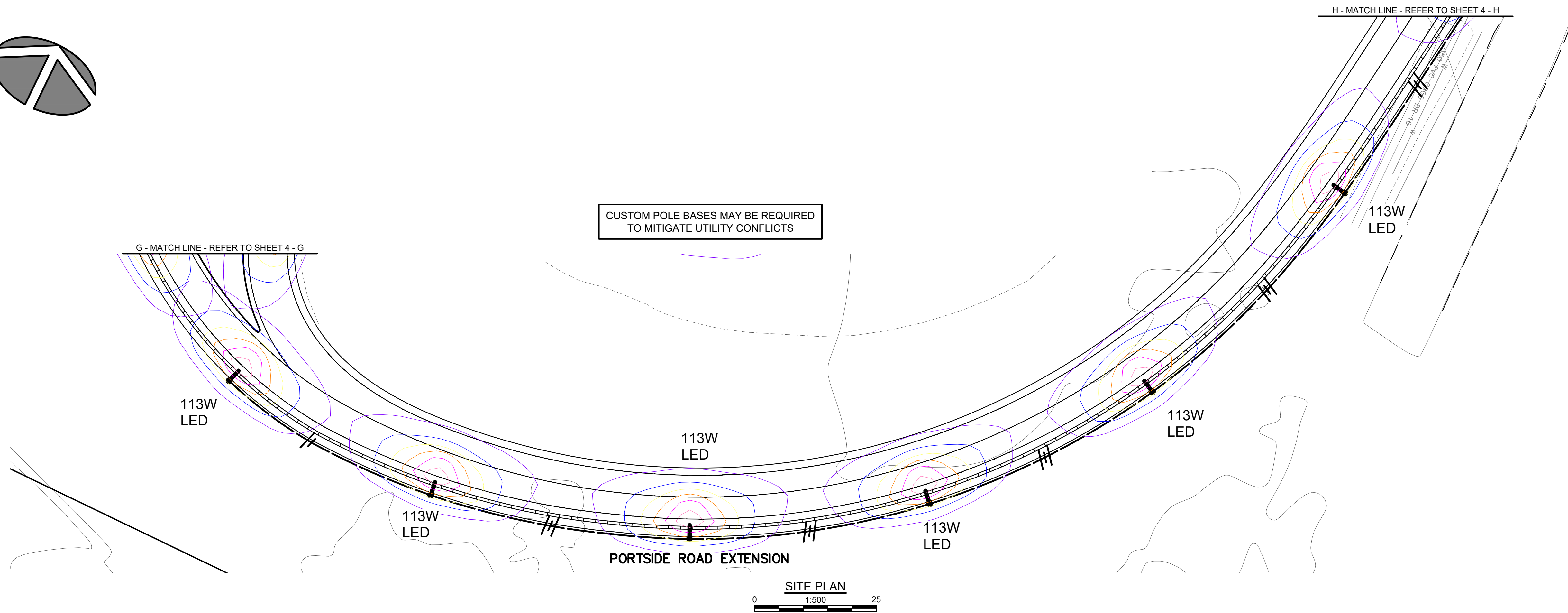
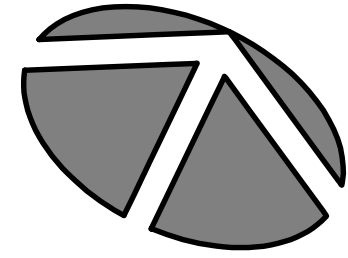
No.	DATE	BY	CHK'D	REVISION
	2022-09-08	DSM	DSM	ISSUED FOR IDR
A	2022-11-11	DSM	DSM	INDICATIVE DESIGN SUBMISSION

McElhanney Ltd
 Suite 2300 Central City Tower 13450 - 102 Avenue Surrey, BC V3T 5X3 Tel: (604)596-0391

STREET LIGHTING
PORTSIDE ROAD
TO BLUNDELL ROAD
 RICHMOND, BC

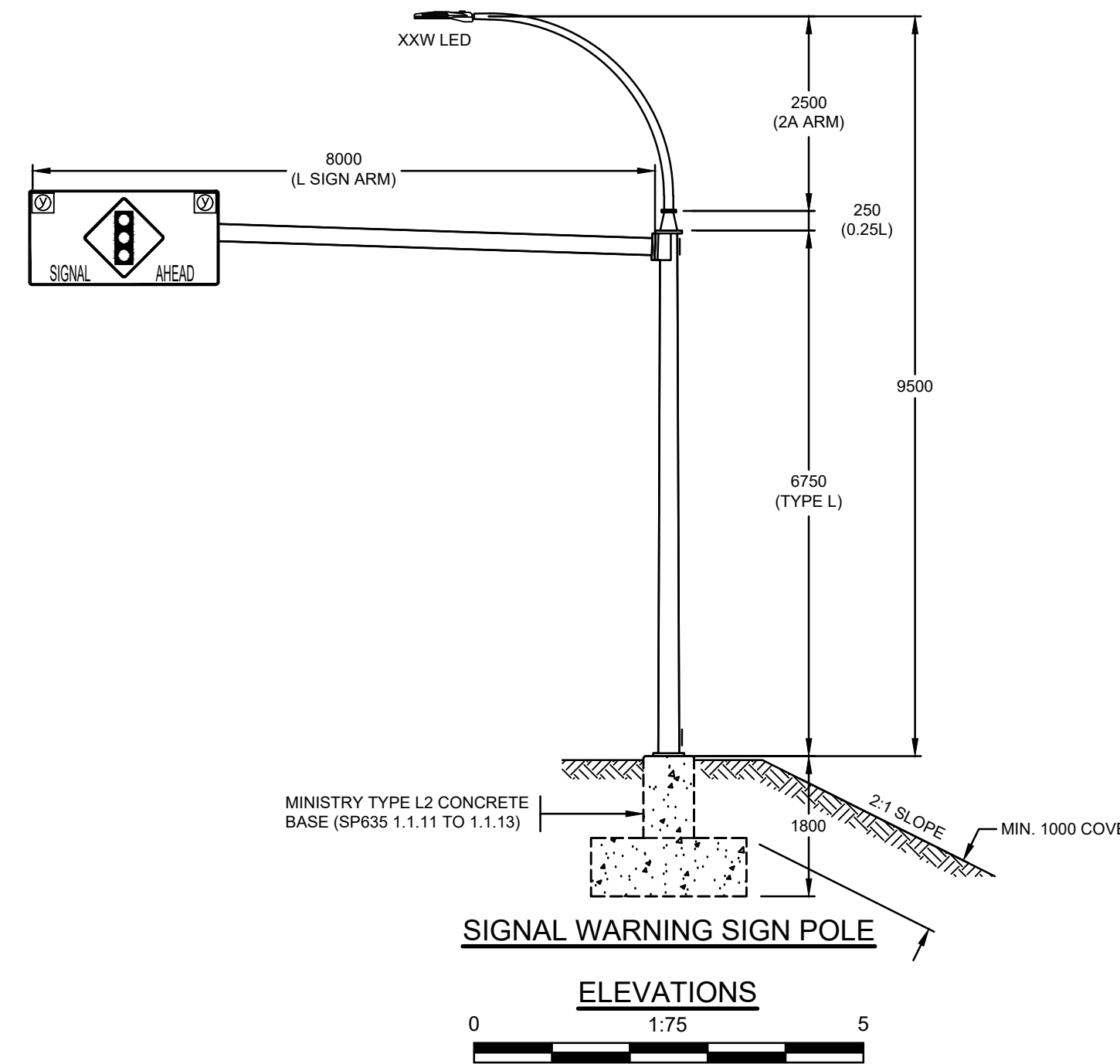
PROJECT No.	DWG No.	REVISION
7476b-22-04 of 05	356-135-EL-104	A





LIGHTING DESIGN TABLE C		
ITEM	DESCRIPTION	
LIGHTING PROGRAM	AGI32	
STREET NAME(S)	PORTSIDE ROAD EXTENSION	
LAND USE	INDUSTRIAL	
ROADWAY CLASSIFICATION	COLLECTOR	
PEDESTRIAN CONFLICT AREA	MEDIUM	
LAMP WATTAGE & LIGHT SOURCE	113W LED (4000K) - LRL NXT-60M-600mA-2ES-4000K	
LIGHT LOSS FACTOR	0.8	
LUMINAIRE DISTRIBUTION TYPE	TYPE II	
LUMINAIRE BUG RATING	B3-U0-G3	
POLE SPACING (MAX)	57m (ONE SIDED)	
ILLUMINANCE DESIGN CRITERIA - ROADWAY		
ITEM	RECOMMENDED VALUES	ACHIEVED VALUES
ILLUMINATION LEVEL (Eavg) IN LUX	9.0	9.7
UNIFORMITY RATIO (Eavg/Emin)	4.0:1	2.9:1

ISOLINE ILLUMINATION LEVELS	
ISOLINE COLOUR	LUMINAIRE TYPE
(Pink)	113W LED
(Light Blue)	30 LUX
(Light Green)	25 LUX
(Light Yellow)	20 LUX
(Yellow)	15 LUX
(Orange)	10 LUX
(Red)	5 LUX



CAUTION!
EXCAVATION NEAR OVERHEAD UTILITY POLE
 ANY UNDERGROUND EXCAVATION WITHIN SOIL FOUNDATION INTERACTION AREA REQUIRES TEMPORARY UTILITY POLE SUPPORT. REFER TO ES55 E3-04 GUIDE FOR CIVIL EXCAVATION NEAR DISTRIBUTION POLES FOR DETAILS. REFER TO BC HYDRO WORK ON WOOD POLES MANUAL (ON SAFEHUB) AND BC HYDRO 2017-1-F POLE HOLDING REQUIREMENTS FOR APPROVED TEMPORARY POLE SUPPORT METHODS. FOR MORE INFORMATION CONTACT workmethods@bchydro.com

LOCATING EQUIPMENT
 FOR CLARITY CONDUITS, JUNCTION BOXES AND STREETLIGHT POLES MAY NOT BE SHOWN AT DESIGN OFFSETS. CONTRACTOR SHALL LOCATE ALL EQUIPMENT BASED ON STATIONS AND/OR OFFSETS AS NOTED AND SHALL NOT RELY ON COORDINATES OBTAINED FROM DMD DIGITAL DRAWINGS. CONTRACTOR TO REPORT ANY CONFLICTS OR DISCREPANCIES TO DMD & ASSOCIATES **PRIOR TO ORDERING EQUIPMENT.**

CHECK BEFORE YOU DIG
 CONTRACTOR SHALL REFER TO MUNICIPAL RECORD / CIVIL DESIGN DRAWINGS FOR ALL OTHER UTILITIES, SERVICE LOCATIONS, AND DETAILS. THE EXACT LOCATION OF THESE UTILITIES SHALL BE DETERMINED ON SITE BY THE CONTRACTOR. CONTRACTOR TO REPORT ANY CONFLICTS OR DISCREPANCIES TO DMD & ASSOCIATES **PRIOR TO ORDERING BASES.**

OVERHEAD POWER LINE CONFLICTS
 CONTRACTOR SHALL CONFIRM ON SITE PRIOR TO CONSTRUCTION THAT POLES & EQUIPMENT WILL MEET WorkSafeBC CLEARANCE REQUIREMENTS FOR OVERHEAD PRIMARY AND SECONDARY LINES. CONTRACTOR TO REPORT ANY CONFLICTS OR DISCREPANCIES TO DMD & ASSOCIATES **PRIOR TO ORDERING POLES AND INSTALLING CONCRETE BASES.**

REFER TO CITY OF RICHMOND DRAWING No. XXXXX-XX-XX FOR PROPOSED TRAFFIC SIGNAL DETAILS AT BLUNDELL ROAD AND No. 8 ROAD

REFER TO CITY OF RICHMOND DRAWING No. XXXXX-XX-XX FOR PROPOSED STREET LIGHTING DETAILS ON BLUNDELL ROAD

347/600V

120/240V

PERMIT TO PRACTICE NUMBER: 1000771
 ENGINEERS AND GEOSCIENTISTS BRITISH COLUMBIA

NOT FOR CONSTRUCTION
 2022-08-09

EXISTING STREET LIGHTING SHALL REMAIN IN OPERATION THROUGHOUT CONSTRUCTION.

DMD
DMD & Associates
Electrical Consultants Ltd.
 #12-17358 104A Avenue
 Surrey, BC, Canada V4N 5M3
 www.dmdeng.com 604/589-9010
 office@dmdeng.com Fax 604/589-9012

DESIGNED	DON MCLEAN
DRAWN	CRYSTA ANDREWS
CHECKED	DON MCLEAN
E.O.R.	DON MCLEAN
DATE	SEPTEMBER 07, 2022

SCALE: AS NOTED

SEAL

No.	DATE	BY	CHK'D	REVISION
-	2022-09-08	DSM	DSM	ISSUED FOR IDR
A	2022-11-11	DSM	DSM	INDICATIVE DESIGN SUBMISSION

McElhanney Ltd
 Suite 2300 Central City Tower 13450 - 102 Avenue Surrey, BC V3T 5X3 Tel: (604)596-0391

STREET LIGHTING
PORTSIDE ROAD
TO BLUNDELL ROAD
 RICHMOND, BC

PROJECT No. **7476b-22-05 of 05** DWG No. **356-135-EL-105** REVISION **A**