

**ILLUMINATION LEGEND**

- PROPOSED 25W LED TYPE III LUMINAIRE ON 6.8m POLE (5.6m MH)
- CALCULATED POINT ILLUMINANCE VALUES (IN LUX - INTERSECTIONS & CURVES)
- CALCULATED POINT ILLUMINANCE VALUES (IN LUX - LANEWAYS)
- CALCULATED POINT ILLUMINANCE VALUES (IN LUX - PARKING)
- 1 X 1.5m TRANSFORMER WITH 1.0m GROUND GRID
- STREETLIGHT PEDESTAL

NO.	DATE	DESCRIPTION	BY
2	2023/09/08	2nd SUBMISSION	FC
1	2023/07/04	1st SUBMISSION	NM

**REVISIONS**

**LIGHTING FIXTURE SCHEDULE**

TYPE	QTY	LOCATION/MOUNTING HEIGHT	DESCRIPTION	LUMINAIRE MANUFACTURER /CAT.#	LUMINAIRE DETAILS	JES FILE NO.	POLE MANUFACTURER/CAT.#
	7	POLE/ 5.6m MH	LED POLE TOP STYLE LUMINAIRE C/W TYPE III LIGHT DISTRIBUTION ON A 6.8m CLASS A, BLACK OCTAGONAL POLE	KING/ CAT.# K901D-T-PANL-III-25(SS)7030-120V-PR-4K-BK OR APPROVED EQUAL	23.9W LED, 120V, 2728 LUMENS 3000K TYPE II, MEDIUM	601DP4N1.3X02530XVE.JES	STRESSCRETE/ CAT.# E225-AP0-G-511

**1 Intersections**

STREET NAME	STREET 1 & STREET 2
STREET CLASSIFICATION	LOCAL-LOCAL
PEDESTRIAN CONFLICT (LOW/MED/HIGH)	LOW
AREA CLASSIFICATION	L2-1
REQUIREMENTS AS PER DT/YES (RP-8-2)	DESIGN   FIELD   MEETING CRITERIA (Y/N/A)
AVE. ILLUMINANCE (Lux)	8.0 (N/A) 7.0 N/A
AVE. UNIFORMITY RATIO (Lmax/Lmin)	6.0:1 (N/A) 2.4 N/A

**5 Parking**

STREET NAME	STREET 1
STREET CLASSIFICATION	RESIDENTIAL PARKING SPACES
PEDESTRIAN CONFLICT (LOW/MED/HIGH)	LOW
AREA CLASSIFICATION	L2-1
REQUIREMENTS AS PER DT/YES (RP-8-2)	DESIGN   FIELD   MEETING CRITERIA (Y/N/A)
AVE. ILLUMINANCE (Lux)	2.0 (N/A) 3.8 N/A
AVE. UNIFORMITY RATIO (Lmax/Lmin)	15.0:1 (N/A) 4.0 N/A

**NOTES:**  
 1) ALL POINT ILLUMINANCE LEVELS ARE GIVEN IN LUX.  
 2) POINT ILLUMINANCE VALUES FOR PROJECT AS INDICATED ON LEGEND.  
 3) ILLUX TEMPLATES FOR INDIVIDUAL STREET LIGHTS REPRESENTING 1 LUX ARE INDICATED IN BLACK, 2 LUX IN BLUE, 5 LUX IN GREEN, 10 LUX IN CYAN AND 20 LUX IN RED AS LINES APPROACH LIGHT POLE.

**2 Loneway Street Sections Using Illuminance Method \*\***

STREET NAME	STREET 1
STREET CLASSIFICATION	LOCAL
PEDESTRIAN CONFLICT (LOW/MED/HIGH)	LOW
AREA CLASSIFICATION	L2-1
REQUIREMENTS AS PER DT/YES (RP-8-2)	DESIGN   FIELD   MEETING CRITERIA (Y/N/A)
AVE. ILLUMINANCE (Lux)	4.5 (N/A) 7.0/7.8 N/A
AVE. UNIFORMITY RATIO (Lmax/Lmin)	6.0:1 (N/A) 2.1/2.9 N/A

**6 Walkway**

STREET NAME	STREET 1 WEST
STREET CLASSIFICATION	WALKWAY
PEDESTRIAN CONFLICT (LOW/MED/HIGH)	LOW
AREA CLASSIFICATION	L2-1
REQUIREMENTS AS PER DT/YES (RP-8-2)	DESIGN   FIELD   MEETING CRITERIA (Y/N/A)
AVE. ILLUMINANCE (Lux)	2.0 (N/A) 4.3 N/A
AVE. UNIFORMITY RATIO (Lmax/Lmin)	10.0:1 (N/A) 2.0 N/A

**3 Loneway Street Sections Using Illuminance Method \*\***

STREET NAME	STREET 2
STREET CLASSIFICATION	LOCAL
PEDESTRIAN CONFLICT (LOW/MED/HIGH)	LOW
AREA CLASSIFICATION	L2-1
REQUIREMENTS AS PER DT/YES (RP-8-2)	DESIGN   FIELD   MEETING CRITERIA (Y/N/A)
AVE. ILLUMINANCE (Lux)	4.5 (N/A) 4.5/15.2 N/A
AVE. UNIFORMITY RATIO (Lmax/Lmin)	6.0:1 (N/A) 1.9/1.9 N/A

**7 Walkway**

STREET NAME	STREET 1 EAST
STREET CLASSIFICATION	WALKWAY
PEDESTRIAN CONFLICT (LOW/MED/HIGH)	LOW
AREA CLASSIFICATION	L2-1
REQUIREMENTS AS PER DT/YES (RP-8-2)	DESIGN   FIELD   MEETING CRITERIA (Y/N/A)
AVE. ILLUMINANCE (Lux)	2.0 (N/A) 5.2 N/A
AVE. UNIFORMITY RATIO (Lmax/Lmin)	10.0:1 (N/A) 4.7 N/A

**4 Parking**

STREET NAME	STREET 1
STREET CLASSIFICATION	RESIDENTIAL PARKING SPACES
PEDESTRIAN CONFLICT (LOW/MED/HIGH)	LOW
AREA CLASSIFICATION	L2-1
REQUIREMENTS AS PER DT/YES (RP-8-2)	DESIGN   FIELD   MEETING CRITERIA (Y/N/A)
AVE. ILLUMINANCE (Lux)	2.0 (N/A) 4.3 N/A
AVE. UNIFORMITY RATIO (Lmax/Lmin)	15.0:1 (N/A) 3.0 N/A

**8 PERIMETER**

CITY REQUIREMENT	CALCULATED ILLUMINANCE
5 Lux MAX	3.0

\*\* NOTE INSUFFICIENT STRAIGHT SECTIONS TO USE ILLUMINANCE METHOD

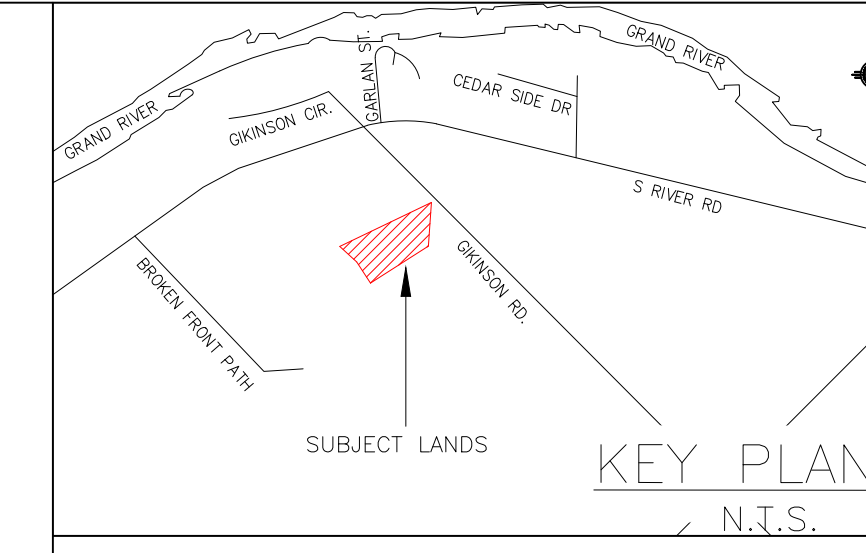
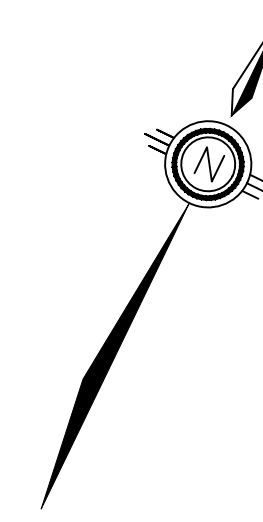
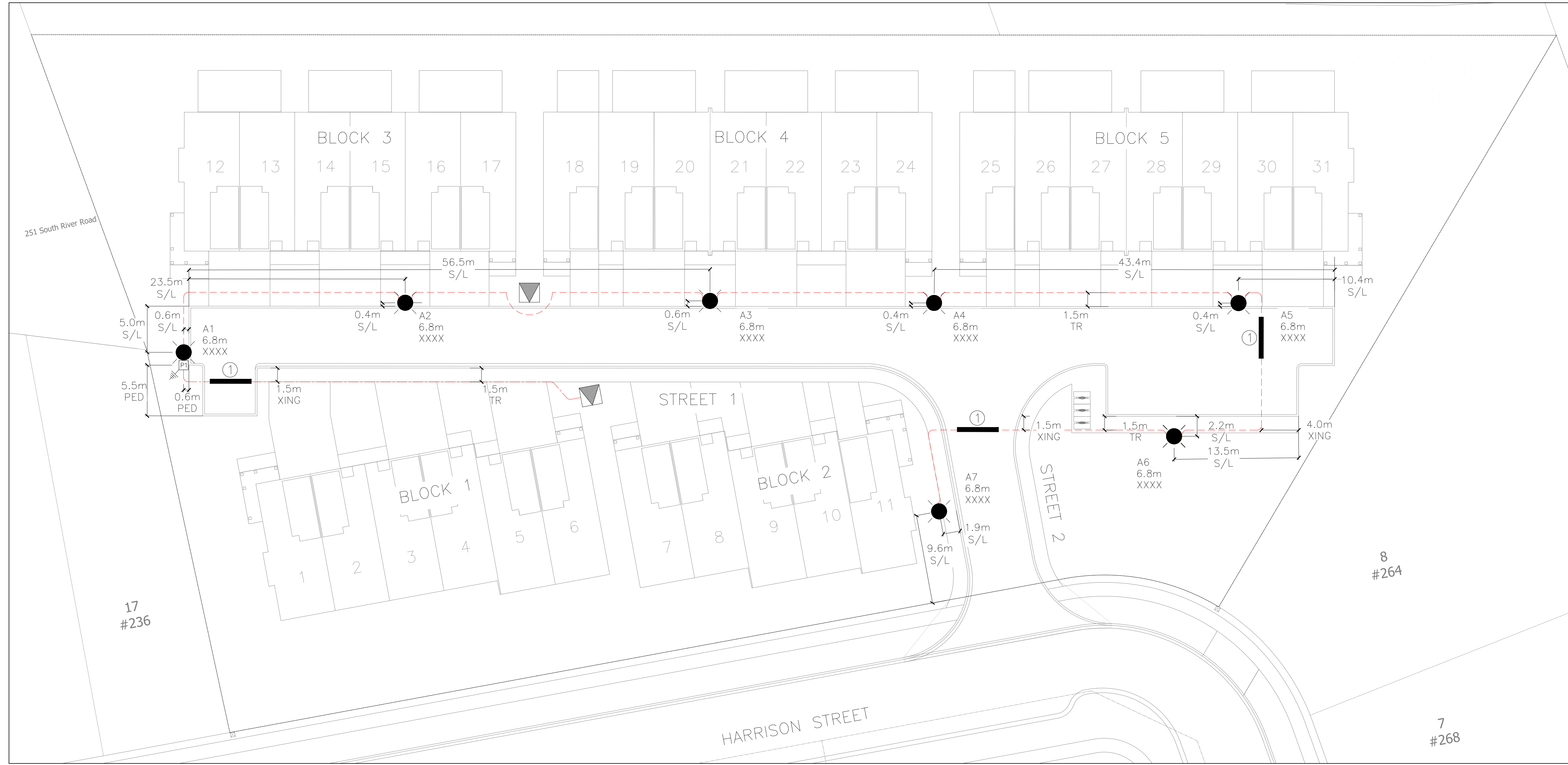


**COLM ENGINEERING LTD.**  
 400 MAIN STREET EAST, SUITE 214  
 MILTON, ONTARIO L9T 4X5  
 Tel. No. 289-851-2524



**YOUNGBLOOD SUBDIVISION - BLOCK 39  
 PHOTOMETRIC LAYOUT**

DRAWN BY:	DATE	CHECKED BY:	DATE
FC	2023/09/08	MS	2023/09/08
SCALE	JOB NO.	DRAWING NO.	
1:250	23-03	PH-1	



**LAYOUT LEGEND**

- PROPOSED 25W LED TYPE III LUMINAIRE ON 6.8m POLE (5.6m MH)
- GROUND PLATE
- 2-#6 CU. & 1-#6 CU. RW90 STREETLIGHT CABLE, INSTALLED IN 50mm RIGID PVC CONDUIT
- 4 - #2 CU. RW90 PANEL SUPPLY CABLE, INSTALLED IN 50mm RIGID PVC TYPE II CONDUIT
- 1 X 1.5m TRANSFORMER WITH 1.0m GROUND GRID
- STREETLIGHT PANEL - TO BE STAND-ALONE PEDESTAL (2-POLE 50A-240V MAIN C/W FOUR 1-POLE 40A-120V BREAKERS)
- 75mm RIGID PVC STREETLIGHT DIRECT BURIED ROAD CROSSING CONDUIT, QUANTITY AS INDICATED (ADDITIONAL TO DUCT QUANTITIES SHOWN ON ELECTRICAL DRAWING)

**LIGHTING FIXTURE SCHEDULE**

TYPE	QTY	LOCATION/MOUNTING HEIGHT	DESCRIPTION	LUMINAIRE MANUFACTURER /CAT.#	LUMINAIRE DETAILS	IES FILE NO.	POLE MANUFACTURER/CAT.#
	7	POLE/5.6m MH	LED POLE TOP STYLE LUMINAIRE C/W TYPE III LIGHT DISTRIBUTION ON A 6.8m CLASS A, BLACK OCTAGONAL POLE	KING/CAT.# K81D-1-PANL-III-25(SL)7030-120V-PR-4K-BK OR APPROVED EQUAL	23.9W LED, 120V, 2700 LUMENS, 3000K TYPE III, MEDIUM	601DTP4N13X02530XXEIES	STRESSORETE/CAT.# E225-APD-G-S11

**STREET LIGHT PEDESTAL CHART**

STREET LIGHT PEDESTAL #	CIRCUIT #	STREET LIGHT POLE #'S
P1	A	A1(25), A2(25), A3(25), A4(25), A5(25), A6(25), A7(25)

**NOTES**

**SAFETY CONSIDERATIONS**

- ELECTRICAL CONTRACTOR SHALL PERFORM ALL WORKS IN ACCORDANCE WITH APPLICABLE HEALTH & SAFETY LEGISLATION, REGULATIONS AND BY-LAWS, INCLUDING BUT NOT LIMITED TO REQUIREMENTS OF THE TSSA, ESA, LOCAL DISTRIBUTION COMPANY, MUNICIPALITY & MINISTRY OF LABOUR.
- ELECTRICAL CONTRACTOR SHALL MAINTAIN SAFE WORKING CLEARANCES FROM OVERHEAD HYDRO LINES WHERE APPLICABLE.
- ELECTRICAL CONTRACTOR SHALL OBTAIN UTILITY LOCATES FOR ALL UNDERGROUND WORKS, AND LOCATE AND PROTECT ALL EXISTING UTILITIES BEFORE AND DURING CONSTRUCTION. VACUUM EXCAVATE OR HAND DIG AS REQUIRED PER UTILITIES' STAKE OUT REPORTS.
- THE ACCURACY OF LOCATES AND POSITION OF UTILITIES / STRUCTURES IS NOT GUARANTEED. PRIOR TO STARTING WORK, THE CONTRACTOR SHALL CONFIRM THE LOCATION OF ALL UTILITIES / STRUCTURES IMPACTING THE WORK, AND SHALL ASSUME ALL LIABILITY FOR DAMAGES TO THEM RESULTING FROM THE CONTRACTOR'S WORKS.

**LAYOUT AND FACILITIES LOCATIONS**

- ELECTRICAL CONTRACTOR IS RESPONSIBLE TO ENSURE THE LAYOUT AND LOCATION OF INSTALLED FACILITIES IS IN CONFORMANCE WITH THE DRAWINGS ISSUED FOR CONSTRUCTION, AND WITH RELEVANT STANDARD DRAWINGS OF THE LOCAL DISTRIBUTION COMPANY AND MUNICIPALITY.
- ELECTRICAL CONTRACTOR SHALL STAKE OUT THE TRENCH LINE, LIGHT POLE AND SERVICE PEDESTAL LOCATIONS PRIOR TO STARTING EXCAVATION, AND SHALL NOTIFY THE DESIGNER OF ANY CONFLICTS WITH EXISTING OR PROPOSED FACILITIES PRIOR TO INSTALLATION. SEE DIMENSIONS ON DRAWING FOR OFFSET LOCATIONS.
- PROPOSED REVISIONS TO ANY ASPECT OF THE DESIGN DRAWINGS INCLUDING CONFLICT RESOLUTION DURING THE COURSE OF THE WORK SHALL BE IDENTIFIED TO AND APPROVED BY THE DESIGNER PRIOR TO IMPLEMENTATION OR INSTALLATION.
- ELECTRICAL CONTRACTOR SHALL MAINTAIN MIN 3.0m SEPARATION BETWEEN LIGHTS/PEDESTALS AND FIRE HYDRANTS (EXCEPT WHERE SPECIFICALLY AUTHORIZED).
- SEE DRAWING DIMENSIONS FOR LOCATION OF FACILITIES WITHIN BOULEVARDS REFERENCED TO CURB LINE, EDGE OF PAVEMENT, ETC. LIGHT POLES TO BE INSTALLED WITH MINIMUM 1.2m SEPARATION FROM TRAVELLED PORTION OF ROADS, DRIVEWAYS, ENTRANCES, ETC., EXCEPT WHERE NOTED.
- ELECTRICAL CONTRACTOR SHALL EXTEND ANY SUPPLY SERVICE CABLES OR CONDUITS LEFT STUBBED AT THE SITE LIMITS FOR THEIR USE, AND SHALL COORDINATE THESE EXTENSIONS WITH THE LOCAL DISTRIBUTION COMPANY OR MUNICIPALITY AS REQUIRED. ANY COSTS RESULTING FROM FAILURE TO COORDINATE WILL BE BORNE BY THE CONTRACTOR.
- ALL WORK TO BE COORDINATED WITH LOCAL DISTRIBUTION COMPANY AND MUNICIPAL REPRESENTATIVES AS NECESSARY.
- ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR INSTALLATION OF METER BASE, "HOUSE SERVICE" PANEL OR PEDESTAL, & 40 AMP BREAKERS FOR SUPPLY OF LIGHTING CIRCUITS, UNLESS OTHERWISE NOTED.
- REFER TO LOCAL DISTRIBUTION COMPANY DRAWINGS FOR PROPOSED ELECTRICAL FACILITIES LOCATIONS, TO COORDINATE WITH PRIVATE LIGHTING INSTALLATIONS.
- PRIVATE LIGHTING CABLES TO BE INSTALLED IN JOINT USE TRENCH WITH TELECOM AND GAS UTILITIES IN LOCATIONS INDICATED, UNLESS OTHERWISE NOTED.
- ORIENT LUMINAIRES AS INDICATED, AND NOT NECESSARILY PERPENDICULAR TO STREET.

**MATERIALS AND CONSTRUCTION**

- ALL MATERIAL USED SHALL BE NEW, AND SHALL CONFORM TO THE LATEST APPLICABLE O.E.S.C., C.S.A. AND/OR ANSI SPECIFICATIONS AS REQUIRED.
- ELECTRICAL CONTRACTOR SHALL REFER TO THE CONTRACT DOCUMENTS FOR DETAILS REGARDING THE MATERIALS AND CONSTRUCTION METHODS TO BE USED.
- ALL STREETLIGHT CONDUIT TO BE 75mm RIGID PVC PER CSA C22.2-NO.211.2 (LATEST VERSION).
- CONTRACTOR TO SUPPLY NOTED STREETLIGHT POLE WITH GROUND FAULT DUPLEX RECEPTACLE (GF).

**INSPECTIONS AND APPROVALS**

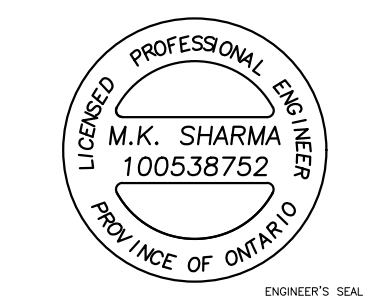
- ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL APPLICABLE PERMIT APPLICATIONS AND APPROVALS FOR THE LIGHTING SYSTEM.
- ALL PRIVATELY OWNED WORKS SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF ONTARIO ELECTRICAL SAFETY CODE, LATEST EDITION, AND SUBJECT TO THE INSPECTION AND APPROVAL OF THE THE ELECTRICAL SAFETY AUTHORITY. A COPY OF THE E.S.A. CERTIFICATE OF INSPECTION MUST BE PROVIDED TO THE DESIGNER ON COMPLETION OF THE PROJECT.
- ELECTRICAL CONTRACTOR SHALL ACCURATELY MEASURE AND RECORD ANY REVISED FACILITIES LOCATIONS OR OTHER DEVIATIONS FROM THE DRAWINGS DURING THE COURSE OF THE PROJECT, AND SUBMIT AN "AS CONSTRUCTED" DRAWING TO THE CONSULTANT ON COMPLETION OF THE WORK.

**STREETLIGHTING**

- CONTRACTOR TO INSTALL STREETLIGHT INFRASTRUCTURE FOR SITE USING PROPOSED TRANSFORMER, PEDESTAL AND TRENCH LOCATIONS.
- ALL MEASUREMENTS ARE DIMENSIONED FROM BACK OF CURB AND LOT LINES, UNLESS NOTED OTHERWISE.

NO.	DATE	DESCRIPTION	BY
2	2023/09/08	2nd SUBMISSION	FC
1	2023/07/04	1st SUBMISSION	NM

**REVISIONS**



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