

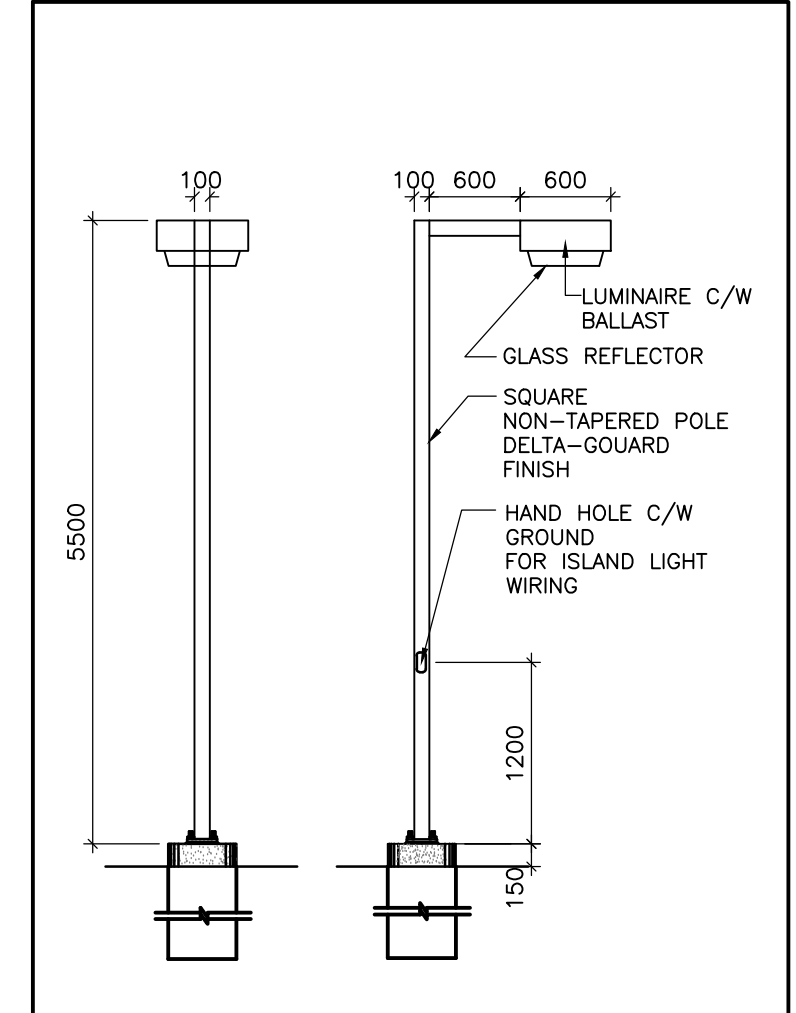
THIS DRAWING INDICATES ALL PROPOSED OUTDOOR LIGHTING FIXTURES FOR THIS PROPOSED DEVELOPMENT. THE LIGHTING DESIGN IS IN ACCORDANCE WITH THE APPLICABLE LIGHTING ZONE AS ESTABLISHED BY THE PLANNING DEPARTMENT, AND DESIGNED WITH AN AVERAGE TO MINIMUM RATIO IN ACCORDANCE WITH THE ILLUMINATING ENGINEERING SOCIETY GUIDELINES. THIS LIGHTING DESIGN WILL NOT CREATE ANY OBJECTIONABLE GLARE FOR ADJACENT PROPERTIES.

Engineer Signature: *Javad Goudarzi* Date: **AUG. 16, 2019**

LIGHTING FIXTURE SCHEDULE:	
TYPE	DESCRIPTION
CS	LSI GENERATION 3 LED CANOPY LIGHT, 30 LED FIXTURE, WHITE FINISH, 120-277VAC, 350mA DRIVER, LSI CATALOGUE #; CRO3-FO-LED-30-CW-UE-WHT, FIXTURE TO BE INSTALLED 5000mm A.F.G., 3000 LUMENS AND AN ASSUMED LIGHT LOSS FACTOR OF 0.81 USED IN THIS STUDY.
Y	LSI GENERATION 3 LED AREA LIGHT (TYPE III DISTRIBUTION), 128 LED FIXTURE, WHITE FINISH, 120-227VAC, LSI CATALOGUE #; XAMU-3-LED-128-SS-CW, FIXTURE TO BE INSTALLED 5500mm A.F.G., 13500 LUMENS AND AN ASSUMED LIGHT LOSS FACTOR OF 0.81 USED IN THIS STUDY.
WB	LSI MIRADA WALL SCONCE, LED WHITE FINISH CAT# WM-FT-LED-OBL-50-UE-WHT-IMS, FIXTURE TO BE INSTALLED AT 2800mm A.F.F., 8600 LUMENS, 82 WATTAGE AND 105 LPW
PS	PYLON SIGN HAS BEEN ASSUMED THE SAME AS A SAMPLE AND IT IS NOT FINAL. THIS PYLON SIGN HAS 272 600 LED WITH 20,000 LUMENS TOTALLY. THE SIZE OF THIS SIGN IS 5480mmx2450mm AND THE INSTALLATION HEIGHT FROM BOTTOM IS 1800mm. THE LIGHT LOSS FACTOR HAS BEEN ASSUMED 0.7 BECAUSE OF THE COLOR OF THIS SIGN.

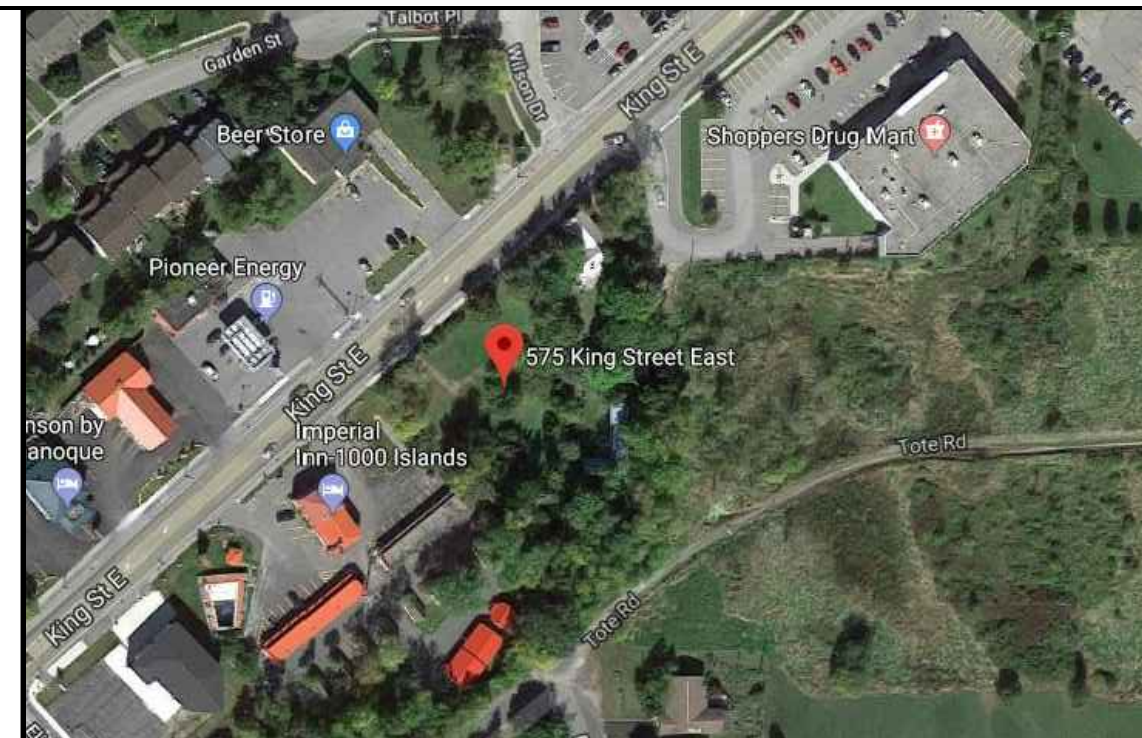
  

STATISTICAL AREA SUMMARY					
AREA NAME	AVE	MAX	MIN	MAX/MIN	AVE/MIN
SITE AREA BOUNDED BY PROPERTY LINE	18.9 LUX	900.2 LUX	0.0 LUX	N/A	N/A



**2 POLELIGHT DETAILS**  
ESP-1 SCALE: N.T.S.

**NOTE:**  
1. ROOF OF BUILDING AND C-STORE HAVE NOT INCLUDED IN THE CALCULATION.



**KEY PLAN**  
N.T.S.

**GENERAL NOTES:**

- CONTINUOUS LED LIGHTING FIXTURES USED ON CANOPY FASCIA DUE TO THEIR DECORATIVE NATURE AND NEGLIGIBLE CONTRIBUTION TO THE ILLUMINANCE LEVEL AT THE GROUND LEVEL WERE NOT USED IN THIS PHOTOMETRIC STUDY.
- AMBIENT CANOPY LUMINAIRES ARE TO INCLUDE BUILT-IN MOTION DETECTION SET UNIT TO BE SET UP ONCE INSTALLED TO REQUIREMENTS OF OWNER.
- ALL EXTERIOR LUMINAIRES, INCLUDING CANOPY LIGHTING, MUST BE CONNECTED TO A DAYLIGHT DETECTION SENSOR SET TO 1000 LUX.
- LUMINAIRES MOUNTED AT 5500mm AFG.
- CALCULATION POINTS ARE SET ON A 2.7m x 2.7m GRID.
- MAINTAINED LIGHT LEVELS ARE SHOWN AT GRADE.
- LMF BASED ON LIGHT LEVELS AT 50,000 HOURS OPERATING IN AN ANNUAL AVERAGE AMBIENT TEMPERATURE OF 5 DEGREES CELSIUS.

**LED LUMINAIRE SPECIFICATIONS:**

- THE LUMINAIRE SHALL BE OF TYPE DESIGNED FOR ARM OR PENDANT MOUNT.
- THE LUMINAIRE SHALL BE CUL OR CSA LISTED, HAVE A IP 66 CLASSIFIED ENCLOSURE, AND PASS 3G VIBRATION TEST.
- THE ENCLOSURE SHALL BE CAST ALUMINUM WITH INTEGRAL WEATHER TIGHT LED DRIVER COMPARTMENTS AND HIGH PERFORMANCE HEAT SINKS SPECIFICALLY DESIGNED FOR LED LIGHTING APPLICATIONS.
- THE LUMINAIRE SHALL BE OF SUFFICIENT WATTAGE TO MEET THE MINIMUM APPLICABLE REQUIREMENTS NEEDED TO MEET RP-8-14, EQUIPPED WITH A BUILT-IN POWER DRIVER, AND SHALL BE DESIGNED FOR OPERATION ON A 120 VOLT, 60 HZ, AND SHALL OPERATE NORMALLY IN TEMPERATURES FROM -20 DEGREES CELSIUS TO 50 DEGREES CELSIUS.
- THE CORRELATED COLOR TEMPERATURE (CCT) SHALL BE 4000K. THE MINIMUM COLOR RENDERING INDEX (CRI) SHALL BE SYSTEM EFFICACY HAS BE NO LESS THAN 70 LM/W.
- ALL EQUIPMENT SHALL BE AS SPECIFIED HEREIN OR APPROVED EQUAL.
- THE LUMINAIRE SHALL CONTAIN A SURGE PROTECTION DEVICE (SPD) TO PROTECT ALL ELECTRICAL COMPONENTS FROM HARMFUL LINE TRANSIENT VOLTAGE SURGES AS A RESULT OF UTILITY LINE SWITCHING, LIGHTNING STRIKES, OR OTHER ELECTRICAL SUPPLY SYSTEM DISTURBANCES. THE SPD SHALL MEET A 6KV, 3KA SURGE LEVEL AND MEET APPLICATION AND TESTING REQUIREMENTS AS PER ANSI/IEEE C.62.41.2 FOR CATEGORY C-LOW OPERATION AND ANSI/IEEE C62.45.
- THE SPD SHALL BE MOUNTED SUCH THAT IT IS EASILY ACCESSIBLE AND REPLACEABLE.
- ALL PROPOSED LIGHTING TO BE NIGHT SKY FRIENDLY TYPE.
- MOUNTING HEIGHT FOR ALL LIGHT FIXTURES TO NOT BE IN EXCESS OF 9200mm ABOVE GRADE.
- ALL LIGHTS SHALL BE EQUIPPED WITH AUTOMATIC TIMING DEVICES WHICH TURN OFF THE OUTDOOR LIGHTS BETWEEN 11.PM AND SUNRISE.



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1	AUG.16.19	ISSUED FOR SPA APPROVAL		WT	JG
No.	DATE	REVISIONS		INITIAL	CHECKED

**GAMA Engineering Inc.**  
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CLIENT/OWNER:  
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138 EARLTON ROAD  
SCARBOROUGH, ONTARIO M1T 2R9

PROJECT/ADDRESS:  
**575 KING STREET EAST,  
GANANOQUE, ONTARIO**

TITLE:  
**PROPOSED SITE PLAN**

DESIGN:	JG	DWN BY:	AA	DRAWING No.
SCALE:	AS SHOWN	DWG. FILE:	1830-ESP-01	<b>ESP-01</b>
DATE:	JUL.10.18	PROJ. No.:	1830	

**1 SITE PLAN**  
SP-01 SCALE: 1:200