



Staff Report

TO: Honorable Mayor and Members of the Town Council
FROM: Sean Rabé, Town Manager
DATE: May 11, 2021
RE: Authorization for Traffic Light Work

Recommendation

Staff recommends the Town Council authorize the Town Manager to sign the two attached quotes from Bear Electrical Solutions (BES) for pedestrian crossing system improvements on Taylor Road (\$71,921.31) and speed feedback signs on Rutherford Canyon Road (\$18,872.94), plus a 10 percent contingency for both projects. The total amount for both projects plus contingencies would be \$99,983.69. Funding will come from transportation reserves.

Issue Statement and Discussion

As Council knows, the Taylor Road Phase I and II projects were completed about two years ago. The in-ground lighted crosswalks have been an ongoing problem since the project was first constructed. The former Town Engineer/Public Works Director had the in-ground lights replaced at least twice, on warranty, before the warranty ran out. Unfortunately, we continue to have problems with the lights, prompting Staff to put signs out at each crosswalk to warn pedestrians that the lights may not function properly.

To rectify this issue, Public Works Director David Strock reached out to the Town's on-call traffic lighting contractor, Bear Electrical Solutions (BES). Staff and BES recommends abandoning the in-ground crosswalk lights (in place) and, instead, installing post-mounted pedestrian warning lights at each crosswalk (see Attachment B for detail). The cost of this work is \$71,921.31. Staff proposes a 10 percent contingency, for a total project cost of \$79,113.45.

Staff has also been contacted by the Homeowner's Association at Sierra de Montserrat regarding ongoing speeding issues on Rutherford Canyon Road. Pedestrians in that area have reported two near accidents due to speeding cars on Rutherford Canyon Road.

As a short-term speed reduction measure, the HOA and Staff propose the installation of two speed feedback signs on Rutherford Canyon Road. The cost of this work is \$18,872.94. Again, Staff proposes a 10 percent contingency for a total project cost of \$20,870.24.

Staff is prepared to answer any questions you may have.

CEQA Requirements

There are no CEQA implications associated with the recommended action.

Financial and/or Policy Implications

The total amount for both projects plus contingencies would be \$99,983.69. Funding will come from transportation reserves.

Attachments

- A. Resolution
- B. Taylor Road Crosswalk Improvements Quote
- C. Taylor Road Crosswalk Detail
- D. Rutherford Canyon Speed Feedback Sign Quote

TOWN OF LOOMIS

RESOLUTION NO. 21 - ____

**RESOLUTION OF THE TOWN COUNCIL OF THE TOWN OF LOOMIS
AUTHORIZING THE TOWN MANAGER TO APPROVE WORK TO BE DONE BY
BEAR ELECTRICAL SOLUTIONS (BES) FOR PEDESTRIAN CROSSING SYSTEM
IMPROVEMENTS ON TAYLOR ROAD AND SPEED FEEDBACK SIGNS
ON RUTHERFORD CANYON ROAD**

WHEREAS, the Taylor Road Phase I and II projects were completed around two years ago; and

WHEREAS, the in-ground lighted crosswalks on Taylor Road have been an ongoing problem since the project was first constructed, the in-ground lights were replaced before the warranty ran out, and signs needed to be put out at each crosswalk to warn pedestrians that the lights may not function properly; and

WHEREAS, to rectify this issue Bear Electrical Solutions (BES) proposes to abandon the in-ground crosswalk lights and install post-mounted pedestrian warning lights at each crosswalk in the amount not-to-exceed \$79,113.45; and

WHEREAS, there has been speeding issues on Rutherford Canyon Road and pedestrians have reported two near accidents due to speeding cars; and

WHEREAS, as a short-term speed reduction measure, the HOA at Sierra de Montserrat, proposes the installation of two speed feedback signs on Rutherford Canyon Road in the amount not-to-exceed \$20,870.24.

NOW, THEREFORE, IT IS HEREBY RESOLVED that the Town Council of the Town of Loomis hereby authorizes the Town Manager to sign the quotes from Bear Electrical Solutions to abandon the in-ground crosswalk lights and install post-mounted pedestrian warning lights at each crosswalk on Taylor Road; and install two speed feedback signs on Rutherford Canyon Road for the total amount of both projects not-to-exceed \$99,983.69.

PASSED AND ADOPTED by the Town Council of the Town of Loomis on this 11th day of May, 2021 by the following vote:

AYES:

NOES:

ABSTAINED:

ABSENT:

Mayor

ATTEST:

Town Clerk



Contractors License No. 982079
 A - General Engineering
 C-10 High Voltage Electrical
 C-31 - Work Zone Traffic Control
 D-31 Pole Installation and Maintenance
 DIR# 1000002158
 SBE# 1752478

1341 Archer Street, PO Box 924, Alviso, CA 95002-0924
 Tel: 408-449-5178 Fax: 408-449-5147

Quote

DATE: 3/20/2021	TO: David Strock
FROM: Derek Long	COMPANY: Town of Loomis
PHONE: (408) 449-5178	PHONE: (916) 663-7502
FAX: (408) 449-5147	EMAIL: dstrock@loomis.ca.gov
BID/PROJECT: Loomis- Taylor Rd PED project	
PROPOSAL# WO-00167720	

Our quote is valid for: 30 days, expiring on: 04/19/2021

We are pleased to offer our quotation for the above referenced project as follows:

Site: TAYLOR RD.

Scope Summary: FURNISH AND INSTALL (5) SOLAR PEDESTRIAN CROSSING SYSTEMS. VERIFY OPERATION NEW RRFB EQUIPMENT - 10 each Top of Pole Control Cabinet w/ 50 Watt Solar Panel - 10 each 40 ah Batteries - 20 each Single Sided RRFB w/ Side Pedestrian Light (Black) - 10 each 9"x12" Side of Pole PPB Frames (Black) - 10 each 9"x12" R10-25 PPB Signs - 10 each 30"x30" FYG W11-2 Signs - 5 each 24"x12" FYG W16-7p (L) Signs - 5 each 24"x12" FYG W16-7p (R) Signs - 40 each SS Sign Brackets - 6 each 14' 1-B Poles - 6 each 1-B Flanges - 2 sets 1-B Anchor Bolts. RE-USED Equipment: - 10 each Bulldog PPB (Yellow) - 10 each 30"x30" FYG W11-2 Signs - 5 each 24"x12" FYG W16-7p (L) Signs - 5 each 24"x12" FYG W16-7p (L) Signs - 4 each 14' 1-B Poles - 4 each 14' 1-B Flanges - 8 sets 1-B Anchor Bolts

Exclusions: Traffic Control Plans, Any and All Licenses/Permits/Fees, Engineering, CCIP/OCIP Costs, Bonds.

ESTIMATE

Item	Description	Estimated Quantity	Estimate Price Per Unit	Total Estimated Price
LABOR		1	\$12,709.38	\$12,709.38
EQUIPMENT		1	\$3,172.50	\$3,172.50
MATERIAL		1	\$56,039.43	\$56,039.43
Subtotal:			\$71,921.31	

**Customer
Signature:**

Date: _____

TERMS AND CONDITIONS

Terms and Conditions of this proposal are per the existing maintenance agreement.

BES would like to thank you for the opportunity to provide you with this proposal.

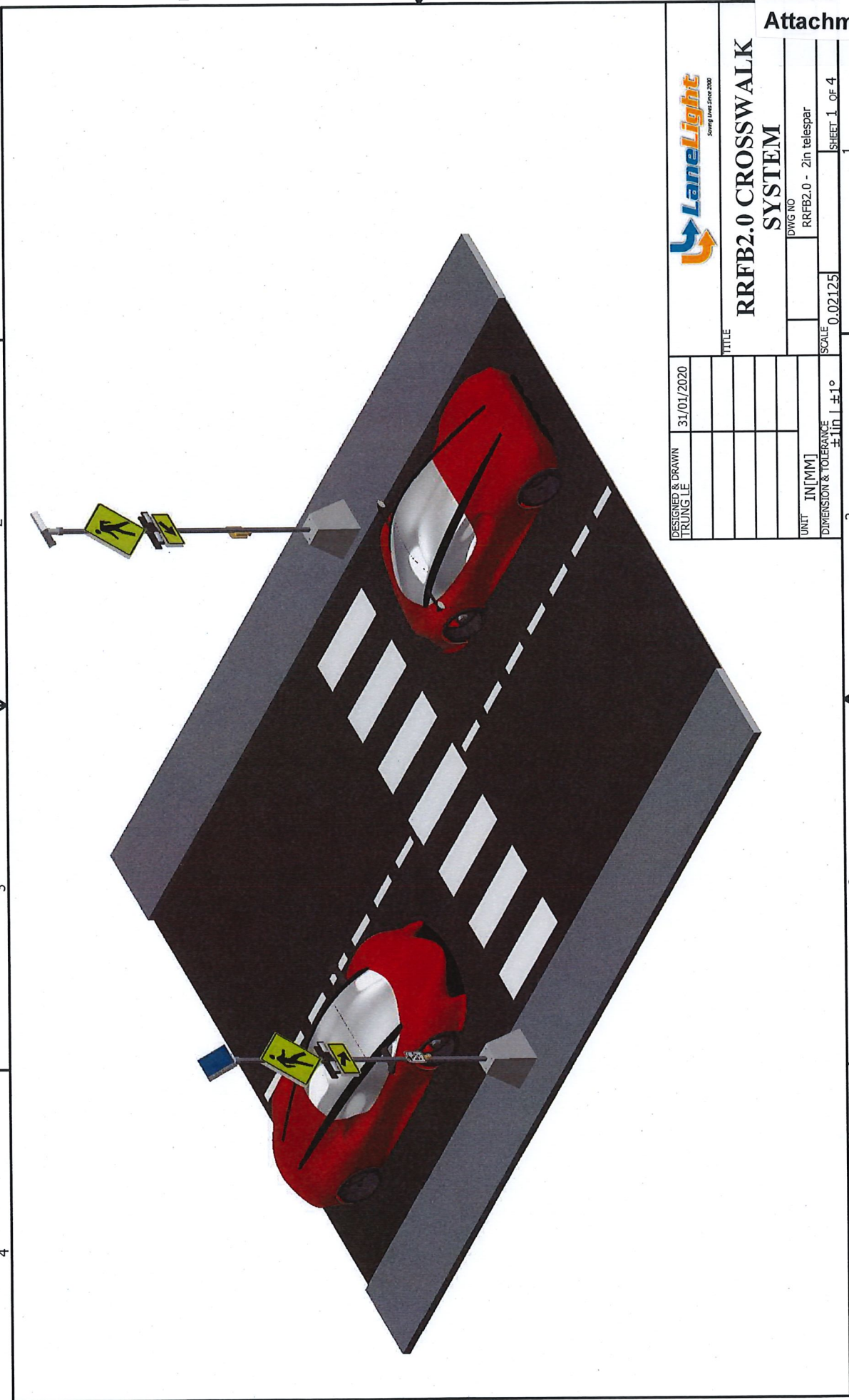
Please give us a call with any questions or concerns.

1

2

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4



DESIGNED & DRAWN TRUNG LE	31/01/2020	LaneLight <small>Since 1984, Since 2000</small>	
		TITLE	
		RRFB2.0 CROSSWALK SYSTEM	
		DWG NO	RRFB2.0 - 2in telespar
UNIT IN[MM]		SCALE	0.02125
DIMENSION & TOLERANCE	±.01	±1°	SHEET 1 OF 4

Attachment C

2

3

4

4

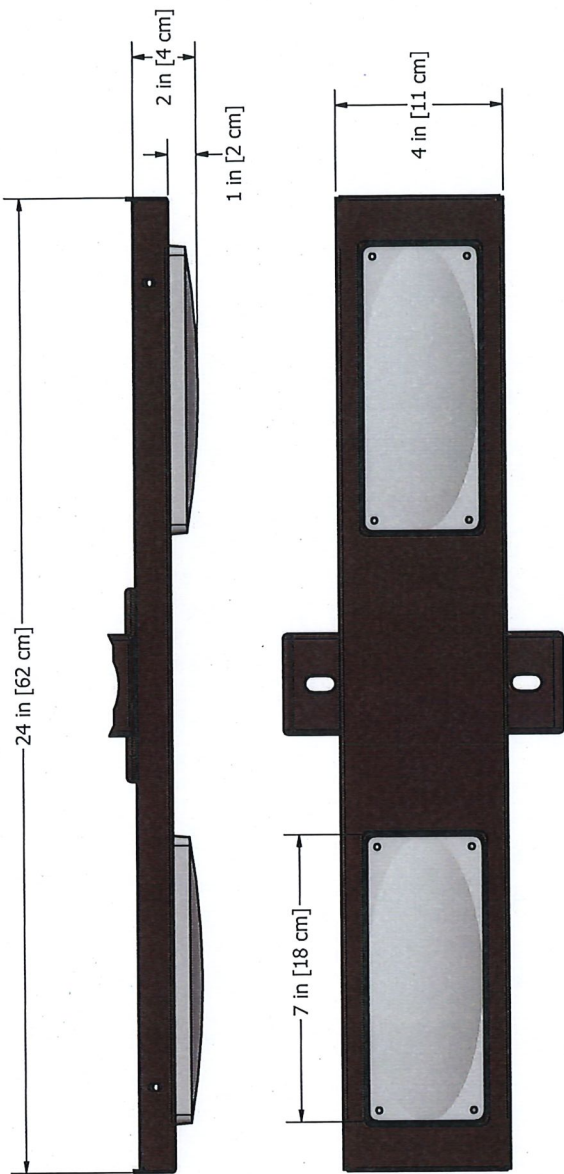
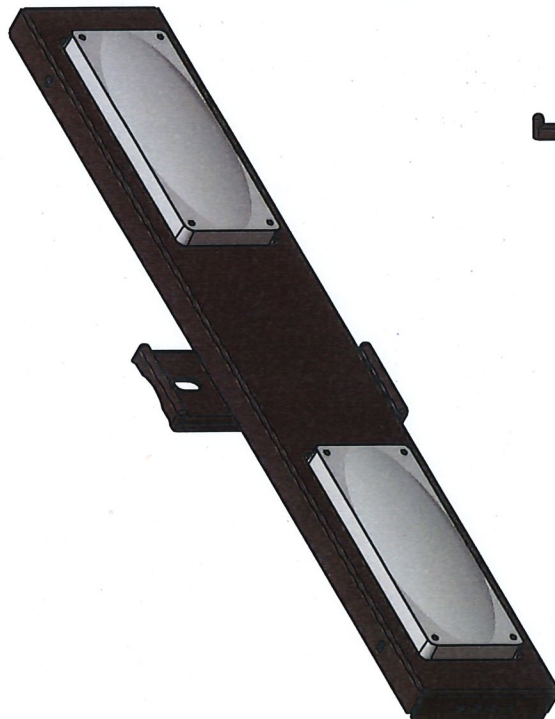
Taylor @ 5 Crossings

1

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4



PEDESTRIAN FACING LEDs INDICATING ACTIVATION
[INCLUDED]

RRFB

DESIGNED & DRAWN TRUNG LE	31/01/2020	LaneLight Solving Smart Cities Since 2000	
		TITLE	
		RRFB2.0 CROSSWALK SYSTEM	
UNIT IN[MM]		DWG NO RRFB2.0 - 2in telespar	REV 1
DIMENSION & TOLERANCE ±.in ±1°		SCALE 1 / 3	SHEET 3 OF 4

1

2

3

4

Rectangular Rapid Flashing Beacon (RRFB) Light Bars

OVERVIEW

LaneLight™ RRFB light bars feature large LED arrays that meet or exceed MUTCD requirements for crosswalk warning systems. When activated, the main LED arrays flash a MUTCD compliant pattern, and side-mounted LED arrays flash simultaneously to advise pedestrians that the main RRFBs have been activated and are visible to drivers approaching the crosswalk.

CONFIGURATIONS AND DIMENSIONS

Figure 1: Front elevation

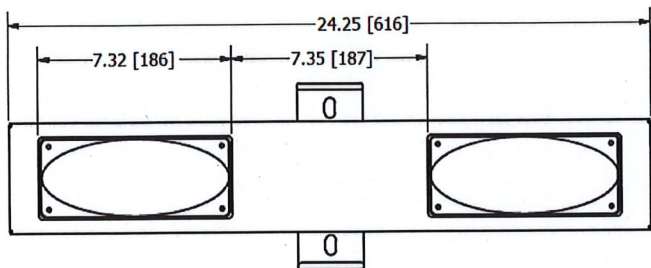
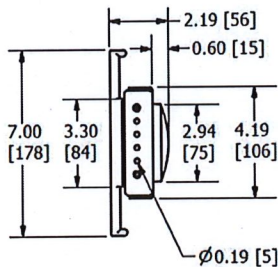


Figure 2: Side elevation



Dimensions shown as in. [mm].

SPECIFICATIONS

Operating Voltage	10 – 30VDC; max current 1.25A per beacon
Power Consumption	13W unregulated, 6W regulated
Flash Pattern	MUTCD compliant (WW+S, Classic RRFB)
LED Intensity	Meets or exceeds SAE J595 class 1
LED Chromaticity	Meets SAE J578
LED Color	Amber; Red available for custom applications
LED Light Distribution	120° horizontal, 30° vertical
LED Brightness Control	>600Lux day; >380Lux night Optional unregulated 1200Lux
LED Lens Material	Clear polycarbonate, UV and abrasion resistant
LED Lightbar Material	Aluminum, powder coated black finish; custom colours available
Pedestrian LEDs	4 standard end-mounted Ø 1/4 in. pedestrian notification LEDs
Weight	4.8 lbs. [2.2 kg]
Operating Temperature	-40°F to +165°F [-40°C to +74°C]
Mounting	Bolting or banding onto standard traffic poles Will mount onto poles as small as telespar
Warranty	Five year limited warranty for defects in manufacturing, factory assembly and materials only; the warranty excludes damage caused by vehicles or vandalism

CONTACT INFORMATION

To order, or for more information, contact ITEM/LaneLight:

Unit 16 – 755 Vanalman Avenue

Victoria, BC V8Z 3B8 Canada

Toll-Free: 1-866-466-4836

Fax: 250-381-4830

info@lanelight.com

www.lanelight.com



Top of Pole Control Cabinet, ASM-EN-221405-TOP

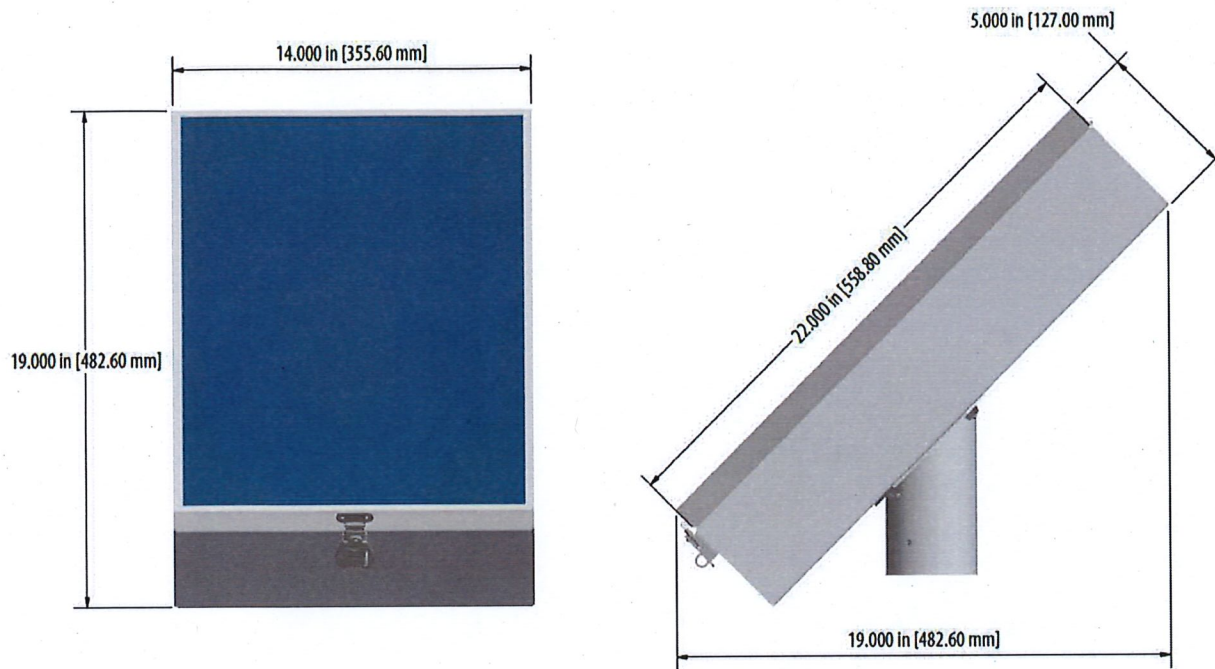


Figure 1: 20Ah battery/40W solar panel cabinet configuration

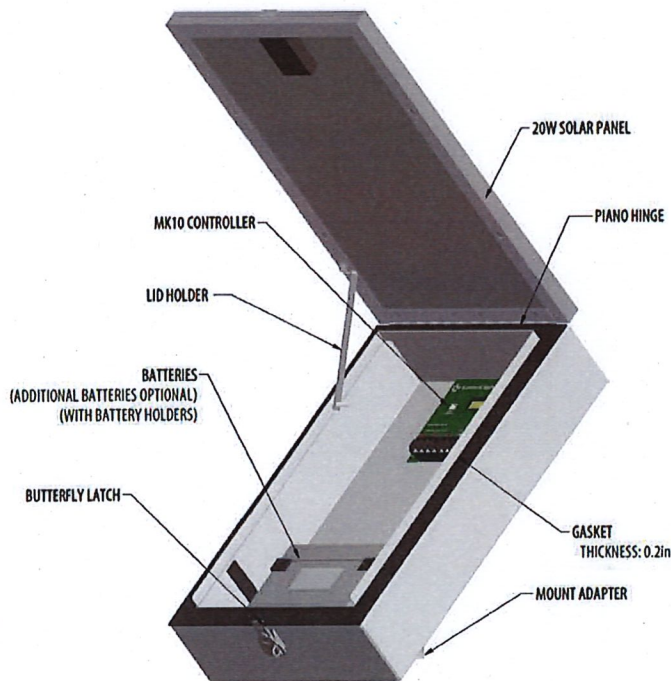


Figure 2: Internal view, 20Ah/40W cabinet configuration

SPECIFICATIONS

Material	0.125 in. 5052 Aluminum
Dimensions	Refer to drawings, units shown as in. [mm]
Construction	Welded box construction with gasket Top-mounted lid with piano hinge
Hardware	Butterfly latch, spring lid support
Mounting Options	Top of pole mount adapter (max. pole \varnothing 4.5 in.) Telespar adapter (1.5 - 2.5 in.), #1-1/2 in. nut Custom arm extension for side of pole mount
Weight	With 20Ah battery: 18 lb (8.2 kg) With 40Ah battery: 26 lb (11.8 kg)
System Controller	LaneLight MK10 system controller
Solar Panel Options	20W or 50W (mounted on enclosure lid)
Battery Options	12V/20Ah lithium battery 12V/40Ah lithium battery
Max. Wind Load	Rated for wind speeds up to 170 mph (274 km/h)
Standards Compliance	Manufactured to NEMA 3R specifications

CONTACT INFORMATION

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Toll-Free: 1-866-466-4836
Fax: 250-381-4830
Info@lanelight.com
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Top of Pole Control Cabinet, ASM-EN-221405-TOP

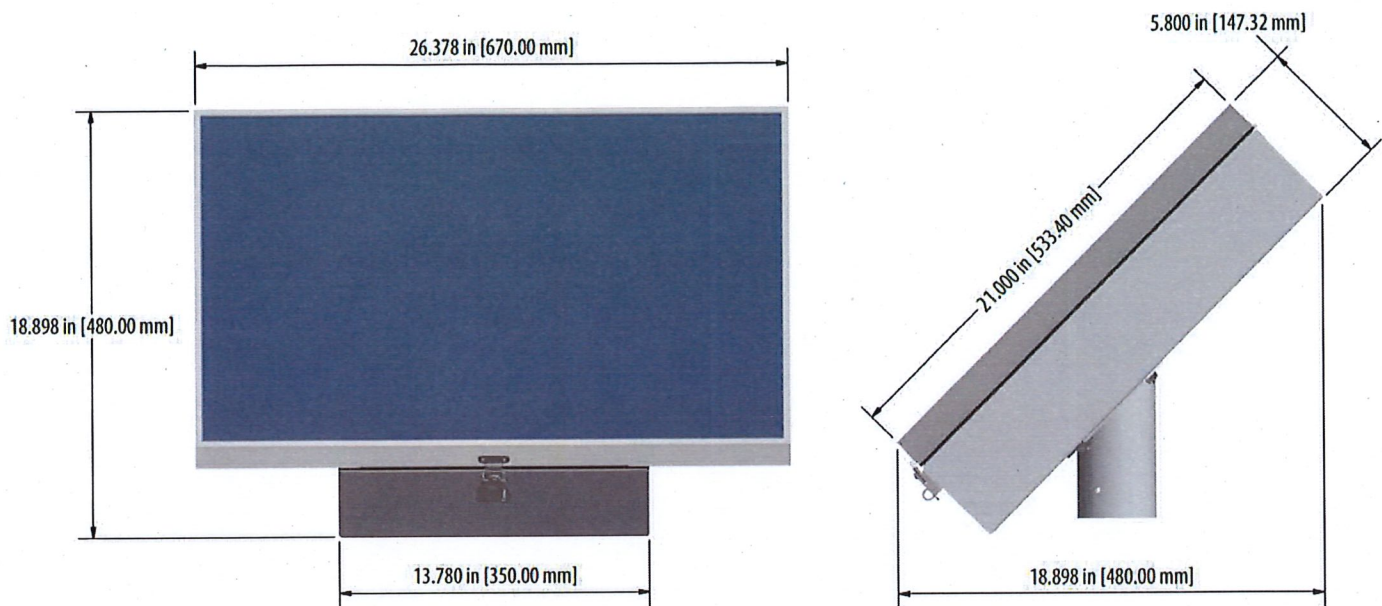


Figure 3: 40Ah battery/50W solar panel cabinet configuration

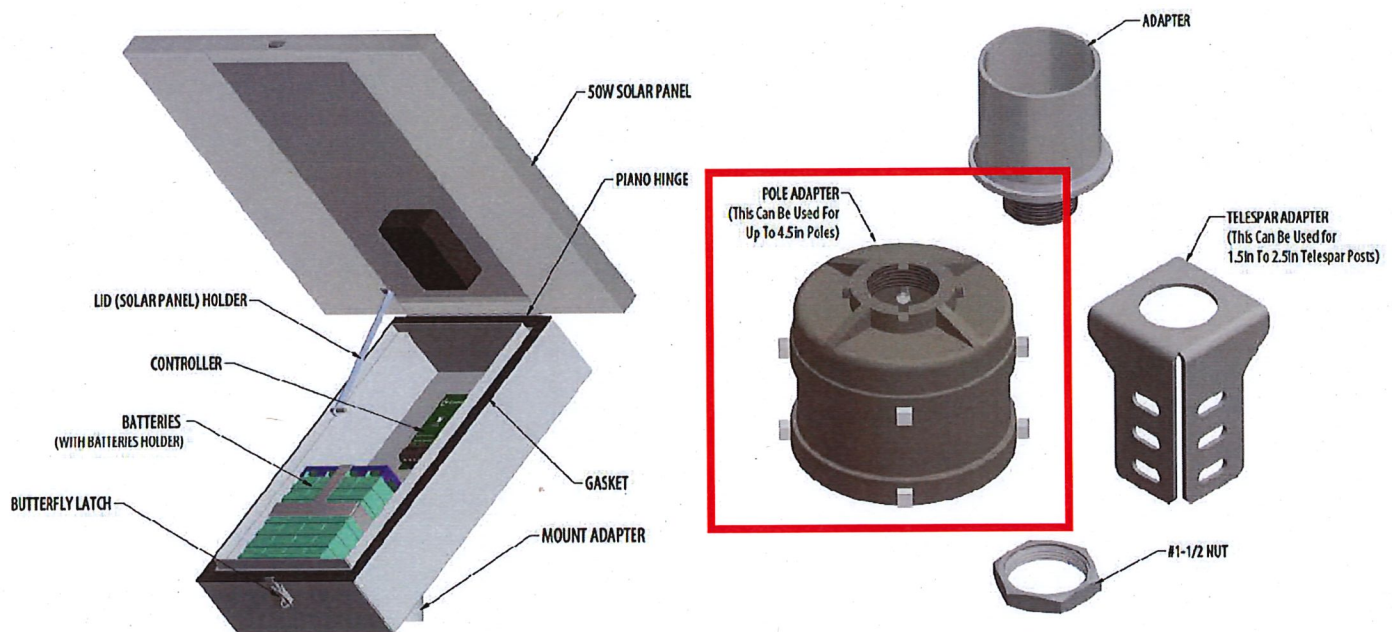
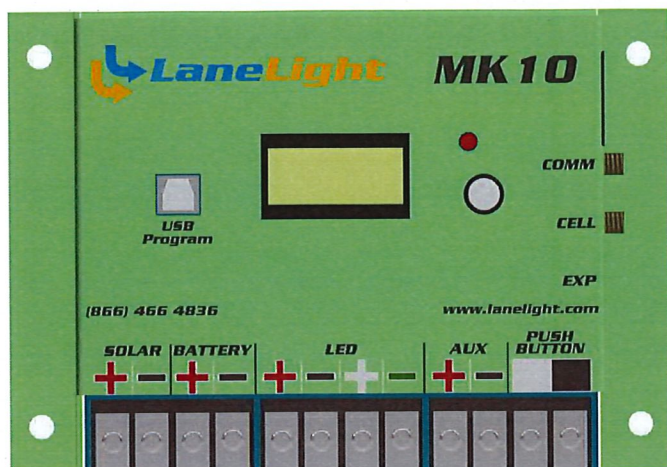


Figure 4: Internal view, 40Ah/50W cabinet configuration

Figure 5: Pole adapter hardware

LaneLight Mk10 System Controller



OVERVIEW

The LaneLight™ MK10 Panel Mounted Controller is a solid-state programmable controller designed for use with RRFB bars and beacons. With the addition of the MLK driver extension, the MK10 can be used with MLK150 LED in-road markers as well. The controller monitors the output currents to protect the system against damage.

The MK10 controller contains the required hardware and software to interpret output signals from standard contact closure switches. Upon detection of a trigger event, the controller can output activation signals to RRFB fixtures according to the parameters defined in the controller's configuration menu. Activation signals to RRFB fixtures can also be managed by the onboard scheduler, which can be programmed at the factory to match site requirements.

The MK10 can also be provided in a version that can interpret activation signals from an external 120VAC power source, i.e. typical traffic signal interface controller. In this case, inputs are connected to the load relays that drive the signal heads on the poles and activate the controller in conjunction with the required signal phase (red, green, or amber).

The MK10 controller mounts horizontally or vertically and is designed for integration into LaneLight side of pole or top of pole control cabinets, and it can be mounted in most traffic cabinets due to its small footprint.

Configuration and diagnostics are managed through menu options selectable on the MK10 LCD display. Access to programming and diagnostics by serial port connection via USB is standard; Bluetooth™ is optional.

The MK10 controller incorporates an internal MPPT solar charge regulator, factory configured to charge lithium iron polymer (LiFePO4) batteries from a solar panel (up to 55 Watt panel). A sealed lead acid (SLA) configuration of this internal charger is available.

The MK10 manages the dynamic brightness adjustment of the LED load by detecting the ambient light level from the solar panel or from a connected photosensor (in AC applications), then adjusting the LED brightness based on the configuration settings.

SPECIFICATIONS

Dimensions	5.097 x 7.350 x 1.540 in. (129.45 x 186.69 x 39.12 mm)
Mounting	Panel mount, horizontal or vertical orientation
Material	Anodized Aluminum enclosure
Operating Voltage	12VDC (10.0V – 14.6V)
Power Source Options	DC/Battery or 80-264VAC with optional AC/DC converter
Power Consumption	Active: Depends on system load Idle system: 0.18W With MLK extension: Adds activation load Idle system with cloud: 0.96W
Maximum Load	12A per output channel
Surge Protection	External
Solar Charge Controller	Internal MPPT solar charge controller, factory configured to charge LiFePO4 batteries (max. 55W solar panel) Optional sealed lead acid battery configuration available
LED Brightness Control	Ambient light detection via the solar panel or photosensor for AC applications
Configuration and Diagnostics	2x8 character LCD display, easy menu access with pushbutton dial Standard USB-B port access with external computer. Optional Bluetooth™
Communication Options	Stand-alone, hard-wired to flasher devices Unit to unit wireless communication: Frequency: ISM-B and 2.4GHz (standard) or 900MHz (optional)/Range: Up to 1 km (3200 ft) with line of sight Number of comm IDs/channels: 24 Optional GPS receiver for time and location Optional cellular network connectivity for LaneLightConnect service
Environment	Operating temp: -30°F to 165°F [-30°C to +74°C] Storage temp: -50°F to 200°F [-45.5°C to +93.3°C] Operating RH: 0% to 95% non-condensing
Standards Compliance	NEMA TS2
Microprocessor	16-Bit RISC-CPU (Extreme Low Power)
Input Circuits	External contact closure (mechanical or electronic switch) Input Impedance: >1kΩ ESD protection MIL-STD-883H (HBM)
Output Circuits	2 x high side switched, open and short circuit detection 1 auxiliary relay dry contact, rating 60VDC/400mA, selectable NO or NC during activation
Scheduler Activation	Optional activation via onboard scheduler for school zones or similar applications
Activation Time	1 – 120 seconds
Warranty	5 year limited warranty for defects in manufacturing, factory assembly and materials only; excludes batteries and damage caused by vehicles or vandalism

CONTACT INFORMATION

To order, or for more information, contact ITEM/LaneLight:

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Victoria, BC V8Z 3B8 Canada
Toll-Free: 1-866-466-4836
Fax: 250-381-4830
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Contractors License No. 982079
 A - General Engineering
 C-10 High Voltage Electrical
 C-31 - Work Zone Traffic Control
 D-31 Pole Installation and Maintenance
 DIR# 1000002158
 SBE# 1752478

1341 Archer Street, PO Box 924, Alviso, CA 95002-0924
 Tel: 408-449-5178 Fax: 408-449-5147

Quote

DATE: 3/4/2021	TO: David Strock
FROM: Derek Long	COMPANY: Town of Loomis
PHONE: (408) 449-5178	PHONE: (916) 663-7502
FAX: (408) 449-5147	EMAIL: dstrock@loomis.ca.gov
BID/PROJECT: Loomis- Install Solar Radar Speed Feedback Signs Rutherford Canyon Rd	
PROPOSAL# WO-00166932	

Our quote is valid for: 30 days, expiring on: 04/03/2021

We are pleased to offer our quotation for the above referenced project as follows:

Site: OTHER LOOMIS TS

Scope Summary: DIG AND POUR (2) 1B FOUNDATIONS. AFTER FOUNDATIONS CURE, RETURN TO FURNISH AND INSTALL 2 COMPLETE SOLAR RADAR SPEED FEEDBACK SIGNS COMPLETE WITH 14' B POLES, DIGIT SIGN RSFS W/23" X 29" YOUR SPPED WRAPAROUND SIGN (BLACK ON WHITE), 20W SOLAR PANEL W/ TOP OF POLE MOUNT, AND 24" X 36" R2-1 (25 MPH) SPEED LIMIT SIGN W/ SIGN BRACKETS. MAKE ALL LANDINGS AND VERIFY OPERATION

Exclusions: Traffic Control Plans, Any and All Licenses/Permits/Fees, Engineering, CCIP/OCIP Costs, Bonds.

ESTIMATE

Item	Description	Estimated Quantity	Estimate Price Per Unit	Total Estimated Price
LABOR		1	\$5,667.25	\$5,667.25
EQUIPMENT		1	\$1,534.00	\$1,534.00
MATERIAL		1	\$11,771.69	\$11,771.69
Subtotal:			\$18,972.94	

**Customer
Signature:**

Date: _____

TERMS AND CONDITIONS

Terms and Conditions of this proposal are per the existing maintenance agreement.

BES would like to thank you for the opportunity to provide you with this proposal.

Please give us a call with any questions or concerns.