

# **Lighting Contractor Scope of Work**

**Provided for: Las Virgenes Municipal Water  
District HQ and Tapia Buildings**

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## Part I: Technical Specifications

The County of Los Angeles/Southern California Regional Energy Network (SoCalREN), as well as TRC as the assigned technical consultant, remains product and vendor neutral. The specified products represent examples of the possible products that could be used for the project. The products were chosen and are recommended based on their technological feasibility, efficiency and impact on the project economics. It should be noted that if the Agency likes to move forward with products other than those proposed in this document, the analysis would need to be revised based on updated product performance and costs and the project financials may change accordingly.

The Technical Specifications are in accordance to the Audit and Project Proposal as presented to the Agency. The scope represented by the replacement table below, Table 1, is to be the basis for the Contractor's Price Proposal and any deviation or product substitution is to be reflected here and be approved by the Agency before a Price Proposal is developed.

## Summary of Scope of Work

A room-by-room description of the scope is provided in Attachment A, the Lighting Audit Table, which contains the locations and specific fixture details of the following retrofit measures:

- Provide material submittals for District's approval prior to placement of orders.
- Provide detailed construction schedule that identify the date of each fixture replacement of time of construction during in order to coordinate District staff's downtime for the replacement work.
- Replace exterior high intensity discharge (HID) area fixtures with light-emitting diode (LED) fixtures.
- Replace exterior HID wall mounted fixtures with LED fixtures.
- Replace exterior linear fluorescent fixtures with LED fixtures.
- Replace exterior screw-in incandescent lamps with LED lamps.
- Replace interior ceiling mounted or pendant HID fixtures with LED fixtures.
- Replace interior wall mounted HID fixtures with LED fixtures.
- Replace or retrofit interior linear fluorescent fixtures with LED fixtures and retrofit kits.
- Replace interior screw-in incandescent lamps with LED lamps.
- Install occupancy sensors in all appropriate rooms, as recommended in the attached spreadsheet.
- Removal of all parts of old fixtures no longer in use.

## Technical Specifications

- 1) The Contractor shall install lighting equipment per Attachment A – Lighting Audit Table and per Replacement Schedule as noted on Table 1 (below). Attachment A should also be used to document as-built conditions and support the project close out.

**Table 1: Specifications per Retrofit Description**

Fixture Retrofit Code	Baseline Description	Proposed Description
F31C	3ft 22W T8 lamp in Indirect Cove Fixture	GE 13W 36" T8 LED tube type C (LED13T8/3/840)
F41R	4ft 32W T8 lamp in Recessed Fixture	GE 13W 48" T8 LED tube type C (LED15T8/4/840)
CFL13	13W Screw-in CFL	CREE A19 LED, 9W (BA19-080500MF2)
F42SM	(2) 4ft 32W T8 lamp in Surface Mounted Fixture	Lithonia 32W Striplight (ZL1N-L48-3000LM-FST-MVOLT-40K-XX)
F42SM	(2) 4ft 32W T8 lamp in Surface Mounted Fixture	Lithonia 32W Striplight (ZL1N-L48-3000LM-FST-MVOLT-40K-XX)
F42RTDI	(2) 4ft 32W T8 lamp in 2x4 Recessed Troffer Direct Indirect Fixture	GE 13W 48" T8 LED tube type C (LED15T8/4/840)
F42RT14	(2) 4ft 32W T8 lamp in 1x4 Recessed Troffer Fixture	GE 13W 48" T8 LED tube type C (LED15T8/4/840)
F41RT14	4ft 32W T8 lamp in 1x4 Recessed Troffer Fixture	GE 13W 48" T8 LED tube type C (LED15T8/4/840)
F42PI	(2) 4ft 32W T8 lamp in Indirect Pendant Fixture	GE 13W 48" T8 LED tube type C (LED15T8/4/840)
RC18/2	(2) 18W CFL in Recessed Can Fixture	GE 18.5W Pin-Lamp (LED19GX24Q-V/840)
F32PI	(2) 3ft 22W T8 lamp in Indirect Pendant Fixture	GE 13W 36" T8 LED tube type C (LED13T8/3/840)
F41RT14	4ft 32W T8 lamp in 1x4 Recessed Troffer Fixture	GE 13W 48" T8 LED tube type C (LED15T8/4/840)
MR50	50W MR16 Lamp	GE 7W MR16 LED (LED7XD MR16-28335)
RC18/2	(2) 18W CFL in Recessed Can Fixture	GE 18.5W Pin-Lamp (LED19GX24Q-V/840)
F21CI	2ft 17W T8 lamp in Indirect Cove Fixture	GE 9W 24" T8 LED tube type C (LED9T8/2/840)
CFL18WM	18W Pin Based CFL in Wall Mounted Fixture	GE 18.5W Pin-Lamp (LED19GX24Q-V/840)
MR50	50W MR16 Lamp	GE 7W MR16 LED (LED7XD MR16-28335)
PAR50	50W PAR30 Lamp	CREE 10.5W PAR30 LED (BPAR30L-0803040C-12DE26-1C100)
F42CI	(2) 4ft 32W T8 lamp in Indirect Cove Fixture	GE 13W 48" T8 LED tube type C (LED15T8/4/840)
F31C	3ft 22W T8 lamp in Indirect Cove Fixture	GE 13W 36" T8 LED tube type C (LED13T8/3/840)
F41R	4ft 32W T8 lamp in Recessed Fixture	GE 13W 48" T8 LED tube type C (LED15T8/4/840)
F41SM	4ft 32W T8 lamp in Surface Mounted Fixture	GE 13W 48" T8 LED tube type C (LED15T8/4/840)

<b>Fixture Retrofit Code</b>	<b>Baseline Description</b>	<b>Proposed Description</b>
F42RT24	(2) 4ft 32W T8 lamp in 2x4 Recessed Troffer Fixture	Lithonia 38W Troffer Retr Kit (2VTL4R 40L ADP EZ1 LP840)
HPS35RC-Ext	35W HPS Recessed Can Fixture, Exterior	CREE CR6, 12W (CR6-800L-40K)
CFL32WP	32W Pin Based CFL in Wall Mounted Fixture	GE 18.5W Pin-Lamp (LED19GX24Q-V/840)
F42RT14	(2) 4ft 32W T8 lamp in 1x4 Recessed Troffer Fixture	GE 13W 48" T8 LED tube type C (LED15T8/4/840)
RC18/2	(2) 18W CFL in Recessed Can Fixture	GE 18.5W Pin-Lamp (LED19GX24Q-V/840)
F41RT14	4ft 32W T8 lamp in 1x4 Recessed Troffer Fixture	GE 13W 48" T8 LED tube type C (LED15T8/4/840)
F42RT14	(2) 4ft 32W T8 lamp in 1x4 Recessed Troffer Fixture	GE 13W 48" T8 LED tube type C (LED15T8/4/840)
RC18/2	(2) 18W CFL in Recessed Can Fixture	GE 18.5W Pin-Lamp (LED19GX24Q-V/840)
MR50	50W MR16 Lamp	GE 7W MR16 LED (LED7XDMR16-28335)
F42PI	(2) 4ft 32W T8 lamp in Indirect Pendant Fixture	GE 13W 48" T8 LED tube type C (LED15T8/4/840)
RC18/2	(2) 18W CFL in Recessed Can Fixture	GE 18.5W Pin-Lamp (LED19GX24Q-V/840)
F42RT14	(2) 4ft 32W T8 lamp in 1x4 Recessed Troffer Fixture	GE 13W 48" T8 LED tube type C (LED15T8/4/840)
F41RT14	4ft 32W T8 lamp in 1x4 Recessed Troffer Fixture	GE 13W 48" T8 LED tube type C (LED15T8/4/840)
RC18/2	(2) 18W CFL in Recessed Can Fixture	GE 18.5W Pin-Lamp (LED19GX24Q-V/840)
F21C	2ft 17W T8 lamp in Cove Fixture	GE 9W 24" T8 LED tube type C (LED9T8/2/840)
F31C	3ft 22W T8 lamp in Indirect Cove Fixture	GE 13W 36" T8 LED tube type C (LED13T8/3/840)
F41RT14	4ft 32W T8 lamp in 1x4 Recessed Troffer Fixture	GE 13W 48" T8 LED tube type C (LED15T8/4/840)
F41RT	4ft 32W T8 lamp in Recessed Fixture	GE 13W 48" T8 LED tube type C (LED15T8/4/840)
F41RT	4ft 32W T8 lamp in Recessed Fixture	GE 13W 48" T8 LED tube type C (LED15T8/4/840)
F41RT	4ft 32W T8 lamp in Recessed Fixture	GE 13W 48" T8 LED tube type C (LED15T8/4/840)
F42RT14	(2) 4ft 32W T8 lamp in 1x4 Recessed Troffer Fixture	GE 13W 48" T8 LED tube type C (LED15T8/4/840)
F42RT14	(2) 4ft 32W T8 lamp in 1x4 Recessed Troffer Fixture	GE 13W 48" T8 LED tube type C (LED15T8/4/840)
F42RT24	(2) 4ft 32W T8 lamp in 2x4 Recessed Troffer Fixture	Lithonia 38W Troffer Retr Kit (2VTL4R 40L ADP EZ1 LP840)
RC18/2	(2) 18W CFL in Recessed Can Fixture	GE 18.5W Pin-Lamp (LED19GX24Q-V/840)
F21C	2ft 17W T8 lamp in Cove Fixture	GE 9W 24" T8 LED tube type C (LED9T8/2/840)
F31C	3ft 22W T8 lamp in Indirect Cove Fixture	GE 13W 36" T8 LED tube type C (LED13T8/3/840)
F41RT-28	4ft 28W T8 lamp in Recessed Fixture	GE 13W 48" T8 LED tube type C (LED15T8/4/840)
F41POS	4ft 32W T8 lamp in Pendant Open Strip Fixture	GE 13W 48" T8 LED tube type C (LED15T8/4/840)
RC18/2	(2) 18W CFL in Recessed Can Fixture	GE 18.5W Pin-Lamp (LED19GX24Q-V/840)
No Change	No Change	No Change
F42RT14	(2) 4ft 32W T8 lamp in 1x4 Recessed Troffer Fixture	GE 13W 48" T8 LED tube type C (LED15T8/4/840)

<b>Fixture Retrofit Code</b>	<b>Baseline Description</b>	<b>Proposed Description</b>
F32PI	(2) 3ft 22W T8 lamp in Indirect Pendant Fixture	GE 13W 36" T8 LED tube type C (LED13T8/3/840)
RC18/2	(2) 18W CFL in Recessed Can Fixture	GE 18.5W Pin-Lamp (LED19GX24Q-V/840)
F41RT14-28	4ft 28W T8 lamp in 1x4 Recessed Troffer Fixture	GE 13W 48" T8 LED tube type C (LED15T8/4/840)
F41R	4ft 32W T8 lamp in Recessed Fixture	GE 13W 48" T8 LED tube type C (LED15T8/4/840)
MR50	50W MR16 Lamp	GE 7W MR16 LED (LED7XDMR16-28335)
F22CI-T5	(2) 2ft 14W T5 lamps in Indirect Cove Fixture	GE 9W 24" T8 LED tube type C (LED9T8/2/840)
F41CI	4ft 32W T8 lamp in Indirect Cove Fixture	GE 13W 48" T8 LED tube type C (LED15T8/4/840)
F42RT14	(2) 4ft 32W T8 lamp in 1x4 Recessed Troffer Fixture	GE 13W 48" T8 LED tube type C (LED15T8/4/840)
F42RT14	(2) 4ft 32W T8 lamp in 1x4 Recessed Troffer Fixture	GE 13W 48" T8 LED tube type C (LED15T8/4/840)
HPS35RC-Ext	35W HPS Recessed Can Fixture, Exterior	CREE CR6, 12W (CR6-800L-40K)
F42RT14	(2) 4ft 32W T8 lamp in 1x4 Recessed Troffer Fixture	GE 13W 48" T8 LED tube type C (LED15T8/4/840)
F42RTDI	(2) 4ft 32W T8 lamp in 2x4 Recessed Troffer Direct Indirect Fixture	GE 13W 48" T8 LED tube type C (LED15T8/4/840)
RC18/2	(2) 18W CFL in Recessed Can Fixture	GE 18.5W Pin-Lamp (LED19GX24Q-V/840)
RC18/2	(2) 18W CFL in Recessed Can Fixture	GE 18.5W Pin-Lamp (LED19GX24Q-V/840)
RC18/2	(2) 18W CFL in Recessed Can Fixture	GE 18.5W Pin-Lamp (LED19GX24Q-V/840)
F21C	2ft 17W T8 lamp in Cove Fixture	GE 9W 24" T8 LED tube type C (LED9T8/2/840)
F31C	3ft 22W T8 lamp in Indirect Cove Fixture	GE 13W 36" T8 LED tube type C (LED13T8/3/840)
F42RT24	(2) 4ft 32W T8 lamp in 2x4 Recessed Troffer Fixture	Lithonia 38W Troffer Retr Kit (2VTL4R 40L ADP EZ1 LP840)
F44RT24	(4) 4ft 28W T8 lamp in 2x4 Recessed Troffer Fixture	Lithonia 38W Troffer Retr Kit (2VTL4R 40L ADP EZ1 LP840)
F42RT24	(2) 4ft 32W T8 lamp in 2x4 Recessed Troffer Fixture	Lithonia 38W Troffer Retr Kit (2VTL4R 40L ADP EZ1 LP840)
F44RT24	(4) 4ft 28W T8 lamp in 2x4 Recessed Troffer Fixture	Lithonia 38W Troffer Retr Kit (2VTL4R 40L ADP EZ1 LP840)
F42RT24	(2) 4ft 32W T8 lamp in 2x4 Recessed Troffer Fixture	Lithonia 38W Troffer Retr Kit (2VTL4R 40L ADP EZ1 LP840)
F44RT24	(4) 4ft 28W T8 lamp in 2x4 Recessed Troffer Fixture	Lithonia 38W Troffer Retr Kit (2VTL4R 40L ADP EZ1 LP840)
F42RT24	(2) 4ft 32W T8 lamp in 2x4 Recessed Troffer Fixture	Lithonia 38W Troffer Retr Kit (2VTL4R 40L ADP EZ1 LP840)
F44RT24	(4) 4ft 28W T8 lamp in 2x4 Recessed Troffer Fixture	Lithonia 38W Troffer Retr Kit (2VTL4R 40L ADP EZ1 LP840)
F42RT24	(2) 4ft 32W T8 lamp in 2x4 Recessed Troffer Fixture	Lithonia 38W Troffer Retr Kit (2VTL4R 40L ADP EZ1 LP840)
F44RT24	(4) 4ft 28W T8 lamp in 2x4 Recessed Troffer Fixture	Lithonia 38W Troffer Retr Kit (2VTL4R 40L ADP EZ1 LP840)
F42RT24	(2) 4ft 32W T8 lamp in 2x4 Recessed Troffer Fixture	Lithonia 38W Troffer Retr Kit (2VTL4R 40L ADP EZ1 LP840)
F44RT24	(4) 4ft 28W T8 lamp in 2x4 Recessed Troffer Fixture	Lithonia 38W Troffer Retr Kit (2VTL4R 40L ADP EZ1 LP840)
F42RT24	(2) 4ft 32W T8 lamp in 2x4 Recessed Troffer Fixture	Lithonia 38W Troffer Retr Kit (2VTL4R 40L ADP EZ1 LP840)
F44RT24	(4) 4ft 28W T8 lamp in 2x4 Recessed Troffer Fixture	Lithonia 38W Troffer Retr Kit (2VTL4R 40L ADP EZ1 LP840)

<b>Fixture Retrofit Code</b>	<b>Baseline Description</b>	<b>Proposed Description</b>
F42RT14	(2) 4ft 32W T8 lamp in 1x4 Recessed Troffer Fixture	GE 13W 48" T8 LED tube type C (LED15T8/4/840)
F42RT14	(2) 4ft 32W T8 lamp in 1x4 Recessed Troffer Fixture	GE 13W 48" T8 LED tube type C (LED15T8/4/840)
F41SM-28	4ft 28W T8 lamp in Surface Mounted Fixture	GE 13W 48" T8 LED tube type C (LED15T8/4/840)
F42RT14	(2) 4ft 32W T8 lamp in 1x4 Recessed Troffer Fixture	GE 13W 48" T8 LED tube type C (LED15T8/4/840)
RC18/2	(2) 18W CFL in Recessed Can Fixture	GE 18.5W Pin-Lamp (LED19GX24Q-V/840)
RC18/2	(2) 18W CFL in Recessed Can Fixture	GE 18.5W Pin-Lamp (LED19GX24Q-V/840)
F21C	2ft 17W T8 lamp in Cove Fixture	GE 9W 24" T8 LED tube type C (LED9T8/2/840)
F31C	3ft 22W T8 lamp in Indirect Cove Fixture	GE 13W 36" T8 LED tube type C (LED13T8/3/840)
F41T8-Lamps	4ft 32W T8 lamp in Pendant Mounted Array Fixture	GE 13W 48" T8 LED tube type C (LED15T8/4/840)
F41T8-Lamps	4ft 32W T8 lamp in Pendant Mounted Array Fixture	GE 13W 48" T8 LED tube type C (LED15T8/4/840)
F41T8-Lamps	4ft 32W T8 lamp in Pendant Mounted Array Fixture	GE 13W 48" T8 LED tube type C (LED15T8/4/840)
F41SM	4ft 32W T8 lamp in Surface Mounted Fixture	GE 13W 48" T8 LED tube type C (LED15T8/4/840)
F41SM	4ft 32W T8 lamp in Surface Mounted Fixture	GE 13W 48" T8 LED tube type C (LED15T8/4/840)
INC60	60W Incandescent Screw-in Lamps	CREE A19 LED, 9W (BA19-080500MF2)
F41SM	4ft 32W T8 lamp in Surface Mounted Fixture	GE 13W 48" T8 LED tube type C (LED15T8/4/840)
CFL23CM	23W CFL in Ceiling Mounted Garage Fixtures	Lithonia 32W Striplight (ZL1N-L48-3000LM-FST-MVOLT-40K-XX)
IND200SM	200W Induction Surface Mounted Fixture	Lithonia 32W Striplight (ZL1N-L48-3000LM-FST-MVOLT-40K-XX)
LED 80	No Change	No Change
RC32	32W pin based CFL in Recessed Can	GE 18.5W Pin-Lamp (LED19GX24Q-V/840)
F41SM	4ft 32W T8 lamp in Surface Mounted Fixture	GE 13W 48" T8 LED tube type C (LED15T8/4/840)
F41SM	4ft 32W T8 lamp in Surface Mounted Fixture	GE 13W 48" T8 LED tube type C (LED15T8/4/840)
F41SM	4ft 32W T8 lamp in Surface Mounted Fixture	GE 13W 48" T8 LED tube type C (LED15T8/4/840)
F42RT14	(2) 4ft 32W T8 lamp in 1x4 Recessed Troffer Fixture	GE 13W 48" T8 LED tube type C (LED15T8/4/840)
F42RC	(2) 4ft 32W T8 lamp in Recessed Cove	GE 13W 48" T8 LED tube type C (LED15T8/4/840)
F42SM	(2) 4ft 32W T8 lamp in Surface Mounted Fixture	Lithonia 32W Striplight (ZL1N-L48-3000LM-FST-MVOLT-40K-XX)



- 2) Energy savings potential has been estimated using the proposed list of fixtures as shown on Table 2 (below).

**Table 2: Proposed Fixtures Wattage and Model Number**

<b>Proposed Fixtures</b>
Cooper Champ 113W VMV Class 1 Div 2 LED (VMV11L/UNV1)
Cooper Champ 29W VMV Class 1 Div 2 LED (VMV3L/UNV1)
Cooper Champ 43W VMV Class 1 Div 2 LED (VMV5L/UNV1)
Cooper Champ 62W VMV Class 1 Div 2 LED (VMV7L/UNV1)
Cooper Champ 85W VMV Class 1 Div 2 LED (VMV9L/UNV1)
CREE 10.5W PAR30 LED (BPAR30L-0803040C-12DE26-1C100)
Cree 101W LED Cobrahead (BXSPCHT3MEA40K-Uxxxxx)
Cree 25W Flood Light (FLD EDG N6 AA 02 E UL XX 350)
Cree 46W Flood Light (FLD EDG N6 AA 04 E UL XX 350)
Cree 53W LED Cobrahead (BXSPBHT3MEA40K-Uxxxxx)
CREE 9W BR30 LED (BBR30-06527FLF-12DE26-4U100)
CREE A19 LED, 13.5W (BA19-11050OMF)
CREE A19 LED, 9W (BA19-08050OMF2)
CREE CR6, 12W (CR6-800L-40K)
CREE EDG-SEC 66W (SEC-EDG-XXX-WM-06-E-UL-XX-350)
GE 12W Pin-Lamp (LED12G24Q-V/840)
GE 13W 36" T8 LED tube type C (LED13T8/3/840)
GE 13W 48" T8 LED tube type C (LED15T8/4/840)
GE 18.5W Pin-Lamp (LED19GX24Q-V/840)
GE 29W LED Wallpack (EWS2-0-A7-D1-40)
GE 35W Canopy (ECB-B-0-A5-F-5-40-1-A)
GE 7W MR16 LED (LED7XD MR16-28335)
GE 9W 24" T8 LED tube type C (LED9T8/2/840)
Lithonia 112W IBH High Bay (IBH 12000LM)
Lithonia 20W Troffer Retr Kit (2VTL2R 20L ADP EZ1 LP840)
Lithonia 25W Troffer (2TL4-30L-XX-XXX-EZB-LP840)
Lithonia 27W Vapor Tight Fixture (DMW2 L24 3000LM)
Lithonia 32W Striplight (ZL1N-L48-3000LM-FST-MVOLT-40K-XX)
Lithonia 34.9W (STL4-40L-EZB-LP840)
Lithonia 38W Troffer Retr Kit (2VTL4R 40L ADP EZ1 LP840)
Lithonia 48W Troffer Retr Kit (2VTL4R 48L ADP EZ1 LP840)

- 3) The lighting equipment shall meet the following requirements:
  - a. It is recommended that proposed LED products are to be installed as specified. Equipment shall be installed per manufacturer's specifications.
  - b. Any fixture that is to be connected to dimming controls must be dimmable via a 0-10V low voltage signal down to at least 5% of the maximum.
  - c. Aesthetic options such as color temperature and fixture finish shall be approved by the Agency prior to ordering equipment.
  - d. Any fixture located in damp, wet or hazardous spaces must be approved by the Agency prior to installation to verify applicability to the space and classification rating.
  
- 4) During installation Contractor shall:
  - a. Demolish and dispose of any material removed as part of a replacement or retrofit.
  - b. Ensure the compatibility, safety and applicability of the proposed lighting fixture, retrofit or lamp with the electrical system and mounting surface.
  - c. Ensure all fixtures and retrofit kits are mounted securely to the mounted surfaces. Refer to the manufacturer's installation instructions of each proposed product for mounting details.
  - d. Ensure all electrical connections and low voltage signals are wired appropriately.
  - e. Ensure that fixtures not specified to have a new integrated controls, or to be connected to new automated controls, be connected to the existing lighting controls.
  - f. Removal of all parts of old fixtures no longer in use.
  
- 5) After installation Contractor shall:
  - a. Provide a detailed and itemized invoice in acceptable SCE format, which includes manufacturer and model number and clearly states the quantity of each type of fixture installed. Additionally, the invoice shall show a breakdown of material, labor, tax, shipping, and any other applicable project costs.
  
- 6) Contractor's Responsibilities for SCE Incentives:
  - a. The County of Los Angeles/Southern California Regional Energy Network (SoCalREN) will be responsible for submitting utility incentive applications for the project on behalf of the District.
  - b. Contractor is responsible for confirming that the selected LED fixtures or lamps meet the project requirements, including required certifications for utility incentives, where applicable. If the contractor or District selects an alternate product or model, the contractor shall – prior to issuing a purchase order – complete the following steps: 1) verify that the product is on the DLC V4.0 qualified products list, and 2) obtain confirmation from SoCalREN that the product complies with Southern California Edison's (SCE) incentive requirements.
  - c. To be eligible for utility incentives, all fixtures at the Tapia facility must be new fixture replacements.

- d. The lighting project at the LVMWD Tapia facility must have all construction completed by or before February 28, 2018.
- e. After construction, contractor shall provide a detailed and itemized invoice in acceptable SCE format, which includes manufacturer and model number and clearly states the quantity of each type of fixture installed. Additionally, the invoice shall show a breakdown of material, labor, tax, shipping, and any other applicable project costs.
- f. Contractor will furnish the final construction As-Built Documents.
- g. Contractor will cooperate with testing process and final inspection.

## Appendix 01 – Lighting Audit Tables Summary, per site

<b>HQ Building</b>	
<b>Proposed Fixture</b>	<b>Qty</b>
Cooper Champ 113W VMV Class 1 Div 2 LED (VMV11L/UNV1)	8
CREE 10.5W PAR30 LED (BPAR30L-0803040C-12DE26-1C100)	5
Cree 46W Flood Light (FLD EDG N6 AA 04 E UL XX 350)	2
CREE A19 LED, 9W (BA19-080500MF2)	19
CREE CR6, 12W (CR6-800L-40K)	42
CREE EDG-SEC 66W (SEC-EDG-XXX-WM-06-E-UL-XX-350)	11
GE 12W Pin-Lamp (LED12G24Q-V/840)	18
GE 13W 36" T8 LED tube type C (LED13T8/3/840)	13
GE 13W 48" T8 LED tube type C (LED15T8/4/840)	464
GE 18.5W Pin-Lamp (LED19GX24Q-V/840)	227
GE 29W LED Wallpack (EWS2-0-A7-D1-40)	8
GE 35W Canopy (ECB-B-0-A5-F-5-40-1-A)	9
GE 7W MR16 LED (LED7XDMR16-28335)	26
GE 9W 24" T8 LED tube type C (LED9T8/2/840)	102
Lithonia 25W Troffer (2TL4-30L-XX-XXX-EZB-LP840)	1
Lithonia 27W Vapor Tight Fixture (DMW2 L24 3000LM)	7
Lithonia 32W Striplight (ZL1N-L48-3000LM-FST-MVOLT-40K-XX)	156
Lithonia 34.9W (STL4-40L-EZB-LP840)	2
Lithonia 38W Troffer Retr Kit (2VTL4R 40L ADP EZ1 LP840)	66
Lithonia 48W Troffer Retr Kit (2VTL4R 48L ADP EZ1 LP840)	3
Cooper Champ 113W VMV Class 1 Div 2 LED (VMV11L/UNV1)	8
	<b>1,189</b>

<b>Tapia Building</b>	
<b>Proposed Fixture</b>	<b>Qty</b>
Cooper Champ 43W VMV Class 1 Div 2 LED (VMV5L/UNV1)	28
Cree 101W LED Cobrahead (BXSPCHT3MEA40K-Uxxxxx)	94

Cree 25W Flood Light (FLD EDG N6 AA 02 E UL XX 350)	2
Cree 46W Flood Light (FLD EDG N6 AA 04 E UL XX 350)	22
Cree 53W LED Cobrahead (BXSPBHT3MEA40K-Uxxxxx)	17
CREE 9W BR30 LED (BBR30-06527FLF-12DE26-4U100)	18
CREE A19 LED, 13.5W (BA19-11050OMF)	68
CREE A19 LED, 9W (BA19-08050OMF2)	13
CREE CR6, 12W (CR6-800L-40K)	8
CREE EDG-SEC 66W (SEC-EDG-XXX-WM-06-E-UL-XX-350)	60
GE 12W Pin-Lamp (LED12G24Q-V/840)	4
GE 13W 48" T8 LED tube type C (LED15T8/4/840)	18
Lithonia 20W Troffer Retr Kit (2VTL2R 20L ADP EZ1 LP840)	8
Lithonia 27W Vapor Tight Fixture (DMW2 L24 3000LM)	221
Lithonia 32W Striplight (ZL1N-L48-3000LM-FST-MVOLT-40K-XX)	333
Lithonia 38W Troffer Retr Kit (2VTL4R 40L ADP EZ1 LP840)	85
	<b>999</b>

## Part II: Project Implementation Best Practices Terms and Conditions

### Terms and Conditions

The Contractor is expected to perform the construction work in compliance with the Agency's Contract terms and the specific project requirements listed below. Details of these items will be discussed at the Pre-Construction meeting and memorialized in the meeting minutes for that meeting.

Contract terms and conditions put forth by the Agency as part of this project should not conflict with the Scope of Work terms and conditions. If a discrepancy should arise, the Agency's Contract terms and conditions should take precedence.

Contractor shall adhere to the following terms and conditions throughout the project:

- a. Contractor shall conduct all work as indicated in Attachment A
- b. The Contractor shall provide copies of a valid California C-10 Electrical license at a minimum and a copy of DIR registration
- c. Contractor shall comply with safety requirements and practices in accordance with Agency requirements and California Occupational Health and Safety Administration (Cal/OSHA).
- d. Contractor shall do all that is necessary to maintain a safe working environment for Contractor's employees, Agency and facility employees and the general public present.
- e. Contractor shall work with the Agency facility staff to understand and abide by any site specific security procedures.
- f. Contractor shall clean up any construction dust, dirt and debris from work surfaces or equipment after work is completed each day and prior to occupancy.
- g. Contractor shall be very careful to leave the facility with no damage to its structure, contents, existing finishes, and with no evidence of cutting or patching.

- h. District is responsible for securing all necessary permits, including Title 24 energy code documentation and compliance permit. Contractor shall abide by permit conditions, local laws and regulations.
- i. All work shall be warranted against defects in material and workmanship for a period of one year from the date of acceptance.
- j. All work shall be performed in accordance with all National, State, and local codes.
- k. Size, quantity and condition of existing equipment reported in this document for guidance only. Contractor shall independently verify all existing site conditions. It is Contractor's responsibility to include the proper Adjustment Factor(s) and the necessary tasks and quantities in the Price Proposal for completion of the work described herein. The risk associated with incorrect Adjustment Factor(s), missing tasks, and inaccurate quantities from the Price Proposal shall be borne by Contractor.
- l. Contractor is to provide unit-based pricing for each fixture type, as part of the Price Proposal. Unit prices to be provided in Appendix A.
- m. It is the Contractor's responsibility to submit a final version of the Lighting Audit Table, Attachment A in parallel with the submittal of the Cost Proposal. Any revisions required to the Scope of Work must be clearly indicated in the final Lighting Audit Table and reflected in the Cost Proposal. The final Lighting Audit Table serves to inform the Agency of the appropriate revisions.
- n. Contractor will be compensated for work performed and fixtures installed. Any increase on the Base Price due to larger inventory will require written approval by the Agency and will follow procedures set forth for change orders. Any decrease on Base Price due to smaller inventory will result in a lower Base Price to the Contractor.
- o. Prior to ordering of equipment and fixtures, Contractor is to verify fixture quantities, types and installation needs. Final project invoice price will be based upon the quantity of each fixture type installed multiplied by the unit price for that fixture. The Agency will not incur additional costs for restocking fees based on discrepancies in the inventory, as it is the Contractor's responsibility to verify the inventory prior to ordering materials.
- p. Contractor is required to provide a detailed and itemized invoice, which includes manufacturer and model number and clearly states the quantity of each fixture installed. Additionally, the invoice shall show a breakdown of material, labor, tax, shipping, and any other applicable project costs.
- q. Contractor shall provide factory start up and training (if necessary) to ensure proper functionality of new lighting equipment and controls.
- r. Contractor must meet appropriate insurance and bond requirements outlined by the Agency.
- s. Any additional cost of business fees/expenses associated with performing work are to be included in the Cost Proposal.
- t. Contractor shall cooperate to complete the Utility required post-project completion requirements and facilitate the Agency securing the reserved Rebate, Incentives and On Bill Financing funds.

## **Prevailing Wages**

- a. Contractor shall be required to pay the prevailing rate of wages in accordance with the Labor Code and the State of California prevailing wage laws.

## Project Management

Contractor shall fulfill the following requirements to facilitate project management:

- a. Contractor shall perform the roles and assume responsibilities as per the responsibility matrix provided in Appendix A.
- b. Substitution requests must be provided to the Agency and the County of Los Angeles/Southern California Regional Energy Network (SoCalREN) PM and approved before the submittal of the proposal.
- c. Contractor shall provide an overall schedule for each week, a minimum 1 week look-ahead schedule identifying work areas for each day and/or night.
- d. Contractor shall originate a daily progress report log. At the end of each shift, Contractor shall e-mail the daily progress report log for that shift to the Agency CM to facilitate next-day verification/inspection; communication shall also include problems (e.g., access issues) and details for next day's work schedule.
- e. Contractor and/or the Agency can initiate a supplemental task order. All parties are responsible for reviewing supplemental task orders.
- f. Contractor shall notify the Agency CM when the project has been completed.
  - o Close-out will include true-up of the quantity of each retrofit code installed.
  - o Contractor and CM shall jointly generate punch list items. Contractor shall perform punch list items.
  - o Contractor shall furnish the final updated Record Drawings (i.e. as-built lighting audit tables and annotated floor plans showing room numbers that correspond with the room numbers in the lighting audit tables) which when approved will constitute the As-Built Documents.
  - o Contractor shall cooperate with testing of any controls and final inspection.

## Meetings

Contractor shall attend the following meetings complete with preparation and follow-up:

- a. Pre-construction logistics meeting – for introduction to team members, to understand roles and responsibilities, to discuss the construction schedule and to learn the submittal transmittal process. At the Pre-Construction Meeting, the CM shall establish a mechanism for ongoing verification/inspection of work.
- b. Submittal review meetings, as needed – for discussion of major submittal-related issues that cannot be resolved through the submittal transmittal process.
- c. Construction kickoff meeting – to resolve any remaining pre-construction issues, discuss safety concerns, and begin construction on site.
- d. Regular construction meetings, as needed – to discuss punchlist items, the progress of the construction and safety issues with upcoming work.
- e. Final job walk – to convey substantial completion to project team members and request final acceptance. Contractor shall schedule this meeting and the Agency CM, facility personnel shall attend.

- f. Contractor shall review meeting minutes circulated after each meeting and resolve all action items assigned to Contractor by the due date indicated in the minutes.

## Logistics

Contractor shall coordinate logistics with the Agency to ensure safe and timely execution of the work. At a minimum, Contractor shall perform the following activities:

- a. Agency representative shall provide a site-specific safety briefing to the Contractor upon approval of the construction schedule. Contractor shall submit a Safety Plan per Cal OSHA standards as required in the contract to the Agency.
- b. The Agency will be responsible for notifying tenants of the construction schedule.
- c. Contractor shall work with the Agency and facility personnel to understand and abide by security procedures, as applicable.
- d. The Agency will assist to coordinate parking for the Contractor's vehicles. The parking strategy will be finalized in the pre-construction logistics meeting.
- e. The Agency shall designate an area of the facility for equipment storage and staging. The storage and staging area will be finalized in the pre-construction meeting.
- f. Contractor shall coordinate with the Agency prior to moving the Contractor's equipment, tools, and materials onto the construction site at the start of the project.
- g. Contractor shall be responsible for the security of the Contractor's property, equipment, construction materials and all other items contained in the Contractor's staging area or elsewhere on the construction site.
- h. Contractor shall notify Agency one week prior to any scheduled shutdowns of electrical systems, equipment or utilities. The Agency shall be responsible for notifying tenants of the scheduled shutdowns.
- i. All equipment and materials demolished under the terms of this project are to become the property of the Contractor and to be removed from the site and properly disposed. Recyclable, non-hazardous material will be recycled.
- j. Contractor will check in at a predetermined location on site at the start of each shift. The Agency Construction Manager (CM) will facilitate access to scheduled locations.
- k. Lamps and PCB-laden ballasts will be disposed of in accordance with state and City requirements. Recyclable, non-hazardous material will be recycled.
- l. Work areas will be cleaned up prior to vacating for the day.

## Submittals

Contractor shall provide submittals as outlined below.

- **Preconstruction**

Within (20) Twenty working days of awarding of the contract, Contractor shall provide the following submittals:

- a. Proposed construction schedule with major milestones indicated. May include but not limited to:

- Equipment order
  - Anticipated equipment delivery date
  - Construction start and completion by site or major area
  - Project walk through and punch list development
  - Project sign off
  - Work Plan
  - Safety Plan submittal per Cal OSHA standards
  - Construction permits
  - Product data sheets, cut sheets and mounting details for all fixtures.
- **Close-Out**

Within (10) ten days of notifying the Agency of substantial completion, Contractor shall provide the following submittals:

    - a. Final signed-off punch list
    - b. Executed final acceptance form
    - c. As-built line by line record listing actual installed number of lamps, ballasts, light fixtures, fixture accessories, fixture retrofit kits, and occupancy sensors by area (updated lighting table provided as a part of this Scope of Work)
    - d. O&M manuals and training materials
    - e. Warranty documentation
    - f. Materials list of components installed for reordering purposes
    - g. Material disposal and recycling documents

Submittals shall not be considered complete until they are reviewed and approved by the Agency. Contractor shall make corrections and transmit the revised submittal for approval.