

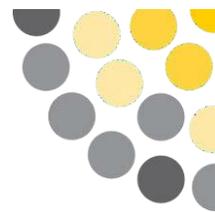
SELs

SMART ERA LIGHTING SYSTEMS

ILLUMINATING YOUR WORLD WITH THE POWER OF THE SUN

**ATTN: Jefferson Parish Government-
Response to 5000137963 Live Oak Solar
Street Lighting (US Hwy. 90 t o S. Kenner Rd)
public Works Project No. 2018-013-SL**

June 02, 2022



5000137963 Live Oak Solar Street Lighting (US Hwy.90 to S. Kenner Rd) Project No. 2018-013-SL

PROPOSAL INDEX

- * Letter of Acceptance and Understanding
- * Product Cut Sheet
- * ALR Calculations
- * Explanation of the proposed system ALR
- * Summary of the product
- * Preliminary Photometrics
- * Product Installation Manual
- * SELS Remote Connectivity and Management Software
Explanation
- * Our Customers
- * Unit Price Form
- * Certificates of Insurance
- * Purchase Pricing
- * Affidavit
- * Corporate Resolution

ILLUMINATING YOUR WORLD WITH THE POWER OF THE SUN



June 02, 2022

Jefferson Parish
Purchasing Department
200 Derbigny Street, Suite 4400
Gretna, Louisiana 70053

SELS USA LLC
4747 Kester Mill Rd
Winston-Salem, NC 27103
704-495-3535

SELS (Smart Era Lighting Systems) & Power Electrical and Instrumentation LLC is pleased for the opportunity to present pricing for 5000137963 Live Oak Solar Street Lighting (US Hwy. 90 to S. Kenner Rd) public Works Project No. 2018-013-SL.

SELS has been a leader in the solar lighting industry since 2013, with successful projects around the world. As a leader in innovation, we feel excited to present the enclosed proposal.

SELS is a designer and manufacturer of high-quality solar outdoor amenity products. We focus on performance and reliability as well as aesthetics when designing our systems. We focus exclusively on providing products for government, commercial, and institutional customers as reflected by the overall quality of our products.

It is essential to mention that solar products need to be engineered based on location and project specifics. We feel confident that after evaluating your project, we can offer you the best solar lighting solution for this project.

SELS fully understands the requirements and acknowledges the specific needs. Enclosed is our proposal including important systems specifications changed based on our expertise with technical explanation of the required changes.

Based in NC, SELS employs American engineers and design professionals to support our domestic supply chain. We possess strong relationships with local manufacturers, making SELS an innovator in the solar lighting industry.

The enclosed proposal and pricing shall remain valid for a period of 30 days and our engineering team will be available to help with any questions or information you may need.

Sincerely,

Rafael Badilla

CEO, Smart Era Lighting Systems

rbadilla@SELSled.COM

Phone O: (704) 495-3535

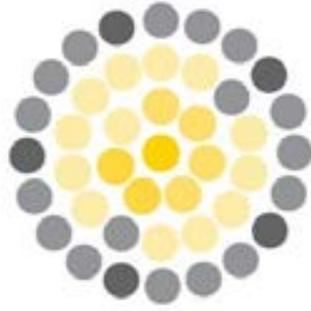
Phone C:(704) 310-7850

Matthew Eskins

CEO, Power Electrical and Instrumentation LLC

matt.eskins1@gmail.com

Phone: (504) 650-9499



SELs

SMART ERA LIGHTING SYSTEMS



STL PRO SOLAR SYSTEM

SOLAR STREET LIGHT



STREET & AREA LIGHTING

STL PRO SERIES

THE COMPACT SOLAR LIGHTING SOLUTION

SELS present the ultimate fully integrated solar street light system. With an extremely simple installation method compared to traditional lead-acid battery systems, the STL-PRO outperforms all competitors in one sleek, enclosed design.



SUPERIOR LIGHTING.

Cast aluminum body and high efficiency LEDs provide better lighting and longer life.



ALUMINUM CASING.

Excellent heat dissipation. Direct airflow on the battery and system components.



ANTI BLACK OUT

Optimal component calibration and intelligent management system



UNEQUALED LIFETIME

Selection of the latest and highest component technology



EXTREME TEMPERATURE

Resistant
-20 °C to +65 °C
-5 °F to +150 °F



WARRANTY

We offer a 7 year warranty **on all components**

COMPONENTS & ADVANTAGES



SOLAR PANEL

+ EASY MAINTENANCE
With direct access to battery and controller.



SAFE
No explosion risk



INFRARED MOTION SENSOR (optional)

LED FIXTURE



BATTERY OPTIONS

Lithium Iron Phosphate **LiFePO₄**

Nickel-Metal Hydride **Ni-MH**

The eco-friendly and safe LiFePO₄ battery improves the system charge and discharge over 2500 times and has a life span of **more than 10 years**.



BATTERY MANAGEMENT SYSTEM

Electronic protection algorithm and battery management system for **best use of the battery capacity**.



MULTI PROTECTION



OVER LOAD



OVER CURRENT



OVER TEMPERATURE



OVER VOLTAGE



OVER CHARGE



OVER DISCHARGE

LiFePO₄

VS

Ni-MH

Over **4000** cycles



Over **3500** cycles

Extreme discharge tolerance 80%



Extreme discharge tolerance 80%

-20 to 75 Degree



-40 to 55 Degree

Over 10 years



Over 10 Years

Great for Warm Weather and Temperate Locations

Great for Cold Weather Locations

MPPT SMART CONTROLLER 97% CHARGING EFFICIENCY

MPPT (Maximum Power Point Tracking) maximizes solar power output regardless of weather variation.



FEATURES

- Maximum power point tracking charging
- Auto identify day/night
- Infinite dimming options
- Smart operation mode
- Waterproof IP66

IP66

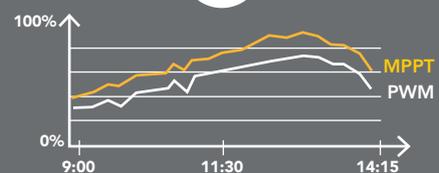


REMOTE MONITORING



- Bluetooth (BLE), LoRa, and IR communication methods
- Check system states
- Configure operating parameters
- View diagnostic

MPPT VS PWM



CHARGING EFFICIENCY VS TIME

**EASY INSTALLATION
INSERT ON POLE, ORIENT,
& CHOOSE YOUR ANGLE**

With our reinforced support bracket, the STL PRO is easy and flexible to install on a variety of poles. The panel is fully adjustable to ensure maximum solar efficiency in any installation location.



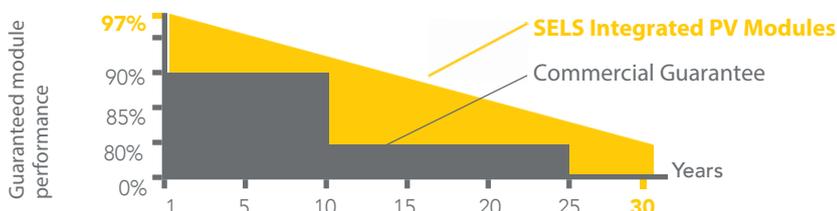
CREE XSP LED Streetlight

**SOLAR PANEL
135 to 285 Watts**

Monocrystalline solar panels.
Solar panel efficiency up to 19.4%.
5 busbars for better collected current capacity.



OUR PV PERFORMANCE GUARANTEE

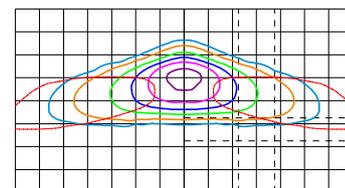


**LED EFFICIENCY
FROM 4500 TO 16800
LUMENS**

CREE luminaires deliver incredible efficiency without sacrificing application performance. Cree achieves greater optical control with NonOptic Precision Delivery Grid compared to traditional cobra head luminaires.

- T1M
- T2M
- T3M
- T3L
- T4S
- T4M
- T5U

**MULTIPLE LIGHT
DISTRIBUTIONS**



**INFRARED
MOTION SENSOR AVAILABLE**

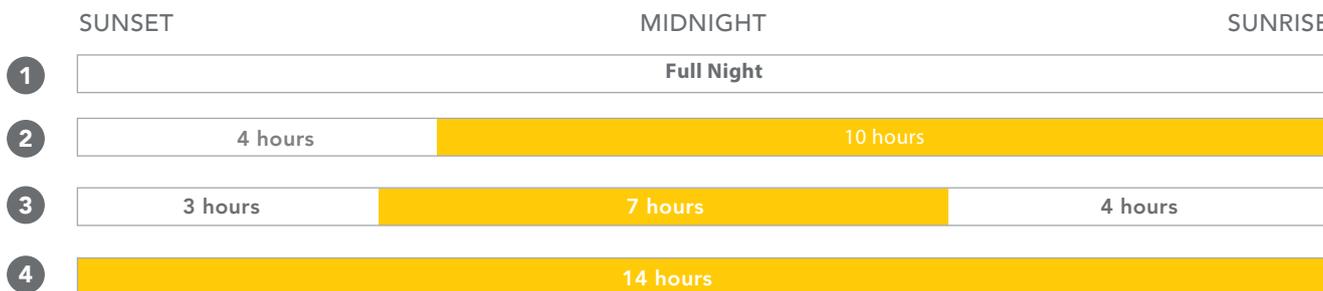
360° coverage, integrated into the luminaire housing. 25'+ detection radius.



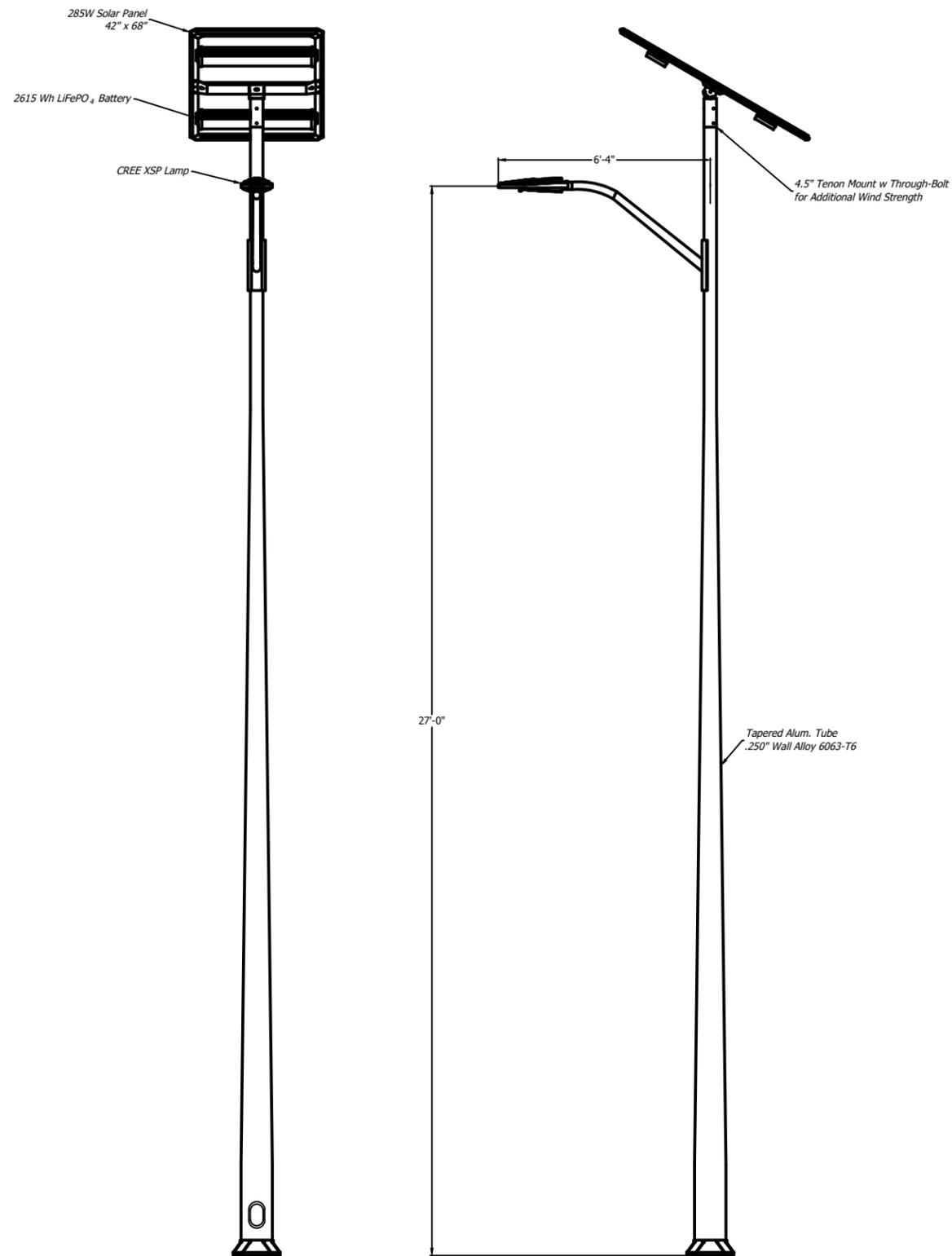
OPTIONAL OPERATION MODES

PHOTOSENSOR MODE AUTOMATICALLY POWERS ON THE LIGHT AT DUSK AND OFF AT DAWN.

SELS gives you the option to select the perfect lighting profile for your project. Choose from a preprogrammed profile or give us your specs for a custom lighting solution. Fully customizable in the field with remote management.



□ 100% ON ■ 30% DIM ■ Sensor* 30% Dimming + 100% Power for 1 min when triggered



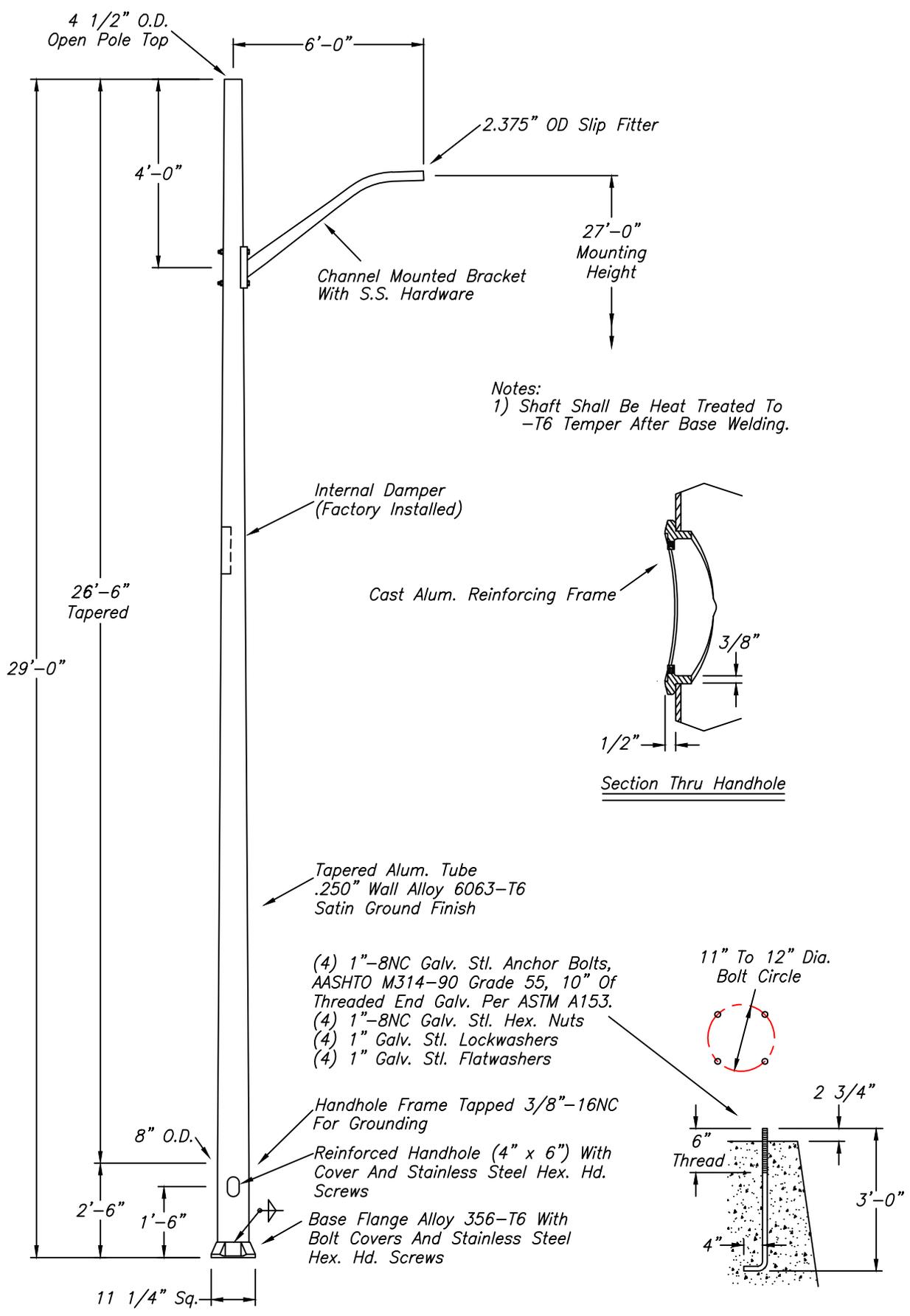
NOTES / SPECIFICATIONS:

- PV MODULE SHOULD BE INSTALLED TOWARD SOLAR MAXIMUM AT 35° INCLINATION
- LED FIXTURE SHOULD BE ANGLED NO MORE THAN 5° FROM HORIZONTAL
- SOLAR LIGHTING AND CHARGE CONTROLLER FASTENED TO SOLAR PANEL STRUCTURE
- FOUNDATION DETAIL SUGGESTION TO BE VERIFIED WITH SOIL CONDITIONS AND LOCAL APPLICATION
- SYSTEM DESIGNED FOR USE IN JEFFERSON PARISH, LA WITH OPERATING PARAMETERS ATTACHED
- STRUCTURAL DESIGN CAPABLE OF WITHSTANDING WIND LOADING OF 140MPH



Winston-Salem, NC
704-495-3535
engineering@selsled.com

REV	DESCRIPTION	DATE	DATE	DRAWING NAME	
				STL-PRO ELEVATION - JEFF PARISH	
				REF. NO.	REV
				11558.1.1	0
				DRAWN BY	DATE
				A DONOSO	5/31/22
				APPROVED	DATE
				G HIGGINS	5/31/22



SKCC111121A

WARNING: DO NOT INSTALL LIGHTING POLES WITHOUT LUMINAIRES

NO.	REVISIONS	DATE

hapco
Abingdon, Va.

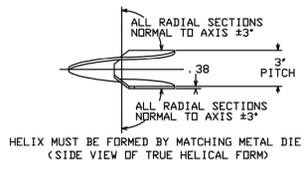
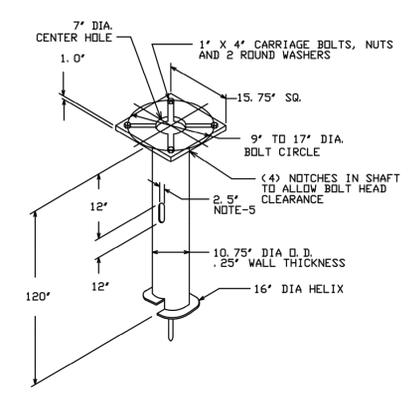
TITLE 29' RTA ALUMINUM POLE

CUSTOMER

SCALE DATE 11/11/2021

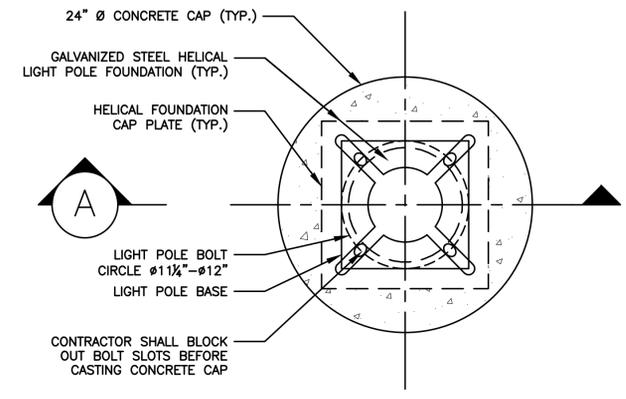
BY CC DWG. NO. SKCC111121A

CHK'D



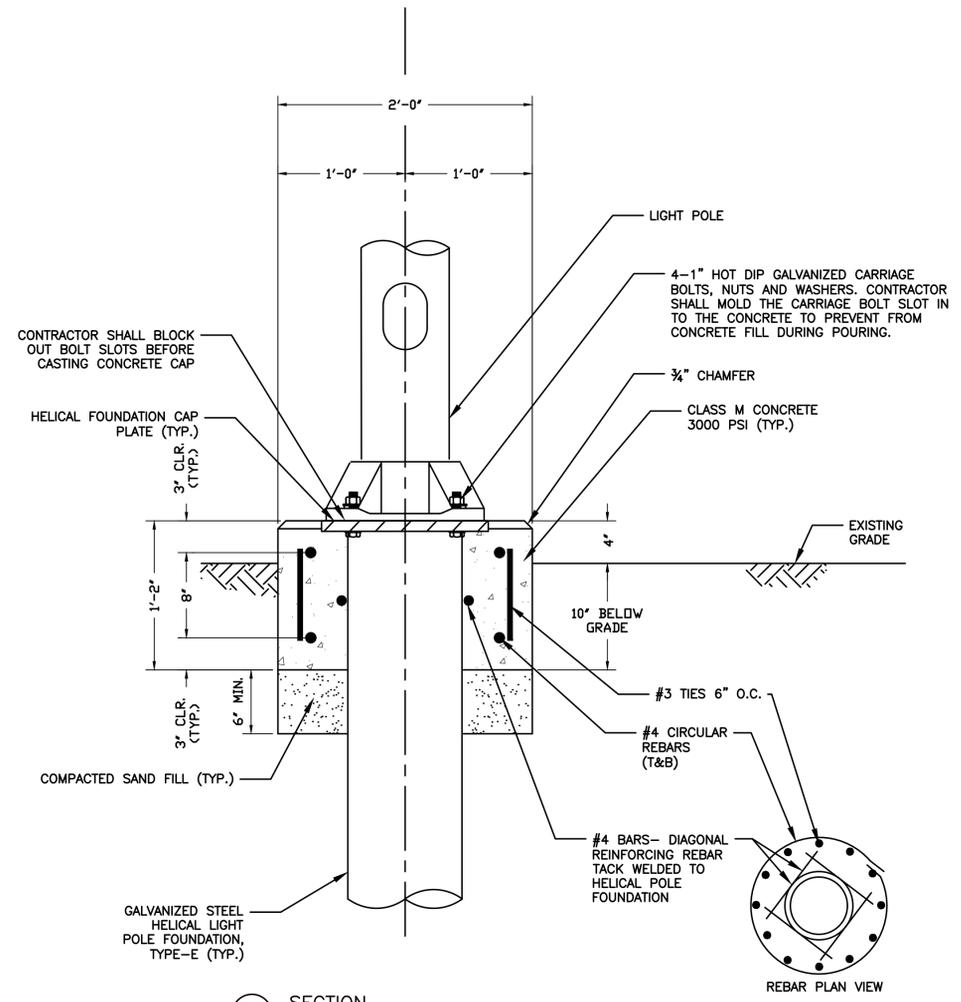
- NOTES-**
1. FINISH: HOT DIP GALVANIZE PER ASTM-A153 (LATEST REVISION).
 2. BASEPLATE TO BE PERPENDICULAR TO SHAFT AXIS ($\pm 1^\circ$) AND HOLE CENTERLINE CONCENTRIC ($\pm .188$) TO SHAFT AXIS.
 3. STENCIL MIN. 1/2 IN. LETTERS MANUFACTURER'S NUMBER AFTER GALVANIZING.
 4. PILOT POINT AND SHAFT AXES TO BE CONCENTRIC ($\pm .125$ FIM) AND IN LINE ($\pm 2^\circ$).
 5. FLAME CUT TWO SLOTS IN SHAFT PERPENDICULAR TO THE BASEPLATE.
 6. PREHEAT, TUMBLEBLAST, HANDGRIND, AND CLEAN BASEPLATE, HELIX, AND PILOT POINT ON ALL WELDED AREAS.
 7. FLAMECUT IRREGULARITIES PERMISSIBLE: (1) VALLEYS NOT TO EXCEED 3/32 IN. BELOW NOMINAL SURFACE LEVEL, (2) PEAKS OR POSITIVE IRREGULARITIES NOT TO EXCEED 1/32 IN. ABOVE NOMINAL SURFACE LEVEL OR INTERSECTIONS OF NOMINAL SURFACES.
 8. MANUFACTURER TO HAVE IN EFFECT INDUSTRY RECOGNIZED WRITTEN QUALITY CONTROL FOR ALL MATERIALS AND MANUFACTURING PROCESSES.
 9. ALL MATERIAL IS TO BE NEW, UNUSED AND MILL TRACEABLE MEETING THE FOLLOWING SPECIFICATIONS:
 BASEPLATE: ASTM A36-(LATEST REVISION) STRUCTURAL STEEL (CONFORM TO AASHTO TECH. BUL. #270).
 SHAFT: STEEL PIPE PILES, SEAMLESS OR STRAIGHT WELDED, GRADE-2 PER ASTM A252 ALL MATERIAL; STEEL PIPE TYPE E OR S, GRADE B, STEEL PIPE OR ASTM A53.
 HELIX: ASTM A635 (LATEST REV'N) 3/8" THICK HOT ROLLED STEEL PLATE OR COIL.
 PILOT POINT: ASTM A575 (LATEST REV'N) 1-1/4" DIAMETER HOT ROLLED STEEL BAR.
 BOLTS: CARRIAGE BOLT 1-1/4-BUNC-2A PER ANSI B-18.5, SAE J429 GRADE-5.
 10. BASEPLATE IS PERMANENTLY STAMPED WITH MANUFACTURER'S IDENTIFICATION *ABC* IN 1/2" LETTERS AND DATE CODE IN 1/4" LETTERS.
 11. BASEPLATE PERMANENTLY MARKED TO INDICATE CABLEWAY OPENING IN SHAFT.

TYPE-E HELICAL PILE SYSTEM
 MANUFACTURED BY "CHANCE"
 OR APPROVED EQUAL.



CONCRETE CAP AROUND TYPE-E HELICAL PILE FOUNDATION - PLAN VIEW

1 1/2" = 1'-0"



A SECTION
 1 1/2" = 1'-0"

- NOTES:**
- 1.) CONCRETE SHALL BE CLASS M CONCRETE 3000 PSI COMPRESSIVE STRENGTH (PER LSSRB 2016).
 - 2.) ALL REINFORCING SHALL BE ASTM 1615, GRADE 60.
 - 3.) HELICAL PILES SHALL BE AS MANUFACTURED BY "CHANCE" OR ENGINEER-APPROVED EQUAL.
 - 4.) CONTRACTOR SHALL BLOCK OUT THE BOLT SLOTS BEFORE CASTING THE CONCRETE CAP FLUSH WITH THE MOUNTING PLATE OF THE HELICAL FOUNDATION.
 - 5.) LOCALLY AVAILABLE SAND FILL SHALL BE NON-PLASTIC MATERIAL FREE FROM ROOTS, CLAY LUMPS OR OTHER DELETERIOUS MATERIALS WITH NO MORE THAN 10% BY WEIGHT OF MATERIALS PASSING A U.S. STANDARD SLEEVE No. 200 MESH SIEVE.



NOTE: HELICAL PILE SHOWN HERE ARE CUSTOM MADE. CONTRACTOR SHALL COORDINATE MEASUREMENTS, HARDWARE AND PART NO. WITH THE MANUFACTURER. CONTRACTOR SHALL SUBMIT MANUFACTURER SHOP DRAWING AND APPROVED BY THE ENGINEER BEFORE ORDERING AND/OR FABRICATION OF THE HELICAL PILE FOUNDATION.

PIVOTAL ENGINEERING, L.L.C. 1515 PONDRAIS ST., STE. 1875, NEW ORLEANS, LA 70112		SCALE AS NOTED	DATE 01/06/2022
DESIGNED L.J. K.P.	CHECKED Y.S., B.M.	DATE 01/06/2022	SHEET 21
DESIGNED L.J. K.P.	CHECKED Y.S., B.M.	DATE 01/06/2022	SHEET 21



JEFFERSON PARISH, LOUISIANA
 JEFFERSON PARISH PUBLIC WORKS NO. 2018-013-SL
 LIVE OAK SOLAR STREET LIGHTING
 (US HWY 90 TO S. KENNER RD.)
 HELICAL LIGHT POLE FOUNDATION AND CONCRETE CAP DETAIL



Lighting System Performance Report

Project Name
 Live Oak Solar Street Lighting
 (US Hwy. 90 t o S. Kenner Rd)

Location
 Live Oak, Louisiana
 Lat, Lng: 29.77, -90.02

System Configuration

Total Load	80 W
PV Wattage	285 W
Battery Capacity	102 A-h
Battery Voltage	25.6 V
Battery Quantity	1 Ea
Max Battery DoD	20 %
PV Angle (from horizontal)	35 Deg
Azimuth Angle	180 Deg

Location Characteristics

	Daily Average Peak Sun Hours	Daily Average PV Energy Collection
October	5.76 hrs	1641.6 Watt-hrs
November	5.46 hrs	1556.1 Watt-hrs
December	4.32 hrs	1231.2 Watt-hrs
January	4.61 hrs	1313.85 Watt-hrs
February	5.08 hrs	1447.8 Watt-hrs

Operating Profile

LED Load Usage (per night)	12 hrs
Dimming Profile	4 hrs: 100%, 4 hrs 50%, 4 hrs 100%
Daily Power Consumption (24hrs)	720 W-h

Performance Characteristics

December Array : Load Ratio	1.71
Battery Autonomy (Hours)	43.52 hrs
Battery Autonomy (Nights)	2.90 days

Note: SELS smart MPPT solar controller includes integrated programmable LED driver. Operating profile to be specified by customer based on location-specific usage requirements, including dimming and optional occupancy sensing. Calculation of battery autonomy based on load output as specified above.

Explanation of Solar System Design

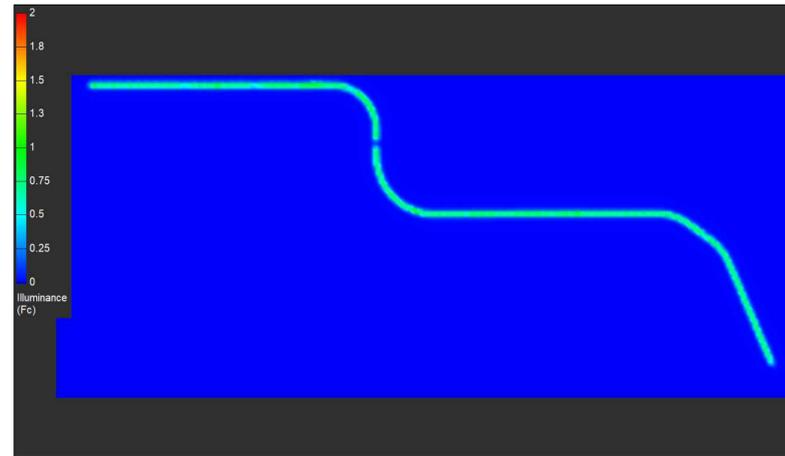
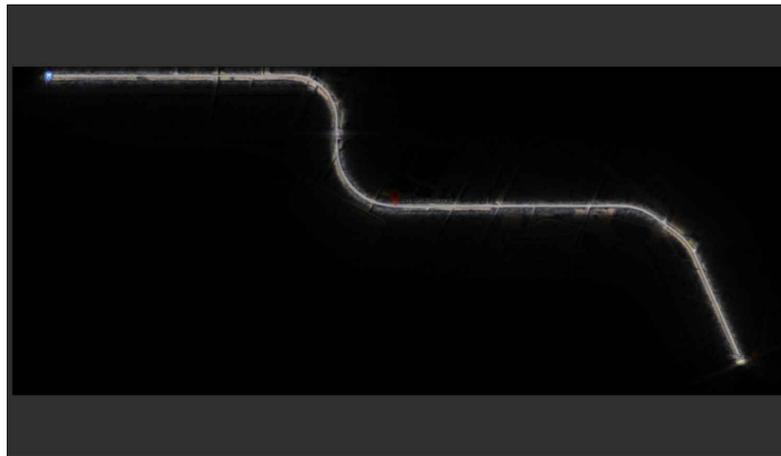
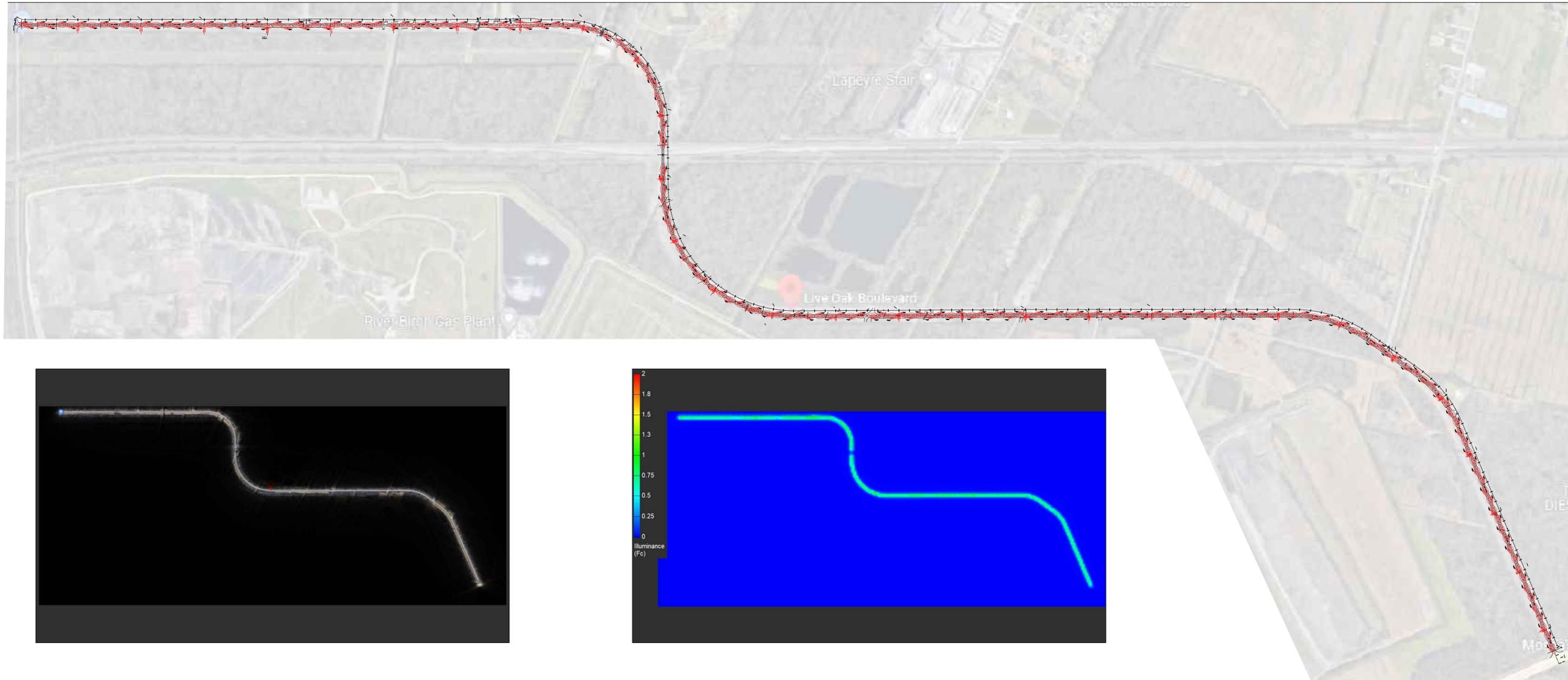
When designing a complete solar powered system, SELS begins with the worst-case load usage, usually winter solstice for a lighting system. To reliably estimate the optimum solar power production to sustain the system indefinitely, we base all calculations around the specific location where the system will be installed. Additionally, because the sun does not shine the same in all locations, we rely on data compiled over decades by the US Department of Energy's National Renewable Energy Lab (NREL). The system sizing is based on Typical Meteorological Year data sets derived from at least 15 years of data in the National Solar Radiation Database (NSRDB), considering also temperature, angle of the solar panel relative to the horizon, and direction of panel relative to the polar azimuth.

Though the design calculations are quite complicated, we can break down the reliability and performance of a solar power system to a single number called Array-to-Load Ratio (ALR). This is an easy to understand concept describing the amount of energy that can be conservatively expected to be generated and stored to the system batteries on a given day, relative to the amount of energy used by the electronic loads of the system. An ALR over 1.4 can be expected to be exceptionally reliable and with SELS' other system design parameters, is guaranteed to operate without failure for 365 days a year, for many years. SELS has hundreds of solar lighting systems installed around the world dating back to 2013 with zero outages or failures. Based on system location and load usage, the proposed design achieves an ALR over 1.71 with true battery backup of over 2.69 DAYS or 43.52 Hrs

Battery autonomy is defined as the battery's ability to support the system load, under normal operating conditions, with no charging input to the battery. When considering total battery capacity, it is important to differentiate between usable capacity and nameplate capacity. Usable capacity varies based on battery chemistry and treatment. In the case of Lithium Iron Phosphate, we limit the discharge to 80% to maximize the life of the battery system and improve cycle performance.

Summary Explanation of Solar System Design

- **December Array Load Ratio: OVER 1.71**
- **2.9+ DAYS OF BATTERY AUTONOMY**
- **285 W SOLAR PANEL**
- **80 WATT LED LIGHT**
- **102 A-h W-H / 25.6V LITHIUM IRON PHOSPHATE**
- **Model: STL Pro 80 Watt**
- **27' Mounting Height with 6' Arm**
- **Required foot candles met or exceeded for parking lot lighting**
- **5 Year Warranty on equipment & workmanship**
- **US Department of Energy's National Renewable Energy Lab (NREL) data used for solar design**
- **Typical Meteorological Year data sets derived from 15 years of data in the National Solar Radiation Database (NSRDB)**
- **Temperatures of site considered in design of your system**
- **Angle of Solar Panel to horizon & direction of panel relative to polar azimuth, sizing of Solar Panel, & capacity of Battery engineered for this project**
- **Guaranteed to operate 365 days per year, for many years**
- **SELS has installed 100s of solar lighting systems around the world with zero failures**



Luminaire Schedule

Symbol	Qty	Label	Lum. Watts	Total Lamp Lumens	LLF	Description
	185	CREE 80W T3ME LED 4000K	80	10,212	0.900	SELS' STL-PRO Solar Lighting System

Calculation Summary

Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
Sta 100+00 - 153+00	Illuminance	Fc	1.56	3.6	0.6	2.60	6.00
Sta 153+00 - 174+00	Illuminance	Fc	1.55	3.5	0.1	15.50	35.00
Sta 174+00 - 193+00	Illuminance	Fc	1.57	3.5	0.6	2.62	5.83
Sta 193+00 - 241+00	Illuminance	Fc	1.68	3.5	0.8	2.10	4.38
Sta 241+00 - 282+00	Illuminance	Fc	1.51	3.3	0.4	3.78	8.25

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION



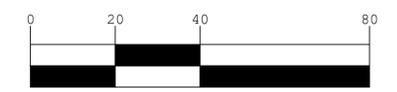
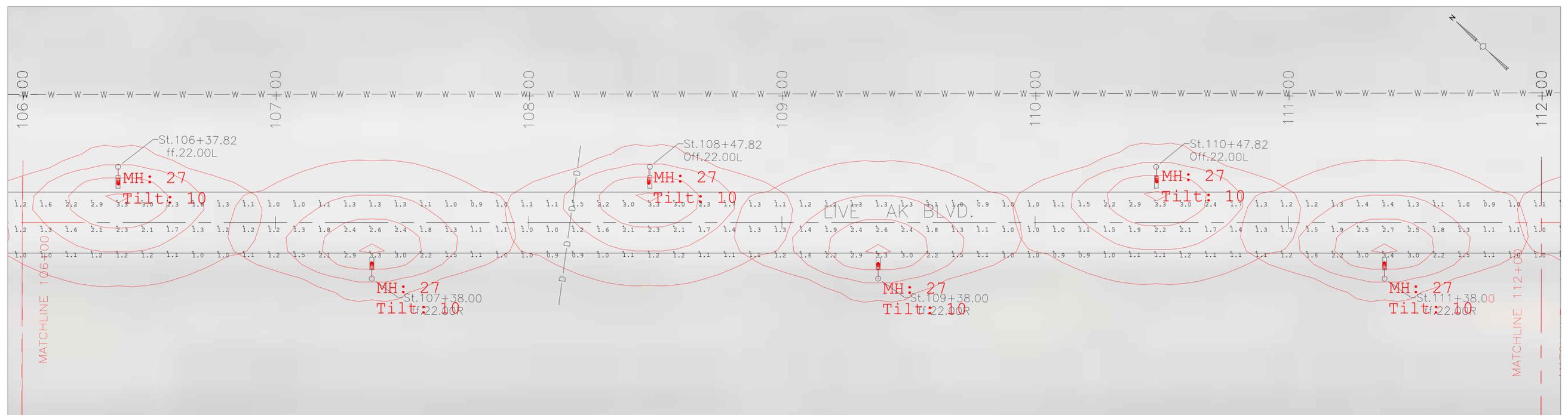
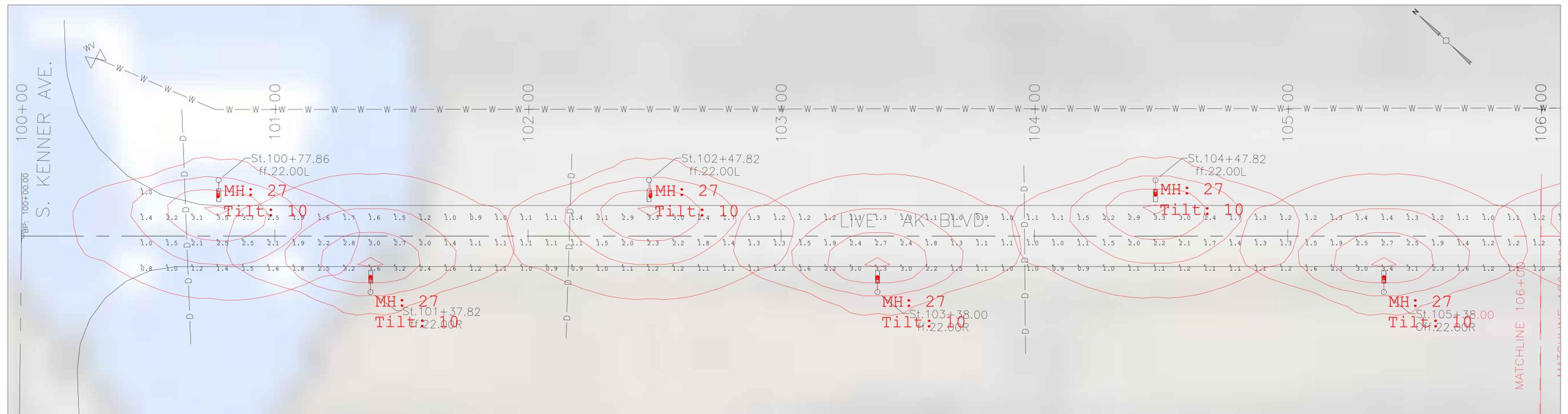
SELS USA LLC
4747 Kester Mill Rd, Bldg B
Winston-Salem, NC 27103
Phone (704) 495-3535

ENGINEER OF RECORD: MA. ALD. ALEJANDRA ULLOA

PROJECT:	Jefferson Parrish	DATE:	5/31/22
	Live Oak Solar Street Lighting		

STL-PRO PHOTOMETRIC
Title Page

SHEET
NO.
1/17



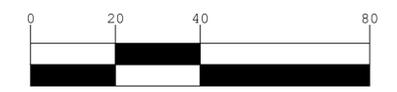
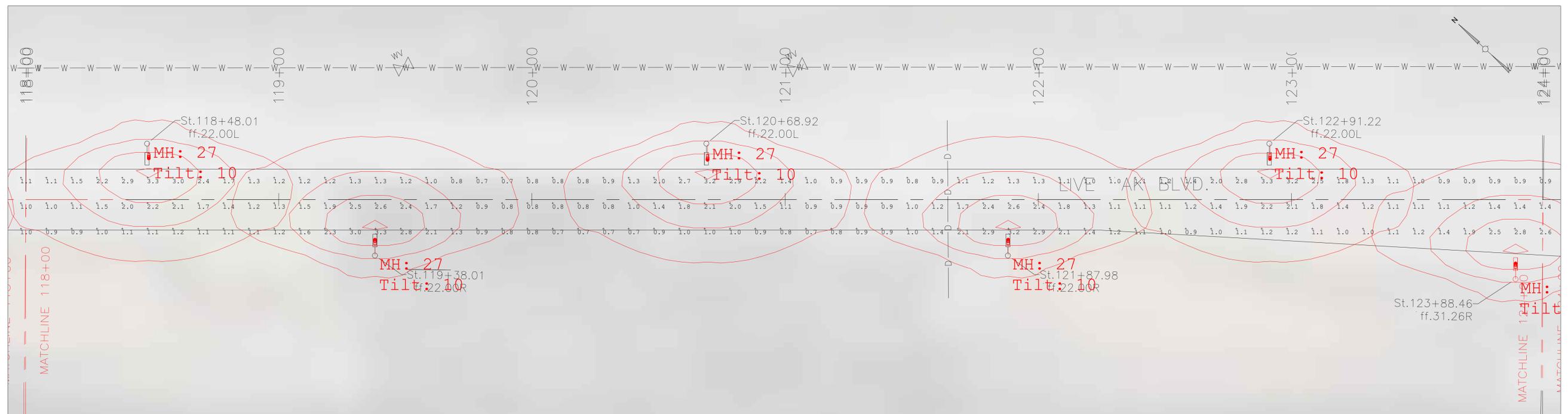
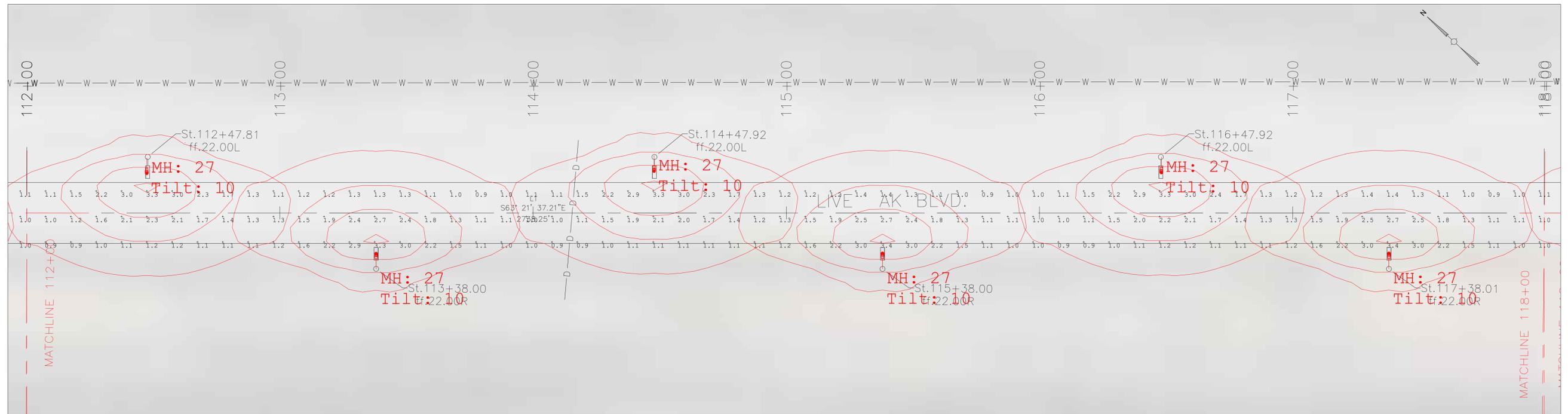
1" = 20'

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION


SELS USA LLC
 4747 Kester Mill Rd, Bldg B
 Winston-Salem, NC 27103
 Phone (704) 495-3535
 ENGINEER OF RECORD: MA. ALD. ALEJANDRA ULLOA

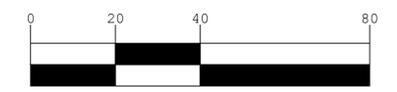
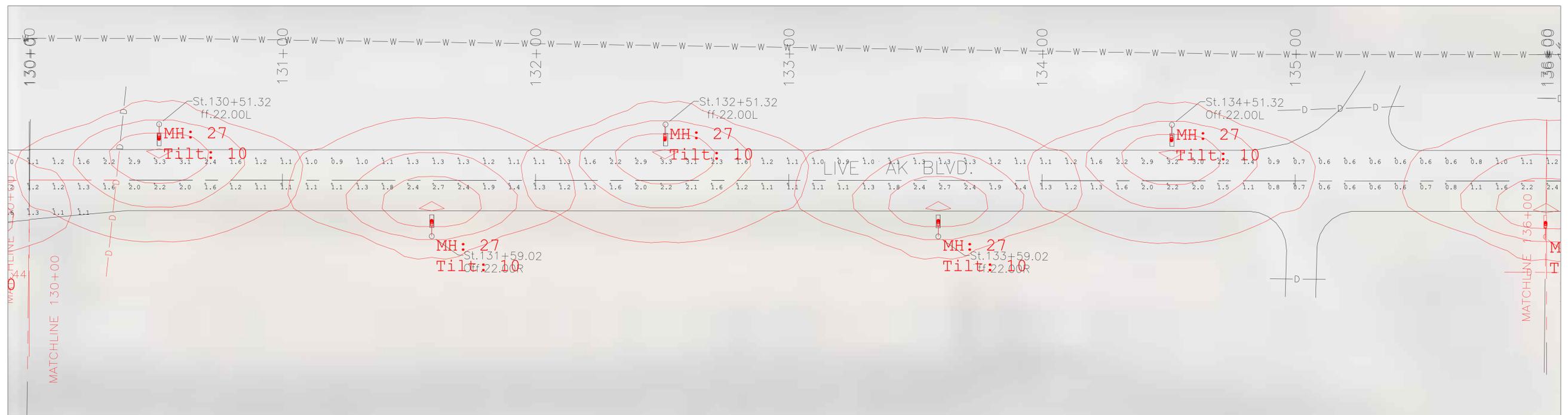
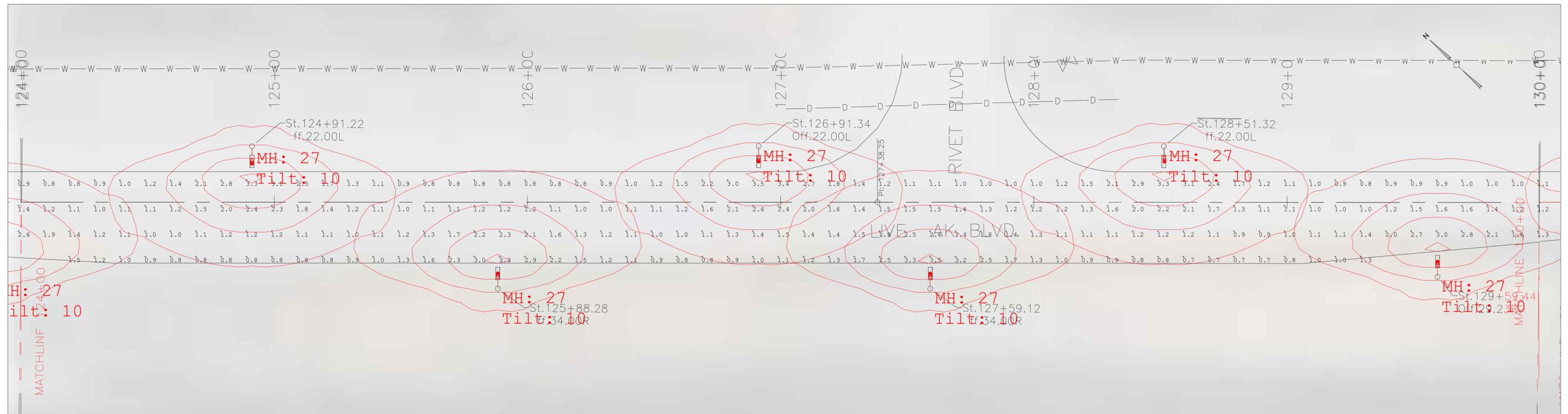
PROJECT: Jefferson Parrish
 DATE: 5/31/22
 Live Oak Solar Street Lighting

STL-PRO PHOTOMETRIC
 Sta 100+00 - 112+00
 SHEET NO. 2/17



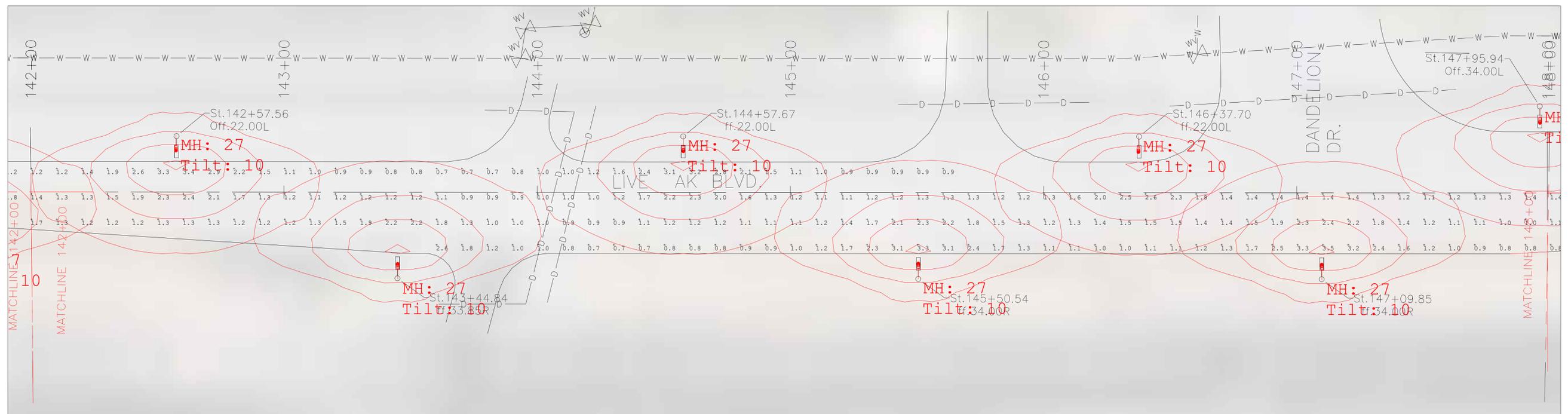
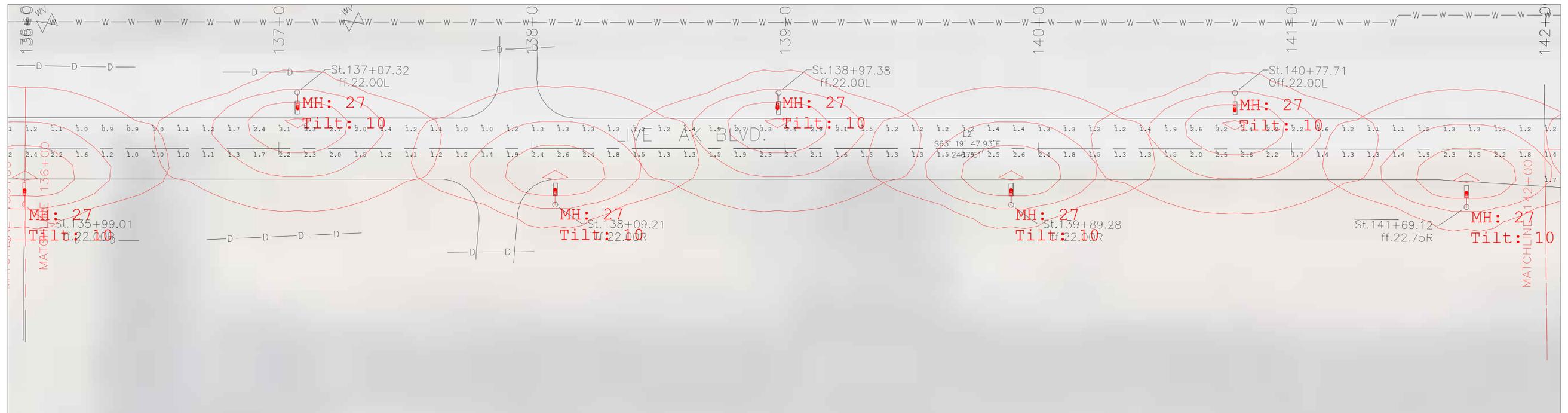
1" = 20'

REVISIONS				 SELS USA LLC 4747 Kester Mill Rd, Bldg B Winston-Salem, NC 27103 Phone (704) 495-3535	PROJECT: Live Oak Solar Street Lighting	DATE: 5/31/22	STL-PRO PHOTOMETRIC Sta 112+00 - 124+00	SHEET NO. 3/17
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				ENGINEER OF RECORD: MA. ALD. ALEJANDRA ULLOA				



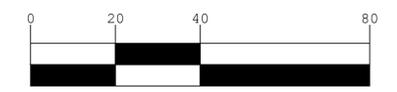
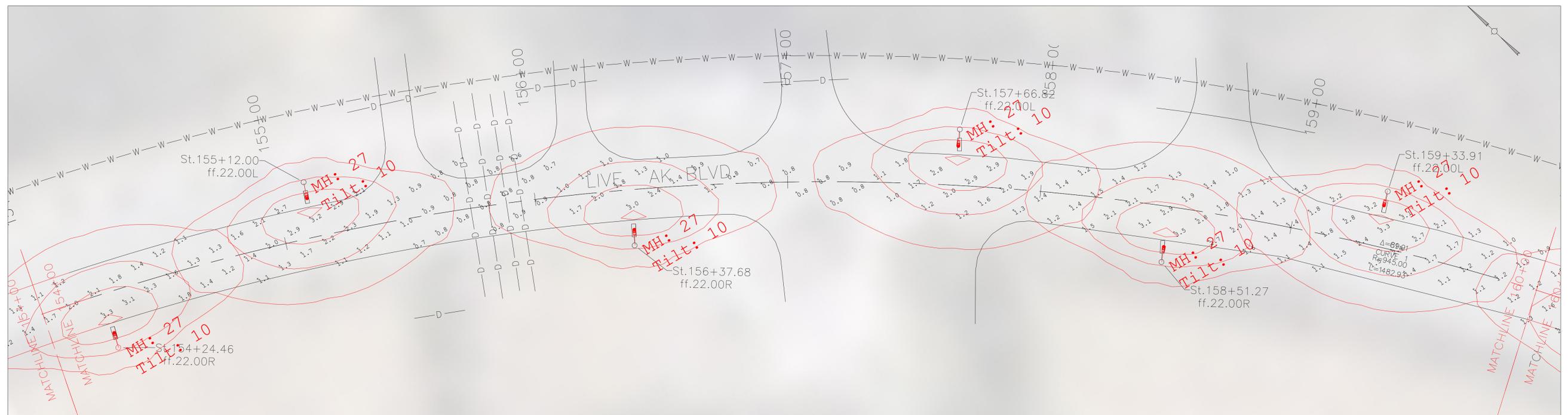
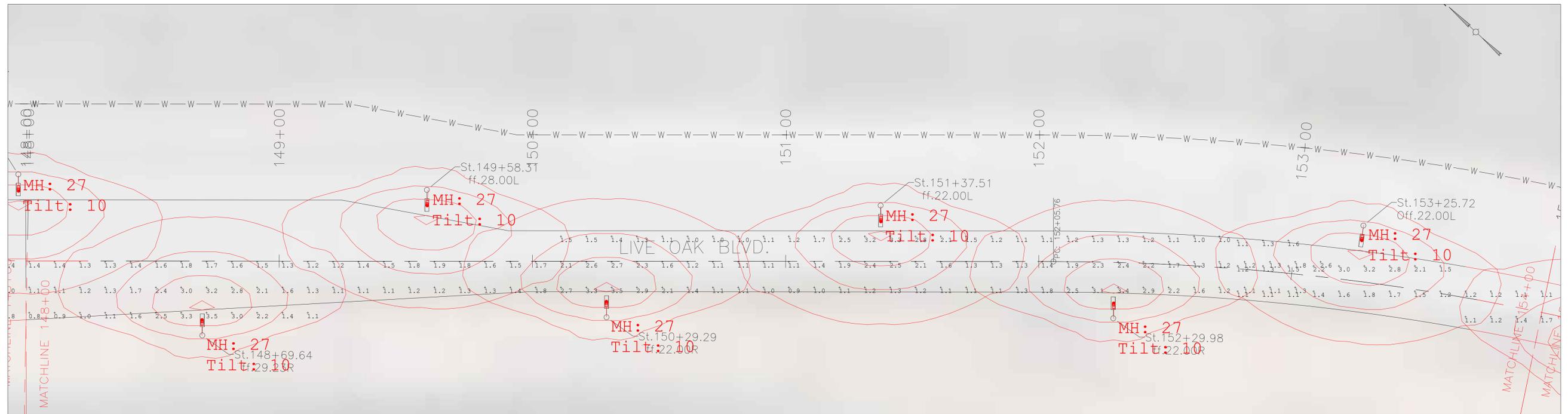
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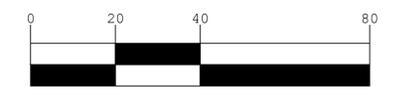
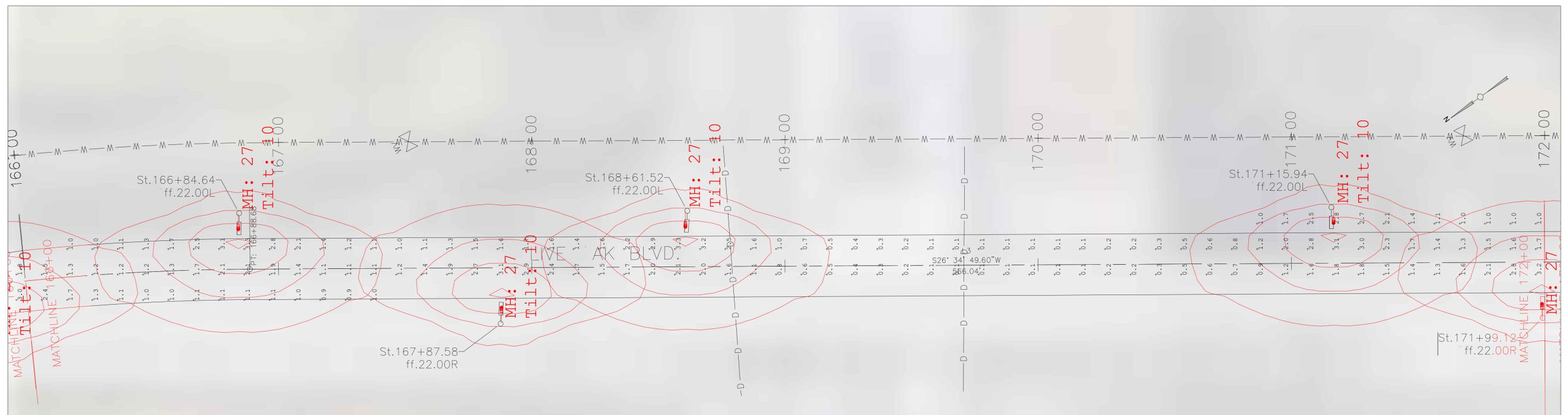
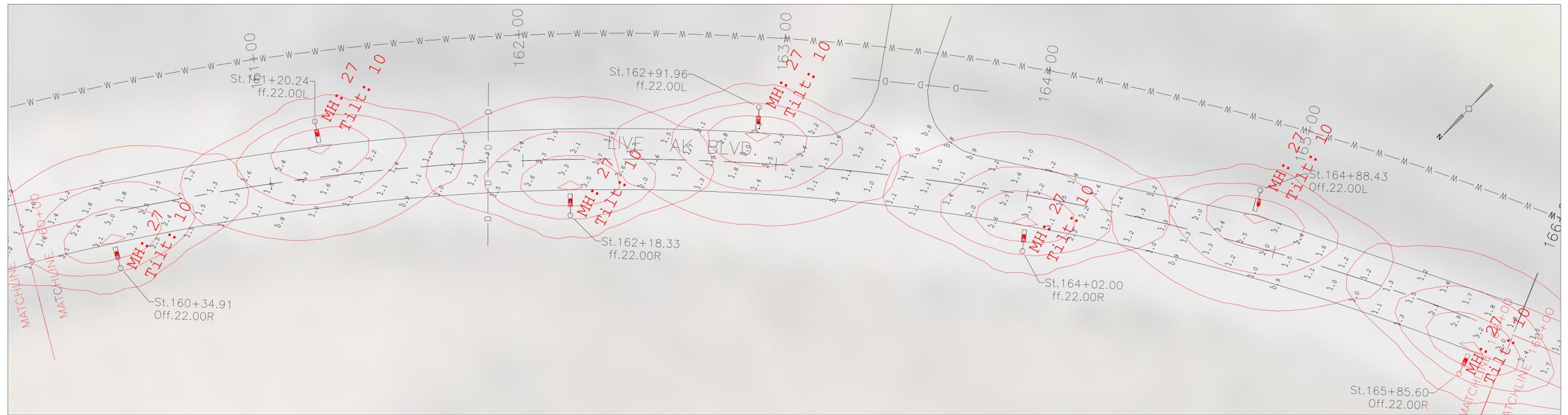
1" = 20'

REVISIONS				 SELS USA LLC 4747 Kester Mill Rd, Bldg B Winston-Salem, NC 27103 Phone (704) 495-3535	PROJECT: Jefferson Parrish Live Oak Solar Street Lighting	DATE: 5/31/22	STL-PRO PHOTOMETRIC Sta 136+00 - 148+00	SHEET NO. 5/17
DATE	DESCRIPTION	DATE	DESCRIPTION					
				ENGINEER OF RECORD: MA. ALD. ALEJANDRA ULLOA				



1" = 20'

REVISIONS				 SELS USA LLC 4747 Kester Mill Rd, Bldg B Winston-Salem, NC 27103 Phone (704) 495-3535	PROJECT: Jefferson Parrish Live Oak Solar Street Lighting	DATE: 5/31/22	STL-PRO PHOTOMETRIC Sta 148+00 - 160+00	SHEET NO. 6/17
DATE	DESCRIPTION	DATE	DESCRIPTION					
				ENGINEER OF RECORD: MA. ALD. ALEJANDRA ULLOA				



1" = 20'

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

SELS USA LLC
 4747 Kester Mill Rd, Bldg B
 Winston-Salem, NC 27103
 Phone (704) 495-3535

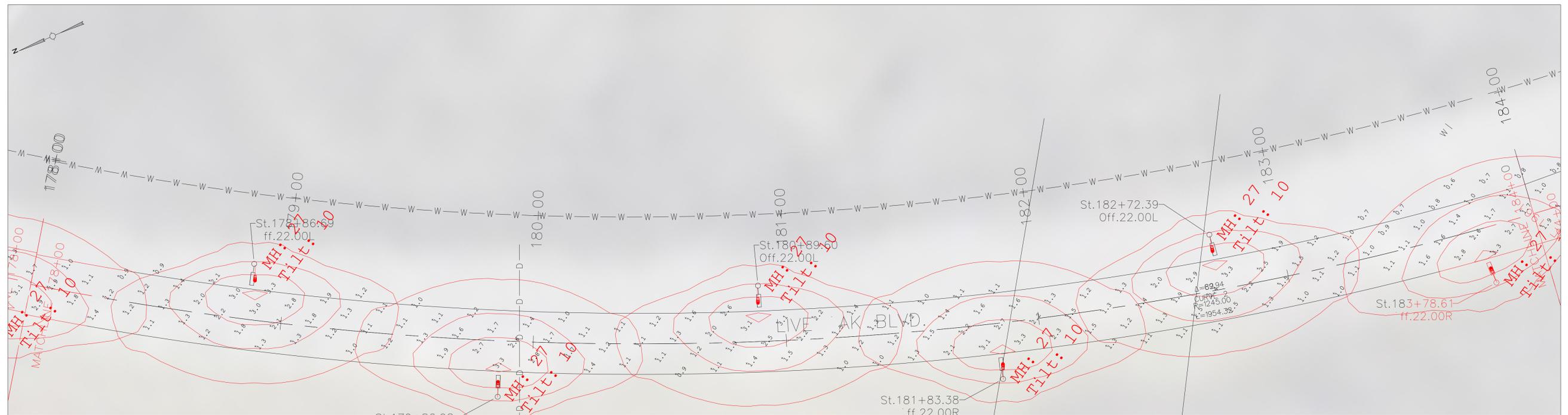
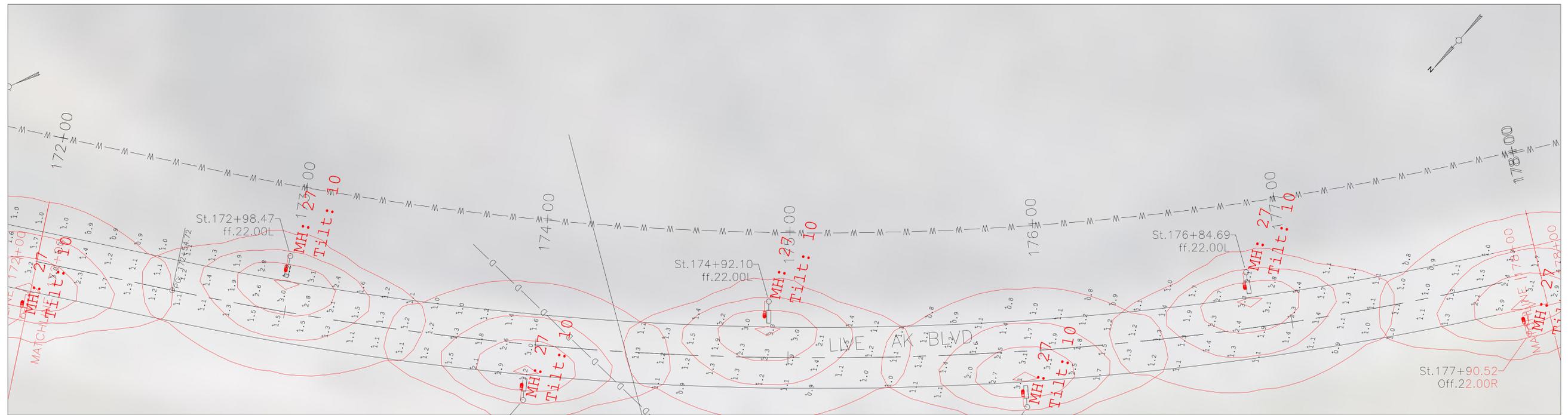
ENGINEER OF RECORD: MA. ALD. ALEJANDRA ULLOA

PROJECT: Jefferson Parrish
 Live Oak Solar Street Lighting

DATE: 5/31/22

STL-PRO PHOTOMETRIC
 Sta 160+00 - 172+00

SHEET NO. 7/17



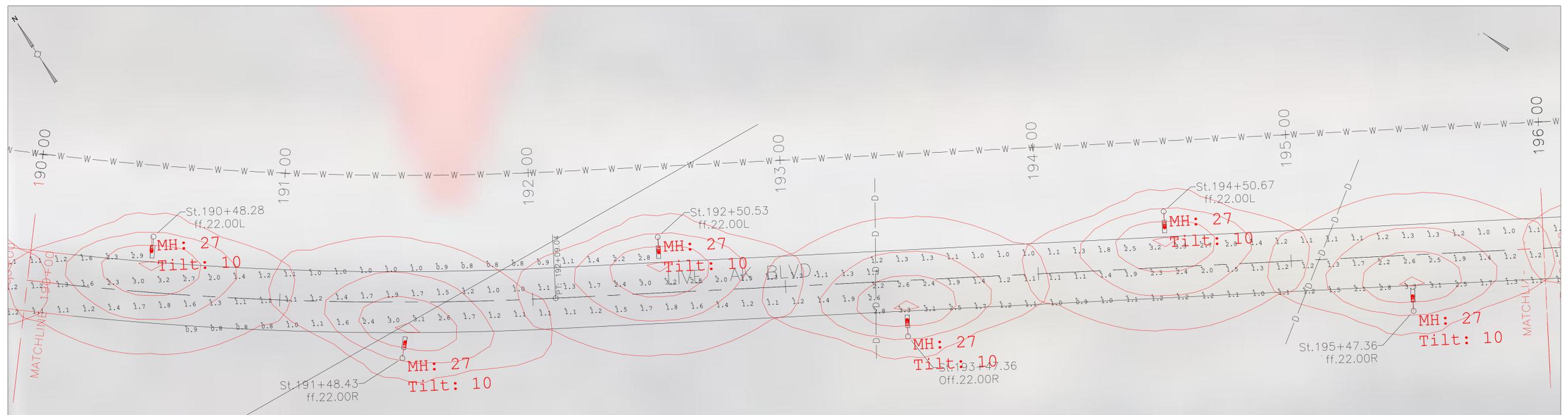
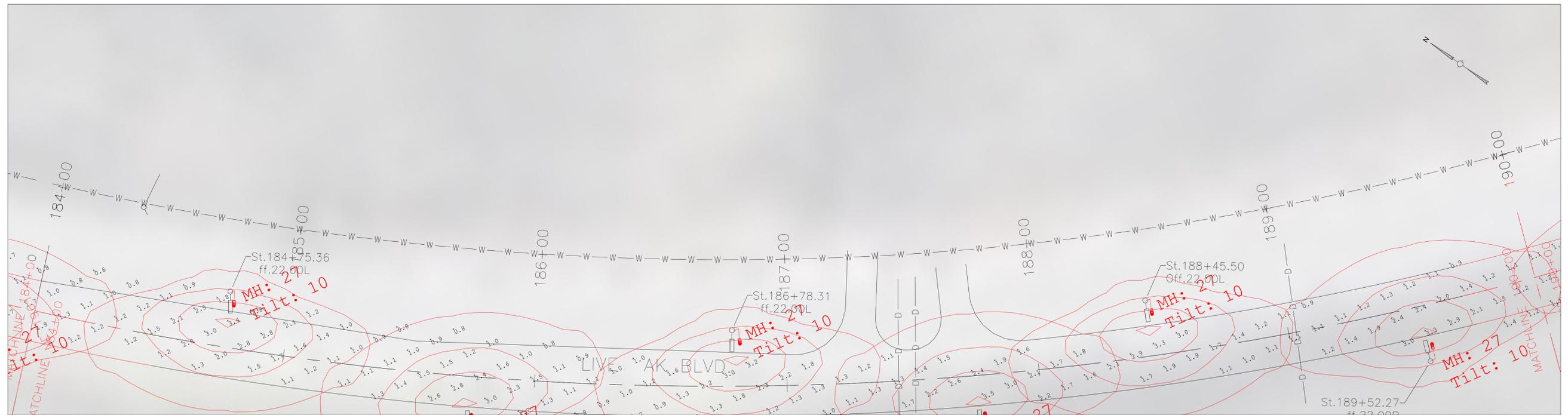
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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

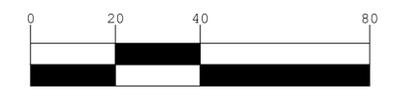
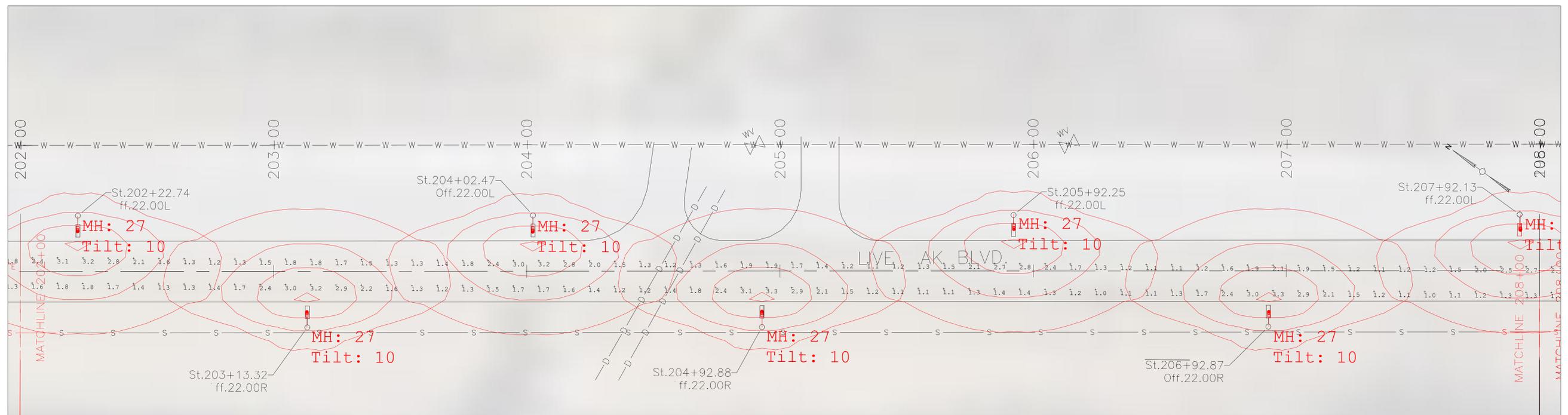
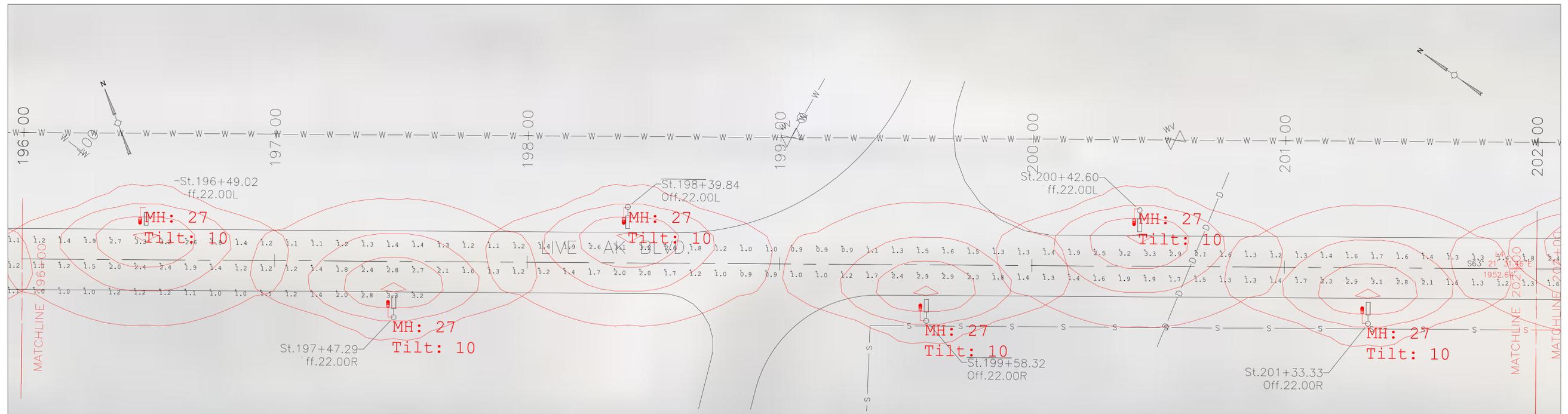

SELS USA LLC
 4747 Kester Mill Rd, Bldg B
 Winston-Salem, NC 27103
 Phone (704) 495-3535
 ENGINEER OF RECORD: MA. ALD. ALEJANDRA ULLOA

PROJECT: **Jefferson Parrish**
Live Oak Solar Street Lighting
 DATE: **5/31/22**

STL-PRO PHOTOMETRIC
Sta 172+00 - 184+00
 SHEET NO. **8/17**

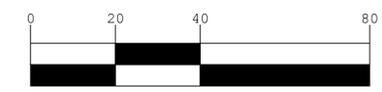
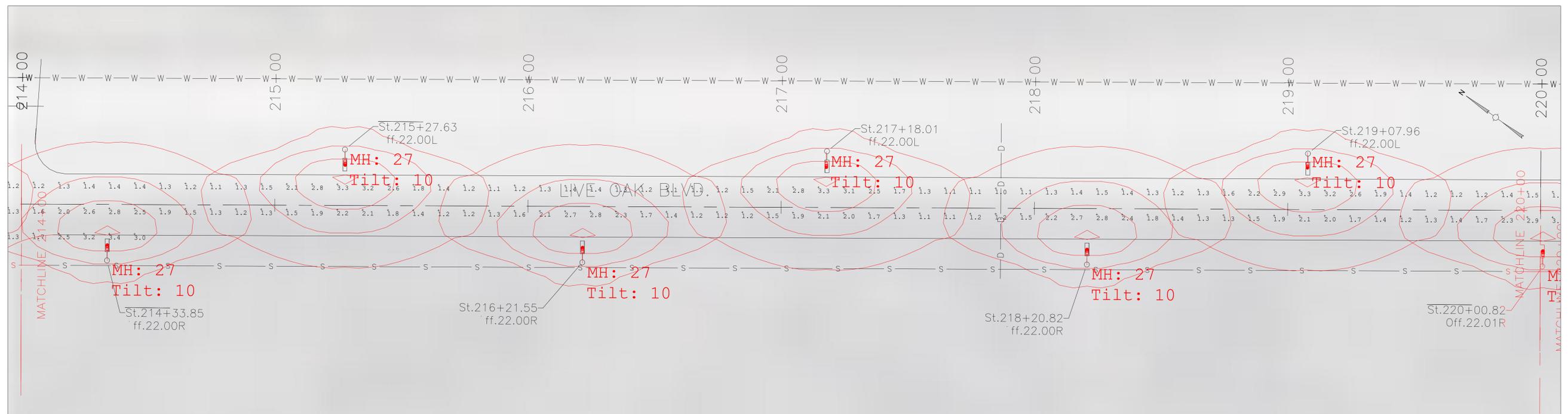
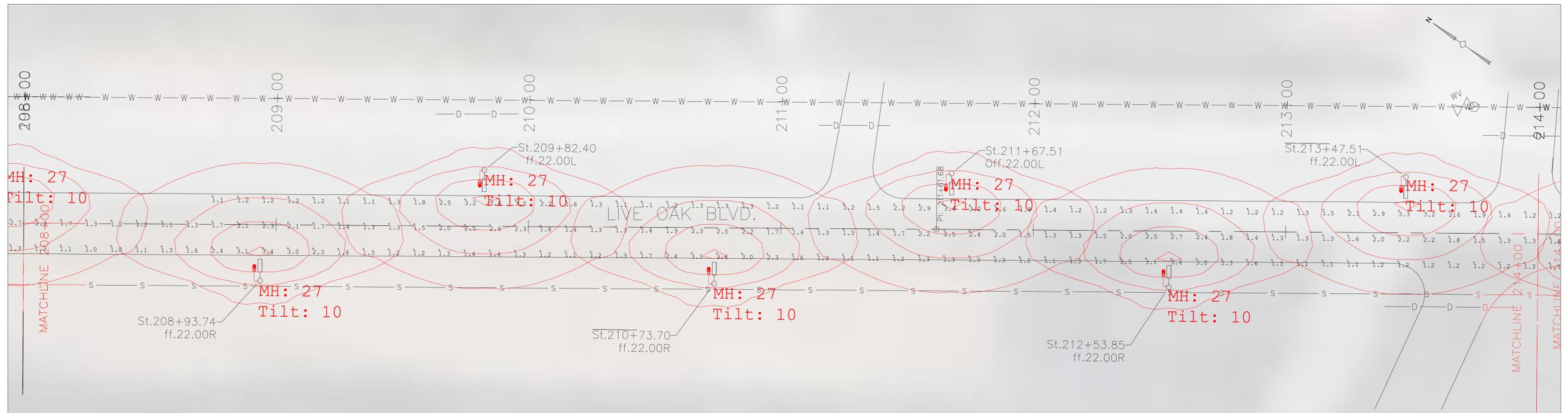


REVISIONS				 SELS USA LLC 4747 Kester Mill Rd, Bldg B Winston-Salem, NC 27103 Phone (704) 495-3535	PROJECT: Live Oak Solar Street Lighting	DATE: 5/31/22	STL-PRO PHOTOMETRIC Sta 184+00 - 196+00	SHEET NO. 9/17
DATE	DESCRIPTION	DATE	DESCRIPTION					
				ENGINEER OF RECORD: MA. ALD. ALEJANDRA ULLOA				



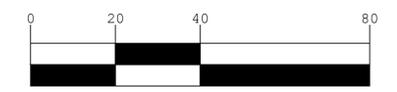
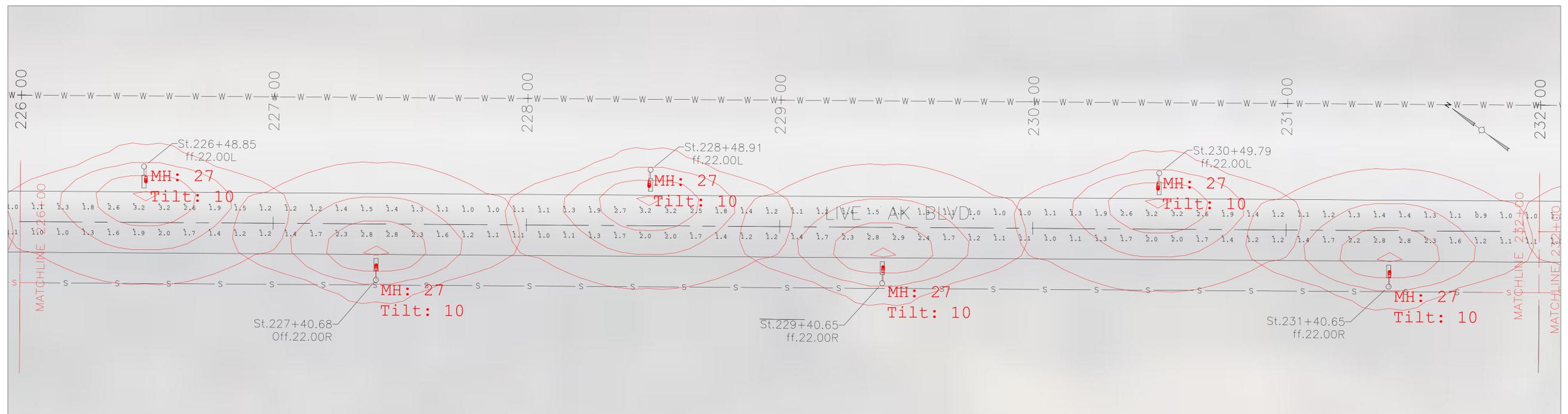
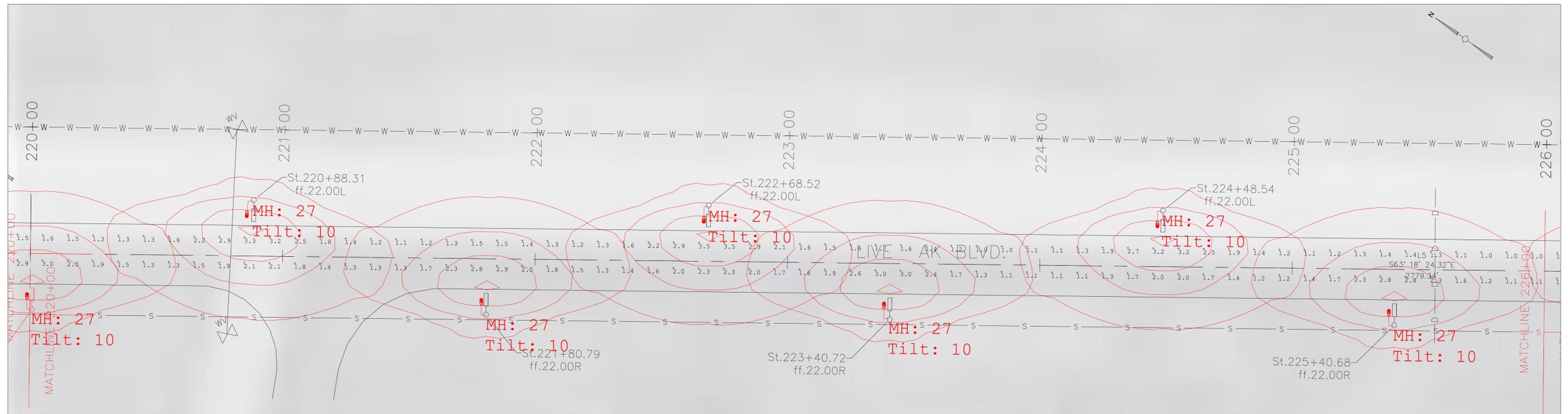
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REVISIONS				 SELS USA LLC 4747 Kester Mill Rd, Bldg B Winston-Salem, NC 27103 Phone (704) 495-3535	PROJECT: Jefferson Parrish Live Oak Solar Street Lighting	DATE: 5/31/22	STL-PRO PHOTOMETRIC Sta 196+00 - 208+00	SHEET NO. 10/17
DATE	DESCRIPTION	DATE	DESCRIPTION					
				ENGINEER OF RECORD: MA. ALD. ALEJANDRA ULLOA				



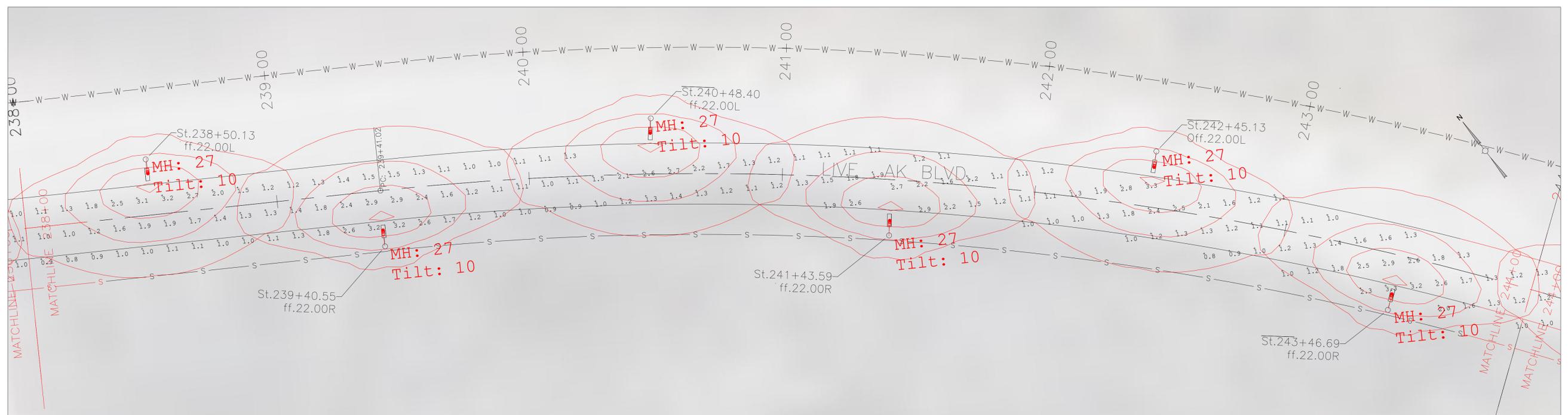
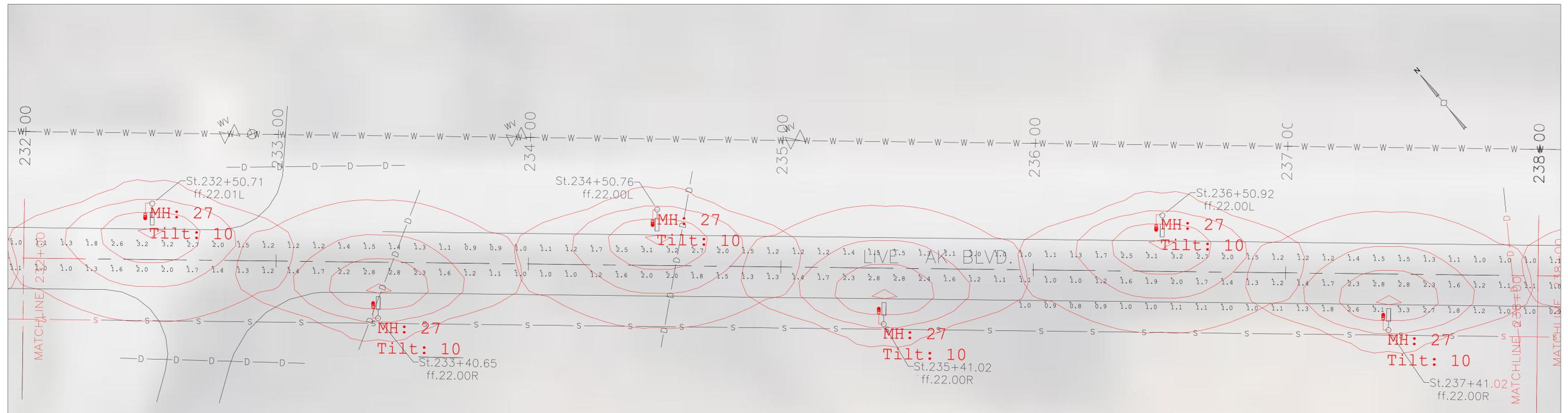
1" = 20'

REVISIONS				 SELS USA LLC 4747 Kester Mill Rd, Bldg B Winston-Salem, NC 27103 Phone (704) 495-3535	PROJECT: Live Oak Solar Street Lighting	DATE: 5/31/22	SHEET NO. 11/17
DATE	DESCRIPTION	DATE	DESCRIPTION				
				ENGINEER OF RECORD: MA. ALD. ALEJANDRA ULLOA	Jefferson Parrish	STL-PRO PHOTOMETRIC Sta 208+00 - 220+00	



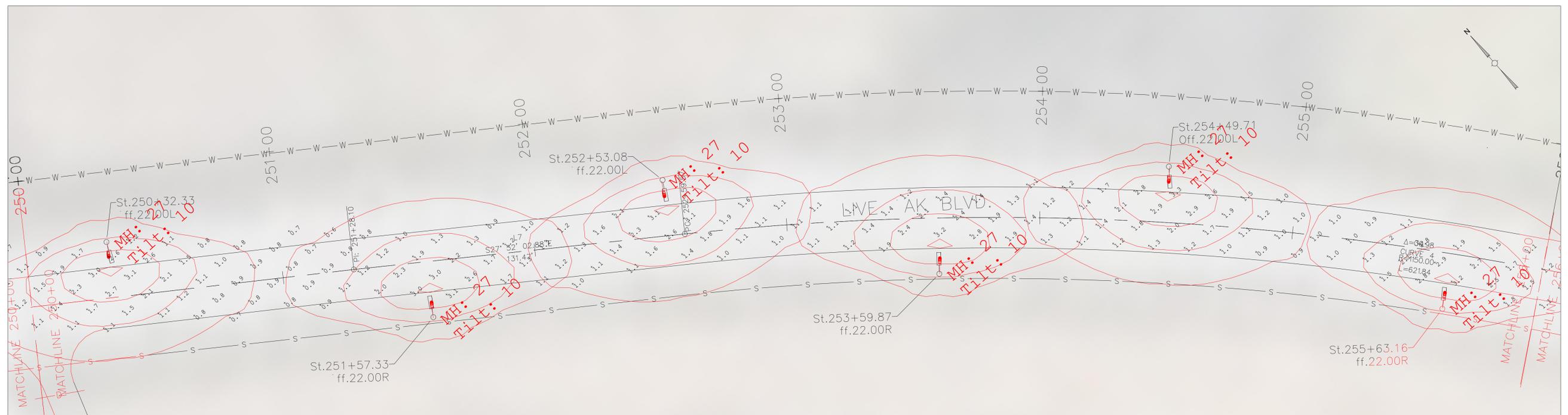
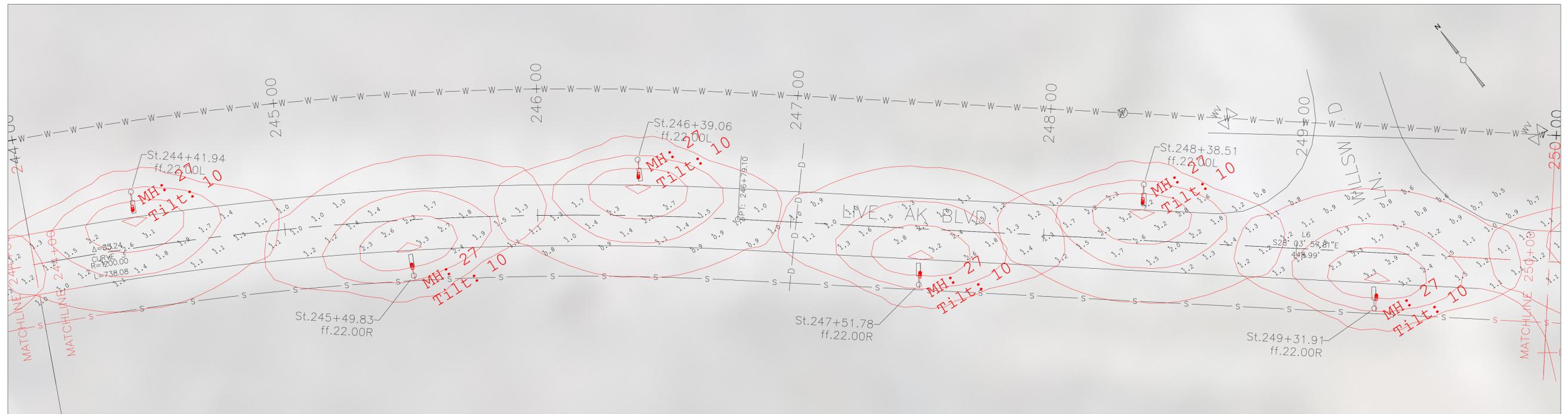
1" = 20'

REVISIONS		 SELS USA LLC 4747 Kester Mill Rd, Bldg B Winston-Salem, NC 27103 Phone (704) 495-3535	PROJECT: Live Oak Solar Street Lighting	DATE: 5/31/22	STL-PRO PHOTOMETRIC Sta 220+00 - 232+00	SHEET NO. 12/17
DATE	DESCRIPTION					
		ENGINEER OF RECORD: MA. ALD. ALEJANDRA ULLOA				



1" = 20'

REVISIONS				 SELS USA LLC 4747 Kester Mill Rd, Bldg B Winston-Salem, NC 27103 Phone (704) 495-3535	DATE:	Jefferson Parrish 5/31/22	STL-PRO PHOTOMETRIC Sta 232+00 - 244+00	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION		PROJECT:			13/17
				ENGINEER OF RECORD: MA. ALD. ALEJANDRA ULLOA	Live Oak Solar Street Lighting			



1" = 20'

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

SELS USA LLC
 4747 Kester Mill Rd, Bldg B
 Winston-Salem, NC 27103
 Phone (704) 495-3535

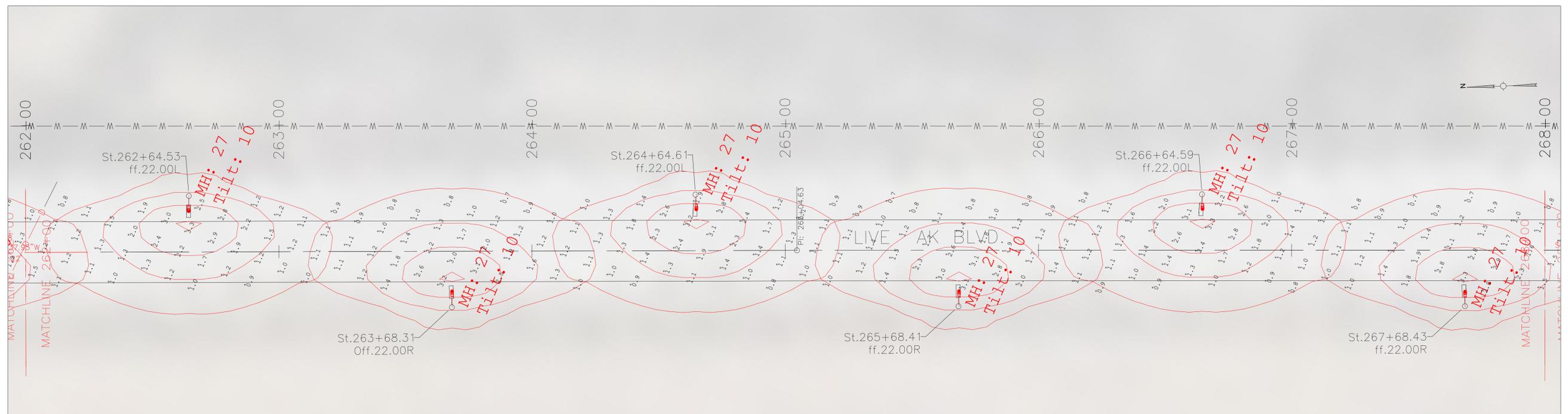
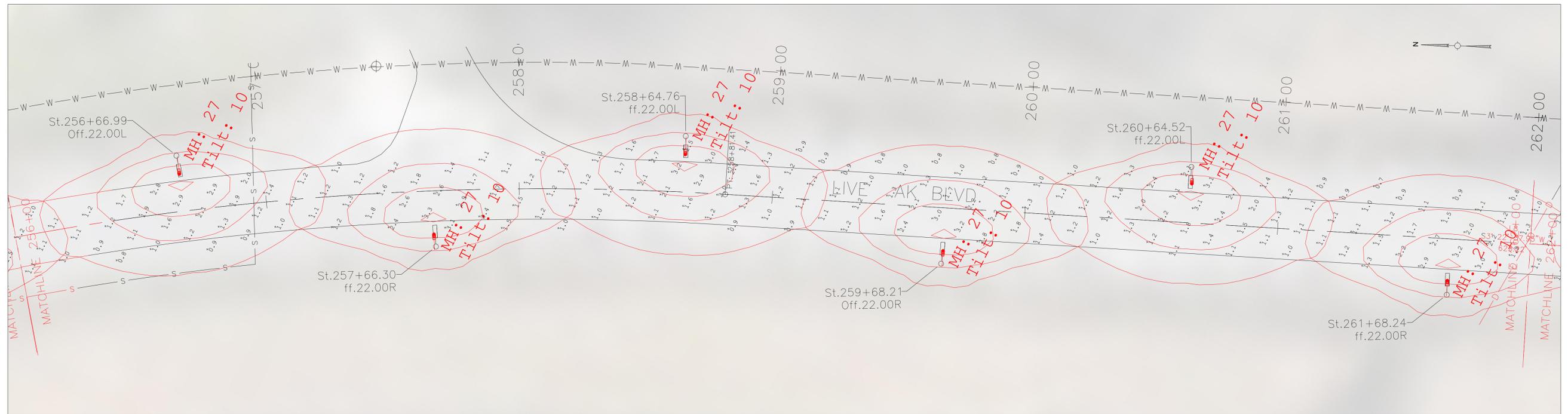
ENGINEER OF RECORD: MA. ALD. ALEJANDRA ULLOA

PROJECT: Jefferson Parrish
 Live Oak Solar Street Lighting

DATE: 5/31/22

STL-PRO PHOTOMETRIC
 Sta 244+00 - 256+00

SHEET NO. 14/17



1" = 20'

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

SELS USA LLC
 4747 Kester Mill Rd, Bldg B
 Winston-Salem, NC 27103
 Phone (704) 495-3535

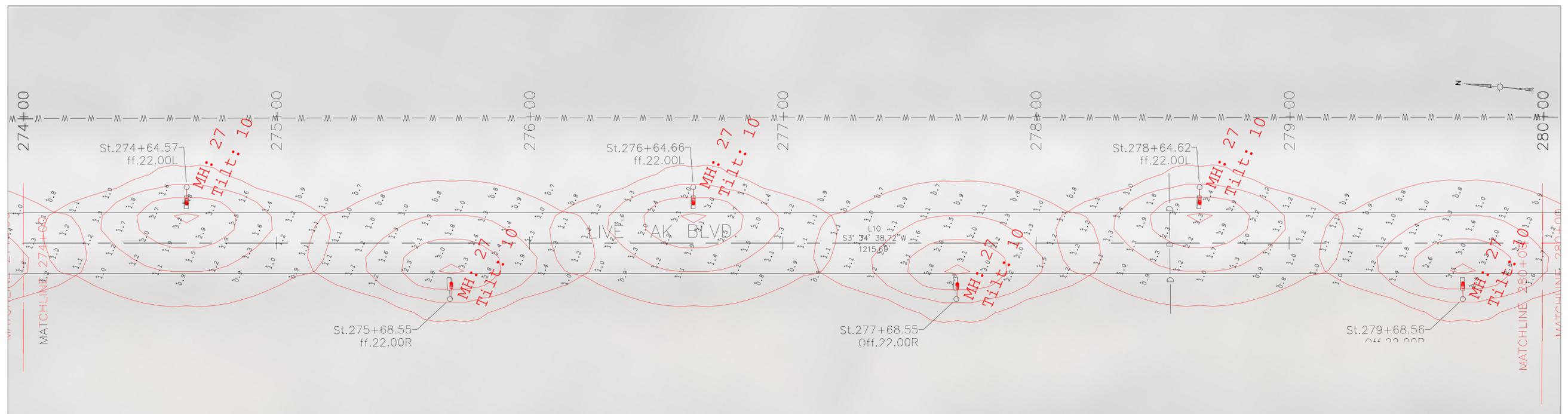
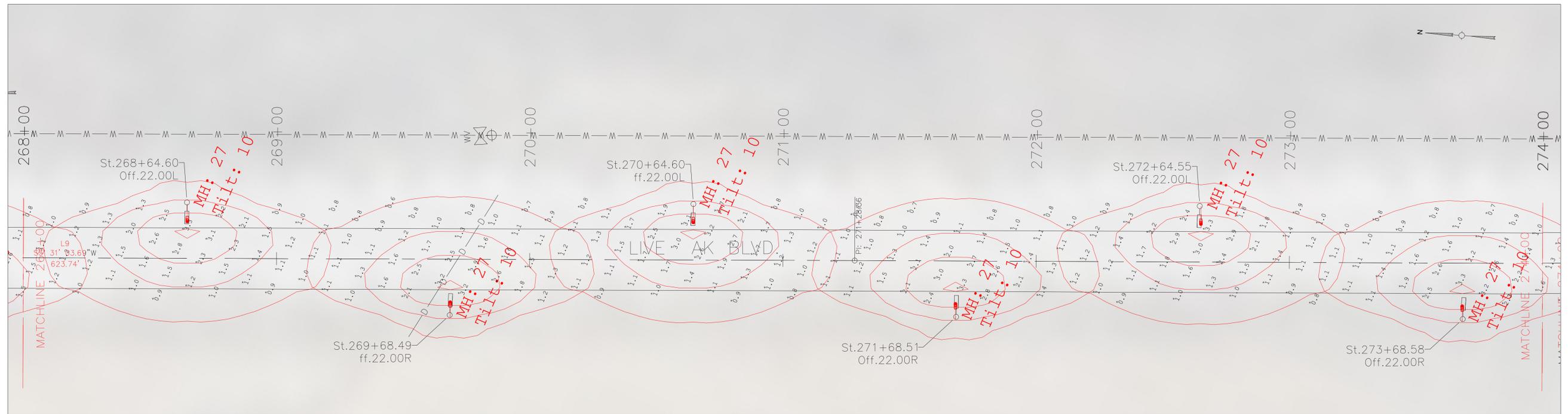
ENGINEER OF RECORD: MA. ALD. ALEJANDRA ULLOA

PROJECT: Jefferson Parrish
 Live Oak Solar Street Lighting

DATE: 5/31/22

SHEET NO. 15/17

STL-PRO PHOTOMETRIC
 Sta 256+00 - 268+00



1" = 20'

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

SELS USA LLC
 4747 Kester Mill Rd, Bldg B
 Winston-Salem, NC 27103
 Phone (704) 495-3535

SELS

ENGINEER OF RECORD: MA. ALD. ALEJANDRA ULLOA

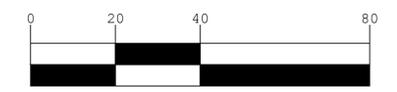
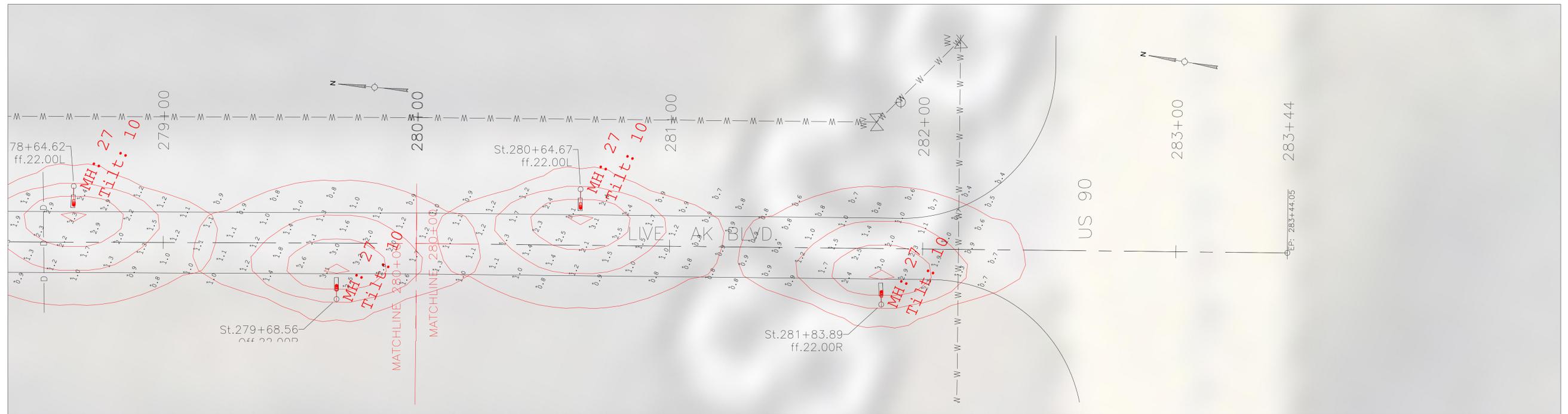
Jefferson Parrish

DATE: 5/31/22

PROJECT: Live Oak Solar Street Lighting

STL-PRO PHOTOMETRIC
 Sta 268+00 - 280+00

SHEET NO. 16/17



1" = 20'

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION


SELS USA LLC
 4747 Kester Mill Rd, Bldg B
 Winston-Salem, NC 27103
 Phone (704) 495-3535
 ENGINEER OF RECORD: MA. ALD. ALEJANDRA ULLOA

PROJECT:	Jefferson Parrish	DATE:	5/31/22
	Live Oak Solar Street Lighting		

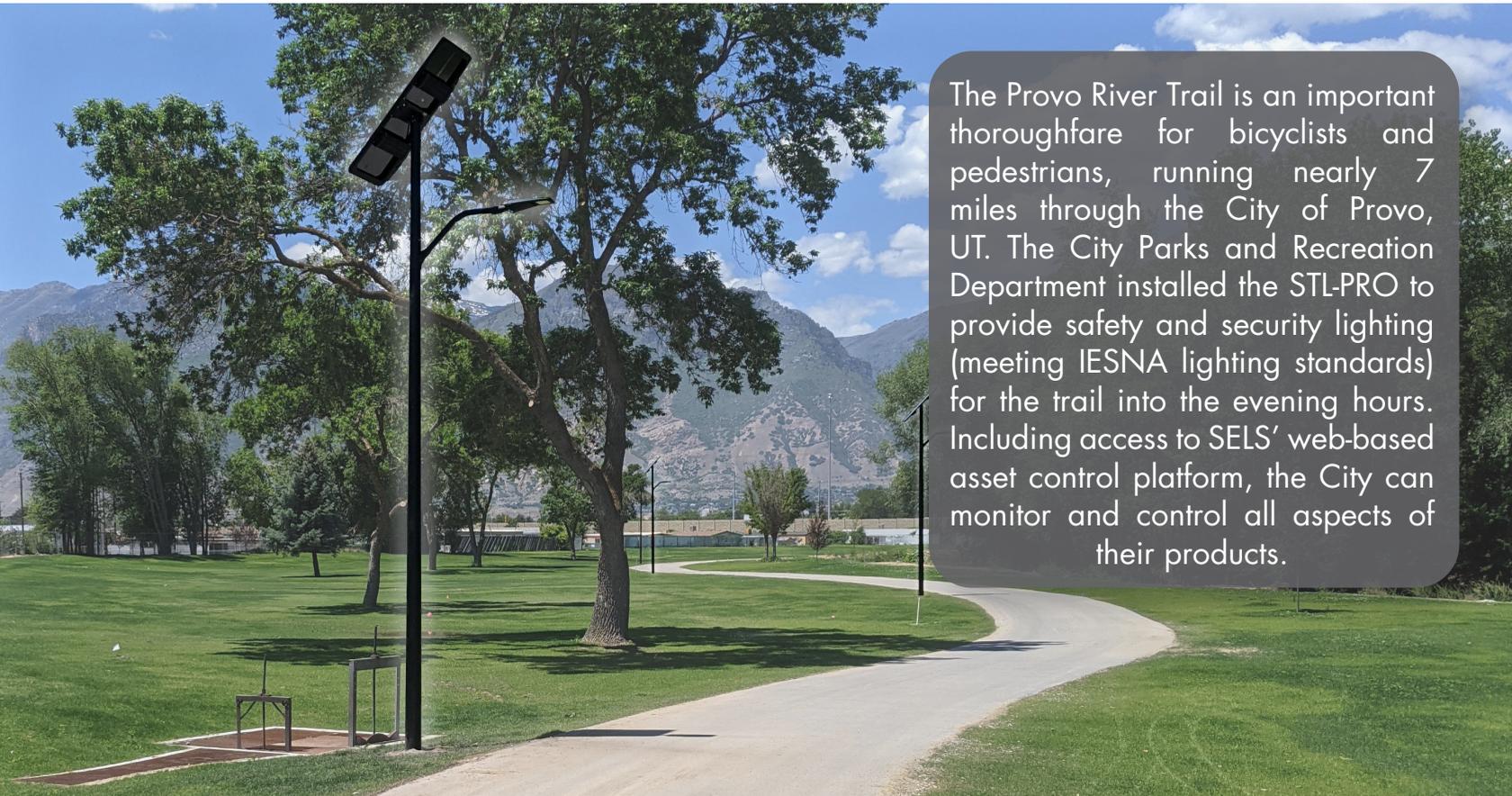
STL-PRO PHOTOMETRIC Sta 280+00 - 282+00	SHEET NO. 17/17
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STL-PRO



SELS

SELS' STL-PRO solar lighting systems are designed for easy and quick installation. Featuring custom aluminum extrusions and a high-strength steel mounting system, our design provides a sleek, high-performance lighting solution for a variety of applications. Our system is expandable to accommodate even the most demanding power applications, with custom sized solar panels, and energy storage through long-life lithium battery technology. SELS' proven solar power management and integrated lighting controller offers -user and field- adjustable lighting output and dimming control depending on the project need.



The Provo River Trail is an important thoroughfare for bicyclists and pedestrians, running nearly 7 miles through the City of Provo, UT. The City Parks and Recreation Department installed the STL-PRO to provide safety and security lighting (meeting IESNA lighting standards) for the trail into the evening hours. Including access to SELS' web-based asset control platform, the City can monitor and control all aspects of their products.



Solar Wattage Options:

- 135 Watts
- 210 Watts
- 285 Watts



Durable Solar Panel Housing

Ajustable Angle Mounting Hilt

Water-Proof Battery Containment

Available Features with STL-Pro



Fully Programmable

Dimming and lighting schedule is customizable to customer needs. Monitor power usage on the web.



LED Lighting

Lighting Color Options: 2200K - 5000K
Lumen Options: 150 Lumens per Watt

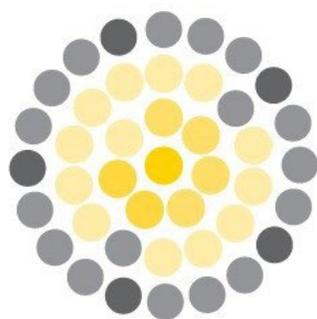


Security Surveillance

Utilize our patent pending camera design system to keep your property safe.

"Customer satisfaction is our utmost priority. We strive to be an ethically driven company so that we can provide electricity and lighting to those who need it the most." - Rafael Badilla, President of SELS





SELs

SMART ERA LIGHTING SYSTEMS



SOLAR LIGHT STL PRO

SOLAR STREET LIGHT



STREET & AREA LIGHTING

INSTALLATION MANUAL

STL PRO SERIES



Thank you for choosing **SELS STL PRO Solar Street Light**. Please read this operation manual carefully before installation to ensure successful installation and usage. Please retain this manual for future needs. Powered by a high efficiency monocrystalline silicon solar panel and long-life lithium battery, the STL PRO is designed for ease of installation and long service life.

Product Layout

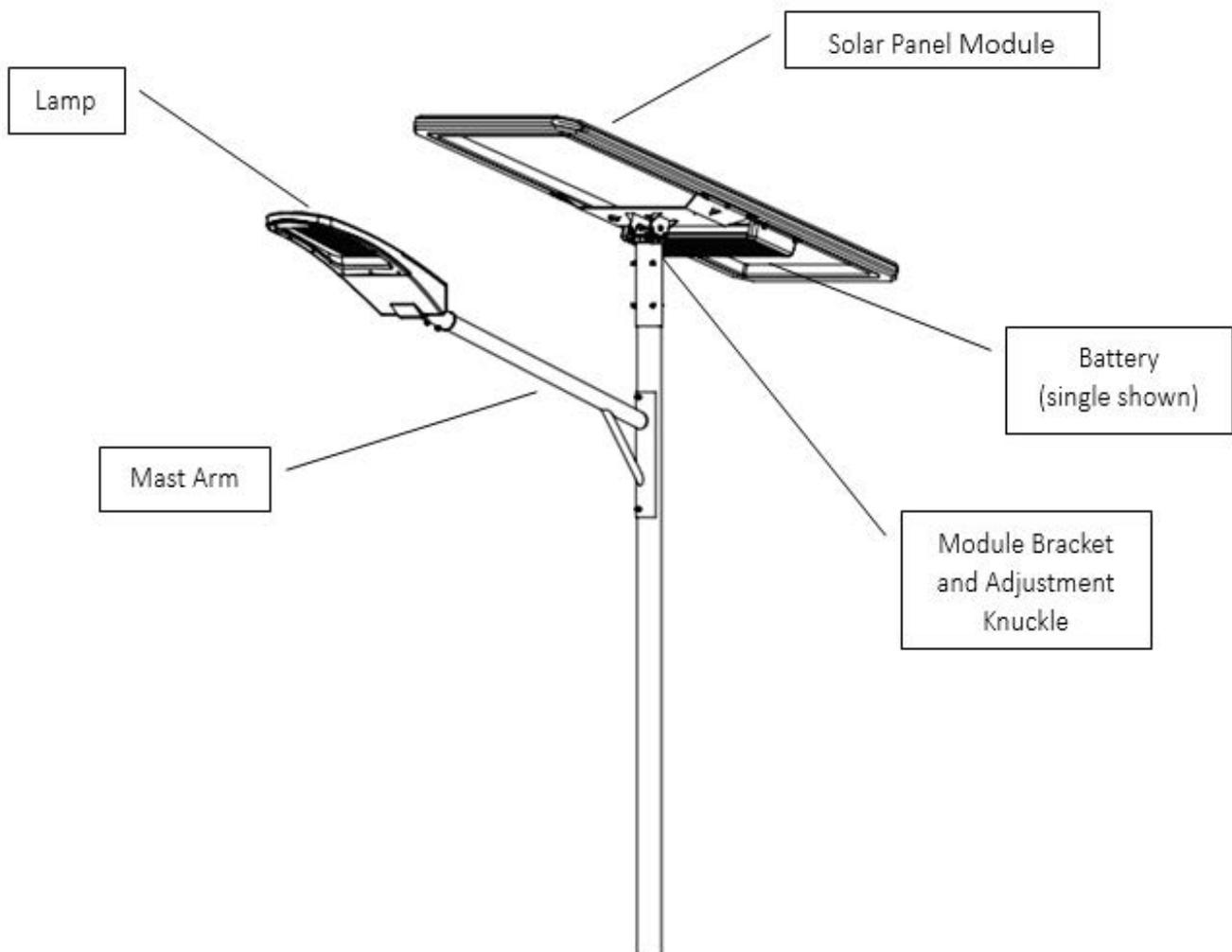
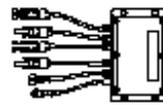
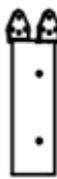
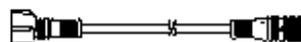


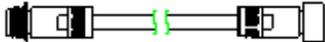
Figure 1 STL PRO Solar Street Light Overview



Parts List

No.	Item	Photo/Specification	Unit	Qty	Remark
1	Solar battery panel module		EA	1	
2	Light head module		EA	1	
3	Whole lamp post		EA	1	
4	Lamp post		EA	1	
5	Battery		EA	2	
6	Controller		EA	1	
7	Solar Panel Mounting Bracket		EA	1	
8	Pole Mounting Bracket		EA	1	
9	Lamp Connection Wire		EA	1	



10	Solar connection wire		EA	1	
11	Battery connection wire	Single or Double Battery	EA	1	
12	Accessories package	Anti-Theft Screws	set	1	

Accessories

No.	Item	Qty	Specification	Remark
12.1	Screw	8	M8 x 20, 316SS SHCS	6mm Hex Head
12.2	Security Screw	4	M8 x 20, 316SS BHCS	T30 Socket
12.6	Nut	10	M8, 316SS	

Installation Instructions

Necessary Tools: 6mm Allen Wrench, 13mm Box Wrench, Fish Tape

1)LED lamp Installation

- 1) Insert lamp wire through mast arm.
- 2) Using fish tape, pull lamp wire up to top of pole and secure in place.
- 3) Insert lamp onto end of mast arm and secure with m8 screws. See Figure 2
- 4) Install mast arm onto pole using method provided (band clamps, screws, etc.). See Figure 3
- 5) Adjust lamp head to specified angle.

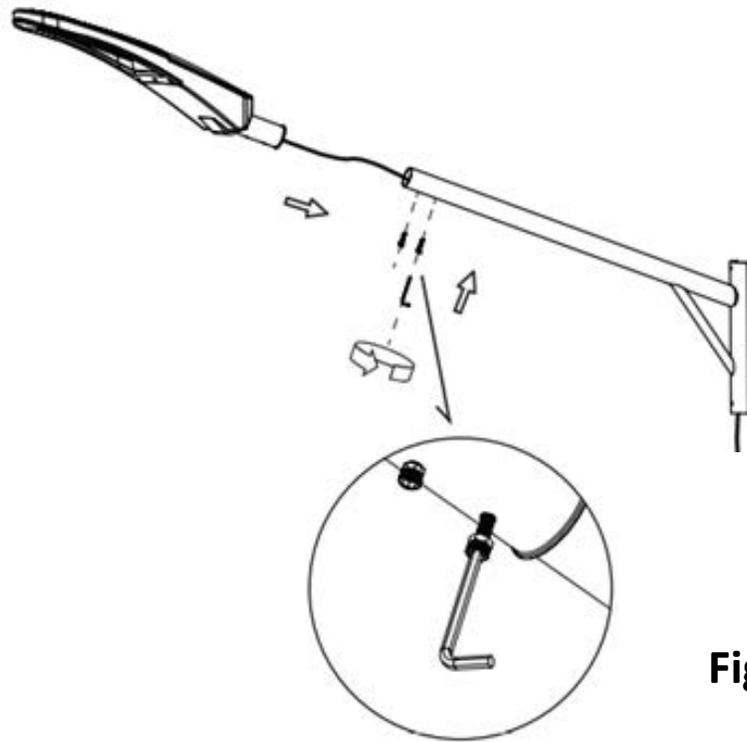


Figure 2

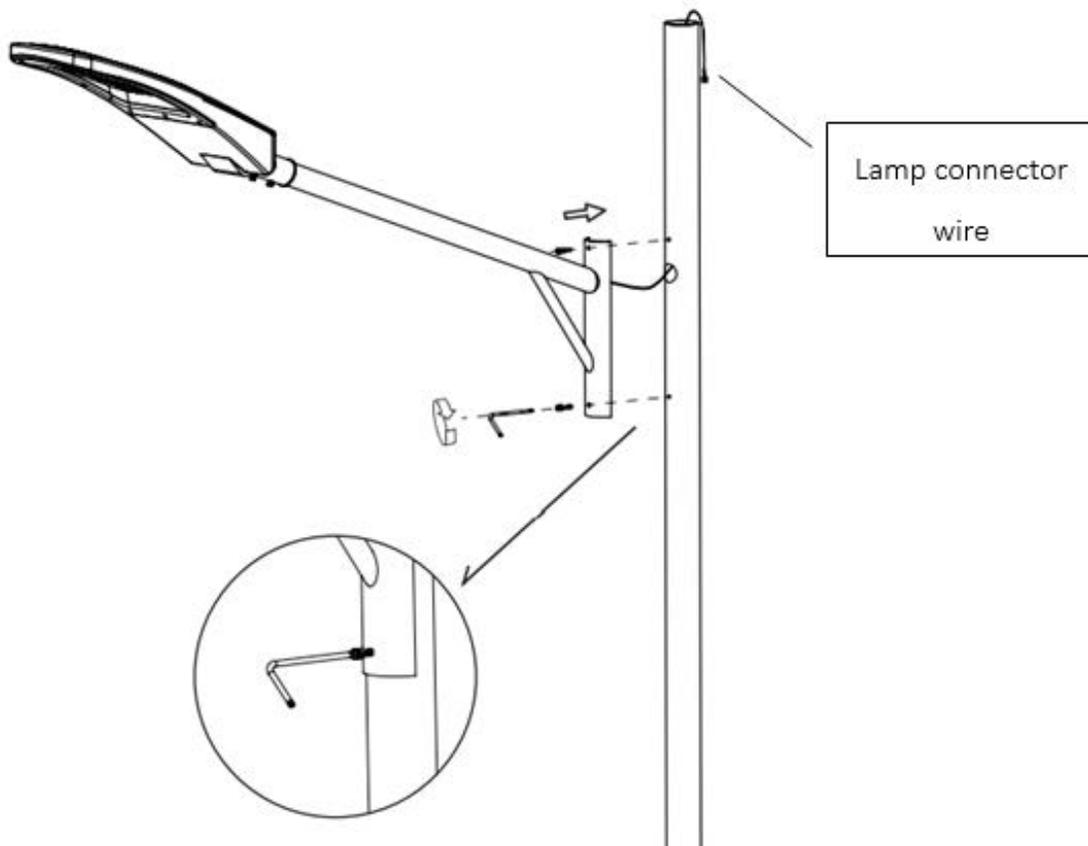


Figure 3

2) Solar Panel Bracket Installation

- 1) Secure the pole bracket to the solar panel using two security screws at pivot point. Pivot point has welded nuts on inside of solar panel knuckle. See Figure 4 and Figure 6.
- 2) Adjust solar panel to desired angle based on installation location. SELS representative can assist as needed.
- 3) Secure knuckle angle using socket head screws and nuts. See Figure 5 for angle adjustments.

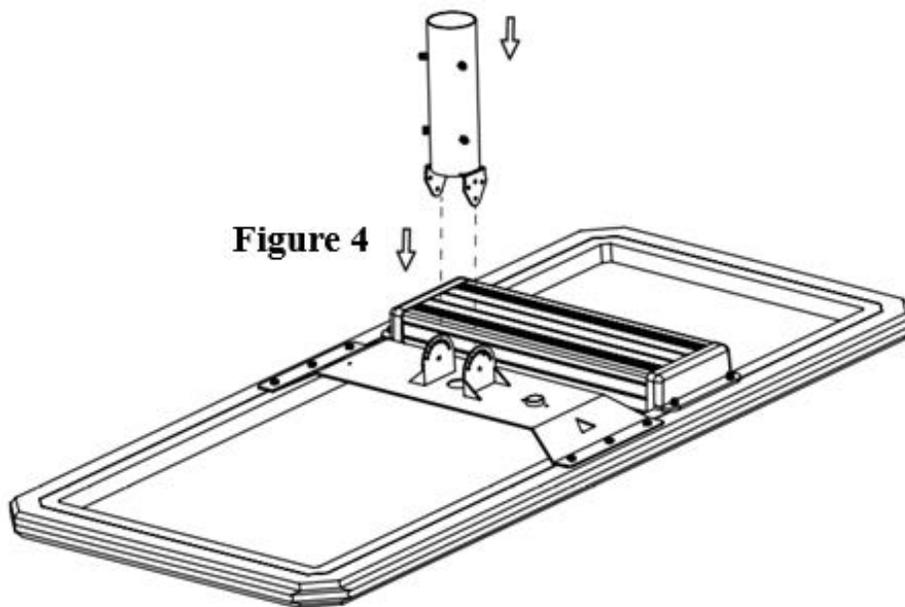
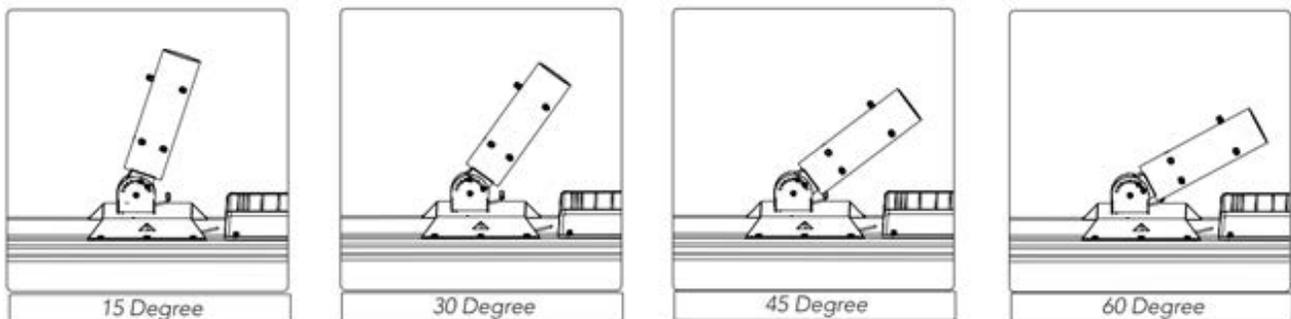


Figure 4

Figure 5



15 Degree

30 Degree

45 Degree

60 Degree

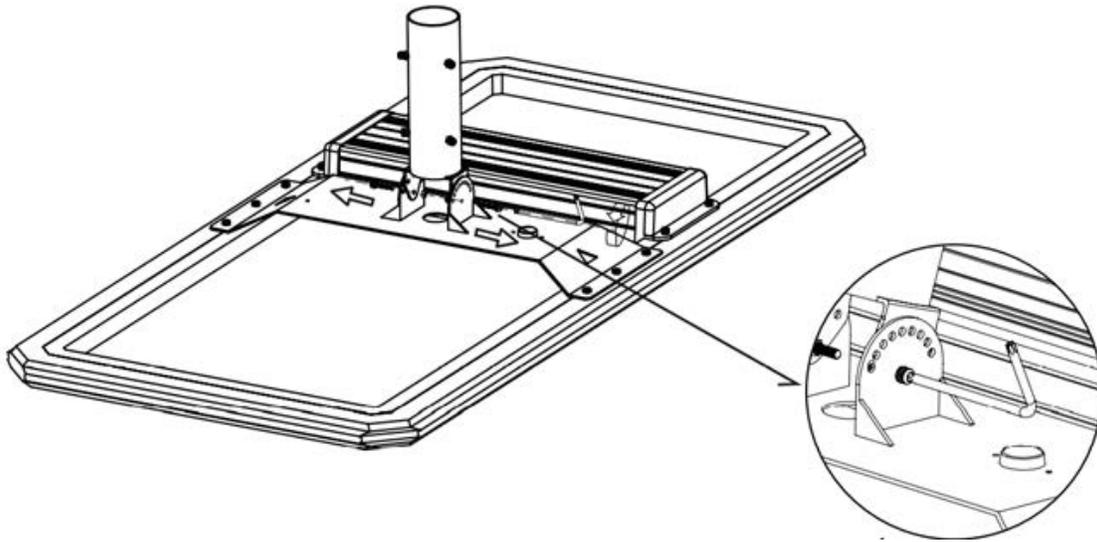


Figure 6

3) Installing the STL PRO System on the pole

- 1) Ensure the lamp wire is secured at the top of the pole. See Figure 3.
- 2) Insert the lamp wire through the pole mount bracket. See Figure 7.
- 3) Slide pole mount bracket over pole and rotate to ensure solar panel facing desired direction. SELS representative can assist for locating ideal orientation.
- 4) Tighten 6 screws into the pole and tighten nut to ensure screws cannot back out.
- 5) Connect lamp wire to the appropriate connector on solar charge controller using error-proofing connector. Ensure nut is tight to ensure waterproof condition. See Figure 9.
- 6) Press the button mounted on the side of bracket to power on the system.



Figure 7

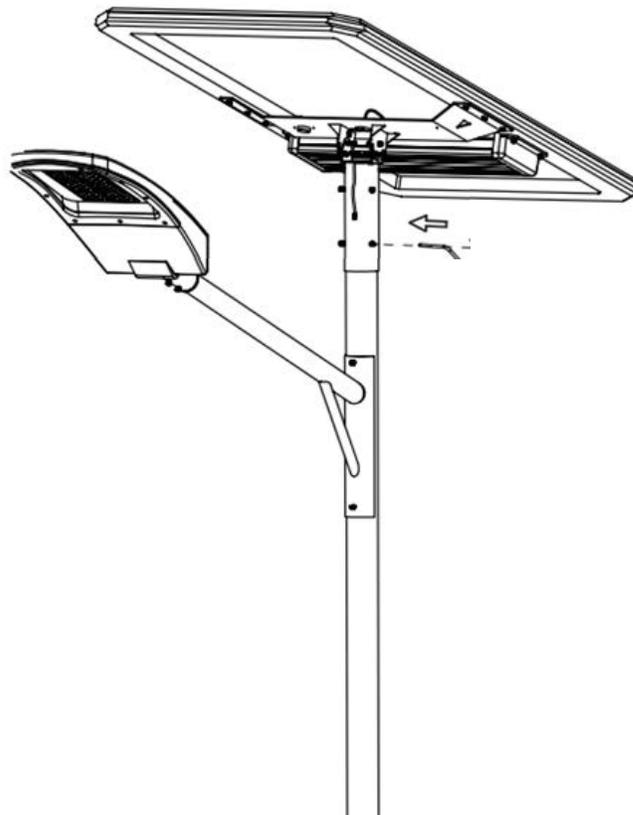


Figure 8

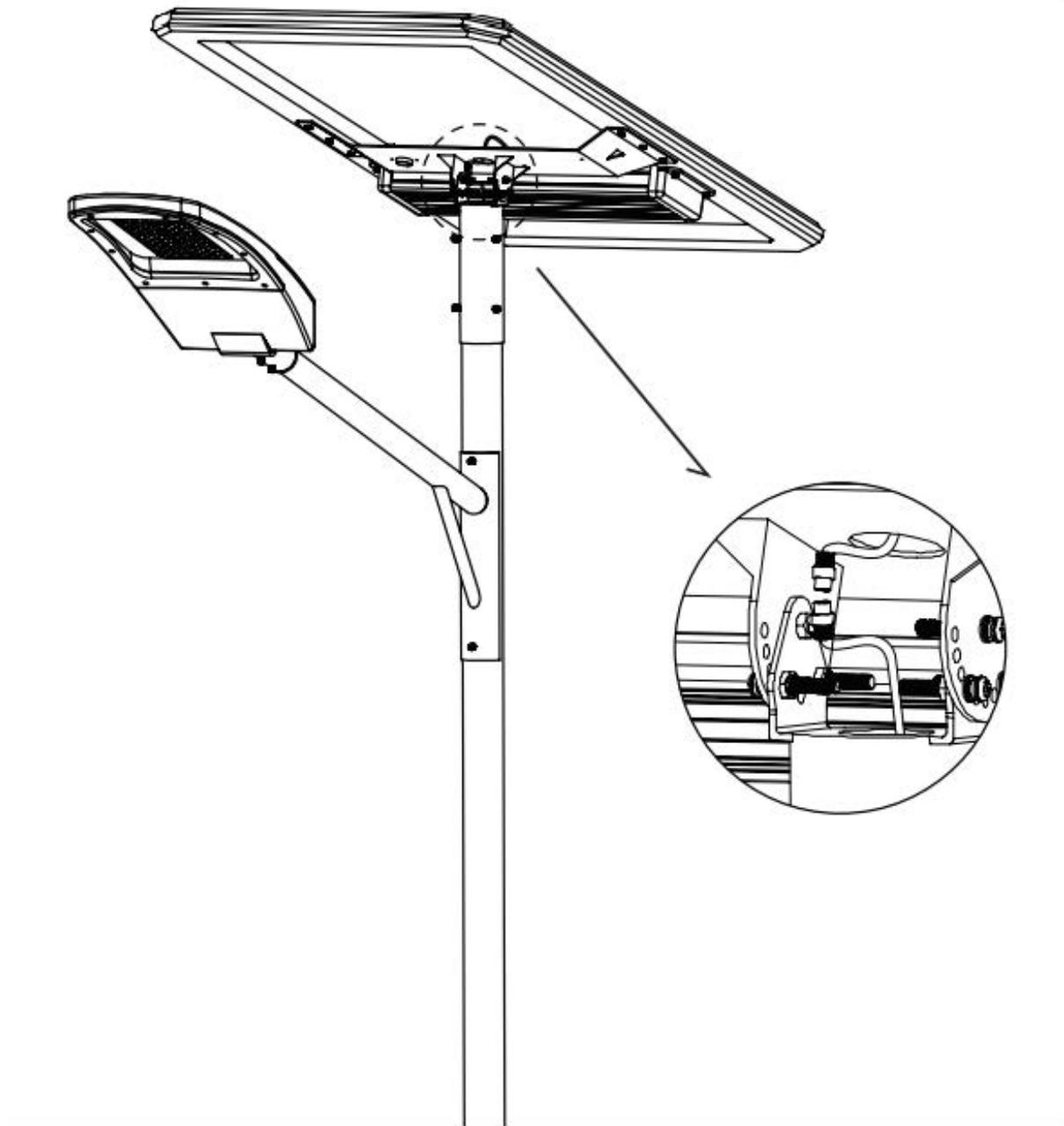


Figure 9

4) All electrical connections

- 1) Ensure all other electrical connections are secure. Ensure nuts are tightened to provide waterproof connections.
- 2) Options include: Second battery, motion sensor, and remote antenna.



Louisiana State Licensing Board for Contractors

Contractor Information

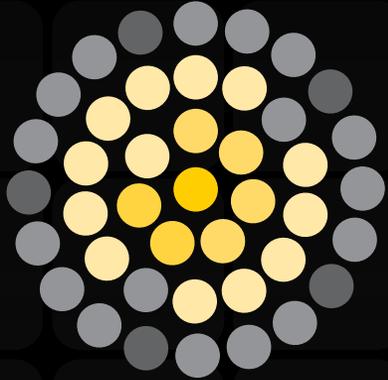
Business Name	POWER ELECTRICAL AND INSTRUMENTATION, LLC
Mailing Address	6409 Morton Street Metairie, LA 70003
Phone Number	(504) 650-9499
Fax Number	(504) 324-7159
Email Address	matt.eskins1@gmail.com
Website	http://

Active Licenses

License Number	44020
Type	Commercial License
Status	LICENSED
Effective	09/24/2021
Expiration	09/23/2022
First Issued	09/23/2005

Classifications

Class	Qualifying Party	Parishes
BUILDING CONSTRUCTION	Matthew Lee Eskins	ALL
BUSINESS AND LAW	Matthew Lee Eskins	ALL
ELECTRICAL WORK (STATEWIDE)	Matthew Lee Eskins	ALL
MECHANICAL WORK (STATEWIDE)	Matthew Lee Eskins	ALL
SPECIALTY: RIGGING, HOUSE MOVING, WRECKING AND DISMANTLING	Matthew Lee Eskins	ALL



SELS

SMART ERA LIGHTING SYSTEMS

US HEADQUARTERS

ADDRESS: 4747 KESTER MILL RD, PHONE: +1 (704) 495-3535

WWW.SELSLED.COM

STREET LIGHT MANAGEMENT PLATFORM

Smart Solar Streetlighting Control System by SELS

Networked control system addresses the following:



No Lighting Control

No ongoing control option for changing environmental needs



High Sustained Cost

Potential labor burdens and power costs associated with device modifications



Waste

Ineffective lighting strategy resulting in wasted power



SELS Smart Street Lighting?

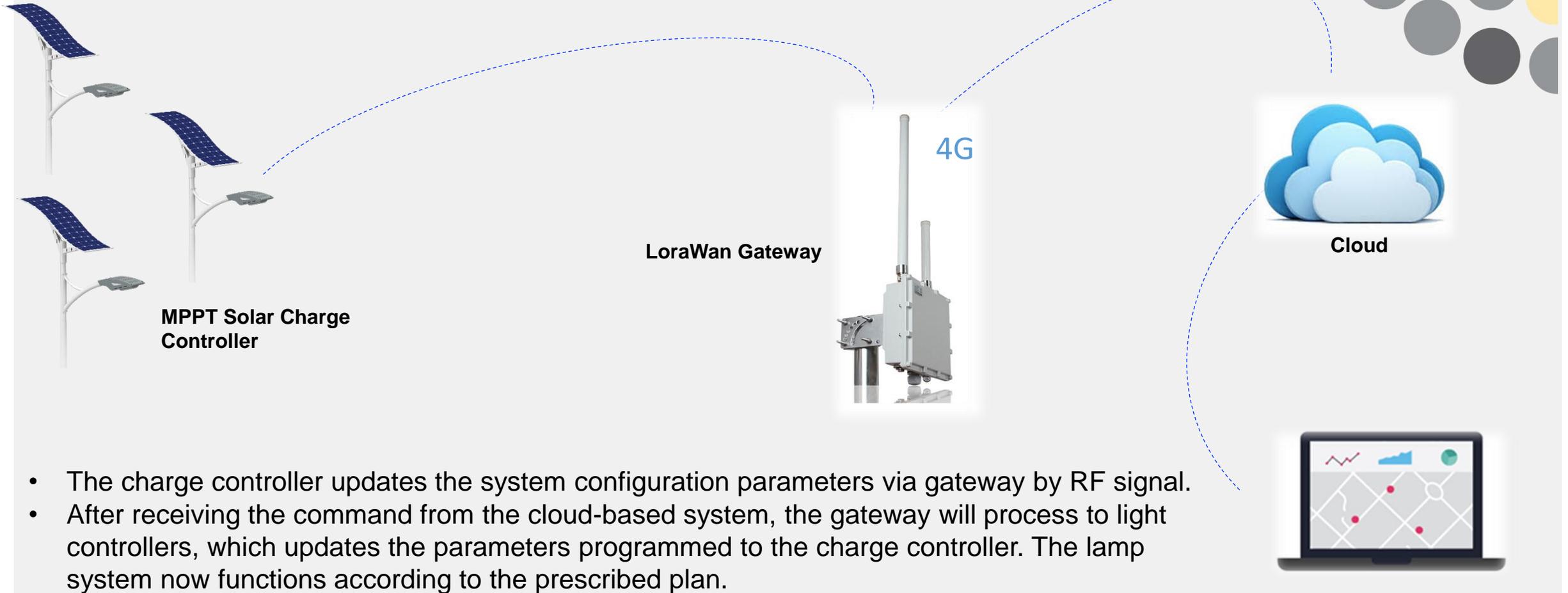


LoRa WAN
└───┬───┘ └───┬───┘
Long Range Wide Area Network

- Long Range
- Wide Area, Low Power Consumption
- Low Deployment Cost
- Bi-direction
- Standard LoRaWAN Network/Application Server
- Convenient Installation
- Easy Network Establishment
- Quick LoRa Devices Added
- Easy Maintenance



Control System Outline



Control System Specs



WE-GM-10 series gateway is a communication gateway based on LoRaWAN protocol standard. It is a key node device for building low-power wide area networks. The gateway has full-duplex data forwarding capability, meeting the requirements of high communication distance and low power consumption. Used in conjunction with SELS' LoRa enabled solar lighting controller, the user may network up to 2,000 nodes

12V~36V wide voltage DC input

Conforms to LoRaWAN wireless transmission protocol to support transmission and reception of full-duplex LoRa communication

Support multiple network access methods such as 2G/3G/4G and LAN

Adaptive data transfer rate

Output power up to 23dBm

Sensitivity dropped to -142.5dBm

Supports 8 channels concurrently, with up to 2,000 accessible nodes

The farthest transmission distance is 15km (line of sight), 2km (city distance)

Supports various operating frequencies such as US915MHz, EU868MHz, CN470MHz, AU915MHz

Effective lightning protection grounding protection



Performance Parameters



Communication parameters:

Operating frequency:
US915MHz/EU868MHz/CN470MHz/AU915MHz

Channels: 8 125KHz, rate adaptive, support for spreading factor SF7-SF12

Transmit power: < 23dBm

Receive sensitivity: > -142.5dBm

Transmission distance: 2Km (city) / 15Km (line of sight)

Access method: LAN, 2G/3G/4G

Data Protocol: UDP/TCP/MQTT

LoRa antenna: T-NC female interface

4G antenna: T-NC female interface



SELS Smart Street Light Controller (Nodes)



No-Load-Loss: 42mA/12V; 23mA/24V

System Voltage: 24V

Charging Current: 15A

Max.Solar Panel Power: 200W/12V; 400W/24V

Solar Panel Input voltage: <60

MPPT Tracking Efficiency: >99%

Charging Conversion Efficiency: 93% to 96%

Load Conversion Efficiency: 92% to 96%

Output Current: 70mA to 5600mA

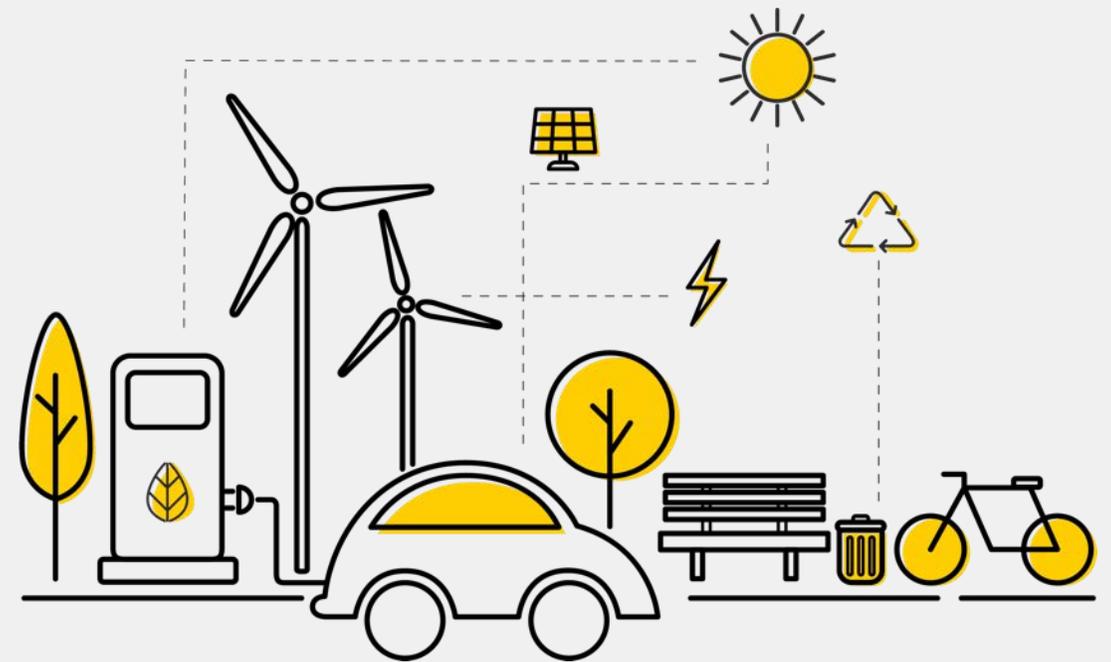
Load Current Accuracy: Load Current>300mA

Max Load Power: 80W/12V; 160W/24V

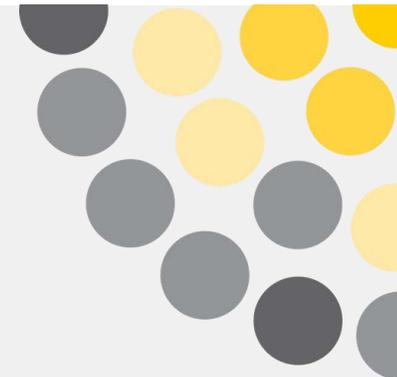




SELS Street Light Management Platform



Welcome Page




SMART ERA LIGHTING SYSTEMS

Welcome

SELS Street Light Management Platform

 -Please enter your account name

 -Please enter your login password

Remember password

[Sign In](#)



Main Page



Notice: No announcement information!



Project Summary

Show your general project situation, real-time data, project editing, permission allocation; manage project grid and street lamp attribute association to provide you with a concise project overview



Project management

View and manage your device information and various editing settings according to the project classification, flexibly use the grouping strategy to control large area switch, brightness and so on.



Video surveillance

Display all surveillance videos, real-time synchronous viewing, sharpness, probe direction can be flexibly controlled.



Weather monitoring

Display the surrounding environment information detected by intelligent devices, multi-faceted auxiliary setting of the correct brightness strategy of switching lights, so that the lighting control equipment more in line with the needs of life.



GIS map

GIS maps fully display the lighting control under the flag, and display differently according to different equipment types and different equipment status, so as to facilitate users to quickly view and control the operation accordingly.



Alarm maintenance

Remind the wear and tear status of the equipment in real time, manage the basic information of the maintenance personnel, and quickly check the work status of the maintenance personnel.



Historical data

Through lists, histograms and polygonal maps to show the trend of data diversification, flexible selection of equipment for comparative operation, so that equipment management is clearer and reporting is simpler.



User management

View your basic personal information, as well as geographical and permission information, to control the various permissions of your sub-account.

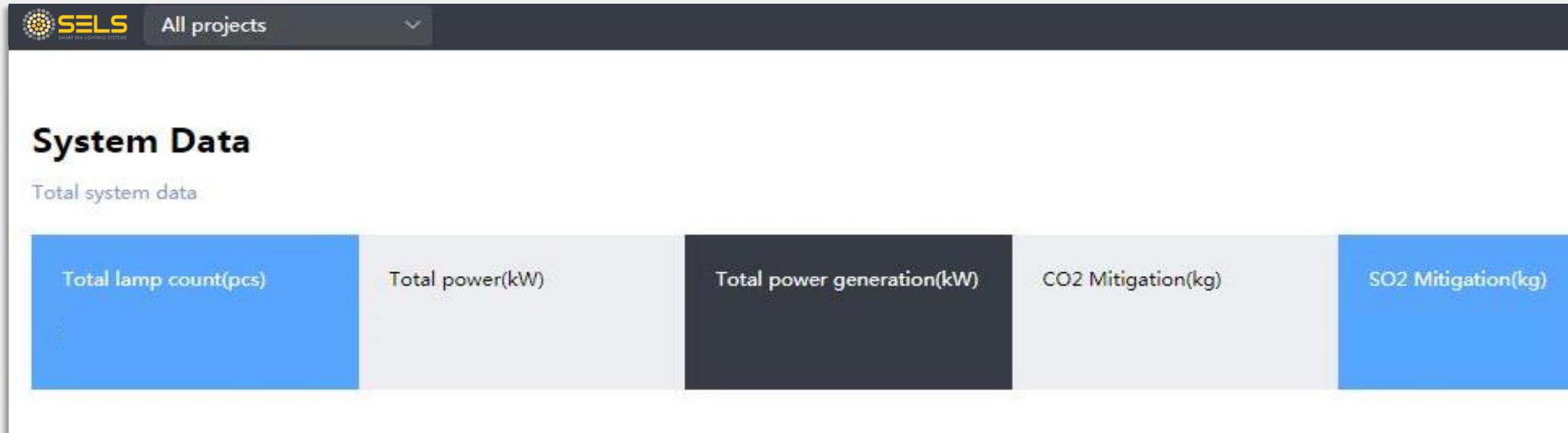


Operation log

Real-time display platform account operation status, keyword query, classification search, fast traceability of historical operations.



System Data



Project Summary

Show your general project situation, real-time data, project editing, permission allocation; manage project grid and street lamp attribute association to provide you with a concise project overview

Shows total lamps currently managed by your account



Project Management

SELS Notice: project 005541 street lamp has been over release, please enter the page of alarm maintenance to check the details, and deal with it in time!

lumbering : 0... 26 Total lamps count(pcs) 1 Total gateways count(pcs) 26 100% Total online count(pcs) 3 11.54% Total light count(pcs) 0 0% Total fault count(pcs)

Today Cloudy 07:06 18:45 25°C / 15°C Sun 10-13 Light Rain 19°C / 12°C Mon 10-14 Light Rain 19°C / 12°C Tue 10-15 Light Rain 22°C / 14°C Wed 10-16 Light Rain 21°C / 13°C Thu 10-17 Light Rain 21°C / 14°C Fri 10-18 Light Rain 21°C / 12°C

All Lamp 26/26 All Off-line Warning Add Lamp Batch Update

Search by lamp number search Export Excel Field management Refresh strategy + Add Project

Number	Lamp number	Road	Lamp status	Network status	Update time	Wireless module address	Lamp power(W)	Charging stage	Battery volts	Operation
1	000001	杯湖路	off		2019-10-12 15:0...	06300938	0	Floating	27.4	Detail Modify Record GIS Parameter
2	000002	杯湖路	80		2019-10-11 21:3...	00001479	12.96	There is no charge	26	Detail Modify Record GIS Parameter
3	000003	杯湖路	off		2019-10-06 15:3...	00000066	0	Floating	27.3	Detail Modify Record GIS Parameter
4	000004	杯湖路	off		2019-10-12 10:2...	00001352	0	Improve charging	28.7	Detail Modify Record GIS Parameter
5	000005	杯湖路	off		2019-10-02 05:2...	00000027	8.31	There is no charge	25.5	Detail Modify Record GIS Parameter

User can monitor and manage all the lamps under the same project.

project management

View and manage your device information and various editing settings according to the project classification, flexibly use the grouping strategy to control large area switch, brightness and so on.



Alarm Report and Maintenance

SELS Notice: project 002457 street lamp has been load short circuit, please enter the page of alarm maintenance to check the details, and deal with it in time!

Alarm Historical alarm Inspection setup Export Excel Print Refresh

Search - Enter keywords to search Time Start time End Time Type All Callout All

Number	Project name	Alarm lamp	Alarm event	Type	Update time
1		000002	Abnormal battery voltage	All	2019-10-14 17:40:05
2		000002	Abnormal battery voltage	Over release	2019-10-14 17:35:04
3		000011	Abnormal battery voltage	Overpressure	2019-10-14 17:34:33
4		000002	Abnormal battery voltage	Load short circuit	2019-10-14 17:30:07
5		000002	Abnormal battery voltage	Battery failure	2019-10-14 17:25:03
6		000012	Abnormal battery voltage	Internal overtemperature	2019-10-14 17:23:15
7		002701	over release	External overtemperature	2019-10-14 17:22:31
8		000322	Abnormal battery voltage	Load opening	2019-10-14 17:21:13
9		000012	Abnormal battery voltage	Untreated	2019-10-14 17:21:02
10		000002	Abnormal battery voltage	Untreated	2019-10-14 17:20:05
11		100046	over release	Untreated	2019-10-14 17:19:30
12		000015	Abnormal battery voltage	Untreated	2019-10-14 17:17:53
13		000005	Battery Overdischarge	Untreated	2019-10-14 17:16:52



Alarm maintenance

Remind the wear and tear status of the equipment in time, synchronize the maintenance status of the equipment in real time, manage the basic information of the maintenance personnel, and quickly check the work status of the maintenance personnel.

View detailed alarm reports and historical alarms



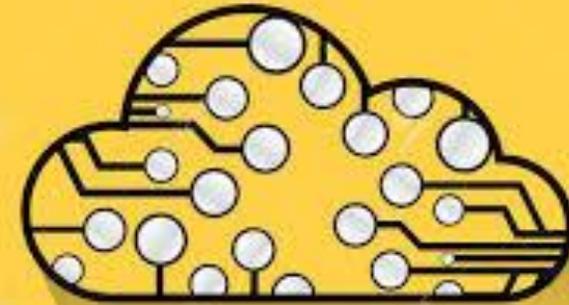
System Requirements

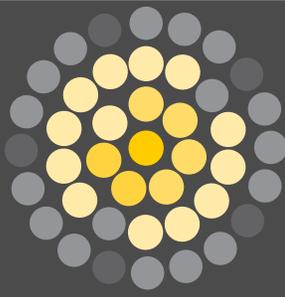
SELS or Customer Adminstrated

Virtual Private Server (Microsoft Azure, AWS, Google Cloud, etc.)

4G Cellular Subscription (Verizon, AT&T, etc.)

Internet Accessible Computer Terminal for Modifications and Alerts





SELS

SMART ERA LIGHTING SYSTEMS

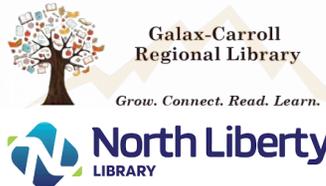
OUR CLIENTS

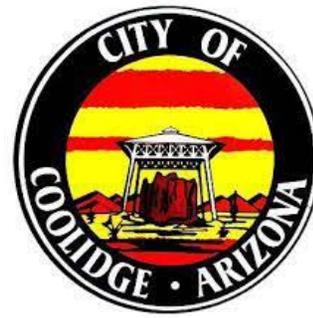
SELS is proud to work with a diverse group of municipalities, universities, and corporations. Listed below are our most successful projects.

Our goal is to combine excellent engineering with the latest design aesthetics to bring the highest quality solar products to satisfy every client's specific needs.



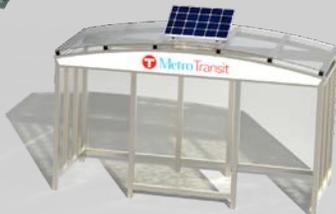
The Community College of Baltimore County





THANK YOU FOR YOUR SUPPORT

Family of Products





June 1, 2022

SELS USA, LLC
Rafael Badilla
4747 Kester Mill Rd
Winston-Salem, NC 27103

RE: Jefferson Parish – Live Oak Solar Street Lighting- Project N0.2018-013-SL
VALUE: Approximately \$1.5 Million

Dear Rafael,

Please include this with your proposal.

District Bonding, LLC currently handles the bonding needs of **SELS USA, LLC**. **SELS USA, LLC** is an active client of District Bonding, LLC. The contractor has always been efficient at providing any and all documentation required by surety. We look forward to continuing our relationship far into the future.

SELS USA, LLC has a current surety relationship with **Markel Insurance Company** which is a Treasury-listed, "A" rated bond company. We have considered and issued bid, performance and payment bonds in excess of the above referenced project and will gladly entertain any requests in the referenced range should they be awarded a contract.

While we know of no reason at this time that would prevent us from issuing required payment and performance bonds, you understand that any arrangement for the bid or final bond(s) is a matter between the contractor and the respective surety and is subject to their normal underwriting standards, practices and conditions. These include, but are not limited to, the following: (1) client meeting all underwriting criteria at the time the bond(s) are requested, (2) review of bid or contract documents, (3) evidence of adequate financing, (4) bid spread of 10% or less, and (5) requests for final bonds are made prior to the commencement of work. This letter does not prequalify the contractor and may not be used for the purpose of Subcontractor Default Insurance, Subguard or any similar insurance product or other third party verification. District Bonding, LLC and the surety accept no responsibility whatsoever as to the qualifying requirements of this client.

Please feel free to contact us if you have any questions.

Sincerely,

Joshua A. Etemadi



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

5/24/2022

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER World Insurance Associates, LLC 656 Shrewsbury Ave Suite 200 Tinton Falls NJ 07701	CONTACT NAME: PHONE (A/C No. Ext): 732-380-0900		FAX (A/C, No):
	E-MAIL ADDRESS:		
License#: BR-961573 SELSUS0001		INSURER(S) AFFORDING COVERAGE	NAIC #
INSURED SELS USA LLC 4747 Kester Mill Rd., Winston Salem NC 27103		INSURER A: Century Surety Company	36951
		INSURER B: Clear Spring Property and Casualty Company	15563
		INSURER C: LLoysds of London	15792
		INSURER D:	
		INSURER E:	
		INSURER F:	

COVERAGES

CERTIFICATE NUMBER: 815246019

REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS		
A	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input checked="" type="checkbox"/> LOC <input type="checkbox"/> OTHER:			CCP- 1038071	2/22/2022	2/22/2023	EACH OCCURRENCE	\$ 1,000,000	
							DAMAGE TO RENTED PREMISES (Ea occurrence)	\$ 100,000	
							MED EXP (Any one person)	\$ 5,000	
							PERSONAL & ADV INJURY	\$ 1,000,000	
							GENERAL AGGREGATE	\$ 2,000,000	
							PRODUCTS - COMP/OP AGG	\$ 1,000,000	
							DED	\$ 500	
	AUTOMOBILE LIABILITY <input type="checkbox"/> ANY AUTO <input type="checkbox"/> OWNED AUTOS ONLY <input type="checkbox"/> HIRED AUTOS ONLY <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> NON-OWNED AUTOS ONLY						COMBINED SINGLE LIMIT (Ea accident)	\$	
							BODILY INJURY (Per person)	\$	
							BODILY INJURY (Per accident)	\$	
							PROPERTY DAMAGE (Per accident)	\$	
								\$	
	UMBRELLA LIAB <input type="checkbox"/> OCCUR EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE DED RETENTION \$						EACH OCCURRENCE	\$	
							AGGREGATE	\$	
								\$	
B	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N	N/A	CS-WK-000012487-0	8/30/2021	8/30/2022	<input checked="" type="checkbox"/> PER STATUTE <input type="checkbox"/> OTHER	E.L. EACH ACCIDENT	\$ 1,000,000
								E.L. DISEASE - EA EMPLOYEE	\$ 1,000,000
								E.L. DISEASE - POLICY LIMIT	\$ 1,000,000
C	PERSONAL LIABILITY			ANE425827121	8/30/2021	8/30/2022	LIMIT	\$ 1,000,000	

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)
 LOCATION ADDRSS: 4747 KESTERMILL ROAD, WINSTON SALEM, NC 27103

CERTIFICATE HOLDER**CANCELLATION**

Jefferson Parish Government Live Oak Solar Street Lighting Project, No.2018-013-SL	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.
	AUTHORIZED REPRESENTATIVE 

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CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

03/08/2022

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER  Elizabeth Soots Agency 110 Oakwood Dr. Ste E Winston Salem NC 27103	CONTACT NAME: Elizabeth Soots PHONE (A/C. No. Ext): 336-293-7232 E-MAIL ADDRESS: taneshia@sootsinsurance.com	FAX (A/C. No): 336-293-7283	
	INSURER(S) AFFORDING COVERAGE INSURER A: State Farm Mutual Automobile Insurance Company INSURER B: INSURER C: INSURER D: INSURER E: INSURER F:		NAIC # 25178
INSURED SELS USA LLC Rafael Badilla 4673 Center Rock Ct Winston Salem NC 27127			

COVERAGES**CERTIFICATE NUMBER:****REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
	COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input type="checkbox"/> OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC OTHER:						EACH OCCURRENCE \$ DAMAGE TO RENTED PREMISES (Ea occurrence) \$ MED EXP (Any one person) \$ PERSONAL & ADV INJURY \$ GENERAL AGGREGATE \$ PRODUCTS - COMP/OP AGG \$ \$
	AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO <input checked="" type="checkbox"/> OWNED AUTOS ONLY <input type="checkbox"/> HIRED AUTOS ONLY <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> NON-OWNED AUTOS ONLY			33-62D6-1 33-62D6-2	03/08/2022 03/08/2022	09/08/2022 09/08/2022	COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000 BODILY INJURY (Per person) \$ 500,000 BODILY INJURY (Per accident) \$ 500,000 PROPERTY DAMAGE (Per accident) \$ 1,000,000 \$
	UMBRELLA LIAB <input type="checkbox"/> EXCESS LIAB <input type="checkbox"/> OCCUR <input type="checkbox"/> CLAIMS-MADE DED RETENTION \$						EACH OCCURRENCE \$ AGGREGATE \$ \$
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y / N	N / A				<input type="checkbox"/> PER STATUTE <input type="checkbox"/> OTH-ER E.L. EACH ACCIDENT \$ E.L. DISEASE - EA EMPLOYEE \$ E.L. DISEASE - POLICY LIMIT \$

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

RFP 19-23TS Benjamin Franklin Drive Solar Lighting

CERTIFICATE HOLDER**CANCELLATION**

City of Sarasota 1565 First St Sarasota, FL 34236	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS. AUTHORIZED REPRESENTATIVE Completed by an authorized State Farm representative. If signature is required, please contact a State Farm agent.
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LOUISIANA UNIFORM PUBLIC WORK BID FORM

TO: Jefferson Parish
Purchasing Department
200 Derbigny Street, Suite 4400
Gretna, Louisiana 70053
(Owner to provide name and address of owner)

BID FOR: LIVE OAK SOLAR STREET LIGHTING
(US Hwy. 90 to S. Kenner Rd.)
PW. Project No. 2018-013-SL
Proposal No. 50-00137963
(Owner to provide name of project and other identifying information)

The undersigned bidder hereby declares and represents that she/he; a) has carefully examined and understands the Bidding Documents, b) has not received, relied on, or based his bid on any verbal instructions contrary to the Bidding Documents or any addenda, c) has personally inspected and is familiar with the project site, and hereby proposes to provide all labor, materials, tools, appliances and facilities as required to perform, in a workmanlike manner, all work and services for the construction and completion of the referenced project, all in strict accordance with the Bidding Documents prepared by:

Pivotal Engineering, LLC and dated: 1/6/2022
(Owner to provide name of entity preparing bidding documents.)

Bidders must acknowledge all addenda. The Bidder acknowledges receipt of the following ADDENDA: (Enter the number the Designer has assigned to each of the addenda that the Bidder is acknowledging) Addendum # 1, Addendum # 2,

TOTAL BASE BID: For all work required by the Bidding Documents (including any and all unit prices designated "Base Bid"* but not alternates) the sum of:

one million four hundred fourteen thousand two hundred fifty-seven and twenty-three cents Dollars (\$ 1,414,257.33)

ALTERNATES: For any and all work required by the Bidding Documents for Alternates including any and all unit prices designated as alternates in the unit price description.

Alternate No. 1 (Owner to provide description of alternate and state whether add or deduct) for the lump sum of:

N/A Dollars (\$)

Alternate No. 2 (Owner to provide description of alternate and state whether add or deduct) for the lump sum of:

N/A Dollars (\$)

Alternate No. 3 (Owner to provide description of alternate and state whether add or deduct) for the lump sum of:

N/A Dollars (\$)

BIDDER: SELS USA LLC & POWER ELECTRICAL INSTRUMENTATION

ADDRESS OF BIDDER: 4747 KESTER MILL RD, WINSTON SALEM NC, 27103 / 6409 Morton St Metairie, LA 70003

LOUISIANA CONTRACTOR'S LICENSE NUMBER: 44020 - Electrical Work - Building Construction - Mechanical Work Speciality: Rigging, House Moving, Wrecking and Dismantling

NAME OF AUTHORIZED SIGNATORY OF BIDDER: Rafael Badilla - SELS USA LLC / Matthew Eskins Power Electical and Instrumentation LLC

TITLE OF AUTHORIZED SIGNATORY OF BIDDER: Rafael Badilla -SELS USA & Matthew Eskins Power Electrical and Instrumentation LLC

SIGNATURE OF AUTHORIZED SIGNATORY OF BIDDER **: [Handwritten signatures]

DATE: 06-02-2022

THE FOLLOWING ITEMS ARE TO BE INCLUDED WITH THE SUBMISSION OF THIS LOUISIANA UNIFORM PUBLIC WORK BID FORM:

* The Unit Price Form shall be used if the contract includes unit prices. Otherwise it is not required and need not be included with the form. The number of unit prices that may be included is not limited and additional sheets may be included if needed.

** A CORPORATE RESOLUTION OR WRITTEN EVIDENCE of the authority of the person signing the bid for the public work as prescribed by LA R.S. 38:2212(B)(5).

BID SECURITY in the form of a bid bond, certified check or cashier's check as prescribed by LA RS 38:2218.A is attached to and made a part of this bid.

**LOUISIANA UNIFORM PUBLIC WORK BID FORM
UNIT PRICE FORM**

TO: Jefferson Parish
Purchasing Department
200 Derbigny Street, Suite 4400
Gretna, Louisiana 70053

(Owner to provide name and address of owner)

BID FOR: LIVE OAK SOLAR STREET LIGHTING
(US Hwy. 90 to S. Kenner Rd.)
PW. Project No. 2018-013-SL
Proposal No. 50-00137963

(Owner to provide name of project and other identifying information)

UNIT PRICES: This form shall be used for any and all work required by the Bidding Documents and described as unit prices. Amounts shall be stated in figures and only in figures.

DESCRIPTION:	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# TEMPORARY SIGNS AND BARRICADES			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (<i>Quantity times Unit Price</i>)
713-01-00100	1	LS	\$13,658.33	13,658.33

DESCRIPTION:	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# MOBILIZATION & DEMOBILIZATION			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (<i>Quantity times Unit Price</i>)
727-01-00100	1	LS	\$25,809.13	\$25,809.13

DESCRIPTION:	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# LIGHTING POLE (27' HIGH MOUNTING, SINGLE 6' ARM)			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (<i>Quantity times Unit Price</i>)
730-05-10000	185	EA	\$1358.75	\$251,313.91

DESCRIPTION:	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# STLPRO80W LED Output 10212LM, 285W Solar Panel, 25.6V, 131.3 Ah			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (<i>Quantity times Unit Price</i>)
730-07-10000	185	EA	\$ 3,733.00	\$690,605.00

DESCRIPTION:	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# CONSTRUCTION LAYOUT			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (<i>Quantity times Unit Price</i>)
740-01-00100	1	LS	\$6,214.86	\$6,214.86

DESCRIPTION:	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# HELICAL LIGHT POLE FOUNDATION			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (<i>Quantity times Unit Price</i>)
S-001	185	EA	\$1850.00	\$342,250.00

DESCRIPTION:	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# HELICAL LIGHT POLE FOUNDATION – CONCRETE CAP			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (<i>Quantity times Unit Price</i>)
S-002	185	EA	\$435	\$80,475

DESCRIPTION:	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# EXPLORATION EXCAVATION			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (<i>Quantity times Unit Price</i>)
S-003	10	EA	\$393.10	\$3,931.00

Pricing of items per unit to be consider

Tree Removal - Base on Needs up to 15 ft	\$350.00
DOT approved Breakable Device	\$475.00
Existing Sign Relocation	\$300.00
Additional Cost if using Spread Footer Foundation 1 (Installation Placement)	\$3,000.00
9ft to 12ft Arm - In case if need it based on site conditions	\$225.00


Rafael Badilla


Matthew Eskins

Wording for "DESCRIPTION" is to be provided by the Owner
All quantities are estimated. The contractor will be paid upon actual quantities as verified by Owner.

Public Works Bid

AFFIDAVIT

STATE OF North Carolina

PARISH/COUNTY OF Forsyth

BEFORE ME, the undersigned authority, personally came and appeared: Rafael Badilla
_____, (Affiant) who after being by me duly sworn, deposed and said that
he/she is the fully authorized signatures of SELS USA LLC (Entity),
the party who submitted a bid in response to Bid Number 50-00137963, to the Parish of
Jefferson.

Affiant further said:

Campaign Contribution Disclosures

(Choose A or B, if option A is indicated please include the required attachment):

Choice A _____ Attached hereto is a list of all campaign contributions, including the date and amount of each contribution, made to current or former elected officials of the Parish of Jefferson by Entity, Affiant, and/or officers, directors and owners, including employees, owning 25% or more of the Entity during the two-year period immediately preceding the date of this affidavit or the current term of the elected official, whichever is greater. Further, Entity, Affiant, and/or Entity Owners have not made any contributions to or in support of current or former members of the Jefferson Parish Council or the Jefferson Parish President through or in the name of another person or legal entity, either directly or indirectly.

Choice B x there are **NO** campaign contributions made which would require disclosure under Choice A of this section.

Affiant further said:

Debt Disclosures

(Choose A or B, if option A is indicated please include the required attachment):

Choice A _____ Attached hereto is a list of all debts owed by the affiant to any elected or appointed official of the Parish of Jefferson, and any and all debts owed by any elected or appointed official of the parish to the Affiant.

Choice B x There are **NO** debts which would require disclosure under Choice A of this section.

Affiant further said:

That Affiant has employed no person, corporation, firm, association, or other organization, either directly or indirectly, to secure the public contract under which he received payment, other than persons regularly employed by the Affiant whose services in connection with the construction, alteration or demolition of the public building or project or in securing the public contract were in the regular course of their duties for Affiant; and

That no part of the contract price received by Affiant was paid or will be paid to any person, corporation, firm, association, or other organization for soliciting the contract, other than the payment of their normal compensation to persons regularly employed by the Affiant whose services in connection with the construction, alteration or demolition of the public building or project were in the regular course of their duties for Affiant.

Affiant further said:

Affiant personally has not been convicted of, nor has he/she entered into a plea of guilty or nolo contendere to any of the crimes or equivalent federal crimes listed below. No individual partner, incorporator, director, manager, officer, organizer, or member, who has a minimum of a ten percent ownership in the Bidding Entity, has been convicted of, or has entered a plea of guilty or nolo contendere to any of the crimes or equivalent federal crimes listed below. A conviction of or plea of guilty or nolo contendere to the following state crimes or equivalent federal crimes shall permanently bar any person or the bidding entity from bidding on public projects:

- (a) Public bribery (R.S. 14:118)
- (b) Corrupt influencing (R.S. 14:120)
- (c) Extortion (R.S. 14:66)
- (d) Money laundering (R.S. 14:230)

A conviction of or plea of guilty or nolo contendere to the following state crimes or equivalent federal crimes shall bar any person or the bidding entity from bidding on public projects for a period of five years from the date of conviction or from the date of the entrance of the plea of guilty or nolo contendere:

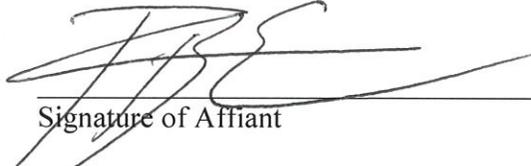
- (a) Theft (R.S. 14:67)
- (b) Identity Theft (R.S. 14:67, 16)
- (c) Theft of a business record (R.S. 14:67.20)
- (d) False accounting (R.S. 14:70)
- (e) Issuing worthless checks (R.S. 14:71)
- (f) Bank fraud (R.S. 14:71.1)
- (g) Forgery (R.S. 14:72)
- (h) Contractors; misapplication of payments (R.S. 14:202)
- (i) Malfeasance in office (R.S. 14:134)

The five-year prohibition provided for in this section shall apply only if the crime was committed during the solicitation or execution of a contract or bid awarded pursuant to these provisions. If evidence is submitted substantiating that a false attestation has been made and the project must be readvertised or the contract cancelled, the awarded entity making the false attestation shall be responsible to the public entity for the costs of rebidding, additional costs due to increased costs of bids and any and all delay costs due to the rebid or cancellation of this project.

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Affiant further said:

- (1) Entity is registered and participates in a status verification system to verify that all employees in the State of Louisiana are legal citizens of the United States or are legal aliens.
- (2) Entity shall continue, during the term of the contract, to utilize a status verification system to verify the legal status of all new employees in the State of Louisiana.
- (3) Entity shall require all subcontractors to submit to the Entity a sworn affidavit verifying compliance with statements (1) and (2).



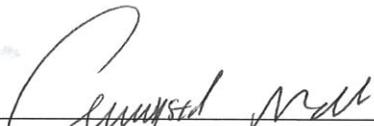
Signature of Affiant

Rafael Badilla

Printed Name of Affiant

SWORN AND SUBSCRIBED TO BEFORE ME

ON THE 01 DAY OF JUNE, 2022.



Notary Public

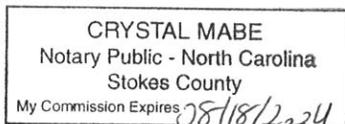
Crystal Mabe

Printed Name of Notary

201923300274

Notary/Bar Roll Number

My commission expires 08/18/2024.



CORPORATE RESOLUTION

EXCERPT FROM MINUTES OF MEETING OF THE BOARD OF DIRECTORS OF
SELS USA LLC
INCORPORATED.

AT THE MEETING OF DIRECTORS OF SELS USA LLC / SMART ERA LIGHTING SYSTEMS
INCORPORATED, DULY NOTICED AND HELD ON 02-07-2022 - in Charleston SC
A QUORUM BEING THERE PRESENT, ON MOTION DULY MADE AND SECONDED. IT
WAS: Garrett Higgins, Alejandro Badilla, Ivan NG, Rafael Badilla

RESOLVED THAT Rafael Badilla, BE AND IS HEREBY
APPOINTED, CONSTITUTED AND DESIGNATED AS AGENT AND ATTORNEY-IN-
FACT OF THE CORPORATION WITH FULL POWER AND AUTHORITY TO ACT ON
BEHALF OF THIS CORPORATION IN ALL NEGOTIATIONS, BIDDING, CONCERNS
AND TRANSACTIONS WITH THE PARISH OF JEFFERSON OR ANY OF ITS AGENCIES,
DEPARTMENTS, EMPLOYEES OR AGENTS, INCLUDING BUT NOT LIMITED TO, THE
EXECUTION OF ALL BIDS, PAPERS, DOCUMENTS, AFFIDAVITS, BONDS, SURETIES,
CONTRACTS AND ACTS AND TO RECEIVE ALL PURCHASE ORDERS AND NOTICES
ISSUED PURSUANT TO THE PROVISIONS OF ANY SUCH BID OR CONTRACT, THIS
CORPORATION HEREBY RATIFYING, APPROVING, CONFIRMING, AND ACCEPTING
EACH AND EVERY SUCH ACT PERFORMED BY SAID AGENT AND ATTORNEY-IN-
FACT.

I HEREBY CERTIFY THE FOREGOING TO BE
A TRUE AND CORRECT COPY OF AN
EXCERPT OF THE MINUTES OF THE ABOVE
DATED MEETING OF THE BOARD OF
DIRECTORS OF SAID CORPORATION, AND
THE SAME HAS NOT BEEN REVOKED OR
RESCINDED.

Garrett Higgins

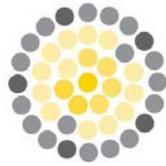


SECRETARY-TREASURER

05-27-2022

DATE

SMART SOLAR SOLUTIONS: SELS



SELS

SMART ERA LIGHTING SYSTEMS

4747 Kester Mill Rd,
Winston-Salem, NC 27103
704-495-3535

E- MAIL

customerservice@selsled.com