



lighting > electrical > energy
technology > signs

April 9, 2014
Pct. 2 Hidalgo County

Reference: Zamora subdivision- Solar lighting installation 10%off BB List price

We propose to install (19) TPN-1TF2E600Q4H-3D-P25-10 Sol light fixtures on a 25' Aluminum pole. These will be installed in locations specified by the county on drawings. As requested, these will also be installed on a concrete base. All locations will need to be called to one call for location of all utilities in order to dig and pour bases in locations specified.

(19) TPN-1TF2E60-Q4H-3D-P25-10 on a aluminum pole @ \$7,656.30 =\$145,469.70
(19) Labor units to install all concrete base and locating.....20 hours per pole (19) Poles/fixture/bases =380 hours @\$65.00 per hour =\$24,700.00

Total turnkey project installation cost is \$170,169.70

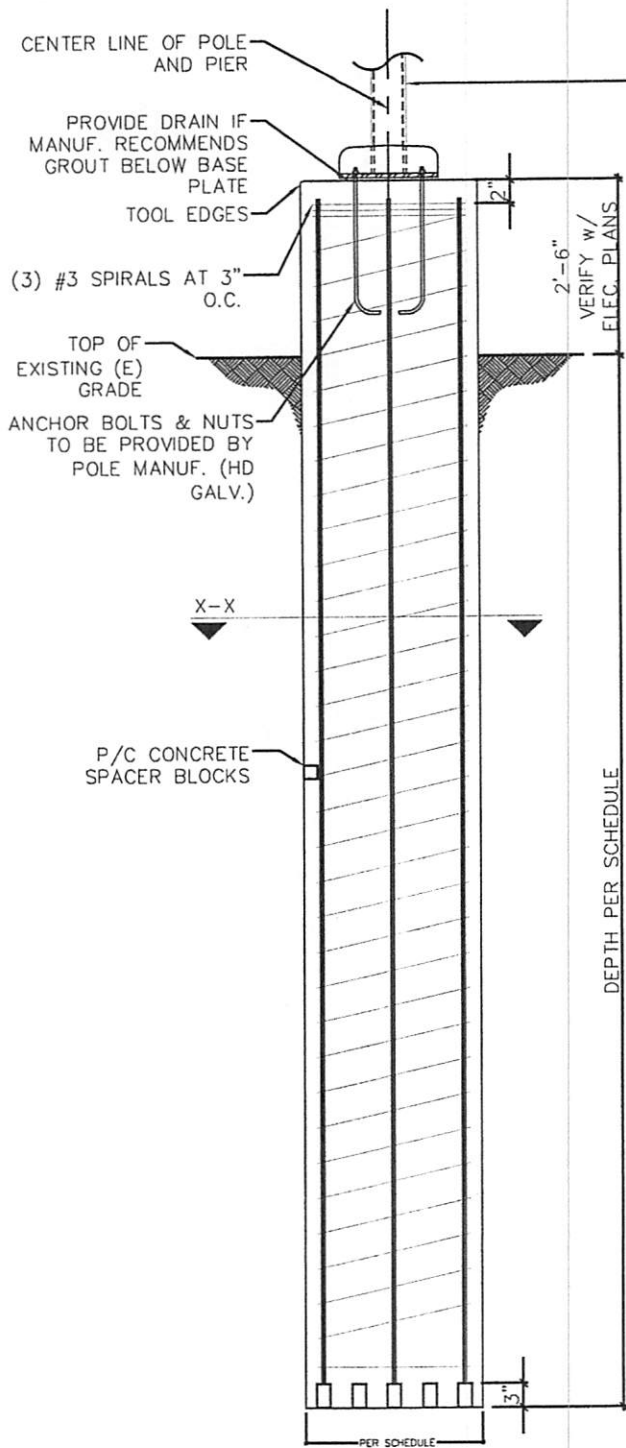
These fixtures are listed on the Texas State Buy Board contract #437-13 Facility Solutions Group is also an approved installer on the Buy Board

Thank you for the Opportunity in allowing us to work with you.

Sincerely,
Antonio Olivares LEED AP BD+C
Lighting/Electrical
956-821-8648

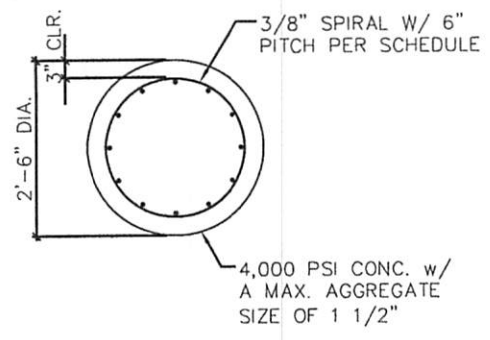
A handwritten signature in black ink, appearing to read 'Antonio Olivares', is written over the typed name.

8018 West Expressway 83, Harlingen TX. 78552 - 956-797-4191
Regulated by The Texas Department of Licensing and Regulation, P.O. Box 12157
Austin, Texas 78711, 1-800-803-9202, 512-463-6599; TECL #25589
Website: www.license.state.tx.us/complaints



NOTE:

1. WARRANTY SHOULD INCLUDE NATURALLY OCCURRING HARMONIC VIBRATION LIGHT POLE FAILURES.
2. FACTORY INSTALLED VIBRATION DAMPERS TO BE PROVIDED BY THE LIGHT POLE MANUFACTURER.
3. LIGHT POLE MANUFACTURER SHALL SPECIFY THE REQUIRED DIAMETER AND EMBEDMENT OF THE ANCHOR BOLTS. EMBEDMENT SHALL BE SUFFICIENT TO PREVENT CONICAL SHEAR OF THE CONCRETE.
4. A MAINTENANCE PLAN SHOULD BE IMPLEMENTED, BY THE OWNER, FOR THE LIGHT POLES.



SECTION X-X

LOCATION "A" IS REPRESENTATIVE OF NONCONSTRAINED AREAS.

LOCATION	DIA.	DEPTH BELOW (E)GRADE	VERT. REINF.		SPIRAL	
			NO.	SIZE	SIZE	PITCH
A	30"	10.5 FT	6	6	3/8	6"

BAR SCHEDULE	
BAR SIZE	# OF BARS
#6	(17)
#7	(12)
#8	(9)
#9	(8)

1% MIN. As

THE PIER DEPTH MAY CHANGE AFTER LIGHT POLE MANUFACTURER PROVIDES THE REACTIONS OF THE POLE TO THE FOUNDATION

PROJ. NO. 201401

03/03/14

SOLAR LIGHT POLES
Hidalgo Co. Pct. 2

ENGINEERING, PLLC

Texas Firm Registration F-12179
3620 Ida
Edinburg, Texas 78539
Phone: (956) 292-3336
rene.olivarez@sbcglobal.net

Light Pole Foundation

DATE: 03/03/14
REVISIONS:
DRAWN BY: R.O.
SHEET No. 2
SHEET NAME: S101

GENERAL NOTES

- THESE CONTRACT STRUCTURAL DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE. UNLESS OTHERWISE INDICATED, THEY DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY TO PROTECT THE STRUCTURE, WORKMEN, AND OTHER PERSONS DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE, BUT NOT BE LIMITED TO BRACING, SHORING FOR EARTH BANKS, FORMS, SCAFFOLDING, PLANKING, SAFETY NETS, SUPPORT AND BRACING FOR CRANES AND GIN POLES, ETC. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND HE SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES. OBSERVATIONS VISITS TO THE SITE BY THE ARCHITECT OR THE ENGINEER DO NOT INCLUDE INSPECTION OF THE ABOVE AND BELOW ITEMS.
- ALL CONSTRUCTION AND QUALITY OF MATERIALS SHALL COMPLY WITH THE GOVERNING BUILDING CODES AND REGULATIONS.
- THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATIONS AND CONDITIONS AT THE JOB SITE BEFORE COMMENCEMENT OF WORK AND SHALL IMMEDIATELY REPORT ANY DISCREPANCIES OR OMISSIONS TO THE ARCHITECT IN WRITING ANY OMISSION OF CONFLICT BETWEEN THE VARIOUS ELEMENTS OF THE WORKING DRAWINGS AND/OR SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE PROCEEDING WITH ANY WORK SO INVOLVED.
- IN CASE OF CONFLICT, NOTES AND DETAILS ON THE BALANCE OF THE DRAWINGS TAKE PRECEDENCE OVER STANDARD NOTES AND TYPICAL DETAILS.
- WHERE CONSTRUCTION DETAILS ARE NOT SPECIFICALLY SHOWN OR NOTED FOR ANY PART OF THE WORK SUCH DETAILS SHALL BE CONSTRUCTED IN ACCORDANCE WITH DETAILS SHOW FOR SIMILAR CONDITIONS AND MATERIALS. WHERE SUFFICIENTLY SIMILAR WORK IS NOT SHOWN, THE ENGINEER SHALL BE CONSULTED FOR CLARIFICATION.
- EACH SUBCONTRACTOR IS CONSIDERED AN EXPERT IN HIS RESPECTIVE FIELD AND SHALL PRIOR TO THE SUBMISSION OF BID OR PERFORMANCE OF WORK, NOTIFY THE GENERAL CONTRACTOR OR OWNER OF ANY WORK CALLED OUT ON THE DRAWINGS IN HIS TRADE THAT CAN'T BE GUARANTEED.
- THE CONTRACTOR SHALL COORDINATE ALL MECHANICAL AND ELECTRICAL EQUIPMENT AS TO WEIGHTS AND EXACT LOCATIONS, WITH STRUCTURAL SUPPORTS. IN THE EVENT THAT THE PURCHASED EQUIPMENT DEVIATES IN WEIGHT AND LOCATIONS FROM THOSE INDICATED ON THE PLANS, THE ARCHITECT MUST BE NOTIFIED AND APPROVAL OBTAINED PRIOR TO INSTALLATION.
- THIS STRUCTURE IS DESIGNED AS A STABLE UNIT AFTER ALL COMPONENTS ARE IN PLACE. THE CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE TEMPORARY BRACING AS REQUIRED TO INSURE THE VERTICAL AND LATERAL STABILITY OF THE ENTIRE STRUCTURE, OR ANY PORTIONS THEREOF, DURING CONSTRUCTION.
- NEITHER THE OWNER NOR THE ARCHITECT NOR THE ENGINEER WILL ENFORCE SAFETY MEASURES OR REGULATIONS. THE CONTRACTOR SHALL DESIGN, CONSTRUCT AND MAINTAIN ALL SAFETY DEVICES, INCLUDING SHORING AND BRACING AND SHALL BE SOLELY RESPONSIBLE FOR CONFORMING TO ALL LOCAL, STATE AND FEDERAL SAFETY AND HEALTH STANDARDS, LAWS AND REGULATIONS.
- TRADE NAMES AND MANUFACTURERS REFERRED TO ARE FOR QUALITY STANDARDS ONLY. SUBSTITUTIONS WILL BE PERMITTED AS APPROVED BY THE ENGINEER.
- ANY OPTIONS OR APPROVED SUBSTITUTIONS ARE FOR CONTRACTORS CONVENIENCE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CHANGES, ADDITIONAL COSTS AND COORDINATION WITH ALL ITEMS THAT THE SUBSTITUTIONS MAY IMPACT.
- THE ENGINEER IS TO BE NOTIFIED IN WRITING WHEN CONSTRUCTION AT THE SITE BEGINS.
- ANY QUESTIONS RELATED TO INTERPRETATION OR INTENT OF THESE DRAWINGS SHALL BE REFERRED TO THE ENGINEER.
- THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO LOCATE AND PROTECT ANY EXISTING UNDERGROUND OR CONCEALED CONDUIT, PLUMBING, OR OTHER UTILITIES PRIOR TO BEGINNING ANY WORK.
- PIPES, DUCTS, SLEEVES, CHASES, ETC. SHALL NOT BE PLACED IN BEAMS OR WALLS UNLESS SPECIFICALLY SHOWN OR NOTED. NOR SHALL ANY STRUCTURAL MEMBER BE CUT FOR PIPES, DUCTS, ETC. UNLESS NOTED CONTRACTOR SHALL OBTAIN PRIOR APPROVAL FOR INSTALLATION OF ANY ADDITIONAL PIPES DUCT, ETC.

CONTACTS

CITY OF ALAMO PUBLIC WORKS	956-787-8321
CENTRAL POWER & LIGHT	800-245-4545
S.W. BELL TELEPHONE CO.	800-628-5127
SOUTHERN UNION GAS	956-444-3926
HARITAGE CABLEVISION	956-797-9494
DIG TESS	800-DIG-TESS
TEXAS ONE CALL	800-645-6005
AEP	877-373-4858

CAST-IN-PLACE CONCRETE

VERIFY ALL DIMENSIONS. COORDINATE WITH ARCHITECTURAL PLANS PRIOR TO CONSTRUCTION AND NOTIFY ARCHITECT AND/OR ENGINEER OF ANY DISCREPANCIES.

- ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE AMERICAN CONCRETE INSTITUTE SPECIFICATIONS, ACI #301-96, OR LATEST EDITION. DRILLED PIERS SHALL COMPLY WITH ACE 336.1-98 AND ACI 336.3R-93
- ALL DETAILING, FABRICATION AND ERECTION OF REINFORCING BARS, AND ALL ACCESSORIES UNLESS OTHERWISE NOTED, SHALL BE IN ACCORDANCE WITH THE ACI MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE. ACI #315 LATEST EDITION.
- THE MINIMUM 28 DAYS CYLINDER STRENGTH SHALL BE AS FOLLOWS:

LOCATION	STRENGTH AT 28 DAYS	MAXIMUM SLUMP	MAXIMUM AGGREGATE
PIERS	4000 PSI	5"	1 1/2"

- PORTLAND CEMENT SHALL CONFORM TO A.S.T.M. C150-67A, TYPE I OR II. STRUCTURAL CONCRETE AGGREGATE SHALL CONFORM TO ASTM C 33-67, STANDARD WEIGHT.
- ALL CONCRETE SHALL CONTAIN "POZZOLITA" ADMIX AS PER MANUFACTURERS SPECIFICATIONS, IN ACCORDANCE WITH ASTM C494. NO CALCIUM CHLORIDE AS CEMENT REPLACEMENT WILL BE PERMITTED IN CONCRETE.
- REQUIREMENTS FOR COLD AND HOT WEATHER SHALL BE PER IBC SECTIONS 1905.12 AND 1905.13
- CONCRETE COVER FOR REINFORCING AS FOLLOWS:
 - DRILLED PIERS, FOOTINGS AND OTHER PRINCIPAL STRUCTURAL MEMBER IN WHICH CONCRETE IS DEPOSITED AGAINST GROUND:
 - ANCHOR BOLTS, DOVELS, INSERTS, ETC. SHALL BE SECURELY TIED IN PLACE PRIOR TO PLACING CONCRETE.
 - MECHANICALLY VIBRATE ALL CONCRETE WHEN PLACED.
- READY MIX CONCRETE SHALL COMPLY WITH REQUIREMENTS OF ASTM C94 WHEN AIR TEMPERATURE IS BETWEEN 85° AND 90°F, REDUCE MIXING AND DELIVERY TIME FROM 90 MINUTES TO 75 MINUTES; WHEN AIR TEMPERATURE IS ABOVE 90°F REDUCE MIXING AND DELIVERY TIME TO 60 MINUTES.

STRAIGHT SHAFT PIERS

- CONCRETE PIERS SHALL BE PER SCHEDULE OR DETAIL.
- ALL REINFORCING BARS SHALL BE NEW BILLET STEEL AND SHALL CONFORM TO ASTM A-615, GRADE 60
- ALL REINFORCING STEEL SHALL BE CONTINUOUS WITH SPLICES LAPPED 75 BAR DIAMETERS
- CENTER FOOTING UNDER COLUMN OR WALL UNLESS DIMENSIONED OTHER WISE
- PIERS SHAFT SHALL BE DRILLED PLUMB ALONG ITS TOTAL LENGTH (1" PER 10' MAXIMUM TOLERANCE)
- BOTTOM OF PIER TO BE CLEAN AND FREE OF ALL LOOSE MATERIALS AND WATER
- CENTER STEEL CAGE IN SHAFT WITH A MINIMUM 3 LEVELS OF CONCRETE BLOCK SPACERS (8FT. MAXIMUM SPACING) AT A MINIMUM OF 3 EVELY ON 3" CONCRETE SEAT BLOCK.
- DO NOT RAISE CAGE OFF OF FOOTING BOTTOM DURING CONCRETE PLACEMENT.
- CONCRETE AND REINFORCING IN SHAFTS SHALL BE PLACED THE SAME DAY AS DRILLING.
- PIERS SHALL BE FOUNDED IN UNDISTURBED NATURAL SOIL.
- CONTRACTOR SHALL COORDINATE WITH GEOTECHNICAL ENGINEER FOR VERIFICATION OF PIERS BEARING STRATUM AT TIME OF DRILING.
- ALL DRILLED FOOTINGS SHALL BE FREE OF WATER PRIOR TO POURING OF CONCRETE.
- FOOTING HOLES SHALL NOT BE LEFT OPEN OVERNIGHT (NO EXCEPTIONS).
- PROVIDE STEEL CASING AS REQUIRED TO PREVENT CAVE-IN
- STEEL CASING SHALL BE REMOVED DURING POURING SEQUENCE

DESIGN CRITERIA

- DESIGN LOADS, STRUCTURAL ANALYSIS AND PREPARATIONS OF STRUCTURAL MEMBERS IS BASED UPON THE FOLLOWING CRITERIA:

CODE:	IBC 2003
WIND SPEED (3 SECOND GUST)	110

CONSTRUCTION NOTES

- THE CONTRACTOR SHALL CALL 1-800-DIGTESS PRIOR TO ANY EXCAVATION OR DIGGING.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND IDENTIFYING ALL UNDERGROUND UTILITIES PRIOR TO STARTING ANY WORK.
- ALL ELECTRICAL WIRING AND CONDUIT SHALL BE CONCEALED AS TO PREVENT VANDALISM.
- THE CONTRACTOR SHALL BRING TO THE ATTENTION OF THE CIVIL ENGINEER ANY CONFLICT AT THE SITE PRIOR TO INSTALLATION.

PROJ. NO. 201401



03/03/14

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Hidalgo Co. Pct. 2



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Light Pole Foundation

DATE: 03/03/14
REVISIONS:
DRAWN BY: R.O.
SHEET No.

1

SHEET NAME:

S102



February 25, 2014

Buy Board / Facility Solutions Group

PO Box 400

Austin TX, 78767-0400

Here are the published list prices for the following solar lighting systems:

TPN-1TF2E45-Q3H-3D-10 **System Description:** 45W 2020 LED fixture system. System run time is dusk to dawn (DTD) with 10 ft. Universal Arm, includes wooden pole adapter kit. No powder coating on system. 2020 fixture only will be powder coated in gray. Includes 37' Direct burial ANSIS.1 Wooden Pole \$7825

TPN-1TF2E45-Q3H-3D **System Description:** 45W 2020 LED fixture system run time is dusk to dawn (DTD) no arm, includes wooden pole adapter kit. No powder coating on system. 2020 fixture only will be powder coated in gray. Includes 37' Direct burial ANSIS.1 Wooden Pole \$7491.66

TPN-1TF2E60-Q4H-3D-10 **System Description:** 60W 2020 LED fixture system running dusk to dawn (DTD) with 10 ft. Universal Arm, includes wooden pole adapter kit. No powder coating on system. 2020 fixture only will be powder coated in gray. Includes 37' Direct burial ANSIS.1 Wooden Pole \$8325

TPN-1TF2E60-Q4H-3D **System Description:** 60W 2020 LED fixture system run time is dusk to dawn (DTD) no arm, includes wooden pole adapter kit. No powder coating on system. 2020 fixture only will be powder coated in gray. Includes 37' Direct burial ANSIS.1 Wooden Pole \$7991.67



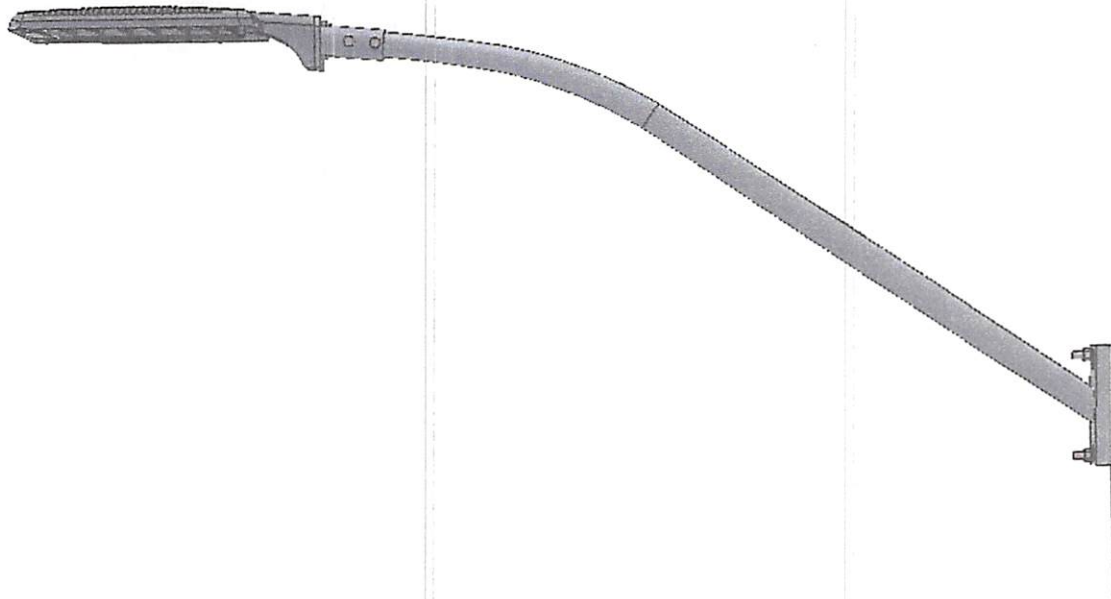
TPN-1TF2E60-Q4H-3D-P25-10 **System Description:** 60W 2020 LED fixture system running dusk to dawn (DTD) with 10 ft. Universal Arm, includes wooden pole adapter kit. No powder coating on system. 2020 fixture only will be powder coated in gray. Includes 25' Aluminum Bolt down pole \$8507

Sincerely,

Vickie Self
Central Regional Manager, Sol Inc.

20/20™ LED

with Arm Adaptor Addendum

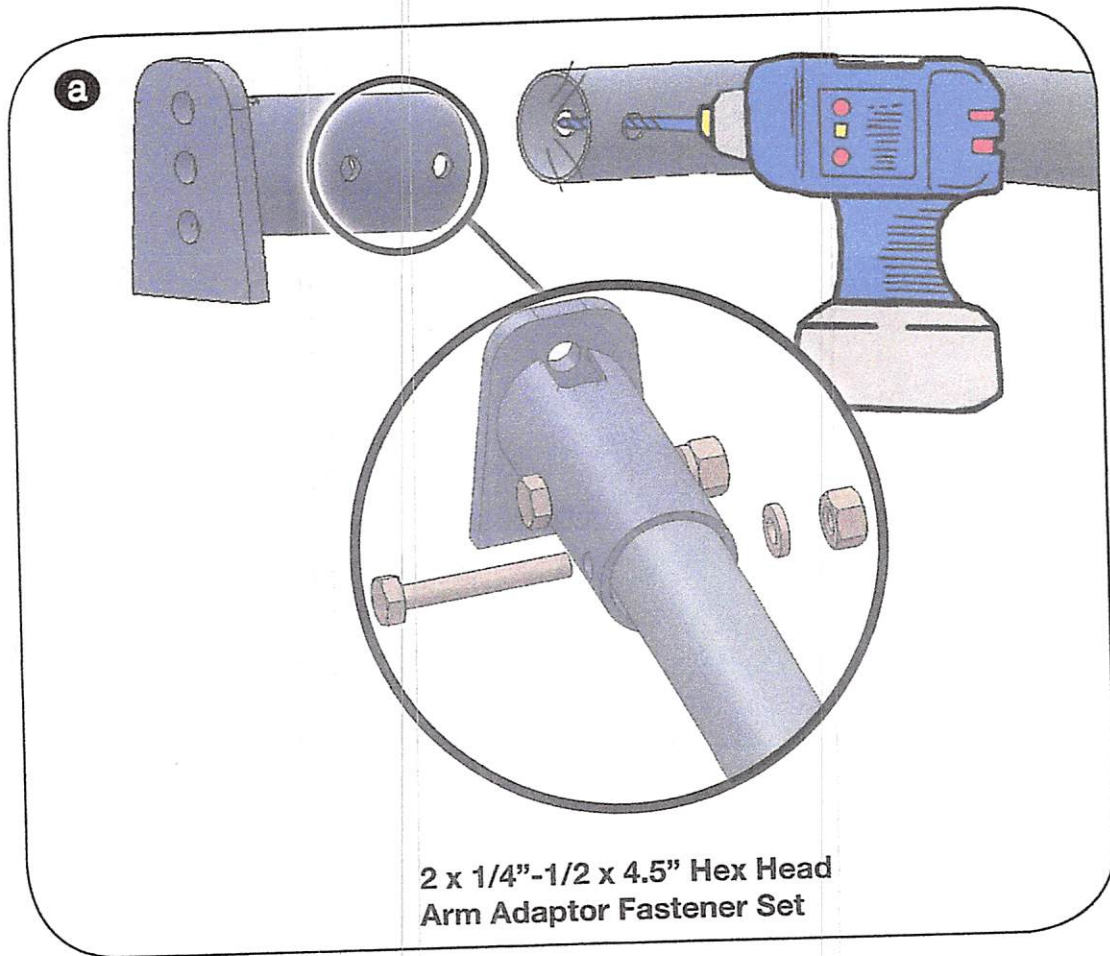


Sol® 

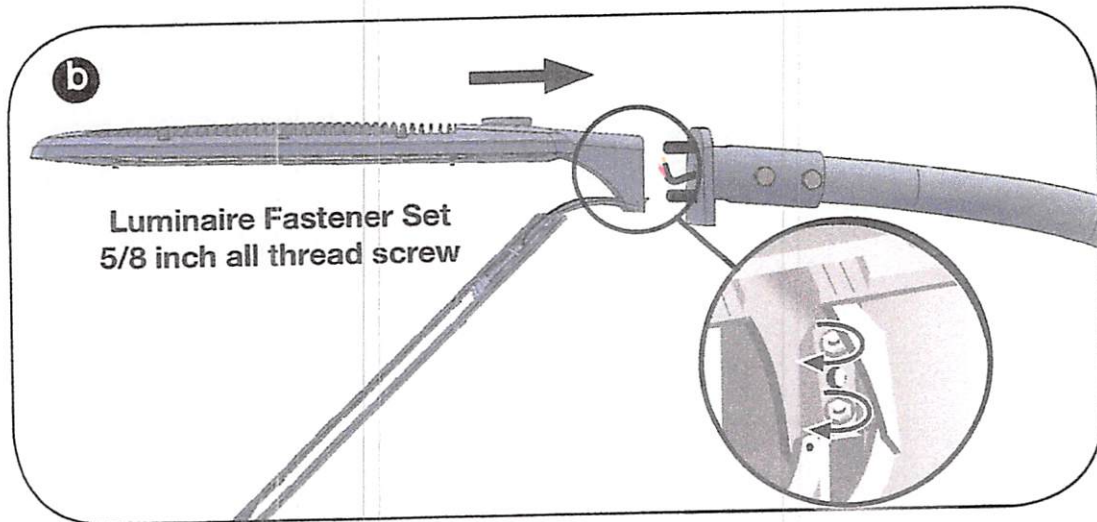
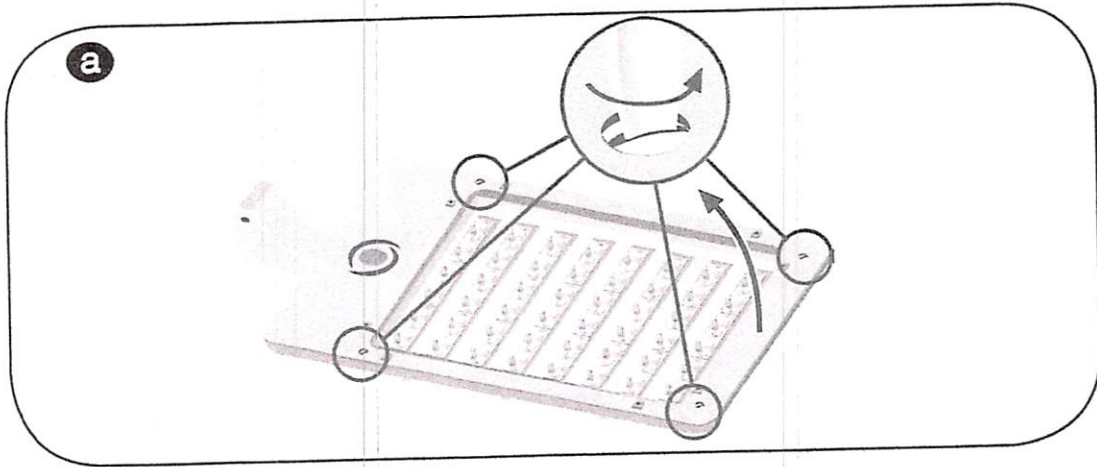
Reliable. Renewable. Remarkable.

1.0 Assembling

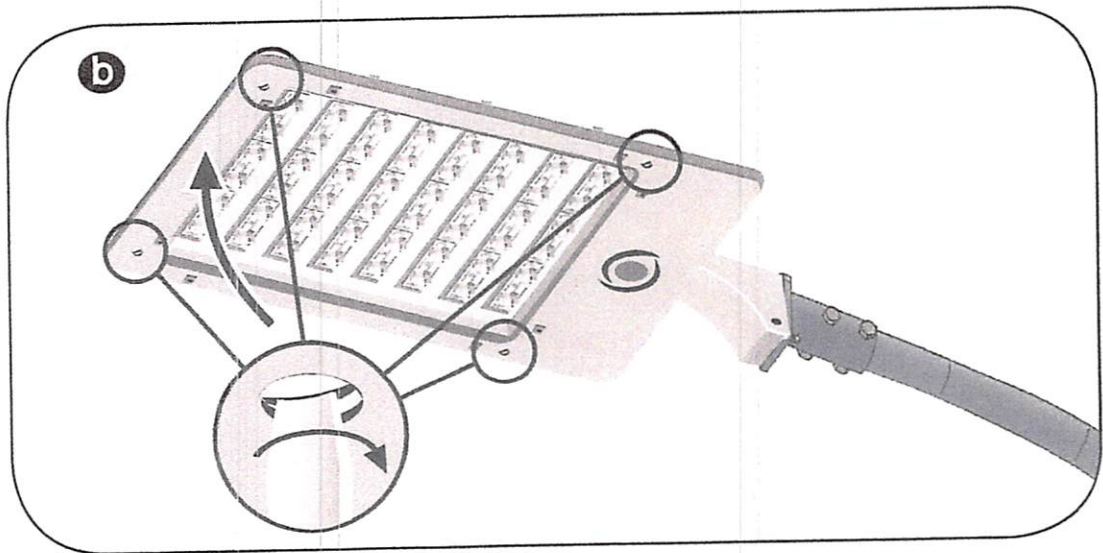
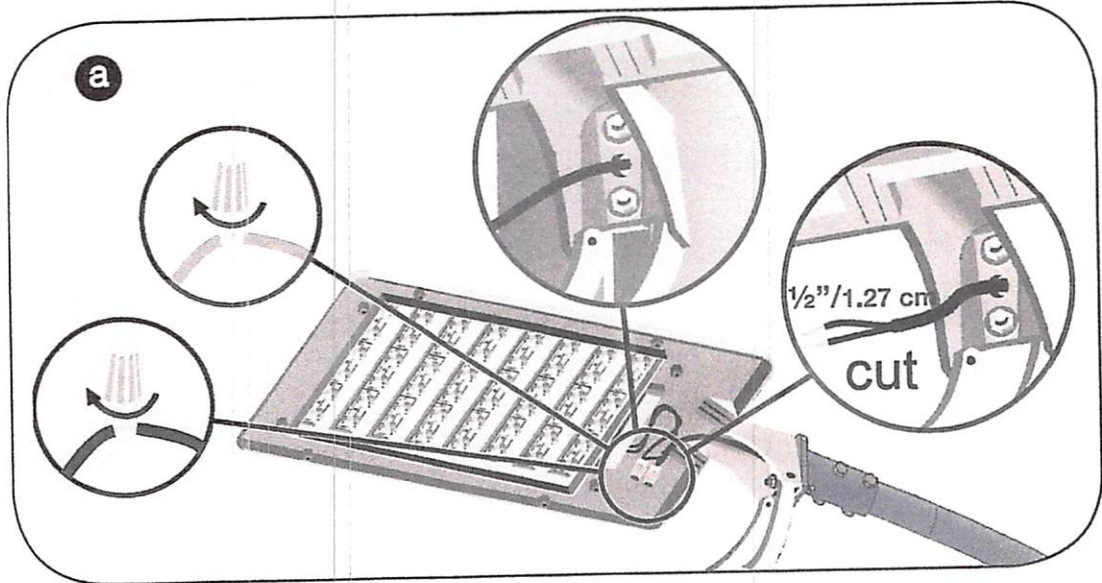
- 1.1 Using 20/20 Arm Adaptor as Template, Mark Holes on Arm and Drill Thru. Route Light Harness Through Arm and Secure.



1.2 Mount the Luminaire on the Arm



1.3 Route and Connect Luminaire Harness; Close Luminaire



Top of Pole Series

Solar Powered LED Lighting System



Project Name: _____ Project #: _____ Location: _____ Qty: _____

OVERVIEW

The TP Series features an adjustable mounting bracket and includes a variety of option choices to create a customized outdoor solar light solution for your application. The system is sized according to your location and lighting requirements and is configured to your requirements to run throughout the night or to save energy with dimming when full light is not required. The battery enclosure and PV module mounts to your pole – square, round, fiberglass, steel, aluminum or concrete with supplied tenon. Additional options include motion detection and wireless diagnostics.

PART NUMBER:

COLOR	LUM. QTY.	LUMINAIRE	OPTICS	DRIVER	LOAD	BATT. BOX	AMPS	BATT. MNT	PV QTY.	PV WATT	ARM	POLE
Z Bronze K Black C Custom N No Finish	1 Single 2 Dual	CD Cobrahead Dome CS Cobrahead Dk Sky SS Shoebox Small SL Shoebox Large TF 20/20 LED XF 10/10 LED AF Acorn HF Hampton LF Liberty WF Washington	2 Type 2 3 Type 3 5 Type 5	E EternO 4	20 20 Watts 30 30 Watts 40 40 Watts 50 50 Watts 60 60 Watts ## Custom (increments of 5W to max 100W)	D Double Q Quad	1 100 ah 2 200 ah 3 300 ah 4 400 ah	H High L Low	1 Single 2 Dual 3 Triple 4 Quad	B 90W D 125W K 135W	00 None 04 4'UA 06 6'UA 08 8'UA S1 6" static S2 12" static S3 24" static BH Bull Horn 90 90" Sweep	00 None CP Custom Pole

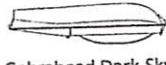
OPTIONS

- MS Motion Sensor
- BS Bird Spikes
- SS Seasonal Switch
- WR Wireless Diagnostics

FIXTURES



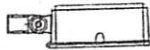
Cobrahead Dome
20W-60W Type 5



Cobrahead Dark-Sky
20W-60W Type 2 or 5



Shoebox Small
20W-30W Type 5



Shoebox Large
45W-60W Type 2 or 5

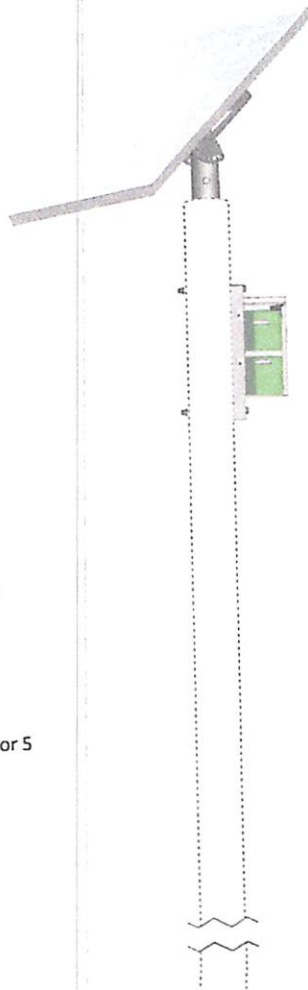


10/10™
20W-60W Type 2, 3 or 5



20/20™
30W-100W Type 2, 3 or 5

Decorative Luminaire Series available. See
Decorative Datasheets for more info.



Luminaire - Choice of luminaire with high lumen LEDs rated at 70,000 hours (L70). Various models qualify as IES full cutoff and Dark-Sky certified. Efficient, bright, white light source of 5,000K provides uniform light distribution.

Panel Mount - Grade "A" corrosion resistant aluminum frame supports solar panel to allow for proper orientation of solar array. Rated to 140 mph. 170 mph available upon request.

Solar Panel - Poly-crystalline photovoltaic module(s) specific to the requirements of solar lighting.

Battery Enclosure - Vented Grade "A" corrosion resistant aluminum unit holds battery and smart controller. Hinged cover features locking device for additional security.

NRGLife™ Battery - Maintenance-free 100% recyclable 100Ah rated sealed gel cell battery provides a minimum of five nights of power back-up. Mounted inside of hinged battery enclosure.

Smart Controller - An LED driver with an integrated solar charge controller that monitors and regulates charging and discharging of batteries as well as controlling and dimming of LED luminaire. Programmable to control hours of operation and light level requirements. Accessible through hinged battery enclosure cover.

Arm - Choice of arm. Made of Grade "A" corrosion resistant aluminum.

Pole (OPTIONAL) - System mounts on standard pole with tenon – square or round in fiberglass, steel, aluminum, or concrete.

Five Year System Warranty - Includes five year limited warranty on batteries and 20 years on solar panels.

Top of Pole Series

Solar Powered LED Lighting System

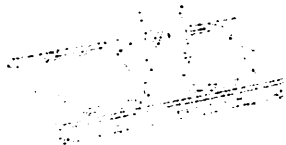


TECHNICAL

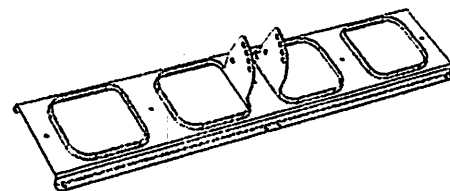
	Mount Dimensions (L x W)	Solar Panel	PV Dimensions Length x Width x Height	EPA @ 45° Power Unit & Battery Box* (fixture & arm additional)	System Weight	Pole Tenon
Single	26.06" x 12.02" 66.2 cm x 30.5 cm	90W	39.48" x 26.06" x 1.88" 100.3 cm x 66.2 cm x 4.8 cm	5.99 sq. ft. / .556 m ²	140 lbs 63.5 kg	3.5" O.D. 8.89 cm O.D.
		125W	58.58" x 26.06" x 1.88" 123.7 cm x 66.2 cm x 4.8 cm	10.07 sq. ft. / .935 m ²	155 lbs 70.3 kg	3.5" O.D. 8.89 cm O.D.
		135W	59.1" x 26.3" x 1.81" 150 cm x 66.8 cm x 4.6 cm	12.07 sq. ft. / 1.12 m ²	210 lbs 95.25 kg	3.5" O.D. 8.89 cm O.D.
Double	52.10" x 12.02" 132.3 cm x 30.5 cm	180W	39.48" x 52.12" x 1.88" 100.3 cm x 132.4 cm x 4.8 cm	14.5 sq. ft. / 1.35 m ²	225 lbs 102.06 kg	3.5" O.D. 8.89 cm O.D.
		250W	58.58" x 52.12" x 1.88" 123.7 cm x 132.4 cm x 4.8 cm	19.0 sq. ft. / 1.77 m ²	250 lbs 113.4 kg	3.5" O.D. 8.89 cm O.D.
		270W	59.1" x 52.6" x 1.81" 150 cm x 133.6 cm x 4.6 cm	20.5 sq. ft. / 1.90 m ²	245 lbs 111.13 kg	3.5" O.D. 8.89 cm O.D.
Triple	77.85" x 37.50" 197.7 cm x 95.2 cm	375W	58.58" x 78.18" x 1.88" 123.7 cm x 198.6 cm x 4.8 cm	27.0 sq. ft. / 2.5 m ²	440 lbs 199.58 kg	3.5" O.D. 8.89 cm O.D.
		405W	59.1" x 78.9" x 1.81" 150 cm x 200.4 cm x 4.6 cm	28.5 sq. ft. / 2.96 m ²	435 lbs 197.31 kg	3.5" O.D. 8.89 cm O.D.
Quad	103.92" x 37.50" 263.9 cm x 95.3 cm	500W	58.58" x 104.24" x 1.88" 123.7 cm x 264.8 cm x 4.8 cm	41 sq. ft. / 3.81 m ²	427 lbs 193.68 kg	6" O.D. 3.5 cm O.D.
		540W	59.1" x 105.2" x 1.81" 150 cm x 267.2 cm x 4.6 cm	42.5 sq. ft. / 3.94 m ²	422 lbs 191.41 kg	6" O.D. 3.5 cm O.D.

* System weight and EPA may vary with number of fixtures and batteries. The chart above is for reference only. Sol provides a calculated EPA and weight when a system is quoted and submitted.

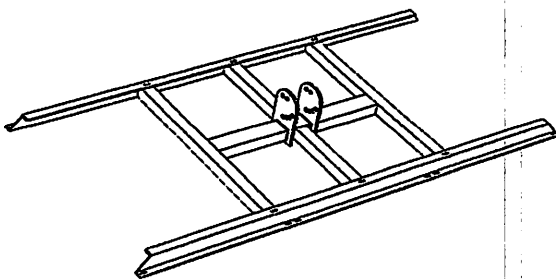
MOUNTS



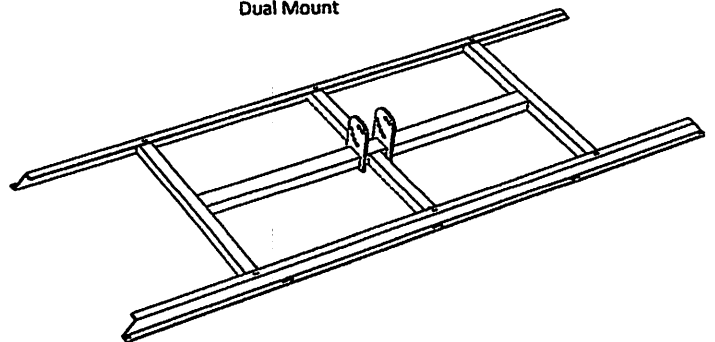
Single Mount



Dual Mount

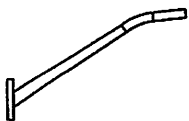


Triple Mount



Quad Mount

ARMS



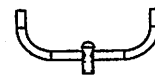
Universal - 4, 6 & 8 foot



Static - 6, 12 & 24 inches



90° Sweep



Bullhorn

EternO[®] 4 Solar Light Controller/LED Driver



Project Name: _____

Type: _____ Qty: _____

Product:

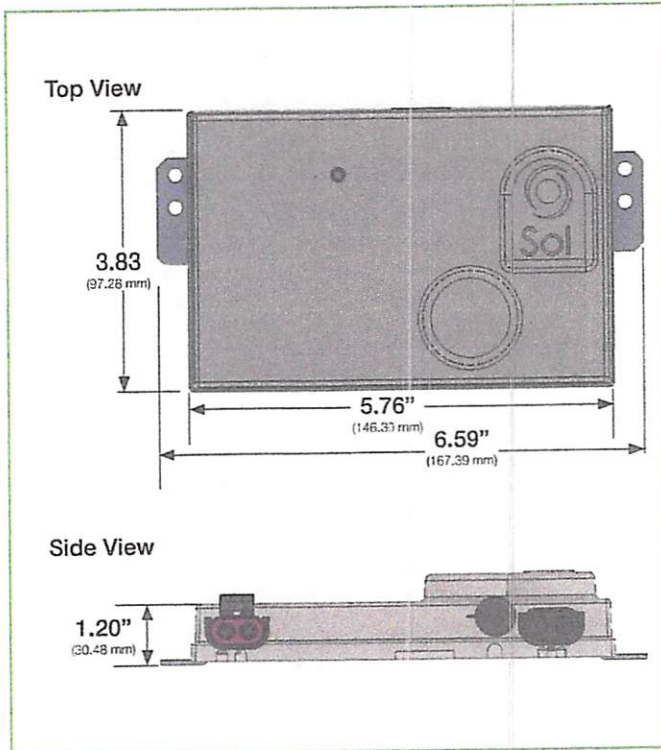
Series Load # Fixtures PS/Quads Hrs Dusk Dim Hrs Dawn

Options

EternO[®] 4 is the Central Processing Unit of a solar light. Featuring advanced microprocessor control and a highly efficient design, EternO[®] 4 controls and monitors solar lights with more flexibility and capability than ever before. EternO[®] 4 is an LED driver with an integrated solar charge controller.

Load (Watts)	# of Fixtures	PS or Quads	Hrs after Dark	Dim %	Hrs before Dawn	Options
15 15 W	1 Single	XX 10/10	04	00	00	0 None
20 20 W	2 Dual	TT 20/20	06	25	02	1 Motion Sensor
30 30 W			08	40	04	2 Seasonal Switch
45 45 W			99 All Ngt	50	99 All Night	3 Wireless
55 55 W				99 All Ngt		A 1+3
## Custom Load						B 1-2
Max wattage						C 2+3
Single - 100W						
Dual - 50W ea						

Batteries, Panel, and Hours of Operation requirements to be determined by Sol based on your project requirement, please consult factory.



Key Benefits

- Flexible operating modes (dusk-to-dawn, split night, split night with dimming).
- Fully tested at the Sol factory before installation and shipment to ensure reliable operation and trouble-free startup.
- Programmed by Sol based on your project requirements eliminating confusing switch and knob setting.
- Made in the USA.
- Integrated charging and LED driving system reduces system failures overall system complexity and cost.
- Integrated surge protection and noise reduction.
- Temperature compensated and PWM controlled battery charging to ensure full battery life of 5 years.
- Auxiliary contact closure input seamlessly integrates manual control, motion detectors, or external control inputs.
- Full solid state design without electrolytic capacitors ensure 100,000 hour life for no maintenance.
- Ten day/night memory averaging to ensure accurate turn on and turn off lights to prevent false response due to weather variations.
- 10 year warranty.



This device complies with Part 15 of the FCC Rules. Operation is subject to the condition that this device does not cause harmful interference.

EternO[®] 4 Solar Light Controller/LED Driver

Additional Features

- Over Voltage Protection.
- LED Short Circuit Protection.
- Internal PV Disconnect (no external Diodes Required).
- Test button & Diagnostic LEDs.
- Reverse battery polarity protection.
- Self calibrating load, timing, and charging circuitry.

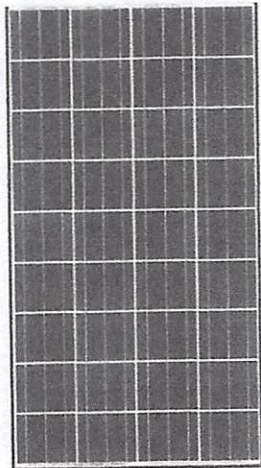
Technical Specifications

FEATURE	VALUE
ELECTRICAL	
Operating Voltage	12V
Operating Current	30A max.
LED Drive Current	3.5A max.
Battery Fuse, External	30A max.
Low Voltage Disconnect (LVD)	11.5 VDC
Low Voltage Reconnect (LVR)	>LVD reconnects next night
CHARGING	
Self-consumption	< 20 mA
LED Indicator	3 LEDs
Lamp Drive Voltage	40 VDC Max.
PHYSICAL	
Operating Temperature	-40 to +45 °C (-40 to +113 °F)
Humidity	100% Condensing
Packaging	Resin Potted, IP66
Weight	.453 kg (16 oz.)
Size (L x W x H)	167.38 x 93.35 x 31.57 mm (6.59 x 3.68 x 1.24 in)

New Release
Greater Field Performance

135 WATT

HIGH EFFICIENCY MULTICRYSTAL
PHOTOVOLTAIC MODULE



KD135SX-UPU

NEC 2008 Compliant
UL1703, Class C
CLASS I, DIV II



CUTTING EDGE TECHNOLOGY

As a pioneer with 35 years in solar, Kyocera demonstrates leadership in the development of solar energy products. Kyocera's *Kaizen* Philosophy, commitment to continuous improvement, is shown by repeatedly achieving world record cell efficiencies.

Kyocera Quality Built In:

- New frame technology allows for end mounting under 2400 Pa (50 psf) and traditional mounting under 5400 Pa (113 psf) to support increased snow load
- UV stabilized, aesthetically pleasing black anodized frame
- Supported by all major mounting structure manufacturers
- Easily accessible grounding points on all four corners for fast installation
- Proven junction box technology

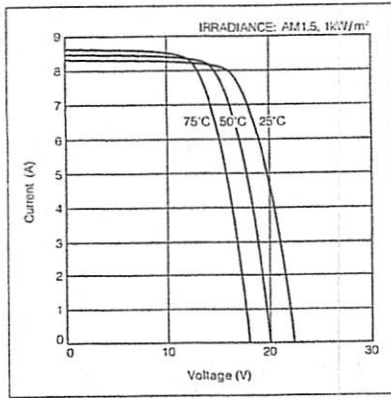
Kyocera manufactures and assembles solar cells and modules at its own worldwide production sites using a true vertical integration process. This superior approach gives Kyocera complete control over every step of the manufacturing process, producing modules with the industry's tightest power tolerance, promising high quality and efficiency.

- Built-In Quality for Off-Grid Applications
- Proven Superior Field Performance
- Tight Power Tolerance
- 20 Year Warranty
- 5 Year Workmanship Warranty

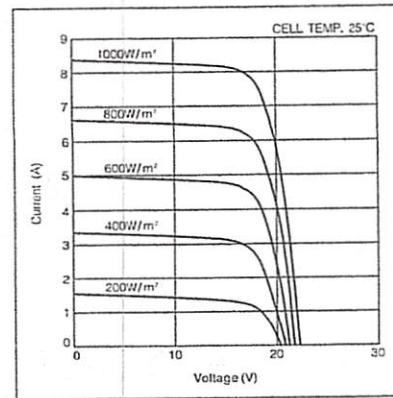
KD135SX-UPU

ELECTRICAL CHARACTERISTICS

Current-Voltage characteristics of Photovoltaic Module KD135SX-UPU at various cell temperatures



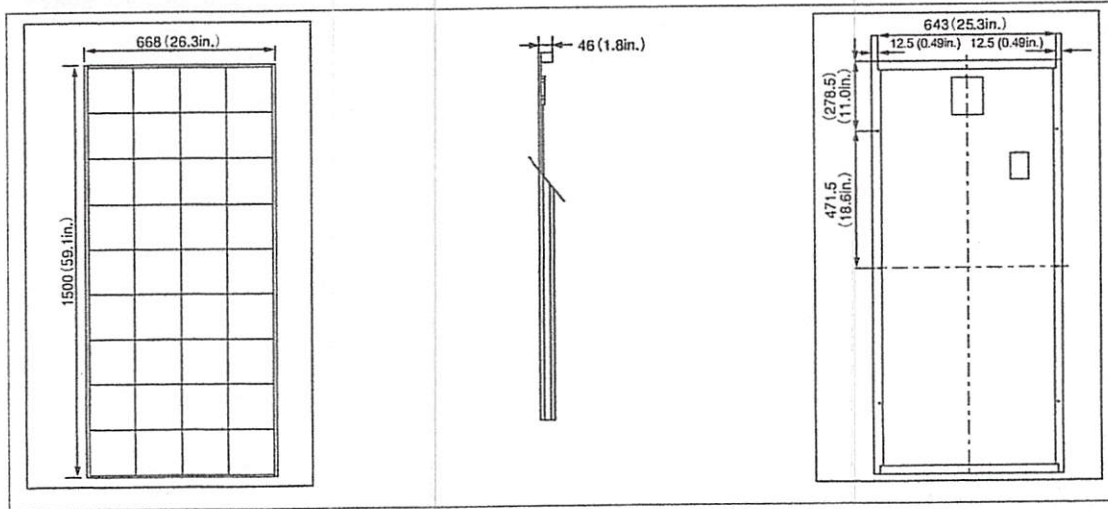
Current-Voltage characteristics of Photovoltaic Module KD135SX-UPU at various irradiance levels



SPECIFICATIONS

Physical Specifications

Unit : mm (in.)



Specifications

Electrical Performance under Standard Test Conditions (*STC)

Maximum Power (Pmax)	135W (+5%/-5%)
Maximum Power Voltage (Vmpp)	17.7V
Maximum Power Current (Impp)	7.63A
Open Circuit Voltage (Voc)	22.1V
Short Circuit Current (Isc)	8.37A
Max System Voltage	600V
Temperature Coefficient of Voc	-8.0x10 ⁻² V/°C
Temperature Coefficient of Isc	5.02x10 ⁻³ A/°C

*STC : Irradiance 1000W/m², AM1.5 spectrum, cell temperature 25°

Electrical Performance at 800W/m², *NOCT, AM1.5

Maximum Power (Pmax)	95W
Maximum Power Voltage (Vmpp)	15.7V
Maximum Power Current (Impp)	6.10A
Open Circuit Voltage (Voc)	20.0V
Short Circuit Current (Isc)	6.79A

*NOCT (Nominal Operating Cell Temperature) :47.9°C

ISO 9001 and ISO 14001 Certified and Registered

www.kyocerasolar.com

800-223-9580 toll free 800-523-2329 fax

Cells

Number per Module	36
-------------------	----

Module Characteristics

Length x Width x Depth	1500mm(59.1in.)x668mm(26.3in.)x46mm(1.8in.)
Weight	12.5kg(27.5lbs.)

Junction Box Characteristics

Length x Width x Depth	150mm(5.9in.)x140mm(5.5in.)x37.2mm(1.5in.)
IP Code	IP65

Others

*Operating Temperature	-40°~90°C
Maximum Fuse	15A

*This temperature is based on cell temperature.



Battery Enclosure (E)



Project Name: _____

Type: _____ Qty _____

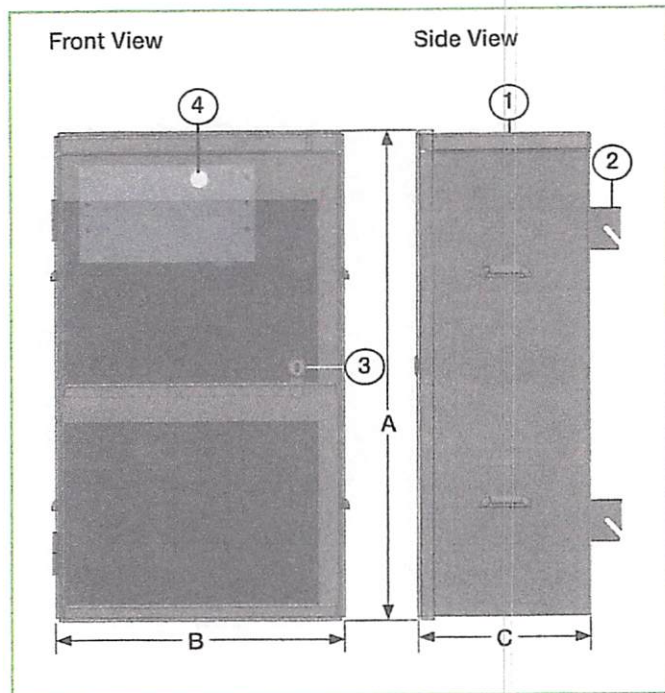
Product: E Q400 GY LH
 Series Size Color Mounting

Example: ED200-BK-LH

Holds NRGLife™ gel cell battery(s) and smart controller. Single battery enclosure holds one battery. Dual enclosure holds one to two batteries. Quad enclosure hold three to four batteries. Made in USA.

Series	Enclosure Size	Color	Mounting
E Battery Enclosure	G100 Single Battery D200 Dual Battery Q400 Quad Battery	BZ Bronze BK Black GR Green WH White CF Custom Finish (Specify RAL#) NF Natural Mill Finish	LH Locking High LL Locking Low SH Non Locking High SL Non Locking Low

Batteries, Panel, and Hours of Operation requirements to be determined by Sol based on your project requirement, please consult factory.



allow air circulation around batteries. Easy access through hinged/removable front cover to allow quick servicing or battery replacement.

2. **Mounting** - Features four that mount to main bracket and is shaded by solar module.
3. **Optional Locking Device** - Provides additional anti-theft security feature.
4. **Access Hole** - Maintenance-free 100% recyclable 100Ah rated sealed gel cell battery provides a minimum of 5 nights of battery back-up. Mounted inside of hinged battery enclosure for ease of maintenance.
5. **Warranty** - 10 years on electronics, wiring, fixture and 20 years on mounting hardware and solar panel.

1. **Housing** - Made of Grade "A" corrosion resistant aluminum unit that holds SOL NRGLife™ battery and smart controller. Can be powder-coated. Vented to

Gel Cell Battery

NRGLife Gold™

12 Volts 100 Ah Gel Cell



FEATURES

- 12 year design life for stand by power application
- Completely maintenance-free, sealed construction
- Analytical Grade electrolyte
- Spill proof / leak proof
- Valve regulated Max internal pressure 2.5 psi
- Multi-position usage (non-vertical)
- ABS Case and cover
- Low self discharge
- FAA and IATA approved as non-hazardous
- Built to comply with IEC 896-2, DIN 43534, BS 6290 Pt4, Eurobat
- UL recognized

SPECIFICATIONS

Nominal Voltage	12 Volts
Nominal Capacity	100Ah (C20 @ 20°C / 68°F)
Design Life	12 Years
Operating Temperature	-20°C to 50°C (-4° to 122°F)
Separator	Microporous polymer
Active material	Very high purity lead
Case and cover	ABS (VO on request)
Electrolyte	Gelled Sulphuric acid Analytical grade purity
Venting Valve	EPDM Rubber 1.5 to 2 psi (10.5 - 14 KPa) release pressure. Resealing at 1psi (7 KPa)
Terminal	Epoxy sealed by extended mechanical paths
Model #	NRGLIFE-GD-100



Reliable. Renewable. Remarkable.

Battery Enclosure (E)

Data

	G100	D200	Q400
Number of NRGLife™ Batteries	1	1-2	3-4
Dimensions: Length x Width x Depth (A x B x C)	11" x 13" x 8" (inches) 279.4 x 330.2 x 203.2 (mm)	23" x 13" x 8.5" 584.2 x 330.2 x 215.9 (mm)	24" x 24" x 7.5" 609.6 x 609.6 x 190.5 (mm)
Weight	12 lbs. / 5.44 kg	16 lbs. / 7.26 kg	28 lbs. / 12.70 kg
Effective Projected Area (EPA)	1.5 sq. ft. / 0.1394 m ²	2.07 sq. ft. / 0.1923 m ²	4.0 sq. ft. / 0.3716 m ²

Gel Cell Battery

NRGLife Gold™

12 Volts 100 Ah Gel Cell



FEATURES

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Terminal	Epoxy sealed by extended mechanical paths
Model #	NRGLIFE-GD-100



Reliable. Renewable. Remarkable.

Gel-Cell Battery

NRGLife Gold™

12 Volts 100 Ah Gel Cell



SPECIFICATIONS

Nominal Voltage		12 V	
Nominal Capacity		100aH	
Dimensions	Total Height	208 mm	8.19 inches
	(Inc. terminals)	---- mm	n/a inches
	Length	305 mm	12.01 inches
	Width	168 mm	6.61 inches
Weight		28.4 kg	62.76 lbs

CHARACTERISTICS

Capacity 20°C (68°F) To 1.7 volts	20 hour rate	89.9 Ah
	10 hour rate	80.05 Ah
	5 hour rate	56.5 Ah
	1 hour rate	36.6 Ah
	Internal Resistance Impedance	5 mOhms S
Capacity correction for Temperature Variations(C20)	40°C (104°F)	102%
	20°C (68°F)	100%
	0°C (32°F)	85%
	-15°C (5°F)	65%
Self-Discharge 20°C (68°F)	Capacity after 1 months storage	98%
	Capacity after 3 months storage	94%
	Capacity after 6 months storage	86%
Short Circuit Current 20°C (68°F)	2900 A	
Terminal	14mm bolt insert with M6 thread	
Charging (Constant Voltage)	Cyclic	2.35 - 2.40 VPC (20-25°C / 68-77°F)
	Float	2.27 - 2.30 VPC (15-25°C / 59-77°F)



Reliable. Renewable. Remarkable.

rev. 0410 VRKT-NRG100-C01

Battery Enclosure (E)



Reliable. Renewable. Remarkable.

Data

	G100	D200	Q400
Number of NRGLife™ Batteries	1	1-2	3-4
Dimensions: Length x Width x Depth (A x B x C)	11" x 13" x 8" (inches) 279.4 x 330.2 x 203.2 (mm)	23" x 13" x 8.5" 584.2 x 330.2 x 215.9 (mm)	24" x 24" x 7.5" 609.6 x 609.6 x 190.5 (mm)
Weight	12 lbs. / 5.44 kg	16 lbs. / 7.26 kg	28 lbs. / 12.70 kg
Effective Projected Area (EPA)	1.5 sq. ft. / 0.1394 m ²	2.07 sq. ft. / 0.1923 m ²	4.0 sq. ft. / 0.3716 m ²

Sol Inc Limited FivePlus™ Warranty Rev 8/09

Sol Inc. is an ISO 9001:2008 certified worldwide manufacturer that designs and manufactures our own products (vs. simply reselling or distributing other manufacturer's products). Even though the best scenario involves never having to actually use a company's warranty, we are proud to offer what we believe is in fact the BEST WARRANTY available in the industry, from a company that has been in business since 1990.

Sol Inc. warrants the Owner (defined as the entity that has final title to the goods) of each new Sol lighting system to be free from defects in materials and workmanship and to perform under normal use and service. Sol will, at its option, repair or replace any system or system component that is defective in materials or manufacture within a minimum of five (5) years after purchase. Additionally, specific items within Sol's system have extended warranty protection against failure as defined below:

Item	Period
Solar PV Panel	20 Years
Mounting Hardware	20 Years
Pole (if provided)	20 Years
LED Light Engine (Lamp)	10 Years
LED Luminaire (Fixture)	10 Years
Wire Harnessing	10 Years
Electronics (Charge controller, LED driver)	10 Years
Energy Storage Array (Battery)	5 Years*

*Batteries provided by Sol Inc. have a limited warranty providing for battery replacement (batteries must be provided by Sol), from the date of shipment, with the following pro-rated coverage:

- 0 to 2 years: 100% credit (user pays 0% of the replacement battery price)
- 2 to 3 years: 60% credit (user pays 40% of the replacement battery price)
- 3 to 4 years: 40% credit (user pays 60% of the replacement battery price)
- 4 to 5 years: 20% credit (user pays 80% of the replacement battery price)

Sol Inc.'s liability on any claim for damages arising out of or in connection with the manufacture, sale, installation, delivery or use of the unit shall not exceed the purchase price of the system. The purchaser assumes and will hold harmless Sol Inc. in respect of all such loss.

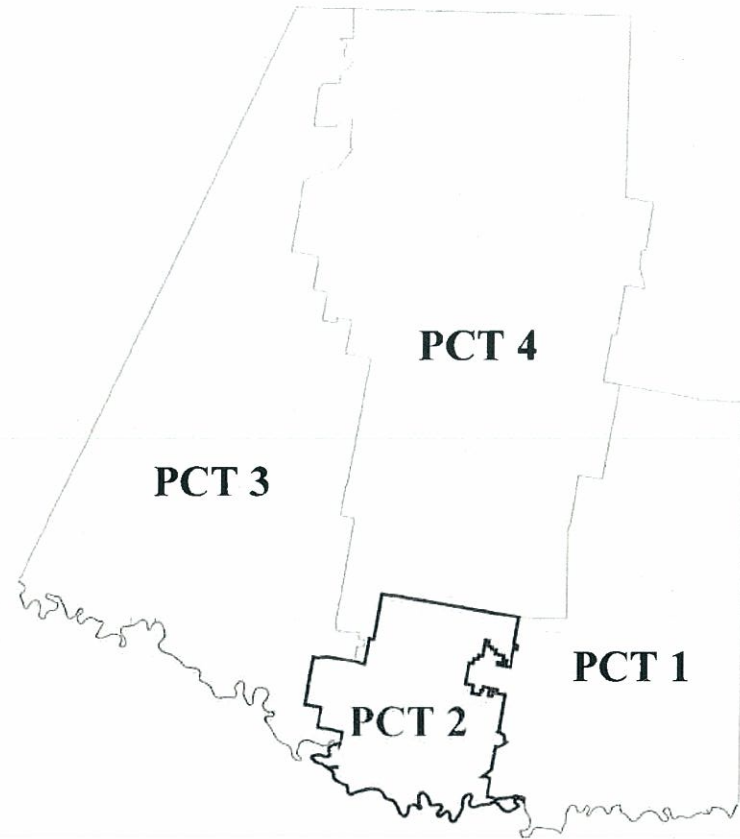
For warranty service on Sol products please contact Sol for a Return Material Authorization (RMA) number by calling +1 (772) 286-9461. Any products or components that are returned to Sol without first obtaining a RMA may not be issued any credit, and Sol shall not be responsible for said items.

This warranty does not cover damage or malfunction, as determined by Sol's service technicians or engineers, due to abuse, misuse, incorrect installation, or accident such as, but not limited to:

- Use of incorrect mounting hardware
- Failure to follow operating and installation instructions provided by Sol
- Failure to maintain & operate the equipment in accordance within all applicable standards & codes
- Failure to maintain & operate the system under Sol's specified operating conditions
- Vandalism or theft
- Fire, flood, "Acts of God", and other problems beyond the control of Sol
- Unauthorized or improper repairs or adjustments
- Labor costs to remove, service, troubleshoot, and install all or part of Sol systems, unless previously agreed to and authorized IN WRITING by Sol by either the Customer Care Manager, Quality Manager, or CEO
- Equipment service, rental, and or tools required to remove, service, troubleshoot, and reinstall all or part of Sol systems, unless previously agreed to and authorized IN WRITING by Sol by either the Customer Care Manager, Quality Manager, or CEO
- Components and equipment external to the Sol system
- The cost of repairing or replacing property other than the Sol system
- Equipment not provided by Sol

The use of any replacement parts (for any reason) including but not limited to electrical components, luminaires, or batteries NOT provided by Sol voids this warranty. This warranty is in lieu of all other expressed warranties and the implied warranty of merchantability is limited to terms of this written warranty. This warranty grants you specific legal rights, and you may have other rights which vary based on your location.





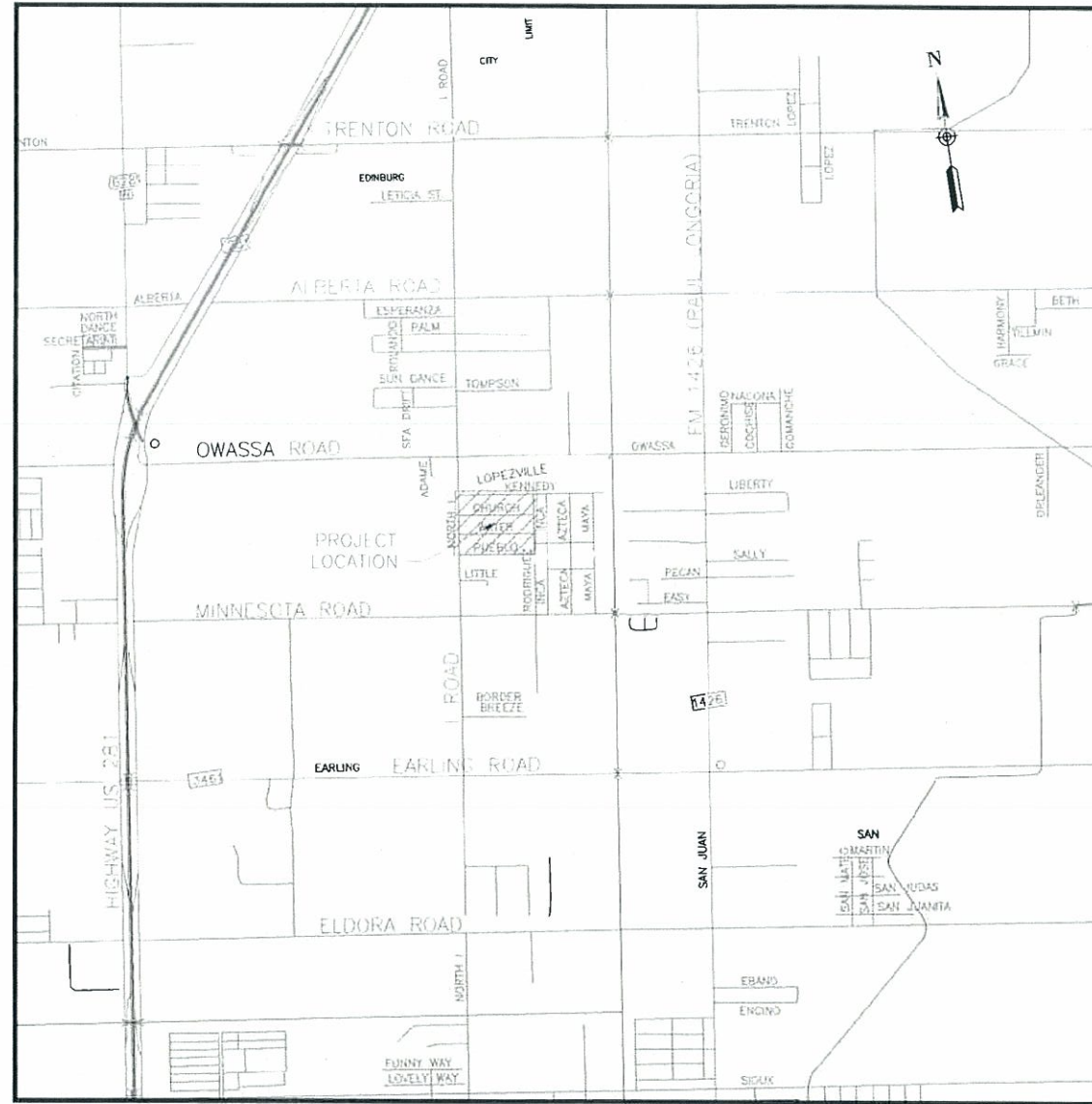
RAMON GARCIA
COUNTY JUDGE

COMMISSIONER A.C. CUELLAR
PRECINCT No. 1

COMMISSIONER HECTOR "TITO" PALACIOS
PRECINCT No. 2

COMMISSIONER JOE M. FLORES
PRECINCT No. 3

COMMISSIONER JOSEPH PALACIOS
PRECINCT No. 4



LOCATION MAP - SCALE: 1"=3000'

**HIDALGO COUNTY PRECINCT No. 2
GONZALEZ-ZAMORA SUBDIVISION
SOLAR LIGHTS PROJECT**



**HIDALGO COUNTY
PLANNING DEPARTMENT**

1304 S. 25 TH. STREET
EDINBURG TX. 78539
TEL: (956) 318-2840 ★ FAX: (956) 318-2844
www.co.hidalgo.tx.us
RAUL E. SESIN, P.E., C.F.M.
PLANNING ADMINISTRATOR



04/09/14

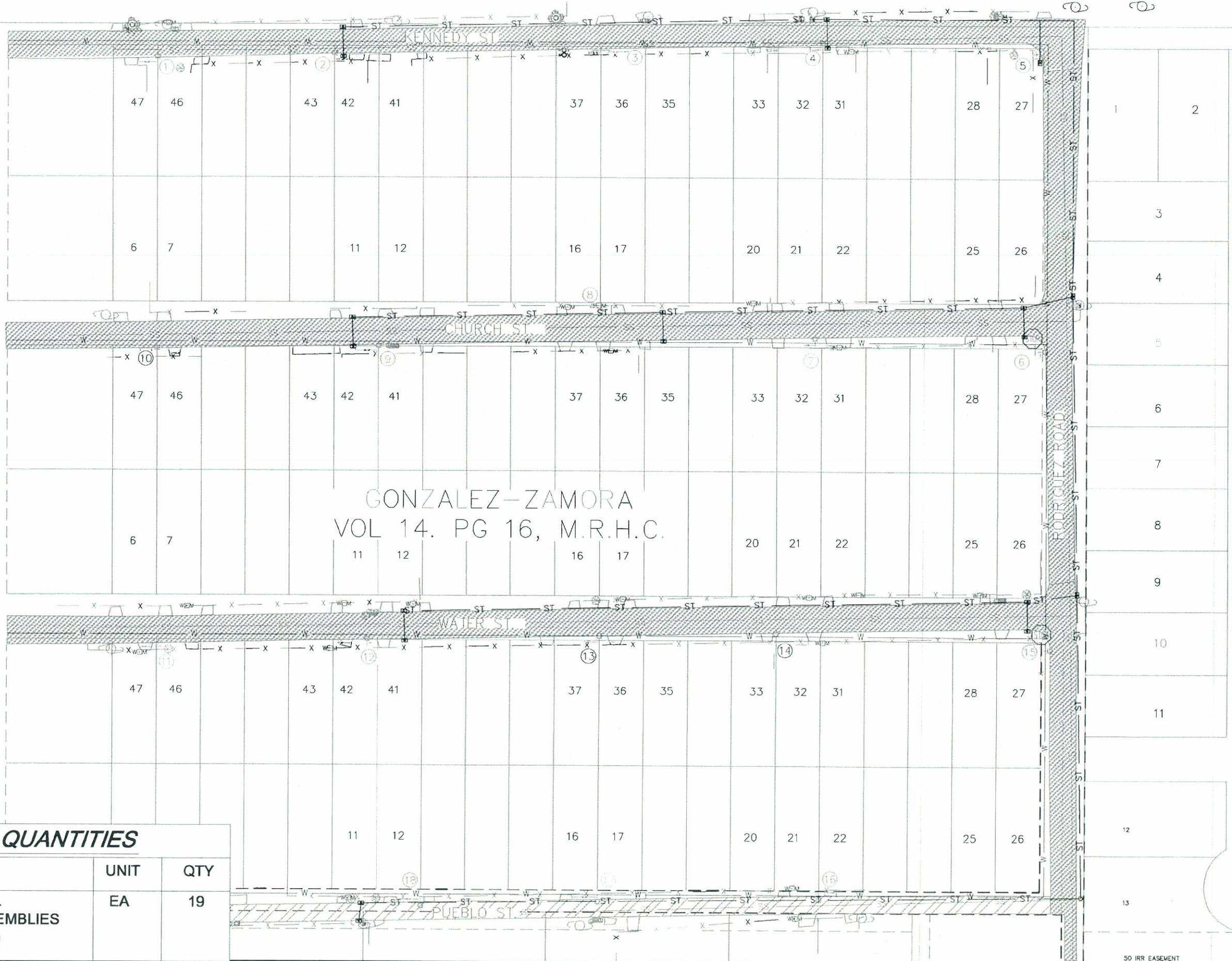
This seal appearing on this document was authorized by Raul E. Sesin P.E. No. 86374 on the above designated date.

[Signature]
RAUL E. SESIN - P.E. No. 86374

REVISIONS	
DATE:	COMMENTS:



"I" ROAD



GONZALEZ-ZAMORA
VOL 14. PG 16, M.R.H.C.

50 IRR EASEMENT

SHEET QUANTITIES

DESCRIPTION	UNIT	QTY
FURNISH AND INSTALL SOLAR LIGHTING ASSEMBLIES (COMPLETE IN PLACE)	EA	19

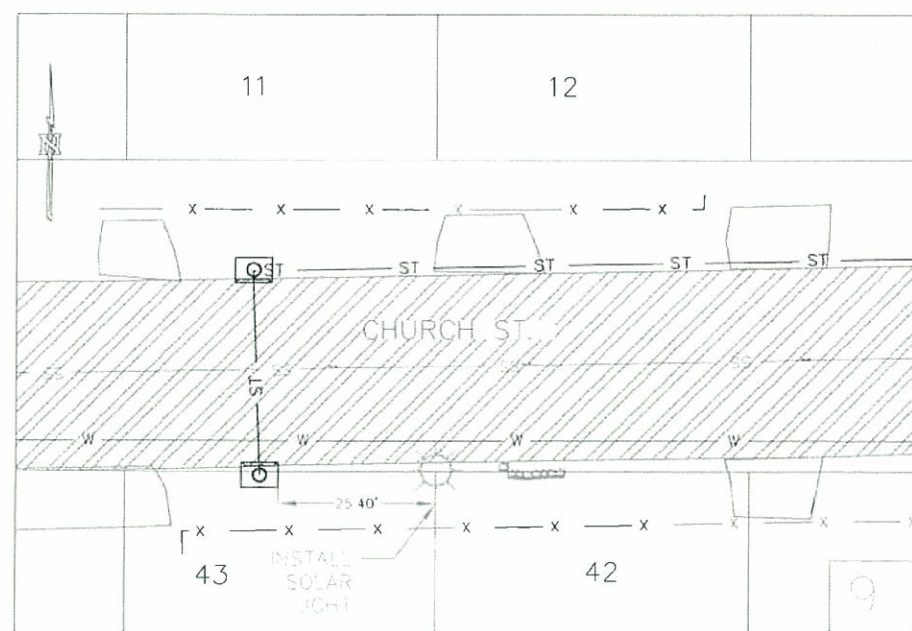
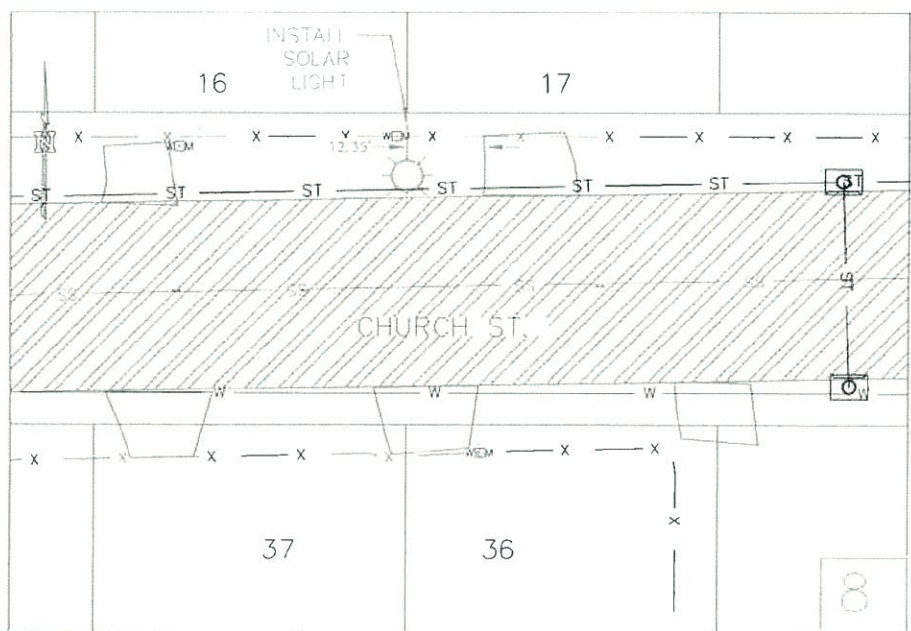
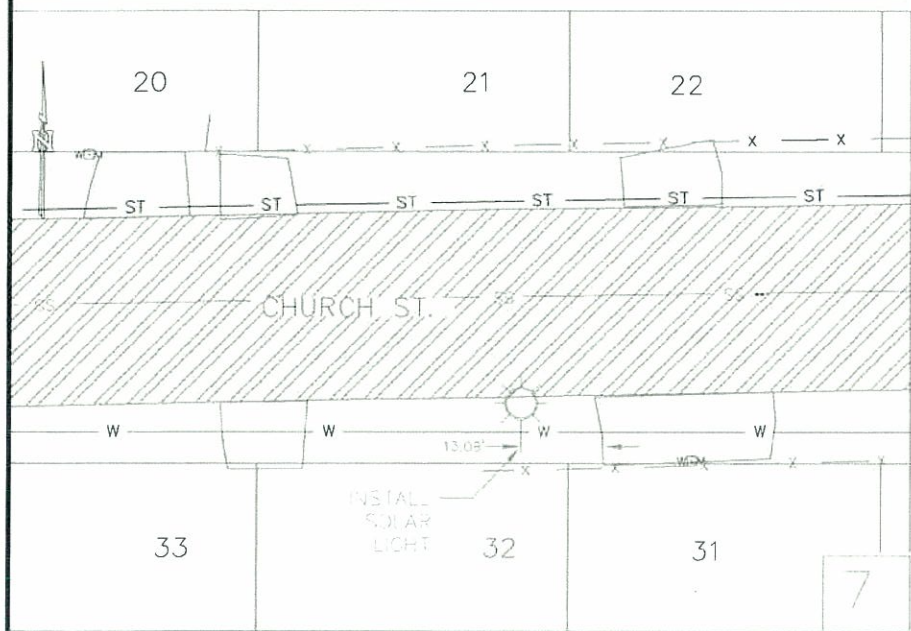
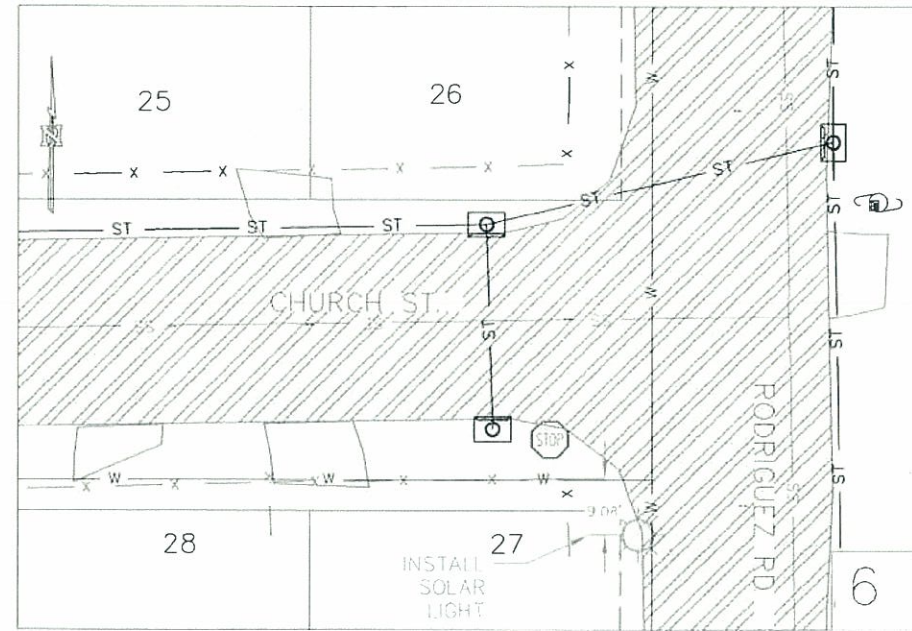
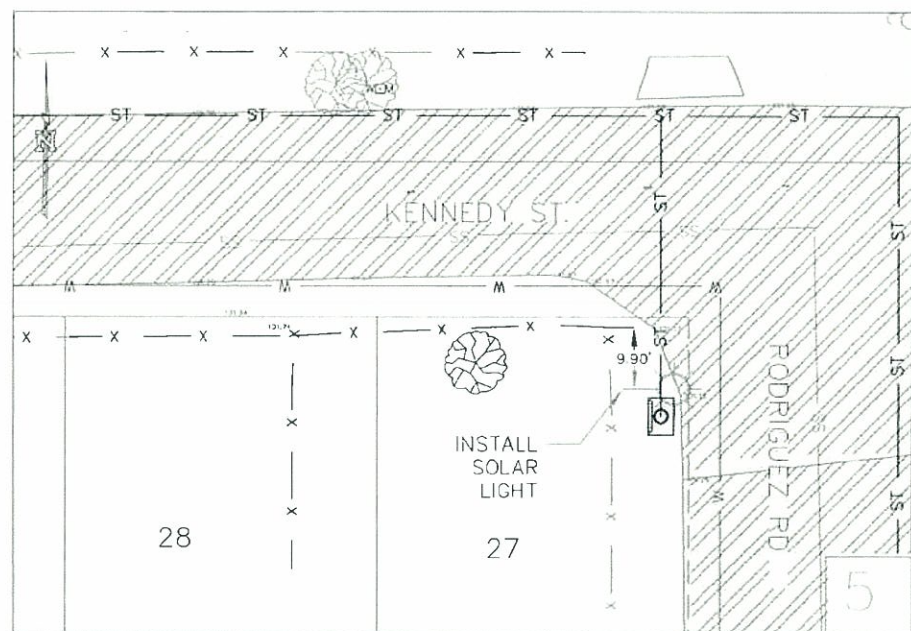
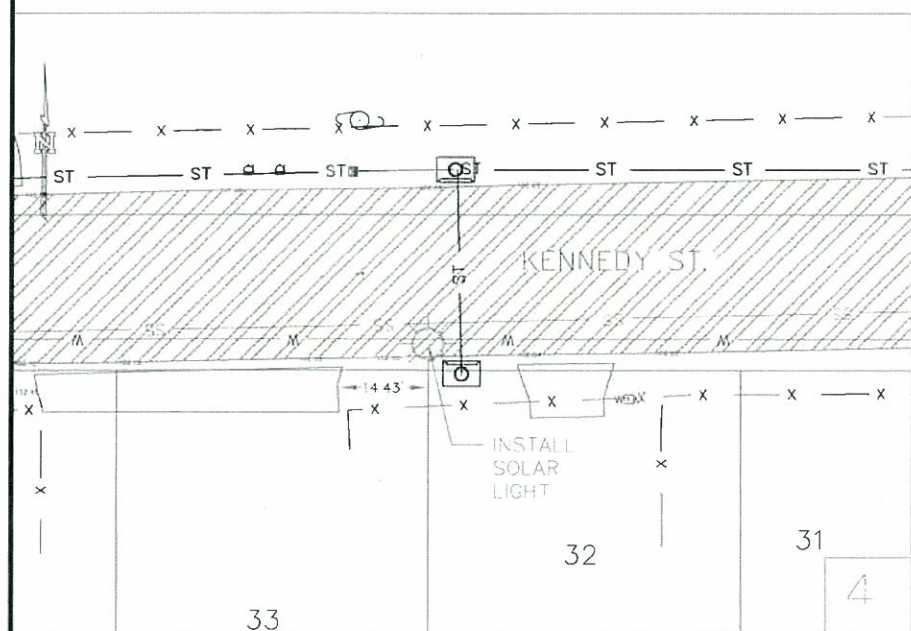
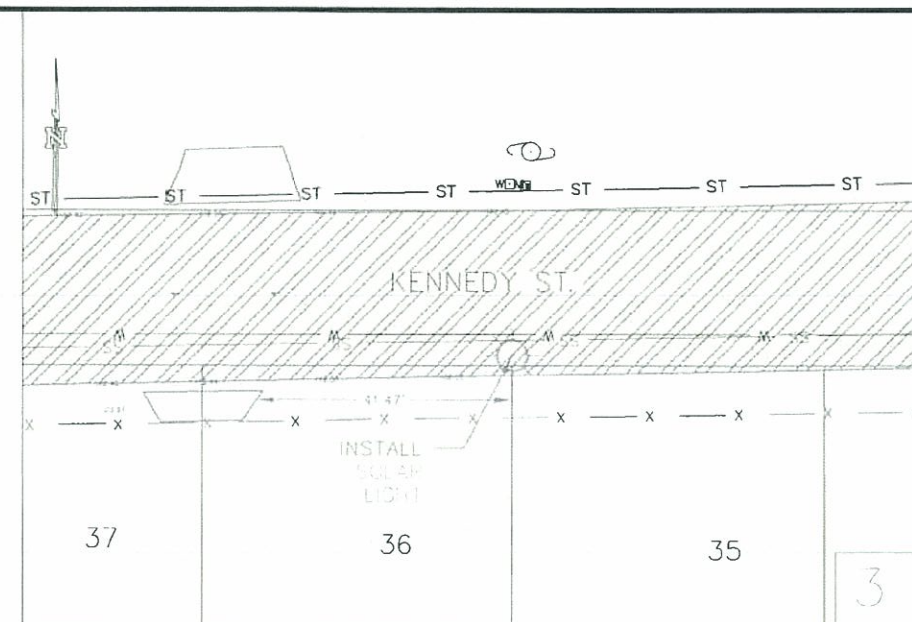
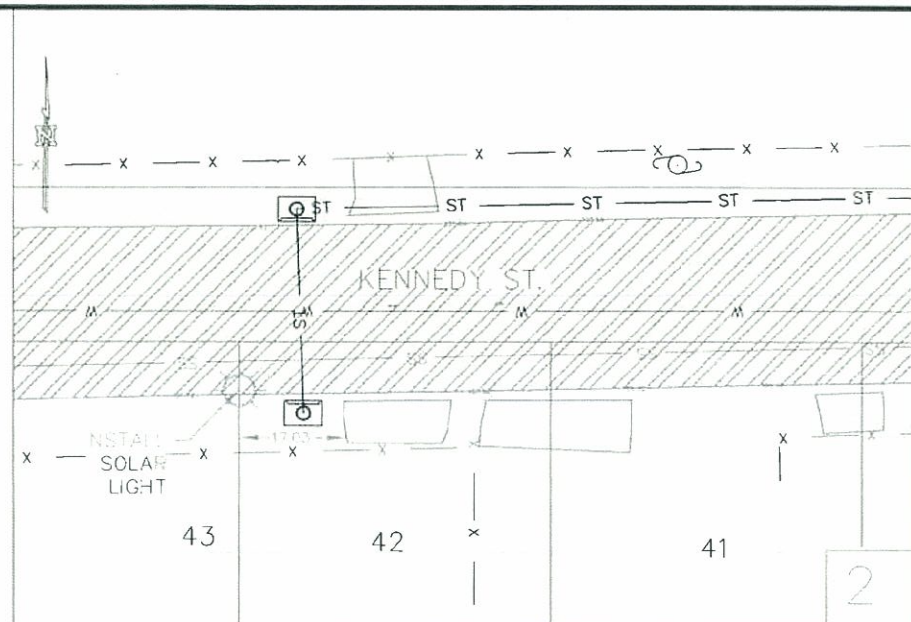
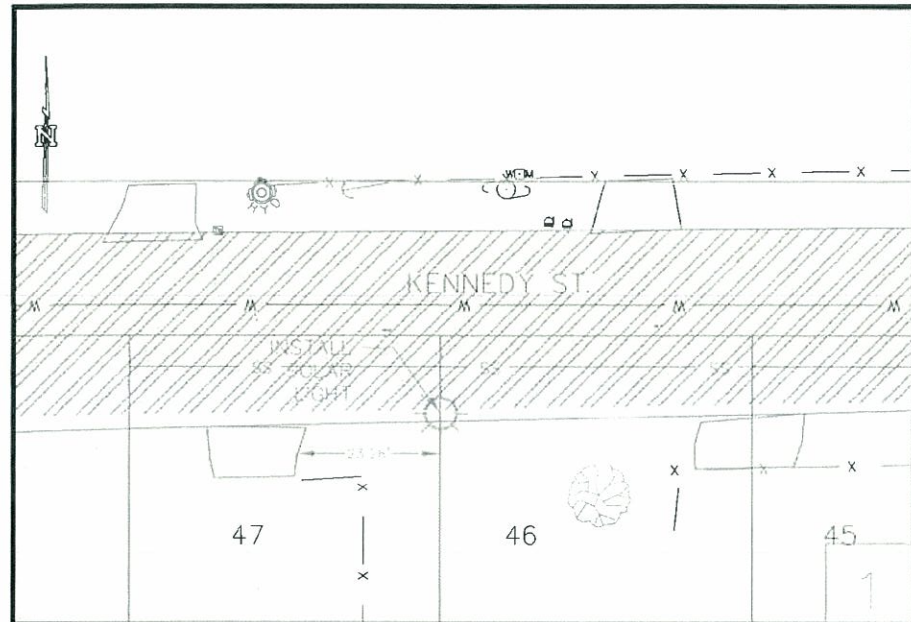
HIDALGO COUNTY
PLANNING DEPARTMENT
1304 S. 25 TH STREET
EDINBURG TX 78559
TEL: (956) 318-2840 FAX: (956) 318-2844
www.co.hidalgo.tx.us
RAUL E. SESIN, P. E., C. F. M.
PLANNING ADMINISTRATOR

COMMISSIONER
HECTOR "TITO" PALACIOS
HIDALGO COUNTY PCT 2
DRAINAGE IMPROVEMENTS
PROJECT

GONZALEZ SOLAR LIGHT
PLAN VIEW



This seal appearing on this document was authorized by Raul E. Sesin P.E. No. 86374 on the date indicated here.
RAUL E. SESIN P.E. No. 86374
SCALE: NTS
DRAWN BY: CYNTHIA PEREZ
CHECKED BY: RAUL E. SESIN
TORY BY: EDGAR ISIDRO
SHEET: 1



COMMISSIONER
 HECTOR "TITO" PALACIOS
 HIDALGO COUNTY PCT 2
 DRAINAGE IMPROVEMENTS
 PROJECT

GONZALEZ SOLAR LIGHT
 PLAN VIEW
 Solar Light #1-9



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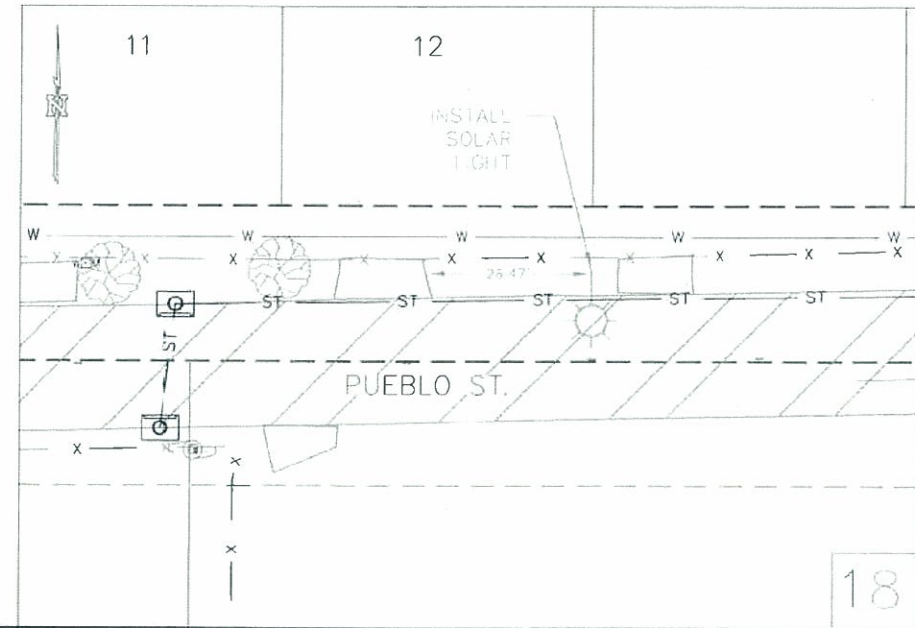
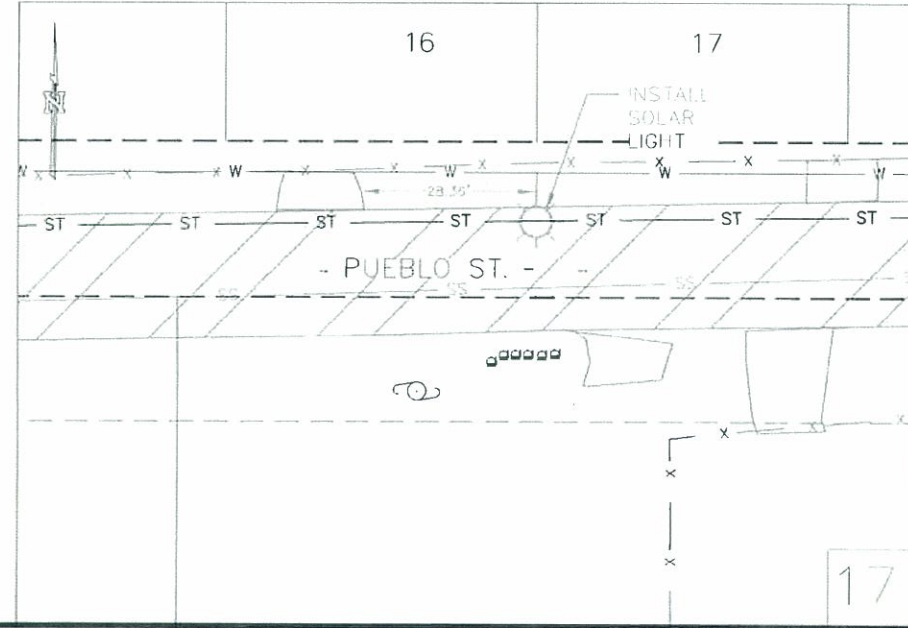
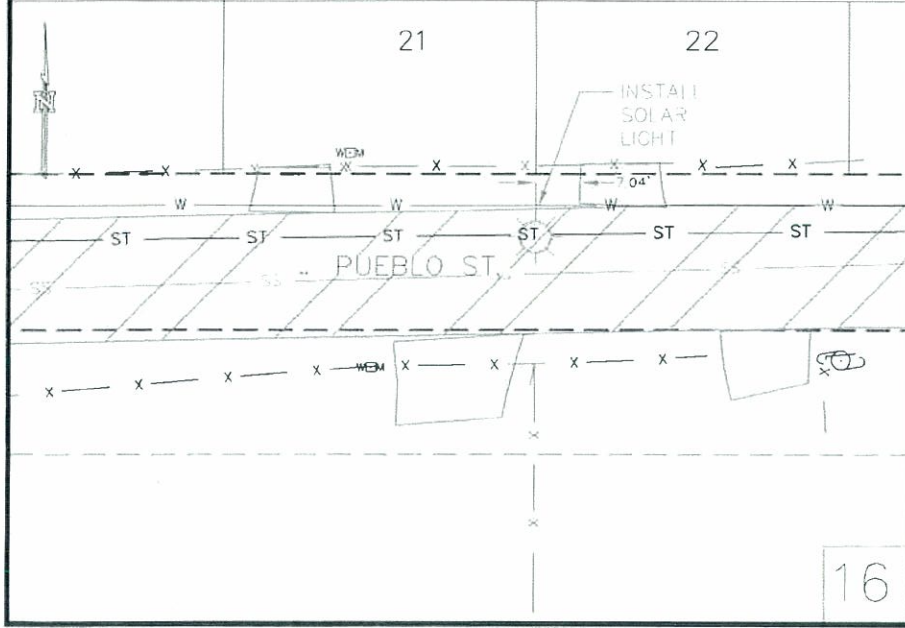
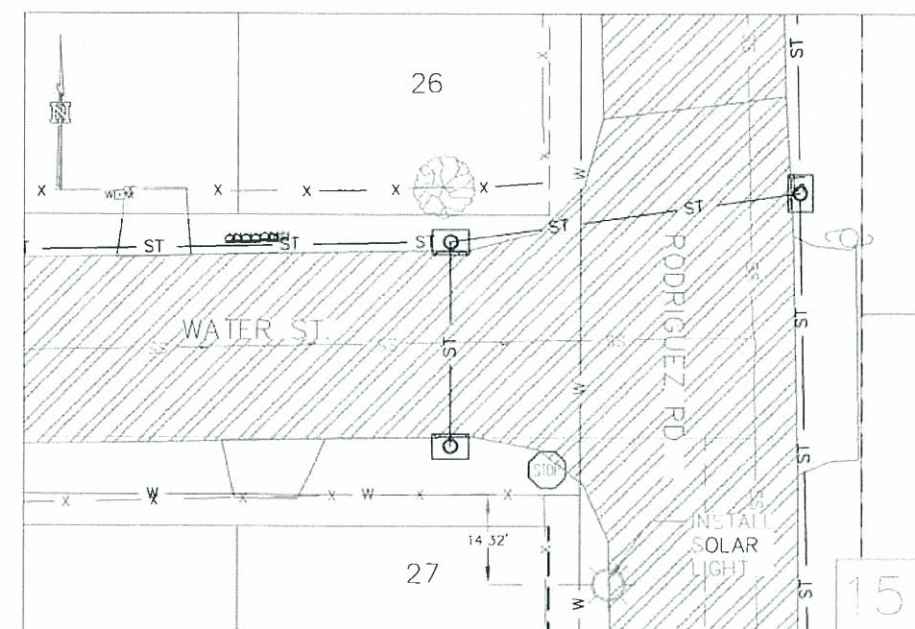
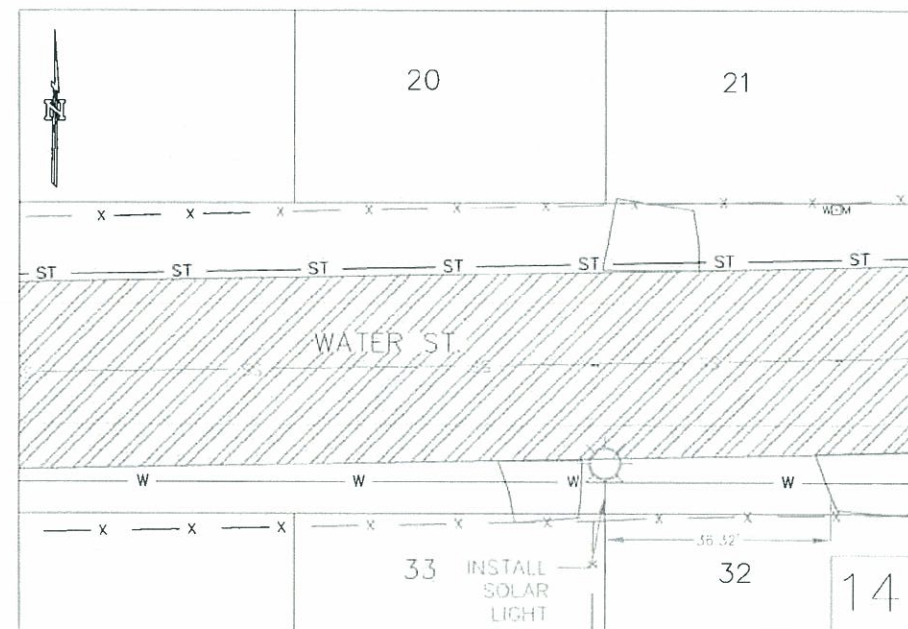
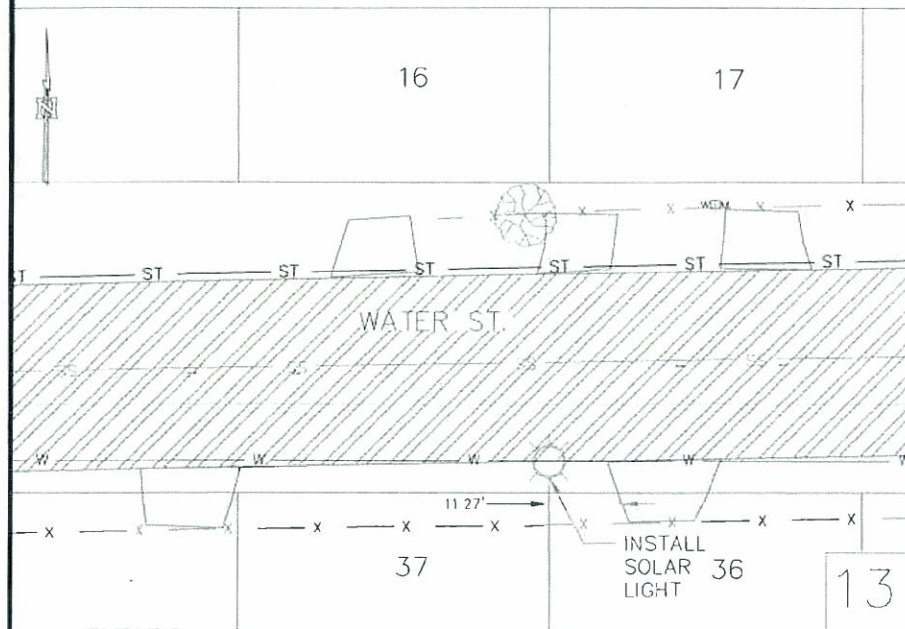
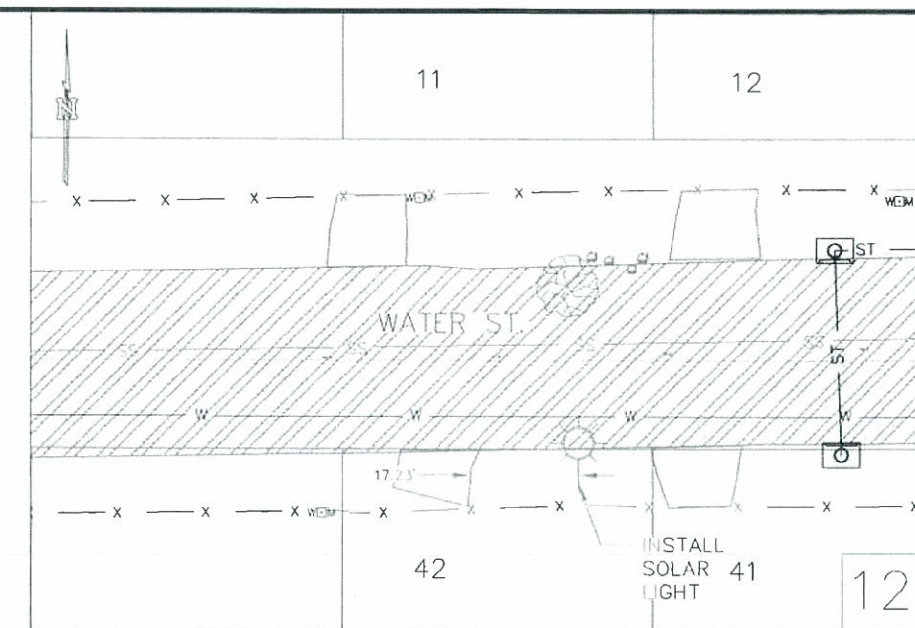
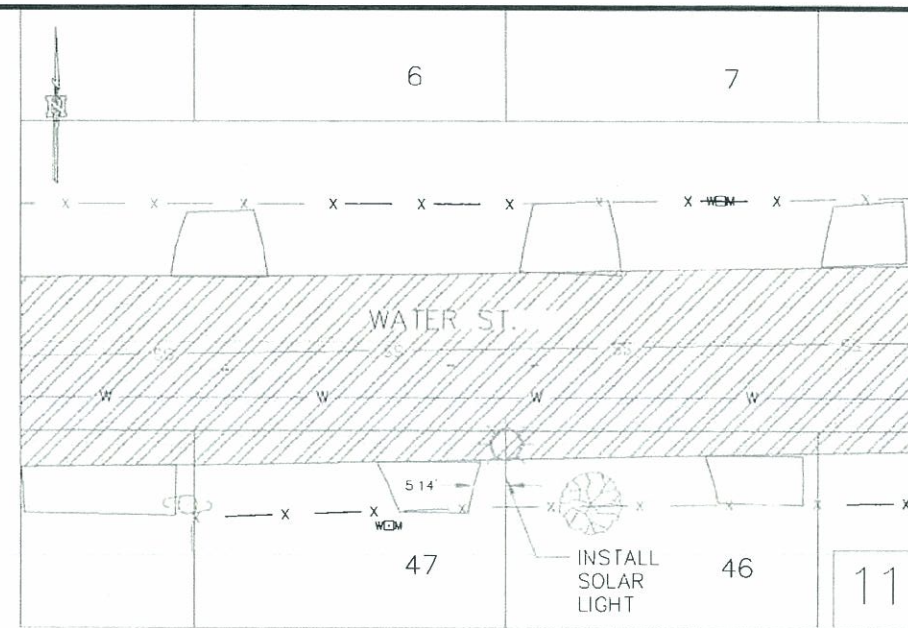
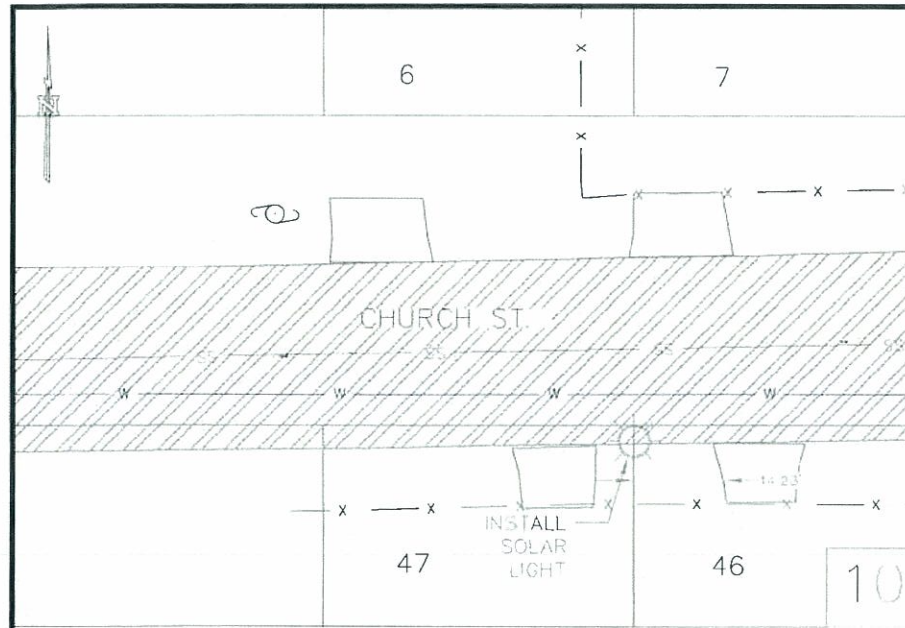
RAUL E. SESIN - P.E. No. 89374

SCALE: 1"=30'

DRAWN BY: CYNTHIA PEREZ
 CHECKED BY: RAUL E. SESIN
 TYPED BY: EDGAR ISIDRO
 SHEET: 2

HIDALGO COUNTY PLANNING DEPARTMENT
 1304 S. 25 TH STREET
 EDINBURG TX 78539
 TEL: (956) 318-2840 FAX: (956) 318-2844
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 RAUL E. SESIN, P.E., C.F.M.
 PLANNING ADMINISTRATOR

Drawn: A:\PCT 2\Gonzalez-Jamora Solar Lights\GONZALEZ SOLAR LIGHTS.dwg Plotted by: Cynthia Perez
 Date: 04/06/2014 Time: 10:10:10 AM



HIDALGO COUNTY
PLANNING DEPARTMENT
1304 S. 25 TH STREET
EDINBURG TX 78839
TEL: (956) 318-2840 FAX: (956) 318-2844
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COMMISSIONER
HECTOR "TITO" PALACIOS
HIDALGO COUNTY PCT 2
DRAINAGE IMPROVEMENTS
PROJECT

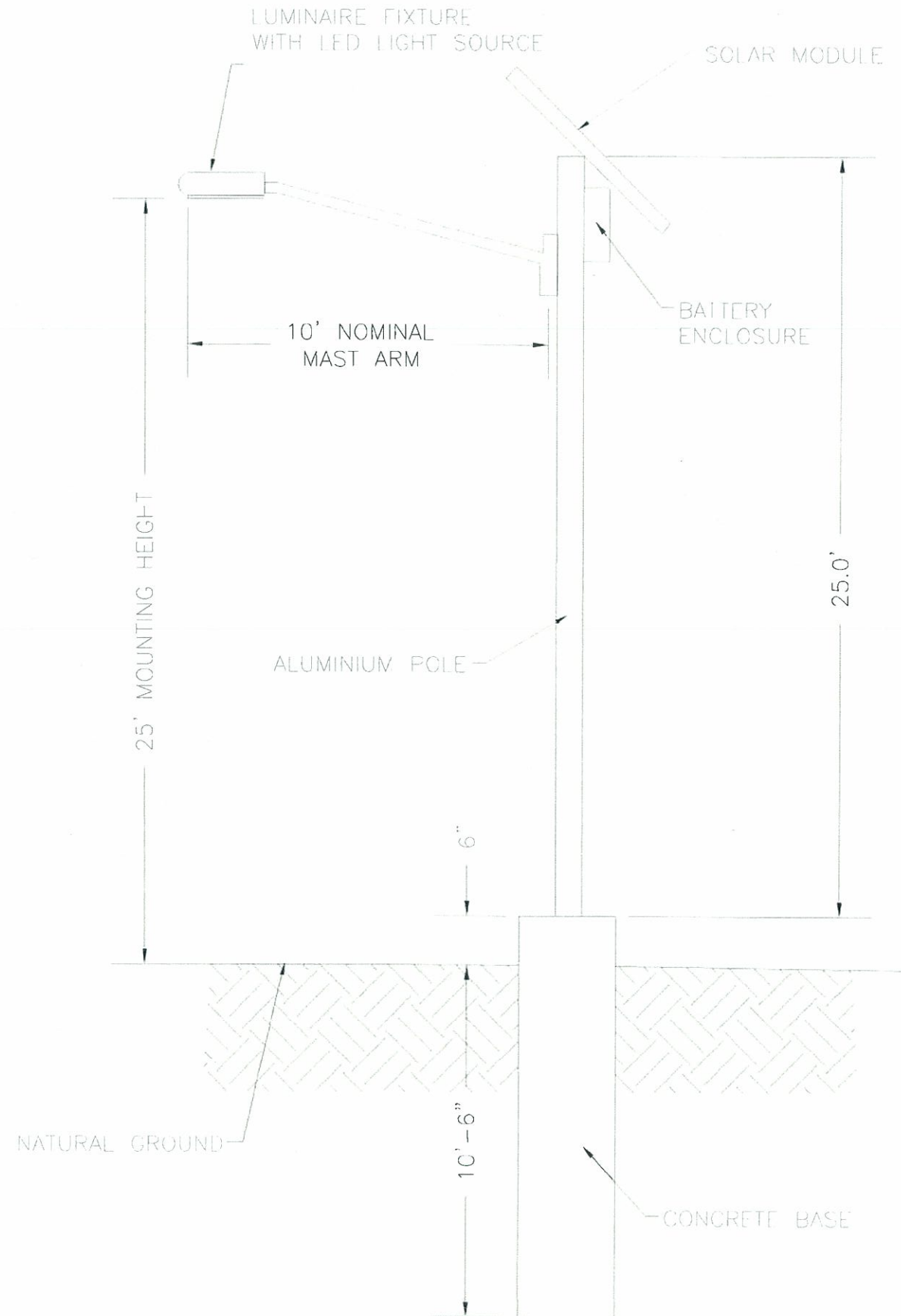
GONZALEZ SOLAR LIGHT
PLAN VIEW
Solar Light #10-18

STATE OF TEXAS
RAUL E. SESIN
86374
LICENSED PROFESSIONAL ENGINEER
This seal appearing on this document was authorized by Raul E. Sesin P.E. No. 86374 on the above designated date.
RAUL E. SESIN - P.E. 86374
SCALE: 1"=30'
DRAWN BY: CYNTHIA PEREZ
CHECKED BY: RAUL E. SESIN
TYPED BY: EDGAR ISIDRO
SHEET 3

Drawing: \\C:\Users\Cynthia\Documents\Gonzales Solar Lights\GONZALEZ SOLAR LIGHTS(1-9). Plotted by: Cynthia Perez
Print: P:\P\16171714 - 10/15/14 PM

GENERAL NOTES:

1. THE CONTRACTOR SHALL INSTALL A FULLY OPERATIONAL SOLAR POWERED LUMINAIRE ASSEMBLY AT PROPOSED LOCATIONS.
2. CONTRACTOR SHALL VERIFY ALL SOLAR MODULES ARE FREE OF ANY OBSTRUCTIONS AND ORIENTATE SOLAR PANELS FACING DUE SOUTH.
3. CONTRACTOR SHALL BE RESPONSIBLE TO CALL DIG TESS 48 HOURS PRIOR TO COMMENCEMENT OF WORK FOR UTILITY SPOTTING @ (1-800-DIG-TESS) AND CONTACT THE HIDALGO COUNTY IRRIGATION DISTRICT AND WATER/SEWER SUPPLIERS FOR THE PROJECT AREA.
4. CONTRACTOR SHALL STAKE R.O.W. AND OR PROPERTY LINE BY LOCATING PROPERTY PINS ON LOTS ADJACENT TO PROPOSED LUMINAIRE LOCATION.
5. ALL WORK SHALL BE COMPLETED TO THE SATISFACTION OF THE HIDALGO COUNTY PRECINCT NO. 2
6. ANY DAMAGES TO FENCES, WALKS, OR PRIVATE PROPERTY SHALL BE REPAIRED BY THE CONTRACTOR AT HIS EXPENSE.
7. CONTRACTOR TO MAINTAIN ALL EQUIPMENT AND TRANSPORTATION OF SAID EQUIPMENT WITHIN THE EXISTING RIGHT OF WAY OF THE CITY, COUNTY, OR STATE.
8. THE CONTRACTOR SHALL BE RESPONSIBLE TO REPAIR ANY SURFACE IRREGULARITIES, AS DIRECTED BY THE ENGINEER, CAUSED BY THE CONTRACTOR'S WORKING OPERATIONS.
9. THE CONTRACTOR SHALL CLEANUP AND RESTORE THE AREA OF OPERATIONS TO A CONDITION AS GOOD AS OR BETTER THAN THAT WHICH EXISTED PRIOR TO INSTALLATION OF ALL ITEMS TO BE CONSTRUCTED.
10. THE PREPARATION OF THESE PLANS REFLECTS INFORMATION, PROVIDED BY OTHERS, ON THE APPROXIMATE LOCATION AND EXISTENCE OF EXISTING PUBLIC AND PRIVATE UTILITY LINES AND ADJACENT PHYSICAL FEATURES. HOWEVER, THEY DO NOT IMPLY OR AFFIRM THAT ALL UTILITIES OR PHYSICAL FEATURES ARE SHOWN. GENERALLY, UTILITY SERVICE CONNECTIONS ARE NOT INDICATED ON THESE PLANS. CONTRACTOR IS RESPONSIBLE FOR NOTIFICATIONS THE OWNER IMMEDIATELY UPON ENCOUNTERING UNFORESEEN CONFLICTS.
11. THE APPROXIMATE LOCATIONS OF KNOWN EXISTING PUBLIC AND PRIVATE UTILITIES ARE SHOWN, CONTRACTOR SHALL DETERMINE THE EXACT HORIZONTAL AND VERTICAL LOCATIONS IN THE FIELD PRIOR TO COMMENCING WORK. CONTRACTOR TO BE FULLY RESPONSIBLE FOR DAMAGES WHICH MIGHT OCCUR BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE EXISTING UTILITIES.



SEQUENCE OF CONSTRUCTION

1. CONTRACTOR TO DETERMINE OPTIMUM LOCATION OF LUMINAIRE ASSEMBLIES.
2. ENGINEER TO REVIEW OPTIMUM LOCATION OF LUMINAIRE ASSEMBLIES AND DIRECTION OF LUMINAIRE ARMS.
3. CONTRACTOR TO CALL FOR SPOTTING OF UTILITIES.
4. CONTRACTOR TO PERFORM STAKING OF R.O.W AND OR PROPERTY LINES.
5. CONTRACTOR TO INSTALL LUMINAIRE ASSEMBLIES.

HIDALGO COUNTY
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PLANNING ADMINISTRATOR



COMMISSIONER
HECTOR "TITO" PALACIOS
HIDALGO COUNTY PCT 2
DRAINAGE IMPROVEMENTS
PROJECT

GONZALEZ-ZAMORA
SUBDIVISION
TYPICAL SOLAR LUMINAIRE
ASSEMBLY DETAIL



This seal appearing on this document was authorized by Raul E. Sesin, P.E. No. 85374 on the above described date.
SCALE: N.T.S.
DRAWN BY:
CHECKED BY: RAUL E. SESIN
SURVEYED BY: EDGAR I.
SHEET: