



April 19, 2013

LNV

Attn: Juan Pimentel P.E.

Ref: Hilltop Community Center Lighting

Mr. Pimentel,

Rabalais Instrument and Electrical Constructors are pleased to submit a bid on the above referenced project.

Total Bid (Three Pole Lights)	\$26,800
Total Bid (Four Pole Lights)	\$29,860

Major Items of Work

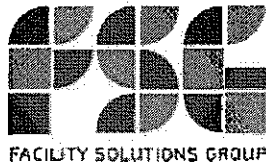
- Tax is NOT included.
- Pole lay out per attached drawing.
- Eight to twelve week delivery on poles and lights.

If you have any questions or need any further assistance please feel free to contact me at (361) 242-3121 x123.

Respectfully

Luke Barrera

Luke Barrera
Electrical Manager



lighting > electrical > energy
technology > signs

May 14, 2013

TO: LNV Engineering
801, Navigation, Suite 300
Corpus Christi, TX 78408

Attn: Juan Pimentel

RE: Hilltop Community Park

Juan, I appreciate the opportunity to offer you a Itemized pricing below for the following scope of work

Option 1 for Metal Halide lights----- \$29,900.00

Estimate includes:

- Provide 4 new 20' painted galv steal poles along road way of the community center.
- The poles will be mounted to a concrete pole base that will be 24" diameter 8' deep in ground and 24" above ground
- The concrete base will be rebar enforced per engineering standards, will have the galv. anchor bolts properly installed for support of the poles and have the conduit in the pole base to feed the power form pole to pole
- The conduit will be fed from the existing panel on the side of one of the building on site, and will have a contactor and a photocell installed to control the on/off function o the lights
- The conduit will have #10 thhn wire installed for the poles from pole to pole and #8 wire for the homerun to the first pole
- Provide and install (10) 400 watt metal halide shoebox type lights on the poles, note two poles will have two fixtures and two poles will have three fixtures.
- The conduit from pole to pole will be directional bored under the existing sidewalks to prevent any cutting and patching of the sidewalks and it will eliminate any sod or landscaping damage.

Option 2 for LED lights----- \$37,000.00

Estimate includes:

- Provide painted galv poles, poles bases, underground conduit, wire, and photocell/contactator just as listed above.
- In lue of the metal halide fixtures we will install (10) forward thro LED fixtures
- The LED fixtures will have less glare than the metal halide fixtures because of the way the LED is angled and will be more energy efficient..
- Each LED fixture is 123 watt which would use roughly 1230 watts less over the whole installation.

585 S.P.I.D. • Corpus Christi, Texas 78405 • 361-883-6833

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



lighting > electrical > energy
technology > signs

Option 3 is for solar powered LED lights----- \$56,500.00

Estimate includes:

- Provide and install LED solar lighting manufactured by SOL company.
- The lighting will have solar panels with the necessary batteries and photocell for operation of the lights.
- The lights and hardware will be mounted to a direct burial aluminum pole.
- The solar lights will not need the underground conduit, wire, boring, breakers, or contactors for control of the lighting so the labor will be greatly reduced to make up for the material cost of the lights
- The solar lights will use only electricity supplied and stored from the sun light feeding the lights
- The solar panel, and battery enclosures are mounted high on the pole to eliminate vandalism and to keep the look nice at the ground level.
- Some counties are eligible for government funding to pay for these kind of lights.(a County official will need to verify this process)

Option 4 wall packs for small building

Metal Halide----- \$1,700.00

LED----- \$1,932.00

Estimate includes:

- Provide and install (2) wallpacks to be mounted to the roof fascia on the existing building.
- The wall packs will be connected with pvc conduit and wire along the soffit edge of the building and tied back to existing circuits or panel in the building
- The lights will have photocells mounted on the fixtures for control of each fixture.

Estimate excludes:

- Applicable taxes
- Engineering fees
- Repairs to unmarked underground lines that may be damaged during the excavation process
- Upgrades to the existing electrical service panel on the side of the building.

Please call me with any questions 361-438-3951, kevin.reese@fsgi.com

Sincerely,

Kevin Reese

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FEATURES & SPECIFICATIONS

APPLICATION — The high performance luminaire is designed for area lighting applications where long life, low maintenance, and consistent color rendering is required. Areas with limited accessibility due to fixture location or where heavy pedestrian or vehicle traffic makes maintenance difficult are ideal applications such as parking lots or walkways. It is also compact and versatile enough for general purpose security lighting.

CONSTRUCTION — The heavy duty housing is constructed of extruded aluminum. The optical assemblies are sealed in place using a silicone gasket for weather tight protection. Modular LED bricks wired in parallel for ease of maintenance. ETL listed for wet locations (IP64).

FINISH — A Super Durable Polyester powder coat finish is electrostatically applied in our state of the art paint facility. Standard colors available: Black, Bronze, US Green, White. Custom colors available upon request.

OPTICAL SYSTEM — Made with a state of the art UV stabilized acrylic high performance refractive optical assemblies that use high transmittivity materials to achieve precise photometric distributions. Available in Type II, III, IV, V Medium and V Wide beam configurations.

ELECTRICAL SYSTEM — Available in up to a 6 brick LED system in 5000K Cool White (+/- 500K) or 4100K Neutral White color temperatures propagated with Philips Lumileds LUXEON® Rebel LED's. Available with 90-300V 60/60 Hz Class II power supply. LED's rated up to 70,000 (B50 L70) hours for 850 mA operation and 103,000 (B50 L70) for 630 mA operation at 25°C ambient temperature. 480V input option available. Optional 0-10V dimming. Built-in surge protection up to 10 kV. Thermal protection is provided in the form of a dimming thermal foldback until fixture reverts back to the optimal operating temperature.

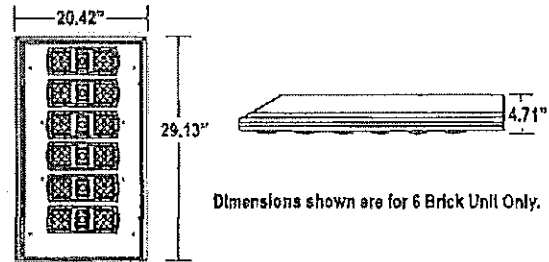
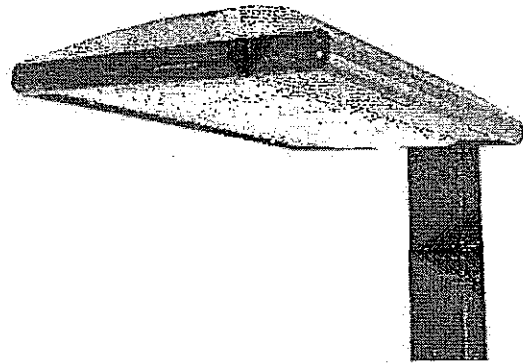
MOUNTING — Fixture will accommodate a horizontal 2-3/8" OD tenon directly into the back of the fixture (See TH Series Mounting Accessories). Additional mounting options may be available for custom applications.

LISTINGS — ETL listed for wet locations (IP64). Meets US and Canadian safety standards. -40°C to 50°C ambient operation.

Catalog Number <i>LED option</i>	
Project	Type



Saber LED Area Light LSBW SERIES



Series	Housing Height	Length & Width	EPA
LSBW	4.71"	29.13" x 20.42"	.8 for 6 Brick Unit

ORDERING INFORMATION

Choose the bold face options for the appropriate luminaire configuration for your application and enter on the line above each fixture attribute. Accessories may be factory installed, depending on the particular accessory chosen, but still be ordered as a separate line item.

Example: **LSBW6C8T5WB1-BZ**
DIM

LSBW

Series	# of Bricks	Color Temp	# LED's per Brick	Optics	Drive Current	Voltage	Finish
LSBW	1 1 Brick	C Cool White (5000K)	2 12 LED	T2 Type II	A 630mA Driver	1 Multi-Volt ¹	BK Black
	2 2 Brick	N Neutral White (4100K)	8 18 LED	T3 Type III	B 850mA Driver	2 480V	BZ Bronze
	3 3 Brick			T4 Type IV		3 347V	GR OD Green
	4 4 Brick			T5M Type V Medium			USG US Green
	5 5 Brick			T5W Type V Wide			WH White
	6 6 Brick						SP Special ²

Accessories (Order as separate line items)

DIM	Additional Input Ports for 0-10V Dimming	TH190	Horizontal Tenon Adaptor 1 @ 90° (4")
TH190-16	Horizontal Tenon Adaptor 1 @ 90° (16")	TH2180	Horizontal Tenon Adaptor 2 @ 180° (4")
TH2180-16	Horizontal Tenon Adaptor 2 @ 180° (16")	RH2-16	Horizontal Tenon Adaptor Dual In-Line
TH290-16	Horizontal Tenon Adaptor 2 @ 90° (16")	IP68	Additional IP68 Fixture Rating
TH390-16	Horizontal Tenon Adaptor 3 @ 90° (16")		
TH490-16	Horizontal Tenon Adaptor 4 @ 90° (16")		
TH3120-16	Horizontal Tenon Adaptor 3 @ 120° (16")		

NOTES

- Multi-Volt is an auto ranging power supply from 80V to 360V input.
- Custom RAL color matching is available. Contact your Techlight sales representative for additional information.

www.techlightusa.com

All dimensions and specifications are subject to change without notice.

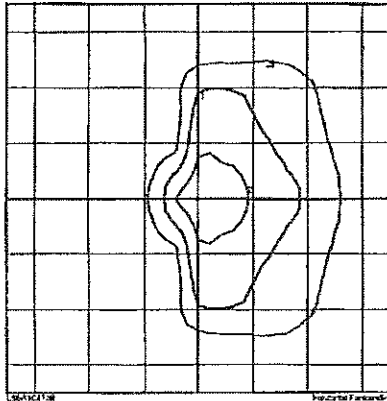
LSBW Saber LED Area Light

PHOTOMETRICS

IES INDOOR REPORT
PHOTOMETRIC FILE
NAME: LSBW6C8T3B1

Type III Optical Assembly
6 Brick, 850mA, Cool
White

245W LSBR LED High Bay
Color Temperature: 5,000 K

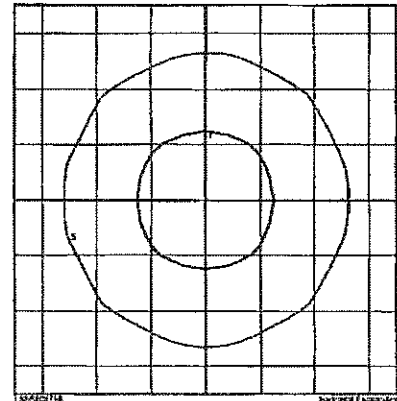


Photometric File Name: LSBW6C8T3B1
Scale: 1/2" = 10 ft
Light Loss Factor: 0.80
Cavity for Lamp: 275 (17) Lumens
Total Lamp Lumens: 2062
Mounting Height: 52.00 ft
Uniformity Coefficient: 1.00
Arrangement: Single

IES INDOOR REPORT
PHOTOMETRIC
FILE NAME:
LSBW6C8T5WB1

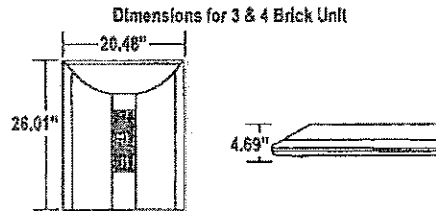
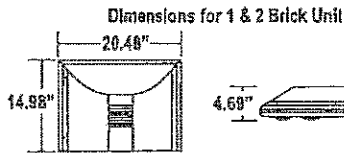
Type V Wide Optical
Assembly
6 Brick, 850mA, Cool
White

245W LSBR LED High Bay
Color Temperature: 5,000 K



Photometric File Name: LSBW6C8T5WB1
Scale: 1/2" = 10 ft
Light Loss Factor: 0.80
Cavity for Lamp: 275 (17) Lumens
Total Lamp Lumens: 2062
Mounting Height: 52.00 ft
Uniformity Coefficient: 1.00
Arrangement: Single

ADDITIONAL FIXTURE DIMENSIONS





TECHLIGHT

FEATURES & SPECIFICATIONS

APPLICATION – The DCL Large Die Cast Area Light is designed for general-purpose area lighting. It is the perfect choice for lighting large open areas for safety and security. Wide roadway applications, parking areas, or even wall mount applications for security lighting are all suitable applications for this fixture. The multiple mounting options make this fixture economical and versatile.

CONSTRUCTION – The housing and door frame are constructed of die cast aluminum. The flat tempered glass lens is sealed in place and a door gasket is provided for weather light protection. ETL listed for wet locations.

FINISH – A Super Durable Polyester powder coat finish is electrostatically applied in our state of the art paint facility. Standard colors available: Black, Bronze, US Green, White. Custom colors available upon request.

OPTICAL SYSTEM – Made with a state of the art high performance reflectors that use high gloss components to achieve precise photometric distributions. The fixture is a full cut-off light fixture and is Star Light Friendly in the horizontal position only.

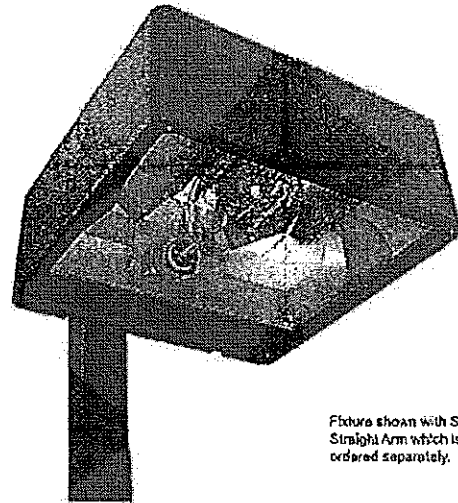
ELECTRICAL SYSTEM – Available in 400W thru 1000W standard metal halide, pulse-start metal halide, and high pressure sodium. Comes standard with a 4KV pulse rated mogul base socket. Each 60HZ CWA multi-tap, 480V, or 5-tap ballast is pre-wired and installed for convenience.

MOUNTING – Standard mounting options include 2", 8" and 10.75" Straight Arms with internal boil guides for square and round pole mounting on shoe-box models. 2" Adjustable Slip Filter and Yoke Mount available for floodlight models. Additional mounting options are available.

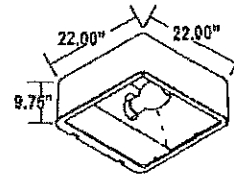
Catalog Number: <i>400W Metal Halide</i>	
Project	Type



**Large Die Cast Area Light
DCL SERIES**



Fixture shown with SSA Straight Arm which is ordered separately.



Series	Housing Height	Length & Width	EPA
DCL	9.75"	22.00" x 22.00"	1.64

ORDERING INFORMATION

Choose the bold face options for the appropriate luminaire configuration for your application and enter on the line above each fixture attribute. Accessories may be factory installed, depending on the particular accessory chosen, but will be ordered as a separate line item.

Example: **DCLB1AP1-PS-BZ**

DCLB1					
Series	Reflector	Wattage/Source	Voltage	Pulse-Start	Finish
DCLB1	A Standard Flood D Cutoff Flood H Narrow Parabolic J Medium Parabolic C Type II L Type III B Type IV E Type V	N 400W Metal Halide Q 750W PS Metal Halide V 775W PS Metal Halide P 1000W Metal Halide G 1000W High Pressure Sodium	1 Multi-Tap ¹ 2 480V 3 5-Tap ¹	PS Pulse-Start	BK Black BZ Bronze GR OD Green USG US Green WH White SP Special ²

Accessories (Order as separate line items)

ZAF	2" Adjustable Slip Filter	S110	Large 3 Sided Front Mount Shield
B15	Adjustable Yoke Mount	S111	Large Back Side Shield
SSA-S ⁴	2" Straight Arm	S114	Large 3 Sided Back Side Shield
SSA-M	8" Straight Arm	S120 ⁵	Large 2 Sided Back Side Shield
SSA	10.75" Straight Arm	S121 ⁵	Large 2 Sided Front Side Shield
S73	Large Cutoff Shield	S102	Large Vandal Shield
S108	Large 3 Sided Front Mount Visor	S105	Large Wire Guard

NOTES

- Multi-Yoke is 120/208/240/277V wired 277V
- 5-Tap is 120/208/240/277/480V and is only available in 400W and 1000W Metal Halide wattages.
- Custom RAL color matching is available. Contact your Techlight sales representative for additional information.
- SSA-S Arm cannot be used when pole mounting fixtures at 90° increments.
- S120 and S121 shields must be specified as left or right sided shield from the mounting side point of view.

www.techlightusa.com

All dimensions and specifications are subject to change without notice.

REV: 20120228-01

Solar Option

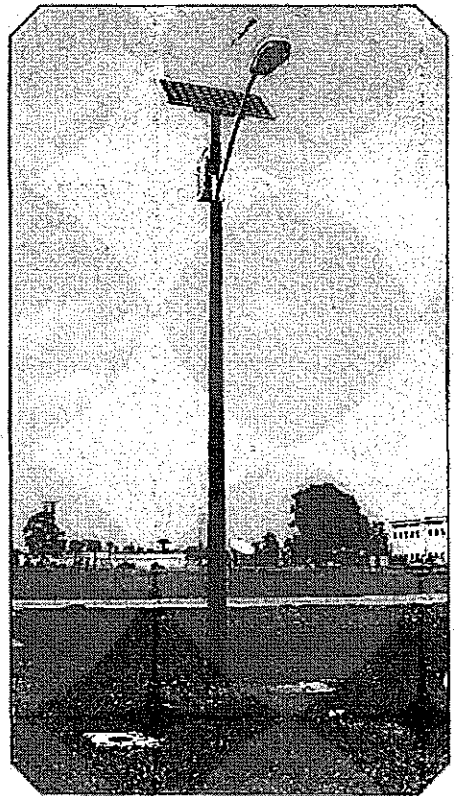
PARKING LOT, SECURITY, & AREA LIGHTING

TOP OF POLE MOUNT SERIES (TP)

TP series features a top of pole mounting system for the solar power array. TP series have interchangeable fixtures and arms to provide lighting for many applications including parking lot, roadway, jogging track, and area security lighting.

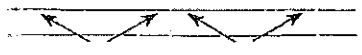
BENEFITS

- Adjustable energy storage array with locking door for low or high mounting
- Patented aiSUN™ control module for dimming and advanced energy management for reliable, bright light every night of the year
- Configurable for nearly every location with a scalable solar power and energy storage array assembly
- Quick startup with all parts arriving together; plug and play wiring and minimal hardware assembly
- Innovative Fast-Rack PV system for simplified and more reliable PV panel assembly and mounting
- Mounts on most poles with tenon – square or round: Composite, Aluminum, Steel, or Concrete

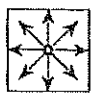


LIGHT PATTERNS

IES Type II Distribution
Ideal for: Streets and Wide Paths



IES Type V Distribution
Ideal for: Playgrounds, Picnic and Wide Areas



LED LUMINAIRES

Cobrahead



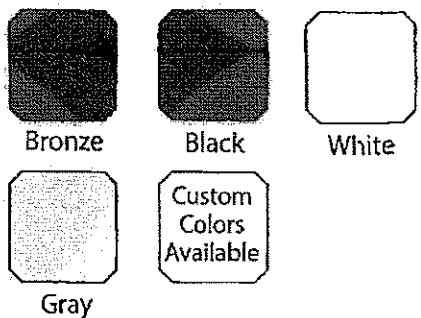
Shoebbox



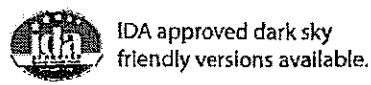
Metro

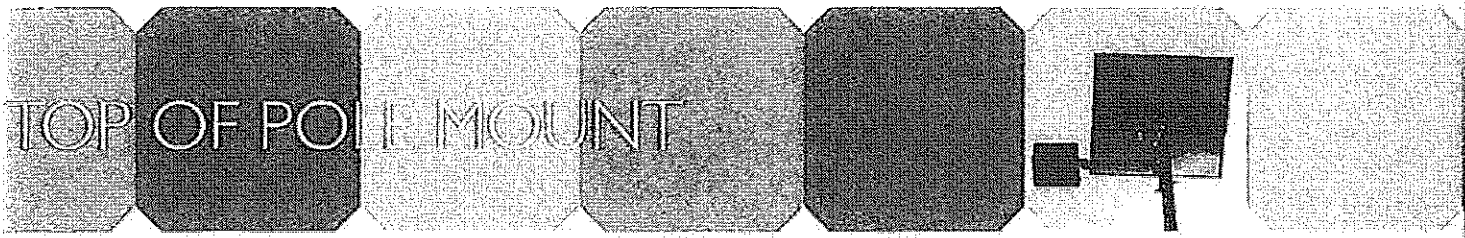


COLORS



Color match is ensured when solar light system (fixture, arm, battery enclosure and pole) are ordered together.





PRODUCT PROFILE

Series | Top of Pole Mount (TP)

Color | Bronze | Black | Gray | White | Custom Color

LED Luminaire | Cobrahead | Shoebox Small (12" x 12") | Shoebox Large (16" x 16") | Metro

Optics | Type II | Type V | Flood

Driver | aiSUN™

Run Mode | Dusk to Dawn | Split Night with Dimming or Motion Control

Light Power | 22-60 Watts

Battery Enclosure | Double | Quad

Battery | 100-400Ah

Mounting | Locking High | Locking Low | Below Grade

PV Panel | 50-540 Watts

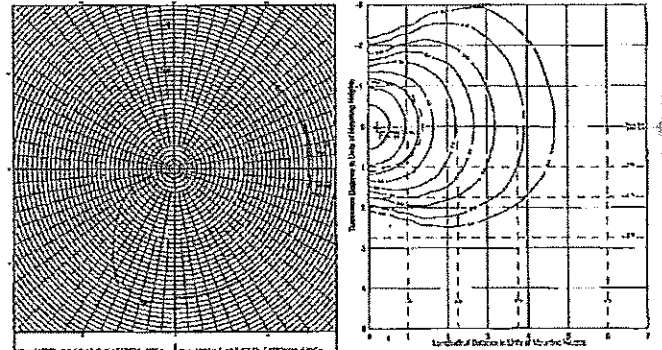
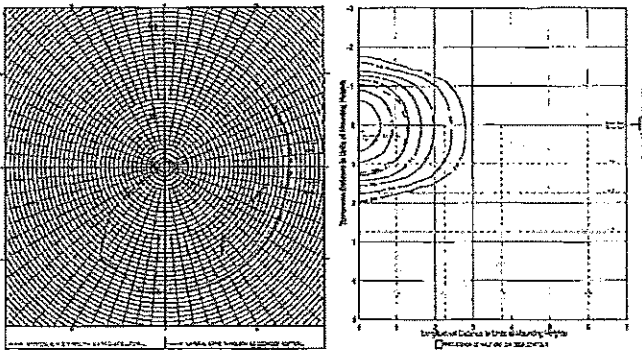
Arm | 4 ft. Universal | 6 ft. Universal | 8 ft. Universal | 10 ft. Universal | 15 ft. Universal | 6" Static | 12" Static | 24" Static | Metro | Bull Horn | 90° Sweep

Options | Motion Detector | Seasonal Switch | Wireless Remote | Bird Spikes

PHOTOMETRY

CHG-Q2-T5-A (Mounting Height 20'/6.1 m)

SBL-Q4-T2-A (Mounting Height 15'/4.57 m)



IDA-Approved



IDA-Approved



Catalog Number <i>20' Galvanized Steel Pole</i>	
Project	Type

FEATURES & SPECIFICATIONS

Pole

The pole shaft is fabricated from hot rolled carbon steel having a minimum yield of 55,000 PSI and conforms to ASTM A500 grade C requirements. The shaft construction is a single piece of formed steel welded longitudinally. The hand hole is located 1' 6" above the pole base. A ground lug is provided standard.

Anchor Base

The anchor base is fabricated from a structural quality hot rolled carbon steel plate that has a minimum yield strength of 36,000 PSI. The anchor base telescopes the pole shaft and has a circumferential weld on the top and bottom.

Base Cover

A full base cover is provided which encapsulates the base plate and anchor bolts to provide a clean transition from pier to pole.

Finish

The pole is finished with a Super Durable Powdercoat Paint. Multiple colors available. Galvanizing and T-Guard treatments available upon request. See product catalog for additional warranty extensions available with these treatments.

**SSP Series
20' Steel 5" Square
7 Gauge Pole**



Est Shipping Weight: 224 lbs

Please contact your Techlight Sales Representative for more information.

Technical Data	Nominal Mtg Height	Shaft Dimensions	Wall Gauge	Bolt Circle	Bolt Size	
	20'-0"	20' x 5"	7 Gauge	11.0"	1" x 36" x 4"	
Max EPA 1.3 Gust	90 mph	100 mph	110 mph	120 mph	130 mph	140 mph
	26.0	20.0	15.6	12.2	9.6	7.5

Ordering Nomenclature

Ex: (20' Tall, 5" Square, 7 Gauge Pole, Bronze, with 2-3/8" OD Tenon = SSP20-5-7-BZ-T238)

SSP20-5-7			
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Pole	Color	Mounting	Accessories
SSP20-5-7	BK - Black BZ - Bronze GR - OD Green WH - White USG - US Green GLV - Galvanized GLVP - Galvanized & Painted (must specify paint color - example: GLVP-BRZ) TG - T-Guard Internal Coating (must specify paint color - example: TG-BRZ) SP - Special	DM1 - Drill One Side DM290 - Drill 2 Sides at 90° DM2180 - Drill 2 Sides at 180° DM390 - Drill 3 Sides at 90° DM3120 - Drill 3 Sides at 120° DM490 - Drill 4 Sides at 90° T238 - 2-3/8" OD tenon (standard) T278 - 2-7/8" OD tenon T312 - 3-1/2" OD tenon PC - Pole Cap Only	(order as separate line item) TLGFIA - Ground Fault Receptacle PHH - Additional Hand Hole

Juan Pimentel

From: Juan Hernandez <juan@division16construction.com>
Sent: Wednesday, May 08, 2013 3:08 PM
To: Juan Pimentel
Cc: edward.herrera@co.nueces.tx.us
Subject: Hilltop Light Poles

Juan,

The total project cost for the Hilltop lighting project is \$47,500. This price includes 6-35ft fiberglass direct bury poles with 1- 400 watt metal halide shoebox fixture on each pole. We will be digging a 18" diameter hole approx. 4 foot deep. The holes will be back filled and compacted with select fill. This price includes all wiring and equipment needed to provide power to the light poles. Will are excluding the disposal of whatever spoils are left over and any cost for underground line locates and any underground utility relocate. If you should need a formal proposal, let me know and I will produce one for you.

Juan Hernandez
General Manager
Division 16 Construction Corp.
P.361.767.6111
F.361.767.2111
juan@division16construction.com

From: Juan Pimentel
Sent: Wednesday, May 8, 2013 9:22 AM
To: juan@division16construction.com

Thank You,

Juan A. Pimentel, P.E.
SENIOR PROJECT MANAGER

LNV Solutions Today with a
Vision for Tomorrow
engineers | architects | contractors

TBPE FIRM NO. F-366

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